

ICOM

**SERVICE
MANUAL**

VHF TRANSCEIVER

IC-F30LT

IC-F30

INTRODUCTION

This service manual describes the latest information for the **IC-F30LT/IC-F30** VHF TRANSCEIVER at the time of publication.

DANGER

NEVER connect the transceiver to an AC outlet or to a DC power supply that uses more than 9 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.

INTRINSICALLY SAFE QUALIFICATION

When servicing intrinsically safe versions of the **IC-F30LT/IC-F30**, the following conditions must be met.

Failing to satisfy any of these conditions will invalidate the **INTRINSICALLY SAFE** certification.

1. Servicing the transceiver should only be undertaken by suitably qualified personnel in a non-hazardous area.
Never attempt to remove the case in a hazardous area.
2. **ONLY** the approved battery, ICOM's CM-141 may be used.

ORDERING PARTS

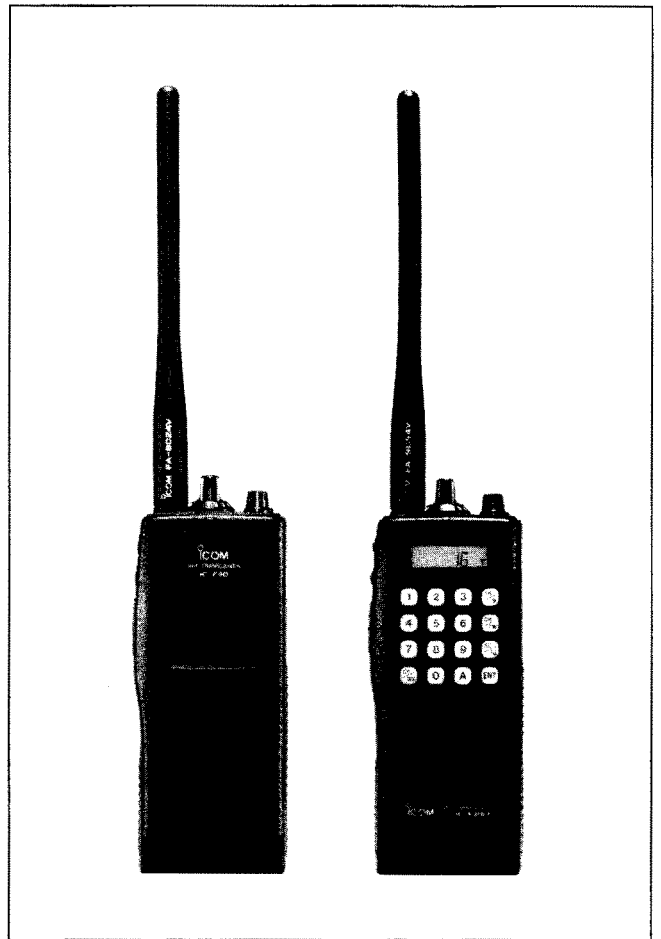
Be sure to include the following four points when ordering replacement parts:

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

<SAMPLE ORDER>

1110003490 S.IC TA31136FN IC-F30 MAIN UNIT 5 pieces
8810008210 Screw PH M3 x 7 ZK IC-F30 Top panel 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.

EXPLICIT DEFINITIONS

VERSIONS

LMR (Land Mobile Radio)	U.S.A. version
PMR (Private Mobile Radio)	European versions

FREQUENCY COVERAGE

L-band	136—150 MHz
H-band	146—174 MHz

CHANNEL SPACING

	LMR	PMR
Narrow-type	—	12.5 kHz
Middle-type	—	20 kHz
Wide-type	30 kHz or 25 kHz	25 kHz
Wide/Narrow-type	25 kHz/12.5 kHz	25 kHz/12.5 kHz

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SECTION 1 SPECIFICATIONS

		LMR	PMR
GENERAL	Frequency coverage	LMR : 136–150 MHz [L-band] 146–174 MHz [H-band] Marine : Tx 156.025–157.425 MHz Rx 156.025–163.275 MHz	136–150 MHz [L-band] 146–174 MHz [H-band]
	Mode	16K0F3E [Wide], 14K0F3E [Middle] (PMR only), 8K50F3E [Narrow]	
	Number of channels	IC-F30LT : up to 99 (without banks), 96 (with banks) IC-F30 : up to 16 Marine version : 99 (16 for LMR and 83 for Marine)	
	Antenna impedance	50 Ω (nominal)	
	Usable temperature range	–30°C to +60°C (–22°F to +140°F)	–25°C to +55°C (–13°F to +131°F)
	Channel spacing	30 kHz or 25 kHz [Wide], 20 kHz [Middle], 15 kHz or 12.5 kHz [Narrow]	
	Power supply requirement	7.2 V DC (nominal; acceptable Icom battery packs, CM-140 to CM-142 only; negative ground)	
	Current drain	Receive Stand-by : 50 mA [Wide] and [Narrow] types (IC-F30) 55 mA [Wide] and [Narrow] types (IC-F30LT) 60 mA [Wide/Narrow] types (IC-F30) 65 mA [Wide/Narrow] types (IC-F30LT) max. audio : 450 mA Transmit high : 2.5 A	
	Dimensions (with CM-141)	60(W) × 140(H) × 42(D) mm; 2 ³ / ₈ × 5 ¹ / ₂ (H) × 1 ²¹ / ₃₂ (D) in	
	Weight (with CM-141)	520 g; 1.1 lb	
RECEIVER	Measurement method	EIA-204D	ETS 300 086 or CEPT T/R24
	Receive system	Double conversion superheterodyne	
	Intermediate frequencies	1st: 45.15 MHz, 2nd: 455 kHz	
	Sensitivity	0.35 μV for 12 dB SINAD	–2 dBμV (emf) for 20 dB SINAD
	Squelch sensitivity (threshold)	0.35 μV	–3 dBμV (emf)
	Adjacent channel selectivity	–70 dB [Wide] and [Middle], –60 dB [Narrow]	
	Modulation acceptance	±7 kHz	
	Spurious response	–70 dB	–70 dB
	Image rejection	–70 dB	---
	Intermodulation rejection	–70 dB	---
	Blocking or desensitisation	---	–84 dB
	Audio frequency response	–3 dB to +1 dB in a 6 dB/octave range	
	Max. audio output power	500 mW at 10 % distortion with an 8 Ω load	
	Max audio sensitivity	2 kHz	
TRANSMITTER	Measurement method	EIA-152C	ETS 300 086 or CEPT T/R24
	RF output power	Except [Marine] version : 5 W (High) and 2 programmable low output power levels [Marine] version : 5 W (High) and 0.7 W (Low)	
	Modulation system	Variable reactance frequency modulation	
	Max. frequency deviation	±5 kHz [Wide], ±4 kHz [Middle], ±2.5 kHz [Narrow]	
	Spurious emission	–70 dB	0.25 μW
	Frequency tolerance	±0.0005 %	±2 kHz [Wide] and [Middle] ±1.5 kHz [Narrow]
	Audio frequency response	–3 dB to +1 dB in a 6 dB/octave range	
	Adjacent channel power	---	–70 dB [Wide] and [Middle] –60 dB [Narrow]
	FM noise and hum	–40 dB [Wide], –34 dB [Narrow]	---
	AM noise and hum	–40 dB	---
Limiting of modulator	70 % to 100 % deviation		

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

■ VHF MARINE CHANNEL LIST (Marine version only)

Channel No.		Frequency (MHz)		Channel No.		Frequency (MHz)		Channel No.		Frequency (MHz)	
USA	INT	Transmit	Receive	USA	INT	Transmit	Receive	USA	INT	Transmit	Receive
	01	156.050	160.650	21A		157.050	157.050	73	73	156.675	156.675
01A		156.050	156.050		22	157.100	161.700	74	74	156.725	156.725
	02	156.100	160.700	22A		157.100	157.100	75	75	Guard	Guard
02A		156.100	156.100		23	157.150	161.750	76	76	Guard	Guard
	03	156.150	160.750	23A		157.150	157.150	77*1	77	156.875	156.875
03A		156.150	156.150	24	24	157.200	161.800		78	156.925	161.525
	04	156.200	160.800	25	25	157.250	161.850	78A		156.925	156.925
04A		156.200	156.200	26	26	157.300	161.900		79	156.975	161.575
	05	156.250	160.850	27	27	157.350	161.950	79A		156.975	156.975
05A		156.250	156.250	28	28	157.400	162.000		80	157.025	161.625
06	06	156.300	156.300		60	156.025	160.625	80A		157.025	157.025
	07	156.350	160.950	60A		156.025	156.025		81	157.075	161.675
07A		156.350	156.350		61	156.075	160.675	81A		157.075	157.075
08	08	156.400	156.400	61A		156.075	156.075		82	157.125	161.725
09	09	156.450	156.450		62	156.125	160.725	82A		157.125	157.125
10	10	156.500	156.500	62A		156.125	156.125		83	157.175	161.775
11	11	156.550	156.550		63	156.175	160.775	83A		157.175	157.175
12	12	156.600	156.600	63A		156.175	156.175	84	84	157.225	161.825
13*1	13	156.650	156.650		64	156.225	160.825	84A		157.225	157.225
14	14	156.700	156.700	64A		156.225	156.225	85	85	157.275	161.875
15*1	15*1	156.750	156.750		65	156.275	160.875	85A		157.275	157.275
16	16	156.800	156.800	65A		156.275	156.275	86	86	157.325	161.925
17*1	17	156.850	156.850		66	156.325	160.925	86A		157.325	157.325
	18	156.900	161.500	66A		156.325	156.325	87	87	157.375	161.975
18A		156.900	156.900	67*1	67	156.375	156.375	87A		157.375	157.375
	19	156.950	161.550	68	68	156.425	156.425	88	88	157.425	162.025
19A		156.950	156.950	69	69	156.475	156.475	88A		157.425	157.425
20	20	157.000	161.600	70*2	70*2	156.525	156.525				
20A		157.000	157.000	71	71	156.575	156.575				
	21	157.050	161.650	72	72	156.625	156.625				

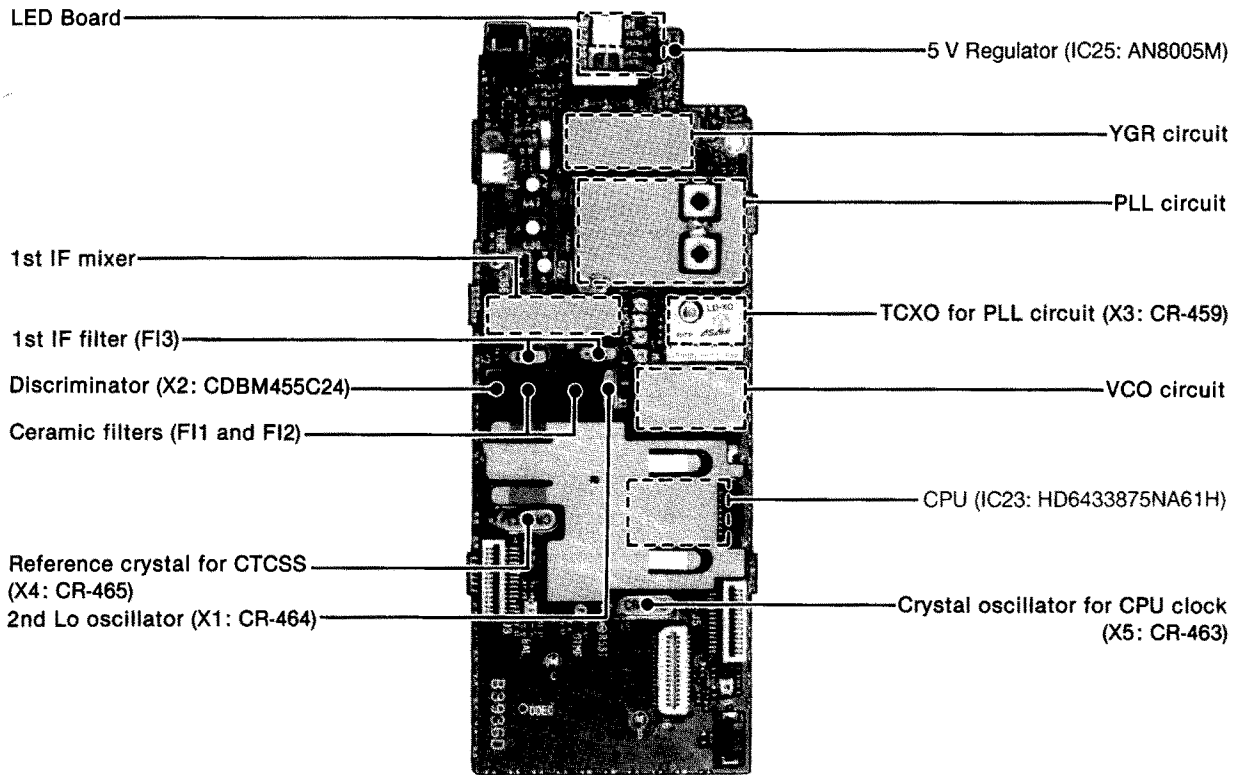
*1 Low power only, *2 Receive only

Weather channel	Frequency (MHz)		Weather channel	Frequency (MHz)	
	Transmit	Receive		Transmit	Receive
WX01	Receive only	162.550	WX06	Receive only	162.500
WX02	Receive only	162.400	WX07	Receive only	162.525
WX03	Receive only	162.475	WX08	Receive only	161.650
WX04	Receive only	162.425	WX09	Receive only	161.775
WX05	Receive only	162.450	WX10	Receive only	163.275

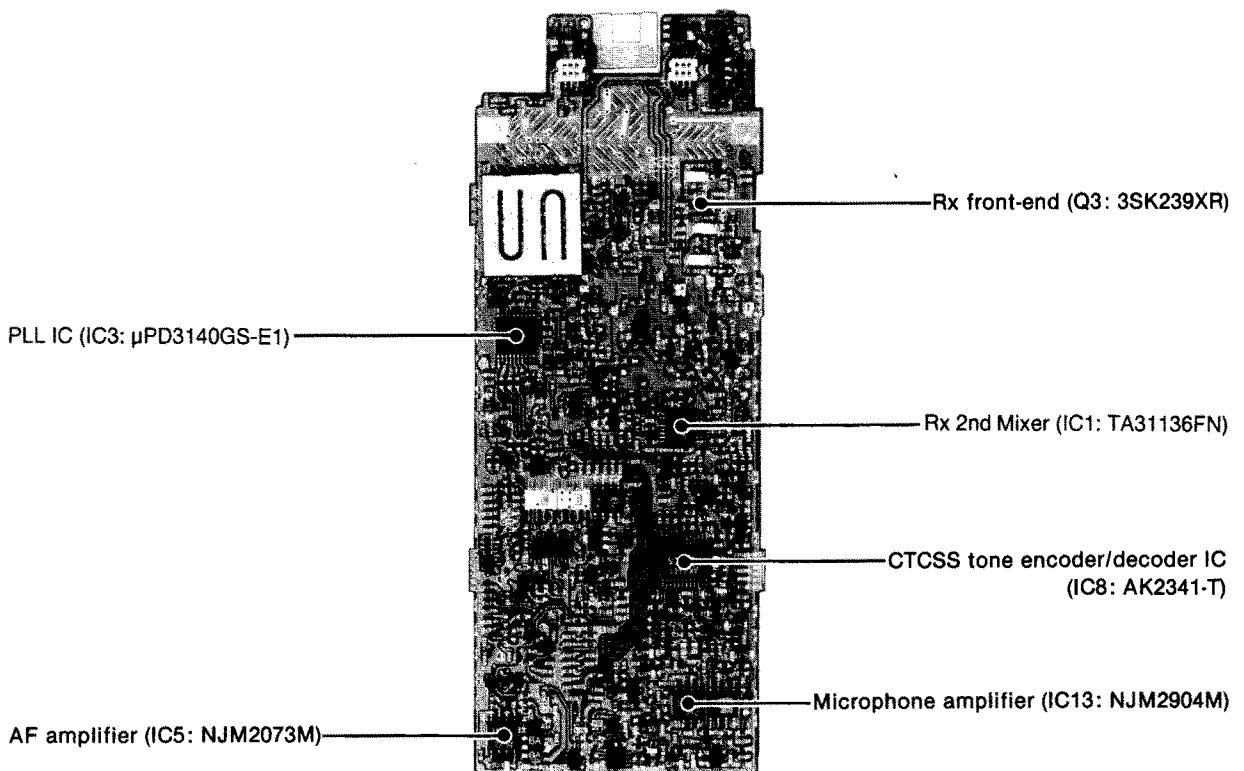
SECTION 2 INSIDE VIEWS

2-1 WIDE AND NARROW TYPES

● MAIN UNIT (TOP VIEW)

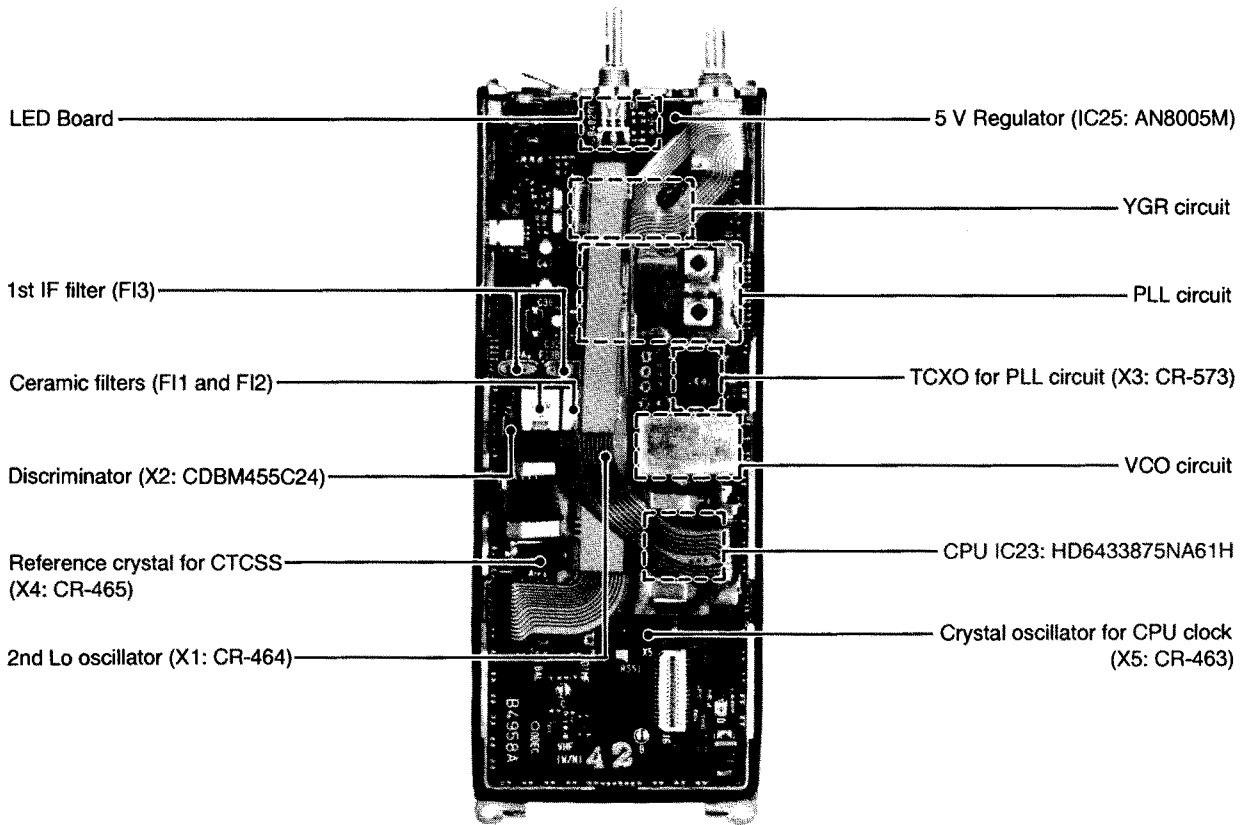


● MAIN UNIT (BOTTOM VIEW)

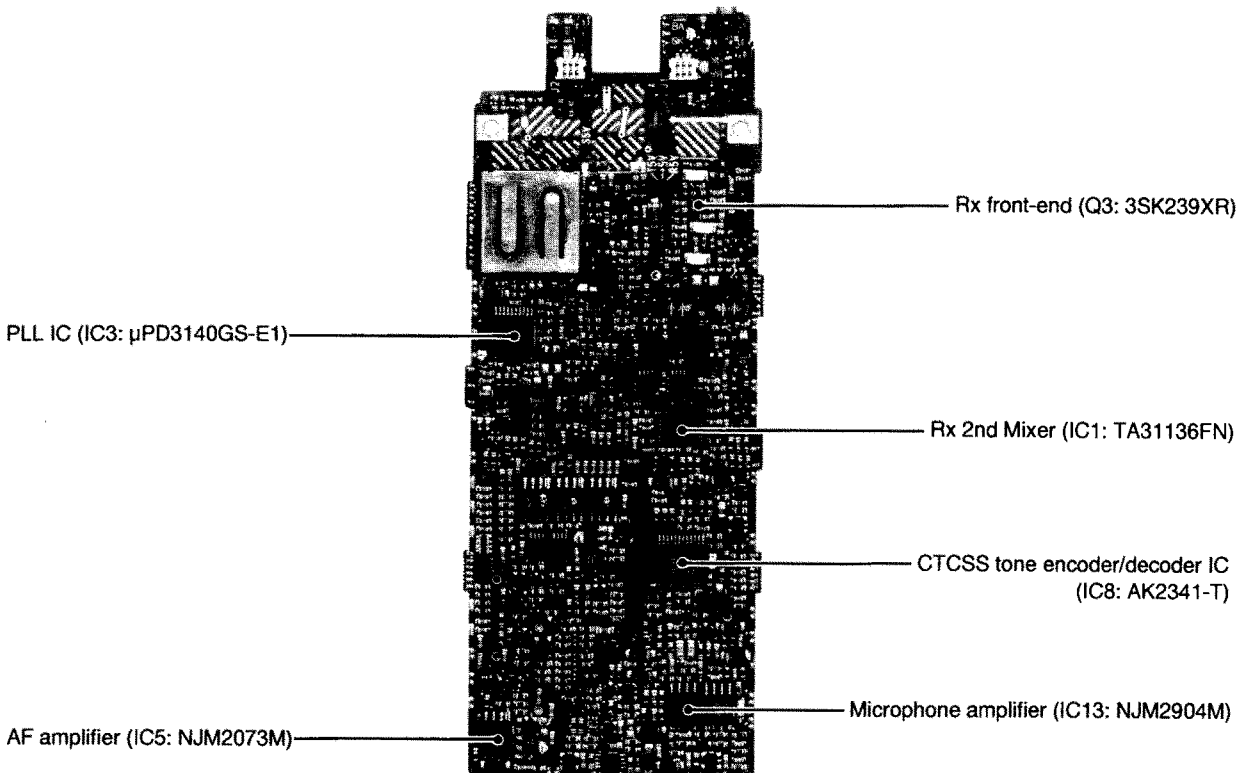


2-2 WIDE/NARROW TYPES

● MAIN-A UNIT (TOP VIEW)



● MAIN-A UNIT (BOTTOM VIEW)

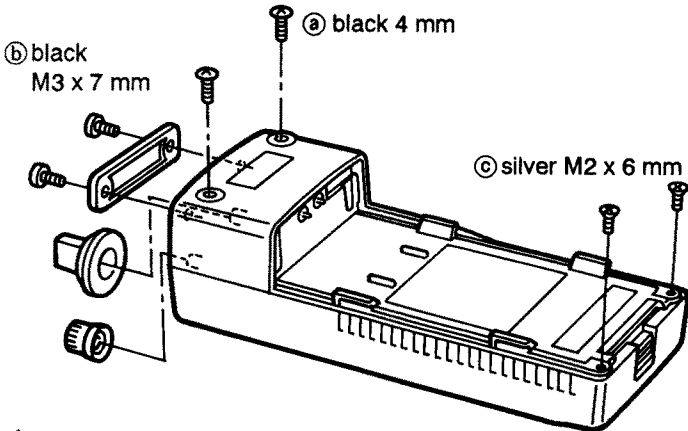


SECTION 3 DISASSEMBLY AND OPTION INSTALLATIONS

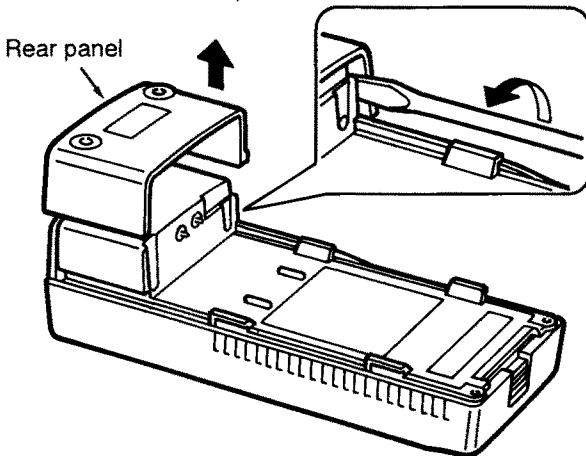
3-1 DISASSEMBLY INSTRUCTION

• SEPARATING THE CHASSIS AND FRONT PANEL

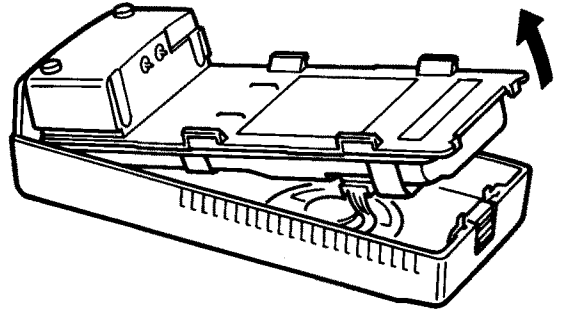
- ① Remove 2 screws ① from the rear panel, and 2 screws ② from the top panel.
- ② Remove the knobs and multi-connector cover from the top panel.
- ③ Remove 2 screws ③ from the chassis.



- ④ Use a screwdriver or similar shaped instrument, to release the latching tabs inside the rear panel; then, remove the panel.



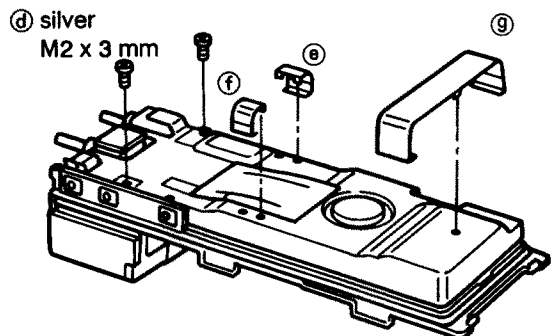
- ⑤ Separate the internal chassis from the front panel.
 - Be careful that the volume and channel selector are not damaged by the top panel.
- ⑥ Disconnect the cable coming from the front panel, from its connector.
 - Simply pull the cable. There are no latches or release tabs.



• OPENING THE SHIELD CASE

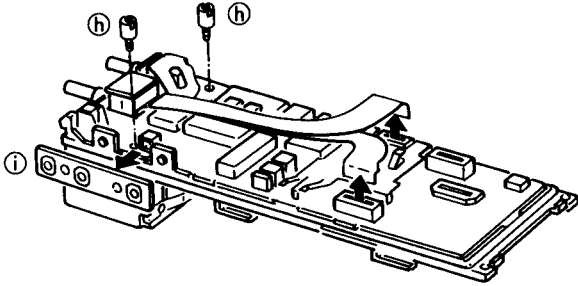
- ① Set the shield case rear side down so that the shield cover is visible.
- ② Remove 2 screws ④ from the shield cover.
- ③ Remove 3 cover latches ⑤, ⑥ and ⑦, then open the shield case.

NOTE: The cover latch ⑥ is longer than ⑤. Match the projections on the latches to the shield cover holes when reassembling the cover.



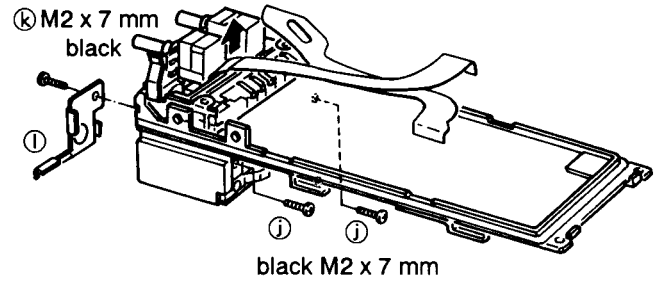
• REMOVING THE MAIN UNIT

- ① Unplug flexible cables
- ② Remove 2 stand-off (h) from the MAIN unit.
- ③ Remove the PTT board (i), then lift up the MAIN unit.



• REMOVING THE PA BLOCK

- ① Remove 2 screws (j) from the PA heatsink.
- ② Remove 1 screw (k) and metal plate (l) from the transceiver's top.
- ③ Lift up the PA block from the internal chassis.



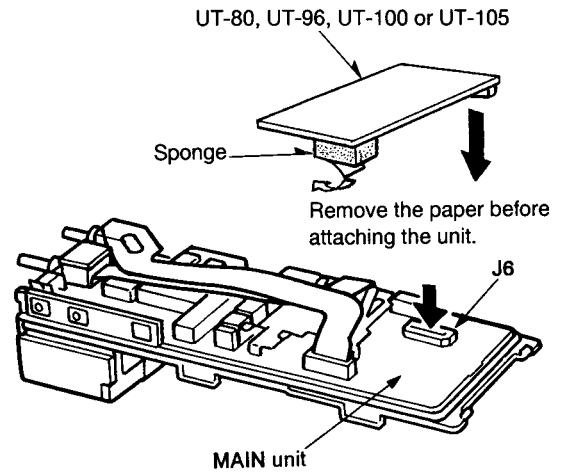
3-2 OPTION INSTALLATION

- UT-80 2-TONE UNIT, UT-96 5-TONE UNIT, UT-100 MAN DOWN UNIT OR UT-105 SmarTrunk II™ Logic Board

INSTALLATION

NOTE: Before installing the UT-80, adjust the 2-tone frequencies using the procedures on page 10-2.

- ① Open the internal chassis cover as described on page 3-1.
- ② Remove the bottom protective paper.
- ③ Install the unit as shown at right.



● UT-82 DTMF ENCODER UNIT

INSTALLATION

- ① Detach the front panel from the chassis as described on page 3-1.
- ② Remove the acrylic plate from the front panel (Fig. 1).
 - Removed screws are used for the UT-82 installation.
- ③ Pull out and discard the black sheet and adhesive metal cut-out from the front panel, then push the keypad cover to remove it (Fig. 2).
- ④ Remove both paper backings from the UT-82's adhesive cut-out (Fig. 3).
 - Make sure the side of the cut-out including adhesive over the "tabs" is attached to the front panel.
- ⑤ Attach the UT-82's keypad rubber to the other side of the cut-out, then, install the PC board of the UT-82 using the removed screws in step ② (Fig. 3).
- ⑥ Unsolder the wires from the speaker and microphone, then solder the UT-82's wires to the unsoldered points

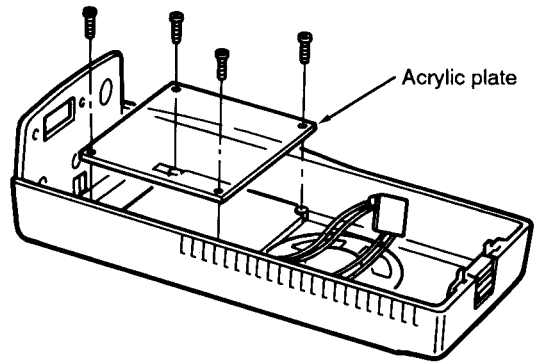


Fig. 1

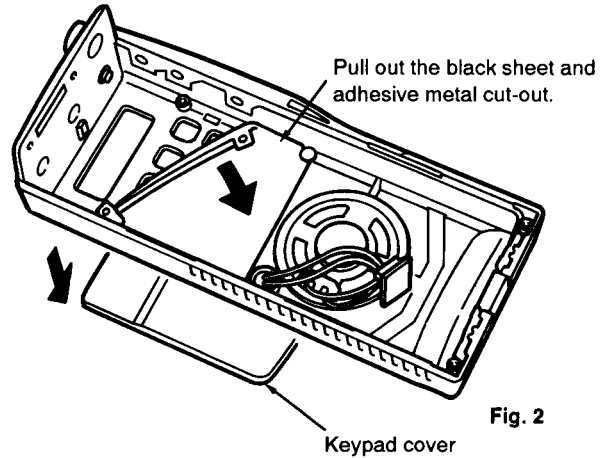


Fig. 2

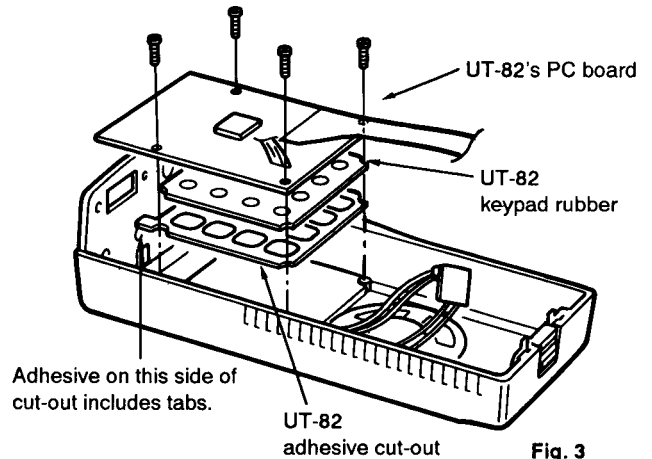


Fig. 3

SECTION 4 CIRCUIT DESCRIPTION

4-1 RECEIVER CIRCUITS

4-1-1 ANTENNA SWITCHING CIRCUIT (PA UNIT)

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 terminal, or multi-conductor (J1) and pass through the low-pass filter (LPF board, L2, L3, C2–C5). The filtered signals are passed through the ¼ type antenna switching circuit (APC board, D2, L1, L2) and then applied to the MAIN or MAIN-A unit (depending on version) through the RX line.

4-1-2 RF CIRCUIT (MAIN OR MAIN-A UNIT)

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

The signals from the antenna switching circuit pass through the low-pass filter (L36, L37, C48, C49, C345–C347) and the bandpass filter (D4, L8, C44, C47). The filtered signals are amplified at the RF amplifier (Q3) and then enter the two-stage bandpass filter (D2, D3, C34–C37) to suppress unwanted signals.

D2–D4 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 passband for wide bandwidth receiving and good image response rejection.

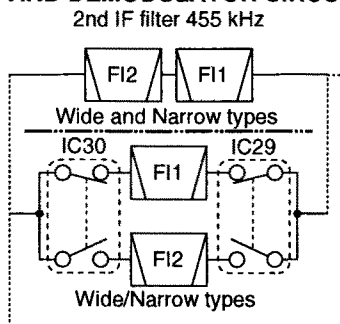
4-1-3 1ST MIXER AND 1ST IF CIRCUITS (MAIN OR MAIN-A UNIT)

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

• Wide and Narrow types (MAIN unit)

The RF signals from the bandpass filter are passed through the matching circuit (L5) then mixed with the 1st LO signals coming from the VCO circuit via the buffer amplifier (Q11) at the 1st mixer circuit (D1) to produce a 45.15 MHz 1st IF signal. The 1st IF signal is passed through a pair of crystal filters (FI3) in order to obtain wide 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 amplifiers (Q1, Q2).

• 2nd IF AND DEMODULATOR CIRCUITS



• Wide/Narrow types (MAIN-A unit)

The RF signals from the bandpass filter are mixed with the 1st LO signals at the 1st mixer circuit (Q2). The 1st IF signal is applied to a pair of crystal filters (FI3) to suppress out-of-band signals. The filtered signal is amplified at the 1st IF amplifier (Q1) and then applied to the 2nd IF circuit.

4-1-4 2ND IF AND DEMODULATOR CIRCUITS (MAIN OR MAIN-A UNIT)

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

The 1st IF signal from the IF amplifier (Q1) 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 to a 455 kHz 2nd IF signal.

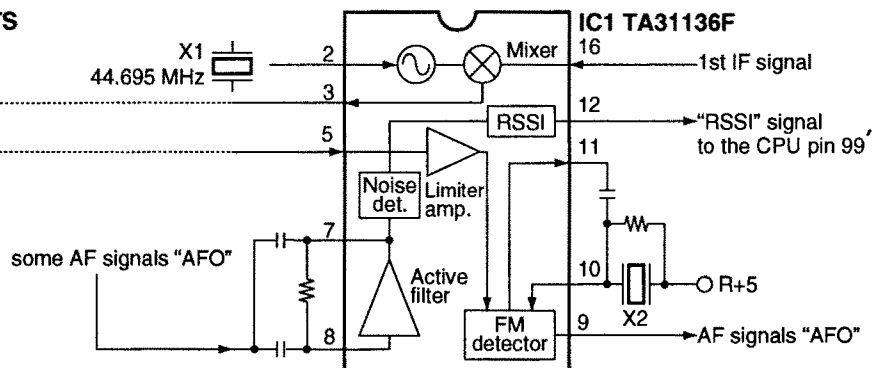
IC1 contains the 2nd mixer, local oscillator, limiter amplifier, quadrature detector, active filter and noise amplifier circuit. The local oscillator section and X1 generate 44.695 MHz for the 2nd LO signal.

• Wide and narrow types (MAIN unit)

The 2nd IF signal from the 2nd mixer (IC1, pin 3) passes through the high-quality ceramic filters (FI1, FI2) to suppress unwanted heterodyne frequencies. The filtered signal is amplified at the limiter amplifier section (pin 5) and applied to the quadrature detector section in the FM IF IC to demodulate the 2nd IF signal into an AF signal using with the ceramic discriminator (X2). The demodulated AF signals are output from pin 9 of the IC and applied to the AF circuit via the squelch circuit.

• Wide/Narrow types (MAIN-A unit)

The 2nd IF signal from the 2nd mixer (IC1, pin 3) passes through either one of 2 ceramic filters (FI1; Wide, FI2; Narrow) to suppress unwanted heterodyne frequencies via the N/W switches (IC29, IC30). 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 with 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 squelch circuit.



The N/W switch circuit (IC29, IC30, Q47, Q50) switches via ceramic filter (F11 or F12) and adjusts the input level of the FM IF IC (IC1, pin 10) to switch bandwidth according to wide or narrow settings of the NWC signal from the CPU (IC23, pin 65).

4-1-5 AF CIRCUIT (MAIN OR MAIN-A UNIT)

The AF circuit de-emphasises the demodulated signals within -6 dB/octave characteristics and power amplifies the AF signals to drive a speaker. The AF circuit includes an AF mute circuit for squelch operation.

The AF signals from the FM IF IC (IC1, pin 9) pass through the bandpass filter in the CTCSS IC (IC8, pins 1, 5) and applied to the de-emphasis circuit (IC26). This de-emphasis circuit is an integrated circuit with frequency characteristics of -6 dB/octave.

The de-emphasised AF signals are passed through the squelch switch (Q23) and are applied to the electronic volume controller (IC16, pin 9). The level controlled AF signals are output from pin 12 then power amplified at the AF power amplifier (IC5) to drive a speaker.

4-1-6 SQUELCH CIRCUIT (MAIN OR MAIN-A UNIT)

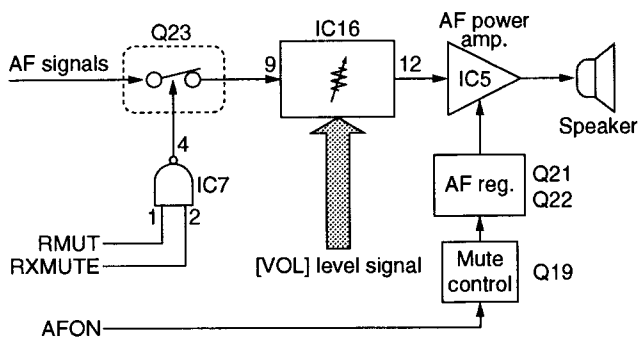
A squelch circuit cuts out AF signals when no RF signals are received. By detecting noise components in the AF signals, the squelch circuit switches the AF mute switch.

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 7, 8). The N/W switch (Q47) adjusts the input noise level to the IC between wide and narrow bandwidths. (Wide/Narrow types only)

The noise signals from the FM IF IC (IC1, pin 7) are applied to the electronic volume controller (IC16, pin 15) and the level controlled signals are converted into a pulse-type signals at the noise detector circuit (Q25, Q26).

The detected signals are applied to the CPU (IC23, pin 19) as a NOIS signal. The CPU then analyses the noise condition and controls the RMUT signal to toggle the squelch switch (Q23).

• AF CIRCUIT



4-2 TRANSMITTER CIRCUITS

4-2-1 MICROPHONE AMPLIFIER CIRCUIT (MAIN OR MAIN-A UNIT)

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.

The AF signals from the built-in microphone (FRONT unit, MC1) or from the multi-connector (PA unit, J1, pin 4; external microphone) are passed through the INT/EXT switch (IC10, pins 1, 6, 7) and applied to the pre-amplifier (Q46). The amplified signals are passed through the pre-emphasis circuit (C183, R259) which has $+6$ dB/octave pre-emphasis characteristics.

The signals are applied to a bandpass filter in CTCSS IC (IC8, pins 4, 3) to pass 300 Hz to 3 kHz audio components.

The filtered signals are amplified at the limiter amplifier (IC13b) and applied to the splatter filter (IC13a) which eliminates signal components greater than 3 kHz (wide bandwidth) or 2.55 kHz (narrow bandwidth). The filtered signals are output from pin 1, and applied to the modulation circuit via the mute switch (IC15, pins 1, 2) as the "MOD" signal.

In addition to the Wide/Narrow types, the N/W switch is connected to the input and output lines of the splatter filter circuit for each. The switches are controlled by the "NWC" signal coming from the CPU (IC23, pin 48) to adjust filter cut-off frequency (by Q51) and maximum frequency deviation (by Q53).

4-2-2 MODULATION CIRCUIT (MAIN OR MAIN-A UNIT)

The modulation circuit modulates the VCO oscillating signal and reference oscillator using the microphone audio signals to obtain highly linear modulation.

The "MOD" signal changes the reactance of a varactor diode (D15) and TCXO (X3) to modulate the oscillated signal at the VCO circuit (Q7). The modulated VCO signal, RF signal, is amplified at the buffer-amplifiers (Q9, Q12, Q13) and is then applied to the drive amplifier circuit.

4-2-3 DRIVE AMPLIFIER CIRCUIT (MAIN OR MAIN-A UNIT)

The drive amplifier circuit amplifies the VCO oscillating signal to the level needed at the power amplifier.

The amplified RF signal from the buffer amplifier (Q13) passes through the low-pass filter (L28, C145, C146) and is applied to the drive amplifier (Q14). The amplified signal passes through the APC circuit and is then applied to the RF power amplifier.

4-2-4 POWER AMPLIFIER CIRCUIT (PA UNIT)

IC1 is the power module which provides a stable 5 W of output power.

The RF signal from the drive amplifier (MAIN unit, Q14) is applied to the power amplifier (IC1, pin 1) through the PIN diode (APC board, D1). The amplified signal is output from pin 5 of the power amplifier, and is applied to the antenna ter-

minimal via the output power detector and antenna switching circuits.

4-2-5 APC CIRCUIT (APC BOARD)

The APC circuit protects the power amplifier from a mismatched output load and stabilizes the output power.

The RF signal from the power amplifier (PA unit, IC1) passes through the power detector (PA unit, D6, D7) where the forward and reflection components are detected as "FWD" and "RVS" signals respectively.

When the output power is increased or decreased, the detected voltage "FWD" is increased or decreased also. "FWD" is applied to the inverse amplifier (IC2b) and decreases or increases the output voltage of IC2b. The output voltage controls the bias current of the PIN diode (D1) to control the input level of the power amplifier.

When the antenna impedance is matched to 50 Ω, the detected voltage "RVS" is at its minimum. However, when the antenna impedance is mismatched, "RVS" is higher than when it is matched. "RVS" is applied to the inverse amplifier (IC2a) and decreases the output voltage of IC2b. The output voltage controls the "FWD" input terminal and decreases the bias current of the PIN diode. Thus the input level of the power amplifier is decreased to protect the power module.

4-3 PLL CIRCUITS

4-3-1 PLL CIRCUIT (MAIN OR MAIN-A UNIT)

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

Oscillated signal from the VCO circuit from the buffer amplifier (Q10) is prescaled in the PLL IC (IC3, pin 19) based on the divided ratio (N-data). The reference signal generated at the reference oscillator (X3) is also applied to the PLL IC (IC3, pin 16). The PLL IC (IC3) detects the out-of-step phase and outputs it from pin 13. The output signal is passed through the charge pump (Q44) and loop filter (R51, C90), and is then applied to the VCO circuit as the lock voltage.

The lock voltage is also used for the receiver tuneable band-pass filters to match the filter's center frequency to the desired receive frequency. The lock voltage is amplified at the buffer amplifier (Q5) and is then applied to the bandpass filters (D2–D4).

4-3-2 VCO CIRCUIT (MAIN OR MAIN-A UNIT)

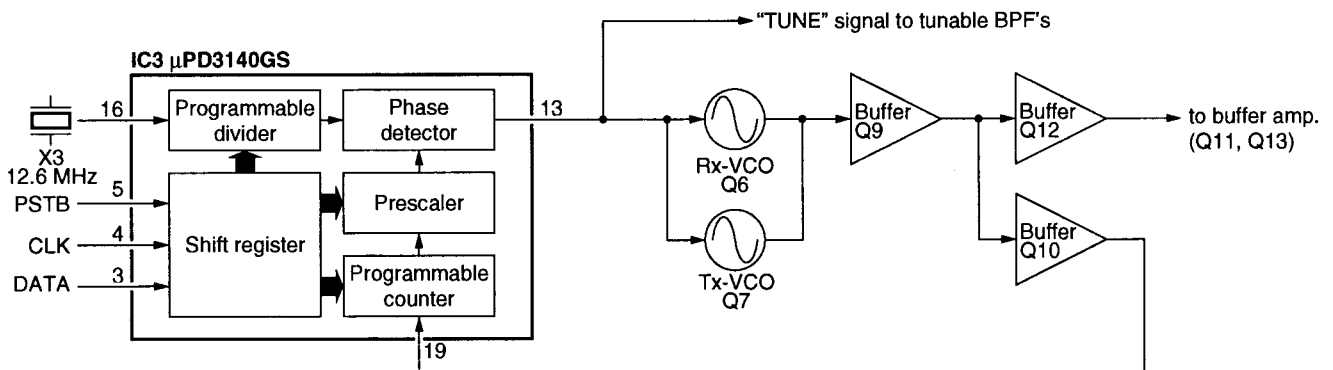
The VCO circuit contains separate Rx (Q6) and Tx (Q7) VCOs. The oscillated signal is amplified at the buffer amplifier (Q9) after passing through the Tx/Rx switch (Q8, Q34). The amplified signal is applied to the 1st mixer circuit via the buffer amplifiers (Q11, Q12) while receiving, and drive amplifier circuit while transmitting after being amplified at the buffer amplifier (Q11, Q13).

A portion of the signal from the buffer amplifier (Q9) is fed back to the PLL IC (IC3, pin 19) via the buffer amplifier (Q10) as the comparison signal.

4-4 POWER SUPPLY CIRCUITS VOLTAGE LINES (MAIN OR MAIN-A UNIT)

LINE	DESCRIPTION
HV	The voltage from the connected battery pack through filters and fuse on the EF unit.
VCC	Same voltage as the HV line controlled by the [PWR/VOL] control.
5V	Common 5 V converted from the VCC line at the 5V regulator circuit (IC25).
+5V	Common 5 V converted from the VCC line at the +5V regulator circuit (Q40, Q41, D30) using the 5V line voltage for reference.
S5V	Common 5 V converted from the VCC line at the S5V regulator circuit (Q38, Q39). The voltage is controlled by the PSAV signal coming from the CPU for power saver function.
R5V	Receive 5 V converted from the VCC line at the R5V regulator circuit (Q36, Q37, D28). The regulated voltage is applied to the receiver circuits.
T5V	Transmit 5 V converted from the S5V line at the T5V regulator circuit (Q32).
VCO5	Common 5 V converted from the S5V line at the VCO5 regulator circuit (Q42).

• PLL circuit



4-5 PORT ALLOCATIONS

4-5-1 CPU (MAIN/MAIN-A UNIT IC23)

Pin number	Port name	Description
1	AFV	Input port for the [PWR/VOL] control.
11	SIFT	Outputs clock shift signal.
19	NOIS	Input port for noise signal (pulse-type) for noise squelch operation.
23	DDEC	Input port for DTCS code signal.
24	DENC	Outputs DTCS code signal.
25	LEDR	Outputs [ACTIVITY LED] control signal. High : While transmitting
26	LEDG	Outputs [ACTIVITY LED] control signal. High : While RF signal is received
32-35	CB13- CB10	Input ports for the [DIAL] control.
36	PTT	Input port for the [PTT] switch.
37	S1	Input port for the [*] switch.
38	S2	Input port for the [* •] switch.
39	S3	Input port for the [red] switch.
43	SDA	Data bus line for the EEPROM IC's (IC20-IC22).
48	NWC	Outputs transmitter audio signals control signal to the N/W switches (Q51, Q53. (Wide/Narrow types only) High : While narrow is selected
49	UNLK	Input port for PLL unlock signal. Low : During unlock
50	PSTB	Outputs strobe signals for the PLL IC (IC3, pin 3).
52-59	RFP0- RFP7	Outputs transmit output power control signal.
60	TMUT	Outputs transmit mute signal. High : During unlock or while muted
61	T/R	Outputs Tx/Rx control signal for the T5V regulator (Q32) and control (IC27) circuits, etc. Low : While transmitting
62	PASV	Output port for the power saver function, applied to regulator circuits, etc.
63	AFON	Outputs regulator circuit for the AF power amplifier control signal. High : While squelched or muted, etc.
65	NWC	Outputs 2nd IF passband width select signal. (Wide/Narrow types only) High : While narrow is selected
68-73	VD0- VD5	Output ports for the AF gain control signal, applied to the electronic volume controller (IC16).
77	DET	Input port for detected CTCSS signal from the CTCSS IC (IC8, pin 14).

Pin number	Port name	Description
79	MMUT	Outputs mic. audio mute signal. Low : While DTMF signals are output, etc.
80	RMUT	Outputs receive mute signal. Low : Squelch open/Monitoring High : During transmit or while squelch is closed, etc.
82	5VR	Input port for the multi-connector. High : When an optional speaker microphone is connected, etc.
85	MDWN	Input port for an optional MAN DOWN UNIT's mercury switch.
90	BEEP	Outputs beep audio signals.
91	DTMF	Outputs DTMF signals.
98	LBAT	Input port for low battery detection, connected to the VCC line through a resistor.
99	RSSI	Input port for the RSSI signal from the FM IF IC (IC1, pin 12) to detect receiving signal strength.
100	VOXV	Input port for the VOX circuit (IC12). High : During transmit with the VOX

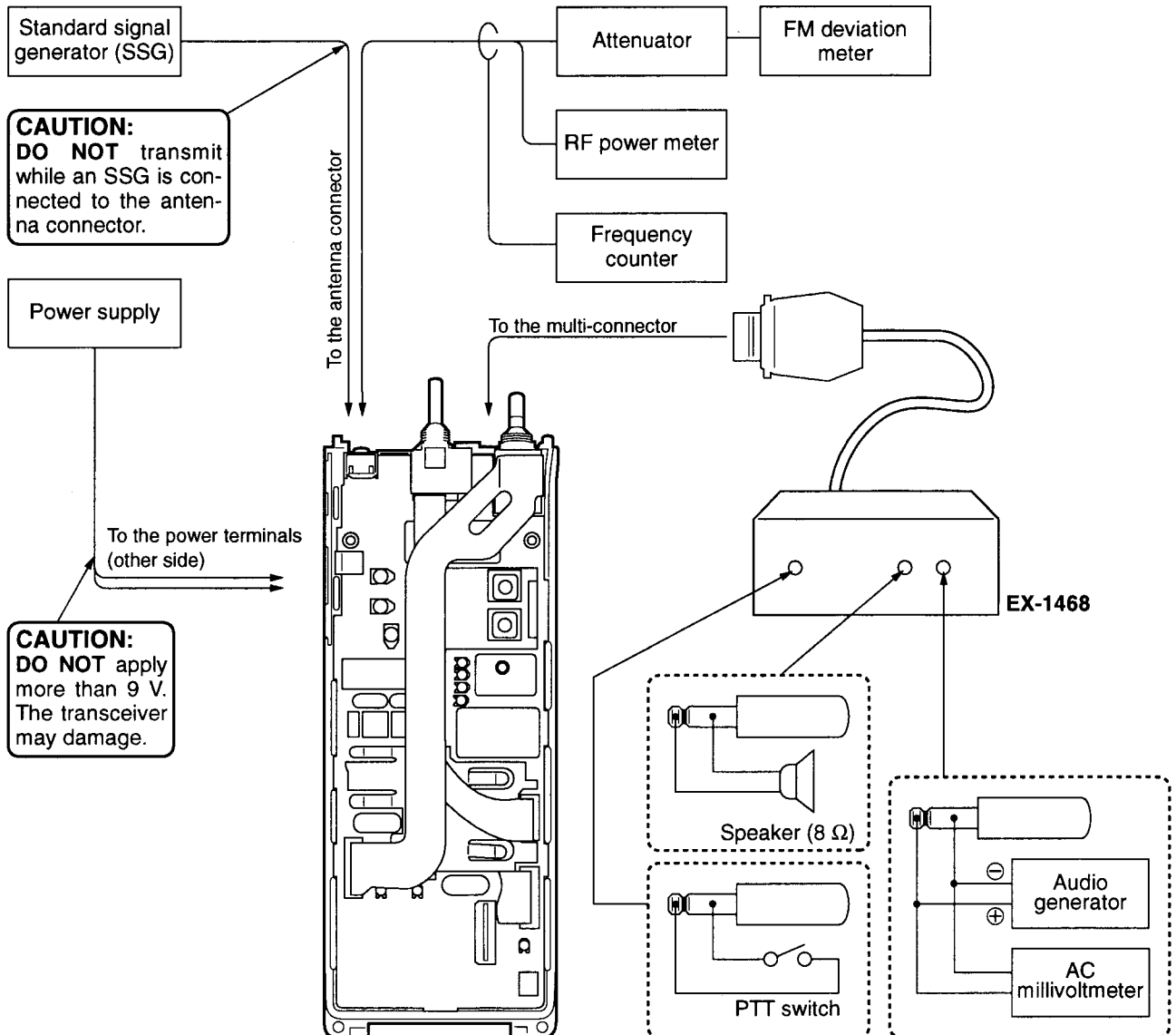
SECTION 5 ADJUSTMENT PROCEDURES

5-1 PREPARATION

■ REQUIRED TEST EQUIPMENT

EQUIPMENT	GRADE AND RANGE	EQUIPMENT	GRADE AND RANGE
DC power supply	Output voltage : 7.5 V DC Current capacity : 5 A or more	Standard signal generator (SSG)	Frequency range : 0.1–300 MHz Output level : 0.1 μ V–32 mV (–127 to –17 dBm)
RF power meter (terminated type)	Measuring range : 1–10 W Frequency range : 100–300 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 : 0.1–300 MHz Frequency accuracy : \pm 1 ppm or better Sensitivity : 100 mV or better	DC voltmeter	Input impedance : 50 k Ω /V DC or better
RF voltmeter	Frequency range : 0.1–300 MHz Measuring range : 0.01–10 V	AC millivoltmeter	Measuring range : 10 mV–10 V
FM deviation meter	Frequency range : DC–300 MHz Measuring range : 0 to \pm 10 kHz	Digital multimeter	Input impedance : 10 M Ω /V DC or better
Audio generator	Frequency range : 300–3000 Hz Measuring range : 1–500 mV	External speaker	Input impedance : 4 Ω Capacity : 1 W or more
		Attenuator	Power attenuation : 40 or 50 dB Capacity : 10 W or more
		Terminator	Impedance : 50 Ω Capacity : 10 W or more

■ CONNECTION

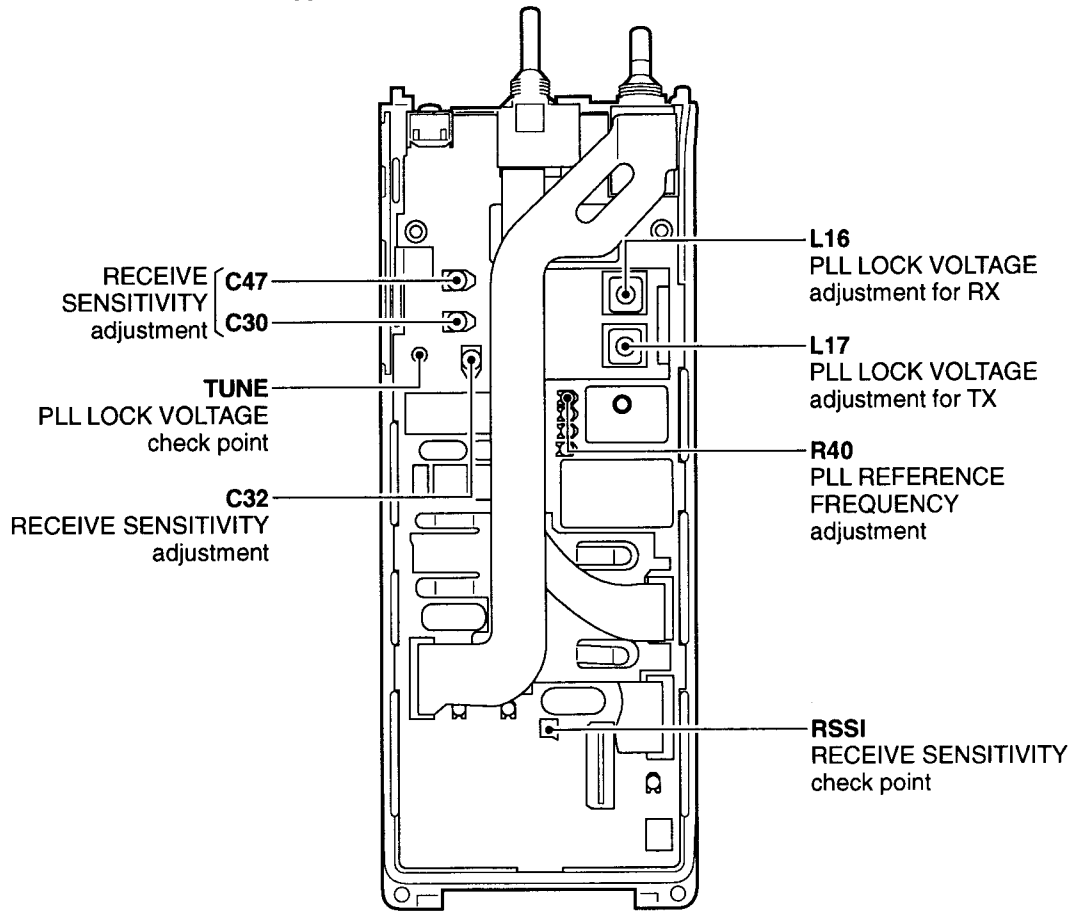


5-2 PLL AND RECEIVER ADJUSTMENTS

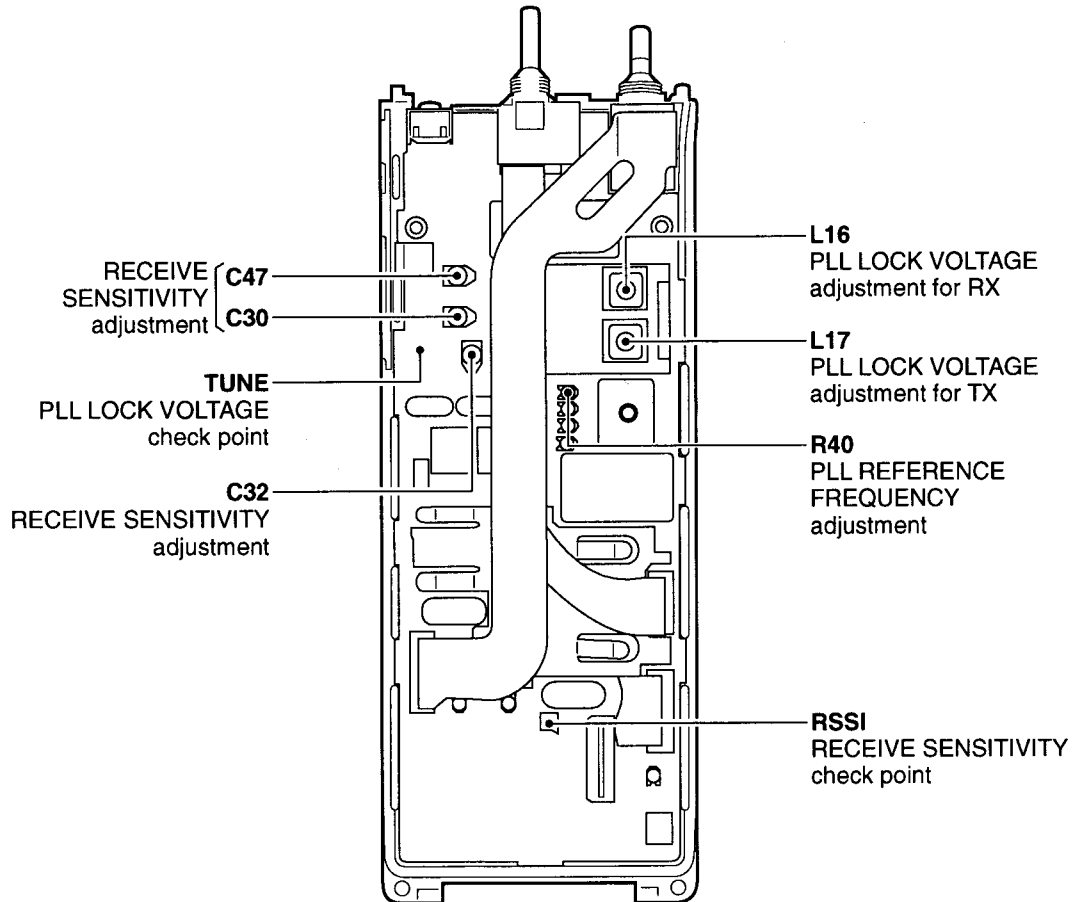
ADJUSTMENT	ADJUSTMENT CONDITIONS	MEASUREMENT		VALUE	ADJUSTMENT		
		UNIT	LOCATION		UNIT	ADJUST	
PLL LOCK VOLTAGE	1 • Operating frequency : 136.000 MHz • Receiving	MAIN or MAIN-A	Connect a digital multi-meter or an oscilloscope to the check point, "TUNE".	2.0 V	MAIN or MAIN-A	L16	
	2 • Operating frequency : 150.000 MHz [L-band] 174.000 MHz [H-band] • Receiving					3.5–5.5 V [L-band] 7.5–10.5 V [H-band]	Verify
	3 • Operating frequency : 136.000 MHz [L-band] 146.000 MHz [H-band] • Transmitting					2.0 V	L17
	4 • Operating frequency : 150.000 MHz [L-band] 174.000 MHz [H-band] • Transmitting					7.0–10 V [L-band] 8.0–11.0 V [H-band]	Verify
PLL REFERENCE FREQUENCY	1 • Operating frequency : 150.000 MHz [L-band] 174.000 MHz [H-band] • Transmitting	Top panel	Loosely couple a frequency counter to the antenna connector.	150.00000 MHz [L-band] 174.00000 MHz [H-band]	MAIN or MAIN-A	R40	
RECEIVER SENSITIVITY	1 • Operating frequency : 136.000 MHz [L-band] 146.000 MHz [H-band] • Connect an SSG to the antenna connector and set as: Level : 32 μ V* (–77 dBm) Deviation : \pm 3.5 kHz [Wide] and [Wide/Narrow] \pm 2.8 kHz [Middle] \pm 1.75 kHz [Narrow] Modulation : 1 kHz • Connect a speaker (8 Ω) to the [SP] (at the EX-1468). • IF bandwidth : Wide [Wide/Narrow] only • Receiving	MAIN or MAIN-A	Connect a digital multi-meter or an oscilloscope to the check point, "RSSI".	Maximum voltage	MAIN or MAIN-A	Adjust in sequence C47 C30 C32	
NOISE SQUELCH THRESHOLD POINT	1 • Turn into squelch setting mode. While pushing [PTT] and [red], turn power ON. • Operating frequency : Any • No RF signals are applied to the antenna connector. • IF bandwidth : Wide [Wide/Narrow] only • Receiving	Front panel	Speaker	At the point where the noise audio just disappear	Top & Side panels	Rotate [VOL] while pushing [*].	
BEEP LEVEL	1 • Turn into beep level setting mode. While pushing [*] and [red], turn power ON. • Operating frequency : Any • Receiving	Front panel	Speaker	Desired level	Top & Side panels	Rotate [VOL] while pushing [*].	

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

• MAIN unit for Wide and Narrow types



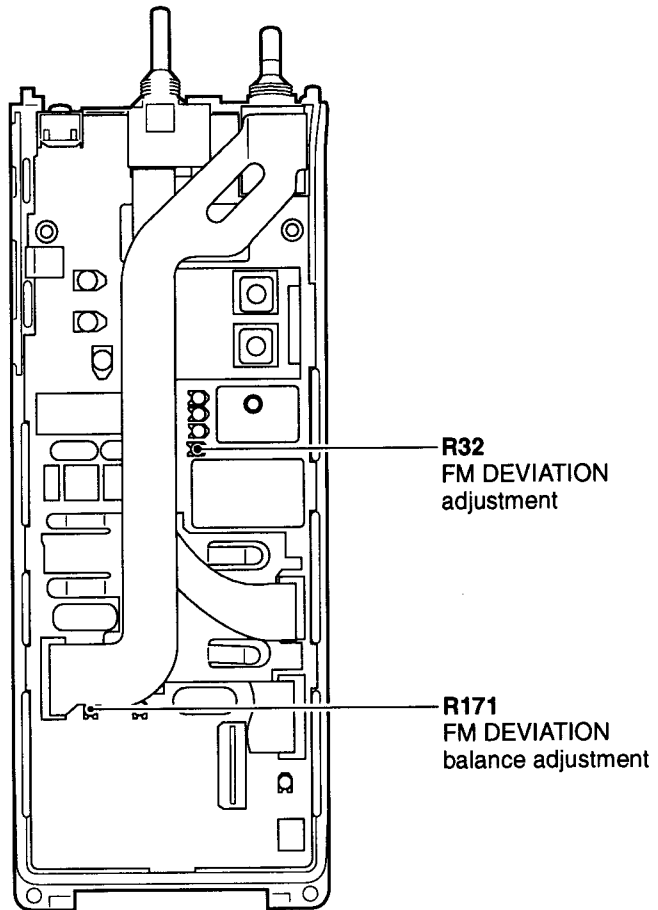
• MAIN-A unit for Wide/Narrow types



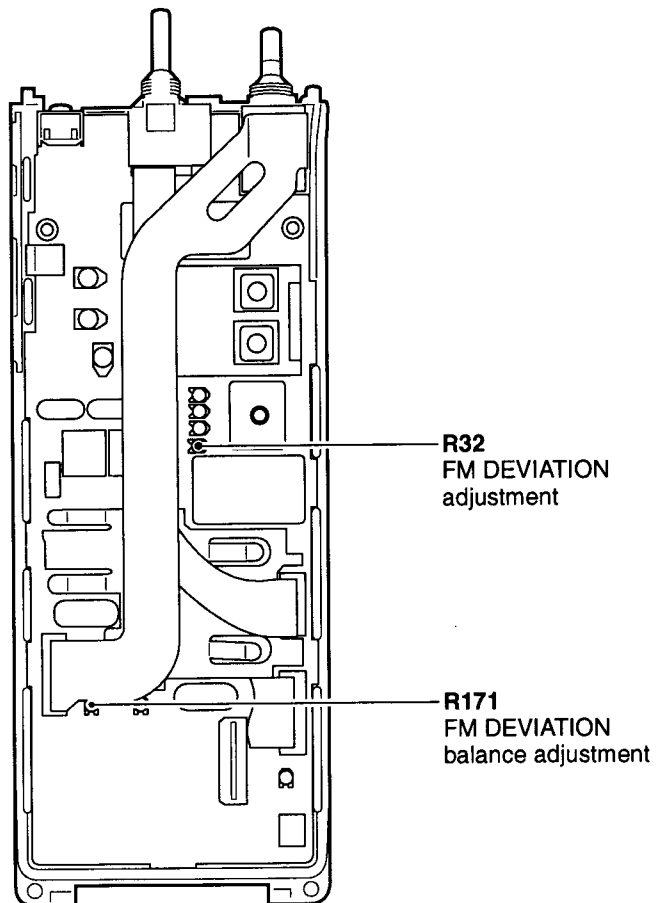
5-3 TRANSMITTER ADJUSTMENT

ADJUSTMENT	ADJUSTMENT CONDITIONS	MEASUREMENT		VALUE	ADJUSTMENT			
		UNIT	LOCATION		UNIT	ADJUST		
OUTPUT POWER	1	<ul style="list-style-type: none"> • Turn into transmit output power setting mode. While pushing [•] and [red], turn power ON. • Operating frequency : 136.000 MHz [L-band] 146.000 MHz [H-band] • Push and hold [red] to transmit at High power. 	Top panel	Connect an RF power meter to the antenna connector.	5.0 W	Top and Side panels	Rotate [VOL] while pushing [red].	
	2	<ul style="list-style-type: none"> • Push and hold [•] to transmit at Low 2 power. 					2.0 W	Rotate [VOL] while pushing [•].
	3	<ul style="list-style-type: none"> • Push and hold [••] to transmit at Low 1 power. 					1.0 W except [Marine] 0.7 W [Marine] only	Rotate [VOL] while pushing [••].
<p>NOTE: When the RF output power cannot be set with this procedures, cloning operation may be necessary to cancel the output power protection.</p>								
FM DEVIATION	1	<ul style="list-style-type: none"> • Operating frequency : 150.000 MHz [L-band] 174.000 MHz [H-band] • Apply an AF signal to the [MIC] jack (at the EX-1468) and set as: 1 kHz/200 mV [LMR] 1 kHz/100 mV [PMR] • Set an FM deviation meter as: LPF : 20 kHz HPF : OFF De-emphasis : OFF Detector : (P-P)/2 • IF bandwidth : Wide [Wide/Narrow] types only • Transmitting 	Top panel	Connect an FM deviation meter to the antenna connector through an attenuator.	± 4.4 kHz [Wide] ± 4.2 kHz [Wide/Narrow] ± 3.4 kHz [Middle] ± 2.1 kHz [Middle]	MAIN or MAIN-A	R32	
	2	<ul style="list-style-type: none"> • Set an FM deviation meter as: Detector : +P and -P • Transmitting 					The same level for both conditions.	R171
	3	<ul style="list-style-type: none"> • IF bandwidth : Narrow [Wide/Narrow] types only • Transmitting 						± 1.75 — ± 2.2 kHz

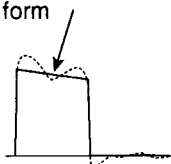
• MAIN unit for Wide and Narrow types



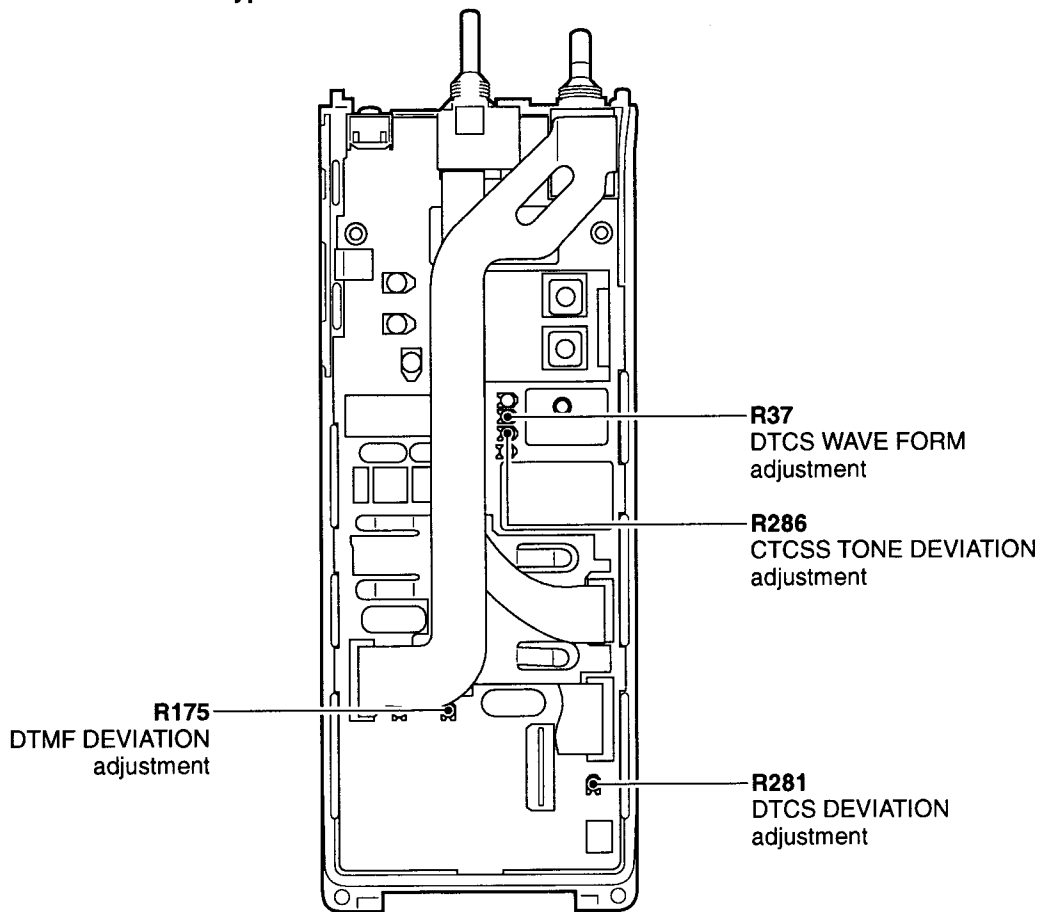
• MAIN-A unit for Wide/Narrow types



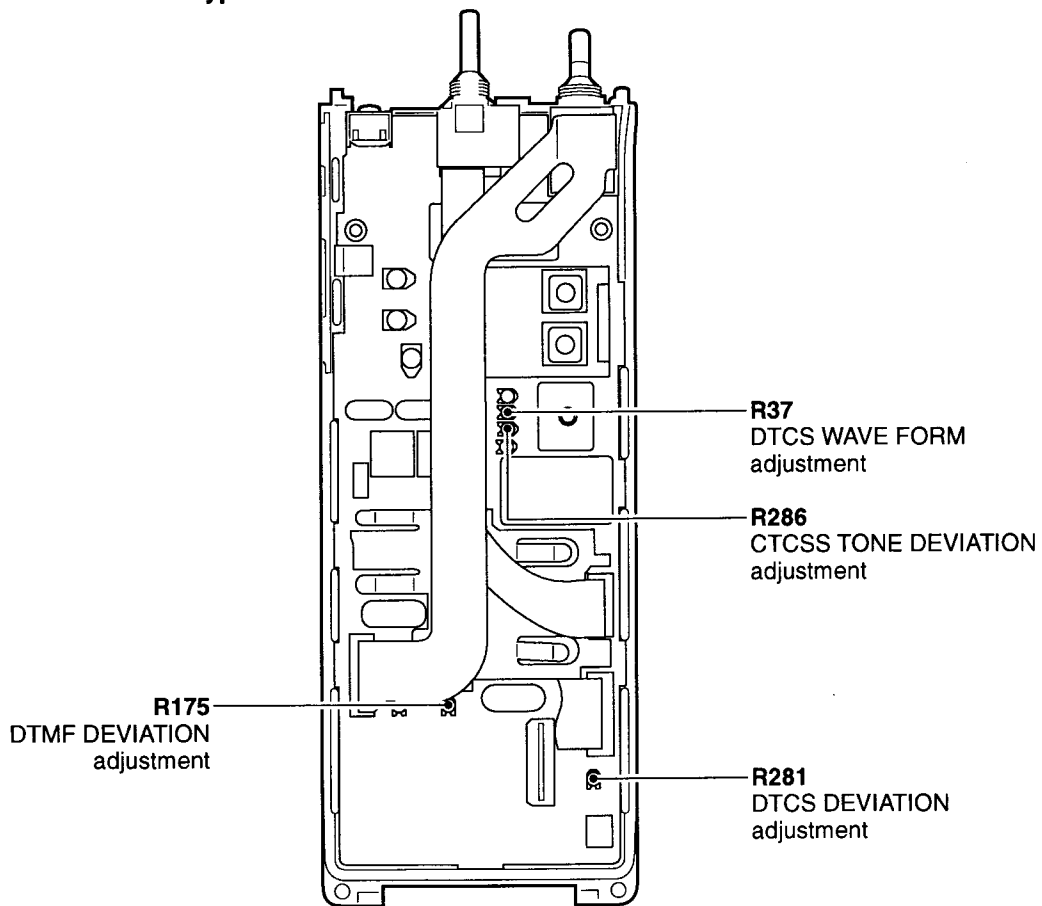
5-3 TRANSMITTER ADJUSTMENT— continued

ADJUSTMENT	ADJUSTMENT CONDITIONS	MEASUREMENT		VALUE	ADJUSTMENT			
		UNIT	LOCATION		UNIT	ADJUST		
DTCS WAVE FORM AND DEVIATION	1	<ul style="list-style-type: none"> Operating frequency : 143.000 MHz [L-band] 162.000 MHz [H-band] No AF signal is applied to the [MIC] jack (at the EX-1468) Set an FM deviation meter as: LPF : 20 kHz HPF : OFF De-emphasis : OFF Detector : (P-P)/2 DTCS code : 007 IF bandwidth : Wide [Wide/Narrow] types only Pre-set R281 (MAIN/MAIN-A unit) to max. clockwise position. Transmitting 	Top panel	Connect an FM deviation meter with an oscilloscope to the antenna connector through an attenuator.	Set to flat wave form 	MAIN or MAIN-A	R37	
							± 0.7 kHz [Wide/Narrow] and [Wide] ± 0.55 kHz [Middle] ± 0.35 kHz [Narrow]	R281
	2						<ul style="list-style-type: none"> IF bandwidth : Narrow [Wide/Narrow] types only Transmitting 	± 0.25 — ± 0.5 kHz
CTCSS TONE DEVIATION	1	<ul style="list-style-type: none"> Operating frequency : 143.000 MHz [L-band] 162.000 MHz [H-band] No AF signal is applied to the [MIC] jack (at the EX-1468) Set an FM deviation meter as: LPF : 20 kHz HPF : OFF De-emphasis : OFF Detector : (P-P)/2 CTCSS tone freq. : 88.5 Hz IF bandwidth : Wide [Wide/Narrow] types only Transmitting 	Top panel	Connect an FM deviation meter to the antenna connector through an attenuator.	± 0.7 kHz [Wide/Narrow] and [Wide] ± 0.55 kHz [Middle] ± 0.35 kHz [Narrow]	MAIN or MAIN-A	R286	
							± 0.25 — ± 0.5 kHz	Verify
	2						<ul style="list-style-type: none"> IF bandwidth : Narrow [Wide/Narrow] types only Transmitting 	± 0.25 — ± 0.5 kHz
DTMF DEVIATION (IC-F30LT only)	1	<ul style="list-style-type: none"> Operating frequency : 143.000 MHz [L-band] 162.000 MHz [H-band] No AF signal is applied to the [MIC] jack (at the EX-1468) Set an FM deviation meter as: LPF : 20 kHz HPF : OFF De-emphasis : OFF Detector : (P-P)/2 IF bandwidth : Wide [Wide/Narrow] types only Push and hold [*], while transmitting 	Top panel	Connect an FM deviation meter to the antenna connector through an attenuator.	± 3.0 kHz [Wide/Narrow] and [Wide] ± 2.4 kHz [Middle] ± 1.5 kHz [Narrow]	MAIN or MAIN-A	R175	
							± 1.2 — ± 1.8 kHz	Verify
	2						<ul style="list-style-type: none"> IF bandwidth : Narrow [Wide/Narrow] types only Transmitting 	± 1.2 — ± 1.8 kHz

• MAIN unit for Wide and Narrow types



• MAIN-A unit for Wide/Narrow types



SECTION 6 PARTS LIST

[MAIN UNIT] for Wide and Narrow types

REF NO.	ORDER NO.		DESCRIPTION
IC1	1110003200	S.IC	TA31136FN(EL)
IC3	1130007610	S.IC	μPD3140GS-E1 (DS8)
IC4	1130007110	S.IC	TC7W04FU(TE12L)
IC5	1110002420	S.IC	NJM2073M(T1)
IC6	1130003710	S.IC	TC4S71F (TE85R)
IC7	1130004500	S.IC	TC4S11F (TE85R)
IC8	1130007220	S.IC	AK2341-T
IC9	1110001220	S.IC	BA4558F T1
IC10	1130006220	S.IC	TC4W53FU (TE12L)
IC11	1130004500	S.IC	TC4S11F (TE85R)
IC12	1110002750	S.IC	TA75S01F (TE85R)
IC13	1110002700	S.IC	NJM2904M-T1
IC15	1130004200	S.IC	TC4S66F (TE85R)
IC16	1190000250	S.IC	MB87078PF-G-BND
IC17	1110001550	S.IC	S-8054ALB-LM-T1
IC18	1130007030	S.IC	TC7W08FU(TE12L)
IC19	1130007110	S.IC	TC7W04FU(TE12L)
IC20	1130007290	S.IC	24LC16BT-I/SN
IC21	1130007290	S.IC	24LC16BT-I/SN
IC22	1130007290	S.IC	24LC16BT-I/SN
IC23	1140007170	S.IC	HD6433875NA61H
IC24	1130004500	S.IC	TC4S11F (TE85R)
IC25	1110003390	S.IC	AN8005M(E1)
IC26	1110002750	S.IC	TA75S01F (TE85R)
IC27	1130003710	S.IC	TC4S71F (TE85R)
IC28	1110002750	S.IC	TA75S01F (TE85R)
Q1	1530002600	S.TRANSISTOR	2SC4215-O (TE85R)
Q2	1530002600	S.TRANSISTOR	2SC4215-O (TE85R)
Q3	1580000610	S.FET	3SK239XR-TL
Q4	1560000810	S.FET	2SK1069-4-TL
Q5	1560000540	S.FET	2SK880-Y (TE85R)
Q6	1530002920	S.TRANSISTOR	2SC4226-T2 R25
Q7	1530002920	S.TRANSISTOR	2SC4226-T2 R25
Q8	1530003190	S.TRANSISTOR	2SC4617 TLQ
Q9	1530002920	S.TRANSISTOR	2SC4226-T2 R25
Q10	1530002920	S.TRANSISTOR	2SC4226-T2 R25
Q11	1530002920	S.TRANSISTOR	2SC4226-T2 R25
Q12	1530002920	S.TRANSISTOR	2SC4226-T2 R25
Q13	1530002920	S.TRANSISTOR	2SC4226-T2 R25
Q14	1530002920	S.TRANSISTOR	2SC4226-T2 R25
Q18	1590000720	S.TRANSISTOR	DTA144EU T107
Q19	1590001660	S.TRANSISTOR	XP4312(TX)
Q21	1520000450	S.TRANSISTOR	2SB1132 T100 Q
Q22	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q23	1590001390	S.FET	2SJ144-Y (TE85R)
Q24	1590000430	S.TRANSISTOR	DTC144EU T107
Q25	1530002690	S.TRANSISTOR	2SC4116-GR (TE85R)
Q26	1530002690	S.TRANSISTOR	2SC4116-GR (TE85R)
Q27	1530002690	S.TRANSISTOR	2SC4116-GR (TE85R)
Q28	1590000430	S.TRANSISTOR	DTC144EU T107
Q29	1530002690	S.TRANSISTOR	2SC4116-GR (TE85R)
Q30	1510000770	S.TRANSISTOR	2SA1586-GR (TE85R)
Q31	1590000720	S.TRANSISTOR	DTA144EU T107
Q32	1510000770	S.TRANSISTOR	2SA1586-GR (TE85R)
Q33	1590001660	S.TRANSISTOR	XP4312(TX)
Q34	1590000710	S.TRANSISTOR	DTC124EU T107
Q35	1590000720	S.TRANSISTOR	DTA144EU T107
Q36	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q37	1520000450	S.TRANSISTOR	2SB1132 T100 Q
Q38	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q39	1520000450	S.TRANSISTOR	2SB1132 T100 Q
Q40	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q41	1520000450	S.TRANSISTOR	2SB1132 T100 Q
Q42	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q43	1590001680	S.TRANSISTOR	XP1110(TX)
Q44	1560000400	S.FET	2SK536-TA
Q45	1530002690	S.TRANSISTOR	2SC4116-GR (TE85R)
Q46	1560000810	S.FET	2SK1069-4-TL
D1	1790000891	S.DIODE	ND433G-E1
D2	1720000270	S.VARICAP	1SV217 (TPH2)
D3	1720000270	S.VARICAP	1SV217 (TPH2)
D4	1720000270	S.VARICAP	1SV217 (TPH2)

"LT" types only

[MAIN UNIT] for Wide and Narrow types

REF NO.	ORDER NO.		DESCRIPTION
D5	1790001210	S.DIODE	1SS375-TL
D7	1730002370	S.ZENER	MA8120-H(TX)
D8	1750000260	S.DIODE	1SS352 (TPH3)
D9	1790000980	S.DIODE	MA742(TX)
D10	1720000360	S.DIODE	HSU88TRF
D11	1720000270	S.VARICAP	1SV217 (TPH2)
D12	1720000270	S.VARICAP	1SV217 (TPH2)
D13	1720000270	S.VARICAP	1SV217 (TPH2)
D14	1720000270	S.VARICAP	1SV217 (TPH2)
D15	1720000520	S.VARICAP	1T365-01-T8A
D16	1720000270	S.VARICAP	1SV217 (TPH2)
D17	1720000270	S.VARICAP	1SV217 (TPH2)
D18	1720000270	S.VARICAP	1SV217 (TPH2)
D19	1720000270	S.VARICAP	1SV217 (TPH2)
D23	1750000270	S.DIODE	1SS301 (TE85R)
D24	1790001200	S.DIODE	MA6S121(TX)
D25	1750000260	S.DIODE	1SS352 (TPH3)
D26	1750000260	S.DIODE	1SS352 (TPH3)
D27	1750000260	S.DIODE	1SS352 (TPH3)
D28	1750000260	S.DIODE	1SS352 (TPH3)
D29	1750000260	S.DIODE	1SS352 (TPH3)
D30	1750000260	S.DIODE	1SS352 (TPH3)
D31	1750000260	S.DIODE	1SS352 (TPH3)
D32	1750000130	S.DIODE	DA204U T107
D33	1750000130	S.DIODE	DA204U T107
D34	1750000260	S.DIODE	1SS352 (TPH3)
D36	1750000260	S.DIODE	1SS352 (TPH3)
D37	1750000260	S.DIODE	1SS352 (TPH3)
D38	1790001210	S.DIODE	1SS375-TL
D39	1750000260	S.DIODE	1SS352 (TPH3)
FI1	2020000550	CERAMIC	CFUM455E
	2020000600	CERAMIC	CFUM455G
FI2	2020000590	CERAMIC	CFUM455D
	2020000780	CERAMIC	CFUM455F
FI3	2010001690	MONOLITHIC	FL-153A (45.150000 MHz)
	2010001700	MONOLITHIC	FL-205 (45.150000 MHz)
X1	6050008850	CRYSTAL	CR-464 (44.695 MHz)
X2	6070000130	DISCRIMINATOR	CDBM455C24
X3	6050008831	CRYSTAL	CR-459
X4	6050008860	S.CRYSTAL	CR-465 (3.6864 MHz)
X5	6050008840	S.CRYSTAL	CR-463 (6.8 MHz)
L1	6200003550	S.COIL	MLF1608A 4R7K-T
L2	6200002800	S.COIL	ELJFC R68M-F
	6200004160	S.COIL	ELJNC R39K-F
L3	6140002550	S.COIL	B4F-617DB-1010=P3
L5	6140002550	S.COIL	B4F-617DB-1010=P3
L6	6200002370	S.COIL	LQN 1A 39NJ04
	6200002820	S.COIL	LQN 1A 47NJ04
L7	6200002370	S.COIL	LQN 1A 39NJ04
	6200002820	S.COIL	LQN 1A 47NJ04
L8	6200002370	S.COIL	LQN 1A 39NJ04
	6200002820	S.COIL	LQN 1A 47NJ04
L11	6200003550	S.COIL	MLF1608A 4R7K-T
L12	6200003550	S.COIL	MLF1608A 4R7K-T
L13	6200002860	S.COIL	NL 252018T-4R7J
L14	6200003780	S.COIL	LQH 1N 1R5K
L15	6200004250	S.COIL	LQH 1N 4R7K
L16	6200006740	S.COIL	MC152-E558CNA-10174
L17	6200006730	S.COIL	MC152-E558CNA-100048=P3
L18	6200003780	S.COIL	LQH 1N 1R5K
L19	6200004250	S.COIL	LQH 1N 4R7K
L20	6200003780	S.COIL	LQH 1N 1R5K
L21	6200004250	S.COIL	LQH 1N 4R7K
L22	6200004090	S.COIL	MLR1608M 39NJ-T
L23	6200004100	S.COIL	MLF1608D 68NM-T
L24	6200004100	S.COIL	MLF1608D 68NM-T
L25	6200003410	S.COIL	LL2012-F68NK
L26	6200002770	S.COIL	LL2012-F82NK
L27	6200002670	S.COIL	LL2012-F47NK
L28	6200002670	S.COIL	LL2012-F47NK

Ⓢ only

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Ⓢ: Wide type, Ⓢ: Narrow type, Ⓢ: H-band, Ⓢ: L-band

Ⓢ: PMR, Ⓢ: LMR

S.=Surface mount

[MAIN UNIT] for Wide and Narrow types

REF NO.	ORDER NO.	DESCRIPTION	
L29	6200002430	S.COIL	NL 252018T-082J
L31	6200003550	S.COIL	MLF1608A 4R7K-T
L32	6200002860	S.COIL	NL 252018T-4R7J
L33	6200002860	S.COIL	NL 252018T-4R7J
L34	6200002690	S.COIL	MLF1608A 1R0M-T
L35	6200002690	S.COIL	MLF1608A 1R0M-T
L36	6200002370	S.COIL	LQN 1A 39NJ04
L37	6200002370	S.COIL	LQN 1A 39NJ04
L40	6200002690	S.COIL	MLF1608A 1R0M-T
L43	6200004100	S.COIL	MLF1608D 68NM-T
L44	6200002690	S.COIL	MLF1608A 1R0M-T
L46	6200002690	S.COIL	MLF1608A 1R0M-T
L47	6200003550	S.COIL	MLF1608A 4R7K-T
L48	6200003540	S.COIL	MLF1608D R22K-T
L50	6200002690	S.COIL	MLF1608A 1R0M-T
R1	7030003540	S.RESISTOR	ERJ3GEYJ 682 V (6.8 kΩ)
R2	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R3	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ) Ⓜ
	7030003540	S.RESISTOR	ERJ3GEYJ 682 V (6.8 kΩ) Ⓜ
R4	7030003700	S.RESISTOR	ERJ3GEYJ 154 V (150 kΩ)
R8	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R9	7030003430	S.RESISTOR	ERJ3GEYJ 821 V (820 Ω) Ⓜ
	7030003470	S.RESISTOR	ERJ3GEYJ 82 V (1.8 kΩ) Ⓜ
R11	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R12	7030003730	S.RESISTOR	ERJ3GEYJ 274 V (270 kΩ)
R15	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ) Ⓜ
	7030003490	S.RESISTOR	ERJ3GEYJ 272 V (2.7 kΩ) Ⓜ
R16	7030003730	S.RESISTOR	ERJ3GEYJ 274 V (270 kΩ)
R17	7030003430	S.RESISTOR	ERJ3GEYJ 821 V (820 Ω)
R18	7030004030	S.RESISTOR	ERJ3GEYJ 5R6 V (5.6 Ω)
R19	7030003430	S.RESISTOR	ERJ3GEYJ 821 V (820 Ω)
R22	7030003240	S.RESISTOR	ERJ3GEYJ 220 V (22 Ω)
			except P-H-Ⓜ
	7030004050	S.RESISTOR	ERJ3GEYJ 1R0 V (1 Ω) P-H-Ⓜ
R24	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R25	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R27	7030003350	S.RESISTOR	ERJ3GEYJ 181 V (180 Ω)
R28	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R29	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R30	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R31	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R32	7310003610	S.TRIMMER	EVM-1XSX50 B14 (103) Ⓜ
	7310003630	S.TRIMMER	EVM-1XSX50 BQ4 (473) Ⓜ
R33	7030003730	S.RESISTOR	ERJ3GEYJ 274 V (270 kΩ)
R34	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R35	7030004710	S.RESISTOR	ERJ3GEYJ 475 V (4.7 MΩ)
R36	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R37	7310003630	S.TRIMMER	EVM-1XSX50 BQ4 (473)
R38	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R39	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R40	7310003590	S.TRIMMER	EVM-1XSX50 B24 (203)
R41	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R42	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R43	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R44	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R45	7030003610	S.RESISTOR	ERJ3GEYJ 273 V (27 kΩ)
R47	7030004050	S.RESISTOR	ERJ3GEYJ 1R0 V (1 Ω)
R48	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R49	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R50	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R51	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R52	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R53	7030003760	S.RESISTOR	ERJ3GEYJ 474 V (470 kΩ)
R54	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R55	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R57	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R58	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R59	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R60	7030003690	S.RESISTOR	ERJ3GEYJ 124 V (120 kΩ)
R61	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R62	7030004050	S.RESISTOR	ERJ3GEYJ 1R0 V (1 Ω)
R63	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R64	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R65	7030003490	S.RESISTOR	ERJ3GEYJ 272 V (2.7 kΩ)
R66	7030003530	S.RESISTOR	ERJ3GEYJ 562 V (5.6 kΩ)
R67	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R70	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R71	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R72	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R73	7030003670	S.RESISTOR	ERJ3GEYJ 823 V (82 kΩ)

[MAIN UNIT] for Wide and Narrow types

REF NO.	ORDER NO.	DESCRIPTION	
R74	7030003670	S.RESISTOR	ERJ3GEYJ 823 V (82 kΩ)
R75	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R76	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R77	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R78	7030003650	S.RESISTOR	ERJ3GEYJ 563 V (56 kΩ)
R79	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R80	7030003610	S.RESISTOR	ERJ3GEYJ 273 V (27 kΩ)
R81	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 Ω)
R82	7030003230	S.RESISTOR	ERJ3GEYJ 180 V (18 Ω)
R83	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 Ω)
R84	7030003240	S.RESISTOR	ERJ3GEYJ 220 V (22 Ω)
R85	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)
R86	7030003500	S.RESISTOR	ERJ3GEYJ 332 V (3.3 kΩ)
R92	7030003330	S.RESISTOR	ERJ3GEYJ 121 V (120 Ω)
R98	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R99	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R100	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R101	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R102	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R103	7030003450	S.RESISTOR	ERJ3GEYJ 122 V (1.2 kΩ)
R104	7030003420	S.RESISTOR	ERJ3GEYJ 681 V (680 Ω)
R105	7030004050	S.RESISTOR	ERJ3GEYJ 1R0 V (1 Ω)
R106	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R109	7030003740	S.RESISTOR	ERJ3GEYJ 334 V (330 kΩ)
R110	7030003690	S.RESISTOR	ERJ3GEYJ 124 V (120 kΩ)
R111	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R112	7030003700	S.RESISTOR	ERJ3GEYJ 154 V (150 kΩ)
R114	7030003840	S.RESISTOR	ERJ3GEYJ 225 V (2.2 MΩ)
R115	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R116	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R117	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R118	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R119	7030003570	S.RESISTOR	ERJ3GEYJ 123 V (12 kΩ)
	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R120	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R122	7030003620	S.RESISTOR	ERJ3GEYJ 333 V (33 kΩ)
	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R123	7030003780	S.RESISTOR	ERJ3GEYJ 684 V (680 kΩ)
R124	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R126	7030003740	S.RESISTOR	ERJ3GEYJ 334 V (330 kΩ)
R127	7030003530	S.RESISTOR	ERJ3GEYJ 562 V (5.6 kΩ)
R128	7030003730	S.RESISTOR	ERJ3GEYJ 274 V (270 kΩ)
R129	7030003630	S.RESISTOR	ERJ3GEYJ 393 V (39 kΩ)
R130	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R131	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R132	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R134	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R135	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
	7030003650	S.RESISTOR	ERJ3GEYJ 563 V (56 kΩ)
R136	7030003590	S.RESISTOR	ERJ3GEYJ 183 V (18 kΩ)
R137	7030003590	S.RESISTOR	ERJ3GEYJ 183 V (18 kΩ)
R138	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R139	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R140	7030003780	S.RESISTOR	ERJ3GEYJ 684 V (680 kΩ)
R143	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R144	7410000730	S.ARRAY	EXB-V8V 104JV (100 kΩ)
R147	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R148	7030003550	S.RESISTOR	ERJ3GEYJ 822 V (8.2 kΩ)
R149	7030003620	S.RESISTOR	ERJ3GEYJ 333 V (33 kΩ)
R151	7030003530	S.RESISTOR	ERJ3GEYJ 562 V (5.6 kΩ)
R152	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R153	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R154	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R155	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R156	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R157	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R158	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R161	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
R162	7030003740	S.RESISTOR	ERJ3GEYJ 334 V (330 kΩ)
R163	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)
R164	7030003740	S.RESISTOR	ERJ3GEYJ 334 V (330 kΩ)
R165	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R166	7030003830	S.RESISTOR	ERJ3GEYJ 185 V (1.8 MΩ)
R168	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R169	7030003730	S.RESISTOR	ERJ3GEYJ 274 V (270 kΩ)
R170	7030003690	S.RESISTOR	ERJ3GEYJ 124 V (120 kΩ)
R171	7310003580	S.TRIMMER	EVM-1XSX50 B15 (104)
R172	7030003590	S.RESISTOR	ERJ3GEYJ 183 V (18 kΩ)
R173	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R174	7030003590	S.RESISTOR	ERJ3GEYJ 183 V (18 kΩ)

Ⓜ: Wide type, Ⓝ: Narrow type, Ⓜ: H-band, Ⓝ: L-band
 P: PMR, L: LMR

S.=Surface mount

[MAIN UNIT] for Wide and Narrow types

REF NO.	ORDER NO.	DESCRIPTION
R175	7310003630	S.TRIMMER EVM-1XSX50 BQ4 (473)
R176	7030003590	S.RESISTOR ERJ3GEYJ 183 V (18 kΩ)
R177	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R178	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ)
R179	7030003720	S.RESISTOR ERJ3GEYJ 224 V (220 kΩ)
R180	7030003710	S.RESISTOR ERJ3GEYJ 184 V (180 kΩ)
R181	7030003690	S.RESISTOR ERJ3GEYJ 124 V (120 kΩ)
R182	7030005270	S.RESISTOR ERJ3GEYJ 204 V (200 kΩ)
R183	7030003670	S.RESISTOR ERJ3GEYJ 823 V (82 kΩ)
R184	7030003670	S.RESISTOR ERJ3GEYJ 823 V (82 kΩ)
R185	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R186	7030004050	S.RESISTOR ERJ3GEYJ 1R0 V (1 Ω)
R188	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R189	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ)
R190	7030003660	S.RESISTOR ERJ3GEYJ 683 V (68 kΩ)
R191	7030003720	S.RESISTOR ERJ3GEYJ 224 V (220 kΩ)
R193	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R194	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R195	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R196	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R197	7030003660	S.RESISTOR ERJ3GEYJ 683 V (68 kΩ)
R198	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R199	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R201	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R202	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R203	7030003720	S.RESISTOR ERJ3GEYJ 224 V (220 kΩ)
R204	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R205	7030003800	S.RESISTOR ERJ3GEYJ 105 V (1 MΩ)
R206	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ)
R207	7030003200	S.RESISTOR ERJ3GEYJ 100 V (10 Ω)
R208	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ)
R209	7030003540	S.RESISTOR ERJ3GEYJ 682 V (6.8 kΩ)
R210	7030003590	S.RESISTOR ERJ3GEYJ 183 V (18 kΩ)
R211	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R212	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R213	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R214	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R215	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R217	7030003590	S.RESISTOR ERJ3GEYJ 183 V (18 kΩ)
R219	7510000790	S.THERMISTOR NTCCS2012 4AH 473KC-T
R220	7030005510	S.RESISTOR RR0816P-303-D (30 kΩ)
R221	7030004820	S.RESISTOR ERJ3GEYF 473 V (47 kΩ)
R222	7030004820	S.RESISTOR ERJ3GEYF 473 V (47 kΩ)
R223	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R224	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R225	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R226	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R227	7030003540	S.RESISTOR ERJ3GEYJ 682 V (6.8 kΩ)
R228	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R229	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R230	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R231	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R232	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R233	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R234	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R235	7030003200	S.RESISTOR ERJ3GEYJ 100 V (10 Ω)
R236	7030003510	S.RESISTOR ERJ3GEYJ 392 V (3.9 kΩ)
R237	7030003610	S.RESISTOR ERJ3GEYJ 273 V (27 kΩ)
R239	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ)
R240	7030003650	S.RESISTOR ERJ3GEYJ 563 V (56 kΩ)
R244	7030003590	S.RESISTOR ERJ3GEYJ 183 V (18 kΩ)
R249	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R250	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R252	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R253	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R254	7030003690	S.RESISTOR ERJ3GEYJ 124 V (120 kΩ) [P]
	7030003720	S.RESISTOR ERJ3GEYJ 224 V (220 kΩ) [L]
R255	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R256	7030003630	S.RESISTOR ERJ3GEYJ 393 V (39 kΩ)
R257	7030003380	S.RESISTOR ERJ3GEYJ 331 V (330 Ω)
R259	7030003550	S.RESISTOR ERJ3GEYJ 822 V (8.2 kΩ) [L]
	7030003570	S.RESISTOR ERJ3GEYJ 123 V (12 kΩ) [P]
R260	7030003790	S.RESISTOR ERJ3GEYJ 824 V (820 kΩ)
R261	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R262	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R263	7030003400	S.RESISTOR ERJ3GEYJ 471 V (470 Ω)
R265	7030005510	S.RESISTOR RR0816P-303-D (30 kΩ)
R266	7030005510	S.RESISTOR RR0816P-303-D (30 kΩ)
R267	7030005510	S.RESISTOR RR0816P-303-D (30 kΩ)
R268	7030005510	S.RESISTOR RR0816P-303-D (30 kΩ)
R269	7030005510	S.RESISTOR RR0816P-303-D (30 kΩ)
R270	7030005510	S.RESISTOR RR0816P-303-D (30 kΩ)

[MAIN UNIT] for Wide and Narrow types

REF NO.	ORDER NO.	DESCRIPTION
R271	7030005510	S.RESISTOR RR0816P-303-D (30 kΩ)
R272	7030005510	S.RESISTOR RR0816P-303-D (30 kΩ)
R273	7030005510	S.RESISTOR RR0816P-303-D (30 kΩ)
R274	7030005450	S.RESISTOR RR0816P-153-D (15 kΩ)
R275	7030005450	S.RESISTOR RR0816P-153-D (15 kΩ)
R276	7030005450	S.RESISTOR RR0816P-153-D (15 kΩ)
R277	7030005450	S.RESISTOR RR0816P-153-D (15 kΩ)
R278	7030005450	S.RESISTOR RR0816P-153-D (15 kΩ)
R279	7030005450	S.RESISTOR RR0816P-153-D (15 kΩ)
R280	7030005450	S.RESISTOR RR0816P-153-D (15 kΩ)
R281	7310003630	S.TRIMMER EVM-1XSX50 BQ4 (473)
R282	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R283	7030003590	S.RESISTOR ERJ3GEYJ 183 V (18 kΩ)
	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ) except [P]-[H]
R285	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ) [P]-[H] only
R286	7310003580	S.TRIMMER EVM-1XSX50 B15 (104)
R287	7030004050	S.RESISTOR ERJ3GEYJ 1R0 V (1 Ω)
R290	7030003280	S.RESISTOR ERJ3GEYJ 470 V (47 Ω)
R291	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R292	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ) [L]
	7030003610	S.RESISTOR ERJ3GEYJ 273 V (27 kΩ) [P]
R293	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R294	7030003410	S.RESISTOR ERJ3GEYJ 561 V (560 Ω)
R295	7030003490	S.RESISTOR ERJ3GEYJ 272 V (2.7 kΩ)
R296	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R297	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ)
R298	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R299	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R300	7030003390	S.RESISTOR ERJ3GEYJ 391 V (390 Ω)
R301	7030003400	S.RESISTOR ERJ3GEYJ 471 V (470 Ω)
R302	7030003460	S.RESISTOR ERJ3GEYJ 152 V (1.5 kΩ)
R303	7030003450	S.RESISTOR ERJ3GEYJ 122 V (1.2 kΩ)
R306	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R307	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R308	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R309	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R310	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R311	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R312	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R313	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R314	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R315	7030003360	S.RESISTOR ERJ3GEYJ 221 V (220 Ω)
R316	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R317	7030003400	S.RESISTOR ERJ3GEYJ 471 V (470 Ω)
R318	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R320	7030003580	S.RESISTOR ERJ3GEYJ 153 V (15 kΩ)
R321	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R322	7030005280	S.RESISTOR ERJ3GEYJ 6R8V (6.8 Ω)
R323	7030003740	S.RESISTOR ERJ3GEYJ 334 V (330 kΩ)
R324	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ) [H]
	7030003580	S.RESISTOR ERJ3GEYJ 153 V (15 kΩ) [L]
R326	7030003790	S.RESISTOR ERJ3GEYJ 824 V (820 kΩ)
C1	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C2	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C3	4030006800	S.CERAMIC C1608 SL 1H 221J-T-A
C4	4030006800	S.CERAMIC C1608 SL 1H 221J-T-A
C5	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A [W]
	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A [N]
C6	4030006980	S.CERAMIC C1608 CH 1H 070D-T-A
C7	4030007030	S.CERAMIC C1608 CH 1H 150J-T-A
C8	4030008630	S.CERAMIC C1608 JF 1C 104Z-T-A
C9	4030008630	S.CERAMIC C1608 JF 1C 104Z-T-A
C10	4550005980	S.TANTALUM TEMSVA 1A 475M-8L
C12	4030007120	S.CERAMIC C1608 CH 1H 820J-T-A [N]
	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A [W]
C13	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C14	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A
C15	4030006900	S.CERAMIC C1608 JB 1E 103K-T-A
C16	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C17	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A [N] only
C18	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C19	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C20	4030006900	S.CERAMIC C1608 JB 1E 103K-T-A
C21	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A [N] only
C22	4030007030	S.CERAMIC C1608 CH 1H 150J-T-A [W]
	4030008560	S.CERAMIC C1608 CH 1H 300J-T-A [N]
C25	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C26	4030006900	S.CERAMIC C1608 JB 1E 103K-T-A
C27	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A

[W]: Wide type, [N]: Narrow type, [H]: H-band, [L]: L-band

[P]: PMR, [L]: LMR

S.=Surface mount

[MAIN UNIT] for Wide and Narrow types

REF NO.	ORDER NO.	DESCRIPTION
C28	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C29	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C30	4610001910	S.TRIMMER CTZ3E-10A-W1
C31	4030006950	S.CERAMIC C1608 CH 1H 040C-T-A
C32	4610001900	S.TRIMMER CTZ3E-05A-W1 (L)
	4610001910	S.TRIMMER CTZ3E-10A-W1 (H)
C34	4030007070	S.CERAMIC C1608 CH 1H 330J-T-A (L)
	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A (H)
C35	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C36	4030006930	S.CERAMIC C1608 CH 1H 020C-T-A
C37	4030007080	S.CERAMIC C1608 CH 1H 390J-T-A (L)
	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A (H)
C40	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C41	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C42	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C43	4030007050	S.CERAMIC C1608 CH 1H 220J-T-A
C44	4030007070	S.CERAMIC C1608 CH 1H 330J-T-A (L)
	4030007080	S.CERAMIC C1608 CH 1H 390J-T-A (H)
C45	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C47	4610001900	S.TRIMMER CTZ3E-05A-W1 (L)
	4610001910	S.TRIMMER CTZ3E-10A-W1 (H)
C48	4030007020	S.CERAMIC C1608 CH 1H 120J-T-A
C49	4030007010	S.CERAMIC C1608 CH 1H 100D-T-A
C50	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C58	4550006270	S.TANTALUM TESVSP 1A 105M-8L
C59	4550005980	S.TANTALUM TEMSVA 1A 475M-8L
C60	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C61	4550005980	S.TANTALUM TEMSVA 1A 475M-8L
C62	4030006900	S.CERAMIC C1608 JB 1E 103K-T-A
C67	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C68	4550005980	S.TANTALUM TEMSVA 1A 475M-8L
C69	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C70	4030009000	S.CERAMIC C2012 JB 1C 224K-T-A
C72	4030008470	S.CERAMIC C1608 JB 1H 272K-T-A
C73	4030008560	S.CERAMIC C1608 CH 1H 300J-T-A
C74	4030006900	S.CERAMIC C1608 JB 1E 103K-T-A
C75	4550000460	S.TANTALUM TESVA 1C 105M1-8L
C76	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C77	4550000460	S.TANTALUM TESVA 1C 105M1-8L
C78	4030006860	S.CERAMIC C2012 JF 1C 105Z-T-A
C79	4030008680	S.CERAMIC C2012 JF 1C 105Z-T-A
C80	4550006270	S.TANTALUM TESVSP 1A 105M-8L
C81	4550005980	S.TANTALUM TEMSVA 1A 475M-8L
C82	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A
C83	4030008630	S.CERAMIC C1608 JF 1C 104Z-T-A
C84	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C85	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C86	4550006480	S.TANTALUM TEMSVA 1C 475M-8L
C87	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A
C88	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A
C89	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C90	4550000550	S.TANTALUM TESVA 1V 224M1-8L
C91	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A
C92	4030006930	S.CERAMIC C1608 CH 1H 020C-T-A (H)
	4030006940	S.CERAMIC C1608 CH 1H 030C-T-A (L)
C93	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C94	4030006990	S.CERAMIC C1608 CH 1H 080D-T-A
C95	4030007070	S.CERAMIC C1608 CH 1H 330J-T-A
C96	4030007070	S.CERAMIC C1608 CH 1H 330J-T-A
C97	4030007080	S.CERAMIC C1608 CH 1H 390J-T-A
C98	4030008680	S.CERAMIC C2012 JF 1C 105Z-T-A
C99	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C100	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C101	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C102	4550005980	S.TANTALUM TEMSVA 1A 475M-8L
C103	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C104	4030007120	S.CERAMIC C1608 CH 1H 820J-T-A (L)
	4030008320	S.CERAMIC C1608 UJ 1H 470J-T-A (H)
	4030006950	S.CERAMIC C1608 CH 1H 040C-T-A (H)
	4030007040	S.CERAMIC C1608 CH 1H 180J-T-A (L)
C105	4030007020	S.CERAMIC C1608 CH 1H 120J-T-A (L)
	4030007040	S.CERAMIC C1608 CH 1H 180J-T-A (H)
C107	4030008300	S.CERAMIC C1608 UJ 1H 330J-T-A
C108	4030008300	S.CERAMIC C1608 UJ 1H 330J-T-A
C109	4030008680	S.CERAMIC C2012 JF 1C 105Z-T-A
C111	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C112	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C113	4550005980	S.TANTALUM TEMSVA 1A 475M-8L
C114	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C115	4030009500	S.CERAMIC C1608 CH 1H 0R5B-T-A
C116	4030009500	S.CERAMIC C1608 CH 1H 0R5B-T-A
C117	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A

[MAIN UNIT] for Wide and Narrow types

REF NO.	ORDER NO.	DESCRIPTION
C118	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C119	4550005980	S.TANTALUM TEMSVA 1A 475M-8L
C120	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A
C121	4030007050	S.CERAMIC C1608 CH 1H 220J-T-A
C122	4030007040	S.CERAMIC C1608 CH 1H 180J-T-A
C123	4030007030	S.CERAMIC C1608 CH 1H 150J-T-A
C124	4030008680	S.CERAMIC C2012 JF 1C 105Z-T-A
C125	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C126	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C127	4030006930	S.CERAMIC C1608 CH 1H 020C-T-A
C128	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C129	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C130	4550005980	S.TANTALUM TEMSVA 1A 475M-8L
C132	4030007050	S.CERAMIC C1608 CH 1H 220J-T-A
C133	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C134	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C136	4030007020	S.CERAMIC C1608 CH 1H 120J-T-A
C137	4030007020	S.CERAMIC C1608 CH 1H 120J-T-A
C138	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C139	4550000460	S.TANTALUM TESVA 1C 105M1-8L
C140	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C141	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C142	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C144	4030009990	S.CERAMIC C1608 CH 1H 200J-T-A
C145	4030007080	S.CERAMIC C1608 CH 1H 390J-T-A
C146	4030007060	S.CERAMIC C1608 CH 1H 270J-T-A
C148	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C150	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C152	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C153	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C156	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C157	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C158	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C159	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C160	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C161	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C162	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C163	4550006250	S.TANTALUM TEMSVA 1A 106M-8L
C164	4030005110	S.CERAMIC C2012 JB 1E 473K-T-A
C166	4030008630	S.CERAMIC C1608 JF 1C 104Z-T-A
C167	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C169	4550003120	S.TANTALUM TEMSVD2 1A 476M-12L
C170	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C171	4030009660	S.CERAMIC C1608 JF 1C 224Z-T-A
C172	4550006250	S.TANTALUM TEMSVA 1A 106M-8L
C173	4030006900	S.CERAMIC C1608 JB 1E 103K-T-A
C174	4030006870	S.CERAMIC C1608 JB 1H 222K-T-A
C175	4030008630	S.CERAMIC C1608 JF 1C 104Z-T-A
C177	4030008630	S.CERAMIC C1608 JF 1C 104Z-T-A
C180	4030008960	S.CERAMIC C2012 JB 1C 104K-T-A
C181	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A (P)
	4030008650	S.CERAMIC C1608 JB 1H 332K-T-A (L)
C182	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A (P)
	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A (P)
C183	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A (L)
C184	4030007080	S.CERAMIC C1608 CH 1H 390J-T-A
C185	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C186	4030007050	S.CERAMIC C1608 CH 1H 220J-T-A
C187	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C188	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C189	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C190	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C191	4550006220	S.TANTALUM TEMSVA 0J 156M-8L
C192	4550005980	S.TANTALUM TEMSVA 1A 475M-8L
C193	4550006270	S.TANTALUM TESVSP 1A 105M-8L
C194	4550006270	S.TANTALUM TESVSP 1A 105M-8L
C195	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A
C196	4550006270	S.TANTALUM TESVSP 1A 105M-8L
C198	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C199	4030008900	S.CERAMIC C1608 JB 1C 333K-T-A
C201	4550005980	S.TANTALUM TEMSVA 1A 475M-8L
C202	4030006900	S.CERAMIC C1608 JB 1E 103K-T-A
C203	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C204	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C205	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C206	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C207	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C208	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C209	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C210	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C212	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C213	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A

Ⓜ: Wide type, Ⓝ: Narrow type, Ⓜ: H-band, Ⓛ: L-band

Ⓟ: PMR, Ⓛ: LMR

S.=Surface mount

[MAIN UNIT] for Wide and Narrow types

Table with 4 columns: REF NO., ORDER NO., DESCRIPTION, and various symbols (L, P, W, N, S). Rows range from C215 to C297.

W: Wide type, N: Narrow type, H: H-band, L: L-band
P: PMR, L: LMR

[MAIN UNIT] for Wide and Narrow types

Table with 4 columns: REF NO., ORDER NO., DESCRIPTION, and various symbols (L, P, W, N, S). Rows range from C298 to C401.

N only

L

P

W

N

L

P

W

N

S.=Surface mount

[MAIN UNIT] for Wide and Narrow types

REF NO.	ORDER NO.	DESCRIPTION	
C403	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C404	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C405	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C406	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C407	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C408	4030007050	S.CERAMIC	C1608 CH 1H 220J-T-A
C409	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C410	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C411	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C412	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C413	4030007030	S.CERAMIC	C1608 CH 1H 150J-T-A
C414	4030008900	S.CERAMIC	C1608 JB 1C 333K-T-A
S3	2260000980	SWITCH	SKHHLPO14A
J1	6510017600	S.CONNECTOR	52357-0690
J2	6510017600	S.CONNECTOR	52357-0690
J3	6510012880	S.CONNECTOR	CEW9114-0202
J4	6510016290	S.CONNECTOR	08FM-1.0BP
J5	6510012880	S.CONNECTOR	CEW9114-0202
J6	6510018430	S.CONNECTOR	AXN330C038P
J7	6510018410	S.CONNECTOR	53263-0690
J8	6510016220	CONNECTOR	IMSA-9210B-1-03Z097-T
W1	7030003860	S.JUMPER	ERJ3GE JPW V
W2	7030003860	S.JUMPER	ERJ3GE JPW V
W6	7030003860	S.JUMPER	ERJ3GE JPW V
W8	7030003860	S.JUMPER	ERJ3GE JPW V
W10	7030003860	S.JUMPER	ERJ3GE JPW V
W11	7030003860	S.JUMPER	ERJ3GE JPW V
EP1	0910045393	PCB	B 4528C

[MAIN-A UNIT] for Wide/Narrow types

REF NO.	ORDER NO.	DESCRIPTION	
IC1	1110003200	S.IC	TA31136FN(EL)
IC3	1130007610	S.IC	μPD3140GS-E1 (DS8)
IC4	1130007110	S.IC	TC7W04FU(TE12L)
IC5	1110002420	S.IC	NJM2073M(T1)
IC6	1130003710	S.IC	TC4S71F (TE85R)
IC7	1130004500	S.IC	TC4S11F (TE85R)
IC8	1130007220	S.IC	AK2341-T
IC9	1110001220	S.IC	BA4558F T1
IC10	1130006220	S.IC	TC4W53FU (TE12L)
IC11	1130004500	S.IC	TC4S11F (TE85R)
IC12	1110002750	S.IC	TA75S01F (TE85R)
IC13	1110002700	S.IC	NJM2904M-T1
IC15	1130004200	S.IC	TC4S66F (TE85R)
IC16	1190000250	S.IC	MB87078PF-G-BND
IC17	1110001550	S.IC	S-8054ALB-LM-T1
IC18	1130007030	S.IC	TC7W08FU(TE12L)
IC19	1130007110	S.IC	TC7W04FU(TE12L)
IC20	1130007290	S.IC	24LC16BT-I/SN
IC21	1130007290	S.IC	24LC16BT-I/SN
IC22	1130007290	S.IC	24LC16BT-I/SN
IC23	1140007170	S.IC	HD6433875NA61H
IC24	1130004500	S.IC	TC4S11F (TE85R)
IC25	1110003390	S.IC	AN8005M-(E1)
IC26	1110002750	S.IC	TA75S01F (TE85R)
IC27	1130003710	S.IC	TC4S71F (TE85R)
IC28	1110002750	S.IC	TA75S01F (TE85R)
IC29	1130007300	S.IC	TC4W66FU(TE12L)
IC30	1130007300	S.IC	TC4W66FU(TE12L)
Q1	1530002600	S.TRANSISTOR	2SC4215-O (TE85R)
Q2	1580000610	S.FET	3SK239XR-TL
Q3	1580000610	S.FET	3SK239XR-TL
Q4	1560000810	S.FET	2SK1069-4-TL
Q5	1560000540	S.FET	2SK880-Y (TE85R)
Q6	1530002920	S.TRANSISTOR	2SC4226-T2 R25
Q7	1530002920	S.TRANSISTOR	2SC4226-T2 R25
Q8	1530003190	S.TRANSISTOR	2SC4617 TLQ
Q9	1530002920	S.TRANSISTOR	2SC4226-T2 R25
Q10	1530002920	S.TRANSISTOR	2SC4226-T2 R25
Q11	1530002920	S.TRANSISTOR	2SC4226-T2 R25
Q12	1530002920	S.TRANSISTOR	2SC4226-T2 R25
Q13	1530002920	S.TRANSISTOR	2SC4226-T2 R25
Q14	1530002920	S.TRANSISTOR	2SC4226-T2 R25
Q18	1590000720	S.TRANSISTOR	DTA144EU T107
Q19	1590001660	S.TRANSISTOR	XP4312(TX)
Q21	1520000450	S.TRANSISTOR	2SB1132 T100 Q
Q22	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q23	1590001390	S.FET	2SJ144-Y (TE85R)
Q24	1590000430	S.TRANSISTOR	DTC144EU T107
Q25	1530002690	S.TRANSISTOR	2SC4116-GR (TE85R)
Q26	1530002690	S.TRANSISTOR	2SC4116-GR (TE85R)
Q27	1530002690	S.TRANSISTOR	2SC4116-GR (TE85R)
Q28	1590000430	S.TRANSISTOR	DTC144EU T107
Q29	1530002690	S.TRANSISTOR	2SC4116-GR (TE85R)
Q30	1510000770	S.TRANSISTOR	2SA1586-GR (TE85R)
Q31	1590000720	S.TRANSISTOR	DTA144EU T107
Q32	1510000770	S.TRANSISTOR	2SA1586-GR (TE85R)
Q33	1590001660	S.TRANSISTOR	XP4312(TX)
Q34	1590000710	S.TRANSISTOR	DTC124EU T107
Q35	1590000720	S.TRANSISTOR	DTA144EU T107
Q36	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q37	1520000450	S.TRANSISTOR	2SB1132 T100 Q
Q38	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q39	1520000450	S.TRANSISTOR	2SB1132 T100 Q
Q40	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q41	1520000450	S.TRANSISTOR	2SB1132 T100 Q
Q42	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q43	1590001680	S.TRANSISTOR	XP1110(TX)
Q44	1560000400	S.FET	2SK536-TA
Q45	1530002690	S.TRANSISTOR	2SC4116-GR (TE85R)
Q46	1560000810	S.FET	2SK1069-4-TL
Q47	1590000430	S.TRANSISTOR	DTC144EU T107
Q49	1560000810	S.FET	2SK1069-4-TL
Q50	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q51	1560000840	S.FET	2SK1829(TE85R)
Q52	1590000430	S.TRANSISTOR	DTC144EU T107
Q53	1590000430	S.TRANSISTOR	DTC144EU T107
D2	1720000270	S.VARICAP	1SV217 (TPH2)
D3	1720000270	S.VARICAP	1SV217 (TPH2)

Ⓜ: Wide type, Ⓝ: Narrow type, Ⓜ: H-band, Ⓞ: L-band
 □: PMR, ⊞: LMR

S.=Surface mount

[MAIN-A UNIT] for Wide/Narrow types

REF NO.	ORDER NO.	DESCRIPTION	
D4	1720000270	S.VARICAP	1SV217 (TPH2)
D5	1790001210	S.DIODE	1SS375-TL
D7	1730002370	S.ZENER	MA8120-H(TX)
D8	1750000260	S.DIODE	1SS352 (TPH3)
D9	1790000980	S.DIODE	MA742(TX)
D10	1720000360	S.DIODE	HSU88TRF
D11	1720000270	S.VARICAP	1SV217 (TPH2)
D12	1720000270	S.VARICAP	1SV217 (TPH2)
D13	1720000270	S.VARICAP	1SV217 (TPH2)
D14	1720000270	S.VARICAP	1SV217 (TPH2)
D15	1720000520	S.VARICAP	1T365-01-T8A
D16	1720000270	S.VARICAP	1SV217 (TPH2)
D17	1720000270	S.VARICAP	1SV217 (TPH2)
D18	1720000270	S.VARICAP	1SV217 (TPH2)
D19	1720000270	S.VARICAP	1SV217 (TPH2)
D23	1750000270	S.DIODE	1SS301 (TE85R)
D24	1790001200	S.DIODE	MA6S121(TX)
D25	1750000260	S.DIODE	1SS352 (TPH3)
D26	1750000260	S.DIODE	1SS352 (TPH3)
D27	1750000260	S.DIODE	1SS352 (TPH3)
D28	1750000260	S.DIODE	1SS352 (TPH3)
D29	1750000260	S.DIODE	1SS352 (TPH3)
D30	1750000260	S.DIODE	1SS352 (TPH3)
D31	1750000260	S.DIODE	1SS352 (TPH3)
D32	1750000130	S.DIODE	DA204U T107
D33	1750000130	S.DIODE	DA204U T107
D34	1750000260	S.DIODE	1SS352 (TPH3)
D36	1750000260	S.DIODE	1SS352 (TPH3)
D37	1750000260	S.DIODE	1SS352 (TPH3)
D39	1750000260	S.DIODE	1SS352 (TPH3)
F11	2020001050	S.CERAMIC	SFPC455E-TC01
F12	2020001180	S.CERAMIC	SFPC455H-TC01
F13	2010002060	CRYSTAL	FL-265 (45.150 MHz)
X1	6050008850	CRYSTAL	CR-464 (44.695 MHz)
X2	6070000130	DISCRIMINATOR	CDBM455C24
X3	6050009960	S.CRYSTAL	CR-573 (12.6 MHz)
X4	6050008860	S.CRYSTAL	CR-465 (3.6864 MHz)
X5	6050008840	S.CRYSTAL	CR-463 (6.8 MHz)
L1	6200003550	S.COIL	MLF1608A 4R7K-T
L2	6200004920	S.COIL	MLF1608A 2R2K-T
L3	6200005190	S.COIL	MLF1608D R56K-T
L4	6200004650	S.COIL	MLR1608M 68NJ-T
L6	6200002370	S.COIL	LQN 1A 39NJ04
	6200002820	S.COIL	LQN 1A 47NJ04
L7	6200002370	S.COIL	LQN 1A 39NJ04
	6200002820	S.COIL	LQN 1A 47NJ04
L8	6200002370	S.COIL	LQN 1A 39NJ04
	6200002820	S.COIL	LQN 1A 47NJ04
L11	6200003550	S.COIL	MLF1608A 4R7K-T
L12	6200003550	S.COIL	MLF1608A 4R7K-T
L13	6200002860	S.COIL	NL 252018T-4R7J
L14	6200003780	S.COIL	LQH 1N 1R5K
L15	6200004250	S.COIL	LQH 1N 4R7K
L16	6200006740	S.COIL	MC152-E558CNA-10174
L17	6200006730	S.COIL	MC152-E558CNA-100048=P3
L18	6200003780	S.COIL	LQH 1N 1R5K
L19	6200004250	S.COIL	LQH 1N 4R7K
L20	6200003780	S.COIL	LQH 1N 1R5K
L21	6200004250	S.COIL	LQH 1N 4R7K
L22	6200004090	S.COIL	MLR1608M 39NJ-T
L23	6200004100	S.COIL	MLF1608D 68NM-T
L24	6200004100	S.COIL	MLF1608D 68NM-T
L25	6200003410	S.COIL	LL2012-F68NK
L26	6200002770	S.COIL	LL2012-F82NK
L27	6200002670	S.COIL	LL2012-F47NK
L28	6200002670	S.COIL	LL2012-F47NK
L29	6200002430	S.COIL	NL 252018T-082J
L31	6200003550	S.COIL	MLF1608A 4R7K-T
L32	6200002860	S.COIL	NL 252018T-4R7J
L33	6200002860	S.COIL	NL 252018T-4R7J
L34	6200002690	S.COIL	MLF1608A 1R0M-T
L35	6200002690	S.COIL	MLF1608A 1R0M-T
L36	6200002370	S.COIL	LQN 1A 39NJ04
L37	6200002370	S.COIL	LQN 1A 39NJ04
L40	6200002690	S.COIL	MLF1608A 1R0M-T
L43	6200004100	S.COIL	MLF1608D 68NM-T

⊕: H-band, ⊖: L-band, ⊠: PMR, ⊡: LMR

[MAIN-A UNIT] for Wide/Narrow types

REF NO.	ORDER NO.	DESCRIPTION	
L44	6200002690	S.COIL	MLF1608A 1R0M-T
L47	6200003550	S.COIL	MLF1608A 4R7K-T
L48	6200003540	S.COIL	MLF1608D R22K-T
L51	6200002690	S.COIL	MLF1608A 1R0M-T
R1	7030003540	S.RESISTOR	ERJ3GEYJ 682 V (6.8 kΩ)
R2	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R3	7030003540	S.RESISTOR	ERJ3GEYJ 682 V (6.8 kΩ)
R4	7030003700	S.RESISTOR	ERJ3GEYJ 154 V (150 kΩ)
R8	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R9	7030003500	S.RESISTOR	ERJ3GEYJ 332 V (3.3 kΩ)
R11	7030003730	S.RESISTOR	ERJ3GEYJ 274 V (270 kΩ)
R12	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R14	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R15	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 Ω)
R16	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R17	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 Ω)
R18	7030003230	S.RESISTOR	ERJ3GEYJ 180 V (18 Ω)
R19	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 Ω)
R20	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R21	7030003290	S.RESISTOR	ERJ3GEYJ 560 V (56 Ω)
R22	7030004040	S.RESISTOR	ERJ3GEYJ 4R7 V (4.7 Ω)
R24	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R25	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R27	7030003350	S.RESISTOR	ERJ3GEYJ 181 V (180 Ω)
R28	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R29	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R30	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R31	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R32	7310003630	S.TRIMMER	EVM-1XSX50 BQ4 (473)
R33	7030003730	S.RESISTOR	ERJ3GEYJ 274 V (270 kΩ)
R34	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R35	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
	7030004710	S.RESISTOR	ERJ3GEYJ 475 V (4.7 MΩ)
R36	7030003540	S.RESISTOR	ERJ3GEYJ 682 V (6.8 kΩ)
	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R37	7310003580	S.TRIMMER	EVM-1XSX50 B15 (104)
	7310003630	S.TRIMMER	EVM-1XSX50 BQ4 (473)
R38	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R39	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R40	7310003590	S.TRIMMER	EVM-1XSX50 B24 (203)
R41	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R42	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R43	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R44	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R45	7030003610	S.RESISTOR	ERJ3GEYJ 273 V (27 kΩ)
R47	7030004050	S.RESISTOR	ERJ3GEYJ 1R0 V (1 Ω)
R48	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R49	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R50	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R51	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R52	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R53	7030003760	S.RESISTOR	ERJ3GEYJ 474 V (470 kΩ)
R54	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R55	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R57	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R58	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R59	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R60	7030003690	S.RESISTOR	ERJ3GEYJ 124 V (120 kΩ)
R61	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (22 kΩ)
R62	7030004050	S.RESISTOR	ERJ3GEYJ 1R0 V (1 Ω)
R63	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R64	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R65	7030003490	S.RESISTOR	ERJ3GEYJ 272 V (2.7 kΩ)
R66	7030003530	S.RESISTOR	ERJ3GEYJ 562 V (5.6 kΩ)
R67	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R70	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R71	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R72	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R73	7030003670	S.RESISTOR	ERJ3GEYJ 823 V (82 kΩ)
R74	7030003670	S.RESISTOR	ERJ3GEYJ 823 V (82 kΩ)
R75	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R76	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R77	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R78	7030003650	S.RESISTOR	ERJ3GEYJ 563 V (56 kΩ)
R79	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R80	7030003610	S.RESISTOR	ERJ3GEYJ 273 V (27 kΩ)
R81	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 Ω)
R82	7030003230	S.RESISTOR	ERJ3GEYJ 180 V (18 Ω)
R83	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 Ω)
R84	7030003240	S.RESISTOR	ERJ3GEYJ 220 V (22 Ω)

S.=Surface mount

[MAIN-A UNIT] for Wide/Narrow types

REF NO.	ORDER NO.	DESCRIPTION
R85	7030003460	S.RESISTOR ERJ3GEYJ 152 V (1.5 kΩ)
R86	7030003500	S.RESISTOR ERJ3GEYJ 332 V (3.3 kΩ)
R92	7030003330	S.RESISTOR ERJ3GEYJ 121 V (120 Ω)
R98	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R99	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R100	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R101	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R102	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R103	7030003450	S.RESISTOR ERJ3GEYJ 122 V (1.2 kΩ)
R104	7030003420	S.RESISTOR ERJ3GEYJ 681 V (680 Ω)
R105	7030004050	S.RESISTOR ERJ3GEYJ 1R0 V (1 Ω)
R106	7030003590	S.RESISTOR ERJ3GEYJ 183 V (18 kΩ) [P] only
R109	7030003740	S.RESISTOR ERJ3GEYJ 334 V (330 kΩ)
R110	7030003690	S.RESISTOR ERJ3GEYJ 124 V (120 kΩ)
R111	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R112	7030003700	S.RESISTOR ERJ3GEYJ 154 V (150 kΩ)
R114	7030003840	S.RESISTOR ERJ3GEYJ 225 V (2.2 MΩ)
R115	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R116	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R117	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R118	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ) [L]
	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ) [P]
R119	7030003570	S.RESISTOR ERJ3GEYJ 123 V (12 kΩ) [L]
	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ) [P]
R120	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ) [L]
	7030003720	S.RESISTOR ERJ3GEYJ 224 V (220 kΩ) [P]
R122	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ) [P]
	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ) [L]
R123	7030003770	S.RESISTOR ERJ3GEYJ 564 V (560 kΩ) [P-L]
	7030003760	S.RESISTOR ERJ3GEYJ 474 V (470 kΩ) [L]
	7030003780	S.RESISTOR ERJ3GEYJ 684 V (680 kΩ) [P-H]
R124	7030003800	S.RESISTOR ERJ3GEYJ 105 V (1 MΩ)
R126	7030003740	S.RESISTOR ERJ3GEYJ 334 V (330 kΩ)
R127	7030003530	S.RESISTOR ERJ3GEYJ 562 V (5.6 kΩ)
R128	7030003730	S.RESISTOR ERJ3GEYJ 274 V (270 kΩ)
R129	7030003630	S.RESISTOR ERJ3GEYJ 393 V (39 kΩ)
R130	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R131	7030003720	S.RESISTOR ERJ3GEYJ 224 V (220 kΩ)
R132	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R134	7030003720	S.RESISTOR ERJ3GEYJ 224 V (220 kΩ)
R135	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ) [P]
	7030003650	S.RESISTOR ERJ3GEYJ 563 V (56 kΩ) [L]
R136	7030003590	S.RESISTOR ERJ3GEYJ 183 V (18 kΩ)
R137	7030003590	S.RESISTOR ERJ3GEYJ 183 V (18 kΩ)
R138	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R139	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R140	7030003780	S.RESISTOR ERJ3GEYJ 684 V (680 kΩ)
R143	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R144	7410000730	S.ARRAY EXB-V8V 104JV (100 kΩ)
R147	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R148	7030003550	S.RESISTOR ERJ3GEYJ 822 V (8.2 kΩ)
R149	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ)
R151	7030003530	S.RESISTOR ERJ3GEYJ 562 V (5.6 kΩ)
R152	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R153	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R154	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R155	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R156	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R157	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R158	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R161	7030003580	S.RESISTOR ERJ3GEYJ 153 V (15 kΩ)
R162	7030003740	S.RESISTOR ERJ3GEYJ 334 V (330 kΩ)
R163	7030003460	S.RESISTOR ERJ3GEYJ 152 V (1.5 kΩ)
R164	7030003740	S.RESISTOR ERJ3GEYJ 334 V (330 kΩ)
R165	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R166	7030003830	S.RESISTOR ERJ3GEYJ 185 V (1.8 MΩ)
R168	7030003200	S.RESISTOR ERJ3GEYJ 100 V (10 Ω)
R169	7030003730	S.RESISTOR ERJ3GEYJ 274 V (270 kΩ)
R170	7030003690	S.RESISTOR ERJ3GEYJ 124 V (120 kΩ)
R171	7310003580	S.TRIMMER EVM-1XSX50 B15 (104)
R172	7030003590	S.RESISTOR ERJ3GEYJ 183 V (18 kΩ)
R173	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R174	7030003590	S.RESISTOR ERJ3GEYJ 183 V (18 kΩ)
R175	7310003630	S.TRIMMER EVM-1XSX50 BQ4 (473)
R176	7030003590	S.RESISTOR ERJ3GEYJ 183 V (18 kΩ)
R177	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R178	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ)
R179	7030003720	S.RESISTOR ERJ3GEYJ 224 V (220 kΩ)
R180	7030003710	S.RESISTOR ERJ3GEYJ 184 V (180 kΩ)
R181	7030003690	S.RESISTOR ERJ3GEYJ 124 V (120 kΩ)
R182	7030005270	S.RESISTOR ERJ3GEYJ 204 V (200 kΩ)
R183	7030003670	S.RESISTOR ERJ3GEYJ 823 V (82 kΩ)

Ⓜ: H-band, Ⓛ: L-band, [P]: PMR, [L]: LMR

[MAIN-A UNIT] for Wide/Narrow types

REF NO.	ORDER NO.	DESCRIPTION
R184	7030003670	S.RESISTOR ERJ3GEYJ 823 V (82 kΩ)
R185	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R186	7030004050	S.RESISTOR ERJ3GEYJ 1R0 V (1 Ω)
R188	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R189	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ)
R190	7030003660	S.RESISTOR ERJ3GEYJ 683 V (68 kΩ)
R191	7030003720	S.RESISTOR ERJ3GEYJ 224 V (220 kΩ)
R193	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R194	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R195	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R196	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R197	7030003660	S.RESISTOR ERJ3GEYJ 683 V (68 kΩ)
R198	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R199	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R201	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R202	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R203	7030003720	S.RESISTOR ERJ3GEYJ 224 V (220 kΩ)
R204	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R205	7030003800	S.RESISTOR ERJ3GEYJ 105 V (1 MΩ)
R206	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ)
R207	7030003200	S.RESISTOR ERJ3GEYJ 100 V (10 Ω)
R208	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ)
R209	7030003540	S.RESISTOR ERJ3GEYJ 682 V (6.8 kΩ)
R210	7030003590	S.RESISTOR ERJ3GEYJ 183 V (18 kΩ)
R211	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R212	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R213	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R214	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R215	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R217	7030003590	S.RESISTOR ERJ3GEYJ 183 V (18 kΩ)
R219	7510000790	S.THERMISTOR NTCCS2012 4AH 473KC-T
R220	7030005510	S.RESISTOR RR0816P-303-D (30 kΩ)
R221	7030004820	S.RESISTOR ERJ3GEYF 473 V (47 kΩ)
R222	7030004820	S.RESISTOR ERJ3GEYF 473 V (47 kΩ)
R223	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R224	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R225	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R226	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R227	7030003540	S.RESISTOR ERJ3GEYJ 682 V (6.8 kΩ)
R228	7030003560	S.RESISTOR ERJ3GEYJ 103 V (10 kΩ)
R229	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R230	7030003480	S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ)
R231	7030003320	S.RESISTOR ERJ3GEYJ 101 V (100 Ω)
R232	7030003440	S.RESISTOR ERJ3GEYJ 102 V (1 kΩ)
R233	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R234	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R235	7030003200	S.RESISTOR ERJ3GEYJ 100 V (10 Ω)
R236	7030003510	S.RESISTOR ERJ3GEYJ 392 V (3.9 kΩ)
R237	7030003610	S.RESISTOR ERJ3GEYJ 273 V (27 kΩ)
R239	7030003620	S.RESISTOR ERJ3GEYJ 333 V (33 kΩ)
R240	7030003650	S.RESISTOR ERJ3GEYJ 563 V (56 kΩ)
R244	7030003590	S.RESISTOR ERJ3GEYJ 183 V (18 kΩ)
R249	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R250	7030003600	S.RESISTOR ERJ3GEYJ 223 V (22 kΩ)
R252	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R253	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R254	7030003690	S.RESISTOR ERJ3GEYJ 124 V (120 kΩ)
R255	7030003680	S.RESISTOR ERJ3GEYJ 104 V (100 kΩ)
R256	7030003630	S.RESISTOR ERJ3GEYJ 393 V (39 kΩ)
R257	7030003380	S.RESISTOR ERJ3GEYJ 331 V (330 Ω)
R259	7030003550	S.RESISTOR ERJ3GEYJ 822 V (8.2 kΩ) [L]
	7030003570	S.RESISTOR ERJ3GEYJ 123 V (12 kΩ) [P]
R260	7030003790	S.RESISTOR ERJ3GEYJ 824 V (820 kΩ)
R261	7030003640	S.RESISTOR ERJ3GEYJ 473 V (47 kΩ)
R262	7030003520	S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ)
R263	7030003400	S.RESISTOR ERJ3GEYJ 471 V (470 Ω)
R265	7030005510	S.RESISTOR RR0816P-303-D (30 kΩ)
R266	7030005510	S.RESISTOR RR0816P-303-D (30 kΩ)
R267	7030005510	S.RESISTOR RR0816P-303-D (30 kΩ)
R268	7030005510	S.RESISTOR RR0816P-303-D (30 kΩ)
R269	7030005510	S.RESISTOR RR0816P-303-D (30 kΩ)
R270	7030005510	S.RESISTOR RR0816P-303-D (30 kΩ)
R271	7030005510	S.RESISTOR RR0816P-303-D (30 kΩ)
R272	7030005510	S.RESISTOR RR0816P-303-D (30 kΩ)
R273	7030005510	S.RESISTOR RR0816P-303-D (30 kΩ)
R274	7030005450	S.RESISTOR RR0816P-153-D (15 kΩ)
R275	7030005450	S.RESISTOR RR0816P-153-D (15 kΩ)
R276	7030005450	S.RESISTOR RR0816P-153-D (15 kΩ)
R277	7030005450	S.RESISTOR RR0816P-153-D (15 kΩ)
R278	7030005450	S.RESISTOR RR0816P-153-D (15 kΩ)
R279	7030005450	S.RESISTOR RR0816P-153-D (15 kΩ)
R280	7030005450	S.RESISTOR RR0816P-153-D (15 kΩ)

S.=Surface mount

[MAIN-A UNIT] for Wide/Narrow types

REF NO.	ORDER NO.	DESCRIPTION	
R281	7310003630	S.TRIMMER	EVM-1XSX50 BQ4 (473)
R282	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R283	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ) [P-L]
	7030003590	S.RESISTOR	ERJ3GEYJ 183 V (18 kΩ) [L-L]
	7030003620	S.RESISTOR	ERJ3GEYJ 333 V (33 kΩ) [H]
R285	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R286	7310003580	S.TRIMMER	EVM-1XSX50 B15 (104)
R287	7030004050	S.RESISTOR	ERJ3GEYJ 1R0 V (1 Ω)
R290	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R291	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R292	7030003610	S.RESISTOR	ERJ3GEYJ 273 V (27 kΩ)
R293	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R294	7030003410	S.RESISTOR	ERJ3GEYJ 561 V (560 Ω)
R295	7030003490	S.RESISTOR	ERJ3GEYJ 272 V (2.7 kΩ)
R296	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R297	7030003620	S.RESISTOR	ERJ3GEYJ 333 V (33 kΩ)
R298	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R299	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R300	7030003390	S.RESISTOR	ERJ3GEYJ 391 V (390 Ω)
R301	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R302	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)
R303	7030003450	S.RESISTOR	ERJ3GEYJ 122 V (1.2 kΩ)
R306	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R307	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R308	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R309	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R310	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R311	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R312	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R313	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R314	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R315	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R316	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R317	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R318	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R320	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
R321	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R322	7030005280	S.RESISTOR	ERJ3GEYJ 6R8V (6.8 Ω)
R323	7030003740	S.RESISTOR	ERJ3GEYJ 334 V (330 kΩ)
R324	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
			except [L-L]
	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ) [L-L] only
R326	7030003790	S.RESISTOR	ERJ3GEYJ 824 V (820 kΩ)
R327	7030003450	S.RESISTOR	ERJ3GEYJ 122 V (1.2 kΩ)
R328	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R329	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R330	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R332	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ) [P]
	7030003730	S.RESISTOR	ERJ3GEYJ 274 V (270 kΩ) [L]
R333	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R334	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R335	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R336	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R337	7030003470	S.RESISTOR	ERJ3GEYJ 182 V (1.8 kΩ)
R338	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
C1	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C2	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A [P] only
C3	4030006800	S.CERAMIC	C1608 SL 1H 221J-T-A
C4	4030006800	S.CERAMIC	C1608 SL 1H 221J-T-A
C5	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C6	4030006980	S.CERAMIC	C1608 CH 1H 070D-T-A
C7	4030007030	S.CERAMIC	C1608 CH 1H 150J-T-A
C8	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C9	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C10	4550005980	S.TANTALUM	TEMSVA 1A 475M-8L
C12	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C13	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C14	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C15	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C16	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C18	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C19	4030007010	S.CERAMIC	C1608 CH 1H 100D-T-A
C20	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A [P] only
C21	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C22	4030009990	S.CERAMIC	C1608 CH 1H 200J-T-A
C23	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C24	4030007010	S.CERAMIC	C1608 CH 1H 100D-T-A
C25	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C26	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C27	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A

[MAIN-A UNIT] for Wide/Narrow types

REF NO.	ORDER NO.	DESCRIPTION	
C28	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C29	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C30	4610001910	S.TRIMMER	CTZ3E-10A-W1
C31	4030009990	S.CERAMIC	C1608 CH 1H 200J-T-A
C32	4610001900	S.TRIMMER	CTZ3E-05A-W1 [L]
	4610001910	S.TRIMMER	CTZ3E-10A-W1 [H]
C34	4030007070	S.CERAMIC	C1608 CH 1H 330J-T-A [L]
	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A [H]
C35	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C36	4030006930	S.CERAMIC	C1608 CH 1H 020C-T-A
C37	4030007080	S.CERAMIC	C1608 CH 1H 390J-T-A [L]
C37	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A [H]
C40	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C41	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C42	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C43	4030007050	S.CERAMIC	C1608 CH 1H 220J-T-A
C44	4030007070	S.CERAMIC	C1608 CH 1H 330J-T-A [L]
	4030007080	S.CERAMIC	C1608 CH 1H 390J-T-A [H]
C45	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C47	4610001900	S.TRIMMER	CTZ3E-05A-W1 [L]
	4610001910	S.TRIMMER	CTZ3E-10A-W1 [H]
C48	4030007020	S.CERAMIC	C1608 CH 1H 120J-T-A
C49	4030007010	S.CERAMIC	C1608 CH 1H 100D-T-A
C50	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C58	4550006270	S.TANTALUM	TESVSP 1A 105M-8L
C59	4550005980	S.TANTALUM	TEMSVA 1A 475M-8L
C60	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C61	4550005980	S.TANTALUM	TEMSVA 1A 475M-8L
C62	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C67	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C68	4550005980	S.TANTALUM	TEMSVA 1A 475M-8L
C69	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C70	4030009000	S.CERAMIC	C2012 JB 1C 224K-T-A
C72	4030008470	S.CERAMIC	C1608 JB 1H 272K-T-A
C73	4030008560	S.CERAMIC	C1608 CH 1H 300J-T-A
C74	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C75	4550000460	S.TANTALUM	TESVA 1C 105M1-8L
C76	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C77	4550000460	S.TANTALUM	TESVA 1C 105M1-8L
C78	4030008680	S.CERAMIC	C2012 JF 1C 105Z-T-A
C79	4030008680	S.CERAMIC	C2012 JF 1C 105Z-T-A
C80	4550006270	S.TANTALUM	TESVSP 1A 105M-8L
C81	4550005980	S.TANTALUM	TEMSVA 1A 475M-8L
C82	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C83	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C84	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C85	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C86	4550006480	S.TANTALUM	TEMSVA 1C 475M-8L
C87	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C88	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C89	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C90	4550000550	S.TANTALUM	TESVA 1V 224M1-8L
C91	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C92	4030006930	S.CERAMIC	C1608 CH 1H 020C-T-A [H]
	4030006940	S.CERAMIC	C1608 CH 1H 030C-T-A [L]
C93	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C94	4030006990	S.CERAMIC	C1608 CH 1H 080D-T-A
C95	4030007070	S.CERAMIC	C1608 CH 1H 330J-T-A
C96	4030007070	S.CERAMIC	C1608 CH 1H 330J-T-A
C97	4030007080	S.CERAMIC	C1608 CH 1H 390J-T-A
C98	4030008680	S.CERAMIC	C2012 JF 1C 105Z-T-A
C99	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C100	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C101	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C102	4550005980	S.TANTALUM	TEMSVA 1A 475M-8L
C103	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C104	4030007120	S.CERAMIC	C1608 UJ 1H 820J-T-A [L]
	4030008320	S.CERAMIC	C1608 UJ 1H 470J-T-A [H]
C105	4030006950	S.CERAMIC	C1608 CH 1H 040C-T-A [H]
	4030007040	S.CERAMIC	C1608 CH 1H 180C-T-A [L]
C106	4030007020	S.CERAMIC	C1608 CH 1H 120J-T-A [L]
	4030007040	S.CERAMIC	C1608 CH 1H 180J-T-A [H]
C107	4030008300	S.CERAMIC	C1608 UJ 1H 330J-T-A
C108	4030008300	S.CERAMIC	C1608 UJ 1H 330J-T-A
C109	4030008680	S.CERAMIC	C2012 JF 1C 105Z-T-A
C111	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C112	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C113	4550005980	S.TANTALUM	TEMSVA 1A 475M-8L
C114	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C115	4030009500	S.CERAMIC	C1608 CH 1H 0R5B-T-A
C116	4030009500	S.CERAMIC	C1608 CH 1H 0R5B-T-A
C117	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A

[H]: H-band, [L]: L-band, [P]: PMR, [L]: LMR

S.=Surface mount

[MAIN-A UNIT] for Wide/Narrow types

REF NO.	ORDER NO.	DESCRIPTION
C118	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C119	4550005980	S.TANTALUM TEMSVA 1A 475M-8L
C120	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A
C121	4030007050	S.CERAMIC C1608 CH 1H 220J-T-A
C122	4030007040	S.CERAMIC C1608 CH 1H 180J-T-A
C123	4030007030	S.CERAMIC C1608 CH 1H 150J-T-A
C124	4030006860	S.CERAMIC C2012 JF 1C 105Z-T-A
C125	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C126	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C127	4030006930	S.CERAMIC C1608 CH 1H 020C-T-A
C128	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C129	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C130	4550005980	S.TANTALUM TEMSVA 1A 475M-8L
C132	4030007050	S.CERAMIC C1608 CH 1H 220J-T-A
C133	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C134	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C136	4030007020	S.CERAMIC C1608 CH 1H 120J-T-A
C137	4030007020	S.CERAMIC C1608 CH 1H 120J-T-A
C138	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C139	4550000460	S.TANTALUM TESVA 1C 105M1-8L
C140	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C141	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C142	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C144	4030009990	S.CERAMIC C1608 CH 1H 200J-T-A
C145	4030007080	S.CERAMIC C1608 CH 1H 390J-T-A
C146	4030007060	S.CERAMIC C1608 CH 1H 270J-T-A
C148	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C150	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C152	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C153	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C156	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C157	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C158	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C159	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C160	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C161	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C162	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C163	4550006250	S.TANTALUM TEMSVA 1A 106M-8L
C164	4030005110	S.CERAMIC C2012 JB 1E 473K-T-A
C166	4030008630	S.CERAMIC C1608 JF 1C 104Z-T-A
C167	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C169	4550003120	S.TANTALUM TEMSVD2 1A 476M-12L
C170	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C171	4030009660	S.CERAMIC C1608 JF 1C 224Z-T-A
C172	4550006250	S.TANTALUM TEMSVA 1A 106M-8L
C173	4030006900	S.CERAMIC C1608 JB 1E 103K-T-A
C174	4030006870	S.CERAMIC C1608 JB 1H 222K-T-A
C175	4030008630	S.CERAMIC C1608 JF 1C 104Z-T-A
C177	4030008630	S.CERAMIC C1608 JF 1C 104Z-T-A
C180	4030008960	S.CERAMIC C2012 JB 1C 104K-T-A
C181	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C182	4030008650	S.CERAMIC C1608 JB 1H 332K-T-A
	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A
C183	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C184	4030007080	S.CERAMIC C1608 CH 1H 390J-T-A
C185	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C186	4030007050	S.CERAMIC C1608 CH 1H 220J-T-A
C187	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C188	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C189	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C190	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C191	4550006220	S.TANTALUM TEMSVA 0J 156M-8L
C192	4550005980	S.TANTALUM TEMSVA 1A 475M-8L
C193	4550006270	S.TANTALUM TESVSP 1A 105M-8L
C194	4550006270	S.TANTALUM TESVSP 1A 105M-8L
C195	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A
C196	4550006270	S.TANTALUM TESVSP 1A 105M-8L
C198	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C199	4030008900	S.CERAMIC C1608 JB 1C 333K-T-A
C201	4550005980	S.TANTALUM TEMSVA 1A 475M-8L
C202	4030006900	S.CERAMIC C1608 JB 1E 103K-T-A
C203	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C204	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C205	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C206	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C207	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C208	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C209	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C210	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C212	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C213	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A

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[MAIN-A UNIT] for Wide/Narrow types

REF NO.	ORDER NO.	DESCRIPTION
C215	4030008860	S.CERAMIC C1608 JB 1C 153K-T-A
C216	4030008630	S.CERAMIC C1608 JF 1C 104Z-T-A
C217	4550006250	S.TANTALUM TEMSVA 1A 106M-8L
C218	4030008630	S.CERAMIC C1608 JF 1C 104Z-T-A
C219	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C220	4030008870	S.CERAMIC C1608 JB 1C 183K-T-A
C222	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C223	4550005980	S.TANTALUM TEMSVA 1A 475M-8L
C225	4030008630	S.CERAMIC C1608 JF 1C 104Z-T-A
C226	4550005980	S.TANTALUM TEMSVA 1A 475M-8L
C227	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C228	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A
C229	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C230	4030006870	S.CERAMIC C1608 JB 1H 222K-T-A
C231	4030009980	S.CERAMIC C1608 JB 1H 152K-T-A
C232	4030007080	S.CERAMIC C1608 CH 1H 390J-T-A
C233	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A
	4030007140	S.CERAMIC C1608 CH 1H 121J-T-A
C236	4550000460	S.TANTALUM TESVA 1C 105M1-8L
	4550000530	S.TANTALUM TESVA 1V 104M1-8L
C237	4030008630	S.CERAMIC C1608 JF 1C 104Z-T-A
C238	4030008630	S.CERAMIC C1608 JF 1C 104Z-T-A
C239	4030008630	S.CERAMIC C1608 JF 1C 104Z-T-A
C240	4030006900	S.CERAMIC C1608 JB 1E 103K-T-A
C241	4550006270	S.TANTALUM TESVSP 1A 105M-8L
C242	4550005980	S.TANTALUM TEMSVA 1A 475M-8L
C243	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C244	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C245	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C246	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C248	4030006900	S.CERAMIC C1608 JB 1E 103K-T-A
C249	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C250	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C251	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C252	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C253	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C254	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C255	4030006900	S.CERAMIC C1608 JB 1E 103K-T-A
C256	4550006270	S.TANTALUM TESVSP 1A 105M-8L
C257	4030006900	S.CERAMIC C1608 JB 1E 103K-T-A
C258	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C259	4030008630	S.CERAMIC C1608 JF 1C 104Z-T-A
C260	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C261	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C262	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C263	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C264	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C265	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C266	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C267	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C268	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C269	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C270	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C271	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C272	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C273	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C274	4030008630	S.CERAMIC C1608 JF 1C 104Z-T-A
C275	4550006260	S.TANTALUM TESVSP 1C 474M-8L
C276	4030007050	S.CERAMIC C1608 CH 1H 220J-T-A
C277	4030006980	S.CERAMIC C1608 CH 1H 070D-T-A
C278	4030007110	S.CERAMIC C1608 CH 1H 680J-T-A
C279	4030006900	S.CERAMIC C1608 JB 1E 103K-T-A
C280	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C281	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C282	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C283	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C284	4030008630	S.CERAMIC C1608 JF 1C 104Z-T-A
C285	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C286	4550000460	S.TANTALUM TESVA 1C 105M1-8L
C287	4030008630	S.CERAMIC C1608 JF 1C 104Z-T-A
C288	4030008630	S.CERAMIC C1608 JF 1C 104Z-T-A
C289	4550006250	S.TANTALUM TEMSVA 1A 106M-8L
C290	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C291	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C292	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C293	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C294	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C295	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C296	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C297	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C298	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C299	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A

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Ⓜ: H-band, Ⓛ: L-band, Ⓟ: PMR, Ⓛ: LMR

S.=Surface mount

[MAIN-A UNIT] for Wide/Narrow types

REF NO.	ORDER NO.	DESCRIPTION	
C300	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C301	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C302	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C303	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C304	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C306	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C307	4550006270	S.TANTALUM	TESVSP 1A 105M-8L
C311	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C312	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C313	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C314	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C315	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C316	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C319	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C320	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C321	4550006250	S.TANTALUM	TEMSVA 1A 106M-8L
C322	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C323	4550005980	S.TANTALUM	TEMSVA 1A 475M-8L
C324	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C325	4550005980	S.TANTALUM	TEMSVA 1A 475M-8L
C326	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C327	4550006270	S.TANTALUM	TESVSP 1A 105M-8L
C328	4550006270	S.TANTALUM	TESVSP 1A 105M-8L
C329	4030009000	S.CERAMIC	C2012 JB 1C 224K-T-A
	4030011310	S.CERAMIC	C2012 JB 1A 564K-T-A
C330	4550006270	S.TANTALUM	TESVSP 1A 105M-8L
C331	4030008960	S.CERAMIC	C2012 JB 1C 104K-T-A
C333	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C336	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C337	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C339	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C340	4030008870	S.CERAMIC	C1608 JB 1C 183K-T-A
C341	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C342	4030008470	S.CERAMIC	C1608 JB 1H 272K-T-A
C343	4550006270	S.TANTALUM	TESVSP 1A 105M-8L
C344	4030006960	S.CERAMIC	C1608 CH 1H 050C-T-A
C345	4030007000	S.CERAMIC	C1608 CH 1H 090D-T-A
C346	4030007050	S.CERAMIC	C1608 CH 1H 220J-T-A
C347	4030007000	S.CERAMIC	C1608 CH 1H 090D-T-A
C348	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C349	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C350	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C351	4550005980	S.TANTALUM	TEMSVA 1A 475M-8L
C352	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C354	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C355	4030006930	S.CERAMIC	C1608 CH 1H 020C-T-A
C361	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C362	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C363	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C365	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C370	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C371	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C372	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C373	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C374	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C375	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
	4030008880	S.CERAMIC	C1608 JB 1C 223K-T-A
C376	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C378	4030009630	S.CERAMIC	C1608 JB 1H 822K-T-A
C380	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C382	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C383	4550005980	S.TANTALUM	TEMSVA 1A 475M-8L
C385	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C386	4550005980	S.TANTALUM	TEMSVA 1A 475M-8L
C387	4550005980	S.TANTALUM	TEMSVA 1A 475M-8L
C388	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C389	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C391	4030006970	S.CERAMIC	C1608 CH 1H 060D-T-A
C393	4550006260	S.TANTALUM	TESVSP 1C 474M-8L
C394	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C395	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C396	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C397	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C398	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C399	4550005980	S.TANTALUM	TEMSVA 1A 475M-8L
C401	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C403	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C404	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C405	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C406	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C407	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C409	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A

Ⓜ: H-band, Ⓛ: L-band, Ⓜ: PMR, Ⓛ: LMR

[MAIN-A UNIT] for Wide/Narrow types

REF NO.	ORDER NO.	DESCRIPTION	
C410	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C411	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C412	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C413	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C414	4030008900	S.CERAMIC	C1608 JB 1C 333K-T-A
C416	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C417	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C418	4030007110	S.CERAMIC	C1608 CH 1H 680J-T-A
C419	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C420	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C421	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
S3	2260000980	SWITCH	SKHHL P014A
J1	6510017600	S.CONNECTOR	52357-0690
J2	6510017600	S.CONNECTOR	52357-0690
J3	6510012880	S.CONNECTOR	CEW9114-0202
J4	6510016290	S.CONNECTOR	08FM-1.0BP
J5	6510012880	S.CONNECTOR	CEW9114-0202
J6	6510018430	S.CONNECTOR	AXN330C038P
J7	6510018410	S.CONNECTOR	53263-0690
J8	6510016220	CONNECTOR	IMSA-9210B-1-03Z097-T
W1	7030003860	S.JUMPER	ERJ3GE JPW V
W2	7030003860	S.JUMPER	ERJ3GE JPW V
W6	7030003860	S.JUMPER	ERJ3GE JPW V
W8	7030003860	S.JUMPER	ERJ3GE JPW V
W10	7030003860	S.JUMPER	ERJ3GE JPW V
W11	7030003860	S.JUMPER	ERJ3GE JPW V
EP1	0910048132	PCB	B 4958B

S.=Surface mount

[PA UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
IC1	1150001230 1150001240	IC	SC-1224 (M67755L) ① SC-1223 (M67755H) ②
D1	1790000670	S.DIODE	SB07-03C-TB
D2	1790000450	S.DIODE	MA862(TX)
D4	1790001210	S.DIODE	1SS375-TL
D6	1790001210	S.DIODE	1SS375-TL
D7	1790001210	S.DIODE	1SS375-TL
L4	6200002690	S.COIL	MLF1608A 1R0M-T
L9	6200003540	S.COIL	MLF1608D R22K-T
L10	6200003540	S.COIL	MLF1608D R22K-T
L11	6200002190	S.COIL	MLF2012A 4R7K-T
L13	6200003850	S.COIL	36CS-656LZ-09K=P3
L14	6200003830	S.COIL	DCS3120-015A TR
L15	6200001640	S.COIL	ELJNC 10NK-F
L16	6200001640	S.COIL	ELJNC 10NK-F
R1	7030003330	S.RESISTOR	ERJ3GEYJ 121 V (120 Ω)
R2	7030003610	S.RESISTOR	ERJ3GEYJ 273 V (27 kΩ)
R7	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R8	7030003350	S.RESISTOR	ERJ3GEYJ 181 V (180 Ω)
R9	7030003760	S.RESISTOR	ERJ3GEYJ 474 V (470 kΩ)
C1	4030009580	S.CERAMIC	C1608 JB 1H 681K-T-A
C2	4030009580	S.CERAMIC	C1608 JB 1H 681K-T-A
C6	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C10	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C12	4550006250	S.TANTALUM	TEMSVA 1A 106M-8L
C13	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C15	4550006250	S.TANTALUM	TEMSVA 1A 106M-8L
C16	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C17	4030006710	S.CERAMIC	C1608 SL 1H 470J-T-A
C18	4550006480	S.TANTALUM	TEMSVA 1C 475M-8L
C19	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C20	4030006710	S.CERAMIC	C1608 SL 1H 470J-T-A
C22	4030006940	S.CERAMIC	C1608 CH 1H 030C-T-A
C23	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C24	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C25	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C27	4030007020	S.CERAMIC	C1608 CH 1H 120J-T-A
	4030007050	S.CERAMIC	C1608 CH 1H 220J-T-A
C29	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C30	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C31	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C32	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C33	4030007010	S.CERAMIC	C1608 CH 1H 100D-T-A
C34	4030007030	S.CERAMIC	C1608 CH 1H 150J-T-A
	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C35	4030007030	S.CERAMIC	C1608 CH 1H 150J-T-A
	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C36	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C37	4030006710	S.CERAMIC	C1608 SL 1H 470J-T-A
C38	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C42	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C43	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C45	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C46	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C47	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C48	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
J1	6510016370	S.CONNECTOR	AXR91010301
EP1	0910042486	PCB	B 3940F
EP2	0910041995	FPC	B 4024E

[APC BOARD]

REF NO.	ORDER NO.	DESCRIPTION	
IC2	1130006920	S.IC	TA75W01FU (TE12L)
Q2	1530003190	S.TRANSISTOR	2SC4617 TLQ
Q3	1520000450	S.TRANSISTOR	2SB1132 T100 Q
Q4	1520000450	S.TRANSISTOR	2SB1132 T100 Q
Q6	1590000430	S.TRANSISTOR	DTC144EU T107
D1	1720000510	S.DIODE	1SV234-TA
D2	1790000450	S.DIODE	MA862(TX)
D4	1750000260	S.DIODE	1SS352 (TPH3)
D5	1720000360	S.DIODE	HSU88TRF
L1	6200002420	S.COIL	NL 252018T-068J
L2	6200002420	S.COIL	NL 252018T-068J
L3	6200002840	S.COIL	NL 252018T-R22J
L4	6200002640	S.COIL	NL 252018T-R15J
L5	6200002690	S.COIL	MLF1608A 1R0M-T
R1	7030003380	S.RESISTOR	ERJ3GEYJ 331 V (330 Ω)
R2	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R13	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)
R14	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R15	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R16	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R17	7030003760	S.RESISTOR	ERJ3GEYJ 474 V (470 kΩ)
R18	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R22	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R23	7030003410	S.RESISTOR	ERJ3GEYJ 561 V (560 Ω)
R24	7030003740	S.RESISTOR	ERJ3GEYJ 334 V (330 kΩ)
R25	7030003760	S.RESISTOR	ERJ3GEYJ 474 V (470 kΩ)
R26	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R27	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R28	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R29	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 Ω)
R30	7030003730	S.RESISTOR	ERJ3GEYJ 274 V (270 kΩ)
R31	7030003410	S.RESISTOR	ERJ3GEYJ 561 V (560 Ω)
R32	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 Ω)
C1	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C2	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C8	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C9	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C10	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C11	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C12	4030007000	S.CERAMIC	C1608 CH 1H 090D-T-A
C13	4030007040	S.CERAMIC	C1608 CH 1H 180J-T-A
C16	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C17	4550006050	S.TANTALUM	TEMSVA 0J 106M8L
C21	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C22	4030006710	S.CERAMIC	C1608 SL 1H 470J-T-A
C23	4550000510	S.TANTALUM	TESVA 1V 473M1-8L
C25	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C26	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C29	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C30	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C31	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C32	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C33	4030006860	S.CERAMIC	C2012 JF 1C 105Z-T-A
C34	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C35	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C36	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C37	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C38	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C39	4030007100	S.CERAMIC	C1608 CH 1H 560J-T-A
C40	4550000460	S.TANTALUM	TESVA 1C 105M1-8L
C41	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C42	4550006480	S.TANTALUM	TEMSVA 1C 475M-8L
C43	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
J1	6510018410	S.CONNECTOR	53263-0690
J2	6510018410	S.CONNECTOR	53263-0690
EP1	6910006550	LEADFRAM	HFB2.0-0.9-8 (K)
EP2	6910006550	LEADFRAM	HFB2.0-0.9-8 (K)
EP3	0910043014	PCB	B 3980D
EP4	0910045960	FPC	B 4606

⊕: H-band, ⊙: L-band, ⊞: PMR, ⊚: LMR

S.=Surface mount

[LPF BOARD]

REF NO.	ORDER NO.	DESCRIPTION	
L2	6200003850	S.COIL	36CS-656LZ-09K=P3
L3	6200003740	S.COIL	36CS-656LZ-07K=P3
C2	4030007010	S.CERAMIC	C1608 CH 1H 100D-T-A (H)
	4030007020	S.CERAMIC	C1608 CH 1H 120J-T-A (L)
C3	4030007070	S.CERAMIC	C1608 CH 1H 330J-T-A (H)
	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A (L)
C4	4030007070	S.CERAMIC	C1608 CH 1H 330J-T-A (H)
	4030007080	S.CERAMIC	C1608 CH 1H 390J-T-A (L)
C5	4030007010	S.CERAMIC	C1608 CH 1H 100D-T-A (H)
	4030007020	S.CERAMIC	C1608 CH 1H 120J-T-A (L)
EP1	0910040523	PCB	B 4022C

[ANT BOARD]

REF NO.	ORDER NO.	DESCRIPTION	
W1	7120000380	JUMPER	JPW 01 R-01
EP1	0910042493	PCB	B 4145C
EP2	9036505001	TUBE	IRRAX 0.7(d) L=15 mm

[PTT BOARD]

REF NO.	ORDER NO.	DESCRIPTION	
S1	2260002280	S.SWITCH	EVQPA101K
S2	2260002280	S.SWITCH	EVQPA101K
S4	2260002280	S.SWITCH	EVQPA101K
J1	6510017600	S.CONNECTOR	52357-0690
EP1	0910040517	PCB	B-3990G

[TENKEY UNIT]— LT types only

REF NO.	ORDER NO.	DESCRIPTION	
IC1	1140004230	S.IC	HD404812A44H
IC2	1130007150	S.IC	FX803LG (P) only
IC5	1110003390	S.IC	AN8005M-(E1)
X1	6060000550	S.CERAMIC	PBRC 3.58AR
X3	6050008820	CRYSTAL	CR-466 (4.032 MHz) (P) only
L1	6200001510	S.COIL	MLF2012D R10K-T
R1	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R2	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R3	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R4	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R5	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R6	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R7	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R8	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R9	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R10	7030003490	S.RESISTOR	ERJ3GEYJ 272 V (2.7 kΩ)
R11	7030003490	S.RESISTOR	ERJ3GEYJ 272 V (2.7 kΩ)
R12	7030003490	S.RESISTOR	ERJ3GEYJ 272 V (2.7 kΩ)
R13	7030003490	S.RESISTOR	ERJ3GEYJ 272 V (2.7 kΩ)
R15	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R16	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R17	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R24	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ) (P) only
R25	7030003420	S.RESISTOR	ERJ3GEYJ 681 V (680 Ω) (P) only
R26	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ) (P) only
R27	7030003690	S.RESISTOR	ERJ3GEYJ 124 V (120 kΩ) (P) only
R28	7030003670	S.RESISTOR	ERJ3GEYJ 823 V (82 kΩ) (P) only
R29	7030003530	S.RESISTOR	ERJ3GEYJ 562 V (5.6 kΩ) (P) only
R32	7030003770	S.RESISTOR	ERJ3GEYJ 564 V (560 kΩ) (P) only
R40	7030004120	S.RESISTOR	ERJ3GEYJ 203 V (20 kΩ)
R41	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R42	7030003840	S.RESISTOR	ERJ3GEYJ 225 V (2.2 MΩ)
R44	7030003540	S.RESISTOR	ERJ3GEYJ 682 V (6.8 kΩ) (P) only
R45	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ) (P) only
R46	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R47	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ) (P) only
C7	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C8	4550006250	S.TANTALUM	TEMSVA 1A 106M-8L
C9	4030007070	S.CERAMIC	C1608 CH 1H 330J-T-A
C10	4030007070	S.CERAMIC	C1608 CH 1H 330J-T-A
C14	4550004010	S.TANTALUM	TEMSVA2 1A 105M-8L
C15	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C16	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C17	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C18	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A (P) only
C19	4550004010	S.TANTALUM	TEMSVA2 1A 105M-8L (P) only
C20	4030007070	S.CERAMIC	C1608 CH 1H 330J-T-A (P) only
C21	4030007070	S.CERAMIC	C1608 CH 1H 330J-T-A (P) only
C22	4030006660	S.CERAMIC	C1608 SL 1H 220J-T-A (P) only
C24	4550004010	S.TANTALUM	TEMSVA2 1A 105M-8L (P) only
C34	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A (P) only
C37	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C38	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C39	4550006250	S.TANTALUM	TEMSVA 1A 106M-8L
C41	4030006750	S.CERAMIC	C1608 SL 1H 101J-T-A
C42	4030006750	S.CERAMIC	C1608 SL 1H 101J-T-A (L) only
DS1	5040001840	S.LED	CL-150YG-CD-T
DS2	5040001840	S.LED	CL-150YG-CD-T
DS3	5040001840	S.LED	CL-150YG-CD-T
DS4	5040001840	S.LED	CL-150YG-CD-T
DS7	5030000990	LCD	LD-BU5703J
EP1	0910041178	PCB	B 3934H
EP2	0910041194	FPC	B 3992D
EP3	8930034750	LCD CONTACT	SRCN-1556 ZSS

(H): H-band, (L): L-band, (P): PMR, (L): LMR

S.=Surface mount

[FRONT LED BOARD]— LT types only

REF NO.	ORDER NO.	DESCRIPTION	
R1	7030003410	S.RESISTOR	ERJ3GEYJ 561 V (560 Ω)
R2	7030003410	S.RESISTOR	ERJ3GEYJ 561 V (560 Ω)
DS1	5040001840	S.LED	CL-150YG-CD-T
DS2	5040001840	S.LED	CL-150YG-CD-T
EP1	0910041203	PCB	B 4079C

[LED BOARD]

REF NO.	ORDER NO.	DESCRIPTION	
R1	7030003350	S.RESISTOR	ERJ3GEYJ 181 V (180 Ω)
R2	7030003350	S.RESISTOR	ERJ3GEYJ 181 V (180 Ω)
DS1	5040001800	LED	VRPG4607K
EP1	0910040553	PCB	B 4027C

[EF UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
FI1	2040000790	S.LC	EXCCET103U
FI2	2040000790	S.LC	EXCCET103U
L1	6200001230	S.COIL	MLF2012A 1R0M-T
C1	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C2	4030008630	S.CERAMIC	C1608 JF 1C 104Z-T-A
C3	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C4	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
F1	5210000390	S.FUSE	SSFC 3A R12A4
EP1	0910040545	PCB	B 4025E

[FRONT PANEL] for LT types

REF NO.	ORDER NO.	DESCRIPTION	
C1	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
WS1	8970021130	M.OTHER	(4)/FR
MC1	7700001820	MICROPHONE	EM-123H
SP1	2510000650	SPEAKER	EAS-3P127D

[FRONT PANEL] for non-LT types

REF NO.	ORDER NO.	DESCRIPTION	
C1	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
WS1	8600032261	M.OTHER	J01FR-1
MC1	7700001820	MICROPHONE	EM-123H
SP1	2510000650	SPEAKER	EAS-3P127D
EP1	0910041182	PCB	B 3989B

S.=Surface mount

SECTION 7 MECHANICAL PARTS AND DISASSEMBLY

[FRONT UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
MC1	770001820	Microphone EM-123H	1
SP1	2510000650	Speaker EAS-3P127D	1
MP1	8210013081	1327 Front panel-2 assembly (IC-F30 only) (incl. SP1, MP24, 35)	1
	8210010301	1327 Front panel-2 assembly (IC-F30LT only) (incl. SP1, MP6, 24)	1
MP5	8930031051	1327 Key seal-1 (IC-F30 only)	1
MP6	8310034380	1327 Window plate (D)	1
MP12	8930042931	1332 Key board (B)-1 [Marine] only	1
	8930029411	1332 Key board -1 (IC-F30LT ;except [Marine])	1
MP18	8810001710	Screw PH BO No. 0-3 M1.4 x 3.5 ZK	4
MP23	8930032881	1327 MIC seal-1	1
MP24	8510008870	1332 Key shield	1
MP25	8930032850	1327 Front sheet (IC-F30 only)	1
MP31	8310032310	1327 NAME PLATE (IC-F30)	1
	8310032410	1327 NAME PLATE (A) (IC-F30LT)	1
MP33	8930029330	Sheet(AM) (IC-F30 only)	1
MP35	8930036920	Sponge (DY) (IC-F30 only)	1
MP36	8930013370	Isolation sheet AY except [IC-F30 LMR]	1
MP37	8930044060	1620 Sheet (IC-F30 only)	1

[LPF BOARD]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
MP1	8510008440	1327 Filter case	1

[TENKEY UNIT] (IC-F30LT only)

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
DS7	5030000990	LCD LD-BU5703J	1
EP3	8930034750	LCD contact SRCN-1556-ZSS	1
MP10	8930029480	1332 LCD holder	1
MP30	8930031000	1332 LCD sheet	1
MP33	8930032480	1332 LCD spring	1

[PA UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
J1	6510016370	Multi-connector AXR91010301	1
MP1	8930029551	1327 EF spring-1	2
MP3	8810005100	Screw PH No. 0-1 M2 x 7 ZK	1
MP4	8810001000	Screw PH BO 2 x 6	1
MP5	8930033260	1332 M-holder	1

[EF UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
MP1	8810006610	Screw PH No. 0-1 M2 x 2.5 NI	2

[CHASSIS UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
R1	7210002370	Variable TP96N00N14F 20KB [PWR/VOL]	1
S1	2250000180	Encoder EC10SP16-47 [CHANNEL]	1
EP2	8930037740	1327 L-contact	2
MP1	8010014971	1327 Chassis-1	1
MP3	8210009380	1327 Rear panel	1
MP7	8930032870	1327 PTT spring	1
MP8	8610008790	Knob N-206	1
MP9	8610008800	Knob N-207	1
MP10	8930029520	1327 Main seal	1
MP12	8930029460	1327 Contact plate	1
MP14	8930029450	1327 Shield spring	1
MP15	8010014992	1327 Sub chassis-2	1
MP16	8510008472	1327 Shield-2	1
MP17	8810006060	Screw BO No. 0-1 M2 x 4	2
MP18	8830001020	Hex nut (B)	1
MP19	8830001010	Hex nut (A)	1
MP20	8810003700	locom screw (B) 4	2
MP23	8930030990	O-ring (N)	2
MP24	8930044090	1327 Minus terminal	1
MP25	8810006610	Screw PH No. 0-1 M2 x 2.5 NI	1
MP26	8810006610	Screw PH No. 0-1 M2 x 2.5 NI	2
MP27	8810005100	Screw PH No. 0-1 M2 x 7 ZK	3
MP28	8820000801	1327 Screw-1	2
MP29	8930031890	1327 Top shield	1
MP30	8930031900	1327 ANT spring	1
MP31	8930031911	1327 Side spring-1	1
MP32	8930031991	1327 L-spring-1	1
MP33	8930031970	1327 Sheet	1
MP34	8930032010	1327 SP sponge	1
MP35	8210009420	1327 Jack plate	1
MP36	8810008210	Screw PH M3 x 7 ZK	2
MP37	8930039610	Thermally sheet (C)	1
MP40	8930033130	1327 AL sheet	1
MP41	8930010600	Sponge (AX)	1
MP45	8930042310	Rubber sheet (AB)	1

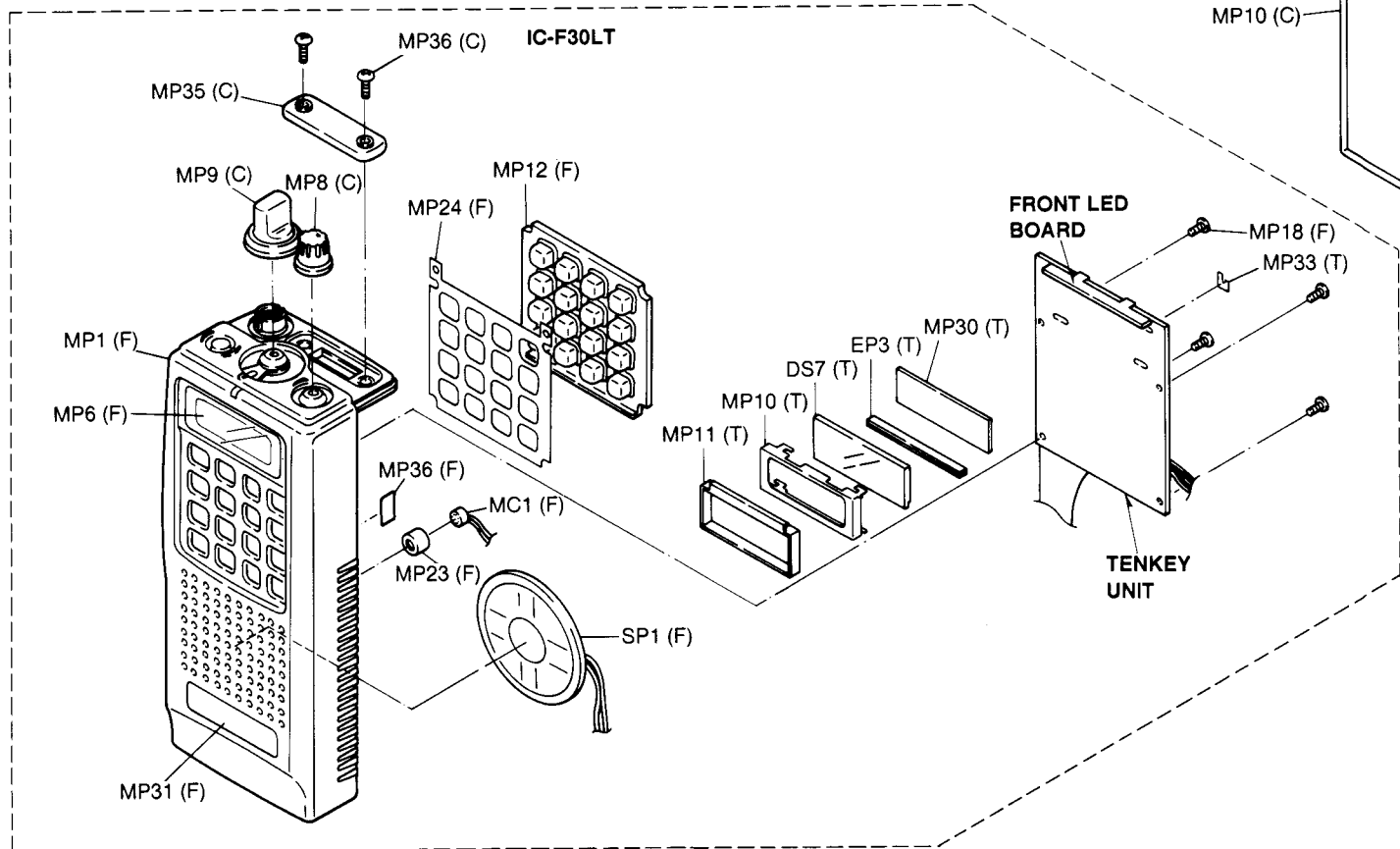
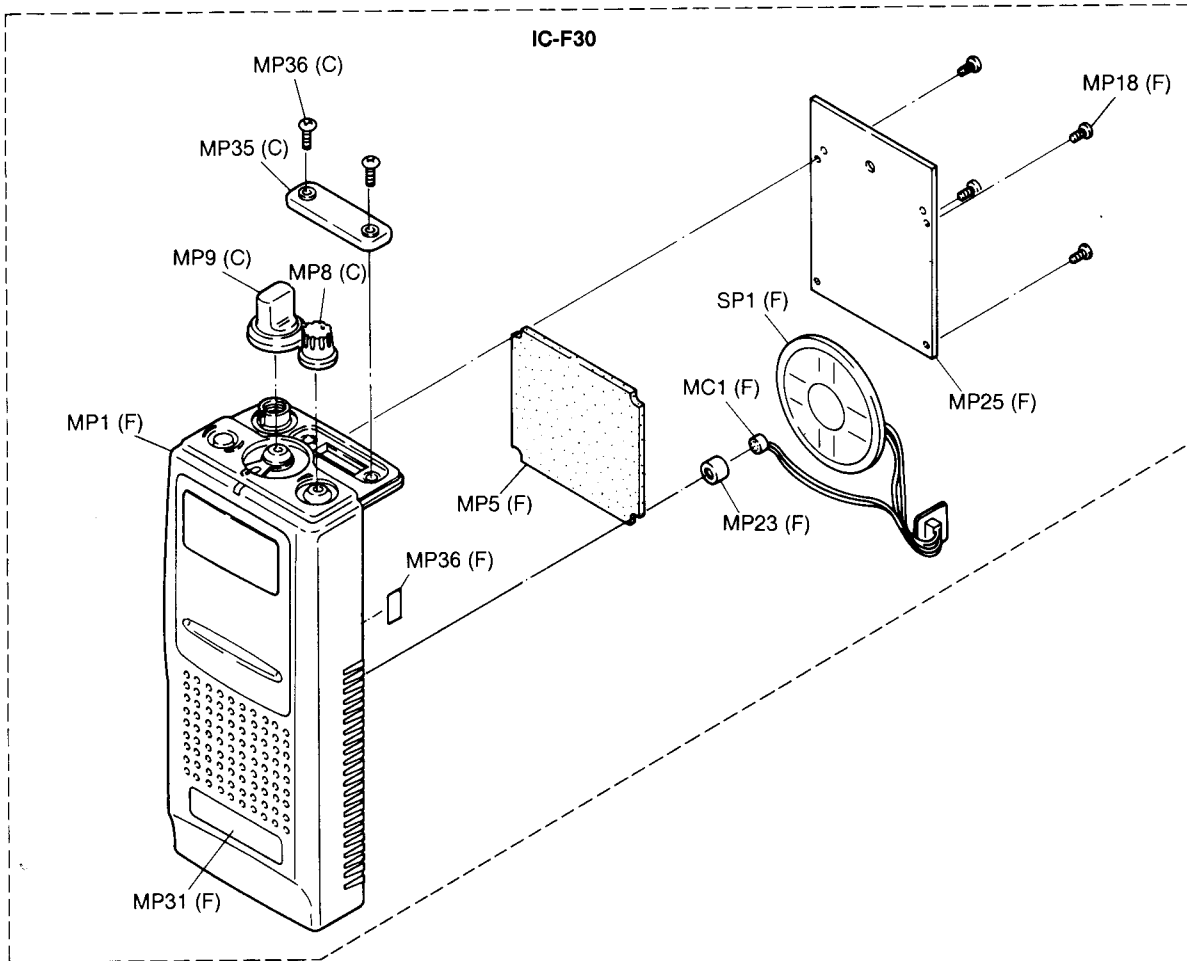
[MAIN, MAIN-A UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
MP1	8510008400	1327 YGR case	1
MP2	8510008420	1327 DBM case (MAIN only)	1
MP3	8510008430	1327 DC-DC case	1
MP4	8510009160	1332 VCO case	1
MP7	8930023680	858 VCO shield plate	1
MP9	8510009050	1327 CPU shield	1
MP12	8510009170	1332 VCO cover	1

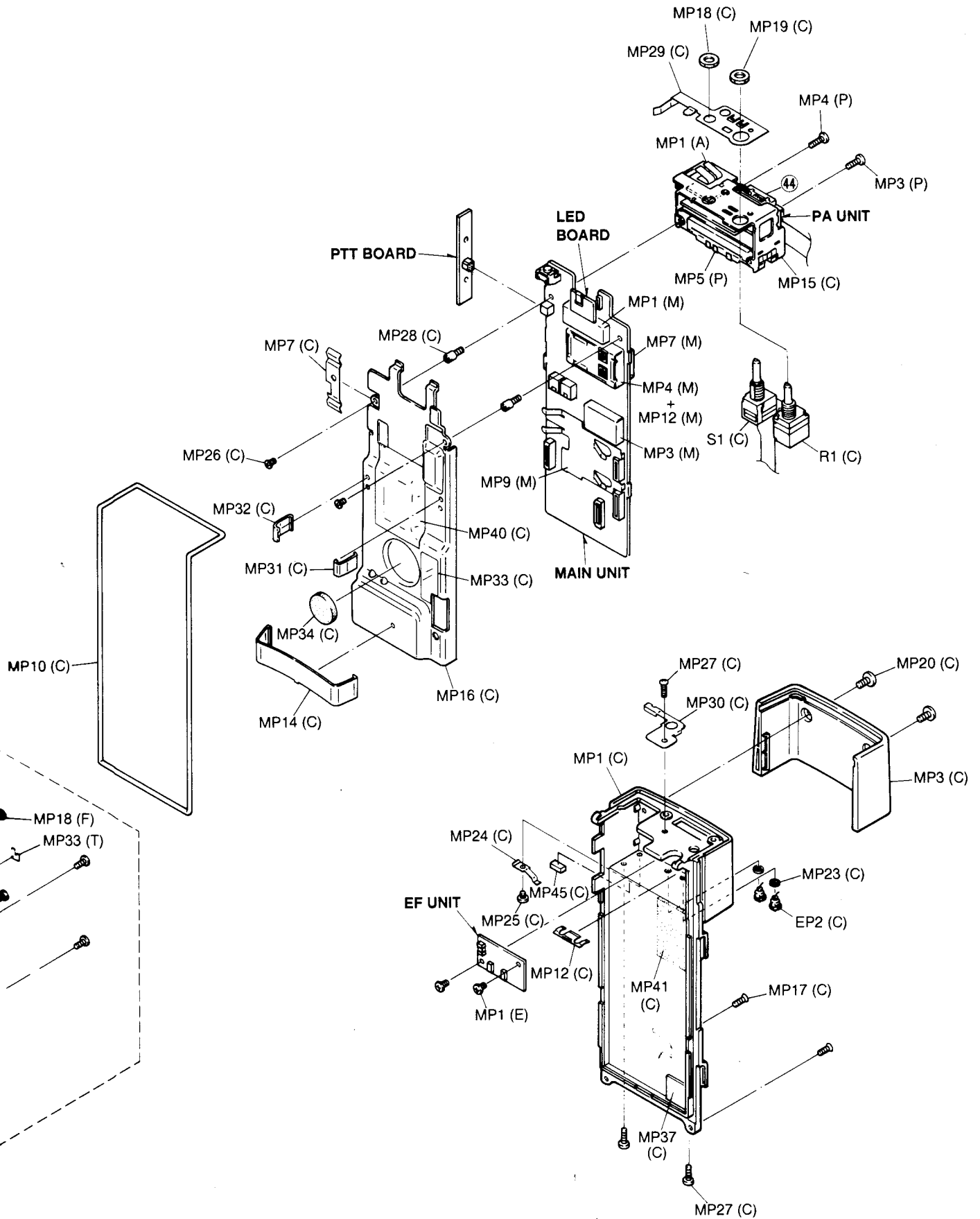
[ANT BOARD]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
MP1	8930029511	1327 ANT plate-1	2

Screw abbreviations BO: Self-tapping PH: Pan head
NI: Nickel ZK: Black





















Unit abbreviations (F): FRONT UNIT (T): TENKEY UNIT (C): CHASSIS UNIT (M): MAIN UNIT
(P): PA UNIT (E): EF UNIT (A): ANT BOARD













SECTION 8

SEMI-CONDUCTOR INFORMATION

• TRANSISTORS AND FET'S

2SA1586 GR (Symbol: SG) 	2SB1132 Q (Symbol: BA) 	2SC4081 R (Symbol: BR) 	2SC4116 GR (Symbol: LG) 	2SC4215 O (Symbol: QO) 
2SC4226 R25 (Symbol: R25) 	2SC4617 TLQ (Symbol: BQ) 	2SJ144 Y (Symbol: VY) 	2SK1069 4 TR (Symbol: FJ) 	2SK536 (Symbol: BJ) 
2SK880 Y (Symbol: XY) 	3SK239XR TL (Symbol: XR) 	DTA144EU (Symbol: 16) 	DTC124EU T107 (Symbol: 25) 	DTC144EU (Symbol: 26) 
XP1110 (Symbol: AD) 	XP4312 (Symbol: 7T) 	2SK1829 (Symbol: KI) 		

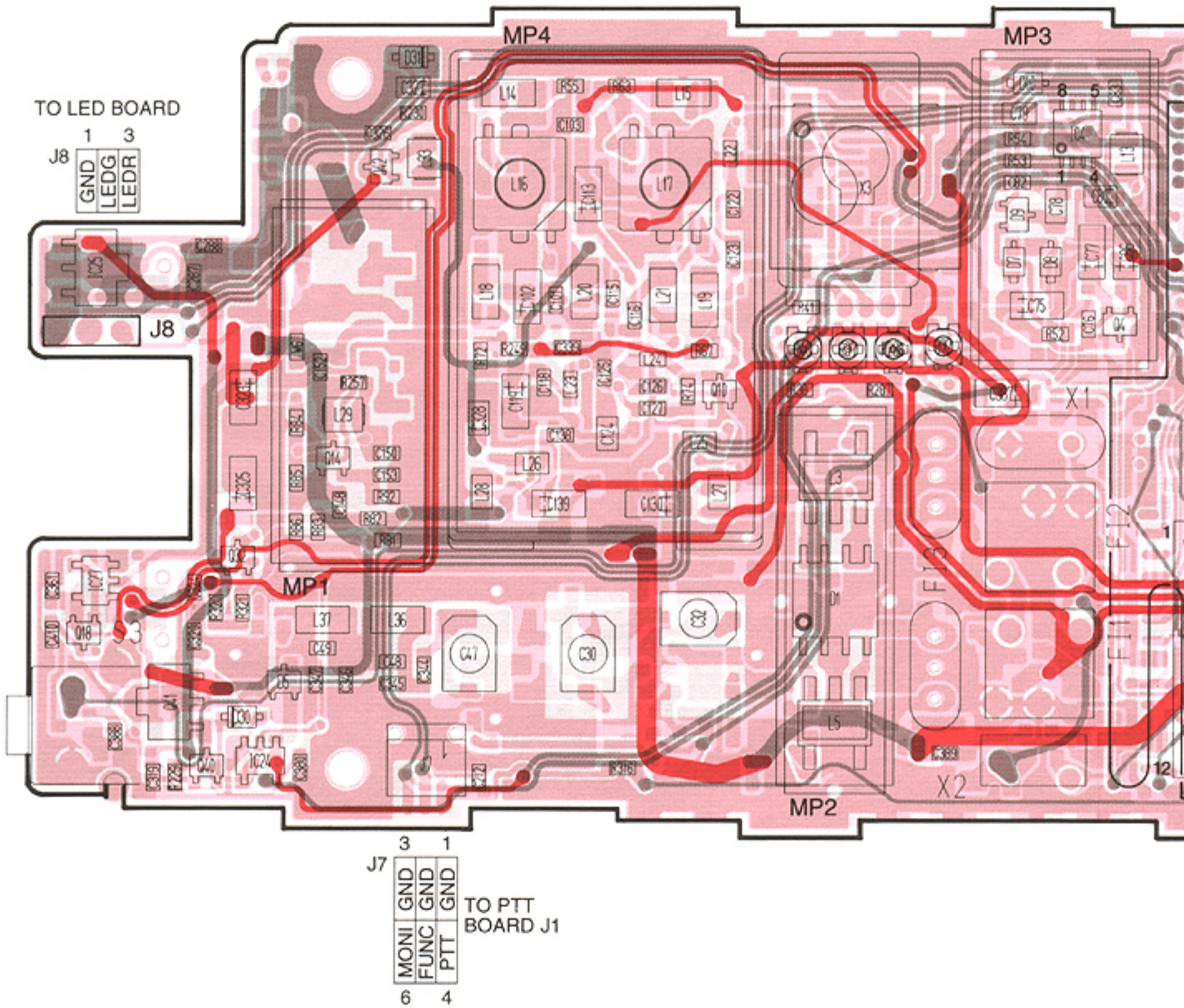
• DIODES

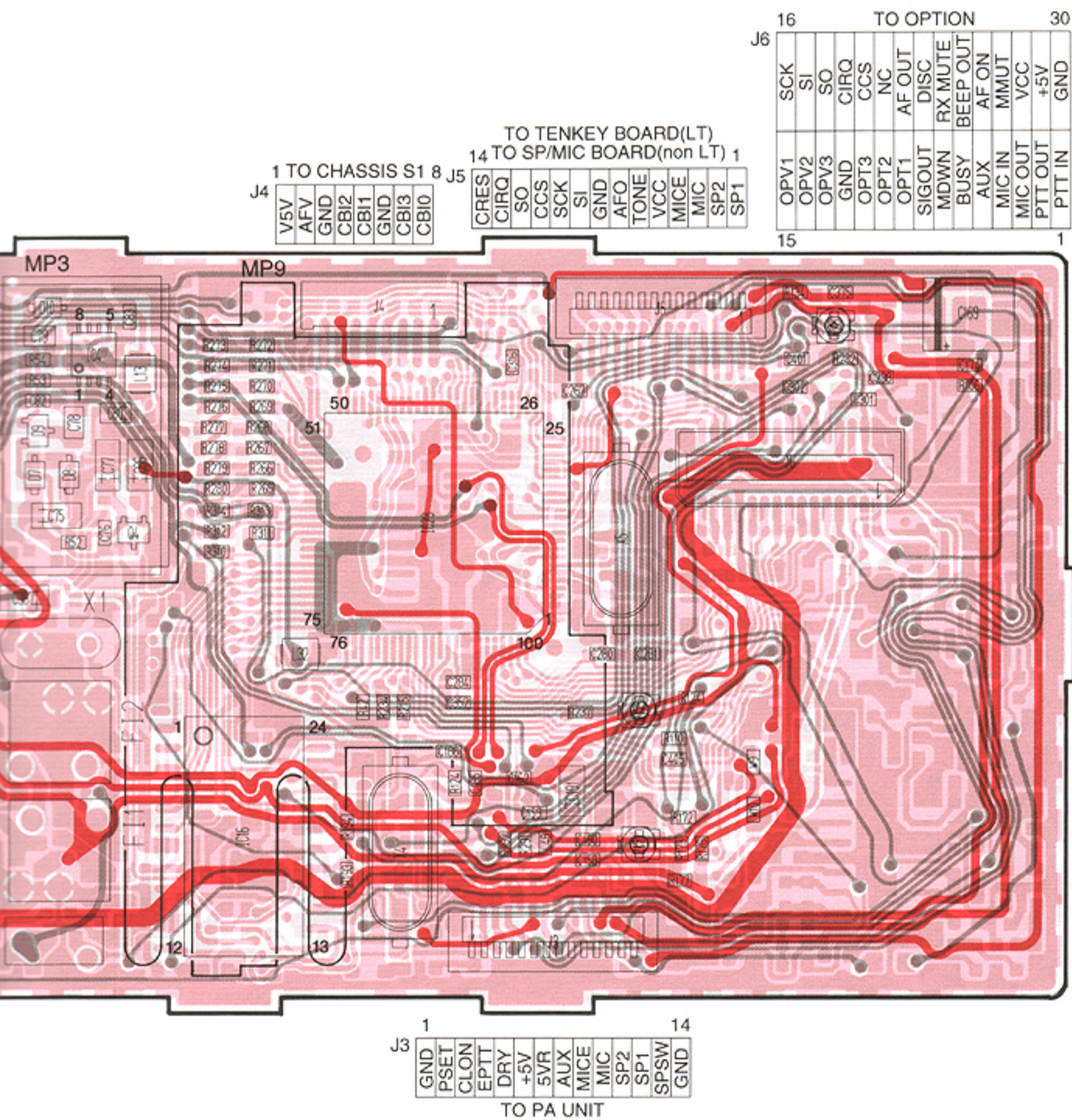
1SS301 (Symbol: B3) 	1SS375 (Symbol: FH) 	1SV234 (Symbol: CV) 	DA204U (Symbol: K) 	HSU88TRF (Symbol: 9) 
MA6S121 (Symbol: M2D) 	MA742 (Symbol: M1U) 	MA862 (Symbol: M1I) 	ND433G (Symbol: 433) 	SB07 03C (Symbol: J) 

SECTION 9 BOARD LAYOUTS

9-1 MAIN UNIT (WIDE AND NARROW TYPES)

• TOP VIEW





1 TO CHASSIS S1 8 J5

V5V
AFV
GND
CB12
CB11
GND
CB13
CB10

TO TENKEY BOARD(LT)

CRES
CIRQ
SO
CCS
SCK
SI
GND
AFO
tone
VCC
MICE
MIC
SP2
SP1

14 TO SP/MIC BOARD(non LT) 1

TO OPTION

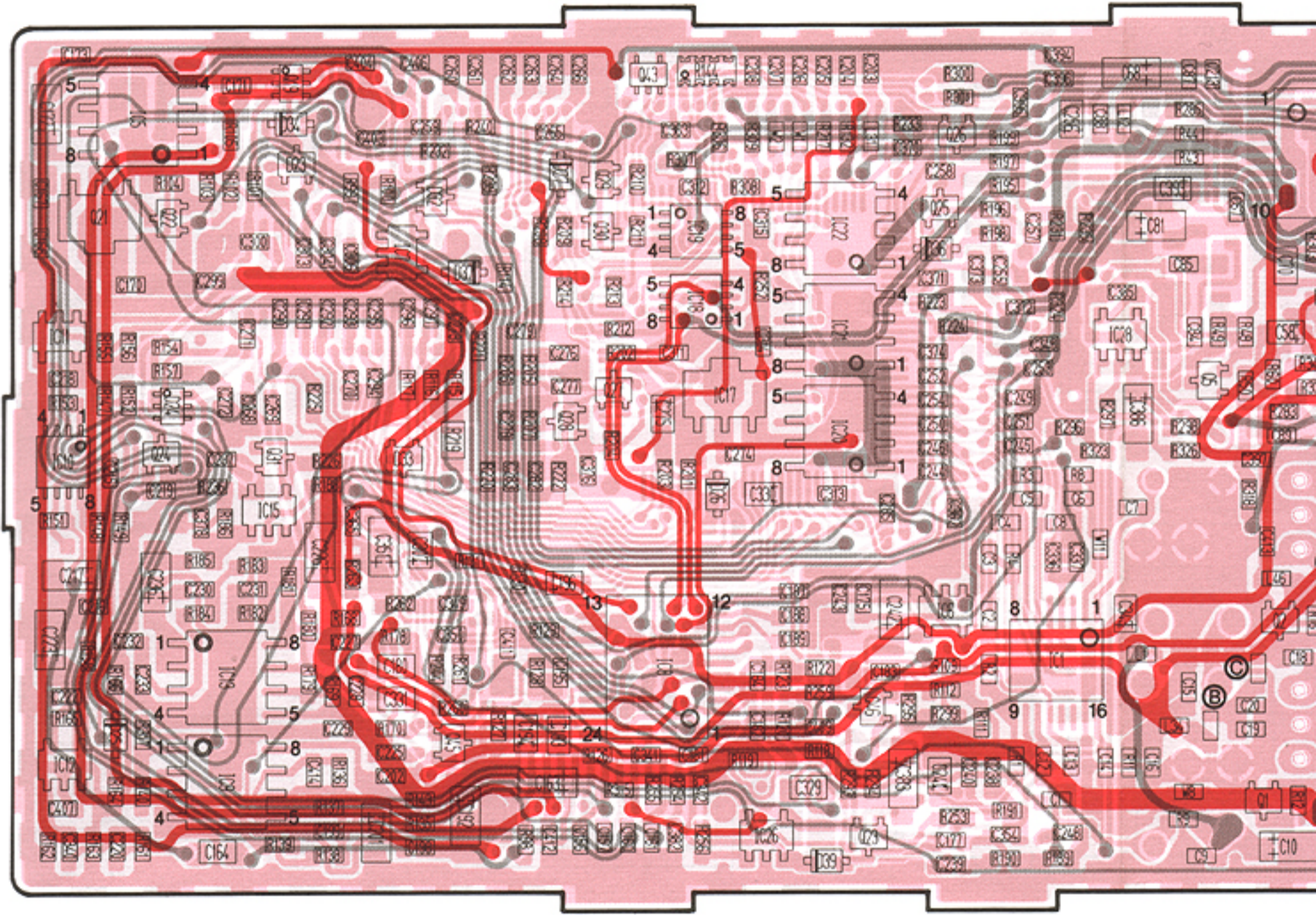
16	SCK	30
	SI	
	SO	
	CIRQ	
	CCS	
	NC	
	AF OUT	
	DISC	
	RX MUTE	
	BEEP OUT	
	AF ON	
	MMUT	
	VCC	
	+5V	
	GND	
15	OPV1	1
	OPV2	
	OPV3	
	GND	
	OPT3	
	OPT2	
	OPT1	
	SIGOUT	
	MDWN	
	BUSY	
	AUX	
	MIC IN	
	MIC OUT	
	PTT OUT	
	PTT IN	

J3

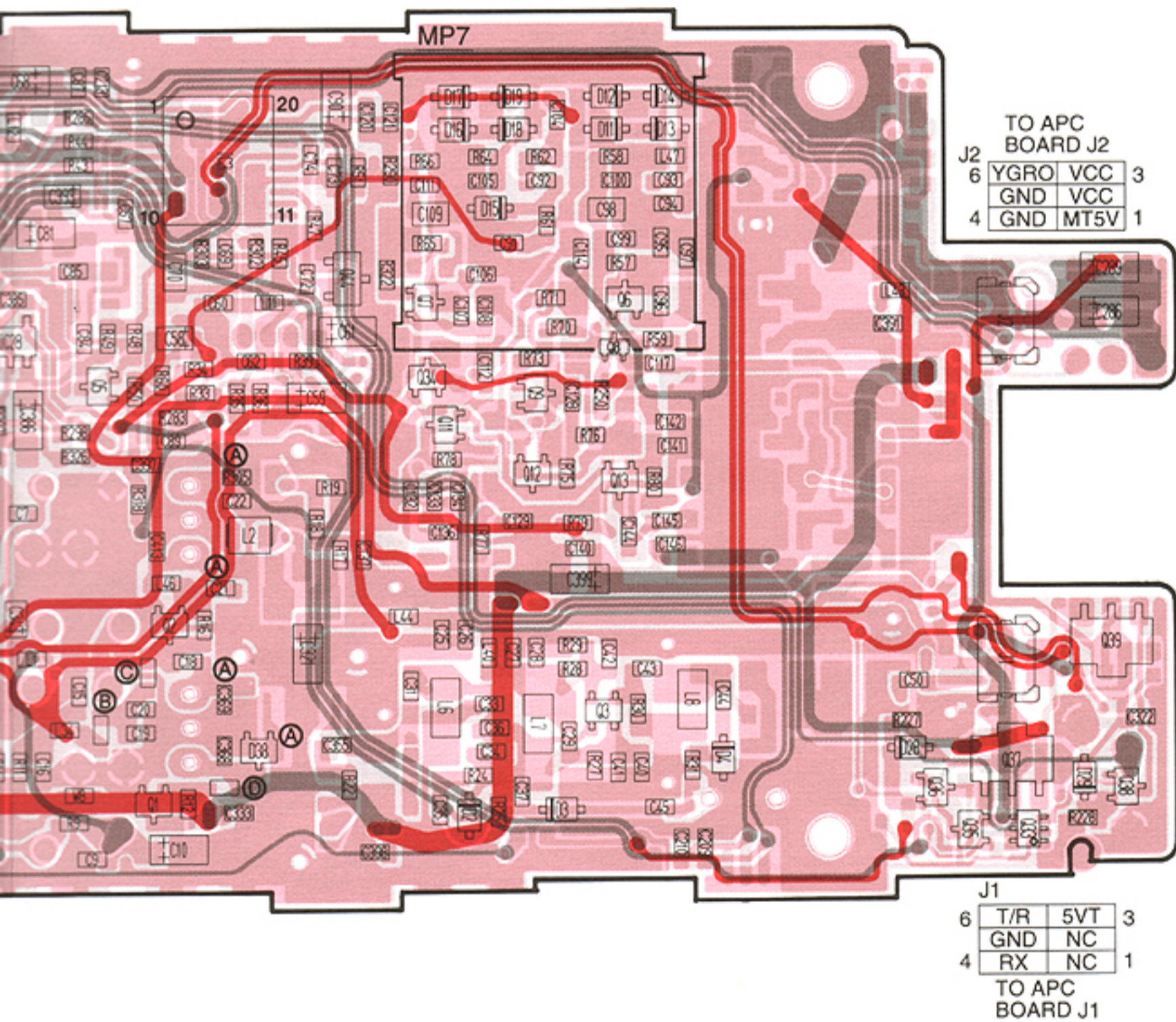
1	GND	14
	PSET	
	CLON	
	EPTT	
	DRY	
	+5V	
	5VR	
	AUX	
	MICE	
	MIC	
	SP2	
	SP1	
	SPSW	
	GND	

TO PA UNIT

● BOTTOM VIEW

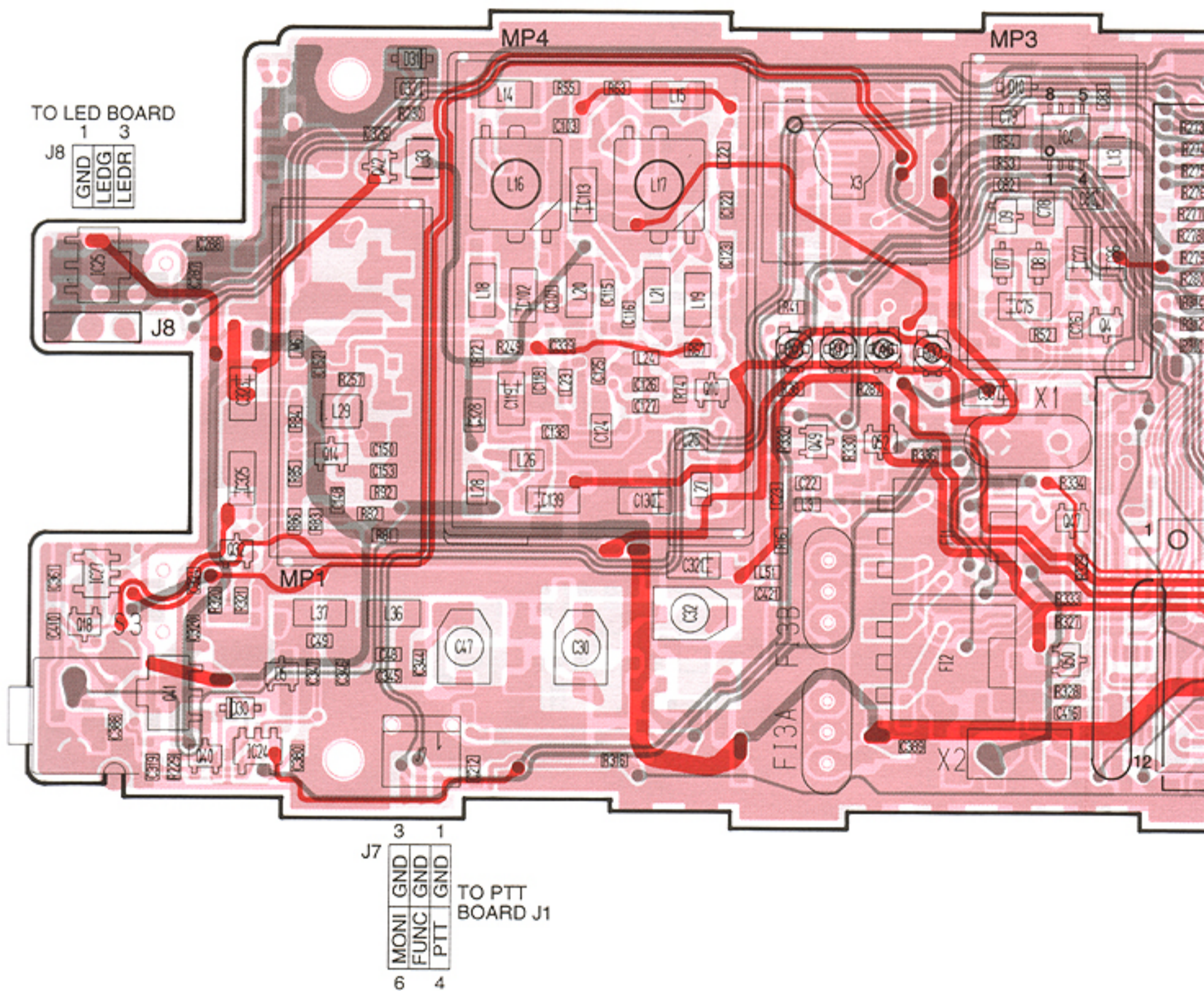


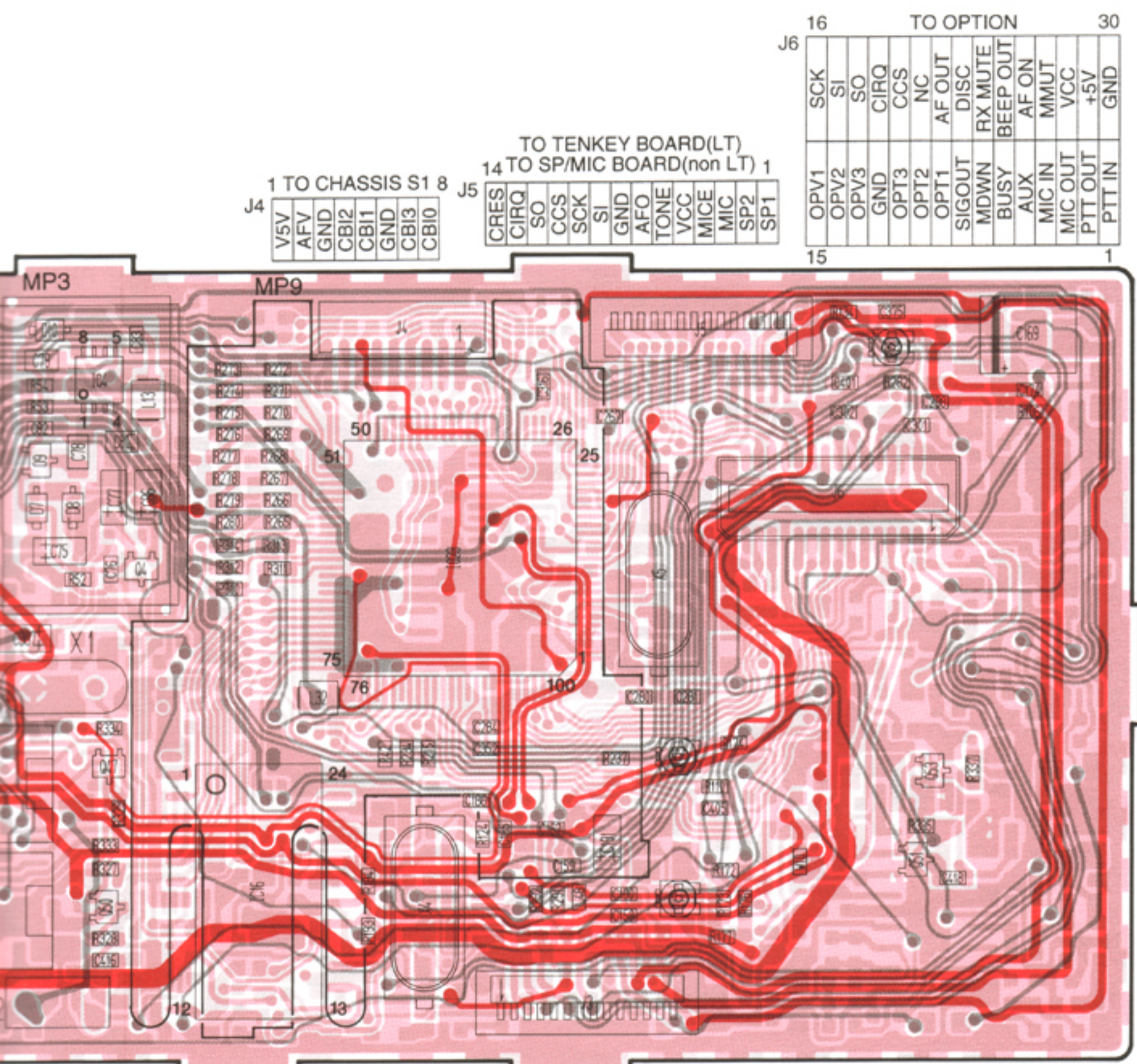
- Ⓐ PMR only
- Ⓑ LMR, PMR (Wide and Middle types): L35
Narrow type only: R15
- Ⓒ LMR, PMR (Wide and Middle types): R15
Narrow type only: L35
- Ⓓ LMR, PMR (Wide and Middle types): L50
Narrow type only: C17



9-2 MAIN-A UNIT (WIDE/NARROW TYPES)

• TOP VIEW





J4 1 TO CHASSIS S1 8

V5V
AFV
GND
CBI2
CBI1
GND
CBI3
CBI0

J5 TO TENKEY BOARD(LT)
14 TO SP/MIC BOARD(non LT) 1

CRES
CIRQ
SO
CCS
SCK
SI
GND
AFO
STONE
VCC
MICE
MIC
SP2
SP1

J6 16 TO OPTION 30

OPV1	SCK
OPV2	SI
OPV3	SO
GND	CIRQ
OPT3	CCS
OPT2	NC
OPT1	AF OUT
SIGOUT	DISC
MDWN	RX MUTE
BUSY	BEEP OUT
AUX	AF ON
MIC IN	MMUT
MIC OUT	VCC
PTT OUT	+5V
PTT IN	GND

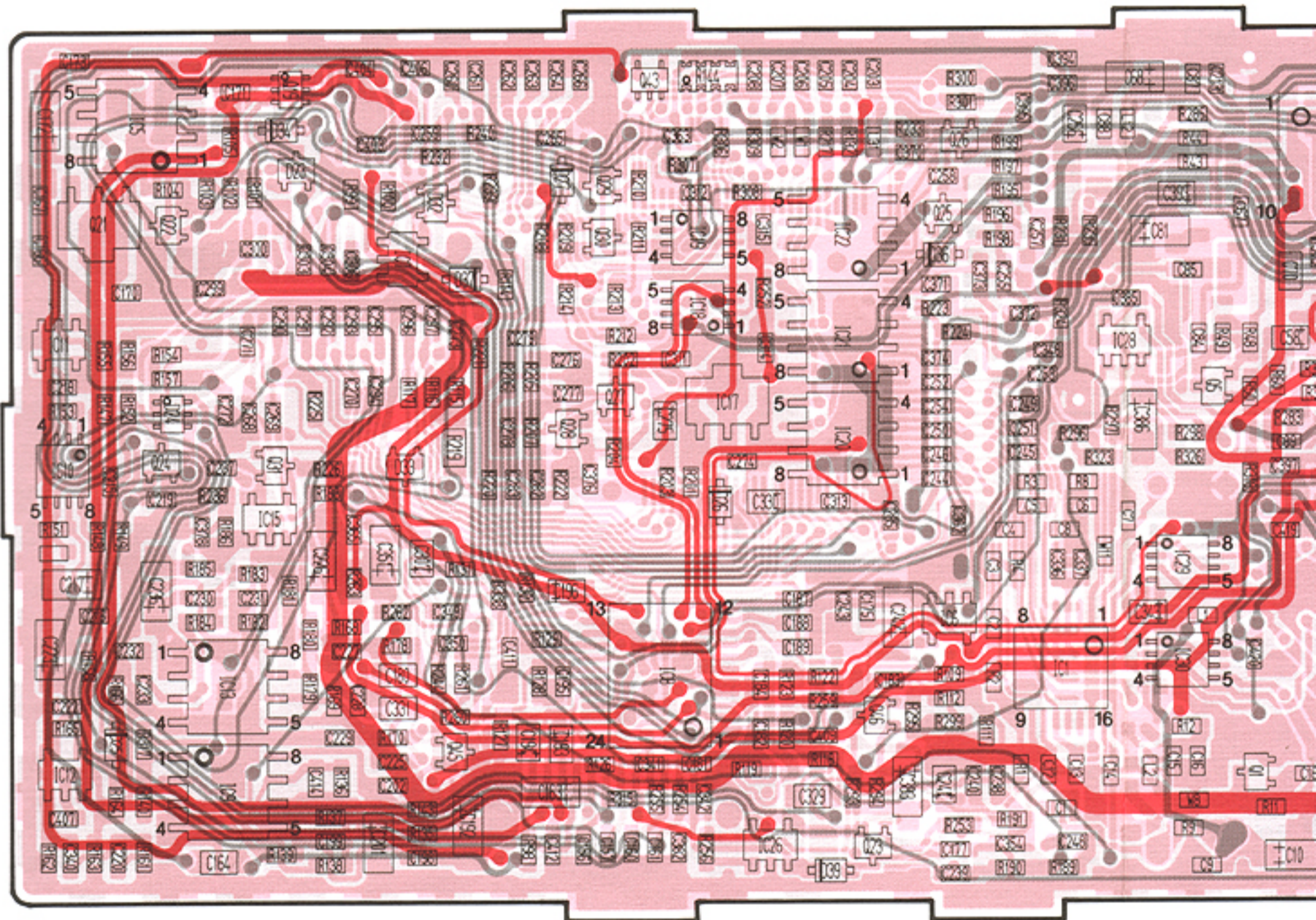
15 1

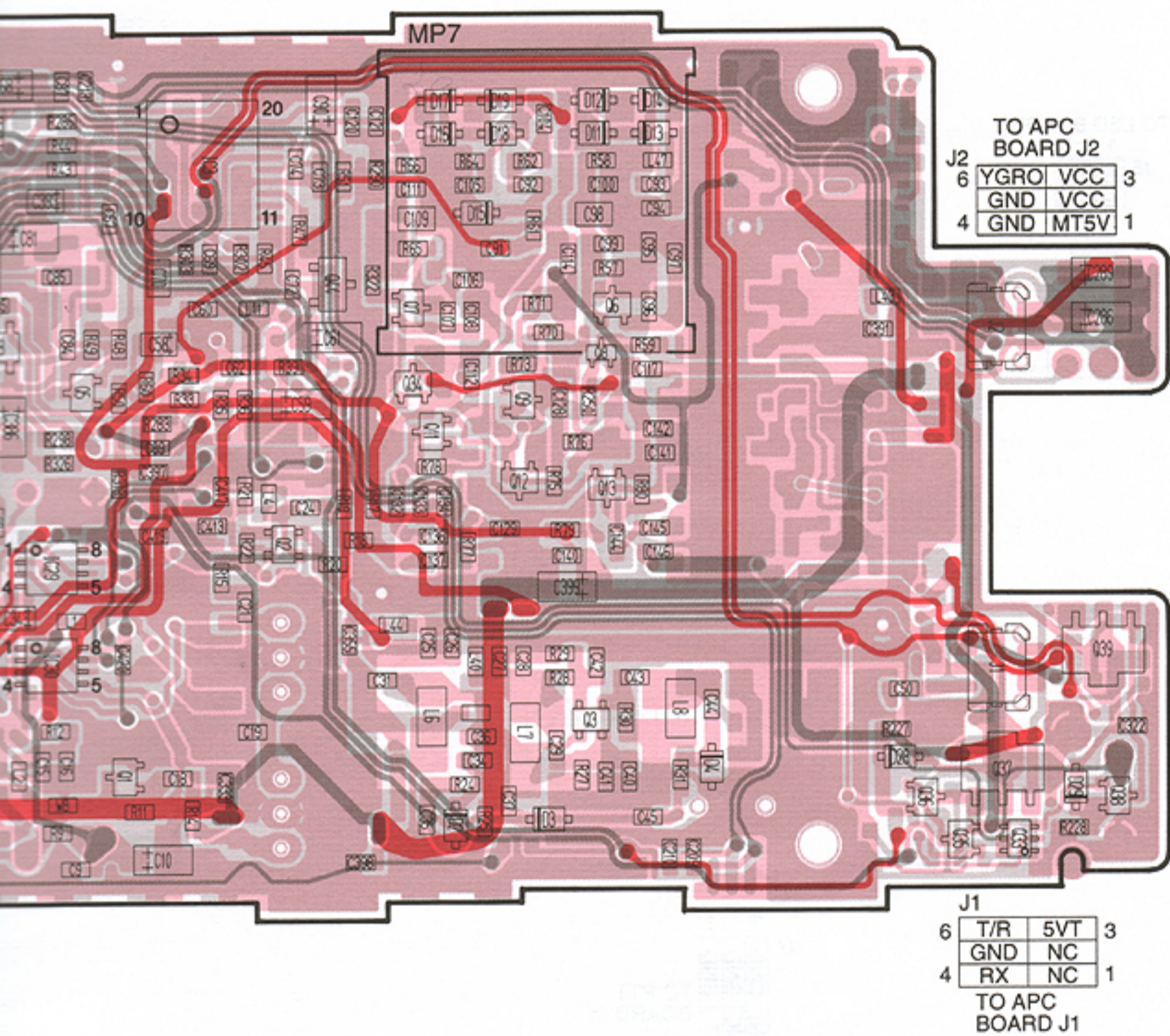
J3 1 14

GND
PSET
CLON
EPTT
DRY
+5V
5VR
AUX
MICE
MIC
SP2
SP1
SPSW
GND

TO PA UNIT

• BOTTOM VIEW

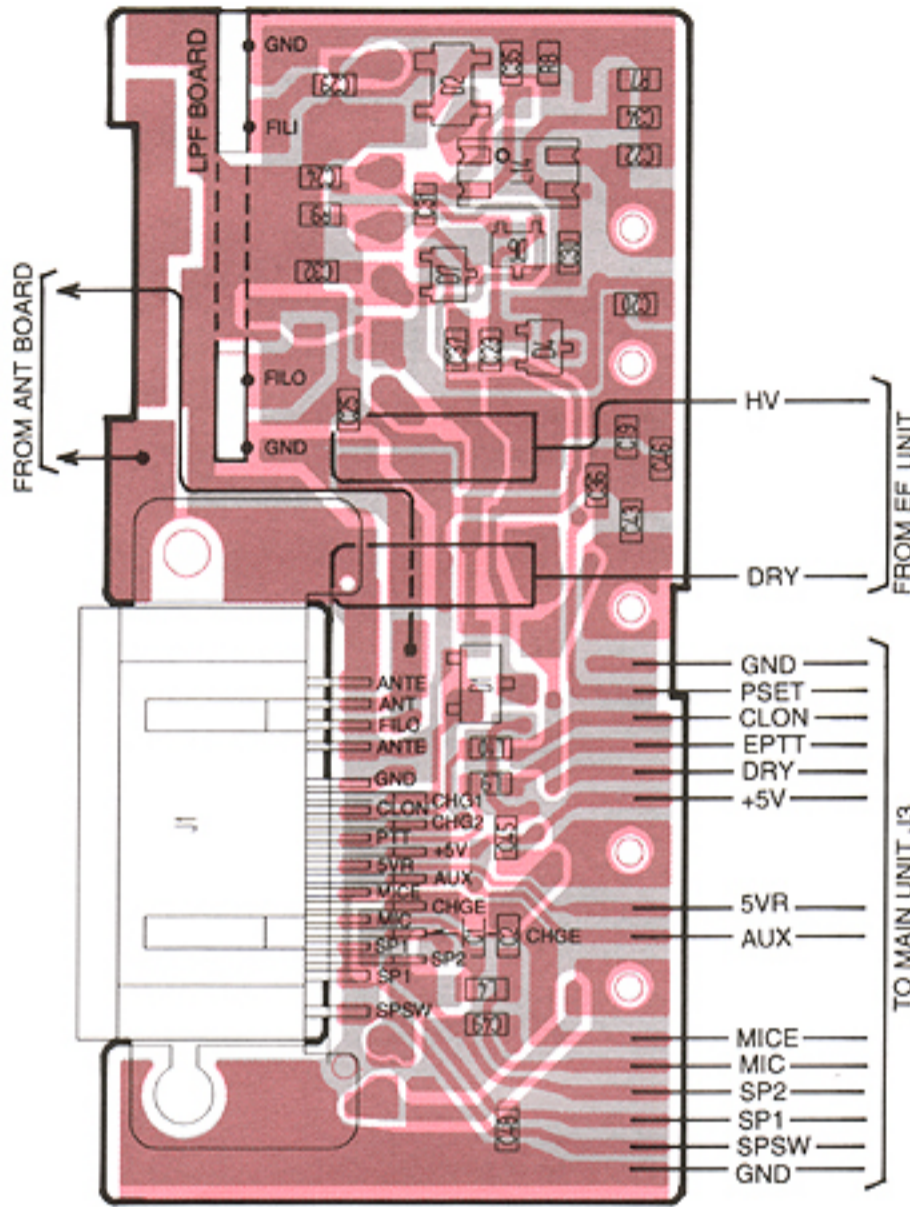




9-3 PA, EF AND TENKEY UNITS

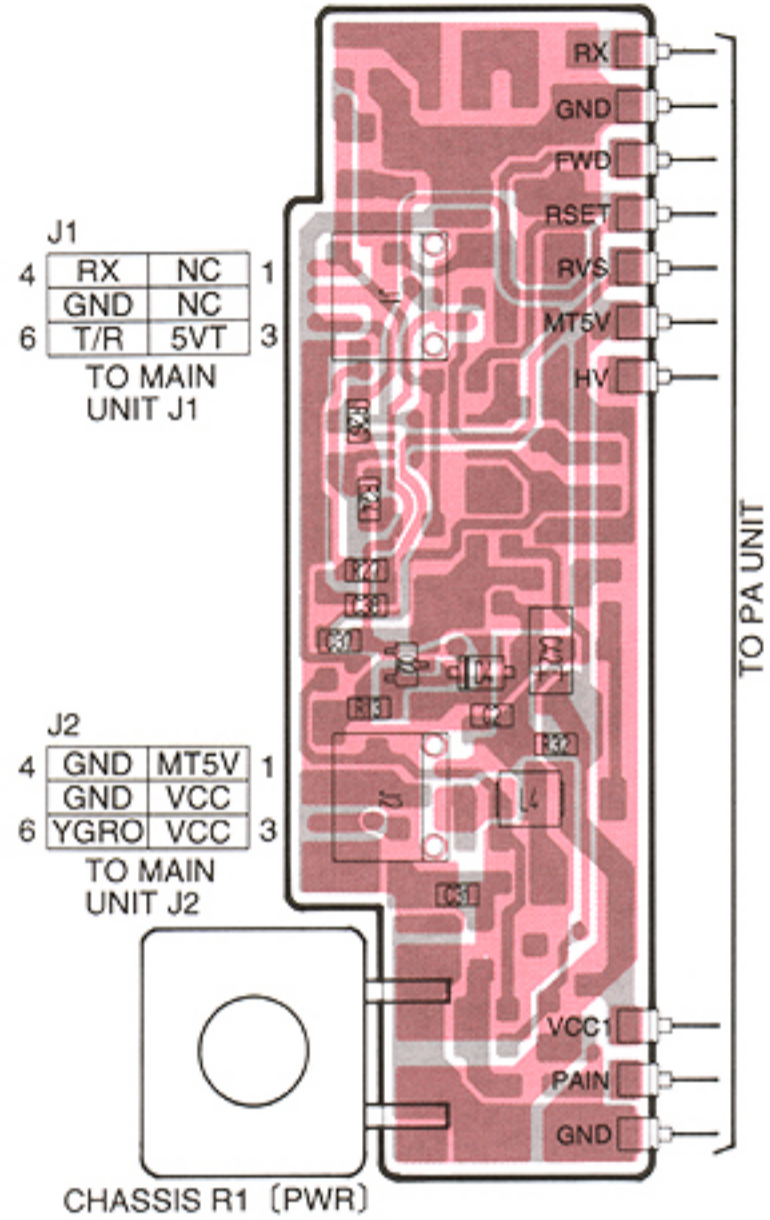
• PA UNIT

TOP VIEW

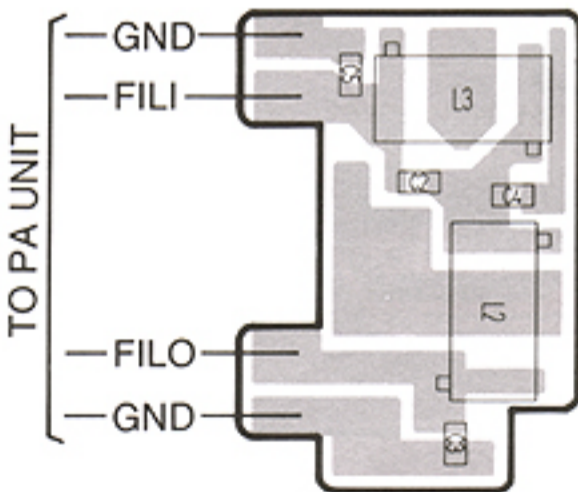


• APC BOARD

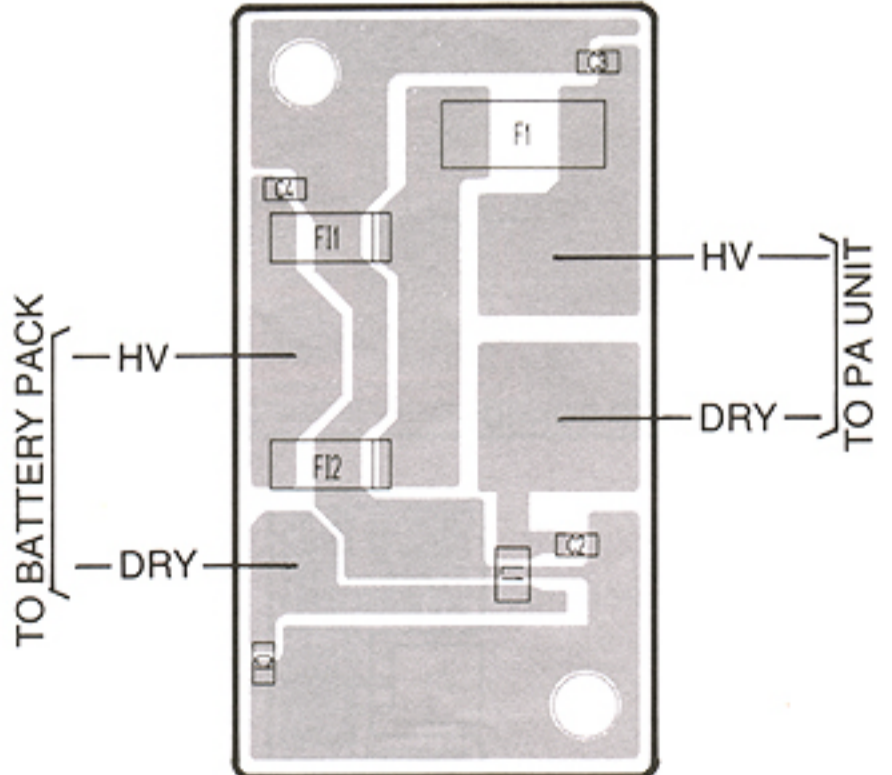
TOP VIEW



• LPF BOARD

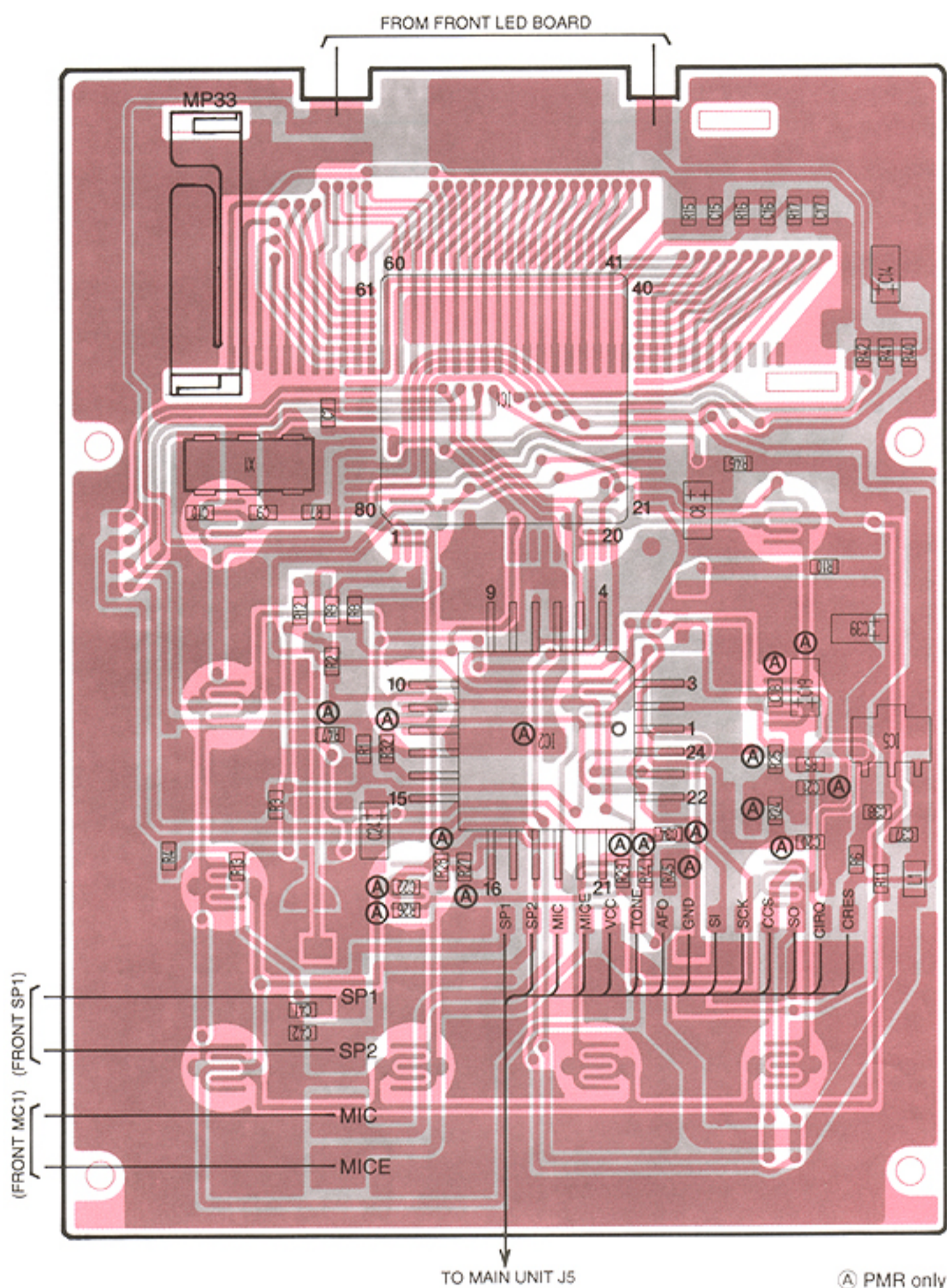


• EF UNIT

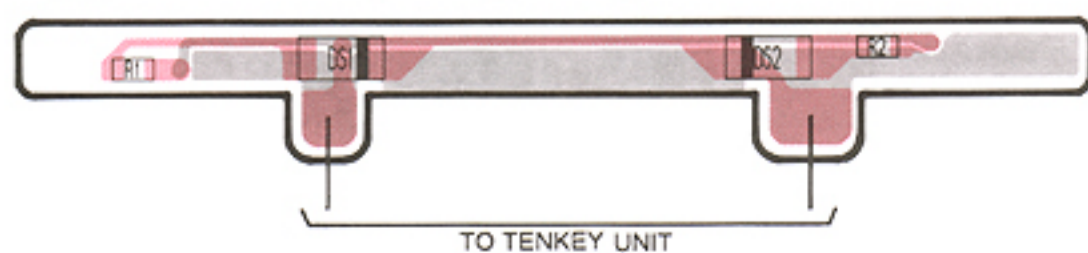


● TENKEY UNIT ("LT" types only)

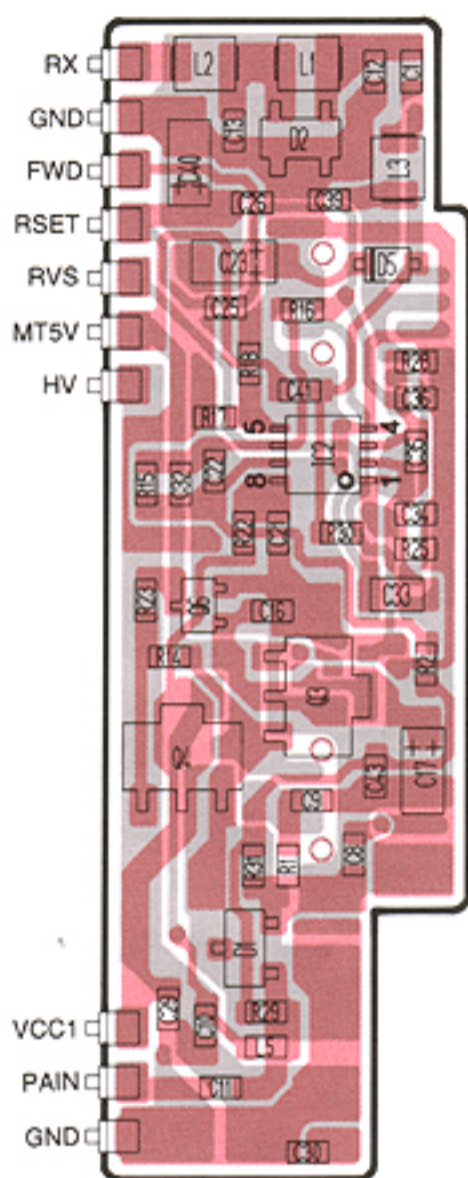
TOP VIEW



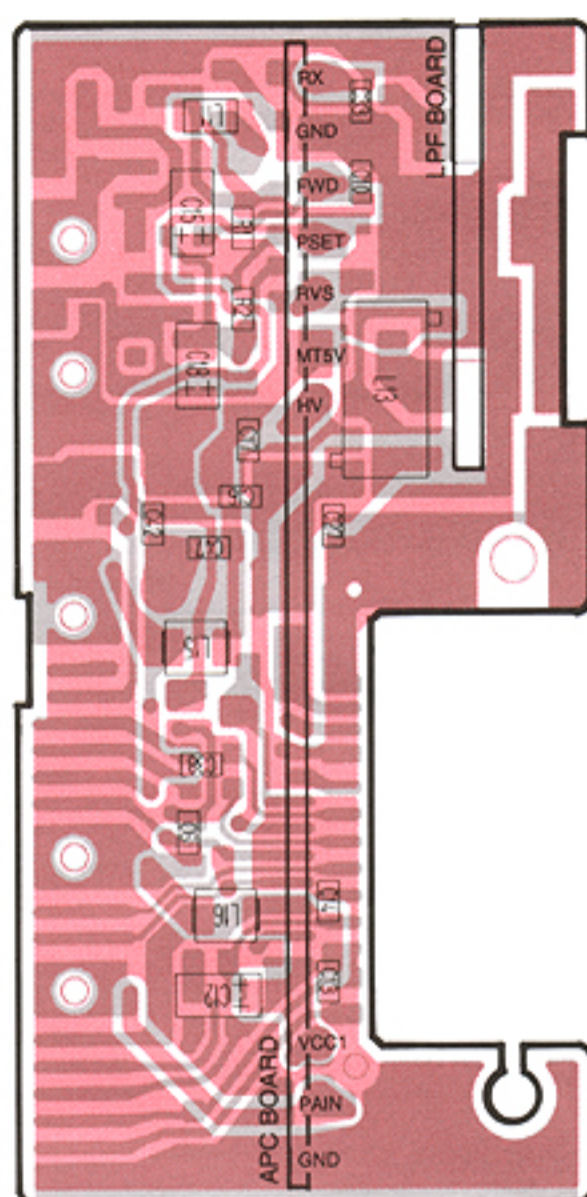
● FRONT LED BOARD ("LT" types only)



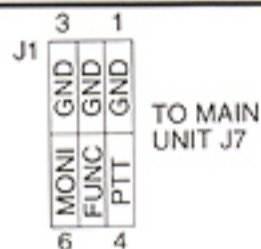
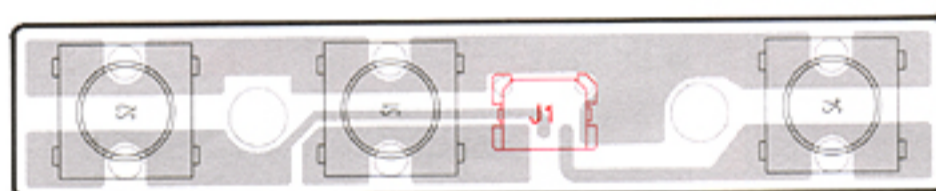
● APC BOARD
BOTTOM VIEW



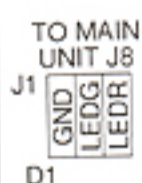
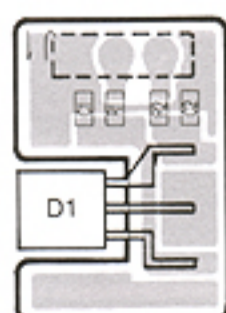
● PA UNIT
BOTTOM VIEW



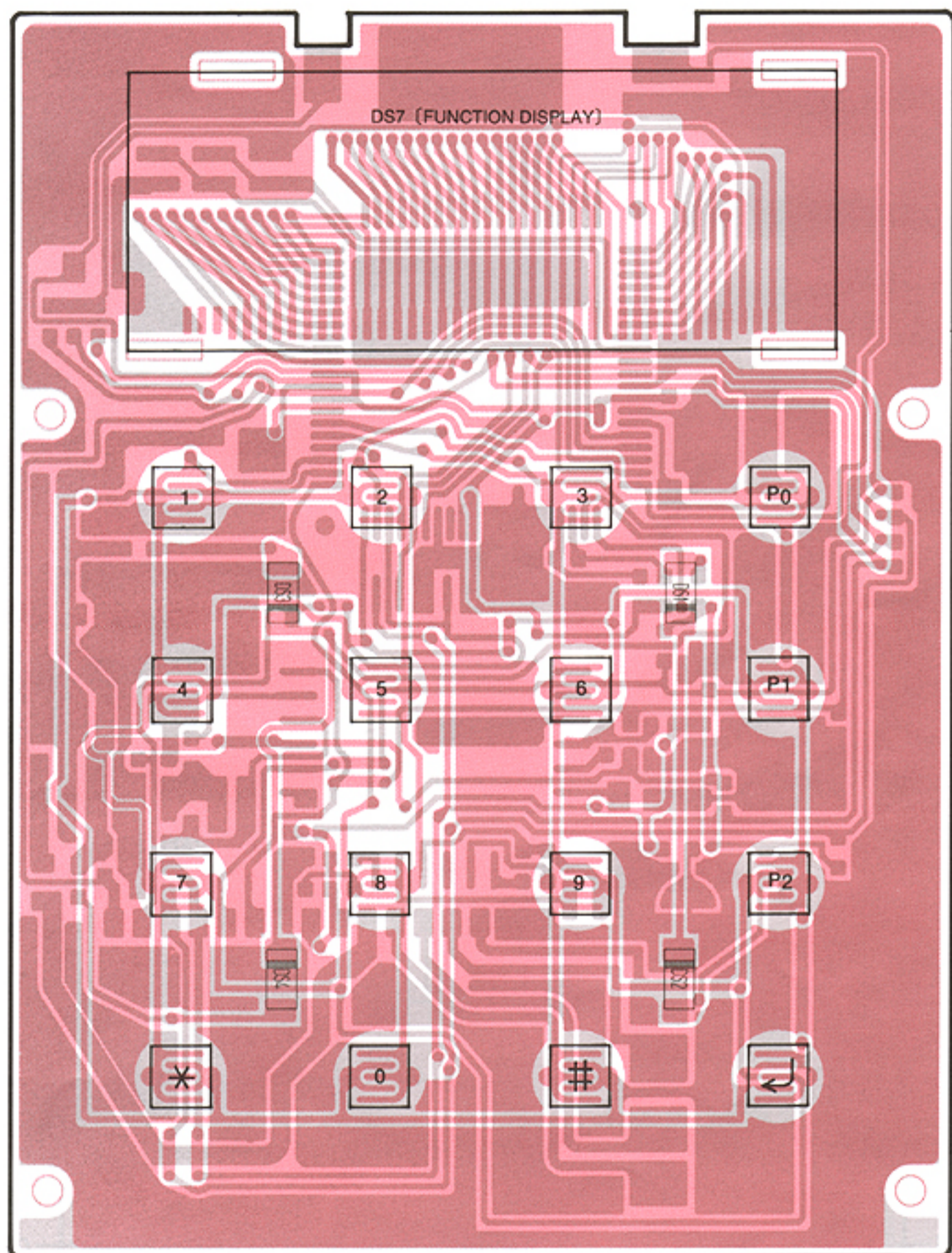
● PTT BOARD



● LED BOARD

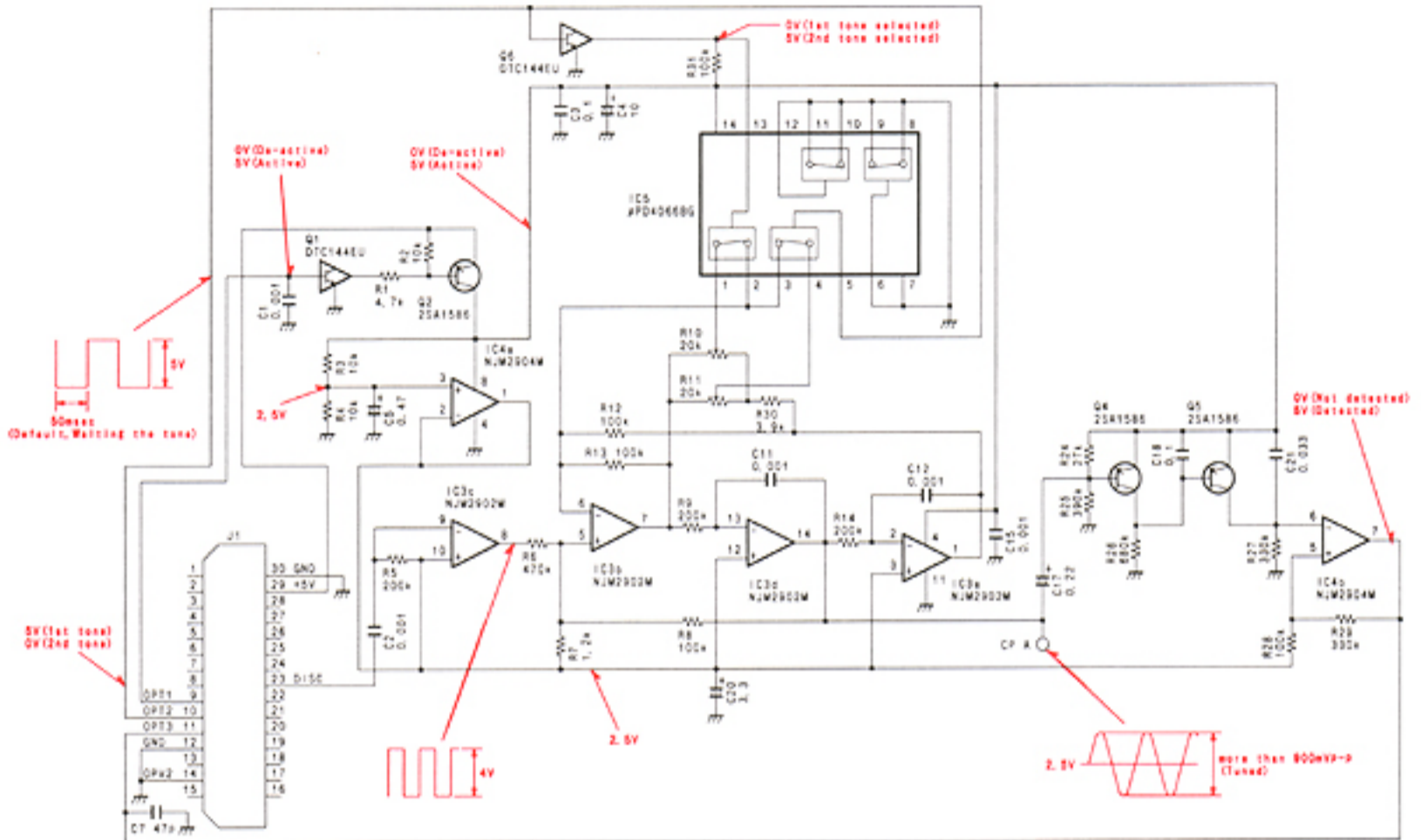


• TENKEY UNIT
BOTTOM VIEW



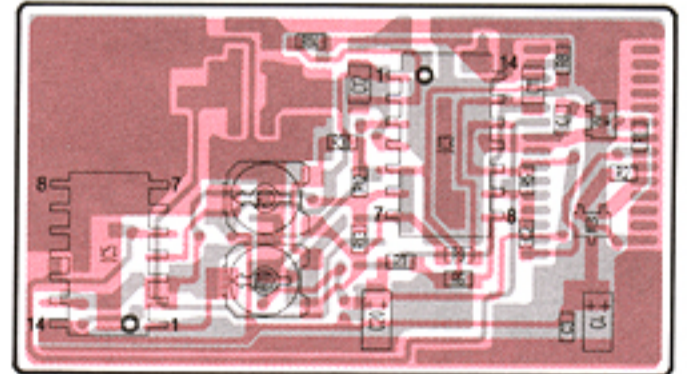
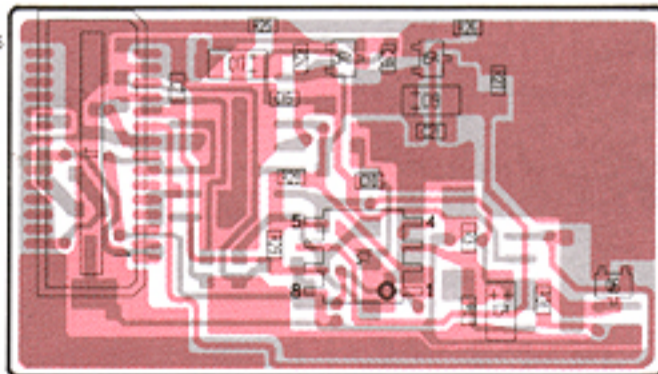
SECTION 10 OPTIONAL UNITS

10-1 UT-80 2-TONE DECODER UNIT



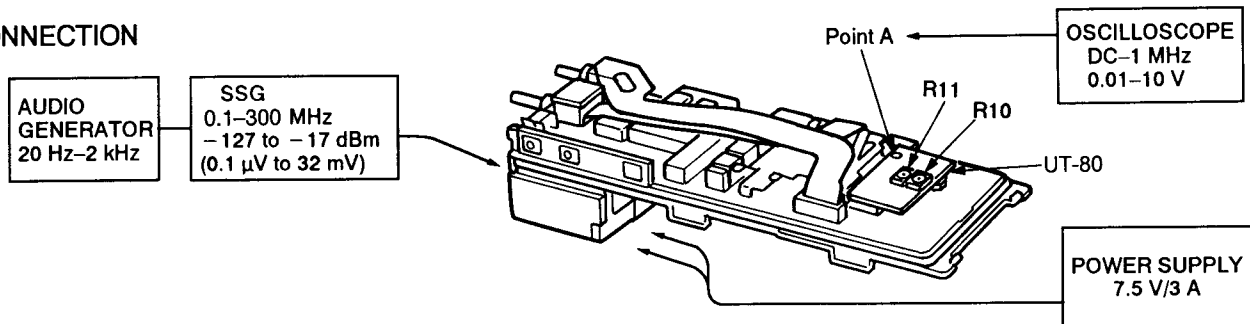
16	SCK	OPV1	15
	SI	OPV2	
	SD	OPV3	
	ClRQ	GND	
	CCS	OPT3	
	NC	OPT2	
	AF OUT	OPT1	
	DISC	SIG OUT	
	RX MUTE	MDWN	
	BEEP OUT	BUSY	
	AF ON	AUX	
	MMUTE	MIC IN	
	VCC	MIC OUT	
	+5V	PTT OUT	
30	GND	PTT IN	1

TO MAIN UNIT J6



• 2-TONE FREQUENCY ADJUSTMENT

CONNECTION

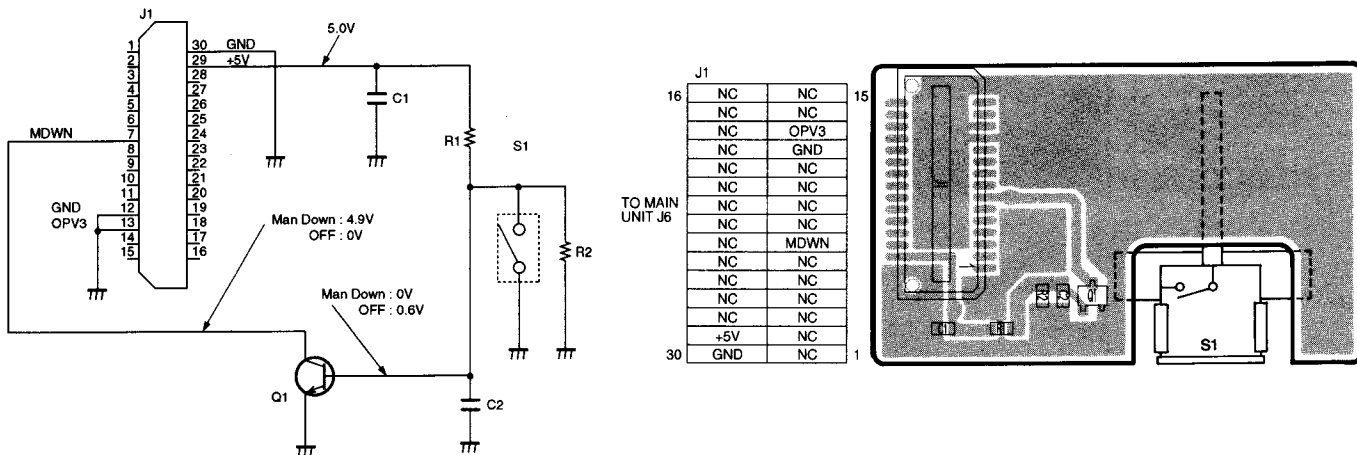


ADJUSTMENT CONDITION	MEASUREMENT		VALUE	ADJUSTMENT	
	UNIT	LOCATION		UNIT	ADJUST
1 • Operating channel: 2-tone decoder function programmed channel • Connect an SSG to the antenna connector and set as: Level : 1 mV (-47 dBm) Deviation : ±3.5 kHz (wide and wide/narrow) ±2.8 kHz (middle) ±1.75 kHz (narrow) Modulation: desired 1st tone frequency (refer to standard group below) • Receiving	UT-80	Connect an oscilloscope to the point A.	Maximum wave form	UT-80	R11
2 • Connect the SSG to the antenna connector and set as: Modulation : desired 2nd tone frequency					

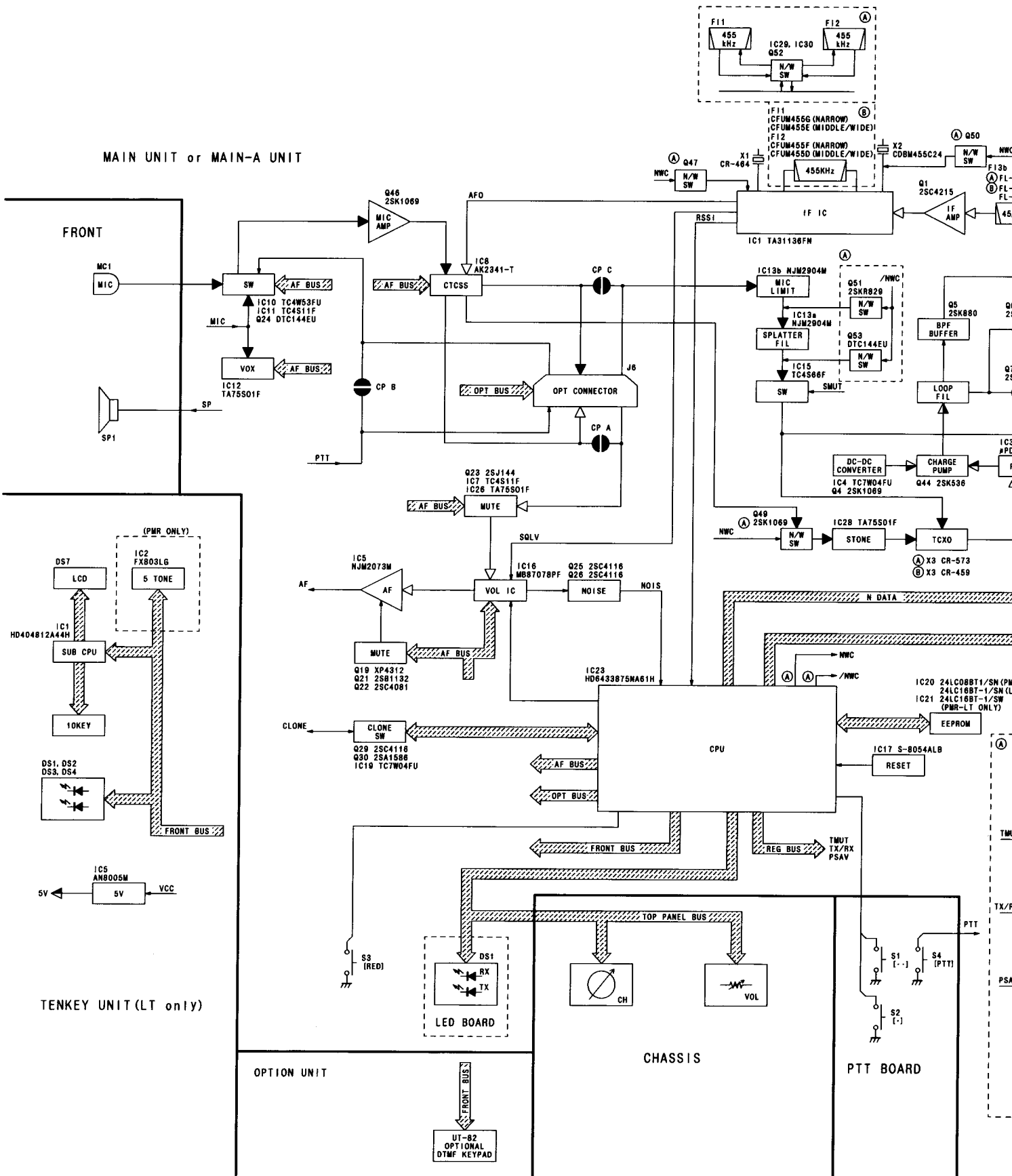
STANDARD GROUPS FOR 2-TONE SEQUENTIAL SIGNALING (unit: Hz)

Group	0	1	2	3	4	5	6	7	8	9	DG
Group 1	330.5	349.0	368.5	389.0	410.8	433.7	457.9	483.5	510.5	539.0	569.1
Group 2	569.1	600.9	634.5	669.9	707.3	746.8	788.5	832.5	879.0	928.1	979.9
Group 3	1092.4	288.5	296.5	304.7	313.0	953.7	979.9	1006.9	1034.7	1063.2	569.1
Group 4	321.7	339.6	358.6	378.6	399.8	422.1	445.7	470.5	496.8	524.6	569.1
Group 5	553.9	584.8	617.4	651.9	688.3	726.8	767.4	810.2	855.5	903.2	979.9

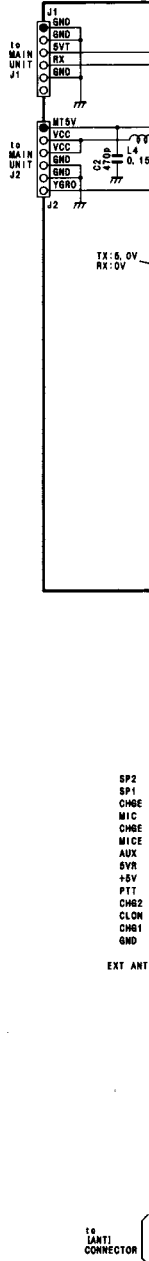
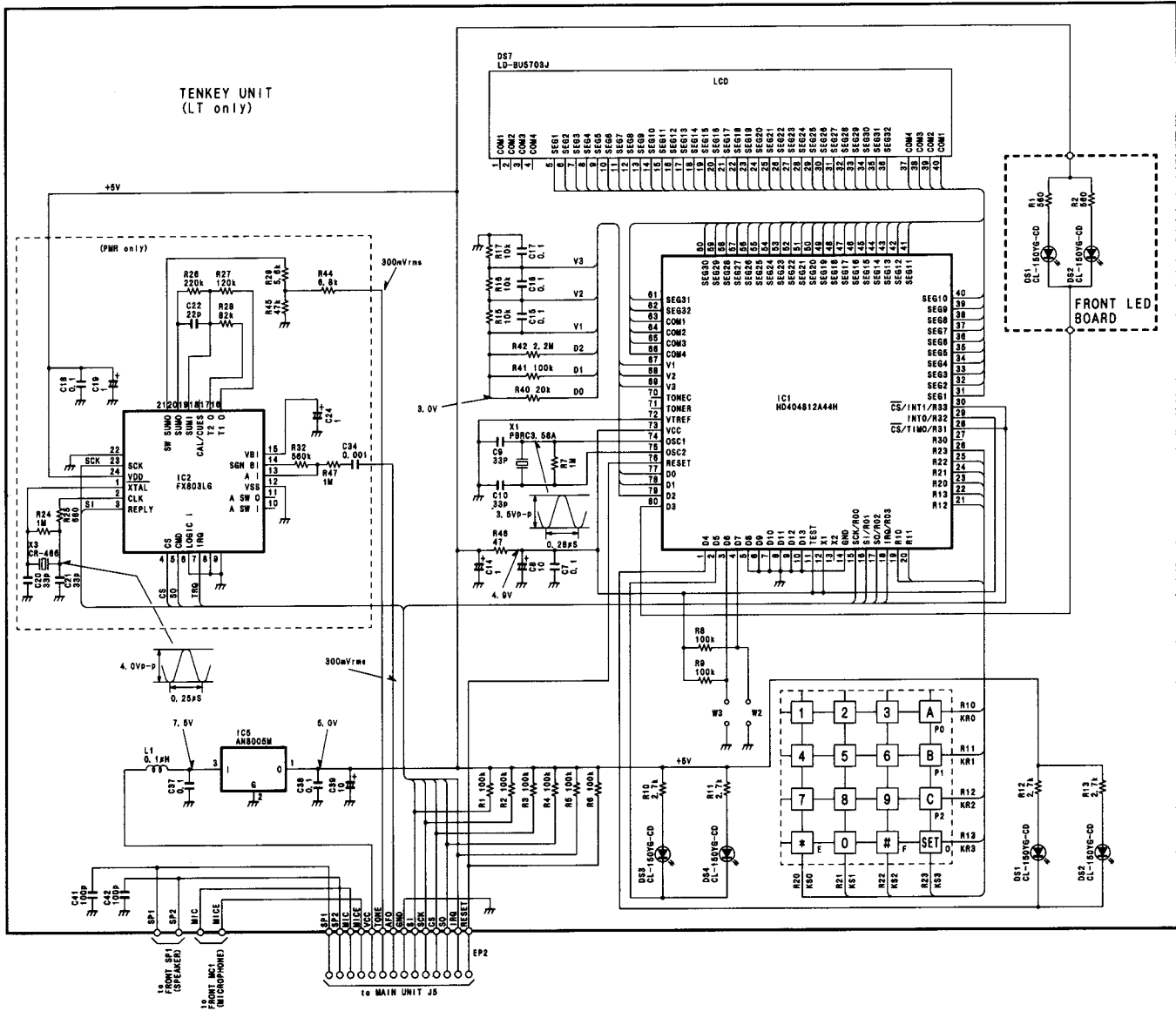
10-2 UT-100 MAN DOWN UNIT



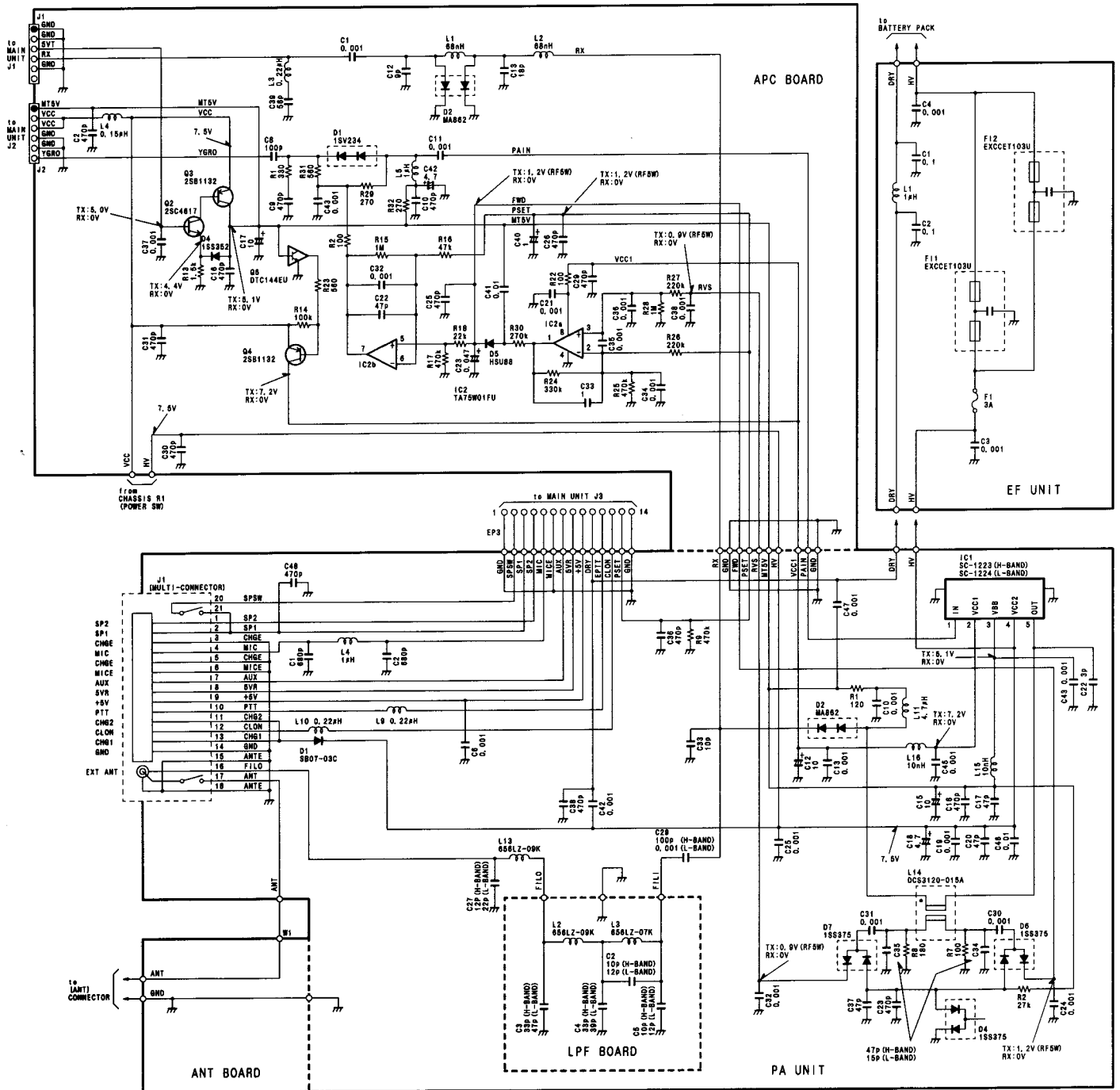
SECTION 11 BLOCK DIAGRAM

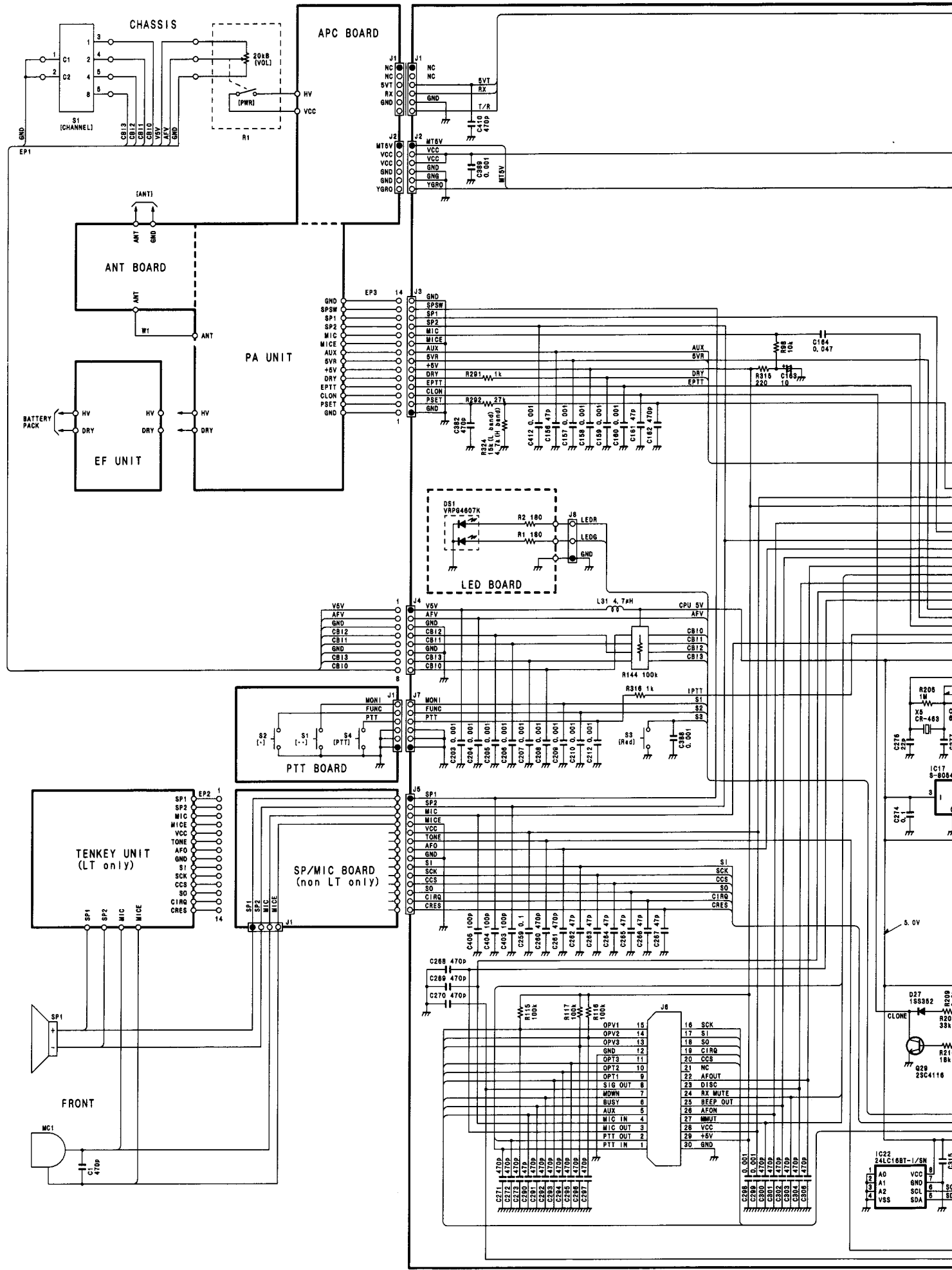


SECTION 12 VOLTAGE DIAGRAM

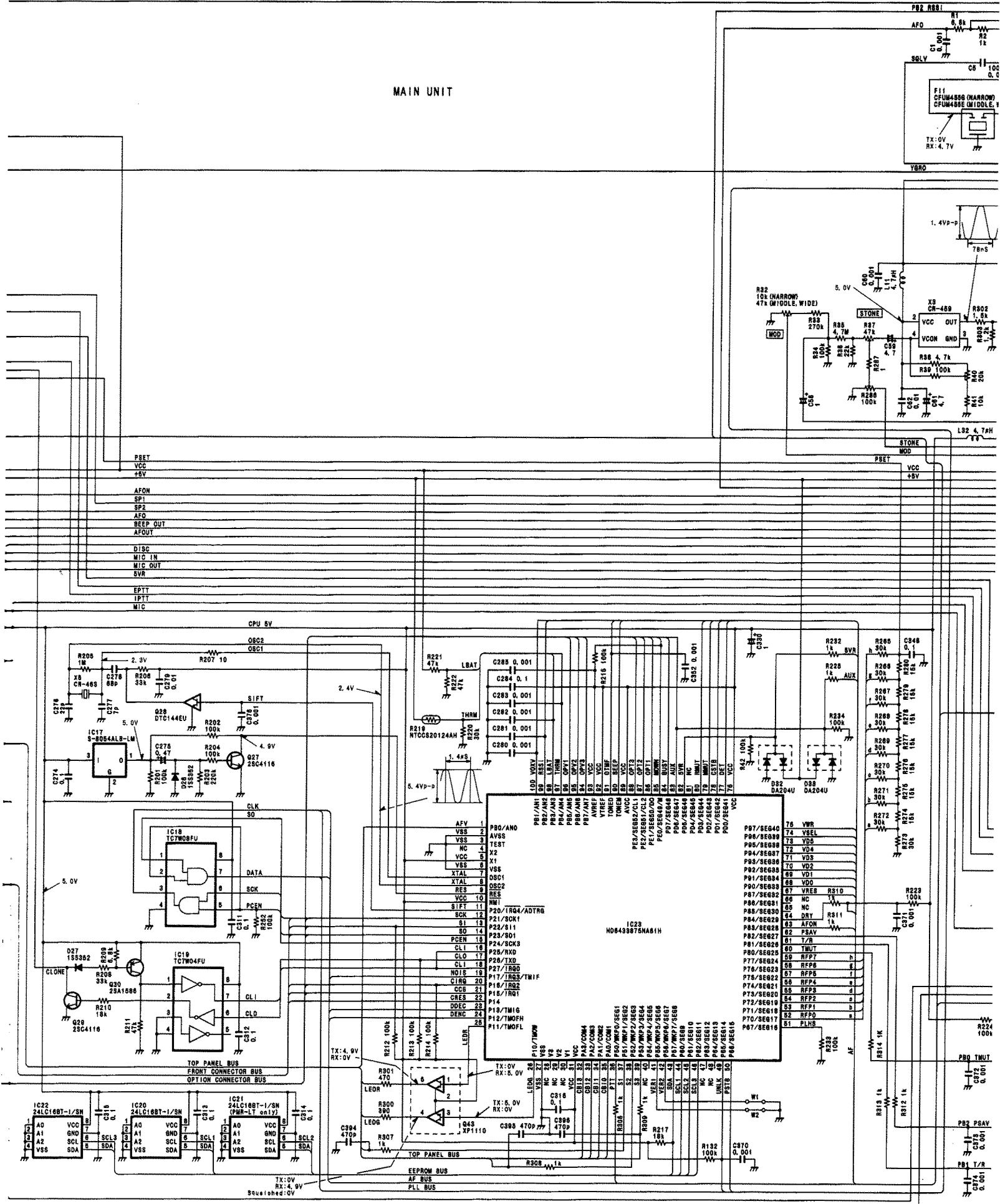


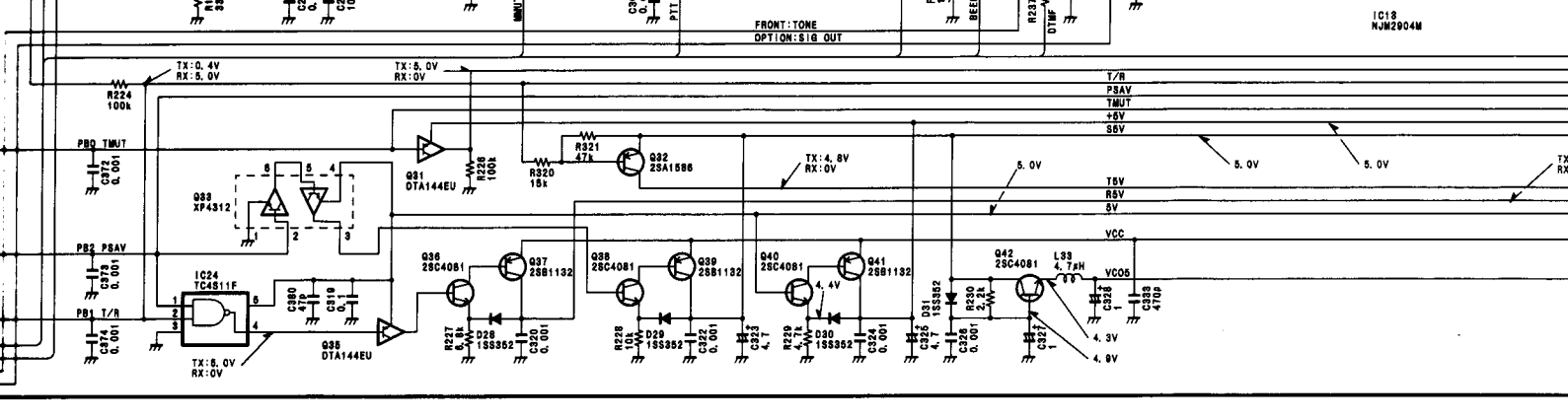
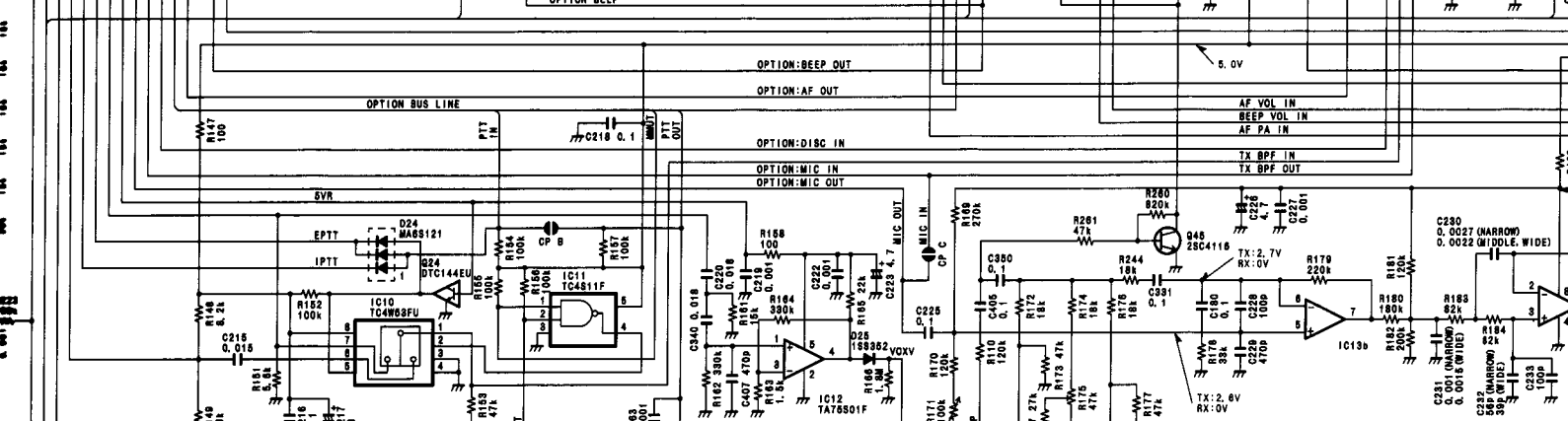
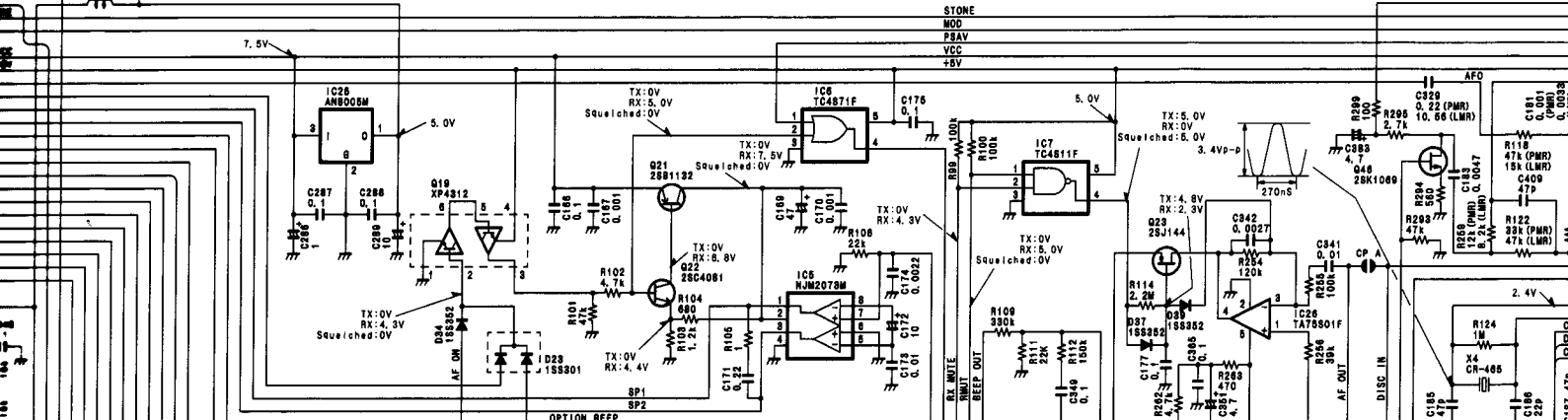
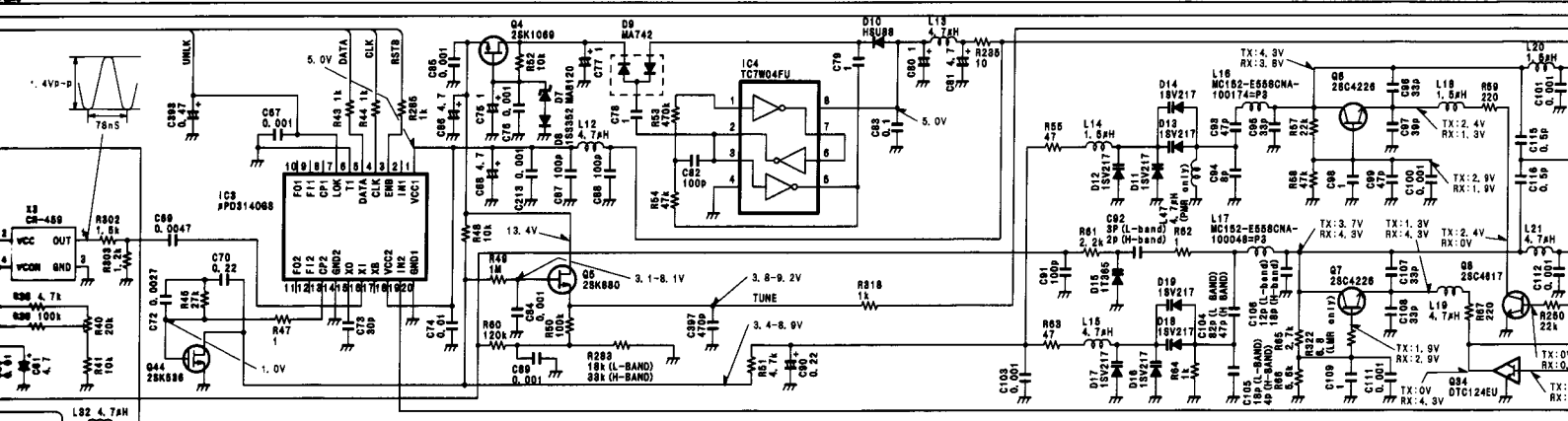
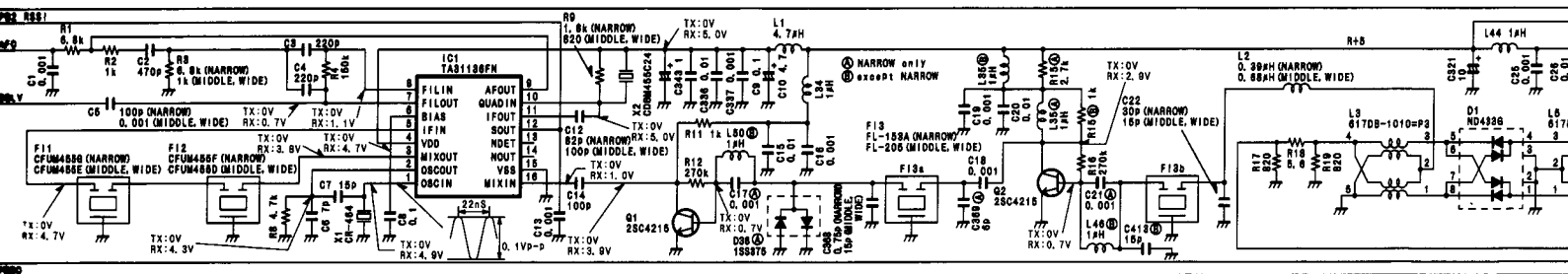
LED



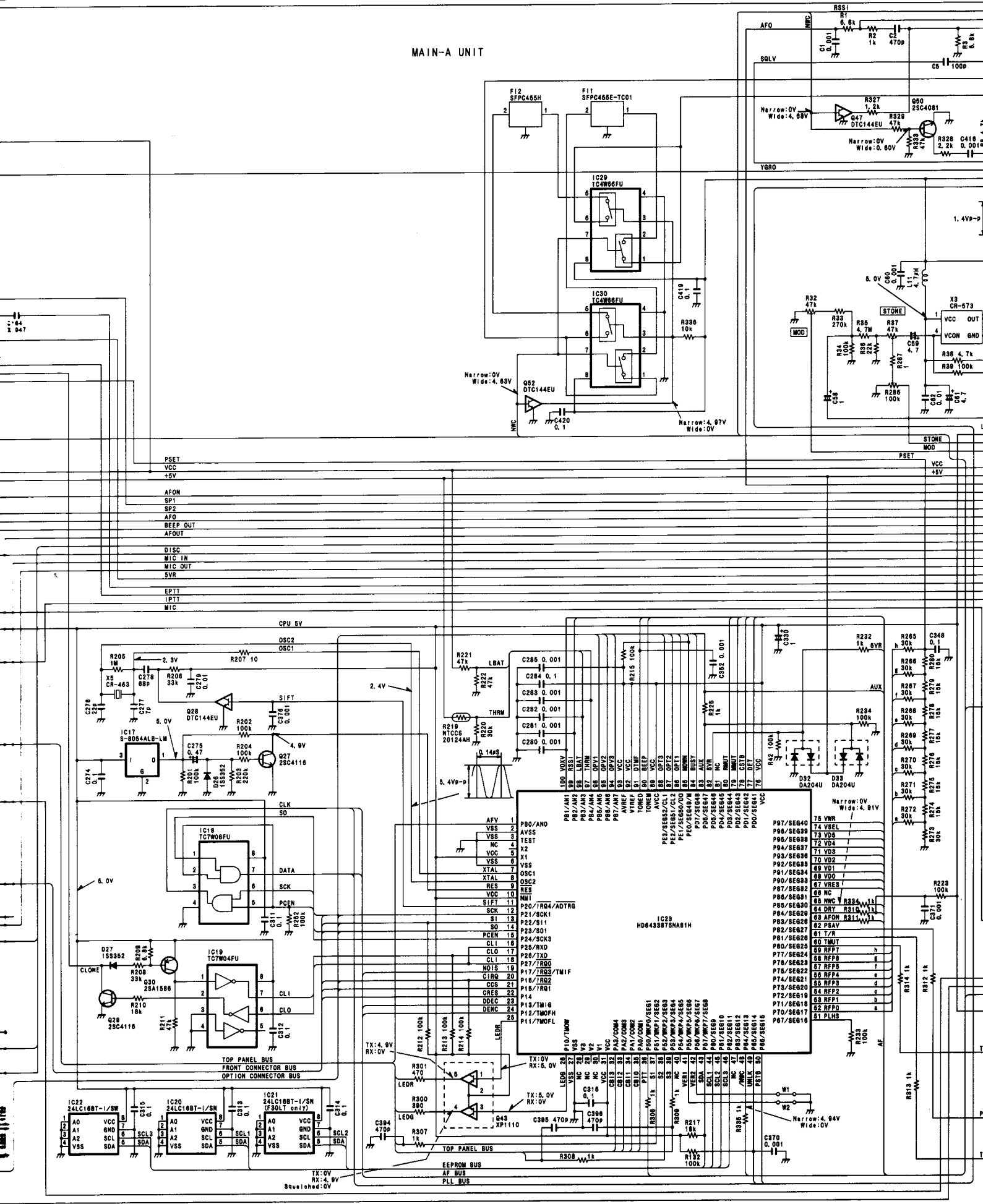


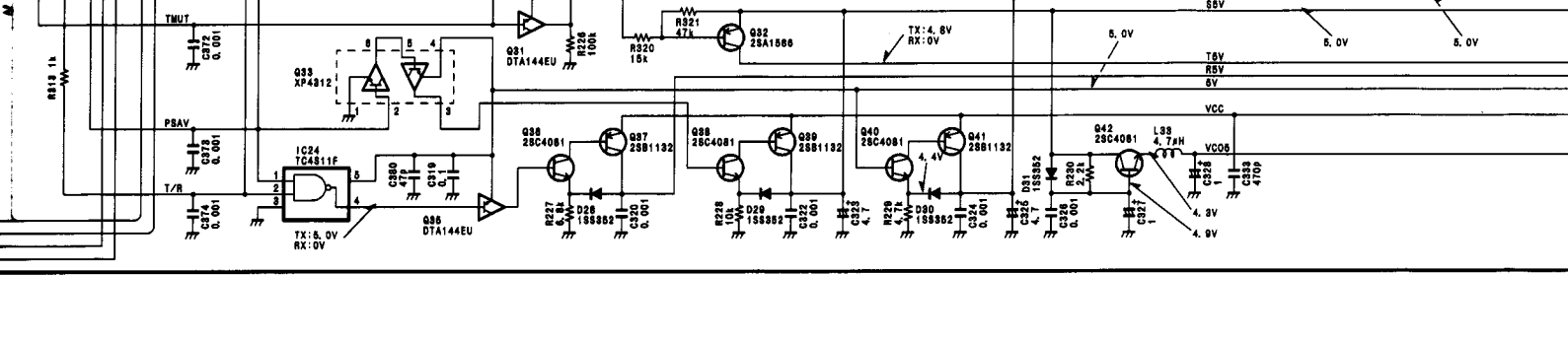
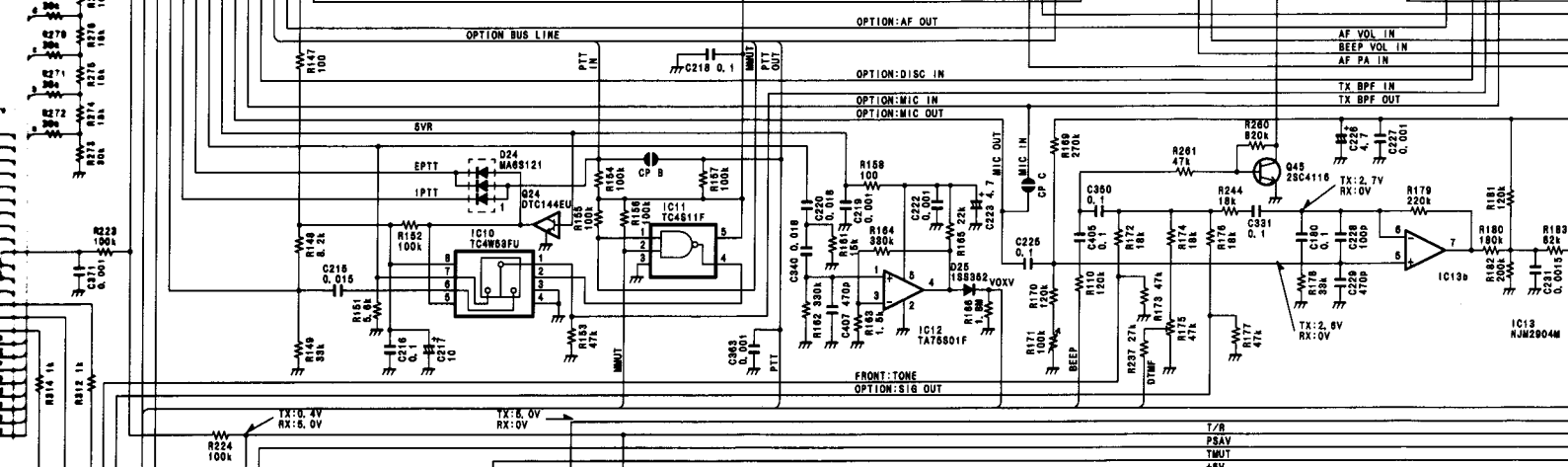
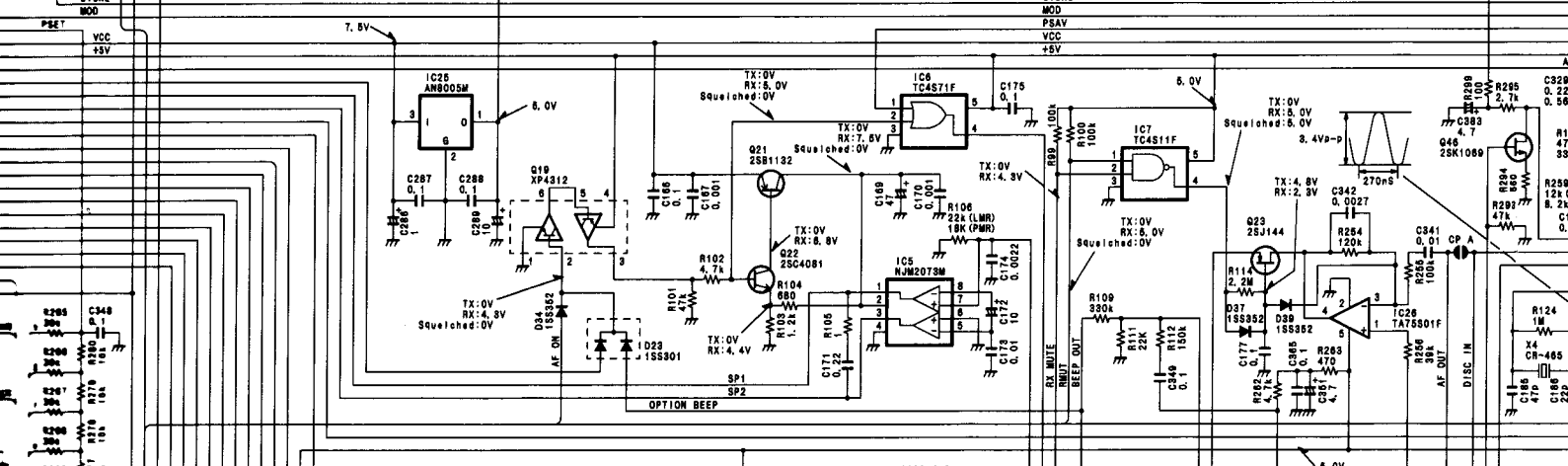
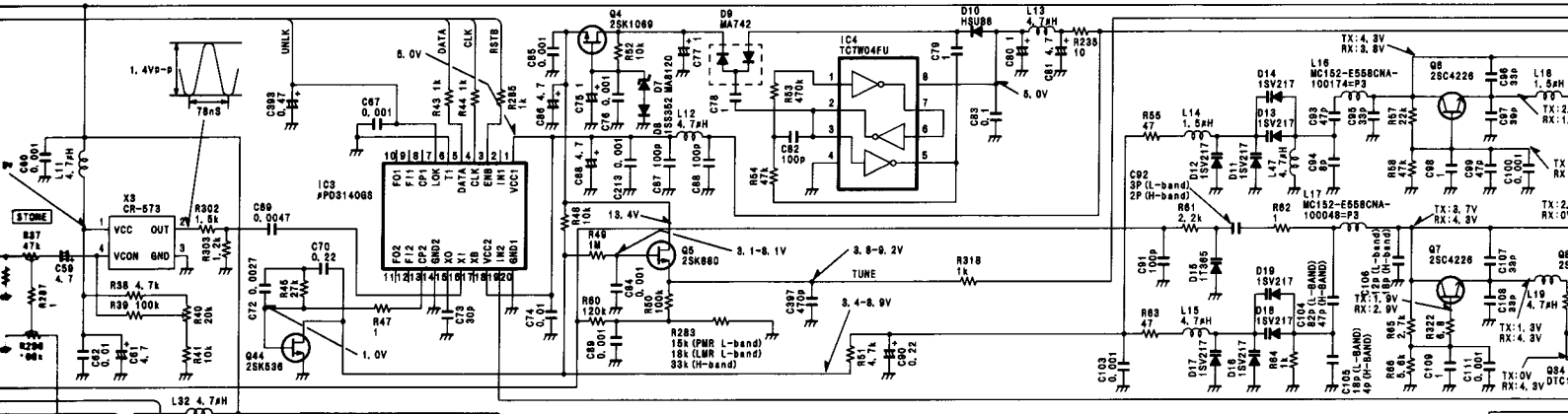
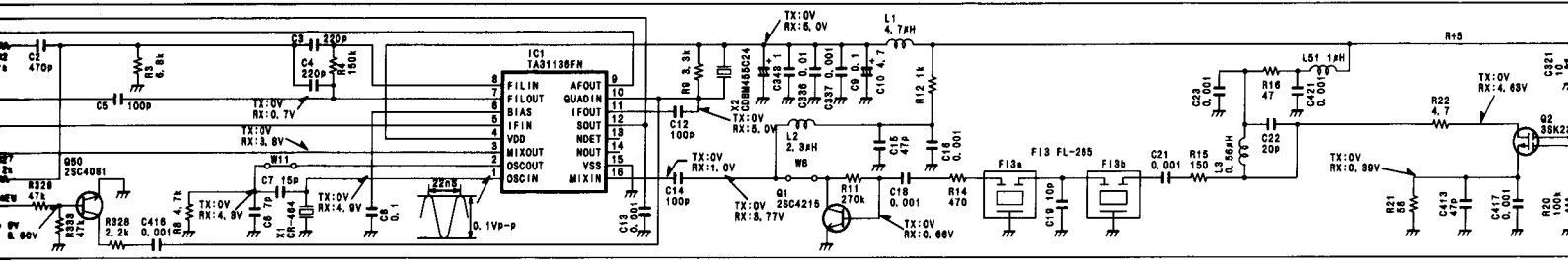
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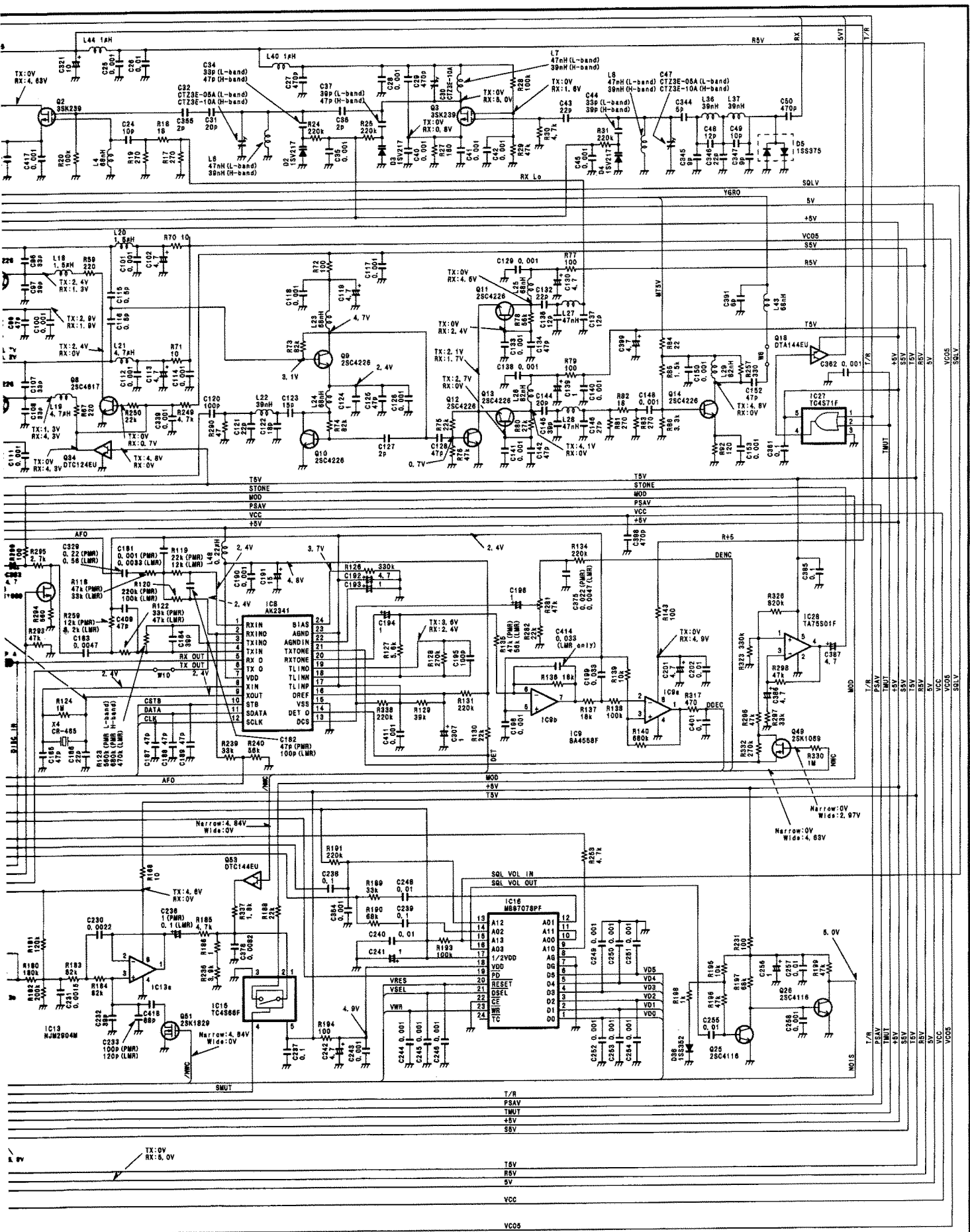




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