



SERVICE MANUAL

HF/50MHz ALL BAND TRANSCEIVER

IC-756

INTRODUCTION

This service manual describes the latest service information for the **IC-756 HF/50MHz ALL BAND TRANSCEIVER**.

MODEL	VERSION	SYMBOL
IC-756	U.S.A	USA
	Europe	EUR
	France	FRA

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



DANGER

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

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

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

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

ORDERING PARTS

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

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

<SAMPLE ORDER>

1110003350 S.IC μ PC1037GR IC-756 MAIN UNIT 5 pieces
8810005770 Screw BtH M3 x 8 ZK IC-756 Bottom cover 10 pieces

Addresses are provided on the inside back cover for your convenience.

REPAIR NOTES

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

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SECTION 1 SPECIFICATIONS

■ GENERAL

- Frequency coverage:
 - Receive 0.030–60.000 MHz*¹
 - Transmit 1.800–1.999 MHz*² 3.500–3.999 MHz*²
 - 7.000–7.300 MHz*² 10.100–10.150 MHz*²
 - 14.000–14.350 MHz*² 18.068–18.168 MHz*²
 - 21.000–21.450 MHz*² 24.890–24.990 MHz*²
 - 28.000–29.700 MHz*² 50.000–54.000 MHz*²
- *¹ Some frequency bands are not guaranteed.
- *² Depending on version.
- Mode : USB, LSB, CW, RTTY, AM, FM
- Number of memory channels: 101 (99 regular, 2 scan edges)
- Antenna connector : SO-239 × 2 and phono [(RCA); 50 Ω]
- Usable temp. range: –10°C to +60°C (14°F to 140°F)
- Frequency stability : Less than ±200 Hz from 1 min. to 60 min. after power ON. After that rate of stability less than ±30 Hz/hr at +25°C (+77°F). Temperature fluctuations 0°C to +50°C (+32°F to +122°F) less than ±350 Hz.
- Freq. resolution : 1 Hz
- Power supply : 13.8 V DC ±15 % (negative ground) requirement
- Current consumption:
 - Transmit max. power 20 A
 - Receive stand-by 2.5 A
 - max. audio 2.7 A
- Dimensions : 340 (W) × 111(H) × 285(D) mm
13 3/8(W) × 4 3/8(H) × 11 7/32(D) in
- Weight : 10.5 kg (23.1 lb)
- CI-V connector : 2-conductor 3.5(d) mm (1/8")

■ TRANSMITTER

- Output power :
 - SSB/CW/RTTY/FM 2–100 W
 - AM 1–40 W
- Modulation system :
 - SSB, AM PSN modulation
 - FM Variable reactance modulation
- Spurious emission : 50 dB (HF bands)
60 dB (50 MHz band)
- Carrier suppression: 40 dB
- Unwanted sideband suppression: 55 dB
- ΔTX variable range : ±9.999 kHz
- Mic. connector : 8-pin connector (600 Ω)
- ELE-KEY connector: 3-conductor 6.35 (d) mm (1/4")
- KEY connector : 3-conductor 6.35 (d) mm (1/4")
- SEND connector : Phono (RCA)
- ALC connector : Phono (RCA)

■ RECEIVER

- Receive system :
 - SSB, CW, RTTY Quadruple-conversion superheterodyne
 - AM, FM Triple-conversion superheterodyne
- Intermediate frequencies: (Unit; MHz)

MODE	SSB	CW, RTTY	AM	FM
1st	69.0115	69.0106	69.0100	69.0115
2nd	9.0115	9.0106	9.0100	9.0115
3rd	0.455	0.455	0.455	0.455
4th	0.015625	0.015625	–	–
- Sensitivity :
 - SSB, CW, RTTY 0.16 μV (1.80–29.99 MHz)*¹
 - (10 dB S/N) 0.13 μV (50.0–54.0 MHz)*²
 - AM 13 μV (0.5–1.799 MHz)
 - (10 dB S/N) 2 μV (1.80–29.99 MHz)*¹
 - FM 0.5 μV (28.0–29.99 MHz)*¹
 - (12 dB SINAD) 0.32 μV (50.0–54.0 MHz)*²
 - *¹ Pre-amp 1 ON *² Pre-amp 2 ON
- Squelch sensitivity (threshold):
 - SSB/CW/RTTY Less than 5.6 μV
 - FM Less than 1.0 μV
- Selectivity :
 - SSB/CW/RTTY More than 2.4 kHz/–6 dB
Less than 3.8 kHz/–60 dB
 - AM More than 9.0 kHz/–6 dB
Less than 20 kHz/–60 dB
 - FM More than 12 kHz/–6 dB
Less than 30 kHz/–60 dB
- Spurious and image: More than 70 dB rejection ratio (except IF through in 50 MHz band)
- RIT variable range : ±9.999 kHz
- Audio output power : More than 2.0 W at 10 % distortion (at 13.8 V DC) with an 8 Ω load
- PHONES connector: 3-conductor 6.35 (d) mm (1/4")
- EXT SP connector : 2-conductor 3.5 (d) mm (1/8") 8 Ω

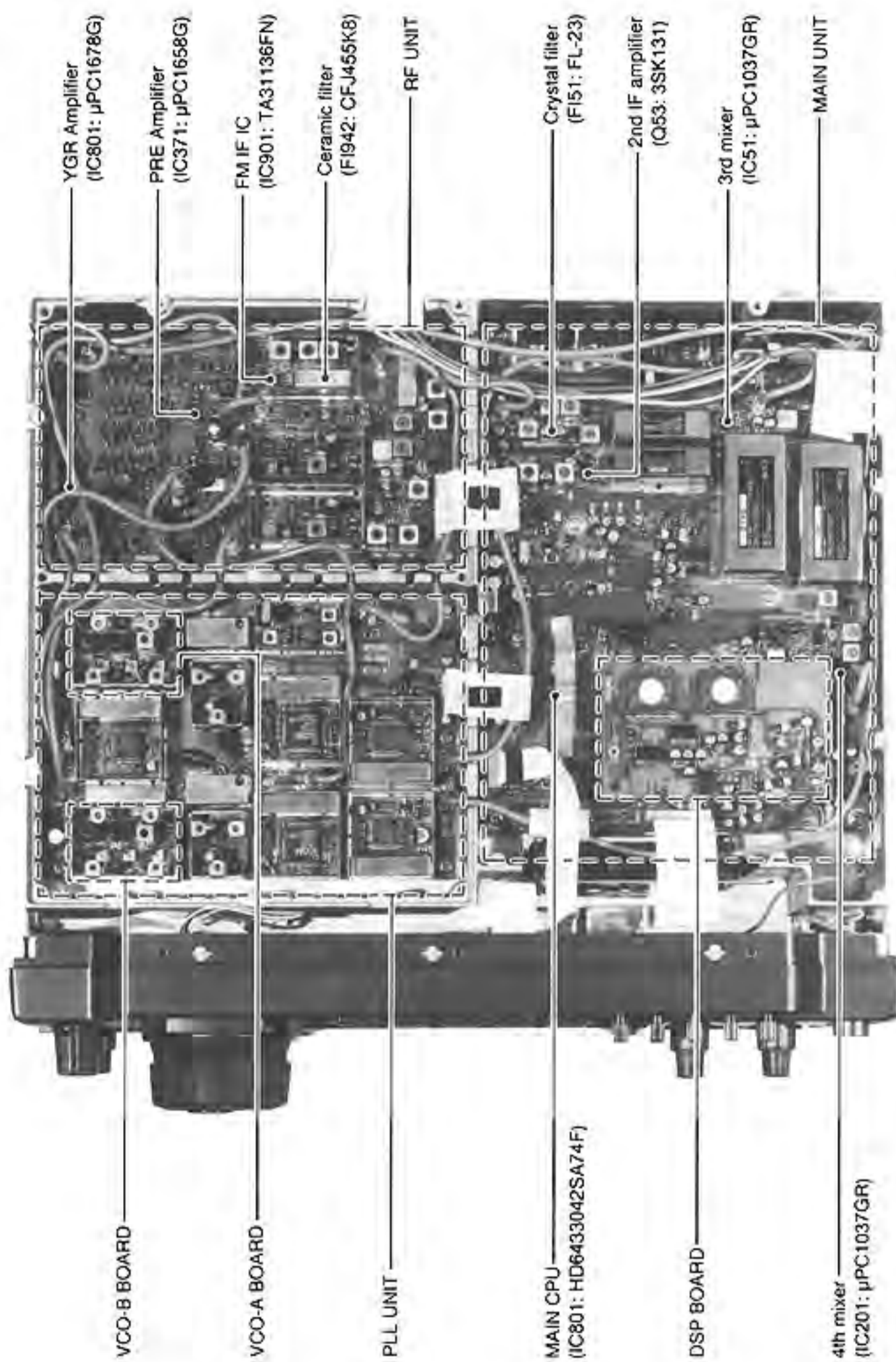
■ ANTENNA TUNER

- Matching impedance range:
 - HF bands 16.7 to 150 Ω unbalanced*¹
 - 50 MHz band 20 to 125 Ω unbalanced*²
 - *¹ Less than VSWR 3:1; *² Less than VSWR 2.5:1
- Minimum operating input power:
 - HF bands 8 W
 - 50 MHz band 15 W
- Tuning accuracy : VSWR 1.5:1 or less
- Insertion loss : Less than 1.0 dB (after tuning)

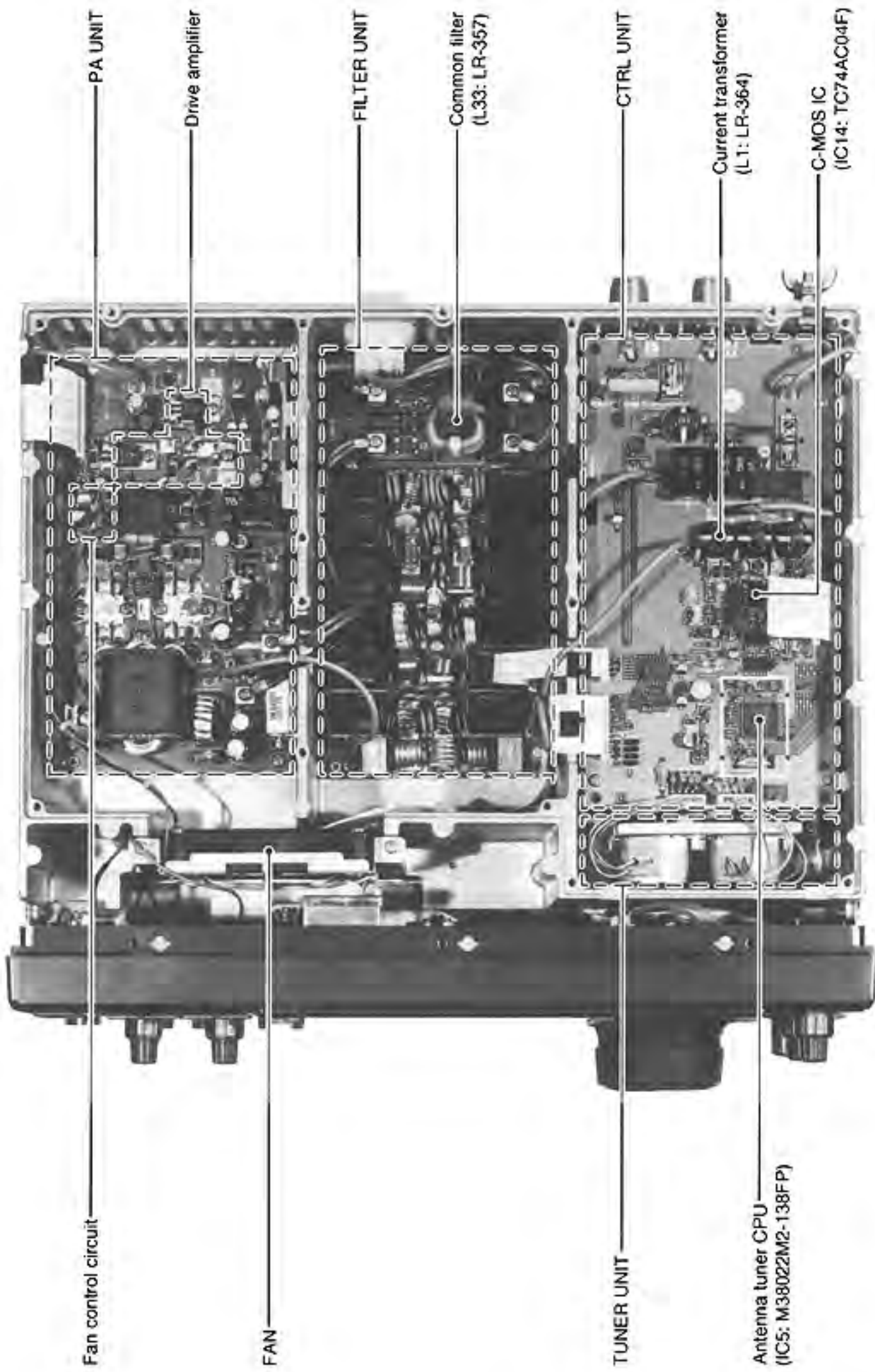
All stated specifications are subject to change without notice or obligation.

SECTION 2 INSIDE VIEWS

• BOTTOM VIEW



● TOP VIEW

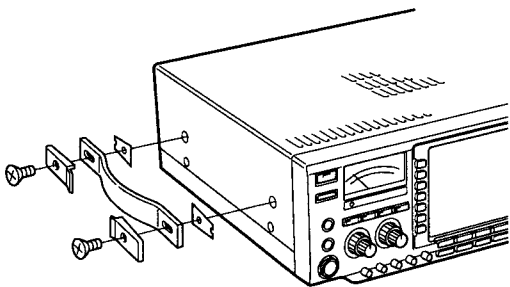


SECTION 3 DISASSEMBLY AND OPTION INSTALLATIONS

• Opening the transceiver's case

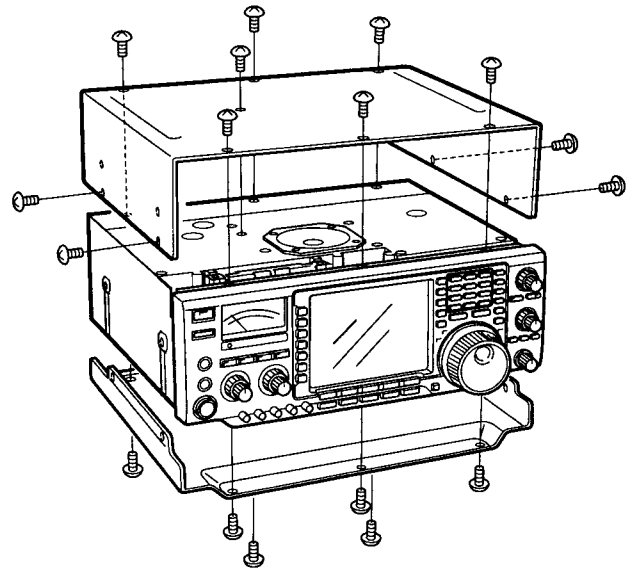
Follow the case and cover opening procedures shown here when you want to install an optional unit or adjust the internal units, etc.

- ① Unscrew 2 screws from the left side of the transceiver to remove the carrying handle as shown below.



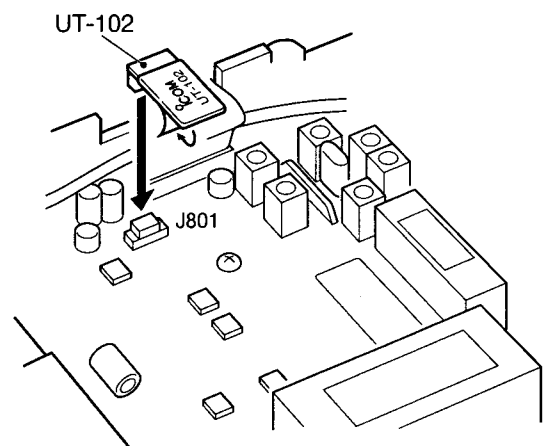
CAUTION: DISCONNECT the DC power cable from the transceiver before performing any work on the transceiver. Otherwise, there is danger of electric shock and/or equipment damage.

- ② Unscrew 7 screws from the top of the transceiver and 4 screws from the sides, then lift up the top cover.
- ③ Turn the transceiver upside down.
- ④ Unscrew 6 screws from the bottom of the transceiver, then lift up the bottom cover.



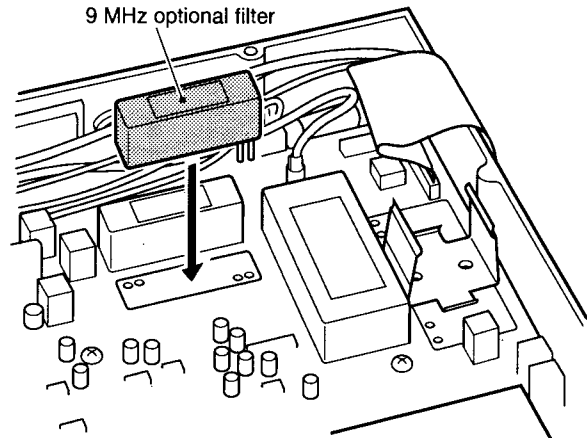
• UT-102 VOICE SYNTHESIZER UNIT

- ① Remove the top and bottom covers as shown above.
- ② Remove the protective paper attached to the bottom of the UT-102 to expose the adhesive strip.
- ③ Plug UT-102 into J801 (SPEECH UT-102) on the MAIN unit as shown in the diagram at right.
- ④ Return the top/bottom covers to their original positions.

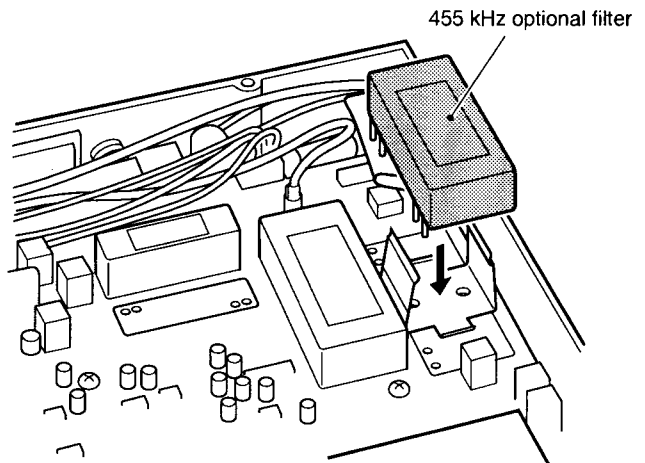


● **Optional IF filters**

- ① Remove the top and bottom covers as shown on the previous page.
- ② Turn the transceiver upside down. Install the desired filter as shown in the diagram at right.
 - The 9 MHz filters can be installed in either direction.
- ③ Replace the top/bottom covers.

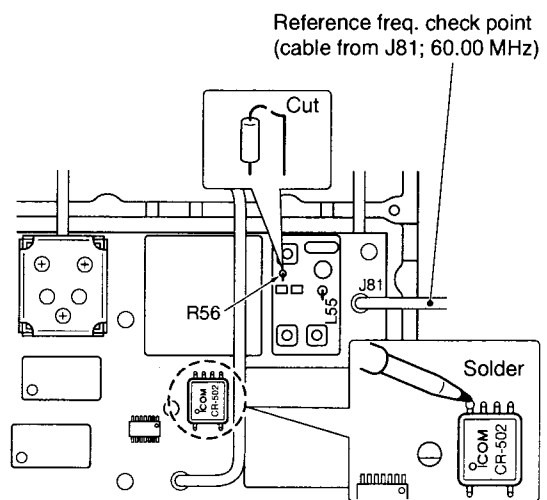


/// **NOTE:** After filter installation, specify the installed filter using set mode. (See instruction manual) Otherwise, the installed filter will not function properly.



● **CR-502 HIGH STABILITY CRYSTAL UNIT**

- ① Remove the top and bottom covers as shown on the previous page.
- ② Turn the transceiver upside down. Unscrew 6 screws from the PLL shielding plate, then remove the plate.
- ③ Cut the leads of R56 and L55 (in a shielded box) on the PLL unit.
- ④ Put the CR-502 in the space available as shown in the diagram, then solder its feet into place (6 points).
- ⑤ Adjust the reference frequency using a frequency counter.
- ④ Return the shield case, shield plate and top/bottom covers to their original positions.



SECTION 4 CIRCUIT DESCRIPTION

4-1 RECEIVER CIRCUITS

4-1-1 RF SWITCHING CIRCUIT (CTRL AND RF UNITS)

The RF switching circuit leads receive signals to bandpass filters from an antenna connector while receiving. However, the circuit leads the signal from the RF power amplifier to the antenna connector while transmitting.

RF signals from [ANT 1] or [ANT 2] pass through the antenna selector (RL3), transmit/receive switching relays (RL1, RL2, RL4), and low-pass filter (L27, L28, C63–C66, C105), and are then applied to the RF unit via J2.

The signals from the CTRL unit either bypass or are applied to the 6 dB (RF unit, RL751, R752) and/or 12 dB (RF unit, RL752, R754) attenuators via the antenna selector. By selecting the attenuators, 0 (bypass), 6, 12 and 18 dB attenuations are obtained. The signals are then applied to the RF filters.

When the [RX ANT] is selected, the RF signals are passed through the low-pass filter (RF unit, L781, L782, C783–C787), then applied to the antenna selector (RF unit, RL781).

4-1-2 RF BANDPASS FILTER CIRCUIT (RF UNIT)

RF bandpass filters pass only the desired band signals and suppress any undesired band signals. The RF circuit has 11 bandpass filters and 1 low-pass filter.

(1) 0.03–1.6 MHz

The signals pass through the attenuator (R421, R423, R424), low-pass filter (L421–L423, C421–C425), and are then applied to the RF amplifiers (Q181, Q281).

(2) 1.6–60 MHz

The signals pass through the high-pass filter (L701–L703, C701–C704) to suppress excessively strong signals below 1.6 MHz. The filtered signals are applied to one of 11 bandpass filters as below, and then applied to or bypass the pre-amplifier circuit.

Used RF filter

Band	Control signal	Input diode	Band	Control signal	Input diode
0.03–1.6 MHz	B0	N/A	11–15 MHz	B7	D562 ^{1/2}
1.6–2 MHz	B1	D442 ^{1/2}	15–22 MHz	B8	D562 ^{1/2}
2–3 MHz	B2	D442 ^{1/2}	22–30 MHz	B9	D602 ^{1/2}
3–4 MHz	B3	D482 ^{1/2}	30–50 MHz	WB10	D642
4–6 MHz	B4	D482 ^{1/2}	50–54 MHz	B10	D602 ^{1/2}
6–8 MHz	B5	D522 ^{1/2}	54–60 MHz	WB10	D642
8–11 MHz	B6	D522 ^{1/2}			

4-1-3 PRE-AMPLIFIER CIRCUITS (RF UNIT)

The IC-756 has 2 gain levels of pre-amplifier circuits. One has 10 dB gain over a wide band frequency range and the other one has 16 dB gain for the 21–28 MHz bands.

When the [PREAMP] switch is set to [PRE1] or [PRE2], the signals are applied to the pre-amplifier 1 (Q341, Q342) or pre-amplifier 2 (IC371) circuit, respectively. Pre-amplified or bypassed signals are applied to the RF amplifier circuits.

4-1-4 RF AMPLIFIER AND 1st MIXER CIRCUITS (RF UNIT)

The 1st mixer circuit mixes the receive signals with the 1st LO signal to convert the receive signal frequencies to a 69 MHz 1st IF signal. The IC-756 has two 1st mixer circuits for the dualwatch function.

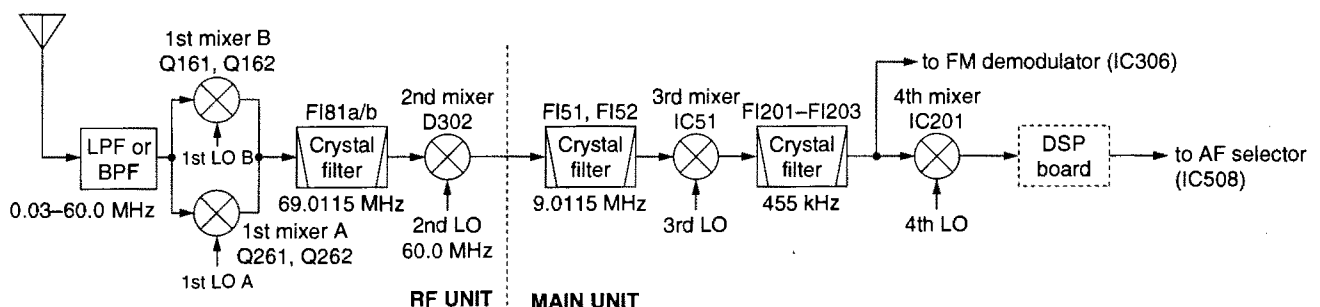
The signals from the pre-amplifier circuit, or signals which bypass the pre-amplifiers, are divided at L187. Each signal is applied to a 30 MHz cut-out low-pass filter, RF amplifier (Q181, Q281) and then to a 1st mixer (Q161/Q162 or Q261/Q262).

Each 1st LO signal (69.0415–129.0115 MHz) enters the RF unit from the PLL unit via J101 or J201. The LO signals are amplified at the LO amplifier (Q101 or Q201), filtered by a low-pass filter, and then applied to each 1st mixer.

• 1st IF frequency

Mode	Frequency
SSB	69.0115 MHz
CW, RTTY	69.0106 MHz
AM	69.0100 MHz
FM	69.0115 MHz

• RECEIVER CONSTRUCTION



4-1-5 1st IF CIRCUIT (RF UNIT)

The 1st IF circuit filters and amplifies the 1st IF signal. The 1st IF signal combined at L201 is applied to an MCF (Monolithic Crystal Filter; F1181a) to suppress out-of-band signals.

The converted 1st IF signal level is adjusted at PIN attenuators (D141, D143 or D241, D243) controlled by the [BAL] controller for the dualwatch function. The signal is applied to the 1st IF amplifier (Q141 or Q242) and then combined at L201.

The combined signal passes through the MCF (F1181a) and is amplified at Q81. The amplified signal is filtered at the other MCF (F1181b) and then applied to the 2nd mixer circuit.

4-1-6 2nd MIXER CIRCUIT (RF UNIT)

The 2nd mixer circuit mixes the filtered 1st IF signal and 2nd LO signal (60.00 MHz) for conversion to the 2nd IF.

The 1st IF signal from the MCF (F1181b) is converted into a 9 MHz 2nd IF signal at the 2nd mixer circuit (D302).

The 2nd IF signal is applied to the MCF (MAIN unit, F151) to suppress undesired signals such as the 2nd LO signal, and then applied to the noise blanker gate.

• 2nd IF frequency

Mode	Frequency
SSB	9.0115 MHz
CW, RTTY	9.0106 MHz
AM	9.0100 MHz
FM	9.0115 MHz

4-1-7 NOISE BLANKER CIRCUIT (MAIN UNIT)

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

The 2nd IF signal from the MCF (F151) is applied to the noise blanker gate (D54, D55). A portion of the signal from F151 is amplified at the noise amplifiers (IC101, Q101, Q103), then detected at the noise detector (D101) to convert the noise components to DC voltages.

The signal is then applied to the noise blanker switch (Q105, Q106). At the moment the detected voltage exceeds Q105's threshold level, Q106 outputs a blanking signal to close the noise blanker gate (D54, D55). The T8V and PLL unlock signal are also applied to Q106, to control the noise blanker gate.

Some DC voltage from the noise detector circuit is fed back to the noise amplifier (IC101) via the DC amplifiers (Q102, Q104). The DC amplifiers function as an AGC circuit to reduce average noise. Therefore, the noise blanker function shuts off pulse-type noise only.

4-1-8 2nd IF CIRCUIT (MAIN UNIT)

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

The 2nd IF signal from the noise blanker gate (D54, D55) is amplified at the IF amplifier (Q53) and applied to a 2nd IF filter which is selected in the filter selection mode.

• 2nd IF filters

Mode	Used filter	Control signal
CW, RTTY, SSB, AM-N	Built-in ± 2.4 kHz (F152) or ± 15.0 kHz (C84)	2S3K or 2STH
AM, FM, FM-N	Built-in ± 15.0 kHz (C84)	2STH
CW-N, RTTY-N	Optional FL-100 (± 500 Hz) Optional FL-101 (± 250 Hz) Optional FL-232 (± 350 Hz)	2SOP
SSB-N	Optional FL-223 (± 1.9 kHz)	2SOP

The filtered signal is amplified at the buffer-amplifier (Q54), then applied to the 3rd mixer circuit.

4-1-9 3rd MIXER AND 3rd IF CIRCUITS (MAIN UNIT)

The 3rd mixer circuit mixes the 2nd IF signal and the 3rd LO signal to obtain the 3rd IF (455 kHz) signal.

The 2nd IF signal from the buffer-amplifier (Q54) is applied to the 3rd mixer circuit (IC51, pin 6). The 3rd LO signal from the PLL unit is applied to the 3rd mixer (IC51, pin 8). The mixed signal is output from pin 3, then applied to one of the 3rd IF filters.

• 3rd IF filters

Mode	Used filter	Control signal
CW, RTTY, SSB, AM-N	Built-in ± 2.8 kHz (F1201), or ± 9.0 kHz (F1202) or ± 15.0 kHz (F1203)	3S3K, 3S9K or 3S15
AM	Built-in ± 9.0 kHz (F1202), or ± 15.0 kHz (F1203)	3S9K or 3S15
FM	Built-in ± 15.0 kHz (F1203)	3S15
FM-N	Built-in ± 9.0 kHz (F1202)	3S9K
CW-N, RTTY-N, SSB-N	Optional FL-52A (± 500 Hz) Optional FL-53A (± 250 Hz) Optional FL-222 (± 1.8 kHz)	3SOP
SSB-W ("SSB-N" on the display)	Optional FL-257 (± 3.3 kHz)	3SOP

The filtered signal is amplified at the IF amplifier (Q203), then applied to the AM demodulator, the 4th mixer circuit or the FM demodulator circuit after being amplified at the other IF amplifier (Q205; except FM, Q307; FM).

4-1-10 4th MIXER CIRCUIT (MAIN UNIT)

The 4th mixer circuit mixes the 3rd IF signal and the 4th LO signal to obtain the 4th IF (15.625 kHz) signal while SSB or CW mode is selected.

The 3rd IF signal from the IF amplifier (Q205) is applied to the 4th mixer circuit (IC201, pin 6), except in FM and AM modes, and is mixed with the 4th LO signal to be converted into a 4th IF signal. The 4th IF signal is applied to the DSP board.

4-1-11 DSP RECEIVER CIRCUIT (DSP BOARD)

The DSP (Digital Signal Processor) board enables digital noise reduction, digital PSN (Phase Shift Network) demodulation, digital automatic notch and digital APF (Audio Peak Filter).

The 4th IF signal from the 4th mixer circuit (MAIN unit, IC201) is amplified at IC414a then passed through the analog switch (IC423, pins 5, 3). The switched signal is level shifted at IC419b after being passed through the low-pass filter (IC419d, IC419a), then applied to the A/D converter (IC408).

The converted signal is applied to the DSP ICs (IC425, IC429) for demodulation, automatic notch, audio peak filter and noise reduction, etc. The output signal is applied to the D/A converter (IC409, IC419c) and converted into analog audio signals.

The converted audio signals are passed through the low-pass filter (IC411), analog switch (IC423, pins 13, 14) then applied to the MAIN unit after passed through the low-pass filter (IC414d) via J401, pin 15.

4-1-12 TWIN PBT CIRCUIT (RF AND MAIN UNITS)

The PBT (PassBand Tuning) circuit shifts the center frequency of IF signal to electronically narrow the passband width. The IC-756 has 2 PBT circuits.

The twin PBT circuit shifts the 2nd and 3rd IF within ± 1.5 kHz. As a result, the 2nd and 3rd IF are shifted from the center frequencies of the 2nd and 3rd IF filters. This means 2nd or 3rd IF signals do not pass through the center of the 2nd or 3rd IF filter. Therefore, the overlap of the 2nd/3rd or 3rd/4th IF filter appears to be narrowed. Since the 3rd and 4th LO frequencies are also shifted the same value as the 2nd and 3rd IF shifts, frequencies are corrected at the detector.

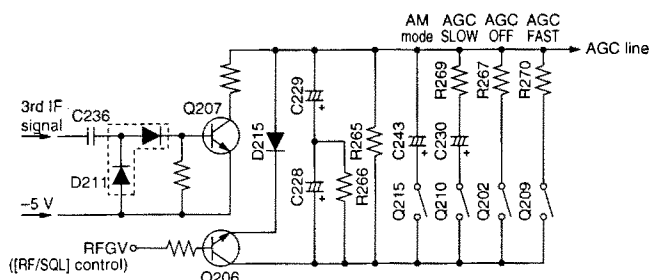
In the IC-756, the 1st LO frequency is shifted to change the 2nd IF because a fixed 2nd LO frequency (60.00 MHz) is used. The 1st IF filter (RF unit, F181) has a 15 kHz pass-band width and does not affect PBT operation.

4-1-13 AGC CIRCUIT (MAIN UNIT)

The AGC (Automatic Gain Control) circuit reduces IF amplifier gain to keep the audio output at a constant level.

The receiver gain is determined by the voltage on the AGC line (Q207, collector). Q207 supplies minus voltage to the AGC line and sets the receiver gain with the [RF/SQ] control.

• AGC CIRCUIT



The 3rd IF signal from the buffer-amplifier (Q208) is detected at the AGC detector (D211) and is then applied to the AGC amplifier (Q207). -5 V is applied to the AGC amplifier's emitter to activate the AGC line using minus voltage.

When receiving strong signals, the detected voltage increases and the AGC voltage decreases via the AGC amplifier (Q207). As the AGC voltage is used for the bias voltage of the IF amplifiers (Q53, Q203, Q205 and RF unit Q81), IF amplifier gain is decreased.

When the strong signals disappear, the AGC line voltage is released by C228, C229, R265 and R266 while in SSB, CW or RTTY mode. While in AM or FM mode, C243 or R267 is connected in parallel to obtain appropriate AGC characteristics, respectively.

4-1-14 S-METER CIRCUIT (MAIN UNIT)

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

A portion of the AGC bias voltage (time constant line) is applied to the differential amplifier (IC202a, pin 2) where the difference between the AGC and reference voltage is detected.

The detected voltage is applied to the main CPU (IC801, pin 78) as the SML signal to activate the S/RF meter via the sub CPU (SUB-LOGIC unit, IC3).

4-1-15 SQUELCH CIRCUIT (MAIN UNIT)

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

The S-meter signal is applied to the main CPU (IC801, pin 78) and is compared with the threshold level set by the [RF/SQ] control. The [RF/SQ] setting signal is applied to the main CPU via the A/D converter (SUB-LOGIC unit, IC501) and sub CPU (SUB-LOGIC unit, IC3). The compared signal is applied to the analog switch (IC507, pin 9) to open or close the squelch.

In addition, the noise squelch signal from the FM IF IC (FMNL) is applied to the main CPU (IC801, pin 82) in FM mode. A portion of the AF signals from the FM IF IC (IC306, pin 9) are applied to the active filter section (pin 8) where noise components are amplified. The signals are rectified at the noise detector section and then output from pin 14. The resulting signal is applied to the main CPU via the FMNL signal line.

4-1-16 AM DEMODULATOR CIRCUIT (MAIN UNIT)

While in AM mode, the 3rd IF signal from the IF amplifier (Q205) is applied to the AM demodulator (D401) via the buffer amplifier (Q208). The detected audio signals are then applied to the AF selector (IC507, pin 12) via IC514 (pins 6, 1).

4-1-17 FM DEMODULATOR CIRCUIT (MAIN UNIT)

While in FM mode, the 3rd IF signal from the IF amplifier (Q203) is applied to the FM IF IC (IC306, pin 5) via the IF amplifier (Q307) where the IF signal is converted into AF signals. The discriminator (X301) is connected to the quadrature detector section (pin 10) for AF detection. The detected AF signals are output from pin 9 and applied to the AF selector (IC507, pin 14) via the de-emphasis circuit (IC202b).

4-1-18 AF SELECTOR SWITCH (MAIN UNIT)

The AF signals from one of the detector or DSP circuits are applied to the AF selector switch(es) (IC507 only/and IC514). The AF signals from the DSP circuit are applied to pin 7 of IC514; those from the AM demodulator are applied to pin 6. The selected audio signals are output from pin 1 and applied to pin 12 of the AF selector (IC507).

The AF signals from the FM demodulator are applied to pin 14 of IC507. The squelch control signal is also applied to pin 9 of IC507 for the squelch mute control. The selected AF signals are output from pin 13 then amplified at the AF amplifier circuit (IC506, pin 2).

4-1-19 AF AMPLIFIER CIRCUIT (MAIN UNIT)

The AF amplifier amplifies the audio signals to a suitable driving level for the speaker.

The AF signals from the AF selector are amplified at the IC506 amplifier section (pins 2–4) and volume is controlled by the AFGV signal at the VCA section (pins 7–9). The volume controlled AF signals are passed through the low-pass filter (IC701a/b) then applied to the AF power amplifier (IC504) via the AF mute switch (Q501).

The amplified audio signals are passed through the [PHONES] and [EXT SP] jacks then applied to the internal speaker when no plug is connected to the jacks.

The AF mute switch is controlled by the [AF] control via the sub and main CPUs.

4-2 TRANSMITTER CIRCUITS

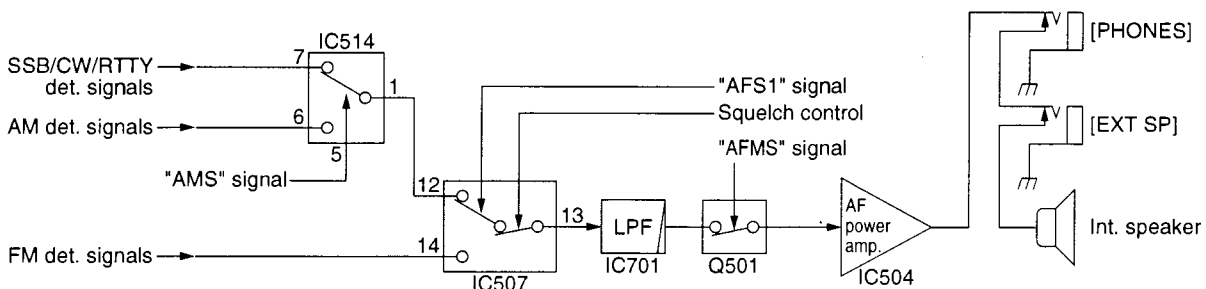
4-2-1 MICROPHONE AMPLIFIER CIRCUIT (MAIN UNIT)

The microphone amplifier circuit amplifies microphone audio signals to a level needed for the DSP (PSN), FM and AM modulation circuits.

Audio signals from the [MIC] connector (pin 1) are amplified at the audio amplifier section in IC502 (pins 2–4), then applied to the VCA section (pin 7) via the analog switch (IC513, pins 7, 1). The gain controlled signals are applied to the DSP circuit after the tone level is adjusted at the tone control circuit (IC515), or applied to the FM IDC circuit (IC301b) after being pre-emphasized at IC301a.

The VCA section in IC502 (pins 7–9) controls microphone gain from the [MIC GAIN] control using the MIGV signal from the main CPU via the D/A converter (LOGIC board, IC809).

• AF amplifier circuit



4-2-2 VOX CIRCUIT (MAIN UNIT)

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

A portion of the amplified audio signals from the AF amplifier section in IC502 (pin 4) are again amplified at the AF amplifier section in IC510 (pins 2–4), gain controlled at the VCA section (pins 7, 9) then applied to the main CPU (IC801, pin 54) after passing through the level comparator circuit (IC503a, pins 1–3) as the VOXS signal.

The VOXV signal is applied to the VCA section in IC510 (pin 8) from the main CPU via the I/O expander (IC809, pin 4) to adjust VOX actionable sensitivity. This is controlled by the VOX gain set in the VOX SET mode.

4-2-3 DSP TRANSMITTER CIRCUIT (DSP BOARD)

The microphone audio signals from the tone controller (MAIN unit, IC515) are applied to the buffer-amplifier (IC414b) via J401, pin 9. The amplified audio signals are applied to the low-pass filter (IC412) to limit the transmit passband width. The filtered signals are then applied to the analog switch (IC423, pins 1, 3), then passed through the low-pass filter (IC419d, IC419a). The filtered signals are applied to the DSP ICs (IC425, IC429) via the A/D converter (IC408) after the level is shifted at IC419b.

By combining IC414b and IC415, the modulation level for SSB and AM modulation is adjusted.

A portion of the filtered signal from the low-pass filter (IC412) is passed through the analog switch (IC415, pins 1, 2, 15) then applied to the MAIN unit via J401, pin 5 for the monitor function.

The PSN modulated signals are applied to the D/A converter (IC409, IC419c) then passed through the low-pass filter (IC411) to produce the transmit IF signal. The IF signal is applied to the 4th mixer circuit (MAIN unit, IC201) via J401, pin 13.

4-2-4 FM MODULATOR CIRCUIT (MAIN UNIT)

The microphone audio signals from the VCA section in IC502 are applied to the IDC circuit (IC301b) after passing through the pre-emphasis circuit (IC301a). The subaudible tone signal (67.0–254.1 Hz) generated by the 4th LO circuit (PLL unit, IC751) is also applied to the IDC circuit via the low-pass filter (C305) when the [TONE] is ON.

The IDC circuit limits the audio passband width and the signals are output from pin 7. The signals are applied to the

deviation control circuit (Q301) to select a maximum deviation level (wide or narrow) and applied to the FM oscillator circuit (Q303).

The audio signals from the deviation control circuit change the reactance of D303 to obtain FM modulation. The modulated signal is applied to the 3rd mixer circuit (IC51) via the buffer-amplifier (Q302) and LO switch (D63).

4-2-5 SPEECH COMPRESSOR CIRCUIT (MAIN UNIT)

The speech compressor compresses the microphone audio signals to increase the average talk power.

When the [COMP] switch is ON, the audio signals from the AF amplifier section in IC502 (pin 4) are applied to the VCA circuit (IC512). The output signals from pin 9 are applied to the compressor amplifier (IC511) to obtain an average audio level.

The amplified signals are applied to the VCA section in IC502 (pin 7) via the analog switch (IC513, pins 6, 1).

4-2-6 IF AMPLIFIER AND MIXER CIRCUITS (MAIN AND RF UNITS)

The modulated 4th IF signals from the DSP circuit (DTIF: 15.625 kHz) are applied to the 4th mixer circuit (MAIN unit, IC201) to be converted into 455 kHz 3rd IF signals after passing through the T/R switch (MAIN unit, D212). The mixed signal is output from pin 3 and amplified at the IF amplifier (MAIN unit, Q201) after unwanted signals are suppressed at the ceramic bandpass filter (MAIN unit, FI204). The amplified 3rd IF signal is applied to the 3rd mixer circuit (MAIN unit, IC51).

The applied 3rd IF signal is mixed with the 3rd LO signal applied from the DDS circuit (PLL unit, IC701) via the LO switch (MAIN unit, D62) to produce a 9 MHz 2nd IF signal. The 2nd IF signal is applied to the IF amplifier (MAIN unit, Q52) after out-of-band signals are suppressed at the bandpass filter (MAIN unit, FI51). The amplified signal is applied to the 2nd mixer circuit in the RF unit via J53.

The 2nd IF signal is mixed with the 60 MHz 2nd LO signal, coming from the PLL unit, at the 2nd mixer circuit (D302) to obtain a 69 MHz 1st IF signal. The 1st IF signal is passed through the MCF (FI81b) to cut-off the undesired signals then amplified at the IF amplifier (Q301) via the T/R switch (D301). The amplified 1st IF signal is applied to the balanced mixer circuit (RF unit, Q381, Q382).

The operating (transmitting) frequency is produced at the balanced mixer circuit (Q381, Q382) by mixing the 1st IF and 1st LO signals. The mixed signal is then applied to the RF circuit.

4-2-7 RF CIRCUIT (RF AND PA UNITS)

The RF circuit amplifies operating (transmitting) frequency to obtain 100 W of RF output.

The signal from the balanced mixer circuit is amplified at the wide-band YGR amplifier (RF unit, IC801) after passing through one of 11 bandpass (Refer to page 4-1 for bandpass filters used) and high-pass filters, and is then applied to the PA unit via J821.

The signal applied from the RF unit is amplified at the pre-drive (Q1), drive (Q2, Q3) and power amplifiers (Q4, Q5) in sequence to obtain a stable 100 W of RF output power. The amplified signal is applied to one of 7 low-pass filters in the FILTER unit.

4-2-8 LOW-PASS FILTER CIRCUIT (FILTER UNIT)

The low-pass filter circuit contains 7 Chebyshev low-pass filters to suppress the higher harmonic components.

The signal from the power amplifiers in the PA unit is applied to one of the low-pass filters, which is selected by the I/O expander (IC11) in the CTRL unit via the buffer-amplifier (CTRL unit, IC12).

The filtered signal is then applied to one of 2 antenna connectors via the CTRL only/and TUNER unit/s.

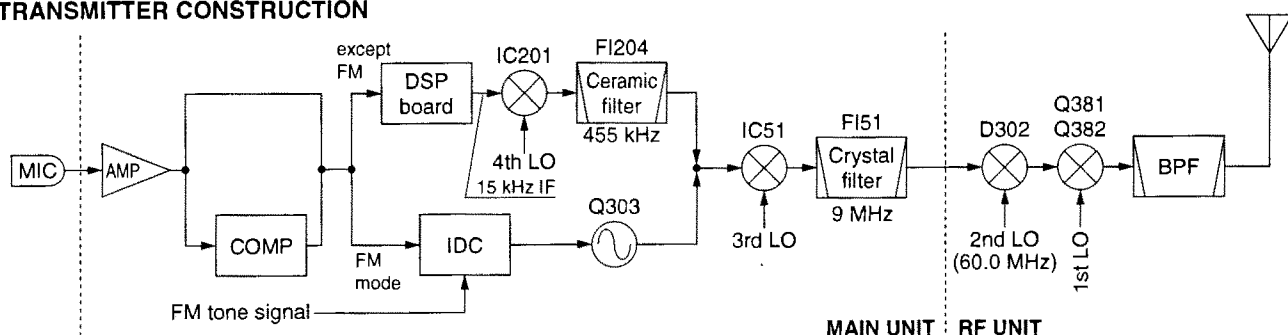
4-2-9 ALC CIRCUIT (MAIN UNIT)

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

The RF power level is detected at one of the APC detector circuits (CTRL unit, D1) to be converted into DC voltage and applied to the MAIN unit as the FOR signal.

The FOR signal from the CTRL unit is applied to the comparator (IC602a, pin 2). The POCV signal, controlled by the [RF POWER] control via the I/O expander (IC809, pin 8), is also applied to the other input (pin 3) for reference. The compared signal is output from pin 1 and applied to the IF amplifiers in the MAIN (Q52) and RF (Q301) units to control amplifying gain.

• TRANSMITTER CONSTRUCTION



When the FOR signal exceeds the POCV voltage, ALC bias voltage from the comparator controls the IF amplifiers. This adjusts the output power to a specified level from the [RF POWER] control until the FOR and POCV voltages are equalized.

In AM mode, the comparator operates as an averaging ALC amplifier. Q603 turns ON and the POCV voltage is shifted for 40 W AM output power (maximum) through R617.

The ALC bias voltage is also applied to the ALC meter amplifier (IC602c, pin 9) to obtain an ALC meter signal (ALCL). The amplified signal is applied to the main CPU (IC801, pin 79) to drive the S/RF meter via the sub CPU on the FRONT unit.

An external ALC input from the [ALC] jack or [ACC] sockets is applied to the buffer amplifier (Q605). External ALC operation is identical to that of the internal ALC.

The FOR signal is also applied to the power meter amplifier (IC601b, pin 5). The amplified signal is applied to the main CPU (IC801) as an FORL signal to drive the S/RF meter when the power meter is selected.

4-2-10 APC CIRCUIT (MAIN UNIT)

The APC (Automatic Power Control) circuit protects the power amplifiers on the PA unit from high SWR and excessive current.

The reflected wave signal appears and increases when the connected antenna is mismatched to 50 Ω . The APC detector circuit (CTRL unit, D2, L1) detects the reflected signal, and applies it to the APC circuit (IC602d, pin 13) as a REF signal.

When the REF signal level increases, the APC circuit decreases the ALC voltage to activate the APC.

For the current APC, the power transistor current is obtained by detecting the voltages (ICH and ICL) which appear at both terminals of the current detector (PA unit, R28). The detected voltages are applied to the differential amplifier (IC602b, pins 5, 6). When the current of transistors is increased, the amplifier controls the ALC line to prevent excessive current flow.

A portion of the REF signal is applied to the SWR meter amplifier (IC601a, pin 3). The amplified signal is applied to the main CPU (IC801) as an REFL signal to drive the S/RF meter when the SWR meter is selected.

4-2-11 TEMPERATURE PROTECTION CIRCUIT (PA UNIT)

The cooling fan (MF1) is activated while transmitting or when the temperature of the power amplifier exceeds the preset value. The temperature protection circuit consists of Q10–Q13 and R50.

While transmitting, Q10 and Q12 are turned ON, and provide a voltage to the cooling fan to rotate at medium speed. The thermistor detects the temperature of Q5, and activates Q11 and Q13 to accelerate the cooling fan when the detected temperature exceeds 60°C (140°F). The cooling fan rotates at high speed at 80°C (176°F) or more.

The thermistor keeps the cooling fan rotating even while receiving until the Q5 temperature drops to 60°C (140°F) or below.

4-2-12 MONITOR CIRCUIT (MAIN UNIT)

The microphone audio signals can be monitored to check voice characteristics.

A portion of the microphone audio signals from the amplifier (DSP board, IC414b) via the low-pass filter (IC503d) or the VCA section in IC502 are applied to the analog switch (IC508). The selected audio signals are applied to IC509 (pin 2), and the output signals from pin 9 are applied to the AF amplifier circuit (IC506, pin 7).

4-3 PLL CIRCUITS

4-3-1 GENERAL

The PLL unit generates a pair of 1st LO frequencies (69.04–129.0115 MHz) for dualwatch and spectrum scope functions; a 2nd LO frequency (60 MHz), 3rd LO frequency (9.465 MHz), 4th LO frequency (439.375 kHz) and sweep LO frequency for the spectrum scope function, CW side (300–900 Hz) and FM subaudible (67.0–254.1 Hz) tones.

The 1st LO PLLs adopt a mixer-less dual loop PLL system and has 3 VCO circuits. The LOs, except the 2nd, use DDSs while the 2nd LO uses the fixed frequency of the crystal oscillator.

4-3-2 1st LO PLL CIRCUIT

The 1st LO PLLs contain a main and reference loop as a dual loop system. Both PLLs have equivalent circuits— this manual describes only the 1st LO PLL A circuit.

The reference loop generates a 10.506 to 10.543 MHz frequency using a DDS circuit, and the main loop generates a 69.04 to 129.0115 MHz frequency using the reference loop frequency.

(1) REFERENCE LOOP PLL

The oscillated signal at the reference VCO (Q151, D151) is amplified at the amplifiers (Q152, Q102) and is then applied to the DDS IC (IC101, pin 46). The signal is then divided and detected on phase with the DDS generated frequency.

The detected signal output from the DDS IC (pin 56) is converted into DC voltage (lock voltage) at the loop filter (R135–R137, C121) and then fed back to the reference VCO circuit (Q151, D151).

(2) MAIN LOOP PLL

The oscillated signal at one of the main loop VCOs (VCO-A board, Q201, D201, Q221, D221, Q251, D251) is amplified at the buffer amplifier (VCO-A board, Q301) and is then applied to the PLL IC (IC381, pin 4). The signal is then divided and detected on phase with the reference loop output frequency.

The detected signal output from the PLL IC (pin 13) is converted into a DC voltage (lock voltage) at the loop filter and then fed back to one of the VCO circuits (VCO-A board, Q201, D201, Q221, D221, Q251, D251).

The oscillated signal is amplified at the buffer amplifier (Q301) and then applied to the RF unit as a 1st LO A signal after being passed through the bandpass filter (L352, C351–C353).

C759–C763 for 4th) and then applied to the MAIN unit as the 3rd or 4th LO signal.

The 4th LO circuit generates not only the 4th LO signal but also the subaudible tone and CW side tone signals.

4-3-3 2nd LO AND REFERENCE OSCILLATOR CIRCUITS

The reference oscillator (X51, Q51) generates a 30.0 MHz frequency for the 5 DDS circuits as a system clock and for the LO output. The oscillated signal is doubled by 2 at the doubler circuit (Q71, Q81) and the 60.0 MHz frequency is picked up at the double tuned filter (L81, L82). The 60.0 MHz signal is applied to the RF unit as a 2nd LO signal.

4-3-5 MARKER CIRCUIT

The divided signal at the DDS circuit (IC101) is used for the marker signals with the IC-756.

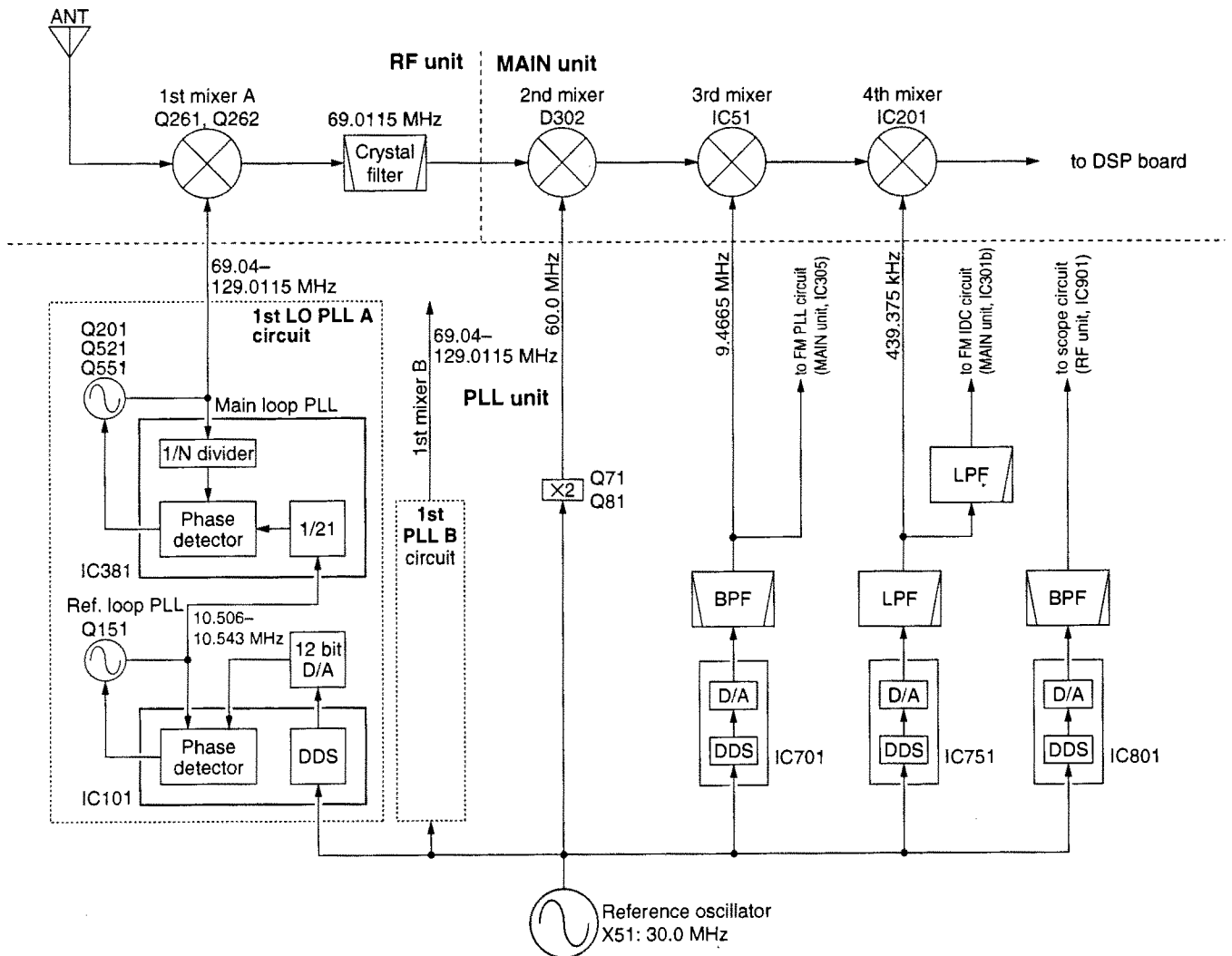
The reference signal for the DDS circuit (30.0 MHz) is divided by 2 to produce an acceptable frequency signal, 15 MHz, with the programmable divider then divided again by 150 to obtain 100 kHz cycle square-wave signals.

4-3-4 3rd and 4th LO CIRCUITS

The DDS ICs (IC701 for 3rd, IC751 for 4th) generate a 10-bit digital signal using the 30 MHz system clock. The digital signal is converted into an analog wave signal at the D/A converter (R701–R720 for 3rd, R751–R770 for 4th). The converted analog wave is passed through the bandpass filter (L702, L703, C709–C713 for 3rd, L752, L753,

The generated marker signals are output from pin 68 of the DDS IC (IC101) and then applied to the RF unit via the mute switch (IC192) and J851 as the MKR signal.

• PLL CIRCUIT



4-4 ANTENNA TUNER CIRCUITS

4-4-1 MATCHING CIRCUIT (TUNER UNIT)

The matching circuit is a T-network. Using 2 tuning motors, the matching circuit obtains rapid overall tuning speed.

Using relays (RL1–RL15), the relay control signals from the antenna tuner CPU (CTRL unit, IC5) via the buffer-amplifier (IC1, IC2) ground one of the taps of L3–L12 and add capacitors (C27–C43). After selecting the coils and capacitors, 2 motors (CTRL unit, M1, M2) adjust C44 and C45 using the antenna tuner CPU (CTRL unit, IC5) and the motor driver (CTRL unit, IC7) to obtain a low SWR (Standing Wave Ratio).

4-4-2 DETECTOR CIRCUIT (CTRL UNIT)

(1) SWR detector

Forward and reflected power are picked up by a current transformer (L1), detected by D2 and D1, and then amplified at IC1a and IC1b, respectively. The amplified voltages are applied to the antenna tuner CPU (IC5, pins 2, 3). The CPU detects the SWR.

(2) Reactance components detector

Reactance components are picked up by comparing the phases of the RF current and RF voltage. The RF current is detected by L4 and R16, buffer-amplified at IC14e and IC2a and then applied to the phase comparator (IC3a). RF voltages are detected by C12–C14 and then applied to the phase comparator (IC3b) after being amplified at the buffer-amplifiers (IC14c, IC2b). The output signal from the phase comparator (IC3a, pin 6 for RF current, IC3b pin 7 for RF voltage) is rectified at D7 and D6 for conversion into DC voltage. The rectified voltage signals are combined, then amplified at the inverter amplifier (IC4b), then applied to the antenna tuner CPU (IC5, pin 64).

A C-MOS IC is used for the buffer-amplifier (IC14) to improve functionable sensitivity; the inverter amplifier (IC4) is very responsive even with a low signal level input. Together, these ensure quick and stable signal detection even at low RF signal level input.

(3) Resistance components detector

Resistance components are picked up by L8, and detected by D8, D9 and Q5. The detected resistance components are amplified at the inverter amplifier (IC4a), and then applied to the antenna tuner CPU (IC5, pin 1).

4-4-3 MOTOR CONTROL CIRCUIT

The control circuit of the internal antenna tuner consists of the CPU, EEPROM*, tuning motors and tuning relays.

*Electrically-Erasable Programmable Read Only Memory

(1) CPU and EEPROM (CTRL unit)

The antenna tuner CPU (IC5) controls the tuning motors via the motor driver (IC7) and tuning relays, and memorizes the best preset position in 100 kHz steps. The memory contents are stored in the EEPROM (IC6) without a backup battery.

(2) Tuning motors (CTRL unit)

A motor driver (IC7) rotates the tuning motors (M1, M2) to obtain a low SWR.

(3) Tuning relays (TUNER unit)

According to the operating frequency band and antenna condition, tuning relays select the capacitors and coils.

4-4-4 ANTENNA TUNER CPU PORT ALLOCATION (IC5)

Pin Number	Port name	Description
1	R	Input port for the resistance components detection voltage.
2	REF	Input port for the reflected RF power voltage.
3	FOR	Input port for the forward RF power voltage.
4	PWRS	Input port for the transceiver power OFF.
6	STDU	Inputs low level signal when operating the antenna tuner in 50 MHz band.
7	SETI	Input port for reference voltage setting.
13	KEY	Outputs tuner data signal.
15	START	Input port for the serial signal.
17	THRU	Input port for the [TUNER] ON/OFF signal.
21	SEND	Input port for the TX/RX switching signal.
22, 23	CL1, CL2	Input ports for the antenna tuner CPU system clock.
26	DUAL	Outputs the coil selection signal. High: While 46–60 MHz band is displayed.
27–32	L24M, L18M, L14M, L10M, L7M, L3.5M	Output the coil selection signal.
34–40	CO3, CO2, CO1, C13, C12, C11	Output the capacitor selection signal.
41–48	PZ, PY, PX, PW, RZ, RY, RX, RW	Output pulse-type control signals for the tuning motors (M1, M2).
64	P	Input port for the reactance components detection voltage.

4-5 SCOPE CIRCUITS

4-5-1 SCOPE RECEIVER CIRCUIT (RF UNIT)

A portion of the 69 MHz 1st IF signal from the 1st mixer circuit (Q261, Q262: while receiving) or IF amplifier (Q301: while transmitting) is amplified at the IF amplifier (Q942), then passed through the bandpass filter (L941, L942) to suppress unwanted signals. The filtered signal is mixed with the 60 MHz 2nd LO signal at the mixer circuit (IC941, pin 6) to produce the 9 MHz IF signal after being amplified at the IF amplifier (Q943). The mixed IF signals are applied to the FM IF IC (IC901, pin 16).

The applied 9 MHz IF signal is mixed with the sweep LO signals from the PLL unit at the FM IF IC (IC901), which includes the RSSI terminal. The mixed IF signals are filtered at the ceramic bandpass filter (FI942) then applied to the limiter amplifier section in the FM IF IC (IC901, pin 5). The applied IF signals are converted into DC voltages according to the applied IF signal strength at the RSSI section in the IC.

The converted voltages are amplified at IC961a then applied to the MAIN unit as the SCPL signal.

Some of the DC voltages from the FM IF IC are amplified at IC961b to produce AGC voltages for the IF amplifiers (Q941, Q942), producing wider dynamic range.

By sweeping LO signals (SLO) applied to the mixer section in the FM IF IC, the spectrum scope function is activated.

4-5-2 SWEEP LO CIRCUIT (PLL UNIT)

The sweep LO signals (SLO) are generated by the DDS IC (IC801) using the 30 MHz system clock. A 10-bit digital signal is converted into analog wave signals at the D/A converter (R801–R820). The converted analog wave is passed through the bandpass filter (L802, L803, C809–C813) then applied to the RF unit after being amplified at the LO amplifier.

4-6 POWER SUPPLY CIRCUITS

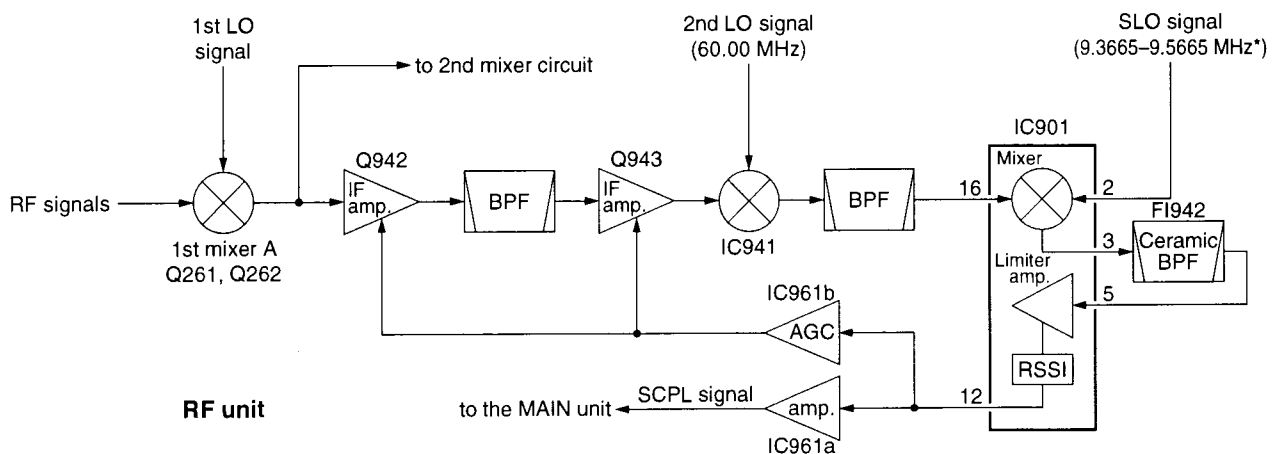
4-6-1 PA UNIT

Line	Description
PHV	The voltage from an external power supply via the common filter circuit (FILTER unit, L33).
HV	The same voltage as the PHV line passed through a fuse (F1).
14 V	The same voltage as the HV line passed through the switching relay (RL1).
14 VA	The same voltage as the 14 V line is applied to the AF power amplifier (MAIN unit, IC504).
8 V	Common 8 V converted from the 14 V line and regulated by the +8 regulator circuit (IC3).
5 V	Common 5 V converted from the 14 V line and regulated by the +5 regulator circuit (IC2).
H5V	Common 5 V converted from the 14 V line and regulated by the H5V regulator circuit (IC1).

4-6-2 SUB-LOGIC UNIT

Line	Description
5 V	Common 5 V converted from the 14 V line and regulated by the +5 regulator circuit (IC701).
-5 V	Common -5 V converted from the 14 V line and converted by the -5 DC-DC converter circuit (IC601, D601). The voltage is applied to the AGC (MAIN unit, IC202a), ALC (MAIN unit, IC602a) and AF selectors (MAIN unit, IC507, IC508), etc.
-30 V	Common -30 V converted from the 14 V line and converted by the -30 V DC-DC converter circuit (IC201, D201). The voltage is applied to the multifunction LCD.

• SCOPE CIRCUIT DIAGRAM



*depending on sweeping passband width

4-6-3 MAIN UNIT

Line	Description
5 V	Common 5 V converted from the 14 V line and regulated by the +5 regulator circuit (IC701).
-5 V	Common -5 V converted from the 14 V line and converted by the -5 DC-DC converter circuit (IC601, D601). The voltage is applied to the AGC (MAIN unit, IC202a), ALC (MAIN unit, IC602a) and AF selectors (MAIN unit, IC507, IC508), etc.
-30 V	Common -30 V converted from the 14 V line and converted by the -30 V DC-DC converter circuit (IC201, D201). The voltage is applied to the multifunction LCD.

4-6-4 CTRL AND PLL UNITS

Line	Description
5 V	Common 5 V for the antenna tuner CPU (CTRL unit, IC5) and the EEPROM (CTRL unit, IC6), converted from the 14 V line and regulated by the +5 regulator circuit (CTRL unit, IC13).
5 V	Common 5 V for each of the PLL-A and PLL-B circuits regulated from the 8 V line and regulated by the +5 regulator circuit (PLL unit, IC382; PLL-A, IC682; PLL-B)

4-7 LOGIC CIRCUITS

4-7-1 BAND SELECTION DATA (RF, CTRL AND PLL UNITS)

To select the correct bandpass, low-pass filters and VCOs on the RF, MAIN, FILTER and PLL units, the main CPU (MAIN unit, IC801) outputs the following band selection data via the I/O expander (RF unit, IC1, IC21, CTRL unit, IC11), A/D convertor (MAIN unit, IC810) or DDS IC (PLL unit, IC101, IC401) depending on the displayed frequency.

Frequency (MHz)	IC1, IC21 (RF unit)	IC11 (CTRL)	IC101 (PLL)	IC401 (PLL)
	BPF	LPF	VCO-A	VCO-B
0.03-1.599999	B0	L1	VCO-A1	VCO-B1
1.6-1.999999	B1			
2.0-2.999999	B2	L2		
3.0-3.999999	B3			
4.0-5.999999	B4			
6.0-7.999999	B5	L3		
8.0-10.999999	B6	L4		
11.0-14.999999	B7			
15.0-21.999999	B8	L5	VCO-A2	VCO-B2
22.0-29.999999	B9	L6		
30.0-49.999999	B10W	L7	VCO-A3	VCO-B3
50.0-54.000000	B10			
54.000001-60.0	B10W			

The D/A convertor (MAIN unit, IC809) output signal from pin 9 is amplified at IC813c (pins 8-10) to obtain the band voltage for external equipment via the [ACC 2] connector pin 4.

4-7-2 MAIN CPU PORT ALLOCATIONS (MAIN UNIT, IC801)

Pin number	Port name	Description
2	TCK	Outputs clock signal for the tone control circuit (IC515).
3	TDAT	Data bus line for the tone control circuit (IC515).
4	CON0	Outputs clock signal for the DDS circuits (PLL unit, IC101, IC401).
5	CON1	Outputs data signal for the DDS circuits (PLL unit, IC101, IC401).
7	PSEL	Outputs strobe selection signals for the I/O expander (PLL unit, IC1).
8	PSTB	Outputs strobe signals for the I/O expander IC (PLL unit, IC1).
9	UNLC	Input port for unlock signal from the PLL unit.
12	LTXD	Outputs data signal for the sub-CPU (SUB-LOGIC board, IC3).
14	LRXD	Input port for data signal from the sub-CPU (SUB-LOGIC board, IC3).
17	TM1D	Outputs [TIMER] indicator control signal. High : When the timer function is ON
18	PWRS	Outputs switching relay (PA unit, RL1) control signal. High : During power ON
26	LRES	Outputs reset signal for the expander (IC803) and the LCD controller (IC802).
27-34	D8-D15	Data bus lines for the the expander (IC803) and the LCD controller (IC802).
36-43, 45-51	A0-A7, A8-A14	Output ports for address signal for the expander (IC803) and the LCD controller (IC802).
54	VOXS	Input port for VOX detection. Low : While transmitting
55	SKYS	Input port for the [KEY] jack. Low : During key down
56	SEND	Input port for connected microphone's PTT switch and SEND signal from the ACC jacks. High : While the PTT is pushed or activated from an external unit.
59	TRAS	Outputs low level signal while the antenna tuner is tuning.
66, 67	EXTAL, XTAL	Input ports for the CPU system clock oscillator (X801; 12.288 MHz).
78	SML	Input port for the S-meter amplifier circuit (IC202a).

MAIN CPU — continued

Pin number	Port name	Description
79	ALCL	Input port for the ALC amplifier circuit (IC602c).
80	FORL	Input port for the power meter amplifier circuit (IC601b).
81	REFL	Input port for the SWR meter amplifier circuit (IC601a).
82	FMNL	Input port for the FM IF IC (IC306), for noise squelch operation.
83	SCPL	Input port for the scope signal.
84	STONL	Outputs CW side-tone signals.
85	BEEP	Outputs beep audio signals.
87	PWRK	Input port for the [POWER] switch. Low : When the [POWER] is pushed.
91	IKEY	Input port for transmit control signal from the antenna tuner CPU (CTRL unit, IC5).
93	ISTA	Outputs antenna tuner start signal.
94	RXS	Outputs R8 regulator (Q151, Q152) control signal. Low : While receiving
95	TXS	Outputs T8 regulator (Q153, Q154) control signal. Low : While transmitting
96	SQLS	Outputs squelch mute control signal, applied to the AF selector switch (IC507). High : Squelched
97	AFMS	Outputs AF mute switch (MAIN unit, Q501) control signal. Low : When the [AF] control is set max. CCW
98	MCK	Outputs clock signal.
99	MDAT	Outputs data signal.

**4-7-3 SUB-CPU PORT ALLOCATIONS
(SUB-LOGIC UNIT, IC3)**

Pin number	Port name	Description																																							
7, 8	OSC1, OSC2	Input and output ports for the system clock oscillator (X51; 9.8304 MHz).																																							
9	DRES	Input port for reset signal.																																							
12, 83	MSB, MSA	Input port for the [DIAL]; pulse-type signals are applied.																																							
56, 57	DOTK, DSHK	Input ports for the [ELE-KEY] jack.																																							
63-65	MDM0- MDM2	Output ports for the S/RF meter backlight and function switch activation indicator brightness control signal.																																							
		<table border="1"> <thead> <tr> <th rowspan="2">Port</th> <th colspan="7">Backlight level</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> </tr> </thead> <tbody> <tr> <td>MDM0</td> <td>High</td> <td>Low</td> <td>High</td> <td>Low</td> <td>High</td> <td>Low</td> <td>High</td> </tr> <tr> <td>MDM1</td> <td>Low</td> <td>High</td> <td>High</td> <td>Low</td> <td>Low</td> <td>High</td> <td>High</td> </tr> <tr> <td>MDM2</td> <td>Low</td> <td>Low</td> <td>Low</td> <td>High</td> <td>High</td> <td>High</td> <td>High</td> </tr> </tbody> </table>	Port	Backlight level							1	2	3	4	5	6	7	MDM0	High	Low	High	Low	High	Low	High	MDM1	Low	High	High	Low	Low	High	High	MDM2	Low	Low	Low	High	High	High	High
		Port		Backlight level																																					
			1	2	3	4	5	6	7																																
MDM0	High	Low	High	Low	High	Low	High																																		
MDM1	Low	High	High	Low	Low	High	High																																		
MDM2	Low	Low	Low	High	High	High	High																																		
67-75	TNRD, MOND NBD, NRD LOCD, TD RD, APFD NOTD	Output ports for the function switches activation indicator control signal. High : When the function is activated.																																							
81	METV	Outputs the S/RF meter (ME1) drive signal.																																							
82, 84	RSA, RSB	Input ports for the [RIT/ΔTX] control; pulse-type signals are applied.																																							
86	RXD	Input port for data signal from the main CPU (MAIN unit, IC801).																																							
87	TXD	Outputs data signal for the main CPU (MAIN unit, IC801).																																							
90	BALL	Input port for the [BAL] control (R256/inner).																																							
91	NRL	Input port for the [NR] control (R256/outer).																																							
92	MIGL	Input port for the [MIC GAIN] control (R302).																																							
93	PWRL	Input port for the [RF POWER] control (R304).																																							
94	CMPL	Input port for the [COMP] control (R306).																																							
95	KYSL	Input port for the [KEY SPEED] control (R308).																																							
96	DELL	Input port for the [BK-IN DELAY] control (R310).																																							
97	PB1L	Input port for the [TWIN PBT (inner)] control (PBT board, R2/inner).																																							
98	PB2L	Input port for the [TWIN PBT(outer)] control (PBT board, R2/outer).																																							
99	APFL	Input port for the [APF] control (PBT board, R1/inner).																																							
100	PITL	Input port for the [CW PITCH] control (PBT board, R1/outer).																																							

**4-7-4 I/O EXPANDER PORT ALLOCATIONS
(MAIN unit, IC803)**

Pin number	Port name	Description
8	P2 5	Outputs strobe signals for an optional UT-102 SPEECH SYNTHESIZER.
9	ESTA	Outputs external antenna tuner (AH-3) start signal Low : When the [TUNE] switch is pushed.
10	EKEY	Input port for the KEY signal from the connected AH-3. Low : While tuning or tune NG
11	P21	Input port for AH-3 connection detection. High : When AH-3 is connected.
12	P22	Input port for busy signal from the installed UT-102 SPEECH SYNTHESIZER.
14	KDS	Outputs transmit IF circuit control signal. High : When transmitting in CW or RTTY
15	IFS	Outputs transmit IF circuit control signal. High : When transmitting in SSB or AM
16	FMS	Outputs transmit IF circuit control signal. High : When transmitting in FM
18	MSL1	Outputs TX monitor audio select signal. High : During monitoring in SSB, AM or FM
19	MSL2	Outputs TX monitor audio select signal. High : During monitoring in RTTY or FM
20	CMPS	Outputs analog switch (IC513) control signal. High : When [COMP] is ON
21	AFS1	Outputs receive audio select signal. High : When receiving in FM
22	FMNS	Outputs FM deviation control signal. High : When FM-N is selected

4-7-5 INPUT EXPANDER PORT ALLOCATIONS

(1) SUB-LOGIC unit, IC501

Pin number	Port name	Description
1	KI4	Input port for the [RIT], [ΔTX] and [CLEAR] switches.
2	AFL	Input port for the [AF] control (R252/inner).
4	RFL	Input port for the [RF/SQL] control (R252/outer).
5	MUD	Input port for [UP] and [DN] switches of the connected microphone.
12	KI3	Input port for the [D-WATCH], [CHANGE], [V/M] and [M/S] switches.
13	KI0	Input port for the [TUNER], [MONITOR], [NB] and [NR] switches.
14, 15	KI1, KI2	Input ports for the multi-function switches.

(2) MAIN unit, IC803

Pin number	Port name	Description
1	KI4	Input port for the [RIT], [ΔTX] and [CLEAR] switches.
2	AFL	Input port for the [AF] control (R252/inner).
4	RFL	Input port for the [RF/SQL] control (R252/outer).
5	MUD	Input port for [UP] and [DN] switches of the connected microphone.
12	KI3	Input port for the [D-WATCH], [CHANGE], [V/M] and [M/S] switches.
13	KI0	Input port for the [TUNER], [MONITOR], [NB] and [NR] switches.
14, 15	KI1, KI2	Input ports for the multi-function switches.

4-7-6 OUTPUT EXPANDER PORT ALLOCATIONS

(1) CTRL unit, IC11

Pin number	Port name	Description
4	L1S	Outputs a low-pass filter select signal. High : When 0.03–1.999999 MHz band is selected.
5	L2S	Outputs a low-pass filter select signal. High : When 2.0–5.999999 MHz band is selected.
6	L3S	Outputs a low-pass filter select signal. High : When 6.0–7.999999 MHz band is selected.
7	L4S	Outputs a low-pass filter select signal. High : When 8.0–14.999999 MHz band is selected.
11	ANTS	Outputs the antenna connector ([ANT1] or [ANT2]) select signal. High : When [ANT2] is selected.
12	L7S	Outputs a low-pass filter select signal. High : When 30.0–60.0 MHz band is selected.
13	L6S	Outputs a low-pass filter select signal. High : When 22.0–29.999999 MHz band is selected.
14	L5S	Outputs a low-pass filter select signal. High : When 15.0–21.999999 MHz band is selected.

(2) RF unit, IC1

Pin number	Port name	Description
4	B0S	Outputs a bandpass filter select signal. High : When 0.03–1.599999 MHz band is selected.
5	B1S	Outputs a bandpass filter select signal. High : When 1.6–1.999999 MHz band is selected.
6	B2S	Outputs a bandpass filter select signal. High : When 2.0–2.999999 MHz band is selected.
7	B3S	Outputs a bandpass filter select signal. High : When 3.0–3.999999 MHz band is selected.
11	B7S	Outputs a bandpass filter select signal. High : When 11.0–14.999999 MHz band is selected.
12	B6S	Outputs a bandpass filter select signal. High : When 8.0–10.999999 MHz band is selected.
13	B5S	Outputs a bandpass filter select signal. High : When 6.0–7.999999 MHz band is selected.
14	B4S	Outputs a bandpass filter select signal. High : When 4.0–5.999999 MHz band is selected.

(3) RF unit, IC21

Pin number	Port name	Description
4	B8S	Outputs a bandpass filter select signal. High : When 15.0–21.999999 MHz band is selected.
5	B9S	Outputs a bandpass filter select signal. High : When 22.0–29.999999 MHz band is selected.
6	B10S	Outputs a bandpass filter select signal. High : When 50.0–54.0 MHz band is selected.
7	B10W	Outputs a bandpass filter select signal. High : When 30.0–49.999999 MHz or 54.000001–60.0 MHz band is selected.
11	PR2S	Outputs the pre-amplifier 2 circuit (IC371) control signal. High : When PRE2 is selected.
12	PR1S	Outputs the pre-amplifier 1 circuit (Q341, Q342) control signal. High : When PRE1 is selected.
13	AT2S	Outputs the attenuator circuit (RL752, R753, R754) control signal. High : When 6 dB attenuator is ON
14	AT1S	Outputs the attenuator circuit (RL751, R751, R752) control signal. High : When 12 dB attenuator is ON

(4) MAIN unit, IC810

Pin number	Port name	Description
4	2S3K	Outputs a 2nd IF filter select signal. High : When 2.4 kHz passband width is selected.
5	2STH	Outputs a 2nd IF filter select signal. High : When 15.0 kHz passband width is selected.
6	2SOP	Outputs a 2nd IF filter select signal. High : When the installed optional filter is selected.
7	3S3K	Outputs a 3rd IF filter select signal. High : When 2.8 kHz passband width is selected.
11	RANS	Outputs the RX antenna select signal. High : When [RX ANT] is selected.
12	3SOP	Outputs a 3rd IF filter select signal. High : When the installed optional filter is selected.
13	3S15	Outputs a 3rd IF filter select signal. High : When 15.0 kHz passband width is selected.
14	3S9K	Outputs a 3rd IF filter select signal. High : When 9.0 kHz passband width is selected.

(5) MAIN unit, IC811

Pin number	Port name	Description
4	AGOS	Outputs AGC rate select signal. High : When AGC OFF is selected.
5	AFSS	Outputs AGC rate select select signal. High : When AGC SLOW is selected.
6	AGMS	Outputs AGC rate select signal. High : When AGC MID is selected.
7	AGFS	Outputs AGC rate select signal. High : When AGC FAST is selected.
11	PVHS	Outputs VHF bands RF power control signal. High : When 30–60 MHz band is selected.
12	AMS	Outputs AM mode select signal for the AGC and the APC circuit. High : When AM is selected.
13	NBLS	Outputs the noise blanker switch (Q105, Q106) control signal. High : When the [NB] is ON, except in FM mode.
14	NBS	Outputs the noise blanker switch (Q105, Q106) control signal. High : When the [NB] is ON, except in AM and FM modes.

(7) PLL unit, IC401

Pin number	Port name	Description
70	PBMT	Outputs LO mute switch (Q661) control signal. Low : Muted
71	PBFS	Outputs bandpass filter select switch (Q651) control signal. High : When less than 8 MHz is displayed on the sub band.
73	VB3S	Outputs the LO switch (VCO-B board, Q252) control signal. High : While 30.0–60.0 MHz band is displayed on the sub band.
74	VB2S	Outputs the LO switch (VCO-B board, Q222) control signal. High : While 15.0–29.999999 MHz band is displayed on the sub band.
75	VB1S	Outputs the LO switch (VCO-B board, Q202) control signal. High : While 0.03–14.999999 MHz band is displayed on the sub band.

(6) PLL unit, IC101

Pin number	Port name	Description
68	MAKS	Outputs the marker mute switch (IC192) control signal. High : When the [MARKER] is ON and receiving.
70	PAMT	Outputs LO mute switch (Q361) control signal. Low : Muted
71	PAFS	Outputs bandpass filter select switch (Q351) control signal. High : When less than 8 MHz is displayed on the main band.
73	VA3S	Outputs the LO switch (VCO-A board, Q252) control signal. High : While 30.0–60.0 MHz band is displayed on the main band.
74	VA2S	Outputs the LO switch (VCO-A board, Q222) control signal. High : While 15.0–29.999999 MHz band is displayed on the main band.
75	VA1S	Outputs the LO switch (VCO-A board, Q202) control signal. High : While 0.03–14.999999 MHz band is displayed on the main band.

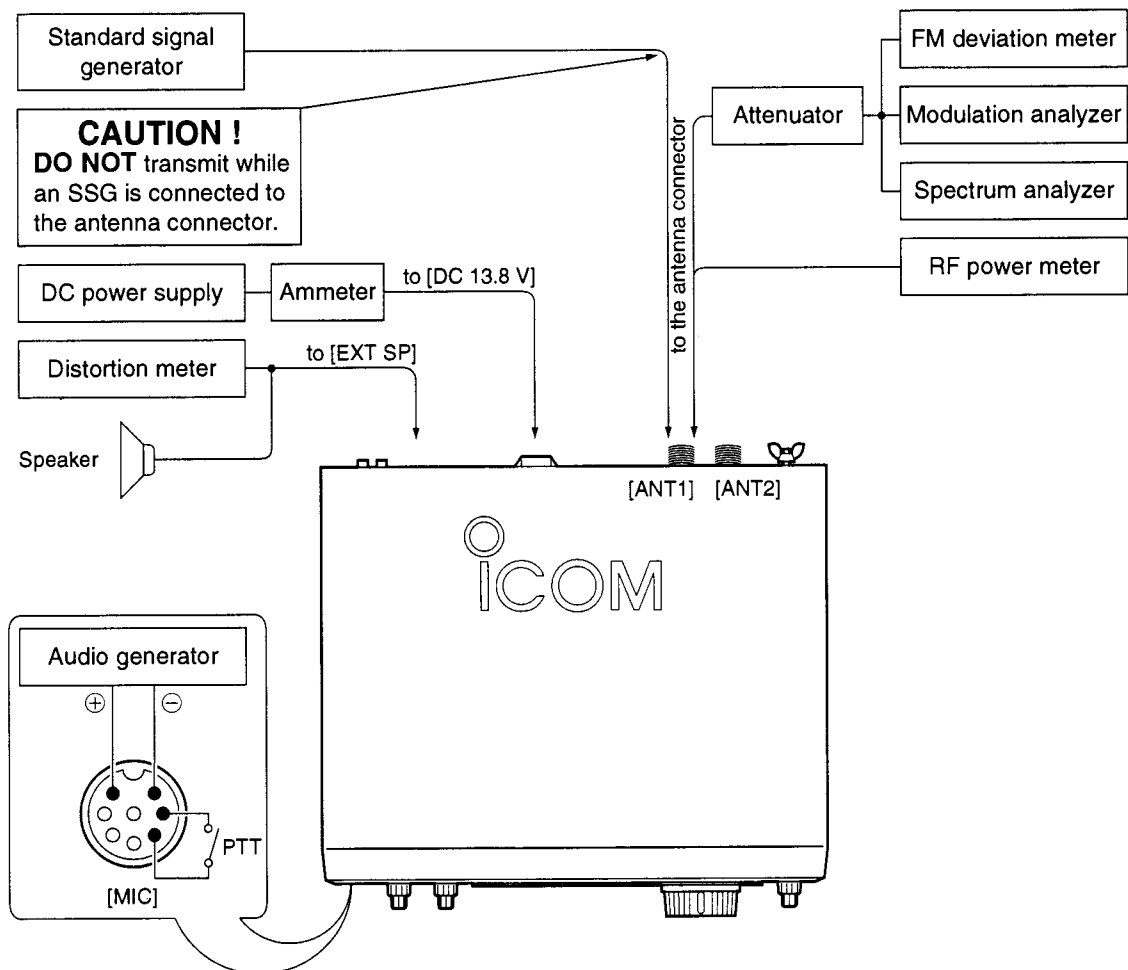
SECTION 5 ADJUSTMENT PROCEDURES

5-1 PREPARATION BEFORE SERVICING

■ REQUIRED TEST EQUIPMENT

EQUIPMENT	GRADE AND RANGE	EQUIPMENT	GRADE AND RANGE
DC power supply	Output voltage : 13.8 V DC Current capacity : 25 A or more	Audio generator	Frequency range : 300–3000 Hz Output level : 1–500 mV
RF power meter (terminated type)	Measuring range : 10–200 W Frequency range : 1.8–100 MHz Impedance : 50 Ω SWR : Less than 1.2 : 1	Standard signal generator (SSG)	Frequency range : 0.1–100 MHz Output level : 0.1 μV–32 mV (–127 to –17 dBm)
Frequency counter	Frequency range : 0.1–100 MHz Frequency accuracy : ±1 ppm or better Sensitivity : 100 mV or better	Oscilloscope	Frequency range : DC–20 MHz Measuring range : 0.01–20 V
RF voltmeter	Frequency range : 0.1–100 MHz Measuring range : 0.01–10 V	DC voltmeter	Input impedance : 50 kΩ/V DC or better
FM deviation meter	Frequency range : DC–500 MHz Measuring range : 0 to ±5 kHz	AC millivoltmeter	Measuring range : 10 mV–10 V
Modulation analyzer	Frequency range : At least 90 MHz Measuring range : 0–100 %	Digital multimeter	Input impedance : 10 MΩ/V DC or better
Spectrum analyzer	Frequency range : At least 90 MHz Spectrum bandwidth : ±100 kHz or more	Ammeter	Measurement capacity: 1 A and 30 A
Distortion meter	Frequency range : 1 kHz ±10 % Measuring range : 1–100 %	External speaker	Impedance : 8 Ω Max. input power : 5 W
		Attenuator	Power attenuation : 50 or 60 dB Capacity : 150 W or more
		Terminator	Resistance : 50 and 150 Ω Capacity : 150 W or more

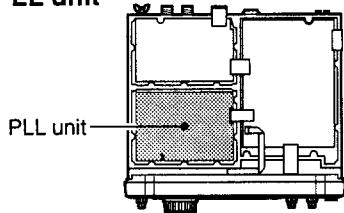
■ CONNECTION



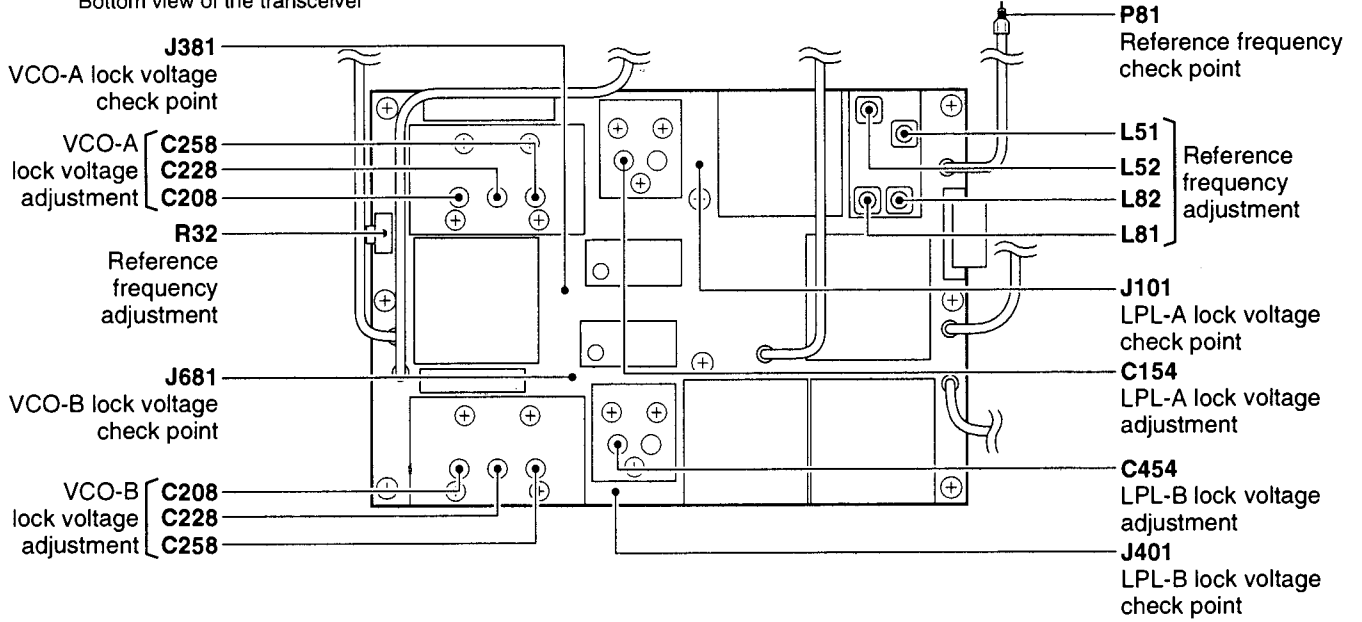
5-2 PLL ADJUSTMENT

ADJUSTMENT	ADJUSTMENT CONDITIONS	MEASUREMENT		VALUE	ADJUSTMENT	
		UNIT	LOCATION		UNIT	ADJUST
REFERENCE FREQUENCY	1 • Displayed freq. : 14.10000 MHz • Mode : USB • Receiving			Center position	PLL	R32, L52
	2 • Receiving	PLL	Connect an RF volt-meter to P81.	Maximum level		L81, L82
	3 • Receiving		Connect a frequency counter to P81	60.000000 MHz		L51 (L52 for critical adjustment)
LPL-A LOCK VOLTAGE	1 • Displayed freq. : 0.03000 MHz • Mode : USB • Receiving	PLL	Connect a multi-meter to J101.	2.0 V	PLL	C154
VCO-A LOCK VOLTAGE	1 • Displayed freq. : 14.99999 MHz • Mode : USB • Receiving	PLL	Connect a multi-meter to J381.	4.2 V	VCO-A board	C208
	2 • Displayed freq. : 29.99999 MHz • Mode : USB • Receiving					C228
	3 • Displayed freq. : 60.00000 MHz • Mode : USB • Receiving			4.4 V		C258
LPL-B LOCK VOLTAGE	1 • [DUAL WATCH] : ON • Sub display freq. : 0.030000 MHz • Mode : USB • Receiving	PLL	Connect a multi-meter to J401.	2.0 V	PLL	C454
VCO-B LOCK VOLTAGE	1 • Sub display freq.: 14.99999 MHz • Mode : USB • Receiving	PLL	Connect a multi-meter to J681.	4.2 V	VCO-B board	C208
	2 • Sub display freq.: 29.99999 MHz • Mode : USB • Receiving					C228
	3 • Sub display freq.: 60.00000 MHz • Mode : USB • Receiving			4.4 V		C258
FM VCO	1 • [DUAL WATCH] : OFF • Displayed freq. : 51.00000 MHz • Mode : FM • Applied no audio signals to the [MIC] connector. • Transmitting	MAIN	Connect a multimeter to J301 (LV).	3 V	MAIN	C319

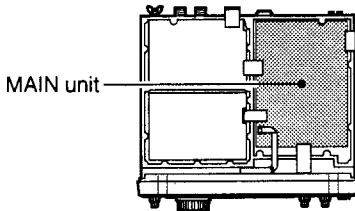
• PLL unit



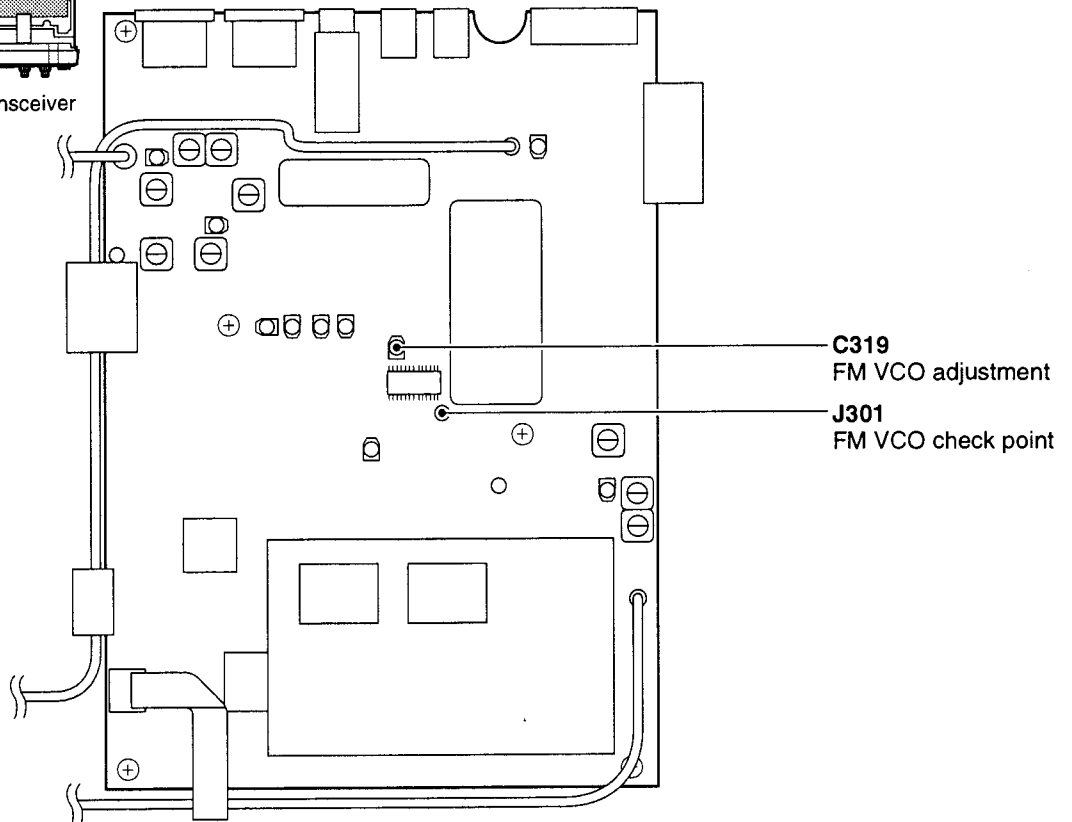
Bottom view of the transceiver



• MAIN unit



Bottom view of the transceiver

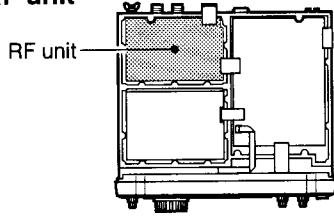


5-3 RECEIVER ADJUSTMENT

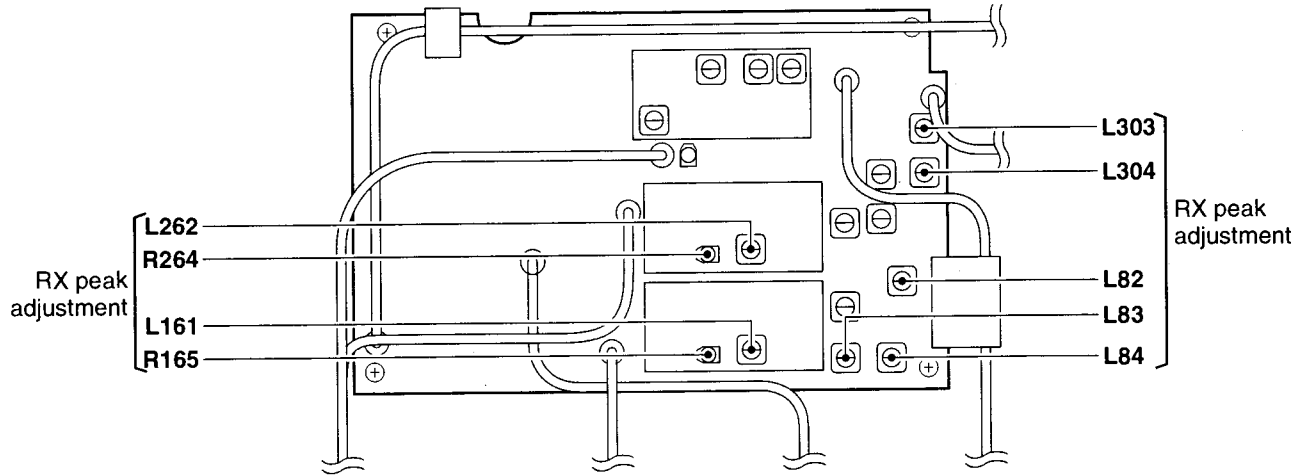
ADJUSTMENT	ADJUSTMENT CONDITIONS	MEASUREMENT		VALUE	ADJUSTMENT		
		UNIT	LOCATION		UNIT	ADJUST	
RX PEAK	1	<ul style="list-style-type: none"> • Displayed freq. : 14.100000 MHz • Mode : FM • [P.AMP] : OFF • [ATT] : OFF • Connect an SSG to the [ANT1] connector and set as: Frequency : 14.100000 MHz Level : 10 μV* (-87 dBm) Modulation : 1 kHz/\pm7.5 kHz dev. • Receiving 	Front panel	S/RF meter	Maximum indication	RF	Adjust in sequence L262, L82, L303, L304, L83, L84
	2	<ul style="list-style-type: none"> • Displayed freq. : 0.100000 MHz • Mode : USB • Set an SSG output level to OFF. • Receiving 	Rear panel	Connect an AC millivolt meter to the [EXT SP] connector with an 8 Ω load.	Minimum noise level		R264
	3	<ul style="list-style-type: none"> • [DUAL WATCH] : ON • Sub display freq.: 14.100000 MHz • Mode : FM • [BAL] : Max. CW • Set an SSG output level as: 10 μV* (-87 dBm) • Receiving 	Front panel	S/RF meter	Maximum indication		L161
	4	<ul style="list-style-type: none"> • Sub display freq.: 0.100000 MHz • Mode : USB • Set an SSG output level to OFF. • Receiving 	Rear panel	Connect an AC millivolt meter to the [EXT SP] connector with an 8 Ω load.	Minimum noise level		R165
	5	<ul style="list-style-type: none"> • Displayed freq. : 14.100000 MHz • Mode : USB • [DUAL WATCH] : OFF • Set following selections, controls and functions as: [P.AMP] : 1 [ATT] : OFF [AGC] : MID [BAL] : Center PBT1 : Center PBT2 : Center [APF] : OFF [NB] : OFF [RIT] : OFF [APF] : Center [RF/SQ] : 11 o'clock [NR] switch : OFF [AUTO NOTCH] : OFF [MONITOR] : OFF [NR] level : Max. CCW • Set IF filters selection as follows: 9 MHz IF : 2.4 kHz 455 kHz IF : 2.8 kHz • Connect an SSG to the [ANT1] connector and set as: Frequency : 14.101500 MHz Level : 1 μV* (-107 dBm) Modulation : OFF • Receiving 			Maximum audio output level	MAIN	Adjust in sequence L201, L202, L203, L53, L54, L55
FM DISTORTION	1	<ul style="list-style-type: none"> • Displayed freq. : 14.100000 MHz • Mode : FM • AGC : OFF • Set IF filters selection as follows: 9 MHz IF : 15 kHz 455 kHz IF : 15 kHz • Connect an SSG to the [ANT1] connector and set as: Frequency : 14.100000 MHz Level : 3.2 μV* (-97 dBm) Modulation : 1 kHz/\pm7.5 kHz Dev. • Receiving 	Rear panel	Connect a distortion meter to the [EXT SP] connector with an 8 Ω load.	Minimum distortion level	MAIN	L201

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

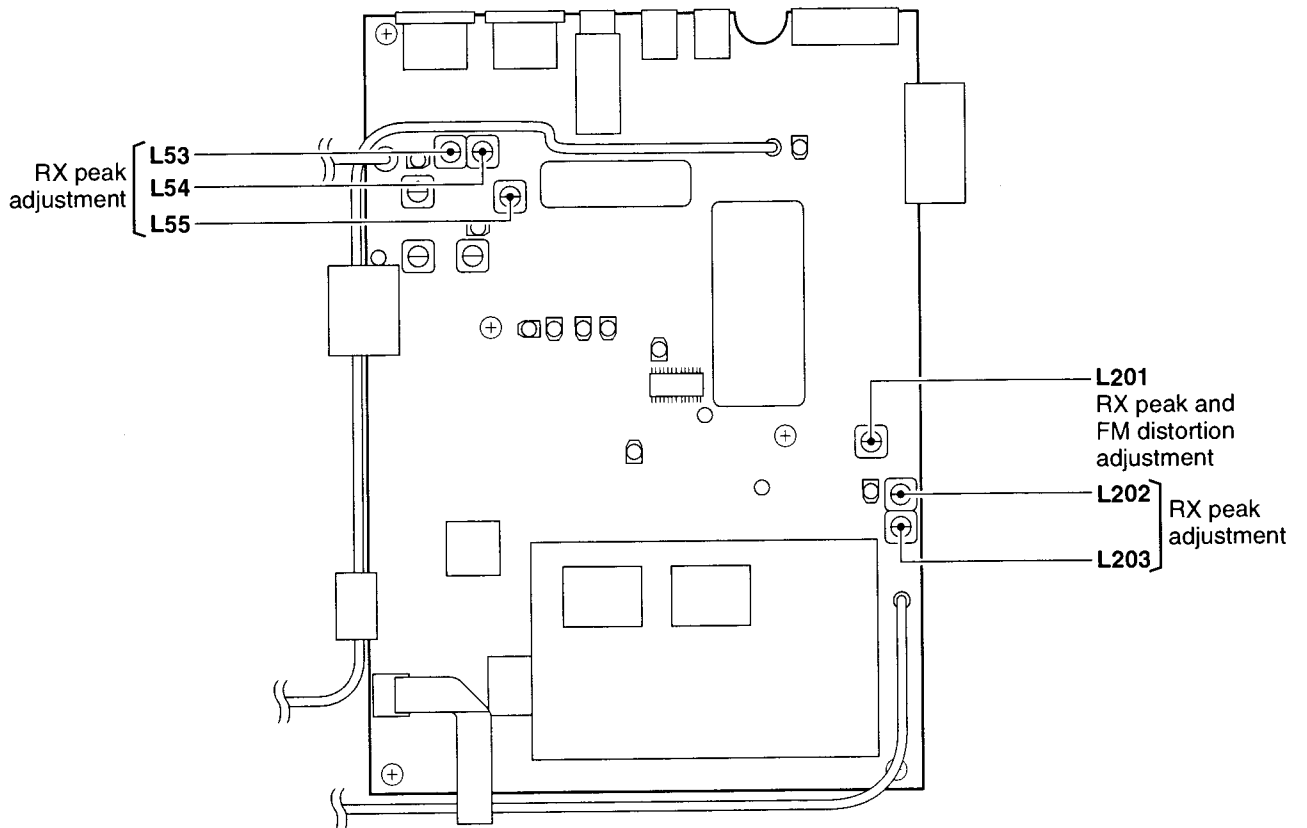
• RF unit



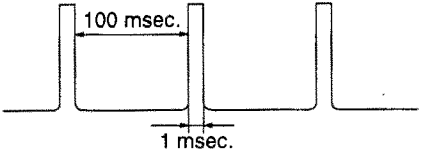
Bottom view of the transceiver



• MAIN unit

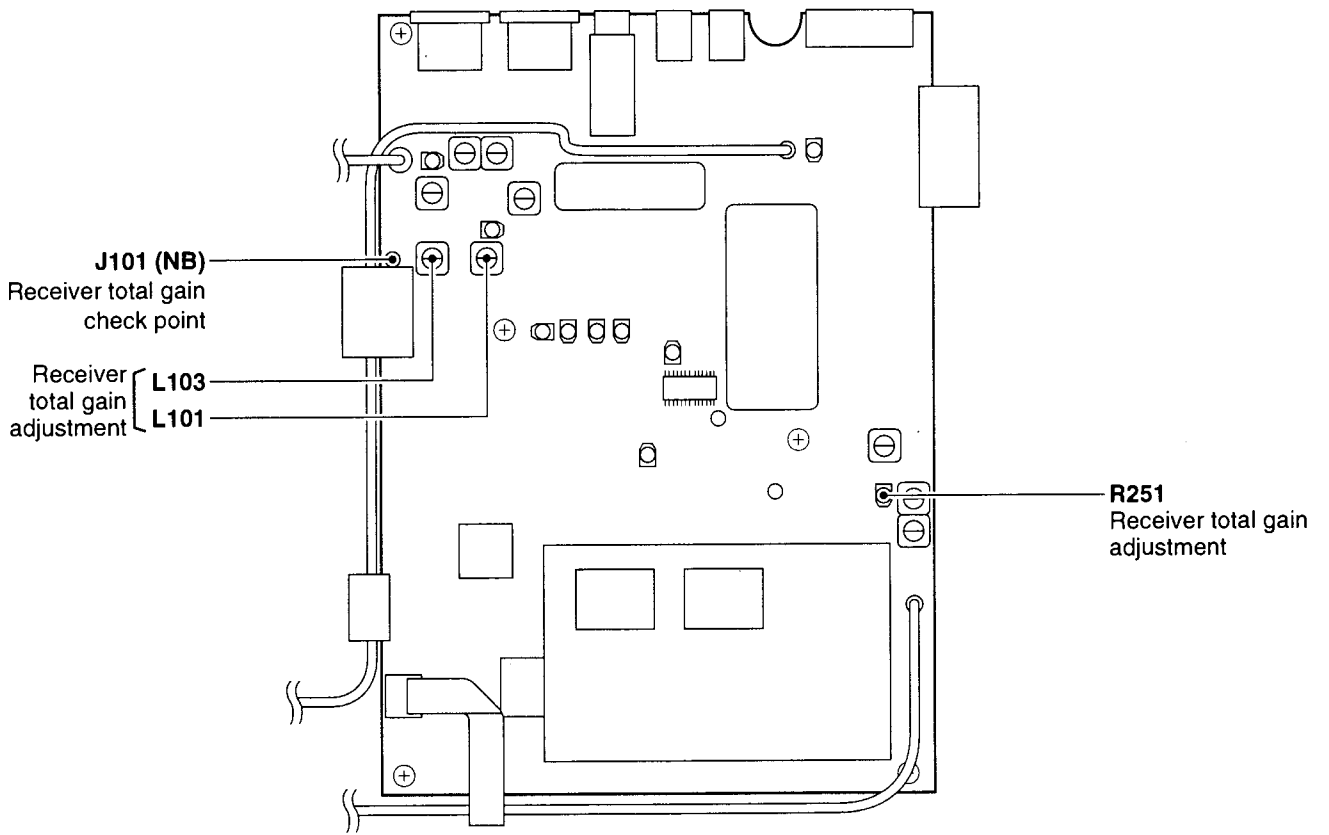


RECEIVER ADJUSTMENT — continued

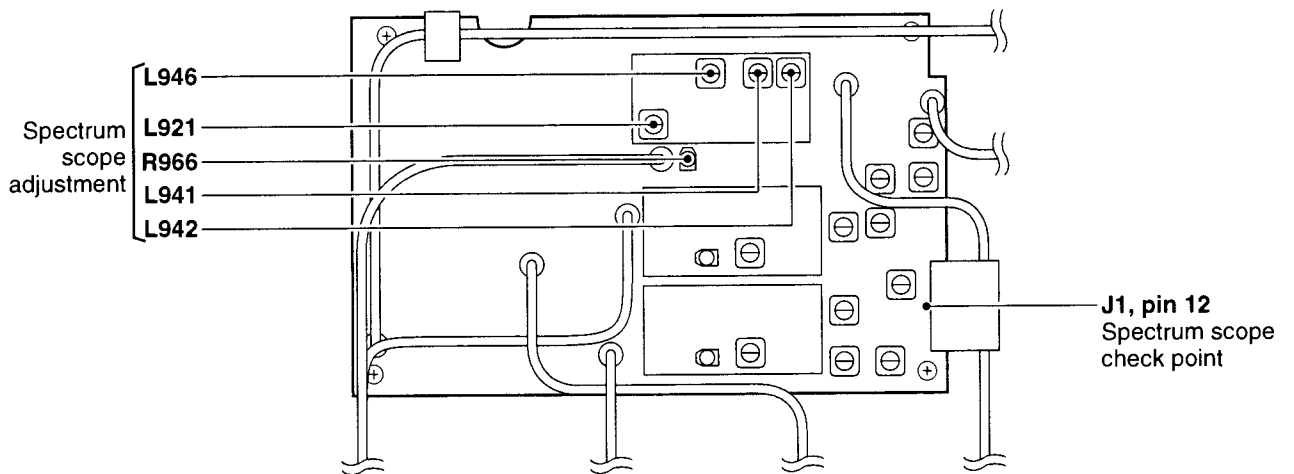
ADJUSTMENT	ADJUSTMENT CONDITIONS	MEASUREMENT		VALUE	ADJUSTMENT	
		UNIT	LOCATION		UNIT	ADJUST
RECEIVER TOTAL GAIN	1 <ul style="list-style-type: none"> • Displayed freq. : 14.100000 MHz • Mode : USB • AGC : ON • Set IF filters selection as follows: 9 MHz IF : 2.4 kHz 455 kHz IF : 2.8 kHz • Connect an SSG to the [ANT1] connector and set as: Frequency : 14.101500 MHz Level : 0.5 mV* (-53 dBm) Modulation : OFF • Receiving 	Rear panel	Connect an AC millivolt meter to the [EXT SP] connector with an 8 Ω load.	1.0 V (0 dB)	Front unit	[AF] control
	2 <ul style="list-style-type: none"> • Set an SSG output level: OFF 					
NOISE BLANKER	1 <ul style="list-style-type: none"> • Displayed freq. : 14.100000 MHz • Mode : USB • Set following selections, controls and functions as: [P.AMP] : 1 [NB] : OFF • Connect an SSG to the [ANT1] connector and set as: Frequency : 14.101500 MHz Level : 3.2 μV* (-97 dBm) Modulation : OFF and apply the following signal to the [ANT1] connector.  <ul style="list-style-type: none"> • Pre-set R103 to 12 o'clock position. • Receiving 	MAIN	Connect an oscilloscope to J101 (NB).	Maximum noise level	MAIN	L101 L103
	2 <ul style="list-style-type: none"> • Set an SSG output level as: 10 μV* (-87 dBm) • Receiving 					
SPECTRUM SCOPE	1 <ul style="list-style-type: none"> • Displayed freq. : 14.100000 MHz • Mode : FM • Connect an SSG to J901 on the RF unit and set as: Frequency : 9.4665 MHz Level : 3.2 μV* (-97 dBm) Modulation : OFF • Receiving 	RF	Connect a multimeter to pin 12 of J1 on the RF unit.	Maximum voltage	RF	Adjust in sequence L941 L942 L946 L921
	2 <ul style="list-style-type: none"> • Connect an "SLO" signal (scope LO: PLL unit, P801) line to J901 on the RF unit. • Apply no signals to the antenna connectors. • Receiving 	RF		0.25 V		R966

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

• MAIN unit



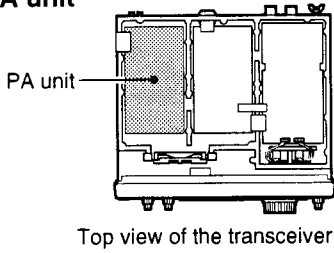
• RF unit



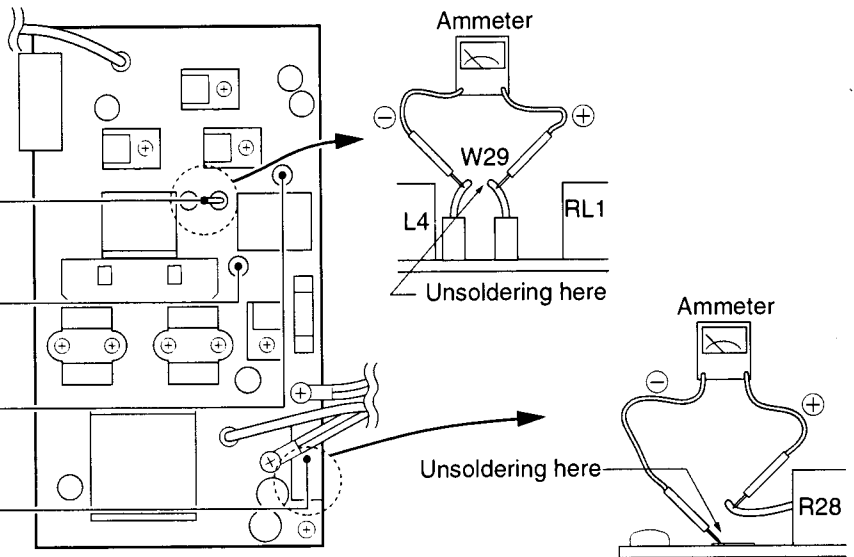
5-4 TRANSMITTER ADJUSTMENT

ADJUSTMENT	ADJUSTMENT CONDITIONS	MEASUREMENT		VALUE	ADJUSTMENT	
		UNIT	LOCATION		UNIT	ADJUST
IDLING CURRENT (for driver) (for final amplifier)	<ul style="list-style-type: none"> • Displayed freq. : 14.100000 MHz • Mode : USB • Preset R11, R18 on the PA unit to max. CCW • [MIC GAIN] : Max. CCW • [RF POWER] : Max. CW • [TUNER] : OFF • Apply no audio signals to the [MIC] connector. • Transmitting 	PA	Unsolder W29. Connect an ammeter to the unsoldering points of W29.	500 mA	PA	R11
			Unsolder R28 (L8 side). Connect an ammeter to the unsoldering points of R28.	500 mA		R18
TX PEAK	<ul style="list-style-type: none"> • Displayed freq. : 14.100000 MHz • Mode : FM • [RF POWER] : Max. CW • Transmitting 	RF	Connect an RF voltmeter to J821 on the RF unit.	Maximum output	RF	Adjust in sequence L303 L304 L307 L385
	<ul style="list-style-type: none"> • Mode : USB • Connect an audio generator to the [MIC] connector and set as: Frequency : 1.5 kHz Level : 3 mV • Transmitting 	Rear panel	Connect an RF power meter to the [ANT1] connector.	50 W Maximum output power	Front panel MAIN	[MIC GAIN] control L52, L53 L54
TRANSMITTER TOTAL GAIN	<ul style="list-style-type: none"> • Displayed freq. : 14.100000 MHz • Mode : USB • [MIC GAIN] : Center • Connect an audio generator to the [MIC] connector and set as: Frequency : 1.5 kHz Level : 3 mV • Transmitting 	Rear panel	Connect an RF power meter to the [ANT1] connector.	50 W	MAIN	R53
Id APC	<ul style="list-style-type: none"> • Displayed freq. : 14.100000 MHz • Mode : RTTY • Connect J102 to GND. • Transmitting 	Rear panel	Connect an ammeter between power supply and the IC-756.	22A	MAIN	R636
HF BANDS OUTPUT POWER	<ul style="list-style-type: none"> • Displayed freq. : 14.100000 MHz • Mode : RTTY • [RF POWER] : Max. CW • [TUNER] : OFF • Transmitting 	Rear panel	Connect an RF power meter to [ANT1] connector.	100 W	MAIN	R618
50 MHz BAND OUTPUT POWER	<ul style="list-style-type: none"> • Displayed freq. : 51.000000 MHz • Mode : RTTY • [RF POWER] : Max. CW • [TUNER] : OFF • Transmitting 	Rear panel	Connect an RF power meter to [ANT1] connector.	100 W	MAIN	R619
FM DEVIATION	<ul style="list-style-type: none"> • Displayed freq. : 29.600000 MHz • Mode : FM • [MIC GAIN] : Center • Connect an audio generator to the [MIC] connector and set as: Frequency : 1 kHz Level : 30 mV • Transmitting 	Rear panel	Connect an FM deviation meter to the [ANT1] connector through an attenuator.	±4.5 kHz	MAIN	R319

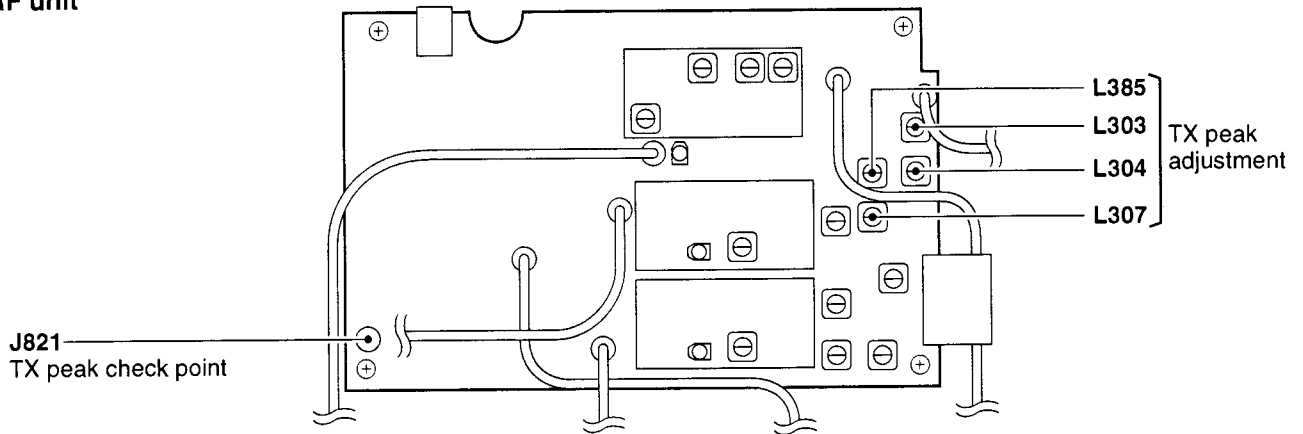
• PA unit



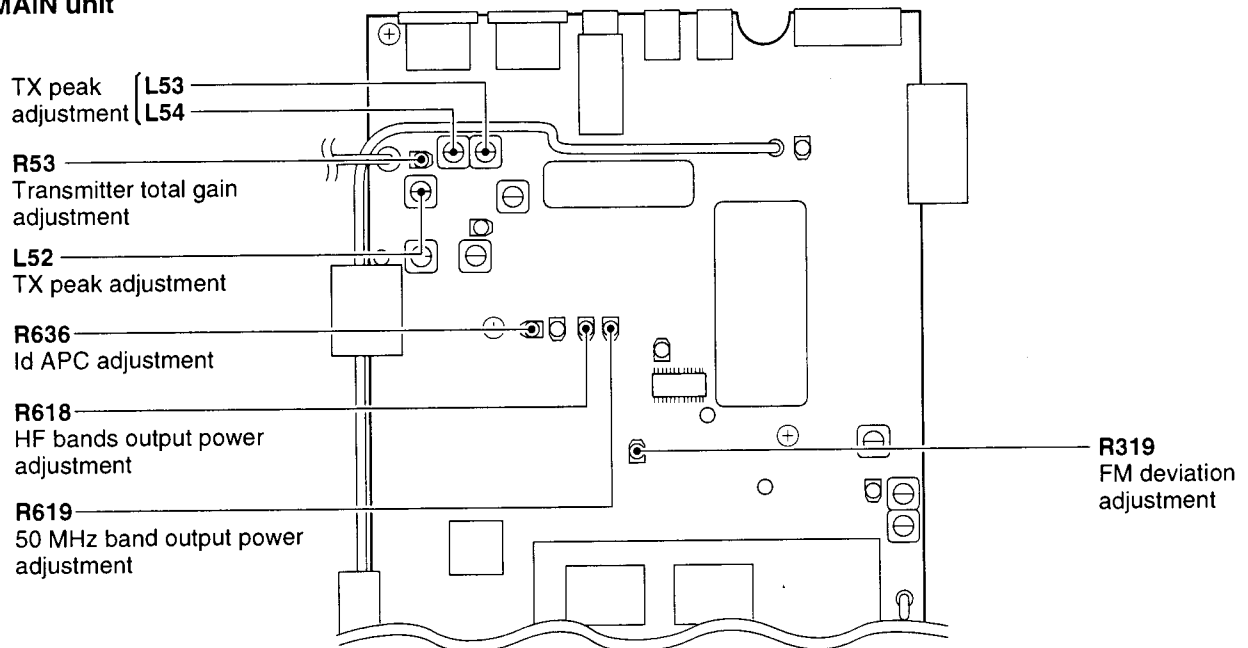
- W29**
Idling current check point for drivers
- R18**
Idling current adjustment for finals
- R11**
Idling current adjustment for drivers
- R28**
Idling current check point for finals



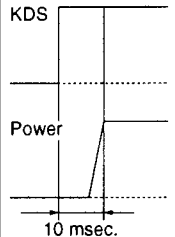
• RF unit



• MAIN unit



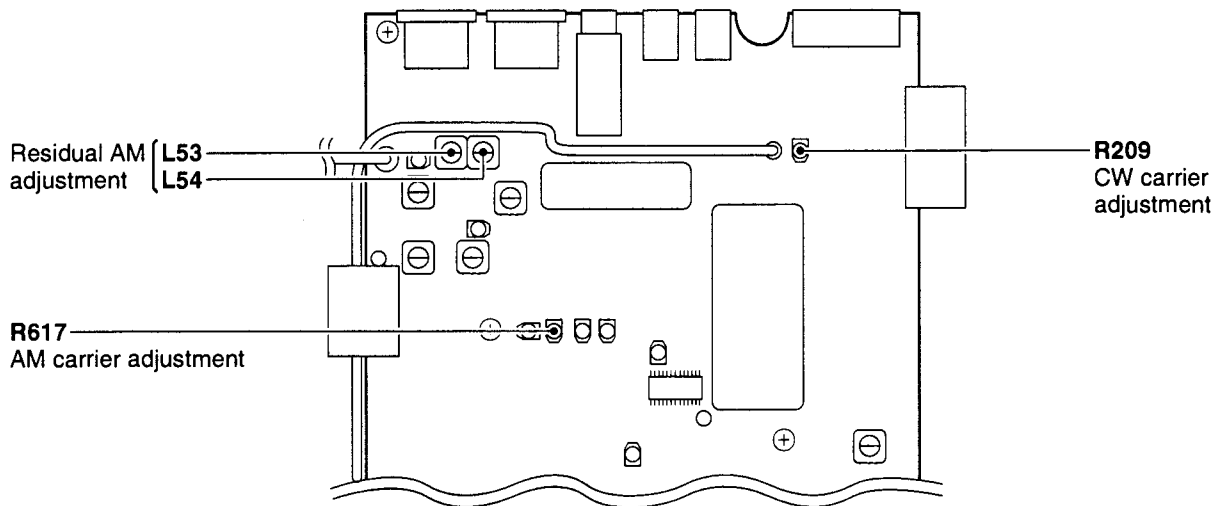
TRANSMITTER ADJUSTMENT— continued

ADJUSTMENT	ADJUSTMENT CONDITIONS	MEASUREMENT		VALUE	ADJUSTMENT	
		UNIT	LOCATION		UNIT	ADJUST
RESIDUAL AM	1 <ul style="list-style-type: none"> • Displayed freq. : 29.60000 MHz • Mode : FM • [MIC GAIN] : Center • Connect an audio generator to the [MIC] connector and set as: <ul style="list-style-type: none"> Frequency : 1 kHz Level : 30 mV and OFF • Transmitting 	Rear panel	Connect an RF power meter to the [ANT1] connector.	Minimum power difference with modulation and unmodulation.	MAIN	L53, L54
					RF	L303 L304
AM CARRIER	1 <ul style="list-style-type: none"> • Displayed freq. : 29.60000 MHz • Mode : AM • [RF POWER] : Max. CW • [MIC GAIN] : Center • Apply no audio signals to the [MIC] connector. • Transmitting 	Rear panel	Connect an RF power meter to the [ANT1] connector.	40 W	MAIN	R617
CW CARRIER	1 <ul style="list-style-type: none"> • Displayed freq. : 14.10000 MHz • Mode : CW • [RF POWER] : Max. CCW • Connect a "key" to the [ELE-KEY] connector • Key down (transmitting) 	MAIN	Connect an oscilloscope to J821 (KDS) and [ANT1] connector.	At the point where the CW carrier completely comes up in a 10 msec. delay after KDS voltage comes up. 	MAIN	R209

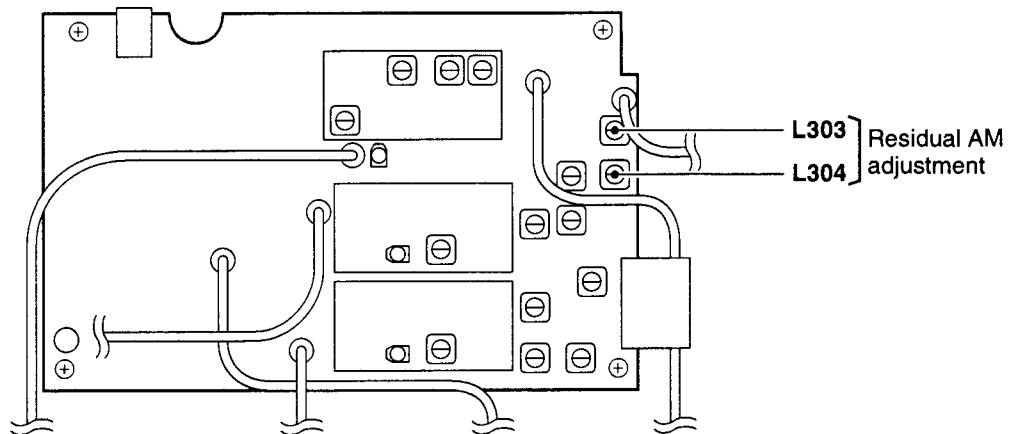
5-5 TUNER ADJUSTMENT

ADJUSTMENT	ADJUSTMENT CONDITIONS	MEASUREMENT		VALUE	ADJUSTMENT	
		UNIT	LOCATION		UNIT	ADJUST
SWR DETECTOR	1 <ul style="list-style-type: none"> • Displayed freq. : 29.70000 MHz • Mode : FM • [RF POWER] : Max. CW • [TUNER] : Through • Connect a 50 Ω terminator to the [ANT1] connector. • Transmitting 	CTRL	Connect an multimeter to J14 (REF).	Minimum voltage	CTRL	C3

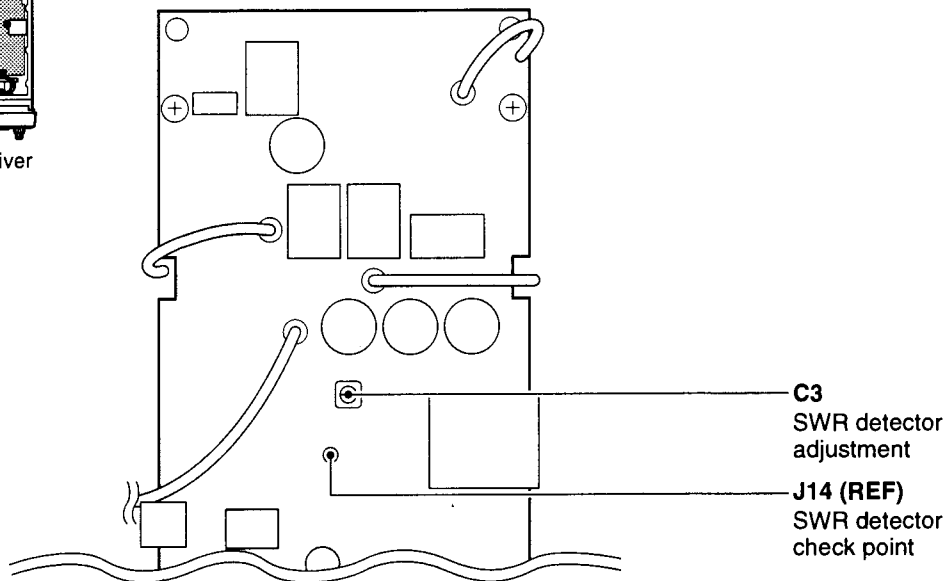
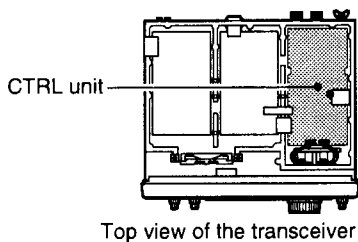
• MAIN unit— for 5-4 TRANSMITTER ADJUSTMENT



• RF unit— for 5-4 TRANSMITTER ADJUSTMENT



• CTRL unit— for 5-5 TUNER ADJUSTMENT



SECTION 6 PARTS LIST

[SUB-LOGIC BOARD]

REF NO.	ORDER NO.		DESCRIPTION
IC1	1130002660	S.IC	μPD4030BG
IC2	1130008650	S.IC	MC14071BF-EL
IC3	1140006440	S.IC	HD6433833A80H
IC151	1110000960	S.IC	NJM4558M(T1)
IC201	1110004200	S.IC	NJM2360M-TE3
IC501	1130007810	S.IC	BU4051BCF-T1
IC601	1110004200	S.IC	NJM2360M-TE3
IC701	1180001070	S.IC	TA7805F(TE16L)
Q101	1530003300	S.TRANSISTOR	2SC3647S-TD
Q102	1530003300	S.TRANSISTOR	2SC3647S-TD
Q103	1520000650	S.TRANSISTOR	2SB1201-S-TL
Q104	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q353	1590002310	S.TRANSISTOR	DTC114EE TL
Q354	1590002310	S.TRANSISTOR	DTC114EE TL
Q355	1590002310	S.TRANSISTOR	DTC114EE TL
Q356	1590002310	S.TRANSISTOR	DTC114EE TL
Q451	1590002310	S.TRANSISTOR	DTC114EE TL
Q452	1590002310	S.TRANSISTOR	DTC114EE TL
Q453	1590002310	S.TRANSISTOR	DTC114EE TL
Q454	1520000650	S.TRANSISTOR	2SB1201-S-TL
Q455	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q501	1590002310	S.TRANSISTOR	DTC114EE TL
D101	1730000410	S.ZENER	RD5.1M-T2B2
D201	1790001470	S.DIODE	SB10-05PCP-TD
D451	1730000410	S.ZENER	RD5.1M-T2B2
D501	1750000520	S.DIODE	DAN222TL
D502	1750000520	S.DIODE	DAN222TL
D503	1750000520	S.DIODE	DAN222TL
D505	1160000140	S.DIODE	DAP222 TL
D507	1750000520	S.DIODE	DAN222TL
D508	1750000520	S.DIODE	DAN222TL
D601	1790001470	S.DIODE	SB10-05PCP-TD
X51	6050009870	S.XTAL	CR-567 (9.8304 MHz)
L101	6190001180	S.COIL	BLC13H-D818HN-1107
L102	6190001190	S.COIL	D10F-A814AY-101K=P3
L103	6180000990	COIL	LAL 04NA 101K
L201	6190001200	S.COIL	D10F-A814AY-681K=P3
L202	6190001200	S.COIL	D10F-A814AY-681K=P3
L203	6180001000	COIL	LAL 04NA 102K
L501	6200003950	S.COIL	HF50ACC 322513-T
L502	6200003950	S.COIL	HF50ACC 322513-T
L503	6200003950	S.COIL	HF50ACC 322513-T
L601	6190001210	S.COIL	D10F-A814AY-221K=P3
L602	6190001200	S.COIL	D10F-A814AY-681K=P3
R2	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
R3	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R5	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
R6	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R7	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R8	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R9	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R10	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R11	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R12	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R13	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R51	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R101	7030003500	S.RESISTOR	ERJ3GEYJ 332 V (3.3 kΩ)
R102	7030000300	S.RESISTOR	MCR10EZJH 220 Ω (221)
R103	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R104	7030003500	S.RESISTOR	ERJ3GEYJ 332 V (3.3 kΩ)
R105	7030003620	S.RESISTOR	ERJ3GEYJ 333 V (33 kΩ)
R151	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R152	7030003690	S.RESISTOR	ERJ3GEYJ 124 V (120 kΩ)
R153	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R154	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R155	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)

[SUB-LOGIC BOARD]

REF NO.	ORDER NO.		DESCRIPTION
R157	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R158	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R159	7510000880	S.THERMISTOR	NTCCF2012 3JH 472KC-T
R160	7310002740	S.TRIMMER	RV-150
R161	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R201	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R202	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R203	7030000040	S.RESISTOR	MCR10EZJH 1.5 Ω (1R5)
R251	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R252	7210002890	VARIABLE	RV-308
R253	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R255	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R256	7210002890	VARIABLE	RV-308
R257	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R301	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R302	7210002630	VARIABLE	EVU-FLAE02 B14 (10KB)
R303	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R304	7210002630	VARIABLE	EVU-FLAE02 B14 (10KB)
R305	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R306	7210002630	VARIABLE	EVU-FLAE02 B14 (10KB)
R307	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R308	7210002630	VARIABLE	EVU-FLAE02 B14 (10KB)
R309	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R310	7210002630	VARIABLE	EVU-FLAE02 B14 (10KB)
R352	7030003540	S.RESISTOR	ERJ3GEYJ 682 V (6.8 kΩ)
R353	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R354	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R355	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
R357	7030003420	S.RESISTOR	ERJ3GEYJ 681 V (680 Ω)
R358	7030003420	S.RESISTOR	ERJ3GEYJ 681 V (680 Ω)
R359	7030003420	S.RESISTOR	ERJ3GEYJ 681 V (680 Ω)
R360	7030003420	S.RESISTOR	ERJ3GEYJ 681 V (680 Ω)
R401	7030003530	S.RESISTOR	ERJ3GEYJ 562 V (5.6 kΩ)
R402	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R403	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R404	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R405	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R406	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R451	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R452	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R453	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R455	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R456	7030003540	S.RESISTOR	ERJ3GEYJ 682 V (6.8 kΩ)
R457	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
R458	7030000350	S.RESISTOR	MCR10EZJH 560 Ω (561)
R459	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R460	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
R461	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R462	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R501	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R502	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R503	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R504	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R505	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R506	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R507	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R508	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R509	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R510	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R511	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R512	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R513	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R514	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R515	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R516	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R517	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R518	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R519	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R520	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R522	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R523	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R524	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R525	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R526	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R529	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R530	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)

S.=Surface mount

[SUB-LOGIC BOARD]

REF NO.	ORDER NO.	DESCRIPTION	
R531	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R532	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R533	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R534	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R535	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R536	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R537	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R538	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R539	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R540	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R541	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R542	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R543	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R544	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R545	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R546	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R547	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R548	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R549	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R550	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R551	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R552	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R553	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R554	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R555	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R556	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R557	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R558	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R559	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R560	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R561	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R562	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R563	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R564	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R565	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R566	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R567	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R568	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R569	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R570	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R571	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R572	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R573	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R574	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R601	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R602	7030003540	S.RESISTOR	ERJ3GEYJ 682 V (6.8 kΩ)
R603	7030004050	S.RESISTOR	ERJ3GEYJ 1R0 V (1 Ω)
R604	7030004050	S.RESISTOR	ERJ3GEYJ 1R0 V (1 Ω)
C1	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C2	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C3	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C4	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C5	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C6	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C7	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C51	4030007020	S.CERAMIC	C1608 CH 1H 120J-T-A
C52	4030007020	S.CERAMIC	C1608 CH 1H 120J-T-A
C101	4010004710	CERAMIC	DE0707 SL 150J 3KV
C102	4310000920	MYLAR	250 MMW 473K
C103	4510004640	S.ELECTROLYTIC	ECEV1CA470SP
C104	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C105	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C151	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C201	4030010240	S.CERAMIC	C1608 JB 1H 391K-T-A
C202	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C203	4510006030	ELECTROLYTIC	35 MV 100 HC
C204	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C205	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C206	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C207	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C208	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C209	4510006030	ELECTROLYTIC	35 MV 100 HC
C251	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C252	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C253	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C254	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C301	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C302	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C303	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C304	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A

[SUB-LOGIC BOARD]

REF NO.	ORDER NO.	DESCRIPTION	
C305	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C351	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C401	4510004650	S.ELECTROLYTIC	ECEV1EA4R7SR
C501	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C502	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C503	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C504	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C505	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C506	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C507	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C508	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C509	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C510	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C511	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C512	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C513	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C514	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C515	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C601	4030011280	S.CERAMIC	C1608 CH 1H 271J-T-A
C602	4510006240	S.ELECTROLYTIC	ECEV1CA221P
C603	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C604	4510004590	ELECTROLYTIC	16 MV 470 HC
C605	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C606	4510006240	S.ELECTROLYTIC	ECEV1CA221P
C607	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C701	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C702	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C703	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C704	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
DS351	5040002110	S.LED	CL-200HR-C-TU
DS352	5040002080	S.LED	CL-200YG-C-TU
DS353	5040002080	S.LED	CL-200YG-C-TU
DS354	5040002080	S.LED	CL-200YG-C-TU
DS355	5040002080	S.LED	CL-200YG-C-TU
DS401	5040002080	S.LED	CL-200YG-C-TU
DS402	5040002080	S.LED	CL-200YG-C-TU
DS403	5040002080	S.LED	CL-200YG-C-TU
DS404	5040002080	S.LED	CL-200YG-C-TU
S351	2260001890	S.SWITCH	SKQDPA
S352	2260001890	S.SWITCH	SKQDPA
S353	2260001890	S.SWITCH	SKQDPA
S354	2260001890	S.SWITCH	SKQDPA
S355	2260001890	S.SWITCH	SKQDPA
S356	2260001890	S.SWITCH	SKQDPA
J1	6510003400	CONNECTOR	B04B-EH-S
J2	6510019970	S.CONNECTOR	52808-1090
J101	6510020030	S.CONNECTOR	QZ-19-A3MYL
J502	6510019980	S.CONNECTOR	52808-1690
J503	6510019980	S.CONNECTOR	52808-1690
J504	6510019990	S.CONNECTOR	52808-2290
J505	6510019990	S.CONNECTOR	52808-2290
J506	6510019970	S.CONNECTOR	52808-1090
J507	6510019970	S.CONNECTOR	52808-1090
J508	6510019970	S.CONNECTOR	52808-1090
J509	6510008370	CONNECTOR	BBH-1
J510	6510019970	S.CONNECTOR	52808-1090
J511	6510003390	CONNECTOR	B03B-EH-S
J512	6510003400	CONNECTOR	B04B-EH-S
BT501	3020000110	LITHIUM	CR2032
EP1	0910048256	PCB	B 4863F

S.=Surface mount

[TEN-KEY BOARD]

REF NO.	ORDER NO.	DESCRIPTION	
Q1	1590002310	S.TRANSISTOR	DTC114EE TL
Q2	1590002310	S.TRANSISTOR	DTC114EE TL
Q3	1590002310	S.TRANSISTOR	DTC114EE TL
Q4	1590002310	S.TRANSISTOR	DTC114EE TL
Q5	1590002310	S.TRANSISTOR	DTC114EE TL
R1	7030003540	S.RESISTOR	ERJ3GEYJ 682 V (6.8 kΩ)
R2	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R3	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R4	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
R5	7030003540	S.RESISTOR	ERJ3GEYJ 682 V (6.8 kΩ)
R6	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R7	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R8	7030003530	S.RESISTOR	ERJ3GEYJ 562 V (5.6 kΩ)
R9	7030003530	S.RESISTOR	ERJ3GEYJ 562 V (5.6 kΩ)
R10	7030003420	S.RESISTOR	ERJ3GEYJ 681 V (680 Ω)
R11	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R12	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
C1	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C2	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
DS1	5040002110	S.LED	CL-200HR-C-TU
DS2	5040002110	S.LED	CL-200HR-C-TU
DS3	5040002220	S.LED	CL-220YG-C-TU
DS4	5040002220	S.LED	CL-220YG-C-TU
DS5	5040002220	S.LED	CL-220YG-C-TU
S1	2260001890	S.SWITCH	SKQDPA
S2	2260001890	S.SWITCH	SKQDPA
S3	2260001890	S.SWITCH	SKQDPA
S4	2260001890	S.SWITCH	SKQDPA
S5	2260001890	S.SWITCH	SKQDPA
S6	2260001890	S.SWITCH	SKQDPA
S7	2260001890	S.SWITCH	SKQDPA
S8	2260001890	S.SWITCH	SKQDPA
S9	2260001890	S.SWITCH	SKQDPA
S10	2260001890	S.SWITCH	SKQDPA
S11	2260001890	S.SWITCH	SKQDPA
S12	2260001890	S.SWITCH	SKQDPA
S13	2260001890	S.SWITCH	SKQDPA
S14	2260001890	S.SWITCH	SKQDPA
S15	2260001890	S.SWITCH	SKQDPA
S16	2260001890	S.SWITCH	SKQDPA
S17	2260001890	S.SWITCH	SKQDPA
S18	2260001890	S.SWITCH	SKQDPA
S19	2260001890	S.SWITCH	SKQDPA
S20	2260001890	S.SWITCH	SKQDPA
S21	2260001890	S.SWITCH	SKQDPA
S22	2260001890	S.SWITCH	SKQDPA
S23	2260001890	S.SWITCH	SKQDPA
S24	2260001890	S.SWITCH	SKQDPA
S25	2260001890	S.SWITCH	SKQDPA
S26	2260001890	S.SWITCH	SKQDPA
S27	2260001890	S.SWITCH	SKQDPA
S28	2260001890	S.SWITCH	SKQDPA
S29	2260001890	S.SWITCH	SKQDPA
S30	2260001890	S.SWITCH	SKQDPA
S31	2260001890	S.SWITCH	SKQDPA
J1	6510019980	S.CONNECTOR	52808-1690
J2	6510019990	S.CONNECTOR	52808-2290
EP1	0910048283	PCB	B 4866C

[MODE BOARD]

REF NO.	ORDER NO.	DESCRIPTION	
R1	7030003540	S.RESISTOR	ERJ3GEYJ 682 V (6.8 kΩ)
R2	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R3	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R4	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
R5	7030003540	S.RESISTOR	ERJ3GEYJ 682 V (6.8 kΩ)
R6	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R7	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
C1	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C2	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
S1	2260001890	S.SWITCH	SKQDPA
S2	2260001890	S.SWITCH	SKQDPA
S3	2260001890	S.SWITCH	SKQDPA
S4	2260001890	S.SWITCH	SKQDPA
S5	2260001890	S.SWITCH	SKQDPA
S6	2260001890	S.SWITCH	SKQDPA
S7	2260001890	S.SWITCH	SKQDPA
S8	2260001890	S.SWITCH	SKQDPA
S9	2260001890	S.SWITCH	SKQDPA
S10	2260001890	S.SWITCH	SKQDPA
S11	2260001890	S.SWITCH	SKQDPA
S12	2260001890	S.SWITCH	SKQDPA
S13	2260001890	S.SWITCH	SKQDPA
S14	2260001890	S.SWITCH	SKQDPA
S15	2260001890	S.SWITCH	SKQDPA
S16	2260001890	S.SWITCH	SKQDPA
S17	2260001890	S.SWITCH	SKQDPA
S18	2260001890	S.SWITCH	SKQDPA
J1	6510019980	S.CONNECTOR	52808-1690
EP1	0910048262	PCB	B 4864B

[PBT BOARD]

REF NO.	ORDER NO.	DESCRIPTION	
R1	7210002970	VARIABLE	RV-314
R2	7210002960	VARIABLE	RV-313
R3	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R4	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R5	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R6	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
C1	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C2	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C3	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C4	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
J1	6510019970	S.CONNECTOR	52808-1090
EP1	0910048292	PCB	B 4868B

[RIT BOARD]

REF NO.	ORDER NO.	DESCRIPTION	
S1	2250000340	ENCODER	EVQ-VCJF0324B
J1	6510019970	S.CONNECTOR	52808-1090
EP1	0910048322	PCB	B 4871B

S.=Surface mount

[PHONE BOARD]

REF NO.	ORDER NO.	DESCRIPTION	
L1	6200003950	S.COIL	HF50ACC 322513-T
L2	6200003950	S.COIL	HF50ACC 322513-T
R1	7030006070	S.RESISTOR	ERJ12YJ101H (100 Ω)
R2	7030006070	S.RESISTOR	ERJ12YJ101H (100 Ω)
C1	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C2	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C3	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
J1	6510019970	S.CONNECTOR	52808-1090
J2	6450001530	CONNECTOR	HLJ5815-01-4030
EP1	0910048303	PCB	B 4869C

[KEY BOARD]

REF NO.	ORDER NO.	DESCRIPTION	
C1	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C2	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
J1	6510019970	S.CONNECTOR	52808-1090
J2	6450001790	CONNECTOR	HLJ7000-01-3010
EP1	0910048312	PCB	B 4870B

[MIC BOARD]

REF NO.	ORDER NO.	DESCRIPTION	
L1	6200003260	S.COIL	NL 322522T-101J
L3	6200003260	S.COIL	NL 322522T-101J
L4	6200003260	S.COIL	NL 322522T-101J
L6	6200003260	S.COIL	NL 322522T-101J
C1	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C2	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C3	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C4	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C5	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C6	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C7	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
J1	6510000190	CONNECTOR	FM214-8SS(P)
J2	6510019970	S.CONNECTOR	52808-1090
EP1	0910048333	PCB	B 4872C

[FRONT UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
DS1	5030001420	LCD	DG041Z-5DC
W1	8900006980	CABLE	OPC-682
W2	8900006980	CABLE	OPC-682
W3	8900006980	CABLE	OPC-682
W4	8900006990	CABLE	OPC-683
W5	8900006990	CABLE	OPC-683

[FRONT UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
W6	8900007000	CABLE	OPC-684
W7	8900007000	CABLE	OPC-684
W8	8900007010	CABLE	OPC-685
ME1	5510000410	METER	ME-33
EP1	6910011090	SENSOR UNIT	RMS20-250-201-P
EP2	6450001230	E.OTHER	HLJ0999-01-480
EP3	6450001230	E.OTHER	HLJ0999-01-480

[RF UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
IC1	1130007700	S.IC	BU4094BCF-T1
IC2	1160000130	S.IC	TD62783AF (TP1)
IC21	1130007700	S.IC	BU4094BCF-T1
IC61	1160000130	S.IC	TD62783AF (TP1)
IC371	1110003970	S.IC	μPC1658G-E1
IC801	1110001890	S.IC	μPC1678G
IC901	1110003200	S.IC	TA31136FN(EL)
IC941	1110003350	S.IC	μPC1037GR-E1(MS)
IC961	1110000960	S.IC	NJM4558M(T1)
Q21	1590002310	S.TRANSISTOR	DTC114EE TL
Q22	1590002310	S.TRANSISTOR	DTC114EE TL
Q23	1590002310	S.TRANSISTOR	DTC114EE TL
Q24	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q61	1590002310	S.TRANSISTOR	DTC114EE TL
Q62	1590001870	S.TRANSISTOR	DTA114EE TL
Q81	1580000620	S.FET	3SK131-T2 MAS
Q101	1530003150	S.TRANSISTOR	2SC4673D-TD
Q141	1560000640	S.FET	2SK1740-TA
Q142	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q161	1560000640	S.FET	2SK1740-TA
Q162	1560000640	S.FET	2SK1740-TA
Q181	1560000720	S.FET	2SK2171-4-TD
Q201	1530003150	S.TRANSISTOR	2SC4673D-TD
Q241	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q242	1560000640	S.FET	2SK1740-TA
Q261	1560000640	S.FET	2SK1740-TA
Q262	1560000640	S.FET	2SK1740-TA
Q281	1560000720	S.FET	2SK2171-4-TD
Q301	1560000560	S.FET	2SK882-GR (TE85L)
Q341	1560000720	S.FET	2SK2171-4-TD
Q342	1560000720	S.FET	2SK2171-4-TD
Q381	1580000540	S.FET	3SK131-T2-LA
Q382	1580000540	S.FET	3SK131-T2-LA
Q701	1590002310	S.TRANSISTOR	DTC114EE TL
Q702	1590002310	S.TRANSISTOR	DTC114EE TL
Q781	1590002310	S.TRANSISTOR	DTC114EE TL
Q942	1560000560	S.FET	2SK882-GR (TE85L)
Q943	1560000560	S.FET	2SK882-GR (TE85L)
D21	1750000520	S.DIODE	DAN222TL
D22	1750000520	S.DIODE	DAN222TL
D141	1750000450	S.DIODE	1SV265-TL
D142	1750000440	S.DIODE	1SV263-TL
D143	1750000450	S.DIODE	1SV265-TL
D221	1790000450	S.DIODE	MA862(TX)
D241	1750000450	S.DIODE	1SV265-TL
D242	1750000440	S.DIODE	1SV263-TL
D243	1750000450	S.DIODE	1SV265-TL
D301	1790000450	S.DIODE	MA862(TX)
D302	1750000430	S.DIODE	HSB88WSTR
D321	1790000450	S.DIODE	MA862(TX)
D341	1790000450	S.DIODE	MA862(TX)
D342	1790000450	S.DIODE	MA862(TX)
D381	1790000620	S.DIODE	MA77(TW)
D401	1790000620	S.DIODE	MA77(TW)
D441	1790000450	S.DIODE	MA862(TX)
D442	1750000450	S.DIODE	1SV265-TL
D481	1790000450	S.DIODE	MA862(TX)
D482	1750000450	S.DIODE	1SV265-TL

S.=Surface mount

[RF UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
D521	1790000450	S.DIODE	MA862(TX)
D522	1750000450	S.DIODE	1SV265-TL
D561	1790000450	S.DIODE	MA862(TX)
D562	1750000450	S.DIODE	1SV265-TL
D601	1790000450	S.DIODE	MA862(TX)
D602	1750000450	S.DIODE	1SV265-TL
D641	1790000620	S.DIODE	MA77(TW)
D642	1750000440	S.DIODE	1SV263-TL
D701	1750000450	S.DIODE	1SV265-TL
D702	1790000620	S.DIODE	MA77(TW)
D761	1750000440	S.DIODE	1SV263-TL
D781	1750000520	S.DIODE	DAN222TL
D941	1790000450	S.DIODE	MA862(TX)
D961	1750000520	S.DIODE	DAN222TL
D962	1750000520	S.DIODE	DAN222TL
D981	1750000520	S.DIODE	DAN222TL
D982	1710000050	DIODE	1SS53
D983	1710000050	DIODE	1SS53
D984	1710000050	DIODE	1SS53
D985	1710000050	DIODE	1SS53
FI81	2010001010	FILTER	69M15B (FL-120)
FI942	2020001320	CERAMIC	CFJ455K8
L1	6180000990	COIL	LAL 04NA 101K
L61	6180001220	COIL	LAL 04NA 100K
L62	6200001830	S.COIL	NL 322522T-100J
L81	6200001830	S.COIL	NL 322522T-100J
L82	6150004250	COIL	LS-471A (C-14922)
L83	6150004280	COIL	LS-484B (C-14927)
L84	6150004950	COIL	LS-521
L101	6200003000	S.COIL	NL 322522T-R22J-3
L118	6200003260	S.COIL	NL 322522T-101J
L121	6200003020	S.COIL	NL 322522T-R33J-3
L122	6200001830	S.COIL	NL 322522T-100J
L124	6200003430	S.COIL	NL 322522T-R10J
L125	6200003420	S.COIL	NL 322522T-R15J-3
L126	6200003430	S.COIL	NL 322522T-R10J
L141	6200001830	S.COIL	NL 322522T-100J
L142	6200001830	S.COIL	NL 322522T-100J
L143	6200001830	S.COIL	NL 322522T-100J
L144	6200001830	S.COIL	NL 322522T-100J
L145	6200001830	S.COIL	NL 322522T-100J
L146	6200001830	S.COIL	NL 322522T-100J
L161	6150002980	COIL	LS-309
L162	6200001830	S.COIL	NL 322522T-100J
L163	6140003250	COIL	LR-362
L164	6200003260	S.COIL	NL 322522T-101J
L181	6180000990	COIL	LAL 04NA 101K
L182	6200003040	S.COIL	NL 322522T-R68J-3
L183	6200005500	S.COIL	NL 322522T-471J
L184	6200003000	S.COIL	NL 322522T-R22J-3
L185	6200003000	S.COIL	NL 322522T-R22J-3
L186	6200003000	S.COIL	NL 322522T-R22J-3
L187	6140001340	COIL	LR-163
L188	6200005500	S.COIL	NL 322522T-471J
L201	6140000630	COIL	LR-85A
L202	6200003000	S.COIL	NL 322522T-R22J-3
L221	6200003430	S.COIL	NL 322522T-R10J
L222	6200003420	S.COIL	NL 322522T-R15J-3
L223	6200003430	S.COIL	NL 322522T-R10J
L224	6200003020	S.COIL	NL 322522T-R33J-3
L225	6200001830	S.COIL	NL 322522T-100J
L241	6200001830	S.COIL	NL 322522T-100J
L242	6200001830	S.COIL	NL 322522T-100J
L243	6200001830	S.COIL	NL 322522T-100J
L244	6200001830	S.COIL	NL 322522T-100J
L245	6200001830	S.COIL	NL 322522T-100J
L246	6200001830	S.COIL	NL 322522T-100J
L261	6200001830	S.COIL	NL 322522T-100J
L262	6150002980	COIL	LS-309
L264	6140003250	COIL	LR-362
L265	6200003260	S.COIL	NL 322522T-101J
L266	6180000990	COIL	LAL 04NA 101K
L281	6200003040	S.COIL	NL 322522T-R68J-3
L282	6200005500	S.COIL	NL 322522T-471J
L283	6200003000	S.COIL	NL 322522T-R22J-3
L284	6200003000	S.COIL	NL 322522T-R22J-3
L285	6200003000	S.COIL	NL 322522T-R22J-3
L301	6140002810	S.COIL	LR-317

[RF UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
L302	6140002810	S.COIL	LR-317
L303	6150004280	COIL	LS-484B (C-14927)
L304	6150004280	COIL	LS-484B (C-14927)
L306	6200003040	S.COIL	NL 322522T-R68J-3
L307	6150000990	COIL	LS-114
L308	6200003040	S.COIL	NL 322522T-R68J-3
L309	6200003430	S.COIL	NL 322522T-R10J
L310	6200003430	S.COIL	NL 322522T-R10J
L321	6200003260	S.COIL	NL 322522T-101J
L322	6200003260	S.COIL	NL 322522T-101J
L323	6200003260	S.COIL	NL 322522T-101J
L341	6200003260	S.COIL	NL 322522T-101J
L342	6140001540	COIL	LR-169
L343	6140000640	COIL	LR-86
L344	6200003060	S.COIL	NL 322522T-1R2J-3
L362	6200003260	S.COIL	NL 322522T-101J
L371	6200003260	S.COIL	NL 322522T-101J
L372	6200003260	S.COIL	NL 322522T-101J
L384	6140001600	COIL	LR-178
L385	6150002980	COIL	LS-309
L386	6200003260	S.COIL	NL 322522T-101J
L387	6140002220	COIL	LR-270
L390	6200003260	S.COIL	NL 322522T-101J
L404	6200005500	S.COIL	NL 322522T-471J
L421	6200005500	S.COIL	NL 322522T-471J
L422	6200003110	S.COIL	NL 322522T-6R8J
L423	6200002960	S.COIL	NL 322522T-4R7J-3
L441	6200005500	S.COIL	NL 322522T-471J
L442	6200003100	S.COIL	NL 322522T-3R9J-3
L443	6200003090	S.COIL	NL 322522T-2R7J-3
L444	6200005500	S.COIL	NL 322522T-471J
L461	6200000500	S.COIL	MLF3216A 4R7M-T
L462	6200000490	S.COIL	MLF3216A 3R9M-T
L463	6200003090	S.COIL	NL 322522T-2R7J-3
L464	6200002990	S.COIL	NL 322522T-2R2J-3
L465	6200005500	S.COIL	NL 322522T-471J
L481	6200003100	S.COIL	NL 322522T-3R9J-3
L482	6200003090	S.COIL	NL 322522T-2R7J-3
L483	6200002990	S.COIL	NL 322522T-2R2J-3
L484	6200003070	S.COIL	NL 322522T-1R5J-3
L485	6200005500	S.COIL	NL 322522T-471J
L501	6200003070	S.COIL	NL 322522T-1R5J-3
L502	6200003070	S.COIL	NL 322522T-1R5J-3
L503	6200003070	S.COIL	NL 322522T-1R5J-3
L504	6200003060	S.COIL	NL 322522T-1R2J-3
L505	6200003260	S.COIL	NL 322522T-101J
L521	6200003070	S.COIL	NL 322522T-1R5J-3
L522	6200003060	S.COIL	NL 322522T-1R2J-3
L523	6200003060	S.COIL	NL 322522T-1R2J-3
L524	6200003330	S.COIL	NL 322522T-1R0J-3
L525	6200003260	S.COIL	NL 322522T-101J
L541	6200003080	S.COIL	NL 322522T-1R8J-3
L542	6200003330	S.COIL	NL 322522T-1R0J-3
L543	6200003330	S.COIL	NL 322522T-1R0J-3
L544	6200003060	S.COIL	NL 322522T-1R2J-3
L561	6200003330	S.COIL	NL 322522T-1R0J-3
L562	6200003040	S.COIL	NL 322522T-R68J-3
L563	6200002980	S.COIL	NL 322522T-R56J-3
L564	6200003250	S.COIL	NL 322522T-R39J-3
L565	6200003260	S.COIL	NL 322522T-101J
L581	6200003030	S.COIL	NL 322522T-R47J-3
L582	6200003030	S.COIL	NL 322522T-R47J-3
L583	6200003250	S.COIL	NL 322522T-R39J-3
L584	6200003020	S.COIL	NL 322522T-R33J-3
L585	6200003260	S.COIL	NL 322522T-101J
L601	6200003250	S.COIL	NL 322522T-R39J-3
L602	6200003020	S.COIL	NL 322522T-R33J-3
L603	6200003010	S.COIL	NL 322522T-R27J-3
L604	6200003020	S.COIL	NL 322522T-R33J-3
L605	6200003260	S.COIL	NL 322522T-101J
L621	6200003420	S.COIL	NL 322522T-R15J-3
L622	6200003420	S.COIL	NL 322522T-R15J-3
L623	6200003420	S.COIL	NL 322522T-R15J-3
L624	6200003420	S.COIL	NL 322522T-R15J-3
L625	6200003420	S.COIL	NL 322522T-R15J-3
L626	6200001830	S.COIL	NL 322522T-100J
L641	6200001830	S.COIL	NL 322522T-100J
L642	6200003020	S.COIL	NL 322522T-R33J-3
L643	6200003420	S.COIL	NL 322522T-R15J-3
L645	6200001830	S.COIL	NL 322522T-100J
L701	6200000510	S.COIL	MLF3216E 5R6M-T
L702	6200005500	S.COIL	NL 322522T-471J

S.=Surface mount

[RF UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
L703	6200000500	S.COIL	MLF3216A 4R7M-T
L704	6200003240	S.COIL	NL 322522T-221J
L705	6200003240	S.COIL	NL 322522T-221J
L761	6200003240	S.COIL	NL 322522T-221J
L781	6200003450	S.COIL	NL 322522T-082J
L782	6200001470	S.COIL	NL 322522T-R12J-3
L802	6200001710	S.COIL	NL 322522T-220J
L901	6200003260	S.COIL	NL 322522T-101J
L921	6150002420	COIL	LS-253
L922	6200001710	S.COIL	NL 322522T-220J
L923	6200001710	S.COIL	NL 322522T-220J
L941	6150004280	COIL	LS-484B
L942	6150004280	COIL	LS-484B
L943	6200002990	S.COIL	NL 322522T-2R2J-3
L944	6200001830	S.COIL	NL 322522T-100J
L945	6200001830	S.COIL	NL 322522T-100J
L946	6150004950	COIL	LS-521
L1001	6200003450	S.COIL	NL 322522T-082J
L1002	6200001470	S.COIL	NL 322522T-R12J-3
R1	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R2	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R3	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R4	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R5	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R6	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R7	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R8	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R25	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R26	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R27	7030003350	S.RESISTOR	ERJ3GEYJ 181 V (180 Ω)
R28	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R29	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R30	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R31	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R32	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R33	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R34	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R35	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R36	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R52	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R61	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R62	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R63	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R64	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R65	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R66	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R67	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R68	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R69	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R70	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R71	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R72	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R73	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R74	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R75	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R76	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R81	7510000230	THERMISTOR	ERT-D2ZGL 251S
R82	7510000230	THERMISTOR	ERT-D2ZGL 251S
R83	7030003390	S.RESISTOR	ERJ3GEYJ 391 V (390 Ω)
R84	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R85	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R86	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R87	7030003760	S.RESISTOR	ERJ3GEYJ 474 V (470 kΩ)
R88	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R89	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 Ω)
R90	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
R91	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R92	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R101	7030003300	S.RESISTOR	ERJ3GEYJ 680 V (68 Ω)
R102	7030003420	S.RESISTOR	ERJ3GEYJ 681 V (680 Ω)
R103	7030003530	S.RESISTOR	ERJ3GEYJ 562 V (5.6 kΩ)
R104	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R121	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R122	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R141	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R142	7030003390	S.RESISTOR	ERJ3GEYJ 391 V (390 Ω)
R143	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R144	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R145	7030003450	S.RESISTOR	ERJ3GEYJ 122 V (1.2 kΩ)
R146	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)

[RF UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
R147	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R161	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R162	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R163	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R164	7030003350	S.RESISTOR	ERJ3GEYJ 181 V (180 Ω)
R165	7310002720	S.TRIMMER	RV-148
R166	7030003410	S.RESISTOR	ERJ3GEYJ 561 V (560 Ω)
R167	7030003410	S.RESISTOR	ERJ3GEYJ 561 V (560 Ω)
R181	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R182	7030003350	S.RESISTOR	ERJ3GEYJ 181 V (180 Ω)
R183	7030006260	S.RESISTOR	ERJ12YJ471H (470 Ω)
R201	7030003390	S.RESISTOR	ERJ3GEYJ 391 V (390 Ω)
R202	7030003430	S.RESISTOR	ERJ3GEYJ 821 V (820 Ω)
R203	7030003300	S.RESISTOR	ERJ3GEYJ 680 V (68 Ω)
R204	7030003420	S.RESISTOR	ERJ3GEYJ 681 V (680 Ω)
R205	7030003530	S.RESISTOR	ERJ3GEYJ 562 V (5.6 kΩ)
R206	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R223	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R224	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R225	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R226	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R227	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R228	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R241	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R242	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R243	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R244	7030003450	S.RESISTOR	ERJ3GEYJ 122 V (1.2 kΩ)
R245	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R246	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R261	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R262	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R263	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R264	7310002720	S.TRIMMER	RV-148
R265	7030003410	S.RESISTOR	ERJ3GEYJ 561 V (560 Ω)
R266	7030003410	S.RESISTOR	ERJ3GEYJ 561 V (560 Ω)
R267	7030003350	S.RESISTOR	ERJ3GEYJ 181 V (180 Ω)
R301	7030003420	S.RESISTOR	ERJ3GEYJ 681 V (680 Ω)
R302	7030003230	S.RESISTOR	ERJ3GEYJ 180 V (18 Ω)
R303	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 Ω)
R304	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R305	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R306	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R307	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R308	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 Ω)
R309	7030003500	S.RESISTOR	ERJ3GEYJ 332 V (3.3 kΩ)
R310	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R311	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R321	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R322	7030006260	S.RESISTOR	ERJ12YJ471H (470 Ω)
R323	7030006260	S.RESISTOR	ERJ12YJ471H (470 Ω)
R325	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R341	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R342	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R343	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R344	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R345	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R346	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R361	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R369	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R371	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R372	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 Ω)
R373	7030003230	S.RESISTOR	ERJ3GEYJ 180 V (18 Ω)
R374	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 Ω)
R381	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R382	7030003760	S.RESISTOR	ERJ3GEYJ 474 V (470 kΩ)
R383	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R384	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R385	7030003290	S.RESISTOR	ERJ3GEYJ 560 V (56 Ω)
R386	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R390	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R391	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R402	7030006260	S.RESISTOR	ERJ12YJ471H (470 Ω)
R421	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R422	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R423	7030003300	S.RESISTOR	ERJ3GEYJ 680 V (68 Ω)
R424	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R441	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R461	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R481	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R501	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R521	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R541	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)

S.=Surface mount

[RF UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
R561	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R581	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R601	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R621	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R641	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R701	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R702	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R703	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R704	7030008180	S.RESISTOR	ERJ12YJ331H (330 Ω)
R705	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R751	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R752	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R753	7030003300	S.RESISTOR	ERJ3GEYJ 680 V (68 Ω)
R754	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 Ω)
R761	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R762	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R781	7540000130	ABSORBER	2P-50A-301
R782	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R783	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R801	7030004040	S.RESISTOR	ERJ3GEYJ 4R7 V (4.7 Ω)
R802	7030003380	S.RESISTOR	ERJ3GEYJ 331 V (330 Ω)
R803	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 Ω)
R804	7030004040	S.RESISTOR	ERJ3GEYJ 4R7 V (4.7 Ω)
R806	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R807	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R808	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R809	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R810	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R901	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R902	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R903	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R905	7030003670	S.RESISTOR	ERJ3GEYJ 823 V (82 kΩ)
R921	7030003620	S.RESISTOR	ERJ3GEYJ 333 V (33 kΩ)
R922	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R923	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R947	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R949	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R950	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R951	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R952	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 Ω)
R953	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R954	7030003470	S.RESISTOR	ERJ3GEYJ 182 V (1.8 kΩ)
R955	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 Ω)
R956	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R957	7030003420	S.RESISTOR	ERJ3GEYJ 681 V (680 Ω)
R961	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R962	7030003750	S.RESISTOR	ERJ3GEYJ 394 V (390 kΩ)
R963	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R964	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
R966	7310002590	S.TRIMMER	RV-109
R981	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R982	7030003700	S.RESISTOR	ERJ3GEYJ 154 V (150 kΩ)
R983	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R984	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R985	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R986	7030003840	S.RESISTOR	ERJ3GEYJ 225 V (2.2 MΩ)
R1001	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R1003	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R1004	7030003240	S.RESISTOR	ERJ3GEYJ 220 V (22 Ω)
R1005	7030003240	S.RESISTOR	ERJ3GEYJ 220 V (22 Ω)
C1	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C2	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C3	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C4	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C5	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C6	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C7	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C8	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C9	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C10	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C21	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C22	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C23	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C24	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C25	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C26	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C27	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C28	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C29	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C61	4510004630	S.ELECTROLYTIC	ECEV1CA100SR

[RF UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
C62	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C63	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C64	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C65	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C66	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C81	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C82	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C83	4030006970	S.CERAMIC	C1608 CH 1H 060D-T-A
C84	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C85	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C86	4030007010	S.CERAMIC	C1608 CH 1H 100D-T-A
C87	4030007030	S.CERAMIC	C1608 CH 1H 150J-T-A
C88	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C103	4030007080	S.CERAMIC	C1608 CH 1H 390J-T-A
C104	4030007170	S.CERAMIC	C1608 CH 1H 221J-T-A
C121	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C122	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C123	4030006910	S.CERAMIC	C1608 CH 1H 0R5C-T-A
C124	4030006970	S.CERAMIC	C1608 CH 1H 060D-T-A
C125	4030007040	S.CERAMIC	C1608 CH 1H 180J-T-A
C126	4030006920	S.CERAMIC	C1608 CH 1H 010C-T-A
C127	4030007040	S.CERAMIC	C1608 CH 1H 180J-T-A
C141	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C142	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C143	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C144	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C145	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C146	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C147	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C148	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C149	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C150	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C161	4030006970	S.CERAMIC	C1608 CH 1H 060D-T-A
C162	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C163	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C165	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C166	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C181	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C182	4030006990	S.CERAMIC	C1608 CH 1H 080D-T-A
C183	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C184	4030007020	S.CERAMIC	C1608 CH 1H 120J-T-A
C185	4030007100	S.CERAMIC	C1608 CH 1H 560J-T-A
C186	4030009990	S.CERAMIC	C1608 CH 1H 200J-T-A
C187	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C188	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C189	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C190	4030007070	S.CERAMIC	C1608 CH 1H 330J-T-A
C201	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C204	4030007080	S.CERAMIC	C1608 CH 1H 390J-T-A
C205	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C206	4030007170	S.CERAMIC	C1608 CH 1H 221J-T-A
C221	4030006910	S.CERAMIC	C1608 CH 1H 0R5C-T-A
C222	4030006970	S.CERAMIC	C1608 CH 1H 060D-T-A
C223	4030007040	S.CERAMIC	C1608 CH 1H 180J-T-A
C224	4030006920	S.CERAMIC	C1608 CH 1H 010C-T-A
C225	4030007040	S.CERAMIC	C1608 CH 1H 180J-T-A
C226	4030006880	S.CERAMIC	C1608 JB 1C 104KT-N
C227	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C228	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C229	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C230	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C231	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C232	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C241	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C242	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C243	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C244	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C245	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C246	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C247	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C248	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C249	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C261	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C263	4030006970	S.CERAMIC	C1608 CH 1H 060D-T-A
C264	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C265	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C266	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C267	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C281	4030006990	S.CERAMIC	C1608 CH 1H 080D-T-A
C282	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C283	4030007070	S.CERAMIC	C1608 CH 1H 330J-T-A
C284	4030007020	S.CERAMIC	C1608 CH 1H 120J-T-A

S.=Surface mount

[RF UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
C285	4030007100	S.CERAMIC	C1608 CH 1H 560J-T-A
C286	4030009990	S.CERAMIC	C1608 CH 1H 200J-T-A
C287	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C301	4030007030	S.CERAMIC	C1608 CH 1H 150J-T-A
C302	4030007030	S.CERAMIC	C1608 CH 1H 150J-T-A
C303	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C304	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C305	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C306	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C307	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C308	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C309	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C310	4030006990	S.CERAMIC	C1608 CH 1H 080D-T-A
C311	4030011330	S.CERAMIC	C1608 CH 1H 391J-T-A
C312	4030007110	S.CERAMIC	C1608 CH 1H 680J-T-A
C313	4030011330	S.CERAMIC	C1608 CH 1H 391J-T-A
C314	4030007080	S.CERAMIC	C1608 CH 1H 390J-T-A
C315	4030011340	S.CERAMIC	C1608 CH 1H 471J-T-A
C316	4030007080	S.CERAMIC	C1608 CH 1H 390J-T-A
C317	4030007110	S.CERAMIC	C1608 CH 1H 680J-T-A
C321	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C322	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C342	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C343	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C344	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C345	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C346	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C362	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C363	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C371	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C372	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C373	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C374	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C375	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C381	4030007030	S.CERAMIC	C1608 CH 1H 150J-T-A
C388	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C391	4030006960	S.CERAMIC	C1608 CH 1H 050C-T-A
C392	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C398	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C421	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C422	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C423	4030008650	S.CERAMIC	C1608 JB 1H 332K-T-A
C424	4030011330	S.CERAMIC	C1608 CH 1H 391J-T-A
C425	4030008650	S.CERAMIC	C1608 JB 1H 332K-T-A
C426	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C441	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C443	4030010020	S.CERAMIC	C1608 JB 1H 122K-T-A
C444	4030007170	S.CERAMIC	C1608 CH 1H 221J-T-A
C445	4030006870	S.CERAMIC	C1608 JB 1H 222K-T-A
C446	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C447	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C448	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C449	4030009580	S.CERAMIC	C1608 JB 1H 681K-T-A
C461	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C462	4030010020	S.CERAMIC	C1608 JB 1H 122K-T-A
C463	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C464	4030006870	S.CERAMIC	C1608 JB 1H 222K-T-A
C465	4030010040	S.CERAMIC	C1608 JB 1H 561K-T-A
C466	4030010750	S.CERAMIC	C1608 CH 1H 201J-T-A
C467	4030010020	S.CERAMIC	C1608 JB 1H 122K-T-A
C469	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C481	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C482	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C483	4030008770	S.CERAMIC	C1608 JB 1H 562K-T-A
C484	4030008650	S.CERAMIC	C1608 JB 1H 332K-T-A
C485	4030009580	S.CERAMIC	C1608 JB 1H 681K-T-A
C486	4030007140	S.CERAMIC	C1608 CH 1H 121J-T-A
C487	4030010020	S.CERAMIC	C1608 JB 1H 122K-T-A
C488	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C501	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C502	4030010040	S.CERAMIC	C1608 JB 1H 561K-T-A
C503	4030008770	S.CERAMIC	C1608 JB 1H 562K-T-A
C504	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C505	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C506	4030007120	S.CERAMIC	C1608 CH 1H 820J-T-A
C507	4030009490	S.CERAMIC	C1608 JB 1H 821K-T-A
C508	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C521	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C522	4030011330	S.CERAMIC	C1608 CH 1H 391J-T-A
C523	4030010770	S.CERAMIC	C1608 JB 1H 392K-T-A
C524	4030009580	S.CERAMIC	C1608 JB 1H 681K-T-A
C525	4030010760	S.CERAMIC	C1608 CH 1H 331J-T-A

[RF UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
C526	4030007110	S.CERAMIC	C1608 CH 1H 680J-T-A
C527	4030010040	S.CERAMIC	C1608 JB 1H 561K-T-A
C528	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C541	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C542	4030010760	S.CERAMIC	C1608 CH 1H 331J-T-A
C543	4030008470	S.CERAMIC	C1608 JB 1H 272K-T-A
C544	4030010040	S.CERAMIC	C1608 JB 1H 561K-T-A
C545	4030007160	S.CERAMIC	C1608 CH 1H 181J-T-A
C546	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C547	4030010760	S.CERAMIC	C1608 CH 1H 331J-T-A
C548	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C561	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C563	4030011840	S.CERAMIC	C1608 CH 1H 241J-T-A
C564	4030010020	S.CERAMIC	C1608 JB 1H 122K-T-A
C565	4030011340	S.CERAMIC	C1608 CH 1H 471J-T-A
C566	4030007150	S.CERAMIC	C1608 CH 1H 151J-T-A
C567	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C568	4030011280	S.CERAMIC	C1608 CH 1H 271J-T-A
C569	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C581	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C582	4030007150	S.CERAMIC	C1608 CH 1H 151J-T-A
C583	4030010020	S.CERAMIC	C1608 JB 1H 122K-T-A
C584	4030006820	S.CERAMIC	C1608 SL 1H 301J-T-A
C585	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C586	4030008560	S.CERAMIC	C1608 CH 1H 300J-T-A
C587	4030007160	S.CERAMIC	C1608 CH 1H 181J-T-A
C588	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C601	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C602	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C603	4030010020	S.CERAMIC	C1608 JB 1H 122K-T-A
C604	4030007160	S.CERAMIC	C1608 CH 1H 181J-T-A
C605	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C606	4030007060	S.CERAMIC	C1608 CH 1H 270J-T-A
C607	4030007160	S.CERAMIC	C1608 CH 1H 181J-T-A
C608	4030006990	S.CERAMIC	C1608 CH 1H 080D-T-A
C609	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C621	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C622	4030007110	S.CERAMIC	C1608 CH 1H 680J-T-A
C623	4030007040	S.CERAMIC	C1608 CH 1H 180J-T-A
C624	4030007120	S.CERAMIC	C1608 CH 1H 820J-T-A
C625	4030008560	S.CERAMIC	C1608 CH 1H 300J-T-A
C626	4030007110	S.CERAMIC	C1608 CH 1H 680J-T-A
C627	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C628	4030011280	S.CERAMIC	C1608 CH 1H 271J-T-A
C629	4030007100	S.CERAMIC	C1608 CH 1H 560J-T-A
C630	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C641	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C642	4030007120	S.CERAMIC	C1608 CH 1H 820J-T-A
C643	4030010040	S.CERAMIC	C1608 JB 1H 561K-T-A
C644	4030007120	S.CERAMIC	C1608 CH 1H 820J-T-A
C645	4030007110	S.CERAMIC	C1608 CH 1H 680J-T-A
C646	4030007040	S.CERAMIC	C1608 CH 1H 180J-T-A
C647	4030007110	S.CERAMIC	C1608 CH 1H 680J-T-A
C701	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C702	4030009980	S.CERAMIC	C1608 JB 1H 152K-T-A
C703	4030009880	S.CERAMIC	C1608 JB 1H 682K-T-A
C704	4030008470	S.CERAMIC	C1608 JB 1H 272K-T-A
C705	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C706	4030007170	S.CERAMIC	C1608 CH 1H 221J-T-A
C707	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C708	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C709	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C741	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C751	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C752	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C761	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C781	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C782	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C783	4030007070	S.CERAMIC	C1608 CH 1H 330J-T-A
C784	4030011540	S.CERAMIC	C1608 CH 1H 750J-T-A
C785	4030007120	S.CERAMIC	C1608 CH 1H 820J-T-A
C786	4030007030	S.CERAMIC	C1608 CH 1H 150J-T-A
C787	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C801	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C803	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C804	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C901	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C902	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C903	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C904	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C921	4030006930	S.CERAMIC	C1608 CH 1H 020C-T-A
C923	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A

S.=Surface mount

[RF UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
C924	4030006980	S.CERAMIC	C1608 CH 1H 070D-T-A
C925	4030006970	S.CERAMIC	C1608 CH 1H 060D-T-A
C926	4030006930	S.CERAMIC	C1608 CH 1H 020C-T-A
C927	4030006970	S.CERAMIC	C1608 CH 1H 060D-T-A
C928	4030006980	S.CERAMIC	C1608 CH 1H 070D-T-A
C947	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C948	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C949	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C950	4030006960	S.CERAMIC	C1608 CH 1H 050C-T-A
C951	4030007030	S.CERAMIC	C1608 CH 1H 150J-T-A
C952	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C953	4030006920	S.CERAMIC	C1608 CH 1H 010C-T-A
C954	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C955	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C956	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C957	4030006960	S.CERAMIC	C1608 CH 1H 050C-T-A
C958	4030007030	S.CERAMIC	C1608 CH 1H 150J-T-A
C959	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C960	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C961	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C962	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C963	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C964	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C965	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C966	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C967	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C968	4030007030	S.CERAMIC	C1608 CH 1H 150J-T-A
C969	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C970	4030010750	S.CERAMIC	C1608 CH 1H 201J-T-A
C971	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C981	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C982	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C1001	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C1002	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C1003	4030007110	S.CERAMIC	C1608 CH 1H 680J-T-A
C1004	4030007110	S.CERAMIC	C1608 CH 1H 680J-T-A
C1007	4030007120	S.CERAMIC	C1608 CH 1H 820J-T-A
C1008	4030007020	S.CERAMIC	C1608 CH 1H 120J-T-A
C1009	4030007120	S.CERAMIC	C1608 CH 1H 820J-T-A
C1010	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
RL751	6330001320	RELAY	AHY103
RL752	6330001320	RELAY	AHY103
RL781	6330001320	RELAY	AHY103
DS1	5080000370	LAMP	HRS-4160A
J1	6510019990	S.CONNECTOR	52808-2290
J6	6510007020	CONNECTOR	TMP-J01X-V6
J101	6510007020	CONNECTOR	TMP-J01X-V6
J201	6510007020	CONNECTOR	TMP-J01X-V6
J301	6510007020	CONNECTOR	TMP-J01X-V6
J302	6510007900	CONNECTOR	TBP-P01X-A1
J781	6510007020	CONNECTOR	TMP-J01X-V6
J782	6450001800	CONNECT	JPJ1044-01-010
J821	6510007020	CONNECTOR	TMP-J01X-V6
J901	6510007020	CONNECTOR	TMP-J01X-V6
W261	7030003860	S.JUMPER	ERJ3GE JPW V
WS1	8970022670	CABLE	(1)/RF
EP1	0910048226	PCB	B 4860F
EP2	6910008000	TUBE	4 (d) L=15 mm
EP3	9029703901	TUBE	IRRAX 0.7 (d) L=5 mm

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
IC51	1110003350	S.IC	μPC1037GR-E1(MS)
IC101	1110003140	IC	LA1150N
IC201	1110003350	S.IC	μPC1037GR-E1(MS)
IC202	1110000960	S.IC	NJM4558M(T1)
IC301	1110000960	S.IC	NJM4558M(T1)
IC305	1130007660	S.IC	LC7153M-TLM
IC306	1110003200	S.IC	TA31136FN(EL)
IC451	1180001070	S.IC	TA7805F(TE16L)
IC501	1110003300	S.IC	M5282FP 70CD
IC502	1110003300	S.IC	M5282FP 70CD
IC503	1110003870	S.IC	NJM2058M-T1
IC504	1110003090	IC	LA4425A
IC506	1110003300	S.IC	M5282FP 70CD
IC507	1130007820	S.IC	BU4052BCF-T1
IC508	1130007820	S.IC	BU4052BCF-T1
IC509	1110003300	S.IC	M5282FP 70CD
IC510	1110003300	S.IC	M5282FP 70CD
IC511	1110003670	S.IC	BA3308F-T1
IC512	1110003300	S.IC	M5282FP 70CD
IC513	1130005640	S.IC	TC4W53F (TE12L)
IC514	1130005640	S.IC	TC4W53F (TE12L)
IC515	1110004390	S.IC	M62420FP 600C
IC601	1110000960	S.IC	NJM4558M(T1)
IC602	1110003870	S.IC	NJM2058M-T1
IC701	1110000960	S.IC	NJM4558M(T1)
IC801	1140006100	S.IC	HD6433042SA74F
IC802	1190000540	S.IC	SED1351FOA
IC803	1130004080	S.IC	μPD71055GB-3B4
IC804	1130005960	S.IC	TC74HC244AF
IC805	1110001550	S.IC	S-8054ALB-LM-T1
IC806	1140005880	S.IC	X25320S8I-2.7T6
IC807	1130007450	S.IC	RTC-4553A
IC808	1130006380	S.IC	HM62256LFP-12SLT
IC809	1110004310	S.IC	M62352GP 75EC
IC810	1130007700	S.IC	BU4094BCF-T1
IC811	1130007700	S.IC	BU4094BCF-T1
IC812	1160000130	S.IC	TD62783AF (TP1)
IC813	1110003870	S.IC	NJM2058M-T1
IC814	1130005720	S.IC	TC7W04F (TE12L)
IC815	1130007280	S.IC	TC7S32FU(TE85R)
IC816	1130007700	S.IC	BU4094BCF-T1
IC817	1130007820	S.IC	BU4052BCF-T1
Q51	1590002310	S.TRANSISTOR	DTC114EE TL
Q52	1560000560	S.FET	2SK882-GR (TE85L)
Q53	1580000620	S.FET	3SK131-T2 MAS
Q54	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q55	1590002310	S.TRANSISTOR	DTC114EE TL
Q101	1560000560	S.FET	2SK882-GR (TE85L)
Q102	1510000510	S.TRANSISTOR	2SA1576 T107 R
Q103	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q104	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q105	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q106	1590001870	S.TRANSISTOR	DTA114EE TL
Q107	1590002310	S.TRANSISTOR	DTC114EE TL
Q108	1590002310	S.TRANSISTOR	DTC114EE TL
Q109	1590002310	S.TRANSISTOR	DTC114EE TL
Q151	1540000440	S.TRANSISTOR	2SD1619-T-TD
Q152	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q153	1540000440	S.TRANSISTOR	2SD1619-T-TD
Q154	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q201	1560000560	S.FET	2SK882-GR (TE85L)
Q202	1590001870	S.TRANSISTOR	DTA114EE TL
Q203	1580000620	S.FET	3SK131-T2 MAS
Q204	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q205	1560000560	S.FET	2SK882-GR (TE85L)
Q206	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q207	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q208	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q209	1590001870	S.TRANSISTOR	DTA114EE TL
Q210	1590001870	S.TRANSISTOR	DTA114EE TL
Q211	1590002310	S.TRANSISTOR	DTC114EE TL
Q212	1590002310	S.TRANSISTOR	DTC114EE TL
Q213	1590002310	S.TRANSISTOR	DTC114EE TL
Q214	1590002310	S.TRANSISTOR	DTC114EE TL
Q215	1590001870	S.TRANSISTOR	DTA114EE TL
Q216	1590002310	S.TRANSISTOR	DTC114EE TL
Q217	1590002310	S.TRANSISTOR	DTC114EE TL
Q301	1530003090	S.TRANSISTOR	2SC4213-B (TE85R)
Q302	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q303	1560000330	S.FET	2SK210-GR (TE85R)

S.=Surface mount

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION
Q305	1590001870	S.TRANSISTOR DTA114EE TL
Q306	1590002310	S.TRANSISTOR DTC114EE TL
Q307	1560000560	S.FET 2SK882-GR (TE85L)
Q501	1590001450	S.FET 2SJ144-GR (TE85R)
Q601	1590002310	S.TRANSISTOR DTC114EE TL
Q603	1590002310	S.TRANSISTOR DTC114EE TL
Q604	1590002310	S.TRANSISTOR DTC114EE TL
Q605	1510000510	S.TRANSISTOR 2SA1576 T107 R
Q606	1590002310	S.TRANSISTOR DTC114EE TL
Q650	1590001870	S.TRANSISTOR DTA114EE TL
Q651	1590002310	S.TRANSISTOR DTC114EE TL
Q801	1510000510	S.TRANSISTOR 2SA1576 T107 R
Q802	1530002060	S.TRANSISTOR 2SC4081 T107 R
Q803	1590001870	S.TRANSISTOR DTA114EE TL
Q804	1510000510	S.TRANSISTOR 2SA1576 T107 R
Q805	1590002310	S.TRANSISTOR DTC114EE TL
Q806	1530002060	S.TRANSISTOR 2SC4081 T107 R
Q807	1530002060	S.TRANSISTOR 2SC4081 T107 R
Q808	1540000440	S.TRANSISTOR 2SD1619-T-TD
Q809	1590001870	S.TRANSISTOR DTA114EE TL
Q810	1590002310	S.TRANSISTOR DTC114EE TL
Q811	1590001870	S.TRANSISTOR DTA114EE TL
Q812	1590002310	S.TRANSISTOR DTC114EE TL
D1	1790000620	S.DIODE MA77(TW)
D2	1790000620	S.DIODE MA77(TW)
D51	1790000450	S.DIODE MA862(TX)
D52	1750000520	S.DIODE DAN222TL
D53	1790000620	S.DIODE MA77(TW)
D54	1790000450	S.DIODE MA862(TX)
D55	1790000450	S.DIODE MA862(TX)
D56	1790000450	S.DIODE MA862(TX)
D57	1790000450	S.DIODE MA862(TX)
D58	1790000450	S.DIODE MA862(TX)
D59	1790000450	S.DIODE MA862(TX)
D60	1790000450	S.DIODE MA862(TX)
D61	1790000450	S.DIODE MA862(TX)
D62	1790000450	S.DIODE MA862(TX)
D63	1750000450	S.DIODE 1SV265-TL
D64	1750000520	S.DIODE DAN222TL
D65	1750000520	S.DIODE DAN222TL
D101	1790000490	S.DIODE HSM88AS-TR
D102	1160000140	S.DIODE DAP222 TL
D151	1750000520	S.DIODE DAN222TL
D152	1750000520	S.DIODE DAN222TL
D153	1750000520	S.DIODE DAN222TL
D201	1790000620	S.DIODE MA77(TW)
D202	1750000520	S.DIODE DAN222TL
D203	1790000620	S.DIODE MA77(TW)
D204	1790000620	S.DIODE MA77(TW)
D205	1790000620	S.DIODE MA77(TW)
D206	1790000620	S.DIODE MA77(TW)
D207	1790000620	S.DIODE MA77(TW)
D208	1790000620	S.DIODE MA77(TW)
D209	1790000620	S.DIODE MA77(TW)
D210	1790000620	S.DIODE MA77(TW)
D211	1790000490	S.DIODE HSM88AS-TR
D212	1790000450	S.DIODE MA862(TX)
D213	1790000450	S.DIODE MA862(TX)
D215	1790000490	S.DIODE HSM88AS-TR
D216	1730000770	S.ZENER RD7.5M-T2B1
D217	1790000620	S.DIODE MA77(TW)
D218	1790000620	S.DIODE MA77(TW)
D219	1790000620	S.DIODE MA77(TW)
D220	1790000620	S.DIODE MA77(TW)
D221	1790000620	S.DIODE MA77(TW)
D222	1790000620	S.DIODE MA77(TW)
D301	1790000490	S.DIODE HSM88AS-TR
D302	1790000490	S.DIODE HSM88AS-TR
D303	1720000490	S.VARICAP SVC252-TA
D401	1790000490	S.DIODE HSM88AS-TR
D501	1750000520	S.DIODE DAN222TL
D502	1790000490	S.DIODE HSM88AS-TR
D503	1790000490	S.DIODE HSM88AS-TR
D504	1790000490	S.DIODE HSM88AS-TR
D531	1750000520	S.DIODE DAN222TL
D601	1730000770	S.ZENER RD7.5M-T2B1
D602	1750000520	S.DIODE DAN222TL
D603	1750000520	S.DIODE DAN222TL
D604	1160000140	S.DIODE DAP222 TL
D606	1750000520	S.DIODE DAN222TL

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION
D607	1750000520	S.DIODE DAN222TL
D608	1750000520	S.DIODE DAN222TL
D609	1750000520	S.DIODE DAN222TL
D610	1790001250	S.DIODE MA2S111-(TX)
D611	1790001250	S.DIODE MA2S111-(TX)
D801	1750000520	S.DIODE DAN222TL
D802	1750000520	S.DIODE DAN222TL
D803	1750000520	S.DIODE DAN222TL
D804	1750000520	S.DIODE DAN222TL
D805	1750000520	S.DIODE DAN222TL
D806	1750000520	S.DIODE DAN222TL
D807	1750000520	S.DIODE DAN222TL
D808	1750000520	S.DIODE DAN222TL
D809	1750000520	S.DIODE DAN222TL
D810	1750000520	S.DIODE DAN222TL
D811	1750000520	S.DIODE DAN222TL
D812	1160000140	S.DIODE DAP222 TL
D813	1750000520	S.DIODE DAN222TL
D814	1160000140	S.DIODE DAP222 TL
D815	1750000520	S.DIODE DAN222TL
D816	1160000140	S.DIODE DAP222 TL
D817	1160000140	S.DIODE DAP222 TL
D818	1750000520	S.DIODE DAN222TL
D819	1750000520	S.DIODE DAN222TL
D820	1730000030	S.ZENER RD5.6M-T2B2
D821	1160000140	S.DIODE DAP222 TL
F151	2010000270	FILTER 9M15A (FL-23)
F152	2010000600	FILTER 9M26F (FL-80)
F1201	2010000840	FILTER X00F27A (FL-96)
F1202	2020001000	S.CERAMIC SFPC455G-TC01
F1203	2020001050	S.CERAMIC SFPC455E-TC01
F1204	2020000150	CERAMIC CFW455HT
X301	6070000150	S.DISCRIMINATOR CDBC455CX24-TC
X801	6050009860	S.XTAL CR-566 (12.288 MHz)
X802	6050009890	S.XTAL CR-569 (6.144 MHz)
L52	6150000711	COIL LS-452
L53	6150000711	COIL LS-452
L54	6150000711	COIL LS-452
L55	6150000711	COIL LS-452
L56	6200001830	S.COIL NL 322522T-100J
L57	6200003060	S.COIL NL 322522T-1R2J-3
L101	6150004050	COIL LS-466
L102	6200003260	S.COIL NL 322522T-101J
L103	6150004050	COIL LS-466
L201	6150002291	COIL LS-450
L202	6150002271	COIL LS-451
L203	6150002291	COIL LS-450
L205	6200005490	S.COIL NL 322522T-331J
L206	6200005490	S.COIL NL 322522T-331J
L301	6200003260	S.COIL NL 322522T-101J
L303	6200002990	S.COIL NL 322522T-2R2J-3
L304	6200003260	S.COIL NL 322522T-101J
L305	6200003260	S.COIL NL 322522T-101J
L306	6200001830	S.COIL NL 322522T-100J
L401	6180000990	COIL LAL 04NA 101K
L402	6180001220	COIL LAL 04NA 100K
L403	6200003260	S.COIL NL 322522T-101J
L501	6170000140	COIL LW-15
L601	6200003260	S.COIL NL 322522T-101J
L602	6200003260	S.COIL NL 322522T-101J
L651	6200003260	S.COIL NL 322522T-101J
L652	6200003590	S.COIL EXCCL3225U1
L653	6200003260	S.COIL NL 322522T-101J
L654	6200003260	S.COIL NL 322522T-101J
L655	6200003590	S.COIL EXCCL3225U1
L656	6200003260	S.COIL NL 322522T-101J
L657	6200003260	S.COIL NL 322522T-101J
L658	6200003590	S.COIL EXCCL3225U1
L659	6200003260	S.COIL NL 322522T-101J
L660	6200003590	S.COIL EXCCL3225U1
L661	6200003260	S.COIL NL 322522T-101J
L662	6200003260	S.COIL NL 322522T-101J
L750	6200001830	S.COIL NL 322522T-100J
L751	6200003590	S.COIL EXCCL3225U1
L752	6200003240	S.COIL NL 322522T-221J
L753	6200003240	S.COIL NL 322522T-221J

S.=Surface mount

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
L754	6910003570	COIL	2943-666663
L755	6910003570	COIL	2943-666663
L756	6200003260	S.COIL	NL 322522T-101J
L757	6200003260	S.COIL	NL 322522T-101J
L801	6200001830	S.COIL	NL 322522T-100J
R1	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R3	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R4	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R5	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R6	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R50	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
R51	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R52	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R53	7310002740	S.TRIMMER	RV-150
R54	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R55	7030003600	S.RESISTOR	NTCCF2012 3FH 332KC-T
R56	7510000870	S.THERMISTOR	NTCCF2012 3FH 332KC-T
R57	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R58	7030003550	S.RESISTOR	ERJ3GEYJ 822 V (8.2 kΩ)
R59	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R60	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R61	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R62	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R63	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R64	7030003610	S.RESISTOR	ERJ3GEYJ 273 V (27 kΩ)
R65	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R66	7030003760	S.RESISTOR	ERJ3GEYJ 474 V (470 kΩ)
R67	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 Ω)
R68	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R69	7030003450	S.RESISTOR	ERJ3GEYJ 122 V (1.2 kΩ)
R70	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R71	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R72	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R73	7030003450	S.RESISTOR	ERJ3GEYJ 122 V (1.2 kΩ)
R74	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R75	7030003450	S.RESISTOR	ERJ3GEYJ 122 V (1.2 kΩ)
R76	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R77	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R78	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R79	7030003450	S.RESISTOR	ERJ3GEYJ 122 V (1.2 kΩ)
R80	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R81	7030003450	S.RESISTOR	ERJ3GEYJ 122 V (1.2 kΩ)
R82	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R83	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R84	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R85	7030003450	S.RESISTOR	ERJ3GEYJ 122 V (1.2 kΩ)
R86	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R87	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R89	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R90	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R91	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R92	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R93	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R94	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R95	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R96	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R97	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R98	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R99	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R100	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R101	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R102	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R103	7310002740	S.TRIMMER	RV-150
R104	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R105	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R106	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R107	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R108	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R109	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R110	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R111	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R112	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R113	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R114	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R115	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R116	7030003540	S.RESISTOR	ERJ3GEYJ 682 V (6.8 kΩ)
R117	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R118	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R119	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R120	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
R121	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R151	7030006210	S.RESISTOR	ERJ12YJ4R7H (4.7 Ω)
R152	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R154	7030006210	S.RESISTOR	ERJ12YJ4R7H (4.7 Ω)
R155	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R156	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R157	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R201	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R202	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R203	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R204	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R208	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R209	7310002690	S.TRIMMER	RV-145
R210	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R211	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R212	7030003530	S.RESISTOR	ERJ3GEYJ 562 V (5.6 kΩ)
R213	7030003380	S.RESISTOR	ERJ3GEYJ 331 V (330 Ω)
R214	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R216	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R220	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R221	7030003840	S.RESISTOR	ERJ3GEYJ 225 V (2.2 MΩ)
R222	7030004710	S.RESISTOR	ERJ3GEYJ 475 V (4.7 MΩ)
R223	7030004710	S.RESISTOR	ERJ3GEYJ 475 V (4.7 MΩ)
R224	7030003820	S.RESISTOR	ERJ3GEYJ 155 V (1.5 MΩ)
R227	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R228	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R229	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R230	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R231	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R232	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R233	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R234	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R235	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R236	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R237	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R238	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R239	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R240	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
R241	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R244	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R245	7030003380	S.RESISTOR	ERJ3GEYJ 331 V (330 Ω)
R247	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R248	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R251	7310002740	S.TRIMMER	RV-150
R252	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R254	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R255	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R256	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R257	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R258	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R259	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R261	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R262	7030003530	S.RESISTOR	ERJ3GEYJ 562 V (5.6 kΩ)
R263	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R264	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R265	7030003780	S.RESISTOR	ERJ3GEYJ 684 V (680 kΩ)
R266	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R267	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R269	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R270	7030003740	S.RESISTOR	ERJ3GEYJ 334 V (330 kΩ)
R271	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R272	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R274	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R276	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R277	7030003500	S.RESISTOR	ERJ3GEYJ 332 V (3.3 kΩ)
R278	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R279	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R280	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R282	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R283	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R285	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R286	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R287	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R288	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R289	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R290	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R291	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R292	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R293	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R294	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R295	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R296	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)

S.=Surface mount

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
R297	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R298	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R299	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R301	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R302	7030003550	S.RESISTOR	ERJ3GEYJ 822 V (8.2 kΩ)
R303	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R304	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R306	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R307	7030003730	S.RESISTOR	ERJ3GEYJ 274 V (270 kΩ)
R308	7030003700	S.RESISTOR	ERJ3GEYJ 154 V (150 kΩ)
R310	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R311	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R312	7030003670	S.RESISTOR	ERJ3GEYJ 823 V (82 kΩ)
R313	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R314	7030003670	S.RESISTOR	ERJ3GEYJ 823 V (82 kΩ)
R315	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R317	7030003530	S.RESISTOR	ERJ3GEYJ 562 V (5.6 kΩ)
R318	7030003650	S.RESISTOR	ERJ3GEYJ 563 V (56 kΩ)
R319	7310002720	S.TRIMMER	RV-148
R320	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R321	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R322	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R323	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R325	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R326	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R327	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R328	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R329	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R330	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R331	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R332	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R333	7030003760	S.RESISTOR	ERJ3GEYJ 474 V (470 kΩ)
R334	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R335	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
R336	7030003840	S.RESISTOR	ERJ3GEYJ 225 V (2.2 MΩ)
R337	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R339	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R341	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R342	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R344	7030003380	S.RESISTOR	ERJ3GEYJ 331 V (330 Ω)
R345	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R346	7030003700	S.RESISTOR	ERJ3GEYJ 154 V (150 kΩ)
R347	7030003500	S.RESISTOR	ERJ3GEYJ 332 V (3.3 kΩ)
R348	7030003740	S.RESISTOR	ERJ3GEYJ 334 V (330 kΩ)
R349	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R350	7030003460	S.RESISTOR	ERJ3GEYJ 152 V (1.5 kΩ)
R351	7030003630	S.RESISTOR	ERJ3GEYJ 393 V (39 kΩ)
R353	7030003660	S.RESISTOR	ERJ3GEYJ 683 V (68 kΩ)
R355	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R356	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 Ω)
R357	7030003490	S.RESISTOR	ERJ3GEYJ 272 V (2.7 kΩ)
R358	7030003490	S.RESISTOR	ERJ3GEYJ 272 V (2.7 kΩ)
R359	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R360	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R361	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R362	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R363	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R364	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R365	7030003570	S.RESISTOR	ERJ3GEYJ 123 V (12 kΩ)
R366	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R401	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R402	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R403	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R404	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R405	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R406	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R407	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R408	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R409	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R410	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R411	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R501	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R502	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R503	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R504	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R505	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R507	7030003550	S.RESISTOR	ERJ3GEYJ 822 V (8.2 kΩ)
R508	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R509	7030003420	S.RESISTOR	ERJ3GEYJ 681 V (680 Ω)
R510	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R511	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R512	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
R513	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R514	7030003500	S.RESISTOR	ERJ3GEYJ 332 V (3.3 kΩ)
R515	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R516	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R517	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R518	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R519	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R520	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R521	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R522	7030006210	S.RESISTOR	ERJ12YJ4R7H (4.7 Ω)
R523	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R524	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R525	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R526	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R527	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R528	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R529	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R530	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R531	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R532	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
R533	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R534	7030003470	S.RESISTOR	ERJ3GEYJ 182 V (1.8 kΩ)
R535	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R536	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R537	7030003550	S.RESISTOR	ERJ3GEYJ 822 V (8.2 kΩ)
R538	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R539	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R540	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R541	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R542	7030003740	S.RESISTOR	ERJ3GEYJ 334 V (330 kΩ)
R543	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
R544	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R545	7030003760	S.RESISTOR	ERJ3GEYJ 474 V (470 kΩ)
R546	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R547	7030003660	S.RESISTOR	ERJ3GEYJ 683 V (68 kΩ)
R548	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R549	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R550	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R551	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R552	7030003550	S.RESISTOR	ERJ3GEYJ 822 V (8.2 kΩ)
R553	7030003570	S.RESISTOR	ERJ3GEYJ 123 V (12 kΩ)
R554	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R555	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R556	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R557	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R558	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R559	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R560	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R561	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R562	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R563	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R564	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R565	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R566	7030003490	S.RESISTOR	ERJ3GEYJ 272 V (2.7 kΩ)
R567	7030003530	S.RESISTOR	ERJ3GEYJ 562 V (5.6 kΩ)
R568	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R569	7030003630	S.RESISTOR	ERJ3GEYJ 393 V (39 kΩ)
R570	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R571	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R572	7310002740	S.TRIMMER	RV-150
R573	7030003610	S.RESISTOR	ERJ3GEYJ 273 V (27 kΩ)
R574	7030003630	S.RESISTOR	ERJ3GEYJ 393 V (39 kΩ)
R575	7030003550	S.RESISTOR	ERJ3GEYJ 822 V (8.2 kΩ)
R576	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R577	7030003540	S.RESISTOR	ERJ3GEYJ 682 V (6.8 kΩ)
R578	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R579	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R580	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R581	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R582	7030003700	S.RESISTOR	ERJ3GEYJ 154 V (150 kΩ)
R583	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R584	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R586	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R589	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R591	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R592	7030003610	S.RESISTOR	ERJ3GEYJ 273 V (27 kΩ)
R593	7030003610	S.RESISTOR	ERJ3GEYJ 273 V (27 kΩ)
R594	7030003610	S.RESISTOR	ERJ3GEYJ 273 V (27 kΩ)
R595	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R597	7030003610	S.RESISTOR	ERJ3GEYJ 273 V (27 kΩ)
R598	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R599	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)

S.=Surface mount

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
R911	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R912	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R913	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R914	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R915	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R916	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R917	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R918	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R919	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R920	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R921	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R922	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R923	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R924	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R925	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R926	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R927	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R928	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R929	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R930	7030007660	S.RESISTOR	RR0816P-331-D (330 Ω)
R931	7030006520	S.RESISTOR	RR0816P-561-D (560 Ω)
R932	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R933	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R934	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R936	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R937	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R938	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
C1	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C2	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C3	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C4	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C51	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C53	4510005810	S.ELECTROLYTIC	ECEV1HAR47R
C54	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C56	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C57	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C58	4550006480	S.TANTALUM	TEMSVA 1C 475M-8L
C60	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C61	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C62	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C63	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C64	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C65	4030007050	S.CERAMIC	C1608 CH 1H 220J-T-A
C66	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C67	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C68	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C69	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C70	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C71	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C72	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C73	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C74	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C75	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C77	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C78	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C79	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C80	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C81	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C82	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C83	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C84	4030007030	S.CERAMIC	C1608 CH 1H 150J-T-A
C86	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C87	4030011280	S.CERAMIC	C1608 CH 1H 271J-T-A
C101	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C102	4030006930	S.CERAMIC	C1608 CH 1H 020C-T-A
C103	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C104	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C105	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C106	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C107	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C108	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C109	4510005310	S.ELECTROLYTIC	ECEV1CA220SR
C110	4030007150	S.CERAMIC	C1608 CH 1H 151J-T-A
C111	4030007050	S.CERAMIC	C1608 CH 1H 220J-T-A
C112	4510004640	S.ELECTROLYTIC	ECEV1CA470SP
C113	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C114	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C151	4510005810	S.ELECTROLYTIC	ECEV1HAR47R
C152	4510005810	S.ELECTROLYTIC	ECEV1HAR47R
C153	4550003250	S.TANTALUM	TEMSVA 1V 474M-8L

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
C201	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C202	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C203	4030011340	S.CERAMIC	C1608 CH 1H 471J-T-A
C204	4510004440	S.ELECTROLYTIC	ECEV1HA010SR
C205	4510004440	S.ELECTROLYTIC	ECEV1HA010SR
C206	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C207	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C208	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C209	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C210	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C211	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C212	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C214	4030011330	S.CERAMIC	C1608 CH 1H 391J-T-A
C215	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C216	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C217	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C218	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C219	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C220	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C221	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C222	4030007170	S.CERAMIC	C1608 CH 1H 221J-T-A
C223	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C224	4510005860	S.ELECTROLYTIC	ECEV1HA2R2SR
C225	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C226	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C228	4510005860	S.ELECTROLYTIC	ECEV1HA2R2SR
C229	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C230	4510005310	S.ELECTROLYTIC	ECEV1CA220SR
C231	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C232	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C233	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C234	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C235	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C236	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C237	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C238	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C239	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C240	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C241	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C242	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C243	4510004650	S.ELECTROLYTIC	ECEV1EA4R7SR
C246	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C247	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C248	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C249	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C250	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C251	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C252	4030007050	S.CERAMIC	C1608 CH 1H 220J-T-A
C253	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C254	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C255	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C256	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C257	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C258	4510004650	S.ELECTROLYTIC	ECEV1EA4R7SR
C259	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C260	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C261	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C262	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C263	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C301	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C302	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C303	4510005740	S.ELECTROLYTIC	ECEV1HAR22SR
C304	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C305	4510004440	S.ELECTROLYTIC	ECEV1HA010SR
C306	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C307	4030006870	S.CERAMIC	C1608 JB 1H 222K-T-A
C308	4030007140	S.CERAMIC	C1608 CH 1H 121J-T-A
C309	4510004440	S.ELECTROLYTIC	ECEV1HA010SR
C310	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C311	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C312	4030007030	S.CERAMIC	C1608 CH 1H 150J-T-A
C313	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C314	4030007150	S.CERAMIC	C1608 CH 1H 151J-T-A
C315	4030007150	S.CERAMIC	C1608 CH 1H 151J-T-A
C316	4030007150	S.CERAMIC	C1608 CH 1H 151J-T-A
C317	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C318	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C319	4610002070	S.TRIMMER	CTZ3S-30C-W1-P-A
C320	4030007100	S.CERAMIC	C1608 CH 1H 560J-T-A
C322	4030007110	S.CERAMIC	C1608 CH 1H 680J-T-A
C323	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C324	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A

S.=Surface mount

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION
C325	4030011600	S.CERAMIC C1608 JB 1C 104KT-N
C327	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C328	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C329	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C338	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C340	4030011600	S.CERAMIC C1608 JB 1C 104KT-N
C341	4030011600	S.CERAMIC C1608 JB 1C 104KT-N
C342	4030007170	S.CERAMIC C1608 CH 1H 221J-T-A
C343	4030007170	S.CERAMIC C1608 CH 1H 221J-T-A
C344	4030006900	S.CERAMIC C1608 JB 1E 103K-T-A
C345	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A
C346	4030011600	S.CERAMIC C1608 JB 1C 104KT-N
C347	4030006900	S.CERAMIC C1608 JB 1E 103K-T-A
C348	4030006900	S.CERAMIC C1608 JB 1E 103K-T-A
C350	4030011600	S.CERAMIC C1608 JB 1C 104KT-N
C352	4030006870	S.CERAMIC C1608 JB 1H 222K-T-A
C353	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C354	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C355	4510004440	S.ELECTROLYTIC ECEV1HA010SR
C356	4510004440	S.ELECTROLYTIC ECEV1HA010SR
C357	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C401	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C402	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C403	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C404	4030011600	S.CERAMIC C1608 JB 1C 104KT-N
C405	4510004590	ELECTROLYTIC 16 MV 470 HC
C406	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C410	4510006220	S.ELECTROLYTIC ECEV1CA101UP
C451	4030011600	S.CERAMIC C1608 JB 1C 104KT-N
C452	4030011600	S.CERAMIC C1608 JB 1C 104KT-N
C453	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C454	4550006250	S.TANTALUM TEMSVA 1A 106M-8L
C501	4510004640	S.ELECTROLYTIC ECEV1CA470SP
C502	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C503	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C504	4510005860	S.ELECTROLYTIC ECEV1HA2R2SR
C505	4510004440	S.ELECTROLYTIC ECEV1HA010SR
C506	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A
C507	4510005830	S.ELECTROLYTIC ECEV1HAN010R
C508	4510004440	S.ELECTROLYTIC ECEV1HA010SR
C509	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C510	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C512	4030011600	S.CERAMIC C1608 JB 1C 104KT-N
C513	4510004440	S.ELECTROLYTIC ECEV1HA010SR
C514	4030011600	S.CERAMIC C1608 JB 1C 104KT-N
C518	4510004440	S.ELECTROLYTIC ECEV1HA010SR
C519	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C520	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C521	4510005810	S.ELECTROLYTIC ECEV1HAR47R
C523	4030011600	S.CERAMIC C1608 JB 1C 104KT-N
C524	4510004590	ELECTROLYTIC 16 MV 470 HC
C525	4030011600	S.CERAMIC C1608 JB 1C 104KT-N
C526	4510004600	ELECTROLYTIC 16 MV 1000 HC
C527	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C530	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C531	4030006900	S.CERAMIC C1608 JB 1E 103K-T-A
C535	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C536	4510006220	S.ELECTROLYTIC ECEV1CA101UP
C538	4510004440	S.ELECTROLYTIC ECEV1HA010SR
C539	4510004440	S.ELECTROLYTIC ECEV1HA010SR
C541	4510004440	S.ELECTROLYTIC ECEV1HA010SR
C542	4030011600	S.CERAMIC C1608 JB 1C 104KT-N
C544	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C545	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C546	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C547	4030011600	S.CERAMIC C1608 JB 1C 104KT-N
C548	4030011600	S.CERAMIC C1608 JB 1C 104KT-N
C549	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C550	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C551	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C552	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C553	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C554	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C555	4510005860	S.ELECTROLYTIC ECEV1HA2R2SR
C556	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C557	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C558	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C559	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C560	4510004440	S.ELECTROLYTIC ECEV1HA010SR
C562	4030011600	S.CERAMIC C1608 JB 1C 104KT-N
C563	4030007170	S.CERAMIC C1608 CH 1H 221J-T-A
C564	4030011600	S.CERAMIC C1608 JB 1C 104KT-N

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION
C567	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C569	4510005830	S.ELECTROLYTIC ECEV1HAN010R
C570	4510004440	S.ELECTROLYTIC ECEV1HA010SR
C571	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C572	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C573	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C575	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C576	4030011600	S.CERAMIC C1608 JB 1C 104KT-N
C577	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C578	4030011600	S.CERAMIC C1608 JB 1C 104KT-N
C579	4510006220	S.ELECTROLYTIC ECEV1CA101UP
C580	4030008900	S.CERAMIC C1608 JB 1C 333K-T-A
C581	4030008880	S.CERAMIC C1608 JB 1C 223K-T-A
C582	4030009110	S.CERAMIC C3216 JB 1C 474K-T-A
C583	4510005860	S.ELECTROLYTIC ECEV1HA2R2SR
C584	4510005860	S.ELECTROLYTIC ECEV1HA2R2SR
C585	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C587	4030008880	S.CERAMIC C1608 JB 1C 223K-T-A
C603	4030006900	S.CERAMIC C1608 JB 1E 103K-T-A
C604	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C605	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C607	4510004440	S.ELECTROLYTIC ECEV1HA010SR
C608	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C609	4030011600	S.CERAMIC C1608 JB 1C 104KT-N
C610	4510005830	S.ELECTROLYTIC ECEV1HAN010R
C614	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C615	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C641	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C642	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C651	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C652	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C653	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C654	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C655	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C656	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C657	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C658	4030007140	S.CERAMIC C1608 CH 1H 121J-T-A
C659	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C701	4030011330	S.CERAMIC C1608 CH 1H 391J-T-A
C702	4030010760	S.CERAMIC C1608 CH 1H 331J-T-A
C703	4030006860	S.CERAMIC C1608 JB 1H 102K-T-A
C704	4030007150	S.CERAMIC C1608 CH 1H 151J-T-A
C705	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C706	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C750	4030006850	S.CERAMIC C1608 JB 1H 471K-T-A
C751	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C752	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C753	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C755	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C756	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C757	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C758	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C759	4030007090	S.CERAMIC C1608 CH 1H 470J-T-A
C760	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C761	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C762	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C763	4510006220	S.ELECTROLYTIC ECEV1CA101UP
C764	4510004630	S.ELECTROLYTIC ECEV1CA100SR
C765	4030011600	S.CERAMIC C1608 JB 1C 104KT-N
C766	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C767	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C768	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C801	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C802	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C803	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C804	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C805	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C806	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C807	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C808	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C809	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C810	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C811	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C812	4030006880	S.CERAMIC C1608 JB 1H 472K-T-A
C813	4030011600	S.CERAMIC C1608 JB 1C 104KT-N
C814	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A
C815	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A
C816	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A
C817	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A
C818	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A
C819	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A
C820	4030007130	S.CERAMIC C1608 CH 1H 101J-T-A

S.=Surface mount

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
C821	4030007170	S.CERAMIC	C1608 CH 1H 221J-T-A
C822	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C823	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C824	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C826	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C827	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C828	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C829	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C830	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C831	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C832	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C833	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C834	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C835	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C836	4030006870	S.CERAMIC	C1608 JB 1H 222K-T-A
C837	4030006870	S.CERAMIC	C1608 JB 1H 222K-T-A
C838	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C839	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C840	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C841	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C842	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C843	4030007020	S.CERAMIC	C1608 CH 1H 120J-T-A
C844	4030007020	S.CERAMIC	C1608 CH 1H 120J-T-A
C845	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C846	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C847	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C848	4510006220	S.ELECTROLYTIC	ECEV1CA101UP
C849	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C850	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C851	4030008560	S.CERAMIC	C1608 CH 1H 300J-T-A
C852	4030008560	S.CERAMIC	C1608 CH 1H 300J-T-A
C853	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C854	4510006220	S.ELECTROLYTIC	ECEV1CA101UP
C855	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C856	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C857	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C858	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C859	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C860	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C861	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C862	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C863	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C864	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C865	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C866	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C867	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C868	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C869	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C870	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C871	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C872	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C873	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C874	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C875	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C876	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C877	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C878	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C879	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C880	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C881	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C882	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C883	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C884	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C885	4510004590	ELECTROLYTIC	16 MV 470 HC
C886	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C887	4030010040	S.CERAMIC	C1608 JB 1H 561K-T-A
C888	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C889	4030010040	S.CERAMIC	C1608 JB 1H 561K-T-A
C890	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C891	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C892	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C893	4510005860	S.ELECTROLYTIC	ECEV1HA2R2SR
C894	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C895	4510004440	S.ELECTROLYTIC	ECEV1HA010SR
C896	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C897	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
RL601	6330000540	RELAY	OMR-109F
J51	6510007020	CONNECTOR	TMP-J01X-V6

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
J52	6510007020	CONNECTOR	TMP-J01X-V6
J53	6510007020	CONNECTOR	TMP-J01X-V6
J54	6450001560	CONNECTOR	PD-72
J55	6450001560	CONNECTOR	PD-72
J56	6450001560	CONNECTOR	PD-72
J57	6450001560	CONNECTOR	PD-72
J101	6910001040	CONNECTOR	IPS-1136
J201	6450001560	CONNECTOR	PD-72
J202	6450001560	CONNECTOR	PD-72
J203	6450001560	CONNECTOR	PD-72
J204	6450001560	CONNECTOR	PD-72
J301	6910001040	CONNECTOR	IPS-1136
J401	6510020110	S.CONNECTOR	IL-WX-32SB-VF-B-E1000
J402	6510020110	S.CONNECTOR	IL-WX-32SB-VF-B-E1000
J601	6450001130	CONNECTOR	JPJ2042-01-110
J602	6910001040	CONNECTOR	IPS-1136
J603	6450001790	CONNECTOR	HLJ7000-01-3010
J651	6450000170	CONNECTOR	TCS4480-01-1111
J652	6450000160	CONNECTOR	TCS4470-01-1111
J653	6450000140	CONNECTOR	HSJ0807-01-010
J654	6450000140	CONNECTOR	HSJ0807-01-010
J751	6510019990	S.CONNECTOR	52808-2290
J752	6510020000	S.CONNECTOR	52808-3090
J753	6510003400	CONNECTOR	B04B-EH-S
J754	6510019990	S.CONNECTOR	52808-2290
J755	6510019980	S.CONNECTOR	52808-1690
J756	6510019990	S.CONNECTOR	52808-2290
J757	6510020140	S.CONNECTOR	52557-1490
J801	6510019190	S.CONNECTOR	52365-0891
J821	6910001040	CONNECTOR	IPS-1136
S801	2220000530	S.SWITCH	SW-161
W3	7030003860	S.JUMPER	ERJ3GE JPW V
W4	7030003860	S.JUMPER	ERJ3GE JPW V
W801	7030003860	S.JUMPER	ERJ3GE JPW V
W802	7030003860	S.JUMPER	ERJ3GE JPW V
W804	7030003860	S.JUMPER	ERJ3GE JPW V
W805	7030003860	S.JUMPER	ERJ3GE JPW V
W806	7030003860	S.JUMPER	ERJ3GE JPW V
W807	7030003860	S.JUMPER	ERJ3GE JPW V
W808	7030003860	S.JUMPER	ERJ3GE JPW V
WS1	8600035790	CABLE	P758xJ758MA
WS2	8970022740	CABLE	(1)/MA
EP1	0910048239	PCB	B 4861I
EP2	9036505001	TUBE	IRRAX 0.7(d) L=15 mm

[USA], [EUR]
[DEN]
[FRA], [DEN]
Except [FRA]

[DSP BOARD]

REF NO.	ORDER NO.	DESCRIPTION	
IC401	1130005230	S.IC	TC74HCU04AF
IC402	1130008360	S.IC	TC7SHU04FU (TE85L)
IC403	1130004850	S.IC	TC74HC4040AF
IC404	1130007700	S.IC	BU4094BCF-T1
IC405	1130007700	S.IC	BU4094BCF-T1
IC408	1190000550	S.IC	LC7886M-TRM
IC409	1110003620	S.IC	PCM69AU
IC411	1110003870	S.IC	NJM2058M-T1
IC412	1110003630	IC	MAX297CPA
IC414	1110003870	S.IC	NJM2058M-T1
IC415	1130005970	S.IC	TC74HC4053AF
IC419	1110003870	S.IC	NJM2058M-T1
IC423	1130007820	S.IC	BU4052BCF-T1
IC425	1140006160	S.IC	SC-1356
IC427	1130006440	S.IC	TC7S08F (TE85R)
IC428	1130005120	S.IC	TC74HC74AF (TP1)
IC429	1140006160	S.IC	SC-1356

S.=Surface mount

[DSP BOARD]

REF NO.	ORDER NO.	DESCRIPTION	
X401	6050009950	S.XTAL	CR-570 (16.000 MHz)
X402	6050009880	S.XTAL	CR-568 (40.000 MHz)
R401	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R402	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R403	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R404	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R405	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R406	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R407	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R408	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R409	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R410	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R411	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R412	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R413	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R414	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R415	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R416	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R417	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R418	7030003590	S.RESISTOR	ERJ3GEYJ 183 V (18 kΩ)
R419	7030003740	S.RESISTOR	ERJ3GEYJ 334 V (330 kΩ)
R420	7030003730	S.RESISTOR	ERJ3GEYJ 274 V (270 kΩ)
R421	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R422	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R423	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R424	7030003690	S.RESISTOR	ERJ3GEYJ 124 V (120 kΩ)
R425	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R426	7030003420	S.RESISTOR	ERJ3GEYJ 681 V (680 Ω)
R427	7030003710	S.RESISTOR	ERJ3GEYJ 184 V (180 kΩ)
R428	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R429	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R431	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R432	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R433	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R434	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R435	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R436	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R437	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R438	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R439	7030003510	S.RESISTOR	ERJ3GEYJ 392 V (3.9 kΩ)
R440	7030003430	S.RESISTOR	ERJ3GEYJ 821 V (820 Ω)
R441	7030003340	S.RESISTOR	ERJ3GEYJ 151 V (150 Ω)
R442	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R443	7030003670	S.RESISTOR	ERJ3GEYJ 823 V (82 kΩ)
R444	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R446	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R447	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R448	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R449	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R450	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R452	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R453	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R454	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R455	7030003650	S.RESISTOR	ERJ3GEYJ 563 V (56 kΩ)
R456	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R457	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R458	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R461	7030003550	S.RESISTOR	ERJ3GEYJ 822 V (8.2 kΩ)
R462	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R464	7030003620	S.RESISTOR	ERJ3GEYJ 333 V (33 kΩ)
R465	7030003620	S.RESISTOR	ERJ3GEYJ 333 V (33 kΩ)
R466	7030003620	S.RESISTOR	ERJ3GEYJ 333 V (33 kΩ)
R467	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R468	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R469	7030003760	S.RESISTOR	ERJ3GEYJ 474 V (470 kΩ)
R470	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R471	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
C401	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C402	4550006250	S.TANTALUM	TEMSVA 1A 106M-8L
C403	4030007010	S.CERAMIC	C1608 CH 1H 100D-T-A
C404	4030007010	S.CERAMIC	C1608 CH 1H 100D-T-A
C405	4030007030	S.CERAMIC	C1608 CH 1H 150J-T-A
C406	4030007030	S.CERAMIC	C1608 CH 1H 150J-T-A
C407	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C408	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C409	4030007050	S.CERAMIC	C1608 CH 1H 220J-T-A
C410	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C411	4510004630	S.ELECTROLYTIC	ECEV1CA100SR

[DSP BOARD]

REF NO.	ORDER NO.	DESCRIPTION	
C412	4030010210	S.CERAMIC	C3216 JB 1C 105M-T-A
C415	4510006220	S.ELECTROLYTIC	ECEV1CA101UP
C416	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C417	4030010020	S.CERAMIC	C1608 JB 1H 122K-T-A
C418	4030007150	S.CERAMIC	C1608 CH 1H 151J-T-A
C419	4030006820	S.CERAMIC	C1608 SL 1H 301J-T-A
C420	4030009580	S.CERAMIC	C1608 JB 1H 681K-T-A
C421	4030008650	S.CERAMIC	C1608 JB 1H 332K-T-A
C422	4030007140	S.CERAMIC	C1608 CH 1H 121J-T-A
C423	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C424	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C425	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C426	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C427	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C428	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C429	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C430	4030006870	S.CERAMIC	C1608 JB 1H 222K-T-A
C431	4030010020	S.CERAMIC	C1608 JB 1H 122K-T-A
C432	4030008470	S.CERAMIC	C1608 JB 1H 272K-T-A
C433	4030010760	S.CERAMIC	C1608 CH 1H 331J-T-A
C434	4030010770	S.CERAMIC	C1608 JB 1H 392K-T-A
C435	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C438	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C439	4030007060	S.CERAMIC	C1608 CH 1H 270J-T-A
C440	4510005890	S.ELECTROLYTIC	ECEV1AAN100R
C441	4510005890	S.ELECTROLYTIC	ECEV1AAN100R
C445	4510004590	ELECTROLYTIC	16 MV 470 HC
C446	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C447	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C448	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C449	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C450	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C457	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C458	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C459	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C460	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C461	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C462	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C463	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C464	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C465	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C466	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C467	4510004440	S.ELECTROLYTIC	ECEV1HA010SR
C468	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C469	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C470	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C471	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C474	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C475	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C476	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C477	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C478	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C479	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C480	4510004590	ELECTROLYTIC	16 MV 470 HC
C481	4030010750	S.CERAMIC	C1608 CH 1H 201J-T-A
C484	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C485	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C486	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C487	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C488	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C491	4030011860	S.CERAMIC	CM105 CH 241G 50AT
C492	4030011340	S.CERAMIC	C1608 CH 1H 471J-T-A
C493	4030006870	S.CERAMIC	C1608 JB 1H 222K-T-A
C494	4510005890	S.ELECTROLYTIC	ECEV1AAN100R
C495	4030011340	S.CERAMIC	C1608 CH 1H 471J-T-A
C496	4510004640	S.ELECTROLYTIC	ECEV1CA470SP
J401	6510020100	S.CONNECTOR	IL-WX-32PB-VF100-B-K33
J402	6510020100	S.CONNECTOR	IL-WX-32PB-VF100-B-K33
EP1	0910048275	PCB	B 4865E

S.=Surface mount

[PLL UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
IC1	1130007700	S.IC	BU4094BCF-T1
IC101	1140003641	S.IC	SC-1246
IC191	1130006440	S.IC	TC7S08F (TE85R)
IC192	1130006440	S.IC	TC7S08F (TE85R)
IC381	1110004320	S.IC	MC145170DR2
IC382	1180000420	S.IC	TA78L05F (TE12R)
IC401	1140003641	S.IC	SC-1246
IC681	1110004320	S.IC	MC145170DR2
IC682	1180000420	S.IC	TA78L05F (TE12R)
IC701	1140004550	S.IC	M65343FP/SC1287
IC751	1140004550	S.IC	M65343FP/SC1287
IC801	1140004550	S.IC	M65343FP/SC1287
Q1	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q2	1510000510	S.TRANSISTOR	2SA1576 T107 R
Q3	1590002310	S.TRANSISTOR	DTC114EE TL
Q51	1530002560	S.TRANSISTOR	2SC4403-3-TL
Q52	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q71	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q81	1530002560	S.TRANSISTOR	2SC4403-3-TL
Q101	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q102	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q103	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q121	1590002310	S.TRANSISTOR	DTC114EE TL
Q122	1590002310	S.TRANSISTOR	DTC114EE TL
Q123	1590002310	S.TRANSISTOR	DTC114EE TL
Q124	1590001600	S.TRANSISTOR	UMD3 TL
Q125	1590001600	S.TRANSISTOR	UMD3 TL
Q126	1590001870	S.TRANSISTOR	DTA114EE TL
Q127	1590001870	S.TRANSISTOR	DTA114EE TL
Q128	1590001870	S.TRANSISTOR	DTA114EE TL
Q151	1560000330	S.FET	2SK210-GR (TE85R)
Q152	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q181	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q351	1590001870	S.TRANSISTOR	DTA114EE TL
Q361	1590002310	S.TRANSISTOR	DTC114EE TL
Q401	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q402	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q403	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q421	1590001600	S.TRANSISTOR	UMD3 TL
Q422	1590001600	S.TRANSISTOR	UMD3 TL
Q423	1590001600	S.TRANSISTOR	UMD3 TL
Q424	1590001870	S.TRANSISTOR	DTA114EE TL
Q425	1590002310	S.TRANSISTOR	DTC114EE TL
Q426	1590002310	S.TRANSISTOR	DTC114EE TL
Q427	1590001870	S.TRANSISTOR	DTA114EE TL
Q451	1560000330	S.FET	2SK210-GR (TE85R)
Q452	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q481	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q651	1590001870	S.TRANSISTOR	DTA114EE TL
Q661	1590002310	S.TRANSISTOR	DTC114EE TL
Q701	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q751	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q801	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q802	1530002060	S.TRANSISTOR	2SC4081 T107 R
D1	1750000520	S.DIODE	DAN222TL
D2	1160000140	S.DIODE	DAP222 TL
D3	1750000520	S.DIODE	DAN222TL
D4	1750000520	S.DIODE	DAN222TL
D51	1790000540	S.VARICAP	MA338(TX)
D151	1790000540	S.VARICAP	MA338(TX)
D152	1790000490	S.DIODE	HSM88AS-TR
D153	1790000490	S.DIODE	HSM88AS-TR
D301	1790000620	S.DIODE	MA77(TW)
D351	1790000620	S.DIODE	MA77(TW)
D361	1790000450	S.DIODE	MA862(TX)
D451	1790000540	S.VARICAP	MA338(TX)
D452	1790000490	S.DIODE	HSM88AS-TR
D453	1790000490	S.DIODE	HSM88AS-TR
D601	1790000620	S.DIODE	MA77(TW)
D651	1790000620	S.DIODE	MA77(TW)
D661	1790000450	S.DIODE	MA862(TX)
FI101	2020001420	S.CERAMIC	SFECA10.7MA5-D
FI401	2020001420	S.CERAMIC	SFECA10.7MA5-D
X51	6050005711	XTAL	CR-275A (30.0000 MHz)

[PLL UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
L31	6200003260	S.COIL	NL 322522T-101J
L51	6130001090	COIL	LB-145
L52	6150004520	S.COIL	LS-508
L53	6200003100	S.COIL	NL 322522T-3R9J-3
L54	6200003320	S.COIL	NL 322522T-3R3J-3
L55	6180000880	COIL	LAL 03NA 100K
L81	6150004830	S.COIL	LS-509
L82	6150004830	S.COIL	LS-509
L101	6200001830	S.COIL	NL 322522T-100J
L121	6200001830	S.COIL	NL 322522T-100J
L122	6200001830	S.COIL	NL 322522T-100J
L123	6200001830	S.COIL	NL 322522T-100J
L124	6200001830	S.COIL	NL 322522T-100J
L125	6200001830	S.COIL	NL 322522T-100J
L152	6130001850	COIL	LB-185
L153	6200001830	S.COIL	NL 322522T-100J
L181	6200001830	S.COIL	NL 322522T-100J
L303	6200001770	S.COIL	ELJNC 47NK-F
L304	6200001830	S.COIL	NL 322522T-100J
L351	6200002160	S.COIL	ELJNC 82NK-F
L352	6200003670	S.COIL	ELJNC 68NK-F
L353	6200003670	S.COIL	ELJNC 68NK-F
L354	6200003420	S.COIL	NL 322522T-R15J-3
L355	6200002960	S.COIL	NL 322522T-4R7J-3
L356	6200002960	S.COIL	NL 322522T-4R7J-3
L382	6200003590	S.COIL	EXCCL3225U1
L401	6200001830	S.COIL	NL 322522T-100J
L421	6200001830	S.COIL	NL 322522T-100J
L422	6200001830	S.COIL	NL 322522T-100J
L423	6200001830	S.COIL	NL 322522T-100J
L424	6200001830	S.COIL	NL 322522T-100J
L425	6200001830	S.COIL	NL 322522T-100J
L452	6130001850	COIL	LB-185
L453	6200001830	S.COIL	NL 322522T-100J
L481	6200001830	S.COIL	NL 322522T-100J
L603	6200001770	S.COIL	ELJNC 47NK-F
L604	6200001830	S.COIL	NL 322522T-100J
L651	6200002160	S.COIL	ELJNC 82NK-F
L652	6200003670	S.COIL	ELJNC 68NK-F
L653	6200003670	S.COIL	ELJNC 68NK-F
L654	6200003420	S.COIL	NL 322522T-R15J-3
L655	6200002960	S.COIL	NL 322522T-4R7J-3
L656	6200002960	S.COIL	NL 322522T-4R7J-3
L682	6200003590	S.COIL	EXCCL3225U1
L701	6200001830	S.COIL	NL 322522T-100J
L702	6200003130	S.COIL	NL 322522T-120J
L703	6200003140	S.COIL	NL 322522T-150J
L704	6200003170	S.COIL	NL 322522T-330J
L751	6200001830	S.COIL	NL 322522T-100J
L752	6200003130	S.COIL	NL 322522T-120J
L753	6200003140	S.COIL	NL 322522T-150J
L801	6200001830	S.COIL	NL 322522T-100J
L802	6200003130	S.COIL	NL 322522T-120J
L803	6200003140	S.COIL	NL 322522T-150J
L804	6200003170	S.COIL	NL 322522T-330J
R1	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R2	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R3	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R4	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R5	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R8	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R9	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R10	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R11	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R12	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R13	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R14	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R15	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R16	7030003620	S.RESISTOR	ERJ3GEYJ 333 V (33 kΩ)
R17	7030003580	S.RESISTOR	ERJ3GEYJ 153 V (15 kΩ)
R18	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R19	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R20	7030003600	S.RESISTOR	ERJ3GEYJ 223 V (22 kΩ)
R21	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R22	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R23	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R24	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R31	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R32	7310003820	TRIMMER	EVN-D2AA03 B14
R33	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)

S.=Surface mount

[PLL UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
R684	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R701	7030005370	S.RESISTOR	RR0816P-202-B (2 kΩ)
R702	7030005380	S.RESISTOR	RR0816P-102-B (1 kΩ)
R703	7030005370	S.RESISTOR	RR0816P-202-B (2 kΩ)
R704	7030005380	S.RESISTOR	RR0816P-102-B (1 kΩ)
R705	7030005370	S.RESISTOR	RR0816P-202-B (2 kΩ)
R706	7030005380	S.RESISTOR	RR0816P-102-B (1 kΩ)
R707	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R708	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R709	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R710	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R711	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R712	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R713	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R714	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R715	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R716	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R717	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R718	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R719	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R720	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R721	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R722	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 Ω)
R724	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R751	7030005370	S.RESISTOR	RR0816P-202-B (2 kΩ)
R752	7030005380	S.RESISTOR	RR0816P-102-B (1 kΩ)
R753	7030005370	S.RESISTOR	RR0816P-202-B (2 kΩ)
R754	7030005380	S.RESISTOR	RR0816P-102-B (1 kΩ)
R755	7030005370	S.RESISTOR	RR0816P-202-B (2 kΩ)
R756	7030005380	S.RESISTOR	RR0816P-102-B (1 kΩ)
R757	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R758	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R759	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R760	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R761	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R762	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R763	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R764	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R765	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R766	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R767	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R768	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R769	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R770	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R771	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R772	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 Ω)
R774	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R777	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R778	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R779	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R801	7030005370	S.RESISTOR	RR0816P-202-B (2 kΩ)
R802	7030005380	S.RESISTOR	RR0816P-102-B (1 kΩ)
R803	7030005370	S.RESISTOR	RR0816P-202-B (2 kΩ)
R804	7030005380	S.RESISTOR	RR0816P-102-B (1 kΩ)
R805	7030005370	S.RESISTOR	RR0816P-202-B (2 kΩ)
R806	7030005380	S.RESISTOR	RR0816P-102-B (1 kΩ)
R807	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R808	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R809	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R810	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R811	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R812	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R813	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R814	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R815	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R816	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R817	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R818	7030005390	S.RESISTOR	RR0816P-102-D (1 kΩ)
R819	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R820	7030005400	S.RESISTOR	RR0816P-202-D (2 kΩ)
R821	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R822	7030003370	S.RESISTOR	ERJ3GEYJ 271 V (270 Ω)
R823	7030003470	S.RESISTOR	ERJ3GEYJ 182 V (1.8 kΩ)
R824	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R825	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R826	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R827	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
C1	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C2	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C3	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A

[PLL UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
C4	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C5	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C6	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C7	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C31	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C32	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C33	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C51	4030007100	S.CERAMIC	C1608 CH 1H 560J-T-A
C53	4030007120	S.CERAMIC	C1608 CH 1H 820J-T-A
C54	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C56	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C58	4030007110	S.CERAMIC	C1608 CH 1H 680J-T-A
C59	4030006990	S.CERAMIC	C1608 CH 1H 080D-T-A
C60	4030009470	S.CERAMIC	C1608 CH 1H R75C-T-A
C61	4030007010	S.CERAMIC	C1608 CH 1H 100D-T-A
C62	4030006930	S.CERAMIC	C1608 CH 1H 020C-T-A
C63	4030006980	S.CERAMIC	C1608 CH 1H 070D-T-A
C64	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C65	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C71	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C81	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C82	4030007170	S.CERAMIC	C1608 CH 1H 221J-T-A
C83	4030007060	S.CERAMIC	C1608 CH 1H 270J-T-A
C84	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C85	4030006920	S.CERAMIC	C1608 CH 1H 010C-T-A
C86	4030007060	S.CERAMIC	C1608 CH 1H 270J-T-A
C87	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C101	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C102	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C103	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C104	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C105	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C106	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C107	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C108	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C109	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C110	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C111	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C112	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C113	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C114	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C115	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C116	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C117	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C118	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C119	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C120	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C121	4030010210	S.CERAMIC	C3216 JB 1C 105M-T-A
C122	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C123	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C124	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C125	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C127	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C128	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C129	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C130	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C131	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C137	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C138	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C139	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C144	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C145	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C151	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C152	4030007080	S.CERAMIC	C1608 CH 1H 390J-T-A
C153	4030011570	S.CERAMIC	CM105 CH 101G 50AT
C154	4610001850	S.TRIMMER	TZBX4R200BA110T00 20P
C155	4030007150	S.CERAMIC	C1608 CH 1H 151J-T-A
C156	4030007150	S.CERAMIC	C1608 CH 1H 151J-T-A
C157	4030007150	S.CERAMIC	C1608 CH 1H 151J-T-A
C158	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C159	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C160	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C161	4030006960	S.CERAMIC	C1608 CH 1H 050C-T-A
C162	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C163	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C181	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C182	4510004590	ELECTROLYTIC	16 MV 470 HC
C183	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C191	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C192	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C304	4030007080	S.CERAMIC	C1608 CH 1H 390J-T-A
C305	4030006880	S.CERAMIC	C1608 CH 1H 070D-T-A

S.=Surface mount

[PLL UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
J1	6510019980	S.CONNECTOR	52808-1690
J81	6510007900	CONNECTOR	TBP-P01X-A1
J101	6910001040	CONNECTOR	IPS-1136
J351	6510007900	CONNECTOR	TBP-P01X-A1
J381	6910001040	CONNECTOR	IPS-1136
J401	6910001040	CONNECTOR	IPS-1136
J651	6510007900	CONNECTOR	TBP-P01X-A1
J681	6910001040	CONNECTOR	IPS-1136
J701	6510007900	CONNECTOR	TBP-P01X-A1
J751	6510007900	CONNECTOR	TBP-P01X-A1
J801	6510007900	CONNECTOR	TBP-P01X-A1
J851	6510007900	CONNECTOR	TBP-P01X-A1
W1	7030003860	S.JUMPER	ERJ3GE JPW V
W2	7030003860	S.JUMPER	ERJ3GE JPW V
W3	7030003860	S.JUMPER	ERJ3GE JPW V
W4	7030003860	S.JUMPER	ERJ3GE JPW V
W5	7030003860	S.JUMPER	ERJ3GE JPW V
W6	7030003860	S.JUMPER	ERJ3GE JPW V
W7	7030003860	S.JUMPER	ERJ3GE JPW V
W10	7030003860	S.JUMPER	ERJ3GE JPW V
W25	7030003860	S.JUMPER	ERJ3GE JPW V
W26	7030003860	S.JUMPER	ERJ3GE JPW V
W28	7030003860	S.JUMPER	ERJ3GE JPW V
W29	7030003860	S.JUMPER	ERJ3GE JPW V
W30	7030003860	S.JUMPER	ERJ3GE JPW V
W31	7030003860	S.JUMPER	ERJ3GE JPW V
W32	7030003860	S.JUMPER	ERJ3GE JPW V
W33	7030003860	S.JUMPER	ERJ3GE JPW V
WS1	8970022690	CABLE	(7)/PL
EP1	0910048834	PCB	B 4984D

[VCO-A/B BOARD] (common)

REF NO.	ORDER NO.	DESCRIPTION	
Q201	1560000490	S.FET	2SK508 K52 T2B
Q202	1530003090	S.TRANSISTOR	2SC4213-B (TE85R)
Q221	1560000490	S.FET	2SK508 K52 T2B
Q222	1530003090	S.TRANSISTOR	2SC4213-B (TE85R)
Q251	1560000490	S.FET	2SK508 K52 T2B
Q252	1530003090	S.TRANSISTOR	2SC4213-B (TE85R)
Q301	1530002570	S.TRANSISTOR	2SC4405-3-TL
D201	1790000540	S.VARICAP	MA338(TX)
D221	1790000540	S.VARICAP	MA338(TX)
D251	1720000540	S.VARICAP	HVM17-01TR
L201	6170000230	COIL	LW-25
L202	6190001270	COIL	E544GN-110245
L203	6170000230	COIL	LW-25
L221	6170000230	COIL	LW-25
L222	6190001270	COIL	E544GN-110245
L223	6170000230	COIL	LW-25
L251	6170000230	COIL	LW-25
L252	6190001280	COIL	E544GN-110248
L253	6170000230	COIL	LW-25
L301	6200003330	S.COIL	NL 322522T-1R0J-3
R202	7030003380	S.RESISTOR	ERJ3GEYJ 331 V (330 Ω)
R203	7030003380	S.RESISTOR	ERJ3GEYJ 331 V (330 Ω)
R204	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R222	7030003380	S.RESISTOR	ERJ3GEYJ 331 V (330 Ω)
R223	7030003380	S.RESISTOR	ERJ3GEYJ 331 V (330 Ω)
R224	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R252	7030003380	S.RESISTOR	ERJ3GEYJ 331 V (330 Ω)
R253	7030003380	S.RESISTOR	ERJ3GEYJ 331 V (330 Ω)
R254	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R301	7030003550	S.RESISTOR	ERJ3GEYJ 822 V (8.2 kΩ)
R302	7030003510	S.RESISTOR	ERJ3GEYJ 392 V (3.9 kΩ)
R303	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R304	7030003260	S.RESISTOR	ERJ3GEYJ 330 V (33 Ω)
C201	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C202	4030007170	S.CERAMIC	C1608 CH 1H 221J-T-A
C203	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C204	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C205	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C206	4030006930	S.CERAMIC	C1608 CH 1H 020C-T-A
C207	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C208	4610001270	S.TRIMMER	ECR-JA010 A12W
C209	4030007010	S.CERAMIC	C1608 CH 1H 100D-T-A
C221	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C222	4030007110	S.CERAMIC	C1608 CH 1H 680J-T-A
C223	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C224	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C225	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C226	4030006930	S.CERAMIC	C1608 CH 1H 020C-T-A
C227	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C228	4610001270	S.TRIMMER	ECR-JA010 A12W
C251	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C252	4030007070	S.CERAMIC	C1608 CH 1H 330J-T-A
C253	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C254	4030006850	S.CERAMIC	C1608 JB 1H 471K-T-A
C255	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C256	4030006930	S.CERAMIC	C1608 CH 1H 020C-T-A
C257	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C258	4610001270	S.TRIMMER	ECR-JA010 A12W
C301	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C302	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C303	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C309	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
J201	6910003840	CONNECTOR	IMS A-9230B-1-05Z003-T
J202	6910003840	CONNECTOR	IMS A-9230B-1-05Z003-T
EP1	0910048843	PCB	B 4982C

S.=Surface mount

[FILTER UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
L1	6140002570	COIL	LR-294
L2	6140002580	COIL	LR-295
L3	6140001240	COIL	LR-149
L4	6140001130	COIL	LR-138
L5	6140001800	COIL	LR-216
L6	6140001800	COIL	LR-216
L7	6140002280	COIL	LR-241
L8	6140002280	COIL	LR-241
L9	6110002920	COIL	LA-481
L10	6110002910	COIL	LA-480
L11	6110002900	COIL	LA-479
L12	6110002890	COIL	LA-478
L13	6200003260	S.COIL	NL 322522T-101J
L15	6200003260	S.COIL	NL 322522T-101J
L17	6200003260	S.COIL	NL 322522T-101J
L19	6200003260	S.COIL	NL 322522T-101J
L21	6200001830	S.COIL	NL 322522T-100J
L23	6200001830	S.COIL	NL 322522T-100J
L28	6140002270	COIL	LR-240
L29	6110002230	COIL	LA-215
L30	6110002230	COIL	LA-215
L31	6110002220	COIL	LA-214
L32	6200001830	S.COIL	NL 322522T-100J
L33	6140003200	COIL	LR-357
C2	4010005830	CERAMIC	HM74SJ SL 151J 500V
C3	4010005370	CERAMIC	HM11SJ SL 331J 500V
C5	4010005820	CERAMIC	HM74SJ SL 121J 500V
C7	4010005360	CERAMIC	HM11SJ SL 301J 500V
C8	4010005360	CERAMIC	HM11SJ SL 301J 500V
C10	4010005360	CERAMIC	HM11SJ SL 301J 500V
C12	4010005780	CERAMIC	HM60SJ SL 101J 500V
C14	4010005930	CERAMIC	HM11SJ SL 391J 500V
C15	4010005930	CERAMIC	HM11SJ SL 391J 500V
C16	4010005860	CERAMIC	HM95SJ SL 201J 500V
C17	4010005850	CERAMIC	HM95SJ SL 181J 500V
C18	4010005780	CERAMIC	HM60SJ SL 101J 500V
C20	4010005360	CERAMIC	HM11SJ SL 301J 500V
C21	4010005360	CERAMIC	HM11SJ SL 301J 500V
C22	4010005660	CERAMIC	HM60SJ SL 220J 500V
C23	4010005370	CERAMIC	HM11SJ SL 331J 500V
C24	4010005370	CERAMIC	HM11SJ SL 331J 500V
C25	4010005370	CERAMIC	HM11SJ SL 331J 500V
C28	4010005820	CERAMIC	HM74SJ SL 121J 500V
C30	4010005810	CERAMIC	HM74SJ SL 111J 500V
C31	4010005820	CERAMIC	HM74SJ SL 121J 500V
C32	4010005780	CERAMIC	HM60SJ SL 101J 500V
C33	4010005640	CERAMIC	HM60SJ SL 180J 500V
C34	4010005870	CERAMIC	HM95SJ SL 221J 500V
C35	4010005720	CERAMIC	HM60SJ SL 390J 500V
C36	4010005810	CERAMIC	HM74SJ SL 111J 500V
C37	4010005740	CERAMIC	HM60SJ SL 560J 500V
C38	4010005620	CERAMIC	HM60SJ SL 120J 500V
C39	4010005820	CERAMIC	HM74SJ SL 121J 500V
C40	4010005530	CERAMIC	HM60SJ SL 020C 500V
C41	4010005740	CERAMIC	HM60SJ SL 560J 500V
C42	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C43	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C44	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C45	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C46	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C47	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C48	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C49	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C50	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C51	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C52	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C53	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C63	4010005680	CERAMIC	HM60SJ SL 270J 500V
C65	4010005780	CERAMIC	HM60SJ SL 101J 500V
C66	4010005360	CERAMIC	HM11SJ SL 301J 500V
C67	4010005360	CERAMIC	HM11SJ SL 301J 500V
C68	4010005360	CERAMIC	HM11SJ SL 301J 500V
C69	4010005360	CERAMIC	HM11SJ SL 301J 500V
C72	4010005870	CERAMIC	HM95SJ SL 221J 500V
C73	4010005390	CERAMIC	HM15SJ SL 621J 500V
C74	4010005390	CERAMIC	HM15SJ SL 621J 500V
C75	4010005390	CERAMIC	HM15SJ SL 621J 500V
C77	4010005660	CERAMIC	HM60SJ SL 220J 500V
C78	4010005750	CERAMIC	HM60SJ SL 680J 500V
C80	4010005770	CERAMIC	HM60SJ SL 820J 500V

[FILTER UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
C82	4010005660	CERAMIC	HM60SJ SL 220J 500V
C83	4010005620	CERAMIC	HM60SJ SL 120J 500V
C85	4010005630	CERAMIC	HM60SJ SL 150J 500V
C86	4010005690	CERAMIC	HM60SJ SL 300J 500V
C87	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C88	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C97	4010005390	CERAMIC	HM15SJ SL 621J 500V
C98	4010005390	CERAMIC	HM15SJ SL 621J 500V
C99	4010005390	CERAMIC	HM15SJ SL 621J 500V
C100	4010005390	CERAMIC	HM15SJ SL 621J 500V
C102	4010005830	CERAMIC	HM74SJ SL 151J 500V
C103	4010005820	CERAMIC	HM74SJ SL 121J 500V
C104	4010005610	CERAMIC	HM60SJ SL 100D 500V
C116	4010005740	CERAMIC	HM60SJ SL 560J 500V
C124	4030005140	S.CERAMIC	C3216 JB 1E 104K-T-A
C125	4030005140	S.CERAMIC	C3216 JB 1E 104K-T-A
C126	4030005140	S.CERAMIC	C3216 JB 1E 104K-T-A
C127	4030004720	S.CERAMIC	C2012 JB 1H 102K-T-A
C128	4030004720	S.CERAMIC	C2012 JB 1H 102K-T-A
C129	4030004720	S.CERAMIC	C2012 JB 1H 102K-T-A
C130	4030004720	S.CERAMIC	C2012 JB 1H 102K-T-A
C131	4010005730	CERAMIC	HM60SJ SL 470J 500V
C132	4010005730	CERAMIC	HM60SJ SL 470J 500V
RL1	6330001470	RELAY	AJS1311
RL2	6330001470	RELAY	AJS1311
RL3	6330001470	RELAY	AJS1311
RL4	6330001470	RELAY	AJS1311
RL5	6330001470	RELAY	AJS1311
RL6	6330001470	RELAY	AJS1311
RL7	6330001470	RELAY	AJS1311
RL8	6330001470	RELAY	AJS1311
RL9	6330001470	RELAY	AJS1311
RL10	6330001470	RELAY	AJS1311
RL11	6330001470	RELAY	AJS1311
RL12	6330001470	RELAY	AJS1311
RL13	6330001330	RELAY	AG 201344
RL14	6330001330	RELAY	AG 201344
J1	6510007020	CONNECTOR	TMP-J01X-V6
J2	6510007020	CONNECTOR	TMP-J01X-V6
J3	6510019970	S.CONNECTOR	52808-1090
W1	7030003860	S.JUMPER	ERJ3GE JPW V
W2	7030003860	S.JUMPER	ERJ3GE JPW V
W3	7030003860	S.JUMPER	ERJ3GE JPW V
W4	7030003860	S.JUMPER	ERJ3GE JPW V
W5	7030003860	S.JUMPER	ERJ3GE JPW V
W6	7030003860	S.JUMPER	ERJ3GE JPW V
W7	7030003860	S.JUMPER	ERJ3GE JPW V
EP1	6510018330	TERMINAL	F4053A
EP2	6510018330	TERMINAL	F4053A
EP3	6510018330	TERMINAL	F4053A
EP4	6510018330	TERMINAL	F4053A
EP7	0910048193	PCB	B 4857C

S.=Surface mount

[TUNER UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
IC1	1120000970	IC	M54562P
IC2	1120000970	IC	M54562P
L1	2040000490	COIL	EXC-ELDR25C
L2	2040000490	COIL	EXC-ELDR25C
L3	6110003010	COIL	LA-488
L4	6110003030	COIL	LA-490
L5	6110003020	COIL	LA-489
L6	6110003030	COIL	LA-490
L7	6110003020	COIL	LA-489
L8	6110003030	COIL	LA-490
L9	6140003260	COIL	LR-363 (T130-6)
L10	6140003260	COIL	LR-363 (T130-6)
L11	6140002700	COIL	LR-307 (T130-2)
L12	6140002700	COIL	LR-307 (T130-2)
R17	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R18	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R19	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R20	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R21	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R22	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R23	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R24	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R25	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R26	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R27	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R28	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R29	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R30	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R31	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R32	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
C1	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C2	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C3	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C4	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C5	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C6	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C7	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C8	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C9	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C10	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C11	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C12	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C13	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C14	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C15	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C16	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C17	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C18	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C23	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C24	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C25	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C26	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C27	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C28	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C29	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C30	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C31	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C32	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C33	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C34	4010005070	CERAMIC	DE0707 SL 390J 3KV
C35	4010005070	CERAMIC	DE0707 SL 390J 3KV
C36	4010004260	CERAMIC	DE0907 SL 820J 3KV
C37	4010004250	CERAMIC	DE1007 SL 101J 3KV
C38	4010004280	CERAMIC	DE1207 SL 151J 3KV
C39	4010004280	CERAMIC	DE1207 SL 151J 3KV
C40	4010004250	CERAMIC	DE1007 SL 101J 3KV
C41	4010004250	CERAMIC	DE1007 SL 101J 3KV
C42	4010004250	CERAMIC	DE1007 SL 101J 3KV
C43	4010004250	CERAMIC	DE1007 SL 101J 3KV
C44	4620000110	VARIABLE	UV35 150P
C45	4620000110	VARIABLE	UV35 150P
C46	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C47	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C48	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C49	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C50	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A

[TUNER UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
C51	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C52	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C53	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C54	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C55	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C56	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C57	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C58	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C59	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C60	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C61	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
RL1	6330001110	RELAY	NY-12W-K
RL2	6330001110	RELAY	NY-12W-K
RL3	6330001110	RELAY	NY-12W-K
RL4	6330001110	RELAY	NY-12W-K
RL5	6330001110	RELAY	NY-12W-K
RL6	6330001110	RELAY	NY-12W-K
RL7	6330001110	RELAY	NY-12W-K
RL8	6330001110	RELAY	NY-12W-K
RL9	6330001110	RELAY	NY-12W-K
RL10	6330001110	RELAY	NY-12W-K
RL11	6330001110	RELAY	NY-12W-K
RL12	6330001110	RELAY	NY-12W-K
RL13	6330001110	RELAY	NY-12W-K
RL14	6330001110	RELAY	NY-12W-K
RL15	6330001110	RELAY	NY-12W-K
MF1	2710000460	MOTOR	MP28GA
MF2	2710000460	MOTOR	MP28GA
J1	6510003100	CONNECTOR	RT01T-1.3B
J2	6510003100	CONNECTOR	RT01T-1.3B
J3	6510007900	CONNECTOR	TBP-P01X-A1
J4	6510007900	CONNECTOR	TBP-P01X-A1
J5	6510019990	S.CONNECTOR	52808-2290
WS1	8970022710	CABLE	(2)/TU
EP1	0910048213	PCB	B 4859C

S.=Surface mount

[CTRL UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
IC1	1110000960	S.IC	NJM4558M(T1)
IC2	1120002250	S.IC	TC74ACT32F
IC3	1120002240	S.IC	TC74AC112F
IC4	1110000960	S.IC	NJM4558M(T1)
IC5	1140004120	S.IC	M38022M2-138FP
IC6	1140003610	S.IC	X24C04S8-2.7T6
IC7	1110004510	S.IC	TD62597AFN(EL)
IC9	1110002690	S.IC	NJM2903M-T1
IC10	1130003920	S.IC	TC4S69F (TE85R)
IC11	1130007700	S.IC	BU4094BCF-T1
IC12	1160000130	S.IC	TD62783AF (TP1)
IC13	1180001070	S.IC	TA7805F(TE16L)
IC14	1120002300	S.IC	TC74AC04F
Q5	1560000870	S.FET	2SK515-T1B (X33)
Q12	1590000680	S.TRANSISTOR	DTC114EU T107
Q13	1590001330	S.TRANSISTOR	DTA114EU T107
Q14	1590000680	S.TRANSISTOR	DTC114EU T107
Q15	1590001330	S.TRANSISTOR	DTA114EU T107
Q16	1590000680	S.TRANSISTOR	DTC114EU T107
Q17	1590001330	S.TRANSISTOR	DTA114EU T107
Q21	1590000680	S.TRANSISTOR	DTC114EU T107
Q22	1590001330	S.TRANSISTOR	DTA114EU T107
Q23	1590000680	S.TRANSISTOR	DTC114EU T107
Q24	1590001330	S.TRANSISTOR	DTA114EU T107
Q25	1530003090	S.TRANSISTOR	2SC4213-B (TE85R)
D1	1790000490	S.DIODE	HSM88AS-TR
D2	1790000490	S.DIODE	HSM88AS-TR
D3	1750000200	S.DIODE	1SS319 (TE85R)
D4	1750000120	S.DIODE	DWA010-TE
D5	1790000690	S.DIODE	HSM88ASR-TR
D6	1790000490	S.DIODE	HSM88AS-TR
D7	1790000490	S.DIODE	HSM88AS-TR
D8	1790000490	S.DIODE	HSM88AS-TR
D9	1790000490	S.DIODE	HSM88AS-TR
D10	1750000120	S.DIODE	DWA010-TE
D11	1730000410	S.ZENER	RD5.1M-T2B2
D12	1730000030	S.ZENER	RD5.6M-T2B2
D13	1710000780	S.DIODE	MA114(TX)
D15	1790000490	S.DIODE	HSM88AS-TR
D16	1750000270	S.DIODE	1SS301 (TE85R)
D17	1750000270	S.DIODE	1SS301 (TE85R)
D18	1750000270	S.DIODE	1SS301 (TE85R)
D20	1750000270	S.DIODE	1SS301 (TE85R)
D22	1790000620	S.DIODE	MA77(TW)
X1	6050009890	S.XTAL	CR-569 (6.144 MHz)
L1	6140003270	COIL	LR-364
L2	6200001830	S.COIL	NL 322522T-100J
L3	6200003260	S.COIL	NL 322522T-101J
L4	6140003270	COIL	LR-364
L5	6180001220	COIL	LAL 04NA 100K
L8	6140003270	COIL	LR-364
L9	6180000450	COIL	RFC L6 222K
L10	6200003260	S.COIL	NL 322522T-101J
L11	6200003260	S.COIL	NL 322522T-101J
L13	6180000990	COIL	LAL 04NA 101K
L14	6180000900	COIL	LAL 03NA 101K
L15	6180000900	COIL	LAL 03NA 101K
L16	6180000900	COIL	LAL 03NA 101K
L17	6180000900	COIL	LAL 03NA 101K
L18	6180000900	COIL	LAL 03NA 101K
L19	6180000900	COIL	LAL 03NA 101K
L20	6180000900	COIL	LAL 03NA 101K
L21	6180000900	COIL	LAL 03NA 101K
L22	6140003270	COIL	LR-364
L25	6200003260	S.COIL	NL 322522T-101J
L27	6110001630	COIL	LA-246
L28	6110001560	COIL	LA-236
L29	2040000490	COIL	EXC-ELDR25C
L30	2040000490	COIL	EXC-ELDR25C
L31	2040000490	COIL	EXC-ELDR25C
L32	2040000490	COIL	EXC-ELDR25C
L33	6200003260	S.COIL	NL 322522T-101J
L34	6200003260	S.COIL	NL 322522T-101J

[CTRL UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
R1	7030007130	S.RESISTOR	ERJ1WYJ150H (15 Ω)
R2	7030007130	S.RESISTOR	ERJ1WYJ150H (15 Ω)
R3	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R4	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R5	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R6	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R7	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R8	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R9	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R10	7030003790	S.RESISTOR	ERJ3GEYJ 824 V (820 kΩ)
R13	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R14	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R15	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R16	7030006540	S.RESISTOR	ERJ1WYJ330H (33 Ω)
R17	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R26	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R27	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R28	7030003500	S.RESISTOR	ERJ3GEYJ 332 V (3.3 kΩ)
R29	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R30	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R31	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R32	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R33	7030003530	S.RESISTOR	ERJ3GEYJ 562 V (5.6 kΩ)
R34	7030003530	S.RESISTOR	ERJ3GEYJ 562 V (5.6 kΩ)
R35	7030003670	S.RESISTOR	ERJ3GEYJ 823 V (82 kΩ)
R36	7030003820	S.RESISTOR	ERJ3GEYJ 155 V (1.5 MΩ)
R37	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R38	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R39	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R40	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R41	7030008040	S.RESISTOR	ERJ1WYJ820H (82 Ω)
R42	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R43	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R44	7030003800	S.RESISTOR	ERJ3GEYJ 105 V (1 MΩ)
R45	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R46	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R47	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R48	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R49	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R50	7030003540	S.RESISTOR	ERJ3GEYJ 682 V (6.8 kΩ)
R51	7030003540	S.RESISTOR	ERJ3GEYJ 682 V (6.8 kΩ)
R52	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R53	7030003820	S.RESISTOR	ERJ3GEYJ 155 V (1.5 MΩ)
R54	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R55	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R56	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R57	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R58	7540000130	ABSORBER	2P-50A-301
R59	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R60	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R61	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R62	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R63	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R64	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R65	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R66	7030003650	S.RESISTOR	ERJ3GEYJ 563 V (56 kΩ)
R67	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R69	7030003320	S.RESISTOR	ERJ3GEYJ 101 V (100 Ω)
R71	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R76	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R83	7030007130	S.RESISTOR	ERJ1WYJ150H (15 Ω)
R84	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R86	7030003710	S.RESISTOR	ERJ3GEYJ 184 V (180 kΩ)
R87	7030003660	S.RESISTOR	ERJ3GEYJ 683 V (68 kΩ)
R88	7030003660	S.RESISTOR	ERJ3GEYJ 683 V (68 kΩ)
R89	7030003840	S.RESISTOR	ERJ3GEYJ 225 V (2.2 MΩ)
R90	7030003720	S.RESISTOR	ERJ3GEYJ 224 V (220 kΩ)
R92	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R93	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R98	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R99	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R100	7030003660	S.RESISTOR	ERJ3GEYJ 683 V (68 kΩ)
R101	7030003660	S.RESISTOR	ERJ3GEYJ 683 V (68 kΩ)
R102	7030003570	S.RESISTOR	ERJ3GEYJ 123 V (12 kΩ)
R103	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R105	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R106	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R107	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R108	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R109	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R110	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R111	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)

S.=Surface mount

[CTRL UNIT]

REF NO.	ORDER NO.		DESCRIPTION
R112	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R113	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R114	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R115	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R116	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R117	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R118	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R119	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R120	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R121	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R122	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R123	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R124	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R125	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R126	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R127	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R128	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R129	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R130	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R131	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R132	7030003200	S.RESISTOR	ERJ3GEYJ 100 V (10 Ω)
R136	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R137	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R138	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R139	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R140	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R141	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R142	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R143	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R144	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R145	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R146	7030003280	S.RESISTOR	ERJ3GEYJ 470 V (47 Ω)
R147	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R148	7030003640	S.RESISTOR	ERJ3GEYJ 473 V (47 kΩ)
R149	7030003680	S.RESISTOR	ERJ3GEYJ 104 V (100 kΩ)
R150	7030003390	S.RESISTOR	ERJ3GEYJ 391 V (390 Ω)
R151	7030003430	S.RESISTOR	ERJ3GEYJ 821 V (820 Ω)
R152	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R153	7030003520	S.RESISTOR	ERJ3GEYJ 472 V (4.7 kΩ)
R154	7030003480	S.RESISTOR	ERJ3GEYJ 222 V (2.2 kΩ)
R155	7030003390	S.RESISTOR	ERJ3GEYJ 391 V (390 Ω)
C1	4010005530	CERAMIC	HM60SJ SL 020C 500V
C2	4030007110	S.CERAMIC	C1608 CH 1H 680J-T-A
C3	4610001260	S.TRIMMER	ECR-JA020 E12W
C4	4010005530	CERAMIC	HM60SJ SL 020C 500V
C5	4030011540	S.CERAMIC	C1608 CH 1H 750J-T-A
C6	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C7	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C8	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C9	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C10	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C11	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C12	4010005540	CERAMIC	HM60SJ SL 030C 500V
C13	4030007070	S.CERAMIC	C1608 CH 1H 330J-T-A
C14	4030007070	S.CERAMIC	C1608 CH 1H 330J-T-A
C15	4030007070	S.CERAMIC	C1608 CH 1H 330J-T-A
C16	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C17	4030007120	S.CERAMIC	C1608 CH 1H 820J-T-A
C20	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C21	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C22	4550003120	S.TANTALUM	TEMSVD2 1A 476M-12L
C23	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C24	4030007170	S.CERAMIC	C1608 CH 1H 221J-T-A
C25	4030007170	S.CERAMIC	C1608 CH 1H 221J-T-A
C26	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C27	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C30	4030007170	S.CERAMIC	C1608 CH 1H 221J-T-A
C31	4030011340	S.CERAMIC	C1608 CH 1H 471J-T-A
C32	4010005520	CERAMIC	HM60SJ SL 010C 500V
C33	4030007110	S.CERAMIC	C1608 CH 1H 680J-T-A
C34	4030007120	S.CERAMIC	C1608 CH 1H 820J-T-A
C35	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C36	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C37	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C38	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C39	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C40	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C43	4030007170	S.CERAMIC	C1608 CH 1H 221J-T-A
C44	4030011340	S.CERAMIC	C1608 CH 1H 471J-T-A
C45	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N

[CTRL UNIT]

REF NO.	ORDER NO.		DESCRIPTION
C46	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C47	4030009990	S.CERAMIC	C1608 CH 1H 200J-T-A
C48	4030009990	S.CERAMIC	C1608 CH 1H 200J-T-A
C49	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C51	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C52	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C53	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C54	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C55	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C56	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C57	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C58	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C59	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C60	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C62	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C63	4030007090	S.CERAMIC	C1608 CH 1H 470J-T-A
C64	4030007030	S.CERAMIC	C1608 CH 1H 150J-T-A
C65	4030007120	S.CERAMIC	C1608 CH 1H 820J-T-A
C66	4030007070	S.CERAMIC	C1608 CH 1H 330J-T-A
C69	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C70	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C71	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C72	4510006260	S.ELECTROLYTIC	ECEV1AA471UP
C73	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C74	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C75	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C76	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C77	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C78	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C79	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C80	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C81	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C82	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C83	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C84	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C85	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C86	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C87	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C88	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C89	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C90	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C91	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C92	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C93	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C94	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C95	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C96	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C97	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C98	4510006220	S.ELECTROLYTIC	ECEV1CA101UP
C99	4030007010	S.CERAMIC	C1608 CH 1H 100D-T-A
C100	4030007130	S.CERAMIC	C1608 CH 1H 101J-T-A
C101	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C102	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C105	4030011540	S.CERAMIC	C1608 CH 1H 750J-T-A
C107	4010005580	CERAMIC	HM60SJ SL 070D 500V
C108	4010005560	CERAMIC	HM60SJ SL 050C 500V
C109	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C209	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
C210	4030006900	S.CERAMIC	C1608 JB 1E 103K-T-A
RL1	6330001450	RELAY	FXE-12G
RL2	6330001450	RELAY	FXE-12G
RL3	6330000800	RELAY	G5A-237P DC12V
RL4	6330000470	RELAY	NR-HD (12V) AE5343
J1	6510007900	CONNECTOR	TBP-P01X-A1
J2	6510007900	CONNECTOR	TBP-P01X-A1
J3	6510003250	CONNECTOR	TMP-J01X-A2
J4	6510003250	CONNECTOR	TMP-J01X-A2
J7	6510019990	S.CONNECTOR	52808-2290
J8	6510019990	S.CONNECTOR	52808-2290
J10	6510003410	CONNECTOR	B05B-EH-S
J11	6510003410	CONNECTOR	B05B-EH-S
J12	6910001040	CONNECTOR	IPS-1136
J13	6510019970	S.CONNECTOR	52808-1090
W1	7120000010	JUMPER	JPW 02A
W2	7120000010	JUMPER	JPW 02A
W3	7120000010	JUMPER	JPW 02A

S.=Surface mount

[CTRL UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
W4	7030003860	S.JUMPER	ERJ3GE JPW V
WS1	8970022680	CABLE	(2)/CT
EP1	0910048205	PCB	B 4858E

[PA UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
IC1	1180001070	S.IC	TA7805F(TE16L)
IC2	1110002020	IC	TA7805S
IC3	1110002030	IC	TA7808S
Q1	1530000790	TRANSISTOR	2SC1971
Q2	1530000800	TRANSISTOR	2SC1972
Q3	1530000800	TRANSISTOR	2SC1972
Q4	1530000880	TRANSISTOR	2SC2694
Q5	1530000880	TRANSISTOR	2SC2694
Q8	1540000200	TRANSISTOR	2SD1406 Y
Q9	1590001150	S.TRANSISTOR	UN9211(TX)
Q10	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q11	1530002060	S.TRANSISTOR	2SC4081 T107 R
Q12	1520000650	S.TRANSISTOR	2SB1201-S-TL
Q13	1520000650	S.TRANSISTOR	2SB1201-S-TL
D1	1790000710	VARISTOR	MA29B
D2	1790000710	VARISTOR	MA29B
D3	1790000710	VARISTOR	MA29B
D4	1790000700	DIODE	DSA3A1
D5	1790000700	DIODE	DSA3A1
D7	1160000140	S.DIODE	DAP222 TL
D8	1790000700	DIODE	DSA3A1
D9	1160000140	S.DIODE	DAP222 TL
D10	1710000030	DIODE	1S1555
L1	6140003240	S.COIL	LR-361
L2	2040000490	COIL	EXC-ELDR25C
L3	2040000490	COIL	EXC-ELDR25C
L4	6140002980	COIL	LR-143
L5	2040000490	COIL	EXC-ELDR25C
L6	6140003280	COIL	LR-368
L7	6140000610	COIL	LR-83
L8	6140002030	COIL	LR-230
L9	2040000490	COIL	EXC-ELDR25C
L10	2040000490	COIL	EXC-ELDR25C
L12	2040000490	COIL	EXC-ELDR25C
L14	6140003230	S.COIL	LR-360
L21	6110001730	COIL	LA-262
L22	2040000490	COIL	EXC-ELDR25C
R1	7030003380	S.RESISTOR	ERJ3GEYJ 331 V (330 Ω)
R2	7030003230	S.RESISTOR	ERJ3GEYJ 180 V (18 Ω)
R3	7030003380	S.RESISTOR	ERJ3GEYJ 331 V (330 Ω)
R4	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R5	7030003390	S.RESISTOR	ERJ3GEYJ 391 V (390 Ω)
R6	7030003360	S.RESISTOR	ERJ3GEYJ 221 V (220 Ω)
R7	7030006210	S.RESISTOR	ERJ12YJ4R7H (4.7 Ω)
R8	7030008230	S.RESISTOR	ERJ1WYJ1R0H (1 Ω)
R9	7030008230	S.RESISTOR	ERJ1WYJ1R0H (1 Ω)
R10	7030003420	S.RESISTOR	ERJ3GEYJ 681 V (680 Ω)
R11	7310003750	TRIMMER	EVN-2ACA00 B52 (501)
R12	7030003300	S.RESISTOR	ERJ3GEYJ 680 V (68 Ω)
R13	7030000260	S.RESISTOR	MCR10EZJH 100 Ω (101)
R14	7030000260	S.RESISTOR	MCR10EZJH 100 Ω (101)
R15	7030006180	S.RESISTOR	ERJ1WYJ101H (100 Ω)
R16	7030006180	S.RESISTOR	ERJ1WYJ101H (100 Ω)
R17	7030006130	S.RESISTOR	ERJ1WYJ100H (10 Ω)
R18	7310003240	TRIMMER	EVN-2ACA00 B23 (202)
R19	7030003400	S.RESISTOR	ERJ3GEYJ 471 V (470 Ω)
R20	7030006120	S.RESISTOR	ERJ1WYJ4R7H (4.7 Ω)
R21	7030006120	S.RESISTOR	ERJ1WYJ4R7H (4.7 Ω)

[PA UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
R23	7030006120	S.RESISTOR	ERJ1WYJ4R7H (4.7 Ω)
R24	7030006120	S.RESISTOR	ERJ1WYJ4R7H (4.7 Ω)
R26	7030006060	S.RESISTOR	ERJ12YJ100H (10 Ω)
R27	7030006060	S.RESISTOR	ERJ12YJ100H (10 Ω)
R28	7100000640	RESISTOR	5 SI 0.012 Ω (J)
R29	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R31	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R32	7030007630	S.RESISTOR	MCR100JZHJ 0.68 Ω (R68)
R33	7030007630	S.RESISTOR	MCR100JZHJ 0.68 Ω (R68)
R34	7030007630	S.RESISTOR	MCR100JZHJ 0.68 Ω (R68)
R35	7030007630	S.RESISTOR	MCR100JZHJ 0.68 Ω (R68)
R38	7070000250	RESISTOR	CRH200 R-02J 4.7 Ω
R41	7030008000	S.RESISTOR	ERJ1WYJ3R3H (3.3 Ω)
R42	7030008000	S.RESISTOR	ERJ1WYJ3R3H (3.3 Ω)
R44	7070000681	RESISTOR	ERX3SJ 3R9 (3.9 Ω)
R45	7030005340	S.RESISTOR	RR0816P-332-D (3.3 kΩ)
R46	7030008070	S.RESISTOR	RR0816P-273-D (27 kΩ)
R47	7030005980	S.RESISTOR	RR0816P-333-D (33 kΩ)
R48	7030008060	S.RESISTOR	RR0816P-222-D (2.2 kΩ)
R49	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R50	7510000070	THERMISTOR	ERT-D2FHL 503S
R51	7030006140	S.RESISTOR	ERJ1WYJ560H (56 Ω)
R52	7030006060	S.RESISTOR	ERJ12YJ100H (10 Ω)
R53	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R54	7030003440	S.RESISTOR	ERJ3GEYJ 102 V (1 kΩ)
R55	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R56	7030003560	S.RESISTOR	ERJ3GEYJ 103 V (10 kΩ)
R57	7030006070	S.RESISTOR	ERJ12YJ101H (100 Ω)
C1	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C2	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C3	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C4	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C5	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C6	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C7	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C8	4510004640	S.ELECTROLYTIC	ECEV1CA470SP
C9	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C10	4010006350	CERAMIC	HE80SJ SL 301J 50V
C11	4030001190	S.CERAMIC	GRM42-6 B 472K 50PT
C12	4030001190	S.CERAMIC	GRM42-6 B 472K 50PT
C14	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C15	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C16	4510004640	S.ELECTROLYTIC	ECEV1CA470SP
C17	4040000690	BARRIERLAYR	UAT 08X 473K
C18	4040000690	BARRIERLAYR	UAT 08X 473K
C20	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C21	4030011760	S.CERAMIC	GRM44-1 SL 682J 200PT
C23	4030011760	S.CERAMIC	GRM44-1 SL 682J 200PT
C25	4320001050	S.MICA	UC342H 3900J-T
C27	4040000690	BARRIERLAYR	UAT 08X 473K
C30	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C33	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C34	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C35	4030005110	S.CERAMIC	C2012 JB 1E 473K-T-A
C36	4510004600	ELECTROLYTIC	16 MV 1000 HC
C37	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C39	4510004600	ELECTROLYTIC	16 MV 1000 HC
C40	4510004600	ELECTROLYTIC	16 MV 1000 HC
C41	4030006860	S.CERAMIC	C1608 JB 1H 102K-T-A
C42	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C43	4030011730	S.CERAMIC	GRM42-6 CH 101J 500PT
C44	4030011730	S.CERAMIC	GRM42-6 CH 101J 500PT
C45	4030011730	S.CERAMIC	GRM42-6 CH 101J 500PT
C46	4030011730	S.CERAMIC	GRM42-6 CH 101J 500PT
C47	4010005820	CERAMIC	HM745J SL 121J 500V
C57	4320001080	S.MICA	UC342H 4700J-T
C58	4010005930	CERAMIC	HM115J SL 391J 500V
C71	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C72	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C73	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C74	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C75	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C76	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C77	4510006220	S.ELECTROLYTIC	ECEV1CA101UP
C78	4510006220	S.ELECTROLYTIC	ECEV1CA101UP
C79	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C80	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C81	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C82	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C89	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N

S.=Surface mount

[PA UNIT]

REF NO.	ORDER NO.	DESCRIPTION	
C93	4030011600	S.CERAMIC	C1608 JB 1C 104KT-N
C94	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C95	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C96	4510005000	ELECTROLYTIC	16 MV 220 HC
C97	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C99	4510004590	ELECTROLYTIC	16 MV 470 HC
C100	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C101	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C102	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C103	4510004630	S.ELECTROLYTIC	ECEV1CA100SR
C104	4010005930	CERAMIC	HM11SJ SL 391J 500V
C105	4510006220	S.ELECTROLYTIC	ECEV1CA101UP
C107	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C108	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C109	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C110	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C111	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C112	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C113	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C114	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
C115	4030006880	S.CERAMIC	C1608 JB 1H 472K-T-A
RL1	6330001160	RELAY	AJV5341(JV1AP-DC12V)
F1	5210000060	FUSE	FGB 5A
F2	5220000230	HOLDER	S-N5054
F3	5220000230	HOLDER	S-N5054
J1	6510007900	CONNECTOR	TBP-P01X-A1
J2	6510007900	CONNECTOR	TBP-P01X-A1
J3	6510020000	S.CONNECTOR	52808-3090
J10	6510003080	CONNECTOR	RT01T-1.0B
J11	6510018960	S.CONNECTOR	B2B-PH-SM3-TB
WS1	8970022700	CABLE	(2)/PA
WS2	8970022760	CABLE	(1)/PA
EP1	0910048186	PCB	B 4856F
EP2	6910000610	BEAD	FSOH050RN01
EP3	6910000610	BEAD	FSOH050RN01
EP4	6510018330	TERMINAL	F4053A
EP5	6510018330	TERMINAL	F4053A
EP8	9021002002	TUBE	IRRAX 1.5(d) L=10 mm
EP9	9021002002	TUBE	IRRAX 1.5(d) L=10 mm
EP10	9006400002	TUBE	IRRAX 1.5(d) L=21 mm
EP11	9034701901	TUBE	IRRAX 0.7(d) L=20 mm

S.=Surface mount

SECTION 7 MECHANICAL PARTS

[FRONT UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
DS1	5030001420	DG041Z-5DC	1
EP1	6910011090	Sensor unit RMS20-250-201-P	1
EP2	6450001230	Plate HLJ0999-01-480	1
EP3	6450001230	Plate HLJ0999-01-480	1
ME1	5510000410	Meter ME-33	1
MP1	8210013960	1876 front panel	1
MP2	8010016720	1876 sub chassis	1
MP3	8930041380	1876 window plate	1
MP4	8930041270	1876 power button	1
MP5	8930041290	1876 4-key	1
MP6	8930041260	1876 key board	1
MP7	8930041310	1876 7-key	1
MP8	8930041300	1876 5-key	1
MP9	8930041320	1876 10-key	1
MP10	8930041280	1876 2-key	1
MP11	8610010250	Knob N251	4
MP12	8610010260	Knob N252	4
MP13	8610010270	Knob N253	1
MP14	8610008570	Knob N96 (A)	1
MP15	8930041390	1876 D-rubber	1
MP19	8310039440	1876 name plate	1
MP20	8930041060	1876 brake plate	1
MP21	8930027470	1296 brake pad	1
MP23	8810008660	PH BT M3 x 8 NI-ZU	6
MP24	8810008760	PH BT M2 x 8 NI-ZU	1
MP25	8810008760	PH BT M2 x 8 NI-ZU	2
MP26	8810008810	PH BT M2 x 6 NI-ZU	6
MP27	8810008810	PH BT M2 x 6 NI-ZU	6
MP28	8810003960	Setscrew A M2.6 x 5	2
MP29	8820000770	1296 screw	1
MP30	8810009390	PH BT M3 x 18 NI-ZU	1
MP34	8810003540	Hex screw M4 x 6 ZK	1
MP35	8810008630	PH BT M3 x 6 NI-ZU	2
MP38	8930027460	1296 knob sheet	1
MP40	8810008760	PH BT M2 x 8 NI-ZU	2
MP41	8810008760	PH BT M2 x 8 NI-ZU	2
MP43	8930042810	1876 LCD cover	1
MP44	8850001650	Insulation flat washer (U)	2

[SUB-LOGIC UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
R252	7210002890	Variable register RV-308	1
R256	7210002890	Variable register RV-308	1
MP1	8510001080	Shield case (A)	1
MP2	8510001101	Shield case cover(A) -1	1
MP3	8510005980	724 shield case	1
MP4	8510005990	724 shield case cover	1
MP5	8510005980	724 shield case	1
MP6	8510005990	724 shield case cover	1
MP7	8210013980	1876 reflector	1

[PBT BOARD]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
R1	7210002970	Variable register RV-314	1
R2	7210002960	Variable register RV-313	1

[RIT BOARD]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
S1	2250000340	Encoder EVQ-VCJF0324B	1

[PHONE BOARD]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
J2	6450001530	Connector HLJ5815-01-4030	1

[KEY BOARD]

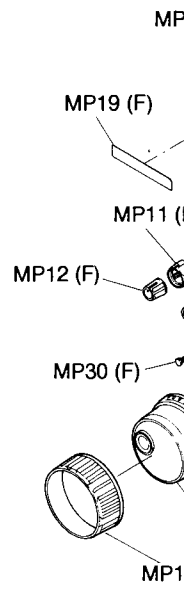
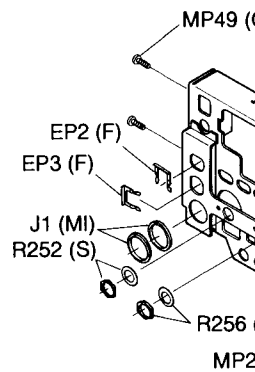
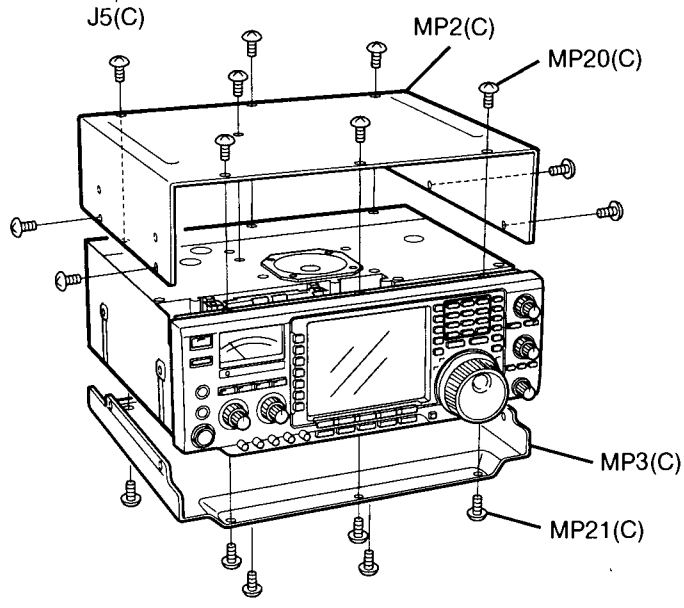
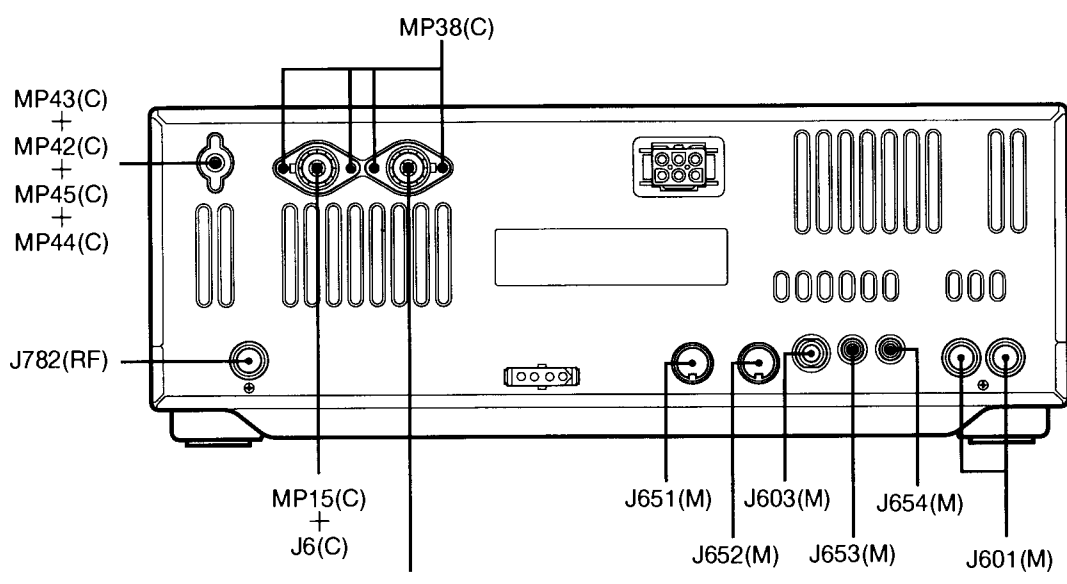
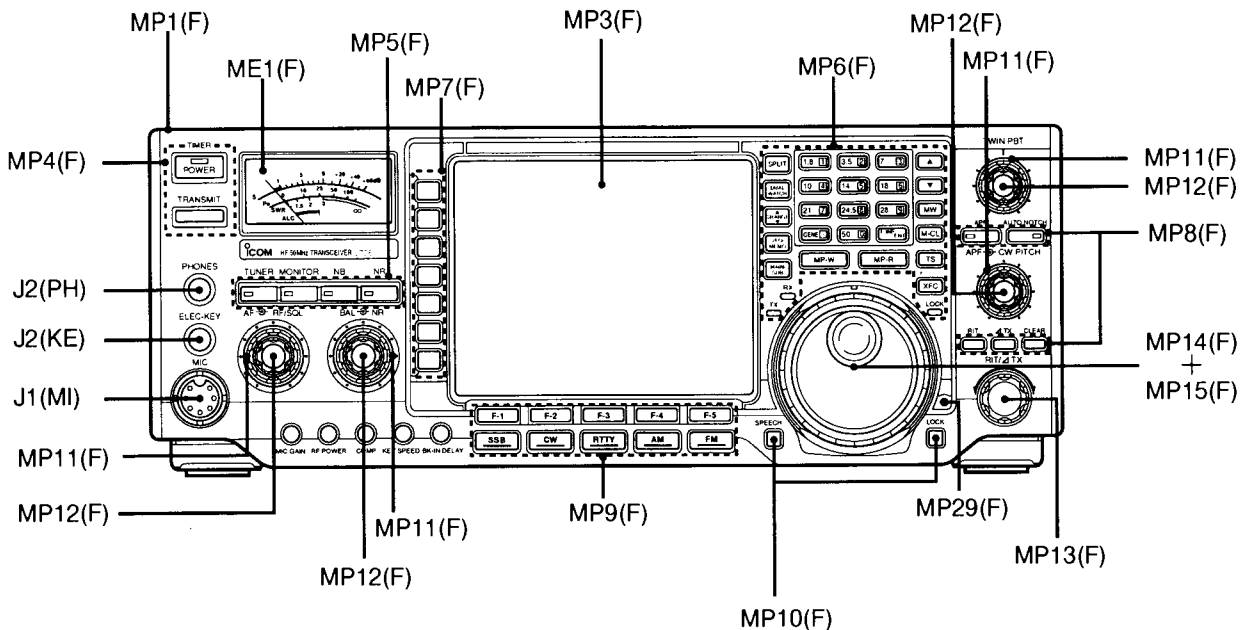
REF. NO.	ORDER NO.	DESCRIPTION	QTY.
J2	6450001790	Connector HLJ7000-01-3010	1

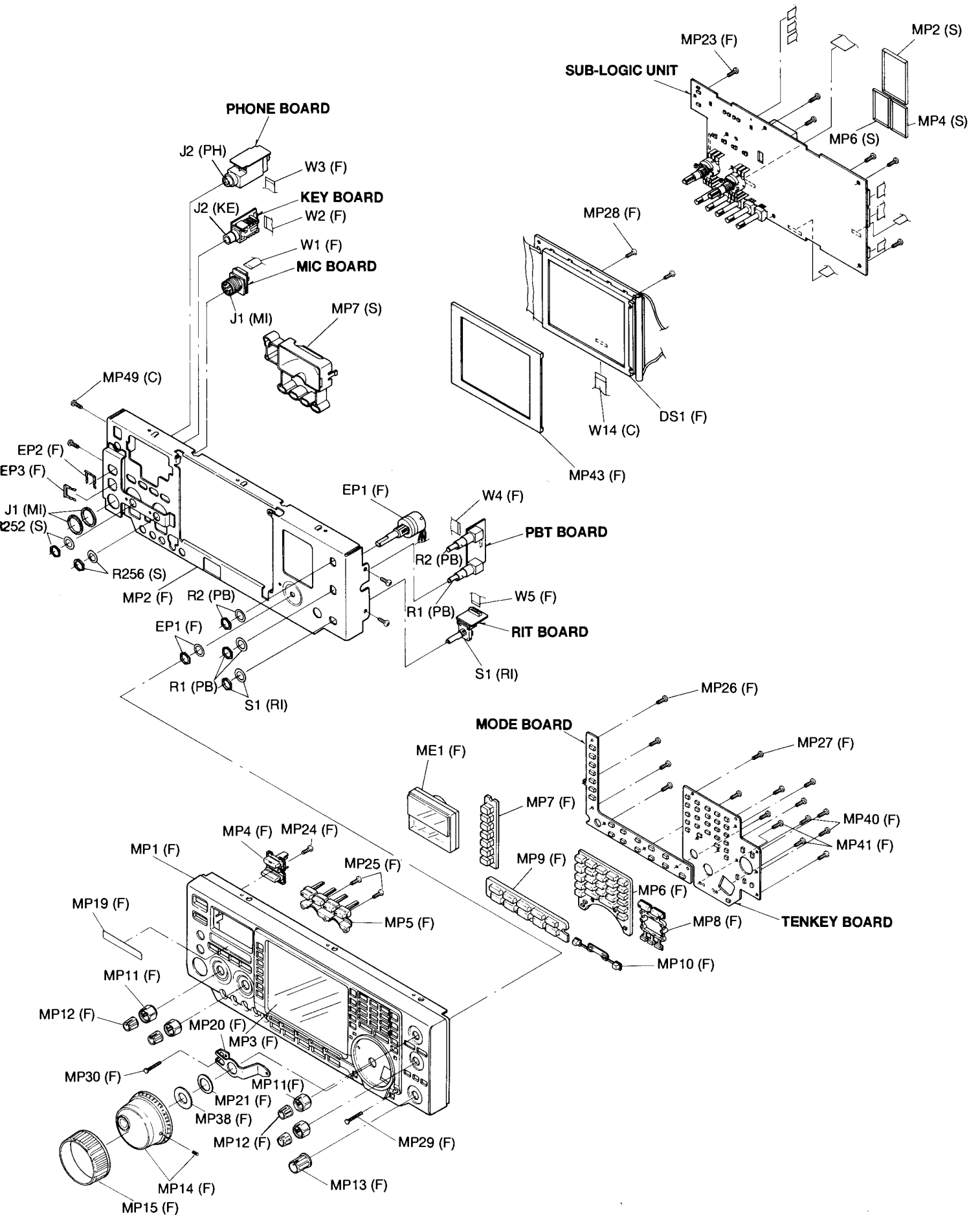
[MIC BOARD]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
J1	6510000190	Connector FM214-8SS (P)	1

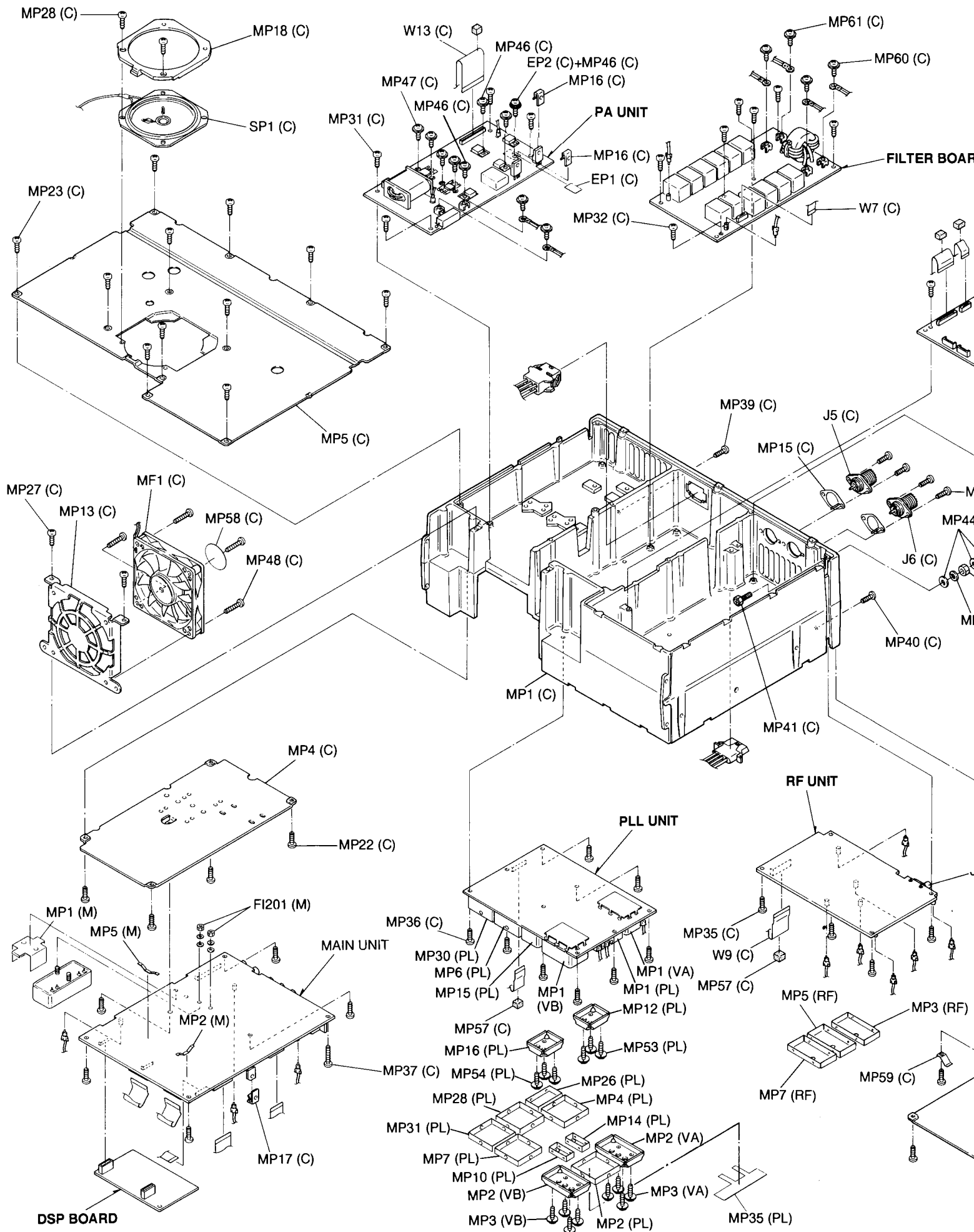
[CHASSIS PARTS]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
J5	6510000370	Connector MR-DS	1
J6	6510000370	Connector MR-DS	1
EP1	6910000340	Insulation sheet P101(KD)	1
EP2	6910000310	B312D insulation washer	1
MF1	2710000630	Fan FBA08T12HC	1
SP1	2510000760	SM-77KY0208	1
MP1	8410002041	1876 heatsink-1	1
MP2	8110005931	1876 T-cover -1	1
MP3	8110005921	1876 L-cover -1	1
MP4	8930041100	1876 A-plate	1
MP5	8510010730	1876 B-plate	1
MP6	8510010740	1876 C-plate	1
MP7	8510010750	1876 D-plate	1
MP8	8930041350	1876 main stand	2
MP9	8930041340	1876 sub stand	2
MP11	8930002910	Rubber foot (B)	2
MP12	8930002910	Rubber foot (B)	2
MP13	8930029730	1413 fan holder	1
MP15	8930037000	1691 earth plate	2
MP16	8930018520	TR crip (A)	2
MP17	8930018520	TR crip (A)	1
MP18	8930034480	1528 SP rubber	1
MP20	8810005770	Screw BiH M3 x 8 ZK	11
MP21	8810005770	Screw BiH M3 x 8 ZK	6
MP22	8810008660	Screw PH BT M3 x 8 NI-ZU	4
MP23	8810008660	Screw PH BT M3 x 8 NI-ZU	11
MP24	8810008660	Screw PH BT M3 x 8 NI-ZU	3
MP25	8810008660	Screw PH BT M3 x 8 NI-ZU	6





Unit abbreviations (F): FRONT UNIT (C): CHASSIS PARTS (PB): PBT BOARD
 (RI): RIT BOARD (S): SUB-LOGIC UNIT (MI): MIC BOARD
 (KE): KEY BOARD (PH): PHONE BOARD (RF): RF UNIT
 (M): MAIN UNIT



Unit abbreviations (C): CHASSIS PARTS (M): MAIN UNIT (RF): RF UNIT (T): TUNER UNIT
 (PL): PLL UNIT (VA): VCO-A BOARD (VB): VCO-B BOARD

[CHASSIS PARTS]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
MP26	8810008660	Screw PH BT M3 x 8 NI-ZU	2
MP27	8810008660	Screw PH BT M3 x 8 NI-ZU	2
MP28	8810008660	Screw PH BT M3 x 8 NI-ZU	2
MP29	8810001650	Screw PH FT M3 x 6	2
MP30	8810001650	Screw PH FT M3 x 6	2
MP31	8810008660	Screw PH BT M3 x 8 NI-ZU	4
MP32	8810008660	Screw PH BT M3 x 8 NI-ZU	7
MP33	8810008660	Screw PH BT M3 x 8 NI-ZU	5
MP34	8810008660	Screw PH BT M3 x 8 NI-ZU	4
MP35	8810008660	Screw PH BT M3 x 8 NI-ZU	4
MP36	8810008660	Screw PH BT M3 x 8 NI-ZU	8
MP37	8810008660	Screw PH BT M3 x 8 NI-ZU	6
MP38	8810008660	Screw PH BT M3 x 8 NI-ZU	4
MP39	8810008660	Screw PH BT M3 x 8 NI-ZU	1
MP40	8810008660	Screw PH BT M3 x 8 NI-ZU	1
MP41	8810008160	Hex volt M5 x 18 NI (+)	1
MP42	8830000210	Nut M 5 NI BS	1
MP43	8830000360	Wing nut M 5 NI	1
MP44	8850000150	Flat washer M 5 NI BS	3
MP45	8850000440	Spring washer M 5 NI	1
MP46	8810003170	Setscrew A M3 x 8	4
MP47	8810003170	Setscrew A M3 x 8	4
MP48	8810000420	Screw PH M4 x 18	4
MP49	8810009310	FH BT M3 x 6 NI-ZU	4
MP50	8930043340	Sheet	2
MP51	8930042690	Rubber foot (L) (FF-024-A4)	2
MP53	8010016950	1876 carrying handle	1
MP56	8810003080	OH M4 x 12 CR BS	2
MP57	8930027900	Sponge (DD)	2
MP58	8930038820	Alumi sheet (V)	1
MP59	8930001170	Earth spring (A)	1
MP60	8810003160	Setscrew A M3 x 6 [EUR], [FRA]	2
MP61	8810003160	Setscrew A M3 x 6	2
MP62	8810003160	Setscrew A M3 x 6 except [EUR], [FRA]	2
MP63	8810003160	Setscrew A M3 x 6	2
MP64	8930001880	Sponge (C)	1
MP65	8930043281	Sponge (EW)-1	1

[MAIN UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
MP1	8930011820	455 filter holder	1
MP2	8930014140	Earth spring (D)	1
MP3	8930043300	Rubber sheet (AG)	1
MP4	8930043500	1876 FL sheet [FRA], [DEN]	1
MP5	8930014140	Earth spring (D)	1

[TUNER UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
MF1	2710000460	Motor MP28GA	1
MF2	2710000460	Motor MP28GA	1
MP1	8930041090	1876 A-angle	1
MP2	8810008660	PH BT M3 x 8 NI-ZU	1
MP3	8810009060	FH M3 x 6 ZK	4
MP4	8930041110	1876 B-angle	1
MP5	8810009060	FH M3 x 6 ZK	2
MP6	8820000880	1528 screw	4
MP7	8930030111	1414 plate-1	2
MP8	8950003200	UJ6-5 (universal couplings)	2
MP9	8850001670	Insulation flat washer (V)	4

[RF UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
J782	6450001800	Connector JPJ1044-01-010	1
MP1	8510002020	MIX shield case	1
MP2	8510000230	220 shield case	1
MP3	8510000241	220 shield case cover-1	1
MP4	8510000230	220 shield case	1
MP5	8510000241	220 shield case cover-1	1
MP6	8510000230	220 shield case	1
MP7	8510000241	220 shield case cover-1	1

[PLL UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
MP1	8510010760	1876 DDS case	1
MP2	8510010770	1876 DDS cover	1
MP3	8510010760	1876 DDS case	1
MP4	8510010770	1876 DDS cover	1
MP5	8510005330	Coil case	1
MP6	8510010760	1876 DDS case	1
MP7	8510010770	1876 DDS cover	1
MP8	8510005330	Coil case	1
MP9	8510005150	602 shield case	1
MP10	8510005160	602 shield case cover	1
MP11	8510010050	1691 shield case	1
MP12	8510010060	1691 shield cover	1
MP13	8510005150	602 shield case	1
MP14	8510005160	602 shield case cover	1
MP15	8510010050	1691 shield case	1
MP16	8510010060	1691 shield cover	1
MP19	8510005330	Coil case	1
MP22	8510005330	Coil case	1
MP25	8510005980	724 shield case	1
MP26	8510005990	724 shield case cover	1
MP27	8510010760	1876 DDS case	1
MP28	8510010770	1876 DDS cover	1
MP29	8510005330	Coil case	1
MP30	8510010760	1876 DDS case	1
MP31	8510010770	1876 DDS cover	1
MP32	8510005330	Coil case	1
MP33	8510005330	Coil case	1
MP34	8930014140	Earth spring (D)	1
MP35	8930043060	1876 earth plate	1
MP53	8810003960	Setscrew A M2.6 x 5	3
MP54	8810003960	Setscrew A M2.6 x 5	3
MP55	8930014140	Earth spring (D)	1

[VCO-A,B BOARD]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
MP1	8510010970	1876 VCO case	1
MP2	8510010980	1876 VCO cover	1
MP3	8810004750	Setscrew A M2.6 x 4	4

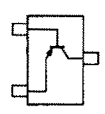
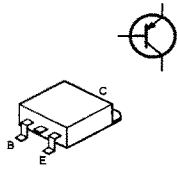
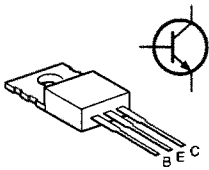
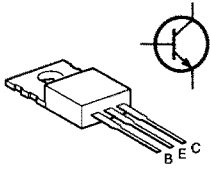
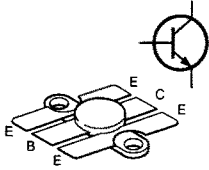
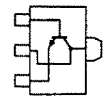
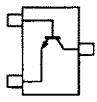
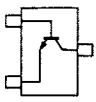
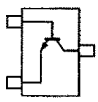
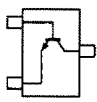
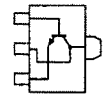
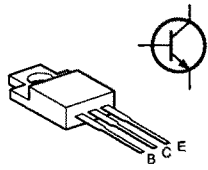
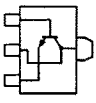
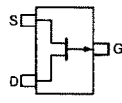
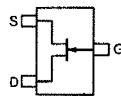
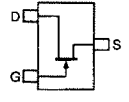
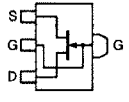
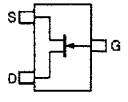
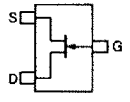
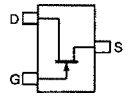
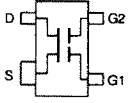
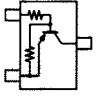
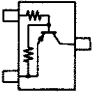
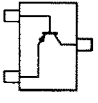
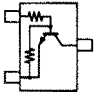
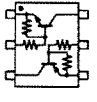
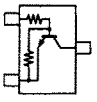
[UNPACKING]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
F1	5210000080	Fuse FGB 20A	2
F2	5210000060	Fuse FGB 5A	1
W1	Optional product	DC power cable OPC-025 A	1
MC1	Optional product	Hand microphone HM-36	1


















Screw abbreviations BT: Self-tapping FT: Self-tapping
 PH: Pan head FH: Flat head
 BiH: Bind head NI-ZU: Nickel-zinc
 NI: Nickel BS: Brass ZK: Black

SECTION 8 SEMI-CONDUCTOR INFORMATION

• TRANSISTOR AND FET'S

2SA1576 R (Symbol: FR) 	2SB1201 S (Symbol: B1201) 	2SC1971 	2SC1972 	2SC2694 
2SC3647S (Symbol: CC) 	2SC4081 R (Symbol: BR) 	2SC4213 B (Symbol: AB) 	2SC4403 3 (Symbol: LY3) 	2SC4405 3 TL (Symbol: OY3) 
2SC4673D (Symbol: CO) 	2SD1406 	2SD1619 (Symbol: DB) 	2SJ144 GR (Symbol: VG) 	2SK1740 (Symbol: IJ) 
2SK210 GR (Symbol: YG) 	2SK2171 4 (No symbol) 	2SK508 K52 (Symbol: K52) 	2SK515 (Symbol: X33) 	2SK882 GR (Symbol: TG) 
3SK131 (Symbol: VIT) 	DTA114EE (Symbol: 14) 	DTA114EU (Symbol: 14) 	DTC114EE TL (Symbol: 24) 	DTC114EU (Symbol: 24) 
UMD3 (Symbol: D3) 	UN9211 (Symbol: 8A) 			

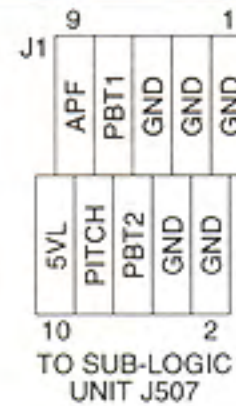
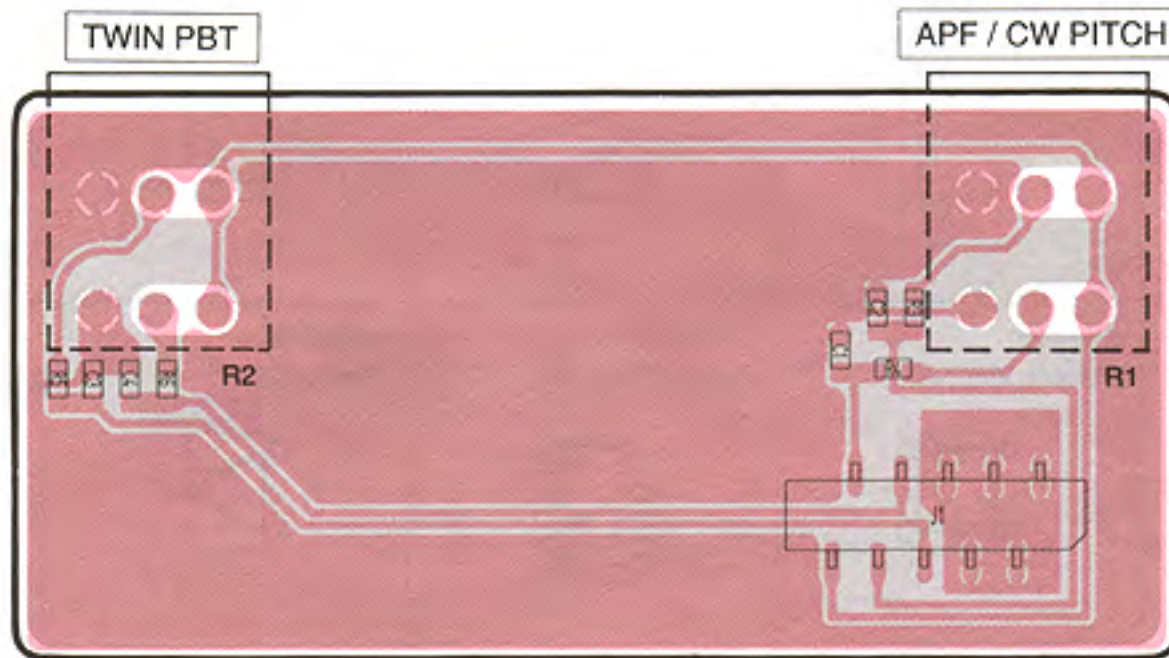
• DIODES

<p>1SS301 (Symbol: B3)</p> 	<p>1SS319 (Symbol: A4)</p> 	<p>1SV263 (Symbol: JV)</p> 	<p>1SV265 TL (Symbol: LV)</p> 	<p>DAN222 (Symbol: N)</p> 
<p>DAP222 (Symbol: FR)</p> 	<p>DWA010 (Symbol: W8)</p> 	<p>HSB88WSTR (Symbol: Silver line)</p> 	<p>HSM88AS (Symbol: C1)</p> 	<p>HSM88ASR (Symbol: C3)</p> 
<p>HVM17-01TR (Symbol: T6)</p> 	<p>MA862 (Symbol: M11)</p> 	<p>RD5.1M B2 (Symbol: 512)</p> 	<p>RD5.6M B2 (Symbol: 562)</p> 	<p>RD7.5M T2B1 (Symbol: 751)</p> 
<p>SB10 05PCP TD (Symbol: SA)</p> 	<p>SVC252 (Symbol: HV)</p> 			

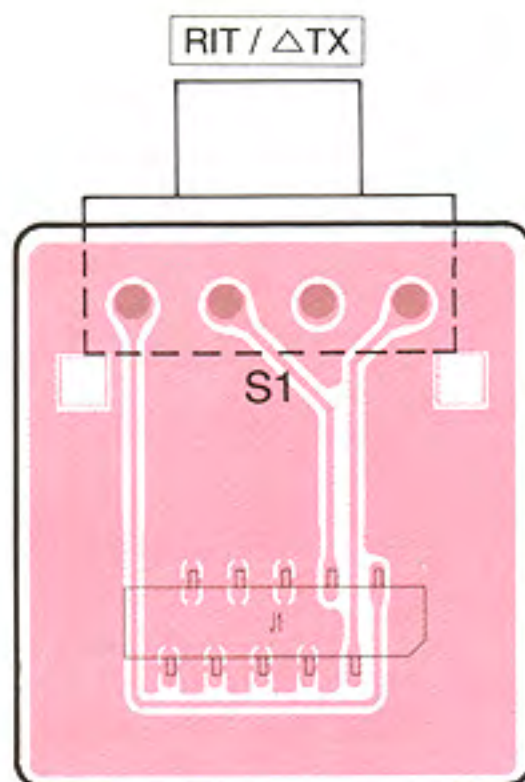
SECTION 9 BOARD LAYOUTS

9-1 PBT AND RIT BOARDS

• PBT BOARD

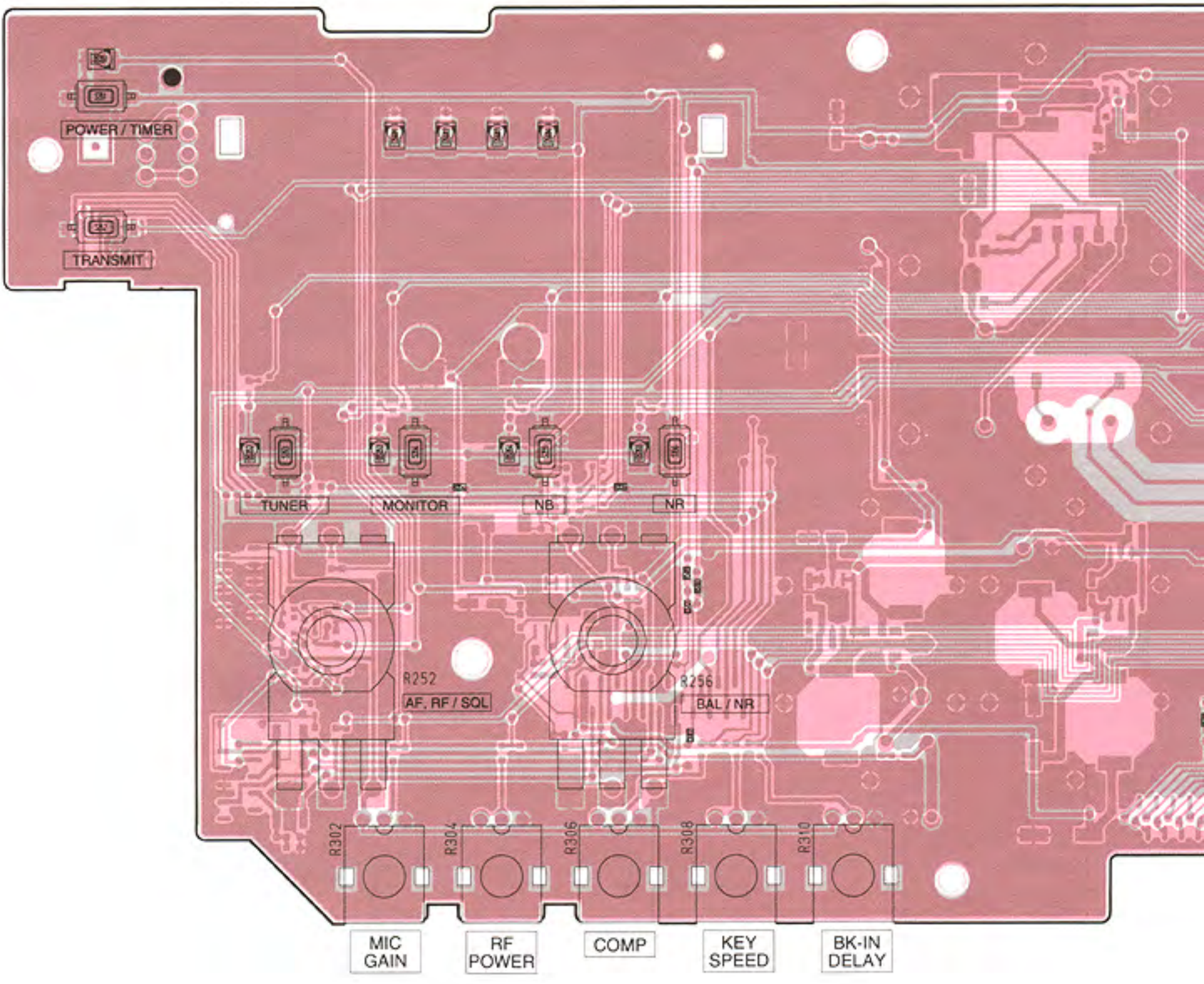


• RIT BOARD

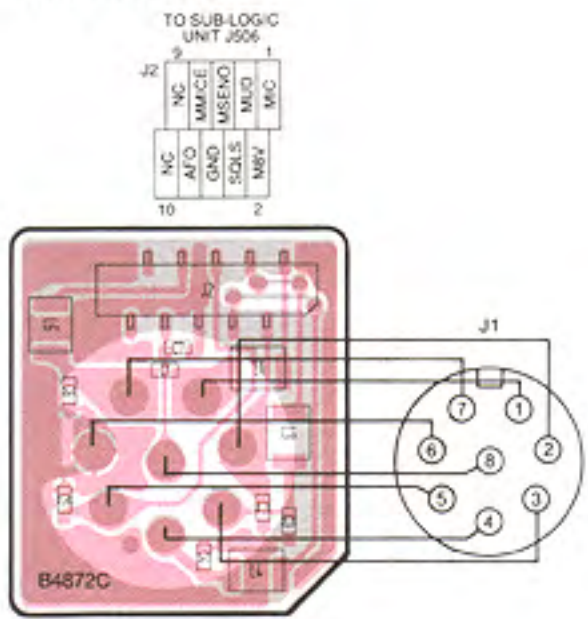


9-2 SUB-LOGIC UNIT, MIC, PHONE AND KEY BOARDS

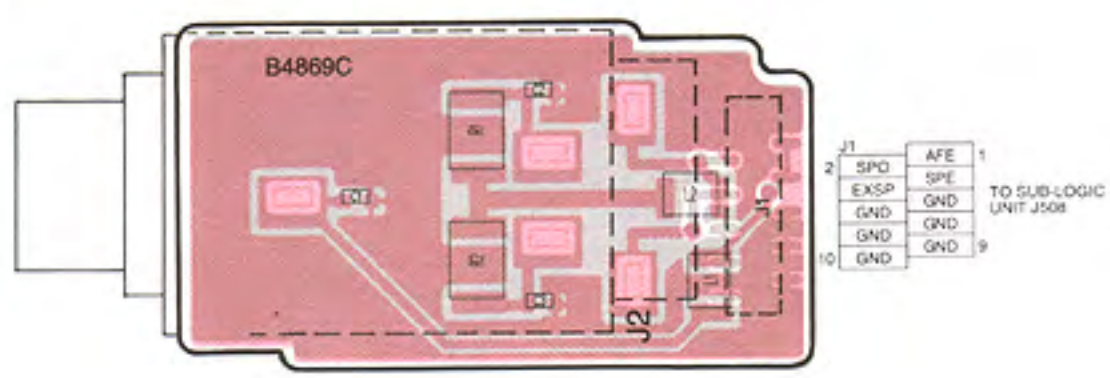
• SUB-LOGIC UNIT (TOP VIEW)

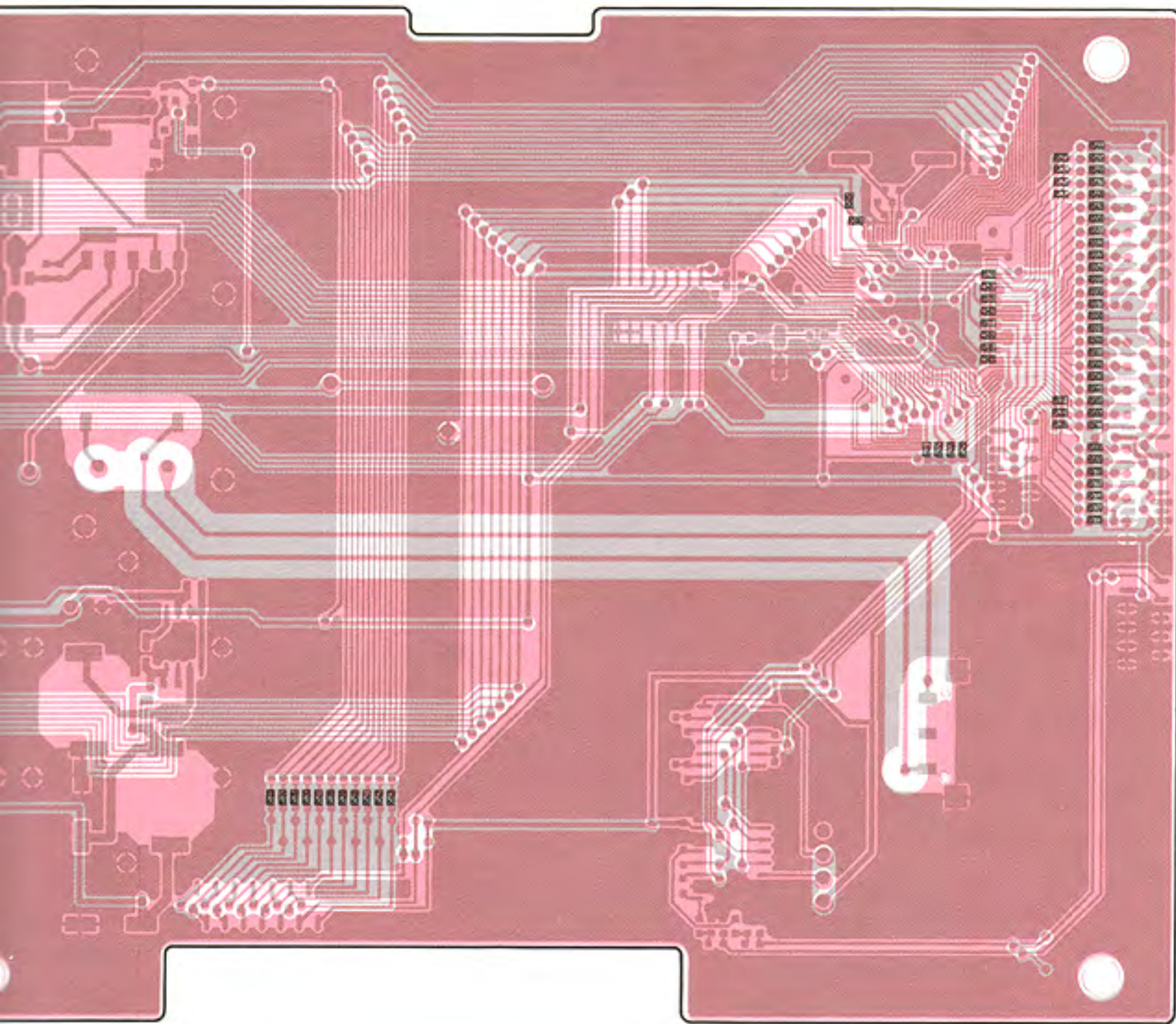


• MIC BOARD

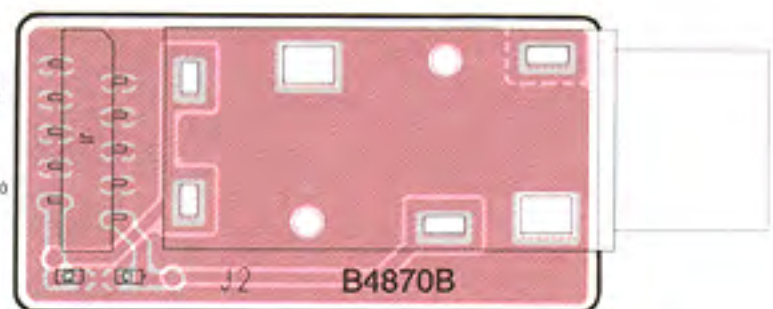
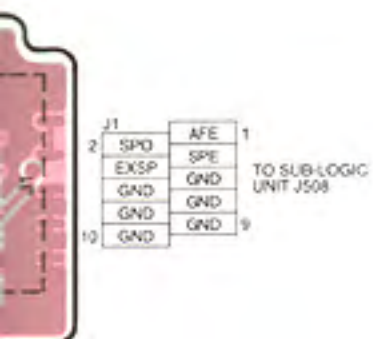


• PHONE BOARD

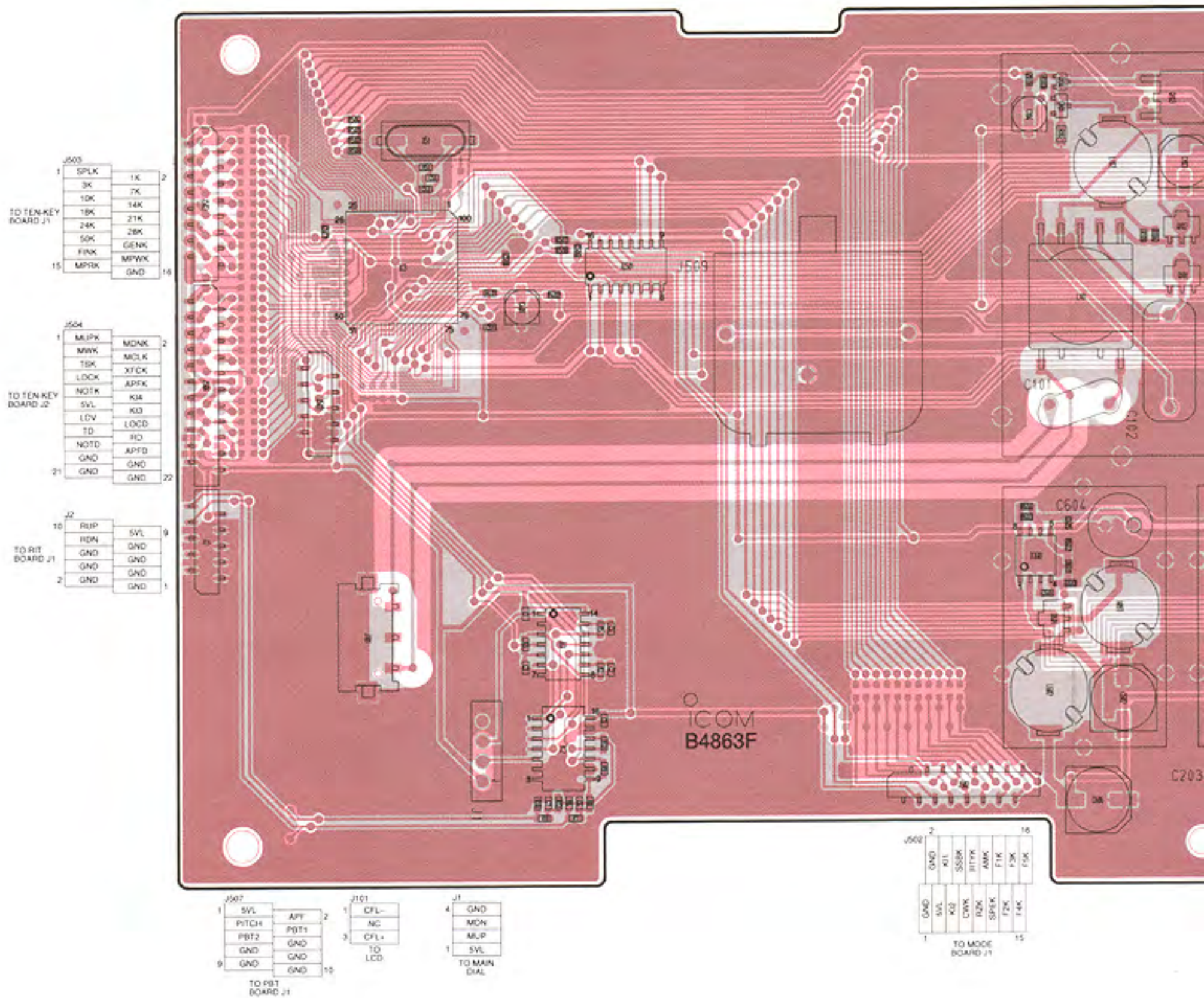




● KEY BOARD

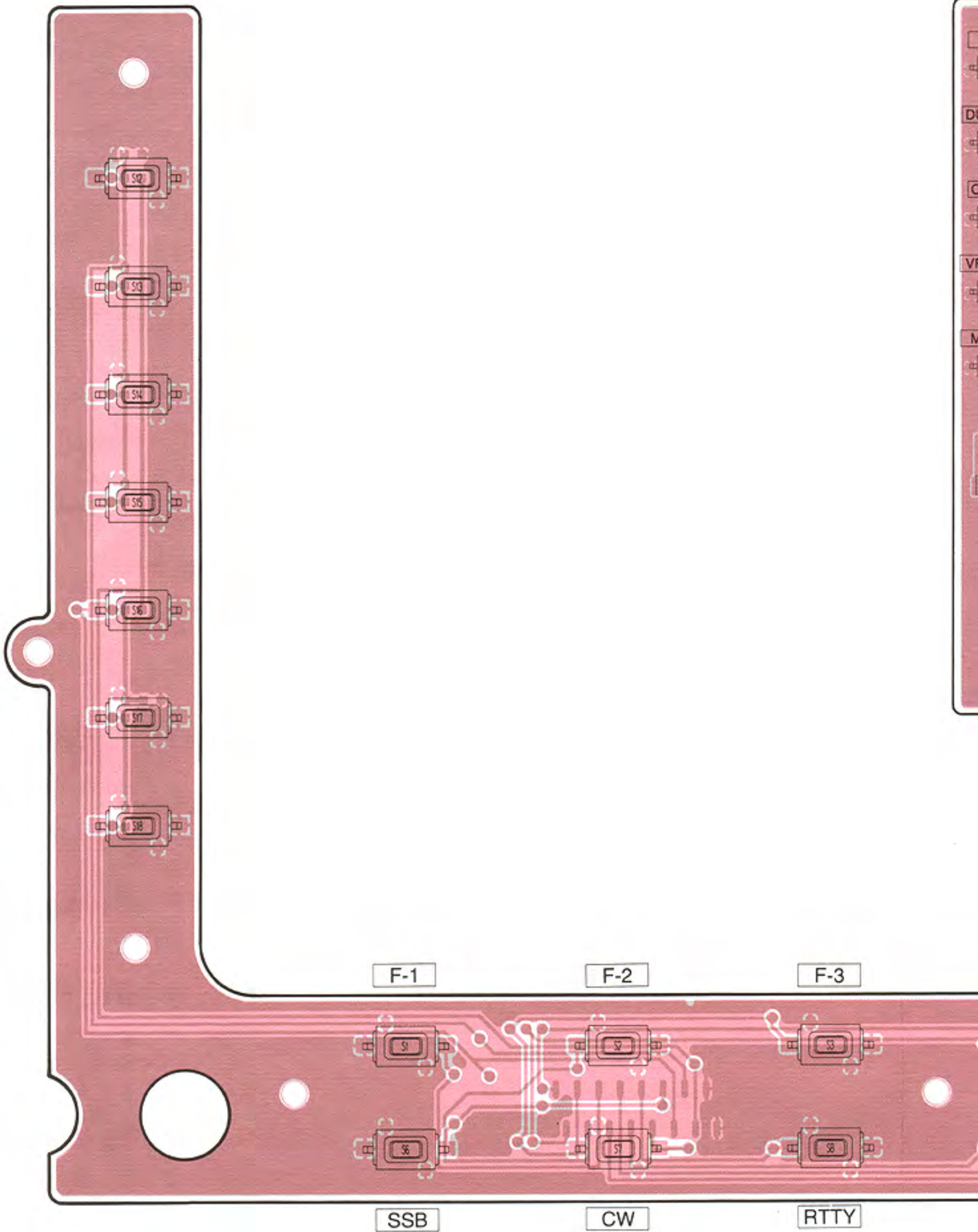


• SUB-LOGIC UNIT (BOTTOM VIEW)

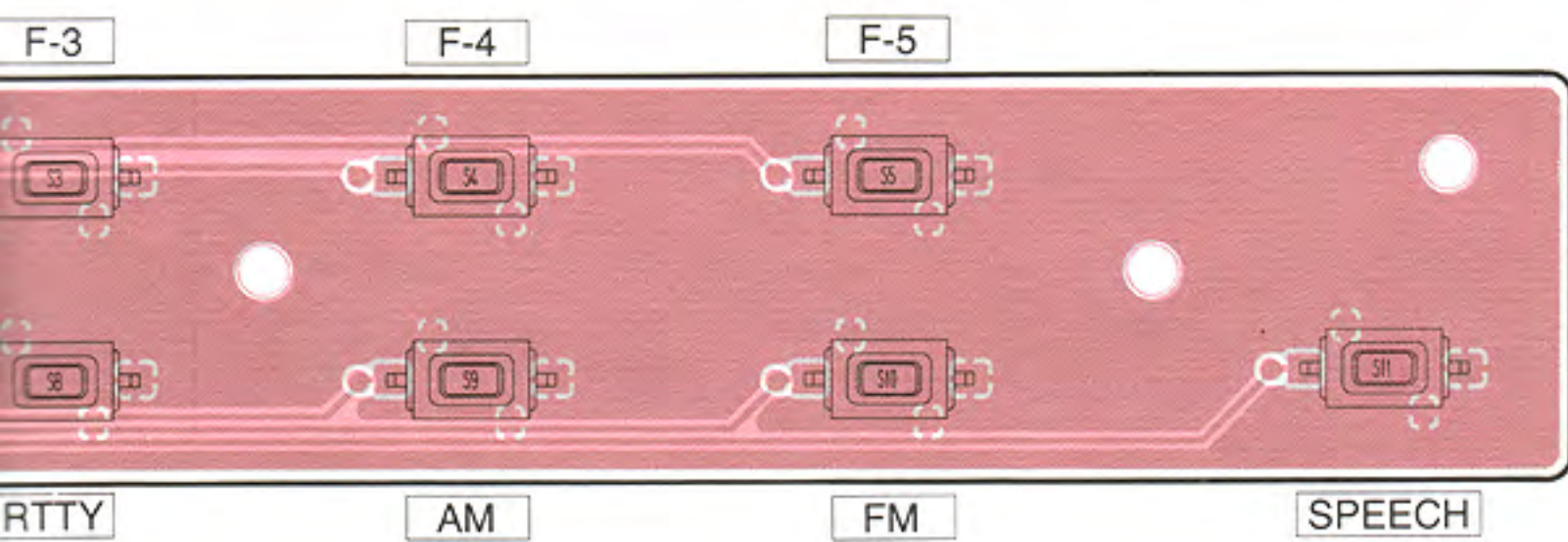
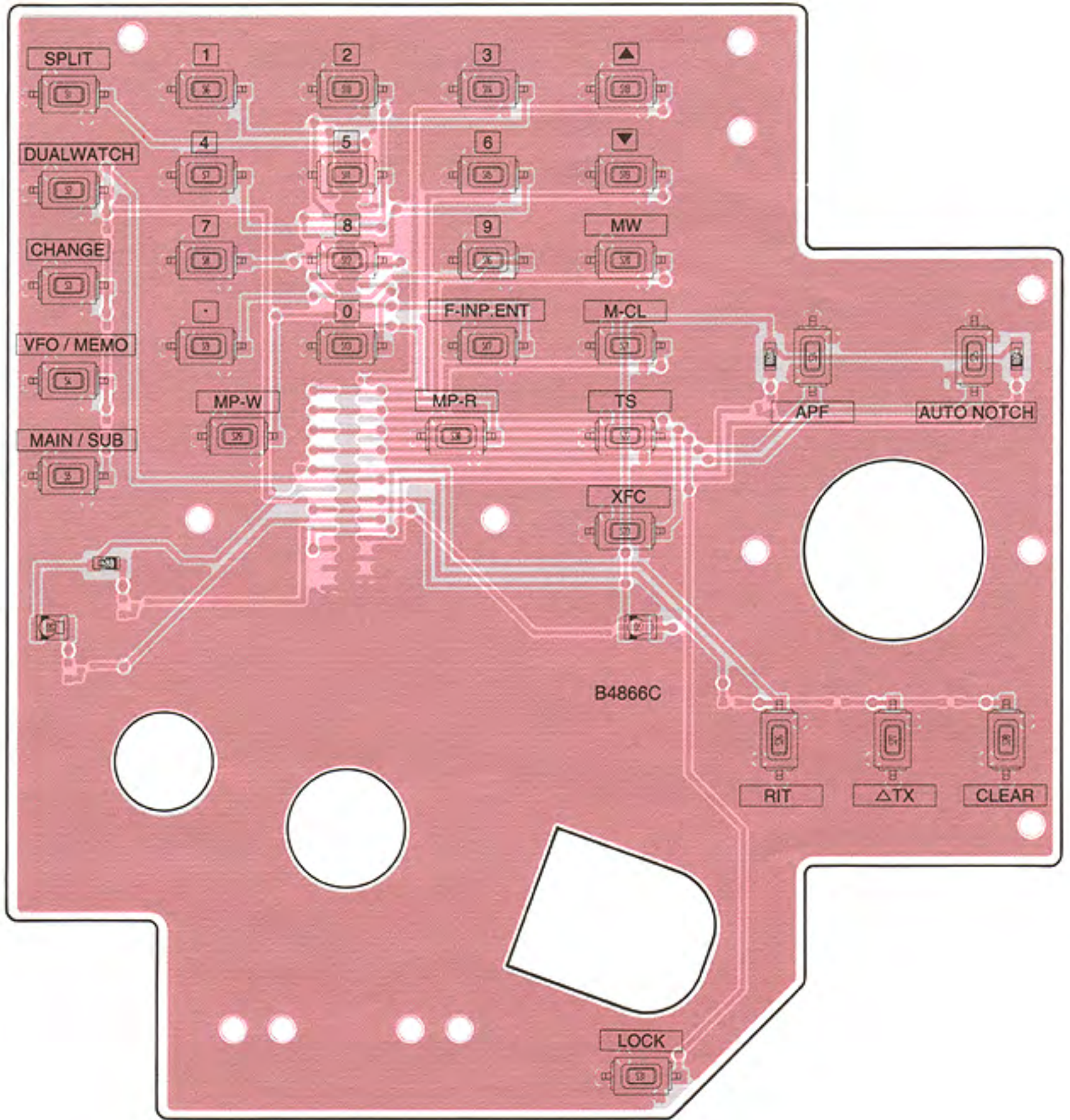


9-3 MODE AND TENKEY BOARDS

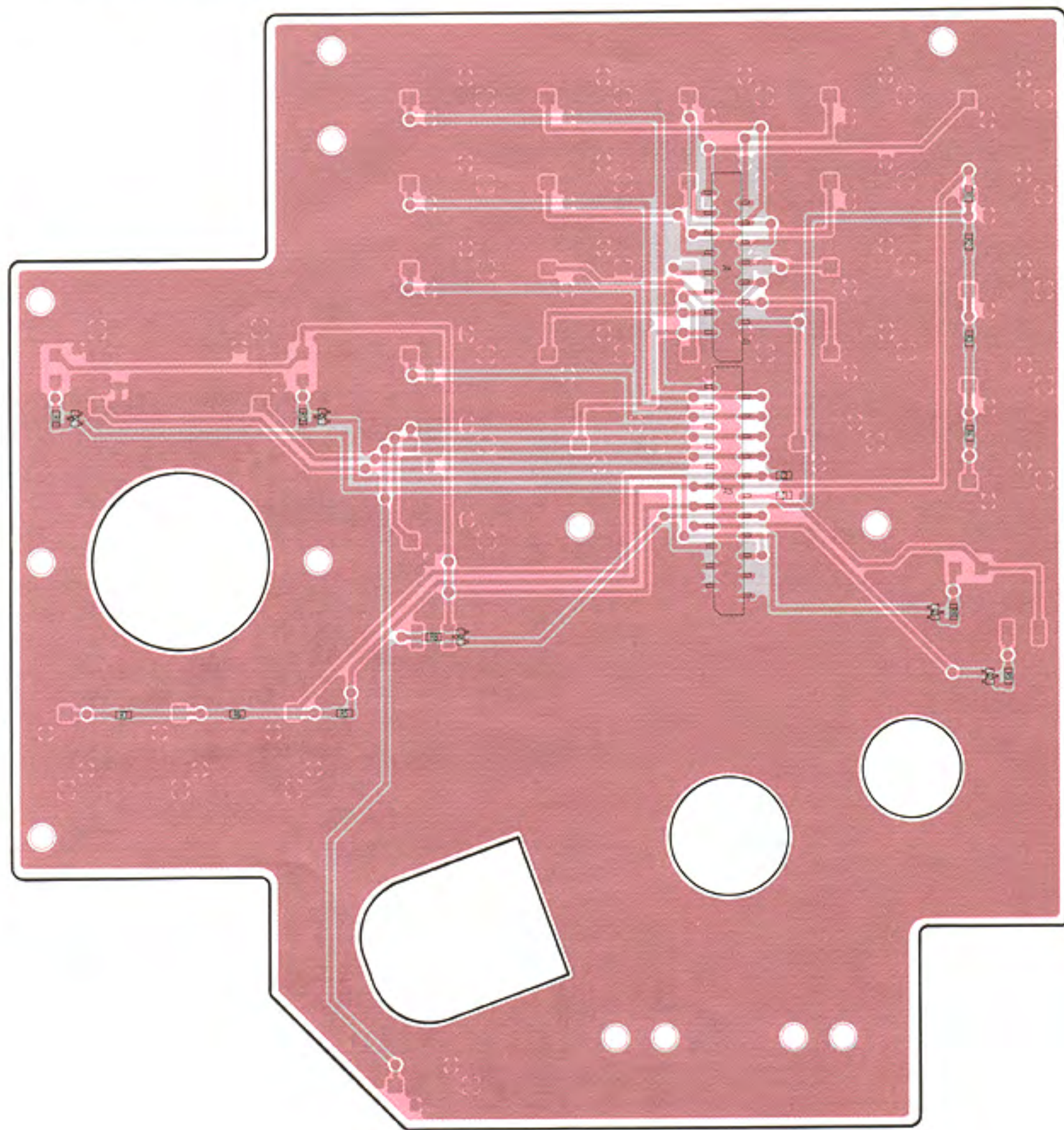
- MODE BOARD (TOP VIEW)



• TENKEY BOARD (TOP VIEW)



• TENKEY BOARD (BOTTOM VIEW)

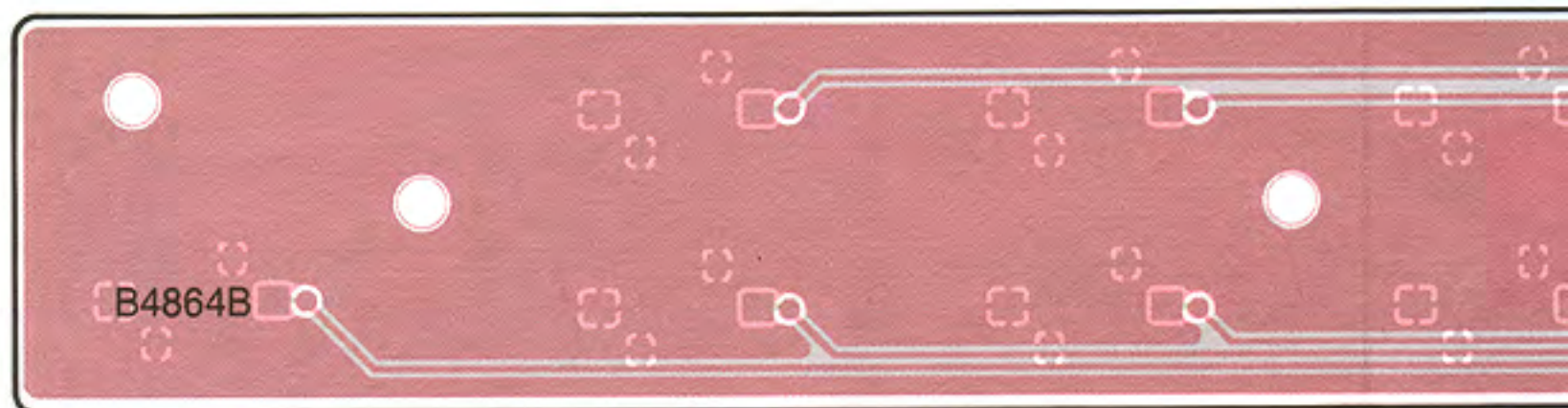


J1			
16	SPLK	1K	15
	3K	7K	
	10K	14K	
	18K	21K	
	24K	28K	
	50K	GENK	
	FINK	MPWK	
2	MPRK	GND	1

TO SUB-UNIT J5C

J2			
22	MUPK	MDNK	21
	MWK	MCLK	
	TSK	XFCK	
	LOCK	APFK	
	NOTK	K14	
	5VL	K13	
	LDV	LOCD	
	TXD	RXD	
	NOTD	APFD	
	GND	GND	
2	GND	GND	1

TO SUB-UNIT J5C



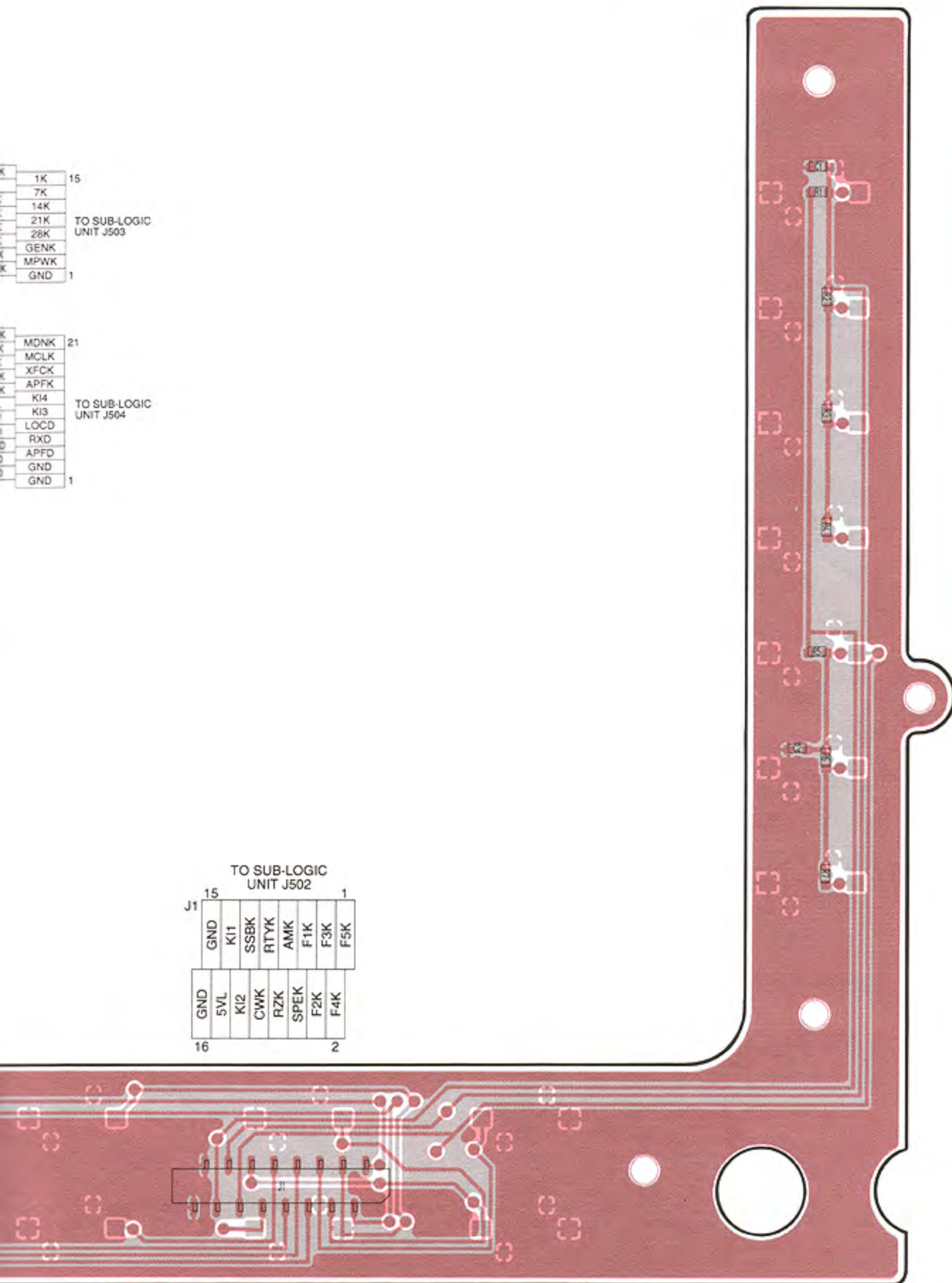
• MODE BOARD (BOTTOM VIEW)

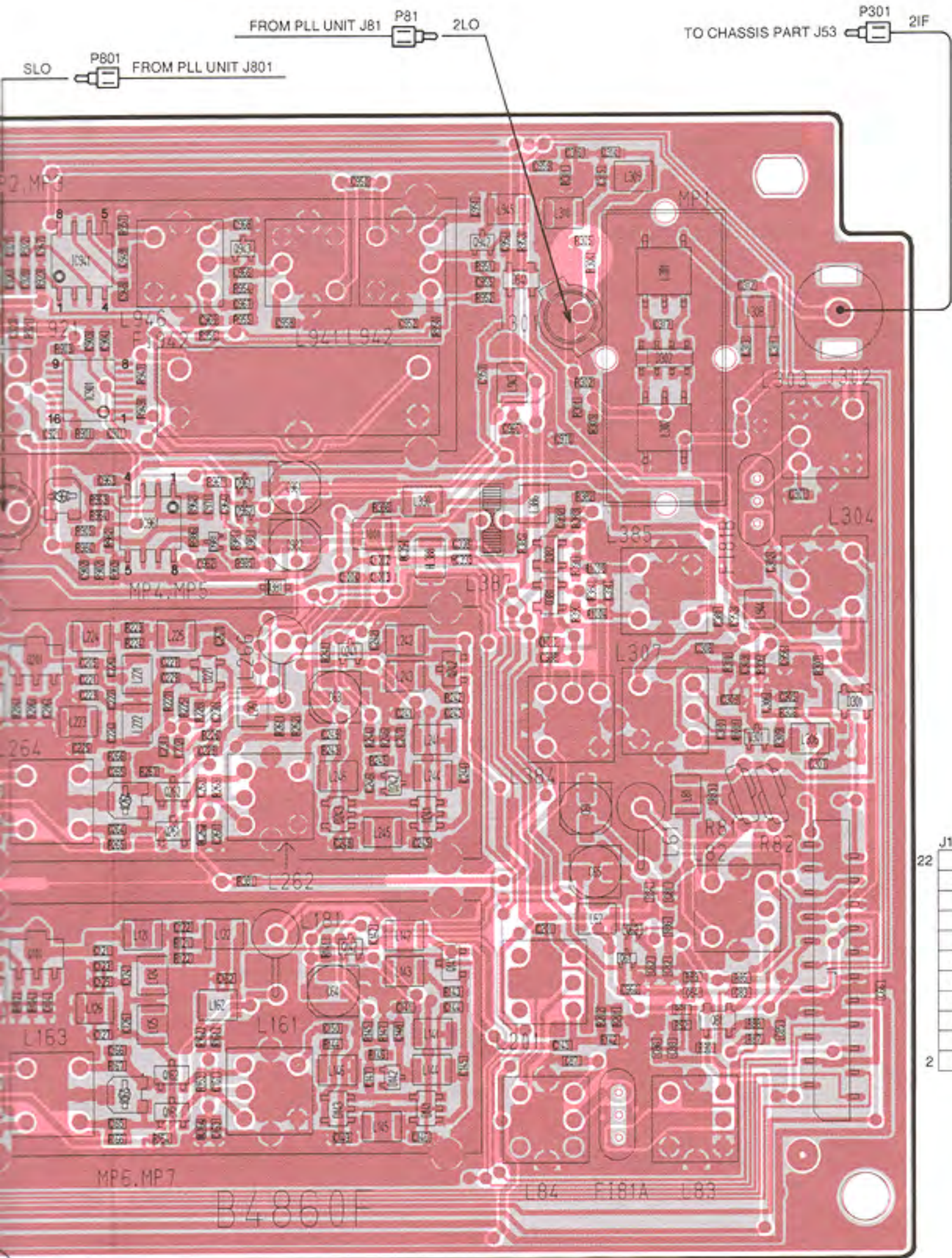
1K	15
7K	
14K	
21K	TO SUB-LOGIC
28K	UNIT J503
GENK	
MPWK	
GND	1

MDNK	21
MCLK	
XFCX	
APFK	
KI4	TO SUB-LOGIC
KI3	UNIT J504
LOCD	
RXD	
APFD	
GND	
GND	1

TO SUB-LOGIC
UNIT J502

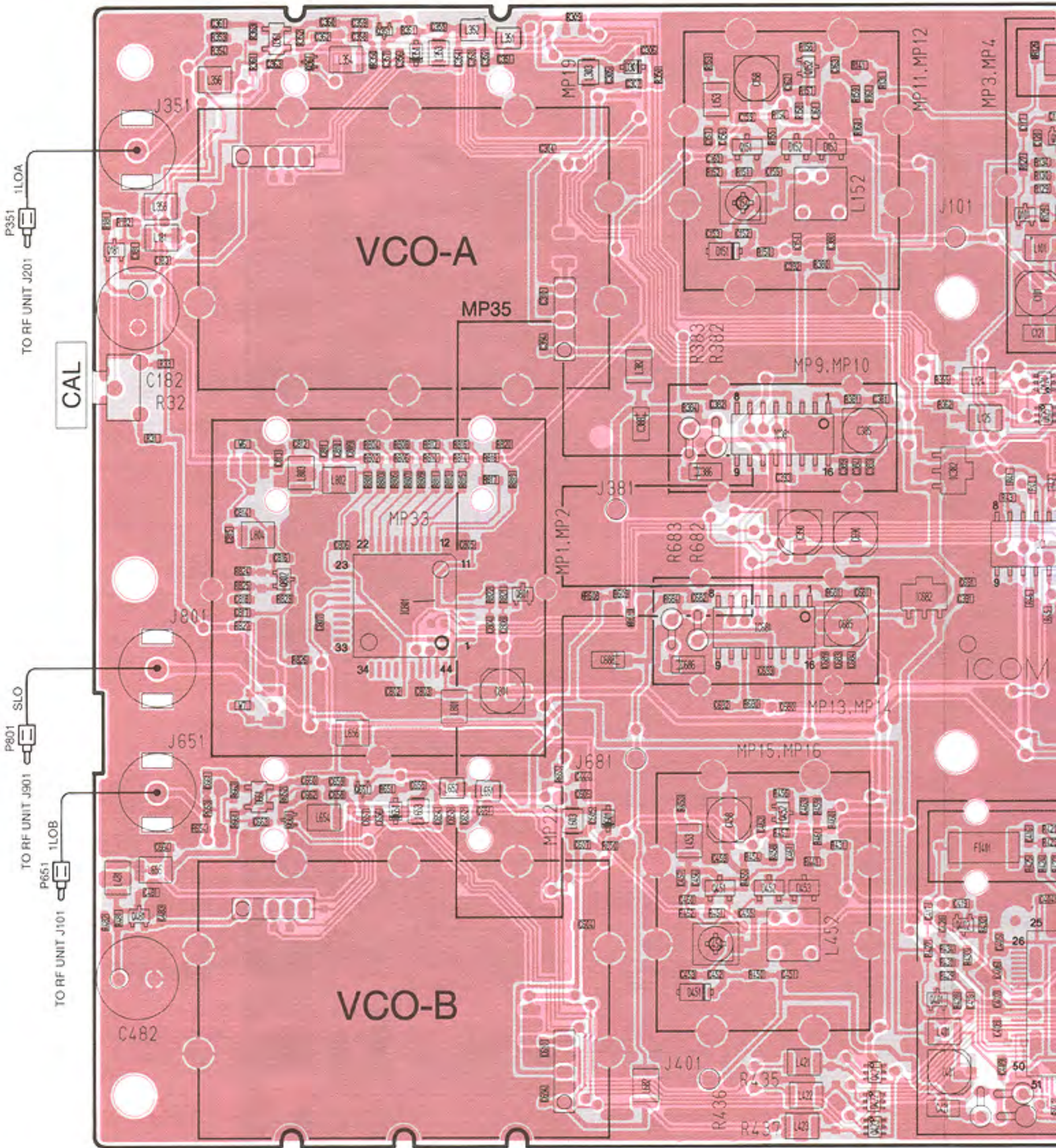
15	GND	1
	KI1	
	SSBK	
	RTYK	
	AMK	
	F1K	
	F3K	
	F5K	
16	GND	2
	5VL	
	KI2	
	CWK	
	RZK	
	SPEK	
	F2K	
	F4K	

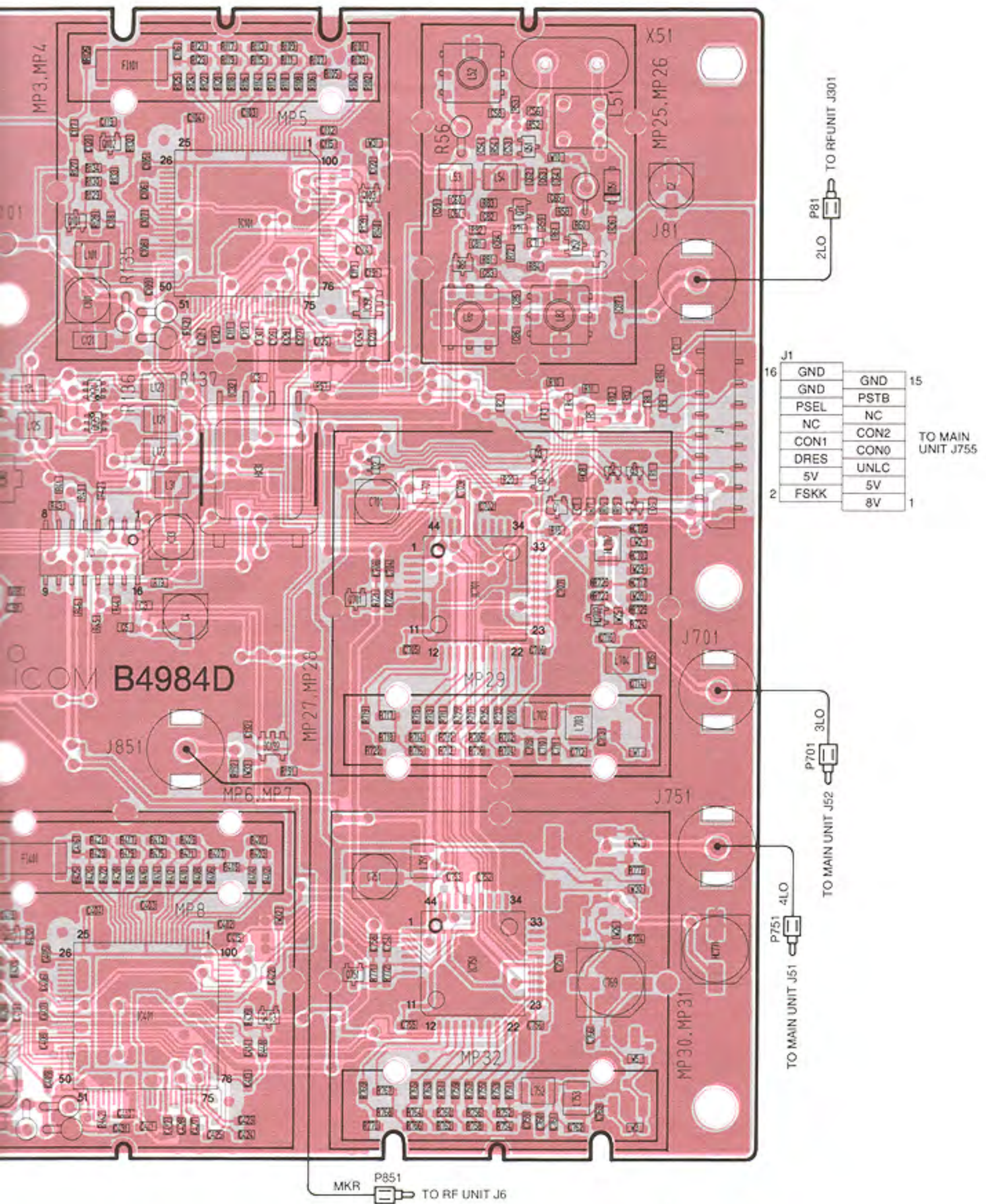


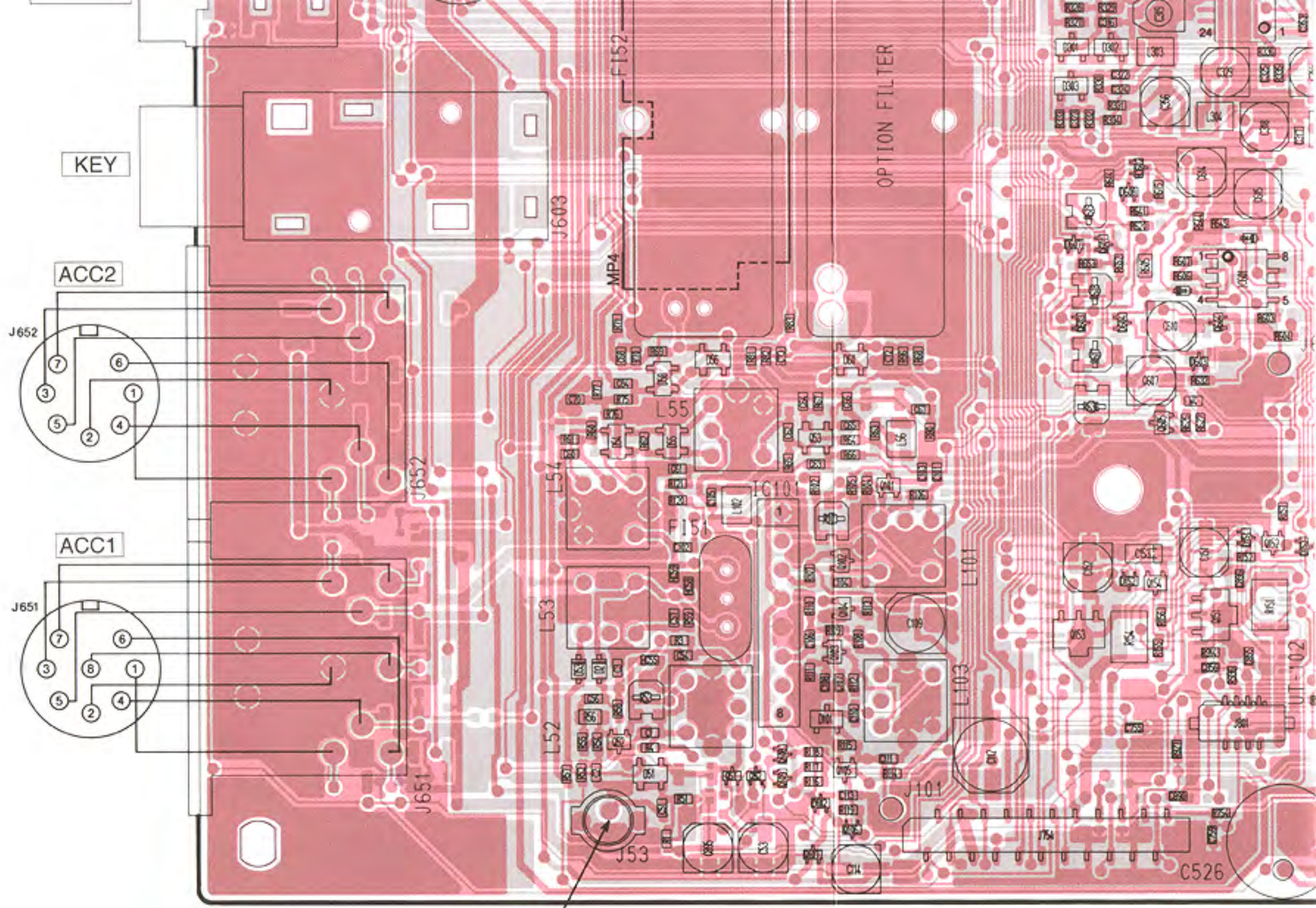



1LOB P651 FROM PLL UNIT J651

9-5 PLL UNIT







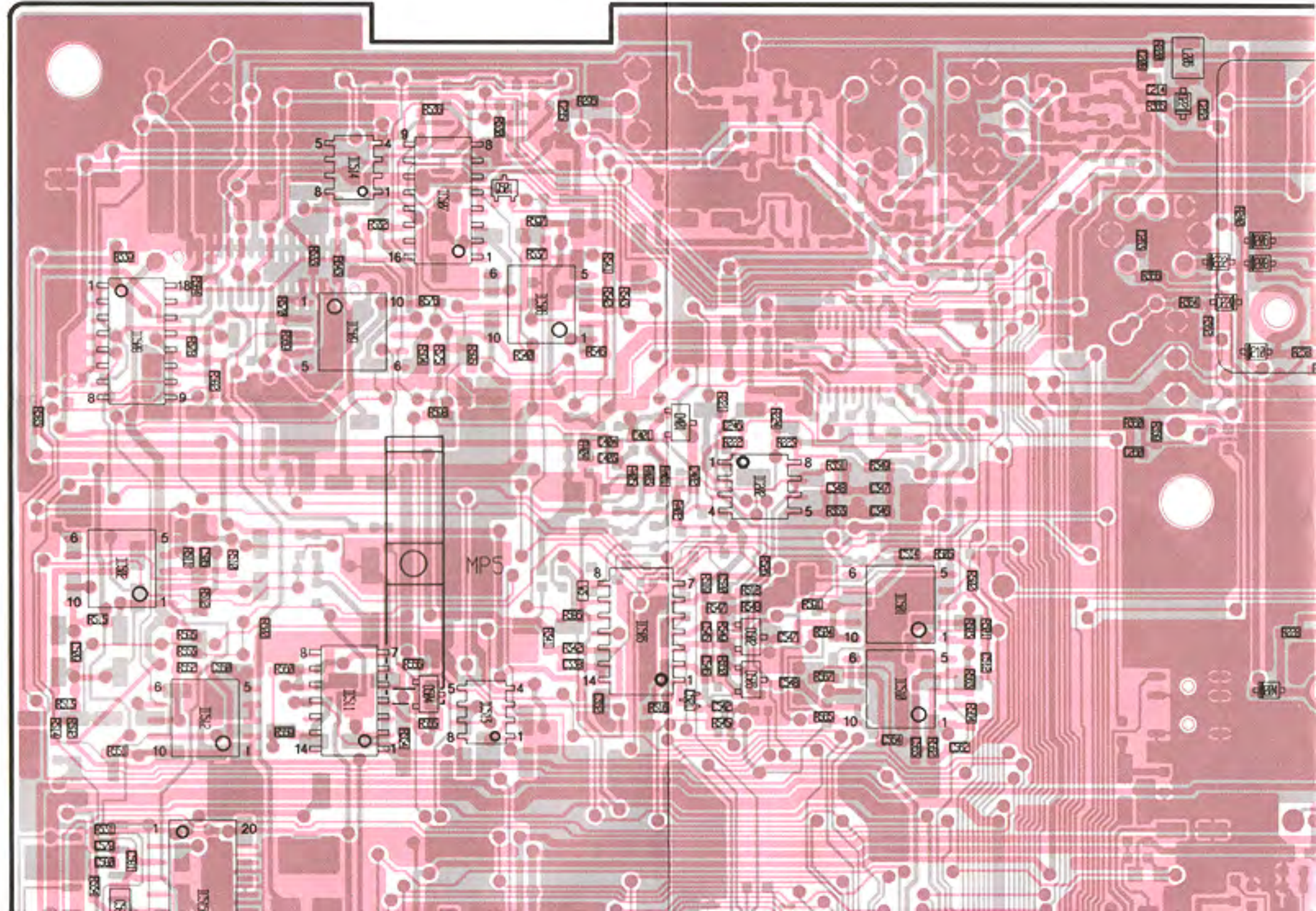
FROM RF UNIT J302  P301 21F

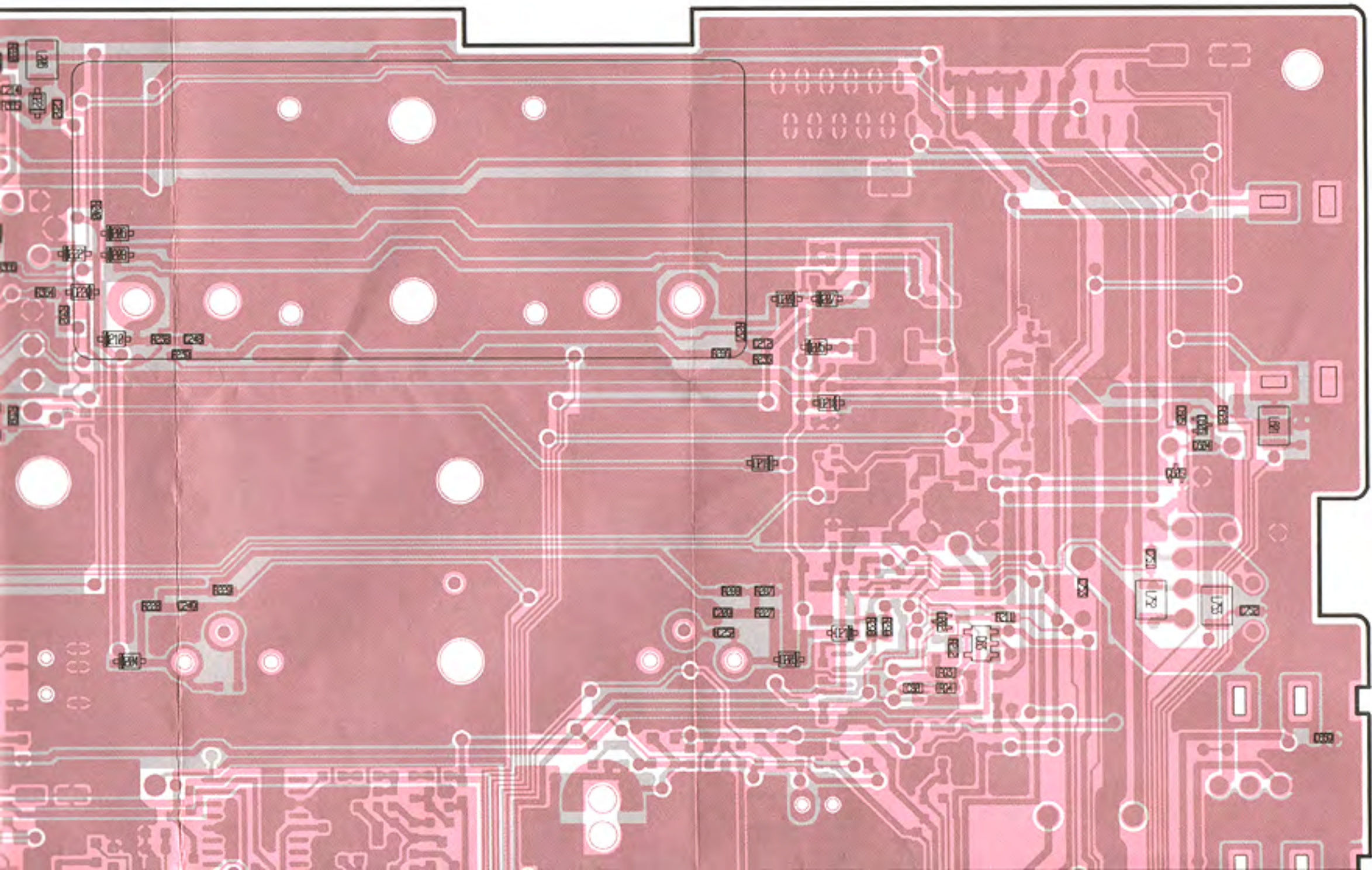
1	ALC	2	-5V	22	MCK
2	GND	3	14V	23	GND
3	14V	4	GND	24	5V
4	T8V	5	8V	25	BLAV
5	R8V	6	GND	26	AGC
6	SCPL	7	GND	27	BSTB
7	RANS	8	5V	28	MDAT
8	GND	9	BLBV	29	
9	BLBV	10	GND	30	
10	GND	11	MDAT	31	
11	MDAT	12		32	

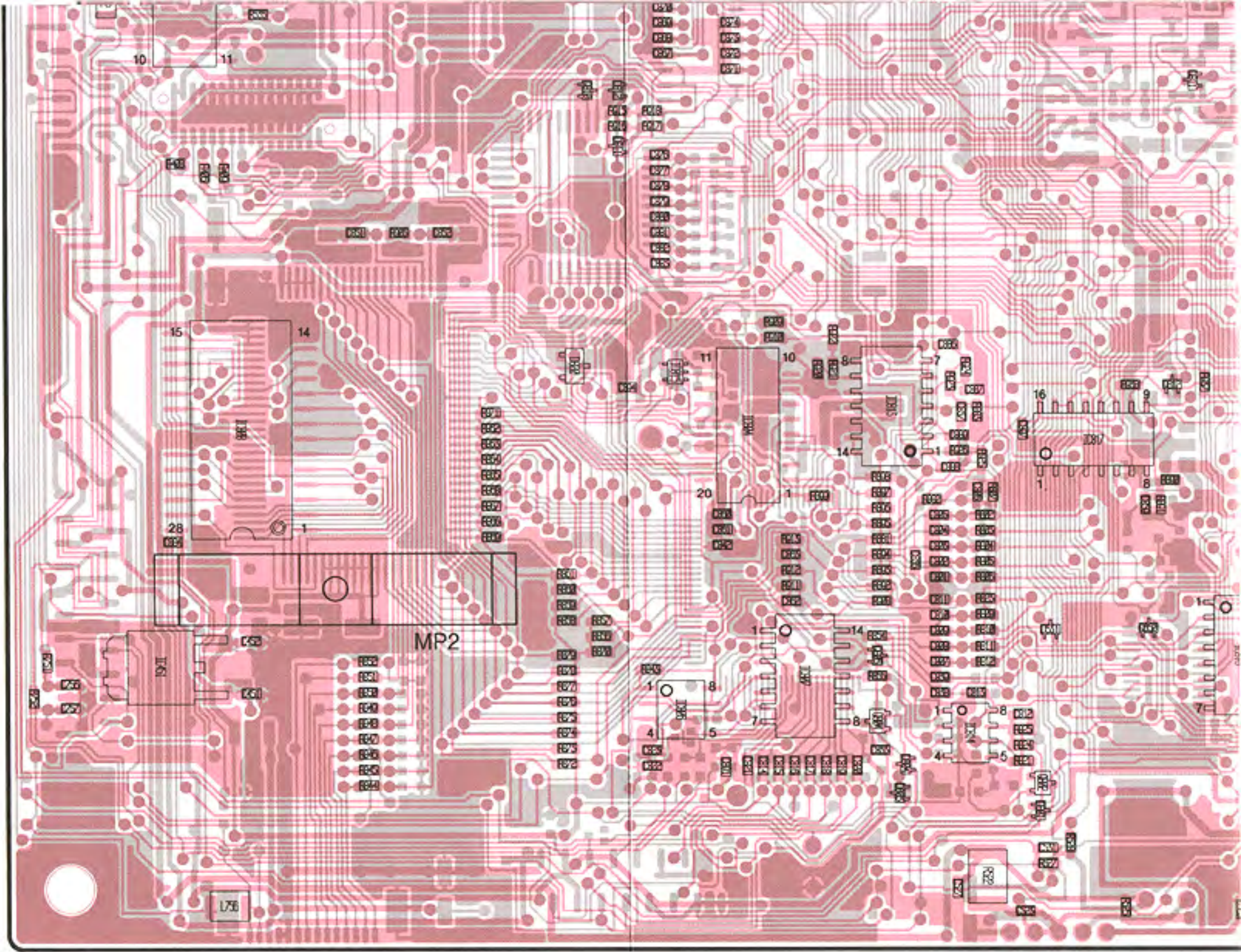
TO RF UNIT J1

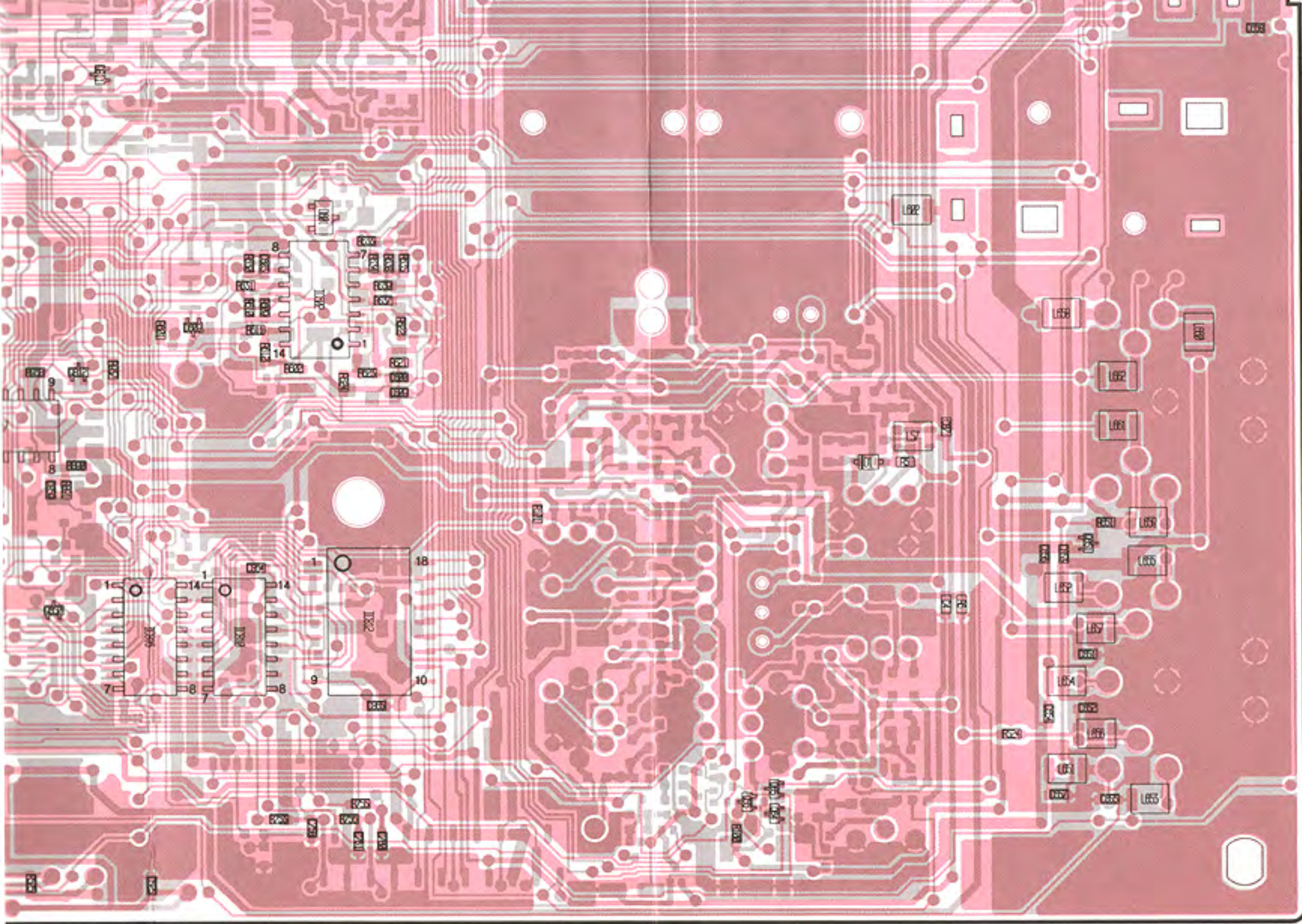
1	MDAT	8	P25
2	P22	9	MCK
3	5VL	10	GND
4	GND	11	SPCH

• MAIN UNIT (BOTTOM VIEW)



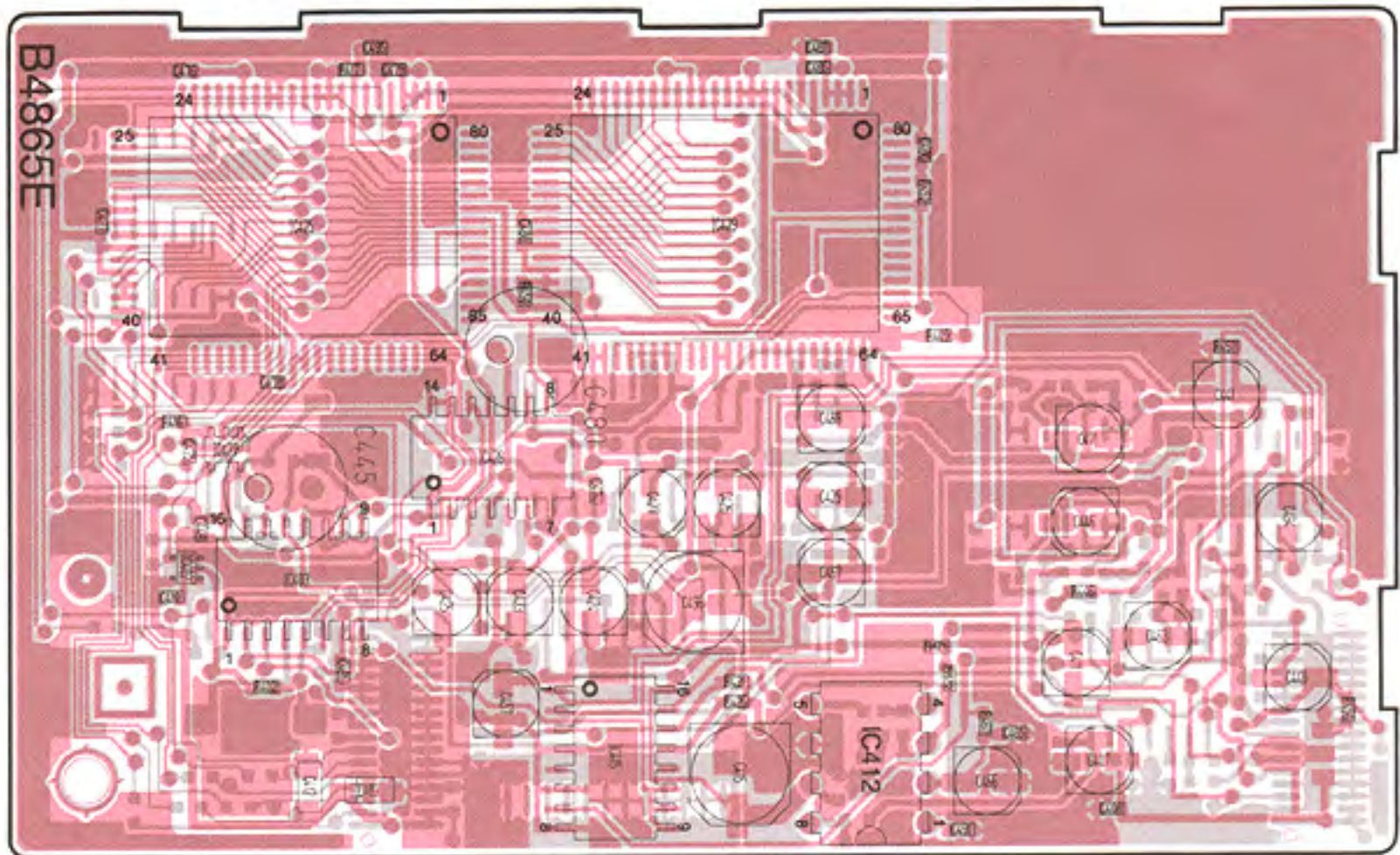




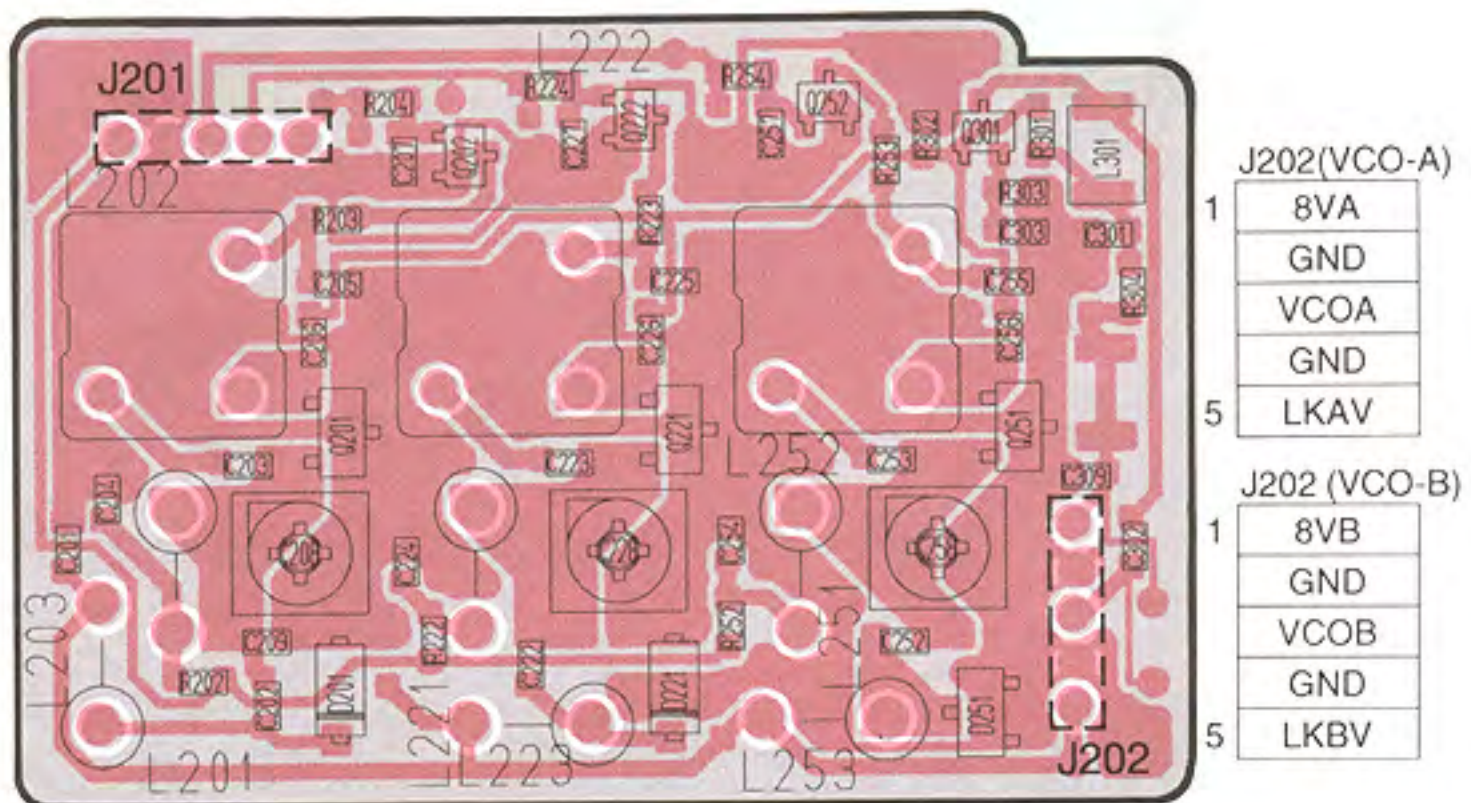
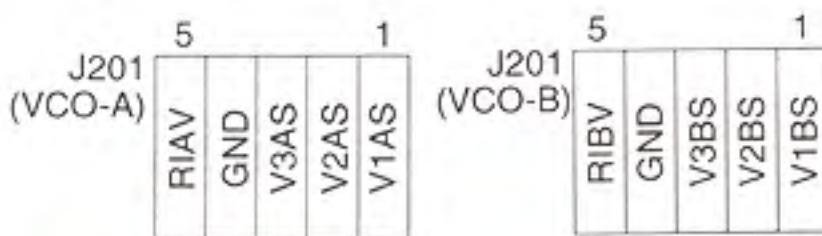


9-7 DSP AND VCO-A/B BOARDS

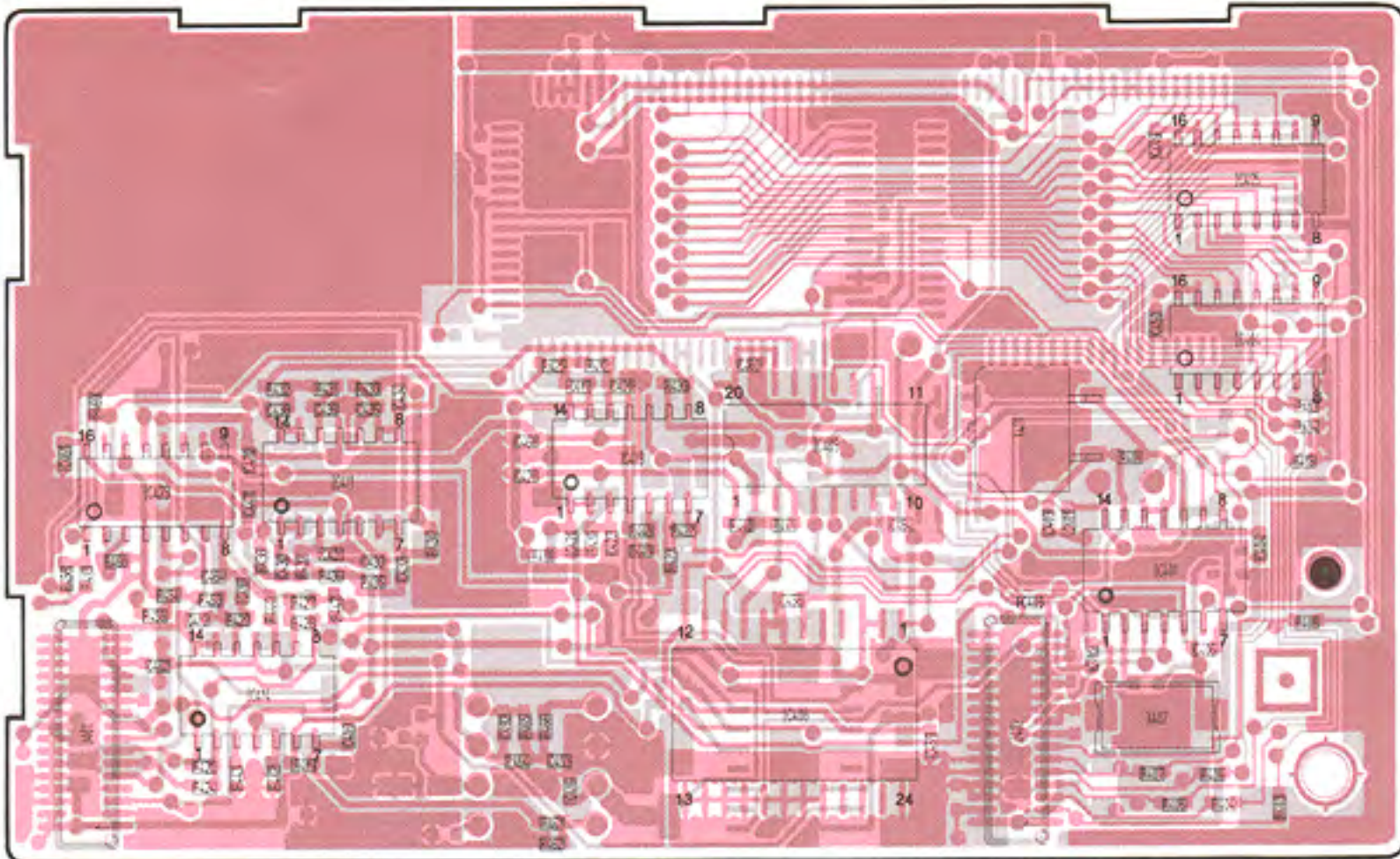
• DSP BOARD (TOP VIEW)



• VCO-A/B BOARD (Common)



• DSP BOARD (BOTTOM VIEW)



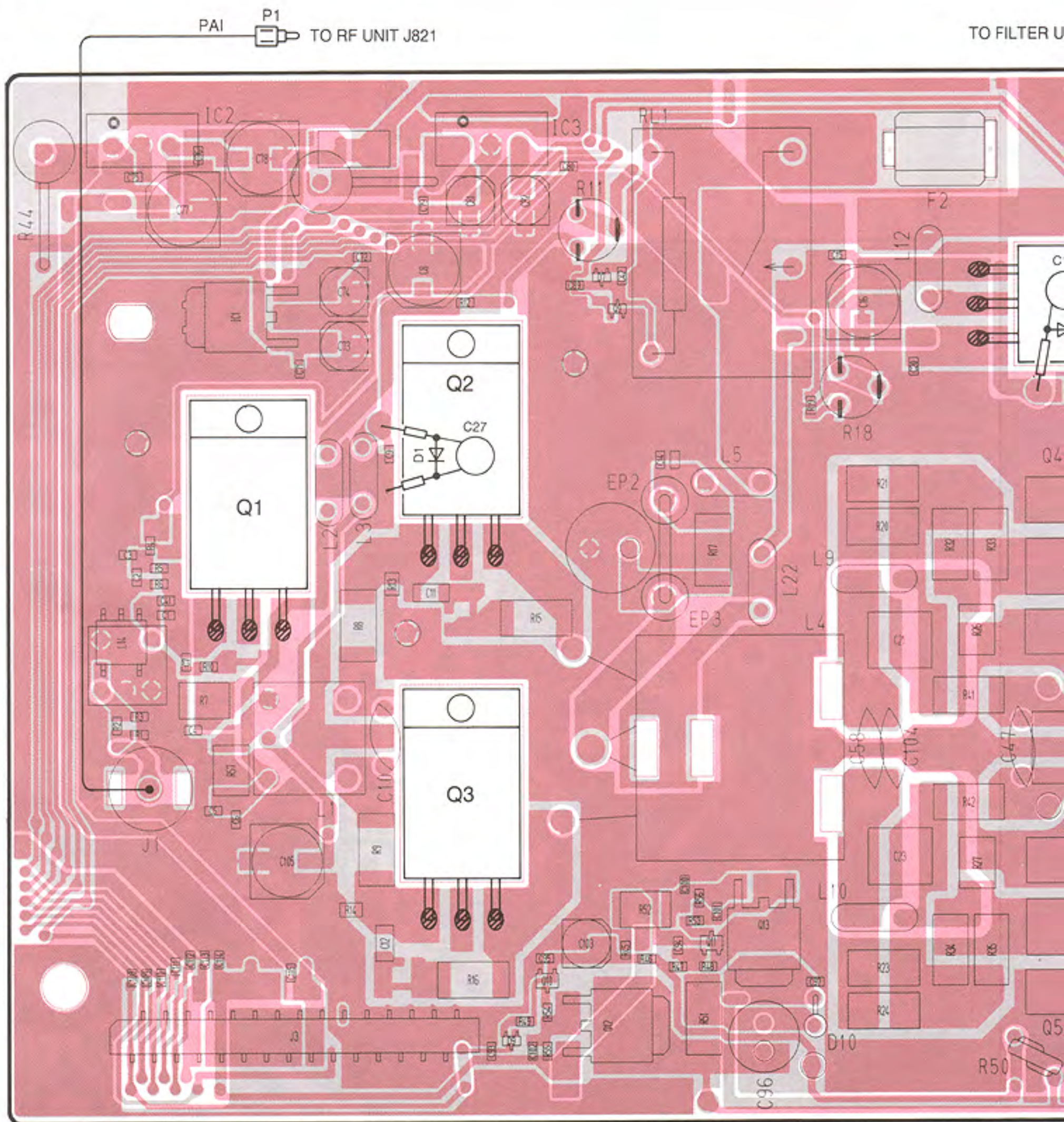
J401

32	GND	GND	31
	GND	GND	
	GND	GND	
	GND	GND	
	GND	GND	
	GND	GND	
	GND	GND	
	GND	-5VD	TO MAIN UNIT J401
	GND	DAF	
	GND	DTIF	
	GND	DRIF	
	GND	DMOD	
	GND	GND	
	GND	MLO	
	5VA	GND	
2	5VA	5VA	1

J402

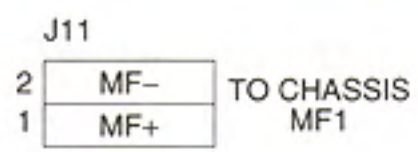
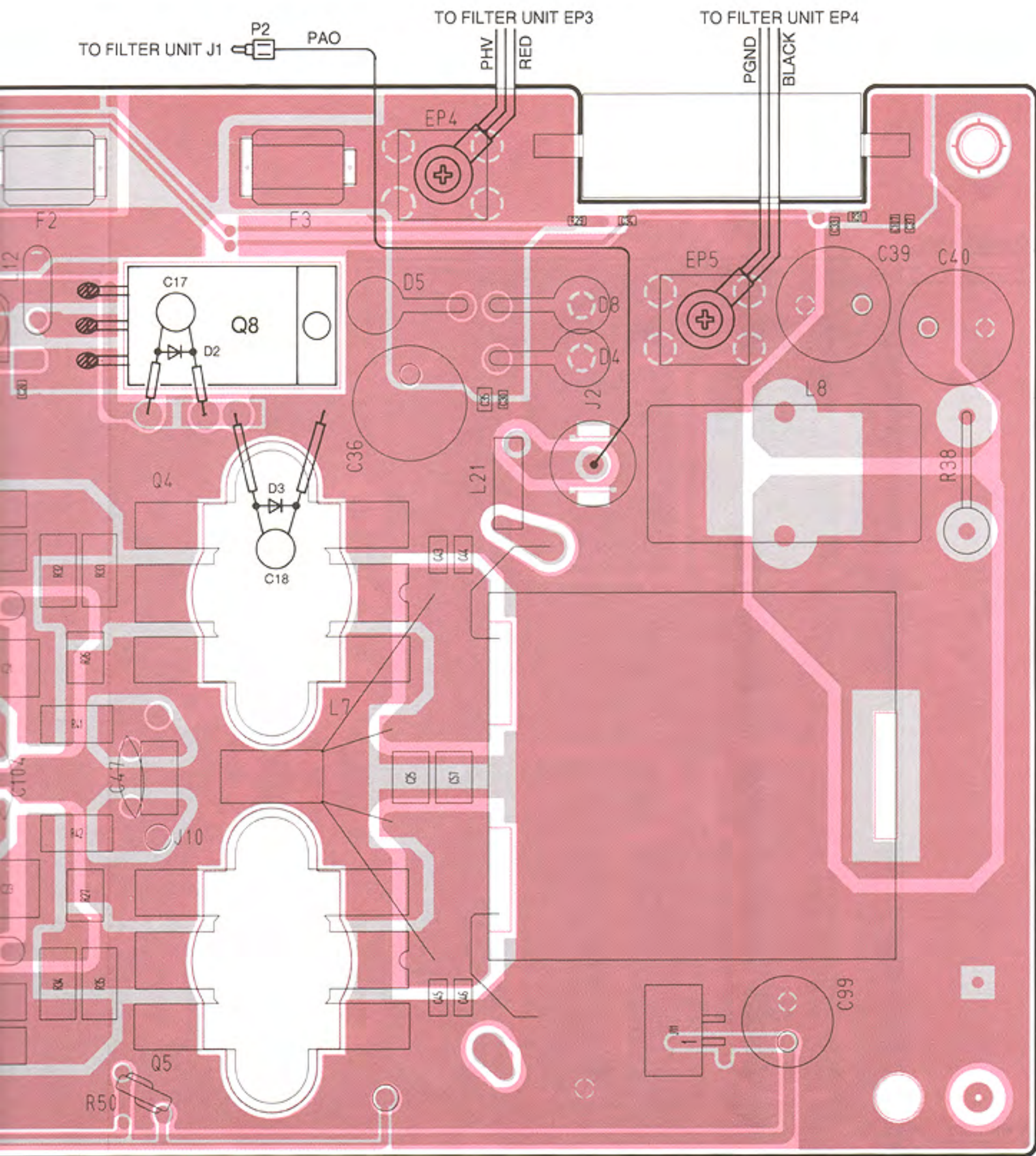
32	GND	AMS	31
	GND	GND	
	GND	GND	
	GND	GND	
	GND	GND	
	GND	GND	
	GND	GND	
	GND	GND	
	GND	GND	
	GND	GND	TO MAIN UNIT J402
	GND	RXS	
	GND	DRES	
	GND	DIT2	
	GND	DIT1	
	GND	OBST	
	GND	MOAT	
	5VD	MCK	
2	5VD	5VA	1

9-8 PA UNIT

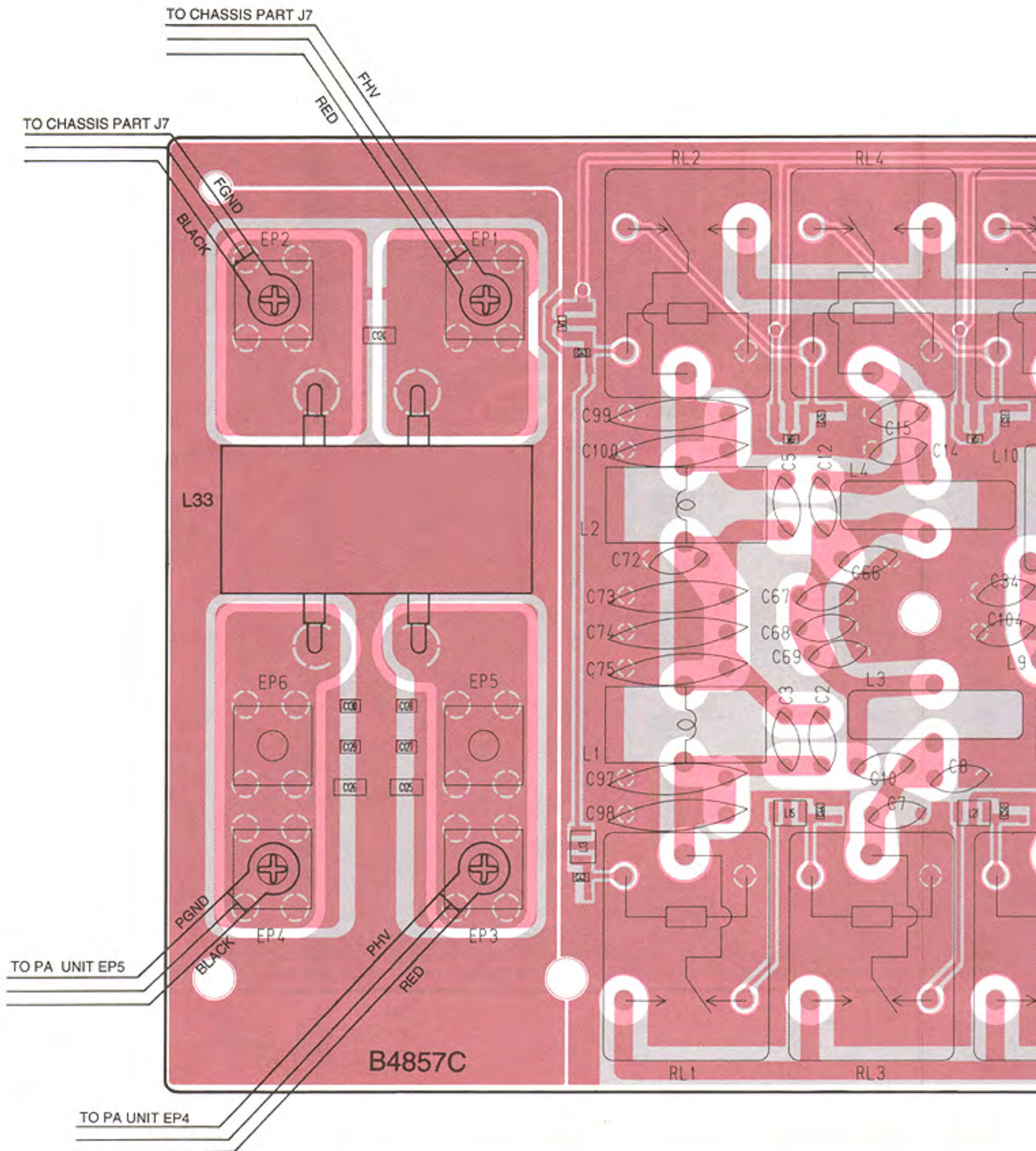


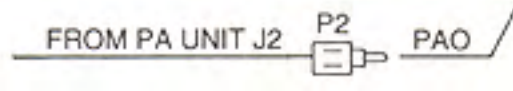
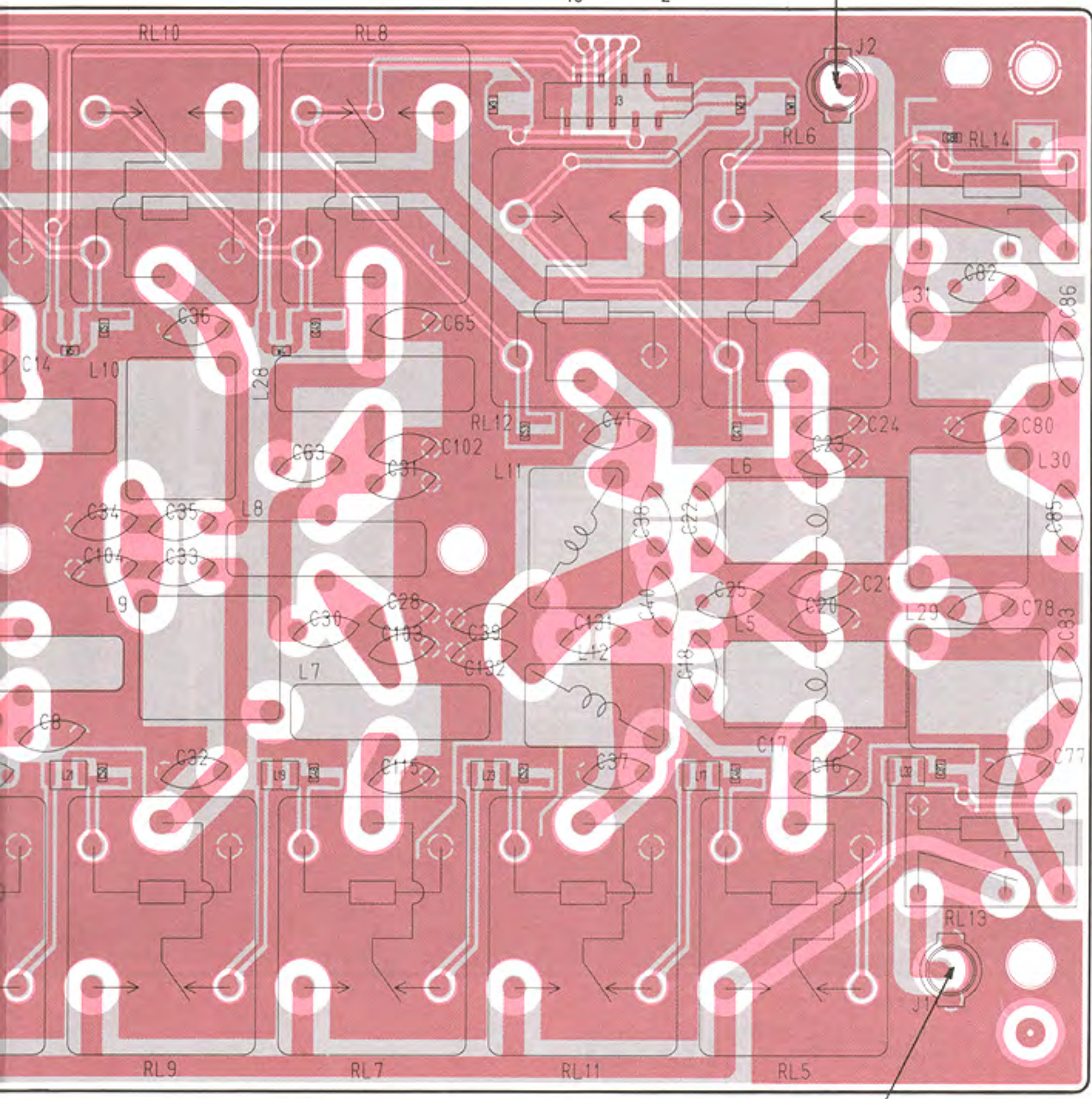
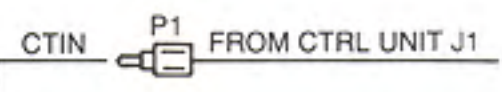
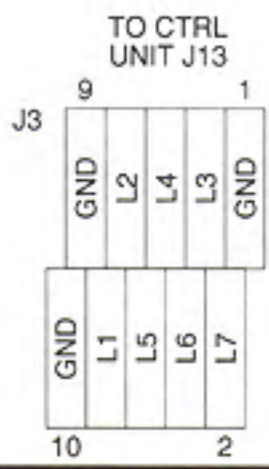
1	T8V	29	GND
2	ICL	30	GND
3	H5V		GND
4	8V		GND
5	14VA		GND
6	14V		GND
7	14V		GND
8	14V		GND
9	14V		GND
10	5V		GND
11	HV		GND
12	GND		GND
13	GND		GND
14	GND		GND
15	GND		GND
16	GND		GND
17	GND		GND
18	GND		GND
19	GND		GND
20	GND		GND
21	GND		GND
22	GND		GND
23	GND		GND
24	GND		GND
25	GND		GND
26	GND		GND
27	GND		GND
28	GND		GND

TO MAIN UNIT J752

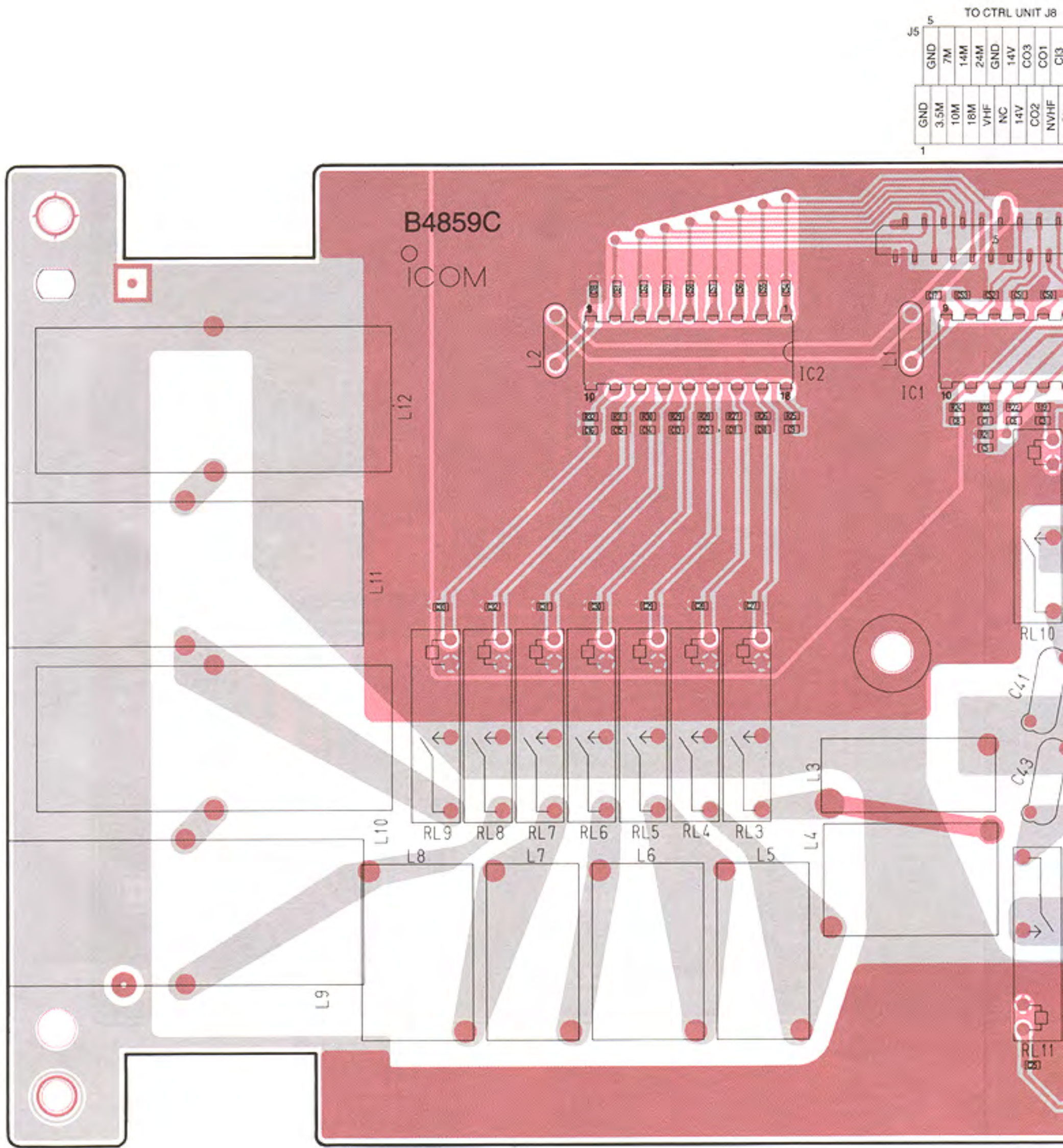


9-9 FILTER UNIT



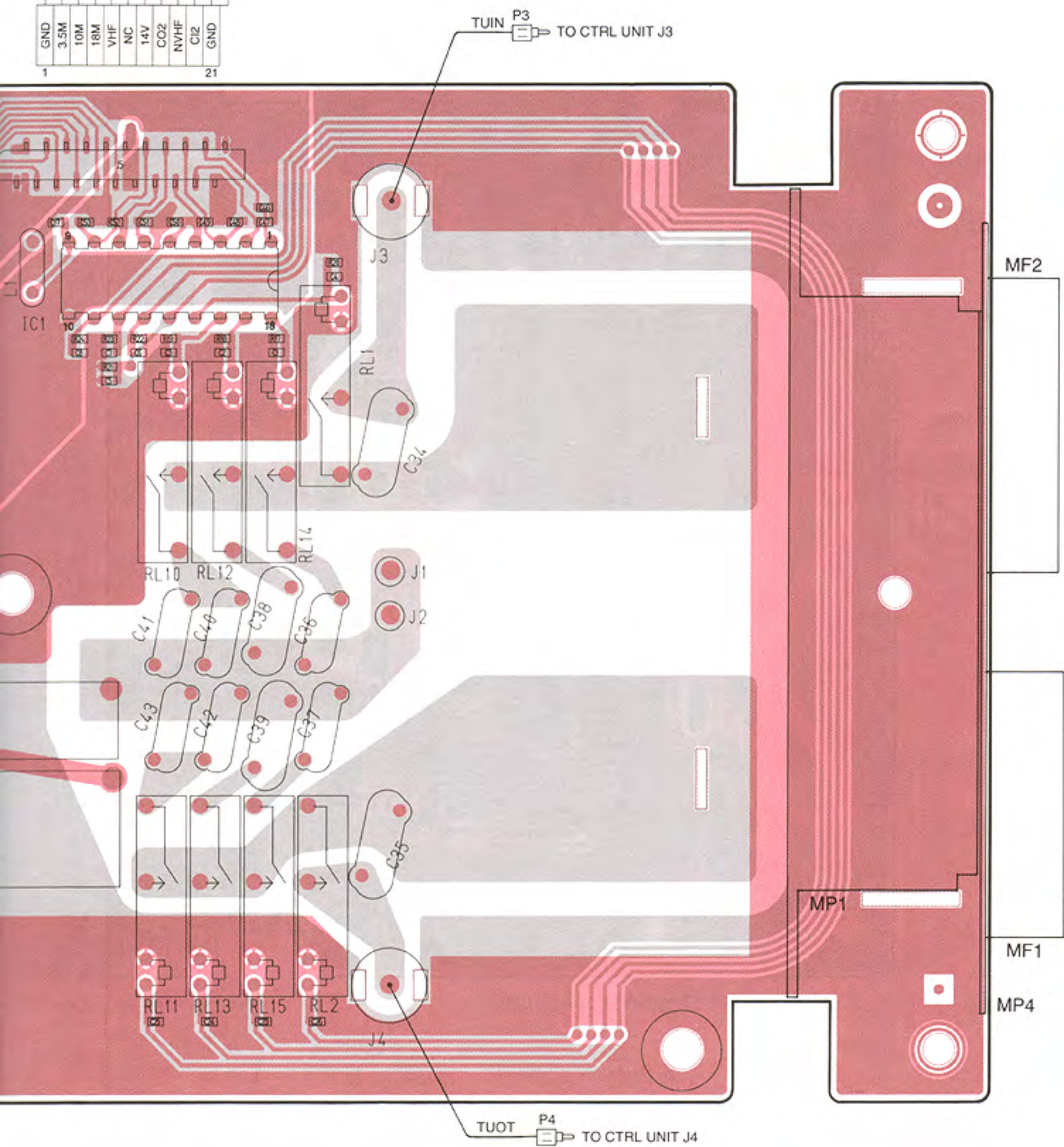


9-10 TUNER UNIT

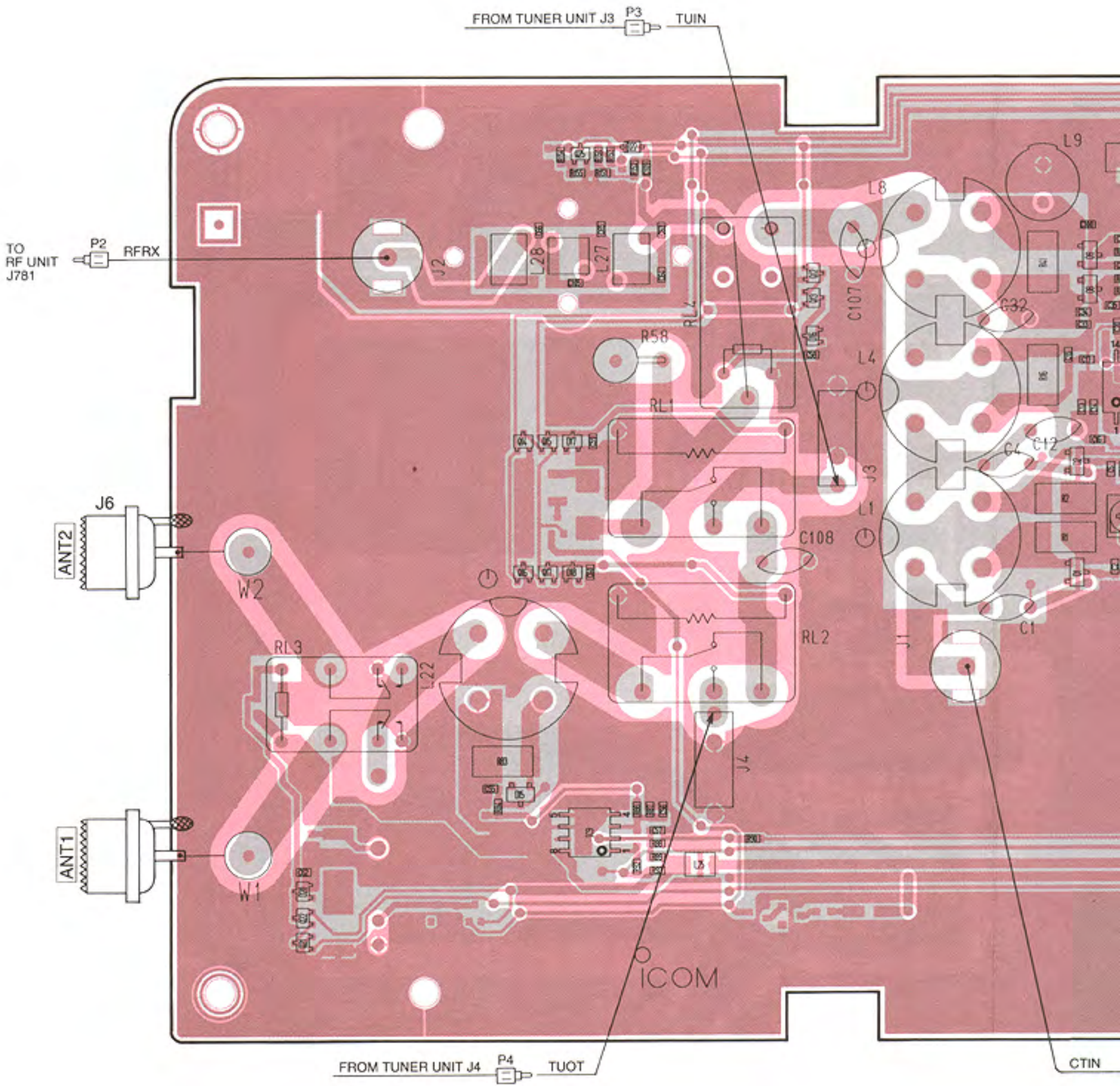


TO CTRL UNIT J8	
5	GND
4	7M
3	14M
2	24M
1	VHF
	GND
	14V
	CO3
	CO1
	CV3

TO CTRL UNIT J8	
5	GND
6	7M
7	14M
8	24M
9	VHF
10	NC
11	14V
12	CO3
13	CO1
14	C13
15	C11
16	GND
17	GND
18	3.5M
19	10M
20	18M
21	VHF
22	NC
23	14V
24	CO2
25	NVHF
26	C12
27	GND

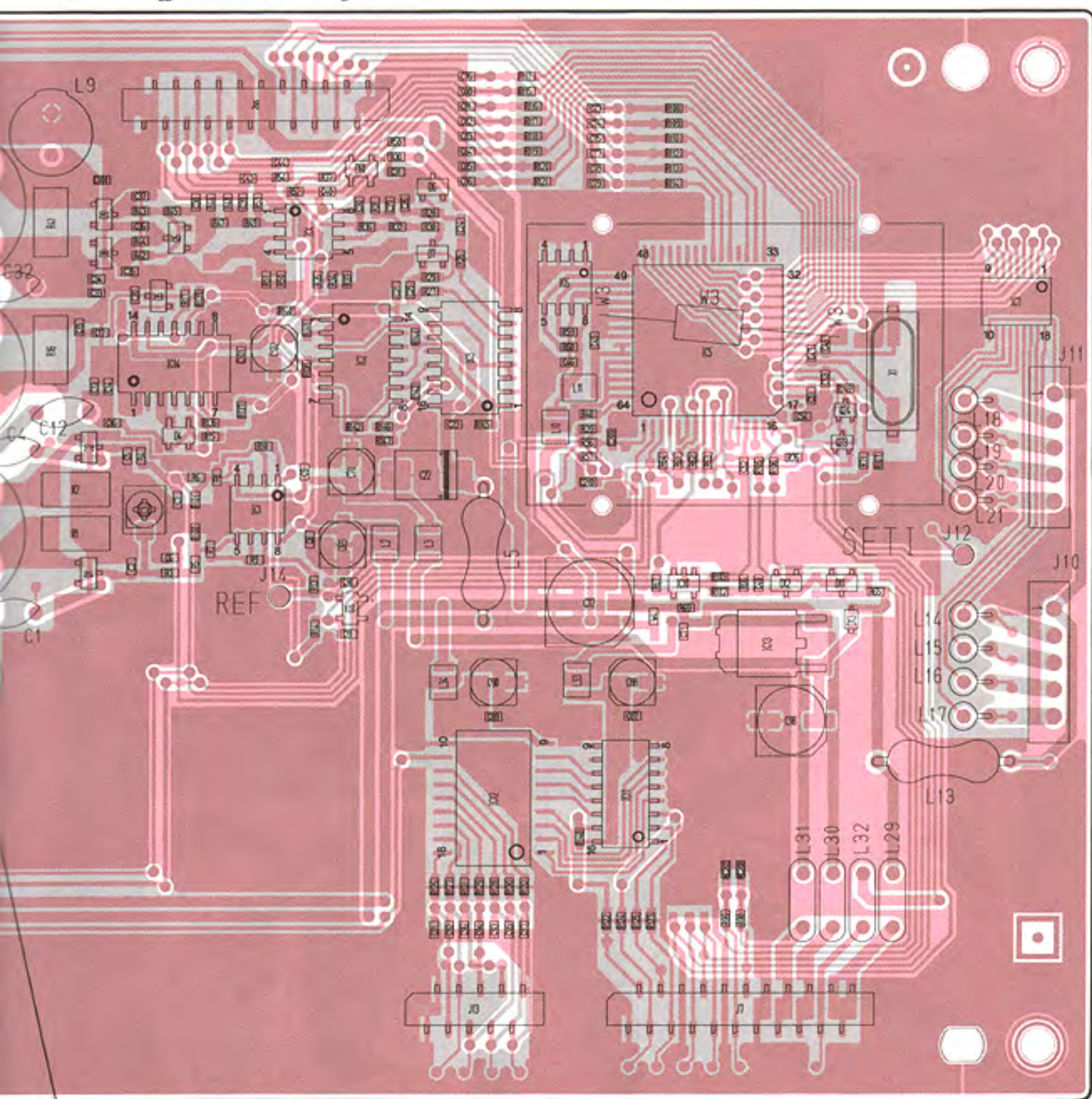


9-11 CTRL UNIT



TO TUNER UNIT J5

21	GND	7M	14M	24M	GND	14V	CO3	CO1	C13	C11	GND
22	GND	3.5M	10M	18M	VHF	NC	14V	CO2	NVHF	C12	GND



J11

1	T14V
2	AW
3	AX
4	AY
5	AZ

J10

1	T14V
2	PW
3	PX
4	PY
5	PZ

CTIN P1 TO FILTER UNIT J2

J13

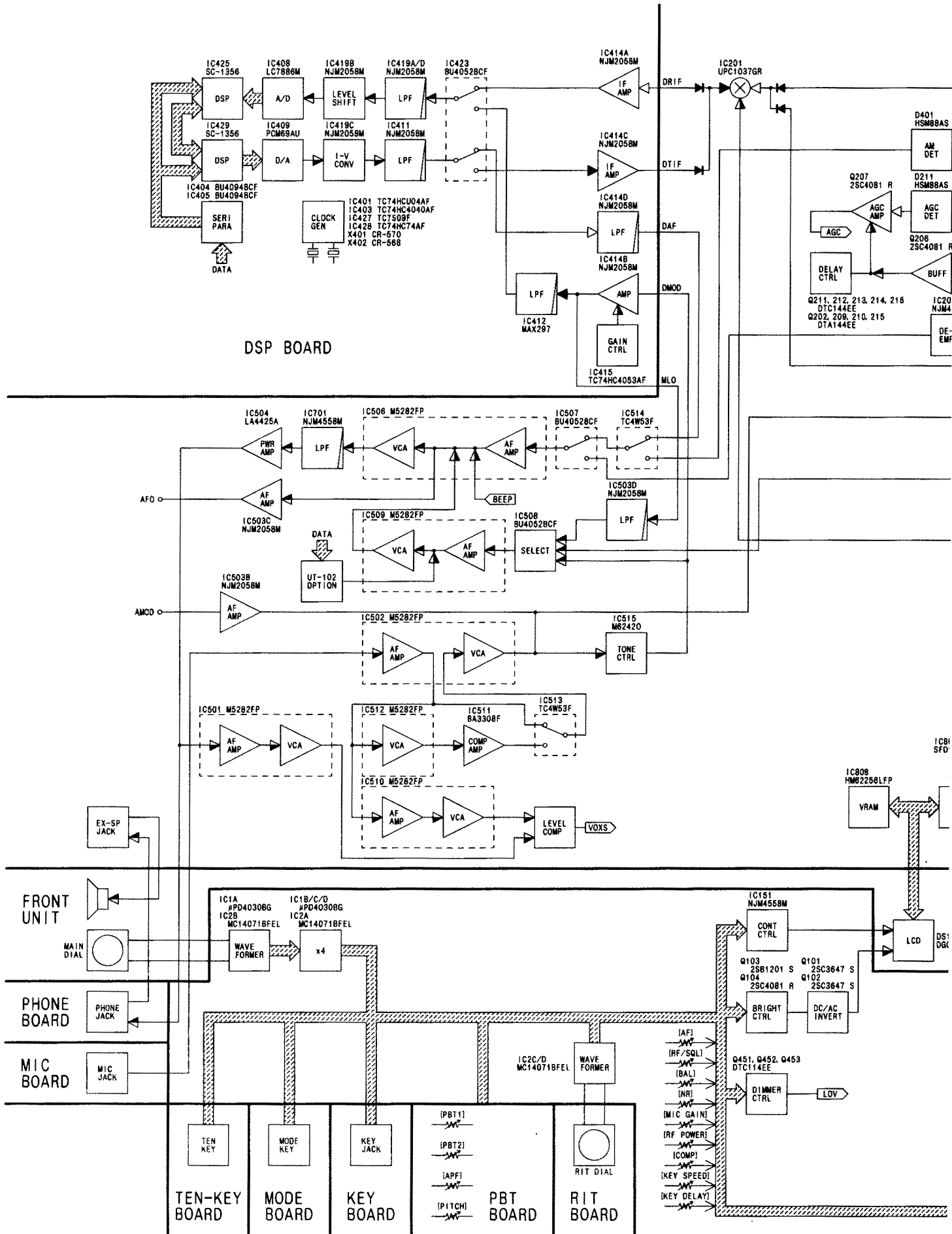
2	GND	10
3	L1	L2
4	L3	L4
5	L5	L6
6	L7	L8
7	L9	L10
8	L11	L12
9	L13	L14
10	L15	L16
11	L17	L18
12	L19	L20
13	L21	L22
14	L23	L24
15	L25	L26
16	L27	L28
17	L29	L30
18	L31	L32
19	L33	L34
20	L35	L36
21	L37	L38
22	L39	L40
23	L41	L42
24	L43	L44
25	L45	L46
26	L47	L48
27	L49	L50
28	L51	L52
29	L53	L54
30	L55	L56
31	L57	L58
32	L59	L60
33	L61	L62
34	L63	L64
35	L65	L66
36	L67	L68
37	L69	L70
38	L71	L72
39	L73	L74
40	L75	L76
41	L77	L78
42	L79	L80
43	L81	L82
44	L83	L84
45	L85	L86
46	L87	L88
47	L89	L90
48	L91	L92
49	L93	L94
50	L95	L96
51	L97	L98
52	L99	L100

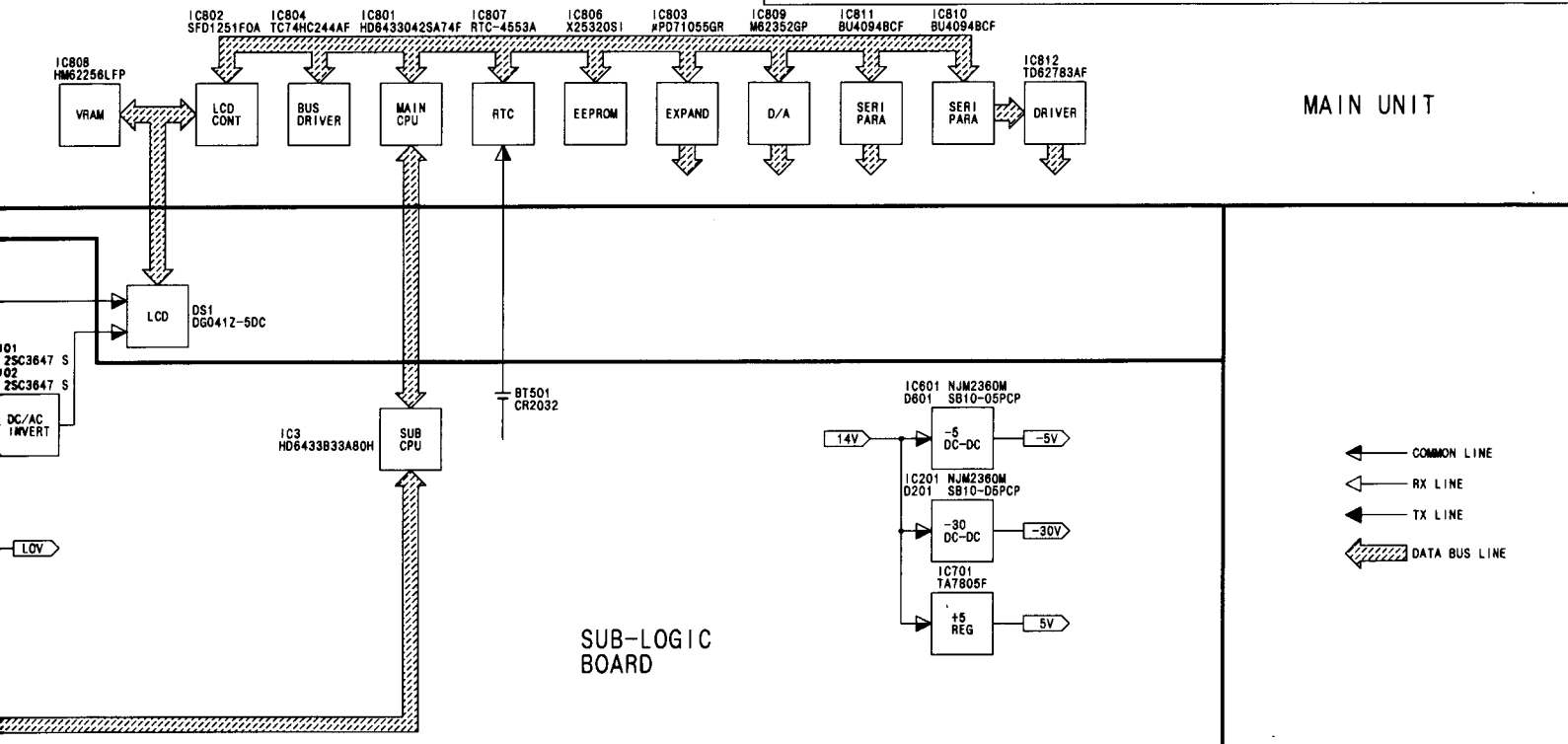
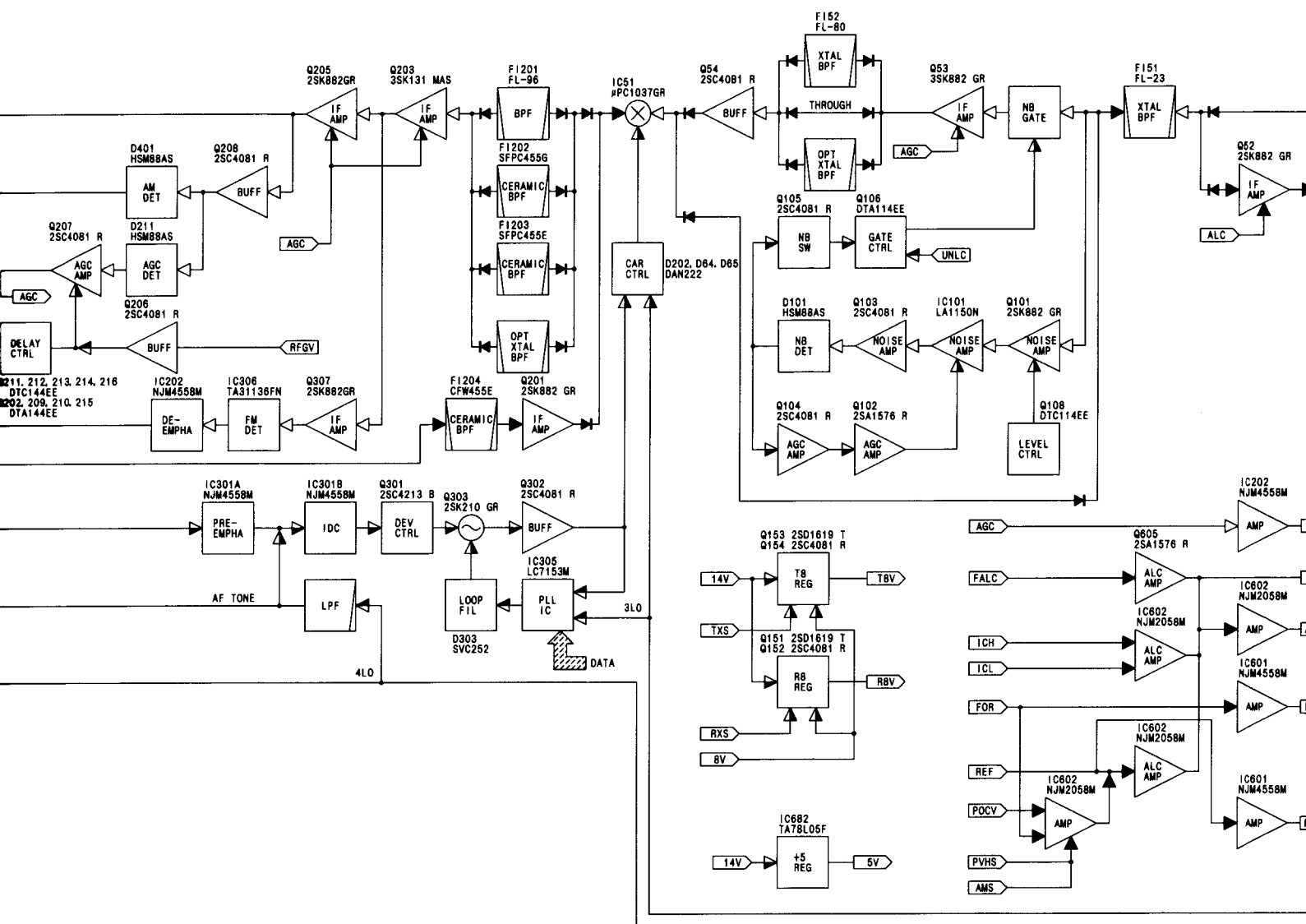
TO FILTER UNIT J3

J7

2	DRES	23
3	FSTB	24
4	GND	25
5	ISTA	26
6	GND	27
7	REF	28
8	GND	29
9	-5V	30
10	5V	31
11	T8V	32
12	14V	33
13	14V	34
14	GND	35
15	CMCK	36
16	CMDB	37
17	RST	38
18	IKEY	39
19	FOR	40
20	GND	41
21	-5V	42
22	5V	43
23	T8V	44
24	14V	45
25	14V	46
26	GND	47
27	CMCK	48
28	CMDB	49
29	RST	50
30	IKEY	51
31	FOR	52
32	GND	53
33	-5V	54
34	5V	55
35	T8V	56
36	14V	57
37	14V	58
38	GND	59
39	CMCK	60
40	CMDB	61
41	RST	62
42	IKEY	63
43	FOR	64
44	GND	65
45	-5V	66
46	5V	67
47	T8V	68
48	14V	69
49	14V	70
50	GND	71
51	CMCK	72
52	CMDB	73
53	RST	74
54	IKEY	75
55	FOR	76
56	GND	77
57	-5V	78
58	5V	79
59	T8V	80
60	14V	81
61	14V	82
62	GND	83
63	CMCK	84
64	CMDB	85
65	RST	86
66	IKEY	87
67	FOR	88
68	GND	89
69	-5V	90
70	5V	91
71	T8V	92
72	14V	93
73	14V	94
74	GND	95
75	CMCK	96
76	CMDB	97
77	RST	98
78	IKEY	99
79	FOR	100
80	GND	101
81	-5V	102
82	5V	103
83	T8V	104
84	14V	105
85	14V	106
86	GND	107
87	CMCK	108
88	CMDB	109
89	RST	110
90	IKEY	111
91	FOR	112
92	GND	113
93	-5V	114
94	5V	115
95	T8V	116
96	14V	117
97	14V	118
98	GND	119
99	CMCK	120
100	CMDB	121
101	RST	122
102	IKEY	123
103	FOR	124
104	GND	125
105	-5V	126
106	5V	127
107	T8V	128
108	14V	129
109	14V	130
110	GND	131
111	CMCK	132
112	CMDB	133
113	RST	134
114	IKEY	135
115	FOR	136
116	GND	137
117	-5V	138
118	5V	139
119	T8V	140
120	14V	141
121	14V	142
122	GND	143
123	CMCK	144
124	CMDB	145
125	RST	146
126	IKEY	147
127	FOR	148
128	GND	149
129	-5V	150
130	5V	151
131	T8V	152
132	14V	153
133	14V	154
134	GND	155
135	CMCK	156
136	CMDB	157
137	RST	158
138	IKEY	159
139	FOR	160
140	GND	161
141	-5V	162
142	5V	163
143	T8V	164
144	14V	165
145	14V	166
146	GND	167
147	CMCK	168
148	CMDB	169
149	RST	170
150	IKEY	171
151	FOR	172
152	GND	173
153	-5V	174
154	5V	175
155	T8V	176
156	14V	177
157	14V	178
158	GND	179
159	CMCK	180
160	CMDB	181
161	RST	182
162	IKEY	183
163	FOR	184
164	GND	185
165	-5V	186
166	5V	187
167	T8V	188
168	14V	189
169	14V	190
170	GND	191
171	CMCK	192
172	CMDB	193
173	RST	194
174	IKEY	195
175	FOR	196
176	GND	197
177	-5V	198
178	5V	199
179	T8V	200
180	14V	201
181	14V	202
182	GND	203
183	CMCK	204
184	CMDB	205
185	RST	206
186	IKEY	207
187	FOR	208
188	GND	209
189	-5V	210
190	5V	211
191	T8V	212
192	14V	213
193	14V	214
194	GND	215
195	CMCK	216
196	CMDB	217
197	RST	218
198	IKEY	219
199	FOR	220
200	GND	221
201	-5V	222
202	5V	223
203	T8V	224
204	14V	225
205	14V	226
206	GND	227
207	CMCK	228
208	CMDB	229
209	RST	230
210	IKEY	231
211	FOR	232
212	GND	233
213	-5V	234
214	5V	235
215	T8V	236
216	14V	237
217	14V	238
218	GND	239
219	CMCK	240
220	CMDB	241
221	RST	242
222	IKEY	243
223	FOR	244
224	GND	245
225	-5V	246
226	5V	247
227	T8V	248
228	14V	249
229	14V	250
230	GND	251
231	CMCK	252
232	CMDB	253
233	RST	254
234	IKEY	255
235	FOR	256
236	GND	257
237	-5V	258
238	5V	259
239	T8V	260
240	14V	261
241	14V	262
242	GND	263
243	CMCK	264
244	CMDB	265
245	RST	266
246	IKEY	267
247	FOR	268
248	GND	269
249	-5V	270
250	5V	271
251	T8V	272
252	14V	273
253	14V	274
254	GND	275
255	CMCK	276
256	CMDB	277
257	RST	278
258	IKEY	279
259	FOR	280
260	GND	281
261	-5V	282
262	5V	283
263	T8V	284
264	14V	285
265	14V	286
266	GND	287
267	CMCK	288
268	CMDB	289
269	RST	290
270	IKEY	291
271	FOR	292
272	GND	293
273	-5V	294
274	5V	295
275	T8V	296
276	14V	297
277	14V	298
278	GND	299
279	CMCK	300
280	CMDB	301
281	RST	302
282	IKEY	303
283	FOR	304
284	GND	305
285	-5V	306
286	5V	307
287	T8V	308
288	14V	309
289	14V	310
290	GND	311
291	CMCK	312
292	CMDB	313
293	RST	314
294	IKEY	315
295	FOR	316
296	GND	317
297	-5V	318
298	5V	319
299	T8V	320
300	14V	321
301	14V	322
302	GND	323
303	CMCK	324
304	CMDB	325
305	RST	326
306	IKEY	327
307	FOR	328
308	GND	329
309	-5V	330
310	5V	331
311	T8V	332
312	14V	333
313	14V	334
314	GND	335
315	CMCK	336
316	CMDB	337
317	RST	338
318	IKEY	339
319	FOR	340
320	GND	341
321	-5V	342
322	5V	343
323	T8V	344
324	14V	345

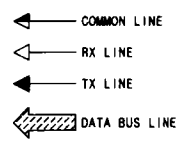
SECTION 10 BLOCK DIAGRAM





MAIN UNIT

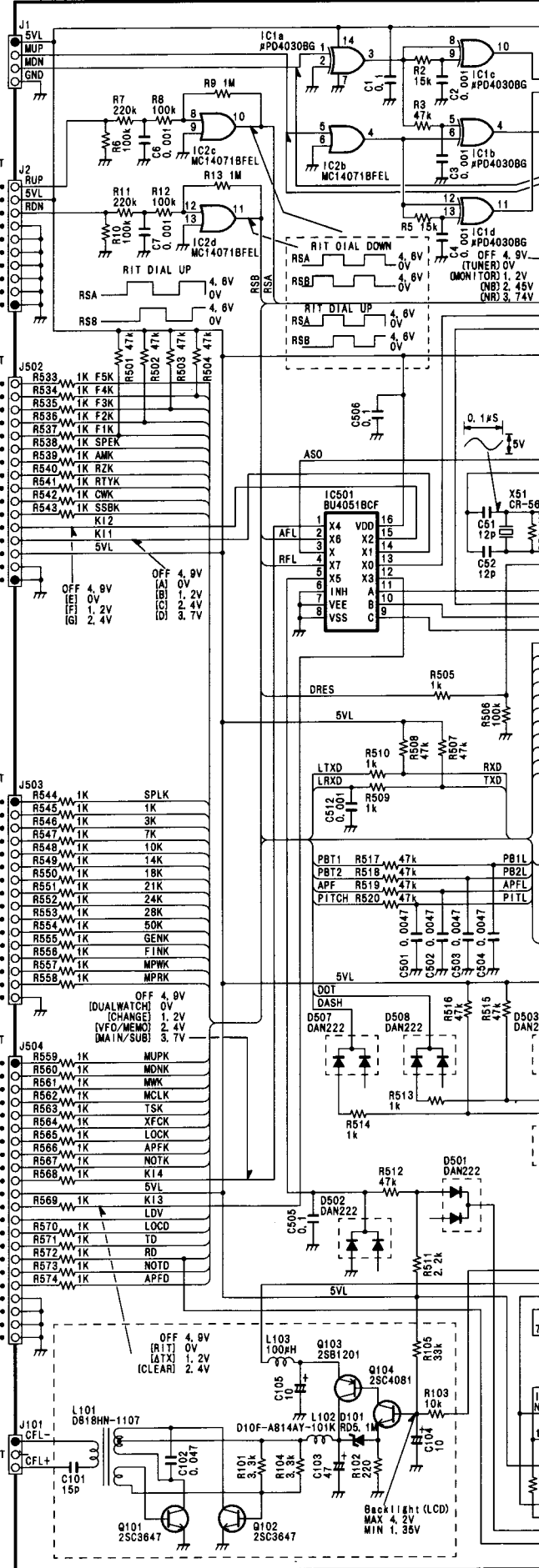
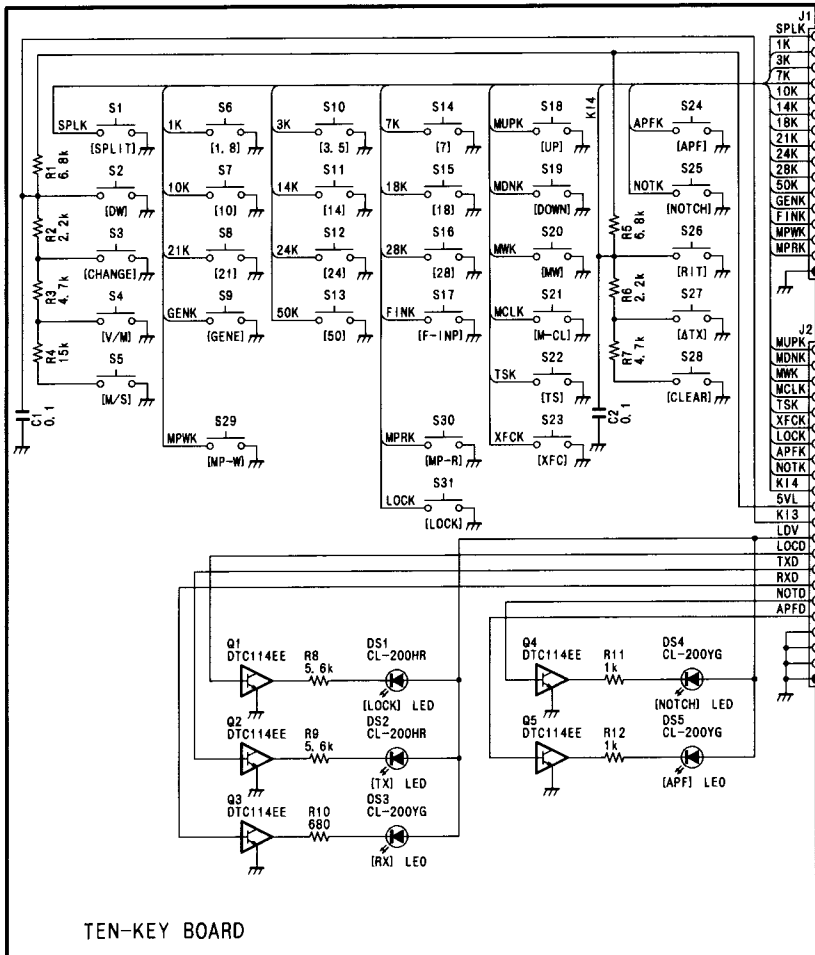
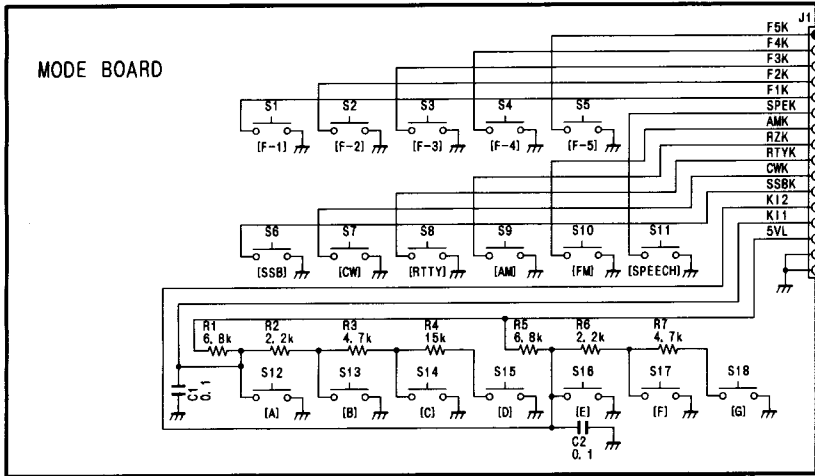
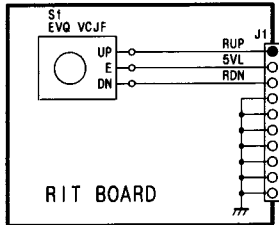
SUB-LOGIC BOARD

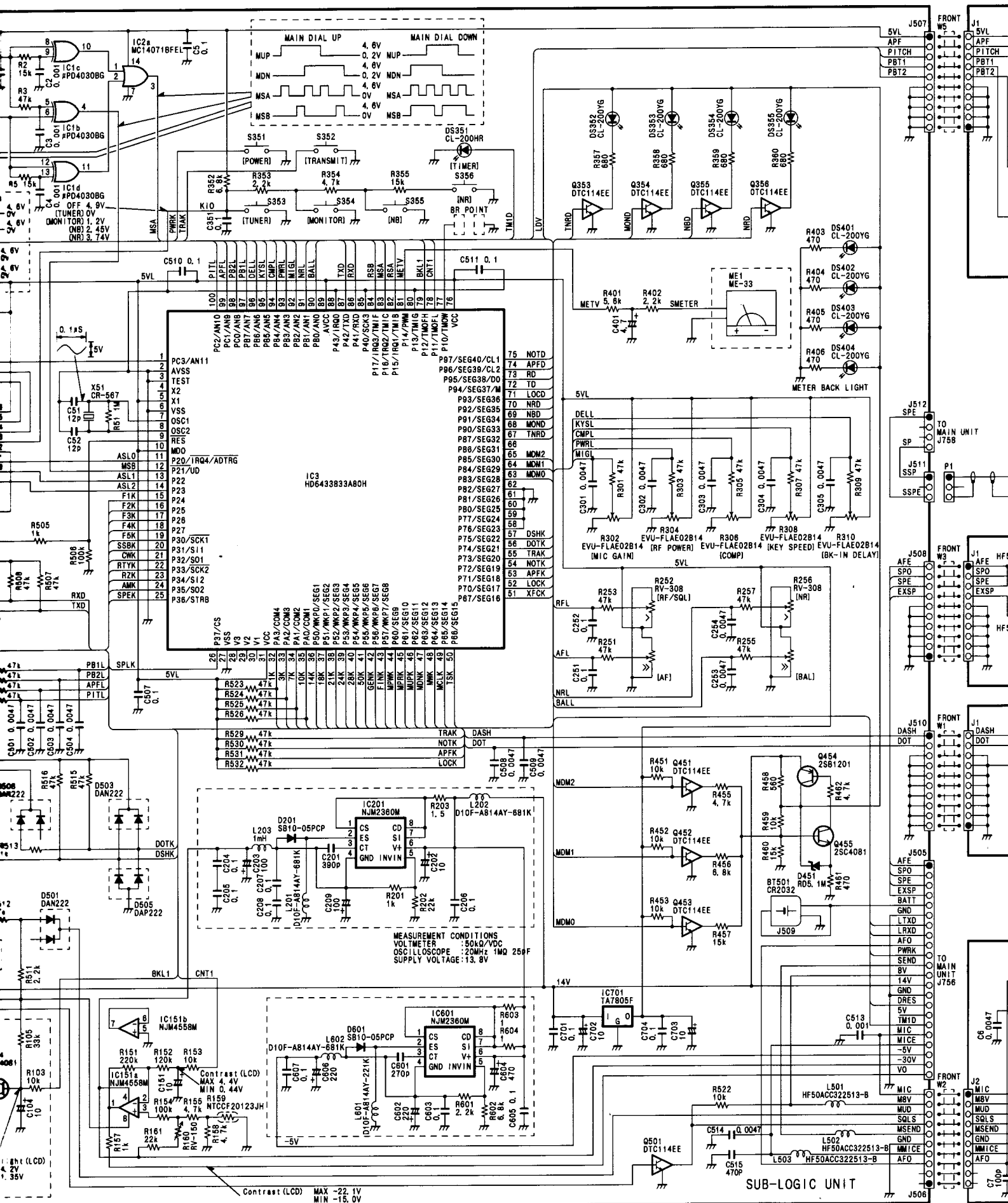


SECTION 11 VOLTAGE DIAGRAM

Backlight (switches)	MDM2	MDM1	MDM0	(A)	(B)
8	0.06	0.06	0.06	6.7	11.5
5	0.08	4.8	4.8	1.5	5.9
1	4.8	4.8	4.8	0.8	4.8

EP1 RMS20-250-201-1P

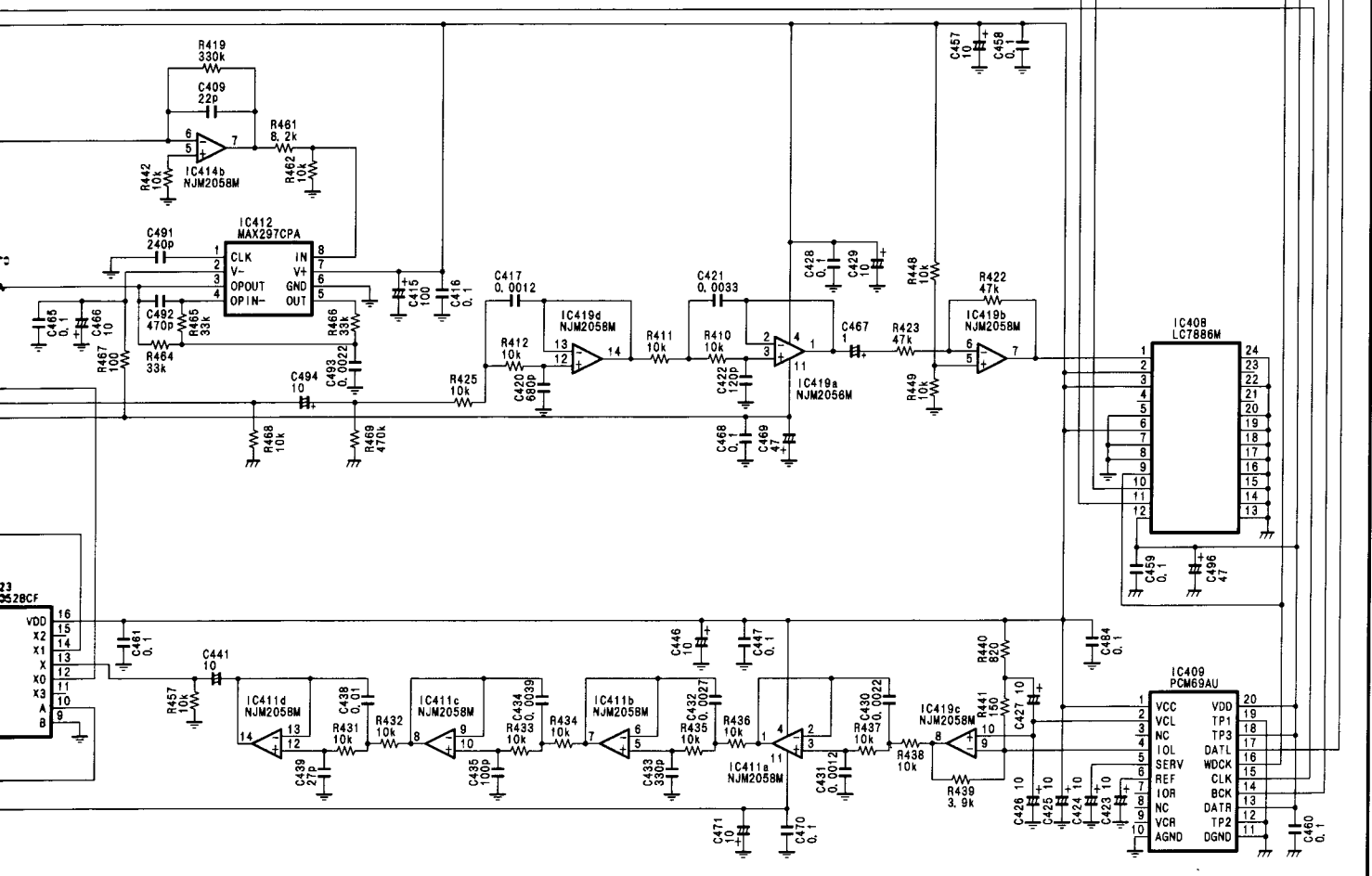
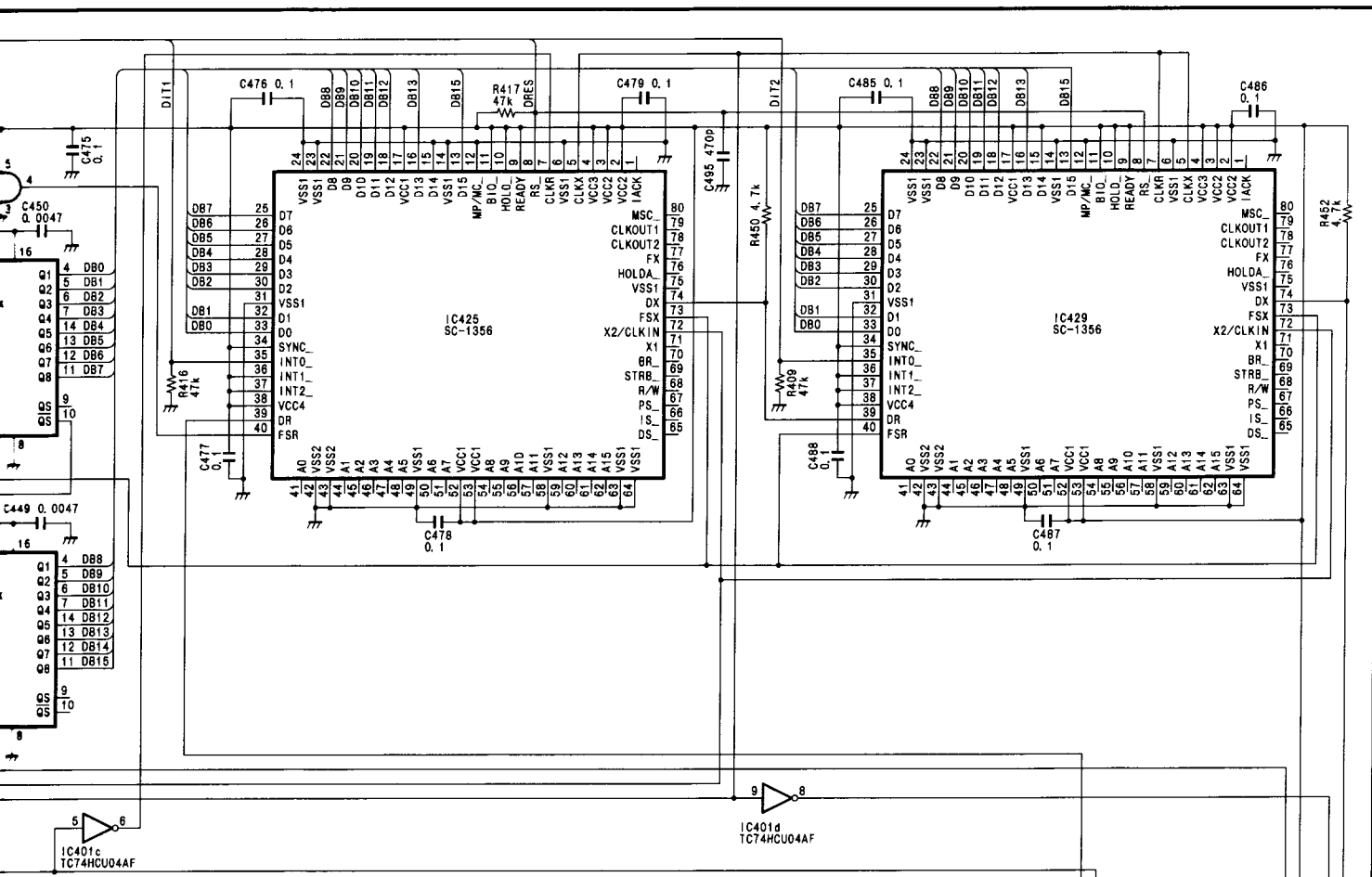




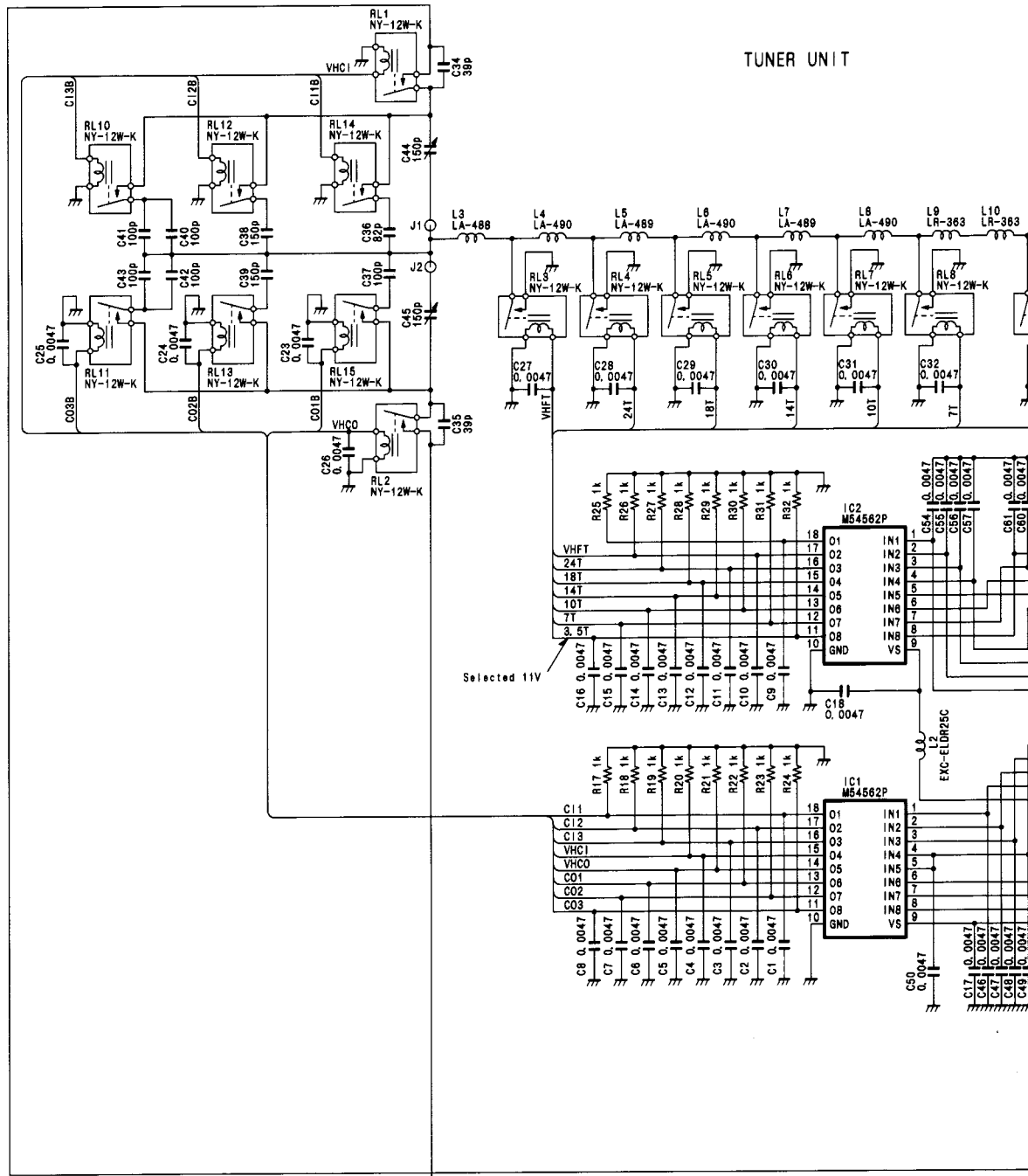
MEASUREMENT CONDITIONS
 VOLTMETER : 50kΩ/VDC
 OSCILLOSCOPE : 20MHz 1MΩ 25pF
 SUPPLY VOLTAGE : 13.8V

Contrast (LCD) MAX -22.1V
 MIN -15.0V

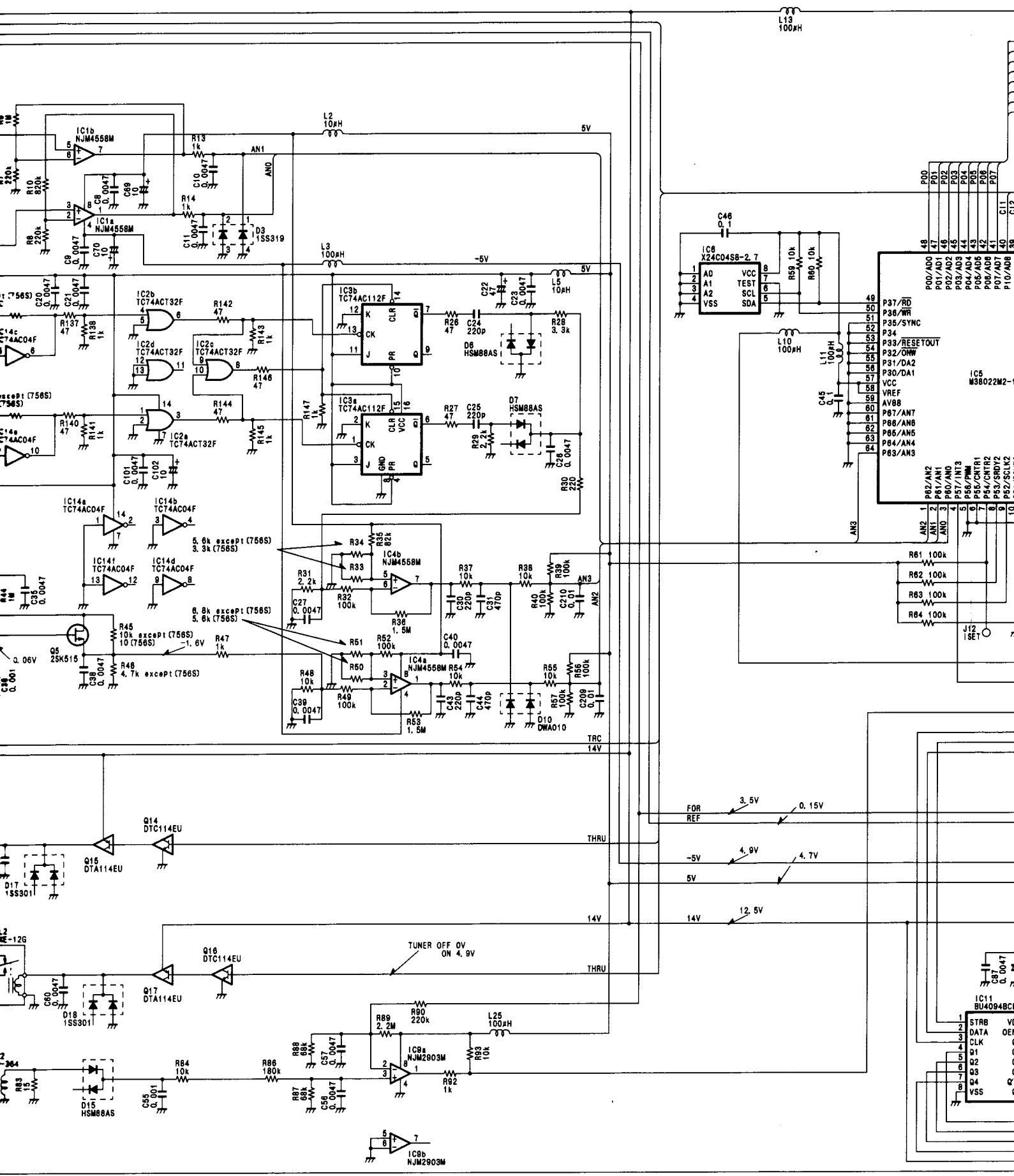
SUB-LOGIC UNIT

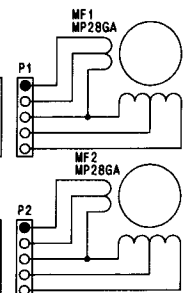
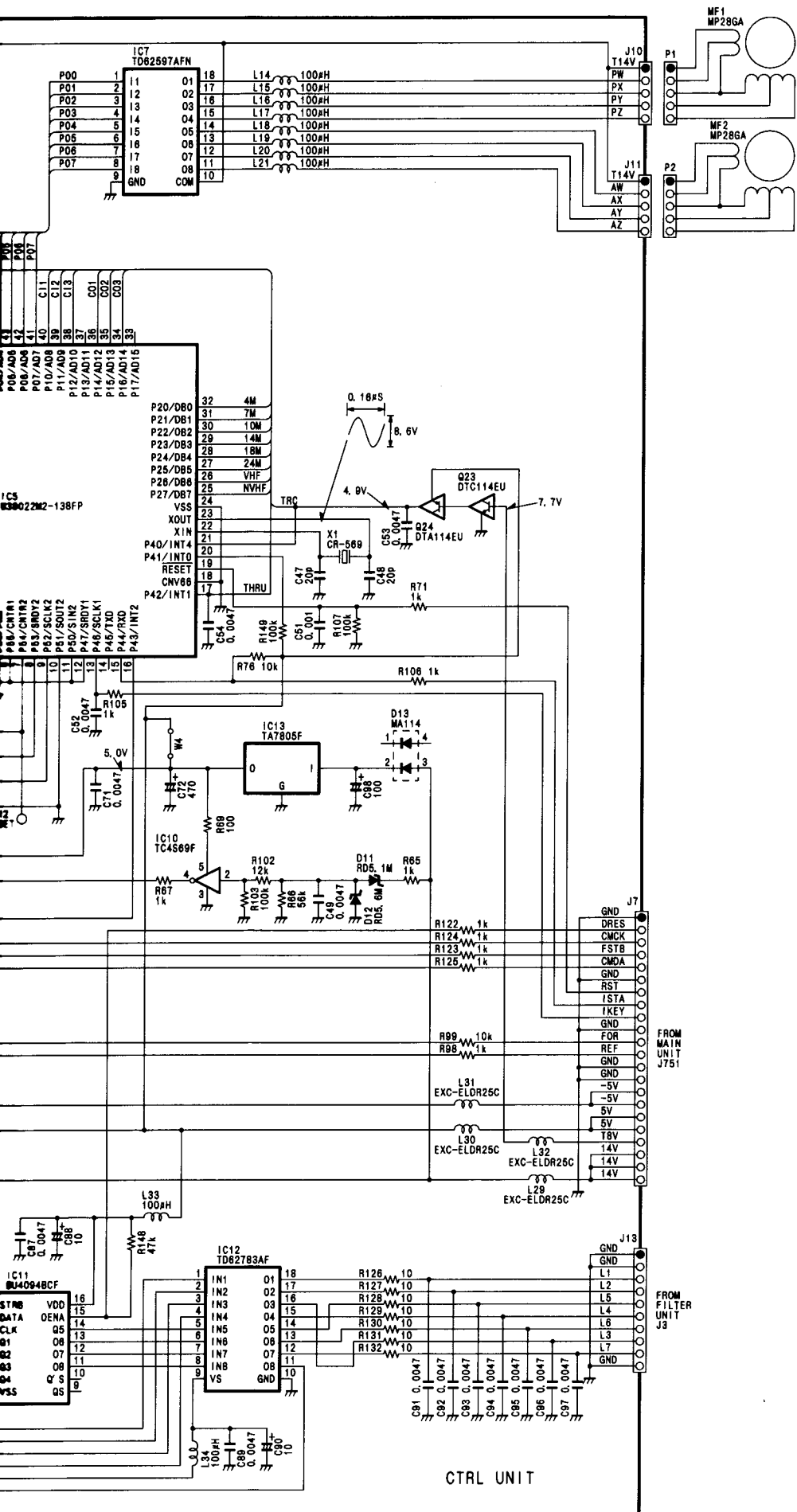


TUNER UNIT



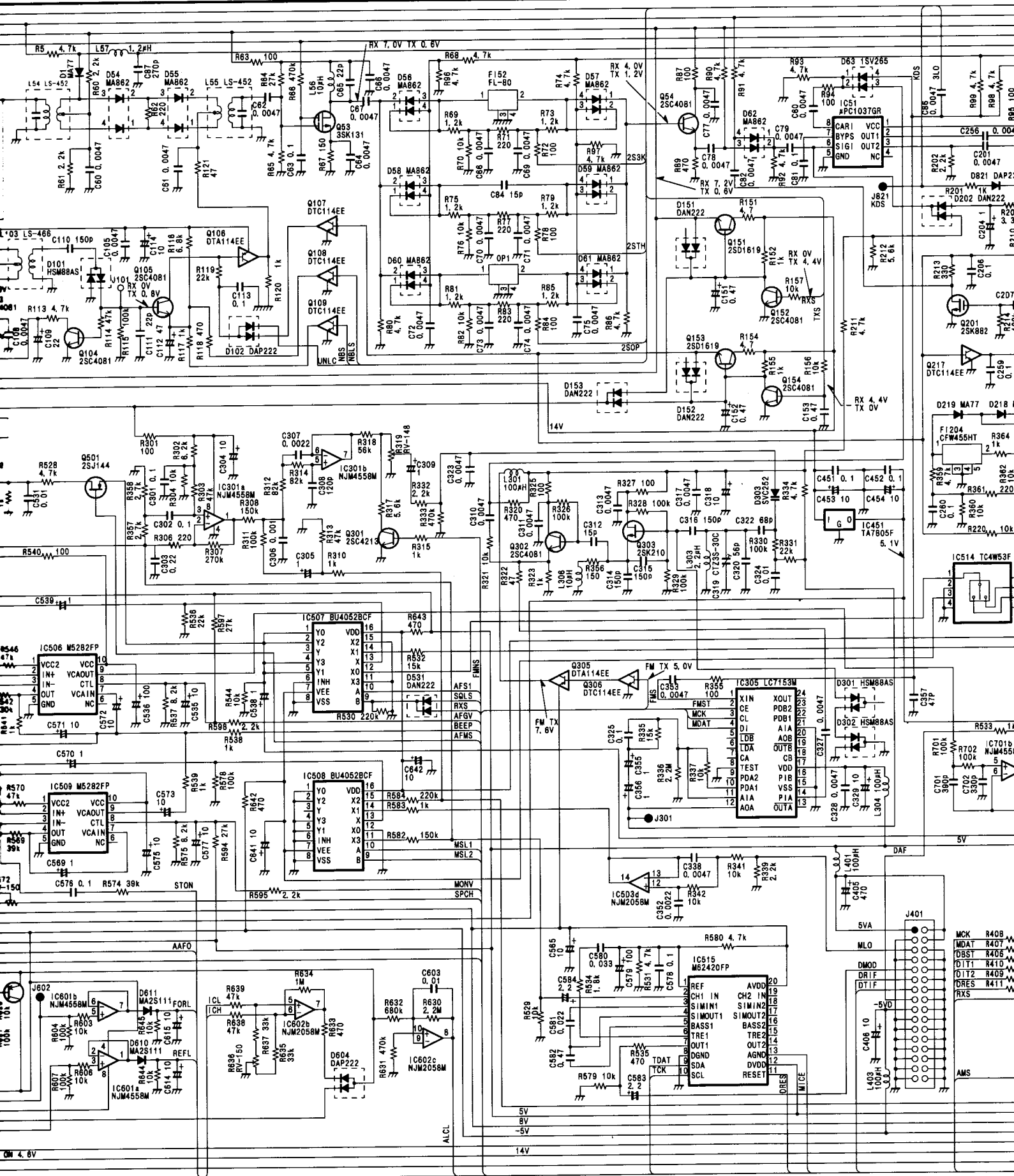
MEASUREMENT CONDITIONS
 MULTIMETER : 50kΩ/VDC
 SUPPLY VOLTAGE : 13.8V

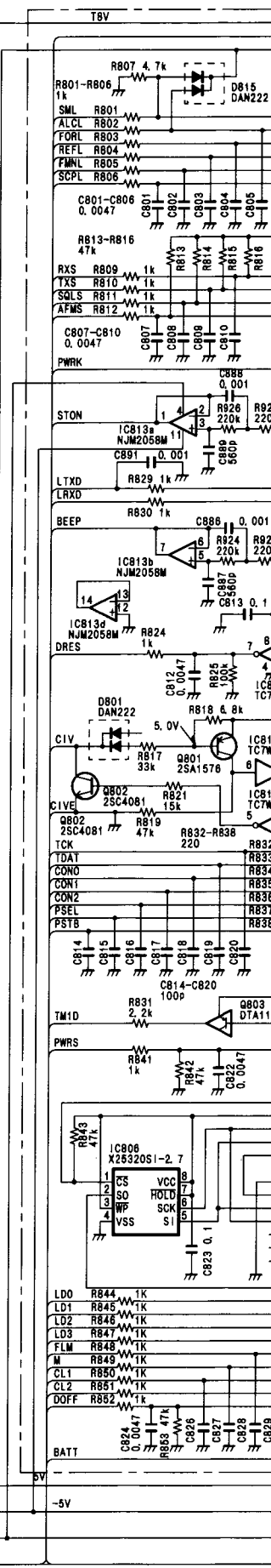
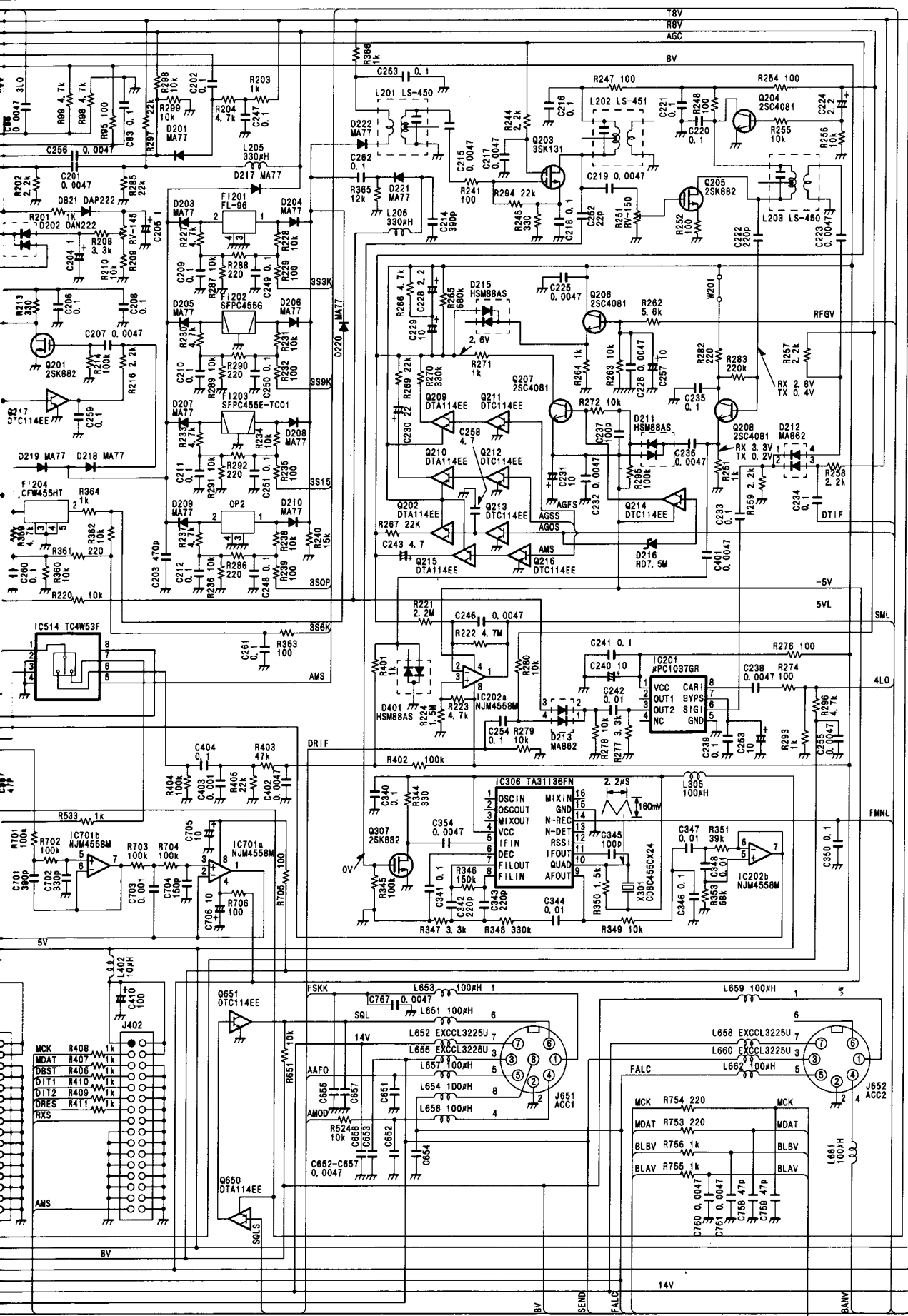


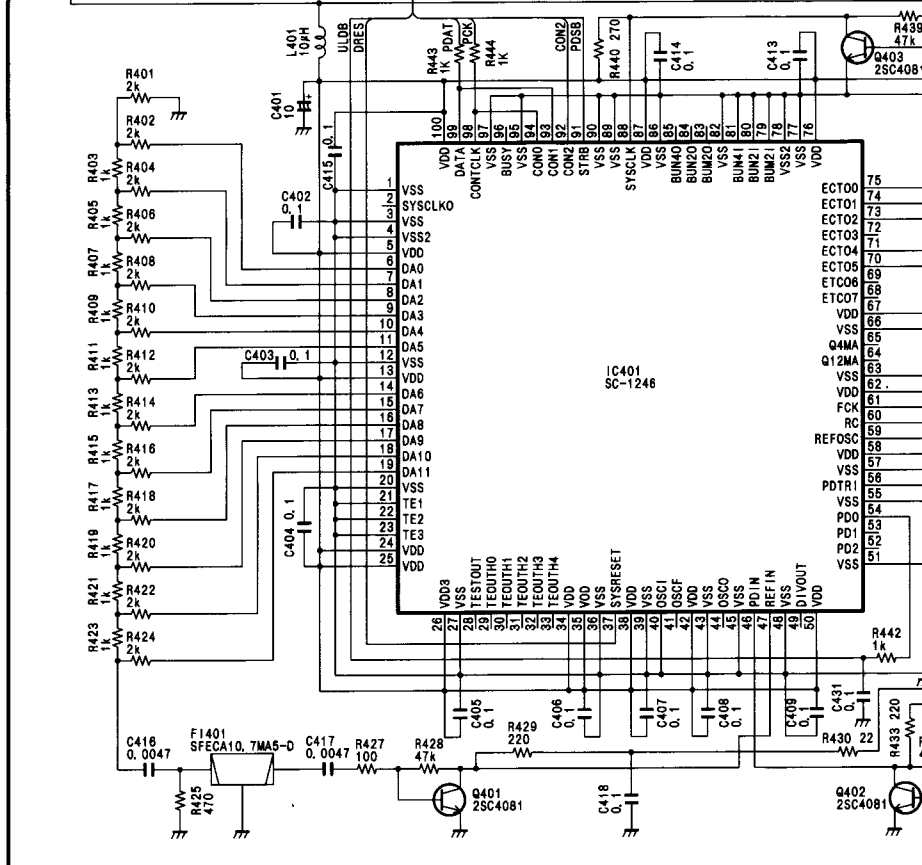
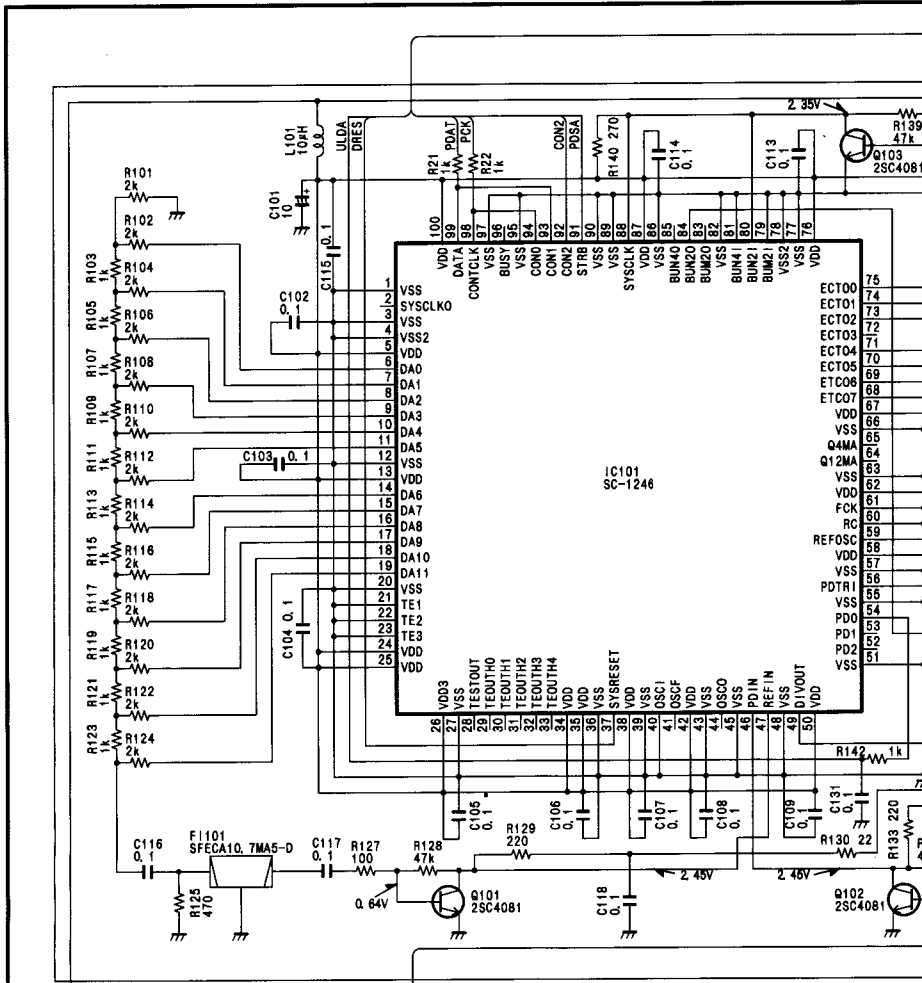


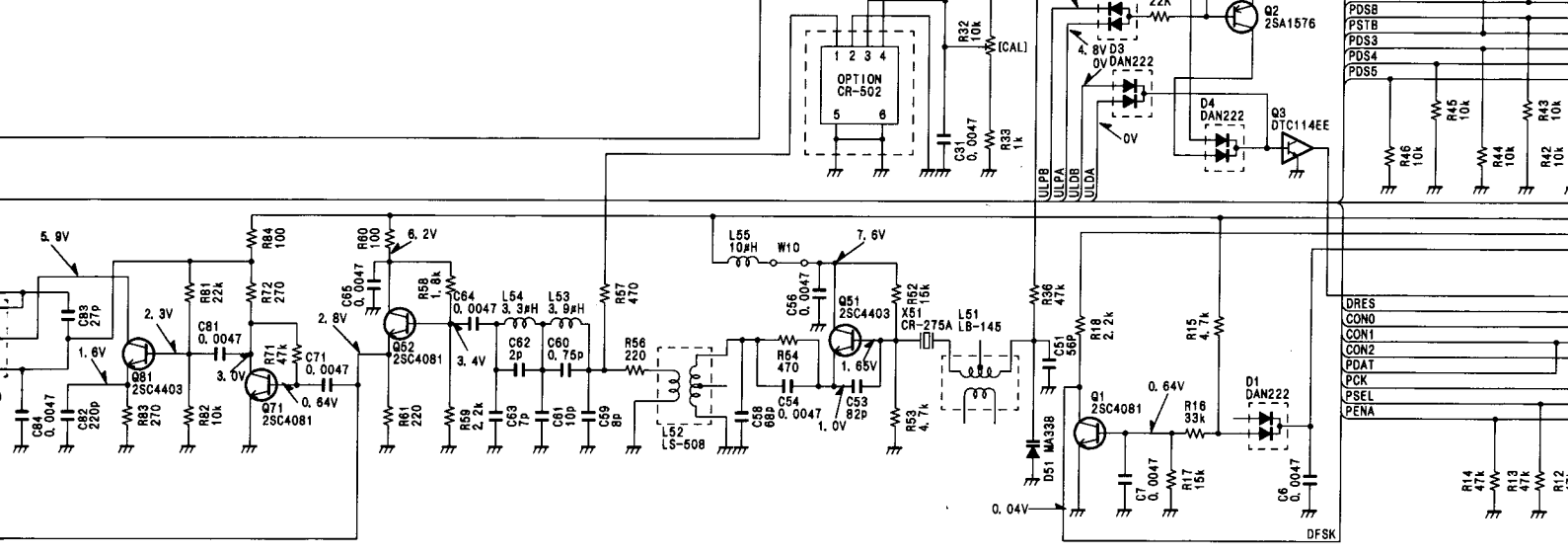
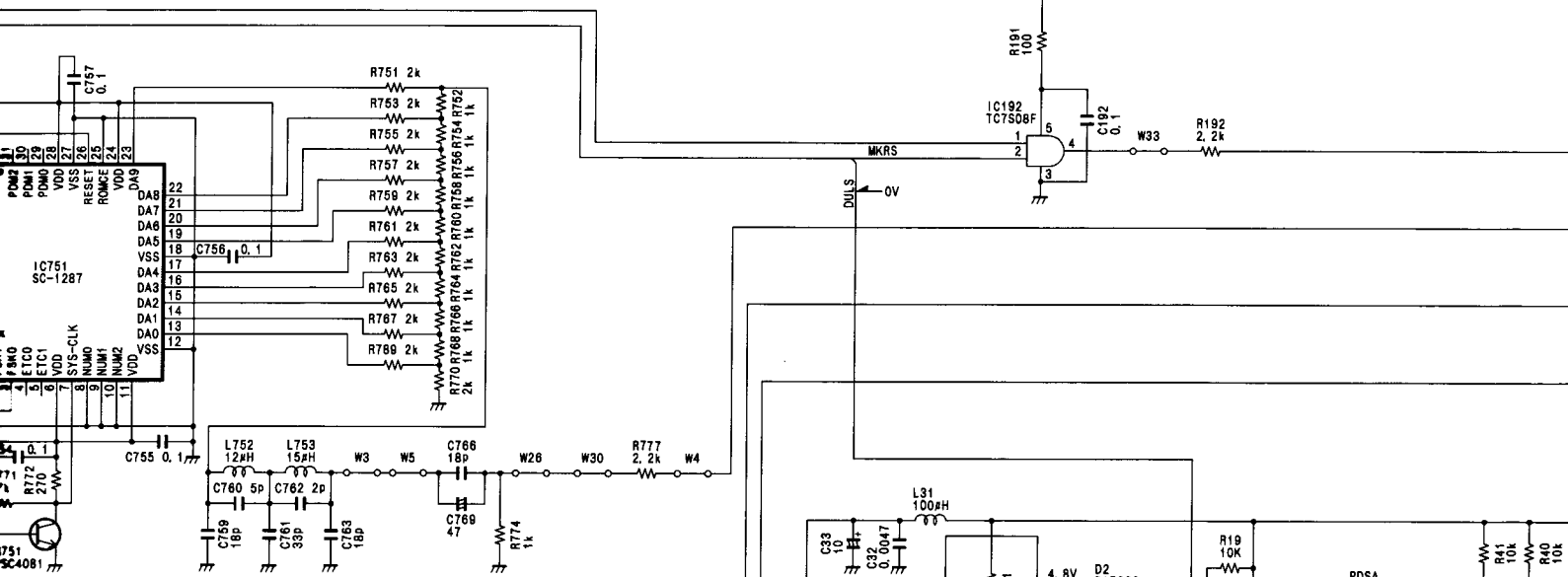
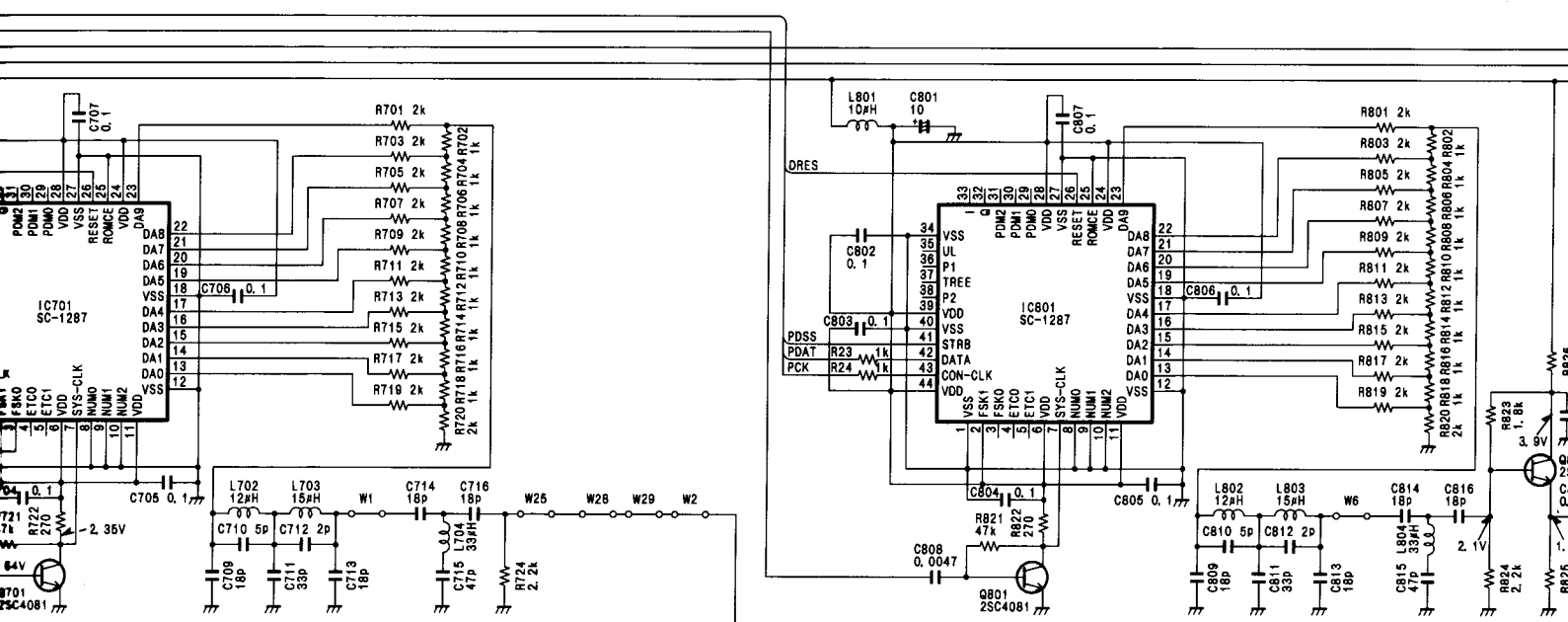
FROM MAIN UNIT J751

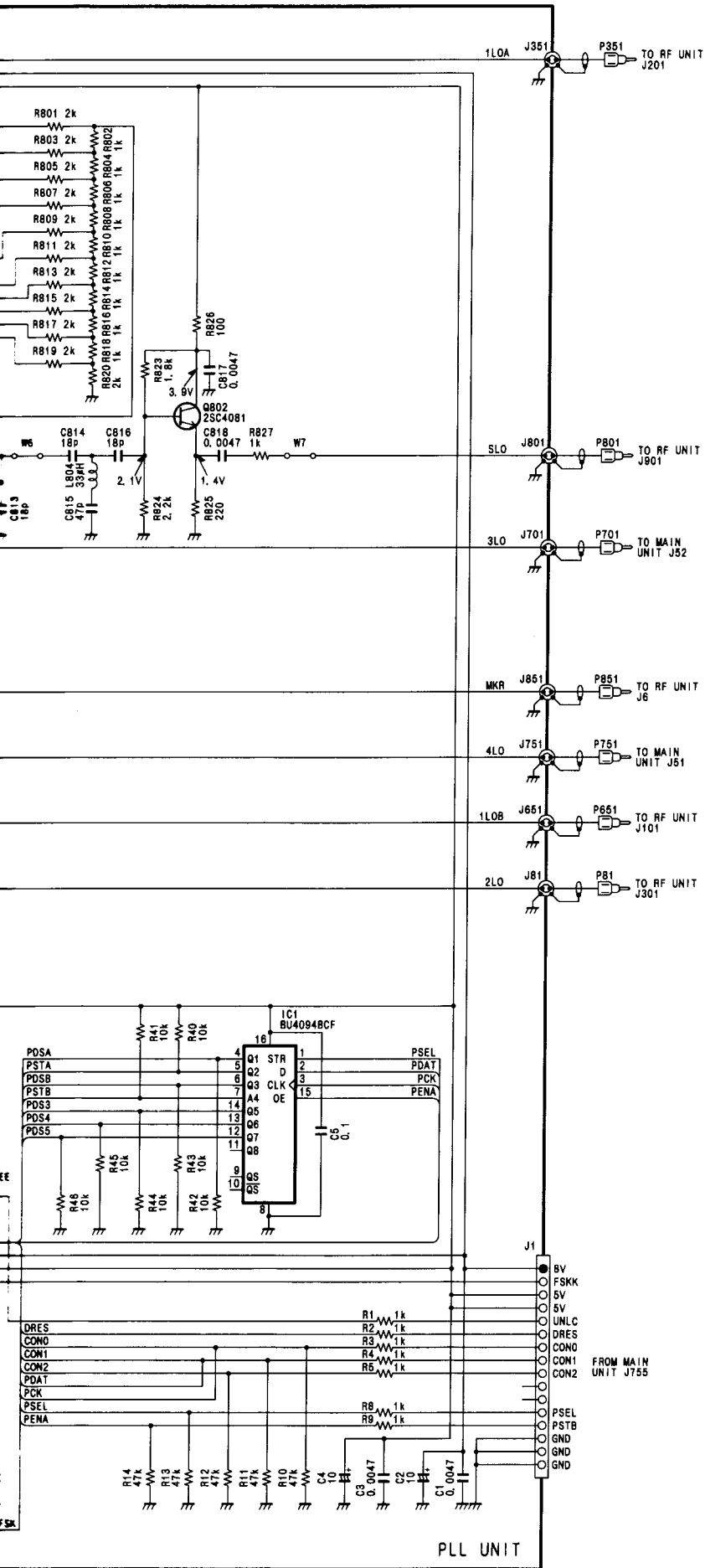
FROM FILTER UNIT J3

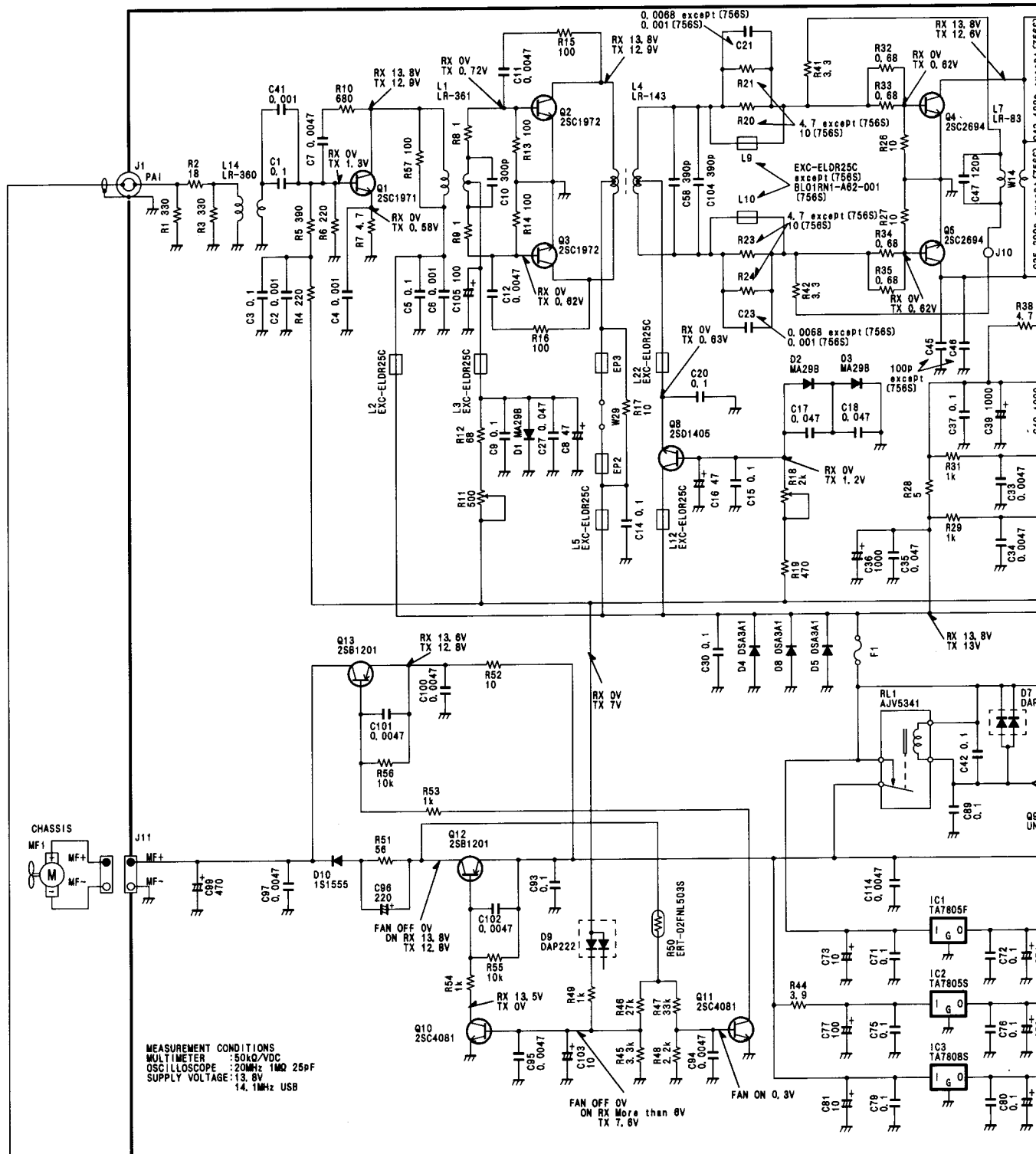




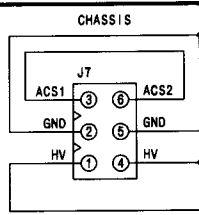


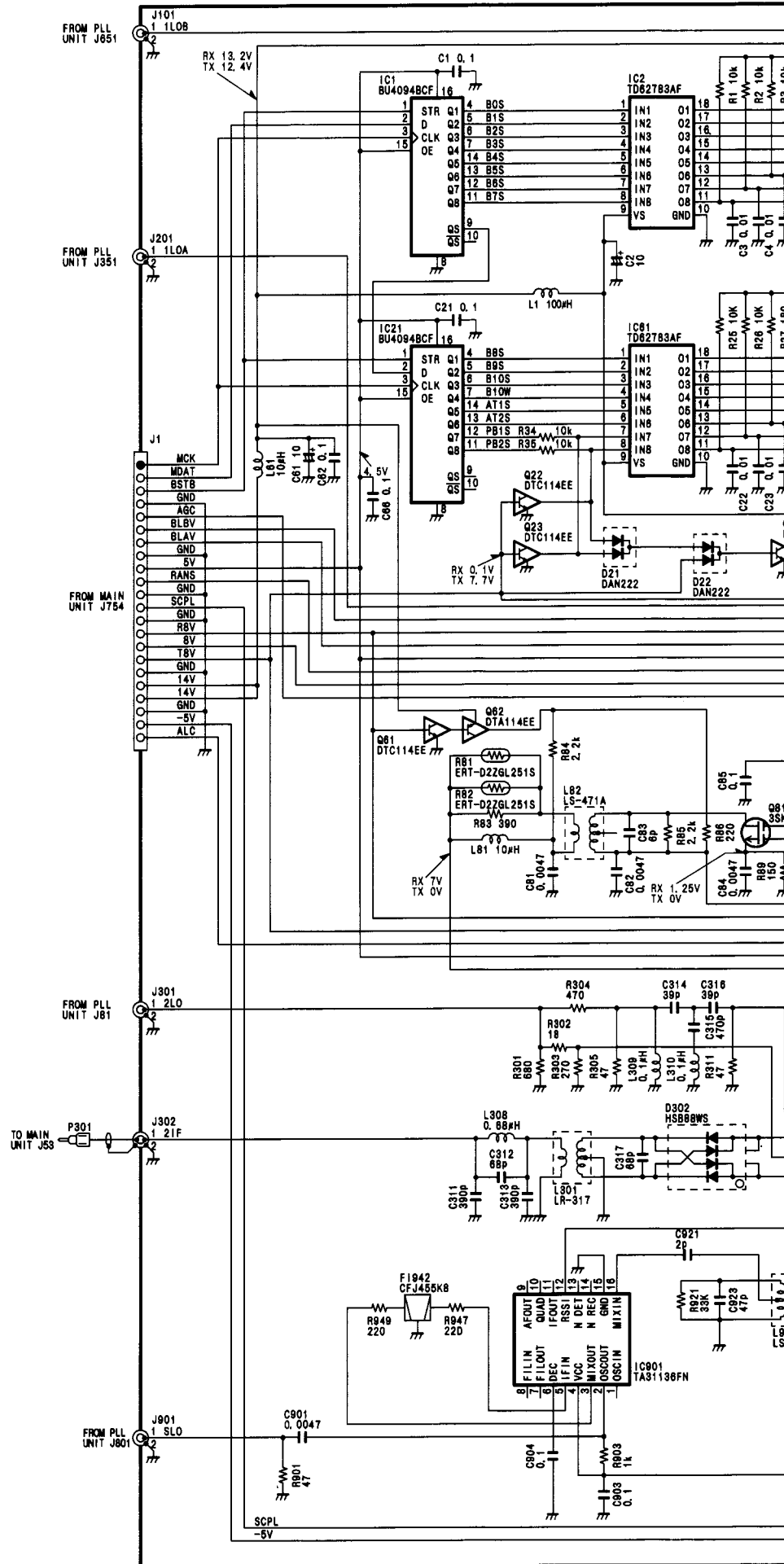


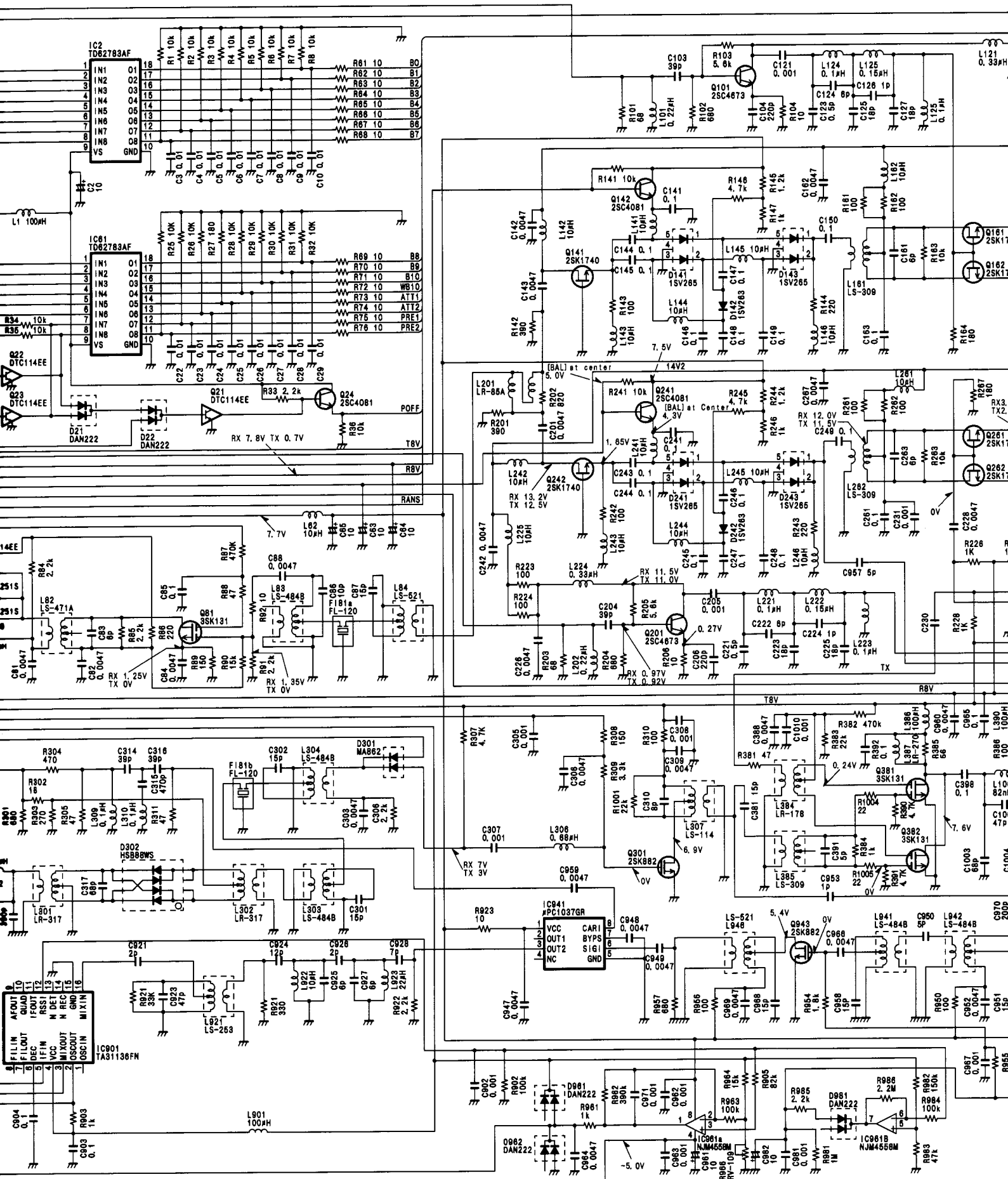


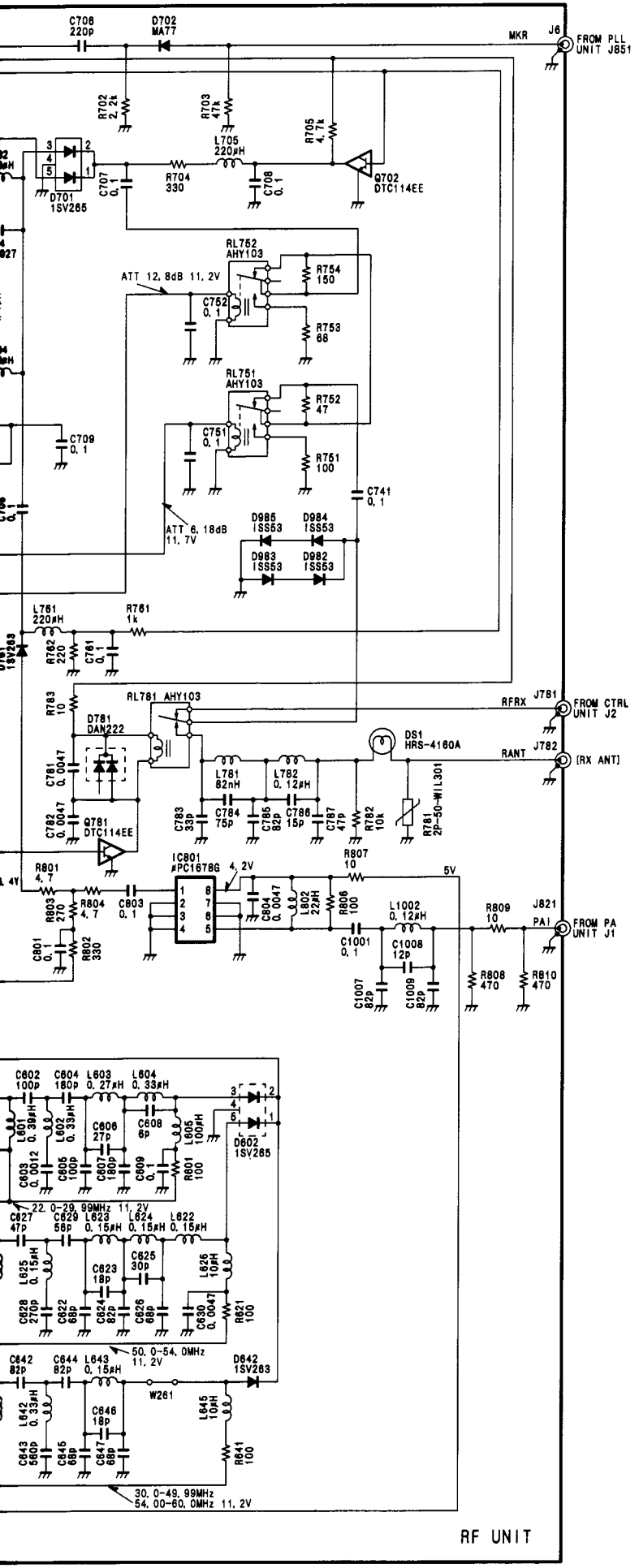


MEASUREMENT CONDITIONS
 MULTIMETER : 50kΩ/VDC
 OSCILLOSCOPE : 20MHz 1MΩ 25pF
 SUPPLY VOLTAGE : 13.8V
 14.1MHz USB









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