ICOM

SERVICE MANUAL

UHF FM TRANSCEIVER

IC-F2610

Icom Inc.

INTRODUCTION

This service manual describes the latest service information for the **IC-F2610** UHF FM TRANSCEIVER.

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>

1110003571	S.IC	MC3372SVM	IC-F2610	MAIN UNIT	5 pieces
8810008660	Screw	BT M3x8 NI-ZU	IC-F2610	Bottom 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 40 dB to 50 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.

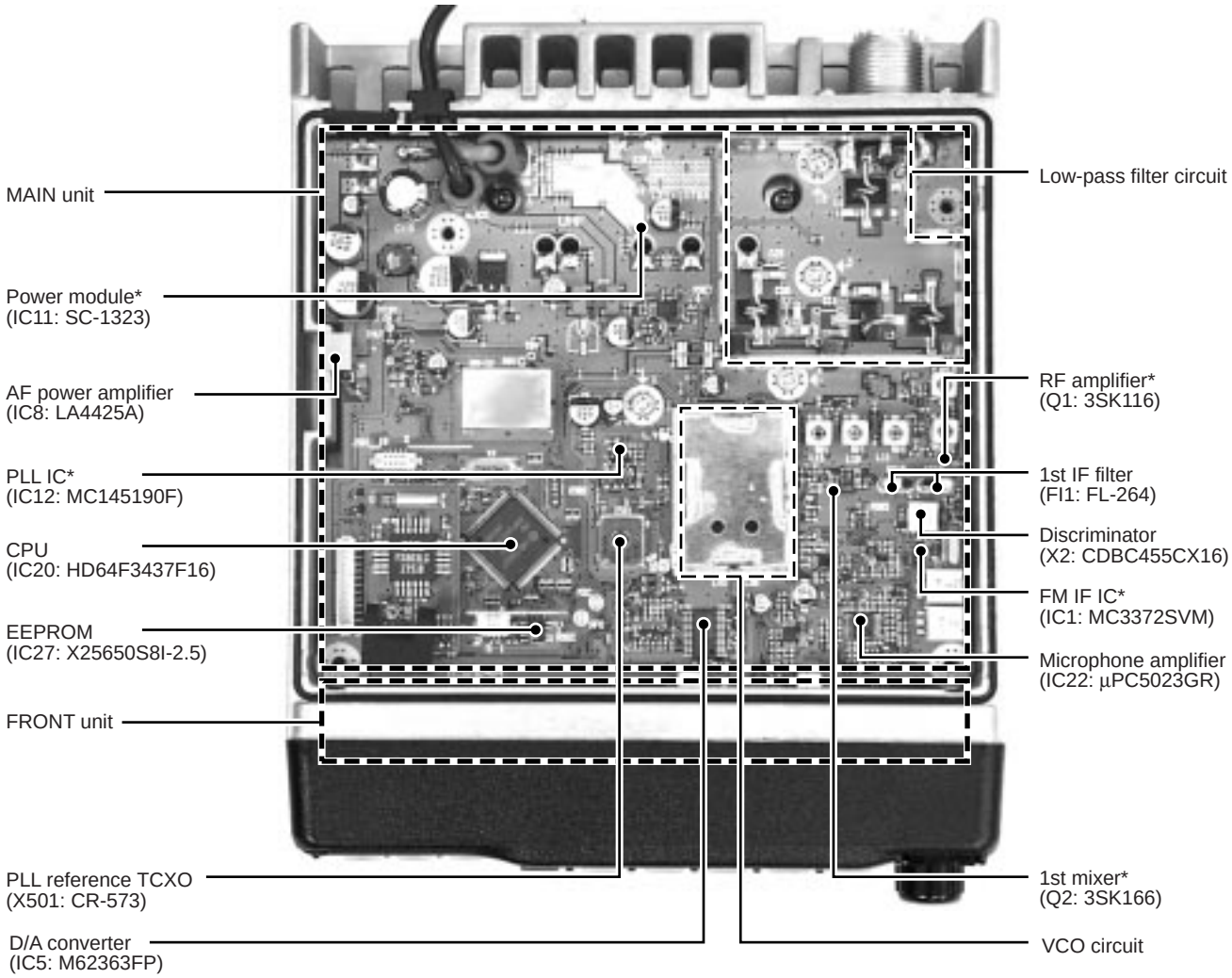
TABLE OF CONTENTS

SECTION 1 SPECIFICATIONS

GENERAL	Mesurement method			ETS 300 086
	Frequency coverage			440–490 MHz
	Number of channels			128 (16 ch × 8 banks)
	Type of emission			16K0F3E (25 kHz; Wide) 8K50F3E (12.5 kHz; Narrow)
	Operating temperature range			–20˚C to +55˚C
	Power supply voltage			13.2 V DC (negative ground)
	Current drain (approx.)	TX	max. power	8.0 A
		RX	max. audio	1.2 A
			stand-by	700 mA
	Antenna connector			SO-239 (50 Ω)
	Dimensions (proj. not included)			150(W) × 50(H) × 180(D) mm
	Weight			1.5 kg
TRANSMITTER	Output power			25 W
	Modulation system			Variable reactance frequency modulation
	Max. freqequency deviation			±5.0 kHz (Wide) ±2.5 kHz (Narrow)
	Frequency error			±1.5 kHz
	Spurious emissions			0.25 µW
	Adjacent channel power			70 dB (Wide) 60 dB (Narrow)
	Audio frequency response			+2 dB to –5 dB of 6 dB/octave range from 300 Hz to 3000 Hz (Wide)/2550 Hz (Narrow)
	Audio harmonic distortion			5 % (40 % Dev.)
	Residual modulation (with CCITT filter)			45 dB minimum: 55 dB typical (Wide) 40 dB minimum: 50 dB typical (Narrow)
	Limitting			70–100 % of modulation
	Microphone connector			8-pin modular (600 Ω)
RECEIVER	Intermediate frequency			1st: 30.875 MHz 2nd: 455 kHz
	Sensitivity			–2 dBµV emf (at 20 dB SINAD)
	Squelch sencitivity			–4 dBµV emf (Threshold)
	Adjcent channel selectivity			70 dB (Wide) 60 dB (Narrow)
	Spurious response			70 dB
	Intermoduration			70 dB typical
	Audio frequency response			+2 dB to –5 dB of 6 dB/octave range from 300 Hz to 3000 Hz (Wide)/2550 Hz (Narrow)
	Hum and noise (with CCITT filter)			45 dB minimum: 55 dB typical (Wide) 40 dB minimum: 50 dB typical (Narrow)
	Audio output power			3.5 W at 10% distortion with a 4 Ω load
	External SP connector			2-conductor 3.5 (d) mm (⅛")/4 Ω

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

SECTION 2 INSIDE VIEW

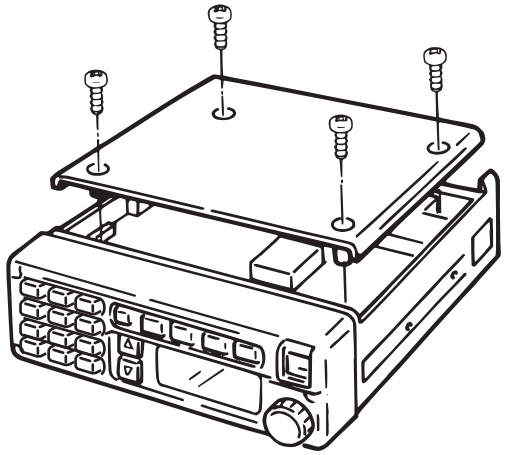


*Located under side of the point

SECTION 3 DISASSEMBLY AND OPTION INSTRUCTIONS

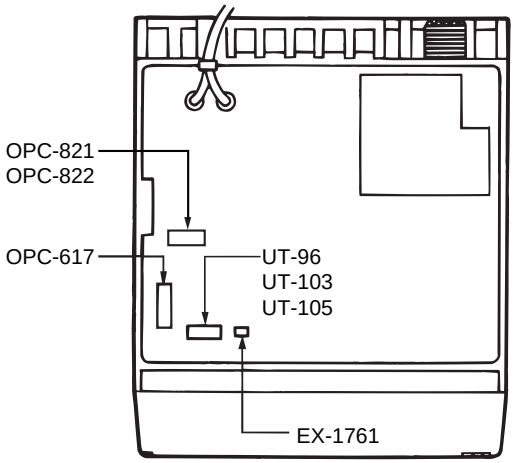
• **Opening cover**

Remove 4 screws from bottom cover.

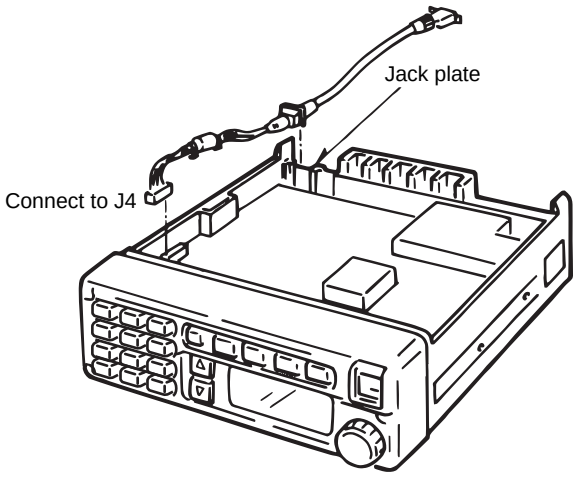


• **Installation location**

Install option units.
OPC-617 ACC CABLE: J4
UT-96 5-TONE UNIT UT-103 FFSK Logic Board or UT-105 SmarTrunk II™ Logic Board: J6
EX-1761 MEMORY EXPANSION UNIT: J7
OPC-821 AVL CONNECT CABLE or OPC-822 INTERFACE CABLE: J501

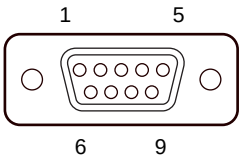


• **OPC-617 connection**



Break the jack plate using cutting pliers to connect the OPC-617.

PIN ASSIGNMENT

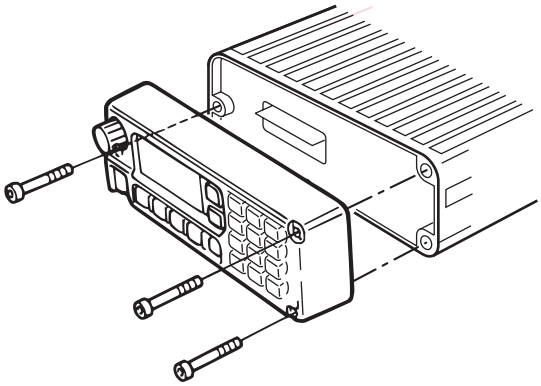


Pin No.	Terminal name	Description	Specification
1	DIM	Backlight control input	+5 to +30 V for dark
2	PAAF	AF output for public address and Ext SP functions	0 to 330 mV rms/ 47 kΩ
3	DISC	AF output for a terminal unit	330 mV rms/100 kΩ
4	IN	AF input for a terminal unit	330 mV rms/1200 bps
5	PTT	PTT control input	0 V for transmit
6	HORN	Grounded when receiving the specified call	Less than 50 mA when grounded
7	PAAF ⊖	Ground for PAAF	—
8	DISC ⊖	Ground for terminal output	—
9	IN ⊖	Ground for terminal input	—

- **RMK-1 connection**

① Remove 3 allen-socket bolts from the front plate using an allen-wrench (1/32 in).

② Separate the front unit from the transceiver main unit.

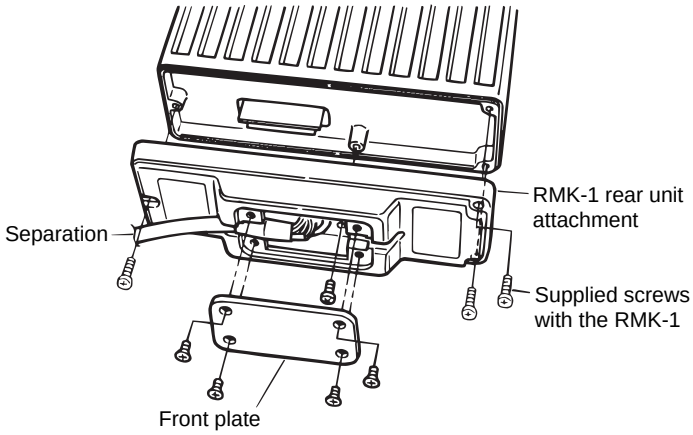


③ Attach the 'RMK-1 rear unit attachment' to the transceiver main unit using the supplied screws.

④ Remove 4 screws from the attachment to open the front plate.

⑤ Connect an optional separation cable OPC-609 (1.9 m) to the inside of the front plate and tighten the cable lug using the screw.

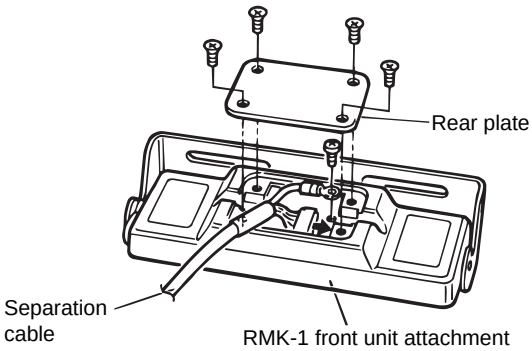
⑥ Re-attach the front plate.



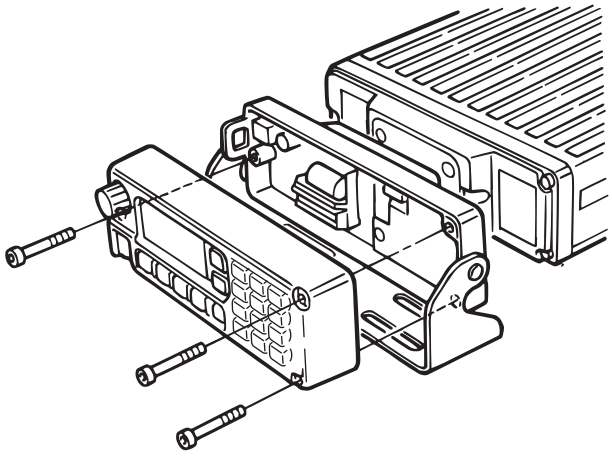
⑦ Remove 4 screws from the 'RMK-1 front unit attachment' to open the rear plate.

⑧ Connect the other end of the optional separation cable to the atachement and tighten the cable lug using the screw.

⑨ Re-attach the rear plate.



⑩ Attach the front unit and attachment with the 3 removed allen-socket bolts.



SECTION 4 CIRCUIT DESCRIPTION

4-1 RECEIVER CIRCUITS

4-1-1 ANTENNA SWITCHING CIRCUIT

The antenna switching circuit functions as a low-pass filter while receiving and a resonator circuit while transmitting. The circuit does not allow transmit signals to enter receiver circuits.

Received signals enter the antenna connector (J1) and pass through the low-pass filters (L1–L3, C2, C3, C8–C10, C415). The filtered signals are passed through the λ⁄4 type antenna switching circuit (D5, D6, L5) and then applied to the RF circuit.

4-1-2 RF CIRCUIT

The RF circuit amplifies signals within the range of frequency coverage and filters out-of-band signals.

The signals from the antenna swiching circuit pass through the two- stage tunable bandpass filters (D7, D8, L8, L9). The filtered signals are amplified at the RF amplifier (Q1) and then enter the another three-stage bandpass filters (D9–D11, D514, L12, L13, L507) to suppress unwanted signals. The filtered signals are applied to the 1st mixer circuit.

D7–D11 and D514 employ varactor diodes, that are controlled by the PLL lock voltage, to track the bandpass filter. These varactor diodes tune the center frequency of an RF pass band for wide bandwidth receiving and good image response rejection.

4-1-3 1ST MIXER AND IST IF CIRCUITS

The 1st mixer circuit converts the received signal to fixed frequency of the 1st IF signal with the PLL output frequency. By changing the PLL frequency, only desired frequency will pass through a pair of crystal filters at the next stage of the 1st mixer.

The RF signals from the bandpass filter are mixed with the 1st LO signals, which come from the Rx VCO circuit via the buffer amplifier (Q3), at the 1st mixer circuit (Q2) to produce a 30.875 MHz 1st IF signal. The 1st IF signal is passed through the matching circuit (L14, L15) and a pair of crystal filters (FI1a/b) in order to obtain selection capability and to pass only the desired signals. The filtered signal is applied to the 2nd IF circuit after being amplified at the 1st IF amplifier (Q4).

4-1-4 2ND IF AND DEMODULATOR CIRCUITS

The 2nd mixer circuit converts the 1st IF signal into a 2nd IF signal. The double-conversion superheterodyne system (which convert receive signals twice) improves the image rejection ratio and obtains stable receiver gain.

The 1st IF signal from the IF amplifier (Q4) is applied to the 2nd mixer section of the FM IF IC (IC1, pin 16) and is then mixed with the 2nd LO signal for conversion into 455 kHz 2nd IF signal.

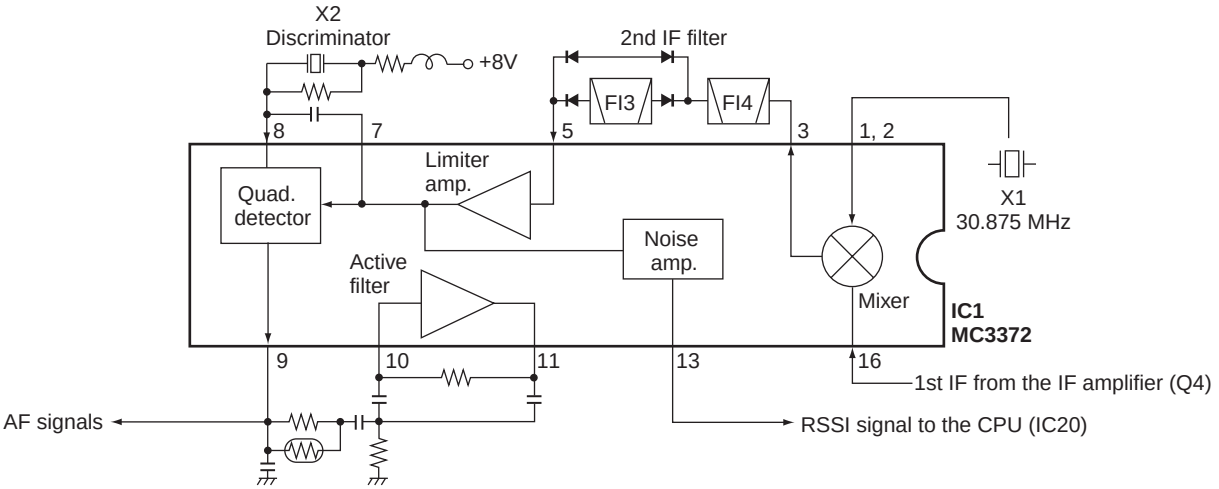
IC1 contains the 2nd mixer, 2nd local oscillator, limiter amplifier, quadrature detector, active filter and noise amplifier circuit. The local oscillator section and X1 generates the 30.420 MHz 2nd LO signal.

The 2nd IF signal from the 2nd mixer (IC1, pin 3) passes through the ceramic filters (FI3 and FI4) during narrow channel spacing selection or passes through FI4 (bypassing FI3) only during wide channel spacing selection to suppress unwanted heterodyne frequencies signals via the N/W switches (D501, D502).

The filtered signal is applied to the quadrature detector section in the FM IF IC to demodulate the 2nd IF signal into AF signals using the ceramic discriminator (X2) after being amplified at the limiter amplifier section (pin 5). The demodulated AF signals are output from pin 9 of the IC and applied to the AF circuit via the receiver mute citcuit.

The N/W switches (D501, D502) select a ceramic filter (FI3 or bypass), and the other N/W switch (Q61) adjusts the input level of the FM IF IC (IC1, pin 8) to switch the bandwidth depending on the NWC signal from the CPU (IC20, pin 57). When NWC signal is high level , bandwidth setting is wide.

• 2nd IF and demodulator circuits



4-1-5 AF AMPLIFIER CIRCUIT

The AF amplifier circuit amplifies the demodulated AF signals to drive a speaker.

The AF signals from the FM IF IC (IC1, pin 9) are amplified at the AF amplifier (IC2), and are then applied to the high-path filter circuit (IC3a/b). The high-pass filter characteristics are controlled by the HFSW signal from the CPU (IC20, pin 60). When HFSW signal is high level, the cut-off frequency is shifted higher to remove CTCSS or DTCS signals.

The filtered AF signals from the high-pass filter (IC3, pin 1) are passed through the de-emphasis circuit (R68, C74) with frequency characteristics of –6 dB/octave, and are then applied to the electronic volume controller (IC7, pin 2) via the AF mute switch (Q6).

The output AF signals from the electronic volume controller (IC7, pin 9) are applied to the AF power amplifier (IC8) to drive the speaker.

4-1-6 RECEIVE MUTE CIRCUITS

• NOISE SQUELCH

A squelch circuit cuts out AF signals when no RF signals are received. By detecting noise components in the AF signals, the squelch circuit switches the AF mute switch.

Some noise components in the AF signals from the FM IF IC (IC1, pin 9) are passed through the active filter section in the IC (pins 10, 11). The N/W switch (Q62) adjusts the input noise level to the IC between wide and narrow bandwidths. When NWC signal which is applied to Q62 is high level, bandwidth setting is wide.

The noise signals from FM IF IC (IC1, pin 11) are passed through the level controller (IC5, pins 21, 22) and are then converted into the pulse-type signals (NOIS) at the noise detector circuit (Q9, Q10).

The NOIS signal from the noise detector (Q10) is applied to the CPU (IC20, pin 32). The CPU then analyzes the noise condition and controls the AMUT (pin 56) and SP (pin 79) ports to toggle the AF mute switches (Q6, Q7).

• CTCSS AND DTCS

The tone squelch circuit detects AF signals and opens the squelch only when receiving a signal containing a matching subaudible tone (CTCSS or DTCS). When tone squelch is in use, and a signal with a mismatched or no subaudible tone is received, the tone squelch circuit mutes the AF signals even when noise squelch is open.

A portion of the AF signals from the AF amplifier (IC2) pass through the low-pass filter (Q503) and are then applied to the CTCSS decoder inside the CPU (IC20, pin 43) via the CDEC line to control the AMUT and SP ports.

4-2 TRANSMITTER CIRCUITS

4-2-1 MICROPHONE AMPLIFIER CIRCUIT

The microphone amplifier circuit amplifies audio signals from the microphone, within +6 dB/octave pre-emphasis characteristics, to a level needed for the modulation circuit.

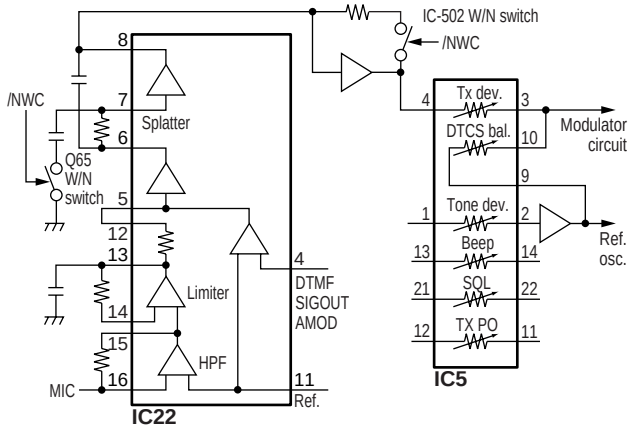
AF signals (MIC) from the FRONT unit via J5 (pin 10) are applied to the audio switch (IC25). While transmitting, the MCON signal from the CPU is high and the AF signals is passed through IC25 to the microphone amplifier circuit.

The AF signals from IC25 are applied to the microphone amplifier (IC22) via the pre-amplifier (IC21b). The amplified signals are applied to the limiter amplifier in IC22.

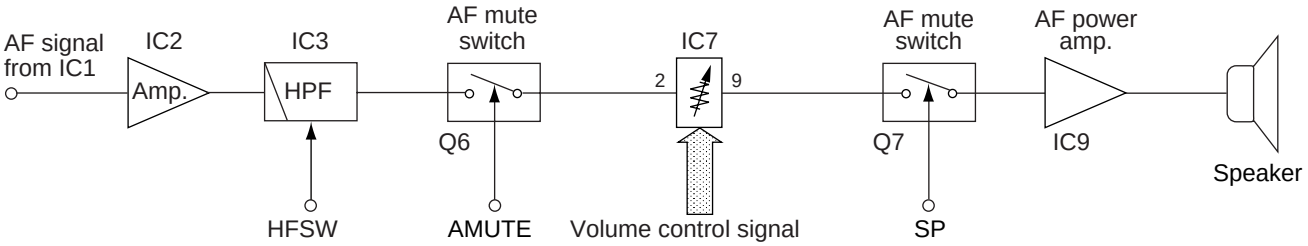
The entered signals are pre-emphasized with +6dB/octave at a limiter amplifier, then passed through a splatter filter section in IC22. The output signals from pin 8 pass through the level controller (IC5, pins 4, 3) and are then applied to the modulation circuit (D46).

The N/W switches (Q65, IC502) are connected to the input lines of the splatter filter section (IC22) and buffer amplifier (IC503) respectively. The N/W switches (Q65, IC502) are controlled by the /NWC signal from Q505 to adjust filter cut-off frequency (by Q65) and maximum frequency deviation (by IC502).

• MICROPHONE AMPLIFIER CIRCUIT



• AF circuit



4-2-2 MODULATION CIRCUIT

The modulation circuit modulates the VCO oscillating signal (RF signal) using the microphone AF signals.

The AF signals from the level controller (IC5) change the reactance of varactor diode (D46) to modulate the oscillated signal at the Tx VCO circuit (Q23). The modulated VCO signal is amplified at the buffer amplifiers (Q19, Q20) and is then applied to the drive amplifier circuit via the T/R switch (D17).

The CTCSS/DTCS signals from the CPU (IC20, pin 44) are amplified at the buffer amplifier (Q504). The amplified signals pass through the level controller (IC5, pins 1, 2) and are then applied to VCO circuit via the low-pass filter (IC21a).

When /NWC signal which is applied to N/W switch (Q64) is high level, N/W switch (Q64) changes the input level of the level controller (IC5), thus narrowing the bandwidth.

4-2-3 DRIVE/POWER AMPLIFIER CIRCUITS

The amplifier circuit amplifies the VCO oscillationg signal to an output power level.

The signal from the buffer amplifier (Q20) passes through the T/R switch (D17), and is amplified at the drive amplifiers (Q17–Q15) and power module (IC11) to obtain 25 W of RF power.

The amplified signal is passed through the antenna switching circuit (D4), low-pass filter and APC detector. Then the signal is applied to the antenna connector.

The collector voltages for driver (Q16) come from the MT8V regulator (Q38, D28). The transmit mute switch (Q39) controls the MT8V regulator when transmit mute is necessary.

4-2-4 APC CIRCUIT

The APC circuit protects the power module (IC11) from a mismatched output load and stabilizes the output power.

The APC detector circuit detects forward signals and reflection signals at D3 and D1 respectively. The combined voltage is at a minimum level when the antenna impedance is matched at 50 Ω and is increased when it is mismatched.

The detected voltage is applied to the inverse amplifier (IC10b, pin 5), and the power setting voltage (PSET) is applied to the other input (IC10b, pin 6) via the amplifier (IC10a). When antenna impedance is mismatched, the detected voltage exceeds the power setting voltage. Then the output voltage of the inverse amplifier (IC10b, pin 7) controls the input current of the power module (IC11) to reduce the output power via the APC driver (Q11).

4-3 PLL CIRCUITS

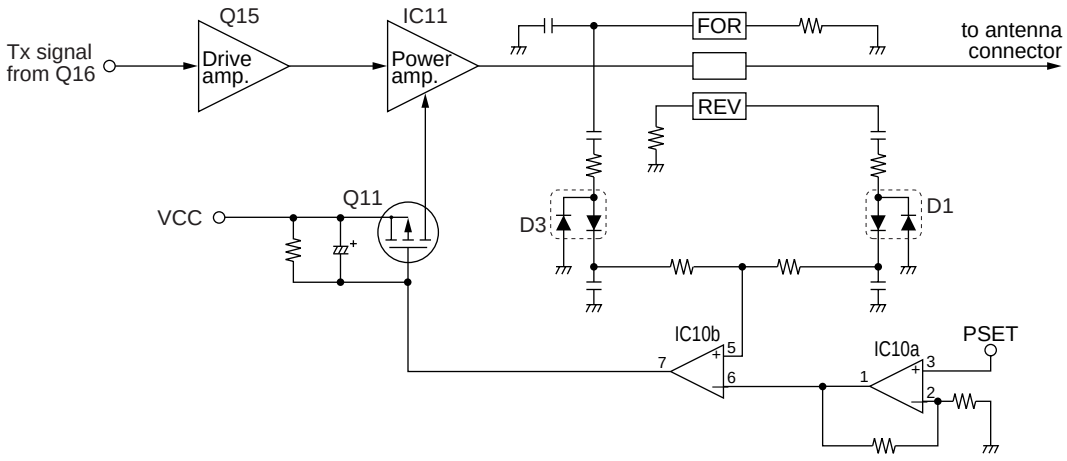
4-3-1 PLL CIRCUIT

A PLL circuit provides stable oscillation of the transmit frequency and receive 1st LO frequency. The PLL circuit consists of the PLL IC, charge pump, loop filter and reference oscillator and employs a pulse swallow counter.

Oscillated signals from the VCO via the buffer amplifiers (Q19, Q18) are prescaled in the PLL IC (IC12, pin 11) based on the divided ratio (N-data). The PLL IC detects the out-of-step phase using the reference frequency and outputs it from pin 6 (IC12). The output signal is passed through the charge pump (Q30–Q33) and loop filters (R154/C181, R153/C179), and is then applied to the VCO circuit as the lock voltage.

The accelerator switch (IC13) selects the effective loop filter to accelerate the PLL lock up speed.

• APC CIRCUIT



The lock voltage is also used for the receiver tunable bandpass filters to match the filter's center frequency to the desired receive frequency. The lock voltage is amplified at the buffer amplifier (Q29) and is then applied to the bandpass filters (D7–D11, D514).

4-3-2 VCO CIRCUIT

The VCO circuit contains a separate Rx VCO (Q21, D19, D20) and Tx VCO (Q23, D21, D22, D46). The oscillated signal is amplified at the buffer amplifiers (Q19, Q20) and is then applied to the T/R switches (D17, D18). Then the receive 1st LO (Rx) signal is applied to the 1st mixer (Q2) via the LO amplifier (Q3) and the transmit (Tx) signal to the driver (Q17).

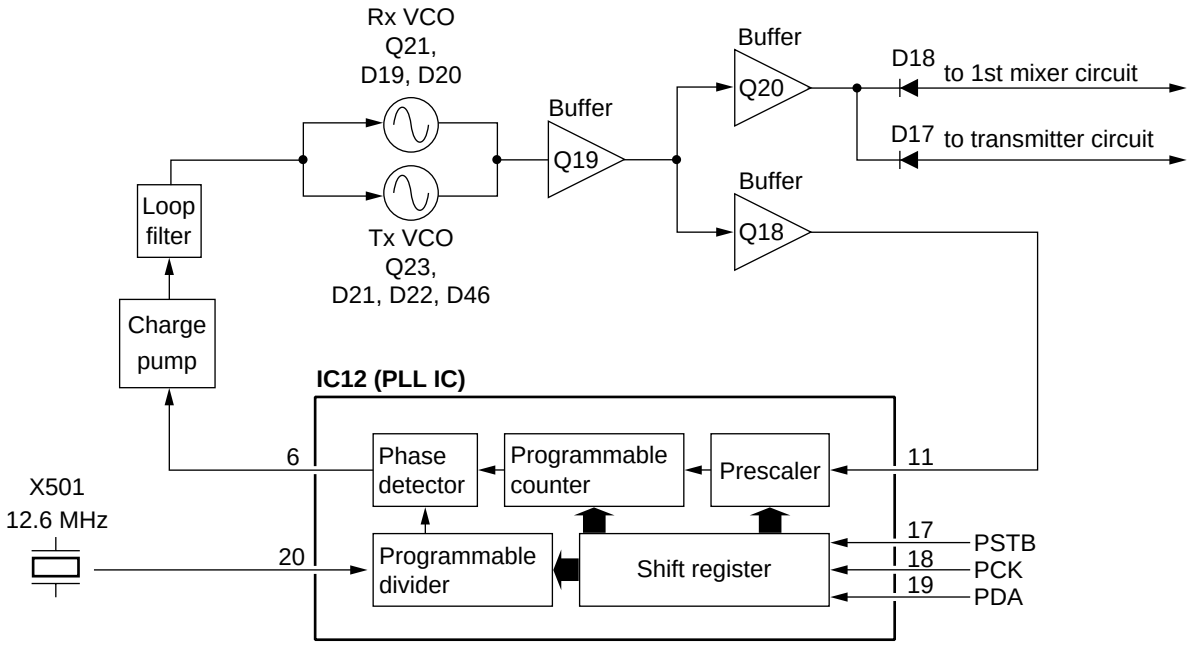
A portion of the signal from the buffer amplifier (Q19) is fed back to the PLL IC (IC12, pin 11) via the another buffer amplifier (Q18) as the comparison signal.

4-4 POWER SUPPLY CIRCUIT

VOLTAGE LINE

LINE	DESCRIPTION
HV	The voltage from the external power connector.
VCC	Same voltage as the HV line passed through the power control circuit (Q12, Q14) controlled by PWON signal from the CPU (IC20, pin 77).
CPU5V	Common 5 V converted from the HV line at the 5V regulator circuit (IC17). This voltage is supplied to the CPU regardless of the power switch.
+5V	Common 5 V converted from the VCC line at the +5V regulator circuit (Q42, Q43, D30) using the CPU5V line voltage as the reference.
+8V	Common 8 V converted from the VCC line at the +8V regulator circuit (IC16).
R8V	Receive 8 V converted from the VCC line at the R8V regulator circuit (Q36, D27) using the +8V line voltage as the reference and controlled by VRX signal from the CPU (IC20, pin 76).
T8V	Transmit 8 V converted from the VCC line at the T8V regulator circuit (Q40, D29) using the +8V line voltage as the reference and controlled by VTX signal from the the CPU (IC20, pin 75).
MT8V	Transmit 8 V converted from the VCC line at the MT8V regulator circuit (Q38, D28) using the +8V line voltage as the reference and controlled by TMUT signal from the the CPU (IC20, pin 62).

• PLL circuit



4-5 PORT ALLOCATIONS

CPU (IC20)

Pin number	Port name	Description
20	PTTO	Outputs the PTT control signal. Low : While transmitting
21	PTTI	Input port for the PTT control signal from PTTO port.
22	AFON	Input port for the AF amplifier ON signal from an optional unit.
24	BUSY	Outputs busy signal for an optional unit.
25	POSW	Input port for the power switch. Low : While power switch is pushed
30	MMUT	Input port for microphone audio mute control signal from an optional unit.
31	RMUT	Input port for receive audio mute control signal from an optional unit.
32	NOIS	Input port for noise signals (pulse-type) for noise squelch operation.
38	AFV	Input port for the volume control.
40	RSSI	Input port for receiving signal strength level detection.
43	CDEC	Input port for CTCSS/DTCS decoding.
44	CENC	Output ports for CTCSS/DTCS signals.
47, 48	ECS2, ECS1	Output ports for EEPROM select signals. ECS1: For internal EEPROM (IC27) ECS2: For optional EEPROM
49	ECK	Outputs clock signal for EEPROMs.
50	ESI	Input port for serial signal from EEPROMs.
51	ESO	Outputs serial signal for EEPROMs.
53	BEEP	Outputs beep audio signals.
55	MCON	Outputs mic. audio mute control signal to the audio switch (IC25). High : While DTMF signals are being transmitted, etc.
56	AMUT	Outputs the AF mute switch (Q6) control signal. High : While squelched, etc.
25	NWC	Outputs N/W switch control signals. High : While wide is selected
57	HFSW	Outputs high-pass filter's characteristics select signal. High : During CTCSS operation
60	PA	Outputs mic. audio select signal to the audio switch (IC25). High : While "Public-address" function is ON
62	TMUT	Outputs MT8V regulator circuit (Q38, D27) control signal. High : While transmit is muted.
64	DSTB	Outputs strobe signals for the level controller. (IC5)
65	DDA	Outputs data signal for the level controller (IC5).
66	DCK	Outputs clock signal for the level controller (IC5).
67	PSTB	Outputs strobe signals for the PLL IC (IC12).
68	PDA	Outputs data signal for the PLL IC (IC12).
69	PCK	Outputs clock signal for the PLL IC (IC12).
72	UNLK	Input port for the PLL unlock signal. High : During unlock
73	PLLT	Outputs PLL accelerator control signal. High : While scanning, etc.
75	VTX	Outputs the T8V regulator circuit (Q38, D28) control signal. Low : While transmitting
76	VRX	Outputs the R8V regulator circuit (Q36, D27) control signal. Low : While receiving
77	PWON	Outputs the power control circuit (Q12) control signal. High : During power ON
78	PASP	Outputs "Public-address" mute signal. High : While PA and Ext. SP functions are not used
79	SP	Outputs the mute switch (Q7) control signal (incl. beep). High : While squelched, etc.
80	DIM	Input port for an external LCD backlight brightness control signal. Low : LCD backlight is dimmed
82–89	DTR1–DTR4, DTC4–DTC1	Outputs DTMF audio signals.
93	HORN	Outputs high level control signal for the pre-set time to the connected external unit when matched 2- or 5-tone code is received.
99	SIFT	Outputs CPU clock shift signal.

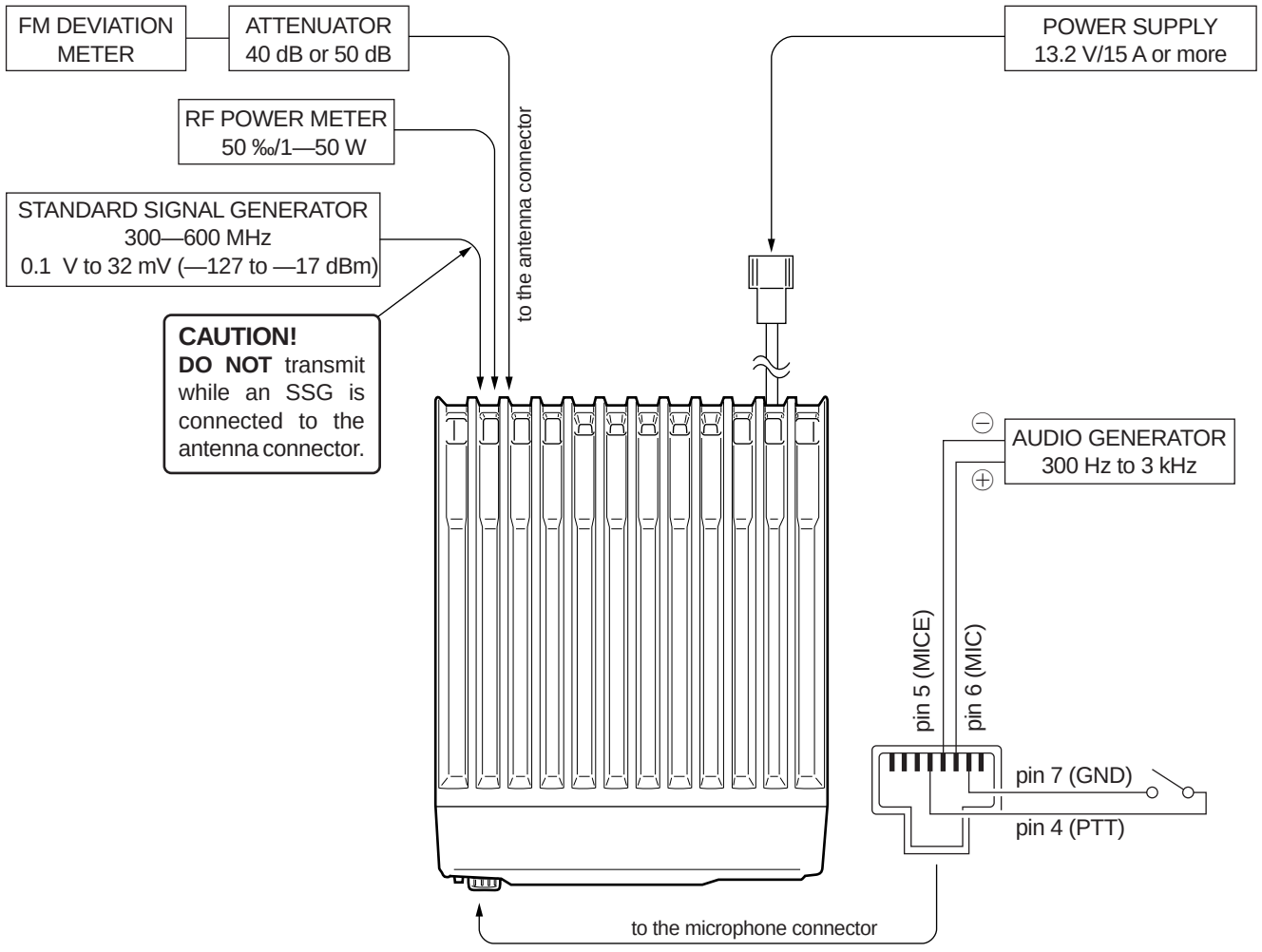
SECTION 5 ADJUSTMENT PROCEDURES

5-1 PREPARATION

■ REQUIRED TEST EQUIPMENT

EQUIPMENT	GRADE AND RANGE	EQUIPMENT	GRADE AND RANGE
DC power supply	Output Voltage : 13.2 V DC Current capacity : 15 A or more	Standard signal generator (SSG)	Frequency range : 0.1–600 MHz Output level : 0.1 µV–32 mV (–127 to –17 dBm)
RF power meter (terminated type)	Measuring range : 1–50 W Frequency range : 300–600 MHz Impedance : 50 Ω SWR : Less than 1.2 : 1	Oscilloscope	Frequency range : DC–20 MHz Measuring range : 0.01–20 V
Frequency counter	Frequency range : 0.1–600 MHz Frequency accuracy : ±1 ppm or better Sensitivity : 100 mV or better	DC voltmeter	Input impedance : 50 kΩ/V DC or better
RF voltmeter	Frequency range : 0.1–600 MHz Measuring range : 0.01–10 V	Digital multimeter	Measuring range : 10 mV–10 V
FM deviation meter	Frequency range : DC–600 MHz Measuring range : 0 to ±10 kHz	AC millivoltmeter	Input impedance : 10 MΩ/V DC or better
Audio generator	Frequency range : 300–3000 Hz Measuring range : 1–500 mV	External speaker	Input impedance : 4 Ω Capacity : 5 W or more
		Attenuator	Power attenuation : 40 dB or 50 dB Capacity : 50 W or more
		Terminator	Impedance : 50 Ω Capacity : 50 W or more

■ CONNECTION



5-2 INITIAL SET MODE

The following items can be adjusted via ***Initial Set Mode*** without opening the transceiver's case.

■ ENTERING INITIAL SET MODE

① Turn the transceiver power OFF.

② While pushing [△] and [▽], turn power ON.
- Bank number appears regardless of the channel separation type, 'bank' or 'free'.

③ Push [P0] to cycle through the initial set mode items.

NOTE: Initial Set Mode access can be inhibited through PC programming. In such case, [P0] cannot be used and only 'DISPLAY' setting is available. Ask your Dealer or Icom Service Center for PC programming.

■ SELECTABLE ITEMS

No.	ITEM	SELECTABLE CONDITIONS		
		[P1]	[P2]	[P3]
1	**DISPLAY**	Backlight	—	Contrast
2	**AF/SQUELCH**	—	Squelch level	Minimum AF level
3	**BEEP TONES**	Link ON/OFF	Beep tones ON/OFF	Beep level
4	**DEVIATION**	DTCS balance	Tone deviation	Max. voice deviation
5	**S-METER**	Indicate the received signal level regardless of [P1] to [P3] keys.		
6	**TX POWER**	Low 1	Low 2	High

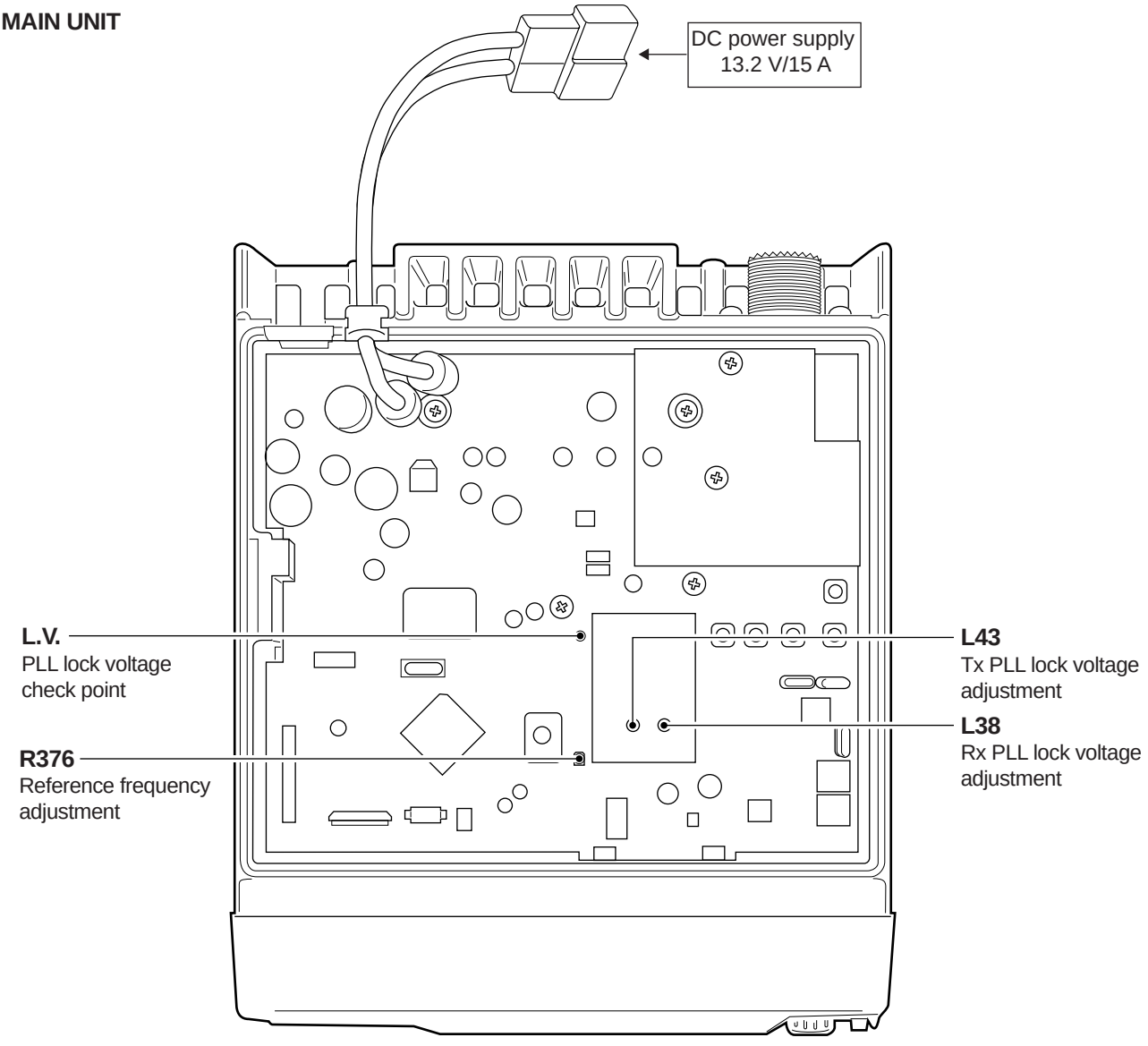
■ SELECTION METHOD

MODE No.	ITEM	METHOD	NOTE
[1]	Display backlight	Push [P1] to select 'bright', 'dark' or 'off'.	
	Display contrast	Rotate the volume control while pushing [P3].	
[2]	Squelch level	Rotate the volume control while pushing [P2].	
	Minimum AF level	Rotate the volume control while pushing [P3].	
[3]	Link/unlink beep tones with the volume control	Push [P1] to select 'link' or 'unlink'.	2 beeps: link 1 beep: unlink
	Beep ON/OFF	Push [P2] to turn beeps ON and OFF.	2 beeps: ON 1 beep: OFF Effective after exiting Initial Set Mode
	Maximum beep level	Push [P3] to select the desired beep level.	
[4]	DTCS balance	Rotate the volume control while pushing [P1].	Automatic transmission while pushing the key.
	CTCSS/DTCS Tone deviation	Rotate the volume control while pushing [P2].	Automatic transmission while pushing the key. Separate setting for CTCSS and DTCS depending on the programmed tone system.
	Maximum voice deviation	Rotate the volume control while pushing [P3].	Automatic transmission while pushing the key.
[5]	S-meter level	—	Received signal level is shown in the display.
[6]	Transmit low power (L1)	Rotate the volume control while pushing [P1].	Automatic transmission while pushing the key.
	Transmit low power (L2)	Rotate the volume control while pushing [P2].	Same as above.
	Transmit high power (H)	Rotate the volume control while pushing [P3].	Same as above.

5-3 PLL ADJUSTMENT

ADJUSTMENT		ADJUSTMENT CONDITIONS	MEASUREMENT		VALUE	ADJUSTMENT	
			UNIT	LOCATION		UNIT	ADJUST
PLL LOCK VOLTAGE	1	• Operating frequency : 440.000 MHz • Receiving	MAIN	Connect a digital multimeter or an oscilloscope to the check point “LV”.	2.0 V	MAIN	L38
	2	• Operating frequency : 490.000 MHz • Receiving			7.0–13.0 V		Verify
	3	• Operating frequency : 440.000 MHz • Transmitting			2.0 V		L43
	4	• Operating frequency : 490.000 MHz • Transmitting			7.0–13.0 V		Verify
PLL REFERENCE FREQUENCY	1	• Operating frequency : 440.000 MHz • Transmitting	Rear panel	Loosely couple a frequency counter to the antenna connector.	490.0000 MHz	MAIN	R376

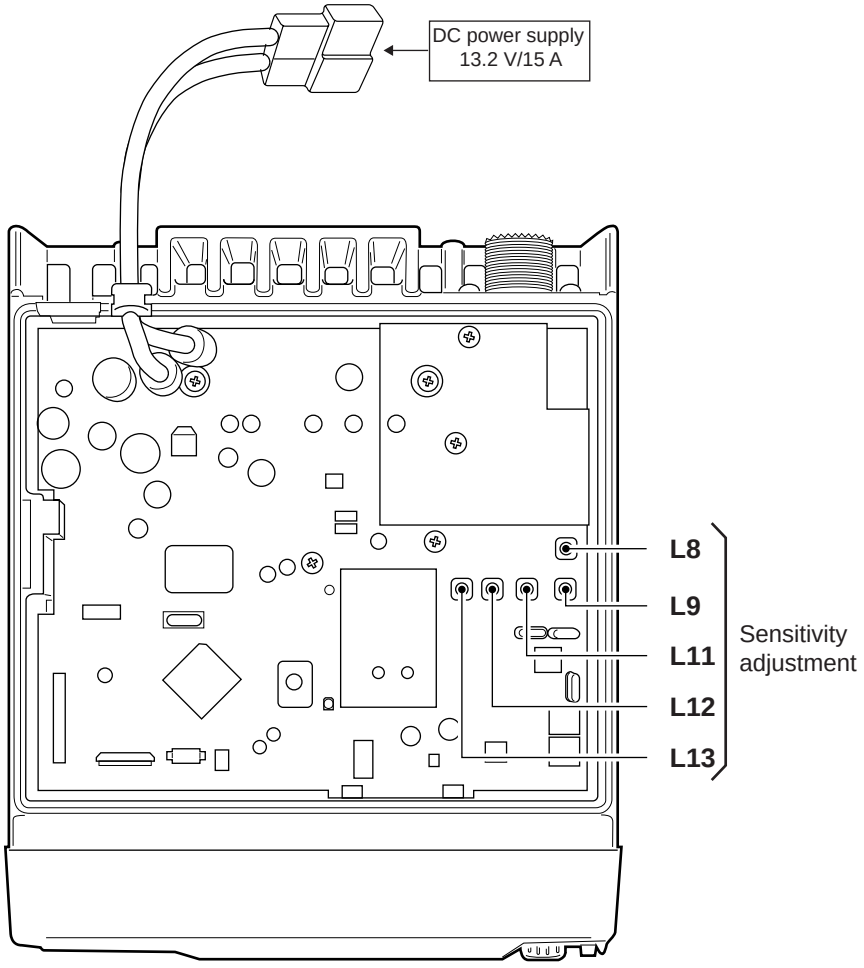
• MAIN UNIT



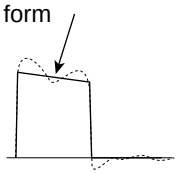
5-4 RECEIVER ADJUSTMENT

ADJUSTMENT		ADJUSTMENT CONDITIONS	MEASUREMENT METHOD	ADJUSTMENT	
				VALUE	ADJUST
RECEIVER SENSITIVITY	1	• Operating frequency : 440.000 MHz • Enter ***Initial Set Mode*** No. 5. Refer to page 5-2 for details. • Connect a standard signal generator to the antenna connector and set as: Level : 5.6 µV* (–92 dBm) Modulation : OFF • Connect a 4 Ω load to the external speaker jack. • Receiving	Number digits in the LCD 	Maximum indication	Adjust in sequence L8, L9, L11, L12, L13 on the MAIN unit.
NOISE SQUELCH THRESHOLD POINT	1	• Operating frequency : 136.000 MHz • Enter ***Initial Set Mode*** No. 2. Refer to page 5-2 for details. • Make sure no signal is being applied to the antenna connector. • Receiving	Speaker output	At the point where the noise audio just disappears.	Rotate volume control while pushing [P2].
	2	• Connect an SSG to the antenna connector and set as: Level : 0.32 µV* (–117 dBm) Deviation : ±3.5 kHz Modulation : 1 kHz • Receiving		Squelch opens.	Verify
BEEP LEVEL	1	• Operating frequency : Any • Enter ***Initial Set Mode*** No. 3. Refer to page 5-2 for details. • Receiving	Speaker output	Desired level	Push [P3] to select the beep level.

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



5-5 TRANSMITTER ADJUSTMENT

ADJUSTMENT		ADJUSTMENT CONDITIONS	MEASUREMENT METHOD	ADJUSTMENT	
				VALUE	ADJUST
OUTPUT POWER	1	• Operating frequency : 440.000 MHz • Enter ***Initial Set Mode*** No. 6. Refer to page 5-2 for details.	Connect an RF power meter to the antenna connector.	25 W	Rotate volume control while pushing [P3].
				10 W	Rotate volume control while pushing [P2].
				2.5 W	Rotate volume control while pushing [P1].
			NOTE: When the RF output power cannot be set with this procedure, cloning may be necessary to cancel the output power setting.		
FM DEVIATION	1	• Operating frequency : 440.000 MHz • Enter ***Initial Set Mode*** No. 4. Refer to page 5-2 for details. • Connect an audio generator to the microphone connector and set as: 1 kHz/35 mV • Set an FM deviation meter as: HPF : OFF LPF : 20 kHz De-emphasis: OFF Detector : (P–P)/2 • Wide/Narrow setting : Wide	Connect an FM deviation meter to the antenna connector through an attenuator.	±4.0 kHz	Rotate volume control while pushing [P3].
	2	• Wide/Narrow setting : Narrow		±1.75–±2.2 kHz	Verify
DTCS WAVE FORM AND DEVIATION	1	• Operating frequency : 465.000 MHz • Enter ***Initial Set Mode*** No. 4. Refer to page 5-2 for details. • No AF signals are applied to the microphone connector. • Set an FM deviation meter as: HPF : OFF LPF : 20 kHz De-emphasis: OFF Detector : (P–P)/2 • Wide/Narrow setting : Wide • DTCS code : 007	Connect an FM deviation meter with an oscilloscope to the antenna connector through an attenuator.	Set to flat wave form 	Rotate volume control while pushing [P1].
	2			±0.7 kHz	Rotate volume control while pushing [P2].
	3	• Wide/Narrow setting : Narrow		±0.25–±0.5 kHz	Verify
CTCSS TONE DEVIATION	1	• Operating frequency : 465.000 MHz • Enter ***Initial Set Mode*** No. 4. Refer to page 5-2 for details. • No AF signals are applied to the microphone connector. • Set an FM deviation meter as: HPF : OFF LPF : 20 kHz De-emphasis: OFF Detector : (P–P)/2 • Wide/Narrow setting : Wide • CTCSS tone frequency: 88.5 Hz	Connect an FM deviation meter to the antenna connector through an attenuator.	±0.7 kHz	Rotate volume control while pushing [P2].
	2	• Wide/Narrow setting : Narrow		±0.25–±0.5 kHz	Verify

SECTION 6 PARTS LIST

[FRONT UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
IC1	1130009120	S.IC	SED1526F0A
IC2	1140007631	S.IC	HD6433640A33H
IC3	1110003500	S.IC	S-80742SL-A6-T1
IC4	1130005720	S.IC	TC7W04F (TE12L)
IC5	1110003390	S.IC	AN8005M-(E1)
Q1	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q2	1590001330	S.TRANSISTOR	DTA114EUA T106
Q3	1590000680	S.TRANSISTOR	DTC114EUA T106
Q4	1590001330	S.TRANSISTOR	DTA114EUA T106
Q5	1590000680	S.TRANSISTOR	DTC114EUA T106
Q6	1590000440	S.TRANSISTOR	DTA143ZUA T106
Q7	1590000440	S.TRANSISTOR	DTA143ZUA T106
Q8	1590000440	S.TRANSISTOR	DTA143ZUA T106
Q9	1590000440	S.TRANSISTOR	DTA143ZUA T106
Q10	1590000680	S.TRANSISTOR	DTC114EUA T106
Q11	1590000680	S.TRANSISTOR	DTC114EUA T106
D1	1790001280	S.DIODE	MA111 (TX)
D2	1790001280	S.DIODE	MA111 (TX)
D3	1790001280	S.DIODE	MA111 (TX)
D4	1790001280	S.DIODE	MA111 (TX)
D5	1750000130	S.DIODE	DA204U T107
D6	1750000130	S.DIODE	DA204U T107
D7	1750000130	S.DIODE	DA204U T107
D8	1750000130	S.DIODE	DA204U T107
D9	1750000130	S.DIODE	DA204U T107
X1	6050009870	S.XTAL	CR-567 (9.8304 MHz)
L1	6200001720	S.COIL	NL 322522T-1R0J
R1	7030003810	S.RESISTOR	ERJ3GEYJ 125 V (1.2 MΩ)
R2	7310002820	S.TRIMMER	RV-158 (RH03A3AS5) 474
R3	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R4	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R5	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R6	7030003760	S.RESISTOR	ERJ3GEYJ 474 V (470 kΩ)
R7	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R8	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R9	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R10	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R11	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R12	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R13	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R15	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R16	7030003500	S.RESISTOR	ERJ3GEYJ 332 V (3.3 kΩ)
R17	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R18	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R19	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R20	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R21	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R22	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R23	7030003500	S.RESISTOR	ERJ3GEYJ 332 V (3.3 kΩ)
R24	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R25	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R26	7210002830	VARIABLE	EVU-F2JFK4 B14
R27	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 Ω)
R28	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 Ω)
R29	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 Ω)
R30	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R31	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R32	7030003390	S.RESISTOR	ERJ3GEYJ 391 V (390 Ω)
R34	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R35	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R36	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R37	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R38	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R39	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R40	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R41	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)

[FRONT UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
R42	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R43	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R44	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R45	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R46	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	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
C1	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C2	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C3	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C4	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C5	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C6	4030012600	S.CERAMIC	C2012 JB 1A 105M-T-A
C7	4030012600	S.CERAMIC	C2012 JB 1A 105M-T-A
C8	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C9	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C10	4030009000	S.CERAMIC	C2012 JB 1C 224K-T-A
C11	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C13	4030007030	S.CERAMIC	C1608 CH 1H 150J-T-A
C14	4030007030	S.CERAMIC	C1608 CH 1H 150J-T-A
C15	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C16	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C17	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C18	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C19	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C20	4550006250	S.TANTALUM	TEMSVA 1A 106M-8L
C21	4550003220	S.TANTALUM	TEMSVA 1E 105M-8L
C22	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C23	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C24	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C25	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C26	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C27	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C28	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C29	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C30	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C31	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C32	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C33	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C34	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C35	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C36	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C37	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C38	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C39	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C40	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C41	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C42	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C43	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C44	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C45	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C46	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C47	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C48	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C49	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C50	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C51	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C52	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
J1	6450001470	CONNECTOR	95003-2881
J2	6510018030	S.CONNECTOR	53248-1217
DS1	5030001650	LCD	LD-NU10377E
DS2	5040002470	S.LED	FY1112H
DS3	5040002470	S.LED	FY1112H
DS4	5040002470	S.LED	FY1112H
DS5	5040002470	S.LED	FY1112H
DS6	5040002470	S.LED	FY1112H
DS7	5040002030	S.LED	CL-170Y-CD-T
DS8	5040002030	S.LED	CL-170Y-CD-T
DS10	5040002030	S.LED	CL-170Y-CD-T

S.=Surface mount

[FRONT UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
DS11	5040002030	S.LED	CL-170Y-CD-T
DS13	5040002030	S.LED	CL-170Y-CD-T
DS14	5040002030	S.LED	CL-170Y-CD-T
DS15	5040002030	S.LED	CL-170Y-CD-T
DS16	5040002030	S.LED	CL-170Y-CD-T
W1	7030003860	S.JUMPER	ERJ3GE JPW V
W2	7030003860	S.JUMPER	ERJ3GE JPW V
W3	7030000010	S.JUMPER	MCR10EZHJ JPW (000)
W4	7030000010	S.JUMPER	MCR10EZHJ JPW (000)
EP1	0910050602	PCB	B 5205B
EP2	8930048320	LCD CONTACT	SRCN-2140-SP-N-W

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
IC1	1110003571	S.IC	MC3372SVMEL
IC2	1130006920	S.IC	TA75W01FU (TE12L)
IC3	1130007090	S.IC	TA75W558FU (TE12L)
IC5	1190000350	S.IC	M62363FP-650C
IC7	1110003300	S.IC	M5282FP 70CD
IC8	1110003090	IC	LA4425A
IC9	1130007090	S.IC	TA75W558FU (TE12L)
IC10	1110003800	S.IC	NJM2904V-TE1
IC11	1150001680	IC	SC-1323
IC12	1130007970	S.IC	MC145190FR2
IC13	1130007300	S.IC	TC4W66FU (TE12L)
IC16	1180001250	S.IC	TA7808F (TE16L)
IC17	1180000970	S.IC	AN78L05M-(E1)
IC18	1130007110	S.IC	TC7W04FU (TE12L)
IC19	1110003500	S.IC	S-80742SL-A6-T1
IC20	1140007640	S.IC	HD64F3437F16
IC21	1130006920	S.IC	TA75W01FU (TE12L)
IC22	1110003410	S.IC	µPC5023GR-043-GJG-T2
IC25	1130007300	S.IC	TC4W66FU (TE12L)
IC26	1130007110	S.IC	TC7W04FU (TE12L)
IC27	1130009020	S.IC	X25650S8I-2.5T6
IC501	1130004230	S.IC	LC7366NM
IC502	1130007020	S.IC	TC7S66FU (TE85R)
IC503	1110002750	S.IC	TA75S01F (TE85R)
IC504	1130006220	S.IC	TC4W53FU (TE12L)
IC505	1130008090	S.IC	BU4066BCFV-E1
IC506	1180001080	S.IC	S-81250PG-PD-T1
Q1	1580000490	S.FET	3SK166A-2-T7
Q2	1580000490	S.FET	3SK166A-2-T7
Q3	1530002920	S.TRANSISTOR	2SC4226-T2 R25
Q4	1560000430	S.FET	2SK302-GR (TE85R)
Q5	1530002850	S.TRANSISTOR	2SC4116-BL (TE85R)
Q6	1590000680	S.TRANSISTOR	DTC114EUA T106
Q7	1590000990	S.TRANSISTOR	DTC363EK T147
Q8	1590000680	S.TRANSISTOR	DTC114EUA T106
Q9	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q10	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q11	1550000020	S.FET	2SJ377 (TE16R)
Q12	1550000020	S.FET	2SJ377 (TE16R)
Q14	1590000430	S.TRANSISTOR	DTC144EUA T106
Q15	1530003291	S.TRANSISTOR	2SC4703-T1 SE
Q16	1530000371	S.TRANSISTOR	2SC3356 R25-T2B
Q17	1530003310	S.TRANSISTOR	2SC5107-O (TE85R)
Q18	1530003420	S.TRANSISTOR	2SC5110-O (TE85R)
Q19	1530003420	S.TRANSISTOR	2SC5110-O (TE85R)
Q20	1530003420	S.TRANSISTOR	2SC5110-O (TE85R)
Q21	1530003420	S.TRANSISTOR	2SC5110-O (TE85R)
Q22	1590000850	S.TRANSISTOR	DTC114YUA T106
Q23	1530003420	S.TRANSISTOR	2SC5110-O (TE85R)
Q24	1590000850	S.TRANSISTOR	DTC114YUA T106
Q25	1590000430	S.TRANSISTOR	DTC144EUA T106
Q26	1590001330	S.TRANSISTOR	DTA114EUA T106
Q27	1590000720	S.TRANSISTOR	DTA144EUA T106
Q28	1590000720	S.TRANSISTOR	DTA144EUA T106
Q29	1560000530	S.FET	2SK880-GR (TE85R)
Q30	1590002290	S.TRANSISTOR	FMS2A T148

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
Q31	1590002300	S.TRANSISTOR	FMW2 T148
Q32	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q33	1510000510	S.TRANSISTOR	2SA1576A T106R
Q35	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q36	1540000550	S.TRANSISTOR	2SD1664 T100Q
Q37	1530002850	S.TRANSISTOR	2SC4116-BL (TE85R)
Q38	1540000550	S.TRANSISTOR	2SD1664 T100Q
Q39	1590000850	S.TRANSISTOR	DTC114YUA T106
Q40	1540000550	S.TRANSISTOR	2SD1664 T100Q
Q41	1530002850	S.TRANSISTOR	2SC4116-BL (TE85R)
Q42	1520000560	S.TRANSISTOR	2SB1123T-TD
Q43	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q44	1560000810	S.FET	2SK1069-4-TL
Q45	1590000430	S.TRANSISTOR	DTC144EUA T106
Q47	1590000430	S.TRANSISTOR	DTC144EUA T106
Q48	1530002850	S.TRANSISTOR	2SC4116-BL (TE85R)
Q50	1590001330	S.TRANSISTOR	DTA114EUA T106
Q51	1590000680	S.TRANSISTOR	DTC114EUA T106
Q52	1560000810	S.FET	2SK1069-4-TL
Q55	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q56	1590000720	S.TRANSISTOR	DTA144EUA T106
Q61	1530002850	S.TRANSISTOR	2SC4116-BL (TE85R)
Q62	1590000430	S.TRANSISTOR	DTC144EUA T106
Q64	1590000430	S.TRANSISTOR	DTC144EUA T106
Q65	1560000840	S.FET	2SK1829 (TE85R)
Q501	1590000430	S.TRANSISTOR	DTC144EUA T106
Q502	1590000720	S.TRANSISTOR	DTA144EUA T106
Q503	1590001650	S.TRANSISTOR	XP4601 (TX)
Q504	1560000810	S.FET	2SK1069-4-TL
Q505	1590000430	S.TRANSISTOR	DTC144EUA T106
Q506	1560000810	S.FET	2SK1069-4-TL
Q507	1590000430	S.TRANSISTOR	DTC144EUA T106
Q508	1560000840	S.FET	2SK1829 (TE85R)
Q509	1590000430	S.TRANSISTOR	DTC144EUA T106
Q510	1590000430	S.TRANSISTOR	DTC144EUA T106
Q511	1590000720	S.TRANSISTOR	DTA144EUA T106
Q512	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q513	1590000720	S.TRANSISTOR	DTA144EUA T106
Q514	1590000720	S.TRANSISTOR	DTA144EUA T106
Q515	1590000720	S.TRANSISTOR	DTA144EUA T106
Q516	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q517	1590000430	S.TRANSISTOR	DTC144EUA T106
Q518	1590000680	S.TRANSISTOR	DTC114EUA T106
D1	1790000980	S.DIODE	MA742 (TX)
D3	1790000980	S.DIODE	MA742 (TX)
D4	1750000510	S.DIODE	UM9401F
D5	1710000730	S.DIODE	MI809-T11
D6	1710000730	S.DIODE	MI809-T11
D7	1720000370	S.VARICAP	HVU350TRF
D8	1720000370	S.VARICAP	HVU350TRF
D9	1720000370	S.VARICAP	HVU350TRF
D10	1720000370	S.VARICAP	HVU350TRF
D11	1720000370	S.VARICAP	HVU350TRF
D15	1790000700	DIODE	DSA3A1
D16	1750000370	S.DIODE	DA221 TL
D17	1790000620	S.DIODE	MA77 (TX)
D18	1790000620	S.DIODE	MA77 (TX)
D19	1720000270	S.VARICAP	1SV217 (TPH2)
D20	1720000270	S.VARICAP	1SV217 (TPH2)
D21	1720000270	S.VARICAP	1SV217 (TPH2)
D22	1720000270	S.VARICAP	1SV217 (TPH2)
D27	1750000130	S.DIODE	DA204U T107
D28	1750000130	S.DIODE	DA204U T107
D29	1750000130	S.DIODE	DA204U T107
D30	1750000550	S.DIODE	1SS355 TE-17
D31	1720000360	S.DIODE	HSU88TRF
D32	1790000980	S.DIODE	MA742 (TX)
D33	1730002420	S.ZENER	MA8160 (TX)
D36	1750000550	S.DIODE	1SS355 TE-17
D37	1750000550	S.DIODE	1SS355 TE-17
D38	1750000550	S.DIODE	1SS355 TE-17
D45	1790001280	S.DIODE	MA111 (TX)
D46	1720000520	S.VARICAP	1T365-01-T8A
D50	1750000550	S.DIODE	1SS355 TE-17
D51	1750000550	S.DIODE	1SS355 TE-17
D52	1750000260	S.DIODE	1SS352 (TPH3)
D501	1160000060	S.DIODE	DAN202U T107
D502	1160000060	S.DIODE	DAN202U T107
D503	1790000620	S.DIODE	MA77 (TX)
D505	1750000130	S.DIODE	DA204U T107

S.=Surface mount

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
D506	1160000060	S.DIODE	DAN202U T107
D507	1720000360	S.DIODE	HSU88TRF
D508	1750000130	S.DIODE	DA204U T107
D509	1160000060	S.DIODE	DAN202U T107
D510	1750000130	S.DIODE	DA204U T107
D511	1750000300	S.DIODE	1SS302 (TE85R)
D512	1790000620	S.DIODE	MA77 (TX)
D513	1790000620	S.DIODE	MA77 (TX)
D514	1720000370	S.VARICAP	HVU350TRF
FI1	2010002070	XTAL	FL-266 (30.875 MHz)
FI3	2020001180	S.CERAMIC	SFPC455H-TC01
FI4	2020001050	S.CERAMIC	SFPC455E-TC01
FI5	2040001440	S.LC	NFM60R20T152
FI6	2040001440	S.LC	NFM60R20T152
X1	6050008810	XTAL	CR-473 (30.41909 MHz)
X2	6070000170	S.DISCRIMINATOR	CDBC455CX16-TC
X4	6050009870	S.XTAL	CR-567 (9.8304 MHz)
X501	6050009960	S.XTAL	CR-573 (12.6 MHz)
X502	6060000550	S.CERAMIC	PBRC 3.58AR
L1	6110003140	COIL	LA-502
L2	6110003140	COIL	LA-502
L3	6110003150	COIL	LA-505
L4	6200005780	S.COIL	33CS-Y655LY-03K=P3
L5	6200005780	S.COIL	33CS-Y655LY-03K=P3
L6	6200008910	S.COIL	1812CS-122XKBC
L7	6110003140	COIL	LA-502
L8	6200003690	S.COIL	MC152-E558ANA-100051=P3
L9	6200003690	S.COIL	MC152-E558ANA-100051=P3
L10	6200007830	S.COIL	ELJFC 4R7K-F
L11	6200003690	S.COIL	MC152-E558ANA-100051=P3
L12	6200003690	S.COIL	MC152-E558ANA-100051=P3
L13	6200003690	S.COIL	MC152-E558ANA-100051=P3
L14	6200003960	S.COIL	MLF1608A 1R0K-T
L15	6200003350	S.COIL	ELJNC R27K-F
L16	6200003440	S.COIL	ELJNC 39NK-F
L17	6200001940	S.COIL	ELJNC 27NK-F
L18	6200003960	S.COIL	MLF1608A 1R0K-T
L19	6200007830	S.COIL	ELJFC 4R7K-F
L20	6200003850	S.COIL	36CS-656LZ-09K=P3
L21	6200003960	S.COIL	MLF1608A 1R0K-T
L22	6200003850	S.COIL	36CS-656LZ-09K=P3
L23	6200001650	S.COIL	ELJNC 18NK-F
L24	6200001650	S.COIL	ELJNC 18NK-F
L25	6200001760	S.COIL	ELJNC 22NK-F
L26	6200004230	S.COIL	ELJNC R56K-F
L27	6200001760	S.COIL	ELJNC 22NK-F
L28	6200002120	S.COIL	ELJNC 33NK-F
L29	6200004230	S.COIL	ELJNC R56K-F
L30	6200004230	S.COIL	ELJNC R56K-F
L31	6200001650	S.COIL	ELJNC 18NK-F
L32	6200001760	S.COIL	ELJNC 22NK-F
L33	6200001760	S.COIL	ELJNC 22NK-F
L35	6200001620	S.COIL	ELJFC 1R0K-F
L37	6200001620	S.COIL	ELJFC 1R0K-F
L38	6200003690	S.COIL	MC152-E558ANA-100051=P3
L39	6200001620	S.COIL	ELJFC 1R0K-F
L40	6200004230	S.COIL	ELJNC R56K-F
L41	6200002710	S.COIL	ELJFC 1R8K-F
L42	6200004230	S.COIL	ELJNC R56K-F
L43	6200004110	S.COIL	MC152-E558ANA-100050
L44	6200004230	S.COIL	ELJNC R56K-F
L45	6200002860	S.COIL	NL 252018T-4R7J
L46	6200004230	S.COIL	ELJNC R56K-F
L47	6200004230	S.COIL	ELJNC R56K-F
L48	6200004230	S.COIL	ELJNC R56K-F
L50	6200004230	S.COIL	ELJNC R56K-F
L51	6200001750	S.COIL	ELJNC 15NK-F
L53	6200007030	S.COIL	SLF7032T-101MR45-2
L54	6200004230	S.COIL	ELJNC R56K-F
L55	6200003960	S.COIL	MLF1608A 1R0K-T
L56	6200003960	S.COIL	MLF1608A 1R0K-T
L57	6200003960	S.COIL	MLF1608A 1R0K-T
L58	6200003960	S.COIL	MLF1608A 1R0K-T
L59	6200003960	S.COIL	MLF1608A 1R0K-T
L60	6200003960	S.COIL	MLF1608A 1R0K-T
L62	6200004720	S.COIL	MLF1608D R10K-T

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
L63	6200003960	S.COIL	MLF1608A 1R0K-T
L65	6200004210	S.COIL	MLR1608M 15NJ-T
L502	6200004720	S.COIL	MLF1608D R10K-T
L504	6200004880	S.COIL	ELJFC 3R3K-F
L505	6200001760	S.COIL	ELJNC 22NK-F
L506	6200004890	S.COIL	ELJFC 3R9K-F
L507	6200006150	S.COIL	LQP21A 47NG14
R1	7030000220	S.RESISTOR	MCR10EZHJ 47 Ω (470)
R2	7030004050	S.RESISTOR	ERJ3GEYJ 1R0 V (1 Ω)
R4	7030000220	S.RESISTOR	MCR10EZHJ 47 Ω (470)
R5	7030004050	S.RESISTOR	ERJ3GEYJ 1R0 V (1 Ω)
R7	7030001170	S.RESISTOR	MCR50JZHJ 220 Ω (221)
R8	7030001170	S.RESISTOR	MCR50JZHJ 220 Ω (221)
R10	7030003700	S.RESISTOR	ERJ3GEYJ 154 V (150 kΩ)
R11	7030003700	S.RESISTOR	ERJ3GEYJ 154 V (150 kΩ)
R12	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R13	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R14	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R15	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 Ω)
R16	7030003700	S.RESISTOR	ERJ3GEYJ 154 V (150 kΩ)
R17	7030003700	S.RESISTOR	ERJ3GEYJ 154 V (150 kΩ)
R18	7030003700	S.RESISTOR	ERJ3GEYJ 154 V (150 kΩ)
R19	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R21	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R25	7030003380	S.RESISTOR	ERJ3GEYJ 331 V (330 Ω)
R27	7030003530	S.RESISTOR	ERJ3GEYJ 562 V (5.6 kΩ)
R28	7030003510	S.RESISTOR	ERJ3GEYJ 392 V (3.9 kΩ)
R30	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R31	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R33	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)
R34	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R35	7030003670	S.RESISTOR	ERJ3GEYJ 823 V (82 kΩ)
R36	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R37	7030003760	S.RESISTOR	ERJ3GEYJ 474 V (470 kΩ)
R38	7030003470	S.RESISTOR	ERJ3GEYJ 182 V (1.8 kΩ)
R39	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R40	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R41	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R42	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R44	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R45	7030003650	S.RESISTOR	ERJ3GEYJ 563 V (56 kΩ)
R46	7510000430	S.THERMISTOR	TN20-3K202LT
R47	7030003490	S.RESISTOR	ERJ3GEYJ 272 V (2.7 kΩ)
R48	7030003430	S.RESISTOR	ERJ3GEYJ 821 V (820 Ω)
R49	7030004050	S.RESISTOR	ERJ3GEYJ 1R0 V (1 Ω)
R51	7030004270	S.RESISTOR	ERJ3EKF 4121 V (4.12 kΩ)
R52	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R53	7030005490	S.RESISTOR	RR0816R-363-D (36 kΩ)
R61	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R62	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)
R63	7030004850	S.RESISTOR	ERJ3GEYF 913 V (91 kΩ)
R65	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R67	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R68	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R69	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R70	7030003760	S.RESISTOR	ERJ3GEYJ 474 V (470 kΩ)
R71	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R77	7030003620	S.RESISTOR	ERJ3GEYJ 333 V (33 kΩ)
R80	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R81	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R85	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R86	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R87	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R88	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R89	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R90	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R92	7030003670	S.RESISTOR	ERJ3GEYJ 823 V (82 kΩ)
R93	7030003490	S.RESISTOR	ERJ3GEYJ 272 V (2.7 kΩ)
R94	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R95	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R96	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R97	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R98	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R99	7030003590	S.RESISTOR	ERJ3GEYJ 183 V (18 kΩ)
R100	7030003530	S.RESISTOR	ERJ3GEYJ 562 V (5.6 kΩ)
R101	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R102	7030003500	S.RESISTOR	ERJ3GEYJ 332 V (3.3 kΩ)
R103	7030003500	S.RESISTOR	ERJ3GEYJ 332 V (3.3 kΩ)
R107	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R108	7030000020	S.RESISTOR	MCR10EZHJ 1 Ω (010)

S.=Surface mount

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
R109	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R110	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 Ω)
R111	7030000190	S.RESISTOR	MCR10EZHJ 27 Ω (270)
R113	7030004040	S.RESISTOR	ERJ3GEYJ 4R7 V (4.7 Ω)
R114	7030003240	S.RESISTOR	ERJ3GEYJ 220 V (22 Ω)
R115	7030003500	S.RESISTOR	ERJ3GEYJ 332 V (3.3 kΩ)
R116	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R117	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)
R118	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R119	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R120	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R121	7030003490	S.RESISTOR	ERJ3GEYJ 272 V (2.7 kΩ)
R122	7030003230	S.RESISTOR	ERJ3GEYJ 180 V (18 Ω)
R123	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 Ω)
R124	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 Ω)
R125	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R126	7030003540	S.RESISTOR	ERJ3GEYJ 682 V (6.8 kΩ)
R127	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R128	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R129	7030003550	S.RESISTOR	ERJ3GEYJ 822 V (8.2 kΩ)
R130	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R131	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R132	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R133	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R134	7030003550	S.RESISTOR	ERJ3GEYJ 822 V (8.2 kΩ)
R135	7030003550	S.RESISTOR	ERJ3GEYJ 822 V (8.2 kΩ)
R136	7030004040	S.RESISTOR	ERJ3GEYJ 4R7 V (4.7 Ω)
R137	7030003420	S.RESISTOR	ERJ3GEYJ 681 V (680 Ω)
R138	7030003550	S.RESISTOR	ERJ3GEYJ 822 V (8.2 kΩ)
R139	7030003550	S.RESISTOR	ERJ3GEYJ 822 V (8.2 kΩ)
R140	7030004040	S.RESISTOR	ERJ3GEYJ 4R7 V (4.7 Ω)
R141	7030003420	S.RESISTOR	ERJ3GEYJ 681 V (680 Ω)
R142	7510000780	S.THERMISTOR	NTCCF2012 3SH 333KC-T
R143	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R146	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R147	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R148	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R149	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R150	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R151	7030003770	S.RESISTOR	ERJ3GEYJ 564 V (560 kΩ)
R152	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R153	7030003410	S.RESISTOR	ERJ3GEYJ 561 V (560 Ω)
R154	7030003420	S.RESISTOR	ERJ3GEYJ 681 V (680 Ω)
R155	7030003500	S.RESISTOR	ERJ3GEYJ 332 V (3.3 kΩ)
R156	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R157	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R158	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R159	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R160	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R162	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R163	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R169	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R170	7030003550	S.RESISTOR	ERJ3GEYJ 822 V (8.2 kΩ)
R171	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R172	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R173	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R184	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R185	7030003590	S.RESISTOR	ERJ3GEYJ 183 V (18 kΩ)
R186	7030003430	S.RESISTOR	ERJ3GEYJ 821 V (820 Ω)
R187	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R188	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
R189	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R190	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R191	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R192	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R193	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R194	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R195	7030003880	S.RESISTOR	ERJ3GEYJ 244 V (240 kΩ)
R196	7030003610	S.RESISTOR	ERJ3GEYJ 273 V (27 kΩ)
R197	7030003620	S.RESISTOR	ERJ3GEYJ 333 V (33 kΩ)
R208	7030000460	S.RESISTOR	MCR10EZHJ 4.7 kΩ
R209	7030000460	S.RESISTOR	MCR10EZHJ 4.7 kΩ
R210	7030000460	S.RESISTOR	MCR10EZHJ 4.7 kΩ
R211	7030000460	S.RESISTOR	MCR10EZHJ 4.7 kΩ
R212	7030000460	S.RESISTOR	MCR10EZHJ 4.7 kΩ
R213	7030000460	S.RESISTOR	MCR10EZHJ 4.7 kΩ
R215	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R216	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R217	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R218	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R222	7030003760	S.RESISTOR	ERJ3GEYJ 474 V (470 kΩ)
R224	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
R226	7030003670	S.RESISTOR	ERJ3GEYJ 823 V (82 kΩ)
R228	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R230	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R231	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R232	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R238	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R239	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R240	7030003660	S.RESISTOR	ERJ3GEYJ 683 V (68 kΩ)
R242	7030003470	S.RESISTOR	ERJ3GEYJ 182 V (1.8 kΩ)
R243	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)
R244	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R245	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R246	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R247	7030003700	S.RESISTOR	ERJ3GEYJ 154 V (150 kΩ)
R248	7030003700	S.RESISTOR	ERJ3GEYJ 154 V (150 kΩ)
R249	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R250	7030003670	S.RESISTOR	ERJ3GEYJ 823 V (82 kΩ)
R251	7030003410	S.RESISTOR	ERJ3GEYJ 561 V (560 Ω)
R255	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R256	7030003750	S.RESISTOR	ERJ3GEYJ 394 V (390 kΩ)
R257	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R258	7030003570	S.RESISTOR	ERJ3GEYJ 123 V (12 kΩ)
R259	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R260	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R261	7030003760	S.RESISTOR	ERJ3GEYJ 474 V (470 kΩ)
R262	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R263	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R267	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R268	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R269	7030003760	S.RESISTOR	ERJ3GEYJ 474 V (470 kΩ)
R270	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R271	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R272	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R273	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R275	7410000950	S.ARRAY	EXB-V8V 102JV
R276	7410000950	S.ARRAY	EXB-V8V 102JV
R277	7410000950	S.ARRAY	EXB-V8V 102JV
R278	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R281	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R283	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R284	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R285	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R291	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R292	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R293	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R294	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R295	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R296	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R297	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R298	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R300	7030003770	S.RESISTOR	ERJ3GEYJ 564 V (560 kΩ)
R301	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R302	7030003570	S.RESISTOR	ERJ3GEYJ 123 V (12 kΩ)
R303	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R304	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R305	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R306	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R307	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R308	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R309	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R310	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R312	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R313	7030003730	S.RESISTOR	ERJ3GEYJ 274 V (270 kΩ)
R314	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R315	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R316	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R317	7030003620	S.RESISTOR	ERJ3GEYJ 333 V (33 kΩ)
R319	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R320	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R321	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R322	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R323	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R324	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R325	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R326	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R327	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R328	7030003500	S.RESISTOR	ERJ3GEYJ 332 V (3.3 kΩ)
R329	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R330	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R333	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R335	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R336	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)

S.=Surface mount

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
R337	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R338	7030003650	S.RESISTOR	ERJ3GEYJ 563 V (56 kΩ)
R339	7030003610	S.RESISTOR	ERJ3GEYJ 273 V (27 kΩ)
R341	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R342	7030003660	S.RESISTOR	ERJ3GEYJ 683 V (68 kΩ)
R348	7030003510	S.RESISTOR	ERJ3GEYJ 392 V (3.9 kΩ)
R349	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R356	7030003250	S.RESISTOR	ERJ3GEYJ 270 V (27 Ω)
R357	7030003760	S.RESISTOR	ERJ3GEYJ 474 V (470 kΩ)
R359	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R360	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R361	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R362	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R363	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R366	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R370	7030003550	S.RESISTOR	ERJ3GEYJ 822 V (8.2 kΩ)
R371	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R372	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R373	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R374	7030003620	S.RESISTOR	ERJ3GEYJ 333 V (33 kΩ)
R375	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R376	7310003630	S.TRIMMER	EVM-1XSX50 BQ4 (473)
R377	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R382	7030003240	S.RESISTOR	ERJ3GEYJ 220 V (22 Ω)
R385	7030003430	S.RESISTOR	ERJ3GEYJ 821 V (820 Ω)
R386	7030000180	S.RESISTOR	MCR10EZHJ 22 Ω (220)
R387	7030003450	S.RESISTOR	ERJ3GEYJ 122 V (1.2 kΩ)
R388	7510000860	S.THERMISTOR	NTCCF2012 3FH 222KC-T
R389	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R392	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R397	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R398	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R400	7030003750	S.RESISTOR	ERJ3GEYJ 394 V (390 kΩ)
R401	7030003710	S.RESISTOR	ERJ3GEYJ 184 V (180 kΩ)
R402	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R403	7030004040	S.RESISTOR	ERJ3GEYJ 4R7 V (4.7 Ω)
R404	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R405	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R406	7030003620	S.RESISTOR	ERJ3GEYJ 333 V (33 kΩ)
R407	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R408	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R409	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)
R410	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R412	7030003420	S.RESISTOR	ERJ3GEYJ 681 V (680 Ω)
R415	7030000620	S.RESISTOR	MCR10EZHJ 100 kΩ
R418	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R419	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R420	7030003650	S.RESISTOR	ERJ3GEYJ 563 V (56 kΩ)
R421	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R501	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R502	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
R503	7030003570	S.RESISTOR	ERJ3GEYJ 123 V (12 kΩ)
R504	7030003570	S.RESISTOR	ERJ3GEYJ 123 V (12 kΩ)
R505	7030003570	S.RESISTOR	ERJ3GEYJ 123 V (12 kΩ)
R506	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
R508	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R509	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R510	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R511	7030003710	S.RESISTOR	ERJ3GEYJ 184 V (180 kΩ)
R512	7030003510	S.RESISTOR	ERJ3GEYJ 392 V (3.9 kΩ)
R513	7030003650	S.RESISTOR	ERJ3GEYJ 563 V (56 kΩ)
R514	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R515	7030003630	S.RESISTOR	ERJ3GEYJ 393 V (39 kΩ)
R516	7030003570	S.RESISTOR	ERJ3GEYJ 123 V (12 kΩ)
R517	7030003570	S.RESISTOR	ERJ3GEYJ 123 V (12 kΩ)
R518	7030003570	S.RESISTOR	ERJ3GEYJ 123 V (12 kΩ)
R519	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R520	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R521	7030003710	S.RESISTOR	ERJ3GEYJ 184 V (180 kΩ)
R522	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R523	7030003650	S.RESISTOR	ERJ3GEYJ 563 V (56 kΩ)
R524	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R525	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R526	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R527	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R528	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R529	7030003750	S.RESISTOR	ERJ3GEYJ 394 V (390 kΩ)
R530	7030003500	S.RESISTOR	ERJ3GEYJ 332 V (3.3 kΩ)
R531	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R532	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R533	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R534	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
R535	7410000950	S.ARRAY	EXB-V8V 102JV
R538	7410000950	S.ARRAY	EXB-V8V 102JV
R540	7030004360	S.RESISTOR	ERJ3EKF 5901 V (5.9 kΩ)
R541	7030004370	S.RESISTOR	ERJ3EKF 8251 V (8.25 kΩ)
R542	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R543	7030003430	S.RESISTOR	ERJ3GEYJ 821 V (820 Ω)
R544	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R545	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R546	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R547	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R548	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R549	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R550	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R551	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R552	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R553	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R554	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R555	7030005650	S.RESISTOR	RR0816R-304-D (300 kΩ)
R556	7030005870	S.RESISTOR	RR0816R-104-D (100 kΩ)
R558	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R559	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R560	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R561	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R562	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R563	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R564	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R565	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R566	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R567	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R568	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R569	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R570	7410000950	S.ARRAY	EXB-V8V 102JV
R571	7410000950	S.ARRAY	EXB-V8V 102JV
R572	7410000950	S.ARRAY	EXB-V8V 102JV
R573	7410000950	S.ARRAY	EXB-V8V 102JV
R574	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R575	7410000950	S.ARRAY	EXB-V8V 102JV
R576	7410000950	S.ARRAY	EXB-V8V 102JV
R577	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R578	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R579	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R580	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R581	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R583	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R584	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R585	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R586	7030003540	S.RESISTOR	ERJ3GEYJ 682 V (6.8 kΩ)
R587	7030003540	S.RESISTOR	ERJ3GEYJ 682 V (6.8 kΩ)
R588	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)
R589	7030003610	S.RESISTOR	ERJ3GEYJ 273 V (27 kΩ)
R590	7030003880	S.RESISTOR	ERJ3GEYJ 244 V (240 kΩ)
R591	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R592	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R593	7030003590	S.RESISTOR	ERJ3GEYJ 183 V (18 kΩ)
R594	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R595	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R596	7030003650	S.RESISTOR	ERJ3GEYJ 563 V (56 kΩ)
R597	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R598	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R599	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R600	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R601	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R602	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R603	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R604	7030003510	S.RESISTOR	ERJ3GEYJ 392 V (3.9 kΩ)
R605	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R606	7030003840	S.RESISTOR	ERJ3GEYJ 225 V (2.2 MΩ)
R607	7030003760	S.RESISTOR	ERJ3GEYJ 474 V (470 kΩ)
R608	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R609	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R610	7030003710	S.RESISTOR	ERJ3GEYJ 184 V (180 kΩ)
R611	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R613	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R614	7030003700	S.RESISTOR	ERJ3GEYJ 154 V (150 kΩ)
R615	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R616	7030003420	S.RESISTOR	ERJ3GEYJ 681 V (680 Ω)
R617	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)

S.=Surface mount

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
C2	4030011050	S.CERAMIC	GRM42-6 CJ 030C 500PT
C3	4030011050	S.CERAMIC	GRM42-6 CJ 030C 500PT
C4	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C5	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C6	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C7	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C8	4030011050	S.CERAMIC	GRM42-6 CJ 030C 500PT
C9	4030011030	S.CERAMIC	GRM42-6 CK 1R5C 500PT
C10	4030011040	S.CERAMIC	GRM42-6 CK 020C 500PT
C11	4030011240	S.CERAMIC	GRM42-6 CH 470J 500PT
C12	4030011050	S.CERAMIC	GRM42-6 CJ 030C 500PT
C13	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C14	4510004650	S.ELECTROLYTIC	ECEV1EA4R7SR
C15	4030011060	S.CERAMIC	GRM42-6 CH 040C 500PT
C16	4030011050	S.CERAMIC	GRM42-6 CJ 030C 500PT
C17	4030011110	S.CERAMIC	GRM42-6 CH 090D 500PT
C18	4030009530	S.CERAMIC	C1608 CH 1H 030B-T-A
C19	4030009510	S.CERAMIC	C1608 CH 1H 010B-T-A
C20	4030009570	S.CERAMIC	C1608 CH 1H 0R3B-T-A
C21	4030009500	S.CERAMIC	C1608 CH 1H 0R5B-T-A
C22	4030009920	S.CERAMIC	C1608 CH 1H 050B-T-A
C23	4030009520	S.CERAMIC	C1608 CH 1H 020B-T-A
C24	4030009570	S.CERAMIC	C1608 CH 1H 0R3B-T-A
C25	4030009920	S.CERAMIC	C1608 CH 1H 050B-T-A
C26	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C28	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C29	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C30	4030009920	S.CERAMIC	C1608 CH 1H 050B-T-A
C31	4030009510	S.CERAMIC	C1608 CH 1H 010B-T-A
C32	4030011770	S.CERAMIC	C1608 CH 1H 060B-T-A
C34	4030009510	S.CERAMIC	C1608 CH 1H 010B-T-A
C35	4030009530	S.CERAMIC	C1608 CH 1H 030B-T-A
C37	4030009920	S.CERAMIC	C1608 CH 1H 050B-T-A
C39	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C40	4030009920	S.CERAMIC	C1608 CH 1H 050B-T-A
C41	4030007020	S.CERAMIC	C1608 CH 1H 120J-T-A
C42	4030009520	S.CERAMIC	C1608 CH 1H 020B-T-A
C43	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C44	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C45	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C47	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C48	4550002890	S.TANTALUM	TESVA 1A 225M1-8L
C49	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C50	4030007140	S.CERAMIC	C1608 CH 1H 121J-T-A
C51	4030007050	S.CERAMIC	C1608 CH 1H 220J-T-A
C52	4030007100	S.CERAMIC	C1608 CH 1H 560J-T-A
C53	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C54	4030009350	S.CERAMIC	C1608 CH 1H 3R5B-T-A
C55	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C56	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C57	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C58	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C59	4030007110	S.CERAMIC	C1608 CH 1H 680J-T-A
C60	4030012600	S.CERAMIC	C2012 JB 1A 105M-T-A
C61	4550002890	S.TANTALUM	TESVA 1A 225M1-8L
C62	4030007150	S.CERAMIC	C1608 CH 1H 151J-T-A
C63	4030007150	S.CERAMIC	C1608 CH 1H 151J-T-A
C64	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C65	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C66	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C67	4030008920	S.CERAMIC	C1608 JB 1C 473K-T-A
C68	4030008920	S.CERAMIC	C1608 JB 1C 473K-T-A
C69	4030008920	S.CERAMIC	C1608 JB 1C 473K-T-A
C70	4030008920	S.CERAMIC	C1608 JB 1C 473K-T-A
C71	4030008920	S.CERAMIC	C1608 JB 1C 473K-T-A
C72	4550002890	S.TANTALUM	TESVA 1A 225M1-8L
C73	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C74	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C75	4550003220	S.TANTALUM	TEMSVA 1E 105M-8L
C83	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C84	4550002890	S.TANTALUM	TESVA 1A 225M1-8L
C85	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C86	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C87	4550002890	S.TANTALUM	TESVA 1A 225M1-8L
C90	4550006250	S.TANTALUM	TEMSVA 1A 106M-8L
C91	4030006870	S.CERAMIC	C1608 JB 1H 222K-T-A
C92	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C93	4510005290	S.ELECTROLYTIC	ECEV1EA221P
C94	4510006260	S.ELECTROLYTIC	ECEV1AA471UP
C95	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C97	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C98	4550002890	S.TANTALUM	TESVA 1A 225M1-8L

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
C100	4030010240	S.CERAMIC	C1608 JB 1H 391K-T-A
C101	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C102	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C103	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C104	4550002890	S.TANTALUM	TESVA 1A 225M1-8L
C105	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C106	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C107	4550003170	S.TANTALUM	TEMSVA 1D 155M-8L
C108	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C112	4510005630	S.ELECTROLYTIC	ECEV1EA330SP
C115	4510004510	ELECTROLYTIC	25 MV 470 HC
C116	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C117	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C118	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C120	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C121	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C122	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C123	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C124	4510005750	S.ELECTROLYTIC	ECEV1EA220SP
C125	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C126	4030009920	S.CERAMIC	C1608 CH 1H 050B-T-A
C127	4030007010	S.CERAMIC	C1608 CH 1H 100D-T-A
C128	4030009920	S.CERAMIC	C1608 CH 1H 050B-T-A
C129	4030006980	S.CERAMIC	C1608 CH 1H 070D-T-A
C130	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C131	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C132	4030009530	S.CERAMIC	C1608 CH 1H 030B-T-A
C133	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C134	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C135	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C136	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C137	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C138	4030009910	S.CERAMIC	C1608 CH 1H 040B-T-A
C139	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C140	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C141	4030009910	S.CERAMIC	C1608 CH 1H 040B-T-A
C142	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C143	4030011770	S.CERAMIC	C1608 CH 1H 060B-T-A
C144	4030011770	S.CERAMIC	C1608 CH 1H 060B-T-A
C145	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C146	4030011770	S.CERAMIC	C1608 CH 1H 060B-T-A
C147	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C148	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C149	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C150	4030009920	S.CERAMIC	C1608 CH 1H 050B-T-A
C151	4030009920	S.CERAMIC	C1608 CH 1H 050B-T-A
C152	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C153	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C154	4550006250	S.TANTALUM	TEMSVA 1A 106M-8L
C155	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C156	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C157	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C158	4030009500	S.CERAMIC	C1608 CH 1H 0R5B-T-A
C159	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C160	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C161	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C162	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C163	4030009500	S.CERAMIC	C1608 CH 1H 0R5B-T-A
C164	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C165	4030009920	S.CERAMIC	C1608 CH 1H 050B-T-A
C166	4030011770	S.CERAMIC	C1608 CH 1H 060B-T-A
C167	4030011770	S.CERAMIC	C1608 CH 1H 060B-T-A
C168	4030009920	S.CERAMIC	C1608 CH 1H 050B-T-A
C169	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C170	4030011770	S.CERAMIC	C1608 CH 1H 060B-T-A
C171	4030006980	S.CERAMIC	C1608 CH 1H 070D-T-A
C172	4030006980	S.CERAMIC	C1608 CH 1H 070D-T-A
C173	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C174	4030009500	S.CERAMIC	C1608 CH 1H 0R5B-T-A
C176	4030007070	S.CERAMIC	C1608 CH 1H 330J-T-A
C177	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C178	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C179	4550000550	S.TANTALUM	TESVA 1V 224M1-8L
C181	4550003220	S.TANTALUM	TEMSVA 1E 105M-8L
C182	4510005750	S.ELECTROLYTIC	ECEV1EA220SP
C183	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C184	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C185	4550002890	S.TANTALUM	TESVA 1A 225M1-8L
C186	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C187	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C191	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C197	4550006480	S.TANTALUM	TEMSVA 1C 475M-8L

S.=Surface mount

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
C200	4550002890	S.TANTALUM	TESVA 1A 225M1-8L
C201	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C202	4030006870	S.CERAMIC	C1608 JB 1H 222K-T-A
C203	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C204	4550003220	S.TANTALUM	TEMSVA 1E 105M-8L
C205	4030004760	S.CERAMIC	C2012 JF 1E 104Z-T-A
C206	4510005290	S.ELECTROLYTIC	ECEV1EA221P
C207	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C208	4550003220	S.TANTALUM	TEMSVA 1E 105M-8L
C209	4550006480	S.TANTALUM	TEMSVA 1C 475M-8L
C210	4550003220	S.TANTALUM	TEMSVA 1E 105M-8L
C211	4550003220	S.TANTALUM	TEMSVA 1E 105M-8L
C212	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C214	4550006250	S.TANTALUM	TEMSVA 1A 106M-8L
C216	4030007050	S.CERAMIC	C1608 CH 1H 220J-T-A
C217	4030006980	S.CERAMIC	C1608 CH 1H 070D-T-A
C218	4550006480	S.TANTALUM	TEMSVA 1C 475M-8L
C224	4030008920	S.CERAMIC	C1608 JB 1C 473K-T-A
C225	4030011330	S.CERAMIC	C1608 CH 1H 391J-T-A
C226	4550003220	S.TANTALUM	TEMSVA 1E 105M-8L
C228	4030009880	S.CERAMIC	C1608 JB 1H 682K-T-A
C229	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C230	4550002890	S.TANTALUM	TESVA 1A 225M1-8L
C231	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C233	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C234	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C235	4550006250	S.TANTALUM	TEMSVA 1A 106M-8L
C237	4550006250	S.TANTALUM	TEMSVA 1A 106M-8L
C238	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C239	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C240	4030006870	S.CERAMIC	C1608 JB 1H 222K-T-A
C242	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C243	4550002890	S.TANTALUM	TESVA 1A 225M1-8L
C244	4030008920	S.CERAMIC	C1608 JB 1C 473K-T-A
C245	4550002890	S.TANTALUM	TESVA 1A 225M1-8L
C246	4030008870	S.CERAMIC	C1608 JB 1C 183K-T-A
C247	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C250	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C251	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C252	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C253	4550006250	S.TANTALUM	TEMSVA 1A 106M-8L
C254	4550006250	S.TANTALUM	TEMSVA 1A 106M-8L
C255	4550003220	S.TANTALUM	TEMSVA 1E 105M-8L
C256	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C257	4030008680	S.CERAMIC	C2012 JF 1C 105Z-T-A
C258	4030008680	S.CERAMIC	C2012 JF 1C 105Z-T-A
C259	4550003260	S.TANTALUM	TEMSVA 1V 684M-8L
C260	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C261	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C262	4550003220	S.TANTALUM	TEMSVA 1E 105M-8L
C263	4550003220	S.TANTALUM	TEMSVA 1E 105M-8L
C264	4030004760	S.CERAMIC	C2012 JF 1E 104Z-T-A
C266	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C267	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C268	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C269	4030011810	S.CERAMIC	C1608 JB 1A 224K-T-N
C270	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C272	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C273	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C274	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C275	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C276	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C277	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C278	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C279	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C280	4550006250	S.TANTALUM	TEMSVA 1A 106M-8L
C281	4510006650	S.ELECTROLYTIC	ECEV 1EA 100SR
C282	4030007170	S.CERAMIC	C1608 CH 1H 221J-T-A
C283	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C284	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C285	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C286	4030007170	S.CERAMIC	C1608 CH 1H 221J-T-A
C287	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C288	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C289	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C290	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C291	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C292	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C293	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C294	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C295	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C296	4030007120	S.CERAMIC	C1608 CH 1H 820J-T-A

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
C297	4030007010	S.CERAMIC	C1608 CH 1H 100D-T-A
C299	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C300	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C301	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C302	4030004760	S.CERAMIC	C2012 JF 1E 104Z-T-A
C303	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C305	4030009510	S.CERAMIC	C1608 CH 1H 010B-T-A
C306	4030009510	S.CERAMIC	C1608 CH 1H 010B-T-A
C307	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C310	4030009920	S.CERAMIC	C1608 CH 1H 050B-T-A
C312	4030009920	S.CERAMIC	C1608 CH 1H 050B-T-A
C314	4510005900	S.ELECTROLYTIC	ECEV0GA101SR
C315	4030007160	S.CERAMIC	C1608 CH 1H 181J-T-A
C316	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C318	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C319	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C320	4030008920	S.CERAMIC	C1608 JB 1C 473K-T-A
C321	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C322	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C323	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C324	4030009920	S.CERAMIC	C1608 CH 1H 050B-T-A
C325	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C326	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C327	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C328	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C329	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C330	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C331	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C332	4550002890	S.TANTALUM	TESVA 1A 225M1-8L
C333	4550002890	S.TANTALUM	TESVA 1A 225M1-8L
C334	4550002890	S.TANTALUM	TESVA 1A 225M1-8L
C337	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C339	4550006480	S.TANTALUM	TEMSVA 1C 475M-8L
C340	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C341	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C342	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C343	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C344	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C348	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C351	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C352	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C353	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C354	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C355	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C356	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C357	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C358	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C359	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C360	4030010210	S.CERAMIC	C3216 JB 1C 105M-T-A
C361	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C362	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C363	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C364	4550006480	S.TANTALUM	TEMSVA 1C 475M-8L
C368	4550006220	S.TANTALUM	TEMSVA 0J 156M-8L
C369	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C371	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C374	4550006480	S.TANTALUM	TEMSVA 1C 475M-8L
C376	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C377	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C378	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C379	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C380	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C381	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C382	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C383	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C384	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C385	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C386	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C387	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C388	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C389	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C390	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C391	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C392	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C393	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C394	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C395	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C396	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C397	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C398	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C400	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C402	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A

S.=Surface mount

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
C403	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C404	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C405	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C406	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C407	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C408	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C409	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C410	4510005630	S.ELECTROLYTIC	ECEV1EA330SP
C412	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C413	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C414	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C415	4030011040	S.CERAMIC	GRM42-6 CK 020C 500PT
C416	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C417	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C421	4550006250	S.TANTALUM	TEMSVA 1A 106M-8L
C422	4030006870	S.CERAMIC	C1608 JB 1H 222K-T-A
C423	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C424	4030006980	S.CERAMIC	C1608 CH 1H 070D-T-A
C425	4030006980	S.CERAMIC	C1608 CH 1H 070D-T-A
C426	4030008560	S.CERAMIC	C1608 CH 1H 300J-T-A
C428	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C429	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C430	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C441	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C449	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C451	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C452	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C456	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C469	4030007170	S.CERAMIC	C1608 CH 1H 221J-T-A
C478	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C486	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C487	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C502	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C503	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C504	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C506	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C507	4030008880	S.CERAMIC	C1608 JB 1C 223K-T-A
C508	4550006250	S.TANTALUM	TEMSVA 1A 106M-8L
C509	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C510	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C511	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C512	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C513	4030007070	S.CERAMIC	C1608 CH 1H 330J-T-A
C514	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C515	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C516	4550006250	S.TANTALUM	TEMSVA 1A 106M-8L
C517	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C518	4550006250	S.TANTALUM	TEMSVA 1A 106M-8L
C519	4550006250	S.TANTALUM	TEMSVA 1A 106M-8L
C520	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C521	4550006250	S.TANTALUM	TEMSVA 1A 106M-8L
C522	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C524	4030008650	S.CERAMIC	C1608 JB 1H 332K-T-A
C525	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C526	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C527	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C528	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C529	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C530	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C531	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C532	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C533	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C534	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C535	4030004760	S.CERAMIC	C2012 JF 1E 104Z-T-A
C536	4030004760	S.CERAMIC	C2012 JF 1E 104Z-T-A
C537	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C538	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C539	4550003260	S.TANTALUM	TEMSVA 1V 684M-8L
C540	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C541	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C542	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C543	4550006250	S.TANTALUM	TEMSVA 1A 106M-8L
C544	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C545	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C546	4030009580	S.CERAMIC	C1608 JB 1H 681K-T-A
C547	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C549	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C550	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C551	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C552	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C553	4030009990	S.CERAMIC	C1608 CH 1H 200J-T-A
C554	4030009990	S.CERAMIC	C1608 CH 1H 200J-T-A

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION		
C555	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C556	4550003220	S.TANTALUM	TEMSVA 1E 105M-8L	
C557	4510006090	S.ELECTROLYTIC	ECEV0GA470SR	
C558	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N	
C559	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N	
C560	4550002890	S.TANTALUM	TESVA 1A 225M1-8L	
C562	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N	
C563	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C564	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C565	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A	
C567	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C568	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C569	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C570	4030009910	S.CERAMIC	C1608 CH 1H 040B-T-A	
C571	4030009520	S.CERAMIC	C1608 CH 1H 020B-T-A	
C572	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A	
C573	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A	
C574	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N	
C575	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A	
C577	4030009520	S.CERAMIC	C1608 CH 1H 020B-T-A	
C578	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A	
C579	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A	
C580	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A	
C581	4030009350	S.CERAMIC	C1608 CH 1H 3R5B-T-A	
C582	4030009920	S.CERAMIC	C1608 CH 1H 050B-T-A	
C583	4030009920	S.CERAMIC	C1608 CH 1H 050B-T-A	
C584	4030009910	S.CERAMIC	C1608 CH 1H 040B-T-A	
C585	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A	
J2	6450000140	CONNECTOR	HSJ0807-01-010	
J4	6510019250	S.CONNECTOR	B11B-ZR-SM3-TF	
J5	6510018040	CONNECTOR	52330-1217	
J6	6510018430	S.CONNECTOR	AXN330C038P	
J7	6510019270	S.CONNECTOR	52365-0691	
J501	6510021300	S.CONNECTOR	52365-1091	
W3	7030003860	S.JUMPER	ERJ3GE JPW V	
W4	8900004540	CABLE	OPC-453	
W6	7120000470	JUMPER	ERDS2T0	
W12	7030003860	S.JUMPER	ERJ3GE JPW V	
W25	7030003860	S.JUMPER	ERJ3GE JPW V	[EUR-9]
W26	7030003860	S.JUMPER	ERJ3GE JPW V	[EUR-13]
W505	7030003860	S.JUMPER	ERJ3GE JPW V	
W506	7030003860	S.JUMPER	ERJ3GE JPW V	
W507	7030003860	S.JUMPER	ERJ3GE JPW V	
W508	7030003860	S.JUMPER	ERJ3GE JPW V	
W509	7030003860	S.JUMPER	ERJ3GE JPW V	
EP1	0910051252	PCB	B 5204B	
EP2	6910010220	BEAD	HF70BB3.5X5X1.3	
EP3	6910010280	BEAD	HF70BB9.5X10.4X4.9	

[TONE UNIT]

REF NO.	ORDER NO.	DESCRIPTION		
EP1	0880000150	UNIT BOARD	UT-96	[EUR-13]

S.=Surface mount

SECTION 7 MECHANICAL PARTS

[CHASSIS PARTS]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
J1	6510004880	Connector MR-DS-E 01	1
MP1	8010016320	1705 chassis	1
MP2	8810008660	Screw PH BT M3 X 8 NI-ZU	4
MP3	8810008660	Screw PH BT M3 X 8 NI-ZU	2
MP4	8810008660	Screw PH BT M3 X 8 NI-ZU	2
MP5	8810009130	Screw PH BT M3 X 12 NI-ZU	4
MP6	8930027480	1126 TR-A clip	1
MP7	8820000870	1705 cap screw	3
MP8	8110005570	1705 cover	1
MP11	8930039610	Thermally sheet (C)	1
MP15	8930039630	1706 jack sheet	1
MP16	8930036771	1705 main seal-1	1

[FRONT UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
R26	7210002830	EVU-F2JFK4 B14	1
J1	6450001470	Connector 95003-2881	1
DS1	5030001650	LCD LD-NU10377E	1
EP2	8930048320	LCD contact SRCN-2140-SP-N-W	2
MP1	8210015740	2140 front panel	1
MP2	8930047980	2140 LCD holder	1
MP3	8930048290	2140 LCD filter	1
MP4	8210015770	2140 reflector	1
MP5	8930047860	2140 front key	1
MP6	8310094830	2140 window plate	1
MP7	8610009840	Knob N234	1
MP9	8810008760	Screw PH BT M2 X 8 NI-ZU	5
MP10	8930048910	2140 earth plate	1
MP11	8930049640	2141 plate	1

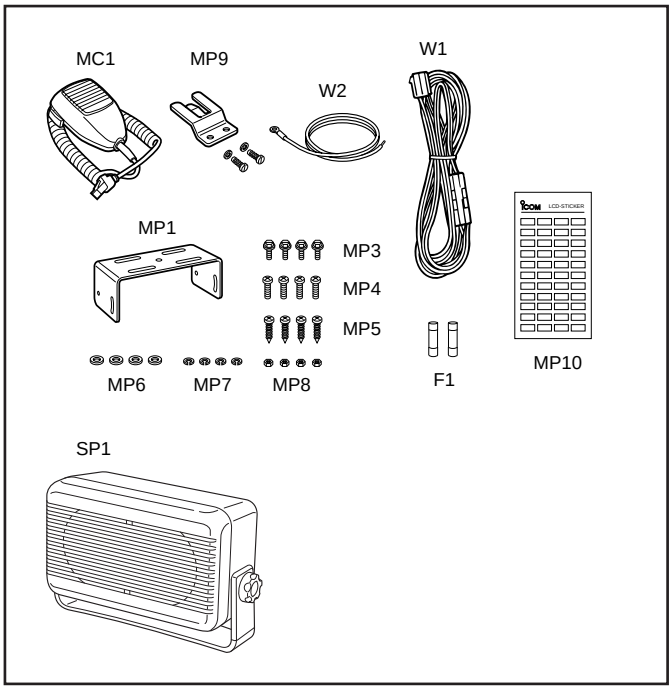
[MAIN UNIT]

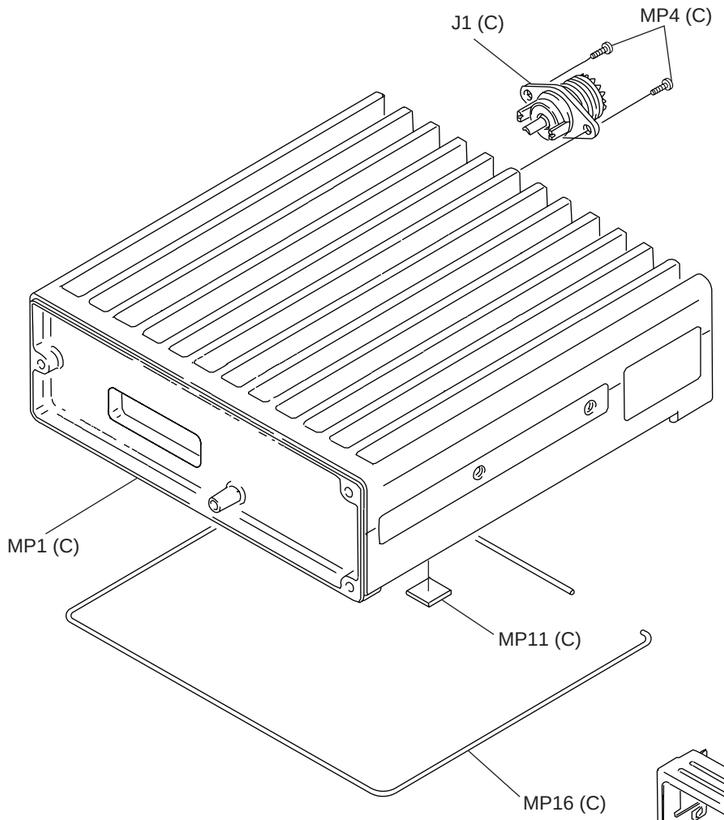
REF. NO.	ORDER NO.	DESCRIPTION	QTY.
J2	6450000140	Connector HSJ0807-01-010	1
J5	6510018040	Connector 52330-1217	1
W4	8900004540	Cable OPC-453	1
EP2	6910010220	Bead HF70 BB 3.5 X 5 X 1.3	3
EP3	6910010280	Bead HF70 BB 9.5 X 10.4 X 4.9	2
MP1	8510006810	DC-DC case	1
MP2	8510009980	1705 VCO case	1
MP4	8510010080	1705 VCO cover	1
MP6	8930037840	1705 connector spring	1
MP7	8510005070	599 shield plate	1
MP8	8510010240	1705 LPF cover	1
MP9	8510010230	1705 LPF case	1
MP10	8510010250	1705 shield plate	1
MP11	8930029511	1327 ANT plate-1	1
MP12	8930038790	1706 spring	1
MP13	8930049590	Copper sheet (G)	2

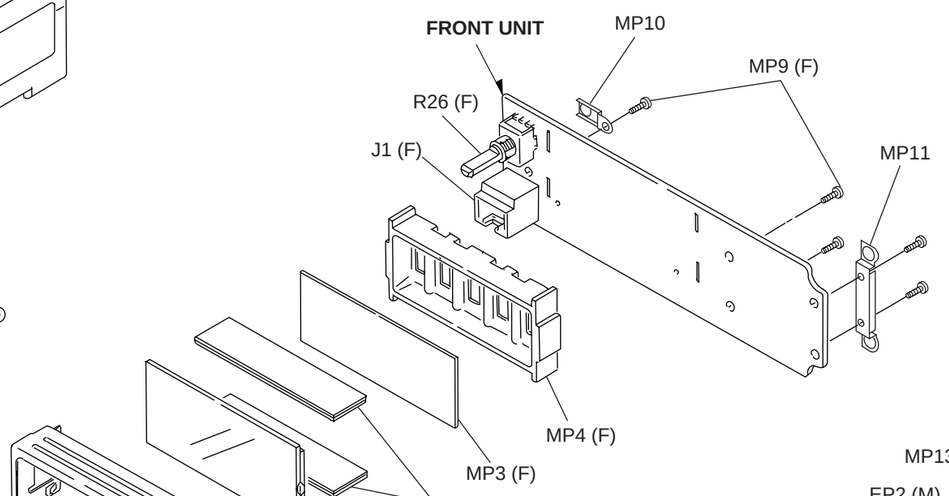
[UNPACKING]

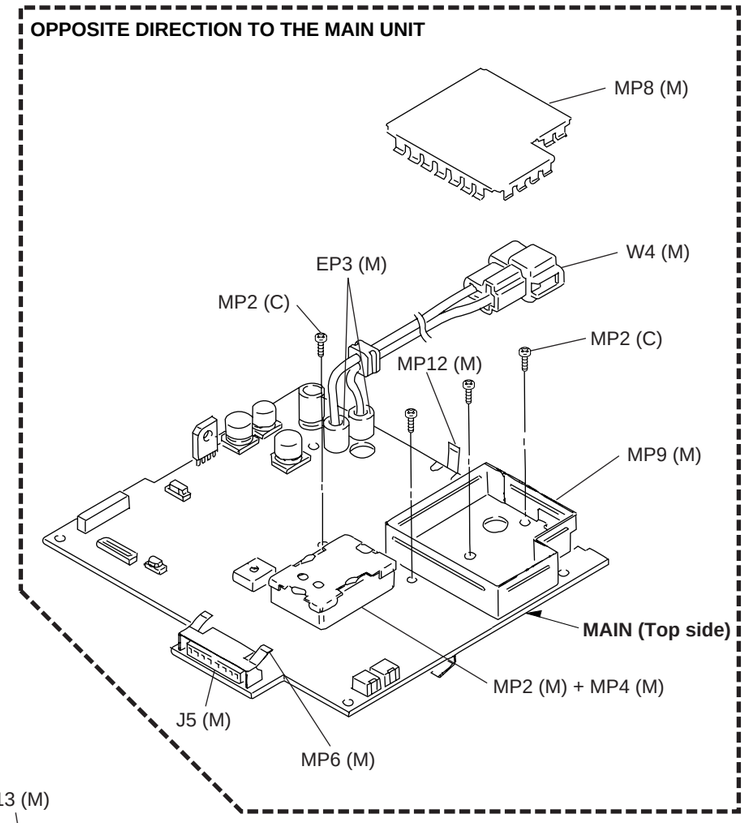
REF. NO.	ORDER NO.	DESCRIPTION	QTY.
F1	5210000120	Fuse FGB 15A	2
MC1	Optional product	Microphone HM-100	1
SP1	Optional product	Speaker SP-22	1
W1	Optional product	Cable OPC-345	1
W2	Optional product	Cable OPC-049	1
MP1	8010016730	150 mounting bracket	1
MP3	8820000530	Flang bolt M4 X 8 NI	4
MP4	8810000470	Screw PH M5 X 12 (+/-)	4
MP5	8810005840	Screw PH A M5 X 20	4
MP6	8850000150	Flat washer M5 NI BS	4
MP7	8850000390	Spring washer M5	4
MP8	8830000120	Nut M5	4
MP9	6910004210	731 MIC hanger set (ind. screw, washer)	1
MP10	8310045550	1705 LCD seal (C)	1

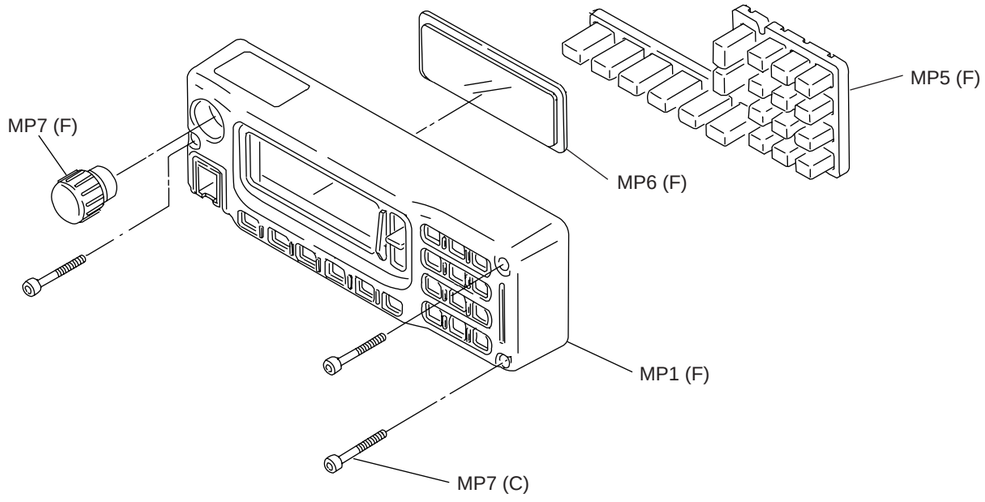
Screw abbreviations BT: Self-tapping PH: Pan head
NI: Nickel NI-ZU: Nickel-Zinc
BS: Brass

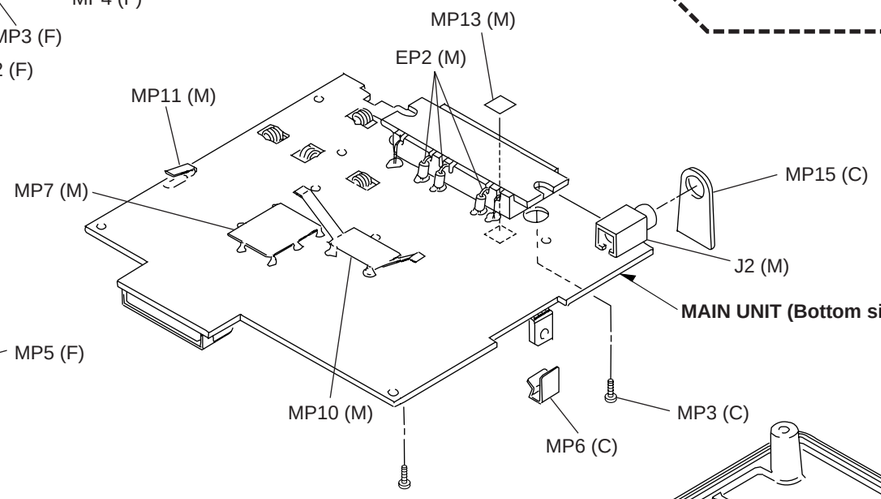


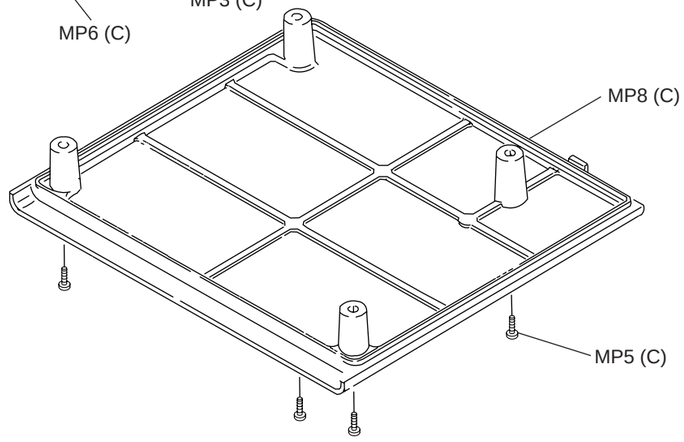








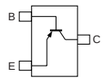
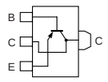
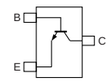
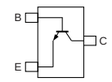
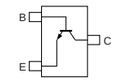
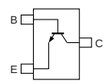
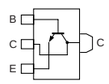
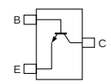
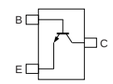
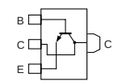
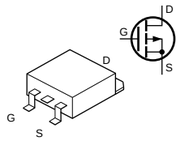
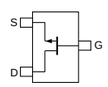
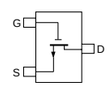
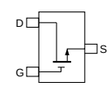
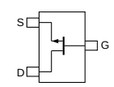
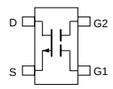
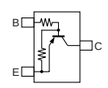
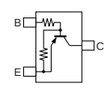
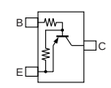
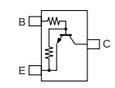
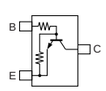
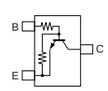
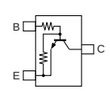
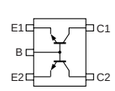
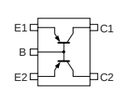
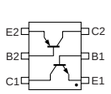




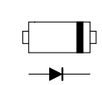
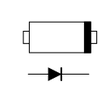
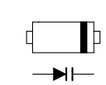
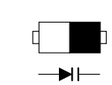
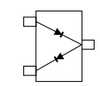
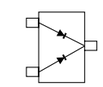
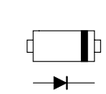
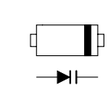
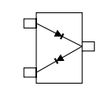
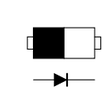
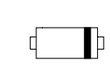
Unit abbreviations
(F) : FRONT UNIT, (M) : MAIN UNIT, (C) : CHASSIS PARTS

SECTION 8 SEMI-CONDUCTOR INFORMATION

• TRANSISTOR AND FET'S

2SA1576 R (Symbol: FR) 	**2SB1123T-TD** (Symbol: BF) 	**2SC3356 R25-T2B** (Symbol: R25) 	**2SC4081 T107 R** (Symbol: BR) 	**2SC4116-BL** (Symbol: LL) 
2SC4226-T2 R25 (Symbol: R25) 	**2SC4703-T1 SE** (Symbol: SE) 	**2SC5107-O** (Symbol: MFO) 	**2SC5110-O** (Symbol: MGO) 	**2SD1664 T100Q** (Symbol: DA) 
2SJ377 (Symbol: J377) 	**2SK1069-4-TL** (Symbol: FJ) 	**2SK1829** (Symbol: KI) 	**2SK302-GR** (Symbol: TG) 	**2SK880-GR** (Symbol: XG) 
3SK166A-2-T7 (Symbol: K) 	**DTA114EUA T106** (Symbol: 14) 	**DTA143ZUA T106** (Symbol: 113) 	**DTA144EUA T106** (Symbol: 16) 	**DTC114EUA T106** (Symbol: 24) 
DTC114YUA T106 (Symbol: 64) 	**DTC144EUA T106** (Symbol: 26) 	**DTC363EK T147** (Symbol: H27) 	**FMS2A T148** (Symbol: S2) 	**FMW2 T148** (Symbol: W2) 
XP4601 (Symbol: 5C) 				

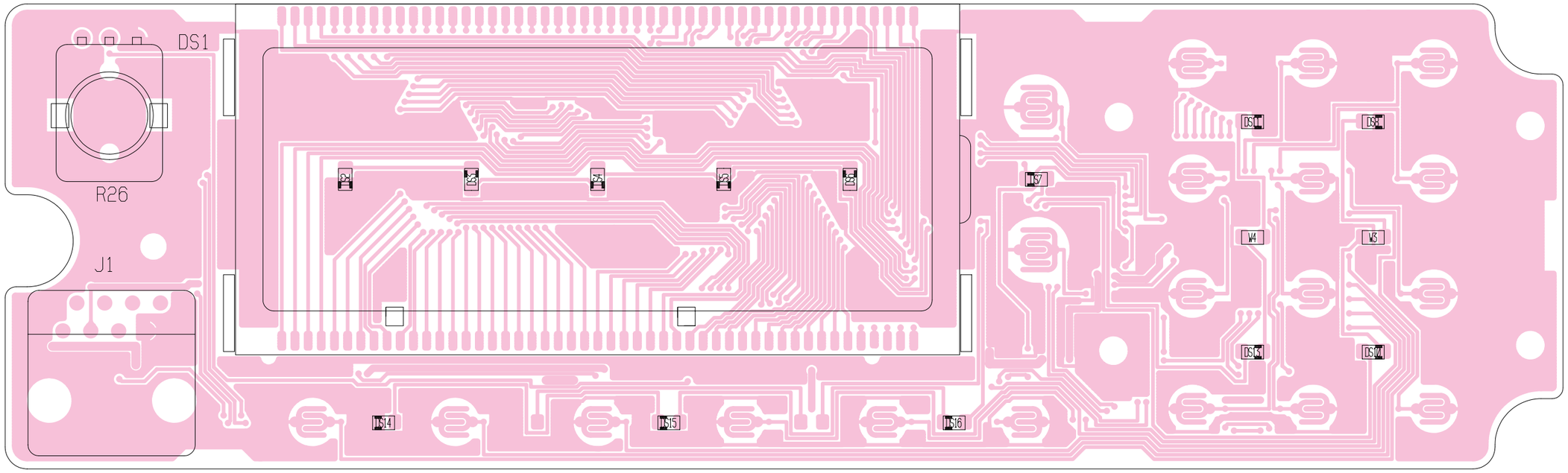
• DIODES

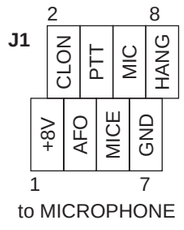
1SS302 (Symbol: C3) 	**1SS352** (Symbol: C1) 	**1SS355** (Symbol: A) 	**1SV217** (Symbol: T6) 	**1T365-01-T8A** (Symbol: Pink) 
DA204U T107 (Symbol: K) 	**DA221 TL** (Symbol: K) 	**DAN202U T107** (Symbol: N) 	**HSU88TRF** (Symbol: 9) 	**HVU350TRF** (Symbol: 4) 
MA111 (Symbol: 1B) 	**MA742** (Symbol: M1U) 	**MA77** (Symbol: 4B) 	**MA8160** (Symbol: 16^) 	**MI809-T11** (Symbol: Red dot)
UM9401F (No Symbol) 				

SECTION 9 BOARD LAYOUTS

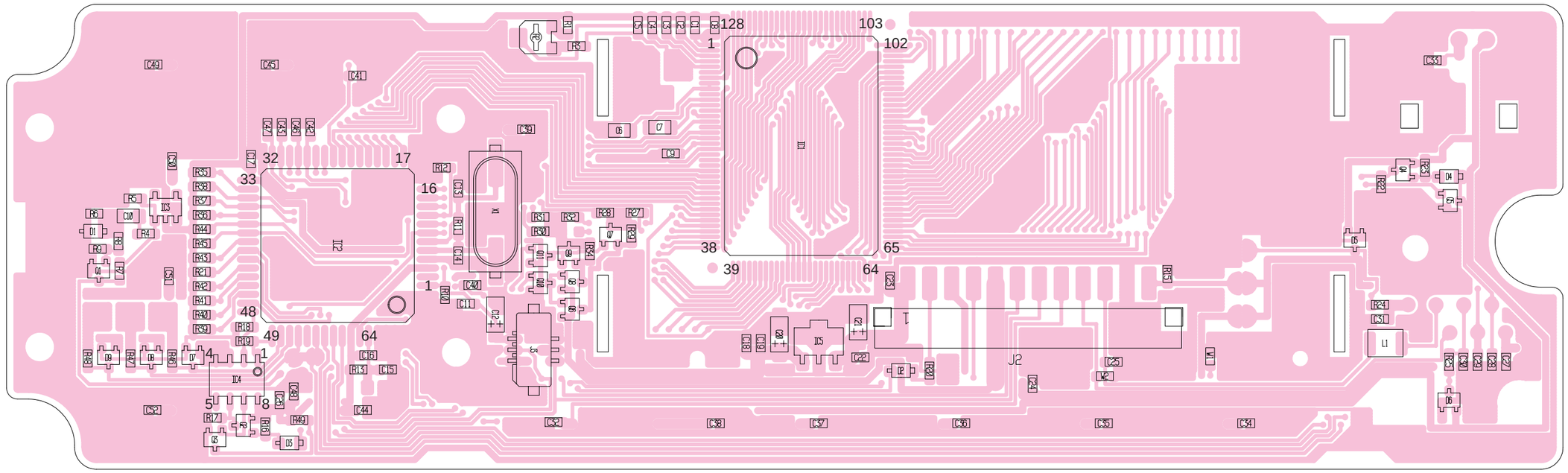
9-1 FRONT UNIT

● TOP VIEW





● **BOTTOM VIEW**

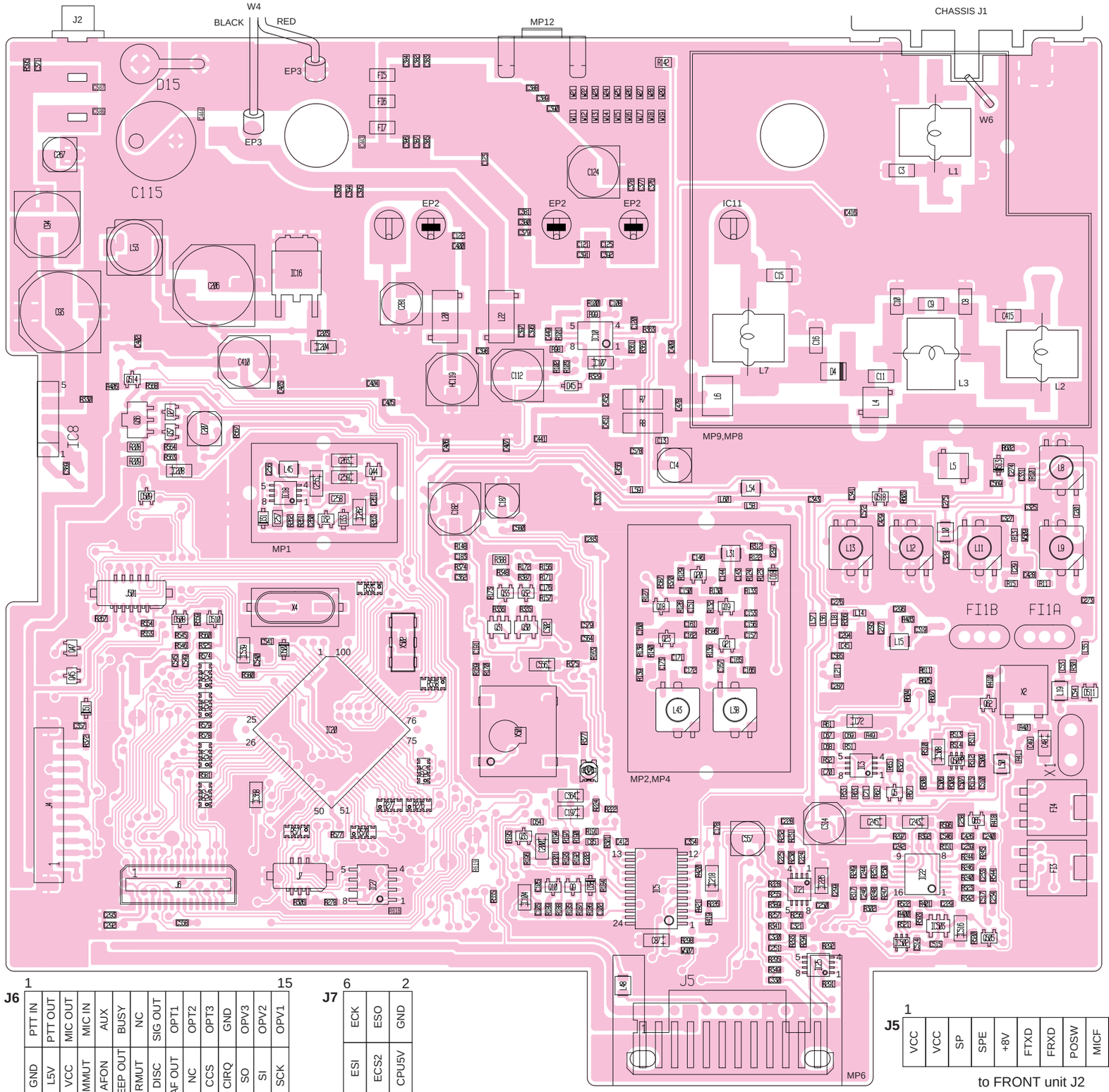


J2	1											12
	VCC	SQL	SP	SPE	+8V	FTXD	FRXD	POSW	MICE	MIC	GND	AFO

to MAIN unit J5

9-2 MAIN UNIT

● **TOP VIEW**



J501

10					2
GND	GND	RES	RTS	TXD	
VCC	FVPX	CTS	RXD	+5V	
9					1

to optional cable
OPC-821, OPC-822

J4

11	PTT
	GND
	IN
	GND
	DISC
	GND
	PAAF
	GND
	HORN
	DIM
1	VCC

to optional cable
OPC-617

J6

1														15
PTT IN	PTT OUT	MIC OUT	MIC IN	AUX	BUSY	NC	SIG OUT	OPT1	OPT2	OPT3	GND	OPV3	OPV2	OPV1
GND	L5V	VCC	MMUT	AFON	BEEP OUT	RMUT	DISC	AF OUT	NC	CCS	CIRQ	SO	SI	SCK
30														16

to optional unit
UT-96, UT-105

J7

6		2
ECK	ESO	GND
ESI	ECS2	CPU5V
5		1

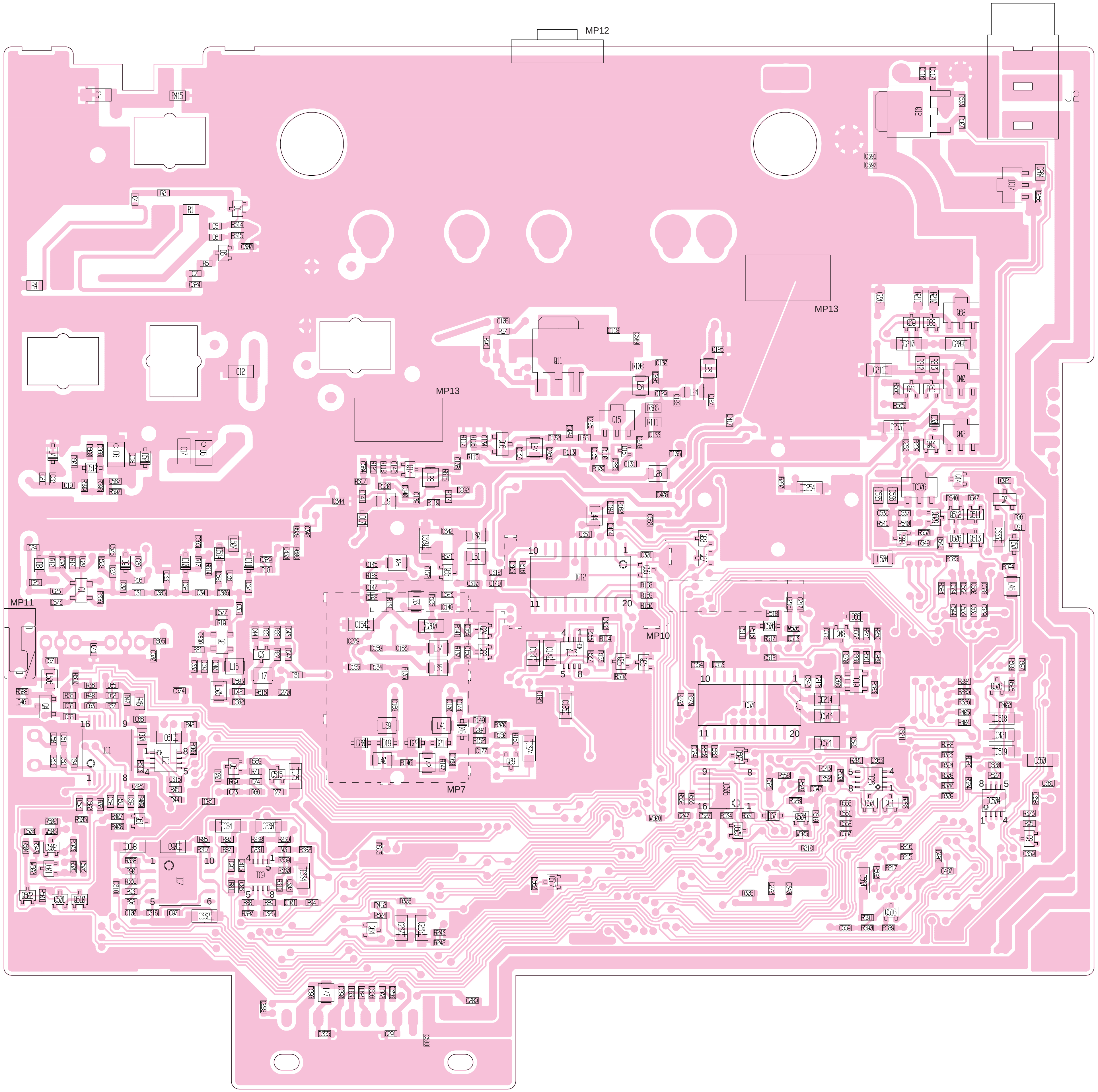
to optional unit
EX-1761 EEPROM

J5

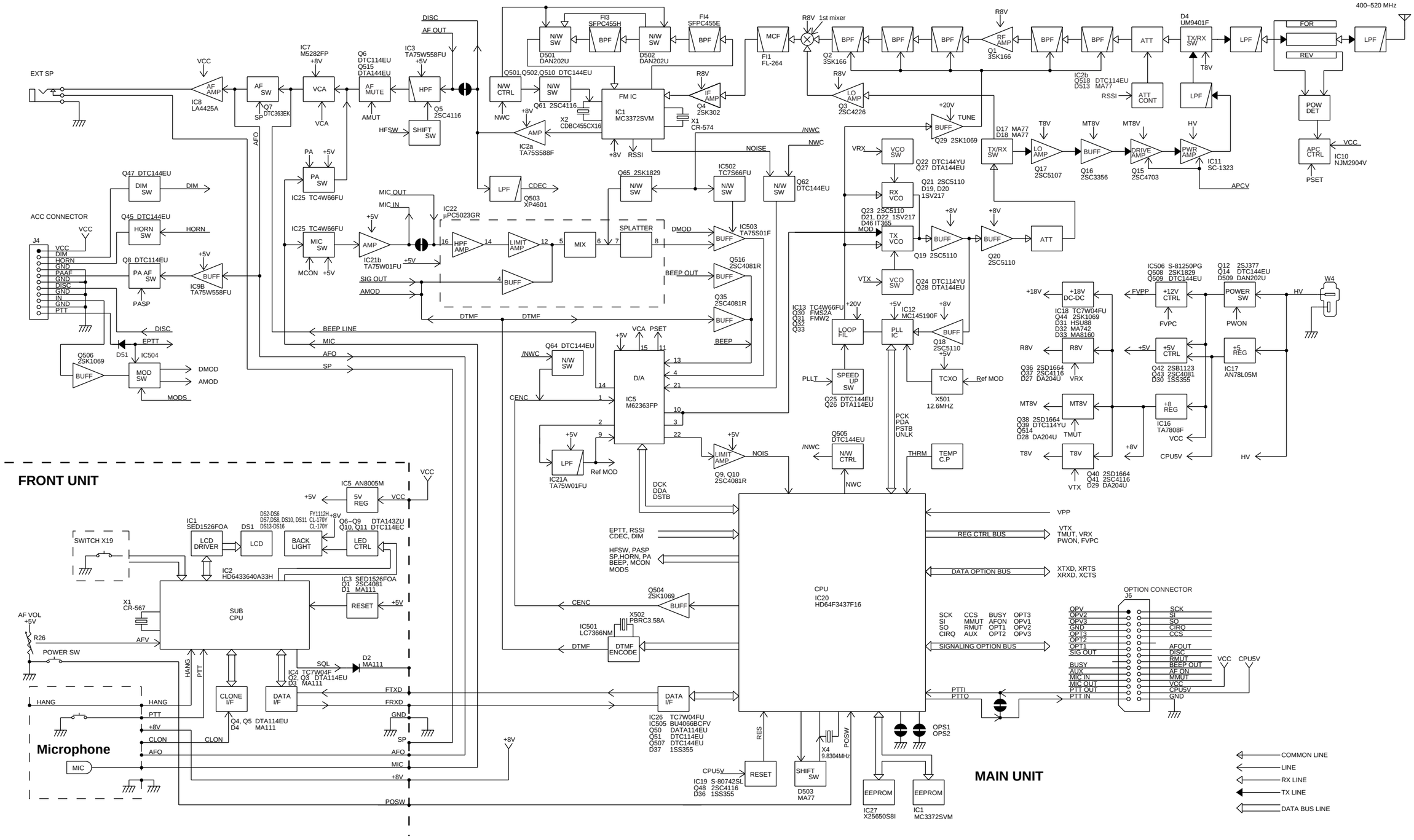
1											12
VCC	VCC	SP	SPE	+8V	FTXD	FRXD	POSW	MICF	MIC	GND	AFO

to FRONT unit J2

● **BOTTOM VIEW**

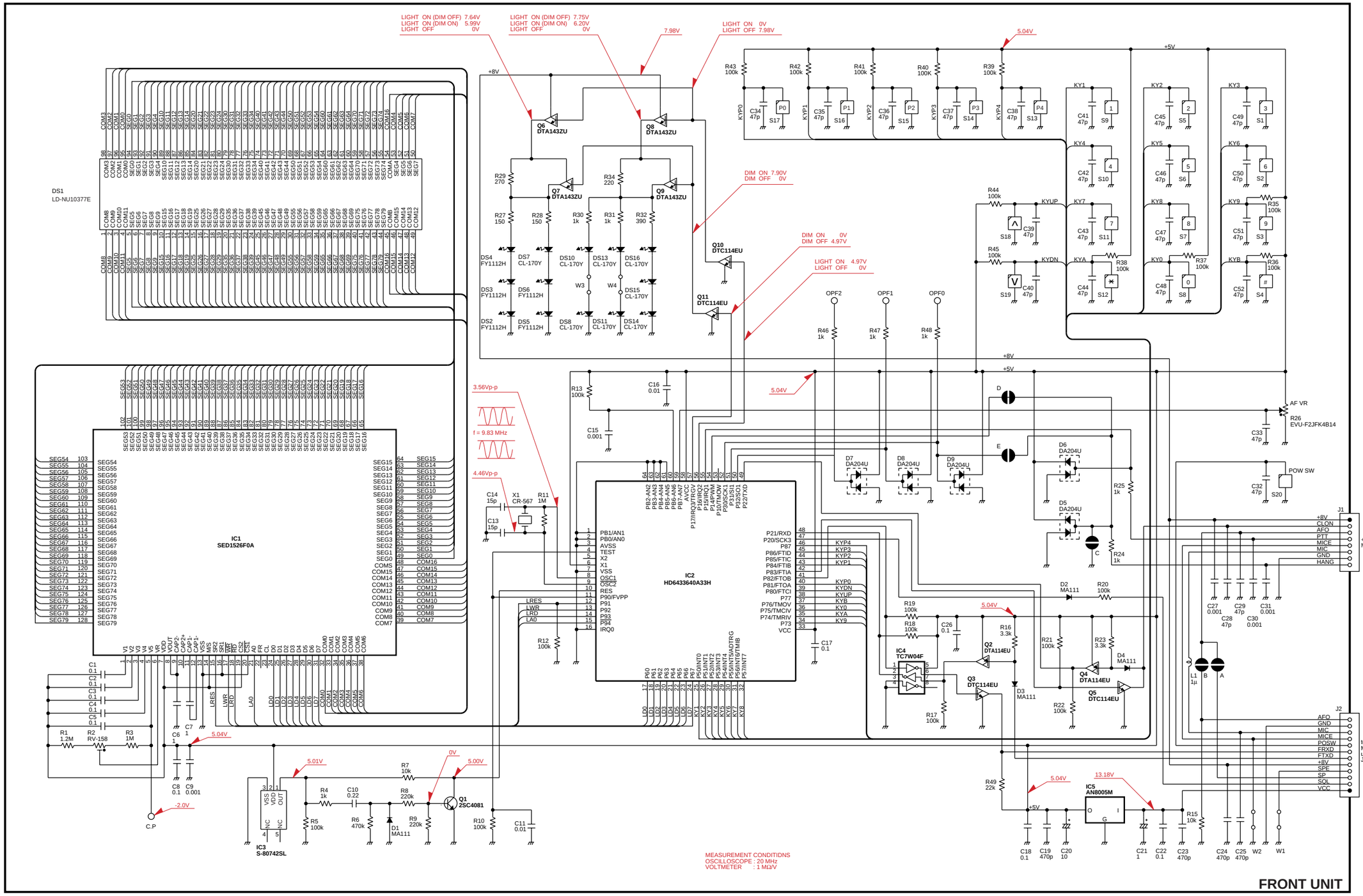


SECTION 10 BLOCK DIAGRAM

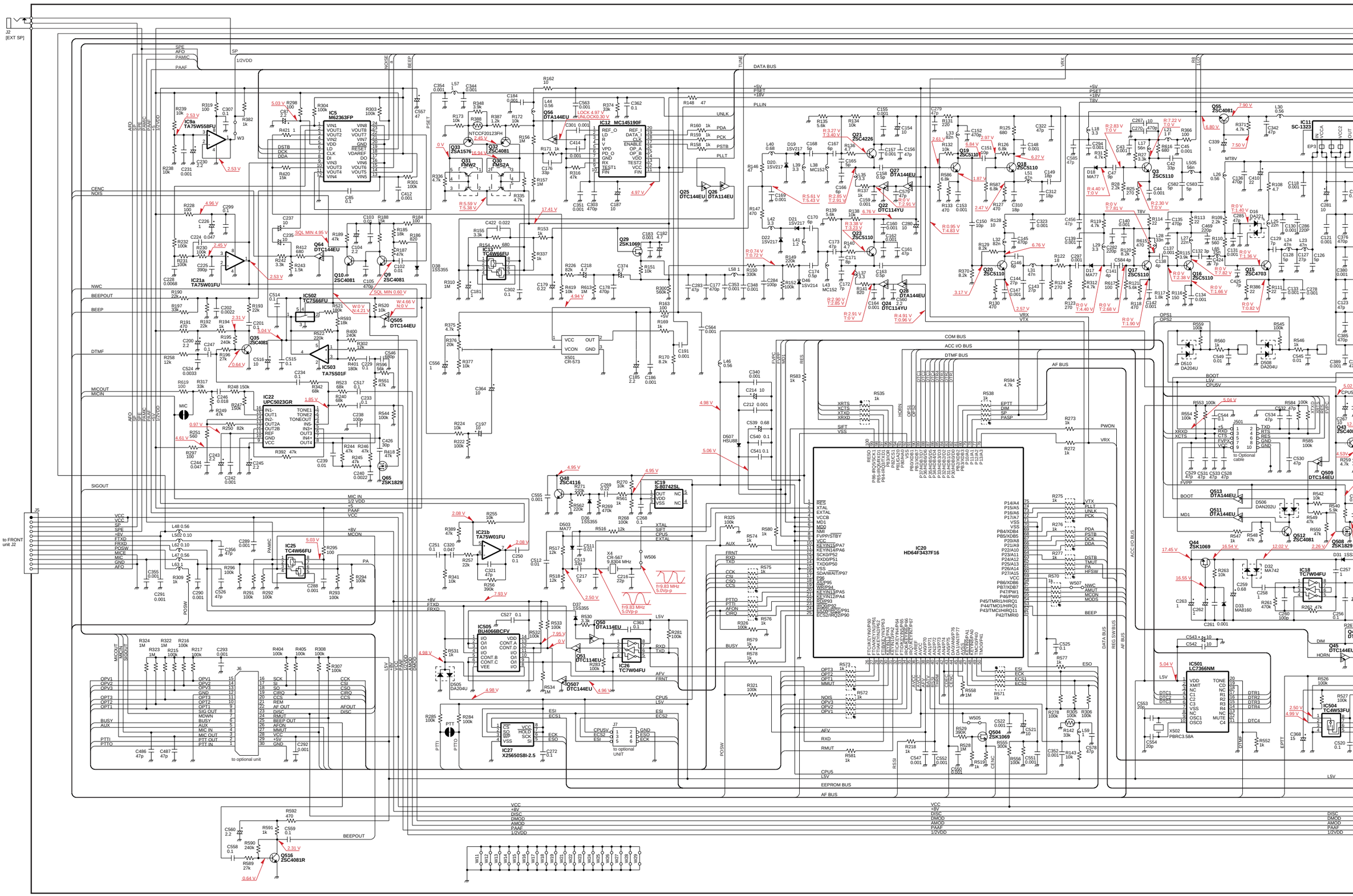


SECTION 11 VOLTAGE DIAGRAM

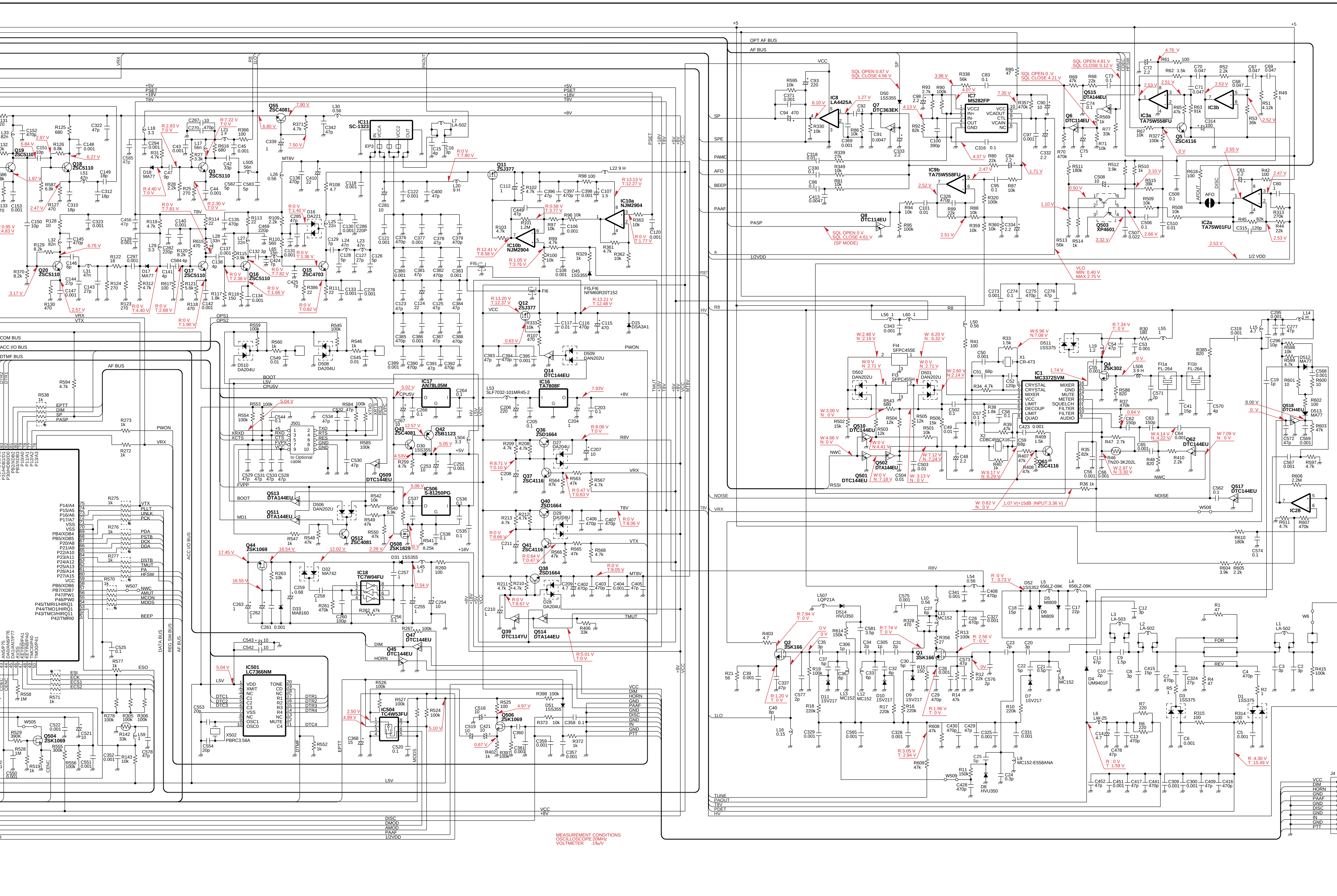
11-1 FRONT UNIT



11-2 MAIN UNIT

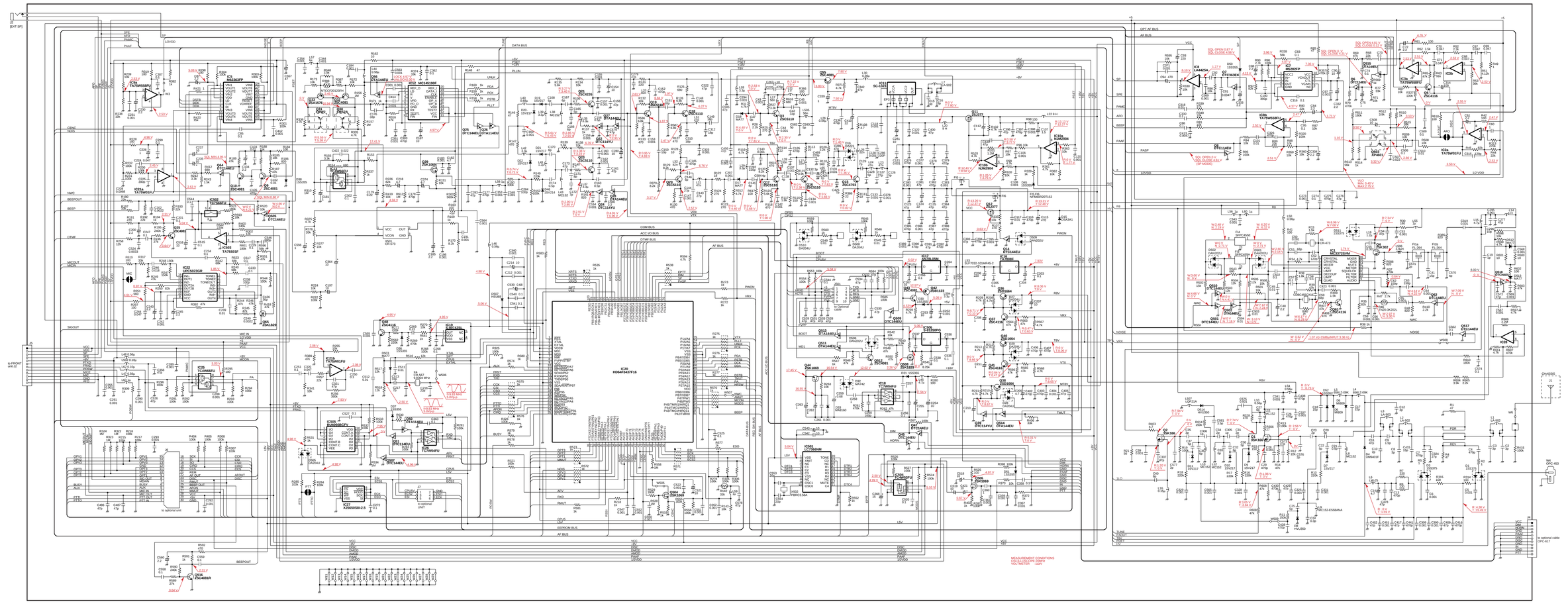


COMPLETE VIEW



COMPLETE VIEW

11-2 MAIN UNIT



LEFT SIDE

RIGHT SIDE

Icom Inc.

6-9-16, Kamihigashi, Hirano-ku, Osaka 547-0002, Japan
Phone : 06 6793 5302
Fax : 06 6793 0013

Icom America Inc.

<Corporate Headquarters>
2380 116th Avenue N.E., Bellevue, WA 98004, U.S.A.
Phone : (425) 454-8155 Fax : (425) 454-1509
URL : http://www.icomamerica.com
<Customer Service>
Phone : (425) 454-7619

Icom Canada

A Division of Icom America Inc.
3071 #5 Road, Unit 9, Richmond, B.C., V6X 2T4, Canada
Phone : (604) 273-7400 Fax : (604) 273-1900

Icom (Australia) Pty. Ltd.

A.C.N. 006 092 575
290-294 Albert Street, Brunswick, Victoria, 3056, Australia
Phone : 03 9387 0666 Fax : 03 9387 0022
URL : http://www.icom.net.au

Asia Icom Inc.

6F No. 68, Sec. 1 Cheng-Teh Road, Taipei, Taiwan R.O.C.
Phone : (02) 2559 1899 Fax : (02) 2559 1874

Icom (Europe) GmbH

Communication Equipment
Himmelgeister Str. 100, D-40225 Düsseldorf, Germany
Phone : 0211 346047 Fax : 0211 333639
URL : http://www.icomeurope.com

Icom Spain S.L.

Crta. de Gracia a Manresa Km. 14,750
08190 Sant Cugat del Valles Barcelona, SPAIN
Phone : (93) 590 26 70 Fax : (93) 589 04 46
URL : http://www.icomspain.com

Icom (UK) Ltd.

Unit 9, Sea St., Herne Bay, Kent, CT6 8LD, U.K.
Phone : 01227 741741 Fax : 01227 741742
URL : http://www.icomuk.co.uk

Icom France S.a

Zac de la Plaine, Rue Brindejonc des Moulinais
BP 5804, 31505 Toulouse Cedex, France
Phone : 561 36 03 03 Fax : 561 36 03 00
URL : http://www.icom-france.com

Count on us!

Icom Inc.
6-9-16, Kamihigashi, Hirano-ku Osaka 547-0002, Japan

A-5547HI-SU