ROHDE&SCHWARZ

# SERVICE DOCUMENTS

## E 6 GHZ Board

## 1084.9600.00

## Contents


**7 Testing and Repair of the Board ..... 4**
**7.1 Function Description ..... 4**
7.1.1 Input REF600 ..... 4
7.1.2 Input IQ300 ..... 4
7.1.3 IF900 - IF Signal of Mixer2 ..... 5
7.1.4 LO Conditioning for Mixer 1 ..... 5
7.1.5 RF Path at IF Ouput of Mixer1 ..... 5
7.1.6 Filter Bank ..... 5
7.1.7 RF Level Control ..... 6
7.1.8 Diagnosis ..... 6
**7.2 Measuring Instruments and Auxiliary Means ..... 6**
**7.3 Troubleshooting ..... 6**
7.3.1 RF Level ..... 7
7.3.2 Spectral Purity of Output Signal IQOUT6 ..... 8
**7.4 Testing and Adjustment ..... 8**
7.4.1 Testing the Data Transmission ..... 8
7.4.2 Testing the Reference Voltages ..... 9
7.4.3 Testing the Operating Points of the Amplifier Stages .. 9
7.4.4 Testing the Switching Voltages of RFSWITCH 1 .... 10
7.4.5 Testing the Switching Voltages of RFSWITCH 2 .... 10
7.4.6 Testing the Tuning Voltages ..... 10
7.4.7 Testing the RF Signal Paths ..... 11
7.4.8 Adjusting the Drain Current of A510 in the POWER UNIT.. 11
7.4.9 Adjusting the Reference 10 V ..... 11
7.4.10 RF-DC-ZERO Adjustment at Output Detector ..... 11
7.4.11 Adjusting the RF Level Linearity ..... 12
7.4.12 Adjusting the IF900 Level ..... 12
7.4.13 Calibration of the Tunable Filters ..... 12
7.4.14 Tables and Interfaces ..... 12
7.4.14.1 Diagnosis ..... 12
7.4.14.2 Serial Data (Subaddress 1) ..... 15
**7.5 Disassembly and Assembly ..... 16**
**7.6 External Interfaces ..... 17**

Parts list
Coordinates list
Circuit diagram
Component location plan

# 7. Testing and Repair of the Board

## 7.1. Function Description

The E6GHZ board extends the frequency range of the SMIQ03 by the range 3300 to 6400 MHz.

The IQ300 signal at X504 from the IQMOD module (300 MHz, IQ-modulated) is up-converted to 900 MHz using MIXER2 (IF900). Unwanted mixer products at the output of MIXER2 are filtered off by means of bandpass filters.

The REF600 signal at X502 from the reference/step synthesis (600 MHz) is doubled and serves as LO for MIXER2 (1200 MHz).

MIXER1 converts IF900 to the range 3300 to 6400 MHz. The LO signal (4200 to 6000 MHz) for MIXER1 is generated by doubling the FIQOUT signal of the IQMOD at X505.

Unwanted mixer products at the output of MIXER1 are suppressed by means of bandpass filters and a switched filter bank containing bandpass filters and tunable highpass and lowpass filters in 4 paths.

A level control element (LEVEL PRESET) preceding the filter bank permits to set the operating point of the amplitude modulator(instrument calibration routine Level Preset). Following the filter bank, the output level of the instrument is set by the amplitude modulator.

The thin-film unit POWERUNIT includes the output stage and a detector, which detects the output level of the instrument for the frequency range 3300 to 6400 MHz. There, the signal from the IQMOD (FIQOUT at X505) is also directly through-connected to the module output (IQOUT6 at X506) for frequencies
< 3300 MHz.

### 7.1.1. Input REF600

The REF600 signal at X502 (600 MHz, 13 dBm) is split up via a power divider, taken via an amplifier and again provided as output signal at X501 REF600E for IQMOD (600 MHz, 13 dBm) and doubled as LO signal for MIXER2 to 1200 MHz, filtered and amplified to a controlled LO level of 17 dBm.

### 7.1.2. Input IQ300

The IQ300 signal at X504 (300 MHz, -9 dBm) is split up via a power divider, taken via an amplifier and again provided as output signal at X503 IQ300AUX (300 MHz, -9 dBm) and is used as RF signal for MIXER2 (level -12 dBm).

### 7.1.3. IF900 - IF Signal of Mixer2

The IF signal of MIXER2 (900 MHz) is filtered and amplified and taken to the RF connector of MIXER1 (level -12 dBm). The RF level at X2 is adjusted to -12 dBm by means of LEVEL IF900 (R848).

### 7.1.4. LO Conditioning for Mixer 1

For LO conditioning, the FIQOUT signal is doubled by the POWERUNIT at X9 from 2100 to 3000 MHz to 4200 to 6000 MHz. For suppression of subharmonics, the lowpass filter LP5100 is cut in at frequencies at FIQOUT < 5100 MHz. A level control ensures a constant LO level at X1 (17 dBm).

### 7.1.5. RF Path at IF Output of Mixer1

The mixer output signal (-18 dBm) is taken via amplifiers and filters to the level preset control element and via the filter bank and the AM modulator to the input X6 of the POWERUNIT . The amplifier stages have a gain (S21) of approx. 8 dB each, thus compensating for the filter attenuations.

### 7.1.6. Filter Bank

The tunable filters are set according to the frequency; the necessary data is determined in the module test in the production and contained in the EEPROM of the module.

Each tracking filter is driven by a tuning voltage.
IQFILT1 and IQFILT2 drive the lowpass filters, IQFILH1 and IQFILH2 the highpass filters. In the deactivated filter paths, the respective lowpass filters are set to minimum and the highpass filters to maximum tuning voltage via selector switches (0 or 20 V).
The four control bits FILOFF1 to FILOFF4 check the selector switches and the ON/OFF functions of the filter paths.

There are four frequency ranges:

| Frequency range | SMIQ output frequency | FIQOUT from IQMOD | LO frequency Mixer 1 | Sideband | Control signal LP5100_ON |
|---|---|---|---|---|---|
| FB1 | 3300 to 4200 MHz | 2100 to 2550 MHz | 4200 to 5100 MHz | lower | L |
| FB2 | 4200 to 5100 MHz | 2550 to 3000 MHz | 5100 to 6000 MHz | lower | H |
| FB3 | 5100 to 6000 MHz | 2100 to 2550 MHz | 4200 to 5100 MHz | upper | L |
| FB4 | 6000 ... 6400 MHz | 2550 ... 2750 MHz | 5100 ... 5500 MHz | upper | H |

### 7.1.7. RF Level Control

The command value for the amplitude modulation (f > 3.3 GHz) and the level control is applied to the module via X500.A2 UREFAM. At frequencies < 3.3 GHz, the control bit AM_ON switches over to a command value generated on the module, since the amplitude modulation is already generated on the IQMOD module. The temperature-compensated and linearized detector output voltage is applied as actual value to the control amplifier N29, which drives the AM modulator.
The level linearity is adjusted using trimmers RF DC ZERO (R394) and DETECTOR OFFSET (R173). The nominal value for the level control is set via D/A converter D2. The control bandwidth is switched over via control bit AM_SLOW_ON. For the IQ mode or in the operating mode "ALC OFF MODE TABLE", the AM modulator is controlled by the level D/A converter (ALC_ON = Low, DETOUT_ON = Low), N29 will then operate as amplifier.

### 7.1.8. Diagnosis

Diagnosis voltages determined via RF rectifiers feature large tolerances and can only be used as indicators (RF level present / not present). RF test points without directional couplers do not detect the forward power, but the RF voltage, which is to a large extent dependent on the matching (impedance) and therefore features large fluctuations versus the frequency.

## 7.2. Measuring Instruments and Auxiliary Means

- DC voltmeter, ammeter (e.g. UDS5)
- RF power meter (e.g. NRVD)
- RF spectrum analyzer up to 20 GHz (e.g. FSM)
- RF network analyzer up to 8 GHz (e.g. ZVC)

## 7.3. Troubleshooting

For first error diagnosis it is recommended to use the test program included in the service kit, which offers comprehensive possibilities.
Before starting more detailed troubleshooting in the RF paths, it is recommended to check the serial interface for correct data transmission and the diagnosis, reference, operating point and control voltages for the correct value.

## 7.3.1. RF Level

| | |
|---|---|
| **Error message:**<br><br>**ALC LOOP FAILURE** | First check at which frequencies the level control does not work. To this end, check the frequency ranges FB1 to FB4 of the filter bank. |
| **No level**<br><br>**or**<br><br>**fault during Level Preset calibration at frequencies > 3.3 GHz** | Check control voltages of the LO level control loops.<br><br>Check diagnosis voltages of the RF test points.<br><br>Check detector and control amplifier.<br><br>Perform RF level adjustment |
| **Level cannot be varied at all frequencies > 3.3 GHz** | Check detector, level D/A converter and control amplifier |
| **No level in only one frequency range FB1 to FB4 of the filter bank** | Fault at RF-SWITCH1 or RF-SWITCH2, missing or faulty control voltage of tunable filters. Check the RF chain of the filter bank using network analyzer |
| **Level linearity out of tolerance** | Perform adjustment |

### 7.3.2. Spectral Purity of Output Signal IQOUT6

| | |
|---|---|
| **Too small harmonics** | Check operating point of RF amplifier in POWERUNIT, harmonics at X6, operating points of amplifiers in RF path. |
| **Too small spurious responses at fnw = 0.5*(fRF ± 900 MHz)** | Chip of switch or switch control in POWERUNIT faulty, braided cord in upper module cover in the area of the POWERUNIT missing. |
| **Too small spurious responses at 300 MHz from carrier** | LO level of MIXER1 is faulty, bandpass filters in the IF900-path faulty |
| **Too small spurious responses at 600 kHz from carrier** | Module cover does not fit tightly, bandpass filters in the LO 1200 path faulty |
| **Too small spurious responses at 900 MHz from carrier** | LO suppression by the tracking or permanent filters of the filter bank is insufficient. Determine the faulty frequency range of the filter bank FB1 to FB4, check the tuning voltages, measure from X4 to X8 using network analyzer. |

## 7.4. Testing and Adjustment

All measured values with no tolerance indicated are meant to be understood as reference values.
Plug the board onto the adapter included in the service kit and set up the RF connections. The adapter can then be plugged into the chassis together with the board.

Before carrying out any tests, set the instrument to a defined initial status by means of PRESET.

### 7.4.1. Testing the Data Transmission

The board is addressed via the serial interface. Subaddress 1 is used for the data transmission,. Subaddress 2 is used for reading and writing to the EEPROM, which contains calibration data for the filter control.

Testing: When changing between the frequencies f1 < 3.3 GHz and f2 > 3.3 GHz, the bit SWE6-ON at D14/4 must change between low and high.

## 7.4.2. Testing the Reference Voltages

| Test point | Nominal value/V |
|---|---|
| X20.3 | 10 ± 0.010 |
| X20.2 | -10 ± 0.010 |
| X20.1 | 4.55 ± 0.02 |

## 7.4.3. Testing the Operating Points of the Amplifier Stages

Use a DC voltmeter to check the voltages. Measure at the collector or drain connector.

| Circuit diagram sheet | Amplifier | Component No. | Ic/mA | U/V |
|---|---|---|---|---|
| 3 | RFAMP23 | N38 | 70 | 4.9 ± 0.1 |
| 3 | RFAMP24 | N39 | 70 | 4.9 ± 0.1 |
| 4 | RFAMP25 | V19 | 58 | 4.4 ± 0.1 |
| 4 | RFAMP26 | V20 | 58 | 4.4 ± 0.1 |
| 5 | RFAMP27 | V87 | 62 | 4.4 ± 0.1 |
| 5 | RFAMP28 | V91 | 127 | 4.7 ± 0.1 |
| 5 | RFAMP28 | V91/UG2 | | -4...-0.5 |
| 6 | RFAMP29 | N3 | 80 | 4.8 ± 0.1 |
| 8 | RFAMP30 | N4 | 80 | 4.8 ± 0.1 |
| 9 | RFAMP2 | N15 | 100 | 5.25 ± 0.1 |
| 10 | RFAMP3 | N17 | 75 | 5 ± 0.1 |
| 12 | RFAMP4 | N14 | 83 | 2.8 ± 0.2 |
| 12 | RFAMP5 | V90 | 140 | 7.1 ± 0.1 |
| 13 | RFAMP6 | N25 | 80 | 3.4 ± 0.2 |
| 14 | RFAMP7 | V92 | 93 | 7.1 ± 0.1 |
| 14 | RFAMP7 | V92/Gate | | -2 ... -0.5 |
| 17 | RFAMP9 | N22 | 80 | 3.4 ± 0.2 |
| 18 | RFAMP10 | N23 | 80 | 3.4 ± 0.2 |
| 19 | RFAMP11 | N18 | 80 | 3.4 ± 0.2 |
| 20 | RFAMP12 | N19 | 80 | 3.4 ± 0.2 |
| 21 | RFAMX16.1 | N20 | 80 | 3.4 ± 0.2 |
| 22 | RFAMP14 | N21 | 80 | 3.4 ± 0.2 |
| 23 | RFAMP15 | N24 | 80 | 3.4 ± 0.2 |
| 24 | RFAMP16 | N9 | 80 | 3.4 ± 0.2 |
| 26 | RFAMP19 | V94 | 93 | 7.1 ± 0.1 |
| 27 | RFAMP20 | V95 | 93 | 7.1 ± 0.1 |
| 28 | RFAMP22 | N37 | | 3.4 ± 0.2 |
| 29 | POWER UNIT Vcc | P11 | 500 | 7.3 ± 0.2 |
| 29 | POWER UNIT Vgg | P12 | | -5 ... -0.5 |

## 7.4.4. Testing the Switching Voltages of RFSWITCH 1

Use a DC voltmeter to check the voltages. (Tolerance ± 0.3 V)

| | Test point | Filter OFF | FB1 on | FB2 on | FB3 on | FB4 on |
|---|---|---|---|---|---|---|
| SYNFIL 0 | C891 | 4.42 | 4.18 | -1.65 | -1.65 | 4.55 |
| SYNFIL 1 | C753 | 9.80 | -0.76 | 9.80 | 9.80 | 9.80 |
| SYNFIL 2 | C892 | -10.00 | -10.00 | 3.30 | -10.00 | -10.00 |
| SYNFIL 3 | C757 | 9.83 | 9.83 | 9.83 | -3.30 | 9.83 |
| SYNFIL 4 | C755 | -10.03 | -10.03 | -10.03 | -10.03 | 6.21 |

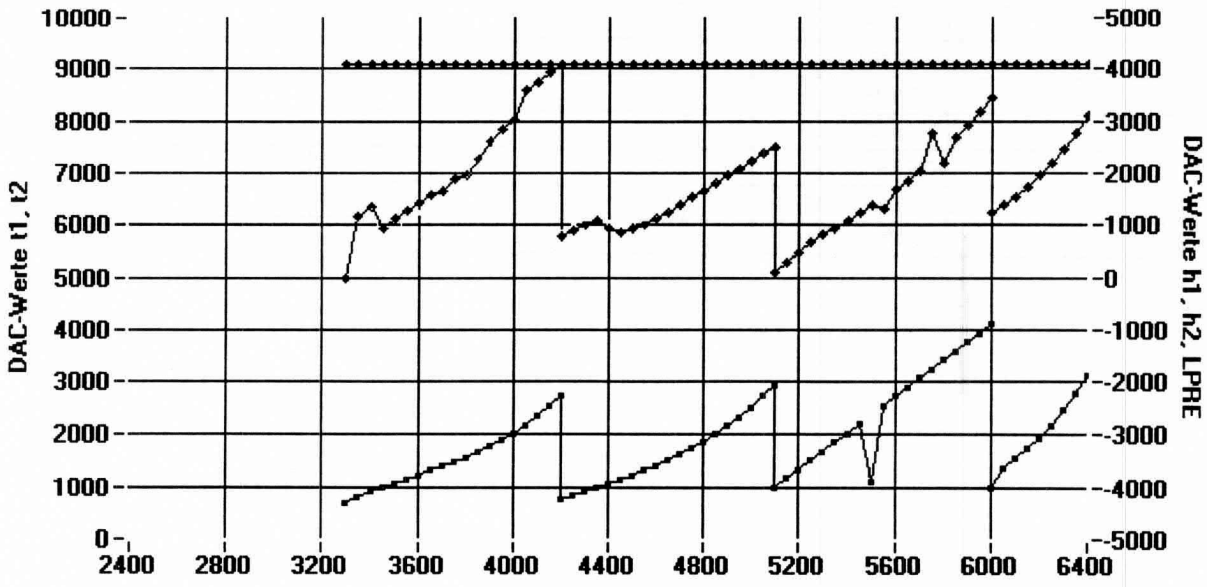
## 7.4.5. Testing the Switching Voltages of RFSWITCH 2

Use a DC voltmeter to check the voltages. (Tolerance ± 0.3 V)

| | Test point | Filter OFF | FB1 on | FB2 on | FB3 on | FB4 on |
|---|---|---|---|---|---|---|
| SYNFIL 0N | C895 | -1.67 V | -1.67 V | 4.22 V | 4.58 V | -1.67 V |
| SYNFIL 1N | C894 | -9.82 V | 3.34 V | -9.82 V | -9.82 V | -9.82 V |
| SYNFIL 2N | C899 | 9.97 V | 9.97 V | -0.76 V | 9.97 V | 9.97 V |
| SYNFIL 3N | C898 | -9.83 V | -9.83 V | -9.83 V | 6.24 V | -9.83 V |
| SYNFIL 4N | C897 | 10.05 V | 10.05 V | 10.05 V | 10.05 V | -3.32 V |

## 7.4.6. Testing the Tuning Voltages

The diagram shows general characteristics of the tuning voltages. Individual calibration data may deviate from this curve; usually, there are deviations from the smooth tuning characteristics because of the calibration process. The upper curves show IQFILH1 and IQFILH2, the lower ones IQFILT1 and IQFILT2 (identical in this case). All 4 voltages can be read out via the diagnosis (Udiag = 20V * DACWERT/4095).



### 7.4.7. Testing the RF Signal Paths

The module accommodates SMP or MMCX test connectors X1 to X9. At these coaxial interfaces, matching and gain can be measured using a network analyzer, for example. For this purpose, the coupling capacitor, which is located at this place in the signal path, must be soldered from the desired input or output to the test connector. In addition to a number of coupling capacitors in the signal path, there are grounded through-connections (GND). There, it is possible, e.g. to solder in a coaxial cable and connect its inner conductors to the signal path. For specifications of nominal gain or nominal level please refer to the block diagram. S-parameter measurements in the frequency range 3 to 6 GHz require extensive equipment and knowledge. Therefore, such measurements should only be performed by trained personnel.

### 7.4.8. Adjusting the Drain Current of A510 in the POWER UNIT

Cut in the ammeter at X14.1 - X14.2.
Use trimmer R172 to adjust the current to 500 ± 5 mA.

### 7.4.9. Adjusting the Reference 10 V

Use trimmer R608 to adjust to 10 V ± 0.001 V at the test point X20.4.

### 7.4.10. RF-DC-ZERO Adjustment at Output Detector

Remove jumper at X14.1-X14.2, set the voltage at X16.1 (reference X16.2) to -17 mV ± 0.5 mV using potentiometer R394, plug in the jumper at X14.1-X14.2.

### 7.4.11. Adjusting the RF Level Linearity

Instrument settings: PRESET, RF 3301 MHz, LEVEL 2.1 dBm, LEVEL/LEVEL/ATTENUATOR MODE FIXED.
Connect power sensor of power meter to RF connector of SMIQ.
Save the measured value as reference value on the power meter and select the Δ dB display. Set LEVEL -18.1 dBm.
Use potentiometer R173 to adjust the DETECTOR OFFSET to 20-dB drop on the power meter.
By adjusting alternately using potentiometer R173 and potentiometer R394 (RF-DC-ZERO), the level deviation from the nominal value can be minimized in the level range -20 dBm to 13 dBm.

### 7.4.12. Adjusting the IF900 Level

Remove the module, unscrew the screening cover.
Unsolder the coupling capacitor C663 from the signal path and solder in such that R625 is connected to X2.

Place the module onto the service adapter, set up the RF connections, install the adapter into the instrument. Make sure to allow for sufficient cooling of the module, since the cooling effect of the screening covers and the air current is missing.

Instrument setting PRESET, RF 3301 MHz.

Connect a power meter to X2 and measure the level (f = 900 MHz). Adjust the RF level at X2 to -12 dBm using LEVEL IF900 (R848).

### 7.4.13. Calibration of the Tunable Filters

The filters are calibrated in the factory in the module pretesting. This is necessary when replacing tuning diodes in the tunable filters or the EEPROM.

### 7.4.14. Tables and Interfaces

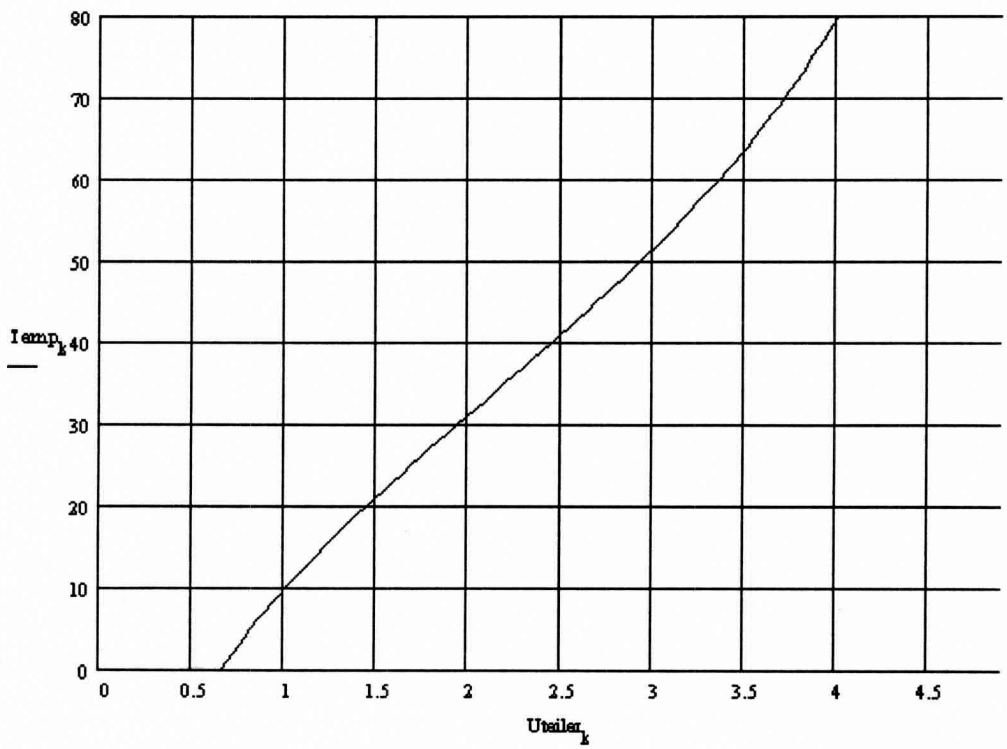
#### 7.4.14.1. Diagnosis

RF: Diagnosis voltage determined via RF rectifier.
IR: Interrupt at processor when the permissible thresholds are exceeded.
TF: Division factor (corresponds to voltage divider ratio at test point).

| Diagnosis multiplexer D27: | | | | | | |
|---|---|---|---|---|---|---|
| Diag. point SMIQ | Test point | Type | IR | Umin/ Volt | Umax/ Volt | TF |
| 10<br>2400 | Reference 10 kΩ | DC | | -10m | +10m | 1 |
| 11<br>2401 | VDETOUT Output level of module | RF | | 0 | 10 | 4 |
| 12<br>2402 | UTEMP | DC | | 0 | 5 | 1 |
| 13<br>2403 | Free | | | | | |
| 14<br>2404 | IQFILT1 tuning voltage<br>LP tracking filter | DC | | 0 | 20 | 5 |
| 15<br>2405 | IQFILT2 tuning voltage<br>LP tracking filter | DC | | 0 | 20 | 5 |
| 16<br>2406 | IQFILH1 tuning voltage<br>HP tracking filter | DC | | 0 | 20 | 5 |
| 17<br>2407 | IQFILH2 tuning voltage<br>HP tracking filter | DC | | 0 | 20 | 5 |

| Diagnosis multiplexer D25: | | | | | | |
|---|---|---|---|---|---|---|
| Diag. point SMIQ | Test point | Type | IR | Umin/ Volt | Umax/ Volt | TF |
| 20<br>2408 | Control voltage for level preset | DC | | 0 | 10 | 3 |
| 21<br>2409 | Level ahead of filter bank | RF | | 0 | | 3 |
| 22<br>2410 | Level ahead of AM Mod. | RF | | 0 | | 3 |
| 23<br>2411 | Level ahead of POWERUNIT | RF | | 0 | | 3 |
| 24<br>2412 | IF900 Level | RF | | 0 | | 3 |
| 25<br>2413 | AM control voltage | DC | IR | -15 | 15 | 3 |
| 26<br>2414 | LO-MIXER1 control voltage | DC | IR | -15 | 15 | 3 |
| 27<br>2415 | LO-MIXER2 control voltage | DC | IR | -15 | 15 | 3 |

Module temperature vs. Udiag12 (SMIQ diagnosis No. 2402):



## 7.4.14.2. Serial Data (Subaddress 1)

| Byte | Bit | Designation | Function | Control logic |
|---|---|---|---|---|
| 11 | 7 | free | | |
| | 6 | free | | HEX code: |
| | 5 | free | | 0E 0D 0B 07 0F |
| | 4 | free | | |
| | 3 | FILOFF4 | | 1 1 1 0 1 |
| | 2 | FILOFF3 | | 1 1 0 1 1 |
| | 1 | FILOFF2 | | 1 0 1 1 1 |
| | 0 | FILOFF1 | | 0 1 1 1 1 |
| 10 | 7 | IQFIL_H2 | Tuning voltage | MSB |
| 9 | 4 | [12] | 2 of highpasses | LSB |
| 9 | 3 | IQFIL_H1 | Tuning voltage | MSB |
| 8 | 0 | [12] | 1 of highpasses | LSB |
| 7 | 7 | IQFIL_T2 | Tuning voltage 2 of lowpasses | MSB |
| 6 | 4 | [12] | | LSB |
| 6 | 3 | IQFIL_T1 | Tuning voltage | MSB |
| 5 | 0 | [12] | 1 of lowpasses | LSB |
| 4 | 7 | BLANK_ENA | Function of BLANK line | 1 active<br>0 deactivated |
| | 6 | BLANK_INV | Polarity of BLANK line | 1 Blanking with BLANK = 0<br>0 Blanking with BLANK = 1 |
| | 5 | DETOUT_ON | Switch for detector output | Detector connected to controller as actual value (ALC ON)<br>0 ALC OFF |
| | 4 | AM_SLOW | Switchover of ALC control bandwidth | 1 ALC control bandwidth slow<br>0 ALC control bandwidth normal |
| | 3 | ALC_ON | Switchover between CW and IQ mode/ level control from table | 1 ALC ON: Automatic level control on.<br>0 ALC OFF: Automatic level control off. |
| | 2 | AM_E6 | Level reference voltage | 1 AM signal from motherboard<br>0 6-V reference for RF level from module E6GHz |
| | 1 | LEV_OFF | Level reduction | 1 Level off<br>0 Level on |
| | 0 | SWE6_ON | controls signal path in POWER UNIT | 1 Frequency range 3.3 to 6.4 GHz<br>0 Frequency range 0.3 to 3300 MHz |

| Byte | Bit | Designation | Function | Control logic |
|---|---|---|---|---|
| 3<br>2 | 7<br>4 | LEVEL [12] | Level<br>setting | Bit 11<br>Bit 0 |
| 2<br>1 | 3<br>0 | LEVEL<br>PRESET [12] | Level<br>Preset | Bit 11<br>Bit 0 |
| 0 | 7 | LOSYN_OFF | Switch for<br>LO Mixer1 | 1 LO off (0.3 to 3300 MHz)<br>0 LO on (3.3 to 6.4 GHz) |
| | 6 | LO-MIXER2<br>_OFF | Switch for<br>LO Mixer2 | 1 LO off (0.3 to 3300 MHz)<br>0 LO on (3.3 to 6.4 GHz) |
| | 5<br>4<br>3 | free<br>DMUX_2<br>DMUX_1 | Selection<br>diagnosis<br>multiplexer | 0 DMUX1 1 DMUX2 0 off<br>1 0 0 |
| | 2<br>1<br>0 | AMUX_2<br>AMUX_1<br>AMUX_0 | Address<br>diagnosis<br>multiplexer | MSB<br>Address 0 to 7<br>LSB |

## 7.5. Disassembly and Assembly

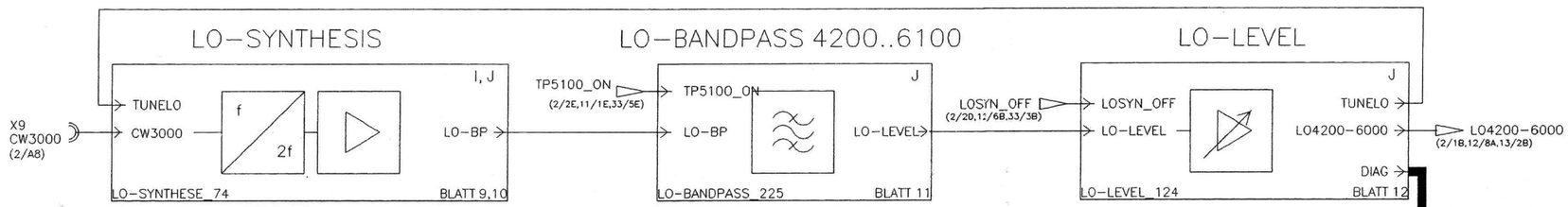
After opening the instrument, unlocking the module and loosening the RF connections, the module can be taken out of its slot. The screening covers of the module are fastened with screws; loosen the screws of the upper cover first and tighten them last.

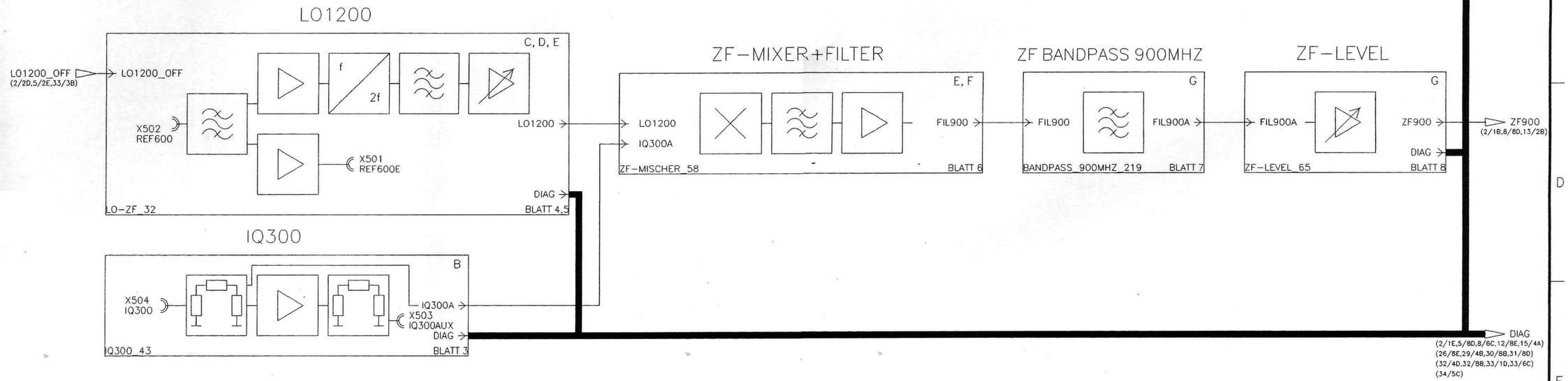
For mounting the POWERUNIT observe the mounting instructions (see component location plan).

## 7.6. External Interfaces

| Signal name | from module | Signal data | Remark |
|---|---|---|---|
| IQ300 | IQMOD (IQAUX) | 300 MHz ± 50 MHz<br>for IQ modulation<br>-9 dBm ± 0.1 dB<br>50 ohms<br>S11 < -15 dB | |
| REF600 | Reference/ step synthesis | 600 MHz<br>13 dBm ±1 dB<br>50 ohms<br>S11 < -15 dB | |
| VREFAM | IQMOD | DC ... 100 kHz<br>6 VDC ± (AM * 6 V) | Modulation signal for AM |
| FIQOUT | IQMOD | IQ/CW 0.3 to 3300 MHz<br>-15 to +16 dBm<br><br>CW 2100 to 3000 MHz<br>13 dBm<br>50 ohms | F < = 3300 MHz:<br>IQMOD signal is through-connected to attenuator<br><br>F > 3300 MHz:<br>IQMOD in CW mode |
| | **to module** | | |
| IQ300AUX | Instrument rear | 300 MHz ± 50 MHz<br>for IQ modulation<br>50 ohms<br>S11 < -15 dB<br>S22 < -20 dB | IQ300 through-connected, P(IQ300) ± 0.5 dB |
| REF600E | IQMOD | 600 MHz from REF600 through-connected<br>50 ohms<br>S22 < -15 dB | REF600 through-connected, P(REF600) ± 0.5 dB |
| IQOUT6 | Attenuator | IQ/CW 0.3 to 3300 MHz:<br>-17 to +16 dBm<br><br>IQ 3300 to 6400 MHz:<br>-15 to +16 dBm<br>50 ohms<br>S22 < -15 dB | through-connected signal, approx. 2 dB attenuation |

Fuer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved




** = NOT FITTED

Bindende Angaben ueber Varianten, Trimmwerte, Bauteile und nicht bestueckte Bauteile siehe SA.

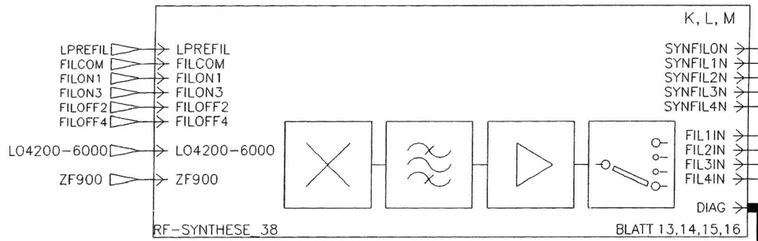
FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED COMPONENTS SEE PARTS LIST

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

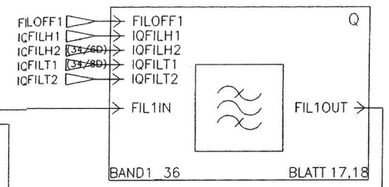
| | | | | | |
|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: / Designation: 6-GHZ-ERWEITERUNG 6-GHZ-EXTENSION | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 1+ |
| Typ: / Type: SMIQ | Datum: / Date: 99-09-09 | Abteilung: / Dpt: 1GPK | Name: / Name: HOFBERGE | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| I. Z.: / used in: 1084.8004.01 | TOP/TOP.1 | | | | | |

Ruer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

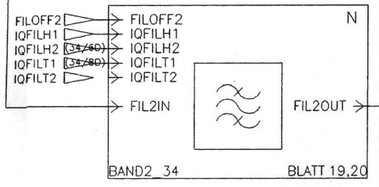
## MIXER RF-SYNTHESIS



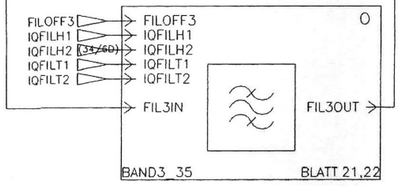

## BAND 1 3300..4200



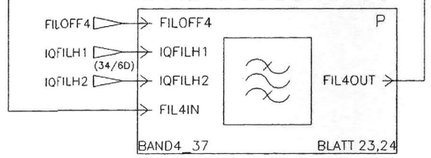

## BAND 2 4200..5100



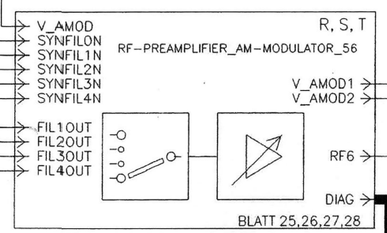

## BAND 3 5100..6000



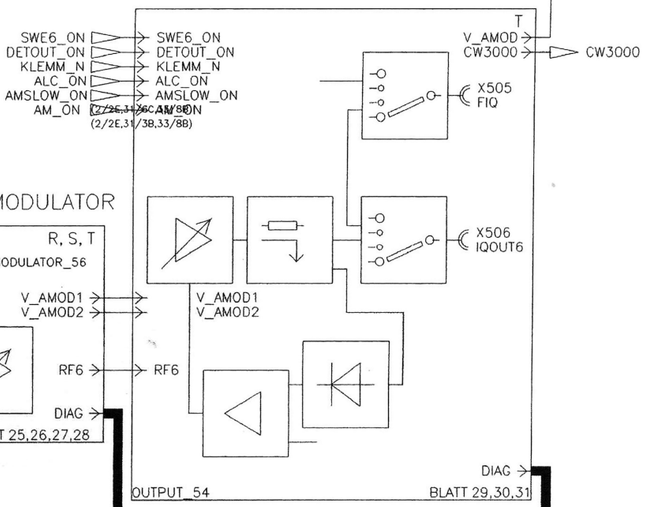

## BAND 4 6000..6400



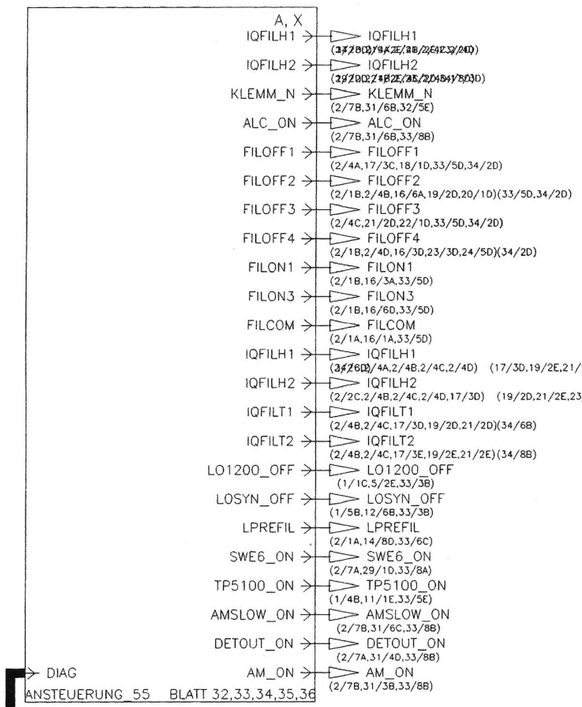

## RF-PREAMPLIFIER AM-MODULATOR




## OUTPUT




## CONTROL




DIAG (1/8E,5/8D,9/3C,12/8E,15/4A) (26/8E,29/4B,30/8B,31/8D) (32/4D,32/8B,33/1D,33/6C)

** = NCT 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

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: 6-GHZ-ERWEITERUNG<br>Designation: 6-GHZ-EXTENSION | | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 2+ |
| Typ: / Type: SMIQ | Datum: / Date: 99-09-09 | Abteilung: / Dpt: 1GPK | Name: / Name: HOFBERGE | | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: / used in: 1084.8004.01 | TOP/TOP.2 | | | | | | |

For this document all rights are reserved

X504

RFP1

RFP2

RFP3
RFP75

X503

+7.5VB

L65
1U

C593
33N

L25
1U

C36
33N

R124
20
0.1%

R38
15
0.1%

C760
160x40
PCB

L461
10N

220P
C296

L99
3.9N

C73
330P

L633
1U

RFAMP23

ATT01 2dB

R360
12.1

C618
470P

R335
432

R336
432

RFP1

N38
SNA486

5V/70mA

ATT03 −7dB

C607
470P

R361
47

R338
130

R337
130

RFP75

IQ300AUX
X503
MMCX−BU
−9dBm

IQ300
X504
MMCX−BU
−9dBm

PSPLIT2
JPS−2
U8

RFAMP24

ATT04 −9dB

R776
12.1

C660
470P

R434
432

R435
432

RFP2

N39
SNA486

5V/70mA

C606
470P

R12
68

R20
100

R19
100

RFP3

IQ300A

ATT02 2dB

L28
1U

C652
330P

L446
3.9N

220P
C367

R9
20
0.1%

L347
10N

R41
15
0.1%

C707
160x40
PCB

** = 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

IQ300

| | | | | | |
|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: / Designation: 6−GHZ−ERWEITERUNG 6−GHZ−EXTENSION | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 3+ |
| Typ: / Type: SMIQ | Datum: / Date: 99−09−09 | Abteilung: / Dpt: 1GPK | Name: / Name: HOFBERGE | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| T.Z.: / used in: 1084.8004.01 | TOP/IQ300_43/IQ300.1 | | | | | |

Fuer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

X502 RFP4 RFP5 RFP6 RFP7 RFP8 X501 RFP9 RFP75

## RFAMP25

+7.5VC
L55 1U
R217 10 0.1%
R222 39 1W
C648 1N
C338 PCB 160x40
L447 10N
C42 220P
L453 3.9N
L333 82N
C647 82P
ATT06 -6dB
V62 BZX284B3V3
R659 1K
C646 100N
R61 0
C293 15P
R159 15
ATT08 -2.5dB
REF600E
X501 MMCX-BU 13dBm
R2 432 4.55V/58mA
RFP8
R661 330
R660 330
R887 35.7
C292 15P
V19 BFP450
R423 162
R422 162
RFP6
R555 10
R556 10
N.F. C264 10P

## BP600

REF600
X502 MMCX-BU 13dBm
ATT05 -1dB
R160 5.62
C587 8.2P
C10 3.9P
C13 12P
L325 12N
L344 18N
L35 6.8N
C594 15P
PSPLIT1
JPS-2
U7
R662 1K
R664 1K
L265 12N
L80 22N
L34 4.7N
L345 18N
C321 27P
C345 6.8P
C247 2.7P
C302 1.5P
RFP4

## BP1200

C301 1.2P
C535 1.5P
C330 1.8P
C684 2.2P
L9 5.6N
L59 15N
L63 15N
L10 6.8N
F1200 (5/1B)
L81 PCB 533x8
C336 10P
L100 PCB 739x8
C515 3.3P
L136 PCB 367x8
C12 10P
L137 PCB 411x8
L138 PCB 1182x8
L139 PCB 1050x8
C370 PCB 94X47
L140 PCB 206x8
C630 1P
47X71

## RFAMP26

+7.5VC
L56 1U
R72 10 0.1%
R98 39 1W
C651 1N
C678 PCB 160x40
L280 10N
C43 220P
L442 3.9N
L460 82N
ATT07 -6dB
V74 BZX284B3V3
R663 1K
C650 100N
R62 0
C295 15P
R3 432 4.6V/58mA
RFP7
V20 BFP450
R886 35.7
C294 15P
RFP5
R420 162
R421 162
R557 10
R558 10
N.F. C265 33P

## DOUBLER_2

600MHZ-->1200MHZ
N6 SFD1001
F / 2F
C596 15P
RFP9

## TP1300

L348 PCB 335x6
L353 PCB 787x6
L257 PCB 433x118
L398 PCB 787x6
C642 1.0P
L399 PCB 335x6
L401 PCB 433x118
L400 PCB 315x6
C609 0.8P
185x39 90G
C516 PCB
C376 15P
RFP75

REF600

** = 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

| | | | | | |
|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: / Designation: 6-GHZ-ERWEITERUNG 6-GHZ-EXTENSION | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 4+ |
| Typ: / Type: SMIQ | Datum: / Date: 99-09-09 | Abteilung: / Dpt: 1GPK | Name: / Name: HOFBERGE | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| i. Z.: / used in: 1084.8004.01 | TOP/LO-ZF_32/LO-ZF.1 | | | | | |

Fuer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

RFP65 RFP66 RFP67

UC1 (5/2E)

C698 160x40 PCB

L301 10N

220P C44

L443 3.9N

RFAMP27

C33 18P

L29 56N

4.5V/62mA

C74 1N R317 1K C111 2.7P L428 10N C285 22P L145 PCB 100x8

ATT1200

-2.6dB at 10mA

V1 BAR64-04DUO L143 PCB 100x8 C283 22P C26 1.0P R559 10

F1200 (4/8C) C14 12P C110 3.3P L427 5.6N C29 3.9P R958 0

V87 BFP450

R425 1K R17 1K

C90 18P L98 56N C27 18P R321 1K

C221 220P L64 10N

160x40 PCB (5/2F) UB1

C235 2.2P C589 18P L61 56N C371 PCB 200x160 L60 56N

L455 3.9N C223 220P L450 10N C555 PCB 160x40 R318 1K

UD2 (5/5E)

L327 10N C699 PCB 160x40 C48 220P L302 3.9N C701 18P

RFAMP28

L332 56N R433 470 C703 100P R162 5.62 R164 5.62

L144 PCB C700 100P

4.7V/120mA V91 SHF0186-K

COUPLER3

X7 SMP-SMCC L527 PCB 40x23 R363 0 N.F. C654 100P

LO1200 (6/1D) 17dBm

R21 182 R54 27.4 R896 121

V75 BAT15-03 C220 10P L459 56N C655 18P L445 3.9N C266 220P L339 10N C704 160x40 PCB

RFP67 C694 18P L457 56N L444 3.9N C236 220P L334 10N C702 160x40 PCB (5/5F) UG2

RFP66 RFP65

+15VE D4 DG419DY

ALC _LOMIXER2

V65 BZX284B6V2 C656 1N R7 10K R255 16.2K R809 100K R676 1.82K -15VE

V83 BAV99 C268 15P R224 10K +15VE C96 33N R857 20K C705 470P

N31 AD823AR R223 10K R675 1K R37 1M C97 33N -15VE R226 10K R388 10K R672 1K R383 0 R221 20K R220 10K C849 18P C850 18P

N.F. R369 10K +15VE R167 100 L311 56N DIAG27 (34/5C) DIAG C853 18P 2415

+7.5VE V181 SI9410DY R639 22K +15VE R459 47K R959 0 N.F.

C101 33N 1W R227 13 R856 2K R514 3.32 R147 3.32 Q4 TESTPAD UD2 (5/4A)

L01200_OFF (1/1C,2/2D,3/3B) L310 56N R166 100 R812 100K C845 18P C846 18P C847 18P R458 47K V138 BC850B

V32 BC857S V32 BC857S N.F. C653 1N C616 100N R775 4.7K R638 10K Q3 TESTPAD UG2 (5/4D) R219 56.2K -15VE R397 22K C676 4.7N R699 10K V144 HSMS2800

+7.5VE C368 10N R325 39 1W R63 5.62 Q5 TESTPAD UC1 (5/2A) R413 3.3K V34 BC857S V34 BC857S V12 BZX284B5V6 Q6 TESTPAD UB1 (5/2D) C99 33N C98 33N R1006 330 N.F. R396 4.7K

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

** = NOT FITTED

+15VE R203 2K D4 DG419DY V29 BZV55B5V1 C22 33N -15VE

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

LO1200

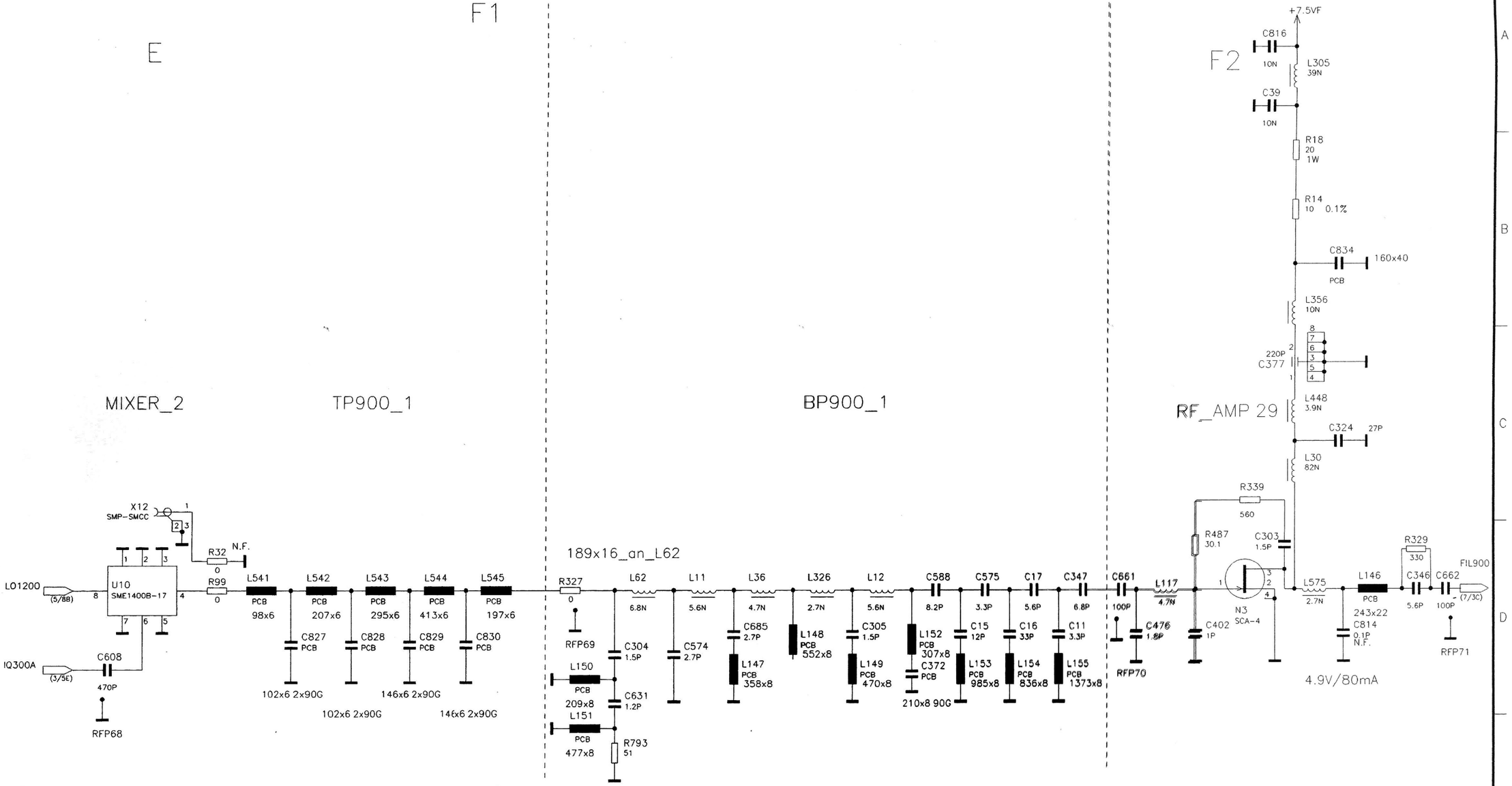
| | | | | | |
|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: 6-GHZ-ERWEITERUNG<br>Designation: 6-GHZ-EXTENSION | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 5+ |
| Typ: SMIQ<br>Type: | Datum: 99-09-09 | Abteilung: 1GPK | Name: HOFBERGE | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: 1084.8004.01<br>used in: | TOP/LO-ZF_32/LO-ZF.2 | | | | | |

Fuer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

RFP68 RFP69 RFP70 RFP71

F1 F2

MIXER_2 TP900_1 BP900_1 RF_AMP 29




** = 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

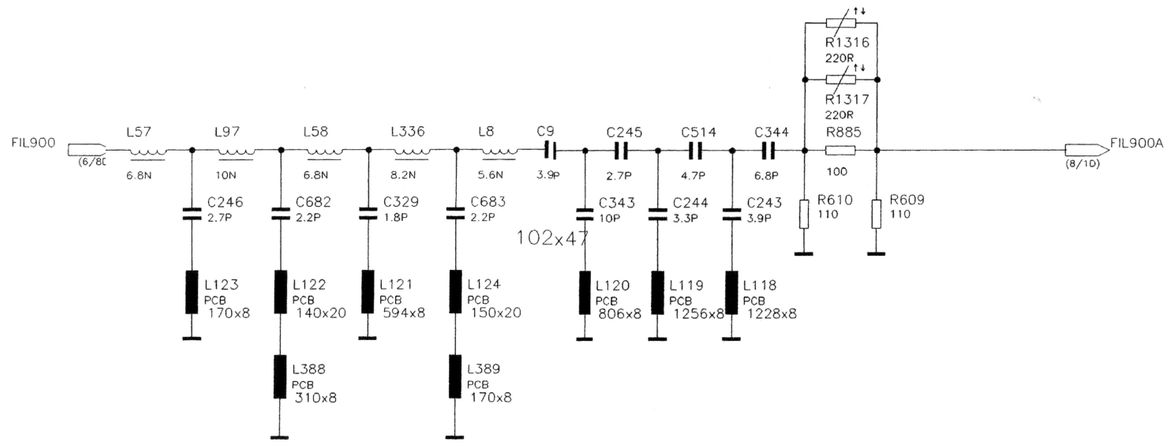
ACHTUNG: EGB !
ELEKTROSTATISCH GEFAEHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG.
ATTENTION ESD !
ELECTROSTATIC SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

| | | | | | |
|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: 6-GHZ-ERWEITERUNG<br>Designation: 6-GHZ-EXTENSION | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 6+ |
| Typ: SMIQ<br>Type: | Datum: 99-09-09<br>Date: | Abteilung: 1CPK<br>Dept: | Name: HOFBERGE<br>Name: | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: 1084.8004.01<br>used in: | | | TOP/ZF-MISCHER_58/ZF-MISCHER.1 | | | |

Fuer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

BP900_2

ATT09 −7dB




** = NOT FITTED

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

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

| | | | | | |
|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: / Designation: 6−GHZ−ERWEITERUNG 6−GHZ−EXTENSION | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 7+ |
| Typ: / Type: SMIQ | Datum: / Date: 99−09−09 | Abteilung: / Dpt: 1GPK | Name: / Name: HOFBERGE | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| T. Z.: / used in: 1084.8004.01 | TOP/BANDPASS_900MHZ_219/BANDPASS_900MHZ.1 | | | | | |

Fuer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

RFP73 G

RFP74

R848

RFP75

RFP76

X3

+7.5VG

C40 10N

L306 39N

C817 10N

R57 20 1W

R44 10 0.1%

C835 160x40 PCB

L630 10N

C406 220P

L629 3.9N

RFAMP30

C325 27P

L31 82N

R517 47

V78 BAT15-03

R185 220

L449 3.9N

C408 220P

L357 10N

C708 PCB 160x40

L67 1U

Z1 40DB

L66 1U

2412

DIAG24

DIAG (34/5C)

C77 0.3P

R340 560

R488 30.1

N4 SCA-4

C306 1.5P

4.9V/80mA

R350 330

R1314 220R

R1313 220R

ATT10 -3dB

LEVEL_900

TP900_2

X2 SMP-SMCC

L528 PCB 40x23

ATT_3dB

R345 0 N.F.

C663 100P

ZF900 (1/8D,2/1B,13/2B)

R1319 220R

ATT11 -3dB

R624 51

R625 0

R445 220

FIL900A (7/7C)

C348 6.8P

L5 4.7N

C69 1.8P

RFP73

C369 1.0P

L103 2.7N

L156 PCB 243x22

C815 0.1P N.F.

C359 5.6P

C349 6.8P

RFP74

R777 100

R341 301 N.F.

C326 47P

R342 301 N.F.

RFP75

R430 162

L82 82N

V2 BAR64-04DUO

C373 PCB 240x160

C327 47P

RFP76

L157 PCB 381x8

L13 5.6N

C331 1.8P

L158 PCB 330x8

L160 PCB 396x8

R429 162

L335 12N

L337 6.8N

C374 PCB 273x8 90G

L37 4.7N

C686 1P

C337 0.2P

C350 56P

L631 56N

C944 56P

L632 5.6N

C308 56P

+15VG

R626 15K

R681 2.2K

LEVEL ZF900

R848 50K

R295 10K N.F.

V35 BC857S

V35 BC857S

C102 33N

C41 10N

R83 200

C842 PCB 160x40

L358 10N

C419 220P

L451 3.9N

R928 100K N.F.

R133 200K

R460 15K

R127 10

** = 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

ZF900

| | | | | | |
|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: / Designation: 6-GHZ-ERWEITERUNG 6-GHZ-EXTENSION | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 8+ |
| Typ: / Type: SMIQ | Datum: / Date: 99-09-09 | Abteilung: / Dpt: 1GPK | Name: / Name: HOFBERGE | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: / used in: 1084.8004.01 | TOP/ZF-LEVEL_65/ZF-LEVEL.1 | | | | | |

Fuer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

# LO SYNTHESIS

RFP10 RFP11 RFP12

+7.5VI

L516 39N

C640 33N

R77 0

R1331 150 1206

R87 39 1W

C709 PCB 160x40

L383 10N

220P C556

L452 3.9N

R343 301

C307 1.5P

C926

L384 4.7P 10N

R489 82.5

N15 SNA486 5V/82mA

L531 PCB 129x83

C353 6.8P

S1 HMC158C8

DOUBLER1OUT (10/10)

RFP12

ATT12

X9 MMCX-BU

R778 0

R437 470

R436 470

2100...3000MHZ

ATT2dB

C354 6.8P

RFP10

L402 10N

C927 4.7P

L456 3.9N

C573 220P

L387 10N

R384 0

C714 PCB 160x40

C719 8.2P

R96 2.2K

TUNELO (12/8D)

ATTLOSY

V3 BAR64-04DUO

C378 PCB 194x80

C352 6.8P

RFP11

R150 130

L161 PCB 200x8

C18 5.6P

R70 200

C710 100P

L350 39N

RFAMP2

DOUBLER1

Bindende Angaben ueber Varianten, Trimmwerte, Bauteile und nicht bestueckte Bauteile siehe SA.

** = NOTFITTED

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

| | | | | | | |
|---|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: 6-GHZ-ERWEITERUNG<br>Designation: 6-GHZ-EXTENSION | | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 9+ |
| Typ: / Type: SMIQ | Datum: / Date: 99-09-09 | Abteilung: / Dpt: 1GPK | Name: / Name: HOFBERGE | | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: / used in: 1084.8004.01 | TOP/LO-SYNTHESE_74/LO-SYNTHESE.1 | | | | | | |

Über diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

RFP71 RFP70 RFP13 RFP14

TP10000

DOUBLER1OUT (9/8C)

L565 PCB 45x6 — C924 PCB 63xm 2x90G

L566 PCB 83x6

L567 PCB 74x6 — L568 PCB 12x6 — C925 PCB 74x6 90G

L569 PCB 30x6 — L570 PCB 3x6 — C928 PCB 67.5x6 90G

TP6300

C932 3.3P — RFP71

L571 PCB 73.5x8

L572 PCB 130x8 — C734 0.2P N.F. — C558 0.1P

L555 PCB 98x8 — C795 0.3P — L573 PCB 28x8

L557 PCB 94x8 — C935 0.4P — L556 PCB 14x8

L558 PCB 110x8 — C936 0.4P — L14 PCB 8x8

L560 PCB 49x8 — C232 0.2P — L559 PCB 45x8

HP4000

C931 3.3P — RFP70

C929 0.7P

C937 0.4P — L561 PCB 23x8 — C913 22P

C938 0.4P — L562 PCB 49x8 — C532 2.7P

C939 0.4P — L563 PCB 77x8 — C940 1.5P

C930 0.7P — L564 PCB 51x8 — C945 3.3P

RFAMP3

+7.5VJ — C649 — L72 33N 1U

C600 — R97 10N 20 1W

R78 10 0.1%

C711 — L385 10N — PCB 160x40

220P C572 (2 / 1)

L454 3.9N

C796 — L33 1.8P 2.2N

C576 3.3P — RFP13

C946 0.1P

N17 (1 / 2 / 3 / 4) SNA486

5V/73mA

C948 0.4P

L576 PCB 200x18

C947 0.9P — R332 33

L577 PCB 200x18

C577 3.3P — RFP14

LO-BP (11/2B)

4200...6000MHZ

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

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: / Designation: 6-GHZ-ERWEITERUNG 6-GHZ-EXTENSION | | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 10+ |
| Typ: / Type: SMIQ | Datum: / Date: 99-09-09 | Abteilung: / Dpt: 1GPK | Name: / Name: HOFBERGE | | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: / used in: 1084.8004.01 | TOP/LO-SYNTHESE_74/LO-SYNTHESE.2 | | | | | | |

Fuer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

RFP72

RFP73

J

S3
SSW124

LO-BP
(10/8D)

S2
SSW124

LO-LEVEL
(12/1C)

TP5100

C76
0.3P

R330
0

L536
PCB
105x6

L537
PCB
130x6

L538
PCB
90x6

L539
PCB
90x6

L540
PCB
117x6

L550
PCB
87x6

R331
0

C534
0.3P

C366
0.4P

C464
40x40
PCB

C474
0.5P

C475
0.4P

C934
0.4P

L546
PCB
34x6

L547
PCB
20x6

L548
PCB
57x6

L549
PCB
23x6

RFP72

RFP73

L127
2.2N

L126
2.2N

C916
56P

C915
56P

R438
1K

R443
1K

L23
2.2N

L125
2.2N

C914
56P

C826
56P

R431
1K

R432
1K

+15VJ

R426
1.82K

D15
74ACT86M

V70
BZX284B5V1

C365
33N

R259
10K

D15
74ACT86M

R427
5.62K

N40
AD823AR

R444
3.92K

R256
56

V39
BZX284B8V2

C35
220P

L128
10N

C918
100P

C364
220P

L129
10N

C919
100P

TP5100_ON
(1/4B.2/2E,33/5E)

L309
10N

R368
51

L32
2.2N

R260
10K

C854
4.7P

C879
4.7P

C844
1.8P

C843
1.8P

C917
1N

D15
74ACT86M

R428
5.62K

N40
AD823AR

R450
3.92K

R258
56

V40
BZX284B8V2

R305
10K

+15VJ

C234
33N

N40
AD823AR

C300
33N

-15VJ

D15
74ACT86M

R312
10K

R313
10K

R319
10K

D15
74ACT86M

R322
10K

R367
10K

R424
10K

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

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

** = NOT FITTED

| | | | | | |
|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: / Designation: 6-GHZ-ERWEITERUNG 6-GHZ-EXTENSION | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 11+ |
| Typ: / Type: SMIQ | Datum: / Date: 99-09-09 | Abteilung: / Dpt: 1GPK | Name: / Nome: HOFBERGE | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| I. Z.: / used in: 1084.8004.01 | TOP/LO-BANDPASS_225/LO-BANDPASS.1 | | | | | |

RFP16 RFP17 P27 P1 P2

COUPLER1
−16dB

X1 SMP−SMCC — L108 PCB 40x23 — N.F. R617 0 — Zo — L04200−6000
20dBm (1/7B,2/18,13/2B)

C71 2.7P

L315 PCB 330x39 — L316 PCB 22x6 — L317 PCB 22x6

R115 10M S=14 L318 PCB 330x39 — R101 10M

L320 PCB 80X6 — L319 PCB 68x6 — L397 PCB 48x171 — R40 56

UDRAINJ (12/3E) — C666 PCB 160x40

L131 10N — 220P C28 — L440 3.9N — C790 2.7P — L7 3.3N — C681 2.2P

L107 PCB 30x39 — C360 PCB 120x60

RFAMP5

V90 SHF0186−12GHZ

7.07V/90mA

+7.5VJ — R6 50 1W — R5 3.92 — C804 PCB 160x40

L109 10N — 220P C23 — L69 3.9N

DRIVER STAGE

RFAMP4

2.79V/83mA

C789 2.7P — L3 2.7N

N14 MGA82563

LO−LEVEL (11/7B) — C356 2.7P — R374 0 — N.F. R158 33 — C358 0.8P

C357 PCB 60x40 — RFP16

C550 2.7P — C242 2.7P — RFP17 — L105 PCB 100x18 — L106 PCB 121x18 — C533 PCB 250x18 (alt 150x18) — L104 PCB 45x42 — C420 2.2P

60x40 C75 PCB — C629 0.7P — R894 39.2 — L361 3.3N

+15VJ — D1 DG419DY — C644 1N — R830 82.5K

V64 BZX284B6V2 — R109 56.2K — R805 6.8K — R225 1.82K — −15VJ

LOSYN_OFF (1/58,2/20,33/38) — R344 51 — L293 3.3N — R351 51

C777 2.7P — C778 2.7P

C263 1N — R212 10K

ALC_LOMIXER1

V86 BAS216 — R854 18.2K — C696 270P

+15VJ — C92 33N — P27

R211 10K — N30 AD823AR — R214 10K — N30 AD823AR

C93 33N — −15VJ

R52 0 — TUNELO (9/4F)

R208 20K

R254 51 — L163 3.3N — R171 51 — DIAG26 DIAG (34/5C)

R207 10K — C468 33N — C527 2.7P — C517 2.7P

2412

LO SYNTHESIS

+10VJ — V180 SI9410DY — R637 22K — N.F. R956 0 — R808 100K — V137 BC850B — R457 47K

C922 2.7P — R53 1K — C30 220P — L260 10N — C673 PCB 160x40 — R210 10K — C473 100P — V143 HSMS2800 — (12/3F) UGATEJ

C5 33N — R855 20K — R499 1206 150 — R495 39 1W — Q2 TESTPAD — UDRAINJ (12/4A)

V30 BC857S — V30 BC857S — C645 N.F. 1N — C615 100N — R769 47K — R636 22K

R215 56.2K — R395 22K — C675 4.7N — Q1 TESTPAD — UGATEJ (12/4E)

+15VJ — R187 2K — D1 DG419DY — V57 BZX284B5V1 — C6 33N — −15VJ

R895 22 — V73 BAT15−03 — R125 330 — C3 220P — L379 10N — P22 P1 — R655 1K — C824 PCB 160X40 — R36 1M

R791 51 — C599 0.8P

Bindende Angaben ueber Varianten, Trimmwerte, Bcuteile und nicht bestueckte Bauteile siehe SA.

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

** = NOT FITTED

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

| | | | | | | |
|---|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: / Designation: 6−GHZ−ERWEITERUNG 6−GHZ−EXTENSION | | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 12+ |
| Typ: / Type: SMIQ | Datum: / Date: 99−09−09 | Abteilung: / Dpt: 1GPK | Name: / Name: HOFBERGE | | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: / used in: 1084.8004.01 | TOP/LO−LEVEL_124/LO−LEVEL.1 | | | | | | |

Fuer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

Ueber diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

MIXER1

TP10000

HP3000

SYNTHESIS FILTER_HP

RFP16

RFP80

RFP17

X3
SMP-SMCC

L534
PCB
40x23

N.F.
R348 0

Zo

L637 PCB 45x6
L638 PCB 83x6
L639 PCB 74x6
L640 PCB 30x6

C982 2.2P
C983 2.2P
C187 2.7P

C511 0.9P
C299 1.2P
C318 2.2P
C317 1P

U9
MC2320
RF
IF
LO
L04200-6000
(1/7B,2/1B,12/8A)
ZF900
(1/8D,2/1B,8/8D)

C979 PCB 63xm 2x90G
C978 PCB 74x6 90G
C977 PCB 67.5x6 90G

L635 PCB 12x6
L636 PCB 3x6

L642 PCB 130x6
C974 10P

L276 PCB 210x8
L273 PCB 639x8
L274 PCB 301x8
L275 PCB 253x8

C333 1.8P
C334 1.8P
L278 PCB 237x8
R888 35.7

C456 PCB 50x8
C632 1.2P
C546 1.2P

+4VL
C783 10P
R934 24.3
R935 24.3
C880 PCB 160x40
L488 10N
C443 220P
L602 3.9N
C770 2.7P
L22 2.7N

RFAMP6
C959 0.8P
R964 0
R366 33
N25 MGA82563
C958 1.2P
C252 2.7P
RF1 (14/1C)
3.4V/80mA

SYNTHESIS FILTER_TP

TP6700

L277 PCB 5x8
L271 PCB 82x8
L272 PCB 67x8
L270 PCB 96x8
L269 PCB 10x8
C253 2.7P
L643 PCB 41x6
L644 PCB 87x6
L645 PCB 82x6
L646 PCB 32x6
C984 2.7P
C457 PCB 60x40

L279 PCB 27x8
L266 PCB 172x8
L267 PCB 45x8
L268 PCB 78x8
RFP16

C458 PCB 99x8 90G
C459 PCB 50x8 90G
C452 PCB 101x8 90G
C453 PCB 72x8 90G S=20

N.F.
C549 0.1P
C975 0.2P
C547 0.3P
C976 0.3P
L650 PCB 33x6
L647 PCB 9x6
L648 PCB 18x6

RFP80
RFP17

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

** = NOT FITTED

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

RF SYNTHESIS

| | | | | | |
|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: 6-GHZ-ERWEITERUNG<br>Designation: 6-GHZ-EXTENSION | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 13+ |
| Typ: SMIQ<br>Type: | Datum: 99-09-09 | Abteilung: 1GPK | Name: HOFBERGE | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: 1084.8004.01<br>used in: | TOP/RF-SYNTHESE_38/RF-SYNTHESE.1 | | | | | |

Fuer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

UDRAINL1 (14/4E)
RFP18
C884 160x40 PCB
L490 10N
C454 220P
L603 3.9N
C771 2.7P
L328 3.3N
RFAMP7
LEVEL PRESET
7.1V/93mA
C255 2.2P
HFMP18
V9 BAR64-04DUO
V8 BAR64-04DUO
RF2 (15/1C)
C466 PCB 120x60
30x39 L441 PCB
C633 0.7P
R897 39.2
V92 SHF0186-12GHZ
60x40 C85 PCB
C254 2.2P
RF1 (13/8D)
100x18 L578 PCB
121x18 L532 PCB
45x42 L581 PCB
C381 PCB 60x50
C970 PCB 250x18 (kuerzen)
L24 3.3N
C774 2.7P
R55 1K
C460 220P
L491 10N
C885 160x40 PCB
R251 10K
V145 HSMS2800
C748 100P
(14/3F) UGATEL1
C462 PCB 60x60
C463 PCB 60x60
L634 3.3N
L352 3.3N
C775 2.7P
L605 3.9N
C461 220P
L492 10N
C886 160x40 PCB
R23 392
+15VL
R309 12.1K
V26 BC850B
C141 220N
R347 30.1K
R117 6.8K
R232 680
V44 BC857S
V44 BC857S
C659 1N
R186 22K
R448 392
R449 392
V45 BC857S
R798 15K
R486 15K
C142 33N
V45 BC857S
LPREFIL (2/1A,2/2E,33/6C)
R1007
R1008 12.1K
R853 392
R148 15K
V105 BAV99
V104 BAV99
+10VL
R858 20K
R523 150
R522 150
R521 150
R520 150
R519 150
Q7 TESTPAD
UDRAINL1 (14/3A)
V43 BC857S
V43 BC857S
N.F.
C658 1N
C619 100N
R780 47K
R644 22K
Q8 TESTPAD
UGATEL1 (14/2D)
-15VL
R253 56.2K
R399 22K
C677 4.7N

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

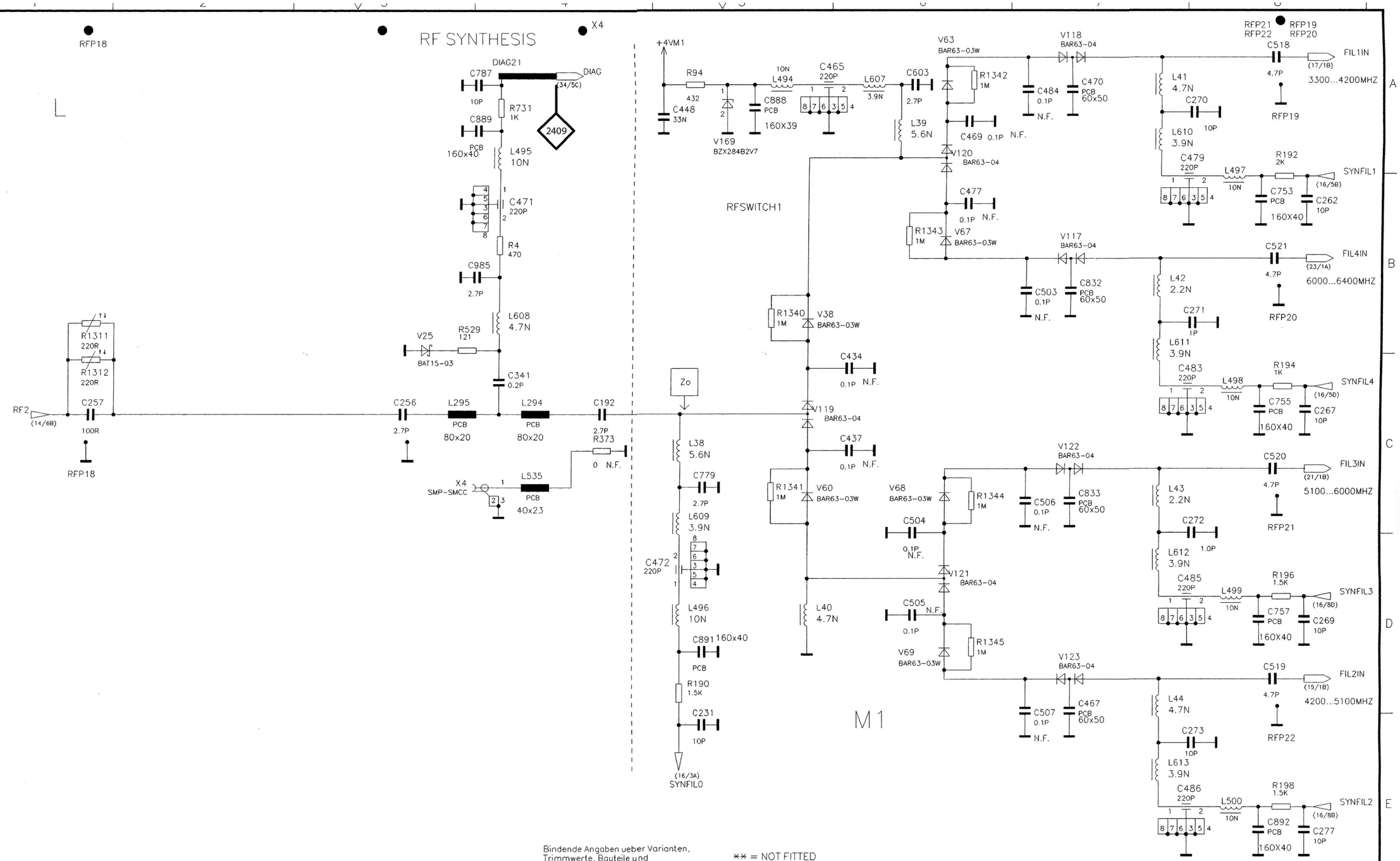
** = NOT FITTED

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

# RF SYNTHESIS

| | | | | | |
|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: 6-GHZ-ERWEITERUNG<br>Designation: 6-GHZ-EXTENSION | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 14+ |
| Typ: SMIQ<br>Type: | Datum: 99-09-09<br>Date: | Abteilung: 1GPK<br>Dpt: | Name: HOFBERGE<br>Name: | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: 1084.8004.01<br>used in: | TOP/RF-SYNTHESE_38/RF-SYNTHESE.2 | | | | | |

# RF SYNTHESIS




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

** = NOT FITTED

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

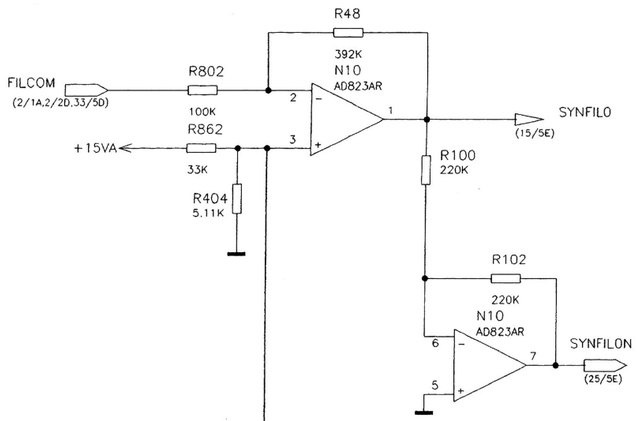
| | | | | | |
|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: 6-GHZ-ERWEITERUNG<br>Designation: 6-GHZ-EXTENSION | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 15+ |
| Typ: SMIQ<br>Type: | Datum: 99-09-09<br>Date: | Abteilung: 1GPK<br>Dpt: | Name: HOFBERGE<br>Name: | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: 1084.8004.01<br>used in: | TOP/RF-SYNTHESE_38/RF-SYNTHESE_3 | | | | | |

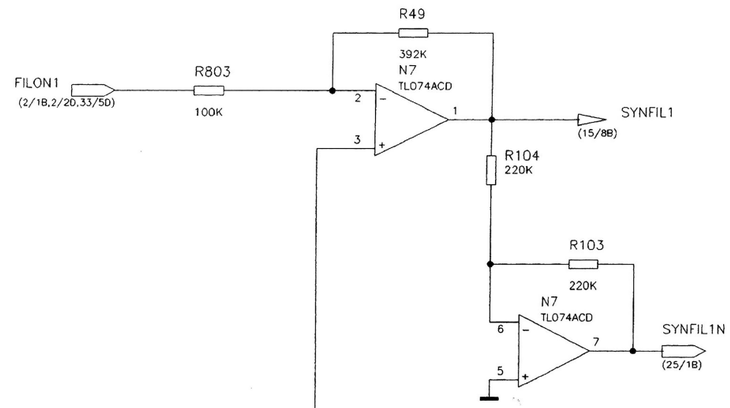
Fuer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

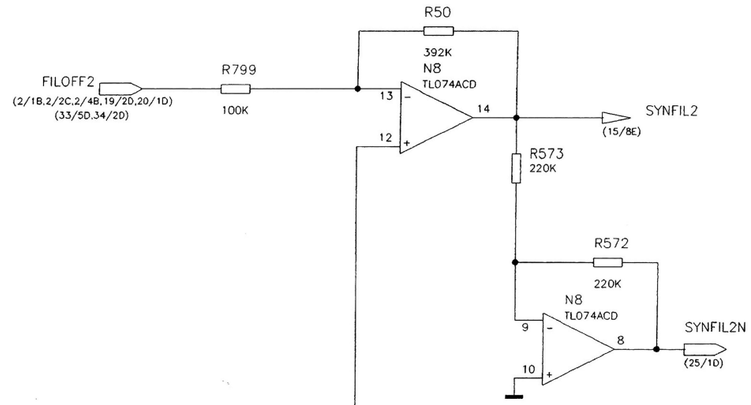
M

# RF SYNTHESIS

## SWITCH DRIVER



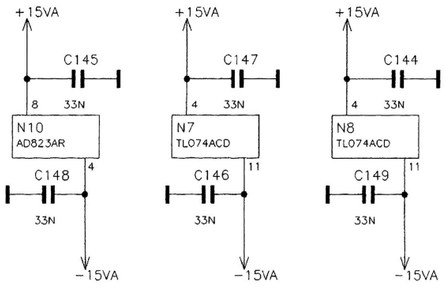










Bindende Angaben ueber Varianten, Trimmwerte, Bauteile und nicht bestueckte Bauteile siehe SA.

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

** = NOT FITTED

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

| | | | | | | |
|---|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: / Designation: 6-GHZ-ERWEITERUNG 6-GHZ-EXTENSION | | | | Sprache: / Lang.: DE | Aei: / C.i.: 06.05 | Blatt: / Sh.: 16+ |
| Typ: / Type: SMIQ | Datum: / Date: 99-09-09 | Abteilung: / Dpt: 1GPK | Name: / Name: HOFBERGE | | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: / used in: 1084.8004.01 | TOP/RF-SYNTHESE_38/RF-SYNTHESE.4 | | | | | | |

Fuer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

Fuer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

BP_1

BAND 1 3300...4200 MHZ

TUNED LOWPASS FILTER TLPA_1

RFP23

RFP24

+4VQ1

R962 1

R920 24.3

R921 24.3

C868 160x40 PCB

L476 10N

C132 220P

L594 3.9N

RFAMP9

C428 2.7P

L19 6.8N

N22 MGA82563

C949 0.8P

R357 33

C838 2.2N

C123 2.7P

C583 0.5P

C626 0.7P

C582 1.0P

L239 423x8

L238 183x8

L237 162x8

L236 47x37

L223 186x8

L533 218x70

FIL1IN (15/8A)

L224 PCB 161x8 (alt 195x8) C422 PCB 73x61 (alt 73x73)

L235 PCB 34x24 C427 PCB 60x8 90G S1=16

C429 PCB 135x85 ?????

C430 PCB 164x8 90G +96x56

L240 PCB 252x8 C298 1.0P

L241 PCB 647x8 C421 PCB 86x35

C431 PCB 100x40 alt60x40

3.4V/80mA

C950 1.0P

C250 2.7P

L225 PCB 46x8

L290 1.8N

V172 BB833

L372 PCB 54x8

C423 PCB 112x8 90G s=24

L226 PCB 400x8

C311 3.3P

R242 10K

L229 PCB 500x8

V173 BB833

L371 PCB 54x8

C424 PCB 119x8 90G S=28

L228 PCB 400x8

C312 3.3P

R243 10K

L231 PCB 51x8

FIL1 (18/18)

L475 10N

C131 220P

L593 3.9N

C867 PCB 160X39

C751 2.7P

FILOFF1 (2/2C,2/4A,18/1D,33/5D,34/2D)

D24 DG411DY

IQFILT1 (2/2D,2/4B,2/4C,19/2D,21/2D) (34/6B)

IQFILH2 (2/2C,2/2D,2/4B,2/4C,2/4D) (19/2D,21/2E,23/2D,34/8D)

IQFILH1 (2/2C,2/2D,2/4A,2/4B,2/4C) (2/4D,19/2E,21/2E,23/2E) (34/6D)

IQFILT2 (2/2D,2/4B,2/4C,19/2E,21/2E) (34/8B)

R473 47K

R474 47K

R475 47K

R476 47K

+24VA

MT1P1

MH1P2 (18/3E)

MH1P1 (18/3E)

MT1P2 (18/6E)

+24VA

R213 3.92K

V61 BZX284B5V1

C116 33N

C112 33N

C117 33N

C124 33N

C127 33N

C126 33N

C202 33N

C138 33N

D24 DG411DY

D22 DG411DY

D23 DG411DY

D31 DG411DY

C204 33N

C205 33N

C206 33N

V52 BZX284B5V6

R722 1K

C128 33N

-15VA

Bindende Angaben ueber Varianten, Trimmwerte, Bauteile und nicht bestueckte Bauteile siehe SA.

** = NOT FITTED

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

| | | | | | |
|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: / Designation: 6-GHZ-ERWEITERUNG 6-GHZ-EXTENSION | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 17+ |
| Typ: / Type: SMIQ | Datum: / Date: 99-09-09 | Abteilung: / Dpt: 1GPK | Name: / Name: HOFBERGE | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: / used in: 1084.8004.01 | TOP/BAND1_36/BAND1.1 | | | | | |

Fuer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

# BAND 1 3300...4200 MHZ

RFP25 RFP26 RFP27 RFP28 RFP29

TATT_1

−3dB at 25 °C

THP_1

TLPB_1

ATT_13

RFAMP10

FIL1 (17/7B)

C133 2.7P

L304 2.7N

L242 PCB 76x8

RFP25

V6 BAR64-04DUO

C134 2.7P

C540 1.2P

L284 4.7N

RFP26

L243 PCB 231x8

C433 2.7P

L598 3.9N

C274 220P

L480 10N

C873 160x40

V194 BSS138 PCB

(2/2C,2/4A,17/3C,33/5D,34/2D) FILOFF1

R86 100

C740 100P

C739 100P

R89 100

+15VQ1

R630 5.11K

R725 5.11K

V41 BC857S

V41 BC857S

C135 33N

C51 10N

R478 15K N.F.

R140 121K

R931 100K

R30 100K

R130 10 0.1%

L251 PCB 500x8

V177 BB833

L250 PCB 70x8

C542 1.8P

C441 PCB 109x8 90G

L249 PCB 670x8

C316 3.9P

R247 10K

C756 2.7P

L597 3.9N

C258 220P

L479 10N

C872 PCB 160x40

(17/4D) MH1P1

C241 0.5P

L246 PCB 500x8

V176 BB833

L247 PCB 70x8

C543 1.8P

C440 PCB 110x8 90G

L248 PCB 670x8

C315 3.9P

R248 10K

C754 2.7P

L596 3.9N

C227 220P

L478 10N

C871 PCB 160x40

(17/4D) MH1P2

C541 1.2P

C139 2.7P

L291 1.8N

C951 1.0P

R362 33

N23 MGA82563

3.4V/80mA

+4VQ2

R120 1

R924 24.3

R925 24.3

C870 PCB 160X39

L481 10N

C278 220P

L380 3.9N

C435 2.7P

L20 2.7N

C952 1.0P

C689 2.7P

RFP28

L373 PCB 46x8

C425 PCB 112x8 90G

L375 PCB 54x8

V174 BB833

L230 PCB 400x8

C313 3.3P

R244 10K

L292 1.8N

L374 PCB 500x8

V175 BB833

L234 PCB 51x8

C140 2.7P

RFP29

L376 PCB 48x8

C426 PCB 119x8 90G

L232 PCB 400x8

C314 3.3P

R245 10K

L244 PCB 63x15

C439 PCB 40x8 90G

R828 12.1 Trimmwert selected

R34 220

C438 PCB 40x8 90G

L245 PCB 63x15

R35 220

FIL1OUT (25/1A)

C752 2.7P

L595 3.9N

C203 220P

L477 10N

C869 PCB 160x40

(17/4E) MT1P2

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

** = NOT FITTED

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

| | | | | | |
|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: / Designation: | 6-GHZ-ERWEITERUNG 6-GHZ-EXTENSION | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 18+ |
| Typ: / Type: SMIQ | Datum: / Date: 99-09-09 | Abteilung: / Dpt: 1GPK | Name: / Name: HOFBERGE | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: / used in: 1084.8004.01 | TOP/BAND1_36/BAND1.2 | | | | | |

BAND 2 4200...5100 MHZ

N

TP5100

HP4000

RFAMP11

TLPA_2

TUNED LOWPASS FILTER

RFP87

RFP30

RFP31

+4VN1

R960 1

R902 24.3

R903 24.3

C852 PCB 160x40

L404 10N

C24 220P

L360 3.9N

C379 2.7P

3.4V/80mA

L15 2.7N

C552 0.8P

R352 33

N18 MGA82563

C557 0.8P

C248 2.7P

RFP31

FIL2IN (15/8D)

L89 PCB 105x6

R163 0

C384 0.3P

N.F.

C1 0.3P

L68 PCB 130x6

L132 PCB 90x6

R165 0

C53 0.5P

L73 PCB 34x6

L133 PCB 90x6

C761 0.5P

L130 PCB 20x6

L134 PCB 117x6

C713 0.4P

L135 PCB 57x6

L159 PCB 87x6

C722 0.5P

C636 2.7P

RFP87

C386 0.7P

C736 0.4P

L167 PCB 23x8

C233 4.7P

C735 0.4P

L166 PCB 49x8

C219 2.7P

C723 0.4P

L165 PCB 77x8

C383 1.5P

C385 0.7P

L164 PCB 51x8

C712 3.3P

C86 2.7P

RFP30

C382 PCB 60x40

L287 1.8N

L178 PCB 32x8

L180 PCB 97x8

V163 BB833

C390 PCB 113x8 90G +80x40

L177 PCB 230x8

C539 1.5P

R231 10K

L181 PCB 27x8

V162 BB833

C389 PCB 116x8 90G +80x40

L179 PCB 246x8

C538 1.5P

R230 10K

L176 PCB 300x8

FIL2 (20/1B)

U

FILOFF2 (2/1B,2/2C,2/4B,16/6A,20/1D) (33/5D,34/2D)

D22 DG411DY

IQFILT1 (2/2D,2/4B,2/4C,17/3D,21/2D) (34/6B)

R461 47K

R462 47K

+24VA 1K

R692

MT2P1

IQFILH2 (2/2C,2/2D,2/4B,2/4C,2/4D) (17/3D,21/2E,23/2D,34/8D)

R691

MH2P2 (20/4E)

IQFILH1 (2/2C,2/2D,2/4A,2/4B,2/4C) (2/4D,17/3D,21/2E,23/2E) (34/6D)

R463 47K

R690 1K

MH2P1 (20/3E)

IQFILT2 (2/2D,2/4B,2/4C,17/3E,21/2E) (34/8B)

R464 47K

R689 1K

MT2P2 (20/6E)

L403 10N

C19 220P

L580 3.9N

C851 PCB 160X40

C716 2.7P

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

** = NOT FITTED

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

| | | | | | | |
|---|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: / Designation: 6-GHZ-ERWEITERUNG 6-GHZ-EXTENSION | | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 19+ |
| Typ: / Type: SMIQ | Datum: / Date: 99-09-09 | Abteilung: / Dpt: 1GPK | Name: / Name: HOFBERGE | | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: / used in: 1084.8004.01 | TOP/BAND2_34/BAND2.1 | | | | | | |

Fuer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

Fuer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

RFP32 RFP33 RFP64 RFP34 RFP35

TUNED HIGHPASS FILTER

TATT_2 THP_2 TLPB_2 ATT_14

+4VN2 R13 R59 24.3 R60 24.3 C859 PCB 160x40 L467 10N C108 220P

FIL2 (19/8B) C88 2.7P RFP32 L282 4.7N L191 PCB 76x8 V4 BAR64-04DUO C397 PCB 75x36 alt75x80 L300 2.7N L188 PCB 231x8 C398 0.6P L583 3.9N C70 220P L419 10N C855 PCB 160x40 V192 BSS138 FILOFF2 R79 100 C721 100P (2/1B,2/2C,2/4B,16/6A,19/2D) (33/50,34/2D) C720 100P R76 100 +15VN1 R628 5.11K R209 5.11K V36 BC857S V36 BC857S C115 33N C49 10N R466 15K N.F. R134 100K R929 100K R26 100K N.F. R128 10

−3dB at 25 °C

C95 2.7P RFP33 C375 0.9P

L192 PCB 400x8 C825 0.2P C580 0.2P V165 BB833 L193 PCB 25x8 C332 0.9P C399 PCB 68x8 90G L184 PCB 500x8 C309 2.2P R233 10K C737 2.7P L584 3.9N C80 220P L420 10N C856 PCB 160x40 (19/3E) MH2P1

L185 PCB 400x8 C624 0.9P C103 2.7P RFP64 V164 BB833 C396 PCB 60x40 L288 1.8N L186 PCB 21x8 C355 0.9P C391 PCB 92x8 90G L187 PCB 500x8 C310 2.2P R234 10K C738 2.7P L585 3.9N C106 220P L464 10N C857 PCB 160x40 (19/3D) MH2P2

C569 0.8P R354 33 RFAMP12 N19 MGA82563 3.4V/80mA

C394 2.7P L587 3.9N L16 2.7N C617 0.8P C509 2.7P RFP34 L141 PCB 32x8

L142 PCB 300x8 L173 PCB 27x8 V160 BB833 C387 PCB 116x8 90G +72x68 L174 PCB 246x8 C536 1.5P R228 10K

L182 PCB 97x8 V161 BB833 C388 PCB 113x8 90G +92x52 L175 PCB 230x8 C537 1.5P R229 10K C741 2.7P L586 3.9N C107 220P L465 10N C858 PCB 160x40 MT2P2 (19/3E)

C100 2.7P RFP35 L190 PCB 63x15

C392 PCB 40x8 90G R24 470 R826 12.1

C393 PCB 40x8 90G R25 470 N.F. L189 PCB 63x15 FIL20UT (25/1D)

BAND 2 4200...5100 MHZ N

Bindende Angaben ueber Varianten, Trimmwerte, Bauteile und nicht bestueckte Bauteile siehe SA.

** = NOT FITTED

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

| | | | | | | |
|---|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: 6-GHZ-ERWEITERUNG<br>Designation: 6-GHZ-EXTENSION | | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 20+ |
| Typ: / Type: SMIQ | Datum: / Date: 99-09-09 | Abteilung: / Dpt: 1GPK | Name: / Name: HOFBERGE | | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: / used in: 1084.8004.01 | TOP/BAND2_34/BAND2.2 | | | | | | |

Fuer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

# BAND 3 5100...6000 MHZ

RFP36 RFP37

BAND PASS FILTER

TUNED HIGHPASS FILTER

BP_3 RFAMP13 THPA_3

+4V01 R961 1 R914 24.3 R915 24.3 C860 PCB 160x40 L468 10N C109 220P

FIL3IN (15/8C) L172 PCB 86x6 C444 0.1P N.F. C405 0.2P L209 PCB 100x6 L212 PCB 63x6 C380 0.3P L211 PCB 57x6 L208 PCB 86x6 C297 0.3P L206 PCB 56x6 L207 PCB 55x6 C237 0.2P L195 PCB 32x6 C78 0.4P L171 PCB 140x6 C82 0.5P L196 PCB 22x6 C238 2.2P C81 0.4P L205 PCB 59x6 C822 0.9P C20 0.5P L204 PCB 98x6 C445 0.6P C821 1P L170 PCB 20x6 C508 1.2P L169 PCB 122x40 L168 PCB 57x40 (alt 57x91) C104 2.7P RFP36 C400 PCB 85x40 (alt 60x40) L162 1.8N N.F. C620 0.8P R355 2.7P 3 N20 MGA82563 6 3.4V/80mA 4 5 1 2 L377 3.9N C403 2.2P L17 1.5N C818 0.8P C105 2.7P RFP37 Zo C625 0.7P C581 0.5P L198 PCB 376x8 V166 BB833 C407 PCB 143x8 90G +143x27 L194 PCB 166x8 C601 1.5P R235 10K L197 PCB 500x8 V167 BB833 C404 PCB 154x8 90G L210 PCB 283x8 C602 1.5P R236 10K C79 1.0P (22/1B) FIL3

FILOFF3 (2/2C,2/4C,22/10,33/5D,34/2D)

D23 DG411DY

IQFILT1 (2/2D,2/4B,2/4C,17/3D,19/2D) (34/6B) 3 2 1 MT3P1 (22/3E) R471 47K +24VA R470 47K

IQFILH2 (2/2C,2/2D,2/4B,2/4C,2/4D) (17/3D,19/2D,23/2D,34/8D) 6 7 8 MH3P2 (22/6E) +24VA R469 47K

IQFILH1 (2/2C,2/2D,2/4A,2/4B,2/4C) (2/4D,17/3D,19/2E,23/2E) (34/6D) 14 15 16

IQFILT2 (2/2D,2/4B,2/4C,17/3E,19/2E) (34/8B) 11 10 9 MT3P2 (22/3E) R468 47K

U

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

** = NOT FITTED

L469 10N C118 220P 1 2 8 7 6 3 5 4 L588 3.9N C861 PCB 160X40 C746 2.7P

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

| | | | | | |
|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: / Designation: 6-GHZ-ERWEITERUNG 6-GHZ-EXTENSION | | | Sprache: / Long.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 21+ |
| Typ: / Type: SMIQ | Datum: / Date: 99-09-09 | Abteilung: / Dpt: 1GPK | Name: / Name: HOFBERGE | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: / used in: 1084.8004.01 | TOP/BAND3_35/BAND3.1 | | | | | |

RFP38 RFP39 RFP40 RFP41 RFP42

TATT_3 TLP_3 TUNED HIGHPASS FILTER THPB_3 ATT_15

+4V02 R119 1 R892 24.3 R891 24.3 C863 PCB 160x40 L471 10N

RFAMP14

FIL3 (21/8B) C113 2.7P RFP38

-3dB at 25° C

V5 BAR64-04DUO L283 4.7N C413 PCB 41x54 alt75x80 L216 PCB 76x8

C823 2.7P 1P C800 L367 PCB 20x8 L303 2.7N RFP39 L215 PCB 231x8 C414 0.6P L592 3.9N C130 220P L474 10N C866 PCB 160x40

L214 PCB 83x8 V197 BB833 C687 PCB 82x8 90G +60x32 L364 PCB 219x8 C803 2.2P R15 10K C747 2.7P L589 3.9N C119 220P C862 PCB 160x40 (21/3D) MT3P1

L368 PCB 115x8 L366 PCB 20x8 V198 BB833 C799 PCB 80x8 90G S=20 L365 PCB 322x8 C802 2.2P R16 10K C749 2.7P L590 3.9N C121 220P L472 10N C864 PCB 160x40 (21/3E) MT3P2

C72 1P C688 2.7P RFP40 L289 1.8N C38 PCB 60x40

N.F. C512 0.8P R356 2.7P

N21 MGA82563 3.4/80mA

C412 2.7P L378 3.9N L18 2.7N C114 2.7P RFP41 C249 0.7P

L369 PCB 376x8 V84 BB833 L2 PCB 27x8 L217 PCB 166x8 C239 1.5P R241 10K

C328 0.4P N.F. C831 0.2P C415 PCB 143x8 90G

L219 PCB 500x8 V85 BB833 C416 PCB 154x8 90G L218 PCB 283x8 C240 1.5P R240 10K

C801 0.7P C122 2.7P RFP42 L213 PCB 63x15

C417 PCB 40x8 90G R29 392 N.F.

R827 22

C418 PCB 40x8 90G R28 392 N.F.

L220 PCB 63x15 FIL30UT (25/1C)

FILOFF3 R84 100 C727 100P C728 100P R81 100 V193 BSS138 (2/2C,2/4C,21/2D,33/5D,34/2D)

+15V01 R629 5.11K R712 5.11K V37 BC857S V37 BC857S C125 33N C50 10N R472 15K N.F. R135 82.5K R930 100K R27 100K R129 10

C750 2.7P L591 3.9N C129 220P L473 10N C865 PCB 160x40 (21/3E) MH3P2

0

BAND 3 5100..6000 MHZ

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

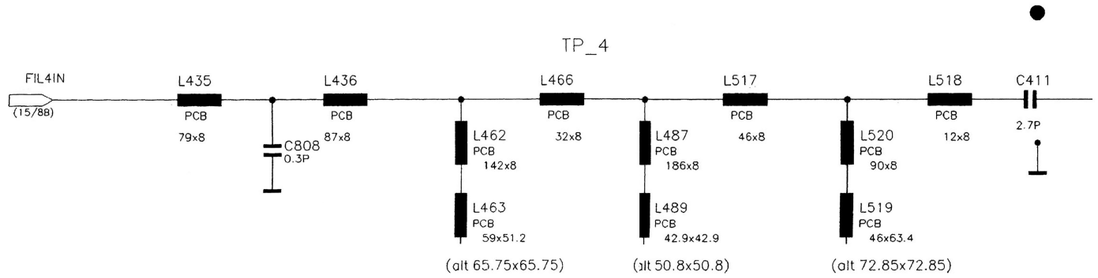
** = NOT FITTED

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

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: 6-GHZ-ERWEITERUNG<br>Designation: 6-GHZ-EXTENSION | | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 22+ |
| Typ: SMIQ<br>Type: | Datum: 99-09-09<br>Date: | Abteilung: 1GPK<br>Dpt: | Name: HOFBERGE<br>Name: | | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: 1084.8004.01<br>used in: | TOP/BAND3_35/BAND3.2 | | | | | | |

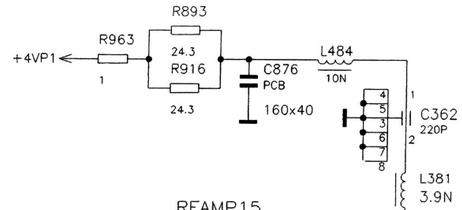
Fuer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

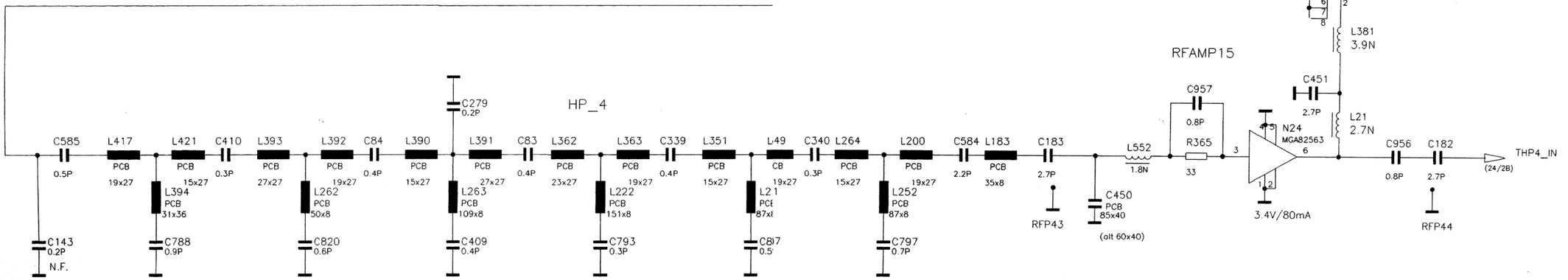
Fuer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

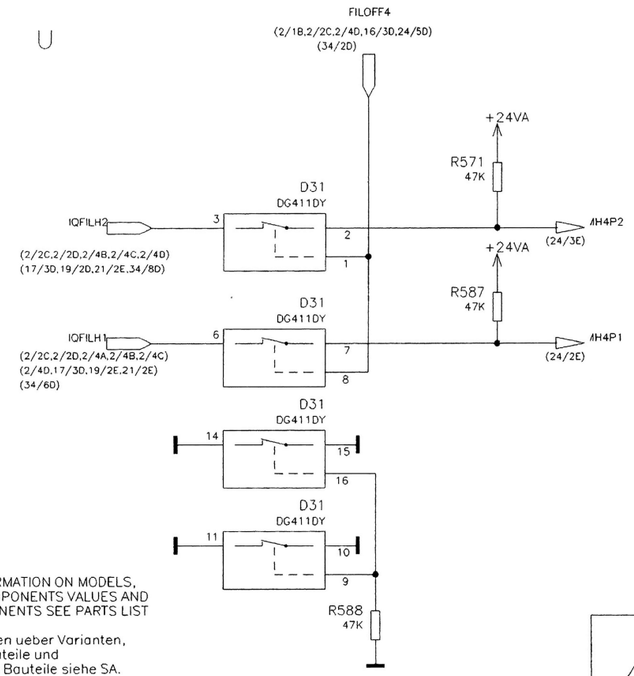



RFP43

RFP44




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

Bindende Angaben ueber Varianten, Trimmwerte, Bauteile und nicht bestueckte Bauteile siehe SA.

** = NOT FITTED

BAND4 6000...6400MHZ

P

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

| | | | | | |
|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: 6-GHZ-ERWEITERUNG<br>Designation: 6-GHZ-EXTENSION | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 23+ |
| Typ: SMIQ<br>Type: | Datum: 99-09-09<br>Date: | Abteilung: 1GPK<br>Dpt: | Name: HOFBERGE<br>Name: | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: 1084.8004.01<br>used in: | TOP/BAND4_37/BAND4.1 | | | | | |

Ruer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

RFP45

RFP46

THP_4

TATT_4

THP4_IN
(23/8C)

C251 0.6P

C137 0.4P

C510 0.3P

C809 0.4P

C478 0.6P

C180 2.7P

V7 BAR64-04DUO

C545 2.7P

L574 1.8N

C955 0.8P

R364 33

C954 0.8P

FIL4OUT
(25/1B)

L253 PCB 319x8

L203 PCB 218x8

L524 PCB 319x8

L523 PCB 218x8

V54 BB833

V168 BB833

V53 BB833

V59 BB833

L261 PCB 300x8

C725 PCB 19x8

L254 PCB 360x8 (alt 300x8)

L522 PCB 343x8 (alt 300x8)

C794 PCB 19x8

L521 PCB 372x8 (alt 300x8)

L256 PCB 172x8

L255 PCB 203x8

L526 PCB 172x8

L525 PCB 203x8

C745 2.7P

C743 2.7P

C805 2.7P

C798 2.7P

R346 10K

R570 10K

R82 10K

R80 10K

C758 2.7P

C759 2.7P

C579 2.7P

C763 2.7P

R92 0

L600 3.9N

L601 3.9N

C363 220P

C442 220P

L485 10N

L486 10N

C877 PCB

C878 PCB 160x40

(23/3E)
MH4P1

(23/30)
MH4P2

+4VP2

R121 1

R861 24.3

R919 24.3

C874 PCB 160x40

L482 10N

C290 220P

RFAMP16

L382 3.9N

C806 2.7P

L199 2.7N

N9
MGA82563

3.65V/74mA

C726 PCB 120x40 (alt 60x40)

L70 4.7N

C447 PCB 40x80

L258 PCB 76x8

L579 2.7N

L259 PCB 231x8

C446 0.6P

L599 3.9N

C361 220P

L483 10N

C875 PCB 160x40

C742 100P

FILOFF4
(2/18,2/2C,2/40,16/30,23/30)

R91 (34/20) 100

C744 100P

V195 BSS138

R93 100

+15VP1

R631 5.11K

R727 5.11K

V42 BC857S

V42 BC857S

C136 33N

C52 10N

R479 15K N.F.

R141 82.5K

R938 100K

R31 100K

R132 10

BAND4 6000...6400MHZ

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

| | | | | | |
|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: 6-GHZ-ERWEITERUNG<br>Designation: 6-GHZ-EXTENSION | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 24+ |
| Typ: SMIQ<br>Type: | Datum: 99-09-09<br>Date: | Abteilung: 1GPK<br>Dpt: | Name: HOFBERGE<br>Name: | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: 1084.8004.01<br>used in: | TOP/BAND4_37/BAND4.2 | | | | | |

RFP48 RFP50
RFP49 RFP51

# RFSWITCH2

RFP52

RFP53

FIL1OUT (18/8B) 3300...4200MHZ — C526 4.7P — RFP48 — L48 4.7N

SYNFIL1N (16/5B) — R788 1.5K — C284 10P — L502 10N — C894 PCB 160X39 — C494 220P — L615 3.9N — C776 10P

FIL4OUT (24/8B) 6000...6400MHZ — C525 4.7P — RFP49 — L47 2.2N

SYNFIL4N (16/5E) — R787 1.5K — C286 10P — L505 10N — C897 PCB 160X39 — C522 220P — L618 3.9N — C773 1P

FIL3OUT (22/8B) 5100...6000MHZ — C523 4.7P — RFP50 — L45 2.2N

SYNFIL3N (16/8E) — R784 1K — C288 10P — L506 10N — C898 PCB 160X39 — C528 220P — L619 3.9N — C769 1P

FIL2OUT (20/8B) 4200...5100MHZ — C524 4.7P — RFP51 — L46 4.7N

SYNFIL2N (16/8B) — R785 2K — C289 10P — L507 10N — C899 PCB 160X39 — C548 220P — L620 3.9N — C772 10P

V125 BAR63-04 — C810 PCB 60x50 — C529 0.1P N.F.

V71 BAR63-03W — R1348 1M — C559 0.1P N.F.

V127 BAR63-04 — C563 0.1P N.F.

V126 BAR63-04 — C811 PCB 60x50 — C544 0.1P N.F.

R1349 1M — V72 BAR63-03W

V124 BAR63-04 — C812 PCB 60x50 — C578 0.1P N.F.

V76 BAR63-03W — R1350 1M — C690 0.1P N.F.

V129 BAR63-04 alt100x100 — C691 0.1P N.F.

V130 BAR63-04 — C813 PCB 60x50 — C634 0.1P N.F.

R1351 1M — V77 BAR63-03W

L51 5.6N

R1346 1M — V80 BAR63-03W

N.F. C706 0.1P

V128 BAR63-04

N.F. C697 0.1P

R1347 1M — V79 BAR63-03W

C780 2.7P — L616 3.9N

L50 3.3N

C604 2.7P

L202 3.9N

C551 220P

L508 10N

C900 PCB 160x40

R239 432 — +4VM2

V199 BZX284B2V7

C449 33N

X8 SMP-SMCC — C191 PCB 70x40 N.F. — R33 0

C531 2.7P — RFP52

C87 2.7P — RFP53 — RF3 (26/1B)

L49 5.6N

C513 220P

L503 10N

C895 PCB 160x40

R202 1.5K

C281 10P

(16/3B) SYNFIL0N

** = NOT FITTED

RF-SWITCH2 R

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

| | | | | | |
|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: 6-GHZ-ERWEITERUNG<br>Designation: 6-GHZ-EXTENSION | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 25+ |
| Typ: SMIQ<br>Type: | Datum: 99-09-09 | Abteilung: 1GPK | Name: HOFBERGE | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: 1084.8004.01<br>used in: | TOP/RF-PREAMPLIFIER_AM-MODULATOR_56/RF-PREAMPLIFIER_AM-MODULATOR.1 | | | | | |

For this document all rights are reserved

Fuer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

RFP54 RFP55 X6 RFP56 RFP57

+4VS
N.F. R22 1
R39 N.F. 24.3 R320 24.3 N.F.
C901 PCB 160x40
L509 N.F. 10N
C570 N.F. 220P
L621 3.9N N.F.

ATT17
alt47x8(90G) C481 PCB 40x8(90G)
alt47x8(90G) C480 PCB 40x8(90G)
RF3 (25/8C)
L285 PCB 63x15
R594 0
L286 PCB 63x15
R1 182 N.F.
R11 182 N.F.

RFAMP18
N.F. C819 2.7P
N.F. L298 1.8N
C395 PCB 60x40
RFP54
N.F. C964 0.8P
R370 33 N.F.
N.F. C482 2.7P
N.F. L4 2.7N
N35 MGA82563
3.4V/80mA
C965 N.F.
C259 1.0P 2.7P N.F.
RFP55
C45 2.7P
C89 2.7P

100x18 L604 PCB
121x18 L622 PCB
C971 PCB 250x18
45x42 L582 PCB
C973 2.2P
60x40 C401 PCB
C635 0.7P
R900 39.2

RFAMP19
7.1V/93mA
L529 PCB 30x39
C488 PCB 120x60
V94 SHF0186-12GHZ

L512 10N
UDRAINS2 (26/3E)
C904 PCB 160x40
RF-COUPLER2
C643 220P
L624 3.9N
C782 2.7P
L330 3.3N
X5 SMP-SMCC
16dB-COUPLER
3-7GHZ
40x23
L551 PCB
N.F. R349 0
Zo
C184 2.2P
RFP57
L405 PCB 22x6
L406 PCB 359x39
R123 10M
S=14
L408 PCB 359x39
L407 PCB
R118 22x6 10M
C291 2.7P
C260 2.7P
RFP56
RF4 (27/1B)
L410 PCB 80x6
L409 PCB 68x6
L411 PCB 48x171
R308 56

L26 3.3N
C781 2.7P
R56 1K
C610 220P
L510 10N
C902 PCB 160x40
R323 10K
C784 100P
HSMS2800
(26/2F) UGATES2

+15VS
C225 33N
R619 10K
N12 AD823AR
R615 10K
R616 10K
C224 33N
-15VS

X10
AUXILIARY DETECTOR
C638 1N
R481 47K
R324 1K
R764 1K
R765 20K
R766 1K
DIAG22
DIAG (34/5C)
2410
R899 39.2
V82 BAT15-03
R794 39.2
R151 330
C639 220P
C605 0.8P
L511 10N
C903 PCB
C170 1N
R116 10K

+10VS
R872 20K
R542 150
R541 150
R540 150
R539 150
R538 150
Q13 TESTPAD
UDRAINS2 (26/7A)
V46 BC857S
V46 BC857S
C671 1N N.F.
C622 100N
R782 47K
R648 22K
Q16 TESTPAD
UGATES2 (26/5D)
R326 56.2K
-15VS
R408 22K
C679 4.7N

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

** = NOT FITTED

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

| | | | | | |
|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: 6-GHZ-ERWEITERUNG<br>Designation: 6-GHZ-EXTENSION | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 26+ |
| Typ: SMIQ<br>Type: | Datum: 99-09-09<br>Date: | Abteilung: 1GPK<br>Dpt: | Name: HOFBERGE<br>Name: | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: 1084.8004.01<br>used in: | TOP/RF-PREAMPLIFIER_AM-MODULATOR_56/RF-PREAMPLIFIER_AM-MODULATOR.2 | | | | | |

# AM–MODULATOR_1

S

T

RF4 (26/8B)

L201 5.6N
C489 2.7P
R543 270
C560 2.7P
R137 270
C786 2.7P
R139 270
C280 2.7P

V131 BAR64–04DUO
C492 PCB 35x80

R440 270 N.F.
C562 1P N.F.

V133 BAR64–04DUO
C491 PCB 30x80

R439 270 N.F.
C561 1P N.F.

V132 BAR64–04DUO
C490 PCB 35x80

L227 5.6N
C497 2.7P
R549 270
C564 2.7P
R136 270
C785 2.7P
R138 270
C668 2.7P

+15VS
R311 3.01K
V27 BC850B
C571 220N
R246 20K

R845 3.3K
R767 470
V47 BC857S
V47 BC857S
R409 10K
R386 470
R387 470
V48 BC857S
V48 BC857S
R156 27.4K
R358 15K
C595 33N
R633 2.2K
V_AMOD1 (31/8D)
R385 270
C226 33N
R42 1.5K
C667 100P
–15VS

R237 20K
C554 220N
R310 3.01K
V10 BC860B
–15VS

RFP58
C68 2.7P
RFP58

100x18 L626 PCB
121x18 L628 PCB
45x42 L627 PCB
C972 PCB 250x18
C261 2.2P
60x40 C432 PCB
C848 0,7P
R901 39.2
V95 SHF0186–12GHZ
30x39 L530 PCB
L27 3.3N
C495 2.7P
R71 1K
C665 220P
L514 10N
C906 PCB 160x40
R10 10K
C953 100P
V51 HSMS2800
(27/8E) UGATES3

L513 10N
(27/8D) C905 PCB 160x40
UDRAINS3
RFP59
C664 220P
RFAMP20
L625 3.9N
C496 2.7P
L331 3.3N
7.1V/93mA
C185 2.2P
RF5 (28/1B)
C493 PCB 120x160(v)
RFP59

+10VT
R873 20K
R544 150
R545 150
R546 150
R547 150
R548 150
Q17 TESTPAD (27/8A)
UDRAINS3
V49 BC857S
V49 BC857S
C672 1N N.F.
C623 100N
R946 47K
R649 22K
Q18 TESTPAD
UGATES3 (27/7D)
–15VT
R328 56.2K
R410 22K
C680 4.7N

** = NOT FITTED

ACHTUNG! LEER
ELEKTROSTATISCH GEFÄHRDETE BAUELEMENTE ERFORDERN EINE BESONDERE HANDHABUNG
ATTENTION! EMPTY
ELECTROSTATICALLY SENSITIVE DEVICES REQUIRE A SPECIAL HANDLING

Bindende Angaben über Varianten, Trimmwerte, Bauteile und nicht bestückte Schaltungsteile siehe SA.
FOR BINDING INFORMATION ON MODELS, TRIMMING AND COMPONENTS VALUES AND NONFITTED CIRCUITRY SEE SERVICE SHEET PARTS LIST

| | | | | | | |
|---|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: / Designation: 6–GHZ–ERWEITERUNG 6–GHZ–EXTENSION | | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 27+ |
| Typ: / Type: SMIQ | Datum: / Date: 99–09–09 | Abteilung: / Dpt: 1GPK | Name: / Name: HOFBERGE | | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: / used in: 1084.8004.01 | TOP/RF–PREAMPLIFIER_AM–MODULATOR_56/RF–PREAMPLIFIER_AM–MODULATOR.3 | | | | | | |

Fuer diese Unterlage behalten wir uns alle Rechte vor.
For this document all rights are reserved

# AM-MODULATOR_2

RFP60 RFP61 RFP63

RF5 (27/8B)

V136 BAR64-04DUO
V135 BAR64-04DUO
V134 BAR64-04DUO

L233 5.6N
C501 2.7P
L323 PCB 39x8
R550 270
C567 2.7P
R143 270
C792 2.7P
R144 270
C669 2.7P
R250 20K
C586 220N
V11 BC860B
R314 3.01K
-15VT

C498 PCB 35x80
C565 1P N.F.
C499 PCB 30x80
C566 1P N.F.
C500 PCB 35x80

R442 270 N.F.
R441 270 N.F.

L281 5.6N
C502 2.7P
L324 PCB 39x8
R551 270
C568 2.7P
R145 270
C791 2.7P
R146 270
C282 2.7P

C530 2.7P
RFP60
L299 0
C436 PCB 60x40

C967 100
R371 220R
R1315 220R

RFAMP21
N36 MGA82563
3.4V/80mA
R1310 0

R75 24.3 N.F.
R73 24.3 N.F.
C724 1N N.F.
L413 10N N.F.
C715 PCB 160x40
C598 220P N.F.
L458 3.9N N.F.
C717 2.7P N.F.
L1 2.7N N.F.
C966 1.0P N.F.

C692 2.7P
RFP61

+15VT
R315 3.01K
V28 BC850B
C591 220N
R252 20K
R157 27.4K
R90 3.3K
R768 470
V56 BC857S
V56 BC857S
R412 10K
R390 470
R391 470
V55 BC857S
V55 BC857S
R634 2.2K
V_AMOD2 (31/8D)
R359 15K
C597 33N
R389 270
C230 33N
R45 1.5K
C670 100P
-15VS

R68 24.3
R69 24.3
C641 1N
L515 10N
C907 PCB 160x40
C693 220P
L386 3.9N
C222 2.7P
L6 2.7N
C968 1.0P
C621 2.7P
RF6 (29/1B)
RFP63

RFAMP22
N37 MGA82563
3.4V/80mA

C969 0.8P
R419 0
R372 33
C455 PCB 60x40

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

** = NOT FITTED

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

| | | | | | |
|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: 6-GHZ-ERWEITERUNG<br>Designation: 6-GHZ-EXTENSION | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 28+ |
| Typ: SMIQ<br>Type: | Datum: 99-09-09<br>Date: | Abteilung: 1GPK<br>Dpt: | Name: HOFBERGE<br>Name: | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: 1084.8004.01<br>used in: | TOP/RF-PREAMPLIFIER_AM-MODULATOR_56/RF-PREAMPLIFIER_AM-MODULATOR.4 | | | | | |

# OUTPUT

P9 P8 R172

X505 X506

POWER-UNIT

RF6 (28/8B)

+7.5VA

-15VA

DIAG

SWE6_ON (2/2E.2/7A.33/8A)

2100...3000MHZ to X9 sheet 9

X505 FIQOUT

X506 IQOUT6

DRAIN CURRENT

N.F.

** = 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

For this document all rights are reserved

| | | | | | |
|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: / Designation: 6-GHZ-ERWEITERUNG 6-GHZ-EXTENSION | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 29+ |
| Typ: / Type: SMIQ | Datum: / Date: 99-09-09 | Abteilung: / Dpt: 1GPK | Name: / Name: HOFBERGE | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: / used in: 1084.8004.01 | TOP/OUTPUT_54/OUTPUT.1 | | | | | |

Fuer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

R394 R173 P12 P13 P14 P15

RF DC ZERO

VDET6 (29/5D)

R67 1K

R394 1K

C612 33N

X16 X16 X16 X16

R741 1K

V16 BAS16

R333 619

V186 HSMS2825PAAR

C553 1P

N27 AD744KR

X15 X15

R742 1K

R392 825

N26 AD829

C322 27P

R819 100K

R939 33K

DIAG11 DIAG (34/5C)

X15 X15

VDETOUT (31/4D)

2401

R51 470K

-10VA

R818 100K

R739 1K

R604 1M

DETECTOR OFFSET

R173 20K

R740 1K

R605 1M

R817 100K

+10VA

V17 BAS16

C613 N.F. 33N

R334 619 V186 HSMS2825PAAR

R745 1K

R744 1K

C611 33N

N28 AD823AR

R65 10K

R66 10K

N28 AD823AR

R188 10K

DETECTOR LINEARIZER

+15VA C158 33N N27 AD744KR C159 33N -15VA

+15VA C161 33N N28 AD823AR C162 33N -15VA

+15VA C160 33N N26 AD829 C163 33N -15VA

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

** = NOT FITTED

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

| | | | | | |
|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: / Designation: 6-GHZ-ERWEITERUNG 6-GHZ-EXTENSION | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 30+ |
| Typ: / Type: SMIQ | Datum: / Date: 99-09-09 | Abteilung: / Dpt: 1GPK | Name: / Name: HOFBERGE | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: / used in: 1084.8004.01 | TOP/OUTPUT_54/OUTPUT.2 | | | | | |

Fuer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

X500

P16
P17

# A T OUTPUT

X500
UREFAM
A2
R142 1M
L346 220N
Z12 7.5DB
R585 10
R58 100
+6VREF
D17 DG419DY
AM_ON
(2/2E.2/7B,33/8B)
N32 OP275GS
LEVEL
D2 DAC 8143
VREF
RFB
IOUT1
IOUT2
AGND
R967 0
C323 27P
N32 OP275GS
+15VA
C228 33N
C229 33N
−15VA
R954 4.7K

LEVEL CONTROL AMPLIFIER

+10VA
R353 3.3K
D9 DG413DY
KLEMM_N
(2/2C,2/7B,32/5E)
R955 4.7K
ALC_ON
(2/2C,2/7B,33/8B)
AMSLOW_ON
(2/2E,2/7B,33/8B)
C164 4.7N
R968 0
R820 100K
V66 BAS16
R393 5.11K
C637 470P
C21 5.6P
N29 AD744KR
X10
R8 100
V_AMOD2
(28/7D)
R122 100
V_AMOD1
(27/4E)
R866 20K
DIAG25
DIAG
(34/5C)
R261 10K
2413

(30/8B)
VDETOUT
DETOUT_ON
(2/2E,2/7A,33/8B)
D5 DG419DY
R833 4.7K

+15VA
C166 33N
N29 AD744KR
C167 33N
−15VA

+15VA
+5VA
C165 33N
D5 DG419DY
D17 DG419DY
D9 DG413DY
C168 33N
C169 33N
−15VA

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

** = NOT FITTED

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

| | | | | | |
|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: / Designation: 6-GHZ-ERWEITERUNG 6-GHZ-EXTENSION | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 31+ |
| Typ: / Type: SMIQ | Datum: / Date: 99-09-09 | Abteilung: / Dpt: 1GPK | Name: / Name: HOFBERGE | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: / used in: 1084.8004.01 | TOP/OUTPUT_54/OUTPUT.3 | | | | | |

Ruer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

X500

X

A

CONTROL

P18 P19

P20 P21

X500 A18 RES-P — R531 47 — Z14 7.5DB — R379 470

X500 A12 SERBUS-CLK — D10 74HCT125T — R532 47 — Z17 7.5DB — R380 47

X500 A15 SERBUS-DAT — D10 74HCT125T — R533 47 — Z16 7.5DB — R537 47

X500 A14 SERBUS-DAT — D10 74HCT125T — R382 470 — Z18 7.5DB — R534 47

+5VX — R283 10K — D10 74HCT125T — R375 10K

X500 A17 SERBUS-INT — R378 470 — Z15 7.5DB — R535 47

X500 A23
X500 A25
X500 A27
X500 A29
X500 A31
X500 A11
X500 A13
X500 A21

X500 A19 DIAG-5V — R381 470 — Z13 7.5DB — R536 47

X500 A1 BLANK — R376 470 — Z19 7.5DB — R377 47

D30 L5A8856

+5VA — N.F. R278 10K, R277 10K, N.F. R276 10K, N.F. R275 10K, N.F. R286 10K, R274 10K, N.F. R273 10K

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

R272 10K

SYNC, SERCLK, DATAEN, DATAIN, DATAOUT

PARDAT 0 — N.F. R265 10K, N.F. R266 10K, N.F. R267 10K, N.F. R268 10K, R269 10K, N.F. R270 10K, N.F. R279 10K, N.F. R288 10K

R271 10K

INTEN, INT, IROUT, MASK, IR0, IR1, IR2, IR3

SEROUT, CLK1, RD1, WR1, SERIN1, CLK2, RD2, WR2, SERIN2

SERIR0 (33/4C)
SERIR1 (33/4D)
SERIR2 (33/4E)

SEROUT (33/1B)

SERCLK1 (33/1A,33/4B,33/6B,33/7A,34/1A)

SERWR1 (33/1A,33/4B,33/7A,34/1A)

AMUX0 (33/3A)
AMUX1 (33/3A)
AMUX2 (33/3B)

+5VA — R285 10K — D13 74HC4094T (C2, EN3, SRG, C1/→, 1D, 2D 3▽)

D11 74HCT125T — R263 10K → +5VA

X17 X17 X17 X17

D29 X24164S8 (SCL, TEST, SDA, A0, A1, A2) — R284 10K, R280 10K

EPROM

C908 3.3N — R191 470K — N13 TL074ACD — R189 2K

R197 20K — R168 10K — DIAG21

C909 33N — R193 100K — N13 TL074ACD — R199 20K

R201 20K — R174 10K — DIAG23

C910 33N — R195 100K — N13 TL074ACD — R238 20K

R249 20K — R175 10K — DIAG24

DIAG (1/2C,2/7B,31/6B)

+5VA — R289 10K — D11 74HCT125T — DMUX2 (33/3B)

D27 74HC4051T — MUXDX — 8M — G8

+5VA — R287 10K — D12 74HCT132T — DMUX1 (33/3B)

R264 10K

+5VA — R291 10K — R1330 51.1K — R1320 100K

2400

D25 74HC4051T — MUXDX — 8M — G8

R282 10K

DIAG20
DIAG22
DIAG25
DIAG26
DIAG27

DIAG11
DIAG14
DIAG15
DIAG16
DIAG17

D28 74HC08T — D28 74HC08T — D7 74HC86T — D7 74HC86T — D28 74HC08T

+5VA — R262 10K

BLANK_ENA (33/8B)
BLANK_INV (33/8B)

LEV_OFF (33/8A)

KLEMM_N (2/2C,2/7B,31/6B)

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

D11 74HCT125T — R290 10K, R281 10K

R176 10K — R182 10K, R184 10K — N13 TL074ACD

** = 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

+15VA — C91 33N — N13 TL074ACD — C912 33N — −15VA

D28 74HC08T — R292 10K — +5VX — D10 74HCT125T

D7 74HC86T — R293 10K — +5VA — D11 74HCT125T

D7 74HC86T — R294 10K — +5VA — D13 74HC4094T

+5VA — C614 33N — +5VA — D29 X24164S8

−15VA — V13 BZX284B5V6 — R835 4.7K — +5VA — C171 33N — +5VA — D30 L5A8856

+5VA — D25 74HC4051T

+5VA — R126 100 — C172 14 33N — D27 74HC4051T

D28 74HC08T — D7 74HC86T

| | | | | | |
|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: / Designation: 6-GHZ-ERWEITERUNG 6-GHZ-EXTENSION | | | Sprache: / Lang.: DE | Aei: / C.i.: 06.05 | Blatt: / Sh.: 32+ |
| Typ: / Type: SMIQ | Datum: / Date: 99-09-09 | Abteilung: / Dpt: 1GPK | Name: / Name: HOFBERGE | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: / used in: 1084.8004.01 | TOP/ANSTEUERUNG_55/ANSTEUERUNG.1 | | | | | |

Ruer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

# CONTROL

X18 X18 X18 X18

+5VA

R303 10K

D16 74HC4094T

SERWR1 (32/5B,33/4B,33/7A,34/1A)

SERCLK1 (32/5B,33/4B,33/6B,33/7A,34/1A)

SEROUT (32/6B)

X19

R836 4.7K

AMUX0 (32/4C)
AMUX1 (32/4C)
AMUX2 (32/4C)
DMUX1 (32/30)
DMUX2 (32/5C)
L01200_OFF (1/1C,2/2D,5/2E)
LOSYN_OFF (1/5B,2/2D,12/6B)

U

+5VA +5VA +5VA

R302 10K R754 1K R755 1K

LEV PRE D3 DAC 8143

SERCLK1

V196 BSS138

SERWR1

R748 1K R753 1K

+5VA +5VA

R750 1K R749 1K

LEVEL D2 DAC 8143

SERCLK1

R752 1K R751 1K

+5VA

R304 10K

D14 74HC4094T

SERWR1

SERCLK1

SWE6_ON (2/2E,2/7A,29/1D)
LEV_OFF (32/3E)
AM_ON (2/2E,2/7B,31/3B)
ALC_ON (2/2C,2/7B,31/6B)
AMSLOW_ON (2/2E,2/7B,31/6C)
DETOUT_ON (2/2E,2/7A,31/4D)
BLANK_INV (32/3E)
BLANK_ENA (32/3E)
SERDATA (34/1B)

+15VA

R869 100K R204 100K

DIAG25

OUTPUT

V14 BAS16

U6 LM2903D

+5VA

R296 10K

V147 HSMS2800

D12 74HCT132T

R414 56.2K

C177 33N

X19

SERIR0 (32/4B)

R301 20K

V15 BAS16

R206 100K R205 100K

U5 LM2903D R43 1K

R868 100K

DIAG26

TLOSYN

V23 BAS16

R216 100K

U6 LM2903D

+5VA

R297 10K

V148 HSMS2800

D12 74HCT132T

R415 56.2K

C178 33N

X19

SERIR1 (32/4B)

R300 20K

R867 100K

DIAG27

TLO1200

V24 BAS16

R218 100K

U5 LM2903D

+5VA

R298 10K

V149 HSMS2800

D12 74HCT132T

R416 56.2K

C179 33N

X19

SERIR2 (32/4B)

R299 20K

DIAG (34/5C)

−10VA

LEV PRE

R131 100

D3 DAC 8143

VREF RFB IOUT1 IOUT2 AGND

C181 33N

C287 22P

N1 OP275

LPREFIL (2/1A,2/2E,14/8D)

R870 20K

DIAG20 DIAG (34/5C)

R307 10K

2408

+5VA R306 10K

D20 74HCT00T

FILOFF1 (2/2C,2/4A,17/3C,18/10,34/2D)

FILON1 (2/1B,2/2D,16/3A)

FILOFF3 (2/2C,2/4C,21/20,22/10,34/2D)

FILON3 (2/1B,2/2D,16/6D)

FILOFF2 (2/1B,2/2C,2/4B,16/6A,19/20) (20/10,34/2D)

FILCOM (2/1A,2/2D,16/1A)

TP5100_ON (1/4B,2/2E,11/1E)

+15VA

C320 33N

N1 OP275

C319 33N

−10VA

R95 10K

R1110 10K

+15VA C175 U6 LM2903D

+15VA C173 U5 LM2903D

+5VA D12 74HCT132T

+5VA D16 74HC4094T

+5VA D14 74HC4094T

+5VA C174 D2 DAC 8143

+5VA C176 D3 DAC 8143

+5VA D20 74HCT00T

** = 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

| | | | | | |
|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: 6-GHZ-ERWEITERUNG<br>Designation: 6-GHZ-EXTENSION | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 33+ |
| Typ: SMIQ<br>Type: | Datum: 99-09-09<br>Date: | Abteilung: 1GPK<br>Dpt: | Name: HOFBERGE<br>Name: | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: 1084.8004.01<br>used in: | TOP/ANSTEUERUNG_55/ANSTEUERUNG.2 | | | | | |

Fuer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

SERCLK1
SERWR1
SERDATA
+5VA
C32 33N
D19 LTC1446L
VCC CS SCLK SDI SDO VOUTA VOUTB GND
C31 33N
D21 LTC1446L

+5VA
R111 10K
D6 74HC4094T
C2 EN3 SRG C1/ →
FILOFF1 (2/2C,2/4A,17/3C,18/1D,33/5D)
FILOFF2 (2/1B,2/2C,2/4B,16/6A,19/2D) (20/1D,33/5D)
FILOFF3 (2/2C,2/4C,21/2D,22/1D,33/5D)
FILOFF4 (2/1B,2/2C,2/4D,16/3D,23/3D) (24/5D)

+24VA
C188 33N
N2 TL074ACD
C186 33N
V116 BZX284B5V1
R586 1K
-15VA

+5VA
C2 33N
D6 74HC4094T

R877 13K
R169 1.82K
N2 TL074ACD
IQFILT1 (2/2D,2/4B,2/4C,17/3D,19/2D) (21/2D)
R181 30.1K
R153 7.5K
DIAG14
2404

R875 13K
R170 1.82K
N2 TL074ACD
IQFILT2 (2/2D,2/4B,2/4C,17/3E,19/2E) (21/2E)
R179 30.1K
R155 7.5K
DIAG15
2405

DIAG (33/6C)

DIAG16
DIAG17

R876 13K
R183 1.82K
N2 TL074ACD
IQFILH1 (2/2D,2/4A,2/4B,2/4C) (2/4D,17/3D,19/2E,21/2E)
R180 30.1K
R152 7.5K
2406

R874 13K
R177 1.82K
N2 TL074ACD
IQFILH2 (2/2C,2/2D,2/4B,2/4C,2/4D) (17/3D,19/2D,21/2E,23/2D)
R178 30.1K
R154 7.5K
2407

** = 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

| | | | | | | |
|---|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: 6-GHZ-ERWEITERUNG<br>Designation: 6-GHZ-EXTENSION | | | | Sprache: / Lang.: DE | Aei: / C.i.: 06.05 | Blatt: / Sh.: 34+ |
| Typ: / Type: SMIQ | Datum: / Date: 99-09-09 | Abteilung: / Dpt: 1GPK | Name: / Name: HOFBERGE | | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: / used in: 1084.8004.01 | TOP/ANSTEUERUNG_55/ANSTEUERUNG.3 | | | | | | |

Ruer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

R608 P26 P22–P25

REFERENCE VOLTAGE

+5VA
C764 10N
C200 10N
C25 10N
C4 10N
C590 33N
N11 TL074ACD
V157 BCP68-16
R822 100
R635 12K
R883 10K
R762 1K
X20
+4VA

+15VA
C193 33N
N5 REF01CS
R316 10K
R940 33K
C335 220N
R608 10K
R400 10K N.F.
X20
N11 TL074ACD
R880 10K
−10VA
R881 10K
C657 33N
R74 39.2K
V18 BC860B
N11 TL074ACD
R842 4.7K
−15VA

ADJUSTMENT
+10V REFERENCE

+11VA
C765 10N
C766 10N
C767 10N
C768 10N
C592 33N
V159 BCP68-16
R821 100
R841 1K
N11 TL074ACD
R761 1K
X20
+10VA

R149 4.02K
+6VREF
C351 33N
R85 3.01K
R88 3.01K
R64 10

+15VA
C194 33N
N11 TL074ACD
C189 33N
−15VA

** = 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

| | | | | | |
|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: / Designation: 6-GHZ-ERWEITERUNG 6-GHZ-EXTENSION | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 35+ |
| TTyp: / TType: SMIQ | Datum: / Date: 99-09-09 | Abteilung: / Dpt: 1GPK | Name: / Name: HOFBERGE | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 11. Z.: / used in: 1084.8004.01 | TOP/ANSTEUERUNG_55/ANSTEUERUNG.4 | | | | | |

Fuer diese Unterlage behalten wir uns alle Rechte vor
For this document all rights are reserved

L93 1U +7.5VJ C198 33N
+10VL L434 C215 33N 1U
+10VJ L71 1U C37 33N
+10VA
Q1 Q2 P1 P2 O1 O2 N1 N2
M1 M2
L78
-15VJ C91 33N 1U
C840 2.7P L307 3.3N C841 2.7P L308 3.3N C839 2.7P
+4VL L429 1U C207 33N
+15VJ L85 C155 33N 1U
L95
+4VQ1 C60 33N
22N L112
+4VQ2 C61 33N
22N L113
+4VP1 C62 33N
22N L114
+4VA
+4VP2 C63 33N
22N L115
+4VO1 C64 33N
22N L437
+4VO2 C208 33N
22N
L426
+4VN1 C56 33N
22N L116
+4VN2 C34 33N
22N L439
+4VM1 C210 33N
22N L438
+4VM2 C209 33N
22N
L423
+10VS C47 33N
22N L422
+10VT C46 33N
22N
L424
+4VS C54 33N
22N L425
+4VT C55 33N
22N
T1
C201 33N C195 33N
L74 1U L84 1U
-15VS
+15VS
S1
H
K
J
G
+15VG L86 1U 1 Z10 40DB 2 L110 1U
5 4 3 6 7
C197 33N
+7.5VG
L87 1U
L88 1U Schirm-wand 500B Z20 L92 1U L94 1U +7.5VF C196 33N
F2
-15VL L432 1U C213 33N
L77 1U
+15VN1 C59 33N
L430 1U
+15VP1 C211 33N
L
D
E1
F1
+15VL L433 1U C214 33N
L431 1U
+15VQ1 C212 33N
L111 1U
+15VO1 C94 33N
-15VA
+15VA
+24VA
+5VA
+7.5VE C190 33N
I
L90 1U
-15VE L83 1U 1 Z6 40DB 2 L79 1U
C216 33N
+15VE L96 1U 1 Z9 40DB 2 L418 1U
C217 33N
E2
C
L340 10U L341 10U
C8 33U C674 22U C628 100U
+11VA
L91 1U +7.5VI C199 33N
C733 220P
C730 220P
C729 220P
Z26 50DB
Z24 40DB
Z8 40DB
Z7 40DB
Z23 50DB
+5VX
1W
R113 20
R112 20
R114 100
C7 33U
C218 100N
+7.5VC
+7.5VB
C627 100U 16V
B Z25 50DB Schirm-wand
L53 47U
L54 47U
L343 10U
L342 10U
L52 47U
A26 +7.5V
A24 +15V
A30 -15V
A22 +24V
A28 +5V
X
X500 X500 X500 X500 X500
L76 1U 1 Z5 40DB 2 L416 1U
L75 1U C57 33N -15VT
L412 1U 1 Z4 40DB 2 L414 1U
L415 1U C58 33N +15VT
Z22 50DB Schirm-wand +7.5VA

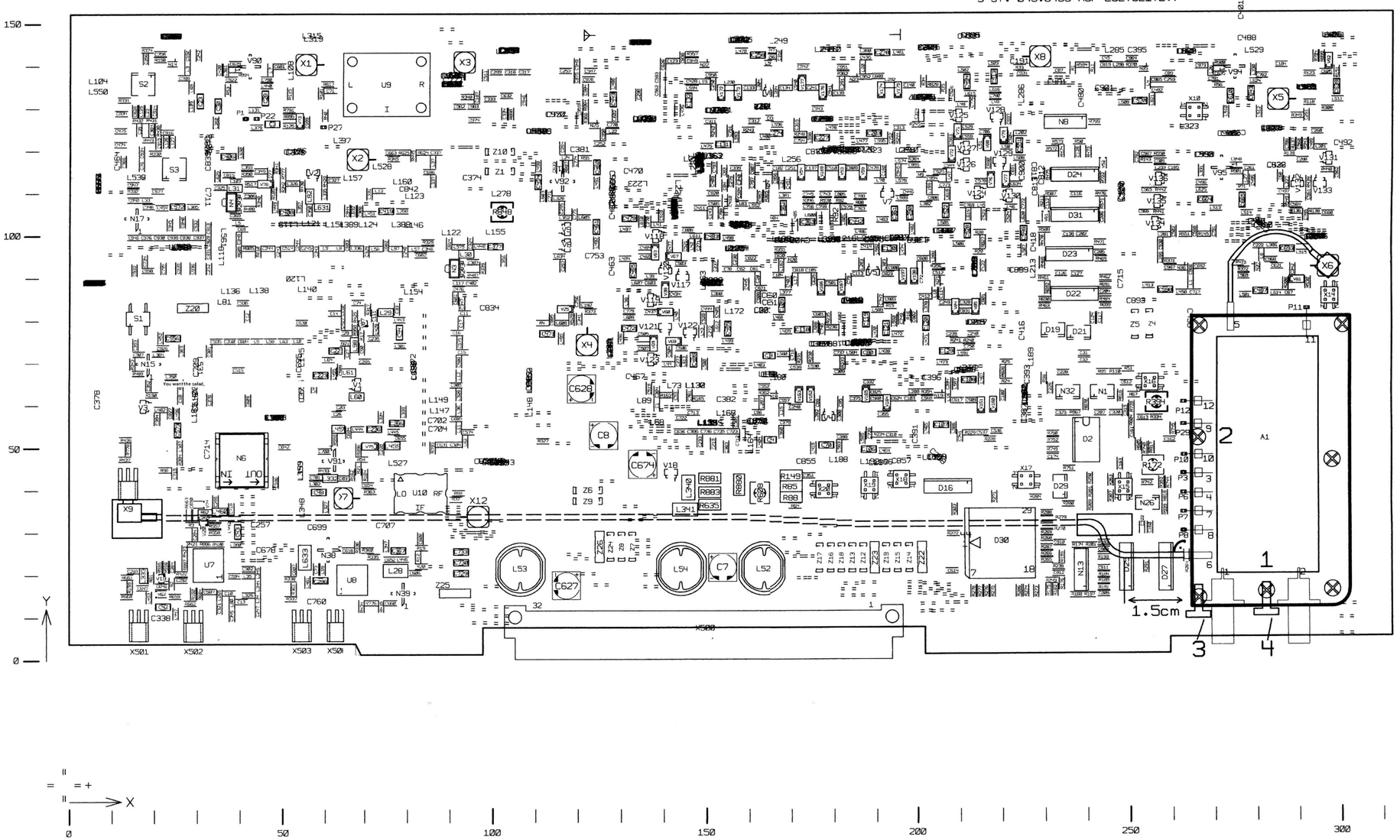
| | | | | | |
|---|---|---|---|---|---|
| ROHDE&SCHWARZ | Benennung: / Designation: 6-GHZ-ERWEITERUNG / 6-GHZ-EXTENSION | | | Sprache: / Lang.: DE | Aei: / C.I.: 06.05 | Blatt: / Sh.: 36- |
| Typ: / Type: SMIQ | Datum: / Date: 99-09-09 | Abteilung: / Dpt: 1GPK | Name: / Name: HOFBERGE | Zeichn. Nr.: / Drawing No.: 1084.9600.01 S | | |
| 1. Z.: / used in: 1084.8004.01 | TOP/ANSTEUERUNG_55/ANSTEUERUNG.5 | | | | | |

POWER-UNIT 1084.9500.02 with
11ST. 088.0024 and
11ST. 005.0280 and
5ST. 048.6496 screws.

The power unit should be mounted in the following order:
1. Fix power unit by means of screws 1+2 (tighten screws only lightly.)
2. Lay and connect cables.
3. Mount top cover and fix power unit by means of screws 3+4 (front side, next SMA connector)
4. Tighten screws 1+2 with 60 Ncm
5. Remove top cover.
6. Wire eight lead-through filters of power unit with PCB (include strain relief).
7. Mount top and bottom covers and tighten all remaining screws with 60Ncm. (7 items 088.0024 + 005.0280 on components side, 5 items 048.6496 on soldered side.)

POWER-UNIT 1084.9500.02 MIT
11ST. 088.0024 UND
11ST. 005.0280 UND
5ST. 048.6496 VERSCHRAUBEN.

DIE POWER-UNIT SOLLTE NACH FOLGENDER REIHENFOLGE MONTIERT WERDEN:
1. POWER-UNIT MIT SCHRAUBE 1+2 BEFESTIGEN.(SCHRAUBEN NUR LEICHT ANZIEHEN.)
2. KABEL VERLEGEN UND EINSTECKEN.
3. DECKEL OBEN BESTUECKEN,UND POWER-UNIT MIT SCHRAUBE 3+4 BEFESTIGEN.(STIRNSEITE,NEBEN SMA STECKER)
4. SCHRAUBE 1+2 MIT 60Ncm FESTZIEHEN.
5. DECKEL OBEN WIEDER ENTFERNEN.
6. 8 X DURCHFUERUNGSFILTER DER POWER-UNIT MIT LP VERDRAHTEN.(MIT ZUGENTLASTUNG)
7. WENN DIE DECKEL OBEN UND UNTEN MONTIERT WERDEN,ALLE RESTLICHEN SCHRAUBEN MIT 60Ncm FESTZIEHEN.
(7 ST. 088.0024 + 005.0280 AUF BAUTEILSEITE.
5 ST. 048.6496 AUF LOETSEITE.)

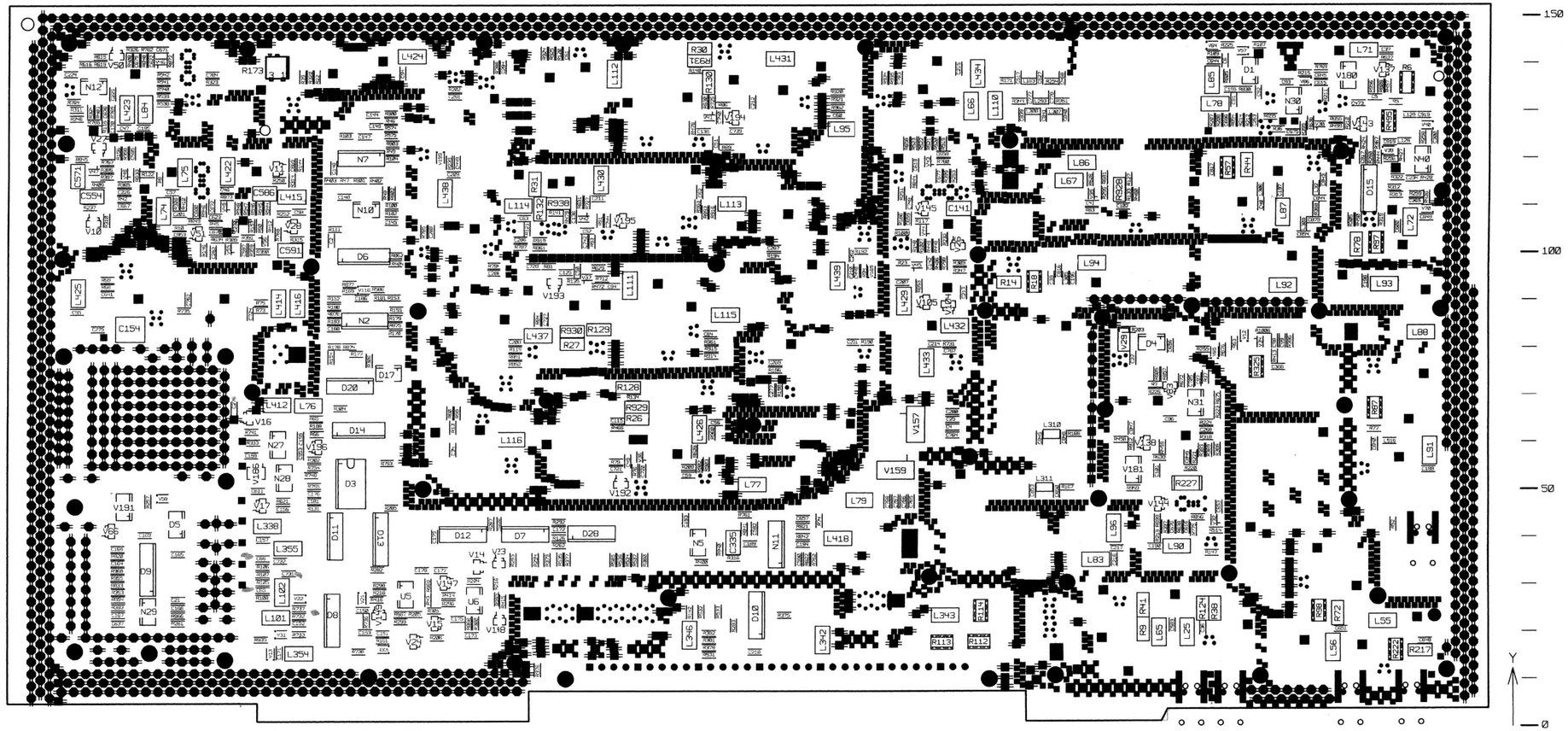



DARSTELLUNG SEITE B
VIEW ON SIDE B

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 AN COMPONENT VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

ROHDE&SCHWARZ
Benennung: 6-GHZ-ERWEITERUNG
Designat.: 6-GHZ-EXTENSION
Typ: SMIQ
Datum: 99-08-19
Abteilung: 1GPK
Name: HOFBERGE
Spr./Lang.: de
Aend./C.I.: 06.03
Blatt/Sh.: 1+
Zeichn.Nr./Drawing No.: 1084.9600.01 D
used in: 1084.8004




DARSTELLUNG SEITE A
VIEW ON SIDE A

ACHTUNG: EGB!
ELEKTROSTATISCH GEFÄHRDETE 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 AN COMPONENT VALUES AND NONFITTED COMPONENTS SEE PARTS LIST.

ROHDE&SCHWARZ

| | | | | | |
|---|---|---|---|---|---|
| Benennung: / Designat.: | 6-GHZ-ERWEITERUNG 6-GHZ-EXTENSION | | | Spr.:/Lang.: | Aen./C.i.: | Blatt/Sh.: |
| Typ: / Type: | SMI0 | Datum: / Date: | 99-08-19 | de | 06.03 | 2- |
| Ident-Nr.: / Stock-no.: | 1084.8004 | Abteilung: / Dept.: | 1GPK | Name: / Name: | HOFBERGE | Zeichn.Nr.:/Drawing No.: 1084.9600.01 D |