



SERVICE MANUAL

HF/ 50MHz ALL MODE TRANSCEIVER

IC-703

INTRODUCTION

This service manual describes the latest service information for the **IC-703** HF/50MHz ALL MODE TRANSCEIVER.

MODEL	VERSION	SYMBOL	
		UT-106 option	UT-106 equipped
IC-703	Europe	EUR	EUR-1
	France	FRA	FRA-1
	Spain	ESP	ESP-1
	U.S.A.	USA	USA-1
	Korea	KOR	KOR-1
	Other	OTH	OTH-1
	Italy	ITR	ITR-1

To upgrade quality, any electrical or mechanical parts and internal circuits are subject to change without notice or obligation.

DANGER

NEVER connect the transceiver to an AC outlet or to a DC power supply that uses more than 16 V. This will ruin the transceiver.

DO NOT expose the transceiver to rain, snow or any liquids.

DO NOT reverse the polarities of the power supply when connecting the transceiver.

DO NOT apply an RF signal of more than 20 dBm (100 mW) to the antenna connector. This could damage the transceiver's front end.



ORDERING PARTS

Be sure to include the following four points when ordering replacement parts:

1. 10-digit order numbers
2. Component part number and name
3. Equipment model name and unit name
4. Quantity required

<SAMPLE ORDER>

1110004080 S.IC μPC2709T IC-703 MAIN UNIT 5 pieces
8810009610 Screw FH M2.6×6 ZKIC-703 Top cover 10 pieces
Addresses are provided on the inside back cover for your convenience.

REPAIR NOTES

1. Make sure a problem is internal before disassembling the transceiver.
2. **DO NOT** open the transceiver until the transceiver is disconnected from its power source.
3. **DO NOT** force any of the variable components. Turn them slowly and smoothly.
4. **DO NOT** short any circuits or electronic parts. An insulated tuning tool **MUST** be used for all adjustments.
5. **DO NOT** keep power ON for a long time when the transceiver is defective.
6. **DO NOT** transmit power into a signal generator or a sweep generator.
7. **ALWAYS** connect a 50 dB to 60 dB attenuator between the transceiver and a deviation meter or spectrum analyzer when using such test equipment.
8. **READ** the instructions of test equipment thoroughly before connecting equipment to the transceiver.

TABLE OF CONTENTS

SECTION 1	SPECIFICATIONS	
SECTION 2	INSIDE VIEWS	
SECTION 3	CIRCUIT DESCRIPTION	
3 - 1	RECEIVER CIRCUITS .....	.3 - 1
3 - 2	TRANSMITTER CIRCUITS .....	.3 - 4
3 - 3	PLL CIRCUITS .....	.3 - 7
3 - 4	ANTENNA TUNER CIRCUITS .....	.3 - 7
3 - 5	POWER SUPPLY CIRCUITS .....	.3 - 9
3 - 6	CPU PORT ALLOCATIONS .....	.3 - 9
SECTION 4	ADJUSTMENT PROCEDURES	
4 - 1	PREPARATION BEFORE SERVICING .....	.4 - 1
4 - 2	PLL ADJUSTMENTS .....	.4 - 2
4 - 3	TRANSMITTER ADJUSTMENTS .....	.4 - 4
4 - 4	RECEIVER ADJUSTMENTS .....	.4 - 8
4 - 5	SET MODE ADJUSTMENTS (No.1) .....	.4 - 10
4 - 6	PA UNIT ADJUSTMENTS .....	.4 - 12
4 - 7	SET MODE ADJUSTMENTS (No.2) .....	.4 - 14
SECTION 5	PARTS LIST	
SECTION 6	MECHANICAL PARTS	
SECTION 7	SEMI-CONDUCTOR INFORMATION	
SECTION 8	BOARD LAYOUTS	
8 - 1	DISPLAY BOARD .....	.8 - 1
8 - 2	JACK BOARD .....	.8 - 1
8 - 3	VR BOARD .....	.8 - 2
8 - 4	MAIN UNIT .....	.8 - 3
8 - 5	PA UNIT .....	.8 - 5
SECTION 9	BLOCK DIAGRAM	
SECTION 10	WIRING DIAGRAM	
SECTION 11	VOLTAGE DIAGRAMS	
11 - 1	FRONT UNIT .....	.11 - 1
11 - 2	MAIN UNIT .....	.11 - 2
11 - 3	PA UNIT .....	.11 - 7

SECTION 1 SPECIFICATIONS

■ GENERAL

- Frequency coverage :
 - Receive 0.030 – 60.000 MHz*
 - Transmit 1.800 – 1.999 MHz*
 - 3.500 – 3.999 MHz*
 - 7.000 – 7.300 MHz*
 - 10.100 – 10.150 MHz
 - 14.000 – 14.350 MHz
 - 18.068 – 18.168 MHz
 - 21.000 – 21.450 MHz
 - 24.890 – 24.990 MHz
 - 28.000 – 29.700 MHz
 - 50.000 – 54.000 MHz*

*Depending on version.

- Mode : USB, LSB, CW, RTTY (FSK), AM, FM
- Number of memory ch. : 105 (99 regular, 6 scan edges)
- Antenna connector : SO-239/50 Ω (at antenna tuner off)
- Power supply requirement : 13.8 V DC ±15% (negative ground)
- Frequency stability :
 - Temp. fluctuations 0°C to +50°C (+32°F to +122°F)
Less than ± 0.5 ppm.
 - Temp. fluctuations -10°C to +60°C (+14°F to +140°F)
Less than ± 2.5 ppm.
- Frequency resolution :
 - General 10 kHz shift
 - Automatic 50 kHz shift
 - Fine Less than 2 Hz shift
- Current consumption :
 - Transmit 10 W : 3.0 A (at 13.8 V DC)
 - 5 W : 2.0 A (at 9.6 V DC)
 - Receive Standby : 300 mA (at 9.6 V DC)
 - AF output : 450 mA (at 9.6 V DC)*¹
 - AF output : 1.2 A (at 13.8 V DC)*¹
 - *¹with 10 % distortion
- Usable temperature range : -10°C to +60°C (+14°F to +140°F)
- Dimensions : 167(W) × 58(H) × 200(D) mm
(projections not included) 6⁹/₁₆(W) × 2⁹/₃₂(H) × 7⁷/₈(D) inch
- Weight : 2.0 kg (4 lb 7 oz)
- CI-V connector : 2-conductor 3.5 (d) mm (1/8")/8 Ω
- ACC connector : 13-pin

■ TRANSMITTER

- Output power :
 - 1.8–50 MHz band SSB/CW/RTTY/FM 0.1–10 W*¹
 - 0.1–5 W*²
 - AM 0.1–4 W*¹
 - 0.1–2 W*²
- *¹at 13.8 V DC power supply, *²at 9.6 V DC power supply
- Modulation system :
 - SSB Balanced modulation
 - AM Low level modulation
 - FM Variable reactance modulation
- Spurious emissions :
 - Below 30 MHz Less than -50 dB
 - Above 30 MHz Less than -60 dB
- Carrier suppression : More than 40 dB
- Unwanted sideband supp. : More than 50 dB
- Microphone connector : 8-pin modular jack (600 Ω)
- KEY connector : 3-conductor 6.35 (d) mm (1/4")
- RTTY connector : 3-conductor 3.5 (d) mm (1/8")

■ RECEIVER

- Receive system : Double superheterodyne
- Intermediate frequencies : 1st IF; 64.455 kHz, 2nd IF; 455 kHz
- Receive sensitivity : (Pre-amp. is ON.)

FREQUENCY	SSB/CW/RTTY	AM	FM
0.5 – 1.8 MHz	—	13 μV* ²	—
1.8 – 28 MHz* ¹	0.16 μV	2 μV	—
28 – 29.999 MHz	0.16 μV	2 μV	0.5 μV
50 MHz band	0.13 μV	1 μV	0.25 μV

Note: SSB, CW and AM modes are measured at 10 dB S/N.
FM mode are measured at 12 dB SINAD.

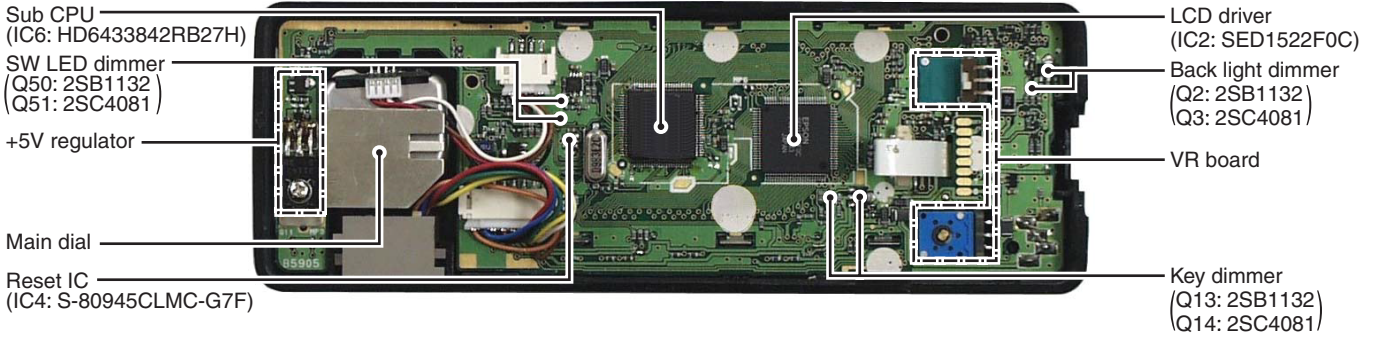
*¹Except 4–4.5 MHz, 8–9 MHz. *²Pre-amp. is OFF.

- Squelch Sensitivity : (Pre-amp. is ON.)
 - AM, SSB, CW, RTTY Less than 5.6 μV
 - FM Less than 0.32 μV
- Selectivity* (Typical) :
 - SSB, CW, RTTY More than 2.4 kHz/-6 dB
Less than 4.0 kHz/-60 dB
 - AM, FM-N More than 9.0 kHz/-6 dB
Less than 20 kHz/-50 dB
 - FM More than 15 kHz/-6 dB
Less than 30 kHz/-50 dB
- *Without an optional filter unit and with mid bandwidth selected.
- Spurious and image rejection ratio:
 - HF band More than 70 dB
 - 50 MHz band More than 65 dB (except IF through)
- Audio output power : More than 1.0 W at 10% distortion with an 8 Ω load, 13.8 V DC
More than 5.0 W at 10% distortion with an 8 Ω load, 9.6 V DC
- RIT variable range : ± 9.99 kHz
- PHONES connector : 3-conductor 3.5 (d) mm (1/8")/8 Ω
- EXT SP connector : 2-conductor 3.5 (d) mm (1/8")/8 Ω

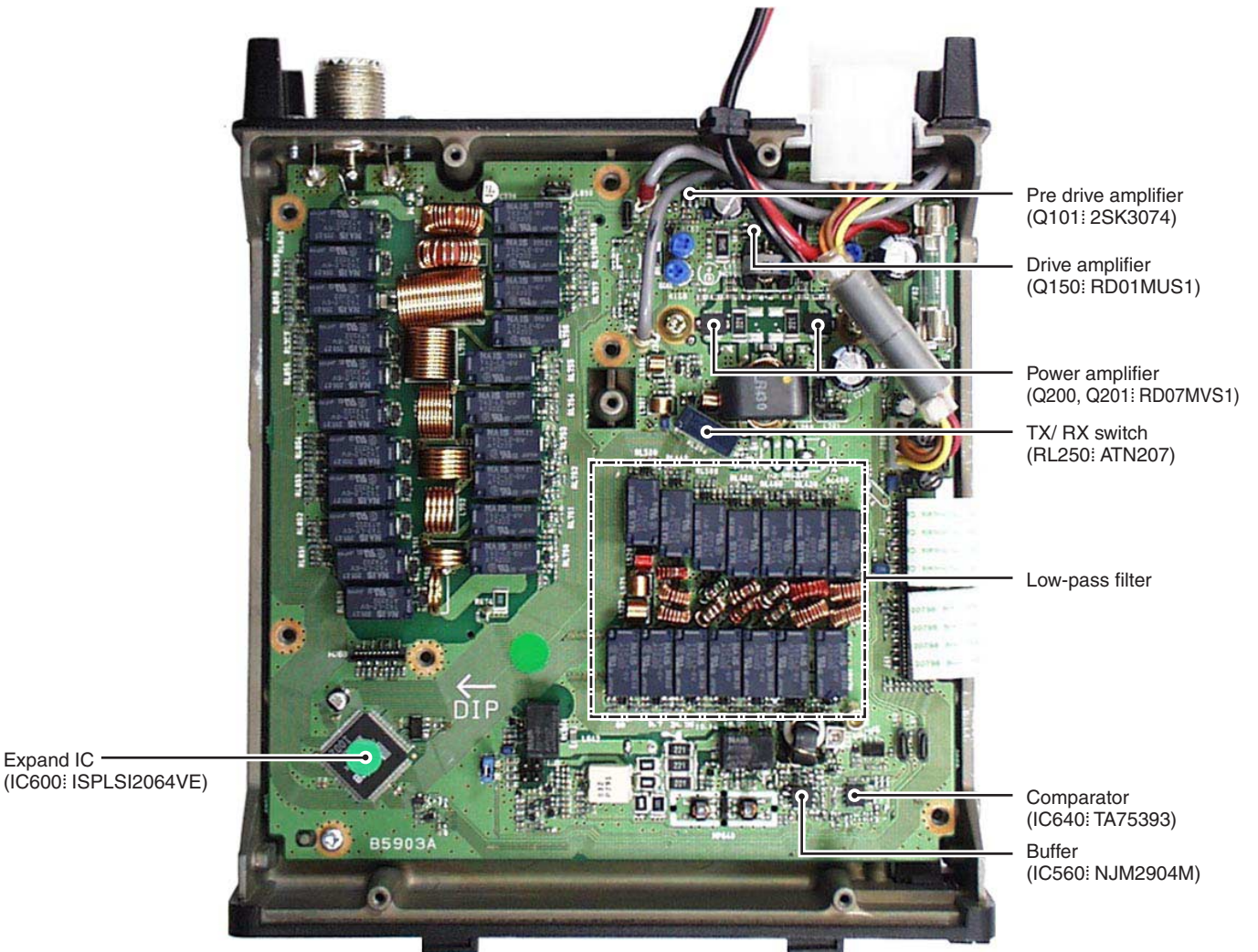
All stated specifications are subject to change without notice or obligation.

SECTION 2 INSIDE VIEWS

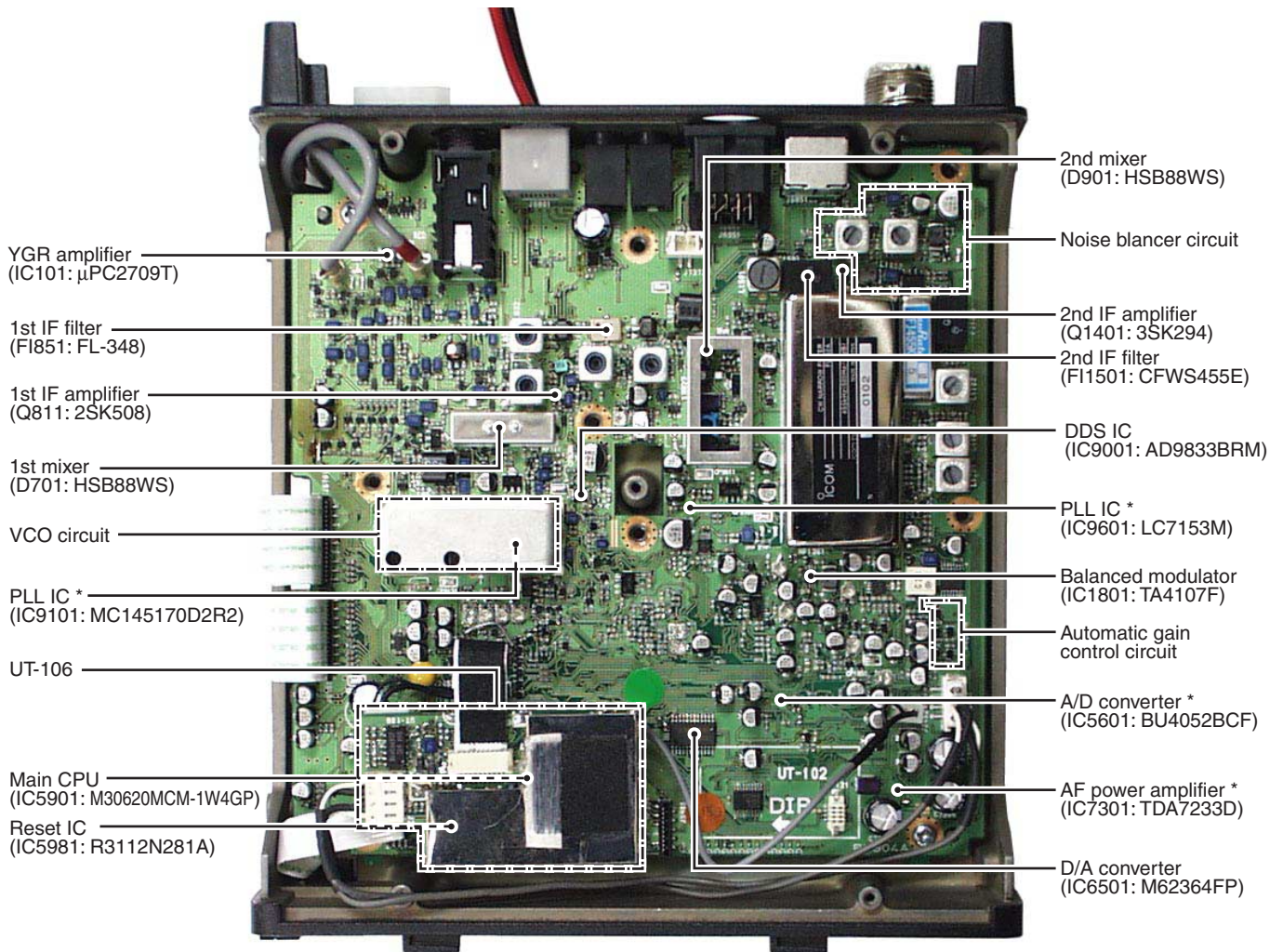
• DISPLAY BOARD



• PA UNIT



• MAIN UNIT



* Located under side of the point

SECTION 3 CIRCUIT DESCRIPTION

3-1 RECEIVER CIRCUITS

3-1-1 RF CIRCUIT (PA AND MAIN UNITS)

HF/50 MHz RF filters pass only the desired band signals and suppress any undesired band signals. The HF/50 MHz RF circuit has 7 low-pass filters and 6 high-pass filters for specified band use.

HF/50 MHz RF signals from the [ANT] connector, pass through one of 7 low-pass filters as below, the transmit/receive switching relay (PA unit; RL250) and low-pass filter (PA unit; L300, L301, C304–C308), and are then applied to the MAIN unit via J300 (PA unit).

• Used RF low-pass filter (MAIN unit)

Frequency (MHz)	Control signal	Entrance coil	Frequency (MHz)	Control signal	Entrance coil
0.03–2 MHz	F1	RL401	15–22 MHz	F5	RL481
2–4 MHz	F2	RL421	22–30 MHz	F6	RL501
4–8 MHz	F3	RL441	30–60 MHz	F7	RL521
8–15 MHz	F4	RL461			

The signals from the PA unit are applied to or bypass the 20 dB attenuator (MAIN unit; R2, R3). The signals pass through the high-pass filter (MAIN unit; L301–L303, C301–C303) to suppress strong signals above 1.6 MHz and are then applied to the HPF section.

(1) 0.03–2 MHz and 30–40 MHz

The signals pass through a low-pass filter (L304, L305, C306–C310), and then applied to the preamplifier circuit on the MAIN unit.

(2) 2–30 MHz

The signals from the low-pass filter (L304, L305, C306–C310) are applied to one of 5 high-pass filters as at right above and are then applied to the preamplifier circuit on the MAIN unit.

(3) 40–60 MHz

The signals pass through the high-pass filter (L502–L504, C501–C505) and the low-pass filter (L501, L506–L508 C506–C513), and are then applied to the preamplifier circuit on the MAIN unit.

• Used RF high-pass filter (MAIN unit)

Frequency (MHz)	Control signal	Entrance coil	Frequency (MHz)	Control signal	Entrance coil
0.03–2 MHz	BTHH	D541	15–22 MHz	B5H	D581
2–4 MHz	B2H	D551	22–30 MHz	B6H	D591
4–8 MHz	B3H	D561	30–40 MHz	BTHH	D541
8–15 MHz	B4H	D571	40–60 MHz	B7RH	D501

3-1-2 PREAMPLIFIER CIRCUIT (MAIN UNIT)

The preamplifier circuit in the IC-703 has approx. 15dB gain over a wide-band frequency range.

When the preamplifier is turned ON, the signals from the RF circuit are applied to the preamplifier (Q651) via D622 or D632. Amplified or bypassed (passes through the D601 and D602 when bypassed) signals are applied to the 1st mixer circuit (D701).

3-1-3 1ST MIXER CIRCUIT (MAIN UNIT)

The 1st mixer circuit mixes the receive signals with the 1st LO signal to convert the receive signal frequencies to a 64.455 MHz 1st IF signal.

The signals from the preamplifier circuit, or signals which bypass the preamplifier, are passed through a low-pass filter (L681–L683, C681–C687) and then applied to the 1st mixer (D701).

The 1st LO signal (one of the 64.485–124.455 MHz) is amplified at Q751, filtered by a low-pass filter (L753, C756–C759), passed through the attenuator (R771–R773), and then applied to the 1st mixer.

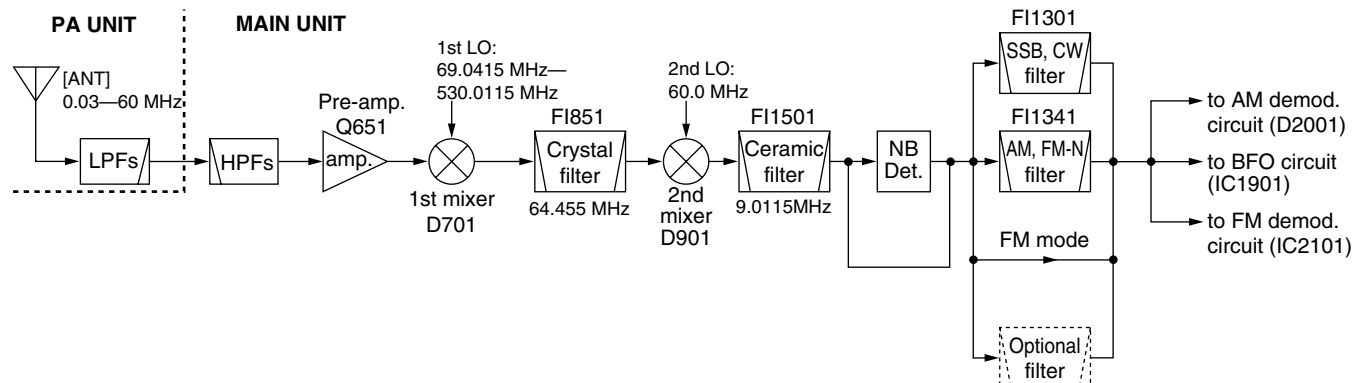
3-1-4 1ST IF CIRCUIT (MAIN UNIT)

The 1st IF circuit filters and amplifies the 1st IF signals. The 1st IF signals are applied to a Crystal Filter (F1851) to suppress out-of-band signals.

The 64.445 MHz 1st IF signals pass through the crystal filter (F1851). Then the filtered signals are applied to the IF amplifier (Q881).

The AGC voltage is supplied to the Q881's gate to obtain stable signal for AGC operation.

• 2ND IF AND DEMODULATOR CIRCUIT



The amplified signals are then applied to the 2nd mixer circuit (D901).

3-1-5 2ND MIXER CIRCUIT (MAIN UNIT)

The 2nd mixer circuit mixes the 1st IF signals and 2nd LO signal (64 MHz) to convert the 1st IF to a 2nd IF.

The 1st IF signals from the 1st amplifier (Q881) are converted to 455 kHz 2nd IF signals at the 2nd mixer circuit (D901).

The 2nd IF signals are applied to the bandpass filter (FI1501) to suppress undesired signals, such as the 2nd LO signal, and are then applied to the noise amplifier (Q1053).

3-1-6 NOISE BLANKER CIRCUIT (MAIN UNIT)

The noise blanker circuit detects pulse type noise, and turns OFF the signal line when noise appears.

A portion of the signals from FI1501 are amplified at the noise amplifiers (Q1051–Q1053), then detected at the noise detector (D1002) to convert the noise components to DC voltages.

The converted voltages are then applied to the noise blanker gate (Q1002, Q1003, Q1402) by applying reverse-biased voltage.

The detected voltage from Q1002 is also applied to the noise blanker AGC circuit (Q1004, Q1005) and is then fed back to the noise amplifier (Q1051–Q1053) as a bias voltage. The noise AGC circuit prevents closure of the noise blanker gate for long periods by non-pulse-type noise.

The 2nd IF signals from the noise blanker gate are then applied to the 2nd IF circuit.

3-1-7 2ND IF CIRCUIT (MAIN UNIT)

The 2nd IF circuit amplifies and filters the 2nd IF signals.

The 2nd IF signals from the ceramic bandpass filter (FI1501) are amplified at the IF amplifier (IC1401) and applied to a 2nd IF filter as shown right column via the Tx/Rx switch (D1402).

• Used 2nd IF filter

Mode	Used filter	Control signal
SSB, CW, RTTY AM nar.	FL-65 (FI1301)	2F23
AM, FM nar.	FL-94 (FI1341)	2F80
FM	Bypassed	2FTH
SSB nar.	Optional FL-222	2FOP
CW nar., RTTY nar.	Optional FL-52A, FL-53A	2FOP
SSB wide	Optional FL-257	2FOP

The filtered or bypassed signals are applied to the 2 amplifiers (Q1101, Q1201) and buffer amplifier (Q1251) to obtain a detectable level at the demodulator circuit

The amplified signals from the buffer amplifier (Q1251) are shared between the SSB/CW/RTTY detector (IC1901), AM detector (D2001), FM detector (IC2101) and AGC detector (D2501).

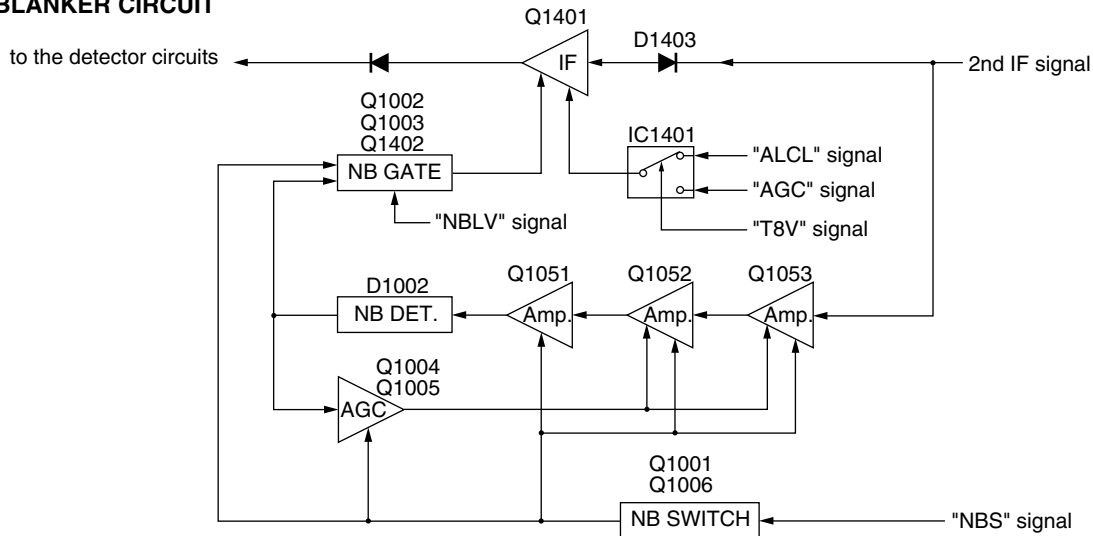
3-1-8 IF SHIFT CIRCUIT (MAIN UNIT)

The IF shift circuit shifts the center frequency of IF signals to electronically shift the center frequency.

The IF shift circuit shifts the 1st LO and BFO within ± 1.2 kHz in SSB/CW/RTTY modes or ± 250 Hz in CW-N/RTTY-N modes. As a result, the 2nd IF (also 1st IF) is shifted from the center frequency of the 2nd IF filter (FI1301, FI1341 or optional IF filters). This means 2nd IF signals do not pass through the center of the 2nd IF filter. Therefore, the higher or lower frequency components of the IF are cut out. Since the BFO frequency is also shifted the same value as the 1st IF, frequency is corrected at the detector.

In the IC-703, the 1st LO frequency is shifted to change the 2nd IF because a fixed 2nd LO frequency (64 MHz) is used. The 1st IF filter (FI1301) and 2nd IF filter (FI1501) have 15 kHz pass-band widths, and do not affect IF shift operation.

• NOISE BLANKER CIRCUIT



3-1-9 AGC CIRCUIT (MAIN UNIT)

The AGC (Automatic Gain Control) circuit reduces IF amplifier gain to keep the audio output at a constant level. The receiver gain is determined by the voltage on the AGC line (Q2503).

The 2nd IF signal from the buffer amplifier (Q1251) is detected at the AGC detector (D2501) and applied to the AGC amplifier (Q2501). Q2501 sets the receiver gain with the [RF/SQL] control via the "RFGV" signal line.

When receiving strong signals, the detected voltage increases and the AGC voltage decreases via the DC amplifier (Q2503). The AGC voltage is used for IF amplifiers (Q881, Q1401) to attenuate the received signals.

When AGC slow is selected, C2505 and R2506 are connected in parallel to obtain appropriate AGC characteristics.

The AGC signal is also applied to the meter amplifier (IC2401), and is then applied to the main CPU (IC5901) to use the S-meter as "SML" signal.

3-1-10 S-METER CIRCUIT (MAIN UNIT)

The S-meter circuit indicates the relative received signal strength while receiving by utilizing the AGC voltage which changes depending on the received signal strength.

The output voltage of the meter amplifier (IC2401, pin 7) is applied to the main CPU (IC5901) as an S-meter signal via the A/D converter (IC5601) as the "SML" signal.

The S-meter signal from the main CPU (IC5901) is applied to the sub CPU, and is then displayed on the S-meter read-out.

3-1-11 SQUELCH CIRCUIT (MAIN UNIT)

The squelch circuit mutes audio output when the S-meter signal is lower than the [RF/SQL] control setting level.

In SSB/CW/RTTY modes, the S-meter signal is applied to the main CPU (IC5901, pin 36) and is compared with the threshold level set by the [RF/SQL] control. The [RF/SQL] setting is picked up at the sub CPU (DISPLAY board; IC6, pin 97). The main CPU compares the S-meter signal and [RF/SQL] setting, and controls the AF selector switch (IC2301) to cut out AF signals.

In FM mode, a portion of the AF signals from the FM IF IC (IC2101, pin 9) are applied to the active filter section (pin 8) where noise components above 20 kHz are amplified. The signals are rectified at the noise detector section and then output from pin 14. The noise squelch signal from pin 14 is applied to the main CPU (IC5901, pin 31) via the A/D converter (IC5601, pin 11) as the "NSQL" signal. The CPU then controls the AF selector switch (IC2301).

3-1-12 DEMODULATOR CIRCUITS (MAIN UNIT)

(1) SSB/CW/RTTY modes

The 2nd IF signals from the buffer amplifier (Q1251) are mixed with the BFO signal from the PLL circuit at the SSB detector (IC1901, pins 3, 6). The detected AF signals from IC1901 (pin 1) are applied to the AF selector switch (IC2301, pin 12) via the "SSAF" signal.

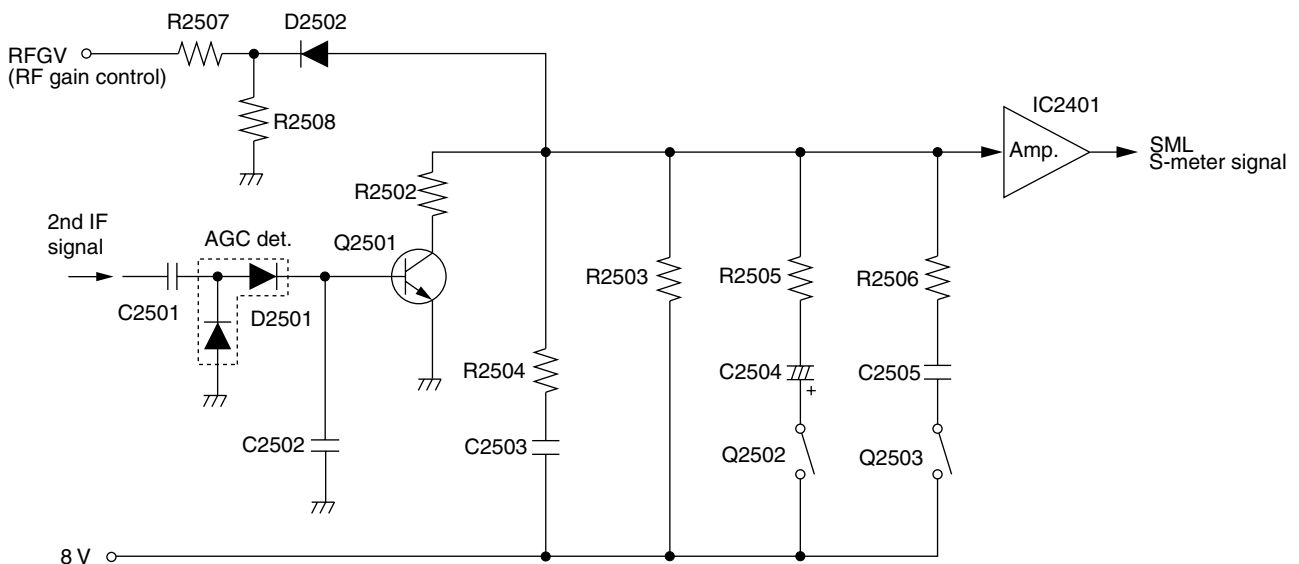
(2) AM mode

The 2nd IF signals from the buffer amplifier (Q1251) are detected at the AM detector (D2001). The detected AF signal is applied to the AF selector switch (IC2301, pin 12) via the "AMAF" signal.

(3) FM/FM NARROW modes

The 2nd IF signals from the buffer amplifier (Q1251) are applied to the FM IF IC (IC2101, pin 5) where the IF signals are converted into 455 kHz IF signals. The signals are applied to the quadrature detector section. X2101 is used for quadrature detector. The detected AF signals from pin 9 pass through the de-emphasis circuit (IC2401), and are then applied to the AF selector switch (IC2301, pin 14) via the "FMAF" signal.

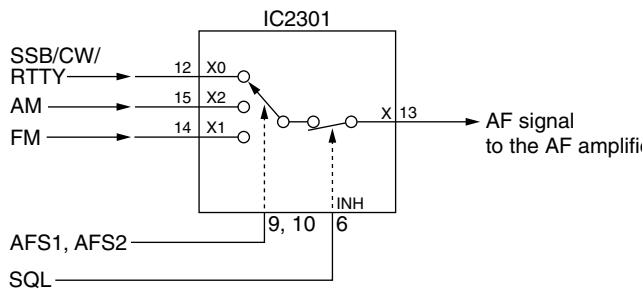
• AGC CIRCUIT



3-1-13 AF SELECTOR SWITCH (MAIN UNIT)

The AF signals from one of the detector circuits are applied to the AF selector switch (IC2301). IC2301 consists of dual 3-channel analog switches which are selected with a mode signal and the squelch control signal.

• AF SELECTOR SWITCH



3-1-14 AF AMPLIFIER CIRCUIT (MAIN UNIT)

The AF amplifier amplifies the demodulated signal to a suitable driving level for the speaker.

The AF signals from the AF selector switch (MAIN unit; IC2301) pass through the 3 kHz low-pass filter (IC2401), and are then applied to the DSP switch (IC2461, pin 6) which mutes the beep sound when DSP unit's power ON or OFF.

The AF signals are applied to the VCA (Voltage Controlled Amplifier) circuit (IC7201). The AF gain setting from the main CPU is converted to DC voltage at the D/A converter (IC6501) and applied to the VCA control terminal (IC7201) via the "AFGV" signal line.

The CW side tone/beep tone ("BEEP" signal from the buffer amplifier IC7001, pin 8) and optional synthesized voice ("SPCH" signal from the UT102) are also applied to the VCA circuit.

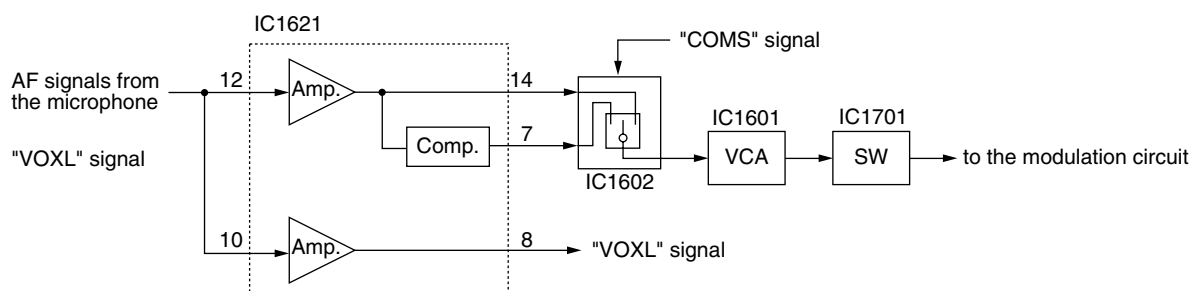
The output AF signals from IC7201 (pin 9) are power-amplified at IC7301 to drive the speaker, and are then applied to the speaker (CHASSIS unit; SP1) via J7372.

3-2 TRANSMITTER CIRCUITS

3-2-1 MICROPHONE AMPLIFIER CIRCUIT (MAIN UNIT)

The microphone amplifier circuit amplifies microphone input signals and outputs the amplified signals to the balanced modulator or FM modulation circuit.

• MICROPHONE AMPLIFIER CIRCUIT



Audio signals from the front or rear panel [MIC] connector enter the microphone amplifier IC (IC1621, pin 12) and are then amplified at the microphone amplifier or speech compressor section via the R1621.

The amplified or compressed signals are applied to the VCA section of IC1601. The microphone gain setting from the D/A converter (IC6501, pin 11) is applied to the VCA control terminal (IC1601, pin 8). The resulting signals from pin 9 are then applied to the buffer amplifier (Q1721) via the analog switch (IC1701). External modulation input from the [ACC] socket (J6951, pin 11) is also applied to Q1721.

While in SSB mode, the amplified signals from the buffer amplifier (Q1721) are passed through the AF selector switch (IC1751) and are then applied to the balanced modulator (IC1801).

While in AM/FM mode, the amplified signals from the buffer amplifier (Q1721) are applied to the IDC amplifier (IC2201). The signals are then applied to the AF selector switch (IC1751) via the AM depth controller (R2618) in AM mode or to the varactor diode (D9622) via the FM max deviation controller (R2621) and AF selector switch (IC2651) in FM mode.

3-2-2 VOX CIRCUIT (MAIN UNIT)

The VOX (Voice-Operated-Transmission) circuit sets transmitting conditions according to voice input.

When the VOX function is activated, the microphone signals are amplified at microphone amplifier (IC1621, pin 10), and are then applied to the VOX comparator section in the main CPU (IC5901, pin 93) via the "VOXL" line.

A portion of the power amplified AF signals from the AF power amplifier (IC7301) are amplified at the buffer amplifier (IC7001, pin 13) and applied to the anti-VOX comparator section in the main CPU (IC5901, pin 92) via the "AVXL" line.

Then the main CPU compares these and controls the transmitter circuit.

3-2-3 BALANCED MODULATOR (MAIN UNIT)

The balanced modulator converts the AF signals from the microphone amplifier to a 9 MHz IF signal with a BFO (Beat Frequency Oscillator) signal.

Microphone signals from the AF selector switch (IC1751) are applied to the balanced modulator (IC1801, pin 3). The BFO signal is applied to IC1801 (pin 1) as a carrier signal.

IC1801 is a double balanced mixer IC and outputs a double side band (DSB) signal with -40 dB of carrier suppression. R1803 and R1807 adjust the balanced level of IC1801 for maximum carrier suppression. The resulting signal passes through a 9 MHz IF filter (F11301 in SSB/CW/RTTY modes) to suppress unwanted side-band signals.

In AM mode, R1811 is connected to upset the balance of IC1801 via Q1803 for leaking the BFO signal as a carrier signal. The CW keying/RTTY TX signal is applied to IC1801 pin 3.

3-2-4 FM MODULATION CIRCUIT (MAIN UNIT)

The microphone signals from Q1721 are applied to the IDC amplifier (IC2201, pin 5). The sub-audible tone signal (67.0-254.1 Hz) from the main CPU (IC5901, pin 2) is also applied to the same amplifier (IC2201, pin 2) for repeater use.

The resulting signals are applied to the VCO circuit (Q9621, D9621) via IC2651 to change the reactance of the varactor diode (D9622) for FM modulation. The modulated signal is amplified at the buffer amplifier (Q9651).

3-2-5 TRANSMITTER IF CIRCUIT (MAIN UNIT)

The 9 MHz IF signal from the modulation circuit passes through the 9 MHz IF filter (F11301 in SSB/CW/RTTY modes; F11341 in AM/FM-N modes; through in FM mode). The signal is amplified at Q1401, and then passes through the crystal filter (F11501). The signal is then applied to the 2nd mixer (D901).

The signal is mixed with the 2nd LO signal (60 MHz) and converted to a 69 MHz IF signal at the 2nd mixer (D901). The 69 MHz IF signal passes through a bandpass filter (F1851), IF amplifier (Q831), and is then converted to the displayed frequency at the 1st mixer (D701) with the 1st LO signal. The mixers (D701) and bandpass filter (F1851) are used commonly for both receiving and transmitting.

3-2-6 RF CIRCUIT (MAIN AND PA UNITS)

The RF circuit amplifies the displayed frequency signal to obtain 10 W of RF output power for HF/50 MHz bands.

The HF/50 MHz RF signals from the 1st mixer (D701) via the low-pass filter pass through one of 8 high-pass filters (Refer to page 3-1 for used RF high-pass filter). The 50 MHz RF signals pass through a low-pass filter additionally. The filtered signals pass through the low-pass filter (except 50 MHz), are then amplified at the YGR amplifier (IC101) after being passed through the high-pass filter to cut the unwanted signal below 1.6 MHz, and are then applied to the PA unit.

The signals from IC101 enter the PA unit and is amplified at the pre drive and power amplifiers (Q101, Q150, Q200 and Q201) to obtain a stable 10 W of RF output power in sequence. The amplified signals are applied to the band switch (RL250).

The power-amplified signals from the band switch (RL250) are then applied to the [ANT] connector via one of the 7 low-pass filters.

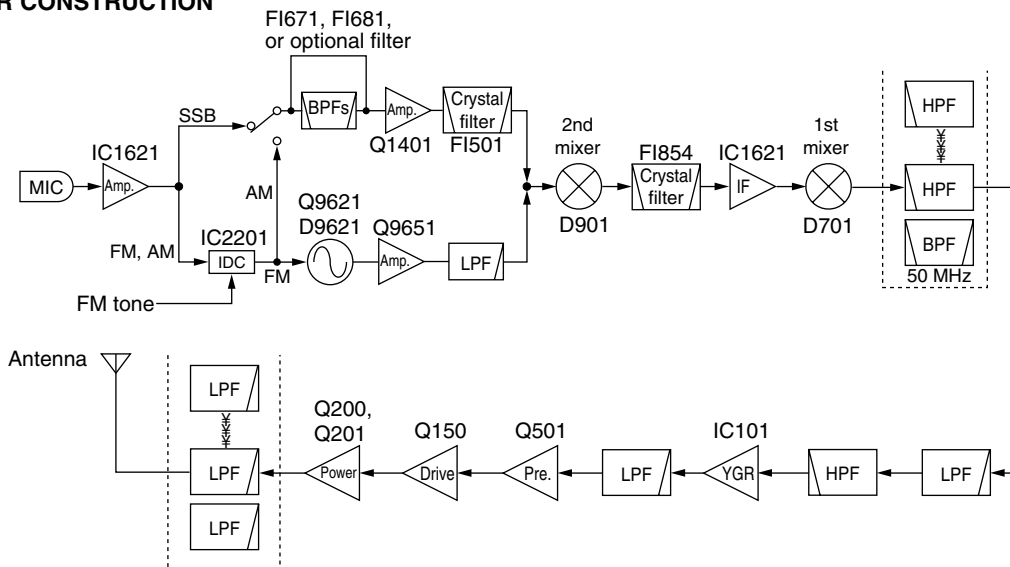
3-2-7 ALC CIRCUIT (PA AND MAIN UNITS)

The ALC (Automatic Level Control) circuit reduces the gain of IF amplifiers in order for the transceiver to output a constant RF power set by the RF power setting even when the supplied voltage shifts, etc.

The HF/50 MHz RF power signal level is detected at the power detector (D562, D563), buffer-amplified at IC560 and applied to the MAIN unit as the "FORL" voltage.

The "FORL" voltage is applied to the ALC amplifier (MAIN unit; IC2701, pin 2). The "POCV" voltage from the D/A converter (MAIN unit; IC6501, pin 23), determined by the RF power setting, is applied to the same amplifier (MAIN unit; IC2701, pin 3) as the reference voltage.

• TRANSMITTER CONSTRUCTION



When the "FORL" voltage exceeds the "POCV" voltage, ALC bias voltage from IC2701 (pin 1) controls 1st and 2nd IF amplifiers (Q831, Q1401). This adjusts the output power to the level determined by the RF power setting until the "FORL" and "POCV" voltages are equalized.

In AM mode, IC2701 operates as an averaging ALC amplifier with Q2703. Q2703 turns ON and the "POCV" voltage is shifted for 4 W AM output power.

The ALC bias voltage from IC2701 is also applied to the main CPU (IC5901) via the A/D converter (IC5601) as the "ALCL" voltage for ALC meter indication.

An external ALC input (minus voltage) from the [ACC] socket (pin 6) is shifted to plus voltage at D2781 and is applied to the buffer amplifier (Q2781). External ALC operation is identical to that of the internal ALC.

3-2-8 APC CIRCUIT (MAIN UNIT)

The APC (Automatic Power Control) circuit protects the power amplifiers on the PA unit from high SWR and excessive current for the HF/50 MHz band.

The reflected wave signal appears and increases on the antenna connector when the antenna is mismatched. The HF/50 MHz reflected signal level is detected at D561 (PA unit), and is amplified at the APC amplifier (IC2701) and applied to the ALC circuit as the reference voltage.

For the current APC, the driving current at the power amplifier is detected in the voltages ("IDH" and "IDL") which appear at both terminals of a 0.012 Ω resistor (R216) on the PA unit. The detected voltages are applied to the differential amplifier (IC2701, pins 9, 10). When the current of the power amplifier exceeds allowed current, IC2701 controls the ALC line via IC2701 to prevent excessive current flow.

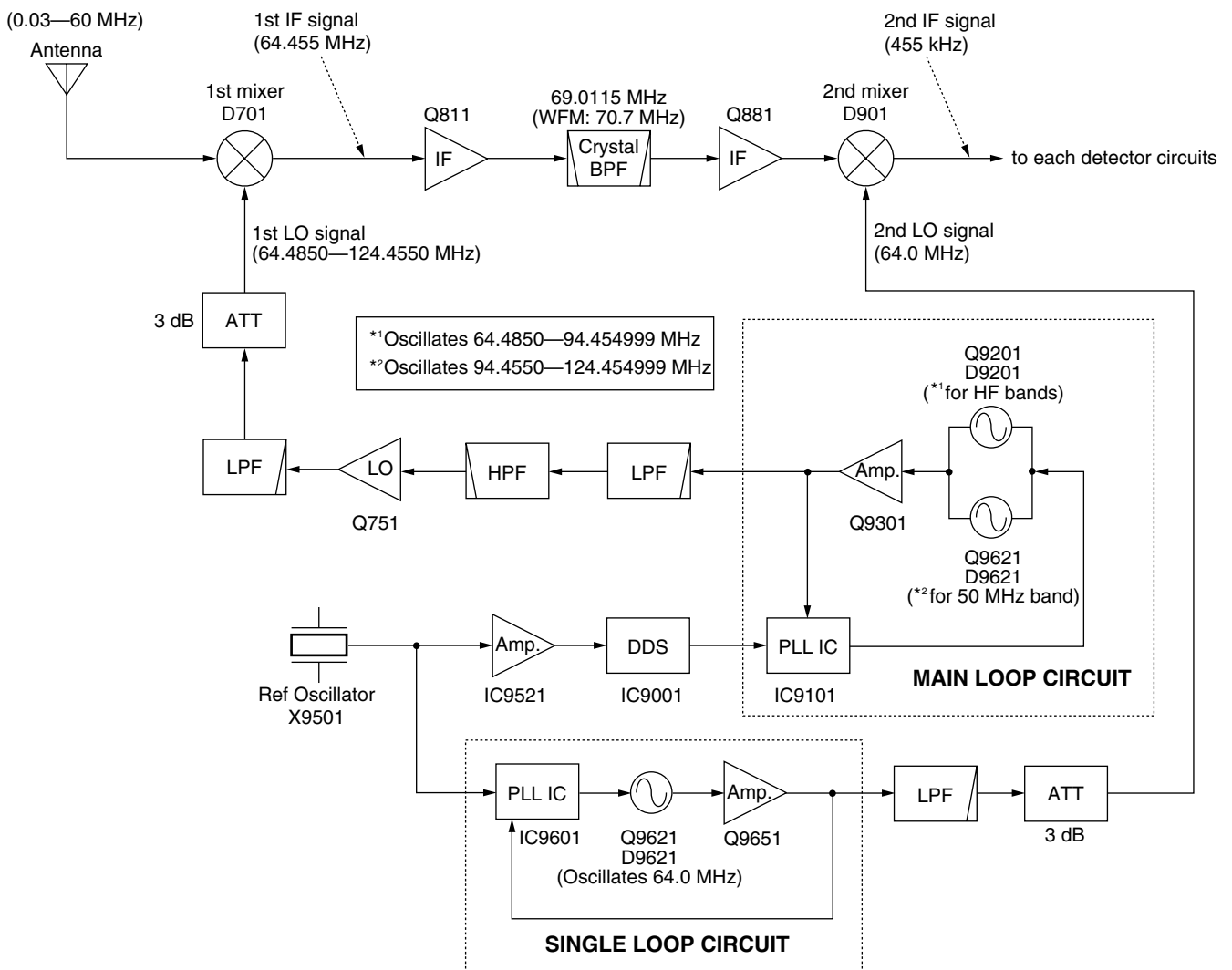
3-2-9 RF, ALC, SWR METER CIRCUITS (MAIN UNIT)

While transmitting, RF, ALC or SWR meter readings are available and can be selected with the [MET] switch.

(1) Power meter

The "FORL" voltage is applied to the main CPU (IC5901) via the A/D converter (IC5601, pin 12) for indicating the output power.

• FREQUENCY CONSTRUCTION



(2) ALC meter

The ALC bias voltage from IC2701 pin 14 is applied to the main CPU (IC5901) via the "ALCV" signal line for indicating the ALC level.

(3) SWR meter

The "FORL" and "REFL" voltages are applied to the main CPU (IC5901) via the A/D converter (IC5601, pins 12 and 1) respectively. The main CPU compares the ratio of "FORV" to "REFV" voltage and indicates the SWR for the [ANT] connector.

3-3 PLL CIRCUITS

3-3-1 GENERAL

The PLL circuits generate a 1st LO frequency (64.485–124.455 MHz), a 2nd LO frequency (64 MHz), a BFO frequency (455 kHz).

The 1st LO PLL circuit adopts a mixer-less dual loop PLL system and has 2 VCO circuits. The BFO uses a DDS and the 2nd LO uses a 64 MHz fixed frequency.

3-3-2 1ST LO PLL CIRCUIT (MAIN UNIT)

The 1st LO PLL contains a main loop and reference loop forming a dual loop system.

The reference loop generates a 6.5 MHz frequency using a DDS circuit, and the main loop generates a 64.485 to 124.455 MHz frequency using the reference loop frequency.

(1) REFERENCE LOOP PLL

The oscillated signal at the reference passes through the low-pass filter (L9521, L9523, C9521–C9526), and is then amplified at the amplifier (IC9521). The amplified signal is applied to the DDS IC (IC9001, pin 5) via the low-pass filters (L9524, L9525, C9528–C9530, L9021, L9022, C9023–C9025). The signal is then divided and detected on phase with the DDS generated frequency.

The detected signals output from IC9001 (pin 10) are amplified at the buffer amplifier (Q9051), and then pass through the band-pass filter (L9051–L9053, C9053–C9056) to suppress spurious components. The signal is applied to the PLL IC (IC9101, pin 1) as PLL lock voltage.

(2) MAIN LOOP PLL

The oscillated signal at one of the main loop VCOs (HF: Q9201, 50 MHz; Q9251) is amplified at the buffer amplifier (Q9301) and is then applied to the PLL IC (IC9101, pin 4). The signal is then divided and detected on phase with the reference loop output frequency.

The detected signal output from the PLL IC (IC9101, pin 13) is converted into a DC voltage (lock voltage) at the active loop filter and then fed back to one of the varactor diodes (D9201, D9251) in the VCO circuits

The oscillated signal passes through a low-pass and high-pass filters, and is then applied to the 1st mixer (D701) as a 1st LO signal.

3-3-3 2ND LO AND REFERENCE OSCILLATOR CIRCUITS (MAIN UNIT)

The reference oscillator (IC9601, Q9621, X9501) generates a 64 MHz frequency used for the 2nd LO signal.

The oscillated signal is amplified at the buffer amplifier (Q9651), and is then passed through the low-pass filter (L9672, C9673, C9675) to suppress the high harmonics components. The filtered 64 MHz signal is applied to the 2nd mixer (D901) via the 3 dB attenuator (R9672–R9674) as a 2nd LO signal.

3-3-4 BFO CIRCUIT (MAIN UNIT)

The DDS IC (IC9701) generates a 455 kHz BFO signal. The signal is passed through the low-pass filter (L9751, C9753, C9754, C9756) to suppress high harmonics components. The 455 kHz BFO signal is then applied to the SSB detector (IC1901, pin 3) and SSB modulator (IC1801, pin 1) via the "BFO" signal line.

While transmitting in RTTY mode, the RTTY keying signal is applied to IC9701 to shift the generated frequency and to obtain 2 frequencies for FSK operation.

CW receiving pitch control, RTTY receiving tone, RTTY transmitting mark are controlled by changing BFO frequency.

3-4 ANTENNA TUNER CIRCUITS

3-4-1 ANTENNA MATCHING NETWORK CIRCUIT (PA UNIT)

The antenna tuner circuit consists of the antenna matching network circuit, SWR detector circuit, impedance detector circuit, phase detector circuit, etc.

When antenna tuning is ON, the antenna matching network circuit switches ON via the RL640 and RL641.

The attenuator's impedance is set to 50 Ω which is same as power amplifier's output impedance. The attenuator's input impedance is about SWR 1, however its output impedance changes variably. Therefore, attenuator's output impedance is matched to the antenna to become about SWR 1, then impedance matching is depended on input impedance. The antenna matching network circuit switches OFF via the RL640 and RL641 when the impedance is matched between the output impedance and antenna.

The antenna matching network circuit is composed between RL640 and RL641. Therefore, each detecting circuits work when antenna tuning is ON only. Thus, there isn't influence about loss of each detecting circuits when antenna tuning is OFF. In addition, the output power from the power amplifier (Q200, Q201) is applied to this circuit as low power via the attenuator. Therefore, the output power doesn't effect to interference while impedance tuning.

3-4-2 OUTPUT POWER DETECTING CIRCUIT (PA UNIT)

The output power from the power amplifier (Q200, Q201) is divided at the C640 and C641. The divided voltage is applied to the power detecting circuit (D640) as detecting voltage. The detected voltage is applied to the main CPU (MAIN unit; IC5901) via the A/D convertor (MAIN unit; IC5601) as "TPZL" signal after being passed through the switch circuit (IC641, Q646).

3-4-3 IMPEDANCE DETECTING CIRCUIT (PA UNIT)

The output power from the power amplifier (Q200, Q201) is applied to the RL640. The signal is applied to the power detector (D640), and is then applied to the main CPU (MAIN unit; IC5901) as the reference voltage. The voltage is also used for power detecting voltage when the antenna tuning is ON.

The attenuator's output voltage is depended on the condition between power amplifier's output impedance and the antenna (For example, the voltage becomes high when the impedance is high, the vorage becomes low when the impedance is low). The voltage is amplified at the Q641, and is then detected at the impedance detector (D646). The signal is applied to the main CPU (MAIN unit; IC5901) to analyze whether the impedance is more than 1.1 or not.

3-4-4 PHASE DETECTING CIRCUIT (PA UNIT)

The phase detecting circuit is composed D643, L640 and L641.

The input side signal passes through the C646 to shift the phase for +90 degrees. The signal is applied to the phase detecting circuit (L640).

The output side signal is applied to the amplifiers (Q643, Q811). The amplified signal is applied to the phase detecting circuit (L641).

The detected signal is applied to the comparator circuit (IC640, pin 2), and is then applied to the main CPU (MAIN unit; IC5901, pin 75) via the "TPHK" signal.

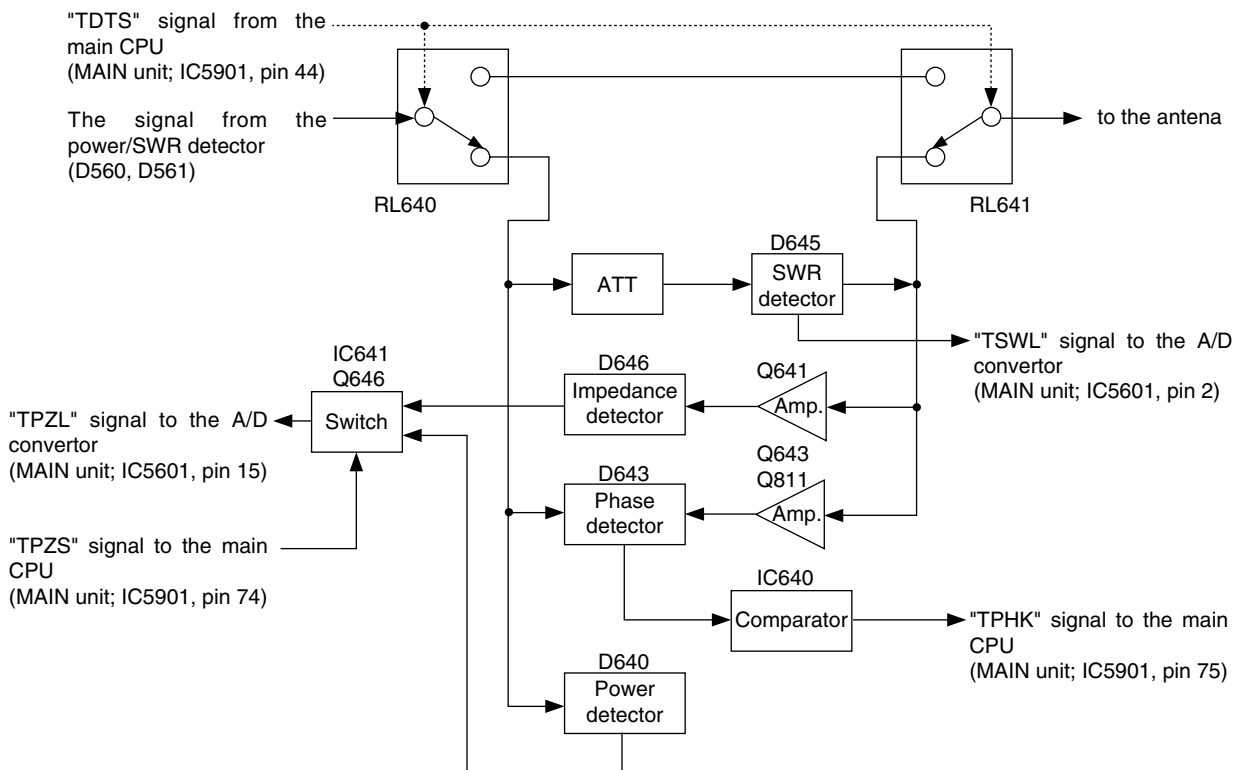
3-4-5 SWR DETECTING CIRCUIT (PA UNIT)

The SWR detecting circuit employs return loss bridge circuit (L642, R662-R665) which is also composed as 6 dB attenuator (input-output impedance is 50 Ω).

The output power from the power amplifier (Q200, Q201) passes through the attenuator, and is then applied to the SWR detecting circuit (D645). The signal is applied to the main CPU (MAIN unit; IC5901) via the A/D convertor (MAIN unit; IC5601) as "TSWL" signal.

The main CPU is analyzed SWR to use the "TSWL" signal from the SWL detecting circuit and "TPZL" signal from the power detecting circuit.

• ANTENNA TUNER CONSTRUCTION



3-5 POWER SUPPLY CIRCUITS

3-5-1 VOLTAGE LINES (MAIN UNIT)

Line	Description
H3V	Common 3 V converted from the HV line by the +3 regulator circuit (IC9901).
3V	Common 3 V converted from the 14V line by the +3 regulator circuit (IC9921).
5V	Common 5 V converted from the 14V line by the +5 regulator circuit (IC9941).
P5V	The same voltage as the 5V line which is controlled by the switching circuit (Q9964, Q9966). The circuit is controlled by the "PSS" signal from the CPU (IC5901, pin 90).
8V	Common 8 V converted from the 14V line by the +8 regulator circuit (IC9961).
P8V	The same voltage as the 8V line which is controlled by the switching circuit (Q9963, Q9965). The circuit is controlled by the "PSS" signal from the CPU (IC5901, pin 90).
R8V	Receive 8 V which is the same voltage as the 8V line controlled by the switching circuit (Q6322, Q6323) using the "RXS" signal from the CPU (IC5901, pin 36).
T8V	Transmit 8 V which is the same voltage as the 8V line controlled by the switching circuit (Q6342, Q6343) using the "TXS" signal from the CPU (IC5901, pin 35).

3-5-2 PA UNIT VOLTAGE LINES

Line	Description
HV	The voltage from a DC power supply.
14V	The same voltage as the HV line which is controlled by the power switching circuit (Q80, Q81). When the [POWER] switch is pushed, the CPU outputs the "POWS" control signal to the power switching circuit to turn the circuit ON.

3-5-3 VOLTAGE LINES (DISPLAY BOARD)

Line	Description
8V	Common 8 V line from the +8 regulator circuit (MAIN unit; IC9961). The voltage is applied to the microphone via the J1, pin 1.
5V	Common 5 V converted from the 5V line by the +5 regulator circuit (IC5, Q10, Q11, D9). The output voltage is applied to the SUB-CPU (IC6), LCD driver (IC2), etc.

3-6 CPU PORT ALLOCATIONS

3-6-1 MAIN CPU PORT ALLOCATIONS (MAIN UNIT; IC5901)

Pin number	Port name	Description
1	BEEP	Outputs beep audio and CW side tone signals.
2	TONE	Outputs CTCSS tone signal.
3	PDT	Outputs the serial data to the PLL IC (IC9601).
4	SNDK	Input port for transmitting signals from the microphone or ACC connector.
5	PCK	Outputs the serial clock to the PLL IC (IC9601).
8	2NOP	Outputs control signal for the optional 2nd IF filter. High : While the filter is selected.
9	2NTH	Outputs control signal for the 2nd IF filter. High : While the filter is bypassed.
16	TGK	Input port for the shock detecting signal.
18	PWRK	Input port for the [POWER] switch on the front panel. Low : While the [POWER] is pushed.
19	2N80	Outputs control signal for the 2nd IF filter. High : While the 8 kHz filter is ON.
20	2N23	Outputs control signal for the 2nd IF filter. High : While the 2.3 kHz filter is ON.
21	UNLK	Input port for the PLL unlock signal. Low : While the PLL is unlocked.
22	TDAT	Outputs tuner data signal.
23	KDS	Outputs CW key down signal. High : While transmitting on CW or RTTY modes.
25	MINH	Output SSB modulation prohibitive signal. High : While transmitting on CW, FM or RTTY modes.
26	DPTK	Input port for the PTT signal from the data terminal (J6851, pin 3). High : While data are transmitting.
27	LRXD	Input port for the data signal from the front unit.
28	LTXD	Outputs data signal to the front unit.
31	SLOS	Outputs LO level control signal.
33	CTXD	Outputs CI-V signals.
34	CRXD	Input port for the CI-V signals.
39	P2ST	Outputs strobe signal to the PLL IC (IC9601) for the 2nd LO signal.

(MAIN unit; IC5901)–Continued

Pin number	Port name	Description
40	SBST	Outputs strobe signal to the BFO's DDS IC (IC9701).
41	PDST	Outputs strobe signal to the DDS IC (IC9001) for main loop.
42	PMST	Outputs strobe signal to the PLL IC (IC9101) for main loop.
43	DSTB	Outputs strobe signal to the D/A converter (IC6501).
46	FSKK	Input port for the RTTY keying signal. High : While marking. Low : While spacing.
47	AGFS	Outputs AGC first control signal. Low : While AGC first is ON.
49	FMS	Outputs FM mode select signal. High : While FM or FM-N is selected.
50	ANS	Outputs AM mode select signal. High : While AM or AM-N is selected.
51	NBS	Outputs noise blanker control signal. High : While noise blanker is ON.
52	AFS2	Outputs detecting output select signal. High : While AM or AM-N is selected.
53	AFS1	Outputs detecting output select signal. High : While FM or FM-N is selected.
55	ATTS	Outputs attenuator control signal. High : While attenuator is ON.
56	PROS	Outputs the pre-amplifier ON/OFF control signal. High : While the pre-amplifier is OFF.
57	PRES	Outputs the pre-amplifier ON/OFF control signal. High : While the pre-amplifier is ON.
58	COMS	Outputs the speech compressor control signal. High : While the speech compressor is ON.
59	D96S	Outputs 9600 bps packet mode control signal. High : While 9600bps packet mode is ON.
61	DSPS	Outputs optional DSP unit control signal. High : While the DSP unit is ON.
65	ECK	Outputs the EEPROM clock signal.
66	EDT	I/O port for the EEPROM data signal.
67	DRES	Outputs reset signal.
72	DASK	Input port for the external paddle dash signal.
73	DOTK	Input port for the external paddle dot signal.
80	AFMS	Outputs AF mute control signal. Low : While AF is muting.

(MAIN unit; IC5901)–Continued

Pin number	Port name	Description
85	SPS	Outputs the speaker switching signal. High : The speaker is ON.
89	VCCL	Input port for supplied voltage detecting signal.
90	PSS	Outputs power save control signal. Low : While power save is ON.
91	MUDL	Input port for the microphone [UP]/[DWON] signal from the rear panel.
95	CTCL	Input port for the CTCSS signal.
98	MSTB	Outputs strobe signal to the expander IC (IC6101, pin 1).
99	MDT	Outputs serial data to the D/A converter (IC6501, pin 8) and expander IC (PA unit; IC600, pin 8).
100	MCK	Outputs serial clock to the D/A converter (IC6501, pin 7) and expander IC (PA unit; IC600, pin 7).

**3-6-2 SUB CPU PORT ALLOCATIONS
(DISPLAY BOARD; IC6)**

Pin number	Port name	Description												
2 3	KL1S KL2S	Output key backlight control signals. <table border="1"> <thead> <tr> <th>KL1S</th> <th>KL2S</th> <th>Lights</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>Low</td> <td>OFF</td> </tr> <tr> <td>High</td> <td>Low</td> <td>Low</td> </tr> <tr> <td>High</td> <td>High</td> <td>High</td> </tr> </tbody> </table>	KL1S	KL2S	Lights	Low	Low	OFF	High	Low	Low	High	High	High
KL1S	KL2S	Lights												
Low	Low	OFF												
High	Low	Low												
High	High	High												
4	PHNK	Input port for the phone plug insert detecting signal. High : While the phone plug is inserted.												
5	RSK	Input port for the [RIT/SUB] key.												
6	MDAK	Input port for the main dial's A phase signal.												
7	MDBK	Input port for the main dial's B phase signal.												
8	SDAK	Input port for the sub dial's A phase signal.												
16	PRED	Outputs the "P.AMP" LED control signal.												
17	ATTD	Outputs the "ATT" LED control signal.												
18	TUND	Outputs the "TUNER" LED control signal.												
19	RITD	Outputs the "RIT" LED control signal.												
20	LCKD	Outputs the "LOCK" LED control signal.												
21	RXD	Outputs the "RX" LED control signal.												
22	TXD	Outputs the "TX" LED control signal.												
24 25	BL1S BL2S	Output the LCD backlight control signals. <table border="1"> <thead> <tr> <th>BL1S</th> <th>BL2S</th> <th>Lights</th> </tr> </thead> <tbody> <tr> <td>Low</td> <td>Low</td> <td>OFF</td> </tr> <tr> <td>High</td> <td>Low</td> <td>Low</td> </tr> <tr> <td>High</td> <td>High</td> <td>High</td> </tr> </tbody> </table>	BL1S	BL2S	Lights	Low	Low	OFF	High	Low	Low	High	High	High
BL1S	BL2S	Lights												
Low	Low	OFF												
High	Low	Low												
High	High	High												
26	SUBD	Outputs sub-dial's LED control signal.												
29 30 31	WR RD A0	Output the LCD driver (IC2) control signals.												
39-42	COM4- COM1	Output LCD common signals.												
44-50	DB7- DB0	I/O port for LCD driver's data signals.												
51-82	SEG1- SEG32	Output LCD segment signals.												
83	LRRES	Outputs the LCD driver reset signal. Low : While the LCD driver is reset.												
84	LRXD	Input port for the communicating signal with the main unit.												

(DISPLAY BOARD; IC6)–Continued

Pin number	Port name	Description
85	LTXD	Outputs the communicating signal with the main unit.
86	SDBK	Input port for the sub-dial's B phase signal.
88	PRAK/ TUNK	Input port for [P.AMP/ATT] and [TUNER/CALL] keys.
89	MENK/ F1K	Input port for [MENU] and [F-1] keys.
90	F2K/F3K	Input port for [F-2] and [F-3] keys.
91	DISK/ LCKK	Input port for [DISPLAY] and [LOCK] keys.
92	MODK/ TSK	Input port for [MODE] and [TS] keys.
93	BUPK/ BDNK	Input port for [BAND UP] and [BAND DN] keys.
94	PTTL	Input port for the microphone PTT signal.
95	FUDL	Input port for the microphone UP/DOWN signal.
96	AFGL	Input port for the AF volume control signal.
97	SQLL	Input port for the RS/SQL volume control signal.
99	SFTL	input port for the SHIFT volume control signal.

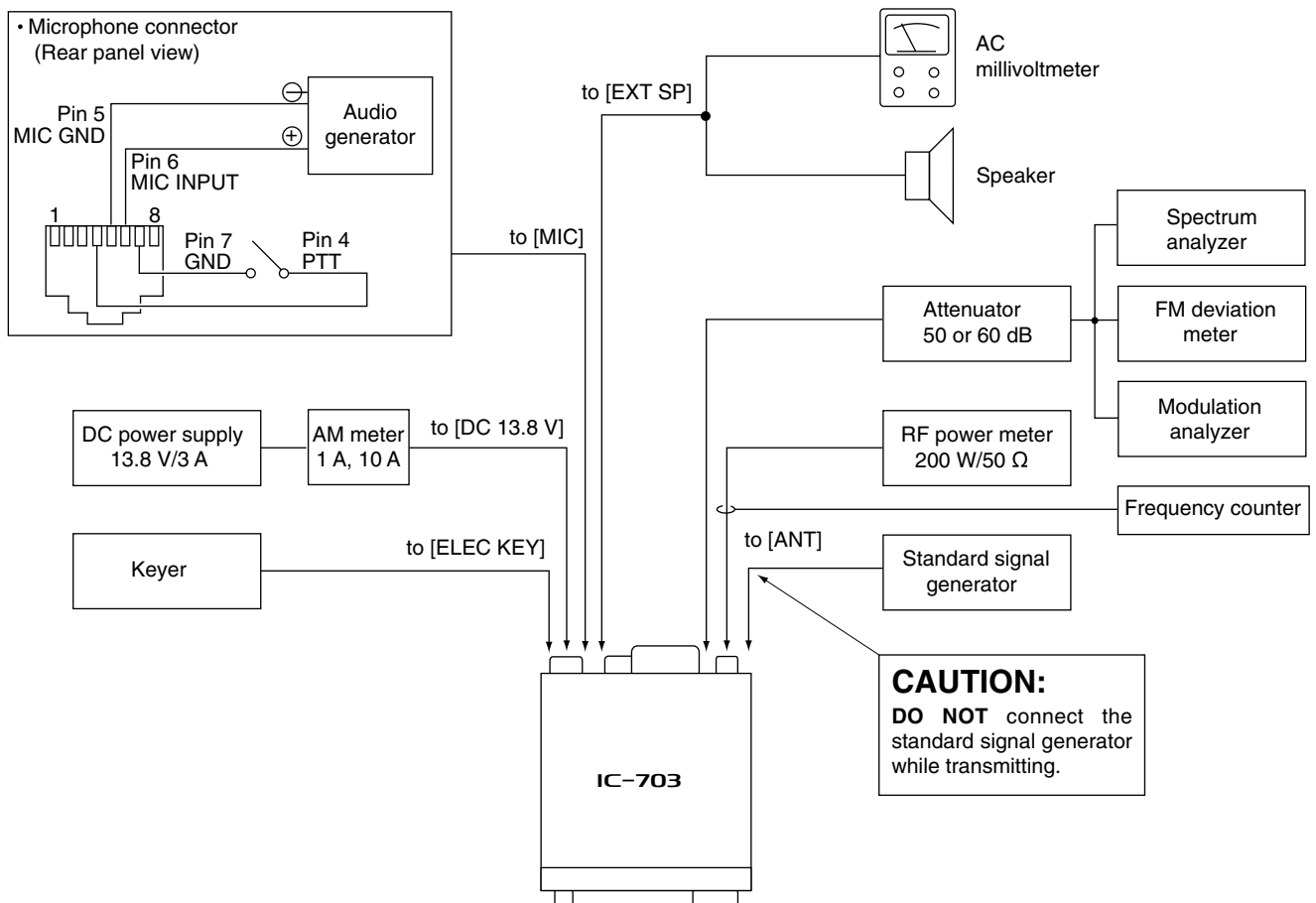
SECTION 4 ADJUSTMENT PROCEDURES

4-1 PREPARATION BEFORE SERVICING

■ REQUIRED TEST EQUIPMENT

EQUIPMENT	GREDE AND RANGE	EQUIPMENT	GREDE AND RENGE
DC power supply	Output voltage : 13.8 V DC Current capacity : 5 A or more	Distortion meter	Frequency range : 1 kHz \pm 10 % Measuring range : 1–100 %
RF power meter (terminated type)	Measuring range : 0.1–50 W Frequency range : 1.8–100 MHz Impedance : 50 Ω SWR : Less than 1.2 : 1	Oscilloscope	Frequency range : DC–100 MHz Measuring range : 0.01–10 V
Frequency counter	Frequency range : 0.1–100 MHz Frequency accuracy : \pm 1 ppm or better Sensitivity : 100 mV or better	Digital multimeter	Input impeadance : 10 M Ω /DC or beter
RF voltmeter	Frequency range : 0.1–100 MHz Measuring range : 0.01–10 V	AC millivoltmeter	Measuring range : 10 mV–10 V
Standard signal generator (SSG)	Frequency range : 0.1–100 MHz Output level : 0.1 μ V–32 mV (–127 to –17 dBm)	DC voltmeter	Input impedance : 50 k Ω /V DC or better
FM deviation meter	Frequency range : 0–100 MHz Measuring range : 0 to \pm 5 kHz	DC ammeter	Measurement capability: 1 A/50 A
Modulation analyzer	Frequency range : At least 100 MHz Measuring range : 0–100 %	Audio generator	Frequency range : 300–3000 Hz Measuring range : 1–500 mV
		Spectram analyzer	Frequency range : At least 1000 MHz Spectraum bandwidth : 100 kHz or more
		Attenuator	Power attenuation : 50 or 60 dB Capacity : 150 W or more
		External speaker	Input impedance : 8 Ω Capacity : 5 W or more

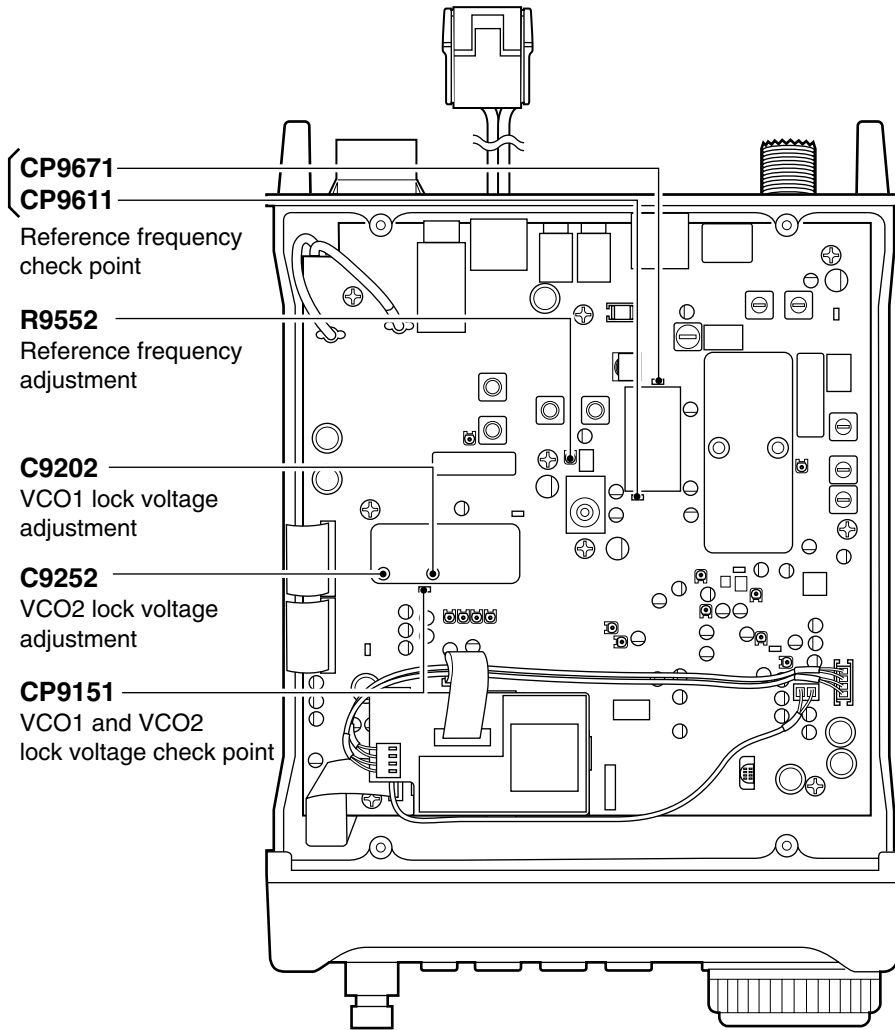
■ CONNECTIONS



4-2 PLL ADJUSTMENTS

ADJUSTMENT		ADJUSTMENT CONDITION	MEASUREMENT		VALUE	ADJUSTMENT POINT	
			UNIT	LOCATION		UNIT	ADJUST
REFERENCE FREQUENCY	1	<ul style="list-style-type: none"> • Display frequency: Any • Receiving 	MAIN	Connect an RF voltmeter to check point CP9611.	1.5–3.5 V	MAIN	Verify
	2			Connect a frequency counter to check point CP9671.			64.000000 MHz	R9552
VCO1 LOCK VOLTAGE	1	<ul style="list-style-type: none"> • Display frequency: 29.99999 MHz • Mode : USB • Receiving 	MAIN	Connect a digital multimeter or oscilloscope to check point CP9151.	4.0 V	MAIN	C9202
VCO2 LOCK VOLTAGE	1	<ul style="list-style-type: none"> • Display frequency: 60.00000 MHz • Mode : USB • Receiving 	MAIN	Connect a digital multimeter or oscilloscope to check point CP9151.	4.0 V	MAIN	C9252

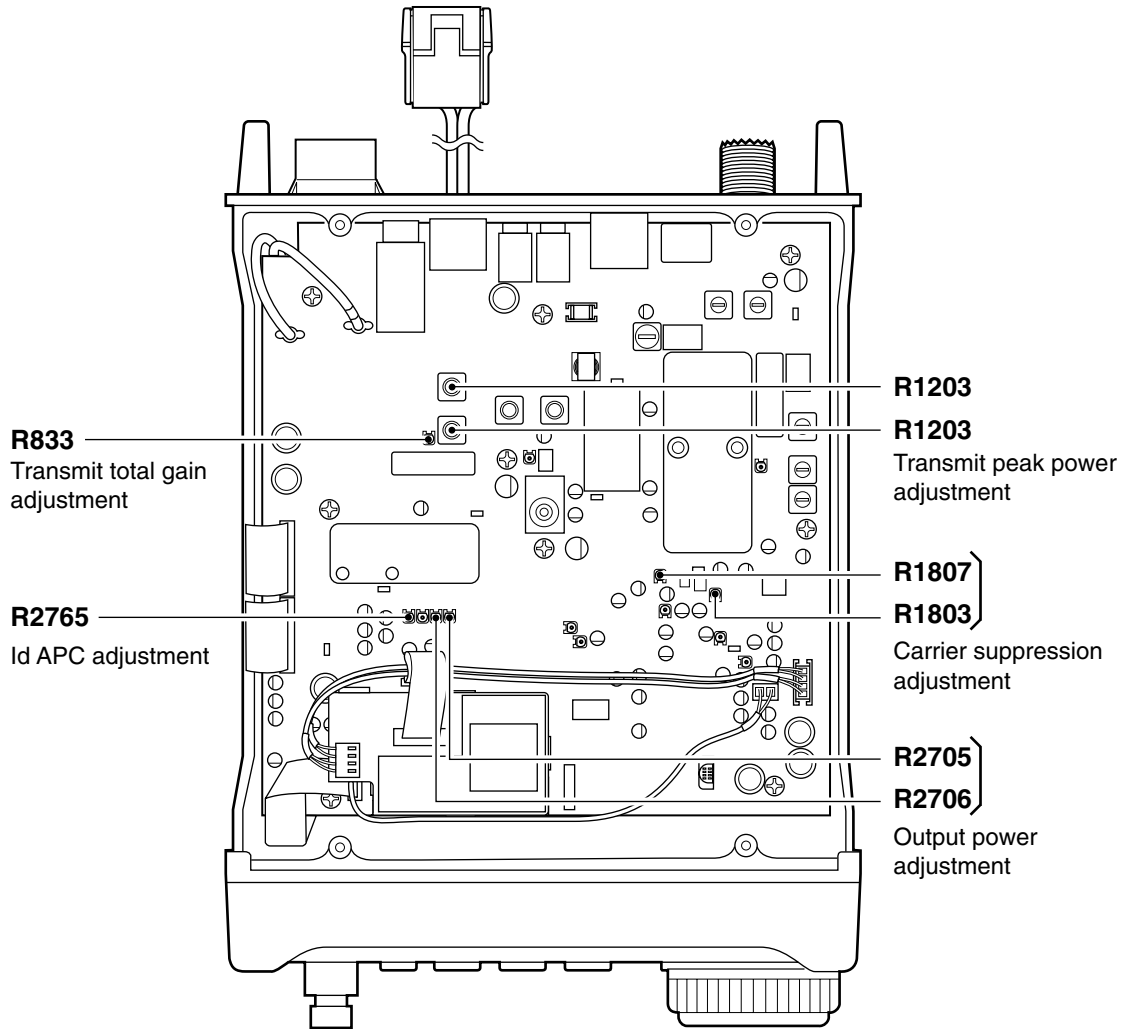
• MAIN UNIT TOP VIEW



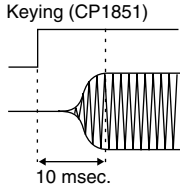
4-3 TRANSMITTER ADJUSTMENTS

ADJUSTMENT	ADJUSTMENT CONDITION	MEASUREMENT		VALUE	ADJUSTMENT POINT	
		UNIT	LOCATION		UNIT	ADJUST
TRANSMIT PEAK POWER	1 <ul style="list-style-type: none"> • Display frequency: 14.10000 MHz • Mode : USB • [RF POWER] : H • [MIC GAIN] : 5 • Pre-set R2765 to 3 o'clock position. • Pre-set R1803, R1807 and R2705 to center position. • Connect an audio generator to [MIC] connector and set as: 1.5 kHz/3 mV • Transmitting 	Rear Panel	Connect an RF power meter to [ANT] connector.	Maximum RF power	MAIN	L831, L832
CARRIER SUPPRESSION	1 <ul style="list-style-type: none"> • Display frequency: 14.10000 MHz • Mode : USB • Apply no signal to [MIC] connector. • Transmitting 	Rear Panel	Connect a spectrum analyzer to [ANT] connector via an attenuator.	NULL point	MAIN	R1803
	2 <ul style="list-style-type: none"> • Transmitting 			Minimum carrier level		R1807
TRANSMIT TOTAL GAIN	1 <ul style="list-style-type: none"> • Display frequency: 14.10000 MHz • Mode : USB • [MIC GAIN] : 5 • Connect an audio generator to [MIC] connector and set as: 1.5 kHz/3 mV • Transmitting 	Rear Panel	Connect an RF power meter to [ANT] connector.	5 W	MAIN	R833
OUTPUT POWER	1 <ul style="list-style-type: none"> • Display frequency: 14.10000 MHz • Mode : USB • [MIC GAIN] : 5 • Connect an audio generator to [MIC] connector and set as: 1.5 kHz/30 mV • Transmitting 	Rear Panel	Connect an RF power meter to [ANT] connector.	9.7 W	MAIN	R2705
	2 <ul style="list-style-type: none"> • Display frequency: 52.00000 MHz • Transmitting 			10 W		R2706
Id APC	1 <ul style="list-style-type: none"> • Pre-set R2765 to 9 o'clock position. • Display frequency: 3.8000 MHz • Mode : LSB • Connect CP2711 to ground. • Connect an audio generator to [MIC] connector and set as: 1.5 kHz/30 mV • Transmitting 	Rear panel	Connect an ammeter between the IC-703 and the power supply.	3.0 A	MAIN	R2765

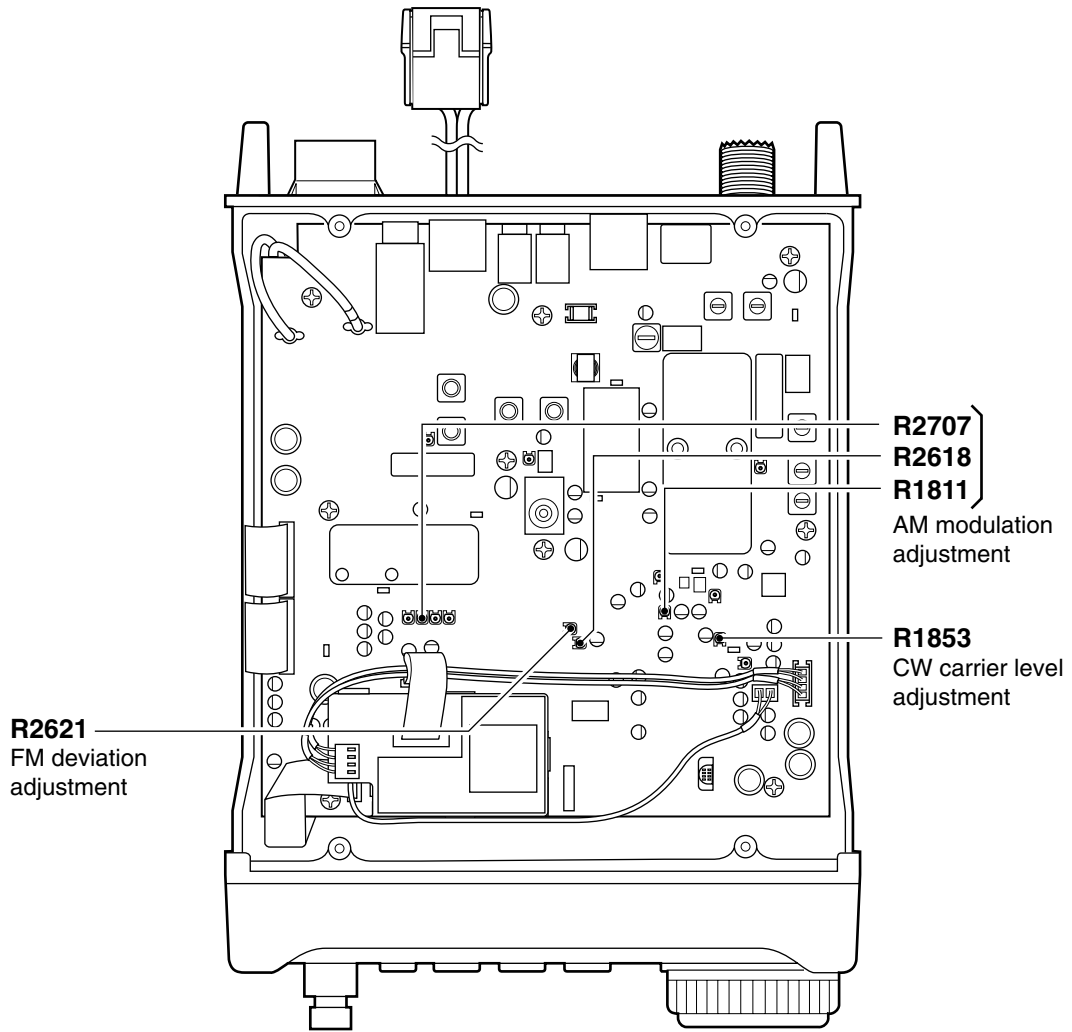
• MAIN UNIT TOP VIEW



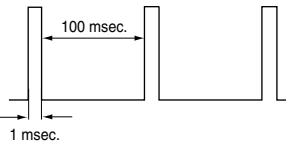
TRANSMITTER ADJUSTMENTS (continued)

ADJUSTMENT	ADJUSTMENT CONDITION	MEASUREMENT		VALUE	ADJUSTMENT POINT	
		UNIT	LOCATION		UNIT	ADJUST
FM DEVIATION	1 <ul style="list-style-type: none"> • Display frequency: 29.10000 MHz • Mode : FM • [RF POWER] : H • [TON] : OFF • [MIC GAIN] : 5 • Connect an audio generator to [MIC] connector and set as: 1 kHz/30 mV • Transmitting 	Rear Panel	Connect an FM deviation meter to [ANT] connector via an attenuator.	±4.5 kHz	MAIN	R2621
AM MODULATION	1 <ul style="list-style-type: none"> • Display frequency: 14.10000 MHz • Mode : AM • [RF POWER] : H • [MIC GAIN] : 5 • Disconnect the plug from J2 on the MAIN unit. • Apply no signal to [MIC] connector. • Transmitting 	MAIN	Connect an oscilloscope to check point CP1302.	400 mVp-p	MAIN	R1811
	2 <ul style="list-style-type: none"> • Connect the plug to J2 on the MAIN unit. • Apply no signal to [MIC] connector. • Transmitting 	Rear Panel	Connect an RF power meter to [ANT] connector.	3.5 W		R2707
	3 <ul style="list-style-type: none"> • Pre-set R2618 to 9 o'clock position. • Connect an audio generator to [MIC] connector and set as: 1 kHz/30 mV • Transmitting 		Connect a modulation analyzer to [ANT] connector via an attenuator.	90 % (-peak) modulation		R2618
CW CARRIER LEVEL	1 <ul style="list-style-type: none"> • Display frequency: 14.10000 MHz • Mode : CW • [RF POWER] : H • [KEY SPEED] : 60 • [BRK] : BK (semi break-in) • CW paddle : n • Connect an RF power meter to [ANT] connector. • Transmit dots for a while using a paddle. 		Connect an oscilloscope to check point CP1851 and [ANT] connector.	At the point where the CW carrier completely comes up in a 10 msec. delay after CP1851 voltage comes up. 	MAIN	R1853

• MAIN UNIT TOP VIEW

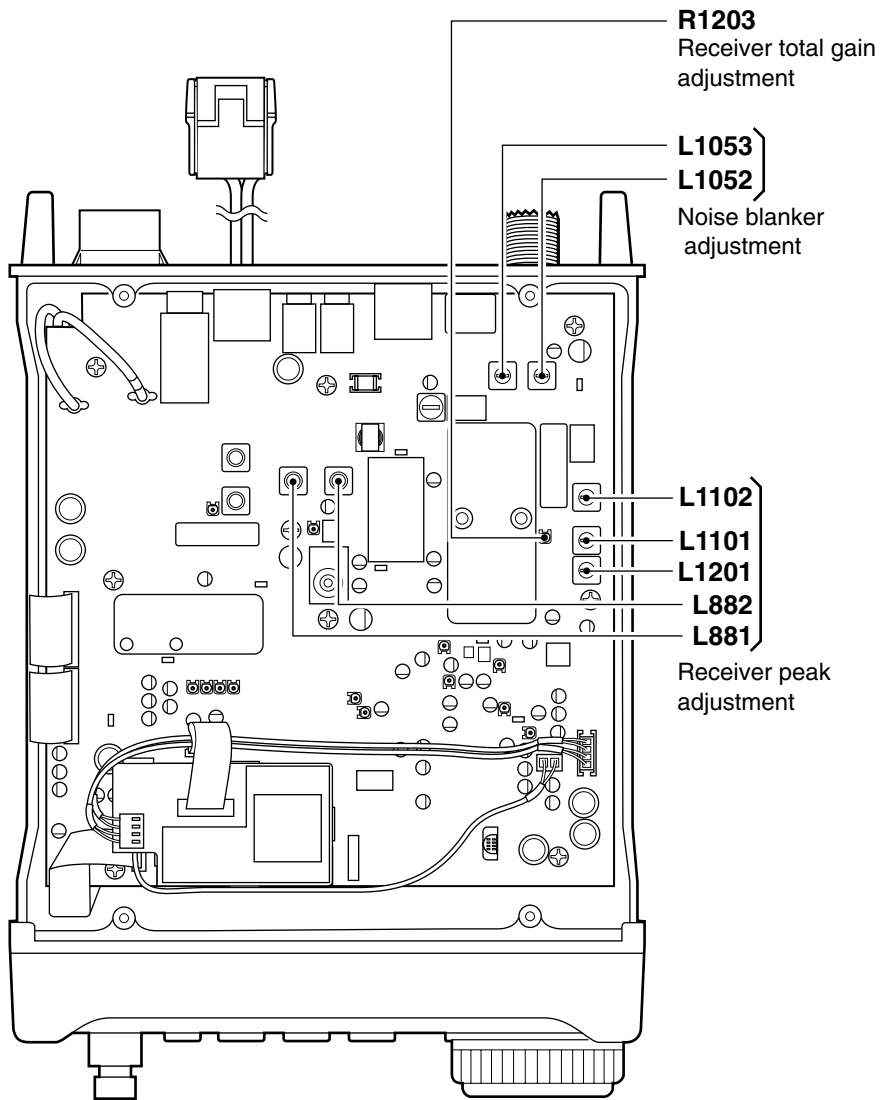


4-4 RECEIVER ADJUSTMENTS

ADJUSTMENT	ADJUSTMENT CONDITION	MEASUREMENT		VALUE	ADJUSTMENT POINT	
		UNIT	LOCATION		UNIT	ADJUST
RECEIVER PEAK	1 <ul style="list-style-type: none"> • Display freq. : 14.15000 MHz • Mode : USB • [RIT] : OFF • [AGC] : Fast (F AGC) • [NB] : OFF • [P.AMP/ATT] : Preamp ON • Connect a standard signal generator to the [ANT] connector and set as: <ul style="list-style-type: none"> Frequency : 14.15150 MHz Level : 0.5 μV* (-113 dBm) Modulation : OFF • Receiving 	Rear Panel	Connect an AC millivoltmeter to the [EXT SP] jack with an 8 Ω dummy load.	Maximum AF output level	MAIN	L881, L882, L1101, L1102, L1201
RECEIVER TOTAL GAIN	1 <ul style="list-style-type: none"> • [P.AMP/ATT] : Preamp OFF • Set an SSG as: <ul style="list-style-type: none"> Frequency : 14.15150 MHz Level : 500 μV* (-53 dBm) and OFF Modulation : OFF • Receiving 	Rear Panel	Connect an AC millivoltmeter to the [EXT SP] jack with a 8 Ω dummy load.	30 dB of AF level difference	MAIN	R1203
NOISE BLANKER	1 <ul style="list-style-type: none"> • Display freq. : 14.15000 MHz • Mode : USB • [P.AMP/ATT] : Preamp ON • [NB] : ON • Connect an SSG to the [ANT] connector and set as: <ul style="list-style-type: none"> Frequency : 14.15150 MHz Level : 18 μV* (-82 dBm) Modulation : OFF and apply the following signal to the [ANT] connector.  <ul style="list-style-type: none"> • Receiving 	MAIN	Connect an oscilloscope to check point CP1001.	Adjust the maximum noise wave displayed on the oscilloscope.	MAIN	L1052, L1053
	2 <ul style="list-style-type: none"> • [NB] : ON • Set an SSG as: <ul style="list-style-type: none"> Level : 10 μV* (-87 dBm) Modulation : OFF • Receiving						At the point where the noise just reduces.	Verify

*This output level of the standard signal generator (SSG) is indicated as SSG's open circuit.





• MAIN UNIT TOP VIEW



4-5 SET MODE ADJUSTMENTS (No.1)

ADJUSTMENT	ADJUSTMENT CONDITION	DISPLAY	OPERATION
ENTERING ADJUSTMENT SET MODE	1 <ul style="list-style-type: none"> Enter adjustment set mode: <ol style="list-style-type: none"> Turn power OFF. Terminate the [REMOTE] jack with a 3.5(d) mm shorten-plug. While pushing [P.AMP/ATT] and [TUNER], turn power ON. 		Push [F-2 (RX)] to enter the S-METER adj. setting mode, [F-3 (TX)] to enter the TX adj. setting mode. Then advance to the following setting, or push [UP]/[DN] to scroll the display.
S-METER	1 <ul style="list-style-type: none"> Connect an SSG to [ANT] connector and set as: <ul style="list-style-type: none"> Frequency : 14.1515 MHz Level : OFF Receiving 		Push [MENU] to set the "S0 level".
	2 <ul style="list-style-type: none"> Set an SSG as : <ul style="list-style-type: none"> Level : 50 μV (-73 dBm) Modulation : OFF Receiving 		Push [MENU] to set the "S9 level".
	3 <ul style="list-style-type: none"> Set an SSG as : <ul style="list-style-type: none"> Level : 32 mV (-17 dBm) Modulation : OFF Receiving 		Push [MENU] to set the "+60 dB level". • The display returns to the same as the ADJUSTMENT SET MODE above.
FILTER CALIBRATION	1 <ul style="list-style-type: none"> Turn power OFF, and then enter the TX adjustment set mode. Connect an RF power meter to [ANT] connector. Connect an audio generator to [MIC] connector and set as: <ul style="list-style-type: none"> 1.5 kHz/3 mV 		Push and hold [MENU (GO)] to make the calibration. • Transceiver transmits for a while.
POWER METER (14 MHz)	1 <ul style="list-style-type: none"> Connect an RF power meter to [ANT] connector. Transmit using an external PTT switch. 		Set to 10 W using [MAIN DIAL], then push [MENU] while transmitting.
	2 <ul style="list-style-type: none"> Transmit using an external PTT switch. 		Set to 5 W using [MAIN DIAL], then push [MENU] while transmitting.
	3 <ul style="list-style-type: none"> Transmit using an external PTT switch. 		Set to 2.5 W using [MAIN DIAL], then push [MENU] while transmitting.
	4 <ul style="list-style-type: none"> Transmit using an external PTT switch. 		Set to 1 W using [MAIN DIAL], then push [MENU] while transmitting.
	5 <ul style="list-style-type: none"> Transmit using an external PTT switch. 		Set to 0.5 W using [MAIN DIAL], then push [MENU] while transmitting.
	6 <ul style="list-style-type: none"> Transmit using an external PTT switch. 		Set to 0.1 W using [MAIN DIAL], then push [MENU] while transmitting.
POWER METER (50 MHz)	1 <ul style="list-style-type: none"> Connect an RF power meter to [ANT] connector. Transmit using an external PTT switch. 		Set to 10 W using [MAIN DIAL], then push [MENU] while transmitting.
	2 <ul style="list-style-type: none"> Transmit using an external PTT switch. 		Set to 5 W using [MAIN DIAL], then push [MENU] while transmitting.
	3 <ul style="list-style-type: none"> Transmit using an external PTT switch. 		Set to 2.5 W using [MAIN DIAL], then push [MENU] while transmitting.
	4 <ul style="list-style-type: none"> Transmit using an external PTT switch. 		Set to 1 W using [MAIN DIAL], then push [MENU] while transmitting.
	5 <ul style="list-style-type: none"> Transmit using an external PTT switch. 		Set to 0.5 W using [MAIN DIAL], then push [MENU] while transmitting.
	6 <ul style="list-style-type: none"> Transmit using an external PTT switch. 		Set to 0.1 W using [MAIN DIAL], then push [MENU] while transmitting.

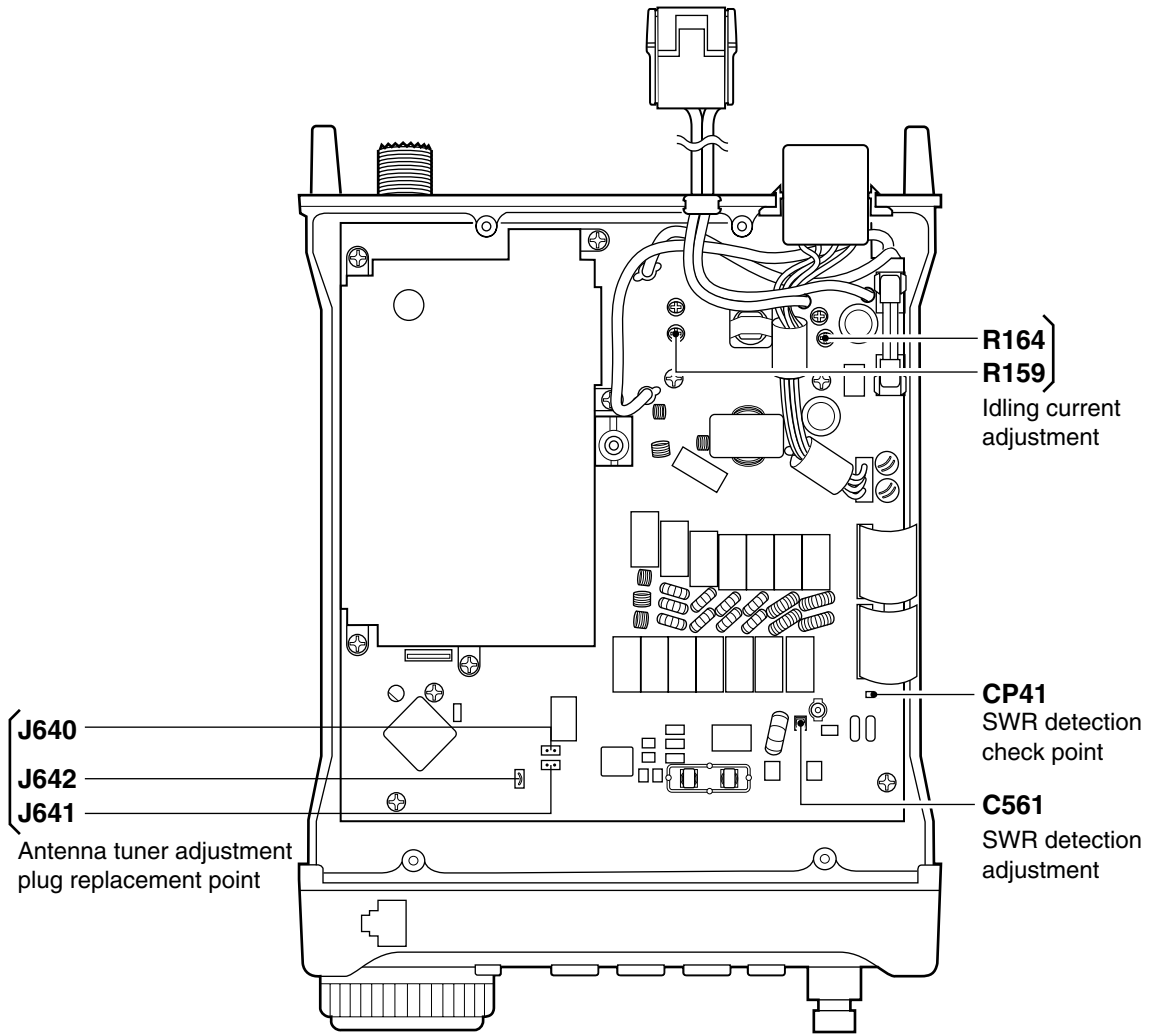
SET MODE ADJUSTMENTS (No.1)–Continued

ADJUSTMENT	ADJUSTMENT CONDITION	DISPLAY	OPERATION
ALC METER (HF bands)	1 <ul style="list-style-type: none"> • Connect an RF power meter to [ANT] connector. • Connect an audio generator to [MIC] connector and set as : Level : 1.5 kHz/30mV • Transmit using an external PTT switch. 	 HF ALC	Push and hold [MENU] to set ALC reference level while transmitting.
(50 MHz band)	2 <ul style="list-style-type: none"> • Transmit using an external PTT switch. 	 50M ALC	Push and hold [MENU] to set ALC reference level while transmitting.
SWR METER	1 <ul style="list-style-type: none"> • Connect a 50 Ω dummy load or power meter to [ANT] connector. 	 SWR 1 LOAD	Push [MENU] to set SWR reference level.
	2 <ul style="list-style-type: none"> • Connect a 50 Ω dummy load or power meter to [ANT] connector. 	 SWR 2 LOAD	Push [MENU] to set SWR2 level. <ul style="list-style-type: none"> • The display returns to the same as the ADJUSTMENT SET MODE above.
Push [F-1 (EXIT)] to exit adjustment set mode.			

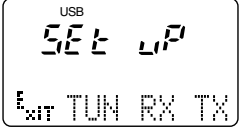

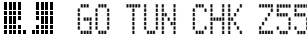
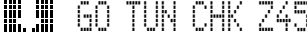
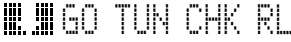
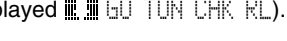
4-6 PA UNIT ADJUSTMENTS

ADJUSTMENT	ADJUSTMENT CONDITION	MEASUREMENT		VALUE	ADJUSTMENT POINT	
		UNIT	LOCATION		UNIT	ADJUST
IDLING CURRENT	1 • Turn R159, R164 (on the PA unit) to maximum counterclockwise position.	PA	Connect a digital multimeter to check point CP151.	0.5 V	PA	R150
	2 • Display frequency: 14.10000 MHz • Mode : USB • [MIC GAIN] : 1 (minimum) • Transmitting					R159
	3 • Transmitting						R164
SWR DETECTION	1 • Display frequency: 14.10000 MHz • Mode : USB • [MIC GAIN] : 5 • Connect CP2711 on the MAIN unit to ground. • Connect an audio generator to [MIC] connector and set as: 1.5 kHz/30 mV • Transmitting	Rear Panel	Connect an RF power meter to [ANT1] connector.	10 W	Quick set mode	MIC GAIN
	2 • Transmitting	PA	Connect a digital multimeter to check point CP41.	Minimum voltage	PA	C561
	3	After remove the jumper wire from CP2711 on the MAIN board.				

• PA UNIT TOP VIEW



4-7 SET MODE ADJUSTMENTS (No.2)

ADJUSTMENT	ADJUSTMENT CONDITION	DISPLAY	OPERATION
ENTERING ADJUSTMENT SET MODE	1 <ul style="list-style-type: none"> Enter tuner adjustment set mode: <ol style="list-style-type: none"> Turn power OFF. Terminate the [REMOTE] jack with a 3.5(d) mm shorten-plug. While pushing [P.AMP/ATT] and [TUNER], turn power ON. 		Push [F-1 (TUN)] to enter the antenna tuner adj. setting mode. Then advance to the following setting, or push [UP]/[DN] to scroll the display.
ANTENNA TUNER	1 <ul style="list-style-type: none"> Disconnect the plug P1 from the J642, and then connect P1 to the J641. Receiving 		Push [MENU (GO)] to set adjustment value.
	2 <ul style="list-style-type: none"> Receiving 		Push [MENU (GO)] to set adjustment value.
	3 <ul style="list-style-type: none"> Disconnect the plug P1 from the J641, and then connect P1 to the J640. Receiving 		Push [MENU (GO)] to set adjustment value.
	4 <ul style="list-style-type: none"> Disconnect the plug P1 from the J641, and then connect P1 to the J642 after adjustment is finished. 		
TUNER RELAY	1 <ul style="list-style-type: none"> Enter tuner relay check mode. Receiving 		<ul style="list-style-type: none"> Push [MENU (GO)], and listen to the relay sounds while relay is working at even intervals. Verify the sounds which is whether continuous sounds or not.
	<p>NOTE: In case of not continuous relay sounds, verify the follow practice.</p> <ol style="list-style-type: none"> Return to the tuner relay check mode (Displayed ). Push the "RIT" key for 2 seconds, then "GO" is blinking on the display. Find the wrong relay by verifying the each relay sounds. Turn the sub dial when switching to the other relays. 		

SECTION 5 PARTS LIST

[VR UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
R1	7210002780	VARIABLE	RV-300 (RK0972210) 10KB/10KB
R2	7210002940	VARIABLE	TP96D231E20-20F-10KB-1897
J1	6510018890	S.CONNECTOR	52559-1390
S1	2220000540	SWITCH	SW-162 (SSSS22-2-11)
EP1	0910055780	PCB	B 5913

[JACK UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
J1	6510023460	S.CONNETOR	08FMN-BMTTR-A-TBT
EP1	0910055741	PCB	B 5915A

[FRONT UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
W1	8900006040	CABLE	OPC-593 (N:13 L:50)
W2	8900006251	CABLE	OPC-610A
EP1	0880001360	UNIT BOARD	EX-2500 #02

[DISPLAY UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
IC2	1130007960	S.IC	SED1522F0C (QFP15-100PIN)
IC3	1130008130	S.IC	TC7W32FU (TE12L)
IC4	1110005780	S.IC	S-80945CLMC-G7F-T2
IC5	1110005760	S.IC	S-812C50AUA-C3E-T2
IC6	1140011250	S.IC	HD6473847RH (SX-2591C)
Q1	1590002310	S.TRANSISTOR	DTC114EE TL
Q2	1520000460	S.TRANSISTOR	2SB1132 T100 R
Q3	1530002060	S.TRANSISTOR	2SC4081 T106 R
Q4	1560001290	S.FET	2SK3065 T100
Q10	1530002060	S.TRANSISTOR	2SC4081 T106 R
Q11	1520000380	TRANSISTOR	2SB1143 S
Q12	1590002370	S.TRANSISTOR	XP4111 (TX)
Q13	1520000460	S.TRANSISTOR	2SB1132 T100 R
Q14	1530002060	S.TRANSISTOR	2SC4081 T106 R
Q15	1590001870	S.TRANSISTOR	DTA114EE TL
Q16	1590002770	S.FET	CPH3404-TL
Q18	1590002370	S.TRANSISTOR	XP4111 (TX)
Q50	1520000460	S.TRANSISTOR	2SB1132 T100 R
Q51	1530002060	S.TRANSISTOR	2SC4081 T106 R

[DISPLAY UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
D1	1750000370	S.DIODE	DA221 TL
D2	1750000370	S.DIODE	DA221 TL
D3	1750000370	S.DIODE	DA221 TL
D5	1790001250	S.DIODE	MA2S111-(TX)
D6	1790001250	S.DIODE	MA2S111-(TX)
D7	1160000140	S.DIODE	DAP222 TL
D9	1790001250	S.DIODE	MA2S111-(TX)
D10	1790001250	S.DIODE	MA2S111-(TX)
D11	1750000520	S.DIODE	DAN222TL
D12	1790001250	S.DIODE	MA2S111-(TX)
D13	1750000520	S.DIODE	DAN222TL
D14	1160000140	S.DIODE	DAP222 TL
D15	1160000140	S.DIODE	DAP222 TL
D16	1160000140	S.DIODE	DAP222 TL
D50	1750000520	S.DIODE	DAN222TL
D51	1790001250	S.DIODE	MA2S111-(TX)
X1	6050009870	S.XTAL	CR-567 (9.8304 MHz)
L1	6200003260	S.COIL	NL 322522T-101J
L2	6200003950	S.COIL	HF50ACC 322513-T
L3	6200003950	S.COIL	HF50ACC 322513-T
L4	6200003950	S.COIL	HF50ACC 322513-T
L5	6200003950	S.COIL	HF50ACC 322513-T
L29	6200003520	S.COIL	ELJFB 102K-F
L30	6200008420	S.COIL	HF50ACC 453215P-T
L31	6200008420	S.COIL	HF50ACC 453215P-T
R2	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R3	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R4	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R5	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 Ω)
R6	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R7	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R8	7030003590	S.RESISTOR	ERJ3GEYJ 183 V (18 kΩ)
R9	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R10	7030003590	S.RESISTOR	ERJ3GEYJ 183 V (18 kΩ)
R11	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R12	7030003590	S.RESISTOR	ERJ3GEYJ 183 V (18 kΩ)
R13	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R14	7030003590	S.RESISTOR	ERJ3GEYJ 183 V (18 kΩ)
R15	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R16	7030003590	S.RESISTOR	ERJ3GEYJ 183 V (18 kΩ)
R17	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R18	7030003590	S.RESISTOR	ERJ3GEYJ 183 V (18 kΩ)
R19	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R20	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R21	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R22	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R23	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R24	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R25	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R26	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R27	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R29	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R30	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R33	7030006190	S.RESISTOR	ERJ12YJ2R2U (2.2 Ω)
R36	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R37	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R38	7030007520	S.RESISTOR	ERJ8ENF 1000V (100 Ω)
R39	7030007520	S.RESISTOR	ERJ8ENF 1000V (100 Ω)
R40	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R41	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R42	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R44	7030003500	S.RESISTOR	ERJ3GEYJ 332 V (3.3 kΩ)
R45	7030003500	S.RESISTOR	ERJ3GEYJ 332 V (3.3 kΩ)
R46	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R47	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R49	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)

Ⓐ: [EUR], [EUR-1], [USA], [USA-1], [KOR], [KOR-1]

Ⓒ: [FRA], [FRA-1], [ITA], [ITA-1]

Ⓔ: [FRA], [FRA-1], [ESP], [ESP-1], [KOR], [KOR-1], [ITA], [ITA-1]

Ⓑ: [EUR], [EUR-1], [ESP], [ESP-1], [OTH], [OTH-1]

Ⓓ: [ESP], [ESP-1], [KOR], [KOR-1], [ITA], [ITA-1]

Ⓕ: [FRA], [FRA-1], [ESP], [ESP-1], [OTH], [OTH-1], [ITA], [ITA-1]

S.=Surface mount

[DISPLAY UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
R50	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R51	7030003420	S.RESISTOR	ERJ3GEYJ 681 V (680 Ω)
R52	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R53	7030003540	S.RESISTOR	ERJ3GEYJ 682 V (6.8 kΩ)
R54	7030003430	S.RESISTOR	ERJ3GEYJ 821 V (820 Ω)
R65	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R66	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R67	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R68	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R69	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R70	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R71	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R72	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R73	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R74	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R75	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R76	7030003840	S.RESISTOR	ERJ3GEYJ 225 V (2.2 MΩ)
R85	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R92	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R93	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R96	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R97	7030003390	S.RESISTOR	ERJ3GEYJ 391 V (390 Ω)
R98	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R99	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 Ω)
R100	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R101	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R102	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R103	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R104	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R105	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R106	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R107	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R108	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R109	7030003420	S.RESISTOR	ERJ3GEYJ 681 V (680 Ω)
R110	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R111	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R112	7030003490	S.RESISTOR	ERJ3GEYJ 272 V (2.7 kΩ)
R113	7030003420	S.RESISTOR	ERJ3GEYJ 681 V (680 Ω)
R114	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R115	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R116	7030003430	S.RESISTOR	ERJ3GEYJ 821 V (820 Ω)
R117	7030003420	S.RESISTOR	ERJ3GEYJ 681 V (680 Ω)
R118	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)
R119	7030003420	S.RESISTOR	ERJ3GEYJ 681 V (680 Ω)
R120	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)
R121	7030003470	S.RESISTOR	ERJ3GEYJ 182 V (1.8 kΩ)
R122	7030003420	S.RESISTOR	ERJ3GEYJ 681 V (680 Ω)
R123	7030003390	S.RESISTOR	ERJ3GEYJ 391 V (390 Ω)
R124	7030003390	S.RESISTOR	ERJ3GEYJ 391 V (390 Ω)
R125	7030003390	S.RESISTOR	ERJ3GEYJ 391 V (390 Ω)
R126	7030003390	S.RESISTOR	ERJ3GEYJ 391 V (390 Ω)
R127	7030003390	S.RESISTOR	ERJ3GEYJ 391 V (390 Ω)
R128	7030003390	S.RESISTOR	ERJ3GEYJ 391 V (390 Ω)
R129	7030003390	S.RESISTOR	ERJ3GEYJ 391 V (390 Ω)
R130	7030003390	S.RESISTOR	ERJ3GEYJ 391 V (390 Ω)
R131	7030003450	S.RESISTOR	ERJ3GEYJ 122 V (1.2 kΩ)
R132	7030003450	S.RESISTOR	ERJ3GEYJ 122 V (1.2 kΩ)
R133	7030003450	S.RESISTOR	ERJ3GEYJ 122 V (1.2 kΩ)
R134	7030003450	S.RESISTOR	ERJ3GEYJ 122 V (1.2 kΩ)
R135	7030003450	S.RESISTOR	ERJ3GEYJ 122 V (1.2 kΩ)
R136	7030003450	S.RESISTOR	ERJ3GEYJ 122 V (1.2 kΩ)
R137	7030003450	S.RESISTOR	ERJ3GEYJ 122 V (1.2 kΩ)
R138	7030003450	S.RESISTOR	ERJ3GEYJ 122 V (1.2 kΩ)
R140	7030003430	S.RESISTOR	ERJ3GEYJ 821 V (820 Ω)
R141	7030003430	S.RESISTOR	ERJ3GEYJ 821 V (820 Ω)
R143	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
C1	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C2	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C4	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C5	4030012610	S.CERAMIC	C2012 JB 1C 474K-T
C7	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C8	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C9	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C10	4030007020	S.CERAMIC	C1608 CH 1H 120J-T
C11	4030007020	S.CERAMIC	C1608 CH 1H 120J-T
C14	4030011600	S.CERAMIC	C1608 JB 1E 104K-T

Ⓐ: [EUR], [EUR-1], [USA], [USA-1], [KOR], [KOR-1]
 ㉔: [FRA], [FRA-1], [ITA], [ITA-1]
 ㉓: [FRA], [FRA-1], [ESP], [ESP-1], [KOR], [KOR-1], [ITA], [ITA-1]

[DISPLAY UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
C18	4550002980	S.TANTALUM	TEMSVA 1C 225M-8L
C19	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C20	4550002980	S.TANTALUM	TEMSVA 1C 225M-8L
C21	4550002980	S.TANTALUM	TEMSVA 1C 225M-8L
C22	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C23	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C24	4550002980	S.TANTALUM	TEMSVA 1C 225M-8L
C25	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C27	4550002980	S.TANTALUM	TEMSVA 1C 225M-8L
C28	4550002980	S.TANTALUM	TEMSVA 1C 225M-8L
C29	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C31	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C32	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C33	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C34	4030006850	S.CERAMIC	C1608 JB 1H 471K-T
C35	4030006860	S.CERAMIC	C1608 JB 1H 102K-T
C36	4030006860	S.CERAMIC	C1608 JB 1H 102K-T
C37	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C38	4030008890	S.CERAMIC	C1608 JB 1H 273K-T
C39	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C40	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C41	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C42	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C43	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C44	4550002980	S.TANTALUM	TEMSVA 1C 225M-8L
C45	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C50	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C51	4030011340	S.CERAMIC	C1608 CH 1H 471J-T
C52	4030011340	S.CERAMIC	C1608 CH 1H 471J-T
C53	4030011340	S.CERAMIC	C1608 CH 1H 471J-T
C54	4030011340	S.CERAMIC	C1608 CH 1H 471J-T
J1	6510019120	S.CONNECTOR	S8B-PH-SM3-TB
J2	6450001630	CONNECTOR	HSJ1406-01-050
J3	6510018890	S.CONNECTOR	52559-1390
J5	6510020420	S.CONNECTOR	S4B-PH-SM3-TB
DS1	5040002020	S.LED	CL-170UR-CD-T
DS2	5040002010	S.LED	CL-170PG-CD-T
DS3	5040002020	S.LED	CL-170UR-CD-T
DS4	5030001670	LCD	DLC-8309YBGF
DS5	5030002560	LCD	CV1073 SX2591
S1	2260002250	S.SWITCH	LS22BB-2SD-PG-T
S2	2260002250	S.SWITCH	LS22BB-2SD-PG-T
S3	2260002540	S.SWITCH	SKQHFC
S4	2260002540	S.SWITCH	SKQHFC
S5	2260002540	S.SWITCH	SKQHFC
S6	2260002540	S.SWITCH	SKQHFC
S7	2260002540	S.SWITCH	SKQHFC
S8	2260002540	S.SWITCH	SKQHFC
S9	2260002540	S.SWITCH	SKQHFC
S10	2260002540	S.SWITCH	SKQHFC
S11	2260002540	S.SWITCH	SKQHFC
S12	2260002540	S.SWITCH	SKQHFC
S13	2260002250	S.SWITCH	LS22BB-2SD-PG-T
S14	2260001680	S.SWITCH	SKQDPB
W1	7030003860	S.JUMPER	ERJ3GE JPW V
W2	7120000470	JUMPER	ERDS2T0
W3	7120000470	JUMPER	ERDS2T0
W4	7030003860	S.JUMPER	ERJ3GE JPW V
EP1	0910055774	PCB	B 5905D
EP2	6910012350	S.BEAD	MMZ1608Y 102BT
EP6	6910012350	S.BEAD	MMZ1608Y 102BT
EP7	89300059720	LCD CONTACT	SRCN-2591-SP-N-W

Ⓑ: [EUR], [EUR-1], [ESP], [ESP-1], [OTH], [OTH-1]
 ㉔: [ESP], [ESP-1], [KOR], [KOR-1], [ITA], [ITA-1]
 ㉓: [FRA], [FRA-1], [ESP], [ESP-1], [OTH], [OTH-1], [ITA], [ITA-1]

S.=Surface mount

[PA UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
IC1	1180002010	S.REG	BA08FP-E2
IC560	1110002700	S.IC	NJM2904M-TE1
IC600	1140010671	S.IC	ISPLSI2064VE-100LT100 I002
IC601	1130006800	S.IC	TC7W08F (TE12L)
IC640	1110001590	S.IC	TA75393F (TP1)
IC641	1130005640	S.IC	TC4W53F (TE12L)
Q80	1560001260	S.FET	2SK3018 T106
Q81	1560001220	S.FET	ECH8301-TL
Q101	1560001100	S.FET	2SK3074 (TE12L)
Q150	1560001240	S.FET	RD01MUS1
Q200	1560001230	S.FET	RD07MVS1
Q201	1560001230	S.FET	RD07MVS1
Q250	1560001260	S.FET	2SK3018 T106
Q300	1530003090	S.TRANSISTOR	2SC4213-B (TE85R)
Q400	1560001250	S.FET	UM5KIN-TR
Q401	1560001250	S.FET	UM5KIN-TR
Q420	1560001250	S.FET	UM5KIN-TR
Q421	1560001250	S.FET	UM5KIN-TR
Q440	1560001250	S.FET	UM5KIN-TR
Q441	1560001250	S.FET	UM5KIN-TR
Q460	1560001250	S.FET	UM5KIN-TR
Q461	1560001250	S.FET	UM5KIN-TR
Q480	1560001250	S.FET	UM5KIN-TR
Q481	1560001250	S.FET	UM5KIN-TR
Q500	1560001250	S.FET	UM5KIN-TR
Q501	1560001250	S.FET	UM5KIN-TR
Q520	1560001250	S.FET	UM5KIN-TR
Q521	1560001250	S.FET	UM5KIN-TR
Q602	1510000500	S.TRANSISTOR	2SA1162-GR (TE85R)
Q603	1560001260	S.FET	2SK3018 T106
Q640	1560001260	S.FET	2SK3018 T106
Q641	1560000560	S.FET	2SK882-GR (TE85L)
Q642	1560001260	S.FET	2SK3018 T106
Q643	1560000560	S.FET	2SK882-GR (TE85L)
Q644	1590001330	S.TRANSISTOR	DTA114EUA T106
Q645	1560001260	S.FET	2SK3018 T106
Q646	1560001260	S.FET	2SK3018 T106
Q700	1560001250	S.FET	UM5KIN-TR
Q701	1560001250	S.FET	UM5KIN-TR
Q702	1560001250	S.FET	UM5KIN-TR
Q703	1560001250	S.FET	UM5KIN-TR
Q704	1560001250	S.FET	UM5KIN-TR
Q705	1560001250	S.FET	UM5KIN-TR
Q706	1560001250	S.FET	UM5KIN-TR
Q707	1560001250	S.FET	UM5KIN-TR
Q708	1560001250	S.FET	UM5KIN-TR
Q709	1560001250	S.FET	UM5KIN-TR
Q800	1560001250	S.FET	UM5KIN-TR
Q801	1560001250	S.FET	UM5KIN-TR
Q802	1560001250	S.FET	UM5KIN-TR
Q803	1560001250	S.FET	UM5KIN-TR
Q804	1560001250	S.FET	UM5KIN-TR
Q805	1560001250	S.FET	UM5KIN-TR
Q806	1560001250	S.FET	UM5KIN-TR
Q807	1560001250	S.FET	UM5KIN-TR
Q808	1560001250	S.FET	UM5KIN-TR
Q809	1560001250	S.FET	UM5KIN-TR
Q810	1560001250	S.FET	UM5KIN-TR
Q811	1530002570	S.TRANSISTOR	2SC4405-3-TL
Q900	1560001220	S.FET	ECH8301-TL
Q902	1560001260	S.FET	2SK3018 T106
D80	1790000700	DIODE	DSA3A1
D250	1750000550	S.DIODE	1SS355 TE-17
D300	1750000850	S.DIODE	MMBV3700LT1
D400	1160000070	S.DIODE	DAN202K T146
D401	1160000070	S.DIODE	DAN202K T146
D420	1160000070	S.DIODE	DAN202K T146
D421	1160000070	S.DIODE	DAN202K T146
D440	1160000070	S.DIODE	DAN202K T146
D441	1160000070	S.DIODE	DAN202K T146
D460	1160000070	S.DIODE	DAN202K T146
D461	1160000070	S.DIODE	DAN202K T146
D480	1160000070	S.DIODE	DAN202K T146
D481	1160000070	S.DIODE	DAN202K T146

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Ⓐ only

[PA UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
D500	1160000070	S.DIODE	DAN202K T146
D501	1160000070	S.DIODE	DAN202K T146
D520	1160000070	S.DIODE	DAN202K T146
D521	1160000070	S.DIODE	DAN202K T146
D560	1750000950	S.DIODE	MA732 (TX)
D561	1750000950	S.DIODE	MA732 (TX)
D562	1750000950	S.DIODE	MA732 (TX)
D563	1750000950	S.DIODE	MA732 (TX)
D640	1790001790	S.DIODE	RB876W TL
D641	1750000550	S.DIODE	1SS355 TE-17
D642	1750000370	S.DIODE	DA221 TL
D643	1750000430	S.DIODE	HSB88WSTR
D644	1790001250	S.DIODE	MA2S111-(TX)
D645	1790001790	S.DIODE	RB876W TL
D646	1790001790	S.DIODE	RB876W TL
D647	1750000550	S.DIODE	1SS355 TE-17
D750	1160000070	S.DIODE	DAN202K T146
D751	1160000070	S.DIODE	DAN202K T146
D752	1160000070	S.DIODE	DAN202K T146
D753	1160000070	S.DIODE	DAN202K T146
D754	1160000070	S.DIODE	DAN202K T146
D755	1160000070	S.DIODE	DAN202K T146
D756	1160000070	S.DIODE	DAN202K T146
D757	1160000070	S.DIODE	DAN202K T146
D758	1160000070	S.DIODE	DAN202K T146
D759	1160000070	S.DIODE	DAN202K T146
D850	1160000070	S.DIODE	DAN202K T146
D851	1160000070	S.DIODE	DAN202K T146
D852	1160000070	S.DIODE	DAN202K T146
D853	1160000070	S.DIODE	DAN202K T146
D854	1160000070	S.DIODE	DAN202K T146
D855	1160000070	S.DIODE	DAN202K T146
D856	1160000070	S.DIODE	DAN202K T146
D857	1160000070	S.DIODE	DAN202K T146
D858	1160000070	S.DIODE	DAN202K T146
D859	1160000070	S.DIODE	DAN202K T146
D860	1160000070	S.DIODE	DAN202K T146
L1	6200005010	S.COIL	NL 252018T-100J
L2	6200001830	S.COIL	NL 322522T-100J
L3	2040000490	COIL	EXC-ELDR25C
L5	6200003030	S.COIL	NL 322522T-R47J-3
L80	2040000490	COIL	EXC-ELDR25C
L81	2040000490	COIL	EXC-ELDR25C
L82	2040000490	COIL	EXC-ELDR25C
L100	6200002640	S.COIL	NL 252018T-R15J
L101	6200002040	S.COIL	NL 252018T-101J
L151	6200003950	S.COIL	HF50ACC 322513-T
L153	6140002350	COIL	LR-274 (RIB4X7X5 3A6)
L200	6150005310	COIL	LR-430
L201	2040000490	COIL	EXC-ELDR25C
L202	2040000490	COIL	EXC-ELDR25C
L203	6110001630	COIL	LA-246
L250	6200005010	S.COIL	NL 252018T-100J
L300	6110001560	COIL	LA-236
L301	6110001640	COIL	LA-247
L400	6150005180	COIL	LR-417
L401	6150005190	COIL	LR-418
L402	6200001720	S.COIL	NL 322522T-1R0J
L420	6150005200	COIL	LR-419
L421	6150005210	COIL	LR-420
L440	6150005220	COIL	LR-421
L441	6150005230	COIL	LR-422
L442	6150005230	COIL	LR-422
L460	6150005250	COIL	LR-424
L461	6150005240	COIL	LR-423
L480	6150005280	COIL	LR-427
L481	6150005260	COIL	LR-425
L500	6150005270	COIL	LR-426
L501	6150005270	COIL	LR-426
L520	6110001640	COIL	LA-247
L521	6110001650	COIL	LA-248
L522	6110001650	COIL	LA-248
L540	6200001720	S.COIL	NL 322522T-1R0J
L560	6140003490	COIL	LR-391
L640	6140002810	S.COIL	LR-317
L641	6140002810	S.COIL	LR-317

Ⓐ only
Ⓐ only

Ⓐ only
Ⓐ only
Ⓐ only

Ⓐ: [EUR], [EUR-1], [USA], [USA-1], [KOR], [KOR-1]
 Ⓑ: [FRA], [FRA-1], [ITA], [ITA-1]
 Ⓒ: [FRA], [FRA-1], [ESP], [ESP-1], [KOR], [KOR-1], [ITA], [ITA-1]

Ⓓ: [EUR], [EUR-1], [ESP], [ESP-1], [OTH], [OTH-1]
 Ⓔ: [ESP], [ESP-1], [KOR], [KOR-1], [ITA], [ITA-1]
 Ⓕ: [FRA], [FRA-1], [ESP], [ESP-1], [OTH], [OTH-1], [ITA], [ITA-1]

S.=Surface mount

[PA UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
L642	6180003310	COIL	LR-436
L644	6200005010	S.COIL	NL 252018T-100J
L645	6200005010	S.COIL	NL 252018T-100J
L750	6110002750	COIL	LA-459
L751	6110002760	COIL	LA-460
L752	6110002770	COIL	LA-461
L753	6110003700	COIL	LA-567
L754	6110003710	COIL	LA-568
L755	6110003720	COIL	LA-569
L756	6110003730	COIL	LA-570
L757	6150005290	COIL	LR-428
L758	6150005300	COIL	LR-429
L761	6200003280	S.COIL	NL 252018T-2R2J
L762	6200003280	S.COIL	NL 252018T-2R2J
L763	6200003280	S.COIL	NL 252018T-2R2J
L764	6200003280	S.COIL	NL 252018T-2R2J
L765	6200003280	S.COIL	NL 252018T-2R2J
L766	6200003280	S.COIL	NL 252018T-2R2J
L767	6200003280	S.COIL	NL 252018T-2R2J
L768	6200003280	S.COIL	NL 252018T-2R2J
L769	6200003280	S.COIL	NL 252018T-2R2J
L770	6200003280	S.COIL	NL 252018T-2R2J
L850	6200003280	S.COIL	NL 252018T-2R2J
L851	6200003280	S.COIL	NL 252018T-2R2J
L852	6200003280	S.COIL	NL 252018T-2R2J
L853	6200003280	S.COIL	NL 252018T-2R2J
L854	6200003280	S.COIL	NL 252018T-2R2J
L855	6200003280	S.COIL	NL 252018T-2R2J
L856	6200003280	S.COIL	NL 252018T-2R2J
L857	6200003280	S.COIL	NL 252018T-2R2J
L858	6200003280	S.COIL	NL 252018T-2R2J
L859	6200003280	S.COIL	NL 252018T-2R2J
L860	6200003280	S.COIL	NL 252018T-2R2J
L890	2040000490	COIL	EXC-ELDR25C
L900	6200003240	S.COIL	NL 322522T-221J
L901	6200003240	S.COIL	NL 322522T-221J
L902	6910003570	COIL	2943-666663
L903	6910003570	COIL	2943-666663
R1	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R2	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R3	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R4	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R5	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R40	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R41	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R42	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R43	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R44	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R45	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R47	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R48	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R49	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R51	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R80	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R81	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R82	7030003670	S.RESISTOR	ERJ3GEYJ 823 V (82 kΩ)
R100	7030003570	S.RESISTOR	ERJ3GEYJ 123 V (12 kΩ)
R101	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R102	7030003300	S.RESISTOR	ERJ3GEYJ 680 V (68 Ω)
R104	7030003490	S.RESISTOR	ERJ3GEYJ 272 V (2.7 kΩ)
R107	7030007190	S.RESISTOR	ERJ12YJ220U (22 Ω)
R150	7310002760	S.TRIMMER	RV-152 (RH03A3AJ4X0HA)
R151	7030003540	S.RESISTOR	ERJ3GEYJ 682 V (6.8 kΩ)
R152	7030000230	S.RESISTOR	MCR10EZHZ 56 Ω (560)
R153	7030003410	S.RESISTOR	ERJ3GEYJ 561 V (560 Ω)
R154	7030000140	S.RESISTOR	MCR10EZHZ 10 Ω (100)
R155	7030010470	S.RESISTOR	ERJ1TYJ 5R6U (5.6 Ω)
R156	7030000340	S.RESISTOR	MCR10EZHZ 470 Ω (471)
R158	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)
R159	7310004680	TRIMMER	EVM-2AGA00 B14 (103)
R160	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R162	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)
R163	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R164	7310004680	TRIMMER	EVM-2AGA00 B14 (103)
R201	7030000020	S.RESISTOR	MCR10EZHZ 1 Ω (010)
R202	7030000020	S.RESISTOR	MCR10EZHZ 1 Ω (010)

- Ⓐ: [EUR], [EUR-1], [USA], [USA-1], [KOR], [KOR-1]
- Ⓑ: [FRA], [FRA-1], [ITA], [ITA-1]
- Ⓒ: [FRA], [FRA-1], [ESP], [ESP-1], [KOR], [KOR-1], [ITA], [ITA-1]

[PA UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
R203	7030000020	S.RESISTOR	MCR10EZHZ 1 Ω (010)
R204	7030000020	S.RESISTOR	MCR10EZHZ 1 Ω (010)
R205	7030000200	S.RESISTOR	MCR10EZHZ 33 Ω (330)
R206	7030000200	S.RESISTOR	MCR10EZHZ 33 Ω (330)
R207	7030003500	S.RESISTOR	ERJ3GEYJ 332 V (3.3 kΩ)
R208	7030003500	S.RESISTOR	ERJ3GEYJ 332 V (3.3 kΩ)
R210	7030010820	S.RESISTOR	ERJ1TYJ 221U (220 Ω)
R211	7030010820	S.RESISTOR	ERJ1TYJ 221U (220 Ω)
R213	7030003500	S.RESISTOR	ERJ3GEYJ 332 V (3.3 kΩ)
R214	7030003500	S.RESISTOR	ERJ3GEYJ 332 V (3.3 kΩ)
R216	7030010810	S.RESISTOR	ERX1HZJ R10H
R250	7030003700	S.RESISTOR	ERJ3GEYJ 154 V (150 kΩ)
R251	7030003730	S.RESISTOR	ERJ3GEYJ 274 V (270 kΩ)
R300	7030003510	S.RESISTOR	ERJ3GEYJ 392 V (3.9 kΩ)
R301	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R302	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R303	7030003550	S.RESISTOR	ERJ3GEYJ 822 V (8.2 kΩ)
R304	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R305	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R306	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R400	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R401	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R402	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R403	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R404	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R405	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R406	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R407	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R408	7030000210	S.RESISTOR	MCR10EZHZ 39 Ω (390)
R409	7030000210	S.RESISTOR	MCR10EZHZ 39 Ω (390)
R420	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R421	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R422	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R423	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R424	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R425	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R426	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R427	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R428	7030000210	S.RESISTOR	MCR10EZHZ 39 Ω (390)
R429	7030000210	S.RESISTOR	MCR10EZHZ 39 Ω (390)
R440	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R441	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R442	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R443	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R444	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R445	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R446	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R447	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R448	7030000210	S.RESISTOR	MCR10EZHZ 39 Ω (390)
R449	7030000210	S.RESISTOR	MCR10EZHZ 39 Ω (390)
R460	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R461	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R462	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R463	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R464	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R465	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R466	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R467	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R468	7030000210	S.RESISTOR	MCR10EZHZ 39 Ω (390)
R469	7030000210	S.RESISTOR	MCR10EZHZ 39 Ω (390)
R480	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R481	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R482	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R483	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R484	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R485	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R486	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R487	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R488	7030000210	S.RESISTOR	MCR10EZHZ 39 Ω (390)
R489	7030000210	S.RESISTOR	MCR10EZHZ 39 Ω (390)
R500	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R501	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R502	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R503	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R504	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R505	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R506	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R507	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)

- Ⓐ: [EUR], [EUR-1], [ESP], [ESP-1], [OTH], [OTH-1]
- Ⓑ: [ESP], [ESP-1], [KOR], [KOR-1], [ITA], [ITA-1]
- Ⓒ: [FRA], [FRA-1], [ESP], [ESP-1], [OTH], [OTH-1], [ITA], [ITA-1]

S.=Surface mount

[PA UNIT]

REF NO.	ORDER NO.	DESCRIPTION
R508	7030000210	S.RESISTOR MCR10EZHZ 39 Ω (390)
R509	7030000210	S.RESISTOR MCR10EZHZ 39 Ω (390)
R520	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R521	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R522	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R523	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R524	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R525	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R526	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R527	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R528	7030000210	S.RESISTOR MCR10EZHZ 39 Ω (390)
R529	7030000210	S.RESISTOR MCR10EZHZ 39 Ω (390)
R561	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R562	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R563	7030003490	S.RESISTOR ERJ3GEYJ 272 V (2.7 kΩ)
R564	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R565	7030003280	S.RESISTOR ERJ3GEYJ 470 V (47 Ω)
R566	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R567	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R568	7030003490	S.RESISTOR ERJ3GEYJ 272 V (2.7 kΩ)
R569	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R571	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R572	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ)
R573	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ)
R574	7030003660	S.RESISTOR ERJ3GEYJ 683 V (68 kΩ)
R575	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ)
R600	7030003340	S.RESISTOR ERJ3GEYJ 151 V (150 Ω)
R601	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R603	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R605	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R606	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R607	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R608	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R609	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R610	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R611	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R612	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R613	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R614	7030003800	S.RESISTOR ERJ3GEYJ 105 V (1 MΩ)
R617	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R618	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R619	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R620	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R641	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R642	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R643	7030003200	S.RESISTOR ERJ3GEYJ 100 V (10 Ω)
R645	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R648	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R649	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R650	7030010520	S.RESISTOR ERJ1TYJ 101U (100 Ω)
R651	7030010520	S.RESISTOR ERJ1TYJ 101U (100 Ω)
R652	7030010520	S.RESISTOR ERJ1TYJ 101U (100 Ω)
R653	7030010520	S.RESISTOR ERJ1TYJ 101U (100 Ω)
R655	7030010820	S.RESISTOR ERJ1TYJ 221U (220 Ω)
R657	7030010820	S.RESISTOR ERJ1TYJ 221U (220 Ω)
R658	7030010820	S.RESISTOR ERJ1TYJ 221U (220 Ω)
R659	7030006070	S.RESISTOR ERJ12YJ101U (100 Ω)
R660	7030003770	S.RESISTOR ERJ3GEYJ 564 V (560 kΩ)
R661	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R662	7030010940	S.RESISTOR ERJ12NF56R0U (56 Ω)
R663	7030010940	S.RESISTOR ERJ12NF56R0U (56 Ω)
R664	7030010940	S.RESISTOR ERJ12NF56R0U (56 Ω)
R665	7030010940	S.RESISTOR ERJ12NF56R0U (56 Ω)
R666	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R667	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R668	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R669	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R670	7030003730	S.RESISTOR ERJ3GEYJ 274 V (270 kΩ)
R671	7030003770	S.RESISTOR ERJ3GEYJ 564 V (560 kΩ)
R672	7030003340	S.RESISTOR ERJ3GEYJ 151 V (150 Ω)
R673	7030003280	S.RESISTOR ERJ3GEYJ 470 V (47 Ω)
R674	7540000260	ABSORBER SA05C 201M
R675	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R676	7030000250	S.RESISTOR MCR10EZHZ 82 Ω (820)
R677	7030000260	S.RESISTOR MCR10EZHZ 100 Ω (101)
R678	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R679	7030003730	S.RESISTOR ERJ3GEYJ 274 V (270 kΩ)
R680	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)

Ⓐ only
Ⓐ only

[PA UNIT]

REF NO.	ORDER NO.	DESCRIPTION
R681	7030003730	S.RESISTOR ERJ3GEYJ 274 V (270 kΩ)
R682	7030003610	S.RESISTOR ERJ3GEYJ 273 V (27 kΩ)
R683	7030003280	S.RESISTOR ERJ3GEYJ 470 V (47 Ω)
R684	7030003770	S.RESISTOR ERJ3GEYJ 564 V (560 kΩ)
R685	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R686	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R687	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R688	7030003590	S.RESISTOR ERJ3GEYJ 183 V (18 kΩ)
R689	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R690	7030000200	S.RESISTOR MCR10EZHZ 33 Ω (330)
R691	7030000180	S.RESISTOR MCR10EZHZ 22 Ω (220)
R693	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R694	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R695	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R696	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R700	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R701	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R702	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R703	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R704	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R705	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R706	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R707	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R708	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R709	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R710	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R711	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R712	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R713	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R714	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R715	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R716	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R717	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R718	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R719	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R720	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R721	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R722	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R723	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R724	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R725	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R726	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R727	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R728	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R729	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R730	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R731	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R732	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R733	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R734	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R735	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R736	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R737	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R738	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R739	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R750	7030000210	S.RESISTOR MCR10EZHZ 39 Ω (390)
R751	7030000210	S.RESISTOR MCR10EZHZ 39 Ω (390)
R752	7030000210	S.RESISTOR MCR10EZHZ 39 Ω (390)
R753	7030000210	S.RESISTOR MCR10EZHZ 39 Ω (390)
R754	7030000210	S.RESISTOR MCR10EZHZ 39 Ω (390)
R755	7030000210	S.RESISTOR MCR10EZHZ 39 Ω (390)
R756	7030000210	S.RESISTOR MCR10EZHZ 39 Ω (390)
R757	7030000210	S.RESISTOR MCR10EZHZ 39 Ω (390)
R758	7030000210	S.RESISTOR MCR10EZHZ 39 Ω (390)
R759	7030000210	S.RESISTOR MCR10EZHZ 39 Ω (390)
R800	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R801	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R802	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R803	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R804	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R805	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R806	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R807	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R808	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R809	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R810	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R811	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R812	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)

Ⓑ: [EUR], [EUR-1], [ESP], [ESP-1], [OTH], [OTH-1]
 Ⓓ: [ESP], [ESP-1], [KOR], [KOR-1], [ITA], [ITA-1]
 Ⓔ: [FRA], [FRA-1], [ESP], [ESP-1], [OTH], [OTH-1], [ITA], [ITA-1]

S.=Surface mount

[PA UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
R813	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R814	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R815	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R816	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R817	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R818	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R819	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R820	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R821	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R822	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R823	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R824	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R825	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R826	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R827	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R828	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R829	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R830	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R831	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R832	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R833	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R834	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R835	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R836	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R837	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R838	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R839	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R840	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R841	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R842	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R843	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R850	7030000210	S.RESISTOR	MCR10EZHZ 39 Ω (390)
R851	7030000210	S.RESISTOR	MCR10EZHZ 39 Ω (390)
R852	7030000210	S.RESISTOR	MCR10EZHZ 39 Ω (390)
R853	7030000210	S.RESISTOR	MCR10EZHZ 39 Ω (390)
R854	7030000210	S.RESISTOR	MCR10EZHZ 39 Ω (390)
R855	7030000210	S.RESISTOR	MCR10EZHZ 39 Ω (390)
R856	7030000210	S.RESISTOR	MCR10EZHZ 39 Ω (390)
R857	7030000210	S.RESISTOR	MCR10EZHZ 39 Ω (390)
R858	7030000210	S.RESISTOR	MCR10EZHZ 39 Ω (390)
R859	7030000210	S.RESISTOR	MCR10EZHZ 39 Ω (390)
R860	7030000210	S.RESISTOR	MCR10EZHZ 39 Ω (390)
R900	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R901	7030003670	S.RESISTOR	ERJ3GEYJ 823 V (82 kΩ)
R902	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R903	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
C1	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C2	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C3	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C4	4030006860	S.CERAMIC	C1608 JB 1H 102K-T
C5	4030006860	S.CERAMIC	C1608 JB 1H 102K-T
C6	4030006860	S.CERAMIC	C1608 JB 1H 102K-T
C7	4030006860	S.CERAMIC	C1608 JB 1H 102K-T
C8	4030006860	S.CERAMIC	C1608 JB 1H 102K-T
C9	4550002810	S.TANTALUM	TESVD2 1E 106M-12L
C10	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C11	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C12	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C13	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C14	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C15	4510005500	ELECTROLYTIC	16 MV 10 HC
C47	4030006860	S.CERAMIC	C1608 JB 1H 102K-T
C48	4030006860	S.CERAMIC	C1608 JB 1H 102K-T
C49	4030006860	S.CERAMIC	C1608 JB 1H 102K-T
C50	4030006860	S.CERAMIC	C1608 JB 1H 102K-T
C51	4030006860	S.CERAMIC	C1608 JB 1H 102K-T
C52	4030007090	S.CERAMIC	C1608 CH 1H 470J-T
C53	4030007090	S.CERAMIC	C1608 CH 1H 470J-T
C54	4030006860	S.CERAMIC	C1608 JB 1H 102K-T
C55	4030006860	S.CERAMIC	C1608 JB 1H 102K-T
C56	4030006860	S.CERAMIC	C1608 JB 1H 102K-T
C57	4030006860	S.CERAMIC	C1608 JB 1H 102K-T
C58	4030006860	S.CERAMIC	C1608 JB 1H 102K-T
C59	4030006860	S.CERAMIC	C1608 JB 1H 102K-T
C60	4030006860	S.CERAMIC	C1608 JB 1H 102K-T
C80	4030007090	S.CERAMIC	C1608 CH 1H 470J-T

- Ⓐ: [EUR], [EUR-1], [USA], [USA-1], [KOR], [KOR-1]
- Ⓑ: [FRA], [FRA-1], [ITA], [ITA-1]
- Ⓔ: [FRA], [FRA-1], [ESP], [ESP-1], [KOR], [KOR-1], [ITA], [ITA-1]

[PA UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
C81	4030006850	S.CERAMIC	C1608 JB 1H 471K-T
C82	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C83	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C84	4510004590	ELECTROLYTIC	16 MV 470 HC
C85	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C86	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C87	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C88	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C89	4510004590	ELECTROLYTIC	16 MV 470 HC
C100	4030007080	S.CERAMIC	C1608 CH 1H 390J-T
C101	4030007010	S.CERAMIC	C1608 CH 1H 100D-T
C102	4030007080	S.CERAMIC	C1608 CH 1H 390J-T
C103	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C104	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C105	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C106	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C108	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C109	4510004590	ELECTROLYTIC	16 MV 470 HC
C150	4030008960	S.CERAMIC	C2012 JB 1C 104K-T
C151	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C152	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C153	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C154	4030008960	S.CERAMIC	C2012 JB 1C 104K-T
C155	4030008960	S.CERAMIC	C2012 JB 1C 104K-T
C156	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C157	4030008960	S.CERAMIC	C2012 JB 1C 104K-T
C159	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C160	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C161	4030008960	S.CERAMIC	C2012 JB 1C 104K-T
C162	4030006860	S.CERAMIC	C1608 JB 1H 102K-T
C164	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C165	4030008960	S.CERAMIC	C2012 JB 1C 104K-T
C200	4030008960	S.CERAMIC	C2012 JB 1C 104K-T
C201	4030008960	S.CERAMIC	C2012 JB 1C 104K-T
C202	4030004740	S.CERAMIC	C2012 JB 1H 472K-T
C203	4030004740	S.CERAMIC	C2012 JB 1H 472K-T
C205	4030011230	S.CERAMIC	GRM31M2C2H390JV01L
C207	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C209	4030004740	S.CERAMIC	C2012 JB 1H 472K-T
C210	4510004510	ELECTROLYTIC	25 MV 470 HC
C212	4030011510	S.CERAMIC	GRM31M2C2H560JV01L
C213	4030011230	S.CERAMIC	GRM31M2C2H390JV01L
C250	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C251	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C300	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C301	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C302	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C303	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C304	4030007050	S.CERAMIC	C1608 CH 1H 220J-T
C305	4030007110	S.CERAMIC	C1608 CH 1H 680J-T
C306	4030011540	S.CERAMIC	C1608 CH 1H 750J-T
C307	4030007050	S.CERAMIC	C1608 CH 1H 220J-T
C308	4030007080	S.CERAMIC	C1608 CH 1H 390J-T
C309	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C400	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C401	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C402	4030017810	S.CERAMIC	C1608 CH 1H 102J-T
C403	4030011340	S.CERAMIC	C1608 CH 1H 471J-T
C404	4030017810	S.CERAMIC	C1608 CH 1H 102J-T
C405	4030017810	S.CERAMIC	C1608 CH 1H 102J-T
C406	4030011330	S.CERAMIC	C1608 CH 1H 391J-T
C407	4030007160	S.CERAMIC	C1608 CH 1H 181J-T
C408	4030017810	S.CERAMIC	C1608 CH 1H 102J-T
C409	4030011340	S.CERAMIC	C1608 CH 1H 471J-T
C410	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C411	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C412	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C413	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C414	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C415	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C420	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C421	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C422	4030017800	S.CERAMIC	C1608 CH 1H 561J-T
C423	4030007160	S.CERAMIC	C1608 CH 1H 181J-T
C424	4030017810	S.CERAMIC	C1608 CH 1H 102J-T
C425	4030007120	S.CERAMIC	C1608 CH 1H 820J-T
C426	4030017800	S.CERAMIC	C1608 CH 1H 561J-T
C427	4030006880	S.CERAMIC	C1608 JB 1H 472K-T

- Ⓑ: [EUR], [EUR-1], [ESP], [ESP-1], [OTH], [OTH-1]
- Ⓓ: [ESP], [ESP-1], [KOR], [KOR-1], [ITA], [ITA-1]
- Ⓔ: [FRA], [FRA-1], [ESP], [ESP-1], [OTH], [OTH-1], [ITA], [ITA-1]

S.=Surface mount

[PA UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
C428	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C429	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C430	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C431	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C432	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C440	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C441	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C442	4030007170	S.CERAMIC	C1608 CH 1H 221J-T
C443	4030007160	S.CERAMIC	C1608 CH 1H 181J-T
C444	4030011280	S.CERAMIC	C1608 CH 1H 271J-T
C445	4030007130	S.CERAMIC	C1608 CH 1H 101J-T
C446	4030010760	S.CERAMIC	C1608 CH 1H 331J-T
C447	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C448	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C449	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C450	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C451	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C452	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C453	4030007090	S.CERAMIC	C1608 CH 1H 470J-T
C454	4030010760	S.CERAMIC	C1608 CH 1H 331J-T
C455	4030010760	S.CERAMIC	C1608 CH 1H 331J-T
C456	4030011280	S.CERAMIC	C1608 CH 1H 271J-T
C458	4030007090	S.CERAMIC	C1608 CH 1H 470J-T
C460	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C461	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C462	4030007160	S.CERAMIC	C1608 CH 1H 181J-T
C463	4030007070	S.CERAMIC	C1608 CH 1H 330J-T
C464	4030007150	S.CERAMIC	C1608 CH 1H 151J-T
C465	4030007090	S.CERAMIC	C1608 CH 1H 470J-T
C466	4030007160	S.CERAMIC	C1608 CH 1H 181J-T
C467	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C468	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C469	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C470	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C471	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C472	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C473	4030007150	S.CERAMIC	C1608 CH 1H 151J-T
C480	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C481	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C482	4030007130	S.CERAMIC	C1608 CH 1H 101J-T
C483	4030007080	S.CERAMIC	C1608 CH 1H 390J-T
C484	4030007140	S.CERAMIC	C1608 CH 1H 121J-T
C485	4030007060	S.CERAMIC	C1608 CH 1H 270J-T
C486	4030007140	S.CERAMIC	C1608 CH 1H 121J-T
C488	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C489	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C490	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C491	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C492	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C493	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C494	4030007130	S.CERAMIC	C1608 CH 1H 101J-T
C500	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C501	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C502	4030007060	S.CERAMIC	C1608 CH 1H 270J-T
C503	4030007050	S.CERAMIC	C1608 CH 1H 220J-T
C504	4030007110	S.CERAMIC	C1608 CH 1H 680J-T
C505	4030007110	S.CERAMIC	C1608 CH 1H 680J-T
C506	4030007040	S.CERAMIC	C1608 CH 1H 180J-T
C507	4030007110	S.CERAMIC	C1608 CH 1H 680J-T
C508	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C509	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C510	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C511	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C512	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C513	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C514	4030007010	S.CERAMIC	C1608 CH 1H 100D-T
C520	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C521	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C522	4030007040	S.CERAMIC	C1608 CH 1H 180J-T
C524	4030007130	S.CERAMIC	C1608 CH 1H 101J-T
C525	4030007000	S.CERAMIC	C1608 CH 1H 090D-T
C526	4030007130	S.CERAMIC	C1608 CH 1H 101J-T
C527	4030009530	S.CERAMIC	C1608 CH 1H 030B-T
C528	4030007070	S.CERAMIC	C1608 CH 1H 330J-T
C529	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C530	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C531	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C532	4030006880	S.CERAMIC	C1608 JB 1H 472K-T

Ⓐ: [EUR], [EUR-1], [USA], [USA-1], [KOR], [KOR-1]
 Ⓒ: [FRA], [FRA-1], [ITA], [ITA-1]
 Ⓔ: [FRA], [FRA-1], [ESP], [ESP-1], [KOR], [KOR-1], [ITA], [ITA-1]

[PA UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
C533	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C534	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C540	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C541	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C542	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C543	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C544	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C560	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C561	4610001830	S.TRIMMER	TZB4S100AB10R00
C562	4030007130	S.CERAMIC	C1608 CH 1H 101J-T
C563	4030007070	S.CERAMIC	C1608 CH 1H 330J-T
C564	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C565	4030011340	S.CERAMIC	C1608 CH 1H 471J-T
C566	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C567	4030007070	S.CERAMIC	C1608 CH 1H 330J-T
C568	4030011340	S.CERAMIC	C1608 CH 1H 471J-T
C569	4030010760	S.CERAMIC	C1608 CH 1H 331J-T
C570	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C600	4030006900	S.CERAMIC	C1608 JB 1H 103K-T
C601	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C602	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C603	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C604	4510004650	S.ELECTROLYTIC	ECEV1EA4R7SR
C605	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C606	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C607	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C608	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C609	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C611	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C640	4030011770	S.CERAMIC	C1608 CH 1H 060B-T
C641	4030007100	S.CERAMIC	C1608 CH 1H 560J-T
C642	4030010760	S.CERAMIC	C1608 CH 1H 331J-T
C643	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C644	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C645	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C646	4030009920	S.CERAMIC	C1608 CH 1H 050B-T
C647	4030008920	S.CERAMIC	C1608 JB 1H 473K-T
C650	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C651	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C652	4030010760	S.CERAMIC	C1608 CH 1H 331J-T
C653	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C654	4030008920	S.CERAMIC	C1608 JB 1H 473K-T
C655	4030007010	S.CERAMIC	C1608 CH 1H 100D-T
C656	4030010760	S.CERAMIC	C1608 CH 1H 331J-T
C657	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C658	4030011770	S.CERAMIC	C1608 CH 1H 060B-T
C659	4030011770	S.CERAMIC	C1608 CH 1H 060B-T
C660	4030008920	S.CERAMIC	C1608 JB 1H 473K-T
C661	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C662	4030008920	S.CERAMIC	C1608 JB 1H 473K-T
C663	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C664	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C665	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C666	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C667	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C668	4030006860	S.CERAMIC	C1608 JB 1H 102K-T
C669	4030006860	S.CERAMIC	C1608 JB 1H 102K-T
C670	4030006860	S.CERAMIC	C1608 JB 1H 102K-T
C671	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C672	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C673	4030011120	S.CERAMIC	GRM31M2C2H100JV01L
C680	4030007140	S.CERAMIC	C1608 CH 1H 121J-T
C681	4030007140	S.CERAMIC	C1608 CH 1H 121J-T
C682	4030007140	S.CERAMIC	C1608 CH 1H 121J-T
C683	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C700	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C701	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C702	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C703	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C704	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C705	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C706	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C707	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C708	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C709	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C710	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C711	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C712	4030006880	S.CERAMIC	C1608 JB 1H 472K-T

Ⓑ: [EUR], [EUR-1], [ESP], [ESP-1], [OTH], [OTH-1]
 Ⓓ: [ESP], [ESP-1], [KOR], [KOR-1], [ITA], [ITA-1]
 Ⓔ: [FRA], [FRA-1], [ESP], [ESP-1], [OTH], [OTH-1], [ITA], [ITA-1]

S.=Surface mount

[PA UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
C713	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C714	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C715	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C716	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C717	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C718	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C719	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C750	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C751	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C752	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C753	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C754	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C755	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C756	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C757	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C758	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C759	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C760	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C761	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C762	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C763	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C764	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C765	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C766	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C767	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C768	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C769	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C770	4510001940	ELECTROLYTIC	16 MS7 22UF (5X7)
C783	4030011190	S.CERAMIC	GRM31M2C2H270JV01L
C800	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C801	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C802	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C803	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C804	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C805	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C806	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C807	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C808	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C809	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C810	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C811	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C812	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C813	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C814	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C815	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C816	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C817	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C818	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C819	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C820	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C821	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C850	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C851	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C852	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C853	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C854	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C855	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C856	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C857	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C858	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C859	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C860	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C861	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C862	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C863	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C864	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C865	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C866	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C867	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C868	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C869	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C870	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C871	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C872	4030011110	S.CERAMIC	GRM31M2C2H9R0DV01L
C873	4030011170	S.CERAMIC	GRM31M2C2H180JV01L
C874	4030011220	S.CERAMIC	GRM31M2C2H360JV01L
C875	4030018350	S.CERAMIC	GRM31A5C2J151JW01D
C876	4030018350	S.CERAMIC	GRM31A5C2J151JW01D

- Ⓐ: [EUR], [EUR-1], [USA], [USA-1], [KOR], [KOR-1]
- Ⓑ: [FRA], [FRA-1], [ITA], [ITA-1]
- Ⓔ: [FRA], [FRA-1], [ESP], [ESP-1], [KOR], [KOR-1], [ITA], [ITA-1]

[PA UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
C877	4030018350	S.CERAMIC	GRM31A5C2J151JW01D
C878	4030018350	S.CERAMIC	GRM31A5C2J151JW01D
C879	4030018340	S.CERAMIC	GRM31A5C2J331JW01D
C880	4030018480	S.CERAMIC	GRM31A5C2J221JW01D
C881	4030017200	S.CERAMIC	GRM31BR32J102KY01L
C882	4030018350	S.CERAMIC	GRM31A5C2J151JW01D
C883	4030017200	S.CERAMIC	GRM31BR32J102KY01L
C885	4030017200	S.CERAMIC	GRM31BR32J102KY01L
C890	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C891	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C900	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C901	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C902	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
RL250	6330001720	RELAY	ATN 207
RL400	6330001710	RELAY	ATX222
RL401	6330001710	RELAY	ATX222
RL420	6330001710	RELAY	ATX222
RL421	6330001710	RELAY	ATX222
RL440	6330001710	RELAY	ATX222
RL441	6330001710	RELAY	ATX222
RL460	6330001710	RELAY	ATX222
RL461	6330001710	RELAY	ATX222
RL480	6330001710	RELAY	ATX222
RL481	6330001710	RELAY	ATX222
RL500	6330001710	RELAY	ATX222
RL501	6330001710	RELAY	ATX222
RL520	6330001710	RELAY	ATX222
RL521	6330001710	RELAY	ATX222
RL640	6330001730	RELAY	AHY107
RL641	6330001730	RELAY	AHY107
RL750	6330001710	RELAY	ATX222
RL751	6330001710	RELAY	ATX222
RL752	6330001710	RELAY	ATX222
RL753	6330001710	RELAY	ATX222
RL754	6330001710	RELAY	ATX222
RL755	6330001710	RELAY	ATX222
RL756	6330001710	RELAY	ATX222
RL757	6330001710	RELAY	ATX222
RL758	6330001710	RELAY	ATX222
RL759	6330001710	RELAY	ATX222
RL850	6330001710	RELAY	ATX222
RL851	6330001710	RELAY	ATX222
RL852	6330001710	RELAY	ATX222
RL853	6330001710	RELAY	ATX222
RL854	6330001710	RELAY	ATX222
RL855	6330001710	RELAY	ATX222
RL856	6330001710	RELAY	ATX222
RL857	6330001710	RELAY	ATX222
RL858	6330001710	RELAY	ATX222
RL859	6330001710	RELAY	ATX222
RL860	6330001710	RELAY	ATX222
J1	6510022650	S.CONNECTOR	18FMN-BMTTR-A-TBT
J41	6510022650	S.CONNECTOR	18FMN-BMTTR-A-TBT
J100	6510007020	CONNECTOR	TMP-J01X-V6
J300	6510007020	CONNECTOR	TMP-J01X-V6
J600	6510022620	S.CONNECTOR	10FMN-BMTTR-A-TBT
J640	6910003140	CONNECTOR	IMSA-9202B-1-02T
J641	6910003140	CONNECTOR	IMSA-9202B-1-02T
J642	6910003140	CONNECTOR	IMSA-9202B-1-02T
P641	6910003120	CONNECTOR	IMSA-9206H-T
F80	5210000130	FUSE	FGB 4A (FGB0 125V)
F81	5220000230	HOLDER	S-N5054 #01
F82	5220000230	HOLDER	S-N5054 #01
W80	8900011990	CABLE	OPC-1215
W400	7030000010	S.JUMPER	MCR10EZJH JPW (000)
W401	7030000010	S.JUMPER	MCR10EZJH JPW (000)
W402	7030000010	S.JUMPER	MCR10EZJH JPW (000)
W420	7030000010	S.JUMPER	MCR10EZJH JPW (000)

- Ⓐ only
- Ⓑ only

- Ⓐ: [EUR], [EUR-1], [ESP], [ESP-1], [OTH], [OTH-1]
- Ⓑ: [ESP], [ESP-1], [KOR], [KOR-1], [ITA], [ITA-1]
- Ⓔ: [FRA], [FRA-1], [ESP], [ESP-1], [OTH], [OTH-1], [ITA], [ITA-1]

S.=Surface mount

[PA UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
W421	7030000010	S.JUMPER	MCR10EZHJ JPW (000)
W440	7030000010	S.JUMPER	MCR10EZHJ JPW (000)
W441	7030000010	S.JUMPER	MCR10EZHJ JPW (000)
W460	7030000010	S.JUMPER	MCR10EZHJ JPW (000)
W461	7030000010	S.JUMPER	MCR10EZHJ JPW (000)
W468	7030003860	S.JUMPER	ERJ3GE JPW V
W469	7030000010	S.JUMPER	MCR10EZHJ JPW (000)
W480	7030000010	S.JUMPER	MCR10EZHJ JPW (000)
W481	7030000010	S.JUMPER	MCR10EZHJ JPW (000)
W500	7030000010	S.JUMPER	MCR10EZHJ JPW (000)
W501	7030000010	S.JUMPER	MCR10EZHJ JPW (000)
W502	7030000010	S.JUMPER	MCR10EZHJ JPW (000)
W521	7030000010	S.JUMPER	MCR10EZHJ JPW (000)
W562	7030010250	S.JUMPER	ERJ1TYJ 0R00U
W640	7030003860	S.JUMPER	ERJ3GE JPW V
W641	7030003860	S.JUMPER	ERJ3GE JPW V
W642	7030003860	S.JUMPER	ERJ3GE JPW V
W643	7030003860	S.JUMPER	ERJ3GE JPW V
W644	7030003860	S.JUMPER	ERJ3GE JPW V
W645	7030000010	S.JUMPER	MCR10EZHJ JPW (000)
W647	7030003860	S.JUMPER	ERJ3GE JPW V
W750	7030008240	S.JUMPER	ERJ12YJ0R00U
W753	7030003860	S.JUMPER	ERJ3GE JPW V
W754	7030003860	S.JUMPER	ERJ3GE JPW V
W755	7030003860	S.JUMPER	ERJ3GE JPW V
W756	7030003860	S.JUMPER	ERJ3GE JPW V
W757	7030003860	S.JUMPER	ERJ3GE JPW V
W758	7030003860	S.JUMPER	ERJ3GE JPW V
W759	7030003860	S.JUMPER	ERJ3GE JPW V
W760	7030003860	S.JUMPER	ERJ3GE JPW V
W761	7030003860	S.JUMPER	ERJ3GE JPW V
W762	7030003860	S.JUMPER	ERJ3GE JPW V
W763	7030003860	S.JUMPER	ERJ3GE JPW V
W764	7030003860	S.JUMPER	ERJ3GE JPW V
W765	7030003860	S.JUMPER	ERJ3GE JPW V
W766	7030003860	S.JUMPER	ERJ3GE JPW V
W767	7030003860	S.JUMPER	ERJ3GE JPW V
W768	7030003860	S.JUMPER	ERJ3GE JPW V
W769	7030003860	S.JUMPER	ERJ3GE JPW V
W770	7030003860	S.JUMPER	ERJ3GE JPW V
W771	7030003860	S.JUMPER	ERJ3GE JPW V
W772	7030003860	S.JUMPER	ERJ3GE JPW V
W870	7030003860	S.JUMPER	ERJ3GE JPW V
W871	7030003860	S.JUMPER	ERJ3GE JPW V
W999	7120000470	JUMPER	ERDS2T0
WS1	8600036911		SX2591 J901*900PA-1
EP1	0910055855	PCB	B 5903E
EP40	6910012350	S.BEAD	MMZ1608Y 102BT
EP41	6910012350	S.BEAD	MMZ1608Y 102BT
EP42	6910012350	S.BEAD	MMZ1608Y 102BT
EP43	6910012350	S.BEAD	MMZ1608Y 102BT
EP904	9010000630	TUBE	TUBE 10(d)

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
IC101	1110004080	S.IC	μPC2709T-E3
IC401	1130006080	S.IC	TC74HC02AF (TP1)
IC1401	1130005640	S.IC	TC4W53F (TE12L)
IC1601	1110003300	S.IC	M5282FP 70CD
IC1602	1130005640	S.IC	TC4W53F (TE12L)
IC1621	1110002680	S.IC	NJM2902M-T1
IC1701	1130007820	S.IC	BU4052BCF-T1
IC1751	1130005640	S.IC	TC4W53F (TE12L)
IC1801	1110005460	S.IC	TA4107F (TE12L)
IC1901	1110004870	S.IC	TA4101F (TE12L)
IC2101	1110003490	S.IC	TA31136FN (D,EL)
IC2201	1110003870	S.IC	NJM2058M-TE1

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
IC2301	1130007820	S.IC	BU4052BCF-T1
IC2401	1110002680	S.IC	NJM2902M-T1
IC2461	1130005640	S.IC	TC4W53F (TE12L)
IC2651	1130005640	S.IC	TC4W53F (TE12L)
IC2701	1110002680	S.IC	NJM2902M-T1
IC4001	1130005720	S.IC	TC7W04F (TE12L)
IC5401	1130009690	S.IC	TC74HCT7007AF
IC5601	1130007820	S.IC	BU4052BCF-T1
IC5701	1130003830	S.IC	TC7S04F (TE85R)
IC5851	1130010520	S.IC	SN74HCT244APWR
IC5901	1140011200	S.IC	M30620FCMGP
IC5961	1130011210	S.IC	CAT24WC64J-TE13
IC5981	1110005820	S.IC	R3112N281A-TR
IC6101	1130007700	S.IC	BU4094BCF-E2
IC6501	1190001350	S.IC	M62364FP 600D
IC7001	1110002680	S.IC	NJM2902M-T1
IC7201	1110003300	S.IC	M5282FP 70CD
IC7301	1110003250	S.IC	TDA7233D (TDA7233D013TR)
IC9001	1190001810	S.IC	AD9833BRM
IC9101	1110005220	S.IC	MC145170D2R2
IC9521	1130004830	S.IC	TC7SU04F (TE85R)
IC9601	1130007660	S.IC	LC7153M-TLM
IC9681	1180000420	S.IC	TA78L05F (TE12R)
IC9691	1130005720	S.IC	TC7W04F (TE12L)
IC9701	1190001810	S.IC	AD9833BRM
IC9801	1130009690	S.IC	TC74HCT7007AF
IC9901	1180002390	S.REG	S-812C33AMC-C2N-T2
IC9921	1180002020	S.REG	BA033FP-E2
IC9941	1180001070	S.IC	TA7805F (TE16L)
IC9961	1180002010	S.REG	BA08FP-E2
Q1	1590001870	S. TRANSISTOR	DTA114EE TL
Q2	1590001870	S. TRANSISTOR	DTA114EE TL
Q3	1560001260	S.FET	2SK3018 T106
Q4	1560001260	S.FET	2SK3018 T106
Q101	1590001960	S. TRANSISTOR	XP4311 (TX)
Q102	1590001960	S. TRANSISTOR	XP4311 (TX)
Q401	1530002060	S. TRANSISTOR	2SC4081 T106 R
Q402	1530002060	S. TRANSISTOR	2SC4081 T106 R
Q403	1530002060	S. TRANSISTOR	2SC4081 T106 R
Q404	1530002060	S. TRANSISTOR	2SC4081 T106 R
Q405	1530002060	S. TRANSISTOR	2SC4081 T106 R
Q406	1530002060	S. TRANSISTOR	2SC4081 T106 R
Q407	1530002060	S. TRANSISTOR	2SC4081 T106 R
Q408	1530002060	S. TRANSISTOR	2SC4081 T106 R
Q409	1530002060	S. TRANSISTOR	2SC4081 T106 R
Q411	1590001870	S. TRANSISTOR	DTA114EE TL
Q412	1590001870	S. TRANSISTOR	DTA114EE TL
Q413	1590001870	S. TRANSISTOR	DTA114EE TL
Q415	1560001260	S.FET	2SK3018 T106
Q416	1560001260	S.FET	2SK3018 T106
Q417	1560001260	S.FET	2SK3018 T106
Q501	1560000640	S.FET	2SK1740-TA
Q502	1590001870	S. TRANSISTOR	DTA114EE TL
Q651	1530003240	S. TRANSISTOR	2SC4536 QS-T1
Q652	1590001960	S. TRANSISTOR	XP4311 (TX)
Q701	1590001870	S. TRANSISTOR	DTA114EE TL
Q702	1560001260	S.FET	2SK3018 T106
Q751	1530003150	S. TRANSISTOR	2SC4673D-TD
Q752	1590001870	S. TRANSISTOR	DTA114EE TL
Q753	1560001260	S.FET	2SK3018 T106
Q811	1560000490	S.FET	2SK508 K52 T2B
Q831	1580000750	S.FET	3SK294 (TE85L)
Q881	1580000750	S.FET	3SK294 (TE85L)
Q1001	1590001870	S. TRANSISTOR	DTA114EE TL
Q1002	1530002060	S. TRANSISTOR	2SC4081 T106 R
Q1003	1530002060	S. TRANSISTOR	2SC4081 T106 R
Q1004	1510000510	S. TRANSISTOR	2SA1576A T106R
Q1005	1530002060	S. TRANSISTOR	2SC4081 T106 R
Q1006	1560001260	S.FET	2SK3018 T106
Q1051	1560000560	S.FET	2SK882-GR (TE85L)
Q1052	1560000560	S.FET	2SK882-GR (TE85L)
Q1053	1560000560	S.FET	2SK882-GR (TE85L)
Q1101	1580000750	S.FET	3SK294 (TE85L)
Q1102	1590002310	S. TRANSISTOR	DTC114EE TL
Q1201	1560000560	S.FET	2SK882-GR (TE85L)
Q1251	1530002060	S. TRANSISTOR	2SC4081 T106 R

Ⓐ: [EUR], [EUR-1], [USA], [USA-1], [KOR], [KOR-1]

Ⓒ: [FRA], [FRA-1], [ITA], [ITA-1]

Ⓔ: [FRA], [FRA-1], [ESP], [ESP-1], [KOR], [KOR-1], [ITA], [ITA-1]

Ⓑ: [EUR], [EUR-1], [ESP], [ESP-1], [OTH], [OTH-1]

Ⓓ: [ESP], [ESP-1], [KOR], [KOR-1], [ITA], [ITA-1]

Ⓕ: [FRA], [FRA-1], [ESP], [ESP-1], [OTH], [OTH-1], [ITA], [ITA-1]

S.=Surface mount

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION
Q1301	1590001870	S.TRANSISTOR DTA114EE TL
Q1302	1590001870	S.TRANSISTOR DTA114EE TL
Q1303	1590001870	S.TRANSISTOR DTA114EE TL
Q1304	1590001870	S.TRANSISTOR DTA114EE TL
Q1305	1560001260	S.FET 2SK3018 T106
Q1306	1560001260	S.FET 2SK3018 T106
Q1307	1560001260	S.FET 2SK3018 T106
Q1308	1560001260	S.FET 2SK3018 T106
Q1401	1580000750	S.FET 3SK294 (TE85L)
Q1402	1590002310	S.TRANSISTOR DTC114EE TL
Q1403	1590001330	S.TRANSISTOR DTA114EUA T106
Q1404	1560001260	S.FET 2SK3018 T106
Q1701	1590002310	S.TRANSISTOR DTC114EE TL
Q1721	1530002060	S.TRANSISTOR 2SC4081 T106 R
Q1801	1590002310	S.TRANSISTOR DTC114EE TL
Q1802	1590001870	S.TRANSISTOR DTA114EE TL
Q1803	1560001260	S.FET 2SK3018 T106
Q1851	1590001870	S.TRANSISTOR DTA114EE TL
Q1852	1590001870	S.TRANSISTOR DTA114EE TL
Q1853	1560001260	S.FET 2SK3018 T106
Q1854	1560001260	S.FET 2SK3018 T106
Q1855	1560001260	S.FET 2SK3018 T106
Q2101	1590001870	S.TRANSISTOR DTA114EE TL
Q2102	1560001260	S.FET 2SK3018 T106
Q2103	1590001330	S.TRANSISTOR DTA114EUA T106
Q2104	1560001260	S.FET 2SK3018 T106
Q2451	1560001260	S.FET 2SK3018 T106
Q2452	1560001260	S.FET 2SK3018 T106
Q2454	1560001260	S.FET 2SK3018 T106
Q2455	1560001260	S.FET 2SK3018 T106
Q2461	1520000450	S.TRANSISTOR 2SB1132 T100 Q
Q2462	1560001260	S.FET 2SK3018 T106
Q2501	1530002060	S.TRANSISTOR 2SC4081 T106 R
Q2502	1590001870	S.TRANSISTOR DTA114EE TL
Q2503	1590001870	S.TRANSISTOR DTA114EE TL
Q2504	1560001260	S.FET 2SK3018 T106
Q2505	1560001260	S.FET 2SK3018 T106
Q2601	1560001260	S.FET 2SK3018 T106
Q2701	1590002310	S.TRANSISTOR DTC114EE TL
Q2702	1590002310	S.TRANSISTOR DTC114EE TL
Q2703	1560001260	S.FET 2SK3018 T106
Q2704	1560001260	S.FET 2SK3018 T106
Q2705	1560001260	S.FET 2SK3018 T106
Q2781	1510000510	S.TRANSISTOR 2SA1576A T106R
Q4001	1510000510	S.TRANSISTOR 2SA1576A T106R
Q4002	1530002060	S.TRANSISTOR 2SC4081 T106 R
Q5401	1530002060	S.TRANSISTOR 2SC4081 T106 R
Q5701	1560001260	S.FET 2SK3018 T106
Q5851	1560001260	S.FET 2SK3018 T106
Q6201	1590002310	S.TRANSISTOR DTC114EE TL
Q6321	1590002310	S.TRANSISTOR DTC114EE TL
Q6322	1520000450	S.TRANSISTOR 2SB1132 T100 Q
Q6323	1560001260	S.FET 2SK3018 T106
Q6341	1590002310	S.TRANSISTOR DTC114EE TL
Q6342	1520000450	S.TRANSISTOR 2SB1132 T100 Q
Q6343	1560001260	S.FET 2SK3018 T106
Q6471	1530002060	S.TRANSISTOR 2SC4081 T106 R
Q6601	1530002060	S.TRANSISTOR 2SC4081 T106 R
Q6641	1560001290	S.FET 2SK3065 T100
Q6661	1530002060	S.TRANSISTOR 2SC4081 T106 R
Q6851	1560001260	S.FET 2SK3018 T106
Q7351	1520000450	S.TRANSISTOR 2SB1132 T100 Q
Q7352	1530002060	S.TRANSISTOR 2SC4081 T106 R
Q7371	1560001220	S.FET ECH8301-TL
Q7372	1560001260	S.FET 2SK3018 T106
Q9051	1530002060	S.TRANSISTOR 2SC4081 T106 R
Q9201	1560000490	S.FET 2SK508 K52 T2B
Q9202	1530002060	S.TRANSISTOR 2SC4081 T106 R
Q9221	1530002060	S.TRANSISTOR 2SC4081 T106 R
Q9251	1560000490	S.FET 2SK508 K52 T2B
Q9252	1530002060	S.TRANSISTOR 2SC4081 T106 R
Q9301	1530003220	S.TRANSISTOR 2SC4406-4-TL
Q9401	1590001870	S.TRANSISTOR DTA114EE TL
Q9600	1560001260	S.FET 2SK3018 T106
Q9621	1560000330	S.FET 2SK210-GR (TE85R)
Q9651	1530003150	S.TRANSISTOR 2SC4673D-TD
Q9681	1530002060	S.TRANSISTOR 2SC4081 T106 R
Q9801	1590001960	S.TRANSISTOR XP4311 (TX)

Ⓐ: [EUR], [EUR-1], [USA], [USA-1], [KOR], [KOR-1]
 ㉔: [FRA], [FRA-1], [ITA], [ITA-1]
 ㉕: [FRA], [FRA-1], [ESP], [ESP-1], [KOR], [KOR-1], [ITA], [ITA-1]

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION
Q9960	1560001260	S.FET 2SK3018 T106
Q9963	1590001870	S.TRANSISTOR DTA114EE TL
Q9964	1590001870	S.TRANSISTOR DTA114EE TL
Q9965	1560001260	S.FET 2SK3018 T106
Q9966	1560001260	S.FET 2SK3018 T106
Q9967	1590001870	S.TRANSISTOR DTA114EE TL
Q9968	1560001220	S.FET ECH8301-TL
D1	1790000620	S.DIODE MA77 (TX)
D2	1790000620	S.DIODE MA77 (TX)
D3	1790000620	S.DIODE MA77 (TX)
D101	1790000620	S.DIODE MA77 (TX)
D102	1790000620	S.DIODE MA77 (TX)
D301	1790000620	S.DIODE MA77 (TX)
D302	1790000620	S.DIODE MA77 (TX)
D303	1790000620	S.DIODE MA77 (TX)
D305	1790000620	S.DIODE MA77 (TX)
D501	1790000620	S.DIODE MA77 (TX)
D502	1790000620	S.DIODE MA77 (TX)
D521	1790000620	S.DIODE MA77 (TX)
D522	1790000620	S.DIODE MA77 (TX)
D541	1790000620	S.DIODE MA77 (TX)
D542	1790000620	S.DIODE MA77 (TX)
D551	1790000620	S.DIODE MA77 (TX)
D552	1790000620	S.DIODE MA77 (TX)
D561	1790000620	S.DIODE MA77 (TX)
D562	1790000620	S.DIODE MA77 (TX)
D571	1790000620	S.DIODE MA77 (TX)
D572	1790000620	S.DIODE MA77 (TX)
D581	1790000620	S.DIODE MA77 (TX)
D582	1790000620	S.DIODE MA77 (TX)
D591	1790000620	S.DIODE MA77 (TX)
D592	1790000620	S.DIODE MA77 (TX)
D601	1790000620	S.DIODE MA77 (TX)
D602	1790000620	S.DIODE MA77 (TX)
D621	1790000620	S.DIODE MA77 (TX)
D622	1790000620	S.DIODE MA77 (TX)
D623	1790000620	S.DIODE MA77 (TX)
D631	1790000620	S.DIODE MA77 (TX)
D632	1790000620	S.DIODE MA77 (TX)
D701	1750000430	S.DIODE HSB88WSTR
D753	1790001560	S.DIODE 1SS372 (TE85R)
D801	1790000620	S.DIODE MA77 (TX)
D802	1750000530	S.DIODE 1SV271 (TPH3)
D803	1790000620	S.DIODE MA77 (TX)
D804	1790000620	S.DIODE MA77 (TX)
D861	1790000620	S.DIODE MA77 (TX)
D862	1790000620	S.DIODE MA77 (TX)
D863	1790000620	S.DIODE MA77 (TX)
D864	1790000620	S.DIODE MA77 (TX)
D901	1750000430	S.DIODE HSB88WSTR
D1001	1790001250	S.DIODE MA2S111-(TX)
D1002	1790001790	S.DIODE RB876W TL
D1301	1790000620	S.DIODE MA77 (TX)
D1302	1790000620	S.DIODE MA77 (TX)
D1303	1790000620	S.DIODE MA77 (TX)
D1305	1790000620	S.DIODE MA77 (TX)
D1307	1790000620	S.DIODE MA77 (TX)
D1309	1790000620	S.DIODE MA77 (TX)
D1311	1790000620	S.DIODE MA77 (TX)
D1313	1790000620	S.DIODE MA77 (TX)
D1315	1790000620	S.DIODE MA77 (TX)
D1317	1790000620	S.DIODE MA77 (TX)
D1401	1790000620	S.DIODE MA77 (TX)
D1402	1790000620	S.DIODE MA77 (TX)
D1403	1790000620	S.DIODE MA77 (TX)
D1404	1790000620	S.DIODE MA77 (TX)
D1408	1790001250	S.DIODE MA2S111-(TX)
D1641	1750000370	S.DIODE DA221 TL
D1642	1750000370	S.DIODE DA221 TL
D1801	1790001250	S.DIODE MA2S111-(TX)
D1802	1790001560	S.DIODE 1SS372 (TE85R)
D1851	1750000520	S.DIODE DAN222TL
D2001	1790001790	S.DIODE RB876W TL
D2221	1790001610	S.DIODE 1SS385 (TE85L)
D2501	1790001790	S.DIODE RB876W TL
D2502	1790001250	S.DIODE MA2S111-(TX)

Ⓐ only
 ㉔ only
 ㉕ only

Ⓑ: [EUR], [EUR-1], [ESP], [ESP-1], [OTH], [OTH-1]
 ㉔: [ESP], [ESP-1], [KOR], [KOR-1], [ITA], [ITA-1]
 ㉕: [FRA], [FRA-1], [ESP], [ESP-1], [OTH], [OTH-1], [ITA], [ITA-1]

S.=Surface mount

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
C884	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C885	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C886	4030007030	S.CERAMIC	C1608 CH 1H 150J-T
C887	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C888	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C889	4030006860	S.CERAMIC	C1608 JB 1H 102K-T
C901	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C903	4030011340	S.CERAMIC	C1608 CH 1H 471J-T
C904	4030007130	S.CERAMIC	C1608 CH 1H 101J-T
C1002	4510004640	S.ELECTROLYTIC	ECEV1CA470SP
C1003	4510004440	S.ELECTROLYTIC	ECEV1HA010SR
C1004	4030011340	S.CERAMIC	C1608 CH 1H 471J-T
C1005	4030006870	S.CERAMIC	C1608 JB 1H 222K-T
C1006	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C1051	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1052	4030007100	S.CERAMIC	C1608 CH 1H 560J-T
C1053	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1055	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1056	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1058	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1059	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1101	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C1102	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1104	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1105	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C1106	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C1108	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1109	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1201	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1202	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C1203	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1251	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1252	4550006250	S.TANTALUM	TEMSVA 1A 106M-8L
C1303	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C1321	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1322	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1341	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1342	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1361	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1362	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1381	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1382	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1383	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1401	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C1402	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C1403	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1404	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1405	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C1406	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1407	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C1408	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C1409	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C1410	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C1411	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1412	4550006150	S.TANTALUM	ECST1CY105R
C1413	4510004440	S.ELECTROLYTIC	ECEV1HA010SR
C1415	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1416	4030006860	S.CERAMIC	C1608 JB 1H 102K-T
C1601	4030010210	S.CERAMIC	C3216 JB 1C 105M-T
C1602	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C1606	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1607	4510004440	S.ELECTROLYTIC	ECEV1HA010SR
C1608	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C1609	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1610	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C1611	4510004440	S.ELECTROLYTIC	ECEV1HA010SR
C1621	4030008910	S.CERAMIC	C1608 JB 1H 393K-T
C1622	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1641	4510004440	S.ELECTROLYTIC	ECEV1HA010SR
C1642	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1645	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1646	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1647	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1661	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1662	4030007130	S.CERAMIC	C1608 CH 1H 101J-T
C1663	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1664	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1681	4510004440	S.ELECTROLYTIC	ECEV1HA010SR

- Ⓐ: [EUR], [EUR-1], [USA], [USA-1], [KOR], [KOR-1]
- Ⓒ: [FRA], [FRA-1], [ITA], [ITA-1]
- Ⓔ: [FRA], [FRA-1], [ESP], [ESP-1], [KOR], [KOR-1], [ITA], [ITA-1]

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
C1682	4030011340	S.CERAMIC	C1608 CH 1H 471J-T
C1701	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C1702	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1703	4030012610	S.CERAMIC	C2012 JB 1C 474K-T
C1721	4510004440	S.ELECTROLYTIC	ECEV1HA010SR
C1722	4510004440	S.ELECTROLYTIC	ECEV1HA010SR
C1723	4510004440	S.ELECTROLYTIC	ECEV1HA010SR
C1751	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1752	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C1801	4510005860	S.ELECTROLYTIC	ECEV1HA2R2SR
C1802	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1805	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1806	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1807	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C1808	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1809	4510004440	S.ELECTROLYTIC	ECEV1HA010SR
C1851	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C1852	4550006560	S.TANTALUM	ECST1CY225R
C1901	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1902	4030007130	S.CERAMIC	C1608 CH 1H 101J-T
C1903	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1904	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1905	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1906	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C1907	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1908	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1909	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C1910	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C2001	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C2002	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C2003	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C2004	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C2005	4510005870	S.ELECTROLYTIC	ECEV1HA3R3SR
C2101	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C2102	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C2103	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C2104	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C2105	4030007170	S.CERAMIC	C1608 CH 1H 221J-T
C2106	4030007170	S.CERAMIC	C1608 CH 1H 221J-T
C2107	4030006900	S.CERAMIC	C1608 JB 1H 103K-T
C2109	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C2110	4030007130	S.CERAMIC	C1608 CH 1H 101J-T
C2151	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C2152	4030006900	S.CERAMIC	C1608 JB 1H 103K-T
C2153	4030006900	S.CERAMIC	C1608 JB 1H 103K-T
C2154	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C2201	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C2202	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C2203	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C2204	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C2221	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C2222	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C2301	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C2302	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C2401	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C2402	4030006870	S.CERAMIC	C1608 JB 1H 222K-T
C2403	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C2451	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C2452	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C2499	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C2501	4030007150	S.CERAMIC	C1608 CH 1H 151J-T
C2502	4030007130	S.CERAMIC	C1608 CH 1H 101J-T
C2503	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C2504	4510005870	S.ELECTROLYTIC	ECEV1HA3R3SR
C2505	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C2551	4030006880	S.CERAMIC	C1608 JB 1H 472K-T
C2601	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C2602	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C2604	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C2605	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C2606	4030006860	S.CERAMIC	C1608 JB 1H 102K-T
C2607	4030006870	S.CERAMIC	C1608 JB 1H 222K-T
C2608	4030007140	S.CERAMIC	C1608 CH 1H 121J-T
C2651	4030011600	S.CERAMIC	C1608 JB 1E 104K-T
C2652	4030010210	S.CERAMIC	C3216 JB 1C 105M-T
C2701	4030007050	S.CERAMIC	C1608 CH 1H 220J-T
C2702	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C2704	4030011600	S.CERAMIC	C1608 JB 1E 104K-T

- Ⓑ: [EUR], [EUR-1], [ESP], [ESP-1], [OTH], [OTH-1]
- Ⓓ: [ESP], [ESP-1], [KOR], [KOR-1], [ITA], [ITA-1]
- Ⓕ: [FRA], [FRA-1], [ESP], [ESP-1], [OTH], [OTH-1], [ITA], [ITA-1]

S.=Surface mount

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
J5101	6510023460	S.CONNETOR	08FMN-BMTTR-A-TBT
J5901	6510022620	S.CONNECTOR	10FMN-BMTTR-A-TBT
J6701	6510022650	S.CONNECTOR	18FMN-BMTTR-A-TBT
J6751	6510022650	S.CONNECTOR	18FMN-BMTTR-A-TBT
J6801	6510016170	CONNECTOR	52018-8835
J6851	6450001840	CONNECTOR	TCS7568-43-201
J6901	6450000140	CONNECTOR	HSJ0807-01-010
J6921	6450001790	CONNECTOR	HLJ7000-01-3010
J6951	6450001640	CONNECTOR	TCS5044-01-4111
J7121	6510019190	S.CONNECTOR	52365-0891
J7371	6450000140	CONNECTOR	HSJ0807-01-010
J7372	6510018960	S.CONNECTOR	B2B-PH-SM3-TB
W1	7030003860	S.JUMPER	ERJ3GE JPW V
W3	7030003860	S.JUMPER	ERJ3GE JPW V
W5	7030003860	S.JUMPER	ERJ3GE JPW V
W106	7030003860	S.JUMPER	ERJ3GE JPW V
W108	7030003860	S.JUMPER	ERJ3GE JPW V
W311	7030003860	S.JUMPER	ERJ3GE JPW V
W401	7030003860	S.JUMPER	ERJ3GE JPW V
W830	7030010250	S.JUMPER	ERJ1TYJ 0R00U
W831	7030003860	S.JUMPER	ERJ3GE JPW V
W901	7030000010	S.JUMPER	MCR10EZHJ JPW (000)
W1421	7030003860	S.JUMPER	ERJ3GE JPW V
W1601	7030003860	S.JUMPER	ERJ3GE JPW V
W1661	7030003860	S.JUMPER	ERJ3GE JPW V
W1801	7030003860	S.JUMPER	ERJ3GE JPW V
W1813	7030003860	S.JUMPER	ERJ3GE JPW V
W1852	7030003860	S.JUMPER	ERJ3GE JPW V
W2782	7030003860	S.JUMPER	ERJ3GE JPW V
W2785	7030003860	S.JUMPER	ERJ3GE JPW V
W4001	7030003860	S.JUMPER	ERJ3GE JPW V
W4002	7030003860	S.JUMPER	ERJ3GE JPW V
W6101	7030003860	S.JUMPER	ERJ3GE JPW V
W9005	7030003860	S.JUMPER	ERJ3GE JPW V
W9021	7030003860	S.JUMPER	ERJ3GE JPW V
W9022	7030003860	S.JUMPER	ERJ3GE JPW V
W9201	7030003860	S.JUMPER	ERJ3GE JPW V
W9251	7030000010	S.JUMPER	MCR10EZHJ JPW (000)
W9353	7030003860	S.JUMPER	ERJ3GE JPW V
W9610	7030003860	S.JUMPER	ERJ3GE JPW V
W9672	7030003860	S.JUMPER	ERJ3GE JPW V
W9673	7030000010	S.JUMPER	MCR10EZHJ JPW (000)
W9674	7030000010	S.JUMPER	MCR10EZHJ JPW (000)
W9676	7030000010	S.JUMPER	MCR10EZHJ JPW (000)
W9691	7030003860	S.JUMPER	ERJ3GE JPW V
W9692	7030003860	S.JUMPER	ERJ3GE JPW V
W9721	7030003860	S.JUMPER	ERJ3GE JPW V
W9722	7030003860	S.JUMPER	ERJ3GE JPW V
W9751	7030003860	S.JUMPER	ERJ3GE JPW V
W9752	7030003860	S.JUMPER	ERJ3GE JPW V
WS1	8970024110	OTHER	SX2591 Shield(B) (1)/MA
EP2	0910055866	PCB	B 5904F
EP101	6910012350	S.BEAD	MMZ1608Y 102BT
EP801	6910012350	S.BEAD	MMZ1608Y 102BT
EP812	6910012350	S.BEAD	MMZ1608Y 102BT
EP831	6910012350	S.BEAD	MMZ1608Y 102BT
EP901	6910012350	S.BEAD	MMZ1608Y 102BT
EP5001	6910012350	S.BEAD	MMZ1608Y 102BT
EP5002	6910012350	S.BEAD	MMZ1608Y 102BT
EP5003	6910012350	S.BEAD	MMZ1608Y 102BT
EP6756	6910012350	S.BEAD	MMZ1608Y 102BT
EP6757	6910012350	S.BEAD	MMZ1608Y 102BT
EP6801	6910012350	S.BEAD	MMZ1608Y 102BT
EP6802	6910012350	S.BEAD	MMZ1608Y 102BT
EP6803	6910012350	S.BEAD	MMZ1608Y 102BT
EP6805	6910012350	S.BEAD	MMZ1608Y 102BT
EP6806	6910012350	S.BEAD	MMZ1608Y 102BT
EP6807	6910012350	S.BEAD	MMZ1608Y 102BT
EP6821	6910012350	S.BEAD	MMZ1608Y 102BT
EP6822	6910012350	S.BEAD	MMZ1608Y 102BT
EP6823	6910012350	S.BEAD	MMZ1608Y 102BT
EP6825	6910012350	S.BEAD	MMZ1608Y 102BT

Ⓐ: [EUR], [EUR-1], [USA], [USA-1], [KOR], [KOR-1]
 Ⓒ: [FRA], [FRA-1], [ITA], [ITA-1]
 Ⓔ: [FRA], [FRA-1], [ESP], [ESP-1], [KOR], [KOR-1], [ITA], [ITA-1]

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
EP6826	6910012350	S.BEAD	MMZ1608Y 102BT
EP6827	6910012350	S.BEAD	MMZ1608Y 102BT
EP6851	6910012350	S.BEAD	MMZ1608Y 102BT
EP6852	6910012350	S.BEAD	MMZ1608Y 102BT
EP6853	6910012350	S.BEAD	MMZ1608Y 102BT
EP6854	6910012350	S.BEAD	MMZ1608Y 102BT
EP6855	6910012350	S.BEAD	MMZ1608Y 102BT
EP6871	6910012350	S.BEAD	MMZ1608Y 102BT
EP6872	6910012350	S.BEAD	MMZ1608Y 102BT
EP6873	6910012350	S.BEAD	MMZ1608Y 102BT
EP6874	6910012350	S.BEAD	MMZ1608Y 102BT
EP6875	6910012350	S.BEAD	MMZ1608Y 102BT
EP6876	6910012350	S.BEAD	MMZ1608Y 102BT
EP6901	6910012350	S.BEAD	MMZ1608Y 102BT
EP6902	6910012350	S.BEAD	MMZ1608Y 102BT
EP6911	6910012350	S.BEAD	MMZ1608Y 102BT
EP6912	6910012350	S.BEAD	MMZ1608Y 102BT
EP6921	6910012350	S.BEAD	MMZ1608Y 102BT
EP6922	6910012350	S.BEAD	MMZ1608Y 102BT
EP6923	6910012350	S.BEAD	MMZ1608Y 102BT
EP6924	6910012350	S.BEAD	MMZ1608Y 102BT
EP6952	6910012350	S.BEAD	MMZ1608Y 102BT
EP6955	6910012350	S.BEAD	MMZ1608Y 102BT
EP6956	6910012350	S.BEAD	MMZ1608Y 102BT
EP6957	6910012350	S.BEAD	MMZ1608Y 102BT
EP6958	6910012350	S.BEAD	MMZ1608Y 102BT
EP6959	6910012350	S.BEAD	MMZ1608Y 102BT
EP6960	6910012350	S.BEAD	MMZ1608Y 102BT
EP6961	6910012350	S.BEAD	MMZ1608Y 102BT

Ⓑ: [EUR], [EUR-1], [ESP], [ESP-1], [OTH], [OTH-1]
 Ⓓ: [ESP], [ESP-1], [KOR], [KOR-1], [ITA], [ITA-1]
 Ⓕ: [FRA], [FRA-1], [ESP], [ESP-1], [OTH], [OTH-1], [ITA], [ITA-1]

S.=Surface mount

SECTION 6 MECHANICAL PARTS AND DISASSEMBLY

[CHASSIS UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
J1	6510000370	Antenna connector MR-DS	1
W7	8900011980	Cable OPC-1214	1
W8	8900011980	Cable OPC-1214	1
W9	8900011970	Cable OPC-1213	1
EP1	880001250	DSP unit UT-106 [Equipped version] only	1
SP1	2510000990	Speaker VS-66Y0811	1
MP1	8010001490	Stand (D)	1
MP2	8930005790	Color foot (A)	1
MP3	8930005800	Color foot (B)	1
MP4	8820000530	Flange bolt M4 × 8 NI	1
MP5	8930042690	Rubber foot (L)	2
MP8	89300052450	2355 earth plate	1
MP9	8810008660	Screw PH BT M3 × 8 NI-ZU	9
MP10	8810008660	Screw PH BT M3 × 8 NI-ZU	2
MP11	8810009610	Screw FH M2.6 × 6 ZK	9
MP12	8850000140	Flat washer M4 NI BS	1
MP13	8810008990	Screw BT M2 × 10 ZK	1
MP14	8850001560	Ster washer M4	1
MP15	8810008660	Screw PH BT M3 × 8 NI-ZU	9
MP16	8810004430	Screw PH M3 × 6 ZK	2
MP17	8810004430	Screw PH M3 × 6 ZK	2
MP19	8810003380	Setscrew C M3 × 10	2
MP20	8810009610	Screw FH M2.6 × 6 ZK	9
MP21	8930042440	1897 SP holder	1
MP22	8810009610	Screw FH M2.6 × 6 ZK	4
MP23	8010019121	2591 chassis-1	1
MP24	8110007880	2591 L-cover	1
MP25	8110007940	2591 T-cover assembly	1
MP26	8930059121	Thermally sheet (AJ)-1	2
MP28	8930059971	2591 A-sponge-1	1
MP29	8930059961	2591 SP sponge-1	1
MP30	8930059880	Earth spring (H)	1
MP32	8810008660	Screw PH BT M3 × 8 NI-ZU	1
MP33	8510015060	2591 shield plate	1
MP35	8930060140	Sheet (CI)	1
MP36	8930060140	Sheet (CI)	1
MP38	8930060310	Shield tape (P)	1
MP39	8930060300	Shield tape (O)	1
MP40	8930060290	Shield tape (N)	1

[FRONT UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
EP1	0880001360	EX-2500 #02	1
W1	8900006040	Flat cable OPC-593	1
W2	8900006251	Cable OPC-610A	1
MP1	8210019400	2177 front panel (A)-1 assembly	1
MP2	8210012580	1691 rear panel	1
MP3	8930058960	2177 menu key (A)	1
MP4	8930047960	2177 mode key	1
MP7	8930036751	Spring (Y)-1	1
MP9	8830001010	Hex nut (A)	2
MP10	8610010000	Knob N237 (incl. MP28)	1
MP11	8610010010	Knob N238	2
MP12	8610010112	Knob N239-2 assembly	1
MP15	8930036691	1691 release button-1	1
MP18	8310036273	1691 brake plate-3 (incl. MP20)	1
MP19	8950004192	1691 contact base (B)-2	1
MP20	8930036740	1691 brake pad	2
MP21	8930037111	1691 brake sheet-1	1
MP23	8810008990	Screw PH BT M2 × 10 ZK	2
MP24	8930038940	Sponge (EF)	1
MP26	8610010360	Knob N260 (incl. MP27)	1
MP27	8610007510	Knob spring No.7800	1
MP28	8610007510	Knob spring No.7800	1

[DISPLAY BOARD]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
J2	6450001630	Connector HSJ1406-01-050 (PHONES)	1
DS4	5030001670	LCD DLC-8309YBGF	1
DS5	5030002560	LED CV1073	1
EP7	8930059720	LCD connector SRCN-2591-SP-N-W	2
MP1	8930036710	1691 LCD holder	1
MP2	8810009040	Setscrew H M2.6 × 10 NI	1
MP3	8830000180	Nut M2.6 NI BS	1
MP4	8510015220	2591 front plate	1
MP6	8510014100	2177 front shield	1

[VR BOARD]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
R1	7210002780	Variable resistor RV-300 (RK0972210)	1
R2	7210002940	Variable resistor TP96D231E20-20F-10KB-1897	1
S1	2220000540	Switch SW-162 (SSSS22-2-11)	1

[JACK BOARD]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
MP1	8950004181	1691 contact base (A)-1	1

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
WS1	8970024110	ICOM shield (B)	1
J6801	6510016170	Connector 52018-8835 (MIC)	1
J6851	6450001840	Connector TCS7568-43-201 (DATA)	1
J6901	6450000140	Connector HSJ0807-01-010 (REMOTE)	1
J6921	6450001790	Connector HLJ7000-01-3010 (KEY)	1
J6951	6450001640	Connector TCS5044-01-4111(ACC)	1
J7371	6450000140	Connector HSJ0807-01-010 (EXT-SP)	1
MP701	8510012400	2177 D/A case	1
MP5901	8510015080	2591 shield case	1
MP5902	8930060200	Sheet (CJ)	3
MP5903	8930060210	Sheet (CK)	1
MP9201	8510015070	2591 VCO case	1
MP9621	8930060030	2591 A-PLL case assembly	1
MP9624	8510015360	2591 A-PLL cover	1
MP9625	8810003960	Setscrew A M2.6 × 5	3
MP9700	8930059950	Sponge (HE)	1
MP9701	8930059940	Sponge (HF)	1
MP9702	8930059930	Sponge (HG)	1
MP9703	8930045530	Magic tape (F)	1
MP9704	8930060170	Rubber sheet (BE)	1
MP9705	8930060180	Rubber sheet (BF)	1
MP9961	8510015390	2591 reg plate	1

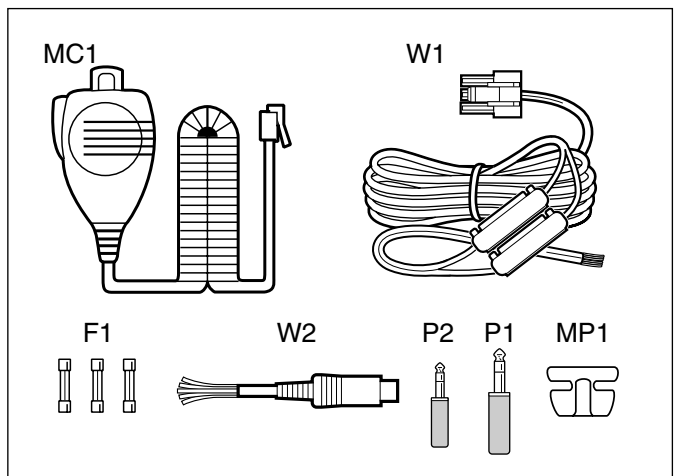
Screw abbreviations A,BT: Self-tapping PH: Pan head
 FH: Flat head ZK: Black
 BS: Brass NI: Nickel
 NI-ZU: Nickel-Zinc

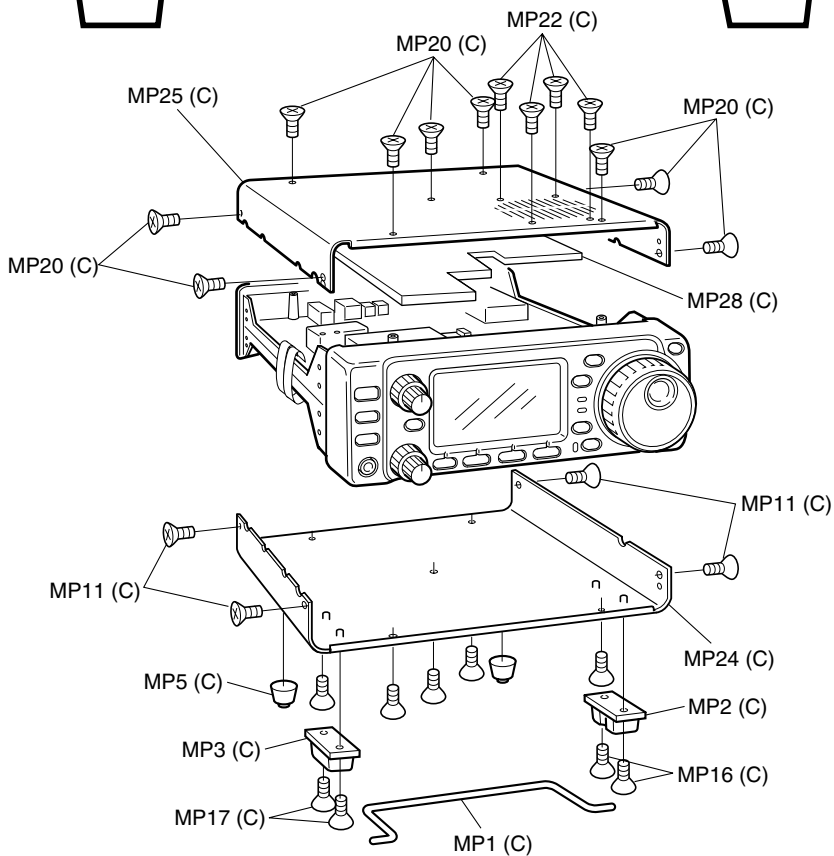
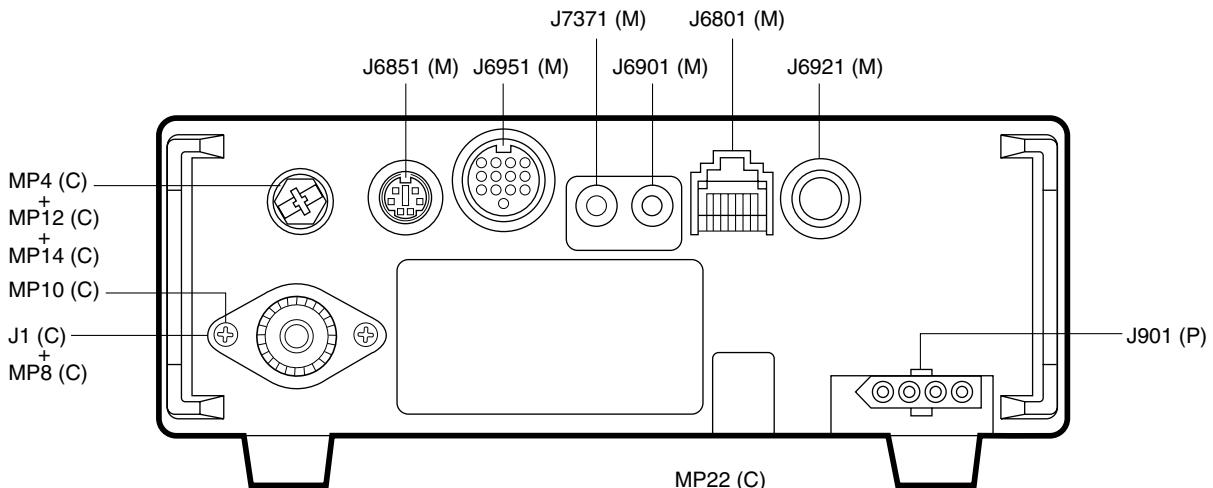
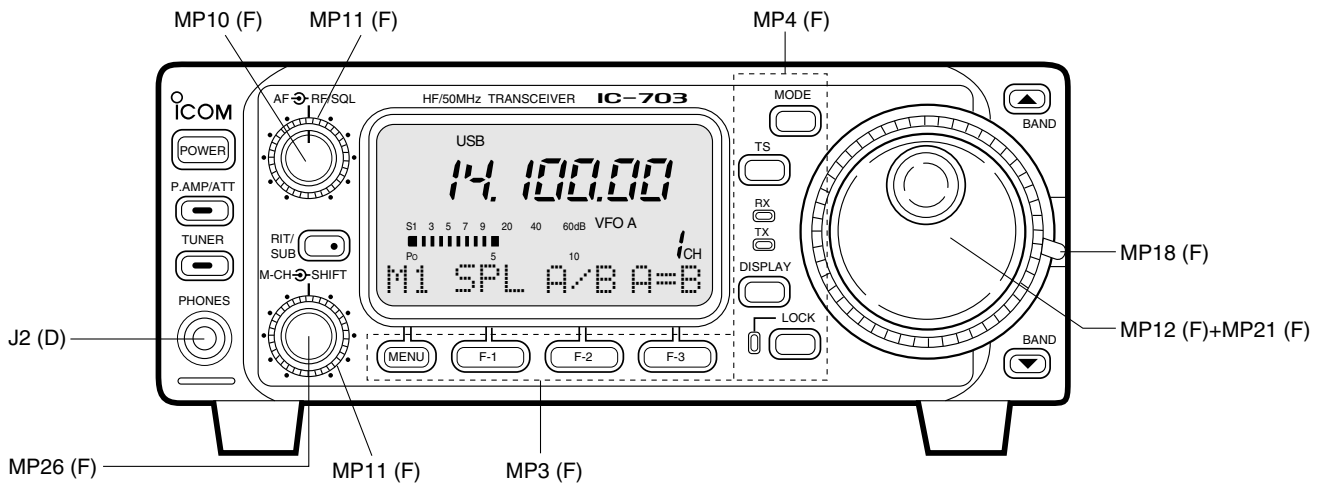
[PA UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
EP901	6910000640	Bead FSOH090RN	1
EP902	6910000640	Bead FSOH090RN	1
EP903	9010000630	Tube	1
J901	6510001920	Connector 1490R (TUNER)	1
W80	8900011990	Cable OPC-1215	1
MP200	8410002430	2494 PA heatsink	1
MP201	8860001310	2591 rug [EUR/-1],[FRA/-1],[ESP/-1],[ITR-1] only	1
MP400	8510002280	VCO shield plate (A)	1
MP401	8930008680	Insulation plate (AH)	1
MP402	8510002280	VCO shield plate (A)	1
MP403	8930008680	Insulation plate (AH)	1
MP900	8950000180	Cable tie-80	1
MP901	8950000180	Cable tie-80	1

[ACCESSORIES]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
P1	5610000050	Connector AP-330	1
P2	5610000170	Connector AP-370B	1
F1	5210000130	Fuse FGB 4A	3
W1	8900012050	DC power cable OPC-1229	1
W2	8900006110	ACC cable OPC-596	1
MC1	7700002000	Hand microphone HM-103 ACC	1
MP1	8930007300	Mic hunger	1





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BP 5804, 31505 Toulouse Cedex, France
Phone : (33) 5 61 36 03 03 Fax : (33) 5 61 36 03 00
URL : <http://www.icom-france.com>

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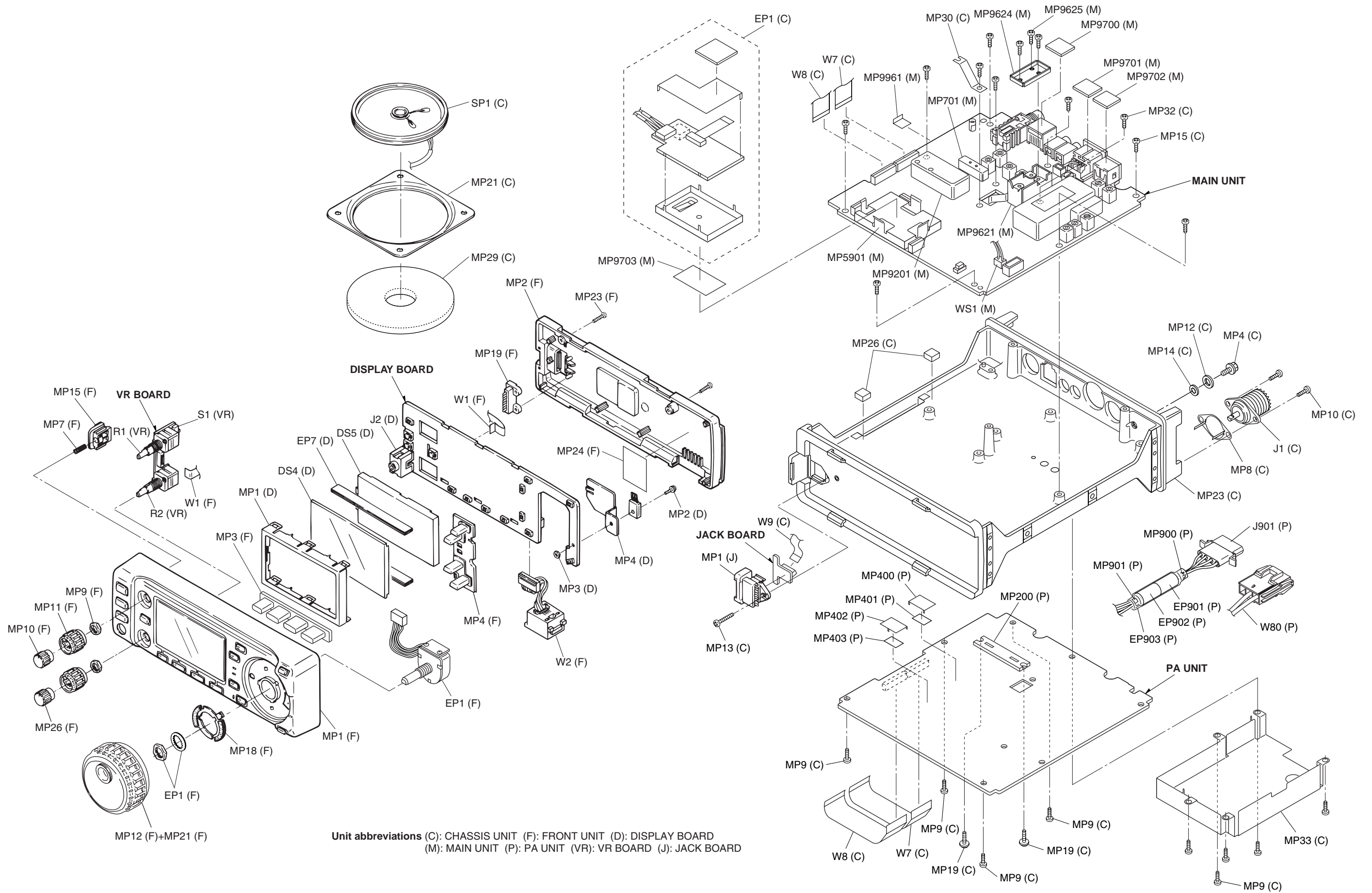
6F No. 68, Sec. 1 Cheng-Teh Road, Taipei, Taiwan, R.O.C.
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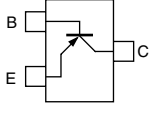
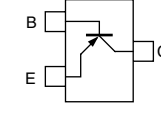
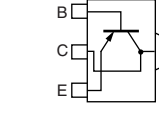
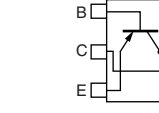
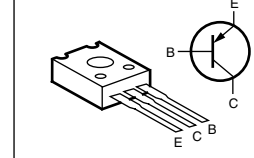
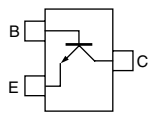
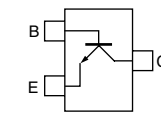
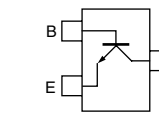
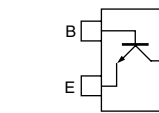
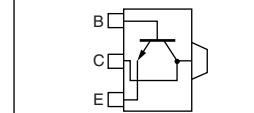
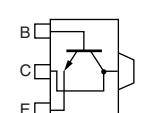
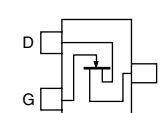
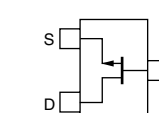
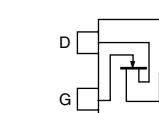
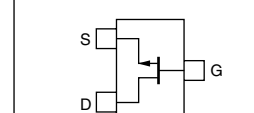
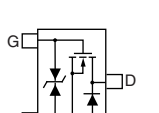
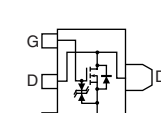
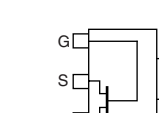
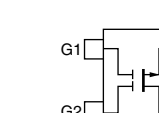
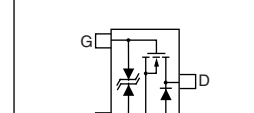
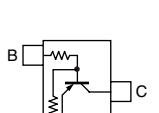
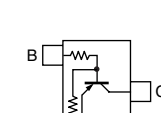
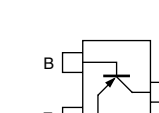
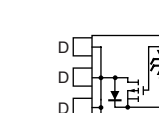
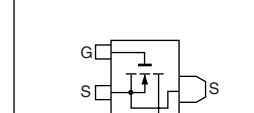
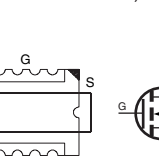
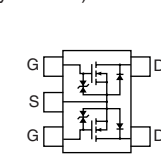
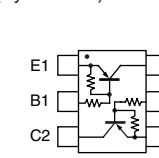
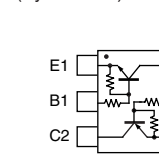
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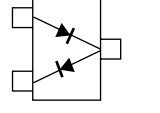
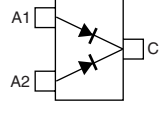

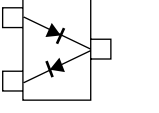
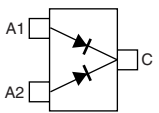
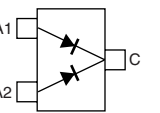
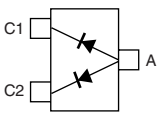
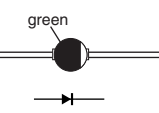
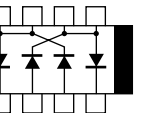
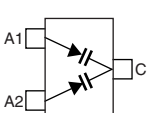



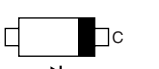
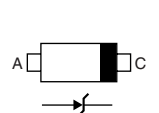
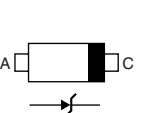
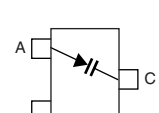
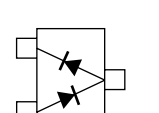


SECTION 7 SEMI-CONDUCTOR INFORMATION

• TRANSISTORS AND FET'S

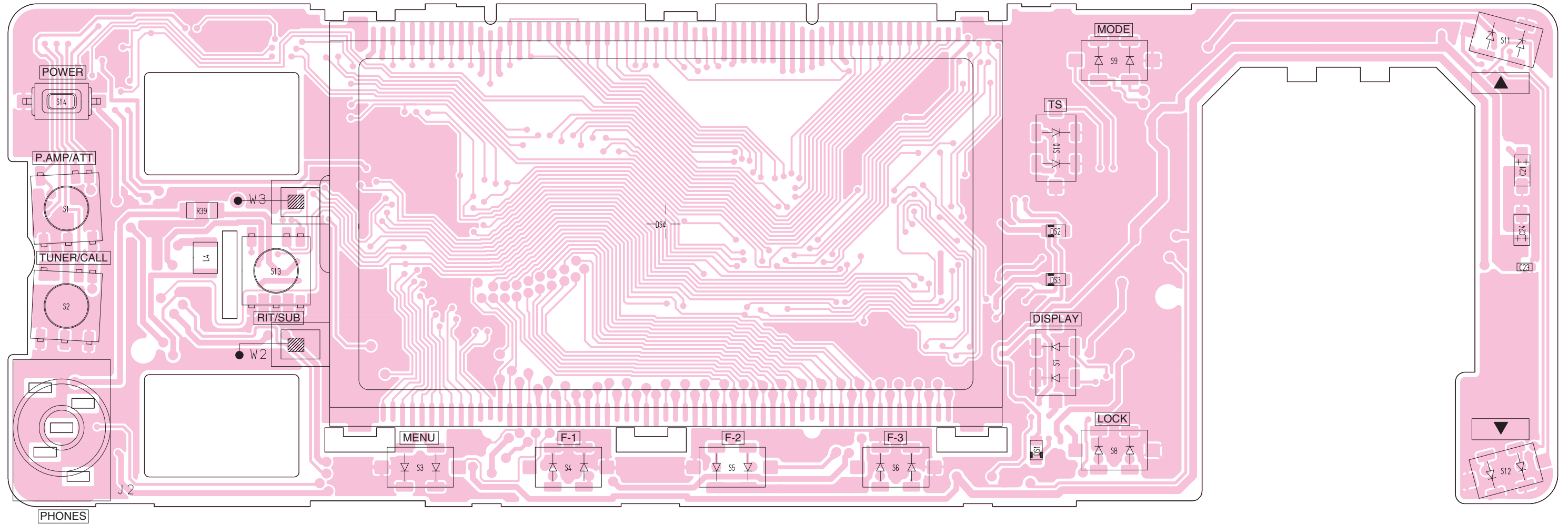
2SA1162 GR (Symbol: SG) 	2SA1576A T106 R (Symbol: FR) 	2SB1132 T100 Q (Symbol: BAQ) 	2SB1132 T100 R (Symbol: BAR) 	2SB1143 S (Symbol: B1143) 
2SC4081 T106 R (Symbol: BR) 	2SC4213 B (Symbol: AB) 	2SC4405 3 TL (Symbol: OY3) 	2SC4406 (Symbol: JT) 	2SC4536 (Symbol: QR) 
2SC4673 D TD (Symbol: CO) 	2SK210 GR (Symbol: YG) 	2SK508 K52 T2B (Symbol: K52) 	2SK882 GR (Symbol: TGR) 	2SK1740 (Symbol: IJ) 
2SK3018 T106 (Symbol: KN) 	2SK3065 (Symbol: KE) 	2SK3074 (Symbol: UW) 	3SK294 (Symbol: UV) 	CPH3404-TL (Symbol: KD) 
DTA114 EE TL (Symbol: 14) 	DTA114EUA T106 (Symbol: 14) 	DTC114 EE TL (Symbol: 24) 	ECH8301-TL (Symbol: JA) 	RD01MUS1 (Symbol: K2) 
RD07MVS1 (Symbol: RD07MVS1) 	UM5K1N (Symbol: K1) 	XP4111 (Symbol: 9U) 	XP4311 (Symbol: 3X) 	

• DIODES

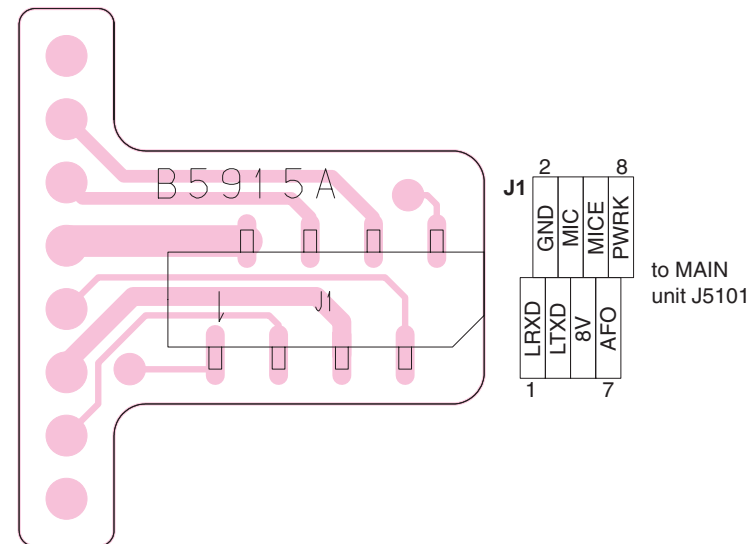
1SS355 (Symbol: A) 	1SS372 (Symbol: N9) 	1SS385 (Symbol: 09) 	1SV271 (Symbol: TG) 	DA221 TL (Symbol: K) 
DAN202 K T146 (Symbol: N) 	DAN222TL (Symbol: N) 	DAP222 TL (Symbol: P) 	DSA3A1 (Color: Green) 	HSB88WSTR (Symbol: Silver line) 
KV1770S (Symbol: C7) 	MA2S111 (Symbol: A) 	MA77 (Symbol: 4B) 	MA357 (Symbol: 7K) 	MA732 (Symbol: 2C) 
MA8036 L (Symbol: 3_6) 	MA8110 L (Symbol: 11_) 	MMBV3700LT1 (Symbol: 4R) 	RB876W TL (Symbol: 3X) 	

SECTION 8 BOARD LAYOUTS

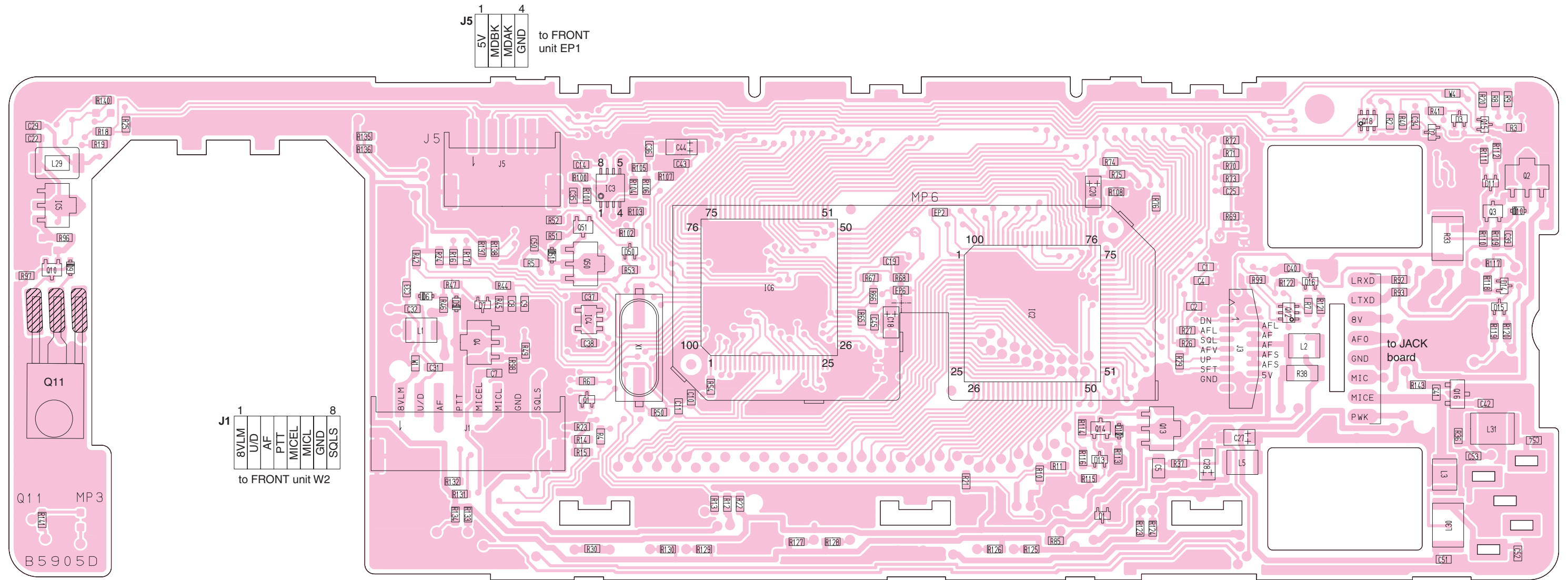
8-1 DISPLAY BOARD
• TOP VIEW



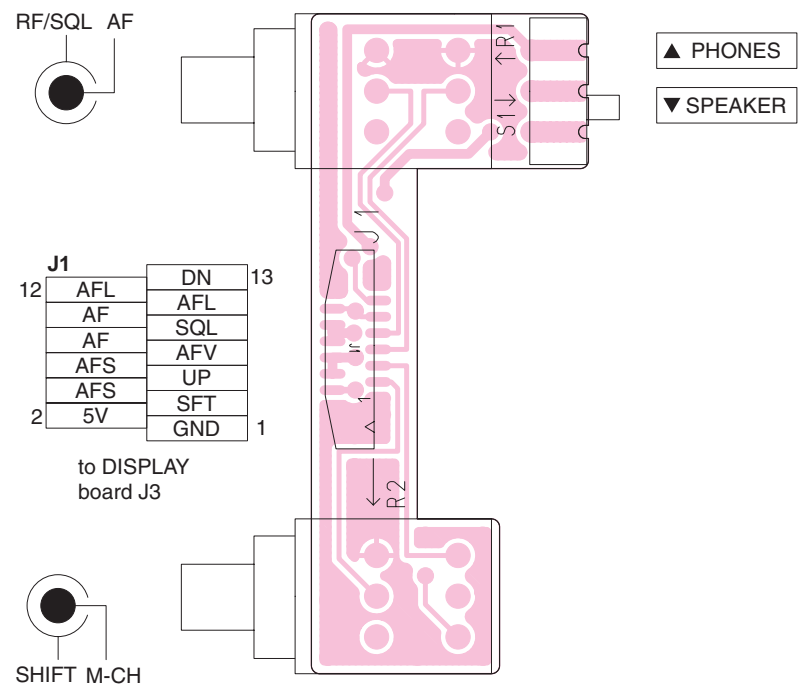
8-2 JACK BOARD
• TOP VIEW



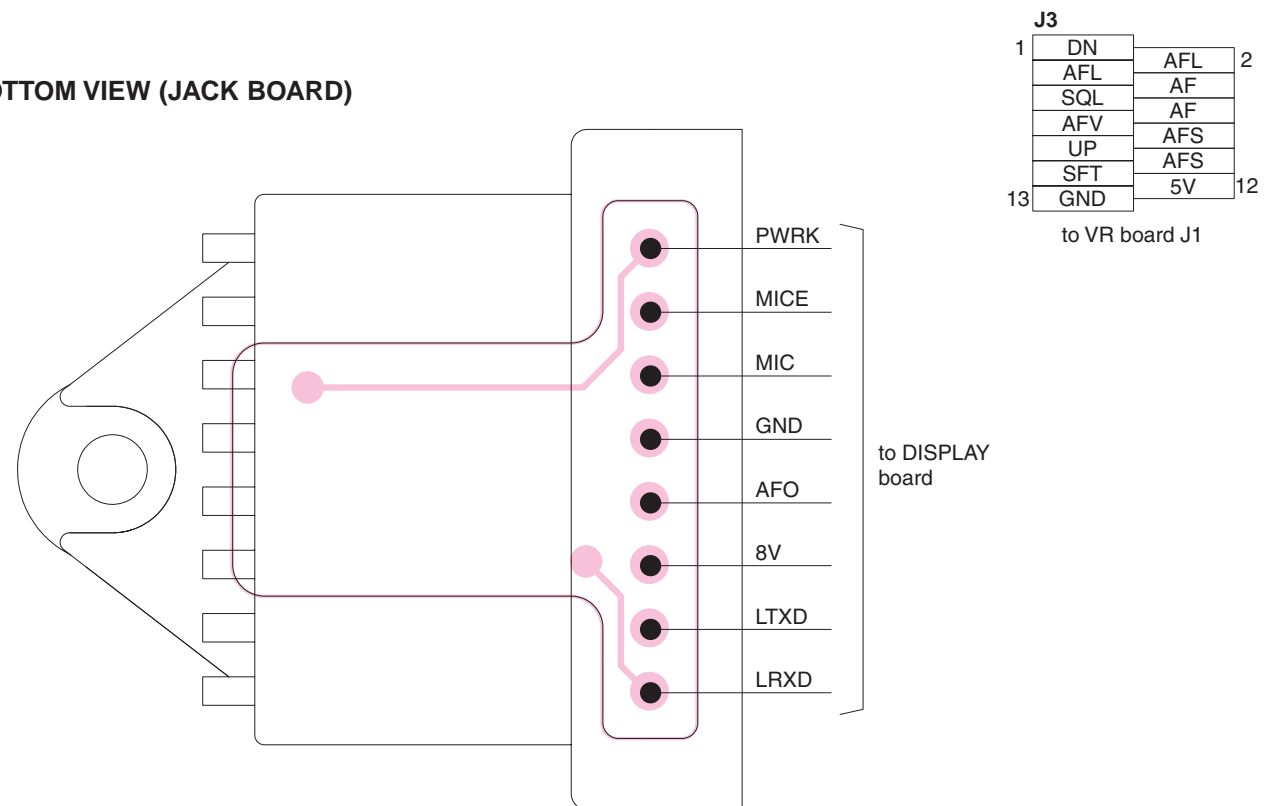
• BOTTOM VIEW (DISPLAY BOARD)



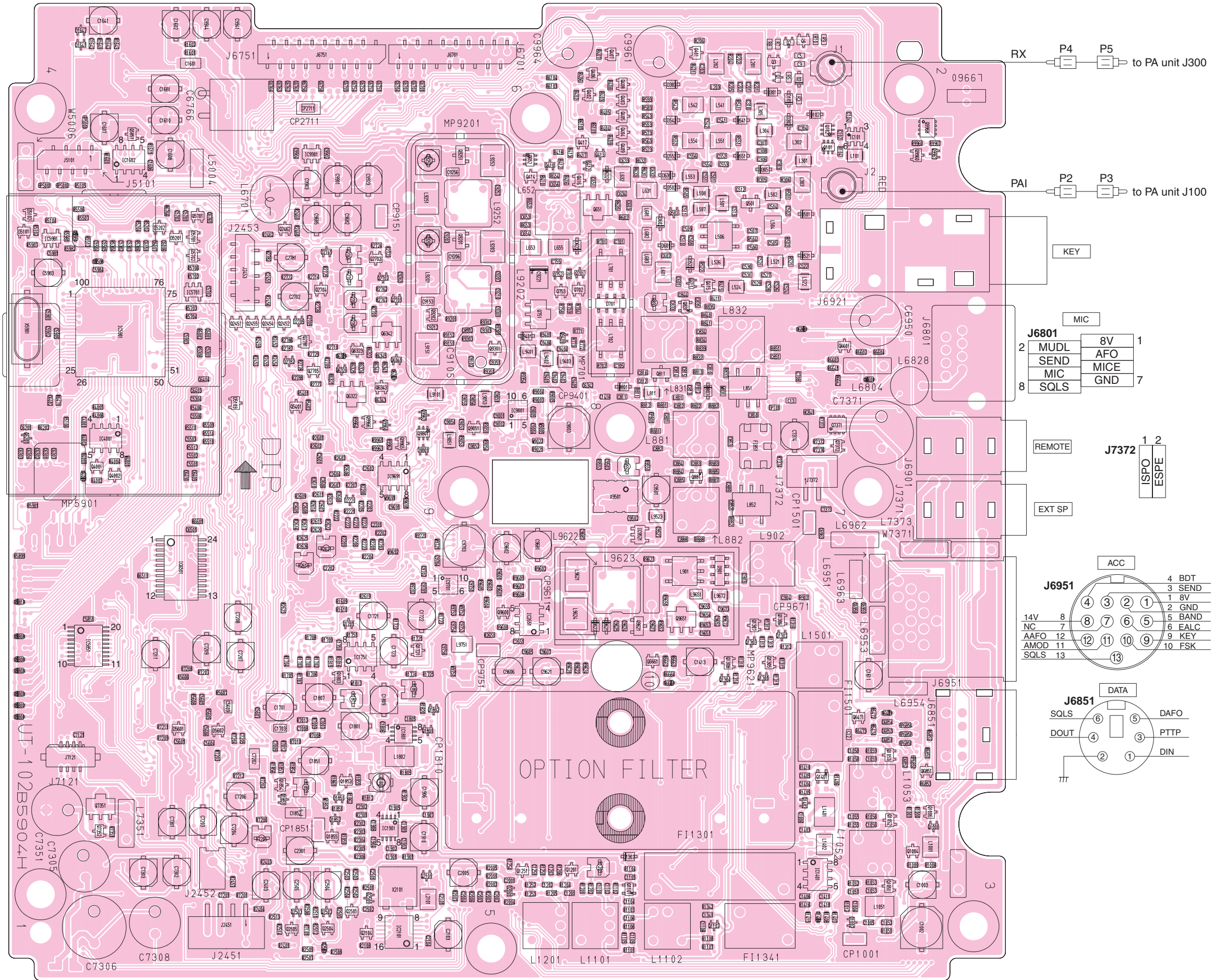
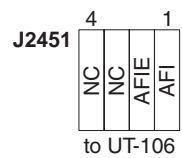
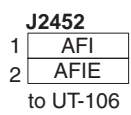
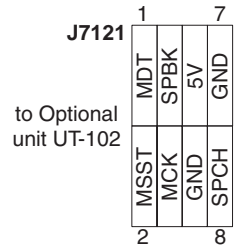
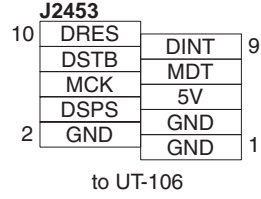
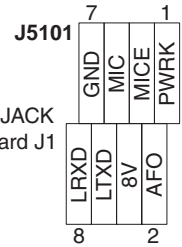
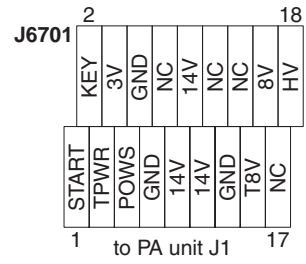
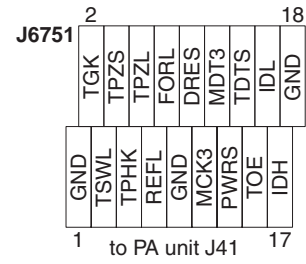
8-3 VR BOARD



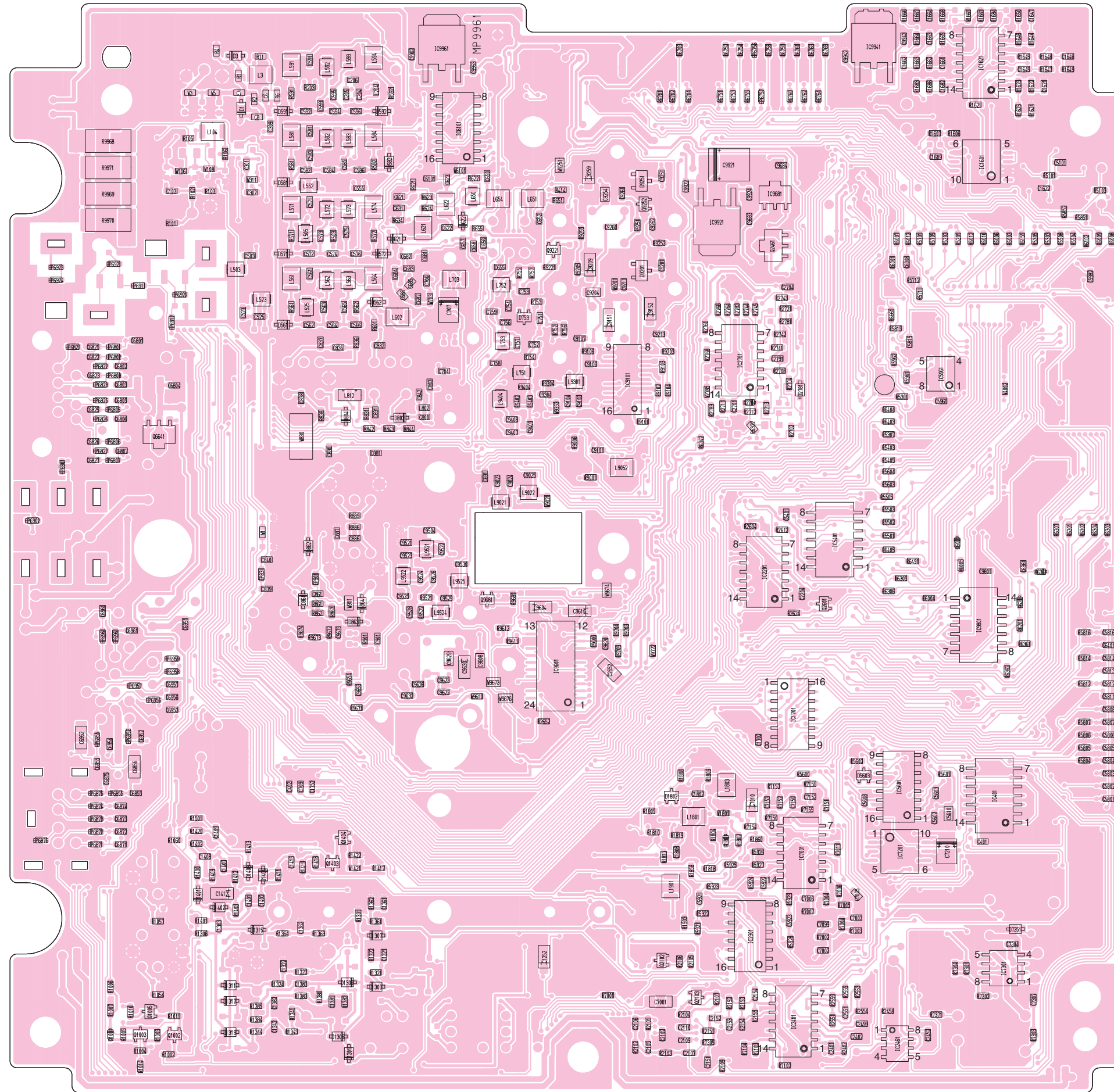
• BOTTOM VIEW (JACK BOARD)



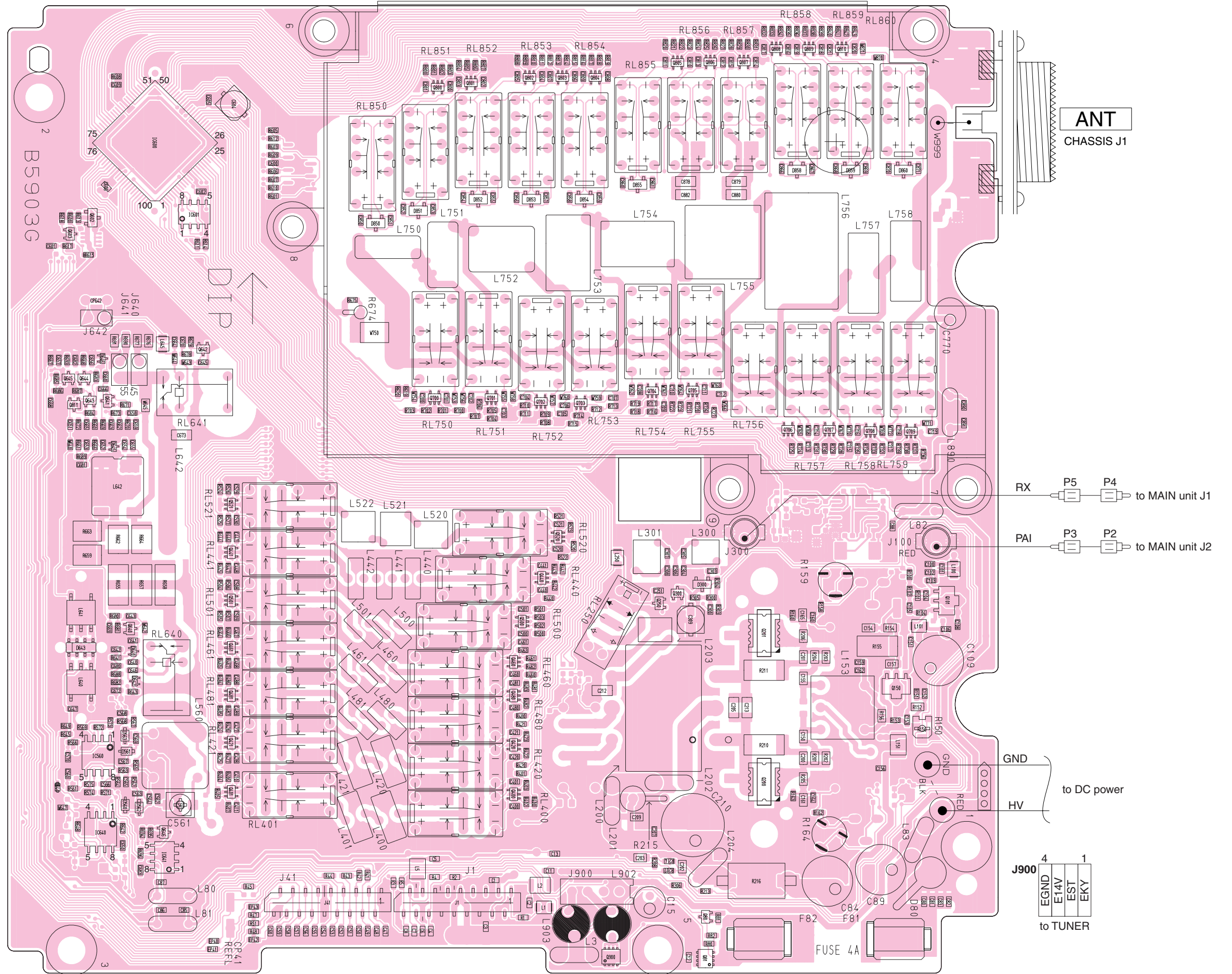
8-4 MAIN UNIT
• TOP VIEW



• BOTTOM VIEW (MAIN UNIT)



8-5 PA UNIT
• TOP VIEW



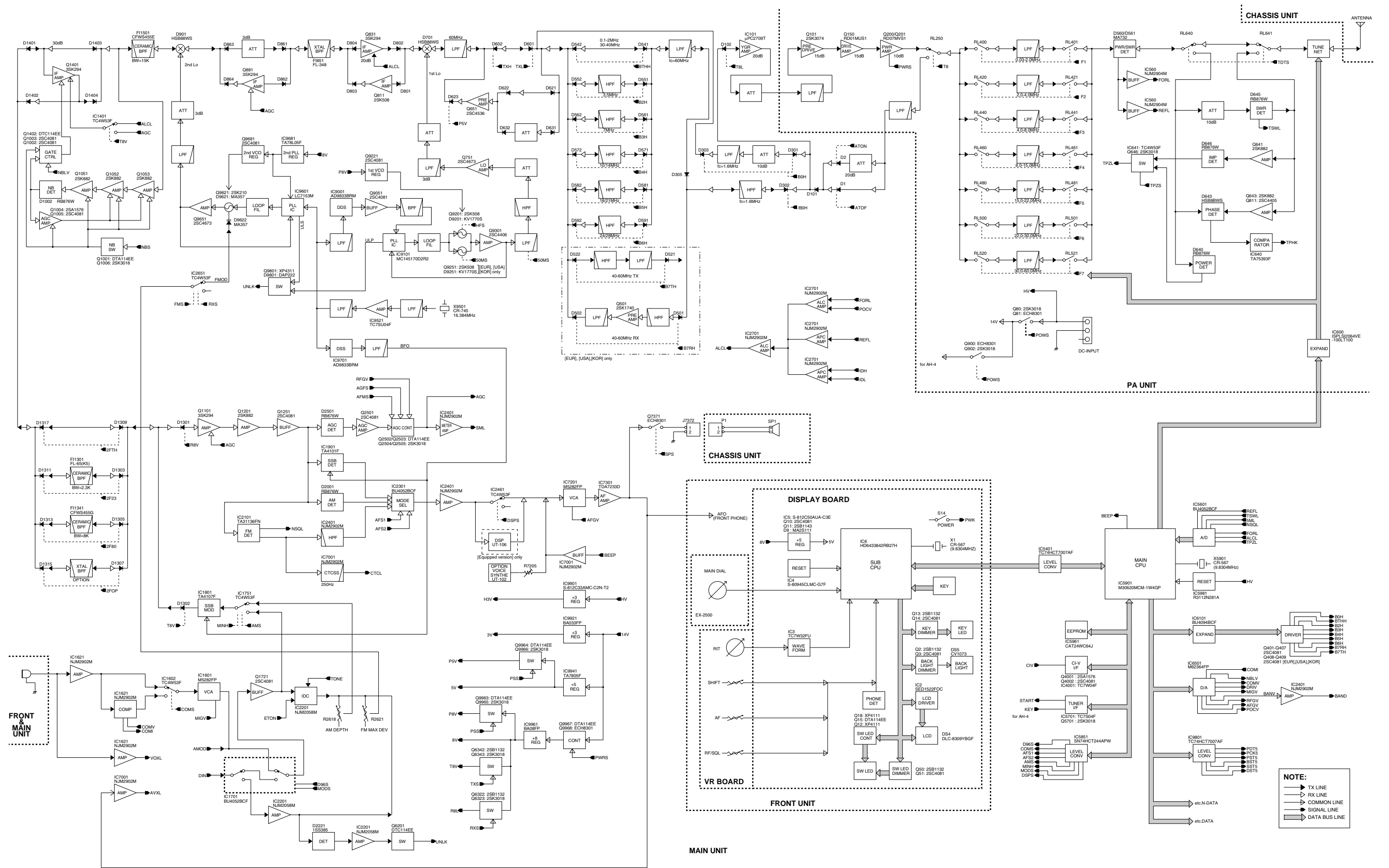
17	TGK	1
16	TPZS	2
15	TPZL	3
14	FORL	4
13	DRES	5
12	MCK3	6
11	PWRS	7
10	TOE	8
9	IDH	9
8	GND	10
7	TSWL	11
6	TPHK	12
5	REFL	13
4	GND	14
3	MCK3	15
2	PWRS	16
1	TOE	17
18	GND	18

to MAIN unit J6751

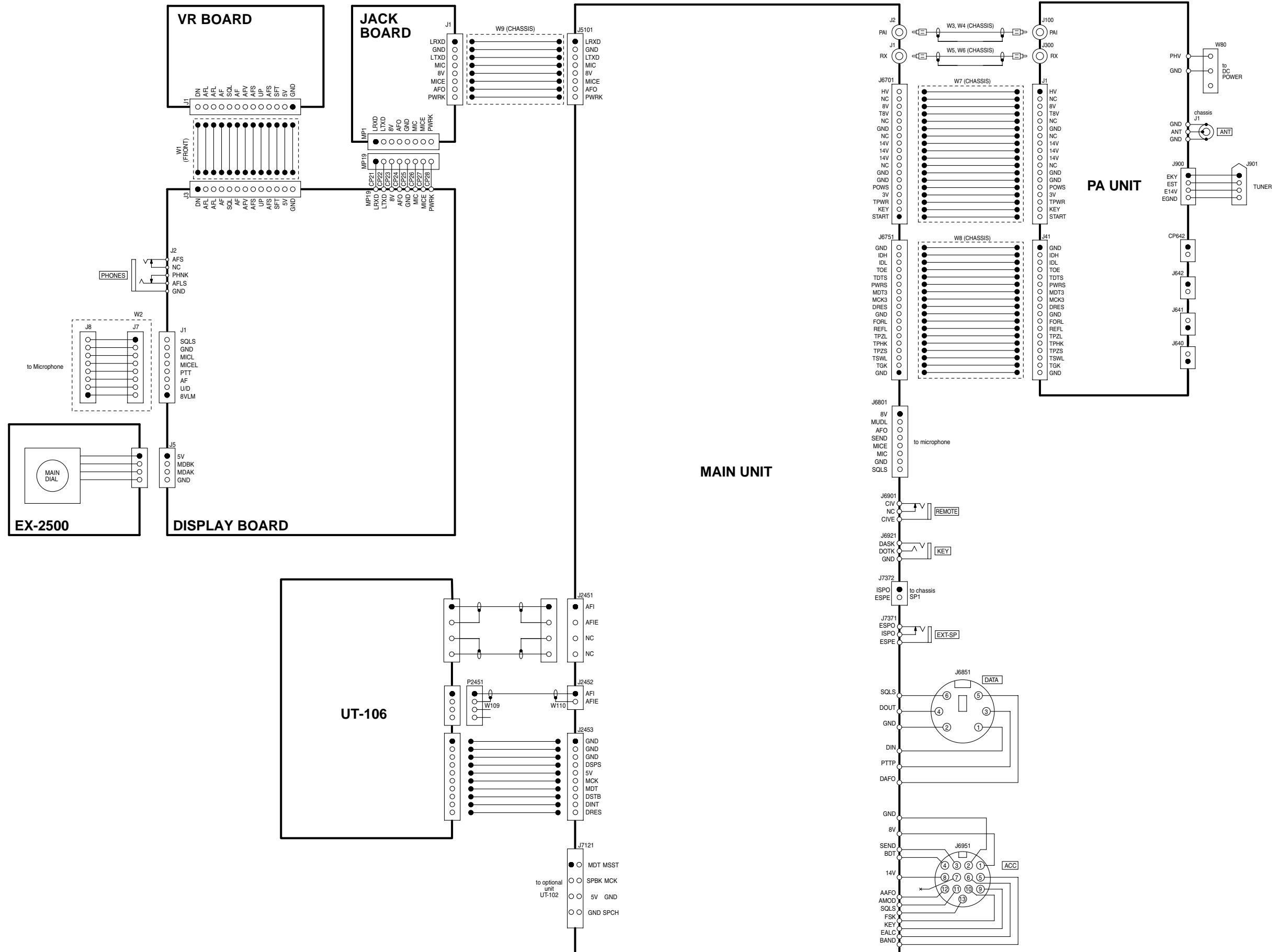
17	KEY	1
16	3V	2
15	GND	3
14	NC	4
13	14V	5
12	14V	6
11	NC	7
10	NC	8
9	NC	9
8	8V	10
7	HV	11
6	TPWR	12
5	POWS	13
4	GND	14
3	14V	15
2	14V	16
1	NC	17
18	NC	18

to MAIN unit J6701

SECTION 9 BLOCK DIAGRAM

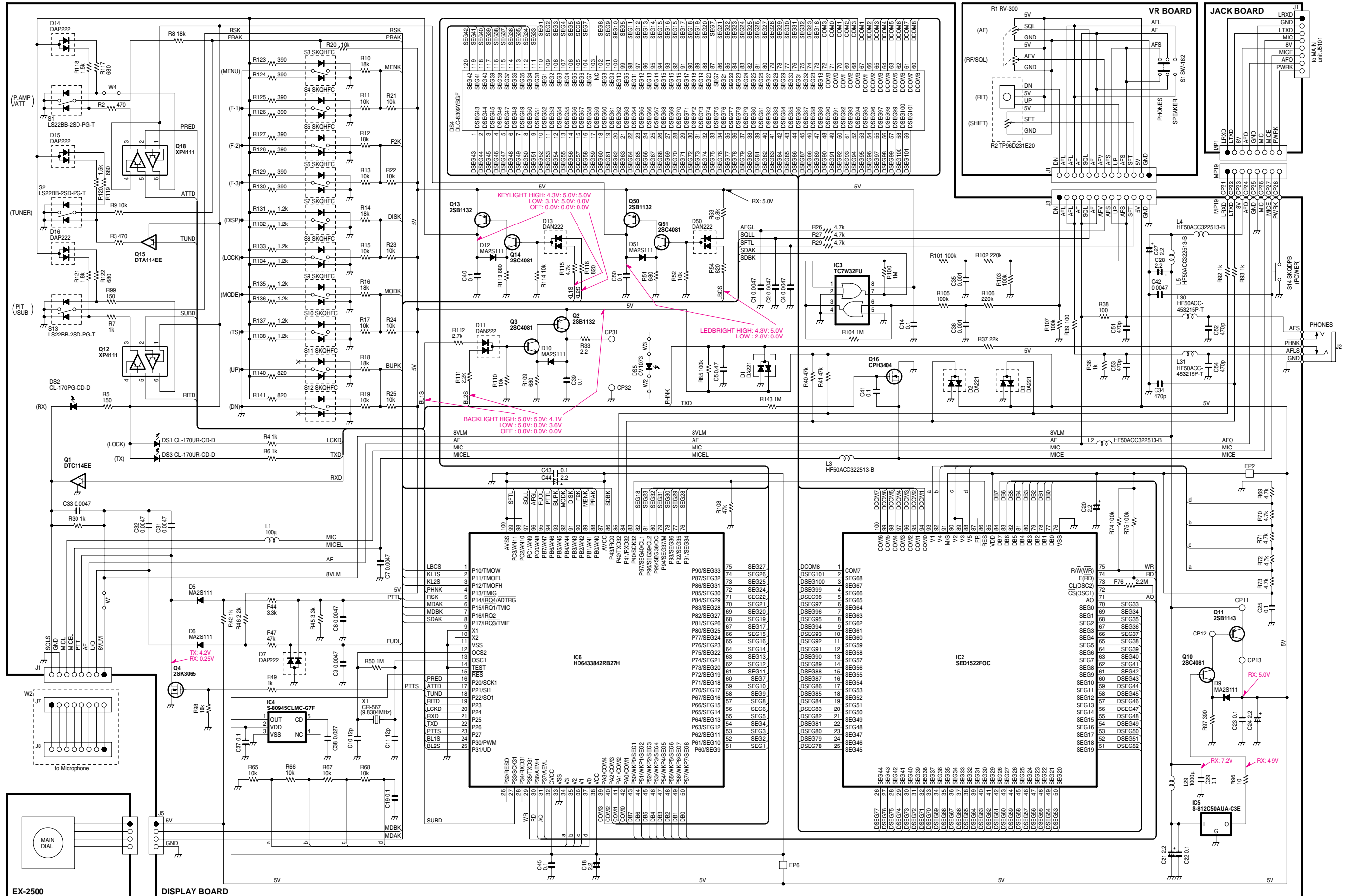


SECTION 10 WIRING DIAGRAMS

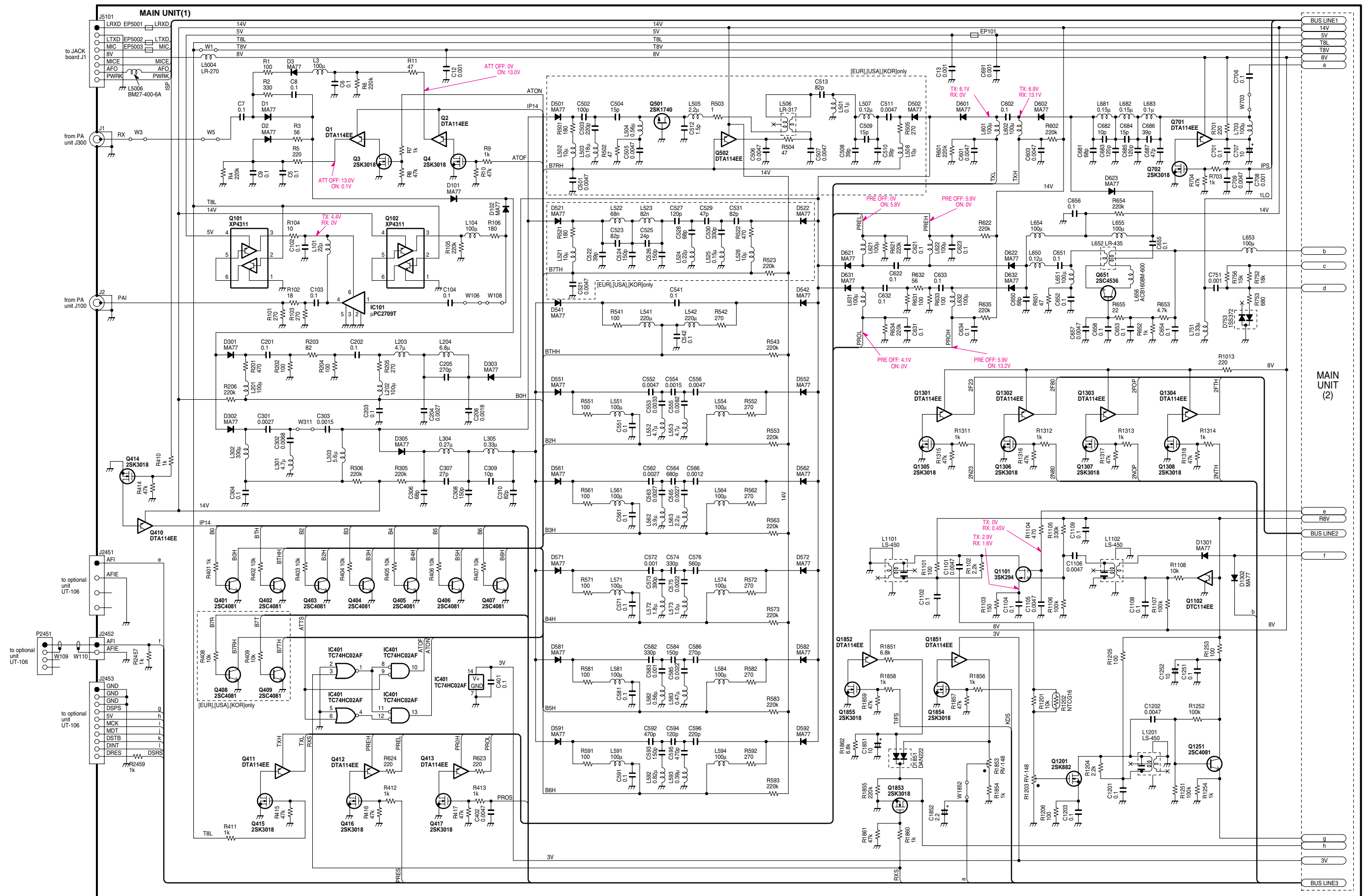


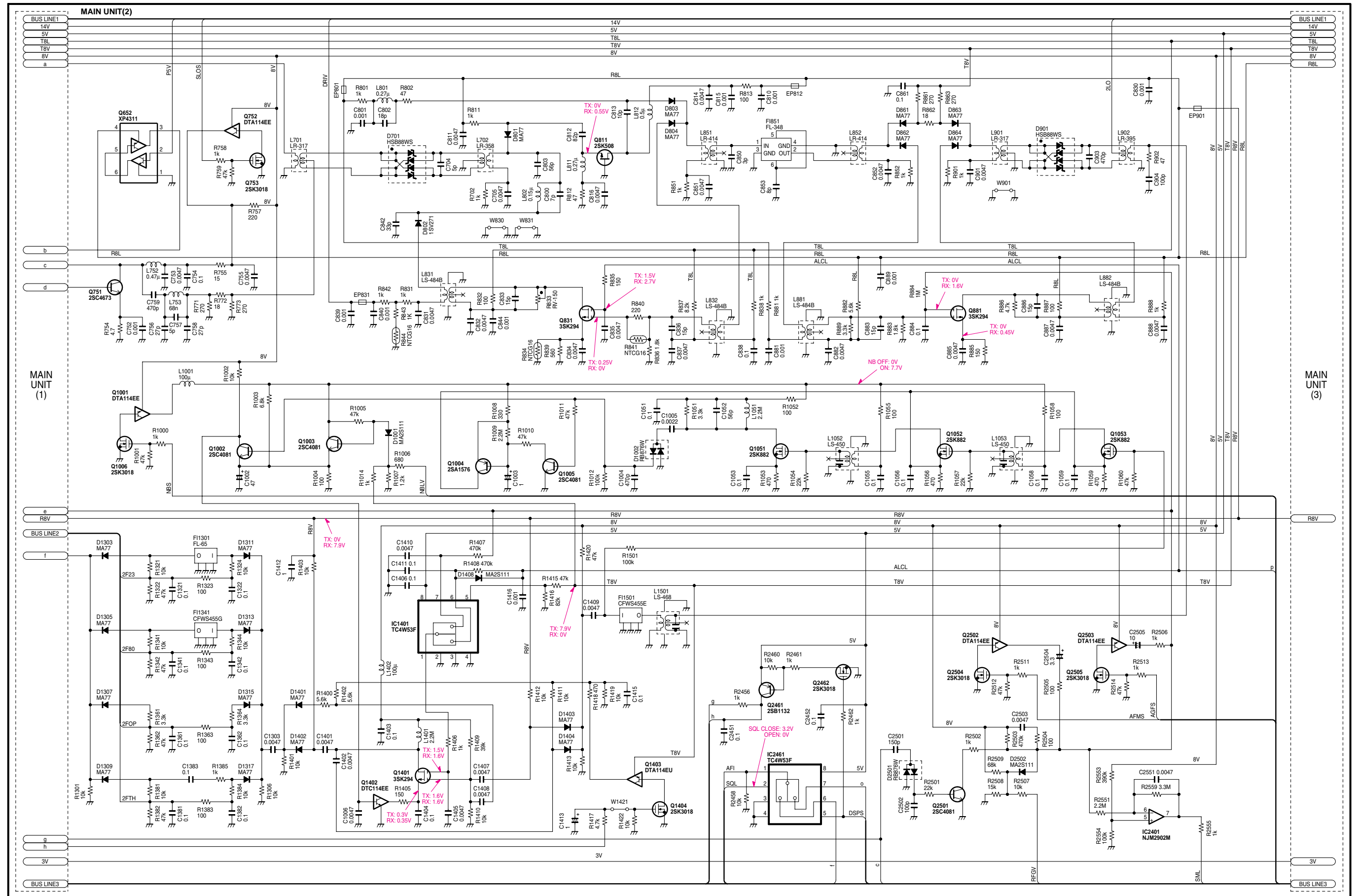
SECTION 11 VOLTAGE DIAGRAMS

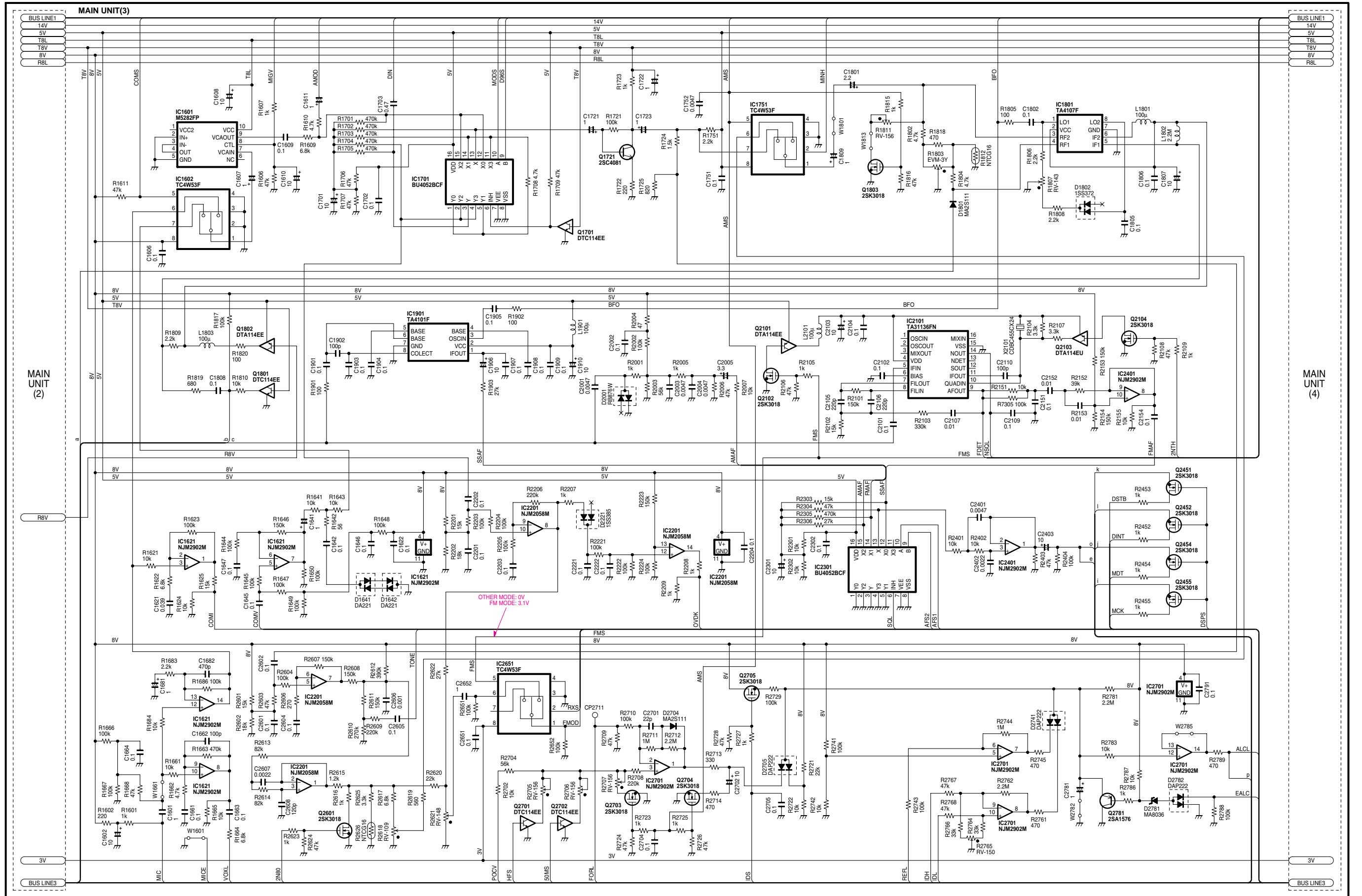
11-1 FRONT UNIT

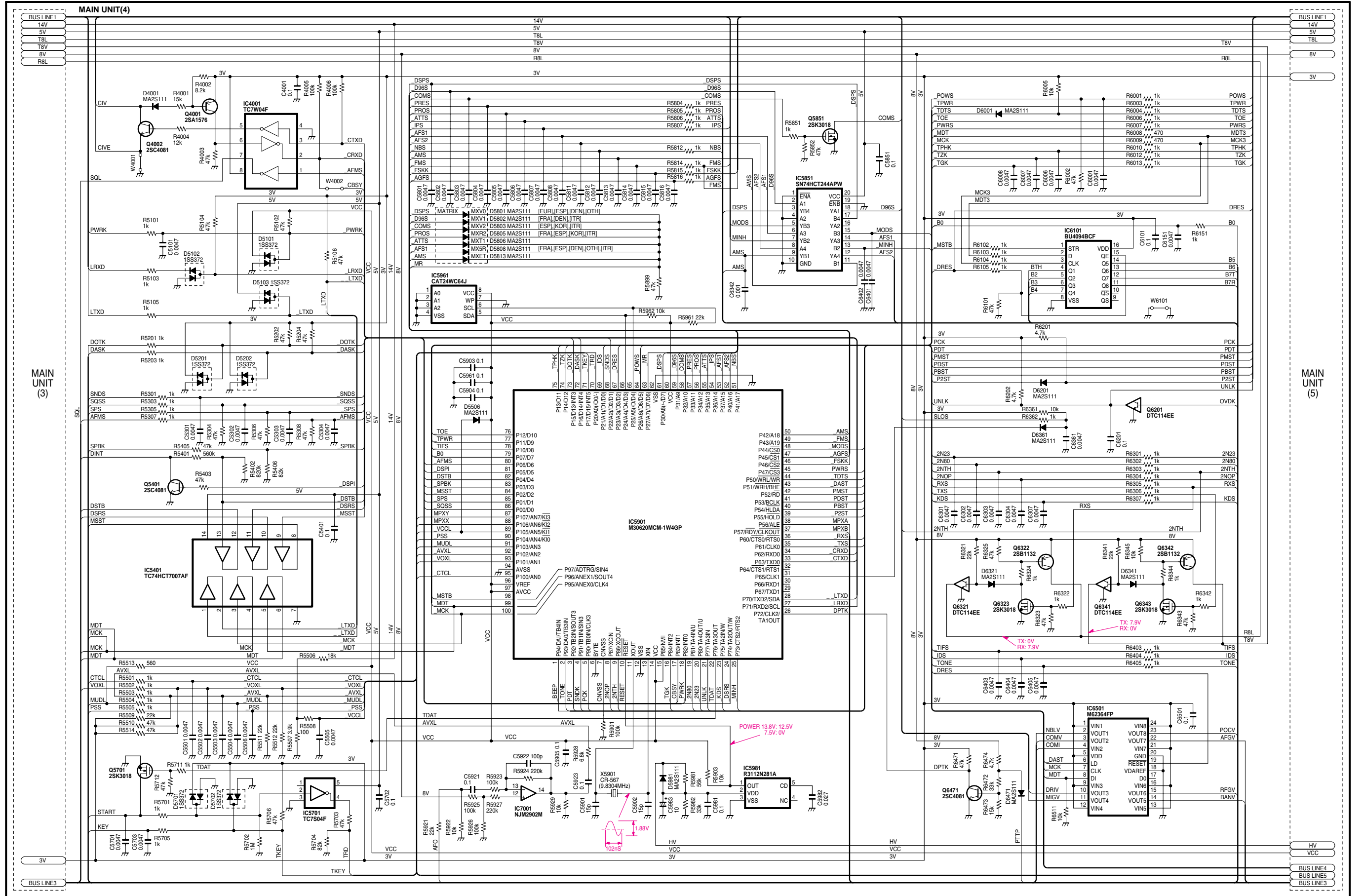


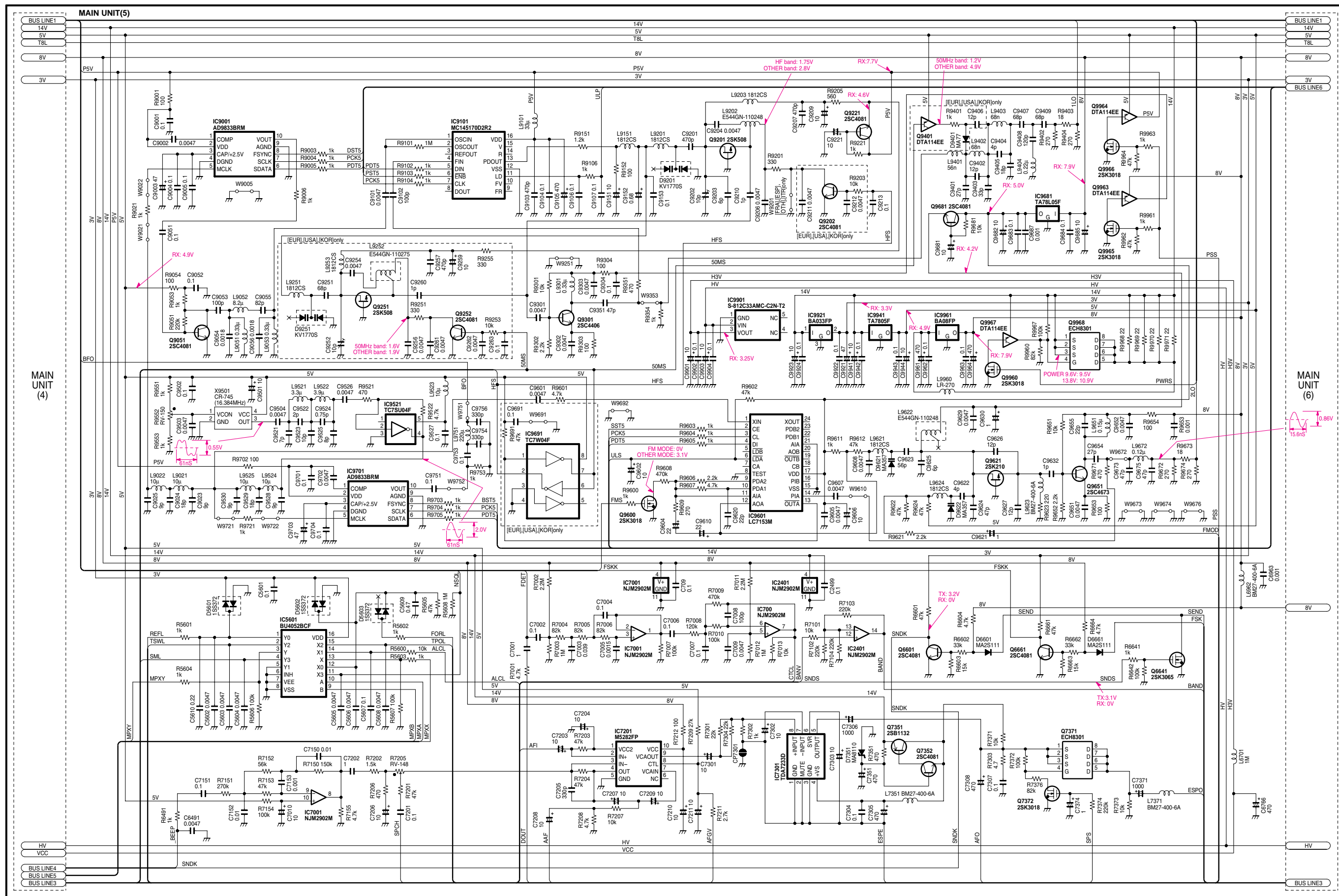
11-2 MAIN UNIT

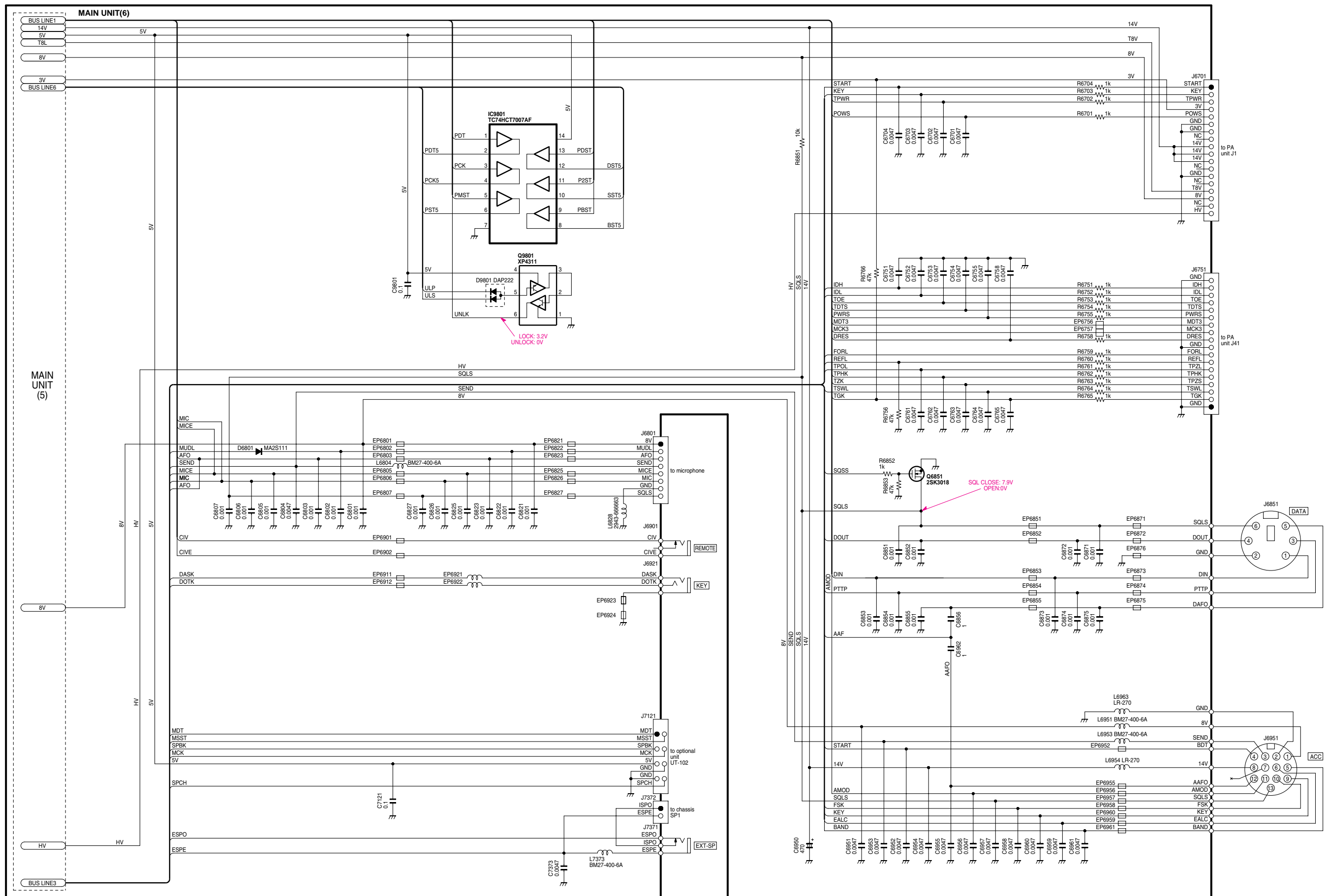












11-3 PA UNIT

