



SERVICE MANUAL

VHF/UHF ALL MODE TRANSCEIVER

IC-910H

INTRODUCTION

This service manual describes the latest service information for the **IC-910H** VHF/UHF ALL MODE TRANSCEIVER at the time of publication.

| VERSION No. | VERSION | SYMBOL |
|-------------|-----------|--------|
| #02 | Europe | EUR |
| #04 | Australia | AUS |
| #06 | U.S.A. | USA-1 |
| #07 | Korea | KOR |

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>

1110003140 IC LA1150N IC-910H MAIN UNIT 5 pieces
8810005770 Screw BiH M3×8 ZK IC-910H 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 : (Unit: MHz)

| Version | 144 MHz | 430 (440) MHz | 1200 MHz* ¹ |
|-----------|--------------------------------------------------|--------------------------------------------------|------------------------------------------------------|
| U.S.A. | Tx: 144.0–148.0 Rx: 136.0–174.0* ² | Tx: 430.0–450.0 Rx: 420.0–480.0* ³ | Tx: 1240.0–1300.0 Rx: 1240.0–1320.0* ⁴ |
| Europe | 144.0–146.0 | 430.0–440.0 | 1240.0–1300.0 |
| Australia | 144.0–148.0 | 430.0–450.0 | 1240.0–1300.0 |
| Korea | 144.0–146.0 | 430.0–440.0 | 1260.0–1300.0 |

*¹ Optional UX-910 is installed.

*² Guaranteed range is 144.0–148.0 MHz.

*³ Guaranteed range is 430.0–450.0 MHz.

*⁴ Guaranteed range is 1240.0–1300.0 MHz.

- Mode : USB, LSB, CW, FM, FM-N*
*Not available in 1200 MHz band
- No. of memory Ch. : 212 (99 regular, 6 scan edges, 1 calls for each band) plus 10 satellite memories)
- Antenna connector : SO-239 (50 Ω; VHF)
Type-N (50 Ω; UHF)
- Usable temp. range : –10°C to +60°C; +14°F to +140°F
- Frequency stability : Less than ±3 ppm (–10 to 60°C; +14 to +140°F)
- Frequency resolution : 1 Hz minimum
- Power supply : 13.8 V DC ±15% (negative ground)
- Current drain (at 13.8 V DC) :

| | | |
|----------|------------|---------------------------|
| Transmit | Max. power | 23.0 A |
| Receive | Standby | 2.0 A (3.0 A with UX-910) |
| | Max. audio | 2.5 A (3.5 A with UX-910) |
- Dimensions : 241(W) × 94(H) × 239(D) mm
(projections not included) 9½(W) × 3⅛(H) × 9⅜(D) in
- Weight (approx.) : 4.5 kg; 10 lb (with UX-910: 5.35 kg; 11 lb 13 oz)
- ACC 1 connector : 8-pin DIN connector
- CI-V connector : 2-conductor 3.5 (d) mm (⅛")
- DATA connectors : 6-pin mini DIN × 2 (for MAIN and SUB)

■ TRANSMITTER

- Output power : (continuously adjustable)

| | |
|---------------|----------------------|
| 144 MHz | 5–100 W |
| 430 (440) MHz | 5–75 W |
| 1200 MHz | 1–10 W (with UX-910) |
- Modulation system : SSB Balanced modulation
FM Variable reactance modulation
- Spurious emission : 144/430 (440) MHz More than 60 dB
1200 MHz More than 50 dB
- Carrier suppression : More than 40 dB
- Unwanted sideband suppression : More than 40 dB
- Microphone connector : 8-pin connector (600 Ω)
- KEY connector : 3-conductor 3.5(d) mm (¼")

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

■ RECEIVER

- Receive system :

| | | |
|-----|---------|-----------------------------------|
| VHF | SSB, CW | Single conversion superheterodyne |
| | FM | Double conversion superheterodyne |
| UHF | SSB, CW | Double conversion superheterodyne |
| | FM | Triple conversion superheterodyne |

- Intermediate frequencies : (Unit: MHz)

| | | MAIN BAND | | | SUB BAND | | |
|----------------------|-----|-----------|---------|-------|----------|---------|-------|
| | | 1st | 2nd | 3rd | 1st | 2nd | 3rd |
| 144 MHz | SSB | 10.8500 | — | — | 10.9500 | — | — |
| | CW | 10.8491 | — | — | 10.9491 | — | — |
| | FM | 10.8500 | 0.455 | — | 10.9500 | 0.455 | — |
| 430 (440) MHz | SSB | 71.2500 | 10.8500 | — | 71.3500 | 10.9500 | — |
| | CW | 71.2491 | 10.8491 | — | 71.3491 | 10.9491 | — |
| | FM | 71.2500 | 10.8500 | 0.455 | 71.3500 | 10.9500 | 0.455 |
| 1200 MHz | SSB | 243.9500 | 10.8500 | — | 243.9500 | 10.9500 | — |
| | CW | 243.9491 | 10.8491 | — | 243.9491 | 10.9491 | — |
| | FM | 243.9500 | 10.8500 | 0.455 | 243.9500 | 10.9500 | 0.455 |

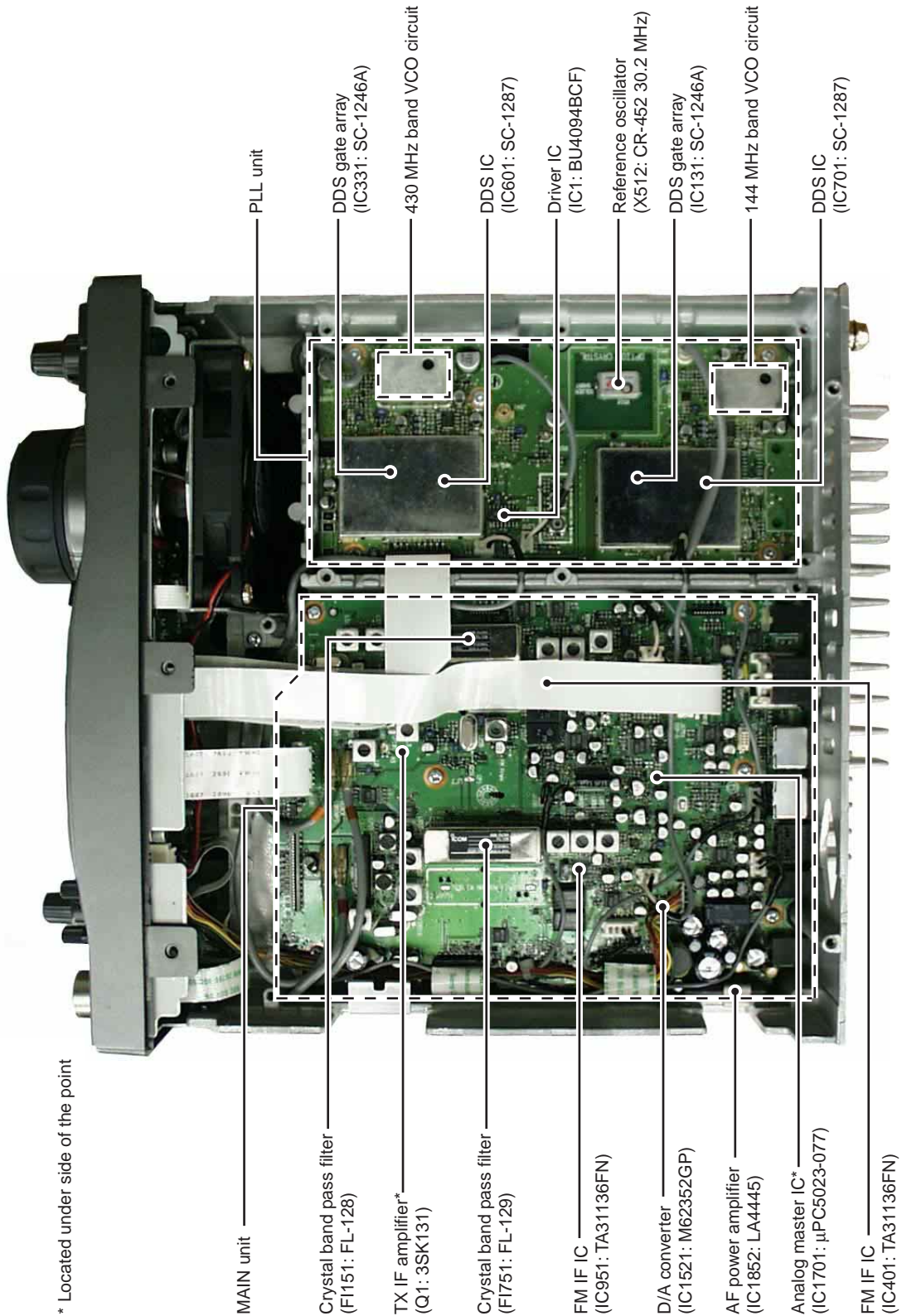
- Sensitivity : SSB, CW (10 dB S/N) Less than 0.11 μ V
FM (12 dB SINAD) Less than 0.18 μ V
- Squelch sensitivity (threshold) : SSB, CW Less than 1.0 μ V
FM Less than 0.18 μ V
- Selectivity : SSB, CW More than 2.3 kHz/−6 dB
Less than 4.2 kHz/−60 dB*
FM More than 15.0 kHz/−6 dB
Less than 30.0 kHz/−60 dB*
FM-N More than 6.0 kHz/−6 dB
Less than 18.0 kHz/−36 dB
CW-N More than 0.5 kHz/−6 dB
(w/FL-132 or FL-133) Less than 1.34 kHz/−60 dB*
*Except 1200 MHz band
- Spurious and image rejection ratio:

| | |
|-------------------|-----------------|
| 144/430 (440) MHz | More than 60 dB |
| 1200 MHz | More than 50 dB |
- AF output power (at 13.8 V DC):
More than 2.0 W at 10% distortion with an 8 Ω load
- RIT variable range : 144/430 (440) MHz \pm 1.0 kHz (SSB, CW)
 \pm 5.0 kHz (FM)
1200 MHz \pm 2.0 kHz (SSB, CW)
 \pm 10.0 kHz (FM)
- IF SHIFT variable range : More than \pm 1.2 kHz
- PHONES connector : 3-conductor 6.35(d) mm (1/4")
- Ext. SP connectors : 2-conductor 3.5 (d) mm (1/8") /8 Ω \times 2 (for MAIN and SUB)

SECTION 2 INSIDE VIEWS

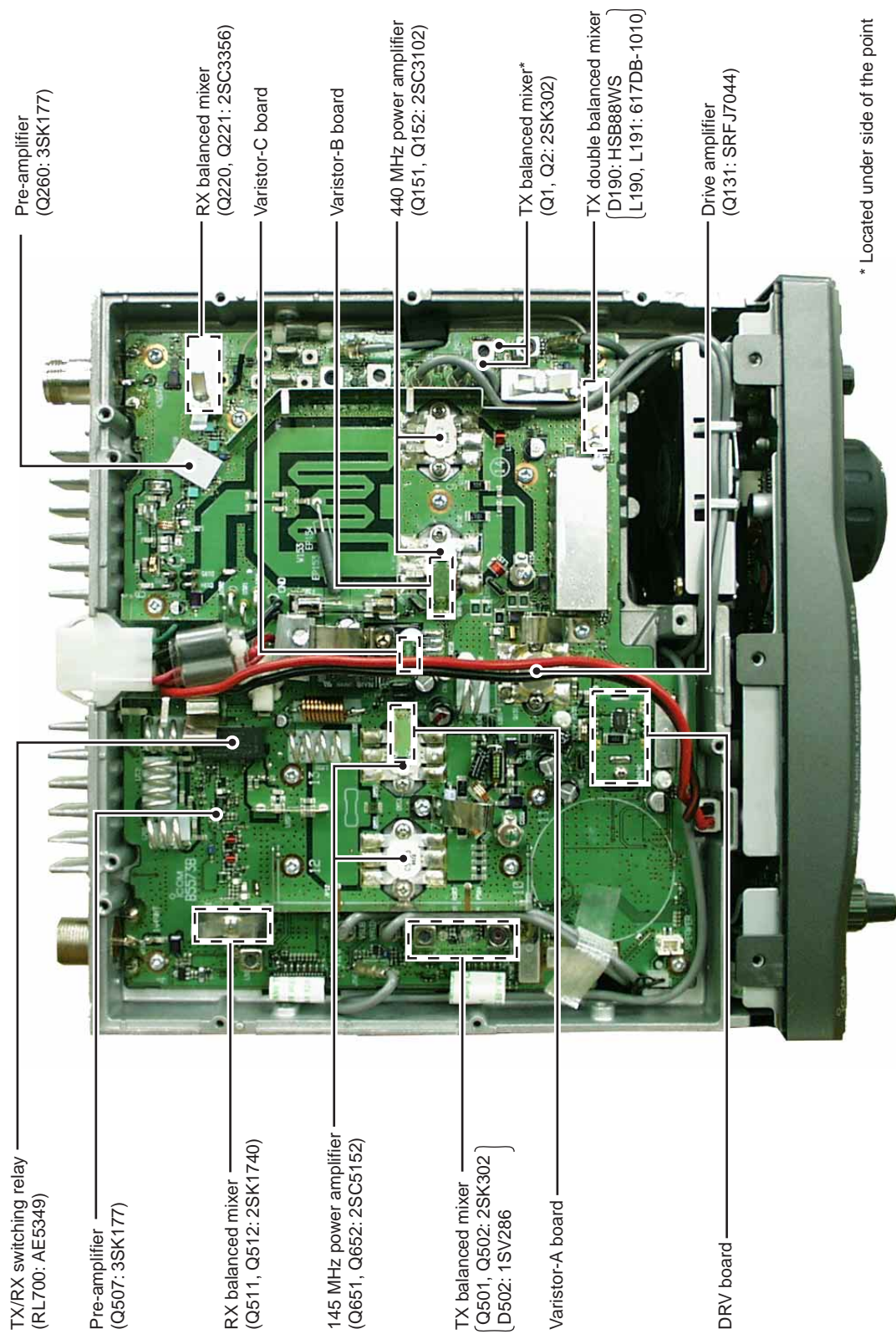
2-1 IC-910H

• MAIN AND PLL UNITS



* Located under side of the point

• PA UNIT



TX/RX switching relay
(RL700: AE5349)

Pre-amplifier
(Q507: 3SK177)

RX balanced mixer
(Q511, Q512: 2SK1740)

145 MHz power amplifier
(Q651, Q652: 2SC5152)

TX balanced mixer
(Q501, Q502: 2SK302
D502: 1SV286)

Varistor-A board

DRV board

Pre-amplifier
(Q260: 3SK177)

RX balanced mixer
(Q220, Q221: 2SC3356)

Varistor-C board

Varistor-B board

440 MHz power amplifier
(Q151, Q152: 2SC3102)

TX balanced mixer*
(Q1, Q2: 2SK302)

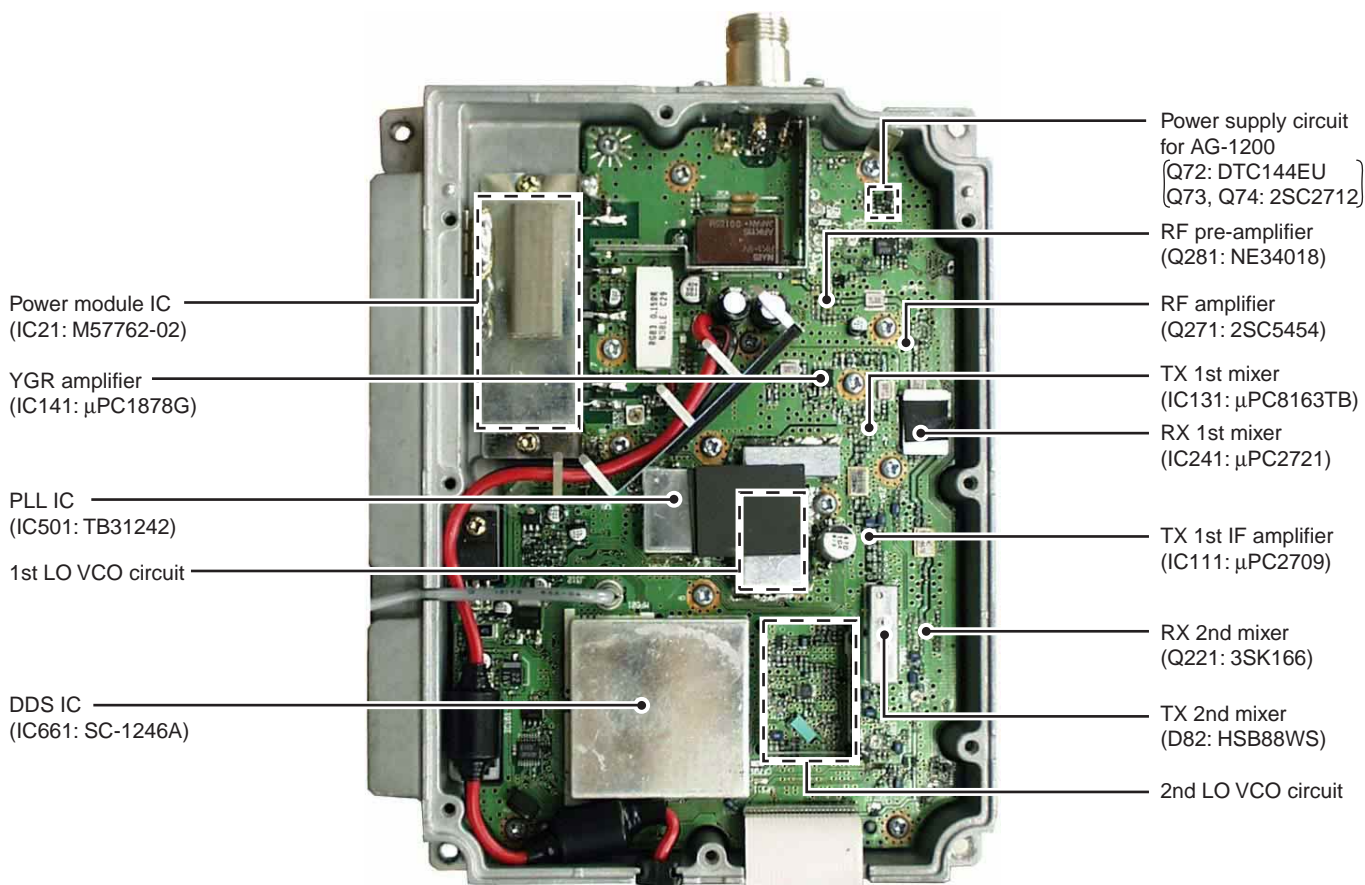
TX double balanced mixer
(D190: HSB88WS
L190, L191: 617DB-1010)

Drive amplifier
(Q131: SRFJ7044)

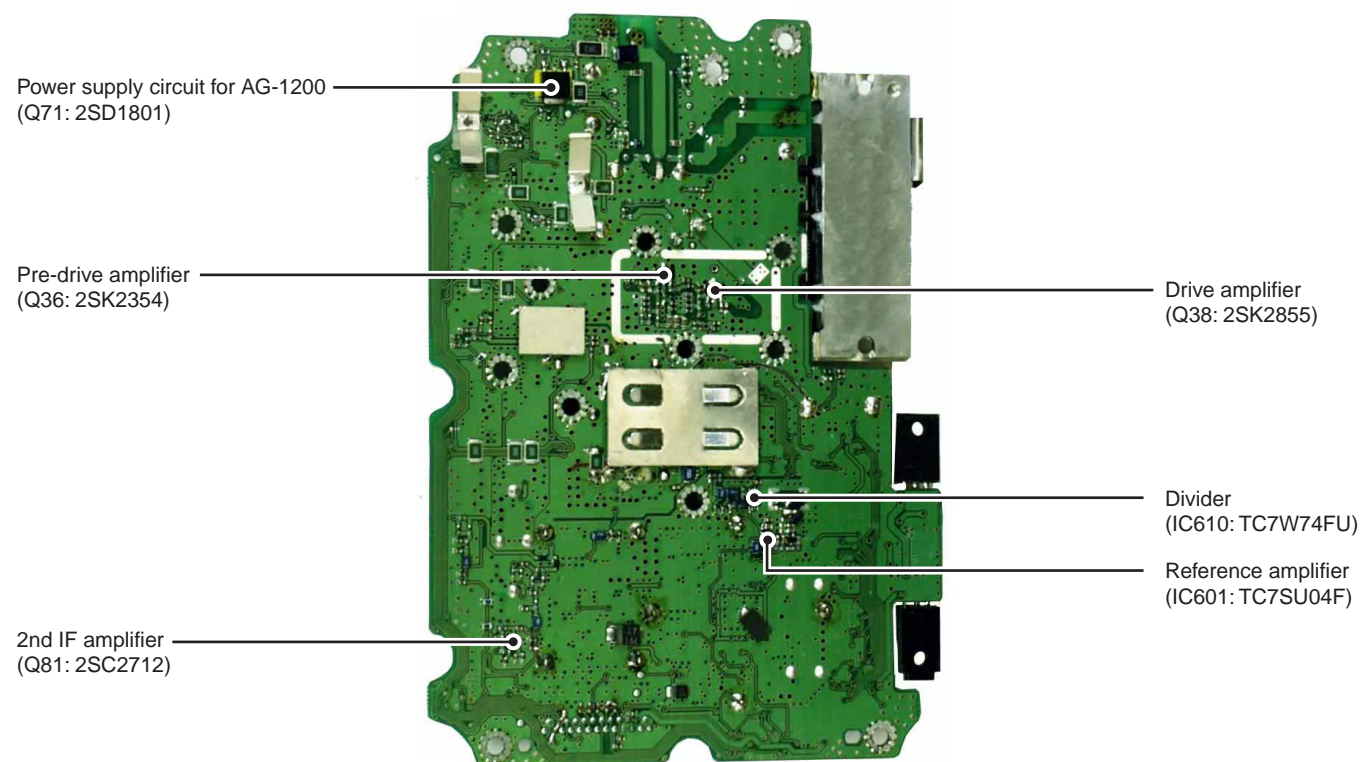
* Located under side of the point

2-2 UX-910 (OPTIONAL UNIT)

• TOP VIEW



• BOTTOM VIEW



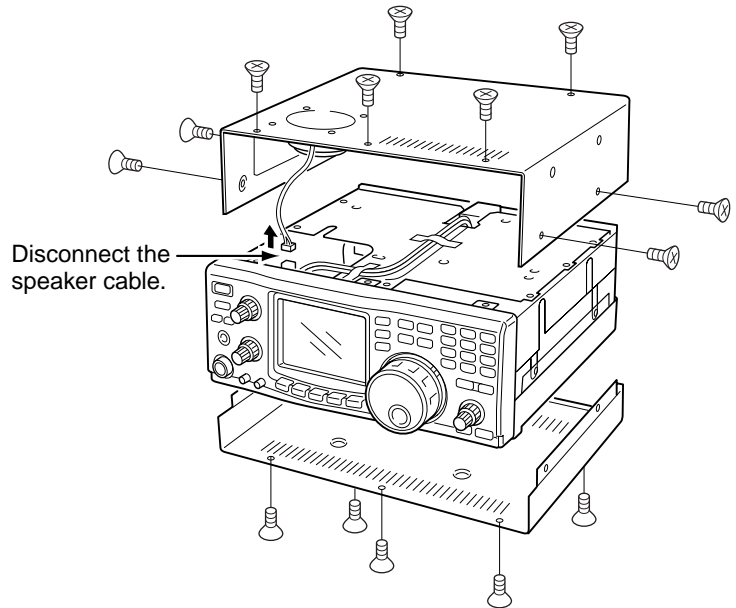
SECTION 3 DISASSEMBLY AND OPTION INSTRUCTIONS

• 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 Remove the 5 screws from the top of the transceiver and 4 screws from the sides, then lift up the top cover.
- ② Turn the transceiver upside down.
- ③ Remove 5 screws from the bottom of the transceiver, then lift up the bottom cover.

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



• UX-910 1200MHz BAND UNIT

- ① Remove the bottom cover as shown above.
- ② Remove the antenna plate from the chassis using a standard screw driver.

WARNING!

NEVER attempt to remove the antenna plate using your finger, this may result in injury.

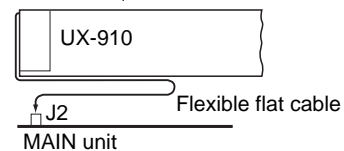
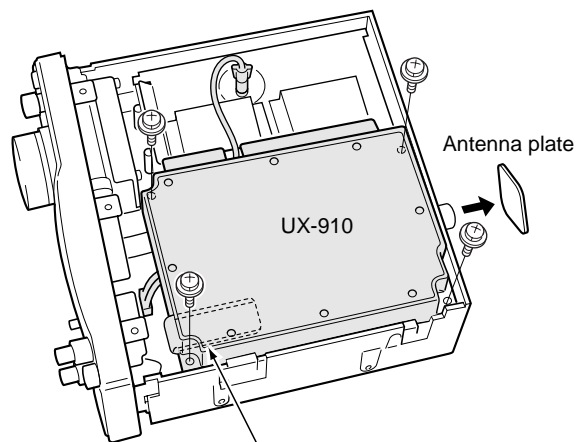
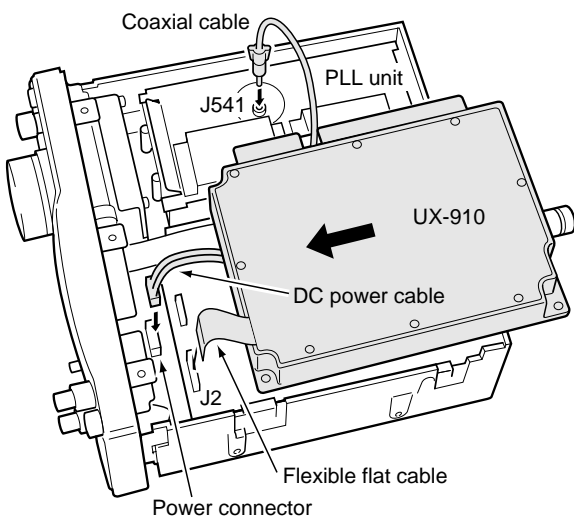
- ③ Connect the FFC (Flexible Flat Cable) of the UX-910 to J2 on the MAIN unit, DC power cable to the power connector (W305) from the PA unit and the coaxial cable to J541 on the PLL unit.

CAUTION

NEVER catch the cables from the optional DSP unit(s) between chassis and the UX-910, this may damage the DSP unit(s) and/or transceiver.

- ④ Place the UX-910 using the supplied 4 screws.

BE CAREFUL not to drop the supplied screws inside the transceiver.

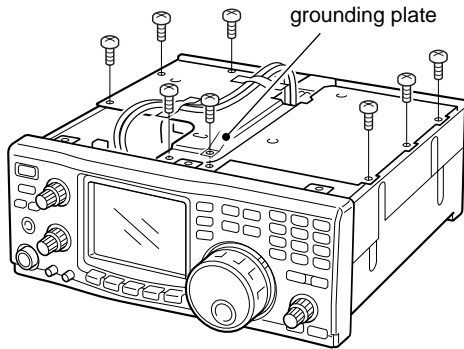


Turn the flexible flat cable up under the UX-910.

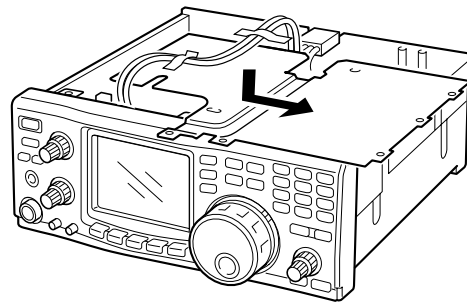
- ⑤ Return the bottom cover to its original position.

• Opening the PA unit cover

- ① Remove the top cover as shown in the diagram on p. 3-1.
- ② Remove 8 screws and grounding plate from the PA unit cover.
- ③ Remove fastening tape from the inside power cable.



- ④ Slide the PA unit cover as shown below.

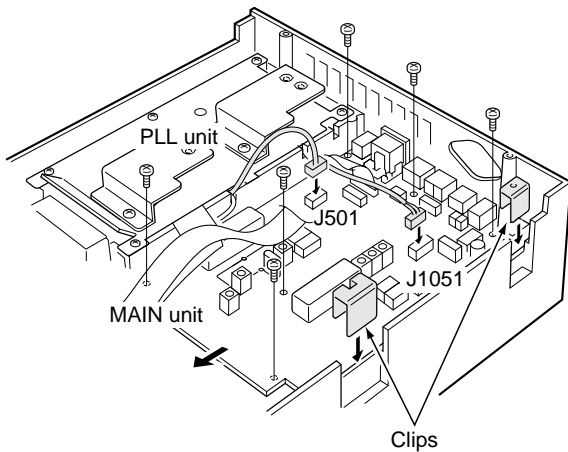


• FL-132/FL-133 CW NARROW FILTER

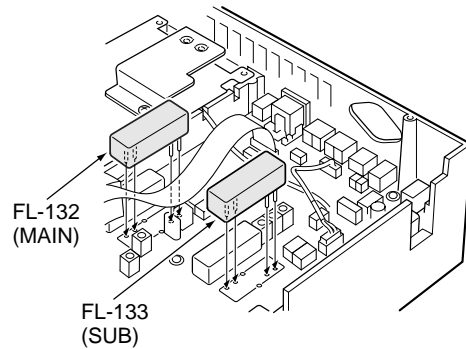
- ① Remove the bottom cover as shown in the diagram on p. 3-1.
 - Remove the UX-910 if you have installed it. (p. 3-1)
- ② Disconnect the connection cable connectors from J501 and J1051 on the MAIN unit.
- ③ Remove 2 clips.

WARNING!
BE CAREFUL not to pinch your finger with the clip.

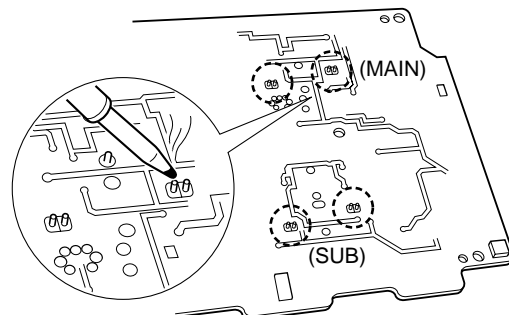
- ④ Remove 6 screws from the MAIN unit, then lift up the MAIN unit.



- ⑤ Install FL-132 or FL-133 to the specified position on the MAIN unit.

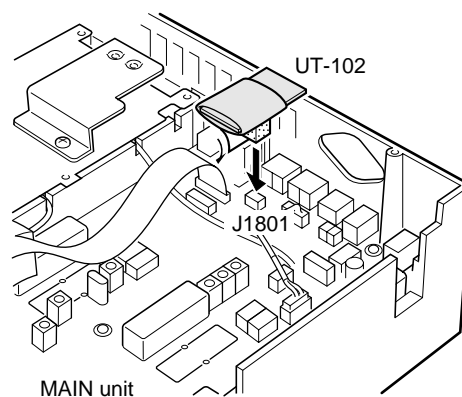


- ⑥ Solder then cut the leads, keeping 2-3 mm (1/8") of the leads from the bottom of the MAIN unit.
- ⑦ Return the MAIN unit and clips to their original positions.
- ⑧ Re-connect the connection cable connector to J501 and J1051 on the MAIN unit.
- ⑨ Return the bottom cover to the original position.



• **UT-102 VOICE SYNTHESIZER UNIT**

- ① Remove the bottom cover as shown in the diagram on p. 3-1.
 - Remove the UX-910 if you have installed it. (p. 3-1)
- ② Remove the protective paper attached to the bottom of the UT-102 to expose the adhesive strip.
- ③ Plug UT-102 into J1801 on the MAIN unit as shown in the diagram at right.
- ④ Return the bottom cover to its original position.



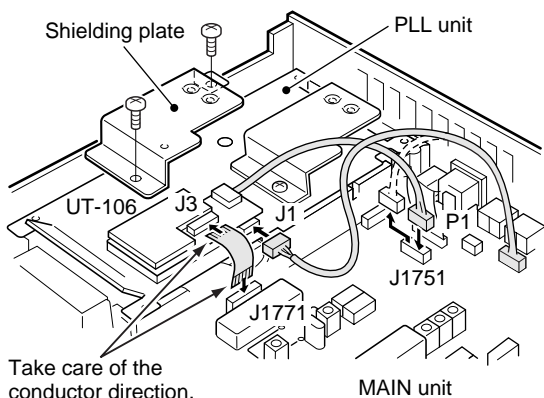
• **UT-106 DSP UNIT**

/// **RECOMMENDATION:**

When installing only 1 DSP unit, you can install into either front or rear panel side. However, installing a DSP unit into the front panel side may be easier and also safer.

Installing 1st DSP unit (front panel side)

- ① Remove the bottom cover as shown in the diagram on p. 3-1.
 - Remove the UX-910 if you have installed it. (p. 3-1)
- ② Remove the shielding plate.
- ③ Remove the connection cable from J1751 on the MAIN unit. Connect the cable into J1 on the UT-106.
- ④ Plug the connection cable (P1) from the UT-106 to J1751 on the MAIN unit.
- ⑤ Plug the flat cable into J3 on the UT-106 and to J1771 on the MAIN unit.
 - Take care of the conductor direction.
 - Attach the Velcro tape to the UT-106 and PLL unit shielding plate.
- ⑥ Return the shielding plate, top cover and bottom cover to their original positions.

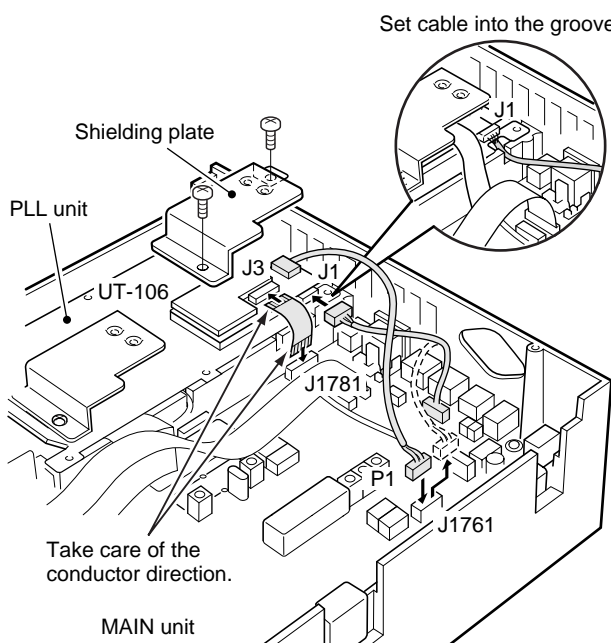


Installing 2nd DSP unit (rear panel side)

- ① Remove the top and bottom cover as shown in the diagram on p. 3-1.
 - Remove the UX-910 if you have installed it. (p. 3-1)
- ② Remove the shielding plate.
- ③ Remove the connection cable from J1761 on the MAIN unit. Connect the cable into J1 on the UT-106.

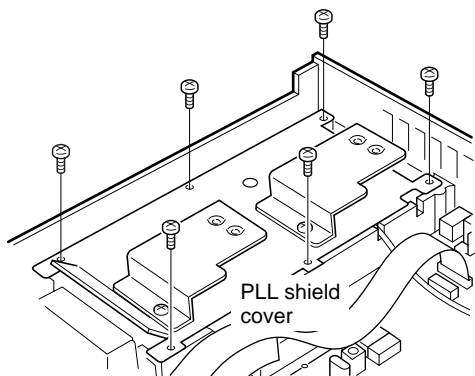
/// The cable between J1221 on the MAIN and J1 on the DSP unit, must be set in the groove of the chassis (see diagram below).
 Otherwise, the cable may be damaged when returning the shield plate to its original position.

- ④ Plug the connection cable (P1) from the UT-106 to J1761 on the MAIN unit.
- ⑤ Plug the flat cable into J3 on the UT-106 and to J1781 on the MAIN unit.
 - Take care of the conductor direction.
 - Attach the Velcro tape to the UT-106 and PLL unit shielding plate.
- ⑥ Return the shielding plate, top cover and bottom cover to their original positions.

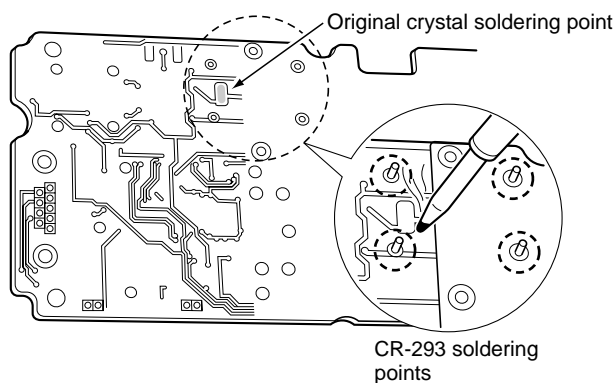


• **CR-293 HIGH STABILITY CRYSTAL UNIT**

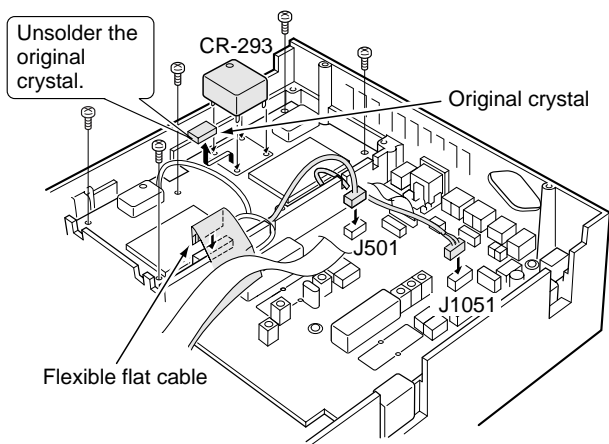
- ① Remove the bottom cover as shown in the diagram on p. 3-1.
 - Remove the UX-910 if you have installed it. (p. 3-1)
- ② Remove 6 screws from the PLL shield cover, then lift up the PLL shield cover.



- ⑥ Install the CR-293 and solder the leads.
- ⑦ Return the PLL unit, PLL shield cover and bottom cover to their original positions.



- ③ Disconnect the FFC (Flexible Flat Cable) from the DISPLAY unit and the connection cable connectors from J501 and J1051 on the MAIN unit.
- ④ Remove 5 screws from the PLL unit, then lift up the PLL unit.
- ⑤ Unsolder the original reference crystal, then remove it.
 - The original reference crystal unit is soldered at both top and bottom sides of the PCB (Printed Circuit Board).



SECTION 4 CIRCUIT DESCRIPTION

4-1 RECEIVER CIRCUIT

Note: [Main]=Main band, [Sub]=Sub band

4-1-1 VHF TRANSMIT/RECEIVE SWITCHING CIRCUIT (PA UNIT)

Received signals from the antenna connector (CHASSIS; J1) are passed through the low-pass filter (L723–L721, C728–C726, C728) then applied to the transmit/receive switching circuit (RL700, D710).

The transmit/receive switching circuit leads receive signal to the RF circuit from a low-pass filter while receiving. However, the circuit leads the transmit signal from the RF power amplifier to the antenna connector while transmitting.

The passed signals are then applied to the RF amplifier circuit.

4-1-2 VHF RF CIRCUIT (PA UNIT)

Received signals from transmit/receive switching circuit are applied to the RF amplifier circuit (Q507) via the RF attenuator (D515), limiter (D514) and tunable band pass filter (D513, L560) circuits.

The amplified signals are then passed through the another three-stage tunable bandpass filters (D512–D510, L13–L15) to suppress unwanted signals. The filtered signals are then applied to the 1st mixer circuit (Q511, Q512).

D510–D513 employ varactor diodes, which are controlled by the CPU (DISPLAY board; IC1) via the D/A converter (MAIN unit; IC1521) and buffer amplifier (MAIN unit; IC1522d), to track the bandpass filter. These varactor diodes tune the center frequency of an RF pass band for wide bandwidth receiving and good image response rejection.

4-1-3 VHF 1ST MIXER CIRCUIT (PA UNIT)

The 1st mixer circuit converts the received signals into a fixed frequency of the 10 MHz IF signal with a PLL output frequency. By changing the PLL frequency, only the desired frequency will pass through a pair of crystal filters at the next stage of the VHF 1st mixer.

The filtered signals from the bandpass filter are mixed with 1st LO signals at the mixer circuit (Q511, Q512) to produce a 1st IF signal (10.85 MHz [Main] or 10.95 MHz [Sub]). The 1st LO signals (125.15 MHz–163.15 MHz) are PLL output frequency, which comes from the VHF VCO circuit (PLL unit; Q191, D191–D194).

The 1st IF signal is then applied to either the Main or Sub band 10 MHz IF circuit in the MAIN unit via P501 [Main] or P510 [Sub].

4-1-4 UHF RF CIRCUIT (PA UNIT)

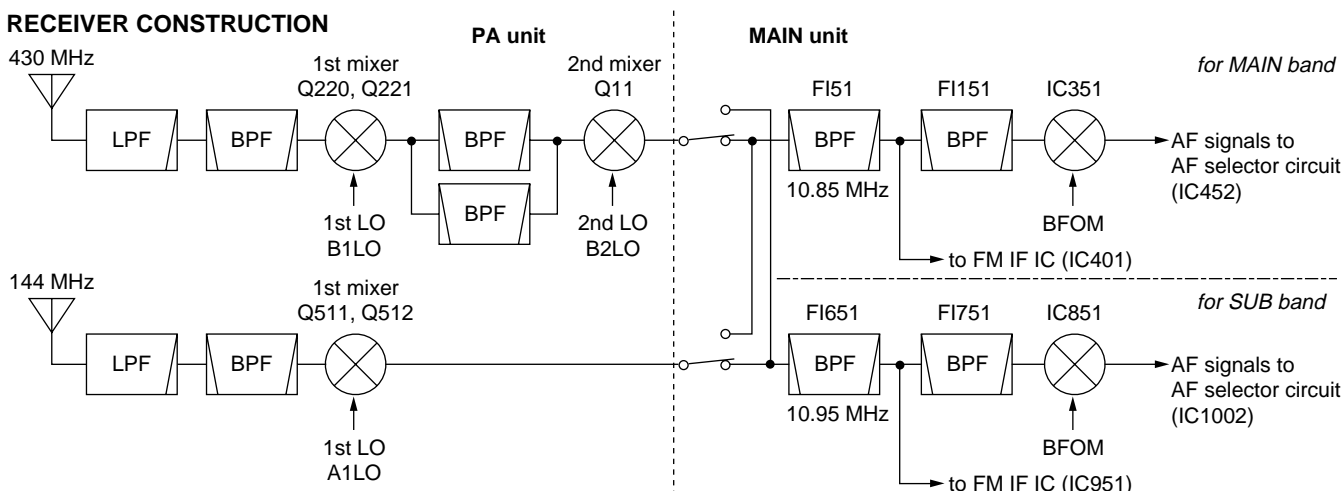
The received signals from the UHF antenna connector (CHASSIS; J2) are passed through the low-pass filter (L181, L180, C188–C184) and then transmit/receive switching circuit (D182–D185, D265, D266, D227). The signals from the transmit/receive switching circuit are applied to the RF amplifier circuit (Q260) via the RF attenuator circuit (D264) and tunable bandpass filter (D263, L288). The amplified signals are passed through the three-stage tunable bandpass filters (D262–D260, L262–L260), and are then applied to the 1st mixer circuit (Q220, Q221).

4-1-5 UHF 1ST AND 2ND MIXER CIRCUIT (PA UNIT)

The filtered RF signals from the bandpass filter are mixed with a 1st LO signal at the 1st mixer circuit (Q220, Q221) to produce a 1st IF signal (71.25 MHz [Main] or 71.35 MHz [Sub]). The 1st IF signal is passed through a crystal filter (FI280 [Main], FI281 [Sub]) to suppress out-of-band signals. The filtered IF signal is applied to the 2nd mixer circuit (Q11) to produce a 10 MHz IF signal (10.85 MHz [Main] or 10.95 MHz [Sub]) with a 2nd LO signal. The IF signal is then applied to the MAIN unit via P1 [Main] or P30 [Sub].

The 1st LO signal (348.75 MHz–408.75 MHz) is generated at the UHF VCO circuit (PLL unit; Q391, D391–D394), and a 2nd LO signal (60.2 MHz) is produced at the PLL circuit by doubling it's reference frequency (30.2 MHz).

RECEIVER CONSTRUCTION



4-1-6 10 MHz IF CIRCUIT (MAIN UNIT)

The 10 MHz IF signal from the mixer circuit is passed through a monolithic filter (F151 [Main], F1651 [Sub]) to suppress out-of-band signals. The filtered signal is amplified at the IF amplifier (Q51 [Main], Q651 [Sub]). The IF amplifier provides 20 dB gain.

The amplified signal is then applied to the different circuits depending on the selected mode.

(1) FM mode

The signal is applied to an FM IF IC pin 16 (IC401 [Main] or IC951 [Sub]).

(2) SSB and CW mode

The signal is passed through a 10 MHz IF filter (F1151/10.85 MHz [Main] or F1751/10.95 MHz [Sub]) or optional CW narrow filters. The filtered signal is amplified at the IF amplifiers (Q350–Q352 [Main] or Q850–Q852 [Sub]) and then applied to a demodulator circuit.

4-1-7 DEMODULATOR CIRCUIT (MAIN UNIT)

(1) FM mode

The 10 MHz IF signal from an IF amplifier (Q51 [Main] or Q651 [Sub]) is applied to the mixer section of the FM IF IC (IC401 [Main], IC951 [Sub], pin 16), and is mixed with a LO signal (10.395 MHz [Main], 10.495 MHz [Sub]) to produce a 455 kHz IF signal. The LO signal is generated by the BFO circuit (PLL unit; IC601 [Main], IC701 [Sub]).

The FM detector circuit employs the quadrature detection method, which uses a ceramic discriminator (X401 [Main], X951 [Sub]) for phase delay to obtain a non-adjusting circuit.

The detected signals are output from pin 9, and applied to the squelch control and center indication detector circuits, etc.

(2) SSB and CW modes

The amplified signal from the IF amplifier circuit (Q51 [Main], Q651 [Sub]) is applied to the balanced mixer circuit (IC351 [Main], IC851 [Sub]) to demodulate into AF signals. Demodulated audio signals are output from pin 1, and applied to the squelch control gate (IC452 [Main], IC1002 [Sub]).

BFO circuit (PLL unit; IC601 [Main] and IC701 [Sub]) generates BFO signals for using in the balanced mixers.

• BFO frequencies

| Mode | for MAIN band | for SUB band |
|------|---------------|--------------|
| USB | 10.8485 MHz | 10.9485 MHz |
| LSB | 10.8515 MHz | 10.9515 MHz |
| CW | 10.8483 MHz | 10.9483 MHz |

4-1-8 SQUELCH CONTROL CIRCUIT (MAIN UNIT)

The demodulated AF signals from the balanced mixer circuit or FM IF IC are applied to the squelch control gate (IC452 [Main], IC1002 [Sub]). This consists of 4 analog switches which are selected with a mode signal and squelch control signal from the CPU (DISPLAY board; IC1) via the expander IC (IC1491). The switched AF signals are applied to the AF circuit.

4-1-9 SQUELCH CIRCUIT (MAIN UNIT)

(1) FM mode

A squelch circuit cuts out AF signals when no RF signal is received or the S-meter signal is lower than the [SQL] control setting level. By detecting noise components in the AF signals, the CPU switches the squelch control gate.

A portion of the AF signals from the FM IF IC pin 9 (IC401 [Main], IC951 [Sub]) passes through the active filter section of FM IFIC (pin 8). The active filter section amplifies and filters noise components. The filtered signals are applied to the noise detector section for conversion into DC voltage and output from pin 14 (IC401 [Main], IC951 [Sub]) as the "NSQM [Main]/NSQS [Sub]" signal. The "NSQM [Main]/NSQS [Sub]" signal is applied to the DISPLAY board.

The DC voltages are passed through the analog multiplexer (DISPLAY board; IC5, pins 15 and 2) and then applied to the CPU (DISPLAY board; IC1, pins 93, 94) via the MP1Y and MP1X signal lines. The [SQL] level signal is also applied to the CPU via the analog multiplexer (DISPLAY board; IC3, pins 14, 5) as a reference voltage for comparison with the noise signals. Also, an S-meter signal is applied to the CPU from FM IF IC pin 12 (IC401 [Main], IC951 [Sub]) via the meter amplifier (IC1804c [Main], IC1804a [Sub]) and analog multiplexer (DISPLAY board; IC4, pins 12 and 1). The CPU compares these signals, then outputs a control signals to the squelch control gate.

(2) SSB and CW modes

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

A portion of the 10 MHz IF signal from the IF amplifier (Q352 [Main], Q852 [Sub]) is converted into DC voltage at the AGC detector (D303, Q305 [Main], D902 Q901 [Sub]) and amplified at the meter amplifier (IC1804d [Main] or IC1804b [Sub]). The amplified signal is passed through the analog multiplexer (DISPLAY board; IC4, pins 12 and 1) via the SMLM [Main]/ SMLS [Sub] signals and then applied to the CPU (DISPLAY board; IC1). The CPU outputs control signals to the squelch control gate when the S-meter signal is low level.

4-1-10 AF AMPLIFIER CIRCUIT (MAIN UNIT)

The AF amplifier circuit amplifies the demodulated signals to drive a speaker. For the separate speaker function, a stereo power amplifier is used.

AF signals from the squelch control gate are passed through the AF filter (IC451a [Main], IC1001a [Sub]) and AF pre-amplifier (IC451b [Main], IC1001b [Sub]) and then amplified at the voltage controlled amplifier (VCA: IC1808 [Main], IC1809 [Sub]) which functions as a volume control using the [AF] control signal. The amplified AF signals are applied to the AF power amplifier circuit (IC1852, pin 2 [Main], pin 5 [Sub]).

The amplified audio signals of SUB band are output from pin 7, and are applied to the external speaker jack for the SUB band (J1852) via the [PHONE] jack (JACK board; J1). When no plug is connected to the jack, the signals are fed back to the MAIN band audio. The mixed audio is applied to the internal speaker via the [PHONE] jack and external speaker jack for the MAIN band (J1851).

4-1-11 NOISE BLANKER CIRCUIT (MAIN UNIT)

The noise blanker circuit detects pulse-type noises, and stops IF amplifier operation during detection.

A portion of the 10 MHz IF signal from the bandpass filter (F151 [Main], F1651 [Sub]) is amplified at the noise amplifier circuit (Q102, IC101, Q101 [Main], Q702, IC701, Q701 [Sub]). The amplified signal is rectified at the noise detector (D371 [Main], D701 [Sub]) for conversion into DC voltage. The DC voltage is amplified at the DC amplifier circuit (Q105 [Main], Q705 [Sub]) and then applied to the noise blanker control circuit (Q52, Q107 [Main], Q652, Q707 [Sub]) to stop amplification of the IF amplifier circuit (Q51 [Main], Q651 [Sub]).

4-1-12 AGC CIRCUIT (MAIN UNIT)

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

A portion of the 10 MHz IF signal from the IF amplifier (Q352 [Main], Q852 [Sub]) is applied to the AGC detector circuit D303 [Main], D902 [Sub]). The detected signal is then amplified at the DC amplifier circuit (Q305 [Main], Q901 [Sub]) and then applied to the IF amplifiers (Q51, Q351, Q352 [Main], Q651, Q851, Q852 [Sub]).

When strong signals are received, the detected voltage increases and the output level of the DC amplifier, as AGC voltage, decreases. The AGC voltage is used for the bias voltage for the IF amplifiers, therefore, the IF amplifier gain is decreased.

AGC response time is controlled by changing the time constant at the AGC control line with a resistor and capacitor. While AGC is set to slow, the resistor (R312 [Main], R914 [Sub]) and capacitor (C306 [Main], C911 [Sub]) are connected to the AGC control line. While AGC is set to fast, R311 [Main], R913 [Sub] are connected to the AGC control line. Due to Q304 and Q303 [Main]/Q905 and Q904 [Sub] being switched ON that controlled by the "AGSM", "AGFM" [Main], "AGSS", "AGFS" [Sub]. Also, R310 [Main]/R912 [Sub] is connected to the AGC control line due to Q302 [Main]/Q903 being switched ON while scanning for faster response than AGC fast mode that controlled by the "AGRM" [Main], "AGRS" [Sub].

4-1-13 S-METER CIRCUIT (MAIN UNIT)

The S-meter circuit indicates the relative received signal strength while receiving and changes depending on the received signal strength.

(1) FM mode

Some of the amplified IF signal is applied to the S-meter detector section in the FM IF IC (IC401 [Main], IC951 [Sub]) to be converted into DC voltage. The converted signal is output from pin 12 and applied to the meter amplifier circuit (IC1804c [Main], IC1804a [Sub]). The amplified signal is then applied to the CPU (DISPLAY board; IC1) passing through the analog multiplexer (DISPLAY board; IC4, pins 12 and 1) via the "SMLM [Main]/SMLS [Sub]" line. The CPU then outputs S-meter control signal.

(2) SSB and CW modes

A portion of the AGC control signal is applied to the meter amplifier (IC1804d [Main], IC1804b [Sub]). The amplified signal is then applied to the CPU via the analog multiplexer to control the S-meter.

4-2 TRANSMITTER CIRCUITS

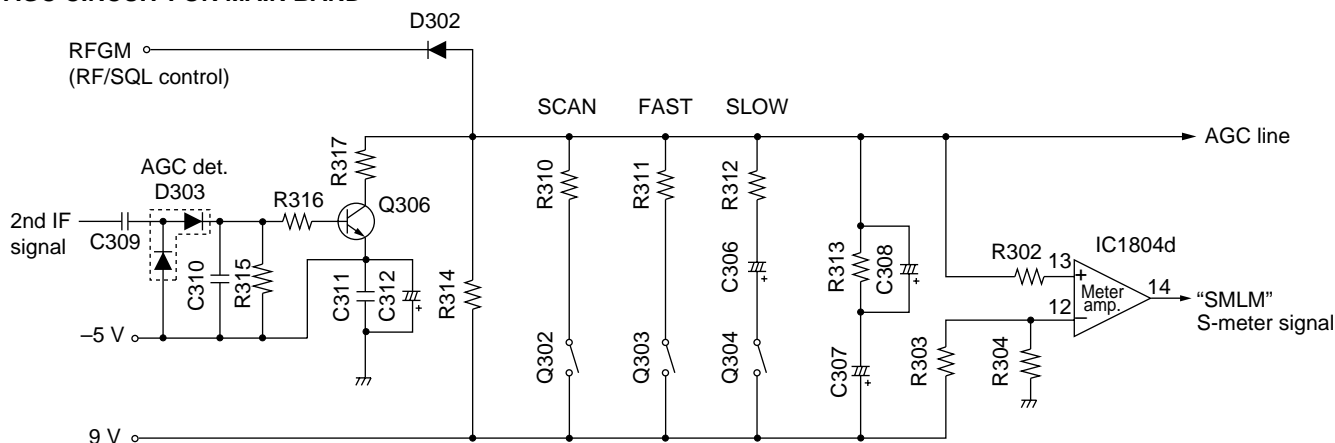
4-2-1 MICROPHONE AMPLIFIER CIRCUIT (MAIN UNIT)

The microphone amplifier circuit amplifies audio signals from the microphone or ACC connector and then applies them to the FM modulation or balanced modulator circuit. One microphone amplifier circuit is commonly used for both FM/SSB and VHF/UHF.

Audio signals from the [MIC] connector enter the microphone amplifier IC (IC1701, pin 22) and are then amplified at the microphone amplifier or speech compressor section. Compression level is adjusted by the setting mode.

The amplified or compressed signals are applied to the VCA section of IC1701. The microphone gain setting from the D/A converter (IC1521, pin 8) is applied to the VCA control terminal (IC1701, pin 10). The resulting signals from pin 9 are then applied to the buffer-amplifier (Q1651) via the analog switch (IC1653a). External modulation input from the [ACC] socket (pin 4) is also applied to Q1651.

• AGC CIRCUIT FOR MAIN BAND



While in SSB mode, the amplified signals from the buffer amplifier (Q1651) are then applied to the balanced modulator (IC201).

While in AM/FM mode, the amplified signals from the buffer amplifier (Q1651) are applied to the limiter amplifier (IC1651b) and splatter filter (IC1651a). The signals are passed through the buffer amplifier (IC1652a) and are then applied to the AM detector (IC1807d, D1652) in AM mode or to the varactor diode (D253) in FM mode.

4-2-2 MODULATION CIRCUIT (MAIN UNIT)

(1) FM mode

The amplified audio signals from IC1701 are pre-emphasized and limited at IC1651b and then passed through the splatter filter (IC1651a). The filtered signals are then applied to the FM modulation circuit (D253) via the FM deviation level controller (IC1803 pins 21, 22) and buffer amplifier (IC1652a). Also, subaudible tone signals from the CPU (DISPLAY board; IC1 pin 4) are applied to the FM modulation circuit (D253) via the splatter filter (IC1651a).

The FM modulation circuit changes the generating frequency of the FM local oscillator (Q254, X251) to generate an FM signal. The modulated IF signal is passed through the RF limiter (Q253) and then applied to the transmit IF amplifier circuit.

When 9600 bps mode is selected, audio signals from the ACC connector bypass the amplifiers and are applied to IC1654a directly via the external modulation switch (IC1531, pins 12, 1). In such cases, the deviation detector (IC1807d) cuts off the audio line when over modulation is detected.

(2) SSB and CW modes

The amplified audio signals from Q1651 are mixed with BFO signals at the balanced mixer circuit (IC201) to produce a 10 MHz IF signal. The mixed signal is still a DSB signal, therefore, the mixed signal passes through bandpass filter circuit (FI151) to suppress unwanted side band signals. The filtered signal is applied to the transmit IF amplifier circuit

• Transmit IF frequencies

| Mode | Transmit IF signal |
|------|--------------------|
| USB | 10.8485 MHz |
| LSB | 10.8515 MHz |
| CW | 10.8491 MHz |

4-2-3 CW KEYING CIRCUIT (MAIN UNIT)

When the CW key is closed, control signal is output from CPU (LOGIC unit) and controls break-in operation, the side tone signal.

Keying signals (DOT and DASH) from the [KEY] jack (J1401) are applied to the CPU (DISPLAY board; IC1, pins 49, 48 respectively), and the CPU outputs a CW control signal (KDS1) from pin 21. The CW control signal is applied to the balanced mixer (IC201) via Q201, D201, D207 to unbalance the IC201 input bias voltage and creates a carrier signal. R202 determines the transmit delay timing.

4-2-4 TRANSMIT IF AMPLIFIER CIRCUIT (MAIN UNIT)

The modulated IF signal from a modulation circuit is applied to the IF amplifier circuit (Q1). The amplified IF signal is then applied to the VHF/UHF transmit circuit (PA unit) via the VHF/UHF switching circuit (D52, D53).

The gain of the IF amplifier circuit (Q1) is controlled by the ALC amplifier circuit (IC1601b). Therefore, the IF amplifier is reduced when the output power increases.

4-2-5 RF CIRCUIT (PA UNIT)

The RF circuit consists of mixer and drive amplifiers to obtain the desired frequency and level needed at a PA circuit, respectively.

(1) VHF band

The IF signal from the MAIN unit (P501) is mixed with an LO signal from the VHF VCO circuit (PLL unit; Q191, D191–D194) at the double-balanced mixer circuit (Q501, Q502, D502) to be converted into VHF transmit frequency. The mixed signal is passed through the attenuator (R512–R514) and two-stage tunable bandpass filter (D503, L533 and D504, L504) to suppress spurious components. The filtered signals are then amplified at the YGR amplifier (IC501) and passed through the attenuator (R562–R531) and another two-stage tunable bandpass filter (D641, L641 and D642, L642)

The amplified and filtered RF signal is applied to the drive amplifier circuit that is used VHF and UHF signals commonly.

(2) UHF band

The IF signal from the MAIN unit (P1) is mixed with a 2nd LO signal at the double-balanced mixer circuit (Q1, Q2) to produce a 2nd IF signal (71.25 MHz). The 2nd LO signal (60.4 MHz) is generated at the reference oscillator and doubler circuit (PLL unit; X512, Q551) via LO amplifier (IC40). The 2nd IF signal is amplified at the buffer amplifier (Q3) via the bandpass filter circuit (L3, L4, C12, C13, C15–C17, C24, C26). The amplified 2nd IF signal is applied to the 1st mixer circuit (D190, L190, L191) passing through the attenuator (R12–R14) and low-pass filter (L381, L382, C381–C383).

The 1st mixer circuit (D190, L190, L191) converts the 2nd IF signal into a UHF transmit frequency with a 1st LO signal from the UHF VCO circuit (PLL unit; Q391, D391–D394). The converted RF signal is passed through the bandpass filter (FI200 and FI201) where unwanted LO signal emission is reduced. The filtered signal is attenuated at R204–R206 and amplified at the YGR amplifier (IC200), and is then applied to the drive amplifier circuit via the band pass filter (FI202) and another YGR amplifier (Q200).

4-2-6 DRIVE AMPLIFIER CIRCUIT (PA UNIT)

The drive amplifier circuit amplifies RF signals from the VHF or UHF RF circuit to obtain a level needed at the power amplifier circuit. One drive amplifier circuit is commonly used for both VHF and UHF band signals.

The signals from the VHF or UHF RF circuit are amplified at the drive amplifier circuit (Q101, Q121, Q131, DRV board; Q930). The amplified VHF signals are passed through the

low-pass filter and UHF signal are high-pass filter, and then applied to the VHF and UHF power amplifier circuit separately.

4-2-7 POWER AMPLIFIER CIRCUIT (PA UNIT)

The power amplifier circuit amplifies the RF signals to the specified output power.

(1) VHF power amplifier circuit

The RF signal from the low-pass filter circuit is applied to the VHF power amplifier circuit (Q651, Q652) to obtain a stable 100 W of RF output power. The amplified RF signal is applied to the antenna connector (CHASSIS; J1) via the power detector (D720, D721), transmit/receive switching relay (RL700) and low-pass filter (L723–L721, C728–C726, C728) circuits.

(2) UHF power amplifier circuit

The RF signal from the high-pass filter is applied to the UHF power amplifier circuit (Q151, Q152) to obtain a stable 75 W of RF output power. The amplified RF signal is applied to the antenna connector (CHASSIS; J2) via the transmit/receive switching circuit (D182–D185), low-pass filter (L181, L180, C188–C184) and power detector (D180, D181) circuits.

4-2-8 ALC CIRCUIT (PA AND MAIN UNITS)

The ALC (Automatic Level Control) circuit protects the power amplifiers (PA unit; Q651, Q652 for VHF and Q151, Q152 for UHF) from a mismatched output load. Also, the ALC circuit controls the gain of the transmit IF amplifier in order for the transceiver to output even when the supplied voltage shifts, etc.

The RF power level is detected at the power detector circuit (PA unit; D720–D721 for VHF, D180, D181 for UHF) to be converted into DC voltages. The detected voltage (VFOR for VHF or UFOR for UHF) is passed through the switching diode, and are then applied to the differential amplifier (MAIN unit; IC1601b) via the FOR line. A reference voltage (POCV) for IC1601b is controlled by the [RF PWR] control to output reference voltages. The output voltage is applied to the transmit IF amplifier circuit (MAIN unit; Q1) as an ALC signal to control the amplifier gain.

When the VFOR/UFOR voltage increased, the output from the differential amplifier will be decrease to reduce the IF amplifier gain. This adjusts the RF output power until the VFOR/UFOR and POCV voltage are well balanced.

4-2-9 APC CIRCUIT (MAIN UNIT)

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

Current drain of power amplifiers is detected by voltage drops at a resistor (PA unit; R305) between VCC and PAHV lines. The original voltage (ICH) and dropped voltage (ICL) are applied to the APC differential amplifier (MAIN unit; IC1601d).

The signal output from the differential amplifier reduces IF amplifier gain until these voltages are well-balanced.

4-3 PLL CIRCUITS

IC-910H contains 2 PLL circuits and 1 local oscillator. The VHF and UHF PLL circuits adopt "Icom's original I-loop PLL" to obtain very fast lock up times.

4-3-1 VHF PLL CIRCUIT (PLL UNIT)

The VHF PLL circuit generates the 1st LO frequency, and the signal is applied to the VHF 1st mixer circuit in the PA unit as the "A1LO" signal. The PLL circuit consists of a VCO, prescaler and DDS circuits.

The signal generated at the VHF VCO circuit (Q191, D191–D194) is amplified at the buffer amplifiers (Q192, Q272), then applied to the prescaler circuit (IC271). The prescaler circuit divides the applied signal, and outputs it to the VHF DDS circuit (IC131) via the buffer amplifier (Q271). The VHF DDS circuit generates digital signals using the applied signals as a clock frequency. The phase detector section in IC131 compares its phase with the reference frequency that is generated at the reference oscillator (X512). IC131 outputs off-phase components as pulse signals via pins 51, 52.

The output pulses are converted into DC voltage at the loop filter circuit (IC161a) and then applied to the VHF VCO circuit.

The D/A converter (R101–R124), low-pass filter (L101–L103, C103–C110) and buffer amplifier (IC101) circuits are connected to the DDS output to convert the digital oscillated signals into smooth analog signals.

4-3-2 UHF PLL CIRCUIT (PLL UNIT)

The UHF PLL circuit generates the 1st LO frequency, and the signal is applied to the UHF 1st mixer circuit in the PA unit as the "B1LO" signal. The PLL circuit consists of a VCO, prescaler and DDS circuits.

The signal generated at the UHF VCO circuit (Q391, D391–D394) is amplified at the buffer amplifiers (Q392, Q472), then applied to the prescaler circuit (IC471). The prescaler circuit divides the applied signal, and outputs it to the UHF DDS circuit (IC331) via the buffer amplifier (Q471).

The D/A converter (R301–R324), low-pass filter (L301–L303, C103–C311) and buffer amplifier (IC301) circuits are connected to the DDS output to convert the digital oscillated signals into smooth analog signals.

4-4 UX-910 (1200 MHz BAND UNIT)

UX-910 is an optional 1200 MHz band unit for IC-910H. This unit covers 1240–1300 MHz frequency range.

4-4-1 ANTENNA SWITCHING CIRCUIT (for RX)

Received signals from the antenna connector (CHASSIS; J501) are applied to the transmit/receive switching circuit (RL51).

The transmit/receive switching circuit leads receive signal to the RF circuit while receiving. However, the circuit leads the transmit signal from the RF power amplifier to the antenna connector while transmitting.

The passed signals are then applied to the RF amplifier circuit.

4-4-2 1200 MHz RF CIRCUIT (for RX)

Received signals from the transmit/receive switching circuit are passed through the high-pass filter (L285–L287, L289, C297–C300) and pre-amplifier (Q281) and are applied to the RF amplifier circuit (Q271) via the band pass filter circuit (FI281).

The amplified signals are then passed through the another bandpass filter (FI271) to suppress unwanted signals. The filtered signals are then applied to the 1st mixer circuit (IC241).

4-4-3 1200 MHz 1ST/2ND MIXER CIRCUITS (for RX)

The 1st/2nd mixer circuits convert the received signals into a fixed frequency of the 10 MHz IF signal with a PLL output frequencies. By changing the PLL frequency, only the desired frequency will pass through a filter at the next stage.

The filtered signals from the bandpass filter are mixed with 1st LO signals at the mixer circuit (IC241) to produce a 1st IF signal (243.95 MHz). The 1st LO signals (996.0 MHz–1076.1 MHz) are PLL output frequency, which comes from the 1st LO VCO circuit (Q451, Q452).

The 1st IF signal is passed through the bandpass filter (FI241) to suppress unwanted signals, and then applied to the 2nd mixer circuit (Q221).

The applied signal is mixed with 2nd LO signal coming from the 2nd LO VCO circuit (Q731) to produce a 10.85 MHz [Main], 10.95 MHz [Sub] 2nd IF signal. The 2nd IF signal is passed through the main/sub switching circuit (Q161, Q164), and then output to the MAIN unit of IC-910H via J311 (pin 25 [Main], pin 1 [Sub]).

4-4-4 IF AMPLIFIER CIRCUIT (for TX)

The modulated 2nd IF signal from IC-910H via J311 is amplified at the 2nd IF amplifier (Q81), and is passed through the low-pass filter (L82, L83, C80, C85–C89) to suppress unwanted signals. The filtered signal is then applied to the 2nd mixer circuit.

The applied signal is mixed at the 2nd mixer circuit (D82, L84, L85) to converted into the 1st LO signal with the 2nd LO signal, which comes from the 2nd LO VCO (Q731).

Then the 1st LO signal is passed through the low-pass filter (L121, L122, C121–C125) and amplified at the 1st IF amplifier (IC111). The amplified signal is passed through the bandpass filter (FI101) between the attenuators (R104–R106) and (R133–R135), and are then applied to the 1st mixer circuit (IC131).

The signal is mixed with the 1st LO signal coming from the 1st LO VCO circuit (Q451, Q452) to converted into RF signals.

4-4-5 DRIVE/POWER AMPLIFIER CIRCUITS (for TX)

The RF signals from the 1st mixer circuit are passed through the bandpass filter (FI141) and low-pass filter (L141, L142, C142–C146), and then amplified at the YGR amplifier circuit (IC141).

The amplified signals are passed through the bandpass filter (FI1) to suppress spurious components, and are amplified at the pre-drive amplifier (Q36, Q38) and power module (IC21) to obtain a stable 10 W of output power.

The output signals from the power module (IC21) are passed through the duplexer circuit (RL51) and detector circuits of forward voltage and reflected voltage, and are then applied to the antenna connector.

4-4-6 PLL CIRCUITS

UX-910 contains 2 frequency synthesizer circuit. This unit does not have a local oscillator circuit and uses a 30.2 MHz frequency from IC-910H as a reference frequency. The 2nd LO circuit adopt "Icom's original I-loop PLL" to obtain 1 Hz pitch fine tuning.

The reference frequency from the IC-910H via J312 is amplified at the reference amplifier (IC601, Q601) and applied to the 2LO DDS IC (IC661). A portion of the reference signal is also applied to the divider circuit (IC610). The divided signal is applied to the 1LO PLL circuit (IC501).

4-4-7 1LO PLL CIRCUIT

The 1LO PLL circuit generates the 1st LO frequency, and the signal is applied to the 1st mixer circuit as the "1LO" signal.

An oscillated signal from the 1LO VCO (Q541, Q542) passes through the buffer amplifiers (Q551, Q681) and is applied to the PLL IC (IC501, pin 1) and is prescaled in the PLL IC based on the divided ratio (N-data). The reference signal is also applied to the PLL IC (IC501, pin 6). The PLL IC detects the out-of-step phase using the reference frequency and outputs it from pin 10. The output signal is passed through the active filter (IC502, Q511, Q512) and is then applied to the 1LO VCO circuit as the lock voltage.

4-4-8 2LO PLL CIRCUIT

The 2LO PLL circuit generates the 2nd LO frequency, and the signal is applied to the 2nd mixer circuit as the "2LO" signal.

The signal generated at the 2LO VCO circuit (Q731) is amplified at the buffer amplifiers (Q741, Q761), then applied to the prescaler circuit (IC761). The prescaler circuit divides the applied signal, and outputs it to the DDS circuit (IC661) via the buffer amplifier (Q762). The DDS circuit generates digital signals using the applied signals as a clock frequency. The phase detector section in IC661 compares its phase with the reference frequency from the reference amplifier (IC601). IC661 outputs off-phase components as pulse signals via pins 51, 52.

The output pulses are converted into DC voltage at the loop filter circuit (IC701a) and then applied to the 2LO VCO circuit.

The D/A converter (R621–R645), low-pass filter (L651–L653, C651–C657) and buffer amplifier (IC621) circuits are connected to the DDS output to convert the digital oscillated signals into smooth analog signals.

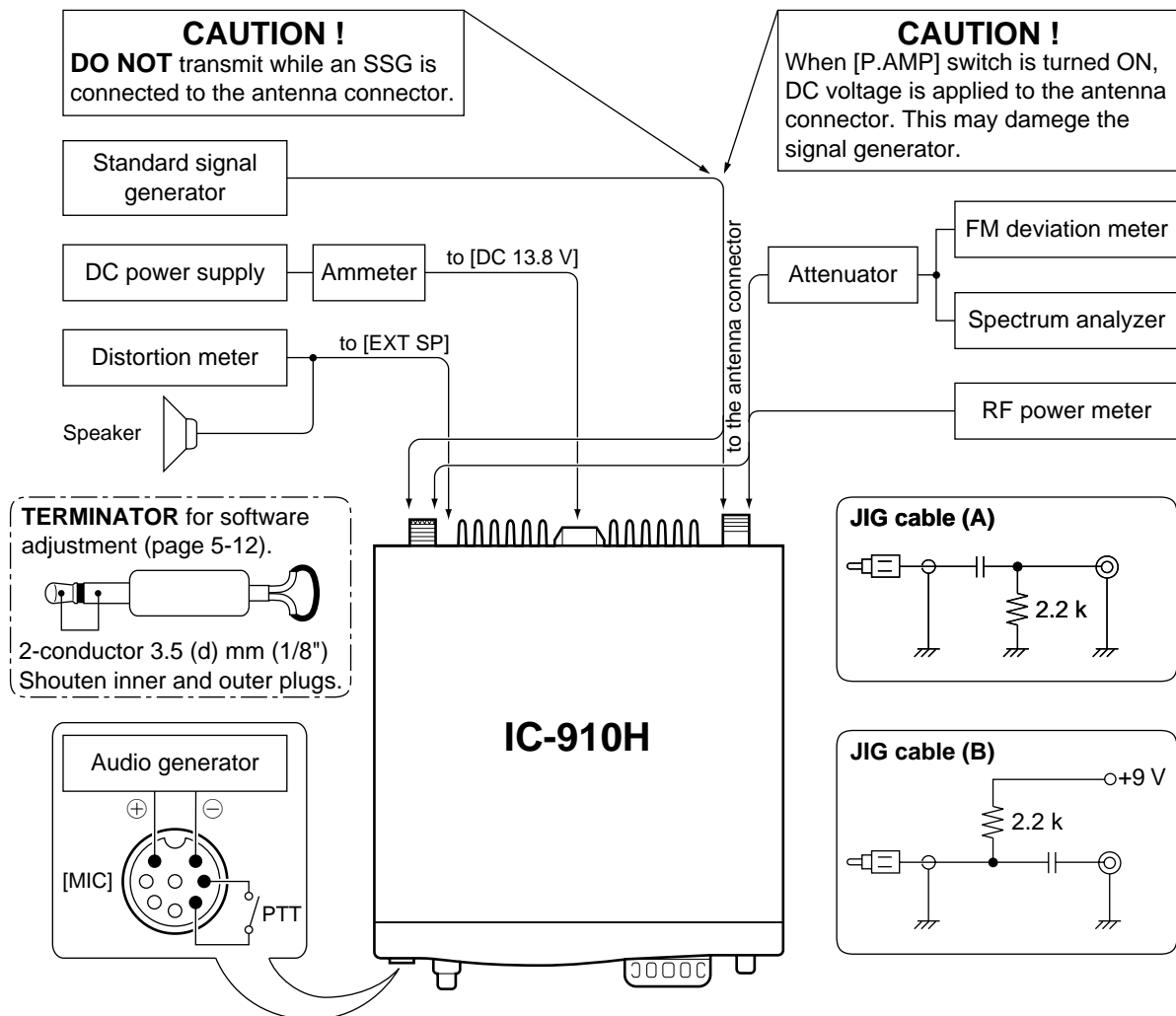
SECTION 5 ADJUSTMENT PROCEDURES

4-1 PREPARATION BEFORE SARVICING

■ REQUIRED TEST EQUIPMENT

| EQUIPMENT | GRADE AND RANGE | EQUIPMENT | GRADE AND RANGE |
|----------------------------------|------------------------------------------------------------------------------------------------------------|---------------------------------|------------------------------------------------------------------------------------|
| DC power supply | Output voltage : 13.8 V DC Current capacity : 30 A or more | Audio generator | Frequency range : 300–3000 Hz Measuring range : 1–500 mV |
| RF power meter (terminated type) | Measuring range : 1–150 W Frequency range : 120–1500 MHz Impedance : 50 Ω SWR : Less than 1.2 : 1 | Standard signal generator (SSG) | Frequency range : 0.1–1500 MHz Output level : 0.1 μV–32 mV (–127 to –17 dBm) |
| Frequency counter | Frequency range : 0.1–100 MHz Frequency accuracy : ±0.5 ppm or better Sensitivity : 100 mV or better | AC millivoltmeter | Measuring range : 10 mV–10 V |
| RF voltmeter | Frequency range : 0.1–500 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 | DC ammeter | Measurement capability: 1 A/30 A |
| Distortion meter | Frequency range : 1 kHz ±10 % Measuring range : 1–100 % | Spectrum analyzer | Frequency range : At least 150 MHz Spectrum bandwidth : 100 kHz or more |
| Oscilloscope | Frequency range : DC–20 MHz Measuring range : 0.01–20 V | Attenuator | Power attenuation : 50 or 60 dB Capacity : 150 W or more |
| Digital multimeter | Input impedance : 10 MΩ/DC or better | External speaker | Input impedance : 8 Ω Capacity : 5 W or more |
| | | Terminator | Resistance : 50 and 150 Ω Capacity : 150 W or more |

■ CONNECTIONS



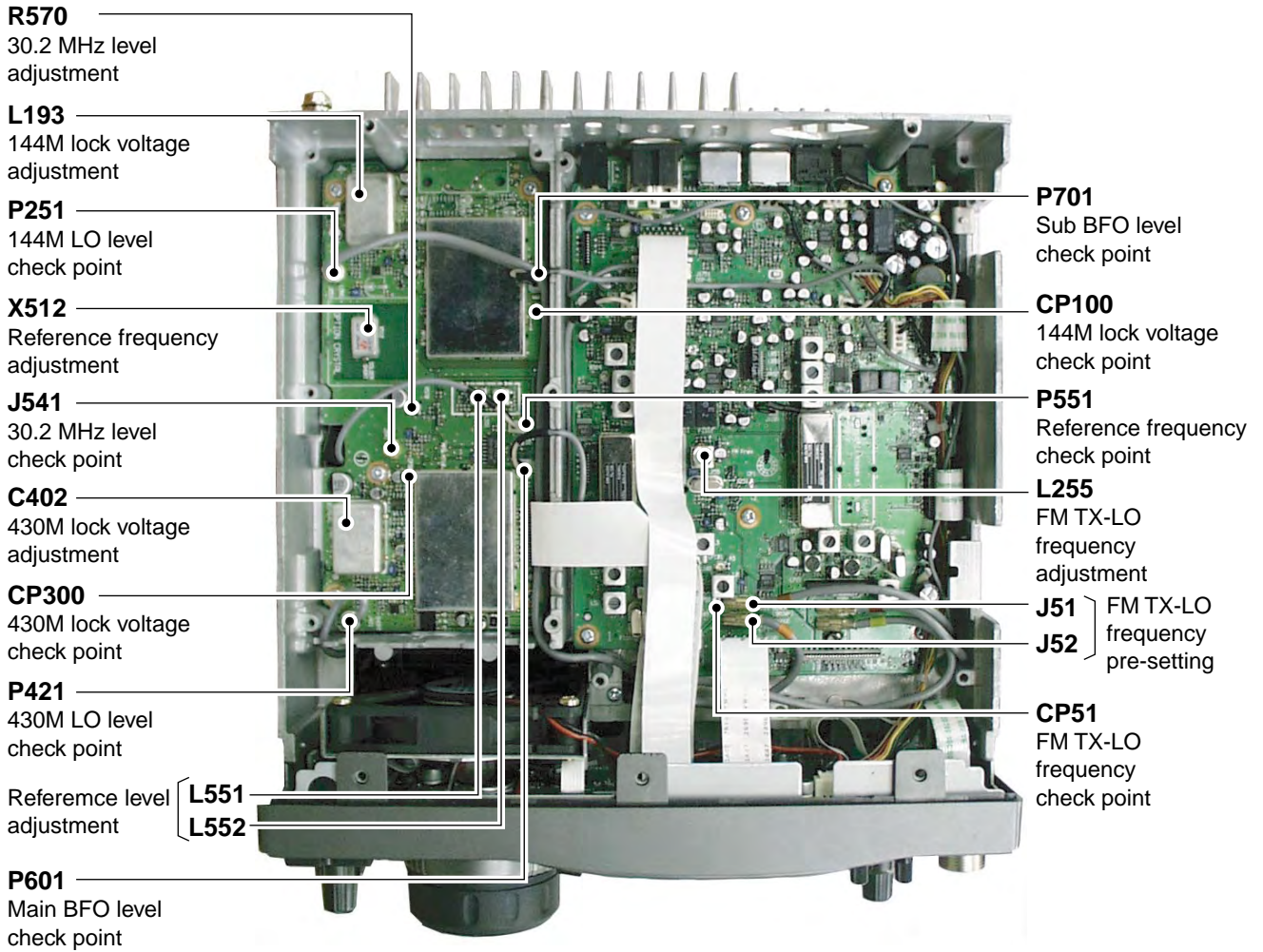
5-2 PLL ADJUSTMENTS

| ADJUSTMENT | ADJUSTMENT CONDITION | MEASUREMENT | | VALUE | ADJUSTMENT POINT | |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------|-------------|--------------------------------------------------------------------|---------------------------------------------------------------------|------------------|----------------------------------------------|
| | | UNIT | LOCATION | | UNIT | ADJUST |
| 30.2 MHz LEVEL | 1 <ul style="list-style-type: none"> • Display frequency: Any • Receiving | PLL | Connect an RF voltmeter or spectram analyzer to check point J541. | -10 dBm (or more than -11.5 dBm, when R570 is in maximum position.) | PLL | R570 |
| REFERENCE FREQUENCY | 1 <ul style="list-style-type: none"> • Display frequency: Any • Receiving | PLL | Connect an RF voltmeter or spectram analyzer to check point P551. | Maximum level (-13 dBm to -7dBm) | PLL | Adjust in sequence L551, L552 several times. |
| | 2 <ul style="list-style-type: none"> • This adjustment must be performed at 5 minutes later after power ON. | | Connect a frequency counter to check point P551. | 60.400000 MHz | | The trimmer capacitor of X512. |
| 144M LOCK VOLTAGE | 1 <ul style="list-style-type: none"> • Display frequency: 173.9800 MHz • Mode : USB • Receiving | PLL | Connect a digital multimeter or oscilloscope to check point CP100. | 2.7 V | PLL | L193 |
| | 2 <ul style="list-style-type: none"> • Display frequency: 136.0200 MHz • Receiving | | | 0.6 V to 1.6 V | | Verify |
| | 3 <ul style="list-style-type: none"> • Display frequency: 155.0000 MHz • Receiving | | Connect an RF voltmeter to check point P251. | -10 dBm to -4 dBm | | Verify |
| 440M LOCK VOLTAGE | 1 <ul style="list-style-type: none"> • Display frequency: 479.9800 MHz • Mode : USB • Receiving | PLL | Connect a digital multimeter or oscilloscope to check point CP300. | 3.4 V | PLL | C402 |
| | 2 <ul style="list-style-type: none"> • Display frequency: 420.0200 MHz • Receiving | | | 0.5 V to 1.5 V | | Verify |
| | 3 <ul style="list-style-type: none"> • Display frequency: 450.0000 MHz • Receiving | | Connect an RF voltmeter to check point P421. | -16 dBm to -10 dBm | | Verify |
| MAIN BFO LEVEL | 1 <ul style="list-style-type: none"> • Display frequency: Any • Mode :USB • Receiving | PLL | Connect an RF voltmeter to check point P601. | -11 dBm to -5 dBm | PLL | Verify |
| SUB BFO LEVEL | 2 <ul style="list-style-type: none"> • Sub display freq. : Any • Mode :USB • Receiving | PLL | Connect an RF voltmeter to check point P701. | -11 dBm to -5 dBm | PLL | Verify |

5-3 FREQUENCY ADJUSTMENT

| ADJUSTMENT | ADJUSTMENT CONDITION | MEASUREMENT | | VALUE | ADJUSTMENT POINT | |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------------------------------------------------|--------------|------------------|--------|
| | | UNIT | LOCATION | | UNIT | ADJUST |
| FM TX-LO FREQUENCY | 1 <ul style="list-style-type: none"> • Display frequency: Any • Mode : FM • Disconnect P501, P502 (PA unit) from J51 and J52 on the MAIN unit. • Apply no audio signals to [MIC] connector. • Transmitting <p>After adjustment, connect P501, P502 (PA unit) to J51, J52 on the MAIN.</p> | MAIN | Connect a frequency counter to check point CP51. | 10.85000 MHz | MAIN | L255 |

• PLL AND MAIN UNITS



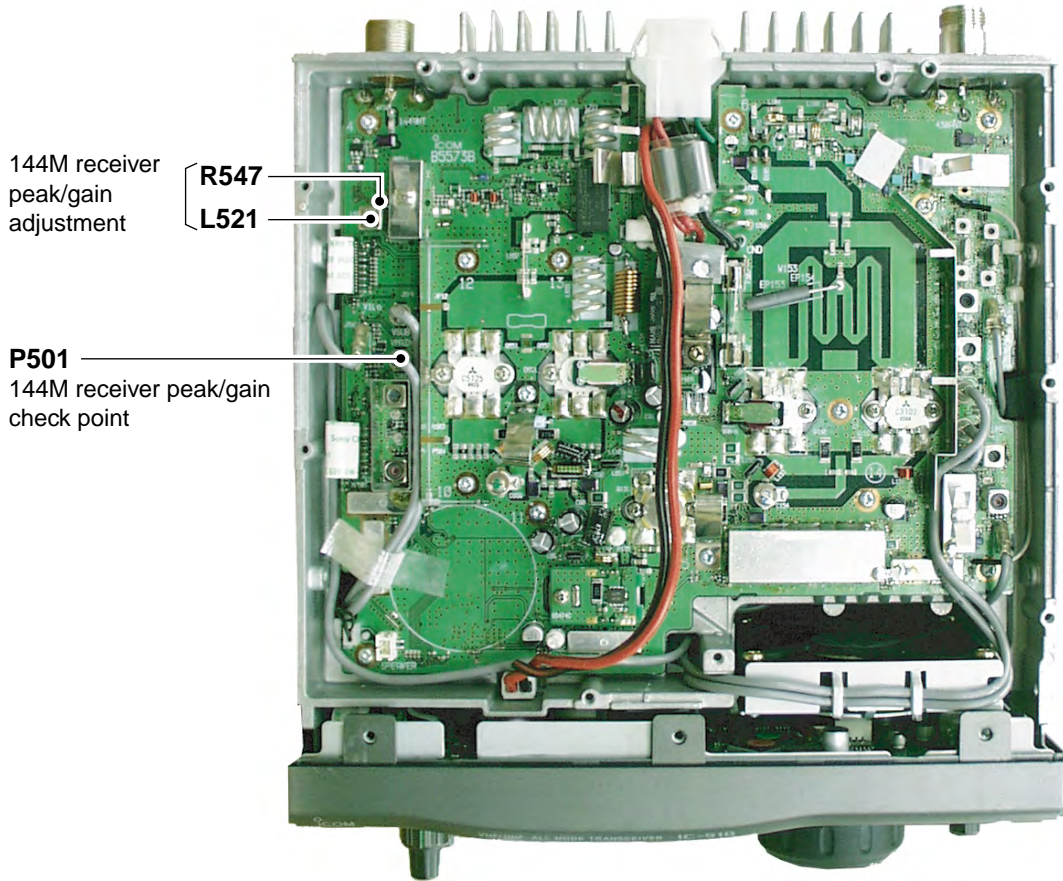
5-4 RECEIVER ADJUSTMENTS

Receiver adjustments must be performed after software adjustment (0) and (1). SUB band must be OFF when adjusting MAIN band, or main AF volume (max. counter clockwise) and SQL volume (max. clockwise) must be set when adjusting SUB band.

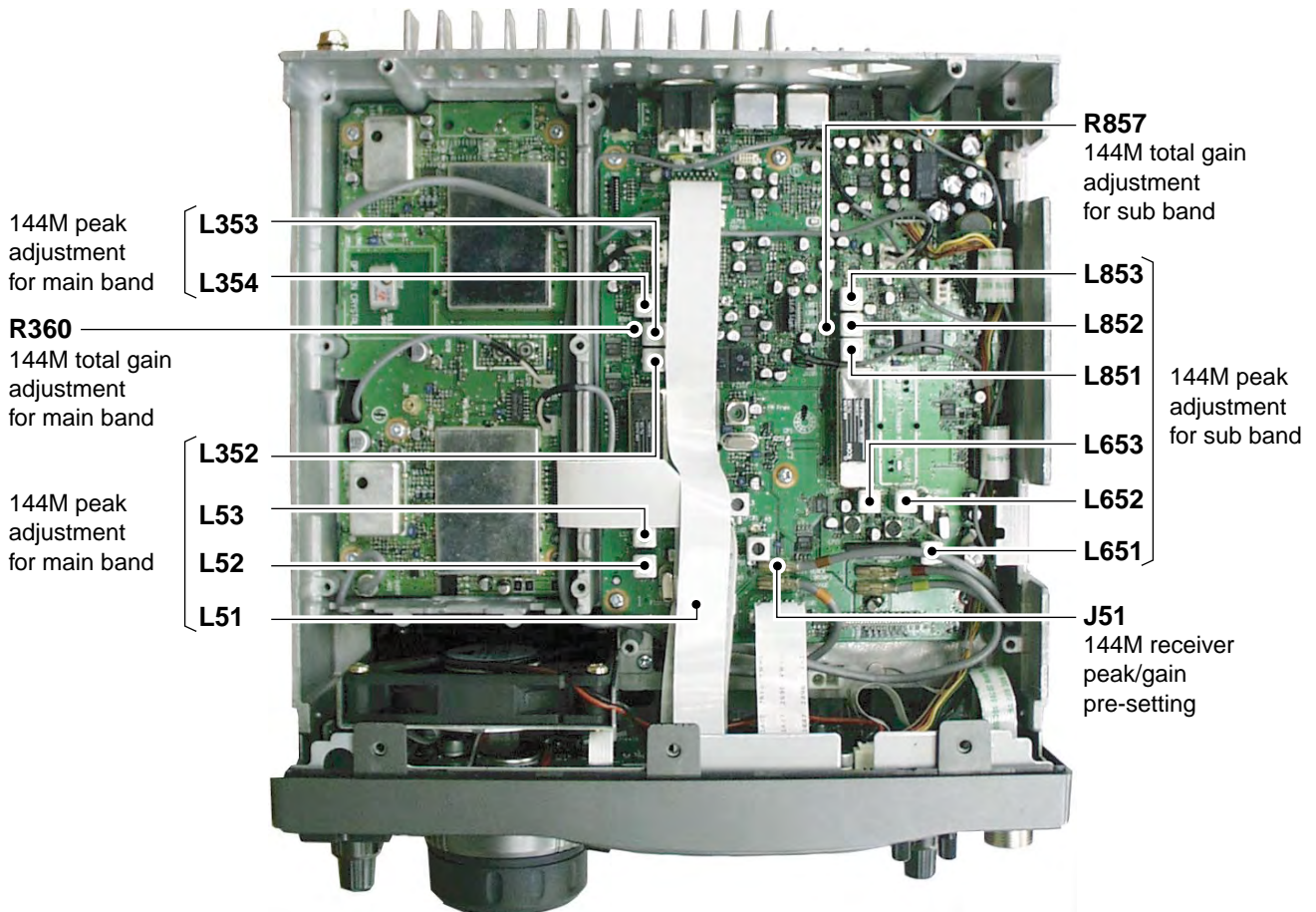
| ADJUSTMENT | ADJUSTMENT CONDITION | MEASUREMENT | | VALUE | ADJUSTMENT POINT | | |
|-------------------------------------------------------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------------------------------------------------------------------|--------------------------------------------------|-------------|----------------------------------------------|
| | | UNIT | LOCATION | | UNIT | ADJUST | |
| 144 M RECEIVER PEAK/GAIN | 1 | <ul style="list-style-type: none"> • Display frequency: Any • Disconnect P501 (PA unit) from J51 on the MAIN unit. • Connect a standard signal generator to [VHF ANT] connector and set as: Frequency : 146.0000 MHz Level : 7.1 mV* (-30 dBm) Modulation: OFF • Receiving | PA | Connect an RF voltmeter to check point P501 via the JIG cable (A). | Maximum level | PA | L521 |
| | 2 | <ul style="list-style-type: none"> • Receiving | | | -14 dBm | | R547 |
| After adjustment, connect P501 (PA unit) to J51 on the MAIN unit. | | | | | | | |
| 144 M PEAK (MAIN BAND) | 1 | <ul style="list-style-type: none"> • Display frequency: 145.9800 MHz • Mode : FM • Connect an SSG to [VHF ANT] connector and set as: Frequency : 145.9800 MHz Level : 3.2 μV* (-97 dBm) Modulation: 1 kHz/\pm5.0 kHz Dev. • Receiving | Rear panel | Connect an distortion meter to [EXT SP] connector with an 8 Ω load. | Minimum audio distortion level | MAIN | Adjust in sequence L51, L52 several times. |
| | 2 | <ul style="list-style-type: none"> • Mode : USB • Set an SSG as : Frequency : 145.9815 MHz Level : 0.1 μV* (-127 dBm) Modulation: OFF • Receiving | | Connect an AC millivolt meter to [EXT SP] connector with an 8 Ω load. | Maximum noise output level | | L53, L352, L353, L354 |
| 144 M TOTAL GAIN (MAIN BAND) | 1 | <ul style="list-style-type: none"> • Display frequency: 145.9800 MHz • Mode : USB • Set an SSG as : Frequency : 145.9815 MHz Level : 1 mV* (-47 dBm) Modulation: OFF • Receiving | Rear panel | Connect an AC millivolt meter to [EXT SP] connector with an 8 Ω load. | 1.0 V (0 dB) | Front panel | main [AF] volume |
| | 2 | <ul style="list-style-type: none"> • Set an SSG as : Level : OFF • Receiving | | | 100 mV (20 dB of AF level difference as step 1.) | MAIN | R360 |
| 144 M PEAK (SUB BAND) | 1 | <ul style="list-style-type: none"> • Sub display freq. : 145.9800 MHz • Mode : FM • Connect an SSG to [VHF ANT] connector and set as: Frequency : 145.9800 MHz Level : 3.2 μV* (-97 dBm) Modulation: 1 kHz/\pm5.0 kHz Dev. • Receiving | Rear panel | Connect an distortion meter to [EXT SP] connector with an 8 Ω load. | Minimum audio distortion level | MAIN | Adjust in sequence L651, L652 several times. |
| | 2 | <ul style="list-style-type: none"> • Mode : USB • Set an SSG as : Frequency : 145.9815 MHz Level : 0.1 μV* (-127 dBm) Modulation: OFF • Receiving | | Connect an AC millivolt meter to [EXT SP] connector with an 8 Ω load. | Maximum noise output level | | L653, L851, L852, L853 |
| 144 M TOTAL GAIN (SUB BAND) | 1 | <ul style="list-style-type: none"> • Display frequency: 145.9800 MHz • Mode : USB • Set an SSG as : Frequency : 145.9815 MHz Level : 1 mV* (-47 dBm) Modulation: OFF • Receiving | Rear panel | Connect an AC millivolt meter to [EXT SP] connector with an 8 Ω load. | 1.0 V (0 dB) | Front panel | sub [AF] volume |
| | 2 | <ul style="list-style-type: none"> • Set an SSG as : Level : OFF • Receiving | | | 100 mV (20 dB of AF level difference as step 1.) | MAIN | R857 |

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

• PA UNIT



• MAIN UNIT

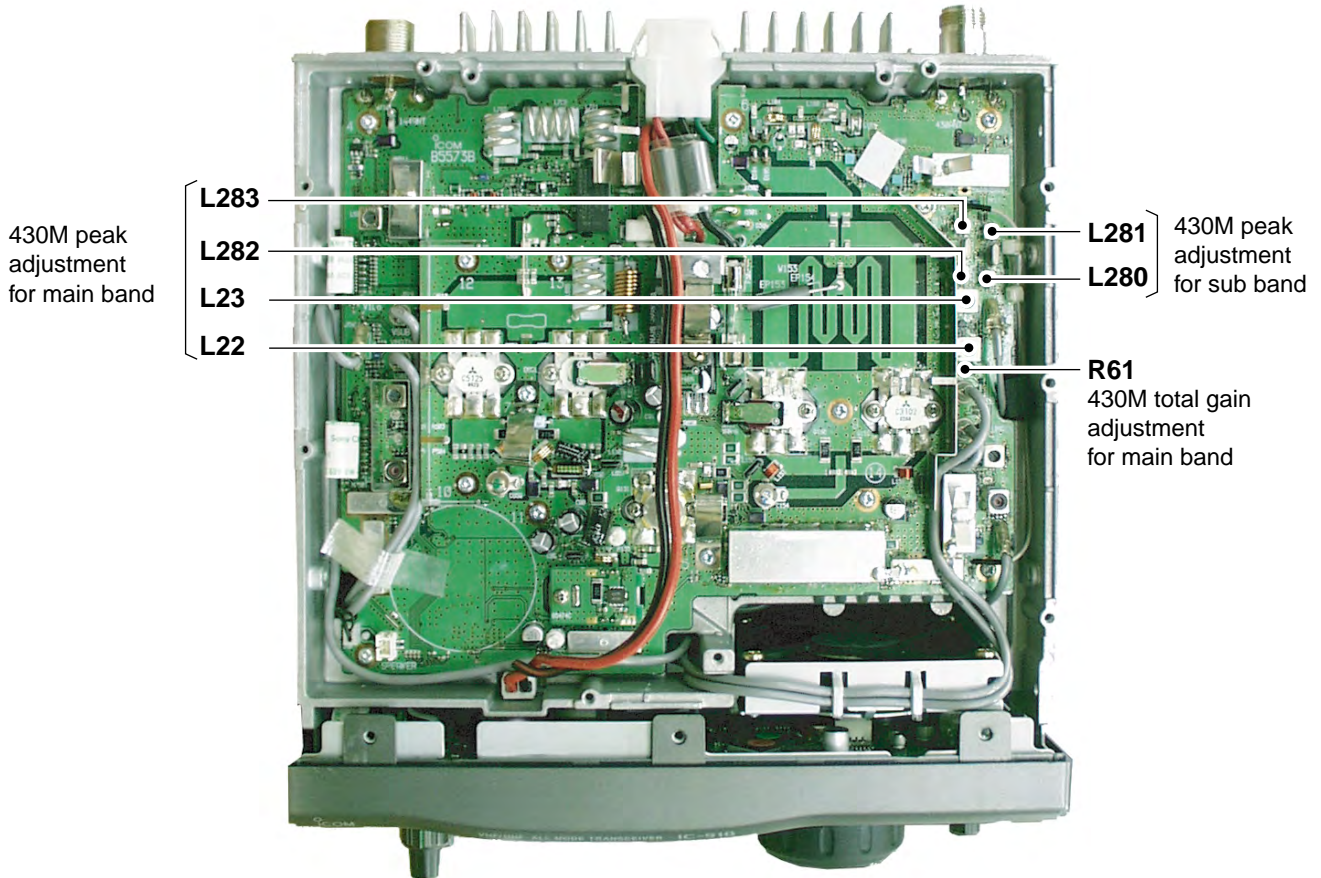


RECEIVER ADJUSTMENTS (continued)

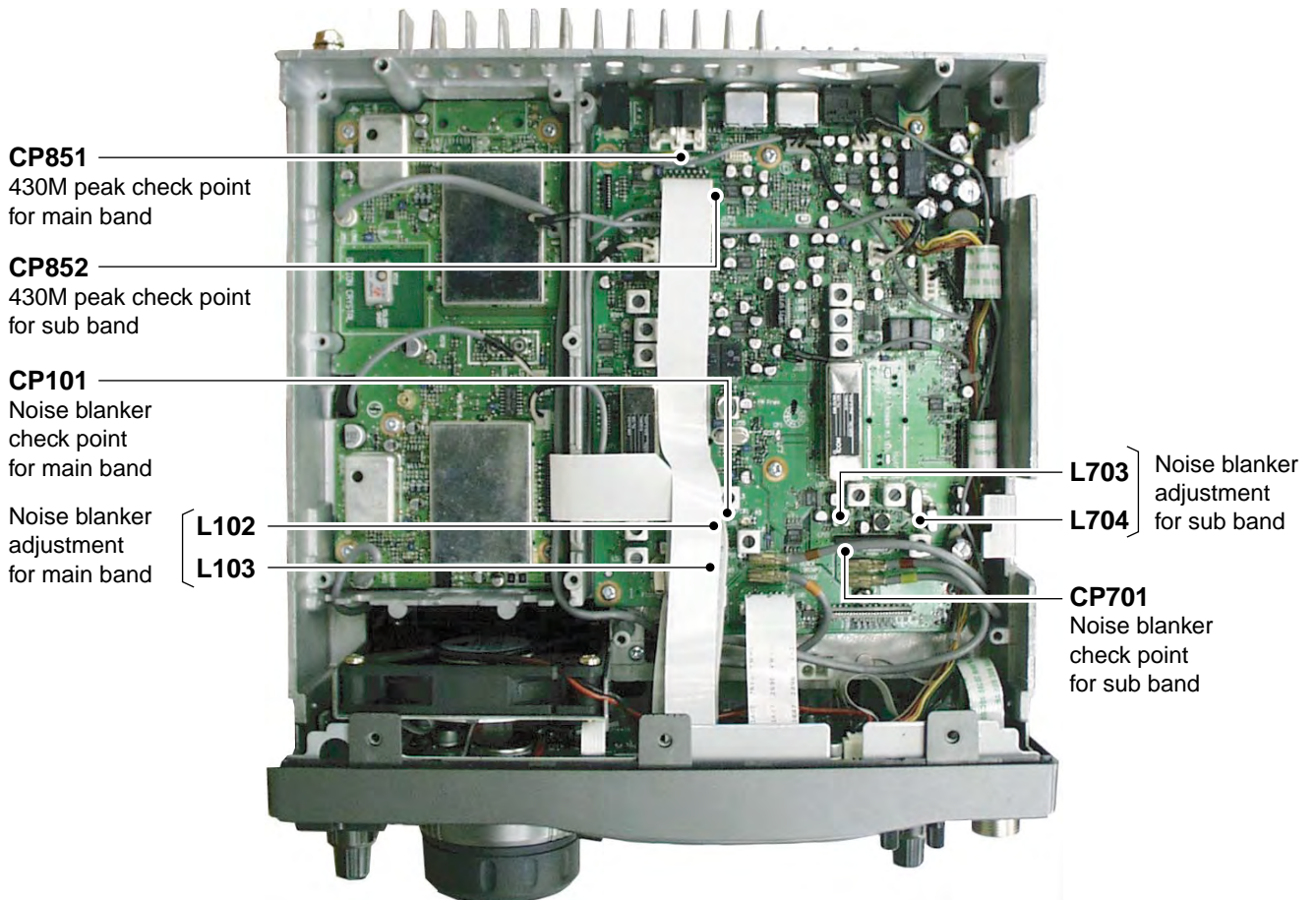
| ADJUSTMENT | ADJUSTMENT CONDITION | MEASUREMENT | | VALUE | ADJUSTMENT POINT | | | |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------------------------------|------------------------|---------------|
| | | UNIT | LOCATION | | UNIT | ADJUST | | |
| 430 M PEAK (MAIN BAND) | 1 <ul style="list-style-type: none"> • Display frequency: 435.0200 MHz • Mode : FM • Connect a standard signal generator to [UHF ANT] connector and set as: Frequency : 435.0200 MHz Level : 1 μV* (-107 dBm) Modulation: 1 kHz/±5.0 kHz Dev. • Receiving | MAIN | Connect a digital multimeter or oscilloscope to check point CP851. | Maximum voltage | PA | L22, L23, L282, L283 | | |
| 430 M PEAK (SUB BAND) | 1 <ul style="list-style-type: none"> • Sub display freq. : 435.0200 MHz • Mode : FM • Set an SSG as : Frequency : 435.0200 MHz Level : 1 μV* (-107 dBm) Modulation: 1 kHz/±5.0 kHz Dev. • Receiving | MAIN | Connect a digital multimeter or oscilloscope to check point CP852. | Maximum voltage | PA | L280, L281 | | |
| 430 M TOTAL GAIN (MAIN BAND) | 1 <ul style="list-style-type: none"> • Display frequency: 435.0200 MHz • Mode : USB • Set an SSG as : Frequency : 435.0215 MHz Level : 1 mV* (-47 dBm) Modulation: OFF • Receiving | Rear panel | Connect an AC millivolt meter to [EXT SP] connector with an 8 Ω load. | 1.0 V (0 dB) | Front panel | main [AF] volume | | |
| | 2 <ul style="list-style-type: none"> • Set an SSG as : Level : OFF • Receiving | | | 100 mV (20 dB of AF level difference as step 1.) | PA | R61 | | |
| NOISE BLANKER (MAIN BAND) | 1 <ul style="list-style-type: none"> • Display frequency: 145.9800 MHz • Mode : USB • [NB] : OFF • Connect an SSG to [VHF ANT] connector and set as : Frequency : 145.98150 MHz Level : 5.6 μV* (-92 dBm) Modulation: OFF and apply following signal to [VHF ANT] connector.  <ul style="list-style-type: none"> • Receiving | MAIN | Connect an oscilloscope to check point CP101. | Maximum noise waveform | MAIN | L102, L103 | | |
| | 2 <ul style="list-style-type: none"> • [NB] : ON • Set an SSG as : Level : 3.2 μV* (-97 dBm) • Receiving | | | The noise must be blanked. | | Verify | | |
| | (SUB BAND) | | | 3 <ul style="list-style-type: none"> • Sub display freq. : 145.9800 MHz • Mode : USB • [NB] : OFF • Set an SSG as : Level : 5.6 μV* (-92 dBm) • Receiving | | Connect an oscilloscope to check point CP701. | Maximum noise waveform | L703, L704 |
| | 4 <ul style="list-style-type: none"> • [NB] : ON • Set an SSG as : Level : 3.2 μV* (-97 dBm) • Receiving | | | The noise must be blanked. | | Verify | | |

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

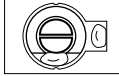
• PA UNIT



• MAIN UNIT



5-5 TRANSMITTER ADJUSTMENTS

| ADJUSTMENT | ADJUSTMENT CONDITION | MEASUREMENT | | VALUE | ADJUSTMENT POINT | | | |
|----------------------------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| | | UNIT | LOCATION | | UNIT | ADJUST | | |
| PA UNIT PRESETTING | 1 | <ul style="list-style-type: none"> • Preset R131, R135, R150, R650 (PA unit) to max. counter clockwise. • Preset R3, R138, R503 (PA unit) to center position. • Preset C154, C659 (PA unit) to center position as illustration at right. | |  | | | | |
| IDLING CURRENT (for 144 M) | 1 | <ul style="list-style-type: none"> • Display frequency: [EUR], [KOR] 145.0000 MHz [USA-1], [AUS] 146.0000 MHz • Mode : CW • Transmitting | PA | Connect an ammeter (3 A) between power supply and the IC-910H. | At the point where the TX current increases 0.5 A. | PA | R131 | |
| | 2 | <ul style="list-style-type: none"> • Transmitting | | | | | At the point where the TX current increases 1.0 A as step 1. | R135 (R138) |
| | 3 | <ul style="list-style-type: none"> • Transmitting | | | | | At the point where the TX current increases 0.5 A as step 2. | R650 |
| | (for 430 M) | 4 | | | | | <ul style="list-style-type: none"> • Display frequency: [EUR], [KOR] 435.0000 MHz [USA-1], [AUS] 450.0000 MHz • Mode : CW • Transmitting | At the point where the TX current increases 1.0 A. |
| RF PEAK (for 430 M) | 1 | <ul style="list-style-type: none"> • Display frequency: 440.0000 MHz • Connect an SSG to P1 on the PA unit via the JIG cable (A) and set as: Frequency : 10.850 MHz Level : 18 mV* (-22 dBm) Modulation: OFF • Transmitting | Rear panel | Connect an RF power meter to [UHF ANT] connector. | Maximum output power | PA | L1, L2 | |
| | 2 | <ul style="list-style-type: none"> • Set an SSG as: Level : 0.79 μV* (-2 dBm) • Transmitting | | | | | C154 | |
| | (for 144 M) | 3 | <ul style="list-style-type: none"> • Connect an SSG to P501 on the PA unit via the JIG cable (A) and set as: Frequency : 10.850 MHz Level : 18 mV* (-22 dBm) Modulation: OFF | | Connect an RF power meter to [VHF ANT] connector. | Refer page 5-16 software adjustment 6. | | |
| | | 4 | <ul style="list-style-type: none"> • Display frequency: 146.0000 MHz • Set an SSG as: Level : 0.79 μV* (-2 dBm) • Transmitting | | | | | Maximum output power |
| IF PEAK | 1 | <ul style="list-style-type: none"> • Display frequency: Any • Mode : USB • MIC gain : Center • Connect an audio generator to [MIC] connector and set as: Frequency : 1.5 kHz Level : 2 mVrms • Transmitting | MAIN | Connect an RF voltmeter to check point J51 via the JIG cable (B). | Maximum level | MAIN | L2, L3 | |
| CARRIER SUPPRESSION | 1 | <ul style="list-style-type: none"> • Display frequency: Any • Mode : USB • Mic gain : Minimum • Apply no audio signals to [MIC] connector. • Transmitting | MAIN | Connect a spectrum analyzer to check point J51 via the JIG cable (B). | Minimum carrier level | MAIN | R206, R215 | |
| | 2 | <ul style="list-style-type: none"> • Mode : LSB • Transmitting | | | | | | |
| | 3 | <ul style="list-style-type: none"> • Repeat step 1, step 2 several times. | | | | | | |

• PA UNIT

P501
RF peak
pre-setting for 144 M

R503
PA unit pre-setting

C659
RF peak adjustment
for 430M

Idling current
adjustment
for 144M

R138
R131
R135
R650

C154

RF peak
adjustment
for 430M

L1

L2

R3

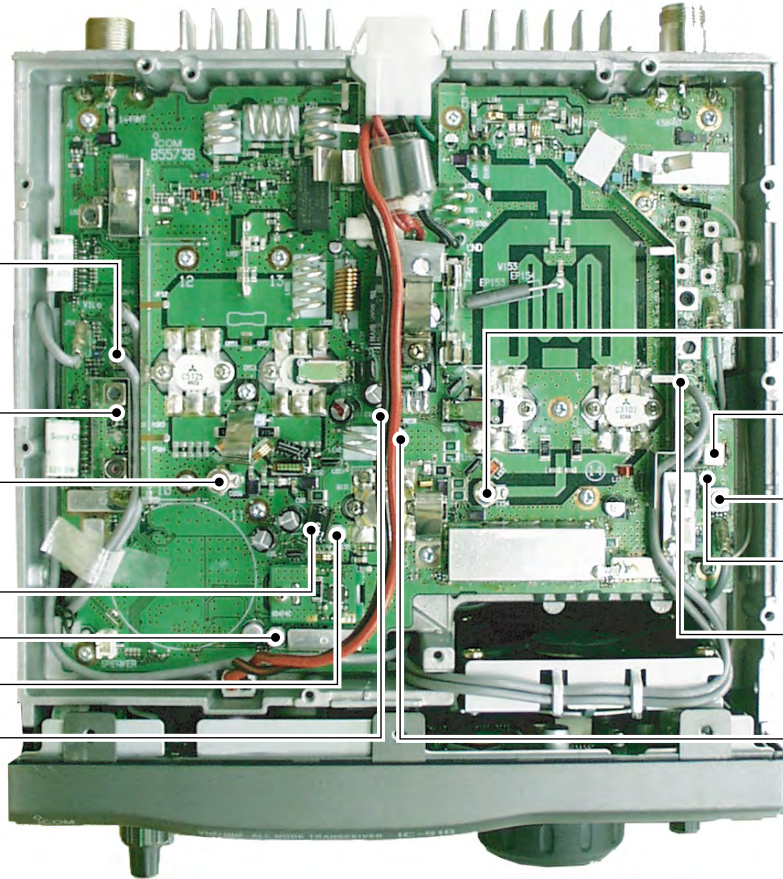
PA unit pre-setting

P1

RF peak
pre-setting for 430M

R150

Idling current
adjustment
for 430M



• MAIN UNIT

R206

Carrier
suppression
adjustment

R215

L2

L3

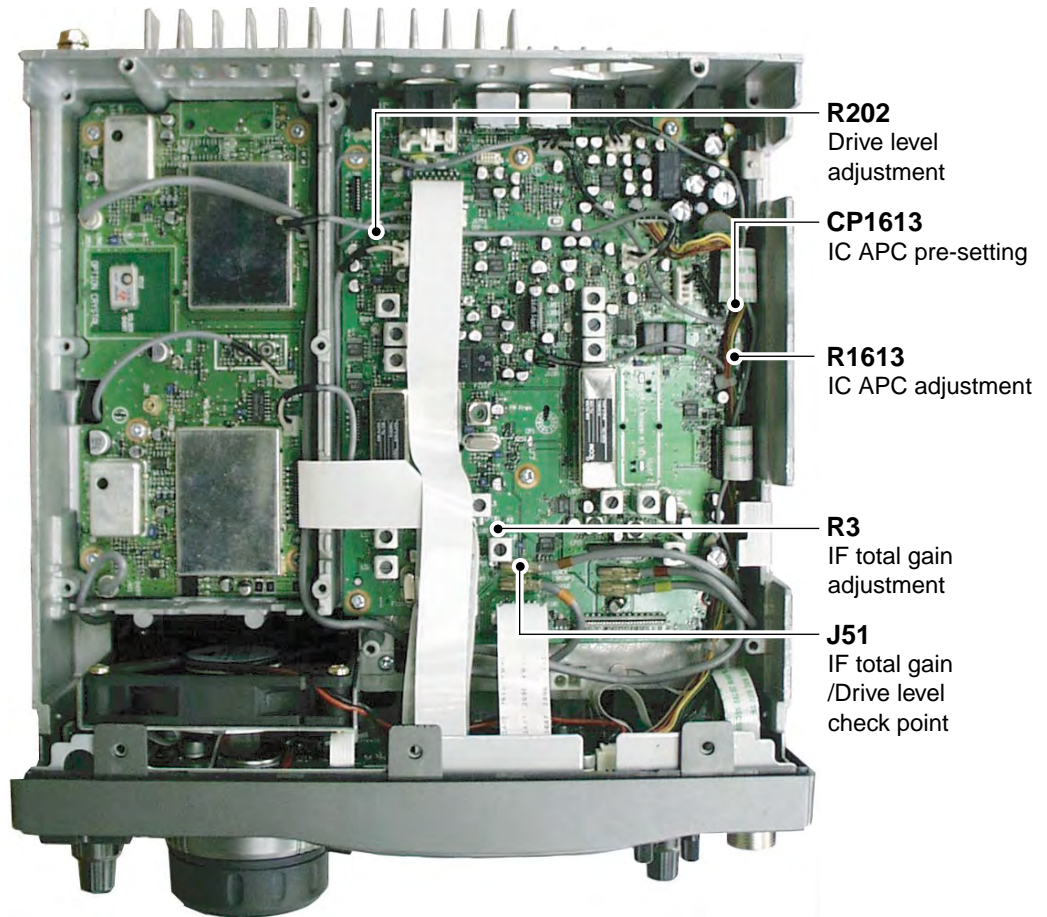
IF peak
adjustment



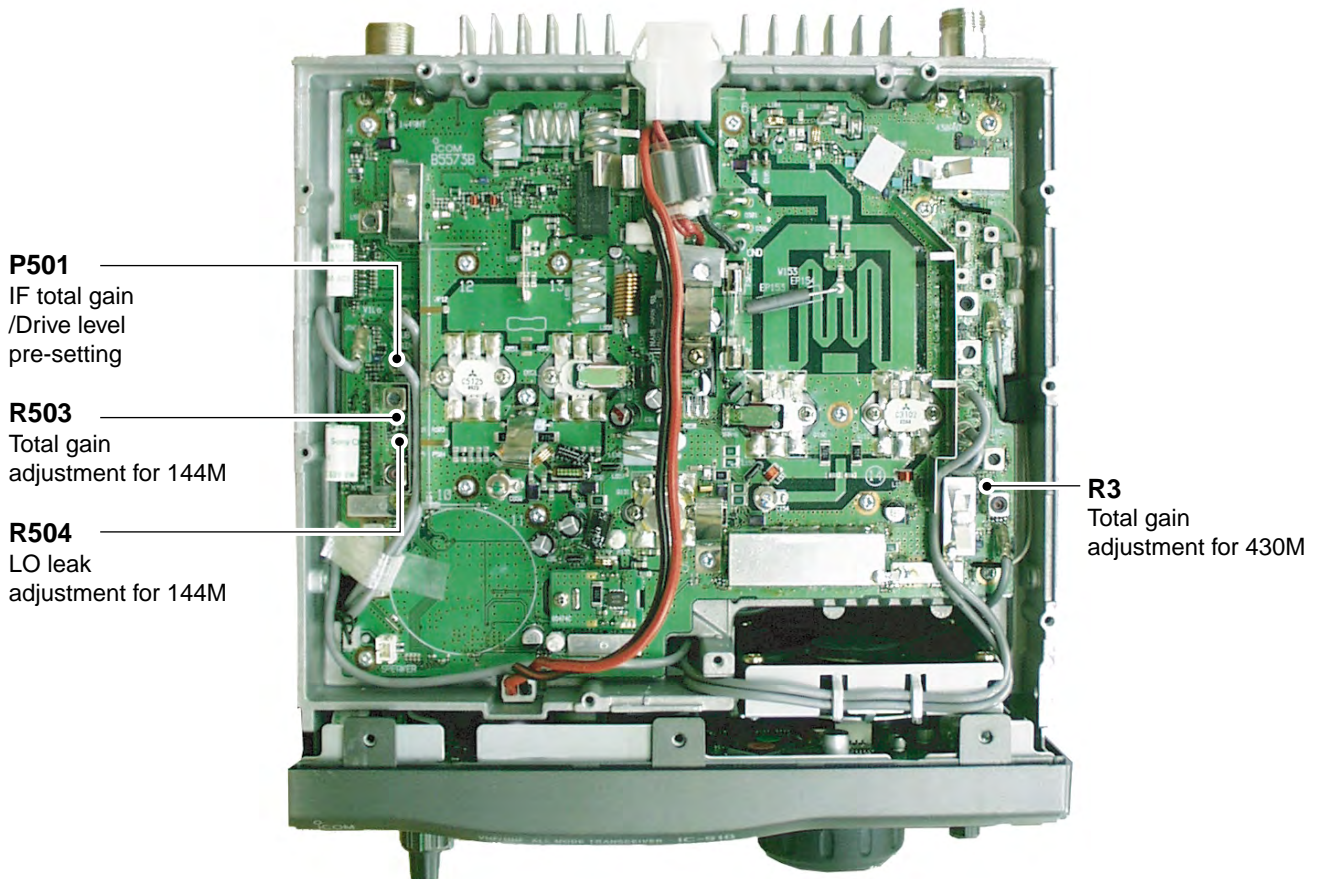
TRANSMITTER ADJUSTMENTS (continued)

| ADJUSTMENT | ADJUSTMENT CONDITION | MEASUREMENT | | VALUE | ADJUSTMENT POINT | | | |
|--------------------------------------------------------------|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|--------|--------|----------------------|
| | | UNIT | LOCATION | | UNIT | ADJUST | | |
| IF TOTAL GAIN | 1 | <ul style="list-style-type: none"> • Display frequency: Any • Mode : USB • MIC gain : Center • Disconnect P501 (PA unit) from J51 on the MAIN unit. • Connect an audio generator to [MIC] connector and set as: Frequency : 1.5 kHz Level : 2 mVrms • Transmitting | MAIN | Connect an RF voltmeter to check point J51 via the JIG cable (B). | -22 dBm | MAIN | R3 | |
| | After adjustment, connect P501 (PA unit) to J51 on the MAIN. | | | | | | | |
| TOTAL GAIN (for 144 M) | 1 | <ul style="list-style-type: none"> • Display frequency: [EUR], [KOR] 145.0000 MHz [USA-1], [AUS] 146.0000 MHz • Mode : USB • RF power : Maximum • MIC gain : Center • Connect an audio generator to [MIC] connector and set as: Frequency : 1.5 kHz Level : 2 mVrms • Transmitting | Rear panel | Connect an RF power meter to [VHF ANT] connector. | 50 W | PA | R503 | |
| | (for 430 M) | 2 | | <ul style="list-style-type: none"> • Display frequency: [EUR], [KOR] 435.0000 MHz [USA-1], [AUS] 450.0000 MHz • Transmitting | Connect an RF power meter to [UHF ANT] connector. | | 37.5 W | R3 |
| Ic APC | 3 | <ul style="list-style-type: none"> • Display frequency: 146.0000 MHz • Mode : USB • Connect CP1631 (MAIN unit) to GND. • RF power : Maximum • Mic gain : Center • Connect an audio generator to [MIC] connector and set as: Frequency : 1.5 kHz Level : 20 mVrms • Transmitting | Rear panel | Connect an ammeter (30A) between power supply and the IC-910H. | 23 A | MAIN | R1613 | |
| | After adjustment, disconnect CP1631 (PA unit) from GND on the MAIN. | | | | | | | |
| DRIVE LEVEL | 1 | <ul style="list-style-type: none"> • Display frequency: 146.0000 MHz • Mode : USB • RF power : Maximum • Mic gain : Center • Disconnect P501 (PA unit) from J51 on the MAIN unit. • Connect an audio generator to [MIC] connector and set as: Frequency : 1.5 kHz Level : 20 mVrms • Transmitting | MAIN | Connect an RF voltmeter to check point J51 via the JIG cable (B). | Read the RF voltmeter indication. | | Verify | |
| | 2 | <ul style="list-style-type: none"> • Mode : CW • CW paddle : OFF • Connect a keyer to the [KEY] jack. • Key down (transmitting) | | | | | | Same level as step 1 |
| After adjustment, connect P501 (PA unit) to J51 on the MAIN. | | | | | | | | |
| LO LEAK (for 144 M) | 1 | LO leak must be performed after software adjustment (7) "TX POWER/METER". | | | | | PA | R504 |
| | | <ul style="list-style-type: none"> • Display frequency: [EUR], [KOR] 146.0000 MHz [USA-1], [AUS] 148.0000 MHz • Mode : USB • RF power : Minimum • MIC gain : Center • Transmitting | Rear panel | Connect an RF power meter to [VHF ANT] connector. | Minimum output power | | | |

• MAIN UNIT



• PA UNIT



5-6 SOFTWARE ADJUSTMENT

| ADJUSTMENT | ADJUSTMENT CONDITION | DISPLAY | OPERATION |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ENTERING SOFTWARE ADJUSTMENT | 1 <ul style="list-style-type: none"> Enter software adjustment mode: <ol style="list-style-type: none"> Turn power OFF. Terminate the [REMOTE] jack with a 3.5(d) mm mini-plug. While pushing [RIT] and [SATELLITE] keys, turn power ON. | <i>Adjust</i> <i>0-9</i> | The display shows the selection item screen for the adjustment mode, push [0]–[9] key to select adjustment item. Once entering adjustment mode, use [UP]/[DOWN] key to skip/back items, or [ENT] to return the selection item screen . |
| | CAUTION: NEVER select adjustment items [6]–[9] key on the selection item screen while transceiver is connected to an SSG. Because transceiver automatically transmits when transmit items [6]–[9] is selected. | | |
| ADJUSTMENT ITEM (0) VOLUME CENTER | 1 <ul style="list-style-type: none"> Push [0] to enter the volume center setting. Set the [RIT] and [SHIFT] controls to center. | <i>Set -Cent</i> <i>rit -5Ft</i> | Push [RIT] key to set the volume center positions, and to step next. |
| PLL UNLOCK | 1 <ul style="list-style-type: none"> Wait for a while. | ^{USB} <i>146.020.0</i> <i>144 PLL</i> | Verify the unlock detection for VHF by blinking the frequency on the display, then push [RIT] key to step next. |
| | 2 | ^{USB} <i>440.020.0</i> <i>430 PLL</i> | Verify the unlock detection for UHF by blinking the frequency on the display, then push [RIT] key to exit volume center setting to selection item screen . |
| ADJUSTMENT ITEM (1) TUNED BPF (for 144 M) | 1 <ul style="list-style-type: none"> Push [1] to enter the receiver adjustment. Connect a standard signal generator to [VHF ANT] connector and set as: <ul style="list-style-type: none"> Frequency : 136.02150 MHz Level : 50 μV* (–73 dBm) Modulation : OFF Receiving | ^{USB} <i>136.020.0</i> <i>144tun.1</i> | Push [RIT] key to tune the “144 tune 1”, and to step next. |
| | 2 <ul style="list-style-type: none"> Set an SSG as : <ul style="list-style-type: none"> Frequency : 146.02150 MHz Level : 50 μV* (–73 dBm) Receiving | ^{USB} <i>146.020.0</i> <i>144tun.2</i> | Push [RIT] key to tune the “144 tune 2”, and to step next. |
| | 3 <ul style="list-style-type: none"> Set an SSG as : <ul style="list-style-type: none"> Frequency : 146.02150 MHz Level : 50 μV* (–73 dBm) Receiving | ^{USB} <i>173.980.0</i> <i>144tun.3</i> | Push [RIT] key to tune the “144 tune 3”, and to step next. |
| (for 430 M) | 4 <ul style="list-style-type: none"> Set an SSG as : <ul style="list-style-type: none"> Frequency : 420.02150 MHz Level : 50 μV* (–73 dBm) Receiving | ^{USB} <i>420.020.0</i> <i>430tun.1</i> | Push [RIT] key to tune the “430 tune 1”, and to step next. |
| | 5 <ul style="list-style-type: none"> Connect an SSG to [UHF ANT] connector and set as : <ul style="list-style-type: none"> Frequency : 440.02150 MHz Level : 50 μV (–73 dBm) Receiving | ^{USB} <i>440.020.0</i> <i>430tun.2</i> | Push [RIT] key to tune the “430 tune 2”, and to step next. |
| | 6 <ul style="list-style-type: none"> Set an SSG as : <ul style="list-style-type: none"> Frequency : 479.98150 MHz Level : 50 μV* (–73 dBm) Receiving | ^{USB} <i>479.980.0</i> <i>430tun.3</i> | Push [RIT] key to tune the “430 tune 3”. Turn power OFF and ON to return the normal operation mode. Then start the receiver adjustments (page 5-3). |

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

SOFTWARE ADJUSTMENT (continued)

| ADJUSTMENT | ADJUSTMENT CONDITION | DISPLAY | OPERATION | |
|--------------------------------------------|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|--------------------------------------------------------------------------|
| ADJUSTMENT ITEM (2) S-METER (MAIN BAND) | 1 | <ul style="list-style-type: none"> • Enter software adjustment mode (Refer page 5-12). • Push [2] key to enter the S-meter adjustment • Connect an SSG to [VHF ANT] connector and set as : Frequency : 146.0200 MHz Level : OFF • Receiving | USB 146.0 18.5 51 0 0 | Push [RIT] key to store the "S0" level into memory, and to step next. |
| | 2 | <ul style="list-style-type: none"> • Set an SSG as : Frequency : 146.0200 MHz Level : 3.2 μV* (-97 dBm) • Receiving | USB 146.0 18.5 51 0 9 | Push [RIT] key to store the "S9" level into memor, and to step next. |
| | 3 | <ul style="list-style-type: none"> • Set an SSG as : Frequency : 146.0200 MHz Level : 1 mV* (-47 dBm) • Receiving | USB 146.0 18.5 51 0 60 | Push [RIT] key to store the "S9+60" level into memory, and to step next. |
| | 4 | <ul style="list-style-type: none"> • Set an SSG as : Frequency : 146.0200 MHz Level : OFF • Receiving | FM 146.020.0 51 0 0 | Push [RIT] key to store the "S0" level into memory, and to step next. |
| | 5 | <ul style="list-style-type: none"> • Set an SSG as : Frequency : 146.0200 MHz Level : 3.2 μV* (-97 dBm) Modulation : OFF • Receiving | FM 146.020.0 51 0 9 | Push [RIT] key to store the "S9" level into memory, and to step next. |
| | 6 | <ul style="list-style-type: none"> • Set an SSG as : Frequency : 146.0200 MHz Level : 32 μV* (-77 dBm) • Receiving | FM 146.020.0 51 0 60 | Push [RIT] key to store the "S9+60" level into memory, and to step next. |
| (SUB BAND) | 7 | <ul style="list-style-type: none"> • Set an SSG as : Frequency : 146.0200 MHz Level : OFF • Receiving | 51 0 0 SUB USB 146.0 18.5 | Push [RIT] key to store the "S0" level into memory, and to step next. |
| | 8 | <ul style="list-style-type: none"> • Set an SSG as : Frequency : 146.0200 MHz Level : 3.2 μV* (-97 dBm) • Receiving | 51 0 9 SUB USB 146.0 18.5 | Push [RIT] key to store the "S9" level into memory, and to step next. |
| | 9 | <ul style="list-style-type: none"> • Set an SSG as : Frequency : 146.0200 MHz Level : 1 mV* (-47 dBm) • Receiving | 51 0 60 SUB USB 146.0 18.5 | Push [RIT] key to store the "S9+60" level into memory, and to step next. |

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

SOFTWARE ADJUSTMENT (continued)

| ADJUSTMENT | ADJUSTMENT CONDITION | DISPLAY | OPERATION |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| S-METER (SUB BAND) | 10 • Set an SSG as : Frequency : 146.0200 MHz Level : OFF • Receiving | 51 0 0 SUB FM 146.0200 | Push [RIT] key to store the "S0" level into memory, and to step next. |
| | 11 • Set an SSG as : Frequency : 146.0200 MHz Level : 3.2 μ V* (-97 dBm) Modulation : OFF • Receiving | 51 0 9 SUB FM 146.0200 | Push [RIT] key to store the "S9" level into memory, and to step next. |
| | 12 • Set an SSG as : Frequency : 146.0200 MHz Level : 32 μ V* (-77 dBm) • Receiving | 51 0 60 SUB FM 146.0200 | Push [RIT] key to store the "S9+60" level into memory. Then the display change to the noise SQL adjustment. |
| ADJUSTMENT ITEM (3) NOISE SQL (MAIN BAND) | 1 • Connect an SSG to [VHF ANT] connector and set as : Frequency : 146.0200 MHz Level : 0.063 μ V* (-131 dBm) Modulation : OFF • Receiving | FM 146.0200 n-59L.5 | Push [RIT] key to store the noise squelch thresh-hold level for FM mode into memory, and to step next. |
| | 2 • Set an SSG as : Frequency : 146.0200 MHz Level : 0.2 μ V* (-121 dBm) • Receiving | FM 146.0200 n-59L.t | Push [RIT] key to store the noise squelch tight level for FM mode into memory, and to step next. |
| | 3 • Set an SSG as : Frequency : 146.0200 MHz Level : 0.063 μ V* (-131 dBm) • Receiving | FMN 146.0200 n-59L.5 | Push [RIT] key to store the noise squelch thresh-hold level for FM narrow mode into memory, and to step next. |
| | 4 • Set an SSG as : Frequency : 146.0200 MHz Level : 0.2 μ V* (-121 dBm) • Receiving | FMN 146.0200 n-59L.t | Push [RIT] key to store the noise squelch tight level for FM narrow mode into memory, and to step next. |
| (SUB BAND) | 5 • Set an SSG as : Frequency : 146.0200 MHz Level : 0.063 μ V* (-131 dBm) • Receiving | n-59L.5 SUB FM 146.0200 | Push [RIT] key to store the noise squelch thresh level for FM mode into memory, and to step next. |
| | 6 • Set an SSG as : Frequency : 146.0200 MHz Level : 0.2 μ V* (-121 dBm) • Receiving | n-59L.t SUB FM 146.0200 | Push [RIT] key to store the noise squelch tight level for FM mode into memory, and to step next. |
| | 7 • Set an SSG as : Frequency : 146.0200 MHz Level : 0.063 μ V* (-131 dBm) • Receiving | n-59L.5 SUB FMN 146.0200 | Push [RIT] key to store the noise squelch threshold level for FM narrow mode into memory, and to step next. |
| | 8 • Set an SSG as : Frequency : 146.0200 MHz Level : 0.2 μ V* (-121 dBm) • Receiving | n-59L.t SUB FMN 146.0200 | Push [RIT] key to store the noise squelch tight level for FM narrow mode into memory. Then the display change to the AFC center adjustment. |

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

SOFTWARE ADJUSTMENT (continued)

| ADJUSTMENT | ADJUSTMENT CONDITION | DISPLAY | OPERATION |
|----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| ADJUSTMENT ITEM (4) CENTER (MAIN BAND) | <ul style="list-style-type: none"> • Connect an SSG to [VHF ANT] connector and set as : <ul style="list-style-type: none"> Frequency : 146.0200 MHz Level : 5.6 μV* (-92 dBm) Modulation : OFF • Receiving | ^{FM} 146.020.0 Center | Push [RIT] key to store the AFC center for FM mode into memory, and to step next. |
| | | ^{FMN} 146.020.0 Center | Push [RIT] key to store the AFC center for FM narrow mode into memory, and to step next. |
| | | Center ^{SUB} ^{FM} 146.020.0 | Push [RIT] key to store the AFC center for FM mode into memory, and to step next. |
| | | Center ^{SUB} ^{FMN} 146.020.0 | Push [RIT] key to store the AFC center for FM narrow mode into memory. Then the display change to the filter calibration adjustment. |
| ADJUSTMENT ITEM (5) FILTER CALIBRATION (MAIN BAND) | <ul style="list-style-type: none"> • Connect an SSG to [VHF ANT] connector and set as : <ul style="list-style-type: none"> Frequency : 146.0200 MHz Level : 5.6 μV* (-92 dBm) Modulation : OFF • Receiving | ^{USB} 146.0 18.5 FIL-CAL | Push [RIT] key to make the calibration, and to step next. |
| | | (SUB BAND) | FIL-CAL ^{SUB} ^{USB} 146.0 18.5 |

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

SOFTWARE ADJUSTMENT (continued)

| ADJUSTMENT | ADJUSTMENT CONDITION | DISPLAY | OPERATION | |
|----------------------------------------------------------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ADJUSTMENT ITEM (6) RF PEAK | 1 | <ul style="list-style-type: none"> Enter software adjustment mode (Refer page 5-12). Push [6] key to enter the RF peak adjustment for TX. Connect an RF power meter to [VHF ANT] connector. | USB 145.0 10.0 144tun- | Push [RIT] key to start transmitting. |
| | 2 | <ul style="list-style-type: none"> Connect an SSG to P501 on the PA unit via the JIG cable (A) and set as: Frequency : 10.850 MHz Level : 18 mV* (-22 dBm) Modulation: OFF <p>NOTE: While transmitting, adjust SSG's level and keep the output power less than 30 W.</p> | USB 145.0 10.0 144tun 1 | <ul style="list-style-type: none"> Pushing [SET] key, tune the [MAIN DIAL] to maximum. Adjust L501, L502 on the PA unit (illustration for location page 5-9) to maximum. Pushing [SET] key, tune the [MAIN DIAL] to maximum, then push [RIT] key to store peak setting into memory and to step next. |
| | 3 | | USB 140.0 10.0 144tun2 | (1) Pushing [ATT] key, tune the [MAIN DIAL] to maximum. (2) Pushing [SET] key, tune the [MAIN DIAL] to maximum. (3) Repeat (1) and (2) several times until output power will be peak, then push [RIT] key to store peak setting into memory and to step next. |
| | 4 | | USB 150.0 10.0 144tun3 | Same as step 3. Then turn power OFF and ON to return the normal operation mode. Then continue to adjust from step 4 of the RF PEAK adjustment (page 5-8). |
| ADJUSTMENT ITEM (7) TX POWER/ METER (for 144 M) | 1 | <ul style="list-style-type: none"> Enter software adjustment mode (Refer page 5-12). Push [7] key to enter the TX power/meter adjustment. Connect an RF power meter to [VHF ANT] connector. | CW 145.0 10.0 14P0 -- | Push [RIT] key to start transmitting. |
| | 2 | | CW 145.0 10.0 14P0 H | Tune the [MAIN DIAL] to 100 W (High power). Push [RIT] key to store the adjustment value into memory, and to step next. |
| | 3 | | CW 145.0 10.0 14P0 C | Tune the [MAIN DIAL] to 50 W (Middle power). Push [RIT] key to store the adjustment value into memory, and to step next. |
| | 4 | | CW 145.0 10.0 14P0 0 | Verify the output power (Low power) is 1-5 W, then push [RIT] key to step next. |
| (for 1200 M) | 5 | <ul style="list-style-type: none"> Connect a digital multimeter or oscilloscope to check point CP1631. | CW 145.0 10.0 12P0 -- | Push [RIT] key to start transmitting. |
| | 6 | | CW 145.0 10.0 12P0 H | Tune the [MAIN DIAL] to 3.0 V at the check point CP1681. Push [RIT] key to store the adjustment value into memory, and to step next. |

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

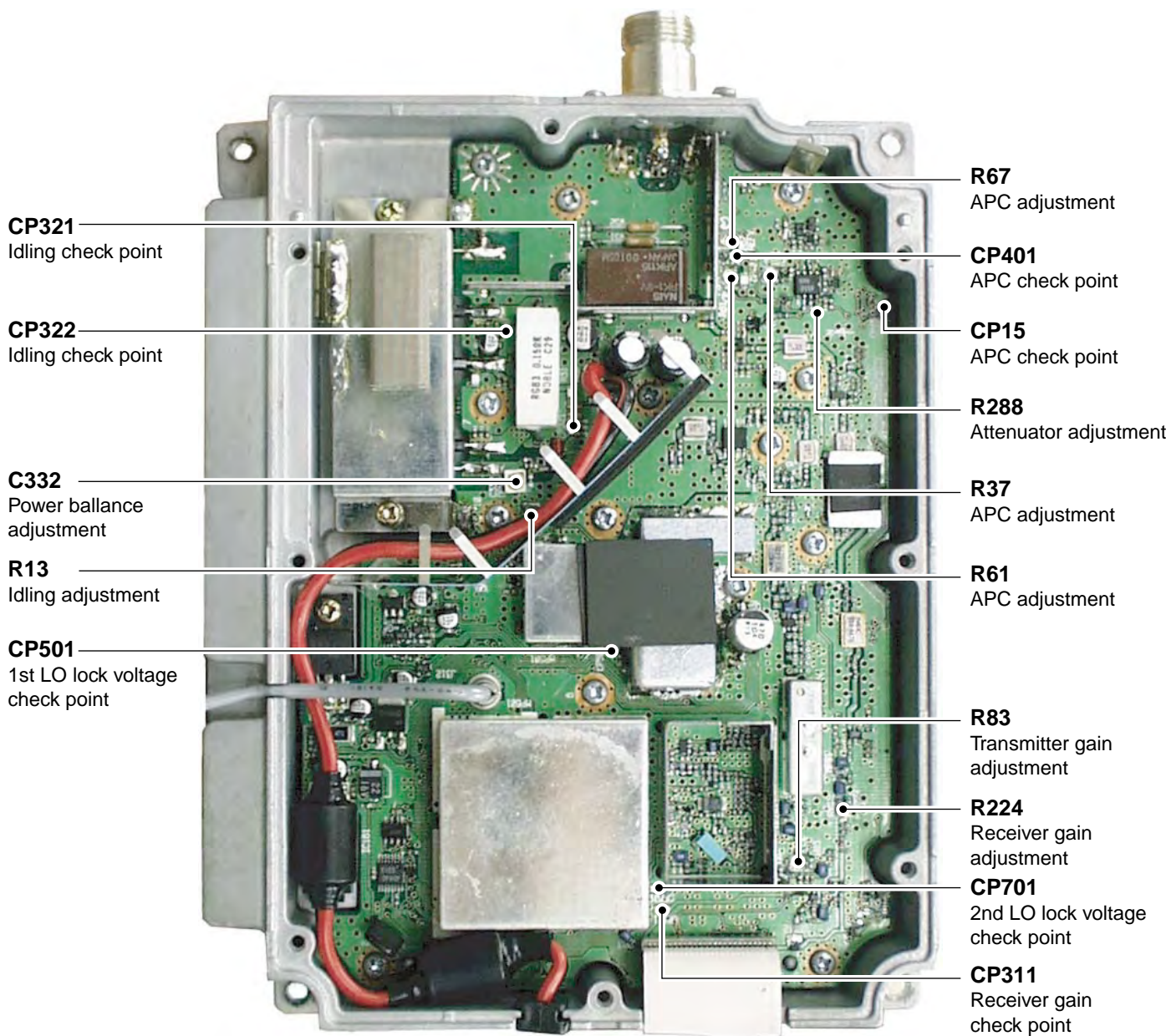
SOFTWARE ADJUSTMENT (continued)

| ADJUSTMENT | ADJUSTMENT CONDITION | DISPLAY | OPERATION | |
|-------------------------------------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TX POWER/ METER (for 430 M) | 7 | <ul style="list-style-type: none"> • Connect an RF power meter to [UHF ANT] connector. | CW 439.820.0 43P _o -- | Push [RIT] key to start transmitting. |
| | 8 | | CW 439.820.0 43P _o H | Tune the [MAIN DIAL] to 75 W (High power). Push [RIT] key to store the adjustment value into memory, and to step next. |
| | 9 | | CW 439.820.0 43P _o [| Tune the [MAIN DIAL] to 37.5 W (Middle power). Push [RIT] key to store the adjustment value into memory, and to step next. |
| | 10 | | CW 439.820.0 43P _o 0 | Verify the output power (Low) is 1–5 W, then push [RIT] key to step next. |
| ADJUSTMENT ITEM (8) DEVIATION | 1 | <ul style="list-style-type: none"> • Enter software adjustment mode (Refer page 5-12). • Push [8] key to enter the deviation adjustment. • MIC gain : Center | FM 145.0 10.0 dE -- | Push [RIT] key to start transmitting. |
| | 2 | <ul style="list-style-type: none"> • Connect an FM deviation meter to [VHF ANT] connector through an attenuator and set as: HPF : OFF LPF : 20 kHz De-emphasis : OFF Detector : (P–P)/2 | FM 145.0 10.0 F dE | Tune the [MAIN DIAL] to ±4.5 kHz FM deviation. Push [RIT] key to store the adjustment value into memory, and to step next. |
| | 3 | <ul style="list-style-type: none"> • Connect an audio generator to [MIC] connector and set as: Frequency : 1.0 kHz Level : 20 mVrms | FMN 145.0 10.0 F dE - n | Tune the [MAIN DIAL] to ±2.25 kHz FM deviation. Push [RIT] key to store the adjustment value into memory, and to step next. |
| | 4 | <ul style="list-style-type: none"> • Apply no audio signals to [MIC] connector. | FM T 145.0 10.0 tone | Tune the [MAIN DIAL] to ±0.6 kHz CTCSS tone deviation. Push [RIT] key to store the adjustment value into memory, and to step next. |
| | 5 | | FM T 145.0 10.0 1750 | Tune the [MAIN DIAL] to ±0.6 kHz europe tone deviation. Push [RIT] key to store the adjustment value into memory. Then turn power OFF and ON to return the normal operation mode. |

5-7 UX-910 ADJUSTMENTS

| ADJUSTMENT | ADJUSTMENT CONDITION | MEASUREMENT | | VALUE | ADJUSTMENT POINT | |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------------------------------------------------------|---------------------------------------------------------------------------|------------------|--------------------|
| | | UNIT | LOCATION | | UNIT | ADJUST |
| 2ND LO LOCK VOLTAGE | 1 <ul style="list-style-type: none"> • Connect an optional UX-910 (1200 MHz band unit). • Display frequency: 1270.5000 MHz • Receiving | MAIN (UX-910) | Connect a digital multimeter or oscilloscope to check point CP701. | 2.6–3.8 V | | Verify |
| 1ST LO LOCK VOLTAGE | 1 <ul style="list-style-type: none"> • Display frequency: 1240.0000 MHz • Receiving | MAIN (UX-910) | Connect a digital multimeter or oscilloscope to check point CP501. | 6.0–7.0 V | | Verify |
| | 2 <ul style="list-style-type: none"> • Display frequency: 1300.0000 MHz • Receiving | | | 3.4–4.4 V | | |
| RECEIVER GAIN | 1 <ul style="list-style-type: none"> • Display frequency: 1280.0000 MHz • Connect a standard signal generator to [12 ANT] connector and set as: Frequency : 1280.0000 MHz Level : 710 μV* (–50 dBm) Modulation: OFF • Receiving | MAIN (UX-910) | Connect a spectram analyzer to check point CP311. | –34 dBm (16 dB gain) | MAIN (UX-910) | R224 |
| ATT GAIN | 1 <ul style="list-style-type: none"> • Display frequency: 1280.0000 MHz • [ATT] : ON • Set an SSG as : Frequency : 1280.0000 MHz Level : 710 μV* (–50 dBm) Modulation: OFF • Receiving | MAIN (UX-910) | Connect a spectram analyzer to check point CP311. | –14 dBm (20 dB of gain difference between the attenuator ON and OFF.) | MAIN (UX-910) | R288 |
| IDLING | 1 <ul style="list-style-type: none"> • Display frequency: Any • Mode : CW • Preset R61, R67, R83 to max. clockwise, R13 to max. counter clockwise, and C332 to center. • Connect an RF power meter to [12 ANT]. • Connect an SSG to the check point CP311 and set as : Frequency : 10.8500 MHz Level : OFF • Transmitting | MAIN (UX-910) | Connect a digital multimeter between check points CP321 and CP322. | 0.5 V voltage difference | MAIN (UX-910) | R13 |
| POWER BALLANCE | 1 <ul style="list-style-type: none"> • Display frequency: Any • Mode : CW • Connect an SSG to the check point CP311 and set as : Frequency : 10.8500 MHz • Transmitting | Rear panel | Connect an RF power meter to [12 ANT]. | 5 W | | Adjust SSG's level |
| | 2 <ul style="list-style-type: none"> • Display frequency: 1240.0000 MHz • Transmitting | | | Read the RF power meter indication. | | Verify |
| | 3 <ul style="list-style-type: none"> • Display frequency: 1300.0000 MHz • Transmitting | | | Same power as step 2 | MAIN (UX-910) | C332 |
| | 4 | | | Repeat step 2 and step 3 several times until power difference is minimum. | | |
| TRANSMITTER GAIN | 1 <ul style="list-style-type: none"> • Display frequency: 1270.0000 MHz • Set an SSG as : Frequency : 10.8500 MHz Level : 18 mV* (–22 dBm) • Transmitting | Rear panel | Connect an RF power meter to [12 ANT]. | 5 W | MAIN (UX-910) | R83 |

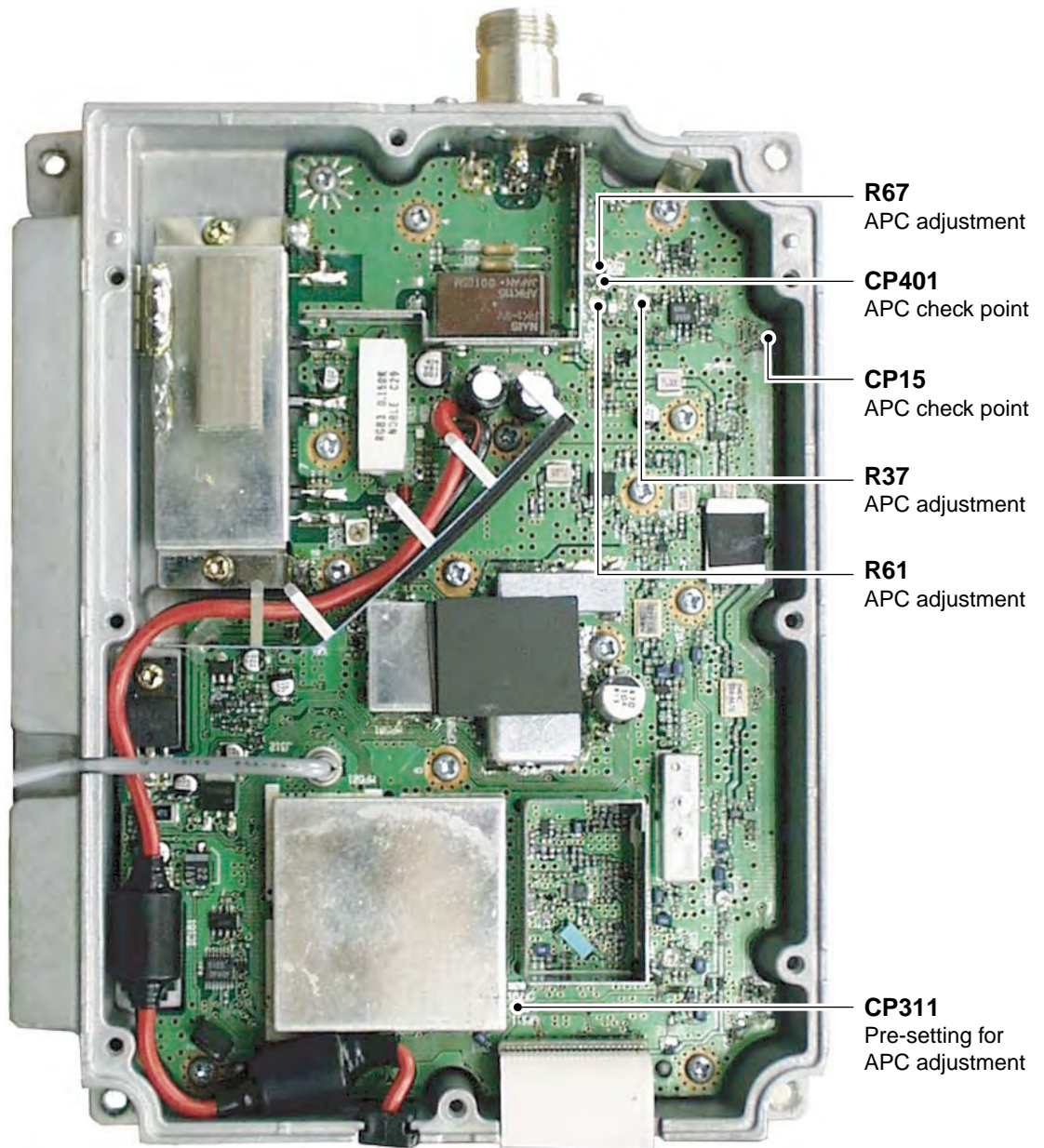
*This output level of a standard signal generator (SSG) is indicated as SSG's open circuit.



UX-910 ADJUSTMENTS (continued)

| ADJUSTMENT | ADJUSTMENT CONDITION | MEASUREMENT | | VALUE | ADJUSTMENT POINT | | |
|-------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------------------------------------------------------|------------------|---------------|--------------------|
| | | UNIT | LOCATION | | UNIT | ADJUST | |
| APC | 1 | <ul style="list-style-type: none"> • Display frequency: 1270.0000 MHz • Mode : CW • Connect an SSG to the check point CP311 and set as : Frequency : 10.8500 MHz • Transmitting | Rear panel | Connect an RF power meter to [12 ANT]. | 13 W | | Adjust SSG's level |
| | 2 | <ul style="list-style-type: none"> • Transmitting | MAIN (UX-910) | Connect a digital multimeter or oscilloscope to check point CP15. | 3.0 V | MAIN (UX-910) | R37 |
| | 3 | <ul style="list-style-type: none"> • Transmitting | Rear panel | Connect an RF power meter to [12 ANT]. | 10.5 W | | Adjust SSG's level |
| | 4 | <ul style="list-style-type: none"> • Transmitting | MAIN (UX-910) | Connect a digital multimeter or oscilloscope to check point CP401. | 3.1 V | MAIN (UX-910) | R67 |
| (POWER SET) | 5 | <ul style="list-style-type: none"> • Transmitting | | Connect a digital multimeter or oscilloscope to check point CP15. | 3.0 V | MAIN (UX-910) | R61 |

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



[DISPLAY BOARD]

| REF NO. | ORDER NO. | DESCRIPTION | |
|---------|------------|----------------|----------------------|
| C56 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C57 | 4030012610 | S.CERAMIC | C2012 JB 1C 474K-T-A |
| C71 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C72 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C73 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C74 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C75 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C86 | 4030012600 | S.CERAMIC | C2012 JB 1A 105M-T-A |
| C88 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C89 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C90 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C94 | 4030011600 | S.CERAMIC | C1608 JB 1C 104KT-N |
| C119 | 4030007130 | S.CERAMIC | C1608 CH 1H 101J-T-A |
| C163 | 4030010760 | S.CERAMIC | C1608 CH 1H 331J-T-A |
| C164 | 4030010760 | S.CERAMIC | C1608 CH 1H 331J-T-A |
| C168 | 4030010760 | S.CERAMIC | C1608 CH 1H 331J-T-A |
| C181 | 4030010760 | S.CERAMIC | C1608 CH 1H 331J-T-A |
| C182 | 4030010760 | S.CERAMIC | C1608 CH 1H 331J-T-A |
| C204 | 4510006220 | S.ELECTROLYTIC | ECEV1CA101UP |
| C205 | 4030011600 | S.CERAMIC | C1608 JB 1C 104KT-N |
| C206 | 4510006220 | S.ELECTROLYTIC | ECEV1CA101UP |
| C207 | 4030011600 | S.CERAMIC | C1608 JB 1C 104KT-N |
| C208 | 4030007150 | S.CERAMIC | C1608 CH 1H 151J-T-A |
| C209 | 4510007580 | S.ELECTROLYTIC | EEVFC1C101P |
| C210 | 4030011600 | S.CERAMIC | C1608 JB 1C 104KT-N |
| C211 | 4030011600 | S.CERAMIC | C1608 JB 1C 104KT-N |
| C212 | 4510006220 | S.ELECTROLYTIC | ECEV1CA101UP |
| C213 | 4030011600 | S.CERAMIC | C1608 JB 1C 104KT-N |
| C216 | 4030011600 | S.CERAMIC | C1608 JB 1C 104KT-N |
| C527 | 4030011600 | S.CERAMIC | C1608 JB 1C 104KT-N |
| C536 | 4030011600 | S.CERAMIC | C1608 JB 1C 104KT-N |
| C538 | 4030011600 | S.CERAMIC | C1608 JB 1C 104KT-N |
| C541 | 4030011600 | S.CERAMIC | C1608 JB 1C 104KT-N |
| C542 | 4030011600 | S.CERAMIC | C1608 JB 1C 104KT-N |
| C547 | 4030011600 | S.CERAMIC | C1608 JB 1C 104KT-N |
| C548 | 4030011600 | S.CERAMIC | C1608 JB 1C 104KT-N |
| C549 | 4030011600 | S.CERAMIC | C1608 JB 1C 104KT-N |
| C576 | 4030011600 | S.CERAMIC | C1608 JB 1C 104KT-N |
| C577 | 4030011600 | S.CERAMIC | C1608 JB 1C 104KT-N |
| C600 | 4030011600 | S.CERAMIC | C1608 JB 1C 104KT-N |
| J2 | 6510022570 | S.CONNECTOR | 06FMN-BMTTR-A-TBT |
| J3 | 6510022570 | S.CONNECTOR | 06FMN-BMTTR-A-TBT |
| J4 | 6510018970 | S.CONNECTOR | B4B-PH-SM3-TB |
| J5 | 6510022570 | S.CONNECTOR | 06FMN-BMTTR-A-TBT |
| J6 | 6510022620 | S.CONNECTOR | 10FMN-BMTTR-A-TBT |
| J7 | 6510021720 | S.CONNECTOR | 30FLT-SM1-TB |
| J8 | 6510021720 | S.CONNECTOR | 30FLT-SM1-TB |
| J9 | 6510022540 | S.CONNECTOR | 20FMN-BMTTR-A-TBT |
| J10 | 6510022290 | S.CONNECTOR | 06FMN-BMTTR-TBT |
| J11 | 6510022290 | S.CONNECTOR | 06FMN-BMTTR-TBT |
| J12 | 6510022190 | S.CONNECTOR | B3B-PH-SM3-TB |
| J14 | 6510018950 | S.CONNECTOR | B7B-PH-SM3-TB |
| DS1 | 5040002680 | S.LED | TLGE1002 |
| DS2 | 5040002680 | S.LED | TLGE1002 |
| DS3 | 5040002680 | S.LED | TLGE1002 |
| DS4 | 5040002680 | S.LED | TLGE1002 |
| DS5 | 5040002680 | S.LED | TLGE1002 |
| DS6 | 5040002680 | S.LED | TLGE1002 |
| DS7 | 5040002680 | S.LED | TLGE1002 |
| DS8 | 5040002680 | S.LED | TLGE1002 |
| DS9 | 5040002680 | S.LED | TLGE1002 |
| DS10 | 5040002680 | S.LED | TLGE1002 |
| DS11 | 5040002680 | S.LED | TLGE1002 |
| DS12 | 5040002680 | S.LED | TLGE1002 |
| DS13 | 5040002680 | S.LED | TLGE1002 |
| DS14 | 5040002680 | S.LED | TLGE1002 |
| DS15 | 5040002680 | S.LED | TLGE1002 |
| DS16 | 5040002680 | S.LED | TLGE1002 |
| DS17 | 5040002680 | S.LED | TLGE1002 |
| DS18 | 5040002680 | S.LED | TLGE1002 |
| DS19 | 5040002680 | S.LED | TLGE1002 |
| DS20 | 5040002680 | S.LED | TLGE1002 |
| DS21 | 5040002680 | S.LED | TLGE1002 |
| DS22 | 5040002680 | S.LED | TLGE1002 |
| DS23 | 5040002680 | S.LED | TLGE1002 |
| DS24 | 5040002680 | S.LED | TLGE1002 |
| DS31 | 5030001840 | LCD | A0095 |
| DS32 | 5040001870 | S.LED | SEC 2462C |

[DISPLAY BOARD]

| REF NO. | ORDER NO. | DESCRIPTION | |
|---------|------------|-------------|------------------|
| DS33 | 5040001870 | S.LED | SEC 2462C |
| W1 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| W2 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| EP1 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP2 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP3 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP4 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP5 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP11 | 0910052635 | PCB | B 5456E |
| EP31 | 8930052490 | LCD CONTACT | SRCN-2355-SP-N-W |

[FUNC BOARD]

| REF NO. | ORDER NO. | DESCRIPTION | |
|---------|------------|-------------|-------------------|
| D1 | 1160000080 | S.DIODE | DAP202K T146 |
| D2 | 1160000080 | S.DIODE | DAP202K T146 |
| D3 | 1160000080 | S.DIODE | DAP202K T146 |
| J1 | 6510022570 | S.CONNECTOR | 06FMN-BMTTR-A-TBT |
| EP1 | 0910052641 | PCB | B 5458A |

[VR-A BOARD]

| REF NO. | ORDER NO. | DESCRIPTION | |
|---------|------------|-------------|------------------------------|
| R1 | 7210002970 | VARIABLE | RV-314 (RK0972210 10KB/10KB) |
| J1 | 6510022570 | S.CONNECTOR | 06FMN-BMTTR-A-TBT |
| EP1 | 0910052652 | PCB | B 5460B |

[VR-B BOARD]

| REF NO. | ORDER NO. | DESCRIPTION | |
|---------|------------|-------------|------------------------------|
| R1 | 7210002970 | VARIABLE | RV-314 (RK0972210 10KB/10KB) |
| J1 | 6510022570 | S.CONNECTOR | 06FMN-BMTTR-A-TBT |
| EP1 | 0910053410 | PCB | B 5582 |

S.=Surface mount

[RIT BOARD]

| REF NO. | ORDER NO. | DESCRIPTION | |
|---------|------------|-------------|---------------------------------|
| R2 | 7210003090 | VARIABLE | RV-316 (RK0972210C05 10KB/10KB) |
| J1 | 6510022570 | S.CONNECTOR | 06FMN-BMTTR-A-TBT |
| EP1 | 0910052661 | PCB | B 5461A |

[JACK BOARD]

| REF NO. | ORDER NO. | DESCRIPTION | |
|---------|------------|-------------|----------------------|
| L1 | 6200003950 | S.COIL | HF50ACC 322513-T |
| R1 | 7030006070 | S.RESISTOR | ERJ12YJ101U (100 Ω) |
| R2 | 7030006070 | S.RESISTOR | ERJ12YJ101U (100 Ω) |
| C1 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C2 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C3 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| J1 | 6450001250 | CONNECTOR | HLJ4306-01-3070 |
| J2 | 6510022570 | S.CONNECTOR | 06FMN-BMTTR-A-TBT |
| EP1 | 0910052671 | PCB | B 5462A |

[MIC BOARD]

| REF NO. | ORDER NO. | DESCRIPTION | |
|---------|------------|-------------|-------------------|
| J1 | 6510000190 | CONNECTOR | FM214-8SS (P) |
| J2 | 6510022620 | S.CONNECTOR | 10FMN-BMTTR-A-TBT |
| EP1 | 0910052682 | PCB | B 5463B |

[PLL UNIT]

| REF NO. | ORDER NO. | DESCRIPTION | |
|---------|------------|--------------|----------------------------|
| IC1 | 1130007700 | S.IC | BU4094BCF-T1 |
| IC12 | 1110001900 | S.IC | μPC4570G2-T1 |
| IC101 | 1130004830 | S.IC | TC7SU04F (TE85R) |
| IC131 | 1140007880 | S.IC | TC190G08AF-0046-Z/SC-1246A |
| IC161 | 1110001900 | S.IC | μPC4570G2-T1 |
| IC271 | 1110004460 | S.IC | μPB1509GV-E1 |
| IC301 | 1130004830 | S.IC | TC7SU04F (TE85R) |
| IC331 | 1140007880 | S.IC | TC190G08AF-0046-Z/SC-1246A |
| IC471 | 1110004460 | S.IC | μPB1509GV-E1 |
| IC501 | 1180001070 | S.IC | TA7805F (TE16L) |
| IC601 | 1140004550 | S.IC | M65343FP/SC1287 |
| IC701 | 1140004550 | S.IC | M65343FP/SC1287 |
| Q153 | 1590000660 | S.TRANSISTOR | DTC144TU T107 |
| Q154 | 1590000660 | S.TRANSISTOR | DTC144TU T107 |
| Q161 | 1590000720 | S.TRANSISTOR | DTA144EUA T106 |
| Q181 | 1540000410 | S.TRANSISTOR | 2SD2345 (TX) S |
| Q191 | 1560000650 | S.FET | 2SK1577-2-T7 |
| Q192 | 1530003310 | S.TRANSISTOR | 2SC5107-O (TE85R) |
| Q261 | 1530002060 | S.TRANSISTOR | 2SC4081 T107 R |
| Q271 | 1530002060 | S.TRANSISTOR | 2SC4081 T107 R |
| Q272 | 1530003310 | S.TRANSISTOR | 2SC5107-O (TE85R) |
| Q361 | 1590000720 | S.TRANSISTOR | DTA144EUA T106 |
| Q381 | 1540000410 | S.TRANSISTOR | 2SD2345 (TX) S |
| Q391 | 1560000650 | S.FET | 2SK1577-2-T7 |
| Q392 | 1530003310 | S.TRANSISTOR | 2SC5107-O (TE85R) |
| Q471 | 1530003310 | S.TRANSISTOR | 2SC5107-O (TE85R) |
| Q472 | 1530003310 | S.TRANSISTOR | 2SC5107-O (TE85R) |
| Q501 | 1530002600 | S.TRANSISTOR | 2SC4215-O (TE85R) |
| Q541 | 1530002600 | S.TRANSISTOR | 2SC4215-O (TE85R) |
| Q551 | 1530003310 | S.TRANSISTOR | 2SC5107-O (TE85R) |
| Q602 | 1530002060 | S.TRANSISTOR | 2SC4081 T107 R |
| Q702 | 1530002060 | S.TRANSISTOR | 2SC4081 T107 R |
| D161 | 1750000550 | S.DIODE | 1SS355 TE-17 |
| D181 | 1750000550 | S.DIODE | 1SS355 TE-17 |
| D191 | 1720000590 | S.VARICAP | MA357 (TX) |
| D192 | 1720000590 | S.VARICAP | MA357 (TX) |
| D193 | 1720000590 | S.VARICAP | MA357 (TX) |
| D194 | 1720000590 | S.VARICAP | MA357 (TX) |
| D361 | 1750000550 | S.DIODE | 1SS355 TE-17 |
| D381 | 1750000550 | S.DIODE | 1SS355 TE-17 |
| D391 | 1720000590 | S.VARICAP | MA357 (TX) |
| D392 | 1720000590 | S.VARICAP | MA357 (TX) |
| D393 | 1720000590 | S.VARICAP | MA357 (TX) |
| D394 | 1720000590 | S.VARICAP | MA357 (TX) |
| X512 | 6050008710 | XTAL | CR-452 (30.200 MHz) |
| L1 | 6200005010 | S.COIL | NL 252018T-100J |
| L101 | 6200005030 | S.COIL | NL 252018T-180J |
| L102 | 6200005040 | S.COIL | NL 252018T-220J |
| L103 | 6200007020 | S.COIL | NL 252018T-270J |
| L131 | 6200001980 | S.COIL | NL 252018T-1R0J |
| L191 | 6200002040 | S.COIL | NL 252018T-101J |
| L193 | 6130002990 | S.COIL | LB-345 (5203-T005) |
| L194 | 6200003000 | S.COIL | NL 322522T-R22J-3 |
| L195 | 6200009350 | S.COIL | ELJRE R22G-F3 |
| L212 | 6200005720 | S.COIL | ELJRE 33NG-F |
| L213 | 6200005740 | S.COIL | ELJRE 47NG-F |
| L214 | 6200006990 | S.COIL | ELJRE 56NG-F |
| L271 | 6200005010 | S.COIL | NL 252018T-100J |
| L273 | 6200005740 | S.COIL | ELJRE 47NG-F |
| L301 | 6200005030 | S.COIL | NL 252018T-180J |
| L302 | 6200005040 | S.COIL | NL 252018T-220J |
| L303 | 6200003160 | S.COIL | NL 322522T-270J |
| L331 | 6200009690 | S.COIL | LQH 4C 101K04 |
| L332 | 6200008940 | S.COIL | LQH 3N 331K 34 |
| L391 | 6200000150 | S.COIL | NL 322522T-1R0M |
| L392 | 6200009260 | S.COIL | C3328A-5N0J-A |
| L393 | 6200009260 | S.COIL | C3328A-5N0J-A |
| L394 | 6200002840 | S.COIL | NL 252018T-R22J |
| L395 | 6200009410 | S.COIL | C3328A-2N5K-A |
| L397 | 6200001980 | S.COIL | NL 252018T-1R0J |
| L399 | 6200005720 | S.COIL | ELJRE 33NG-F |
| L421 | 6200005700 | S.COIL | ELJRE 22NG-F |
| L422 | 6200005700 | S.COIL | ELJRE 22NG-F |
| L423 | 6200005720 | S.COIL | ELJRE 33NG-F |

S.=Surface mount

[PLL UNIT]

| REF NO. | ORDER NO. | DESCRIPTION | |
|---------|------------|-------------|---------------------------------|
| C705 | 4030007160 | S.CERAMIC | C1608 CH 1H 181J-T-A |
| C708 | 4030007110 | S.CERAMIC | C1608 CH 1H 680J-T-A |
| C709 | 4030006900 | S.CERAMIC | C1608 JB 1E 103K-T-A |
| C710 | 4030006900 | S.CERAMIC | C1608 JB 1E 103K-T-A |
| C711 | 4030006900 | S.CERAMIC | C1608 JB 1E 103K-T-A |
| C713 | 4030006880 | S.CERAMIC | C1608 JB 1H 472K-T-A |
| C714 | 4030006900 | S.CERAMIC | C1608 JB 1E 103K-T-A |
| C715 | 4030006900 | S.CERAMIC | C1608 JB 1E 103K-T-A |
| C716 | 4030006900 | S.CERAMIC | C1608 JB 1E 103K-T-A |
| C717 | 4030006900 | S.CERAMIC | C1608 JB 1E 103K-T-A |
| C718 | 4030011600 | S.CERAMIC | C1608 JB 1C 104KT-N |
| C719 | 4550006700 | S.TANTALUM | ECST1AY106R |
| C720 | 4030007130 | S.CERAMIC | C1608 CH 1H 101J-T-A |
| C721 | 4030007130 | S.CERAMIC | C1608 CH 1H 101J-T-A |
| J1 | 6510022540 | S.CONNECTOR | 20FMN-BMTTR-A-TBT |
| J541 | 6510007020 | CONNECTOR | TMP-J01X-V6 |
| W603 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| W703 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| WS1 | 8970023740 | E.OTHER | SX2355 1.5D COAXIAL TUBE (1)/PL |
| WS2 | 8970023750 | E.OTHER | SX2355 1.5D COAXIAL TUBE (1)/PL |
| WS3 | 8970023760 | E.OTHER | SX2355 0.8D COAXIAL TUBE (1)/PL |
| WS4 | 8970023770 | E.OTHER | SX2355 0.8D COAXIAL TUBE (2)/PL |
| EP1 | 0910052695 | PCB | B 5464E |

[MAIN UNIT]

| REF NO. | ORDER NO. | DESCRIPTION | |
|---------|------------|--------------|--------------------|
| IC101 | 1110003140 | IC | LA1150N |
| IC201 | 1110004840 | S.IC | NJM1496V-TE1 |
| IC351 | 1110004870 | S.IC | TA4101F (TE12L) |
| IC401 | 1110003490 | S.IC | TA31136FN (D,EL) |
| IC451 | 1110003870 | S.IC | NJM2058M-T1 |
| IC452 | 1130008230 | S.IC | BU4053BCFV-E2 |
| IC701 | 1110003140 | IC | LA1150N |
| IC801 | 1180002040 | REG | BA09T |
| IC803 | 1110002020 | IC | TA7805S |
| IC851 | 1110004870 | S.IC | TA4101F (TE12L) |
| IC951 | 1110003490 | S.IC | TA31136FN (D,EL) |
| IC1001 | 1110003870 | S.IC | NJM2058M-T1 |
| IC1002 | 1130008230 | S.IC | BU4053BCFV-E2 |
| IC1101 | 1130007040 | S.IC | TC7W32F (TE12L) |
| IC1451 | 1130007570 | S.IC | BU4094BCFV-E2 |
| IC1461 | 1130007570 | S.IC | BU4094BCFV-E2 |
| IC1471 | 1130007570 | S.IC | BU4094BCFV-E2 |
| IC1481 | 1130007570 | S.IC | BU4094BCFV-E2 |
| IC1491 | 1130007570 | S.IC | BU4094BCFV-E2 |
| IC1511 | 1130007570 | S.IC | BU4094BCFV-E2 |
| IC1521 | 1110004310 | S.IC | M62352GP 75EC |
| IC1522 | 1110003870 | S.IC | NJM2058M-T1 |
| IC1531 | 1130008230 | S.IC | BU4053BCFV-E2 |
| IC1551 | 1130008230 | S.IC | BU4053BCFV-E2 |
| IC1552 | 1130008230 | S.IC | BU4053BCFV-E2 |
| IC1601 | 1110003870 | S.IC | NJM2058M-T1 |
| IC1651 | 1110005240 | S.IC | NJM4565M-T1 |
| IC1652 | 1110003870 | S.IC | NJM2058M-T1 |
| IC1653 | 1130008230 | S.IC | BU4053BCFV-E2 |
| IC1654 | 1110005240 | S.IC | NJM4565M-T1 |
| IC1701 | 1140005280 | S.IC | µPC5023GS-077-E1 |
| IC1801 | 1130008230 | S.IC | BU4053BCFV-E2 |
| IC1802 | 1130008230 | S.IC | BU4053BCFV-E2 |
| IC1803 | 1190000350 | S.IC | M62363FP-650C |
| IC1804 | 1110003870 | S.IC | NJM2058M-T1 |
| IC1806 | 1130008230 | S.IC | BU4053BCFV-E2 |
| IC1807 | 1110003870 | S.IC | NJM2058M-T1 |
| IC1808 | 1110003300 | S.IC | M5282FP 70CD |
| IC1809 | 1110003300 | S.IC | M5282FP 70CD |
| IC1852 | 1110002540 | IC | LA4445 |
| Q1 | 1580000540 | S.FET | 3SK131-T2-LA |
| Q21 | 1590000430 | S.TRANSISTOR | DTC144EUA T106 |
| Q22 | 1590000680 | S.TRANSISTOR | DTC114EUA T106 |
| Q51 | 1580000540 | S.FET | 3SK131-T2-LA |
| Q52 | 1530002690 | S.TRANSISTOR | 2SC4116-GR (TE85R) |
| Q101 | 1560000560 | S.FET | 2SK882-GR (TE85L) |
| Q102 | 1560000560 | S.FET | 2SK882-GR (TE85L) |
| Q103 | 1590001650 | S.TRANSISTOR | XP4601 (TX) |
| Q105 | 1530002690 | S.TRANSISTOR | 2SC4116-GR (TE85R) |
| Q106 | 1590000430 | S.TRANSISTOR | DTC144EUA T106 |
| Q107 | 1590001660 | S.TRANSISTOR | XP4312 (TX) |
| Q151 | 1590001660 | S.TRANSISTOR | XP4312 (TX) |
| Q152 | 1590001660 | S.TRANSISTOR | XP4312 (TX) |
| Q153 | 1590001660 | S.TRANSISTOR | XP4312 (TX) |
| Q201 | 1590000430 | S.TRANSISTOR | DTC144EUA T106 |
| Q251 | 1590001660 | S.TRANSISTOR | XP4312 (TX) |
| Q252 | 1510000770 | S.TRANSISTOR | 2SA1586-GR (TE85R) |
| Q253 | 1590000670 | S.TRANSISTOR | FMW1 T148 |
| Q254 | 1530002690 | S.TRANSISTOR | 2SC4116-GR (TE85R) |
| Q271 | 1590001650 | S.TRANSISTOR | XP4601 (TX) |
| Q301 | 1530002690 | S.TRANSISTOR | 2SC4116-GR (TE85R) |
| Q302 | 1590001660 | S.TRANSISTOR | XP4312 (TX) |
| Q303 | 1590001660 | S.TRANSISTOR | XP4312 (TX) |
| Q304 | 1590001660 | S.TRANSISTOR | XP4312 (TX) |
| Q305 | 1530002690 | S.TRANSISTOR | 2SC4116-GR (TE85R) |
| Q350 | 1530002690 | S.TRANSISTOR | 2SC4116-GR (TE85R) |
| Q351 | 1580000540 | S.FET | 3SK131-T2-LA |
| Q352 | 1580000540 | S.FET | 3SK131-T2-LA |
| Q402 | 1590001660 | S.TRANSISTOR | XP4312 (TX) |
| Q404 | 1560000840 | S.FET | 2SK1829 (TE85R) |
| Q405 | 1590001650 | S.TRANSISTOR | XP4601 (TX) |
| Q406 | 1560000840 | S.FET | 2SK1829 (TE85R) |
| Q407 | 1550000010 | S.FET | 2SJ364-Q (TX) |
| Q651 | 1580000540 | S.FET | 3SK131-T2-LA |
| Q652 | 1530002690 | S.TRANSISTOR | 2SC4116-GR (TE85R) |
| Q701 | 1560000560 | S.FET | 2SK882-GR (TE85L) |
| Q702 | 1560000560 | S.FET | 2SK882-GR (TE85L) |
| Q703 | 1590001650 | S.TRANSISTOR | XP4601 (TX) |
| Q705 | 1530002690 | S.TRANSISTOR | 2SC4116-GR (TE85R) |
| Q706 | 1590000430 | S.TRANSISTOR | DTC144EUA T106 |

S.=Surface mount

[MAIN UNIT]

| REF NO. | ORDER NO. | DESCRIPTION | |
|---------|------------|--------------|--------------------|
| Q707 | 1590001660 | S.TRANSISTOR | XP4312 (TX) |
| Q751 | 1590001660 | S.TRANSISTOR | XP4312 (TX) |
| Q752 | 1590001660 | S.TRANSISTOR | XP4312 (TX) |
| Q753 | 1590001660 | S.TRANSISTOR | XP4312 (TX) |
| Q801 | 1540000550 | S.TRANSISTOR | 2SD1664 T100Q |
| Q804 | 1540000470 | S.TRANSISTOR | 2SD1801S-TL |
| Q805 | 1590001660 | S.TRANSISTOR | XP4312 (TX) |
| Q806 | 1590000430 | S.TRANSISTOR | DTC144EUA T106 |
| Q807 | 1510000770 | S.TRANSISTOR | 2SA1586-GR (TE85R) |
| Q808 | 1590000430 | S.TRANSISTOR | DTC144EUA T106 |
| Q809 | 1590001660 | S.TRANSISTOR | XP4312 (TX) |
| Q810 | 1510000770 | S.TRANSISTOR | 2SA1586-GR (TE85R) |
| Q811 | 1510000670 | S.TRANSISTOR | 2SA1588-GR (TE85R) |
| Q812 | 1590000430 | S.TRANSISTOR | DTC144EUA T106 |
| Q813 | 1510000670 | S.TRANSISTOR | 2SA1588-GR (TE85R) |
| Q814 | 1590000430 | S.TRANSISTOR | DTC144EUA T106 |
| Q815 | 1510000670 | S.TRANSISTOR | 2SA1588-GR (TE85R) |
| Q816 | 1530002690 | S.TRANSISTOR | 2SC4116-GR (TE85R) |
| Q817 | 1530002690 | S.TRANSISTOR | 2SC4116-GR (TE85R) |
| Q831 | 1590000430 | S.TRANSISTOR | DTC144EUA T106 |
| Q850 | 1530002690 | S.TRANSISTOR | 2SC4116-GR (TE85R) |
| Q851 | 1580000540 | S.FET | 3SK131-T2-LA |
| Q852 | 1580000540 | S.FET | 3SK131-T2-LA |
| Q901 | 1530002690 | S.TRANSISTOR | 2SC4116-GR (TE85R) |
| Q902 | 1530002690 | S.TRANSISTOR | 2SC4116-GR (TE85R) |
| Q903 | 1590001660 | S.TRANSISTOR | XP4312 (TX) |
| Q904 | 1590001660 | S.TRANSISTOR | XP4312 (TX) |
| Q905 | 1590001660 | S.TRANSISTOR | XP4312 (TX) |
| Q951 | 1590001660 | S.TRANSISTOR | XP4312 (TX) |
| Q952 | 1560000840 | S.FET | 2SK1829 (TE85R) |
| Q953 | 1590001650 | S.TRANSISTOR | XP4601 (TX) |
| Q1001 | 1560000840 | S.FET | 2SK1829 (TE85R) |
| Q1002 | 1550000010 | S.FET | 2SJ364-Q (TX) |
| Q1561 | 1590001660 | S.TRANSISTOR | XP4312 (TX) |
| Q1571 | 1590001660 | S.TRANSISTOR | XP4312 (TX) |
| Q1581 | 1590000430 | S.TRANSISTOR | DTC144EUA T106 |
| Q1582 | 1540000440 | S.TRANSISTOR | 2SD1619-T-TD |
| Q1583 | 1590000680 | S.TRANSISTOR | DTC114EUA T106 |
| Q1584 | 1590001330 | S.TRANSISTOR | DTA114EUA T106 |
| Q1651 | 1530002690 | S.TRANSISTOR | 2SC4116-GR (TE85R) |
| Q1855 | 1590000680 | S.TRANSISTOR | DTC114EUA T106 |
| D1 | 1790000620 | S.DIODE | MA77 (TX) |
| D2 | 1790000620 | S.DIODE | MA77 (TX) |
| D21 | 1750000550 | S.DIODE | 1SS355 TE-17 |
| D51 | 1790000620 | S.DIODE | MA77 (TX) |
| D52 | 1790000620 | S.DIODE | MA77 (TX) |
| D53 | 1790000620 | S.DIODE | MA77 (TX) |
| D54 | 1790000620 | S.DIODE | MA77 (TX) |
| D55 | 1790000620 | S.DIODE | MA77 (TX) |
| D101 | 1790001210 | S.DIODE | 1SS375-TL |
| D151 | 1790000620 | S.DIODE | MA77 (TX) |
| D152 | 1790000620 | S.DIODE | MA77 (TX) |
| D153 | 1790000620 | S.DIODE | MA77 (TX) |
| D154 | 1790000620 | S.DIODE | MA77 (TX) |
| D155 | 1790000620 | S.DIODE | MA77 (TX) |
| D156 | 1790000620 | S.DIODE | MA77 (TX) |
| D157 | 1790000620 | S.DIODE | MA77 (TX) |
| D158 | 1790000620 | S.DIODE | MA77 (TX) |
| D159 | 1790000620 | S.DIODE | MA77 (TX) |
| D161 | 1790000620 | S.DIODE | MA77 (TX) |
| D162 | 1790000620 | S.DIODE | MA77 (TX) |
| D201 | 1750000550 | S.DIODE | 1SS355 TE-17 |
| D202 | 1790000620 | S.DIODE | MA77 (TX) |
| D203 | 1790000620 | S.DIODE | MA77 (TX) |
| D204 | 1750000550 | S.DIODE | 1SS355 TE-17 |
| D205 | 1750000520 | S.DIODE | DAN222TL |
| D206 | 1750000520 | S.DIODE | DAN222TL |
| D207 | 1750000550 | S.DIODE | 1SS355 TE-17 |
| D252 | 1790000620 | S.DIODE | MA77 (TX) |
| D253 | 1720000270 | S.VARICAP | 1SV217 (TPH2) |
| D302 | 1790000660 | S.DIODE | MA728 (TX) |
| D303 | 1790001210 | S.DIODE | 1SS375-TL |
| D304 | 1790000660 | S.DIODE | MA728 (TX) |
| D305 | 1790000660 | S.DIODE | MA728 (TX) |
| D352 | 1790000620 | S.DIODE | MA77 (TX) |
| D401 | 1750000520 | S.DIODE | DAN222TL |
| D402 | 1750000520 | S.DIODE | DAN222TL |
| D491 | 1750000550 | S.DIODE | 1SS355 TE-17 |
| D651 | 1790000620 | S.DIODE | MA77 (TX) |
| D652 | 1790000620 | S.DIODE | MA77 (TX) |

[MAIN UNIT]

| REF NO. | ORDER NO. | DESCRIPTION | |
|---------|------------|---------------|----------------------|
| D653 | 1790000620 | S.DIODE | MA77 (TX) |
| D701 | 1790001210 | S.DIODE | 1SS375-TL |
| D751 | 1790000620 | S.DIODE | MA77 (TX) |
| D752 | 1790000620 | S.DIODE | MA77 (TX) |
| D753 | 1790000620 | S.DIODE | MA77 (TX) |
| D754 | 1790000620 | S.DIODE | MA77 (TX) |
| D755 | 1790000620 | S.DIODE | MA77 (TX) |
| D756 | 1790000620 | S.DIODE | MA77 (TX) |
| D757 | 1790000620 | S.DIODE | MA77 (TX) |
| D758 | 1790000620 | S.DIODE | MA77 (TX) |
| D759 | 1790000620 | S.DIODE | MA77 (TX) |
| D761 | 1790000620 | S.DIODE | MA77 (TX) |
| D762 | 1790000620 | S.DIODE | MA77 (TX) |
| D804 | 1750000370 | S.DIODE | DA221 TL |
| D805 | 1750000550 | S.DIODE | 1SS355 TE-17 |
| D806 | 1160000140 | S.DIODE | DAP222 TL |
| D807 | 1750000370 | S.DIODE | DA221 TL |
| D902 | 1790001210 | S.DIODE | 1SS375-TL |
| D903 | 1790000660 | S.DIODE | MA728 (TX) |
| D904 | 1790000660 | S.DIODE | MA728 (TX) |
| D905 | 1790000660 | S.DIODE | MA728 (TX) |
| D951 | 1750000520 | S.DIODE | DAN222TL |
| D952 | 1750000520 | S.DIODE | DAN222TL |
| D1041 | 1750000550 | S.DIODE | 1SS355 TE-17 |
| D1301 | 1750000520 | S.DIODE | DAN222TL |
| D1351 | 1750000520 | S.DIODE | DAN222TL |
| D1601 | 1750000550 | S.DIODE | 1SS355 TE-17 |
| D1602 | 1160000140 | S.DIODE | DAP222 TL |
| D1603 | 1750000550 | S.DIODE | 1SS355 TE-17 |
| D1605 | 1750000550 | S.DIODE | 1SS355 TE-17 |
| D1606 | 1790001010 | S.ZENER | MA8043-L (TX) |
| D1607 | 1730002580 | S.ZENER | MA8047-H (TX) |
| D1608 | 1750000370 | S.DIODE | DA221 TL |
| D1609 | 1790000620 | S.DIODE | MA77 (TX) |
| D1610 | 1750000550 | S.DIODE | 1SS355 TE-17 |
| D1652 | 1790000660 | S.DIODE | MA728 (TX) |
| D1701 | 1790001210 | S.DIODE | 1SS375-TL |
| D1801 | 1750000550 | S.DIODE | 1SS355 TE-17 |
| D1802 | 1750000550 | S.DIODE | 1SS355 TE-17 |
| D1821 | 1790000660 | S.DIODE | MA728 (TX) |
| D1822 | 1790000660 | S.DIODE | MA728 (TX) |
| D1851 | 1750000550 | S.DIODE | 1SS355 TE-17 |
| FI51 | 2010001730 | FILTER | FL-211 (10.850 MHz) |
| FI151 | 2010001080 | FILTER | FL-128 (10M22D6) |
| FI311 | 2020001330 | CERAMIC | CFWS455HT |
| FI312 | 2020001040 | CERAMIC | CFWS455E |
| FI511 | 2020001330 | CERAMIC | CFWS455HT |
| FI512 | 2020001040 | CERAMIC | CFWS455E |
| FI651 | 2010001740 | FILTER | FL-212 (10.950 MHz) |
| FI751 | 2010001090 | FILTER | FL-129 (10M22D7) |
| X251 | 6050008700 | XTAL | CR-451 (10.8550 MHz) |
| X401 | 6070000130 | DISCRIMINATOR | CDBM455C24 |
| X951 | 6070000130 | DISCRIMINATOR | CDBM455C24 |
| L1 | 6200002040 | S.COIL | NL 252018T-101J |
| L2 | 6150004200 | COIL | LS-479 |
| L3 | 6150004170 | COIL | LS-476 |
| L51 | 6150004210 | COIL | LS-480 |
| L52 | 6150004210 | COIL | LS-480 |
| L53 | 6150004170 | COIL | LS-476 |
| L102 | 6150004880 | S.COIL | LS-513 |
| L103 | 6150004880 | S.COIL | LS-513 |
| L201 | 6200002040 | S.COIL | NL 252018T-101J |
| L202 | 6200005040 | S.COIL | NL 252018T-220J |
| L203 | 6200005040 | S.COIL | NL 252018T-220J |
| L204 | 6200002040 | S.COIL | NL 252018T-101J |
| L251 | 6200002040 | S.COIL | NL 252018T-101J |
| L252 | 6200005010 | S.COIL | NL 252018T-100J |
| L253 | 6200005010 | S.COIL | NL 252018T-100J |
| L254 | 6200003130 | S.COIL | NL 322522T-120J |
| L255 | 6150002040 | COIL | LS-256 |
| L352 | 6150004200 | COIL | LS-479 |
| L353 | 6150004210 | COIL | LS-480 |
| L354 | 6150004170 | COIL | LS-476 |
| L355 | 6200002040 | S.COIL | NL 252018T-101J |
| L401 | 6200002040 | S.COIL | NL 252018T-101J |
| L651 | 6150004210 | COIL | LS-480 |

S.=Surface mount

[MAIN UNIT]

| REF NO. | ORDER NO. | DESCRIPTION |
|---------|------------|-----------------------------------|
| C1667 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1668 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1669 | 4510004440 | S.ELECTROLYTIC ECEV1HA010SR |
| C1670 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1671 | 4510004630 | S.ELECTROLYTIC ECEV1CA100SR |
| C1672 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1674 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1675 | 4030006900 | S.CERAMIC C1608 JB 1E 103K-T-A |
| C1676 | 4030006900 | S.CERAMIC C1608 JB 1E 103K-T-A |
| C1677 | 4510004440 | S.ELECTROLYTIC ECEV1HA010SR |
| C1678 | 4030007140 | S.CERAMIC C1608 CH 1H 121J-T-A |
| C1680 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1701 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1702 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1703 | 4510004440 | S.ELECTROLYTIC ECEV1HA010SR |
| C1704 | 4510004440 | S.ELECTROLYTIC ECEV1HA010SR |
| C1705 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1706 | 4510004440 | S.ELECTROLYTIC ECEV1HA010SR |
| C1707 | 4510004440 | S.ELECTROLYTIC ECEV1HA010SR |
| C1708 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1709 | 4030008910 | S.CERAMIC C1608 JB 1C 393K-T-A |
| C1710 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1711 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1712 | 4510004440 | S.ELECTROLYTIC ECEV1HA010SR |
| C1713 | 4030007130 | S.CERAMIC C1608 CH 1H 101J-T-A |
| C1714 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1715 | 4030006850 | S.CERAMIC C1608 JB 1H 471K-T-A |
| C1716 | 4030006850 | S.CERAMIC C1608 JB 1H 471K-T-A |
| C1717 | 4030008920 | S.CERAMIC C1608 JB 1C 473K-T-A |
| C1718 | 4510004630 | S.ELECTROLYTIC ECEV1CA100SR |
| C1719 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1720 | 4510005310 | S.ELECTROLYTIC ECEV1CA220SR |
| C1721 | 4510005860 | S.ELECTROLYTIC ECEV1HA2R2SR |
| C1722 | 4510004440 | S.ELECTROLYTIC ECEV1HA010SR |
| C1723 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1724 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1771 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1781 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1801 | 4030006880 | S.CERAMIC C1608 JB 1H 472K-T-A |
| C1802 | 4030006900 | S.CERAMIC C1608 JB 1E 103K-T-A |
| C1803 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1804 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1807 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1808 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1809 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1810 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1811 | 4030007170 | S.CERAMIC C1608 CH 1H 221J-T-A |
| C1812 | 4510004630 | S.ELECTROLYTIC ECEV1CA100SR |
| C1813 | 4510004630 | S.ELECTROLYTIC ECEV1CA100SR |
| C1814 | 4030007170 | S.CERAMIC C1608 CH 1H 221J-T-A |
| C1821 | 4510005960 | ELECTROLYTIC 10 MV 220 HC |
| C1822 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1823 | 4510004630 | S.ELECTROLYTIC ECEV1CA100SR |
| C1825 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1827 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1828 | 4030009630 | S.CERAMIC C1608 JB 1H 822K-T-A |
| C1829 | 4030014300 | S.CERAMIC C1608 JB 1C 563K-T-A |
| C1830 | 4030007170 | S.CERAMIC C1608 CH 1H 221J-T-A |
| C1831 | 4510004440 | S.ELECTROLYTIC ECEV1HA010SR |
| C1832 | 4510004630 | S.ELECTROLYTIC ECEV1CA100SR |
| C1833 | 4510004630 | S.ELECTROLYTIC ECEV1CA100SR |
| C1836 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1837 | 4510005960 | ELECTROLYTIC 10 MV 220 HC |
| C1838 | 4510004630 | S.ELECTROLYTIC ECEV1CA100SR |
| C1839 | 4510004440 | S.ELECTROLYTIC ECEV1HA010SR |
| C1840 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1841 | 4030006870 | S.CERAMIC C1608 JB 1H 222K-T-A |
| C1842 | 4510004440 | S.ELECTROLYTIC ECEV1HA010SR |
| C1843 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1844 | 4510004630 | S.ELECTROLYTIC ECEV1CA100SR |
| C1845 | 4510005960 | ELECTROLYTIC 10 MV 220 HC |
| C1846 | 4510004630 | S.ELECTROLYTIC ECEV1CA100SR |
| C1847 | 4510004440 | S.ELECTROLYTIC ECEV1HA010SR |
| C1848 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1849 | 4030006870 | S.CERAMIC C1608 JB 1H 222K-T-A |
| C1850 | 4510004440 | S.ELECTROLYTIC ECEV1HA010SR |
| C1851 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1852 | 4510004630 | S.ELECTROLYTIC ECEV1CA100SR |
| C1855 | 4510003190 | ELECTROLYTIC 6.3 RC2 47UF (D=4.0) |
| C1856 | 4510004590 | ELECTROLYTIC 16 MV 470 HC |
| C1858 | 4510003190 | ELECTROLYTIC 6.3 RC2 47UF (D=4.0) |
| C1859 | 4510004990 | ELECTROLYTIC 16 MV 100 HC |

[MAIN UNIT]

| REF NO. | ORDER NO. | DESCRIPTION |
|---------|------------|-----------------------------------|
| C1860 | 4510004990 | ELECTROLYTIC 16 MV 100 HC |
| C1861 | 4510004590 | ELECTROLYTIC 16 MV 470 HC |
| C1862 | 4510004590 | ELECTROLYTIC 16 MV 470 HC |
| C1863 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1864 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1865 | 4030006880 | S.CERAMIC C1608 JB 1H 472K-T-A |
| C1867 | 4030006900 | S.CERAMIC C1608 JB 1E 103K-T-A |
| C1870 | 4510004600 | ELECTROLYTIC 16 MV 1000 HC |
| C1871 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1872 | 4030006900 | S.CERAMIC C1608 JB 1E 103K-T-A |
| C1873 | 4030006880 | S.CERAMIC C1608 JB 1H 472K-T-A |
| C1874 | 4030006880 | S.CERAMIC C1608 JB 1H 472K-T-A |
| C1876 | 4030006860 | S.CERAMIC C1608 JB 1H 102K-T-A |
| C1877 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1878 | 4030011600 | S.CERAMIC C1608 JB 1C 104KT-N |
| C1879 | 4030006860 | S.CERAMIC C1608 JB 1H 102K-T-A |
| C1880 | 4030006900 | S.CERAMIC C1608 JB 1E 103K-T-A |
| C1881 | 4510004990 | ELECTROLYTIC 16 MV 100 HC |
| RL1851 | 6330001640 | RELAY ATX209 |
| CP853 | 6910009670 | S.CHECK P HK3-S-T |
| CP854 | 6910009670 | S.CHECK P HK3-S-T |
| J2 | 6510022550 | CONNECTOR 25FMN-BTK-A |
| J51 | 6510006360 | CONNECTOR TMP-J02X-A1 |
| J52 | 6510006360 | CONNECTOR TMP-J02X-A1 |
| J501 | 6510018960 | S.CONNECTOR B2B-PH-SM3-TB |
| J651 | 6510006360 | CONNECTOR TMP-J02X-A1 |
| J652 | 6510006360 | CONNECTOR TMP-J02X-A1 |
| J1051 | 6510018960 | S.CONNECTOR B2B-PH-SM3-TB |
| J1101 | 6510021720 | S.CONNECTOR 30FLT-SM1-TB |
| J1151 | 6510021720 | S.CONNECTOR 30FLT-SM1-TB |
| J1301 | 6510022560 | CONNECTOR 16FMN-BTRK-A |
| J1351 | 6510022560 | CONNECTOR 16FMN-BTRK-A |
| J1401 | 6450001730 | CONNECTOR HSJ0912-01-040 |
| J1403 | 6450000140 | CONNECTOR HSJ0807-01-010 |
| J1561 | 6450001840 | CONNECTOR TCS7568-43-201 |
| J1571 | 6450001840 | CONNECTOR TCS7568-43-201 |
| J1581 | 6450000170 | CONNECTOR TCS4480-01-1111 |
| J1751 | 6510018970 | S.CONNECTOR B4B-PH-SM3-TB |
| J1761 | 6510018970 | S.CONNECTOR B4B-PH-SM3-TB |
| J1771 | 6510022630 | CONNECTOR 10FMN-BTRK-A |
| J1781 | 6510022630 | CONNECTOR 10FMN-BTRK-A |
| J1801 | 6510019190 | S.CONNECTOR 52365-0891 |
| J1851 | 6450000140 | CONNECTOR HSJ0807-01-010 |
| J1852 | 6450000140 | CONNECTOR HSJ0807-01-010 |
| J1853 | 6510018960 | S.CONNECTOR B2B-PH-SM3-TB |
| W201 | 7030003860 | S.JUMPER ERJ3GE JPW V |
| W264 | 7030003860 | S.JUMPER ERJ3GE JPW V |
| W461 | 7030003860 | S.JUMPER ERJ3GE JPW V |
| W483 | 7030003860 | S.JUMPER ERJ3GE JPW V |
| W484 | 7030003860 | S.JUMPER ERJ3GE JPW V |
| W1003 | 7030003860 | S.JUMPER ERJ3GE JPW V |
| W1004 | 7030003860 | S.JUMPER ERJ3GE JPW V |
| W1011 | 7030003860 | S.JUMPER ERJ3GE JPW V |
| W1531 | 7030003860 | S.JUMPER ERJ3GE JPW V |
| W1601 | 7030003860 | S.JUMPER ERJ3GE JPW V |
| W1701 | 7030003860 | S.JUMPER ERJ3GE JPW V |
| W1832 | 7030003860 | S.JUMPER ERJ3GE JPW V |
| WS1 | 8600036720 | E.OTHER SX2355 P1201×J1201×1251MA |
| WS2 | 8970023840 | E.OTHER SX2355 ICOM SHIELD (1)/MA |
| EP1 | 0910052705 | PCB B 5465E |

S.=Surface mount

[PA UNIT]

| REF NO. | ORDER NO. | DESCRIPTION |
|---------|------------|---------------------------|
| L71 | 6200002630 | S.COIL NL 252018T-R10J |
| L72 | 6200002840 | S.COIL NL 252018T-R22J |
| L97 | 6200005680 | S.COIL ELJRE 15NG-F |
| L102 | 6200004960 | S.COIL NL 252018T-R33J |
| L103 | 6200008570 | S.COIL LQN21A 6N8D04 |
| L117 | 6200008910 | S.COIL 1812CS-122XKBC |
| L118 | 6200008910 | S.COIL 1812CS-122XKBC |
| L122 | 6200003950 | S.COIL HF50ACC 322513-T |
| L123 | 6200007790 | S.COIL LQN21A R15J04 |
| L130 | 6110001660 | COIL LA-252 |
| L131 | 2040000490 | COIL EXC-ELDR25C |
| L132 | 6110003560 | COIL LA-549 |
| L133 | 2040000490 | COIL EXC-ELDR25C |
| L134 | 2040000490 | COIL EXC-ELDR25C |
| L151 | 2040000490 | COIL EXC-ELDR25C |
| L152 | 2040000490 | COIL EXC-ELDR25C |
| L153 | 6110001620 | COIL LA-245 |
| L154 | 6110001620 | COIL LA-245 |
| L180 | 6110000410 | COIL LA-69 |
| L181 | 6110000410 | COIL LA-69 |
| L182 | 6200008910 | S.COIL 1812CS-122XKBC |
| L183 | 6200008910 | S.COIL 1812CS-122XKBC |
| L184 | 6110001660 | COIL LA-252 |
| L185 | 6200003950 | S.COIL HF50ACC 322513-T |
| L186 | 6200003950 | S.COIL HF50ACC 322513-T |
| L190 | 6140002550 | S.COIL B4F-617DB-1010=P3 |
| L191 | 6140002550 | S.COIL B4F-617DB-1010=P3 |
| L192 | 6200001980 | S.COIL NL 252018T-1R0J |
| L194 | 6200003950 | S.COIL HF50ACC 322513-T |
| L195 | 6200005650 | S.COIL ELJRE 8N2Z-F |
| L196 | 6200005680 | S.COIL ELJRE 15NG-F |
| L201 | 6140003630 | S.COIL LR-404 4KBL |
| L202 | 6200001980 | S.COIL NL 252018T-1R0J |
| L203 | 6200007000 | S.COIL ELJRE 82NG-F |
| L205 | 6200007230 | S.COIL LQN21A 15NJ04 |
| L207 | 6200001980 | S.COIL NL 252018T-1R0J |
| L220 | 6200003380 | S.COIL B4F-617PT-1026=P3 |
| L221 | 6200001980 | S.COIL NL 252018T-1R0J |
| L222 | 6140002550 | S.COIL B4F-617DB-1010=P3 |
| L223 | 6200002630 | S.COIL NL 252018T-R10J |
| L224 | 6200005710 | S.COIL ELJRE 27NG-F |
| L225 | 6200005710 | S.COIL ELJRE 27NG-F |
| L240 | 6200005690 | S.COIL ELJRE 18NG-F |
| L241 | 6200005680 | S.COIL ELJRE 15NG-F |
| L242 | 6200001980 | S.COIL NL 252018T-1R0J |
| L243 | 6200009350 | S.COIL ELJRE R22G-F3 |
| L244 | 6200005690 | S.COIL ELJRE 18NG-F |
| L245 | 6200005690 | S.COIL ELJRE 18NG-F |
| L246 | 6200005660 | S.COIL ELJRE 10NG-F |
| L247 | 6200005710 | S.COIL ELJRE 27NG-F |
| L260 | 6200009320 | S.COIL C3328A-12NG-A |
| L261 | 6200009320 | S.COIL C3328A-12NG-A |
| L262 | 6200007230 | S.COIL LQN21A 15NJ04 |
| L263 | 6200001980 | S.COIL NL 252018T-1R0J |
| L264 | 6200009260 | S.COIL C3328A-5N0J-A |
| L267 | 6110001660 | COIL LA-252 |
| L268 | 6200008510 | S.COIL 0.30-0.9-4TR 10.5N |
| L269 | 6200007700 | S.COIL LQN21A 22NJ04 |
| L280 | 6150005120 | S.COIL LS-539 |
| L281 | 6150005120 | S.COIL LS-539 |
| L282 | 6150005120 | S.COIL LS-539 |
| L283 | 6150005120 | S.COIL LS-539 |
| L301 | 6140003630 | S.COIL LR-404 4KBL |
| L305 | 6910000670 | COIL BL01RN1-A62-001 |
| L306 | 6910000670 | COIL BL01RN1-A62-001 |
| L321 | 6200005670 | S.COIL ELJRE 12NG-F |
| L381 | 6200002630 | S.COIL NL 252018T-R10J |
| L382 | 6200002640 | S.COIL NL 252018T-R15J |
| L391 | 6200005700 | S.COIL ELJRE 22NG-F |
| L501 | 6150001480 | COIL LS-164 |
| L502 | 6150001310 | COIL LS-145 (°yjit) |
| L503 | 6200004790 | S.COIL MLF1608D R47K-T |
| L504 | 6200008390 | S.COIL 0.25-1.9-9TL |
| L506 | 6200001980 | S.COIL NL 252018T-1R0J |
| L507 | 6200003280 | S.COIL NL 252018T-2R2J |
| L510 | 6200003950 | S.COIL HF50ACC 322513-T |
| L512 | 6200003280 | S.COIL NL 252018T-2R2J |
| L513 | 6200008390 | S.COIL 0.25-1.9-9TL |
| L514 | 6200008180 | S.COIL 0.25-1.9-10TL 107N |
| L515 | 6200008180 | S.COIL 0.25-1.9-10TL 107N |
| L516 | 6200007700 | S.COIL LQN21A 22NJ04 |
| L517 | 6200003280 | S.COIL NL 252018T-2R2J |

[PA UNIT]

| REF NO. | ORDER NO. | DESCRIPTION |
|---------|------------|--------------------------------------|
| L518 | 6200001980 | S.COIL NL 252018T-1R0J |
| L519 | 6200005730 | S.COIL ELJRE 39NG-F |
| L520 | 6200005730 | S.COIL ELJRE 39NG-F |
| L521 | 6150002200 | COIL LS-228 |
| L522 | 6200003380 | S.COIL B4F-617PT-1026=P3 |
| L528 | 6200007790 | S.COIL LQN21A R15J04 |
| L529 | 6200008090 | S.COIL LQN21A 68NJ04 |
| L533 | 6200008390 | S.COIL 0.25-1.9-9TL |
| L560 | 6200008390 | S.COIL 0.25-1.9-9TL |
| L561 | 6200007230 | S.COIL LQN21A 15NJ04 |
| L581 | 6200007000 | S.COIL ELJRE 82NG-F |
| L600 | 6200005730 | S.COIL ELJRE 39NG-F |
| L601 | 6200005740 | S.COIL ELJRE 47NG-F |
| L620 | 6200006670 | S.COIL ELJRE 68NG-F |
| L621 | 6200005740 | S.COIL ELJRE 47NG-F |
| L631 | 6200002840 | S.COIL NL 252018T-R22J |
| L632 | 6200002180 | S.COIL NL 252018T-R12J |
| L641 | 6200008390 | S.COIL 0.25-1.9-9TL |
| L642 | 6200008390 | S.COIL 0.25-1.9-9TL |
| L651 | 2040000490 | COIL EXC-ELDR25C |
| L652 | 6170000070 | COIL LW-9 |
| L653 | 6110001740 | COIL LA-263 |
| L654 | 6110001740 | COIL LA-263 |
| L655 | 6110001360 | COIL LA-179 |
| L656 | 6170000340 | COIL LW-33 |
| L657 | 6110002060 | COIL LA-300 |
| L658 | 2040000490 | COIL EXC-ELDR25C |
| L701 | 6200003950 | S.COIL HF50ACC 322513-T |
| L710 | 6200004740 | S.COIL NL 252018T-1R2J |
| L711 | 6200004740 | S.COIL NL 252018T-1R2J |
| L720 | 6200008910 | S.COIL 1812CS-122XKBC |
| L721 | 6110001340 | COIL LA-177 |
| L722 | 6110001340 | COIL LA-177 |
| L723 | 6110001330 | COIL LA-176 |
| L950 | 6200008360 | S.COIL 0.25-1.9-13TL |
| L951 | 6200008910 | S.COIL 1812CS-122XKBC |
| L952 | 6200008910 | S.COIL 1812CS-122XKBC |
| R1 | 7030003440 | S.RESISTOR ERJ3GEYJ 102 V (1 kΩ) |
| R2 | 7030003410 | S.RESISTOR ERJ3GEYJ 561 V (560 Ω) |
| R3 | 7310002740 | S.TRIMMER RV-150 (RH03A3A14X0FC) 103 |
| R4 | 7030003440 | S.RESISTOR ERJ3GEYJ 102 V (1 kΩ) |
| R5 | 7030003440 | S.RESISTOR ERJ3GEYJ 102 V (1 kΩ) |
| R6 | 7030003320 | S.RESISTOR ERJ3GEYJ 101 V (100 Ω) |
| R8 | 7030003480 | S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ) |
| R9 | 7030003360 | S.RESISTOR ERJ3GEYJ 221 V (220 Ω) |
| R10 | 7030003360 | S.RESISTOR ERJ3GEYJ 221 V (220 Ω) |
| R11 | 7030003480 | S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ) |
| R12 | 7030004030 | S.RESISTOR ERJ3GEYJ 5R6 V (5.6 Ω) |
| R13 | 7030003430 | S.RESISTOR ERJ3GEYJ 821 V (820 Ω) |
| R14 | 7030003430 | S.RESISTOR ERJ3GEYJ 821 V (820 Ω) |
| R27 | 7030003280 | S.RESISTOR ERJ3GEYJ 470 V (47 Ω) |
| R28 | 7030003320 | S.RESISTOR ERJ3GEYJ 101 V (100 Ω) |
| R30 | 7030003440 | S.RESISTOR ERJ3GEYJ 102 V (1 kΩ) |
| R31 | 7030003440 | S.RESISTOR ERJ3GEYJ 102 V (1 kΩ) |
| R32 | 7030003520 | S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ) |
| R37 | 7030003640 | S.RESISTOR ERJ3GEYJ 473 V (4.7 kΩ) |
| R38 | 7030003420 | S.RESISTOR ERJ3GEYJ 681 V (680 Ω) |
| R39 | 7030003440 | S.RESISTOR ERJ3GEYJ 102 V (1 kΩ) |
| R40 | 7030003500 | S.RESISTOR ERJ3GEYJ 332 V (3.3 kΩ) |
| R42 | 7030003400 | S.RESISTOR ERJ3GEYJ 471 V (470 Ω) |
| R43 | 7030003200 | S.RESISTOR ERJ3GEYJ 100 V (10 Ω) |
| R44 | 7030003400 | S.RESISTOR ERJ3GEYJ 471 V (470 Ω) |
| R60 | 7030003480 | S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ) |
| R61 | 7310002670 | S.TRIMMER RV-143 (RH03A3AS2) 471 |
| R62 | 7030003560 | S.RESISTOR ERJ3GEYJ 103 V (10 kΩ) |
| R63 | 7030003410 | S.RESISTOR ERJ3GEYJ 561 V (560 Ω) |
| R64 | 7510001250 | S.THERMISTOR NTCM1608 3NH 471KC |
| R65 | 7030003390 | S.RESISTOR ERJ3GEYJ 391 V (390 Ω) |
| R66 | 7030003470 | S.RESISTOR ERJ3GEYJ 182 V (1.8 kΩ) |
| R67 | 7030003470 | S.RESISTOR ERJ3GEYJ 182 V (1.8 kΩ) |
| R68 | 7030003320 | S.RESISTOR ERJ3GEYJ 101 V (100 Ω) |
| R80 | 7030003520 | S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ) |
| R100 | 7030003380 | S.RESISTOR ERJ3GEYJ 331 V (330 Ω) |
| R101 | 7030003380 | S.RESISTOR ERJ3GEYJ 331 V (330 Ω) |
| R102 | 7030003230 | S.RESISTOR ERJ3GEYJ 180 V (18 Ω) |
| R103 | 7030003380 | S.RESISTOR ERJ3GEYJ 331 V (330 Ω) |
| R104 | 7030003300 | S.RESISTOR ERJ3GEYJ 680 V (68 Ω) |
| R105 | 7030003480 | S.RESISTOR ERJ3GEYJ 222 V (2.2 kΩ) |
| R106 | 7030003520 | S.RESISTOR ERJ3GEYJ 472 V (4.7 kΩ) |
| R107 | 7030003420 | S.RESISTOR ERJ3GEYJ 681 V (680 Ω) |

S.=Surface mount

[PA UNIT]

| REF NO. | ORDER NO. | DESCRIPTION | |
|---------|------------|-------------|---------------------------------|
| F300 | 5210000130 | FUSE | FGB 4A |
| F301 | 5220000230 | HOLDER | S-N5054 #01 |
| F302 | 5220000230 | HOLDER | S-N5054 #01 |
| W3 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| W5 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| W7 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| W60 | 7030008240 | S.JUMPER | ERJ12YJ0R00U |
| W61 | 7030008240 | S.JUMPER | ERJ12YJ0R00U |
| W62 | 7030008240 | S.JUMPER | ERJ12YJ0R00U |
| W63 | 7030008240 | S.JUMPER | ERJ12YJ0R00U |
| W64 | 7030000010 | S.JUMPER | MCR10EZHZ JPW (000) |
| W202 | 7030008240 | S.JUMPER | ERJ12YJ0R00U |
| W232 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| W261 | 7030008240 | S.JUMPER | ERJ12YJ0R00U |
| W262 | 7030008240 | S.JUMPER | ERJ12YJ0R00U |
| W305 | 8900010421 | CABLE | OPC-992A |
| W331 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| W332 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| W333 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| W513 | 7030008240 | S.JUMPER | ERJ12YJ0R00U |
| W520 | 7030008240 | S.JUMPER | ERJ12YJ0R00U |
| W521 | 7030008240 | S.JUMPER | ERJ12YJ0R00U |
| W557 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| W558 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| W559 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| W951 | 7030000010 | S.JUMPER | MCR10EZHZ JPW (000) |
| W952 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| WS1 | 8970023780 | E.OTHER | SX2355 1.5D COAXIAL TUBE (1)/PA |
| WS2 | 8970023790 | E.OTHER | SX2355 1.5D COAXIAL TUBE (1)/PA |
| WS3 | 8970023800 | E.OTHER | SX2355 1.5D COAXIAL TUBE (2)/PA |
| WS5 | 8600036730 | E.OTHER | SX2355 P50×J50PA |
| WS6 | 8970023820 | E.OTHER | SX2355 COAXIAL TUBE (1)/PA |
| WS7 | 8600036740 | E.OTHER | SX2355 P300×J600-603PA |
| EP2 | 0910053576 | PCB | B 5573F |
| EP31 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP32 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP50 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP51 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP52 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP53 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP54 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP55 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP56 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP61 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP153 | 6910000610 | BEAD | FSOH050RN01 |
| EP154 | 6910000610 | BEAD | FSOH050RN01 |
| EP181 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP193 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP195 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP201 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP220 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP221 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP243 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP245 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP290 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP330 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP341 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP342 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP401 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP406 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP517 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP561 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP562 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP563 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP564 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP565 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP566 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP567 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP568 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP569 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP911 | 6910012350 | S.BEAD | MMZ1608Y 102BT |

[DRV BOARD]

| REF NO. | ORDER NO. | DESCRIPTION | |
|---------|------------|-------------|----------------------|
| Q930 | 1560001030 | S.FET | 2SK2975 (MTS103) |
| R90 | 7030010140 | S.RESISTOR | ERJ1WYJ201U (200 Ω) |
| R91 | 7030000230 | S.RESISTOR | MCR10EZHZ 56 Ω (560) |
| C90 | 4030004710 | S.CERAMIC | C2012 JB 1H 471K-T-A |
| C91 | 4030004720 | S.CERAMIC | C2012 JB 1H 102K-T-A |
| EP1 | 0910052723 | PCB | B 5474C |

[BARISTOR-A BOARD]

| REF NO. | ORDER NO. | DESCRIPTION | |
|---------|------------|-------------|----------------|
| D1 | 1790000710 | VARISTOR | MA29B |
| EP1 | 0910053583 | PCB | B 5576C |
| EP2 | 6910012350 | S.BEAD | MMZ1608Y 102BT |

[VARISTOR-B BOARD]

| REF NO. | ORDER NO. | DESCRIPTION | |
|---------|------------|-------------|----------------|
| D1 | 1790000710 | VARISTOR | MA29B |
| EP1 | 0910053593 | PCB | B 5577C |
| EP2 | 6910012350 | S.BEAD | MMZ1608Y 102BT |

[BARISTOR-C BOARD]

| REF NO. | ORDER NO. | DESCRIPTION | |
|---------|------------|-------------|-----------------------|
| D1 | 1790000710 | VARISTOR | MA29B |
| C1 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| EP1 | 0910053601 | PCB | B 5578A |
| EP2 | 9036505001 | TUBE | IRRAX 0.7 (d) L=15 mm |

S.=Surface mount

6-2 UX-910

[MAIN UNIT]

| REF NO. | ORDER NO. | DESCRIPTION |
|---------|------------|---------------------------------|
| IC21 | 1150002020 | IC M57762-02 |
| IC31 | 1110001220 | S.IC BA4558F T1 |
| IC111 | 1110004080 | S.IC μPC2709T-E3 |
| IC131 | 1110005150 | S.IC μPC8163TB-E3 |
| IC141 | 1110001890 | S.IC μPC1678G-E2 |
| IC161 | 1180002040 | REG BA09T |
| IC162 | 1180001070 | S.IC TA7805F (TE16L) |
| IC181 | 1110004080 | S.IC μPC2709T-E3 |
| IC201 | 1110004080 | S.IC μPC2709T-E3 |
| IC241 | 1110004470 | S.IC μPC2721GV-E1 |
| IC301 | 1130007570 | S.IC BU4094BCFV-E2 |
| IC311 | 1130006800 | S.IC TC7W08F (TE12L) |
| IC501 | 1130009370 | S.IC TB31242FN (EL) |
| IC502 | 1130009580 | S.IC TC7W66FU (TE12L) |
| IC601 | 1130004830 | S.IC TC7SU04F (TE85R) |
| IC610 | 1130007260 | S.IC TC7W74FU (TE12L) |
| IC621 | 1130004830 | S.IC TC7SU04F (TE85R) |
| IC661 | 1140007880 | S.IC TC190G08AF-0046-Z/SC-1246A |
| IC701 | 1110001900 | S.IC μPC4570G2-T1 |
| IC761 | 1110004460 | S.IC μPB1509GV-E1 |
| IC762 | 1130003830 | S.IC TC7S04F (TE85R) |
| Q36 | 1560001090 | S.FET 2SK2854 |
| Q38 | 1560001140 | S.FET 2SK2855 (TE12L) |
| Q71 | 1540000470 | S.TRANSISTOR 2SD1801S-TL |
| Q72 | 1590000430 | S.TRANSISTOR DTC144EUA T106 |
| Q73 | 1530001950 | S.TRANSISTOR 2SC2712-GR (TE85R) |
| Q74 | 1530001950 | S.TRANSISTOR 2SC2712-GR (TE85R) |
| Q81 | 1530001950 | S.TRANSISTOR 2SC2712-GR (TE85R) |
| Q161 | 1590000430 | S.TRANSISTOR DTC144EUA T106 |
| Q162 | 1590000430 | S.TRANSISTOR DTC144EUA T106 |
| Q163 | 1510000500 | S.TRANSISTOR 2SA1162-GR (TE85R) |
| Q164 | 1590000430 | S.TRANSISTOR DTC144EUA T106 |
| Q165 | 1590001980 | S.TRANSISTOR XP4315 (TX) |
| Q166 | 1520000510 | TRANSISTOR 2SB1133 R |
| Q167 | 1590000720 | S.TRANSISTOR DTA144EUA T106 |
| Q168 | 1530001950 | S.TRANSISTOR 2SC2712-GR (TE85R) |
| Q169 | 1590001980 | S.TRANSISTOR XP4315 (TX) |
| Q170 | 1520000460 | S.TRANSISTOR 2SB1132 T100 R |
| Q171 | 1590002030 | S.TRANSISTOR RN2425 (TE85R) |
| Q172 | 1590002030 | S.TRANSISTOR RN2425 (TE85R) |
| Q221 | 1580000680 | S.FET 3SK241-R (TX) |
| Q271 | 1530003660 | S.TRANSISTER 2SC5454-T1 R54 |
| Q281 | 1590002940 | S.FET NE34018-T1 |
| Q282 | 1530001950 | S.TRANSISTOR 2SC2712-GR (TE85R) |
| Q283 | 1590000430 | S.TRANSISTOR DTC144EUA T106 |
| Q301 | 1590001810 | S.TRANSISTOR XP1113 (TX) |
| Q501 | 1590000720 | S.TRANSISTOR DTA144EUA T106 |
| Q502 | 1590001050 | S.TRANSISTOR DTC114TUA T106 |
| Q503 | 1590001870 | S.TRANSISTOR DTA114EE TL |
| Q511 | 1560000540 | S.FET 2SK880-Y (TE85R) |
| Q512 | 1530002690 | S.TRANSISTOR 2SC4116-GR (TE85R) |
| Q531 | 1540000350 | S.TRANSISTOR 2SD2216-S (TX) |
| Q541 | 1530003760 | S.TRANSISTOR 2SC5508-T2 |
| Q542 | 1530003550 | S.TRANSISTOR 2SC5193-T1 |
| Q551 | 1530003310 | S.TRANSISTOR 2SC5107-O (TE85R) |
| Q601 | 1530002600 | S.TRANSISTOR 2SC4215-O (TE85R) |
| Q681 | 1530003310 | S.TRANSISTOR 2SC5107-O (TE85R) |
| Q701 | 1510000670 | S.TRANSISTOR 2SA1588-GR (TE85R) |
| Q731 | 1530003310 | S.TRANSISTOR 2SC5107-O (TE85R) |
| Q741 | 1530003310 | S.TRANSISTOR 2SC5107-O (TE85R) |
| Q751 | 1540000350 | S.TRANSISTOR 2SD2216-S (TX) |
| Q761 | 1530003310 | S.TRANSISTOR 2SC5107-O (TE85R) |
| Q771 | 1590000660 | S.TRANSISTOR DTC144TU T107 |
| Q772 | 1590000720 | S.TRANSISTOR DTA144EUA T106 |
| D9 | 1750000580 | S.DIODE 1SV307 (TPH3) |
| D13 | 1750000580 | S.DIODE 1SV307 (TPH3) |
| D32 | 1750000520 | S.DIODE DAN222TL |
| D51 | 1750000550 | S.DIODE 1SS355 TE-17 |
| D81 | 1790000620 | S.DIODE MA77 (TX) |
| D82 | 1750000430 | S.DIODE HSB88WSTR |
| D83 | 1750000580 | S.DIODE 1SV307 (TPH3) |
| D130 | 1730002260 | S.ZENER MA8030-H (TX) |
| D161 | 1790000620 | S.DIODE MA77 (TX) |
| D162 | 1790000620 | S.DIODE MA77 (TX) |
| D163 | 1790000620 | S.DIODE MA77 (TX) |
| D164 | 1790000620 | S.DIODE MA77 (TX) |

[MAIN UNIT] — UX-910

| REF NO. | ORDER NO. | DESCRIPTION |
|---------|------------|---------------------------|
| D165 | 1750000520 | S.DIODE DAN222TL |
| D166 | 1750000550 | S.DIODE 1SS355 TE-17 |
| D167 | 1750000520 | S.DIODE DAN222TL |
| D168 | 1790001250 | S.DIODE MA2S111-(TX) |
| D169 | 1790001250 | S.DIODE MA2S111-(TX) |
| D241 | 1750000580 | S.DIODE 1SV307 (TPH3) |
| D281 | 1730002260 | S.ZENER MA8030-H (TX) |
| D502 | 1720000360 | S.DIODE HSU88TRF |
| D503 | 1720000360 | S.DIODE HSU88TRF |
| D504 | 1790001610 | S.DIODE 1SS385 (TE85L) |
| D531 | 1730002300 | S.ZENER MA8082-M (TX) |
| D541 | 1720000470 | S.VARICAP 1SV239 (TPH3) |
| D711 | 1720000260 | S.VARICAP 1SV214 (TPH2) |
| D712 | 1720000260 | S.VARICAP 1SV214 (TPH2) |
| D751 | 1730002300 | S.ZENER MA8082-M (TX) |
| D771 | 1750000520 | S.DIODE DAN222TL |
| FI1 | 2040001660 | S.FILTER LFSN30N18C1280B |
| FI101 | 2040001650 | S.SAW WF447B-T |
| FI141 | 2040001660 | S.FILTER LFSN30N18C1280B |
| FI241 | 2040001650 | S.SAW WF447B-T |
| FI271 | 2040001660 | S.FILTER LFSN30N18C1280B |
| FI281 | 2040001660 | S.FILTER LFSN30N18C1280B |
| L2 | 6200005660 | S.COIL ELJRE 10NG-F |
| L5 | 6200007740 | S.COIL LQN21A 47NJ04 |
| L11 | 6200008180 | S.COIL 0.25-1.9-10TL 107N |
| L12 | 6200007740 | S.COIL LQN21A 47NJ04 |
| L22 | 6200006990 | S.COIL ELJRE 56NG-F |
| L23 | 6200006990 | S.COIL ELJRE 56NG-F |
| L31 | 6200007670 | S.COIL LQN21A 10NJ04 |
| L32 | 6200008280 | S.COIL 0.30-1.7-7TL 50N |
| L51 | 6200006990 | S.COIL ELJRE 56NG-F |
| L52 | 6200006990 | S.COIL ELJRE 56NG-F |
| L53 | 6200006990 | S.COIL ELJRE 56NG-F |
| L63 | 6200008910 | S.COIL 1812CS-122XKBC |
| L71 | 6200007730 | S.COIL LQN21A 39NJ04 |
| L81 | 6200005010 | S.COIL NL 252018T-100J |
| L82 | 6200003270 | S.COIL NL 252018T-R56J |
| L83 | 6200002610 | S.COIL NL 252018T-R47J |
| L84 | 6140002550 | S.COIL B4F-617DB-1010=P3 |
| L85 | 6140002550 | S.COIL B4F-617DB-1010=P3 |
| L86 | 6200005010 | S.COIL NL 252018T-100J |
| L101 | 6200006990 | S.COIL ELJRE 56NG-F |
| L102 | 6200006990 | S.COIL ELJRE 56NG-F |
| L111 | 6200001980 | S.COIL NL 252018T-1R0J |
| L112 | 6200001980 | S.COIL NL 252018T-1R0J |
| L121 | 6200005710 | S.COIL ELJRE 27NG-F |
| L122 | 6200005700 | S.COIL ELJRE 22NG-F |
| L133 | 6200006990 | S.COIL ELJRE 56NG-F |
| L134 | 6200006990 | S.COIL ELJRE 56NG-F |
| L135 | 6200005630 | S.COIL ELJRE 5N6Z-F |
| L141 | 6200005620 | S.COIL ELJRE 4N7Z-F |
| L142 | 6200005630 | S.COIL ELJRE 5N6Z-F |
| L143 | 6200006990 | S.COIL ELJRE 56NG-F |
| L144 | 6200006990 | S.COIL ELJRE 56NG-F |
| L161 | 6200001980 | S.COIL NL 252018T-1R0J |
| L181 | 6200005640 | S.COIL ELJRE 6N8Z-F |
| L182 | 6200005630 | S.COIL ELJRE 5N6Z-F |
| L183 | 6200001980 | S.COIL NL 252018T-1R0J |
| L184 | 6200001980 | S.COIL NL 252018T-1R0J |
| L201 | 6200005730 | S.COIL ELJRE 39NG-F |
| L202 | 6200005730 | S.COIL ELJRE 39NG-F |
| L203 | 6200001980 | S.COIL NL 252018T-1R0J |
| L204 | 6200002630 | S.COIL NL 252018T-R10J |
| L211 | 6200005660 | S.COIL ELJRE 10NG-F |
| L221 | 6200002840 | S.COIL NL 252018T-R22J |
| L222 | 6200003280 | S.COIL NL 252018T-2R2J |
| L224 | 6200005010 | S.COIL NL 252018T-100J |
| L241 | 6200006990 | S.COIL ELJRE 56NG-F |
| L242 | 6200006990 | S.COIL ELJRE 56NG-F |
| L243 | 6200001980 | S.COIL NL 252018T-1R0J |
| L244 | 6200006990 | S.COIL ELJRE 56NG-F |
| L273 | 6200006990 | S.COIL ELJRE 56NG-F |
| L274 | 6200005590 | S.COIL ELJRE 2N7Z-F |
| L275 | 6200006040 | S.COIL LQP11A 5N6C00 |
| L281 | 6200006990 | S.COIL ELJRE 56NG-F |
| L283 | 6200006040 | S.COIL LQP11A 5N6C00 |

S.=Surface mount

[MAIN UNIT] — UX-910

| REF NO. | ORDER NO. | DESCRIPTION | |
|---------|------------|-------------|---------------------------------|
| C731 | 4030007050 | S.CERAMIC | C1608 CH 1H 220J-T-A |
| C732 | 4030007050 | S.CERAMIC | C1608 CH 1H 220J-T-A |
| C733 | 4030009520 | S.CERAMIC | C1608 CH 1H 020B-T-A |
| C734 | 4030011600 | S.CERAMIC | C1608 JB 1C 104KT-N |
| C735 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C741 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C742 | 4030007020 | S.CERAMIC | C1608 CH 1H 120J-T-A |
| C743 | 4030011600 | S.CERAMIC | C1608 JB 1C 104KT-N |
| C744 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C746 | 4550006080 | S.TANTALUM | TEMSVB2 1C 106M-8L |
| C747 | 4030007020 | S.CERAMIC | C1608 CH 1H 120J-T-A |
| C748 | 4030009550 | S.CERAMIC | C1608 CH 1H 2R5B-T-A |
| C749 | 4030007020 | S.CERAMIC | C1608 CH 1H 120J-T-A |
| C750 | 4030006880 | S.CERAMIC | C1608 JB 1H 472K-T-A |
| C751 | 4030007050 | S.CERAMIC | C1608 CH 1H 220J-T-A |
| C752 | 4030007050 | S.CERAMIC | C1608 CH 1H 220J-T-A |
| C753 | 4030009520 | S.CERAMIC | C1608 CH 1H 020B-T-A |
| C754 | 4550006770 | S.TANTALUM | TEMSVD2 1C 476M-12R |
| C755 | 4550003220 | S.TANTALUM | TEMSVA 1E 105M-8L |
| C756 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C761 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C762 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C763 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C764 | 4030011600 | S.CERAMIC | C1608 JB 1C 104KT-N |
| C765 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C766 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C767 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C769 | 4030011600 | S.CERAMIC | C1608 JB 1C 104KT-N |
| C770 | 4030006850 | S.CERAMIC | C1608 JB 1H 471K-T-A |
| C771 | 4030006850 | S.CERAMIC | C1608 JB 1H 471K-T-A |
| C772 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C773 | 4030011600 | S.CERAMIC | C1608 JB 1C 104KT-N |
| C774 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C775 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C776 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C777 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| C778 | 4030006860 | S.CERAMIC | C1608 JB 1H 102K-T-A |
| RL51 | 6330000810 | RELAY | ARK115 |
| J311 | 6510022280 | CONNECTOT | 25FMN-BTK |
| W5 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| W10 | 7030008240 | S.JUMPER | ERJ12YJ0R00U |
| W11 | 7030008240 | S.JUMPER | ERJ12YJ0R00U |
| W12 | 7030008240 | S.JUMPER | ERJ12YJ0R00U |
| W13 | 7030000010 | S.JUMPER | MCR10EZHZ JPW (000) |
| W14 | 7030008240 | S.JUMPER | ERJ12YJ0R00U |
| W15 | 7030008240 | S.JUMPER | ERJ12YJ0R00U |
| W16 | 7030000010 | S.JUMPER | MCR10EZHZ JPW (000) |
| W17 | 7030008240 | S.JUMPER | ERJ12YJ0R00U |
| W18 | 7030008240 | S.JUMPER | ERJ12YJ0R00U |
| W19 | 7030008240 | S.JUMPER | ERJ12YJ0R00U |
| W20 | 7030010250 | S.JUMPER | ERJ1TYJ 0R00U |
| W21 | 7030008240 | S.JUMPER | ERJ12YJ0R00U |
| W22 | 7030000010 | S.JUMPER | MCR10EZHZ JPW (000) |
| W23 | 7030008240 | S.JUMPER | ERJ12YJ0R00U |
| W31 | 8900010412 | CABLE | OPC-991B |
| W32 | 7120000490 | JUMPER | ERD25T0 |
| W51 | 7120000490 | JUMPER | ERD25T0 |
| W52 | 7120000490 | JUMPER | ERD25T0 |
| W63 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| W142 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| W182 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| W202 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| W223 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| W241 | 7030008240 | S.JUMPER | ERJ12YJ0R00U |
| W242 | 7030008240 | S.JUMPER | ERJ12YJ0R00U |
| W281 | 7120000470 | JUMPER | ERDS2T0 |
| W290 | 7120000470 | JUMPER | ERDS2T0 |
| W311 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| W531 | 7030008240 | S.JUMPER | ERJ12YJ0R00U |
| W532 | 7030008240 | S.JUMPER | ERJ12YJ0R00U |
| W601 | 7030000010 | S.JUMPER | MCR10EZHZ JPW (000) |
| W731 | 7030003860 | S.JUMPER | ERJ3GE JPW V |
| WS1 | 8970023850 | E.OTHER | EX2356 1.5D COAXIAL TUBE (1)/MA |

[MAIN UNIT] — UX-910

| REF NO. | ORDER NO. | DESCRIPTION | |
|---------|------------|-------------|-------------------|
| EP1 | 0910052786 | PCB | B 5468F |
| EP10 | 6910000970 | BEAD | DL-20P 2.6-3-1.2H |
| EP11 | 6910000970 | BEAD | DL-20P 2.6-3-1.2H |
| EP12 | 6910000970 | BEAD | DL-20P 2.6-3-1.2H |
| EP312 | 6910000630 | BEAD | FSOH070RN |
| EP313 | 9010001410 | TUBE | TUBE 8.0 (d) |
| EP510 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP543 | 6910012350 | S.BEAD | MMZ1608Y 102BT |
| EP610 | 6910012350 | S.BEAD | MMZ1608Y 102BT |

S.=Surface mount

SECTION 7 MECHANICAL PARTS

[FRONT UNIT]

| REF. NO. | ORDER NO. | DESCRIPTION | QTY. |
|----------|------------|---------------------------|------|
| EP1 | 6910012480 | RMS20-250-201-1R | 1 |
| EP2 | 6450001230 | HLJ0999-01-480 | 1 |
| MP1 | 8210017280 | 2355 front panel assembly | 1 |
| MP2 | 8310048750 | 2355 window plate | 1 |
| MP4 | 8930053620 | 2355 A-power key | 1 |
| MP5 | 8930052170 | 2355 FUNC key | 1 |
| MP6 | 8930052180 | 2355 key board | 1 |
| MP7 | 8010018220 | 2355 sub chassis assembly | 1 |
| MP9 | 8610010970 | Knob N283 assembly | 1 |
| MP13 | 8930049370 | 2240 brake sheet | 1 |
| MP14 | 8930052200 | 2355 brake plate | 1 |
| MP15 | 8930014030 | 610 brake pat | 1 |
| MP17 | 8610010260 | Knob N252 | 1 |
| MP19 | 8610010880 | Knob N273 (B) | 1 |
| MP20 | 8610010260 | Knob N252 | 1 |
| MP22 | 8610010880 | Knob N273 (B) | 1 |
| MP23 | 8610010260 | Knob N252 | 1 |
| MP25 | 8610010880 | Knob N273 (B) | 1 |
| MP31 | 8810009130 | Screw PH BT M3 X 12 NI-ZU | 1 |
| MP32 | 8810008660 | Screw PH BT M3 X 8 NI-ZU | 2 |
| MP33 | 8810008630 | Screw PH BT M3 X 6 NI-ZU | 1 |
| MP34 | 8810008630 | Screw PH BT M3 X 6 NI-ZU | 7 |
| MP35 | 8810009560 | Screw PH BT M2 X 6 ZK | 2 |
| MP36 | 8820000770 | 1296 screw | 1 |
| MP38 | 8930054510 | Rubber sheet (AW) | 1 |

[DISPLAY UNIT]

| REF. NO. | ORDER NO. | DESCRIPTION | QTY. |
|----------|------------|------------------------------|------|
| DS31 | 5030001840 | LCD A0095 | 1 |
| EP31 | 8930052490 | LCD contact SRCN-2355-SP-N-W | 2 |
| MP1 | 8210016870 | 2355 reflector | 1 |
| MP2 | 8930052230 | 2355 LCD filter | 1 |
| MP3 | 8930052221 | 2355 LCD holder-1 | 1 |
| MP4 | 8930049930 | Sheet CC | 2 |
| MP801* | 8510013290 | 2355 DC case | 1 |
| MP802 | 8510013280 | 2355 DC cover | 1 |

[VR-A BOARD]

| REF. NO. | ORDER NO. | DESCRIPTION | QTY. |
|----------|------------|--------------------------|------|
| R1 | 7210002970 | Variable register RV-314 | 1 |

[VR-B BOARD]

| REF. NO. | ORDER NO. | DESCRIPTION | QTY. |
|----------|------------|--------------------------|------|
| R1 | 7210002970 | Variable register RV-314 | 1 |

[RIT BOARD]

| REF. NO. | ORDER NO. | DESCRIPTION | QTY. |
|----------|------------|--------------------------|------|
| R1 | 7210003090 | Variable register RV-316 | 1 |

[JACK BOARD]

| REF. NO. | ORDER NO. | DESCRIPTION | QTY. |
|----------|------------|---------------------------|------|
| J1 | 6450001250 | Connector HLJ4306-01-3070 | 1 |

[MIC BOARD]

| REF. NO. | ORDER NO. | DESCRIPTION | QTY. |
|----------|------------|---------------------|------|
| J1 | 6510000190 | Connector FM214-8SS | 1 |

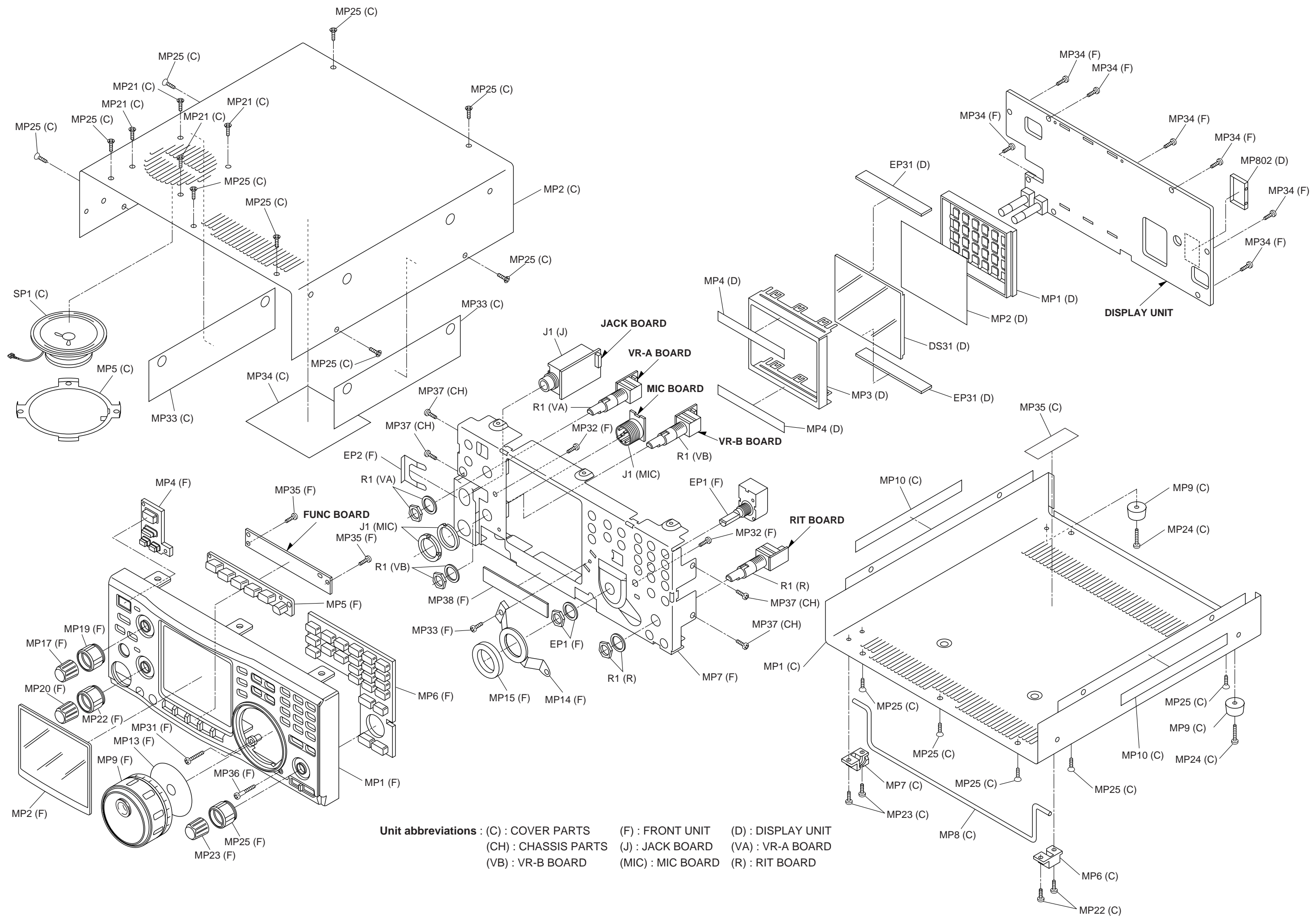
[COVER PARTS]

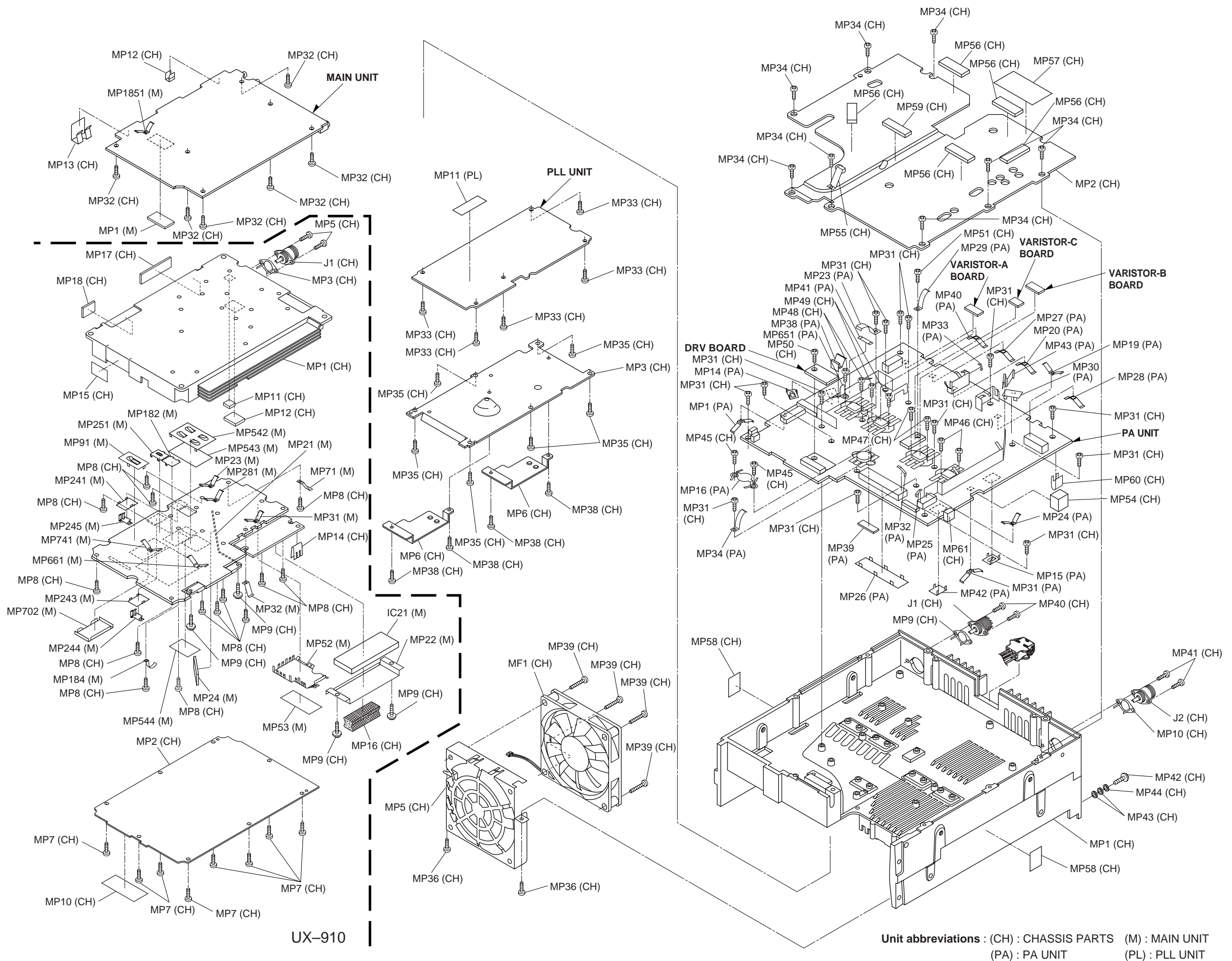
| REF. NO. | ORDER NO. | DESCRIPTION | QTY. |
|----------|------------|---------------------------|------|
| SP1 | 2510000040 | Speaker C065K1210810 | 1 |
| MP1 | 8110007190 | 2355 L-cover | 1 |
| MP2 | 8110007310 | 2355 U-cover assembly | 1 |
| MP5 | 8930006390 | Speaker holder | 1 |
| MP6 | 8930005790 | Collar foot (A) | 1 |
| MP7 | 8930005800 | Collar foot (B) | 1 |
| MP8 | 8010001520 | Stand (C) | 1 |
| MP9 | 8930002900 | Rubber foot (A) | 2 |
| MP10 | 8930007120 | Sheet B | 2 |
| MP21 | 8810009030 | Screw FH M3 X 8 ZK | 4 |
| MP22 | 8810008660 | Screw PH BT M3 X 8 NI-ZU | 2 |
| MP23 | 8810008660 | Screw PH BT M3 X 8 NI-ZU | 2 |
| MP24 | 8810009130 | Screw PH BT M3 X 12 NI-ZU | 2 |
| MP25 | 8810005770 | Screw BiH M3 X 8 ZK | 14 |
| MP33 | 8930052550 | 2241 sheet | 2 |
| MP34 | 8930047900 | Cushion sheet (G) | 1 |
| MP35 | 8930054520 | Shield sponge (E) | 1 |

[CHASSIS PARTS]

| REF. NO. | ORDER NO. | DESCRIPTION | QTY. |
|----------|------------|--------------------------|------|
| J1 | 6510000370 | Connector MR-DS | 1 |
| J2 | 6510000330 | Connector NR-DS | 1 |
| MF1 | 2710000690 | Fan AFB0812HHB | 1 |
| MP1 | 8010018180 | 2355 chassis | 1 |
| MP2 | 8510012990 | 2355 pa cover | 1 |
| MP3 | 8510013600 | 2355 A-PLL cover | 1 |
| MP5 | 8930053920 | 2355 fan holder | 1 |
| MP6 | 8930049610 | 2240 unit holder | 2 |
| MP9 | 8930052450 | 2355 earth spring | 1 |
| MP10 | 8930052450 | 2355 earth spring | 1 |
| MP12 | 8930048520 | 2156 clip | 1 |
| MP13 | 8930030770 | 1428 clip | 1 |
| MP31 | 8810008660 | Screw PH BT M3 X 8 NI-ZU | 14 |
| MP32 | 8810008660 | Screw PH BT M3 X 8 NI-ZU | 6 |
| MP33 | 8810008660 | Screw PH BT M3 X 8 NI-ZU | 5 |
| MP34 | 8810008660 | Screw PH BT M3 X 8 NI-ZU | 8 |
| MP35 | 8810008660 | Screw PH BT M3 X 8 NI-ZU | 6 |
| MP36 | 8810008660 | Screw PH BT M3 X 8 NI-ZU | 2 |
| MP37 | 8810009650 | Screw FH BT M3 X 8 NI-ZU | 4 |
| MP38 | 8810003960 | Setscrew A M2.6 X 5 | 4 |
| MP39 | 8810000420 | Screw PH M4 X 18 | 4 |
| MP40 | 8810008660 | Screw PH BT M3 X 8 NI-ZU | 2 |
| MP41 | 8810008660 | Screw PH BT M3 X 8 NI-ZU | 2 |
| MP42 | 8820000530 | Bolt M4 X 8 NI | 1 |
| MP43 | 8850000140 | Flat washer M4 NI BS | 2 |
| MP44 | 8850000430 | Spring washer M4 NI | 1 |
| MP45 | 8810009040 | Setscrew H M2.6 X 10 NI | 2 |
| MP46 | 8810009040 | Setscrew H M2.6 X 10 NI | 2 |
| MP47 | 8810009040 | Setscrew H M2.6 X 10 NI | 2 |
| MP48 | 8810009040 | Setscrew H M2.6 X 10 NI | 2 |
| MP49 | 8810009040 | Setscrew H M2.6 X 10 NI | 2 |
| MP50 | 8810009040 | Setscrew H M2.6 X 10 NI | 1 |
| MP51 | 8810003170 | Setscrew A M3 X 8 | 1 |
| MP52 | 8310050190 | 2355 ANT plate | 1 |
| MP53 | 8310050180 | 2355 D-SUB plate | 1 |
| MP54 | 8930041830 | Sponge (ER) | 1 |
| MP55 | 8930001170 | Earth spring (A) | 1 |
| MP56 | 8930031760 | Rubber sheet (N) | 5 |
| MP57 | 8930005450 | Insulation sheet (F) | 1 |
| MP58 | 8930049770 | Sponge (GF) | 2 |
| MP59 | 8930054520 | Shield sponge (E) | 1 |
| MP60 | 8930027890 | 946 earth spring | 1 |
| MP61 | 8930001450 | Sponge (P) | 1 |

* Refer to Section 9 BOARD LAYOUTS.





[PA UNIT]

| REF. NO. | ORDER NO. | DESCRIPTION | QTY. |
|----------|------------|---------------------------|------|
| MP1 | 8930014140 | Earth spring (D) | 1 |
| MP7* | 8510012310 | 2157 DBM case | 1 |
| MP8* | 8510013620 | 2355 A-filter case | 1 |
| MP9* | 8510002020 | MIX shield case | 1 |
| MP10* | 8510012310 | 2157 DBM case | 1 |
| MP11* | 8510013390 | 2355 MIX case | 1 |
| MP12* | 8510013890 | 2355 V-A shield plate | 1 |
| MP13* | 8510013630 | 2355 U-A shield plate | 1 |
| MP14 | 8510010460 | 1691 main shield plate | 1 |
| MP15 | 8510010460 | 1691 main shield plate | 1 |
| MP16 | 8860001130 | 2177 rug | 1 |
| MP17* | 8510002020 | MIX shield case | 1 |
| MP19 | 8930054530 | 2355 earth spring | 1 |
| MP20 | 8930014140 | Earth spring (D) | 1 |
| MP21* | 8510013560 | 2355 U-L plate | 1 |
| MP22* | 8510013680 | 2355 U-R plate | 1 |
| MP23 | 8930017190 | Earth spring (F) | 1 |
| MP24 | 8930054530 | 2355 earth spring | 1 |
| MP25 | 8930017200 | 752 earth spring | 1 |
| MP26 | 8510004650 | 505 shield palte | 1 |
| MP27 | 8930014140 | Earth spring (D) | 1 |
| MP28 | 8930014140 | Earth spring (D) | 1 |
| MP29 | 8930017190 | Earth spring (F) | 1 |
| MP30 | 8510002280 | VCO shield plate (A) | 1 |
| MP31 | 8930014140 | Earth spring (D) | 1 |
| MP32 | 8930017200 | 752 earth spring | 1 |
| MP33 | 8930017200 | 752 earth spring | 1 |
| MP34 | 8930017190 | Earth spring (F) | 1 |
| MP38 | 8930006930 | 365 earth spring | 1 |
| MP39 | 8930050150 | Thermally sheet (K) | 1 |
| MP40 | 8930014140 | Earth spring (D) | 1 |
| MP41* | 8930024170 | Earth spring (G) | 1 |
| MP42 | 8510002280 | VCO shield plate (A) | 1 |
| MP43 | 8930006930 | 365 earth spring | 1 |
| MP300 | 8950000180 | Cable tie -80 | 1 |
| MP301 | 8950000180 | Cable tie -80 | 1 |
| MP501* | 8510012310 | 2157 DBM case | 1 |
| MP502* | 8510012310 | 2157 DBM case | 1 |
| MP511* | 8510002020 | MIX shield case | 1 |
| MP651 | 8860000100 | Earth rug B2 (M2.6) AG BS | 1 |

[PLL UNIT]

| REF. NO. | ORDER NO. | DESCRIPTION | QTY. |
|----------|------------|----------------------|------|
| MP1* | 8510013510 | 2355 VCO case | 1 |
| MP2* | 8510013510 | 2355 VCO case | 1 |
| MP7* | 8510011160 | 1897 PLL shield case | 1 |
| MP8* | 8510010850 | 1897 D/A case | 1 |
| MP9* | 8510011160 | 1897 PLL shield case | 1 |
| MP10* | 8510010850 | 1897 D/A case | 1 |
| MP11 | 8930043110 | Rubber sheet (AD) | 1 |

[MAIN UNIT]

| REF. NO. | ORDER NO. | DESCRIPTION | QTY. |
|----------|------------|------------------|------|
| MP1 | 8930041830 | Sponge (ER) | 1 |
| MP1851 | 8930014140 | Earth spring (D) | 1 |

[DRV BOARD]

| REF. NO. | ORDER NO. | DESCRIPTION | QTY. |
|----------|------------|------------------|------|
| MP1 | 8410002390 | 2355 PA heatsink | 1 |

[UNPACKING]

| REF. NO. | ORDER NO. | DESCRIPTION | QTY. |
|----------|------------|------------------|------|
| F1 | 5210000090 | Fuse FGB 30A | 2 |
| F2 | 5210000130 | Fuse FGB 4A | 1 |
| W1 | 8900009960 | Cable OPC-657A | 1 |
| MC1 | 7700000600 | Microphone HM-12 | 1 |

[UX-910 CHASSIS PARTS]

| REF. NO. | ORDER NO. | DESCRIPTION | QTY. |
|----------|------------|-----------------------|------|
| J1 | 6510000330 | Connector NR-DS | 1 |
| MP1 | 8010018161 | 2356 case-1 | 1 |
| MP2 | 8110007260 | 2356 cover | 1 |
| MP3 | 8930052450 | 2355 earth plate | 1 |
| MP5 | 8810008660 | PH BT M3 X 8 NI-ZU | 2 |
| MP7 | 8810008660 | PH BT M3 X 8 NI-ZU | 8 |
| MP8 | 8810008660 | PH BT M3 X 8 NI-ZU | 14 |
| MP9 | 8810007230 | Setscrew H M3 X 8 | 4 |
| MP10 | 8310049280 | Serial No seal UX-910 | 1 |
| MP11 | 8930053470 | Thermmaly sheet (R) | 1 |
| MP12 | 8930053930 | Thermmaly sheet (S) | 1 |
| MP14 | 8930001180 | Earth holder | 1 |
| MP15 | 8930054190 | Two sided tape (AB) | 1 |
| MP16 | 8930054520 | Shield sponge (E) | 1 |
| MP17 | 8930054980 | Ferrite sheet (L) | 1 |
| MP18 | 8930030380 | Ferrite sheet (C) | 1 |

[UX-910 MAIN UNIT]

| REF. NO. | ORDER NO. | DESCRIPTION | QTY. |
|----------|------------|------------------------|------|
| MP21x | 8510013610 | 2356 plate | 1 |
| MP22 | 8930011460 | 566 PA module holder | 1 |
| MP23 | 8930014140 | Earth spring (D) | 1 |
| MP24 | 8930054820 | Ferrite sheet (K) | 1 |
| MP31 | 8930014140 | Earth spring (D) | 1 |
| MP32 | 8930001170 | Earth spring (A) | 1 |
| MP51* | 8510013300 | 2356 shield plate | 1 |
| MP52 | 8510013310 | 2356 shield cover | 1 |
| MP53 | 8930054470 | Ferrite sheet (I) | 1 |
| MP71 | 8930001170 | Earth spring (A) | 1 |
| MP81* | 8510012400 | 2177 D/A case | 1 |
| MP91 | 8510013820 | 2356 A-shield plate | 1 |
| MP181* | 8510013720 | 2356 S-plate assembly | 1 |
| MP182 | 8510002280 | VCO shield plate (A) | 1 |
| MP183 | 8510013690 | 2356 S-plate | 1 |
| MP184 | 8930004070 | Earth spring (C) | 1 |
| MP241 | 8510013830 | 2356 B-shield plate | 1 |
| MP242 | 8930030380 | Ferrite sheet (C) | 1 |
| MP243 | 8510002280 | VCO shield plate (A) | 1 |
| MP244 | 8930054900 | 2356 earth spring | 1 |
| MP245 | 8930054900 | 2356 earth spring | 1 |
| MP251 | 8510010460 | 1691 main shield plate | 1 |
| MP281 | 8930014140 | Earth spring (D) | 1 |
| MP312 | 8950000180 | Cable tie -80 | 2 |
| MP331 | 8930054470 | Ferrite sheet (I) | 1 |
| MP501* | 8510013490 | 2356 PLL case | 1 |
| MP541* | 8510013500 | 2356 VCO case | 1 |
| MP542 | 8930021270 | VCO shield plate | 1 |
| MP543 | 8930007720 | Insulation sheet AB | 1 |
| MP544 | 8930054810 | Ferrite sheet (J) | 1 |
| MP545 | 8930043831 | Insulation sheet FF-1 | 1 |
| MP601* | 8510012750 | 1386 PLL case | 1 |
| MP602* | 8510010850 | 1897 D/A case | 1 |
| MP603 | 8930054520 | Shield sponge (E) | 1 |
| MP661 | 8930014140 | Earth spring (D) | 1 |
| MP701* | 8510000881 | 194 VCO case-1 | 1 |
| MP702 | 8510003460 | 194 VCO case cover (A) | 1 |
| MP703 | 8930038430 | 778 A-sponge | 1 |
| MP741 | 8930014140 | Earth spring (D) | 1 |

[UX-910 UNPACKING]

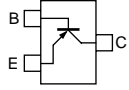
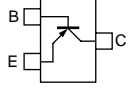
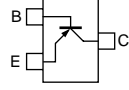
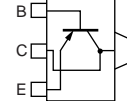
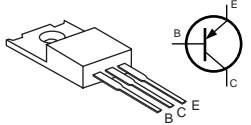
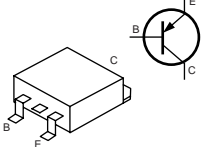
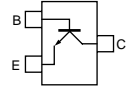
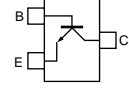
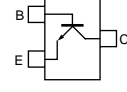
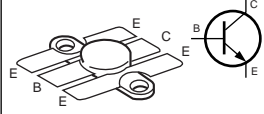
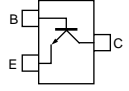
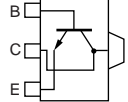
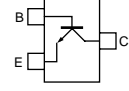
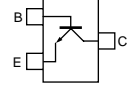
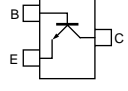
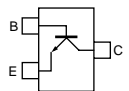
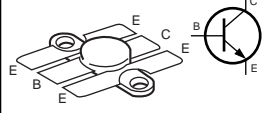
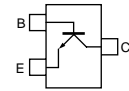
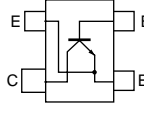
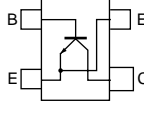
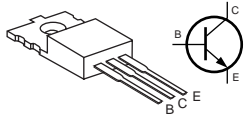
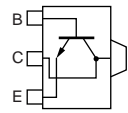
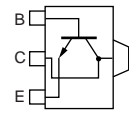
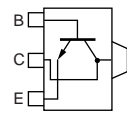
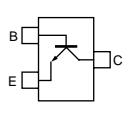
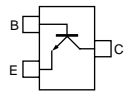
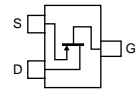
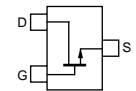
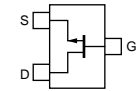
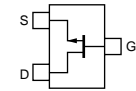
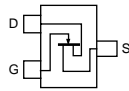
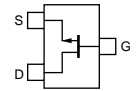
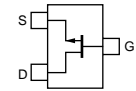
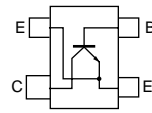
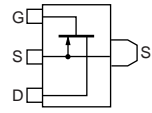
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|----------|------------|--------------------|------|
| MP1 | 8810003380 | Setscrew C M3 X 10 | 4 |

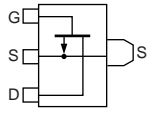
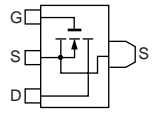
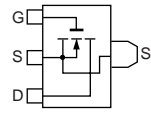
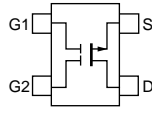
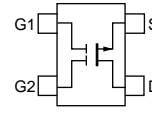
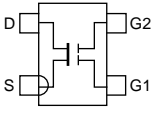
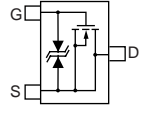
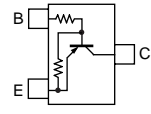
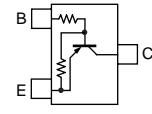
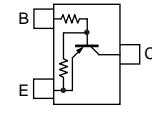
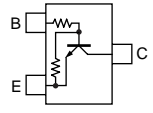
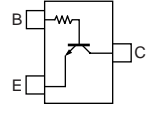
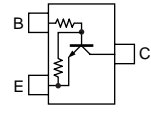
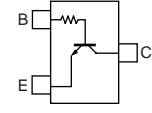
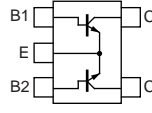
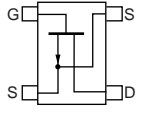
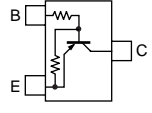
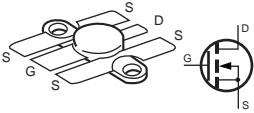
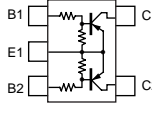
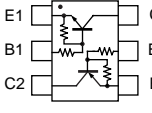
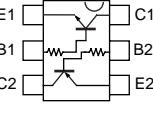
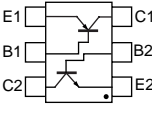
Screw abbreviations BT: Self-tapping PH: Pan head
 FH: Flat head Bih: Binding head
 NI: Nickel NI-ZU: Nickel-zinc
 BS: Brass ZK: Black

* Refer to Section 9 BOARD LAYOUTS.

SECTION 8 SEMI-CONDUCTOR INFORMATION

• TRANSISTORS AND FET'S

| | | | | |
|--------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <p>2SA1162 GR (Symbol: SG)</p>  | <p>2SA1586 GR (Symbol: SG)</p>  | <p>2SA1588 GR (Symbol: ZG)</p>  | <p>2SB1132 T100 R (Symbol: BAR)</p>  | <p>2SB1133 R (Symbol: B1133)</p>  |
| <p>2SB1201 S (Symbol: B1201)</p>  | <p>2SC2712 BL (Symbol: BL)</p>  | <p>2SC2712 GR (Symbol: LG)</p>  | <p>2SC2714 O (Symbol: QO)</p>  | <p>2SC3102 (Symbol: None)</p>  |
| <p>2SC3356 T2B (Symbol: R24)</p>  | <p>2SC3357 T2 (Symbol: RK)</p>  | <p>2SC4081 T107 R (Symbol: BR)</p>  | <p>2SC4116 GR (Symbol: LG)</p>  | <p>2SC4215 O (Symbol: QO)</p>  |
| <p>2SC5107 O (Symbol: MFO)</p>  | <p>2SC5125</p>  | <p>2SC5193 T1 (Symbol: T88)</p>  | <p>2SC5454 R54 (Symbol: R54)</p>  | <p>2SC5508 (Symbol: T79)</p>  |
| <p>2SD1585 K (Symbol: None)</p>  | <p>2SD1619 T TD (Symbol: DB)</p>  | <p>2SD1664 T100Q (Symbol: DAQ)</p>  | <p>2SD1801 S TL (Symbol: CE)</p>  | <p>2SD2216 S (Symbol: Y)</p>  |
| <p>2SD2345 S (Symbol: 1Z)</p>  | <p>2SJ364 Q (Symbol: 4MQ)</p>  | <p>2SK302 Y (Symbol: TY)</p>  | <p>2SK508 K52 T2B (Symbol: K52)</p>  | <p>2SK880 Y (Symbol: XY)</p>  |
| <p>2SK882 GR (Symbol: TGR)</p>  | <p>2SK1577 2 T7 (Symbol: P2)</p>  | <p>2SK1740 (Symbol: IJ)</p>  | <p>2SK1829 (Symbol: K1)</p>  | <p>2SK2854 (Symbol: UP)</p>  |

| | | | | |
|---------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <p>2SK2855 (Symbol: UT)</p>  | <p>2SK2973 (Symbol: K1)</p>  | <p>2SK2975</p>  | <p>3SK131 T2 LA (Symbol: V12)</p>  | <p>3SK177 T1B U73 (Symbol: U73)</p>  |
| <p>3SK241 R (Symbol: DU)</p>  | <p>CPH3404-TL (Symbol: KD)</p>  | <p>DTA114 EE TL (Symbol: 14)</p>  | <p>DTA114EUA T106 (Symbol: 16)</p>  | <p>DTA144EUA T106 (Symbol: 16)</p>  |
| <p>DTC114EUA T106 (Symbol: 24)</p>  | <p>DTC114TUA T106 (Symbol: 04)</p>  | <p>DTC144EUA T106 (Symbol: 26)</p>  | <p>DTC144TU T107 (Symbol: 06)</p>  | <p>FMW1 T148 (Symbol: W1)</p>  |
| <p>NE34018 T1 (Symbol: V63)</p>  | <p>RN2425 (Symbol: RE)</p>  | <p>SRFJ7044 (Symbol: SRFJ7044)</p>  | <p>XP1113 (Symbol: 7L)</p>  | <p>XP4312 (Symbol: 7T)</p>  |
| <p>XP4315 (Symbol: CB)</p>  | <p>XP4601 (Symbol: 5C)</p>  | | | |

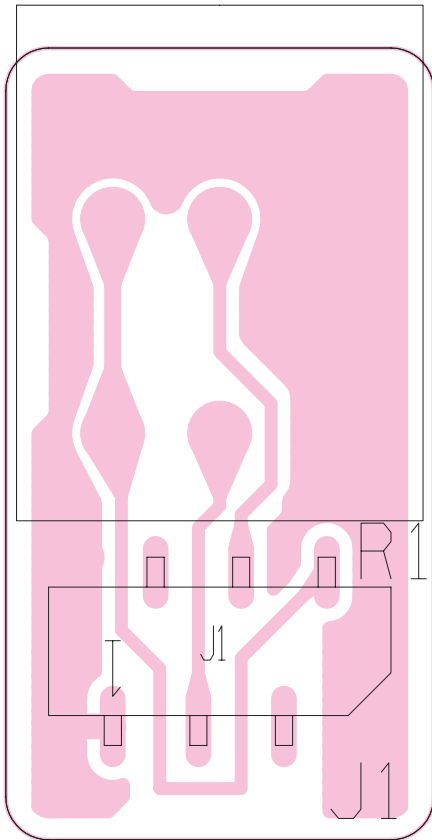
• DIODES

| | | | | |
|--------------------------------------------|-----------------------------------------------|---------------------------------------------------|----------------------------------------------|------------------------------------------|
| <p>1SS301 (Symbol: B3)</p> | <p>1SS355 (Symbol: A)</p> | <p>1SS375-TL (Symbol: FH)</p> | <p>1SS385 (Symbol: 09)</p> | <p>1SV214 (Symbol: T1)</p> |
| <p>1SV217 (Symbol: T6)</p> | <p>1SV237 (Symbol: BB)</p> | <p>1SV239 (Symbol: TC)</p> | <p>1SV265 TL (Symbol: LV)</p> | <p>1SV286 (Symbol: T7)</p> |
| <p>1SV307 (Symbol: TX)</p> | <p>1SV308 (Symbol: TX)</p> | <p>DA221 (Symbol: K)</p> | <p>DAN202 U T107 (Symbol: N)</p> | <p>DAN222TL (Symbol: N)</p> |
| <p>DAP202K T146 (Symbol: P)</p> | <p>DAP222 TL (Symbol: P)</p> | <p>HSB88WSTR (Symbol: Silver line)</p> | <p>HSM88AS TR (Symbol: C1)</p> | <p>HSU88TRF (Symbol: 9)</p> |
| <p>MA29B (Symbol: Y)</p> | <p>MA2S111 (Symbol: A)</p> | <p>MA357 (Symbol: 7K)</p> | <p>MA4PH224 (Symbol: Red dot)</p> | <p>MA728 (Symbol: 2A)</p> |
| <p>MA77 (Symbol: 4B)</p> | <p>MA8030 H (Symbol: 3^0)</p> | <p>MA8043 L (Symbol: 4_3)</p> | <p>MA8047 H (Symbol: 4^7)</p> | <p>MA8068 M (Symbol: 6-8)</p> |
| <p>MA8082 M (Symbol: 8-2)</p> | <p>RB706F-40 T106 (Symbol: 3J)</p> | <p>SB07-03C (Symbol: J)</p> | | |

SECTION 9 BOARD LAYOUTS

9-1 VR-A BOARD

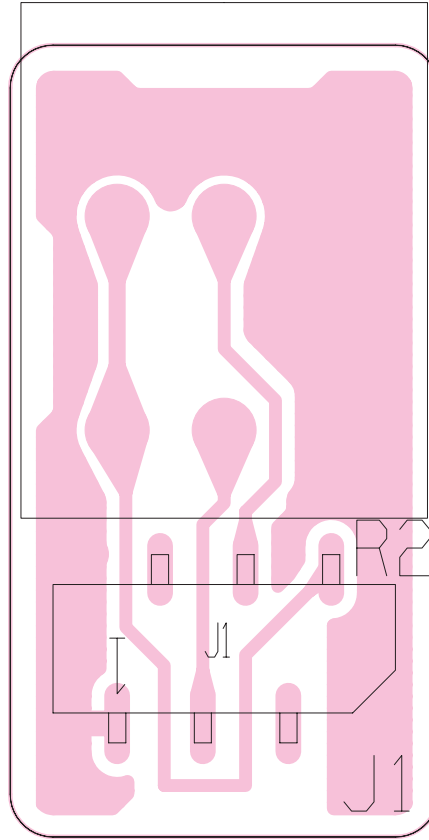
• TOP VIEW



to DISPLAY board J2

9-3 RIT BOARD

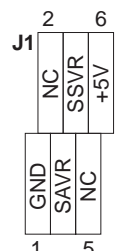
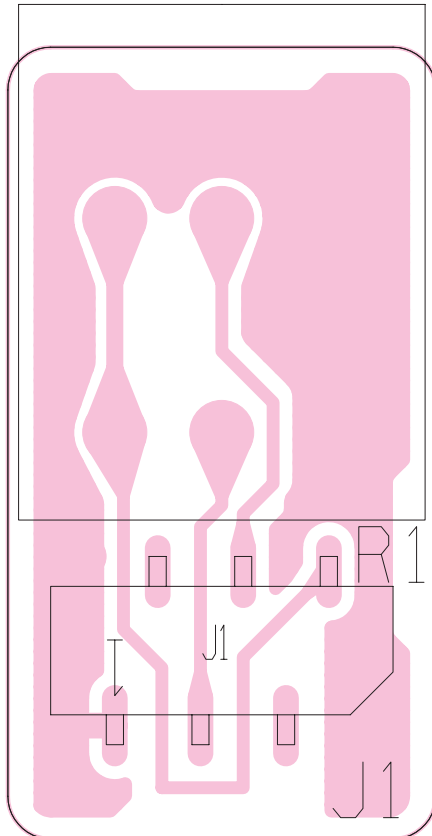
• TOP VIEW



to DISPLAY board J10

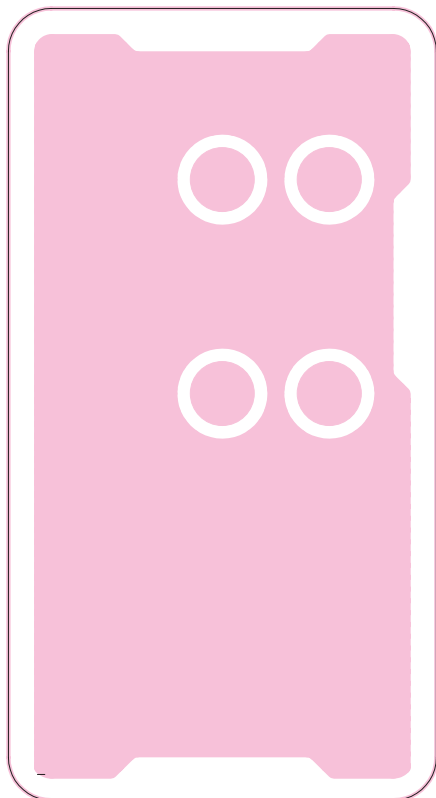
9-2 VR-B BOARD

• TOP VIEW

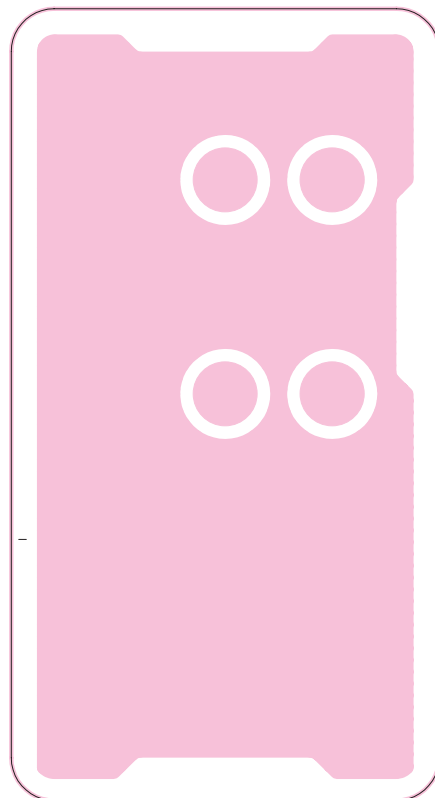


to DISPLAY board J11

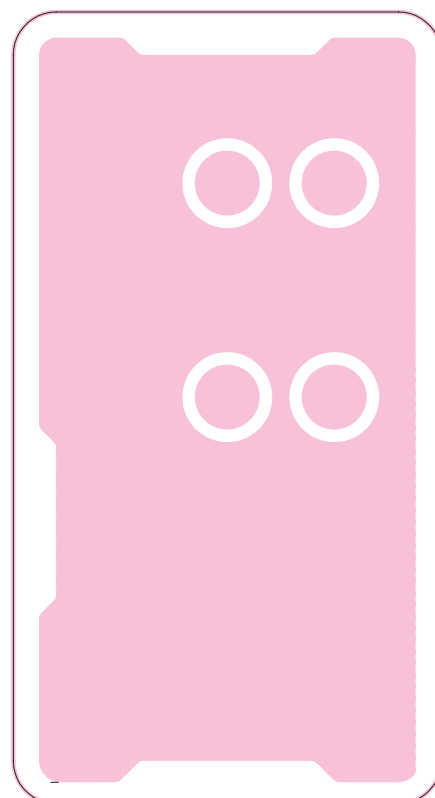
• **BOTTOM VIEW (RIT BOARD)**



• **BOTTOM VIEW (VR-A BOARD)**

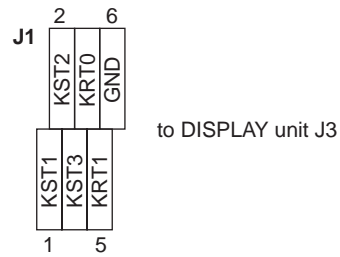
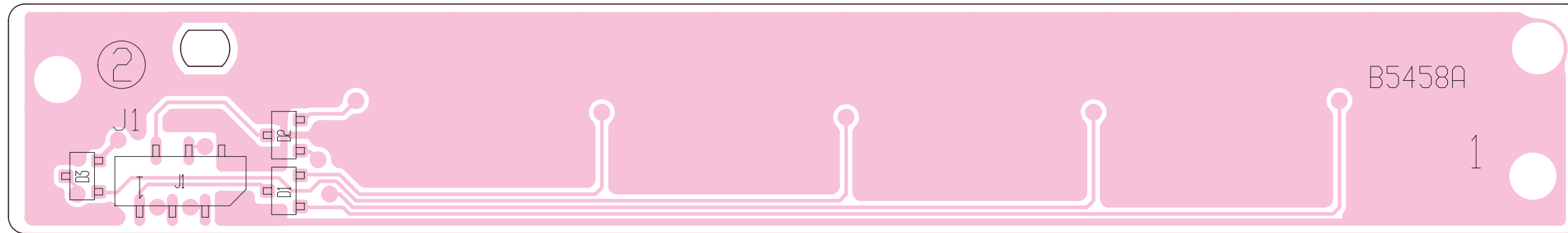


• **BOTTOM VIEW (VR-B BOARD)**



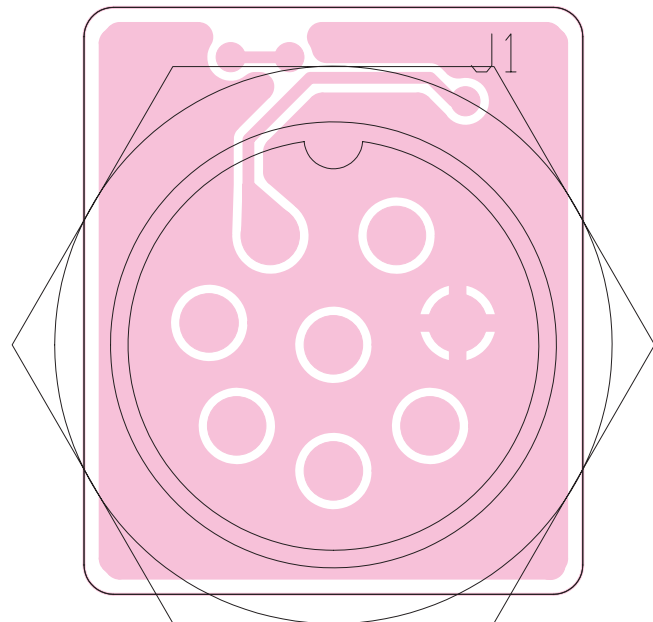
9-4 FUNC BOARD

• TOP VIEW



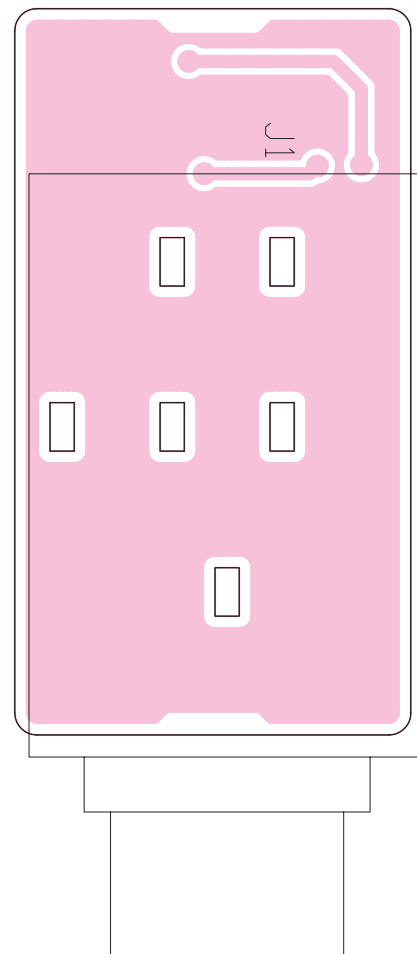
9-5 MIC BOARD

• TOP VIEW



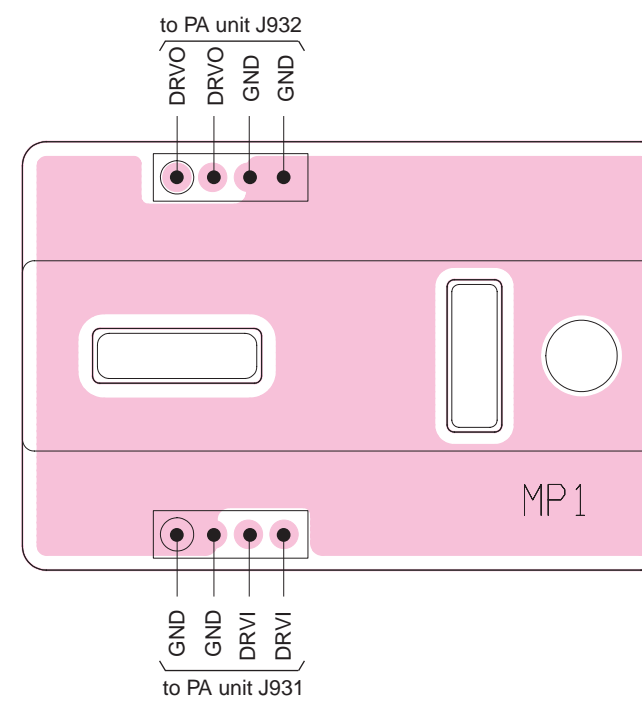
9-6 JACK BOARD

• TOP VIEW



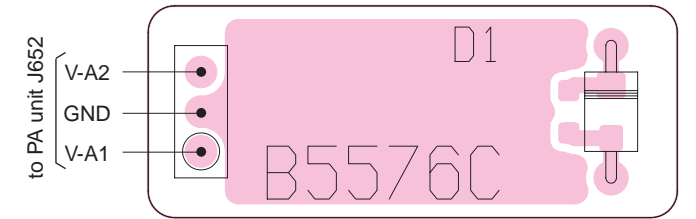
9-7 DRV BOARD

• TOP VIEW



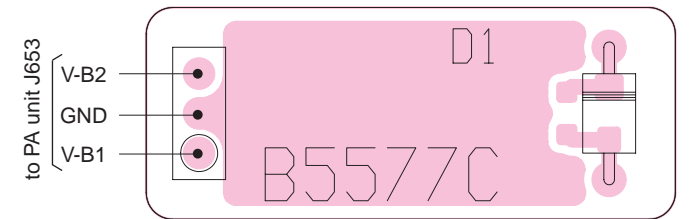
9-8 VARISTOR-A BOARD

• TOP VIEW



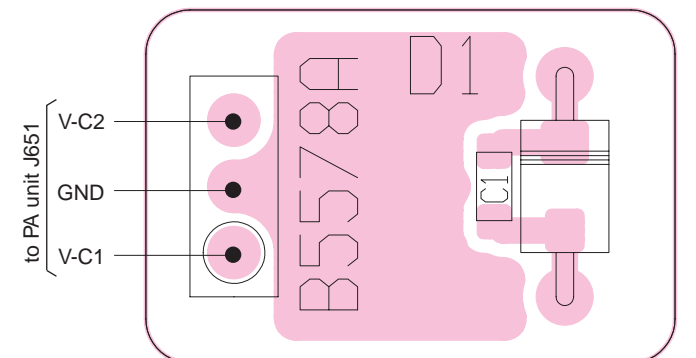
9-9 VARISTOR-B BOARD

• TOP VIEW



9-10 VARISTOR-C BOARD

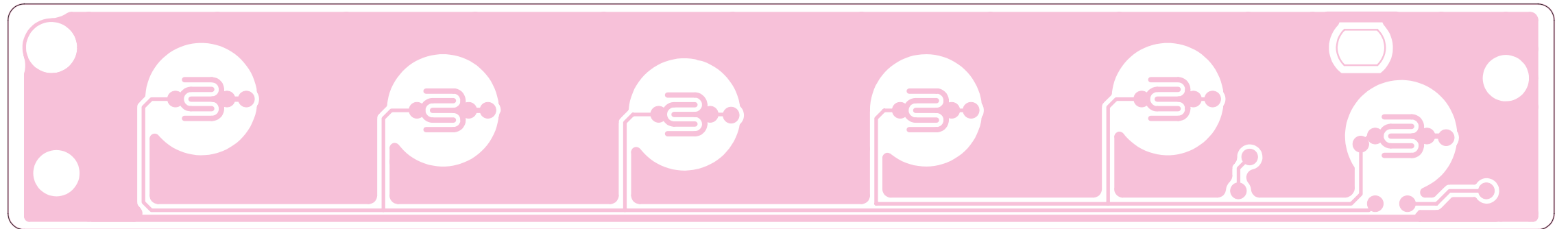
• TOP VIEW



• BOTTOM VIEW (VARISTOR-A BOARD)



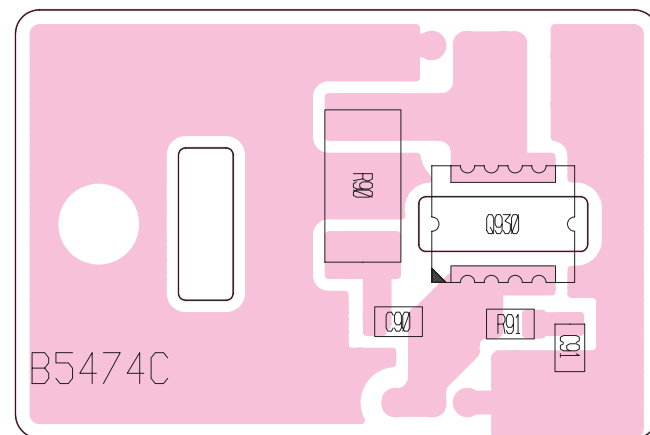
• BOTTOM VIEW (FUNC BOARD)



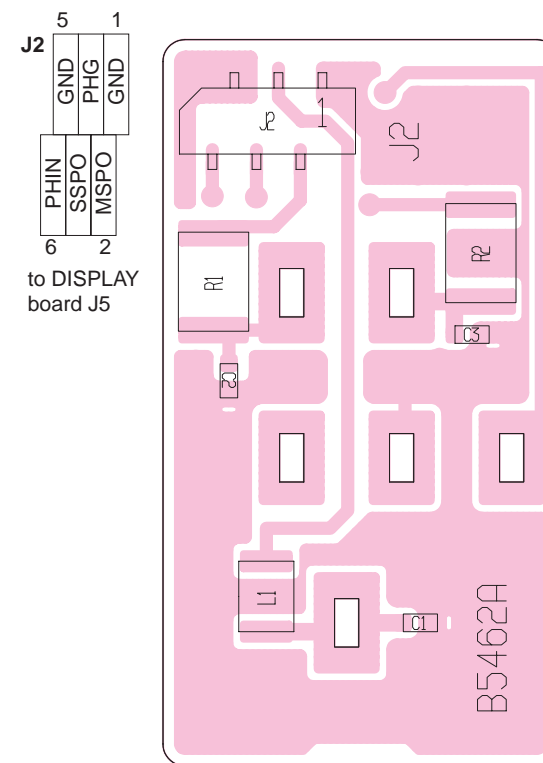
• BOTTOM VIEW (VARISTOR-B BOARD)



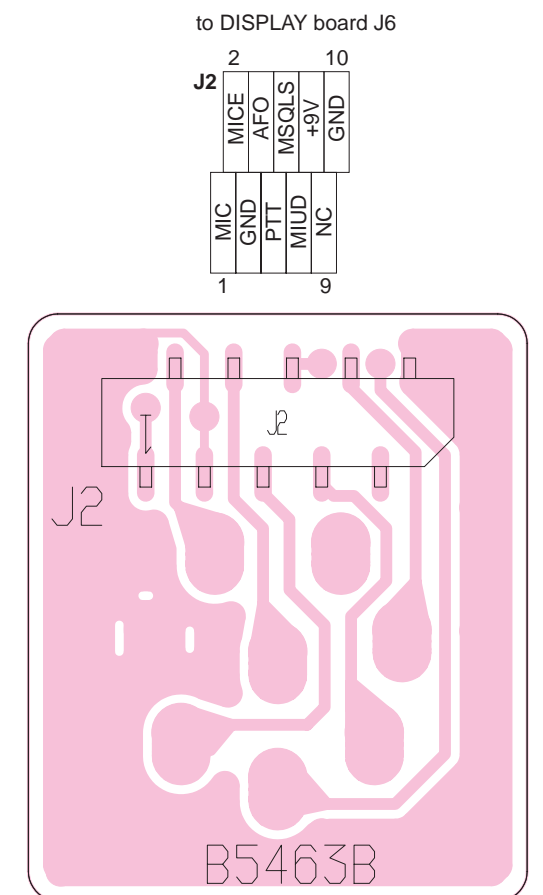
• BOTTOM VIEW (DRV BOARD)



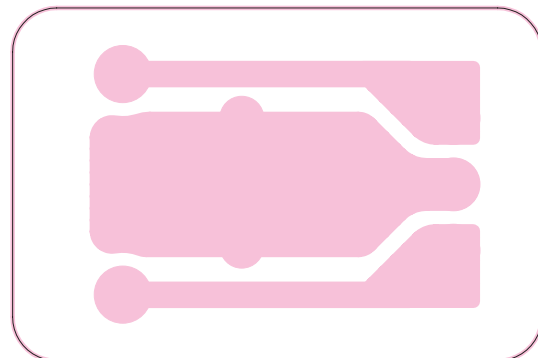
• BOTTOM VIEW (JACK BOARD)



• BOTTOM VIEW (MIC BOARD)

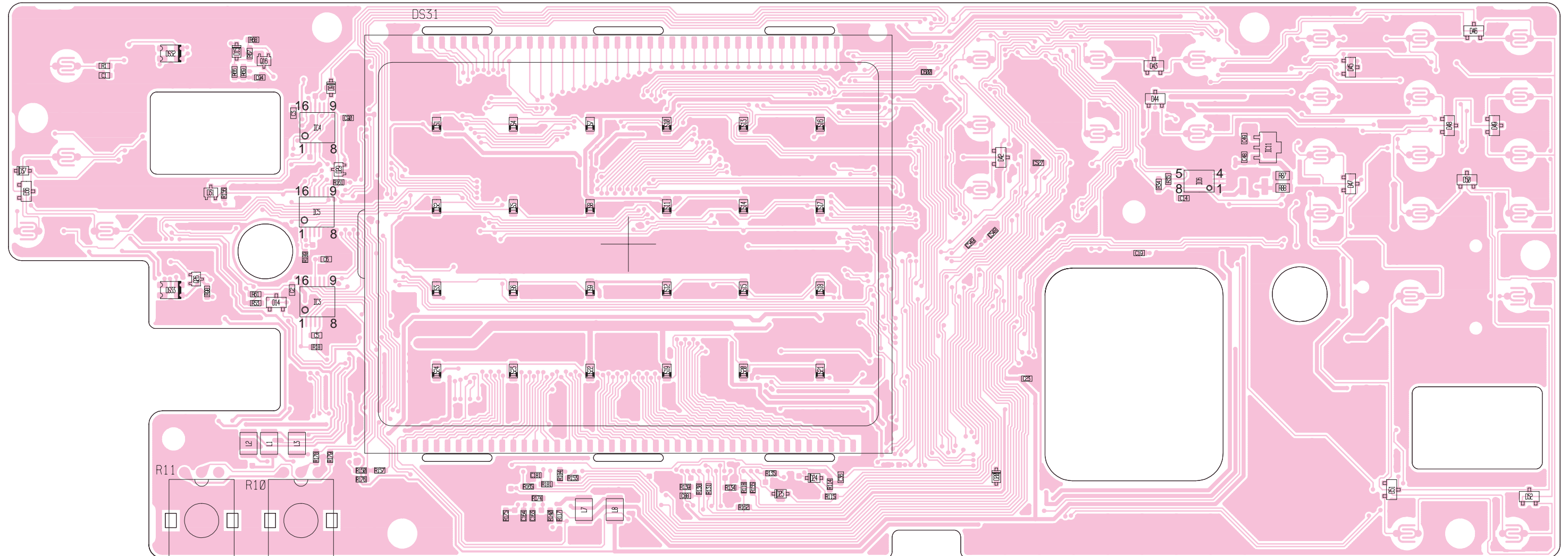


• BOTTOM VIEW (VARISTOR-C BOARD)



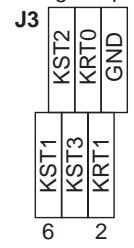
9-11 DISPLAY BOARD

• TOP VIEW

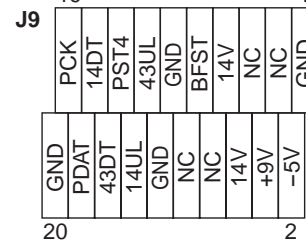


• BOTTOM VIEW (DISPLAY BOARD)

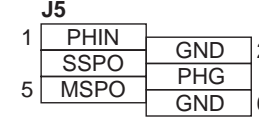
to FUNC board J1



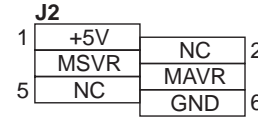
to PLL unit J1



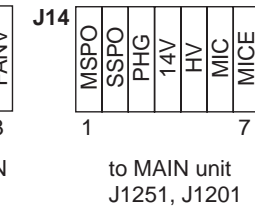
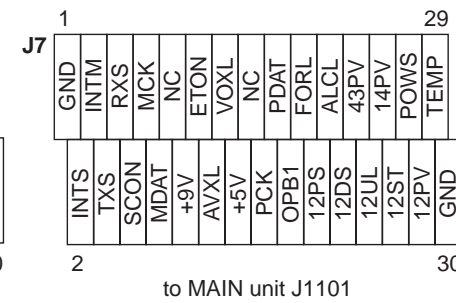
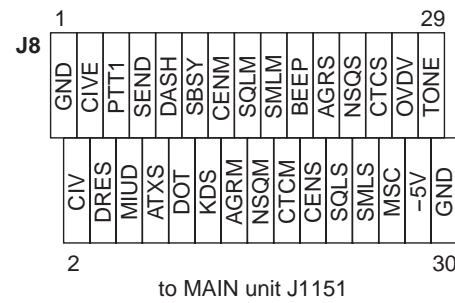
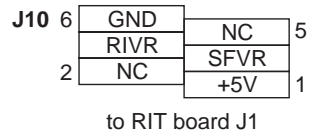
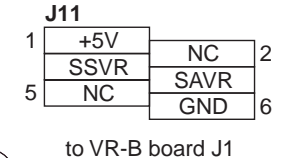
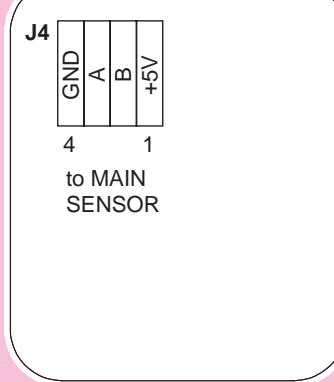
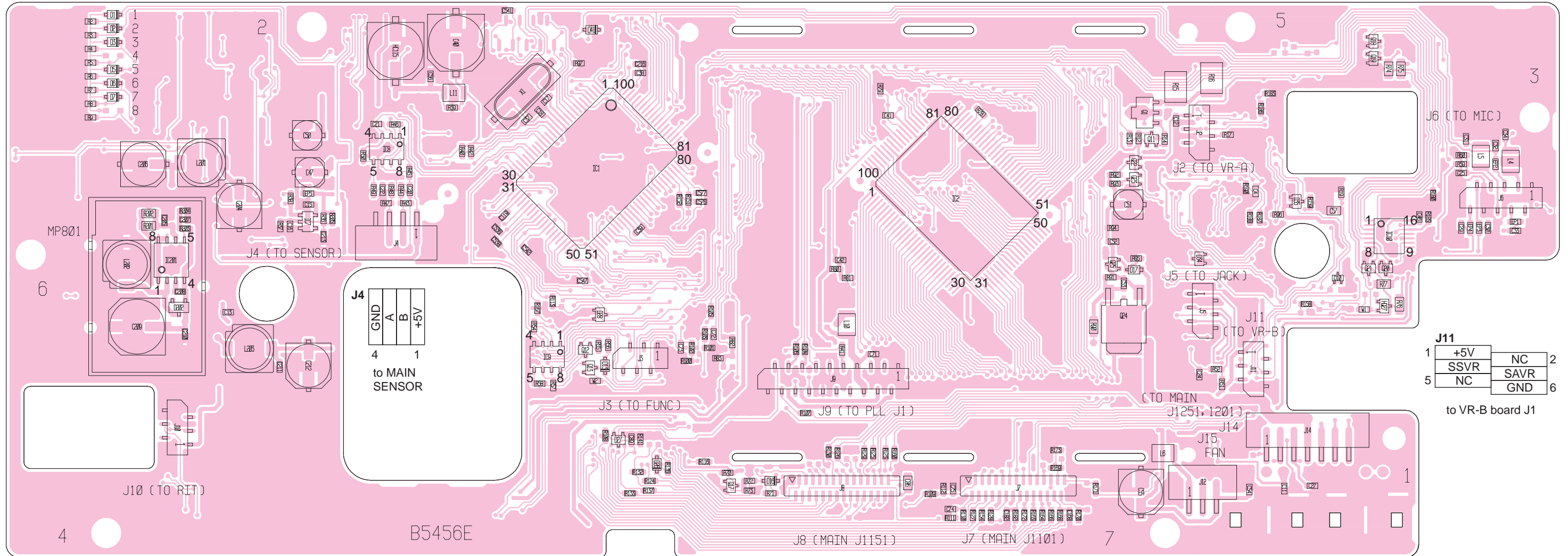
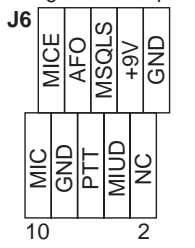
to JACK board J2



to VR-A board J1

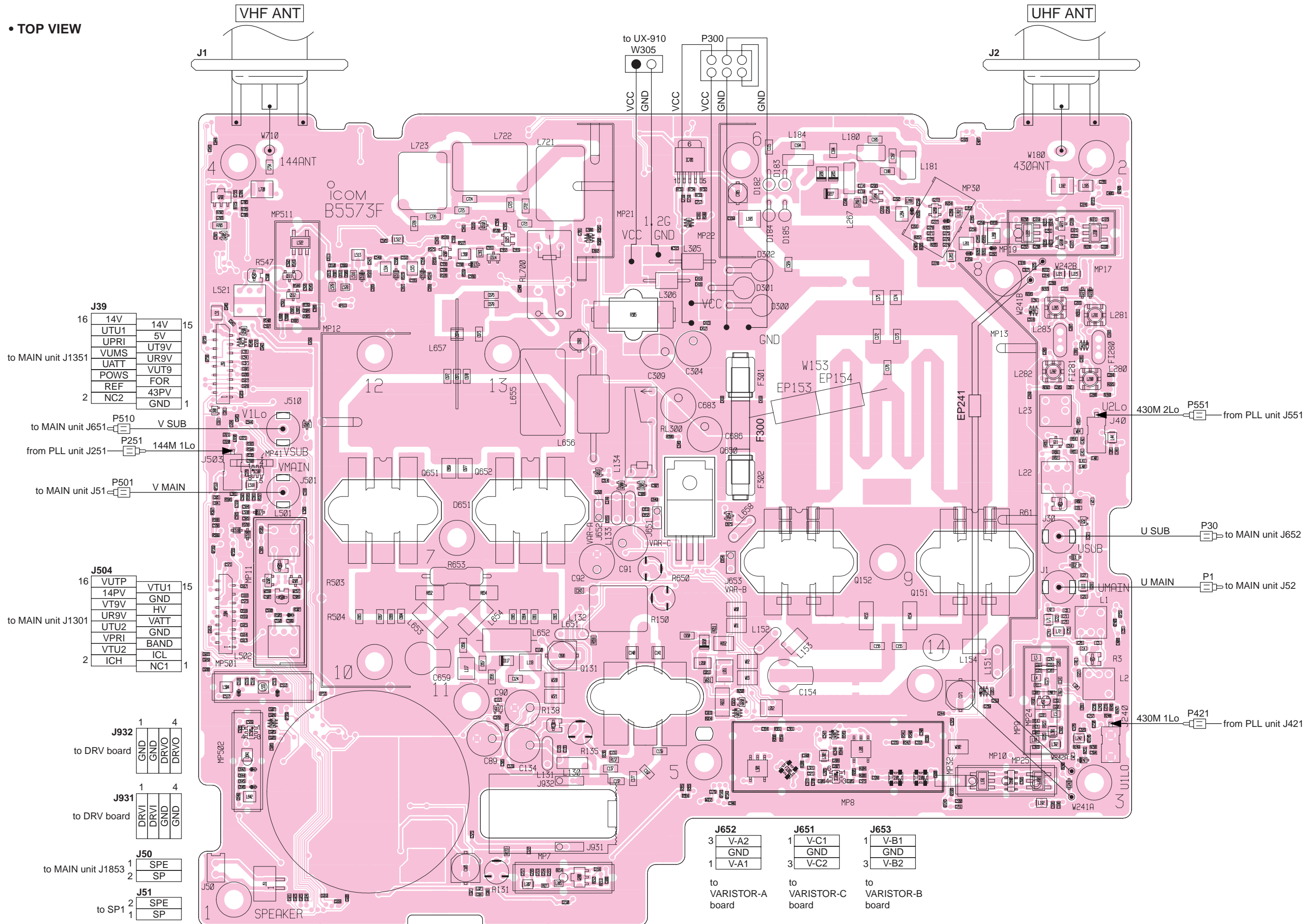


to MIC board J2

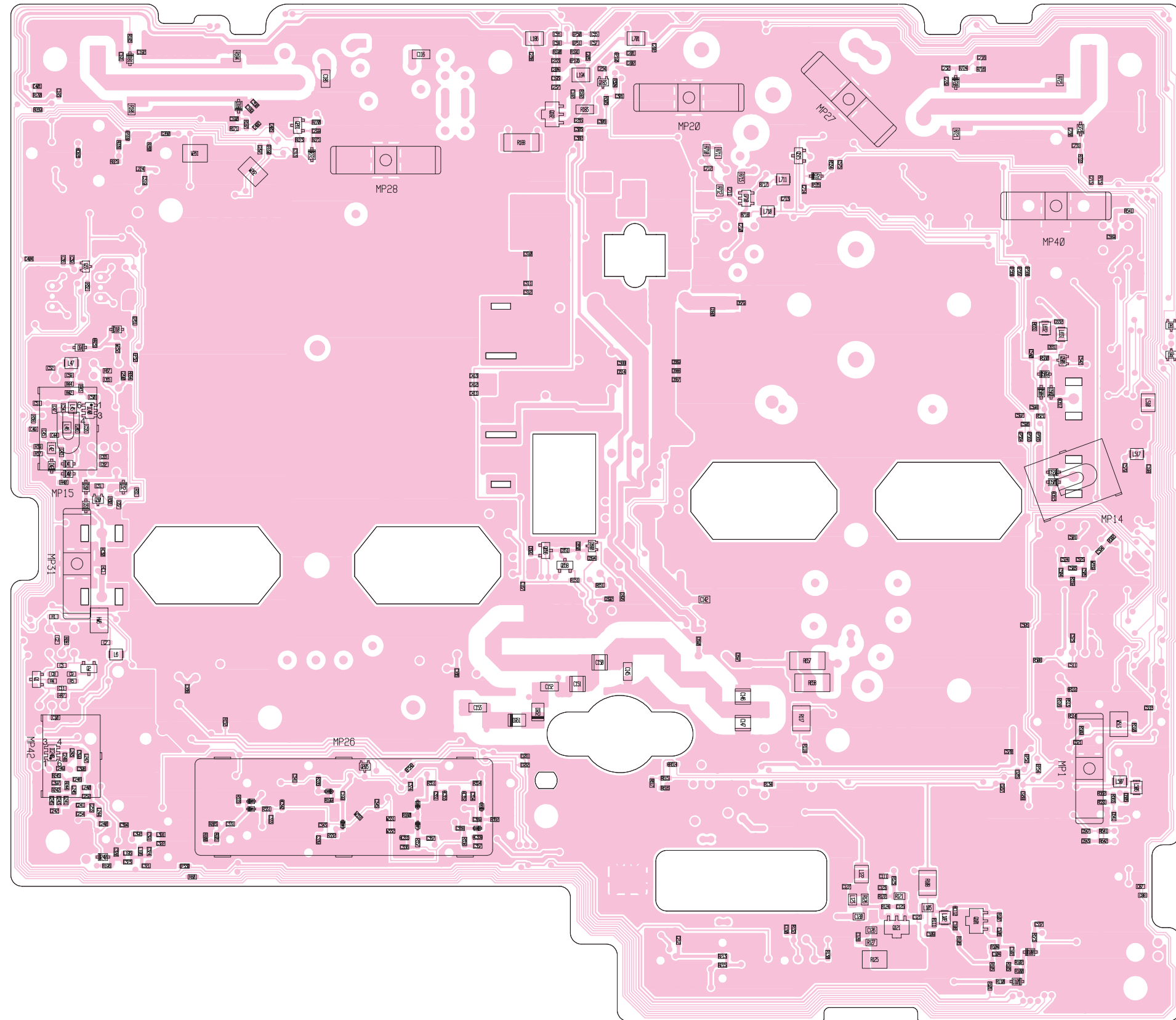


9-12 PA UNIT

• TOP VIEW

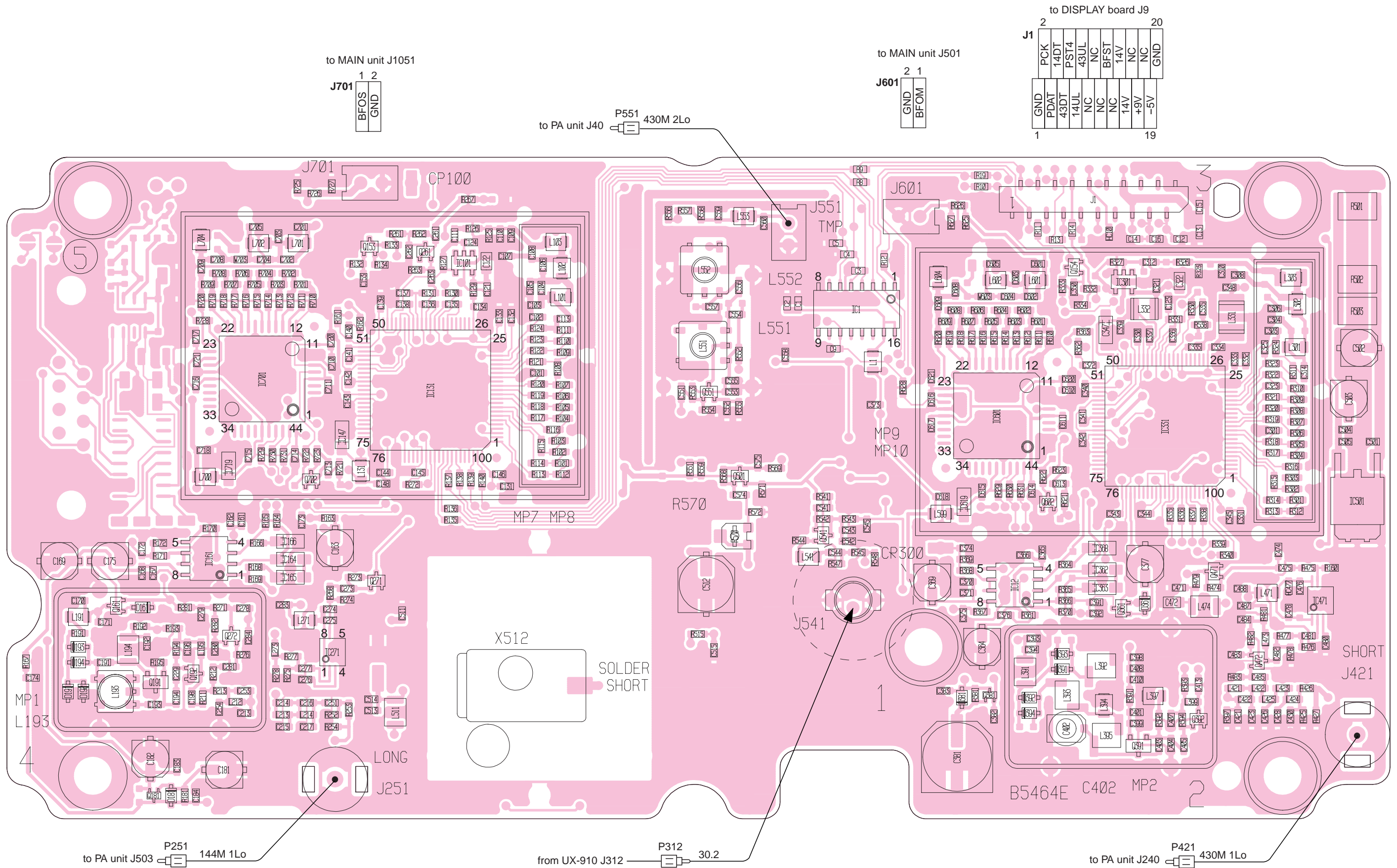


• BOTTOM VIEW (PA UNIT)

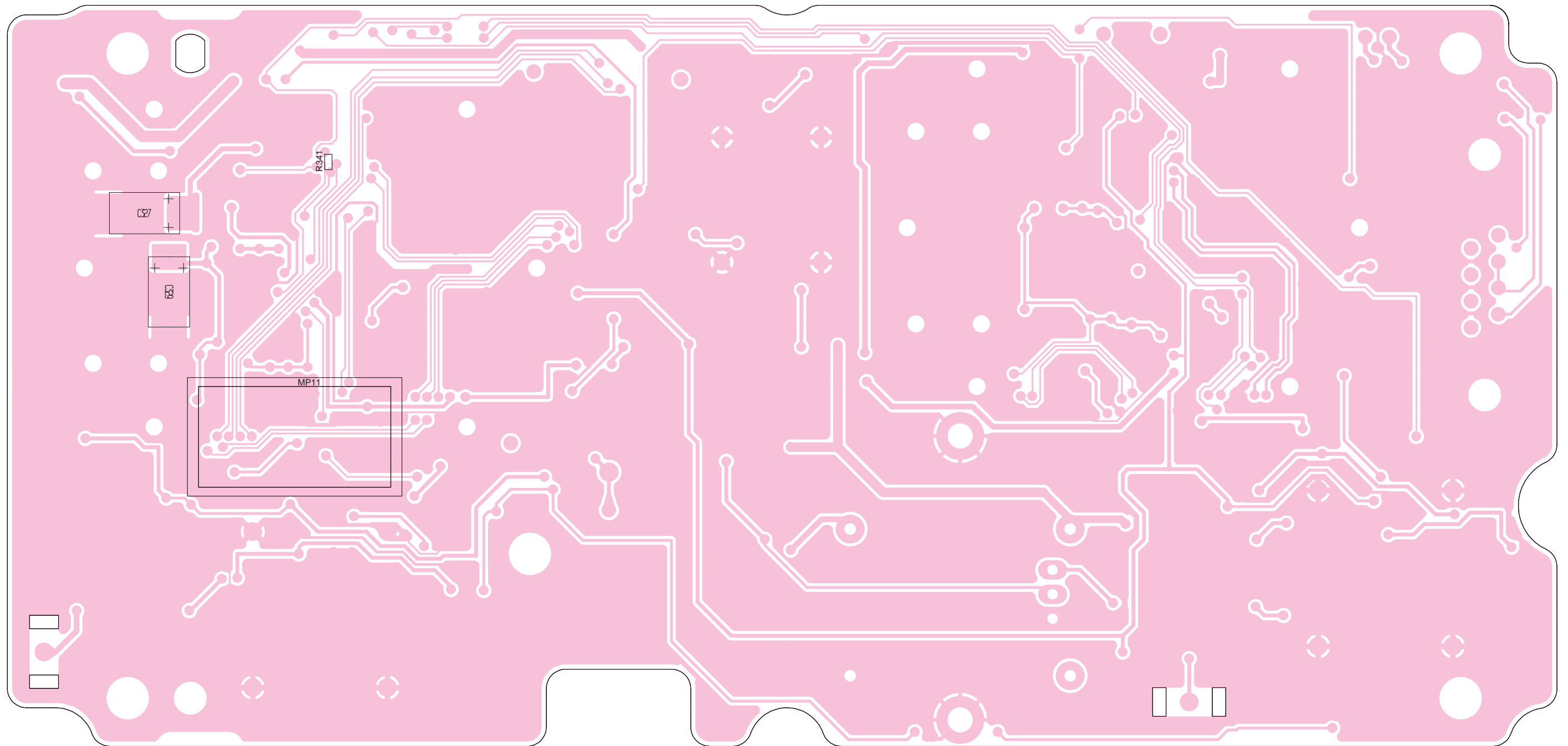


9-13 PLL UNIT

• TOP VIEW

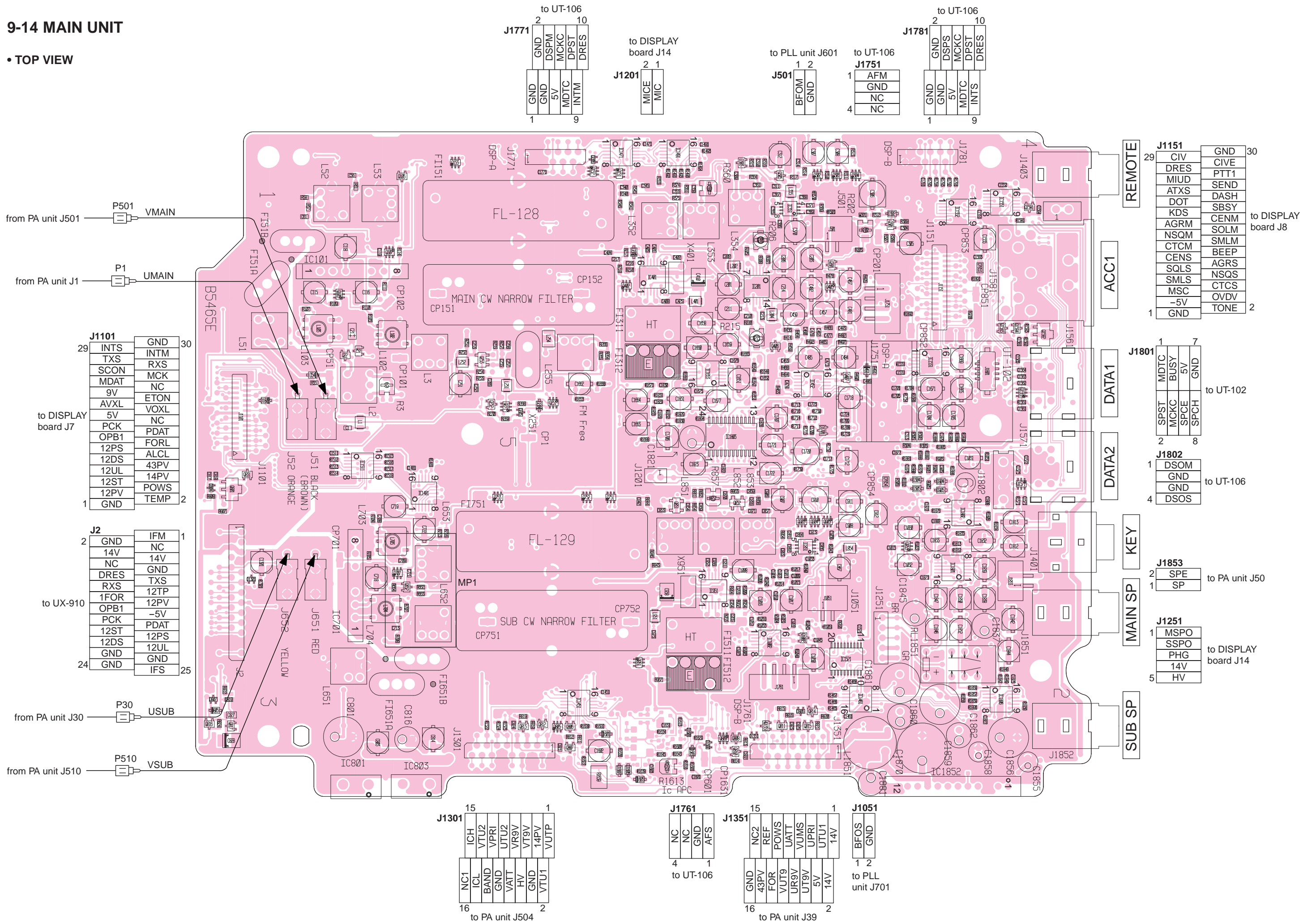


• BOTTOM VIEW (PLL UNIT)

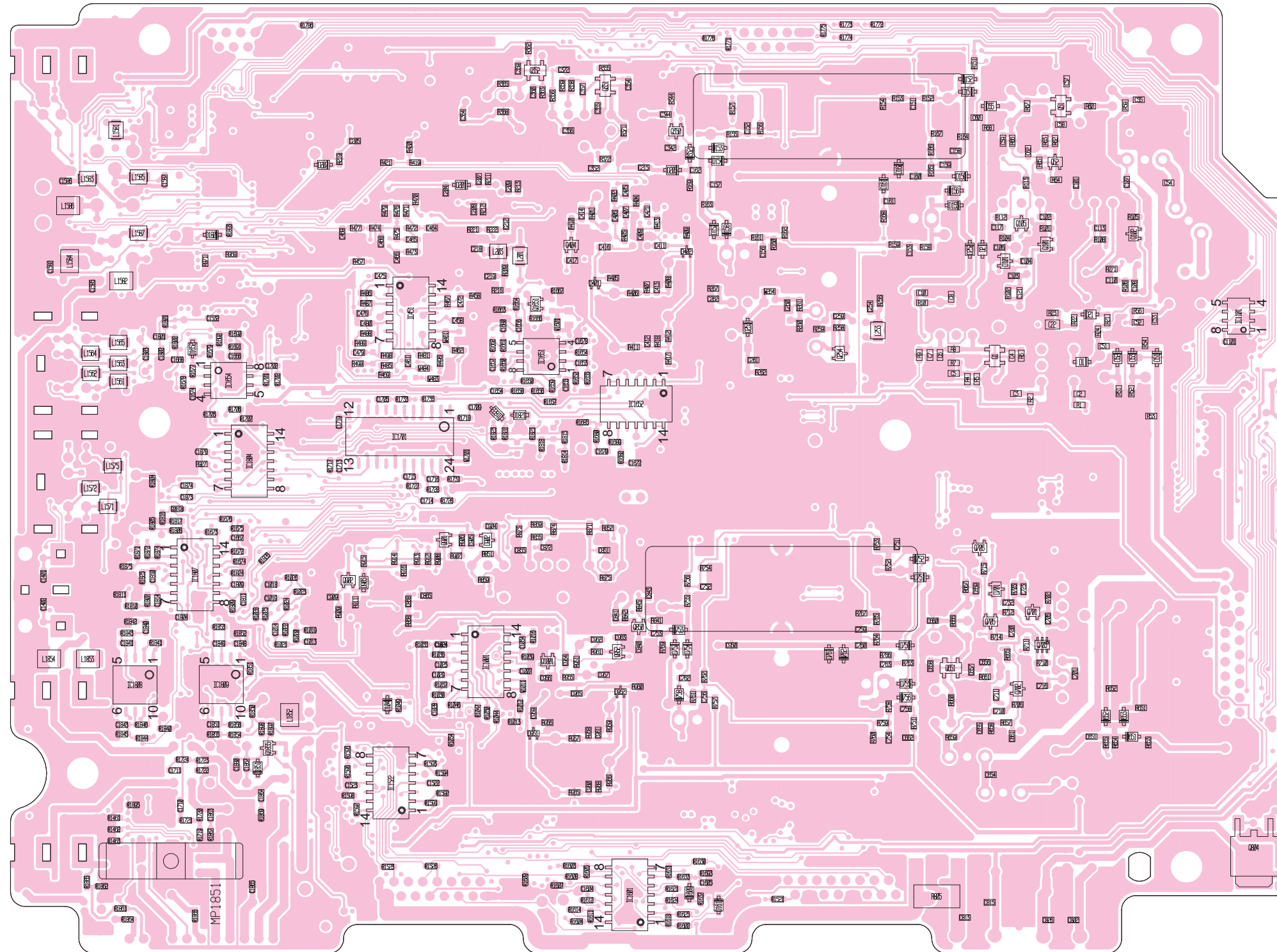


9-14 MAIN UNIT

• TOP VIEW

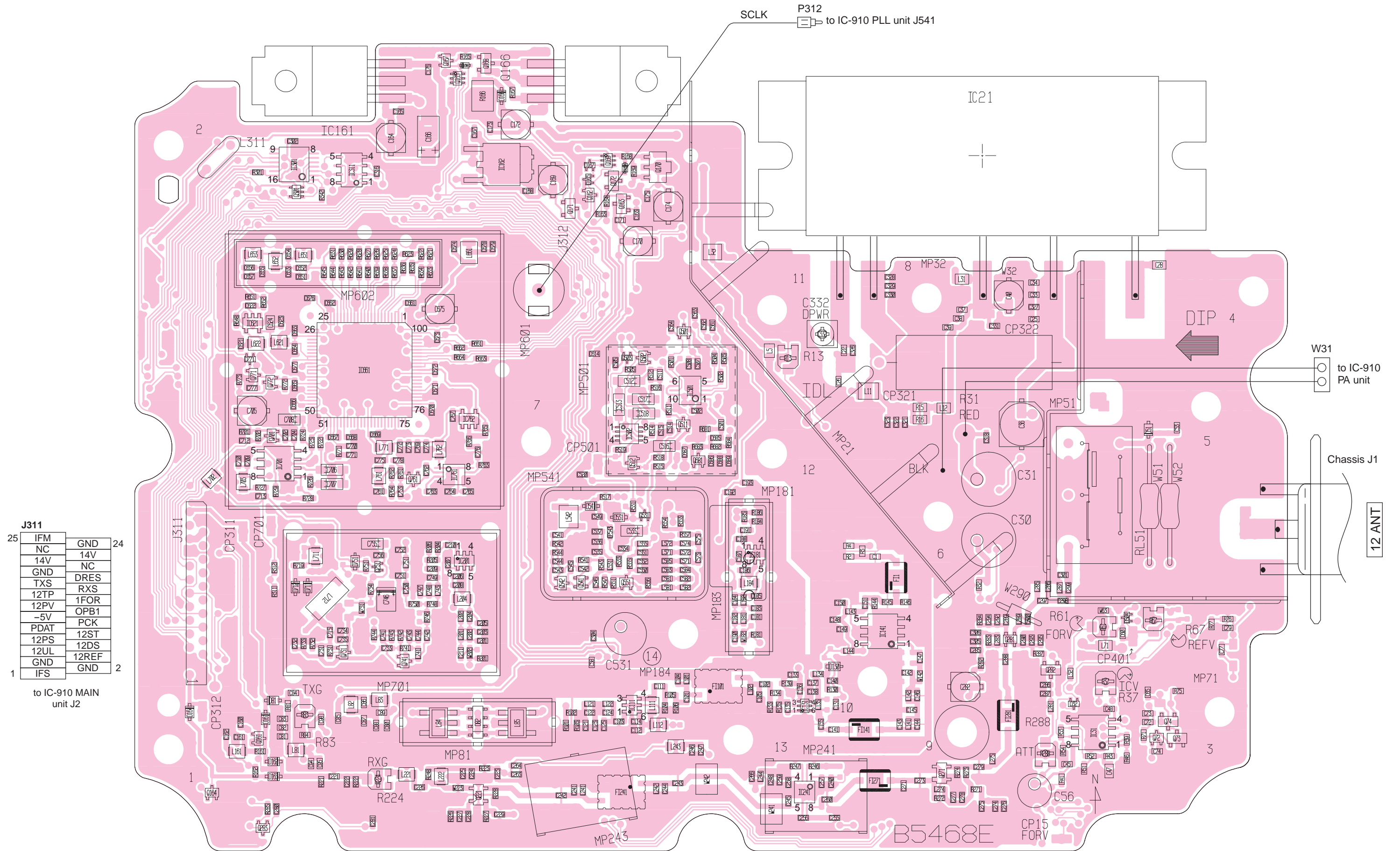


• BOTTOM VIEW (MAIN UNIT)



9-15 UX-910 MAIN UNIT

• TOP VIEW

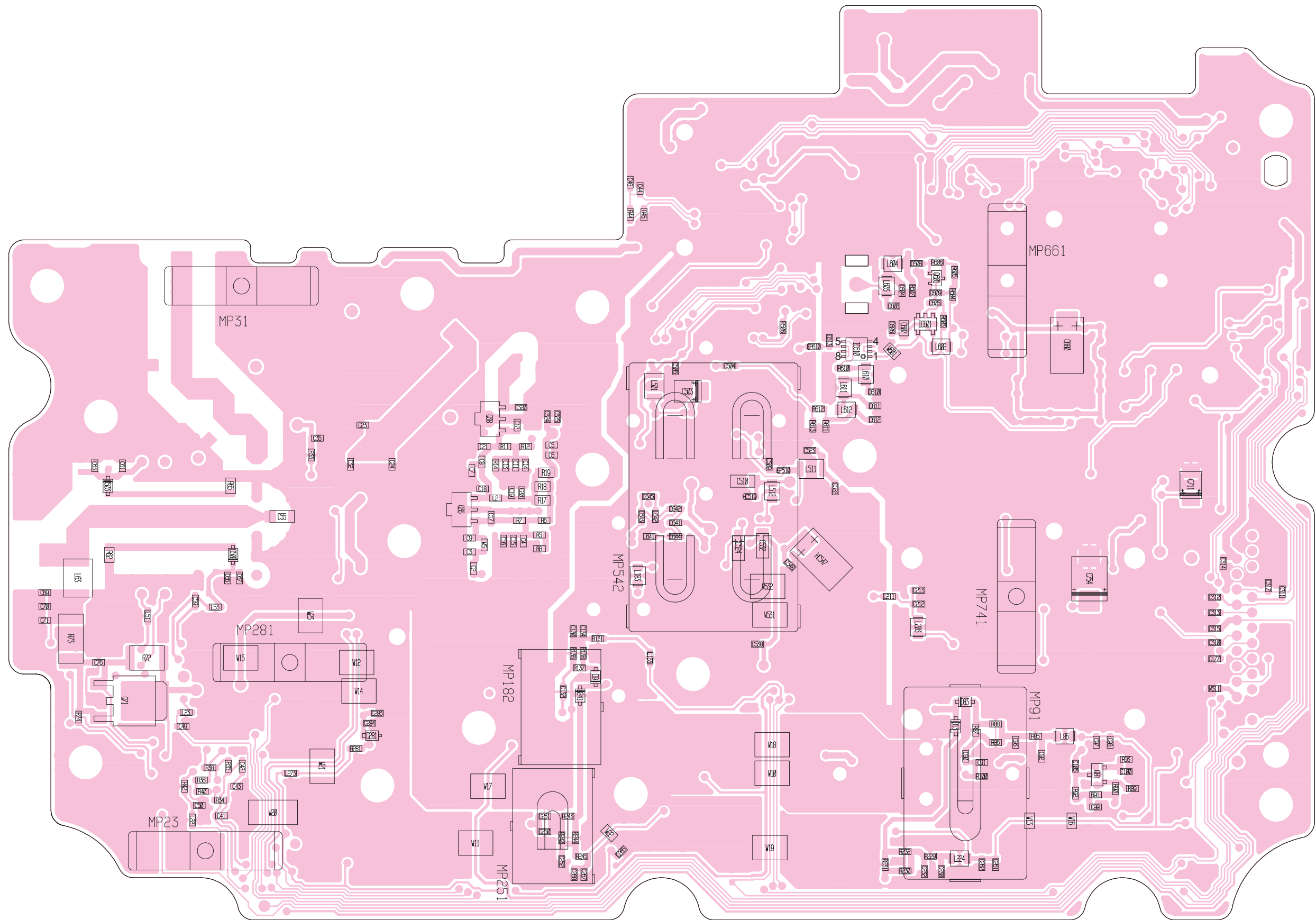


J311

| | | | |
|----|------|-------|----|
| 25 | IFM | GND | 24 |
| | NC | 14V | |
| | 14V | NC | |
| | GND | DRES | |
| | TXS | RXS | |
| | 12TP | 1FOR | |
| | 12PV | OPB1 | |
| | -5V | PCK | |
| | PDAT | 12ST | |
| | 12PS | 12DS | |
| | 12UL | 12REF | |
| 1 | GND | GND | 2 |
| | IFS | | |

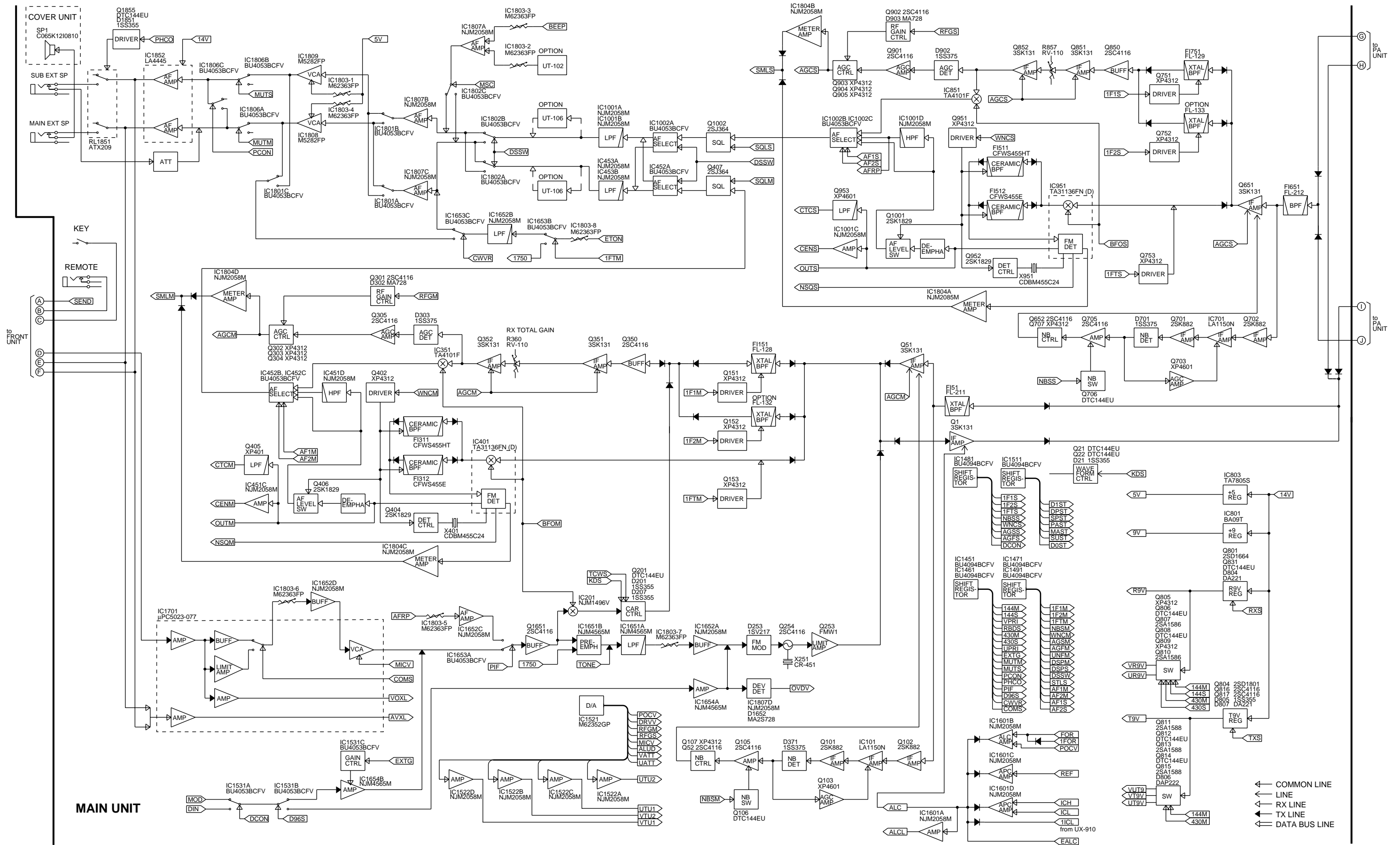
to IC-910 MAIN unit J2

• BOTTOM VIEW (UX-910 MAIN UNIT)

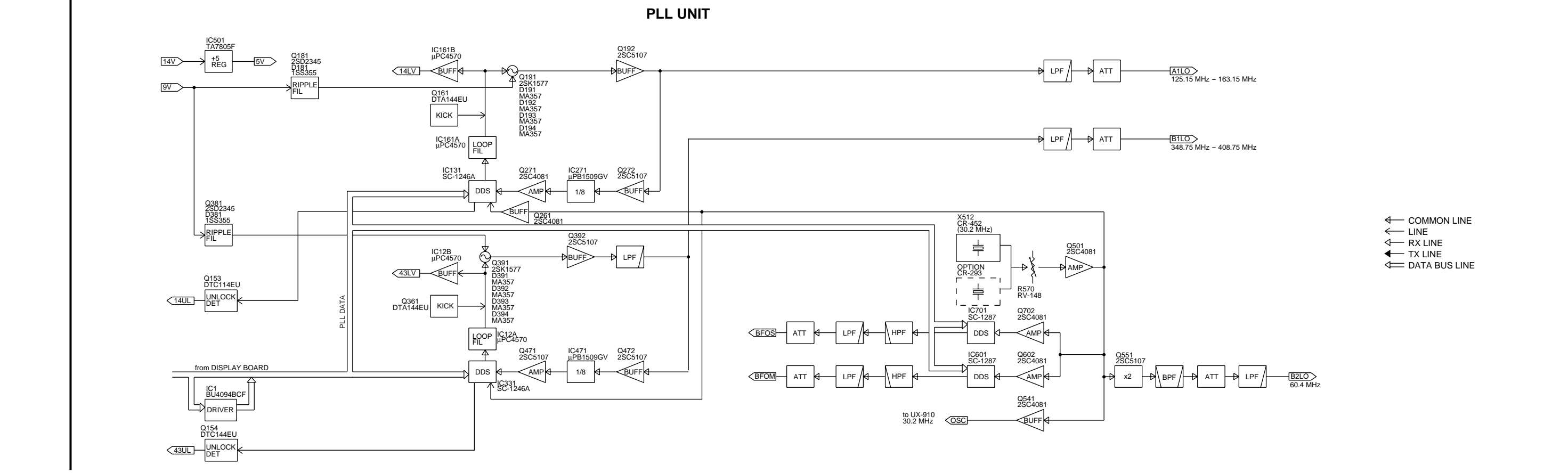
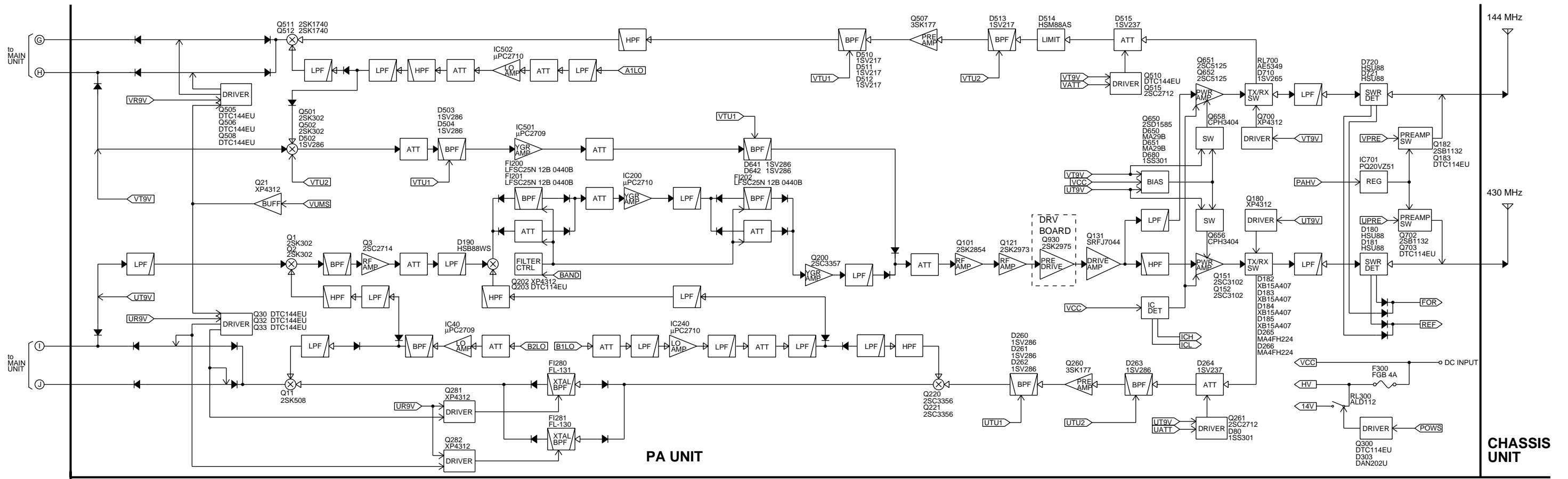


SECTION 10 BLOCK DIAGRAMS

10-1 MAIN UNIT

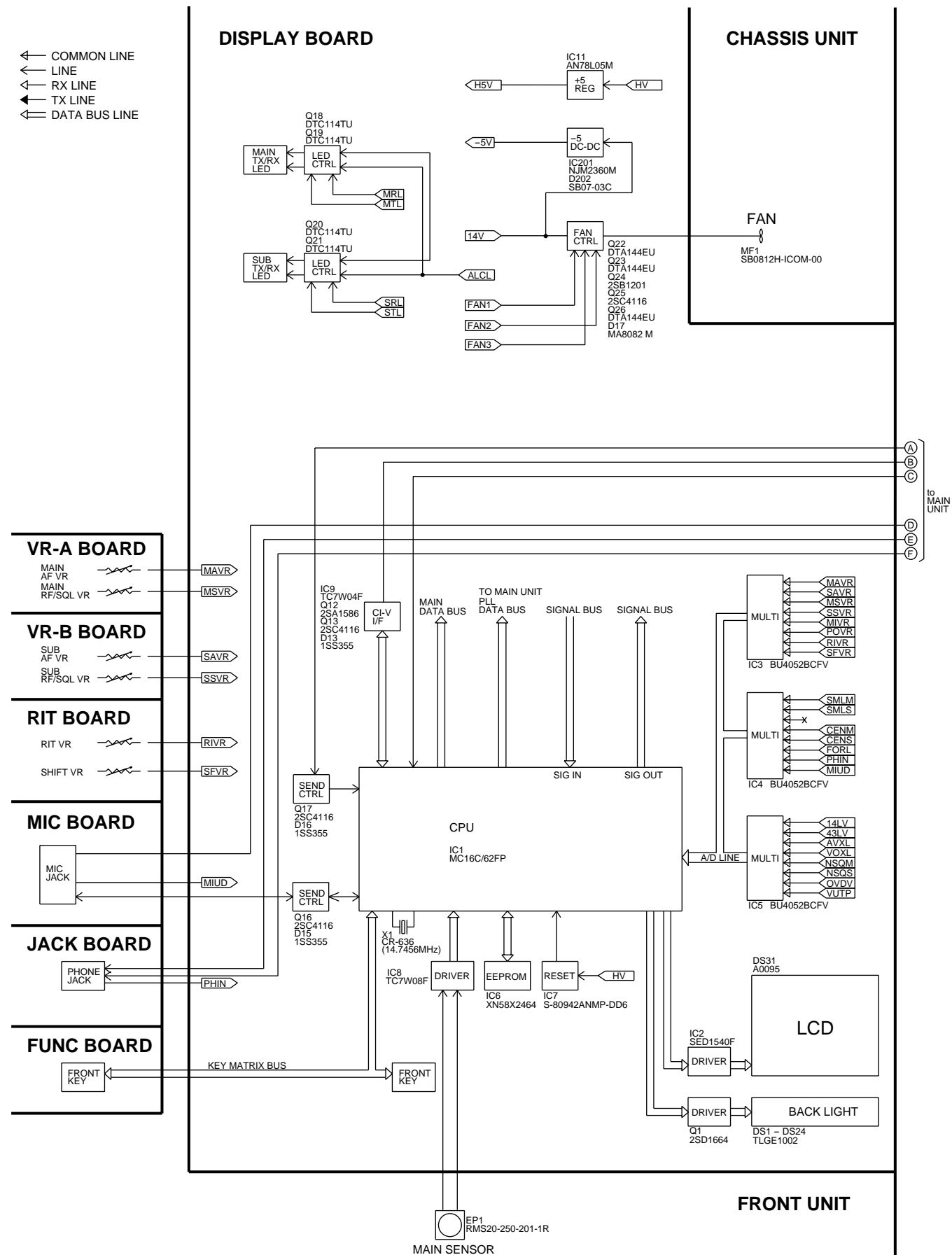


10-2 PA AND PLL UNITS

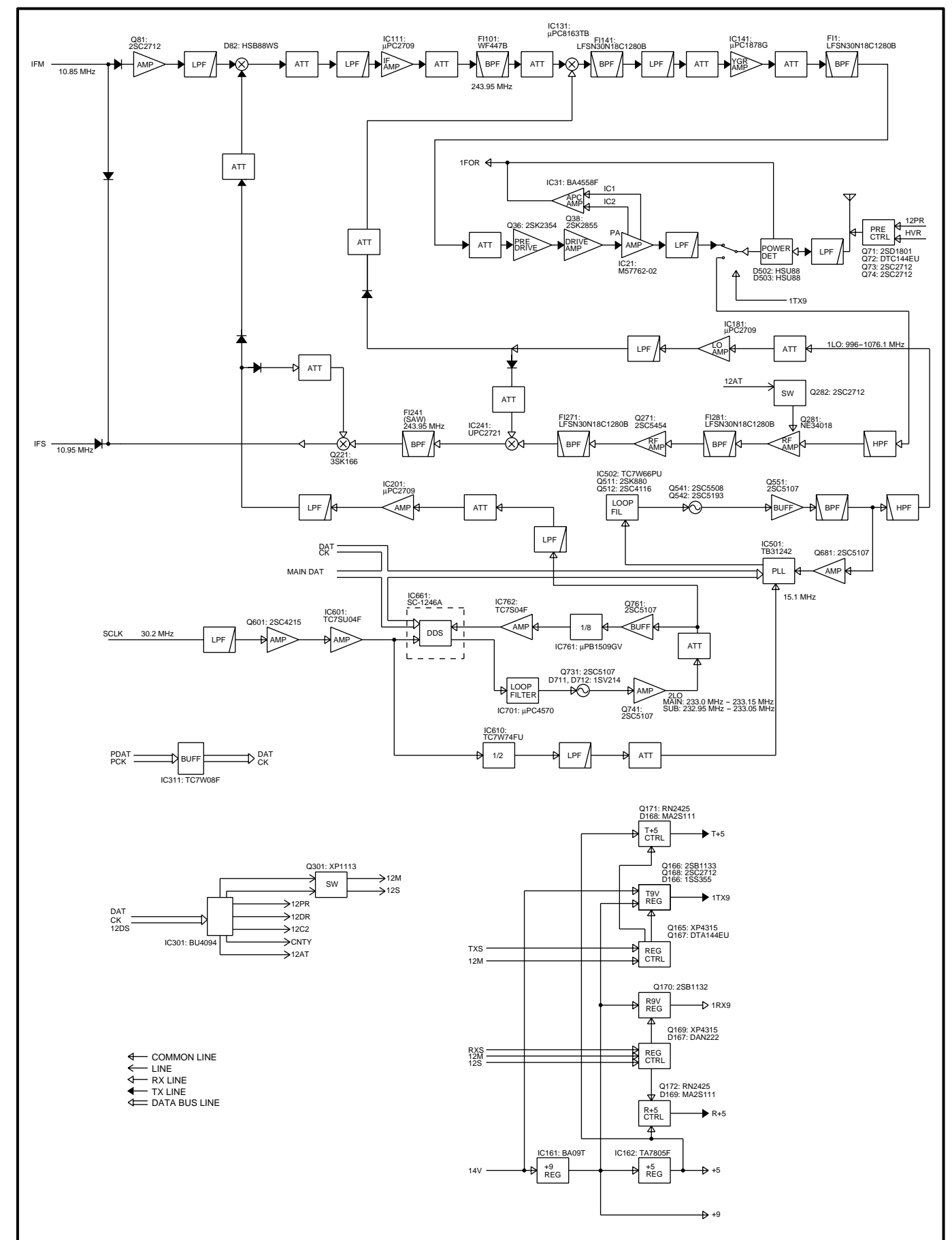


- ← COMMON LINE
- ← LINE
- ← RX LINE
- ← TX LINE
- ← DATA BUS LINE

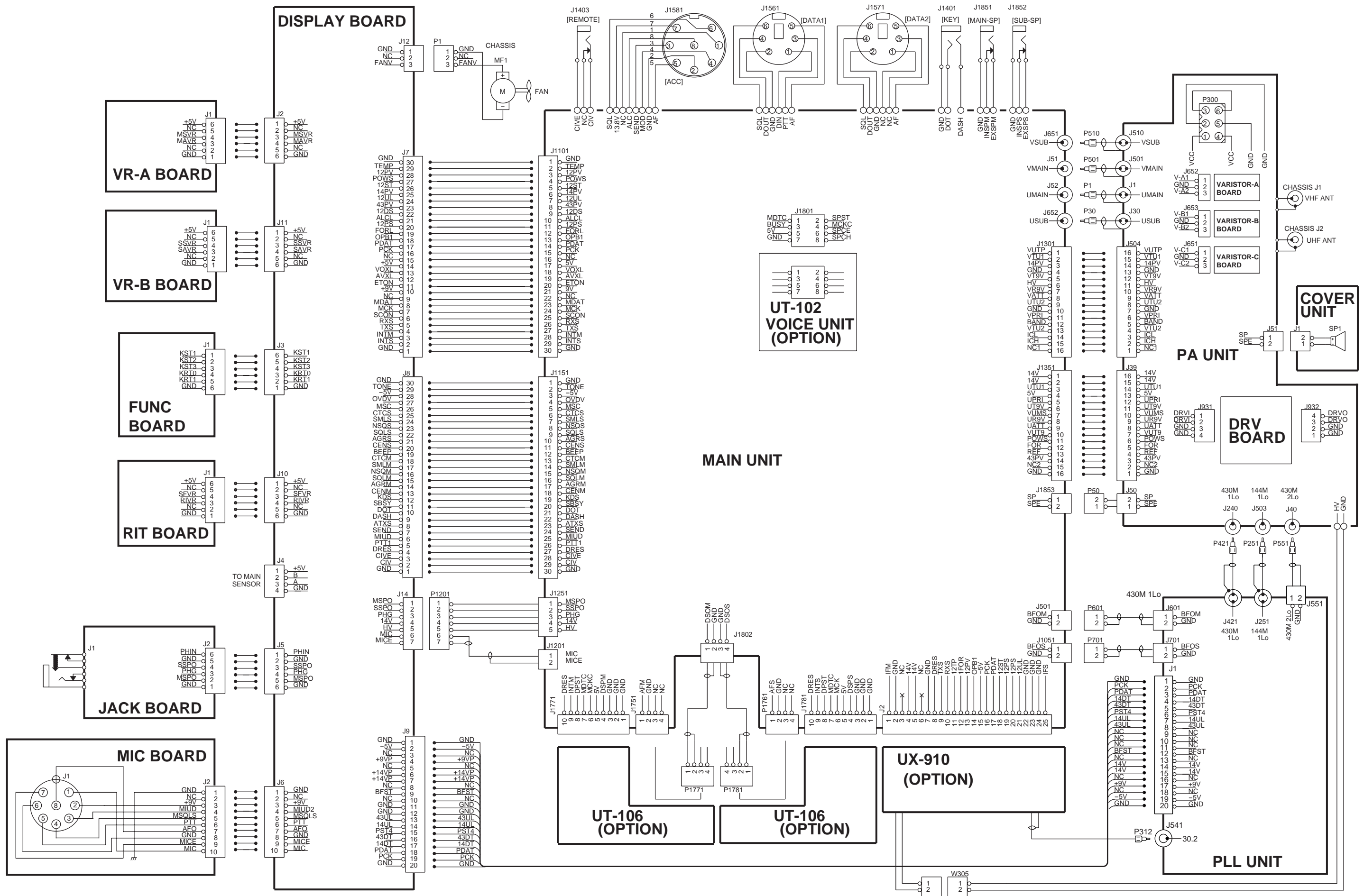
10-3 FRONT UNIT



10-4 UX-910

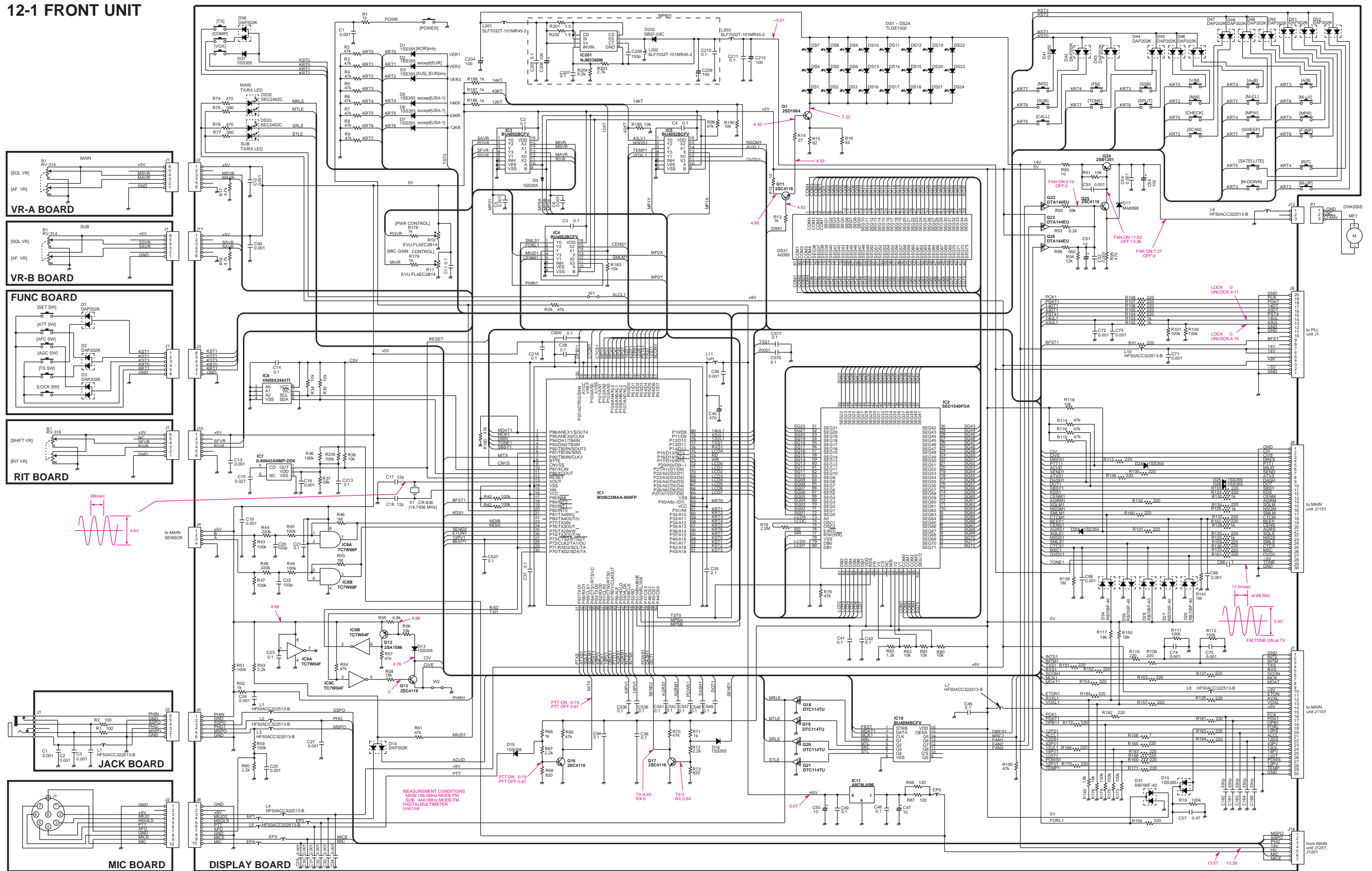


SECTION 11 WIRING DIAGRAM

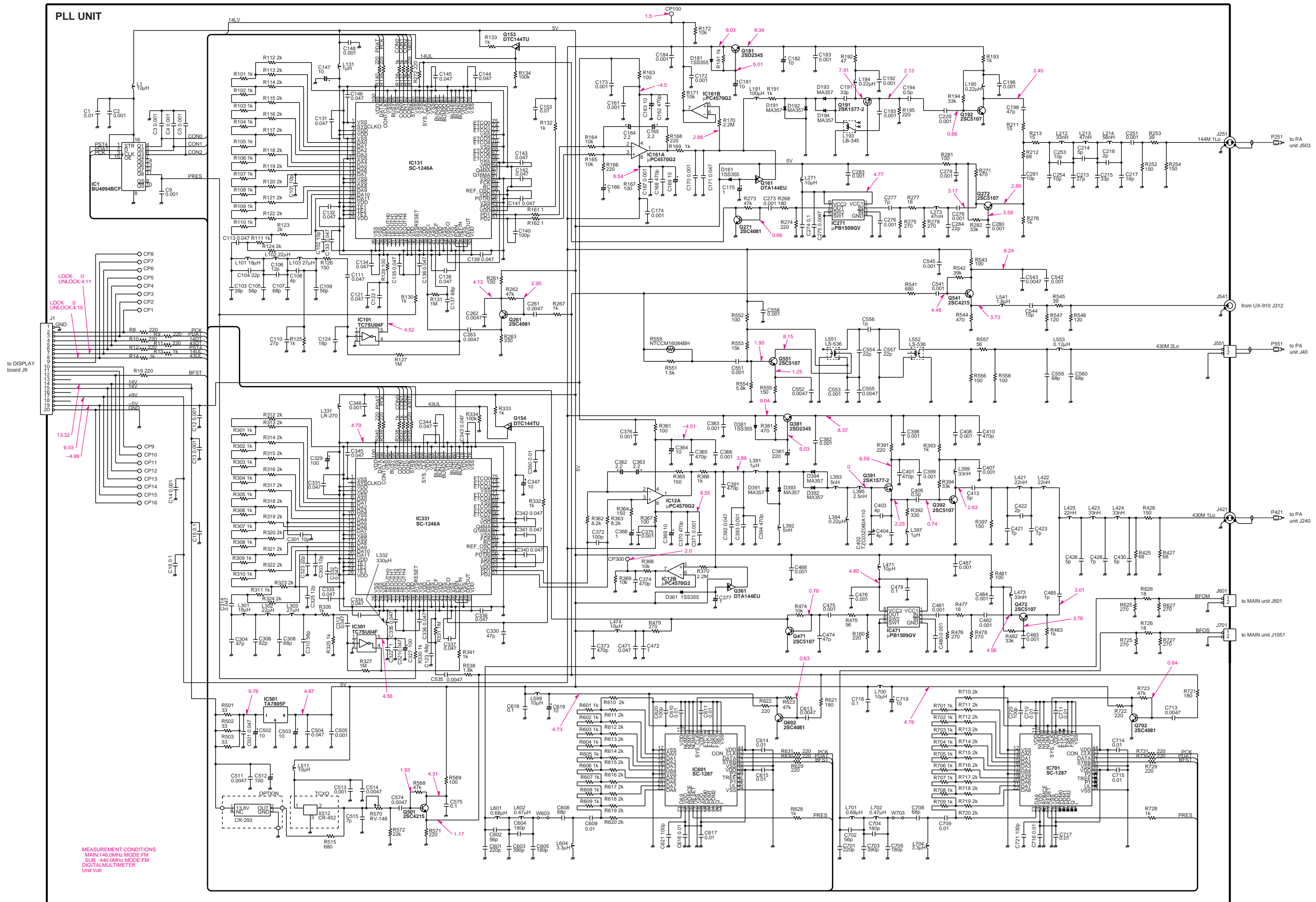


SECTION 12 VOLTAGE DIAGRAMS

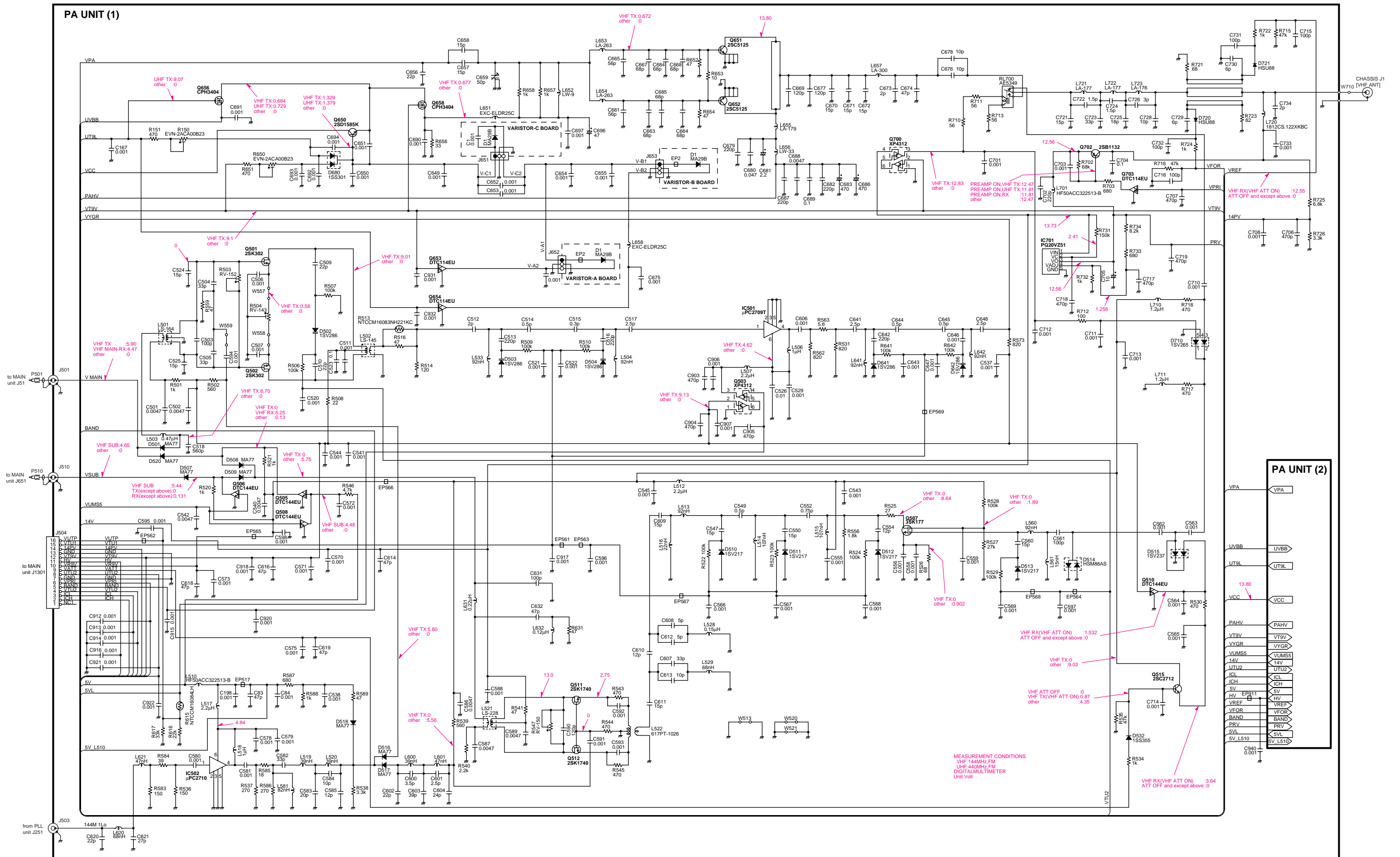
12-1 FRONT UNIT



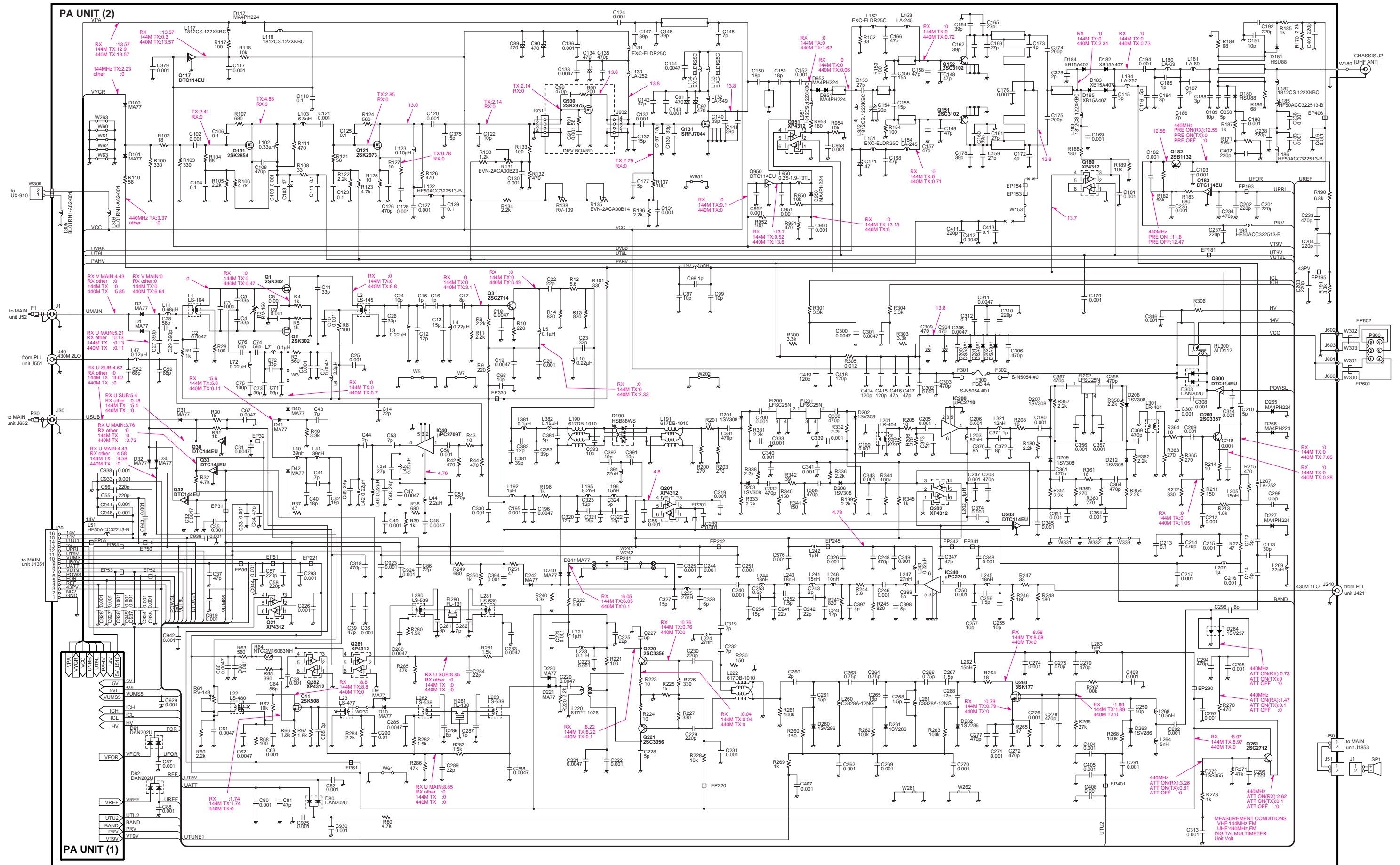
12-2 PLL UNIT



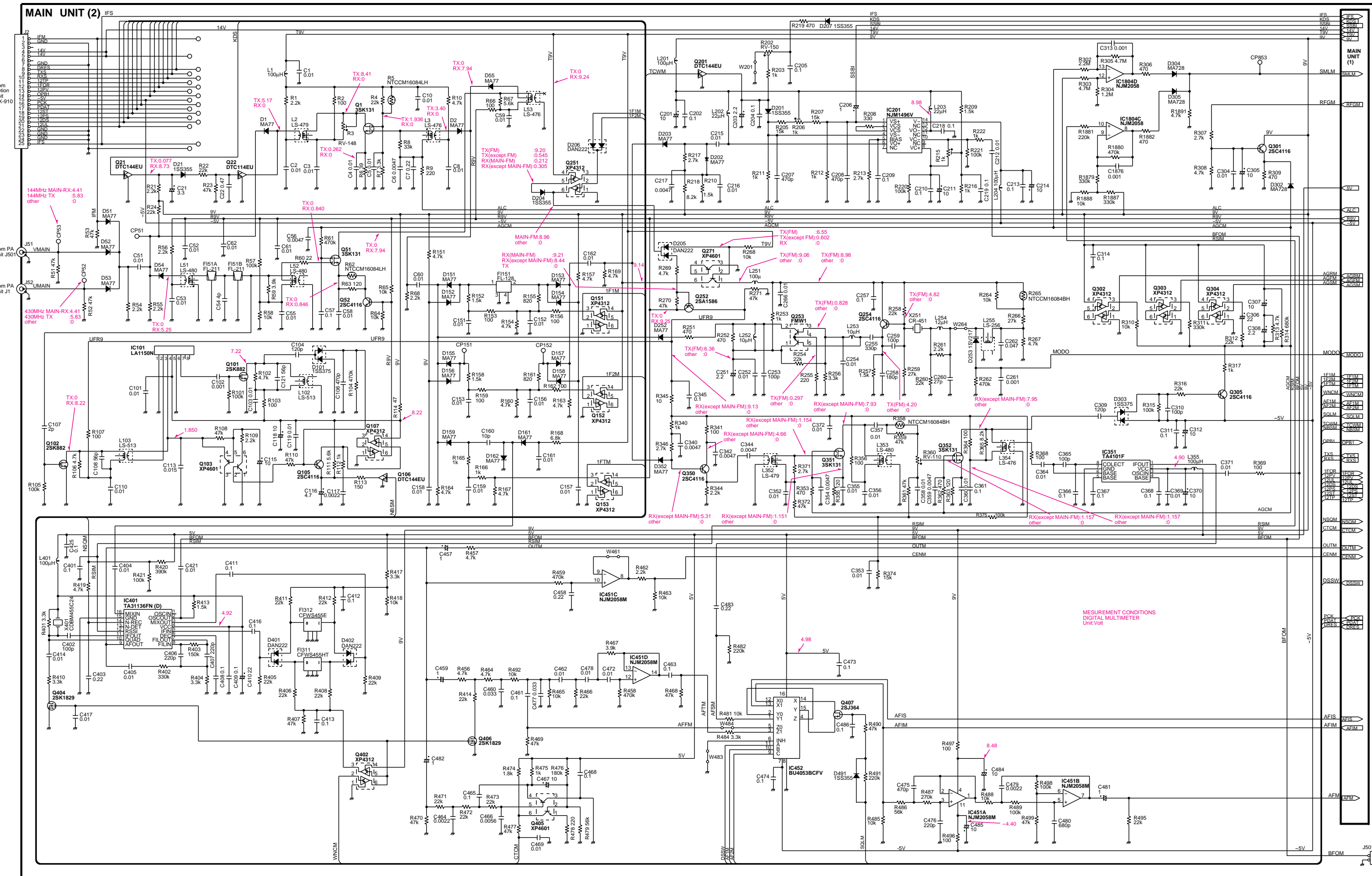
12-3 PA UNIT (1)



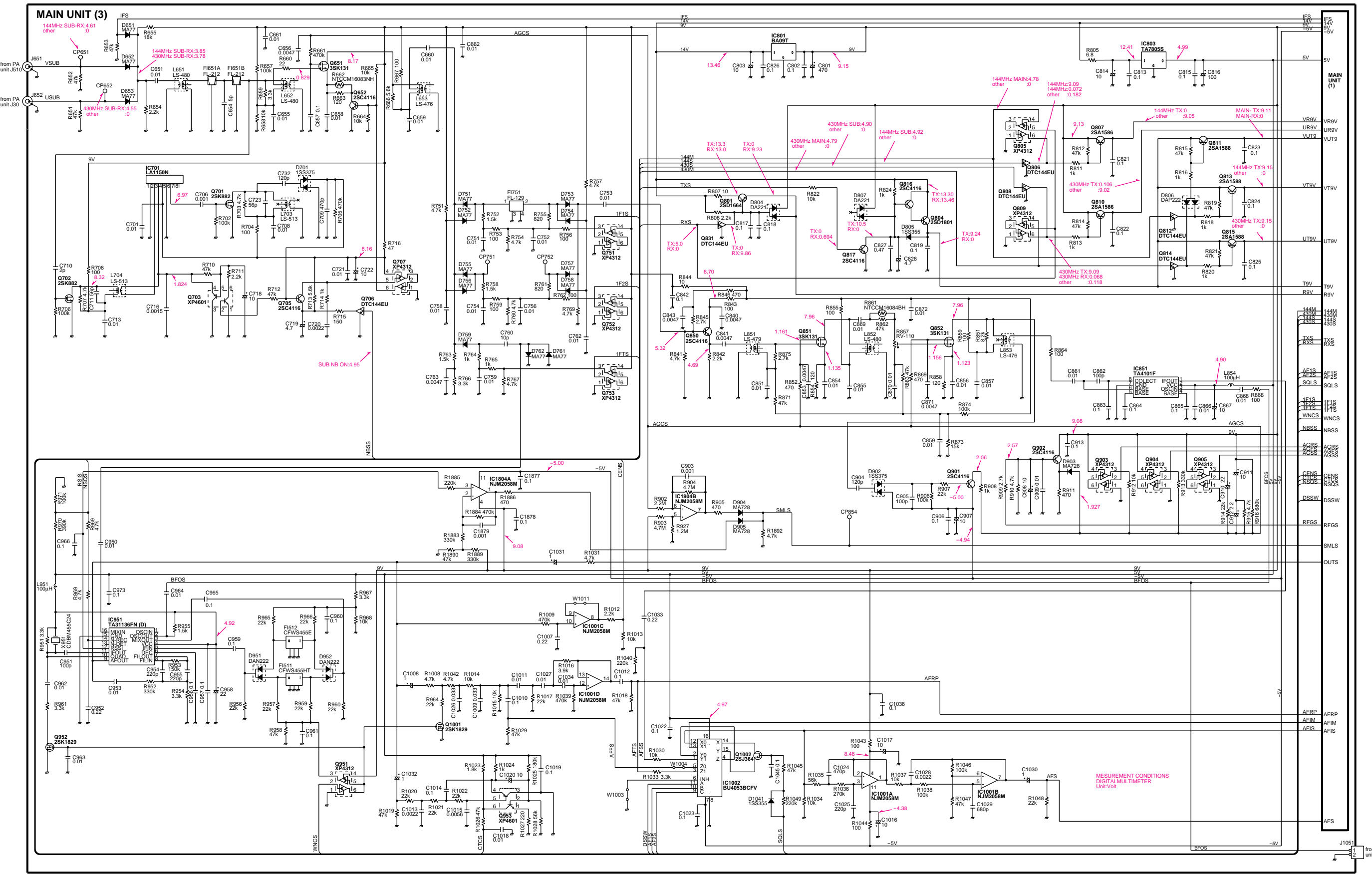
12-4 PA UNIT (2)



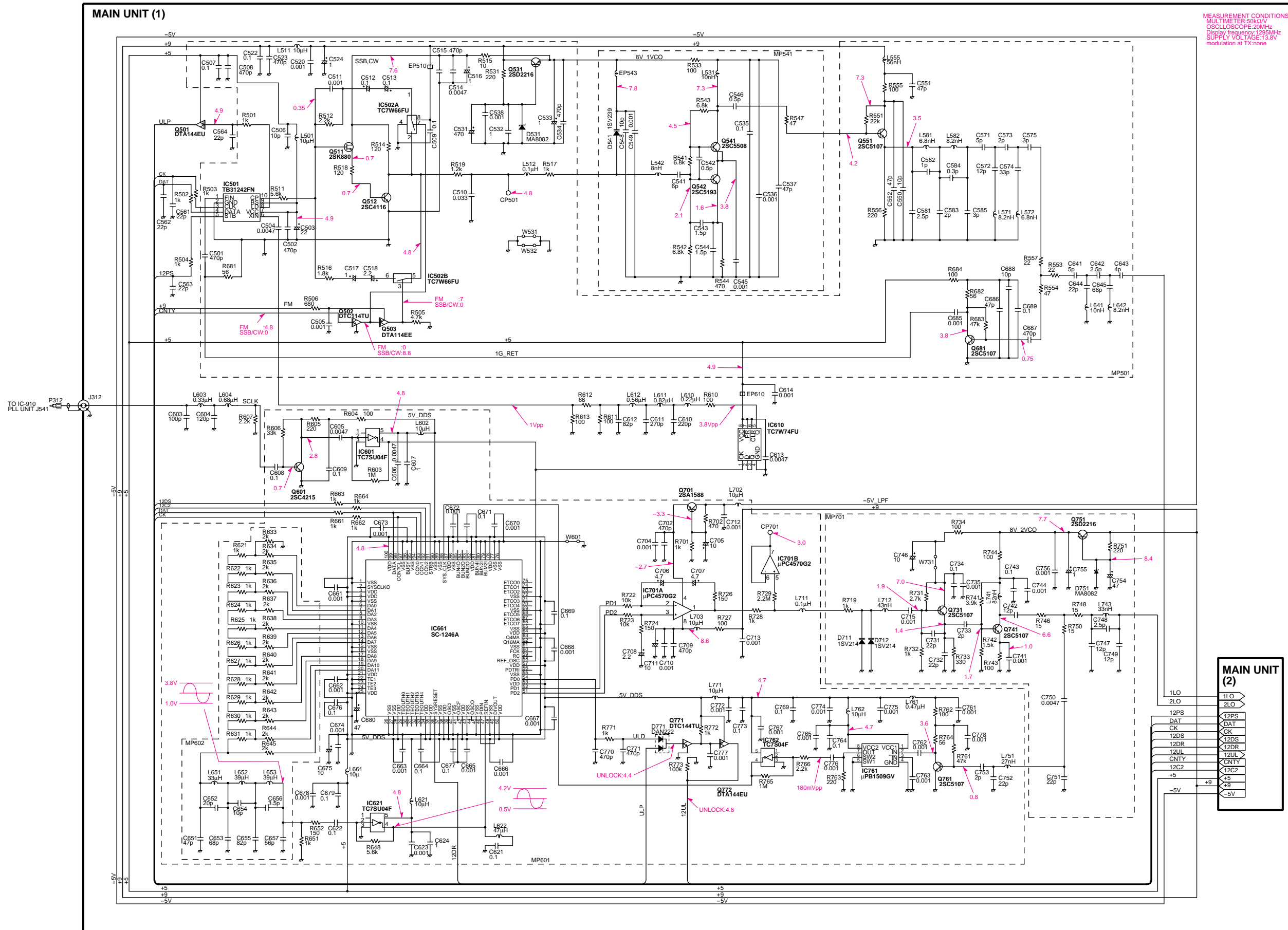
12-6 MAIN UNIT (2)



12-7 MAIN UNIT (3)



12-8 UX-910 MAIN UNIT (1)

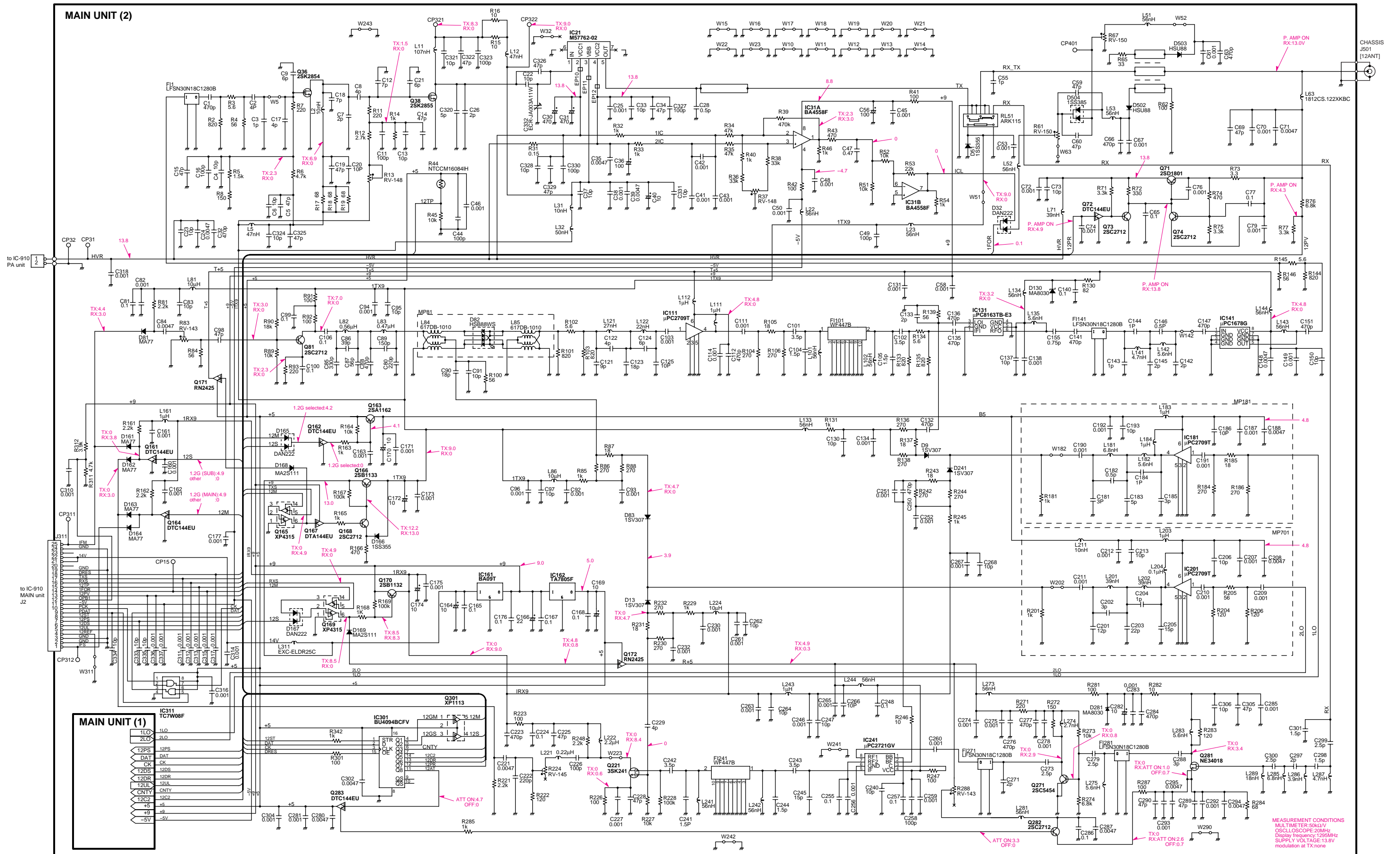


MEASUREMENT CONDITIONS
 MULTIMETER: 50kV/V
 OSCILLOSCOPE: 20MHz
 Display Frequency: 125MHz
 SUPPLY VOLTAGE: 13.8V
 modulation at TX:none

MAIN UNIT (2)

| |
|------|
| 1LO |
| 2LO |
| 12PS |
| DAT |
| CK |
| 12DS |
| 12DR |
| 12UL |
| CNTY |
| 12C2 |
| +5 |
| +9 |
| -5V |

12-9 UX-910 MAIN UNIT (2)



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