ROHDE&SCHWARZ

Test and Measurement
Division

Service Manual

VECTOR SIGNAL GENERATOR

SMIQ02/02W/03/03A/03W

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SMIQ02E/03E

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SERVICEUNTERLAGEN

Baugruppe IQ-Modulator und Option B46

1084.9800.06

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7. Prüfen und Instandsetzen der Baugruppe

7.1 Funktionsbeschreibung

Die Baugruppe IQ-Modulator gliedert sich in die drei Funktionseinheiten LF-Generator, Vektormodulator und Ausgangsteil.

Der LF-Generator dient als internes Modulationssignal für FM/φM- oder AM, steht aber auch an einem seperaten Ausgang 'LF out' zur Verfügung.

Der IQ-Modulator erzeugt ein vektormoduliertes Signal von 300MHz, das auf der Baugruppe IQ-Converter zur Synthese eines vektormodulierten HF-Trägers benötigt wird. Ein Power Ramping, wie für digitale Mobilfunknetze erforderlich, wird durch einen zusätzlichen Amplitudenmodulator hoher Bandbreite ermöglicht. Ein weiteres Pegelstellglied mit einem digitalen Steuersignal ermöglicht eine schnelle Pegelabsenkung von bis zu 70dB für alternative Pegeleinstellung in den Zeitschlitzen. Eine Pulsmodulation mit einem ON/OFF Verhältnis > 80dB ist mit zwei schnellen GaAs-Schaltern realisiert.

Das Ausgangsteil beinhaltet die gesamte Pegelaufbereitung und den AM-Modulator für den Ausgangsfrequenzbereich bis 3.3GHz. Der Frequenzbereich unter 450MHz im CW- bzw. 750MHz im IQ-Betrieb wird durch Abmischen mit einem 2.4GHz-Signal erzeugt. Im CW-Betrieb werden Ausgangssignale über 3040MHz durch Hochmischen mit dem 300MHz-Signal des Vektormodulators gewonnen.

7.1.1 LF-Generator

Der LF-Generator liefert ein Sinussignal mit einer einstellbaren Frequenz von 0.1Hz bis 1MHz. Das Signal steht an der Leitung 'INT1', mit einer Amplitude von 1V Spitze zur Verfügung. Am Ausgang 'LFOUT' kann zusätzlich der Pegel von 1mV bis 4V Spitze gewählt werden.

Eine Direkte Digitale Synthese bildet die Grundlage des LF-Generators. Sie arbeitet mit einer Referenzfrequenz von 50MHz. Das Inkrement ist mit 32 Bit einstellbar. Der integrierte DA-Wandler hat eine Auflösung von 10 Bit. Ein Baustein-Reset belegt alle internen Register mit '0'. Im ausgeschalteten Zustand wird der Baustein im 'Sleep-Mode' betrieben, um die Stromaufnahme zu vermindern.

Der DDS-Baustein liefert einen Sinus mit einer konstanten Amplitude von 2V Spitze-Spitze und einem Gleichspannungsoffset von 1V. Der Summierer N11 addiert eine konstante Spannung zum Ausgangssignal, um den Offset zu kompensieren. Durch R124 wird ein Abgleich des Offsets möglich. Das Ausgangsignal von N11 dient als internes Modulationsignal auf 'INT1'.

Die Pegelaufbereitung für den LF-Ausgang 'LFOUT' erfolgt nachfolgend durch den 12Bit-DA-Wandler N41. Der Ausgangsverstärker N10 erweitert den einstellbaren Spannungsbereich auf 4V Spitze.

7.1.2 Ausgangsteil

7.1.2.1 Amplitudenmodulator und Preset

Das Ausgangssignal des IQ-Converters 'IQFIL' wird zunächst dem Preset Pegelstellglied V9 zugeführt. Dieses ermöglicht dem AM-Modulator, unabhängig vom eingestellten Pegel, den Betrieb in seinem idealen Arbeitspunkt. Die mit dem 8-Bit-Wandler U1 einstellbare Steuerspannung 'V_PRESET' wird durch die intern ablaufende Presetkalibrierung, abhängig von Ausgangsfrequenz und Ausgangspegel, ermittelt. Ein Differenzverstärker V38/V40 mit der Stromquelle V39 sorgt im IQ- und ALC-OFF-Betrieb für einen konstanten Strom durch die Pindioden und damit für einen temperaturstabilen Dämpfungswert.

Über den Breitbandverstärker V102 gelangt das HF-Signal zum AM-Modulator V3/V4/V8. Dieses wird, wie das Preset Stellglied, über einen Differenzverstärker V41/V56 mit der Stromquelle V42 angesteuert, um eine höhere Temperaturstabilität bei geklemmter Pegelregelung zu garantieren. Die Einfügedämpfung des Modulators wird durch den HF-Verstärker N4 kompensiert.

7.1.2.2 Ausgangsverstärker

Die GaAs-Schalter D55 und D56 leiten das HF-Signal entweder direkt auf den Ausgangsverstärker oder auf den RF-Eingang des Abwärtsmischers, um den Frequenzbereich unterhalb 450MHz zu erzeugen. Die Pindioden V108/V110/V170/V171 verbessern das Übersprechen im Down Converter-Betrieb auf besser 80dB. Sie werden durch den Operationsverstärker N6 angesteuert.

Der 3-stufige Ausgangsverstärker V144/V103/V104 hebt den Pegel auf bis zu 19dBm an. Der Arbeitspunkt der GaAs-Fets wird durch die Stromquelle V1/V2/V6 für den Drainstrom und eine Regelung für die Drainspannung durch N1/N2 stabilisiert.

Ein Oberwellenfilter nach dem Ausgangsverstärker V104 verbessert den Oberwellenabstand für Ausgangsfrequenzen über 1.8GHz.

Ein Widerstandsrichtkoppler, gebildet durch die Widerstände R511, R902 und R922, führt einen Teil der Ausgangsleistung dem Spitzengleichrichter V46 zu. Dieser ist entsprechend breitbandig, um den gesamten Frequenzbereich zu überdecken. Für Ausgangsfrequenzen kleiner 5MHz lässt sich ein zweiter Ladekondensator C549 zuschalten. Die Linearisierung der Detektorkennlinie erfolgt mit Hilfe der Logarithmierschaltung N39,N40 und N41.

Der Symmtrieübertrager T1 koppelt die Ausgangsleistung am erdfreien Tor des Übertragers aus.

7.1.2.3 Abmischbetrieb

Der Frequenzbereich unter 450MHz wird auf dem Ausgangsteil durch Abmischen mit einem LO-Signal von 2.4GHz gewonnen. Der GaAs-Schalter D56 leitet das modulierte HF-Signal dazu an das RF-Tor des Diodenmischers U9. Der ZF-Verstärker V148 verstärkt das ZF-Signal um ca 15dB. Ein nachfolgendes Filter unterdrückt unerwünschte Mischprodukte, wie 3*LO-2*RF, und die LO-Frequenz.

7.1.2.4 LO-Synthese

Das LO-Signal für den Mischbetrieb wird aus dem 600MHz-Signal der Stepsynthese in der 2.4GHz-Phasenregelschleife, bestehend aus dem VCO V130, L108, C452 und V111, dem Teiler :4 D44, dem Phasendetektor D33 und dem PI-Regler N14 erzeugt.

Ein Leistungsteiler R291/R294/R293 am Ausgang des VCOs koppelt einen Teil der Leistung aus und führt sie über die LO-Verstärkerstufen V154, V147 und V99 an das LO-Tor des Mischers U9. Mit dem Pindiodenstellglied V118 wird ein Abgleich des LO-Pegels auf etwa 17dBm am Mischer ermöglicht. Mit dem Mischbetrieb werden auch die Verstärkerstufen V154, V147 und V99 über ihre Versorgungspannung abgeschaltet.

7.1.2.5 Pegelaufbereitung

Der Führungswert der Pegelregelung wird durch den 12-Bit Wandler 'LEVEL' D43 vorgegeben. Der Regler der Pegelregelschleife N35 lässt die Wahl zweier Regelbandbreiten (Schalter D15) zu. Die kleine Regelbandbreite von ca. 5kHz wird im CW-Betrieb benutzt, die grosse von ca. 20kHz bei AM-Modulation. Bei Trägerfrequenzen kleiner 5MHz ist die Regelung stets langsam geschaltet.

Für das elektronische Austasten des Pegels dient der über R316 eingespeiste und durch das Signal 'Klemm_N' geschaltete Offsetstrom. Dies dient der Vermeidung zu hoher Pegel nach Austastlücken beim Frequenzwechsel.

Im IQ- bzw. ALC OFF-Betrieb wird mit Hilfe des Schalters D15 und dem Steuersignal 'ALC_ON' der Regler N35 zum NF-Verstärker umgeschaltet. Zusätzlich muss der Messwert des Pegeldetektors mit Hilfe des Schalters D8 abgeklemmt sein.

Eine AM ist mit einem extern eingespeisten Modulationssignal 'EXT1' oder intern mit dem Signal des LF-Generators 'INT1' möglich. Eine Zweitonmodulation wird durch gleichzeitige Modulation mit beiden Signalen möglich. Für das extern eingespeiste Modulationssignal kann eine AC (Koppelkondensator C607/C606) oder DC-Kopplung gewählt werden. Die Kopplungsart wird durch den Schalter D9 und D10 gewählt.

Ein Fensterkomparator N42 überwacht das Modulationssignal bei AM mit AC-Kopplung auf den Sollwert von 1V Spitze und liefert einen Interrupt für den Fall einer Abweichung grösser 3% vom Sollwert. Dieser sorgt für eine Warnmeldung in der Anzeige.

Die Modulationsgradeinstellung wird durch den 12-Bit DA-Wandler 'AMOD' D42 ermöglicht. Sein Ausgangssignal wird zu einer festen DC-Referenz 'AM-6V' addiert und dient als Referenz für den DA-Wandler 'LEVEL' D43 der Pegeleinstellung.

7.1.3 Vektormodulator

7.1.3.1 LO-Aufbereitung und Modulator

Der Vektormodulator arbeitet auf einer Festfrequenz von 300MHz. Das 300MHz Signal wird aus der 600MHz Referenz der Stepsynthese durch Teilung (Teiler :2 N28) erzeugt. Ein 3-stufiger LO-Treiber V82, V81 und V83 verstärkt das Signal des Teilerausgangs auf ca.25dBm und gibt dieses auf

den 90°-Leistungsteiler B1. Dieser erzeugt zwei Träger von 300MHz mit einer Phasenbeziehung von 90°. Über je einen abstimmbaren Phasenschieber L49, V123/V125/V122/V124 im I- bzw. L50, V127/V126/V128/V129 im Q-Pfad kann die Phasenbeziehung innerhalb ±20° variiert werden.

Über die LO-Treiber V75 bzw. V77 werden die 300MHz-Signale auf ca. 17dBm verstärkt und dem LO-Eingang des I-Mischers U11 bzw. Q-Mischers U12 zugeführt. Am RF-Ausgang der Modulationsmischer wird das modulierte Signal zunächst durch die Verstärker N46 bzw. N47 verstärkt und anschliessend oberwellengefiltert. Die Summation der modulierten Signale von I- und Q-Zweig erfolgt durch den 0°-Leistungsaddierer U4.

7.1.3.2 Level Attenuation

Nach der Summation wird das modulierte Signal auf zwei durch einen Verstärker N45 getrennte Pin-Dioden-Dämpfungsglieder V50,V52 und V53,V71 gegeben. Diese ermöglichen schnelle Pegelabsenkungen von 0 bis 70dB. (Einschwingzeit < 15µs)

Verwendet werden die Stellglieder bei digitalen Modulationen zur schnellen Pegelabsenkung in bestimmten Zeitschlitzen (Steuerung über Eingang 'X240 A10' 'LEVATT_MOD') und als elektronische Eichleitung in der Betriebsart 'LEVEL LEVEL ATTENUATOR MODE ELECTRONIC'.

Im Betriebsfall ohne Pegelabsenkung sorgen zwei Stromquellen V78 und V76 für einen konstanten Strom von ca. 1mA durch die Pin-Dioden. Mit Poti R2 kann durch Änderung dieses Stromes der Pegel am Ausgang X242 abgeglichen werden. Der Regler N37 ist in diesem Fall außer Betrieb.

Im Betriebsfall mit Pegelabsenkung wird ein von der Spannung V_LEVATT abhängiger Strom mittels dem Regler N37 eingestellt. Der DA-Wandler D46 'LEVATT' ermöglicht die Variation der Spannung V_LEVATT, wodurch die Dämpfung eingestellt werden kann. Um die Wandlereinstellung für einen gewünschten Dämpfungswert zu ermitteln, dient der IQ-Detektor in Verbindung mit einer intern ablaufenden Kalibrierroutine. (UTILITIES CALIB LEV ATT)

Die 0dB-Stellung für den Betriebsfall mit Pegelabsenkung wird mit Poti R1111 so abgeglichen, daß sich hierfür ein DA-Wandlerwert von ca. 3500 ergibt. Der NTC-Widerstand R1129 dient zur Kompensation der temperaturabhängigen Dämpfung der Stellglieder.

Die Umschaltung zwischen eingeprägtem Strom und geregeltem Strom erfolgt mit den Schaltern D12 und D13, wobei immer beide Stellglieder gleichzeitig geschaltet werden.

7.1.3.3 Pulsmodulation

Eine Pulsmodulation wird mit den Schaltern D50 und D51 ermöglicht. Die Umwandlung des TTL-Signals zum Ansteuersignal der GaAs-Schalter (0V <-> -6V) erfolgt mit den Transistoren V134,V136,V158,V159. Der Inverter D7 ermöglicht eine Invertierung der Puls Polarität.

7.1.3.4 Power Ramping

Im Anschluss wird das Signal dem Burst Modulator D27 zugeführt. Dieser ist mit Hilfe eines GaAs-Dämpfungsgliedes aufgebaut. Durch den Betrieb innerhalb einer Regelung wird die stark nichtlineare und temperatursensible Kennlinie linearisiert. Dazu wird eine bekannte DC-Referenzspannung aus N29 über das Einkoppelnetzwerk L90 zum HF-Signal auf

den Eingang des Attenuators gegeben. Diese wird, wie die HF durch D27 gedämpft, am Ausgang durch L91 ausgekoppelt und gemessen.

Die Messung und Differenzbildung mit dem Führungswert am Ausgang von N24 (0V entspricht maximaler Absenkung, 1V dem maximalen Pegel) erfolgt durch den Operationverstärker N22. Der Regler des Burststellglieds N23 wirkt auf die Steuereingänge des Stellglieds D27. Der Schalter D5 ermöglicht das Abschalten des Burst Steuereingangs und ersetzt den Führungswert durch eine intern erzeugte Referenzspannung.

Um die Dynamik der Anordnung auf >80dB zu erhöhen wird bei ca. -35 bis -38dB der Schalter zum IQ-Detektor D28 betätigt. Ein Komparator N30 leitet das Steuersignal für den Schalter D28 vom Führungswert aus N24 ab.

Die Lineartität des Burstmodulators bis ca. 30 dB Absenkung wird mit Poti R807 abgeglichen.

Nach dem Schalter D28 wird des 300MHz-Signal über ein Oberwellenfilter und einen Leistungteiler auf die zwei Ausgänge 'IQAUX' X241 und 'IQ300' X242 gegeben. Das Signal 'IQAUX' stellt das Signal an der Rückwand des Geräts zur Verfügung, während 'IQ300' zur Baugruppe 'IQ-Converter' führt.

7.1.3.5 IQ-Detektor

Mit dem GaAs-Schalter D28 kann das Signal des IQ-Modulators auf den Pegeldetektor V106 geleitet werden. Die Linearisierungsschaltung besteht aus den Operationsverstärkern N25 und N32.

Der IQ-Detektor dient zur Kalibrierung des IQ-Modulators und zur Ermittlung der Level Attenuationeinstellung.

7.1.3.6 IQ-Modulationspfad

Das I- bzw. Q-Modulationssignal wird über die beiden GaAs-Schalter D37 und D54 dem 50Ω-Abschluss R370/R369 bzw. R372/R371 zugeführt. Die Schalter erlauben das Anlegen bekannter DC-Spannungen an die Modulationseingänge zu Kalibrierzwecken und für die Betriebsarten Breitband-AM, Pulsmodulation und bei Ausgangsfrequenzen über 3040MHz.

Als Spannungen stehen ±1V zur Kalibrierung der IQ-Ungleichheit, ±0.707V für den Quadraturoffset-, sowie 0V für die Trägerrestkalibrierung zur Verfügung. Zwei Analogmultiplexer D16 und D17 lassen die Wahl der gewünschten Kalibrierreferenz zu. Der Operationsverstärker N19 misst die Spannung an D17 bzw. D16 und liefert den erforderlichen Strom für den Lastwiderstand von 50Ω.

Der Videomultiplexer D40 ermöglicht das Vertauschen von I- und Q-Kanal. Dies ist erforderlich, da beim Hochmischen im IQ-Converter bzw. Abmischen im Ausgangsteil aus Nebenwellengründen beide entstehenden Seitenbänder verwendet werden. Zusätzlich besteht die Möglichkeit über die Firmware die Vertauschung vorzunehmen.

Je ein Analogmultiplizierer D1 im I- bzw. D2 im Q-Kanal dient einer getrennten Pegeleinstellung. Zwei 8-Bit DA-Wandler 'ILEV' U2 und 'QLEV' U3 stellen den Einstellbereich von ca. ±25% sicher. Ein gezieltes Variieren der IQ-Ungleichheit über die Firmware wird dadurch genauso möglich, wie der Abgleich während der IQ-Kalibrierung.

Die Umschaltung des AM-Führungswertes mit D11 auf die ILev bzw. QLev Eingänge der Multiplizierer ermöglicht eine AM während des IQ-Betriebes (IQAM).

Durch den am Y2-Eingang der beiden Multiplizierer eingespeisten DC-Offset können Offsets, die vor dem Multiplizierer entstehen, kompensiert werden. Der 2-fach 12 Bit DA-Wandler D61 steht dafür zur Verfügung. Die notwendige Kalibrierung hierzu läuft intern mit der Vektormodulator-Kalibrierung ab.

Durch den am Z-Eingang der beiden Multiplizierer eingespeisten DC-Offset wird der Trägerrest kompensiert bzw. über Firmware eingestellt. Zwei 12-Bit DA-Wandler 'IOFFSET' D45 und 'QOFFSET' D48 stehen dafür zur Verfügung. Bei der Betriebsart Breitband-AM wird der Trägerrest am I-Kanal über den DA-Wandler 'IOFFSET' auf 50% eingestellt.

Die dritte Abgleichgrösse, die Quadratur, wird mit Hilfe des 12-Bit-Wandlers 'IQPHASE' D47 eingestellt und wirkt direkt auf die Phasenschieber im HF-Pfad des LO-Signals vor den Modulationsmischern für I und Q. Mit Hilfe des Operationsverstärkers N18 werden aus der Ausgangsspannung des Wandlers zwei gegenläufige Abstimmspannungen erzeugt, wovon eine auf den Phasenschieber im Q-Pfad, bestehend aus V126 bis V129, die andere auf den Phasenschieber im I-Pfad, bestehend aus V122 bis V125, gelangt.

7.1.3.7 Option B46 (WCDMA Filter)

Falls die Baugruppe mit der Option B46 bestückt ist, wird das I- und Q-Signal nach den Analogmultiplizierern wahlweise mit einem 2,5 MHz Tiefpass (IQ_FILTER 2.5MHz) bzw. mit einem 70MHz Tiefpass (IQ_FILTER OFF) gefiltert. (Zusatzplatine Sach. Nr. 1104.9900.01) Die Umschaltung der beiden Pfade erfolgt mit FETs. Die Ansteuerung der FETs befindet sich zum Teil auf der Unterseite der Zusatzplatine.

Außerdem sind zur Verbesserung des Signal/Rauschabstandes an den Stellen N4, N44, N45, N46 und N47 andere Verstärker mit entsprechend anderen Arbeitspunkteinstellungen eingebaut. Für die in Punkt 7.4.8 angegebenen Arbeitspunkte gelten dabei die in Klammern angegebenen Werte.

7.2 Meßgeräte und Hilfsmittel

- Spektrumanalysator FSEA oder FSEB
- Pegelmesser NRV mit Z51
- DC/AC-Voltmeter UDS5
- Oszilloskop BOS
- Zwei DC-Spannungsquellen
- NF-Signalgenerator AFGU
- SMA Dämpfungsglieder 6dB und 10dB
- Signalgenerator SMHU

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Abbruch IQ-Kalibrierung	7.4.5.1 Referenzspannungen 7.4.5.2 Quadratureinstellung 7.4.5.3 Imbalanceeinstellung 7.4.5.4 Leakageeinstellung 7.4.5.5 Offsetkompensation 7.4.5.6 IQ-Change u. Kal.-schalter 7.4.5.8 LO 300MHz 7.4.5.11 Ausgangspegel IQ300 7.4.5.14 IQ-Detektor 7.4.5.16 Frequenzgang IQ-Modulator
Trägerrest zu hoch	7.4.5.4 Leakageeinstellung 7.4.5.5 Offsetkompensation 7.4.5.14 IQ-Detektor
Fehler beim Power Ramping	7.4.5.9 Regelung Power Ramping 7.4.5.10 Linearität Power Ramping
Fehler bei Level Attenuation	7.4.5.12 Ansteuerung Level Attenuation 7.4.5.11 Abgleich Level Attenuation
Pulsmodulation	7.4.5.13 Ansteuerung Pulsmodulation
Breitbandrauschen	7.4.4.11 Breitbandrauschen Ausgtl. 7.4.5.16 Frequenzgang IQ-Modulator 7.4.5.17 Breitbandrauschen IQ-Mod.

7.4 Prüfen und Abgleichen

Alle Meßwerte ohne Toleranzangabe sind als Richtwerte zu verstehen. Spannungsangaben ohne weitere Bezeichnung sind Gleichspannungen.

Es wird zu Beginn jeden Kapitels davon ausgegangen, daß sich das Gerät bzw. die Baugruppe im Presetzustand befindet.

Im Servicekit ist ein Adapter enthalten , mit dem die Baugruppe zugänglich gemacht werden kann. Der Adapter wird statt der Baugruppe in das Chassis gesteckt und die HF-Verbindungen an der Unterseite wieder hergestellt. Die Baugruppe kann jetzt auf den Adapter gesteckt werden.

In den folgenden Kapiteln sind Prüf- und Meßpunkte erwähnt, die bei Baugruppen der ersten Serie nicht vorhanden sind. In diesen Fällen ist die Beschreibung der Meßstelle anhand der Bauelemente hilfreich.

7.4.1 Datenübertragung und Stromversorgung

Gemäß Gerätestandard wird die Baugruppe über eine serielle Schnittstelle unter Verwendung des Bausteins SERBUS-D angesteuert. Die Einstellungen und die zugehörigen Daten sind im Kapitel 'Digitale Schnittstellen' zu finden.
Die Sollwerte der Stromaufnahme der jeweiligen Versorgungsspannungen sind dem Kapitel 'Externe Schnittstellen' zu entnehmen.

7.4.2 Referenz- und Versorgungsspannungen

7.4.2.1 Abgleich Referenz 10V

- DC-Voltmeter an P29 anklemmen
- ➢ Abgleich mit dem Potentiometer P516 auf 10V ±0.1%
- Einstellung: UTILITIES DIAG TPOINT STATE ON
  UTILITIES DIAG TPOINT TEST POINT 2101
- ➢ Kontrolle der Diagnosespannung auf 10V ±2%

7.4.2.2 Prüfen der Versorgung ±5.5V

- DC-Voltmeter an P23 anklemmen
- ➢ Kontrolle der Versorgungsspannung auf +5.5V ±0.1V
- DC-Voltmeter an P24 anklemmen
- ➢ Kontrolle der Versorgungsspannung auf -5.5V ±0.1V

7.4.3 LF-Generator

7.4.3.1 Referenzspannungen

- DC-Voltmeter an P14 anklemmen
- ➢ Kontrolle der Versorgungsspannung auf 1.5V ±0.2%

7.4.3.2 Offsetabgleich

- DC-Voltmeter an P50 (INT1 oder LFINT) anschließen
- Einstellung: LF_OUTPUT STATE ON
  LF_OUTPUT LFGEN_FREQ 1kHz
  LF_OUTPUT VOLTAGE 1V
- ➢ Abgleich der Offsetspannung mit Poti R124 auf ±.5mV

7.4.3.3 Frequenzeinstellung

- Oszilloskop an Referenzquarz G1 Pin3 anklemmen

➢ Kontrolle der Frequenz auf 50MHz (TTL-Pegel)

- Frequenzzähler an LF anschließen
- Einstellung: LF_OUTPUT STATE ON
  LF_OUTPUT LFGEN_FREQ 1MHz
  LF_OUTPUT VOLTAGE 1V

➢ Kontrolle der LF-Frequenz auf 1MHz $\pm 10^{-5}$

7.4.3.4 Amplitudeneinstellung

- AC-Voltmeter an LF anschließen
- Einstellung: LF_OUTPUT STATE ON
  LF_OUTPUT LFGEN_FREQ 1kHz
  LF_OUTPUT VOLTAGE 4mV, 40mV, 400mV, 4V

➢ Kontrolle der Spitzenamplitude auf 4mV, 40mV, 400mV, 4V ±(1%+1mV)

- AC-Voltmeter an P50 (INT1 oder LF-INT) anschließen

➢ Kontrolle der Spitzenamplitude auf 1V ±1%

7.4.3.5 Frequenzgang

- AC-Voltmeter an LF anschließen
- Einstellung: LF_OUTPUT STATE ON
  LF_OUTPUT LFGEN_FREQ 10Hz ... 1MHz
  LF_OUTPUT VOLTAGE 1V
- Referenzmessung bei 10Hz

➢ Kontrolle des Pegels auf 0.4dB Abweichung bis 100kHz, 3dB bis 1MHz

- AC-Voltmeter an P50 (INT1 oder LF-INT) anschließen
- Einstellung: LF_OUTPUT LFGEN_FREQ 10Hz ... 1MHz
- Referenzmessung bei 10Hz

➢ Kontrolle des Pegels auf 0.4dB Abweichung bis 100kHz, 3dB bis 1MHz

7.4.4 Ausgangsteil

7.4.4.1 Referenz ±6V

- DC-Voltmeter an P26 anklemmen

➢ Kontrolle der Spannung auf +6V ±0.2%

- DC-Voltmeter an P25 anklemmen

➢ Kontrolle der Spannung auf -6V ±0.2%

7.4.4.2 Kanalschalter

- Einspeisung von 1V DC an ´EXT1´
- Einstellung: ANALOG_MOD AM AM_SOURCE_EXT EXT1
  ANALOG_MOD AM AM_EXT_COUPLING DC
- DC-Voltmeter an P11 anklemmen

➢ Kontrolle der Gleichspannung auf 6V ±2%

- Einstellung: ANALOG_MOD AM AM_SOURCE_EXT EXT1
  ANALOG_MOD AM AM_EXT_COUPLING AC

➢ Kontrolle der Gleichspannung auf 0V ± 10 mV

- Einspeisung von 1kHz/1V Spitze an ´EXT1´
- AC-Voltmeter an P11 anklemmen

➢ Kontrolle der Wechselspannung auf 6V Spitze ±2%

- Einspeisung an ´EXT1´ entfernen
- Einstellung: ANALOG_MOD AM AM_SOURCE_INT INT
  ANALOG_MOD LFGEN_FREQ 2kHz

➢ Kontrolle der Wechselspannung auf 6V Spitze ±2%

7.4.4.3 Modulationsgradeinstellung

- AC-Voltmeter an P10 anklemmen
- Einstellung: ANALOG_MOD AM AM_SOURCE_INT INT
  ANALOG_MOD AM LFGEN_FREQ 1kHz
  ANALOG_MOD AM_DEPTH 100%, 50%, 10%, 5%, 1%

➢ Kontrolle der AC-Spannung auf 6V, 3V, 600mV, 300mV, 60mV Spitze ±5%

7.4.4.4 Überwachung Extern AC

- LF über T-Stück mit ´EXT1´ verbinden
- AC-Voltmeter an T-Stück anschließen
- Einstellung: LF_OUTPUT STATE ON
  LF_OUTPUT LFGEN_FREQ 1kHz
  LF_OUTPUT VOLTAGE 1V
  ANALOG_MOD AM AM_SOURCE_EXT EXT1
  ANALOG_MOD AM AM_EXT_COUPLING AC
- Messung Spannung an AC-Voltmeter
- Pegel LF-Generator auf 1V Spitze einstellen
- DC-Voltmeter an P1 bzw. P3 anklemmen

➢ Kontrolle der Spannung an P1 und P3 auf 0V

- Pegel LF-Generator auf 1.03V Spitze einstellen

➢ Kontrolle der Spannung an P1 auf 5V

- Pegel LF-Generator auf 0.97V Spitze einstellen

➢ Kontrolle der Spannung an P3 auf 5V

7.4.4.5 Preseteinstellung

- Einstellung: FREQUENCY 1GHz
  LEVEL 13dBm
  UTILITIES DIAG TPOINT STATE ON
  UTILITIES DIAG TPOINT TEST POINT 2108

➢ Kontrolle der Diagnosespannung auf 2.3V...4.6V

- DC-Voltmeter P54 anklemmen (C214)

➢ Kontrolle der DC-Spannung auf 1.0...2.8V

7.4.4.6 Pegeleinstellung

- DC-Voltmeter an P13 anklemmen
- Einstellung: FREQUENCY 1GHz
  LEVEL 16dBm
  LEVEL LEVEL ATTENUATOR_MODE FIXED
  UTILITIES DIAG TPOINT STATE ON
  UTILITIES DIAG TPOINT TEST POINT 2110

➢ Kontrolle der DC-Spannung auf -4.2V ±1.3V

- Gemessene Spannung merken unter Uref

- Einstellung: LEVEL 10, 4, -2, -8, -14

➢ Kontrolle der DC-Spannung an P13 auf Uref/2, /4, /8, /16, /32, je ±5%

7.4.4.7 PLL 2.4GHz

- Einstellung: UTILITIES DIAG TPOINT STATE ON
  UTILITIES DIAG TPOINT TEST POINT 2103

➢ Kontrolle der Diagnosespannung auf 50...250mV

- Einstellung: UTILITIES DIAG TPOINT TEST POINT 2105

➢ Kontrolle der Diagnosespannung auf 30...100mV

- Einstellung: UTILITIES DIAG TPOINT TEST POINT 2106

➢ Kontrolle der Diagnosespannung auf 80...180mV

- Kabel an X246 (REF600) abziehen
- Einstellung: UTILITIES DIAG TPOINT TEST POINT 2104

➢ Kontrolle der Diagnosespannung auf -.9...-.3V

- Kabel an X246 (REF600) anstecken
- Steckbrücke P30/31 abziehen

➢ Kontrolle der Diagnosespannung auf 21.5...23.5V

- Steckbrücke P30/31 aufstecken

➢ Kontrolle der Diagnosespannung auf 3...12V

7.4.4.8 LO 2.4GHz

- Einstellung: FREQUENCY 1000MHz

➢ Kontrolle der Diagnosespannung auf ±10mV

- Einstellung: UTILITIES DIAG TPOINT STATE ON
  UTILITIES DIAG TPOINT TEST POINT 2107
  FREQUENCY 100MHz

➢ Kontrolle der Diagnosespannung auf 180mV - 400mV

Der Abgleich des LO Pegels ist nur nach ausreichender Einlaufzeit im Mischerbetrieb (Frequenz < 450 MHz) und bei erreichter Betriebstemperatur durchzuführen. Der Abgleich muß bei geöffneter Baugruppe und mit ausgeschraubtem Kühlkörper (nur Kammer N) ausgeführt werden.

- Einstellung FREQUENCY 100 MHz
- Pegelmesser an X3 anschließen

➢ Abgleich des Pegels mit Poti R968 auf -4.5 dBm ± 1dB

7.4.4.9 Pegelverlauf

- Steckbrücke P47/46 abziehen
- Erste DC-Spannungsquelle an P46 anklemmen
- 4V DC einspeisen
- Steckbrücke P28/27 (X7) abziehen
- Zweite DC-Spannungsquelle an P27 anklemmen
- 6V DC einspeisen
- Einstellung: LEVEL 16dBm
  UTILITIES DIAG TPOINT STATE ON
  UTILITIES DIAG TPOINT TEST POINT 2113
  FREQUENCY 450, 500...3300MHz

➢ Kontrolle der Diagnosespannung auf >5V

- Einstellung: UTILITIES DIAG TPOINT TEST POINT 2111
  VECTOR_MOD STATE ON
  FREQUENCY 49; 99...749MHz
- DC-Spannung 0.5V an X244 'IMOD' einspeisen

➢ Kontrolle der Diagnosespannung auf >100mV(f≥200MHz), >40mV(f<200MHz)

- Leistungsmesser an X249 anschließen
- Einstellung: FREQUENCY 50, 100...3300MHz
  VECTOR_MOD STATE OFF

➢ Kontrolle des Ausgangspegels auf >18dBm

- Signal FIQFIL an X247 über Dämpfungsglied 16dB einspeisen
- Einstellung: FREQUENCY 50, 100...3300MHz

➢ Kontrolle des Ausgangspegels auf >7dBm
und < 16 dBm für Frequenzen größer 2 GHz

- An erster DC-Quelle (P46) 2.4V DC einspeisen
- Einstellung: FREQUENCY 50, 100...3300MHz

➢ Kontrolle des Ausgangspegels auf <3dBm

7.4.4.10 Ausgangsdetektor und Detektorabgleich

- DC-Voltmeter an P57 bzw. P58 anschließen

➢ Kontrolle der DC-Spannung auf +15 bzw. -10V ±2%

Der im folgenden beschriebene Test der Detektorlinearität ist ausschließlich bei geschlossenem Baugruppendeckel durchzuführen.

- Leistungsmesser an X249 anschließen
- Einstellung: LEVEL 5.1dBm
  LEVEL LEVEL ATTENUATOR_MODE FIXED
  FREQUENCY 5, 500, 1000, 1500 ... 3000MHz
- Messung des Ausgangspegels an X249
- Leistungsmesser auf ΔdB schalten, jeweils 5.1dBm Pegel als Referenz
- Einstellung: LEVEL 10.1, 5.1, 0.1, -4.9....-14.9dBm

➢ Kontrolle auf Sollpegel ±.2dB für ≥0dBm, ±.4dB für -5dBm, ±.6dB für -10dBm, ±.8dB für -15dBm

- Einstellung: LEVEL 10dBm
  FREQUENCY 1500MHz
- Messung des Ausgangspegels an X249
- Leistungsmesser auf ΔdB schalten, jeweils 10dBm Pegel als Referenz
- Einstellung: FREQUENCY 5, 500, 1000, 1500 ... 3000, 3300MHz

➢ Kontrolle des Frequenzganges auf besser 4dB

Der im folgenden beschriebene Abgleich des Ausgangsdetektors ist ausschließlich bei geschlossenem Baugruppendeckel nach einer ausreichenden Einlaufzeit und bei erreichter Betriebstemperatur durchzuführen. Das auf dem Deckel befindliche Klebeschild über dem Durchbruch für das Potentiometer R125 ist für den Abgleich zu entfernen. Im Anschluß an den Abgleich muß es wieder angebracht werden. Außerdem ist nach dem Abgleich die Durchführung einer Presetkalibrierung und die Erneuerung der Pegelkorrekturtabelle notwendig.

- Leistungsmesser an X249 anschließen
- Einstellung: LEVEL 5.1dBm
  LEVEL LEVEL ATTENUATOR_MODE FIXED
  LEVEL 5dBm
  FREQUENCY 1500MHz
- Messung des Ausgangspegels an X249

- Leistungsmesser auf ΔdB schalten, 5.1dBm Pegel als Referenz
- Einstellung: LEVEL -15dBm

➢ Abgleich mit Potentiometer R125 auf -20.0dB ±.1dB Absenkung

7.4.4.11 Breitbandrauschen Ausgangsteil

- Verbindung von IQCON X227 zu IQMOD X247 abschrauben
- IQCON X227 mit 50Ω abschließen
- SMHU an Eingang FIQFIL X247 anschließen
- Einstellung SMHU: FREQUENCY siehe Tabelle unten
  LEVEL 5.0 dBm
- Einstellung SMIQ: FREQUENCY siehe Tabelle unten
  LEVEL 5.1 dBm
  LEVEL ALC STATE ON
- Spektrumanalysator an RF-Buchse SMIQ anschließen

➢ Prüfen des Ausgangspegels auf 5.1dBm ± 1dB und unter 'REF' speichern

- Einstellung SMIQ: LEVEL ALC STATE OFF
- Einstellung SMHU: LEVEL OFF
- Einstellung FSE: CF siehe Tabelle unten
  REF LEVEL -50dBm
  INPUT ATTENUATION 0dB
  SPAN 1kHz
  RBW 2kHz
  VBW 5Hz
  MARKER NOISE

➢ Messen des Rauschpegels in dBm/Hz

➢ Prüfen des Signal/Rauschabstandes (S/N) = 'REF'-Rauschpegel auf Tabellenwerte siehe unten

FREQUENCY SMIQ in MHz	0.3	1	50-450	500	1000	1500	2000	2500	3300
FREQUENCY SMHU in MHz	2400.3	2401	2450-2850	500	1000	1500	2000	2500	3300
FREQUENCY FSE in MHz	0.3	1	50-450	501	1001	1501	2001	2501	3301
S/N in dBc/Hz ohne Opt. B46	115	120	135	142	142	142	142	142	142
S/N in dBc/Hz mit Opt. B46	115	120	135	143	144	146	147	147	147

7.4.5 IQ-Modulator

7.4.5.1 Referenzspannungen

- DC-Voltmeter an P51 (V67 Pin1) bzw. P52 (V112 Pin1) anklemmen
➢ Kontrolle der DC-Spannung auf +10V bzw. -10V ±.3%

- DC-Voltmeter nacheinander an P37, P38, P39 und P40 anklemmen
➢ Kontrolle der DC-Spannung auf +1V, +.707V, -.707V, -1V ±.5%

- DC-Voltmeter an P20 anklemmen
➢ Kontrolle der DC-Spannung auf -7.5V ±3%

7.4.5.2 Quadratureinstellung

- DC-Voltmeter an P42 (R98) bzw. P63 (R97) anklemmen
- Einstellung: VECTOR_MOD STATE ON
  VECTOR_MOD IMPAIRMENT STATE ON
  VECTOR_MOD QUADRATUR_OFFSET 0°

➢ Kontrolle der DC-Spannungen auf 7.5V ±2.5V und unter 'Ref97' bzw. 'Ref98' speichern

- Einstellung: VECTOR_MOD QUADRATUR_OFFSET +10°

➢ Kontrolle der DC-Spannung an R97 auf 'Ref97' +1.25V ±.15V
➢ Kontrolle der DC-Spannung an R98 auf 'Ref98' -1.25V ±.15V

- Einstellung: VECTOR_MOD QUADRATUR OFFSET -10°

➢ Kontrolle der DC-Spannung an R97 auf 'Ref97' -1.25V ±.15V
➢ Kontrolle der DC-Spannung an R98 auf 'Ref98' +1.25V ±.15V

7.4.5.3 Imbalanceeinstellung

- DC-Voltmeter an P35 bzw. P36 anklemmen
- Einstellung: VECTOR_MOD STATE ON
  VECTOR_MOD IMPAIRMENT STATE ON
  VECTOR_MOD IMBALANCE 0%

➢ Kontrolle der DC-Spannungen auf -1.0V ±.1V und unter 'Ref35' bzw. 'Ref36' speichern

- Einstellung: VECTOR_MOD IMBALANCE +10%

➢ Kontrolle der DC-Spannung an P35 auf 'Ref35' +0.1V ±25mV
➢ Kontrolle der DC-Spannung an P36 auf 'Ref36' -0.1V ±25mV

- Einstellung: VECTOR_MOD IMBALANCE -10%

➢ Kontrolle der DC-Spannung an P35 auf 'Ref35' -0.1V ±25mV
➢ Kontrolle der DC-Spannung an P36 auf 'Ref36' +0.1V ±25mV

7.4.5.4 Leakageeinstellung

- DC-Voltmeter an P32 bzw. P41 anklemmen
- Einstellung: VECTOR_MOD STATE ON
  VECTOR_MOD IMPAIRMENT STATE ON
  VECTOR_MOD LEAKAGE 0%

➢ Kontrolle der DC-Spannungen auf 0V ±100mV und unter 'Ref32' bzw. 'Ref41' speichern

- Einstellung: VECTOR_MOD LEAKAGE 50%

➢ Kontrolle der DC-Spannung an P32 auf 'Ref32' +250mV ±50mV

- Einstellung: VECTOR_MOD LEAKAGE 50%
  VEKTOR_MOD IQ_SWAP ON

➢ Kontrolle der DC-Spannung an P32 auf 'Ref32' +250mV ±50mV

7.4.5.5 Offsetkompensation

- Baugruppendeckel während der Kalibrierung anschrauben
- Einstellung: VECTOR MOD STATE ON
- Kabel X244/X245 abziehen
- Kalibrierung Vector Mod starten

➢ Messen der DC-Spannungen an D1 bzw. D2 Pin1 und Pin2. Spannungsdifferenz zwischen Pin1 und Pin2 kleiner 2mV

7.4.5.6 IQ-Change- und Kalibrierschalter

- DC-Voltmeter an P15 bzw. P16 anklemmen
- DC-Spannung von +0.5V an X244 'I-MOD' anlegen
- DC-Spannung von 0V an X245 'Q-Mod' anlegen
- Einstellung: VEKTOR_MOD STATE ON
  VECTOR_MOD IMPAIRMENT STATE ON
  FREQUENCY 2 GHz

➢ Kontrolle der DC-Spannung an P15 -250mV ±50mV
➢ Kontrolle der DC-Spannung an P16 0mV ±50mV

- Einstellung: VEKTOR_MOD IQ_SWAP ON

➢ Kontrolle der DC-Spannung an P15 0mV ±50mV
➢ Kontrolle der DC-Spannung an P16 -250mV ±50mV

- DC-Spannung von +0V an X244 'I-MOD' anlegen
- DC-Spannung von +0.5V an X245 'Q-MOD' anlegen
- Einstellung: VEKTOR_MOD STATE OFF

➢ Kontrolle der DC-Spannung an P15 -250mV ±50mV
➢ Kontrolle der DC-Spannung an P16 0mV ±50mV

7.4.5.7 IQ-Modulationspfad

- Einstellung: VECTOR_MOD STATE ON
- DC-Voltmeter an P15 bzw. P16 anklemmen
- DC-Spannung +0.5V an X244 'IMOD' bzw. X245 'QMOD' einspeisen

➢ Kontrolle der Spannung an P15 bzw. P16 auf -250mV ±50mV

- DC-Spannung -0.5V an X244 'IMOD' bzw. X245 'QMOD' einspeisen

➢ Kontrolle der Spannung an P15 bzw. P16 auf +250mV ±50mV

- Oszilloskop an P15 bzw. P16 anklemmen
- Einspeisung von 1MHz/0.5V Spitze (Klemmenspannung) an X244 'IMOD' bzw. X245 'QMOD'

➢ Spannung an P15 und P16 auf 180mV ±35mV effektiv prüfen und unter 'Ref15' bzw. 'Ref16' speichern.

- Einspeisung von 25MHz/0.5V Spitze (Klemmenspannung) an X244 'IMOD' bzw. X245 'QMOD'

➢ Kontrolle der Spannung an P15 auf 'Ref15' ±.5dB
➢ Kontrolle der Spannung an P16 auf 'Ref16' ±.5dB

7.4.5.8 LO 300MHz

- Einstellung: UTILITIES DIAG TPOINT STATE ON
  UTILITIES DIAG TPOINT TEST POINT 2114

➢ Kontrolle der Diagnosespannung auf 800mV ± 100mV

- Pegelmesser an Buchse X4 bzw. X5 anschließen

➢ Kontrolle des Pegel auf -9dBm ±3dB

- Einstellung: UTILITIES DIAG TPOINT TEST POINT 2118 bzw. 2119

➢ Kontrolle der Diagnosespannung auf 360mV ± 70mV

7.4.5.9 Regelung Power Ramping

- DC-Voltmeter an P18 anklemmen

➢ Kontrolle der Spannung auf 210mV ±20mV

- DC-Voltmeter an X1 anklemmen

➢ Kontrolle der Spannung auf -1.2V ±0.5V

- DC-Voltmeter an P19 anklemmen

➢ Kontrolle der Spannung auf 70mV ±20mV

- Einstellung: VECTOR MOD STATE ON
  VECTOR MOD POWER RAMP CONTROL EXT_ANALOG
- DC-Spannung von +0V an X243 ´BURST CONTROL_MOD´ anlegen
- DC-Voltmeter an P19 anklemmen

➢ Kontrolle der Spannung auf 2mV ±2mV

- DC-Voltmeter an X1 anklemmen

➢ Kontrolle der Spannung auf -3V ±1V

- DC-Voltmeter an P64 (N30 Pin 1) anklemmen

➢ Kontrolle der Spannung auf ca. 5V

- DC-Spannung von +1V an X243 ´BURST CONTROL_MOD´ anlegen

➢ Kontrolle der Spannung auf 0V

7.4.5.10 Linearität Power Ramping

- Einstellung: VEKTOR_MOD STATE ON
  POWER RAMP CONTROL EXT_ANALOG

- DC Spannung +0.5V an X245 `QMOD´ einspeisen
- DC Spannung +1.000V ± 1mV an X243 `BURST CONTROL_MOD´ anlegen
- Spektrumanalysator an X242 `IQ300´ anschließen

➢ Kontrolle des Pegels auf -5dBm ±0.5dB und unter `Ref´ speichern

- Kontrolle Linearität
- DC Spannung an X243 auf 500±5mV; 250±1mV; 100±1mV und 31.6±0.5mV stellen

➢ Pegel auf `Ref´ -6dB±0.5dB, -12dB±0.5dB, -20dB±0.5dB, -30dB±2dB prüfen

- Abgleich Linearität
- DC Spannung an X243 auf 50.1 mV ±0.5mV stellen

➢ Pegel an X242 `IQ300´ mit Poti R807 auf (`Ref´-26dB) ±0.1dB abgleichen

7.4.5.11 Ausgang IQ300 - Abgleich Pegel und Level Attenuation

Der im folgenden beschriebene Abgleich ist nach einer ausreichenden Einlaufzeit und bei erreichter Betriebstemperatur durchzuführen. Die Kalibrierung des Vektormodulators muß unmittelbar vor dem Pegelabgleich ausgeführt werden.

- Pegelabgleich
- Einstellung: UTILITIES CALIB VECTOR MOD CALIB
  ANALOG_MOD PULSE SOURCE EXT
  ANALOG_MOD PULSE POLARITY INV
- Pegelmesser an X242 'IQ300' anschließen
- ➢ Kontrolle bzw. Abgleich des Pegels auf -5dBm ±0.1dB
- ➢ Kontrolle des Oberwellenabstandes auf besser -60dBc

- Level Attenuation Abgleich
- Einstellung: ANALOG_MOD PULSE SOURCE OFF
  LEVEL LEVEL ATTENUATOR MODE ELECTRONIC
- R109 hochlöten (Verbindung zu N43 auftrennen)
- DC-Spannungsquelle am R109 anschließen
- -8.5V DC einspeisen
- Pegelmesser an X242 'IQ300' anschließen
- ➢ Pegel an X242 'IQ300' mit Poti R1111 auf -5.0dBm ± 0.1dB abgleichen
- DC-Spannungsquelle entfernen und R109 einlöten

7.4.5.12 Ansteuerung Level Attenuation

- Einstellung: FREQUENCY 1000 MHZ
  LEVEL 10dBm
  UTILITIES CALIB LEV ATT CALIBRATE
  ANALOG_MOD PULSE SOURCE EXT
  ANALOG_MOD PULSE POLARITY INV
  UTILITIES DIAG TPOINT STATE ON
  UTILITIES DIAG TPOINT TEST POINT 2123
- ➢ Diagnosespannung auf 0mV ± 50mV prüfen und unter ULEVATT speichern

- DC-Voltmeter an P17 bzw. P59 anklemmen
- ➢ Kontrolle der DC-Spannung auf 0.60V ± 0.1V und Wert unter U59 speichern
- ➢ Pegel an X242 'IQ300' auf -5.0dBm ± 1dB prüfen

- Einstellung: ANALOG MOD PULSE SOURCE OFF
- ➢ Kontrolle der DC-Spannung an P17 bzw. P59 auf ULEVATT ± 5mV
- ➢ Pegel an X242 auf kleiner -75dBm prüfen

- Einstellung: LEVEL LEVEL ATTENUATOR MODE ELECTRONIC
- ➢ Kontrolle der Diagnosespannung (TP2123) auf 2*U59 ± 100mV
- ➢ Kontrolle der Spannungsdifferenz zwischen P43, P17 und P59 auf kleiner 2mV
- ➢ Kontrolle Pegel an X242 'IQ300' auf -5.0dBm ± 1dB

7.4.5.13 Ansteuerung Pulsmodulation

- Einstellung: ANALOG MOD PULSE SOURCE EXT
  ANALOG MOD PULSE POLARITY NORM
- DC-Voltmeter an D50 bzw. D51 Pin 4 anklemmen

➢ Kontrolle der Spannung auf 0V ± 0.5V

- DC-Voltmeter an D50 bzw. D51 Pin 5 anklemmen

➢ Kontrolle der Spannung auf -6.5V ± 1V

- Einstellung: ANALOG MOD PULSE POLARITY INV
- DC-Voltmeter an D50 bzw. D51 Pin 4 anklemmen

➢ Kontrolle der Spannung auf -6.5V ± 0.5V

- DC-Voltmeter an D50 bzw. D51 Pin 5 anklemmen

➢ Kontrolle der Spannung auf 0V ± 0.5V

7.4.5.14 IQ-Detektor und Detektorabgleich

- Einstellung: LEVEL 0dBm
  UTILITIES DIAG TPOINT STATE ON
  UTILITIES DIAG TPOINT TEST POINT 2121

➢ Kontrolle der Diagnosespannung auf kleiner 50mV

- R85 auslöten und +5V DC an D57 Pin4 anlegen
- Einstellung: LEVEL LEVEL ATTENUATOR MODE ELECTRONIC

➢ Kontrolle der Diagnosespannung auf 8.4V...12.3V

Der im folgenden beschriebene Test und Abgleich der Pegellinearität des IQ-Detektors ist ausschließlich bei geschlossenem oberen Baugruppendeckel, nach einer ausreichenden Einlaufzeit und bei erreichter Betriebstemperatur durchzuführen.

- Analysator und SMIQ aufeinander synchronisieren (10-MHz-Referenzen verbinden)
- Einstellung: LEVEL 0dBm
  UTILITIES REF_OSC SOURCE EXT
  UTILITIES CALIB LEV ATT CALIBRATE
  LEVEL LEVEL ATTENUATOR MODE ELECTRONIC

- 0V DC an D57 Pin4 anlegen
- Spektrumanalysator an X242 ´IQ300´ anschließen

➢ Kontrolle des Pegels auf -5dBm ±.5dB und unter ´Ref´ speichern

- +5V DC an D57 Pin4 anlegen

➢ Diagnosespannung (TP2121) messen und unter ´RefDiag´ speichern

- 0V DC an D57 Pin4 anlegen
- Level auf -40dBm stellen und durch Variation des Pegels das Ausgangssignal an X242 ´IQ300´ auf ´Ref - 40.0dB´ einstellen
- +5V DC an D57 Pin4 anlegen

➢ Abgleich der Diagnosespg.(TP2121) mit Poti R930 auf ´RefDiag´-40dB

➢ Vorgehensweise für Absenkungen von 5..35dB Absenkung in 5dB Schritten wiederholen und Abweichung der Diagnosespg. auf kleiner 0.4dB prüfen (Abgleich dabei nicht verändern!!)

- R85 wieder einlöten

7.4.5.15 IQAM

- Einstellung: VECTOR_MOD STATE ON
  ANALOG MOD AM AM DEPTH 80%
  ANALOG MOD AM AM SOURCE INT INT
  ANALOG MOD AM LFGEN FREQ 20.000 kHz
- DC Spannung +0.5V an X244 `IMOD´ einspeisen
- AC Voltmeter an P35 bzw. P36 anklemmen

➢ Spannung auf 275mV ±20mV (Effektivwert) prüfen

- Spektrumanalysator an X242 ´IQ300´ anschließen

➢ Prüfen des Trägers auf -11dBm ±1dB und unter `Träger´ speichern
➢ Prüfen der 300MHz ±20kHz Seitenbänder auf (`Träger´-8dB) ±0.5dB
➢ Prüfen der harmonischen Seitenbänder auf kleiner (`Träger´-40dB)

7.4.5.16 Frequenzgang IQ-Modulator

-ohne Option bzw. bei Option B46 mit IQ FILTER OFF

- Einstellung: VECTOR_MOD STATE ON
- Spektrumanalysator an X242 ´IQ300´ anschließen
- 30 MHz 0.5V_s an X244 ´IMOD´ bzw. X245 ´QMOD´ anschließen

➢ Prüfen des 270MHz Signals an X242 auf -11dBm ± 1dB und unter ´REF´ speichern
➢ Prüfen des 330MHz Signals an X242 auf ´REF´ ± 1dB

- Frequenz an ´IMOD´ bzw. ´QMOD´ von 0-30MHz durchwobbeln

➢ Prüfen Frequenzgang < 1dB

- mit Option B46 bei IQ FILTER 2.5MHz

- Einstellung: VECTOR_MOD STATE ON
  VECTOR_MOD IQ_FILTER 2.5MHz
- Signal mit 0.25; 0.75; 1.5; 2; 3 und 5MHz und 0.5V_s an ´IMOD´ bzw. ´QMOD´ einspeisen
- Spektrumanalysator an X242 ´IQ300´ anschließen

➢ Bezugswert bei 300.25MHz auf -11dBm ± 1dB prüfen und unter ´REF´ speichern
➢ Prüfen des Frequenzgangs an ´IQ300´, bezogen auf ´REF´, auf

Frequenz/MHz	300.75	301.5	302	303	305
Sollwert/dB	-0.25	-0.45	-0.55	-5	-32
Toleranz/dB	±0.1	±0.1	±0.2	+1/-3	±5

7.4.5.17 Breitbandrauschen IQ-Modulator

- Einstellung: FREQUENCY 3.1GHz
- Spektrumanalysator an X242 ´IQ300´ anschließen

➢ Prüfen des 300MHz Signals auf -5.0dBm ± 1dB und unter ´REF´ speichern

- Einstellung: VECTOR_MOD STATE ON
  VECTOR_MOD CALIBRATE
  VECTOR_MOD IQ_FILTER 2.5MHz (nur bei Option B46)

➢ Prüfen des 300MHz Signals auf < -55dBm

- Einstellung FSE: CF 305 MHz
  REF LEVEL -50dBm
  INPUT ATTENUATION 0dB
  SPAN 1kHz
  RBW 2kHz
  VBW 5Hz
  MARKER NOISE
- Messen des Rauschpegels bei 305MHz in dBm/Hz
  (Bei Rauschpegeln unter -150dBm/Hz sollte der Meßwert des FSE um das Eigenrauschen des Analysators korrigiert werden!!)

➢ Prüfen des Signal/Rauschabstandes = 'REF' - Rauschpegel auf
größer 139dBc/Hz (ohne Option B46)
größer 148dBc/Hz (mit Option B46)

7.4.6 Baugruppeninterrupt

- Einstellung: FREQUENCY 1GHZ
- Signal 'REF600' an Buchse X246 abziehen
- Betätigen der ERROR-Taste

➢ Fehlermeldung: Code 224, 2.4GHZ LO LOOP UNLOCKED

- Signal 'REF600' wieder anschließen

➢ Fehlermeldung: keine

- Steckbrücke P30/P31 ziehen

➢ Fehlermeldung: Code 224, 2.4GHZ LO LOOP UNLOCKED

- Steckbrücke P30/P31 wieder aufstecken
- Signal 'FIQFIL' an X247 abziehen

➢ Fehlermeldung: Code 110, OUTPUT UNLEVELED

- Signal 'FIQFIL' wieder anschließen
- Einstellung: ANALOG_MOD AM AM_SOURCE_EXT EXT1
  ANALOG_MOD AM AM_EXT_COUPLING AC
- 1kHz/1V Spitze an Buchse 'EXT1' einspeisen
- Betätigen der ERROR-Taste

➢ Fehlermeldung: keine

- 1kHz/1.04V Spitze an Buchse 'EXT1' einspeisen

➢ Fehlermeldung: Code 152, INPUT VOLTAGE OUT OF RANGE;EXT1 TOO HIGH

- 1kHz/0.96V Spitze an Buchse 'EXT1' einspeisen

➢ Fehlermeldung: Code 153, INPUT VOLTAGE OUT OF RANGE;EXT1 TOO LOW

7.4.7 Diagnose

Auf der Baugruppe sind insgesamt 24 HF- und DC-Meßpunkte verteilt. Sie werden über das Menü 'UTILITIES DIAG TPOINT POINT 21??' angewählt. Die ersten beiden Ziffern bezeichnen die Baugruppe 'IQMOD' (21), mit zwei weiteren sind die Diagnosepunkte laufend durchnumeriert.

IR=Liefert Baugruppeninterrupt, TF=Teilerfaktor, War=Wartezeit
OF=Offsetmessung, MIN=Minimum, MAX=Maximum

Diagnosepunkt	Meßpunkt	IR	MIN [V]	MAX [V]	TF	WAR ms	OF
2100 D_OFFSET	Referenz 1kΩ		-.01	+.01	1	1	
2101 D_REF10V	10V Referenzspannung		9.8	10.2	3	1	X
2102 D_LFGEN	Ausgangspegel LF-Generator		-1.02	+1.02	3	1	
2103 D_REF600	Pegel 600MHz-Referenz für 2.4GHz PLL		.05	.18	1		
2104 D_TUN2G4	Abstimmspannung 2.4GHz VCO	X	3	18	5	1	
2105 D_VCO2G4	Pegel 2G4 VCO		0.03	.10	1	1	
2106 D_PHIDET	Pegel 600MHz Vergleichssignal für 2.4GHz PLL		.05	.18	1	1	
2107 D_LO2G4	LO-Pegel Abwärts-mischer ein,(aus)		.2, (-.02)	.4, (+.02)	1	1	
2108 D_PRESET	Abstimmspannung Preset-Stellglied		2.3	4.5	3	1	
2109 D_AMOD	Abstimmspannung AM-Modulator	X	.02	6	3	3	
2110 D_REFAM	AM-Referenzsignal		-6	0	3	1	
2111 D_CONVRT	Pegel IF-Zweig Ab-wärtsmischer ein,(aus)		.005, (-1mV)	.1, (+1mV)	1	1	
2112 D_SWITCH	Pegel nach AM-Modulator		.005	.4	1	1	
2113 D_DETOUT	Ausgangsdetektor Endverstärker		.05	6	3	1	
2114 D_REF300	Pegel 300MHz für IQ-Modulator		.6	1.0	1	1	
2115 D_IQOUT	Ausgangspegel IQ-Modulator		0	.3	1	1	
2116 D_IMOD	Pegel Modulationseingang I-Pfad		-.5	+.5	2	1	
2117 D_QMOD	Pegel Modulationseingang Q-Pfad		-.5	+.5	2	1	
2118 D_ILO	Pegel LO I-Pfad		.2	.6	1	1	
2119 D_QLO	Pegel LO Q-Pfad		.2	.6	1	1	
2120 D_PHI	Ansteuerspannung Phasenschieber		3.5	13	3	1	
2121 D_IQCAL	Kalibrierdetektor IQ-Modulator		0	12.5	3	5	X
2122 D_BURST	Regelspannung Burts-Stellglied		-4	-0.5	3	1	
2123 D_LEVATT	Abstimmspannung Level-Attenuation Stellgliede		0	1.5	3	1	

7.4.8 Arbeitspunkte Verstärkerstufen

Die folgende Tabelle gibt für die HF-Verstärker der Baugruppe den jeweils gewählten Arbeitspunkt. Toleranzen von 10 bis 20% können auftreten und sind kein Fehlerindiz. Die Angaben beziehen sich stets auf den DC-Arbeitspunkt ohne anliegendes HF-Signal.
Für Baugruppen, die mit der Option B46 bestückt sind, gelten die in Klammern angegebenen Werte.

Verstärker	Arbeitspunkt	
Bezeichnung	Drain bzw. Kollektorstrom	Drain bzw. Kollektorspannung
V82	50mA	5.0V
V81	60mA	5.0V
V83	130mA	8.0V
V75	90mA	9.5V
V77	90mA	9.5V
N46	85mA (75mA)	5.0V (4.5V)
N47	85mA (75mA)	5.0V (4.5V)
N45	85mA (75mA)	5.0V (4.5V)
N44	85mA (75mA)	5.0V (4.5V)
N38	85mA	5.0V
V80	90mA	9.5V
V102	90mA	6.0V
N4	65mA (80mA)	5.0V (3.0V)
V148	70mA	4.0V
V144	70mA	4.5V
V103	120mA	7.0V
V104	135mA	7.3V
V111	30mA	-5.5V
V145	60mA	4.5V
V146	60mA	4.5V
V154	60mA	5.5V
V147	60mA	5.5V
V99	150mA	6.5V

7.5 Zerlegung und Zusammenbau

Nach dem Öffnen des Gerätes, Entriegeln der Baugruppen und dem Lösen der HF-Verbindungen an X241 bis X249 kann die Baugruppe aus ihrem Steckplatz entnommen werden. Die Schirmdeckel sind auf herkömmliche Weise verschraubt. Beim Betrieb mit geöffnetem Schirmdeckel ist darauf zu achten, dass die Resonatorkammer M mit einem geeignetem Prüfdeckel verschlossen wird.

7.6 Externe Schnittstelle

Pin	Name	Ein/ Ausgang	Beschaltung/ Ziel	Wertebereich	Signal Erläuterung
X240.A1	BLANK	Eingang	A3, FRO X31.34	HCT-Pegel	Pegelaustastung
X240.A2	UREFAM	Ausgang	A500, IQ6G X500.2	0...12V	AM-Führungswert
X240.A3	LFOUT	Ausgang	A3, FRO LF	0...4V Spitze, .1Hz..1MHz	Ausgang NF Generator
X240.A4	EXT1	Eingang	A3, FRO EXT	0...1V Spitze	Externes Modulationssignal
X240.A5	EXT2				unbenutzt
X240.A6	INT1	Ausgang	Option FMOD	0...1V Spitze	Internes Modulationssignal
X240.A7	Masse				
X240.A8	PULSE	Eingang	Rückwand	HCT-Pegel	Pulsmodulation
X240.A9	CODAM	Eingang	DDS	0...1V Spitze	DSYN AM-Signal
X240.A10	LEV ATT_MOD	Eingang	MCOD	HCT-Pegel	Pegelabsenkung
X240.A11	Masse				
X240.A12	SERBUS-CLK	Eingang	A3, FRO, X31.40	HCT-Pegel	Serbus Clock
X240.A13	Masse				
X240.A14	SERBUS-OUT	Ausgang	A3, FRO, X31.39	HCT-Pegel	Serbus Daten
X240.A15	SERBUS-IN	Eingang	A3, FRO, X31.39	HCT-Pegel	Serbus Daten
X240.A16	SERBUS-SYNC	Eingang	A3, FRO, X31.37	HCT-Pegel	Serbus Sync
X240.A17	SERBUS-INT	Ausgang	A3, FRO, X31.38	HCT-Pegel	Serbus Interrupt
X240.A18	Reset-P	Eingang	A3, FRO, X31.28	HCT-Pegel	Serbus Reset
X240.A19	DIAG-5V	Ausgang	A3, FRO, X31.44	-5V...+5V	Diagnose
X240.A20	VA15-P	Eingang	A2, POWS	14.85...15.75V 600mA	15V Stromversorgung
X240.A21	Masse				
X240.A22	VA24-P	Eingang	A2, POWS	23.75...25.25V 200mA	24V Stromversorgung
X240.A23	Masse				
X240.A24	VA15-P	Eingang	A2, POWS	14.85...15.75V 600mA	15V Stromversorgung
X240.A25	Masse				
X240.A26	VA7.5-P	Eingang	A2, POWS	7.45... 7.95V 450mA	7.5V Stromversorgung
X240.A27	Masse				
X240.A28	VD5-P	Eingang	A2, POWS	5.15...5.25V 140mA	5V Digitale Stromversorgung
X240.A29	Masse				
X240.A30	VA15-N	Eingang	A2, POWS	-15.75.-14.85V 300mA	-15V Stromversorgung
X240.A31	Masse				
X240.A32	VA7.5-P	Eingang	A2, POWS	7.45...7.95V 450mA	7.5V Stromversorgung
X241	IQAUX	Ausgang	Rückwand	300MHz/-10dBm	Vektormodulierter Träger Rückwand
X242	IQ300	Ausgang	A220, IQCON X223	300MHz/-5dBm	Vektormodulierter Träger IQCON
X243	BURST CTRL_MOD	Eingang	Rückwand	0...1V	Steuersignal Power Ramping

X244	I_MOD	Eingang	A3, FRO I_MOD	-0.5...+0.5V 0...30MHz	Modulationseingang I
X245	Q_MOD	Eingang	A3, FRO Q_MOD	-0.5...+0.5V 0...30MHz	Modulationseingang Q
X246	REF600	Eingang	A7, REFSTEP X77	600MHz/13dBm	Referenz 600MHz
X247	FIQFIL	Eingang	A220, IQCON X227	450...3300MHz/ 4dBm	Vektormoduliertes Signal
X249	FIQOUT	Ausgang	A15, ATT X2	.3...3300MHz -20...19dBm	Ausgangsignal

ROHDE&SCHWARZ

Service Documents

Module IQ Modulator and Option B46

1084.9800.06

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7. Testing and Repair of the Module

7.1 Function Description

The IQ Modulator module is divided into the three function units LF Generator, vector modulator and output unit.

The LF Generator is provided as internal modulation signal for FM/φM or AM, but it is also provided at a separate output 'LF out'.

The IQ modulator generates a vector-modulated 300-MHz signal which is required on the IQ converter board for synthesis of a vector-modulated RF carrier. Power ramping, which is necessary for digital mobile radio networks is accomplished by means of an additional amplitude modulator of large bandwidth. Another level control element with a digital control signal allows for fast level attenuation of up to 70 dB for alternative level setting in the time slots. Pulse modulation with an ON/OFF ratio > 80dB is implemented by means of two fast GaAs switches.

The output unit comprises the complete level conditioning and the AM modulator for the output frequency range up to 3.3 GHz. The frequency range below 450 MHz in CW mode or 750 MHz in IQ mode is generated by down-conversion using a 2.4-GHz signal. In CW mode, output signals above 3040 MHz are obtained by up-conversion with the 300-MHz signal of the vector modulator.

7.1.1 LF Generator

The LF Generator supplies a sinewave signal with a frequency which can be set between 0.1 Hz and 1 MHz. The signal is provided at the 'INT1' line with an amplitude of 1 V. In addition, the level from 1 mV to 4V peak can be selected at the output 'LFOUT'.

A Direct Digital Synthesis is the nucleus of the LF generator. The reference frequency of the DDS is 50 MHz. The increment can be set by a 32-bit value. The integrated DA converter provides a 10-bit resolution. All internal registers are assigned '0' by means of a reset component. With power off, the component operates in 'sleep mode' in order to reduce power consumption.

The DDS component supplies a sinewave with a constant amplitude of 2V peak-to-peak and a dc offset of 1V. The summing module N11 adds a constant voltage to the output signal to compensate for the offset. Offset adjustment is performed via R124. The output signal N11 is used as internal modulation signal on 'INT1'.

Level conditioning for the LF output 'LFOUT' follows using the 12-bit DA converter N41. The output amplifier N10 increases the voltage range to 4V peak.

7.1.2 Output Unit

7.1.2.1 Amplitude Modulator and Preset

The output signal 'IQFIL' of the IQ converter is first applied to the level preset element V9. Thus, the AM modulator can operate at its ideal operating point independent of the level set. The control voltage 'V_PRESET' which is set via the 8-bit converter U1 is obtained by the internal preset calibration depending on the output frequency and the output level. A difference amplifier V38/V40 with the current source V39 provides for a constant current through the pin diodes in IQ-Off and ALC-OFF modes and thus for a temperature-stabilized attenuation value.

The RF signal passes to the AM modulator V3/V4/V8 via the broadband amplifier V102. Similar to the preset element, this signal is controlled via a difference amplifier V41/V56 with the current source V42 to ensure high temperature-stability with clamped level. The insertion loss of the modulator is compensated by the RF amplifier N4.

7.1.2.2 Output Amplifier

The GaAs-switches D55 and D56 route the RF signal either directly to the output amplifier or to the RF input of the down-converter to generate the frequency range below 450 MHz. The pin diodes V108/V110/V170/V171 improve crosstalk in the down-converter mode to better 80dB. They are controlled via the operational amplifier N6.

The 3-stage output amplifier V144/V103/V104 increases the level up to 19 dBm. The working point of the GaAs-Fets is stabilized by the current source V1/V2/V6 for the drain current and a control for the drain voltage through N1/N2.

A harmonic filter which follows the output amplifier V104 improves the harmonics suppression for output frequencies above 1.8 GHz.

A directional coupler consisting of the resistors R511, R902 and R922, applies part of the output power to the peak rectifier V46. The latter is accordingly broadband to cover the complete frequency range. A second charging capacitor C549 can be switched on in addition for output frequencies below 5 MHz. The detector characteristic is linearized using the log module N39, ,N40 and N41.

The balancing transformer T1 decouples the output power at the floating gate of the transfomer.

7.1.2.3 Down-conversion

The frequency range below 450 MHz is obtained on the output unit by down-conversion with a 2.4-GHz LO signal. The GaAs switch D56 passes the modulated RF signal to the RF gate of the diode mixer U9. The IF amplifier V148 amplifies the IF signal by approx. 15dB. A succeeding filter suppresses unwanted mixing products such as 3*LO-2*RF, and the LO frequency

7.1.2.4 LO Synthesis

The LO signal for mixing is derived from the 600-MHz signal of the step synthesis in the 2.4-GHz PLL consisting of the VCO V130, L108, C452 and V111, the divider :4 D44, the phase detector and the PI control N14.

A power divider R291/R294/R293 at the VCO output decouples part of the power and applies it to the LO gate of the mixer U9 via the LO amplifier stages V154, V147 and V99. The control element for the pin diodes is used to adjust the LO level to approx. 17 dBm on the mixer. With mixer active, the amplifier stages V154, V147 and V99 are switched off via their supply voltage.

7.1.2.5 Level Conditioning

The command value of level control is given by the 12-bit converter 'LEVEL' D43. The controller of the level control loop N35 allows for selection between two control bandwidths (switch D15). The narrow bandwidth of approx. 5kHz is used in CW mode, the broad one of approx. 20 kHz with AM modulation. For carrier frequencies below 5 MHz the control is always switched slow.

Electronic level blanking is accomplished by the offset current applied via R316 and switched by the signal 'Klemm_N'. The level is thus prevented from increasing too much after level gaps occurring with change of frequency.

In IQ and ALC OFF modes, the switch D15 and the control signal 'ALC_ON' are used to switch over the controller N35 to the AF amplifier. In addition, the measured value of the level detector must be disconnected via the switch D8.

AM is performed using an externally applied modulation signal 'EXT1' or internally by means of the 'INT1' signal of the LF generator. Two-tone modulation is achieved by simultaneous modulation with both signals. Either ac coupling (coupling capacitor C606/C607)or dc coupling may be selected for the externally applied modulation signal. Selection is made via switches D9 and D10.

A window comparator N42 monitors the modulation signal with AM with ac coupling to the rated value of 1V peak and supplies an interrupt which is triggered if the deviation from the rated value exceeds 3%. The interrupt triggers a warning message in the display.

The modulation depth is set by the 12-bit DA converter 'AMOD' D42. Its output signal is added to a fixed dc reference 'AM-6V' and is used as reference for the DA converter 'LEVEL' D43 of level setting.

7.1.3 Vector Modulator

7.1.3.1 LO Conditioning and Modulator

The vector modulator operates at a fixed frequency of 300 MHz. The 300-MHz signal is obtained from the 600-MHz reference of step synthesis by means of division (:2 divider N28). A 3-stage LO driver V82, V81 and V83 amplifies the signal at the divider output to approx. 25 dBm and passes it to the 90° power divider B1.

The latter generates two 300-MHz carriers with a phase relation of 90°. The phase relation may be varied by ±20° via a tunable phase shifter V123/V125/V122/V124 in the I-path or L50, V127/V126/V128/V129 in the Q-path, each.

The 300-MHz signals are amplified to approx. 17 dBm via the LO drivers V75 and V77 and applied to the LO input of the I-mixer U11 or of the Q-mixer U12. The modulated signal is first amplified at the RF output of the modulation mixer by means of the amplifiers N46 and N47 and then subject to a harmonic filter. The addition of the modulated signals of the I and Q paths is carried out by the 0°-power summer U4.

7.1.3.2 Level Attenuation

After the addition, the modulated signal is applied to two pin diode attenuators V50,V52 and V53,V71 which are separated by an amplifier N45. The attenuators allow for fast level attenuation by 0 to 70 dB. (transient < 15µs)

With digital modulations, the control elements are used for fast level attenuation in particular time slots (control via input 'X240 A10' 'LEVATT_MOD') and as electronic attenuator in the operating mode 'LEVEL LEVEL ATTENUATOR MODE ELECTRONIC'.

In the operating mode without level attenuation, two current sources V78 and V76 ensure a constant current of approx. 1mA through the pin diodes. Potentiometer R2 permits to adjust the level at the output X242 by varying this current. N37 is out of operation in this case.

In the operating mode with level attenuation, a current depending on the voltage V_LEVATT is set by means of N37. The DA converter D46 'LEVATT' permits to vary the voltage V_LEVATT for setting the attenuation. To determine the converter setting for a desired attenuation value, the IQ detector is used in conjunction with an internally executed calibration routine. (UTILITIES CALIB LEV ATT)

The 0-dB setting for the operating mode with level attenuation is adjusted using potentiometer R1111 such that a DA converter value of approx. 3500 is obtained. The NTC resistor R1129 is used for compensation of the temperature-dependent attenuation of the control elements.

Switchover between impressed current and controlled current is effected by means of switches D12 and D13, both control elements being switched at the same time.

7.1.3.3 Pulse Modulation

Pulse modulation is enabled by switches D50 und D51. The conversion of the TTL signal to the control signal of the GaAs switches (0V <-> -6V) is made using transistors V134,V136,V158,V159. The inverter D7 permits to invert the pulse polarity.

7.1.3.4 Power Ramping

Subsequently, the signal is applied to the burst modulator D27. The latter is set up by means of a GaAs attenuator pad. Operation inside a control linearizes the non-linear and temperature-sensitive characteristic. For this purpose, a known dc reference voltage obtained from N29 is passed via the coupling network L90 to be added to the RF

signal at the attenuator input. Like the RF, the dc reference voltage is attenuated by D27, it is then decoupled at the output via L91 and measured.

The opamp N22 is employed for measurement and subtraction with the command value at the output of N24 (0V corresponds to maximum attenuation, 1V to maximum level). The controller of the burst element N23 influences the control inputs of the control element D27. The switch D5 allows for switching off the burst control input and substitutes the command value by an internally generated reference voltage.

To increase the dynamic range of the assembly to >80dB, the switch to the IQ-detector D28 is actuated with approx. -35 to -38dB. A comparator N30 derives the control signal for the switch D28 from the command value of N24.

The linearity of the burst modulator up to an attenuation of approx. 30 dB is adjusted via Poti R807.

Following the switch D28, the 300-MHz signal is passed via a harmonic filter and a power divider to the two outputs 'IQAUX' X241 and 'IQ300' X242. The signal 'IQAUX' provides the signal at the rear panel of the instrument, while 'IQ300' passes the signal to the 'IQ-Converter' module.

7.1.3.5 IQ Detector

The GaAs switch D28 allows for routing the signal of the IQ modulator to the level detector V106. The linearization circuit consists of the opamps N25 and N32.
The IQ detector is used for calibrating the IQ modulator and for determination of the level-attenuation setting.

7.1.3.6 IQ Modulation Path

The I and/or Q-modulation signals are applied to the 50-Ω termination R370/R369 and/or R372/R371 via the GaAs switches D37 and D54. The switches allow for applying known dc voltages to the modulation inputs for calibration purposes, for operating modes broadband-AM, pulse modulation, and for frequencies above 3040 MHz.

The voltages available are ±1V for calibration of the IQ imbalance, ±0.707V for the quadrature offset and 0V for residual carrier calibration. Two analog multiplexers D16 and D17 allow for selection of the desired calibration reference. The opamp N19 measures the voltages at D17 and D16 and supplies the required current for the 50-Ω load.

The video multiplexer D40 allows for exchanging the I-channel and the Q-channel. This is necessary, since both sidebands occurring with up-conversion in the IQ converter or down-conversion in the output unit are used to avoid spuriae. The exchange may also be made via the firmware.

One analog multiplier D1 in the I-channel and one (D2) in the Q-channel are provided for individual level setting. Two 8-bit DA converters 'ILEV' U2 and 'QLEV' U3 ensure the setting range of approx. ±25%. Definite variation of the IQ imbalance via the firmware is thus possible as well as adjustment during IQ calibration.

Switching the AM-reference input to the ILev or QLev entries of the multipliers by means of D11 allows an AM during IQ-operation (IQAM).

The DC offset applied at the Y2 input of the two multipliers permits to compensate for offsets produced ahead of the multiplier. The twofold 12-bit DA converter D61 is available for this purpose. The required calibration is performed internally with the vector modulator calibration.

The dc offset fed at the Z-input of the two multipliers compensates the residual carrier or it is set via the firmware. To this end, two 12-bit DA converters 'IOFFSET' D45 and 'QOFFSET' D48 ae available. With broadband AM, the residual carrier at the I-channel is set to 50% via the DA converter 'IOFFSET'.

The third adjustment quantity, the quadrature, is set using the 12-bit converter 'IQPHASE' D47 and influences directly the phase shifters in the RF path of the LO signal preceding the modulation mixers for I and Q. The opamp N18 is used to derive two negative-phase sequence tuning voltages from the converter output voltage, one of them being passed to the phase shifter in the Q-path, consisting of V126 to V129. The other one is passed to the phase shifter in the I-path which consists of V122 to V125.

7.1.3.7 Option B46 (WCDMA Filter)

If the Option B46 is installed, the I and Q signal is filtered after the analog multipliers by a 2.5-MHz lowpass (IQ_FILTER 2.5MHz) or by a 70-MHz lowpass (IQ_FILTER OFF). (Additional board Order No. 1104.9900.01) The two paths are switched over by means of FETs. The control of the FETs is partly accommodated at the bottom of the additional board.

Besides, to improve the signal-to-noise ratio, further amplifiers with different operating point settings are mounted at the positions N4, N44, N45, N46 und N47. The values in brackets are valid for the operating points given in section 7.4.8.

7.2 Test Instruments and Utilities

- Spectrum analyzer FSEA or FSEB
- Level meter NRV with Z51
- DC/AC voltmeter UDS5
- Oscilloscope BOS
- Two DC voltage sources
- AF signal generator AFGU
- SMA attenuator pads 6dB and 10dB
- Signal generator SMHU

7.3 Troubleshooting

Error description	Remedy
LF Generator Frequency Error	7.4.3.3 Frequency Setting
LF Generator Level Error	7.4.2.1 Adjusting 10-V Reference 7.4.3.2 Offset Adjustment 7.4.3.4 Amplitude Setting
PLL2.4GHz Out Of Synchronisation	7.4.4.7 2.4-GHz PLL
ALC Error CW <450MHz	7.4.4.1 Reference Voltage ±6V 7.4.4.5 Setting Preset 7.4.4.6 Level Setting 7.4.4.7 2.4-GHz PLL 7.4.4.8 2.4-GHz LO 7.4.4.9 Level Characteristic 7.4.4.10 Output Detector
ALC Error CW >450, <3040MHz	7.4.4.1 Reference Voltages 7.4.4.5 Setting Preset 7.4.4.6 Level Setting 7.4.4.9 Level Characteristic 7.4.4.10 Output Detector
ALC Error CW >3040MHz	7.4.4.1 Reference Voltages 7.4.4.5 Setting Preset 7.4.4.6 Level setting 7.4.4.9 Level Characteristic 7.4.4.10 Output Detector 7.4.5 IQ Modulator
Level Linearity Attenuator Fixed	7.4.4.10 Output Detector
Attenuator Electronic	7.4.5 IQ Modulator 7.4.5.11 Adjustment Level Att. 7.4.5.12 Control Level Att.
AM Error	7.4.4.2 Channel Switch 7.4.4.3 Setting Modulation Depth 7.4.4.5 Setting Preset 7.4.4.10 Output Detector
AM Error with vector modulation	7.4.5.5 Offset Compensation 7.4.5.15 IQAM
Insufficient Harmonic Suppression	7.4.4.5 Setting Preset 7.4.8 Operating Points of Amplifier Stages
Preset Calibration Aborted	7.4.4.5 Setting Preset 7.4.4.6 Level Setting 7.4.4.9 Level Characteristic

Error description	Remedy
	7.4.4.10 Output Detector
Vector Error Too High	7.4.4.9 Level Characteristic 7.4.5.2 Setting Quadrature 7.4.5.3 Setting Imbalance 7.4.5.4 Setting Leakage 7.4.5.8 300-MHz LO 7.4.5.16 Frequency Response IQ Modulator
IQ Calibration Aborted	7.4.5.1 Reference Voltages 7.4.5.2 Setting Quadrature 7.4.5.3 Setting Imbalance 7.4.5.4 Setting Leakage 7.4.5.6 IQ-Change and Cal. Switch 7.4.5.8 300-MHz LO 7.4.5.11 Output IQ300 7.4.5.14 IQ Detector 7.4.5.16 Frequency Response IQ Modulator
Residual Carrier Too High	7.4.5.4 Setting Leakage 7.4.5.5 Offset Compensation 7.4.5.14 IQ Detector
Error with Power Ramping	7.4.5.9 Power Ramping Control 7.4.5.10 Power Ramping Linearity
Error with Level Attenuation	7.4.5.12 Level Attenuation Control 7.4.5.11 Level Attenuation Tuning
Pulse Modulation	7.4.5.13 Pulse Modulation Control
Broadband Noise	7.4.4.11 Broadband Noise Outp. Unit 7.4.5.16 Frequ. Resp. IQ Modulator 7.4.5.17 Broadband Noise IQ-Mod.

7.4 Testing and Adjustment

All measured values given without tolerances are recommended values. Voltages given without further information mean dc voltages.

At the beginning of each section, the instrument or module is assumed to be in the PRESET state.

The service kit contains an adaptor to make the module accessible. The adaptor is plugged into the chassis instead of the module and the RF connections at the bottom are connected. Then, the module can be plugged into the adaptor.

In the following sections, test and measurement points are quoted which are not available for the modules of the first series. In these cases the description of the test point according to the components is useful.

7.4.1 Data Transmission and Power Supply

According to the instrument standard, the module is controlled via a serial interface using the SERBUS-D component. Settings and associated data are given in the Section 'Digital Interfaces'.
The rated power consumptions of the respective supply voltages can be looked up in the Section 'External Interfaces'.

7.4.2 Reference and Supply Voltages

7.4.2.1 Adjusting 10-V Reference

- Connect dc voltmeter to P29
- ➢ Adjust to 10V ±0.1% using potentiometer P516
- Setting: UTILITIES DIAG TPOINT STATE ON
  UTILITIES DIAG TPOINT TEST POINT 2101
- ➢ Check diagnosis voltage to 10V ±2%

7.4.2.2 Checking the ±5.5-V Supply

- Connect dc voltmeter to P23
- ➢ Check the supply voltage to +5.5V ±0.1V
- Connect dc voltmeter to P24
- ➢ Check the supply voltage to -5.5V ±0.1V

7.4.3 LF Generator

7.4.3.1 Reference Voltages

- Connect dc voltmeter to P14
- ➢ Check the supply voltage to 1.5V ±0.2%

7.4.3.2 Offset Adjustment

- Connect dc voltmeter to P50 (INT1 and LFINT)
- Setting: LF_OUTPUT STATE ON
  LF_OUTPUT LFGEN_FREQ 1kHz
  LF_OUTPUT VOLTAGE 1V
- ➢ Adjust the offset voltage to ±.5mV using potentiometer R124

7.4.3.3 Frequency Setting

- Connect oscilloscope to reference crystal G1 pin3

➢ Check frequency to 50MHz (TTL)

- Connect frequency counter to LF
- Setting: LF_OUTPUT STATE ON
  LF_OUTPUT LFGEN_FREQ 1MHz
  LF_OUTPUT VOLTAGE 1V

➢ Check the LF frequency to 1MHz $\pm 10^{-5}$

7.4.3.4 Amplitude Setting

- Connect ac voltmeter to LF
- Setting: LF_OUTPUT STATE ON
  LF_OUTPUT LFGEN_FREQ 1kHz
  LF_OUTPUT VOLTAGE 4mV, 40mV, 400mV, 4V

➢ Check peak amplitude to 4mV, 40mV, 400mV, 4V ±(1%+1mV)

- Connect ac voltmeter to P50 (INT1 or LF-INT)

➢ Check peak amplitude to 1V ±1%

7.4.3.5 Frequency Response

- Connect ac voltmeter to LF
- Setting: LF_OUTPUT STATE ON
  LF_OUTPUT LFGEN_FREQ 10Hz ... 1MHz
  LF_OUTPUT VOLTAGE 1V
- Reference measurement at 10Hz

➢ Check level to 0.4dB deviation up to 100kHz, 3dB to 1MHz

- Connect ac voltmeter to P50 (INT1 or LF-INT)
- Setting: LF_OUTPUT LFGEN_FREQ 10Hz ... 1MHz
- Reference measurement at 10Hz

➢ Check level to 0.4dB deviation up to 100kHz, 3dB to 1MHz

7.4.4 Output Unit

7.4.4.1 Reference ±6V

- Connect dc voltmeter to P26

➢ Check the voltage to +6V ±0.2%

- Connect dc voltmeter to P25

➢ Check the voltage to -6V ±0.2%

7.4.4.2 Channel Switch

- Apply 1V dc to 'EXT1'
- Setting: ANALOG_MOD AM AM_SOURCE_EXT EXT1
  ANALOG_MOD AM AM_EXT_COUPLING DC
- Connect dc voltmeter to P11

➢ Check dc voltage to 6V ±2%

- Setting: ANALOG_MOD AM AM_SOURCE_EXT EXT1
  ANALOG_MOD AM AM_EXT_COUPLING AC

➢ Check dc voltage to 0V ±10 mV

- Apply 1kHz/1V peak to ´EXT1´
- Connect ac voltmeter to P11

➢ Check ac voltage to 6V peak ±2%

- Disconnect voltage applied to ´EXT1´
- Setting: ANALOG_MOD AM AM_SOURCE_INT INT
  ANALOG_MOD LFGEN_FREQ 2kHz

➢ Check ac voltage to 6V peak ±2%

7.4.4.3 Setting Modulation Depth

- Connect ac voltmeter to P10
- Setting: ANALOG_MOD AM AM_SOURCE_INT INT
  ANALOG_MOD AM LFGEN_FREQ 1kHz
  ANALOG_MOD AM DEPTH 100%, 50%, 10%, 5%, 1%

➢ Check ac voltage to 6V, 3V, 600mV, 300mV, 60mV peak ±5%

7.4.4.4 Monitoring External AC

- Connect LF to ´EXT1´ via T-junction
- Connect ac voltmeter to T-junction
- Setting: LF_OUTPUT STATE ON
  LF_OUTPUT LFGEN_FREQ 1kHz
  LF_OUTPUT VOLTAGE 1V
  ANALOG_MOD AM AM_SOURCE_EXT EXT1
  ANALOG_MOD AM AM_EXT_COUPLING AC
- Measure voltage at ac voltmeter
- Set LF-generator level to 1V peak
- Connect dc voltmeter to P1 or P3

➢ Check voltage at P1 and P3 to 0V

- Set LF-generator level to 1.03V peak

➢ Check voltage at P1 to 5V

- Set LF-generator level to 0.97V peak

➢ Check voltage at P3 to 5V

7.4.4.5 Setting Preset

- Setting: FREQUENCY 1GHz
  LEVEL 13dBm
  UTILITIES DIAG TPOINT STATE ON
  UTILITIES DIAG TPOINT TEST POINT 2108

➢ Check diagnosis voltage to 2.3V to 4.6V

- Connect dc voltmeter to P54 (C214)

➢ Check the DC voltage to 1.0 to 2.8V

7.4.4.6 Level Setting

- Connect dc voltmeter to P13
- Setting: FREQUENCY 1GHz
  LEVEL 16dBm
  LEVEL LEVEL ATTENUATOR_MODE FIXED
  UTILITIES DIAG TPOINT STATE ON
  UTILITIES DIAG TPOINT TEST POINT 2110

➢ Check dc voltage to -4.2V ±1.3V

- Note measured voltage as Vref

- Setting: LEVEL 10, 4, -2, -8, -14

➢ Check dc voltage at P13 to Vref/2, /4, /8, /16, /32, ±5%

7.4.4.7 2.4-GHz PLL

- Setting: UTILITIES DIAG TPOINT STATE ON
  UTILITIES DIAG TPOINT TEST POINT 2103

➢ Check diagnosis voltage to 50 to 250mV

- Setting: UTILITIES DIAG TPOINT TEST POINT 2105

➢ Check diagnosis voltage to 30 to 100mV

- Setting: UTILITIES DIAG TPOINT TEST POINT 2106

➢ Check diagnosis voltage to 80...180mV

- Disconnect cable at X246 (REF600)
- Setting: UTILITIES DIAG TPOINT TEST POINT 2104

➢ Check diagnosis voltage to -.9 to -.3V

- Connect cable at X246 (REF600)
- Disconnect jumper P30/31

➢ Check diagnosis voltage to 21.5 to 23.5V

- Plug on jumper P30/31

➢ Check diagnosis voltage to 3 to 12V

7.4.4.8 2.4-GHz LO

- Setting: FREQUENCY 1000MHz

➢ Check diagnosis voltage to ±10mV

- Setting: UTILITIES DIAG TPOINT STATE ON
  UTILITIES DIAG TPOINT TEST POINT 2107
  FREQUENCY 100MHz

➢ Check diagnosis voltage to 180mV - 400mV

Adjustment of the LO-level must be carried out only after a sufficient settling time in the mixer mode (frequency < 450 MHz) has elapsed and after the operating temperature has been reached. The adjustment must be carried out with the module opened and the heat dissipator removed (section N only).

- Setting: FREQUENCY 100MHz
- Connect level meter to X3

➢ Adjust level to -4.5dB ±.1dB using poti R968

7.4.4.9 Level Characteristic

- Disconnect jumper P47/46
- Connect first dc-voltage source to P46
- Apply 4V dc
- Disconnect jumper P28/27 (X7)
- Connect second dc-voltage source to P27
- Apply 6V dc
- Setting: LEVEL 16dBm
  UTILITIES DIAG TPOINT STATE ON
  UTILITIES DIAG TPOINT TEST POINT 2113
  FREQUENCY 450, 500...3300MHz

➢ Check diagnosis voltage to >5V

- Setting: UTILITIES DIAG TPOINT TEST POINT 2111
  VECTOR_MOD STATE ON
  FREQUENCY 49; 99...749MHz
- Apply 0.5-V dc voltage at X244 'IMOD'

➢ Check diagnosis voltage to >100mV(f≥200MHz), >40mV(f<200MHz)

- Connect power meter to X249
- Setting: FREQUENCY 50, 100...3300MHz
  VECTOR_MOD STATE OFF

➢ Check output level to >18dBm

- Apply signal FIQFIL to X247 via 16-dB attenuator
- Setting: FREQUENCY 50, 100...3300MHz

➢ Check output level to >7dBm (f < 2 GHz) or <16dBm (f > 2GHz)

- Apply 2.4V dc to first dc-source(P46)
- Setting: FREQUENCY 50, 100...3300MHz

➢ Check output level to <3dBm

7.4.4.10 Output Detector and Detector Adjustment

- Connect dc voltmeter to P57 or P58

➢ Check dc voltage to +15V or -10V ±2%

The text below describes how to test the detector linearity. This test must be performed exclusively with board cover screwed.

- Connect power meter to X249
- Setting: LEVEL 5.1dBm
  LEVEL LEVEL ATTENUATOR_MODE FIXED
  FREQUENCY 5, 500, 1000, 1500 ... 3000MHz
- Measure the output level at X249
- Switch power meter to ΔdB,5.1-dBm level being the reference, respectively
- Setting: LEVEL 10.1, 5.1, 0.1, -4.9....-14.9dBm

➢ Check rated level to ±.2dB for ≥0dBm, ±.4dB for -5dBm, ±.6dB for -10dBm, ±.8dB for -15dBm

- Setting: LEVEL 10dBm
  FREQUENCY 1500MHz
- Measure the output level at X249
- Switch power meter to ΔdB, 10-dBm level being the reference, respectively
- Setting: FREQUENCY 5, 500, 1000, 1500 ... 3000, 3300MHz

➢ Check frequency response to better 4dB

The adjustment of the output detector must not be performed with board uncovered and only after a sufficiently long warm-up time and at correct operating temperature. Remove the label on the cover above the cut-out for the poti R125 to perform the adjustment. Subsequent to adjustment, replace label, perform a preset calibration and update the level correction table.

- Connect power meter to X249
- Setting: LEVEL 5.1dBm
  LEVEL LEVEL ATTENUATOR_MODE FIXED
  LEVEL 5dBm
  FREQUENCY 1500MHz
- Measure output level at X249

- Switch power meter to ΔdB, 5.1-dBm level being reference
- Setting: LEVEL -15dBm

➢ Adjust to -20.0 dB ±.1dB attenuation using poti R125

7.4.4.11 Broadband Noise Output Unit

- Unscrew connection from IQCON X227 to IQMOD X247
- Terminate IQCON X227 with 50Ω
- Connect SMHU to input FIQFIL X247
- Setting SMHU: FREQUENCY see table below
  LEVEL 5.0 dBm
- Setting SMIQ: FREQUENCY see table below
  LEVEL 5.1 dBm
  LEVEL ALC STATE ON
- Connect spectrum analyzer to RF socket SMIQ

➢ Check output level to 5.1dBm ±.1dB and store as 'REF'

- Setting SMIQ: LEVEL ALC STATE OFF
- Setting SMHU: LEVEL OFF
- Setting FSE: CF see table below
  REF LEVEL -50dBm
  INPUT ATTENUATION 0dB
  SPAN 1kHz
  RBW 2kHz
  VBW 5Hz
  MARKER NOISE

➢ Measure noise level in dBm/Hz

➢ Check the signal-to-noise ratio (S/N) = 'REF' noise level to the table values below

FREQUENCY SMIQ in MHz	0.3	1	50-450	500	1000	1500	2000	2500	3300
FREQUENCY SMHU in MHz	2400.3	2401	2450-2850	500	1000	1500	2000	2500	3300
FREQUENCY FSE in MHz	0.3	1	50-450	501	1001	1501	2001	2501	3301
S/N in dBc/Hz without Opt. B46	115	120	135	142	142	142	142	142	142
S/N in dBc/Hz with Opt. B46	115	120	135	143	144	146	147	147	147

7.4.5 IQ-Modulator

7.4.5.1 Reference Voltages

- Connect dc voltmeter to P51 (V67 Pin1) or P52 (V112 Pin1)
➢ Check dc voltage to +10V or -10V ±.3%

- Connect dc voltmeter to P37, P38, P39 and P40, successively
➢ Check dc voltage to 1V, +.707V, -.707V, -1V ±.5%

- Connect dc voltmeter to P20
➢ Check dc voltage to -7.5V ±3%

7.4.5.2 Setting Quadrature

- Connect dc voltmeter to P42 (R98) or P63 (R97)
- Setting: VECTOR_MOD STATE ON
  VECTOR_MOD IMPAIRMENT STATE ON
  VECTOR_MOD QUADRATUR_OFFSET 0°
➢ Check dc voltages to 7.5V ±2.5V and store under 'Ref97' and'Ref98'

- Setting: VECTOR_MOD QUADRATUR_OFFSET +10°
➢ Check dc voltage at R97 to 'Ref97' +1.25V ±.15V
➢ Check dc voltage at R98 to 'Ref98' -1.25V ±.15V

- Setting: VECTOR_MOD QUADRATUR OFFSET -10°
➢ Check dc voltage at R97 to 'Ref97' -1.25V ±.15V
➢ Check dc voltage at R98 to 'Ref98' +1.25V ±.15V

7.4.5.3 Setting Imbalance

- Connect dc voltmeter to P35 or P36
- Setting: VECTOR_MOD STATE ON
  VECTOR_MOD IMPAIRMENT STATE ON
  VECTOR_MOD IMBALANCE 0%
➢ Check the dc voltages to 1.0V ±.1V and store under 'Ref35' and 'Ref36'

- Setting: VECTOR_MOD IMBALANCE +10%
➢ Check dc voltage at P35 to 'Ref35' +0.1V ±25mV
➢ Check dc voltage at P36 to 'Ref36' -0.1V ±25mV

- Setting: VECTOR_MOD IMBALANCE -10%
➢ Check dc voltage at P35 to 'Ref35' -0.1V ±25mV
➢ Check dc voltage at P36 to 'Ref36' +0.1V ±25mV

7.4.5.4 Setting Leakage

- Connect dc voltmeter to P32 or P41
- Setting: VECTOR_MOD STATE ON
  VECTOR_MOD IMPAIRMENT STATE ON
  VECTOR_MOD LEAKAGE 0%
➢ Check the dc voltages to 0V ±100mV and store under 'Ref32' or 'Ref41'

- Setting: VECTOR_MOD LEAKAGE 50%
➢ Check dc voltage at P32 to 'Ref32' +250mV ±50mV

- Setting: VECTOR_MOD LEAKAGE 50%
  VEKTOR_MOD IQ_SWAP ON

➢ Check dc voltage at P32 to´Ref32´ +250mV ±50mV

7.4.5.5 Offset Compensation

- Fasten module cover with screws during calibration
- Setting: VECTOR MOD STATE ON
- Disconnect cable X244/X245
- Start calibration Vector Mod

➢ Measure dc voltage at D1 and D2 Pin1 and Pin2.
Voltage difference between Pin1 and Pin2 smaller than 2mV

7.4.5.6 IQ-Change and Calibration Switch

- Connect dc voltmeter to P15 or P16
- Apply +0.5V dc to X244 ´I-MOD´
- Apply 0V dc to X245 ´Q-Mod´
- Setting: VEKTOR_MOD STATE ON
  VECTOR_MOD IMPAIRMENT STATE ON
  FREQUENCY 2 GHz

➢ Check dc voltage at P15 to -250mV ±50mV
➢ Check dc voltage at P16 to 0mV ±50mV

- Setting: VEKTOR_MOD IQ_SWAP ON

➢ Check dc voltage at P15 to 0mV ±50mV
➢ Check dc voltage at P16 to -250mV ±50mV

- Apply +0V dc to X244 ´I-MOD´
- Apply +0.5V dc to X245 ´Q-MOD´
- Setting: VEKTOR_MOD STATE OFF

➢ Check dc voltage at P15 to -250mV ±50mV
➢ Check dc voltage at P16 to 0mV ±50mV

7.4.5.7 IQ Modulation Path

- Setting: VECTOR_MOD STATE ON
- Connect dc voltmeter to P15 or P16
- Apply +0.5V dc to X244 ´IMOD´ or X245 ´QMOD´

➢ Check dc voltage at P15 or P16 to -250mV ±50mV

- Apply -0.5V dc to X244 ´IMOD´ or X245 ´QMOD´

➢ Check dc voltage at P15 or P16 to -250mV ±50mV

- Connect oscilloscope to P15 or P16
- Apply 1MHz/0.5V peak (terminal voltage) to X244 ´IMOD´ or X245 ´QMOD´

➢ Check voltage at P15 or P16 to 180mV ±35mV rms and store under ´Ref15´ or ´Ref16´

- Apply 25MHz/0.5V peak (terminal voltage) to X244 ´IMOD´ or X245 ´QMOD´

➢ Check voltage at P15 to ´Ref15´ ±.5dB
➢ Check voltage at P16 to ´Ref16´ ±.5dB

7.4.5.8 300-MHz LO

- Setting: UTILITIES DIAG TPOINT STATE ON
  UTILITIES DIAG TPOINT TEST POINT 2114

➢ Check diagnosis voltage to 800mV ± 100mV

- Connect level meter to X4 and/or X5

➢ Check level to -9dBm ±3dB

- Setting: UTILITIES DIAG TPOINT TEST POINT 2118 and/or 2119

➢ Check diagnosis voltage to 360mV ± 70mV

7.4.5.9 Power Ramping Control

- Connect dc voltmeter to P18

➢ Check voltage to 210mV ±20mV

- Connect dc voltmeter to X1

➢ Check voltage to -1.2V ±0.5V

- Connect dc voltmeter to P19

➢ Check voltage to 70mV ±20mV

- Setting: VECTOR MOD STATE ON
  VECTOR MOD POWER RAMP CONTROL EXT_ANALOG
- Apply +0V dc to X243 'BURST CONTROL_MOD'
- Connect dc voltmeter to P19

➢ Check voltage to 2mV ±2mV

- Connect dc voltmeter to X1

➢ Check voltage to -3V ±.1V

- Connect dc voltmeter to P64 (N30 Pin 1)

➢ Check voltage to approx. 5V

- Connect +1V dc to X243 'BURST CONTROL_MOD'

➢ Check voltage to 0V

7.4.5.10 Power Ramping Linearity

- Setting: VEKTOR MOD STATE ON
  POWER RAMP CONTROL EXT-ANALOG
- Connect +0.5V dc to X245 'QMOD'
- Connect +1.000V ±1mV dc to X243 'BURST CONTROL_MOD'
- Connect spectrum analyzer to X242 'IQ300'

➢ Check level to 5dBm ±0.5dB and store under 'Ref'

Linearity check:

- Set dc voltage at X243 to 500±5mV; 250±1mV; 100±1mV; 31.6±0.5mV

➢ Check level to 'Ref' -6dB±0.5dB; -12dB±0.5dB; -20dB±0.5dB; -30dB±1dB

- Linearity adjustment
- Set dc voltage X243 to 50.1 mV ±0.5mV

➢ Adjust level at X242 `IQ300' to ('Ref'-26dB) ±0.1dB using poti R807.

7.4.5.11 IQ300 Output - Level Attenuation

The adjustment described below must be performed after a sufficiently long warm-up time and at correct operating temperature. Calibration of the vector modulator must be performed just before the level adjustment.

- Level adjustment
- Setting: UTILITIES CALIB VECTOR MOD CALIB
  ANALOG_MOD PULSE SOURCE EXT
  ANALOG_MOD PULSE POLARITY INV
- Connect level meter to X242 'IQ300'
➢ Check/adjust level to -5dBm ±0.1dB
➢ Check harmonic suppression to better than -60dBc

- Adjustment of level attenuation
- Setting: ANALOG_MOD PULSE SOURCE OFF
  LEVEL LEVEL ATTENUATOR MODE ELECTRONIC
- Solder R109 (open connection to N43)
- Connect DC voltage source to R109
- Apply -8.5V DC
- Connect level meter to X242 'IQ300'
➢ Adjust level at X242 'IQ300' to -5.0dBm ± 0.1dB using poti R1111
- Remove DC voltage source and solder in R109

7.4.5.12 Level Attenuation Control

- Setting: FREQUENCY 1000 MHZ
  LEVEL 10dBm
  UTILITIES CALIB LEV ATT CALIBRATE
  ANALOG_MOD PULSE SOURCE EXT
  ANALOG_MOD PULSE POLARITY INV
  UTILITIES DIAG TPOINT STATE ON
  UTILITIES DIAG TPOINT TEST POINT 2123
➢ Check diagnosis voltage to 0mV ± 50mV and store as ULEVATT

- Connect dc voltmeter to P17 and/or P59
➢ Check dc voltage to 0.60V ± 0.1V and store value under U59
➢ Check level at X242 'IQ300' to -5.0dBm ± 1dB

- Setting: ANALOG MOD PULSE SOURCE OFF
➢ Check dc voltage at P17 and/or P59 to ULEVATT ± 5mV
➢ Check level at X242 to smaller than -75dBm

- Setting: LEVEL LEVEL ATTENUATOR MODE ELECTRONIC
➢ Check diagnosis voltage (TP2123) to 2*U59 ± 100mV
➢ Check voltage difference between P43, P17 and P59 to smaller than 2mV
➢ Check level at X242 'IQ300' to -5.0dBm ± 1dB

7.4.5.13 Pulse Modulation Control

- Setting: ANALOG MOD PULSE SOURCE EXT
  ANALOG MOD PULSE POLARITY NORM
- Connect dc voltmeter to D50 and/or D51 pin 4

➢ Check voltage to 0V ± 0.5V

- Connect dc voltmeter to D50 and/or D51 pin 5

➢ Check voltage to -6.5V ± 1V

- Setting: ANALOG MOD PULSE POLARITY INV
- Connect dc voltmeter to D50 and/or D51 pin 4

➢ Check voltage to -6.5V ± 0.5V

- Connect dc voltmeter to D50 or D51 pin 5

➢ Check voltage to 0V ± 0.5V

7.4.5.14 IQ-Detector and Detector Adjustment

- Setting: LEVEL 0dBm
  UTILITIES DIAG TPOINT STATE ON
  UTILITIES DIAG TPOINT TEST POINT 2121

➢ Check diagnosis voltage to below 50mV

- Solder out R85 and apply +5V DC to D57 pin4
- Setting: LEVEL LEVEL ATTENUATOR MODE ELECTRONIC

➢ Check diagnosis voltage to 8.4V...12.3V

Testing and adjusting the level linearity of the IQ detector as described below must not be performed with board uncovered and only after a sufficiently long warm-up time and at correct operating temperature.

- Synchronize analyzer and SMIQ with one another (connect 10-MHz references)
- Setting: LEVEL 0dBm
  UTILITIES REF_OSC SOURCE EXT
  UTILITIES CALIB LEV ATT CALIBRATE
  LEVEL LEVEL ATTENUATOR MODE ELECTRONIC

- Apply 0V DC to D57 pin4
- Connect spectrum analyzer to X242 'IQ300'

➢ Check level to -5dBm ±.5dB and store under 'Ref'

- Apply +5V DC to D57 pin4

➢ Measure diagnosis voltage(TP2121) and store under 'RefDiag'

- Apply 0V DC to D57 pin4
- Set level to -40dBm and set the output signal at X242 'IQ300' to 'Ref - 40.0dB' by varying the level.
- Apply +5V DC to D57 pin4

➢ Adjust diagnosis voltage (TP2121) to 'RefDiag'-40dB using poti R930

➢ Repeat procedure for attenuations of 5 to 35 dB in 5-dB steps and check deviation of diagnosis voltage to below 0.4 dB (take care not to change the adjustment!!)

- Solder R85 in again.

7.4.5.15 IQAM

- Setting: VECTOR_MOD STATE ON
  ANALOG MOD AM AM DEPTH 80%
  ANALOG MOD AM AM SOURCE INT INT
  ANALOG MOD AM LFGEN FREQ 20.000 kHz
- Apply +5-V dc voltage to X244 `IMOD´
- Connect AC voltmeter to P35 and/or P36
- ➢ Check voltage to 275mV ±20mV (rms value)

- Connect spectrum analyzer to X242 ´IQ300´
- ➢ Check carrier to -11dBm ±1dB and store under `carrier´
- ➢ Check 300MHz ±20kHz sidebands to (`carrier´-8dB) ±0.5dB
- ➢ Check harmonic sidebands to below (`carrier´-40dB)

7.4.5.16 Frequency Response IQ Modulator

-without option or with option B46 with IQ FILTER OFF

- Setting: VECTOR_MOD STATE ON
- Connect spectrum analyzer to X242 ´IQ300´
- Connect 30 MHz 0.5V_p to X244 ´IMOD´ or X245 ´QMOD´
- ➢ Check the 270-MHz signal at X242 to -11dBm ± 1dB and store under ´REF´
- ➢ Check the 330-MHz signal at X242 to ´REF´ ± 1dB

- Sweep frequency at ´IMOD´ and/or ´QMOD´ from 0 to 30MHz
- ➢ Check frequency response < 1dB

- with Option B46 with IQ FILTER 2.5MHz

- Setting: VECTOR_MOD STATE ON
  VECTOR_MOD IQ_FILTER 2.5MHz
- Apply signal with 0.25; 0.75; 1.5; 2; 3 and 5MHz and 0.5V_p at ´IMOD´ and/or ´QMOD´
- Connect spectrum analyzer to X242 ´IQ300´
- ➢ Check reference value at 300.25MHz to -11dBm ± 1dB and store under ´REF´
- ➢ Check frequency response at ´IQ300 referred to ´REF´

Frequency/MHz	300.75	301.5	302	303	305
Nom. value/dB	-0.25	-0.45	-0.55	-5	-32
Tolerance/dB	±0.1	±0.1	±0.2	+1/-3	±5

7.4.5.17 Broadband Noise IQ Modulator

- Setting: FREQUENCY 3.1GHz
- Connect spectrum analyzer to X242 ´IQ300´
- ➢ Check the 300-MHz signal to -5.0dBm ± 1dB and store under ´REF´

- Setting: VECTOR_MOD STATE ON
  VECTOR_MOD CALIBRATE
  VECTOR_MOD IQ_FILTER 2.5MHz (nur bei Option B46)
- ➢ Check the 300-MHz signal to < -55dBm

- Setting FSE: CF 305 MHz
  REF LEVEL -50dBm
  INPUT ATTENUATION 0dB
  SPAN 1kHz
  RBW 2kHz
  VBW 5Hz
  MARKER NOISE
- Measure noise level at 305MHz in dBm/Hz
  (With noise levels below -150dBm/Hz the measured value of the FSE should be corrected by the inherent noise of the analyzer!!)
- ➢ Check the signal-to-noise ratio = 'REF' - noise level to
  greater than 139dBc/Hz (without Option B46)
  greater than 148dBc/Hz (with Option B46)

7.4.6 Board Interrupt

- Setting: FREQUENCY 1GHZ
- Disconnect signal 'REF600' from X246
- Press the ERROR key
- ➢ Error message: Code 224, 2.4GHZ LO LOOP UNLOCKED

- Reconnect signal 'REF600'
- ➢ Error message: none

- Unplug jumper P30/P31
- ➢ Error message: Code 224, 2.4GHZ LO LOOP UNLOCKED

- Plug in jumper P30/P31 again
- Disconnect signal 'FIQFIL' from X247
- ➢ Error message: Code 110, OUTPUT UNLEVELED

- Apply signal 'FIQFIL' again
- Setting: ANALOG_MOD AM AM_SOURCE_EXT EXT1
  ANALOG_MOD AM AM_EXT_COUPLING AC
- Apply 1kHz/1V peak to 'EXT1'
- Press the ERROR key
- ➢ Error message: none

- Apply 1kHz/1.04V peak to 'EXT1'
- ➢ Error message: Code 152, INPUT VOLTAGE OUT OF RANGE;EXT1 TOO HIGH

- Apply 1kHz/0.96V peak to 'EXT1'
- ➢ Error message: Code 153, INPUT VOLTAGE OUT OF RANGE;EXT1 TOO LOW

7.4.7 Diagnosis

The board contains 24 RF and dc test points in all. They are selected via the 'UTILITIES DIAG TPOINT POINT 21??' menu. The first two digits relate to the 'IQMOD' (21) board, the subsequent two digits are provided to number the diagnostic points.

IR=Supplies board interrupt, DF=divider factor, War=waiting time
OF=Offset measurement, MIN=Minimum, MAX=Maximum

Diagnostic point	Test point	IR	MIN [V]	MAX [V]	TF	WAR ms	OF
2100 D_OFFSET	Reference 1kΩ		-.01	+.01	1	1	
2101 D_REF10V	10-V reference voltage		9.8	10.2	3	1	X
2102 D_LFGEN	Output level LF generator		-1.02	+1.02	3	1	
2103 D_REF600	Level 600-MHz reference for 2.4-GHz PLL		.05	.18	1		
2104 D_TUN2G4	Tuning voltage 2.4GHz VCO	X	3	18	5	1	
2105 D_VCO2G4	Level 2G4 VCO		0.03	.10	1	1	
2106 D_PHIDET	Level 600MHz Reference signal for 2.4-GHz PLL		.05	.18	1	1	
2107 D_LO2G4	LO level down converter on,(off)		.2, (-.02)	.4, (+.02)	1	1	
2108 D_PRESET	Tuning voltage Preset element		2.3	4.5	3	1	
2109 D_AMOD	Tuning voltage AM modulator	X	.02	6	3	3	
2110 D_REFAM	AM reference signal		-6	0	3	1	
2111 D_CONVRT	Level IF path down converter on ,(off)		.005, (-1mV)	.1, (+1mV)	1	1	
2112 D_SWITCH	Level subsequent to AM modulator		.005	.4	1	1	
2113 D_DETOUT	Output detector output amplifier		.05	6	3	1	
2114 D_REF300	300-MHz level for IQ modulator		.6	1.0	1	1	
2115 D_IQOUT	Output level IQ modulator		0	.3	1	1	
2116 D_IMOD	Level modulation input I path		-.5	+.5	2	1	
2117 D_QMOD	Level modulation input Q path		-.5	+.5	2	1	
2118 D_ILO	Level LO I path		.2	.6	1	1	
2119 D_QLO	Level LO Q path		.2	.6	1	1	
2120 D_PHI	Control voltage phase shifter		3.5	13	3	1	
2121 D_IQCAL	Calibration detector IQ modulator		0	12.5	3	5	X
2122 D_BURST	Control voltage burst element		-4	-0.5	3	1	
2123 D_LEVATT	Tuning voltage level attenuation elements		0	1.5	3	1	

7.4.8 Operating Points of Amplifier Stages

The table below lists the operating points for the RF amplifiers of the module, respectively. Tolerances from 10% to 20% may occur and do not indicate any error. The data given always relate to the dc operating point without any RF signal being applied.
The values in brackets apply to modules including the Option B46 .

Amplifier	Operating point	
Designation	Drain / collector current	Drain / collector voltage
V82	50mA	5.0V
V81	60mA	5.0V
V83	130mA	8.0V
V75	90mA	9.5V
V77	90mA	9.5V
N46	85mA (75mA)	5.0V (4.5V)
N47	85mA (75mA)	5.0V (4.5V)
N45	85mA (75mA)	5.0V (4.5V)
N44	85mA (75mA)	5.0V (4.5V)
N38	85mA	5.0V
V80	90mA	9.5V
V102	90mA	6.0V
N4	65mA (80mA)	5.0V (3.0V)
V148	70mA	4.0V
V144	70mA	4.5V
V103	120mA	7.0V
V104	135mA	7.3V
V111	30mA	-5.5V
V145	60mA	4.5V
V146	60mA	4.5V
V154	60mA	5.5V
V147	60mA	5.5V
V99	150mA	6.5V

7.5 Removal and Assembly

After opening the instrument, unlocking the board and disconnecting the RF connections at X241 to X249, the module can be removed from its slot. The screening covers of the board are screwed in the conventional way. When operating the instrument with open screening cover, make sure to close the resonator chamber M using an appropriate test cover.

7.6 External Interface

Pin	Name	Input/ Output	Origin/ Destination	Specified range	Signal description
X240.A1	BLANK	Input	A3, FRO X31.34	HCT-Level	Level blanking
X240.A2	UREFAM	Output	A500, IQ6G X500.2	0 to 12V	AM command value
X240.A3	LFOUT	Output	A3, FRO LF	0 to 4V peak, .1Hz..1MHz	Output AF generator
X240.A4	EXT1	Input	A3, FRO EXT	0 to 1V Spitze	External modulation signal
X240.A5	EXT2				not used
X240.A6	INT1	Output	Option FMOD	0 to 1V Spitze	Internal modulation signal
X240.A7	Ground				
X240.A8	PULSE	Input	Rückwand	HCT level	Pulse modulation
X240.A9	CODAM	Input	DDS	0 to 1V peak	DSYN AM signal
X240.A10	LEV ATT_MOD	Input	MCOD	HCT level	Level attenuation
X240.A11	Ground				
X240.A12	SERBUS-CLK	Input	A3, FRO, X31.40	HCT level	Serbus Clock
X240.A13	Ground				
X240.A14	SERBUS-OUT	Output	A3, FRO, X31.39	HCT level	Serbus data
X240.A15	SERBUS-IN	Input	A3, FRO, X31.39	HCT level	Serbus data
X240.A16	SERBUS-SYNC	Input	A3, FRO, X31.37	HCT level	Serbus Sync
X240.A17	SERBUS-INT	Output	A3, FRO, X31.38	HCT level	Serbus Interrupt
X240.A18	Reset-P	Input	A3, FRO, X31.28	HCT level	Serbus Reset
X240.A19	DIAG-5V	Output	A3, FRO, X31.44	-5V to +5V	Diagnosis
X240.A20	VA15-P	Input	A2, POWS	14.85...15.75V 600mV	15V power supply
X240.A21	Ground				
X240.A22	VA24-P	Input	A2, POWS	23.75 to 25.25V 200mA	24V power supply
X240.A23	Ground				
X240.A24	VA15-P	Input	A2, POWS	14.85 to 15.75V 600mA	15V power supply
X240.A25	Ground				
X240.A26	VA7.5-P	Input	A2, POWS	7.45 to 7.95V 450mA	7.5V power supply
X240.A27	Ground				
X240.A28	VD5-P	Input	A2, POWS	5.15 to 5.25V 140mA	5V digital power supply
X240.A29	Ground				
X240.A30	VA15-N	Input	A2, POWS	-15.75.-14.85V 300mA	-15V power supply
X240.A31	Ground				
X240.A32	VA7.5-P	Input	A2, POWS	7.45...7.95V 450mA	7.5V power supply
X241	IQAUX	Output	Rear panel	300MHz/-10dBm	Vector-modulated carrier rear panel
X242	IQ300	Output	A220, IQCON X223	300MHz/-5dBm	Vector-modulated carrier IQCON
X243	BURST CTRL_MOD	Input	Rear panel	0 to 1V	Control signal power ramping
X244	I_MOD	Input	A3, FRO I_MOD	-0.5 to +0.5V 0 to 30MHz	Modulation input I
X245	Q_MOD	Input	A3, FRO	-0.5 to +0.5V	Modulation input Q

Pin	Name	Input/ output	Origin/ destination	Specified range	Signal description
			Q_MOD	0 to 30MHz	
X246	REF600	Input	A7, REFSTEP X77	600MHz/13dBm	Reference 600MHz
X247	FIQFIL	Input	A220, IQCON X227	450 to 3300MHz/ 4dBm	Vector-modulated signal
X249	FIQOUT	Output	A15, ATT X2	.3 to 3300MHz -20 to 19dBm	Output signal

ROHDE&SCHWARZ

Schaltteillisten
numerisch geordnet

Part lists
in numerical order

Listes des pièces détachées
par numéros de référence

095.1000 Bl. 3

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
.	XX VARIANTENERKLAERUNG IDENTIFICATION OF MODELS				
B1	ER SCPQ-400 2WEG-L.TEILER 2WAY POWER DIVIDER	1085.1649.00	MINI-CIRCU	SCPQ-400	
C1	CE 4,7UF+-10% 10V 3528 TANTALUM CHIP CAPACITOR	CE 0007.7275.00	SPRAGUE	293D 475 X9 010 B2T	
C2	CE 4,7UF+-10% 10V 3528 TANTALUM CHIP CAPACITOR	CE 0007.7275.00	SPRAGUE	293D 475 X9 010 B2T	
C3	CC 3,3NF+-1% 50V NPO 1206 SMD-CERAMIC CAPACITOR	0010.2970.00	MURATA	GRM42-6C0G332F50PT	
C4	CC 3,3NF+-1% 50V NPO 1206 SMD-CERAMIC CAPACITOR	0010.2970.00	MURATA	GRM42-6C0G332F50PT	
C5	CC 5,6PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4521.00	MURATA	GRM39C0G***B50ZPT	
C6	CC 5,6PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4521.00	MURATA	GRM39C0G***B50ZPT	
C7	CC 1,5PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4450.00	MURATA	GRM39C0G***B50ZPT	
C8	CC 5,6PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4521.00	MURATA	GRM39C0G***B50ZPT	
C9	CC 1,5PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4450.00	MURATA	GRM39C0G***B50ZPT	
C10	CC 5,6PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4521.00	MURATA	GRM39C0G***B50ZPT	
C11	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
C12 ..14	CC 5,6PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4521.00	MURATA	GRM39C0G***B50ZPT	
C15	CC 0,7PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7150.00	AVX	0603 5J *** AAW TR	
C16	CC 5,6PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4521.00	MURATA	GRM39C0G***B50ZPT	
C17	CC 5,6PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4521.00	MURATA	GRM39C0G***B50ZPT	
C18	CC 1,5PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4450.00	MURATA	GRM39C0G***B50ZPT	
C19	CC 5,6PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4521.00	MURATA	GRM39C0G***B50ZPT	
C20	CC 4,7PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4538.00	MURATA	GRM39C0G***B50ZPT	
C21	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C22	CE 4,7UF+-10% 10V 3528 TANTALUM CHIP CAPACITOR	CE 0007.7275.00	SPRAGUE	293D 475 X9 010 B2T	
C23	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C24	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C25 ..27	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C28	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C29	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C30 ..32	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C33	CC 1,0PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8304.00	MURATA	GRM39C0G***B50ZPT	
C34	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C35 ..37	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C38	CC 220PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4721.00	MURATA	GRM39C0G***F50ZPT	
C39	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C40	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C41 ..43	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C44 ..46	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C47	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C48	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	

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1GPK 853 3PLU	Äi	Datum Date	Schaltteilliste für Parts list for	Sachnummer Stock No.	Blatt-Nr. Page
ROHDE&SCHWARZ	68	11.08.99	EE IQ-MODULATOR IQ-MODULATOR	1084.9800.01 SA	1+

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C49	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C50	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C51 ..56	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C57	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C58	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C59	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C60	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C61	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C62	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C63	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C64 ..66	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C67	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C68	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C69	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR NUR VAR/ONLY MOD: 02	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C69	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR NUR VAR/ONLY MOD: 04	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C69	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR NUR VAR/ONLY MOD: 06	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C69	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR NUR VAR/ONLY MOD: 08	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C70	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C71 ..82	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C83	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C84	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C85	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C86	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
C87	CE 4,7UF +-10% 25V 7343 TANTALUM CHIP CAPACITOR	CE 0007.7230.00	SPRAGUE	293D475X9035D2W	
C88	CE 4,7UF +-10% 25V 7343 TANTALUM CHIP CAPACITOR	CE 0007.7230.00	SPRAGUE	293D475X9035D2W	
C89	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C90	CC 8,2PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4550.00	MURATA	GRM39C0G***B50ZPT	
C91 ..98	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C99	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C100 ..106	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C107	CC 0,3PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7114.00	AVX	0603 5J *** AAW TR	
C108	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C109	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C110	CE 4,7UF+-10% 10V 3528 TANTALUM CHIP CAPACITOR	CE 0007.7275.00	SPRAGUE	293D 475 X9 010 B2T	
C111 ..118	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C119	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C120 ..122	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C123	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
C124	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
C125	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C126	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C127	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C128	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C129	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C130	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C131	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C132	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C133	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C134	CC 270PF+-10% 50VHDK 0603 SMD CERAMIC CAPACITOR	CC 1097.6370.00	VITRAMON	VJ0603Y***KXAT	
C135	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C136	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C137	CC 4,7PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4538.00	MURATA	GRM39C0G***B50ZPT	
C138	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C139	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C140	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C141 ..145	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C146	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C147	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C148	CE 4,7UF+-10% 10V 3528 TANTALUM CHIP CAPACITOR	CE 0007.7275.00	SPRAGUE	293D 475 X9 010 B2T	
C149	CE 10UF +-10% 25V 7343 TANTALUM SMD-CAPACITOR	CE 0007.7246.00	SPRAGUE	293D 106 X9 025 D2W	
C150	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C151	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C152	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C153 ..156	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C157	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C158	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C159 ..161	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C162	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	CC 1097.6292.00	PHILIPS_CO	2238 786 16649	
C163	CE 10UF +-10% 10V 6032 TANTALUM CHIP CAPACITOR	CE 0007.7281.00	SPRAGUE	293D-106X9 016 C2W	
C164 ..167	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C168	CC 2,7PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8291.00	MURATA	GRM39C0G***B50ZPT	
C169	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C170 ..173	CE 4,7UF+-10% 10V 3528 TANTALUM CHIP CAPACITOR	CE 0007.7275.00	SPRAGUE	293D 475 X9 010 B2T	
C174	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C175	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C176	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C177	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C178	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C180	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C181	CC 1UF+-10% 50V X7R 2220 CERAMIC CAPACITOR	CC 0520.6873.00	AVX	2220 5C 105 KAT**A(F	
C182	CC 220PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4721.00	MURATA	GRM39COG***F50ZPT	
C183	CC 220PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4721.00	MURATA	GRM39COG***F50ZPT	
C184	CC 1UF+-10% 50V X7R 2220 CERAMIC CAPACITOR	CC 0520.6873.00	AVX	2220 5C 105 KAT**A(F	
C185	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C186	RG 0-OHM WIDERSTAND 0603 SMD RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
C187	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C188	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C189	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C190	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C191	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C192	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C193	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C194 ..199	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C200	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C201	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C202	CE 10UF +-10% 10V 6032 TANTALUM CHIP CAPACITOR	CE 0007.7281.00	SPRAGUE	293D-106X9 016 C2W	
C203	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C204	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C205	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	CC 1097.6292.00	PHILIPS_CO	2238 786 16649	
C206	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	CC 1097.6292.00	PHILIPS_CO	2238 786 16649	
C207	CE 10UF +-10% 10V 6032 TANTALUM CHIP CAPACITOR	CE 0007.7281.00	SPRAGUE	293D-106X9 016 C2W	
C208	CC 27PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0010.9323.00	MURATA	GRM39COG***F50ZPT	
C209	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C210	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C211	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C212	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C213	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C214	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39COG***F50ZPT	
C215	CC 10PF+-1% 50V COG 0603 SMD-CERAMIC CAPACITOR	CC 0008.2183.00	AVX	0603 5J 100 FAW TR	
C216	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C217	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C218	CC 3,3NF+-1% 50V NPO 1206 SMD-CERAMIC CAPACITOR	0010.2970.00	MURATA	GRM42-6COG332F50PT	
C219	CC 3,3NF+-1% 50V NPO 1206 SMD-CERAMIC CAPACITOR	0010.2970.00	MURATA	GRM42-6COG332F50PT	
C220	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C221	CC 1,0PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8304.00	MURATA	GRM39COG***B50ZPT	

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C222	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C223	CC 1,0PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8304.00	MURATA	GRM39COG***B50ZPT	
C224 ..228	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C229	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C230	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C231	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C232	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C233	CC 220PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4721.00	MURATA	GRM39COG***F50ZPT	
C234	CC 4,7PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4538.00	MURATA	GRM39COG***B50ZPT	
C235	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C236	CC 0,5PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7137.00	AVX	0603 5J *** AAW TR	
C237	CE 10UF +-10% 10V 6032 TANTALUM CHIP CAPACITOR	CE 0007.7281.00	SPRAGUE	293D-106X9 016 C2W	
C238	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C239	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C240	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C241	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C242 ..244	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C245	CC 0,5PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7137.00	AVX	0603 5J *** AAW TR	
C246	CE 4,7UF+-10% 10V 3528 TANTALUM CHIP CAPACITOR	CE 0007.7275.00	SPRAGUE	293D 475 X9 010 B2T	
C247	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C248	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C249	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C250	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C251	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C252	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C253	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C254	CE 4,7UF+-10% 10V 3528 TANTALUM CHIP CAPACITOR	CE 0007.7275.00	SPRAGUE	293D 475 X9 010 B2T	
C255	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C256	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C257	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C258	CC 2,2PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4467.00	MURATA	GRM39COG***B50ZPT	
C259 ..262	CC 220PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4721.00	MURATA	GRM39COG***F50ZPT	
C263	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C264	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C265	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C266 ..269	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C270	CC 15PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8227.00	MURATA	GRM39COG***F50ZPT	
C271	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C272 ..280	CC 15PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8227.00	MURATA	GRM39COG***F50ZPT	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C281	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C282	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C283	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
C284 ..288	CC 15PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8227.00	MURATA	GRM39C0G***F50ZPT	
C289	CC 220PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4721.00	MURATA	GRM39C0G***F50ZPT	
C290	CC 4,7PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4538.00	MURATA	GRM39C0G***B50ZPT	
C291	CC 2,2PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4467.00	MURATA	GRM39C0G***B50ZPT	
C292	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C293	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C294	CE 100UF+-20%16V RUND SMD SMD-ELECTOLYTIC CAPACIT.	CE 0009.6553.00	SANYO	16CV100F(G)S	
C295 ..302	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C303	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C304	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C305	CC 1,5PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4450.00	MURATA	GRM39C0G***B50ZPT	
C306	CC 4,7PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4538.00	MURATA	GRM39C0G***B50ZPT	
C307	CC 82PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 1097.6363.00	MURATA	GRM39C0G***F50ZPT	
C308 ..313	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
C314	CC 470PF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4896.00	MURATA	GRM39X7R***K5C500PT*	
C315	RG 0-OHM WIDERSTAND 0603 SMD RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
C316	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C317	CC 2,2NF+-1% 50V NPO 1206 SMD-CERAMIC CAPACITOR	0010.2964.00	MURATA	GRM42-6C0G222F50PT	
C318	CC 2,2NF+-1% 50V NPO 1206 SMD-CERAMIC CAPACITOR	0010.2964.00	MURATA	GRM42-6C0G222F50PT	
C319	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
C320	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C321 ..325	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
C326	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C327 ..329	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
C330	CC 0,3PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7114.00	AVX	0603 5J *** AAW TR	
C331	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
C332	CE 22UF+-20%35V RUND SMD SMD ELECTROLYTIC CAPACIT.	CE 0009.6253.00	PANASONIC	EEV HB 1V 220P	
C333	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
C334	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C335 ..343	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
C344	CC 3,3PF 0, 1PF50V NPO 06 SMD-CERAMIC-CAPACITOR	CC 0009.8285.00	MURATA	GRM39C0G***B50ZPT	
C345 ..348	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
C349	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C350	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C351	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C352	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C353	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C354	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C355 ..357	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C358	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C359	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C360 ..362	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C363	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C364	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C365	CC 10PF+-1% 50V COG 0603 SMD-CERAMIC CAPACITOR	CC 0008.2183.00	AVX	0603 5J 100 FAW TR	
C366	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C367	CC 1,5PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4450.00	MURATA	GRM39COG***B50ZPT	
C368	CC 1,0PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8304.00	MURATA	GRM39COG***B50ZPT	
C369	CC 10PF+-1% 50V COG 0603 SMD-CERAMIC CAPACITOR	CC 0008.2183.00	AVX	0603 5J 100 FAW TR	
C370	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C371	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C372	CC 0,3PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7114.00	AVX	0603 5J *** AAW TR	
C373	CC 10PF+-1% 50V COG 0603 SMD-CERAMIC CAPACITOR	CC 0008.2183.00	AVX	0603 5J 100 FAW TR	
C374	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C375 ..378	CC 3,3PF 0, 1PF50V NPO 06 SMD-CERAMIC-CAPACITOR	CC 0009.8285.00	MURATA	GRM39COG***B50ZPT	
C379	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C380	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C381	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C382	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C383	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C384	CC 39PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.9730.00	MURATA	GRM39COG***F50ZPT	
C385	CC 39PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.9730.00	MURATA	GRM39COG***F50ZPT	
C386	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C387	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C388	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C389	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C390 ..392	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C393	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C394	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C395	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C396	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C397	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C398	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C399	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C400	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C401 ..403	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C404 ..407	CC 8,2PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4550.00	MURATA	GRM39C0G***B50ZPT	
C408	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C409	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C410	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
C411	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C412	CC 82PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 1097.6363.00	MURATA	GRM39C0G***F50ZPT	
C413 ..415	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C416	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C417	CC 1UF+-10% 50V X7R 2220 CERAMIC CAPACITOR	CC 0520.6873.00	AVX	2220 5C 105 KAT**A(F	
C418	CC 1UF+-10% 50V X7R 2220 CERAMIC CAPACITOR	CC 0520.6873.00	AVX	2220 5C 105 KAT**A(F	
C419	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C420	CC 0,8PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7166.00	AVX	0603 5J *** AAW TR	
C421	CC 1,2PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4444.00	MURATA	GRM39C0G***B50ZPT	
C422	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C423	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C424	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C425	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C426	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	CC 1097.6292.00	PHILIPS_CO	2238 786 16649	
C427	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C428	CC 470PF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4896.00	MURATA	GRM39X7R***K5C500PT*	
C429 ..434	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C435	CC 10PF+-1% 50V C0G 0603 SMD-CERAMIC CAPACITOR	CC 0008.2183.00	AVX	0603 5J 100 FAW TR	
C436	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
C437	CC 220PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4721.00	MURATA	GRM39C0G***F50ZPT	
C438 ..441	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C442	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C443	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C444	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C445	CC 0,4PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7120.00	AVX	0603 5J *** AAW TR	
C446	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C447	CC 15NF+-5% 25V HDK 0603 SMD CAPACITOR	CC 0048.4064.00	MURATA	GRM39X7R153J25PT	
C448 ..451	CC 2,2PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4467.00	MURATA	GRM39C0G***B50ZPT	
C452	XX ENTHALTEN IN INCLUDED IN				
C453	CC 0,6PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7143.00	AVX	0603 5J *** AAW TR	
C454	CC 3,3PF 0, 1PF50V NPO 06 SMD-CERAMIC-CAPACITOR	CC 0009.8285.00	MURATA	GRM39C0G***B50ZPT	
C455	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C456	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C457	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C458	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C459	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C460 ..462	CC 470PF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4896.00	MURATA	GRM39X7R***K5C500PT*	
C463	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C464	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C465	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C466	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C467	CC 470PF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4896.00	MURATA	GRM39X7R***K5C500PT*	
C468	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C469	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C470 ..473	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C474	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C475	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C476	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C477	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C478	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C479	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C480	CE 100UF+-20%16V RUND SMD SMD-ELECTOLYTIC CAPACIT.	CE 0009.6553.00	SANYO	16CV100F(G)S	
C481	CC 3,3NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0048.5390.00	MURATA	GRM39X7R332K5C500PT	
C482	CC 0,6PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7143.00	AVX	0603 5J *** AAW TR	
C483	CC 220PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4721.00	MURATA	GRM39C0G***F50ZPT	
C484	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C485	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C486	CC 0,7PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7150.00	AVX	0603 5J *** AAW TR	
C487	CC 4,7PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4538.00	MURATA	GRM39C0G***B50ZPT	
C488	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	CC 1097.6292.00	PHILIPS_CO	2238 786 16649	
C489	CC 4,7PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4538.00	MURATA	GRM39C0G***B50ZPT	
C490	CC 4,7PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4538.00	MURATA	GRM39C0G***B50ZPT	
C491	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C492	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C493	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C494	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C495	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C496	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C497	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C498 ..500	CC 0,3PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7114.00	AVX	0603 5J *** AAW TR	
C501	CC 0,2PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7108.00	AVX	0603 5J *** AAW TR	
C502	CC 0,1PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7095.00	AVX	0603 5J *** AAW TR	
C503	CC 0,3PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7114.00	AVX	0603 5J *** AAW TR	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C504	CC 0,2PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7108.00	AVX	0603 5J *** AAW TR	
C505	CC 0,6PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7143.00	AVX	0603 5J *** AAW TR	
C506	CC 0,4PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7120.00	AVX	0603 5J *** AAW TR	
C507	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C508	CE 22UF+-20%35V RUND SMD SMD ELECTROLYTIC CAPACIT.	CE 0009.6253.00	PANASONIC	EEV HB 1V 220P	
C509	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C510	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C511 ..513	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C514	CE 100UF+-20%16V RUND SMD SMD-ELECTOLYTIC CAPACIT.	CE 0009.6553.00	SANYO	16CV100F(G)S	
C515	CE 22UF+-20%35V RUND SMD SMD ELECTROLYTIC CAPACIT.	CE 0009.6253.00	PANASONIC	EEV HB 1V 220P	
C516	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C517	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C518	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C519	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C520	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C521	CE 4,7UF +-10% 25V 7343 TANTALUM CHIP CAPACITOR	CE 0007.7230.00	SPRAGUE	293D475X9035D2W	
C522	CE 4,7UF +-10% 25V 7343 TANTALUM CHIP CAPACITOR	CE 0007.7230.00	SPRAGUE	293D475X9035D2W	
C523	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C524	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C525	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C526	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C527	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C528	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C529	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C530 ..534	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C535 ..540	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C541	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C542	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C543	CC 0,3PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7114.00	AVX	0603 5J *** AAW TR	
C544 ..546	CC 1,0PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8304.00	MURATA	GRM39C0G***B50ZPT	
C547	CC 220PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4721.00	MURATA	GRM39C0G***F50ZPT	
C548	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C549	CC 4,7NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4809.00	MURATA	GRM39X7R***K5C500PT*	
C550	CC 2,2PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4467.00	MURATA	GRM39C0G***B50ZPT	
C551	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C552	CC 3,3PF 0, 1PF50V NPO 06 SMD-CERAMIC-CAPACITOR	CC 0009.8285.00	MURATA	GRM39C0G***B50ZPT	
C553	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
C554	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
C555	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C556	CC 2,2PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4467.00	MURATA	GRM39C0G***B50ZPT	
C557	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C558	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
C559	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
C560	CC 5,6PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4521.00	MURATA	GRM39C0G***B50ZPT	
C561	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
C562	CC 3,3PF 0, 1PF50V NPO 06 SMD-CERAMIC-CAPACITOR	CC 0009.8285.00	MURATA	GRM39C0G***B50ZPT	
C563	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C564	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C565	CC 8,2PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4550.00	MURATA	GRM39C0G***B50ZPT	
C566	CC 470PF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4896.00	MURATA	GRM39X7R***K5C500PT*	
C567	CC 2,2PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4467.00	MURATA	GRM39C0G***B50ZPT	
C568	CC 680PF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0007.7375.00	MURATA	GRM42-6C0G 681F 50PT	
C569	CC 0,5PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7137.00	AVX	0603 5J *** AAW TR	
C570	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
C571	CC 39PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.9730.00	MURATA	GRM39C0G***F50ZPT	
C572	CC 18PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0048.3622.00	MURATA	GRM39C0G***F50ZPT	
C573	CC 1,0PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8304.00	MURATA	GRM39C0G***B50ZPT	
C574	CE 4,7UF+-10% 10V 3528 TANTALUM CHIP CAPACITOR	CE 0007.7275.00	SPRAGUE	293D 475 X9 010 B2T	
C575	CE 10UF +-10% 10V 6032 TANTALUM CHIP CAPACITOR	CE 0007.7281.00	SPRAGUE	293D-106X9 016 C2W	
C576	CE 10UF +-10% 10V 6032 TANTALUM CHIP CAPACITOR	CE 0007.7281.00	SPRAGUE	293D-106X9 016 C2W	
C577	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C578	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C579	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
C580	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C581	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C582	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C583 ..588	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C589	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
C590	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
C591	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
C592	CC 1,8PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4473.00	MURATA	GRM39C0G***B50ZPT	
C593	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
C594	CC 6,8PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8262.00	MURATA	GRM39C0G***B50ZPT	
C595	CC 4,7PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4538.00	MURATA	GRM39C0G***B50ZPT	
C596	CC 4,7PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4538.00	MURATA	GRM39C0G***B50ZPT	
C597	CC 680PF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0007.7375.00	MURATA	GRM42-6C0G 681F 50PT	
C598	CC 0,6PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7143.00	AVX	0603 5J *** AAW TR	
C599	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C600	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
C601	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C602	CC 220PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4721.00	MURATA	GRM39C0G***F50ZPT	
C603	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C604	CC 39PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.9730.00	MURATA	GRM39C0G***F50ZPT	
C605	CC 220NF+-10%50V X7R 1210 CERAMIC CAPACITOR CHIP	CC 0520.6850.00	AVX	1210 5C 224KA 11A	
C606	CE 220UF 20% 10V SMD TANTALUM SMD CAPACITOR	1081.1873.00	SPRAGUE	595D227X0010R2T	
C607	CE 220UF 20% 10V SMD TANTALUM SMD CAPACITOR	1081.1873.00	SPRAGUE	595D227X0010R2T	
C608	CE 4,7UF+-10% 10V 3528 TANTALUM CHIP CAPACITOR	CE 0007.7275.00	SPRAGUE	293D 475 X9 010 B2T	
C609	CC 1,8PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4473.00	MURATA	GRM39C0G***B50ZPT	
C610	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
C611	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
C612	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C613	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
C614	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
C615	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C616	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
C617 ..620	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C621	CC 1,0PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8304.00	MURATA	GRM39C0G***B50ZPT	
C622	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
C623	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
C624	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
C625	CE 220UF 20% 10V SMD TANTALUM SMD CAPACITOR	1081.1873.00	SPRAGUE	595D227X0010R2T	
C626 ..629	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
C630	CC 2,2PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4467.00	MURATA	GRM39C0G***B50ZPT	
C631	CC 1,0PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8304.00	MURATA	GRM39C0G***B50ZPT	
C632 ..634	CC 470PF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4896.00	MURATA	GRM39X7R***K5C500PT*	
C635 ..637	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	CC 1097.6292.00	PHILIPS_CO	2238 786 16649	
C638	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C639	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C640 ..642	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	CC 1097.6292.00	PHILIPS_CO	2238 786 16649	
C643	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C644	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C645 ..652	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C653	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C654	CE 4,7UF+-10% 10V 3528 TANTALUM CHIP CAPACITOR	CE 0007.7275.00	SPRAGUE	293D 475 X9 010 B2T	
C655	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C656	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C657	CC 680PF+-1% 50V NP0 1206 CERAMIC CHIP CAPACITOR	CC 0007.7375.00	MURATA	GRM42-6C0G 681F 50PT	

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C658	CC 680PF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0007.7375.00	MURATA	GRM42-6C0G 681F 50PT	
C659 ..662	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C663	RG 1MO +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5370.00	DRALORIC	CR 0603	
C664	RG 1MO +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5370.00	DRALORIC	CR 0603	
C665	RG 1MO +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5370.00	DRALORIC	CR 0603	
C666	RG 1MO +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5370.00	DRALORIC	CR 0603	
C667 ..669	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
C670	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
C671	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
C672	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
C673	RG 1MO +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5370.00	DRALORIC	CR 0603	
C674	RG 1MO +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5370.00	DRALORIC	CR 0603	
C675	RG 1MO +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5370.00	DRALORIC	CR 0603	
C676	RG 1MO +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5370.00	DRALORIC	CR 0603	
C677	RG 1MO +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5370.00	DRALORIC	CR 0603	
C678	RG 1MO +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5370.00	DRALORIC	CR 0603	
C679	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
C680	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
C681	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
C682	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
C683	RG 1MO +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5370.00	DRALORIC	CR 0603	
C684	RG 1MO +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5370.00	DRALORIC	CR 0603	
C685	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C686	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C687	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C688	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C689 ..692	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
C693 ..698	CC 1,2NF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0007.7400.00	AVX	1206 5A 122FAT00J	
C699	CC 3,3PF 0, 1PF50V NPO 06 SMD-CERAMIC-CAPACITOR	CC 0009.8285.00	MURATA	GRM39C0G***B50ZPT	
C700	CC 3,3PF 0, 1PF50V NPO 06 SMD-CERAMIC-CAPACITOR	CC 0009.8285.00	MURATA	GRM39C0G***B50ZPT	
C701	CC 4,7PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4538.00	MURATA	GRM39C0G***B50ZPT	
C702	CC 2,2PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4467.00	MURATA	GRM39C0G***B50ZPT	
	NICHT BESTUECKT/NOT FITTED				
C703	CC 6,8NF+-1% 50V NPO 1210 SMD-CERAMIC CAPACITOR	0010.2993.00	MURATA	GRM42-2C0G682F50PT	
C704	CC 6,8NF+-1% 50V NPO 1210 SMD-CERAMIC CAPACITOR	0010.2993.00	MURATA	GRM42-2C0G682F50PT	
C705 ..707	CC 220PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4721.00	MURATA	GRM39C0G***F50ZPT	
C708	CC 100NF+-10%16V HDK 0603 CERAMIC CHIP CAPACITOR	CC 1097.6292.00	PHILIPS_CO	2238 786 16649	
C709	CC 2,2PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4467.00	MURATA	GRM39C0G***B50ZPT	
C710	CE 220UF 20% 10V SMD TANTALUM SMD CAPACITOR	1081.1873.00	SPRAGUE	595D227X0010R2T	

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1GPK 853 3PLU	Ai	Datum Date	Schaltteilliste für Parts list for	Sachnummer Stock No.	Blatt-Nr. Page
ROHDE&SCHWARZ	68	11.08.99	EE IQ-MODULATOR IQ-MODULATOR	**1084.9800.01 SA**	13+

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C711	CC 2,2PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4467.00	MURATA	GRM39C0G***B50ZPT	
C712 ..715	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C800	CE 1UF +-10% 25V 3528 TANTALUM CHIP CAPACITOR	CE 0007.7217.00	SPRAGUE	293D 105 X9 025 B2T	
C850	CC 39PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.9730.00	MURATA	GRM39C0G***F50ZPT	
D1	BO AD835AR 250MHZ 4QMULTI 4-QUADRANT MULTIPLIER	1085.1632.00	ANALOG_DEV	AD835AR	
D2	BO AD835AR 250MHZ 4QMULTI 4-QUADRANT MULTIPLIER	1085.1632.00	ANALOG_DEV	AD835AR	
D3	BL AD7008 DDS MODULATOR IC MODULATOR	BL 1078.3410.00	ANALOG_DEV	AD7008JP50	
D4	BL PC74HCT125T 4XBUFF. 3S QUAD LINE DRIVER	BL 0007.5395.00	PHILIPS_SE	(PC)74HCT125(D/T)	
D5	BS DG419DY 1XUM ANALOGSCH ANALOG SWITCH	0746.0322.00	SILICONIX	DG419DY	
D6	BL PC74HC86T 4X2IN EXOR QUAD 2INPUT EXOOR GATE	BL 0007.3511.00	PHILIPS_SE	(PC)74HC86(D/T)	
D7	BL PC74HC86T 4X2IN EXOR QUAD 2INPUT EXOOR GATE	BL 0007.3511.00	PHILIPS_SE	(PC)74HC86(D/T)	
D8	BS DG419DY 1XUM ANALOGSCH ANALOG SWITCH	0746.0322.00	SILICONIX	DG419DY	
D9 ..15	BS DG413DY 2A2R ANALOGSCH QUAD ANALOG CMOS.SWITCH	1004.7058.00	SILICONIX	DG413DY	
D16	BS DG408DY 8CH.ANAL.MUX IC 8 CH ANALOG MULTIPLEX	1036.4460.00	SILICONIX	DG408DY	
D17	BS DG408DY 8CH.ANAL.MUX IC 8 CH ANALOG MULTIPLEX	1036.4460.00	SILICONIX	DG408DY	
D18	BL PC74HC4094T 8ST.BUSREG 8-STAGE SHIFT&STORE REG.	0804.0977.00	PHILIPS_SE	(PC)74HC4094(D/T)	
D19	BL PC74HCT08T 4X2IN ANDG AND GATE	BL 0007.6179.00	PHILIPS_SE	(PC)74HCT08(D/T)	
D20 ..26	BL PC74HC4094T 8ST.BUSREG 8-STAGE SHIFT&STORE REG.	0804.0977.00	PHILIPS_SE	(PC)74HC4094(D/T)	
D27	BM AT-339 GAAS VAR.DAEMPF IC DIGITAL ATTENUATOR NUR VAR/ONLY MOD: 02	1085.1555.00	MACOM	AT-339 PIN	
D27	BM AT-339 GAAS VAR.DAEMPF IC DIGITAL ATTENUATOR NUR VAR/ONLY MOD: 04	1085.1555.00	MACOM	AT-339 PIN	
D27	BM AT-339 GAAS VAR.DAEMPF IC DIGITAL ATTENUATOR NUR VAR/ONLY MOD: 06	1085.1555.00	MACOM	AT-339 PIN	
D27	BM AT-339 GAAS VAR.DAEMPF IC DIGITAL ATTENUATOR NUR VAR/ONLY MOD: 08	1085.1555.00	MACOM	AT-339 PIN	
D28	BM SW-339 GAAS SPDTSWITCH GAAS RF-SWITCH	1085.2074.00	MACOM	SW339 PIN	
D29 ..31	BL PC74HC4051T 8CH.AN.MUX 8CHANNEL ANAL.MULTIPLEXER	0007.3592.00	PHILIPS_SE	(PC)74HC4051(D/T)	
D32	BL PC74HC08T 4X2IN.ANDG QUAD 2INPUT AND GATE	BL 0007.3486.00	PHILIPS_SE	(PC)74HC08(D/T)	
D33	BL MCK12140D PLL-PHASEDET PHASE FREQUENZY DETECTOR	BL 1052.6235.00	MOTOROLA	(MC)K(M)140(D)	
D34	BL PC74HCT132T 4X2IN SCHM NAND SCHMITT TRIGGER	BL 0007.6340.00	PHILIPS	(PC)74HCT132(D/T)	
D35	BL PC74HCT132T 4X2IN SCHM NAND SCHMITT TRIGGER	BL 0007.6340.00	PHILIPS	(PC)74HCT132(D/T)	
D36	BL PC74HCT86T 4X2IN.EXOR EXOR GATE	0007.6291.00	PHILIPS_SE	(PC)74HCT86(D/T)	
D37	BM SW-339 GAAS SPDTSWITCH GAAS RF-SWITCH	1085.2074.00	MACOM	SW339 PIN	
D38	BL PC74HC4094T 8ST.BUSREG 8-STAGE SHIFT&STORE REG.	0804.0977.00	PHILIPS_SE	(PC)74HC4094(D/T)	
D39	BL PC74HC123T 2XMULTIVIB DUAL MULTIVIBRATOR	BL 0007.3528.00	PHILIPS_SE	(PC)74HC123(D/T)	
D40	BS MPC102 2X2TO1 VIDEOMUX IC ANALOG MULTIPLEXER	1085.1626.00	BURR_BROWN	MPC102AU	
D41 ..43	BJ DAC8143FS 1X12B-DAC 12B SERIAL D/A-CONVERTER	1012.9510.00	PMI	DAC8143FS	
D44	BL UPB585G 2.5G 4:1 PRESC IC PRESCALER 2.5GHZ	BL 1002.5029.10	NEC	(UPB)585(G)-(E1)	
D45 ..48	BJ DAC8143FS 1X12B-DAC 12B SERIAL D/A-CONVERTER	1012.9510.00	PMI	DAC8143FS	

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
D49	BL PC74HCT86T 4X2IN.EXOR EXOR GATE	0007.6291.00	PHILIPS_SE	(PC)74HCT86(D/T)	
D50	BM SW-339 GAAS SPDTSWITCH GAAS RF-SWITCH	1085.2074.00	MACOM	SW339 PIN	
D51	BM SW-339 GAAS SPDTSWITCH GAAS RF-SWITCH	1085.2074.00	MACOM	SW339 PIN	
D52	BG TH3032.1C SERBUSD ASIC IC GATE ARRAY	BG 0008.6143.00	THESYS	TH3032.1C	
D53	BS DG419DY 1XUM ANALOGSCH ANALOG SWITCH	0746.0322.00	SILICONIX	DG419DY	
D54	BM SW-339 GAAS SPDTSWITCH GAAS RF-SWITCH	1085.2074.00	MACOM	SW339 PIN	
D55	BC X24164S8I-2.7 IC MEMORY	BC 0048.4258.00	XICOR	X24164S G	
D56	BL PC74HCT125T 4XBUFF. 3S QUAD LINE DRIVER	BL 0007.5395.00	PHILIPS_SE	(PC)74HCT125(D/T)	
D57	BL PC74HC86T 4X2IN EXOR QUAD 2INPUT EXOOR GATE	BL 0007.3511.00	PHILIPS_SE	(PC)74HC86(D/T)	
D58	BL PC74HC4094T 8ST.BUSREG 8-STAGE SHIFT&STORE REG.	0804.0977.00	PHILIPS_SE	(PC)74HC4094(D/T)	
D59	BL PC74HC4051T 8CH.AN.MUX 8CHANNEL ANAL.MULTIPLEXER	0007.3592.00	PHILIPS_SE	(PC)74HC4051(D/T)	
D61	BJ LTC1446L 2X12-DAC 12B SERIAL D/A-CONVERTER	1085.2200.00	LINEAR_TEC	(LTC)1446LI(S8)	
G1	EO 50,000MHZ QUARZOSZ QUARTZ CRYSTAL OSCILLATOR	1029.2995.00	SEIKO	SG-615PH-C	
L1	LD SMD-DR.Z=55 OHM 300MHZ CHOKE	1085.1684.00	PHILIPS	BDS 3/3/4.6-4S2	
L2	LD 22NH 10% 0,60A 1210 RF CHOKE	1002.4897.00	SIEMENS	B82422-A3220-J(K)100	
L3	LD 1UH 10% 0,38A 1210 RF CHOKE	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L4	LD 47 NH+-10% 0,3A 0805 SMD-MULTILAYER INDUCTOR	LD 0009.6824.00	TOKO	LL2012-FH47NK(J)	
L5	LD 47 NH+-10% 0,3A 0805 SMD-MULTILAYER INDUCTOR	LD 0009.6824.00	TOKO	LL2012-FH47NK(J)	
L6	LD 1UH 10% 0,38A 1210 RF CHOKE	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L7	LD 1UH 10% 0,38A 1210 RF CHOKE	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L8	LD 3,3NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6630.00	TOKO	LL1608-FH...K(J)	
L9 ..11	LD 1UH 10% 0,38A 1210 RF CHOKE	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L12	LD 33 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6753.00	TOKO	LL1608-FH...K(J)	
L13	LD 1UH 10% 0,38A 1210 RF CHOKE	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L14	LD 470NH 10% 0,15A 1210 RF CHOKE	LD 0007.9926.00	SIEMENS	B82422-A3471-J(K)100	
L15	LD 1UH 10% 0,38A 1210 RF CHOKE	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L16	LD 1UH 10% 0,38A 1210 RF CHOKE	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L17	LD 15 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6718.00	TOKO	LL1608-FH...K(J)	
L18 ..28	LD 1UH 10% 0,38A 1210 RF CHOKE	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L29	LD 15 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6718.00	TOKO	LL1608-FH...K(J)	
L30	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L31	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L32	LD 1UH 10% 0,38A 1210 RF CHOKE	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L33	LD 39 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6760.00	TOKO	LL1608-FH...K(J)	
L34	LD 1UH 10% 0,38A 1210 RF CHOKE	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L35	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L36	LD 1UH 10% 0,38A 1210 RF CHOKE	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L37	LD 22 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6730.00	TOKO	LL1608-FH...K(J)	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
L38	LD 39 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6760.00	TOKO	LL1608-FH...K(J)	
L39	LD 1UH 10% 0,38A 1210 RF CHOKE	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L40	LD 1UH 10% 0,38A 1210 RF CHOKE	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L41 ..47	LD 39 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6760.00	TOKO	LL1608-FH...K(J)	
L48	LD 220NH 10% 0,28A 1210 RF CHOKE	LD 0520.7911.00	SIEMENS	B82422-A3221-J(K)100	
L49 ..51	LD 22NH 10% 0,60A 1210 RF CHOKE	1002.4897.00	SIEMENS	B82422-A3220-J(K)100	
L52	LD 15 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6718.00	TOKO	LL1608-FH...K(J)	
L53	LD 22 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6730.00	TOKO	LL1608-FH...K(J)	
L54	LD 22 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6730.00	TOKO	LL1608-FH...K(J)	
L55	LD 8,2NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6682.00	TOKO	LL1608-FH...K(J)	
L56	LD 22UH 10% 0,14A 1210 RF CHOKE	LD 0520.7886.00	SIEMENS	B82422-A1223-J(K)100	
L57	LD 22UH 10% 0,14A 1210 RF CHOKE	LD 0520.7886.00	SIEMENS	B82422-A1223-J(K)100	
L58	LD 39 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6760.00	TOKO	LL1608-FH...K(J)	
L59	LD 39 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6760.00	TOKO	LL1608-FH...K(J)	
L60	LD 33 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6753.00	TOKO	LL1608-FH...K(J)	
L61	LD 22UH 10% 0,14A 1210 RF CHOKE	LD 0520.7886.00	SIEMENS	B82422-A1223-J(K)100	
L62	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L63	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L64	LD 47NH 10% 0,51A 1210 RF CHOKE	0008.5976.00	SIEMENS	B82422-A3470-J(K)100	
L65	LD 47NH 10% 0,51A 1210 RF CHOKE	0008.5976.00	SIEMENS	B82422-A3470-J(K)100	
L66 ..68	LD 22UH 10% 0,14A 1210 RF CHOKE	LD 0520.7886.00	SIEMENS	B82422-A1223-J(K)100	
L69 ..73	LD 33 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6753.00	TOKO	LL1608-FH...K(J)	
L74	LD 470NH 10% 0,15A 1210 RF CHOKE	LD 0007.9926.00	SIEMENS	B82422-A3471-J(K)100	
L75	LD 470NH 10% 0,15A 1210 RF CHOKE	LD 0007.9926.00	SIEMENS	B82422-A3471-J(K)100	
L76	LD 33 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6753.00	TOKO	LL1608-FH...K(J)	
L77	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L78	LD 2,2UH 10% 0,27A 1210 RF CHOKE	LD 0520.7870.00	SIEMENS	B82422-A1222-J(K)100	
L79	LD 15UH 10% 0,16A 1210 RF CHOKE	LD 0009.5192.00	SIEMENS	B82422-A1153-J(K)100	
L80	LD SP-DROSSEL 15UH 2,45A CHOKE	1081.0283.00	SUMIDA	CDR125-150	
L81	LD 150NH 1%OR31 0.7A 1206 CERAMIC CHIP COIL	0048.4635.00	COILCRAFT	1206CS-151XFBC	
L82	LD 470NH 10% 0,15A 1210 RF CHOKE	LD 0007.9926.00	SIEMENS	B82422-A3471-J(K)100	
L83	LD 47UH 10% 0,08A 1210 RF CHOKE	LD 0008.1693.00	SIEMENS	B82422-A1473-J(K)100	
L84	LD 47 NH+-10% 0,3A 0805 SMD-MULTILAYER INDUCTOR	LD 0009.6824.00	TOKO	LL2012-FH47NK(J)	
L85	LD 47 NH+-10% 0,3A 0805 SMD-MULTILAYER INDUCTOR	LD 0009.6824.00	TOKO	LL2012-FH47NK(J)	
L86 ..89	LD 470NH 10% 0,15A 1210 RF CHOKE	LD 0007.9926.00	SIEMENS	B82422-A3471-J(K)100	
L90	LD 470NH 10% 0,15A 1210 RF CHOKE	LD 0007.9926.00	SIEMENS	B82422-A3471-J(K)100	
L91	LD 470NH 10% 0,15A 1210 RF CHOKE	LD 0007.9926.00	SIEMENS	B82422-A3471-J(K)100	
L92 ..96	LD 470NH 10% 0,15A 1210 RF CHOKE	LD 0007.9926.00	SIEMENS	B82422-A3471-J(K)100	
L97	XX ENTHALTEN IN INCLUDED IN				

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
L98	XX ENTHALTEN IN INCLUDED IN				
L99	LD 22 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6730.00	TOKO	LL1608-FH...K(J)	
L100	XX ENTHALTEN IN INCLUDED IN				
L101	XX ENTHALTEN IN INCLUDED IN				
L102	XX ENTHALTEN IN INCLUDED IN				
L103	XX ENTHALTEN IN INCLUDED IN				
L104	XX ENTHALTEN IN INCLUDED IN				
L105	XX ENTHALTEN IN INCLUDED IN				
L106	XX ENTHALTEN IN INCLUDED IN				
L107	XX ENTHALTEN IN INCLUDED IN				
L108	XX ENTHALTEN IN INCLUDED IN				
L109	XX ENTHALTEN IN INCLUDED IN				
L110	XX ENTHALTEN IN INCLUDED IN				
L111	RG 0-OHM WIDERSTAND 0603 SMD RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
L112	LD 27 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6747.00	TOKO	LL1608-FH...K(J)	
L113	LD 33 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6753.00	TOKO	LL1608-FH...K(J)	
L114	XX ENTHALTEN IN INCLUDED IN				
L115	XX ENTHALTEN IN INCLUDED IN				
L116	XX ENTHALTEN IN INCLUDED IN				
L117	LD 27 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6747.00	TOKO	LL1608-FH...K(J)	
L118	LD 100NH 1%OR26 0.8A 1206 CERAMIC CHIP COIL	0048.4612.00	COILCRAFT	1206CS-101XFBC	
L119 ..122	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L123	LD 100UH 10% 0,06A 1210 RF CHOKE	LD 0007.9261.00	SIEMENS	B82422-A1104-J(K)100	
L124	LD 33 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6753.00	TOKO	LL1608-FH...K(J)	
L125	LD 33 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6753.00	TOKO	LL1608-FH...K(J)	
L126 ..133	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L134	LD SMD-DR.Z=850 OHM CHOKE	1085.1661.00	PHILIPS	WBS2.5-5/4.8/10-4B1	
L135	XX ENTHALTEN IN INCLUDED IN				
L136	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L137	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L138	LD 1UH 10% 0,38A 1210 RF CHOKE	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L139	LD 100NH 1%OR26 0.8A 1206 CERAMIC CHIP COIL	0048.4612.00	COILCRAFT	1206CS-101XFBC	
L140	LD 1UH 10% 0,38A 1210 RF CHOKE	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L141	LD 100NH 1%OR26 0.8A 1206 CERAMIC CHIP COIL	0048.4612.00	COILCRAFT	1206CS-101XFBC	
L142	LD 1UH 10% 0,38A 1210 RF CHOKE	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L143	LD 1UH 10% 0,38A 1210 RF CHOKE	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L144	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L145	LD 2,2UH 10% 0,27A 1210 RF CHOKE	LD 0520.7870.00	SIEMENS	B82422-A1222-J(K)100	
L146	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	

Für diese Unterlage behalten wir uns alle Rechte vor.

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
L147	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L148	XX ENTHALTEN IN INCLUDED IN				
L149	XX ENTHALTEN IN INCLUDED IN				
L150	XX ENTHALTEN IN INCLUDED IN				
L151	XX ENTHALTEN IN INCLUDED IN				
L152	XX ENTHALTEN IN INCLUDED IN				
L153	XX ENTHALTEN IN INCLUDED IN				
L154	XX ENTHALTEN IN INCLUDED IN				
L155	XX ENTHALTEN IN INCLUDED IN				
L156	LD 220NH 10% 0,28A 1210 RF CHOKE	LD 0520.7911.00	SIEMENS	B82422-A3221-J(K)100	
..161					
L162	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L163	LD 100UH 10% 0,06A 1210 RF CHOKE	LD 0007.9261.00	SIEMENS	B82422-A1104-J(K)100	
L164	LD 2,2UH 10% 0,27A 1210 RF CHOKE	LD 0520.7870.00	SIEMENS	B82422-A1222-J(K)100	
L165	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L166	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L167	LD 100UH 10% 0,06A 1210 RF CHOKE	LD 0007.9261.00	SIEMENS	B82422-A1104-J(K)100	
L168	XX ENTHALTEN IN INCLUDED IN				
L169	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L170	LD SP-DROSSEL 15UH 2,45A CHOKE	1081.0283.00	SUMIDA	CDR125-150	
L171	LD 10UH 10% 690MA 2220 RF CHOKE	1106.8252.00	SIEMENS	B82442A1103K	
L172	LD SP-DROSSEL 15UH 2,45A CHOKE	1081.0283.00	SUMIDA	CDR125-150	
L173	LD 1UH 10% 0,38A 1210 RF CHOKE	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L174	LD 220NH 10% 0,28A 1210 RF CHOKE	LD 0520.7911.00	SIEMENS	B82422-A3221-J(K)100	
L175	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L176	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L177	LD 1UH 10% 0,38A 1210 RF CHOKE	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L178	LD 100NH 1%OR26 0.8A 1206 CERAMIC CHIP COIL	0048.4612.00	COILCRAFT	1206CS-101XFBC	
L179	LD 1UH 10% 0,38A 1210 RF CHOKE	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
..182					
L183	LD 4,7UH 3% 0,31A 1812 SMD INDUCTOR	0048.6250.00	DALE	IMC-1812-4.7UH-3%	
L184	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L185	LD 4,7UH 3% 0,31A 1812 SMD INDUCTOR	0048.6250.00	DALE	IMC-1812-4.7UH-3%	
L186	LD 2,2UH 3% 0,38A 1812 SMD INDUCTOR	0048.6221.00	DALE	IMC-1812-2.2UH-3%	
L187	LD 2,2UH 3% 0,38A 1812 SMD INDUCTOR	0048.6221.00	DALE	IMC-1812-2.2UH-3%	
L188	LD 15UH 3% 0,06A 1812 SMD INDUCTOR	0048.6544.00	DALE	ISC-1812-15UH-3%	
L189	XX ENTHALTEN IN INCLUDED IN				
L190	XX ENTHALTEN IN INCLUDED IN				
L191	XX ENTHALTEN IN INCLUDED IN				
L192	XX ENTHALTEN IN INCLUDED IN				
L193	XX ENTHALTEN IN INCLUDED IN				

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
L194	XX ENTHALTEN IN INCLUDED IN				
L195	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L196	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L197	LD 15UH 3% 0,06A 1812 SMD INDUCTOR	0048.6544.00	DALE	ISC-1812-15UH-3%	
L198	LD 4,7UH 3% 0,31A 1812 SMD INDUCTOR	0048.6250.00	DALE	IMC-1812-4.7UH-3%	
L199	LD 4,7UH 3% 0,31A 1812 SMD INDUCTOR	0048.6250.00	DALE	IMC-1812-4.7UH-3%	
L200	LD 2,2UH 3% 0,38A 1812 SMD INDUCTOR	0048.6221.00	DALE	IMC-1812-2.2UH-3%	
L201	LD 2,2UH 3% 0,38A 1812 SMD INDUCTOR	0048.6221.00	DALE	IMC-1812-2.2UH-3%	
L202	LD 18 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6724.00	TOKO	LL1608-FH...K(J)	
L203	LD 15UH 3% 0,06A 1812 SMD INDUCTOR	0048.6544.00	DALE	ISC-1812-15UH-3%	
L204	LD 15UH 3% 0,06A 1812 SMD INDUCTOR	0048.6544.00	DALE	ISC-1812-15UH-3%	
L205	LD 1UH 10% 0,38A 1210 RF CHOKE	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L206	LD 470NH 10% 0,15A 1210 RF CHOKE	LD 0007.9926.00	SIEMENS	B82422-A3471-J(K)100	
L207	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
N1	BO TL074ACD 4XFET OPAMP OPERATIONAL AMPLIFIER	0007.7823.00	TEXAS	TL074A(CD)	
N2	BO TL074ACD 4XFET OPAMP OPERATIONAL AMPLIFIER	0007.7823.00	TEXAS	TL074A(CD)	
N3	BO OP297GS 2X PREC OPAMP IC DUALOPAMP	6071.9467.00	ANALOG_DEV	OP297GS	
N4	BO TL074ACD 4XFET OPAMP OPERATIONAL AMPLIFIER	0007.7823.00	TEXAS	TL074A(CD)	
N5	BM MSA0386 DC-2.4G MMIC BROADBAND AMPLIFIER	0848.4461.00	AVANTEK	MSA0386	
N6	BO NE5534D OPAMP OPERATIONAL AMPLIFIER	0815.7555.00	SIGNETICS	NE5534(D)	
N7 ..11	BO OP275GS LN 2XFET OPAMP IC DUAL OPAMP	2043.0928.00	ANALOG_DEV	OP275GS	
N12	BO REF01CS 10V 20MA VREF VOLTAGE REFERENCE	1002.5129.00	PMI	REF01C(S)	
N13	BO AD822BR 2XFET OPAMP IC DUAL OPAMP	2043.0934.00	ANALOG_DEV	AD822BR	
N14	BO AD829JR 1XLOLN OPAMP IC OPAMP	1036.4254.00	ANALOG_DEV	AD829JR	
N15	BO AD829JR 1XLOLN OPAMP IC OPAMP	1036.4254.00	ANALOG_DEV	AD829JR	
N16	BO OP400GS 4XLP OPAMP QUAD LOW-OFFSET OPAMP	1002.5135.00	PMI	OP400G(S)	
N17	BO LT1058S 4XFET OPAMP QUAD OPAMP FET	2013.1484.00	LINEAR_TEC	LT1058SW	
N18	BO OP400GS 4XLP OPAMP QUAD LOW-OFFSET OPAMP	1002.5135.00	PMI	OP400G(S)	
N19	BO OP400GS 4XLP OPAMP QUAD LOW-OFFSET OPAMP	1002.5135.00	PMI	OP400G(S)	
N20	BO OP297GS 2X PREC OPAMP IC DUALOPAMP	6071.9467.00	ANALOG_DEV	OP297GS	
N21	BO OP297GS 2X PREC OPAMP IC DUALOPAMP	6071.9467.00	ANALOG_DEV	OP297GS	
N22 ..24	BO AD744KR FET OPAMP BIFET OPAMP	0854.1754.00	ANALOG_DEV	(AD)744KR	
N25 ..27	BO OP297GS 2X PREC OPAMP IC DUALOPAMP	6071.9467.00	ANALOG_DEV	OP297GS	
N28	BL UPB581C 2:1 PRESC IC PRESCALERDIVIDER	BL 0840.6113.00	NEC	(UP)B581C	
N29	BO AD811JR VIDEOCF OPAMP IC OPAMP	2025.2997.00	ANALOG_DEV	AD811JR	
N30	BO MAX942CSA R-TO-R 2XCOM COMPARATOR	1085.1710.00	MAXIM	MAX942CSA-T	
N31 ..33	BO OP07CS8 OPAMP OPERATIONAL AMPLIFIER	0007.7781.00	LINEAR_TEC	LT1001(CS8)	
N34	BO AD744KR FET OPAMP BIFET OPAMP	0854.1754.00	ANALOG_DEV	(AD)744KR	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
N35	BO AD744KR FET OPAMP BIFET OPAMP	0854.1754.00	ANALOG_DEV	(AD)744KR	
N37	BO OP275GS LN 2XFET OPAMP IC DUAL OPAMP	2043.0928.00	ANALOG_DEV	OP275GS	
N38	BM MGA82563 0.1-6G MMIC MICROWAVE MONOLITHIC AMPL	1085.2100.00	HEWLETT_PA	MGA-82563-TR1	
N39 ..41	BO AD744KR FET OPAMP BIFET OPAMP	0854.1754.00	ANALOG_DEV	(AD)744KR	
N42	BO MAX942CSA R-TO-R 2XCOM COMPARATOR	1085.1710.00	MAXIM	MAX942CSA-T	
N43	BO OP275GS LN 2XFET OPAMP IC DUAL OPAMP	2043.0928.00	ANALOG_DEV	OP275GS	
N44 ..47	BM AM1 0.25-3GHZ MMIC BROADBAND AMPLIFIER	1104.9980.00	WATKINS-JO	WJ-AM1	
N48	BO OP400GS 4XLP OPAMP QUAD LOW-OFFSET OPAMP	1002.5135.00	PMI	OP400G(S)	
N49	BM AM1 0.25-3GHZ MMIC BROADBAND AMPLIFIER	1104.9980.00	WATKINS-JO	WJ-AM1	
P1 ..12	VL EINPRESSSTIFT 5,6 PIN	VL 0010.7250.00	AMP	1-928776-5	
P13	VL EINPRESSSTIFT 5,6 PIN	VL 0010.7250.00	AMP	1-928776-5	
P14	VL EINPRESSSTIFT 5,6 PIN	VL 0010.7250.00	AMP	1-928776-5	
P17	VL EINPRESSSTIFT 5,6 PIN	VL 0010.7250.00	AMP	1-928776-5	
P18	VL EINPRESSSTIFT 5,6 PIN	VL 0010.7250.00	AMP	1-928776-5	
P19	VL EINPRESSSTIFT 5,6 PIN	VL 0010.7250.00	AMP	1-928776-5	
P20 ..26	VL EINPRESSSTIFT 5,6 PIN	VL 0010.7250.00	AMP	1-928776-5	
P29	VL EINPRESSSTIFT 5,6 PIN	VL 0010.7250.00	AMP	1-928776-5	
P32 ..45	VL EINPRESSSTIFT 5,6 PIN	VL 0010.7250.00	AMP	1-928776-5	
P50 ..69	VL EINPRESSSTIFT 5,6 PIN	VL 0010.7250.00	AMP	1-928776-5	
P72	VL EINPRESSSTIFT 5,6 PIN	VL 0010.7250.00	AMP	1-928776-5	
P75	VL EINPRESSSTIFT 5,6 PIN	VL 0010.7250.00	AMP	1-928776-5	
R1	RG 9,09KOH+-0,1%TK25 1206 SMD-RESISTOR EIA1206	0009.8904.00	PHILIPS_CO	MPC 01	
R2	RS 0,25W 2KOHM +-20% SMD POTENTIOMETER	RS 0007.9626.00	BI_TECHNOL	23 B R... TR	
R3 ..6	RG 100R +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R7	RG 39R 1% 1W 1218 SMD-RESISTOR	1104.2786.00	PHILIPS_CO	PRC201-39R 1% TK100	
R8	RG 39R 1% 1W 1218 SMD-RESISTOR	1104.2786.00	PHILIPS_CO	PRC201-39R 1% TK100	
R9	RG 220K +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7108.00	DRALORIC	CR 0603	
R10	RG 220K +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7108.00	DRALORIC	CR 0603	
R11	RG 121 OHM+-1%TK100 0603 SMD RESISTOR EIA0603	0009.9498.00	DRALORIC	CR 0603	
R12	RG 1,3KOHM+-0,1%TK25 1206 RESISTOR	0010.1968.00	PHILIPS_CO	MPC 01	
R13 ..15	RG 20R 1% 1W 1218 SMD RESISTOR	1104.2734.00	PHILIPS_CO	PRC201-20R 1% TK100	
R16	RG 51,0 OHM+-1%TK100 0603 SMD RESISTOR EIA0603	0009.9030.00	DRALORIC	CR 0603	
R17	RG 100R +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R18	RG 100R +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R19	RG 20K +-1% TK100 0603 SMD RESISTOR EIA0603	0010.9100.00	DRALORIC	CR 0603	
R20	RG 10R +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R21	RG 10R +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R22	RG 270R +-1% TK100 0603 SMD RESISTOR EIA0603	0010.9581.00	PHILIPS_CO	RC 22 H	

Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R23	RG 0-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R24	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R25	RG 0-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R26	RG 47R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6924.00	PHILIPS_CO	RC 22 H	
R27 ..30	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R31	RG 47R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6924.00	PHILIPS_CO	RC 22 H	
R32	RG 47R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6924.00	PHILIPS_CO	RC 22 H	
R33	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R34	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R35	RG 220R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6953.00	DRALORIC	CR 0603	
R36	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R37	RG 182 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9130.00	DRALORIC	CR 0603	
R38	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R39	RG 2K2 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R40	RG 270R +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9581.00	PHILIPS_CO	RC 22 H	
R41	RG 182 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9130.00	DRALORIC	CR 0603	
R42	RG 270R +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9581.00	PHILIPS_CO	RC 22 H	
R43	RG 270R +-1% TK100 SMD RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0603	0010.9581.00	PHILIPS_CO	RC 22 H	
R43	RG 270R +-1% TK100 SMD RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0603	0010.9581.00	PHILIPS_CO	RC 22 H	
R43	RG 270R +-1% TK100 SMD RESISTOR EIA0603 NUR VAR/ONLY MOD: 06	0603	0010.9581.00	PHILIPS_CO	RC 22 H	
R43	RG 270R +-1% TK100 SMD RESISTOR EIA0603 NUR VAR/ONLY MOD: 08	0603	0010.9581.00	PHILIPS_CO	RC 22 H	
R44	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R45	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R46	RG 20K +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9100.00	DRALORIC	CR 0603	
R47	RG 2K74 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8410.00	PHILIPS_CO	RC 22 H	
R48	RG 20K +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9100.00	DRALORIC	CR 0603	
R49	RG 20K +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9100.00	DRALORIC	CR 0603	
R50	RG 10,0KOH+-0,1%TK25 SMD-RESISTOR NUR VAR/ONLY MOD: 02	1206	0009.7666.00	PHILIPS_CO	MPC 01	
R50	RG 10,0KOH+-0,1%TK25 SMD-RESISTOR NUR VAR/ONLY MOD: 04	1206	0009.7666.00	PHILIPS_CO	MPC 01	
R50	RG 10,0KOH+-0,1%TK25 SMD-RESISTOR NUR VAR/ONLY MOD: 06	1206	0009.7666.00	PHILIPS_CO	MPC 01	
R50	RG 7,5KOHM+-1%TK100 RG CHIP RESISTOR NUR VAR/ONLY MOD: 08	1206	RG 0007.0764.00	PHILIPS_CO	RC02	
R51	RS 0,25W 5KOHM +-20% POTENTIOMETER	SMD	RS 0007.9632.00	BI_TECHNOL	23 B R... TR	
R52	RG 0-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R53	RG 51,0 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9030.00	DRALORIC	CR 0603	
R54	RG 51,0 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9030.00	DRALORIC	CR 0603	

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Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R55	RG 220R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6953.00	DRALORIC	CR 0603	
R56 ..62	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R63	RG 3K92 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8427.00	PHILIPS_CO	RC 22 H	
R64	RG 3K92 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8427.00	PHILIPS_CO	RC 22 H	
R65	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R66	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R67	RG 182 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9130.00	DRALORIC	CR 0603	
R68 ..71	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R72	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R73	RG 150R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
R74 ..81	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R82	RG 47K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7072.00	DRALORIC	CR 0603	
R83	RG 47K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7072.00	DRALORIC	CR 0603	
R84 ..88	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R89	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R90	RG 51,0 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9030.00	DRALORIC	CR 0603	
R91	RG 51,0 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9030.00	DRALORIC	CR 0603	
R92	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R93	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R94	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R95	RG 150R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
R96	RG 150R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
R97	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R98	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R99	RG 0-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R100 ..102	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R103	RG 2KO +-1% TK100 SMD RESISTOR EIA0603	0603	1097.6328.00	DRALORIC	CR 0603	
R104	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R105	RG 0-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R106	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R107	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R108	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R109	RG 47K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7072.00	DRALORIC	CR 0603	
R110	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R111	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R112	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R113	RG 182 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9130.00	DRALORIC	CR 0603	
R114	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R115	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	

Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R116	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R117	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R118	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R119	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R120	RG 182 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9130.00	DRALORIC	CR 0603	
R121	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R122	RG 0-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R123	RG 27,4KOH+-0,1%TK25 SMD-RESISTOR EIA1206	1206	0009.7743.00	PHILIPS_CO	MPC 01	
R124	RS 0,25W 1KOHM +-20% RG POTENTIOMETER	SMD	RS 0007.9610.00	BI_TECHNOL	23 B R... TR	
R125	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R126	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R127	RG 0-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R128	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R129 ..133	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R134	RG 82,5 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9052.00	DRALORIC	CR 0603	
R135	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R136	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R137	RG 220R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6953.00	DRALORIC	CR 0603	
R138 ..140	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R141	RG 100R 1% 1W SMD RESISTOR	1218	1104.2740.00	PHILIPS_CO	PRC201-100R 1% TK100	
R142	RG 100R 1% 1W SMD RESISTOR	1218	1104.2740.00	PHILIPS_CO	PRC201-100R 1% TK100	
R143 ..145	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R146	RG 301R +-1%TK100 SMD RESISTOR EIA0603	0603	0009.9123.00	PHILIPS_CO	RC 22 H	
R147	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R148	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R149	RG 5R62 +-1% TK250 SMD RESISTOR EIA0603	0603	0009.9100.00	DRALORIC	CR 0603	
R150	RG 5R62 +-1% TK250 SMD RESISTOR EIA0603	0603	0009.9100.00	DRALORIC	CR 0603	
R151	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R152	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R153	RG 5R62 +-1% TK250 SMD RESISTOR EIA0603	0603	0009.9100.00	DRALORIC	CR 0603	
R154	RG 5R62 +-1% TK250 SMD RESISTOR EIA0603	0603	0009.9100.00	DRALORIC	CR 0603	
R155	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R156	RG 7K5 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8440.00	PHILIPS_CO	RC 22 H	
R157	RG 12R1+-1%TK100 SMD RESISTOR EIA0603	0603	0010.9275.00	DRALORIC	CR 0603	
R158	RG 35,7 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9000.00	PHILIPS_CO	RC 22 H	
R159	RG 7K5 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8440.00	PHILIPS_CO	RC 22 H	
R160	RG 5R62 +-1% TK250 SMD RESISTOR EIA0603	0603	0009.9100.00	DRALORIC	CR 0603	
R161	RG 5R62 +-1% TK250 SMD RESISTOR EIA0603	0603	0009.9100.00	DRALORIC	CR 0603	
R162	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R163	RG 22R +-1% TK100 0603 SMD RESISTOR EIA0603	0009.6901.00	DRALORIC	CR 0603	
R164	RG 100R +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R165	RG 30,1 OHM+-1%TK100 0603 SMD RESISTOR EIA0603	0009.9081.00	PHILIPS_CO	RC 22 H	
R166	RG 0-OHM WIDERSTAND 0603 SMD RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R167	RG 10R +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R168	RG 5K62 +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8433.00	DRALORIC	CR 0603	
R169	RG 5R62 +-1% TK250 0603 SMD RESISTOR EIA0603	0009.9100.00	DRALORIC	CR 0603	
R170	RG 100R +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R171	RG 100R +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R172	RG 301R +-1%TK100 0603 SMD RESISTOR EIA0603	0009.9123.00	PHILIPS_CO	RC 22 H	
R173	RG 301R +-1%TK100 0603 SMD RESISTOR EIA0603	0009.9123.00	PHILIPS_CO	RC 22 H	
R174	RG 12R1+-1%TK100 0603 SMD RESISTOR EIA0603	0010.9275.00	DRALORIC	CR 0603	
R175	RG 0-OHM WIDERSTAND 0603 SMD RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R176	RG 100R +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R177	RG 7K5 +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8440.00	PHILIPS_CO	RC 22 H	
R178	RG 30,1 OHM+-1%TK100 0603 SMD RESISTOR EIA0603	0009.9081.00	PHILIPS_CO	RC 22 H	
R179	RG 30,1 OHM+-1%TK100 0603 SMD RESISTOR EIA0603	0009.9081.00	PHILIPS_CO	RC 22 H	
R180	RG 1K21 +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0010.9817.00	DRALORIC	CR 0603	
R181	RG 1K21 +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0010.9817.00	DRALORIC	CR 0603	
R182 ..184	RG 30,1 OHM+-1%TK100 0603 SMD RESISTOR EIA0603	0009.9081.00	PHILIPS_CO	RC 22 H	
R185	RG 56R +-1% TK100 0603 SMD RESISTOR EIA0603	0009.9646.00	DRALORIC	CR 0603	
R186	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R187	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R188	RG 301R +-1%TK100 0603 SMD RESISTOR EIA0603	0009.9123.00	PHILIPS_CO	RC 22 H	
R189	RG 56R +-1% TK100 0603 SMD RESISTOR EIA0603	0009.9646.00	DRALORIC	CR 0603	
R190 ..192	RG 30,1 OHM+-1%TK100 0603 SMD RESISTOR EIA0603	0009.9081.00	PHILIPS_CO	RC 22 H	
R193	RG 301R +-1%TK100 0603 SMD RESISTOR EIA0603	0009.9123.00	PHILIPS_CO	RC 22 H	
R194	RG 121 OHM+-1%TK100 0603 SMD RESISTOR EIA0603	0009.9498.00	DRALORIC	CR 0603	
R195	RG 121 OHM+-1%TK100 0603 SMD RESISTOR EIA0603	0009.9498.00	DRALORIC	CR 0603	
R196 ..199	RG 470R +-1% TK100 0603 SMD RESISTOR EIA0603	0009.6976.00	DRALORIC	CR 0603	
R200 ..202	RG 22R +-1% TK100 0603 SMD RESISTOR EIA0603	0009.6901.00	DRALORIC	CR 0603	
R203	RG 68R +-1% TK100 0603 SMD RESISTOR EIA0603	0009.6930.00	DRALORIC	CR 0603	
R204	RG 825R +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8391.00	PHILIPS_CO	RC 22 H	
R205	RG 825R +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8391.00	PHILIPS_CO	RC 22 H	
R206 ..208	RG 100R +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R209	RG 68R +-1% TK100 0603 SMD RESISTOR EIA0603	0009.6930.00	DRALORIC	CR 0603	
R210	RG 68R +-1% TK100 0603 SMD RESISTOR EIA0603	0009.6930.00	DRALORIC	CR 0603	
R211 ..214	RG 100R +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R215	RG 182 OHM+-1%TK100 0603 SMD RESISTOR EIA0603	0009.9130.00	DRALORIC	CR 0603	

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R216	RG 220R +-1% TK100 0603 SMD RESISTOR EIA0603	0009.6953.00	DRALORIC	CR 0603	
R217	RG 2K2 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7008.00	DRALORIC	CR 0603	
R218	RG 100R +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R219	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R220	RG 301R +-1%TK100 0603 SMD RESISTOR EIA0603	0009.9123.00	PHILIPS_CO	RC 22 H	
R221	RG 3K92 +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8427.00	PHILIPS_CO	RC 22 H	
R222	RG 100R +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R223	RG 100R +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R224	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R225	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R226	RG 100R +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R227	RG 82,5 OHM+-1%TK100 0603 SMD RESISTOR EIA0603	0009.9052.00	DRALORIC	CR 0603	
R228	RG 18K2+-1% TK100 0603 SMD RESISTOR EIA0603	0010.9317.00	DRALORIC	CR 0603	
R229	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R230	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R231	RG 12,0KOH+-0,1%TK25 1206 SMD-RESISTOR	0009.7620.00	PHILIPS_CO	MPC 01	
R232 ..236	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R237	RG 100R +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R238	RG 1,0 KO +-0,1%TK25 1206 SMD-RESISTOR	0009.7595.00	PHILIPS_CO	MPC 01	
R239	RG 1,0 KO +-0,1%TK25 1206 SMD-RESISTOR	0009.7595.00	PHILIPS_CO	MPC 01	
R240 ..243	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R244	RG 2K2 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7008.00	DRALORIC	CR 0603	
R245	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R246	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R247	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R248	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R249	RG 2K2 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7008.00	DRALORIC	CR 0603	
R250	RG 1KO +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R251	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R252	RG 1KO +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R253	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R254	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R255	RG 10,0KOH+-0,1%TK25 1206 SMD-RESISTOR	0009.7666.00	PHILIPS_CO	MPC 01	
R256	RG 10,0KOH+-0,1%TK25 1206 SMD-RESISTOR	0009.7666.00	PHILIPS_CO	MPC 01	
R257	RG 1KO +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R258	RG 20K +-1% TK100 0603 SMD RESISTOR EIA0603	0010.9100.00	DRALORIC	CR 0603	
R259	RG 5,11KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.0729.00	PHILIPS_CO	RC02	
R260	RG 5,11KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.0729.00	PHILIPS_CO	RC02	
R261	RG 39,2KOH+-0,1%TK25 1206 SMD-RESISTOR	0009.8027.00	PHILIPS_CO	MPC 01	

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Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R262	RG 39,2KOH+-0,1%TK25 SMD-RESISTOR	1206	0009.8027.00	PHILIPS_CO	MPC 01	
R263	RG 39K2 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9823.00	DRALORIC	CR 0603	
R264	RG 20K +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9100.00	DRALORIC	CR 0603	
R265	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R266	RG 8K25 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8456.00	DRALORIC	CR 0603	
R267	RG 15K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7043.00	DRALORIC	CR 0603	
R268 ..270	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R271	RG 100K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5363.00	DRALORIC	CR 0603	
R272	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R273	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R274	RG 15K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7043.00	DRALORIC	CR 0603	
R275 ..277	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R278	RG 2K2 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R279 ..283	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R284	RG 82,5 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9052.00	DRALORIC	CR 0603	
R285	RG 392R+-1% TK100 SMD RESISTOR EIA0603	0603	0010.9300.00	DRALORIC	CR 0603	
R286	RG 392R+-1% TK100 SMD RESISTOR EIA0603	0603	0010.9300.00	DRALORIC	CR 0603	
R287	RG 825R +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8391.00	PHILIPS_CO	RC 22 H	
R288	RG 2K2 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R289	RG 470R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6976.00	DRALORIC	CR 0603	
R290	RG 470R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6976.00	DRALORIC	CR 0603	
R291	RG 16,20HM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.8933.00	DRALORIC	CR 0603	
R292	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R293	RG 16,20HM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.8933.00	DRALORIC	CR 0603	
R294	RG 16,20HM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.8933.00	DRALORIC	CR 0603	
R295	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R296	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R297	RG 3K92 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8427.00	PHILIPS_CO	RC 22 H	
R298	RG 220R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6953.00	DRALORIC	CR 0603	
R299	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R300	RG 82,5 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9052.00	DRALORIC	CR 0603	
R301	RG 0-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R302	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R303	RG 121 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9498.00	DRALORIC	CR 0603	
R304	RG 121 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9498.00	DRALORIC	CR 0603	
R305	RG 3,32KOH+-0,1%TK25 SMD-RESISTOR EIA1206	1206	0009.7772.00	PHILIPS_CO	MPC 01	
R306 ..311	RG 3K3 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7014.00	DRALORIC	CR 0603	
R312	RG 680R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6982.00	PHILIPS_CO	RC 22 H	
R313	RG 680R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6982.00	PHILIPS_CO	RC 22 H	

Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R314	RG 3K3 +-1% TK100	0603	0009.7014.00	DRALORIC	CR 0603	
..317	SMD RESISTOR EIA0603					
R318	RG 1KO +-1% TK100	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R319	RG 100R +-1% TK100	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R320	RG 825R +-1% TK100	0603	0010.8391.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R321	RG 470R +-1% TK100	0603	0009.6976.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R322	RG 470R +-1% TK100	0603	0009.6976.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R323	RG 1K5 +-1% TK100	0603	0009.6999.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R324	RG 3K3 +-1% TK100	0603	0009.7014.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R325	RG 5K62 +-1% TK100	0603	0010.8433.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R326	RG 51,0 OHM+-1%TK100	0603	0009.9030.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R327	RG 470R +-1% TK100	0603	0009.6976.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R328	RG 4K7 +-1% TK100	0603	0009.7020.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R329	RG 470R +-1% TK100	0603	0009.6976.00	DRALORIC	CR 0603	
..331	SMD RESISTOR EIA0603					
R332	RG 100R +-1% TK100	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R333	RG 10K +-1% TK100	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R334	RG 470R +-1% TK100	0603	0009.6976.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R335	RG 470R +-1% TK100	0603	0009.6976.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R336	RG 0-OHM WIDERSTAND	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
	SMD RESISTOR EIA0603					
R337	RG 220R +-1% TK100	0603	0009.6953.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R338	RG 220R +-1% TK100	0603	0009.6953.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R339	RG 150R +-1% TK100	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R340	RG 825R +-1% TK100	0603	0010.8391.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R341	RG 470R +-1% TK100	0603	0009.6976.00	DRALORIC	CR 0603	
..343	SMD RESISTOR EIA0603					
R344	RG 20K +-1% TK100	0603	0010.9100.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R345	RG 10K +-1% TK100	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R346	RG 6K8 +-1% TK100	0603	0009.7037.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R347	RG 4K7 +-1% TK100	0603	0009.7020.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R348	RG 20,0KOH+-0,1%TK25	1206	0009.7643.00	PHILIPS_CO	MPC 01	
	SMD-RESISTOR					
R349	RG 100R +-1% TK100	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R350	RG 100R +-1% TK100	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R351	RG 30,1 OHM+-1%TK100	0603	0009.9081.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R352	RG 100R +-1% TK100	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R353	RG 30,1 OHM+-1%TK100	0603	0009.9081.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R354	RG 825R +-1% TK100	0603	0010.8391.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R355	RG 150R +-1% TK100	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R356	RG 18,2KOH+-0,1%TK25	1206	0009.7637.00	PHILIPS_CO	MPC 01	
	SMD-RESISTOR					
R357	RG 110 OHM+-1%TK100	0603	0009.9481.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R358	RG 150R +-1% TK100	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R359	RG 182 OHM+-1%TK100	0603	0009.9130.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					

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Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R360	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R361	RG 392K+-1% TK100 RESISTOR	0603	1097.6528.00	DRALORIC	CR 0603	
R362	RG 330K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7114.00	PHILIPS_CO	RC 22 H	
R363	RG 33R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6918.00	DRALORIC	CR 0603	
R364	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R365	RG 68R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6930.00	DRALORIC	CR 0603	
R366	RG 82,5 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9052.00	DRALORIC	CR 0603	
R367	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R368	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R369 ..376	RG 100 OHM+-0,1%TK25 SMD-RESISTOR	1206	0009.8033.00	PHILIPS_CO	MPC 01	
R377	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R378	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R379	RG 33R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6918.00	DRALORIC	CR 0603	
R380	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R381	RG 3K92 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8427.00	PHILIPS_CO	RC 22 H	
R382	RG 33R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6918.00	DRALORIC	CR 0603	
R383	RG 3K92 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8427.00	PHILIPS_CO	RC 22 H	
R384	RG 47R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6924.00	PHILIPS_CO	RC 22 H	
R385	RG 1,0 KO +-0,1%TK25 SMD-RESISTOR	1206	0009.7595.00	PHILIPS_CO	MPC 01	
R386	RG 22R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6901.00	DRALORIC	CR 0603	
R387	RG 47R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6924.00	PHILIPS_CO	RC 22 H	
R388	RG 825R +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8391.00	PHILIPS_CO	RC 22 H	
R389	RG 825R +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8391.00	PHILIPS_CO	RC 22 H	
R390	RG 5R62 +-1% TK250 SMD RESISTOR EIA0603	0603	0009.9100.00	DRALORIC	CR 0603	
R391	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R392	RG 47R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6924.00	PHILIPS_CO	RC 22 H	
R393	RG 137 OHM+-0,1%TK25 SMD-RESISTOR EIA1206	1206	0009.9252.00	PHILIPS_CO	MPC 01	
R394	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R395	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R396	RG 47R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6924.00	PHILIPS_CO	RC 22 H	
R397	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R398	RG 0-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R399	RG 0-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R400	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R401	RG 15R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6899.00	DRALORIC	CR 0603	
R402	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R403	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R404 ..406	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R407	RG 30,1 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9081.00	PHILIPS_CO	RC 22 H	

Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R408	RG 0-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R409	RG 10,0KOH+-0,1%TK25 SMD-RESISTOR NUR VAR/ONLY MOD: 02	1206	0009.7666.00	PHILIPS_CO	MPC 01	
R409	RG 10,0KOH+-0,1%TK25 SMD-RESISTOR NUR VAR/ONLY MOD: 04	1206	0009.7666.00	PHILIPS_CO	MPC 01	
R409	RG 7,5KOHM+-1%TK100 RG CHIP RESISTOR NUR VAR/ONLY MOD: 08	1206	RG 0007.0764.00	PHILIPS_CO	RC02	
R410	RG 4K7 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R411	RG 470K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7120.00	PHILIPS_CO	RC 22 H	
R412	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R413	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R414	RG 4R75 +-1% TK250 SMD RESISTOR EIA0603	0603	0010.8379.00	PHILIPS_CO	RC 22 H	
R415	RG 182 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9130.00	DRALORIC	CR 0603	
R416	RG 0-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R417	RG 15R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6899.00	DRALORIC	CR 0603	
R418	RG 30,1 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9081.00	PHILIPS_CO	RC 22 H	
R419	RG 30,1 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9081.00	PHILIPS_CO	RC 22 H	
R420	RG 1K82 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8404.00	PHILIPS_CO	RC 22 H	
R421	RG 1K82 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8404.00	PHILIPS_CO	RC 22 H	
R422	RG 1MO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5370.00	DRALORIC	CR 0603	
R423 ..429	RG 47R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6924.00	PHILIPS_CO	RC 22 H	
R430	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R431	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R432	RG 22R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6901.00	DRALORIC	CR 0603	
R433	RG 5R62 +-1% TK250 SMD RESISTOR EIA0603	0603	0009.9100.00	DRALORIC	CR 0603	
R434	RG 5K11 +-1% TK100 SMD RESISTOR EIA0603	0603	1097.6334.00	PHILIPS_CO	RC 22 H	
R435	RG 1K82 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8404.00	PHILIPS_CO	RC 22 H	
R436	RG 2K74 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8410.00	PHILIPS_CO	RC 22 H	
R437	RG 301R +-1%TK100 SMD RESISTOR EIA0603	0603	0009.9123.00	PHILIPS_CO	RC 22 H	
R438	RG 301R +-1%TK100 SMD RESISTOR EIA0603	0603	0009.9123.00	PHILIPS_CO	RC 22 H	
R439	RG 220R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6953.00	DRALORIC	CR 0603	
R440	RG 825R +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8391.00	PHILIPS_CO	RC 22 H	
R441	RG 825R +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8391.00	PHILIPS_CO	RC 22 H	
R442	RG 270R +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9581.00	PHILIPS_CO	RC 22 H	
R443	RG 270R +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9581.00	PHILIPS_CO	RC 22 H	
R444	RG 182 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9130.00	DRALORIC	CR 0603	
R445	RG 150K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7095.00	DRALORIC	CR 0603	
R446	RG 470K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7120.00	PHILIPS_CO	RC 22 H	
R447	RG 150R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6947.00	PHILIPS_CO	RC 22 H	

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Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R448	RG 8R25 +-1% TK250 SMD RESISTOR EIA0603	0603	0009.9117.00	DRALORIC	CR 0603	
R449	RG 150R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
R450	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R451	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R452	RG 0-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R453	RG 0-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R454 ..456	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R457	RG 470R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6976.00	DRALORIC	CR 0603	
R458	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R459	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R460	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R461	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R462	RG 0-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R463	RG 0-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R464	RG 68R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6930.00	DRALORIC	CR 0603	
R465	RG 220R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6953.00	DRALORIC	CR 0603	
R466	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R467	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R468	RG 2K2 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R469	RG 220R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6953.00	DRALORIC	CR 0603	
R470	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R471	RG 301R +-1%TK100 SMD RESISTOR EIA0603	0603	0009.9123.00	PHILIPS_CO	RC 22 H	
R472	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R473	RG 5R62 +-1% TK250 SMD RESISTOR EIA0603	0603	0009.9100.00	DRALORIC	CR 0603	
R474	RG 220R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6953.00	DRALORIC	CR 0603	
R475	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R476	RG 0-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R477	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R478	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R479	RG 5R62 +-1% TK250 SMD RESISTOR EIA0603	0603	0009.9100.00	DRALORIC	CR 0603	
R480	RG 30,1 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9081.00	PHILIPS_CO	RC 22 H	
R481	RG 30,1 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9081.00	PHILIPS_CO	RC 22 H	
R482	RG 4R75 +-1% TK250 SMD RESISTOR EIA0603	0603	0010.8379.00	PHILIPS_CO	RC 22 H	
R483	RG 5R62 +-1% TK250 SMD RESISTOR EIA0603	0603	0009.9100.00	DRALORIC	CR 0603	
R484	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R485	RG 18R2 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8385.00	DRALORIC	CR 0603	
R486	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R487	RG 5R62 +-1% TK250 SMD RESISTOR EIA0603	0603	0009.9100.00	DRALORIC	CR 0603	
R488	RG 5R62 +-1% TK250 SMD RESISTOR EIA0603	0603	0009.9100.00	DRALORIC	CR 0603	

Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R489	RG 47K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7072.00	DRALORIC	CR 0603	
R490	RG 1K82 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8404.00	PHILIPS_CO	RC 22 H	
R491	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R492	RG 100K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5363.00	DRALORIC	CR 0603	
R493	RG 825R +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8391.00	PHILIPS_CO	RC 22 H	
R494	RG 392R+-1% TK100 SMD RESISTOR EIA0603	0603	0010.9300.00	DRALORIC	CR 0603	
R495	RG 392R+-1% TK100 SMD RESISTOR EIA0603	0603	0010.9300.00	DRALORIC	CR 0603	
R496	RG 3K92 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8427.00	PHILIPS_CO	RC 22 H	
R497	RG 5K62 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8433.00	DRALORIC	CR 0603	
R498	RG 100K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5363.00	DRALORIC	CR 0603	
R499	RG 20K +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9100.00	DRALORIC	CR 0603	
R500	RG 6K8 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7037.00	DRALORIC	CR 0603	
R501	RG 100,0KO+-0,1%TK25 SMD-RESISTOR EIA1206	1206	0010.0655.00	PHILIPS_CO	MPC 01	
R502	RG 100,0KO+-0,1%TK25 SMD-RESISTOR EIA1206	1206	0010.0655.00	PHILIPS_CO	MPC 01	
R503	RG 4,75KOH+-0,1%TK25 SMD-RESISTOR EIA1206	1206	0009.8856.00	PHILIPS_CO	MPC 01	
R504	RG 2,49KOH+-0,1%TK25 SMD-RESISTOR EIA1206	1206	0009.8133.00	PHILIPS_CO	MPC 01	
R505	RG 22R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6901.00	DRALORIC	CR 0603	
R506	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R507	RG 825R +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8391.00	PHILIPS_CO	RC 22 H	
R508	RG 432R +-1%TK100 SMD RESISTOR EIA0603	0603	0009.9098.00	DRALORIC	CR 0603	
R509	RG 432R +-1%TK100 SMD RESISTOR EIA0603	0603	0009.9098.00	DRALORIC	CR 0603	
R510	RG 825R +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8391.00	PHILIPS_CO	RC 22 H	
R511	RG 162 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9500.00	DRALORIC	CR 0603	
R512	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R513	RG 220R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6953.00	DRALORIC	CR 0603	
R514	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R515	RG 47K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7072.00	DRALORIC	CR 0603	
R516	RS 0,25W 5KOHM +-20% POTENTIOMETER	SMD	RS 0007.9632.00	BI_TECHNOL	23 B R... TR	
R517	RG 100K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5363.00	DRALORIC	CR 0603	
R518	RG 100K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5363.00	DRALORIC	CR 0603	
R519	RG 330R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6960.00	DRALORIC	CR 0603	
R520	RG 15K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7043.00	DRALORIC	CR 0603	
R521	RG 15K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7043.00	DRALORIC	CR 0603	
R522	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R523	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R524 ..527	RG 121 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9498.00	DRALORIC	CR 0603	
R528	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R529	RG 220R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6953.00	DRALORIC	CR 0603	
R530	RG 220R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6953.00	DRALORIC	CR 0603	

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Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R531	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R532	RG 100K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5363.00	DRALORIC	CR 0603	
R533	RG 150R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
R534	RG 150R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
R535	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R536 ..539	RG 560R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.9630.00	DRALORIC	CR 0603	
R540	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R541	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R542	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R543	RG 47K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7072.00	DRALORIC	CR 0603	
R544	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R545	RG 1,62KOHM+-1%TK100 CHIP RESISTOR	1206	RG 0006.9997.00	PHILIPS_CO	RC02	
R546 ..548	RG 2K2 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R549	RG 4K7 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R550	RG 1,62KOHM+-1%TK100 CHIP RESISTOR	1206	RG 0006.9997.00	PHILIPS_CO	RC02	
R551	RG 8R25 +-1% TK250 SMD RESISTOR EIA0603	0603	0009.9117.00	DRALORIC	CR 0603	
R552	RG 8R25 +-1% TK250 SMD RESISTOR EIA0603	0603	0009.9117.00	DRALORIC	CR 0603	
R553	RG 5R62 +-1% TK250 SMD RESISTOR EIA0603	0603	0009.9100.00	DRALORIC	CR 0603	
R554	RG 5R62 +-1% TK250 SMD RESISTOR EIA0603	0603	0009.9100.00	DRALORIC	CR 0603	
R555	RG 12K1 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8462.00	DRALORIC	CR 0603	
R556 ..559	RG 432R +-1%TK100 SMD RESISTOR EIA0603	0603	0009.9098.00	DRALORIC	CR 0603	
R560	RG 47R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6924.00	PHILIPS_CO	RC 22 H	
R561 ..563	RG 20,0KOH+-0,1%TK25 SMD-RESISTOR	1206	0009.7643.00	PHILIPS_CO	MPC 01	
R564	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R565	RG 2K2 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R566	RG 1,0 KO +-0,1%TK25 SMD-RESISTOR	1206	0009.7595.00	PHILIPS_CO	MPC 01	
R567 ..571	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R572	RG 3,16KOH+-0,1%TK25 SMD-RESISTOR EIA1206	1206	0009.8204.00	PHILIPS_CO	MPC 01	
R573	RG 3,12KOH+-0,1%TK25 RESISTOR	1206	0010.2735.00	PHILIPS_CO	MPC 01	
R574 ..585	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R586	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R587	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R588	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R589	RG 51,0 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9030.00	DRALORIC	CR 0603	
R590	RG 20,0KOH+-0,1%TK25 SMD-RESISTOR	1206	0009.7643.00	PHILIPS_CO	MPC 01	
R591	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R592	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R593	RG 20K +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9100.00	DRALORIC	CR 0603	
R594 ..596	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	

Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R597	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R598 ..607	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R608	RG O-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R609	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R610 ..613	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R614	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R615	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R616	RG 470R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6976.00	DRALORIC	CR 0603	
R617	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R618	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R619	RG 30K1+-1% TK100 SMD RESISTOR EIA0603	0603	0010.9281.00	DRALORIC	CR 0603	
R620	RG 20K +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9100.00	DRALORIC	CR 0603	
R621	RG 470R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6976.00	DRALORIC	CR 0603	
R622	RG 30K1+-1% TK100 SMD RESISTOR EIA0603	0603	0010.9281.00	DRALORIC	CR 0603	
R623	RG 47K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7072.00	DRALORIC	CR 0603	
R624	RG 30K1+-1% TK100 SMD RESISTOR EIA0603	0603	0010.9281.00	DRALORIC	CR 0603	
R625	RG O-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R626	RG O-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R628	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R629	RG 5R62 +-1% TK250 SMD RESISTOR EIA0603	0603	0009.9100.00	DRALORIC	CR 0603	
R630 ..637	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R638	RG 1,1KOHM+-0,1%TK25 SMD-RESISTOR EIA1206	1206	0009.8127.00	PHILIPS_CO	MPC 01	
R639	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R640	RG 3K3 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7014.00	DRALORIC	CR 0603	
R641	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R642	RG 2K2 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R643	RG 2K2 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R644	RG 3K3 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7014.00	DRALORIC	CR 0603	
R645	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R646	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R647	RG 5K62 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8433.00	DRALORIC	CR 0603	
R648 ..650	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R651	RG 3K92 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8427.00	PHILIPS_CO	RC 22 H	
R652 ..656	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R657	RG 2K2 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R658	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R659	RG 825R +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8391.00	PHILIPS_CO	RC 22 H	
R660 ..662	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R663	RG 5K62 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8433.00	DRALORIC	CR 0603	

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Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R664	RG 330R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6960.00	DRALORIC	CR 0603	
R665	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R666	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R667	RG 27,4KOH+-0,1%TK25 SMD-RESISTOR EIA1206	1206	0009.7743.00	PHILIPS_CO	MPC 01	
R668	RG 560R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.9630.00	DRALORIC	CR 0603	
R669	RG 470R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6976.00	DRALORIC	CR 0603	
R669	RG 330K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7114.00	PHILIPS_CO	RC 22 H	F
R670	RG 470R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6976.00	DRALORIC	CR 0603	
R671	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R672	RG 5K62 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8433.00	DRALORIC	CR 0603	
R674 ..676	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R677	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R678	RG 2KO +-1% TK100 SMD RESISTOR EIA0603	0603	1097.6328.00	DRALORIC	CR 0603	
R679	RG 2KO +-1% TK100 SMD RESISTOR EIA0603	0603	1097.6328.00	DRALORIC	CR 0603	
R680	RG 2K2 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R681	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R682	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R683	RG 0-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R684	RG 220K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7108.00	DRALORIC	CR 0603	
R685	RG 150K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7095.00	DRALORIC	CR 0603	
R686	RG 560R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.9630.00	DRALORIC	CR 0603	
R687	RG 1,82KOHM+-1%TK100 RESISTOR CHIP	1206	RG 0007.5720.00	PHILIPS_CO	RC02	
R688	RG 0-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R689	RG 0-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R690	RG 1,82KOHM+-1%TK100 RESISTOR CHIP	1206	RG 0007.5720.00	PHILIPS_CO	RC02	
R691	RG 3K92 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8427.00	PHILIPS_CO	RC 22 H	
R692	RG 3K3 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7014.00	DRALORIC	CR 0603	
R693	RG 3K92 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8427.00	PHILIPS_CO	RC 22 H	
R694	RG 4K7 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R695 ..710	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R711	RG 560R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.9630.00	DRALORIC	CR 0603	
R712	RG 150R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
R713	RG 220R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6953.00	DRALORIC	CR 0603	
R714	RG 51,0 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9030.00	DRALORIC	CR 0603	
R715	RG 8K25 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8456.00	DRALORIC	CR 0603	
R716	RG 3K92 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8427.00	PHILIPS_CO	RC 22 H	
R717	RG 1MO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5370.00	DRALORIC	CR 0603	
R718	RG 33K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7066.00	PHILIPS_CO	RC 22 H	
R719	RG 4,02KOH+-0,1%TK25 SMD-RESISTOR EIA1206	1206	0009.7814.00	PHILIPS_CO	MPC 01	

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R720	RG 20K +-1% TK100 0603 SMD RESISTOR EIA0603	0010.9100.00	DRALORIC	CR 0603	
R721	RG 3,48KOH+-0,1%TK25 1206 RESISTOR	0010.2870.00	PHILIPS_CO	MPC 01	
R722 ..726	RG 2K2 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7008.00	DRALORIC	CR 0603	
R727	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R728	RG 392K+-1% TK100 0603 RESISTOR	1097.6528.00	DRALORIC	CR 0603	
R729	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R730	RG 5R62 +-1% TK250 0603 SMD RESISTOR EIA0603	0009.9100.00	DRALORIC	CR 0603	
R731	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R732	RG 0-OHM WIDERSTAND 0603 SMD RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R733	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R734	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R735	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R736	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R737	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R738	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R739	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R740	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R741	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R742	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R743	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R744	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R745	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R746	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R747	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R748	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R749 ..757	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R758	RG 2K74 +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8410.00	PHILIPS_CO	RC 22 H	
R759	RG 2K74 +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8410.00	PHILIPS_CO	RC 22 H	
R760 ..763	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R764	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R765	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R766	RG 2,0KOHM+-0,1%TK25 1206 SMD-RESISTOR	0009.7608.00	PHILIPS_CO	MPC 01	
R767	RG 5,36KOH+-0,1%TK25 1206 RESISTOR	0010.2912.00	PHILIPS_CO	MPC 01	
R768 ..772	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R773	RG 470R +-1% TK100 0603 SMD RESISTOR EIA0603	0009.6976.00	DRALORIC	CR 0603	
R774	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R775	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R776	RG 27,4KOH+-0,1%TK25 1206 SMD-RESISTOR EIA1206	0009.7743.00	PHILIPS_CO	MPC 01	
R777	RG 35,7 OHM+-1%TK100 0603 SMD RESISTOR EIA0603	0009.9000.00	PHILIPS_CO	RC 22 H	

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Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R778	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R779	RG 100K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5363.00	DRALORIC	CR 0603	
R780	RG 35,7 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9000.00	PHILIPS_CO	RC 22 H	
R781	RG 35,7 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9000.00	PHILIPS_CO	RC 22 H	
R782	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R783	RG 3K3 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7014.00	DRALORIC	CR 0603	
R784	RG 3K3 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7014.00	DRALORIC	CR 0603	
R785	RG 432R +-1%TK100 SMD RESISTOR EIA0603	0603	0009.9098.00	DRALORIC	CR 0603	
R786	RG 432R +-1%TK100 SMD RESISTOR EIA0603	0603	0009.9098.00	DRALORIC	CR 0603	
R787	RG 150R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
R788	RG 150R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
R789	RG 20K +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9100.00	DRALORIC	CR 0603	
R790	RG 100,0KO+-0,1%TK25 SMD-RESISTOR EIA1206	1206	0010.0655.00	PHILIPS_CO	MPC 01	
R791 ..794	RG 20,0KOH+-0,1%TK25 SMD-RESISTOR	1206	0009.7643.00	PHILIPS_CO	MPC 01	
R795 ..803	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R804	RG 20K +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9100.00	DRALORIC	CR 0603	
R805	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R806	RG 3K3 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7014.00	DRALORIC	CR 0603	
R807	RS 0,25W 2KOHM +-20% POTENTIOMETER	SMD	RS 0007.9626.00	BI_TECHNOL	23 B R... TR	
R808	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R809	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R810	RG 18R2 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8385.00	DRALORIC	CR 0603	
R811	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R812	RG 39,2KOH+-0,1%TK25 SMD-RESISTOR	1206	0009.8027.00	PHILIPS_CO	MPC 01	
R813	RG 39,2KOH+-0,1%TK25 SMD-RESISTOR	1206	0009.8027.00	PHILIPS_CO	MPC 01	
R814	RG 35,7 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9000.00	PHILIPS_CO	RC 22 H	
R815	RG 35,7 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9000.00	PHILIPS_CO	RC 22 H	
R816	RG 1,3KOHM+-0,1%TK25 RESISTOR	1206	0010.1968.00	PHILIPS_CO	MPC 01	
R817	RG 47R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6924.00	PHILIPS_CO	RC 22 H	
R818	RG 47R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6924.00	PHILIPS_CO	RC 22 H	
R819	RG 6K8 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7037.00	DRALORIC	CR 0603	
R820	RG 22R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6901.00	DRALORIC	CR 0603	
R821	RG 3K3 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7014.00	DRALORIC	CR 0603	
R822	RG 0-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R823	RG 68R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6930.00	DRALORIC	CR 0603	
R824	RG 56R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.9646.00	DRALORIC	CR 0603	
R825 ..828	RG 35,7 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9000.00	PHILIPS_CO	RC 22 H	
R829	RG 3KO1+-1% TK100 SMD RESISTOR EIA0603	0603	0010.9298.00	DRALORIC	CR 0603	
R830	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	

Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R831	RG 22R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6901.00	DRALORIC	CR 0603	
R832	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R833	RG 56K2 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9117.00	DRALORIC	CR 0603	
R834	RG 68,1KOH+-0,1%TK25 RESISTOR	1206	0010.2935.00	PHILIPS_CO	MPC 01	
R835	RG 4,02KOH+-0,1%TK25 SMD-RESISTOR EIA1206	1206	0009.7814.00	PHILIPS_CO	MPC 01	
R836	RG 20K +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9100.00	DRALORIC	CR 0603	
R837	RG 33K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7066.00	PHILIPS_CO	RC 22 H	
R838	RG 33K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7066.00	PHILIPS_CO	RC 22 H	
R839	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R840 ..846	RG 4K7 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R847	RG 2K2 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R848	RG 121 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9498.00	DRALORIC	CR 0603	
R849	RG 150R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
R850	RG 121 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9498.00	DRALORIC	CR 0603	
R851	RG 182 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9130.00	DRALORIC	CR 0603	
R852	RG 182 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9130.00	DRALORIC	CR 0603	
R853 ..855	RG 121 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9498.00	DRALORIC	CR 0603	
R856	RG 22R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6901.00	DRALORIC	CR 0603	
R857	RG 121 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9498.00	DRALORIC	CR 0603	
R858	RG 22R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6901.00	DRALORIC	CR 0603	
R859	RG 150R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
R860	RG 150R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
R861	RG 220R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6953.00	DRALORIC	CR 0603	
R862	RG 432R +-1%TK100 SMD RESISTOR EIA0603	0603	0009.9098.00	DRALORIC	CR 0603	
R863	RG 33R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6918.00	DRALORIC	CR 0603	
R864	RG 33R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6918.00	DRALORIC	CR 0603	
R865	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R866	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R867	RG 47K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7072.00	DRALORIC	CR 0603	
R868	RG O-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R870	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R871	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R872	RG 15K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7043.00	DRALORIC	CR 0603	
R873	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R874	RG O-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R875	RG 33R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6918.00	DRALORIC	CR 0603	
R876	RG O-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	
R877	RG 15R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6899.00	DRALORIC	CR 0603	
R878 ..883	RG O-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 O OHM	

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Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R884	RG 15R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6899.00	DRALORIC	CR 0603	
R885	RG 15R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6899.00	DRALORIC	CR 0603	
R886	RG 6K8 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7037.00	DRALORIC	CR 0603	
R887	RG 1K21 +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0010.9817.00	DRALORIC	CR 0603	
R888	RG 15R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6899.00	DRALORIC	CR 0603	
R889	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R890	RG 15R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6899.00	DRALORIC	CR 0603	
R891 ..895	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R896	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R897	RG 100K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5363.00	DRALORIC	CR 0603	
R898	RG 330R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6960.00	DRALORIC	CR 0603	
R899	RG 330R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6960.00	DRALORIC	CR 0603	
R900	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R901	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R902	RG 51,0 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9030.00	DRALORIC	CR 0603	
R903	RG 1MO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5370.00	DRALORIC	CR 0603	
R904	RG 330R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6960.00	DRALORIC	CR 0603	
R905	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R906	RG 4K7 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R907	RG 4K7 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R908	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R909	RG 4R75 +-1% TK250 SMD RESISTOR EIA0603	0603	0010.8379.00	PHILIPS_CO	RC 22 H	
R910	RG 51,0 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9030.00	DRALORIC	CR 0603	
R911 ..913	RG 4K7 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R914	RG 511R +-1%TK100 SMD RESISTOR EIA0603	0603	1097.6470.00	DRALORIC	CR 0603	
R915	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R916	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R917	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R918	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R919	RG 20K +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9100.00	DRALORIC	CR 0603	
R920	RG 4K7 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R921	RG 330R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6960.00	DRALORIC	CR 0603	
R922	RG 15R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6899.00	DRALORIC	CR 0603	
R923	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R924	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R925	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R926	RG 5R62 +-1% TK250 SMD RESISTOR EIA0603	0603	0009.9100.00	DRALORIC	CR 0603	
R927	RG 22R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6901.00	DRALORIC	CR 0603	
R928	RG 1MO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5370.00	DRALORIC	CR 0603	

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R929	RS 0,25W10KOHM +-20% SMD POTENTIOMETER	RS 0007.9649.00	BI_TECHNOL	23 B R... TR	
R930	RS 0,25W50KOHM +-20% SMD POTENTIOMETER	RS 0007.9661.00	BI_TECHNOL	23 B R... TR	
R931	RG 182 OHM+-1%TK100 0603 SMD RESISTOR EIA0603	0009.9130.00	DRALORIC	CR 0603	
R932	RG 130R +-1% TK100 0603 SMD RESISTOR EIA0603	1078.3110.00	DRALORIC	CR 0603	
R933	RG 560R +-1% TK100 0603 SMD RESISTOR EIA0603	0009.9630.00	DRALORIC	CR 0603	
R934	RG 560R +-1% TK100 0603 SMD RESISTOR EIA0603	0009.9630.00	DRALORIC	CR 0603	
R935	RG 150 OHM+-0,1%TK25 1206 SMD-RESISTOR EIA1206	0009.8091.00	PHILIPS_CO	MPC 01	
R936	RG 8R25 +-1% TK250 0603 SMD RESISTOR EIA0603	0009.9117.00	DRALORIC	CR 0603	
R937	RG 68K +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7089.00	PHILIPS_CO	RC 22 H	
R938	RG 1KO +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R939	RG 1KO +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R940	RG 470K +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7120.00	PHILIPS_CO	RC 22 H	
R941	RG 150K +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7095.00	DRALORIC	CR 0603	
R942	RG 56R +-1% TK100 0603 SMD RESISTOR EIA0603	0009.9646.00	DRALORIC	CR 0603	
	NUR VAR/ONLY MOD: 02				
R942	RG 56R +-1% TK100 0603 SMD RESISTOR EIA0603	0009.9646.00	DRALORIC	CR 0603	
	NUR VAR/ONLY MOD: 04				
R942	RG 56R +-1% TK100 0603 SMD RESISTOR EIA0603	0009.9646.00	DRALORIC	CR 0603	
	NUR VAR/ONLY MOD: 06				
R942	RG 47R +-1% TK100 0603 SMD RESISTOR EIA0603	0009.6924.00	PHILIPS_CO	RC 22 H	
	NUR VAR/ONLY MOD: 08				
R943	RG 51,0 OHM+-1%TK100 0603 SMD RESISTOR EIA0603	0009.9030.00	DRALORIC	CR 0603	
R944	RG 100K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5363.00	DRALORIC	CR 0603	
R945	RG 1KO +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R946	RG 68K +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7089.00	PHILIPS_CO	RC 22 H	
R947 ..955	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R956 ..958	RG 0-OHM WIDERSTAND 0603 SMD RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R959 ..962	RG 82,5 OHM+-1%TK100 0603 SMD RESISTOR EIA0603	0009.9052.00	DRALORIC	CR 0603	
R963	RG 15K +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7043.00	DRALORIC	CR 0603	
R964	RG 33K +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7066.00	PHILIPS_CO	RC 22 H	
R965	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R966	RG 30,1 OHM+-1%TK100 0603 SMD RESISTOR EIA0603	0009.9081.00	PHILIPS_CO	RC 22 H	
R967	RG 301R +-1%TK100 0603 SMD RESISTOR EIA0603	0009.9123.00	PHILIPS_CO	RC 22 H	
R968	RS 0,25W500KOHM+-20% SMD POTENTIOMETER	RS 0007.9690.00	BI_TECHNOL	23 B R... TR	
R969	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R970	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R971	RG 1,82KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5720.00	PHILIPS_CO	RC02	
R972	RG 1,82KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5720.00	PHILIPS_CO	RC02	
R973	RG 270R +-1% TK100 0603 SMD RESISTOR EIA0603	0010.9581.00	PHILIPS_CO	RC 22 H	
R974	RG 270R +-1% TK100 0603 SMD RESISTOR EIA0603	0010.9581.00	PHILIPS_CO	RC 22 H	
R975	RG 12K1 +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8462.00	DRALORIC	CR 0603	

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Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R976	RG 220R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6953.00	DRALORIC	CR 0603	
R977	RG 1K82 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8404.00	PHILIPS_CO	RC 22 H	
R978	RG 1K82 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8404.00	PHILIPS_CO	RC 22 H	
R979	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R980	RG 5K62 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8433.00	DRALORIC	CR 0603	
R981	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R982	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R983	RG 47R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6924.00	PHILIPS_CO	RC 22 H	
R984	RG 47R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6924.00	PHILIPS_CO	RC 22 H	
R985	RG 4K7 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R986	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R987	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R988	RG 47K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7072.00	DRALORIC	CR 0603	
R989	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R990	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R991	RG 2K2 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R992	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R993	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R994	RG 27OR +-1% TK100	0603	0010.9581.00	PHILIPS_CO	RC 22 H	
..996	SMD RESISTOR EIA0603					
R997	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R998	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R999	RG 15OR +-1% TK100 SMD RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
R999	RG 15OR +-1% TK100 SMD RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
R999	RG 15OR +-1% TK100 SMD RESISTOR EIA0603 NUR VAR/ONLY MOD: 06	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
R999	RG 182 OHM+-1%TK100 SMD RESISTOR EIA0603 NUR VAR/ONLY MOD: 08	0603	0009.9130.00	DRALORIC	CR 0603	
R1000	RG 15OR +-1% TK100 SMD RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
R1000	RG 15OR +-1% TK100 SMD RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
R1000	RG 15OR +-1% TK100 SMD RESISTOR EIA0603 NUR VAR/ONLY MOD: 06	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
R1000	RG 182 OHM+-1%TK100 SMD RESISTOR EIA0603 NUR VAR/ONLY MOD: 08	0603	0009.9130.00	DRALORIC	CR 0603	
R1001	RG 47R +-1% TK100 SMD RESISTOR EIA0603 NUR VAR/ONLY MOD: 02	0603	0009.6924.00	PHILIPS_CO	RC 22 H	
R1001	RG 47R +-1% TK100 SMD RESISTOR EIA0603 NUR VAR/ONLY MOD: 04	0603	0009.6924.00	PHILIPS_CO	RC 22 H	
R1001	RG 47R +-1% TK100 SMD RESISTOR EIA0603 NUR VAR/ONLY MOD: 06	0603	0009.6924.00	PHILIPS_CO	RC 22 H	
R1001	RG 30,1 OHM+-1%TK100 SMD RESISTOR EIA0603 NUR VAR/ONLY MOD: 08	0603	0009.9081.00	PHILIPS_CO	RC 22 H	

Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R1002	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R1003	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R1004	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R1005 ..1010	RG 220R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6953.00	DRALORIC	CR 0603	
R1011	RG 30,1 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9081.00	PHILIPS_CO	RC 22 H	
R1012	RG 432R +-1%TK100 SMD RESISTOR EIA0603	0603	0009.9098.00	DRALORIC	CR 0603	
R1013 ..1018	RG 150R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
R1019	RG 82,5 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9052.00	DRALORIC	CR 0603	
R1020	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R1021	RG 4R75 +-1% TK250 SMD RESISTOR EIA0603	0603	0010.8379.00	PHILIPS_CO	RC 22 H	
R1022	RG 56R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.9646.00	DRALORIC	CR 0603	
R1023	RG 1K21 +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0010.9817.00	DRALORIC	CR 0603	
R1024	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R1025	RG 3K3 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7014.00	DRALORIC	CR 0603	
R1026	RG 3K3 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7014.00	DRALORIC	CR 0603	
R1027	RG 3K3 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7014.00	DRALORIC	CR 0603	
R1028	RG 470R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6976.00	DRALORIC	CR 0603	
R1029	RG 825R +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8391.00	PHILIPS_CO	RC 22 H	
R1030	RS 0,25W 1KOHM +-20% RG POTENTIOMETER	SMD	RS 0007.9610.00	BI_TECHNOL	23 B R... TR	
R1031	RG 1K5 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6999.00	DRALORIC	CR 0603	
R1032	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R1033	RG 47K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7072.00	DRALORIC	CR 0603	
R1034	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R1035	RG 8K25 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8456.00	DRALORIC	CR 0603	
R1036	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R1037	RG 2K2 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R1038	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R1039	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R1040	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R1041	RG 39K2 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9823.00	DRALORIC	CR 0603	
R1042	RG 100K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5363.00	DRALORIC	CR 0603	
R1043 ..1050	RG 1MO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5370.00	DRALORIC	CR 0603	
R1051	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R1052	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R1053	RG 0-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R1054	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R1055	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R1056	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R1057	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	

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Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R1058	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R1059	RG 20K +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9100.00	DRALORIC	CR 0603	
R1060	RG 20K +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9100.00	DRALORIC	CR 0603	
R1061	RG 20K +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9100.00	DRALORIC	CR 0603	
R1062	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R1063	RG 220K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7108.00	DRALORIC	CR 0603	
R1064	RG 220K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7108.00	DRALORIC	CR 0603	
R1065	RG 220K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7108.00	DRALORIC	CR 0603	
R1066	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R1067	RG 20K +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9100.00	DRALORIC	CR 0603	
R1068	RG 18K2+-1% TK100 SMD RESISTOR EIA0603	0603	0010.9317.00	DRALORIC	CR 0603	
R1069	RG 330R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6960.00	DRALORIC	CR 0603	
R1070	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R1071	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R1072	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R1073	RG 4K7 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R1074	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R1075 ..1078	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R1079 ..1082	RG 5K62 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8433.00	DRALORIC	CR 0603	
R1083 ..1086	RG 100 OHM+-0,1%TK25 SMD-RESISTOR	1206	0009.8033.00	PHILIPS_CO	MPC 01	
R1087 ..1094	RG 2K2 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R1095	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R1096	RG 2K2 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R1097 ..1100	RG 4K7 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R1101	RG 0-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R1102	RG 0-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R1103 ..1106	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R1107	RG 3KO1+-1% TK100 SMD RESISTOR EIA0603	0603	0010.9298.00	DRALORIC	CR 0603	
R1108	RG 2KO +-1% TK100 SMD RESISTOR EIA0603	0603	1097.6328.00	DRALORIC	CR 0603	
R1109	RG 2KO +-1% TK100 SMD RESISTOR EIA0603	0603	1097.6328.00	DRALORIC	CR 0603	
R1110	RG 3KO1+-1% TK100 SMD RESISTOR EIA0603	0603	0010.9298.00	DRALORIC	CR 0603	
R1111	RS 0,25W5OKOHM +-20% SMD POTENTIOMETER	SMD	RS 0007.9661.00	BI_TECHNOL	23 B R... TR	
R1112	RG 51,0 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9030.00	DRALORIC	CR 0603	
R1113	RG 51,0 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9030.00	DRALORIC	CR 0603	
R1114	RG 200R +-1% TK100 SMD RESISTOR EIA0603	0603	1097.6386.00	DRALORIC	CR 0603	
R1115	RG 200R +-1% TK100 SMD RESISTOR EIA0603	0603	1097.6386.00	DRALORIC	CR 0603	
R1116	RG 3K92 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8427.00	PHILIPS_CO	RC 22 H	
R1117	RG 3K92 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8427.00	PHILIPS_CO	RC 22 H	
R1118	RG 100K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5363.00	DRALORIC	CR 0603	

Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R1119	RG 100K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5363.00	DRALORIC	CR 0603	
R1120	RG 30,1 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9081.00	PHILIPS_CO	RC 22 H	
R1121	RG 100K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5363.00	DRALORIC	CR 0603	
R1122	RG 20K +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9100.00	DRALORIC	CR 0603	
R1123	RG 35,7 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9000.00	PHILIPS_CO	RC 22 H	
R1124	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R1125	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R1126 ..1128	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R1129	RK SMD-HEISSL.100K SMD-NTC-RESISTOR	1206	0008.9236.00	SIEMENS	B57621-C104-J	
R1130	RG 12K1 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8462.00	DRALORIC	CR 0603	
R1131	RG 12K1 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8462.00	DRALORIC	CR 0603	
R1132 ..1136	RG 121 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9498.00	DRALORIC	CR 0603	
R1137	RG 392K+-1% TK100 RESISTOR	0603	1097.6528.00	DRALORIC	CR 0603	
R1138	RG 39R 1% 1W SMD-RESISTOR	1218	1104.2786.00	PHILIPS_CO	PRC201-39R 1% TK100	
R1139	RG 39R 1% 1W SMD-RESISTOR	1218	1104.2786.00	PHILIPS_CO	PRC201-39R 1% TK100	
R1140 ..1143	RG 330R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6960.00	DRALORIC	CR 0603	
R1144	RG 2K2 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R1145	RG 2K2 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R1146 ..1149	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R1150	RG 3K92 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8427.00	PHILIPS_CO	RC 22 H	
R1151	RG 3K92 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8427.00	PHILIPS_CO	RC 22 H	
R1152	RG 301R +-1%TK100 SMD RESISTOR EIA0603	0603	0009.9123.00	PHILIPS_CO	RC 22 H	
R1153	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R1154	RG 150R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
R1155	RG 150R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
R1156	RG 200R +-1% TK100 SMD RESISTOR EIA0603	0603	1097.6386.00	DRALORIC	CR 0603	
R1157	RG 200R +-1% TK100 SMD RESISTOR EIA0603	0603	1097.6386.00	DRALORIC	CR 0603	
R1158	RG 150R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
R1159	RG 150R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
R1160	RG 35,7 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9000.00	PHILIPS_CO	RC 22 H	
R1161	RG 432R +-1%TK100 SMD RESISTOR EIA0603	0603	0009.9098.00	DRALORIC	CR 0603	
R1162	RG 432R +-1%TK100 SMD RESISTOR EIA0603 NICHT BESTUECKT/NOT FITTED	0603	0009.9098.00	DRALORIC	CR 0603	
R1163	RG 0-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R1164	RG 100K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5363.00	DRALORIC	CR 0603	
R1165	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R1166 ..1183	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R1184	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R1185	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R1186	RG 13K +-1% TK100 0603 SMD RESISTOR EIA0603	1097.6428.00	PHILIPS_CO	RC 22 H	
R1187	RG 13K +-1% TK100 0603 SMD RESISTOR EIA0603	1097.6428.00	PHILIPS_CO	RC 22 H	
R1188	RG 13K +-1% TK100 0603 SMD RESISTOR EIA0603	1097.6428.00	PHILIPS_CO	RC 22 H	
R1189	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R1190	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R1191 ..1194	RG 2K74 +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8410.00	PHILIPS_CO	RC 22 H	
R1195 ..1198	RG 6K8 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7037.00	DRALORIC	CR 0603	
R1199	RG 3R32 +-1% TK250 0603 SMD RESISTOR EIA0603	0010.8362.00	DRALORIC	CR 0603	
R1200	RG 3R32 +-1% TK250 0603 SMD RESISTOR EIA0603	0010.8362.00	DRALORIC	CR 0603	
R1201 ..1203	RG 1KO +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R1204 ..1206	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R1207	RK SMD-HEISSL.100K 1206 SMD-NTC-RESISTOR	0008.9236.00	SIEMENS	B57621-C104-J	
R1208 ..1212	RG 12K1 +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8462.00	DRALORIC	CR 0603	
R1213	RG 18K2+-1% TK100 0603 SMD RESISTOR EIA0603	0010.9317.00	DRALORIC	CR 0603	
R1214	RG 0-OHM WIDERSTAND 0603 SMD RESISTOR EIA0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R1215	RG 100R 1% 1W 1218 SMD RESISTOR	1104.2740.00	PHILIPS_CO	PRC201-100R 1% TK100	
R1216	RG 100R 1% 1W 1218 SMD RESISTOR	1104.2740.00	PHILIPS_CO	PRC201-100R 1% TK100	
R1217	RG 200R +-1% TK100 0603 SMD RESISTOR EIA0603 NICHT BESTUECKT/NOT FITTED	1097.6386.00	DRALORIC	CR 0603	
R1218	RS 0,25W10KOHM +-20% SMD POTENTIOMETER NICHT BESTUECKT/NOT FITTED	RS 0007.9649.00	BI_TECHNOL	23 B R... TR	
R1219	RG 182K +-1% TK100 0603 RESISTOR	1093.6175.00	DRALORIC	CR 0603	
R1220	RG 1,21KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.9968.00	PHILIPS_CO	RC02	
R1221 ..1224	RG 1KO +-1% TK100 1206 CHIP RESISTOR	RG 0006.7271.00	DRALORIC	CR 1206	
R1225	RG 0-OHM WIDERSTAND 1206 RESISTOR CHIP 0-OHM	RG 0007.5108.00	DRALORIC	CR 1206	
R1226	RG 121 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8903.00	PHILIPS_CO	RC02	
R1250	RG 1MO +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5370.00	DRALORIC	CR 0603	
R1251	RG 1MO +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5370.00	DRALORIC	CR 0603	
R1252	RG 1MO +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5370.00	DRALORIC	CR 0603	
R1253	RG 1MO +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5370.00	DRALORIC	CR 0603	
R1300	RG 51,1 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8810.00	PHILIPS_CO	RC02	
R1301	RG 51,1 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8810.00	PHILIPS_CO	RC02	
S1	BM SSW-124 SPDTSWITCH GAAS RF-SWITCH	1085.2222.00	STANFORD_M	SSW-124	
S2	BM SSW-124 SPDTSWITCH GAAS RF-SWITCH	1085.2222.00	STANFORD_M	SSW-124	
T1	DW SYMETRIEUEBERTRAGER	1084.9846.00			
U1 ..3	BJ DAC08CS 1X8-DAC D/A-CONVERTER	6024.3137.00	PMI	DAC08C(S)	
U4 ..6	ER JPS-2-1W 2WEG-L.TEILER 2WAY POWER DIVIDER	1085.1603.00	MINI-CIRCU	JPS-2-1W	
U7	BO LM2903D 2XLP COMPAR DUAL	0520.7734.00	SIGNETICS	LM2903(D)	
U8	BO LM2903D 2XLP COMPAR DUAL	0520.7734.00	SIGNETICS	LM2903(D)	

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
U9	BM SM4T17-2 MIXER 3,4G MIXER	1085.2068.00	WATKINS-JO	WJ-SM4T17	
U11	BM JMS-2607 MIXER 350M MIXER MODULE	1085.1510.00	MINI-CIRCU	JMS-2607	
U12	BM JMS-2607 MIXER 350M MIXER MODULE	1085.1510.00	MINI-CIRCU	JMS-2607	
V1	AK BSP31 PNP 60V 1A TRAN MEDIUM POWER TRANSISTOR	1085.1755.00	PHILIPS_SE	BSP31	
V2	AK BSP31 PNP 60V 1A TRAN MEDIUM POWER TRANSISTOR	1085.1755.00	PHILIPS_SE	BSP31	
V3	AE BAR64-04 CA 2X PIN SILICON PIN DIODE	1039.1327.00	SIEMENS	BAR6404 (Q62702-A101	
V4	AE BAR64-04 CA 2X PIN SILICON PIN DIODE	1039.1327.00	SIEMENS	BAR6404 (Q62702-A101	
V5	AD BAV99 75V DUO UDI HIGH-SPEED DOUBLE DIODE	AD 0911.0092.00	VALVO	BAV99	
V6	AK BSP31 PNP 60V 1A TRAN MEDIUM POWER TRANSISTOR	1085.1755.00	PHILIPS_SE	BSP31	
V7	AE BZV55/C4V7 0.5W ZDI ZENER DIODE	AE 0006.9822.00	PHILIPS	BZV55B4V7	
V8	AE BAR64-04 CA 2X PIN SILICON PIN DIODE	1039.1327.00	SIEMENS	BAR6404 (Q62702-A101	
V9	AE BAR64-04 CA 2X PIN SILICON PIN DIODE	1039.1327.00	SIEMENS	BAR6404 (Q62702-A101	
V10	AE BZV55/C4V7 0.5W ZDI ZENER DIODE	AE 0006.9822.00	PHILIPS	BZV55B4V7	
V11	AD BAV99 75V DUO UDI HIGH-SPEED DOUBLE DIODE	AD 0911.0092.00	VALVO	BAV99	
V12	AK BSR18A P 40V 200MA TRANSISTOR	AK 0007.2073.00	PHILIPS_SE	BSR18 (BSR18A)	
V13	AK BSR18A P 40V 200MA TRANSISTOR	AK 0007.2073.00	PHILIPS_SE	BSR18 (BSR18A)	
V14	AK BC860B P 45V 200MA TRANSISTOR	AK 0007.7975.00	MOTOROLA	BC860B	
V15	AK BC860B P 45V 200MA TRANSISTOR	AK 0007.7975.00	MOTOROLA	BC860B	
V16	AD BAV99 75V DUO UDI HIGH-SPEED DOUBLE DIODE	AD 0911.0092.00	VALVO	BAV99	
V17	AD BAV99 75V DUO UDI HIGH-SPEED DOUBLE DIODE	AD 0911.0092.00	VALVO	BAV99	
V18	AE BZV55/C4V7 0.5W ZDI ZENER DIODE	AE 0006.9822.00	PHILIPS	BZV55B4V7	
V19 ..22	AK BC860B P 45V 200MA TRANSISTOR	AK 0007.7975.00	MOTOROLA	BC860B	
V23	AD BAV99 75V DUO UDI HIGH-SPEED DOUBLE DIODE	AD 0911.0092.00	VALVO	BAV99	
V24	AD BAV99 75V DUO UDI HIGH-SPEED DOUBLE DIODE	AD 0911.0092.00	VALVO	BAV99	
V25	AE HSMS2825 1+1 SCHOTTKY SCHOTTKY DIODE PAIR	1010.6214.00	HEWLETT_PA	HSMS2825 L31	
V26	AD BAV99 75V DUO UDI HIGH-SPEED DOUBLE DIODE	AD 0911.0092.00	VALVO	BAV99	
V27	AE BZV55/C7V5 0,5W ZDI ZENER DIODE	AE 0007.3428.00	PHILIPS_SE	BZV55B7V5	
V28 ..32	AE BAT15-03W SCHOTTKY SCHOTTKY DIODE	1085.1526.00	SIEMENS	BAT15-03W (-A1104)	
V33	AK BC850B N 45V 200MA TRANSISTOR	AK 0007.7969.00	VALVO	BC850B	
V34 ..36	AE BAT15-03W SCHOTTKY SCHOTTKY DIODE	1085.1526.00	SIEMENS	BAT15-03W (-A1104)	
V37 ..43	AK BC860B P 45V 200MA TRANSISTOR	AK 0007.7975.00	MOTOROLA	BC860B	
V44	AD BAV99 75V DUO UDI HIGH-SPEED DOUBLE DIODE	AD 0911.0092.00	VALVO	BAV99	
V45 ..48	AE BAT15-03W SCHOTTKY SCHOTTKY DIODE	1085.1526.00	SIEMENS	BAT15-03W (-A1104)	
V49	AE BZV55/C6V8 0,5W ZDI ZENER DIODE	AE 0006.9868.00	PHILIPS	BZV55/B6V8	
V50	AE BAR64-04 CA 2X PIN SILICON PIN DIODE	1039.1327.00	SIEMENS	BAR6404 (Q62702-A101	
V51	AE BZV55/C6V8 0,5W ZDI ZENER DIODE	AE 0006.9868.00	PHILIPS	BZV55/B6V8	
V52	AE BAR64-04 CA 2X PIN SILICON PIN DIODE	1039.1327.00	SIEMENS	BAR6404 (Q62702-A101	
V53	AE BAR64-04 CA 2X PIN SILICON PIN DIODE	1039.1327.00	SIEMENS	BAR6404 (Q62702-A101	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
V54	AE BZV55/C6V8 0,5W ZDI ZENER DIODE	AE 0006.9868.00	PHILIPS	BZV55/B6V8	
V55	AE BZV55/C5V1 0.5W ZDI ZENER DIODE	AE 0006.9839.00	PHILIPS_SE	BZV55B5V1 (GEG)	
V56	AK BC860B P 45V 200MA TRANSISTOR	AK 0007.7975.00	MOTOROLA	BC860B	
V57	AE BZV55/C3V3 0,5W ZDI ZENER DIODE	AE 0006.9800.00	PHILIPS_SE	BZV55B3V3	
V58	AK BCP69-25 P 20V TRANS MEDIUM POWER TRANSISTOR	0008.2002.00	PHILIPS	BCP 69-16 (25)	
V59	AD BAV99 75V DUO UDI HIGH-SPEED DOUBLE DIODE	AD 0911.0092.00	VALVO	BAV99	
V60	AK BCP68-16 N 20V TRANS MEDIUM POWER TRANSISTOR	0008.2019.00	PHILIPS	BCP68-25	
V61	AE BZV55/C5V1 0.5W ZDI ZENER DIODE	AE 0006.9839.00	PHILIPS_SE	BZV55B5V1 (GEG)	
V62	AE BZV55/C3V9 0,5W ZDI ZENER DIODE	AE 0006.9816.00	PHILIPS_SE	BZV55B3V9	
V63	AE BZV55/C5V1 0.5W ZDI ZENER DIODE	AE 0006.9839.00	PHILIPS_SE	BZV55B5V1 (GEG)	
V64	AK BC850B N 45V 200MA TRANSISTOR	AK 0007.7969.00	VALVO	BC850B	
V65	AK BSR13 N 30V 800MA TRANSISTOR	AK 0007.2209.00	VALVO	BSR 13	
V66	AK BSR13 N 30V 800MA TRANSISTOR	AK 0007.2209.00	VALVO	BSR 13	
V67	AK BC850B N 45V 200MA TRANSISTOR	AK 0007.7969.00	VALVO	BC850B	
V68	AK BSR13 N 30V 800MA TRANSISTOR	AK 0007.2209.00	VALVO	BSR 13	
V69	AK BC850B N 45V 200MA TRANSISTOR	AK 0007.7969.00	VALVO	BC850B	
V70	AK BC850B N 45V 200MA TRANSISTOR	AK 0007.7969.00	VALVO	BC850B	
V71	AE BAR64-04 CA 2X PIN SILICON PIN DIODE	1039.1327.00	SIEMENS	BAR6404 (Q62702-A101	
V72	AE BZV55/C5V6 0.5W ZDI ZENER DIODE	AE 0006.9845.00	PHILIPS	BZV55B5V6	
V73	AD BAS16 75V UDI HIGH-SPEED DIODE	AD 0007.4924.00	VALVO	BAS16 (A6P)	
V74	AE BZV55/C5V6 0.5W ZDI ZENER DIODE	AE 0006.9845.00	PHILIPS	BZV55B5V6	
V75	AK BFG135 NPN 15V 150MA 7 GHZ WIDEBAND TRANSISTOR	2023.0639.00	PHILIPS	BFG135	
V76	AK BC860B P 45V 200MA TRANSISTOR	AK 0007.7975.00	MOTOROLA	BC860B	
V77	AK BFG135 NPN 15V 150MA 7 GHZ WIDEBAND TRANSISTOR	2023.0639.00	PHILIPS	BFG135	
V78	AK BC860B P 45V 200MA TRANSISTOR	AK 0007.7975.00	MOTOROLA	BC860B	
V79	AD BAV99 75V DUO UDI HIGH-SPEED DOUBLE DIODE	AD 0911.0092.00	VALVO	BAV99	
V80 ..83	AK BFG135 NPN 15V 150MA 7 GHZ WIDEBAND TRANSISTOR	2023.0639.00	PHILIPS	BFG135	
V84	AE BZV55/C4V7 0.5W ZDI ZENER DIODE	AE 0006.9822.00	PHILIPS	BZV55B4V7	
V85 ..87	AE BZV55/C5V6 0.5W ZDI ZENER DIODE	AE 0006.9845.00	PHILIPS	BZV55B5V6	
V88	AD BAV99 75V DUO UDI HIGH-SPEED DOUBLE DIODE	AD 0911.0092.00	VALVO	BAV99	
V89	AK BSR18A P 40V 200MA TRANSISTOR	AK 0007.2073.00	PHILIPS_SE	BSR18 (BSR18A)	
V90	AK BSR13 N 30V 800MA TRANSISTOR	AK 0007.2209.00	VALVO	BSR 13	
V91	AK BSR13 N 30V 800MA TRANSISTOR	AK 0007.2209.00	VALVO	BSR 13	
V92	AK BC850B N 45V 200MA TRANSISTOR	AK 0007.7969.00	VALVO	BC850B	
V93	AK BC850B N 45V 200MA TRANSISTOR	AK 0007.7969.00	VALVO	BC850B	
V94 ..97	AD BAV99 75V DUO UDI HIGH-SPEED DOUBLE DIODE	AD 0911.0092.00	VALVO	BAV99	
V98	AE BZV55/C5V1 0.5W ZDI ZENER DIODE	AE 0006.9839.00	PHILIPS_SE	BZV55B5V1 (GEG)	
V99	AM SHF0186K 9V GAASF GAAS FET	1085.1655.00	STANFORD_M	SHF-0186K4230TR	
V100	AE BZV55/C2V7 0,5W ZDI ZENER DIODE	AE 0007.3411.00	PHILIPS_SE	BZV55B2V7	

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DSD.0028-0893

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
V101	AD BAV99 75V DUO UDI HIGH-SPEED DOUBLE DIODE	AD 0911.0092.00	VALVO	BAV99	
V102	AM SHF0186K 9V GAASF GAAS FET	1085.1655.00	STANFORD_M	SHF-0186K423OTR	
V103	AM SHF0186K 9V GAASF GAAS FET	1085.1655.00	STANFORD_M	SHF-0186K423OTR	
V104	AM SHF0189 12V GAASF GAAS FET	1085.2351.00	STANFORD_M	SHF-0189-TR1	
V105	AE HSMS2825 1+1 SCHOTTKY SCHOTTKY DIODE PAIR	1010.6214.00	HEWLETT_PA	HSMS2825 L31	
V106	AE BAT62-03W 1X SCHOTTKY DIODE	0856.7095.00	SIEMENS	BAT62-03W	
V107	AE BAT62-03W 1X SCHOTTKY DIODE	0856.7095.00	SIEMENS	BAT62-03W	
V108	AE BAR63-03W PIN PIN DIODE	1051.4851.00	SIEMENS	BAR63-03W (-A1025)	
V109	AE HSMS2825 1+1 SCHOTTKY SCHOTTKY DIODE PAIR	1010.6214.00	HEWLETT_PA	HSMS2825 L31	
V110	AE BAR63-03W PIN PIN DIODE	1051.4851.00	SIEMENS	BAR63-03W (-A1025)	
V111	AK BFG540/X NPN 15V 120MA 9 GHZ WIDEBAND TRANSISTOR	1062.6496.00	PHILIPS	BFG540/X	
V112	AK BC860B P 45V 200MA TRANSISTOR	AK 0007.7975.00	MOTOROLA	BC860B	
V113	AD BAV99 75V DUO UDI HIGH-SPEED DOUBLE DIODE	AD 0911.0092.00	VALVO	BAV99	
V114	AD BAV99 75V DUO UDI HIGH-SPEED DOUBLE DIODE	AD 0911.0092.00	VALVO	BAV99	
V115 ..117	AK BC860B P 45V 200MA TRANSISTOR	AK 0007.7975.00	MOTOROLA	BC860B	
V118	AE BAR64-04 CA 2X PIN SILICON PIN DIODE	1039.1327.00	SIEMENS	BAR6404 (Q62702-A101	
V119	AD BAV99 75V DUO UDI HIGH-SPEED DOUBLE DIODE	AD 0911.0092.00	VALVO	BAV99	
V120	AK BCP68-16 N 20V TRANS MEDIUM POWER TRANSISTOR	0008.2019.00	PHILIPS	BCP68-25	
V121	AK BSR13 N 30V 800MA TRANSISTOR	AK 0007.2209.00	VALVO	BSR 13	
V122 ..130	AE BB535 18,7/2,1P CDI TUNING DIODE	1039.3107.00	SIEMENS	BB535/Q62702-B580	
V131	AE BZV55/C5V1 0.5W ZDI ZENER DIODE	AE 0006.9839.00	PHILIPS_SE	BZV55B5V1 (GEG)	
V132	AD BAV99 75V DUO UDI HIGH-SPEED DOUBLE DIODE	AD 0911.0092.00	VALVO	BAV99	
V133	AE BZV55/C7V5 0,5W ZDI ZENER DIODE	AE 0007.3428.00	PHILIPS_SE	BZV55B7V5	
V134	AK BSR13 N 30V 800MA TRANSISTOR	AK 0007.2209.00	VALVO	BSR 13	
V135	AE BZV55/C5V1 0.5W ZDI ZENER DIODE	AE 0006.9839.00	PHILIPS_SE	BZV55B5V1 (GEG)	
V136 ..138	AK BSR13 N 30V 800MA TRANSISTOR	AK 0007.2209.00	VALVO	BSR 13	
V139	AK BSR18A P 40V 200MA TRANSISTOR	AK 0007.2073.00	PHILIPS_SE	BSR18 (BSR18A)	
V140	AD BAV99 75V DUO UDI HIGH-SPEED DOUBLE DIODE	AD 0911.0092.00	VALVO	BAV99	
V141	AK BSR18A P 40V 200MA TRANSISTOR	AK 0007.2073.00	PHILIPS_SE	BSR18 (BSR18A)	
V142	AK BC850B N 45V 200MA TRANSISTOR	AK 0007.7969.00	VALVO	BC850B	
V143	AE BZV55/C5V1 0.5W ZDI ZENER DIODE	AE 0006.9839.00	PHILIPS_SE	BZV55B5V1 (GEG)	
V144	AM SHF0186K 9V GAASF GAAS FET	1085.1655.00	STANFORD_M	SHF-0186K423OTR	
V145 ..148	AK BFP450 NPN 4,5V 100MA RF-TRANSISTOR NPN	4048.1483.00	SIEMENS	BFP450 (-F1590)	
V149	AK BC860B P 45V 200MA TRANSISTOR	AK 0007.7975.00	MOTOROLA	BC860B	
V150	AK BSR18A P 40V 200MA TRANSISTOR	AK 0007.2073.00	PHILIPS_SE	BSR18 (BSR18A)	
V151	AM SST108 N-D 25V JFET JUNCTION FET	6007.3949.00	SILICONIX	SST108	
V152	AK BSR18A P 40V 200MA TRANSISTOR	AK 0007.2073.00	PHILIPS_SE	BSR18 (BSR18A)	
V153	AE BZV55/C6V2 0,5W ZDI ZENER DIODE	AE 0006.9851.00	PHILIPS	BZV55B6V2	
V154	AK BFP450 NPN 4,5V 100MA RF-TRANSISTOR NPN	4048.1483.00	SIEMENS	BFP450 (-F1590)	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
V155	AK BC850B N 45V 200MA TRANSISTOR	AK 0007.7969.00	VALVO	BC850B	
V156	AE BAT62-03W 1X SCHOTTKY DIODE	0856.7095.00	SIEMENS	BAT62-03W	
V157	AE BAT62-03W 1X SCHOTTKY DIODE	0856.7095.00	SIEMENS	BAT62-03W	
V158	AK BSR18A P 40V 200MA TRANSISTOR	AK 0007.2073.00	PHILIPS_SE	BSR18 (BSR18A)	
V159	AK BSR18A P 40V 200MA TRANSISTOR	AK 0007.2073.00	PHILIPS_SE	BSR18 (BSR18A)	
V160	AE HSMS2825 1+1 SCHOTTKY SCHOTTKY DIODE PAIR	1010.6214.00	HEWLETT_PA	HSMS2825 L31	
V161	AK BSR13 N 30V 800MA TRANSISTOR	AK 0007.2209.00	VALVO	BSR 13	
V162	AK BSR13 N 30V 800MA TRANSISTOR	AK 0007.2209.00	VALVO	BSR 13	
V163	AK BSR18A P 40V 200MA TRANSISTOR	AK 0007.2073.00	PHILIPS_SE	BSR18 (BSR18A)	
V164	AK BSR18A P 40V 200MA TRANSISTOR	AK 0007.2073.00	PHILIPS_SE	BSR18 (BSR18A)	
V165	AD BAV99 75V DUO UDI HIGH-SPEED DOUBLE DIODE	AD 0911.0092.00	VALVO	BAV99	
V166	AE BZX284-B3V3 0,4W ZDI ZENER DIODE	0048.3474.00	PHILIPS_SE	BZX284-B3V3	
V167	AK BCP68-16 N 20V TRANS MEDIUM POWER TRANSISTOR	0008.2019.00	PHILIPS	BCP68-25	
V168	AE HSMS2825 1+1 SCHOTTKY SCHOTTKY DIODE PAIR	1010.6214.00	HEWLETT_PA	HSMS2825 L31	
V169	AE HSMS2825 1+1 SCHOTTKY SCHOTTKY DIODE PAIR	1010.6214.00	HEWLETT_PA	HSMS2825 L31	
V170	AE BAR63-03W PIN PIN DIODE	1051.4851.00	SIEMENS	BAR63-03W (-A1025)	
V171	AE BAR63-03W PIN PIN DIODE	1051.4851.00	SIEMENS	BAR63-03W (-A1025)	
V172 ..177	AE HSMS2825 1+1 SCHOTTKY SCHOTTKY DIODE PAIR	1010.6214.00	HEWLETT_PA	HSMS2825 L31	
V178 ..181	AM SST108 N-D 25V JFET JUNCTION FET	6007.3949.00	SILICONIX	SST108	
V182	BM AF002C1-39 GAASSWITCH GAAS IC CONTROL FET	1085.2316.00	ALPHA_IND	AF002C1-39	
V183	BM AF002C1-39 GAASSWITCH GAAS IC CONTROL FET	1085.2316.00	ALPHA_IND	AF002C1-39	
V184 ..189	AM SST108 N-D 25V JFET JUNCTION FET	6007.3949.00	SILICONIX	SST108	
V190	BM AF002C1-39 GAASSWITCH GAAS IC CONTROL FET	1085.2316.00	ALPHA_IND	AF002C1-39	
V191	BM AF002C1-39 GAASSWITCH GAAS IC CONTROL FET	1085.2316.00	ALPHA_IND	AF002C1-39	
V192	AM SST108 N-D 25V JFET JUNCTION FET	6007.3949.00	SILICONIX	SST108	
V193	AM SST108 N-D 25V JFET JUNCTION FET	6007.3949.00	SILICONIX	SST108	
V194	AE BZV55/C3V3 0,5W ZDI ZENER DIODE	AE 0006.9800.00	PHILIPS_SE	BZV55B3V3	
V195	AE BZV55/C2V7 0,5W ZDI ZENER DIODE	AE 0007.3411.00	PHILIPS_SE	BZV55B2V7	
X1 ..5	FJ EINLOETBUCHSE MMCX SMD CONNECTOR	1075.4045.00	SUHNER	82MMCX-S50-0-51/1110	
X6	FP E-PRESS STIFTLEISTE 2P CONNECTOR	0048.4706.00			
X7	FP E-PRESS STIFTLEISTE 2P CONNECTOR	0048.4706.00			
X8 ..11	FP E-PRESS STIFTLEISTE 2P CONNECTOR	0048.4706.00			
X240	FP STECKERLEISTE 32POL. CONNECTOR 32P.	FP 0008.5718.00	DEUT_ELCO	16 8457 064 002 027	
X241 ..246	FJ EINLOETBUCHSE MMCX CONNECTOR	1085.1532.00	SUHNER	82MMCXS50-0-2/111KG	
X247	FJ EINLOETBUCHSE SMA CONNECTOR	1085.1726.00	SUHNER	82SMA-S-50-0-45/111N	
X248	FJ EINLOETBUCHSE MMCX CONNECTOR	1085.1532.00	SUHNER	82MMCXS50-0-2/111KG	
X249	FJ EINLOETBUCHSE SMA CONNECTOR	1085.1726.00	SUHNER	82SMA-S-50-0-45/111N	
Z1 ..3	LD T-FILTER 3,3NF SMD SMD-FILTER	1039.1362.00	MURATA	NFM61R20T332T1	

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
Z4	LD T-FILTER 33PF SMD SMD-T-FILTER 33PF	1062.6744.00	MURATA	NFM61R00T330	
Z5	LD T-FILTER 33PF SMD SMD-T-FILTER 33PF	1062.6744.00	MURATA	NFM61R00T330	
Z6 ..18	LD T-FILTER 100PF SMD SMD-FILTER	1039.1356.00	MURATA	NFM61R00T101T1	
Z19 ..23	LD PI-FILTER 2X1NF SMD SMD-CERAMIC-PI-FILTER	4024.7152.00	TUSONIX	4700-003	
Z24	LD T-FILTER 33PF SMD SMD-T-FILTER 33PF	1062.6744.00	MURATA	NFM61R00T330	

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ROHDE&SCHWARZ

XY-Liste

XY List

Erklärung der Spaltenbezeichnungen:

el. Kennz.	**Bauelement-Kennzeichen**
Seite	**Leiterplatten-Seite, auf der sich das Bauelement befindet**
X/Y	**Koordinaten (in Millimeter) des Bauelementes auf der Leiterplatte bezogen auf den Nullpunkt**
Planq., Bl.	**Planquadrat und Seite des Schaltbildes für das jeweilige Bauelement**

Explanation of column designations:

Part	**Identification of instrument part**
Side	**Side of the PC board on which instrument part is positioned**
X/Y	**Coordinates (in units of millimeters) of the component on the PC board in reference to zero point**
Sqr, Pg	**Square and page of the diagram for the respective instrument part**

Service-relevante Bauteile / Service-relevant components

el. Kennz. *Part*	Seite *Side*	X	Y	Planq. *Sqr*	Bl. *Pg*
P1	B	206	46	11D	3
P2	B	206	44	11D	3
P3	B	206	41	11E	3
P5	B	96	37	5D	3
P6	B	125	90	5D	3
P7	B	150	37	5D	3
P8	B	99	37	5D	3
P9	B	131	68	11A	3
P10	B	138	37	8C	21
P11	B	164	35	6B	21
P12	B	177	44	3B	21
P13	B	156	83	11C	21
P14	B	190	40	4A	6
P18	B	29	68	5C	15
P19	B	27	60	6C	15
P20	B	154	132	6C	10
P21	B	84	32	10B	9
P22	B	77	17	10D	9
P23	B	173	97	7C	5
P24	B	182	89	6D	5
P25	B	91	95	11C	22
P26	B	91	92	10A	22
P29	B	203	97	4B	5
P32	B	85	63	4B	10
P33	B	221	72	7D	12
P35	B	75	63	5A	9
P36	B	85	44	5C	9
P37	B	60	40	6A	9
P38	B	42	16	6B	9
P39	B	35	21	6C	9
P40	B	35	18	6C	9
P41	B	60	43	4C	10
P42	B	158	105	6D	10
P43	B	44	126	5A	10
P44	B	51	49	4F	16
P45	B	54	48	5E	16
R51	B	147	41	7C	21
R124	B	168	72	6B	6
R125	B	286	63	7C	19
R516	B	182	91	2C	5
R683	B	30	140	8B	14
R929	B	134	143	5C	10
R930	B	51	84	6A	16
R968	B	220	129	5C	20

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ROHDE & SCHWARZ	Benennung: *Designation:* EE IQ-MODULATOR / IQ-MODULATOR	Sprache: *Lang.:* de	Blatt: *Sh.:* 1 +	Aei: *C.I.:* 08.04	
Typ: *Type:* SMIQ	Datum: *Date:* 99-02-11	Abteilung: *Dpt:* 1GPK	Name: *Name:* HO	Sachnr.: *Part No.:* 1084.9800.01 XY	

Nicht-Service-relevante Bauteile / Non-service relevant components

el. Kennz. Part	Seite Side	X	Y	Planq. Sqr	Bl. Pg
B1	B	150	125	9B	12
C1	A	102	130	6A	5
C2	A	89	132	6B	5
C3	B	76	93	3C	8
C4	B	77	75	2C	8
C5	A	181	57	3B	21
C6	B	71	128	9B	13
C7	B	63	130	10B	13
C8	B	71	105	9E	13
C9	B	63	107	10D	13
C10	B	19	38	9C	15
C11	B	19	31	10B	15
C12	A	12	71	8A	11
C13	A	12	97	9A	11
C14	A	20	45	7B	11
C15	B	43	75	5B	16
C16	A	249	71	5E	22
C17	B	161	135	7B	12
C18	B	152	137	8A	12
C19	B	289	137	9E	18
C20	B	289	135	9D	18
C21	A	205	48	10D	3
C22	B	189	52	4A	6
C23	B	110	133	5B	13
C24	B	110	127	6A	13
C25	B	77	110	9D	13
C26	B	77	133	9B	13
C27	B	77	141	9A	13
C28	B	110	104	6D	13
C29	B	111	110	5D	13
C30	B	77	119	9D	13
C31	A	35	103	3E	15
C32	B	17	48	7B	15
C33	B	29	76	5C	15
C34	B	11	50	7B	15
C35	B	88	139	4B	8
C36	B	88	116	11C	8
C37	B	11	92	10A	11
C38	A	267	104	2B	18
C39	B	44	85	7B	16
C40	B	49	53	2B	16
C41	B	37	66	3A	16
C42	B	170	115	5B	12
C43	B	168	124	6B	12
C44	B	182	104	5A	12
C45	B	155	109	6A	12
C46	B	154	125	7A	12
C47	A	38	78	9D	16
C48	B	242	93	10B	17
C49	A	227	106	11E	12
C50	B	189	117	4B	12
C51	A	205	132	5A	20
C52	A	245	107	10B	17
C53	A	62	118	9E	10
C54	A	220	111	6D	20
C55	A	259	135	10A	20
C56	A	13	82	4E	11
C57	B	240	130	9B	20
C58	A	236	126	9C	20
C59	A	15	91	5E	11
C60	B	278	100	2A	19
C61	B	279	86	4C	19
C62	A	16	40	5E	11
C63	B	279	106	1B	19
C64	A	138	40	10B	3
C65	B	244	51	4D	17
C66	A	20	57	5E	11
C67	A	155	72	8E	21
C68	B	277	80	4A	19
C69	B	277	60	6A	19
C70	B	279	67	6C	19
C71	A	23	68	4E	11
C72	B	292	50	9B	19
C73	A	275	39	11D	19
C74	B	134	43	1F	3
C75	B	135	69	7E	4
C76	A	125	53	8E	4
C77	A	127	74	5E	4
C78	A	138	61	8C	21
C79	A	140	71	9B	21
C80	A	173	65	5E	21
C81	A	173	61	6E	21
C82	A	179	72	5F	21
C83	A	141	53	8E	21
C84	A	152	45	9E	21
C85	A	125	92	11E	21
C86	B	263	107	3D	18
C87	B	175	51	7E	6
C88	B	163	37	7F	6
C89	B	182	74	4C	6
C90	B	19	34	10C	15
C91	A	26	28	10D	15
C92	B	46	25	11D	7
C93	A	82	130	8E	10
C94	A	96	74	9E	10
C95	A	114	75	9E	10
C96	A	151	134	10E	10
C97	A	140	133	10E	10
C98	A	23	91	5E	11
C99	A	126	138	3E	10
C100	A	75	30	1E	11
C101	A	59	32	1E	11
C102	B	11	87	4D	11
C103	B	15	64	4F	11
C104	A	20	48	6E	11
C105	A	22	29	2E	11
C106	A	11	49	5E	11
C107	B	293	23	10B	19
C108	A	148	83	7B	21
C109	A	127	68	3E	9
C110	A	16	88	6E	15
C111	A	38	55	3A	16
C112	A	47	82	6E	16
C113	A	47	49	6E	16
C114	A	50	67	7E	16
C115	A	41	92	6E	16
C116	A	43	58	7E	16
C117	A	38	72	8E	16
C118	A	148	97	7B	21
C119	A	141	83	8F	21
C120	B	190	90	1E	5
C121	B	177	96	1E	5
C122	A	169	18	2F	3
C123	A	106	84	3A	9
C124	A	105	54	3C	9
C125	A	179	95	2E	5
C126	A	243	78	8D	22
C127	A	259	75	8D	22
C128	A	191	90	2E	5
C129	A	226	118	5D	20
C130	A	190	111	5A	12
C131	A	169	130	7A	12
C132	A	221	139	6A	20
C133	A	218	142	6A	20
C134	A	227	99	10E	12
C135	A	233	142	7A	20
C136	B	232	105	7D	20
C137	B	223	90	8D	20
C138	A	224	131	8A	20
C139	A	22	57	5E	11
C140	B	207	98	4C	5
C141	A	203	141	4A	20
C142	B	263	131	6D	18
C143	A	279	131	8C	18
C144	B	230	97	7E	20
C145	B	288	130	10D	18
C146	B	301	140	9C	18
C147	B	293	104	5C	18
C148	A	25	77	6F	15
C149	B	224	82	9E	20
C150	A	275	135	8C	18
C151	A	230	22	2B	17
C152	A	297	115	3C	19
C153	A	294	98	3F	19
C154	A	280	102	3E	19
C155	A	282	79	4E	19
C156	A	294	78	4F	19
C157	A	223	57	5E	3
C158	A	201	77	6F	3
C159	B	200	79	3E	6
C160	B	61	57	5B	7
C161	B	279	92	3B	19
C162	A	275	77	6E	19
C163	B	299	67	7D	19
C164	B	276	70	5B	19
C165	B	283	49	7A	19
C166	A	243	83	7A	17
C167	A	240	59	5B	17
C168	B	288	132	10E	18
C169	B	54	39	3E	7
C170	B	77	57	4E	7
C171	B	65	63	5E	7
C172	B	82	41	5F	7
C173	B	71	52	6F	7
C174	B	67	47	4E	7
C175	A	140	50	8C	21
C176	B	170	80	7B	6
C177	B	79	44	5C	7
C178	A	121	127	3E	5
C180	B	12	107	11B	14
C181	B	74	67	4C	7
C182	B	61	59	6B	7
C183	B	73	47	6C	7
C184	B	79	37	4D	7
C185	A	16	82	8A	11
C186	A	25	98	9A	11
C187	B	13	96	10B	11
C188	A	264	55	11D	22
C189	A	75	40	5C	9
C190	A	81	57	5B	9
C191	A	44	74	9A	16
C192	A	266	60	3A	22
C193	A	240	94	4C	22
C194	A	283	69	5F	19
C195	A	257	64	11E	22
C196	A	265	93	10D	22
C197	A	260	83	10E	22
C198	A	259	93	9D	22
C199	B	276	89	3B	19
C200	B	197	131	3C	20
C201	A	93	91	10B	22
C202	B	292	89	5C	19
C203	B	232	127	9B	20
C204	B	238	137	10B	20
C205	A	277	82	4D	19
C206	A	290	96	2D	19
C207	B	290	94	2C	19
C208	B	278	133	8E	18
C209	B	245	37	4E	17
C210	A	114	94	10B	22
C211	B	227	102	7E	20
C212	A	290	35	11E	19
C213	A	143	73	10C	21
C214	B	261	30	3C	17
C215	B	163	50	8B	6
C216	B	28	41	8C	15
C217	B	21	38	8C	15
C218	A	73	94	9C	8
C219	A	72	75	8C	8
C220	A	102	67	2C	10
C221	A	61	58	3B	10
C222	A	110	68	2D	10

ROHDE & SCHWARZ	Benennung: EE IQ-MODULATOR Designation: IQ-MODULATOR	Sprache: Lang.: de	Blatt: Sh.: 2 +	Aei: C.I.: 08.04
Typ: Type: SMIQ	Datum: Date: 99-02-11	Abteilung: Dpt: 1GPK	Name: Name: HO	Sachnr.: Part No.: 1084.9800.01 XY

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el. Kennz. Part	Seite Side	X	Y	Planq. Sqr	Bl. Pg
C223	A	61	46	3C	10
C224	A	105	135	2E	10
C225	A	123	115	3A	10
C226	A	117	108	2A	10
C227	B	200	133	4B	20
C228	B	207	132	5B	20
C229	A	218	81	8D	12
C230	A	231	85	9D	12
C231	B	233	130	9C	20
C232	A	291	58	5E	19
C233	A	290	70	5E	19
C234	B	283	118	12E	18
C235	A	154	51	6F	21
C236	B	250	51	5C	17
C237	B	228	55	6F	12
C238	B	222	111	6E	20
C239	B	225	112	5E	20
C240	B	194	47	3A	6
C241	A	28	87	5D	15
C242	B	11	115	11B	14
C243	A	205	98	5C	5
C244	B	274	135	8D	18
C245	B	247	59	6C	17
C246	A	162	90	6D	5
C247	B	229	134	8B	20
C248	B	231	139	7B	20
C249	A	248	37	4E	17
C250	A	243	40	5E	17
C251	A	239	46	6E	17
C252	B	216	144	6B	20
C253	B	221	141	6B	20
C254	A	229	39	5E	12
C255	B	213	141	6B	20
C256	A	262	110	2A	18
C257	A	264	113	7B	18
C258	B	200	128	5C	20
C259	B	267	117	2F	18
C260	B	267	115	1F	18
C261	B	277	116	4D	18
C262	B	277	114	4D	18
C263	A	261	65	2B	22
C264	B	30	114	1C	15
C265	B	30	108	1C	15
C266	B	79	27	2A	11
C267	B	55	20	3B	11
C268	A	84	18	4C	11
C269	A	204	129	2D	20
C270	B	109	142	5B	13
C271	A	21	126	11E	14
C272	B	127	129	3C	13
C273	B	128	140	3B	13
C274	B	119	139	3C	13
C275	B	109	119	5E	13
C276	B	119	127	3B	13
C277	B	127	106	3E	13
C278	B	119	116	3E	13
C279	B	119	104	3D	13
C280	B	128	117	3D	13
C281	A	38	120	6E	14
C282	B	22	129	7B	14
C283	B	40	51	2B	16
C284	B	171	106	6B	12
C285	B	159	116	7B	12
C286	B	192	107	4B	12
C287	B	222	51	6D	12
C288	B	229	61	6D	12
C289	B	177	129	2C	20
C290	B	194	144	3B	20
C291	B	287	137	9D	18
C292	A	101	52	5F	4
C293	A	107	51	7F	4
C294	B	201	49	2C	6
C295	A	84	142	6A	13
C296	B	21	123	7B	14

el. Kennz Part	Seite Side	X	Y	Planq. Sqr	Bl. Pg
C297	A	23	131	1E	14
C298	A	82	119	6D	13
C299	A	14	126	1E	14
C300	A	14	33	8C	11
C301	A	25	39	8D	11
C302	A	37	90	7D	16
C303	A	35	53	5E	16
C304	A	217	94	9D	12
C305	B	221	120	6F	20
C306	B	222	139	6C	20
C307	A	129	68	3C	9
C308	B	115	138	4B	13
C309	B	137	133	2B	13
C310	B	115	115	4E	13
C311	B	119	111	4E	13
C312	B	140	110	2E	13
C313	B	119	134	4B	13
C314	B	21	48	8B	15
C315	B	20	63	6B	15
C316	A	52	117	4E	14
C317	A	81	82	9A	8
C318	B	86	84	3A	8
C319	B	36	48	1B	16
C320	A	190	143	3C	20
C321	B	44	62	3B	16
C322	B	175	110	5B	12
C323	B	209	110	3B	12
C324	B	163	115	6B	12
C325	B	222	41	3D	12
C326	A	192	131	4D	20
C327	B	195	113	4B	12
C328	B	228	92	8E	20
C329	A	54	88	8A	16
C330	B	205	132	5B	20
C331	B	230	79	9E	20
C332	B	108	24	10C	5
C333	B	258	120	3E	18
C334	A	108	88	10D	22
C335	B	261	37	3C	17
C336	B	240	66	7C	17
C337	B	258	32	3D	17
C338	B	252	69	7C	17
C339	B	241	72	8C	17
C340	B	252	75	8C	17
C341	B	240	78	8C	17
C342	B	248	82	9C	17
C343	B	249	108	11C	17
C344	B	230	76	9E	20
C345	B	250	34	3D	17
C346	B	251	37	4C	17
C347	B	248	50	5C	17
C348	B	248	60	6C	17
C349	B	252	60	7C	17
C350	A	107	62	2E	9
C351	A	197	66	9E	3
C352	A	221	68	8A	3
C353	A	222	51	8C	3
C354	A	189	62	10D	3
C355	A	256	111	3A	18
C356	A	113	38	4E	3
C357	A	190	75	8E	3
C358	A	173	53	3E	21
C359	A	176	47	3F	21
C360	A	55	22	5E	9
C361	A	43	29	4E	9
C362	B	195	95	4C	5
C363	B	168	93	1B	5
C364	A	255	130	11C	20
C365	B	63	128	10B	13
C366	B	63	105	10D	13
C367	B	20	31	10B	15
C368	B	17	28	10B	15
C369	B	152	135	8B	12
C370	B	262	86	9D	17

el. Kennz. Part	Seite Side	X	Y	Planq. Sqr	Bl. Pg
C371	A	281	65	5E	19
C372	B	99	110	6E	13
C373	B	172	45	9C	6
C374	B	277	94	3B	19
C375	B	68	128	10B	13
C376	B	68	105	10D	13
C377	B	19	35	9B	15
C378	B	157	135	7B	12
C379	B	210	136	5B	20
C380	A	140	77	10A	21
C381	A	143	95	10A	21
C382	A	241	19	2C	17
C383	A	253	49	6C	17
C384	B	278	74	5B	19
C385	B	278	54	7A	19
C386	B	179	79	5B	6
C387	A	47	58	3F	16
C388	B	254	63	7C	17
C389	A	170	55	5B	21
C390	B	42	40	7E	15
C391	B	191	49	5F	6
C392	A	114	79	1E	9
C393	A	51	71	10B	16
C394	B	262	81	9D	17
C395	A	105	97	11E	22
C396	A	243	70	6A	17
C397	B	223	101	7E	20
C398	B	185	97	3B	5
C399	A	219	75	3E	12
C400	A	219	26	3A	17
C401	A	223	96	4F	12
C402	A	228	78	3F	12
C403	A	191	43	10E	3
C404	A	170	38	6B	21
C405	B	66	128	10B	13
C406	B	66	105	10E	13
C407	B	155	135	8B	12
C408	A	278	91	6D	19
C409	A	300	71	4D	19
C410	A	150	40	8D	21
C411	A	300	98	1D	19
C412	A	124	67	3A	9
C413	A	47	64	3E	16
C414	A	48	97	3D	16
C415	B	205	104	3A	12
C416	B	215	135	5C	20
C417	A	200	68	10E	3
C418	A	196	58	10D	3
C419	A	254	105	1B	18
C420	B	185	132	2B	20
C421	B	194	133	3C	20
C422	B	220	70	7E	12
C423	B	224	70	7D	12
C424	A	285	52	10E	19
C425	A	138	81	11B	21
C426	B	172	73	7B	6
C427	B	100	127	6B	13
C428	B	90	126	7B	13
C429	B	100	104	6E	13
C430	B	14	29	10B	15
C431	A	114	117	4A	10
C432	B	44	82	6B	16
C433	B	147	135	9A	12
C434	B	227	42	5D	12
C435	A	226	75	8D	12
C436	A	224	86	8E	12
C437	A	219	92	9C	12
C438	B	208	114	3B	12
C439	B	195	109	3B	12
C440	B	224	75	10E	20
C441	B	236	142	11B	20
C442	A	289	142	9C	18
C443	A	235	138	10C	20
C444	B	284	128	11D	18

ROHDE & SCHWARZ

Benennung: EE IQ-MODULATOR
Designation: IQ-MODULATOR

Sprache: Lang.: de

Blatt: Sh.: 3 +

Aei: C.I.: 08.04

Typ: Type: SMIQ

Datum: Date: 99-02-11

Abteilung: Dpt: 1GPK

Name: Name: HO

Sachnr.: Part No.: 1084.9800.01 XY

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Nicht-Service-relevante Bauteile / Non-service-relevant parts

el. Kennz. Part	Seite Side	X	Y	Planq. Sqr	Bl. Pg
C445	B	281	103	2B	19
C446	B	15	84	6A	15
C447	A	242	88	6D	22
C448	B	61	128	10B	13
C449	B	61	105	10E	13
C450	B	19	29	10C	15
C451	B	150	137	8B	12
C452	B	181	141	1B	20
C453	B	284	54	8B	19
C454	B	284	137	9E	18
C455	A	133	75	11B	21
C456	B	189	41	3A	6
C457	B	44	143	8E	14
C458	B	100	135	6B	13
C459	B	134	130	2C	13
C460	B	74	128	9B	13
C461	B	74	105	9E	13
C462	B	90	103	7E	13
C463	B	100	112	6E	13
C464	B	138	107	2E	13
C465	A	42	120	4E	14
C466	A	28	137	2E	14
C467	B	19	41	8B	15
C468	B	29	62	6C	15
C469	A	36	141	2E	14
C470	A	135	116	5E	10
C471	A	135	131	5D	10
C472	A	156	122	6D	10
C473	A	156	127	5C	10
C474	A	59	26	2B	11
C475	A	66	36	3C	11
C476	A	77	34	9A	9
C477	A	71	20	9D	9
C478	A	179	93	5D	5
C479	B	190	94	3C	5
C480	B	195	21	10D	5
C481	A	250	81	5E	22
C482	B	290	57	8B	19
C483	A	191	95	6C	5
C484	B	162	133	7B	12
C485	B	192	130	3C	20
C486	B	297	54	9B	19
C487	B	226	134	8C	20
C488	B	284	25	9C	19
C489	B	203	138	5B	20
C490	B	217	114	6E	20
C491	B	246	41	4C	17
C492	B	224	144	7B	20
C493	A	232	133	8B	20
C494	A	227	86	4E	12
C495	A	84	30	10B	9
C496	A	75	21	10D	9
C497	B	221	126	5D	20
C498	B	99	133	6B	13
C499	B	149	130	9B	12
C500	B	224	44	5D	12
C501	B	183	131	2B	20
C502	B	240	142	10B	20
C503	B	229	75	10E	20
C504	B	288	129	10D	18
C505	B	276	65	6B	19
C506	B	276	85	4B	19
C507	A	154	76	11D	21
C508	B	157	18	10C	5
C509	B	235	136	10B	20
C510	B	218	131	5C	20
C511	A	69	44	11E	10
C512	A	79	51	11E	10
C513	A	138	85	9A	21
C514	B	172	23	10D	5
C515	B	99	24	10E	5
C516	A	256	85	3C	22
C517	A	255	57	2A	22
C518	A	262	80	7E	22
C519	A	257	75	6F	22
C520	B	183	44	6E	6
C521	B	196	81	6F	6
C522	B	163	82	7E	6
C523	A	154	55	6E	21
C524	A	154	53	7E	21
C525	A	162	51	9E	21
C526	A	171	43	10E	21
C527	A	128	108	11E	10
C528	A	117	112	11E	10
C529	A	292	45	10D	19
C530	A	147	93	8B	21
C531	A	110	91	2B	9
C532	A	110	61	2D	9
C533	B	259	117	2E	18
C534	B	259	115	1E	18
C535	A	278	48	1E	19
C536	A	287	41	2F	19
C537	A	288	30	2F	19
C538	A	275	33	1E	19
C539	A	281	26	3F	19
C540	A	295	22	2E	19
C541	A	125	38	2E	3
C542	A	273	19	9E	19
C543	B	247	106	11C	17
C544	B	297	49	10B	19
C545	A	287	26	10C	19
C546	A	277	32	11C	19
C547	B	286	30	8C	19
C548	B	242	106	11C	17
C549	B	286	29	9C	19
C550	B	70	64	5B	7
C551	A	246	114	9B	17
C552	B	300	133	10E	18
C553	B	87	139	4C	8
C554	B	87	116	11C	8
C555	B	281	113	4D	18
C556	B	84	48	5C	7
C557	B	281	115	4D	18
C558	B	257	112	2C	18
C559	B	282	110	4C	18
C560	B	19	112	2C	15
C561	B	19	104	2B	15
C562	B	19	109	2B	15
C563	A	44	140	3E	14
C564	A	53	129	3E	14
C565	B	19	107	2C	15
C566	B	20	60	6B	15
C567	B	17	104	2B	15
C568	B	60	89	3B	8
C569	B	281	49	7B	19
C570	B	15	97	3B	15
C571	B	265	104	3D	18
C572	B	30	136	8B	14
C573	B	23	74	5B	15
C574	B	183	76	4E	6
C575	A	22	116	10E	14
C576	A	39	113	5E	14
C577	B	26	83	3C	15
C578	B	166	66	9E	4
C579	B	43	69	4B	16
C580	A	253	53	3B	22
C581	A	54	77	8C	16
C582	B	197	73	3C	6
C583	B	287	97	2D	19
C584	B	296	94	5D	19
C585	B	297	59	7D	19
C586	A	295	105	6E	19
C587	A	263	23	11B	19
C588	A	257	33	12C	19
C589	B	35	29	7C	15
C590	B	247	103	11C	17
C591	B	294	107	5C	18
C592	B	226	117	5F	20
C593	B	248	94	10C	17
C594	B	177	110	5B	12
C595	B	231	58	6F	12
C596	B	234	139	10C	20
C597	B	63	76	2B	8
C598	B	290	134	9E	18
C599	A	255	28	8B	19
C600	A	266	31	10C	19
C601	A	281	112	8E	19
C602	A	286	111	7E	19
C603	A	275	113	8F	19
C604	B	286	66	7C	19
C605	A	188	76	6F	3
C606	A	178	79	4B	21
C607	A	164	79	4C	21
C608	A	180	134	3C	20
C609	B	231	129	8B	20
C610	B	24	134	9C	14
C611	B	26	88	3C	15
C612	B	23	112	2C	15
C613	B	28	112	2C	15
C614	B	15	138	9C	14
C615	B	47	30	11B	7
C616	B	25	81	4C	15
C617	B	55	31	2B	7
C618	B	56	26	2B	7
C619	B	65	24	2D	7
C620	B	68	33	2D	7
C621	A	277	50	10D	19
C622	B	46	112	4C	14
C623	B	266	131	7E	18
C624	B	43	110	4C	14
C625	A	178	128	3C	20
C626	B	36	124	5C	14
C627	B	38	108	5C	14
C628	B	12	127	10C	14
C629	B	22	131	10C	14
C630	B	19	103	3C	15
C631	B	27	134	8B	14
C632	B	21	81	5B	15
C633	B	17	118	1C	15
C634	B	28	131	7B	14
C635	B	73	43	5C	7
C636	B	63	47	5B	7
C637	B	288	25	9C	19
C638	A	12	120	9E	14
C639	A	34	117	5E	14
C640	A	23	134	2E	14
C641	A	40	141	3E	14
C642	A	53	131	3E	14
C643	A	16	127	9E	14
C644	A	29	123	5D	14
C645	A	78	64	5D	7
C646	A	70	67	5A	7
C647	B	25	143	9B	14
C648	B	35	120	5B	14
C649	B	49	118	4B	14
C650	A	27	129	10C	14
C651	A	40	126	5C	14
C652	B	15	128	10B	14
C653	B	29	82	4C	15
C654	A	229	52	5F	12
C655	A	23	17	9C	11
C656	A	16	37	8C	11
C657	A	60	90	9B	8
C658	A	62	70	8B	8
C659	A	110	133	3E	5
C660	A	83	106	3E	8
C661	A	103	110	5F	8
C662	A	89	112	4E	8
C663	B	66	98	4B	8
C664	B	64	69	1B	8
C665	B	72	96	4D	8
C666	B	79	71	1D	8

ROHDE & SCHWARZ	Benennung: EE IQ-MODULATOR Designation: IQ-MODULATOR		Sprache: Lang.: de	Blatt: Sh.: 4 +	Aei: C.I.: 08.04
Typ: Type: SMIQ	Datum: Date: 99-02-11	Abteilung: Dpt: 1GPK	Name: Name: HO	Sachnr.: Part No.: 1084.9800.01 XY	

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Nicht-Service-relevante Bauteile / Non-Service Relevant Components

el. Kennz. Part	Seite Side	X	Y	Planq. Sqr	Bl. Pg
C667	B	69	92	4E	8
C668	B	67	69	1E	8
C669	B	68	79	2B	8
C670	B	74	82	2C	8
C671	B	73	91	3C	8
C672	A	65	78	8B	8
C673	A	66	65	8C	8
C674	A	80	96	10B	8
C675	A	80	66	8B	8
C676	A	62	96	10C	8
C677	A	78	70	8D	8
C678	A	78	96	10D	8
C679	A	70	74	8E	8
C680	A	66	94	10E	8
C681	A	72	81	8C	8
C682	A	74	92	9C	8
C683	B	80	71	1A	8
C684	B	80	96	4A	8
C685	B	95	144	4C	8
C686	B	97	141	4C	8
C687	B	95	121	10C	8
C688	B	97	118	10C	8
C689	B	67	88	3B	8
C690	B	95	137	4C	8
C691	B	95	114	10C	8
C692	A	66	82	9B	8
C693	B	67	85	2B	8
C694	A	63	80	9B	8
C695	A	81	94	9A	8
C696	A	85	70	8A	8
C697	B	86	75	2A	8
C698	B	86	94	3A	8
C699	B	83	131	8B	13
C700	B	83	108	8E	13
C701	B	231	113	7D	20
C702	B	22	58	7C	15
C703	B	76	84	2C	8
C704	A	76	85	9C	8
C705	A	109	126	5A	5
C706	A	83	85	9A	8
C707	B	85	86	2A	8
C708	A	150	106	3F	4
C709	B	28	121	6C	14
C710	A	220	40	7C	5
C711	B	13	124	11C	14
C712	A	91	110	6B	8
C713	A	105	118	6D	8
C714	A	105	106	6E	8
C715	A	88	119	6C	8
C800	A	184	138	3C	20
D1	B	65	55	5B	7
D1	B	65	55	6E	7
D2	B	77	47	5C	7
D2	B	77	47	5E	7
D3	B	186	72	3B	6
D3	B	186	72	4E	6
D4	A	156	17	1B	3
D4	A	156	17	1C	3
D4	A	156	17	1D	3
D4	A	156	17	2C	3
D4	A	156	17	2E	3
D5	A	19	50	6E	11
D5	A	19	50	7D	11
D6	A	130	84	11E	21
D6	A	130	84	3C	21
D6	A	130	84	3D	21
D6	A	130	84	4E	21
D6	A	130	84	4E	21
D7	A	71	130	8A	10
D7	A	71	130	8E	10
D7	A	71	130	8F	10
D7	A	71	130	9A	10
D7	A	71	130	9C	10
D8	A	258	86	3C	22
D8	A	258	86	9D	22
D9	A	179	60	4A	21
D9	A	179	60	4B	21
D9	A	179	60	4B	21
D9	A	179	60	4B	21
D9	A	179	60	5E	21
D10	A	168	69	4C	21
D10	A	168	69	4C	21
D10	A	168	69	4D	21
D10	A	168	69	4D	21
D10	A	168	69	6E	21
D11	A	151	70	7E	21
D11	A	151	70	9B	21
D11	A	151	70	9C	21
D11	A	151	70	9C	21
D11	A	151	70	9C	21
D12	A	14	129	10D	14
D12	A	14	129	1E	14
D12	A	14	129	9D	14
D12	A	14	129	9D	14
D12	A	14	129	9D	14
D13	A	35	129	2E	14
D13	A	35	129	4D	14
D13	A	35	129	4D	14
D13	A	35	129	4D	14
D13	A	35	129	5D	14
D14	A	44	129	10B	10
D14	A	44	129	10B	10
D14	A	44	129	11C	14
D14	A	44	129	3E	14
D14	A	44	129	7C	14
D15	A	246	86	10D	22
D15	A	246	86	5C	22
D15	A	246	86	5C	22
D15	A	246	86	5D	22
D15	A	246	86	5D	22
D16	A	52	38	4E	9
D16	A	52	38	8B	9
D17	A	52	25	5E	9
D17	A	52	25	8D	9
D18	B	139	44	2A	4
D18	B	139	44	6E	4
D19	A	68	115	10C	10
D19	A	68	115	8B	10
D19	A	68	115	8C	10
D19	A	68	115	8E	10
D19	A	68	115	9E	10
D20	B	147	89	6E	4
D20	B	147	89	9A	4
D21	B	128	91	6E	4
D21	B	128	91	8A	4
D22	B	98	39	2C	4
D22	B	98	39	6E	4
D23	B	114	69	11C	4
D23	B	114	69	6E	4
D24	B	98	78	5C	4
D24	B	98	78	5E	4
D25	B	139	79	6A	4
D25	B	139	79	7E	4
D26	B	114	78	6E	4
D26	B	114	78	9C	4
D27	B	25	72	5B	15
D28	B	21	44	8B	15
D29	A	122	41	4E	3
D29	A	122	41	7A	3
D30	A	111	41	4E	3
D30	A	111	41	7C	3
D31	A	100	39	3E	3
D31	A	100	39	7D	3
D32	A	133	95	11E	21
D32	A	133	95	2C	21
D32	A	133	95	2D	21
D32	A	133	95	2D	21
D32	A	133	95	5E	21
D33	B	225	63	6D	12
D33	B	225	63	6F	12
D34	A	131	43	10A	3
D34	A	131	43	3E	3
D34	A	131	43	6A	3
D34	A	131	43	6C	3
D34	A	131	43	6D	3
D35	A	123	56	11E	4
D35	A	123	56	11E	4
D35	A	123	56	3B	4
D35	A	123	56	3D	4
D35	A	123	56	9E	4
D36	B	199	72	2D	6
D36	B	199	72	2D	6
D36	B	199	72	3D	6
D36	B	199	72	3D	6
D36	B	199	72	3E	6
D37	B	62	31	3A	7
D38	B	155	89	11A	4
D38	B	155	89	8E	4
D39	A	204	62	10D	3
D39	A	204	62	10E	3
D39	A	204	62	7E	3
D40	B	62	37	3C	7
D40	B	62	37	3E	7
D41	B	162	54	10E	4
D41	B	162	54	7A	4
D41	B	162	54	7B	6
D42	B	139	54	7C	21
D42	B	139	54	4A	4
D42	B	139	54	7E	4
D43	B	139	66	10C	21
D43	B	139	66	5A	4
D43	B	139	66	8E	4
D44	B	228	99	7E	20
D45	B	98	50	1C	10
D45	B	98	50	3C	4
D45	B	98	50	8E	4
D46	B	114	87	1A	10
D46	B	114	87	7E	4
D46	B	114	87	8C	4
D47	B	98	87	1E	10
D47	B	98	87	7C	4
D47	B	98	87	7E	4
D48	B	98	65	1D	10
D48	B	98	65	4C	4
D48	B	98	65	8E	4
D49	A	202	50	10D	3
D49	A	202	50	10E	3
D49	A	202	50	11D	3
D49	A	202	50	7E	3
D49	A	202	50	1F	4
D50	B	19	84	4B	15
D51	B	21	118	1C	15
D52	B	113	54	1E	3
D52	B	113	54	4B	3
D53	A	141	37	5D	21
D53	A	141	37	7E	21
D54	B	70	31	3C	7
D55	A	144	108	3F	4
D55	A	144	108	4E	4
D56	A	174	105	1D	4
D56	A	174	105	1E	4
D56	A	174	105	4E	4
D56	A	174	105	4E	4
D56	A	174	105	5E	4
D57	B	35	39	7C	15
D57	B	35	39	7E	15
D57	B	35	39	8C	15
D57	B	35	39	9A	7
D57	B	35	39	9C	7
D58	A	163	109	2E	4
D58	A	163	109	5E	4
D59	A	74	106	3E	8

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ROHDE & SCHWARZ	Benennung: EE IQ-MODULATOR Designation: IQ-MODULATOR	Sprache: Lang.: de	Blatt: Sh.: 5 +	Aei: C.I.: 08.04
Typ: Type: SMIQ	Datum: Date: 99-02-11	Abteilung: Dpt: 1GPK	Name: Name: HO	Sachnr.: Part No.: 1084.9800.01 XY

Nicht-Service-relevante Bauteile / Non service relevant comp.

el. Kennz. Part	Seite Side	X	Y	Planq. Sqr	Bl. Pg
D59	A	74	106	5D	8
D61	B	96	61	10D	4
D61	B	96	61	10E	4
G1	B	206	56	2C	6
L1	B	190	138	3B	20
L2	B	184	80	5B	6
L3	B	276	141	9D	18
L4	B	279	95	3B	19
L5	B	248	48	5C	17
L6	B	192	52	2C	6
L7	B	71	120	9C	13
L8	B	230	126	8C	20
L9	A	78	142	6A	13
L10	A	85	120	6C	13
L11	B	71	142	9A	13
L12	B	264	117	2E	18
L13	B	12	56	7A	15
L14	B	77	108	9D	13
L15	A	84	35	4A	11
L16	A	66	21	3A	11
L17	B	232	103	7D	20
L18	A	51	78	6D	16
L19	A	51	46	7D	16
L20	A	54	64	7D	16
L21	A	39	96	6E	16
L22	A	38	65	7E	16
L23	A	38	68	7E	16
L24	A	190	128	4A	20
L25	A	227	110	6D	20
L26	B	205	93	4B	5
L27	A	190	117	5A	12
L28	A	166	139	7A	12
L29	B	244	93	10B	17
L30	B	195	104	3A	12
L31	B	232	111	7D	20
L32	B	227	82	9E	20
L33	B	247	93	10C	17
L34	A	39	46	3A	16
L35	B	220	86	9D	20
L36	A	259	138	10A	20
L37	B	282	95	3B	19
L38	B	198	129	4B	20
L39	A	199	133	3D	20
L40	A	277	128	9B	18
L41	B	204	133	4B	20
L42	B	220	112	6E	20
L43	B	225	120	5E	20
L44	B	227	143	7B	20
L45	B	231	136	8B	20
L46	B	220	143	6B	20
L47	B	215	137	6B	20
L48	B	232	56	6F	12
L49	B	125	133	3B	13
L50	B	125	111	3E	13
L51	B	194	141	3B	20
L52	B	238	136	10B	20
L53	B	281	56	7B	19
L54	B	283	74	4B	19
L55	B	283	121	11D	18
L56	A	194	97	7B	5
L57	A	175	89	6E	5
L58	B	183	133	2B	20
L59	B	177	132	1B	20
L60	A	190	133	4C	20
L61	A	296	119	3C	19
L62	A	225	36	5E	12
L63	A	277	69	5E	19
L64	B	85	126	8B	13
L65	B	85	103	8E	13
L66	B	128	40	1E	3
L67	A	100	55	5E	4
L68	B	126	77	5E	4
L69	B	264	115	2E	18
L70	B	275	116	4D	18

el. Kennz Part	Seite Side	X	Y	Planq. Sqr	Bl. Pg
L71	B	223	117	5E	20
L72	B	235	137	10B	20
L73	B	275	114	4D	18
L74	B	77	131	9B	13
L75	B	18	50	7B	15
L76	B	263	105	3D	18
L77	A	277	106	7F	19
L78	B	285	92	3B	19
L79	B	135	17	10B	5
L80	B	143	20	10C	5
L81	B	40	72	5B	16
L82	B	12	138	9C	14
L83	B	298	139	9C	18
L84	B	279	54	7B	19
L85	B	279	74	4B	19
L86	B	104	127	5A	13
L87	B	12	117	11B	14
L88	B	47	110	4C	14
L89	B	105	104	6D	13
L90	B	21	77	5C	15
L91	B	22	64	6C	15
L92	B	25	129	7B	14
L93	B	37	61	3A	16
L94	B	180	104	4A	12
L95	B	155	112	6A	12
L96	B	157	125	7A	12
L97	B	24	107	2B	15
L98	B	14	104	2B	15
L99	B	244	48	5D	17
L100	B	68	127	10B	13
L101	B	61	134	10B	13
L102	B	68	105	10E	13
L103	B	66	108	10E	13
L104	B	13	36	9C	15
L105	B	27	31	10C	15
L106	B	160	143	7B	12
L107	B	153	143	8B	12
L108	B	181	142	1B	20
L109	B	291	134	9D	18
L110	B	286	130	9D	18
L111	B	23	59	7B	15
L112	B	29	120	6B	14
L113	B	261	32	3C	17
L114	B	298	135	10D	18
L115	B	299	127	11D	18
L116	B	298	135	10E	18
L117	B	15	125	10B	14
L118	B	93	137	4C	8
L119	B	132	72	7E	4
L120	A	94	60	6E	4
L121	A	131	61	8B	21
L122	A	138	68	9B	21
L123	B	175	64	4E	6
L124	B	207	104	3A	12
L125	B	178	112	5B	12
L126	A	92	70	9D	10
L127	A	115	73	10E	10
L128	A	151	137	10E	10
L129	A	134	136	10D	10
L130	A	85	22	1E	11
L131	A	55	31	1E	11
L132	B	12	81	4D	11
L133	B	12	62	4F	11
L134	B	290	142	9D	18
L135	B	276	49	7A	19
L136	A	84	51	11E	10
L137	A	25	88	6E	15
L138	A	54	92	2E	16
L139	B	95	142	4C	8
L140	A	54	60	2E	16
L141	B	93	114	10C	8
L142	A	54	97	2D	16
L143	A	53	110	1D	16
L144	A	240	109	10A	17

el. Kennz. Part	Seite Side	X	Y	Planq. Sqr	Bl. Pg
L145	B	283	59	7B	19
L146	A	300	114	3C	19
L147	A	299	80	5E	19
L148	B	240	61	7D	17
L149	B	254	66	7D	17
L150	B	238	74	8D	17
L151	B	255	72	8D	17
L152	B	242	83	8D	17
L153	B	253	81	9D	17
L154	B	260	39	4D	17
L155	B	256	56	7D	17
L156	A	183	36	2B	21
L157	A	177	39	2D	21
L158	A	191	37	2E	21
L159	B	170	38	2C	21
L160	A	187	37	2A	21
L161	A	118	39	11C	10
L162	A	289	116	8E	19
L163	A	65	62	4B	10
L164	B	287	74	4B	19
L165	A	16	77	6F	15
L166	A	112	115	12E	10
L167	B	73	36	4D	10
L168	B	254	26	3D	17
L169	A	72	40	11D	10
L170	B	181	20	10D	5
L171	B	176	17	10D	5
L172	B	123	21	10E	5
L173	B	39	135	7A	14
L174	B	95	47	11A	10
L175	A	264	47	11D	22
L176	A	254	64	11E	22
L177	A	263	42	3B	22
L178	B	95	119	10C	8
L179	B	76	139	9A	13
L180	B	76	116	9D	13
L181	B	20	126	7B	14
L182	B	12	109	11B	14
L183	B	84	77	2A	8
L184	A	120	105	11D	10
L185	B	84	88	3A	8
L186	B	65	78	2B	8
L187	B	64	89	3B	8
L188	B	76	79	2C	8
L189	B	284	49	8A	19
L190	B	288	55	8A	19
L191	B	293	54	8A	19
L192	B	297	52	9A	19
L193	B	291	55	8B	19
L194	B	296	55	9B	19
L195	A	221	128	7A	20
L196	A	239	53	6D	17
L197	B	73	88	3C	8
L198	A	80	74	8A	8
L199	A	84	87	9A	8
L200	A	63	82	9B	8
L201	A	66	74	8B	8
L202	B	274	132	8D	18
L203	A	71	88	9C	8
L204	A	76	77	8C	8
L205	A	89	135	6B	5
L206	B	11	47	7B	15
L207	A	292	137	7F	19
N1	A	285	79	4C	19
N1	A	285	79	4D	19
N1	A	285	79	4E	19
N1	A	285	79	6D	19
N1	A	285	79	6D	19
N2	A	283	98	1C	19
N2	A	283	98	1D	19
N2	A	283	98	3E	19
N2	A	283	98	4E	19
N2	A	283	98	6E	19
N3	A	102	90	10A	22

ROHDE & SCHWARZ	Benennung: EE IQ-MODULATOR *Designation:* IQ-MODULATOR	Sprache: *Lang.:* de	Blatt: *Sh.:* 6 +	Aei: *C.I.:* 08.04
Typ: *Type:* SMIQ	Datum: *Date:* 99-02-11	Abteilung: *Dpt:* 1GPK	Name: *Name:* HO	Sachnr.: *Part No.:* 1084.9800.01 XY

Nicht-Service-relevante Bauteile / Non-Service-relevant components

el. Kennz. *Part*	Seite *Side*	X	Y	Planq. *Sqr*	Bl. *Pg*
N3	A	102	90	10C	22
N3	A	102	90	11D	22
N4	A	94	108	4E	8
N4	A	94	108	6B	8
N4	A	94	108	6C	8
N4	A	94	108	6D	8
N4	A	94	108	6E	8
N5	B	229	90	8E	20
N6	A	257	103	2B	18
N6	A	257	103	3A	18
N7	A	151	52	8C	21
N7	A	151	52	8C	21
N7	A	151	52	9E	21
N8	A	143	76	10A	21
N8	A	143	76	10C	21
N8	A	143	76	8E	21
N9	A	169	48	10E	21
N9	A	169	48	5B	21
N9	A	169	48	6B	21
N10	B	165	51	7E	6
N10	B	165	51	8B	6
N10	B	165	51	9B	6
N11	B	177	78	6B	6
N11	B	177	78	6E	6
N11	B	177	78	7C	6
N12	B	171	92	2B	5
N13	A	118	69	3B	9
N13	A	118	69	3C	9
N13	A	118	69	4E	9
N14	A	226	81	3E	12
N14	A	226	81	8D	12
N15	A	221	89	4E	12
N15	A	221	89	9D	12
N16	A	101	70	2C	10
N16	A	101	70	2D	10
N16	A	101	70	9E	10
N16	A	101	70	5A	7
N16	A	101	70	5D	7
N17	A	66	47	11E	10
N17	A	66	47	3C	10
N17	A	66	47	3D	10
N17	A	66	47	5B	9
N17	A	66	47	5D	9
N18	A	141	121	10E	10
N18	A	141	121	5C	10
N18	A	141	121	5D	10
N18	A	141	121	5E	10
N18	A	141	121	6D	10
N19	A	73	33	1E	11
N19	A	73	33	2B	11
N19	A	73	33	3B	11
N19	A	73	33	9B	9
N19	A	73	33	9D	9
N20	A	257	26	10D	19
N20	A	257	26	11B	19
N20	A	257	26	8C	19
N21	A	257	57	11D	22
N21	A	257	57	2B	22
N21	A	257	57	3A	22
N22	A	21	72	4E	11
N22	A	21	72	8B	11
N23	A	20	97	4E	11
N23	A	20	97	9B	11
N24	A	12	42	5E	11
N24	A	12	42	7C	11
N25	A	41	85	6E	16
N25	A	41	85	8B	16
N25	A	41	85	8C	16
N26	A	41	51	4E	16
N26	A	41	51	4E	16
N26	A	41	51	7E	16
N27	A	181	92	2E	5
N27	A	181	92	5D	5
N27	A	181	92	6C	5

el. Kennz *Part*	Seite *Side*	X	Y	Planq. *Sqr*	Bl. *Pg*
N28	B	205	108	3B	12
N29	A	25	84	4D	15
N29	A	25	84	6E	15
N30	A	11	27	2E	11
N30	A	11	27	3E	11
N30	A	11	27	8C	11
N31	B	191	43	3A	6
N31	B	191	43	5E	6
N32	A	41	67	7E	16
N32	A	41	67	9B	16
N33	B	188	94	1E	5
N33	B	188	94	3B	5
N34	A	182	54	3B	21
N34	A	182	54	3E	21
N35	A	246	74	5E	22
N35	A	246	74	8D	22
N37	A	44	117	11D	14
N37	A	44	117	4E	14
N37	A	44	117	6C	14
N38	B	247	85	9C	17
N39	A	280	20	10C	19
N39	A	280	20	2E	19
N40	A	288	49	10D	19
N40	A	288	49	1E	19
N41	A	285	34	11C	19
N41	A	285	34	2E	19
N42	A	193	76	6E	3
N42	A	193	76	9D	3
N42	A	193	76	9E	3
N43	A	119	108	11E	10
N43	A	119	108	2B	10
N43	A	119	108	3B	10
N44	B	15	123	11B	14
N45	B	28	123	6B	14
N46	B	83	106	8E	13
N47	B	83	129	8B	13
N48	A	112	129	2E	10
N48	A	112	129	3E	10
N48	A	112	129	3E	5
N48	A	112	129	4E	5
N48	A	112	129	5A	5
N49	B	21	56	7B	15
P4	B	102	37	5D	3
P17	B	34	124	5C	14
P34	B	224	72	7D	12
P50	B	180	38	7C	6
P51	B	167	134	3B	11
P52	B	54	134	4C	11
P53	B	232	91	11D	12
P54	B	253	21	3C	17
P55	B	259	64	7C	17
P56	B	257	97	6E	22
P57	B	267	51	3A	22
P58	B	268	54	4A	22
P59	B	12	129	10C	14
P60	B	164	103	4E	4
P61	B	164	105	4F	4
P62	B	160	103	4E	4
P63	B	138	103	6E	10
P64	B	15	24	9C	11
P65	B	28	52	8D	11
P66	B	51	14	8B	9
P67	B	49	74	9A	16
P68	B	277	35	11C	19
P69	B	160	105	3E	4
P72	B	83	136	5C	8
P75	B	83	113	11C	8
R1	A	25	42	8D	11
R2	B	42	136	8E	14
R3	B	90	58	10E	4
R4	A	40	107	2E	15
R5	A	119	127	3E	5
R6	A	103	137	6B	5
R7	A	39	60	3A	16

el. Kennz. *Part*	Seite *Side*	X	Y	Planq. *Sqr*	Bl. *Pg*
R8	A	169	125	7A	12
R9	A	192	64	9D	3
R10	A	207	56	9E	3
R11	A	282	143	9C	18
R12	B	190	77	4C	6
R13	A	298	84	5C	19
R14	A	295	109	3C	19
R15	A	298	64	7D	19
R16	B	286	39	8C	19
R17	A	198	72	6E	3
R18	A	192	70	9D	3
R19	A	29	83	5D	15
R20	B	116	112	4E	13
R21	B	116	135	4B	13
R22	B	279	97	3A	19
R23	A	112	67	4B	9
R24	A	137	75	10A	21
R25	A	133	69	4D	9
R26	B	253	128	6E	18
R27	B	89	131	7B	13
R28	B	87	134	7C	13
R29	B	87	111	7E	13
R30	B	89	108	7E	13
R31	A	100	67	3C	10
R32	A	108	65	3D	10
R33	B	210	111	3B	12
R34	B	212	108	2B	12
R35	B	241	133	10B	20
R36	A	264	116	7B	18
R37	B	248	81	9C	17
R38	A	238	118	6B	18
R39	A	237	24	2B	17
R40	B	245	45	5C	17
R41	B	248	63	7C	17
R42	B	279	76	4A	19
R43	B	279	56	7A	19
R44	A	146	84	7A	21
R45	A	229	64	9B	3
R46	A	152	78	11D	21
R47	A	138	88	9A	21
R48	B	202	93	4C	5
R49	A	255	77	6E	22
R50	A	255	93	6C	22
R52	A	203	82	8D	3
R53	B	68	67	7B	7
R54	B	81	56	7C	7
R55	B	223	89	9D	20
R56	A	60	63	1E	16
R57	A	151	28	2C	3
R58	B	136	41	3C	3
R59	A	227	57	5E	3
R60	A	197	74	6E	3
R61	A	151	97	8B	21
R62	B	136	39	3B	3
R63	A	181	43	2B	21
R64	A	228	27	3A	17
R65	A	140	65	6C	21
R66	A	156	79	9D	21
R67	A	135	74	10A	21
R68	A	172	57	3E	21
R69	A	179	44	4F	21
R70	A	136	87	11D	21
R71	B	187	39	3A	6
R72	B	173	70	7A	6
R73	B	186	74	4B	6
R74	B	112	135	5B	13
R75	B	98	126	6C	13
R76	B	136	130	2C	13
R77	A	187	109	5A	12
R78	B	98	103	6E	13
R79	B	113	112	5D	13
R80	B	139	107	2E	13
R81	B	23	141	9B	14
R82	B	21	37	8C	15

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ROHDE & SCHWARZ	Benennung: EE IQ-MODULATOR *Designation:* IQ-MODULATOR	Sprache: *Lang.:* de	Blatt: *Sh.:* 7 +	Aei: *C.I.:* 08.04
Typ: *Type:* SMIQ	Datum: *Date:* 99-02-11	Abteilung: *Dpt:* 1GPK	Name: *Name:* HO	Sachnr.: *Part No.:* 1084.9800.01 XY

el. Kennz. *Part*	Seite *Side*	X	Y	Planq. *Sqr*	Bl. *Pg*
R83	B	30	42	7C	15
R84	B	12	26	10A	15
R85	B	34	28	7C	15
R86	B	44	120	4B	14
R87	B	44	38	7E	15
R88	A	26	26	10D	15
R89	B	69	66	6B	7
R90	B	69	69	7B	7
R91	B	81	59	7C	7
R92	B	81	55	6C	7
R93	B	57	38	3E	7
R94	B	73	46	4F	7
R95	B	65	47	5B	7
R96	B	73	44	5C	7
R97	A	137	114	6E	10
R98	A	154	119	6D	10
R99	A	62	54	4C	10
R100	A	133	28	11C	10
R101	A	12	118	10E	14
R102	A	25	125	5E	14
R103	B	41	141	8D	14
R104	A	42	118	4E	14
R105	A	65	44	4D	10
R106	A	84	132	8D	10
R107	A	68	118	8E	10
R108	A	64	121	9D	10
R109	A	117	106	3B	10
R110	A	23	96	9A	11
R111	A	26	48	6D	11
R112	A	18	35	2E	11
R113	B	249	103	11C	17
R114	A	79	47	5D	9
R115	A	134	65	4E	9
R116	A	70	59	5B	9
R117	A	56	28	4E	9
R118	A	56	18	5E	9
R119	A	120	78	1E	9
R120	B	249	99	10C	17
R121	B	46	48	2B	16
R122	B	44	75	6B	16
R123	A	54	52	4E	16
R126	A	264	83	7E	22
R127	A	254	83	3C	22
R128	A	247	67	6A	17
R129	B	173	113	5B	12
R130	B	165	119	6B	12
R131	B	146	132	8A	12
R132	B	141	114	9B	12
R133	B	139	114	9B	12
R134	A	91	97	9A	22
R135	B	232	44	5C	12
R136	B	192	114	4B	12
R137	A	255	41	6B	17
R138	A	12	80	4D	11
R139	B	223	79	10D	20
R140	B	246	142	10A	20
R141	A	261	128	10C	20
R142	A	246	130	10C	20
R143	B	203	79	3E	6
R144	A	55	113	4E	14
R145	B	283	129	10D	18
R146	B	275	131	8D	18
R147	A	11	91	4D	11
R148	A	222	142	6A	20
R149	B	102	133	5B	13
R150	B	102	130	5B	13
R151	A	25	138	1E	14
R152	A	42	143	2E	14
R153	B	103	110	5D	13
R154	B	103	107	5D	13
R155	A	54	136	3E	14
R156	A	257	43	6B	17
R157	B	27	19	11C	15
R158	B	17	19	11B	15
R159	A	21	121	11E	14
R160	B	43	60	2B	16
R161	B	40	60	2A	16
R162	A	12	40	5D	11
R163	B	222	47	5D	12
R164	A	18	58	6D	11
R165	B	230	72	10E	20
R166	B	242	139	10B	20
R167	A	250	130	11C	20
R168	A	246	39	4E	17
R169	A	239	57	6D	17
R170	A	224	142	7A	20
R171	A	11	55	5E	11
R172	B	212	135	5C	20
R173	B	212	141	5C	20
R174	B	248	55	6C	17
R175	B	265	31	2C	17
R176	A	23	70	4E	11
R177	A	38	122	6E	14
R178	A	171	91	6E	5
R179	A	169	91	6E	5
R180	A	40	110	1D	15
R181	A	13	103	1E	15
R182	B	111	142	5B	13
R183	B	108	142	5B	13
R184	B	106	142	6B	13
R185	B	88	132	7B	13
R186	A	43	109	2D	15
R187	A	36	110	1D	15
R188	B	40	115	5B	14
R189	B	88	109	7E	13
R190	B	111	119	6E	13
R191	B	108	119	5E	13
R192	B	106	119	5E	13
R193	B	22	134	9B	14
R194	A	27	107	3D	15
R195	A	25	103	3E	15
R196	B	13	140	9C	14
R197	B	47	114	4C	14
R198	B	35	117	5B	14
R199	B	17	131	10B	14
R200	B	40	53	2B	16
R201	B	40	54	2B	16
R202	B	40	56	3B	16
R203	B	212	109	2B	12
R204	B	40	116	5B	14
R205	B	22	136	9B	14
R206	B	55	30	2B	7
R207	B	55	28	2B	7
R208	A	16	35	8C	11
R209	B	222	103	6F	20
R210	B	222	108	6F	20
R211	A	118	76	4E	9
R212	A	217	73	3E	12
R213	A	232	83	4E	12
R214	A	223	98	4E	12
R215	B	195	133	3C	20
R216	B	216	142	6B	20
R217	A	243	18	3C	17
R218	A	249	50	6C	17
R219	B	248	117	1E	18
R220	B	293	114	4C	18
R221	B	161	35	6B	21
R222	A	20	91	5E	11
R223	A	22	27	2E	11
R224	B	291	69	7D	19
R225	A	296	82	4D	19
R226	A	25	57	6E	11
R227	A	185	82	8D	3
R228	A	219	45	8B	3
R229	A	207	58	9D	3
R230	A	194	64	9E	3
R231	A	170	40	6B	21
R232	A	154	74	11D	21
R233	A	136	81	11B	21
R234	A	125	94	5F	21
R235	A	122	78	4F	21
R236	A	123	87	4F	21
R237	A	228	80	3E	12
R238	B	177	75	6B	6
R239	B	167	82	7C	6
R240	B	134	133	2B	13
R241	B	137	110	2E	13
R242	A	16	22	8C	15
R243	A	24	22	8E	15
R244	B	70	62	5B	7
R245	B	88	138	4B	8
R246	B	61	60	6B	7
R247	B	88	115	11C	8
R248	B	73	49	6C	7
R249	B	83	48	5C	7
R250	A	61	54	3B	10
R251	A	148	117	6E	10
R252	A	61	44	3D	10
R253	A	123	117	3A	10
R254	A	59	28	2B	11
R255	A	62	40	3B	11
R256	A	65	40	3C	11
R257	A	12	92	9B	11
R258	B	11	94	10A	11
R259	A	83	42	4D	9
R260	A	84	53	4B	9
R261	A	43	82	8B	16
R262	A	41	82	8D	16
R263	A	42	76	9B	16
R264	A	50	69	9B	16
R265	A	46	60	3E	16
R266	A	177	93	5D	5
R267	A	175	92	5C	5
R268	B	175	94	2B	5
R269	B	191	98	3C	5
R270	A	257	73	6F	22
R271	A	248	98	6D	22
R272	A	260	71	1B	22
R273	B	205	98	4C	5
R274	A	258	55	3A	22
R275	A	268	60	3A	22
R276	A	205	96	5C	5
R277	A	191	98	6C	5
R278	A	220	85	9D	12
R279	A	227	101	10E	12
R280	A	227	104	10E	12
R281	B	279	103	1B	19
R282	B	235	127	9B	20
R283	A	296	94	2D	19
R284	A	220	142	6A	20
R285	A	248	28	3B	17
R286	A	245	24	3B	17
R287	A	245	28	4B	17
R288	A	247	57	7B	17
R289	A	249	55	7B	17
R290	A	250	64	6B	17
R291	B	209	130	5B	20
R292	B	248	37	4C	17
R293	B	212	130	5C	20
R294	B	212	132	5B	20
R295	B	276	86	3B	19
R296	B	276	67	6B	19
R297	A	228	25	3B	17
R298	A	242	61	6B	17
R299	B	244	101	11C	17
R300	B	286	37	8C	19
R301	B	284	24	10C	19
R302	A	286	120	7E	19
R303	B	250	128	6E	18
R304	B	255	128	6E	18
R305	A	152	38	8C	21
R306	A	59	22	3A	11

ROHDE & SCHWARZ

Benennung: EE IQ-MODULATOR
Designation: IQ-MODULATOR

Sprache: *Lang.:* de

Blatt: *Sh.:* 8 +

Aei: *C.I.:* 08.04

Typ: *Type:* SMIQ

Datum: *Date:* 99-02-11

Abteilung: *Dpt:* 1GPK

Name: *Name:* HO

Sachnr.: *Part No.:* 1084.9800.01 XY

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Nicht-Service-Relevante Bauteile / Non-Service-Relevant Parts

el. Kennz. Part	Seite Side	X	Y	Planq. Sqr	Bl. Pg
R307	A	68	38	3B	11
R308	A	75	32	9B	9
R309	A	75	36	9B	9
R310	A	69	22	9D	9
R311	A	73	22	9D	9
R312	A	50	87	7A	16
R313	A	38	86	7C	16
R314	A	174	95	5D	5
R315	B	192	91	3B	5
R316	A	242	92	6C	22
R317	A	191	88	6C	5
R318	A	219	90	9D	12
R319	A	193	92	2E	5
R320	A	238	28	3A	17
R321	A	291	25	10B	19
R322	A	287	43	10D	19
R323	A	238	61	7B	17
R324	A	230	20	3B	17
R325	A	244	59	6B	17
R326	A	192	135	4C	20
R327	B	123	36	3B	3
R328	A	153	21	2C	3
R329	A	149	20	2D	3
R330	A	120	28	2D	3
R331	B	118	36	3A	3
R332	A	273	21	9E	19
R333	A	22	31	3E	11
R334	B	192	37	2C	21
R335	A	194	26	1C	21
R336	A	230	92	9D	12
R337	B	223	87	9D	20
R338	B	223	85	9D	20
R339	A	257	134	9A	20
R340	A	255	138	9A	20
R341	B	244	72	8C	17
R342	B	248	75	8C	17
R343	B	244	78	8C	17
R344	A	279	39	11C	19
R345	A	275	37	11D	19
R346	A	198	129	2C	20
R347	A	234	126	9B	20
R348	A	182	79	8C	3
R349	B	64	22	2D	7
R350	B	64	33	2D	7
R351	B	159	118	7B	12
R352	A	39	37	7A	9
R353	A	72	59	5E	7
R354	B	230	131	8C	20
R355	A	250	136	11C	20
R356	A	95	96	9A	22
R357	B	229	139	7B	20
R358	B	215	133	5C	20
R359	B	222	106	6E	20
R360	A	106	88	11D	22
R361	A	274	80	5D	19
R362	A	292	92	2D	19
R363	B	220	139	6C	20
R364	A	179	97	2E	5
R365	B	29	65	6C	15
R366	B	29	64	6C	15
R367	B	28	74	5C	15
R368	B	28	72	5C	15
R369	B	60	37	2A	7
R370	B	57	37	2A	7
R371	B	59	23	2B	7
R372	B	59	21	2B	7
R373	B	84	27	10B	9
R374	B	81	25	10B	9
R375	B	78	20	10D	9
R376	B	75	20	10D	9
R377	B	205	139	5B	20
R378	A	275	103	3E	19
R379	B	219	139	6C	20
R380	A	275	25	9D	19
R381	B	24	37	10C	15
R382	B	217	139	6C	20
R383	B	30	44	10E	15
R384	A	205	136	4A	20
R385	A	23	41	8C	11
R386	B	170	96	2B	5
R387	A	187	108	6A	12
R388	B	222	35	2D	12
R389	B	222	39	3D	12
R390	B	222	36	2D	12
R391	A	280	84	4E	19
R392	A	218	116	6D	20
R393	A	42	19	7C	9
R394	A	294	76	4F	19
R395	A	293	100	3F	19
R396	A	227	133	8A	20
R397	A	107	97	11E	22
R398	A	104	87	3A	9
R399	A	105	56	3C	9
R400	A	112	82	2F	9
R401	B	278	130	8E	18
R402	B	194	88	1E	5
R403	B	177	98	2E	5
R404	A	286	39	1F	19
R405	A	277	46	1E	19
R406	A	273	31	2E	19
R407	B	75	55	5F	7
R408	B	224	141	7B	20
R409	A	239	97	4C	22
R410	A	153	117	7D	10
R411	A	273	73	7E	19
R412	A	230	29	3A	17
R413	A	292	68	5E	19
R414	B	162	50	9B	6
R415	A	251	69	6A	17
R416	A	232	51	5E	12
R417	B	278	132	8E	18
R418	B	61	65	6E	7
R419	B	71	54	6F	7
R420	A	84	38	5C	9
R421	A	84	61	5A	9
R422	A	44	92	7B	16
R423	A	129	28	2B	3
R424	A	143	35	3C	3
R425	A	146	28	2C	3
R426	A	150	35	3D	3
R427	B	113	36	3D	3
R428	A	124	28	2A	3
R429	A	141	28	2B	3
R430	A	187	111	4A	12
R431	A	261	49	3B	22
R432	A	244	51	5D	17
R433	B	232	100	7D	20
R434	A	136	68	10B	21
R435	A	140	93	9A	21
R436	A	198	127	3C	20
R437	B	151	128	9B	12
R438	B	150	135	8B	12
R439	B	222	45	5E	12
R440	B	245	139	11B	20
R441	B	240	139	10B	20
R442	B	36	113	5B	14
R443	B	19	131	10B	14
R444	B	230	73	10E	20
R445	A	179	15	1A	21
R446	B	46	84	6B	16
R447	B	200	131	4B	20
R448	B	301	141	9C	18
R449	B	225	114	5E	20
R450	B	168	77	7C	6
R451	B	173	43	10B	6
R452	B	169	77	7B	6
R453	A	26	68	5C	15
R454	A	107	137	3E	10
R455	A	77	38	4A	11
R456	A	64	18	3A	11
R457	A	29	51	10D	11
R458	B	202	90	4B	5
R459	A	166	18	2E	3
R460	A	243	76	8D	22
R461	A	261	78	8D	22
R462	A	251	51	3A	22
R463	A	231	99	10D	12
R464	B	190	131	2B	20
R465	B	72	64	5B	7
R466	A	240	127	8B	20
R467	A	287	28	2F	19
R468	A	249	140	10A	20
R469	B	84	47	5C	7
R470	A	250	37	4E	17
R471	B	293	106	5C	18
R472	B	242	136	10B	20
R473	B	276	94	3A	19
R474	B	280	91	3B	19
R475	A	196	140	4A	20
R476	A	142	48	7C	21
R477	A	100	28	11A	10
R478	A	192	141	3C	20
R479	B	173	106	5B	12
R480	B	159	122	6B	12
R481	B	159	120	7B	12
R482	B	188	107	4B	12
R483	B	190	107	4B	12
R484	B	222	54	6E	12
R485	B	151	133	8B	12
R486	B	227	64	6D	12
R487	B	161	131	7B	12
R488	B	158	131	7B	12
R489	B	63	53	5B	7
R490	B	190	128	2C	20
R491	A	222	113	5D	20
R492	A	229	120	4D	20
R493	A	251	140	10C	20
R494	B	227	59	6E	12
R495	B	222	56	6E	12
R496	A	194	133	3C	20
R497	A	232	129	9C	20
R498	A	233	138	9C	20
R499	A	231	101	10D	12
R500	A	243	140	10C	20
R501	A	35	39	7A	9
R502	A	39	16	7C	9
R503	A	37	31	7B	9
R504	A	39	26	7B	9
R505	B	293	129	10D	18
R506	A	218	137	6A	20
R507	B	265	29	2C	17
R508	B	248	53	5C	17
R509	B	248	58	6C	17
R510	B	265	34	3C	17
R511	B	295	52	9B	19
R512	A	257	35	12B	19
R513	B	276	91	3B	19
R514	A	114	119	4A	10
R515	B	76	44	5C	7
R517	A	223	135	5A	20
R518	A	235	142	7A	20
R519	A	290	47	10D	19
R520	A	61	52	3C	10
R521	A	61	48	3D	10
R522	A	63	134	8F	10
R523	A	262	21	11B	19
R524	B	140	130	2B	13
R525	B	139	133	2B	13
R526	B	142	110	2E	13
R527	B	146	110	2E	13
R528	A	228	135	8A	20
R529	B	291	129	10E	18

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ROHDE & SCHWARZ	Benennung: EE IQ-MODULATOR *Designation:* IQ-MODULATOR	Sprache: *Lang.:* de	Blatt: *Sh.:* 9 +	Aei: *C.I.:* 08.04
Typ: *Type:* SMIQ	Datum: *Date:* 99-02-11	Abteilung: *Dpt:* 1GPK	Name: *Name:* HO	Sachnr.: *Part No.:* 1084.9800.01 XY

Nicht-Service-relevante Bauteile / Non-service relevant components

el. Kennz. Part	Seite Side	X	Y	Planq. Sqr	Bl. Pg
R530	B	296	129	10E	18
R531	A	248	143	9A	20
R532	A	197	143	3A	20
R533	B	258	37	3C	17
R534	B	253	37	4C	17
R535	A	194	66	9C	3
R536	A	81	32	10A	9
R537	A	76	24	10C	9
R538	A	76	14	10E	9
R539	A	66	18	10C	9
R540	B	12	91	10A	11
R541	B	45	25	11D	7
R542	B	45	32	11B	7
R543	A	245	99	6C	22
R544	A	28	47	10D	11
R545	A	81	59	5B	9
R546	A	226	73	8D	12
R547	A	276	143	8C	18
R548	A	246	52	5D	17
R549	A	277	135	7C	18
R550	A	79	44	5C	9
R551	B	180	110	4B	12
R552	B	161	114	6B	12
R553	B	276	74	5A	19
R554	B	276	54	7A	19
R555	A	207	91	5C	5
R556	B	116	115	4E	13
R557	B	116	111	4E	13
R558	B	116	134	4B	13
R559	B	116	138	4B	13
R560	A	187	105	6A	12
R561	A	148	58	8C	21
R562	A	145	56	9C	21
R563	A	132	54	8C	21
R564	A	279	37	11C	19
R565	A	273	23	8D	19
R566	B	167	45	9B	6
R567	A	177	57	5E	21
R568	A	129	36	7A	3
R569	A	129	39	3E	3
R570	A	172	72	5E	21
R571	A	177	72	5F	21
R572	A	35	36	7A	9
R573	A	38	21	7C	9
R574	B	150	72	4A	4
R575	B	136	75	5A	4
R576	B	150	65	5B	4
R577	B	150	70	5B	4
R578	B	150	60	3B	4
R579	B	150	54	3B	4
R580	B	134	62	3A	4
R581	B	150	63	3A	4
R582	B	175	58	7A	4
R583	B	174	58	7A	4
R584	B	173	55	7B	4
R585	B	173	61	7B	4
R586	A	154	83	11C	21
R587	B	196	60	2C	6
R588	A	282	71	5F	19
R589	B	196	47	2A	6
R590	B	201	39	2A	6
R591	B	199	66	3C	6
R592	B	199	68	3C	6
R593	B	172	75	7B	6
R594	B	205	79	3D	6
R595	B	112	132	5B	13
R596	B	100	130	6B	13
R597	A	110	136	3E	5
R598	B	126	129	3C	13
R599	B	127	140	3B	13
R600	B	120	139	4C	13
R601	B	100	107	6E	13
R602	B	121	127	4B	13
R603	B	113	109	5D	13
R604	B	126	106	3E	13
R605	B	120	116	4E	13
R606	B	121	104	4D	13
R607	B	127	117	3D	13
R608	A	85	104	3E	8
R609	B	15	92	3B	15
R610	B	72	66	4B	7
R611	B	84	41	4C	7
R612	B	78	42	5D	7
R613	B	61	55	5B	7
R614	B	14	28	10B	15
R615	A	200	96	7B	5
R616	A	61	139	10A	10
R617	B	74	40	4B	7
R618	B	73	41	4D	7
R619	A	63	60	3B	10
R620	A	114	115	4A	10
R621	A	64	105	10C	10
R622	A	255	38	8C	19
R623	A	62	136	10A	10
R624	A	61	50	3C	10
R625	A	120	115	4B	10
R626	A	26	93	10B	11
R627	A	294	92	5C	19
R628	A	12	33	8C	11
R629	A	14	37	8C	11
R630	A	56	39	8A	9
R631	A	41	39	8A	9
R632	A	41	37	7A	9
R633	A	57	37	7A	9
R634	A	56	26	8D	9
R635	A	42	26	8D	9
R636	A	42	24	7D	9
R637	A	56	24	7D	9
R638	A	40	34	6B	9
R639	A	205	94	7B	5
R640	A	144	83	10B	21
R641	B	50	52	2A	16
R642	A	50	89	7B	16
R643	A	36	86	7C	16
R644	B	40	69	4B	16
R645	A	266	56	4B	22
R646	A	252	83	4C	22
R647	A	294	74	4D	19
R648	B	173	117	5A	12
R649	B	169	122	6A	12
R650	B	147	132	9A	12
R651	A	255	46	6C	17
R652	B	225	44	5D	12
R653	B	221	67	7D	12
R654	B	224	67	7D	12
R655	A	224	73	7D	12
R656	A	221	73	7D	12
R657	A	224	84	8D	12
R658	B	190	118	4A	12
R659	B	262	82	9D	17
R660	B	227	75	10E	20
R661	A	276	88	3C	19
R662	B	239	142	10B	20
R663	A	294	96	2D	19
R664	A	299	108	3C	19
R665	B	287	128	11D	18
R666	A	280	109	1C	19
R667	A	98	93	9B	22
R668	A	145	95	9A	21
R669	B	260	34	3C	17
R670	B	252	63	6C	17
R671	A	280	61	6C	19
R672	A	281	90	6D	19
R673	A	301	65	7D	19
R674	B	30	112	1C	15
R675	A	154	59	7E	21
R676	A	156	59	7E	21
R677	A	248	109	6A	18
R678	A	259	117	7A	18
R679	A	261	119	7B	18
R680	A	247	117	6A	18
R681	A	154	49	7F	21
R682	B	244	106	11C	17
R684	A	276	84	4D	19
R685	A	290	94	2D	19
R686	A	145	86	9A	21
R687	A	105	82	3A	9
R688	A	120	65	3B	9
R689	A	127	72	3C	9
R690	A	107	53	3C	9
R691	B	197	127	4B	20
R692	B	228	120	5E	20
R693	B	231	143	7B	20
R694	A	217	134	6B	20
R695	B	108	62	3C	4
R696	B	100	62	3C	4
R697	B	107	47	3D	4
R698	B	105	62	3D	4
R699	B	110	69	4D	4
R700	B	110	67	4D	4
R701	B	111	71	4C	4
R702	B	111	73	4C	4
R703	B	111	93	6C	4
R704	B	111	96	7C	4
R705	B	110	88	7D	4
R706	B	110	91	6D	4
R707	B	111	90	7D	4
R708	B	125	86	8D	4
R709	B	110	97	8C	4
R710	B	125	92	7C	4
R711	A	286	68	5E	19
R712	B	18	92	3C	15
R713	A	231	55	5E	12
R714	B	195	110	3B	12
R715	A	136	35	10A	3
R716	A	223	68	9A	3
R717	A	118	119	3A	10
R718	B	178	88	2B	5
R719	A	202	80	8E	3
R720	A	126	140	3E	10
R721	B	196	41	2B	6
R722	A	20	33	9C	15
R723	A	26	32	9C	15
R724	A	28	23	9E	15
R725	A	28	27	9D	15
R726	B	274	127	8C	18
R727	A	294	84	4C	19
R728	A	275	75	6E	19
R729	A	294	71	4C	19
R730	B	207	106	3A	12
R731	B	13	78	5A	15
R732	A	241	86	6D	22
R733	A	286	109	2C	19
R734	B	114	39	3B	3
R735	B	116	39	3B	3
R736	B	118	39	3B	3
R737	B	120	39	3B	3
R738	B	122	39	3B	3
R739	B	124	39	3B	3
R740	B	126	39	3B	3
R741	B	136	44	5C	3
R742	B	136	46	5C	3
R743	B	136	48	5C	3
R744	B	136	50	5C	3
R745	B	136	52	5C	3
R746	B	136	54	5C	3
R747	B	136	56	5C	3
R748	B	136	58	5C	3
R749	A	153	17	1B	3
R750	A	167	20	1D	3
R751	B	139	51	2A	4
R752	B	125	97	8A	4

ROHDE & SCHWARZ

Benennung: EE IQ-MODULATOR
Designation: IQ-MODULATOR

Sprache: Lang.: de

Blatt: Sh.: 10 +

Aei: C.I.: 08.04

Typ: Type: SMIQ

Datum: Date: 99-02-11

Abteilung: Dpt: 1GPK

Name: Name: HO

Sachnr.: Part No.: 1084.9800.01 XY

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Nicht-Service-Relevante Bauteile / Non-Service Relevant Components

el. Kennz. Part	Seite Side	X	Y	Planq. Sqr	Bl. Pg
R753	B	139	96	9A	4
R754	A	134	85	3C	21
R755	A	138	79	11B	21
R756	B	171	71	8B	6
R757	B	14	31	10B	15
R758	A	24	30	10D	15
R759	A	28	25	10D	15
R760	B	90	142	4B	8
R761	B	90	119	11B	8
R762	A	112	119	4A	10
R763	B	12	88	10A	11
R764	A	256	87	4C	22
R765	B	228	41	5D	12
R766	A	34	29	7B	9
R767	A	36	23	7C	9
R768	A	229	106	11D	12
R769	A	280	104	1C	19
R770	B	223	77	10E	20
R771	B	236	141	11B	20
R772	B	282	126	11D	18
R773	B	175	70	6B	6
R774	A	287	77	6C	19
R775	A	282	87	6D	19
R776	A	96	90	10B	22
R777	A	205	134	5A	20
R778	A	14	64	7A	11
R779	A	246	47	5E	17
R780	A	220	116	6D	20
R781	A	226	131	8A	20
R782	A	20	24	9C	11
R783	A	206	50	10D	3
R784	A	194	45	10E	3
R785	B	27	20	11C	15
R786	B	27	16	11C	15
R787	B	16	20	11B	15
R788	B	16	16	11B	15
R789	B	49	84	6A	16
R790	A	54	54	3E	16
R791	A	169	52	5B	21
R792	A	185	53	4A	21
R793	A	176	68	4B	21
R794	A	171	64	4C	21
R795	A	128	133	3E	10
R796	A	135	123	5E	10
R797	A	135	118	5E	10
R798	A	135	121	5E	10
R799	A	135	129	5D	10
R800	A	135	126	5D	10
R801	A	160	121	5D	10
R802	A	158	119	6D	10
R803	A	160	124	6C	10
R804	A	161	129	5B	10
R805	A	126	135	3E	10
R806	A	255	53	2B	22
R807	B	26	92	7A	11
R808	A	14	84	8A	11
R809	A	18	62	8B	11
R810	B	293	110	5C	18
R811	A	290	27	11C	19
R812	A	45	48	4E	16
R813	A	38	53	5E	16
R814	B	205	128	4C	20
R815	B	202	128	4C	20
R816	B	190	75	4B	6
R817	B	140	131	2B	13
R818	B	145	110	2E	13
R819	A	220	48	8C	3
R820	A	192	68	10C	3
R821	B	43	86	7B	16
R822	B	288	27	9C	19
R823	B	222	50	6E	12
R824	B	230	69	10E	20
R825	B	203	128	4C	20
R826	B	221	119	6F	20

el. Kennz Part	Seite Side	X	Y	Planq. Sqr	Bl. Pg
R827	B	221	117	5F	20
R828	B	221	116	5F	20
R829	A	283	37	11B	19
R830	A	281	39	11E	19
R831	A	244	49	5D	17
R832	A	273	29	9D	19
R833	A	136	39	10A	3
R834	A	163	41	6B	21
R835	B	173	47	9C	6
R836	A	151	119	6D	10
R837	A	75	42	5C	9
R838	A	79	57	5B	9
R839	A	54	69	10B	16
R840	B	110	75	11C	4
R841	B	110	82	8C	4
R842	B	111	80	5C	4
R843	B	102	47	2C	4
R844	B	102	127	7B	13
R845	B	102	104	7E	13
R846	B	145	135	9A	12
R847	A	102	35	4E	3
R848	B	104	133	5B	13
R849	B	18	97	3C	15
R850	B	104	110	5D	13
R851	B	26	140	8B	14
R852	B	26	136	8B	14
R853	B	49	58	2B	16
R854	B	165	115	5B	12
R855	B	168	128	7B	12
R856	B	262	88	9D	17
R857	B	182	116	4B	12
R858	B	279	91	3B	19
R859	B	36	121	5B	14
R860	B	15	130	10B	14
R861	A	17	106	2E	15
R862	A	27	83	4D	15
R863	B	226	138	7C	20
R864	B	226	137	7C	20
R865	A	277	19	8D	19
R866	A	264	95	10D	22
R867	A	67	105	10C	10
R868	A	83	57	5A	9
R869	A	35	92	7D	16
R870	A	219	70	9A	3
R871	A	229	61	9A	3
R872	A	158	127	5C	10
R873	B	25	86	4C	15
R874	A	81	38	5C	9
R875	B	226	135	8C	20
R876	A	139	73	10C	21
R877	B	203	136	4B	20
R878	B	162	52	8B	6
R879	A	98	65	2C	10
R880	A	158	131	5B	10
R881	A	106	67	2D	10
R882	A	107	133	2E	10
R883	A	114	106	2A	10
R884	B	217	112	6E	20
R885	B	233	133	8B	20
R886	A	246	35	4E	17
R887	A	239	22	2C	17
R888	B	223	144	6B	20
R889	B	237	127	9B	20
R890	B	278	135	8E	18
R891	B	277	102	2B	19
R892	A	291	23	2E	19
R893	B	248	38	4C	17
R894	B	276	83	4B	19
R895	B	276	63	6B	19
R896	A	258	95	9D	22
R897	A	64	38	2A	11
R898	B	244	66	7C	17
R899	B	248	69	7C	17
R900	A	283	26	3F	19

el. Kennz. Part	Seite Side	X	Y	Planq. Sqr	Bl. Pg
R901	A	260	81	10E	22
R902	B	294	50	9B	19
R903	A	287	54	10E	19
R904	B	253	34	3C	17
R905	A	18	75	6E	15
R906	B	241	105	11B	17
R907	A	275	35	11D	19
R908	A	19	89	6E	15
R909	B	175	106	5B	12
R910	A	37	88	7D	16
R911	B	142	86	5A	4
R912	A	154	80	11D	21
R913	B	201	88	4C	5
R914	A	247	81	5E	22
R915	A	27	96	9A	11
R916	A	197	35	2E	21
R917	A	218	43	8B	3
R918	A	231	65	8A	3
R919	A	136	77	11B	21
R920	A	257	71	6F	22
R921	A	288	39	10B	19
R922	B	297	48	10B	19
R923	B	142	128	10B	12
R924	B	149	112	10B	12
R925	A	252	130	11C	20
R926	B	282	133	8E	18
R927	A	293	52	9E	19
R928	A	29	79	5D	15
R931	A	243	81	8A	17
R932	A	289	52	10E	19
R933	B	224	65	7D	12
R934	B	220	65	7E	12
R935	B	179	78	6B	6
R936	A	38	74	9D	16
R937	B	198	70	3C	6
R938	A	29	77	4D	15
R939	B	207	135	5B	20
R940	A	288	33	11E	19
R941	A	290	37	11E	19
R942	B	195	77	4C	6
R943	A	194	131	4D	20
R944	A	38	76	9D	16
R945	B	282	37	9D	19
R946	B	283	37	9D	19
R947	A	147	89	9A	21
R948	A	147	91	9A	21
R949	A	112	84	2B	9
R950	A	112	86	2B	9
R951	A	111	56	2C	9
R952	A	111	58	2C	9
R953	A	54	71	10B	16
R954	B	208	138	5B	20
R955	A	243	67	6A	17
R956	A	122	119	3A	10
R957	A	67	59	5B	9
R958	A	81	49	5D	9
R959	A	245	105	10B	17
R960	A	245	103	10B	17
R961	A	243	109	10A	17
R962	A	243	111	10A	17
R963	A	288	70	5E	19
R964	A	42	74	9D	16
R965	A	295	102	6E	19
R966	B	248	102	11C	17
R967	B	265	111	3C	18
R969	B	88	141	5B	8
R970	B	88	118	11C	8
R971	A	118	66	3B	9
R972	A	129	71	3C	9
R973	A	24	106	3E	15
R974	A	21	112	3D	15
R975	A	251	101	1B	18
R976	A	23	110	2D	15
R977	B	21	141	9B	14

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ROHDE & SCHWARZ	Benennung: EE IQ-MODULATOR Designation: IQ-MODULATOR		Sprache: Lang.: de	Blatt: Sh.: 11 +	Aei: C.I.: 08.04
Typ: Type: SMIQ	Datum: Date: 99-02-11	Abteilung: Dpt: 1GPK	Name: Name: HO	Sachnr.: Part No.: 1084.9800.01 XY	

el. Kennz. Part	Seite Side	X	Y	Planq. Sqr	Bl. Pg
R978	B	46	120	4B	14
R979	A	76	64	5D	7
R980	A	252	109	1B	18
R981	A	72	67	5A	7
R982	B	36	126	5C	14
R983	B	87	136	4C	8
R984	B	87	113	11C	8
R985	B	125	69	3C	3
R986	B	35	128	5C	14
R987	A	35	128	10C	14
R988	A	259	101	2B	18
R989	A	27	127	10C	14
R990	A	14	122	10E	14
R991	A	254	107	2B	18
R992	A	42	124	5C	14
R993	A	40	122	6C	14
R994	B	285	57	6B	19
R995	B	289	77	5B	19
R996	B	287	90	2C	19
R997	A	27	123	5E	14
R998	B	167	68	9E	4
R999	B	45	69	4B	16
R1000	B	45	65	3B	16
R1001	B	44	66	4B	16
R1002	A	265	110	3A	18
R1003	A	254	111	3B	18
R1004	A	15	58	9D	11
R1005	B	182	43	5E	6
R1006	B	166	75	6E	6
R1007	B	179	48	7E	6
R1008	B	166	42	7E	6
R1009	B	189	77	6E	6
R1010	B	189	49	6E	6
R1011	A	173	92	6E	5
R1012	A	188	79	8D	3
R1013	A	138	55	9D	21
R1014	A	155	42	9E	21
R1015	A	154	66	8E	21
R1016	A	140	81	8F	21
R1017	A	166	56	10D	21
R1018	A	172	46	10E	21
R1019	A	190	81	8D	3
R1020	A	200	98	7B	5
R1021	B	177	127	1C	20
R1022	B	187	79	5B	6
R1023	B	164	66	6A	6
R1024	A	253	57	2A	22
R1025	B	16	81	6A	15
R1026	A	26	45	9B	11
R1027	B	180	89	2C	5
R1028	A	291	105	6E	19
R1029	B	15	79	6B	15
R1030	B	274	20	10C	19
R1031	B	16	82	6A	15
R1032	B	24	112	2C	15
R1033	A	262	37	10D	19
R1034	A	37	35	6B	9
R1035	A	184	73	6F	3
R1036	A	207	74	10D	3
R1037	A	186	73	7F	3
R1038	A	207	78	10D	3
R1039	B	247	99	10C	17
R1040	B	294	112	4C	18
R1041	A	18	64	8A	11
R1042	A	27	66	9B	11
R1043	A	255	30	9C	19
R1044	A	253	26	8B	19
R1045	A	253	36	8C	19
R1046	A	253	32	8B	19
R1047	A	262	32	10D	19
R1048	A	266	35	10D	19
R1049	A	266	29	10C	19
R1050	A	268	33	10C	19
R1051	A	140	63	10B	21
R1052	B	267	134	7E	18
R1053	A	20	64	8B	11
R1054	B	11	72	5B	15
R1055	A	16	64	8A	11
R1056	A	41	96	7C	16
R1057	A	46	93	7A	16
R1058	A	290	50	10D	19
R1059	B	11	79	5A	15
R1060	A	286	113	7E	19
R1061	A	251	55	1A	22
R1062	A	25	129	1E	14
R1063	A	285	17	10C	19
R1064	A	255	24	9C	19
R1065	A	266	27	10D	19
R1066	B	26	82	4C	15
R1067	A	255	34	8C	19
R1068	A	263	35	10D	19
R1069	B	15	85	6A	15
R1070	A	13	53	8C	11
R1071	A	15	124	1F	14
R1072	A	34	143	2E	14
R1073	B	150	87	11A	4
R1074	A	27	139	2F	14
R1075	B	43	35	9E	7
R1076	B	42	21	9C	7
R1077	B	48	38	9B	7
R1078	B	37	28	9A	7
R1079	B	56	23	11C	7
R1080	B	35	24	11E	7
R1081	B	53	28	11A	7
R1082	B	53	30	11C	7
R1083	B	73	33	2C	7
R1084	B	67	23	2C	7
R1085	B	67	21	2C	7
R1086	B	73	25	2C	7
R1087	B	49	20	10C	7
R1088	B	49	25	10C	7
R1089	B	42	25	10D	7
R1090	B	41	21	10E	7
R1091	B	43	27	10A	7
R1092	B	46	28	10A	7
R1093	B	48	32	10B	7
R1094	B	46	33	10B	7
R1095	A	13	51	8C	11
R1096	A	252	115	6A	18
R1097	B	48	23	11D	7
R1098	B	43	25	11D	7
R1099	B	45	27	11A	7
R1100	B	48	30	11B	7
R1101	B	62	33	3A	7
R1102	B	70	33	3C	7
R1103	A	54	127	3E	14
R1104	A	46	140	3F	14
R1105	B	12	131	10C	14
R1106	B	12	132	10C	14
R1107	A	19	141	9D	14
R1108	A	21	123	10E	14
R1109	A	38	124	6E	14
R1110	A	27	135	4D	14
R1111	B	125	115	3B	10
R1112	B	28	115	2C	15
R1113	B	22	92	4C	15
R1114	A	17	103	3F	15
R1115	A	12	113	3D	15
R1116	A	54	141	12C	14
R1117	A	54	125	7C	14
R1118	A	78	68	4D	7
R1119	A	74	68	4A	7
R1120	B	27	137	8B	14
R1121	A	125	115	2A	10
R1122	A	127	119	3A	10
R1123	B	17	95	3B	15
R1124	A	88	114	4E	8
R1125	A	103	112	4F	8
R1126	A	167	107	4E	4
R1127	A	142	110	4F	4
R1128	A	154	110	3F	4
R1129	A	128	116	3A	10
R1130	A	76	68	4D	7
R1131	A	68	65	4A	7
R1132	A	280	143	8C	18
R1133	A	284	143	9C	18
R1134	A	287	143	9C	18
R1135	B	18	141	9B	14
R1136	B	46	117	4B	14
R1137	A	105	121	2A	10
R1138	B	114	128	6A	13
R1139	B	114	105	6D	13
R1140	B	23	137	9B	14
R1141	B	38	112	5B	14
R1142	B	43	113	4B	14
R1143	B	21	133	10B	14
R1144	A	252	120	6B	18
R1145	A	247	119	6B	18
R1146	B	261	117	2E	18
R1147	B	261	115	2E	18
R1148	B	280	115	4D	18
R1149	B	280	114	4D	18
R1150	A	259	121	7B	18
R1151	A	259	115	7A	18
R1152	B	265	108	3C	18
R1153	A	37	105	2E	15
R1154	B	18	64	6C	15
R1155	B	18	60	6C	15
R1156	A	13	111	3D	15
R1157	A	21	104	3F	15
R1158	A	27	103	3E	15
R1159	A	29	105	3D	15
R1160	B	19	63	6B	15
R1161	B	285	126	11E	18
R1162	B	290	126	11E	18
R1163	B	288	126	11D	18
R1164	A	64	131	10B	10
R1165	A	148	104	3E	4
R1166	A	107	131	5B	5
R1167	A	115	127	3E	5
R1168	A	126	131	4E	5
R1169	A	126	129	4E	5
R1170	B	61	95	3B	8
R1171	B	61	75	2B	8
R1172	B	78	93	3D	8
R1173	B	79	74	2D	8
R1174	B	68	88	3E	8
R1175	B	67	72	2E	8
R1176	A	72	77	8E	8
R1177	A	81	90	9B	8
R1178	A	79	82	8B	8
R1179	A	66	67	8C	8
R1180	A	67	90	9C	8
R1181	A	80	78	8D	8
R1182	A	78	90	9D	8
R1183	A	69	90	9E	8
R1184	A	76	117	5E	8
R1185	A	91	106	6B	8
R1186	A	105	116	6D	8
R1187	A	105	108	6E	8
R1188	A	88	117	6C	8
R1189	B	80	74	2A	8
R1190	B	80	93	3A	8
R1191	A	87	108	6C	8
R1192	A	99	119	6E	8
R1193	A	96	104	6F	8
R1194	A	95	119	6D	8
R1195	A	87	106	6B	8
R1196	A	101	120	6D	8
R1197	A	109	106	6E	8
R1198	A	90	121	6C	8
R1199	B	70	84	2D	8

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ROHDE & SCHWARZ	Benennung: EE IQ-MODULATOR Designation: IQ-MODULATOR	Sprache: de	Blatt: 12 +
Typ: SMIQ	Datum: 99-02-11	Abteilung: 1GPK	Name: HO
Aei: 08.04			
Sachnr.: 1084.9800.01 XY			

Nicht-Service-relevante Bauteile / Non-service relevant components

el. Kennz. Part	Seite Side	X	Y	Planq. Sqr	Bl. Pg
R1200	A	69	82	9D	8
R1201	A	47	108	1E	16
R1202	A	107	126	5A	5
R1203	A	78	119	5E	8
R1204	A	159	109	2E	4
R1205	A	171	107	2D	4
R1206	A	171	109	2D	4
R1207	B	53	139	8E	14
R1208	A	105	129	5B	5
R1209	A	89	110	6C	8
R1210	A	97	121	6E	8
R1211	A	98	106	6F	8
R1212	A	93	121	6D	8
R1213	B	52	137	8D	14
R1214	A	169	105	1D	4
R1215	A	295	127	7F	19
R1216	A	289	127	7F	19
R1217	B	275	33	6E	19
R1218	B	276	25	6E	19
R1219				8B	11
R1220				5D	19
R1221				5D	19
R1222				7D	19
R1223				7D	19
R1224				7E	19
R1225				3E	8
S1	B	291	113	4C	18
S2	B	250	118	2E	18
T1	B	296	50	10A	19
U1	A	149	85	7B	21
U1	A	149	85	9A	21
U2	A	114	81	1E	9
U2	A	114	81	2B	9
U3	A	114	53	2C	9
U3	A	114	53	2E	9
U4	B	49	120	11C	13
U5	B	19	25	11C	15
U6	B	223	21	2B	12
U7	A	220	61	5E	3
U7	A	220	61	9A	3
U7	A	220	61	9A	3
U8	A	223	43	6E	3
U8	A	223	43	9B	3
U8	A	223	43	9C	3
U9	B	260	140	6E	18
U11	B	91	133	7B	13
U12	B	91	110	7E	13
V1	B	295	62	7D	19
V2	B	297	85	5D	19
V3	B	248	73	8C	17
V4	B	248	79	8C	17
V5	A	229	95	10D	12
V6	B	293	101	2D	19
V7	B	282	84	4C	19
V8	B	248	67	7C	17
V9	B	254	37	3C	17
V10	B	283	65	6C	19
V11	A	238	65	7B	17
V12	A	22	38	9D	15
V13	A	27	17	9E	15
V14	A	80	24	10B	9
V15	A	74	17	10D	9
V16	A	238	69	7A	17
V17	A	238	72	7A	17
V18	B	273	105	1B	19
V19	A	222	117	5D	20
V20	A	207	142	4A	20
V21	A	224	140	6A	20
V22	A	229	141	8A	20
V23	A	250	48	5E	17
V24	A	133	40	10A	3
V25	B	201	68	2B	6
V25	B	201	68	2B	6
V26	A	242	136	10C	20
V27	B	15	74	5B	15
V28	B	99	130	6B	13
V29	B	99	107	6E	13
V30	B	16	26	10A	15
V31	B	148	130	9A	12
V32	B	227	44	5D	12
V33	A	254	142	9A	20
V34	B	227	77	10D	20
V35	B	242	142	10A	20
V36	B	287	129	10D	18
V37	A	283	134	8C	18
V38	A	247	22	3C	17
V39	A	232	24	3B	17
V40	A	243	26	4B	17
V41	A	252	62	6C	17
V42	A	247	61	6B	17
V43	A	277	22	8D	19
V44	A	17	53	9D	11
V45	B	244	105	11C	17
V46	B	286	34	8C	19
V47	B	286	24	9C	19
V48	B	205	135	5B	20
V49	B	107	131	5B	13
V50	B	42	118	4B	14
V51	B	107	108	5D	13
V52	B	37	118	5B	14
V53	B	16	133	10B	14
V54	B	51	58	2A	16
V55	B	170	128	7A	12
V56	A	244	55	7B	17
V57	B	265	139	9C	20
V58	A	169	97	6D	5
V59	A	185	48	3B	21
V60	A	282	120	7E	19
V61	B	168	117	5A	12
V62	B	268	136	9C	20
V63	B	185	119	4A	12
V64	A	246	142	9B	20
V65	B	51	22	10C	7
V66	B	39	25	10E	7
V67	A	59	18	3A	11
V68	B	196	89	4B	5
V69	A	230	59	5E	12
V70	A	193	137	3C	20
V71	B	17	137	9B	14
V72	B	232	118	5D	20
V73	B	260	92	5E	22
V74	B	207	143	5A	20
V75	B	110	135	5B	13
V76	A	17	121	10E	14
V77	B	110	112	5E	13
V78	A	26	121	5D	14
V79	A	19	117	10E	14
V80	B	42	51	2B	16
V81	B	171	108	5B	12
V82	B	189	109	4B	12
V83	B	161	122	6B	12
V84	B	29	87	9A	11
V85	B	238	36	5E	17
V86	B	244	127	7A	20
V87	B	197	142	3A	20
V88	A	201	139	4A	20
V89	B	15	76	5A	15
V90	A	24	34	9C	15
V91	A	28	31	9E	15
V92	A	80	28	10A	9
V93	A	71	17	10D	9
V94	A	227	113	5D	20
V95	A	212	138	6A	20
V96	A	230	137	8A	20
V97	A	277	140	8C	18
V98	B	102	35	5F	3
V99	B	238	129	9B	20
V100	B	297	75	7E	19
V101	A	235	26	3A	17
V102	B	248	41	4C	17
V103	B	276	80	4B	19
V104	B	276	60	6B	19
V105	A	292	43	10B	19
V105	A	292	43	10D	19
V106	B	44	79	6B	16
V107	B	43	84	7B	16
V108	B	259	109	2C	18
V109	A	51	82	8A	16
V109	A	51	82	8C	16
V110	B	274	109	3C	18
V111	B	192	135	3B	20
V112	A	71	38	4B	11
V113	A	226	25	3A	17
V114	A	61	142	10A	10
V115	A	236	136	10C	20
V116	A	247	136	10C	20
V117	A	248	43	5E	17
V118	B	213	137	5B	20
V119	A	36	115	6E	14
V120	A	196	89	7C	5
V121	A	289	63	5E	19
V122	B	128	133	3B	13
V123	B	128	134	3B	13
V124	B	119	135	3B	13
V125	B	119	132	3B	13
V126	B	128	110	3E	13
V127	B	128	112	3E	13
V128	B	119	109	3E	13
V129	B	119	113	3E	13
V130	B	179	132	2B	20
V131	B	300	72	7E	19
V132	A	243	65	6A	17
V133	B	297	69	7D	19
V134	A	22	106	3E	15
V135	B	297	92	5D	19
V136	A	19	110	3D	15
V137	B	48	27	10A	7
V138	B	51	32	10B	7
V139	B	38	18	10E	7
V140	A	242	35	3E	17
V141	B	44	19	10C	7
V142	A	276	28	9D	19
V143	B	287	99	3D	19
V144	B	276	101	2B	19
V145	B	201	130	4C	20
V146	B	223	115	5E	20
V147	B	228	138	7B	20
V148	B	277	132	8D	18
V149	A	255	133	9A	20
V150	B	50	39	10B	7
V151	B	283	30	9C	19
V152	B	39	27	10A	7
V153	B	289	91	5D	19
V154	B	217	140	6B	20
V155	A	259	53	2B	22
V156	B	25	35	8C	15
V157	B	28	44	7C	15
V158	A	28	110	2D	15
V159	A	12	107	2F	15
V160	A	204	74	9D	3
V160	A	204	74	9E	3
V161	A	255	117	6A	18
V162	A	255	121	6B	18
V163	A	240	121	6B	18
V164	A	243	115	6A	18
V165	A	230	126	9B	20
V166	A	241	107	10B	17
V167	A	99	134	6A	5
V168	B	62	85	2B	8
V168	B	62	85	3B	8
V169	B	80	78	2D	8
V169	B	80	78	3D	8

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ROHDE & SCHWARZ	Benennung: EE IQ-MODULATOR Designation: IQ-MODULATOR	Sprache: Lang.: de	Blatt: Sh.: 13 +	Aei: C.I.: 08.04
Typ: Type: SMIQ	Datum: Date: 99-02-11	Abteilung: Dpt: 1GPK	Name: Name: HO	Sachnr.: Part No.: 1084.9800.01 XY

Nicht-Service-relevante Bauteile / Non-service-relevant components

el. Kennz. *Part*	Seite *Side*	X	Y	Planq. *Sqr*	Bl. *Pg*
V170	B	267	109	3C	18
V171	B	280	108	3C	18
V172	B	71	74	2E	8
V172	B	71	74	3E	8
V173	A	78	86	8B	8
V173	A	78	86	9B	8
V174	A	69	80	8C	8
V174	A	69	80	9C	8
V175	A	84	77	9D	8
V175	A	84	77	9D	8
V176	A	66	87	8E	8
V176	A	66	87	9E	8
V177	B	78	84	2A	8
V177	B	78	84	3A	8
V178	B	63	73	2B	8
V179	B	65	95	3B	8
V180	B	74	71	2C	8
V181	B	74	96	3C	8
V182	B	69	70	2D	8
V183	B	70	94	3D	8
V184	A	85	66	8A	8
V185	A	85	96	10A	8
V186	A	63	92	10B	8
V187	A	64	66	8B	8
V188	A	76	96	10D	8
V189	A	76	70	8D	8
V190	A	70	97	10E	8
V191	A	71	70	8E	8
V192	B	83	70	2A	8
V193	B	83	96	3A	8
V194				7D	19
V195				5C	19
X1	B	81	141	5B	8
X2	B	83	117	11B	8
X3	B	243	133	10B	20
X4	B	142	140	10A	12
X5	B	149	106	10B	12
X6	B	133	79	11A	21
X7	B	29	95	11B	11
X8	B	232	97	10D	12
X9	B	259	97	6E	22
X10	B	85	136	5C	8
X11	B	85	110	11C	8
X240	B	189	13	1C	21
X241	B	17	13	11B	15
X242	B	27	13	11C	15
X243	B	36	13	10D	11
X244	B	44	13	1A	7
X245	B	62	13	1C	7
X246	B	245	15	1B	12
X247	B	259	20	2C	17
X248	B	276	15	1E	21
X249	B	293	20	11A	19
Z1	B	47	104	2E	16
Z2	B	60	62	2E	16
Z3	B	52	104	2D	16
Z4	B	131	35	11C	10
Z5	B	54	72	10B	16
Z6	B	126	29	2B	3
Z7	B	146	29	2C	3
Z8	B	141	29	2C	3
Z9	B	151	29	2D	3
Z10	B	116	29	2D	3
Z11	B	121	29	2A	3
Z12	B	136	29	2B	3
Z13	B	184	29	2A	21
Z14	B	179	29	2B	21
Z15	B	194	29	2C	21
Z16	B	174	29	2D	21
Z17	B	169	29	2C	21
Z18	B	189	29	2E	21
Z19	B	110	29	11B	5
Z20	B	105	29	11C	5
Z21	B	199	29	11D	5
Z22	B	91	24	11D	5
Z23	B	91	17	11E	5
Z24	B	95	35	11A	10

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ROHDE & SCHWARZ	Benennung: *Designation:* EE IQ-MODULATOR / IQ-MODULATOR	Sprache: *Lang.:* de	Blatt: *Sh.:* 14 –	Aei: *C.I.:* 08.04	
Typ: *Type:* SMIQ	Datum: *Date:* 99-02-11	Abteilung: *Dpt:* 1GPK	Name: *Name:* HO	Sachnr.: *Part No.:* 1084.9800.01 XY	

ROHDE&SCHWARZ

Stromläufe
Bestückungspläne

Circuit diagrams
Component plans

Schémas de circuit
Plans des composants

095.1000 Bl. 4

4 5 6 7 8 9 10 11 12

A B C D E F

VREFINT
X240 A6

2103

2113

2112

450–3300M

X249
FIQOUT

0.3–3300M

2111

0.3–750M

2104

2.4G

2105

2107

DOWN–CONVERTER

PULSE
X240
A8

2106

f
nf

n=4

LEVATT

D
A

U_fix

X240 A10
LevAtt_Mod

2118

Modulator I

Mod I

2121

2123

X241
IQAUX

2115

X242
IQ300

to IQ–Converter

–Modulator

0°

LEVEL_ATTENUATION

Switch

BURST_SWITCH
sheet 2

Mod Q

2119

Modulator Q

08.13				1GPK	DATUM	NAME	BENENNUNG
				BEARB.		HO	IQ–MODULATOR
				GEPR.		HO	IQ–MODULATOR
				NORM			TOP/TOP.19
				PLOTT	99–06–29	HOFBERGE	
AEND. IND.	AENDERUNGS–MITTEILUNG	DATUM	NAME	ROHDE&SCHWARZ			ZEICHN.–NR. 1084.9800.01 S
				ZU GERAET SMIQ			REG.I.V. 1084.8004 ERSTE Z. 1084.8004.01

BLATT–NR. 1 +

BEHALTEN WIR UNS ALLE RECHTE VOR

X247
FIQFIL
from IQ Converter

Level
Preset

450–3300M

A
D

2108

ALC

2103

2112

450–3300M

DOWN–CONVERTER

2104

F(s)

2.4G

2105

2107

X246
REF600
from Ref/Step

2103

2106

f
nf

n=4

Local_Loop 2.4GHz

LEVATT

D
A

U_fix

2f
f

2118

Modulator I

Mod I

2114

90°

IQ–Modulator

2123

0°

LEVEL_ATTENUATION

2120

Mod Q

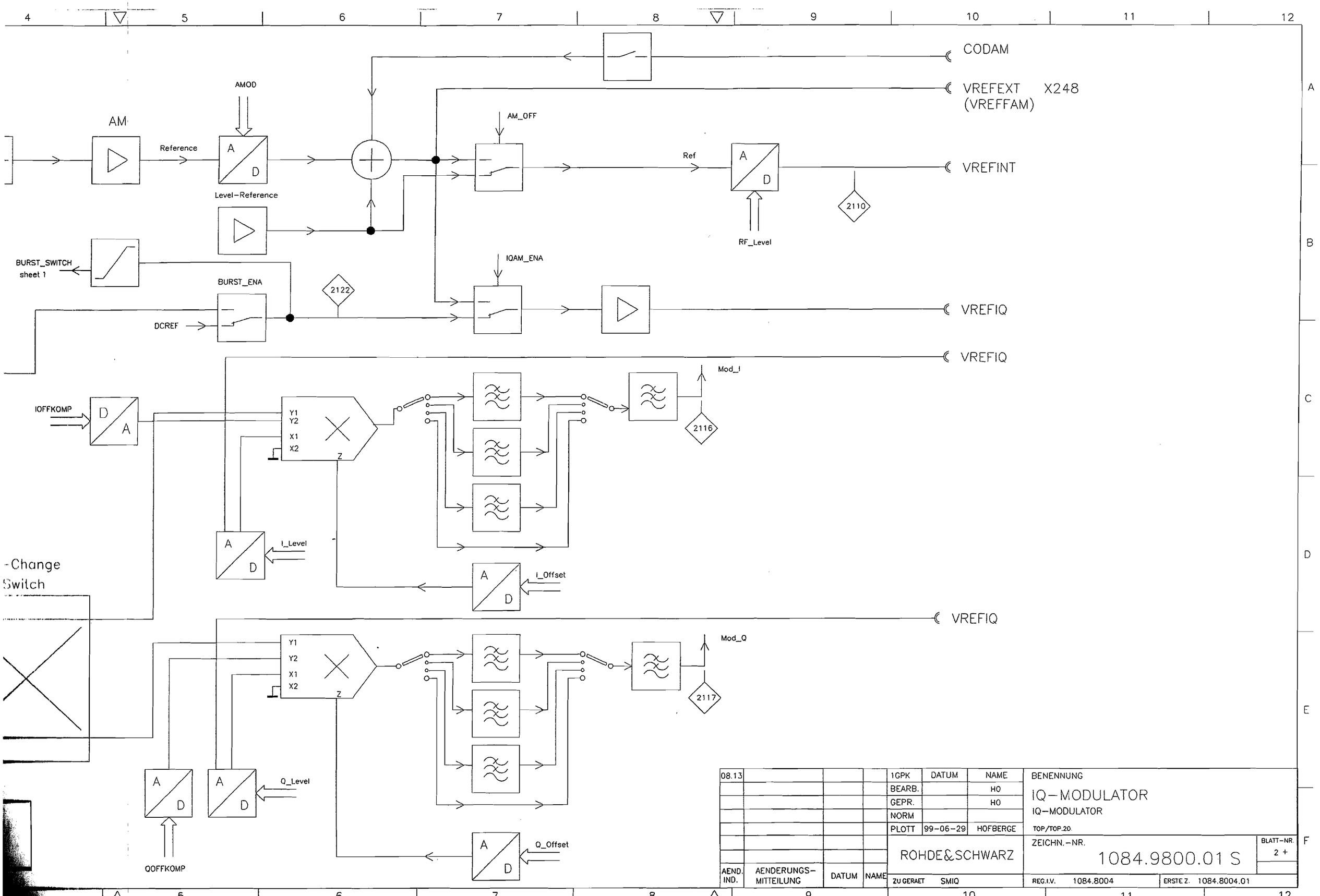
2119

Modulator Q

ACHTUNG: EGB !
ELEKTROSTATISCH GEFAEHRDETE
BAUELEMENTE ERFORDERN EINE
BESONDERE HANDHABUNG.
ATTENTION ESD !
ELECTROSTATIC SENSITIVE DEVICES
REQUIRE A SPECIAL HANDLING

08.13

AEND.
IND.



08.13				1GPK	DATUM	NAME	BENENNUNG
				BEARB.		HO	IQ-MODULATOR
				GEPR.		HO	IQ-MODULATOR
				NORM			TOP/TOP.20
				PLOTT	99-06-29	HOFBERGE	
				ROHDE&SCHWARZ			ZEICHN.-NR. 1084.9800.01 S
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET SMIQ			REG.I.V. 1084.8004

BLATT-NR. 2 +

ERSTE Z. 1084.8004.01

FÜR DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR

EXT1

CONTROL_CIRCUIT

INT1

LF_OUT

A D

Ref

LF-Level

LF-Freq

LF-Gen.

2102

BURST_SWITCH
sheet 1

AM

AMOD

Reference

A D

Level-Reference

AM_OFF

Ref

A D

RF_Leve

IQAM_ENA

BURST_ENA

2122

DCREF

BURST CONTROL MOD

IOFFKOMP

D A

Y1
Y2
X1
X2
Z

Mod_I

2116

A D

I_Level

A D

I_Offset

IQ-Change
Switch

X244 IMOD

Calibration
Voltages

X245 QMOD

Y1
Y2
X1
X2
Z

Mod_Q

2117

A D

Q_Level

A D

A D

Q_Offset

QOFFKOMP

ACHTUNG: EGB !
ELEKTROSTATISCH GEFAEHRDETE
BAUELEMENTE ERFORDERN EINE
BESONDERE HANDHABUNG.
ATTENTION ESD !
ELECTROSTATIC SENSITIVE DEVICES
REQUIRE A SPECIAL HANDLING

08.13

AEND. IND.

AEN MIT

*Aenderungszustand /Revision

	R741	R742	R743	R744
01		N.F.	N.F.	N.F.
02	N.F.		N.F.	N.F.
03			N.F.	N.F.
04	N.F.	N.F.		N.F.
05		N.F.		N.F.
06	N.F.			N.F.

)52
5A8856

TRISTATE
NANDTREE
RESET-P
A1
A2
A3
A4
A5
A6
A7

SYNC
SERCLK
DATAEN
DATAIN
DATAOUT

+5D1A

PARDAT 0 … 7 — R741 4.7K * … R748 4.7K **

SEROUT (4/1C)
CLK1 (4/1A,6/3C)
WR1 (4/1A,6/2B)
CLK2
RD2 (4/3E)
WR2 (4/1C,4/1E)
SERIN2 (4/3E)

SEROUT, CLK1, RD1, WR1, SERIN1, CLK2, RD2, WR2, SERIN2 → P5
P4
P6
P7
P8

ionte/Model

46	R747	R748
	N.F.	N.F.
	N.F.	N.F.
	N.F.	N.F.
		N.F.

D29 74HC4051T MUXOX
D34 74HCT132T

DMUXO_ON (4/3B)
DMUXAD0 (4/3B)
DMUXAD1 (4/3B)
DMUXAD2 (4/3B)
DIA_OUT (3/3D)

R568 1K

D_REF10V (5/4B)
D_LFGEN (6/8B)
D_REF600 (12/6D)
D_TUN2G4 (3/8A,12/11E)
D_VCO2G4 (20/5B)
D_PHIDET (20/11E)
D_LO2G4 (20/12B)

D30 74HC4051T MUXDX
D34 74HCT132T

DMUX1_ON (4/3B)

D_PRESET (21/12B)
D_AMOD (3/8B,22/7F)
D_REFAM (21/12D)
D_CONVRT (18/12D)
D_SWITCH (17/12B)
D_DETOUT (19/12D)
D_REF300 (12/10A)
D_IQOUT (15/10A)

D31 74HC4051T MUXDX
D34 74HCT132T

DMUX2_ON (4/3B)

D_IMOD (8/5B)
D_QMOD (8/11B)
D_ILO (13/7C)
D_QLO (13/7E)
D_PHI (10/7E)
D_IQCAL (16/11B)
D_BURST (11/11A)
D_LEVATT (10/5A)

+15VA
R870 10K
D_TUN2G4 (3/7B,12/11E) — R918 1K
U7 LM2903D
C352 33N
R716 3.92K
R45 10
REFERENCE 600

+15VA
R228 18.2K
D_AMOD (3/7C,22/7F) — R917 1K
U8 LM2903D
C353 33N
R819 6.8K

R871 1K

+5V0D
R715 8.25K
R833 56.2K
D34 74HCT132T
P9
INT_BGU (3/4C)
V24 BAV99
C64 33N

B
SERBUS

C
LF-GENERATOR

AM+6V
R348 20K 0.1%
R1012 432
R1019 82.5
R227 82.5
R719 4.02K 0.1%
C357 33N

AC_MONI (21/5D) — R52 0

N42 MAX942CSA

+5VCOMP
R535 10
R18 100
C354 220N
R1038 10K
R1036 10K
R10 220K
C351 220N
C417 1U

+5V0D
R820 22

V160 HSMS2825PAAR

D39 74HC123T
R229 10K
R9 220K
C418 1U
R230 10K
C403 33N

D49 74HCT86T
R783 3.3K
C21 10N
R784 3.3K

P1 INT_HI (3/4C)
P2 INT_EX1 (3/4C)
P3 INT_LO (3/4C)

+15VA
R847 2.2K
D29 74HC4051T
C356 33N
V98 BZV55B5V1

+24VA
R59 100
C157 220N
U7 LM2903D
U8 LM2903D

+5V0D
R60 100
R17 100
C158 220N
N42 MAX942CSA
C605 220N
R1035 8.25K
R1037 2.2K
-15VA

+5VCOMP
D49 74HCT86T

+5V0D
D39 74HC123T

08.13				1GPK	DATUM	NAME	BENENNUNG
				BEARB.		HO	IQ-MODULATOR
				GEPR.			IQ-MODULATOR
				NORM			TOP/TOP.1
				PLOTT	99-06-29	HBOFBERGE	
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ROHDE&SCHWARZ			ZEICHN.-NR. 1084.9800.01 S
				ZU GERAET SMIQ			REG.I.V. 1084.8004
							ERSTE Z. 1084.8004.01

BLATT-NR 3 +

BEHALTEN WIR UNS ALLE RECHTE VOR

SERBUS

*Aenderungszustand /Revision

	R741	R742	R743	R744
01		N.F.	N.F.	N.F.
02	N.F.		N.F.	N.F.
03			N.F.	N.F.
04	N.F.	N.F.		N.F.
05		N.F.		N.F.
06	N.F.			N.F.

**Variante/Model

	R745	R746	R747	R748
02		N.F.	N.F.	N.F.
04	N.F.		N.F.	N.F.
06			N.F.	N.F.
08	N.F.	N.F.		N.F.

X240 A18 RESET-P — R428 47 — Z11 7.50B — R331 470 — Z6
X240 A16 SERBUS-SYNC — R423 47 — Z12 7.50B — R327 470
X240 A12 SERBUS-CLK — D4 74HCT125T — R429 47 — Z8 7.50B — R62 100 — R749 4.7K
SERBUS-OUT X240 A14
SERBUS-IN X240 A15 — R57 100 — Z7 7.50B — R58 100
D4 74HCT125T — R425 47 — Z9 7.50B — R424 47
+5V1 — R750 4.7K — D4 74HCT125T — R328 4.7K
X240 A17 SERBUS-INT — R329 470 — Z10 7.50B — R426 47
DIAG-5V X240 A19 — R330 470 — Z7 7.50B — R427 47 — DIA_OUT (3/6B)

D52 L5A8856
+5D1A — R734 4.7K N.F., R735 4.7K N.F., R736 4.7K N.F., R737 4.7K N.F., R738 4.7K N.F., R739 4.7K, R740 4.7K N.F.
6 TRISTATE, 40 NANDTREE, 5 RESET-P, 7 A1, 8 A2, 9 A3, 10 A4, 16 A5, 17 A6, 18 A7
43 SYNC, 44 SERCLK, 3 DATAEN, 4 DATAIN, 2 DATAOUT
PARDAT0 20 21 22 24 25 26 27 28
+5D1A — R741 4.7K *, R742 4.7K *, R743 4.7K *, R744 4.7K *, R745 4.7K **, R746 4.7K **, R747 4.7K **, R748 4.7K **
42 INTEN, 41 INT, 32 IROUIT, 35 MASK, 39 IR0, 38 IR1, 37 IR2, 36 IR3
R985 4.7K
(3/11A) INT_BGU
(3/12E) INT_EX1
(3/12D) INT_HI
(3/12E) INT_LO
SEROUT 19, CLK1 33, RD1 31, WR1 30, SERIN1 29, CLK2 11, RD2 13, WR2 14, SERIN2 15
SEROUT (4/1C)
CLK1 (4/1A,6/3C)
WR1 (4/1A,6/2B)
CLK2
RD2 (4/3E)
WR2 (4/1C,4/1E)
SERIN2 (4/3E)
P5 P4 P6 P7 P8

D29 74HC4051T — D34 74HCT132T — DMUX0_ON (4/3B) — DMUXAD0 (4/3B) — DMUXAD1 (4/3B) — DMUXAD2 (4/3B) — DIA_OUT (3/3D)
R568 1K
D_REF10V (5/4B)
D_LFGEN (6/8B)
D_REF600 (12/6D)
D_TUN2G4 (3/8A,12/11E)
D_VCO2G4 (20/5B)
D_PHIDET (20/11E)
D_LO2G4 (20/12B)

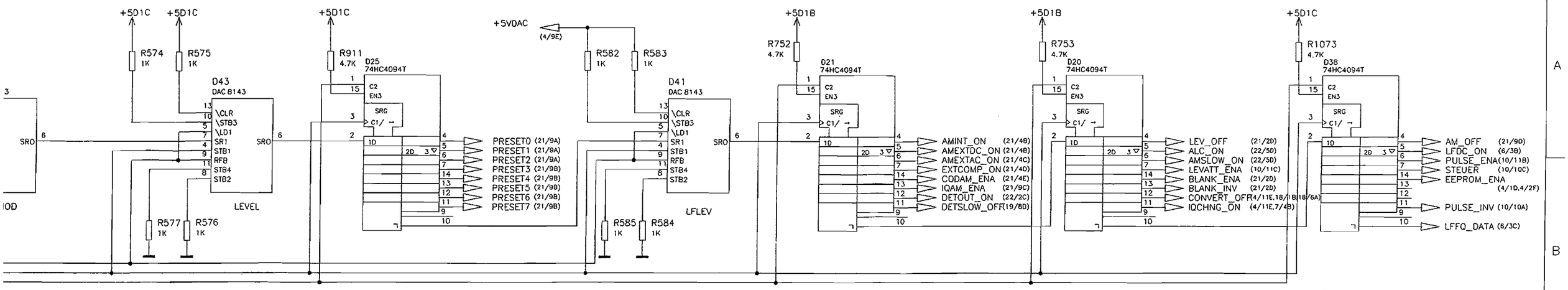
D30 74HC4051T — D34 74HCT132T — DMUX1_ON (4/3B)
D_PRESET (21/12B)
D_AMOD (3/8B,22/7F)
D_REFAM (21/12D)
D_CONVRT (18/12D)
D_SWITCH (17/12B)
D_DETOUT (19/12D)
D_REF300 (12/10A)
D_IQOUT (15/10A)

D31 74HC4051T — D34 74HCT132T — DMUX2_ON (4/3B)
D_IMOD (8/5B)
D_QMOD (8/11B)
D_ILO (13/7C)
D_QLO (13/7E)
D_PHI (10/7E)
D_IQCAL (16/11B)
D_BURST (11/11A)
D_LEVATT (10/5A)

K
REFERENCE 600
D_TUN2G4 (3/7B,12/11E) — R918 1K — C352 33N
+15V
D_AMOD (3/7C,22/7F) — R917 1K — C353 33N
AM+6V — R348 20K — R101 432
AC_MONI (21/5D) — R52 0 — R101 82.5 — R227 82.5 — C357 33N — R719 4.02K 0.1%

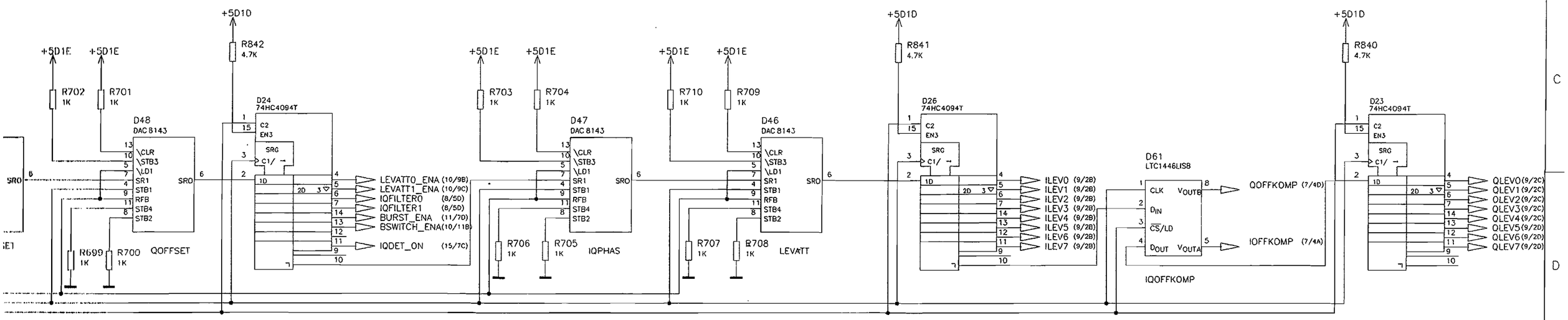
+5D1A +5V0D — L66 22U — C74 33N — D52 L5A8856
+5V1 — R459 10 — C122 33N — D4 74HCT125T
+5V0D — R569 1K — C541 220N — D34 74HCT132T — D31 74HC4051T — D30 74HC4051T — D29 74HC4051T — C356 33N — V98 BZV55B5V1
−15VA — R847 2.2K
+24VA — R59 100 — C157 220N — U7 LM2903D — U8 LM2903D
+5V0D — R60 100 — R17 100 — C158 220N — N42 MAX942CSA
+5VCOMP — D49 74HCT86T
+5VCOMP — D39 74HC123T
C605 220N — R1035 8.25K — R1037 2.2K — −15VA

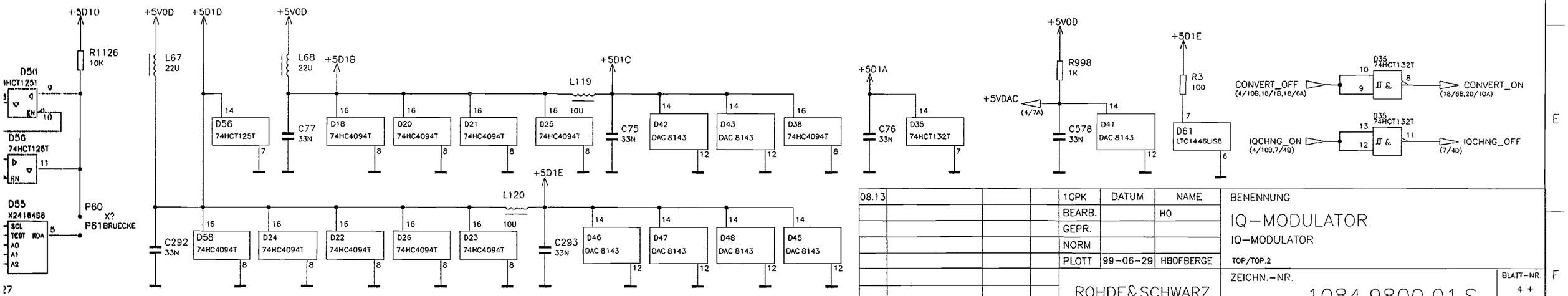
08.13
AEND. IND.



B

SERBUS





08.13				1GPK	DATUM	NAME	BENENNUNG
				BEARB.		HO	IQ-MODULATOR
				GEPR.			IQ-MODULATOR
				NORM			TOP/TOP.2
				PLOTT	99-06-29	HBOFBERGE	ZEICHN.-NR. 1084.9800.01 S
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ROHDE&SCHWARZ			BLATT-NR. 4 +
				ZU GERAET SMIQ			REG.I.V. 1084.8004 ERSTE Z. 1084.8004.01

FUER UNSERE UNTERLAGE BEHALTEN WIR UNS ALLE RECHTE VOR

1 2 3 4 5 6 7 8

B

+5D1B
R751 4.7K
WR1 (3/5C,6/2B)
CLK1 (3/5C,6/3C)
D18 74HC4094T
C2 EN3 SRG C1/→ 1D 2D 3▽
DMUXAD0 (3/6B)
DMUXAD1 (3/6B)
DMUXAD2 (3/6B)
DMUX0_ON (3/6A)
DMUX1_ON (3/6C)
DMUX2_ON (3/6D)
LFGEN_ON (6/2D)
LFGENRST_N (6/2D)

+5D1C
R581 1K
R580 1K
D42 DAC 8143
\CLR \STB3 \LD1 SR1 STB1 RFB STB4 STB2 SRO
AMOD
R578 1K
R579 1K

+5D1C
R574 1K
R575 1K
D43 DAC 8143
LEVEL
R577 1K
R576 1K

+5D1C
R911 4.7K
D25 74HC4094T
PRESET0 (21/9A)
PRESET1 (21/9A)
PRESET2 (21/9A)
PRESET3 (21/9B)
PRESET4 (21/9B)
PRESET5 (21/9B)
PRESET6 (21/9B)
PRESET7 (21/9B)

+5VDAC (4/9E)
R582 1K
R583 1K
D41 DAC 8143
LFLEV
R585 1K
R584 1K

+5D1B
R752 4.7K
D21 74HC4094T

D35 74HCT132T

C

+5D1D
R843 4.7K
D22 74HC4094T
CLK2
SEROUT (3/5C)
ICAL0 (9/8A)
ICAL1 (9/8A)
ICAL2 (9/8A)
QCAL0 (9/8C)
QCAL1 (9/8C)
QCAL2 (9/8C)
ICAL_ON (7/9A)
QCAL_ON (7/9E)

+5D1E
R695 1K
R696 1K
D45 DAC 8143
IOFFSET
R698 1K
R697 1K

+5D1E
R702 1K
R701 1K
D48 DAC 8143
QOFFSET
R699 1K
R700 1K

+5D1D
R842 4.7K
D24 74HC4094T
LEVATTO_ENA (10/9B)
LEVATT1_ENA (10/9C)
IQFILTER0 (8/5D)
IQFILTER1 (8/5D)
BURST_ENA (11/7D)
BSWITCH_ENA (10/11B)
IQDET_ON (15/7C)

+5D1E
R703 1K
R704 1K
D47 DAC 8143
IQPHAS
R706 1K
R705 1K

+5D1E
R710 1K
R709 1K
D46 DAC 8143
LEVATT
R707 1K
R708 1K

D

D56 74HCT125T
EEPROM_ENA (4/2F,4/11B)
WR2 (3/5C,4/1C)
R1214 0 N.F.
R1205 4.7K
R1204 4.7K

+5D1D
R1206 4.7K
D58 74HC4094T
EEDATA (4/3E)
EECLK (4/3F)

D35 74HCT132T

+5VCOMP
D49 74HCT86T
EEPROM_ENA (4/10,4/11B)

+5D1D
R1165 100
C708 100N
D55 X24164S8

SERIN2 (3/5C)
RD2 (3/5C)
EEDATA (4/3E)
EECLK (4/3E)
D56 74HCT125T
D55 X24164S8
SCL TEST SDA A0 A1 A2
X? BRUECKE P69 P62
X? P61 BRUECKE P60
R1126 10K
R1128 10K
R1127 10K

+5V0D
L67 22U
C292 33N

+5D1D
L68 22U
C77 33N

+5D1B
+5D1C
L119 10U
C75 33N
+5D1A
C76 33N

+5D1E
L120 10U
C293 33N

D56 74HCT125T
D18 74HC4094T
D20 74HC4094T
D21 74HC4094T
D25 74HC4094T
D42 DAC 8143
D43 DAC 8143
D38 74HC4094T
D58 74HC4094T
D24 74HC4094T
D22 74HC4094T
D26 74HC4094T
D23 74HC4094T
D46 DAC 8143
D47 DAC 8143
D48 DAC 8143
D45 DAC 8143

08.13
AEND. IND.

RENCE
AGES

REF10V

+4V5A

R1202
1K

C705
220P

C1
4.7U

N48
OP400GP

R6
100

R1208
12.1K

BCP68-16
V167

R1166
10K

L205
1U

C2
4.7U

+5V0D

+7V5A

L56
22U

D_REF10V

P29
(3/78)

R1020
10

R615
10

R639
10

V120
BCP68-16

N27
OP297

R276
10K

R317
3.3K

+5V5A

R48
20.0K

R913
4.7K

R555
12.1K

C243
33N

C483
220P

R273
10K

C140
10N

R267
15K

R277
10K

P23

C710
220U

R266
8.25K

P24

C246
4.7U

C478
1N

N27
OP297

R314
3.3K

-5V5A

V58
BCP69-25

R1011
30.1

R178
30.1

R179
30.1

L57
22U

-15VA

9
16

R1169
10K

X240 A11
X240 A7
X240 A21
X240 A23
X240 A25
X240 A27
X240 A29
X240 A31

A

SERBUS

B

X240 A22
VA24-P

L79
15U

C332
22U

Z19
50DB
Schirm-wand

+24VA

X240 A20
X240 A24
VA15-P

L80
15U

C508
22U

Z20
50DB
Schirm-wand

+15VA

X240 A32
X240 A26
VA7.5-P

L170
15U

C480
100U

Z21
50DB
Schirm-wand

+7V5A

C

LF-GENERATOR

+5V1

X240 A28
VD5-P

L171
10U

C514
100U

Z22
50DB
Schirm-wand

+5V0D

X240 A30
VA15-N

L172
15U

C515
22U

Z23
50DB
Schirm-wand

-15VA

I

IQ-CONTROL

08.13				1GPK	DATUM	NAME	BENENNUNG
				BEARB.		HO	IQ-MODULATOR
				GEPR.		HO	IQ-MODULATOR
				NORM			TOP/TOP.12
				PLOTT	99-06-29	HOFBERGE	
				ROHDE&SCHWARZ			ZEICHN.-NR. 1084.9800.01 S
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET SMIQ			REG.I.V. 1084.8004 ERSTE Z. 1084.8004.01

BLATT-NR. 5 +

5 6 7 8 9 10 11 12

A B C D E F

D REFERENCE VOLTAGES

REF10V

+15VA
R386 22
N12
REF01CS
C363 220N
R718 33K
R516 5K
R1027 3.3K
REFERENCE +10V
R268 10K
C398 33N
N33
OP07CS8
C479 1N
R269 10K
R315 3.3K
V68 BSR13
L26 1U
R458 100
C362 33N
D_REF10V
(3/78)
P29
R48 20.0K
R273 10K
R913 4.7K
C140 10N
R267 15K
R276 10K
R555 12.1K
C243 33N
N27
OP297
C483 220P
R277 10K
R317 3.3K
V120
BCP68-16
R1020 10
R615 10
R639 10
+7V5A
L56 22U
+5V5A
P23
C710 220U

+4V5A
R1202 1K
C705 220P
C1 4.7U
N48
OP400GP
R1208 12.1K
R1166 10K
R6 100
V167
BCP68-16
L205 1U
C2 4.7U
+5VOD

R266 8.25K
C478 1N
N27
OP297
R314 3.3K
P24
C246 4.7U
-5V5A
V58
BCP69-25
R1011 30.1
R178 30.1
R179 30.1
L57 22U
-15VA

+15VA
R402 100
C120 33N
N33
OP07CS8
C121 33N
R403 100
-15VA

+15VA
R319 100
C128 33N
N27
OP297
C125 33N
R364 100
-15VA

+15VA
R597 100
C659 33N
N48
OP400GP
C178 33N
R5 100
-15VA

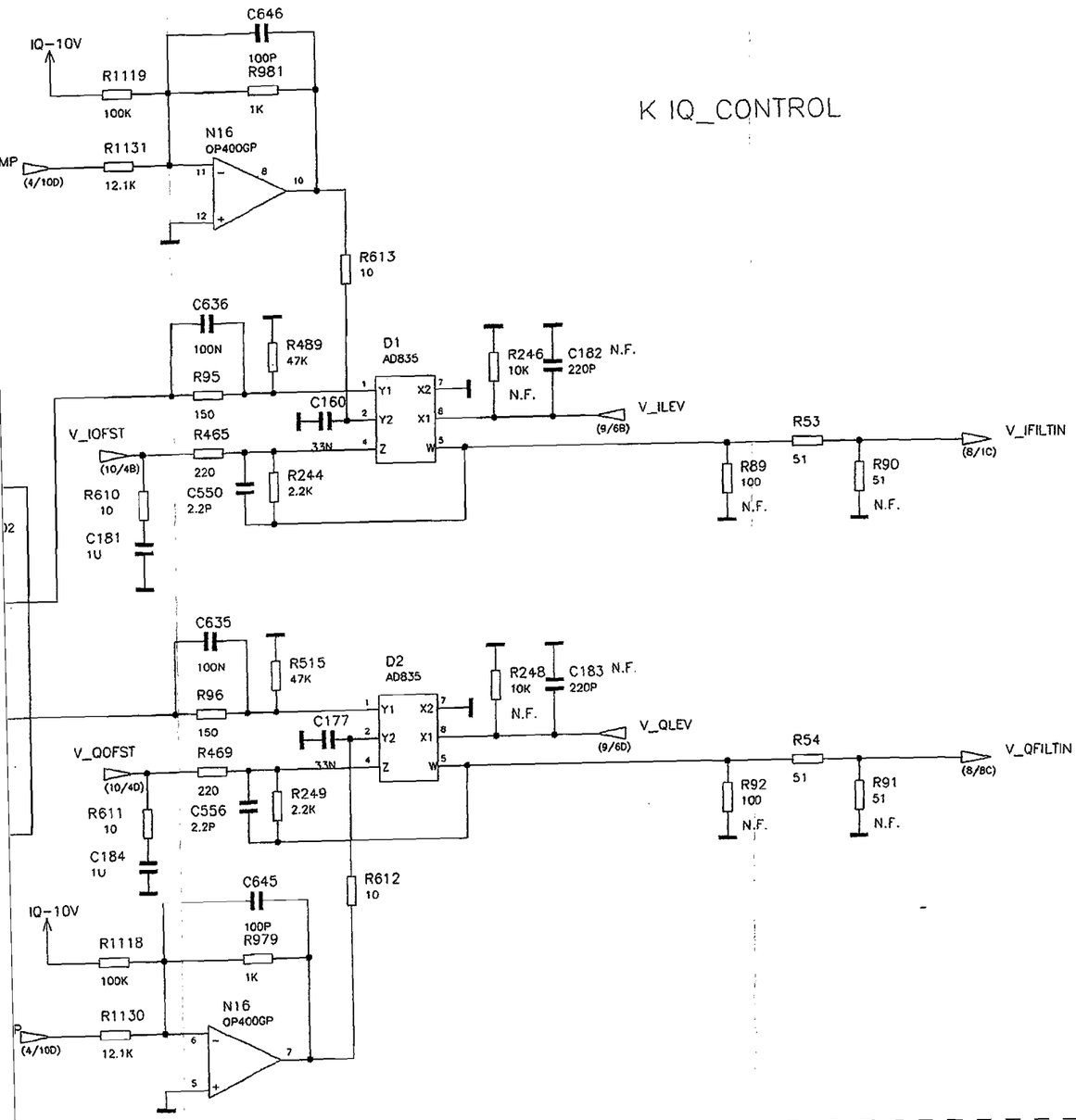
N48
OP400GP
R1167 10K
R1168 10K
R1169 10K

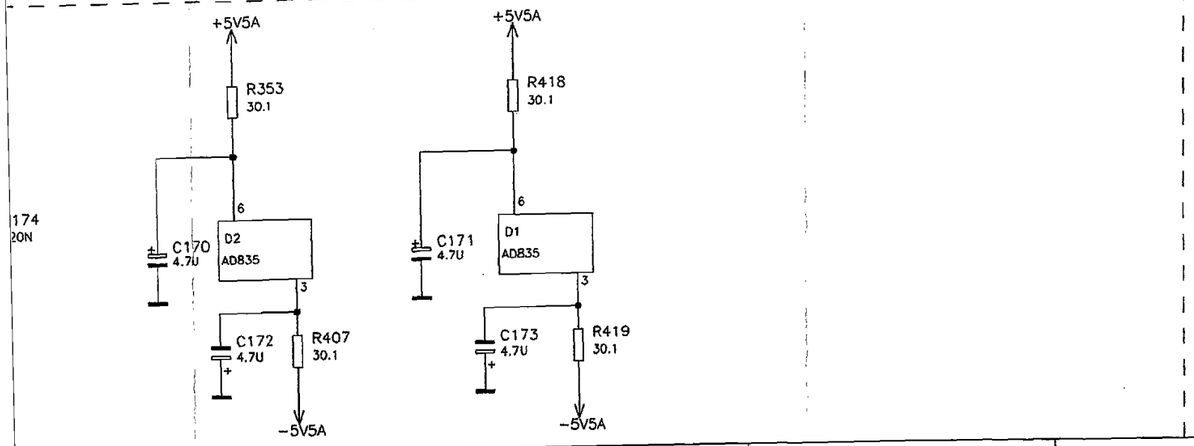
08.13

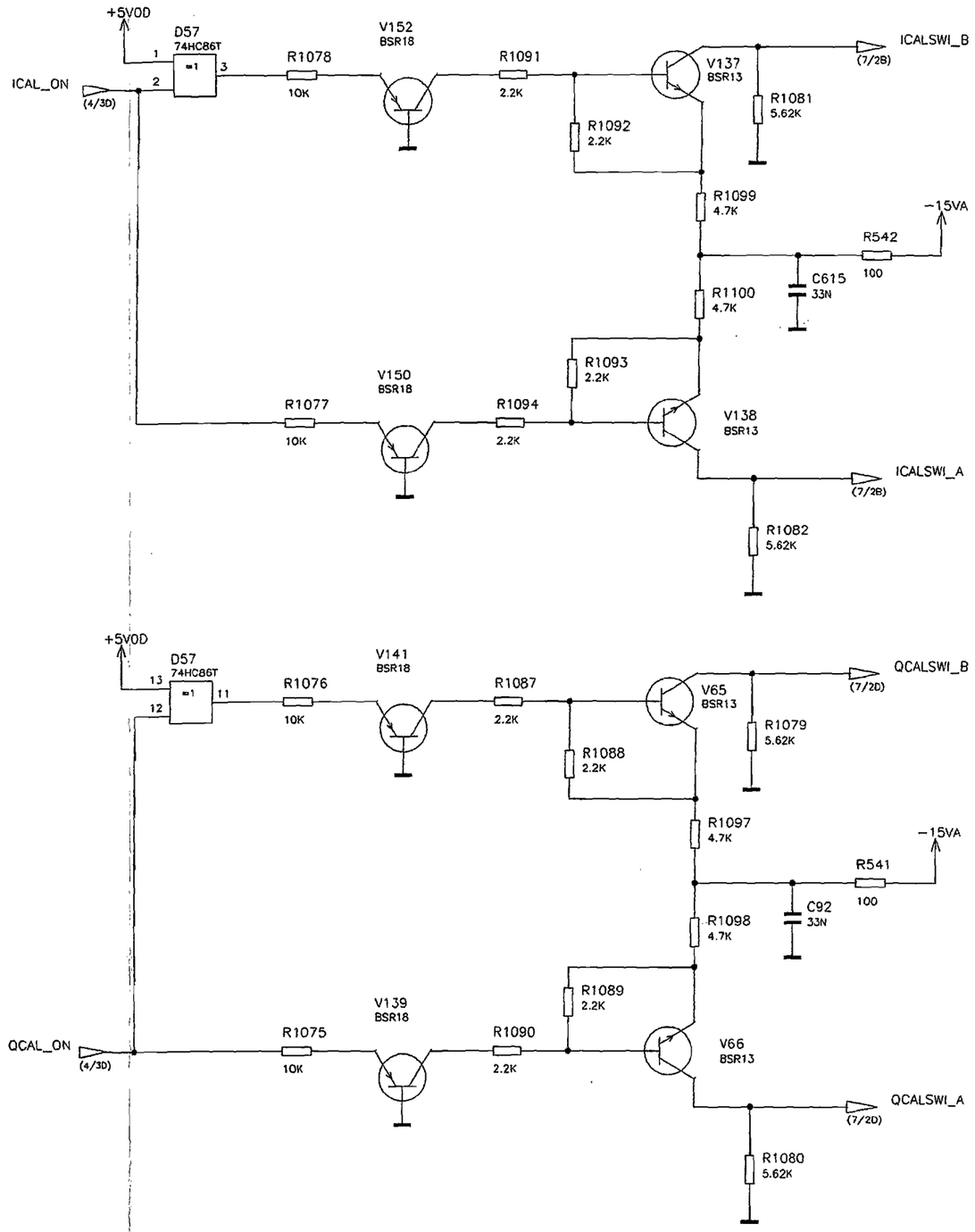
AEND. IND.	AENDE MITTEIL

BEHALTEN WIR UNS ALLE RECHTE VOR

K IQ_CONTROL







08.13				1GPK	DATUM	NAME	BENENNUNG
				BEARB.		HO	IQ-MODULATOR
				GEPR.			IQ-MODULATOR
				NORM			TOP/TOP.7
				PLOTT	99-06-29	HBOFBERGE	ZEICHN.-NR. 1084.9800.01 S
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ROHDE&SCHWARZ			BLATT-NR. 7 +
				ZU GERAET SMIQ			REG.I.V. 1084.8004 ERSTE Z. 1084.8004.01

K IQ_CONTROL

X244 MMCX-BU I-MOD
V_CALI (9/11B)
R370 100 0.1%
R369 100 0.1%
R372 100 0.1%
R371 100 0.1%
D37 SW339 J2 J3 J1 CRTL 1 CRTL 2 GND GND GND
R1101 0
C617 22P
C618 22P
R206 100
R207 100
ICALSWI_A (7/11C)
ICALSWI_B (7/11A)

X245 MMCX-BU Q-MOD
V_CALQ (9/11D)
R1086 100 0.1%
R1083 100 0.1%
R1085 100 0.1%
R1084 100 0.1%
D54 SW339 J2 J3 J1 CRTL 1 CRTL 2 GND GND GND
R1102 0
C620 22P
C619 22P
R350 100
R349 100
QCALSWI_A (7/11E)
QCALSWI_B (7/11C)

IQ-10V
R1119 100K
C646 100P
R981 1K
IOFFKOMP (4/10D)
R1131 12.1K
N16 OP400GP
R613 10

IQCHNG_ON (4/10B,4/11E)
R617 1K
D40 MPC102 S1 S3 S2 S4 IN1 IN2 IN3 IN4 VOUT1 VOUT2
R618 1K
(4/12E) IQCHNG_OFF

C636 100N
R95 150
R489 47K
D1 AD835 Y1 Y2 Z X1 X2 W
C160 33N
R246 10K N.F.
C182 220P N.F.
V_ILEV (9/6B)
V_IOFST (10/4B)
R465 220
R244 2.2K
R610 10
C550 2.2P
C181 1U
R89 100 N.F.
R53 51
R90 51 N.F.
V_IFILTIN (8/1C)

C635 100N
R96 150
R515 47K
D2 AD835
R248 10K N.F.
C183 220P N.F.
V_QLEV (9/6D)
V_QOFST (10/4D)
R469 220
R249 2.2K
R611 10
C556 2.2P
C184 1U
C177 33N
R92 100 N.F.
R54 51
R91 51 N.F.
V_QFILTIN (8/8C)
R612 10

IQ-10V
R1118 100K
C645 100P
R979 1K
QOFFKOMP (4/10D)
R1130 12.1K
N16 OP400GP

+5V0D
ICAL_ON (4/3D)
QCAL_ON (4/3D)

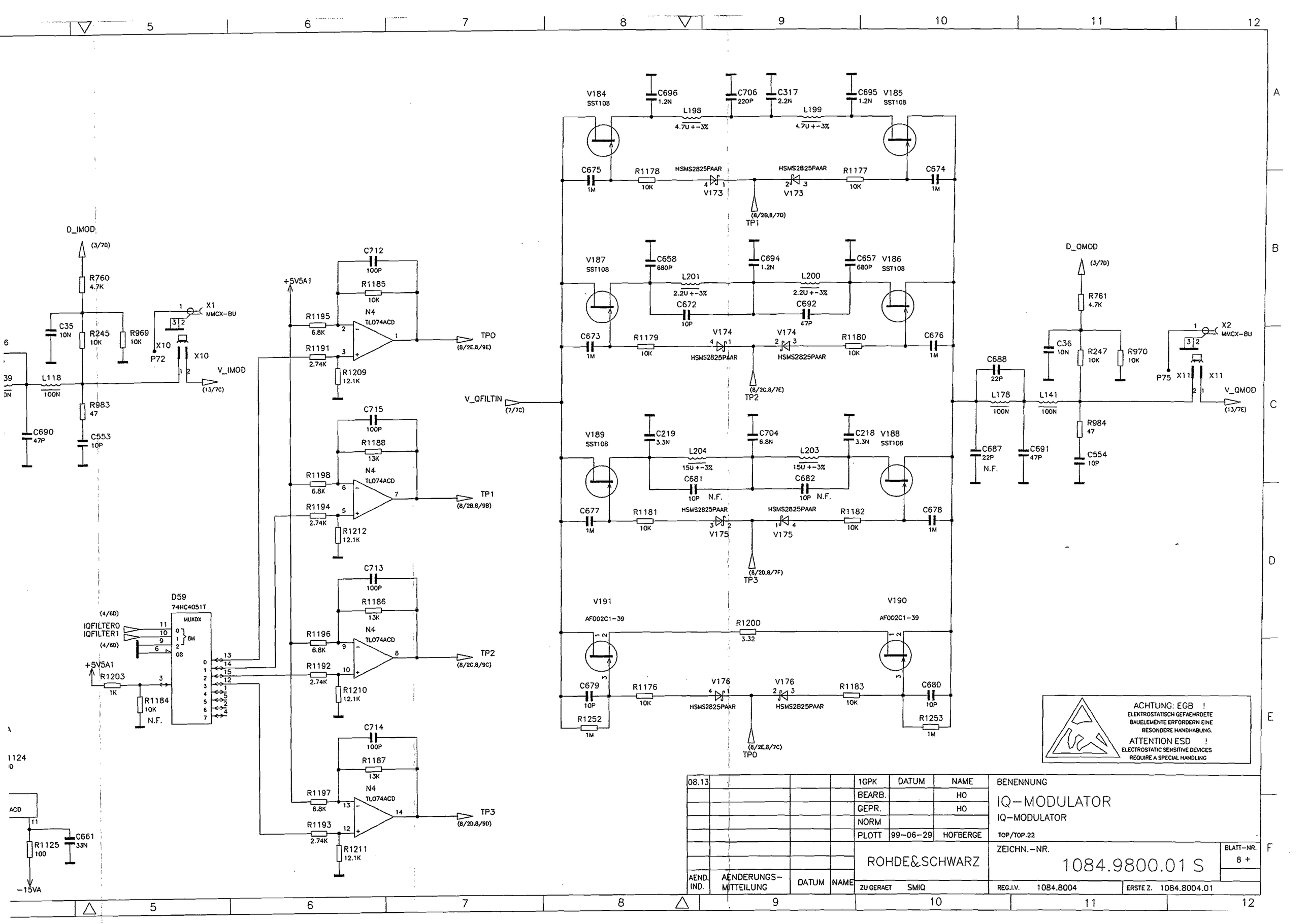
+5V5A
R93 100
C169 220N
D40 MPC102 +VCC -VCC
C174 220N
R94 100
-5V5A

+5V5A
R353 30.1
C170 4.7U
D2 AD835
C172 4.7U
R407 30.1
-5V5A

+5V5A
R418 30.1
C171 4.7U
D1 AD835
C173 4.7U
R419 30.1
-5V5A

AEND. IND.	AENDER MITTEILU
08.13	

BEHALTEN WIR UNS ALLE RECHTE VOR


5
6
7
8
9
10
11
12
A
B
C
D
E
F
D_IMOD
(3/7D)
R760
4.7K
C35
10N
R245
10K
R969
10K
X1
MMCX-BU
X10
P72
X10
V_IMOD
(13/7C)
L118
100N
R983
47
C690
47P
C553
10P
+5V5A1
C712
100P
R1185
10K
R1195
6.8K
N4
TL074ACD
TPO
(8/2E,8/9E)
R1191
2.74K
R1209
12.1K
C715
100P
R1188
13K
R1198
6.8K
N4
TL074ACD
TP1
(8/2B,8/9B)
R1194
2.74K
R1212
12.1K
C713
100P
R1186
13K
R1196
6.8K
N4
TL074ACD
TP2
(8/2C,8/9C)
R1192
2.74K
R1210
12.1K
C714
100P
R1187
13K
R1197
6.8K
N4
TL074ACD
TP3
(8/2D,8/9D)
R1193
2.74K
R1211
12.1K
D59
74HC4051T
MUXDX
(4/6D)
IQFILTER0
IQFILTER1
(4/6D)
6M
G8
+5V5A1
R1203
1K
R1184
10K
N.F.
V_QFILTIN
(7/7C)
V184
SST108
C696
1.2N
L198
4.7U +-3%
C706
220P
C317
2.2N
L199
4.7U +-3%
C695
1.2N
V185
SST108
C675
1M
R1178
10K
HSMS2825PAAR
V173
HSMS2825PAAR
V173
R1177
10K
C674
1M
TP1
(8/2B,8/7D)
V187
SST108
C658
680P
L201
2.2U +-3%
C694
1.2N
L200
2.2U +-3%
C657
680P
V186
SST108
C672
10P
C692
47P
C673
1M
R1179
10K
V174
HSMS2825PAAR
V174
HSMS2825PAAR
R1180
10K
C676
1M
TP2
(8/2C,8/7E)
V189
SST108
C219
3.3N
L204
150U +-3%
C704
6.8N
L203
150U +-3%
C218
3.3N
V188
SST108
C681
10P N.F.
C682
10P N.F.
C677
1M
R1181
10K
HSMS2825PAAR
V175
HSMS2825PAAR
V175
R1182
10K
C678
1M
TP3
(8/2D,8/7F)
V191
AF002C1-39
R1200
3.32
V190
AF002C1-39
C679
10P
R1176
10K
V176
HSMS2825PAAR
V176
HSMS2825PAAR
R1183
10K
C680
10P
R1252
1M
R1253
1M
TPO
(8/2E,8/7C)
D_QMOD
(3/7D)
R761
4.7K
C36
10N
R247
10K
R970
10K
X2
MMCX-BU
P75
X11
X11
V_QMOD
(13/7E)
C688
22P
L178
100N
L141
100N
R984
47
C687
22P
N.F.
C691
47P
C554
10P
ACHTUNG: EGB !
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD !
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING
1124
ACD
11
R1125
100
C661
33N
-15VA
08.13
1GPK
DATUM
NAME
BEARB.
HO
GEPR.
HO
NORM
PLOTT
99-06-29
HOFBERGE
BENENNUNG
IQ-MODULATOR
IQ-MODULATOR
TOP/TOP.22
ROHDE&SCHWARZ
ZEICHN.-NR.
1084.9800.01 S
BLATT-NR.
8 +
AEND. IND.
AENDERUNGS-MITTEILUNG
DATUM
NAME
ZU GERAET SMIQ
REG.I.V. 1084.8004
ERSTE Z. 1084.8004.01

BEHALTEN WIR UNS ALLE RECHTE VOR

V192 SST108
C697 1.2N
C707 220P
C318 2.2N
C698 1.2N
V193 SST108
L183 4.7U +-3%
L185 4.7U +-3%
C683 1M
R1189 10K
V177 HSMS2825PAAR
V177 HSMS2825PAAR
R1190 10K
C684 1M
TP1 (8/7D,8/9B)

V178 SST108
C597 680P
C693 1.2N
C568 680P
V179 SST108
L186 2.2U +-3%
L187 2.2U +-3%
C669 10P
C689 47P
C664 1M
R1171 10K
V168 HSMS2825PAAR
V168 HSMS2825PAAR
R1170 10K
C663 1M
TP2 (8/7E,8/9C)

V_IFILTIN (7/7B)

V180 SST108
C4 3.3N
C703 6.8N
C3 3.3N
V181 SST108
L188 15U +-3%
L197 15U +-3%
C670 10P N.F.
C671 10P N.F.
C666 1M
R1173 10K
V169 HSMS2825PAAR
V169 HSMS2825PAAR
R1172 10K
C665 1M
TP3 (8/7F,8/9D)

V182 AF002C1-39
R1199 3.32
V183 AF002C1-39
C668 10P
R1175 10K
V172 HSMS2825PAAR
V172 HSMS2825PAAR
R1174 10K
C667 10P
R1251 1M
R1250 1M
TP0 (8/7C,8/9E)

D_IMOD (3/7D)
R760 4.7K
C35 10N
R245 10K
R969 10K
X1 MMCX-BU
X10 P72
X10
V_IMOD (13/7C)
C686 22P
L139 100N
L118 100N
R983 47
C685 22P N.F.
C690 47P
C553 10P

+5V5A1
C712 100P
R1185 10K
R1195 6.8K
N4 TL074ACD
R1191 2.74K
R1209 12.1K
TP0 (8/2E,8/9E)

V_QFILTIN (7/7C)

C715 100P
R1188 13K
R1198 6.8K
N4 TL074ACD
R1194 2.74K
R1212 12.1K
TP1 (8/2B,8/9B)

C713 100P
R1186 13K
R1196 6.8K
N4 TL074ACD
R1192 2.74K
R1210 12.1K
TP2 (8/2C,8/9C)

C714 100P
R1187 13K
R1197 6.8K
N4 TL074ACD
R1193 2.74K
R1211 12.1K
TP3 (8/2D,8/9D)

D59 74HC4051T
(4/6D) IQFILTER0
IQFILTER1 (4/6D)
+5V5A1
R1203 1K
R1184 10K N.F.
MUXDX
8M
GB

+5V5A1
R608 0
+5V5VA
R1225 0
C660 33N
D59 74HC4051T

+15VA
R1124 10D
C662 33N
N4 TL074ACD
R1125 10D
C661 33N
-15VA

V184 SST108
C696 1.2N
L198 4.7U +-3%
C675 1M
R1178 10K
HSMS2825PAAR
V173

V187 SST108
C658 680P
L201 2.2U +-3%
C672 10P
C673 1M
R1179 10K
V174 HSMS2825PAAR

V189 SST108
C219 3.3N
L204 15U +-3%
C681 10P N.F.
C677 1M
R1181 10K
HSMS2825PAAR
V175

V191 AF002C1-39
C679 10P
R1176 10K
V176 HSMS2825PAAR
R1252 1M

08.13		
AEND. IND.	AENDE MITTEIL	

B LF_GENERATOR

P14
REF1V5
(6/7A)
REF1V5
(6/5A)
R1023
1.21K
R72
10K
R756
4.7K
D_LFGEN
(3/7B)
C426
100N
LF_GEN
OFFSET
R124
1K
R773
470
R593
20K
N11
OP275GS
D41
DAC8143
LFLEV
R878
0
N10
OP275GS
R1022
56
L2
22N
C386
100P
R238
1K 0.1%
C176
47P
R452
0
VREF
RFB
IOUT1
IOUT2
AGND
C215
10P
R414
4.75
R566
1K
0.1%
R451
10
LF_GEN
(21/2C)
R835
4.02K 0.1%
C373
10P
R73 150
R816
1.30K 0.1%
R12
1.30K 0.1%
R942
47
Trimmwert/Selected
(51R/56R)
R935
150
0.1%
R239
1K 0.1%
N11
OP275GS
P50
EPRESS-L6.8
R450
10
LF_INT
(21/2A)
C89
33N

+5V5A
L123
100U
+5V_LF
C574
4.7U
D3
AD7008
3 17 28 39
29 18 43 7 44

+15VA
R1005
220
N31
OP07CS8
C520
33N
C391
33N
R1010
220
-15VA

+15VA
R1006
220
N11
OP275GS
C522
4.7U
C521
4.7U
R1009
220
-15VA

+15VA
R1007
220
N10
OP275GS
C87
4.7U
C88
4.7U
R1008
220
-15VA

08.13					1GPK	DATUM	NAME	BENENNUNG	
					BEARB.		HO	IQ-MODULATOR	
					GEPR.			IQ-MODULATOR	
					NORM			TOP/TOP.4	
					PLOTT	99-06-29	HBOFBERGE	ROHDE&SCHWARZ	ZEICHN.-NR. 1084.9800.01 S
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME		ZU GERAET	SMIQ		REG.I.V. 1084.8004	ERSTE Z. 1084.8004.01

BLATT-NR. 6 +

B LF_GENERATOR

REF10V
R590 20K 0.1%
R589 51
R721 3.48K 0.1%
C240 220N
N31 OP07CS8
C456 10N
R71 100
C22 4.7U
P14
REF1V5 (6/7A)

D3 AD7008
VREF COMP IOUT \IOUT FSADJ TEST
D0 D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13 D14 D15
\WR \CS
TC0 TC1 TC2 TC3 LOAD SCLK SDATA FSELECT CLK RESET SLEEP

R1022 56
L2 22N
C386 100P
R73 150
R816 1.30K 0.1%
R12 1.30K 0.1%
R942 47 Trimmwert/Selected (51R/56R)
C89 33N

LF_GEN OFFSET
R124 1K
N11 OP275GS
R935 150 0.1%
R238 1K 0.1%
C176 47P
R1023 1.21K
R773 470
REF1V5 (5/5A)
R72 10K
R593 20K
R452 0
R239 1K 0.1%
N11 OP275GS
R450 10
P50 EPRESS-L6.8
R756 4.7K
D_LFGEN (3/7B)
C426 100N
D41 DAC8143 LFLEV
VREF RFB IOUT1 IOUT2 AGND
R878 0
C215 10P
N10 OP275GS

WR1
V25 HSMS2825PAAR (3/5C,4/1A)
V25 HSMS2825PAAR
LFDC_ON (4/11A)
+5V_LF
+5V_LF
+5VOD
L6 1U
C582 22P
R937 68K
R592 1K
R591 1K
C294 100U
G1 50MHZ VDD OE OUT GND
R587 100
CLK1 (3/5C,4/1A)
LFFQ_DATA (4/11B)

LFGENRST_N (4/3B)
LFGEN_ON (4/3B)
D36 74HCT86T
R594 1K

+5VOD
R143 100
C159 33N
D36 74HCT86T

+5V5A
L123 100U
+5V_LF
C574 4.7U
D3 AD7008

+15VA
R1005 220
N31 OP07CS8
C520 33N
C391 33N
R1010 220
-15VA

+15VA
R1006 220
N11 OP275GS
C522 4.7U
C521 4.7U
R1009 220
-15VA

+15VA
R1007 220
N10 OP275GS
C87 4.7U
C88 4.7U
R1008 220
-15VA

AEND. IND.	AENDER MITTEIL
08.13	

ALLE RECHTE VOR

K IQ-CONTROL

V_REFIQ (9/3A,9/3C,9/5C,21/10B)
R421 1.82K
R868 0
C190 100P
R838 33K
R545 1.62K
R260 5.11K
N17 LT1058
R116 10
R957 0
V_ILEV (7/6B)

V_REFIQ (9/3A,9/3C,9/5A,21/10B)
R420 1.82K
R874 0
C189 100P
R837 33K
R550 1.62K
R259 5.11K
N17 LT1058
R114 10
R958 0
V_QLEV (7/6C)

+15VA −15VA
R117 100
R118 100
C361 33N
C360 33N
D16 DG408DY
D17 DG408DY

IQ+10V
P37
R501 100K 0.1%
R352 100
P38
R572 3.16K 0.1%
R766 2K 0.1%
R503 4.75K 0.1%
R1034 10
R638 1.1K 0.1%
P39
R504 2.49K 0.1%
R767 5.36K 0.1%
R573 3.12K 0.1%
P40
R393 137 0.1%
R502 100K 0.1%
IQ-10V

+5VOD
ICAL2 (4/3D)
ICAL1 (4/3D)
ICAL0 (4/3C)
R633 1K
R632 1K
R631 1K
R630 1K
D16 DG408DY MUXDX 8M
P66

+5VOD
QCAL2 (4/3D)
QCAL1 (4/3D)
QCAL0 (4/3D)
R637 1K
R636 1K
R635 1K
R634 1K
D17 DG408DY MUXDX 8M

C476 10N
R308 3.3K
N19 OP400GP
R309 3.3K
+15VA
R536 560
BC850B
V92
P21
R373 100 0.1%
R374 100 0.1%
C495 220N
V_CALI (7/2A)
V14 BC860B
R537 560
−15VA
+15VA
R539 560
BC850B
V93
P22
R376 100 0.1%
R375 100 0.1%
C496 220N
V_CALQ (7/2C)
V15 BC860B
R538 560
−15VA

C477 10N
R311 3.3K
N19 OP400GP
R310 3.3K

08.13				1GPK	DATUM	NAME	BENENNUNG
				BEARB.		HO	IQ-MODULATOR
				GEPR.			IQ-MODULATOR
				NORM			TOP/TOP.10
				PLOTT	99-06-29	HBOFBERGE	
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ROHDE&SCHWARZ			ZEICHN.-NR. 1084.9800.01 S
				ZU GERAET SMIQ			REG.I.V. 1084.8004 ERSTE Z. 1084.8004.01

BLATT-NR. 9 +

B SERBUS

K IQ-C

BEHALTEN WIR UNS ALLE RECHTE VOR

U2 DAC-08CS
U3 DAC-08CS
N13 AD822
N17 LT1058
D16 DG408DY
D17 DG408DY

AEND. IND.	AENDER MITTEILU
08.13	

I IQ-CONTROL

R762 4.7K → D_LEVATT (3/7E)
C431 1N
R620 20.0K
P43 → V_LEVATT (14/6D,14/11D)

F I-SIGNAL

V_IOFST (7/5B)
IQ+10V
R804 20K
R880 0
R872 15K
R929 10K
N.F.
C473 100P
QUADRATUR
N18 OP400GP
P20 → BIAS_PHI (10/5E)
V_QOFST (7/5C)
R803 10K
C472 100P
P42
R802 10K
C471 100P
R799 10K
N18 OP400GP
R98 100 → V_IPHI (13/2C)
R800 10K
R801 10K
R836 20K
R410 4.7K → D_PHI (3/7D)
R251 10K
C470 100P
P63
BIAS_PHI (10/7C)
R798 10K
R797 10K
R796 10K
N18 OP400GP
R97 100 → V_QPHI (13/2E)

+5V0D
V114 BAV99
-5V5A
R623 47K
R616 470
L174 220N
Z24 2.5DB
R477 100
X240 PULSE
A

D7 74HC86T
PULSE_B (15/1E)
PULSE_A (15/1D)
PULSE_INV (4/11B)
D14 DG413DY
PULSE_ENA (4/11B)
BURST_PULSE (11/9D)
BSWITCH_ENA (4/6D)
R1164 100K

D19 74HCT08T
LA0_CNT (14/4D,14/7C)
LEVATTO_ENA (4/6D)
LA1_CNT (14/9D,14/12C)
STEUER (4/11B)
LEVATT_ENA (4/10B)
LEVATT1_ENA (4/6D)

LEVATT_MOD
Z4
R621 470
R867 47K
L161 220N
2.5DB
R100 100
X240
B SERBUS

+5V0D
R106 100
C93 33N
D7 74HC86T
D19 74HCT08T
R107 10K
D7 74HC86T
R522 10K

+5V0D
R108 100
C53 33N
D19 74HCT08T

+15VA
L126 10U
C94 33N
N16 OP400GP
C95 33N
L127 10U
-15VA

+15VA
L129 10U
C97 33N
N18 OP400GP
C96 33N
L128 10U
-15VA

+15VA
L169 10U
C511 33N
N17 LT1058
C512 33N
L136 10U
-15VA

+15VA
L184 10U
C527 33N
N43 OP275GS
C528 33N
L166 10U
-15VA

08.13				1GPK	DATUM	NAME	BENENNUNG
				BEARB.		HO	IQ-MODULATOR
				GEPR.			IQ-MODULATOR
				NORM			TOP/TOP.B
				PLOTT	99-06-29	HBOFBERGE	
				ROHDE&SCHWARZ			ZEICHN.-NR. 1084.9800.01 S
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET SMIQ			REG.I.V. 1084.8004 ERSTE Z. 1084.8004.01

BLATT-NR. 10 +

I IQ-CONTROL

B SERBUS

F I-SIGNAL

REF10V

IQ+10V

IQ-10V

D46 DAC 8143 — LEVATT

D45 DAC 8143 — IOFFSET

D48 DAC 8143 — QOFFSET

D47 DAC 8143 — IQPHAS

R717 1M
R956 0
R762 4.7K
R514 10K
C431 1N
R620 20.0K
R883 0
C226 22P
R1137 392K
R1121 100K
R1122 20K
R1129 100K
LEVATT
C225 22P
R253 10K
OP275GS
R109 47K
R1111 50K
R625 0
N43 OP275GS
P43
D_LEVATT (3/7E)
V_LEVATT (14/6D,14/11D)

R619 30.1K
C221 1P
R250 1K
P32
V_IOFST (7/5B)
L163 100U
R879 0
C220 22P
N16 OP400GP
R31 47
R520 15K
N17 LT1058
R99 0

R624 30.1K
C223 1P
R252 1K
P41
V_QOFST (7/5C)
L167 100U
R881 0
C222N16 22P OP400GP
R32 47
R521 15K
N17 LT1058
R105 0

R720 20K
C99 22P
R805 10K
R882 0
C224 22P
N48 OP400GP
R454 10
R795 10K
N48 OP400GP

R804 20K
R880 0
R872 15K
R929 10K
N.F.
QUADRATUR
C473 100P
N18 OP400GP
P20
BIAS_PHI (10/5E)
R803 10K
C472 100P
P42
R802 10K
C471 100P
R799 10K
N18 OP400GP
R98 100
V_IPHI (13/2C)
R836 20K
R410 4.7K
D_PHI (3/7D)
R251 10K
R800 10K
R801 10K
C470 100P
P63
BIAS_PHI (10/7C)
R798 10K
R797 10K
R796 10K
N18 OP400GP
R97 100
V_QPHI (13/2E)

PULSE_B (15/1E)
PULSE_A (15/1D)
D7 74HC86T
+5VOD
LA0_CNT (14/4D,14/7C)
LA1_CNT (14/9D,14/12C)
D19 74HCT08T
R106 100
C93 33N
R107 10K
R522 10K

08.13
AEND. IND.
AENDER MITTEIL

BEHALTEN WIR UNS ALLE RECHTE VOR

K IQ-CONTROL

IQ-10V

P52

H BURST_CONTROL

IQ-10V
R778 10K
R1041 39.2K
R807 2K
R1055 1K N.F.
BURST LINEARITY
C185 10P N.F.
R808 1K
V84 BZV55B4V7 N.F.
R915 10 N.F.
R110 1K
C186 0
C12 5.6P
C13 5.6P
R809 1K
R1053 0
BURST_REF (15/6D)
N22 AD744KR
R257 1K
N23 AD744KR
R626 0
C37 10N
R258 20K
R540 10K
R763 4.7K
D_BURST (3/70)
X7
BURST_CNT (15/58)
LEVEL_IQ
C187 10P N.F.
R1042 100K
+5V5B
R1219 182K
R1026 3.3K N.F.
C655 33N
C14 5.6P
N24 AD744KR
R1070 100
R208 100
N30 MAX942CSA
R782 10K N.F.
BURST_SWI (15/7C)
P64
C656 33N N.F.
R1095 100 N.F.
R628 1K
C300 33N
R629 5.62
R385 1K 0.1%
P65
D5 DG419DY
BURST_ENA (4/6D)
R1 9.09K 0.1%
C301 33N
IQ+10V
BURST_PULSE (10/11B)
+15VA
N.F. R1004 1K
BAV99 V44
R457 470
R544 10K
X243 MMCX-BU
BURST CONTROL_MOD
-15VA

5VA

L132 10U

+5V0D

R138 N.F. 100
R147 N.F. 100
R162 100
R164 100
R111 100
C56 33N N.F.
C59 33N N.F.
C62 33N
C66 33N
C104 33N
N23 N.F. AD744KR
N24 AD744KR
D5 DG419DY
R176 100 N.F.
C71 33N N.F.
R222 100 N.F.
C98 33N N.F.
R171 100
C106 33N
C139 33N
R226 100
L133 10U
-15VA

08.13				1GPK	DATUM	NAME	BENENNUNG
				BEARB.		HO	IQ-MODULATOR
				GEPR.			IQ-MODULATOR
				NORM			TOP/TOP.9
				PLOTT	99-06-29	HBOFBERGE	
				ROHDE&SCHWARZ			ZEICHN.-NR. 1084.9800.01 S
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET SMIQ			REG.I.V. 1084.8004 ERSTE Z. 1084.8004.01

BLATT-NR. 11 +

BEHALTEN WIR UNS ALLE RECHTE VOR

K IQ-CONTROL

+15VA
L16 1U
R456 10
REF10V
R897 100K
C266 220N
OP400GP N19
R306 3.3K
V67 BC850B
IQ+10V
P51
C474 1N
R254 10K
C267 220N
-15VA
L15 1U
R455 10
IQ-10V
R255 10K 0.1%
R307 3.3K
V112 BC860B
P52
C475 1N
R256 10K 0.1%
C268 220N

H BURST_CONTROL

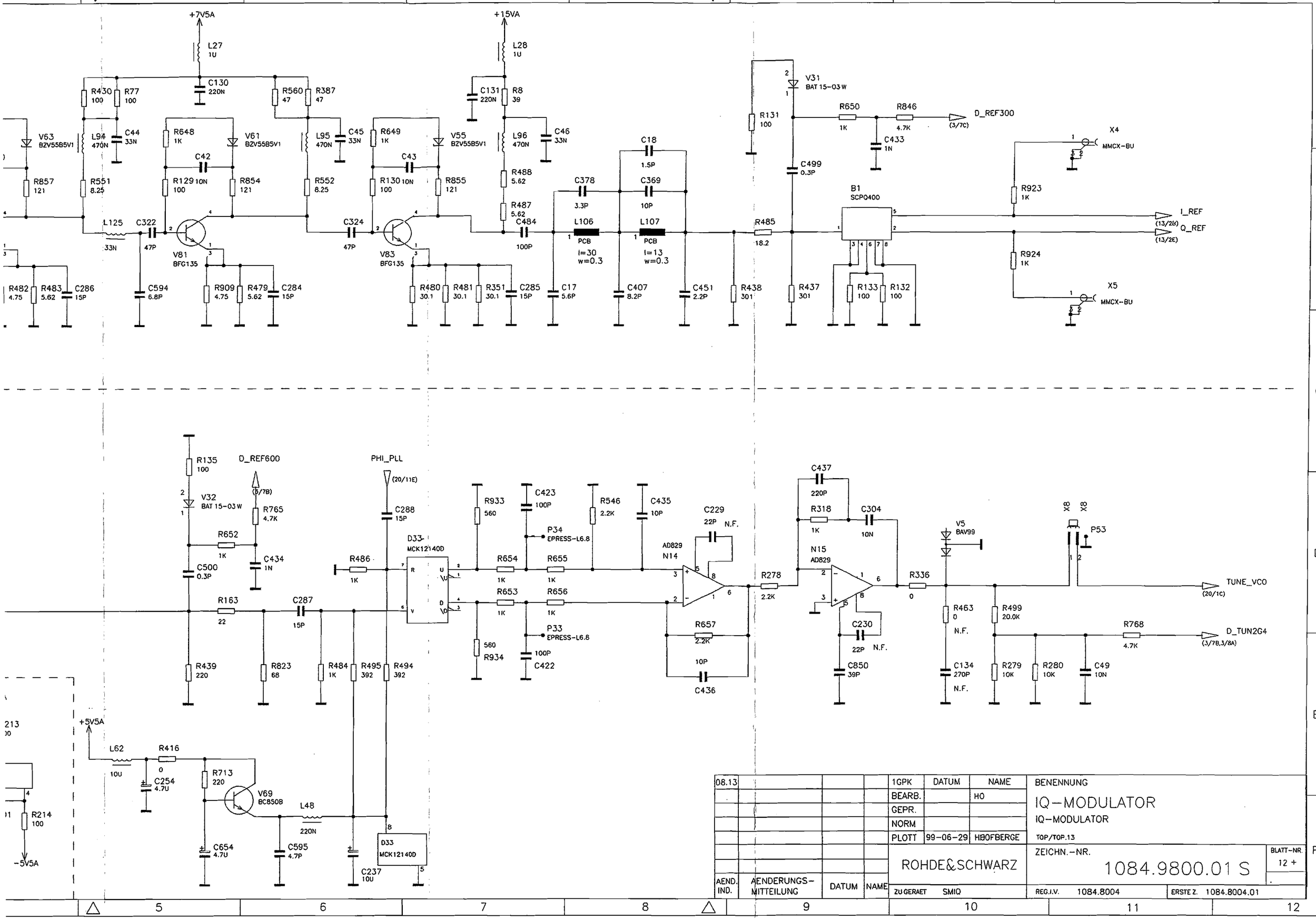
IQ-10V
R778 10K
R807 2K
R1055 1K N.F.
R1041 39.2K
R808 1K
C185 10P N.F.
BURST LINEARITY
C12 5.6P
R809 1K
R1053 0
BURST_REF (15/6D)
N22 AD744KR
R1219 182K
+5V5B
C14 5.6P
N24 AD744KR
R1070 100
R208 100
N30 MAX942CSA
C656 33N N.F.
R1095 100 N.F.
R628 1K
C300 33N
R629 5.62
R385 1K 0.1%
P65
D5 DG419DY
BURST_ENA (4/6D)
R1 9.09K 0.1%
C301 33N
IQ+10V

+15VA
L130 10U
C100 33N
N19 OP400GP
C101 33N
L131 10U
-15VA

+5V5A
R112 100
R333 10K
N30 MAX942CSA
C105 33N
R223 100
+5V5B

+15VA
L132 10U
C102 33N
R138 100 N.F.
R147 100 N.F.
R162 100
R164 100
+5V0D
R111 100
C56 33N N.F.
C59 33N N.F.
C62 33N
C66 33N
C104 33N
N22 AD744KR N.F.
N23 AD744KR N.F.
N24 AD744KR
D5 DG419DY
R176 100 N.F.
C71 33N N.F.
R222 100 N.F.
C98 33N N.F.
R171 100
C106 33N
C139 33N
R226 100
C103 33N
L133 10U
-15VA

08.13	
AEND. IND.	AENDER MITTEIL



08.13				1GPK	DATUM	NAME	BENENNUNG	
				BEARB.		HO	IQ-MODULATOR	
				GEPR.			IQ-MODULATOR	
				NORM			TOP/TOP.13	
				PLOTT	99-06-29	HBOFBERGE		
				ROHDE&SCHWARZ			ZEICHN.-NR. 1084.9800.01 S	BLATT-NR. 12 +
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET SMIQ			REG.I.V. 1084.8004	ERSTE Z. 1084.8004.01

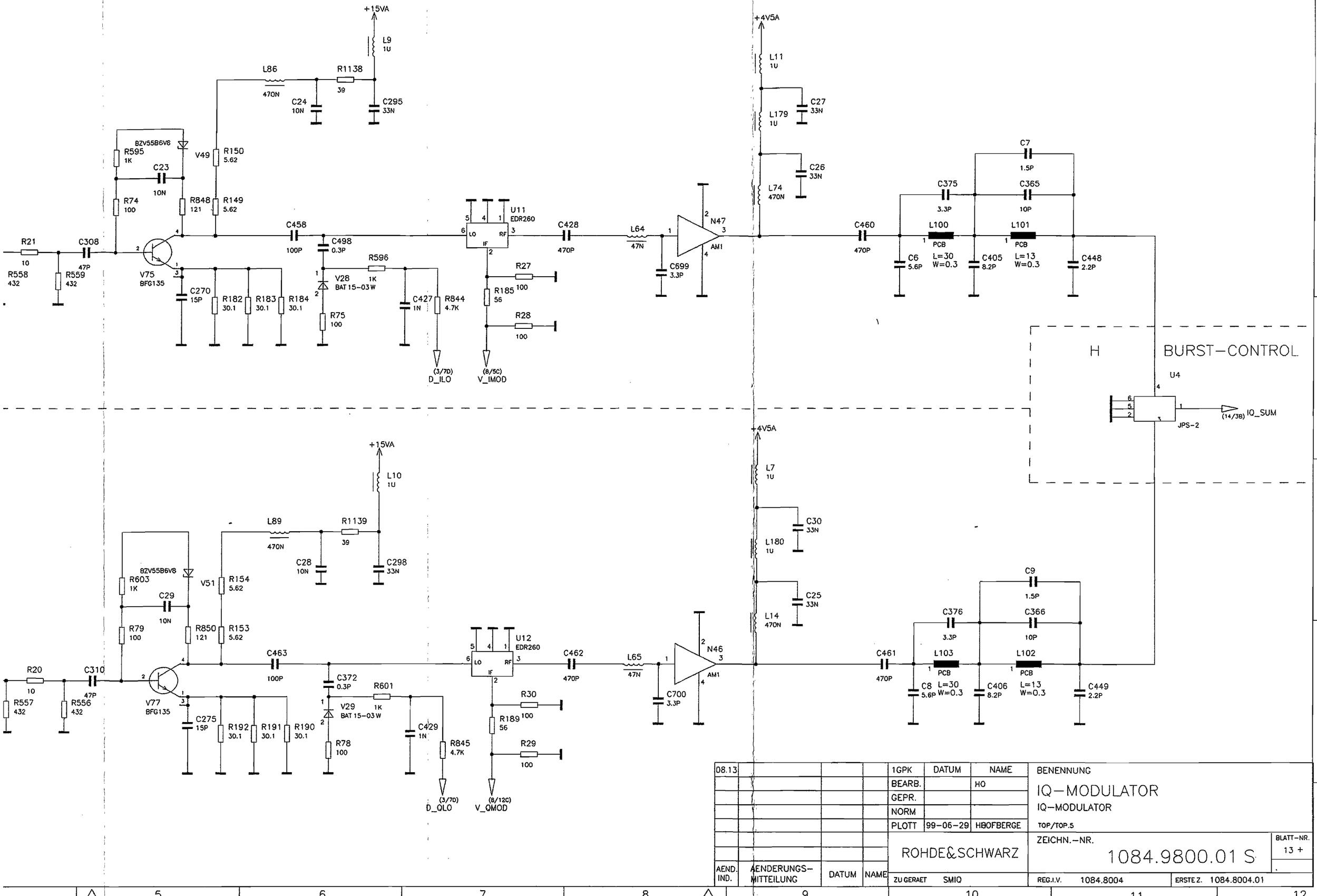
BEHALTEN WIR UNS ALLE RECHTE VOR

E REFERENCE 300

L REFERENCE 600

+5V5A
L30 10U
C415 220N
L124 33N
R730 5.62
N28 UPB581C
X246 MMCX-BU REF600
U6 JPS-2
R203 68
C323 47P
R34 100
R33 100
C438 1N
C439 1N
R714 51
C327 47P
R658 1K
C50
R136 10N 100
R857 121
V63 BZV55B5V1
V82 BFG135
R482 4.75
R483 5.62
C286 15P
+7V5A
L27 1U
C130 220N
R430 100
R77 100
L94 470N
C44 33N
R551 8.25
L125 33N
C322 47P
C594 6.8P
R648 1K
C42
R129 10N 100
R854 121
V61 BZV55B5V1
V81 BFG135
R909 4.75
R479 5.62
C284 15P
R560 47
R387 47
L95 470N
C45 33N
R552 8.25
C324 47P
+15VA
L28 1U
C131 220N
R8 39
L95 470N
C46 33N
R488 5.62
R487 5.62
C484 100P
R649 1K
C43
R130 10N 100
R855 121
V55 BZV55B5V1
V83 BFG135
R480 30.1
R481 30.1
R351 30.1
C285 15P
C17 5.6P
C378 3.3P
L106 PCB l=30 w=0.3
C18 1.5P
C369 10P
L107 PCB l=13 w=0.3
C407 8.2P
C451 2.2P
R485 18.2
R438 301
R131 100
R135 100
V32 BAT 15-03W
D_REF600 (5/7B)
R765 4.7K
R652 1K
C434 1N
C500 0.3P
PHI_PLL (20/11E)
C288 15P
R486 1K
D33 MCK12140D
R933 560
C423 100P
P34 EPRESS-L6.8
R546 2.2K
C435 10P
R654 1K
R655 1K
R653 1K
R656 1K
R934 560
C422 100P
P33 EPRESS-L6.8
AD829 N14
C229 22P N.F.
R657 2.2K
C436 10P
R278 2.2K
R390 5.62
C325 47P
R388 825
R389 825
R163 22
C287 15P
R439 220
R823 68
R484 1K
R495 392
R494 392
C237 10U
+15VA
R212 100
C399 33N
N14 AD829
C402 33N
R237 100
-15VA
+24VA
R213 100
C494 33N
N15 AD829
C401 33N
R214 100
-5V5A
+5V5A
L62 10U
R416 0
C254 4.7U
R713 220
V69 BC850B
C654 4.7U
C595 4.7P
L48 220N

08.13	
AEND. IND.	AENDE MITTEIL



AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
08.13			

	DATUM	NAME
1GPK		
BEARB.		HO
GEPR.		
NORM		
PLOTT	99-06-29	HBOFBERGE

BENENNUNG

IQ-MODULATOR

IQ-MODULATOR

TOP/TOP.5

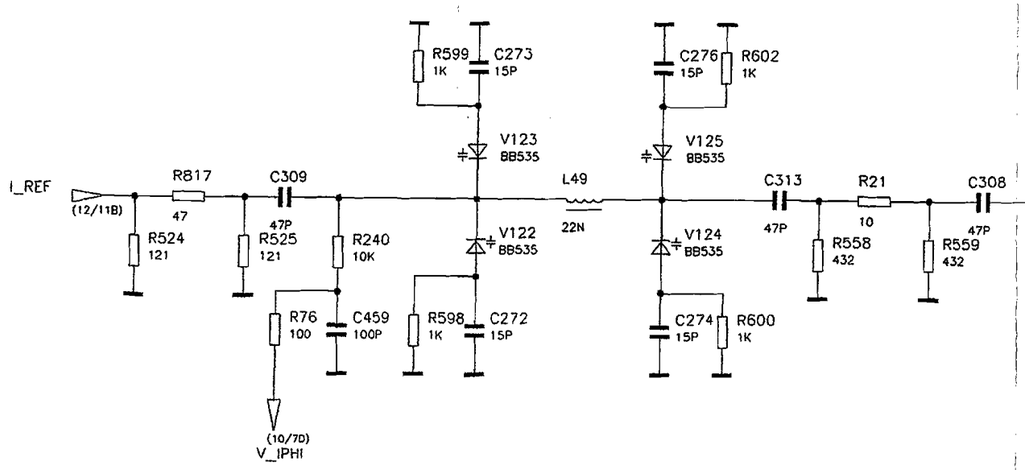
ROHDE&SCHWARZ

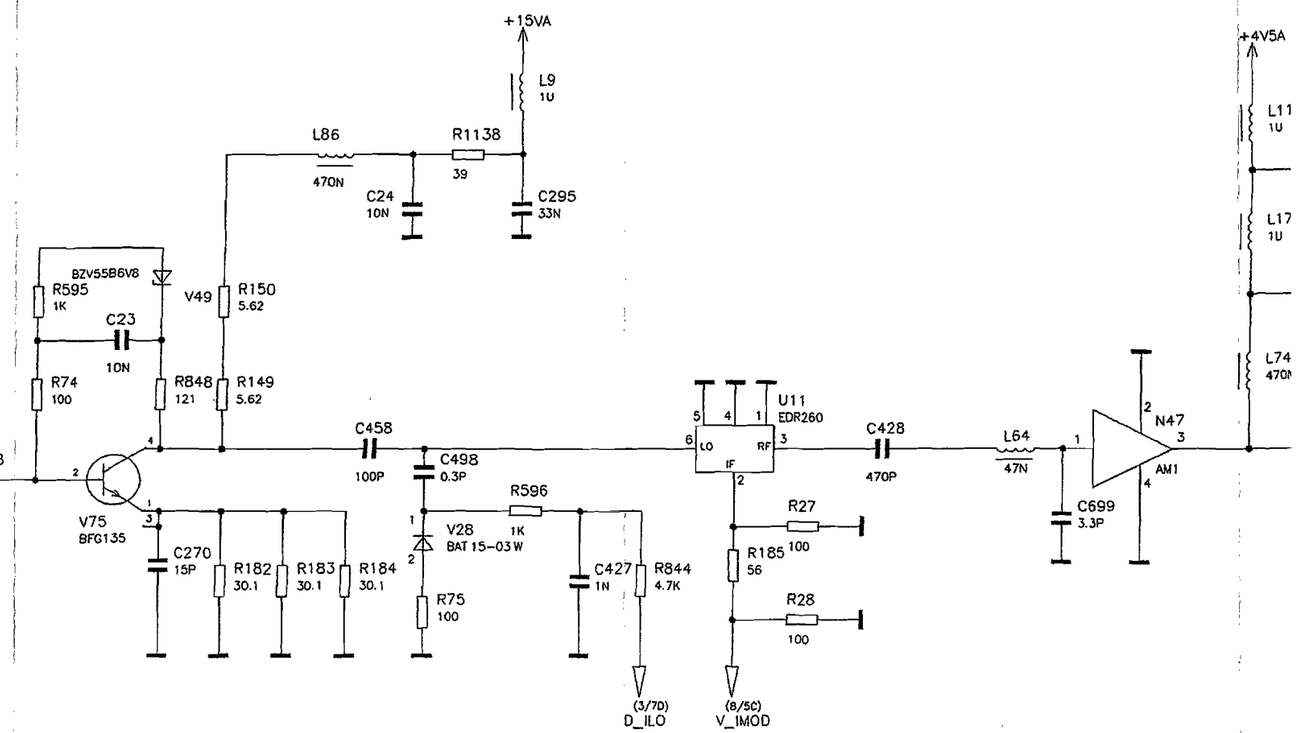
ZEICHN.-NR. 1084.9800.01 S

BLATT-NR. 13 +

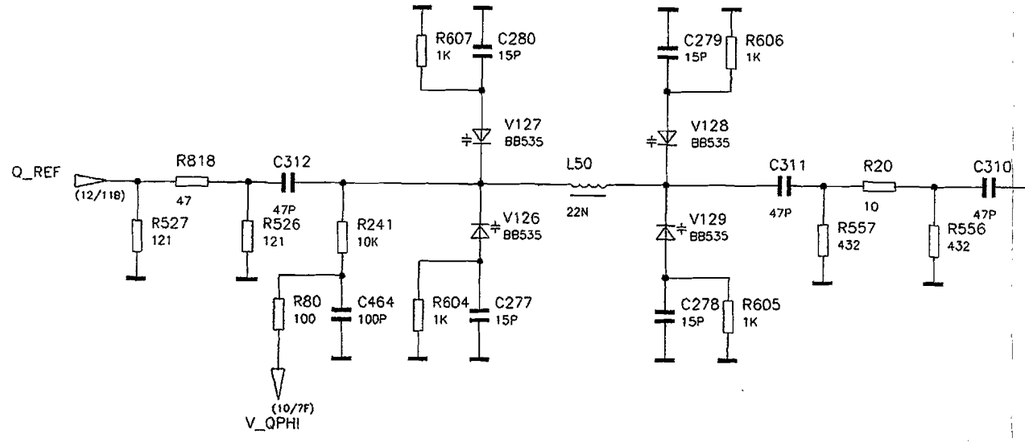
ZU GERAET SMIQ | REG.I.V. 1084.8004 | ERSTE Z. 1084.8004.01

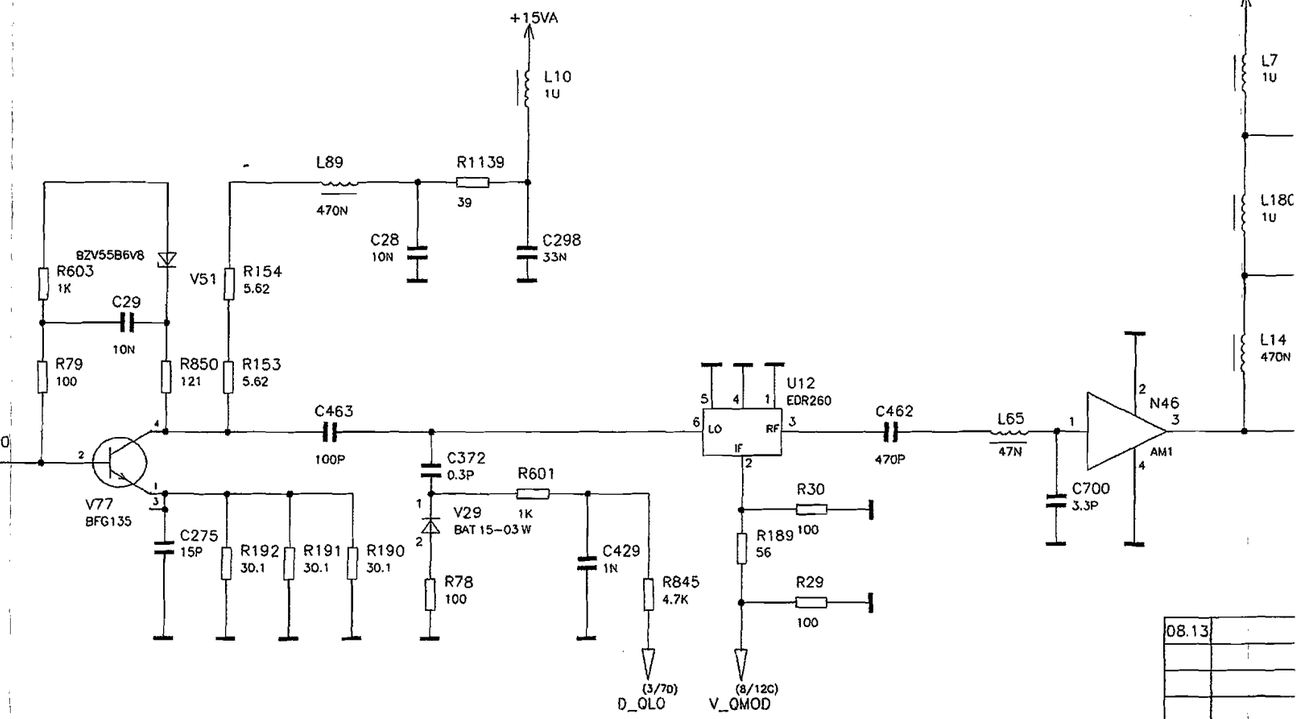
F I-SIGNAL





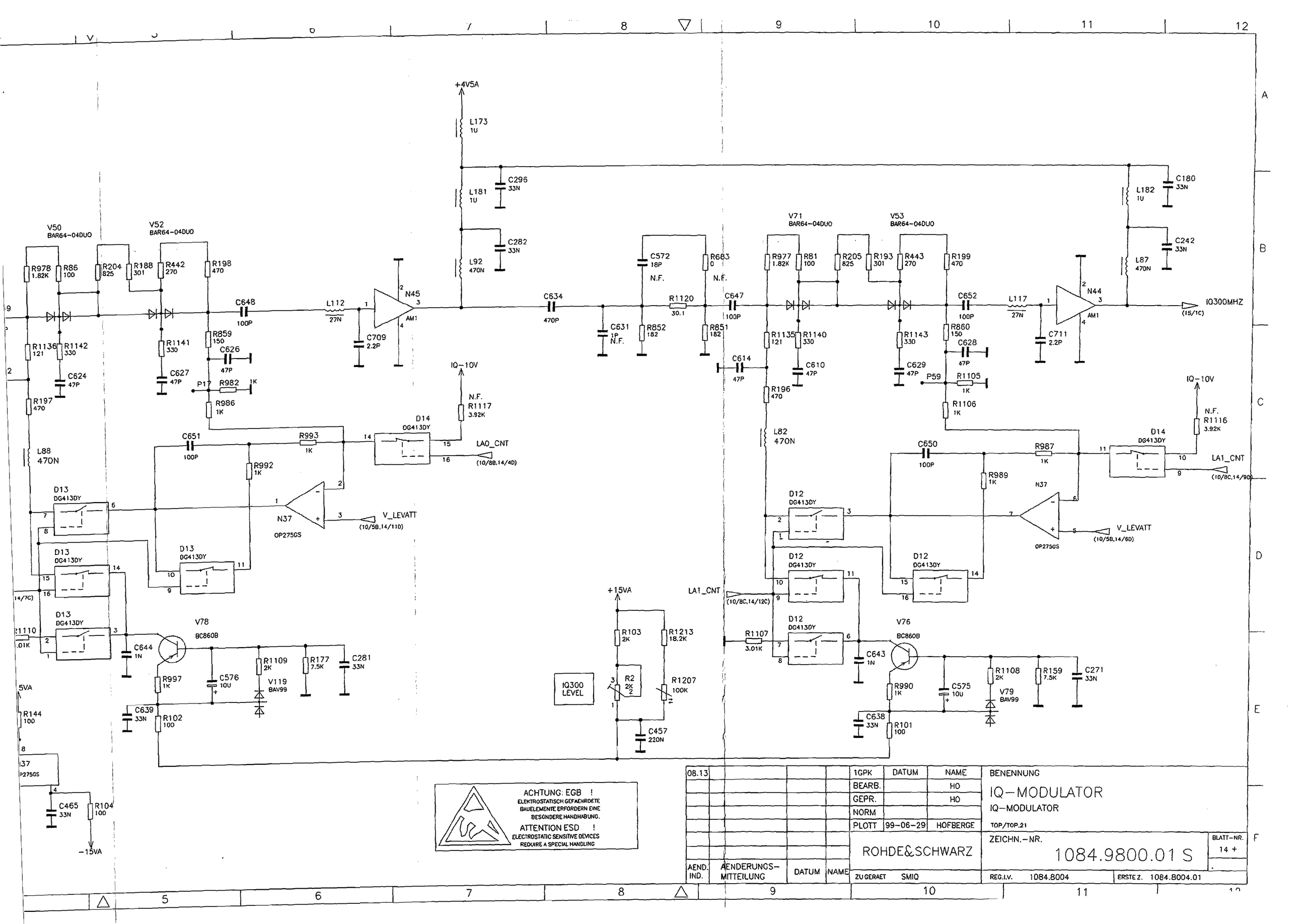
G Q-SIGNAL





AEND. IND.	AENDER MITTEILU
08.13	

BEHALTEN WIR UNS ALLE RECHTE VOR



08.13				1GPK	DATUM	NAME	BENENNUNG
				BEARB.		HO	IQ-MODULATOR
				GEPR.		HO	IQ-MODULATOR
				NORM			TOP/TOP.21
				PLOTT	99-06-29	HOFBERGE	
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ROHDE&SCHWARZ			ZEICHN.-NR. 1084.9800.01 S
				ZUGERAET SMIQ			REG.I.V. 1084.8004 ERSTE Z. 1084.8004.01

BLATT-NR. 14 +

BEHALTEN WIR UNS ALLE RECHTE VOR

IQ_SUM (13/12C)

C649 100P

V50 BAR64-04DUO

R978 1.82K

R86 100

R1136 121

R1142 330

C622 47P

C624 47P

R197 470

L88 470N

V52 BAR64-04DUO

R204 825

R188 301

R442 270

R198 470

R1141 330

C627 47P

C648 100P

R859 150

C626 47P

P17

R982 1K

R986 1K

L112 27N

N45

AM1

C709 2.2P

+4V5A

L173 1U

L181 1U

L92 470N

C296 33N

C282 33N

C634 470P

C572 18P N.F.

C631 1P N.F.

R852 182

R1120 30.1

R683 0 N.F.

R851 182

C647 100P

C61 47P

IQ-10V

N.F. R1117 3.92K

D14 DG413DY

C651 100P

R993 1K

R992 1K

LA0_CNT (10/8B,14/4D)

N37 OP275GS

V_LEVATT (10/5B,14/11D)

D13 DG413DY

LA0_CNT (10/8B,14/7C)

R1110 3.01K

C644 1N

V78 BC860B

R997 1K

C576 10U

R1109 2K

V119 BAV99

R177 7.5K

C281 33N

C639 33N

R102 100

+15VA +5VOD

R1062 1K

R151 100

C297 33N

D12 DG413DY

C640 100N

C299 33N

R1071 1K

-15VA

R1072 1K

R152 100

C469 33N

D13 DG413DY

C641 100N

C466 33N

R1074 1K

R1103 1K

R155 100

C564 33N

D14 DG413DY

C642 100N

C563 33N

R1104 1K

R144 100

C316 33N

N37 OP275GS

C465 33N

R104 100

+15VA

LA1_CNT (10/8C.

R103 2K

R1213 18.2K

IQ300 LEVEL

R2 2K

R1207 100K

C457 220N

ACHTUNG: EGB !
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD !
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

08.13

AEND. IND.

AENDER MITTEIL

H BURST_CONTROL

N.F. R1059 20K
V89 N.F. BSR18
N.F. R1031 1.5K
R1025 3.3K N.F.
C446 33N N.F.
R1069 330 N.F.
R731 10K N.F. BURST_CNT
(11/11B)
R1029 825 N.F.
-5V5A
N.F. R1054 1K
V27 N.F. BZV55B7V5
C573 1P N.F.
D27 N.F. AT339
R1113 51
C632 470P
C616 10P
R1066 1K
C653 N.F. 22P
(15/2C,15/4D) SIG1
R938 1K N.F.
R928 1M N.F.
N29 N.F. AD811JR
IQ+10V
R19 N.F. 20K
R862 432 N.F.
C241 N.F. 220N
L90 470N N.F.
R368 100 N.F.
R367 100 N.F.
R453 0 N.F.
P18 N.F.
R365 68
R366 N.F. 82.5
C468 N.F. 100P
P19 N.F.
(11/7B) BURST_REF
L91 470N N.F.
C315 18.2
R1160 35.7
R1154 150
C566 470P
R1155 150
L111 0R
C702 2.2P N.F.
+4V5A
L13 1U
L206 470N
C34 33N
C32 33N
L75 470N
N49 AM1
CALSWI_B
R83 47K (15/10E)
V157 BAT62-03W
C314 470P
C216 10P
D28 SW339
CRTL 2 CRTL 1
R82 47K (15/10C)
V156 BAT62-03W
C217 10P
C467 470P
3 RF1
6 RF2
CAL_300 (16/1B)
CALSWI_A (15/10C)
C377 3.3P
L104 PCB L=30 W=0.3
C10 5.6P
C11 10P
L105 PCB L=13 W=0.3
C90 8.2P
C450 2.2P
U5 JPS-2
D_IQOUT (5/7C)
100 R84
4.7K R757
V30 BAT 15-03W
R614 1K
C430 1N
C368 1P
C367 1.5P
R787 150
R788 150
R158 35.7
X241 MMCX-BU IQAUX
R157 12.1
X242 MMCX-BU IQ300
R785 432
R786 432
BURST_SWI (11/9C)
IQDET_ON (4/6D)
R85 100
D57 74HC86T
C589 10P N.F.
R242 10K
V12 BSR18
R722 2.2K
V90 BSR13
CALSWI_A (15/9C)
R381 3.92K
R723 2.2K
R758 2.74K
-15VA
R88 100
C91 33N
R759 2.74K
R725 2.2K
BSR13
V13 BSR18
R243 10K
R724 2.2K
CALSWI_B (15/7C)
R383 3.92K
V91
+5V5A
L137 10U
R908 10
C110 4.7U
N29 AD811JR
C148 4.7U
R905 10
L165 10U
-5V5A
+5V0D
R87 100
C390 33N
D57 74HC86T

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
08.13			

	DATUM	NAME
1GPK		
BEARB.		HO
GEPR.		
NORM		
PLOTT	99-06-29	HBOFBERGE

BENENNUNG
IQ-MODULATOR
IQ-MODULATOR
TOP/TOP.6

ROHDE&SCHWARZ

ZEICHN.-NR. 1084.9800.01 S
BLATT-NR. 15 +

ZU GERAET SMIQ | REG.I.V. 1084.8004 | ERSTE Z. 1084.8004.01

BEHALTEN WIR UNS ALLE RECHTE VOR

H BURST_CONTROL

IQ300MHZ (14/12B) C633 470P
D51 SW339
C264 22P N.F.
C265 10P
R674 1K
(15/3F,15/4C) SIG2
C612 22P N.F.
R1032 1K
C613 10P
(15/4C,15/4D) SIG1
R1112 51
C562 3.3P
C567 2.2P
C561 10P
L97 PCB L=30 W=0.3
L98 PCB L=13 W=0.3
C560 5.6P
C565 8.2P
C630 2.2P
N.F. C570 10P
R1123 35.7
R849 150
R609 10 N.F.
R712 150
D50 SW339
C611 10P
R873 1K
C577 22P N.F.
(15/1C,15/3F) SIG2
R1113 51
C616 10P
R1066 1K
C653 22P N.F.
(15/2C,15/4D) SIG1
C632 470P
C573 1P N.F.
L90 470N N.F.
R368 100 N.F.
R367 100 N.F.
P18 N.F.
C33 1P N.F.
R453 0 N.F.
R938 1K N.F.
R928 1M N.F.
N29 N.F. AD811JR
R19 N.F. 20K
IQ+10V
R862 432 N.F.
C241 220N N.F.
V89 N.F. BSR18
N.F. R1059 20K
R731 10K N.F. BURST_CNT
(11/11B)
R1029 825 N.F.
N.F. R1054 1K
V27 N.F. BZV55B7V5
D27 N.F.
RF1 AT339 RF2
N.F. R1031 1.5K
R1025 3.3K N.F.
C446 33N N.F.
R1069 330 N.F.
-5V5A
C315 18.2
L91 470N N.F.
R365 68
R366 82.5 N.F.
P19 N.F.
C468 100P N.F.
(11/7B) BURST_REF
R1160 35.7
R1154 150
R1155 150
C566 470P
L111 0R
+4V5A
L13 1U
L206 470N
C34 33N
C32 33N
L75 470N
N49 AM1
C702 2.2P N.F.
CALSWI_B
(15/10E)
R83 47K
V157 BAT62-03W
C314 470P
C216 10P
D28 SW339
C217 10P
C467 470P
RF1
RF2
R82 47K
V156 BAT62-03W
BURST_SWI (11/9C)
IQDET_ON (4/6D)
R85 100
C589 10P N.F.
D57 74HC86T
R242 10K
V12 BSR18
V13 BSR18
R243 10K
+5V5A
L137 10U
R908 10
C110 4.7U
N29 AD811JR
C148 4.7U
R905 10
L165 10U
-5V5A
+5VOD
R87 100
C390 33N
D57 74HC86T

PULSE_A (10/8B) R180 1.21K
V158 BSR18
R976 220
V136 BSR13
SIG1 (15/2C,15/4C)
R1156 200
R1115 200
R974 270
R194 121
R187 10K N.F.
R186 10K N.F.
-15VA
R4 100
R1153 100
C31 33N
R1159 150
R1158 150
R195 121
R973 270
V134 BSR13
PULSE_B (10/8A) R181 1.21K
V159 BSR18
R861 220
SIG2 (15/1C,15/4C)
R1157 200
R1114 200

AEND. IND.	AENDE MITTEI
08.13	

I IQ_DETECTOR

K
IQ-CONTROL

IQ_DETEKTOR LINEARITY

CAL+12V
R930 50K
R789 20K
R446 470K
C432 1N
C579 47P
R644 3.3K
L81 150N
C15 0.7P
R122 0
V106 BAT62-03W
C39 10N
V107 BAT62-03W
R821 3.3K
R422 1M
CAL-12V
C329 47P
R1057 1K N.F.
R642 2.2K
R312 680
V109 HSMS2825PAAR
N25 OP297
R261 39.2K 0.1%
C191 10P
R263 39.2K
P67
N32 OP07CS8
R264 20K
C393 100P
R839 10K
R953 4.7K
Z5 2.5DB
D_IQCAL (3/7D)

C581 33N
R1056 1K N.F.
R313 680
V109 HSMS2825PAAR
R643 2.2K
N25 OP297
CAL+12V
R869 330K
C302 33N
R910 51
R262 39.2K 0.1%
R964 33K
R936 8.25
R944 100K
C47 10N
CAL-12V

+15V_CAL
L18 1U
L19 1U
L20 1U
C112 33N
N25 OP297
C113 33N
N26 OP297
C114 33N
N32 OP07CS8
L21 1U
C115 33N
L22 1U
C116 33N
L23 1U
C117 33N
-15V_CAL

+12V
C303 100N
R813 39.2K 0.1%
N26 OP297
R812 39.2K 0.1%
P45
P44
CAL-12V

08.13				1GPK	DATUM	NAME	BENENNUNG	
				BEARB.		HO	IQ-MODULATOR	
				GEPR.			IQ-MODULATOR	
				NORM				
				PLOTT	99-06-29	HBOFBERGE	TOP/TOP.11	
				ROHDE&SCHWARZ			ZEICHN.-NR. 1084.9800.01 S	BLATT-NR. 16 +
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET SMIQ			REG.I.V. 1084.8004	ERSTE Z. 1084.8004.01

BEHALTEN WIR UNS ALLE RECHTE VOR

I IQ_DETECTOR

CAL_300 (15/9C)
C319 47P
R641 1K
C40 33N
R121 100
V54 BZV55B6V8
R853 121
V80 BFG135
C283 10P
R200 22
R201 22
R202 22
R161 5.62
R160 5.62
L93 470N
R7 39
C41 10N
+15V_CAL
L34 1U
C111 33N
C321 47P
R1001 30.1
R1000 182
R999 182
C579 47P
R644 3.3K
L81 150N
C15 0.7P
R122 0
V106 BAT62-03W
CAL+12V
IQ_DETEKTOR LINEARITY
R930 50K
R789 20K
R446 470K
C432 1N
C39 10N
V107 BAT62-03W
R821 3.3K
R422 1M
CAL-12V
C329 47P
R1057 1K N.F.
R312 680
V109 HSMS2825PAAR
R642 2.2K
N25 OP297
R261 39.2K 0.1%
C581 33N
R1056 1K N.F.
R313 680
V109 HSMS2825PAAR
R643 2.2K
N25 OP297
CAL+12V
R869 330K
C302 33N
R910 51
R262 39.2K 0.1%

K IQ_CONTROL

Z3
+15VA
L143 1U
40DB
L142 1U
+15V_CAL
C414 220N

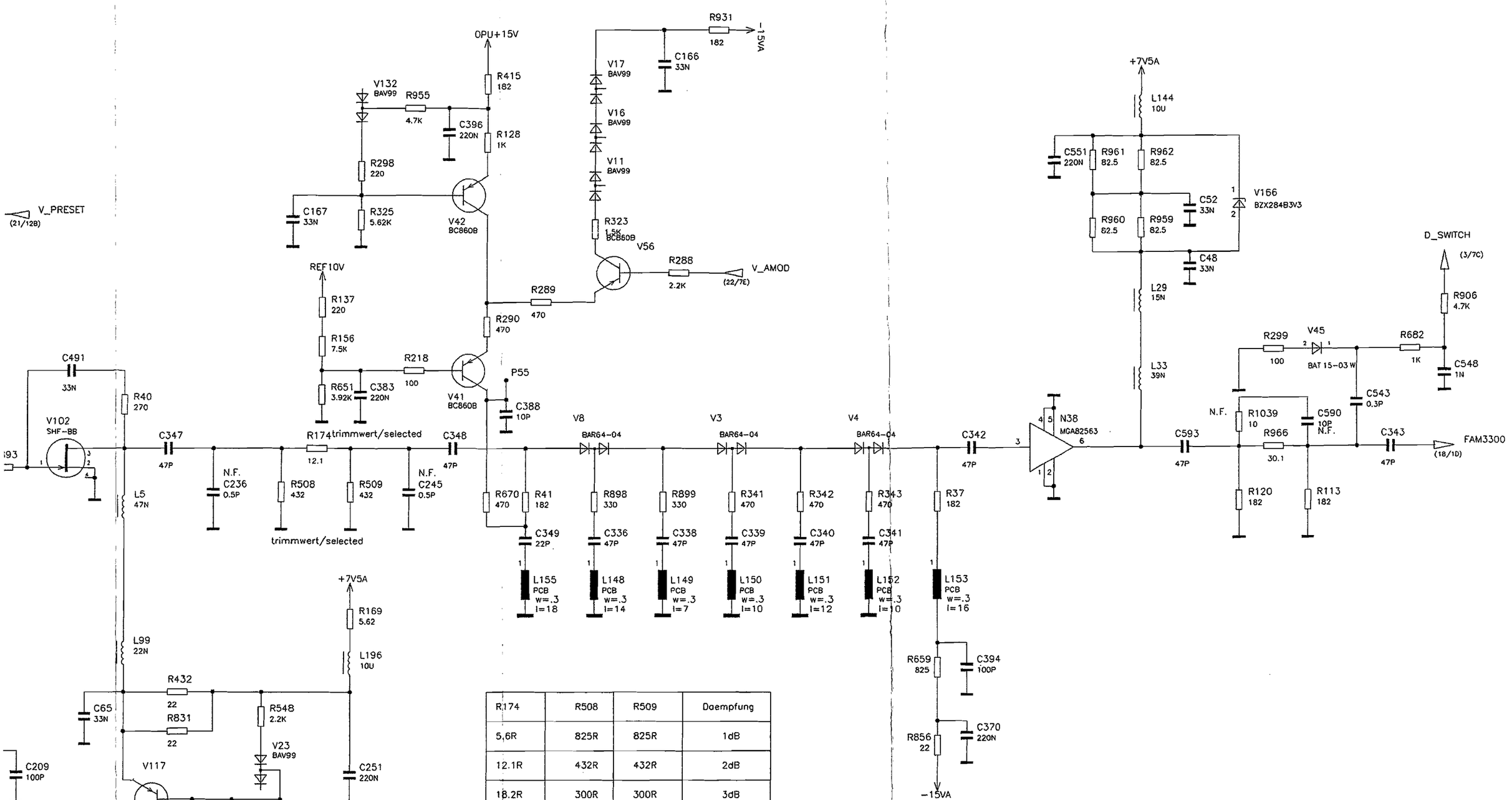
Z2
-15VA
R56 100
40DB
L140 1U
-15V_CAL
C413 220N

Z1
REF10V
R1201 1K
40DB
L138 1U
R265 10K
C387 33N
R790 100K 0.1%
R123 27.4K 0.1%
N26 OP297
C303 100N
R813 39.2K 0.1%
R812 39.2K 0.1%
N26 OP297
CAL+12V
P44
P45
CAL-12V

+15V_CAL
L18 1U
L19 1U
L20 1U
C112 33N
N25 OP297
C113 33N
N26 OP297
C114 33N
N32 OP07CS8
L21 1U
C115 33N
L22 1U
C116 33N
L23 1U
C117 33N
-15V_CAL

08.13

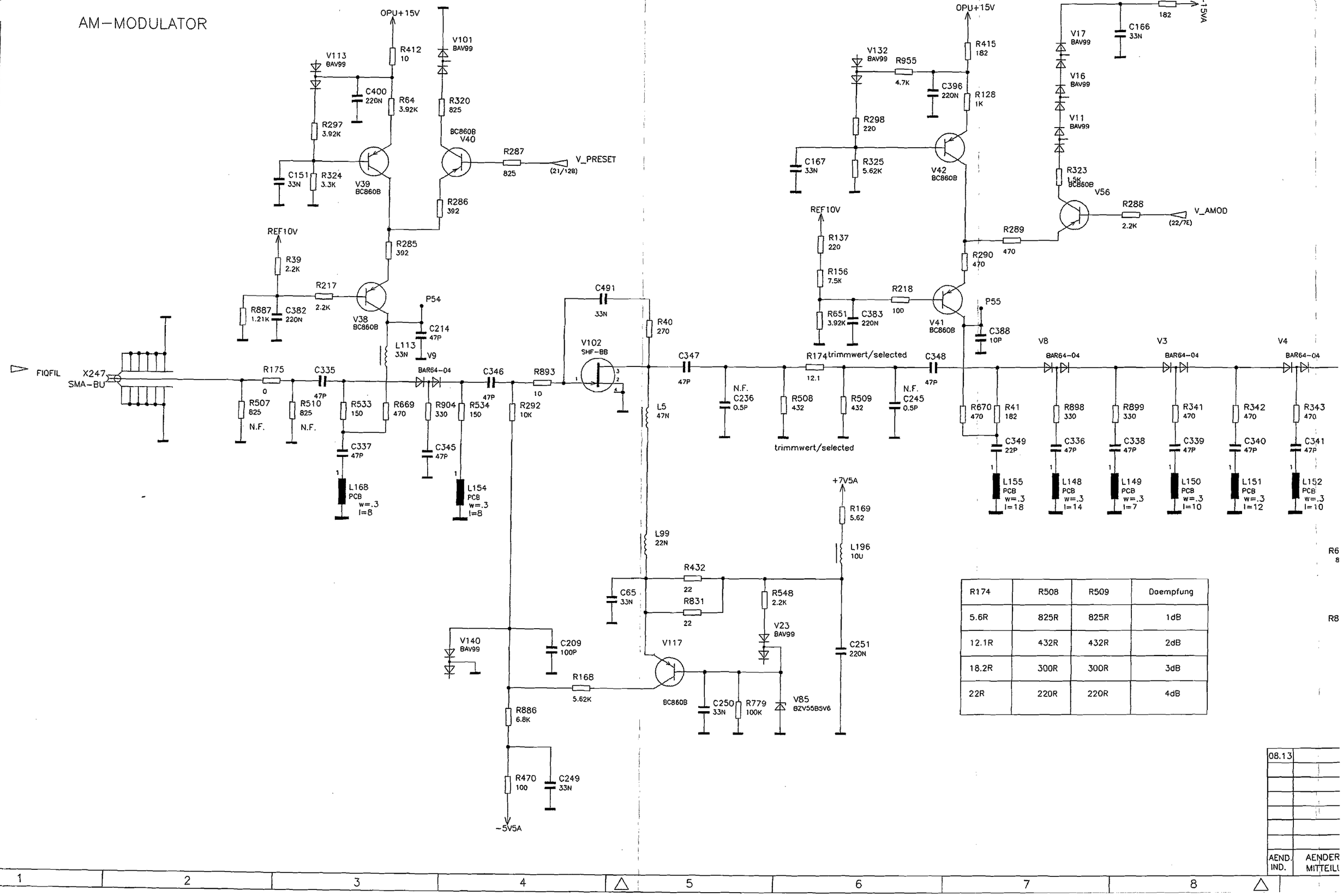
AEND. IND. | AENDER MITTEIL



R174	R508	R509	Daempfung
5,6R	825R	825R	1dB
12.1R	432R	432R	2dB
18.2R	300R	300R	3dB
22R	220R	220R	4dB

08.13					1GPK	DATUM	NAME	BENENNUNG	
					BEARB.		HO	IQ−MODULATOR	
					GEPR.			IQ−MODULATOR	
					NORM			TOP/TOP.16	
					PLOTT	99−06−29	HOFBERGE		
					ROHDE&SCHWARZ			ZEICHN.−NR. 1084.9800.01 S	BLATT−NR. 17 +
AEND. IND.	ÄNDERUNGS−MITTEILUNG		DATUM	NAME	ZU GERAET SMIQ			REG.I.V. 1084.8004	ERSTE Z. 1084.8004.01

AM-MODULATOR



R174	R508	R509	Daempfung
5.6R	825R	825R	1dB
12.1R	432R	432R	2dB
18.2R	300R	300R	3dB
22R	220R	220R	4dB

08.13

AEND. IND. AENDER MITTEIL

BEHALTEN WIR UNS ALLE RECHTE VOR

PUT-STAGE

W124

N.F. R1040 10

N.F. C591 10P

R810 18.2

C147 33N

S3300 (19/18)

J1 2

9

GND GND V2 V1

5 4 7 6

R220 301

R471 301

C557 100P

1149 1K

R1148 1K

C261 220P

L73 33N

L70 33N

H_B /2F,18/7B)

SWITCH_A (18/2F,16/7A)

LO-DRIVER

LO_2G4 (20/12B)

SM4TH

U9

LO IF RF

R26 47

C142 33N

R304 121

R303 121

C623 10P N.F.

R1052 100 N.F.

L202 18N

C244 33N

R146 301

V148 BFP450

R890 15

R417 15

R401 15

C208 27P

R926 5.62

V164 BSR18

CONVERT_OFF (4/10B,4/11E,18/1B)

R677 10K

R680 2.2K

V161 BSR13

SWITCH_A (18/2F,18/4D)

R1151 3.92K

R1096 2.2K

R678 2K

-15VA

R36 100

C257 33N

R679 2K

R1144 2.2K

V162 BSR13

V163 BSR18

CONVERT_ON (4/12E,20/10A)

R38 10K

R1145 2.2K

SWITCH_B (18/2F,18/4D)

R1150 3.92K

IF-STAGE

+7V5A

L40 1U

V97 BAV99

R547 2.2K

R549 4.7K

C150 33N

V37 BC860

C143 33N

R726 2.2K

R1132 121

R11 121

R1133 121

R1134 121

C442 220N

R448 8.25

C146 220N

L83 47U

L134 3UH SMD 4B1

L3 1U

R665 1K

R772 4.7K

D_CONVRT (3/7C)

V36 BAT15-03W

R145 100

C444 33N

C504 0.2P

l=20 w=0.3

l=12 w=0.3

L110 PCB

L109 PCB

l=15 w=0.3

l=15 w=0.3

C291 2.2P

C20 4.7P

C145 33N

R505 22

L114 PCB

L115 PCB

R1163 0

L55 8.2N

MIX_IF (18/4C)

C598 0.6P

L116 PCB l=3 w=0.3

C454 3.3P

C19 5.6P

C168 2.7P

R529 220

R530 220

C552 3.3P

R1162 432 N.F.

R1161 432 N.F.

C234 4.7P

08.13				1GPK	DATUM	NAME	BENENNUNG
				BEARB.		HO	IQ-MODULATOR
				GEPR.			IQ-MODULATOR
				NORM			TOP/TOP.15
				PLOTT	99-06-29	HOFBERGE	
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ROHDE&SCHWARZ			ZEICHN.-NR. 1084.9800.01 S
				ZU GERAET SMIQ			REG.I.V. 1084.8004 ERSTE Z. 1084.8004.01

BLATT-NR. 18 +

FÜR DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR

AM-MODULATOR

+15VA
R1002 100
C256 33N
N6 NE5534D
C355 33N
R1003 100
-15VA
+7V5A
R988 47K
R980 5.62K
CONVERT_OFF
R975 12.1K
(4/10B,4/11E,18/6A)
PINA_P
(18/3D)
C419 33N
R991 2.2K
C38 220P

V170 BAR63
V171 BAR63
C558 47P
C559 47P
V108 BAR63
V110 BAR63
R967 301
R1152 301
C86 10P
L76 33N
C571 39P
PINA_P
(18/3B)

S1 SSW124
(18/12D) MIX_IF
C555 100P
C557 100P
R1149 1K
R1148 1K
C262 220P
C261 220P
L73 33N
L70 33N
SWITCH_B (18/2F,18/7B)
SWITCH_A (18/2F,18/7A)

N.F. R1040 10
N.F. C591 10P
R810 18.2
C147 33N
S3300 (19/1B)
R220 301
R471 301

S2 SSW124
FAM3300 (17/12C)
R219 10K
C534 100P
C533 100P
R1147 1K
R1146 1K
L69 33N
L12 33N
C260 220P
C259 220P
SWITCH_B (18/4D,18/7B)
SWITCH_A (18/4D,18/7A)

C333 47P

OUTPUT-STAGE

CONVERT_OFF
(4/10B,4/11E,18/1B)
R677 10K
V164 BSR18
R680 2.2K
V161 BSR13
SWITCH_A (18/2F,18/4D)
R1151 3.92K
R1096 2.2K
R678 2K
-15VA
R36 100
C257 33N
R679 2K
R1144 2.2K
V162 BSR13
V163 BSR18
CONVERT_ON
(4/12E,2D/10A)
R38 10K
R1145 2.2K
SWITCH_B (18/2F,18/4D)
R1150 3.92K

IF-STAGE

V97 BAV99
R547 2.2K
R549 4.7K
C150 33N
V37 BC860
C143 33N
R726 2.2K
L202 18N
C244 33N
R146 301
V148 BFP450
C623 10P N.F.
R1052 100 N.F.
R890 15
R417 15
R401 15
C208 27P
R926 5.62

LO_2G4
(20/12B)
SM4TH
U9
LO
IF
RF
R26 47
C142 33N
R304 121
R303 121

LO-DRIVER

08.13	
AEND. IND.	AEND MITTE

OUTPUT STAGE

1085.0020

C69 33N
R43 270
C68 33N
R42 270
R553 5.62
V103 SHF-BB
C384 39P
C164 33N
L85 47N
L54 22N
L164 2.2U
R995 270
C61 10N
R895 10
V104 SHF-189
R554 5.62
C385 39P
L135 w=.3 l=7 PCB
C165 33N
C569 0.5P
L189 w=.3 l=3.6 PCB
C453 0.6P
L190 w=.3 l=5.7 PCB
L191 w=.3 l=5.3 PCB
L193 w=.3 l=2.8 PCB
C482 0.6P
L194 w=.3 l=1.25 PCB
L192 w=.3 l=1.1 PCB
C486 0.7P
T1 SYMUEBTRG.
FERRIT
X249 FIQOUT SMA-BU
C107 0.3P N.F.
R511 162
R902 51
C72 33N
R922 15
C544 1P
DETECTOR LINEARITY
+15VA
R523 100
C587 33N
N20 OP297
R512 100
C588 33N
-15VA
R296 10K
C505 0.6P
L84 47N
L53 22N
R994 270
L145 2.2U
R125 100
C604 39P
only this combination

	R1226	R411
I	N.F.	390k
II	121R	470K
III	51R	680k

R1226 trimmwert/selected
V194 BZV55B3V3
R15 20
V10 BZV55B4V7
C70 10N
R671 1K
R774 4.7K
TL074ACD N1
R775 4.7K
V1 BSP31
C163 10U
R673 680
C585 33N
R1222 1K
R1223 1K
R1224 1K
V133 N.F. BZV55B7V5
V131 N.F. BZV55B5V1 0.5W
V100 N.F. BZV55B2V7 0.5W
C408 220N
R672 5.62K
R224 10K
trimmwert/selected
R411 470K
C162 100N
R728 392K
L162 10U
R1217 N.F. 200
R1218 N.F. 10K
R1060 20K
R965 10K
R1028 470
C586 33N
N2 TL074ACD
C602 220P
R302 100
V60 BCP68-16
C601 220N
R1216 100 N.F.
R1215 100 N.F.
L77 10U
C603 220N
L207 10U N.F.
+15VA
+24VA
OPU-10V
R1300 51.1
R13 20
V195 BZV55B2V7
V2 BSP31
C202 10U
R627 560
C584 33N
R1221 1K
R1220 1.21K
V135 BZV55B5V1 N.F.
V153 BZV55B6V2 N.F.
R225 10K
R361 392K
OPU+15V
C205 100N
R684 220K
+15VA
L63 10U
C371 220N
L147 10U
N2 TL074ACD
R413 100
V121 BSR13
C233 220P
R963 15K
C232 220N
R711 560
C194 33N
R588 10K
OPU-10V
C156 33N
C599 10P
R1046 1M
R1044 1M
N20 OP297
OPU+15V
R1067 20K
R622 30.1K
R1045 1M
R1043 1M
R1064 220K
R822 0
R300 82.5
V46 BAT 15-03 W
R16 51
C547 220P
C637 100N
V47 BAT 15-03 W
R301 0
C488
C549 100N 4.7N
V151 SST108
R946 68K
R945 1K
V43
DETSLOW_OFF
R565 2.2K (4/9B)
R865 1K
BC850B
V142 BC850B
R380 10K
R832 1K
C542 33N
R332 100
-15VA
R921 330
V105 HSMS2825PAAR
R321
R1063 N.F. 220K
C545 1P
R1030 1K
N39 AD744KR
R811 1K
R829 3.01K
C546 1P
N41 AD744KR
R564 1K
V_DETOUT (22/2C)
P68 N.F.
R344 20K
R907 4.7K
D_DETOUT (3/7C)
C73 33N
R345 10K
C600 10P
R1050 1M
R1049 1M
N20 OP297
R1068 18.2K
R1047 1M
R1033 47K
R1065 220K
R1048 1M
OPU-10V
C529 33N
R1058 N.F. 1K
V105 HSMS2825PAAR
R322 470
C621 1P
R519 330
N40 AD744KR
R830 1K
R940 470K
R941 150K
C212 33N
OPU-10V
C424 33N
R927 22
R932 130
R903 1M
OPU+15V

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
08.13			

	DATUM	NAME
1GPK		
BEARB.		HO
GEPR.		
NORM		
PLOTT	99-06-29	HBOFBERGE

BENENNUNG
IQ-MODULATOR
IQ-MODULATOR
TOP/TOP.17

ROHDE&SCHWARZ

ZEICHN.-NR. 1084.9800.01 S

BLATT-NR. 19 +

ZU GERAET SMIQ | REG.I.V. 1084.8004 | ERSTE Z. 1084.8004.01

OUTPUT STAGE

1085.0020

S3300 (18/SC)

R891 10 | C445 0.4P | R281 10K | V18 BZV55B4V7 | C63 10N | R666 1K

V144 SHF-BB | C60 33N | R22 270 | R473 5.62 | C374 100P | C161 33N | R858 22 | C199 33N | R894 10

L4 47N | L37 22N | L78 2.2U | R996 270

V103 SHF-BB | C68 33N | R42 270 | R553 5.62 | C384 39P | C164 33N

L85 47N | L54 22N | L164 2.2U | R995 270

R474 220 | R513 220 | C506 0.4P | R295 10K | R661 1K | V7 BZV55B4V7 | C61 10N

R895 10 | R296 10K | C505 0.6P | V104 SHF-189

R554 5.62 | C385 39P | L135 w=.3 l=7 PCB | C165 33N | L189 w=.3 l=3.6 PCB | L190 w=.3 l=5.7 PCB | L191 w=.3 l=5.3 PCB

C569 0.5P | C453 0.6P | L193 w=.3 l=2.8 PCB | C482 0.6P

L84 47N | L53 22N | L145 2.2U | R994 270 | R125 100 | C604 39P

C69 33N | R43 270

only this combination

	R1226	R411
I	N.F.	390k
II	121R	470K
III	51R	680k

R1226 121 trimwert/selected | V194 BZV55B3V3 | R15 20

V1 | C163 10U | R673 680 | C585 33N | BSP31

R1222 1K | R1223 1K | R1224 1K

V133 N.F. BZV55B7V5 | V131 N.F. BZV55B5V1 0.5W | V100 N.F. BZV55B2V7 0.5W

L162 10U

C599 | R1046 1M | R1044 1M | N20 OP297 | OPU+15V | R1067 20K | R622 30.1K | R1045 1M

R300 82.5 | V46 BAT 15-03 W | R16 51 | C547 220P

DETSLOW_OFF | R565 2.2K (4/98) | V43 BC860B | R865 1K

R1300 51.1 | R13 20 | V195 BZV55B2V7 | V2 BSP31 | C202 10U | R627 560 | C584 33N | R1221 1K | R1220 1.21K

V135 BZV55B5V1 N.F. | V153 BZV55B6V2 N.F.

C409 220N | R647 5.62K | R225 10K | TL074ACD N1 | R361 392K | OPU+15V | C205 100N | R684 220K

R727 4.7K | N1 TL074ACD | R729 4.7K

R1301 51.1 | R14 20 | V6 BSP31 | C207 10U | R664 330 | C583 33N | V143 | C411 220N | R663 5.62K | R283 10K | TL074ACD | OPU+15V BZV55B5V1 0.5W | R362 330K | C206 100N | R685 150K

R769 4.7K | TL074ACD | R733 4.7K

+7V5A | L61 22U | L146 10U | C152 220N

V10 BZV55B4V7 | C70 10N | R671 1K | R774 4.7K | TL074ACD N1 | R775 4.7K

C408 220N | R672 5.62K | R224 10K | TL074ACD N1 | trimwert/selected R411 470K | OPU+15V | C162 100N | R728 392K

+15VA | L63 10U | C371 220N | N2 TL074ACD | R413 100 | V121 BSR13 | C233 220P | R963 15K | R711 560 | R588 10K | C194 33N | OPU-10V

L147 10U | C232 220N

N.F. R1217 200 | N.F. R1218 10K | R1060 20K | R965 10K | R1028 470 | N2 TL074ACD | C602 220P | R302 100 | V60 BCP68-16 | C601 220N | C586 33N | OPU-10V

R1216 100 N.F. | R1215 100 N.F. | L77 10U | C603 220N | +15VA | L207 10U N.F. | +24VA

+15VA | R405 10 | C535 33N | N40 AD744KR | R404 10 | C536 33N | -15VA

+15VA | R406 10 | C538 33N | N41 AD744KR | R467 10 | C537 33N | -15VA

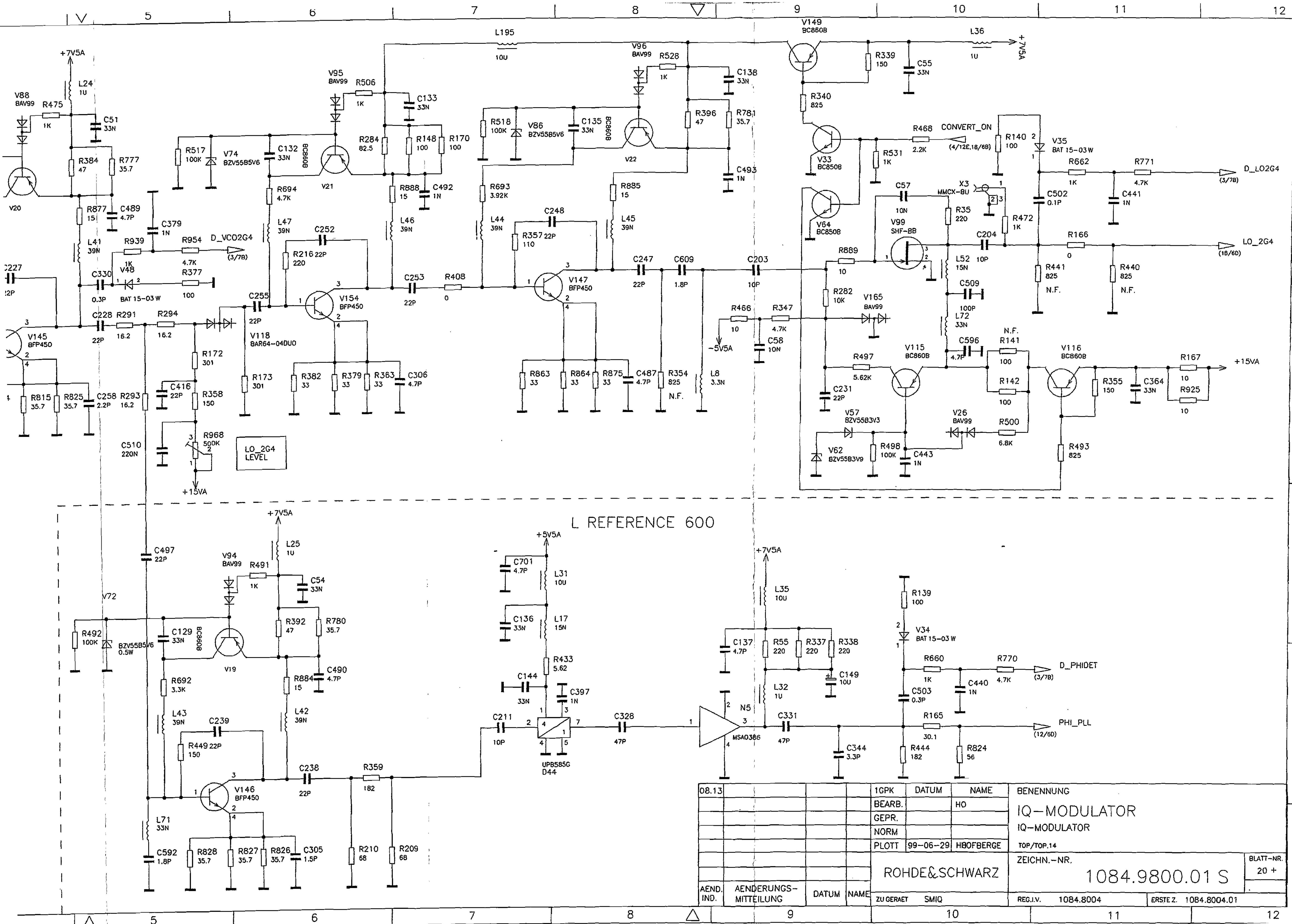
+15VA | R892 10 | C540 33N | N39 AD744KR | R900 10 | C539 33N | -15VA

+24VA | R378 100 | C154 33N | N2 TL074ACD | R395 100 | C153 33N | -5V5A

+15VA | R391 100 | C155 33N | N1 TL074ACD | R394 100 | C156 33N | -15VA

AEND. IND.	AENDE MITTEI
08.13	

FOLK DIESE UNTERLAGE BEHALTEN WIR UNS ALLE RECHTE VOR



08.13				1GPK	DATUM	NAME	BENENNUNG
				BEARB.		HO	IQ-MODULATOR
				GEPR.			IQ-MODULATOR
				NORM			
				PLOTT	99-06-29	HBOFBERGE	TOP/TOP.14
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ROHDE&SCHWARZ			ZEICHN.-NR. 1084.9800.01 S
				ZU GERAET	SMIQ		REG.I.V. 1084.8004

BLATT-NR. 20 +

ERSTE Z. 1084.8004.01

VCO-2G4

LO DRIVER

L REFERENCE 600

TUNE_VCO (12/110)

LO_2G4 LEVEL

D_VCO2G4 (3/78)

+7V5A

+15VA

-15VA

-5V5A

L108 PCB l=15 w=0,3

C452 PCB l=2.0 =0.3 =90

V130 BB535

L59 39N

L58 39N

C501 0.2P

C420 0.8P

R1021 4.75

C289 220P

V111 BFG540X

L1 55R(Z)

L51 22N

C290 4.7P

R464 68

C485 100P

C421 1.2P

R215 182

C200 10P

R490 1.82K

R436 2.74K

C625 220U

C800 1U

C320 22P

R478 10K

V70 BC850B

C608 4.7U

R326 51

L60 33N

R496 3.92K

R943 51

C326 22P

R346 6.8K

C269 220N

L39 1U

V88 BAV99

R475 1K

L24 1U

C51 33N

R532 100K

V87 BZV55B5V6

C141 33N

BC860B

V20

R384 47

R777 35.7

R691 3.92K

R877 15

C489 4.7P

L41 39N

L38 39N

C379 1N

R939 1K

R954 4.7K

V48 BAT 15-03 W

C330 0.3P

R377 100

C227

R447 22P 150

C228 22P

R291 16.2

R294 16.2

V145 BFP450

R814 35.7

R815 35.7

R825 35.7

C258 2.2P

R293 16.2

C416 22P

R358 150

R172 301

R968 500K

C510 220N

V95 BAV99

R506 1K

C133 33N

R517 100K

V74 BZV55B5V6

C132 33N

BC860B

V21

R284 82.5

R148 100

R170 100

R694 4.7K

R888 15

C492 1N

L47 39N

L46 39N

C252

R216 22P 220

C255 22P

V118 BAR64-04DUO

V154 BFP450

C253 22P

R408 0

L195 10U

V96 BAV99

R528 1K

C138 33N

R781 35.7

R396 47

C493 1N

R518 100K

V86 BZV55B5V6

C135 33N

BC860B

V22

R693 3.92K

R885 15

C248

R357 22P 110

L44 39N

L45 39N

V147 BFP450

C247 22P

C609 1.8P

C203 10P

R466 10

R382 33

R379 33

R363 33

C306 4.7P

R173 301

R863 33

R864 33

R875 33

C487 4.7P

R354 825 N.F.

L8 3.3N

V72

R492 100K BZV55B5V6 0.5W

C497 22P

V94 BAV99

R491 1K

L25 1U

C54 33N

C129 33N

BC860B

V19

R392 47

R780 35.7

C490 4.7P

R884 15

R692 3.3K

L43 39N

L42 39N

C239

R449 22P 150

V146 BFP450

C238 22P

R359 182

L71 33N

C592 1.8P

R828 35.7

R827 35.7

R826 35.7

C305 1.5P

R210 68

R209 68

C701 4.7P

L31 10U

C136 33N

L17 15N

R433 5.62

C144 33N

C397 1N

C211 10P

C328 47P

UPB585G D44

MSA0386

N5

C137 4.7P

08.13

AEND. IND.

AENDERU MITTEILU

DETAILLIERTE WIR UNS ALLE RECHTE VOR

C LF_GENERATOR

B SERBUS

R792 20K 0.1%
R793 20K 0.1%
R794 20K 0.1%
D9 DG413DY
D10 DG413DY
_ON (4/9A)
EXTDC_ON (4/9A)
EXTAC_ON (4/9B)
C389 10P
R791 20K 0.1%
N9 OP275GS
C404 8.2P
R834 68.1K 0.1%
R221 3.92K
R231 12K 0.1%
P11
R65 10
AC_MONI (3/8D)
D53 DG419DY
(4/9B)
NA

+15VA
R44 100
C108 33N
U1 DAC-08CS
C118 33N
R61 100
-15VA
C530 100P
(4/6A) PRESET0
(4/6A) PRESET1
(4/6B) PRESET2
(4/6B) PRESET3
(4/6B) PRESET4
(4/6B) PRESET5
(4/6B) PRESET6
(4/6B) PRESET7
U1 DAC-08CS
LSB MSB REF+ REF- VLC IOUT IOUT COMP
AM+6V
R47 2.74K
R435 1.82K
C513 33N
R686 560
R668 560
C381 33N
R947 4.7K
R948 4.7K
C380 100P
R24 1K
OP275GS
N8
R640 3.3K
R67 182
C455 100P
R919 20.0K
R755 4.7K
R233 10K
C425 1N
X6
V_PRESET (17/4B)
D_PRESET (3/7C)

AM_DEPTH
P10
N.F.
R51 5K
R476 0
D42 DAC 8143
VREF RFB IOUT1 IOUT2 AGND
C175 22P
OP275GS N7
AMOD
AM-6V
L121 10U
C78 33N
R563 20K 0.1%
R561 20K 0.1%
R305 3.32K 0.1%
C410 47P
R562 20K 0.1%
(21/2E) V_REFEXT
R66 100
(4/11A) AM_OFF

AM+6V
L122 10U
C79 33N
LEVEL_IQ
D11 DG413DY
V_REFIQ (9/3A,9/3C,9/5A,9/5C)
R1051 100
R434 5.11K
IQAM_ENA (4/9B)
D43 LEVEL DAC 8143
R876 0
C213 22P
OP275GS
R586 10
V_REFINT (22/2C)
R46 20.0K
C507 1N
R912 4.7K
R232 10K
D_REFAM (3/7C)

+15VA
R1013 150
C83 220N
N7 OP275GS
C84 220N
R1014 150
-15VA
R1017 150
C525 220N
N9 OP275GS
C526 220N
R1018 150
-15VA
+5V1D
+5V0D
R70 100
C85 33N
D32 74HC08T
D6 74HC86T

D6 74HC86T
R235 10K
D32 74HC08T
R234 10K
+15VA +5V0D
R570 1K
R567 1K
C80 33N
D9 DG413DY
C81 33N
D10 DG413DY
C82 33N
R571 1K
-15VA
+15VA +5V0D
R675 1K
R676 1K
C523 33N
D11 DG413DY
C524 33N
D53 DG419DY
C235 33N
R681 1K
-15VA
+15VA
R1015 150
C67 220N
N8 OP275GS
C119 220N
R1016 150
-15VA

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
08.13			

1GPK	DATUM	NAME	BENENNUNG
BEARB.		HO	IQ-MODULATOR
GEPR.			IQ-MODULATOR
NORM			TOP/TOP.3
PLOTT	99-06-29	HBOFBERGE	

ROHDE&SCHWARZ

ZEICHN.-NR. 1084.9800.01 S

BLATT-NR. 21 +

ZUGERAET SMIQ | REG.I.V. 1084.8004 | ERSTE Z. 1084.8004.01

C LF_GENERATOR

B SERBUS

X240 A5 EXT2 — R445 150K

X240 A6 INT1 — Z13 7.5DB — L160 220N — LF_INT (6/10C)

X240 A4 EXT1 — Z14 7.5DB — L156 220N — R63 3.92K — V59 BAV99 — +5V5A / -5V5A

X240 A3 LFOUT — Z17 7.5DB — L159 220N — LF_GEN (6/10B)

X240 A1 BLANK — R335 470 — Z15 7.5DB — R334 470 — D32 74HC08T

BLANK_ENA (4/10B) — D32 74HC08T — D6 74HC86T — D6 74HC86T — +5V1D — R754 4.7K

BLANK_INV (4/10B)

LEV_OFF (4/10A) — D32 74HC08T — KLEMM_N (22/5C)

X240 A9 CODAM — Z16 7.5DB — L157 220N

X240 A2 UREFAM — Z18 7.5DB — L158 220N — V_REFEXT (21/9D)

R916 10

UREFAM — X248 MMCX-BU

P12 — N34 AD744KR — C5 5.6P

R792 20K 0.1% — D9 DG413DY — AMINT_ON (4/9A)

R793 20K 0.1% — D9 DG413DY — AMEXTDC_ON (4/9A)

C606 220U — C607 220U

R794 20K 0.1% — D10 DG413DY — AMEXTAC_ON (4/9B)

D10 DG413DY — AC_MONI (3/8D)

D10 DG413DY — EXTCOMP_ON (4/9B)

D53 DG419DY — CODAM_ENA (4/9B)

C389 10P — R791 20K 0.1% — N9 OP275GS — C404 8.2P — R834 68.1K 0.1% — R221 3.92K — R231 12K 0.1% — N9 OP275GS — P11

+15VA — R44 100 — C108 33N — U1 DAC-08CS — C118 33N — R61 100 — -15VA

(4/6A) PRESET0
(4/6A) PRESET1
(4/6B) PRESET2
(4/6B) PRESET3
(4/6B) PRESET4
(4/6B) PRESET5
(4/6B) PRESET6
(4/6B) PRESET7

C530 100P

AM_DEPTH — R51 5K — N.F. — R476 0 — P10

AM-6V — L121 10U — IQAM_ENA (4/9B)

P11 — R65 10 — D42 DAC 8143 (VREF, RFB, IOUT1, IOUT2, AGND) — AMOD

C78 33N — R563 20K 0.1% — C175 22P — OP275GS N7 — R561 20K 0.1% — R305 3.32K 0.1% — C410 47P — (21/2E) V_REFEXT

+15VA — R68 100 — C358 220N — N34 AD744KR — C359 220N — R69 100 — -15VA

D6 74HC86T — R236 10K — D6 74HC86T — R235 10K — D32 74HC08T — R234 10K

+15VA +5V0D — R570 1K — R567 1K — C80 33N — D9 DG413DY — C81 33N — D10 DG413DY — C82 33N — R571 1K — -15VA

+15VA +5V0D — R675 1K — R676 1K — C523 33N — D11 DG413DY — C524 33N — D53 DG419DY — C235 33N — R681 1K — -15VA

+15VA — R1015 150 — C67 220N — N8 OP275GS — C119 220N — R1016 150 — -15VA

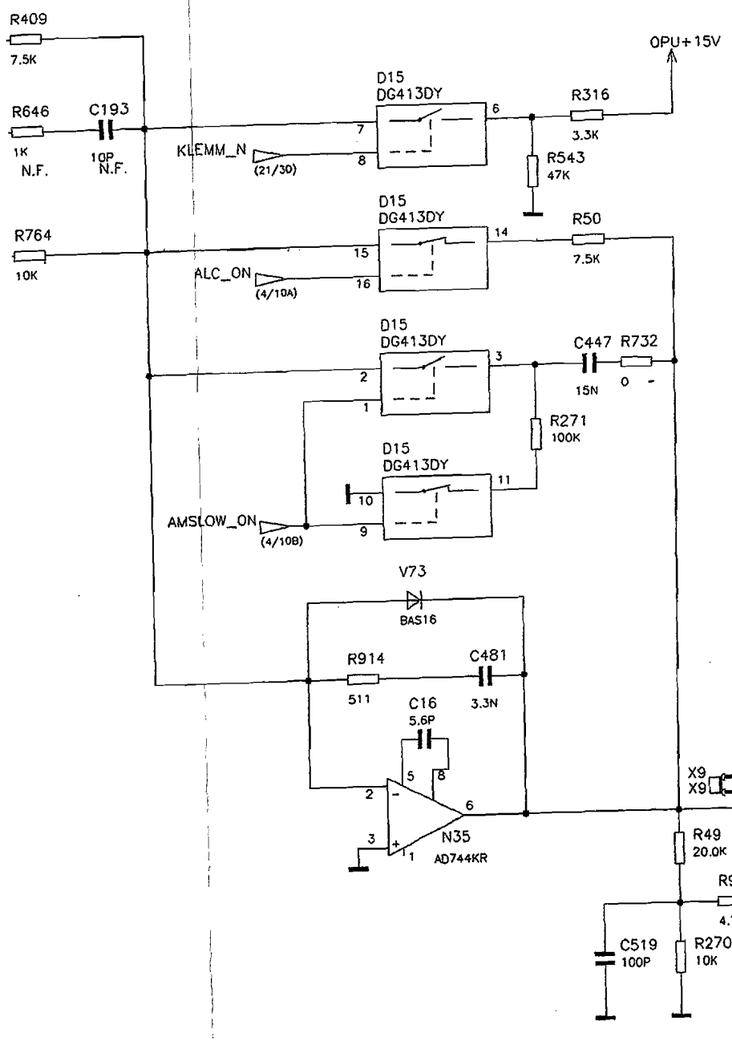
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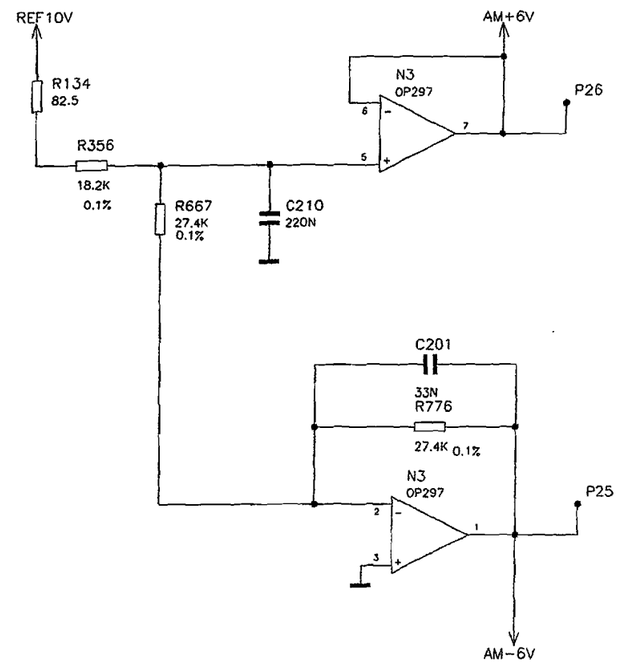
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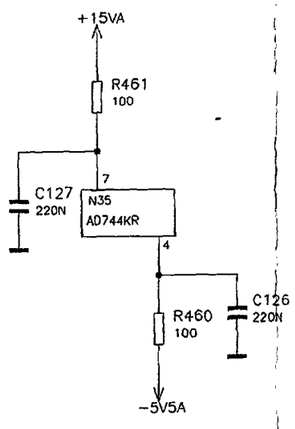
GENAUEN WIR UNSAUBE RECHTE VOR

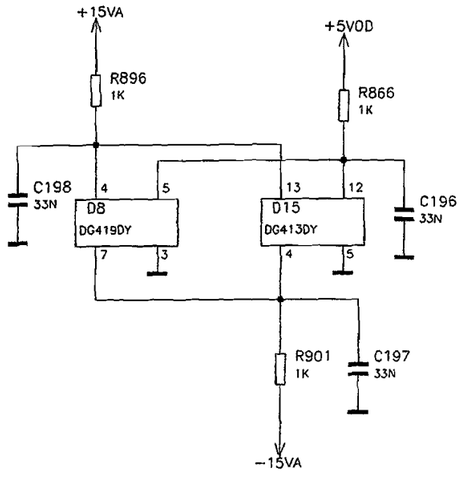
AM_MODULATOR

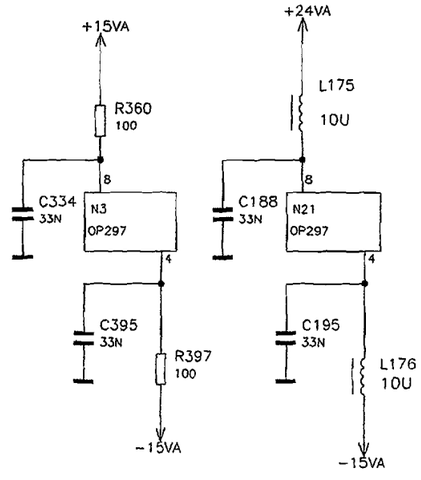
A SERBUS











08.13				1GPK	DATUM	NAME	BENENNUNG	
				BEARB.		HO	IQ-MODULATOR	
				GEPR.			IQ-MODULATOR	
				NORM			TOP/TOP.18	
				PLOTT	99-06-29	HOFBERGE	ROHDE&SCHWARZ	ZEICHN.-NR. 1084.9800.01 S
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET	SMIQ		REG.I.V. 1084.8004	ERSTE Z. 1084.8004.01

BLATT-NR. 22 -

AM_MODULATOR

A SERBUS

OPU+15V
P57
R462 0
R1061 20K
R1024 10K
C517 33N
N21 OP297
V155 BC8508
R806 3.3K
R272 10K
REF10V
C263 220N
R274 15K
C192 33N
P58
R275 10K
N21 OP297
C580 33N
R645 10
OPU-10V
R431 100
L177 1U
+24VA

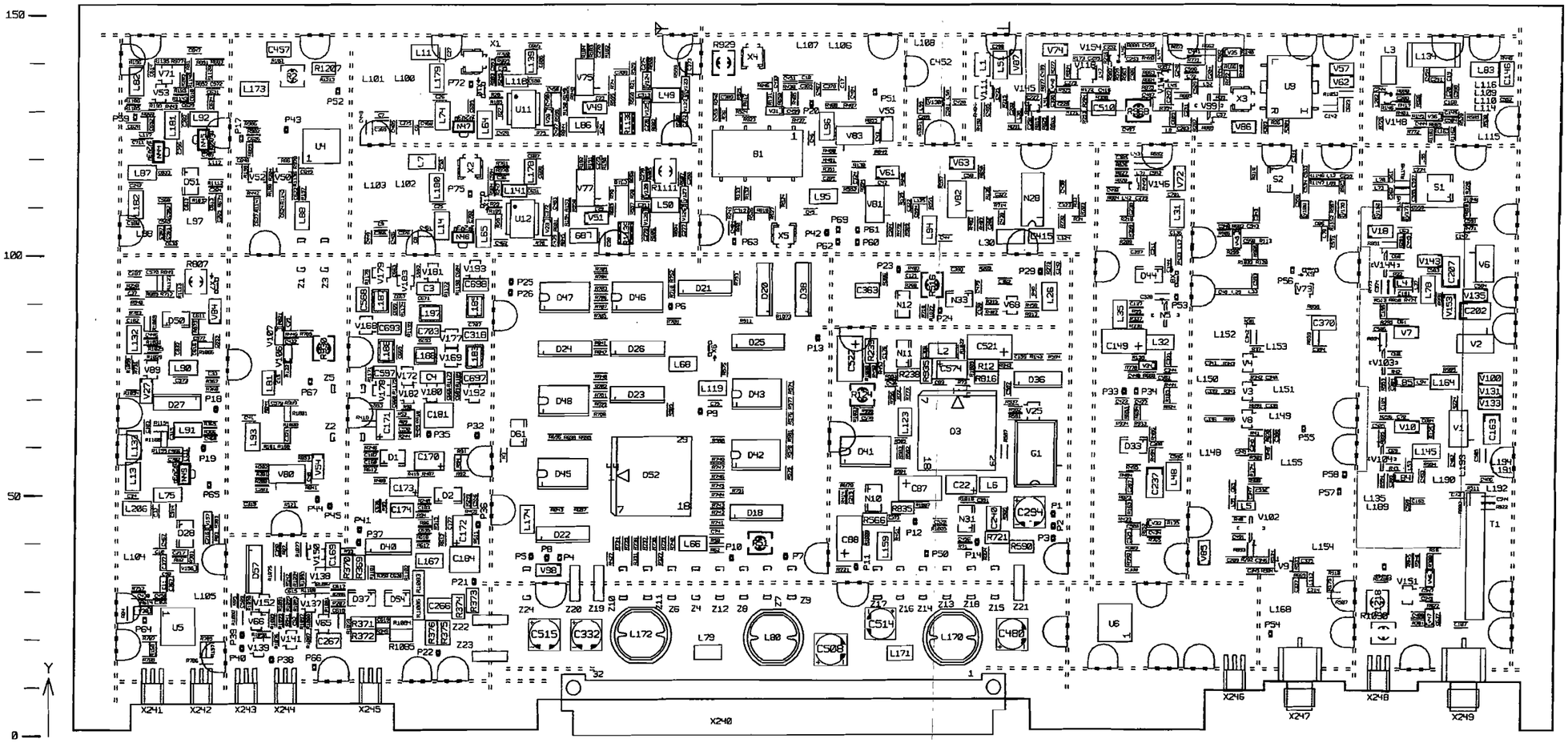
V_REFINT (21/12C)
R409 7.5K
V_DETOUT (19/12C)
R127 0
C516 100P N.F.
D8 DG419DY
R646 1K N.F.
C193 10P N.F.
DETOUT_ON (4/9B)
R764 10K
KLEMM_N (21/3D)
D15 DG413DY
R316 3.3K
OPU+15V
R543 47K
R50 7.5K
ALC_ON (4/10A)
C447 15N
R732 0
R271 100K
AMSLOW_ON (4/10B)
V73 BAS16
R914 511
C481 3.3N
C16 5.6P
N35 AD744KR
P56
X9
X9
R126 100
V_AMOD (17/8B)
C518 22P
R49 20.0K
R920 4.7K
D_AMOD (3/7C,3/8B)
C519 100P
R270 10K

+15VA
R461 100
C127 220N
N35 AD744KR
R460 100
C126 220N
-5V5A

08.13

AEND. IND.
AEND MITTE

BEHALTEN WIR UNS ALLE RECHTE VOR



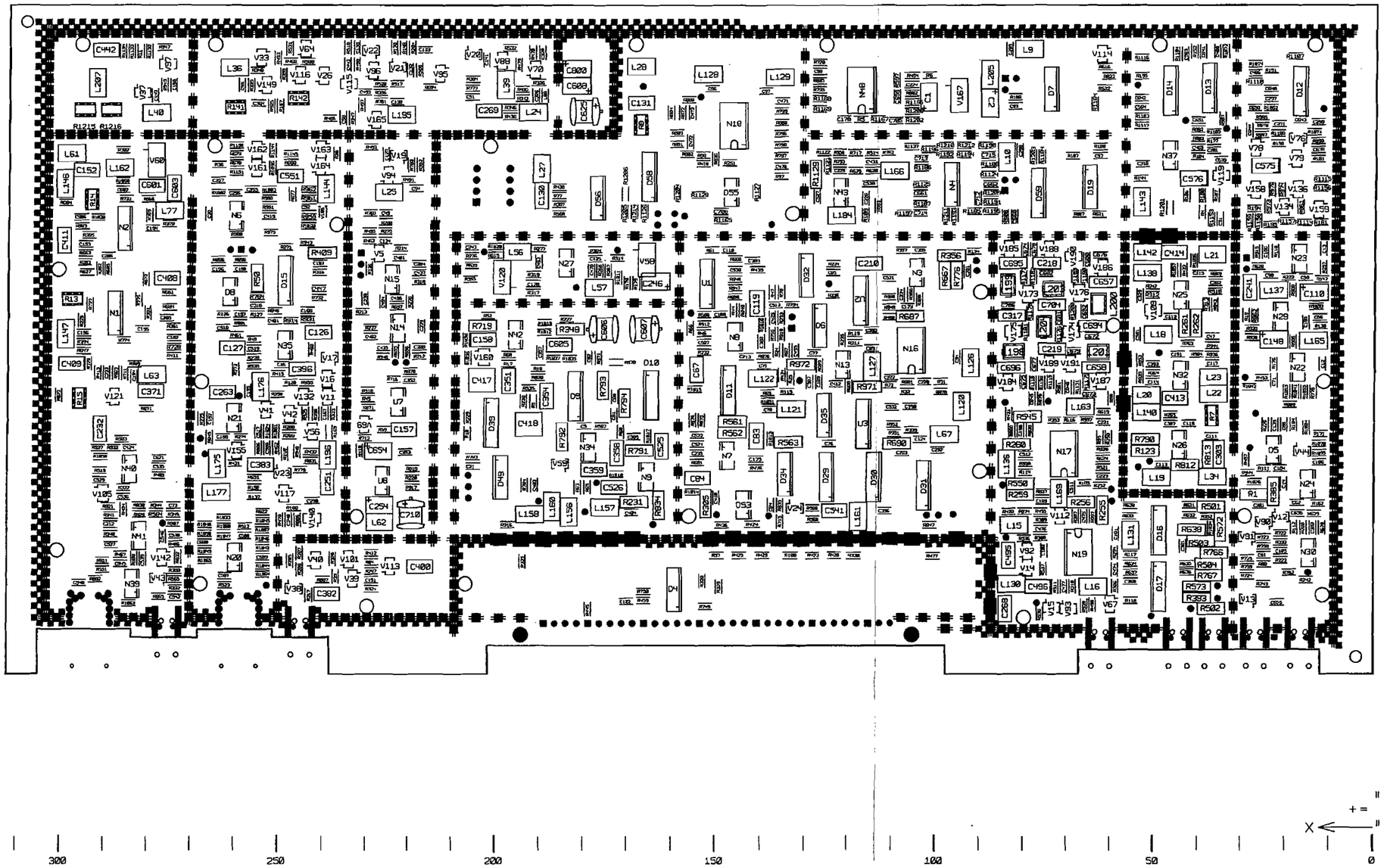
DARSTELLUNG SEITE B
VIEW ON SIDE B

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BAUELEMENTE UND BAUGRUPPEN SIND IN ANTISTATIK-VERPACKUNG ZU VERSENDEN UND ZU LAGERN.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES
SHIPPING AND STORAGE IN ANTISTATIC PACKING MATERIAL.

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FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

00.01				IGPK	DATUM	NAME	BENENNUNG
				BEARB.		HO	IQ-MODULATOR
				GEPR.		HO	IQ-MODULATOR
				NORM			
				PLOTT	88-11-17	HOFBERGE	
							ZEICHN.-NR. 1084.9800.01 D
							BLATT-NR. 1+
AEND.-IND.	ÄNDERUNGS-/LETTEILUNG	DATUM	NAME	ROHDE&SCHWARZ			REG.:V. 1084.6004 ERSTE Z. 1084.6004
				ZU GERÄT SMIQ			



DARSTELLUNG SEITE A
VIEW ON SIDE A

ACHTUNG: ESDI
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GEÄN				1QPK	DATUM	NAME	BENENNUNG
				BEARB		HO	IQ-MODULATOR
				GEPR.		HO	IQ-MODULATOR
				NORM			
				PLOTT	88-11-17	HOFBERGE	
							ZEICHN.-NR.
							1084.9800.01 D
ÄNR/ IND.	ÄNDERUNGS-MITTEILUNG	DATUM	NAME	ROHDE&SCHWARZ			BLATT-NR. 2 V. BL.
				ZI GEPRÜFT SM10			REF.-U. 1084.8004 ERSTE-Z. 1084.8004

ROHDE&SCHWARZ

SERVICEUNTERLAGEN

Baugruppe IQ-CONVERTER

1084.9300.02

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7. Prüfen und Instandsetzen der Baugruppe

7.1 Funktionsbeschreibung

Die Baugruppe IQ-Converter (IQCON) kann in den Betriebsarten Vektormodulation oder CW betrieben werden.
Bei Vektormodulation (IQ-Betrieb) setzt die Baugruppe das IQ-modulierte 300 MHz Eingangssignal (X223) des IQ-Modulators (Baugruppe IQMOD) in den Frequenzbereich 750...3300 MHz um. Als LO-Signal dienen die Frequenzen 750...1500 MHz der Baugruppe Summierschleife oder SMT-Synthesizer (Eingang X221). Diese werden auf einem zweiten Pfad verdoppelt, um so das notwendige Frequenzspektrum am LO von 1050...3000 MHz zu erhalten. Zur Filterung des unerwünschten Seitenbandes bei der Mischung sowie aller weiteren entstehenden Mischprodukte dienen die abstimmbaren Bandpassfilter von 750...3300 MHz. Zum Ausgleich der entstehenden Pegeltoleranzen sowie des Pegelfrequenzganges dient ein Pegelstellglied (Level Preset) sowie Festabgleiche in den drei Filterzweigen. Die notwendigen Kalibrierdaten zur Einstellung der Filter sind in einem EEPROM abgespeichert. Dieses befindet sich ebenfalls auf der Baugruppe.
Im CW-Betrieb wird das LO-Signal über einen Pindiodenschalter und ein Festmantelkabel W22 direkt zum Ausgangsverstärker geführt. Das Frequenzspektrum beträgt hierbei 450...3000 MHz. Die Frequenzen von 3000...3300 MHz werden auf dem IQ-Pfad durch Mischung erzeugt. Der Ausgangsverstärker liefert in beiden Betriebsarten den notwendigen Ausgangspegel von 4 dBm.

Die Baugruppe läßt sich in folgende Funktionseinheiten untergliedern:

- Oberwellenfilter
- Frequenzverdoppler und Filter für die Subharmonischen
- LO-Verstärker mit umschaltbarer Pegelregelung
- Bypass für den CW-Betrieb
- Mischer und rauscharmer Breitbandverstärker
- Abstimmbare Bandpaßfilter
- HF-Schalter und Ausgangsverstärker
- Ansteuerung und EEPROM

7.1.1 Oberwellenfilter

(Stromlaufblatt 2)
Das abstimmbare Oberwellenfilter filtert die Oberwellen des Ausgangssignals der Summierschleife oder des SMT-Synthesizers im Frequenzbereich 450...1500 MHz.
Als abstimmbare Filterelemente dienen die acht Kapazitätsdioden V153-V160, die parallel-antiseriell in den zwei Polen des Cauer-Filters angebracht sind. Die beiden Pole des Filters werden über die gemeinsame Abstimmspannung OWFIL abgestimmt.
Zum Umschalten in den Verdopplerpfad dienen die Pindiodenschalter V32-V37.

7.1.2 Verdopplerpfad

(Stromlaufblatt 3 und 4)
Als Frequenzverdoppler zur Erzeugung der Frequenzoktave 1500...3000 MHz dient der SMD-Baustein SFD 1001 (N8). Der notwendige Eingangspegel der Grundoktave (750...1500 MHz) von 10 dBm wird mit dem integrierten GaAs-Fet-Verstärker N17 erzeugt. Dessen Arbeitspunkt wird mit Hilfe des Transistors V30 geregelt.
Eine Kombination von zwei schaltbaren Hochpaßfiltern und zwei abstimmbaren Tiefpaßfiltern unterdrücken die bei der Frequenzverdopplung entstehenden Nebenwellen auf -74 dBc. Zur Entkopplung der Filter sowie zur notwendigen Pegelverstärkung werden bipolare Vertärker mit einer Verstärkung von je 7 dB eingesetzt (V148-V150). Deren Strom im Arbeitspunkt wird über die Regeltransistoren V27, V28 und V31 eingestellt.
Als Abstimmelemente der Filter dienen die Kapazitätsdioden V191-192, V198-201 und V180-185. Sie werden mit den DC-Spannungen TUNEVD, TUNEVD2 sowie VDFIL eingestellt.
Die unterschiedlichen Pegelniveaus im Verdopplerpfad und im Pfad des Oberwellenfilters werden mit dem Potentiometer R694 aufeinander abgeglichen.

7.1.3 LO-Verstärker und Pegelregelung

(Stromlaufblatt 5)
Der GaAs-Fet-Vertärker (V106) liefert den notwendigen Pegel von 17 dBm zur Ansteuerung des LO-Eingangs des Mischers. Er läßt sich im CW-Betrieb abschalten.
Die Gesamtverstärkung der vierstufigen Verstärkerkette liegt bei ca. 34 dB. Die Vorstufen werden mit den Bipolartransistoren V186 und V147 sowie dem GaAs-Fet-Transistor V107 aufgebaut. Sämtliche Ströme im Arbeitspunkt werden geregelt (V3-V6).
Die auftretenden Pegelschwankungen im gesamten LO-Pfad werden über eine Regelung kompensiert. Als Stellglied für die Amplitudenregelung wird ein Pindioden-Modulator (V42 und V38) eingesetzt. Dieser wird durch den PI-Regelverstärker N18 angesteuert. Die Sollgröße wird über das Potentiometer R494 vorgegeben. Zur Messung des HF-Pegels dient die Detektordiode V59. Eine zweite gleiche Diode (V58) dient zur Temperaturkompensation.
Die Regelbandbreite der Pegelregelung beträgt ca. 5...100 kHz.

7.1.4 Bypass für den CW-Betrieb

(Stromlaufblatt 5 und 13)
Über die beiden Pindiodenschalter V39-41 sowie V46-48 wird das Signal nach den LO-Vorstufen über das Festmantelkabel W22 direkt zur Ausgangsstufe geführt. Die Schalter müssen eine Dämpfung von ca. 70 dB besitzen, da im IQ-Betrieb die Ausgangsfrequenz um 300 MHz versetzt ist und somit die am Schalter anliegende LO-Frequenz als nichtharmonische Nebenwelle auftreten würde.

7.1.5 IQ-Betrieb

(Stromlaufblatt 6)
Der IQ-Mischer (U8) ist das eigentliche Kernstück des IQ-Converters. Er erzeugt die IQ-modulierten Ausgangsfrequenzen von 750...3300 MHz. Der Mischer wird aufgrund der hohen Ausgangsfrequenzen invers betrieben. Die Einspeisung des vom IQ-Modulator erzeugten 300 MHz Signals (-11 dBm) erfolgt am IF-Eingang des Mischers. Der Mischer unterdrückt die entstehenden Mischprodukte bis zu ± 300 MHz Abstand zum Träger, da diese nicht gefiltert werden. Für Ausgangsfrequenzen bis 1800 MHz wird das untere Seitenband der Mischung verwendet. Über 1800 MHz wird aufwärts gemischt, um so das Frequenzspektrum bis 3300 MHz zu erhalten.
Die Ausgangsfrequenzen (750...3300 MHz) am RF-Port des Mischers werden durch den nachfolgenden breitbandigen Verstärker (Traveling Wave Verstärker mit den Transistoren V100-V102) um ca. 10 dB verstärkt. Die zweite nachfolgende Stufe mit dem GaAs-Fet V109 verstärkt den Pegel nochmals um ca. 11 dB. Bei beiden Stufen wird der Strom im Arbeitspunkt über die Transistoren V21 und V23 geregelt. Der nachfolgende feste Cauer-Hochpass 7. Ordnung hat eine Grenzfrequenz von 700 MHz und unterdrückt unerwünschte feststehende Mischprodukte.
Zum Ausgleichen des Pegelfrequenzganges des IQ-Pfades sowie der Temperaturdrift dient das Level-Preset (Pegelstellglied V54). In einer Kalibrierroutine wird in einem festen Frequenzraster der Pegel solange nachgestellt, bis der Sollpegel von 4 dBm am Ausgang erreicht wird. Als Meßstelle dient hierbei der Pegeldetektor (V61, Stromlaufblatt 13) am Baugruppenausgang. Die Einstellung des Pegelstellgliedes erfolgt über eine Stromquelle mit Differenzverstärker (Signal LPRE1, V24-V26)

7.1.6 Abstimmbare Bandpaßfilter

Die abstimmbaren Bandpaßfilter filtern die unerwünschten Mischprodukte des IQ-Mischers >= 300 MHz vom Träger. Die Pole aller Filter werden jeweils so eingestellt, daß bezüglich Dämpfung der unerwünschten Mischprodukte sowie Amplitudenverzerrung im Durchlaßbereich (± 30 MHz) optimales Verhalten vorliegt. Im Durchlaßbereich besitzen die Filter eine typische Amplitudenverzerrung von < 0.025 dB/MHz sowie eine typische Laufzeitverzerrung von < 15 ps/MHz.
Die Filter werden über die drei Abstimmspannungen IQFIL1, IQFIL2 und IQFIL3 eingestellt. Die eingestellte Spannung gilt nur für das jeweils sich in Betrieb befindliche Filter. Die Abstimmspannung liegt im Bereich von 0...21 V mit einer Auflösung von 8 bit. Die Filtereinstellwerte werden in der Vorprüfung der Baugruppen ermittelt und im EEPROM (D17, Stromlaufblatt 14) abgelegt.
Eine neue Kalibrierung der Filter wird nur dann notwendig, wenn Teile der Filter ausgetauscht werden mußten.

7.1.6.1 1. Filter 750...1800 MHz

(Stromlaufblatt 7 und 8)
Das erste Filter besitzt hauptsächlich einen Tiefpaßcharakter, da die kritischen Nebenwellen oberhalb des Trägers liegen. Es beinhaltet drei identische Tiefpaßfilter, die mit den Kapazitätsdioden V166-V169, V171-V172 und V213-V215 abgestimmt werden.

Zwischen dem zweiten und dem dritten Tiefpaßfilter befindet sich ein abstimmbarer Hochpaß, der über die Kapazitätsdioden V170 und V189-V190 mitgeführt wird. Er dämpft die unterhalb des Trägers liegenden Nebenwellen. Am Ausgang dieses Filterpfades befindet sich noch ein Hochpaß mit einer Grenzfrequenz von 700 MHz, um feste Mischprodukte zu unterdrücken.
Zwischen den Filtern sind zu deren Entkopplung Pufferverstärker angebracht (GaAs-Fet-MMIC's N12-N14 und N21). Die Verstärkungsschwankungen in diesem Filterpfad werden über ein Pindiodenstellglied V44 mit dem Potentiometer R692 abgeglichen. Dessen Dämpfung ist temperaturabhängig (R549) und kompensiert den typischen Pegeltemperaturgang.
Drei der vier Pufferverstärker werden im Nichtbetrieb des Filters über die Stromversorgung abgeschaltet.

7.1.6.2 2. Filter 1800...2500 MHz

(Stromlaufblatt 9 und 10)
Das zweite IQ-Filter besitzt hauptsächlich eine Hochpaßfunktion, da hier das obere Seitenband der Mischung verwendet wird. Es besitzt drei identische Hochpaßfilter 5. Ordnung, dessen Pole über die Kapazitätsdioden V187-V188, V164-V165, V218 und V212 abgestimmt werden.
Ein abstimmbares Tiefpaßfilter (Kapazitätsdioden V161-V163) sorgt für die Dämpfung der oberhalb des oberen Seitenband liegenden Mischprodukte. Ein festes gedrucktes Tiefpaßfilter mit einer Grenzfrequenz von ca. 2600 MHz am Filterausgang unterdrückt die LO-Mischprodukte zweiter und dritter Ordnung.
Der Traveling Wave Verstärker V91-V93 sowie die MMIC-Verstärker N10, N11 und N20 bilden die Pufferstufen zwischen den Filtern.
Der Pegelabgleich in diesem Filter findet mit R691 statt.

7.1.6.3 3. Filter 2500...3300 MHz

(Stromlaufblatt 11 und 12)
Filter 3 ist fast identisch zu Filter 2 aufgebaut. Die drei Hochpaßfilter werden mit den Kapazitätsdioden V173-V176 und V216-V217 abgestimmt. Das abstimmbare Tiefpaßfilter liegt hier am Filterausgang und wird mit den Dioden V177-V179 eingestellt. Zur Entkopplung sorgen hier die Verstärker V94-V96, N15-N16 und N22.

7.1.6.4 HF-Schalter für die IQ-Filter

(Stromlaufblatt 6 und 13)
Zur Auswahl des entsprechenden Filterpfades sind Pindiodenschalter vorgesehen (V19, V22 und V202 am Filtereingang sowie V49-V53 am Filterausgang).
Die Operationsverstärker N4 und N5 liefern den notwendigen Strom, um die Dioden niederohmig in Flußrichtung zu betreiben (Signale IQCH1, IQCH2 und IQCH3).

7.1.7 Ausgangsteil und CW-Pegelregelung

(Stromlaufblatt 13)
Zur Erzeugung des notwendigen Ausgangspegels von 4 dBm dienen die beiden Verstärkerstufen N23 und V108, wobei der MMIC-Verstärker N23 nur im IQ-Pfad vorhanden ist.
Zwischen den Verstärkern liegt der Wahlschalter für IQ- oder CW-Betrieb (Pindiodenschalter V46-V48).
Der Pegeldetektor (V61) nach dem Endverstärker dient im CW-Betrieb zum Regeln des Ausgangspegels auf ein festes Niveau. N19-1 ist hierbei ein Differenzverstärker, der die detektierte HF-Spannung verstärkt und N19-2 der PI-Regelverstärker. Als Pegelstellglied dient der Pindioden-Modulator der LO-Pegelregelung (siehe 7.1.3).
Die Sollgröße des Ausgangspegels wird mit dem Potentiometer R495 eingestellt. Die beiden Pfade lassen sich über den integrierten Schalter D3 umschalten.
Im IQ-Betrieb dient der Pegeldetektor V61 zur Level-Preset-Kalibrierung (siehe 7.1.5).

7.2 Meßgeräte und Hilfsmittel

- Stromversorgungsgerät (z.B NGT35)
- HF-Spektrumanalysator bis 5 GHz (z.B FSEB, FSB)
- DC-Voltmeter, Amperemeter (UDS5)

7.3 Fehlersuche

Zur Fehlerdiagnose eignet sich ebenso das im Servicekit enthaltene Prüfprogramm, das umfangreiche Diagnosemöglichkeiten bietet. Die Sollwerte bzw. die typischen Werte der Abstimmspannungen der Filter, die während der Fehlersuche über die Diagnose gemessen werden, sind unter 7.4.7.1 und 7.4.7.2 zu finden.
Vor jeder Fehlersuche muß untersucht werden, ob die entsprechenden Daten richtig übertragen worden sind (7.4.7.3) und ob die wichtigen Referenz- und Regelspannungen (7.4.1) vorhanden sind.

7.3.1 Pegelregelung außer Toleranz

Fehlermeldung "IQCON ALC LOOP FAILURE"	Zunächst überprüfen in welcher Betriebsart und bei welchen Frequenzen die Pegelregelung außer Betrieb ist
nur für Frequenzen 450...1500 MHz im CW-Modus und 750...1200 MHz bei Vektormodulation	Fehler am Oberwellenfilter, Diagnosepunkt 2003 und 2011 überprüfen; Test Oberwellenfilter nach 7.4.2
	Fehler am HF-Schalter; Überprüfen ob Pindioden V32, V33 und V35, V37 in Flußrichtung betrieben sind (CH2ON: -12 V, CH1ON: -12 V)

nur für Frequenzen 0.3...450 MHz, 1500...3300 MHz im CW-Modus und 0.3...750 MHz, 1200...3300 MHz bei Vektormodulation	Fehler im Verdopplerpfad; Diagnose 2004 und 2012 überprüfen; Test Verdopplerpfad nach 7.4.3 ausführen
	Fehler am HF-Schalter; Überprüfen ob Pindioden V32, V34 und V36, V37 in Flußrichtung betrieben werden (CH2ON: 12 V, CH1ON: -12 V)
	Fehler am Pegelstellglied V55; Spannungsabfall an R534 messen, typ. 0.2...4 V
	Fehler im HF-Pfad (7.4.7.4)
nur im CW-Mode, bei allen Frequenzen	Überprüfen Detektor und Regelverstärker CW nach 7.4.4.3; Pegelabgleich CW nach 7.4.4.4 durchführen
	Fehler am HF-Schalter; Überprüfen ob Pindioden V39, V41 und V46, V48 in Flußrichtung betrieben werden (LO-ON: -12 V, IQOFF: 12 V)
nur bei Vektormodulation, alle Frequenzen	Arbeitspunkt LO-Vertärker V106 bei eingeschalteter Vektormodulation überprüfen (7.4.4.1)
	Detektor und Regelverstärker LO nach 7.4.4.5 überprüfen, Pegelabgleich LO nach 7.4.4.6 ausführen
	Fehler am HF-Schalter, Überprüfen ob Pindioden V39 und V40 in Flußrichtung betrieben sind (LO-ON: 12 V)
in beiden Betriebsarten, alle Frequenzen	HF-Pegel am Ausgang Oberwellenfilter bzw. Verdopplerpfad über Diagnose 2011 und 2012 überprüfen; falls kein Pegel vorhanden ist, liegt der Fehler am Oberwellenfilter oder im Verdopplerpfad; Fehlersuche s.o.
	Arbeitspunkte der HF-Verstärker innerhalb der Regelung (7.4.4.1) sowie gemeinsames Pegelstellglied (7.4.4.2) prüfen
	Schalter D3 zur Umschaltung der Regelungen untersuchen

7.3.2 Pegelfehler

Pegel außer Toleranz bei CW	Pegelabgleich nach 7.4.4.4 ausführen
Pegel außer Toleranz bei Vektormodulation	Level-Preset-Kalibrierung ausführen
Fehler bei der Level Preset Kalibrierung	Diagnosepunkt 2015 überprüfen im CW-Mode, notfalls Pegelabgleich CW nach 7.4.4.4 ausführen; Sicherstellen, daß Diagnose einwandfrei arbeitet
	Überprüfen des gemeinsamen HF-Pfades bei Vektormodulation; Prüfungen 7.4.5.1 - 7.4.5.3 der Reihe nach durchführen, Anweisungen nach 7.4.5 beachten
	je nach Frequenz, bei der die Level Preset Kalibrierung abbricht liegt der Fehler in einem der abstimmbaren IQ-Filter, hierzu Prüfung 7.4.6 für das entsprechende Filter
	HF-Schalter vor und nach den IQ-Filtern überprüfen, ob entsprechende Pindioden richtig in Flußrichtung betrieben werden; Überprüfen der Ansteuerspannungen auf ±12 V: IQCH1, IQ1IN, IQCH2, IQ2IN, IQCH3 und IQ3IN
	Fehler im HF-Pfad (7.4.7.4)

7.3.3 Spektrale Reinheit des Ausgangssignals FIQFIL

zu schlechte Oberwellen bei CW	Test Oberwellenfilter nach 7.4.2 für Frequenzen 450...1500 MHz
	Test Verdopplerpfad nach 7.4.3 für Frequenzen > 1500 MHz
	Arbeitspunkte der HF-Verstärker innerhalb der CW-Pegelregelung untersuchen (7.4.4.1)

zu schlechte Oberwellen bei Vektormodulation	Level-Preset-Kalibrierung ausführen Arbeitspunkte der Breitbandverstärker nachmessen (7.4.5.2) Arbeitspunkte der Pufferverstärker in den IQ-Filtern je nach entsprechendem Frequenzbereich überprüfen (7.4.6.2)
Subharmonische Nebenwellen für Frequenzen 1500...3000 MHz im CW-Betrieb	Test der Abstimmspannungen der Filter im Verdopplerpfad nach 7.4.3.1 durchführen Fehler am HF-Schalter, Überprüfen ob Pindioden V32, V33 bzw. V35, V37 sperren, Schaltspannungen untersuchen (CH2ON: 12 V, CH1ON: -12 V)
Nichtharmonische Nebenwellen bei Vektormodulation in ± 300 MHz oder ± 600 MHz neben dem Träger	Filterabstimmspannungen nach 7.4.6.1 überprüfen
Nichtharmonische Nebenwelle bei 600 MHz	Level-Preset-Kalibrierung ausführen Arbeitspunkte der Verstärker im HF-Pfad überprüfen (7.4.5.2 und 7.4.6.2)

7.4 Prüfen und Abgleichen

Alle Meßwerte ohne Toleranzangaben sind als Richtwerte zu verstehen. Spannungsangaben ohne weitere Bezeichnung bedeuten DC-Spannungen.
Im Servicekit ist ein Adapter vorhanden, mit dem die Baugruppe zugänglich gemacht werden kann. Der Adapter wird statt der Baugruppe in das Chassis gesteckt und die HF-Verbindungen an den Buchsen X221 und X223 hergestellt. An den HF-Ausgang X227 wird direkt ein Meßkabel angeschlossen. Die Baugruppe kann jetzt auf den Adapter gesteckt werden.
Vor allen Prüfungen ist mit einem PRESET am Gerät die Baugruppe in einen definierten Zustand zu bringen. Werden bei den Frequenzeinstellungen keine weiteren Angaben gemacht, so ist ein Betrieb im CW-Modus gemeint.
Bei Prüfungen im IQ-Modus (VECTOR MOD:STATE ON) ist am I- oder Q-Eingang an der Fronteinheit eine Spannung von 0.5 ± 0.01 V einzuspeisen.

7.4.1 Prüfen der Datenübertragung und Stromversorgung

(Hierzu Stromlaufblatt 14-17)
Gemäß Gerätestandard wird die Baugruppe IQCON über eine serielle Schnittstelle unter Verwendung des Bausteins SERBUS-D angesteuert. Die Datenübertragung zur Einstellung der Baugruppe erfolgt hierbei über Subadresse 1. Die zweite Subadresse dient zum Datenverkehr mit dem EEprom, welches die kompletten Kalibrierdaten zur Ansteuerung der Filter beinhaltet.
Das MSB wird zur Baugruppeneinstellung zuerst übertragen und liegt an Q8 (Pin 11) der entsprechenden Latches. Einstellungen und zugehörige Daten sind unter dem Kapitel 7.4.7.3 zu finden.
Die Stromaufnahme der Baugruppe kann überprüft werden, indem anstelle der Spulen L3, L4, L5, L304 und L305 ein Amperemeter eingeschleift wird (7.6).
Die wichtigsten Referenz- und Versorgungsspannungen werden mit einem DC-Voltmeter nachgemessen.

Meßpunkt	Art der Spannung	Spannung [V]
P9	Referenz für alle geregelten Spannungen	10 ± 0.02
P10	Referenzspannung zur Erzeugung der Filterabstimmspannungen	10 ± 0.02
P11	Referenzspannung für Arbeitspunkt- und Pegelregelungen	-10 ± 0.02
P7	Geregelte Versorgungsspannung für HF-Verstärker	4.54 ± 0.1
P12	Geregelte Versorgungsspannung für HF-Verstärker und Referenzspannung	6.65 ± 0.1

7.4.2 Test Oberwellenfilter

Bevor das Oberwellenfilter auf sein HF-Verhalten überprüft wird (7.4.2.2) ist eine Kontrolle der Filterabstimmspannungen nach 7.4.2.1 bzw. eine Kontrolle der übertragenen Daten nach 7.4.7.3 empfehlenswert.

7.4.2.1 Test der Abstimmspannungen

(Hierzu Stromlaufblatt 2)
➢ Frequenzen nach Tabelle einstellen und Abstimmspannungen mit DC-Voltmeter nachmessen

Einstellung	Spannung OWFIL [V]	Spannung an C15 [V]
FREQ 450.1 MHz	0.4...2.5	0.3...2
FREQ 1500 MHz	21 ± 0.3	16.1 ± 0.3

7.4.2.2 Übertragungsverhalten des Oberwellenfilters

(Hierzu Stromlaufblatt 2 und 5)
Es wird die Übertragungsfunktion des Oberwellenfilters bei der unteren und oberen Grenzfrequenz gemessen. Um bei definierter Last zu messen, wird ein Strom von 0.2 mA an P4 (Steckbrücke P4-5 entfernen) eingespeist.

- Spektrumanalysator mit geeigneten HF-Übergängen an Testbuchse X2 anschliessen

- Einstellungen: **FREQ 450.1 MHZ**

➢ HF-Pegel Grundwelle messen: -23 ± 4 dBm
➢ HF-Pegel 1. Oberwelle 900.2 MHz messen: typ. < -50 dBc
➢ HF-Pegel 2. Oberwelle 1350.3 MHz messen: typ. < -40 dBc

- Einstellungen: **RF 1100 MHZ**

➢ HF-Pegel Grundwelle messen: -23 ± 5 dBm
➢ HF-Pegel 1. Oberwelle 2200 MHz messen: typ. < -40 dBc
➢ Hf-Pegel 2. Oberwelle 3300 MHz messen: typ. < -40 dBc

7.4.3 Test Verdopplerpfad

Bevor die Verdopplerfilter auf ihr HF-Verhalten überprüft werden (7.4.3.3) ist eine Kontrolle der übertragenen Daten nach 7.4.7.3, der Filterabstimmspannungen nach 7.4.3.1 und der Arbeitspunkte der einzelnen Verstärker nach 7.4.3.2 empfehlenswert.

7.4.3.1 Test der Abstimmspannungen

(Hierzu Stromlaufblatt 3 und 4)
➢ Frequenzen nach Tabelle einstellen und Abstimmspannungen mit DC-Voltmeter nachmessen

Einstellung	Spannung VDFIL [V]	Spannung VDTUNE [V]	Spannung VDTUNE2 [V]
FREQ 1500.1 MHz	0.15...2.5	0.37	0.25
FREQ 2000 MHz	4.5...7.5	8.05	5.54
FREQ 3000 MHz	21 ± 0.3	15.9	10.9

7.4.3.2 Arbeitspunkte der Pufferverstärker

(Hierzu Stromlaufblatt 3 und 4)
➢ Typische DC-Spannungen mit Voltmeter nach Tabelle prüfen

Verstärker	Messpunkt	Sollwert [V]
N17	Testpad Q22	3.6 ± 0.1
	UGATE-D1	-1...0.5
V149	Testpad Q23	3.7 ± 0.1
	UBASIS-D2	2.4
V148	Testpad Q24	3.7 ± 0.1
	UBASIS-D3	2.4
V150	Testpad Q25	3.7 ± 0.1
	UBASIS-D4	2.4

7.4.3.3 Übertragungsverhalten des Verdopplerpfades

(Hierzu Stromlaufblatt 2-4)
Es wird die Übertragungsfunktion des Frequenzverdopplers sowie der abstimmbaren Verdopplerfilter überprüft. Um bei definierter Last zu messen, wird ein Strom von 0.2 mA an P4 (Steckbrücke P4-5 entfernen) eingespeist.

Um die entsprechende Dämpfung der Filter nachmessen zu können, müssen die beiden Kammern C und D mit einem geeigneten Blechstreifen abgedeckt werden.

- Spektrumanalysator mit geeigneten HF-Übergängen an Testbuchse X2 anschliessen

- Einstellungen: **FREQ 1500.1 MHZ**

➢ HF-Pegel Ausgangsfrequenz 1500.1 MHz messen: -22 ± 5 dBm
➢ HF-Pegel 1. Subharmonische 750.05 MHz messen: < -74 dBc
➢ HF-Pegel 3. Subharmonische 2250.15 MHz messen: < -74 dBc

- Einstellungen: **FREQ 2000 MHZ**

➢ HF-Pegel Ausgangsfrequenz 2000 MHz messen: -22 ± 6 dBm
➢ HF-Pegel 1. Subharmonische 1000 MHz messen: < -74 dBc
➢ HF-Pegel 3. Subharmonische 3000 MHz messen: < -74 dBc

- Einstellungen: **FREQ 3000 MHZ**

➢ HF-Pegel Ausgangsfrequenz 3000 MHz messen: -22 ± 6 dBm
➢ HF-Pegel 1. Subharmonische 1500 MHz messen: < -74 dBc
➢ HF-Pegel 3. Subharmonische 4500 MHz messen: < -74 dBc

7.4.3.4 Pegelabgleich im Verdopplerpfad

(Hierzu Stromlaufblatt 3)
Mit diesem Pegelabgleich werden die Pegelniveaus im Oberwellenpfad und im Verdopplerpfad aufeinander abgeglichen. Es wird vorausgesetzt, daß die Pegelregelung einwandfrei arbeitet. Der Baugruppenausgang X227 muß mit 50 Ohm abgeschlossen sein.

- Einstellungen: **FREQ 1300 MHZ**
  UTILITIES:DIAG:TPOINT: STATE ON
  TEST POINT 2013

➢ Diagnosespannung ablesen und merken

- Einstellungen: **FREQ 2000 MHZ**

➢ Diagnosespannung mit R694 auf zuvor gemerkten Wert abgleichen

7.4.4 Überprüfen der Pegelregelungen

7.4.4.1 Überprüfen der Arbeitspunkte der Verstärker innerhalb der Regelungen

(Hierzu Stromlaufblatt 5 und 13)
➢ Typische DC-Spannungen mit Voltmeter nach Tabelle prüfen

Verstärker	Messpunkt	Sollwert [V]	Hinweis/Einstellung
V186	Testpad Q1	4.45 ± 0.1	CW- und LO-Regelung
	UBASIS-E1	2.3	
V147	Testpad Q2	4.45 ± 0.1	CW- und LO-Regelung
	UBASIS-E2	2.5	

Verstärker	Messpunkt	Soll-Wert [V]	Anwendung
V107	Testpad Q3	6 ± 0.2	CW- und LO-Regelung
	UGATE-E1	-1.2...-0.2	
V106	Testpad Q4	7.4 ± 0.3	nur LO-Regelung VECTOR MOD:STATE ON
	UGATE-E2	-1.2...-0.2	
V108	Testpad Q17	7.45 ± 0.3	nur CW-Regelung
	UGATE-K2	-1.2...-0.1	

7.4.4.2 Überprüfen des gemeinsamem Pegelstellgliedes

(Hierzu Stromlaufblatt 5 und 13)
Das Pegelstellglied (V42 und V38) wird entweder vom Regelverstärker der LO-Pegelregelung oder vom Regelverstärker der CW-Pegelregelung angesteuert. Der Pegelstellbereich des Stellgliedes beträgt typisch mehr als 20 dB.
Es werden gleichzeitig sämtliche Verstärker bis zum Baugruppenausgang mitgemessen. Die Überprüfung findet im CW-Mode statt.

- Spektrumanalysator an X227 anschliessen
- Steckbrücke P4-5 entfernen und Stromquelle an P4 anschliessen

- Einstellungen: **FREQ 1000 MHZ**

➢ Strom von 0...10 mA einspeisen und Pegel bei 1000 MHz am Baugruppenausgang messen. Maximaler Pegel: > 7 dBm, Minimaler Pegel < -10 dBm

7.4.4.3 Überprüfung Detektor und Regelverstärker CW

(Hierzu Stromlaufblatt 13)
Zunächst wird überprüft, ob die Detektordioden V61 und V60 korrekt in Flußrichtung betrieben werden. Anschließend wird die Funktionalität des Detektors und des Integrators überprüft.
Nach Abschluss dieser Prüfung muß ein Pegelabgleich nach 7.4.4.4 erfolgen.

- Steckbrücke P4-5 entfernen
- Stromquelle an P4 anschliessen, Strom zunächst 0 mA
- Spektrumanalysator an X227 anschliessen

- Einstellungen: **FREQ 1000 MHZ**

➢ Mit DC-Voltmeter überprüfen, ob die beiden Dioden V61 und V60 in Flußrichtung betrieben werden. Die Flußspannung liegt bei ca. 200 mV. Das Spannungspotential an der Kathode der beiden Dioden liegt bei ca. -0.2 V.

- Einstellungen: **UTILITIES:DIAG:TPOINT: STATE ON**
  TEST POINT 2015

➢ Ausgangsspannung Summierverstärker N19-1 über Diagnosepunkt 2015 messen: < 50 mV

- Einstellungen: **TEST POINT 2013**

➢ Ausgangsspannung Integrator N19-2 über Diagnosepunkt 2013 messen: > 12 V

➢ Potentiometer R495 auf Rechtsanschlag drehen
➢ Strom an P4 langsam erhöhen bis HF-Pegel an X227 ca. 4 dBm beträgt

- Einstellungen: **TEST POINT 2015**

➢ Ausgangsspannung Summierverstärker N19-1 über Diagnosepunkt 2015 messen: ca. 220 mV

- Einstellungen: **TEST POINT 2013**

➢ Ausgangsspannung Integrator N19-2 über Diagnosepunkt 2013 messen: < 0 V

7.4.4.4 Pegelabgleich CW

(Hierzu Stromlaufblatt 5 und 13)
Der Pegelabgleich findet bei geschlossener Regelschleife statt. Hierzu wird der Führungswert der Regelung über R495 eingestellt. Steckbrücke P4-5 ist also bestückt.

- Spektrumanalysator an X227 anschliessen

- Einstellungen: **FREQ 1300 MHZ**

➢ Pegel mit R495 auf den Sollwert von 4 ± 0.2 dBm abgleichen
➢ In Trägernähe (± 1 MHz) dürfen keine Rauschüberhöhungen oder Nebenlinien zu sehen sein

7.4.4.5 Überprüfung Detektor und Regelverstärker LO

(Hierzu Stromlaufblatt 5)
Zunächst wird überprüft, ob die Detektordioden V59 und V58 korrekt in Flußrichtung betrieben werden. Anschließend wird die Funktionalität des Detektors und des Integrators überprüft.
Nach Abschluss dieser Prüfung muß ein Pegelabgleich nach 7.4.4.6 erfolgen.

- Steckbrücke P4-5 entfernen
- Stromquelle an P4 anschliessen, Strom zunächst 0 mA
- Spektrumanalysator mit geeigneten Übergängen an Testbuchse X4 anschliessen

- Einstellungen: **FREQ 1000 MHZ**
  VECTOR MOD:STATE ON

➢ Mit DC-Voltmeter überprüfen, ob die beiden Dioden V59 und V58 in Flußrichtung betrieben werden. Die Flußspannung liegt bei ca. 200 mV. Das Spannungspotential an der Kathode der beiden Dioden liegt bei ca. -0.2 V.

- Einstellungen: **UTILITIES:DIAG:TPOINT: STATE ON**
  TEST POINT 2013

➢ Ausgangsspannung Integrator N18-2 über Diagnosepunkt 2013 messen: > 12 V
➢ Potentiometer R494 auf Rechtsanschlag drehen

➢ Strom an P4 langsam erhöhen bis HF-Pegel bei 1300 MHz an X4 ca. -8 dBm beträgt
➢ Ausgangsspannung Integrator N18-2 über Diagnosepunkt 2013 messen: < 0 V

7.4.4.6 Pegelabgleich LO

(Hierzu Stromlaufblatt 5)
Der Pegelabgleich findet bei geschlossener Regelschleife statt. Hierzu wird der Führungswert der Regelung über R494 eingestellt. Steckbrücke P4-5 ist also bestückt.

- Spektrumanalysator mit geeigneten Übergängen an X4 anschliessen
- Einstellungen: **FREQ 1000 MHZ**
  VECTOR MOD:STATE ON

➢ Pegel bei 1300 MHz mit R494 auf den Sollwert von -8 ± 0.2 dBm abgleichen
➢ In Trägernähe (± 1 MHz) dürfen keine Rauschüberhöhungen oder Nebenlinien zu sehen sein

7.4.5 Überprüfen des gemeinsamen HF-Pfades bei IQ

Um den HF-Pfad zwischen dem Mischer und den abstimmbaren Bandpaßfiltern zu überprüfen, muß sichergestellt sein, daß der Mischer an seinem LO- und IF-Eingang richtig angesteuert wird.
Zur Überprüfung des LO-Eingangs kann über Diagnosepunkt 2013 bei eingeschalteter Vektormodulation die Regelspannung abgefragt werden (7.4.7.1). Zum Erzeugen des notwendigen IF-Pegels, muß am I- oder Q-Eingang an der Fronteinheit eine DC-Spannung von 0.5 V eingespeist werden. Das 300-MHz-Signal kann am Baugruppenausgang X242 des IQ-Modulators nachgemessen werden.

7.4.5.1 Überprüfen des Level-Preset-Stellgliedes

(Hierzu Stromlaufblatt 6 und 15)
Das Level-Preset Stellglied wird über einen Differenzverstärker mit Stromquelle angesteuert. Über einen 8-bit D/A-Wandler (U5) wird die benötigte Differenzspannung eingestellt.
Zunächst wird der Strom den die Stromquelle liefert sowie die Referenzspannung des Differenzverstärkers nachgemessen.

➢ Mit DC-Voltmeter Strom prüfen, durch Messen des Spannungsabfalls über R70. Dieser sollte 2 mA betragen. Das Spannungspotential an der Basis von V25 (Pin2) beträgt 3.5 V.

- Einstellungen: **FREQ 1000 MHZ**
  VECTOR MOD:STATE ON
  UTILITIES:DIAG:TPOINT: STATE ON
  TEST POINT 2002

➢ Die Diagnosespannung sollte zwischen 2.7 und 2.9 V liegen. Aus dieser Spannung ergibt sich ein Strom zur Ansteuerung des Level-Preset-Gliedes. Dieser beträgt typisch 100...400 µA und

kann als Spannungsabfall über R537 mit einem DC-Voltmeter nachgemessen werden.

7.4.5.2 Überprüfen der Arbeitspunkte der Breitbandverstärker

(Hierzu Stromlaufblatt 6 und 13)

➢ Typische DC-Spannungen mit Voltmeter nach Tabelle prüfen

Verstärker	Messpunkt	Soll-Wert [V]
V100-102	Testpad Q20	4.5 ± 0.1
	UGATE-F1	-0.5...0
V109	Testpad Q21	5.6 ± 0.2
	UGATE-F3	-1.5...-0.3
N23	Pin 3	5 ± 0.5

7.4.5.3 Übertragungsverhalten des Mischers und des Breitbandverstärkers

(Hierzu Stromlaufblatt 6)
Es werden Funktionalität des Mischers, des zweistufigen Verstärkers sowie des Level-Preset-Stellgliedes überprüft.

- Spektrumanalysator mit geeigneten Übergängen an Testbuchse X3 anschliessen
- Einstellungen: **VECTOR MOD:STATE ON**

➢ Frequenzen nach Tabelle einstellen und mit Spektrumanalysator typische Pegel bei den angegebenen Frequenzen nachmessen

Eingestellte Frequenz [MHz]	Messfrequenz [MHz]	Typischer Pegel [dBm]
751	751	-30
	600	< -85
	900	< -100
	1051	< -30
2000	2000	-32
	1700	< -30
3300	3300	-34
	3000	< -25

7.4.6 Prüfen der IQ-Filter

Ein exaktes Übertragungsverhalten der abstimmbaren IQ-Filter zu messen, ist nur mit einem Netzwerkanalysator an aufgetrennten HF-Pfaden möglich. Zur groben Überprüfung der Funktionalität sind daher Testbuchsen in den Filtern vorhanden, mit denen typische Pegel der gewünschten Seitenbänder nachgemessen werden können.
Zuvor empfiehlt es sich aber Arbeitspunkte und Ansteuerspannungen in den Filtern zu überprüfen.

7.4.6.1 Test der Abstimmspannungen

(Hierzu Stromlaufblatt 7-12)

- Einstellungen: **VECTOR MOD:STATE ON**

➢ Frequenzen nach Tabelle einstellen und Abstimmspannungen mit DC-Voltmeter direkt an den Filtern nachmessen

Einstellung	Spannung [Q1] [V]	Spannung [Q2] [V]	Spannung [Q3, Q4] [V]
FREQ 751 MHz	1.2...3	1.2...3	0.1...1.8
FREQ 1800 MHz	10...14	13...17	13.5...18.5
FREQ 1801 MHz	0.2...2.5	4.5...7	0.4...2.4
FREQ 2500 MHz	14...21	13...19	11...16
FREQ 2501 MHz	4.2...7.4	3.5...6.5	1.2...3.5
FREQ 3300 MHz	13...18.5	14...19.5	11...16

7.4.6.2 Arbeitspunkte der Pufferverstärker

(Hierzu Stromlaufblatt 7-12)
Da ein Teil der Verstärker bei den jeweils nichtbenutzten Filtern ausgeschaltet wird, muß zur Überprüfung derer Arbeitspunkte eine entsprechende Frequenz-Einstellung erfolgen.

- Einstellungen: **VECTOR MOD:STATE ON**

➢ Entsprechende RF-Frequenz einstellen und typische DC-Spannungen mit Voltmeter nach Tabelle prüfen

Einstellung	Verstärker	Messpunkt	Sollwert [V]
FREQ 1000 MHz	N12	Testpad Q9	3.55 ± 0.1
		UGATE-G1	-1.5...0.2
	N13	Testpad Q10	3.55 ± 0.1
		UGATE-G2	-1.5...0.2
	N21	Testpad Q11	3.55 ± 0.1
		UGATE-G3	-1.5...0.2
	N14	Testpad Q12	3.55 ± 0.1
		UGATE-G4	-1.5...0.2
FREQ 2000 MHz	V91-V93	Testpad Q5	3.95 ± 0.1
		UGATE-H1	-0.5...0
	N10	Testpad Q6	3.55 ± 0.1
		UGATE-H2	-1.5...0.2
	N20	Testpad Q7	3.55 ± 0.1
		UGATE-H3	-1.5...0.2
	N11	Testpad Q8	3.55 ± 0.1
		UGATE-H4	-1.5...0.2
FREQ 3000 MHz	V94-V96	Testpad Q13	3.95 ± 0.1
		UGATE-I1	-0.5...0
	N15	Testpad Q14	3.55 ± 0.1
		UGATE-I2	-1.5...0.2
	N22	Testpad Q15	3.55 ± 0.1
		UGATE-I3	-1.5...0.2
	N16	Testpad Q16	3.55 ± 0.1
		UGATE-I4	-1.5...0.2

7.4.6.3 Überprüfen typischer HF-Pegel

(Hierzu Stromlaufblatt 6-13)

- Spektrumanalysator mit geeigneten Übergängen an den Testbuchsen X6, X5 oder X7 anschliessen
- Einstellungen: **VECTOR MOD:STATE ON**

➢ Frequenzen nach Tabelle einstellen und mit Spektrumanalysator typische Pegel nachmessen

Eingestellte Frequenz [MHz]	Messbuchse	Typischer Pegel [dBm]
751	X6	-33
	X1	-40
1800	X6	-31
	X1	-34
1801	X5	-31
	X1	-35
2500	X5	-25
	X1	-34
2501	X7	-30
	X1	-35
3300	X7	-26
	X1	-33

7.4.6.4 Filterkalibrierung und Pegelabgleich der IQ-Filter

Eine neue Filterkalibrierung kann nur im Werk Memmingen (Vorprüfung Baugruppen) erfolgen. Dies wird jedoch nur notwendig, wenn Kapazitätsdioden in den IQ-Filtern bzw. das EEprom, was die Kalibrierdaten enthält, getauscht worden sind.
Nach jeder neuen Kalibrierung wird ein Pegelabgleich der Filter notwendig. Hierzu dienen die Potentiometer R691-R693, mit denen die Pegelniveaus der drei Filter aufeinander abgeglichen werden. Sie dürfen im normalen Betrieb nicht verstellt werden

7.4.7 Tabellen und Schnittstellen

7.4.7.1 Liste der Diagnosemeßpunkte

(Hierzu Stromlaufblatt 14)
Zur Überwachung der wichtigen Ansteuer- und Regelspannungen bzw. HF-Pegel sind zwei Diagnosemultiplexer (D13, D14) eingesetzt.
Zur Kompensation von Offsetspannungen kann das Potential der Baugruppenmasse gemessen werden (Diagnosepunkt 2000)

Diagnosemultiplexer 1:

Diagnosepunkt	Wertebereich [V]	Bemerkung/Einstellung
2000	-0.01...0.01	Referenz 10 kOhm
2001	-9.9...10.1	-10V Referenzspannung, REF-10
2002	2.55...4.45	Level-Preset-Spannung, LPRE1
2003	0...21	Abstimmspannung Oberwellenfilter,OWFIL

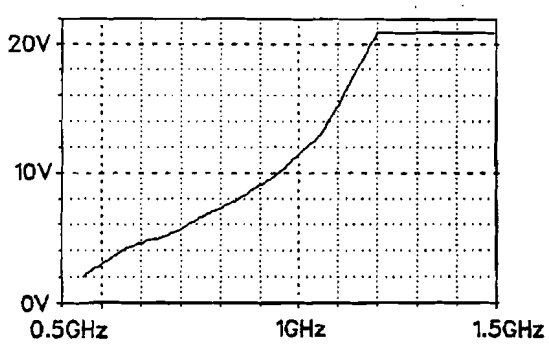
Diagnosepunkt	Wertebereich [V]	Bemerkung/Einstellung
2004	0...21	Abstimmspannung Verdopplerfilter Tiefpass, VDFIL
2005	0...21	Abstimmspannung IQ-Filter, Seitenband, IQFIL1
2006	0...21	Abstimmspannung IQ-Filter, LO-Frequenz, IQFIL2
2007	0...21	Abstimmspannung IQ-Filter, LO ± 2*IF, IQFIL3

Diagnosemultiplexer 2:

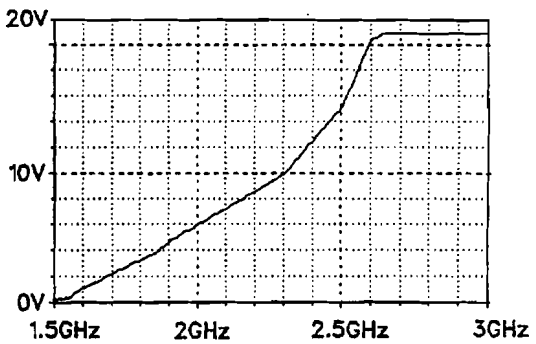
Diagnosepunkt	Wertebereich [V]	Bemerkung/Einstellung
2008	4.44...4.64	Referenzspannung 4.54 V, REF4
2009	6.55...6.75	Referenzspannung 6.55 V, REF6
2010	9.9...10.1	Referenzspannung 10 V, REF10
2011	0.02...0.1	HF-Pegel Ausgang Oberwellenfilter 450...1500 MHz, CW 750...1200 MHz, Vektormodulation
2012	0.02...0.1	HF-Pegel Ausgang Verdopplerpfad 0.3...450 MHz, 1500...3300 MHz, CW 0.3...750 MHz, 1200...3300 MHz, Vektormod.
2013	2.4...10	Regelspannung Pegelregelung, Interrupt Pegelregelung CW-Pegel, CW Pegelregelung LO-Pegel, Vektormodulation
2014	0.1...0.6	HF-Pegel Eingang IQ-Filter 0.5 V an I- oder Q-Eingang, Vektormodulation
2015	0.13...0.37	HF-Pegel Baugruppenausgang FIQFIL konstant bei CW-Betrieb

7.4.7.2 Typischer Verlauf der Abstimmspannungen der Filter

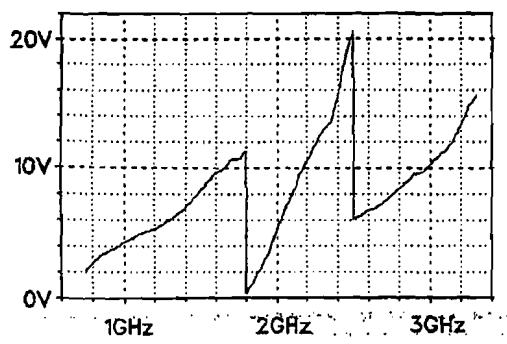
Diagnosepunkt 2003:



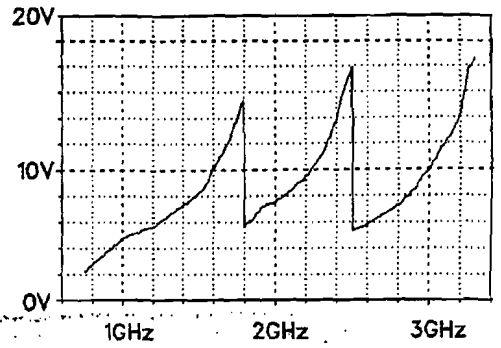
Diagnosepunkt 2004:



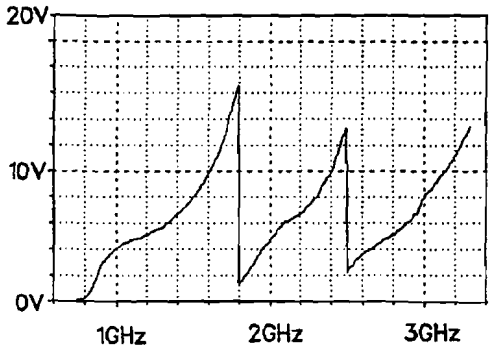
Diagnosepunkt 2005:



Diagnosepunkt 2006:



Diagnosepunkt 2007:



7.4.7.3 Digitale Schnittstelle

(Hierzu Stromlaufblatt 14 + 15)
Gemäß Gerätestandard wird die Baugruppe IQCON über eine serielle Schnittstelle unter Verwendung des Bausteines SERBUS-D eingestellt. Mit Strobe 1 (SERWR1) werden die Daten für die seriellen Schieberegister für die HC4094-Latches übernommen.
Die zweite Subadresse dient zur Kommunikation mit dem baugruppeninternen EEprom. Es enthält die bei der Filterkalibrierung gewonnenen Abstimmwerte für sämtliche abstimmbare Filter. Das Datenformat entspricht dem hausinternen Standard. Sie sind von außen nicht zugänglich und werden daher nicht aufgeführt.

Subadresse 0 (SEROUT, SERCLK1, SERWR1)

Latch		Bezeichnung	Funktion		
	11	Lpre1_7	Level Preset Einstellung bei		MSB
	12	Lpre1_6	Vektormodulation		
	13	Lpre1_5	Bereich 0...255		
D11	14	Lpre1_4	entspricht Strom durch Level-		
	7	Lpre1_3	Preset-Stellglied von 0...2 mA		
	6	Lpre1_2			
	5	Lpre1_1			
	4	Lpre1_0			LSB
	11	Iqfil3_7	Abstimmspannung für IQ-Filter		MSB
	12	Iqfil3_6	in drei Bereichen, dient zur		
	13	Iqfil3_5	Filterung von 1*LO ± 2*RF		
D10	14	Iqfil3_4	750...3300 MHz		
	7	Iqfil3_3	Bereich 0...255		
	6	Iqfil3_2	entspricht Abstimmspannung von		
	5	Iqfil3_1	0...21 V		
	4	Iqfil3_0			LSB
	11	Iqfil2_7	Abstimmspannung für IQ-Filter		MSB
	12	Iqfil2_6	in drei Bereichen, dient zur		
	13	Iqfil2_5	Filterung von 1*LO		
D9	14	Iqfil2_4	750...3300 MHz		
	7	Iqfil2_3	Bereich 0...255		
	6	Iqfil2_2	entspricht Abstimmspannung von		
	5	Iqfil2_1	0...21 V		
	4	Iqfil2_0			LSB
	11	Iqfil1_7	Abstimmspannung für IQ-Filter		MSB
	12	Iqfil1_6	in drei Bereichen, dient zur		
	13	Iqfil1_5	Filterung des zweiten Seiten-		
D8	14	Iqfil1_4	bandes 1*LO ± 1*RF		
	7	Iqfil1_3	750...3300 MHz		
	6	Iqfil1_2	Bereich 0...255		
	5	Iqfil1_1	entspricht Abstimmspannung von		
	4	Iqfil1_0	0...21 V		LSB
	11	Vdfil_7	Abstimmspannung für Tiefpass		MSB
	12	Vdfil_6	des Subharmonischenfilter im		
	13	Vdfil_5	Verdopplerpfad		
D7	14	Vdfil_4	1500...3000 MHz		
	7	Vdfil_3	Bereich 0...255		
	6	Vdfil_2	entspricht Abstimmspannung von		
	5	Vdfil_1	0...21 V		
	4	Vdfil_0			LSB
	11	Owfil_7	Abstimmspannung für Oberwellen-		MSB
	12	Owfil_6	filter		
	13	Owfil_5	450...1500 MHz		
D12	14	Owfil_4	Bereich 0...255		
	7	Owfil_3	entspricht Abstimmspannung von		
	6	Owfil_2	0...21 V		
	5	Owfil_1			
	4	Owfil_0			LSB

	11	Fil3	Schaltbit für IQ-Filter 3 2500...3300 MHz	0=ON	1=OFF
	12	Fil2	Schaltbit für IQ-Filter 2 1800...2500 MHz	0=ON	1=OFF
	13	Fil1	Schaltbit für IQ-Filter 1 750...1800 MHz	0=ON	1=OFF
D6	14	Fg2	Umschaltbits für Hochpassfilter		MSB
	7	Fg1	im Verdopplerpfad 0=2300...3000 MHz 1=1500...1850 MHz 2=1850...2300 MHz		LSB
	6	F1_F2	Umschaltbit Oberwellenfil- ter(F1)/Verdopplerpfad(F2)	0=F1	1=F2
	5	IQ_CW	Umschaltbit IQ/CW-Betrieb	0=IQ	1=CW
	4	RefHiLo	Umschaltbit für Pegelregelung	0=LO	1=CW
	11	-			
	12	-			
	13	-			
D4	14	Diagena2	Diagnosemultiplexer 2 Diagnosepunkte 2008...2015	0=OFF	1=ON
	7	Diagena1	Diagnosemultiplexer 1 Diagnosepunkte 2000...2007	0=OFF	1=ON
	6	Dmux2	Diagnosemultiplexer		MSB
	5	Dmux1	0...7		
	4	Dmux0			LSB

7.4.7.4 Typische HF-Pegel

Eine Prüfung der HF-Wege ist nur bedingt mit einem HF-Tastkopf am Spektrumanalysator möglich. Es muß vor allem auf eine kurze niederohmige Masseverbindung geachtet werden. Der Vorwiderstand des Tastkopfes sollte 1 kOhm betragen. Die angegebenen Werte sind typische Werte. Die Messungen finden bei möglichst niedrigen Frequenzen statt. Es wird jeweils nach dem Koppelkondensator der aufgeführten Vertärkerstufe gemessen.

Eingestellte Frequenz Modus	Meßstelle	Typischer HF-Pegel [dBm]
1501 MHz, CW	Eingang Verdoppler, Pin 1 N8 Messen bei 750.5 MHz	13
1501 MHz, CW	Ausgang 1.Verstärker Verdoppler- pfad, V149	7
1501 MHz, CW	Ausgang 2.Verstärker Verdoppler- pfad, V148	-1
500 MHz, CW	Ausgang 1.Verstärker LO-Treiber, V186	-11
500 MHz, CW	Ausgang 2.Verstärker LO-Treiber, V147	-5
500 MHz, CW	Ausgang 3.Verstärker LO-Treiber, V107	7
751 MHz, Vektormodulation	Ausgang 1.Verstärker Breitbandver- stärker, V100-V102	-5
751 MHz, Vektormodulation	Ausgang Hochpassfilter nach 2.Verstärker Breitbandverstärker (V109), C469	6
751 MHz, Vektormodulation	Ausgang 1. Verstärker IQ-Filter1, N12	-4

Eingestellte Frequenz, Modus	Messstelle	Pegel [dBm]
751 MHz, Vektormodulation	Ausgang 3. Verstärker IQ-Filter1, N21	-10
1801 MHz, Vektormodulation	Ausgang 1. Verstärker IQ-Filter2, V91-V93	-5
1801 MHz, Vektormodulation	Ausgang 3. Verstärker IQ-Filter2, N20	-9
2501 MHz, Vektormodulation	Ausgang 1. Verstärker IQ-Filter3, N12	-7
2501 MHz, Vektormodulation	Ausgang 3. Verstärker IQ-Filter3, N22	-12
500 MHz, CW	Eingang Endstufe V108	-7

7.5 Zerlegung und Zusammenbau

Nach dem Öffnen des Gerätes, dem Entriegeln der Baugruppe und dem Lösen der HF-Verbindungen X221, X223 und X227 kann die Baugruppe aus ihrem Steckplatz entnommen werden. Die Schirmdeckel der Baugruppe sind auf herkömmliche Weise verschraubt.

7.6 Externe Schnittstellen

Pin	Name	Ein/Ausgang	Herkunft/Ziel	Wertebereich	Signalbeschreibung
Xfff.A12	SERBUS-CLK	Eingang	A3, FRO, X31.40	HCT-Pegel	Serbus Clock
Xfff.A14	SERBUS-OUT	Ausgang	A3, FRO, X31.39	HCT-Pegel	Serbus Daten
Xfff.A15	SERBUS-IN	Eingang	A3, FRO, X31.39	HCT-Pegel	Serbus Daten
Xfff.A16	SERBUS-SYNC	Eingang	A3, FRO, X31.37	HCT-Pegel	Serbus Sync
X220.A17	SERBUS-INT	Ausgang	A3, FRO, X31.38	HCT-Pegel	Serbus Interrupt
X220.A18	Reset-P	Eingang	A3, FRO, X31.28	HCT-Pegel	Serbus Reset
X220.A19	DIAG-5V	Ausgang	A3, FRO, X31.44	-5 V ... +5 V	Diagnose
X220.A22	VA24-P	Eingang	A2, POWS1	23.75 ... 25.25 V CW: 28...40 mA IQ: 30...42 mA	24 Volt Stromversorgung
X220.A24	VA15-P	Eingang	A2, POWS1	14.85 ... 15.75 V CW: 250...300 mA IQ: 360...420 mA	15 Volt Stromversorgung
X220.A26	VA7.5-P	Eingang	A2, POWS1	7.45 ... 7.95 V CW: 530...590 mA IQ: 530...590 mA	7.5 V Stromversorgung
X220.A28	VD5-P	Eingang	A2, POWs1	5.15 ... 5.25 V CW: 450...500 mA IQ: 540...610 mA	5 V Digital Stromversorgung
X220.A30	VA15-N	Eingang	A2, POWS1	-15.75 ... -14.85 V CW: 120...160 mA IQ: 120...160 mA	-15 V Stromversorgung

Pin	Name	Ein/Ausgang	Herkunft/Ziel	Wertebereich	Signalbeschreibung
X221	FSUM	Eingang	A9, SUM A7, TSYN	7...12 dBm	450...1500 MHz Signal der Frequenzsynthese
X223	IQ300	Eingang	A240, IQMOD	-5 ± 0.2 dBm	Vektormoduliertes Signal (Bandbreite 30 MHz)
X227	FIQFIL	Ausgang	A240, IQMOD	4 ± 3 dBm	Ausgangssignal 450...3300 MHz

ROHDE&SCHWARZ

SERVICE INSTRUCTIONS

IQ-CONVERTER MODULE

1084.9300.02

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7. Testing and Repair of the Module

7.1 Function Description

The IQ-Converter module (IQCON) can be operated either in the vector modulation or the CW mode.
With vector modulation selected, (IQ-mode) the module converts the IQ-modulated 300-MHz input signal (X223) of the IQ modulator (IQMOD board) to the frequency range 750 to 3300 MHz. The frequencies 750 to 1500 MHz of the summing module or SMT synthesizer (input X221) are used as LO signal. These frequencies are doubled in a second path in order to obtain the required frequency spectrum of 1050 to 3000 MHz at the LO. The tunable bandpass filters from 750 to 3300 MHz are provided to filter the unwanted sideband and all other frequencies occurring with mixing. A level control element (Level Preset) in conjunction with fixed adjustments in the three filter paths are provided to compensate for the level tolerances occurring as well as for the level frequency response. The calibration data required for setting the filters are stored in an EEPROM accomodated on the board.
In CW mode, the LO signal is routed via a pin diode switch and a solid-jacket cable W22 to the output amplifier. The frequency spectrum ranges from 450 to 3000 MHz. The frequencies from 3000 to 3300 MHz are obtained by mixing in the IQ path.
In both operating modes, the output amplifier supplies the required output level of 4 dBm.

The module can be subdivided into the subsequent function units:

- harmonic filter
- frequency doubler and filter for the subharmonics
- LO amplifier with switch-selectable level control
- bypass for CW mode
- mixer and low-noise broadband amplifier
- tunable bandpass filters
- RF switch and output amplifier
- control and EEPROM

7.1.1 Harmonic Filter

(circuit diagram, sheet 2)
The tunable harmonic filter filters the harmonics of the output signal of the summing module or the SMT synthesizer in the frequency range 450 to 1500 MHz.
Eight capacity diodes V153 - V160 arranged in parallel anti-serially in the two poles of the Cauer filter, are provided as tunable filter elements. The two poles of the filter are tuned via the common tuning voltage OWFIL.
The pin-diode switches V32-V37 are provided to switch over to the doubler path.

7.1.2 Doubler Path

(sheets 3 and 4 of circuit diagram)
The SMD component SFD 1001 (N8) is provided as frequency doubler for generation of the frequency octave 1500 to 3000 MHz. The required input level 10 dBm of the fundamental wave (750 to 1500 MHz) is generated using the integrated GaAs-FET amplifier N17. Its working point is controlled by means of the transistor V30. Spuriae which occur with frequency doubling are suppressed to -74 dBc by a combination of two switchable highpass filters and two tunable lowpass filters. The necessary amplification of level as well as decoupling of filters is accomplished by the use of bipolar amplifiers with a gain of 7 dB, each (V148 - V150). Their current in the working point is controlled via the transistors V27, V28 and V31.
The capacity diodes V191-192, V198-201 and V180-185 are used as tuning elements of the filters. They are adjusted by means of the DC voltages TUNEVD, TUNEVD2 and VDFIL.
The different levels in the doubler path and in the harmonic filter path are adjusted using the potentiometer R694.

7.1.3 LO Amplifier and Level Control

(sheet 5 of circuit diagram)
The GaAs-Fet amplifier (V106) provides the 17-dBm level required for control of the LO input of the mixer. It can be switched off in CW mode.
The total gain of the four-stage amplifier chain is approx. 34 dB. The prestages are set up using the bipolar transistors V186 and V147 and the GaAs-Fet transistor V107. All currents are controlled in the working point. (V3-V6).
The level deviations occurring throughout the entire LO path are compensated by a control. A pin-diode modulator (V42 and V38) is used as control element for amplitude control. This modulator is controlled by the PI control amplifier N18. The rated level is provided via the potentiometer R494. The detector diode V59 allows for measuring the RF level. A similar diode (V58) is used for temperature compensation. The bandwidth of level control is approx. 5 to 100 kHz.

7.1.4 Bypass for CW Mode

(sheets 5 and 13 of circuit diagram)
After passing the LO prestages, the signal is routed via the solid-jacket cable W22 to the output stage using the two pin-diodes switches V39-41 and V46-48. Since the output frequency is offset by 300 MHz in the IQ mode, the latter must provide an attenuation of approx. 70 dB to avoid that the LO frequency applied to the switch occurs as a non-harmonic spurious.

7.1.5 IQ Mode

(sheet 6 of circuit diagram)
The IQ mixer (U8) is the nucleus of the IQ converter. It generates the IQ-modulated output frequencies between 750 and 330 MHz. Due to the high output frequencies, the mixer is operated in inverted mode. The 300-MHz signal (-11 dBm) generated by the IQ modulator is applied to the IF input of the mixer. The mixer suppresses the mixing products up to ± 300 MHz offset from the carrier, since they are not filtered.
The lower sideband of mixing is used for output frequencies up to 1800 MHz.. Frequencies above 1800 MHz are up-converted. The upper sideband is used above 1800 MHz in order to obtain the frequency spectrum up to 3300 MHz.
The output frequencies (750 to 3300 MHz) at the RF port of the mixer are amplified by approx. 10 dB by means of the succeeding broadband amplifier (travelling-wave amplifier with transistors V100-V102). The second succeeding stage with the GaAs-Fet V109 increases the level again by approx. 11 dB. At both stages, the current in the working point is controlled via the transistors V21 and V23.
The following fixed 7th-order Cauer highpass has a cut-off frequency of 700 MHz and suppresses unwanted fixed mixing products.
Level Preset (level control element V54) is intended to be used for compensating the level frequency output of the IQ path and the temperature drift. In a calibration routine, the level is corrected within a fixed frequency stepping until the rated level of 4 dBm is reached at the output. The level detector (V61, sheet 13 of circuit diagram) is used as test point. The level control element is set via a current source with difference amplifier (signal LPRE1, V24-V26)

7.1.6 Tunable Bandpass Filters

The tunable bandpass filters filter the unwanted mixing productes of the IQ mixer >= 300 MHz from the carrier. The poles of all filters are adjusted such that optimum attenuation of the unwanted mixing products and optimum amplitude distortion in the passband (± 30 MHz) are obatined. In the passband, the filters provide a typical amplitude distortion of < 0.025 dB/MHz and a typical group delay of < 15 ps/MHz.
The filters are set using the three tuning voltages IQFIL1, IQFIL2 and IQFIL3. The set voltage applies only for the currently operating filter. The tuning voltage ranges from 0 to 21 V and provides 8-bit resolution. The filter setting values are obtained with board pretesting and stored in the EERPOM (D17, sheet 14 of circuit diagram).
New calibration of the filters is only required, if filter parts have to be replaced.

7.1.6.1 1st Filter 750 to 1800 MHz

(sheets 7 and 8 of circuit diagram)
The first filter mainly provides a lowpass character, since the critical frequencies are above the carrier. It contains three identical lowpass filters, which are tuned by means of the capacity diodes V166-V169, V171 -V172 and V213-V215.
A tunable highpass filter incorporated in the capacity diodes V170 and V189-V190 is located between the second and the third lowpass filter. It attenuates the spuriae below the carrier. Another highpass filter with a cut-off frequency of 700 MHz is provided at the output of this filter path in order to suppress fixed mixing products.
Buffer amplifiers (GaAs-Fet MMIC's N12-N14 and N21) provided between the filters for decoupling purposes. Gain adjustment in this filter path is accomplished via a pin-diode control element by means of the potentiometer R692. The attenuation of the latter depends on the temperature (R549) and compensates the typical level temperature response.
Three of the four buffer amplifiers are switched off by the power supply if the filter is not in operation.

7.1.6.2 2nd Filter 1800 to 2500 MHz

(sheets 9 and 10 of circuit diagram))
The second IQ filter mainly provides a highpass function, since the upper sideband of mixing is used. It consists of three identical 5th-order highpass filters the poles of which are tuned via the capacity diodes V187-V188, V164-V165, V218 and V212.
A tunable lowpass filter (capacity diodes V161-V163) provides for attenuation of the mixing products above the upper sideband. A fixed, printed lowpass filter with a cut-off frequency of approx. 2600 MHz at the filter output suppresses the 2nd and 3rd-order LO mixing products.
The traveling-wave amplifier V91-V93 and the MMIC amplifiers N10, N11 and N20 are used as buffer stages between the filters.
R691 is provided for level adjustment in this filter.

7.1.6.3 3rd Filter 2500 to 3300 MHz

(sheets 11 and 12 of circuit diagram)
Filter 3 is set up similar to filter 2. The three highpass filters are tuned by the capacity diodes V173-V176 and V216-V217. The tunable lowpass filter is located at the filter output and is adjusted via the diodes V177-V179. It is decoupled via the amplifiers V94-V96, N15-N16 and N22.

7.1.6.4 RF Switch for the IQ Filters

(sheets 6 and 13 of circuit diagram)
Pin-diode switches are provided (V19, V22 and V202 at the filter input and V49-V53 at the filter output).
The current required for biased operation of the diodes is supplied by the operational amplifers N4 and N5 (signals IQCH1, IQCH2 and IQCH3).

7.1.7 Output Unit and CW Level Control

(sheet 13 of circuit diagram)
The required 4-dBm output level is generated by the two amplifier stages N23 and V108, the MMIC amplifier N23 being provided in the IQ path, only.
The selector switch for selection between IQ or CW mode (pin diode switch V46-V48) is accommodated between the amplifiers.
In CW mode, the level detector (V61) following the final amplifier controls the output level which must assume a fixed value. N19-1 is used as difference amplifier which amplifies the detected RF voltage, N19-2 functions as PI control amplifier. The pin-diode modulator of the LO level control works as level control element (cf. 7.1.3). The rated output level is set using the potentiometer R495. The two paths can be switched over via the integrated switch D3.
In IQ mode, the level detector V61 is used for level-preset calibration (cf. 7.1.5).

7.2 Test Instruments and Utilties

- Power supply (e.g., NGT35)
- Rf spectrum analyzer up to 5 GHz (e.g., FSEB, FSB)
- DC voltmeter, ammeter (UDS5)

7.3 Troubleshooting

The test program contained in the service kit provides versatile diagnosis facilities which is why it is just as well suited for error diagnosis. The rated values and the typical values of the filter tuning voltages, which are measured via the diagnosis while troubleshooting can be looked up under 7.4.7.1 and 7.4.7.2. Prior to troubleshooting, check, whether the respective data have been transferred correctly (7.4.7.3) and whether the important reference and control voltages (7.4.1) are provided.

7.3.1 Level Control out of Tolerance

Error message "IQCON ALC LOOP FAILURE"	First check, which operating mode and which frequencies are effected by the level control failure
only for frequencies from 450 to 1500 MHz in CW mode and 750 to 1200 MHz with vector modulation	Error with harmonic filter, check diagnostic points 2003 and 2011, harmonic filter test acc. to 7.4.
	Error with RF switch; check whether pin diodes V32, V33 and V35, V37 are forward biased (CH2ON: -12 V, CH1ON: -12 V)

only for frequencies 0.3 to 450 MHz, 1500 to 3300 MHz in CW mode and 0.3 to 750 MHz, 1200 to 3300 MHz with vector modulation	Error in the doubler path; check diagnoses 2004 and 2012, perform doubler path test acc. to 7.4.3 Error with RF switch; check whether pin diodes V32, V34 and V36, V37 are forward biased (CH2ON: 12 V, CH1ON: -12 V) Error with level control element V55; measure voltage drop at R534, typ. 0.2 to 4 V Error in the RF path (7.4.7.4)
in CW mode, only, with all frequencies	Check detector and control amplifier CW acc. to 7.4.4.3; perform level adjustment CW acc. to 7.4.4.4 Error with RF switch; check whether pin V39, V41 and V46, V48 are forward biased (LO-ON: -12 V, IQOFF: 12 V)
with vector modulation, only, all frequencies	Check working point LO amplifier V106 with vector modulation switched on (7.4.4.1) Check detector and control amplifier LO acc. to 7.4.4.5, perform level adjustment LO acc. to 7.4.4.6 Error with RF switch; check whether pin diodes V39 and V40 are forward biased (LO-ON: 12 V)
in both operating modes, all frequencies	Check RF level at the output harmonic filter or doubler path via diagnosis 2011 and 2012; if no level is provided, the error is located in the harmonic filter or in the doubler path: see above for troubleshooting H Check working points of the RF amplifiers in the control (7.4.4.1) and common level control (7.4.4.2) Check switch D3 for control switchover

7.3.2 Level Error

Level out of tolerance with CW	Perform level adjustment acc. to 7.4.4.4
Level out of tolerance with vector modulation	Perform level-preset calibration
Error with level-preset calibration	Check diagnosis 2015 in CW mode, perform level adjustment CW acc. to 7.4.4.4, if required; make sure that the diagnosis works correctly
	Check the common RF path with vector modulation; perform tests 7.4.5.1 - 7.4.5.3 successively, note instructions to 7.4.5
	depending on which frequency the level-preset calibration is interrupted at, the error is located in one of the tunable IQ filters, perform test 7.4.6 for the corresponding filter
	Check whether the pin diodes in the RF switches preceding and following the IQ filters are forward biased; check control voltages to ±12 V: IQCH1, IQ1IN, IQCH2, IQ2IN, IQCH3 and IQ3IN
	Error in the RF path (7.4.7.4)

7.3.3 Spectral Purity of the Output Signal FIQFIL

bad harmonics spectrum with CW	Harmonic filter test acc. to 7.4.2 for frequencies from 450 to 1500 MHz
	Test of doubler path acc. to 7.4.3 for frequencies > 1500 MHz
	Check working points of the RF amplifiers in the CW level control (7.4.4.1)

bad harmonic spectrum with vector modulation	Perform level-preset calibration Measure working points of the broadband amplifiers (7.4.5.2) Check working points of the buffer amplifiers in the IQ filters depending on the frequency range (7.4.6.2)
Subharmonic spuriae for frequencies from 1500 to 3000 MHz in CW mode	Perform test of the filter tuning voltages in the doubler path acc. to 7.4.3.1 Error with RF switch, check whether pin diodes V32, V33 or V35, V37 are reverse biasing, check switching voltages (CH2ON: 12 V, CH1ON: -12 V)
Nonharmonic spuriae with vector modulation at ± 300 MHz or ± 600 MHz from the carrier	Check filter tuning voltages acc. to 7.4.6.1
Nonharmonic spurious with 600 MHz	Perform level-preset calibration Check working points of the amplifiers in the RF path (7.4.5.2 and 7.4.6.2)

7.4 Testing and Adjustment

All measured values given without tolerances are recommended values. Voltages given without further information mean DC voltages.
The service kit contains an adaptor to make the module accessible. The adaptor is plugged into the chassis instead of the module and the RF connections at X221 and X223 are connected. A measurement cable is connected to the RF output X227. Then, the module can be plugged into the adaptor.
Prior to each test, a PRESET on the instrument causes the module to assume a defined state. If no further information is given with frequency settings, CW operation is assumed.
Tests in IQ mode (VECTOR MOD:STATE ON) require a voltage of 0.5 ± 0.01 V to be applied to the front unit.

7.4.1 Testing Data Transmission and Power Supply

(cf. sheets 14-17 of circuit diagram)
According to the instrument standard, the IQCON module is controlled via a serial interface using the SERBUS-D component. Data for setting the module are transmitted via subaddress 1. The second subaddress is provided for data traffic with the EEPROM, which contains the complete calibration data for filter control. The MSB is first transmitted for board setting and is applied at Q8 (pin 11) of the corresponding latch. Settings and associated data are given in Section 7.4.7.3.
The power consumption of the module can be checked by looping in an ammeter instead of the coils L3, L4, L5, L304 and L305 (7.6). The most important reference and supply voltages are checked using a DC voltmeter.

Test point	Type of voltage	Voltage [V]
P9	Reference for all regulated voltages	10 ± 0.02
P10	Reference voltage for generation of the filter tuning voltages	10 ± 0.02
P11	Reference voltage for working point and level controls	-10 ± 0.02
P7	Regulated supply voltage for RF amplifier	4.54 ± 0.1
P12	Regulated supply voltage for RF amplifier and reference voltage	6.65 ± 0.1

7.4.2 Harmonic Filter Test

Prior to checking the RF response of the harmonic filter (7.4.2.2), it is advisable to check the filter tuning voltages acc. to 7.4.2.1 or the transmitted data acc. to 7.4.7.3.

7.4.2.1 Testing the Tuning Voltages

(cf. sheet 2 of circuit diagram)
➢ Set frequencies acc. to the table below and measure tuning voltages using a DC voltmeter.

Setting	Voltage OWFIL [V]	Voltage at C15 [V]
FREQ 450.1 MHz	0.4 to 2.5	0.3 to 2
FREQ 1500 MHz	21 ± 0.3	16.1 ± 0.3

7.4.2.2 Performance of the Harmonic Filter

(cf. sheets 2 and 5 of circuit diagram)
The performance of the harmonic filter with the lower and upper cut-off frequency is measured. A current of 0.2 mA is applied to P4 (remove jumper P4-5) to measure with defined load.

- Connect spectrum analyzer with appropriate RF connectors to the test connector X2

- Settings: **FREQ 450.1 MHZ**

➢ Measure RF level of fundamental: -23 ± 4 dBm
➢ Measure RF level of 1st harmonic 900.2 MHz: typ. < -50 dBc
➢ Measure RF level of 2nd harmonic 1350.3 MHz: typ. < -40 dBc

- Settings: **RF 1100 MHZ**

➢ Measure RF level of fundamental: -23 ± 5 dBm
➢ Measure RF level of 1st harmonic 2200 MHz: typ. < -40 dBc
➢ Measure RF level of 2nd harmonic 3300 MHz: typ. < -40 dBc

7.4.3 Doubler Path Test

Prior to testing the RF response of the doubler filters (7.4.3.3) it is advisable to check the transmitted data acc. to 7.4.7.3, the filter tuning voltages acc. to 7.4.3.1 and the working points of the individual amplifiers acc. to 7.4.3.2.

7.4.3.1 Testing the Tuning Voltages

(cf. circuit diagram 3 and 4)
➢ Set frequencies acc. to table and measure tuning voltages using a DC voltmeter

Setting	Voltage VDFIL [V]	Voltage VDTUNE [V]	Voltage VDTUNE2 [V]
FREQ 1500.1 MHz	0.15 to 2.5	0.37	0.25
FREQ 2000 MHz	4.5 to 7.5	8.05	5.54
FREQ 3000 MHz	21 ± 0.3	15.9	10.9

7.4.3.2 Working Points of the Buffer Amplifiers

(cf. sheets 3 and 4 of circuit diagram)
➢ Check typical DC voltages acc. to the table below using a voltmeter

Amplifier	Test point	Rated value [V]
N17	Test pad Q22	3.6 ± 0.1
	UGATE-D1	-1 to 0.5
V149	Test pad Q23	3.7 ± 0.1
	UBASIS-D2	2.4
V148	Test pad Q24	3.7 ± 0.1
	UBASIS-D3	2.4
V150	Test pad Q25	3.7 ± 0.1
	UBASIS-D4	2.4

7.4.3.3 Performance of the Doubler Path

(cf. sheets 2-4 of circuit diagram)
The transmission function of the frequency doubler and of the tunable doubler filter is checked. A current of 0.2 mA is applied to P4 (remove jumper P4-5) to measure with defined load.

The two chambers C and D must be covered by an appropriate metal strip to enable measuring of the respective filter attenuation.

- Connect spectrum analyzer with appropriate RF connectors to test connector X2

- Settings: **FREQ 1500.1 MHZ**

➢ Measure RF level of output frequency 1500.1 MHz: -22 ± 5 dBm
➢ Measure RF level of 1st subharmonic 750.05 MHz: < -74 dBc
➢ Measure RF level of 3rd subharmonic 2250.15 MHz: < -74 dBc

- Settings: **FREQ 2000 MHZ**

➢ Measure RF level of output frequency 2000.1 MHz : -22 ± 6 dBm
➢ Measure RF level of 1st subharmonic 1000 MHz: < -74 dBc
➢ Measure RF level of 3rd subharmonic 3000 MHz: < -74 dBc

- Settings: **FREQ 3000 MHZ**

➢ Measure RF level of output frequency 3000.1 MHz: -22 ± 6 dBm
➢ Measure RF level of 1st subharmonic 1500 MHz: < -74 dBc
➢ Measure RF level of 3rd subharmonic 4500 MHz: < -74 dBc

7.4.3.4 Level Adjustment in the Doubler Path

(cf. sheet 3 of circuit diagram)
This level adjustment is intended to adjust the levels in the harmonic path to those in the doubler path. The level control is assumed to work correctly. The board output X227 must be terminated with 50 Ohms..

- Settings: **FREQ 1300 MHZ**
  UTILITIES:DIAG:TPOINT: STATE ON
  TEST POINT 2013

➢ Read off and note diagnosis voltage

- Settings: **FREQ 2000 MHZ**

➢ Adjust diagnosis voltage to noted value using R694

7.4.4 Checking Level Control

7.4.4.1 Checking the Working Points of the Amplifiers in the Controls

(cf. sheets 5 and 13 of circuit diagram)
➢ Check typical DC voltages acc. to the table below using a voltmeter

Amplifier	Test point	Rated valueV]	Note/Setting
V186	Test pad Q1	4.45 ± 0.1	Control of CW and LO
	UBASIS-E1	2.3	
V147	Test pad Q2	4.45 ± 0.1	Control of CW and LO
	UBASIS-E2	2.5	

Amplifier	Measuring point	Reference value	Control setting
V107	Test pad Q3	6 ± 0.2	Control of CW and LO
	UGATE-E1	-1.2 to -0.2	
V106	Test pad Q4	7.4 ± 0.3	only LO control VECTOR MOD:STATE ON
	UGATE-E2	-1.2 to -0.2	
V108	Test pad Q17	7.45 ± 0.3	only CW control
	UGATE-K2	-1.2 to -0.1	

7.4.4.2 Testing the Common Level Control Element

(cf. sheets 5 and 13 of circuit diagram)
The level control element (V42 and V38) is either controlled by the control amplifier of the LO control or by the control amplifier of CW control. The level control range of the control element is typical > 20 dB.
Simultaneously, all amplifiers including the one at the module output are measured. Testing is performed in CW mode.

- Connect spectrum analyzer to X227.
- Remove jumper P4-5 and connect current source to P4.

- Settings: **FREQ 1000 MHZ**

➢ Apply current from 0 to 10 mA and measure level with 1000 MHz at the module output. Maximum level: > 7 dBm, minimum level < -10 dBm

7.4.4.3 Testing Detector and Control Amplifier CW

(cf. sheet 13 of circuit diagram)
First check, whether the detector diodes V61 and V60 are forward biased correctly. Subsequently, check correct functioning of the detector and the integrator.
Following this test, a level adjustment has to be performed acc. to 7.4.4.4.

- Remove jumper P4-5.
- Connect current source to P4, current 0 mA
- Connect spectrum analyzer to X227

- Settings: **FREQ 1000 MHZ**

➢ Check whether the two diodes V61 and V60 are forward biased correctly using a DC voltmeter. The forward voltage is approx. 200 mV. The voltage potential at the cathode of the two diodes is approx. -0.2 V.

- Settings: **UTILITIES:DIAG:TPOINT: STATE ON**
  TEST POINT 2015

➢ Measure output voltage of summing amplifier N19-1 via diagnostic point 2015: < 50 mV

- Settings: **TEST POINT 2013**

➢ Measure output voltage of integrator N19-2 via diagnostic point 2013: > 12 V

➢ Turn potentiometer R495 fully clockwise
➢ Slowly increase current at P4 until RF level at X227 is approx. 4 dBm

- Settings: **TEST POINT 2015**

➢ Measure output voltage of summing amplifier N19-1 via diagnostic point 2015: approx. 220 mV

- Settings: **TEST POINT 2013**

➢ Measure output voltage of integrator N19-2 via diagnostic point 2013: < 0 V

7.4.4.4 Level Adjustment CW

(cf. sheets 5 and 13 of circuit diagram)
The level is adjusted with closed control loop. The reference value of control is set via R495. Jumper P4-5 is fitted.

- Connect spectrum analyzer to X227

- Settings: **FREQ 1300 MHZ**

➢ Adjust level to the rated value of 4 ± 0.2 dBm using R495
➢ There must not occur any noise peaks or secondary lines close to the carrier (± 1 MHz)

7.4.4.5 Testing Detector and Control Amplifier LO

(cf. sheet 5 of circuit diagram)
First check, whether the detector diodes V59 and V58 are forward biased correctly. Subsequently, check correct functioning of the detector and the integrator.
Following this test, a level adjustment has to be performed acc. to 7.4.4.6.

- Remove jumper P4-5.
- Connect current source to P4, current 0 mA
- Connect spectrum analyzer with appropriate connectors to test connector X4

- Settings: **FREQ 1000 MHZ**
  VECTOR MOD:STATE ON

➢ Check, whether the detector diodes V59 and V58 are forward biased correctly using a DC voltmeter. The forward voltage is approx. 200 mV. The voltage potential at the cathode is approx. -0.2 V.

- Settings: **UTILITIES:DIAG:TPOINT: STATE ON**
  TEST POINT 2013

➢ Measure output voltage of integrator N18-2 via diagnostic point 2013: > 12 V
➢ Turn potentiometer R494 fully clockwise

➢ Slowly increase current at P4 until RF level at X227 is approx. -8 dBm with 1300 MHz

➢ Measure output voltage of integrator N18-2 via diagnostic point 2013: < 0 V

7.4.4.6 LO Level Adjustment

(cf. sheet 5 of circuit diagram)
The level is adjusted with closed control loop. The reference value of control is set via R494. Jumper P4-5 is fitted.

- Connect spectrum analyzer with appropriate connectors to X4
- Settings: **FREQ 1000 MHZ**
  VECTOR MOD:STATE ON

➢ Adjust level with 1300 MHz to the rated value of -8 ± 0.2 dBm using R494
➢ There must not occur any noise peaks or secondary lines close to the carrier (± 1 MHz

7.4.5 Test of the Common RF Path with IQ

For checking the RF path between the mixer and the tunable bandpass filters, it is required that the mixer is correctly controlled at its LO and IF inputs.
For checking the LO input with vector modulation switched on, the control voltage can be checked via diagnosis 2013 (7.4.7.1). A 0.5-V DC voltage must be applied to the I or Q input on the front panel to enable generation of the required IF level. The 300-MHz signal can be measured at the output X242 of the IQ modulator.

7.4.5.1 Testing the Level Preset Element

(cf. sheets 6 and 15 of circuit diagram)
The Level-Preset element is controlled via a difference amplifier with current source. The required difference voltage is set via an 8-bit D/A converter (U5).
First, measure the current supplied by the current source and the reference voltage of the difference amplifier.

➢ Check current by measuring the voltage drop via R70 using a DC voltmeter. The current should be 2 mA. The voltage potential at the base of V25 (pin2) is 3.5 V.

- Setting: **FREQ 1000 MHZ**
  VECTOR MOD:STATE ON
  UTILITIES:DIAG:TPOINT: STATE ON
  TEST POINT 2002

➢ The diagnostic voltage should be between 2.7 V and 2.9 V. Die Diagnosespannung sollte zwischen 2.7 und 2.9 V liegen. The resulting current is used for control of the level preset element. It is typical 100 to 400 µA and can be measured as voltage drop via R537 using a DC voltmeter.

7.4.5.2 Checking the Working Points of the Broadband Amplifiers

(cf. sheets 6 and 13 of circuit diagram)

➢ Check typical DC voltages acc. to the table below using a voltmeter

[illegible]	[illegible]	[illegible]
V100-102	Test pad Q20	4.5 ± 0.1
	UGATE-F1	-0.5 to 0
V109	Test pad Q21	5.6 ± 0.2
	UGATE-F3	-1.5 to -0.3
N23	Pin 3	5 ± 0.5

7.4.5.3 Performance of the Mixer and the Broadbad Amplifier

(cf. sheet 6 of circuit diagram)
Correct functioning of the mixer, the two-stage amplifier and the level preset element are checked.

- Connect spectrum analyzer with appropriate connectors to test connector X3
- Settings: **VECTOR MOD:STATE ON**

➢ Set frequencies acc. to table and measure typical levels at the given frequencies using a spectrum analyzer

Frequency setting [MHz]	Measurement frequency [MHz]	Typical level [dBm]
751	751	-30
	600	< -85
	900	< -100
	1051	< -30
2000	2000	-32
	1700	< -30
3300	3300	-34
	3000	< -25

7.4.6 Testing the IQ Filters

A network analyzer is required to measure exact transmission performance of the tunable IQ filters. For a rough check of correct function, therefore, connectors are provided at the filters which allow for measuring typicl levels of the wanted sidebands.
It is advisable, however, to first check the working points and control voltages in the filters.

7.4.6.1 Testing the Tuning Voltages

(cf. sheets 7-12 of circuit diagram)

- Settings: **VECTOR MOD:STATE ON**

➢ Set frequencies acc. to table below and measure tuning voltages directly at the filters using a DC voltmeter

Setting	Voltage output [V]	Voltage input [V]	Voltage control [V]
FREQ 751 MHz	1.2 to 3	1.2 to 3	0.1 to 1.8
FREQ 1800 MHz	10 to 14	13 to 17	13.5 to 18.5
FREQ 1801 MHz	0.2 to 2.5	4.5 to 7	0.4 to 2.4
FREQ 2500 MHz	14 to 21	13 to 19	11 to 16
FREQ 2501 MHz	4.2 to 7.4	3.5 to 6.5	1.2 to 3.5
FREQ 3300 MHz	13 to 18.5	14 to 19.5	11 to 16

7.4.6.2 Working Points of the Buffer Amplifiers

(cf. sheets 7-12 of circuit diagram)

Since some of the amplifiers are switched off, if the respective filters are not used, a frequency setting is required for checking their working points.

- Settings: **VECTOR MOD:STATE ON**

➢ Set corresponding RF frequency and measure typical DC voltages acc. to table using a voltmeter

Setting	Amplifier	Test point	Rated value [V]
FREQ 1000 MHz	N12	Test pad Q9	3.55 ± 0.1
		UGATE-G1	-1.5 to 0.2
	N13	Test pad Q10	3.55 ± 0.1
		UGATE-G2	-1.5 to 0.2
	N21	Test pad Q11	3.55 ± 0.1
		UGATE-G3	-1.5 to 0.2
	N14	Test pad Q12	3.55 ± 0.1
		UGATE-G4	-1.5 to 0.2
FREQ 2000 MHz	V91-V93	Test pad Q5	3.95 ± 0.1
		UGATE-H1	-0.5 to 0
	N10	Test pad Q6	3.55 ± 0.1
		UGATE-H2	-1.5 to 0.2
	N20	Test pad Q7	3.55 ± 0.1
		UGATE-H3	-1.5 to 0.2
	N11	Test pad Q8	3.55 ± 0.1
		UGATE-H4	-1.5 to 0.2
FREQ 3000 MHz	V94-V96	Test pad Q13	3.95 ± 0.1
		UGATE-I1	-0.5 to 0
	N15	Test pad Q14	3.55 ± 0.1
		UGATE-I2	-1.5 to 0.2
	N22	Test pad Q15	3.55 ± 0.1
		UGATE-I3	-1.5 to 0.2
	N16	Test pad Q16	3.55 ± 0.1
		UGATE-I4	-1.5 to 0.2

7.4.6.3 Checking Typical RF Levels

(cf. sheets 6-13 of circuit diagram)

- Connect spectrum analyzer with appropriate connectors to test connectors X6, X5 or X7
- Settings: **VECTOR MOD:STATE ON**

➢ Set frequencies acc. to table and measure typical levels using a spectrum analyzer

Frequency / MHz	Test connector	Typical level / dBm
751	X6	-33
	X1	-40
1800	X6	-31
	X1	-34
1801	X5	-31
	X1	-35
2500	X5	-25
	X1	-34
2501	X7	-30
	X1	-35
3300	X7	-26
	X1	-33

7.4.6.4 Filter Calibration and Level Adjustment of the IQ Filters

New filter calibration can only be performed in the factory Memmingen (Board Pretest). This is, however, only required, after replacing either capacity diodes in the IQ filters or the EEPROM containing the calibration data.
Each new calibration must be followed by a level adjustment of the filters. For this purpose, the potentiometers R691-R693 are provided, which allow for adjusting the levels of the three filters to each other. They must not be varied in normal operation.

7.4.7 Tables and Interfaces

7.4.7.1 List of Diagnostic Test Points

(cf. sheet 14 of circuit diagram)
Two diagnosis multiplexers (D13, D14) are provided for monitoring the important control voltages and RF levels.
The potential of the module ground can be measured in order to compensate for offset voltages (diagnosis 2000)

Diagnosis multiplexer 1:

Diagnostic point	Specified range [V]	Remark/Setting
2000	-0.01 to 0.01	Reference 10 kOhm
2001	-9.9 to 10.1	-10V reference voltage, REF-10
2002	2.55 to 4.45	Level-preset voltage, LPRE1
2003	0 to 21	Tuning voltage harmonic filter, OWFIL

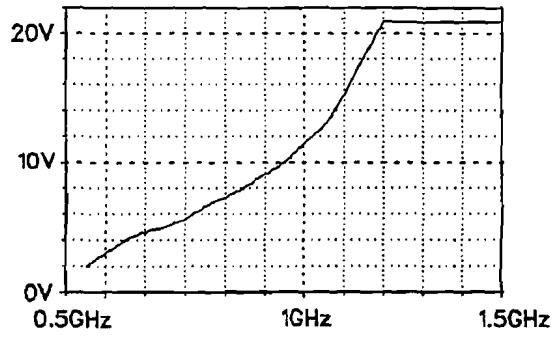
Diagnostic point	Specified range	Remark
2004	0 to 21	Tuning voltage doubler filter lowpass, VDFIL
2005	0 to 21	Tuning voltage IQ filter, sideband, IQFIL1
2006	0 to 21	Tuning voltage IQ filter, LO frequency, IQFIL2
2007	0 to 21	Tuning voltage IQ filter, LO ± 2*IF, IQFIL3

Diagnosis multiplexer 2:

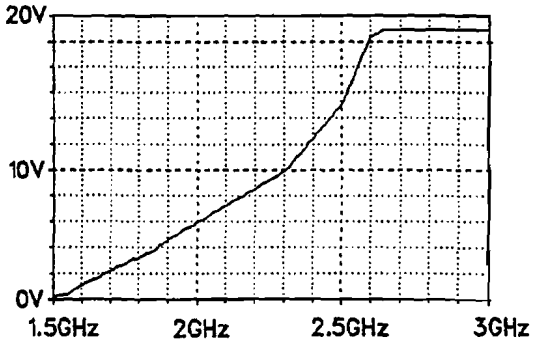
Diagnostic point	Specified range	Remark
2008	4.44 to 4.64	Reference voltage 4.54 V, REF4
2009	6.55 to 6.75	Reference voltage 6.55 V, REF6
2010	9.9 to 10.1	Reference voltage 10 V, REF10
2011	0.02 to 0.1	RF level output harmonic filter 450 to 1500 MHz, CW 750 to 1200 MHz, vector modulation
2012	0.02 to 0.1	RF level output doubler path 0.3 to 450 MHz, 1500 to 3300 MHz, CW 0.3 to 750 MHz, 1200 to 3300 MHz, vector mod.
2013	2.4 to 10	Control voltage level control, interrupt Level control CW level, CW Level control LO level, vector modulation
2014	0.1 to 0.6	RF level input IQ filter 0.5 V at I or Q input, vector modulation
2015	0.13 to 0.37	RF level module output FIQFIL constant with CW mode

7.4.7.2 Typical Characteristic of the Filter Tuning Voltages

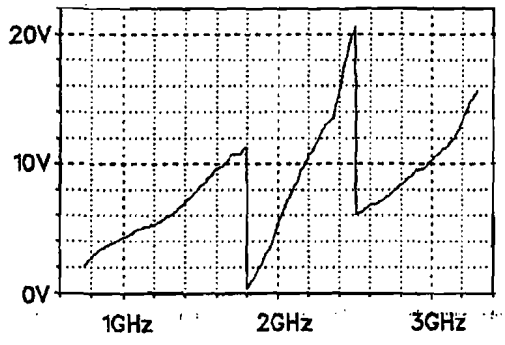
Diagnosis 2003:



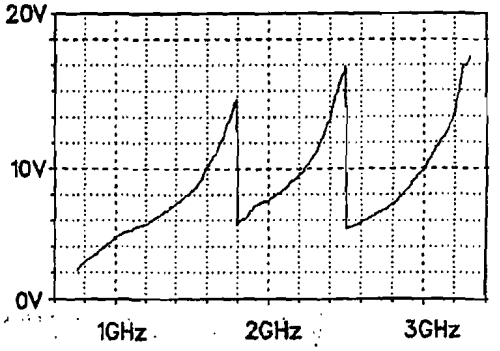
Diagnosis 2004:



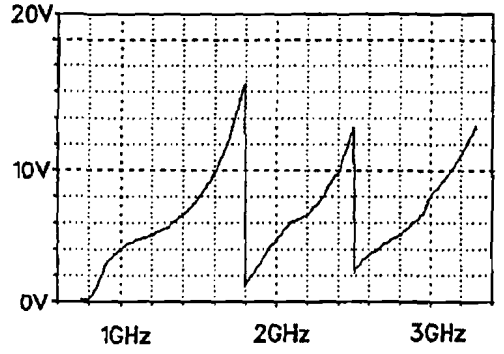
Diagnosis 2005:



Diagnosis 2006:



Diagnosis 2007:



7.4.7.3 Digital Interface

(cf. sheets 14 + 15 of circuit diagram)
The IQCON module is set via a serial interface using the SERBUS-D component, according to the instrument standard. The data for the serial shift registers for the HC4094-Latches are strobed by strobe 1 (SERWR1).
The second subaddress is provided for communication with the onboard EEPROM. The latter contains the tuning values for all tunable filters obtained with filter calibration. The data format corresponds to the R&S standard. External access to the filters is not possible which is why they are not mentioned.

Subaddress 0 (SEROUT, SERCLK1, SERWR1)

Bezeichnung		Name	Funktion		
	11	Lpre1_7	Setting for level preset with		MSB
	12	Lpre1_6	vector modulation		
	13	Lpre1_5	Range from 0 to 255		
D11	14	Lpre1_4	corresponds to current of 0 to		
	7	Lpre1_3	2 mA through level preset		
	6	Lpre1_2	element		
	5	Lpre1_1			
	4	Lpre1_0			LSB
	11	Iqfil3_7	Tuning voltage for IQ filters		MSB
	12	Iqfil3_6	in three ranges, for filtering		
	13	Iqfil3_5	of 1*LO ± 2*RF		
D10	14	Iqfil3_4	750 to 3300 MHz		
	7	Iqfil3_3	Range from 0 to 255		
	6	Iqfil3_2	corresponds to tuning voltage		
	5	Iqfil3_1	from 0 to 21 V		
	4	Iqfil3_0			LSB
	11	Iqfil2_7	Tuning voltage for IQ filters		MSB
	12	Iqfil2_6	in three ranges, for filtering		
	13	Iqfil2_5	of 1*LO		
D9	14	Iqfil2_4	750 to 3300 MHz		
	7	Iqfil2_3	Range from 0 to 255		
	6	Iqfil2_2	corresponds to tuning voltage		
	5	Iqfil2_1	from 0 to 21 V		
	4	Iqfil2_0			LSB
	11	Iqfil1_7	Tuning voltage for IQ filters		MSB
	12	Iqfil1_6	in three ranges, for filtering		
	13	Iqfil1_5	of second sideband 1*LO ± 1*RF		
D8	14	Iqfil1_4	750 to 3300 MHz		
	7	Iqfil1_3	Range from 0 to 255		
	6	Iqfil1_2	corresponds to tuning voltage		
	5	Iqfil1_1	from 0 to 21 V		
	4	Iqfil1_0			LSB
	11	Vdfil_7	Tuning voltage for lowpass of		MSB
	12	Vdfil_6	the subharmonic filter in the		
	13	Vdfil_5	doubler path		
D7	14	Vdfil_4	1500 to 3000 MHz		
	7	Vdfil_3	Range from 0 to 255		
	6	Vdfil_2	corresponds to tuning voltage		
	5	Vdfil_1	from 0 to 21 V		
	4	Vdfil_0			LSB
	11	Owfil_7	Tuning voltage for harmonic		MSB
	12	Owfil_6	filter		
	13	Owfil_5	450 to 1500 MHz		
D12	14	Owfil_4	Range from 0 to 255		
	7	Owfil_3	corresponds to tuning voltage		
	6	Owfil_2	from 0 to 21 V		
	5	Owfil_1			
	4	Owfil_0			LSB

	11	Fil3	Switching bit for IQ filter 3 2500 to 3300 MHz	0=ON	1=OFF
	12	Fil2	Switching bit for IQ filter 2 1800 to 2500 MHz	0=ON	1=OFF
	13	Fil1	Switching bit for IQ filter 1 750 to 1800 MHz	0=ON	1=OFF
D6	14	Fg2	Switchover bits for highpass		MSB
	7	Fg1	filters in the doubler path 0=2300 to 3000 MHz 1=1500 to 1850 MHz 2=1850 to 2300 MHz		LSB
	6	F1_F2	Switchover bit harmonic filter(F1)/doubler path(F2)	0=F1	1=F2
	5	IQ_CW	Switchover bit IQ/CW mode	0=IQ	1=CW
	4	RefHiLo	Switchover bit for level control	0=LO	1=CW
	11	-			
	12	-			
	13	-			
D4	14	Diagena2	Diagnois multiplexer 2 Diagnostic points 2008 to 2015	0=OFF	1=ON
	7	Diagena1	Diagnosis multiplexer 1 Diagnostic points 2000 to 2007	0=OFF	1=ON
	6	Dmux2	Diagnosis multiplexer		MSB
	5	Dmux1	0 to 7		
	4	Dmux0			LSB

7.4.7.4 Typical RF Levels

Conditional testing of the RF paths is possible only by connecting an RF probe to the spectrum analyzer. Make sure to have a short ground connection at low impedance. The series impedance of the probe should amount to 1 kOhm. The indicated values are typical values. The measurements are performed at lowest possible frequencies. The measurements are taken subsequent to the coupling capacitor of the indicated amplifier stage.

Frequency setting, mode	Test point	Typical RF level [dBm]
1501 MHz, CW	Doubler input, pin 1 N8 measure with 750.5 MHz	13
1501 MHz, CW	Output 1st amplifier doubler path, V149	7
1501 MHz, CW	Output 2nd amplifier doubler path, V148	-1
500 MHz, CW	Output 1st amplifier LO driver, V186	-11
500 MHz, CW	Output 2nd amplifier LO driver, V147	-5
500 MHz, CW	Output 3rd amplifier LO driver, V107	7
751 MHz, Vector modulation	Output 1st amplifier broadband amplifier, V100-V102	-5
751 MHz, Vector modulation	Output highpass filter following 2nd amplifier broadband amplifier (V109), C469	6
751 MHz, Vector modulation	Output 1st amplifier IQ filter1,	-4

	N12	
Set frequency, mode	Test point	Typical test level [dBm]
751 MHz, Vector modulation	Output 3rd amplifier IQ filter1, N21	-10
1801 MHz, Vector modulation	Output 1st amplifier IQ filter2, V91-V93	-5
1801 MHz, Vector modulation	Output 3rd amplifier IQ filter2, N20	-9
2501 MHz, Vector modulation	Output 1st amplifier IQ filter3, N12	-7
2501 MHz, Vector modulation	Output 3rd amplifier IQ filter3, N22	-12
500 MHz, CW	Input of output stage V108	-7

7.5 Removal and Assembly

After opening the instrument, unlocking the board and disconnecting the RF connections X221, X223 ad X227, the module can be removed from its slot. The screening covers of the board are screwed in the conventional way.

7.6 External Interfaces

Pin	Name	Input/Output	Origin/Destination	Specified value	Signal description
Xfff.A12	SERBUS-CLK	Input	A3, FRO, X31.40	HCT level	Serbus clock
Xfff.A14	SERBUS-OUT	Output	A3, FRO, X31.39	HCT level	Serbus data
Xfff.A15	SERBUS-IN	Input	A3, FRO, X31.39	HCT level	Serbus data
Xfff.A16	SERBUS-SYNC	Input	A3, FRO, X31.37	HCT level	Serbus sync
X220.A17	SERBUS-INT	Output	A3, FRO, X31.38	HCT level	Serbus interrupt
X220.A18	Reset-P	Input	A3, FRO, X31.28	HCT level	Serbus reset
X220.A19	DIAG-5V	Output	A3, FRO, X31.44	-5 V to +5 V	Diagnosis
X220.A22	VA24-P	Input	A2, POWS1	23.75 to 25.25 V CW: 28 to 40 mA IQ: 30 to 42 mA	24-volt power supply
X220.A24	VA15-P	Input	A2, POWS1	14.85 to 15.75 V CW: 250 to 300 mA IQ: 360 to 420 mA	15-volt power supply
X220.A26	VA7.5-P	Input	A2, POWS1	7.45 to 7.95 V CW: 530 to 590 mA IQ: 530 to 590 mA	7.5-V power supply
X220.A28	VD5-P	Input	A2, POWs1	5.15 to 5.25 V CW: 450 to 500 mA IQ: 540 to 610 mA	5-V digital power supply
X220.A30	VA15-N	Input	A2, POWS1	-15.75 to -14.85 V CW: 120 to 160 mA IQ: 120 to 160 mA	-15-V power supply

Pin	Name	Input/Output	Origin/Destination	Specified range	Signal description
X221	FSUM	Input	A9, SUM A7, TSYN	7 to 12 dBm	450 to 1500 MHz Signal of frequency synthesis
X223	IQ300	Input	A240, IQMOD	-5 ± 0.2 dBm	Vector-modulated signal (bandwidth 30 MHz)
X227	FIQFIL	Output	A240, IQMOD	4 ± 3 dBm	Output signal 450 to 3300 MHz

ROHDE&SCHWARZ

Schaltteillisten
numerisch geordnet

Part lists
in numerical order

Listes des pièces détachées
par numéros de référence

095.1000 Bl. 3

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
.	XX VARIANTENERKLAERUNG IDENTIFICATION OF MODELS VARO2=OHNE SMIQ-B46 EINBAU VARO4=GRUNDAUSFUEHRUNG				
C1 ..4	CE 33UF 20% 25V AL SMD SMD ELECTROLYTIC CAPACIT.	0009.5592.00	PANASONIC	EEV HB 1E 330P	
C5	CC 3,9PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4509.00	MURATA	GRM39COG***B50ZPT	
C6	CC 3,9PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4509.00	MURATA	GRM39COG***B50ZPT	
C7	CC 4,7PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4538.00	MURATA	GRM39COG***B50ZPT	
C8	CC 3,9PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4509.00	MURATA	GRM39COG***B50ZPT	
C9	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C10	CC 12PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8256.00	MURATA	GRM39COG***F50ZPT	
C11	CC 12PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8256.00	MURATA	GRM39COG***F50ZPT	
C12	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C13	CC 5,6PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4521.00	MURATA	GRM39COG***B50ZPT	
C14	CC 3,9PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4509.00	MURATA	GRM39COG***B50ZPT	
C15	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C16	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C17	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C18	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C19	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C20 ..23	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C24 ..27	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C28	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C29	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C30	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C31	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C32	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C33 ..35	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C36	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C37 ..39	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C40	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C41	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C42	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C43	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C44	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C45	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C46	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C47	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C48	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C49 ..51	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C52	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C53 ..55	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C56	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C57	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C58 ..61	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C62	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C63	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C64	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C65	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C66 ..68	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C69	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C70 ..72	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C73	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C74	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C75	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C76	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C77	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C78	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C79 ..82	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C83	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C84	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C85	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C86 ..88	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C89	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C90	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C91	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C92	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C93	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C94	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C95	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C96	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C97	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C98	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C99	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C100	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C101	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C102 ..104	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C105	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C106 ..110	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C111	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C112	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C113	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C114	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C115 ..117	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C118	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C119	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C120	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C121	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C122 ..124	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C125	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C126	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C127	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C128 ..131	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C132	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C133 ..138	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C139	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C140 ..144	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C145	CC 0,3PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7114.00	AVX	0603 5J *** AAW TR	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
	NICHT BESTUECKT NOT FITTED				
C146	CC 0,2PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7108.00	AVX	0603 5J *** AAW TR	
C147	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
	NICHT BESTUECKT NOT FITTED				
C148	CC 0,5PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7137.00	AVX	0603 5J *** AAW TR	
C149	CC 0,2PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7108.00	AVX	0603 5J *** AAW TR	
C150 ..153	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C154	CC 4,7NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4809.00	MURATA	GRM39X7R***K5C500PT*	
C155	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C156	CC 470PF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4896.00	MURATA	GRM39X7R***K5C500PT*	
C157	CC 4,7NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4809.00	MURATA	GRM39X7R***K5C500PT*	
C158	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C159	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C160	CC 4,7NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4809.00	MURATA	GRM39X7R***K5C500PT*	
C161	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C162	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C163	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C164	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C165	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C166	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C167	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C168	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C169	CC 4,7NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4809.00	MURATA	GRM39X7R***K5C500PT*	
C170	CC 470PF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4896.00	MURATA	GRM39X7R***K5C500PT*	
C171	CC 4,7NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4809.00	MURATA	GRM39X7R***K5C500PT*	
C172	CC 470PF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4896.00	MURATA	GRM39X7R***K5C500PT*	
C173	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C174	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C175	CC 470PF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4896.00	MURATA	GRM39X7R***K5C500PT*	
C176	CC 470PF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4896.00	MURATA	GRM39X7R***K5C500PT*	
C177	CC 4,7NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4809.00	MURATA	GRM39X7R***K5C500PT*	
C178	CC 4,7NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4809.00	MURATA	GRM39X7R***K5C500PT*	
C179	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C180	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C181	CC 4,7NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4809.00	MURATA	GRM39X7R***K5C500PT*	
C182	CC 470PF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4896.00	MURATA	GRM39X7R***K5C500PT*	
C183	CC 470PF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4896.00	MURATA	GRM39X7R***K5C500PT*	
C184	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C185	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	

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Kenns. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C186	CC 4,7NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4809.00	MURATA	GRM39X7R***K5C500PT*	
C187	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C188	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C189	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C190	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C191	CC 4,7NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4809.00	MURATA	GRM39X7R***K5C500PT*	
C192	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C193	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C194	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C195	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C196	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C197	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C198	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C199	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C200	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C201	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C202 ..204	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C205 ..208	CC 2,2NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4767.00	MURATA	GRM39X7R***K5C500PT*	
C209	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C210	CC 2,2NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4767.00	MURATA	GRM39X7R***K5C500PT*	
C211	CC 2,2NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4767.00	MURATA	GRM39X7R***K5C500PT*	
C212	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR NICHT BESTUECKT NOT FITTED	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C213	CC 1UF+-10% 50V X7R 2220 CERAMIC CAPACITOR	CC 0520.6873.00	AVX	2220 5C 105 KAT**A(F	
C214	CC 1UF+-10% 50V X7R 2220 CERAMIC CAPACITOR	CC 0520.6873.00	AVX	2220 5C 105 KAT**A(F	
C215	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C216	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C217	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT/NOT FITTED	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C218	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR NICHT BESTUECKT NOT FITTED	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C219	CC 1UF+-10% 50V X7R 2220 CERAMIC CAPACITOR	CC 0520.6873.00	AVX	2220 5C 105 KAT**A(F	
C220	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C221	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR NICHT BESTUECKT NOT FITTED	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C222	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C223	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
	NICHT BESTUECKT NOT FITTED				
C224	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C225	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR NICHT BESTUECKT NOT FITTED	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C226	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C227	CC 1UF+-10% 50V X7R 2220 CERAMIC CAPACITOR	CC 0520.6873.00	AVX	2220 5C 105 KAT**A(F	
C228	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR NICHT BESTUECKT/NOT FITTED	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C229 ..231	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C232	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR NICHT BESTUECKT NOT FITTED	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C233	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C234	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C235	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR NICHT BESTUECKT NOT FITTED	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C236	CC 1UF+-10% 50V X7R 2220 CERAMIC CAPACITOR	CC 0520.6873.00	AVX	2220 5C 105 KAT**A(F	
C237	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C238	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C239	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C240	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C241	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C242	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C243	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C244	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C245	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C246	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C247	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C248	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C249 ..252	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C253	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C254	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C255	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C256	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C257	CC 0,7PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7150.00	AVX	0603 5J *** AAW TR	
C258	CC 0,3PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7114.00	AVX	0603 5J *** AAW TR	
C259	CC 0,4PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7120.00	AVX	0603 5J *** AAW TR	
C260	CC 2,7PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8291.00	MURATA	GRM39C0G***B50ZPT	

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C261	CC 2,7PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8291.00	MURATA	GRM39COG***B50ZPT	
C262	CC 2,2PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4467.00	MURATA	GRM39COG***B50ZPT	
C263	CC 2,7PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.8291.00	MURATA	GRM39COG***B50ZPT	
C264	CC 2,7PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.8291.00	MURATA	GRM39COG***B50ZPT	
C265	CC 2,7PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.8291.00	MURATA	GRM39COG***B50ZPT	
C266	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39COG***F50ZPT	
C267	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C268	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C269	CC 8,2PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4550.00	MURATA	GRM39COG***B50ZPT	
C270 ..272	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C273	CE 100UF+-20%16V RUND SMD SMD-ELECTOLYTIC CAPACIT.	CE 0009.6553.00	SANYO	16CV100F(G)S	
C274	CE 100UF+-20%16V RUND SMD SMD-ELECTOLYTIC CAPACIT.	CE 0009.6553.00	SANYO	16CV100F(G)S	
C275	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C276	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C277	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C278	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C279	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C280	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C281	CC 22PF+-2% 150V PELL PORCELAIN CAPACITOR	0009.8604.00	TEKELEC	201CHA *** GW(V)LE	
C282	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C283	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C284	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C285	CC 22PF+-2% 150V PELL PORCELAIN CAPACITOR	0009.8604.00	TEKELEC	201CHA *** GW(V)LE	
C286	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C287	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C288	CC 27PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0010.9323.00	MURATA	GRM39COG***F50ZPT	
C289	CC 4,7PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4538.00	MURATA	GRM39COG***B50ZPT	
C290	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C291 ..293	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C294	CC 68PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.9746.00	MURATA	GRM39COG***F50ZPT	
C295	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C296	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C297 ..303	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C304	CC 27PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0010.9323.00	MURATA	GRM39COG***F50ZPT	
C305 ..307	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C308	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C50OPT*	
C309	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C310	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C50OPT*	
C311 ..319	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C320 ..330	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C331	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C332	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C333	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C334	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C335	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C336	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C337	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39COG***F50ZPT	
C338	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT/NOT FITTED	CC 0009.4567.00	MURATA	GRM39COG***B50ZPT	
C339	CC 15PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8227.00	MURATA	GRM39COG***F50ZPT	
C340	CC 15PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8227.00	MURATA	GRM39COG***F50ZPT	
C341	CC 1,2PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4444.00	MURATA	GRM39COG***B50ZPT	
C342	CC 1,8PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4473.00	MURATA	GRM39COG***B50ZPT	
C343	CC 1,8PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4473.00	MURATA	GRM39COG***B50ZPT	
C344 ..346	CC 1,5PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4450.00	MURATA	GRM39COG***B50ZPT	
C347	CC 2,7PF+-0,1PF50VCOG0603 SMD-CERAMIC CAPACITOR	CC 0008.2119.00	AVX	0603 5J 2R7 BAWTR	
C348	CC 2,7PF+-0,1PF50VCOG0603 SMD-CERAMIC CAPACITOR	CC 0008.2119.00	AVX	0603 5J 2R7 BAWTR	
C349 ..351	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C352	CC 1UF+-10% 50V X7R 2220 CERAMIC CAPACITOR	CC 0520.6873.00	AVX	2220 5C 105 KAT**A(F	
C353	CC 1UF+-10% 50V X7R 2220 CERAMIC CAPACITOR	CC 0520.6873.00	AVX	2220 5C 105 KAT**A(F	
C354	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C355	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C356	CC 0,5PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7137.00	AVX	0603 5J *** AAW TR	
C357	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C358	CC 0,5PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7137.00	AVX	0603 5J *** AAW TR	
C359	CC 0,5PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7137.00	AVX	0603 5J *** AAW TR	
C360	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39COG***F50ZPT	
C361	CC 6,8PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8262.00	MURATA	GRM39COG***B50ZPT	
C362	CC 8,2PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4550.00	MURATA	GRM39COG***B50ZPT	
C363	CC 6,8PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8262.00	MURATA	GRM39COG***B50ZPT	
C364	CC 5,6PFO,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4521.00	MURATA	GRM39COG***B50ZPT	
C365	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C366	XX ENTHALTEN IN INCLUDED IN LAYOUT				

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Kenns. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C367	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C368	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C369	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C370	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C371	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C372	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C373	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C374	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C375	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C376	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C377	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C378	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C379	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C380	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C381	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C382	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C383	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C384	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C385	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C386	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C387	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C388	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C389	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C390	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C391	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C392	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C393	XX ENTHALTEN IN INCLUDED IN				

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
	LAYOUT				
C394	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C395	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C396	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C397	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C398	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C399	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C400	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C401	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C402	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C403	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C404	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C405	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C406	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C407	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C408	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C409	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C410	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C411	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C412	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C413	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C414	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C415	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C416	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C417	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C418	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C419	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C420	CC 2,2PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4467.00	MURATA	GRM39C0G***B50ZPT	
C421	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C422	CC 4,7PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4538.00	MURATA	GRM39C0G***B50ZPT	

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ROHDE&SCHWARZ	24	11.08.99	EE IQ-CONVERTER IQ-CONVERTER	1084.9300.01 SA	10+

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C423	CC 0,2PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7108.00	AVX	0603 5J *** AAW TR	
C424 ..426	CC 1,0PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8304.00	MURATA	GRM39C0G***B50ZPT	
C427	CC 0,3PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7114.00	AVX	0603 5J *** AAW TR	
C428	CC 0,3PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0010.7114.00	AVX	0603 5J *** AAW TR	
C429	CC 1,0PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.8304.00	MURATA	GRM39C0G***B50ZPT	
C430	CC 1,0PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.8304.00	MURATA	GRM39C0G***B50ZPT	
C431	CC 0,3PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7114.00	AVX	0603 5J *** AAW TR	
C432	CC 3,3PF 0, 1PF50V NPO 06 SMD-CERAMIC-CAPACITOR	CC 0009.8285.00	MURATA	GRM39C0G***B50ZPT	
C433	CC 3,3PF 0, 1PF50V NPO 06 SMD-CERAMIC-CAPACITOR	CC 0009.8285.00	MURATA	GRM39C0G***B50ZPT	
C434 ..436	CC 0,4PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7120.00	AVX	0603 5J *** AAW TR	
C437	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C438	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C50OPT*	
C439 ..441	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C442	CC 4,7NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4809.00	MURATA	GRM39X7R***K5C50OPT*	
C443	CC 4,7NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4809.00	MURATA	GRM39X7R***K5C50OPT*	
C444	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C445 ..448	CC 4,7NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4809.00	MURATA	GRM39X7R***K5C50OPT*	
C449 ..453	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C454	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C455	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C456	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C457 ..459	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C460	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C461	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C50OPT*	
C462	CC 220PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4721.00	MURATA	GRM39C0G***F50ZPT	
C463	CC 220PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4721.00	MURATA	GRM39C0G***F50ZPT	
C464	CC 8,2PF+-0,1PF 150V PELL PORCELAIN CAPACITOR	0009.8579.00	TEKELEC	201CHA***BVLR	
C465	CC 8,2PF+-0,1PF 150V PELL PORCELAIN CAPACITOR	0009.8579.00	TEKELEC	201CHA***BVLR	
C466	CC 6,8PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8262.00	MURATA	GRM39C0G***B50ZPT	
C467 ..469	CC 5,6PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4521.00	MURATA	GRM39C0G***B50ZPT	
C470	CC 6,8PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8262.00	MURATA	GRM39C0G***B50ZPT	
C471	CE 100UF+-20%16V RUND SMD SMD-ELECTOLYTIC CAPACIT.	CE 0009.6553.00	SANYO	16CV100F(G)S	
C472	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C473	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C474	CC 0,8PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7166.00	AVX	0603 5J *** AAW TR	

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ROHDE&SCHWARZ	24	11.08.99	EE IQ-CONVERTER IQ-CONVERTER	1084.9300.01 SA	11+

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C475	CC 0,8PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7166.00	AVX	0603 5J *** AAW TR	
C476 ..483	CC 1,2PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4444.00	MURATA	GRM39C0G***B50ZPT	
C484	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C485	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C486	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C487	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C488	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C489	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C490	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C491	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C492	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C493	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C494 ..497	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C498	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C499	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C500 ..507	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C508	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C509	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C510 ..512	CC 1UF+-10% 50V X7R 2220 CERAMIC CAPACITOR	CC 0520.6873.00	AVX	2220 5C 105 KAT**A(F	
C513	CE 22UF+-20%35V RUND SMD SMD ELECTROLYTIC CAPACIT.	CE 0009.6253.00	PANASONIC	EEV HB 1V 220P	
C514	CE 33UF 20% 25V AL SMD SMD ELECTROLYTIC CAPACIT.	0009.5592.00	PANASONIC	EEV HB 1E 330P	
C515	CE 33UF 20% 25V AL SMD SMD ELECTROLYTIC CAPACIT.	0009.5592.00	PANASONIC	EEV HB 1E 330P	
C516	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C517	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C518 ..520	CC 2,2PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4467.00	MURATA	GRM39C0G***B50ZPT	
C521 ..528	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C529	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C530 ..547	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C548	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C549 ..551	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C552	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	
C553	CC 22PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4609.00	MURATA	GRM39C0G***F50ZPT	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C554	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
C555	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C556	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C557	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C558	CC 47PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4644.00	MURATA	GRM39C0G***F50ZPT	
C559	CC 68PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.9746.00	MURATA	GRM39C0G***F50ZPT	
C560	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C561 ..563	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C564	CC 6,8PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8262.00	MURATA	GRM39C0G***B50ZPT	
C565	CC 10P+-0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
C566	CC 100PF+-1% 50VNPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C567	CC 6,8PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8262.00	MURATA	GRM39C0G***B50ZPT	
C568	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C569 ..572	CC 33NF+-10% 25V HDK 0603 SMD CERAMIC CAPACITOR	CC 1051.4697.00	AVX	CM105X7R333K25VAT	
C573	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C574	CC 1UF+-10% 50V X7R 2220 CERAMIC CAPACITOR	CC 0520.6873.00	AVX	2220 5C 105 KAT**A(F	
C575	CC 1UF+-10% 50V X7R 2220 CERAMIC CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0520.6873.00	AVX	2220 5C 105 KAT**A(F	
C576	CC 1UF+-10% 50V X7R 2220 CERAMIC CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0520.6873.00	AVX	2220 5C 105 KAT**A(F	
C577	CC 1UF+-10% 50V X7R 2220 CERAMIC CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0520.6873.00	AVX	2220 5C 105 KAT**A(F	
C578	CC 1UF+-10% 50V X7R 2220 CERAMIC CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0520.6873.00	AVX	2220 5C 105 KAT**A(F	
C579	CC 1UF+-10% 50V X7R 2220 CERAMIC CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0520.6873.00	AVX	2220 5C 105 KAT**A(F	
C580	CC 1,0NF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4938.00	MURATA	GRM39X7R***K5C500PT*	
C581	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C582	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C583	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C584	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C585	CC 4,7PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4538.00	MURATA	GRM39C0G***B50ZPT	
C586	CC 4,7PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4538.00	MURATA	GRM39C0G***B50ZPT	
C587	CC 6,8PF0,1PF50V NPO 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8262.00	MURATA	GRM39C0G***B50ZPT	
C588	XX ENTHALTEN IN INCLUDED IN				

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufecturer	Bezeichnung Designation	enthalten in contained in
	LAYOUT				
C589	CC 100PF+-1% 50VNP0 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C590	CC 12PF+-1% 50VNP0 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8256.00	MURATA	GRM39C0G***F50ZPT	
C591	CC 100PF+-1% 50VNP0 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C592	CC 100PF+-1% 50VNP0 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C593	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C594	CC 100PF+-1% 50VNP0 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C595	CC 100PF+-1% 50VNP0 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C596	CC 100PF+-1% 50VNP0 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C597	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C598 ..601	CC 100PF+-1% 50VNP0 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
C602	CC 10NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.4844.00	MURATA	GRM39X7R***K5C500PT*	
C603	CC 4,7NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4809.00	MURATA	GRM39X7R***K5C500PT*	
C604	CC 470PF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4896.00	MURATA	GRM39X7R***K5C500PT*	
C605	CC 4,7NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4809.00	MURATA	GRM39X7R***K5C500PT*	
C606	CC 4,7NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4809.00	MURATA	GRM39X7R***K5C500PT*	
C607	CC 470PF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4896.00	MURATA	GRM39X7R***K5C500PT*	
C608	CC 4,7NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4809.00	MURATA	GRM39X7R***K5C500PT*	
C609	CC 4,7NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4809.00	MURATA	GRM39X7R***K5C500PT*	
C610	CC 470PF+-10%50V HDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4896.00	MURATA	GRM39X7R***K5C500PT*	
C611	CC 4,7NF+-10% 50VHDK 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4809.00	MURATA	GRM39X7R***K5C500PT*	
C612	CC 2,7PF0,1PF50V NP0 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8291.00	MURATA	GRM39C0G***B50ZPT	
C613	CC 10P+-0,1PF50V NP0 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
C614	CC 22PF+-2% 150V PELL PORCELAIN CAPACITOR	0009.8604.00	TEKELEC	201CHA *** GW(V)LE	
C615	CC 1,8PF0,1PF50V NP0 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4473.00	MURATA	GRM39C0G***B50ZPT	
C616	CC 2,7PF+-0,1PF50VC0G0603 SMD-CERAMIC CAPACITOR	CC 0008.2119.00	AVX	0603 5J 2R7 BAWTR	
C617	CC 6,8PF0,1PF50V NP0 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8262.00	MURATA	GRM39C0G***B50ZPT	
C618	XX ENTHALTEN IN INCLUDED IN LAYOUT				
C619	CC 1,0PF0,1PF50V NP0 0603 SMD-CERAMIC-CAPACITOR	CC 0009.8304.00	MURATA	GRM39C0G***B50ZPT	
C620	CC 1,0PF0,1PF50V NP0 0603 SMD-CERAMIC-CAPACITOR NICHT BESTUECKT NOT FITTED	CC 0009.8304.00	MURATA	GRM39C0G***B50ZPT	
C621	CC 0,4PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7120.00	AVX	0603 5J *** AAW TR	
C622	CC 8,2PF+-0,1PF 150V PELL PORCELAIN CAPACITOR	0009.8579.00	TEKELEC	201CHA***BVLR	
C623	CC 4,7PF0,1PF50V NP0 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4538.00	MURATA	GRM39C0G***B50ZPT	
C624	CC 0,8PF+-0,05PF 0603 SMD-CERAMIC CAPACITOR	CC 0010.7166.00	AVX	0603 5J *** AAW TR	
C625	CC 1,2PF0,1PF50V NP0 0603 SMD-CERAMIC-CAPACITOR	CC 0009.4444.00	MURATA	GRM39C0G***B50ZPT	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C626	CC 100PF+-1% 50VNP0 0603	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
..632	SMD-CERAMIC-CAPACITOR				
C633	CC 2,2PF0,1PF50V NP0 0603	CC 0009.4467.00	MURATA	GRM39C0G***B50ZPT	
	SMD-CERAMIC-CAPACITOR				
C634	CC 100PF+-1% 50VNP0 0603	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
..637	SMD-CERAMIC-CAPACITOR				
C638	CC 10P+-0,1PF50V NP0 0603	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
	SMD-CERAMIC-CAPACITOR				
C639	CC 4,7PF0,1PF50V NP0 0603	CC 0009.4538.00	MURATA	GRM39C0G***B50ZPT	
..642	SMD-CERAMIC-CAPACITOR				
C643	CC 100PF+-1% 50VNP0 0603	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
	SMD-CERAMIC-CAPACITOR				
	NICHT BESTUECKT				
	NOT FITTED				
C644	CC 100PF+-1% 50VNP0 0603	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
	SMD-CERAMIC-CAPACITOR				
	NICHT BESTUECKT				
	NOT FITTED				
C645	CC 100PF+-1% 50VNP0 0603	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
	SMD-CERAMIC-CAPACITOR				
	NICHT BESTUECKT				
	NOT FITTED				
C646	CC 100PF+-1% 50VNP0 0603	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
	SMD-CERAMIC-CAPACITOR				
	NICHT BESTUECKT				
	NOT FITTED				
C647	CC 100PF+-1% 50VNP0 0603	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
	SMD-CERAMIC-CAPACITOR				
	NICHT BESTUECKT				
	NOT FITTED				
C648	CC 100PF+-1% 50VNP0 0603	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
	SMD-CERAMIC-CAPACITOR				
	NICHT BESTUECKT				
	NOT FITTED				
C649	CC 100PF+-1% 50VNP0 0603	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
	SMD-CERAMIC-CAPACITOR				
C650	CC 4,7NF+-10% 50VHDK 0603	CC 0009.4809.00	MURATA	GRM39X7R***K5C500PT*	
	SMD-CERAMIC-CAPACITOR				
C651	CC 100PF+-1% 50VNP0 0603	CC 0009.4680.00	MURATA	GRM39C0G***F50ZPT	
..660	SMD-CERAMIC-CAPACITOR				
C661	CC 10P+-0,1PF50V NP0 0603	CC 0009.4567.00	MURATA	GRM39C0G***B50ZPT	
	SMD-CERAMIC-CAPACITOR				
	NICHT BESTUECKT/NOT FITTED				
C670	CC 2,2PF0,1PF50V NP0 0603	CC 0009.4467.00	MURATA	GRM39C0G***B50ZPT	
	SMD-CERAMIC-CAPACITOR				
C671	CE 10UF +-10% 25V 7343	CE 0007.7246.00	SPRAGUE	293D 106 X9 025 D2W	
	TANTALUM SMD-CAPACITOR				
D1	BL PC74HCT125T 4XBUFF. 3S	BL 0007.5395.00	PHILIPS_SE	(PC)74HCT125(D/T)	
	QUAD LINE DRIVER				
D2	BL PC74HCT125T 4XBUFF. 3S	BL 0007.5395.00	PHILIPS_SE	(PC)74HCT125(D/T)	
	QUAD LINE DRIVER				
D3	BS DG419DY 1XUM ANALOGSCH	0746.0322.00	SILICONIX	DG419DY	
	ANALOG SWITCH				
D4	BL PC74HC4094T 8ST.BUSREG	0804.0977.00	PHILIPS_SE	(PC)74HC4094(D/T)	
..12	8-STAGE SHIFT&STORE REG.				
D13	BL PC74HC4051T 8CH.AN.MUX	0007.3592.00	PHILIPS_SE	(PC)74HC4051(D/T)	
	8CHANNEL ANAL.MULTIPLEXER				
D14	BL PC74HC4051T 8CH.AN.MUX	0007.3592.00	PHILIPS_SE	(PC)74HC4051(D/T)	
	8CHANNEL ANAL.MULTIPLEXER				
D15	BL PC74HCT132T 4X2IN SCHM	BL 0007.6340.00	PHILIPS	(PC)74HCT132(D/T)	
	NAND SCHMITT TRIGGER				
D17	BC X24164S8 2KX8 EEPROM	BC 2013.8937.00	ATMEL	AT24C164-10SC-2.7	
	IC MEMORY				
D18	BG TH3032.1C SERBUSD ASIC	BG 0008.6143.00	THESYS	TH3032.1C	
	IC GATE ARRAY				
L1	LD 6,8NH+-10% 0,3A 0603	LD 0009.6676.00	TOKO	LL1608-FH...K(J)	
	SMD-MULTILAYER INDUCTOR				
L2	LD 4,7NH+-10% 0,3A 0603	LD 0009.6653.00	TOKO	LL1608-FH...K(J)	
	SMD-MULTILAYER INDUCTOR				
L3	LD SP-DROSSEL 47UH 1,5A	1081.0331.00	SUMIDA	CDR125-470	
..6	CHOKE				
L7	LD 4,7NH+-10% 0,3A 0603	LD 0009.6653.00	TOKO	LL1608-FH...K(J)	
	SMD-MULTILAYER INDUCTOR				
L8	LD 47 NH+-10% 0,3A 0805	LD 0009.6824.00	TOKO	LL2012-FH47NK(J)	
..18	SMD-MULTILAYER INDUCTOR				

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ROHDE&SCHWARZ	24	11.08.99	EE IQ-CONVERTER IQ-CONVERTER	1084.9300.01 SA	15+

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
L19	LD 6,8NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6676.00	TOKO	LL1608-FH...K(J)	
L20	LD 1UH 10% 0,38A 1210	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
..23	RF CHOKE				
L24	LD 22NH 10% 0,60A 1210 RF CHOKE	1002.4897.00	SIEMENS	B82422-A3220-J(K)100	
L25	LD 22NH 10% 0,60A 1210 RF CHOKE	1002.4897.00	SIEMENS	B82422-A3220-J(K)100	
L26	LD 1UH 10% 0,38A 1210 RF CHOKE	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L27	LD 1UH 10% 0,38A 1210 RF CHOKE	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L28	LD 22NH 10% 0,60A 1210	1002.4897.00	SIEMENS	B82422-A3220-J(K)100	
..34	RF CHOKE				
L35	LD 22 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6730.00	TOKO	LL1608-FH...K(J)	
L36	LD 15 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6718.00	TOKO	LL1608-FH...K(J)	
L37	LD 47 NH+-10% 0,3A 0805 SMD-MULTILAYER INDUCTOR	LD 0009.6824.00	TOKO	LL2012-FH47NK(J)	
L38	LD 15 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6718.00	TOKO	LL1608-FH...K(J)	
L39	LD 15 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6718.00	TOKO	LL1608-FH...K(J)	
L40	LD 47 NH+-10% 0,3A 0805 SMD-MULTILAYER INDUCTOR	LD 0009.6824.00	TOKO	LL2012-FH47NK(J)	
L41	LD 27 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6747.00	TOKO	LL1608-FH...K(J)	
L42	LD 47 NH+-10% 0,3A 0805 SMD-MULTILAYER INDUCTOR	LD 0009.6824.00	TOKO	LL2012-FH47NK(J)	
L43	LD 15 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6718.00	TOKO	LL1608-FH...K(J)	
L44	LD 27 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6747.00	TOKO	LL1608-FH...K(J)	
L45	LD 15 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6718.00	TOKO	LL1608-FH...K(J)	
L46	LD 39 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6760.00	TOKO	LL1608-FH...K(J)	
L47	LD 27 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6747.00	TOKO	LL1608-FH...K(J)	
L48	LD 6,8NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6676.00	TOKO	LL1608-FH...K(J)	
L49	LD 39 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6760.00	TOKO	LL1608-FH...K(J)	
L50	LD 39 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6760.00	TOKO	LL1608-FH...K(J)	
L51	LD 22 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6730.00	TOKO	LL1608-FH...K(J)	
L52	LD 39 NH+-10% 0,3A 0603	LD 0009.6760.00	TOKO	LL1608-FH...K(J)	
..65	SMD-MULTILAYER INDUCTOR				
L67	LD 22 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6730.00	TOKO	LL1608-FH...K(J)	
L68	LD 27 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6747.00	TOKO	LL1608-FH...K(J)	
L69	LD 39 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6760.00	TOKO	LL1608-FH...K(J)	
L70	LD 33 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6753.00	TOKO	LL1608-FH...K(J)	
L71	LD 27 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6747.00	TOKO	LL1608-FH...K(J)	
L72	LD 27 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6747.00	TOKO	LL1608-FH...K(J)	
L73	LD 33 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6753.00	TOKO	LL1608-FH...K(J)	
L74	LD 22 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6730.00	TOKO	LL1608-FH...K(J)	
L75	LD 22 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6730.00	TOKO	LL1608-FH...K(J)	
L76	LD 18 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6724.00	TOKO	LL1608-FH...K(J)	
L77	LD 22 NH+-10% 0,3A 0603	LD 0009.6730.00	TOKO	LL1608-FH...K(J)	
..80	SMD-MULTILAYER INDUCTOR				
L81	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L83	LD 22 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6730.00	TOKO	LL1608-FH...K(J)	

1GPK 853 3PLU	Ai	Datum Date	Schaltteilliste für Parts list for	Sachnummer Stock No.	Blatt-Nr. Page
ROHDE&SCHWARZ	24	11.08.99	EE IQ-CONVERTER IQ-CONVERTER	1084.9300.01 SA	16+

Wir sind die Qualität von morgen.

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
L84	LD 22 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6730.00	TOKO	LL1608-FH...K(J)	
L85	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L86	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L87	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L88	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L89	LD 33 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6753.00	TOKO	LL1608-FH...K(J)	
L90	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L91	LD 33 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6753.00	TOKO	LL1608-FH...K(J)	
L92	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L93	LD 33 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6753.00	TOKO	LL1608-FH...K(J)	
L94	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L95	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L96	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L97	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L98	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L99	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L100	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L101	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L102	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L103	LD 33 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6753.00	TOKO	LL1608-FH...K(J)	
L104	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L105	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L106	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L107	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L108	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L109	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L110	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L111	XX ENTHALTEN IN INCLUDED IN				

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
	LAYOUT				
L112	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L113	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L115	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L116	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L117	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L118	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L119	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L120	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L121	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L122	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L123	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L124	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L125	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L126	LD 47 NH+-10% 0,3A 0805 SMD-MULTILAYER INDUCTOR	LD 0009.6824.00	TOKO	LL2012-FH47NK(J)	
L127	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L128	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L129	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L130	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L131	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L132	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L133	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L134	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L135	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L136	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L137	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L138	XX ENTHALTEN IN INCLUDED IN				

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
	LAYOUT				
L139	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L140	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L141	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L142	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L143	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L144	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L145	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L146	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L147	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L148	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L149	LD 8,2NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6682.00	TOKO	LL1608-FH...K(J)	
L150	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L151	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L152	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L153	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L154	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L155	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L156	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L157	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L158	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L159	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L160	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L161	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L162	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L163	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L164	XX ENTHALTEN IN INCLUDED IN				

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
	LAYOUT				
L165	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L166	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L167	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L168	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L169	LD 22 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6730.00	TOKO	LL1608-FH...K(J)	
L170	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L171	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L172	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L173	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L174	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L175	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L176	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L177	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L178	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L179	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L180	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L181	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L182	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L183	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L184	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L185	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L186	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L187	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L188	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L189	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L190	XX ENTHALTEN IN INCLUDED IN				

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
	LAYOUT				
L191	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L192	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L193	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L194	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L195	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L196	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L197	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L198	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L199	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L200	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L201	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L202	LD 39 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6760.00	TOKO	LL1608-FH...K(J)	
L203	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L204	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L205	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L206	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L207	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L208	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L209	LD 22 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6730.00	TOKO	LL1608-FH...K(J)	
L210	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L211	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L212	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L213	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L214	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L215	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L216	XX ENTHALTEN IN INCLUDED IN LAYOUT				

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
L217	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L218	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L219	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L220	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L221	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L222	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L223	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L224	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L225	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L226	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L227	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L228	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L229	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L230	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L231	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L232	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L233	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L234	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L235	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L236	LD 33 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6753.00	TOKO	LL1608-FH...K(J)	
L237	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L238	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L239	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L240	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L241	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L242	XX ENTHALTEN IN INCLUDED IN LAYOUT				

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
L243	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L244	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L245	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L246	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L247	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L248	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L249	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L250	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L252	LD 33 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6753.00	TOKO	LL1608-FH...K(J)	
L253	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L254	LD 2,2NH+-0,3NH 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6618.00	TOKO	LL1608-FH2N2S	
L255	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L256	LD 4,7NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6653.00	TOKO	LL1608-FH...K(J)	
L257	LD 10 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6699.00	TOKO	LL1608-FH...K(J)	
L258	LD 39 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6760.00	TOKO	LL1608-FH...K(J)	
L259	LD 39 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6760.00	TOKO	LL1608-FH...K(J)	
L260	LD 22 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6730.00	TOKO	LL1608-FH...K(J)	
L261	LD 22 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6730.00	TOKO	LL1608-FH...K(J)	
L262	LD 12 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6701.00	TOKO	LL1608-FH...K(J)	
L263	LD 27 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6747.00	TOKO	LL1608-FH...K(J)	
L266	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L267	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L269	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L270	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L271	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L273	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L274	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L275	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L276	XX ENTHALTEN IN INCLUDED IN LAYOUT				

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
L277	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L278	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L279	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L280	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L283	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L284	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L285	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L286	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L287	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L288	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L289	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L290	XX ENTHALTEN IN INCLUDED IN LAYOUT				
L293	LD 33 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6753.00	TOKO	LL1608-FH...K(J)	
L294	LD 33 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6753.00	TOKO	LL1608-FH...K(J)	
L295	LD 33 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6753.00	TOKO	LL1608-FH...K(J)	
L298	LD 3,9NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6647.00	TOKO	LL1608-FH...K(J)	
L299	LD 8,2NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6682.00	TOKO	LL1608-FH...K(J)	
L300 ..309	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L310	LD 39 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6760.00	TOKO	LL1608-FH...K(J)	
L311	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L312	LD 39 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6760.00	TOKO	LL1608-FH...K(J)	
L313	LD 39 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6760.00	TOKO	LL1608-FH...K(J)	
L314	LD 22 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6730.00	TOKO	LL1608-FH...K(J)	
L315	LD 22 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6730.00	TOKO	LL1608-FH...K(J)	
L316	LD 27 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6747.00	TOKO	LL1608-FH...K(J)	
L319 ..321	LD 39 NH+-10% 0,3A 0603 SMD-MULTILAYER INDUCTOR	LD 0009.6760.00	TOKO	LL1608-FH...K(J)	
N1	BO TL074ACD 4XFET OPAMP OPERATIONAL AMPLIFIER	0007.7823.00	TEXAS	TL074A(CD)	
N2	BO REF01CS 10V 20MA VREF VOLTAGE REFERENCE	1002.5129.00	PMI	REF01C(S)	
N3	BO TL072ACD 2XFET OPAMP OPERATIONAL AMPLIFIER	0803.1057.00	TEXAS	TL 072 ACDR	
N4 ..7	BO NE5532D 2XLN OPAMP 2 OPERATIONAL AMPLIFIER	0007.7798.00	SIGNETICS	NE5532D	
N8	BM SFD1001 VERDOPPLER FREQUENCY DOUBLER IC	1039.1804.00	WATKINS-JO	SFD1001	
N9	BO LM224D 4XLP OPAMP OPERATIONAL AMPLIFIER	0007.7852.00	SIGNETICS	LM224D	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
N10	BM CGY50 GAAS MMIC	1027.0037.00	SIEMENS	CGY50 (Q68000-A8370)	
..17	IC MMIC				
N18	BO OP275GS LN 2XFET OPAMP	2043.0928.00	ANALOG_DEV	OP275GS	
	IC DUAL OPAMP				
N19	BO OP275GS LN 2XFET OPAMP	2043.0928.00	ANALOG_DEV	OP275GS	
	IC DUAL OPAMP				
N20	BM CGY50 GAAS MMIC	1027.0037.00	SIEMENS	CGY50 (Q68000-A8370)	
..22	IC MMIC				
N23	BM SNA486 0,1-8G MMIC	1085.1961.00	STANFORD_M	SNA-486	
	MICROWAVE MONOLITIC AMPL				
P3	VL EINPRESSSTIFT 5,6	VL 0010.7250.00	AMP	1-928776-5	
..16	PIN				
R1	RG 33R +-1% TK100 0603	0009.6918.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R2	RG 13R0 +-1% TK100 0603	0009.9069.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R3	RG 12R1+-1%TK100 0603	0010.9275.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R4	RG 10R +-1% TK100 0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603				
R5	RG 182 OHM+-1%TK100 0603	0009.9130.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R6	RG 182 OHM+-1%TK100 0603	0009.9130.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R7	RG 12R1+-1%TK100 0603	0010.9275.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R8	RG 10R +-1% TK100 0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603				
R9	RG 27OR +-1% TK100 0603	0010.9581.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603				
R10	RG 22OR +-1% TK100 0603	0009.6953.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R11	RG 182 OHM+-1%TK100 0603	0009.9130.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R12	RG 27OR +-1% TK100 0603	0010.9581.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603				
R13	RG 182 OHM+-1%TK100 0603	0009.9130.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R14	RG 22OR +-1% TK100 0603	0009.6953.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R15	RG 22OR +-1% TK100 0603	0009.6953.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R16	RG 182 OHM+-1%TK100 0603	0009.9130.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R17	RG 182 OHM+-1%TK100 0603	0009.9130.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R18	RG 121 OHM+-1%TK100 0603	0009.9498.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R19	RG 182 OHM+-1%TK100 0603	0009.9130.00	DRALORIC	CR 0603	
..22	SMD RESISTOR EIA0603				
R23	RG 243R +-1% TK100 0603	0010.9800.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R24	RG 182 OHM+-1%TK100 0603	0009.9130.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R25	RG 15OR +-1% TK100 0603	0009.6947.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603				
R26	RG 243R +-1% TK100 0603	0010.9800.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R27	RG 2K2 +-1% TK100 0603	0009.7008.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R28	RG 2K2 +-1% TK100 0603	0009.7008.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R29	RG 33OR +-1% TK100 0603	0009.6960.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R30	RG 33OR +-1% TK100 0603	0009.6960.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R31	RG 182 OHM+-1%TK100 0603	0009.9130.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R32	RG 182 OHM+-1%TK100 0603	0009.9130.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R33	RG 68R +-1% TK100 0603	0009.6930.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R34	RG 68R +-1% TK100 0603	0009.6930.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R35	RG 15OR +-1% TK100 0603	0009.6947.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603				

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Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R36	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R37	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R38	RG 150R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
R39	RG 182 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9130.00	DRALORIC	CR 0603	
R40	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R41	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R42	RG 182 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9130.00	DRALORIC	CR 0603	
R43	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R44	RG 220R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6953.00	DRALORIC	CR 0603	
R45	RG 220R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6953.00	DRALORIC	CR 0603	
R46 ..49	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R50	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R51	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R52	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R53	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R54	RG 68R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6930.00	DRALORIC	CR 0603	
R55	RG 68R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6930.00	DRALORIC	CR 0603	
R56	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R57	RG 182 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9130.00	DRALORIC	CR 0603	
R58	RG 82,5 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9052.00	DRALORIC	CR 0603	
R59	RG 121 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9498.00	DRALORIC	CR 0603	
R60 ..67	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R68	RG 47R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6924.00	PHILIPS_CO	RC 22 H	
R69	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R70	RG 3K92 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8427.00	PHILIPS_CO	RC 22 H	
R71	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R72	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R73 ..77	RG 2,64KOH+-0,1%TK25 RESISTOR	1206	0010.1980.00	PHILIPS_CO	MPC 01	
R78	RG 5R62 +-1% TK250 SMD RESISTOR EIA0603	0603	0009.9100.00	DRALORIC	CR 0603	
R79	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R80	RG 15R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6899.00	DRALORIC	CR 0603	
R81	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R82	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R83	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R84	RG 470R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6976.00	DRALORIC	CR 0603	
R85	RG 470R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6976.00	DRALORIC	CR 0603	
R86	RG 12R1+-1%TK100 SMD RESISTOR EIA0603	0603	0010.9275.00	DRALORIC	CR 0603	
R87	RG 12R1+-1%TK100 SMD RESISTOR EIA0603	0603	0010.9275.00	DRALORIC	CR 0603	
R88	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	

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Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R89	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R90	RG 30,1 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9081.00	PHILIPS_CO	RC 22 H	
R91	RG 33K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7066.00	PHILIPS_CO	RC 22 H	
R92	RG 18R2 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8385.00	DRALORIC	CR 0603	
R93	RG 20K +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9100.00	DRALORIC	CR 0603	
R95	RG 12R1+-1%TK100 SMD RESISTOR EIA0603	0603	0010.9275.00	DRALORIC	CR 0603	
R96	RG 220R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6953.00	DRALORIC	CR 0603	
R97	RG 13RO +-1% TK100 SMD RESISTOR EIA0603	0603	0009.9069.00	DRALORIC	CR 0603	
R98	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R99	RG 100R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
R100	RG 182 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9130.00	DRALORIC	CR 0603	
R101	RG 182 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9130.00	DRALORIC	CR 0603	
R102	RG 82,5 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9052.00	DRALORIC	CR 0603	
R103	RG 332 OHM+-1%TK100 RESISTOR CHIP	1206	RG 0007.5650.00	PHILIPS_CO	RC02	
R104	RG 220R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6953.00	DRALORIC	CR 0603	
R106	RG 825R +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8391.00	PHILIPS_CO	RC 22 H	
R107	RG 825R +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8391.00	PHILIPS_CO	RC 22 H	
R108 ..118	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R119	RG 825R +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8391.00	PHILIPS_CO	RC 22 H	
R120	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R121	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R122	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R123	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R124	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R125	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R126	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R127	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R128	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R129 ..134	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R135	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R136 ..140	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R141	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R142	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R143	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R144 ..152	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R153	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R154	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R155	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R156	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	

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Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R157	RG 10K +-1% TK100	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
..163	SMD RESISTOR EIA0603					
R164	RG 47OR +-1% TK100	0603	0009.6976.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R165	RG 10K +-1% TK100	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
..168	SMD RESISTOR EIA0603					
R169	RG 47OR +-1% TK100	0603	0009.6976.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R170	RG 1KO +-1% TK100	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R171	RG 10K +-1% TK100	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R172	RG 10K +-1% TK100	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R173	RG 1KO +-1% TK100	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R174	RG 1KO +-1% TK100	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R175	RG 10K +-1% TK100	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
..179	SMD RESISTOR EIA0603					
R180	RG 1KO +-1% TK100	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R181	RG 8K25 +-1% TK100	0603	0010.8456.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R182	RG 47K +-1% TK100	0603	0009.7072.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R183	RG 8K25 +-1% TK100	0603	0010.8456.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R184	RG 47K +-1% TK100	0603	0009.7072.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R185	RG 22K +-1% TK100	0603	0009.7050.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R186	RG 2K2 +-1% TK100	0603	0009.7008.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R187	RG 10K +-1% TK100	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R188	RG 1KO +-1% TK100	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R189	RG 1K5 +-1% TK100	0603	0009.6999.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R191	RG 10K +-1% TK100	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
	NICHT BESTUECKT					
	NOT FITTED					
R192	RG 10K +-1% TK100	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
	NICHT BESTUECKT					
	NOT FITTED					
R193	RG 10K +-1% TK100	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
..195	SMD RESISTOR EIA0603					
R196	RG 10K +-1% TK100	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
	NICHT BESTUECKT					
	NOT FITTED					
R197	RG 10K +-1% TK100	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
	NICHT BESTUECKT					
	NOT FITTED					
R198	RG 10K +-1% TK100	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R199	RG 10K +-1% TK100	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R200	RG 10K +-1% TK100	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
	NICHT BESTUECKT					
	NOT FITTED					
R201	RG 10K +-1% TK100	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R202	RG 10K +-1% TK100	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
	NICHT BESTUECKT					
	NOT FITTED					
R203	RG 10K +-1% TK100	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
	NICHT BESTUECKT					
	NOT FITTED					
R204	RG 10K +-1% TK100	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					

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Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R205	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R206	RG 10K +-1% TK100 SMD RESISTOR EIA0603 NICHT BESTUECKT NOT FITTED	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R207	RG 10K +-1% TK100 SMD RESISTOR EIA0603 NICHT BESTUECKT NOT FITTED	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R208 ..217	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R218	RG 3K3 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7014.00	DRALORIC	CR 0603	
R219 ..223	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R224	RG 3KO1+-1% TK100 SMD RESISTOR EIA0603	0603	0010.9298.00	DRALORIC	CR 0603	
R225	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R226	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R227	RG 1K5 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6999.00	DRALORIC	CR 0603	
R228	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R229	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R230	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R231	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R233	RG 301 OHM+-1%TK100 RESISTOR CHIP	1206	RG 0007.5643.00	PHILIPS_CO	RC02	
R234	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R235	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R236	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R237	RG 33OR +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6960.00	DRALORIC	CR 0603	
R238	RG 30K1+-1% TK100 SMD RESISTOR EIA0603	0603	0010.9281.00	DRALORIC	CR 0603	
R239	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R240	RG 30K1+-1% TK100 SMD RESISTOR EIA0603	0603	0010.9281.00	DRALORIC	CR 0603	
R241	RG 30K1+-1% TK100 SMD RESISTOR EIA0603	0603	0010.9281.00	DRALORIC	CR 0603	
R242	RG 22K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7050.00	DRALORIC	CR 0603	
R243 ..247	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R248	RG 8K25 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8456.00	DRALORIC	CR 0603	
R249 ..252	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R253	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R254	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R255 ..262	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R263	RG 1K21 +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0010.9817.00	DRALORIC	CR 0603	
R264	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R265	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R266 ..269	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R270	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R271	RG 82,5 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9052.00	DRALORIC	CR 0603	
R272	RG 1OR +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	

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Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R273	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R274	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R275	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R276 ..281	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R282	RG 2K2 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7008.00	DRALORIC	CR 0603	
R283	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R284	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R285 ..300	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R301 ..304	RG 2K74 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8410.00	PHILIPS_CO	RC 22 H	
R305	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R306	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R307	RG 2K74 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8410.00	PHILIPS_CO	RC 22 H	
R308	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R309	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R310 ..313	RG 3K3 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7014.00	DRALORIC	CR 0603	
R314	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R315 ..317	RG 3K3 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7014.00	DRALORIC	CR 0603	
R318	RG 4K7 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R319	RG 22K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7050.00	DRALORIC	CR 0603	
R320	RG 301R +-1%TK100 SMD RESISTOR EIA0603	0603	0009.9123.00	PHILIPS_CO	RC 22 H	
R321	RG 301R +-1%TK100 SMD RESISTOR EIA0603	0603	0009.9123.00	PHILIPS_CO	RC 22 H	
R322	RG 182 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9130.00	DRALORIC	CR 0603	
R323	RG 182 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9130.00	DRALORIC	CR 0603	
R324	RG 182 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9130.00	DRALORIC	CR 0603	
R325	RG 182 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9130.00	DRALORIC	CR 0603	
R326	RG 16,2OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.8933.00	DRALORIC	CR 0603	
R327	RG 30,1 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9081.00	PHILIPS_CO	RC 22 H	
R328	RG 5R62 +-1% TK250 SMD RESISTOR EIA0603	0603	0009.9100.00	DRALORIC	CR 0603	
R329	RG 5R62 +-1% TK250 SMD RESISTOR EIA0603	0603	0009.9100.00	DRALORIC	CR 0603	
R330	RG 5R62 +-1% TK250 SMD RESISTOR EIA0603	0603	0009.9100.00	DRALORIC	CR 0603	
R331	RG 5R62 +-1% TK250 SMD RESISTOR EIA0603	0603	0009.9100.00	DRALORIC	CR 0603	
R332	RG 47OR +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6976.00	DRALORIC	CR 0603	
R333	RG 47OR +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6976.00	DRALORIC	CR 0603	
R334	RG 33OR +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6960.00	DRALORIC	CR 0603	
R335	RG 47OR +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6976.00	DRALORIC	CR 0603	
R336	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R337	RG 47OR +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6976.00	DRALORIC	CR 0603	
R338	RG 47OR +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6976.00	DRALORIC	CR 0603	
R339	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R340	RG 47OR +-1% TK100 0603 SMD RESISTOR EIA0603	0009.6976.00	DRALORIC	CR 0603	
R341	RG 47OR +-1% TK100 0603 SMD RESISTOR EIA0603	0009.6976.00	DRALORIC	CR 0603	
R342	RG 1KO +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R343	RG 47OR +-1% TK100 0603 SMD RESISTOR EIA0603	0009.6976.00	DRALORIC	CR 0603	
R344	RG 47OR +-1% TK100 0603 SMD RESISTOR EIA0603	0009.6976.00	DRALORIC	CR 0603	
R345	RG 1KO +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R346 ..353	RG 47OR +-1% TK100 0603 SMD RESISTOR EIA0603	0009.6976.00	DRALORIC	CR 0603	
R354	RG 1KO +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R355	RG 33OR +-1% TK100 0603 SMD RESISTOR EIA0603	0009.6960.00	DRALORIC	CR 0603	
R356	RG 8K25 +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8456.00	DRALORIC	CR 0603	
R357	RG 5K62 +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8433.00	DRALORIC	CR 0603	
R358	RG 8K25 +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8456.00	DRALORIC	CR 0603	
R359	RG 5K62 +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8433.00	DRALORIC	CR 0603	
R360	RG 12K1 +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8462.00	DRALORIC	CR 0603	
R361	RG 12K1 +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8462.00	DRALORIC	CR 0603	
R362	RG 15K +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7043.00	DRALORIC	CR 0603	
R363	RG 3KO1+-1% TK100 0603 SMD RESISTOR EIA0603	0010.9298.00	DRALORIC	CR 0603	
R364	RG 3KO1+-1% TK100 0603 SMD RESISTOR EIA0603	0010.9298.00	DRALORIC	CR 0603	
R365	RG 8K25 +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8456.00	DRALORIC	CR 0603	
R366	RG 3KO1+-1% TK100 0603 SMD RESISTOR EIA0603	0010.9298.00	DRALORIC	CR 0603	
R367 ..370	RG 7K5 +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8440.00	PHILIPS_CO	RC 22 H	
R371	RG 3K3 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7014.00	DRALORIC	CR 0603	
R372	RG 7K5 +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8440.00	PHILIPS_CO	RC 22 H	
R373	RG 7K5 +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8440.00	PHILIPS_CO	RC 22 H	
R374	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R375	RG 6K8 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7037.00	DRALORIC	CR 0603	
R376	RG 15K +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7043.00	DRALORIC	CR 0603	
R377 ..380	RG 825R +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8391.00	PHILIPS_CO	RC 22 H	
R381 ..383	RG 1K5 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.6999.00	DRALORIC	CR 0603	
R384	RG 301R +-1%TK100 0603 SMD RESISTOR EIA0603	0009.9123.00	PHILIPS_CO	RC 22 H	
R385	RG 243R +-1% TK100 0603 SMD RESISTOR EIA0603	0010.9800.00	DRALORIC	CR 0603	
R386	RG 110 OHM+-1%TK100 0603 SMD RESISTOR EIA0603	0009.9481.00	DRALORIC	CR 0603	
R387 ..389	RG 22R +-1% TK100 0603 SMD RESISTOR EIA0603	0009.6901.00	DRALORIC	CR 0603	
R390	RG 8R25 +-1% TK250 0603 SMD RESISTOR EIA0603	0009.9117.00	DRALORIC	CR 0603	
R391	RG 13RO +-1% TK100 0603 SMD RESISTOR EIA0603	0009.9069.00	DRALORIC	CR 0603	
R392	RG 13RO +-1% TK100 0603 SMD RESISTOR EIA0603	0009.9069.00	DRALORIC	CR 0603	
R393 ..395	RG 22R +-1% TK100 0603 SMD RESISTOR EIA0603	0009.6901.00	DRALORIC	CR 0603	
R396	RG 10R +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R397 ..402	RG 22R +-1% TK100 0603 SMD RESISTOR EIA0603	0009.6901.00	DRALORIC	CR 0603	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R403	RG 47K +-1% TK100 0603	0009.7072.00	DRALORIC	CR 0603	
..406	SMD RESISTOR EIA0603				
R407	RG 2K2 +-1% TK100 0603	0009.7008.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R408	RG 47K +-1% TK100 0603	0009.7072.00	DRALORIC	CR 0603	
..411	SMD RESISTOR EIA0603				
R412	RG 47K +-1% TK100 0603	0009.7072.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
	NICHT BESTUECKT/NOT FITTED				
R413	RG 22R +-1% TK100 0603	0009.6901.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R414	RG 22R +-1% TK100 0603	0009.6901.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R415	RG 22R +-1% TK100 0603	0009.6901.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R416	RG 2K2 +-1% TK100 0603	0009.7008.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R417	RG 2K2 +-1% TK100 0603	0009.7008.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R418	RG 2K74 +-1% TK100 0603	0010.8410.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603				
R419	RG 1KO +-1% TK100 0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603				
R420	RG 1KO +-1% TK100 0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603				
R421	RG 2,13KOH+-O,1%TK25 1206	0009.8140.00	PHILIPS_CO	MPC 01	
..425	SMD-RESISTOR EIA1206				
R426	RG 1KO +-1% TK100 0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603				
R427	RG 3K92 +-1% TK100 0603	0010.8427.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603				
R428	RG 18R2 +-1% TK100 0603	0010.8385.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R429	RG 18R2 +-1% TK100 0603	0010.8385.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R430	RG 82,5 OHM+-1%TK100 0603	0009.9052.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R431	RG 51,0 OHM+-1%TK100 0603	0009.9030.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R432	RG 47R +-1% TK100 0603	0009.6924.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603				
R433	RG 39R2 +-1% TK100 0603	0010.9400.00	DRALORIC	CR 0603	
..446	SMD RESISTOR EIA0603				
R447	RG 51,0 OHM+-1%TK100 0603	0009.9030.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R448	RG 47R +-1% TK100 0603	0009.6924.00	PHILIPS_CO	RC 22 H	
..456	SMD RESISTOR EIA0603				
R457	RG 150K +-1% TK100 0603	0009.7095.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R458	RG 150K +-1% TK100 0603	0009.7095.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R459	RG 10R +-1% TK100 0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
..461	SMD RESISTOR EIA0603				
R462	RG 3R32 +-1% TK250 0603	0010.8362.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R463	RG 10R +-1% TK100 0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603				
R464	RG 5R62 +-1% TK250 0603	0009.9100.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R465	RG 10R +-1% TK100 0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603				
R466	RG 10R +-1% TK100 0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603				
R467	RG 5R62 +-1% TK250 0603	0009.9100.00	DRALORIC	CR 0603	
..470	SMD RESISTOR EIA0603				
R471	RG 10K +-1% TK100 0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603				
R472	RG 5R62 +-1% TK250 0603	0009.9100.00	DRALORIC	CR 0603	
..474	SMD RESISTOR EIA0603				
R475	RG 10R +-1% TK100 0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603				
R476	RG 10R +-1% TK100 0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603				
R477	RG 22R +-1% TK100 0603	0009.6901.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R478	RG 22R +-1% TK100 0603	0009.6901.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				

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Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R479	RG 10R +-1% TK100	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
..484	SMD RESISTOR EIA0603					
R485	RG 680R +-1% TK100	0603	0009.6982.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R486	RG 680R +-1% TK100	0603	0009.6982.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R487	RG 100R +-1% TK100	0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R488	RG 10R +-1% TK100	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R489	RG 5R62 +-1% TK250	0603	0009.9100.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R490	RG 82,5 OHM+-1%TK100	0603	0009.9052.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R491	RG 5R62 +-1% TK250	0603	0009.9100.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R492	RG 5R62 +-1% TK250	0603	0009.9100.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R494	RS 0,25W200KOHM+-20%	SMD	RS 0007.9684.00	BI_TECHNOL	23 B R... TR	
	POTENTIOMETER					
R495	RS 0,25W200KOHM+-20%	SMD	RS 0007.9684.00	BI_TECHNOL	23 B R... TR	
	POTENTIOMETER					
R496	RS 0,25W10KOHM +-20%	SMD	RS 0007.9649.00	BI_TECHNOL	23 B R... TR	
	POTENTIOMETER					
R497	RG 150R +-1% TK100	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R498	RG 220R +-1% TK100	0603	0009.6953.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R499	RG 150R +-1% TK100	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R500	RG 182 OHM+-1%TK100	0603	0009.9130.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R501	RG 150R +-1% TK100	0603	0009.6947.00	PHILIPS_CO	RC 22 H	
..506	SMD RESISTOR EIA0603					
R507	RG 1K5 +-1% TK100	0603	0009.6999.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R508	RG 5K62 +-1% TK100	0603	0010.8433.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R509	RG 1K5 +-1% TK100	0603	0009.6999.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R510	RG 2K2 +-1% TK100	0603	0009.7008.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R511	RG 5K62 +-1% TK100	0603	0010.8433.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R512	RG 5K62 +-1% TK100	0603	0010.8433.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R513	RG 10K +-1% TK100	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
..518	SMD RESISTOR EIA0603					
R519	RG 5K62 +-1% TK100	0603	0010.8433.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R520	RG 10K +-1% TK100	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R521	RG 3K3 +-1% TK100	0603	0009.7014.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R522	RG 3K3 +-1% TK100	0603	0009.7014.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R523	RG 1K5 +-1% TK100	0603	0009.6999.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R524	RG 680R +-1% TK100	0603	0009.6982.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R525	RG 5K62 +-1% TK100	0603	0010.8433.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R526	RG 3K3 +-1% TK100	0603	0009.7014.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R527	RG 2K2 +-1% TK100	0603	0009.7008.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R528	RG 5K62 +-1% TK100	0603	0010.8433.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R529	RG 5K62 +-1% TK100	0603	0010.8433.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603					
R530	RK SMD-HEISSL. 100K	1206	0008.9236.00	SIEMENS	B57621-C104-J	
	SMD-NTC-RESISTOR					
R531	RG 10K +-1% TK100	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603					
R532	RK SMD-HEISSL. 100K	1206	0008.9236.00	SIEMENS	B57621-C104-J	
	SMD-NTC-RESISTOR					
R533	RG 15R +-1% TK100	0603	0009.6899.00	DRALORIC	CR 0603	
..535	SMD RESISTOR EIA0603					

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Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R536	RG 392R+-1% TK100 SMD RESISTOR EIA0603	0603	0010.9300.00	DRALORIC	CR 0603	
R537	RG 392R+-1% TK100 SMD RESISTOR EIA0603	0603	0010.9300.00	DRALORIC	CR 0603	
R538	RG 12,0K0H+-0,1%TK25 SMD-RESISTOR	1206	0009.7620.00	PHILIPS_CO	MPC 01	
R539	RG 22K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7050.00	DRALORIC	CR 0603	
R540	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R541	RG 20K +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9100.00	DRALORIC	CR 0603	
R542	RG 22K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7050.00	DRALORIC	CR 0603	
R543	RG 22K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7050.00	DRALORIC	CR 0603	
R544	RG 20K +-1% TK100 SMD RESISTOR EIA0603 NICHT BESTUECKT NOT FITTED	0603	0010.9100.00	DRALORIC	CR 0603	
R545 ..548	RG 20K +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9100.00	DRALORIC	CR 0603	
R549	RK SMD-HEISSL.100K SMD-NTC-RESISTOR	1206	0008.9236.00	SIEMENS	B57621-C104-J	
R550	RG 18K2+-1% TK100 SMD RESISTOR EIA0603	0603	0010.9317.00	DRALORIC	CR 0603	
R551 ..553	RG 20K +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9100.00	DRALORIC	CR 0603	
R554 ..558	RG 22K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7050.00	DRALORIC	CR 0603	
R559	RG 1K0 +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R560	RG 1K0 +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R561 ..564	RG 1K0 +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R565	RK SMD-HEISSL.100K SMD-NTC-RESISTOR	1206	0008.9236.00	SIEMENS	B57621-C104-J	
R566	RG 1K0 +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R567	RG 100K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5363.00	DRALORIC	CR 0603	
R568	RG 100K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5363.00	DRALORIC	CR 0603	
R569	RG 150K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7095.00	DRALORIC	CR 0603	
R570	RG 1K0 +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R571	RG 1K0 +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R574	RG 1K5 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6999.00	DRALORIC	CR 0603	
R575	RG 1K0 +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R576	RG 1K0 +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R577 ..581	RG 0-OHM WIDERSTAND SMD RESISTOR EIA0603	0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
R582	RG 3K92 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8427.00	PHILIPS_CO	RC 22 H	
R583	RG 330R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6960.00	DRALORIC	CR 0603	
R584	RG 47K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7072.00	DRALORIC	CR 0603	
R585	RG 392R+-1% TK100 SMD RESISTOR EIA0603	0603	0010.9300.00	DRALORIC	CR 0603	
R586	RG 392R+-1% TK100 SMD RESISTOR EIA0603	0603	0010.9300.00	DRALORIC	CR 0603	
R587	RG 330R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6960.00	DRALORIC	CR 0603	
R588	RG 330R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6960.00	DRALORIC	CR 0603	
R589 ..593	RG 332 OHM+-1%TK100 RESISTOR CHIP	1206	RG 0007.5650.00	PHILIPS_CO	RC02	
R594 ..598	RG 301 OHM+-1%TK100 RESISTOR CHIP	1206	RG 0007.5643.00	PHILIPS_CO	RC02	
R599	RG 20,0K0H+-0,1%TK25 SMD-RESISTOR	1206	0009.7643.00	PHILIPS_CO	MPC 01	

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R600	RG 33K +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7066.00	PHILIPS_CO	RC 22 H	
R601	RG 22K +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7050.00	DRALORIC	CR 0603	
R602	RG 3K01+-1% TK100 0603 SMD RESISTOR EIA0603	0010.9298.00	DRALORIC	CR 0603	
R603	RG 100K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5363.00	DRALORIC	CR 0603	
..606 R607	RG 100K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5363.00	DRALORIC	CR 0603	
	NICHT BESTUECKT/NOT FITTED				
R608	RG 3K92 +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8427.00	PHILIPS_CO	RC 22 H	
R609	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R610	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R611	RG 22K +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7050.00	DRALORIC	CR 0603	
R612	RG 100K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5363.00	DRALORIC	CR 0603	
R613	RG 33K +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7066.00	PHILIPS_CO	RC 22 H	
R614	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R615	RG 3K92 +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8427.00	PHILIPS_CO	RC 22 H	
R616	RG 18K2+-1% TK100 0603 SMD RESISTOR EIA0603	0010.9317.00	DRALORIC	CR 0603	
R617	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R618	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R619	RG 1K0 +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R620	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
..624 R625	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R626	RG 7K5 +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8440.00	PHILIPS_CO	RC 22 H	
R627	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R628	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R629	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R630	RG 7K5 +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8440.00	PHILIPS_CO	RC 22 H	
R631	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R632	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R633	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R634	RG 7K5 +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8440.00	PHILIPS_CO	RC 22 H	
R635	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R636	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R637	RG 7K5 +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8440.00	PHILIPS_CO	RC 22 H	
R638	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R639	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R640	RG 7K5 +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8440.00	PHILIPS_CO	RC 22 H	
R641	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
..644 R645	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R646	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R647	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	

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Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R648	RG 4K7 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R649 ..651	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R652	RG 7K5 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8440.00	PHILIPS_CO	RC 22 H	
R653	RG 7K5 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8440.00	PHILIPS_CO	RC 22 H	
R654	RG 2K74 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8410.00	PHILIPS_CO	RC 22 H	
R655	RG 2K74 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8410.00	PHILIPS_CO	RC 22 H	
R656	RG 3K92 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8427.00	PHILIPS_CO	RC 22 H	
R657	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R658	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R659 ..661	RK SMD-HEISSL.100K SMD-NTC-RESISTOR	1206	0008.9236.00	SIEMENS	B57621-C104-J	
R662	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R663	RG 22K +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7050.00	DRALORIC	CR 0603	
R664	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R665	RG 2K74 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8410.00	PHILIPS_CO	RC 22 H	
R666	RG 4K7 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R667 ..674	RG 4K7 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R675	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R677	RK SMD-HEISSL.100K SMD-NTC-RESISTOR	1206	0008.9236.00	SIEMENS	B57621-C104-J	
R678	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R679	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R680	RG 12K1 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8462.00	DRALORIC	CR 0603	
R681	RG 22OR +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6953.00	DRALORIC	CR 0603	
R682	RG 18K2+-1% TK100 SMD RESISTOR EIA0603	0603	0010.9317.00	DRALORIC	CR 0603	
R683	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R684	RG 5K62 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8433.00	DRALORIC	CR 0603	
R685	RG 5K62 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8433.00	DRALORIC	CR 0603	
R686	RG 4K7 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R687	RG 5K62 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8433.00	DRALORIC	CR 0603	
R688	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R689	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R690	RG 5K62 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8433.00	DRALORIC	CR 0603	
R691 ..694	RS 0,25W200KOHM+-20% POTENTIOMETER	SMD	RS 0007.9684.00	BI_TECHNOL	23 B R... TR	
R695	RG 56OR +-1% TK100 SMD RESISTOR EIA0603	0603	0009.9630.00	DRALORIC	CR 0603	
R696	RG 825R +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8391.00	PHILIPS_CO	RC 22 H	
R697 ..705	RG 10,0KOH+-0,1%TK25 SMD-RESISTOR	1206	0009.7666.00	PHILIPS_CO	MPC 01	
R706	RG 30,1 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9081.00	PHILIPS_CO	RC 22 H	
R707	RG 30,1 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9081.00	PHILIPS_CO	RC 22 H	
R708	RG 35,7 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9000.00	PHILIPS_CO	RC 22 H	
R709	RG 35,7 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9000.00	PHILIPS_CO	RC 22 H	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R710	RG 30,1 OHM+-1%TK100 0603	0009.9081.00	PHILIPS_CO	RC 22 H	
..716	SMD RESISTOR EIA0603				
R717	RG 10K +-1% TK100 0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603				
R718	RG 18K2+-1% TK100 0603	0010.9317.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R719	RG 15K +-1% TK100 0603	0009.7043.00	DRALORIC	CR 0603	
..725	SMD RESISTOR EIA0603				
R726	RG 18K2+-1% TK100 0603	0010.9317.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R727	RG 20K +-1% TK100 0603	0010.9100.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R728	RG 20K +-1% TK100 0603	0010.9100.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R729	RG 220R +-1% TK100 0603	0009.6953.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R730	RG 18K2+-1% TK100 0603	0010.9317.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R731	RG 3K3 +-1% TK100 0603	0009.7014.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R732	RG 15K +-1% TK100 0603	0009.7043.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R733	RG 82,5 OHM+-1%TK100 0603	0009.9052.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R734	RG 82,5 OHM+-1%TK100 0603	0009.9052.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R735	RG 100R +-1% TK100 0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603				
R736	RG 56R +-1% TK100 0603	0009.9646.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R737	RG 47R +-1% TK100 0603	0009.6924.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603				
R738	RG 56R +-1% TK100 0603	0009.9646.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R739	RG 1K5 +-1% TK100 0603	0009.6999.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R740	RG 18K2+-1% TK100 0603	0010.9317.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R741	RG 30K1+-1% TK100 0603	0010.9281.00	DRALORIC	CR 0603	
..746	SMD RESISTOR EIA0603				
R747	RG 33K +-1% TK100 0603	0009.7066.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603				
R748	RG 82,5 OHM+-1%TK100 0603	0009.9052.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R749	RG 100R +-1% TK100 0603	RG 0009.5334.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603				
R750	RG 100R 1% 1W 1218	1104.2740.00	PHILIPS_CO	PRC201-100R 1% TK100	
	SMD RESISTOR				
R751	RG 100R 1% 1W 1218	1104.2740.00	PHILIPS_CO	PRC201-100R 1% TK100	
	SMD RESISTOR				
R752	RG 39R2 +-1% TK100 0603	0010.9400.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R753	RG 39R2 +-1% TK100 0603	0010.9400.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
	NICHT BESTUECKT/NOT FITTED				
R754	RG 35,7 OHM+-1%TK100 0603	0009.9000.00	PHILIPS_CO	RC 22 H	
..756	SMD RESISTOR EIA0603				
R757	RG 82K5 +-1% TK100 0603	0010.9123.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				
R758	RG 0-OHM WIDERSTAND 0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
	SMD RESISTOR EIA0603				
R759	RG 0-OHM WIDERSTAND 0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
	SMD RESISTOR EIA0603				
	NICHT BESTUECKT				
	NOT FITTED				
R760	RG 0-OHM WIDERSTAND 0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
	SMD RESISTOR EIA0603				
	NICHT BESTUECKT				
	NOT FITTED				
R761	RG 0-OHM WIDERSTAND 0603	0009.9369.00	PHILIPS_CO	RC21 0 OHM	
	SMD RESISTOR EIA0603				
	NICHT BESTUECKT				
	NOT FITTED				
R762	RG 30,1 OHM+-1%TK100 0603	0009.9081.00	PHILIPS_CO	RC 22 H	
	SMD RESISTOR EIA0603				
R763	RG 8R25 +-1% TK250 0603	0009.9117.00	DRALORIC	CR 0603	
	SMD RESISTOR EIA0603				

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Kennz. Comp. No.	Benennung Designation		Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R764	RG 12R1+-1%TK100 SMD RESISTOR EIA0603	0603	0010.9275.00	DRALORIC	CR 0603	
R765	RG 10R +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5328.00	PHILIPS_CO	RC 22 H	
R766	RG 30,1 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9081.00	PHILIPS_CO	RC 22 H	
R767	RG 162 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9500.00	DRALORIC	CR 0603	
R768	RG 162 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9500.00	DRALORIC	CR 0603	
R769	RG 392R+-1% TK100 SMD RESISTOR EIA0603	0603	0010.9300.00	DRALORIC	CR 0603	
R770	RG 392R+-1% TK100 SMD RESISTOR EIA0603	0603	0010.9300.00	DRALORIC	CR 0603	
R771	RG 330R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6960.00	DRALORIC	CR 0603	
R772	RG 182 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9130.00	DRALORIC	CR 0603	
R773	RG 182 OHM+-1%TK100 SMD RESISTOR EIA0603	0603	0009.9130.00	DRALORIC	CR 0603	
R774	RG 1K5 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6999.00	DRALORIC	CR 0603	
R775	RG 1K5 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6999.00	DRALORIC	CR 0603	
R776	RG 20K +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9100.00	DRALORIC	CR 0603	
R777	RG 2K74 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8410.00	PHILIPS_CO	RC 22 H	
R778	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R779	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R780	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R781	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R782	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R783	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R784	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R785 ..792	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R793	RG 470R +-1% TK100 SMD RESISTOR EIA0603	0603	0009.6976.00	DRALORIC	CR 0603	
R794	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R795	RG 1KO +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5340.00	PHILIPS_CO	RC 22 H	
R796 ..801	RG 39R2 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.9400.00	DRALORIC	CR 0603	
R802	RG 5R62 +-1% TK250 SMD RESISTOR EIA0603	0603	0009.9100.00	DRALORIC	CR 0603	
R803	RG 5R62 +-1% TK250 SMD RESISTOR EIA0603	0603	0009.9100.00	DRALORIC	CR 0603	
R804	RG 12R1+-1%TK100 SMD RESISTOR EIA0603	0603	0010.9275.00	DRALORIC	CR 0603	
R805	RG 5R62 +-1% TK250 SMD RESISTOR EIA0603	0603	0009.9100.00	DRALORIC	CR 0603	
R806 ..808	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R809	RG 7K5 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8440.00	PHILIPS_CO	RC 22 H	
R810	RG 4K7 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	
R811	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R812	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R813	RG 7K5 +-1% TK100 SMD RESISTOR EIA0603	0603	0010.8440.00	PHILIPS_CO	RC 22 H	
R814	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R815	RG 10K +-1% TK100 SMD RESISTOR EIA0603	0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R816	RG 4K7 +-1% TK100 SMD RESISTOR EIA0603	0603	0009.7020.00	DRALORIC	CR 0603	

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R817	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R818	RG 7K5 +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8440.00	PHILIPS_CO	RC 22 H	
R819	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R820	RG 4K7 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7020.00	DRALORIC	CR 0603	
R821 ..823	RG 15K +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7043.00	DRALORIC	CR 0603	
R824	RG 68R +-1% TK100 0603 SMD RESISTOR EIA0603	0009.6930.00	DRALORIC	CR 0603	
R825	RG 47K +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7072.00	DRALORIC	CR 0603	
R826	RG 47K +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7072.00	DRALORIC	CR 0603	
R827	RG 150K +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7095.00	DRALORIC	CR 0603	
R828	RG 150K +-1% TK100 0603 SMD RESISTOR EIA0603	0009.7095.00	DRALORIC	CR 0603	
R829	RG 8K25 +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8456.00	DRALORIC	CR 0603	
R830	RG 8K25 +-1% TK100 0603 SMD RESISTOR EIA0603	0010.8456.00	DRALORIC	CR 0603	
R831	RG 20K +-1% TK100 0603 SMD RESISTOR EIA0603	0010.9100.00	DRALORIC	CR 0603	
R832	RG 20K +-1% TK100 0603 SMD RESISTOR EIA0603	0010.9100.00	DRALORIC	CR 0603	
R833	RG 470R +-1% TK100 0603 SMD RESISTOR EIA0603	0009.6976.00	DRALORIC	CR 0603	
R834	RG 470R +-1% TK100 0603 SMD RESISTOR EIA0603	0009.6976.00	DRALORIC	CR 0603	
R835	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R836	RG 470R +-1% TK100 0603 SMD RESISTOR EIA0603	0009.6976.00	DRALORIC	CR 0603	
R837 ..839	RG 10K +-1% TK100 0603 SMD RESISTOR EIA0603	RG 0009.5357.00	PHILIPS_CO	RC 22 H	
R840	RG 1K5 +-1% TK100 0603 SMD RESISTOR EIA0603	0009.6999.00	DRALORIC	CR 0603	
U1 ..6	BJ DAC08CS 1X8-DAC D/A-CONVERTER	6024.3137.00	PMI	DAC08C(S)	
U7	BO LM2903D 2XLP COMPAR DUAL	0520.7734.00	SIGNETICS	LM2903(D)	
U8	BM SM4T17-2 MIXER 3,4GHZ MIXER	1085.1503.00	WATKINS-JO	WJ-SM4T17-2	
V1	AE BZV55/C4V7 0.5W ZDI ZENER DIODE	AE 0006.9822.00	PHILIPS	BZV55B4V7	
V2 ..18	AK BC860B P 45V 200MA TRANSISTOR	AK 0007.7975.00	MOTOROLA	BC860B	
V19	AE BAR64-04 CA 2X PIN SILICON PIN DIODE	1039.1327.00	SIEMENS	BAR6404 (Q62702-A101	
V20	AK BC860B P 45V 200MA TRANSISTOR	AK 0007.7975.00	MOTOROLA	BC860B	
V21	AK BC860B P 45V 200MA TRANSISTOR	AK 0007.7975.00	MOTOROLA	BC860B	
V22	AE BAR64-04 CA 2X PIN SILICON PIN DIODE	1039.1327.00	SIEMENS	BAR6404 (Q62702-A101	
V23 ..31	AK BC860B P 45V 200MA TRANSISTOR	AK 0007.7975.00	MOTOROLA	BC860B	
V32 ..55	AE BAR64-04 CA 2X PIN SILICON PIN DIODE	1039.1327.00	SIEMENS	BAR6404 (Q62702-A101	
V56	AE BZV55/C5V6 0.5W ZDI ZENER DIODE	AE 0006.9845.00	PHILIPS	BZV55B5V6	
V57 ..63	AE BAT15-03W SCHOTTKY SCHOTTKY DIODE	1085.1526.00	SIEMENS	BAT15-03W (-A1104)	
V64 ..79	AD BAS16 75V UDI HIGH-SPEED DIODE	AD 0007.4924.00	VALVO	BAS16 (A6P)	
V80	AK BC860B P 45V 200MA TRANSISTOR	AK 0007.7975.00	MOTOROLA	BC860B	
V81	AD BAS16 75V UDI HIGH-SPEED DIODE	AD 0007.4924.00	VALVO	BAS16 (A6P)	
V82	AD BAS16 75V UDI HIGH-SPEED DIODE	AD 0007.4924.00	VALVO	BAS16 (A6P)	
V83	AK BC860B P 45V 200MA TRANSISTOR	AK 0007.7975.00	MOTOROLA	BC860B	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
V84	AD BAS16 75V UDI	AD 0007.4924.00	VALVO	BAS16 (A6P)	
..90	HIGH-SPEED DIODE				
V91	AM CFY30 P-E 5V GAASF	1068.9622.00	SIEMENS	CFY30 (-F97)	
..96	GAAS FET				
V97	AK BC860B P 45V 200MA	AK 0007.7975.00	MOTOROLA	BC860B	
	TRANSISTOR				
V98	AK BC860B P 45V 200MA	AK 0007.7975.00	MOTOROLA	BC860B	
	TRANSISTOR				
V99	AD BAS16 75V UDI	AD 0007.4924.00	VALVO	BAS16 (A6P)	
	HIGH-SPEED DIODE				
V100	AM CFY30 P-E 5V GAASF	1068.9622.00	SIEMENS	CFY30 (-F97)	
..102	GAAS FET				
V103	AD BAS16 75V UDI	AD 0007.4924.00	VALVO	BAS16 (A6P)	
	HIGH-SPEED DIODE				
V104	AD BAS16 75V UDI	AD 0007.4924.00	VALVO	BAS16 (A6P)	
	HIGH-SPEED DIODE				
V105	AD BAS16 75V UDI	AD 0007.4924.00	VALVO	BAS16 (A6P)	
	HIGH-SPEED DIODE				
V106	AM SHF0186K 9V GAASF	1085.1655.00	STANFORD_M	SHF-0186K423OTR	
	GAAS FET				
V107	AM SHF0186K 9V GAASF	1085.1655.00	STANFORD_M	SHF-0186K423OTR	
	GAAS FET				
V108	AM SHF 186 SELECTED IP3	1085.2239.00			
	TRANSISTOR GAASFET				
V109	AM SHF0186K 9V GAASF	1085.1655.00	STANFORD_M	SHF-0186K423OTR	
	GAAS FET				
V110	AE BZV55/C4V7 0.5W ZDI	AE 0006.9822.00	PHILIPS	BZV55B4V7	
..113	ZENER DIODE				
V114	AM BSS123 N-E 100V MOSF	0815.7961.00	SIEMENS	BSS 123 (-S512)	
	FET				
V115	AM BSS123 N-E 100V MOSF	0815.7961.00	SIEMENS	BSS 123 (-S512)	
	FET				
V116	AD BAV99 75V DUO UDI	AD 0911.0092.00	VALVO	BAV99	
..118	HIGH-SPEED DOUBLE DIODE				
V119	AE BZV55/C5V6 0.5W ZDI	AE 0006.9845.00	PHILIPS	BZV55B5V6	
	ZENER DIODE				
V120	AE BZV55/C5V6 0.5W ZDI	AE 0006.9845.00	PHILIPS	BZV55B5V6	
	ZENER DIODE				
V121	AE BAR64 1X PIN	1039.3059.00	SIEMENS	BAR64 (Q62702A1041)	
..123	SILICON PIN DIODE				
V124	AE BZV55/C5V1 0.5W ZDI	AE 0006.9839.00	PHILIPS_SE	BZV55B5V1 (GEG)	
	ZENER DIODE				
V125	AK BC860B P 45V 200MA	AK 0007.7975.00	MOTOROLA	BC860B	
	TRANSISTOR				
V126	AK BC850B N 45V 200MA	AK 0007.7969.00	VALVO	BC850B	
	TRANSISTOR				
	NICHT BESTUECKT/NOT FITTED				
V127	AK BC850B N 45V 200MA	AK 0007.7969.00	VALVO	BC850B	
..130	TRANSISTOR				
V131	AE HSMS2800 SCHOTTKY	AE 0836.8421.00	HEWLETT_PA	HSMS-2800(#L31)	
..144	SCHOTTKY DIODE				
V145	AE BAR64 1X PIN	1039.3059.00	SIEMENS	BAR64 (Q62702A1041)	
	SILICON PIN DIODE				
V146	AE HSMS2800 SCHOTTKY	AE 0836.8421.00	HEWLETT_PA	HSMS-2800(#L31)	
	SCHOTTKY DIODE				
V147	AK BFP450 NPN 4,5V 100MA	4048.1483.00	SIEMENS	BFP450 (-F1590)	
..150	RF-TRANSISTOR NPN				
V151	AK BCP68-16 N 20V TRANS	0008.2019.00	PHILIPS	BCP68-25	
	MEDIUM POWER TRANSISTOR				
V152	AK BCP68-16 N 20V TRANS	0008.2019.00	PHILIPS	BCP68-25	
	MEDIUM POWER TRANSISTOR				
V153	AE BB833 9,3/0,75PF CDI	1051.4751.00	SIEMENS	BB833 (-B628)	
..185	VARACTOR				
V186	AK BFP450 NPN 4,5V 100MA	4048.1483.00	SIEMENS	BFP450 (-F1590)	
	RF-TRANSISTOR NPN				
V187	AE BB535 18,7/2,1P CDI	1039.3107.00	SIEMENS	BB535/Q62702-B580	
..192	TUNING DIODE				
V193	AM SI9410DY N-E 30V MOSF	1081.0354.00	SILICONIX	SI9410DY	
	MOSFET				
	NICHT BESTUECKT/NOT FITTED				
V194	AM SI9410DY N-E 30V MOSF	1081.0354.00	SILICONIX	SI9410DY	
..197	MOSFET				
V198	AE BB639 2.9/36.0P CDI	4032.4265.00	SIEMENS	BB639(-B586)	
..201	TUNING DIODE				
V202	AE BAR64-04 CA 2X PIN	1039.1327.00	SIEMENS	BAR6404 (Q62702-A101	
	SILICON PIN DIODE				
V205	AK BC860B P 45V 200MA	AK 0007.7975.00	MOTOROLA	BC860B	
	TRANSISTOR				

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
V206 ..208	AD BAS16 75V UDI HIGH-SPEED DIODE	AD 0007.4924.00	VALVO	BAS16 (A6P)	
V209 ..211	AE HSMS2800 SCHOTTKY SCHOTTKY DIODE	AE 0836.8421.00	HEWLETT_PA	HSMS-2800(#L31)	
V212 ..217	AE BB833 9,3/0,75PF CDI VARACTOR	1051.4751.00	SIEMENS	BB833 (-B628)	
V218	AE BB535 18,7/2,1P CDI TUNING DIODE	1039.3107.00	SIEMENS	BB535/Q62702-B580	
W22	DW HF-KABEL W2	1084.9398.00			
X1 ..7	FJ EINLOETBUCHSE MMCX SMD CONNECTOR	1075.4045.00	SUHNER	82MMCX-S50-0-51/111D	
X220	FP STECKERLEISTE 32POL. CONNECTOR 32P.	FP 0008.5718.00	DEUT_ELCO	16 8457 064 002 027	
X221	FJ EINLOETBUCHSE SMA CONNECTOR	1085.1726.00	SUHNER	82SMA-S-50-0-45/111N	
X223	FJ EINLOETBUCHSE MMCX CONNECTOR	1085.1532.00	SUHNER	82MMCXS50-0-2/111KG	
X227	FJ EINLOETBUCHSE SMA CONNECTOR	1085.1726.00	SUHNER	82SMA-S-50-0-45/111N	
X22A	FJ EINLOETBUCHSE MMCX SMD CONNECTOR	1085.2045.00	SUHNER	82 MMCX-50-0-8/111	
X22B	FJ EINLOETBUCHSE MMCX SMD CONNECTOR	1085.2045.00	SUHNER	82 MMCX-50-0-8/111	
Z1 ..9	LD T-FILTER 3,3NF SMD SMD-FILTER	1039.1362.00	MURATA	NFM61R20T332T1	
Z10 ..15	LD T-FILTER 100PF SMD SMD-FILTER	1039.1356.00	MURATA	NFM61R00T101T1	
Z16 ..18	LD PI-FILTER 2X1NF SMD SMD-CERAMIC-PI-FILTER	4024.7152.00	TUSONIX	4700-003	

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XY-Liste

XY List

Erklärung der Spaltenbezeichnungen:

el. Kennz.	**Bauelement-Kennzeichen**
Seite	**Leiterplatten-Seite, auf der sich das Bauelement befindet**
X/Y	**Koordinaten (in Millimeter) des Bauelementes auf der Leiterplatte bezogen auf den Nullpunkt**
Planq., Bl.	**Planquadrat und Seite des Schaltbildes für das jeweilige Bauelement**

Explanation of column designations:

Part	**Identification of instrument part**
Side	**Side of the PC board on which instrument part is positioned**
X/Y	**Coordinates (in units of millimeters) of the component on the PC board in reference to zero point**
Sqr, Pg	**Square and page of the diagram for the respective instrument part**

Nicht-Service-relevante Bauteile / Non-Service relevant parts

el. Kennz. *Part*	Seite *Side*	X	Y	Planq. *Sqr*	Bl. *Pg*
C1	B	107	50	4C	16
C2	B	112	50	4D	16
C3	B	128	39	4D	16
C4	B	123	39	4E	16
C5	B	293	87	7B	8
C6	B	293	81	8B	8
C7	B	106	134	7C	6
C8	B	109	129	7C	6
C9	B	292	104	6B	8
C10	B	78	23	5C	3
C11	B	45	47	3C	4
C12	B	235	128	7B	7
C13	B	293	92	7B	8
C14	B	106	138	6C	6
C15	B	19	49	4D	2
C16	B	20	55	4D	2
C17	B	19	59	5D	2
C18	B	25	72	6D	2
C19	B	22	73	6D	2
C20	B	20	30	4C	2
C21	B	24	27	4B	2
C22	B	45	88	8B	2
C23	B	36	84	8C	2
C24	B	31	85	8C	2
C25	B	50	88	8A	2
C26	B	21	35	4C	2
C27	B	24	31	4A	2
C28	B	50	117	10B	5
C29	B	44	119	10A	5
C30	B	35	141	8A	5
C31	B	38	131	8C	5
C32	B	30	141	8B	5
C33	B	35	131	8C	5
C34	B	13	96	3B	5
C35	B	13	94	3B	5
C36	B	24	88	3D	5
C37	B	20	91	3C	5
C38	B	13	113	5A	5
C39	B	13	111	5B	5
C40	B	13	106	4D	5
C41	B	13	102	4C	5
C42	B	23	116	5C	5
C43	B	28	115	5C	5
C44	B	14	132	6B	5
C45	B	13	135	6A	5
C46	B	38	121	9C	5
C47	B	40	118	9C	5
C48	B	179	91	4C	9
C49	B	167	94	3A	9
C50	B	167	98	3A	9
C51	B	170	114	4C	9
C52	B	164	112	4C	9
C53	B	222	91	8A	9
C54	B	222	95	8A	9
C55	B	209	107	6B	9
C56	B	210	113	6C	9
C57	B	271	117	6C	10
C58	B	268	112	6C	10
C59	B	280	106	7B	10
C60	B	280	111	7B	10
C61	B	168	134	3C	7
C62	B	170	140	3C	7
C63	B	180	134	4B	7
C64	B	180	139	4B	7
C65	B	217	135	6D	7
C66	B	221	134	6C	7
C67	B	234	138	7B	7
C68	B	234	134	7B	7
C69	B	187	135	4C	7
C70	B	296	107	6B	8
C71	B	299	106	6B	8
C72	B	286	122	5C	8
C73	B	279	122	5D	8
C74	B	191	67	6C	11
C75	B	192	61	6C	11
C76	B	200	81	7A	11
C77	B	202	78	7A	11
C78	B	174	60	5D	11
C79	B	264	76	7B	12
C80	B	265	81	7A	12
C81	B	239	78	5C	12
C82	B	241	74	5C	12
C83	B	252	79	6C	12
C84	B	252	74	6B	12
C85	B	155	83	4C	11
C86	B	163	65	3A	11
C87	B	163	69	3A	11
C88	B	164	83	4C	11
C89	B	291	25	6B	13
C90	B	294	11	6D	13
C91	B	294	15	6C	13
C92	B	286	25	6B	13
C93	B	286	52	2B	13
C94	B	291	52	2B	13
C95	B	257	50	2D	13
C96	B	259	53	2D	13
C97	B	273	42	3B	13
C98	B	269	43	3C	13
C99	B	226	107	1C	10
C100	B	238	123	8C	7
C101	B	274	10	8B	13
C102	B	272	13	8B	13
C103	B	261	27	9B	13
C104	B	266	24	9B	13
C105	B	85	136	4D	6
C106	B	91	136	4C	6
C107	B	115	140	6B	6
C108	B	110	140	6B	6
C109	B	106	115	3B	6
C110	B	101	115	3B	6
C111	B	87	132	4D	6
C112	B	86	126	4D	6
C113	B	208	81	8C	11
C114	B	274	36	4D	13
C115	B	285	31	5C	13
C116	B	285	36	5B	13
C117	B	60	54	10C	3
C118	B	56	54	10C	3
C119	B	58	41	10B	3
C120	B	57	36	10A	3
C121	B	93	40	7C	3
C122	B	40	26	2B	3
C123	B	51	24	3B	3
C124	B	52	26	3B	3
C125	B	44	26	2B	3
C126	B	73	25	4D	3
C127	B	87	16	5D	3
C128	B	87	11	4D	3
C129	B	71	11	4D	3
C130	B	71	15	4D	3
C131	B	91	19	6C	3
C132	B	91	14	6C	3
C133	B	79	32	6B	3
C134	B	83	30	6B	3
C135	B	89	48	8B	3
C136	B	91	51	8B	3
C137	B	34	58	5B	4
C138	B	34	60	5B	4
C139	B	35	43	4C	4
C140	B	36	46	4C	4
C141	B	52	40	3D	4
C142	B	50	49	3D	4
C143	B	39	37	3D	4
C144	B	34	54	5B	4
C145	B	58	114	11C	5
C146	B	160	107	2C	9
C147	B	297	21	6C	13
C148	B	254	14	10C	13
C149	B	85	109	2D	6
C150	A	30	93	8F	2
C151	A	48	94	8E	2
C152	A	33	100	9D	2
C153	A	30	89	7E	2
C154	A	36	86	7D	2
C155	A	19	106	3E	5
C156	A	35	116	6E	5
C157	A	34	121	6F	5
C158	B	53	127	10C	5
C159	A	57	113	10D	5
C160	A	52	130	8D	5
C161	A	58	130	8E	5
C162	A	24	130	4F	5
C163	A	22	134	4E	5
C164	A	21	86	2E	5
C165	A	43	103	2D	5
C166	A	179	95	4E	9
C167	A	156	99	2E	9
C168	A	166	115	2F	9
C169	A	196	91	4F	9
C170	A	204	95	4E	9
C171	A	237	113	2F	10
C172	A	244	104	2E	10
C173	A	194	131	4D	7
C174	A	166	131	2E	7
C175	A	217	130	4E	7
C176	A	268	139	2E	8
C177	A	216	139	3F	7
C178	A	254	138	2F	8
C179	A	176	140	2F	7
C180	A	174	66	4E	11
C181	A	224	61	2F	12
C182	A	220	76	2E	12
C183	A	187	68	4E	11
C184	A	152	70	2E	11
C185	A	151	82	2F	11
C186	A	188	61	4F	11
C187	A	260	51	8D	13
C188	A	275	52	7D	13
C189	A	283	49	6E	13
C190	A	299	52	5E	13
C191	A	289	32	7D	13
C192	A	283	40	7E	13
C193	B	248	26	10C	13
C194	A	247	14	11E	13
C195	A	263	32	11D	13
C196	A	269	52	8C	13
C197	A	288	52	6D	13
C198	A	276	11	3E	13
C199	A	290	14	3F	13
C200	A	272	36	7E	13
C201	A	259	40	7F	13
C202	B	239	37	3D	14
C203	B	223	41	7F	14
C204	B	220	49	6E	14
C205	A	112	62	8B	15
C206	A	104	78	11B	15
C207	A	122	78	8D	15
C208	A	119	64	11D	15
C209	A	126	68	10E	15
C210	A	75	76	3B	15
C211	A	72	72	6B	15
C212	B	249	38	6B	17
C213	A	90	105	6B	17
C214	A	252	50	6A	17
C215	B	252	45	6A	17
C216	A	107	112	7C	17
C217	A	99	108	6C	17
C218	B	77	105	6C	17
C219	A	169	62	6F	17
C220	A	254	124	7E	17
C221	A	246	126	6E	17
C222	B	211	60	6D	17

ROHDE & SCHWARZ

Benennung: *Designation:* EE IQ-CONVERTER / IQ-CONVERTER

Sprache: *Lang.:* de

Blatt: *Sh.:* 1 +

Aei: *C.I.:* 04.04

Typ: *Type:* SMIQ

Datum: *Date:* 98-11-13

Abteilung: *Dpt:* 1GPK

Name: *Name:* BU

Sachnr.: *Part No.:* **1084.9300.01 XY**

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Nicht-Service-Relevante Bauteile / Non-Service [illegible]

el. Kennz. Part	Seite Side	X	Y	Planq. Sqr	Bl. Pg
C223	A	251	92	8E	17
C224	A	255	91	9E	17
C225	A	197	65	9E	17
C226	A	200	62	10E	17
C227	A	57	73	9C	17
C228	A	91	55	9D	17
C229	B	83	59	9D	17
C230	A	47	26	10D	17
C231	B	74	59	10D	17
C232	A	149	61	6F	17
C233	B	58	86	10A	17
C234	B	63	100	10B	17
C235	A	54	86	10A	17
C236	A	58	88	10A	17
C237	A	53	98	11B	17
C238	A	51	98	10B	17
C239	A	113	139	5F	6
C240	A	108	130	5E	6
C241	A	293	34	8D	13
C242	A	92	126	3E	6
C243	A	80	134	3F	6
C244	A	265	34	7E	13
C245	B	107	118	8D	6
C246	B	101	126	7D	6
C247	B	98	127	7D	6
C248	A	121	111	9D	6
C249	A	61	59	6E	3
C250	A	79	14	3E	3
C251	A	68	35	5E	3
C252	A	42	22	2E	3
C253	A	47	15	2F	3
C254	B	37	78	7C	4
C255	B	32	75	7C	4
C256	A	38	43	3E	4
C257	B	20	116	5C	5
C258	B	39	125	9C	5
C259	B	274	18	8C	13
C260	B	151	107	1B	9
C261	B	261	107	5B	10
C262	B	267	107	5B	10
C263	B	64	48	9B	3
C264	B	89	22	6B	3
C265	B	41	52	4B	4
C266	A	65	125	11D	5
C267	B	57	132	10D	5
C268	B	59	131	11D	5
C269	B	209	102	6B	9
C270	B	209	129	6C	7
C271	B	155	130	2C	7
C272	B	202	73	7B	11
C273	B	137	23	2C	17
C274	B	116	23	2C	17
C275	A	50	124	8D	5
C276	B	18	108	5B	5
C277	A	42	84	8D	2
C278	B	164	97	2B	9
C279	B	176	102	4B	9
C280	B	173	111	4B	9
C281	B	267	104	5C	10
C282	B	181	111	4B	9
C283	B	182	93	4C	9
C284	B	223	100	8B	9
C285	B	157	104	2C	9
C286	B	190	134	4C	7
C287	B	193	137	5C	7
C288	B	294	90	7C	8
C289	B	169	82	4B	11
C290	B	172	73	4B	11
C291	B	160	69	2B	11
C292	B	122	109	9B	6
C293	B	277	18	8C	13
C294	A	248	24	10D	13
C295	A	259	23	11D	13
C296	A	81	90	5B	15
C297	A	96	89	8B	15
C298	A	112	89	10B	15
C299	A	127	90	8D	15
C300	A	127	76	10D	15
C301	A	82	77	2B	15
C302	B	111	118	8C	6
C303	B	120	125	8C	6
C304	B	107	136	6C	6
C305	B	87	120	4D	6
C306	B	94	125	4C	6
C307	B	99	113	2C	6
C308	B	119	108	9B	6
C309	B	131	120	10B	6
C310	B	129	124	10B	6
C311	B	93	35	7C	3
C312	B	37	21	2C	3
C313	B	48	14	3C	3
C314	B	68	14	4C	3
C315	B	84	25	6B	3
C316	B	82	43	7C	3
C317	B	86	45	8B	3
C318	B	61	44	10B	3
C319	B	36	55	5B	4
C320	A	105	70	4F	14
C321	A	77	88	5A	15
C322	A	93	88	8A	15
C323	A	108	88	11A	15
C324	A	123	89	8C	15
C325	A	124	72	11C	15
C326	A	77	75	3A	15
C327	A	257	19	10D	13
C328	A	250	31	10E	13
C329	B	113	68	2E	15
C330	B	76	88	2E	15
C331	B	50	125	10B	5
C332	B	20	127	6B	5
C333	B	277	103	7B	10
C334	B	177	81	5C	11
C335	B	178	62	4D	11
C336	B	265	72	7B	12
C337	B	261	18	9C	13
C338	A	65	120	11D	5
C339	B	81	19	5C	3
C340	B	42	44	4C	4
C341	B	22	102	4C	5
C342	B	152	78	2B	11
C343	B	190	71	6B	11
C344	B	89	30	7C	3
C345	B	55	48	10C	3
C346	B	41	59	5C	4
C347	B	153	74	2C	11
C348	B	190	75	5B	11
C349	A	177	93	3D	9
C350	A	195	133	3D	7
C351	A	171	64	3D	11
C352	A	132	45	2D	16
C353	A	134	60	2C	16
C354	A	123	105	9D	6
C355	A	62	57	6E	3
C356	B	16	76	6C	2
C357	B	138	111	11B	6
C358	B	94	136	5C	6
C359	B	43	76	7C	4
C360	B	182	129	4B	7
C361	B	202	129	5C	7
C362	B	293	77	8B	8
C363	B	149	130	2C	7
C364	B	252	70	6B	12
C365	B	14	30	3C	2
C366	B	25	19	3B	2
C367	B	46	90	8B	2
C368	B	31	90	8C	2
C369	B	24	142	8B	5
C370	B	29	127	8C	5
C371	B	133	111	11B	6
C372	A	234	106	1E	10
C373	B	273	112	6C	10
C374	B	280	97	7C	10
C375	B	271	91	8C	10
C376	B	282	84	8C	10
C377	B	193	93	5B	9
C378	B	165	104	2B	9
C379	B	171	104	3B	9
C380	B	176	104	4B	9
C381	B	35	96	2C	5
C382	B	214	109	7B	9
C383	B	174	135	3C	7
C384	B	225	136	7C	7
C385	B	300	113	6C	8
C386	B	172	75	4B	11
C387	B	166	75	3B	11
C388	B	161	75	3B	11
C389	B	196	68	6B	11
C390	B	27	95	2C	5
C391	B	241	64	5C	12
C392	B	245	79	5C	12
C393	B	249	61	6C	12
C394	B	257	65	7B	12
C395	B	289	12	6C	13
C396	B	279	22	6C	13
C397	B	263	47	2D	13
C398	B	283	43	2A	13
C399	B	278	45	2A	13
C400	B	282	50	2C	13
C401	B	267	46	3C	13
C402	B	276	52	2C	13
C403	B	271	52	2D	13
C404	A	230	103	2E	10
C405	A	235	129	7D	7
C406	A	237	129	7D	7
C407	B	92	124	4C	6
C408	B	92	119	3C	6
C409	B	92	114	3C	6
C410	A	206	73	7C	11
C411	A	203	76	6C	11
C412	A	286	29	3E	13
C413	B	83	54	8C	3
C414	B	76	38	8C	3
C415	B	70	53	9C	3
C416	B	49	74	6C	4
C417	B	33	68	6C	4
C418	B	49	63	6C	4
C419	A	55	139	10D	5
C420	B	291	86	7C	8
C421	A	255	35	9E	13
C422	B	108	132	7C	6
C423	B	179	102	4B	9
C424	B	154	107	1B	9
C425	B	264	107	5B	10
C426	B	205	98	6B	9
C427	B	176	73	4B	11
C428	B	155	78	2C	11
C429	B	149	79	1B	11
C430	B	187	70	5B	11
C431	B	107	124	7D	6
C432	B	83	21	5C	3
C433	B	41	47	4C	4
C434	B	154	108	1B	9
C435	B	264	109	5B	10
C436	B	51	14	3C	3
C437	A	15	106	2E	5
C438	A	32	118	5E	5
C439	A	18	134	4E	5
C440	A	19	84	1E	5
C441	A	148	101	1E	9
C442	A	200	94	3E	9
C443	A	244	100	1E	10
C444	A	170	133	1E	7

ROHDE & SCHWARZ	Benennung: EE IQ-CONVERTER Designation: IQ-CONVERTER	Sprache: Lang.: de	Blatt: Sh.: 2 +	Aei: C.I.: 04.04
Typ: Type: SMIQ	Datum: Date: 98-11-13	Abteilung: Dpt: 1GPK	Name: Name: BU	Sachnr.: Part No.: 1084.9300.01 XY

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Nicht-Service-relevante Bauteile / Non-Service-relevant Components

el. Kennz. Part	Seite Side	X	Y	Planq. Sqr	Bl. Pg
C445	A	222	132	3E	7
C446	A	276	142	1E	8
C447	A	212	77	1E	12
C448	A	185	66	3E	11
C449	A	144	73	1E	11
C450	A	270	12	3E	13
C451	A	289	25	2D	13
C452	A	123	113	9E	6
C453	A	104	128	4E	6
C454	B	245	109	3C	10
C455	A	87	124	2E	6
C456	A	129	113	10E	6
C457	A	79	11	3E	3
C458	A	64	34	4E	3
C459	A	35	20	2E	3
C460	B	124	112	9C	6
C461	A	252	18	11E	13
C462	B	121	52	3C	16
C463	B	121	47	3D	16
C464	B	152	104	1C	9
C465	B	262	105	5C	10
C466	B	294	79	8C	8
C467	B	248	129	1B	8
C468	B	258	129	2B	8
C469	B	109	125	7C	6
C470	B	110	128	7C	6
C471	B	234	25	3F	14
C472	B	80	76	1E	15
C473	A	131	70	1E	15
C474	B	149	78	1B	11
C475	B	187	71	5B	11
C476	B	21	110	5C	5
C477	B	200	106	6B	9
C478	B	146	78	1B	11
C479	B	184	71	5B	11
C480	B	76	21	5C	3
C481	B	79	21	5C	3
C482	B	44	45	3C	4
C483	B	47	45	3C	4
C484	B	148	99	1C	9
C485	B	149	93	1C	9
C486	B	161	99	2C	9
C487	B	160	93	2C	9
C488	B	258	100	4C	10
C489	B	271	100	5C	10
C490	B	193	111	5A	9
C491	B	193	107	5A	9
C492	B	146	135	1C	7
C493	B	158	125	1C	7
C494	B	212	134	5D	7
C495	B	217	124	6C	7
C496	B	199	134	5C	7
C497	B	254	124	1B	8
C498	B	257	122	1B	8
C499	B	158	139	2D	7
C500	B	158	134	2D	7
C501	B	163	125	2C	7
C502	B	182	81	5B	11
C503	B	194	84	6B	11
C504	B	157	62	2D	11
C505	B	157	67	2C	11
C506	B	144	69	1C	11
C507	B	145	63	1C	11
C508	A	45	109	8D	5
C509	A	59	107	8E	5
C510	A	163	50	2E	16
C511	A	140	50	1F	16
C512	A	132	52	2E	16
C513	B	173	23	2B	17
C514	B	157	23	2B	17
C515	B	164	23	2D	17
C516	A	63	113	11E	5
C517	B	40	109	1C	5
C518	B	157	107	2B	9
C519	B	73	21	4C	3
C520	B	50	45	3C	4
C521	B	22	14	2B	2
C522	B	45	100	9B	2
C523	B	24	24	4B	2
C524	B	17	32	4C	2
C525	B	42	85	8B	2
C526	B	33	88	8C	2
C527	B	39	99	9B	2
C528	B	44	123	9B	5
C529	A	38	102	10D	2
C530	B	60	114	11B	5
C531	B	32	129	8C	5
C532	B	31	139	8B	5
C533	B	38	104	2C	5
C534	B	32	95	2C	5
C535	B	32	103	2C	5
C536	B	26	92	2C	5
C537	B	20	97	4C	5
C538	B	18	94	3C	5
C539	B	16	105	5B	5
C540	B	24	95	3C	5
C541	B	22	121	6B	5
C542	B	56	110	11B	5
C543	B	186	102	5B	9
C544	B	189	129	4B	7
C545	B	222	129	6B	7
C546	B	196	129	5B	7
C547	B	144	128	1B	7
C548	B	168	130	2B	7
C549	B	234	70	5B	12
C550	B	294	18	6C	13
C551	B	283	28	6B	13
C552	B	277	84	1C	13
C553	B	267	70	1D	13
C554	B	266	42	3C	13
C555	B	267	19	8B	13
C556	B	20	100	4C	5
C557	B	252	14	11C	13
C558	A	65	131	11E	5
C559	A	247	28	10E	13
C560	B	136	114	10C	6
C561	B	116	122	9C	6
C562	B	98	136	5B	6
C563	B	87	109	2D	6
C564	B	86	29	6B	3
C565	B	67	47	9B	3
C566	B	58	45	10B	3
C567	B	39	60	5B	4
C568	B	128	109	10C	6
C569	A	277	44	5E	13
C570	A	258	44	5F	13
C571	A	251	41	6A	17
C572	A	36	42	3E	4
C573	B	135	118	10B	6
C574	A	232	23	3F	14
C575	A	170	22	2B	17
C576	A	153	22	2B	17
C577	A	134	22	2C	17
C578	A	113	22	2C	17
C579	A	161	21	2D	17
C580	A	31	96	9E	2
C581	B	181	107	4B	9
C582	B	178	77	5C	11
C583	B	115	126	8C	6
C584	B	84	39	7C	3
C585	B	185	127	4C	7
C586	B	238	127	8C	7
C587	B	293	101	7C	8
C588	B	286	16	7C	13
C589	B	227	95	8A	9
C590	B	275	132	3B	8
C591	B	253	109	4B	10
C592	B	253	114	4B	10
C593	B	241	114	3D	10
C594	B	239	108	3D	10
C595	B	271	141	3B	8
C596	B	269	139	3B	8
C597	B	259	139	2C	8
C598	B	258	133	2C	8
C599	B	227	80	4B	12
C600	B	226	83	4A	12
C601	B	224	70	3C	12
C602	B	227	68	3C	12
C603	A	276	115	3F	10
C604	A	271	109	3E	10
C605	A	275	112	3E	10
C606	A	274	124	4F	8
C607	A	291	127	4E	8
C608	A	297	125	3E	8
C609	A	252	82	3F	12
C610	A	256	61	3E	12
C611	A	254	59	3E	12
C612	B	232	102	2B	10
C613	B	291	131	5C	8
C614	B	239	100	2C	10
C615	B	219	73	2B	12
C616	B	219	70	2B	12
C617	B	265	131	4C	8
C618	B	263	136	2C	8
C619	B	236	102	2B	10
C620	B	216	75	2B	12
C621	B	236	104	2B	10
C622	B	234	100	2C	10
C623	B	272	130	3C	8
C624	B	216	73	2B	12
C625	B	213	73	2B	12
C626	B	243	95	3C	10
C627	B	230	95	2C	10
C628	B	290	127	5C	8
C629	B	294	135	5D	8
C630	B	282	135	4C	8
C631	B	224	62	2C	12
C632	B	212	66	1C	12
C633	B	239	102	2B	10
C634	B	255	104	4B	10
C635	B	271	133	3B	8
C636	B	292	123	5B	8
C637	B	279	131	4B	8
C638	B	229	75	4B	12
C639	B	59	123	11C	5
C640	B	57	123	10C	5
C641	B	253	23	10C	13
C642	B	255	23	10C	13
C643	A	79	79	3A	15
C644	A	70	83	6A	15
C645	A	106	64	8A	15
C646	A	108	76	11A	15
C647	A	121	70	11D	15
C648	A	117	82	8D	15
C649	B	227	104	1C	10
C650	B	226	100	1B	10
C651	B	239	130	8B	7
C652	B	241	125	8C	7
C653	B	239	136	8B	7
C654	B	206	78	8B	11
C655	B	205	73	8B	11
C656	B	205	69	7A	11
C657	B	271	38	4D	13
C658	B	265	33	4C	13
C659	B	258	35	4C	13
C660	B	120	115	9C	6
C661	A	264	27	11D	13
C670				7C	8
C671				9D	6
D1	B	194	15	2B	14
D1	B	194	15	2B	14
D1	B	194	15	2C	14

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ROHDE & SCHWARZ	Benennung: EE IQ-CONVERTER *Designation:* IQ-CONVERTER	Sprache: *Lang.:* de	Blatt: *Sh.:* 3 +	Aei: *C.I.:* 04.04
Typ: *Type:* SMIQ	Datum: *Date:* 98-11-13	Abteilung: *Dpt:* 1GPK	Name: *Name:* BU	Sachnr.: *Part No.:* 1084.9300.01 XY

Nicht-Service-relevante Bauteile / Non-Service-relevant Comp.

el. Kennz. Part	Seite Side	X	Y	Planq. Sqr	Bl. Pg
D1	B	194	15	2C	14
D1	B	194	15	2F	14
D2	B	194	40	5F	14
D2	B	194	40	6C	14
D2	B	194	40	6C	14
D2	B	194	40	8D	14
D2	B	194	40	8E	14
D3	A	48	104	1D	5
D3	A	48	104	8E	5
D4	B	112	72	4F	14
D4	B	112	72	5B	14
D5	B	170	41	5F	14
D5	B	170	41	6C	14
D6	B	101	72	4F	14
D6	B	101	72	6B	14
D7	B	90	84	2E	15
D7	B	90	84	4A	15
D8	B	106	84	1E	15
D8	B	106	84	7A	15
D9	B	121	84	4E	15
D9	B	121	84	9A	15
D10	B	136	84	4E	15
D10	B	136	84	7C	15
D11	B	136	72	3E	15
D11	B	136	72	9C	15
D12	B	91	72	1A	15
D12	B	91	72	5E	15
D13	B	218	39	6F	14
D13	B	218	39	9D	14
D14	B	206	39	6F	14
D14	B	206	39	9D	14
D15	B	237	30	3D	14
D15	B	237	30	3F	14
D15	B	237	30	4D	14
D15	B	237	30	4D	14
D15	B	237	30	7F	14
D17	B	182	42	5F	14
D17	B	182	42	6D	14
D18	B	221	31	3A	14
D18	B	221	31	3F	14
L1	B	224	104	8B	9
L2	B	274	100	7C	10
L3	B	147	16	1B	17
L4	B	126	16	1C	17
L5	B	106	16	1C	17
L6	B	103	41	3C	17
L7	B	267	76	8B	12
L8	B	39	96	9C	2
L9	B	20	132	7B	5
L10	B	14	108	5B	5
L11	B	18	101	4C	5
L12	B	16	127	6B	5
L13	B	180	133	4B	7
L14	B	234	132	7B	7
L15	B	296	105	6B	8
L16	B	286	48	1A	13
L17	B	279	18	7C	13
L18	B	261	22	9B	13
L19	B	297	102	7C	8
L20	B	248	51	6A	17
L21	B	233	52	5A	17
L22	B	233	48	5A	17
L23	B	248	47	6A	17
L24	B	61	89	10A	17
L25	B	77	91	9A	17
L26	B	61	94	10B	17
L27	B	77	95	9B	17
L28	B	205	60	6D	17
L29	B	196	52	5D	17
L30	B	111	103	6B	17
L31	B	112	92	5B	17
L32	B	89	59	9D	17
L33	B	105	58	8D	17
L34	B	80	59	10D	17
L35	B	42	96	9C	2
L36	B	50	119	10B	5
L37	B	16	97	3B	5
L38	B	108	140	6B	6
L39	B	100	115	3B	6
L40	B	131	124	10B	6
L41	B	62	53	9C	3
L42	B	125	124	10A	6
L43	B	51	20	3B	3
L44	B	92	22	6C	3
L45	B	284	31	5C	13
L46	B	21	90	3C	5
L47	B	36	49	4C	4
L48	B	183	134	4C	7
L49	B	21	32	4C	2
L50	B	24	30	4B	2
L51	B	48	88	8B	2
L52	B	34	85	8C	2
L53	B	50	122	10B	5
L54	B	36	129	8C	5
L55	B	33	141	8A	5
L56	B	24	92	3C	5
L57	B	294	14	6C	13
L58	B	289	25	6B	13
L59	B	272	42	3C	13
L60	B	281	31	5C	13
L61	A	51	27	10D	17
L62	A	54	90	11A	17
L63	A	63	92	11B	17
L64	B	105	140	6B	6
L65	B	97	115	3C	6
L67	B	13	97	3B	5
L68	B	58	42	10B	3
L69	B	50	16	3B	3
L70	B	154	71	2C	11
L71	B	83	29	6B	3
L72	B	35	58	5B	4
L73	B	145	74	1C	11
L74	B	13	110	5B	5
L75	B	14	100	4C	5
L76	B	15	131	6B	5
L77	B	14	135	6A	5
L78	B	202	76	7A	11
L79	B	265	75	7B	12
L80	B	163	71	3A	11
L81	B	83	51	8C	3
L83	B	261	25	9B	13
L84	B	113	140	6B	6
L85	B	14	39	4C	2
L86	B	12	55	5C	2
L87	B	13	68	5C	2
L88	B	24	63	5C	2
L89	B	192	78	6B	11
L90	B	58	115	11B	5
L91	B	183	75	5B	11
L92	B	46	121	9B	5
L93	B	212	69	1B	12
L94	B	27	109	2C	5
L95	B	48	102	2C	5
L96	B	37	100	1C	5
L97	B	28	97	2C	5
L98	B	273	111	6C	10
L99	B	205	92	6B	9
L100	B	200	112	6B	9
L101	B	193	95	5B	9
L102	B	162	107	2B	9
L103	B	221	67	2B	12
L104	B	166	108	2B	9
L105	B	181	102	4B	9
L106	B	164	103	2B	9
L107	B	166	102	2B	9
L108	B	177	73	4B	11
L109	B	171	108	3B	9
L110	B	110	124	8C	6
L111	B	169	102	3B	9
L112	B	86	32	7B	3
L113	B	173	108	3B	9
L115	B	173	102	3B	9
L116	B	176	102	4B	9
L117	B	157	92	2C	9
L118	B	184	89	5B	9
L119	B	180	95	4C	9
L120	B	185	102	5B	9
L121	B	267	93	5C	10
L122	B	214	106	7B	9
L123	B	213	102	7B	9
L124	B	217	102	7B	9
L125	B	191	104	5B	9
L126	B	269	137	3B	8
L127	B	197	104	5B	9
L128	B	203	103	6B	9
L129	B	207	102	6B	9
L130	B	271	107	6B	10
L131	B	273	107	6B	10
L132	B	277	99	7B	10
L133	B	277	96	7B	10
L134	B	277	88	8B	10
L135	B	277	85	8B	10
L136	B	273	92	8C	10
L137	B	281	84	8C	10
L138	B	279	97	7C	10
L139	B	149	139	2C	7
L140	B	155	142	2C	7
L141	B	147	131	1B	7
L142	B	152	128	2B	7
L143	B	159	128	2B	7
L144	B	166	129	2B	7
L145	B	174	128	3B	7
L146	B	172	128	3B	7
L147	B	174	133	3C	7
L148	B	188	129	4B	7
L149	B	272	138	3C	8
L150	B	200	130	5B	7
L151	B	206	128	5B	7
L152	B	213	128	6B	7
L153	B	220	127	6B	7
L154	B	202	138	5C	7
L155	B	209	141	6C	7
L156	B	226	127	6B	7
L157	B	227	128	7B	7
L158	B	225	134	7C	7
L159	B	245	132	1C	8
L160	B	298	113	6C	8
L161	B	292	118	5B	8
L162	B	292	115	6B	8
L163	B	293	89	7B	8
L164	B	293	84	7B	8
L165	B	293	78	8B	8
L166	B	298	98	7C	8
L167	B	288	102	7C	8
L168	B	297	66	8C	8
L169	B	227	78	4B	12
L170	B	239	88	2C	10
L171	B	148	69	1C	11
L172	B	153	67	2C	11
L173	B	178	64	4C	11
L174	B	244	102	3B	10
L175	B	263	129	2B	8
L176	B	172	73	4B	11
L177	B	291	143	5C	8
L178	B	283	131	4B	8
L179	B	164	73	3B	11
L180	B	162	73	3B	11
L181	B	160	74	2B	11
L182	B	289	132	4B	8
L183	B	157	77	2B	11
L184	B	294	132	5B	8
L185	B	168	73	3B	11

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ROHDE & SCHWARZ	Benennung: EE IQ-CONVERTER Designation: IQ-CONVERTER	Sprache: Lang.: de	Blatt: Sh.: 4 +	Aei: C.I.: 04.04
Typ: Type: SMIQ	Datum: Date: 98-11-13	Abteilung: Dpt: 1GPK	Name: Name: BU	Sachnr.: Part No.: 1084.9300.01 XY

Nicht-Service-relevante Bauteile / Non-Service-relevant Components

el. Kennz. Part	Seite Side	X	Y	Planq. Sqr	Bl. Pg
L186	B	167	79	3B	11
L187	B	162	79	2B	11
L188	B	169	79	4B	11
L189	B	182	72	5B	11
L190	B	180	60	5B	11
L191	B	186	80	5B	11
L192	B	190	82	5B	11
L193	B	194	71	6B	11
L194	B	195	71	6B	11
L195	B	46	63	6C	4
L196	B	238	70	5B	12
L197	B	243	70	5B	12
L198	B	248	70	6B	12
L199	B	251	70	6B	12
L200	B	256	70	6B	12
L201	B	258	70	7B	12
L202	B	117	106	9B	6
L203	B	196	69	6B	11
L204	B	285	139	4C	8
L205	B	241	66	5C	12
L206	B	245	76	5B	12
L207	B	249	64	6B	12
L208	B	257	67	7B	12
L209	B	128	104	10C	6
L210	B	295	124	5B	8
L211	B	262	128	2B	8
L212	B	23	123	6B	5
L213	B	263	134	2C	8
L214	B	215	65	2C	12
L215	B	227	109	1C	10
L216	B	230	110	2C	10
L217	B	248	102	3B	10
L218	B	219	62	2C	12
L219	B	245	107	3C	10
L220	B	224	73	3B	12
L221	B	213	81	8B	11
L222	B	206	83	8B	11
L223	B	272	33	4C	13
L224	B	276	38	4D	13
L225	B	32	110	2C	5
L226	B	254	15	10C	13
L227	B	110	111	8C	6
L228	B	113	111	9C	6
L229	B	115	122	9C	6
L230	B	106	135	6C	6
L231	B	107	131	7C	6
L232	B	109	126	7C	6
L233	B	122	136	6C	6
L234	B	134	132	7C	6
L235	B	133	128	7C	6
L236	B	253	108	4B	10
L237	B	265	21	9B	13
L238	B	94	124	4C	6
L239	B	100	134	5B	6
L240	B	20	130	6B	5
L241	B	94	117	3C	6
L242	B	94	115	3C	6
L243	B	94	113	2C	6
L244	B	53	123	10B	5
L245	B	89	109	2D	6
L246	B	257	19	9C	13
L247	B	94	121	3C	6
L248	B	89	122	4D	6
L249	B	89	120	3D	6
L250	B	89	115	3D	6
L252	B	132	110	11A	6
L253	B	13	75	6C	2
L254	B	271	18	8C	13
L255	B	104	138	6C	6
L256	B	278	138	4C	8
L257	B	260	53	2D	13
L258	B	122	111	9B	6
L259	B	128	117	10B	6
L260	B	273	47	2C	13
L261	B	138	113	11B	6
L262	B	234	76	4B	12
L263	B	285	52	2C	13
L266	B	90	36	7C	3
L267	B	43	21	2C	3
L269	B	81	11	5C	3
L270	B	78	29	5C	3
L271	B	75	14	4C	3
L273	B	93	45	7C	3
L274	B	84	47	8B	3
L275	B	79	47	8B	3
L276	B	76	42	8C	3
L277	B	73	47	8B	3
L278	B	70	51	9C	3
L279	B	68	47	9B	3
L280	B	42	35	4C	4
L283	B	43	75	6B	4
L284	B	47	74	6C	4
L285	B	39	62	5B	4
L286	B	37	68	6C	4
L287	B	41	66	6B	4
L288	B	42	72	6B	4
L289	B	49	38	3C	4
L290	B	45	54	3C	4
L293	B	280	105	7B	10
L294	B	167	100	3A	9
L295	B	223	97	8A	9
L298	B	204	78	7B	11
L299	B	236	133	7C	7
L300	A	134	69	3B	17
L301	A	221	42	3B	17
L302	A	230	27	3C	17
L303	B	81	74	3C	17
L304	A	135	15	1B	17
L305	A	116	15	1D	17
L306	B	85	104	6B	17
L307	B	164	61	6F	17
L308	A	64	68	9C	17
L309	B	246	41	6A	17
L310	A	254	42	6A	17
L311	B	64	86	10A	17
L312	A	58	92	11A	17
L313	A	63	94	11B	17
L314	B	18	133	7C	5
L315	B	280	15	7C	13
L316	B	193	105	5A	9
L319	A	250	39	6A	17
L320	A	277	48	6A	17
L321	A	260	19	6A	17
N1	A	111	69	11B	15
N1	A	111	69	11D	15
N1	A	111	69	2E	15
N1	A	111	69	8B	15
N1	A	111	69	8D	15
N2	B	134	57	2D	16
N3	B	78	80	2E	15
N3	B	78	80	3B	15
N3	B	78	80	5B	15
N4	A	286	38	5F	13
N4	A	286	38	6E	13
N4	A	286	38	8D	13
N5	A	261	38	5F	13
N5	A	261	38	7F	13
N5	A	261	38	8D	13
N6	A	149	42	1E	16
N6	A	149	42	3A	16
N6	A	149	42	3B	16
N7	A	35	88	8E	2
N7	A	35	88	8E	2
N7	A	35	88	9E	2
N8	B	54	14	3C	3
N9	B	128	46	2C	16
N9	B	128	46	2E	16
N9	B	128	46	3B	16
N9	B	128	46	3C	16
N9	B	128	46	3D	16
N10	B	219	99	7B	9
N11	B	275	105	6B	10
N12	B	180	127	3B	7
N13	B	233	126	7B	7
N14	B	291	105	6B	8
N15	B	200	71	7B	11
N16	B	263	70	7B	12
N17	B	46	18	2C	3
N18	A	55	124	11D	5
N18	A	55	124	8E	5
N19	A	250	22	10D	13
N19	A	250	22	11D	13
N20	B	253	103	4B	10
N21	B	269	131	3B	8
N22	B	227	73	3B	12
N23	B	274	29	4C	13
P3	B	64	115	11E	5
P4	B	45	107	1D	5
P5	B	45	105	1D	5
P6	B	235	41	10E	14
P7	B	144	46	4D	16
P8	B	144	43	5B	16
P9	B	144	41	2C	16
P10	B	144	38	4A	16
P11	B	144	36	4B	16
P12	B	144	33	4E	16
P13	B	175	48	6C	14
P14	B	177	48	6C	14
P15	B	180	48	7D	14
P16	B	182	48	7D	14
R1	B	17	35	4C	2
R2	B	13	71	6C	2
R3	A	155	106	2E	9
R4	A	157	106	2E	9
R5	B	230	105	2C	10
R6	B	241	128	8C	7
R7	A	151	78	2E	11
R8	A	153	78	2E	11
R9	B	48	122	9B	5
R10	B	57	120	10C	5
R11	B	36	102	2C	5
R12	B	23	125	6B	5
R13	B	27	101	2C	5
R14	B	213	75	8B	11
R15	B	206	75	8B	11
R16	B	184	100	5B	9
R17	B	182	100	4B	9
R18	B	275	102	7C	10
R19	B	190	130	4C	7
R20	B	194	127	5C	7
R21	B	180	71	5B	11
R22	B	178	71	4C	11
R23	B	263	21	9B	13
R24	B	255	20	10C	13
R25	B	139	51	5C	16
R26	B	102	135	5B	6
R27	A	123	115	9E	6
R28	A	127	111	9E	6
R29	A	128	117	10E	6
R30	A	129	111	10E	6
R31	B	86	33	7C	3
R32	B	86	43	7C	3
R33	B	164	101	2B	9
R34	B	160	72	2B	11
R35	B	266	33	4C	13
R36	A	98	121	3E	6
R37	A	100	121	3E	6
R38	B	268	38	4C	13
R39	B	295	23	6C	13
R40	A	102	121	3E	6
R41	A	104	121	3E	6
R42	B	295	18	6C	13

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ROHDE & SCHWARZ

Benennung: EE IQ-CONVERTER
Designation: IQ-CONVERTER

Sprache: Lang.: de

Blatt: Sh.: 5 +

Aei: C.I.: 04.04

Typ: Type: SMIQ

Datum: Date: 98-11-13

Abteilung: Dpl: 1GPK

Name: Name: BU

Sachnr.: Part No.: 1084.9300.01 XY

Nicht–Service–relevante Bauteile / Non–Service–relevant Components

el. Kennz. *Part*	Seite *Side*	X	Y	Planq. *Sqr*	Bl. *Pg*
R43	A	227	108	2E	10
R44	B	35	15	2E	6
R45	B	80	126	2D	6
R46	A	240	124	7D	7
R47	B	25	76	6D	2
R48	A	22	37	4D	2
R49	A	25	35	4A	2
R50	A	30	98	9E	2
R51	A	38	140	8A	5
R52	A	39	130	8C	5
R53	A	181	93	4E	9
R54	B	183	130	4C	7
R55	B	236	130	7C	7
R56	A	193	133	4D	7
R57	B	248	127	8C	7
R58	B	204	75	7B	11
R59	B	267	73	8B	12
R60	A	178	66	4E	11
R61	A	294	23	6A	13
R62	A	294	11	6D	13
R63	A	294	50	2B	13
R64	A	258	46	2C	13
R65	A	275	44	3B	13
R66	A	112	53	4C	16
R67	A	121	45	4E	16
R68	B	107	120	8D	6
R69	B	100	124	7D	6
R70	A	115	111	10C	6
R71	A	91	41	7C	3
R72	B	36	76	7C	4
R73	A	78	83	6A	15
R74	A	93	82	8A	15
R75	A	108	82	11A	15
R76	A	124	82	8C	15
R77	A	75	70	3A	15
R78	B	40	125	9C	5
R79	A	208	79	7C	11
R80	B	20	117	5B	5
R81	A	283	34	3E	13
R82	A	265	50	8D	13
R83	A	295	32	8E	13
R84	B	120	112	9C	6
R85	B	261	35	4C	13
R86	B	185	129	4B	7
R87	B	238	128	7B	7
R88	B	292	101	7B	8
R89	A	256	46	8F	13
R90	B	295	21	6C	13
R91	A	18	51	4D	2
R92	B	258	107	4B	10
R93	A	45	105	2D	5
R95	B	94	138	5C	6
R96	B	128	107	10C	6
R97	B	32	23	1C	3
R98	A	48	88	8A	2
R99	A	48	90	8D	2
R100	B	21	93	3C	5
R101	B	227	101	1C	10
R102	B	294	102	7C	8
R103	A	57	115	7E	5
R104	B	286	45	1A	13
R106	B	226	104	1C	10
R107	B	239	125	8C	7
R108	B	18	46	4C	2
R109	B	17	53	4D	2
R110	B	16	60	5C	2
R111	B	16	57	5D	2
R112	B	25	73	6C	2
R113	B	21	73	6C	2
R114	B	59	127	11C	5
R115	B	57	127	10C	5
R116	B	61	130	11D	5
R117	B	56	130	10D	5
R118	A	60	117	11E	5
R119	B	208	78	8B	11
R120	B	21	117	5C	5
R121	B	25	115	5C	5
R122	B	37	125	9C	5
R123	B	40	121	9C	5
R124	A	43	105	2D	5
R125	A	45	102	2D	5
R126	B	169	112	4C	9
R127	B	172	111	4C	9
R128	B	151	101	1C	9
R129	B	149	98	1C	9
R130	B	160	97	2C	9
R131	B	261	101	4C	10
R132	B	259	98	4C	10
R133	B	270	98	5C	10
R134	B	210	104	7B	9
R135	B	210	108	7B	9
R136	B	193	110	5A	9
R137	B	192	100	5B	9
R138	B	202	106	5B	9
R139	B	204	100	6B	9
R140	B	269	109	6C	10
R141	B	269	114	6C	10
R142	B	170	131	3C	7
R143	B	170	136	3C	7
R144	B	148	133	1C	7
R145	B	146	136	1C	7
R146	B	217	127	6C	7
R147	B	216	124	6C	7
R148	B	210	132	5C	7
R149	B	199	135	5C	7
R150	B	201	132	5C	7
R151	B	212	135	5D	7
R152	B	223	131	6C	7
R153	B	221	135	6D	7
R154	B	258	130	2C	8
R155	B	254	126	1B	8
R156	B	284	122	5C	8
R157	B	158	136	2D	7
R158	B	291	122	5C	8
R159	B	156	133	2C	7
R160	B	249	127	1C	8
R161	B	162	128	2C	7
R162	B	161	125	2C	7
R163	B	192	70	6C	11
R164	B	182	76	5B	11
R165	B	181	79	5B	11
R166	B	195	82	6B	11
R167	B	156	65	2C	11
R168	B	145	68	1C	11
R169	B	145	72	1C	11
R170	B	192	65	6C	11
R171	B	239	74	5C	12
R172	B	253	71	6B	12
R173	B	158	82	4C	11
R174	B	253	76	6C	12
R175	B	167	82	4C	11
R176	B	247	68	6B	12
R177	B	247	72	5B	12
R178	B	239	68	5C	12
R179	B	272	16	8B	13
R180	B	274	13	8B	13
R181	B	253	28	10C	13
R182	A	252	35	9E	13
R183	B	255	28	10C	13
R184	A	258	35	9E	13
R185	A	247	30	10E	13
R186	A	257	29	11E	13
R187	A	247	16	10E	13
R188	A	249	15	11E	13
R189	B	271	36	4D	13
R191	A	214	30	3B	14
R192	A	214	28	3B	14
R193	A	214	26	3B	14
R194	A	214	24	3B	14
R195	A	214	20	3B	14
R196	A	214	18	3B	14
R197	A	214	16	3B	14
R198	A	224	30	3B	14
R199	A	230	24	3C	14
R200	A	216	14	4B	14
R201	A	218	14	4B	14
R202	A	220	14	4B	14
R203	A	223	14	4B	14
R204	A	225	14	4B	14
R205	A	227	14	4B	14
R206	A	229	14	4B	14
R207	A	231	14	4B	14
R208	B	239	29	3D	14
R209	B	230	34	7F	14
R210	B	184	41	6D	14
R211	B	174	43	6D	14
R212	B	105	72	5B	14
R213	B	94	72	6B	14
R214	B	162	41	5C	14
R215	B	220	46	8D	14
R216	B	208	45	8E	14
R217	B	197	41	7C	14
R218	A	35	100	9D	2
R219	B	185	46	8D	14
R220	B	185	43	8D	14
R221	B	199	43	9E	14
R222	B	229	47	10D	14
R223	B	232	41	10E	14
R224	A	28	102	9D	2
R225	A	72	78	6B	15
R226	B	83	84	4A	15
R227	B	133	120	10B	6
R228	A	114	67	9B	15
R229	B	98	84	6A	15
R230	B	114	84	9A	15
R231	A	106	80	11B	15
R233	A	288	20	4E	13
R234	A	122	80	9D	15
R235	B	129	84	6C	15
R236	B	129	72	9C	15
R237	A	119	66	11D	15
R238	A	232	106	1D	10
R239	B	83	72	1A	15
R240	A	235	131	7D	7
R241	A	203	78	7C	11
R242	A	287	25	2D	13
R243	A	138	38	4A	16
R244	A	210	46	4D	16
R245	A	210	42	4E	16
R246	A	214	42	4E	16
R247	B	133	52	3B	16
R248	B	132	54	4C	16
R249	B	131	44	4C	16
R250	B	139	41	4C	16
R251	A	138	36	4B	16
R252	B	127	59	2D	16
R253	A	101	106	6C	17
R254	A	95	109	6C	17
R255	A	246	124	6E	17
R256	A	249	92	8E	17
R257	A	197	63	10E	17
R258	A	51	100	10B	17
R259	A	49	97	10B	17
R260	A	248	127	7E	17
R261	A	253	94	8E	17
R262	A	199	65	10E	17
R263	A	125	113	9E	6
R264	A	90	131	3E	6
R265	B	94	134	5C	6
R266	B	89	136	5C	6
R267	B	104	126	7D	6
R268	B	100	126	7D	6

ROHDE & SCHWARZ

Benennung: EE IQ–CONVERTER
Designation: IQ–CONVERTER

Sprache: *Lang.:* de

Blatt: *Sh.:* 6 +

Aei: *C.I.:* 04.04

Typ: *Type:* SMIQ

Datum: *Date:* 98–11–13

Abteilung: *Dpt:* 1GPK

Name: *Name:* BU

Sachnr.: *Part No.:* 1084.9300.01 XY

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Nicht–Service–Relevante Bauteile / Non-Service Relevant Parts

el. Kennz. Part	Seite Side	X	Y	Planq. Sqr	Bl. Pg
R269	B	87	123	4D	6
R270	B	87	128	4D	6
R271	A	22	96	2E	5
R272	B	14	94	3B	5
R273	A	68	26	4D	3
R274	B	38	24	2B	3
R275	B	43	24	2B	3
R276	B	76	26	5C	3
R277	B	71	26	5D	3
R278	B	83	16	5C	3
R279	B	86	14	5D	3
R280	B	72	14	4D	3
R281	B	73	18	4C	3
R282	A	237	106	2D	10
R283	B	91	49	8B	3
R284	B	88	48	8B	3
R285	B	81	49	8C	3
R286	B	74	44	8C	3
R287	B	71	49	9C	3
R288	B	45	72	6C	4
R289	B	39	70	6C	4
R290	B	44	65	5C	4
R291	B	35	61	5B	4
R292	B	32	61	5B	4
R293	B	40	78	7C	4
R294	B	32	78	7C	4
R295	B	51	38	3D	4
R296	B	51	43	3C	4
R297	B	40	40	3C	4
R298	B	47	50	3C	4
R299	B	50	52	3D	4
R300	B	37	39	3D	4
R301	A	33	86	7D	2
R302	A	50	131	7D	5
R303	A	153	106	2E	9
R304	A	149	78	2E	11
R305	A	281	51	5E	13
R306	A	258	53	7D	13
R307	A	289	36	7D	13
R308	A	255	39	7F	13
R309	B	228	39	11D	14
R310	A	73	86	5B	15
R311	A	108	72	8B	15
R312	A	108	74	11B	15
R313	A	120	74	8D	15
R314	A	119	70	11D	15
R315	A	120	72	11D	15
R316	A	126	70	11C	15
R317	A	75	84	3B	15
R318	A	127	50	3C	16
R319	A	106	137	5E	6
R320	B	16	17	3C	2
R321	B	20	15	2C	2
R322	B	34	139	8B	5
R323	B	38	139	9B	5
R324	B	55	44	10B	3
R325	B	53	44	10B	3
R326	B	18	15	2B	2
R327	B	35	139	8B	5
R328	B	37	12	1E	6
R329	B	37	15	2E	6
R330	B	82	124	2D	6
R331	B	78	126	2D	6
R332	B	42	100	9B	2
R333	B	35	95	2C	5
R334	B	32	100	2C	5
R335	B	27	94	2C	5
R336	B	56	111	11B	5
R337	B	38	106	1C	5
R338	B	181	108	4B	9
R339	B	180	93	4C	9
R340	B	226	97	8A	9
R341	B	193	134	5C	7
R342	B	189	133	4C	7
R343	B	239	133	8B	7
R344	B	177	78	5C	11
R345	B	176	62	5D	11
R346	B	203	70	7A	11
R347	B	184	34	3B	14
R348	B	208	22	3B	14
R349	B	196	18	2C	14
R350	B	179	25	2E	14
R351	B	185	25	2D	14
R352	B	190	25	2C	14
R353	B	110	118	8C	6
R354	B	93	37	7C	3
R355	B	84	41	7C	3
R356	A	28	87	7E	2
R357	A	16	113	3E	5
R358	A	62	131	7E	5
R359	A	22	98	1E	5
R360	A	175	102	4D	9
R361	A	202	127	4C	7
R362	A	169	73	4D	11
R363	A	275	50	7C	13
R364	A	300	46	5E	13
R365	A	281	36	7E	13
R366	A	280	35	7E	13
R367	A	114	62	9B	15
R368	A	104	76	11B	15
R369	A	121	76	9D	15
R370	A	117	64	11D	15
R371	A	123	64	10D	15
R372	A	75	74	3B	15
R373	A	72	70	6B	15
R374	B	130	52	3B	16
R375	A	135	56	4C	16
R376	A	53	63	6E	3
R377	A	173	102	4D	9
R378	A	202	125	4C	7
R379	A	171	73	4D	11
R380	A	55	65	7E	3
R381	A	57	42	5E	3
R382	A	73	21	3E	3
R383	A	42	50	3E	4
R384	B	61	118	11C	5
R385	B	251	19	10C	13
R386	B	18	103	4B	5
R387	B	49	119	10A	5
R388	B	47	119	9A	5
R389	B	45	119	9A	5
R390	B	256	106	4B	10
R391	B	278	134	4B	8
R392	B	275	135	4B	8
R393	B	264	24	9B	13
R394	B	264	25	9B	13
R395	B	264	27	8B	13
R396	B	232	75	4B	12
R397	A	59	42	5E	3
R398	A	62	42	5E	3
R399	A	77	21	4E	3
R400	A	75	21	3E	3
R401	A	42	46	3E	4
R402	A	42	48	3E	4
R403	B	52	130	10C	5
R404	B	54	127	10C	5
R405	B	251	26	10C	13
R406	B	248	28	10C	13
R407	A	250	20	10D	13
R408	A	63	108	10B	17
R409	A	196	67	10E	17
R410	A	251	99	8E	17
R411	A	247	134	6E	17
R412	A	99	112	6C	17
R413	B	22	100	4C	5
R414	B	22	99	3C	5
R415	B	22	97	3C	5
R416	A	238	138	7C	7
R417	A	197	76	7B	11
R418	A	280	27	3D	13
R419	A	224	105	2D	10
R420	A	241	133	7C	7
R421	A	81	86	5A	15
R422	A	97	85	8A	15
R423	A	112	85	11A	15
R424	A	127	85	8C	15
R425	A	81	72	2A	15
R426	A	205	81	7B	11
R427	A	279	29	3D	13
R428	B	287	34	5B	13
R429	B	285	34	5B	13
R430	B	89	122	4D	6
R431	B	59	117	11B	5
R432	B	42	107	1C	5
R433	A	212	95	4E	9
R434	A	212	97	4E	9
R435	A	244	112	2E	10
R436	A	242	112	2E	10
R437	A	172	123	2E	7
R438	A	223	122	4E	7
R439	A	271	133	2E	8
R440	A	170	123	2E	7
R441	A	225	122	4E	7
R442	A	273	133	2E	8
R443	A	186	75	4E	11
R444	A	188	75	4E	11
R445	A	221	84	2E	12
R446	A	219	84	2E	12
R447	B	253	17	10C	13
R448	B	208	28	3B	14
R449	B	194	34	3C	14
R450	B	189	34	3D	14
R451	B	198	25	2B	14
R452	B	179	34	3E	14
R453	B	199	18	2B	14
R454	B	182	24	2B	14
R455	B	74	86	2E	15
R456	A	136	60	3B	17
R457	B	61	125	11C	5
R458	B	258	26	9C	13
R459	A	25	141	5E	5
R460	A	27	141	4E	5
R461	A	23	141	4E	5
R462	B	20	102	4C	5
R463	B	234	73	4B	12
R464	B	14	113	5B	5
R465	B	167	95	2A	9
R466	B	169	95	3A	9
R467	B	222	92	8A	9
R468	B	280	109	7B	10
R469	B	160	137	4B	7
R470	B	234	137	7B	7
R471	B	255	122	1B	8
R472	B	299	107	6B	8
R473	B	202	81	7A	11
R474	B	265	79	7A	12
R475	B	163	66	3A	11
R476	B	164	66	3A	11
R477	B	282	36	5B	13
R478	B	282	38	5B	13
R479	B	149	48	3D	17
R480	B	134	50	3A	17
R481	B	111	68	3A	17
R482	B	162	45	3B	17
R483	B	104	114	3B	6
R484	B	104	115	3B	6
R485	B	90	24	6C	3
R486	B	62	50	9C	3
R487	B	256	109	4C	10
R488	B	51	27	3B	3
R489	B	81	32	6B	3
R490	B	278	135	4C	8

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ROHDE & SCHWARZ

Benennung: EE IQ-CONVERTER
Designation: IQ-CONVERTER

Sprache: Lang.: de

Blatt: Sh.: 7 +

Aei: C.I.: 04.04

Typ: Type: SMIQ

Datum: Date: 98-11-13

Abteilung: Dpt: 1GPK

Name: Name: BU

Sachnr.: Part No.: 1084.9300.01 XY

Nicht-Service-relevante Bauteile / Non-Service-relevant Components

el. Kennz. Part	Seite Side	X	Y	Planq. Sqr	Bl. Pg
R491	B	58	38	10B	3
R492	B	34	55	5B	4
R494	B	61	104	9D	5
R495	B	246	32	11C	13
R496	B	134	66	2D	16
R497	A	61	115	11E	5
R498	B	59	120	11C	5
R499	B	224	101	8B	9
R500	B	253	20	10C	13
R501	A	254	20	11E	13
R502	B	111	121	8C	6
R503	B	113	121	9C	6
R504	B	62	45	10B	3
R505	B	86	24	6B	3
R506	B	38	53	4B	4
R507	A	39	86	8D	2
R508	A	32	121	5F	5
R509	A	52	128	8D	5
R510	A	15	138	4E	5
R511	A	26	130	4F	5
R512	A	168	115	1F	9
R513	A	194	91	3F	9
R514	A	235	113	1F	10
R515	A	174	140	1F	7
R516	A	218	139	3F	7
R517	A	256	138	1F	8
R518	A	222	61	1F	12
R519	A	149	82	1F	11
R520	A	186	61	3F	11
R521	A	273	52	7C	13
R522	A	297	52	5E	13
R523	A	291	34	7D	13
R524	B	38	51	4C	4
R525	A	288	14	3F	13
R526	A	269	36	7E	13
R527	A	128	72	11C	15
R528	A	111	139	5F	6
R529	A	82	134	2F	6
R530	A	173	95	4D	9
R531	A	47	13	2F	3
R532	A	231	100	1D	10
R533	B	64	47	9B	3
R534	B	87	22	6C	3
R535	B	40	52	4C	4
R536	A	125	115	10D	6
R537	A	121	115	9D	6
R538	A	128	47	3D	16
R539	A	42	86	8D	2
R540	A	17	104	3E	5
R541	A	35	126	6E	5
R542	A	52	124	8D	5
R543	A	20	132	4E	5
R544	A	43	107	2D	5
R545	A	288	50	6E	13
R546	A	293	36	8D	13
R547	A	247	20	10E	13
R548	A	265	36	7E	13
R549	A	198	131	3D	7
R550	A	271	14	3E	13
R551	A	267	52	8C	13
R552	A	141	38	4A	16
R553	A	141	36	4B	16
R554	A	244	122	6E	17
R555	A	245	92	8E	17
R556	A	195	61	9E	17
R557	A	106	130	5E	6
R558	A	72	10	4D	3
R559	B	22	25	4B	2
R560	B	17	30	4C	2
R561	B	43	88	8B	2
R562	B	36	88	8C	2
R563	B	29	141	8B	5
R564	B	32	131	8C	5
R565	A	234	134	7D	7
R566	B	13	103	4C	5
R567	A	175	93	3D	9
R568	A	200	131	3D	7
R569	A	173	64	3D	11
R570	B	292	17	6C	13
R571	B	285	25	6B	13
R574	B	267	43	3C	13
R575	A	113	48	4D	16
R576	A	119	46	4E	16
R577	B	246	38	6B	17
R578	B	77	102	6C	17
R579	A	93	53	9D	17
R580	A	147	59	6E	17
R581	A	56	88	10A	17
R582	A	116	109	9C	6
R583	B	59	54	9C	3
R584	A	59	57	6F	3
R585	B	32	24	1C	3
R586	B	35	21	2C	3
R587	B	92	17	6C	3
R588	B	36	45	4C	4
R589	A	44	115	6E	5
R590	A	47	115	6E	5
R591	A	50	115	6E	5
R592	A	52	115	6E	5
R593	A	55	115	7E	5
R594	A	283	20	4E	13
R595	A	280	20	4E	13
R596	A	278	20	3E	13
R597	A	275	20	3E	13
R598	A	285	20	4E	13
R599	A	120	48	3E	16
R600	A	63	127	11D	5
R601	A	245	24	10D	13
R602	A	259	27	11D	13
R603	A	61	109	10B	17
R604	A	196	70	9E	17
R605	A	247	99	8E	17
R606	A	244	131	6E	17
R607	A	95	112	6C	17
R608	A	30	91	8E	2
R609	A	30	122	5F	5
R610	A	36	119	6F	5
R611	A	38	116	6E	5
R612	A	59	120	10D	5
R613	A	63	129	11E	5
R614	A	64	111	9D	5
R615	A	56	130	8E	5
R616	A	25	134	4E	5
R617	A	25	132	4F	5
R618	A	22	128	4F	5
R619	B	23	93	3C	5
R620	A	160	105	2E	9
R621	A	162	116	1F	9
R622	A	167	113	2F	9
R623	A	198	91	4F	9
R624	A	190	91	3F	9
R625	A	212	99	4E	9
R626	A	203	91	4E	9
R627	A	239	114	2F	10
R628	A	231	113	1F	10
R629	A	240	112	1E	10
R630	A	245	114	2E	10
R631	A	174	123	1E	7
R632	A	178	141	1F	7
R633	A	172	140	2F	7
R634	A	165	133	2E	7
R635	A	212	139	3F	7
R636	A	218	137	4F	7
R637	A	215	129	4E	7
R638	A	227	122	3E	7
R639	A	275	133	1E	8
R640	A	264	138	2E	8
R641	A	258	138	2F	8
R642	A	252	140	1F	8
R643	A	224	63	2F	12
R644	A	218	60	1F	12
R645	A	217	84	1E	12
R646	A	190	62	4F	11
R647	A	182	61	3F	11
R648	A	184	75	4E	11
R649	A	146	82	1F	11
R650	A	153	82	2F	11
R651	A	155	76	2E	11
R652	A	188	66	4E	11
R653	A	221	74	2E	12
R654	A	277	52	7D	13
R655	A	299	50	5E	13
R656	A	283	38	8E	13
R657	A	263	30	11D	13
R658	A	246	34	11C	13
R659	A	176	63	4D	11
R660	A	207	70	7C	11
R661	A	292	26	3D	13
R662	A	285	14	3F	13
R663	A	280	14	3E	13
R664	A	290	18	3F	13
R665	A	274	36	7E	13
R666	B	114	73	5B	14
R667	B	224	49	6E	14
R668	A	81	88	5B	15
R669	A	96	87	8B	15
R670	A	112	87	11B	15
R671	A	127	88	8D	15
R672	A	128	74	11D	15
R673	A	81	75	2B	15
R674	A	146	43	3B	16
R675	A	107	140	4F	6
R677	A	58	59	6F	3
R678	A	78	136	2F	6
R679	A	83	132	3F	6
R680	A	86	128	3E	6
R681	B	276	48	2D	13
R682	A	113	132	5E	6
R683	A	115	140	5F	6
R684	A	66	35	5E	3
R685	A	77	12	3E	3
R686	A	34	28	2E	3
R687	A	46	20	2E	3
R688	A	48	19	2F	3
R689	A	51	14	2F	3
R690	A	34	43	3E	4
R691	B	175	92	4D	9
R692	B	197	123	4D	7
R693	B	172	64	4D	11
R694	B	63	63	7E	3
R695	A	123	68	10D	15
R696	A	126	124	10E	6
R697	A	72	84	6B	15
R698	A	108	66	8B	15
R699	A	112	80	11B	15
R700	A	115	80	8D	15
R701	A	81	81	3B	15
R702	A	147	39	3B	16
R703	A	120	53	3D	16
R704	A	128	45	3E	16
R705	A	153	39	3A	16
R706	B	60	48	10C	3
R707	B	58	48	10C	3
R708	A	38	28	2E	3
R709	A	36	28	2E	3
R710	B	89	26	6C	3
R711	B	89	27	6C	3
R712	B	89	29	6C	3
R713	B	57	48	10C	3
R714	B	41	58	5C	4
R715	B	41	56	5C	4
R716	B	41	55	5C	4

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Nicht-Service-Relevante Bauteile / Non-Service ...

el. Kennz. Part	Seite Side	X	Y	Planq. Sqr	Bl. Pg
R717	A	17	86	1E	5
R718	A	150	103	2E	9
R719	A	202	96	4E	9
R720	A	242	102	1E	10
R721	A	168	131	1E	7
R722	A	220	130	3E	7
R723	A	274	140	1E	8
R724	A	213	79	1E	12
R725	A	183	68	4E	11
R726	A	145	75	2E	11
R727	A	272	21	3E	13
R728	A	226	49	10D	14
R729	B	128	120	10B	6
R730	A	89	122	3E	6
R731	A	121	105	9D	6
R732	A	33	22	2E	3
R733	A	18	114	3E	5
R734	A	20	114	3E	5
R735	A	22	114	3E	5
R736	B	173	108	4B	9
R737	B	169	79	4B	11
R738	B	96	113	2C	6
R739	B	289	52	2B	13
R740	A	33	116	6E	5
R741	A	72	76	6B	15
R742	A	110	64	9B	15
R743	A	106	77	11B	15
R744	A	119	77	9D	15
R745	A	121	66	11D	15
R746	A	75	80	3B	15
R747	A	126	59	2D	16
R748	A	22	94	2E	5
R749	A	22	92	2E	5
R750	A	108	137	5E	6
R751	A	110	137	5E	6
R752	A	114	137	5E	6
R753	A	112	137	5E	6
R754	B	21	108	5C	5
R755	B	21	107	4C	5
R756	B	21	105	4C	5
R757	B	239	33	3D	14
R758	A	111	112	7C	17
R759	A	256	133	7E	17
R760	A	263	97	9E	17
R761	A	207	68	10E	17
R762	B	55	45	10B	3
R763	B	57	118	10B	5
R764	B	255	19	10C	13
R765	A	105	68	3C	17
R766	B	68	19	4C	3
R767	B	17	37	4C	2
R768	B	14	35	4C	2
R769	B	15	70	6C	2
R770	B	15	72	6C	2
R771	B	117	125	8C	6
R772	B	68	18	4C	3
R773	B	70	21	4C	3
R774	B	259	50	2D	13
R775	B	119	109	9B	6
R776	A	38	100	10D	2
R777	A	30	100	9D	2
R778	B	242	93	3C	10
R779	B	232	93	2C	10
R780	B	232	96	2C	10
R781	B	242	102	3D	10
R782	B	241	110	3D	10
R783	B	293	127	5C	8
R784	B	259	135	2C	8
R785	B	284	134	4C	8
R786	B	260	130	2C	8
R787	B	290	126	5C	8
R788	B	293	134	5C	8
R789	B	294	137	4D	8
R790	B	282	137	4C	8

el. Kennz Part	Seite Side	X	Y	Planq. Sqr	Bl. Pg
R791	B	223	60	2C	12
R792	B	210	65	1C	12
R793	B	210	69	1C	12
R794	B	222	73	3B	12
R795	B	223	68	3C	12
R796	A	269	100	4E	10
R797	A	267	100	3E	10
R798	A	300	109	4E	8
R799	A	300	107	4E	8
R800	A	257	69	4E	12
R801	A	255	69	3E	12
R802	B	253	112	4B	10
R803	B	269	142	3B	8
R804	B	272	132	3B	8
R805	B	227	83	4A	12
R806	A	279	115	3F	10
R807	A	276	124	3F	8
R808	A	250	82	3F	12
R809	A	270	111	4E	10
R810	A	271	100	3E	10
R811	A	282	115	3F	10
R812	A	274	115	3F	10
R813	A	286	124	4E	8
R814	A	278	124	4F	8
R815	A	274	127	3F	8
R816	A	299	111	3E	8
R817	A	255	82	3F	12
R818	A	259	67	4E	12
R819	A	247	82	3F	12
R820	A	253	68	3E	12
R821	A	273	109	3E	10
R822	A	295	123	3E	8
R823	A	252	61	3E	12
R824	B	272	135	3C	8
R825	A	57	139	10D	5
R826	A	52	139	10C	5
R827	B	64	140	10E	5
R828	B	258	28	9D	13
R829	A	255	31	9D	13
R830	A	258	33	9E	13
R831	A	61	139	10D	5
R832	A	63	139	10E	5
R833	B	156	70	2C	11
R834	B	194	79	6B	11
R835	B	241	71	5B	12
R836	B	222	65	2C	12
R837	B	159	100	2C	9
R838	B	240	97	3C	10
R839	B	269	101	5C	10
R840	B	135	111	11B	6
U1	A	84	84	3E	15
U1	A	84	84	5B	15
U2	A	99	84	6E	15
U2	A	99	84	7B	15
U3	A	115	84	10B	15
U3	A	115	84	5E	15
U4	A	130	84	4E	15
U4	A	130	84	7D	15
U5	A	130	72	10D	15
U5	A	130	72	3E	15
U6	A	84	72	1E	15
U6	A	84	72	2B	15
U7	B	230	41	10D	14
U7	B	230	41	10D	14
U7	B	230	41	6F	14
U8	B	73	122	1D	6
V1	B	70	86	2F	15
V2	A	268	104	3E	10
V3	A	17	110	3E	5
V4	A	42	120	6E	5
V5	A	20	90	2E	5
V6	A	24	138	4E	5
V7	A	179	99	4D	9
V8	A	156	103	2E	9

el. Kennz. Part	Seite Side	X	Y	Planq. Sqr	Bl. Pg
V9	A	208	96	4E	9
V10	A	244	108	2E	10
V11	A	168	127	2E	7
V12	A	222	126	4E	7
V13	A	273	136	2E	8
V14	A	195	127	4D	7
V15	A	174	70	4D	11
V16	A	219	80	2E	12
V17	A	186	72	4E	11
V18	A	152	74	2E	11
V19	B	128	113	10C	6
V20	A	275	14	3E	13
V21	A	108	134	5E	6
V22	B	134	116	10B	6
V23	A	96	125	3E	6
V24	A	117	113	9D	6
V25	A	121	119	9E	6
V26	A	125	119	10E	6
V27	A	79	18	3E	3
V28	A	64	39	5E	3
V29	A	60	63	6E	3
V30	A	42	26	2E	3
V31	A	42	43	3E	4
V32	B	17	22	3B	2
V33	B	17	28	3C	2
V34	B	21	22	3B	2
V35	B	36	91	8C	2
V36	B	42	89	8B	2
V37	B	40	91	8B	2
V38	B	26	99	2C	5
V39	B	24	135	8B	5
V40	B	28	131	8C	5
V41	B	27	139	8B	5
V42	B	34	100	2C	5
V43	B	184	102	4B	9
V44	B	194	129	5B	7
V45	B	180	73	4B	11
V46	B	283	19	7C	13
V47	B	283	23	6B	13
V48	B	288	17	6C	13
V49	B	272	52	2C	13
V50	B	262	51	2D	13
V51	B	280	45	2A	13
V52	B	279	52	2C	13
V53	B	271	47	2C	13
V54	B	113	123	8C	6
V55	B	86	39	7B	3
V56	B	222	51	6E	14
V57	B	21	76	6C	2
V58	B	63	138	10D	5
V59	B	59	126	10C	5
V60	B	258	31	9D	13
V61	B	255	26	10C	13
V62	B	104	124	7D	6
V63	B	40	76	7C	4
V64	A	15	111	3E	5
V65	A	38	124	6E	5
V66	A	18	94	1E	5
V67	A	19	138	4E	5
V68	A	177	98	4D	9
V69	A	153	103	2E	9
V70	A	209	99	4E	9
V71	A	242	108	1E	10
V72	A	173	127	1E	7
V73	A	227	126	3E	7
V74	A	276	135	1E	8
V75	A	200	127	4D	7
V76	A	171	69	4D	11
V77	A	217	81	1E	12
V78	A	184	73	4E	11
V79	A	149	75	2E	11
V80	A	226	103	2D	10
V81	A	273	19	3E	13
V82	A	106	134	5E	6

ROHDE & SCHWARZ

Benennung: EE IQ-CONVERTER
Designation: IQ-CONVERTER

Sprache: de
Blatt: 9 +
Aei: 04.04

Typ: SMIQ
Datum: 98-11-13
Abteilung: 1GPK
Name: BU
Sachnr.: 1084.9300.01 XY

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Nicht-Service-relevante Bauteile / Non-Service-relevant Components

el. Kennz. Part	Seite Side	X	Y	Planq. Sqr	Bl. Pg
V83	A	241	129	7D	7
V84	A	90	129	3E	6
V85	A	118	109	9D	6
V86	A	74	18	3E	3
V87	A	59	38	5E	3
V88	A	55	63	6E	3
V89	A	37	25	2E	3
V90	A	38	49	3E	4
V91	B	163	104	2B	9
V92	B	168	104	3B	9
V93	B	174	104	3B	9
V94	B	169	75	3B	11
V95	B	164	75	3B	11
V96	B	158	75	2B	11
V97	A	206	77	7C	11
V98	A	282	29	3D	13
V99	A	235	102	2D	10
V100	B	93	122	4C	6
V101	B	93	116	3C	6
V102	B	93	111	2C	6
V103	A	239	134	7C	7
V104	A	201	74	7C	11
V105	A	282	26	3D	13
V106	B	44	125	9C	5
V107	B	20	121	6B	5
V108	B	267	18	8C	13
V109	B	98	138	5C	6
V110	B	46	115	7E	5
V111	B	51	115	7E	5
V112	B	276	11	4E	13
V113	B	281	11	4E	13
V114	B	140	44	5C	16
V115	B	136	44	4C	16
V116	A	63	120	11D	5
V117	A	264	25	11D	13
V118	A	130	125	10E	6
V119	B	16	92	2E	5
V120	B	15	115	3E	5
V121	B	231	100	2B	10
V122	B	243	128	8B	7
V123	B	208	71	8B	11
V124	B	98	121	3E	6
V125	A	291	123	4E	8
V126	A	103	111	6C	17
V127	A	249	132	7E	17
V128	A	255	99	8E	17
V129	A	198	69	10E	17
V130	A	59	103	10B	17
V131	B	27	117	5C	5
V132	B	35	121	9C	5
V133	B	168	116	4C	9
V134	B	208	110	6B	9
V135	B	267	116	6C	10
V136	B	168	138	2C	7
V137	B	220	139	6C	7
V138	B	286	125	5C	8
V139	B	189	65	6C	11
V140	B	257	76	6C	12
V141	B	162	84	4C	11
V142	B	269	13	8B	13
V143	B	89	140	4C	6
V144	B	91	128	4D	6
V145	B	264	38	4C	13
V146	B	38	28	2B	3
V147	B	20	105	4C	5
V148	B	61	47	10B	3
V149	B	87	25	6C	3
V150	B	40	55	5C	4
V151	A	128	42	4E	16
V152	A	108	52	4D	16
V153	B	17	62	5C	2
V154	B	15	62	5C	2
V155	B	15	64	5C	2
V156	B	17	64	5C	2
V157	B	19	44	5C	2
V158	B	17	44	5C	2
V159	B	17	42	4C	2
V160	B	19	42	4C	2
V161	B	205	102	6B	9
V162	B	200	102	6B	9
V163	B	193	102	5B	9
V164	B	157	101	2C	9
V165	B	267	101	5C	10
V166	B	149	133	2C	7
V167	B	155	133	2C	7
V168	B	202	132	5C	7
V169	B	209	132	6C	7
V170	B	253	130	1C	8
V171	B	162	130	2B	7
V172	B	217	129	6B	7
V173	B	148	74	1C	11
V174	B	153	71	2C	11
V175	B	186	75	5B	11
V176	B	190	78	5B	11
V177	B	241	70	5B	12
V178	B	245	70	5B	12
V179	B	249	70	6B	12
V180	B	83	47	8C	3
V181	B	76	47	8C	3
V182	B	70	47	9C	3
V183	B	43	74	6C	4
V184	B	42	68	6C	4
V185	B	41	63	6C	4
V186	B	21	95	3C	5
V187	B	152	101	1C	9
V188	B	262	101	5C	10
V189	B	254	129	1B	8
V190	B	253	129	1B	8
V191	B	78	26	5C	3
V192	B	45	50	3C	4
V193	A	105	105	7C	17
V194	A	55	96	11B	17
V195	A	252	126	7E	17
V196	A	257	90	8E	17
V197	A	203	61	10E	17
V198	B	81	16	5C	3
V199	B	75	19	4C	3
V200	B	42	41	4C	4
V201	B	49	43	3C	4
V202	B	127	109	10C	6
V205	A	256	65	3E	12
V206	A	270	104	3E	10
V207	A	295	113	3E	8
V208	A	253	66	3E	12
V209	B	239	112	3D	10
V210	B	257	137	2C	8
V211	B	225	65	3C	12
V212	B	239	97	2C	10
V213	B	295	127	5B	8
V214	B	291	134	5C	8
V215	B	285	134	4C	8
V216	B	219	67	2C	12
V217	B	215	69	2C	12
V218	B	234	97	2C	10
W22	B	40	139	5B	1
X1	B	257	40	4B	13
X2	B	48	99	10B	2
X3	B	122	119	9C	6
X4	B	51	108	11B	5
X5	B	227	93	8A	9
X6	B	240	137	8B	7
X7	B	203	66	8A	11
X22A	B	40	139	9B	5
X22B	B	295	27	6C	13
X220	B	189	11	1D	14
X221	B	22	12	2B	2
X223	B	37	9	1E	6
X227	B	250	12	11C	13
Z1	B	239	51	5A	17
Z2	B	202	53	5D	17
Z3	B	239	46	5A	17
Z4	B	116	96	5B	17
Z5	B	98	58	8D	17
Z6	B	171	27	2B	17
Z7	B	70	89	9A	17
Z8	B	70	94	9B	17
Z9	B	161	27	2D	17
Z10	B	182	27	2B	14
Z11	B	201	20	2B	14
Z12	B	201	25	2B	14
Z13	B	192	27	2C	14
Z14	B	187	27	2D	14
Z15	B	177	27	2E	14
Z16	B	156	27	2B	17
Z17	B	136	27	2C	17
Z18	B	116	27	2C	17

ROHDE & SCHWARZ	Benennung: EE IQ-CONVERTER Designation: IQ-CONVERTER	Sprache: Lang.: de	Blatt: Sh.: 10 –	Aei: C.I.: 04.04
Typ: Type: SMIQ	Datum: Date: 98-11-13	Abteilung: Dpt: 1GPK	Name: Name: BU	Sachnr.: Part No.: 1084.9300.01 XY

ROHDE&SCHWARZ

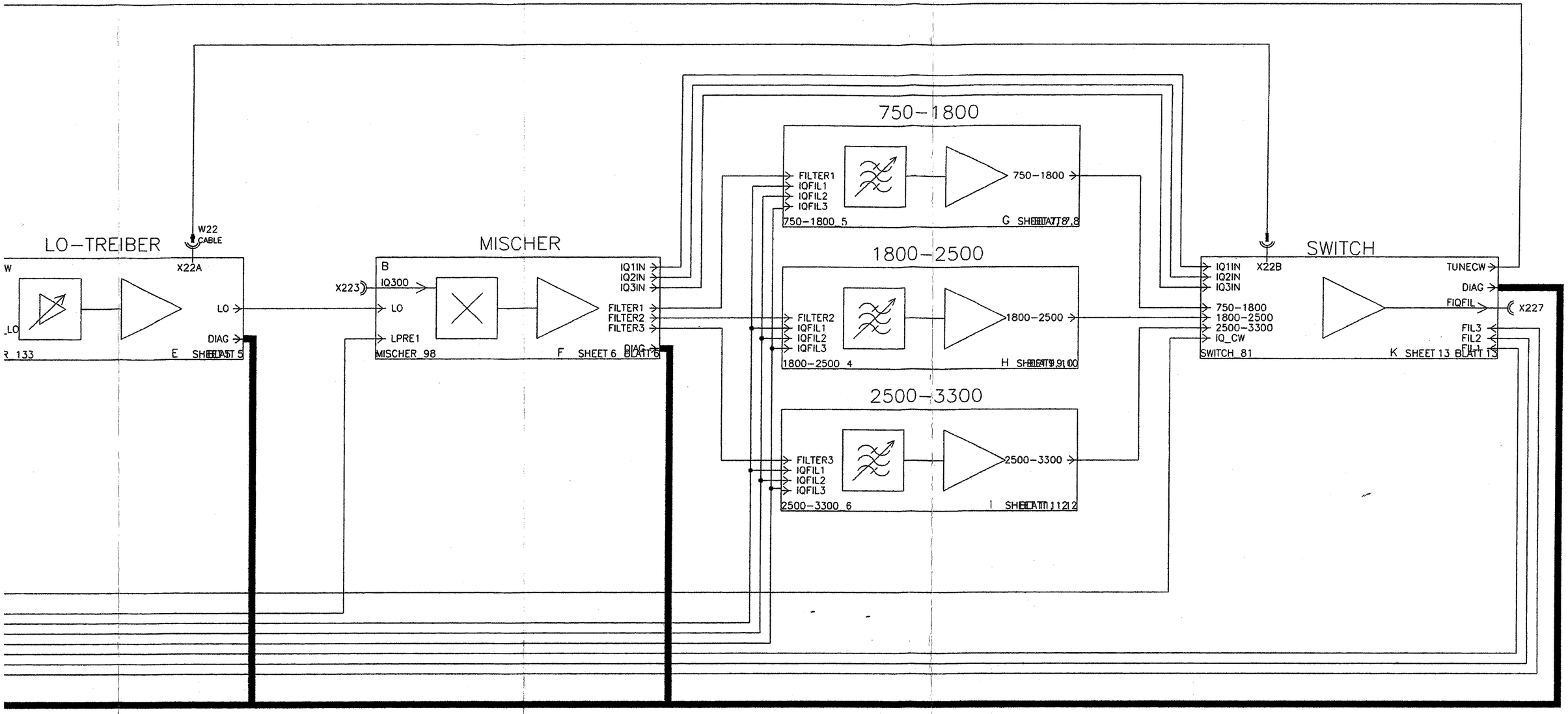
Stromläufe
Bestückungspläne

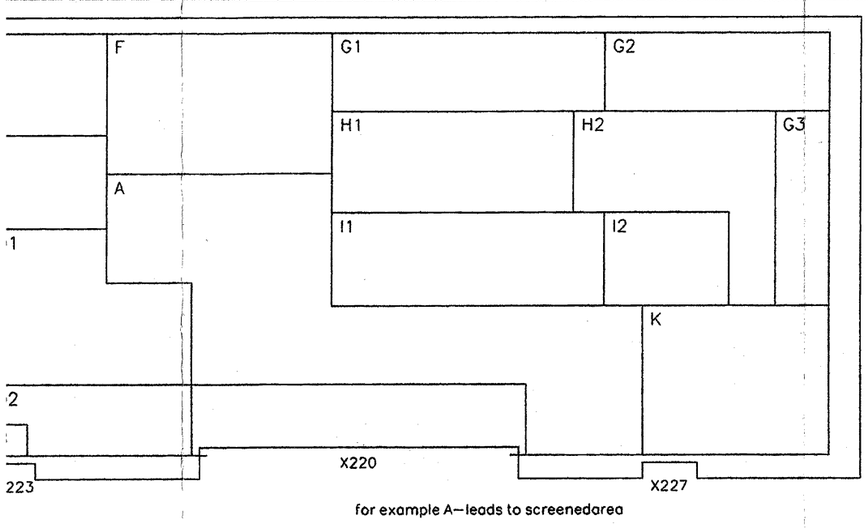
Circuit diagrams
Component plans

Schémas de circuit
Plans des composants

( )

( )





for example A-leads to screenedarea

** = NOT FITTED

Bindende Angaben ueber Varianten, Trimmwerte, Bauteile und nicht bestueckte Bauteile siehe SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST

ACHTUNG: EGB !
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD !
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
04.04			

	DATUM	NAME
1GPK		
BEARB.		BU
GEPR.		
NORM		
PLOTT	99-02-02	BHOFBERGE

ROHDE&SCHWARZ

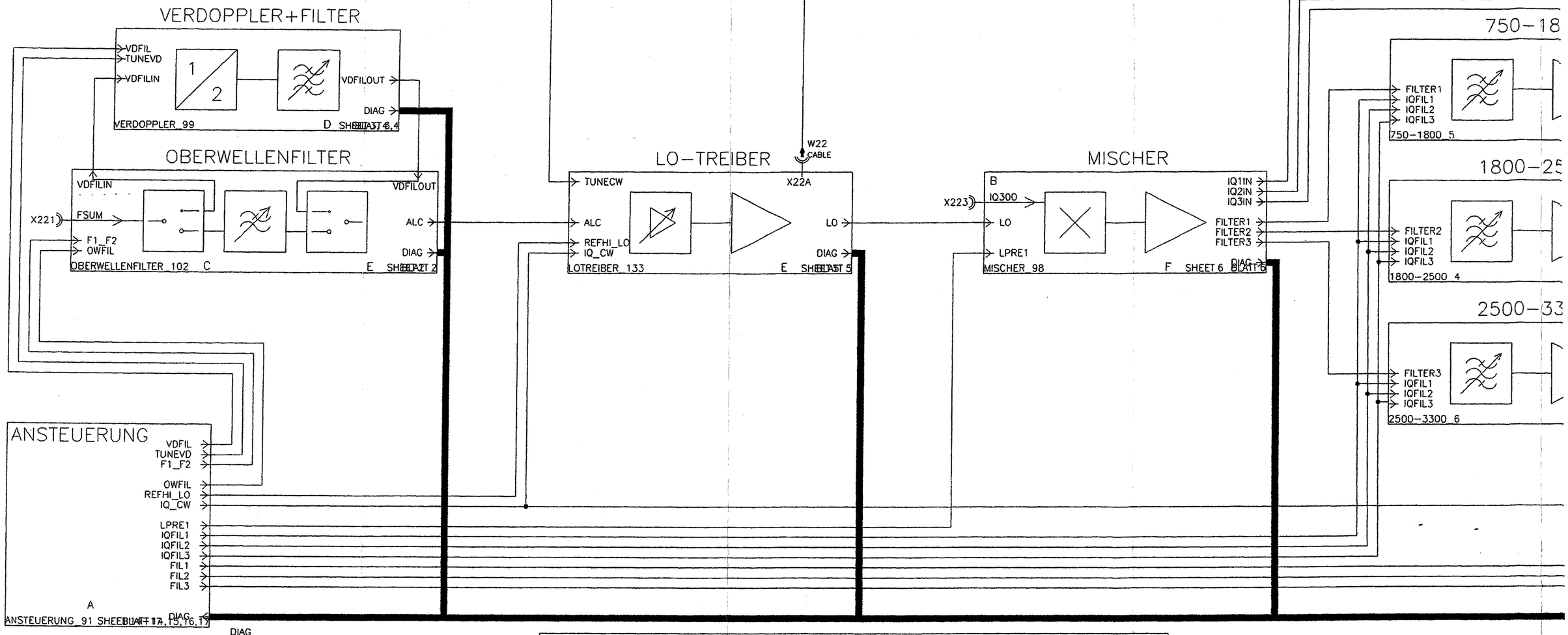
ZU GERAET SMIQ

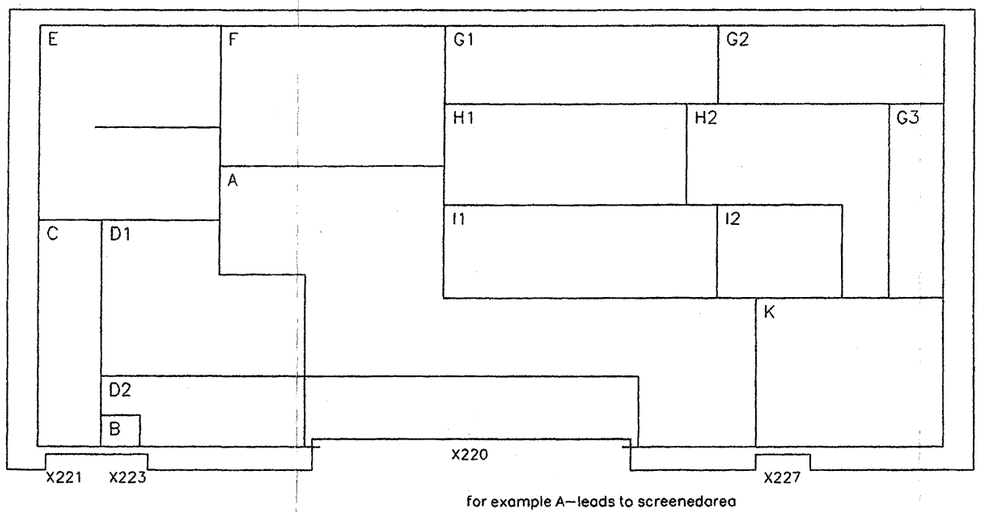
BENENNUNG
IQ-CONVERTER
IQ-CONVERTER
TOP/TOP.1

ZEICHN.-NR. 1084.9300.01 S

BLATT-NR. 1 +

REG.I.V. 1084.8004 ERSTE Z. 1084.8004.01





for example A—leads to screenedarea

** = NOT FITTED

Bindende Angaben ueber Varianten, Trimmwerte, Bauteile und nicht bestueckte Bauteile siehe SA.

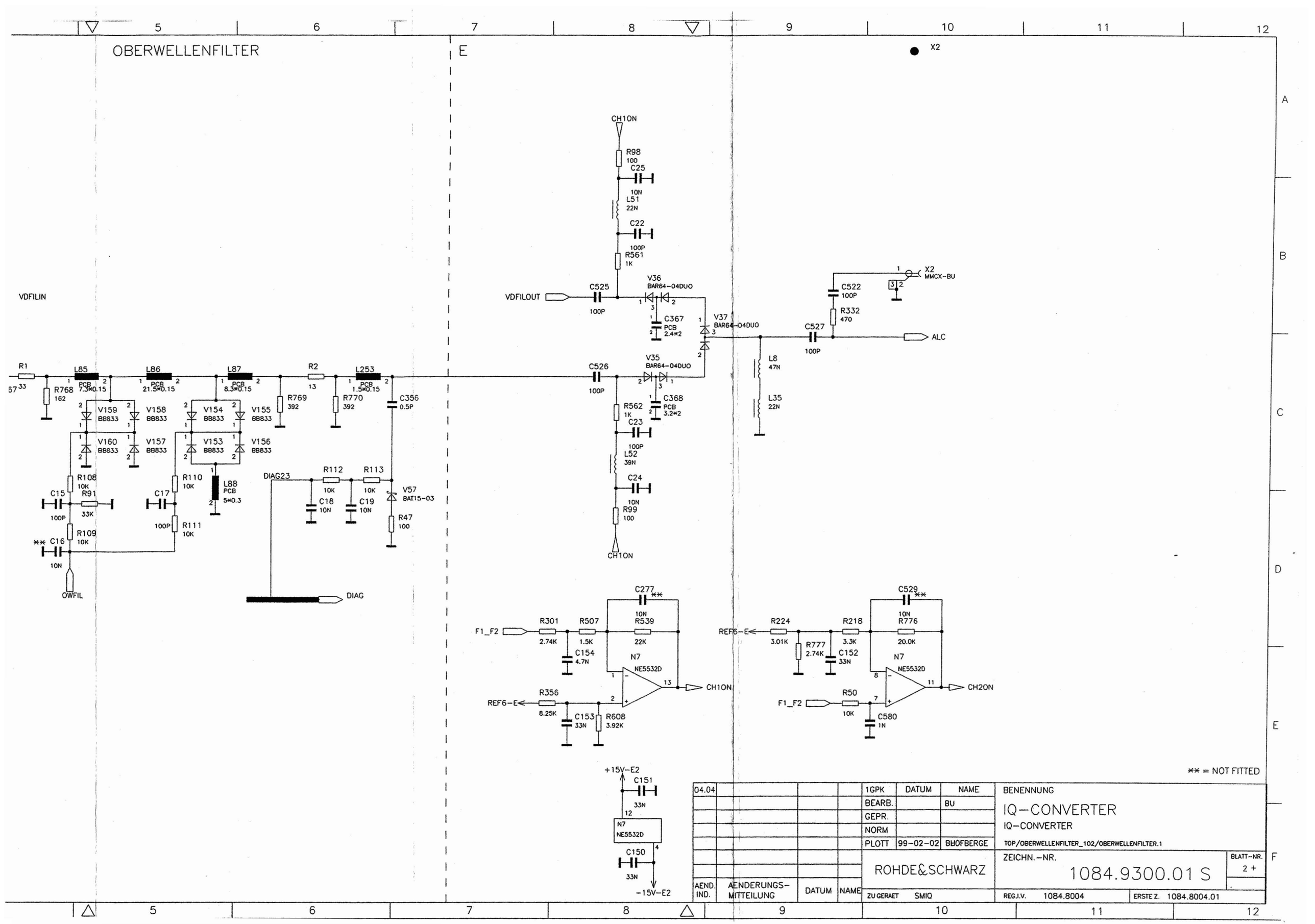
FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST

ACHTUNG: EGB !
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.

ATTENTION ESD !
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

04.04	
AEND. IND.	AENDER MITTEILU

BEHALTEN WIR UNS ALLE RECHTE VOR


OBERWELLENFILTER
E
X2
CH1ON
R98
100
C25
10N
L51
22N
C22
100P
R561
1K
VDFILIN
VDFILOUT
C525
100P
V36
BAR64-04DUO
C367
PCB
2.4*2
V37
BAR64-04DUO
C522
100P
R332
470
X2
MMCX-BU
C527
100P
ALC
L8
47N
L35
22N
V35
BAR64-04DUO
C526
100P
C368
PCB
3.2*2
R562
1K
C23
100P
L52
39N
C24
10N
R99
100
CH1ON
R1
33
L85
PCB
7.5*0.15
L86
PCB
21.5*0.15
L87
PCB
8.3*0.15
R2
13
L253
PCB
1.5*0.15
R768
162
R769
392
R770
392
C356
0.5P
V159
BB833
V158
BB833
V160
BB833
V157
BB833
V154
BB833
V155
BB833
V153
BB833
V156
BB833
R108
10K
C15
100P
R91
33K
R109
10K
** C16
10N
OWFIL
R110
10K
C17
100P
R111
10K
L88
PCB
5*0.3
DIAG23
R112
10K
R113
10K
C18
10N
C19
10N
V57
BAT15-03
R47
100
DIAG
C277 **
10N
F1_F2
R301
2.74K
R507
1.5K
R539
22K
C154
4.7N
N7
NE5532D
CH1ON
REF6-E
R356
8.25K
C153
33N
R608
3.92K
C529 **
10N
REF6-E
R224
3.01K
R218
3.3K
R776
20.0K
R777
2.74K
C152
33N
N7
NE5532D
CH2ON
F1_F2
R50
10K
C580
1N
+15V-E2
C151
33N
N7
NE5532D
C150
33N
-15V-E2
** = NOT FITTED
04.04
1GPK
DATUM
NAME
BEARB.
BU
GEPR.
NORM
PLOTT
99-02-02
BHOFBERGE
BENENNUNG
IQ-CONVERTER
IQ-CONVERTER
TOP/OBERWELLENFILTER_102/OBERWELLENFILTER.1
ROHDE&SCHWARZ
ZEICHN.-NR.
1084.9300.01 S
BLATT-NR.
2 +
AEND. IND.
AENDERUNGS-MITTEILUNG
DATUM
NAME
ZU GERAET SMIQ
REG.I.V. 1084.8004
ERSTE Z. 1084.8004.01

OBERWELLENFILTER

X221

FSUM
X221
SMA

C521 100P
R326 16.2
R321 301
R320 301
BAR64-04DUO

CH2ON
R49 100
C27 10N
L50 39N
C21 100P
R559 1K

V34 BAR64-04DUO
V32 C366 PCB 3.7*2
C523 100P
VDFILIN

V33 BAR64-04DUO
C365 PCB 3.7*2
C524 100P
R560 1K
C20 100P
L49 39N
C26 10N
R48 100
CH2ON

R1 33
R767 162
R768 162

L85 PCB 7.3*0.15
L86 PCB 21.5*0.15
L87 PCB 8.3*0.15
L253 PCB 1.5*0.15

V159 BB833
V158 BB833
V160 BB833
V157 BB833
R108 10K
C15 100P
R91 33K
R109 10K
** C16 10N
OWFIL

V154 BB833
V155 BB833
V153 BB833
V156 BB833
R110 10K
C17 100P
R111 10K
L88 PCB 5*0.3

R2 13
R769 392
R770 392
C356 0.5P

DIAG23
R112 10K
R113 10K
C18 10N
C19 10N
V57 BAT15-03
R47 100
DIAG

CH1ON
R98 100
C25 10N
L51 22N
C22 100P
R561 1K

VDFILOUT
C525 100P
V36 BAR64-04DUO
C367 PCB 2.4*2
V37 BAR64-04DU

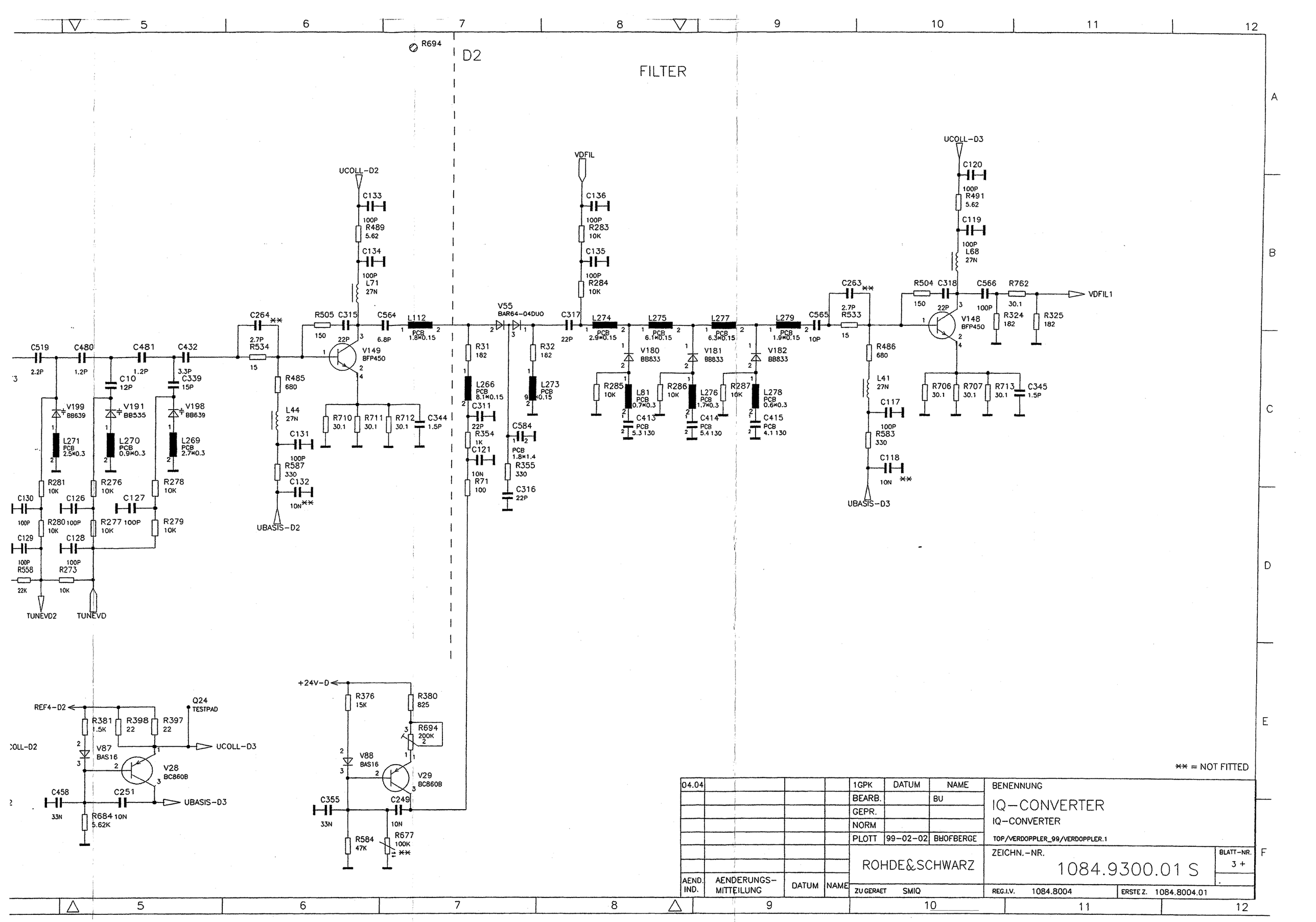
C526 100P
V35 BAR64-04DUO
C368 PCB 3.2*2
R562 1K
C23 100P
L52 39N
C24 10N
R99 100
CH1ON

C277 **
10N
R301 2.74K
R507 1.5K
R539 22K
C154 4.7N
F1_F2
REF6-E
N7 NE5532D
R356 8.25K
C153 33N
R608 3.92K
CH1ON

+15V-E2
C151 33N
N7 NE5532D
C150 33N
-15V-E2

BEHALTEN WIR UNS ALLE RECHTE VOR

AEND. IND.	AENDE MITTEI
04.04	



04.04				1GPK	DATUM	NAME	BENENNUNG	
				BEARB.		BU	IQ-CONVERTER	
				GEPR.			IQ-CONVERTER	
				NORM			TOP/VERDOPPLER_99/VERDOPPLER.1	
				PLOTT	99-02-02	BHOFBERGE	ROHDE&SCHWARZ	ZEICHN.-NR. 1084.9300.01 S
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET SMIQ			REG.I.V. 1084.8004	ERSTE Z. 1084.8004.01

BLATT-NR. 3 +

D1

VERDOPPLER

D2

FILTER

R694

VDFILIN

R97 13

R585 392

R586 392

C312 22P

L267 PCB 7.5×0.15

UGATE-D1

C125 ** 10N

R275 1K

V146 HSMS2800

C122 100P

R274 10K

N17 CGY50

UDRAIN-D1

C124 100P

R488 10

C123 100P

L43 15N

L69 39N

C313 22P

C436 0.4P

N8 SFD1001 F 2F

C314 22P

R766 30.1

R772 182

R773 182

C519 2.2P

C480 1.2P

C481 1.2P

C432 3.3P

C339 15P

C10 12P

V199 BB639

V191 BB535

V198 BB639

L271 PCB 2.5×0.3

L270 PCB 0.9×0.3

L269 PCB 2.7×0.3

R281 10K

R276 10K

R278 10K

C130 100P

C126 100P

C127 100P

R280 10K

R277 10K

R279 10K

C129 100P

C128 100P

R558 22K

R273 10K

TUNEVD2

TUNEVD

C264 ** 2.7P

R534 15

R485 680

L44 27N

C131 100P

R587 330

C132 10N **

UBASIS-D2

UCOLL-D2

C133 100P

R489 5.62

C134 100P

L71 27N

R505 150

C315 22P

C564 6.8P

L112 PCB 1.8×0.15

V149 BFP450

R710 30.1

R711 30.1

R712 30.1

C344 1.5P

VDFIL

C136 100P

R283 10K

C135 100P

R284 10K

C317 22P

V55 BAR64-04DUO

L274 PCB 2.9×0.15

L275 PCB 6.1×0.15

L277 PCB 6.3×0.15

V180 BB833

V181 BB833

R285 10K

L81 PCB 0.7×0.3

C413 PCB 5.3 130

R286 10K

L276 PCB 1.7×0.3

C414 PCB 5.4 130

R287 10K

R31 182

R32 182

L266 PCB 8.1×0.15

L273 PCB ×0.15

C311 22P

R354 1K

C121 10N

R71 100

C584 PCB 1.8×1.4

R355 330

C316 22P

REF4-D1

Q22 TESTPAD

R686 4.7K

R709 35.7

R708 35.7

V89 BAS16

V30 BC860B

UDRAIN-D1

C459 33N

C252

R732 10N 15K

R687 5.62K

REF-10-D

R689 10K

R688 10K

R531 10K

C253 33N

UGATE-D1

REF4-D2

Q23 TESTPAD

R382 1.5K

R400 22

R399 22

V86 BAS16

V27 BC860B

UCOLL-D2

C457 33N

C250

R685 10N 5.62K

UBASIS-D2

REF4-D2

Q24 TESTPAD

R381 1.5K

R398 22

R397 22

V87 BAS16

V28 BC860B

UCOLL-D3

C458 33N

C251

R684 10N 5.62K

UBASIS-D3

+24V-D

R376 15K

R380 825

R694 200K

V88 BAS16

V29 BC860B

C355 33N

C249 10N

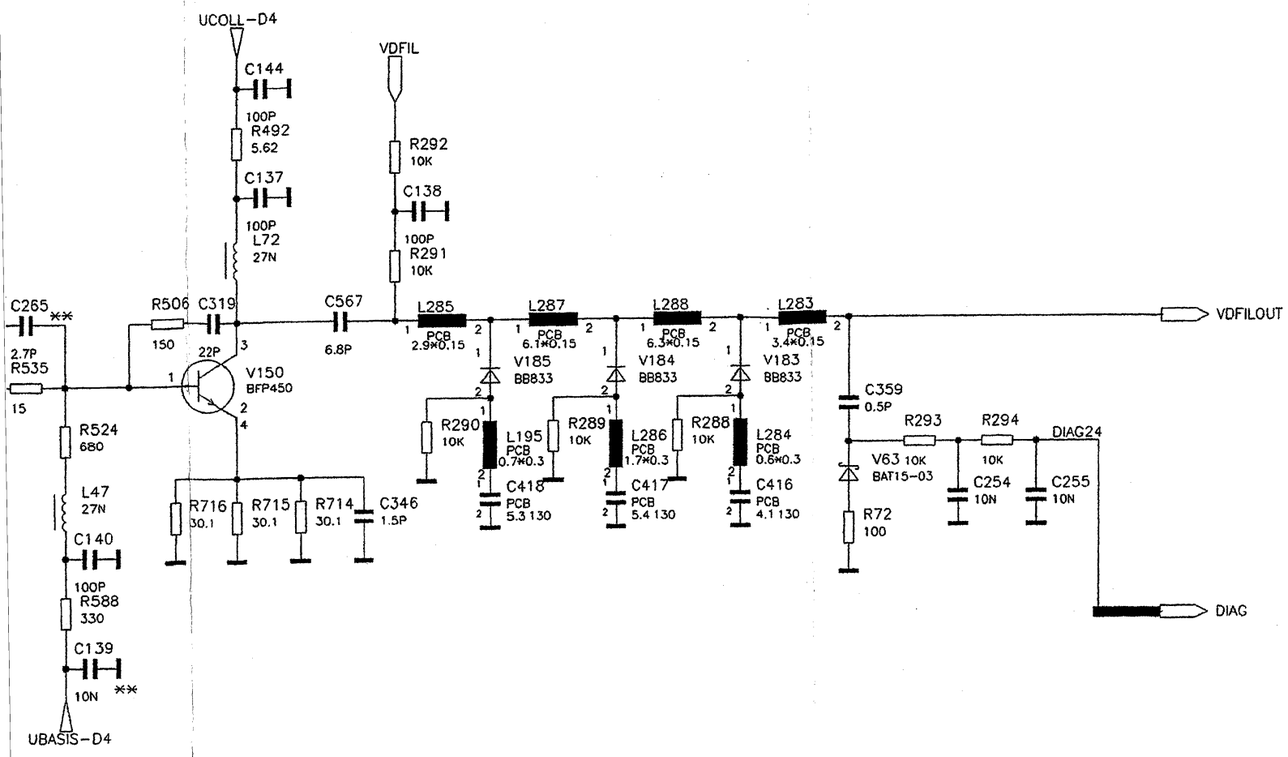
R584 47K

R677 100K **

04.04	
AEND. IND.	AENDER MITTEIL

DEMALLEN WIR UNS ALLE RECHTE VOR

FILTER

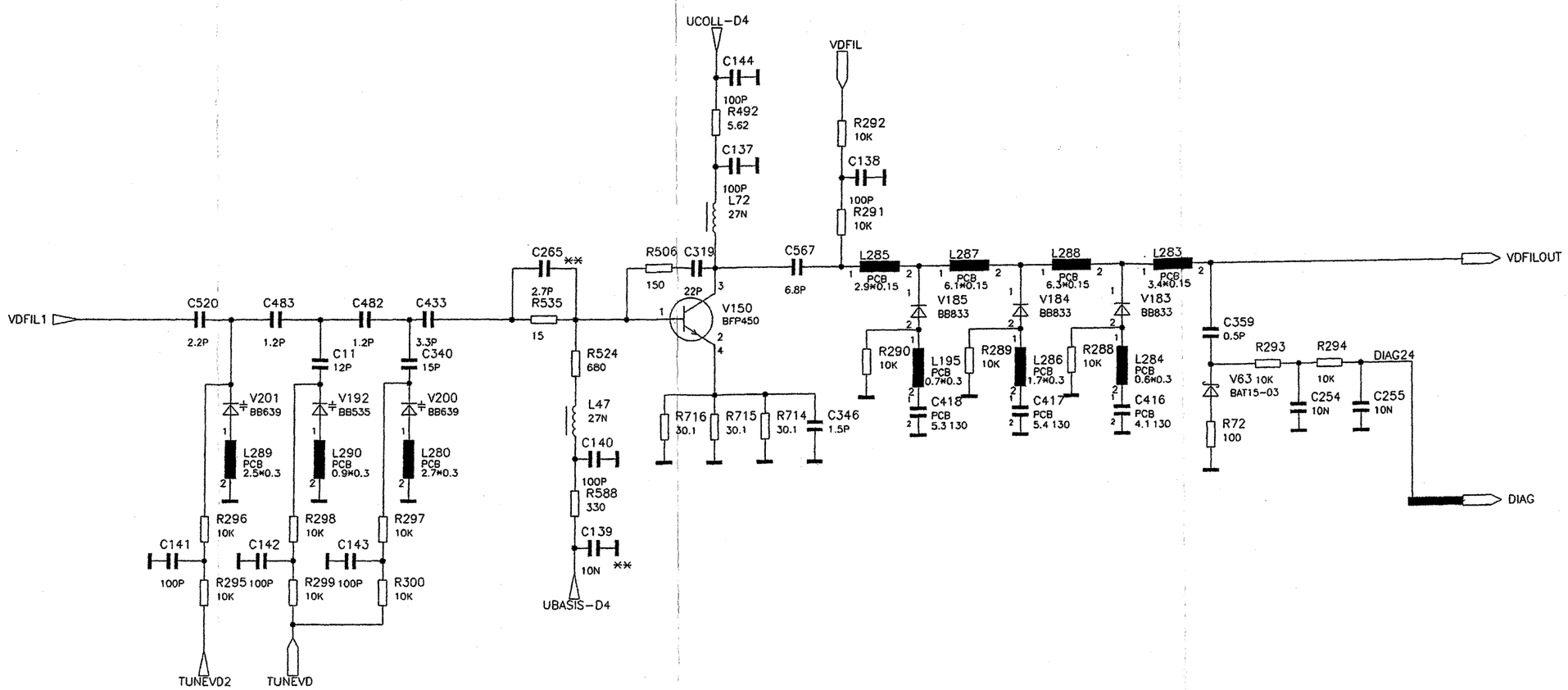


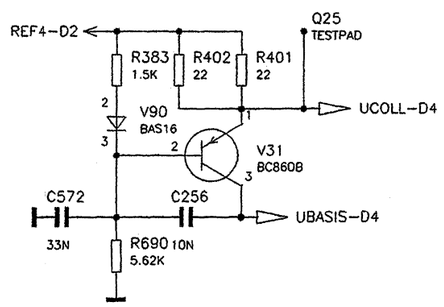
** = NOT FITTED

04.04				1GPK	DATUM	NAME	BENENNUNG	
				BEARB.		BU	IQ-CONVERTER	
				GEPR.			IQ-CONVERTER	
				NORM				
				PLOTT	99-02-02	BHOFBERGE	TOP/VERDOPPLER_99/VERDOPPLER.2	
				ROHDE&SCHWARZ			ZEICHN.-NR. 1084.9300.01 S	BLATT-NR. 4 +
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET SMIQ			REG.I.V. 1084.8004	ERSTE Z. 1084.8004.01

D2

FILTER





04.04	
AEND. IND.	AENDERUN MITTEILUNG

X22A R494 P3 X4

UCOLL-E2
C38 100P
R464 5.62
C39 100P
L74 22N
L10 47N
R386 110
C539 100P
C276 22P
C257 0.7P
R462 3.32
V147 BFP450
L11 47N
R756 35.7
R755 35.7
R754 35.7
C476 1.2P
L75 22N
C41 100P
R566 1K
C40 ** 10N
ASIS-E2

UDRAIN-E1
C45 100P
L77 22N
C44 100P
L76 18N
L12 47N
C541 100P
L212 PCB 0.2
R12 270
V107 SHF-BB
C332 22P
L240 PCB 2.2*0.15
R80
R120 10K
C42 100P
V131 HSMS2800
R121 1K
C43 ** 10N
UGATE-E1

LO-ON
R51 100
C30 10N
L55 39N
C32 100P
R563 1K
V41 BAR64-04DUO
C369 PCB 3.3*2
C532 100P
R327 30.1
X22A MMCX-BU
R322 182
R323 182
V39 BAR64-04DUO
L9 47N
L314 22N
V40 BAR64-04DUO
C370 PCB 2.2*2
C531 100P
R564 1K
C33 100P
L54 39N
C31 10N
R52 100
LO-ON

UDRAIN-E2
C29 100P
R389 22
R388 22
R387 22
C28 100P
L36 15N
L53 39N
C528 100P
L92 PCB 0.2
R9 270
V106 SHF-BB
C258 0.3P
R122 10K
C46 100P
V132 HSMS2800
R123 1K
C47 ** 10N
UGATE-E2
R78 5.62
C331 22P
L244 PCB 2.2*0.15
R763 8.25
L90 PCB 2*0.15
C542 100P
X4 MMCX-BU
R336 1K
C530 100P
LO
R10 220
R431 51
R384 301
C145 0.3P **
R498 220
C640 4.7P
C639 4.7P
R403 47K
R404 47K
V59 BAT15-03
R457 150K
REF6-E
REF-10-E
R826 47K
C158 33N
R115 10K
R114 10K
C419 33N
C267 10P
C268 10P
R825 47K
R117 10K
R116 10K
C338 ** 10P
V116 BAV99
R612 100K
R614 10K
R494 200K
C159 33N
R600 33K
C266 47P
R831 20.0K
N18 OP275GS
V58 BAT15-03
R832 20.0K
R497 150
TUNELO
R827 150K
R613 33K
R118 10K
C516 1N
C558 47P
P3
REF-10-E

C275 22P
IQ_CW
R302 2.74K
R509 1.5K
R542 22K
C160 4.7N
+15V-E3
C508 33N
N18 OP275GS
LO-ON
R358 8.25K
REF6-E
C161 33N
R615 3.92K
C509 33N
-15V-E3

Q3 TESTPAD
R510 2.2K
R460 10
R461 10
R459 10
UDRAIN-E1
V67 BAS16
V6 BC860B
C163 10N
R543 22K
R616 18.2K
R617 10K
UGATE-E1
R511 5.62K
C162 33N

+15V-E1
Q4 TESTPAD
R541 20.0K
R589 332 EIA1206
R590 332 EIA1206
R591 332 EIA1206
R592 332 EIA1206
R103 332 EIA1206
R593 332 EIA1206
UDRAIN-E2
V65 BAS16
V4 BC860B
V110 BZV55B4V7
V111 BZV55B4V7
C438 1N
C156 470P
R740 18.2K
R611 22K
R609 10K
R610 10K
REF-10-E
UGATE-E2
R508 5.62K
C157 4.7N

REF6-E
+15V-E3
D3 DG419DY
-15V-E3

** = NOT FITTED

04.04				1GPK	DATUM	NAME	BENENNUNG	
				BEARB.		BU	IQ-CONVERTER	
				GEPR.			IQ-CONVERTER	
				NORM			TOP/LOTREIBER_133/LOTREIBER.1	
				PLOTT	99-02-02	BHOFBERGE		
				ROHDE&SCHWARZ			ZEICHN.-NR. 1084.9300.01 S	BLATT-NR. 5 +
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET SMIQ			REG.I.V. 1084.8004	ERSTE Z. 1084.8004.01

LO-TREIBER

BEHALTEN WIR UNS ALLE RECHTE VOR

P4
P5

ALC
L96 PCB 1.5×0.15
V42 BAR64-04DUO
V38 BAR64-04DUO
L97 PCB 1.5×0.15
C540 100P
R619 1K
L56 39N
L46 39N
R11 182
C381 PCB 1.7×2
R334 330
C535 100P
C390 PCB 1.7×2
R13 182
C533 100P
R337 470
R333 470
L225 PCB 10.6×.15
R335 470
L94 PCB 12.3×.15
L95 PCB 9.8×.15
C534 100P
C536 100P
C37 100P
C517 100P
R432 47
R544 ** 20.0K
R125 10K
DIAG25
C36 10N **
R124 10K
C165 1N
R93 20.0K
D3 DG419DY
TUNECW
TUNELO
REFHI_LO
DIAG
UBASIS-E1

UCOLL-E1
C35 100P
R272 10
C34 100P
L67 22N
L37 47N
R100 182
C538 100P
C537 100P
V186 BFP450
C556 PCB 2×1.4
R462 3.32
L11 47N
L75 22N
C41 100P
R566 1K
C40 ** 10N
R415 22
R414 22
R413 22
C341 1.2P
UBASIS-E2

UCOLL-E2
C38 100P
R464 5.62
C39 100P
L74 22N
L10 47N
R386 110
C539 100P
C276 22P
V147 BFP450
C257 0.7P
R756 35.7
R755 35.7
R754 35.7
C476 1.2P

UDRAIN-E1
C45 100P
L77 22N
C44 100P
L76 18N
L12 47N
C541 100P
L212 PCB 0.2
R12 270
V107 SHF-BB
C332 22P
L240 PCB 2.2×0.15
R80
R120 10K
C42 100P
V131 HSMS2800
R121 1K
C43 ** 10N
UGATE-E1

L9 47N
L314 22N
V39 BAR64-04DUO
V41 BAR64-04DUO
C369 PCB 3.3×2
C532 100P
R327 30.1
R322 182
V40 BAR64-04DUO
C370 PCB 2.2×2
C531 100P
R564 1K
C33 100P
L54 39N
C31 10N
R52 100
C25 0.3P
LO-ON
R51 100
C30 10N
L55 39N
C32 100P
R563 1K

C275 22P
IQ_CW
R302 2.74K
R509 1.5K
R542 22K
C160 4.7N
+15V-E3
C508 33N
N18 OP275GS
R358 8.25K
C161 33N
R615 3.92K
C509 33N
-15V-E3

Q1 TESTPAD
REF6-E
R359 5.62K
R748 82.5
R271 82.5
R749 100
V66 BAS16
V5 BC860B
V119 BZV55B5V6
C440 33N
C164 10N
R717 10K

Q2 TESTPAD
R357 5.62K
R733 82.5
R734 82.5
R735 100
V64 BAS16
V3 BC860B
V120 BZV55B5V6
C437 33N
C155 10N
R540 10K

Q3 TESTPAD
R510 2.2K
R460 10
R461 10
R459 10
V67 BAS16
V6 BC860B
C439 33N
C163 10N
R543 22K
R616 18.2K
R618 10K
R617 10K
R511 5.62K
C162 33N
REF-10-E

+15V-E1
R541 20.0K
R589 332 EIA1206
R590 332 EIA1206
R591 332 EIA1206
R592 332 EIA1206
R103 332 EIA1206
R593 332 EIA1206
Q4 TESTPAD
V65 BAS16
V4 BC860B
V110 BZV55B4V7
V111 BZV55B4V7
C438 1N
C156 470P
R740 18.2K
R611 22K
R609 10K
R610 10K
R508 5.62K
C157 4.7N

D3 DG419DY

AEND. IND.
AENDER MITTEIL

BREITBANDVERSTAERKER

X3

UDRAIN-F3
C107 100P
L84 22N
C108 100P
L38 15N
L64 39N
C562 100P
L239 PCB 0.2
R26 243
V109 SHF-BB
L255 PCB 2.2*0.15
C14 3.9P
L230 PCB 2.1*0.15
C304 27P
L233 PCB 13*0.2
C7 4.7P
L231 PCB 4.1*0.15
C422 4.7P
L234 PCB 24*0.2
C8 3.9P
L232 PCB 1.6*0.15
C470 6.8P
L235 PCB 21.2*0.2
C469 5.6P
L110 PCB 1.8*0.15
V54 BAR64-04DUO
C583 PCB 2.3*2
R771 330
C303 22P
L228 PCB 8.3*0.15
R503 150
L229 PCB 1.8*0.15
C561 100P
IQ3IN
L202 39N
C308 10N
R775 1.5K
C292 100P
L258 39N
R84 470
C660 100P
C460 PCB 0.8*3
X3 MMCX-BU
R729 220
L259 39N
V19 BAR64-04DUO
C568 PCB 1.5*3
IQ1IN
IQ2IN
L42 47N
C310 10N
L40 47N
C309 100P
R227 1.5K
L252 33N
C371 10N
R840 1.5K
C357 100P
L261 22N
C573 PCB 2*3
V22 BAR64-04DUO
C560 PCB 1.5*3
FILTER1
FILTER2
V202 BAR64-04DUO
FILTER3
R96 220
L209 22N
R502 150
C302 22P
R353 470
L227 PCB 6.6*.15
C245 33N
R68 47
C431 0.3P
R267 10K
R268 10K
V62 BAT15-03
C246 10N
C247 10N
R69 100
DIAG26
DIAG
+15V-F
R582 3.92K
R70 3.92K
C671 10U
V85 BAS16
V24 BC860B
C354 33N
R731 3.3K
C248 1N
R537 392
R536 392
R28 2.2K
R27 2.2K
V25 BC860B
R263 1.21K
C452 33N
V26 BC860B
R29 330
R30 330
C456 33N
LPRE1
REF10
R696 825
V118 BAV99
C306 100P
R95 12.1
R265 10K
C358 0.5P
C106 100P
V143 HSMS2800
R266 10K
C105 10N
UGATE-F3
C305 100P
R269 10K
R270 1K
UGATE-F1
Q21 TESTPAD
R319 22K
R750 100 1W
R751 100 1W
R753 39.2 **
R752 39.2 **
V82 BAS16
V21 BC860B
C453 33N
C240 10N
R557 22K
R682 18.2K
R675 10K
R683 10K
REF-10-F
R528 5.62K
C239 33N

** = NOT FITTED

04.04				1GPK	DATUM	NAME	BENENNUNG
				BEARB.		BU	IQ-CONVERTER
				GEPR.			IQ-CONVERTER
				NORM			TOP/MISCHER_98/MISCHER.1
				PLOTT	99-02-02	BHOFBERGE	
				ROHDE&SCHWARZ			ZEICHN.-NR. 1084.9300.01 S
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET SMIQ			REG.I.V. 1084.8004 ERSTE Z. 1084.8004.01

BLATT-NR. 6 +

BEHALTEN WIR UNS ALLE RECHTE VOR

X223 F MISCHER

BREITBANDVERSTAERKER

UDRAIN-F1
C109 100P
R483 10
R484 10
C110 100P
L39 15N
L65 39N
C307 100P
R738 56
L243 PCB 0.4*0.2
L242 PCB 2.8*0.2
L241 PCB 2.8*0.2
L247 PCB 5.6*0.2
L238 PCB 0.4*0.2
C306 100P
V102 CFY30
C409 PCB 1.4 90
V101 CFY30
C408 PCB 1.4 90
V100 CFY30
C407 PCB 1.4 90
C563 100P
L245 PCB 1.3*0.15
L250 PCB 5.6*0.15
L249 PCB 5.6*0.15
L248 PCB 0.4*0.2
R430 82.5
C305 100P
C149 0.2P
R269 10K
C112 100P
V144 HSMS2800
R270 1K
**C111 10N
UGATE-F1
U8 SM4T17-1
RF IF LO
LO
R330 5.62
R45 220
R331 5.62
IQ300 X223
R328 5.62
R329 5.62
R44 220
MCX-BU
R95 12.1
C358 0.5P
C106 100P
V143 HSMS2800
R265 10K
**C105 10N
R266 10K
UGATE-F3
UDRAIN-F3
C107 100P
L84 22N
C108 100P
L38 15N
L64 39N
C562 100P
L239 PCB 0.2
R26 243
V109 SHF-BB
L255 PCB 2.2*0.15
C14 3.9P
L230 PCB 2.1*0.15
C304 27P
L233 PCB 13*0.2
C7 4.7P
L231 PCB 4.1*0.15
C422 4.7P
L234 PCB 24*0.2
C8 3.9P
L232 PCB 1.6*0.15
C470 6.8P
L235 PCB 21.2*0.2
C469 5.6P
L110 PCB 1.8*0.15
V54 BAR64-04DUO
C583 PCB 2.3*2
R771 330
C303 22P
R5C 150
L22 PCB 8.3*
R502 150
C302 22P
L227 PCB 6.6*.15
R353 470
C245 33N
R68 47
C431 0.3P
R267 10K
R268 10K
V62 BAT15-03
C246 10N
C247 10N
R69 100
DIAG26
DIAG
R28 2.2K
REF10
REF6-F
R264 10K
R36 100
R37 100
R40 100
R41 100
Q20 TESTPAD
UDRAIN-F1
V84 BAS16
V23 BC860B
V124 BZV55B5V1
C455 33N
C242
R730 10N 18.2K
R680 12.1K
R678 10K
R679 10K
REF-10-F
UGATE-F1
R529 5.62K
C243 33N
+15V-F
R319 22K
R750 100 1W
R751 100 1W
R753 39.2 **
R752 39.2 **
Q21 TESTPAD
UDRAIN-F3
V82 BAS16
V21 BC860B
C453 33N
C240
R557 10N 22K
R682 18.2K
R675 10K
R683 10K
REF-10-F
UGATE-F3
R528 5.62K
C239 33N

04.04	
AEND. IND.	AENDERU MITTEILUN

G1

IQ–FILTER 750...1800

R692

G2

X6

FILTER1

C547 100P

L141 PCB 5.5*0.15

L142 PCB 7.8*0.15

L143 PCB 10*0.15

L144 PCB 7.4*0.15

C548 22P

L146 PCB 4.5*0.15

L145 PCB 7*0.15

L147 PCB 6.4*0.15

C383 PCB 2.28 130

C363 6.8P

C271 10P

V171 BB833

V166 BB833

V167 BB833

R144 10K

R145 10K

C492 100P

L139 PCB 3*0.3

L140 PCB 6.3*0.3

R161 10K

R162 10K

C501 100P

V136 HSMS2800

C61 100P

R142 10K

R143 1K

C62 10N

UGATE–G1

IQFIL1

C493 1N **

R159 10K

C500 100P

R157 10K

IQFIL2

C499 1N **

UDRAIN–G1

C64 100P

R469 5.62

C63 100P

L13 47N

N12 CGY50

C360 100P

R86 12.1

C585 4.7P

R54 68

L48 6.8N

L148 PCB 1.6*0.15

C544 100P

V44 BAR64–04DUO

R341 470

C287 100P

R20 182

C546 100P

L150 PCB 5.5*0.15

C361 6.8P

R150 10K

V168 BB833

C496 100P

L154 PCB 3*0.3

L151 PCB 7.8*0.15

C270 10P

V169 BB833

L155 PCB 6.3*0.3

R19 182

R342 1K

C286 100P

C69 10N

R149 10K

R148 10K

C494 100P

R151 10K

V172 BB833

L153 PCB 7.4*0.15

C545 100P

R146 10K

C495 100P

R147 10K

C66 100P

V137 HSMS2800

R153 1K

C65 10N

UGATE–G2

L156 PCB 5.8*0.15

L157 PCB 8.5*0.15

L158 PCB 8.1*0.15

C384 PCB (2.68 130)

R152 10K

+24V–G

R361 12.1K

R378 825

V75 BAS16

R692 200K

V14 BC860B

C350 33N

R568 100K

R549 100K

C173 10N

R56 100

UDRAIN–G2

C67 100P

R470 5.62

C68 100P

L14 47N

N13 CGY50

C12 100P

R87 12.1

C586 4.7P

R55 68

L299 8.2N

X6 MMCX–BU

C653 100P

R343 470

C651 100P

V122 BAR64

R6 182

R57 182

C652 100P

R107 825

C100 10N

FILTER_1

REF4–G1

R416 2.2K

R420 1K

V103 BAS16

V83 BC860B

C405 33N

R240 30.1K

R565 100K

C406 10N

R46 100

REF4–G1

Q9 TESTPAD

R631 4.7K

R440 39.2

R437 39.2

V72 BAS16

V11 BC860B

UDRAIN–G1

C444 33N

C174 10N

R721 15K

R634 7.5K

R632 10K

R633 10K

REF–10–G

UGATE–G1

R515 10K

C179 33N

REF4–G2

Q10 TESTPAD

R638 4.7K

R441 39.2

R438 39.2

V73 BAS16

V12 BC860B

UDRAIN–G2

C445 4.7N

C175 470P

R722 15K

R637 7.5K

R635 10K

R636 10K

REF–10–G

UGATE–G2

R516 10K

C177 4.7N

ACHTUNG: EGB !
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD !
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

** = NOT FITTED

AEND. IND.	AENDERUNGS–MITTEILUNG	DATUM	NAME
04.04			

	DATUM	NAME
1GPK		
BEARB.		BU
GEPR.		BU
NORM		
PLOTT	99–02–02	HOFBERGE

ROHDE&SCHWARZ

ZU GERAET SMIQ

BENENNUNG

IQ–CONVERTER

IQ–CONVERTER

TOP/750–1800_5/750–1800.1

ZEICHN.–NR. 1084.9300.01 S

BLATT–NR. 7 +

REG.I.V. 1084.8004

ERSTE Z. 1084.8004.01

G2

IQ-FILTER 750...1800

G3

IQFIL3
C498
1N **
R471
10K
C497
100P
R155
10K
FILTER_1
C467
5.6P
V190
BB535
R160
10K
V189
BB535
C468
5.6P
R154
10K
V170
BB833
L159
PCB
15.1*0.2
V210
HSMS2800
C598
100P
R786
10K
R784
1K
C597
** 10N
UGATE-G3
L211
PCB
4.5*0.15
L175
PCB
6.5*0.15
L213
PCB
6.2*0.15
C618
PCB
2.08 130
N21
CGY50
UDRAIN-G3
C595
100P
R803
5.62
C596
100P
L126
47N
C635
100P
R804
12.1
C623
4.7P
R824
68
L149
8.2N
C590
12P
R392
13
R391
13
R490
82.5
L256
4.7N
C637
100P
L178
PCB
5.5*0.15
C617
6.8P
R785
10K
V215
BB833
C630
100P
R790
10K
L204
PCB
3*0.3
L182
PCB
7.8*0.15
L184
PCB
10*0.15
C613
10P
V214
BB833
L177
PCB
6.3*0.3
V213
BB833
L210
PCB
7.4*0.15
C636
100P
R783
10K
C628
100P
R787
10K
IQFIL1
R788
10K
C629
100P
R789
10K
IQFIL2
V138
HSMS2800
C72
100P
R158
10K
R156
1K
** C73
10N
UGATE-G4
L161
PCB
5.5*0.15
L162
PCB
8.3*0.15
L160
PCB
8.4*0.15
C385
PCB
2.78 130
N14
CGY50
UDRAIN-G4
C71
100P
R472
5.62
C70
100P
L15
47N
C9
100P
R88
10
C587
6.8P
R102
82.5
L19
6.8N
C13
5.6P
L163
PCB
2.1*0.15
C288
27P
L166
PCB
15*0.2
C5
3.9P
C670
2.2P
L164
PCB
4.1*0.15
C420
2.2P
L167
PCB
28*0.2
C6
3.9P
L165
PCB
1.6*0.15
C466
6.8P
L168
PCB
24*0.2
C362
8.2P
750-1800

REF4-G2
R639
4.7K
R442
39.2
R439
39.2
Q11
TESTPAD
V74
BAS16
V13
BC860B
UDRAIN-G3
C446
4.7N
C176
R723 470P
15K
R640
7.5K
REF-10-G
R642
10K
R641
10K
R517
10K
C178
4.7N
UGATE-G3

REF4-G2
R816
4.7K
R798
39.2
R799
39.2
Q12
TESTPAD
V207
BAS16
V125
BC860B
UDRAIN-G4
C608
4.7N
C607
R822 470P
15K
R813
7.5K
REF-10-G
R815
10K
R814
10K
R807
10K
C606
4.7N
UGATE-G4

ACHTUNG: EGB !
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD !
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

** = NOT FITTED

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
04.04			

1GPK	DATUM	NAME
BEARB.		BU
GEPR.		BU
NORM		
PLOTT	99-02-02	HOFBERGE

BENENNUNG
IQ-CONVERTER
IQ-CONVERTER
TOP/750-1800_5/750-1800.2

ROHDE&SCHWARZ

ZEICHN.-NR. 1084.9300.01 S

BLATT-NR. 8 +

ZU GERAET SMIQ | REG.I.V. 1084.8004 | ERSTE Z. 1084.8004.01

DEPALTEN MIR UNS ALLE REGTTLE VOR

H1

IQ-FILTER 1800...2500

R691

H2

X5

UDRAIN-H1

C49 100P

R465 10

R466 10

C50 100P

L294 33N

C278 100P

R33 68

L106 PCB 0.4×0.2

L107 PCB 2.8×0.2

L111 PCB 2.8×0.2

L115 PCB 5.6×0.2

L116 PCB 0.4×0.2

C279 22P

L105 PCB 1.5×0.15

C423 0.2P

V43 BAR64-04DUO

C581 PCB 2.5×2

R338 470

C282 22P

R16 182

L118 PCB 9.8×.15

L120 PCB 1.5×0.15

C543 100P

L125 PCB 8.3×0.15

IQFIL3

C490 1N **

R136 10K

C491 100P

L316 27N

L127 PCB 9.5×0.15

L128 PCB 7.1×0.15

L129 PCB 4×0.15

C269 8.2P

L123 PCB 4×0.15

L124 PCB 4.6×0.15

L122 PCB 6×0.15

C382 PCB 2.28 130

V91 CFY30

V92 CFY30

V93 CFY30

C378 PCB 1.490

C379 PCB 1.490

C380 PCB 1.490

V163 BB833

V162 BB833

V161 BB833

R137 10K

R138 10K

R139 10K

C477 1.2P

C426 1P

L101 PCB 5.5×0.3

L100 PCB 6.5×0.3

L99 PCB 4.8×0.3

C377 PCB 2.6 130

R134 10K

C55 100P

V134 HSMS2800

R135 1K

C56 10N **

UGATE-H2

N10 CGY50

UDRAIN-H2

C53 100P

R467 5.62

C54 100P

L295 33N

X5 MMCX

C589 100P

R340 470

C284 100P

FILTER_2

R499 150

L1 6.8N

C434 0.4P

FILTER2

C260 2.7P

C424 1P

C464 8.2P

C518 2.2P

C285 22P

C146 0.2P

L102 PCB 1.7×0.15

L104 PCB 5.6×0.15

L109 PCB 5.6×0.15

L113 PCB 0.4×0.15

R736 56

C280 100P

R127 10K

C51 100P

V133 HSMS2800

R126 1K

**C52 10N

UGATE-H1

R17 182

L119 PCB 8.1×0.15

C283 22P

R339 1K

C48 10N

R128 10K

V187 BB535

V164 BB833

R837 10K

C484 100P

R129 10K

C485 1N **

C486 100P

L117 PCB 5.8×0.3

R130 10K

C487 1N **

IQFIL1

IQFIL2

+24V-G

R360 12.1K

R377 825

V68

R691 200K

BAS16

V7 BC860B

C349 33N

R567 100K

R530 100K

C166 10N

R53 100

REF4-G1

Q5 TESTPAD

R303 2.74K

R3 12.1

R4 10

V69 BAS16

V8 BC860B

UDRAIN-H1

C441 33N

C167 10N

R718 18.2K

R620 10K

R621 10K

R622 10K

REF-10-G

R512 5.62K

C168 33N

UGATE-H1

REF4-G3

Q6 TESTPAD

R625 4.7K

R434 39.2

R433 39.2

V70 BAS16

V9 BC860B

UDRAIN-H2

C442 4.7N

C170 470P

R719 15K

R626 7.5K

R624 10K

R623 10K

REF-10-G

R513 10K

C169 4.7N

UGATE-H2

ACHTUNG: EGB !
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD !
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

** = NOT FITTED

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
04.04			

1GPK	DATUM	NAME
BEARB.		BU
GEPR.		BU
NORM		
PLOTT	99-02-02	HOFBERGE

ROHDE&SCHWARZ

ZU GERAET SMIQ

BENENNUNG
IQ-CONVERTER
IQ-CONVERTER
TOP/1800-2500_4/1800-2500.1

ZEICHN.-NR. 1084.9300.01 S

BLATT-NR. 9 +

REG.I.V. 1084.8004

ERSTE Z. 1084.8004.01

BEHALTEN WIR UNS ALLE RECHTE VOR

H2

IQ-FILTER 1800...2500

FILTER_2

C650 4.7N
V121 BAR64
R101 182
R5 182
C649 100P
L215 PCB 3*0.15
L216 PCB 4*0.15
R106 825
C99 10N
C621
C612 2.7P
C619 0.4P
C622 1P 8.2P
C633
C614 2.2P 22P
R780 10K
V218 BB535
V212 BB833
R838 10K
C627 100P
R779 10K
C626 100P
L170 PCB 5.8*0.3
R778 10K
IQFIL1

L174 PCB 4*0.15
L217 PCB 4.6*0.15
L219 PCB 5.6*0.15
C454 PCB 2.28 130

N20 CGY50

UDRAIN-H3
C592 100P
R802 5.62
C591 100P
L236 33N
C634 100P
R390 8.25
R92 18.2
R487 100
C261 2.7P
C435
C425 0.4P
C465 1P 8.2P
C262
C281 2.2P 22P
R131 10K
V188 BB535
V165 BB833
R839 10K
C488 100P
R132 10K
C489 100P
L121 PCB 5.8*0.3
R133 10K
IQFIL2
IQFIL1

L130 PCB 2*0.15
R140 10K
C58 100P
V135 HSMS2800
R141 1K
** C57 10N
UGATE-H4

L131 PCB 3.7*0.15
L98 PCB 5.6*0.15
C373 PCB 1.98 130

N11 CGY50

UDRAIN-H4
C60 100P
R468 5.62
C59 100P
L293 33N
C333 100P
R18 121
L2 4.7N
L132 PCB 3.7*0.3
L133 PCB 7.3*0.3
L138 PCB 1.9*0.3
C374 PCB 3.61 130
L134 PCB 7*0.3
L136 PCB 9.65*0.3
C375 PCB 2.16 130
L135 PCB 2.6*0.3
L137 PCB 7.3*0.3
C376 PCB 2.4 130
1800-2500

R781 10K
C594 100P
V209 HSMS2800
R782 1K
C593 ** 10N
UGATE-H3

REF4-G1
R282 2.2K
R419 1K
V99 BAS16
V80 BC860B
C372 33N
R238 30.1K
R532 100K
C404 10N
R43 100

REF4-G3
Q7 TESTPAD
R629 4.7K
R436 39.2
R435 39.2
V71 BAS16
V10 BC860B
UDRAIN-H3
C443 4.7N
C172 470P
R720 15K
R630 7.5K
REF-10-G
R628 10K
R627 10K
R514 10K
C171 4.7N
UGATE-H3

REF4-G3
Q8 TESTPAD
R810 4.7K
R797 39.2
R796 39.2
V206 BAS16
V2 BC860B
UDRAIN-H4
C605 4.7N
C604 470P
R821 15K
R809 7.5K
REF-10-G
R811 10K
R812 10K
R806 10K
C603 4.7N
UGATE-H4

ACHTUNG: EGB !
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD !
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

** = NOT FITTED

BEHALTEN WIR UNS ALLE RECHTE VOR

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
04.04			

	DATUM	NAME
1GPK		
BEARB.		BU
GEPR.		BU
NORM		
PLOTT	99-02-02	HOFBERGE

ROHDE&SCHWARZ

ZU GERAET SMIQ

BENENNUNG
IQ-CONVERTER
IQ-CONVERTER
TOP/1800-2500_4/1800-2500.2

ZEICHN.-NR. 1084.9300.01 S

BLATT-NR. 10 +

REG.I.V. 1084.8004 ERSTE Z. 1084.8004.01

I1

IQ-FILTER 2500...3300

R693

X7

UDRAIN-I1

C86 100P

R475 10

R476 10

C87 100P

L80 22N

C291 100P

R34 68

L181 PCB 0.4*0.2

L180 PCB 2.8*0.2

L179 PCB 2.8*0.2

L185 PCB 5.6*0.2

L176 PCB 0.4*0.2

C290 22P

L108 PCB 1.5*0.15

C427 0.3P

V45 BAR64-04DUO

L189 PCB 1.5*0.15

C479 1.2P

C430** 1P

C475 0.8P

C343 1.8P

C348 2.7P

L193 PCB 2*0.15

L194 PCB 2.4*0.15

N15 CGY50

L203 PCB 4.1*0.15

C389 PCB 1.88 130

UDRAIN-I2

C76 100P

R473 5.62

C77 100P

L78 22N

X7 MMCX

C656 100P

R346 470

C272 10P

C655 100P

V123 BAR64

FILTER_3

R58 82.5

L298 3.9N

R15 220

R14 220

C654 100P

L222 PCB 3*0.15

L221 PCB 4*0.15

R119 825

C113 10N

V96 CFY30

C388 PCB 1.4 90

V95 CFY30

C387 PCB 1.4 90

V94 CFY30

C386 PCB 1.4 90

C429** 1P

FILTER3

C478 1.2P

C474 0.8P

C342 1.8P

C347 2.7P

C428 0.3P **

L183 PCB 2.2*0.25

L187 PCB 5.6*0.25

L186 PCB 5.6*0.25

L188 PCB 0.4*0.25

R737 47

C289 4.7P

R175 10K

C88 100P

V141 HSMS2800

R173 1K

C85 10N **

UGATE-I1

L73 33N

L70 33N

R169 470

C506 100P

R168 10K

C507 100P

IQFIL1

V173 BB833

V174 BB833

L171 PCB 2.3*0.3

L172 PCB 1.8*0.3

R833 470

C505 100P

R167 10K

C504 100P

IQFIL2

C582 PCB 2.05*2

R344 470

C334 22P

R22 182

L173 PCB 7.1*0.15

C335 22P

R345 1K

C78 10N

L91 33N

R164 470

C502 100P

R165 10K

IQFIL1

V175 BB833

L191 PCB 2.3*0.3

V176 BB833

L192 PCB 1.8*0.3

C503 100P

R834 470

R166 10K

IQFIL2

R163 10K

C74 100P

V139 HSMS2800

R170 1K

C75 10N **

UGATE-I2

REF4-G1

R417 2.2K

R426 1K

V104 BAS16

V97 BC860B

C411 33N

R241 30.1K

R660 100K

C410 10N

R79 100

+24V-G

R362 15K

R379 825

V76 BAS16

R693 200K

V15 BC860B

C351 33N

R569 150K

R659 100K

C180 10N

R60 100

REF4-G1

Q13 TESTPAD

R304 2.74K

R7 12.1

R8 10

V79 BAS16

UDRAIN-I1

V18 BC860B

C449 33N

C184 10N

R726 18.2K

R651 10K

R649 10K

R650 10K

REF-10-G

UGATE-I1

R519 5.62K

C185 33N

REF4-G4

Q14 TESTPAD

R648 4.7K

R443 39.2

R444 39.2

V78 BAS16

UDRAIN-I2

V17 BC860B

C448 4.7N

C183 10N

R725 470P 15K

R652 7.5K

R647 10K

R646 10K

REF-10-G

UGATE-I2

R520 10K

C186 4.7N

ACHTUNG: EGB !
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD !
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

** = NOT FITTED

04.04				1GPK	DATUM	NAME	BENENNUNG
				BEARB.		BU	IQ-CONVERTER
				GEPR.		BU	IQ-CONVERTER
				NORM			TOP/2500-3300_6/2500-3300.1
				PLOTT	99-02-02	HOFBERGE	
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ROHDE&SCHWARZ			ZEICHN.-NR. 1084.9300.01 S
				ZU GERAET SMIQ			REG.I.V. 1084.8004 ERSTE Z. 1084.8004.01

BLATT-NR. 11 +

DETAILLIERTE WIRKUNGSWEISE VOR

I1

IQ-FILTER 2500...3300

I2

FILTER_3

C625 1.2P

C620** 1P

C624 0.8P

C615 1.8P

C616 2.7P

L93 33N

R793 470

C632 100P

R792 10K

IQFIL1

V217 BB833

L214 PCB 2.3*0.3

L103 33N

V216 BB833

L218 PCB 1.8*0.3

C631 100P

R836 470

R791 10K

IQFIL2

C601 100P

V211 HSMS2800

C602 **10N

R794 10K

R795 1K

UGATE-I3

L220 PCB 1.1*0.15

N22 CGY50

UDRAIN-I3

C600 100P

R805 5.62

C599 100P

L169 22N

C638 10P

R396 10

R463 10

L262 12N

C549 100P

L196 PCB 4.8*0.3

R835 10K

R178 10K

V177 BB833

L205 PCB 1.8*0.3

C391 PCB 2.76 130

R171 10K

C82 100P

IQFIL3

C81 100P

L197 PCB 4.7*0.3

R177 10K

V178 BB833

L206 PCB 5.3*0.3

C392 PCB 2.71 130

L198 PCB 3.5*0.3

R176 10K

V179 BB833

L207 PCB 5.1*0.3

C393 PCB 2.41 130

L199 PCB 2*0.3

C364 5.6P

V140 HSMS2800

**10N

R174 1K

UGATE-I4

C84 100P

R172 10K

L200 PCB 2.95*0.15

L201 PCB 2.5*0.15

L208 PCB 4.5*0.15

C394 PCB 1.88 130

N16 CGY50

UDRAIN-I4

C80 100P

R474 5.62

C79 100P

L79 22N

C336 100P

R59 121

L7 4.7N

2500-3300

REF4-G4

R645 4.7K

R445 39.2

R446 39.2

Q15 TESTPAD

V77 BAS16

V16 BC860B

UDRAIN-I3

C447 4.7N

C182

R724 470P 15K

R653 7.5K

R644 10K

R643 10K

REF-10-G

R518 10K

C181 4.7N

UGATE-I3

REF4-G4

R820 4.7K

R801 39.2

R800 39.2

Q16 TESTPAD

V208 BAS16

V205 BC860B

UDRAIN-I4

C611 4.7N

C610

R823 470P 15K

R818 7.5K

R819 10K

R817 10K

REF-10-G

R808 10K

C609 4.7N

UGATE-I4

ACHTUNG: EGB !
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD !
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

** = NOT FITTED

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
04.04			

	DATUM	NAME
1GPK		
BEARB.		BU
GEPR.		BU
NORM		
PLOTT	99-02-02	HOFBERGE

BENENNUNG: IQ-CONVERTER

IQ-CONVERTER

TOP/2500-3300_6/2500-3300.2

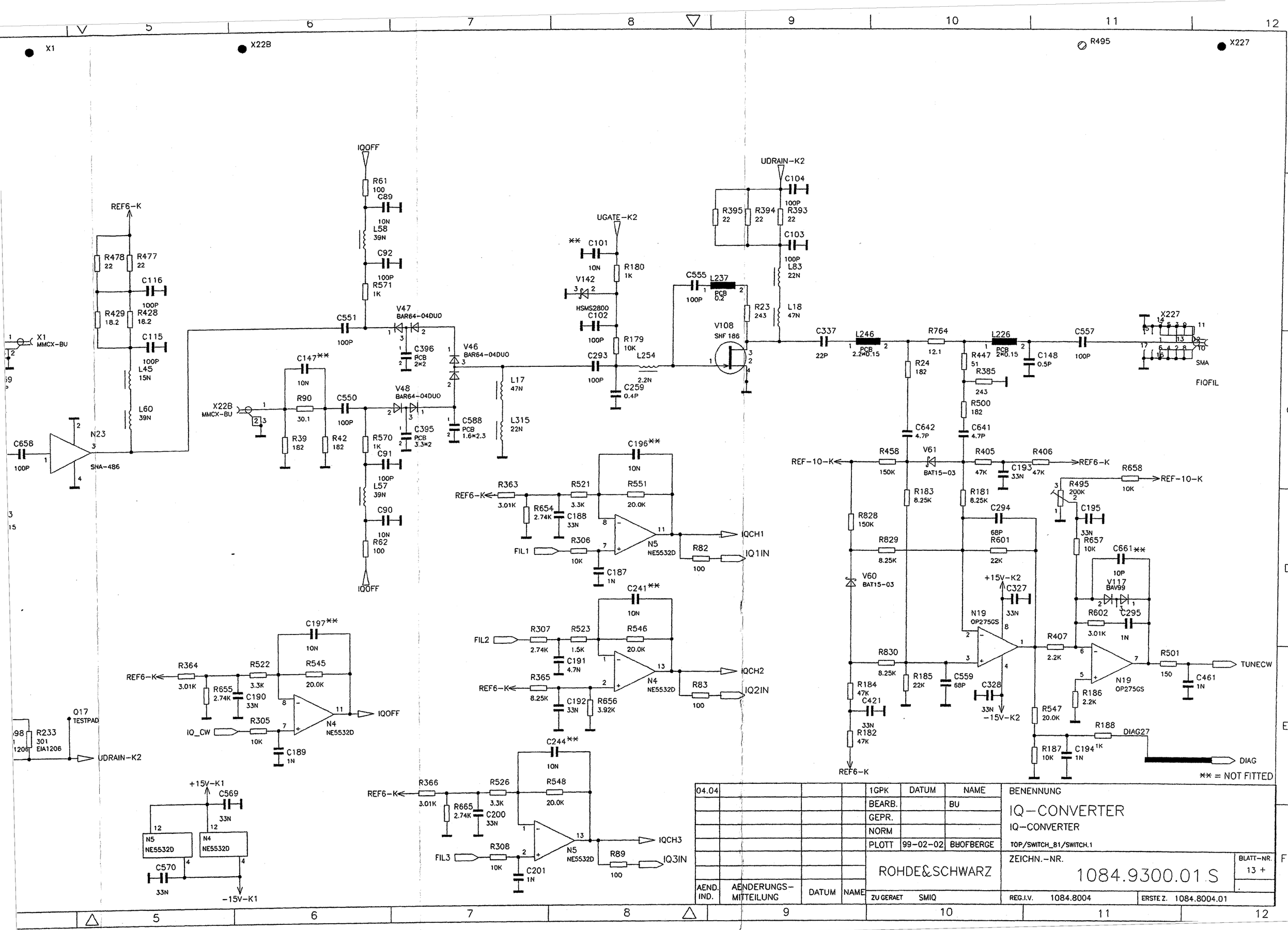
ROHDE&SCHWARZ

ZEICHN.-NR. 1084.9300.01 S

BLATT-NR. 12 +

ZU GERAET SMIQ | REG.I.V. 1084.8004 | ERSTE Z. 1084.8004.01

BEHALTEN WIR UNS ALLE RECHTE VOR


X1
X22B
R495
X227
IQOFF
REF6-K
UGATE-K2
UDRAIN-K2
R61 100
C89 10N
L58 39N
C92 100P
R571 1K
R478 22
R477 22
C116 100P
R429 18.2
R428 18.2
C115 100P
L45 15N
L60 39N
X1 MMCX-BU
C658 100P
N23
SNA-486
C551 100P
V47 BAR64-04DUO
C396 PCB 2*2
V46 BAR64-04DUO
C147** 10N
R90 30.1
C550 100P
X22B MMCX-BU
V48 BAR64-04DUO
R39 182
R42 182
R570 1K
C395 PCB 3.3*2
C588 PCB 1.6*2.3
C91 100P
L57 39N
C90 10N
R62 100
L17 47N
L315 22N
C101** 10N
R180 1K
V142 HSMS2800
C102 100P
R179 10K
C293 100P
L254 2.2N
C259 0.4P
C555 100P
L237 PCB 0.2
V108 SHF 186
C104 100P
R395 22
R394 22
R393 22
C103 100P
L83 22N
R23 243
L18 47N
C337 22P
L246 PCB 2.2*0.15
R764 12.1
L226 PCB 2*0.15
C557 100P
X227 SMA
FIQFIL
R24 182
R447 51
R385 243
C148 0.5P
R500 182
C642 4.7P
C641 4.7P
R363 3.01K
R521 3.3K
R551 20.0K
C196** 10N
R654 2.74K
C188 33N
R306 10K
C187 1N
IQCH1
IQ1IN
R82 100
FIL1
N5 NE5532D
C241** 10N
R307 2.74K
R523 1.5K
R546 20.0K
C191 4.7N
R365 8.25K
C192 33N
R656 3.92K
IQCH2
IQ2IN
R83 100
FIL2
N4 NE5532D
C197** 10N
R364 3.01K
R522 3.3K
R545 20.0K
R655 2.74K
C190 33N
R305 10K
C189 1N
IQOFF
IQ_CW
C244** 10N
R366 3.01K
R526 3.3K
R548 20.0K
R665 2.74K
C200 33N
R308 10K
C201 1N
IQCH3
IQ3IN
R89 100
FIL3
+15V-K1
C569 33N
C570 33N
-15V-K1
Q17 TESTPAD
R233 301 EIA1206
UDRAIN-K2
REF-10-K
R458 150K
V61 BAT15-03
R405 47K
R406 47K
C193 33N
REF6-K
R658 10K
R183 8.25K
R181 8.25K
R828 150K
R829 8.25K
C294 68P
R601 22K
V60 BAT15-03
+15V-K2
C327 33N
-15V-K2
N19 OP275GS
R495 200K
C195 33N
R657 10K
C661** 10P
V117 BAV99
R602 3.01K
C295 1N
R407 2.2K
R830 8.25K
R185 22K
C559 68P
C328 33N
R184 47K
C421 33N
R182 47K
R186 2.2K
R501 150
TUNECW
C461 1N
R547 20.0K
R188
DIAG27
R187 10K
C194 1K
DIAG
** = NOT FITTED
04.04
1GPK
DATUM
NAME
BEARB.
BU
GEPR.
NORM
PLOTT 99-02-02 BHOFBERGE
BENNENNUNG
IQ-CONVERTER
IQ-CONVERTER
TOP/SWITCH_81/SWITCH.1
ROHDE&SCHWARZ
ZEICHN.-NR.
1084.9300.01 S
BLATT-NR.
13 +
AEND. IND.
AENDERUNGS-MITTEILUNG
DATUM
NAME
ZU GERAET SMIQ
REG.I.V. 1084.8004
ERSTE Z. 1084.8004.01

BEHALTEN WIR UNS ALLE RECHTE VOR

K

SWITCH

X1

X22B

750–1800

V51 BAR64-04DUO

R104 220

L16 47N

C398 PCB 2.3*2

C399 PCB 1.5*3

IQCH2

R63 100

C94

10N

R739 1.5K

C93

100P

L263 27N

1800–2500

C552 22P

V52 BAR64-04DUO

C402 PCB 2*3

C400 PCB 2.2*2

IQCH3

R64 100

C95

10N

R774 1.5K

C96

100P

L257 10N

2500–3300

C553 22P

V50 BAR64-04DUO

C403 PCB 1.6*3

C397 PCB 1.4*2

V49 BAR64-04DUO

L260 22N

R681 220

V53 BAR64-04DUO

C401 PCB 0.8*3

IQCH1

R65 100

C97

10N

L59 39N

C98

100P

R574 1.5K

C554 10P

X1 MMCX-BU

C659 100P

R85 470

V145 BAR64

C658 100P

R38 150

R35 150

C657 100P

L223 PCB 4*0.15

L224 PCB 3*0.15

R189 1.5K

C114 10N

N23 SNA-486

REF6-K

R478 22

R477 22

C116 100P

R429 18.2

R428 18.2

C115 100P

L45 15N

L60 39N

REF6-K

R418 2.74K

R427 3.92K

V105 BAS16

V98 BC860B

C451 33N

R242 22K

R661 100K

C412 10N

R81 100

IQOFF

R61 100

C89 10N

L58 39N

C92 100P

R571 1K

C551 100P

V47 BAR64-04DUO

C396 PCB 2*2

C147** 10N

X22B MMCX-BU

R90 30.1

C550 100P

V48 BAR64-04DUO

R39 182

R42 182

R570 1K

C91 100P

C395 PCB 3.3*2

V46 BAR64-04DUO

C588 PCB 1.6*2.3

L57 39N

C90 10N

R62 100

IQOFF

L17 47N

L315 22N

UGATE-K2

** C101 10N

R180 1K

V142 HSMS2800

C102 100P

R179 10K

C293 100P

L254 2.2N

C259 0.4P

C555 100P

L237 PCB 0.2

V108 SHF 186

R395 22

C196** 10N

R363 3.01K

R521 3.3K

R551 20.0K

REF6-K

R654 2.74K

C188 33N

R306 10K

FIL1

N5 NE5532D

R82 100

IQCH

IQ1

C187 1N

C241** 10N

R307 2.74K

R523 1.5K

R546 20.0K

FIL2

C191 4.7N

R365 8.25K

REF6-K

C192 33N

R656 3.92K

N4 NE5532D

R83 100

IQCH

IQ2

C197** 10N

R364 3.01K

R522 3.3K

R545 20.0K

REF6-K

R655 2.74K

C190 33N

R305 10K

IQ_CW

N4 NE5532D

IQOFF

C189 1N

C244** 10N

R366 3.01K

R526 3.3K

R548 20.0K

REF6-K

R665 2.74K

C200 33N

R308 10K

FIL3

N5 NE5532D

R89 100

IQCH3

IQ3IN

C201 1N

+15V-K1

C569 33N

N5 NE5532D

N4 NE5532D

C570 33N

-15V-K1

+15V-K

R727 20.0K

R597 301 EIA1206

R596 301 EIA1206

R595 301 EIA1206

R594 301 EIA1206

R598 301 EIA1206

R233 301 EIA1206

Q17 TESTPAD

UDRAIN-K2

V81 BAS16

V20 BC860B

V112 BZV55B4V7

V113 BZV55B4V7

C198 10N

C450 33N

R550 18.2K

R663 22K

R664 10K

R662 10K

REF-10-K

UGATE-K2

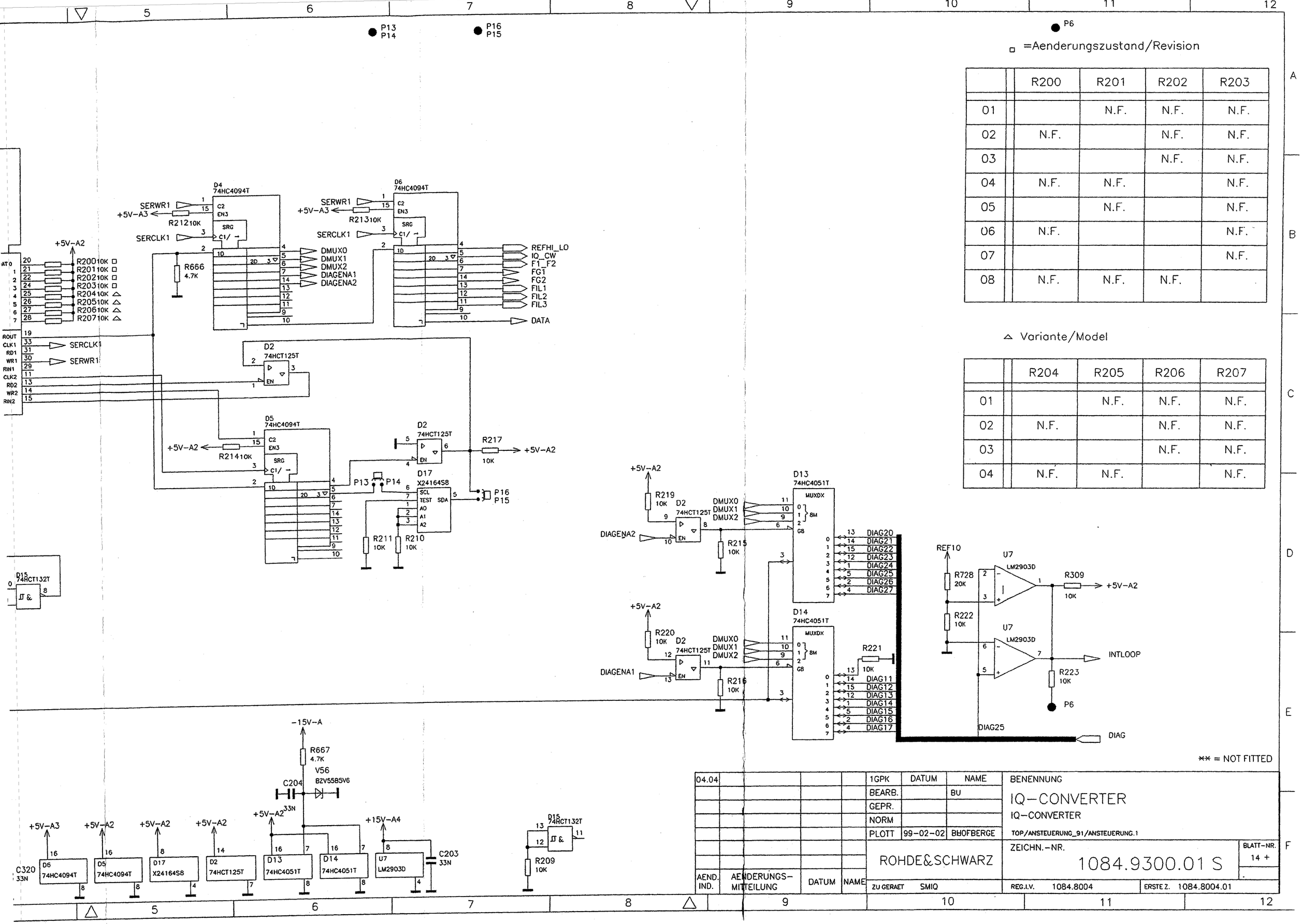
R525 5.62K

C199 33N

04.04

AEND. IND.

AENDE MITTEI



=Aenderungszustand/Revision

		R200	R201	R202	R203
01			N.F.	N.F.	N.F.
02		N.F.		N.F.	N.F.
03				N.F.	N.F.
04		N.F.	N.F.		N.F.
05			N.F.		N.F.
06		N.F.			N.F.
07					N.F.
08		N.F.	N.F.	N.F.	

△ Variante/Model

		R204	R205	R206	R207
01			N.F.	N.F.	N.F.
02		N.F.		N.F.	N.F.
03				N.F.	N.F.
04		N.F.	N.F.		N.F.

** = NOT FITTED

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
04.04			

	1GPK	DATUM	NAME
	BEARB.		BU
	GEPR.		
	NORM		
	PLOTT	99-02-02	BHOFBERGE

BENENNUNG
IQ-CONVERTER
IQ-CONVERTER
TOP/ANSTEUERUNG_91/ANSTEUERUNG.1

ROHDE&SCHWARZ

ZEICHN.-NR. 1084.9300.01 S

BLATT-NR. 14 +

ZU GERAET SMIQ | REG.I.V. 1084.8004 | ERSTE Z. 1084.8004.01

BEHALTEN WIR UNS ALLE RECHTE VOR

P13 P14 P16 P15

X220 A18 RES-P — R454 47 — Z10 7.5DB — R347 470

X220 A12 SERBUS-CLK — D1 74HCT125T — R453 47 — Z11 7.5DB — R348 470

X220 A15 SERBUS-DAT — D1 74HCT125T — R451 47 — Z12 7.5DB — R448 47

X220 A14 SERBUS-DAT — D1 74HCT125T

D1 74HCT125T — R352 470 — Z13 7.5DB — R449 47

+5V — D1 74HCT125T — R349 470

X220 A17 SERBUS-INT — R351 470 — Z14 7.5DB — R450 47

X220 A11, A13, A21

X220 A19 DIAG-5V — R350 470 — Z15 7.5DB — R452 47

+5V-A2 — Q18 TESTPAD, Q19 TESTPAD

D18 L5A8856

TRISTATE, NANDTREE, RESET-P, A1–A7

R19110K, R19210K, R19310K, R19410K, R19510K, R19610K, R19710K

R19810K, R19910K

SYNC, SERCLK, DATAEN, DATAIN, DATAOUT

PARDAT0–7: R20010K, R20110K, R20210K, R20310K, R20410K, R20510K, R20610K, R20710K

INTEN, INT, IROUIT, MASK, IR0–IR3

SEROUT, CLK1, RD1, WR1 → SERCLK1, SERWR1

SERIN1, CLK2, RD2, WR2, SERIN2

+5V-A2 — R208 10K — D15 74HCT132T — R757 82.5K — C202 33N — INTLOOP

D4 74HC4094T — SERWR1, +5V-A3, R21210K, SERCLK1, R666 4.7K — DMUX0, DMUX1, DMUX2, DIAGENA1, DIAGENA2

D6 74HC4094T — SERWR1, +5V-A3, R21310K, SERCLK1 — REFHI_LO, IO_CW, F1_F2, FG1, FG2, FIL1, FIL2, FIL3, DATA

D5 74HC4094T — +5V-A2, R21410K

D2 74HCT125T — R217 10K → +5V-A2

D17 X24164S8 — SCL, TEST, SDA, A0–A2 — R211 10K, R210 10K

P13 P14 — P16 P15

+5V-A2 — R219 10K — D2 74HCT125T — DMUX0, DMUX1, DMUX2 — DIAGENA2 — R215 10K

+5V-A2 — R220 10K — D2 74HCT125T — DMUX0, DMUX1, DMUX2 — DIAGENA1 — R216 10K

−15V-A — R667 4.7K — V56 BZV55B5V6 — C204 33N

+5V — D1 74HCT125T

+5V-A2 — D15 74HCT132T

+5V-A2 — D18 L5A8856 — C471 100U 16V — C574 1U

+5V-A3 — D4 74HC4094T — C320 33N

+5V-A3 — D6 74HC4094T

+5V-A2 — D5 74HC4094T

+5V-A2 — D17 X24164S8

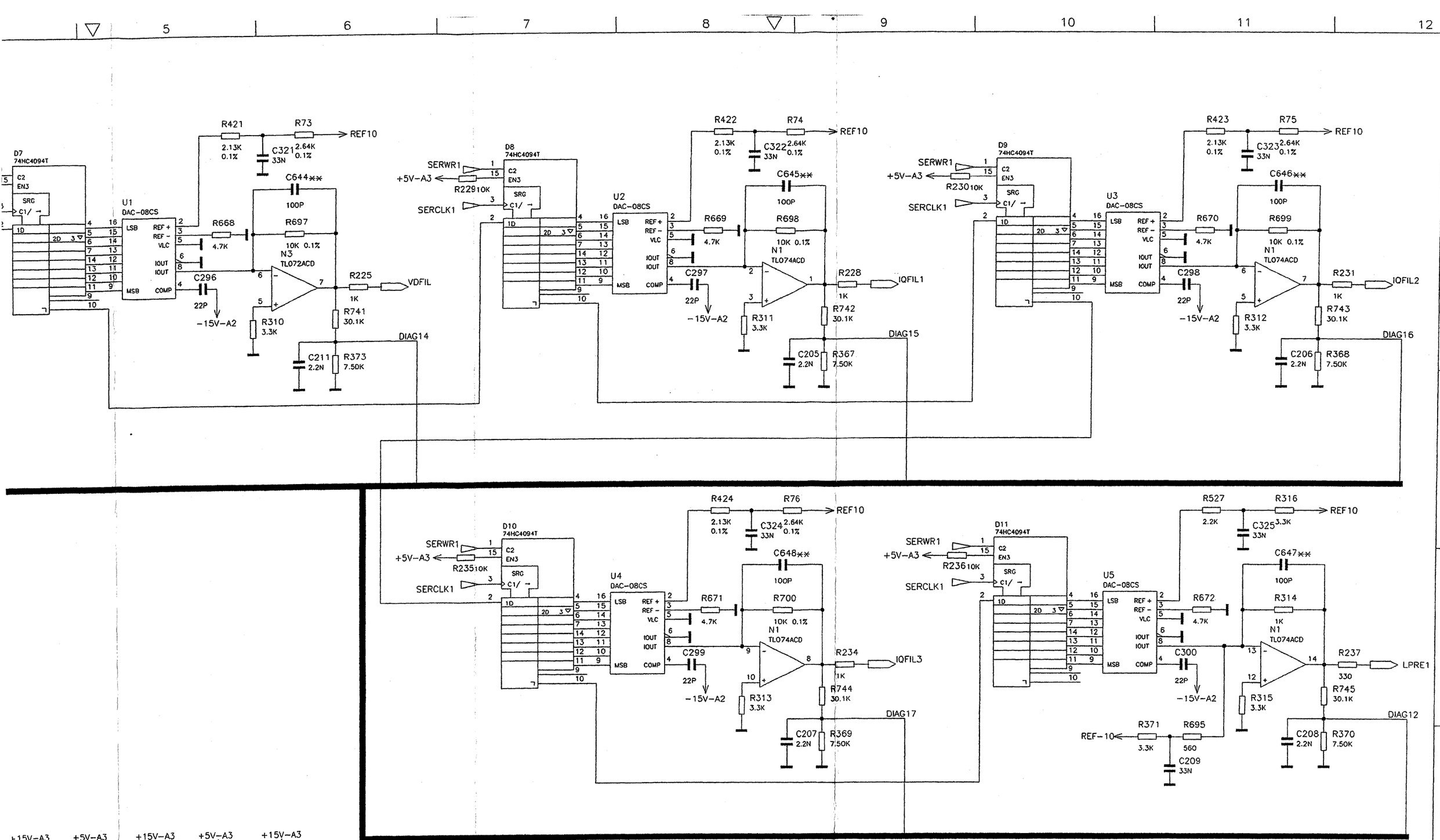
+5V-A2 — D2 74HCT125T

+5V-A2 — D13 74HC4051T

+15V-A4 — D14 74HC4051T — U7 LM2903D — C203 33N

D15 74HCT132T — R209 10K

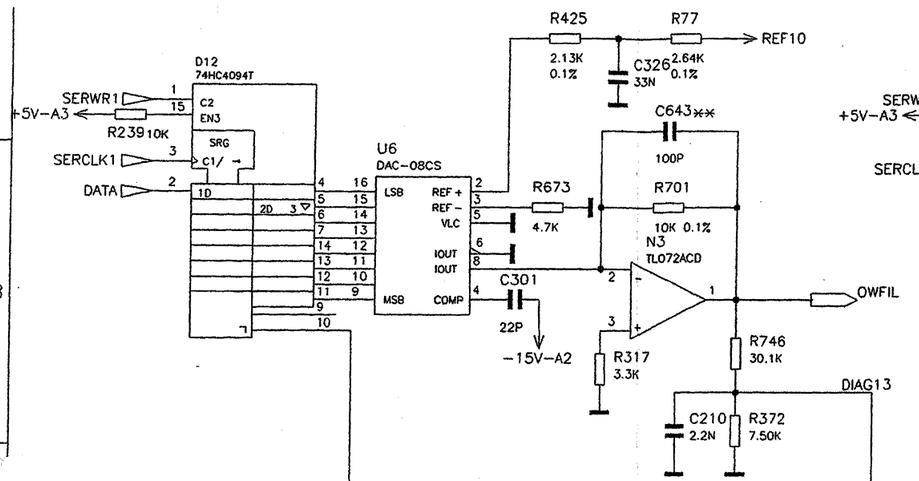
AEND. IND.	AENDERU MITTEILU
04.04	

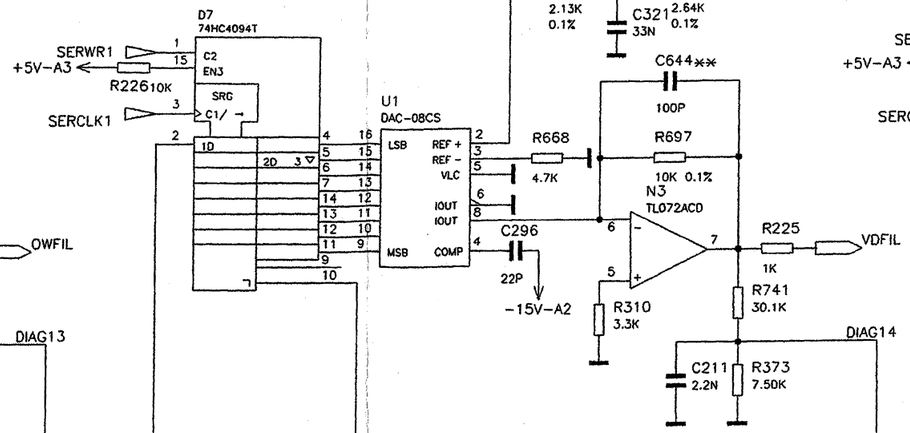


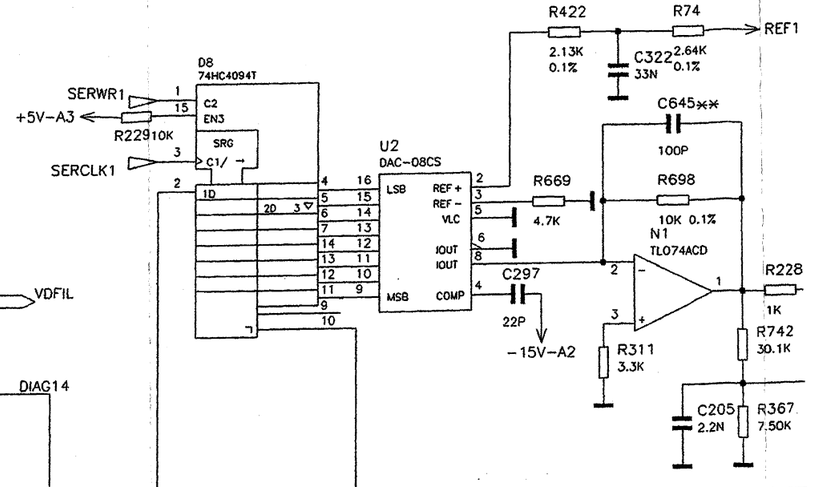
** = NOT FITTED

04.04				1GPK	DATUM	NAME	BENENNUNG
				BEARB.		BU	IQ-CONVERTER
				GEPR.			IQ-CONVERTER
				NORM			TOP/ANSTEUERUNG_91/ANSTEUERUNG.2
				PLOTT	99-02-02	BHOFBERGE	
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ROHDE&SCHWARZ			ZEICHN.-NR. 1084.9300.01 S
				ZU GERAET SMIQ			REG.I.V. 1084.8004 ERSTE Z. 1084.8004.01

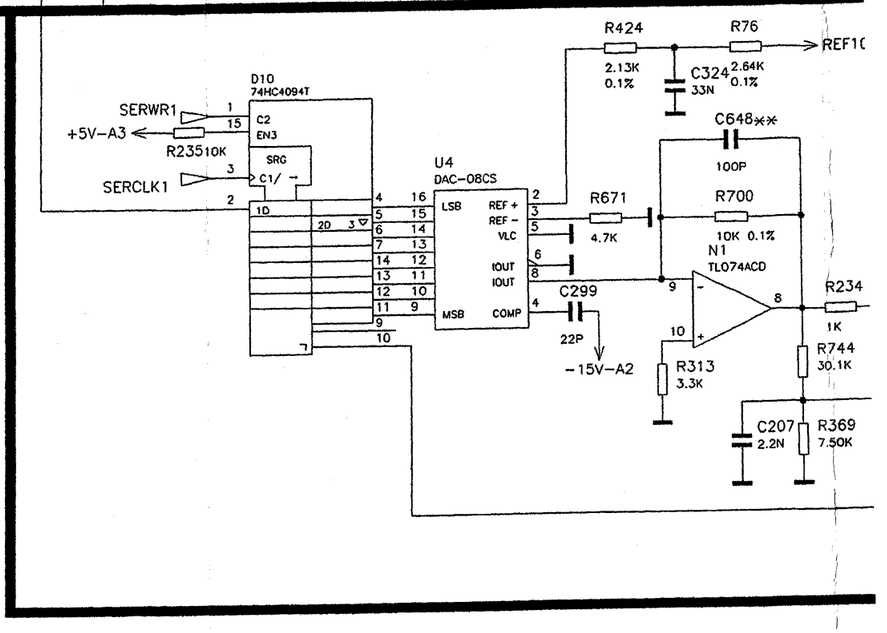
BLATT-NR. 15 +

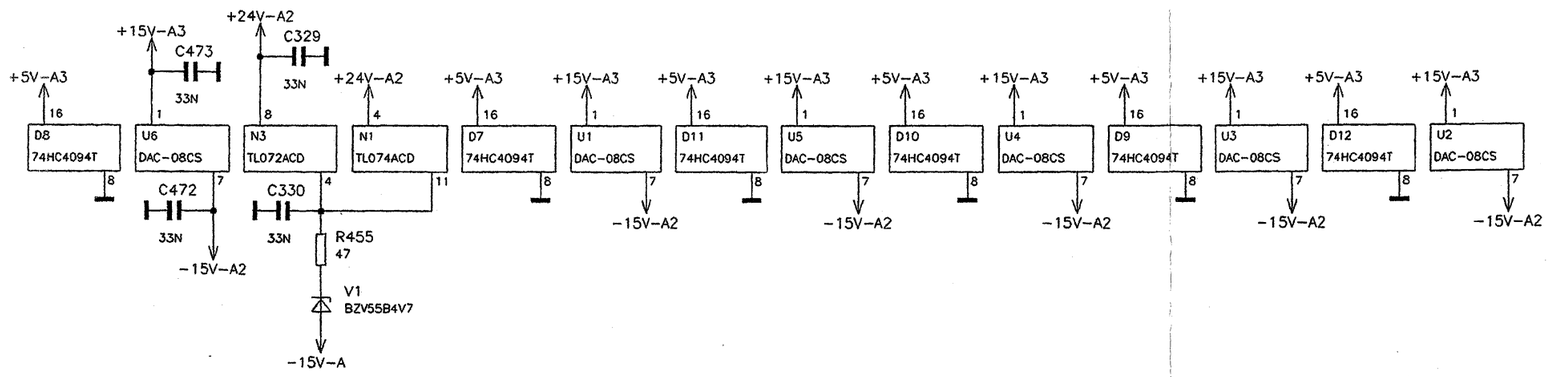




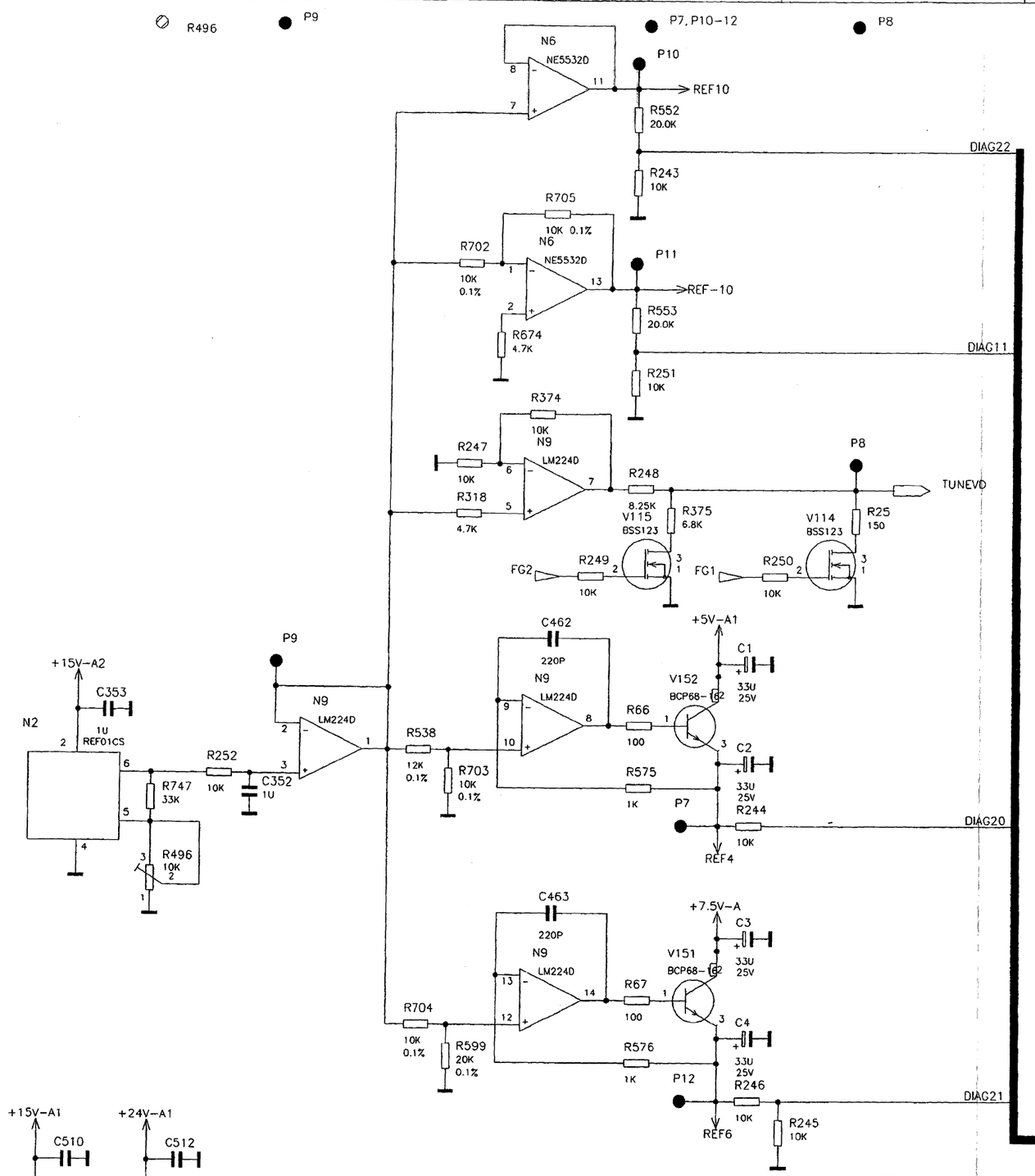


DIAG



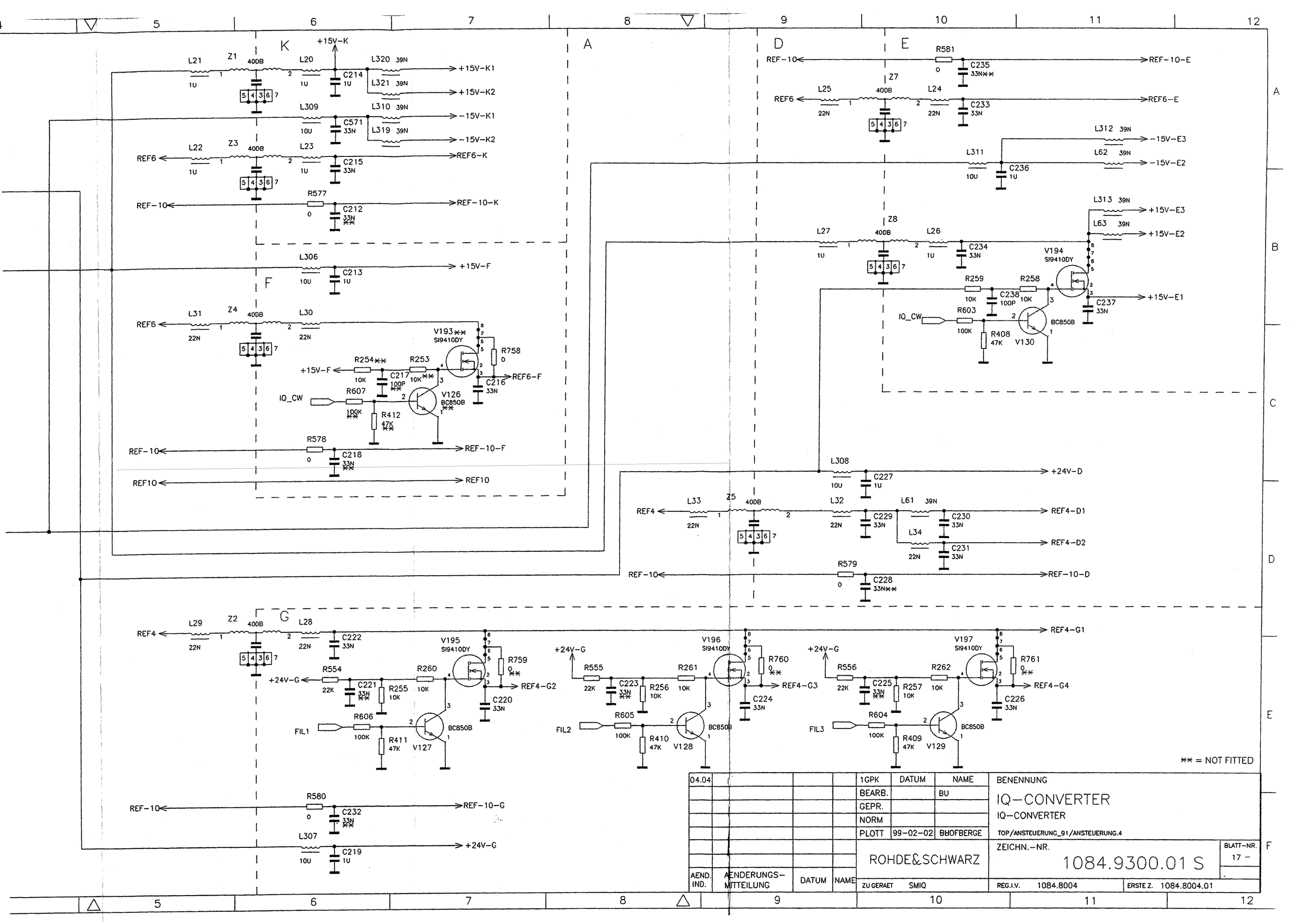


04.04	
AEND. IND.	AENDERUN MITTEILUN



04.04				1GPK	DATUM	NAME	BENENNUNG
				BEARB.		BU	IQ-CONVERTER
				GEPR.		BU	IQ-CONVERTER
				NORM			TOP/ANSTEUERUNG_91/ANSTEUERUNG.3
				PLOTT	99-02-02	HOFBERGE	
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ROHDE&SCHWARZ			ZEICHN.-NR. 1084.9300.01 S
				ZU GERAET SMIQ			REG.I V. 1084.8004 ERSTE Z. 1084.8004.01

BLATT-NR. 16 +


+15V-K
L21 Z1 40DB L20 L320 39N +15V-K1
1U C214 1U L321 39N +15V-K2
L309 L310 39N -15V-K1
10U C571 33N L319 39N -15V-K2
REF6 L22 Z3 40DB L23 REF6-K
1U C215 33N 1U
R577
REF-10 REF-10-K
0 C212 33N
L306 +15V-F
10U C213 1U
L31 Z4 40DB L30 REF6
22N 22N
V193 SI9410DY R758
R254 R253 +15V-F REF6-F
10K C217 100P 10K C216 33N
IQ_CW R607 V126 BC850B
100K R412 47K
R578
REF-10 REF-10-F
0 C218 33N
REF10 REF10
R581
REF-10 REF-10-E
0 C235 33N
Z7
L25 40DB L24 REF6 REF6-E
22N 22N C233 33N
L312 39N -15V-E3
L311 L62 39N -15V-E2
10U C236 1U
L313 39N +15V-E3
Z8 L63 39N +15V-E2
L27 40DB L26 C234 33N
1U 1U
V194 SI9410DY
R259 R258 +15V-E1
10K C238 100P 10K C237 33N
IQ_CW R603 BC850B
100K R408 47K V130
L308 +24V-D
10U C227 1U
REF4 L33 Z5 40DB L32 L61 39N REF4-D1
22N C229 33N C230 33N
L34 REF4-D2
22N C231 33N
R579
REF-10 REF-10-D
0 C228 33N
REF4 L29 Z2 400B L28 REF4-G1
22N 22N C222 33N
V195 SI9410DY R759
+24V-G R554 R260 REF4-G2
22K C221 33N R255 10K 10K C220 33N
FIL1 R606 BC850B
100K R411 47K V127
+24V-G R555 R261 V196 SI9410DY R760 REF4-G3
22K C223 33N R256 10K 10K C224 33N
FIL2 R605 BC850B
100K R410 47K V128
+24V-G R556 R262 V197 SI9410DY R761 REF4-G4
22K C225 33N R257 10K 10K C226 33N
FIL3 R604 BC850B
100K R409 47K V129
R580
REF-10 REF-10-G
0 C232 33N
L307 +24V-G
10U C219 1U
** = NOT FITTED
04.04
1GPK DATUM NAME
BEARB. BU
GEPR.
NORM
PLOTT 99-02-02 BHOFBERGE
BENENNUNG
IQ-CONVERTER
IQ-CONVERTER
TOP/ANSTEUERUNG_91/ANSTEUERUNG.4
ROHDE&SCHWARZ
ZEICHN.-NR. 1084.9300.01 S
BLATT-NR. 17 -
AEND. IND. AENDERUNGS-MITTEILUNG DATUM NAME
ZU GERAET SMIQ
REG.I.V. 1084.8004
ERSTE Z. 1084.8004.01

BEHALTEN WIR UNS ALLE RECHTE VOR

X220 A22 +24V — L304 10U — C513 22U 35V — C575 1U ** — Z6 40DB — R480 10 (+24V-A1) — R481 10 (+24V-A2)

X220 A24 +15V — L3 47U — C514 33U 25V — C576 1U ** — Z16 50DB Schirm-wand — R482 10 (+15V-A1) — R456 47 (+15V-A2) — L300 10U (+15V-A3) — L301 10U (+15V-A4)

X220 A26 +7.5V — L4 47U — C273 100U 16V — C577 1U ** — Z17 50DB Schirm-wand — +7.5V-A

X220 A28 +5V — L5 47U — C274 100U 16V — C578 1U ** — Z18 50DB Schirm-wand — L6 47U (+5V-A1) — L302 10U (+5V-A2) — R765 10 (+5V-A3)

X220 A30 −15V — L305 10U — C515 33U 25V — C579 1U ** — Z9 40DB — R479 10 (−15V-A1) — L303 10U (−15V-A2)

X220 A23
X220 A25
X220 A27
X220 A29
X220 A31

+15V-K — L21 1U — Z1 40DB — L20 1U — C214 1U — L320 39N → +15V-K1 — L321 39N → +15V-K2

L309 10U — C571 33N — L310 39N → −15V-K1 — L319 39N → −15V-K2

REF6 ← L22 1U — Z3 40DB — L23 1U — C215 33N → REF6-K

REF-10 ← R577 0 — C212 33N ** → REF-10-K

L306 10U — C213 1U → +15V-F

REF6 ← L31 22N — Z4 40DB — L30 22N

+15V-F → R254 ** 10K — C217 100P ** — R253 10K ** — V193 ** SI9410DY — R758 0 → REF6-F — C216 33N

IQ_CW → R607 100K ** — R412 47K ** — V126 BC850B **

REF-10 ← R578 0 — C218 33N ** → REF-10-F

REF10 ← → REF10

REF4 ← L33 22N — Z5 40

REF-10 ←

REF4 ← L29 22N — Z2 400B — L28 22N — C222 33N

+24V-G → R554 22K — C221 33N ** — R255 10K — R260 10K — V195 SI9410DY — R759 0 ** → REF4-G2 — C220 33N

FIL1 → R606 100K — R411 47K — V127 BC850B

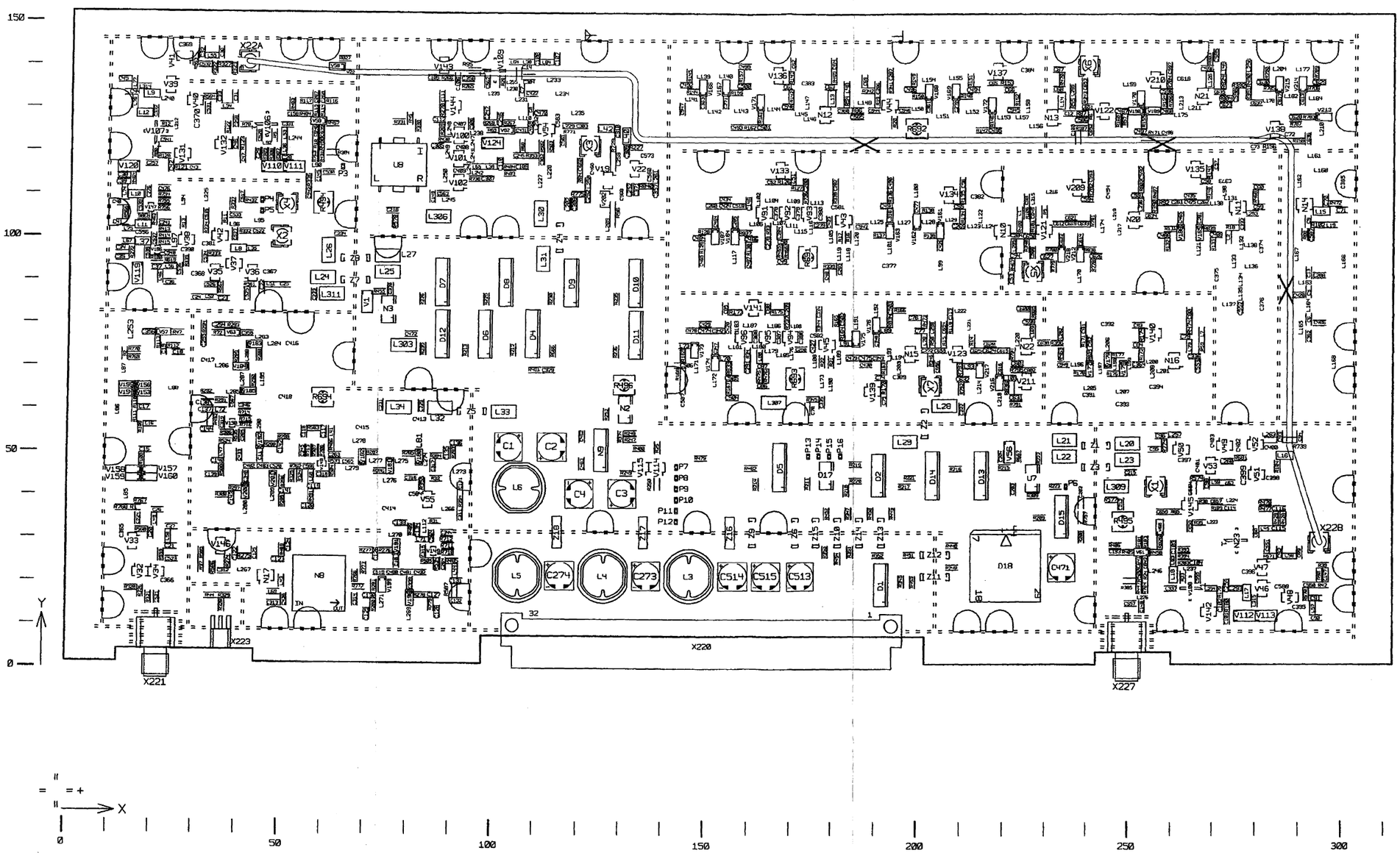
+24V-G → R555 22K — C223 33N ** — R256 10K — R261 10K — V196 SI9410DY

FIL2 → R605 100K — R410 47K — V128 BC850B

REF-10 ← R580 0 — C232 33N ** → REF-10-G

L307 10U — C219 1U → +24V-G

AEND. IND.	AENDER MITTEILU
04.04	



DARSTELLUNG SEITE B
VIEW ON SIDE B

ACHTUNG: ESD!
ELEKTROSTATISCH GEFÄHRDETE BAUELEMENTE ENTHALTEN EINE ABBILDUNG VORHANDEN.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES INCLUDE A SPECIAL MARKING

BEIDENCE ANGABEN ÜBER VARIANTEN, TRIMMORTE, BAUTEILWERTE UND NICHT BESTÜCKTE BAUTEILE SIEHE SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

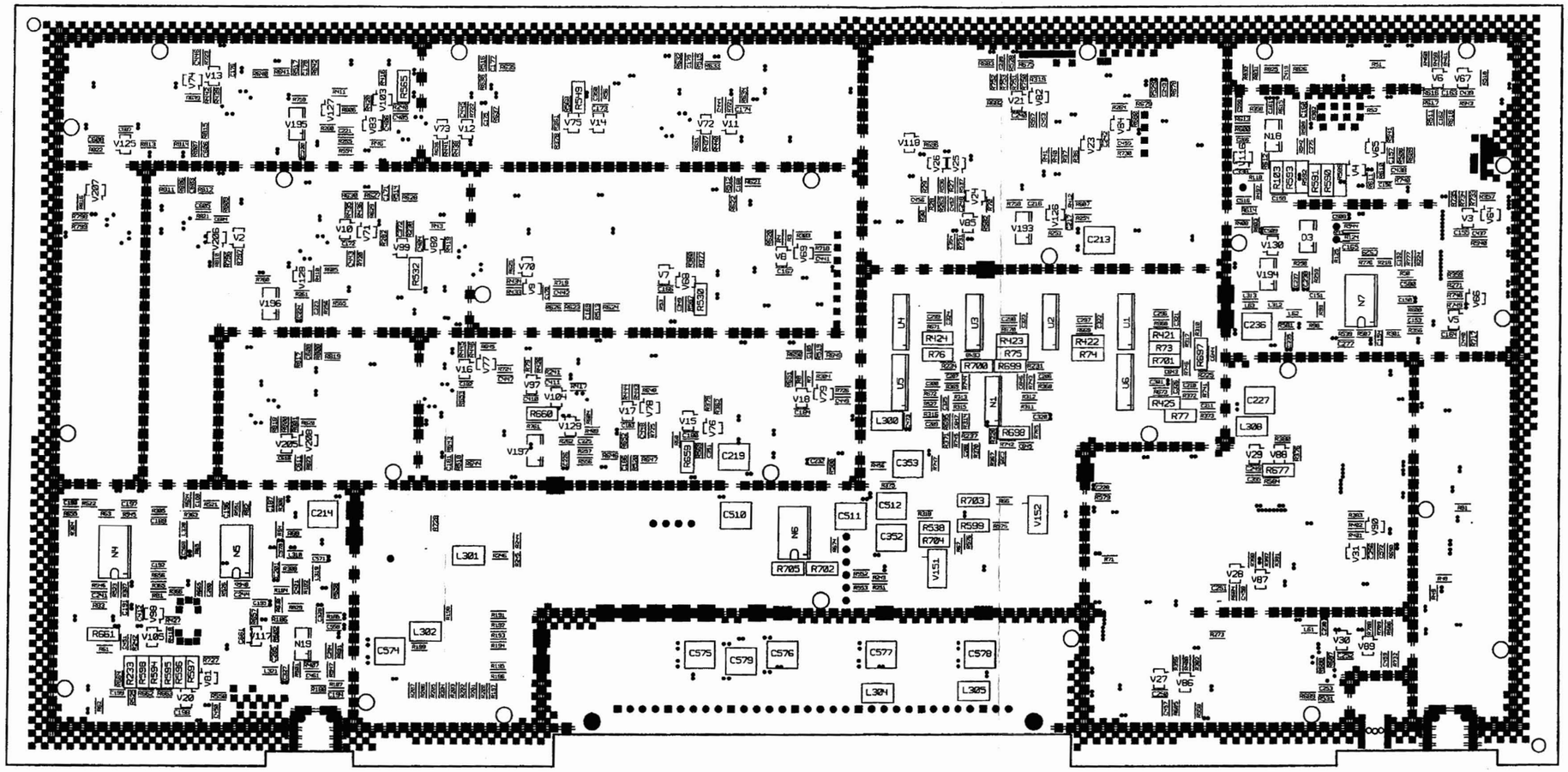
					1GPK	DATUM	NAME
					BEARB.		BU
					GEPR.		BU
					NORM		
					PLOTT	08.08.96	BAUR_A
IND.	ÄNDERUNGS-MITTEILUNG	DATUM	NAME	ROHDE&SCHWARZ			
				ZU GERÄT: SMIQ			

BENENNUNG
IQ-CONVERTER
IQ-CONVERTER

ZEICHN.-NR.
1084.9300.01

BLATT-NR. 1+

MEG.:I.V. 1084.8004 ERSTE Z. 1084.8004



DARSTELLUNG SEITE A
VIEW ON SIDE A

ACHTUNG: EGB!
ELEKTROSTATISCH GEFÄHRDETE BAUELEMENTE ENTFERNEN UND BERÜHREN VERMEIDEN.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REMOVE & SPILLS, HANDLING.

BINDENDE ANGABEN ÜBER VARIANTEN, TRIMMWERTE, BAUTEILWERTE UND NICHT BESTÜCKTE BAUTEILE SIEHE SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

00					1GPK	DATUM	NAME	BENENNUNG
					BEARB		BU	IQ-CONVERTER
					GEPR.		BU	IQ-CONVERTER
					NORM			
					PLOTT	06.08.96	BAUER	ZEICHN.-NR. 1084.9300.01
					ROHDE&SCHWARZ			BLATT-NR. 2-
					ZU GERÄT SM10			V. BL.
ÄND. IND.	ÄNDERUNGS-MITTEILUNG	DATUM	NAME					MEG.I.V. 1084.6004 ERSTE Z. 1084.6004

ROHDE&SCHWARZ

SERVICEUNTERLAGEN

Option Referenzoszillator OCXO SM-B1

1036.7599

Inhaltsverzeichnis

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7.2	**Messgeräte und Hilfsmittel**	**5**
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Schaltteilliste
Koordinatenliste
Stromlauf
Bestückungsplan

7. Prüfen und Instandsetzen der Baugruppe

7.1 Funktionsbeschreibung

Die Option Referenzoszillator OCXO ersetzt die interne 10-MHz-Zeitbasis durch einen thermostatgeregelten hochwertigen Quarzoszillator, wodurch sich die Gerätedaten bezüglich Genauigkeit der Referenzfrequenz und Alterung wesentlich verbessern.

Die Baugruppe enthält ausser dem eigentlichen Oszillator noch Bausteine für die interne Datenübertragung (D1), Datenspeicherung (D30) und Diagnose (D40) sowie einen schaltbaren Auskoppelverstärker (V70 und V71). Die Variante 06 enthält noch eine Schaltung zur Erzeugung des Interrupts für die "OVEN COLD"-Anzeige (N50,N60).

Der Oszillator bleibt im Standby-Betrieb eingeschaltet.

7.2 Messgeräte und Hilfsmittel

DC-Voltmeter	z. B. UDS 5, URE
HF-Spektrumanalysator bis 100MHz	z. B. FSA
Kalibrierter Frequenzzähler 10MHz (in FSA enthalten)	
Laboroszilloskop mit ca. 100MHz Bandbreite	

7.3 Fehlersuche

Frequenzfehler	Abstimmspannung verfolgen bis zum Oszillator.Bei geringen Abweichungen durch Alterung neu kalibrieren (siehe Kap. 7.4.5).
Pegelfehler	Steuersignal OSCOFF verfolgen.Arbeitspunkt Auskoppelstufe prüfen.Ausgangspegel des Oszillators prüfen (siehe Kap. 7.4.2.)

7.4 Prüfen und Abgleich

7.4.1. Stromaufnahme, Datenübertragung

- Gerät kalt mit Netzschalter einschalten (nicht aus Standby-Betrieb) und Taste PRESET drücken.

Die Stromaufnahme bei +12V ist während der Aufheizphase höher und soll dann nach 5min (VAR02) bzw. 10min(VAR04/06) bei 25grad Umgebungstemperatur auf den stabilen Wert sinken.

Stromaufnahme	VAR 02	VAR 04/06
+5V	max. 2mA	
-15V	max. 7mA	
+12V heizen	max. 250mA	max. 270mA
+12V stabil	max. 130mA	max. 150mA

Der Baugruppenstatus wird durch Pulldown-Widerstände (R8 bis R15) am Parallelport des Bausteins D1 codiert. Offene Eingänge bedeuten "high". Die ersten 4 bit codieren die Variante des Oszillators, die zweiten 4 bit den Änderungszustand.

Variante	02	04	06	Änderungszustand	0	1	2	3	4
Dezimalwert	1	2	3		0	1	2	3	4

Die der Bestückung entsprechenden Werte müssen im Display angezeigt werden, wenn das Menue **UTILITIES/DIAG/CONFIG** gewählt wird.

7.4.2. Prüfen des Oszillators und des 10MHz-Verstärkers

- Einstellung des SME : **PRESET**

_ Das Steuerbit OSCOFF muss auf "low"-Potential liegen. Die Auskoppelstufe V71 ist aktiv, der dc-Arbeitspunkt soll bei 5±2V liegen. Am Ausgang des Oszillators muss das Signal TTL-Pegel erreichen (hochohmig messen mit Oszilloskop).

- Spektrumanalysator an X771 anschliessen. Das 10MHz-Signal soll eine Amplitude von 7.5±1.5 dBm aufweisen und einen Oberwellenabstand von >15dB.

- Im Menue **UTILITIES/REF OSC/SOURCE EXTERN** wählen.

_ Das Steuerbit OSCOFF muss auf "high"-Potential gehen, V70 wird leitend und setzt die Auskoppelstufe ausser Betrieb. Die Kollektorspannung von V71 geht auf 12±1V hoch. Das Ausgangssignal an X773 muss unter -50dBm sinken.

7.4.3. Prüfen der Interrupterzeugung (Meldung OVEN COLD)

Solange der Thermostat des Quarzoszillators die Solltemperatur nicht erreicht hat, liegt am Eingang IR0 (Pin 39) des Datenübertragungsbausteins D1 "high" Signal an. Das wird vom Rechner in der Fronteinheit erkannt und führt zur Meldung "OVEN COLD" im Display.

Varianten 02 und 04 :

_ Bei gezogener Brücke X50 darf keine "OVEN COLD"-Meldung erzeugt werden. Wird X50/2 auf "low" gelegt, muss ein Interrupt und damit die Meldung "OVEN COLD" erscheinen.

- Die Steckbrücken auf X50/1-2 und X40/1-2 stecken.

_ Ein warmgelaufener Oszillator (nach ca. 5-10min. bei 25grad) darf keine "OVEN COLD"-Meldung erzeugen, ein frisch

eingeschalteter muss. Ein warmgelaufener Oszillator muss nach einigen Minuten Abschaltung (Netz aus, nicht Standby !) wieder "OVEN COLD" melden.

Variante 06 :

- Die Steckbrücken X40 und X50 abziehen, an X40B eine Gleichspannung von 0 .. 12V einspeisen. Logikpegel an X60A beobachten.

_ Bei einer Gleichspannung unter 5.6±0.1V soll "high"-Pegel anliegen, bis 6.4±0.1V "low" und darüber wieder "high".

- Brücke X60 wieder einstecken. Am Display kontrollieren, ob beim Variieren der Gleichspannung entsprechend die Meldung "OVEN COLD" erzeugt wird.

_ Mit dem Voltmeter Spannung an X40A messen (nach ·5min Betriebsdauer), Sollwert 6.0±0.2V.

- Brücken X40 und X50 wieder einstecken.

_ Ein warmgelaufener Oszillator (nach 5min. bei 25grad) darf keine "OVEN COLD"-Meldung erzeugen, ein frisch eingeschalteter muss. Ein warmgelaufener Oszillator muss nach einigen Minuten Abschaltung (Netz aus, nicht Standby!) wieder "OVEN COLD" melden.

7.4.4. Prüfen der Diagnose

Vor der Messung muss die Baugruppe ca. 5 min. warmlaufen.

- Im Menue **UTILITIES/DIAG/STATE ON** wählen. Die folgenden Messpunkte (TPOINT) prüfen:

Messpunkt	Sollspannung/V
101	6±0.6 nur VAR 06
102	2±0.5

7.4.5. Abgleich des Oszillators

- Kalibrierten Frequenzzähler an die Buchse REF an der Rückwand anschliessen und Ausgangsfrequenz messen. Das Gerät muss mindestens 2 Stunden im Betrieb oder im Standby-Betrieb gewesen sein.

Varianten 02 und 04 :

- Zuerst muss im Menue **UTILITIES/PROTECT LOCK LEVEL 2** auf OFF gesetzt werden durch Eingabe des Passwortes **250751**.

- Im Menue **UTILITIES/CALIB REF OSC** wählen. CALIBRATION DATA selektieren und durch Drehknopfvariation ändern, bis die Sollfrequenz 10.000000MHz erreicht ist. Der neue Einstellwert wird durch selektieren von **STORE CALIBRATION DATA** ins EPROM geschrieben.

ACHTUNG!! Dieser Vorgang kann nur so oft durchgeführt werden, bis der Speicherplatz im EPROM verbraucht ist. In diesem Fall muss das Flash-EPROM von einer autorisierten Servicestelle gelöscht und neu programmiert werden.

Variante 06 :

Der Oszillator der Variante 06 wird mechanisch abgeglichen.

- Dazu ist die Beplankung zu entfernen (s. Kap. 6.5).

_ Die Sollfrequenz von 10.000000MHz kann mit dem Trimmer an der Seitenfläche des Oszillatorgehäuses eingestellt werden.

7.5 Zerlegung und Zusammenbau

Beplankung des Gerätes abnehmen (s. Serviceanleitung Gesamtgerät SME Kap. 6.5)

Flachbandkabelstecker X22 auf dem Motherboard entriegeln und abziehen.

Die Baugrupe ist mit vier Schrauben im Schacht an der rechten Seite des Gerätes befestigt. Schrauben entfernen und die Baugruppe soweit herausziehen, dass das HF-Kabel W170 abgezogen werden kann.

Kabelbinder am Flachbandkabel lösen, Baugruppe herausnehmen.

Einbau sinngemäss in umgekehrter Reihenfolge.

7.6 Externe Schnittstellen

Pin	Name	Ein/Ausgang	Herkunft/Ziel	Wertebereich	Signalbeschreibung
X22.4,8,10,14,15					Masse
X22.16	OPTTUNE	Eingang	A7	0..12V	Abstimmspannung
X22.13	SERBUS-CLK	Eingang	A3, FRO X50.40	HCMOS-Pegel	Serbus-Clock
X22.11	SERBUS-DAT	bidir.	A3, FRO X50.39	HCMOS-Pegel	Serbus-Daten
X22.09	SERBUS-SYNC	Eingang	A3, FRO X50.37	HCMOS-Pegel	Serbus-Synchronisation
X22.07	SERBUS-INT	Ausgang	A3, FRO X50.38	HCMOS-Pegel	Serbus-Interrupt
X22.05	RES-P	Eingang	A3, FRO X50.28	HCMOS-Pegel	Serbus-Reset
X22.03	DIAG-5V	Ausgang	A3, FRO X50.44	-5V...5V	Diagnose
X22.02	VAS12-P	Eingang	A2, POWS1	11.50V...12.50V max. 250mA	Versorgungsspannung analog
X22.01	VD-5P	Eingang	A2, POWS1	5.10V...5.25V max. 2mA	Versorgungsspannung digital
X22.06	VA15-N	Eingang	A2, POWS1	-15.75V...-14.85V max. 2mA	Versorgungsspannung analog
X771	OPT10	Ausgang	A70 A7	10MHz, 7dBm	10MHz-Ausgang

X22 ist der Flachband-Kabelstecker, X771 die SMB-Ausgangsbuchse.

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SERVICE INSTRUCTIONS

Option Reference Oscillator OCXO SM-B1

1036.7599

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Circuit diagram
Layout diagram

7. Testing and Repair of the Module

7.1 Functional Description

The Reference Oscillator Option OCXO replaces the internal 10-MHz time base by an oven-controlled high-quality crystal oscillator, which considerably improves the instrument data with respect to accuracy of reference frequency and aging.

In addition to the oscillator proper, the module includes components for internal data transmission (D1), data storage (D30) and diagnosis (D40) as well as a switchable output amplifier (V70 and V71). Version 06 also includes a circuitry for generation of the interrupt for the "OVEN COLD" indication (N50,N60).

The oscillator remains switched on in standby mode.

7.2 Measuring Equipment and Assembly

DC Voltmeter	e.g. UDS 5, URE
RF spectrum analyzer up to 100 MHz	e.g. FSA

Calibrated frequency counter 10 MHz (included in FSA)

Laboratory oscilloscope with approx. 100-MHz bandwidth

7.3 Troubleshooting

Frequency error	Trace the tuning voltage as far as to the oscillator. Recalibrate in the case of small deviations due to aging (see section 7.4.5).
Level error	Trace control signal OSCOFF. Check operating point of output stage. Check output level of oscillator (see section 7.4.2.)

7.4 Testing and Adjustment

7.4.1. Current Consumption, Data Transmission

- Switch on cold instrument using the power switch (not from standby mode) and press the PRESET key.

Current consumption at +12V is greater during warmup period and must decrease after 5min (VAR02) or 10min (VAR04/06) at 25 grad Celsius ambient temperature to its settled value.

Current consumption	VAR 02	VAR 04/06
+5V	max. 2mA	
-15V	max. 7mA	
+12V heating	max. 250mA	max. 270mA
+12V settled	max. 130mA	max. 150mA

The module status is encoded by pulldown resistors (R8 to R15) at the parallel port of D1. Open inputs mean "high". The first 4 bits encode the module version, the second 4 bits the modification status.

Version	02	04	06	Status	0	1	2	3	4
Decimal value	1	2	3		0	1	2	3	4

The version/status values in question must be indicated corresponding to fitted resistors in the display when the menu **UTILITIES/DIAG/CONFIG** is selected.

7.4.2. Testing the Oscillator and the 10-MHz Amplifier

- SME setting: **PRESET**

_ The control bit OSCOFF must show "low" potential. The output stage V71 is active, the DC operating point is to be at 5 ±2 V. The signal must reach TTL level at the oscillator output (use oscilloscope for high-impedance measurement).

- Connect spectrum analyzer to X771. The 10-MHz signal is to feature an amplitude of 7.5 ±1.5 dBm and a harmonics suppression >15 dB.

- Select **OSC/SOURCE EXTERN** in the menu **UTILITIES/REF**.

_ The control bit OSCOFF must go to "high" potential, V70 becomes conducting and disables the output stage. The collector voltage of V71 increases to 12 ±1 V. The output signal at X773 must fall below -50 dmB.

7.4.3. Testing the Interrupt Generation (Message OVEN COLD)

As long as the oven of the crystal oscillator has not yet reached nominal temperature, a "high" signal is applied to the input IR0 (pin 39) of the data transmission component D1. This is recognized by the controller in the front module, and the message "OVEN COLD" is produced on the display.

Versions 02 and 04 :

_ With jumper X50 removed, the "OVEN COLD" message must not be caused. If X50/2 is set to "low", an interrupt and thus the message "OVEN COLD" must appear.

- Insert the jumpers on X50/1-2 and X40/1-2.

_ An oscillator after warmup (afer approx. 5 to 10 minutes at 25 degrees) must not produce the "OVEN COLD" message, whereas one that has just been switched on must. An oscillator after warmup must again signal "OVEN COLD" after it has been switched off for some minutes (power off, not standby!).

Version 06 :

- Remove jumpers X40 and X50, apply a DC voltage of 0 to 12 V to X40B. Observe logic level at X60A.

_ High level must appear with a DC voltage below 5.6 ±0.1 V, "low" up to 6.4 ±0.1 V and "high" again above this value.

- Replace jumper X60. Check on the display whether the message "OVEN COLD" appears when varying the DC voltage.

_ Measure the voltage at X40A using the voltmeter (after 5 min operation), nominal value 6.0 ±0.2 V.

- Replace jumpers X40 and X50.

_ An oscillator after warmup (afer approx. 5 to 10 minutes at 25 degrees) must not produce the "OVEN COLD" message, whereas one that has just been switched on must. An oscillator after warmup must again signal "OVEN COLD" after it has been switched off for some minutes (power off, not standby!)

7.4.4. Testing the Diagnosis

The module must be allowed a warmup time of approx. 5 minutes before the measurement.

- Select **ON** in the menu **UTILITIES/DIAG/STATE**. Check the following test points (TPOINT):

Test point	Nominal voltage/V
101	6±0.6 only vers. 06
102	2±0.5

7.4.5. Adjusting the Oscillator

- Connect calibrated frequency counter to the REF socket on the rear panel and measure the output frequency. The instrument must have been in operation or in standby mode for at least 2 hours.

Versions 02 and 04:

- First set in the menue **UTILITITES/PROTECT** LOCK LEVEL 2 to OFF by typing the password **250751**.

- Select **REF OSC** in the menu **UTILITIES/CALIB**. Then select CALIBRATION DATA AND vary using the rotary knob until the nominal frequency of 10.000000 MHz is obtained. The new setting

value is written into the EPROM by means of "**STORE CALIBRATION DATA**".

CAUTION!! This procedure can only be repeated until the memory area reserved in the EPROM is used up. In this case, the flash EPROM must be cleared and written to again by a R&S service department.

Version 06 :

The oscillator of version 06 is mechanically adjusted.

- For this purpose, remove the panelling (see section 6.5).

- The nominal frequency of 10.000000 MHz can be set by means of the trimmer on the lateral surface of the oscillator housing.

7.5 Disassembly and Assembly

Remove instrument panelling (see service instructions for complete instrument SME, section 6.5)

Unlock flat cable connector X22 on the motherboard and remove.

The module is fastened in the slot on the righthand side of the instrument with four screws. Remove the screws and pull out the module so that RF cable W170 can be removed.

Loosen the cable clamp on the flat cable and take out the module.

For replacing the module, proceed in the reverse order.

7.6 External Interfaces

Pin	Name	Inp./Output	Origin/Destination		Value range	Signal description
X22.4,8,10,14,15						Ground
X22.16	OPTTUNE	Input	A7		0..12V	Tuning voltage
X22.13	SERBUS-CLK	Input	A3, FRO	X50.40	HCMOS level	Serbus clock
X22.11	SERBUS-DAT	bidir.	A3, FRO	X50.39	HCMOS level	Serbus data
X22.09	SERBUS-SYNC	Input	A3, FRO	X50.37	HCMOS level	Serbus synchronization
X22.07	SERBUS-INT	Output	A3, FRO	X50.38	HCMOS level	Serbus interrupt
X22.05	RES-P	Input	A3, FRO	X50.28	HCMOS level	Serbus reset
X22.03	DIAG-5V	Output	A3, FRO	X50.44	-5V...5V	Diagnosis
X22.02	VAS12-P	Input	A2, POWS1		11.50V...12.50V max. 250mA	Supply voltage analog
X22.01	VD-5P	Input	A2, POWS1		5.10V...5.25V max. 2mA	Supply voltage digital
X22.06	VA15-N	Input	A2, POWS1		-15.75V...-14.85V max. 2mA	Supply voltage analog
X771	OPT10	Output	A70	A7	10MHz, 7dBm	10-MHz output

X22 is the flat cable plug, X771 the SMB output socket.

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Schaltteillisten numerisch geordnet

Part lists in numerical order

Listes des pièces détachées par numéros de référence

095.1000 Bl. 3

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
B40	EO 10MHZ-QU.OSZ.OCXO 12V 10MHZ CRYSTAL OSCILLATOR NUR VAR/ONLY MOD: 06	0803.8980.00	QUARZKERAM	2100T-S151 (H)	
B50	EO 10MHZ-QU.OSZ.OCXO CRYSTAL OSCILLATOR 10 MHZ NUR VAR/ONLY MOD: 02	1039.1410.00	TELEQUARZ	EO 1039.1410	
B60	EO 10MHZ-QU.OSZ.OCXO CRYSTAL OSCILLATOR NUR VAR/ONLY MOD: 04	1039.1427.00	ERC	EROS-750-RSR-6	
C1	CE 100UF+-20%25V RM2.5 ELECTROLYTIC CAPACITOR	CE 0008.7891.00	PANASONIC	ECA-1EFG101I	
C2	CE 220UF+-20%10V RM2,5 ELECTROLYTIC CAPACITOR	CE 0008.7927.00	PANASONIC	ECA 1 AFG 221 I	
C3	CE 1UF +-10% 25V 3528 TANTALUM CHIP CAPACITOR	CE 0007.7217.00	SPRAGUE	293D 105 X9 025 B2T	
C4	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C11	CE 1UF +-10% 25V 3528 TANTALUM CHIP CAPACITOR	CE 0007.7217.00	SPRAGUE	293D 105 X9 025 B2T	
C40	CE 100UF+-20%25V RM2.5 ELECTROLYTIC CAPACITOR	CE 0008.7891.00	PANASONIC	ECA-1EFG101I	
C54	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 06	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C64	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C66	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C70	CC 220PF+-1%50V NP0 1206 CERAMIC CHIP CAPACITOR	CC 0099.8850.00	MURATA	GRM42-6C0G 221F 50PT	
C71	CC 1NF+-1% 50V NP0 1206 SMD CERAMIC CAPACITOR	CC 0007.7398.00	AVX	1206 5A 102 FAT00J	
C72	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C73	CC 39PF+-1%50V NP0 1206 CERAMIC CHIP CAPACITOR	CC 0099.8796.00	MURATA	GRM42-6C0G 390F50ZPT	
C74	CC 10PF+-0,25 50VNP0 1206 CERAMIC CHIP CAPACITOR	CC 0099.8480.00	MURATA	GRM42-6C0G 100 C50PT	
C75	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C76	CC 180PF+-1%50V NP0 1206 CHIP CAPACITOR	CC 0099.8844.00	MURATA	GRM42-6C0G 181F50ZPT	
C78	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C79	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
D1	BG TH3032.1C SERBUSD ASIC IC GATE ARRAY	BG 0008.6143.00	THESYS	TH3032.1C	
D30	BL PC74HCT4094T 8ST.SHREG 8-STAGE SHIFT&STORE REG.	0007.6885.00	PHILIPS	(PC)74HCT4094(D)	
D40	BL PC74HCT4051T 8CH.A.MUX ANALOG MULTIPLEXER	0007.6827.00	PHILIPS	(PC)74HCT4051(T)	
D45	BL PC74HCT132T 4X2IN SCHM NAND SCHMITT TRIGGER	BL 0007.6340.00	PHILIPS	(PC)74HCT132(D/T)	
L1	LD 4,7UH BEI 1,35A0,240HM CHOKE	LD 0026.4084.00	DALE	IM 6	
L2	LD 22UH 10% 0,14A 1210 RF CHOKE	LD 0520.7886.00	SIEMENS	B82422-A1223-J(K)100	
L40	LD 1,50UH10%0,220HM0,560A CHOKE	LD 0067.2886.00	DALE	IM2	
L70	LD 100UH 10% 0,06A 1210 RF CHOKE	LD 0007.9261.00	SIEMENS	B82422-A1104-J(K)100	
L71	LD 4,7UH 10% 0,15A 1210 RF CHOKE	LD 0008.1687.00	SIEMENS	B82422-A1472-J(K)100	
L72	LD 2,2UH 10% 0,27A 1210 RF CHOKE	LD 0520.7870.00	SIEMENS	B82422-A1222-J(K)100	
N50	BO TL072ACD 2XFET OPAMP OPERATIONAL AMPLIFIER NUR VAR/ONLY MOD: 06	0803.1057.00	TEXAS	TL 072 ACDR	
N60	BO LM2903D 2XLP COMPAR DUAL NUR VAR/ONLY MOD: 06	0520.7734.00	SIGNETICS	LM2903(D)	

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1GPK 853 3PLU	Äi	Datum Date	Schaltteilliste für Parts list for	Sachnummer Stock No.	Blatt-Nr. Page
ROHDE&SCHWARZ	12	11.08.99	EE REFERENZOSCILLATOR REFERENC-OSC-OCXO	1036.7618.01 SA	1+

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R1	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R3	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R4	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R8	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R12	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR NUR VAR/ONLY MOD: 02 06	RG 0007.0793.00	DRALORIC	CR 1206	
R13	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR NUR VAR/ONLY MOD: 04 06	RG 0007.0793.00	DRALORIC	CR 1206	
R16	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R17	RG 1KO +-1% TK100 1206 CHIP RESISTOR	RG 0006.7271.00	DRALORIC	CR 1206	
R19	RG 475 KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.6079.00	PHILIPS_CO	RC02	
R21	RG 4K75 +-1% TK100 1206 RESISTOR CHIP	RG 0007.5820.00	PHILIPS_CO	RC02	
R22	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R29	RG 475 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5695.00	PHILIPS_CO	RC02	
R40	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R49	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R50	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR NUR VAR/ONLY MOD: 06	RG 0007.0793.00	DRALORIC	CR 1206	
R51	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR NUR VAR/ONLY MOD: 06	RG 0007.0793.00	DRALORIC	CR 1206	
R53	RG 18,2KOHM+-1%TK100 1206 RESISTOR CHIP NUR VAR/ONLY MOD: 06	RG 0007.5850.00	PHILIPS_CO	RC02	
R54	RG 9,09KOHM+-1%TK100 1206 CHIP RESISTOR NUR VAR/ONLY MOD: 06	RG 0007.0787.00	PHILIPS_CO	RC02	
R55	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R56	RG 15,0KOHM+-1%TK100 1206 RESISTOR CHIP NUR VAR/ONLY MOD: 06	RG 0007.5843.00	PHILIPS_CO	RC02	
R57	RG 2,21KOHM+-1%TK100 1206 RESISTOR CHIP NUR VAR/ONLY MOD: 06	RG 0007.5743.00	PHILIPS_CO	RC02	
R58	RG 15,0KOHM+-1%TK100 1206 RESISTOR CHIP NUR VAR/ONLY MOD: 06	RG 0007.5843.00	PHILIPS_CO	RC02	
R59	RG 100,0KOH+-1%TK100 1206 CHIP RESISTOR	RG 0007.1948.00	PHILIPS_CO	RC02	
R65	RG 15,0KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5843.00	PHILIPS_CO	RC02	
R70	RG 1KO +-1% TK100 1206 CHIP RESISTOR	RG 0006.7271.00	DRALORIC	CR 1206	
R71	RG 4K75 +-1% TK100 1206 RESISTOR CHIP	RG 0007.5820.00	PHILIPS_CO	RC02	
R72	RG 15,0KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5843.00	PHILIPS_CO	RC02	
R73	RG 150 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5589.00	PHILIPS_CO	RC02	
R75	RG 562 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.9068.00	ROEDERSTEI	D25	
R76	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R78	RG 1KO +-1% TK100 1206 CHIP RESISTOR	RG 0006.7271.00	DRALORIC	CR 1206	
R79	RG 1KO +-1% TK100 1206 CHIP RESISTOR	RG 0006.7271.00	DRALORIC	CR 1206	
V67	AE BZV55/C5V6 0.5W ZDI ZENER DIODE	AE 0006.9845.00	PHILIPS	BZV55B5V6	
V70	AK BFS17 N 15V 25MA 1 GHZ WIDEBAND TRANSISTOR	AK 0010.6460.00	VALVO	BFS17	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
V71	AK BFS17 N 15V 25MA 1 GHZ WIDEBAND TRANSISTOR	AK 0010.6460.00	VALVO	BFS17	
V72	AD 1N4448 75V UDI DIODE	AD 0012.0700.00	PHILIPS_SE	1N4448 "	
V75	AE HSMS2800 SCHOTTKY SCHOTTKY DIODE	AE 0836.8421.00	HEWLETT_PA	HSMS-2800(#L31)	
V80	AE BZV55/C4V7 0.5W ZDI ZENER DIODE	AE 0006.9822.00	PHILIPS	BZV55B4V7	
W710	DY DF-KABEL W710 CABLE W710	1036.7682.00			
X40	FP STIFTLEISTE 36P.R2,54 PIN CONNECTOR 3-POLIG/PINS	FP 0242.3600.00	MPE	STL1-1180-14GGT8-036	
X50	FP STIFTLEISTE 36P.R2,54 PIN CONNECTOR 3-POLIG/PINS	FP 0242.3600.00	MPE	STL1-1180-14GGT8-036	
X711	FJ EINBAUSTECKER F.GS SMB PLUG	FJ 0063.5168.00	ROSENBERGE	59S106-400-D3	

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XY-Liste

XY List

Erklärung der Spaltenbezeichnungen:

el. Kennz.	**Bauelement-Kennzeichen**
Seite	**Leiterplatten-Seite, auf der sich das Bauelement befindet**
X/Y	**Koordinaten (in Millimeter) des Bauelementes auf der Leiterplatte bezogen auf den Nullpunkt**
Planq., Bl.	**Planquadrat und Seite des Schaltbildes für das jeweilige Bauelement**

Explanation of column designations:

Part	**Identification of instrument part**
Side	**Side of the PC board on which instrument part is positioned**
X/Y	**Coordinates (in units of millimeters) of the component on the PC board in reference to zero point**
Sqr, Pg	**Square and page of the diagram for the respective instrument part**

Service-Relevante Bauteile / Service-Relevant Components

Part	Side	X	Y	Sqr	Pg	Part	Side	X	Y	Sqr	Pg	Part	Side	X	Y	Sqr	Pg
B40	B	81	37	7F	1	D30-A	B	10	21	4D	1	W710	B	13	60	2E	1
B50	B	84	9	7E	1	D30-B				2A	1	X40	B	33	27	7D	1
D1-A	B	6	44	3E	1	D40-A	B	22	22	6C	1	X50	B	10	10	10C	1
D1-B				2C	1	D40-B				3A	1	X711	B	65	58	11E	1

Nicht-Service-Relevante Bauteile / Non-Service-Relevant Components

Part	Side	X	Y	Sqr	Pg	Part	Side	X	Y	Sqr	Pg	Part	Side	X	Y	Sqr	Pg
C1	B	29	27	4E	1	L71	A	59	51	10E	1	R22	A	4	30	4D	1
C2	B	25	8	4E	1	L72	A	58	55	10E	1	R29	A	27	47	3F	1
C3	A	33	43	4F	1	N50-A	B	22	13	5A	1	R40	A	16	26	6C	1
C4	A	13	53	2C	1	N50-B				8C	1	R49	A	23	19	5A	1
C11	A	42	36	6F	1	N50-C				3A	1	R50	A	15	17	8C	1
C40	B	55	58	6D	1	N60-A	B	10	13	9C	1	R51	A	10	21	8B	1
C54	A	14	13	8B	1	N60-B				9B	1	R53	A	21	12	8B	1
C64	A	23	27	3A	1	N60-C				4A	1	R54	A	17	9	8B	1
C66	A	33	34	7C	1	R1	A	3	34	2E	1	R55	A	15	4	6A	1
C70	A	75	41	9E	1	R2	A	6	42	2E	1	R56	A	7	18	9C	1
C71	A	64	43	10E	1	R3	A	8	42	2E	1	R57	A	11	16	9B	1
C72	A	69	47	10E	1	R4	A	11	42	2D	1	R58	A	7	13	9B	1
C73	A	62	43	10E	1	R5	A	13	42	2D	1	R59	A	4	20	11C	1
C74	A	59	47	10E	1	R6	A	16	42	2D	1	R65	A	23	24	3A	1
C75	A	55	34	11F	1	R7	A	22	36	2D	1	R70	A	81	41	8E	1
C76	A	58	58	11E	1	R8	A	22	38	3D	1	R71	A	62	17	8E	1
C78	A	48	29	11F	1	R9	A	22	41	3D	1	R72	A	73	43	9E	1
C79	A	41	19	8D	1	R10	A	22	43	3D	1	R73	A	72	37	9E	1
D45-A	B	20	10	5C	1	R11	A	22	46	3D	1	R75	A	67	47	9E	1
D45-B				11C	1	R12	A	22	48	3D	1	R76	A	56	37	10F	1
D45-C				6B	1	R13	A	22	51	3D	1	R78	A	48	31	11F	1
D45-D				6A	1	R14	A	21	53	3D	1	R79	A	30	19	8D	1
D45-E				2A	1	R15	A	20	56	3D	1	V67	A	27	29	3A	1
L1	B	29	32	2E	1	R16	A	14	45	2D	1	V70	A	75	35	9E	1
L2	B	29	52	2E	1	R17	A	11	45	2C	1	V71	A	69	39	9E	1
L40	B	42	56	6E	1	R19	A	75	22	8E	1	V75	A	61	39	10E	1
L70	A	52	46	9F	1	R21	A	29	39	6F	1	V80	A	53	37	11F	1

ROHDE&SCHWARZ

Stromläufe
Bestückungspläne

Circuit diagrams
Component plans

Schémas de circuit
Plans des composants

095.1000 Bl. 4

-15VA

TA L

+12VA

5V.BC.

+5VA

0V.BC.

ENUEBERTRAGUNG

DATA TRANSFER

STUECKT

ED

T/FITTED

STUECKT

ED

+5VA

R22 10K L

D30-A 74HCT4094T-B

C2 EN3

SRG

C1/ →

D45-A 74HCT132T-B

DIAG

OSC-OFF(D8)

MUXDX

8m

G8

R40 10K L

DIA-UTH (B8)

DIA-LEV (F12)

N50-A TL072ACD-B

R49 10K L

D45-C 74HCT132T-B

D45-D 74HCT132T-B

R55 10K L

R21 4K75 L

C11 1U 25V TA L

VAR06 B40 OSZILLATOR 10MHZ

R19 475K L

VIN

VREF

POW SUP

RFOUT

OVEN SUP. INPUT

OVEN MON

GND

L40 3U3H

+12VB

+12VA

C40 100U 25V.BC.

X40 1

X40 2

X40 3

VAR02/04

VAR06

B50 OSZILLATOR 10MHZ ERC

DIAGNOSE

DIAGNOSIS

D40-A 74HCT4051T-B

10MHZ-VERSTAERKER

10MHZ-AMPLIFIER

+12VB

L70 100UH L

R75 562R L

C72 100N L

R72 15K L

R70 1K L

C70 220P L

V71 BFS17-L

V72 1N4148

V70 BFS17-L

R71 4K75 L

R73 150R L

C79 100N L

R79 1K L

OSC-OFF

C71 1N L

L71 4U7H L

C76 180P L

X711 1

C73 39P L

L72 2U2H L

X711 2

X711 3

X711 4

X711 5

R76 10K L

C74 10P L

C75 100N L

V80 4V7 L

C78 100N L

V75 2 HSMS2800-L

R78 1K L

DIA-LEV (C7)

C66 100N L

VAR06

INTERRUPT-ERZEUGUNG

INTERRUPT GENERATION

+12VA

R50 10K L

R51 10K L

N50-B TL072ACD-B

R53 18K2 L

DIA-UTH (C7)

C54 100N L

R54 9K09 L

R56 15K L

R57 2K21 L

R58 15K L

N60-A LM2903D-B

N60-B LM2903D-B

X50 1

X50 2 VAR02/04

VAR06

X50 3

+5VA

R59 100K L

D45-B 74HCT132T-B

INT (C3)

BINDENDE ANGABEN UEBER VARIANTEN, TRIMMWERTE, BAUTEILWERTE UND NICHT BESTUECKTE BAUTEILE SIEHE SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

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AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
01/03		06.04.98	E1
01/04		14.08.98	E1
01/05		23.10.98	E1
01/02		22.03.94	HO

	TAG	NAME
MES		
BEARB.		E1
GEPR.	14.08.98	E1
NORM		
PLOTT		

ROHDE&SCHWARZ

ZU GERAET SM-B1

BENENNUNG: EE REF.-OSZ. OCXO

ZEICHN.-NR. 1036.7618.01S

BLATT-NR. 1

REG.I.V. 1036.7599 ERSTE Z 1036.7599

FUER DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR

W710 16 OPT TUNE

W710 6 — R29 475R L — -15VA

C3 1U 25V TA L

W710 2 — L1 15UH DHT — +12VA

C1 100U 25V.BC.

W710 1 — L2 22UH B — +5VA

C2 220U 10V.BC.

DATENUEBERTRAGUNG
DATA TRANSFER

D1-A
SERBUS-D

W710 5
R1 10K L
* R2 10K L
R3 10K L
R4 10K L
* R5 10K L
* R6 10K L
* R7 10K L
TRISTATE
HANDTREE
RESET-P
A1 A2 A3 A4 A5 A6 A7

* NICHT BESTUECKT
NOT FITTED

W710 9 — SYNC
W710 13 — SERCLK
W710 11 — DATAEN, DATAIN, DATAOUT

PARDATO
R8 10K L
R9 10K L *
R10 10K L *
R11 10K L *
R12 10K L **
R13 10K L **
R14 10K L *
R15 10K L *

* NICHT BESTUECKT
NOT FITTED

W710 7 — INTEN, INT, IAQUIT, MASK, IR0, IR1, IR2, IR3
R16 10K L
R17 1K L
W710 8
W710 10
W710 14
W710 15

SERDOUT CLK1 RD1 WR1 SERIN1 CLK2 RD2 WR2 SERIN2

C4 100N L
INT (C12)

D1-B
SERBUS-D

W710 3 — DIAG (C6)

	R12	R13
VAR02	+	-
VAR04	-	+
VAR06	+	-

+ - BESTUECKT/FITTED

- - NICHT BESTUECKT
NOT FITTED

+5VA
R22 10K L
D30-A
74HCT4094T-B
C2 EN3
SRG 8
D7/ →
1D 2D 3▽

OSC-OFF(D8)

D45-A
74HCT132T-B
DIAG

D40-A
74HCT4051T-B
MUXDX
0 1 2 3 8m 68

R40 10K L
DIA-UTH (B8)
DIA-LEV (F12)

BINDENDE ANGABEN UEBER VARIANTEN,
TRIMMWERTE, BAUTEILWERTE UND
NICHT BESTUECKTE BAUTEILE SIEHE SA.

FOR BINDING INFORMATION ON MODELS,
TRIMMING AND COMPONENTS VALUES AND
NONFITTED COMPONENTS SEE PARTS LIST.

R21 4K75 L
C11 1U 25V TA L

VAR06 B40
OSZILLATOR 10MHZ

10MHZ-VERS
10MHZ-AMPL

R19 47SK L

VIN VREF POW SUP RFOUT OVEN SUP. INPUT OVEN NON MAS

+12VB
+12VA
L40 3U3H
C40 100U 25V.BC.

R70 1K L
R71 4K75 L
C79 100N L
R79 1K L

X40 1 X40 2 X40 3
VAR02/04 VAR06

B50
OSZILLATOR 10MHZ ERC

OSC-OFF

C66 100N L

IN

VAR06

R50 10K L
R51 10K L
N50-B
TL072ACD-B
R53 18K2 L
DIA-UTH (C7)
C54 100N L
R54 9K09 L

+5VA
V67 SV6 L
C64 100N L
R65 15K L
-15VA

D30-B 74HCT4094T-B
D45-E 74HCT132T-B
D40-B 74HCT4051T-B

+12VA +12VA
-15VA

N50-C TL072ACD-B
N60-C LM2903D-B

N50-A
TL072ACD-B
R49 10K L

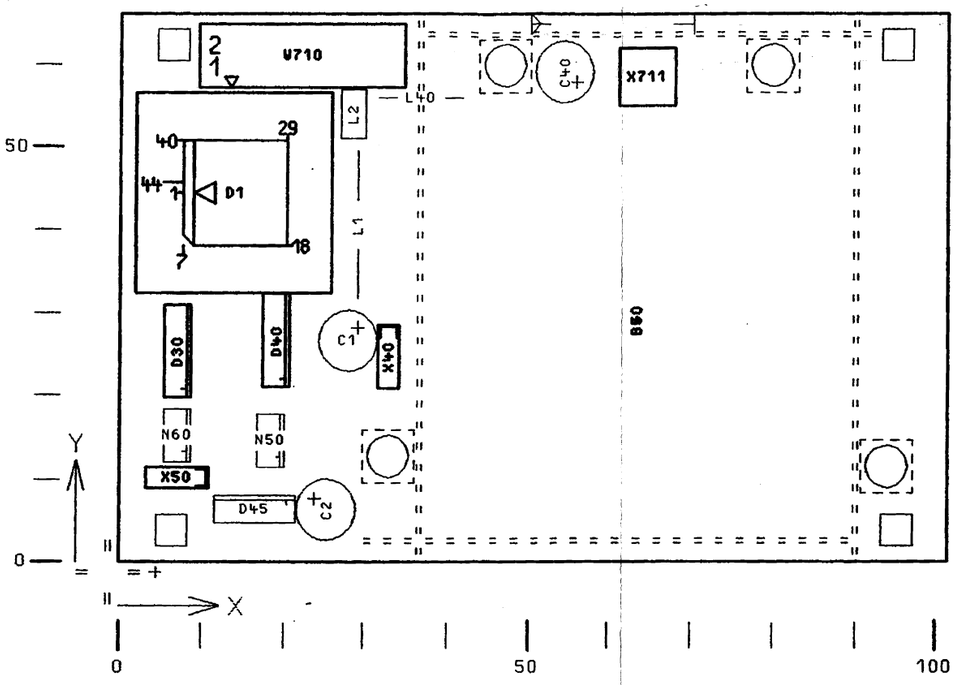
D45-C
74HCT132T-B

D45-D
74HCT132T-B
P55 10K L

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BAUELEMENTE ERFORDERN EINE
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01/03
01.04
01.05
01/02
REND. IND.

FUER DIESE ZEICHNUNG BEHALTEN WIR UNS ALLE RECHTE VOR
DIESE ZEICHNUNG IST TECHNERAUSDUCK, RENDERUNGEN KOENNEN NUR DURCH RENDERUNG DES DATENSATZES ERFOLGEN



DARSTELLUNG SEITE B
VIEW ON SIDE B

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
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FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
01			Ho

	TAG	NAME
BEARB.		JN
GEPR.		
NORM		
PLOTT	21.06.94	

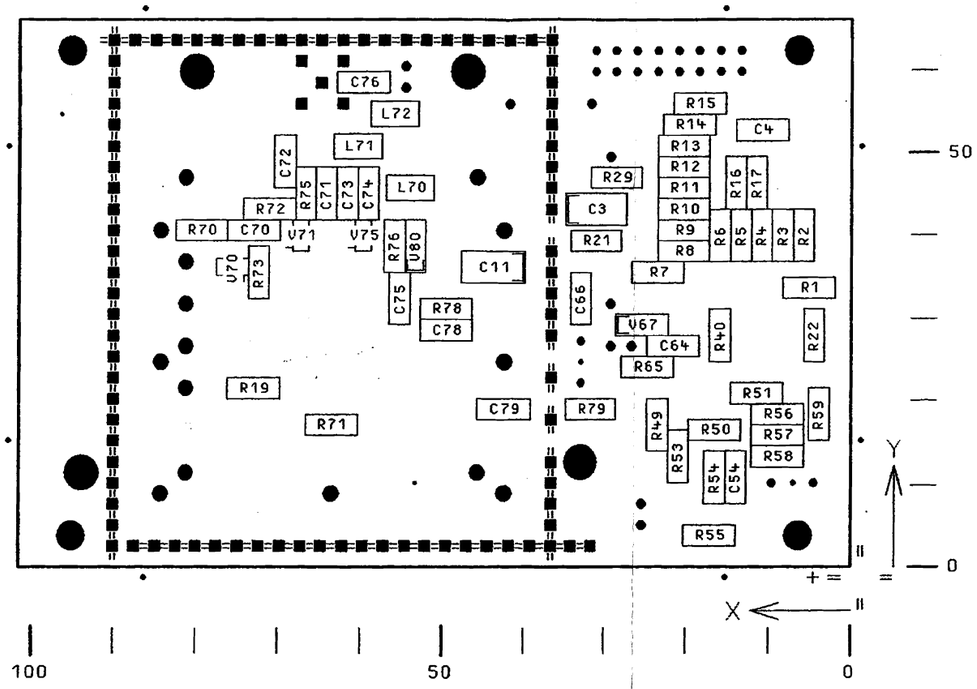
ROHDE&SCHWARZ
ZU GERAET SM-B1

BENENNUNG
REFERENZOSZ.-OCXO
REFERENCE-OSC.-OCXO

Z

ZEICHN.-NR. 1036.7618.01 EE
BLATT-NR. 1+
REG.I.V. 1036.7599
ERSTE Z.
V. BL.

DIESE ZEICHNUNG IST E... ...IER DIESE ZEICHNUNG BEHALTEN WIR UNS ALLE RECHTE VO... ...CHNERAUSDUCK, AENDERUNGEN KOENNEN NUR DURCH AENDE... ...ES DATENSATZES ERFOLGEN



DARSTELLUNG SEITE A
VIEW ON SIDE A

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

BINDENDE ANGABEN UEBER VARIANTEN, TRIMMWERTE, BAUTEILWERTE UND NICHT BESTUECKTE BAUTEILE SIEHE SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
01			Ho

	TAG	NAME
BEARB.		JN
GEPR.		
NORM		
PLOTT	21.06.94	

ROHDE&SCHWARZ
ZU GERAET SM-B1

BENENNUNG
REFERENZOSZ.-OCXO
REFERENCE-OSC.-OCXO

Z

ZEICHN.-NR. 1036.7618.01 EE
BLATT-NR. 2-
V. BL.
REG.I.V. 1036.7599
ERSTE Z.

ROHDE&SCHWARZ

SERVICEUNTERLAGEN

Option FM-Modulator SM-B5

1036.8489.02

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Schaltteilliste
Koordinatenliste
Stromlauf
Bestückungsplan

7. Prüfen und Instandsetzen der Baugruppe

7.1 Funktionsbeschreibung

Die Baugruppe "FMOD" liefert die analoge Frequenz- und Phasenmodulation. Sie kann optionell bestückt werden. Auf das Ausgangssignal der Baugruppe "Digitale Synthese" (Eingang X67, FDSYN) wird das FM/PHIM-Signal aufmoduliert und gelangt dann zur Baugruppe "Summierschleife" (Ausgang X69, FDFM). Die Referenzfrequenz 100 MHz für die Regelschleifen wird von der Baugruppe "Referenz/Steppsynthese" (Eingang X65, REF100) zur Verfügung gestellt.
Die Baugruppe kann in drei Funktionseinheiten unterteilt werden:

- FM-Hubteiler mit den Funktionsblöcken SCHALTMATRIX, HUBTEILER, PREEMPHASIS, TRENNVERSTÄRKER und HUBABGLEICH
- FM- und PHIM-Regelschleifen mit den Funktionsblöcken FM-OSZILLATOR, FM-SCHLEIFENINTEGRATOR, FM-TRENNSTUFE, FM-TEILER, REFERENZTEILER, PHASENDETEKTOR, PULSSCHALTER, PHIM-PLL und ABSTIMMSPANNUNG FÜR PHIM
- Mischerstufe mit den Funktionsblöcken LO-VERSTÄRKER, MISCHER1, BANDPASSFILTER, MISCHER2 und AUSGANGSSTUFE

7.1.1 FM-Hubteiler

Zur Einspeisung der Modulationssignale stehen die vier NF-Eingänge EXT1, EXT2, INT1 und INT2 zur Verfügung. Die AC/DC-Trennung für die beiden externen Modulationseingänge wird am Schalter D200 vorgenommen. Über die Schalter D210, D215 und D220 wird je ein Modulationssignal auf einen der beiden Modulationskanäle verteilt. Hierbei ist eine Einton- sowie eine Zweiton-Modulation möglich. Die Verstärker N220 und N230 speisen den Zweikanal-D/A-Wandler D240, der mit einer Auflösung von je 12 bit den Feinhub einstellt. Der folgende Summierverstärker N240 addiert die Signale der beiden Modulationskanäle.
Über die darauf folgenden Hub-Festteiler D250 gelangt das Modulationssignal FMGROB entweder direkt oder über die Verzerrerschaltung PREEMPHASIS auf den FM-PHIM-Umschalter D480. Nach dem HUBABGLEICH (N490) und der Bereichsumschaltung (FMRANGE), gelangt das Steuersignal U-MOD zum FM-OSZILLATOR.
Über den TRENNVERSTÄRKER N260 werden zuvor die Signale PHIMREF und FMREF für die PHIM- bzw. FM-Regelschleife ausgekoppelt.
Die PEGELÜBERWACHUNG auf EXT2 geschieht durch den Fensterkomperator N280 und liefert in der Betriebsart EXT-AC einen Interrupt (INT1) bei Abweichung des Sollpegels ($1V_S$) um ± 2%. Diese Fensterspannung ist noch mit einer Toleranz von ± 1% behaftet. Die Signale EXT2-HIGH bzw. EXT2-LOW zeigen den jeweiligen Status an.

7.1.2 FM- und PHIM-Regelschleifen

Der 100 MHz-VCO (FM OSZILLATOR) besitzt zwei Abstimmeingänge. Die Mittenfrequenznachregelung geschieht über die Kapazitätsdiode V328 und die eigentliche Modulation über die Dioden V318-V327.
Er kann in zwei Regelschleifen betrieben werden. Bei eingestellter FM wird der Oszillator in einer langsamen Frequenzregelschleife mit ca. 2 Hz Bandbreite nachgeregelt. Die Modulation liegt hier außerhalb der Regelbandbreite.
Bei eingestellter PHIM hingegen geschieht die Modulation in einer Phasenregelschleife mit ca. 300 KHz Regelbandbreite. Damit diese

ebenfalls im linearen Kennlinienbereich der Hubdioden arbeitet wird die Abstimmspannung der Frequenzregelung gespeichert. Dies geschieht über den Fensterkomparator N455, der während dem FM-Betrieb die FM-Regelspannung und die Abstimmspannung für PHIM miteinander vergleicht und bei Abweichung Steuersignale (COUNT1, COUNT2) liefert. Diese triggern einen, im Gatearray FMDCSYNC realisierten 8-Bit-Zähler, der über den 8-Bit-D/A-Wandler D450 die Abstimmspannung für PHIM nachstellt. Damit wird auch der Einschwingvorgang beim Zurückschalten auf FM minimiert.
Über den FM TEILER bzw. den REFERENZTEILER werden das Oszillatorsignal und das 100-MHz-Referenzsignal durch den Faktor 10 geteilt und dem PHASENDETEKTOR D410 zugeführt.
Bei Frequenzdifferenz liefert einer der beiden Ausgänge eine Pulsfolge, deren Tastverhältnis sich nach einer Sägezahnfunktion ändert (P401, P402). Die Wiederholfrequenz ist dabei die Differenzfrequenz. Die Sägezahnspannung wird durch Tiefpaßfilterung gewonnen, anschließend differenziert (C404, C405) und dem Gatearray FMDCSYNC als Triggersignale zur Verfügung gestellt.
Dieses liefert aus der Referenzfrequenz PFD2 abgeleitete Pulse (A, B, C) mit zwei über FMRANGE wählbaren Zeitdauern, die den beiden Hubbereichen entsprechen. Mit D420 wird je nach Frequenzablage eine positive oder negative Spannung mit dieser Pulsdauer über den Bereichsschalter D430 auf den FM SCHLEIFENINTEGRATOR N430 gegeben. Über C406 und C410 wird ein analoger Steuerstrom zwischen den Pulsen auf den Integrator gegeben.
Um auch eine FM-DC-Modulation zu ermöglichen, wird das über N260 und D270 ausgekoppelte Modulationssignal FMREF mit entgegengesetztem Vorzeichen ebenfalls auf den Integrator gegeben. Eine Regelspannungsänderung entsteht nun nur noch, wenn die beiden Signale im Zeitmittel voneinander abweichen.
Bei der Betriebsart PHIM wird über das Steuersignal PHIMOD die FM-Regelschleife ausgeschaltet und die Phasenregelschleife eingeschaltet (D415).
Bei einer Phasendifferenz liefert nun wiederum ein Ausgang des Phasendetektors eine Pulsfolge, deren Mittelwert linear mit der Phasendifferenz zunimmt. Diesem ist die eigentliche Modulationsspannung überlagert. Um einen minimalen PHIM-Klirrfaktor zu erhalten, wird der Phasendetektor nicht in seinem Nullpunkt betrieben (Klirrfaktorabgleich mit R244).
In der folgenden PHIM PLL (Summierverstärker N475 und Regelverstärker N480) wird das Modulationssignal PHIMREF in die Regelschleife eingespeist und das Summensignal gelangt über den Verstärker N490 zum FM OSZILLATOR.
FM MONITOR (N300) bzw. PHIM MONITOR (N485) überwachen die jeweilige Regelspannung und lösen bei Ausrasten einer der Regelschleifen einen Alarm aus (Serbus-Interrupt).
Die Auskopplung des modulierten Signals FMMOD geschieht über die FM TRENNSTUFE und gelangt von hier als LO-Signal zur Mischerstufe.

7.1.3 Mischerstufe

Da die Eingangsfrequenz der Digitalen Synthese FDSYN erhalten bleiben muß, wird diese zunächst mit der Festfrequenz REF100 hochgemischt (MISCHER1). Der LO-VERSTÄRKER V510 liefert dabei den notwendigen LO-Pegel des Referenzsignals.
Das zur Unterdrückung des Spiegelbandes bzw. anderer entstehender Nebenwellen notwendige BANDPASSFILTER (110..120 MHz) zwischen MISCHER1 und MISCHER2 wird durch eine Hoch- Tiefpaßkombination mit zwischengeschalteten Trennstufen (V540 und V550) realisiert. Diese besteht aus zwei Cauer-Hochpässen siebter Ordnung sowie, zur Mini-

mierung der Gruppenlaufzeitverzerrung des DDS-Signals, einem Cauer-Tiefpass siebter Ordnung.
An MISCHER2 wird mit dem modulierten 100-MHz-Signal FMMOD abwärts gemischt, sodaß wieder die Eingangsfrequenz entsteht. Nach dem Verstärker V575 folgt ein Pin-Dioden-Schalter (V580-V582), der bei eingeschalteter Modulation das Signal zur AUSGANGSSTUFE durchläßt. Bei ausgeschalteter Modulation wird das Signal FDSYN direkt zur AUSGANGSSTUFE durchgeschleift.
Über einen Tiefpass, der die entstehenden Oberwellen unterdrückt, wird das Signal der Ausgangsbuchse X69 zugeführt.

7.2 Meßgeräte und Hilfsmittel

- HF-Spektrumanalysator (z.B. FSA)
- Modulationsanalysator mit Klirrfaktormesser und Pegelmesser (z.B. FMA)
- Funktionsgenerator, 10 Hz...2 MHz (z.B. AFS)
- NF-Voltmeter, 10 Hz...2 MHz (z.B. URE)
- DC-Voltmeter, 5-stellig (z.B. UDS5)
- Oszilloskop, Frequenzbereich > 300 MHz
- Servicekit (1039.3520)

7.3 Fehlersuche

Die Sollwerte der Diagnosepunkte, die während der Fehlersuche überprüft werden, sind unter 7.4.7.3 zu finden.

7.3.1 Fehler bei Frequenzmodulation

FM-Regelschleife außer Toleranz **Fehlermeldung "FM MODULATOR FAILURE"**	Über Diagnose 501 überprüfen ob Regelspannung außer Toleranz, ansonsten Fehler bei FM ÜBERWACHUNG Diagnose 505 auslesen (FM1/2 SOURCE OFF). Es darf nur eine geringe Offsetspannung gemessen werden, ansonsten Hubteiler nach 7.4.2 überprüfen Prüfung FM OSZILLATOR nach 7.4.3.1 FM-OSZILLATOR mit C329 auf 100±0.5MHz einstellen, danach FM-Nachregelschaltung nach 7.4.5.3 überprüfen
FM-Klirrfaktor zu groß	Klirrfaktor des Modulationssignals f=1KHz an X24A und X49BA überprüfen. Bei Klirrfaktor > 0.1% FM-Hubteiler bzw. Modulationsquelle überprüfen Abgleich FM OSZILLATOR nach 7.4.3.2, danach muß Abgleich 7.4.3.3 erfolgen
FM-Hub falsch oder FM-Frequenzgang zu groß	Prüfen des FM-Hubteilers nach 7.4.2 Frequenzhub abgleichen nach 7.4.3.3

FM-DC-Mittenfrequenzabweichung zu groß	Diagnose 505 auslesen (FM1/2 SOURCE OFF). Es darf nur eine geringe Offsetspannung gemessen werden, ansonsten Hubteiler nach 7.4.2 überprüfen
	FMAC-Mittenfrequenzabgleich nach 7.4.5.1 durchführen
	FM-Nachregelung nach 7.4.5.2 abgleichen
	FM-Nachregelschaltung nach 7.4.5.3 überprüfen
Störhub zu groß	FM-Nachregelschaltung nach 7.4.5.3 überprüfen
	Analogen Steuerstrom an C406 und C410 überprüfen

7.3.2 Fehler bei Phasenmodulation

PHIM-Regelschleife außer Toleranz Fehlermeldung "PM MODULATOR FAILURE"	Überprüfen, ob Fehler bei PHIM MONITOR, dazu Spannung am Fensterkomperator N485 Pin2/5 messen
	ABSTIMMSPANNUNG FÜR PHIM überprüfen, dazu Diagnose 501 auslesen
	Prüfung FM OSZILLATOR nach 7.4.3.1
	Prüfen der Phasenregelschleife nach 7.4.4.3
PHIM-Klirrfaktor zu groß	Klirrfaktor des Modulationssignals f=1KHz an X24A und N260 Pin6 überprüfen. Bei Klirrfaktor > 0.1% FM-Hubteiler bzw. Modulationsquelle überprüfen
	Abgleich PHIM-Klirrfaktor nach 7.4.4.1 durchführen
	Abgleich FM OSZILLATOR nach 7.4.3.2, danach muß Abgleich 7.4.3.3 erfolgen
PHIM-Hub falsch bzw. PHIM-Frequenzgang zu groß	FM-Hubteiler nach 7.4.2 überprüfen
	Phasenhub nach 7.4.4.2 abgleichen
	Phasenregelschleife nach 7.4.4.3 überprüfen

7.3.3 Spektrale Reinheit des Ausgangssignals

Nebenwellen bei FM-DC-Betrieb	BANDPASSFILTER nach 7.4.6.1 überprüfen MODULATION EIN/AUS nach 7.4.6.2 überprüfen
Nebenwellen bei PHIM-Betrieb	Bandpassfilter (80..120 MHz) der FM TRENNSTUFE zwischen V355 und X35 überprüfen Bandpassfilter (80...120 MHz) des LO VERSTÄRKERs zwischen V510 und MISCHER1 überprüfen

7.3.4 Pegelfehler des Ausgangssignals

Kein Pegel oder Pegel zu gering bei eingeschalteter Modulation	FM TRENNSTUFE nach 7.4.3.4 überprüfen LO VERSTAERKER mit Diagnose 503 überprüfen BANDPASSFILTER nach 7.4.6.1 überprüfen MODULATION EIN/AUS und AUSGANGSSTUFE nach 7.4.6.2 überprüfen
Kein Pegel oder Pegel zu gering bei ausgeschalteter Modulation (FM1/2 OFF)	MODULATION EIN/AUS und AUSGANGSSTUFE nach 7.4.6.2 überprüfen

7.4 Prüfen und Abgleich

Alle Meßwerte ohne Toleranzangaben sind als Richtwerte zu verstehen. Spannungsangaben ohne weitere Bezeichnung bedeuten DC-Spannungen.
Im Servicekit ist ein Adapter enthalten, mit dem die Baugruppe zugänglich gemacht werden kann. Der Adapter wird statt der Baugruppe in das Chassis gesteckt und die HF-Verbindungen an den entsprechenden Buchsen auf der Unterseite wieder hergestellt. Die Baugruppe kann jetzt auf den Adapter gesteckt werden.
Bei Entfernen der Steckbrücke X35 bzw. Unterbrechung von Signalleitungen, die die Ausgangsfrequenz beeinflußen, muß nach Wiederherstellung der Verbindung ein PRESET am Gerät erfolgen.

7.4.1 Prüfen der Datenübertragung und Stromversorgung

(Hierzu Stromlaufblatt 2 und 7)
Gemäß Gerätestandard wird die Baugruppe FMOD über eine serielle Schnittstelle unter Verwendung des Bausteines SERBUS-D angesteuert. Die Datenübertragung erfolgt hierbei auf zwei verschiedenen Subadressen. Das MSB einer jeder Subadresse wird zuerst übertragen und liegt an Q8 (Pin 11) des entstprechenden Latches. Einstellungen und zugehörige Daten sind unter 7.4.7.1 zu finden.

Die Stromaufnahme der Baugruppe kann überprüft werden, indem anstelle der Spulen L92, L93, L94 und L105 jeweils ein Amperemeter eingeschleift wird. Die Sollwerte zu den jeweiligen Versorgungsspannungen sind unter 7.6 zu finden.

7.4.2 Prüfen des FM-Hubteilers

(Hierzu Stromlaufblatt 3 und 5)

- NF-Frequenz (nach Tabelle) mit 1 V_s an den Buchsen EXT1 bzw. EXT2 am Frontmodul einspeisen
- An den Steckbrücken X24A bzw. X49B mit einem NF-Voltmeter Pegel messen. Dieser dient als Referenzwert für die weiteren Messungen. Alle anderen Meßwerte beziehen sich auf diesen Pegel.

- Einstellungen: **FREQUENCY 1000 MHz**
  FM1 SOURCE EXT1
  FM2 SOURCE EXT2

Hubeinstellung (FM DEVIATION1/2)	NF-Frequenz	Meßwert X24	Meßwert X49
500 KHz	1 KHz	Referenz (2.35 V_s)	Referenz (1.2...1.9 V_s)
	10 Hz	0 - 0.5 dB	0 - 0.5 dB
	2 MHz	0 ± 2 dB	0 ± 2 dB
1000 KHz	1 KHz	0 ± 0.05 dB	6 ± 0.05 dB

7.4.3 Prüfung und Abgleich FM-OSZILLATOR

(Hierzu Stromlaufblatt 4 und 5)
Der Abgleich des FM-Oszillators (7.4.3.2 und 7.4.3.3) setzt voraus, daß die FM-Nachregelschaltung arbeitet, diese muß jedoch nicht abgeglichen sein.

7.4.3.1 Prüfen des FM-OSZILLATORS

Die Überprüfung des FM-Oszillators erfolgt ohne eingestellten FM-Hub

- Einstellungen: **FM1 SOURCE EXT1**
  FM1 DEVIATION 0 KHz

Meßpunkt	Art des Signals	Sollwert
P302	Versorgungsspannung	11.5...12 V
P303	Versorgungsspannung	-12...-11.5 V
X32AB	Arbeitspunkt Hubdioden	5...11.5 V
X34AB	HF-Spannung, VCO	- 20 dBm / 50 Ω, ca. 100MHz

7.4.3.2 Klirrfaktorabgleich und Voreinstellung FM-Hub und Regelspannung

- Steckbrücke X35 entfernen und an X35CD einen Modulationsanalysator mit Klirrfaktor- und Pegelmesser anschließen
- DC-Voltmeter an P301 anschließen

- Einstellungen: **FREQUENCY 1000 MHz**
  FM1 DEVIATION 500 KHz
  FM1 SOURCE LFGEN1
  LFGEN1 FREQ 1 KHz

▶ Mit C329 Regelspannung an P301 auf 7 V ± 1 V voreinstellen.
▶ Mit R490 Frequenzhub auf ca. 500 KHz voreinstellen.

▶ Mit R321 findet der Klirrfaktorabgleich statt. Durch die Verwendung unterschiedlicher Hubdioden kann es jedoch mehrere Klirrfaktorminima auf der Kennlinie geben. Deshalb ist einmal die gesamte Kennlinie zu überstreichen und den Punkt mit minimalem Klirrfaktor danach einzustellen. Regelspannung und Frequenzhub sind während und nach dem Klirrfaktorabgleich auf ihre Sollwerte nachzustellen.

- Nach dem Abgleich wird die Steckbrücke X35 wieder bestückt.

7.4.3.3 Abgleich der Regelspannung und des Frequenzhubes

Zum exakten Abgleich der Regelspannung und des Frequenzhubes muß die Baugruppe mit dem Schirmdeckel verschlossen sein. Sämtliche Steckbrücken sind zuvor nach Stromlauf einzusetzen.
Es wird vorausgesetzt, daß das Mischermodul arbeitet.

- Modulationsanalysator an RF-Ausgang anschließen

- Einstellungen: **FREQUENCY 100 MHz**
  FM1 DEVIATION 62.5 KHz
  FM1 SOURCE LFGEN1
  LFGEN1 FREQ 1 KHz

▶ Die Regelspannung kann über die Diagnose 501 abgelesen werden. Sie wird mit C329 auf 7 V ± 0.25 V eingestellt.
▶ Der Frequenzhub ist mit R490 auf 62.5 KHz einzustellen.

7.4.3.4 Pegelabgleich und Prüfen der FM TRENNSTUFE

- Einstellungen: **FM1 DEVIATION 0 KHz**
  FM1 SOURCE EXT1

▶ Der Sollpegel an X35CD beträgt 7 ± 1 dBm. Er kann mit R345 eingestellt werden.
▶ Die weiteren Sollpegel und DC-Arbeitspunkte im HF-Pfad können nach 7.4.7.2 verfolgt werden.

7.4.4 Phasenregelschleife

(Hierzu Stromlaufblatt 5)
Der Abgleich der Phasenregelschleife setzt voraus, daß der FM-Oszillator abgeglichen ist.

7.4.4.1 Abgleich PHIM-Klirrfaktor

- Einstellungen: **FREQUENCY 100 MHz**
  PM1 DEVIATION 0.625 rad
  PM1 SOURCE LFGEN1
  LFGEN1 FREQ 1 KHz

▶ Sollte der Phasenhub nicht richtig eingestellt sein, wird dieser zunächst mit R483 auf ca. 0.625 rad voreingestellt.
▶ Der Klirrfaktor wird mit R444 auf Minimum abgeglichen.

7.4.4.2 Abgleich des Phasenhubs

- Modulationsanalysator an RF-Ausgang anschließen

- Einstellungen: **FREQUENCY 100 MHz**
  PM1 DEVIATION 0.625 rad
  PM1 SOURCE LFGEN1
  LFGEN1 FREQ 1 KHz

▶ Der Phasenhub wird mit R483 auf 0.625 rad eingestellt.

7.4.4.3 Prüfen der Regelschleife

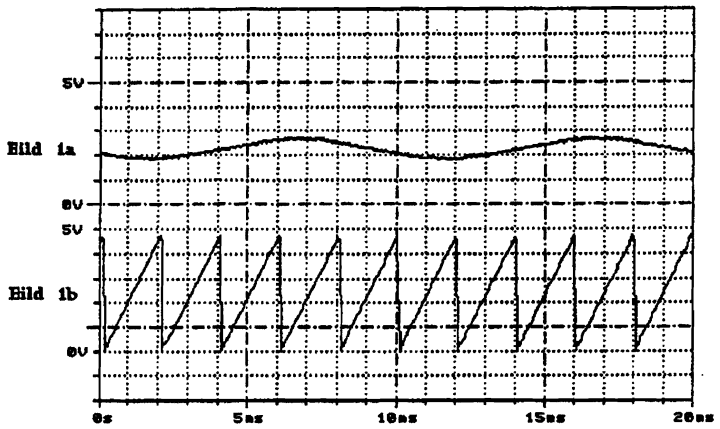
Folgende Spannungen und Signalverläufe sind an den aufgeführten Meßpunkten mit einem Tastkopf am Oszilloskop zu überprüfen.

Einstellungen: **FREQUENCY 100 MHz**
PM1 DEVIATION 0.625 rad
PM1 SOURCE LFGEN1
LFGEN1 FREQ 1 KHz

Meßpunkt	Sollwert	Bemerkung
P400	5V	Versorgungsspannung
P401	2.25V+0.75V_{ss}	Pulse aus Phasendifferenz + konst. Phasenoffset (nach Tiefpass) siehe Bild 1a
P403	ca. 5mV	Rücksetzpulse nach Tiefpassfilterung
P301	ca. 7V	Regelspannung
X37A	5V_{ss}	TTL, 100 MHz moduliert
X37B	5V_{ss}	TTL, 100 MHz Referenz

Bei einer Fehlersuche empfiehlt es sich die Regelschleife aufzutrennen. Hierzu wird die Steckbrücke X49 entfernt. Zur Überprüfung des Phasendetektors wird an X49.3 eine Gleichspannung eingespeist und so eingestellt, daß die RF-Ausgangsfrequenz größer als 100 MHz ist. Es ist nun eine Sägezahnspannung nach Bild 1b an Meßpunkt P403 zu sehen. Verändert man die eingespeiste Gleichspannung derart, daß die Ausgangsfrequenz kleiner als 100 MHz wird, so ist die Sägezahnspannung an Meßpunkt P401 zu sehen. Die Wiederholfrequenz der Sägezahnspannung entspricht der Differenzfrequenz zu den eingestellten 100 MHz.

Bild 1a: Regelschleife eingerastet, NF = 1 KHz, Hub = 5 rad auf der Baugruppe
Bild 1b: Regelschleife außer Betrieb (P401 oder P403)



7.4.5 Frequenzregelschleife

(Hierzu Stromlaufblatt 5)
Der Abgleich der Frequenzregelschleife (7.4.5.1) setzt voraus, daß der FM-OSZILLATOR abgeglichen ist. Bei der Überprüfung der Regelschleife wird vorausgesetzt, daß der Oszillator auf 100 ± 0.5 MHz schwingt, ansonsten muß er zuvor mit C329 auf diese Frequenz eingestellt werden.

7.4.5.1 Abgleich der FMAC-Mittenfrequenzabweichung

Dieser Abgleich kann erst bei Baugruppen ab Änderungsindex AEI 04 durchgeführt werden.
Mit diesem Abgleich werden NF-abhängige Mittenfrequenzabweichungen abgeglichen, die durch Unsymmetrien in der FM-Regelschleife entstehen können.
Zunächst wird bei ausgechalteter FM die Ausgangsfrequenz gemessen. Sie dient als Referenzwert für den nachfolgenden Abgleich.

- Spektrumanalysator an RF-Ausgang anschließen.
- Ausgang LF mit Eingang EXT1 verbinden

- Einstellungen
  Referenzmessung: **FREQUENCY 1000 MHz**
  FM1 SOURCE OFF
  FM2 SOURCE OFF
- Einstellungen
  Abgleich: **FM1 DEVIATION 500 KHz**
  FM1 SOURCE EXT1
  EXT1 COUPLING AC
  LF OUTPUT FREQ 1 KHz
  VOLTAGE 1.000 V

▶ Die Mittenfrequenz wird mit R437 bei eingeschalteter Modulation auf den zuvor gemessenen Referenzwert abgeglichen.

7.4.5.2 Abgleich der FM-Nachregelung

Zum Abgleich der FM-Nachregelung muß die Baugruppe mit dem Schirmdeckel verschlossen sein. Sämtliche Steckbrücken sind zuvor nach Stromlauf einzusetzen.
Für Baugruppen ab AEI 04 kann der Abgleich nur erfolgen, wenn zuvor der FMAC-Mittenfrequenzabgleich nach 7.4.5.1 durchgeführt wurde.

- DC-Spannungsquelle 0 V, ± 1 V an EXT1 anschließen
- Regelspannung über Diagnose 501 einlesen

- Einstellungen: **FREQUENCY 1000 MHz**
  FM1 SOURCE EXT1
  FM1 EXT COUPLING DC

Bei einer DC-Spannung von 0 V wird die Regelspannung gemessen. Es wird auf eine minimale Abweichung der Regelspannung bei einem eingestellten DC-Hub abgeglichen. Die Abweichung der Regelspannung sollte bei eingestellten + 1 V und - 1 V in etwa identisch sein.

Frequenzhub FM1 DEVIATION	Abgleichelement	rel. Änderung der Abstimmspannung
525 KHz	R429	< ± 15 mV (bis AEI 03) < ± 5 mV (ab AEI 04)
33 KHz	R427	< ± 2 mV (bis AEI 03) < ± 1 mV (ab AEI 04)

7.4.5.3 Prüfen der Regelschleife

- DC-Spannungsquelle 0 V, ± 1 V an EXT1 anschließen

- Einstellungen: **FREQUENCY 1000 MHz**
  FM1 SOURCE EXT1
  FM1 EXT COUPLING DC
  FM1 DEVIATION 1000 KHz

Folgende Spannungen und Signalverläufe sind an den aufgeführten Meßpunkten mit einem Tastkopf am Oszilloskop zu überprüfen.

Meßpunkt	Modulationsspannung	Sollwert	Bemerkung
P301		7V	Regelspannung *
P400		5V	Versorgungsspannung PHASENDETEKTOR und FMDCSYNC
P401	U_{mod}=1V U_{mod}=-1V	ca. 300mV$_{ss}$ 5V$_{ss}$	Rücksetzpulse nach Tiefpaßfilterung siehe Bild 2a Sägezahnspannung mit Differenzfrequenz siehe Bild 3a
P402	U_{mod}=1V U_{mod}=-1V	5V$_{ss}$ 5V + ca. 300mV$_{ss}$	Sägezahnspannung mit Differenzfrequenz siehe Bild 2b Rücksetzpulse nach Tiefpaßfilterung siehe Bild 3b

Meßpunkt	Modulationsspannung	Sollwert	Bemerkung
P404	U_{mod}=1V U_{mod}=-1V	2.1V -2.1V	Modulationssignal auf Schleifenintegrator
P405	U_{mod}=1V U_{mod}=-1V	TTL TTL	Pulse f. Integrator siehe Bild 4a Pulse f. Integrator siehe Bild 4b
P406 P407		5V -5V	Versorgungsspannung PULSSCHALTER Versorgungsspannung PULSSCHALTER
P408		7V	Abstimmsp. für PHIM *
P409 P410		5V 5V	Ausgangsspannungen Fensterkomperator mit Pulsen bei Spannungsdifferenz *
X37A X37B		$5V_{ss}$ $5V_{ss}$	TTL, 100MHz moduliert TTL, 100MHz Referenz

* Die angegebenen Spannungswerte können nur bei eingerasteter Regelschleife nachgemessen werden.

Bei einer Fehlersuche empfiehlt es sich die Regelschleife aufzutrennen. Hierzu wird die Steckbrücke X36 entfernt. Für die Überprüfung der oben aufgeführten Meßpunkte ist zunächst sicherzustellen, daß der FM-Oszillator auf 100 ± 0.5 MHz schwingt. Hierzu wird entweder die Mittenfrequenz mit C329 nachgestimmt oder an X36.2 eine entsprechende Gleichspannung eingespeist.

Bild 2a: Meßpunkt P401, U_{mod}=1V
Bild 2b: Meßpunkt P402, U_{mod}=1V

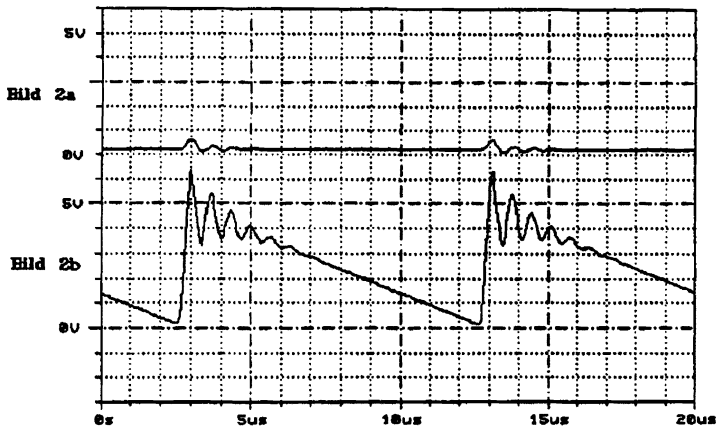


Bild 3a: Meßpunkt P401, U_{mod}=-1V
Bild 3b: Meßpunkt P402, U_{mod}=-1V

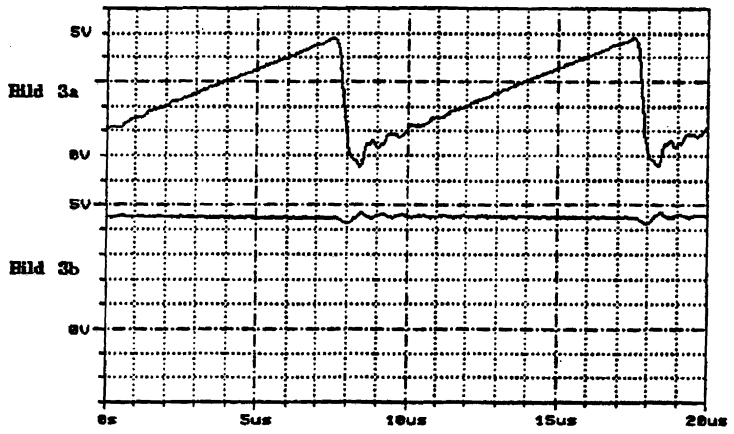
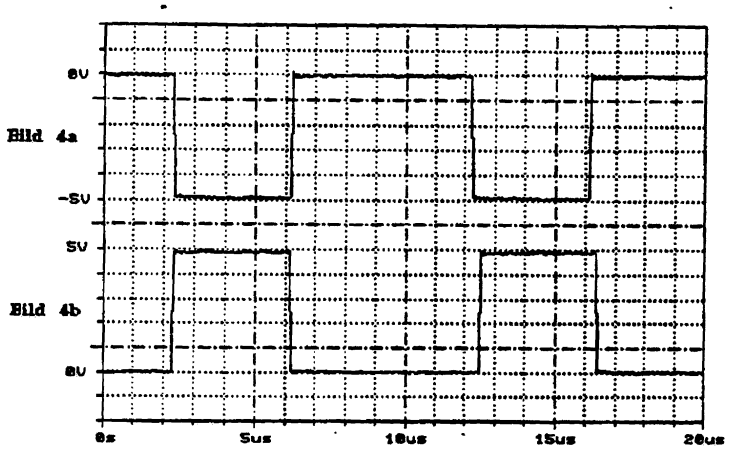


Bild 4a: Meßpunkt P405, U_{mod}=1V
Bild 4b: Meßpunkt P405, U_{mod}=-1V



7.4.6 Mischerstufe

7.4.6.1 Prüfen des BANDPASSFILTERS

- Steckbrücke X35 entfernen
- Prüfung mit Spektrumanalysator an X52AB bzw. X57AB

- Einstellungen: **FREQUENCY 1348.94 MHz**
  FM1 DEVIATION 0 KHz
  FM1 SOURCE EXT1

Meßpunkt	HF-Pegel bei 114.3606 MHz	HF-Pegel bei 85.6394 MHz
X52AB	- 39 dBm	- 37 dBm
X57AB	- 29 dBm	≤ - 109 dBm

▶ Die Überprüfung der DC-Arbeitspunkte bzw. der HF-Sollpegel im HF-Pfad kann nach 7.4.7.3 erfolgen.

7.4.6.2 Prüfung der Module MODULATION EIN/AUS und AUSGANGS-STUFE

Die Prüfung der beiden Module setzt voraus, daß der FM OSZILLATOR sowie die FM-Nachregelung abgeglichen sind.

- DC-Spannungsquelle + 1 V an EXT1 anschließen
- Spektrumanalysator an RF-Ausgang anschließen
- Einstellungen: **FREQUENCY 1348.94 MHz**
  LEVEL 0 dBm

Einstellung	HF-Pegel bei 1348.94 MHz	HF-Pegel bei 1349.94 MHz	DC-Spannung N595 Pin6
FM1 SOURCE EXT1 FM1 EXT COUPLING DC FM1 DEVIATION 1 MHz	≤ - 80 dBm	0 dBm	- 13 V
FM1/2 OFF	0 dBm	≤ - 80 dBm	13 V

▶ Die Überprüfung der DC-Arbeitspunkte bzw. der HF-Sollpegel im HF-Pfad kann nach 7.4.7.3 erfolgen.

7.4.7 Tabellen und Schnittstellen

7.4.7.1 Digitale Schnittstelle

Subadresse 0(Serout, CLK1, WR1):

Latch		Bezeichnung	Funktion		
D155	11	SWITCHMATRIX0	Schaltmatrix für EXT1/2 und INT1/2 auf FM1/2	0=OFF	1=INT1-FM1
	12	SWITCHMATRIX1		0=OFF	1=EXT1-FM1
	13	SWITCHMATRIX2		0=OFF	1=EXT2-FM1
	14	SWITCHMATRIX3		0=OFF	1=EXT1-FM2
	7	SWITCHMATRIX4		0=OFF	1=EXT2-FM2
	6	SWITCHMATRIX5		0=OFF	1=INT2-FM2
	5	PREON	Preemphasis	0=OFF	1=ON
	4	PRE50/75		0=75µs	1=50µs

Latch		Bezeichnung	Funktion		
	11	FMDC	FM-DC/AC-Umschaltung	0=FMAC	1=FMDC
	12	ACDC2	AC/DC-Umschaltung	0=AC	1=DC
	13	ACDC1	für EXT1 und EXT2	0=AC	1=DC
D150	14	PHIMOD	FM/PHIM-Umschaltung	0=FM	1=PHIM
	7	DIAG-ENA	Diagnose Ein/Aus	0=OFF	1=ON
	6	DMUX2			MSB
	5	DMUX1	Diagnose 0..7		
	4	DMUX0			LSB

Subadresse 1 (Serout, CLK2, WR2):

- Einstellungen: **FREQUENCY 1000 MHz**
  FM1 SOURCE EXT1
  FM2 SOURCE EXT2

Zur Überprüfung der einzelnen Bits wird der gleiche Frequenzhub auf beiden Kanälen eingestellt. Der Hub FM1 wird zuerst eingestellt.

Hubeinstellung in Hz	D165 Pin 13 12 11	D170 Pin 4 5 6 7 14 13 12 11	D175 Pin 4 5 6 7 14 13 12 11
580	1 1 0	0 1 0 0 0 1 0 0	1 0 0 0 0 0 0 1
1160	1 1 0	0 0 1 0 0 0 1 0	0 1 0 0 0 0 0 1
2320	1 1 0	0 0 0 1 0 0 0 1	0 0 1 0 0 0 0 1
4130	1 1 0	1 0 0 0 1 0 0 0	0 0 0 1 0 0 0 1
Für die weitere Prüfung wird nur noch der Hub auf Kanal1 eingestellt (FM2 DEVIATION = 0).			
8.2k..16.3k	0 1 0	x x x x x x x x	x x x x 0 0 1 0
16.4k..32.7k	0 1 0	x x x x x x x x	x x x x 0 1 0 0
32.8k..65.5k	0 1 0	x x x x x x x x	x x x x 1 0 0 0
65.6k..1M	0 1 1	x x x x x x x x	x x x x x x x x
FM1/2 OFF	x 0 x	x x x x x x x x	x x x x x x x x

7.4.7.2 Arbeitspunkte und Pegel von HF-Verstärkern

Eine qualitative Prüfung der HF-Wege ist mit einem HF-Tastkopf am Spektrumsanalysator möglich. Dabei muß vor allem auf eine kurze niederohmige Masseverbindung geachtet werden.

Verstärker		Arbeitspunkt	HF-Pegel, Frequenz	Bemerkung
V330	Pin2	8V		FM DEVIATION 0
	Pin1	0.8V	1dBm, 100MHz	Messung an C333-R340/1
V340	Pin1	7V	0dBm, 100MHz	FM DEVIATION 0
V350	Pin3	5.9V	6dBm, 100MHz	FM DEVIATION 0
V355	Pin4	10.4V	9dBm, 100MHz	FM DEVIATION 0 50Ω an X35CD
V510	Pin4	5.2V	7dBm, 100MHz	
V540	Pin4	7.2V	-13dBm, 115MHz	FM DEVIATION 0
		0V		FM OFF
V550	Pin4	7.2V	-5dBm, 115MHz	FM DEVIATION 0
		0V		FM OFF
V575	Pin3	4.8V	-4dBm, 15MHz	FM DEVIATION 0
			≤ -55dBm	FM OFF
V584	Pin3	5.4V	2 dBm	

7.4.7.3 Diagnosepunkte

Diagnosepkt.	Sollwert	Wertebereich	Bemerkung
500	0V	-10mV..10mV	0V,10 kOhm,Referenz
501	7V	2V..13V	Abstimmspannung VCO bei T = 25 °C
502	0.3V	0.1...0.5V	Ausgangspegel VCO, 100 MHz
503	0.25V	0.1...0.5V	LO-Pegel vor 1.Mischer,100 MHz
504	0.25V	0.1...0.5V	Ausgangspegel zur Sum.schl. o. Yig-Pll 10.3...15.6 MHz
505	0V	-20..20mV	Modulationsspannung (Offsetspannung)

7.5 Zerlegung und Zusammenbau

Nach dem Öffnen des Gerätes, dem Entriegeln der Baugruppe und dem Lösen der HF-Verbindungen an X65, X67 und X69 kann die Baugruppe aus ihrem Steckplatz entnommen werden.
Die Schirmdeckel der Baugruppe sind auf herkömmliche Weise verschraubt. Beim Zusammenbau der Baugruppe sollte der bauteilseitige Schirmdeckel zuerst verschraubt werden. Ansonsten kann dies zu einem Verziehen der Stehbolzen, in die die Gewinde eingelassen sind, führen. Wird nur der bauteilseitige Schirmdeckel entfernt, müssen zumindest die Schrauben des lötseitigen Schirmdeckels gelöst werden.

7.6 Externe Schnittstellen

Pin	Name	Ein/Ausgang	Herkunft/Ziel		Wertebereich	Signalbeschreibung
X60.A4	EXT1	Eingang	A3,FRO		$1V_S$	Modulationsspannung
X60.A5	EXT2	Eingang	A3,FRO		$1V_S$	Modulationsspannung
X60.A6	INT1	Eingang	A10,OPU1 A50,LFGEN A5,MGEN	X10.B6 X1.A7 X50.7	$1V_S$	Modulationsspannung
X60.A7	INT2	Eingang	A50,LFGEN A5,MGEN	X1.A7 X50.7	$1V_S$	Modulationsspannung
X60.A12	SERBUS-CLK	Eingang	A3,FRO	X50.40	HCMOS-Pegel	Serbus-Clock
X60.A14 X60A15	SERBUS-DAT	bidir.	A3,FRO	X50.39	HCMOS-Pegel	Serbus-Daten
X60.A16	SERBUS-SYNC	Eingang	A3,FRO	X50.37	HCMOS-Pegel	Serbus-Synchronisation
X60.A17	SERBUS-INT	Ausgang	A3,FRO	X50.38	HCMOS-Pegel	Serbus-Interrupt
X60.A18	RES-P	Eingang	A3,FRO	X50.28	HCMOS-Pegel	Serbus-Reset
X60.A19	DIAG-5V	Ausgang	A3,FRO	X50.44	-5V...5V	Diagnose
X60.A24	VA15-P	Eingang	A2,POWS1		14.80V...15.75V 210...280mA 190...260mA	Versorgungsspannung analog FM1/2 OFF FM ON
X60.A26	VA7.5-P	Eingang	A2,POWS1		7.45V...7.95V 15...35mA 100...160mA	Versorgungsspannung analog FM1/2 OFF FM ON
X60.A28	VD-5P	Eingang	A2,POWS1		5.10V...5.25V 45...75mA	Versorgungsspannung digital
X60.A30	VA15-N	Eingang	A2,POWS1		-15.75V...-14.85V 80...130mA 100...150mA	Versorgungsspannung analog FM1/2 OFF FM ON
X65	REF100	Eingang	A7,REFSS	X71	5±1dBm	100MHz, Referenz
X67	FDSYN	Eingang	A8,DSYN	X89	2±1.5dBm	Dig. Synthese 14.1...15.4 MHz
X69	FDFM	Ausgang	A9,SUM	X99	2±2.5dBm	Ausgangssignal 14.1...15.4 MHz

ROHDE&SCHWARZ

Schaltteillisten numerisch geordnet

Part lists in numerical order

Listes des pièces détachées par numéros de référence

095.1000 Bl. 3

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C80	LD T-FILTER 100PF SMD SMD-FILTER	1039.1356.00	MURATA	NFM61R00T101T1	
C82	LD T-FILTER 100PF SMD SMD-FILTER	1039.1356.00	MURATA	NFM61R00T101T1	
C84	LD T-FILTER 100PF SMD SMD-FILTER	1039.1356.00	MURATA	NFM61R00T101T1	
C86 ..89	LD T-FILTER 3,3NF SMD SMD-FILTER	1039.1362.00	MURATA	NFM61R20T332T1	
C90	CE 220UF+-20%10V RM2,5 ELECTROLYTIC CAPACITOR	CE 0008.7927.00	PANASONIC	ECA 1 AFG 221 I	
C91	CE 220UF+-20%10V RM2,5 ELECTROLYTIC CAPACITOR	CE 0008.7927.00	PANASONIC	ECA 1 AFG 221 I	
C92	CE 100UF+-20%25V RM2.5 ELECTROLYTIC CAPACITOR	CE 0008.7891.00	PANASONIC	ECA-1EFG101I	
C93	CE 100UF+-20%25V RM2.5 ELECTROLYTIC CAPACITOR	CE 0008.7891.00	PANASONIC	ECA-1EFG101I	
C94	CE 220UF+-20%10V RM2,5 ELECTROLYTIC CAPACITOR	CE 0008.7927.00	PANASONIC	ECA 1 AFG 221 I	
C100	LD T-FILTER 100PF SMD SMD-FILTER	1039.1356.00	MURATA	NFM61R00T101T1	
C101	LD T-FILTER 100PF SMD SMD-FILTER	1039.1356.00	MURATA	NFM61R00T101T1	
C102	LD T-FILTER 100PF SMD SMD-FILTER	1039.1356.00	MURATA	NFM61R00T101T1	
C105	CE 220UF+-20%10V RM2,5 ELECTROLYTIC CAPACITOR	CE 0008.7927.00	PANASONIC	ECA 1 AFG 221 I	
C129	CC 47NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5195.00	AVX	1206 5 C 473 KA 3	
C130 ..133	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C136	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C138	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C151	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C166	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C200	CC 1UF+-10% 50V X7R 2220 CERAMIC CAPACITOR	CC 0520.6873.00	AVX	2220 5C 105 KAT**A(F	
C202	CC 1UF+-10% 50V X7R 2220 CERAMIC CAPACITOR	CC 0520.6873.00	AVX	2220 5C 105 KAT**A(F	
C220	CC 22PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8396.00	MURATA	GRM42-6C0G 220F50ZPT	
C221	CC 22PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8396.00	MURATA	GRM42-6C0G 220F50ZPT	
C226	CC 27PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8409.00	MURATA	GRM42-6C0G 270F50ZPT	
C227	CC 27PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8409.00	MURATA	GRM42-6C0G 270F50ZPT	
C230	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C233	CC 100PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8415.00	MURATA	GRM42-6C0G 101F50ZPT	
C239	CC 15PF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8750.00	MURATA	GRM42-6C0G 150F50ZPT	
C240	CC 12PF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8744.00	MURATA	GRM42-6C0G 120F50ZPT	
C241	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C250	CC 15PF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8750.00	MURATA	GRM42-6C0G 150F50ZPT	
C258	CE 10UF +-10% 25V 7343 TANTALUM SMD-CAPACITOR	CE 0007.7246.00	SPRAGUE	293D 106 X9 025 D2W	
C259	CE 10UF +-10% 25V 7343 TANTALUM SMD-CAPACITOR	CE 0007.7246.00	SPRAGUE	293D 106 X9 025 D2W	
C260	CC 33PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8780.00	MURATA	GRM42-6C0G 330F50ZPT	
C261	CK 10NF +-1% 63V RM5 KP POLYPROPYLENE CAPACITOR	CK 0007.7652.00	ROEDERSTEI	KP1830-310 06 1 3 W	
C262	CK 10NF +-1% 63V RM5 KP POLYPROPYLENE CAPACITOR	CK 0007.7652.00	ROEDERSTEI	KP1830-310 06 1 3 W	
C263	CK 10NF +-1% 63V RM5 KP POLYPROPYLENE CAPACITOR	CK 0007.7652.00	ROEDERSTEI	KP1830-310 06 1 3 W	
C270	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C271	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C272	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C274	CC 2,2NF+-10%50VX7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8444.00	AVX	1206 5 C 222 KA 3	
C275	LD T-FILTER 3,3NF SMD SMD-FILTER	1039.1362.00	MURATA	NFM61R20T332T1	
C276	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C277	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C278	CE 220UF+-20%10V RM2,5 ELECTROLYTIC CAPACITOR	CE 0008.7927.00	PANASONIC	ECA 1 AFG 221 I	
C279	CE 220UF+-20%10V RM2,5 ELECTROLYTIC CAPACITOR	CE 0008.7927.00	PANASONIC	ECA 1 AFG 221 I	
C280 ..289	CE 10UF +-10% 25V 7343 TANTALUM SMD-CAPACITOR	CE 0007.7246.00	SPRAGUE	293D 106 X9 025 D2W	
C290	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C293	CC 1UF+-10% 50V X7R 2220 CERAMIC CAPACITOR	CC 0520.6873.00	AVX	2220 5C 105 KAT**A(F	
C296	CC 1UF+-10% 50V X7R 2220 CERAMIC CAPACITOR	CC 0520.6873.00	AVX	2220 5C 105 KAT**A(F	
C297	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C298	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C300	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C310	LD T-FILTER 3,3NF SMD SMD-FILTER	1039.1362.00	MURATA	NFM61R20T332T1	
C323	CE 10UF +-10% 25V 7343 TANTALUM SMD-CAPACITOR	CE 0007.7246.00	SPRAGUE	293D 106 X9 025 D2W	
C324	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C325	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C326	CC 2,7PF+-0,1PF500V PELL UHF-CAPACITOR	CC 0570.9430.00	TEKELEC	501 CHB 2R7 BWL	
C327	CC 4,7PF+-0,1PF500V PELL CAPACITOR	CC 0580.9540.00	ATC	ATC100B 4R7 BW500XR	
C329	CT 13PF TAUCHTR.RD7X12 AIR-TYPE TRIMMER	CT 0092.4266.00	TEKELEC	TL 244	
C330	CC 5,1PF+-0,1PF500V PELL CAPACITOR	0456.4534.00	TEKELEC	501 CHB 5R1 BVL	
C331	CC 15PF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8750.00	MURATA	GRM42-6C0G 150F50ZPT	
C332	CC 15PF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8750.00	MURATA	GRM42-6C0G 150F50ZPT	
C333	CC 1PF+-0,25 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8667.00	MURATA	GRM42-6C0G 1R0 C50PT	
C334	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C335	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C336	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C337	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C338	CE 100UF+-20% 20V TANTAL CAPACITOR	1081.1867.00	SPRAGUE	595D107X0020R2T	
C339	CE 100UF+-20% 20V TANTAL CAPACITOR	1081.1867.00	SPRAGUE	595D107X0020R2T	
C340	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C342	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C343	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C344	CC 680PF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0007.7375.00	MURATA	GRM42-6C0G 681F 50PT	
C347	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C348	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C350	CC 470PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8515.00	AVX	1206 5 A 471 F 3	
C351	CC 680PF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0007.7375.00	MURATA	GRM42-6C0G 681F 50PT	

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C352	CC 10PF+-0,25 50VNPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8480.00	MURATA	GRM42-6C0G 100 C50PT	
C353	CC 100PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8415.00	MURATA	GRM42-6C0G 101F50ZPT	
C354	CC 10PF+-0,25 50VNPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8480.00	MURATA	GRM42-6C0G 100 C50PT	
C355	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C356	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C358	CC 3,3PF+-0,25 50VNP01206 CERAMIC CHIP CAPACITOR	CC 0007.8194.00	MURATA	GRM42-6C0G 3R3 C50PT	
C359	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C360	CC 680PF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0007.7375.00	MURATA	GRM42-6C0G 681F 50PT	
C362	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C363	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C364	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C365	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C366	CC 22PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8396.00	MURATA	GRM42-6C0G 220F50ZPT	
C375	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C376	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C380	CC 680PF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0007.7375.00	MURATA	GRM42-6C0G 681F 50PT	
C382	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C383	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C384	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C385	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C386	CC 22PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8396.00	MURATA	GRM42-6C0G 220F50ZPT	
C395	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C396	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C400	CC 180PF+-1%50V NPO 1206 CHIP CAPACITOR	CC 0099.8844.00	MURATA	GRM42-6C0G 181F50ZPT	
C401	CC 180PF+-1%50V NPO 1206 CHIP CAPACITOR	CC 0099.8844.00	MURATA	GRM42-6C0G 181F50ZPT	
C402	CC 47PF+-1%50V C0G 1206 CERAMIC CHIP CAPACITOR	CC 0099.8496.00	MURATA	GRM42-6C0G 470F50XPT	
C403	CC 47PF+-1%50V C0G 1206 CERAMIC CHIP CAPACITOR	CC 0099.8496.00	MURATA	GRM42-6C0G 470F50XPT	
C404	CC 180PF+-1%50V NPO 1206 CHIP CAPACITOR	CC 0099.8844.00	MURATA	GRM42-6C0G 181F50ZPT	
C405	CC 180PF+-1%50V NPO 1206 CHIP CAPACITOR	CC 0099.8844.00	MURATA	GRM42-6C0G 181F50ZPT	
C406	CC 150PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8509.00	MURATA	GRM42-6C0G 151F 50PT	
C407	CC 33NF+-10% 50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5172.00	AVX	1206 5 C 333 KA 3	
C408	CE 47UF +-10% 10V 7343 TANTALUM CHIP CAPACITOR	CE 0007.7300.00	SPRAGUE	293D X9 010 D2W	
C410	CC 1,2NF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0007.7400.00	AVX	1206 5A 122FAT00J	
C414	CE 47UF +-10% 10V 7343 TANTALUM CHIP CAPACITOR	CE 0007.7300.00	SPRAGUE	293D X9 010 D2W	
C415	CC 180PF+-1%50V NPO 1206 CHIP CAPACITOR	CC 0099.8844.00	MURATA	GRM42-6C0G 181F50ZPT	
C416	CC 47PF+-1%50V C0G 1206 CERAMIC CHIP CAPACITOR	CC 0099.8496.00	MURATA	GRM42-6C0G 470F50XPT	
C417	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C419	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C422	CC 680NF+-10%50V X7R 2220 CERAMIC CHIP CAPACITOR	CC 0007.7517.00	AVX	2220 5C 684KAT00F	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C423	CC 680NF+-10%50V X7R 2220 CERAMIC CHIP CAPACITOR	CC 0007.7517.00	AVX	2220 5C 684KAT00F	
C433	CC 330PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8873.00	AVX	1206 5A 331 F 3	
C434	CE 47UF +-10% 10V 7343 TANTALUM CHIP CAPACITOR	CE 0007.7300.00	SPRAGUE	293D X9 010 D2W	
C435	CC 330PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8873.00	AVX	1206 5A 331 F 3	
C436	CE 47UF +-10% 10V 7343 TANTALUM CHIP CAPACITOR	CE 0007.7300.00	SPRAGUE	293D X9 010 D2W	
C438	CE 10UF +-10% 25V 7343 TANTALUM SMD-CAPACITOR	CE 0007.7246.00	SPRAGUE	293D 106 X9 025 D2W	
C439	CE 10UF +-10% 25V 7343 TANTALUM SMD-CAPACITOR	CE 0007.7246.00	SPRAGUE	293D 106 X9 025 D2W	
C440	CC 1UF+-10% 50V X7R 2220 CERAMIC CAPACITOR	CC 0520.6873.00	AVX	2220 5C 105 KAT**A(F	
C442	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C443	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C445	CC 1UF+-10% 50V X7R 2220 CERAMIC CAPACITOR	CC 0520.6873.00	AVX	2220 5C 105 KAT**A(F	
C446	CC 1UF+-10% 50V X7R 2220 CERAMIC CAPACITOR	CC 0520.6873.00	AVX	2220 5C 105 KAT**A(F	
C447	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C449	CC 10PF+-0,25 50VNPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8480.00	MURATA	GRM42-6C0G 100 C50PT	
C450	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C454	CE 10UF +-10% 25V 7343 TANTALUM SMD-CAPACITOR	CE 0007.7246.00	SPRAGUE	293D 106 X9 025 D2W	
C456	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C460	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C467	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C473	CE 22UF +-10% 10V 7343 TANTALUM CHIP CAPACITOR	CE 0007.7298.00	SPRAGUE	293D226X9020D2W	
C475	CC 68PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8815.00	MURATA	GRM42-6C0G 680F50ZPT	
C479	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C480	CC 5,6PF+-0,25 50VNP01206 CERAMIC CHIP CAPACITOR	CC 0007.8220.00	MURATA	GRM42-6C0G 5R6 C50PT	
C481	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C485	CE 10UF +-10% 25V 7343 TANTALUM SMD-CAPACITOR	CE 0007.7246.00	SPRAGUE	293D 106 X9 025 D2W	
C486	CE 10UF +-10% 25V 7343 TANTALUM SMD-CAPACITOR	CE 0007.7246.00	SPRAGUE	293D 106 X9 025 D2W	
C487	CC 680PF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0007.7375.00	MURATA	GRM42-6C0G 681F 50PT	
C488	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C490	CC 18PF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8767.00	MURATA	GRM42-6C0G 180F50ZPT	
C494	CC 68PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8815.00	MURATA	GRM42-6C0G 680F50ZPT	
C495	LD T-FILTER 100PF SMD SMD-FILTER	1039.1356.00	MURATA	NFM61R00T101T1	
C496	CE 10UF +-10% 25V 7343 TANTALUM SMD-CAPACITOR	CE 0007.7246.00	SPRAGUE	293D 106 X9 025 D2W	
C497	CE 10UF +-10% 25V 7343 TANTALUM SMD-CAPACITOR	CE 0007.7246.00	SPRAGUE	293D 106 X9 025 D2W	
C498	CC 68PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8815.00	MURATA	GRM42-6C0G 680F50ZPT	
C500	CC 680PF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0007.7375.00	MURATA	GRM42-6C0G 681F 50PT	
C504	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C506	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C507	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C510	CC 10PF+-0,25 50VNPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8480.00	MURATA	GRM42-6C0G 100 C50PT	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C511	CC 100PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8415.00	MURATA	GRM42-6C0G 101F50ZPT	
C512	CC 10PF+-0,25 50VNPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8480.00	MURATA	GRM42-6C0G 100 C50PT	
C513	CC 3,3PF+-0,25 50VNP01206 CERAMIC CHIP CAPACITOR	CC 0007.8194.00	MURATA	GRM42-6C0G 3R3 C50PT	
C514	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C520	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C529	CC 3,3PF+-0,25 50VNP01206 CERAMIC CHIP CAPACITOR	CC 0007.8194.00	MURATA	GRM42-6C0G 3R3 C50PT	
C531	CC 27PF+-1%50V NP0 1206 CERAMIC CHIP CAPACITOR	CC 0099.8409.00	MURATA	GRM42-6C0G 270F50ZPT	
C532	CC 220PF+-1%50V NP0 1206 CERAMIC CHIP CAPACITOR	CC 0099.8850.00	MURATA	GRM42-6C0G 221F 50PT	
C533	CC 18PF+-1% 50V NP0 1206 CERAMIC CHIP CAPACITOR	CC 0099.8767.00	MURATA	GRM42-6C0G 180F50ZPT	
C534	CC 22PF+-1%50V NP0 1206 CERAMIC CHIP CAPACITOR	CC 0099.8396.00	MURATA	GRM42-6C0G 220F50ZPT	
C535	CC 27PF+-1%50V NP0 1206 CERAMIC CHIP CAPACITOR	CC 0099.8409.00	MURATA	GRM42-6C0G 270F50ZPT	
C536	CC 18PF+-1% 50V NP0 1206 CERAMIC CHIP CAPACITOR	CC 0099.8767.00	MURATA	GRM42-6C0G 180F50ZPT	
C537	CC 68PF+-1%50V NP0 1206 CERAMIC CHIP CAPACITOR	CC 0099.8815.00	MURATA	GRM42-6C0G 680F50ZPT	
C538	CC 33PF+-1%50V NP0 1206 CERAMIC CHIP CAPACITOR	CC 0099.8780.00	MURATA	GRM42-6C0G 330F50ZPT	
C539	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C540	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C541	CC 27PF+-1%50V NP0 1206 CERAMIC CHIP CAPACITOR	CC 0099.8409.00	MURATA	GRM42-6C0G 270F50ZPT	
C542	CC 220PF+-1%50V NP0 1206 CERAMIC CHIP CAPACITOR	CC 0099.8850.00	MURATA	GRM42-6C0G 221F 50PT	
C543	CC 18PF+-1% 50V NP0 1206 CERAMIC CHIP CAPACITOR	CC 0099.8767.00	MURATA	GRM42-6C0G 180F50ZPT	
C544	CC 22PF+-1%50V NP0 1206 CERAMIC CHIP CAPACITOR	CC 0099.8396.00	MURATA	GRM42-6C0G 220F50ZPT	
C545	CC 27PF+-1%50V NP0 1206 CERAMIC CHIP CAPACITOR	CC 0099.8409.00	MURATA	GRM42-6C0G 270F50ZPT	
C546	CC 18PF+-1% 50V NP0 1206 CERAMIC CHIP CAPACITOR	CC 0099.8767.00	MURATA	GRM42-6C0G 180F50ZPT	
C547	CC 68PF+-1%50V NP0 1206 CERAMIC CHIP CAPACITOR	CC 0099.8815.00	MURATA	GRM42-6C0G 680F50ZPT	
C548	CC 33PF+-1%50V NP0 1206 CERAMIC CHIP CAPACITOR	CC 0099.8780.00	MURATA	GRM42-6C0G 330F50ZPT	
C549	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C550	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C551	CC 27PF+-1%50V NP0 1206 CERAMIC CHIP CAPACITOR	CC 0099.8409.00	MURATA	GRM42-6C0G 270F50ZPT	
C552	CC 1,5PF+-0,25 50VNP01206 CERAMIC CHIP CAPACITOR	CC 0007.8159.00	MURATA	GRM42-6C0G 1R5 C50PT	
C553	CC 47PF+-1%50V C0G 1206 CERAMIC CHIP CAPACITOR	CC 0099.8496.00	MURATA	GRM42-6C0G 470F50XPT	
C554	CC 10PF+-0,25 50VNP0 1206 CERAMIC CHIP CAPACITOR	CC 0099.8480.00	MURATA	GRM42-6C0G 100 C50PT	
C555	CC 47PF+-1%50V C0G 1206 CERAMIC CHIP CAPACITOR	CC 0099.8496.00	MURATA	GRM42-6C0G 470F50XPT	
C556	CC 6,8PF+-0,25 50VNP01206 CERAMIC CHIP CAPACITOR	CC 0007.8236.00	MURATA	GRM42-6C0G 6R8 C50PT	
C557	CC 27PF+-1%50V NP0 1206 CERAMIC CHIP CAPACITOR	CC 0099.8409.00	MURATA	GRM42-6C0G 270F50ZPT	
C558	CC 680PF+-1% 50V NP0 1206 CERAMIC CHIP CAPACITOR	CC 0007.7375.00	MURATA	GRM42-6C0G 681F 50PT	
C566	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C570	CC 100PF+-1%50V NP0 1206 CERAMIC CHIP CAPACITOR	CC 0099.8415.00	MURATA	GRM42-6C0G 101F50ZPT	
C571	CC 220PF+-1%50V NP0 1206 CERAMIC CHIP CAPACITOR	CC 0099.8850.00	MURATA	GRM42-6C0G 221F 50PT	
C572	CC 220PF+-1%50V NP0 1206 CERAMIC CHIP CAPACITOR	CC 0099.8850.00	MURATA	GRM42-6C0G 221F 50PT	
C573	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C574	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C575	CC 3,9PF+-0,25 50VNP01206 CERAMIC CHIP CAPACITOR	CC 0007.8207.00	MURATA	GRM42-6C0G 3R9 C50PT	
C576	CC 270PF+-1%50V NP0 1206 CERAMIC CHIP CAPACITOR	CC 0099.8867.00	AVX	1206 5A 271 F 3	
C577	CC 270PF+-1%50V NP0 1206 CERAMIC CHIP CAPACITOR	CC 0099.8867.00	AVX	1206 5A 271 F 3	
C578	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C580	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C581	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C582	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C583	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C584	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C585	CC 5,6PF+-0,25 50VNP01206 CERAMIC CHIP CAPACITOR	CC 0007.8220.00	MURATA	GRM42-6C0G 5R6 C50PT	
C586	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C587	CC 1,8NF+-1% 50V NP0 1206 CERAMIC CHIP CAPACITOR	CC 0007.7423.00	AVX	1206 5A 182 F 3	
C588	CC 10PF+-0,25 50VNP0 1206 CERAMIC CHIP CAPACITOR	CC 0099.8480.00	MURATA	GRM42-6C0G 100 C50PT	
C589	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C590	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C598	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
C599	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	AVX	1206 5C 104 KA 3	
D100	BL PC74HCT125T 4XBUFF. 3S QUAD LINE DRIVER	BL 0007.5395.00	PHILIPS_SE	(PC)74HCT125(D/T)	
D110	BG TH3032.1C SERBUSD ASIC IC GATE ARRAY	BG 0008.6143.00	THESYS	TH3032.1C	
D120	BL PC74HC132T 4XSCHMITT T QUAD 2-INP NAND SCHMITT	BL 0520.7811.00	PHILIPS_SE	(PC)74HC132(D/T)	
D130	BL PC74HC4051T 8CH.AN.MUX 8CHANNEL ANAL.MULTIPLEXER	0007.3592.00	PHILIPS_SE	(PC)74HC4051(D/T)	
D150	BL PC74HC4094T 8ST.BUSREG 8-STAGE SHIFT&STORE REG.	0804.0977.00	PHILIPS_SE	(PC)74HC4094(D/T)	
D155	BL PC74HC4094T 8ST.BUSREG 8-STAGE SHIFT&STORE REG.	0804.0977.00	PHILIPS_SE	(PC)74HC4094(D/T)	
D165	BL PC74HC4094T 8ST.BUSREG 8-STAGE SHIFT&STORE REG.	0804.0977.00	PHILIPS_SE	(PC)74HC4094(D/T)	
D170	BL PC74HC4094T 8ST.BUSREG 8-STAGE SHIFT&STORE REG.	0804.0977.00	PHILIPS_SE	(PC)74HC4094(D/T)	
D175	BL PC74HC4094T 8ST.BUSREG 8-STAGE SHIFT&STORE REG.	0804.0977.00	PHILIPS_SE	(PC)74HC4094(D/T)	
D200	BS DG413DY 2A2R ANALOGSCH QUAD ANALOG CMOS.SWITCH	1004.7058.00	SILICONIX	DG413DY	
D210	BS DG413DY 2A2R ANALOGSCH QUAD ANALOG CMOS.SWITCH	1004.7058.00	SILICONIX	DG413DY	
D215	BS DG413DY 2A2R ANALOGSCH QUAD ANALOG CMOS.SWITCH	1004.7058.00	SILICONIX	DG413DY	
D220	BS DG413DY 2A2R ANALOGSCH QUAD ANALOG CMOS.SWITCH	1004.7058.00	SILICONIX	DG413DY	
D230	BL PC74HC123T 2XMULTIVIB DUAL MULTIVIBRATOR	BL 0007.3528.00	PHILIPS_SE	(PC)74HC123(D/T)	
D240	BJ DAC8221-FS 2X12B-DAC IC DIGITAL/ANALOG-CONVERT	1036.8595.00	ANALOG_DEV	DAC8221-FS	
D250	BS DG412DY 4X ANALOGSCH ANALOG SWITCH	0520.7728.00	SILICONIX	DG412DY	
D260	BS DG413DY 2A2R ANALOGSCH QUAD ANALOG CMOS.SWITCH	1004.7058.00	SILICONIX	DG413DY	
D270	BS DG413DY 2A2R ANALOGSCH QUAD ANALOG CMOS.SWITCH	1004.7058.00	SILICONIX	DG413DY	
D285	BL PC74HC123T 2XMULTIVIB DUAL MULTIVIBRATOR	BL 0007.3528.00	PHILIPS_SE	(PC)74HC123(D/T)	
D290	BL PC74HC86T 4X2IN EXOR QUAD 2INPUT EXOOR GATE	BL 0007.3511.00	PHILIPS_SE	(PC)74HC86(D/T)	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
D360	BL 74AC74SC 2XD-FLIPFL DUAL D-TYPE FLIPF	BL 0820.3602.00	FAIRCHILD	74AC74SC	
D370	BL 74AC161SC 4B.BIN CNT 4BIT SYNC.PRES.BIN COUNT.	BL 0820.3519.00	NSC	74AC161(SC)	
D380	BL 74AC74SC 2XD-FLIPFL DUAL D-TYPE FLIPF	BL 0820.3602.00	FAIRCHILD	74AC74SC	
D390	BL 74AC161SC 4B.BIN CNT 4BIT SYNC.PRES.BIN COUNT.	BL 0820.3519.00	NSC	74AC161(SC)	
D400	HS EPROM.FMDC-SYNC	1036.8608.00			
D410	BL 74AC74SC 2XD-FLIPFL DUAL D-TYPE FF	BL 1036.8614.00	HARRIS	(CD)74AC74(M)	
D415	BL PC74HC4052T 2X4CH.MUX MULTIPLEXER	0804.1044.00	PHILIPS_SE	(PC)74HC4052(D/T)	
D420	BL PC74HC4053T 3X2CH.MUX ANALOG MULTIPLEXER	0804.0948.00	PHILIPS_SE	(PC)74HC4053(D/T)	
D430	BL PC74HC4052T 2X4CH.MUX MULTIPLEXER	0804.1044.00	PHILIPS_SE	(PC)74HC4052(D/T)	
D440	BS DG413DY 2A2R ANALOGSCH QUAD ANALOG CMOS.SWITCH	1004.7058.00	SILICONIX	DG413DY	
D450	BJ DAC08CS 1X8-DAC D/A-CONVERTER	6024.3137.00	PMI	DAC08C(S)	
D480	BS DG419DY 1XUM ANALOGSCH ANALOG SWITCH	0746.0322.00	SILICONIX	DG419DY	
G280	BO REF01CS 10V 20MA VREF VOLTAGE REFERENCE	1002.5129.00	PMI	REF01C(S)	
L90	LD 4,70UH10%1,200HMO,239A CHOKE	LD 0067.2940.00	DALE	IM2	
L91	LD 10 UH 10% 3R3 144 MA CHOKE	LD 0026.4184.00	DALE	IM2	
L92	LD 10UH BEI 0,81A 0,660HM CHOKE	LD 0026.4126.00	DALE	IM 6	
L93	LD 4,70UH10%1,200HMO,239A CHOKE	LD 0067.2940.00	DALE	IM2	
L94	LD 10UH BEI 0,81A 0,660HM CHOKE	LD 0026.4126.00	DALE	IM 6	
L105	LD 4,70UH10%1,200HMO,239A CHOKE	LD 0067.2940.00	DALE	IM2	
L241	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L270	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L271	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L272	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L323	LD 4,7UH 10% 0,15A 1210 RF CHOKE	LD 0008.1687.00	SIEMENS	B82422-A1472-J(K)100	
L324	LD 4,7UH 10% 0,15A 1210 RF CHOKE	LD 0008.1687.00	SIEMENS	B82422-A1472-J(K)100	
L325	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L326	LD 4,7UH 10% 0,15A 1210 RF CHOKE	LD 0008.1687.00	SIEMENS	B82422-A1472-J(K)100	
L327	LD 91 NH SMD Q5,1H5 0-K SMD-VHF-COIL	0008.9520.00	COMPONEX	E 558 HN-10 0100	
L328	LD 91 NH SMD Q5,1H5 0-K SMD-VHF-COIL	0008.9520.00	COMPONEX	E 558 HN-10 0100	
L330	LD 4,7UH 10% 0,15A 1210 RF CHOKE	LD 0008.1687.00	SIEMENS	B82422-A1472-J(K)100	
L331	LD 4,7UH 10% 0,15A 1210 RF CHOKE	LD 0008.1687.00	SIEMENS	B82422-A1472-J(K)100	
L340	LD 4,7UH 10% 0,15A 1210 RF CHOKE	LD 0008.1687.00	SIEMENS	B82422-A1472-J(K)100	
L354	LD 220NH 10% 0,28A 1210 RF CHOKE	LD 0520.7911.00	SIEMENS	B82422-A3221-J(K)100	
L355	LD 22NH 10% 0,60A 1210 RF CHOKE	1002.4897.00	SIEMENS	B82422-A3220-J(K)100	
L356	LD 220NH 10% 0,28A 1210 RF CHOKE	LD 0520.7911.00	SIEMENS	B82422-A3221-J(K)100	
L357	LD 4,7UH 10% 0,15A 1210 RF CHOKE	LD 0008.1687.00	SIEMENS	B82422-A1472-J(K)100	
L363	LD 4,7UH 10% 0,15A 1210 RF CHOKE	LD 0008.1687.00	SIEMENS	B82422-A1472-J(K)100	
L365	LD 100NH 10% 0,44A 1210 RF CHOKE	LD 0007.9249.00	SIEMENS	B82422-A3101-J(K)100	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
L375	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L383	LD 4,7UH 10% 0,15A 1210 RF CHOKE	LD 0008.1687.00	SIEMENS	B82422-A1472-J(K)100	
L385	LD 100NH 10% 0,44A 1210 RF CHOKE	LD 0007.9249.00	SIEMENS	B82422-A3101-J(K)100	
L395	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L400	LD 47UH 10% 0,08A 1210 RF CHOKE	LD 0008.1693.00	SIEMENS	B82422-A1473-J(K)100	
L401	LD 47UH 10% 0,08A 1210 RF CHOKE	LD 0008.1693.00	SIEMENS	B82422-A1473-J(K)100	
L402	LD 33,0UH10%3,400HMO,130A CHOKE	LD 0067.3047.00	DALE	IM2	
L403	LD 33,0UH10%3,400HMO,130A CHOKE	LD 0067.3047.00	DALE	IM2	
L408	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L414	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L415	LD 47UH 10% 0,08A 1210 RF CHOKE	LD 0008.1693.00	SIEMENS	B82422-A1473-J(K)100	
L416	LD 33,0UH10%3,400HMO,130A CHOKE	LD 0067.3047.00	DALE	IM2	
L417	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L442	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L456	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L507	LD 4,7UH 10% 0,15A 1210 RF CHOKE	LD 0008.1687.00	SIEMENS	B82422-A1472-J(K)100	
L511	LD 220NH 10% 0,28A 1210 RF CHOKE	LD 0520.7911.00	SIEMENS	B82422-A3221-J(K)100	
L512	LD 22NH 10% 0,60A 1210 RF CHOKE	1002.4897.00	SIEMENS	B82422-A3220-J(K)100	
L513	LD 220NH 10% 0,28A 1210 RF CHOKE	LD 0520.7911.00	SIEMENS	B82422-A3221-J(K)100	
L532	LD 72 NH SMD-ABGL.Q5,1H5 SMD-VHF-COIL	0008.9507.00	COMPONEX	E 558 AN-10 0044	
L534	LD 91 NH SMD Q5,1H5 O-K SMD-VHF-COIL	0008.9520.00	COMPONEX	E 558 HN-10 0100	
L537	LD 91 NH SMD Q5,1H5 O-K SMD-VHF-COIL	0008.9520.00	COMPONEX	E 558 HN-10 0100	
L539	LD 4,7UH 10% 0,15A 1210 RF CHOKE	LD 0008.1687.00	SIEMENS	B82422-A1472-J(K)100	
L540	LD 2,2UH 10% 0,27A 1210 RF CHOKE	LD 0520.7870.00	SIEMENS	B82422-A1222-J(K)100	
L542	LD 72 NH SMD-ABGL.Q5,1H5 SMD-VHF-COIL	0008.9507.00	COMPONEX	E 558 AN-10 0044	
L544	LD 91 NH SMD Q5,1H5 O-K SMD-VHF-COIL	0008.9520.00	COMPONEX	E 558 HN-10 0100	
L547	LD 91 NH SMD Q5,1H5 O-K SMD-VHF-COIL	0008.9520.00	COMPONEX	E 558 HN-10 0100	
L549	LD 4,7UH 10% 0,15A 1210 RF CHOKE	LD 0008.1687.00	SIEMENS	B82422-A1472-J(K)100	
L550	LD 2,2UH 10% 0,27A 1210 RF CHOKE	LD 0520.7870.00	SIEMENS	B82422-A1222-J(K)100	
L552	LD 112NH SMD-ABGL.Q5,1H5 SMD-VHF-COIL	0008.9542.00	COMPONEX	E 558 CN-10 0024	
L554	LD 91 NH SMD Q5,1H5 O-K SMD-VHF-COIL	0008.9520.00	COMPONEX	E 558 HN-10 0100	
L556	LD 91 NH SMD Q5,1H5 O-K SMD-VHF-COIL	0008.9520.00	COMPONEX	E 558 HN-10 0100	
L566	LD 4,7UH 10% 0,15A 1210 RF CHOKE	LD 0008.1687.00	SIEMENS	B82422-A1472-J(K)100	
L571	LD 0,27UH10%0,160HMO,975A CHOKE	LD 0067.2792.00	DALE	IM2	
L572	LD 0,56UH10%0,500HMO,550A CHOKE	LD 0067.2834.00	DALE	IM2	
L573	LD 0,27UH10%0,160HMO,975A CHOKE	LD 0067.2792.00	DALE	IM2	
L576	LD 470NH 10% 0,15A 1210 RF CHOKE	LD 0007.9926.00	SIEMENS	B82422-A3471-J(K)100	
L578	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L580	LD 47UH 10% 0,08A 1210 RF CHOKE	LD 0008.1693.00	SIEMENS	B82422-A1473-J(K)100	

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
L581	LD 47UH 10% 0,08A 1210 RF CHOKE	LD 0008.1693.00	SIEMENS	B82422-A1473-J(K)100	
L586	LD 10UH 10% 0,18A 1210 RF CHOKE	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
N200	BO AD744KR FET OPAMP BIFET OPAMP	0854.1754.00	ANALOG_DEV	(AD)744KR	
N210	BO AD744KR FET OPAMP BIFET OPAMP	0854.1754.00	ANALOG_DEV	(AD)744KR	
N220	BO AD829JR 1XLOLN OPAMP IC OPAMP	1036.4254.00	ANALOG_DEV	AD829JR	
N230	BO AD829JR 1XLOLN OPAMP IC OPAMP	1036.4254.00	ANALOG_DEV	AD829JR	
N240	BO AD843KN FET OPAMP IC OPAMP	1039.1285.00	ANALOG_DEV	AD843KN	
N250	BO NE5534D OPAMP OPERATIONAL AMPLIFIER	0815.7555.00	SIGNETICS	NE5534(D)	
N260	BO AD829JR 1XLOLN OPAMP IC OPAMP	1036.4254.00	ANALOG_DEV	AD829JR	
N280	BO LM119J 2X COMPAR COMPARATOR	0007.5337.00	LINEAR_TEC	LM119J (AJ)	
N300	BO LM2903D 2XLP COMPAR DUAL	0520.7734.00	SIGNETICS	LM2903(D)	
N420	BO OP97FS LP PREC OPAMP OPAMP	1036.4390.00	PMI	OP97F(S)	
N421	BO OP97FS LP PREC OPAMP OPAMP	1036.4390.00	PMI	OP97F(S)	
N430	BO LT1077S8 LP OPAMP OPAMP	0828.4714.00	LINEAR_TEC	LT1077(S8)	
N440	BO TL072ACD 2XFET OPAMP OPERATIONAL AMPLIFIER	0803.1057.00	TEXAS	TL 072 ACDR	
N455	BO LM2903D 2XLP COMPAR DUAL	0520.7734.00	SIGNETICS	LM2903(D)	
N475	BO AD829JR 1XLOLN OPAMP IC OPAMP	1036.4254.00	ANALOG_DEV	AD829JR	
N480	BO AD829JR 1XLOLN OPAMP IC OPAMP	1036.4254.00	ANALOG_DEV	AD829JR	
N485	BO LM2903D 2XLP COMPAR DUAL	0520.7734.00	SIGNETICS	LM2903(D)	
N490	BO AD829JR 1XLOLN OPAMP IC OPAMP	1036.4254.00	ANALOG_DEV	AD829JR	
N595	BO NE5534D OPAMP OPERATIONAL AMPLIFIER	0815.7555.00	SIGNETICS	NE5534(D)	
P300 ..303	VL EINPRESSSTIFT 5,6 PIN	VL 0010.7250.00	AMP	1-928776-5	
P400 ..410	VL EINPRESSSTIFT 5,6 PIN	VL 0010.7250.00	AMP	1-928776-5	
R80	RG 47,5 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5566.00	PHILIPS_CO	RC02	
R81	RG 475 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5695.00	PHILIPS_CO	RC02	
R82	RG 475 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5695.00	PHILIPS_CO	RC02	
R83	RG 47,5 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5566.00	PHILIPS_CO	RC02	
R84	RG 475 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5695.00	PHILIPS_CO	RC02	
R85	RG 47,5 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5566.00	PHILIPS_CO	RC02	
R100	RG 47,5 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5566.00	PHILIPS_CO	RC02	
R101	RG 475 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5695.00	PHILIPS_CO	RC02	
R102	RG 47,5 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5566.00	PHILIPS_CO	RC02	
R103	RG 47,5 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5566.00	PHILIPS_CO	RC02	
R104	RG 475 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5695.00	PHILIPS_CO	RC02	
R105	RG 47,5 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5566.00	PHILIPS_CO	RC02	
R106	RG 475 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5695.00	PHILIPS_CO	RC02	
R113	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R114	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R117	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R118	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R122	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R124	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R128	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R129	RG 56,2KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.1883.00	PHILIPS_CO	RC02	
R130	RG 27,4KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5895.00	PHILIPS_CO	RC02	
R131	RG 27,4KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5895.00	PHILIPS_CO	RC02	
R132	RG 27,4KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5895.00	PHILIPS_CO	RC02	
R133	RG 27,4KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5895.00	PHILIPS_CO	RC02	
R134	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R135	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R136	RG 15,0KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5843.00	PHILIPS_CO	RC02	
R138	RG 33,2 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5520.00	ROEDERSTEI	D25	
R150	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R151	RG 22,1 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5489.00	PHILIPS_CO	RC02	
R155	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R164	RG 4K75 +-1% TK100 1206 RESISTOR CHIP	RG 0007.5820.00	PHILIPS_CO	RC02	
R165	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R166	RG 22,1 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5489.00	PHILIPS_CO	RC02	
R170	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R175	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R201	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	ROEDERSTEI	D25	
R203	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	ROEDERSTEI	D25	
R205	RG 1,0MOHM+-1%TK100 1206 CHIP RESISTOR	RG 0815.7532.00	PHILIPS_CO	RC 02	
R206	RG 1,0MOHM+-1%TK100 1206 CHIP RESISTOR	RG 0815.7532.00	PHILIPS_CO	RC 02	
R210 ..215	RL 0,35W 1 KOHM+-0,1%TK25 RESISTOR	0083.9146.00	DRALORIC	SMA0207	
R220	RL 0,35W2,49KOHM+-0,1%T25 RESISTOR	RL 0083.9900.00	DRALORIC	SMA0207	
R221	RL 0,35W2,49KOHM+-0,1%T25 RESISTOR	RL 0083.9900.00	DRALORIC	SMA0207	
R222	RG 1KO +-1% TK100 1206 CHIP RESISTOR	RG 0006.7271.00	DRALORIC	CR 1206	
R223	RG 432 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5689.00	PHILIPS_CO	RC02	
R224	RG 1KO +-1% TK100 1206 CHIP RESISTOR	RG 0006.7271.00	DRALORIC	CR 1206	
R225	RG 432 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5689.00	PHILIPS_CO	RC02	
R226	RG 90,9KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.1931.00	PHILIPS_CO	RC02	
R227	RG 90,9KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.1931.00	PHILIPS_CO	RC02	
R230	RG 47,5 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5566.00	PHILIPS_CO	RC02	
R231	RG 4K75 +-1% TK100 1206 RESISTOR CHIP	RG 0007.5820.00	PHILIPS_CO	RC02	
R232	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R233	RG 4K75 +-1% TK100 1206 RESISTOR CHIP	RG 0007.5820.00	PHILIPS_CO	RC02	
R234	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R240	RG 4,32KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5814.00	PHILIPS_CO	RC02	
R241	RG 4K75 +-1% TK100 1206 RESISTOR CHIP	RG 0007.5820.00	PHILIPS_CO	RC02	
R242	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R244	RL 0,35W200 OHM+-0,1%TK25 RESISTOR	RL 0083.7808.00	DRALORIC	SMA0207	
R245	RL 0,35W100 OHM+-0,1%TK25 RESISTOR	RL 0083.7220.00	DRALORIC	SMA0207	
R246	RL 0,35W100 OHM+-0,1%TK25 RESISTOR	RL 0083.7220.00	DRALORIC	SMA0207	
R247	RL 0,35W100 OHM+-0,1%TK25 RESISTOR	RL 0083.7220.00	DRALORIC	SMA0207	
R248	RL 0,35W100 OHM+-0,1%TK25 RESISTOR	RL 0083.7220.00	DRALORIC	SMA0207	
R249	RL 0,35W100 OHM+-0,1%TK25 RESISTOR	RL 0083.7220.00	DRALORIC	SMA0207	
R250	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	ROEDERSTEI	D25	
R251	RG 24,3 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5495.00	PHILIPS_CO	RC02	
R252	RG 56,2 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8826.00	PHILIPS_CO	RC02	
R253	RG 30,1KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5908.00	PHILIPS_CO	RC02	
R254	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R256	RG 82,5 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8861.00	PHILIPS_CO	RC02	
R257	RL 0,35W7,50KOHM+-0,1%T25 RESISTOR	RL 0084.2822.00	DRALORIC	SMA0207	
R258	RG 33,2 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5520.00	ROEDERSTEI	D25	
R259	RG 33,2 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5520.00	ROEDERSTEI	D25	
R260	RG 182 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5595.00	PHILIPS_CO	RC02	
R270	RG 681 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.9080.00	PHILIPS_CO	RC02	
R274	RG 68,1 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8849.00	ROEDERSTEI	D25	
R276	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	ROEDERSTEI	D25	
R277	RL 0,35W29,1KOHM+-0,1%T25 RESISTOR	RL 0084.3958.00	DRALORIC	SMA0207	
R278	RL 0,35W129 OHM+-0,1%TK25 RESISTOR	RL 0083.7437.00	DRALORIC	SMA0207	
R279	RL 0,35W3,09KOHM+-0,1%T25 RESISTOR	RL 0084.2080.00	DRALORIC	SMA0207	
R280 ..289	RG 33,2 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5520.00	ROEDERSTEI	D25	
R290	RG 2,74KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5766.00	DRALORIC	CR 1206	
R291	RG 475 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5695.00	PHILIPS_CO	RC02	
R292	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R293	RG 274 KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.4460.00	PHILIPS_CO	RC02	
R294	RG 475 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5695.00	PHILIPS_CO	RC02	
R295	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R296	RG 274 KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.4460.00	PHILIPS_CO	RC02	
R297	RG 3,32KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5789.00	PHILIPS_CO	RC02	
R298	RG 3,32KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5789.00	PHILIPS_CO	RC02	
R299	RG 4,75OHM+-1%TK100 1206 CHIP-RESISTOR	RG 0007.8420.00	PHILIPS	RC 02	
R300	RG 33,2 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5520.00	ROEDERSTEI	D25	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R301	RG 2,21KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5743.00	PHILIPS_CO	RC02	
R302	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R303	RG 2,21KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5743.00	PHILIPS_CO	RC02	
R305	RG 33,2KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5914.00	PHILIPS_CO	RC02	
R307	RG 2,74KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5766.00	DRALORIC	CR 1206	
R308	RG 100,0KOH+-1%TK100 1206 CHIP RESISTOR	RG 0007.1948.00	PHILIPS_CO	RC02	
R310	RG 150 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5589.00	PHILIPS_CO	RC02	
R311	RG 100,0KOH+-1%TK100 1206 CHIP RESISTOR	RG 0007.1948.00	PHILIPS_CO	RC02	
R315	RG 5,62OHM+-1%TK100 1206 CHIP-RESISTOR	RG 0007.8442.00	PHILIPS	RC 02	
R316	RG 221 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5614.00	DRALORIC	CR 1206	
R317	RG 5,62OHM+-1%TK100 1206 CHIP-RESISTOR	RG 0007.8442.00	PHILIPS	RC 02	
R320	RG 825 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.7259.00	ROEDERSTEI	D25	
R321	RS 0,75W10KOHM+-10%CERMET DEPOS.-CARBON POTENTIOMET	RS 0037.7396.00	BI_TECHNOL	89 P	
R322	RG 8,25KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.0770.00	PHILIPS_CO	RC02	
R323	RG 100,0KOH+-1%TK100 1206 CHIP RESISTOR	RG 0007.1948.00	PHILIPS_CO	RC02	
R324	RG 56,2 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8826.00	PHILIPS_CO	RC02	
R326	RG 221 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5614.00	DRALORIC	CR 1206	
R328	RG 56,2 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8826.00	PHILIPS_CO	RC02	
R329	RG 221 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5614.00	DRALORIC	CR 1206	
R330	RG 392 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5672.00	DRALORIC	CR 1206	
R331	RG 392 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5672.00	DRALORIC	CR 1206	
R332	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	ROEDERSTEI	D25	
R333	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	ROEDERSTEI	D25	
R334	RG 392 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5672.00	DRALORIC	CR 1206	
R335	RG 392 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5672.00	DRALORIC	CR 1206	
R336	RG 1KO +-1% TK100 1206 CHIP RESISTOR	RG 0006.7271.00	DRALORIC	CR 1206	
R337	RG 1KO +-1% TK100 1206 CHIP RESISTOR	RG 0006.7271.00	DRALORIC	CR 1206	
R338	RG 100,0KOH+-1%TK100 1206 CHIP RESISTOR	RG 0007.1948.00	PHILIPS_CO	RC02	
R339	RG 100,0KOH+-1%TK100 1206 CHIP RESISTOR	RG 0007.1948.00	PHILIPS_CO	RC02	
R340	RG 22,1 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5489.00	PHILIPS_CO	RC02	
R341	RG 332 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5650.00	PHILIPS_CO	RC02	
R342	RG 56,2KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.1883.00	PHILIPS_CO	RC02	
R343	RG 475 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5695.00	PHILIPS_CO	RC02	
R344	RG 1KO +-1% TK100 1206 CHIP RESISTOR	RG 0006.7271.00	DRALORIC	CR 1206	
R345	RS 0,25W200 OHM+-20% SMD POTENTIOMETER	RS 0007.9590.00	BI_TECHNOL	23 B R... TR	
R346	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	ROEDERSTEI	D25	
R347	RG 47,5KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5950.00	PHILIPS_CO	RC02	
R348	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	ROEDERSTEI	D25	
R349	RG 681 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.9080.00	PHILIPS_CO	RC02	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R350	RG 11,0 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8655.00	PHILIPS_CO	RC02	
R351	RG 5,620HM+-1%TK100 1206 CHIP-RESISTOR	RG 0007.8442.00	PHILIPS	RC 02	
R352	RG 5,620HM+-1%TK100 1206 CHIP-RESISTOR	RG 0007.8442.00	PHILIPS	RC 02	
R353	RG 274 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5637.00	PHILIPS_CO	RC02	
R354	RG 243 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5620.00	PHILIPS_CO	RC02	
R355	RG 33,2KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5914.00	PHILIPS_CO	RC02	
R356	RG 150 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5589.00	PHILIPS_CO	RC02	
R357	RG 475 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5695.00	PHILIPS_CO	RC02	
R358	RG 15,0 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5450.00	PHILIPS_CO	RC02	
R359	RG 27,4KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5895.00	PHILIPS_CO	RC02	
R360	RG 6,81KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.0758.00	PHILIPS_CO	RC02	
R361	RG 221 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5614.00	DRALORIC	CR 1206	
R362	RG 10,0 OHM+-1%TK100 1206 CHIP -RESISTOR	RG 0006.8649.00	DRALORIC	CR 1206	
R363	RG 10,0 OHM+-1%TK100 1206 CHIP -RESISTOR	RG 0006.8649.00	DRALORIC	CR 1206	
R364	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R365	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R366	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R367	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R368	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R369	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R370 ..373	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R374	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	ROEDERSTEI	D25	
R375	RG 10,0 OHM+-1%TK100 1206 CHIP -RESISTOR	RG 0006.8649.00	DRALORIC	CR 1206	
R376	RG 475 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5695.00	PHILIPS_CO	RC02	
R380	RG 6,81KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.0758.00	PHILIPS_CO	RC02	
R381	RG 221 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5614.00	DRALORIC	CR 1206	
R382	RG 10,0 OHM+-1%TK100 1206 CHIP -RESISTOR	RG 0006.8649.00	DRALORIC	CR 1206	
R383	RG 10,0 OHM+-1%TK100 1206 CHIP -RESISTOR	RG 0006.8649.00	DRALORIC	CR 1206	
R384 ..393	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R394	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	ROEDERSTEI	D25	
R395	RG 10,0 OHM+-1%TK100 1206 CHIP -RESISTOR	RG 0006.8649.00	DRALORIC	CR 1206	
R396	RG 475 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5695.00	PHILIPS_CO	RC02	
R400	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R401	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R402	RG 100,0KOH+-1%TK100 1206 CHIP RESISTOR	RG 0007.1948.00	PHILIPS_CO	RC02	
R403	RG 100,0KOH+-1%TK100 1206 CHIP RESISTOR	RG 0007.1948.00	PHILIPS_CO	RC02	
R404	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R405	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R406	RG 1,82KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5720.00	PHILIPS_CO	RC02	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R407	RG 20,0KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5866.00	PHILIPS_CO	RC02	
R408	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R409	RG 3,32KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5789.00	PHILIPS_CO	RC02	
R410	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R411	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R412	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R413	RG 274 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5637.00	PHILIPS_CO	RC02	
R414 ..418	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R419	RG 33,2 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5520.00	ROEDERSTEI	D25	
R420	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R421	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R422	RG 3,32KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5789.00	PHILIPS_CO	RC02	
R423	RG 3,32KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5789.00	PHILIPS_CO	RC02	
R424	RG 110,0KOH+-1%TK100 1206 CHIP RESISTOR	RG 0007.1954.00	ROEDERSTEI	D25	
R425	RG 3,32KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5789.00	PHILIPS_CO	RC02	
R426	RG 82,5KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.1925.00	ROEDERSTEI	D25	
R427	RS 0,25W20KOHM +-20% SMD POTENTIOMETER	RS 0007.9655.00	BI_TECHNOL	23 B R... TR	
R428	RG 2,21KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5743.00	PHILIPS_CO	RC02	
R429	RS 0,25W 1KOHM +-20% SMD RG POTENTIOMETER	RS 0007.9610.00	BI_TECHNOL	23 B R... TR	
R429	RS 0,25W 1KOHM +-20% SMD RG POTENTIOMETER	RS 0007.9610.00	BI_TECHNOL	23 B R... TR	F
R430	RG 1,5 KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5714.00	PHILIPS_CO	RC02	
R431	RL 0,35W2,23KOHM+-0,1%T25 RESISTOR	RL 0083.9817.00	DRALORIC	SMA0207	
R432	RL 0,35W9,31KOHM+-0,1%T25 RESISTOR	RL 0084.3006.00	DRALORIC	SMA0207	
R433	RG 9,09KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.0787.00	PHILIPS_CO	RC02	
R434	RG 562 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.9068.00	ROEDERSTEI	D25	
R435	RG 5,62KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.0735.00	PHILIPS_CO	RC02	
R436	RG 562 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.9068.00	ROEDERSTEI	D25	
R437	RS 0,25W500 OHM+-20% SMD POTENTIOMETER	RS 0007.9603.00	BI_TECHNOL	23 B R... TR	
R438	RG 22,1 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5489.00	PHILIPS_CO	RC02	
R439	RG 22,1 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5489.00	PHILIPS_CO	RC02	
R440	RG 221 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5614.00	DRALORIC	CR 1206	
R441	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	ROEDERSTEI	D25	
R442	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	ROEDERSTEI	D25	
R443	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	ROEDERSTEI	D25	
R444	RS 0,25W 2KOHM +-20% SMD POTENTIOMETER	RS 0007.9626.00	BI_TECHNOL	23 B R... TR	
R445	RG 68,1KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.1902.00	PHILIPS_CO	RC02	
R446	RG 150 KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5972.00	PHILIPS_CO	RC02	
R447	RG 75,0KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.1919.00	PHILIPS_CO	RC02	
R448	RG 2,21KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5743.00	PHILIPS_CO	RC02	

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R449	RG 7,5KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0764.00	PHILIPS_CO	RC02	
R450	RG 5,62KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.0735.00	PHILIPS_CO	RC02	
R451	RG 5,62KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.0735.00	PHILIPS_CO	RC02	
R452	RG 1KO +-1% TK100 1206 CHIP RESISTOR	RG 0006.7271.00	DRALORIC	CR 1206	
R453	RG 1KO +-1% TK100 1206 CHIP RESISTOR	RG 0006.7271.00	DRALORIC	CR 1206	
R454	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R455	RG 1,62KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.9997.00	PHILIPS_CO	RC02	
R456	RG 2,21KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5743.00	PHILIPS_CO	RC02	
R457	RG 15,0KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5843.00	PHILIPS_CO	RC02	
R458	RG 2,21KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5743.00	PHILIPS_CO	RC02	
R459	RG 33,2KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5914.00	PHILIPS_CO	RC02	
R460	RG 100,0KOH+-1%TK100 1206 CHIP RESISTOR	RG 0007.1948.00	PHILIPS_CO	RC02	
R461	RG 56,2 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8826.00	PHILIPS_CO	RC02	
R462	RG 3,92KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5808.00	ROEDERSTEI	D25	
R463	RG 221 KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.6004.00	PHILIPS_CO	RC02	
R464	RG 1KO +-1% TK100 1206 CHIP RESISTOR	RG 0006.7271.00	DRALORIC	CR 1206	
R465	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R466	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R467	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	ROEDERSTEI	D25	
R468	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R469	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R470	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	ROEDERSTEI	D25	
R471	RG 243 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5620.00	PHILIPS_CO	RC02	
R472	RL 0,35W681 OHM+-0,1%TK25 RESISTOR	RL 0083.8827.00	DRALORIC	SMA0207	
R473	RL 0,35W10,0KOHM+-0,1%T25 RESISTOR	RL 0084.3064.00	DRALORIC	SMA0207	
R474	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R475	RG 432 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5689.00	PHILIPS_CO	RC02	
R476	RG 511 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.9051.00	PHILIPS_CO	RC02	
R477	RG 432 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5689.00	PHILIPS_CO	RC02	
R478	RG 511 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.9051.00	PHILIPS_CO	RC02	
R479	RG 33,2 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5520.00	ROEDERSTEI	D25	
R480	RG 392 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5672.00	DRALORIC	CR 1206	
R481	RG 2,43KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5750.00	PHILIPS_CO	RC02	
R482	RG 8,25KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.0770.00	PHILIPS_CO	RC02	
R483	RS 0,5W1KOHM+-10%10X10X5 CERMET POTENTIOMETER	RS 0247.5917.00	BI_TECHNOL	72X-R	
R484	RG 1KO +-1% TK100 1206 CHIP RESISTOR	RG 0006.7271.00	DRALORIC	CR 1206	
R485	RG 33,2 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5520.00	ROEDERSTEI	D25	
R486	RG 33,2 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5520.00	ROEDERSTEI	D25	
R487	RG 221 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5614.00	DRALORIC	CR 1206	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R488	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R489	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R490	RS 0,5W500 OHM+-10%10X10X CERMET POTENTIOMETER	RS 0247.7955.00	BI_TECHNOL	72X-R	
R491	RG 825 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.7259.00	ROEDERSTEI	D25	
R492	RL 0,35W 1 KOHM+-0,1%TK25 RESISTOR	0083.9146.00	DRALORIC	SMA0207	
R494	RL 0,35W100 OHM+-0,1%TK25 RESISTOR	RL 0083.7220.00	DRALORIC	SMA0207	
R495	RL 0,35W200 OHM+-0,1%TK25 RESISTOR	RL 0083.7808.00	DRALORIC	SMA0207	
R497	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	DRALORIC	CR 1206	
R498	RG 22,1 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5489.00	PHILIPS_CO	RC02	
R499	RG 22,1 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5489.00	PHILIPS_CO	RC02	
R500	RG 4,75OHM+-1%TK100 1206 CHIP-RESISTOR	RG 0007.8420.00	PHILIPS	RC 02	
R501	RG 274 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5637.00	PHILIPS_CO	RC02	
R502	RG 4,75OHM+-1%TK100 1206 CHIP-RESISTOR	RG 0007.8420.00	PHILIPS	RC 02	
R503	RG 182 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5595.00	PHILIPS_CO	RC02	
R504	RG 18,2KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5850.00	PHILIPS_CO	RC02	
R505	RG 12,1 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8661.00	PHILIPS_CO	RC02	
R506	RG 392 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5672.00	DRALORIC	CR 1206	
R507	RG 22,1 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5489.00	PHILIPS_CO	RC02	
R510	RG 8,25OHM+-1%TK100 1206 CHIP-RESISTOR	RG 0007.8488.00	PHILIPS	RC 02	
R511	RG 150 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5589.00	PHILIPS_CO	RC02	
R512	RG 8,25OHM+-1%TK100 1206 CHIP-RESISTOR	RG 0007.8488.00	PHILIPS	RC 02	
R514	RG 27,4KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5895.00	PHILIPS_CO	RC02	
R520	RG 16,2 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8690.00	PHILIPS_CO	RC02	
R521	RG 16,2 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8690.00	PHILIPS_CO	RC02	
R525	RG 5,62OHM+-1%TK100 1206 CHIP-RESISTOR	RG 0007.8442.00	PHILIPS	RC 02	
R527	RG 475 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5695.00	PHILIPS_CO	RC02	
R528	RG 20,0 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5472.00	PHILIPS_CO	RC02	
R529	RG 51,1 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8810.00	PHILIPS_CO	RC02	
R530	RG 20,0 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5472.00	PHILIPS_CO	RC02	
R540	RG 150 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5589.00	PHILIPS_CO	RC02	
R541	RG 27,4KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5895.00	PHILIPS_CO	RC02	
R542	RG 15,0 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5450.00	PHILIPS_CO	RC02	
R549	RS 0,25W100 OHM+-20% SMD POTENTIOMETER	RS 0007.9584.00	BI_TECHNOL	23 B R... TR	
R550	RG 82,5 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8861.00	PHILIPS_CO	RC02	
R551	RG 12,1KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.0841.00	PHILIPS_CO	RC02	
R552	RG 10,0 OHM+-1%TK100 1206 CHIP -RESISTOR	RG 0006.8649.00	DRALORIC	CR 1206	
R555	RG 8,25OHM+-1%TK100 1206 CHIP-RESISTOR	RG 0007.8488.00	PHILIPS	RC 02	
R556	RG 150 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5589.00	PHILIPS_CO	RC02	
R557	RG 8,25OHM+-1%TK100 1206 CHIP-RESISTOR	RG 0007.8488.00	PHILIPS	RC 02	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R565	RG 1KO +-1% TK100 1206 CHIP RESISTOR	RG 0006.7271.00	DRALORIC	CR 1206	
R566	RG 5,62KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.0735.00	PHILIPS_CO	RC02	
R567	RG 100,0KOH+-1%TK100 1206 CHIP RESISTOR	RG 0007.1948.00	PHILIPS_CO	RC02	
R568	RG 47,5KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5950.00	PHILIPS_CO	RC02	
R569	RG 475 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5695.00	PHILIPS_CO	RC02	
R571	RG 51,1 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8810.00	PHILIPS_CO	RC02	
R575	RG 332 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5650.00	PHILIPS_CO	RC02	
R576	RG 12,1KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.0841.00	PHILIPS_CO	RC02	
R578	RG 182 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5595.00	PHILIPS_CO	RC02	
R579	RG 4,75OHM+-1%TK100 1206 CHIP-RESISTOR	RG 0007.8420.00	PHILIPS	RC 02	
R581	RG 39,2 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5543.00	PHILIPS_CO	RC02	
R582	RG 56,2 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8826.00	PHILIPS_CO	RC02	
R584	RG 12,1KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.0841.00	PHILIPS_CO	RC02	
R585	RG 182 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5595.00	PHILIPS_CO	RC02	
R586	RG 511 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.9051.00	PHILIPS_CO	RC02	
R588	RG 10,0 OHM+-1%TK100 1206 CHIP -RESISTOR	RG 0006.8649.00	DRALORIC	CR 1206	
R589	RG 27,4KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5895.00	PHILIPS_CO	RC02	
R590	RG 1,5 KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5714.00	PHILIPS_CO	RC02	
R591	RG 47,5 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5566.00	PHILIPS_CO	RC02	
R592	RG 2,21KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5743.00	PHILIPS_CO	RC02	
R593	RG 18,2KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5850.00	PHILIPS_CO	RC02	
R594	RG 12,1KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.0841.00	PHILIPS_CO	RC02	
R595	RG 5,11KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.0729.00	PHILIPS_CO	RC02	
R596	RG 1,5 KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5714.00	PHILIPS_CO	RC02	
R597	RG 1,5 KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5714.00	PHILIPS_CO	RC02	
R598	RG 33,2 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5520.00	ROEDERSTEI	D25	
R599	RG 33,2 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5520.00	ROEDERSTEI	D25	
U520	BM SRA1 MIXER 0.5GHZ MIXER	BM 0207.3465.00	MINI-CIRCU	SRA1	
U570	BM SRA1 MIXER 0.5GHZ MIXER	BM 0207.3465.00	MINI-CIRCU	SRA1	
V136	AE BZV55/C5V6 0.5W ZDI ZENER DIODE	AE 0006.9845.00	PHILIPS	BZV55B5V6	
V201	AD BAV99 75V DUO UDI HIGH-SPEED DOUBLE DIODE	AD 0911.0092.00	VALVO	BAV99	
V202	AD BAV99 75V DUO UDI HIGH-SPEED DOUBLE DIODE	AD 0911.0092.00	VALVO	BAV99	
V318	AE BB909B-SELEKT CDI VARACTOR	0520.7563.00	PHILIPS_SE	OF4205	
V319	AE BB909B-SELEKT CDI VARACTOR	0520.7563.00	PHILIPS_SE	OF4205	
V320	AE BB909B-SELEKT CDI VARACTOR	0520.7563.00	PHILIPS_SE	OF4205	
V321	AE BB809 26/ 6PF CDI TUNING DIODE	0092.9616.00	VALVO	BB809	
V322	AE BB909B-SELEKT CDI VARACTOR	0520.7563.00	PHILIPS_SE	OF4205	
V323 ..328	AE BB809 26/ 6PF CDI TUNING DIODE	0092.9616.00	VALVO	BB809	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
V330	AM SST310 N-D 25V JFET JUNCTION FET	1036.4577.00	SILICONIX	SST310-T1	
V332	AE BZV55/C7V5 0,5W ZDI ZENER DIODE	AE 0007.3428.00	PHILIPS_SE	BZV55B7V5	
V333	AE BZV55/C5V1 0.5W ZDI ZENER DIODE	AE 0006.9839.00	PHILIPS_SE	BZV55B5V1 (GEG)	
V334	AE BZV55/C5V1 0.5W ZDI ZENER DIODE	AE 0006.9839.00	PHILIPS_SE	BZV55B5V1 (GEG)	
V335	AE BZV55/C7V5 0,5W ZDI ZENER DIODE	AE 0007.3428.00	PHILIPS_SE	BZV55B7V5	
V336	AK BC850B N 45V 200MA TRANSISTOR	AK 0007.7969.00	VALVO	BC850B	
V337	AK BC860B P 45V 200MA TRANSISTOR	AK 0007.7975.00	MOTOROLA	BC860B	
V340	AK BFQ81 N 16V 30MA TRANSISTOR	0920.1717.00	SIEMENS	BFQ81 (-F1049)	
V350	AK BFQ81 N 16V 30MA TRANSISTOR	0920.1717.00	SIEMENS	BFQ81 (-F1049)	
V355	AK BFG97 NPN 15V 100MA 5 GHZ WIDEBAND TRANSISTOR	0008.1741.00	PHILIPS	BFG97	
V358	AE HSMS2810 SCHOTTKY SCHOTTKY DIODE	0520.7340.00	HEWLETT_PA	HSMS-2810	
V360	AK BFS17 N 15V 25MA 1 GHZ WIDEBAND TRANSISTOR	AK 0010.6460.00	VALVO	BFS17	
V380	AK BFS17 N 15V 25MA 1 GHZ WIDEBAND TRANSISTOR	AK 0010.6460.00	VALVO	BFS17	
V412	AD BAS16 75V UDI HIGH-SPEED DIODE	AD 0007.4924.00	VALVO	BAS16 (A6P)	
V413	AD BAS16 75V UDI HIGH-SPEED DIODE	AD 0007.4924.00	VALVO	BAS16 (A6P)	
V424	AD BAV99 75V DUO UDI HIGH-SPEED DOUBLE DIODE	AD 0911.0092.00	VALVO	BAV99	
V430	AE 1N827 6,2V REFDI ZENER REFERENCE DIODE	AE 0418.0029.00	COMPENSATE	1N827(A)	
V455	AE BZV55/C5V6 0.5W ZDI ZENER DIODE	AE 0006.9845.00	PHILIPS	BZV55B5V6	
V470	AK BC850B N 45V 200MA TRANSISTOR	AK 0007.7969.00	VALVO	BC850B	
V471	AE 1N827 6,2V REFDI ZENER REFERENCE DIODE	AE 0418.0029.00	COMPENSATE	1N827(A)	
V488	AD BAS16 75V UDI HIGH-SPEED DIODE	AD 0007.4924.00	VALVO	BAS16 (A6P)	
V510	AK BFG97 NPN 15V 100MA 5 GHZ WIDEBAND TRANSISTOR	0008.1741.00	PHILIPS	BFG97	
V513	AE HSMS2810 SCHOTTKY SCHOTTKY DIODE	0520.7340.00	HEWLETT_PA	HSMS-2810	
V540	AK BFG97 NPN 15V 100MA 5 GHZ WIDEBAND TRANSISTOR	0008.1741.00	PHILIPS	BFG97	
V550	AK BFG97 NPN 15V 100MA 5 GHZ WIDEBAND TRANSISTOR	0008.1741.00	PHILIPS	BFG97	
V566	AK BC860B P 45V 200MA TRANSISTOR	AK 0007.7975.00	MOTOROLA	BC860B	
V567	AK BC850B N 45V 200MA TRANSISTOR	AK 0007.7969.00	VALVO	BC850B	
V575	AK BFS17 N 15V 25MA 1 GHZ WIDEBAND TRANSISTOR	AK 0010.6460.00	VALVO	BFS17	
V580	AE BAR14-1 DUAL 100V PIN PIN DIODE	0820.3283.00	SIEMENS	BAR14-1 (-A772)	
V581	AE BAR14-1 DUAL 100V PIN PIN DIODE	0820.3283.00	SIEMENS	BAR14-1 (-A772)	
V582	AE BAR14-1 DUAL 100V PIN PIN DIODE	0820.3283.00	SIEMENS	BAR14-1 (-A772)	
V584	AK BFS17 N 15V 25MA 1 GHZ WIDEBAND TRANSISTOR	AK 0010.6460.00	VALVO	BFS17	
V588	AE HSMS2800 SCHOTTKY SCHOTTKY DIODE	AE 0836.8421.00	HEWLETT_PA	HSMS-2800(#L31)	
X24	FP STIFTLEISTE 36P.R2,54 PIN CONNECTOR 3-POLIG	FP 0242.3600.00	MPE	STL1-1180-14GGT8-036	
X32	FP STIFTLEISTE 36P.R2,54 PIN CONNECTOR 2-POLIG	FP 0242.3600.00	MPE	STL1-1180-14GGT8-036	
X34	FP STIFTLEISTE 36P.R2,54 PIN CONNECTOR 2-POLIG	FP 0242.3600.00	MPE	STL1-1180-14GGT8-036	
X35	FP STECKERLEISTE 4P.2R. CONNECTOR 4POL	FP 0831.9442.00	BINDER	11-0161-00-04	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
X36	FP STIFTLEISTE 36P.R2,54 PIN CONNECTOR 2-POLIG	FP 0242.3600.00	MPE	STL1-1180-14GGT8-036	
X37	FP STIFTLEISTE 36P.R2,54 PIN CONNECTOR 2-POLIG	FP 0242.3600.00	MPE	STL1-1180-14GGT8-036	
X38	FP STIFTLEISTE 36P.R2,54 PIN CONNECTOR 2-POLIG	FP 0242.3600.00	MPE	STL1-1180-14GGT8-036	
X40	FP STIFTLEISTE 36P.R2,54 PIN CONNECTOR 2-POLIG	FP 0242.3600.00	MPE	STL1-1180-14GGT8-036	
X41	FP STIFTLEISTE 36P.R2,54 PIN CONNECTOR 2-POLIG	FP 0242.3600.00	MPE	STL1-1180-14GGT8-036	
X49	FP STIFTLEISTE 36P.R2,54 PIN CONNECTOR 4-POLIG	FP 0242.3600.00	MPE	STL1-1180-14GGT8-036	
X52	FP STIFTLEISTE 36P.R2,54 PIN CONNECTOR 2-POLIG	FP 0242.3600.00	MPE	STL1-1180-14GGT8-036	
X57	FP STIFTLEISTE 36P.R2,54 PIN CONNECTOR 21-POLIG	FP 0242.3600.00	MPE	STL1-1180-14GGT8-036	
X60	FP STECKERLEISTE 32POL. CONNECTOR 32P.	FP 0008.5718.00	DEUT_ELCO	16 8457 064 002 027	
X65	FJ EINBAUSTECKER F.GS SMB ANGLE CONNECTOR	FJ 0602.8804.00	ROSENBERGE	59S-206-400-D3	
X67	FJ EINBAUSTECKER F.GS SMB ANGLE CONNECTOR	FJ 0602.8804.00	ROSENBERGE	59S-206-400-D3	
X69	FJ EINBAUSTECKER F.GS SMB ANGLE CONNECTOR	FJ 0602.8804.00	ROSENBERGE	59S-206-400-D3	

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ROHDE&SCHWARZ

XY-Liste

XY List

Erklärung der Spaltenbezeichnungen:

el. Kennz.	**Bauelement-Kennzeichen**
Seite	**Leiterplatten-Seite, auf der sich das Bauelement befindet**
X/Y	**Koordinaten (in Millimeter) des Bauelementes auf der Leiterplatte bezogen auf den Nullpunkt**
Planq., Bl.	**Planquadrat und Seite des Schaltbildes für das jeweilige Bauelement**

Explanation of column designations:

Part	**Identification of instrument part**
Side	**Side of the PC board on which instrument part is positioned**
X/Y	**Coordinates (in units of millimeters) of the component on the PC board in reference to zero point**
Sqr, Pg	**Square and page of the diagram for the respective instrument part**

Service-Relevante Bauteile / Service-Relevant Components

Part	Side	X	Y	Sqr	Pg	Part	Side	X	Y	Sqr	Pg	Part	Side	X	Y	Sqr	Pg
C329	B	173	132	4D	4	P409	B	150	82	8D	5	X35	B	297	130	10E	4
P300	B	91	103	2D	4	P410	B	150	79	8D	5	X36	B	123	109	2D	4
P301	B	131	111	2C	4	R321	B	193	126	3E	4	X37	B	210	105	8C	4
P302	B	122	134	4C	4	R345	B	231	140	7E	4	X38	B	232	50	8B	4
P303	B	122	126	4A	4	R427	B	112	84	5E	5	X40	B	204	84	1D	5
P400	B	175	60	2A	5	R429	B	112	89	5E	5	X41	B	204	71	2D	5
P401	B	167	64	4C	5	R437	B	109	66	6D	5	X49	B	109	131	10B	5
P402	B	167	67	4B	5	R444	B	87	128	7C	5	X52	B	259	51	4E	6
P403	B	169	100	5B	5	R483	B	77	139	6B	5	X57	B	284	97	7C	6
P404	B	101	93	4E	5	R490	B	87	139	9B	5	X60A	B	189	11	1E	3
P405	B	134	76	4E	5	R549	B	247	118	6E	6	X60D	B	189	11		
P406	B	150	62	6D	5	X24	B	15	104	7E	3	X65	B	245	15	1B	6
P407	B	150	65	6D	5	X32	B	170	123	3E	4	X67	B	271	15	1E	6
P408	B	135	89	7D	5	X34	B	220	124	7E	4	X69	B	296	15	12C	6

Nicht-Service-Relevante Bauteile / Non-Service-Relevant Components

Part	Side	X	Y	Sqr	Pg	Part	Side	X	Y	Sqr	Pg	Part	Side	X	Y	Sqr	Pg
C80	B	141	27	3F	2	C239	B	26	109	6E	3	C298	B	81	13	11B	3
C82	B	146	27	3D	2	C240	B	19	112	6E	3	C300	A	81	104	2E	4
C84	B	136	27	3B	2	C241	A	23	85	2A	3	C310	B	131	116	3D	4
C86	B	116	27	3E	7	C250	B	45	120	9E	3	C323	A	196	130	3E	4
C87	B	151	27	3D	7	C258	A	50	128	4A	3	C324	B	176	123	4E	4
C88	B	131	27	3C	7	C259	A	56	122	4A	3	C325	B	142	137	4D	4
C89	B	105	27	3B	7	C260	B	70	99	10E	3	C326	B	161	133	4D	4
C90	B	133	41	4E	7	C261	B	53	129	9E	3	C327	B	166	136	4D	4
C91	B	81	41	8B	2	C262	B	52	133	9E	3	C328	B	158	139	4D	4
C92	B	153	22	3D	7	C263	B	58	133	9E	3	C330	B	172	127	5D	4
C93	B	135	22	3C	7	C270	A	56	61	2C	3	C331	B	198	133	5D	4
C94	B	105	22	3B	7	C271	A	86	67	2B	3	C332	B	205	131	5D	4
C100	B	161	27	3E	2	C272	A	79	79	2C	3	C333	B	205	133	5D	4
C101	B	177	27	3E	2	C274	B	31	26	8C	3	C334	B	205	128	5D	4
C102	B	166	27	3E	2	C275	B	94	89	11E	3	C335	B	201	137	5C	4
C105	B	125	22	2E	7	C276	A	67	13	7C	3	C336	A	128	140	4C	4
C129	A	154	39	5D	2	C277	A	40	17	8C	3	C337	A	128	129	4B	4
C130	A	193	39	6C	2	C278	B	25	20	8C	3	C338	A	138	133	4C	4
C131	A	191	39	6C	2	C279	B	18	20	8C	3	C339	A	145	124	4B	4
C132	A	196	39	6B	2	C280	A	68	65	2A	3	C340	B	220	137	11D	7
C133	A	179	39	6B	2	C281	A	68	70	2A	3	C342	B	222	136	6F	4
C136	A	177	52	9B	2	C282	A	68	77	3A	3	C343	B	229	137	6F	4
C138	A	167	49	8B	2	C283	A	68	84	3A	3	C344	B	222	127	6E	4
C151	A	44	38	9B	2	C284	A	22	94	3A	3	C347	B	236	133	7E	4
C166	A	50	46	10B	2	C285	A	15	110	3A	3	C348	B	244	137	7F	4
C200	B	85	64	2E	3	C286	A	68	109	4A	3	C350	B	241	130	7E	4
C202	B	85	82	2E	3	C287	A	69	102	4A	3	C351	B	258	136	8E	4
C220	B	29	79	5E	3	C288	A	43	25	8B	3	C352	B	275	141	9E	4
C221	B	29	84	5D	3	C289	A	59	15	8A	3	C353	B	281	138	9E	4
C226	B	32	72	5F	3	C290	A	64	20	9B	3	C354	B	283	129	9E	4
C227	B	33	93	5D	3	C293	B	70	16	10C	3	C355	B	271	131	8E	4
C230	A	29	74	5A	3	C296	B	55	22	10B	3	C356	B	269	138	8F	4
C233	A	17	79	7E	3	C297	B	81	25	11C	3	C358	B	297	135	10F	4

ROHDE & SCHWARZ	-I	Datum Date	XY-Liste für XY-list for	Sach-Nummer Stock-Nr	Blatt Page
	04	08.06.94	EE FM_MODULATOR FM_MODULATOR	1036.8508.01 XY	1+

Part	Side	X	Y	Sqr	Pg
C359	A	279	132	10F	4
C360	B	230	115	8D	4
C362	B	210	103	8D	4
C363	A	210	102	8D	7
C364	A	223	104	9D	4
C365	B	230	112	8D	4
C366	B	215	115	8D	4
C375	A	214	85	8D	7
C376	A	223	92	11D	4
C380	B	212	40	8B	4
C382	B	232	52	8C	4
C383	A	232	53	8C	7
C384	A	219	51	9C	4
C385	B	212	43	8B	4
C386	B	227	39	8B	4
C395	A	228	70	8C	7
C396	A	219	63	11C	4
C400	B	180	106	3C	5
C401	B	175	91	3B	5
C402	B	171	72	4C	5
C403	B	168	83	4B	5
C404	B	171	74	4C	5
C405	B	171	78	4B	5
C406	B	156	69	4C	5
C407	B	160	63	4C	5
C408	A	184	74	3A	5
C409	A	112	136	11B	5
C410	B	156	66	4C	5
C414	A	188	100	3A	5
C415	B	176	95	4B	5
C416	B	163	98	5B	5
C417	A	153	93	4A	5
C419	A	88	91	7A	5
C422	B	114	66	4E	5
C423	B	131	66	4E	5
C433	A	111	79	5D	5
C434	A	145	67	6D	5
C435	A	114	64	5E	5
C436	A	137	62	6D	5
C438	A	110	84	11E	5
C439	A	103	62	11E	5
C440	A	111	100	6F	5
C442	B	108	112	10F	5
C443	A	139	102	12F	5
C445	B	118	109	8E	5
C446	A	111	106	6F	5
C447	B	113	101	7E	5
C449	A	143	107	8E	5
C450	A	163	108	10E	5
C454	B	152	111	9D	5
C456	B	125	97	11E	5
C460	A	137	106	8E	5
C467	B	141	88	11E	5
C473	A	194	67	2A	5
C475	B	88	116	7B	5
C479	A	73	96	7A	5
C480	B	70	127	7B	5
C481	B	73	123	8B	5
C485	A	79	123	7A	5
C486	A	71	128	6A	5
C487	B	70	134	8B	5
C488	A	76	23	10C	5
C490	B	97	129	9B	5
C494	B	112	128	11B	5
C495	B	112	124	11B	5
C496	A	89	133	7A	5
C497	A	97	128	8A	5
C498	B	119	128	12B	5
C500	B	239	14	2B	6
C504	B	230	18	2C	6
C506	B	222	32	2C	6
C507	B	216	32	2C	6
C510	B	234	25	3C	6
C511	B	240	28	3C	6
C512	B	243	21	3C	6
C513	B	263	25	3E	6
C514	A	258	24	3D	6
C520	A	271	21	2E	6
C529	B	257	70	5E	6
C531	B	260	46	4E	6
C532	B	254	46	4E	6
C533	B	254	48	4E	6
C534	B	254	57	4E	6
C535	B	254	55	4E	6
C536	B	254	60	4E	6
C537	B	254	66	4E	6
C538	B	257	64	5E	6
C539	B	266	76	5E	6
C540	B	251	76	5E	6
C541	B	254	83	5E	6
C542	B	254	89	6E	6
C543	B	254	92	6E	6
C544	B	254	100	6E	6
C545	B	254	98	6E	6
C546	B	254	103	6E	6
C547	B	254	109	6E	6
C548	B	252	112	6E	6
C549	B	271	121	7E	6
C550	B	265	119	7E	6
C551	B	271	114	7E	6
C552	B	265	108	7E	6
C553	B	274	106	7E	6
C554	B	265	100	8E	6
C555	B	274	96	8E	6
C556	B	265	91	8E	6
C557	B	274	88	8E	6
C558	B	271	83	8E	6
C566	A	271	63	6D	6
C570	B	296	109	7B	6
C571	B	300	105	7B	6
C572	B	300	91	8B	6
C573	B	293	80	8B	6
C574	B	298	70	8C	6
C575	B	292	74	8B	6
C576	B	296	32	10C	6
C577	B	296	28	10C	6
C578	B	286	71	9C	6
C580	B	295	61	9C	6
C581	B	292	60	9C	6
C582	A	286	37	9D	6
C583	B	291	47	9B	6
C584	B	296	35	10C	6
C585	B	293	41	10B	6
C586	B	286	27	10C	6
C587	B	290	35	10C	6
C588	B	290	18	11B	6
C589	A	286	18	11B	6
C590	A	282	56	9D	6
C598	A	296	88	11D	6
C599	A	282	95	11D	6
D100-A	A	166	14	3E	2
D100-B				3E	2
D100-C				3E	2
D100-D				3D	2
D100-E				3B	2
D110-A	B	73	46	5F	2
D110-B				8B	2
D120-A	A	159	39	6D	2
D120-B				5D	2
D120-C				5D	2
D120-D				4C	2
D120-E				8B	2
D130	A	182	39	5C	2
D130-B				9B	2
D150-A	A	32	37	7F	2
D150-B				9B	2
D155-A	A	20	37	8F	2
D155-B				10B	2
D165-A	A	40	52	7D	2
D165-B				10B	2
D170-A	A	27	52	8D	2
D170-B				10B	2
D175-A	A	15	52	10D	2
D175-B				11B	2
D200-A	B	85	69	2E	3
D200-B				2E	3
D200-C				2E	3
D200-D				2E	3
D200-E				1B	3
D210-A	B	46	72	4F	3
D210-B				4E	3
D210-C				4E	3
D210-D				4F	3
D210-E				2B	3
D215-A	B	46	83	4E	3

ROHDE & SCHWARZ	-I	Datum Date	XY-Liste für XY-list for	Sach-Nummer Stock-Nr	Blatt Page
	04	08.06.94	EE FM_MODULATOR FM_MODULATOR	1036.8508.01 XY	2+

Part	Side	X	Y	Sqr	Pg
D215-B				4D	3
D215-C				4E	3
D215-D				4E	3
D215-E				2B	3
D220-A	B	46	95	4D	3
D220-B				4D	3
D220-C				4D	3
D220-D				4D	3
D220-E				3B	3
D230-A	A	20	74	7F	3
D230-B				8F	3
D230-C				4A	3
D240-A	B	16	86	6E	3
D240-B				1A	3
D250-A	B	29	118	7D	3
D250-B				7D	3
D250-C				7D	3
D250-D				7D	3
D250-E				3B	3
D260-A	B	44	114	8D	3
D260-B				9E	3
D260-C				9F	3
D260-D				8E	3
D260-E				3B	3
D270-A	B	79	99	10B	5
D270-B				11E	3
D270-C				11E	3
D270-D				10B	5
D270-E				4B	3
D285-A	B	60	23	10C	3
D285-B				10C	3
D285-C				8B	3
D290-A	B	79	23	10C	5
D290-B				11C	3
D290-C				11B	3
D290-D				11C	3
D290-E				8B	3
D360-A	B	219	106	9D	4
D360-B				9D	4
D360-C				9D	4
D370-A	B	219	95	10D	4
D370-B				11D	4
D380-A	B	223	49	9B	4
D380-B				9C	4
D380-C				9C	4
D390-A	B	223	60	10C	4
D390-B				11C	4
D400-A	B	188	85	3E	5
D400-B				3A	5
D410-A	B	188	97	2B	5
D410-B				2C	5
D410-C				3A	5
D415-A	B	150	90	5C	5
D415-B				4A	5
D420-A	B	138	78	3F	5

Part	Side	X	Y	Sqr	Pg
D420-B				6D	5
D430-A	B	118	78	4F	5
D430-B				7D	5
D440-A	A	125	98	6E	5
D440-B				7F	5
D440-C				10D	5
D440-D				7E	5
D440-E				12F	5
D450-A	A	170	103	9E	5
D450-B				11F	5
D480-A	B	82	133	9B	5
D480-B				8A	5
G280	A	70	13	7C	3
L90	B	126	43	4E	7
L91	B	100	37	4F	7
L92	B	150	17	3D	7
L93	B	121	20	3C	7
L94	B	107	16	3B	7
L105	B	120	24	2E	7
L241	A	29	89	6E	7
L270	A	60	60	4D	7
L271	A	86	70	4D	7
L272	A	83	76	6E	7
L323	A	192	136	4E	4
L324	A	176	128	4E	4
L325	B	139	133	3D	4
L326	B	152	133	4D	4
L327	B	170	130	4D	4
L328	B	154	126	4D	4
L330	B	202	126	5D	4
L331	B	206	136	5D	4
L340	B	217	137	10D	7
L354	B	275	138	9E	4
L355	B	284	138	9E	4
L356	B	281	132	9E	4
L357	B	265	141	8F	4
L363	A	210	98	8D	7
L365	B	220	112	8D	4
L375	A	210	89	8D	7
L383	A	232	57	8C	7
L385	B	222	43	8B	4
L395	A	232	66	8C	7
L400	B	181	103	3C	5
L401	B	182	91	3B	5
L402	B	163	74	4C	5
L403	B	171	83	4B	5
L408	A	179	69	3B	5
L414	A	183	110	3B	5
L415	B	181	98	4B	5
L416	B	166	98	5B	5
L417	A	157	89	4B	5
L442	B	105	109	8E	7
L456	B	129	99	8E	7
L507	A	219	31	8B	7
L511	B	232	28	3C	6

Part	Side	X	Y	Sqr	Pg
L512	B	237	28	3C	6
L513	B	243	24	3C	6
L532	B	247	46	4E	6
L534	B	247	56	4E	6
L537	B	247	66	4E	6
L539	B	268	69	5F	6
L540	B	262	76	5E	6
L542	B	247	89	6E	6
L544	B	247	99	6E	6
L547	B	247	109	6E	6
L549	A	269	117	7F	6
L550	B	273	117	7E	6
L552	B	272	106	7E	6
L554	B	272	96	8E	6
L556	B	272	85	8E	6
L566	A	267	60	6D	6
L571	B	300	108	7B	6
L572	B	296	97	8B	6
L573	B	297	84	8B	6
L576	B	293	28	10C	6
L578	B	282	65	9C	6
L580	B	295	55	9C	6
L581	B	287	55	9C	6
L586	B	282	30	10C	7
L587	B	290	15	11C	6
N200-A	B	74	69	3E	3
N200-B				2A	3
N210-A	B	74	75	3E	3
N210-B				3A	3
N220-A	B	42	74	5E	3
N220-B				2A	3
N230-A	B	42	81	5D	3
N230-B				3A	3
N240-A	B	29	98	6E	3
N240-B				3A	3
N250-A	B	44	126	9E	3
N250-B				4A	3
N260-A	B	61	107	10E	3
N260-B				4A	3
N280-A	B	32	13	9C	3
N280-B				9C	3
N280-C				8B	3
N300-A	A	79	107	2E	4
N300-B				2E	4
N300-C				2E	4
N420-A	A	109	66	5E	5
N420-B				10E	5
N421-A	A	109	72	5D	5
N421-B				11E	5
N430	A	107	110	6E	5
N430-B				10F	5
N440-A	A	145	108	9F	5
N440-B				10E	5
N440-C				11F	5
N455-A	A	137	88	7D	5

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Part	Side	X	Y	Sqr	Pg
N455-B				7D	5
N455-C				11E	5
N475-A	B	76	121	7B	5
N475-B				6A	5
N480-A	B	82	126	7B	5
N480-B				7A	5
N485-A	A	79	91	9C	5
N485-B				9C	5
N485-C				7A	5
N490-A	B	87	137	9B	5
N490-B				7A	5
N595-A	A	287	86	8D	6
N595-B				11D	6
R80	A	141	20	3F	2
R81	B	141	36	4F	2
R82	A	146	20	3D	2
R83	B	145	36	4D	2
R84	A	138	20	3B	2
R85	A	138	36	4B	2
R100	A	162	17	3E	2
R101	B	161	36	4E	2
R102	A	175	20	3E	2
R103	B	174	39	4E	2
R104	A	164	21	3E	2
R105	B	166	36	4E	2
R106	A	175	18	3D	2
R110	A	74	52	4F	2
R111	A	72	52	4F	2
R112	A	69	52	4F	2
R113	A	67	52	4E	2
R114	A	64	52	4E	2
R115	A	62	52	4E	2
R116	A	59	57	4E	2
R117	A	62	45	4E	2
R118	A	62	43	4E	2
R120	A	55	55	5E	2
R121	A	55	52	5E	2
R122	A	55	50	5E	2
R123	A	55	47	5E	2
R124	A	55	44	5E	2
R125	A	55	42	5E	2
R126	A	55	39	5E	2
R127	A	57	37	5E	2
R128	A	157	36	6D	2
R129	A	156	43	5D	2
R130	A	198	38	7C	2
R131	A	198	36	7C	2
R132	A	199	41	7B	2
R133	A	182	36	7B	2
R134	A	196	43	6C	2
R135	A	168	36	4C	2
R136	A	179	42	9C	2
R138	A	170	44	5E	7
R150	A	42	34	6F	2
R151	A	44	44	5E	7
R155	A	29	34	8F	2
R164	B	51	53	6E	2
R165	A	50	49	6D	2
R166	A	43	47	5E	7
R170	A	37	49	8D	2
R175	A	24	49	10D	2
R201	B	88	64	1E	3
R203	B	91	79	1E	3
R205	B	76	70	3E	3
R206	B	76	76	3D	3
R210	B	65	66	3F	3
R211	B	65	64	3E	3
R212	B	65	83	3E	3
R213	B	65	77	3D	3
R214	B	65	90	3D	3
R215	B	65	87	3D	3
R220	B	43	69	5E	3
R221	B	43	88	5D	3
R222	B	43	65	4E	3
R223	A	37	77	5E	3
R224	B	43	90	4D	3
R225	B	33	90	5D	3
R226	B	42	72	5F	3
R227	B	43	93	5D	3
R230	A	29	67	6E	7
R231	A	25	71	7E	3
R232	A	20	71	7E	3
R233	A	15	75	7E	3
R234	A	23	71	7E	3
R240	B	18	106	7E	3
R241	B	31	104	6D	3
R242	A	34	82	5E	3
R244	B	33	116	7D	3
R245	B	20	116	7D	3
R246	B	20	130	7D	3
R247	B	20	132	7D	3
R248	B	36	131	7D	3
R249	B	33	131	7D	3
R250	B	33	120	8D	3
R251	B	33	123	8D	3
R252	B	33	125	8D	3
R253	B	41	117	9D	3
R254	B	41	123	9D	3
R256	B	49	129	9E	3
R257	B	44	117	9E	3
R258	A	46	136	6D	7
R259	A	44	123	6D	7
R260	B	62	109	10E	3
R261	B	60	113	10E	3
R270	B	88	93	11E	3
R274	B	31	23	8C	3
R276	A	65	13	8F	7
R277	B	65	11	8C	3
R278	B	48	11	8C	3
R279	B	36	11	8B	3
R280	A	72	61	5D	7
R281	A	79	70	5D	7
R282	A	62	70	5D	7
R283	A	79	83	5D	7
R284	A	29	94	5D	7
R285	A	26	110	5D	7
R286	A	68	117	6D	7
R287	A	62	98	6D	7
R288	A	39	27	8F	7
R289	A	51	19	8E	7
R290	B	44	23	8B	3
R291	A	58	27	9C	3
R292	A	61	27	9C	3
R293	B	69	25	9C	3
R294	A	64	27	9C	3
R295	A	66	27	9C	3
R296	B	51	20	9B	3
R297	B	75	25	10C	3
R298	B	75	13	10B	3
R299	A	71	20	8F	7
R300	A	74	110	7D	7
R301	A	76	106	2E	4
R302	A	81	114	2E	4
R303	A	88	114	2D	4
R305	B	110	107	2D	4
R307	A	88	108	2E	4
R308	A	88	105	2D	4
R310	B	125	114	2D	4
R311	B	125	111	2D	4
R315	B	288	132	9E	4
R316	B	291	132	9E	4
R317	B	290	135	10E	4
R320	A	201	124	3E	4
R322	A	192	141	3E	4
R323	A	173	123	3E	4
R324	A	173	126	4F	4
R326	B	142	133	4D	4
R328	B	208	126	5D	4
R329	B	201	123	5D	4
R330	B	203	140	5C	4
R331	B	198	136	5C	4
R332	A	125	138	8B	7
R333	A	125	131	8B	7
R334	A	131	140	4C	4
R335	A	134	131	4B	4
R336	A	135	138	4C	4
R337	A	135	129	4B	4
R338	A	128	135	4C	4
R339	A	128	126	4B	4
R340	B	216	131	6E	4
R341	B	216	133	6F	4
R342	B	222	133	6F	4
R343	B	222	138	6F	4
R344	B	220	127	6E	4
R346	B	236	140	7E	4

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Part	Side	X	Y	Sqr	Pg	Part	Side	X	Y	Sqr	Pg	Part	Side	X	Y	Sqr	Pg
R347	B	239	133	7E	4	R408	A	109	136	11B	5	R467	B	137	86	8E	7
R348	B	239	140	7F	4	R409	A	112	133	11B	5	R468	A	152	85	8D	5
R349	B	241	136	7F	4	R410	A	184	99	2C	5	R469	A	147	79	8D	5
R350	B	229	127	7E	4	R411	A	189	111	2C	5	R470	A	190	68	2A	5
R351	B	246	132	7E	4	R412	A	192	111	2C	5	R471	A	181	67	2A	5
R352	B	255	132	7E	4	R413	A	203	106	2B	5	R472	B	180	60	2A	5
R353	B	252	132	7E	4	R414	B	140	62	6D	5	R473	B	194	60	2A	5
R354	B	271	128	8E	4	R415	B	143	66	6D	5	R474	A	177	64	2B	5
R355	B	275	131	8E	4	R416	A	196	77	3D	5	R475	B	81	112	6B	5
R356	B	259	142	8F	4	R417	A	159	103	5B	5	R476	B	78	115	7B	5
R357	B	226	124	7E	4	R418	B	161	87	5B	5	R477	B	73	115	6B	5
R358	B	260	139	8E	4	R419	A	91	88	6D	7	R478	B	70	119	6B	5
R359	A	298	135	10F	4	R420	B	124	60	3F	5	R479	A	76	98	6D	7
R360	B	217	115	8D	4	R421	B	127	60	4F	5	R480	B	84	120	7B	5
R361	B	215	106	8D	4	R422	B	112	74	4E	5	R481	B	80	124	7B	5
R362	B	211	97	8D	7	R423	B	134	73	4E	5	R482	A	88	93	9C	5
R363	A	217	102	8D	7	R424	B	115	78	5E	5	R484	A	71	138	6C	5
R364	A	224	108	8D	4	R425	B	115	81	5E	5	R485	A	82	119	6D	7
R365	B	214	97	8D	4	R426	B	121	81	5E	5	R486	A	84	124	6D	7
R366	B	228	105	9D	4	R428	B	124	81	5E	5	R487	B	73	129	8B	5
R367	B	212	88	10D	4	R430	A	107	88	5E	5	R488	A	80	18	10C	5
R368	B	212	91	10D	4	R431	B	102	76	5D	5	R489	A	81	25	10C	5
R369	B	212	83	10D	4	R432	B	104	66	5D	5	R491	A	84	141	9C	5
R370	B	212	86	10D	4	R433	A	107	75	5D	5	R492	B	96	137	9B	5
R371	A	212	93	10D	4	R434	A	127	67	5D	5	R493	B	96	140	10B	5
R372	B	232	97	10D	4	R435	A	114	61	5E	5	R494	B	106	135	9B	5
R373	B	232	95	10D	4	R436	A	127	64	5D	5	R495	B	104	135	9B	5
R374	B	230	86	11D	4	R438	A	110	92	8E	7	R496	B	101	135	9B	5
R375	A	217	90	8D	7	R439	B	108	62	8E	7	R497	B	163	100	5B	5
R376	B	213	109	8D	4	R440	A	116	113	7E	5	R498	A	90	120	7D	7
R380	B	225	39	8B	4	R441	A	130	69	6D	5	R499	A	87	124	7D	7
R381	B	227	49	8C	4	R442	A	133	67	6D	5	R500	B	233	11	2B	6
R382	B	231	58	8C	7	R443	A	137	98	8E	7	R501	B	218	15	2B	6
R383	A	225	53	8C	7	R445	B	122	106	7E	5	R502	B	225	11	2B	6
R384	A	218	47	8C	4	R446	B	119	104	7E	5	R503	B	232	15	2C	6
R385	B	228	58	8C	4	R447	B	113	104	7E	5	R504	B	232	18	2C	6
R386	B	214	50	9C	4	R448	A	139	105	8F	5	R505	B	223	14	2B	6
R387	B	230	67	10C	4	R449	A	140	107	8E	5	R506	B	225	31	2C	6
R388	B	230	64	10C	4	R450	A	167	105	10E	5	R507	B	216	25	2C	6
R389	B	230	72	10C	4	R451	A	167	103	10E	5	R510	B	254	20	2E	6
R390	B	230	69	10C	4	R452	A	156	112	10E	5	R511	B	258	23	2E	6
R391	A	230	62	10C	4	R453	A	150	102	9E	5	R512	B	260	22	2E	6
R392	B	210	58	10B	4	R454	B	159	112	9D	5	R514	A	261	22	3E	6
R393	B	210	60	10B	4	R455	B	168	112	9D	5	R520	A	274	25	2E	6
R394	B	212	69	11B	4	R456	A	80	101	9C	5	R521	A	274	31	2E	6
R395	A	225	65	8C	7	R457	A	84	98	9C	5	R525	A	282	34	9D	6
R396	B	229	46	8B	4	R458	A	76	89	9C	5	R527	B	262	52	4E	6
R400	B	164	65	4C	5	R459	B	67	129	9C	5	R528	B	267	39	3E	6
R401	A	168	69	4B	5	R460	A	144	98	7E	5	R529	B	271	43	3E	6
R402	B	160	71	4C	5	R461	B	83	102	10B	5	R530	B	267	46	3E	6
R403	B	161	74	4C	5	R462	A	137	95	7D	5	R540	B	251	70	5E	6
R404	B	175	68	4C	5	R463	A	147	95	7D	5	R541	B	249	76	5E	6
R405	B	175	81	4B	5	R464	A	135	95	7D	5	R542	B	263	70	5E	6
R406	B	91	125	7C	5	R465	A	150	89	8E	5	R550	B	252	121	6E	6
R407	A	112	127	11B	5	R466	A	147	91	8D	5	R551	B	267	119	7E	6

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Part	Side	X	Y	Sqr	Pg	Part	Side	X	Y	Sqr	Pg	Part	Side	X	Y	Sqr	Pg
R552	B	257	110	7E	6	R596	A	285	58	9D	6	V340	B	222	129	6E	4
R555	B	282	87	8E	6	R597	A	288	55	9D	6	V350	B	229	129	7E	4
R556	B	286	90	9E	6	R598	A	293	80	10C	7	V355	B	261	135	8E	4
R557	B	290	90	8E	6	R599	A	288	95	11C	7	V358	B	298	141	10F	4
R565	A	265	52	5D	6	U520	B	272	35	3E	6	V360	B	211	116	8D	4
R566	A	271	58	5D	6	U570	B	291	102	7B	6	V380	B	231	39	8B	4
R567	A	269	45	5C	6	V136	A	179	52	9B	2	V412	B	200	102	2C	5
R568	A	271	51	5C	6	V201	B	90	71	2E	3	V413	B	202	97	3C	5
R569	B	291	97	7C	6	V202	B	90	77	2E	3	V424	A	102	113	6F	5
R571	B	300	99	7B	6	V318	B	189	123	4E	4	V430	B	104	79	5D	5
R575	B	298	74	8C	6	V319	B	189	141	4E	4	V455	B	161	112	9D	5
R576	B	298	67	8C	6	V320	B	179	123	4E	4	V470	A	186	66	2A	5
R578	B	285	69	9C	6	V321	B	182	123	4E	4	V471	B	184	63	2A	5
R579	B	286	75	9B	6	V322	B	179	141	4E	4	V488	A	79	23	10C	5
R581	B	286	60	9C	6	V323	B	182	141	4E	4	V510	B	223	17	2B	6
R582	A	284	48	9D	6	V324	B	184	141	4E	4	V513	B	268	23	3D	6
R584	B	296	37	10C	6	V325	B	187	141	4E	4	V540	B	254	73	5E	6
R585	B	300	41	10C	6	V326	B	187	123	4E	4	V550	B	255	118	7E	6
R586	B	286	34	10C	6	V327	B	184	123	4E	4	V566	A	261	54	5D	6
R588	B	286	41	10B	6	V328	B	154	133	4D	4	V567	A	267	51	5C	6
R589	A	287	20	11B	6	V330	B	202	131	5D	4	V575	B	288	74	8B	6
R590	A	285	52	9D	6	V332	A	137	141	4C	4	V580	B	290	53	9C	6
R591	A	290	67	9D	6	V333	A	140	137	4B	4	V581	B	292	55	9C	6
R592	A	284	80	8D	6	V334	A	147	129	4B	4	V582	A	289	44	9D	6
R593	A	287	83	8D	6	V335	A	141	129	4B	4	V584	B	289	41	10B	6
R594	A	282	80	8C	6	V336	A	131	134	4C	4	V588	B	287	13	11B	6
R595	A	283	86	8C	6	V337	A	131	126	4B	4						

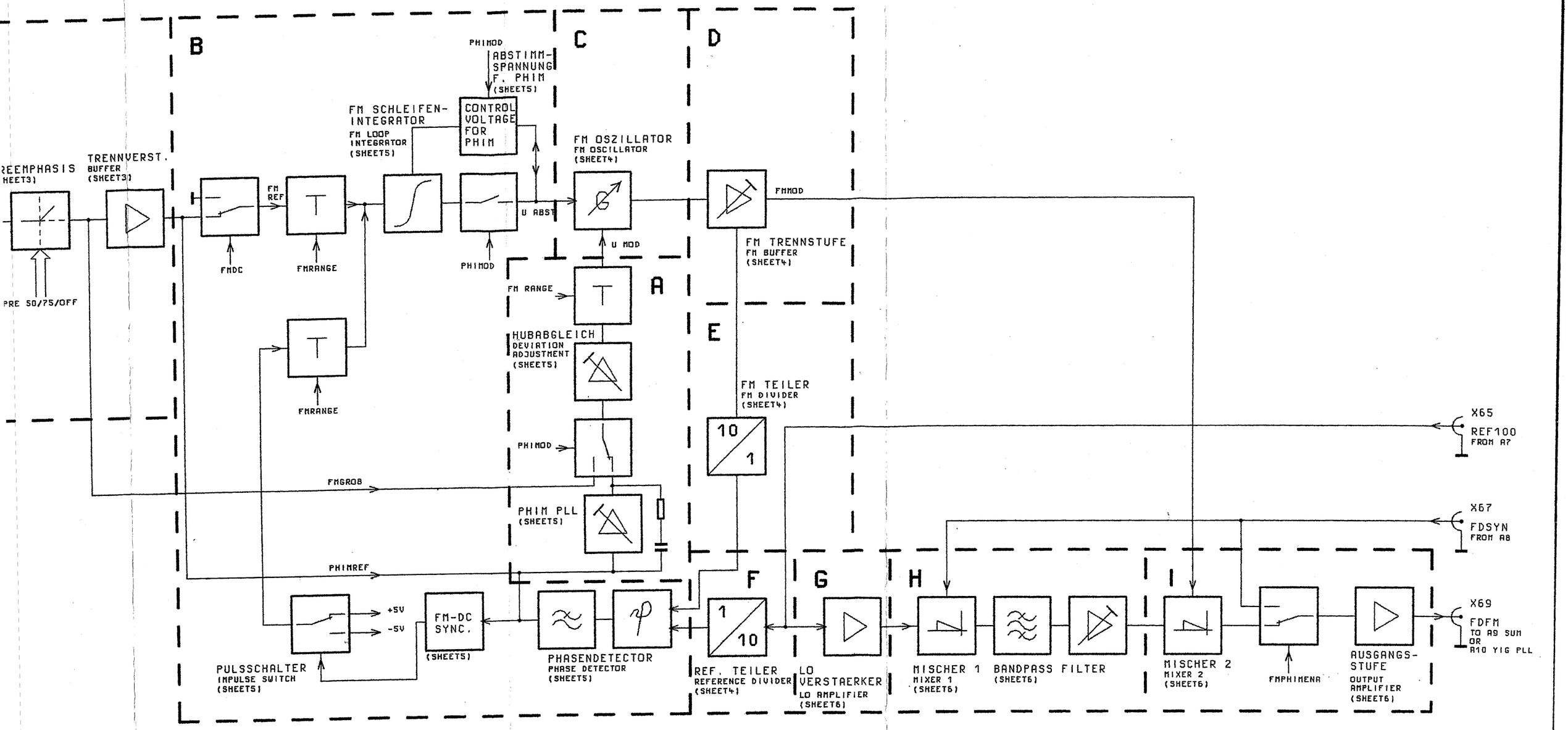
ROHDE&SCHWARZ

Stromläufe
Bestückungspläne

Circuit diagrams
Component plans

Schémas de circuit
Plans des composants

095.1000 Bl. 4

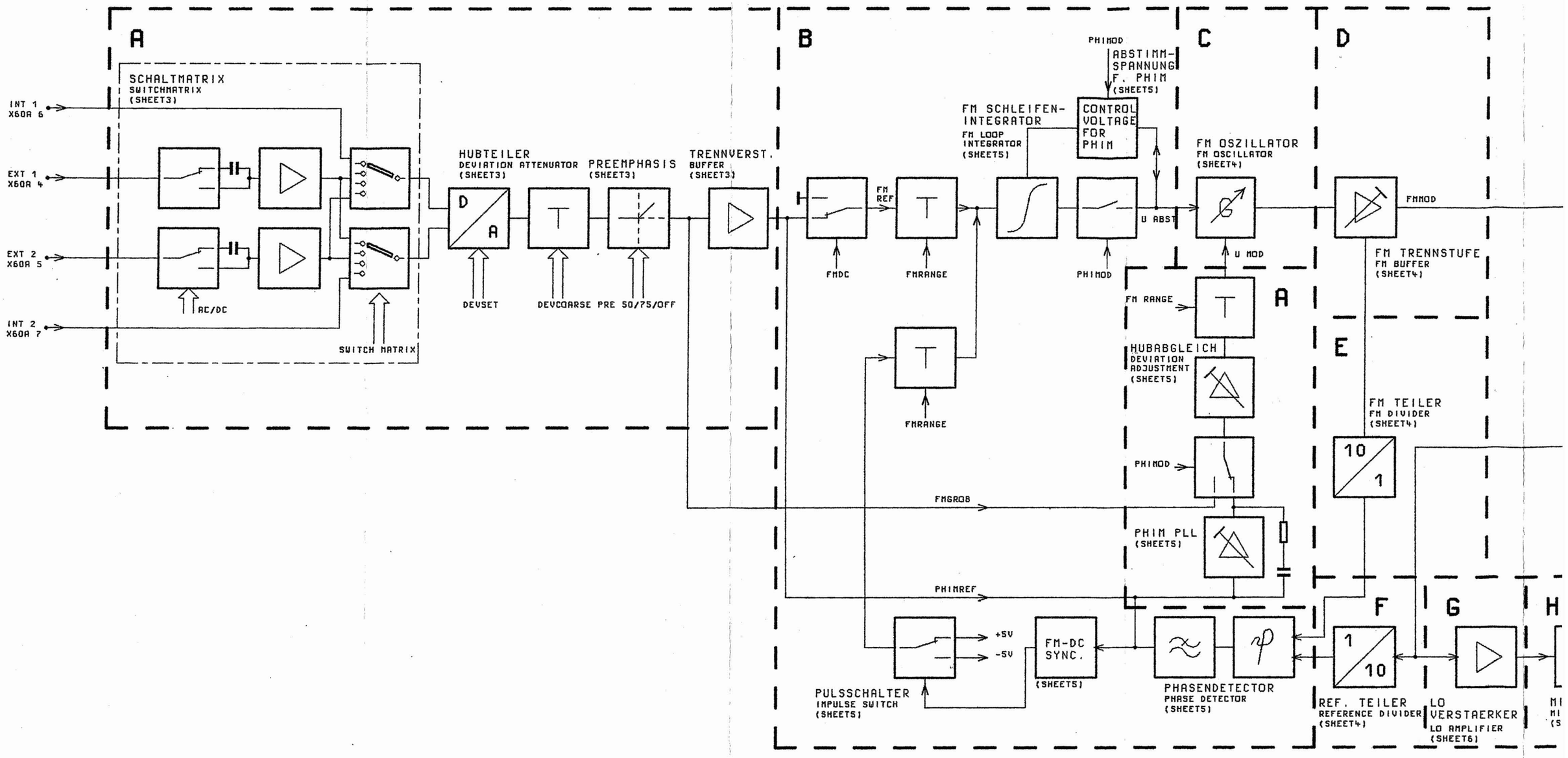


STROMLAUF GILT FUER VAR.02

CIRCUIT DIAGRAM IS VALID FOR MOD.02

04/01	48743 09	28.05.93	BU	1GPK	TAG	NAME	BENENNUNG
04/03		04.98	Ei	BEARB.		BAUR	FM MODULATOR
				GEPR.	04.98	Ei	FM MODULATOR
				NORM			
				PLOTT			
02/01	48743 07	17.03.93	BU	ROHDE&SCHWARZ			ZEICHN.-NR. 1036.8508.01S
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET SM-B5			BLATT-NR. 1+
				REG.I.V. 1036.8489			ERSTE Z.

FUER DIESE UNTERLAGE BEHALTEN WIR UNS ALLE RECHTE VOR



STROMLAUF GILT FUER VAR.02

CIRCUIT DIAGRAM IS VALID FOR MOD.02

04/01	4874
04/03	
02/01	4874
AEND. IND.	AEND MITT

DATENUEBERTRAGUNG
DATA TRANSFER

D110-A
SERBUS-D

+5VA1

P1
P2

TRISTATE
NANDTREE
RESET-P
A1
A2
A3
A4
A5
A6
A7

* R110
* R111
* R112
R113 10K L
R114 10K L
* R115
* R116

R117 10K L

SYNC
SERCLK
DATAEN
DATAIN
DATAOUT

PARDATO

+5VA1

R120*
R121*
R122 10K L
R123*
R124 10K L
R125*
R126*
R127*

R118 10K L

INTEN
INT
IRQUIT
MASK
IR0
IR1
IR2
IR3

SEROUT
CLK1
RD1
WR1
SERIN1
CLK2
RD2
WR2
SERIN2

EXT2-LOW
SHEET3 10B
EXT2-HIGH
SHEET3 10C
INT1
SHEET3 12C

+5VA2

R128 10K L

D120-B
74HC132T-L

D120-C
74HC132T-L

C129 47N L

R129 56K2 L

D120-A
74HC132T-L

KOMP
SHEET4 3D
SHEET5 11D

D150-A
74HC4094T-L

+5VA3

R150 10K L

DMUX0
DMUX1
DMUX2
SHEET2 5C

DIAG-ENA SHEET2 4C
PHIMOD SHEET5
ACDC1 SHEET3 2D
ACDC2 SHEET3 2D
FMDC SHEET3 10D

D155-A
74HC4094T-L

R155 10K L

PRES0/75 SHEET3 9E
PREON SHEET3 8D 9D

S5
S4
S3
S2
S1
S0

SWITCHMATRIX
SHEET3 4C-F

R164 4K75 B

WRITE
SHEET3 7F

D165-A
74HC4094T-L

+5VA4

R165 10K L

DAC-A/B SHEET3 5F
FMPHIM-ENA SHEET6 4C 7D
FMRANGE SHEET5 3D 6F 8A

D170-A
74HC4094T-L

R170 10K L

DSET0
DSET1
DSET2
DSET3
DSET4
DSET5
DSET6
DSET7

D175-A
74HC4094T-L

R175 10K L

DSET8
DSET9
DSET10
DSET11
DEV0
DEV1
DEV2
DEV3

DEVSET
SHEET3 5D/E

DEVCOARSE
SHEET3 7D

DIAGNOSE
DIAGNOSIS

DIAG-ENA
1 - DIAG ON
SHEET2 7E

+5VA2

R135 10K L

D120-D
74HC132T-L

SHEET2 7E
DMUX0
DMUX1
DMUX2

D130
74HC4051T-L

REFERENZ 10 KOHM
REFERENCE 10 KOHM
500

R134 10K L

C130 10N L
C131 10N L
C132 10N L
C133 10N L

R130 27K4 L
R131 27K4 L
R132 27K4 L
R133 27K4 L

DIAG1
SHEET5 8E
DIAG2
SHEET4 11F
DIAG3
SHEET6 3E
DIAG4
SHEET6 11B
DIAG5
SHEET5 12B

-15VA

R136 15K L
C136 100N L
V136 5V6 L

+5VA1
+5VA2
+5VA3
+5VA4

C91 220U 10V.BC

D110-B
D120-E
D130-B
D150-B
D155-B
D165-B
D170-B
D175-B

C138 100N L
C151 100N L
C166 100N L

* NICHT BESTUECKT
NOT FITTED

STROMLAUF GILT FUER VAR.02
CIRCUIT DIAGRAM IS VALID FOR MOD.02

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

04/01	48743 09	28.05.93	BU	1GPK	TAG	NAME
04/03		04.98	EI	BEARB.		BAUR
				GEPR.	04.98	EI
				NORM		
				PLOTT		
02/01	48743 07	17.03.93	BU			
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME			

BENENNUNG
FM MODULATOR
FM MODULATOR

ROHDE&SCHWARZ
ZU GERAET SM-B5

ZEICHN.-NR. 1036.8508.01S
BLATT-NR. 2+
V. BL.
REG.I.V. 1036.8489
ERSTE Z.

DATENUEBERTRAGUNG
DATA TRANSFER

X60A 18 RES-P — R80 47R5 L — R81 475R B — C80 100B B

X60A 12 SERBUS-CLK — D100-A 74HCT125T-L — R100 47R5 L — R101 475R B — C100 100B B

X60A 15 SERBUS-DAT — D100-B 74HCT125T-L — R102 47R5 L — R103 475R B — C101 100B B

X60A 14 SERBUS-DAT — D100-C — R104 47R5 L — R105 475R B — C102 100B B

+5V1 — D100-D 74HCT125T-L — R106 475R L

X60A 17 SERBUS-INT — R82 475R L — R83 47R5 B — C82 100B B

D110-A SERBUS-D

P1 6 TRISTATE
P2 40 NANDTREE
5 RESET-P
7 A1
8 A2
9 A3
10 A4
16 A5
17 A6
18 A7

* R110 +5VA1
* R111
* R112
R113 10K L
R114 10K L
* R115
* R116

R117 10K L +5VA1

43 SYNC
44 SERCLK
3 DATAEN
4 DATAIN
2 DATAOUT

PARDATO 20 21 22 24 25 26 27 28
R120*
R121*
R122 10K L
R123*
R124 10K L
R125*
R126*
R127*

R118 10K L

42 INTEN
41 INT
32 IRQUIT
35 MASK
39 IR0
38 IR1
37 IR2
36 IR3

SERDUT 19
CLK1 33
RD1 31
WR1 30
SERIN1 29
CLK2 11
RD2 13
WR2 14
SERIN2 15

EXT2-LOW SHEET3 10B
EXT2-HIGH SHEET3 10C
INT1 SHEET3 12C

+5VA2 — R128 10K L

D120-C 74HC132T-L — D120-B 74HC132T-L — D120-A 74HC132T-L — C129 47N L — R129 56K2 L

KOMP SHEET4 3D SHEET5 11D

+5VA3 — R150 10K L

D150-A 74HC4094T-L

DMUX0 } SHEET2 5C
DMUX1
DMUX2
DIAG-ENA SHEET2 4C
PHIMOD SHEET5
ACDC1 SHEET3 2D
ACDC2 SHEET3 2D
FMDC SHEET3 10D

+5VA3 — R155 10K L

D155-A 74HC4094T-

+5VA4 — R165 10K L

R164 4K75 B

D165-A 74HC4094T-L

DAC-A/B SHEET3 5F
FMPHIM-ENA SHEET6 4C 7D
FMRANGE SHEET5 3D 5F 8A

+5VA4 — R170 10K L

D170-A 74HC4094T-

DIAGNOSE
DIAGNOSIS

DIAG-ENA
1 - DIAG ON
SHEET2 7E +5VA2

R135 10K L

D120-D 74HC132T-L

SHEET2 7E DMUX0 DMUX1 DMUX2

D130 74HC4051T-L

REFERENZ 10 KOHM
REFERENCE 10 KOHM
500

R134 10K L

R130 27K4 L — DIAG1 SHEET5 8E
C130 10N L
R131 27K4 L — DIAG2 SHEET4 11F
C131 10N L
R132 27K4 L — DIAG3 SHEET6 3E
C132 10N L
R133 27K4 L — DIAG4 SHEET6 11B
C133 10N L
DIAG5 SHEET5 12B

X60A 19 DIAG-5V — R84 475R L — R85 47R5 L — C84 100B B

+5V1 — D100-E 74HCT125T-L

+5VA1 — D110-B — C91 220U 10V.BC

+5VA2 — D120-E — C138 100N L

C136 100N

* NICHT BESTUECKT
NOT FITTED

STROMLAUF GILT FUER VAR.02
CIRCUIT DIAGRAM IS VALID FOR MOD.02

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

04/01	48743
04/03	
02/01	48743
AEND. IND.	AENDER MITTEI

FUER DIESE UNTERLAGE BEHALTEN WIR UNS ALLE RECHTE VOR

ZEICHN.-NR. 1036.8508.01 S

4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12

X24

HUBTEILER
DEVIATION ATTENUATOR

DAC-A/B
0 - FM1
1 - FM2
SHEET2 7D

D240-A
DAC8221-B

R242 10K L

CE
CS
DAC A/B

VREFA
VREFB

DB0 DB1 DB2 DB3 DB4 DB5 DB6 DB7 DB8 DB9 DB10 DB11

DSET0 DSET1 DSET2 DSET3 DSET4 DSET5 DSET6 DSET7 DSET8 DSET9 DSET10 DSET11

RFBA RFBB IOUTA IOUTB

C239 15P B C240 12P B

R240 4K32 B

N240-A
AD843KN

R241 4K75 B

DEVSET
SHEET2 9D 11D

WRITE
SHEET2 11E

D230-A
74HC123T-L

D230-B
74HC123T-L

R CX RX/CX

C233 100P L

R231 4K75 L
R232 10K L
R234 10K L
R233 4K75 L

+5VA6

1 2 3

±±± XXX

R244 200R 0.1%
R245 100R 0.1%
R246 100R 0.1%
R247 100R 0.1%
R248 100R 0.1%
R249 100R 0.1%

DEV0 DEV1 DEV2 DEV3

D250-A
D250-D
D250-C
D250-B
DG412DY-B

R250 100R B
R251 24R3 B
R252 56R2 B

DEVCOARSE
SHEET2 11D

PREEMPHASIS

C262 10N 63V 1% FKP
C263 10N 63V 1% FKP
C261 10N 63V 1% FKP

D260-C
DG413DY-B

PRE50/75 0 - 75US
SHEET2 9E 1 - 50US

R256 82R5 B
R257 7K5 0.1%
C250 15P B

D260-D
D260-A
DG413DY-B

R253 30K1 B
R254 10K B

N250-A
NE5534D-B

D260-B
DG413DY-B

PREON
1 - PREEMPH. ON
SHEET2 9E

TRENNVERSTAERKER
BUFFER

R261 1M B
R260 182R B
C260 33P B

N260-A
AD829-B

D270-B
D270-C
DG413DY-B

R270 681R B
C275 4DDB B

PHIMREF
SHEETS 6C

FMREF
SHEETS 4E

FMGROB
SHEETS 8B

FMDC 0 - FMAC
1 - FMDC
SHEET2 7E

R226 90K9 B
C226 27P B
R220 2K49 0.1%
C220 22P B
R222 1K B
R223 432R L
N220-A
AD829-B

R227 90K9 B
C227 27P B
R221 2K49 0.1%
C221 22P B
R224 1K B
R225 432R B
N230-A
AD829-B

D210-D D210-A D210-C D210-B
D215-D D215-A D215-C D215-B
D220-D D220-A D220-C D220-B
G413DY-B

K

C279 220U 10V.BC.
C278 220U 10V.BC.
C274 2N2 B
R274 68R1 B

N280-A
LM119J

+15VK2

G280
REF01CS-L

R277 29K1 0.1%
C277 100N L
C276 100N L

R278 129R 0.1%
R279 3K09 0.1%
R290 2K74 B

N280-B
LM119J

+5VK

R291 475R L
R292 10K L
R293 274K B
R294 475R L
R295 10K L
R296 274K B

D285-A
74HC123T-B

C293 1U B
C296 1U B

D285-B
74HC123T-B

EXT2-HIGH
SHEET2 5D

EXT2-LOW
SHEET2 5D

R287 3K32 B
R288 3K32 B
C297 10N B
C298 10N B

D290-B
D290-C
74HC86T-B

D290-D
74HC86T-B

INT1
SHEET2 5D

PEGELUEBERWACHUNG
LEVEL CONTROL

+15VK1 +5VK

C288 10U 25V TA L

N280-C D285-C D290-E

C290 100N L

C289 10U 25V TA L

-15VK1

5VA6 +5VA6

C286 10U 25V TA L

D260-B D230-C

C230 100N L

C287 10U 25V TA L

-15VA6

*NICHT BESTUECKT
NOT FITTED

STROMLAUF GILT FUER VAR.02
CIRCUIT DIAGRAM IS VALID FOR MOD.02

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

04/02	48743 10	14.09.93	BU	1GPK	TAG	NAME	BENENNUNG
04/03		04.98	EI	BEARB.		BU	FM MODULATOR
				GEPR.	04.98	EI	FM MODULATOR
				NORM			
				PLOTT			
04/01	48743 09	28.05.93	BU				
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME				

ROHDE&SCHWARZ
ZU GERAET SM-B5

ZEICHN.-NR. 1036.8508.01S
REG.I.V. 1036.8489 ERSTE Z.

BLATT-NR. 3+
V. BL.

BEHALTEN WIR UNS ALLE RECHTE VOR

1 2 3 4 5 6 7 8

X24

SCHALTMATRIX
SWITCHMATRIX

A

X60A 6 INT1

X60A 4 EXT1

X60A 5 EXT2

X60A 7 INT2

+15VA
-15VA

1V201 BAV99-B

V202 BAV99-B

R201 100R B
R203 100R B
C200 1U B
C202 1U B

D200-A
D200-D
D200-C
D200-B
DG413DY-B

ACDC1 ACDC2
SHEET2 7E
0 - AC
1 - DC

N200-A AD744KR-B
N210-A AD744KR-B
R205 1M B
R206 1M B

R210 1K 0.1%
R211 1K 0.1%
R212 1K 0.1%
R213 1K 0.1%
R214 1K 0.1%
R215 1K 0.1%

D210-D
D210-A
D210-C
D210-B
D215-D
D215-A
D215-C
D215-B
D220-D
D220-A
D220-C
D220-B
3X DG413DY-B

R226 90K9 B
R220 2K49 0.1%
C226 27P B
C220 22P B
R222 1K B
R223 432R L
N220-A AD829-B

R227 90K9 B
R221 2K49 0.1%
C227 27P B
C221 22P B
R224 1K B
R225 432R B
N230-A AD829-B

SWITCHMATRIX
SHEET2 9E

HUBTEILER
DEVIATION ATTENUATOR

DAC-A/B
0 - FM1
1 - FM2
SHEET2 7D

R242 10K L

D240-A
DAC8221-B
CE
CS
DAC A/B
VREFA
VREFB
DSET0 DSET1 DSET2 DSET3 DSET4 DSET5 DSET6 DSET7 DSET8 DSET9 DSET10 DSET11
DB0 DB1 DB2 DB3 DB4 DB5 DB6 DB7 DB8 DB9 DB10 DB11
RFBA RFBB IOUTA IOUTB

C239 15P B
C240 12P B
R240 4K32 B
N240-A AD843KN
R241 4K75 B

X2X3 X2X4

DEVSET
SHEET2 9D 11D

WRITE
SHEET2 11E

D230-A 74HC123T-L
D230-B 74HC123T-L
A B CX RX/CX R

C233 100P L

R231 4K75 L
R232 10K L
R234 10K L
R233 4K75 L
+5VA6

R244 200R 0.1%
R245 100R 0.1%
R246 100R 0.1%
R247 100R 0.1%
R248 100R 0.1%
R249 100R 0.1%

DEV0 DEV1 DEV2 DEV3

D250-A
D250-D
D250-C
D250-B
DG412DY-B

R250 100R B
R251 2K43 B
R252 56R2 B

DEVCOARSE
SHEET2 11D

PREEMPHASIS

C261 10N 63V 1% FKP
R256 82R5 B

D260-D
D260-A
DG413DY-B
R253 30K1 B
R254 10K B

PREON
1 - PREEMPH. ON
SHEET2 9E

+15VA1 +5VA5

C270 100N L
C272 100N L

D200-E D210-E D215-E D220-E D250-E D260-E D270-E

C271 100N L
-15VA1

+5VA7 +15VA2 +15VA3 +15VA4 +15VA5 +15VA6 +5VA6

C241 100N L
C280 10U 25V TA L
C282 10U 25V TA L
C284 10U 25V TA L
C258 10U 25V TA L
C286 10U 25V TA L

D240-B N200-B N220-B N210-B N230-B N240-B N250-B N260-B D230-C

C230 100N L

C281 10U 25V TA L
C283 10U 25V TA L
C285 10U 25V TA L
C259 10U 25V TA L
C287 10U 25V TA L

-15VA2 -15VA3 -15VA4 -15VA5 -15VA6

K

+15VK2

C274 2N2 B
C279 220U 10V.BC.
C278 220U 10V.BC.
R274 68R1 B

N280-A LM119J

R278 129R 0.1%
R277 29K1 0.1%
R279 3K09 0.1%
R290 2K74 B

N280-B LM119J

G280 REF01CS-L

C277 100N L
C276 100N L

+15VK1 +5VK

C288 10U 25V TA L

N280-C D285-C D290-E C29 100

C289 10U 25V TA L
-15VK1

*NICHT BESTUECKT
NOT FITTED

STROMLAUF GILT FUER VAR.02
CIRCUIT DIAGRAM IS VALID FOR MOD.02

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

04/02	48743 10	
04/03		
04/01	48743 09	
REND. IND.	AENDERUNGS MITTEILUNG	

4 5 6 7 8 9 10 11 12

C329 P302 P303 · R345 · X34 · X37 X38 · X35

FM OSZILLATOR
FM OSCILLATOR

V321 BB809 · V327 BB809 · V326 BB809 · V324 BB809 · V325 BB809 · V323 BB809

C324 100N B

MITTENFREQUENZ
CENTERFREQUENCY

C327 4P7P B · C329 14-1P5 · +12V · R328 56R2 B · R329 221R B · C334 100N B · L330 4U7H B · V330 SST310-B · C330 5P1P B · L327 73NH-T · C331 15P B · L328 73NH-T · C332 15P B · C333 1P B · L331 4U7H B · R330 392R B · C335 100N B · R331 392R B · -12V

V336 BC850B-L · +12V · R338 100K L · P302 · C338 100µF · C339 100µF · V337 BC860B-L · -12V · R339 100K L · P303

D

+15VD1 · R343 475R B · C342 10N B · C343 100N B · R341 332R B · R342 56K2 B · R340 22R1 B · V340 BFQ81-B · C344 680P B · R344 1K B · OSCILLATOR PEGEL LEVEL · R345 200R B · R346 100R B · R347 47K5 B · R348 100R B · C348 100N B · R349 681R B · C347 10N B · C350 470P B · V350 BFQ81-B · R350 11R B · R357 475R B · X34 1 X34 2 · R351 5R62 B · R352 5R62 B · C351 680P B · R353 274R B · R354 243R B · R355 33K2 B · V355 BFG97-B · R358 15R B · R356 150R B · C356 100N B · L357 4U7H B · C355 10N B

FM TRENNSTUFE
FM BUFFER

C352 10P B · L356 220NH B · R315 5R62 B · R317 5R62 B · C353 100P B · L355 22NH B · C354 10P B · R316 221R B · C358 3P3 B · PEGEL VCO LEVEL VCO · 502 · V358 HSMS2810-B · C359 10N L · R359 27K4 · X35 1 X35 2 X35 3 X35 4 · DIAG2 SHEET2 7C · FMMOD SHEET6 6B

A

E

FM TEILER
FM DIVIDER

+5VE2 · +5VE1 · C362 100N B · R364 10K L · R365 10K B · D360-C · C364 100N L · D360-B 74AC74SC-B · R366 10K B · R360 6K81 B · R361 221R B · C365 10N B · L365 100NH B · C366 22P B · C360 680P B · V360 BFS17-B · R376 475R B · X37 1 X37 2 · D360-A 74AC74SC-B

R367 10K B · R368 10K B · R369 10K B · R370 10K B · R371 10K L · +5VE3 · D370-A 74AC161SC-B · CTR4 · D370-B · C376 100N L · R372 10K B · R373 10K B · R374 100R B · PFD1 SHEETS 1D

F

REFERENZTEILER
REFERENCE DIVIDER

+5VF2 · +5VF1 · C382 100N B · R384 10K L · R385 10K B · D380-C · C384 100N L · D380-B 74AC74SC-B · R386 10K B · R380 6K81 B · R381 221R B · C385 10N B · L385 100NH B · C386 22P B · C380 680P B · V380 BFS17-B · R396 475R B · X38 1 X38 2 · D380-A 74AC74SC-B

R387 10K B · R388 10K B · R389 10K B · R390 10K B · R391 10K L · +5VF3 · D390-A 74AC161SC-B · CTR4 · D390-B · C396 100N L · R392 10K B · R393 10K B · R394 100R B · PFD2 SHEETS 1D

FM-SCHLEIFE SHEET6 2B

*NICHT BESTUECKT
NOT FITTED

STROMLAUF GILT FUER VAR.02
CIRCUIT DIAGRAM IS VALID FOR MOD.02

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

04/01	48743 09	28.05.93	BU	16PK	TAG	NAME	BENENNUNG
04/03		04.98	EI	BEARB.		BAUR	FM MODULATOR
				GEPR.	04.98	EI	FM MODULATOR
				NORM			
				PLOTT			
02/01	48743 07	17.03.93	BU	R/S ROHDE&SCHWARZ			ZEICHN.-NR. 1036.8508.01S
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME	ZU GERAET SM-B5			BLATT-NR. 4+
				REG.I.V. 1036.8489			ERSTE Z. V. BL.

FUER DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR

1 2 3 4 5 6 7 8

X36 P300 P301 X32 R321 C329 P302 P303 R345 X34 X37 X38

A FM UEBERWACHUNG
FM MONITOR

+15VA10
N300-C
C300 100N L
R301 2K21 L
N300-A LM2903D-L
R307 2K74 L
+5VA
R302 10K L
N300-B LM2903D-L
R308 100K L
KOMP SHEET2 6D SHEETS 11D
P300
R303 2K21 L
R305 33K2 B
U-ABST SHEETS 8E
X36 X36
R310 150R B
R311 100K B
P301

C FM OSZILLATOR
FM OSCILLATOR

U-MOD SHEETS 12B
R324 56R2 L
L324 407H L
X32 X32
R323 100K L
+12V
R320 825R L
R321 10K 0.4W SPI
R322 8K25 L
C323 10U 25V TA L
L323 407H L
C324 100N B
V318 BB909B
V319 BB909B
V320 BB909B
V322 BB909B
V321 BB809
V323 BB809
V327 BB809
V324 BB809
V326 BB809
V325 BB809
FM KLIRRFAKTOR DISTORTION
MITTENFREQUENZ CENTERFREQUENCY
C328 TRIMMWERT SELECTED
C327 4P7P B
C329 14-1P5
C326 2P7P B
L327 73NH-T
C330 5P1P B
C331 15P B
L326 407H B
V328 BB809
L328 73NH-T
C332 15P B
R326 221R B
L325 10UH B
C325 100N B
C310 400B B
R328 56R2 B
L330 407H B
V330 SST310-B
R329 221R B
C334 100N B
C333 1P B
L331 407H B
R330 392R B
C335 100N B
R331 392R B
-12V

B

V336 BC850B-L
+15VC1
C336 100N L
R334 392R L
R336 1K L
C336 100µF
R338 100K L
+12V
P302
V332 7V5 L
V333 5V1 L
V334 5V1 L
V335 7V5 L
R337 1K L
C339 100µF
R335 392R L
-15VC1
C337 100N L
V337 BC860B-L
R339 100K L
-12V
P303

D

+15VD1
R343 475R B
C342 10N B
C343 100N B
OSCILLATOR PEGEL LEVEL
R345 200R B
R341 332R B
R342 56K2 B
R340 22R1 B
V340 BFQ81-B
C344 680P B
R344 1K B
R346 100R B
R357 475R B
X34 1
X34 2
R348 100R B
C348 100N B
R349 681R B
C347 10N B
C350 470P B
R347 47K5 B
V350 BFQ81-B
R350 11R B
R351 5R62 B
R352 5R62 B
C351 680P B
R353 274R B
R354 243R B
R356 150R B
C356 100N B
L357 407H B
C355 10N B
L354 220NH B
C352 10P B
R355 33K2 B
V355 BFG97-B
C353 100P B
R358 15R B

E

FM TEILER
FM DIVIDER

+5VE2 +5VE1
C362 100N B
R364 10K L
R365 10K B
R361 221R B
R360 6K81 B
C365 10N B
L365 100NH B
C360 680P B
C366 22P B
V360 BFS17-B
R376 475R B
X37 1
X37 2

F

REFERENZTEILER
REFERENCE DIVIDER

+5VF2 +5VF1
C382 100N B
R384 10K L
R385 10K B
R381 221R B
R380 6K81 B
C385 10N B
L385 100NH B
C380 680P B
C386 22P B
V380 BFS17-B
R396 475R B
X38 1
X38 2
FM-SCHLEIFE SHEET6 2B

*NICHT BESTUECKT
NOT FITTED
STROMLAUF GILT FUER VAR.02
CIRCUIT DIAGRAM IS VALID FOR MOD.02

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
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ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

AEND. IND.	
04/01	4874
04/03	
02/01	4874

4 5 6 7 8 9 10 11 12

404 405 R427 R429 P403 R437 P406 P407 R483 P408 R444 P409 P410 R490 X49

FMRANGE
1 - COARSE
0 - FINE
SHEET2 7D

PULSSCHALTER
IMPULSE SWITCH

D430-A 74HC4052T-B

FMAC
SHEETS 4C

R421 10K B
R422 3K32 B
C422 680N
R423 K32 B
C423 680N
R424 110K B
R425 3K32 B
R426 82K5 B
R427 20K B
R428 2K21 B
R429 1K B
FM FEIN FINE
FM GROB COARSE

FM SCHLEIFENINTEGRATOR
FM LOOP INTEGRATOR

PHIMOD
1 - ON
SHEET2 7E

V424 BAV99-L
C446 1U L
C440 1U L
D440-A DG413DY-L
N430 LT1077S8-L
R440 221R L
D440-B DG413DY-L
R448 2K21 L
R445 68K1 B
C445 1U B
R446 150K B
C447 10N B
U-ABST SHEET4 1D
DIAG1 SHEET2 7C
D440-D DG413DY-L
PHIMOD
1 - OFF
SHEET2 7E
R447 75K B

501 ABSTIMMSPANNUNG VCO
VCO TUNING VOLTAGE

ABSTIMMSPG. FUER PHIM
CONTROL VOLTAGE FOR PHIM

N440-A TL072ACD-L
C449 10P L
R449 7K5 L
D450-A DAC08CS-L
HALT0 HALT1 HALT2 HALT3 HALT4 HALT5 HALT6 HALT7
LSB MSB REF + REF - VLC IOUT IOUT COMP
R451 5K62 L
R450 5K62 L
C450 10N L
-15VB1
HALT SHEETS 3D

+15VB1 +5VB4
C442 100N B
C443 100N L
N430-B N440-C D450-B D440-E
C456 100N B
-15VB1

+15VB2 +15VB3
C438 10U 25V TA L
N420-B N421-B N455-C
C467 100N B
C439 10U 25V TA L
-15VB2

+15VB2
R430 1K5 L
R431 2K23 0.1%
R432 9K31 0.1%
V430 1N827
R435 5K62 L
C435 330P L
R436 562R
C436 47U 10V TA L
N420-A OP97FS-L
R433 9K09 L
R437 500R B
C433 330P L
R434 562R
C434 47U 10V TA L
N421-A OP97FS-L
R414 10K B
P406
P407
R415 10K B
R441 100R L
R442 100R L
-5VB1
+5VB1
D420-B D430-B

FMAC
MITTENFREQUENZ
CENTERFREQUENCY

R460 100K L
C460 10N L
R464 1K L
R462 3K92 L
R463 221K L
N455-A LM2903D-L
N455-B LM2903D-L
+5VB4
R465 10K L
R466 10K L
R468 10K L
P409
R469 10K L
P410
COUNT1 SHEETS 2E
COUNT2 SHEETS 2E
P408

R453 1K L
R452 1K L
R455 1K62 B
R454 10K B
V455 5V6 B
C454 10U 25V TA B
N440-B TL072ACD-L

PHIM MONITOR

D440-C DG413DY-L
KOMP SHEET2 6D SHEET4 3D

B

A

PHIM PLL

PHIMOD SHEET2 7E
D415-A 74HC4052T-B
R417 10K L
R418 10K B
R497 10K B
P403
L416 33UH
L415 47UH B
C415 180P B
C416 47P B
C404 180P B
C405 180P B
R405 10K B
R404 10K B
+5VB2

PHIMREF SHEET3 12E
R484 1K L
PHIM HUB DEVIATION
R483 1K STE
R476 511R B
C475 68P B
R475 432R B
R477 432R B
R478 511R B
N475-A AD829-B
R480 392R B
R481 2K43 B
C481 10N B
C480 5P6 B
N480-A AD829-B
R487 221R B
C487 680P B
+15VA7
R444 2K B
PHIM KLIRRFAKTOR DISTORTION
R406 1K82 B

+15VA7 +15VA8 +15VA9 +15VA1 +5VA5
C485 10U 25V TA L
C486 10U 25V TA L
C419 100N L
C479 100N L
C496 10U 25V TA L
C497 10U 25V TA L
N475-B N480-B N485-C N490-B D480-B
-15VA7 -15VA8 -15VA9 -15VA1

C

HUBABGLEICH
DEVIATION ADJUSTMENT

-15VA8
R456 2K21 L
R459 33K2 B
R457 15K L
R458 2K21 L
+15VA8
N485-B LM2903D-L
N485-A LM2903D-L
R482 8K25 L

V488 BAS16-L
D290-A 74HC86T-B
R488 10K L
C488 10N L
+5VK
R489 10K L
PHIMOD SHEET2 7E

MODULATIONSSPANNUNG
MODULATION VOLTAGE
505

FMGROB SHEET3 10D
R491 825R L
PHIMOD
0 - FM
1 - PHIM
SHEET2 7E
R490 500R STE
FM HUB DEVIATION
C490 18P B
D480-A DG419DY-B
N490-A AD829-B
R492 1K 0.1%
R493 *
R494 100R 0.1%
R495 200R 0.1%
R496 *
D270-A DG413DY-B
D270-D DG413DY-B
R461 56R2 B
FMRANGE SHEET2 7D
R407 20K L
R409 3K32 L
R408 10K L
C409 *
C494 68P B
C495 100B B
C498 68P B
U-MOD SHEET4 4F
DIAG5 SHEET2 7B

* NICHT BESTUECKT
NOT FITTED

STROMLAUF GILT FUER VAR.02
CIRCUIT DIAGRAM IS VALID FOR MOD.02

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

04/01	48743 09	28.05.93	BU	1GPK	TAG	NAME	BENENNUNG
04/03		04.98	EI	BEARB.		BAUR	FM MODULATOR
				GEPR.	04.98	EI	FM MODULATOR
				NORM			
				PLOTT			
02/01	48743 07	17.03.93	BU				
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME				

ROHDE&SCHWARZ
ZU GERAET SM-85

ZEICHN.-NR. 1036.8508.01S
REG.I.V. 1036.8489
ERSTE Z.
BLATT-NR. 5+
V. 7 BL.

ZEICHN.-NR. 1036.8508.01 S
BEHALTEN WIR UNS ALLE RECHTE VOR
FUER DIESE UNTERLAGE

PULSSCHALTER
IMPULSE SWITCH

FM SCHLEIFENINTEGRATOR
FM LOOP INTEGRATOR

ABSTIMMSPANNUNG VCO
VCO TUNING VOLTAGE

FM DC SYNC.

FMAC MITTENFREQUENZ
CENTERFREQUENCY

PHASENDETEKTOR
PHASEDETECTOR

PHIM PLL

D400-A FPGA

D420-A 74HC4053T-B

D430-A 74HC4052T-B

D415-A 74HC4052T-B

D410-A 74AC74SC-B

D410-B 74AC74SC-B

D440-A DG413DY-L

D440-B DG413DY-L

D440-D DG413DY-L

N420-A OP97FS-L

N421-A OP97FS-L

N430 LT1077S8-L

N440-A TL072ACD-L

N455-A LM2903D-L

N455-B LM2903D-L

N475-A AD829-B

N480-A AD829-B

V412 BAS16-B

V413 BAS16-B

V424 BAV99-L

V430 1N827

V470 BC850B-L

V471 1N827

FMRANGE
1 - COARSE
0 - FINE
SHEET2 7D

FMAC
SHEETS 4C

FMAC
SHEETS 5F SHEET2 7D

PHIMOD
1 - ON
SHEET2 7E

PHIMOD
1 - OFF
SHEET2 7E

PHIMOD
1 - PHIMOD
0 - FMOD
SHEET2 7E

FMREF
SHEETS 12E

FMGROB
SHEETS 10D

PHIMREF
SHEETS 12E

COUNT1
SHEETS 8D

COUNT2
SHEETS 8D

HALT
SHEETS 9E

U-ABST
SHEET4 1D

DIAG1
SHEET2 7C

PFD1
SHEET4 12D

PFD2
SHEET4 12B

FM FEIN
FINE

FM GROB
COARSE

PHIM HUB
DEVIATION

PHIM KLIRRFAKTOR
DISTORTION

HUBABGLEI
DEVIATION ADJ

+15VB2 +5VB1 +5VB3 +5VB4 +7.5V +5VB2 -5VB1 -15VA8 +15VA7 +15VA8 +15VA9 +15VA1 +5VA5 -15VA7 -15VA8 -15VA9 -15VA1

X40 X41 P400 P401 P402 P403 P404 P405 P406 P407 P408 P409 P410

R420 10K B
R421 10K B
R422 3K32 B
R423 3K32 B
R424 110K B
R425 3K32 B
R426 82K5 B
R427 20K B
R428 2K21 B
R429 1K B
R430 1K5 L
R431 2K23 0.1%
R432 9K31 0.1%
R433 9K09 L
R434 562R
R435 5K62 L
R436 562R
R437 500R B
R440 221R L
R441 100R L
R442 100R L
R445 68K1 B
R446 150K B
R447 75K B
R448 2K21 L
R449 7K5 L
R460 100K L
R464 1K L
R465 10K L
R466 10K L
R469 10K L
R452 3K92 L
R463 221K L
R410 10K L
R411 10K L
R412 10K L
R413 274R L
R414 10K B
R415 10K B
R416 10K L
R417 10K L
R418 10K B
R471 243R L
R472 681R 0.1%
R473 10K 0.1%
R474 10K L
R470 100R L
R475 432R B
R476 511R B
R477 432R B
R478 511R B
R480 392R B
R481 2K43 B
R483 1K STE
R484 1K L
R487 221R B
R497 10K B
R444 2K B
R406 1K82 B
R459 33K2 B

C400 180P B
C401 180P B
C402 47P B
C403 47P B
C404 180P B
C405 180P B
C406 150P B
C407 33N B
C410 1N2 B
C414 47U 10V TA L
C415 180P B
C416 47P B
C417 100N L
C422 680N B
C423 680N B
C430 10N B
C433 330P L
C434 47U 10V TA L
C435 330P L
C436 47U 10V TA L
C440 1U L
C445 1U B
C446 1U L
C447 10N B
C449 10P L
C460 10N L
C473 22U 10V TA L
C475 68P B
C480 5P6 B
C481 10N B
C485 10U 25V TA L
C486 10U 25V TA L
C487 680P B
C496 10U 25V TA L
C497 10U 25V TA L
C419 100N L
C479 100N L

L400 47UH B
L401 47UH B
L402 33UH
L403 33UH
L408 10UH L
L414 10UH L
L415 47UH B
L416 33UH
L417 10UH L

* NICHT BESTUECKT
NOT FITTED

STROMLAUF GILT FUER VAR.02
CIRCUIT DIAGRAM IS VALID FOR MOD.02

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

IND.	AEND.	
04/01	487	
04/03		
02/01	487	

L542 R549 X57 L552

BANDPASSFILTER

+7.5VH

L539 4U7H B
C539 100N B
L540 2U2H B
R541 27K4 B
R540 150R B
C540 10N B
V540 BFG97-B
C529 3P3 B
C536 18P B
C538 33P B
C535 27P B
C537 68P B
L534 73NH-T
L537 73NH-T
R542 15R B
C541 27P B
C542 220P B
C543 18P B
C544 22P B
L542 57NH-T
C546 18P B
C545 27P B
L544 73NH-T
C548 33P B
C547 68P B
L547 73NH-T

FM/PHIM PEGEL LEVEL
R549 100R B

+7.5VH

L549 4U7H L
C549 100N B
L550 2U2H B
R551 12K1 B
R550 82R5 B
C550 10N B
V550 BFG97-B
R552 10R B
C552 1P5 B
C554 10P B
C556 6P8 B
L552 96NH-T
L554 73NH-T
L556 73NH-T
C551 27P B
C553 47P B
C555 47P B
C557 27P B
C558 68DP B
R555 8R25 B
R556 150R B
R557 8R25 B

+7.5V

L566 4U7H L
V566 BC860B-L
C566 100N L
R565 1K L
R566 5K62 L
R567 100K L
V567 BC850B-L
R568 47K5 L

FMPHIM-ENA
0 - MOD OFF
1 - FMPHIM
SHEET2 7D
SHEET6 7D

+7.5VH

R569 47SR B
X57 1
X57 2

MODULATION EIN/AUS
BYPASS SWITCH

FMPHIM-ENA
0 - MOD OFF
1 - FMPHIM
SHEET2 7D

R592 2K21 L
R593 18K2 L
R594 12K1 L
R595 5K11 L
N595-A NE5534D-L
R591 47R5 L
C590 100N L
R590 1K5 L
R596 1K5 L
R597 1K5 L
R525 5R62 L
C582 10N L
R582 56R2 L
V582 BAR14-1 L
V581 BAR14-1 B
C581 10N B
R581 39R2 B
V580 BAR14-1 B
L580 47UH B
L581 47UH B
L578 10UH B
C578 100N B
R578 182R B
R575 332R B
R576 12K1 B
C580 10N B
C574 10N B
C575 3P9 B
V575 BFS17-B
R579 4R75 B
C583 10N B

+15V11
C598 100N L
N595-B
C599 100N L
-15V11

AUSGANGSSTUFE
+15V12 OUTPUT AMPLIFIER

C586 100N B
504
AUSGANGSPEGEL FDFM OUTPUT LEVEL
R586 511R B
L576 470NH B
R585 182R B
R584 12K1 B
C584 10N B
C587 1N8 B
C576 270P B
C585 5P6 B
C577 270P B
V584 BFS17-B
R588 10R B
L587 * 100UH B
C588 10P B
R589 27K4 L
C589 10N L
V588 HSMS2800-B

X69 1
FDFM ZU
A9 SUMMIERSCHL.
ODER
A10 YIG PLL

DIAG4
SHEET2 7B

MISCHER2
MIXER2

FMMOD
SHEET4 11E

V570 SRA1
RF LO IF
L572 560NH
L573 270NH
C573 10N B
C570 100P B
C571 220P B
C572 220P B
R571 51R1 B
L571 270NH

* NICHT BESTUECKT
NOT FITTED

STROMLAUF GILT FUER VAR.02
CIRCUIT DIAGRAM IS VALID FOR MOD.02

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
04/01	48743 09	28.05.93	BU
03.03		04.98	EI
02/01	48743 07	17.03.93	BU

1GPK	TAG	NAME
BEARB.		BAUR
GEPR.	04.98	EI
NORM		
PLOTT		

ROHDE&SCHWARZ
ZU GERAET SM-B5

BENENNUNG
FM MODULATOR
FM MODULATOR

ZEICHN.-NR. 1036.8508.01S
BLATT-NR. 6+ V. 7 BL.
REG.I.V. 1036.8489 ERSTE Z.

FUER DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR

ZEICHN.-NR. 1036.8508.01 S

X52 L532 L542 R549 X57 L552

H

MISCHER1
MIXER1

LO PEGEL 1.MISCHER
LO LEVEL 1.MIXER
503

X67 1
FDSYN
VON A8

C520 10N L
R520 16R2 L
R521 16R2 L
U520 SRA1
RF IF LO
R528 20R B
R530 20R B
R529 51R1 B
R510 8R25 B
R512 8R25 B
R511 150R B
C513 3P3 B
R514 27K4 L
C514 10N L
V513 HSMS2810-B
DIAG3
SHEET2 7B

BANDPASSFILTER

X52 2
X52 1
R527 475R B

+7.5VH
L539 4U7H B
C539 100N B
L540 2U2H B
R541 27K4 B
R540 150R B
C540 10N B
V540 BFG97-B
R542 15R B

C531 27P B
C533 18P B
C536 18P B
C538 33P B
C529 3P3 B
C532 220P B
C534 22P B
C535 27P B
C537 68P B
L532 57NH-T
L534 73NH-T
L537 73NH-T

C541 27P B
C543 18P B
C546 18P B
C548 33P B
C542 220P B
C544 22P B
C545 27P B
C547 68P B
L542 57NH-T
L544 73NH-T
L547 73NH-T

FM/PHIM PEGEL
LEVEL
R549 100R B
R550 82R5 B
R551 12K1 B

+7.5VH
L549 4U7H L
C549 100N B
L550 2U2H B
V550 BFG97-B
C550 10N B
R552 10R B

C552 1P5 B
C554 10P B
C556 6P8 B
C558 680P B
L552 96NH-T
L554 73NH-T
L556 73NH-T
C551 27P B
C553 47P B
C555 47P B
C557 27P B
R555 8R25 B
R556 150R B
R557 8R25 B

G

LO VERSTAERKER
LO AMPLIFIER

+15VG1
C507 100N B
C506 100N B
R507 22R1 B
R506 392R B
R504 18K2 B
C504 10N B
C510 10P B
L513 220NH B
L511 220NH B
C512 10P B
C511 100P B
L512 22NH B
R503 182R B
X65 1
REF100
VON A7
R500 4R75 B
R502 4R75 B
C500 680P B
V510 BFG97-B
R501 274R B
R505 12R1 B
FM-SCHLEIFE
SHEET4 6B

+7.5V
L566 4U7H L
+7.5VH
C566 100N L
V566 BC860B-L
R565 1K L
R566 5K62 L
FMPHIM-ENA
0 - MOD OFF
1 - FMPHIM
SHEET2 7D
SHEET6 7D
R567 100K L
V567 BC850B-L
R568 47K5 L

+7.5VH
+7.5VH

MODULATION EIN/AUS
BYPASS SWITCH

R593 18K2 L
R592 2K21 L
FMPHIM-ENA
0 - MOD OFF
1 - FMPHIM
SHEET2 7D
+7.5V
R591 47R5 L
N595-A NE5534D-L
R594 12K1 L
R595 5K11 L
+7.5VH
L578 10UH B
R569 475R B
X57 1
X57 2
R575 332R B
R576 12K1 B
C574 10N B
C575 3P9 B
V575 BFS17-B
C573 10N B

MISCHER2
MIXER2

FMMOD
SHEET4 11E
U570 SRA1
RF IF LO
L572 560NH
L573 270NH
C570 100P B
C571 220P B
R571 51R1 B
L571 270NH
C572 220P B

* NICHT BESTUECKT
NOT FITTED

STROMLAUF GILT FUER VAR.02
CIRCUIT DIAGRAM IS VALID FOR MOD.02

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

04/01	487
01.03	
02/01	487
AEND. IND.	AEN NIT

+5VA1 +5VA +5VA2 +5VA3 +5VA4 +5VA5 +5VA6 +5VA7

L91 10UH
L90 4U7H
C90 220U 10V.BC.
R138 33R2 L
R151 22R1 L
R165 22R1 L
L272 10UH L
R230 47R5 L
L241 10UH L

+15VA +15VA1 +15VA2 +15VA3 +15VA4 +15VA5 +15VA6 +15VA7 +15VA8 +15VA9 +15VA10

L270 10UH L
R280 33R2 L
R282 33R2 L
R284 33R2 L
R258 33R2 L
R286 33R2 L
R485 33R2 L
R419 33R2 L
R498 22R1 L
R300 33R2 L

-15VA -15VA1 -15VA2 -15VA3 -15VA4 -15VA5 -15VA6 -15VA7 -15VA8 -15VA9

L271 10UH L
R281 33R2 L
R283 33R2 L
R285 33R2 L
R259 33R2 L
R287 33R2 L
R486 33R2 L
R479 33R2 L
R499 22R1 L

K

R299 4R75 L → +5VK
R288 33R2 L → +15VK1
R276 100R L → +15VK2
R289 33R2 L → -15VK1

B

R443 100R L → +5VB4
L442 10UH B → +15VB1
R438 22R1 L → +15VB2
R467 100R B → +15VB3
L456 10UH B → -15VB1
R439 22R1 B → -15VB2
+7.5V

E

R363 10R L → +5VE1
L363 4U7H L, R362 10R B → +5VE2
C363 100N L
L375 10UH L, R375 10R L → +5VE3
C375 100N L

F

R383 10R L → +5VF1
L383 4U7H L, R382 10R B → +5VF2
C383 100N L
L395 10UH L, R395 10R L → +5VF3
C395 100N L

G

L507 4U7H L → +15VG1

C

R332 100R L → +15VC1
R333 100R L → -15VC1

H

D

L340 4U7H B → +15VD1
C340 100N B
R598 33R2 L → +15VI1
L586 10UH B → +15VI2
R599 33R2 L → -15VI1
+7.5V
+7.5V

STROMLAUF GILT FUER VAR.02

CIRCUIT DIAGRAM IS VALID FOR MOD.02

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME
04/01	48743 09	28.05.93	BU
04/03		04.98	EI
02/01	48743 07	17.03.93	BU

1GPK	TAG	NAME
BEARB.		BAUR
GEPR.	04.98	EI
NORM		
PLOTT		

ROHDE&SCHWARZ
ZU GERAET SM-B5

BENENNUNG
FM MODULATOR
FM MODULATOR

ZEICHN.-NR. 1036.8508.01S
BLATT-NR. 7-
V. BL.
REG.I.V. 1036.8489
ERSTE Z.

FUER DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR

ZEICHN.-NR. 1036.8508.01 S

X

A

X60A 28
VD5-P

+5V1

L105 4U7H

C105 220U 10V.BC.

C86 400B B

+5VA1 +5VA +5VA2 +5VA3 +5VA4 +5VA5 +5VA6 +5VA7

L91 10UH

L90 4U7H

C90 220U 10V.BC.

R138 33R2 L R151 22R1 L R166 22R1 L L272 10UH L R230 47R5 L L241 10UH L

X60A 24
VA15-P

L92 10UH DHT

C92 100U 25V.BC.

C87 400B B

+15VA +15VA1 +15VA2 +15VA3 +15VA4 +15VA5 +15VA6 +15VA7 +15VA8 +15VA9 +15VA10

L270 10UH L

R280 33R2 L R282 33R2 L R284 33R2 L R258 33R2 L R286 33R2 L R485 33R2 L R419 33R2 L R498 22R1 L R300 33R2 L

X60A 30
VA15-N

L93 4U7H

C93 100U 25V.BC.

C88 400B B

-15VA -15VA1 -15VA2 -15VA3 -15VA4 -15VA5 -15VA6 -15VA7 -15VA8 -15VA9

L271 10UH L

R281 33R2 L R283 33R2 L R285 33R2 L R259 33R2 L R287 33R2 L R486 33R2 L R479 33R2 L R499 22R1 L

X60A 26
VA7.5-P

L94 10UH DHT

C94 220U 10V.BC.

C89 400B B

X60A 11
X60A 13
X60A 21
X60A 23
X60A 25
X60A 27
X60A 29
X60A 31
GND

R299 4R75 L
R288 33R2 L
R276 100R L
R289 33R2 L
R443 100R L
L442 10UH B
R438 22R1 L
R467 100R B
L456 10UH B
R439 22R1 B

E

L363 4U7H L
R363 10R L
R362 10R B
C363 100
L375 10UH L
R375 10R L
C375 100N L

F

L383 4U7H L
R383 10R L
R382 10R B
C383 100
L395 10UH L
R395 10R L
C395 100N L

G

L507 4U7H L

C

R332 100R L
R333 100R L

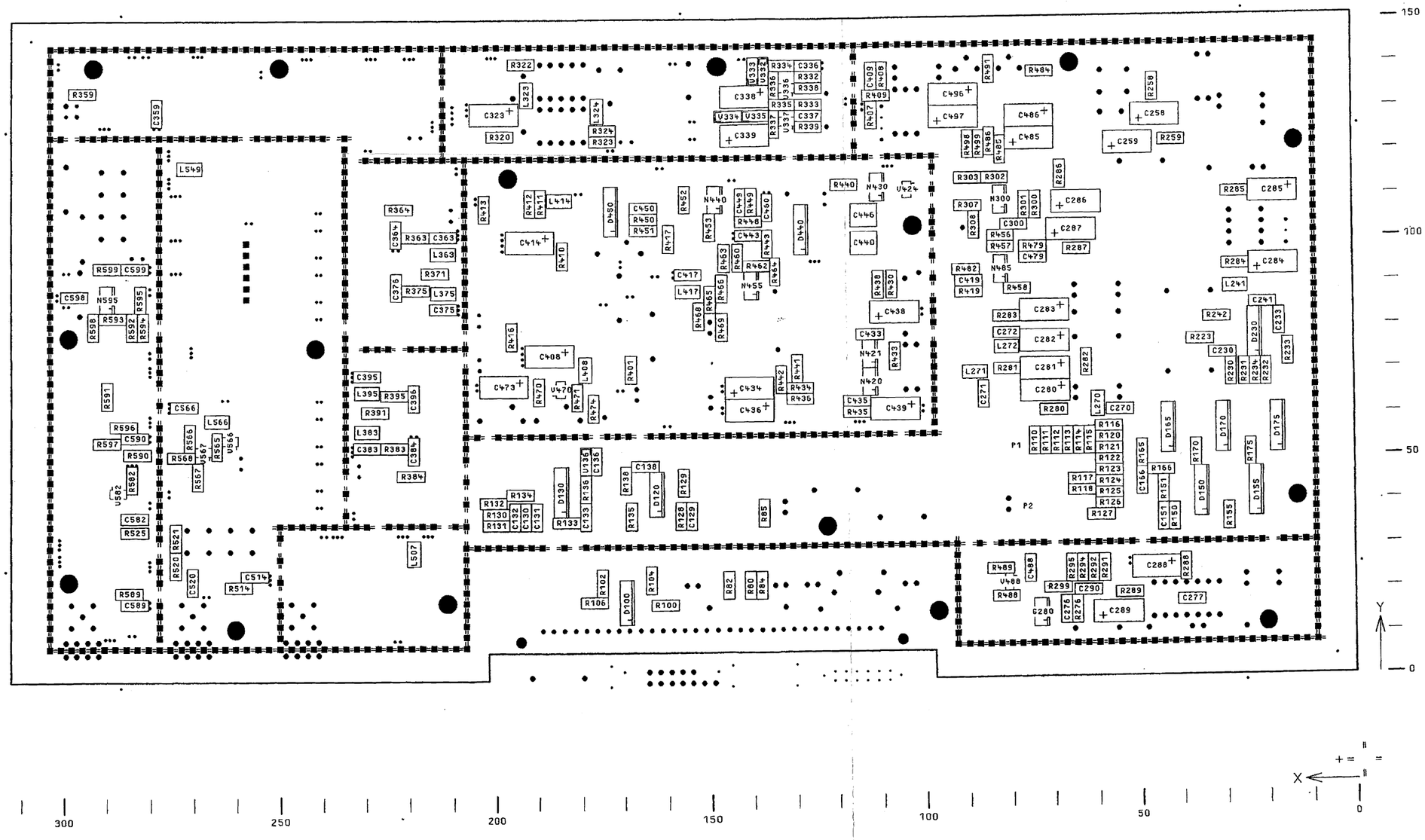
STROMLAUF GILT FUER VAR.02

CIRCUIT DIAGRAM IS VALID FOR MOD.02

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

04/01	487
04/03	
02/01	487
AEND. IND.	AE NI

FUER DIESE ZEICHNUNG BEHALTEN WIR UNS ALLE RECHTE VOR.
DIESE ZEICHNUNG IST EIN RECHNERAUSDRUCK, AENDERUNGEN KOENNEN NUR DURCH AENDERN DES DATENSATZES ERFOLGEN



DARSTELLUNG SEITE A
VIEW ON SIDE A

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

BINDENDE ANGABEN UEBER VARIANTEN, TRIMMWERTE, BAUTEILWERTE UND NICHT BESTUECKTE BAUTEILE SIEHE SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

04/01	48743 09	28.05.93	BU	1GPK	TAG	NAME
				BEARB.		BAUR
				GEPR.		BU
				NORM		
				PLOTT	26.05.93	
03/01	48743 07	17.03.93	BU			
AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME			

ROHDE&SCHWARZ
ZU GERAET SM-85

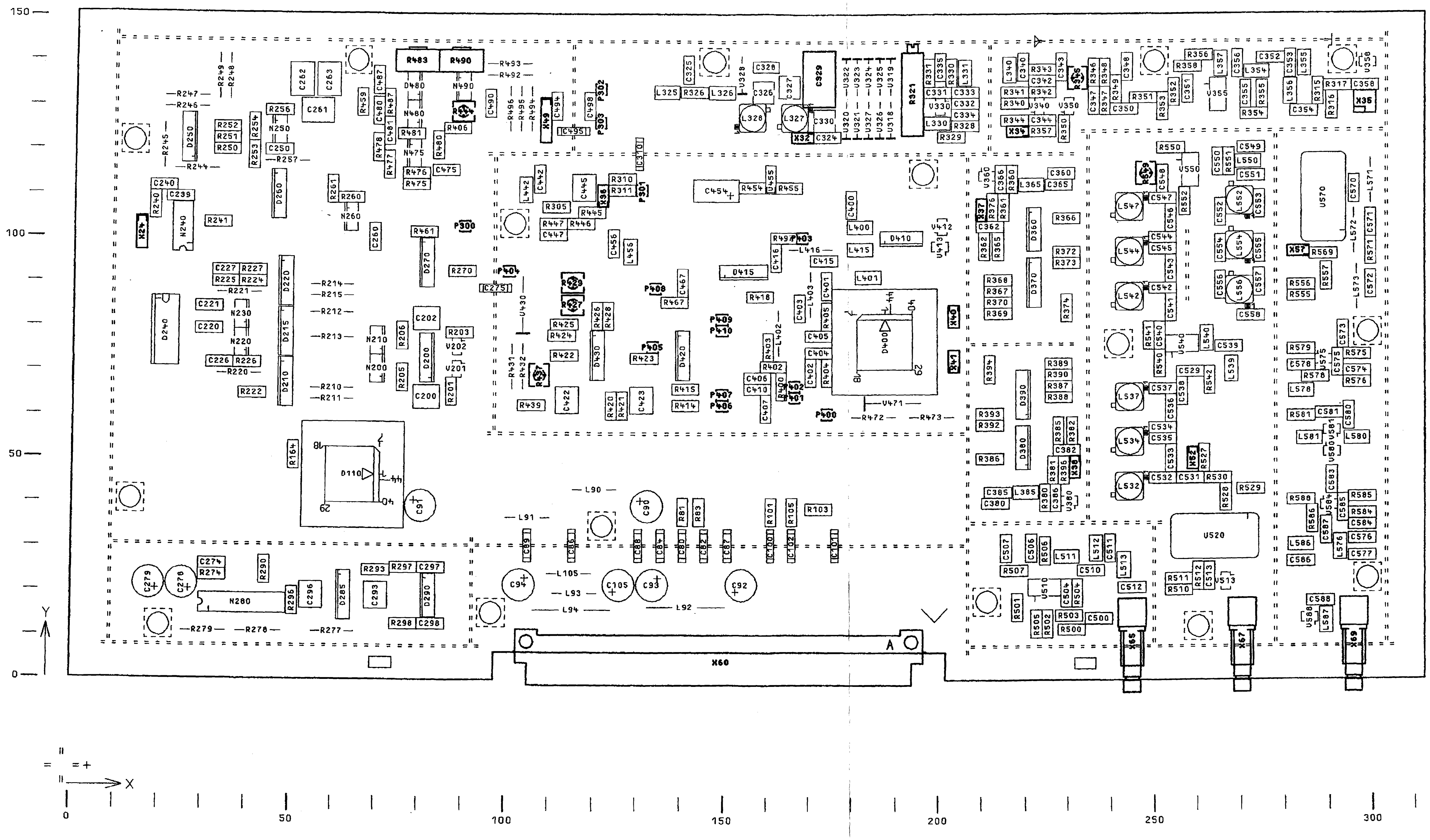
BENENNUNG
FM MODULATOR
FM MODULATOR

Z

ZEICHN.-NR. 1036.8508.01 EE

BLATT-NR. 2-
V. BL.

PES I.V. 1036.8489 LOSTE 2.



DIESE ZEICHNUNG IST EIN RECHNERAUSDRUCK, AENDERUNGEN [illegible] NUR DURCH AENDERN DES DATENSATZES ERFOLGEN

DARSTELLUNG SEITE B
VIEW ON SIDE B

ACHTUNG: EGB!
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

BINDENDE ANGABEN UEBER VARIANTEN, TRIMMWERTE, BAUTEILWERTE UND NICHT BESTUECKTE BAUTEILE SIEHE SA.

FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

AEND. IND.	AENDERUNGS-MITTEILUNG	DATUM	NAME		TAG	NAME
04/01	48743 09	28.05.93	BU	1GPK	TAG	NAME
				BEARB.		BAUR
				GEPR.		BU
				NORM		
				PLOTT	26.05.93	
03/01	48743 07	17.03.93	BU	ROHDE&SCHWARZ		

BENENNUNG: FM MODULATOR
FM MODULATOR

Z

ZEICHN.-NR. 1036.8508.01 EE

BLATT-NR. 1+

ZU GEHOERT SM-B5

1036.8489