



SERVICE MANUAL

VHF AIR BAND TRANSCEVER

IC-A210

S-14401XZ-C1
Sep. 2007

INTRODUCTION

This service manual describes the latest service information for the **IC-A210 VHF AIR BAND TRANSCEVER** at the time of publication.

MODEL	VERSION	CHANNEL SPACING	CARRIER POWER
IC-A210	USA-01	25.0 kHz	8 W
	EXP-01		
	CHN-01		

UNIT ABBREVIATIONS:
F=FRONT UNIT
M=MAIN UNIT

CAUTION

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

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



(IC-A210)

ORDERING PARTS

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

1. 10-digit Icom parts numbers
2. Component name
3. Equipment model name and unit name
4. Quantity required

<ORDER EXAMPLE>

1110003491	S.IC	TA31136FNG	IC-A210	MAIN UNIT	5 pieces
8820001210	Screw	2438 screw	IC-A210	Top cover	10 pieces

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

REPAIR NOTES

1. Make sure the 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 Standard 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 a test equipment to the transceiver.

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SECTION 1

SPECIFICATIONS

■ General

- Frequency range : 118.000 to 136.975 MHz
 : 161.650 to 163.275 MHz*
- Channel spacing : 25 kHz
- Frequency stability : ±5 ppm
- Operating temperature : -20°C to +55°C
 : -4°F to +131°F
- Antenna impedance : 50 Ω
- Number of memory channels : 10 memory channels
 : 200 group channels
 : 10 history channels
 : 10 GPS channels
 : 10 weather channels*
- Mode : AM (A3E)
- Power supply requirement : 13.80 V / 27.50 V DC
(negative ground)
- Dimensions : 160 (W)×34 (H)×271 (D) mm
(projections not incl.) : 6⁵/₁₆(W)×1¹¹/₃₂(H)×10²¹/₃₂(D) in
- Weight : approx 1.0 kg; 2.2 lb

■ Transmitter

- Mode : A3E
- Output power (Carrier power) : 8 W
- Spurious emissions : -60 dBc
- Microphone impedance : 600 Ω
- Modulation limiting : 70% (Max 98%)

■ Receiver

- Receive system : Double conversion superheterodyne
- Intermediate frequencies : 1st 38.85 MHz
 2nd 450 kHz
- Sensitivity : (AM) Less than 2 μV (pd)
 at 6 dB S/N
 (FM) Less than 1.4 μV
 at 12 dB SINAD*
- Selectivity : 6 dB ±3 kHz
 60 dB ±22 kHz
- Spurious response rej.c.
- Audio output power : More than 74 dBμ
 : 5 W with a 4 Ω load (External speaker)
 60 mW with a 500 Ω load
 (Headphone)

*U.S.A. version only, receiving only.

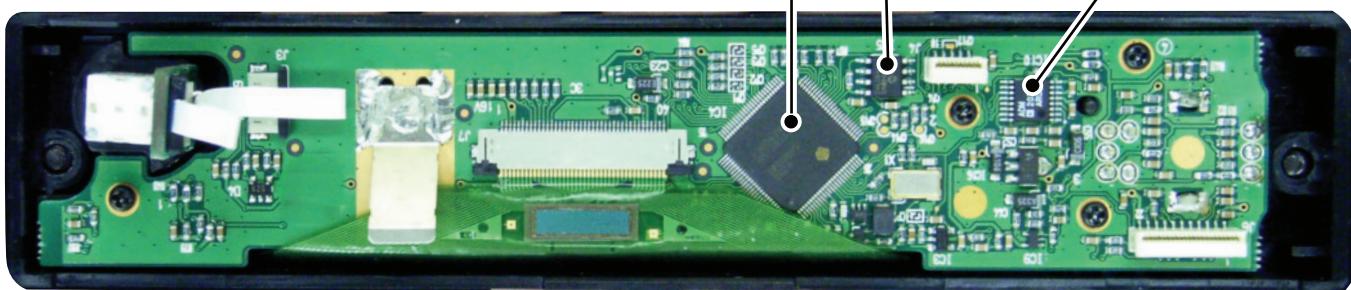
Measurements made in accordance with RTCA DO-186B for U.S.A. version.

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

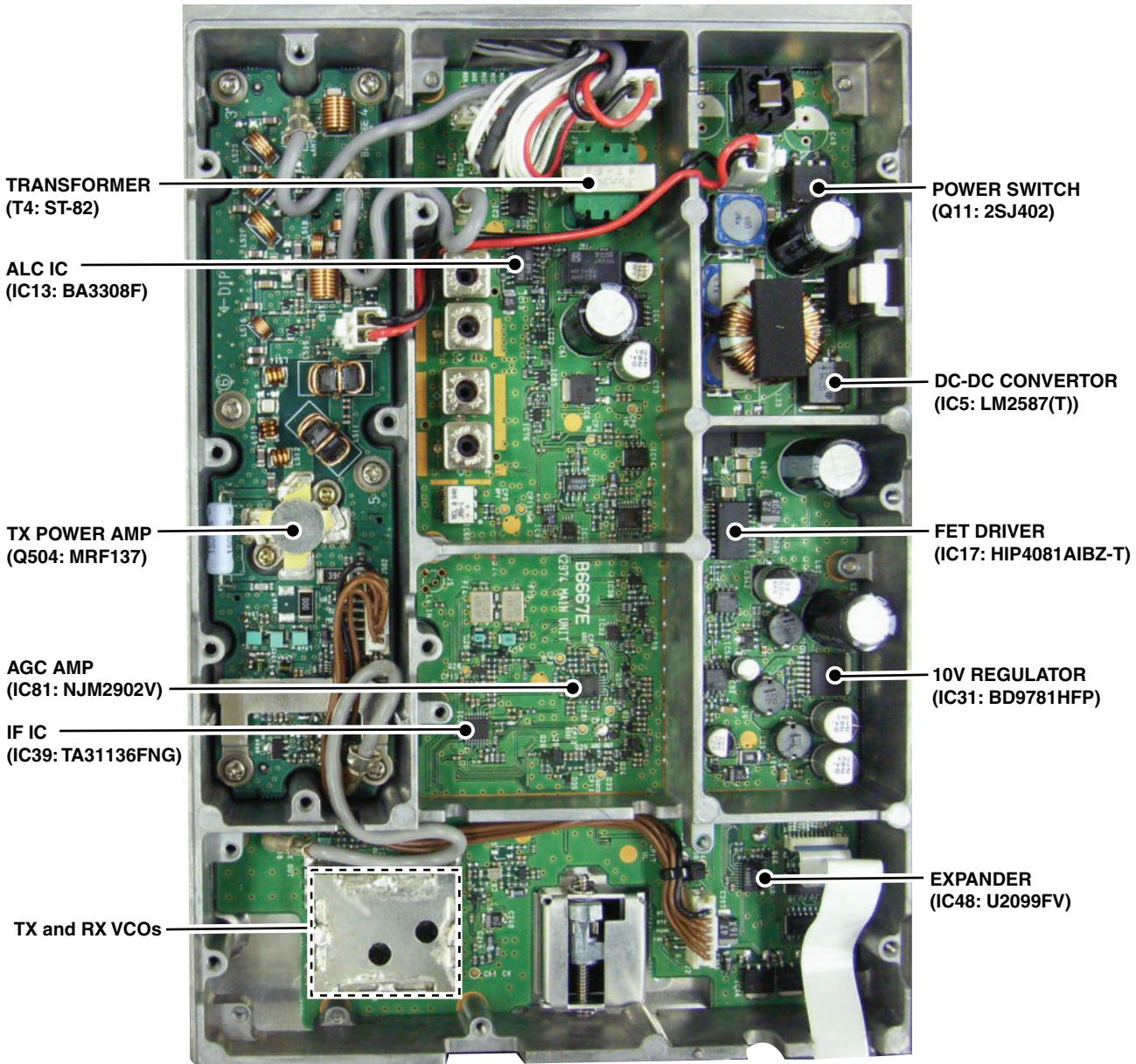
SECTION 2

INSIDE VIEWS

• FRONT UNIT



• MAIN AND PA UNITS



3-1 RECEIVER CIRCUITS

RF CIRCUITS

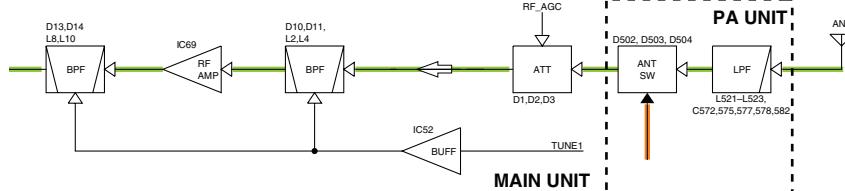
RF circuits consist of RF filters, antenna switch (ANT SW), RF AMPlifier (RF AMP), etc., and extracts and amplifies the signals of frequency which desired to receive.

The received signals (RX signals) from the antenna are passed through the LPF, ANT SW (as an LPF in RX), attenuator, and the two-staged tuned BPF.

The filtered RX signals are amplified by the RF AMP, and passed through another two-staged tuned BPF. The filtered RX signals are then applied to the 1st IF circuits.

The ANT SW toggles RX line and TX line. While receiving, the TX line and the antenna is disconnected to prevent RX signals entering. The RX line is disconnected from the GND simultaneously, and an LPF which guides received signals to the RX circuits is composed.

• RF CIRCUITS



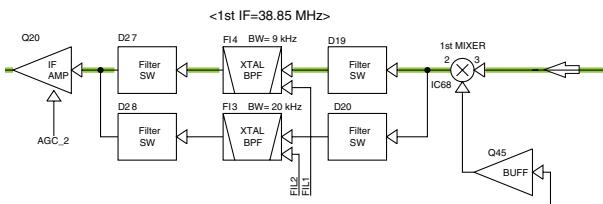
1ST IF CIRCUITS

The 1st IF circuits consist of 1st mixer, 1st IF filter and 1st IF amplifier. And it converts the RX signals into the 1st IF signal, then filters to remove unwanted signals and amplifies.

The filtered RX signals are applied to the 1st mixer to be converted into the 1st IF signal, by being mixed with the 1st Local Oscillator (LO) signals from the RX VCO via buffer.

The converted 1st IF signal is passed through the 1st IF filter (FI4 for AM RX, FI3 for WX RX) via filter switches, to be removed unwanted signals. The filtered 1st IF signal is amplified by the 1st IF AMP. The amplified 1st IF signal is then applied to the 2nd IF circuits.

• 1ST IF CIRCUITS



While transmitting, serial-connected PIN diodes are ON, thus the TX line is connected to the antenna, and the RX line is connected to the GND simultaneously to prevent transmit signal entering.

The attenuator functions as a part of the AGC circuit. The AGC voltage which is applied to the PIN diodes controls RX signal level to enter the RX circuits.

The tuned-BPF is adjusted so that it responds to receiving frequency and rejects all others, by the variable capacitor whose capacitance is varied by applied voltage "T1" and "T2."

The RF AMP amplifies RX signals to a level suited to the 1st mixer.

2ND IF AND DEMODULATOR CIRCUITS

The 2nd IF circuits consist of 2nd mixer, 2nd IF filter, 2nd IF amplifier. And it converts the 1st IF signal into the 2nd IF signal, then filters to extract 2nd IF signal only and amplifies. And the demodulator circuit converts the 2nd IF signal to AF signals.

• AM signals

The amplified 1st IF signal is applied to the FM IF IC, and converted into the 2nd IF signal, by being mixed with the 2nd LO from the X2, at internal 2nd mixer. The converted 2nd IF signal is filtered by external 2nd IF filter (FI5), and amplified by three external 2nd IF AMPS. The amplified 2nd IF signal is AM-demodulated by Q21. A PN junction construction inside Q21 is used for AM detection to obtain low output impedance. The demodulated AF signals are applied to the RX AF circuits via the ANL (Automatic Noise Limiter) circuit which reduces pulse-type noises, when the ANL function is activated.

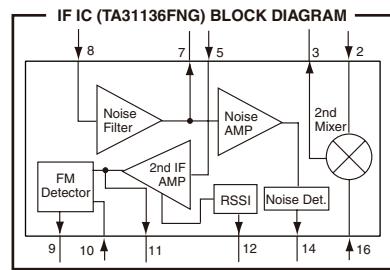
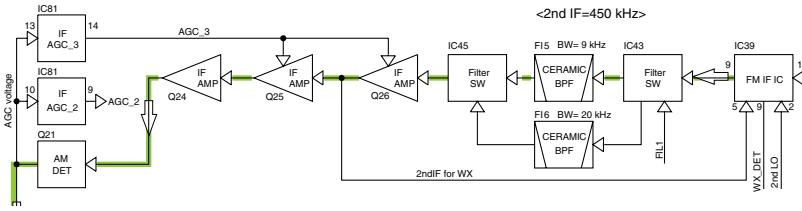
• Weather Alert (WX) signals

FM IF demodulator IC "TA31136FNG" contains whole of the 2nd IF circuits and FM demodulator circuit too.

The amplified 1st IF signal is applied to the FM IF IC, and converted into the 2nd IF signal, by being mixed with the 2nd LO from the X2, at internal 2nd mixer. The converted 2nd IF signal is filtered by external 2nd IF filter (F16), and amplified by external 2nd IF AMP. The amplified 2nd IF signal is applied to the FM IF IC again (pin 5), and saturation-amplified by internal 2nd IF AMP. The amplified 2nd IF signal is FM-demodulated by the quadrature detector.

The demodulated AF signals are applied to the RX AF circuits.

• 2ND IF CIRCUITS



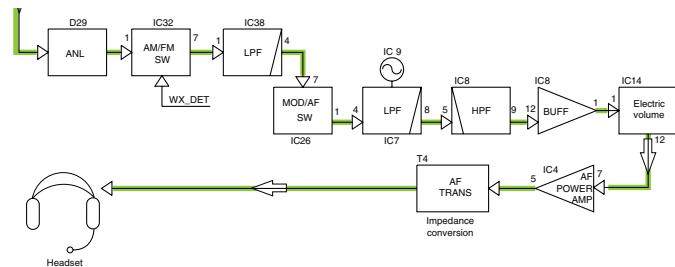
RX AF CIRCUITS

The RX AF circuits consist of AF filters, AF amplifier, AF power amplifier, etc., and amplify, filter the AF signals demodulated by the demodulator circuits.

The demodulated AF signals are passed through the AM/AF SW and LPF. The filtered AF signals are passed through the MOD/AF SW and the switched capacitor filter (IC7) which removes unwanted signals. The filtered AF signals are passed through the HPF, and amplified by buffer, then applied to the electric volume IC for audio level adjustment. The level-adjusted AF signals are power-amplified by AF power AMP to obtain AF output level. The power-amplified AF signals are converted its impedance into 500 ohms by the AF transformer, then applied to the connected headset via the K-CONNECT UNIT or MB-113.

The ANL circuit is a limiter which reduces pulse-type noises by cutting off the AF line temporarily. When the ANL function is activated (ANL SW; IC70 is OFF), demodulated AF signals are applied to the cathode of D29 (switching diode) only. If a pulse-type noise is included in the demodulated AF signals, the cathode voltage of D29 becomes higher than anode voltage, and D29 turns OFF to cut-off the AF line. Thus, if the RX signals contains pulse-type noise, the demodulated AF signals are not applied to the RX AF circuits.

• RX AF CIRCUITS



AGC (Automatic Gain Control) CIRCUIT

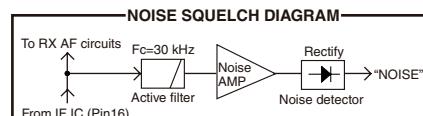
The AGC circuit effectively reduces the RX signal level if the signal is strong, and raises it when it is weaker. The AGC circuit detects the overall strength of the signal and automatically adjusting the gain of the 2nd IF AMPS to maintain an approximately constant average level of the received signals.

A portion of 2nd IF signal is converted into DC voltage (AGC voltage) which is in proportion to the RX signal level, at the AM detector (Q21). The AGC voltages "AGC_2" and "AGC_3" are applied to the emitter terminals of 2nd IF AMPS, to control the gain of these AMPS for stable 2nd IF signal level.

SQUELCH CIRCUIT

The squelch circuit cuts off the AF output signals when no RF signals are received. Extracting noise components (approx. 30 kHz signals) in the demodulated AF signals, the squelch circuit sets attenuation level to infinity.

A portion of FM-demodulated AF signal from the FM IF IC is passed through the noise filter to extract the noise components (approx. 30 kHz signals) only. The noise components are rectified to be converted into the pulse-type signal by noise detector to produce DC voltage corresponding to the noise level "NOISE" signal. The "NOISE" signal is applied to the CPU (F; IC4, pin 90) and compared with the reference level preset in the CPU.



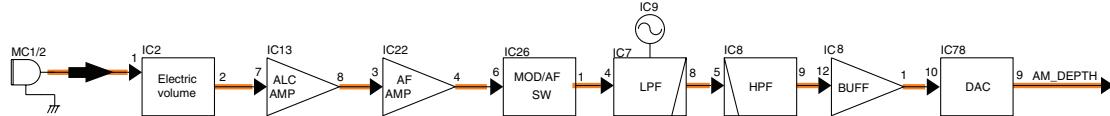
If the CPU interprets that the noise level is higher than preset one, the CPU sends the serial data "SDA_VOL2" to the electric volume IC (IC14), via the expander (IC49) and dual gate logic IC (IC46). The serial data sets the attenuation level to infinity to close the squelch.

3-2 TRANSMITTER CIRCUITS

TX AF CIRCUITS

The TX AF circuit consists of microphone amplifier (MIC AMP), ALC and AF filters. ALC (Automatic Level Control) is an amplifier which reduces its gain automatically to prevent over deviation.

• TX AF CIRCUITS

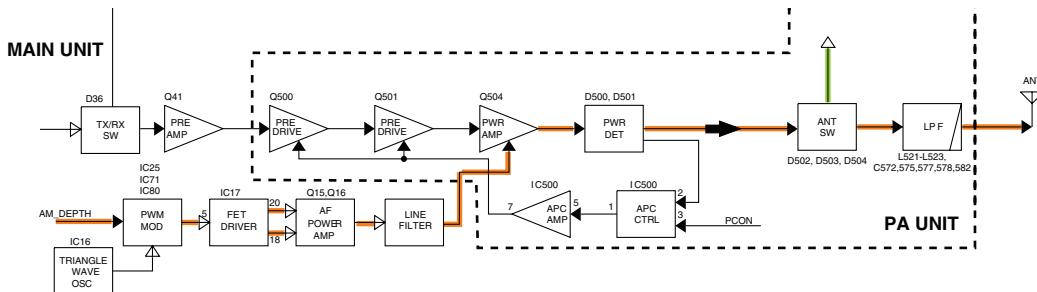


AM MODULATION CIRCUITS

The AM modulation circuits modulate the carrier with the MIC signals (=modulation signals).

The level-adjusted modulation signals are applied to the PWM modulation circuit via the AF SW (IC71, pins 1, 2), then converted into the triangle wave form by being mixed with the triangle wave which is generated by the IC16, at IC25.

• AM MODULATION AND TX AMPLIFIER CIRCUITS



TX AMPLIFIERS

The TX amplifiers consist several RF amplifier (predriver, driver, power, etc.), and amplify the VCO output to the transmit output level.

The TX VCO output is applied to the RF amplifier via buffers (Q33 and Q35) and TX/RX switch (D36), and amplified to the level need for PA UNIT. The TX signal is amplified by pre-drive and drive AMPS. The amplified TX signal is then power-amplified by power AMP where the AM modulation is accomplished.

The power-amplified TX signal is passed through the TX power detector, ANT SW and LPF (as a harmonic filter), then applied to the antenna via the K-CONNECT UNIT or MB-113.

The audio signals from the connected headset's microphone (MIC signals) are passed through the electric volume to be adjusted MIC gain, and amplified by ALC (Automatic Level Control) AMP and MIC AMP. The amplified MIC signals are passed through the MOD/AF SW and the switched capacitor filter (IC7) which removes unwanted signals. The filtered AF signals are passed through the HPF, and amplified by buffer, then applied to the AM modulation circuits as the modulation signals, via the DAC for deviation adjustment.

The triangle wave form modulation signals applied to the FET driver to drive the AF power AMP (FETs; Q15, Q16).

The power-amplified modulation signals are applied to the drain terminal of the TX power AMP, then the corrector current of the TX amplifier changes corresponding to the amplitude of the modulation signals. Thus the gain of the TX amplifier changes corresponding to the amplitude of the modulation signals, and it causes change of the TX output power to obtain an Amplitude Modulation.

APC CIRCUIT

The APC (Automatic Power Control) circuit stabilizes transmit output power to prevent transmit output power level change, which is caused by load mismatching or heat effect, etc.

The power detector rectifies a portion of the TX signal and converts it into DC voltage which is in proportion to the transmit output power level. The detected voltage is applied to the input terminal (pin 3) of dual operational AMP (IC500; as a comparator). The TX power setting is applied to another input terminal as the reference voltage.

The comparator compares the detected voltage and reference voltage, and the difference of voltage is output from output terminal.

The output voltage is amplified by APC AMP, and controls the bias of the pre-driver and driver amplifiers to reduce/increase the gain of these amplifiers for stable TX output power.

3-3 FREQUENCY SYNTHESIZER CIRCUITS

VCO

A VCO is an oscillator whose oscillating frequency is determined by the applied voltage. This transceiver has two VCOs; RX VCO and TX VCO. The RX VCO generates the 1st LO signals for the 1st IF signal produce, and TX VCO generates TX signal.

The voltage applied to each VCO is passed through the ripple filter which removes ripples on the VCC line.

• RX VCO

The RX VCO oscillates 79.150 to 98.125 MHz LO signals for normal RX and WX channels. The generated 1st LO signals are applied to the 1st mixer (IC68, pin 6) via the buffer AMPs (Q33, Q35, Q45), TX/RX SW (D36) and the LPF (harmonic filter).

• TX VCO

The TX VCO oscillates 118.000 to 136.975 MHz transmit signals. The generated TX signal is applied to the RF amplifier (Q41) via the buffer AMPs (Q33, Q35), TX/RX SW (D36).

A portion of the VCO output is applied to the PLL IC via the buffer and harmonic filter.

PLL (Phase Locked Loop) CIRCUIT

The PLL circuit provides stable oscillation for both of the TX and 1st LO frequencies (for RX). By comparing feedbacked VCO output and reference frequency signals, the PLL corrects the difference of the frequencies.

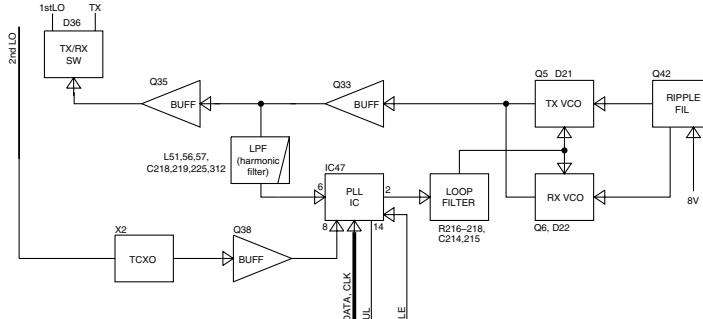
A portion of RX/TX VCO output is applied to the PLL IC via buffer (Q33) and harmonic filter. The applied VCO output is divided according to the serial data including divide ratio from the CPU, at the prescaler and programmable divider. In the same way, the reference frequency signal from the TCXO is applied to the PLL IC and divided so that these two applied signals are the same frequency.

The divided and frequency-matched signals (VCO output and the reference frequency signals) are applied to the phase comparator and phase-compared. The resulted phase difference is detected as a phase-type signal, and level-adjusted at the charge pump then output. The output pulse type signal is passed through the loop filter to be converted into the DC voltage (=Lock Voltage).

Applying the lock voltage to the variable capacitor which composes a part of the resonator of RX/TX VCO, the capacitance of variable capacitor changes corresponding to the applied lock voltage. This causes the change of resonance frequency that determine the VCO oscillating frequency to keep the VCO frequency constant.

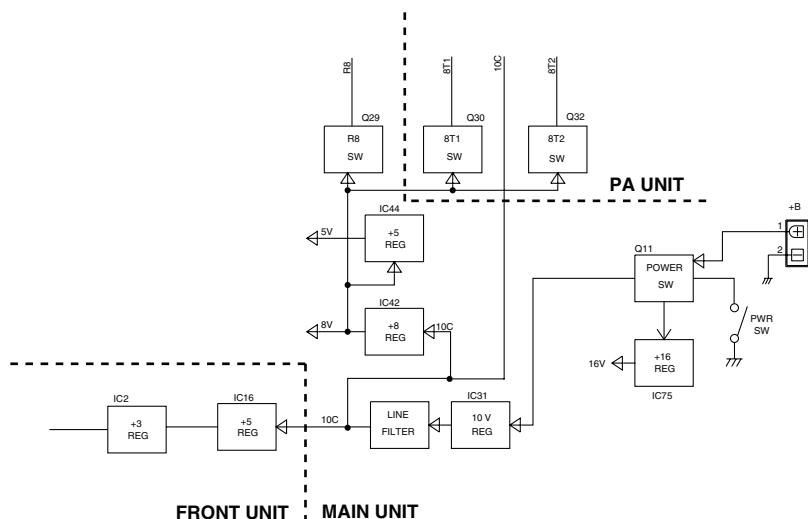
When the oscillation frequency drifts, its phase changes from that of the reference frequency, causing a lock voltage change to compensate for the drift in the VCO oscillating frequency.

• FREQUENCY SYNTHESIZER CIRCUITS



3-4 VOLTAGE DIAGRAMS

Voltage from the power supply is routed to the whole of the transceiver via regulators and switches.



3-5 PORT ALLOCATIONS

• CPU (F: IC4)

Pin No.	Line name	Description	I/O
1	EC	[EC] key. (pulled up)	I
2	DIAL	[DIAL] key. (pulled up)	I
3	BEEP	Beep audio.	O
4	MONI	[VOL] switch. (push)	I
7	PTT1_0	External [PTT1/2] keys.	I
15	RESET	Reset signal from the reset IC (F: IC3).	I
19	REG_C2	Regulator control signal to the +16V regulator (M: IC75). "Low"=ON	O
24	INCOM_0	External intercom switch (pulled up).	I
25	SFT	Clock frequency shift signal to system clock oscillator (F: Q6).	O
34–37	V3–V0	Power supply for EL display (F: DS11).	O
40	SCK	Serial clock to the EEPROM (F: IC5).	O
43	SDN1	Phase-A signal from rotary encoder (S1; innner).	I
44	SUP1	Phase-B signal from rotary encoder (S1; innner).	I
45	SDN2	Phase-A signal from rotary encoder (S1; outer).	I
46	SUP2	Phase-B signal from rotary encoder (S1; outer).	I
52	DATA_IC11	Serial data to the LED driver (F: IC15).	O
53	CLK_IC12	Serial clock to the LED driver (F: IC15).	O
54–56	A–C	I/O setting signals to the logic IC (M: IC49).	O
57	CDC	Common serial clock/data output to MAIN UNIT control signal.	O
67–82	D0–D15	EL display driver (F: IC6, IC7) control data bus.	I/O
88	REM_0	External [REMOTE] key. (pulled up)	I
89	RSSI	RSSI signal from the FM IF IC (M: IC39).	I
90	NOISE	Noise signal from the FM IF IC (M: IC39).	I
91	VOX1	VOX (pilot side) signal from the VOX detector (M: IC3, D16).	I
92	VOX2	VOX (co-pilot side) signal from the VOX detector (M: IC3, D17).	I
93	VR	Volume level from the VR (VR UNIT; R1).	I
94	PHOTO	Luminescence level from light sensor (F: IC9, D2).	I
95	UL	Unlock signal from PLL IC (M: IC47). "Low"=PLL unlocked.	I
96	SWAP	[↔] key. (pulled up)	I
97	RCL	[RCL] key. (pulled up)	I
98	MEM	[MEM] key. (pulled up)	I
99	DUAL	[DUAL] key. (pulled -up)	I

• EXPANDER (M: IC48)

Pin No.	Line name	Description
8	SEND	TX voltage line control signal to the 8T2 switch (M: Q32). "Low"=While transmitting.
9	VCO1	TX VCO control signal to the VCO switch (M: Q2). "High"=TX VCO is selected.
10	VCO2	RX VCO control signal to the VCO switch (M: Q3). "High"=RX VCO is selected.
11	AM/FM	RX mode toggling signal to the AM/FM switch (M: Q48). "Low"=AM mode is selected.
12	FIL1	1st IF filter (M: FI3, BW=20 kHz) select signal. "Low"=FI3 (BW=20 kHz) is selected.
13	FIL2	1st IF filter (M: FI4, BW=9 kHz) select signal. "Low"=FI4 (BW=9 kHz) is selected.
14	MM	AF mute signal to the MUTE SW (M: Q58, Q59). "High"=AF line is muted.
16	ANL	ANL circuit control signal to the ANL switch (M: IC70). "Low"=ANL function is activated.

SECTION 4 ADJUSTMENT PROCEDURE

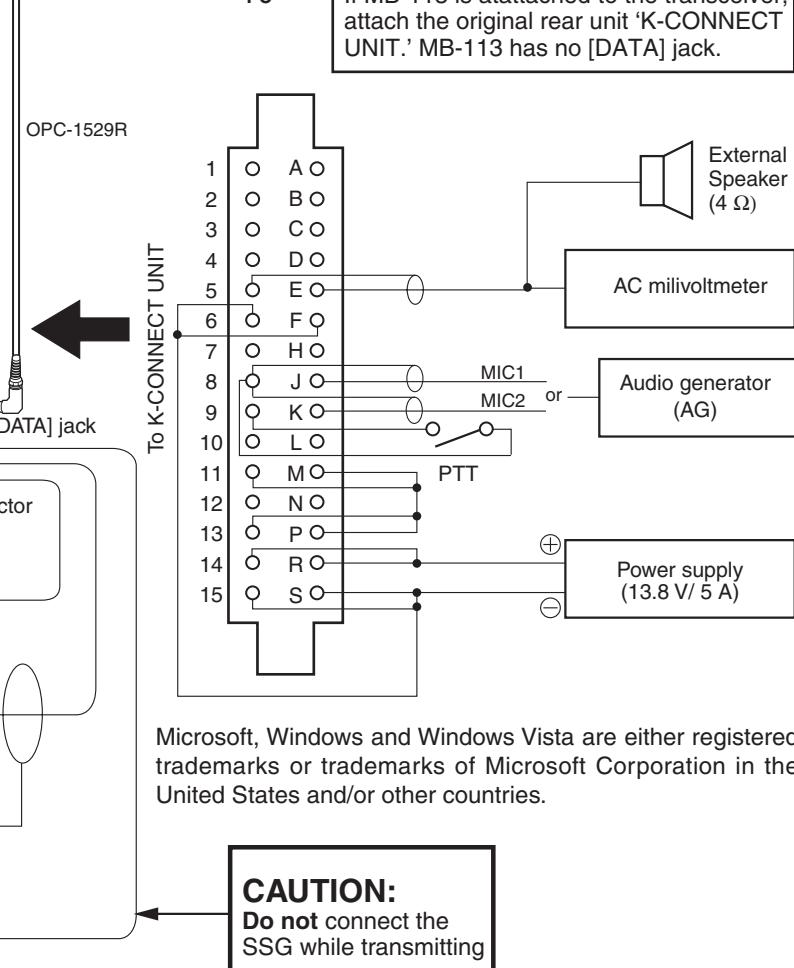
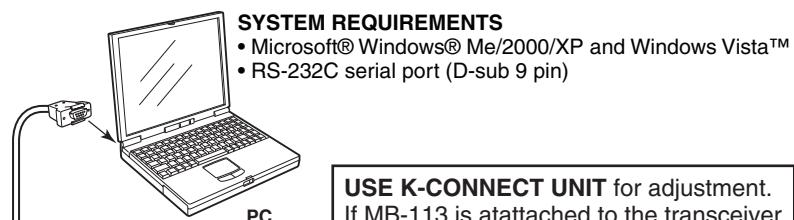
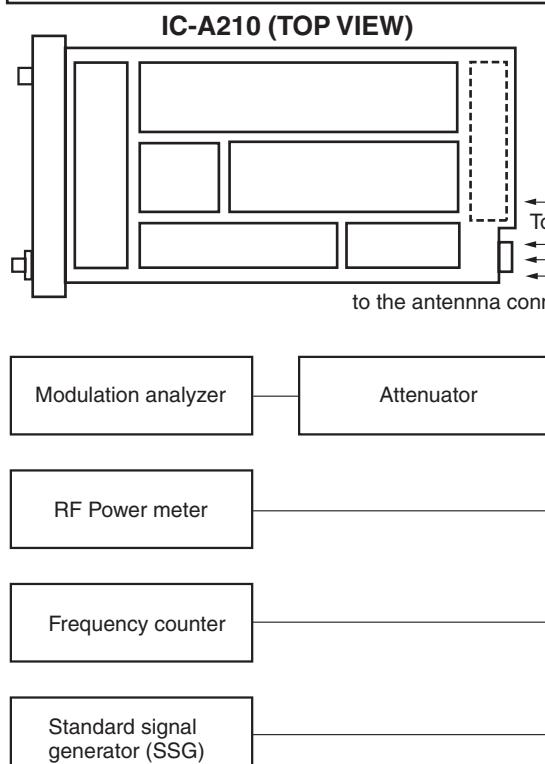
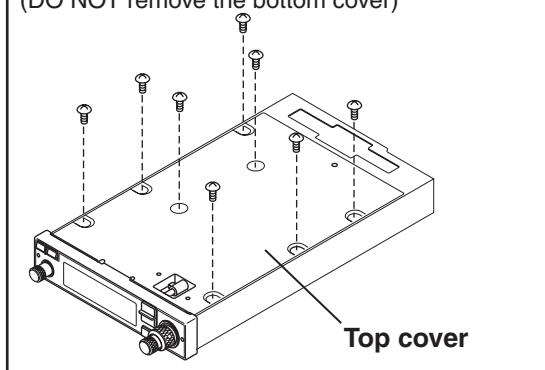
4-1 PREPARATION

■ REQUIRED EQUIPMENTS

EQUIPMENT	SPECIFICATION	EQUIPMENT	SPECIFICATION
Adjustment software	"CS-A210 ADJ" (Revision 1.0 or later)	JIG cable (Modified molex® cable)	(See the illust below)
Power supply	Output voltage : 13.8 V DC Current capacity : More than 5 A	Digital voltmeter	Input impedance : 50 kΩ Measuring range : 0.1–10V
RF power meter (terminated type)	Measuring range : 0.1–20 W Frequency range : 100–300 MHz Impedance : 50 Ω SWR : Less than 1.2 : 1	Standard signal generator (SSG)	Frequency range : 0.1–300 MHz Output level : 0.1 mV to 32 mV (-127 to -17 dBm)
Frequency counter	Frequency range : 0.1–300 MHz Frequency accuracy: ±1 ppm or better Input level : Less than 1 mW	AC millivoltmeter	Measuring range : 10 mV to 10 V
Modulation Analyzer	Frequency range : 30–300 MHz Measuring range : 0 to ±10 kHz	Oscilloscope	Frequency range : DC–20 MHz Measuring range : 0.01–20 V
Audio generator	Frequency range : 300–3000 Hz Output level : 1–500 mV	External speaker	Input impedance : 4 Ω Capacity : More than 10 W
		Attenuator	Power attenuation : 30 dB Capacity : More than 50 W

■ CONNECTION

REMOVE THE TOP COVER before adjustment.
Before starting adjustment, remove the top cover from the chassis to expose the MAIN UNIT.
(DO NOT remove the bottom cover)



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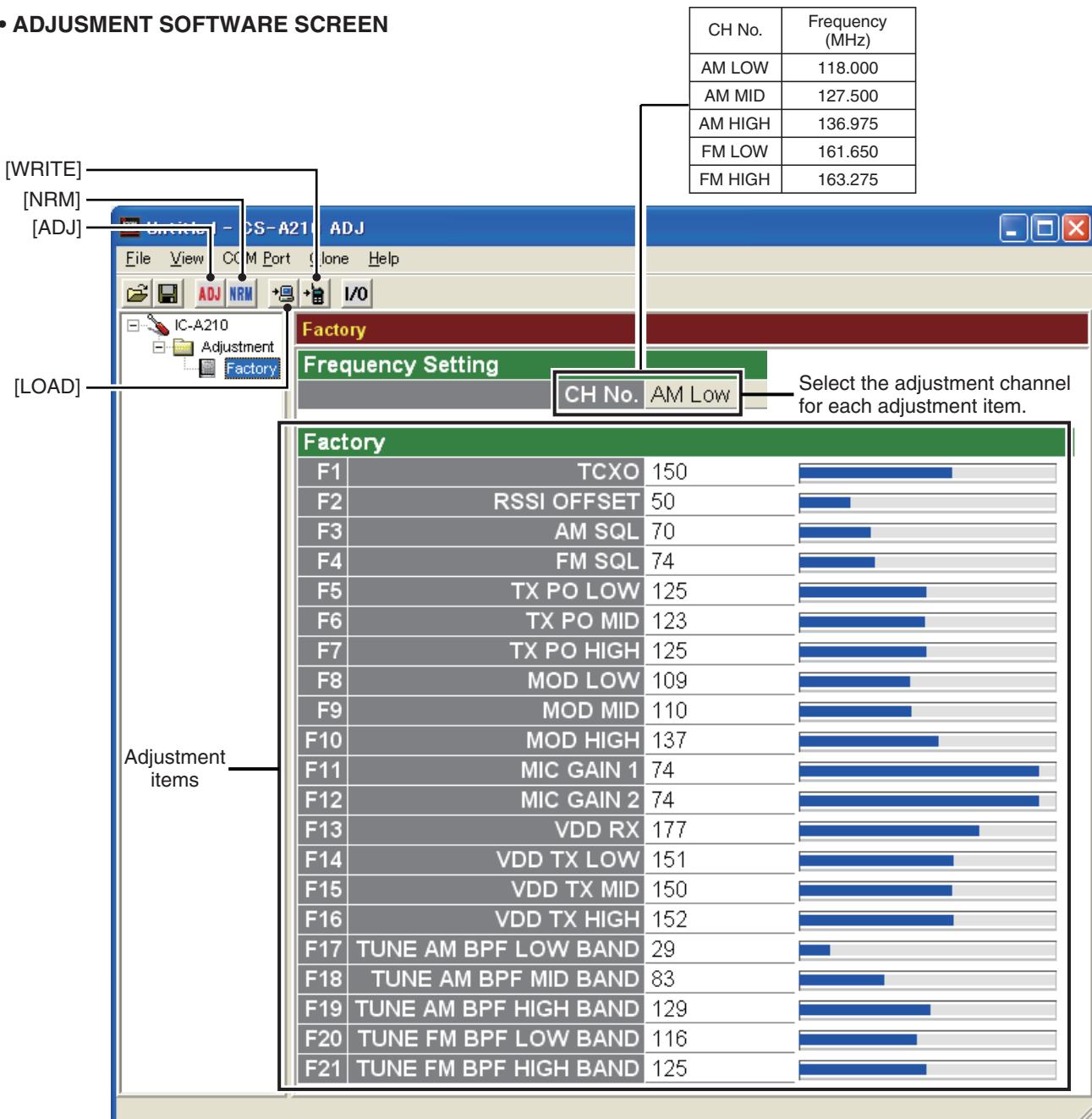
■ ADJUSTMENT SOFTWARE INSTALLATION

- ① Quit all applications if Windows is running.
- ② Insert the CD into the appropriate CD drive.
- ③ Double-click the "Setup.exe" contained in the 'CS-A210 ADJ' folder in the CD drive.
- ④ The "Welcome to the InstallShield Wizard for CS-A210 ADJ" will appear. Click [Next>].
- ⑤ The "Choose Destination Location" will appear. Then click [Next>] to install the software to the destination folder. (e.g. C:\Program Files\Icom\CS-A210 ADJ)
- ⑥ After the installation is completed, the "InstallShield Wizard Complete" will appear. Then click [Finish].
- ⑦ Eject the CD.
- ⑧ Program group 'CS-A210 ADJ' appears in the 'Programs' folder of the start menu, and 'CS-A210 ADJ' icon appears on the desk top screen.

■ WHOLE PROCEDURE OF ADJUSTMENT

- ① Connect the transceiver and PC with OPC-1529R.
- ② Turn the transceiver power ON.
- ③ Boot up Windows, and click the program group 'CS-A210 ADJ' in the 'Programs' folder of the [Start] menu, then CS-A210 ADJ's window appears.
- ④ Click [ADJ] icon to enter the adjustment mode.
- ⑤ Click [READ] icon to load the initial data from the transceiver.
- ⑥ Set or modify adjustment data as specified in the guidances (pages 4-3 to 4-6).
- ⑦ When the adjustment is finished, click [WRITE] icon.
- ⑧ Click [NRM] icon to quit the adjustment mode, and return to the normal mode.

• ADJUSMENT SOFTWARE SCREEN



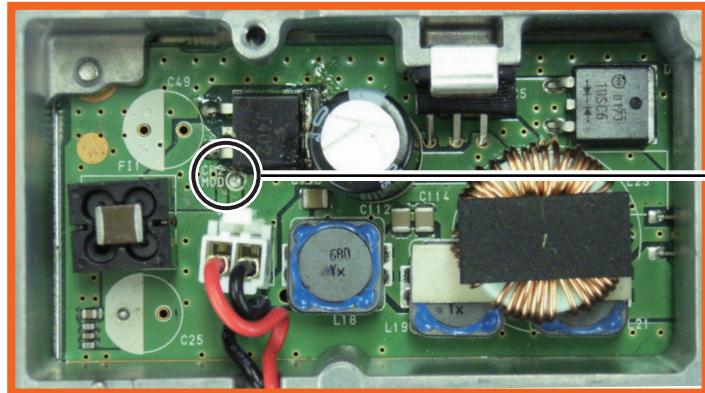
* This screen is an example only. Each transceiver has its own specific values for each setting.

4-2 FREQUENCY ADJUSTMENT

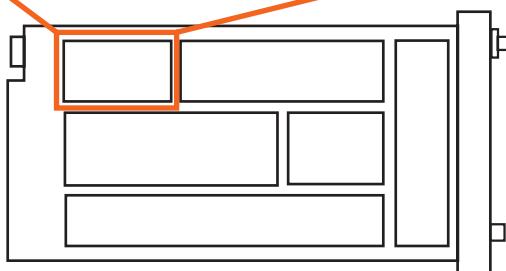
Select an adjustment item using [↑] / [↓] keys, then set to the specified value using [←] / [→] keys on the connected PC's keyboard.

ADJUSTMENT	ADJUSTMENT CONDITION	OPERATION	ADJUSTMENT ITEM/POINT	VALUE
VDD Voltage (RX)	1 • CH No. : [AM MID] • Receiving	Connect a Digital voltmeter to the CP2 on the MAIN UNIT.	[F13] (CS-A210 ADJ)	13.4–13.6 V
Lock Voltage (RX) (TX)	1 • CH No. : [AM HIGH] • Receiving	Connect a Digital voltmeter to the CP1 on the MAIN UNIT.	C136 (MAIN UNIT)	3.4–3.6 V
	2 • CH No. : [AM HIGH] • Transmitting		C127 (MAIN UNIT)	
Lock Voltage Verify (RX) (TX)	1 • CH No. : [AM LOW] • Receiving	Connect a Digital voltmeter to the CP1 on the MAIN UNIT.	(Verify)	More than 0.5 V
	2 • CH No. : [AM LOW] • Transmitting			
Reference Frequency	1 • CH No. : [AM HIGH] • Connect an RF Power Meter to the antenna connector. • Transmitting	Loose couple an Frequency Counter to the antenna connector.	[F1] (CS-A210 ADJ)	136.975 MHz

• VDD voltage (RX and TX) adjustments

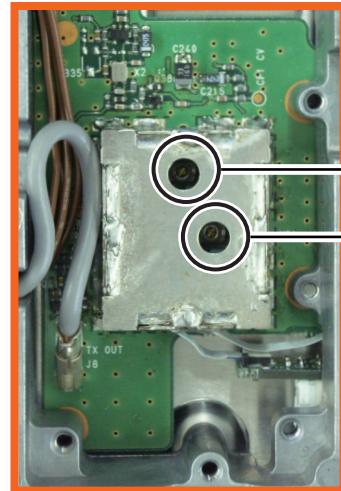


VDD voltage (RX and TX) check point
CP2



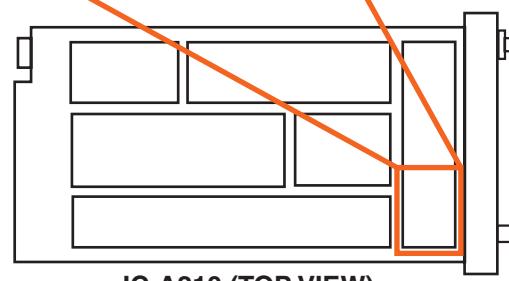
IC-A210 (TOP VIEW)

• Lock voltage adjustment



Lock voltage (TX)
adjust point
C127

Lock voltage (RX)
adjust point
C136



IC-A210 (TOP VIEW)

4-3 TRANSMIT ADJUSTMENT

Select an adjustment item using [↑] / [↓] keys, then set to the specified value using [←] / [→] keys on the connected PC's keyboard.

ADJUSTMENT	ADJUSTMENT CONDITION	OPERATION	ADJUSTMENT ITEM/POINT	VALUE
TX Output Power -Preset-(Low) (Mid) (High)	<ul style="list-style-type: none"> • CH No. : [AM MID] • No audio signals applied to the MIC line. • Receiving 	Set the adjustment value on the CS-A210 ADJ.	[F5] (CS-A210 ADJ)	"200" (adjust value)
			[F6] (CS-A210 ADJ)	
			[F7] (CS-A210 ADJ)	
TX Output Power -VDD voltage-(Low) (Mid) (High)	<ul style="list-style-type: none"> • CH No. : [AM LOW] • No audio signals applied to the MIC line. • Transmitting 	Connect a Digital voltmeter to the CP2 on the MAIN UNIT.	[F14] (CS-A210 ADJ)	14.3–14.7 V
			[F15] (CS-A210 ADJ)	
			[F16] (CS-A210 ADJ)	
TX Output Power -Adjust-(Low) (Mid) (High)	<ul style="list-style-type: none"> • CH No. : [AM LOW] • No audio signals applied to the MIC line. • Transmitting 	Adjust the adjustment value on the CS-A210 ADJ.	[F5] (CS-A210 ADJ)	7.8–8.2 W [A210]
			[F6] (CS-A210 ADJ)	
			[F7] (CS-A210 ADJ)	
Deviation -Preparation-	<ul style="list-style-type: none"> • Connect a Modulation Analyzer to the antenna connector through an attenuator. 	Set the Modulation Analyzer as; HPF : OFF LPF : OFF De-emphasis : OFF Detector : (P-P)/2	–	–
			–	–
Deviation -MIC gain preset-(MIC1) (MIC2)	<ul style="list-style-type: none"> • Connect an Audio Generator to the MIC1 line. 	Set the Audio Generator as; Modulation : 1 kHz Level : 300 mV rms Wave form : Sine wave	–	–
			[F11] (CS-A210 ADJ)	75
Deviation -Adjust-(Low) (Mid) (High)	<ul style="list-style-type: none"> • CH No. : [AM MID] • Receiving 	Set the adjustment value on the CS-A210 ADJ.	[F12] (CS-A210 ADJ)	
			[F8] (CS-A210 ADJ)	86–90%
			[F9] (CS-A210 ADJ)	
Deviation -MIC gain adjust-(MIC1) (MIC2)	<ul style="list-style-type: none"> • CH No. : [AM HIGH] • Transmitting 	Adjust the adjustment value on the CS-A210 ADJ.	[F10] (CS-A210 ADJ)	
			[F11] (CS-A210 ADJ)	70–80%
			[F12] (CS-A210 ADJ)	

4-4 RECEIVE ADJUSTMENT

Select an adjustment item using [↑] / [↓] keys, then set to the specified value using [←] / [→] keys on the connected PC's keyboard.

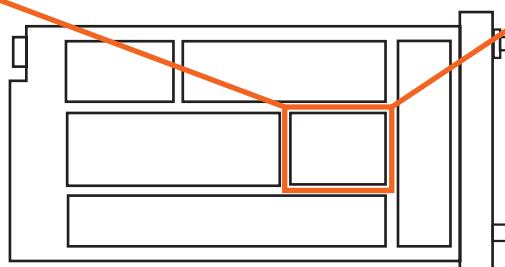
ADJUSTMENT	ADJUSTMENT CONDITION	OPERATION	ADJUSTMENT ITEM/POINT	VALUE
RX Tuning Voltage	1 • CH No. : [AM LOW] • Receiving	Connect a Digital voltmeter to the CP5 on the MAIN UNIT.	[F17] (CS-A210 ADJ)	4.9–5.1 V
RX BPF (AM)	1 • Connect a Standard Signal Generator (SSG) to the antenna connector.	Set the SSG as; Frequency : 118.000 MHz Level : 0 dB μ V (1 kHz, 30% Dev.)	–	–
	2 • CH No. : [AM LOW] • Receiving	Connect a Digital voltmeter to the CP10 on the MAIN UNIT.	L2, L4, L8, L10 (MAIN UNIT)	Minimum voltage
	3 • CH No. : [AM LOW] • Set the SSG as; Frequency : 127.500 MHz • Receiving		[F18] (CS-A210 ADJ)	
	4 • CH No. : [AM LOW] • Set the SSG as; Frequency : 136.975 MHz • Receiving		[F19] (CS-A210 ADJ)	
RX BPF (FM)	1 • Connect a Standard Signal Generator (SSG) to the antenna connector.	Set the SSG as; Frequency : 161.650 MHz Level : 0 dB μ V (1 kHz, 3.5 kHz Dev.)	–	–
	2 • CH No. : [FM LOW] • Receiving	Connect a Digital voltmeter to the CP13 on the MAIN UNIT.	[F20] (CS-A210 ADJ)	Maximum voltage
	3 • CH No. : [FM HIGH] • Receiving		[F21] (CS-A210 ADJ)	
SQUELCH (AM)	1 • Connect a Standard Signal Generator (SSG) to the antenna connector.	Set the SSG as; Frequency : 127.500 MHz Level : 0 dB μ V (1 kHz, 30% Dev.)	–	–
	2 • CH No. : [AM MID] • Receiving	Decrease the adjustment value [F3] to close the squelch once, then increase the value to open the squelch.	[F3]	Squelch open
SQUELCH (FM)	1 • Connect a Standard Signal Generator (SSG) to the antenna connector.	Set the SSG as; Frequency : 163.275 MHz Level : 0 dB μ V (1 kHz, 3.5 kHz Dev.)	–	–
	2 • CH No. : [FM HIGH] • Receiving	Decrease the adjustment value [F4] to close the squelch once, then increase the value to open the squelch.	[F4]	Squelch open

- Receive adjustments

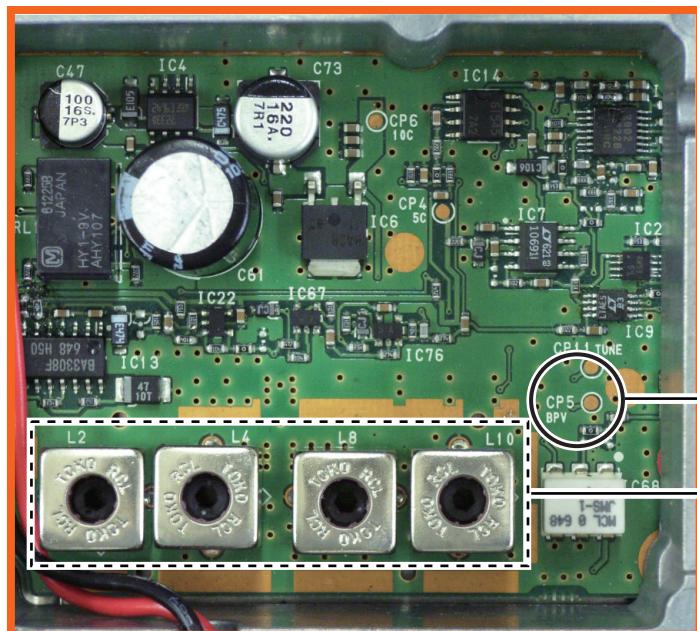


RX BPF (AM) check point
CP10

RX BPF (FM) check point
CP13

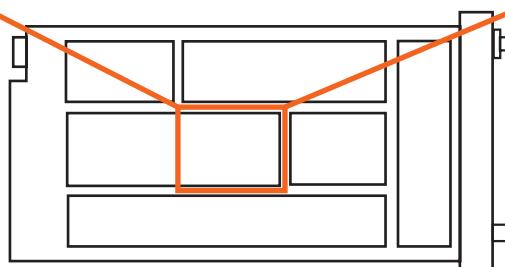


IC-A210 (TOP VIEW)



Tuning voltage check point
CP5

RX BPF adjust points
L2, L4, L8 and L10



IC-A210 (TOP VIEW)

SECTION 5

PARTS LIST

[FRONT UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
IC2	1180002151	S.I.C NJM2370U1-32-TE1	T	60.2/14.2
IC3	1110006260	S.I.C BD5242G-TR	B	109.5/24.9
IC4	1140014362	S.I.C HD64F38347WV	B	91.5/13.9
IC5	1130011581	S.I.C 24LC64T-I/SN G	B	102.7/5.3
IC6	1130013540	S.I.C TC74LVX4245FS (EL,F)	T	77.6/14.1
IC7	1130013540	S.I.C TC74LVX4245FS (EL,F)	T	69.3/14.1
IC9	1130013990	S.I.C NJU7008F3-TE1	B	120.4/24.9
IC10	1120003050	S.I.C ADM202EARUZ-REEL7	B	120/8.2
IC11	1130006551	S.I.C TC7S08FU (TE85R,F)	T	93.2/13.4
IC12	1130006551	S.I.C TC7S08FU (TE85R,F)	T	90.3/12.9
IC14	1130006891	S.I.C TC7S04FU (TE85R,F)	T	90.3/9.2
IC15	1130013460	S.I.C NJU6060V-TE1	T	83.7/13.9
IC16	1180000421	S.I.C TA78L05F (TE12R,F)	B	119.6/16.1
IC17	1130013770	S.I.C TC7S00FU (TE85L,F)	T	93.2/8.9
IC18	1130008361	S.I.C TC7SHU04FU (TE85L,JF)	B	99.7/21.9

Q4	1590001040	S.TR DTA113ZU T106	T	89.1/17.6
Q5	1590001040	S.TR DTA113ZU T106	T	77.9/22.4
Q6	1530002381	S.TR 2SC4215-Y (TE85L,F)	B	99.6/24.6
Q7	1590001040	S.TR DTA113ZU T106	T	86.6/17.6

D2	1790001820	S.VSR BCS2015G1	T	131.5/26.2
D4	1730002531	S.ZEN NNCD6.2G-T1-A	B	27.3/19.1

X1	6050012010	S.XTL CR-789 (9.8304 MHz)	B	106.3/18.2
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L1	6200003181	S.COL NLV32T-390J	B	102.4/22.6
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R5	7030003680	S.RES ERJ3GEYJ 104 V (100 k)	T	64/11.7
R6	7030003320	S.RES ERJ3GEYJ 101 V (100)	B	134.5/7.9
R7	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	93/2.9
R8	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	91.8/2.9
R9	7030006550	S.RES ERJ3GEYJ 914V (910 k)	T	84.2/18.4
R10	7030003740	S.RES ERJ3GEYJ 334 V (330 k)	T	85.7/7.8
R11	7030003560	S.RES ERJ3GEYJ 103 V (10 k)	B	131.3/9.3
R12	7030003680	S.RES ERJ3GEYJ 104 V (100 k)	B	134.5/9.3
R13	7030003680	S.RES ERJ3GEYJ 104 V (100 k)	B	134.5/14.5
R14	7030003560	S.RES ERJ3GEYJ 103 V (10 k)	B	134.5/13.2
R19	7030003680	S.RES ERJ3GEYJ 104 V (100 k)	B	140.5/17.2
R20	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	94.7/2.9
R21	7030003390	S.RES ERJ3GEYJ 391 V (390)	B	138.5/4.5
R22	7030003580	S.RES ERJ3GEYJ 153 V (15 k)	B	74.8/7.9
R23	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	70/9.4
R26	7030003560	S.RES ERJ3GEYJ 103 V (10 k)	B	107.2/24.3
R31	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	82.6/2.9
R34	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	118.4/22.5
R35	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	95.9/24.4
R36	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	97.2/24.4
R37	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	90.6/2.9
R38	7030003840	S.RES ERJ3GEYJ 225 V (2.2 M)	B	83.3/24.5
R40	7030003480	S.RES ERJ3GEYJ 222 V (2.2 k)	B	91.8/23.4
R43	7030003800	S.RES ERJ3GEYJ 105 V (1 M)	B	101.6/19.9
R44	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	82.6/6.5
R45	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	82.6/5.3
R46	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	82.6/4.1
R47	7030003390	S.RES ERJ3GEYJ 391 V (390)	B	18.2/19.5
R48	7030003390	S.RES ERJ3GEYJ 391 V (390)	B	16.7/19.5
R49	7030003390	S.RES ERJ3GEYJ 391 V (390)	B	140.3/4.5
R50	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	101.8/17.8
R51	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	104.7/14.7
R52	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	105.9/14.7
R57	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	96.2/2.9
R58	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	80/2.02
R59	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	81.2/20.1
R60	7030003600	S.RES ERJ3GEYJ 223 V (22 k)	B	78.5/7.4
R61	7030003600	S.RES ERJ3GEYJ 223 V (22 k)	B	78.5/6.2
R62	7030003600	S.RES ERJ3GEYJ 223 V (22 k)	B	78.8/5
R63	7030003600	S.RES ERJ3GEYJ 223 V (22 k)	B	78.8/3.6
R64	7030003600	S.RES ERJ3GEYJ 223 V (22 k)	B	78.8/2.4
R65	7030003620	S.RES ERJ3GEYJ 333 V (33 k)	B	58/1.6/9
R66	7030003620	S.RES ERJ3GEYJ 333 V (33 k)	B	59.4/6.9
R67	7030003620	S.RES ERJ3GEYJ 333 V (33 k)	B	60.7/6.9
R68	7030003620	S.RES ERJ3GEYJ 333 V (33 k)	B	62/6.9
R69	7030003620	S.RES ERJ3GEYJ 333 V (33 k)	B	63.3/6.9
R70	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	106.2/9.8
R71	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	103.8/10.5
R72	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	107.4/9.8
R73	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	105/10.5
R74	7030003840	S.RES ERJ3GEYJ 225 V (2.2 M)	B	83.3/23.3
R75	7030003760	S.RES ERJ3GEYJ 474 V (470 k)	B	83.3/20.8
R76	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	83.3/22
R77	7030003680	S.RES ERJ3GEYJ 104 V (100 k)	B	24.4/16.7
R78	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	116.3/25.1
R79	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	18.2/24.3
R80	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	4.6/21.6
R81	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	127.1/5.4
R82	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	112/15
R83	7030003220	S.RES ERJ3GEYJ 150 V (15)	B	119.7/12.9
R85	7030003380	S.RES ERJ3GEYJ 331 V (330)	B	122.8/24.3
R86	7030003380	S.RES ERJ3GEYJ 331 V (330)	B	21.2/24.3
R88	7030003390	S.RES ERJ3GEYJ 391 V (390)	B	127.1/3.8
R89	7030003390	S.RES ERJ3GEYJ 391 V (390)	B	127.1/2.6
R90	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	89.4/2.9

[FRONT UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
R91	7030009920	S.RES ERJ3GEYJ 335 V (3.3 M)	B	120.6/23
R93	7030003320	S.RES ERJ3GEYJ 101 V (100)	B	120.6/21.8
R97	7030003380	S.RES ERJ3GEYJ 331 V (330)	B	4.6/25.2
R98	7030003680	S.RES ERJ3GEYJ 104 V (100 k)	B	143.2/17.2
R99	7030003560	S.RES ERJ3GEYJ 103 V (10 k)	B	143.2/15.9
R100	7030003380	S.RES ERJ3GEYJ 331 V (330)	B	122.9/18.8
R101	7030003280	S.RES ERJ3GEYJ 470 V (47)	T	84.5/7.8
R102	7030003680	S.RES ERJ3GEYJ 104 V (100 k)	B	143.2/10.7
R103	7030003560	S.RES ERJ3GEYJ 103 V (10 k)	B	143.2/12
R104	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	83.5/19.4
R113	7030003560	S.RES ERJ3GEYJ 103 V (10 k)	B	98.4/5.6
R114	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	137.3/4.5
R115	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	19.8/19.5
R116	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	T	96.9/15
R117	7030003320	S.RES ERJ3GEYJ 101 V (100)	B	25.6/15.6
R118	7030003440	S.RES ERJ3GEYJ 102 V (1 k)	B	87.2/23.3
R119	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	96.5/21.4
R120	7030003200	S.RES ERJ3GEYJ 100 V (10)	B	23.1/16.7
R121	7030003440	S.RES ERJ3GEYJ 102 V (1 k)	B	28.2/15.6
R122	7030003860	S.RES ERJ3GE JPW V	T	91.2/16.8
R123	7030003680	S.RES ERJ3GEYJ 104 V (100 k)	T	93.2/6.1
R124	7030003680	S.RES ERJ3GEYJ 104 V (100 k)	T	90/6.1
R125	7030003680	S.RES ERJ3GEYJ 104 V (100 k)	T	91.6/6.1
R126	7030003840	S.RES ERJ3GEYJ 225 V (2.2 M)	B	87.9/20.2
R127	7030003520	S.RES ERJ3GEYJ 472 V (4.7 k)	B	102.6/25.2
R128	7030003520	S.RES ERJ3GEYJ 472 V (4.7 k)	B	104.7/24.3
R129	7030003440	S.RES ERJ3GEYJ 102 V (1 k)	B	121.3/4.7
R130	7030003440	S.RES ERJ3GEYJ 102 V (1 k)	B	113/2.4
R131	7030003440	S.RES ERJ3GEYJ 102 V (1 k)	B	114.9/12.3
R132	7030003440	S.RES ERJ3GEYJ 102 V (1 k)	B	6.9/22.6
R133	7030003440	S.RES ERJ3GEYJ 102 V (1 k)	B	20/23.3
R134	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	123.5/21.2
R135	7030003440	S.RES ERJ3GEYJ 102 V (1 k)	T	98.2/20
R136	7030003440	S.RES ERJ3GEYJ 102 V (1 k)	B	138.1/25.4
C1	4030006900	S.CER C1608 JB 1H 103K-T	B	54.2/6.9
C2	4510009570	S.ELE 20SVPB15M	T	46.4/10.9
C3	4030006900	S.CER C1608 JB 1H 103K-T	B	99.4/8.3
C4	4510009570	S.ELE 20SVPB15M	T	55.5/5.3
C5	4030006900	S.CER C1608 JB 1H 103K-T	B	127.4/6.6
C6	4030006900	S.CER C1608 JB 1H 103K-T	B	114.2/25.8
C7	4030006900	S.CER C1608 JB 1H 103K-T	B	53.2/14.2
C8	4030006900	S.CER C1608 JB 1H 103K-T	B	4.6/23.4
C9	4550007080	S.TAN TEESVA 1C 106M8R	T	127.4/24.3
C10	4030006900	S.CER C1608 JB 1H 103K-T	B	16.7/24.3
C11	4030006900	S.CER C1608 JB 1H 103K-T	B	82.17/7.8
C12	4030011600	S.CER C1608 JB 1E 104K-T	T	90.4/14.8
C13	4030011600	S.CER C1608 JB 1E 104K-T	B	134.5/11.9
C14	4030006900	S.CER C1608 JB 1H 103K-T	B	143.2/13.3
C15	4030006900	S.CER C1608 JB 1H 103K-T	B	143.2/14.6
C16	4030018980	S.CER C1608 JB 1H 104K-T	B	135.9/17.1
C17	4030006900	S.CER C1608 JB 1H 103K-T	B	56.8/13.4
C18	4030007020	S.CER C1608 CH 1H 120J-T	B	131.3/7.5
C19	4030006900	S.CER C1608 JB 1H 103K-T	B	134.5/11.9
C20	4030006900	S.CER C1608 JB 1H 103K-T	B	143.2/13.3
C21	4030011600	S.CER C1608 JB 1H 103K-T	B	143.2/14.6
C22				

[FRONT UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
C68	4030006860	S.CER C1608 JB 1H 102K-T	T	131.2/22.2
C70	4030006860	S.CER C1608 JB 1H 102K-T	B	52.9/6.9
C71	4030006860	S.CER C1608 JB 1H 102K-T	B	72.7/9.4
C72	4030006860	S.CER C1608 JB 1H 102K-T	T	66.7/9.1
C73	4030006860	S.CER C1608 JB 1H 102K-T	T	66.8/20.6
C74	4030006860	S.CER C1608 JB 1H 102K-T	T	75/8.6
C75	4030006860	S.CER C1608 JB 1H 102K-T	T	74.9/21.3
C76	4030006900	S.CER C1608 JB 1H 103K-T	B	115.4/3.4
C77	4550007690	S.TAN TEESVP 1C 105M8R	B	78.5/24.5
C78	4030006900	S.CER C1608 JB 1H 103K-T	B	78.2/22.9
C79	4030006860	S.CER C1608 JB 1H 102K-T	B	78.2/21.7
C80	4030006860	S.CER C1608 JB 1H 102K-T	B	111.8/25.1
C81	4030006900	S.CER C1608 JB 1H 103K-T	T	96.5/9.7
C82	4030011600	S.CER C1608 JB 1E 104K-T	T	97.7/9.7
C83	4030006860	S.CER C1608 JB 1H 102K-T	B	90.6/24.2
C85	4030006900	S.CER C1608 JB 1H 103K-T	B	105.9/24.3
C86	4030006900	S.CER C1608 JB 1H 103K-T	B	123.5/22.4

J3	6510026160	S.CNR 06FLZ-SM2-TB (LF) (SN)	B	28.3/8.4
J4	6510025141	S.CNR 10FLT-SM2-TB (LF) (SN)	B	110.8/4.2
J5	6510022201	S.CNR 40FLZ-SM2-R-TB (LF) (SN)	B	66.5/14
J6	6510026100	S.CNR 22FLT-SM2-TB (LF) (SN)	B	138.3/24.6

DS1	5040002930	S.LED SML-512MW T86	T	138.7/22.7
DS2	5040002930	S.LED SML-512MW T86	T	138.7/6.1
DS3	5040002960	S.LED SML-A12MT T86	T	10.5/16.8
DS4	5040002960	S.LED SML-A12MT T86	T	14.5/1.2
DS5	5040002930	S.LED SML-512MW T86	T	120.5/3.3
DS6	5040002930	S.LED SML-512MW T86	T	115.9/3.3
DS7	5040002930	S.LED SML-512MW T86	T	16.7/26.3
DS8	5040002930	S.LED SML-512MW T86	T	4.1/26.3
DS9	5040002930	S.LED SML-512MW T86	T	118.2/16.5
DS10	5040002930	S.LED SML-512MW T86	T	118.2/26.3
DS11	5060000020	EL UEL127		

S1	2250000580	ECR EC11EAB24C		
S2	2230001200	S.SW LS35J2-T	T	118.2/24
S3	2230001200	S.SW LS35J2-T	T	118.2/14.2
S4	2230001200	S.SW LS35J2-T	T	4.1/24
S5	2230001200	S.SW LS35J2-T	T	16.7/24
S6	2230001200	S.SW LS35J2-T	T	118.2/3.3

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
IC2	1110007200	S.IC M61545AFP#DF0R	T	30.1/67
IC3	1110003800	S.IC NJM2904V-TE1-#FMZB	B	18.7/53.7
IC4	1110003250	S.IC TDA7233D (TDA7233D013TR)	T	54.2/92.4
IC5	1180003000	REG LM2587T-ADJ/NOPB		
IC6	1180002010	S.REG BA08FP-E2	T	70.5/82
IC7	6910019020	S.IC LTC1069-1S8#TRPBF	T	91/79
IC8	1110003780	S.IC NJM2902V-TE1	T	98.4/90.6
IC9	6910019030	S.IC LTC6904MS8#TRPBF	T	98.3/73.2
IC13	1110003670	S.IC BA3308F-E2	T	43.3/67.9
IC14	1110007200	S.IC M61545AFP#DF0R	T	85.3/92.1
IC16	1110007230	S.IC NJM2137M-TE1	T	133.9/109.7
IC17	1190001211	S.IC HIP4081AIBZ-T	T	101.3/113.2
IC22	1110002751	S.IC TA75S01F (TE85R,F)	T	58.7/71.4
IC25	1110007230	S.IC NJM2137M-TE1	T	117/111.8
IC26	1130006221	S.IC TC4W53FU (TE12L,F)	T	100.6/77.2
IC31	1180002990	S.REG BD9781HFP-TR	T	133.2/134.2
IC32	1130006221	S.IC TC4W53FU (TE12L,F)	T	123.5/87.1
IC36	1110002751	S.IC TA75S01F (TE85R,F)	T	176.1/67
IC37	1110002751	S.IC TA75S01F (TE85R,F)	T	119.4/93.2
IC38	1110002751	S.IC TA75S01F (TE85R,F)	T	112/91.7
IC39	1110003201	S.IC TA31136FNG (EL)	T	144.1/57.1
IC42	1180002010	S.REG BA08FP-E2	T	199.2/127.1
IC43	1130006221	S.IC TC4W53FU (TE12L,F)	B	149.7/49.5
IC44	1180001861	S.IC TA78M05F (TE16L,Q)	T	200.6/119.5
IC45	1130006221	S.IC TC4W53FU (TE12L,F)	B	148/68.8
IC46	1130011180	S.IC BU4081BF-E2	T	188.9/130.3
IC47	1130012970	S.IC ADF4110BRUZ-RL7	B	186.7/59.9
IC48	1130011510	S.IC BU2099V-E2	T	177.8/18.1
IC49	1130008751	S.IC TC4028BF (EL,N,F)	T	179.5/131
IC52	1110003800	S.IC NJM2904V-TE1-#FMZB	B	92.7/66.5
IC54	1180003140	S.REG TA78L24F (TE12L,F)	T	125.3/117.1
IC67	1130004201	S.IC TC4S66F (TE85R,F)	T	67.7/71.9
IC68	1190002610	S.IC JMS-1+ <MRF>	T	95.1/53.6
IC69	1110007270	S.IC ERA-50SM+ <MRF>	B	65/61.4
IC70	1130004201	S.IC TC4S66F (TE85R,F)	B	141.9/12.9
IC71	1130004201	S.IC TC4S66F (TE85R,F)	B	121.9/112
IC74	1130006441	S.IC TC7S08F (TE85R,F)	B	97/125.4
IC75	6910019050	S.DCC BD9001F-E2	B	109.2/127.8
IC76	1110002751	S.IC TA75S01F (TE85R,F)	T	75.9/70.7
IC78	1190001350	S.IC M62364FP 600D	B	120.6/97.3
IC79	1110002751	S.IC TA75S01F (TE85R,F)	B	132/96.2
IC80	1130004201	S.IC TC4S66F (TE85R,F)	B	118.5/112
IC81	1110003780	S.IC NJM2902V-TE1	T	135/81.8
IC82	1110002751	S.IC TA75S01F (TE85R,F)	B	192.7/102.3
Q2	1530002381	S.TR 2SC4215-Y (TE85L,F)	B	176.4/26.2
Q3	1530002381	S.TR 2SC4215-Y (TE85L,F)	B	189.1/22.1
Q5	1560001281	S.FET 2SK508-T1B-A K53	T	182.6/41.3
Q6	1560001281	S.FET 2SK508-T1B-A K53	T	186.3/31.8
Q9	1540000690	S.TR 2SD2351 T106	B	42.3/83.2
Q11	1590003860	S.TR 2SJ402 (TE24L,Q)	T	26.1/131
Q12	1590000430	S.TR DTC144EUA T106	B	113.6/119.4
Q15	1560001121	S.FET 2SK2414-Z-E1-AZ	T	81.9/116.6
Q16	1560001121	S.FET 2SK2414-Z-E1-AZ	T	81/108.8
Q20	1580000780	S.FET 3SK195 (TE85L,F)	T	131.4/57.5
Q21	1530003281	S.TR 2SC4211-6-TL-E	T	144.2/90.6
Q24	1530002381	S.TR 2SC4215-Y (TE85L,F)	T	150.1/89.8
Q25	1530002381	S.TR 2SC4215-Y (TE85L,F)	T	150.2/82
Q26	1530002381	S.TR 2SC4215-Y (TE85L,F)	T	150.1/72
Q29	1520000860	S.TR 2SB1302S/T-TD-E	T	175/102.9
Q30	1590001010	S.TR DTB113ZK T146	B	185.4/102.5
Q32	1590001010	S.TR DTB113ZK T146	B	188.9/102.5
Q33	1530002920	S.TR 2SC4226-T1 R25	T	179/30.5
Q35	1530002381	S.TR 2SC4215-Y (TE85L,F)	B	170.5/29.4
Q38	1530002381	S.TR 2SC4215-Y (TE85L,F)	T	181.5/56.5
Q41	1530002920	S.TR 2SC4226-T1 R25	T	165.7/23.5
Q42	1540000690	S.TR 2SD2351 T106	B	196.3/23.1
Q45	1530002680	S.TR 2SC3357-T1	B	104.7/57.8
Q46	1590000430	S.TR DTC144EUA T106	T	172.9/121.5
Q48	1590001400	S.TR XP1214 (TX)	B	88.6/63.9
Q50	1530002841	S.TR 2SC4116-Y (TE85R,F)	T	146/87.3
Q51	1540000690	S.TR 2SD2351 T106	T	153.6/109.8
Q53	1590000430	S.TR DTC144EUA T106	B	188.4/98.1
Q54	1590000430	S.TR DTC144EUA T106	B	184.8/122.7
Q55	1590000430	S.TR DTC144EUA T106	T	131.3/89.9
Q58	1530002841	S.TR 2SC4116-Y (TE85R,F)	B	21.9/91.3
Q59	1560001330	S.FET RSR025N03	B	18.9/91.2
Q60	1560001330	S.FET RSR025N03	B	18.9/94.7
Q61	1590000430	S.TR DTC144EUA T106	B	21.9/95.4
D1	1750000531	S.DIO 1SV271 (TPH3,F)	B	42/59.6
D2	1750000531	S.DIO 1SV271 (TPH3,F)	B	44.9/60.6
D3	1750000531	S.DIO 1SV271 (TPH3,F)	B	44.4/57.7
D4	1750000590	S.DIO DAN217T146	B	7.3/69.7
D5	1750000590	S.DIO DAN217T146	B	7.5/62.4
D6	1750000590	S.DIO DAN217T146	B	9.3/75.9
D10	1720000850	S.VCP 1SV242 (TPH2,F)	B	48/53.6
D11	1720000850	S.VCP 1SV242 (TPH2,F)	B	56/53.1
D12	1750001390	S.ZEN DAM1MA33	B	17.6/121.4
D13	1720000850	S.VCP 1SV242 (TPH2,F)	B	72.3/54.8
D14	1720000850	S.VCP 1SV242 (TPH2,F)	B	80.8/52.6
D15	1730001011	S.ZEN RD16M-T2B-A B3	B	19.8/131
D16	1750000590	S.DIO DAN217T146	B	21.7/58.5
D17	1750000590	S.DIO DAN217T146	B	22.4/48.6
D18	1750000051	S.DIO 1SS193 (TE85R,F)	B	45.7/83.2
D19	1710000871	S.DIO HVU131TRF-E	B	107.4/63.9
D20	1710000871	S.DIO HVU131TRF-E	B	107.4/62
D21	1720000831	S.VCP KV1770STL-G	T	190.2/48.7
D22	1720000831	S.VCP KV1770STL-G	T	195.7/42.1
D23	1750000051	S.DIO 1SS193 (TE85R,F)	T	92.9/108.2
D26	1750001530	S.DIO DF10SC6-7072	T	69.3/133.8
D27	1710000871	S.DIO HVU131TRF-E	T	127.5/62.6

M.=Mounted side (T: Mounted on the Top side, B: Mounted on the Bottom side)

S.=Surface mount

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION		M.	H/V LOCATION
D28	1710000871	S.DIO	HVU131TRF-E	T	126.7/56.7
D29	1790001240	S.DIO	MA2S728-(TX)	B	137.4/92.2
D32	1750001500	S.DIO	CMS15 (TE12L_Q)	B	130.4/130.7
D33	1750000531	S.DIO	1SV271 (TPH3,F)	T	153.3/86.4
D35	1750000531	S.DIO	1SV271 (TPH3,F)	T	155.4/77
D36	1750001070	S.DIO	DAN235ETL	B	167.5/36.6
D50	1750001500	S.DIO	CMS15 (TE12L_Q)	B	111.6/132.1
D51	1790000990	S.ZEN	MA8051-H (TX)	B	97/128.4
D52	1790001790	S.DIO	RB876W TL	T	134.4/55.5
D53	1750000550	S.DIO	1SS355 TE-17	T	130.7/69.2
D54	1790001520	S.ZEN	MA8075-L (TX)	B	89.7/90.4
FI1	2040000500	LC	BNX-002-01		
FI2	4580000110	S.FIL	ACF321825-223-T	T	103.9/121
FI3	2010002400	S.MLH	FL-306 (38.850 MHz)	T	117.3/65
FI4	2010002410	S.MLH	FL-307 (38.850 MHz)	T	117.3/58.2
FI5	2020002320	S.CER	CFWKA450KEFA	B	152.6/59.5
FI6	2020002180	S.CER	CFWKA450KHFA-R0	B	143.7/59.5
X1	6070000191	S.DCR	CDBKB450KCAY24-R0	B	134.4/59
X2	6050012650	S.XTL	CR-860 (38.4 MHz)	T	175.8/61
L1	6200010780	S.COL	C2520C-1R0G-A	B	44.7/64.5
L2	6190001591	COL	#E526HNA-100312		
L3	6200010950	S.COL	C2520C-1R5G-A (1.5U)	B	53/62.5
L4	6190001591	COL	#E526HNA-100312		
L5	6200004480	S.COL	MLF1608D R82K-T	T	17.4/64.4
L6	6200004480	S.COL	MLF1608D R82K-T	T	17.4/60.2
L7	6200011450	S.COL	C2520C-R39G-A	B	70.9/62.8
L8	6190001591	COL	#E526HNA-100312		
L9	6200010950	S.COL	C2520C-1R5G-A (1.5U)	B	78.8/62.5
L10	6190001591	COL	#E526HNA-100312		
L11	6200010590	S.COL	C2520C-22NG-A	B	109.2/55.9
L12	6200011210	S.COL	C2012C-1R0J-A	B	111/64.8
L13	6200013240	S.COL	C2012C-R68J-A	B	110.8/61.6
L15	6200005011	S.COL	NLV25T-100J	T	179.3/37.6
L16	6190001690	S.COL	ZBFS5105-PT-01	B	23.1/110
L17	6190001690	S.COL	ZBFS5105-PT-01	B	32.1/113.4
L18	6190001790	S.COL	7B12H-680M	T	34.7/113.9
L19	6190001790	S.COL	7B12H-680M	T	49.7/111
L20	6200005011	S.COL	NLV25T-100J	T	183.9/28.4
L21	6190001790	S.COL	7B12H-680M	T	64.9/111
L22	6200005011	S.COL	NLV25T-100J	T	184.8/36.9
L23	6190001760	COL	HK-10S080-1210H		
L24	6190001780	S.COL	7E08N-330M	T	122.7/124.6
L25	6190001780	S.COL	7E08N-330M	T	147.4/126
L26	6190001780	S.COL	7E08N-330M	T	137.5/120.9
L28	6200002041	S.COL	NLV25T-101J	T	147.8/91.7
L29	6200002041	S.COL	NLV25T-101J	T	150/74.6
L31	6200007001	S.COL	ELJRE 82NGFA	T	177/29.3
L32	6200011050	S.COL	C2012C-R12G-A	B	169.6/33.5
L33	6200005011	S.COL	NLV25T-100J	T	189.9/26.5
L34	6200013220	S.COL	C6342A-R13G-A	T	189.5/40.7
L35	6200013200	S.COL	C1608CB-47NG	B	167.2/31.1
L36	6200013270	S.COL	C6342A-R11G-A	T	193.4/31
L37	6200005011	S.COL	NLV25T-100J	T	186.7/48.2
L38	6200005011	S.COL	NLV25T-100J	T	195.6/39
L39	6200005011	S.COL	NLV25T-100J	T	193.6/48.8
L40	6200005011	S.COL	NLV25T-100J	T	195.7/45.8
L42	62000011050	S.COL	C2012C-R12G-A	B	89.5/58.3
L45	6200003960	S.COL	MLF1608A 1R0K-T	T	181.5/58.6
L47	6200011050	S.COL	C2012C-R12G-A	T	168.2/23.9
L48	6200013200	S.COL	C1608CB-47NG	B	98.1/46
L49	6200010950	S.COL	C2520C-1R5G-A (1.5U)	T	124.5/63.9
L50	6200011090	S.COL	C2012C-R56J-A	T	124.1/57.6
L51	6200013160	S.COL	C1608CB-R22G	B	179/51.6
L52	6200013200	S.COL	C1608CB-47NG	B	98.8/55.1
L53	6200013200	S.COL	C1608CB-47NG	B	100.3/57.8
L56	6200013200	S.COL	C1608CB-47NG	B	176.7/45.3
L57	6200013260	S.COL	C1608CB-56NG	B	176.7/49.5
L58	6200004780	S.COL	MLF1608A 1R5K-T	T	175.9/56.7
L59	62000011210	S.COL	C2012C-1R0J-A	B	47.4/56.9
L60	6200004780	S.COL	MLF1608A 1R5K-T	T	133.9/57.8
L61	6200004730	S.COL	MLF1608A 1R2K-T	T	130.3/60.4
L62	6200004730	S.COL	MLF1608A 1R2K-T	T	129/60.4
L63	6200009930	S.COL	C2012C-68NG-A	B	31.7/61.9
L64	6200009930	S.COL	C2012C-68NG-A	B	35.8/61.9
L65	62000010350	S.COL	C2012C-R27G-A	B	32.5/59.1
L66	62000010350	S.COL	C2012C-R27G-A	B	37.8/59.4
L67	6190001810	S.COL	7E05NA-820M	T	112.9/129.6
L68	62000011430	S.COL	C1608CB-22NG	B	175.7/31.4
R1	7030003440	S.RES	ERJ3GEYJ 102 V (1 k)	B	12.5/81.7
R2	7030003440	S.RES	ERJ3GEYJ 102 V (1 k)	B	6.5/80.1
R3	7030003440	S.RES	ERJ3GEYJ 102 V (1 k)	B	12.6/72.2
R4	7030003440	S.RES	ERJ3GEYJ 102 V (1 k)	B	7.5/58.7
R5	7030003440	S.RES	ERJ3GEYJ 102 V (1 k)	B	6/75.9
R6	7030003860	S.RES	ERJ3GE J PWV	T	146.8/84.8
R7	7030003860	S.RES	ERJ3GE J PWV	T	135.4/87.1
R8	7030003520	S.RES	ERJ3GEYJ 472 V (4.7 k)	B	40.6/62.4
R9	7030003640	S.RES	ERJ3GEYJ 473 V (47 k)	T	81.4/69.9
R10	7030003320	S.RES	ERJ3GEYJ 101 V (100)	B	38.7/64.5
R11	7030003410	S.RES	ERJ3GEYJ 561 V (560)	T	17.4/61.4
R12	7030003320	S.RES	ERJ3GEYJ 101 V (100)	T	17.4/59
R13	7030003410	S.RES	ERJ3GEYJ 561 V (560)	T	17.4/63.2
R14	7030003400	S.RES	ERJ3GEYJ 471 V (470)	B	45.2/54.9
R15	7030006060	S.RES	ERJ12Y100U (10)	B	39/89.1
R16	7030003860	S.RES	ERJ3GE J PWV	B	47.1/67.9
R17	7030003680	S.RES	ERJ3GEYJ 104 V (100 k)	B	49.3/51
R18	7030003520	S.RES	ERJ3GEYJ 472 V (4.7 k)	B	52.4/49.6

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REF NO.	ORDER NO.	DESCRIPTION		M.	H/V LOCATION
R19	7030004040	S.RES	ERJ3GEYJ 4R7 V (4.7)	B	47.6/91.5
R20	7030003480	S.RES	ERJ3GEYJ 222 V (2.2 k)	T	23/68.4
R21	7030003480	S.RES	ERJ3GEYJ 222 V (2.2 k)	T	23.1/63.8
R22	7030003680	S.RES	ERJ3GEYJ 104 V (100 k)	B	57/55.6
R23	7030003520	S.RES	ERJ3GEYJ 472 V (4.7 k)	B	60.1/53.1
R24	7030003520	S.RES	ERJ3GEYJ 472 V (4.7 k)	B	90.7/61.9
R25	7030003680	S.RES	ERJ3GEYJ 104 V (100 k)	B	93.7/61.9
R26	7030003440	S.RES	ERJ3GEYJ 102 V (1 k)	T	25.5/68.3
R27	7030003440	S.RES	ERJ3GEYJ 102 V (1 k)	T	25.7/62.8
R28	7030003560	S.RES	ERJ3GEYJ 103 V (10 k)	T	178.5/104.1
R29	7030003520	S.RES	ERJ3GEYJ 472 V (4.7 k)	B	38.8/57
R31	7030003630	S.RES	ERJ3GEYJ 393 V (39 k)	B	22.1/129.1
R32	7030003860	S.RES	ERJ3GE J PWV	B	58.2/135.1
R33	7030003560	S.RES	ERJ3GEYJ 103 V (10 k)	B	25.4/52
R34	7030003520	S.RES	ERJ3GEYJ 472 V (4.7 k)	B	16.7/48.5
R35	7030003520	S.RES	ERJ3GEYJ 472 V (4.7 k)	B	18.2/60.4
R36	7030003480	S.RES	ERJ3GEYJ 222 V (2.2 k)	T	39.9/85.7
R37	7030003560	S.RES	ERJ3GEYJ 103 V (10 k)	B	24.1/59.6
R39	7030003480	S.RES	ERJ3GEYJ 222 V (2.2 k)	T	39.9/76.4
R40	7030003440	S.RES	ERJ3GEYJ 102 V (1 k)	T	23.1/57.4
R41	7030003740	S.RES	ERJ3GEYJ 334 V (330 k)	T	19.5/50.3
R42	7030003620	S.RES	ERJ3GEYJ 333 V (330 k)	B	19.8/128.4
R43	7030003740	S.RES	ERJ3GEYJ 334 V (330 k)	B	15.3/55.6
R44	7030006220	S.RES	ERJ12Y1470U (47)	B	74.4/65.3
R45	7030003680	S.RES	ERJ3GEYJ 104 V (100 k)	B	72.3/51.8
R46	7030003520	S.RES	ERJ3GEYJ 472 V (4.7 k)	B	72.3/47.8
R47	7030003790	S.RES	ERJ3GEYJ 824 V (820 k)	B	18.7/58.5
R48	7030003790	S.RES	ERJ3GEYJ 824 V (820 k)	B	19.4/48.5
R49	7030003680	S.RES	ERJ3GEYJ 104 V (100 k)	B	81.8/55
R50	7030003520	S.RES	ERJ3GEYJ 472 V (4.7 k)	B	85.1/52.7
R51	7030003450	S.RES	ERJ3GEYJ 122 V (1.2 k)	T	118.9/118.4
R53	7030003480	S.RES	ERJ3GEYJ 222 V (2.2 k)	T	50.6/76.4
R54	7030003860	S.RES	ERJ3GE J PWV	B	87/59.7
R55	7030003440	S.RES	ERJ3GEYJ 102 V (1 k)	T	34.2/66.9
R56	7030003440	S.RES	ERJ3GEYJ 102 V (1 k)	T	34.2/68.2
R57	7030003270	S.RES	ERJ3GEYJ 390 V (39)	T	45.9/63.5
R58	7030003380	S.RES	ERJ3GEYJ 331 V (330)	B	97.5/49.3
R59	7030003230	S.RES	ERJ3GEYJ 180 V (18)	B	98.8/49.3
R61	7030003860	S.RES	ERJ3GE J PWV	T	96.2/60.7
R62	7030003240	S.RES	ERJ3GEYJ 220 V (22)	B	112.7/55.2
R63	7030003510	S.RES	ERJ3GEYJ 392 V (3.9 k)	T	38/68.8
R64	7030003270	S.RES	ERJ3GEYJ 390 V (39)	T	45.9/63.5
R65	7030003680	S.RES	ERJ3GEYJ 104 V (100 k)	T	102.8/74.4
R78	7030003860	S.RES	ERJ3GE J PWV	T	102.8/74.4
R79	7030003860	S.RES	ERJ3GE J PWV	B	164.1/45.8
R82	7030003650	S.RES	ERJ3GEYJ 563 V (56 k)	T	139.8/108.3
R85	7030003580	S.RES	ERJ3GEYJ 153 V (15 k)	T	136.1/106.3
R86	7030003650	S.RES	ERJ3GEYJ 563 V (56 k)	T	138.6/109.1
R87	7030003650	S.RES	ERJ3GEYJ 563 V (56 k)	T	138.6/111.9
R88	7030003380	S.RES	ERJ3GEYJ 331 V (330)	T	177.3/38.2
R89	7510001571	S.TMR	NTCG16 4LH 104T	T	39.5/73
R90	7030003680	S.RES	ERJ3GEYJ 104 V (100 k)	T	40.7/73
R91	7030003580	S.RES	ERJ3GEYJ 153 V (15 k)	T	129.1/110.2
R92	7030003370	S.RES	ERJ3GEYJ 271 V (270)	T	184.6/25.8
R100	7030003730	S.RES	ERJ3GEYJ 274 V (270)	T	110.5/120
R101	7030003560	S.RES	ERJ3GEYJ 103 V (10 k)	B	191.5/21.9
R102	7030003480	S.RES	ERJ3GEYJ 222 V (2.2 k)	B	92/90.4
R103	7030003520	S.RES	ERJ3GEYJ 472 V (4.7 k)	B	177.

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
R163	7030003680	S.RES ERJ3GEYJ 104 V (100 k)	T	125.8/90.3
R164	7030003680	S.RES ERJ3GEYJ 104 V (100 k)	T	129.1/63
R165	7030003650	S.RES ERJ3GEYJ 563 V (56 k)	T	131/63.5
R167	7030003560	S.RES ERJ3GEYJ 103 V (10 k)	T	136/94.7
R168	7030003280	S.RES ERJ3GEYJ 470 V (47)	T	129.1/65.8
R169	7030003340	S.RES ERJ3GEYJ 151 V (150)	T	131.5/60.4
R170	7030003580	S.RES ERJ3GEYJ 153 V (15 k)	T	123.9/90
R171	7030003560	S.RES ERJ3GEYJ 103 V (10 k)	T	125.8/91.5
R173	7030003580	S.RES ERJ3GEYJ 153 V (15 k)	T	139.9/93.5
R174	7030003560	S.RES ERJ3GEYJ 103 V (10 k)	T	138.5/94.7
R175	7030003860	S.RES ERJ3GE JPW V	T	141.1/93.5
R177	7030003860	S.RES ERJ3GE JPW V	T	140.4/69
R178	7030003560	S.RES ERJ3GEYJ 103 V (10 k)	T	120.5/90.5
R179	7030003650	S.RES ERJ3GEYJ 563 V (56 k)	T	140.7/91.6
R181	7030003450	S.RES ERJ3GEYJ 122 V (1.2 k)	T	137.7/60.4
R183	7030003750	S.RES ERJ3GEYJ 394 V (390 k)	T	147/94.7
R184	7030003650	S.RES ERJ3GEYJ 563 V (56 k)	T	144.8/93.5
R185	7030003400	S.RES ERJ3GEYJ 471 V (470)	T	142.9/62
R186	7030003660	S.RES ERJ3GEYJ 683 V (68 k)	T	117.8/89.6
R187	7030003320	S.RES ERJ3GEYJ 101 V (100)	T	152.6/92.6
R188	7030003530	S.RES ERJ3GEYJ 562 V (5.6 k)	T	146.6/61.2
R189	7030003650	S.RES ERJ3GEYJ 563 V (56 k)	T	150/87.9
R191	7030003500	S.RES ERJ3GEYJ 332 V (3.3 k)	T	117/92.8
R192	7030003440	S.RES ERJ3GEYJ 102 V (1 k)	T	150.5/62.9
R193	7030003560	S.RES ERJ3GEYJ 103 V (10 k)	T	151/85.9
R194	7030003440	S.RES ERJ3GEYJ 102 V (1 k)	T	145.6/53.6
R196	7030003630	S.RES ERJ3GEYJ 393 V (39 k)	T	115.8/94.1
R197	7030003720	S.RES ERJ3GEYJ 224 V (220 k)	T	148.6/60
R198	7030003630	S.RES ERJ3GEYJ 393 V (39 k)	T	115.8/91.4
R199	7030003500	S.RES ERJ3GEYJ 332 V (3.3 k)	T	150/83.9
R200	7030003460	S.RES ERJ3GEYJ 152 V (1.5 k)	T	153/82.6
R201	7030003670	S.RES ERJ3GEYJ 823 V (82 k)	T	150.5/61.7
R202	7030003480	S.RES ERJ3GEYJ 222 V (2.2 k)	T	151.2/57.1
R203	7030003650	S.RES ERJ3GEYJ 563 V (56 k)	T	150.4/80.1
R204	7030003480	S.RES ERJ3GEYJ 222 V (2.2 k)	T	150.4/78.9
R205	7030003600	S.RES ERJ3GEYJ 223 V (22 k)	T	153/81.3
R206	7030003240	S.RES ERJ3GEYJ 220 V (22)	T	136.5/60.4
R207	7030003560	S.RES ERJ3GEYJ 103 V (10 k)	T	153/78.2
R208	7030003680	S.RES ERJ3GEYJ 104 V (100 k)	B	152.7/48.9
R209	7030003460	S.RES ERJ3GEYJ 152 V (1.5 k)	T	152.9/72.7
R210	7030003650	S.RES ERJ3GEYJ 563 V (56 k)	T	149.8/69.2
R211	7030003320	S.RES ERJ3GEYJ 101 V (100)	B	148.3/72.1
R212	7030003600	S.RES ERJ3GEYJ 223 V (22 k)	T	152.9/71.4
R213	7030003560	S.RES ERJ3GEYJ 103 V (10 k)	B	154.1/51.7
R214	7030003560	S.RES ERJ3GEYJ 103 V (10 k)	B	154.1/50.5
R215	7030003470	S.RES ERJ3GEYJ 182 V (1.8 k)	B	145.6/70.2
R216	7030003560	S.RES ERJ3GEYJ 103 V (10 k)	T	195.3/58.3
R217	7030003440	S.RES ERJ3GEYJ 102 V (1 k)	T	193.4/61.7
R218	7030003570	S.RES ERJ3GEYJ 123 V (12 k)	T	195/59.9
R219	7030003220	S.RES ERJ3GEYJ 150 V (15)	B	175.7/41
R220	7030003220	S.RES ERJ3GEYJ 150 V (15)	T	176/33.4
R222	7030003600	S.RES ERJ3GEYJ 223 V (22 k)	B	188.9/63.4
R223	7030003220	S.RES ERJ3GEYJ 150 V (15)	T	176.2/31.4
R227	7030003400	S.RES ERJ3GEYJ 471 V (470)	T	179.2/26.1
R230	7030003660	S.RES ERJ3GEYJ 683 V (68 k)	T	179.2/27.3
R232	7030003680	S.RES ERJ3GEYJ 104 V (100 k)	B	173.7/29.4
R233	7030003320	S.RES ERJ3GEYJ 101 V (100)	B	172.3/33.8
R237	7030003440	S.RES ERJ3GEYJ 102 V (1 k)	B	182/63.4
R238	7030003560	S.RES ERJ3GEYJ 103 V (10 k)	B	181.5/59
R245	7030003520	S.RES ERJ3GEYJ 472 V (4.7 k)	T	178.7/112.5
R246	7030003520	S.RES ERJ3GEYJ 472 V (4.7 k)	T	173.6/115.9
R247	7030003560	S.RES ERJ3GEYJ 103 V (10 k)	B	165.5/33.5
R248	7030003320	S.RES ERJ3GEYJ 101 V (100)	T	178.5/64.9
R252	7030003440	S.RES ERJ3GEYJ 102 V (1 k)	T	169.5/30.4
R253	7030003310	S.RES ERJ3GEYJ 820 V (82)	T	166.2/31.4
R254	7030003670	S.RES ERJ3GEYJ 823 V (82 k)	T	179.5/57.5
R256	7030003320	S.RES ERJ3GEYJ 101 V (100)	T	168.1/30.7
R257	7030003310	S.RES ERJ3GEYJ 820 V (82)	T	166.2/29.9
R258	7030003460	S.RES ERJ3GEYJ 152 V (1.5 k)	T	178.7/55.5
R259	7030003620	S.RES ERJ3GEYJ 333 V (33 k)	T	167.9/27.6
R262	7030003360	S.RES ERJ3GEYJ 221 V (220)	T	169.3/27.6
R263	7030003480	S.RES ERJ3GEYJ 222 V (2.2 k)	B	196.3/25.2
R264	7030003380	S.RES ERJ3GEYJ 331 V (330)	T	170.1/24
R267	7030003560	S.RES ERJ3GEYJ 103 V (10 k)	T	78.1/86.2
R269	7030003200	S.RES ERJ3GEYJ 100 V (10)	T	93.3/118.3
R270	7030003200	S.RES ERJ3GEYJ 100 V (10)	T	90/108.2
R277	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	T	171.8/115.2
R278	7030003520	S.RES ERJ3GEYJ 472 V (4.7 k)	T	170.5/115.2
R279	7030003520	S.RES ERJ3GEYJ 472 V (4.7 k)	T	135.1/92.8
R280	7030003500	S.RES ERJ3GEYJ 332 V (3.3 k)	T	142.3/93.5
R282	7030003860	S.RES ERJ3GE JPW V	T	80.7/86.2
R283	7030003610	S.RES ERJ3GEYJ 273 V (27 k)	B	117.8/114.4
R288	7030003580	S.RES ERJ3GEYJ 153 V (15 k)	B	112.7/124.1
R289	7030003680	S.RES ERJ3GEYJ 104 V (100 k)	T	121.9/112.1
R290	7030003720	S.RES ERJ3GEYJ 224 V (220 k)	T	124.5/112.1
R291	7030003680	S.RES ERJ3GEYJ 104 V (100 k)	T	119.1/115.2
R292	7030003560	S.RES ERJ3GEYJ 103 V (10 k)	T	70.1/72.8
R293	7030003520	S.RES ERJ3GEYJ 472 V (4.7 k)	T	65.9/69.3
R294	7030003480	S.RES ERJ3GEYJ 222 V (2.2 k)	T	80.7/89
R295	7030003620	S.RES ERJ3GEYJ 333 V (33 k)	T	82/86.2
R297	7030003460	S.RES ERJ3GEYJ 152 V (1.5 k)	B	108.5/53.1
R298	7030003440	S.RES ERJ3GEYJ 102 V (1 k)	B	111.5/52.2
R299	7030003200	S.RES ERJ3GEYJ 100 V (10)	B	101.2/55.1
R300	7030003280	S.RES ERJ3GEYJ 470 V (47)	B	101.2/52.7
R301	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	T	173.4/118.9
R302	7030003450	S.RES ERJ3GEYJ 122 V (1.2 k)	T	118.9/119.6
R303	7030003450	S.RES ERJ3GEYJ 122 V (1.2 k)	T	121.7/119.6
R304	7030003450	S.RES ERJ3GEYJ 122 V (1.2 k)	T	121.7/118.4
R305	7030003860	S.RES ERJ3GE JPW V	B	96.9/66.7
R312	7030003860	S.RES ERJ3GE JPW V	B	98.9/70.7
R313	7030003680	S.RES ERJ3GEYJ 104 V (100 k)	B	171.2/135.3
R314	7030003680	S.RES ERJ3GEYJ 104 V (100 k)	B	178.4/135.5
R315	7030003680	S.RES ERJ3GEYJ 104 V (100 k)	B	171.2/134.1
R316	7030003440	S.RES ERJ3GEYJ 102 V (1 k)	B	181.3/64.9

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
R317	7030003440	S.RES ERJ3GEYJ 102 V (1 k)	B	184/65.3
R318	7030003440	S.RES ERJ3GEYJ 102 V (1 k)	B	186/65.5
R319	7030003860	S.RES ERJ3GE JPW V	B	181.7/61.5
R320	7030003860	S.RES ERJ3GEYJ 105 V (1 M)	T	195.3/56.7
R322	7030003860	S.RES ERJ3GE JPW V	T	96.1/81.5
R323	7030003520	S.RES ERJ3GEYJ 472 V (4.7 k)	B	181.1/126.5
R324	7030003520	S.RES ERJ3GEYJ 472 V (4.7 k)	B	182.3/126.5
R327	7030003560	S.RES ERJ3GEYJ 103 V (10 k)	T	178.1/58.7
R328	7030003440	S.RES ERJ3GEYJ 102 V (1 k)	T	179.2/102.2
R329	7030003560	S.RES ERJ3GEYJ 103 V (10 k)	T	125.6/109.2
R330	7030003550	S.RES ERJ3GEYJ 822 V (8.2 k)	T	122/109.2
R331	7030003680	S.RES ERJ3GEYJ 104 V (100 k)	T	97.9/95.2
R332	7030003630	S.RES ERJ3GEYJ 393 V (39 k)	B	121/114.4
R336	7030003860	S.RES ERJ3GE JPW V	B	168/28.2
R340	7030003480	S.RES ERJ3GEYJ 222 V (2.2 k)	B	88/61.9
R341	7030003680	S.RES ERJ3GEYJ 104 V (100 k)	B	93.6/71.1
R342	7030003680	S.RES ERJ3GEYJ 104 V (100 k)	B	90/67.3
R343	7030003530	S.RES ERJ3GEYJ 562 V (5.6 k)	T	123.2/112.1
R344	7030003540	S.RES ERJ3GEYJ 682 V (6.8 k)	T	142.9/64.7
R350	7030001290	S.RES MCR50ZJH 2.2 k	B	120.5/128.5
R351	7030003600	S.RES ERJ3GEYJ 223 V (22 k)	B	94.5/124.2
R352	7030003560	S.RES ERJ3GEYJ 103 V (10 k)	B	107.4/124.1
R353	7030003710	S.RES ERJ3GEYJ 184 V (180 k)	T	103.5/128.1
R354	7030003700	S.RES ERJ3GEYJ 154 V (150 k)	T	114.4/127.4
R355	7030003440	S.RES ERJ3GEYJ 102 V (1 k)	T	110/124.1
R356	7030003680	S.RES ERJ3GEYJ 104 V (100 k)	T	143.8/87.3
R357	7030006060	S.RES ERJ12YJ100U (10)	T	151.4/117.5
R358	7030003500	S.RES ERJ3GEYJ 332 V (3.3 k)	T	151.7/109.6
R359	7030003620	S.RES ERJ3GEYJ 333 V (33 k)	T	75.9/68.3
R360	7030003680	S.RES ERJ3GEYJ 104 V (100 k)	T	78.3/70.7
R361	7030003560	S.RES ERJ3GEYJ 103 V (10 k)	T	71.7/71.4
R363	7030003860	S.RES ERJ3GE JPW V	B	126.1/63.6
R364	7030003520	S.RES ERJ3GEYJ 472 V (4.7 k)	B	15.8/74.4
R367	7030003580	S.RES ERJ3GEYJ 153 V (15 k)	T	72.8/69
R368	7030003680	S.RES ERJ3GEYJ 104 V (100 k)	T	95.1/94
R375	7030003860	S.RES ERJ3GE JPW V	B	72.8/85.6
R376	7030003860	S.RES ERJ3GE JPW V	B	125.2/68.3
R377	7030003440	S.RES ERJ3GEYJ 102 V (1 k)	B	185.6/98
R378	7030006060	S.RES ERJ12YJ100U (10)	B	201.7/32.5
R379	7030003860	S.RES ERJ3GE JPW V	B	114.5/94.5
R380	7030003860	S.RES ERJ3GE JPW V	B	114.5/92.9
R381	7030003860	S.RES ERJ3GE JPW V	T	117.4/103.3
R382	7030003860	S.RES ERJ3GE JPW V	T	123.7/103.3
R383	7030003640	S.RES ERJ3GEYJ 473 V (47 k)	B	183.5/126.5
R384	7030003560	S.RES ERJ3GEYJ 103 V (10 k)	B	128.4/96.6
R385	7030003560	S.RES ERJ3GEYJ 103 V (10 k)	B	129.1/99.3
R386	7030004040	S.RES ERJ3GEYJ 4R7 V (4.7)	B	114.5/97.1
R387	7030003860	S.RES ERJ3GE JPW V	B	124.6/91.8
R388	7030003860	S.RES ERJ3GE JPW V	B	126.8/94.7
R389	7030003280	S.RES ERJ3GEYJ 470 V (47)	B	127.9/99.3
R390	7030003860	S.RES ERJ3GE JPW V	B	131/62.9
R393	7030003620	S.RES ERJ3GEYJ 333 V (33 k)	B	95.7/50
R394	7030003620	S.RES ERJ3GEYJ 333 V (33 k)	B	96.2/64.6
R397	7030003760			

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
C3	4030006860	S.CER C1608 JB 1H 102K-T	B	42.7/61.6
C4	4030006860	S.CER C1608 JB 1H 102K-T	B	41.3/65.5
C5	4030006860	S.CER C1608 JB 1H 102K-T	B	4.9/69.7
C6	4030006860	S.CER C1608 JB 1H 102K-T	B	7.5/64.9
C7	4030006860	S.CER C1608 JB 1H 102K-T	B	9.3/73.5
C10	4030018980	S.CER C1608 JB 1H 104K-T	B	41.3/64.3
C11	4030006860	S.CER C1608 JB 1H 102K-T	B	14.9/84.1
C12	4030006860	S.CER C1608 JB 1H 102K-T	B	9.3/82.4
C13	4030006860	S.CER C1608 JB 1H 102K-T	B	11.3/72.2
C14	4030006860	S.CER C1608 JB 1H 102K-T	B	7.5/60
C15	4030006860	S.CER C1608 JB 1H 102K-T	B	6/73.8
C17	4030006860	S.CER C1608 JB 1H 102K-T	B	44.2/67.9
C18	4030006860	S.CER C1608 JB 1H 102K-T	B	41.5/57.7
C19	4030018980	S.CER C1608 JB 1H 104K-T	B	45.4/67.9
C20	4030006960	S.CER C1608 CH 1H 050C-T	B	48.2/59.1
C22	4030007090	S.CER C1608 CH 1H 470J-T	B	11.3/68.4
C23	4030006860	S.CER C1608 JB 1H 102K-T	B	11.3/67.1
C24	4030006860	S.CER C1608 JB 1H 102K-T	B	11.3/69.7
C26	4030011340	S.CER C1608 CH 1H 471J-T	T	3.4/104
C27	4030006860	S.CER C1608 JB 1H 102K-T	B	49.3/49.6
C28	4030006860	S.CER C1608 JB 1H 102K-T	T	3.4/105.2
C29	4550007770	S.TAN TEESVB2 1C 336M8R	T	18.3/56.6
C30	4030006860	S.CER C1608 JB 1H 102K-T	B	58.7/53.1
C31	4030006960	S.CER C1608 CH 1H 050C-T	B	58.2/61.5
C32	4510009400	S.ELE UUL1V100MCL1GS	T	131.3/115.4
C33	4030007070	S.CER C1608 CH 1H 330J-T	T	3.4/106.4
C34	4030010210	S.CER C3216 JB 1C 105M-T	T	21.2/66.4
C35	4030010210	S.CER C3216 JB 1C 105M-T	T	21.2/60.9
C36	4030006860	S.CER C1608 JB 1H 102K-T	B	68.3/64
C37	4030004750	S.CER C2012 JB 1H 103K-T	T	127.6/120.7
C38	4030006960	S.CER C1608 CH 1H 050C-T	B	73.3/59.5
C39	4030006860	S.CER C1608 JB 1H 102K-T	B	68.7/66.1
C40	4030004750	S.CER C2012 JB 1H 103K-T	T	3.5/107.9
C41	4030018980	S.CER C1608 JB 1H 104K-T	B	44.9/91.5
C42	4030006860	S.CER C1608 JB 1H 102K-T	T	20.1/68.4
C43	4030006860	S.CER C1608 JB 1H 102K-T	T	20.1/63.8
C44	4030006860	S.CER C1608 JB 1H 102K-T	B	71.5/49.8
C45	4030018980	S.CER C1608 JB 1H 104K-T	T	122.1/116.4
C46	4030006960	S.CER C1608 JB 1H 103K-T	B	67.4/66.1
C47	4510008500	S.ELE EEE1CA101WP	T	44.5/92.1
C48	4030006860	S.CER C1608 JB 1H 102K-T	T	50.1/89.2
C51	4550003220	S.TAN TEESVA 1E 105M8R	T	50.1/93.4
C53	4030006860	S.CER C1608 JB 1H 102K-T	B	83.1/52.6
C54	4030017490	S.CER C1608 JB 1A 105K-T	T	26.9/62.8
C55	4030017490	S.CER C1608 JB 1A 105K-T	T	26.2/70.3
C56	4550007260	S.TAN F931C475MAABMA	T	59.3/91.6
C57	4030006960	S.CER C1608 CH 1H 050C-T	B	82.3/61.7
C58	4030006960	S.CER C1608 JB 1H 103K-T	T	19.6/53.3
C59	4030006960	S.CER C1608 JB 1H 103K-T	B	23.3/51.9
C60	4030019260	S.CER C3225 JB 1H 335MT	T	92.9/112.3
C61	4510007320	ELE 50 YXG 470M		
C62	4030006860	S.CER C1608 JB 1H 102K-T	B	101.2/53.9
C63	4030011340	S.CER C1608 CH 1H 471J-T	T	20.9/50.3
C64	4030007070	S.CER C1608 CH 1H 330J-T	B	101.1/59.1
C65	4030006860	S.CER C1608 JB 1H 102K-T	B	110/53.1
C66	4510007320	ELE 50 YXG 470M		
C67	4030018980	S.CER C1608 JB 1H 104K-T	T	64.8/83.8
C68	4030006860	S.CER C1608 JB 1H 102K-T	B	115/49.8
C69	4030006860	S.CER C1608 JB 1H 102K-T	B	112.8/52.8
C72	4030017490	S.CER C1608 JB 1A 105K-T	B	45/133
C73	4510008830	S.ELE EEE1CA221P	T	64.8/91.5
C74	4030006860	S.CER C1608 JB 1H 102K-T	T	98.8/62
C75	4030006960	S.CER C1608 JB 1H 103K-T	T	103.5/65.5
C76	4030006960	S.CER C1608 JB 1H 103K-T	B	110.7/67
C77	4030006960	S.CER C1608 JB 1H 103K-T	B	111.1/59.3
C78	4030017490	S.CER C1608 JB 1A 105K-T	T	36.3/65.2
C79	4550007710	S.TAN TEESVB2 1A 476M8R	T	51.3/64.7
C80	4030007030	S.CER C1608 CH 1H 150J-T	B	113.8/67.7
C81	4030007170	S.CER C1608 CH 1H 221J-T	T	117.8/90.8
C82	4030017490	S.CER C1608 JB 1A 105K-T	B	22.3/60.9
C83	4030018980	S.CER C1608 JB 1H 104K-T	T	72.2/88.4
C84	4030007060	S.CER C1608 CH 1H 270J-T	T	112.2/58.6
C85	4510009690	ELE 50 WA 1000M (16X20)		
C86	4030017490	S.CER C1608 JB 1A 105K-T	B	25.4/50.8
C87	4030006910	S.CER C1608 CH 1H 0R5C-T	T	181.4/36.9
C88	4030006910	S.CER C1608 CH 1H 0R5C-T	T	182/31
C89	4030006860	S.CER C1608 JB 1H 102K-T	T	178.5/41.1
C90	4030006860	S.CER C1608 JB 1H 102K-T	T	186/27.7
C91	4030007040	S.CER C1608 CH 1H 180J-T	T	180/41.1
C92	4030007030	S.CER C1608 CH 1H 150J-T	T	184.2/31.8
C93	4030017480	S.CER C1608 JB 1A 474K-T	T	80.7/91.9
C94	4030007010	S.CER C1608 CH 1H 100D-T	T	182.6/39.1
C95	4030006860	S.CER C1608 JB 1H 102K-T	T	46.6/72.3
C96	4030006960	S.CER C1608 JB 1H 103K-T	B	175.5/22.7
C97	4030006920	S.CER C1608 CH 1H 010C-T	B	112.6/67.7
C98	4030006960	S.CER C1608 CH 1H 050C-T	T	186.6/29.6
C99	4030006960	S.CER C1608 JB 1H 103K-T	B	192.9/21.9
C100	4550007610	S.TAN F931E474MAABMA	T	49/70.7
C101	4030006900	S.CER C1608 JB 1H 103K-T	T	151.2/121.6
C102	4030007040	S.CER C1608 CH 1H 180J-T	T	185.1/41.1
C103	4030018980	S.CER C1608 JB 1H 104K-T	T	96.5/70.8
C104	4030010210	S.CER C3216 JB 1C 105M-T	T	140.3/112.3
C105	4030007020	S.CER C1608 CH 1H 120J-T	T	189/31.7
C106	4030017070	S.CER GRM32MR11H474KA01L	T	32.1/122.3
C107	4030017490	S.CER C1608 JB 1A 105K-T	T	53.9/71.5
C108	4030006860	S.CER C1608 JB 1H 102K-T	T	182.8/36.9
C109	4030006860	S.CER C1608 JB 1H 102K-T	T	187.4/27.7
C110	4030011340	S.CER C1608 CH 1H 471J-T	B	15.3/54.3
C111	4030010760	S.CER C1608 CH 1H 331J-T	T	133.1/106.3
C112	4030017070	S.CER GRM32MR11H474KA01L	T	42.8/119.5
C113	4030006900	S.CER C1608 JB 1H 103K-T	T	141.4/108.3
C114	4030017070	S.CER GRM32MR11H474KA01L	T	45.8/119.5
C115	4030006930	S.CER C1608 CH 1H 020C-T	T	189.9/43.7
C116	4030018980	S.CER C1608 JB 1H 104K-T	T	143/108.3

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
C117	4030006900	S.CER C1608 JB 1H 103K-T	T	182/33.1
C118	4510008500	S.ELE EEE1CA101WP	T	147.4/110
C119	4030017070	S.CER GRM32MR11H474KA01L	T	51.6/119.5
C120	4030017070	S.CER GRM32MR11H474KA01L	T	54.6/119.5
C121	4030006900	S.CER C1608 JB 1H 103K-T	T	92.9/105.9
C122	4030006900	S.CER C1608 CH 1H 220J-T	T	193/24.5
C123	4030007050	S.CER C1608 CH 1H 220J-T	T	189.9/45.1
C124	4550003210	S.TAN TEESVD21D226M12R	T	99.6/125.2
C125	4540000100	S.TRI TC03C100A-TP02	T	185.7/45.1
C126	4030007130	S.CER C1608 CH 1H 101J-T	B	115.9/112.4
C127	4030007020	S.CER C1608 CH 1H 120J-T	T	194.2/34.8
C128	4030017490	S.CER C1608 CH 1H 120J-T	B	120.5/116.3
C129	4030007040	S.CER C1608 JB 1A 105K-T	T	95.1/95.2
C130	4030017490	S.CER C1608 CH 1H 221J-T	T	86.5/78.9
C131	4030007170	S.CER C1608 JB 1H 104K-T	T	190.3/35.2
C132	4030007170	S.CER C1608 CH 1H 221J-T	T	189.9/46.3
C133	4030007070	S.CER C1608 CH 1H 390J-T	T	186.8/115.9
C134	4030017490	S.CER GRM32MR11H474KA01L	T	196.2/36.3
C135	4030007040	S.CER C1608 CH 1H 180J-T	T	85.8/81
C136	4540000100	S.TRI TC03C100A-TP02	T	89.9/115.9
C137	4030007080	S.CER C1608 CH 1H 390J-T	T	119.2/61.6
C138	4030017070	S.CER GRM32MR11H474KA01L	T	115.3/61.6
C139	4030007040	S.CER C1608 CH 1H 180J-T	T	132.4/127.3
C140	4030017480	S.CER C1608 CH 1H 100D-T	T	122.2/64.1
C141	4030018780	S.CER C3225 JB 2J 473K-T	T	122.3/57.6
C142	4030006940	S.CER C1608 CH 1H 030C-T	T	119.2/61.6
C143	4030007020	S.CER C1608 CH 1H 120J-T	T	115.3/61.6
C144	4030018980	S.CER C1608 JB 1H 104K-T	T	128.4/58.5
C145	4030007010	S.CER C1608 CH 1H 105K-T	T	134.8/94.7
C146	4030007010	S.CER C1608 CH 1H 105K-T	T	91.2/75.5
C147	4030007060	S.CER C1608 CH 1H 270J-T	T	137.2/94.7
C148	4030006860	S.CER C1608 JB 1H 472K-T	T	100.1/84.5
C149	4030006900	S.CER C1608 JB 1H 103K-T	T	132.7/60.4
C150	4030006860	S.CER C1608 JB 1H 103K-T	T	192.7/46.8
C151	4030006900	S.CER C1608 JB 1H 103K-T	T	138.4/58.5
C152	4030007040	S.CER C1608 CH 1H 180J-T	T	140.8/66.6
C153	4030007130	S.CER C1608 CH 1H 101J-T	T	138.9/60.4
C154	4030017490	S.CER C1608 JB 1H 104K-T	T	138.2/56.2
C155	4030006860	S.CER C1608 JB 1H 102K-T	T	143.6/93.5
C156	4030006860	S.CER C1608 JB 1H 102K-T	T	141.6/64.7
C157	4030018980	S.CER C1608 JB 1H 104K-T	T	138.1/57.5
C158	4030011810	S.CER C1608 JB 1A 224K-T	T	144.1/94.7
C159	4550007080	S.TAN TEESVA 1C 106M8R	T	144.7/104.7
C160	4030006900	S.CER C1608 JB 1H 103K-T	T	134.3/53.9
C161	4030006900	S.CER C1608 JB 1H 103K-T	T	136.8/55
C162	4030017490	S.CER C1608 JB 1A 105K-T	T	91.2/75.5
C163	4030006860	S.CER C1608 JB 1H 102K-T	T	137.2/94.7
C164	4030006900	S.CER C1608 JB 1H 103K-T	T	100.1/84.5
C165	4030006900	S.CER C1608 JB 1H 103K-T	T	192.7/46.8
C166	4030006900	S.CER C1608 JB 1H 103K-T	T	156.8/52.6
C167	4030006900	S.CER C1608 JB 1H 103K-T	T	183.1/57.5
C168	4030018980	S.CER C1608 JB 1H 104K-T	T	140.8/66.6
C169	4030017490	S.CER C1608 JB 1		

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
C245	4030006900	S.CER C1608 JB 1H 103K-T	B	179.3/63.4
C252	4030006860	S.CER C1608 JB 1H 102K-T	T	166.8/49.4
C253	4030006860	S.CER C1608 JB 1H 102K-T	T	178.6/62.5
C254	4550007260	S.TAN F931C475MAABMA	T	180.2/65.9
C255	4030017490	S.CER C1608 JB 1A 105K-T	T	83.6/71.4
C258	4030007040	S.CER C1608 CH 1H 180J-T	B	98.1/47.4
C261	4030006860	S.CER C1608 JB 1H 102K-T	T	168.8/32.8
C265	4030006860	S.CER C1608 JB 1H 102K-T	T	165.7/25.7
C266	4030006860	S.CER C1608 JB 1H 102K-T	T	166.4/27.6
C268	4030006860	S.CER C1608 JB 1H 102K-T	B	194.2/21.9
C269	4550007770	S.TAN TEESVB2 1C 336M8R	B	199.2/24.6
C273	4030006860	S.CER C1608 JB 1H 102K-T	B	203.4/35.1
C274	4030007030	S.CER C1608 CH 1H 150J-T	B	165/17.7
C275	4030006860	S.CER C1608 JB 1H 102K-T	T	79.4/86.2
C280	4030017490	S.CER C1608 JB 1A 105K-T	T	150/94.6
C282	4030006860	S.CER C1608 JB 1H 102K-T	B	191/106.6
C283	4030006900	S.CER C1608 JB 1H 103K-T	B	42.3/81.3
C284	4030006900	S.CER C1608 JB 1H 103K-T	B	45.7/80.8
C287	4510008830	S.ELE EEE1CA221P	T	143/135.1
C288	4510008830	S.ELE EEE1CA221P	T	152.3/135.1
C289	4030006900	S.CER C1608 JB 1H 103K-T	B	150.7/52.8
C290	4030006900	S.CER C1608 JB 1H 103K-T	B	148.4/64.7
C291	4030006900	S.CER C1608 JB 1H 103K-T	B	148/53.3
C292	4030006900	S.CER C1608 JB 1H 103K-T	B	141.4/66.3
C293	4030017480	S.CER C1608 JB 1A 474K-T	T	81.1/84.2
C295	4030017490	S.CER C1608 JB 1A 105K-T	B	118.3/115.7
C296	4030006900	S.CER C1608 JB 1H 103K-T	T	112/107.5
C297	4030006900	S.CER C1608 JB 1H 103K-T	T	130.2/106.3
C298	4030006900	S.CER C1608 JB 1H 103K-T	T	172/118.9
C299	4030006900	S.CER C1608 JB 1H 103K-T	T	180.2/113.7
C300	4030006900	S.CER C1608 JB 1H 103K-T	B	114.5/98.3
C302	4030006900	S.CER C1608 JB 1H 103K-T	B	185.1/128.8
C303	4030006900	S.CER C1608 JB 1H 103K-T	B	96.9/70.0
C304	4030006900	S.CER C1608 JB 1H 103K-T	B	21.5/54.9
C305	4030006860	S.CER C1608 JB 1H 102K-T	T	61.1/72.1
C306	4030006900	S.CER C1608 JB 1H 103K-T	T	121.8/92.4
C307	4030006900	S.CER C1608 JB 1H 103K-T	T	112.5/88.2
C308	4030018980	S.CER C1608 JB 1H 104K-T	B	93.2/90.4
C309	4030006900	S.CER C1608 JB 1H 103K-T	T	43.3/72.3
C310	4030006900	S.CER C1608 JB 1H 103K-T	T	33.6/70.2
C312	4030006940	S.CER C1608 CH 1H 030C-T	B	181.1/50.9
C313	4030007010	S.CER C1608 CH 1H 100D-T	T	175.9/57.9
C315	4030006860	S.CER C1608 JB 1H 102K-T	B	186.8/99.9
C316	4030006860	S.CER C1608 JB 1H 102K-T	B	184.2/99.9
C317	4030006860	S.CER C1608 JB 1H 102K-T	B	193/99.2
C318	4030007100	S.CER C1608 CH 1H 560J-T	B	98.4/57.1
C319	4030007070	S.CER C1608 CH 1H 330J-T	B	98.4/58.4
C320	4030007070	S.CER C1608 CH 1H 330J-T	B	98.1/52.4
C325	4030006860	S.CER C1608 JB 1H 102K-T	B	45.2/56.1
C326	4030018980	S.CER C1608 JB 1H 104K-T	T	123.4/109.2
C327	4030018980	S.CER C1608 JB 1H 104K-T	T	90.9/95.2
C328	4030018980	S.CER C1608 JB 1H 104K-T	T	93/94.7
C330	4030006900	S.CER C1608 JB 1H 103K-T	T	131/62.3
C331	4030006900	S.CER C1608 JB 1H 103K-T	B	131.1/54.5
C332	4550007080	S.TAN TEESVA 1C 106M8R	B	128.5/111.4
C333	4030006900	S.CER C1608 JB 1H 103K-T	B	117.6/109.4
C334	4030006860	S.CER C1608 JB 1H 102K-T	B	124.3/112
C335	4030018980	S.CER C1608 JB 1H 104K-T	T	140/64.7
C342	4510008740	S.ELE EEE1HA330P	T	112.9/122
C343	4030006880	S.CER C1608 JB 1H 472K-T	B	114.4/128.7
C345	4030018980	S.CER C1608 JB 1H 104K-T	B	104.7/128.1
C346	4030006900	S.CER C1608 JB 1H 103K-T	B	96.9/130.2
C347	4030006860	S.CER C1608 JB 1H 102K-T	T	167.1/37.5
C349	4030006860	S.CER C1608 JB 1H 102K-T	T	92.5/90.1
C350	4550007770	S.TAN TEESVB2 1C 336M8R	T	154.9/114.6
C351	4030018980	S.CER C1608 JB 1H 104K-T	B	106.9/132.1
C352	4030006990	S.CER C1608 CH 1H 080D-T	B	36.8/57
C353	4030007000	S.CER C1608 CH 1H 090D-T	B	34.3/57.3
C354	4030007120	S.CER C1608 CH 1H 820J-T	B	34/61.7
C355	4030007120	S.CER C1608 CH 1H 820J-T	B	37.7/61.9
C356	4030007130	S.CER C1608 CH 1H 101J-T	T	79.5/70.7
C357	4030006860	S.CER C1608 JB 1H 102K-T	T	75.5/73
C359	4030017490	S.CER C1608 JB 1A 105K-T	T	90.3/89.6
C360	4030018980	S.CER C1608 JB 1H 104K-T	T	100.7/95.2
C362	4030017490	S.CER C1608 JB 1A 105K-T	T	70.1/70
C363	4550007700	S.TAN TEESVP 1C 225M8R	T	73.3/71.3
C364	4550007080	S.TAN TEESVA 1C 106M8R	T	90.1/87
C365	4550007700	S.TAN TEESVP 1C 225M8R	T	63.5/72.7
C366	4030018980	S.CER C1608 JB 1H 104K-T	T	151.4/92.6
C367	4030018980	S.CER C1608 JB 1H 104K-T	T	197.7/132.6
C368	4030018980	S.CER C1608 JB 1H 104K-T	T	197.7/133.8
C369	4030018980	S.CER C1608 JB 1H 104K-T	T	72.2/89.7
C370	4030018980	S.CER C1608 JB 1H 104K-T	T	72.2/90.9
C371	4030018980	S.CER C1608 JB 1H 104K-T	B	51.4/125.6
C373	4030018980	S.CER C1608 JB 1H 104K-T	B	114.5/95.8
C374	4030018980	S.CER C1608 JB 1H 104K-T	B	126/96.6
C375	4030017490	S.CER C1608 JB 1A 105K-T	B	130.3/99.3
C376	4030006900	S.CER C1608 JB 1H 103K-T	B	129.6/96.6
C377	4030007070	S.CER C1608 CH 1H 330J-T	B	173.7/32.3
C378	4030006900	S.CER C1608 JB 1H 103K-T	B	180.8/57.1
C379	4030017490	S.CER C1608 JB 1A 105K-T	B	127.2/96.6
C380	4030006860	S.CER C1608 JB 1H 102K-T	B	171.5/38.1
C381	4030006860	S.CER C1608 JB 1H 102K-T	T	191.9/99
C382	4030006860	S.CER C1608 JB 1H 102K-T	B	22/93.3
C383	4030018980	S.CER C1608 JB 1H 104K-T	B	128/101.6
C384	4030006860	S.CER C1608 JB 1H 102K-T	T	175.9/55.5
C385	4030018980	S.CER C1608 JB 1H 104K-T	T	127.1/77.4
C386	4030018980	S.CER C1608 JB 1H 104K-T	T	137.9/85.9
C387	4030018980	S.CER C1608 JB 1H 104K-T	T	131.7/85
C388	4030008860	S.CER C1608 JB 1H 153K-T	T	138.5/77.8
C389	4030008900	S.CER C1608 JB 1H 333K-T	T	131.6/78.2
C390	4030018980	S.CER C1608 JB 1H 104K-T	T	129.7/80.3
C391	4030018980	S.CER C1608 JB 1H 104K-T	T	134.3/76.4
C392	4030018980	S.CER C1608 JB 1H 104K-T	T	136.3/76.9

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
C393	4030006900	S.CER C1608 JB 1H 103K-T	T	102.2/86.9
C394	4030006900	S.CER C1608 JB 1H 103K-T	T	103.6/89.7
C395	4030018980	S.CER C1608 JB 1H 104K-T	T	92.5/88.9
C396	4030006900	S.CER C1608 JB 1H 103K-T	T	103.6/91.5
C397	4030018980	S.CER C1608 JB 1H 104K-T	T	100.7/94
C398	4030018980	S.CER C1608 JB 1H 104K-T	T	173.7/61.4
C399	4030018980	S.CER C1608 JB 1H 104K-T	T	172.5/66.9
C400	4030018980	S.CER C1608 JB 1H 104K-T	T	176.3/69.4
C401	4030006900	S.CER C1608 JB 1H 103K-T	B	193/98
C402	4030007060	S.CER C1608 CH 1H 270J-T	B	106.2/53.9
C403	4030018780	S.CER C3225 JB 2J 473K-T	B	24.1/132.4
C404	4030006860	S.CER C1608 JB 1H 102K-T	B	54.8/134.7
RL1	6330001730	RLY AHY107		
CP1	6910009670	S.CHK HK3-S-T	T	198.1/56.7
CP2	6910009670	S.CHK HK3-S-T	T	21.9/122.9
CP5	6910009670	S.CHK HK3-S-T	T	95.8/64
CP11	6910009670	S.CHK HK3-S-T	T	96.2/67.1
J1	6510011591	CNR B2P-VH (LF) (SN)		
J2	6510023261	S.CNR B6B-PH-SM4-TB (LF) (SN)	T	188.4/105.9
J3	6510007020	CNR TMP-J01X-V6		
J7	6510026100	S.CNR 22FLT-SM2-TB (LF) (SN)	T	170.5/132.1
J8	6510017150	CNR TMP-S01X-C1		
J9	6510018941	S.CNR B13B-PH-SM4-TB (LF) (SN)	T	11.3/67.8
J10	6510011591	CNR B2P-VH (LF) (SN)		
S1	2260003060	S.SW NANOSMDC016F-2	B	120.5/125.8
T4	5920000751	TSM ST-82 (P) FL		

M.=Mounted side (T: Mounted on the Top side, B: Mounted on the Bottom side)

S.=Surface mount

[PA UNIT]

REF NO.	ORDER NO.	DESCRIPTION		M.	H/V LOCATION
IC500	1110003800	S.IC	NJM2904V-TE1-#FMZB	T	28.5/11.4
IC501	1110002751	S.IC	TA75S01F (TE85R,F)	T	18.8/6.5
Q500	1560001101	S.FET	2SK3074 (TE12L,F)	T	10.8/25.3
Q501	1560001061	S.FET	2SK3075 (TE12L,Q)	T	23/28.4
Q502	1590000430	S.TR	DTC144EUA T106	T	15.8/6.7
Q503	1590000430	S.TR	DTC144EUA T106	T	13.7/10.5
Q504	1590002841	FET	MRF137 (M/A COM)	T	58.9/21
D500	1790001670	S.DIO	RB706F-40T106	T	101.1/21.5
D501	1790001670	S.DIO	RB706F-40T106	T	106.9/22.6
D502	1750000760	S.DIO	MA4PH224 (MA4P1250-1072T)	T	112.3/22.5
D503	1750000760	S.DIO	MA4PH224 (MA4P1250-1072T)	T	118.5/8.5
D504	1750000760	S.DIO	MA4PH224 (MA4P1250-1072T)	T	118.5/13
D505	1790001670	S.DIO	RB706F-40T106	T	133.4/19.7
D506	1790001670	S.DIO	RB706F-40T106	T	129/19.7
D507	1750000550	S.DIO	1SS355 TE-17	T	15.8/14.9
L502	6200002380	S.COL	LQW31HN56NJ03L	T	15.2/19.2
L503	6200013260	S.COL	C1608CB-56NG	T	15.2/27
L504	6200013030	S.COL	0.35-1.6-6TL 31.0N <COMO>	T	28.6/23.7
L505	6200012780	S.COL	0.30-1.4-6TL 27.2N <COMO>	T	28.9/28.9
L506	6200009320	S.COL	C3328A-12NG-A	T	35/30.2
L507	6200009390	S.COL	C3328A-8N0J-A	T	34.5/25.4
L508	6200009390	S.COL	C3328A-8N0J-A	T	34.8/20.3
L509	6140000670	COL	LR-89		
L511	6140000670	COL	LR-89		
L512	6200010040	S.COL	AS100340-10N	T	73.6/24.2
L513	6200010040	S.COL	AS100340-10N	T	79.7/26.6
L514	6200010040	S.COL	AS100340-10N	T	91/25.1
L516	6110001610	COL	LA-244		
L517	6110001720	COL	LA-258		
L518	6110001610	COL	LA-244		
L519	6110001610	COL	LA-244		
L521	6110001740	COL	LA-263		
L522	6110001670	COL	LA-253		
L523	6110001740	COL	LA-263		
L524	6110001720	COL	LA-258		
R500	7030003860	S.RES	ERJ3GE JPW V	T	8/13.7
R501	7030003380	S.RES	ERJ3GEYJ 331 V (330)	T	5.3/13.7
R502	7030003230	S.RES	ERJ3GEYJ 180 V (18)	T	8/14.9
R503	7030003380	S.RES	ERJ3GEYJ 331 V (330)	T	8/16.1
R504	7030003360	S.RES	ERJ3GEYJ 221 V (220)	T	10.7/20
R505	7030003320	S.RES	ERJ3GEYJ 101 V (100)	T	17.8/27
R506	7030004040	S.RES	ERJ3GEYJ 4R7 V (4.7)	T	17.9/28.5
R507	7030003470	S.RES	ERJ3GEYJ 182 V (1.8 k)	T	17.8/23.4
R508	7030000410	S.RES	MCR10EZHZ 1.8 k	T	20/24.3
R509	7030003560	S.RES	ERJ3GEYJ 103 V (10 k)	T	12.4/14.5
R511	7030003670	S.RES	ERJ3GEYJ 823 V (82 k)	T	32.3/13.5
R512	7030003560	S.RES	ERJ3GEYJ 103 V (10 k)	T	30.7/15.9
R513	7030003650	S.RES	ERJ3GEYJ 563 V (56 k)	T	28.1/15.9
R514	7030003320	S.RES	ERJ3GEYJ 101 V (100)	T	23.2/9
R515	7030003630	S.RES	ERJ3GEYJ 393 V (39 k)	T	43/13.9
R516	7030003580	S.RES	ERJ3GEYJ 153 V (15 k)	T	51.3/10.3
R517	7030003600	S.RES	ERJ3GEYJ 223 V (22 k)	T	24.5/11.6
R518	7030010250	S.RES	ERJ1TYJ 0R00U	T	42/19
R520	7030003680	S.RES	ERJ3GEYJ 104 V (100 k)	T	25.8/9
R521	7030011250	S.RES	ERJ1TY 390U (39)	T	48.1/12.7
R522	7030003520	S.RES	ERJ3GEYJ 472 V (4.7 k)	T	32.4/10.8
R524	7030003620	S.RES	ERJ3GEYJ 333 V (33 k)	T	28.6/5.2
R525	7030003540	S.RES	ERJ3GEYJ 682 V (6.8 k)	T	30.6/6
R526	7030003320	S.RES	ERJ3GEYJ 101 V (100)	T	105/17.2
R527	7030003500	S.RES	ERJ3GEYJ 332 V (3.3 k)	T	102.5/18
R528	7030006070	S.RES	ERJ12JY101U (100)	T	112.6/7.4
R529	7030003480	S.RES	ERJ3GEYJ 222 V (2.2 k)	T	106.8/19.1
R534	7030003410	S.RES	ERJ3GEYJ 561 V (560)	T	31.3/14.7
R535	7510001571	S.TMR	NTCG16 4LH 104JT	T	23.4/20.8
R536	7030003590	S.RES	ERJ3GEYJ 183 V (18 k)	T	21.2/6.8
R536	7030003640	S.RES	ERJ3GEYJ 473 V (47 k)	T	21.2/6.8
R537	7030003440	S.RES	ERJ3GEYJ 102 V (1 k)	T	18.1/13.6
R537	7030003580	S.RES	ERJ3GEYJ 153 V (15 k)	T	18.1/13.6
R538	7030003560	S.RES	ERJ3GEYJ 103 V (10 k)	T	18.3/10
R538	7030003630	S.RES	ERJ3GEYJ 393 V (39 k)	T	18.3/10
R539	7030003550	S.RES	ERJ3GEYJ 822 V (8.2 k)	T	16.6/8.8
R539	7030003790	S.RES	ERJ3GEYJ 824 V (820 k)	T	16.6/8.8
R541	7030003730	S.RES	ERJ3GEYJ 274 V (270 k)	T	96.7/15.9
R542	7030003550	S.RES	ERJ3GEYJ 822 V (8.2 k)	T	22/14.8
R543	7030003530	S.RES	ERJ3GEYJ 562 V (5.6 k)	T	17.8/25.8
R545	7030003860	S.RES	ERJ3GE JPW V	T	106.9/6.4
R546	7070001160	RES	ERG3SJ 151 (150)		
R546	7070001250	RES	ERG3SJ 151P (150)		
R548	7030003240	S.RES	ERJ3GEYJ 220 V (22)	T	8.1/22.4
R549	7030003480	S.RES	ERJ3GEYJ 222 V (2.2 k)	T	133.3/16.4
R550	7030003500	S.RES	ERJ3GEYJ 332 V (3.3 k)	T	130.9/17.1
R553	7030003860	S.RES	ERJ3GE JPW V	T	9.3/20.9
R554	7030003460	S.RES	ERJ3GEYJ 152 V (1.5 k)	T	16.1/12.6
R554	7030003520	S.RES	ERJ3GEYJ 472 V (4.7 k)	T	16.1/12.6
R555	7030003460	S.RES	ERJ3GEYJ 152 V (1.5 k)	T	18.8/14.8
R555	7030003480	S.RES	ERJ3GEYJ 222 V (2.2 k)	T	18.8/14.8
R557	7030003520	S.RES	ERJ3GEYJ 472 V (4.7 k)	T	21.2/9.5
R557	7030003560	S.RES	ERJ3GEYJ 103 V (10 k)	T	21.2/9.5

[PA UNIT]

REF NO.	ORDER NO.	DESCRIPTION		M.	H/V LOCATION
C506	4030006860	S.CER	C1608 JB 1H 102K-T	T	34.6/10.8
C507	4030007130	S.CER	C1608 CH 1H 101J-T	T	9.3/18.2
C509	4030018980	S.CER	C1608 JB 1H 104K-T	T	27.2/21.3
C510	4030006860	S.CER	C1608 JB 1H 102K-T	T	22.5/17.8
C511	4030006860	S.CER	C1608 JB 1H 102K-T	T	13.4/18.6
C512	4030006860	S.CER	C1608 JB 1H 102K-T	T	11.6/17.9
C513	4030007030	S.CER	C1608 CH 1H 150J-T	T	14.4/24.3
C515	4030007070	S.CER	C1608 CH 1H 330J-T	T	13.7/28.4
C516	4030006860	S.CER	C1608 JB 1H 102K-T	T	17.8/24.6
C517	4030017190	S.CER	GRM31AR32J471KW01D	T	23.4/23.4
C518	4030006860	S.CER	C1608 JB 1H 102K-T	T	27.2/20.1
C520	4030007100	S.CER	C1608 CH 1H 560J-T	T	29.2/30.9
C521	4030007130	S.CER	C1608 CH 1H 101J-T	T	31.4/30.4
C522	4030007050	S.CER	C1608 CH 1H 220J-T	T	38/31.8
C523	4550006470	S.TAN	TEESVB2 1D 106M8R	T	24.1/3.1
C524	4030007110	S.CER	C1608 CH 1H 680J-T	T	38.7/27.4
C525	4030006860	S.CER	C1608 JB 1H 80K-T	T	19.8/4.2
C527	4030006900	S.CER	C1608 JB 1H 103K-T	T	24/6.1
C528	4030006860	S.CER	C1608 JB 1H 102K-T	T	25.2/6.1
C529	4030007060	S.CER	C1608 CH 1H 270J-T	T	35.3/23.1
C531	4030006860	S.CER	C1608 JB 1H 102K-T	T	25.8/12.9
C534	4030006900	S.CER	C1608 JB 1H 103K-T	T	21.9/13.6
C535	4550007540	S.TAN	F931C155MAABM	T	50.6/7.3
C536	4030007130	S.CER	C1608 CH 1H 101J-T	T	28.1/17.1
C537	4030006860	S.CER	C1608 JB 1H 102K-T	T	51.3/9.1
C538	4030006860	S.CER	C1608 JB 1H 102K-T	T	85.7/9.9
C539	4030006880	S.CER	C1608 JB 1H 472K-T	T	84.3/9.9
C540	4030017190	S.CER	GRM31AR32J471KW01D	T	45.9/28.5
C541	4030006860	S.CER	C1608 JB 1H 102K-T	T	28.6/6.4
C542	4030007140	S.CER	C1608 CH 1H 121J-T	T	81/9.9
C543	4030006860	S.CER	C1608 JB 1H 102K-T	T	82.3/9.9
C544	4030011550	S.CER	GRM31M2C2H680JV01L	T	74/28.3
C545	4030006900	S.CER	C1608 JB 1H 103K-T	T	29/9.4
C547	4030018050	S.CER	ERF22X 6C2H 270J D01L	T	84.6/26.7
C548	4030006860	S.CER	C1608 JB 1H 102K-T	T	29.9/2.8
C549	4030011160	S.CER	GRM31M2C2H150JV01L	T	94.2/29.2
C549	4030011180	S.CER	GRM31M2C2H220JV01L	T	94.2/29.2
C550	4030006860	S.CER	C1608 JB 1H 102K-T	T	101.9/13.3
C551	4030011180	S.CER	GRM31M2C2H220JV01L	T	96.7/29.2
C552	4030006860	S.CER	C1608 JB 1H 102K-T	T	110.17.2
C553	4030010780	S.CER	C1608 CH 1H 1R5C-T	T	99/24.4
C554	4030007020	S.CER	C1608 CH 1H 120J-T	T	99/21.7
C555	4030006860	S.CER	C1608 JB 1H 102K-T	T	102.5/16.8
C556	4030010780	S.CER	C1608 CH 1H 1R5C-T	T	104.7/25.6
C557	4030007020	S.CER	C1608 CH 1H 120J-T	T	104.7/27.7
C558	4030006860	S.CER	C1608 JB 1H 102K-T	T	104.7/19.9
C559	4030006900	S.CER	C1608 JB 1H 103K-T	T	108.9/7.2
C560	4030011180	S.CER	GRM31M2C2H230JV01L	T	106.2/30.1
C561	4030017200	S.CER	GRM31BR32J102KV01L	T	108.2/9.4
C562	4030017200	S.CER	GRM31BR32J102KV01L	T	110.8/27
C563	4030011170	S.CER	GRM31M2C2H180JV01L	T	118.2/20
C565	4030011170	S.CER	GRM31M2C2H390JV01L	T	119.2/6.5
C566	4030007030	S.CER	C1608 CH 1H 150J-T	T	127.3/32.5
C567	4030006860	S.CER	C1608 JB 1H 102K-T	T	125.8/5.4
C568	4030007130	S.CER	C1608 CH 1H 101J-T	T	14.9/12.6
C569	4030017200	S.CER	GRM31BR32J102KV01L	T	115.4/25.2
C570	4030007070	S.CER	C1608 CH 1H 330J-T	T	119.2/11
C572	4030011180	S.CER	GRM31M2C2H220JV01L	T	117.4/29.1
C575	4030011220	S.CER	GRM31M2C2H360JV01L	T	127.3/2.5
C577	4030011100	S.CER	GRM31M2C2H8R0DV01L	T	129.4/25.4
C578	4030011210	S.CER	GRM31M2C2H330JV01L	T	135.8/30.2
C582	4030011170	S.CER	GRM31M2C2H180JV01L	T	146.3/25.8
C585	403001				

[VR UNIT]

REF NO.	ORDER NO.	DESCRIPTION		M.	H/V LOCATION
R1	7210003270	VAR	TP76N00NA-26F-10KB-2974		
R2	7030003440	S.RES	ERJ3GEYJ 102 V (1 k)	T	6.8/7.8
R3	7030003320	S.RES	ERJ3GEYJ 101 V (100)	T	6.8/3.3
C1	4030006900	S.CER	C1608 JB 1H 103K-T	T	3/3.3
C2	4030006900	S.CER	C1608 JB 1H 103K-T	T	3/7.8
C3	4030006860	S.CER	C1608 JB 1H 102K-T	B	8.2/7
C4	4030006860	S.CER	C1608 JB 1H 102K-T	B	8.2/3.8
J1	6510026160	S.CNR	06FLZ-SM2-TB (LF) (SN)	B	3.3/5.1

[K-CONNECT UNIT]

REF NO.	ORDER NO.	DESCRIPTION		M.	H/V LOCATION
D1	1790001250	S.DIO	MA2S111-(TX)	T	10.9/9.7
D2	1790001250	S.DIO	MA2S111-(TX)	T	10.9/8.1
D3	1790001250	S.DIO	MA2S111-(TX)	T	15.4/12.3
D4	1790001250	S.DIO	MA2S111-(TX)	T	15.4/8.8
D5	1790001750	S.DIO	DSM3MA4	T	51.3/6.7
L1	6110001660	COL	LA-252		
R1	7030003500	S.RES	ERJ3GEYJ 332 V (3.3 k)	T	26.4/12.5
R2	7030003500	S.RES	ERJ3GEYJ 332 V (3.3 k)	T	21.1/12.3
R3	7030003500	S.RES	ERJ3GEYJ 332 V (3.3 k)	T	28.3/12.3
R4	7030003500	S.RES	ERJ3GEYJ 332 V (3.3 k)	T	33.3/12.5
R5	7030003500	S.RES	ERJ3GEYJ 332 V (3.3 k)	T	30.7/13.3
R6	7030003500	S.RES	ERJ3GEYJ 332 V (3.3 k)	T	31.3/11.6
R7	7030003640	S.RES	ERJ3GEYJ 473 V (47 k)	T	7.5/8.9
R8	7030003580	S.RES	ERJ3GEYJ 153 V (15 k)	T	8.9/8.9
R9	7030003440	S.RES	ERJ3GEYJ 102 V (1 k)	T	16.8/12.3
R10	7030003680	S.RES	ERJ3GEYJ 104 V (100 k)	T	8.9/12.3
R11	7540000250	ABS	SA05C 401N		
R12	7030003320	S.RES	ERJ3GEYJ 101 V (100)	T	107.1/18
R13	7030003320	S.RES	ERJ3GEYJ 101 V (100)	T	107.1/11.4
R14	7030003860	S.RES	ERJ3GE JPW V	T	25.2/10
R15	7030003860	S.RES	ERJ3GE JPW V	T	22.6/10.4
R16	7030003860	S.RES	ERJ3GE JPW V	T	29.4/9.8
R17	7030003860	S.RES	ERJ3GE JPW V	T	32.1/9.6
R18	7030003860	S.RES	ERJ3GE JPW V	T	36.5/9.6
R19	7540000410	ABS	ERZV14D470		
C1	4030006900	S.CER	C1608 JB 1H 103K-T	T	18.1/12.3
C2	4030004750	S.CER	C2012 JB 1H 103K-T	T	69.5/8
C3	4030004750	S.CER	C2012 JB 1H 103K-T	T	64.4/6.6
C4	4030006860	S.CER	C1608 JB 1H 102K-T	T	39.1/12.7
C5	4030006860	S.CER	C1608 JB 1H 102K-T	T	22.3/12.3
C6	4030006860	S.CER	C1608 JB 1H 102K-T	T	41.7/12.7
C7	4030006860	S.CER	C1608 JB 1H 102K-T	T	37.8/12.7
C8	4030006860	S.CER	C1608 JB 1H 102K-T	T	24.3/13.2
C9	4030006860	S.CER	C1608 JB 1H 102K-T	T	35.2/12.7
C10	4030006860	S.CER	C1608 JB 1H 102K-T	T	36.5/12.7
C11	4030006860	S.CER	C1608 JB 1H 102K-T	T	43/12.7
C12	4030006860	S.CER	C1608 JB 1H 102K-T	T	40.4/12.7
C13	4030006860	S.CER	C1608 JB 1H 102K-T	T	19.3/12.3
C14	4030006860	S.CER	C1608 JB 1H 102K-T	T	10.8/12.3
C15	4030006860	S.CER	C1608 JB 1H 102K-T	T	13.5/12.3
C16	4030006860	S.CER	C1608 JB 1H 102K-T	T	14.1/8.8
C17	4030006860	S.CER	C1608 JB 1H 102K-T	T	7.5/12.3
C18	4030006860	S.CER	C1608 JB 1H 102K-T	T	12.2/12.3
C19	4030006860	S.CER	C1608 JB 1H 102K-T	T	12.9/8.8
C20	4030006860	S.CER	C1608 JB 1H 102K-T	T	107.1/19.2
C21	4030006860	S.CER	C1608 JB 1H 102K-T	T	107.1/10.2
C22	4030011070	S.CER	GRM31M2C2H5R0CY21L	T	121.8/15.1
C23	4030011070	S.CER	GRM31M2C2H5R0CY21L	T	121/6.4
C24	4030006860	S.CER	C1608 JB 1H 102K-T	T	67.2/6.9
C25	4030018980	S.CER	C1608 JB 1H 104K-T	T	65.9/6.9
J1	6510014210	CNR	BNC-BJ		
J3	6510011591	CNR	B2P-VH (LF) (SN)		
J4	6510018941	S.CNR	B13B-PH-SM4-TB (LF) (SN)	T	31.1/3.9
J6	6510017150	CNR	TMP-S01X-C1		
J7	6510026480	CNR	HSJ1650-010020		
F1	5210001070	S.FUS	0451008.MRL	T	68.2/10.6
W1	7120000490	JMP	ERD25T0		

M.=Mounted side (T: Mounted on the Top side, B: Mounted on the Bottom side)
 S.=Surface mount

SECTION 6

MECHANICAL PARTS

[CHASSIS PARTS]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
W1	8900016940	OPC-1820	1
W2	8900016950	OPC-1737	1
W3	8900016960	OPC-1738	1
W4	8900016970	OPC-1739	1
W5	8900016980	OPC-1740	1
W6	8900016990	OPC-1741	1
W7	8900017000	OPC-1743	1
W8	8900017010	OPC-1744	1
W9	8900017021	OPC-1745A	1
MP1	8010020770	2974 CHASSIS	1
MP2	8110009140	2974 T-COVER	1
MP3	8930072790	2974 STOPPER PLATE	2
MP4	8110009150	2974 B-COVER	1
MP5	8510018420	2974 SHIELD COVER	1
MP6	8210023930	2974 FRONT PANEL (Incl. MP7, MP8)	1
MP7	8930072770	2974 V-LENS	1
MP8	8930072780	2974 E-LENS	1
MP9	8310069720	2974 WINDOW PLATE	1
	8310069720	2974 WINDOW PLATE	[USA-01]
	8310069720	2974 WINDOW SHEET	[EXP-01]
MP10	8930072860	2974 WINDOW SHEET	1
MP11	8610013150	Knob K-264	1
MP12	8610013160	Knob K-265	1
MP13	8610013170	Knob K-265 (A)	1
MP14	8610013180	Knob K-266	1
MP15	8610013190	Knob K-266 (A)	1
MP16	8610013200	Knob N-356	1
MP17	8610013210	Knob N-357	1
MP18	8610013220	Knob N-358	1
MP19	8930072830	2974 A-SPONGE	1
MP20	8930072840	2974 B-SPONGE	1
MP21	8930073160	2974 S-LENS	1
MP22	8820001450	2974 CAP SCREW	2
MP23	8930073260	Shield sponge (CD)	1
MP24	8930073270	2974 INSULATION SHEET	1
MP25	8930073480	2974 CLIP	1
MP26	8930022572	867 STOPPER-2	2
MP27	8820000691	867 CUP SCREW-1	2
MP28	8930024080	867 SPRING	2
MP29	8860000740	Spring pin M1.2X6 SUS	2
MP30	8850000690	Flat washer M3 SUS 3X7X0.5	4
MP31	8810002950	Screw BiH M3X6 SUS	27
MP32	8810003131	Setscrew (A) 2.6X6 ZC3	2
MP33	8810010151	Screw BT B0 2X10 SUS SSBC	4
MP34	8830001470	VR nut (N)	1
MP35	8810006300	Setscrew (C) 3X8 SUS	16
MP36	8810003520	Hex stop screw M3X3 ZK	4
MP37	8930069430	Insulation sheet (LM)	1
MP38	8930027730	Sponge (DC)	1
MP39	8930057730	Shield sponge (J)	3
MP43	895000180	Cable tie -80	4

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
RL1*	6330001730	AHY107	1
CP1*	6910009670	HK3-S-T	1
J1	6510011591	B2P-VH (LF) (SN)	1
J3	6510007020	TMP-J01X-V6	1
J7*	6510026100	22FLT-SM2-TB (LF) (SN)	1
J8	6510018450	TMP-S01X-B1	1
J9*	6510018941	B13B-PH-SM4-TB (LF) (SN)	1
J10	6510021071	S2P-VH (LF) (SN)	1
J11*	6510022311	B5B-PH-SM4-TB (LF) (SN)	1
S1*	2260003060	NANOSMDC016F	1
T4	5920000751	ST-82 (P)FL	1
MP1*	8510018070	2979 VCO case	1
MP2*	8510017600	OG-363050	1
MP3*	8510017600	OG-363050	1
MP5*	8510017600	OG-363050	1
MP6*	8510017600	OG-363050	1
MP7*	8510017600	OG-363050	1

*: Refer to SECTION 9 "BOARD LAYOUTS."

[FRONT UNIT]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
DS11	5060000020	UEL127	1
S1	2250000580	EC11EAB24C	1
S2*	2230001200	LS35J2-T	1
S3*	2230001200	LS35J2-T	1
S4*	2230001200	LS35J2-T	1
S5*	2230001200	LS35J2-T	1
S6*	2230001200	LS35J2-T	1

[K-CONNECT UNIT]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
J4*	6510018941	B13B-PH-SM4-TB (LF) (SN)	1
J6	6510017150	TMP-S01X-C1	1
J7*	6510024680	HSJ1636-011020	1
F1*	5210001070	0451008.MRL	1

[PA UNIT]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
J500*	6510011591	B2P-VH (LF) (SN)	1
J501	6510017150	TMP-S01X-C1	1
J502*	6510022311	B5B-PH-SM4-TB (LF) (SN)	1
J503	6510017150	TMP-S01X-C1	1
J504	6510017150	TMP-S01X-C1	1
MP1	8510012910	2270 RUG	1
MP3*	6910014760	OG-503040	1

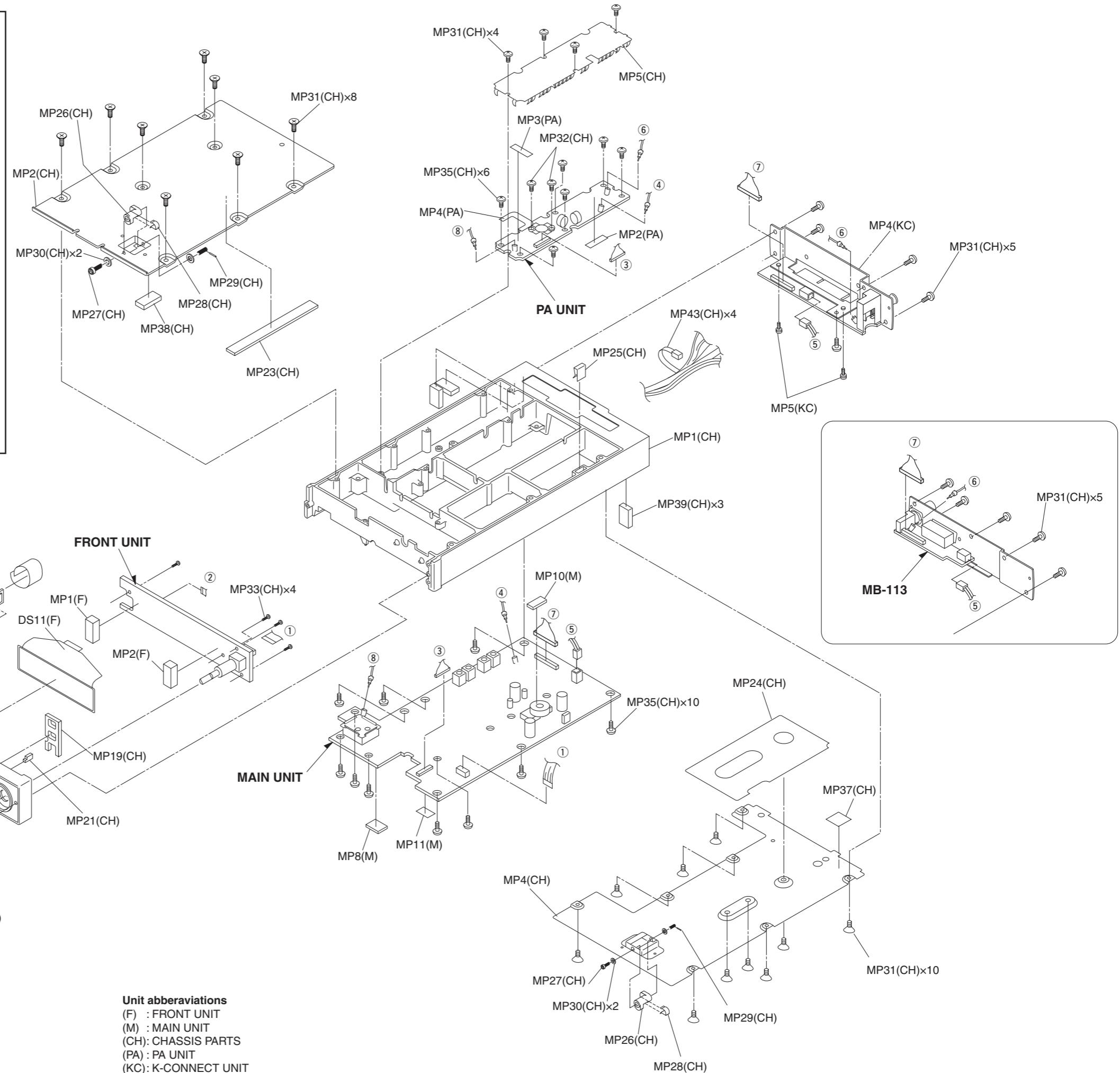
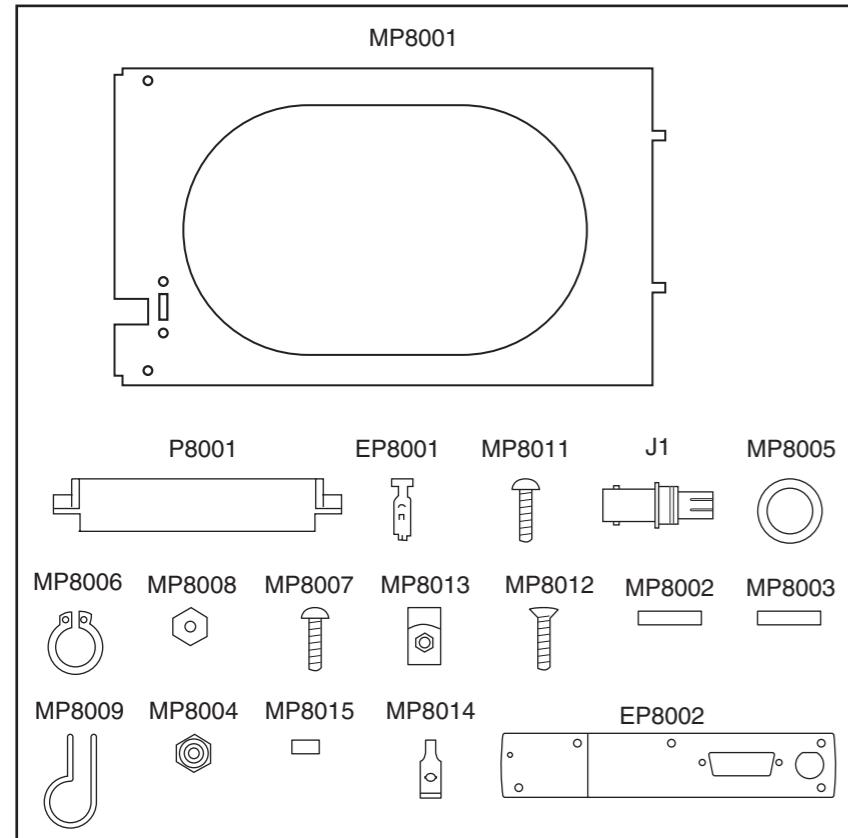
[VOLUME UNIT]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
R1	7210003270	TP76N00NA-26F-10KB-2974	1
J1*	6510026160	06FLZ-SM2-TB (LF) (SN)	1

[ACCESSORIES]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
J8001	6510026350	2974BNC-LP	1
P8001	6510013840	4338-15	1
P8002	6510014430	DS-6532	1
EP8001	6510013850	4366-GL	30
EP8002	0880002520	MB-113	1
MP8001	8010011621	867 BRACKET-1	1
MP8002	8310023870	867 O.P. LABEL	1
MP8003	8310023880	867 O.P. LABEL (A)	1
MP8004	8830000730	Self-clinching nylon Nut TPLC-440	2
MP8005	8850001210	ICOM washer (V)	1
MP8006	8860000720	C-ring S 11 SUS	1
MP8007	8810007080	Screw BiH UNC NO.6X12.7 SUS	1
MP8008	8830000740	Nut UNC NO.6 SUS	1
MP8009	8950002550	Nylon clip SL-9N	1
MP8010	8830000750	Nylon Nut UNC NO.6 SUS	1
MP8011	8810007070	Screw BiH UNC NO.4X12.7 SUS	2
MP8012	8810007060	Screw UNC NO.6X12.7 SUS	6
MP8013	8830000761	Clip nut UNC NO.6-1	6
MP8014	8830000771	Speed nut U-TYPE UNC NO.6 ZC3	4
MP8015	8930022970	867 pin	2

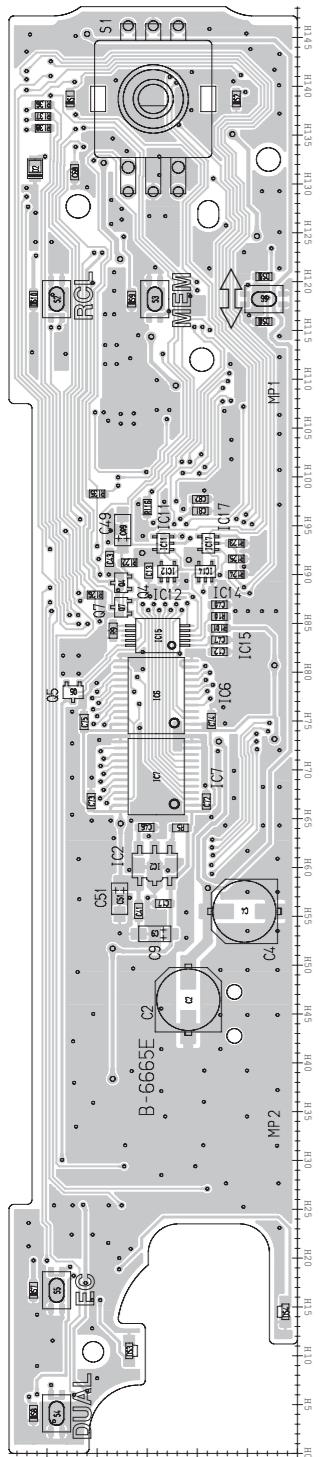
• ACCESSORIES



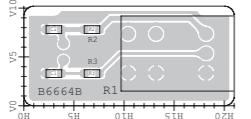
SECTION 7

BOARD LAYOUTS

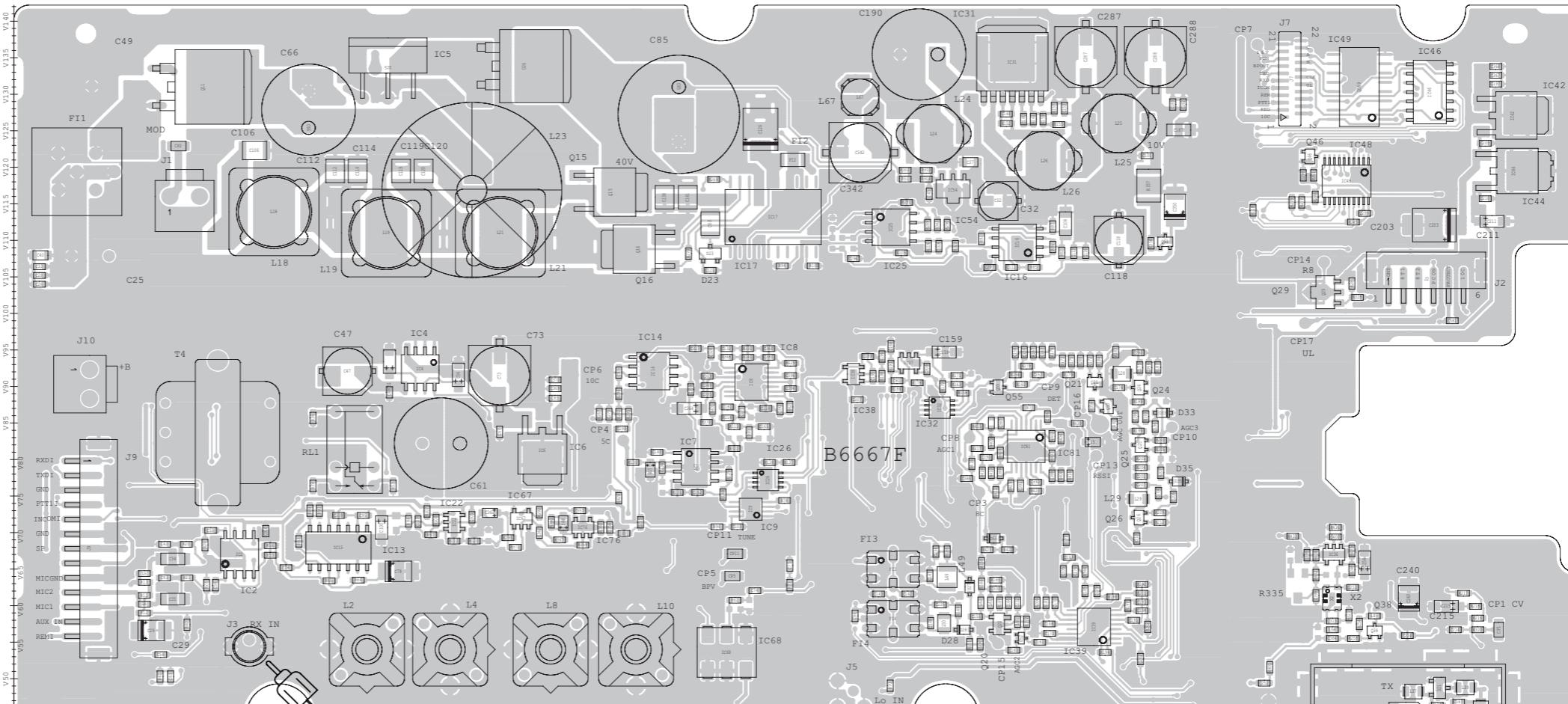
- FRONT UNIT (TOP VIEW)



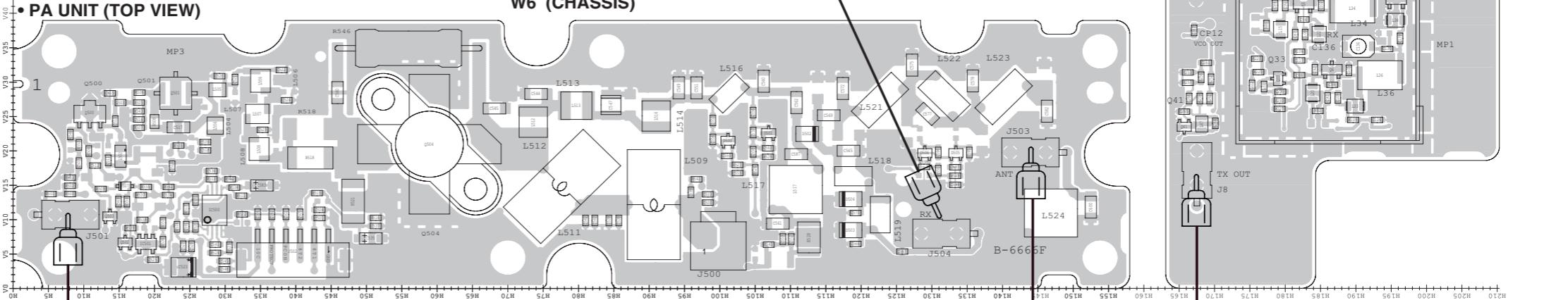
- VOLUME UNIT (TOP VIEW)



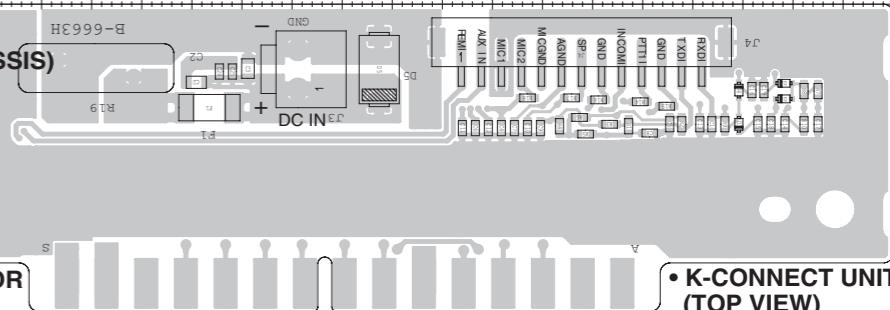
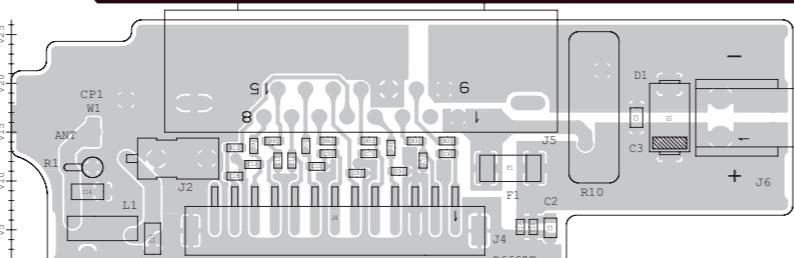
- MAIN UNIT (TOP VIEW)



W6 (CHASSIS)



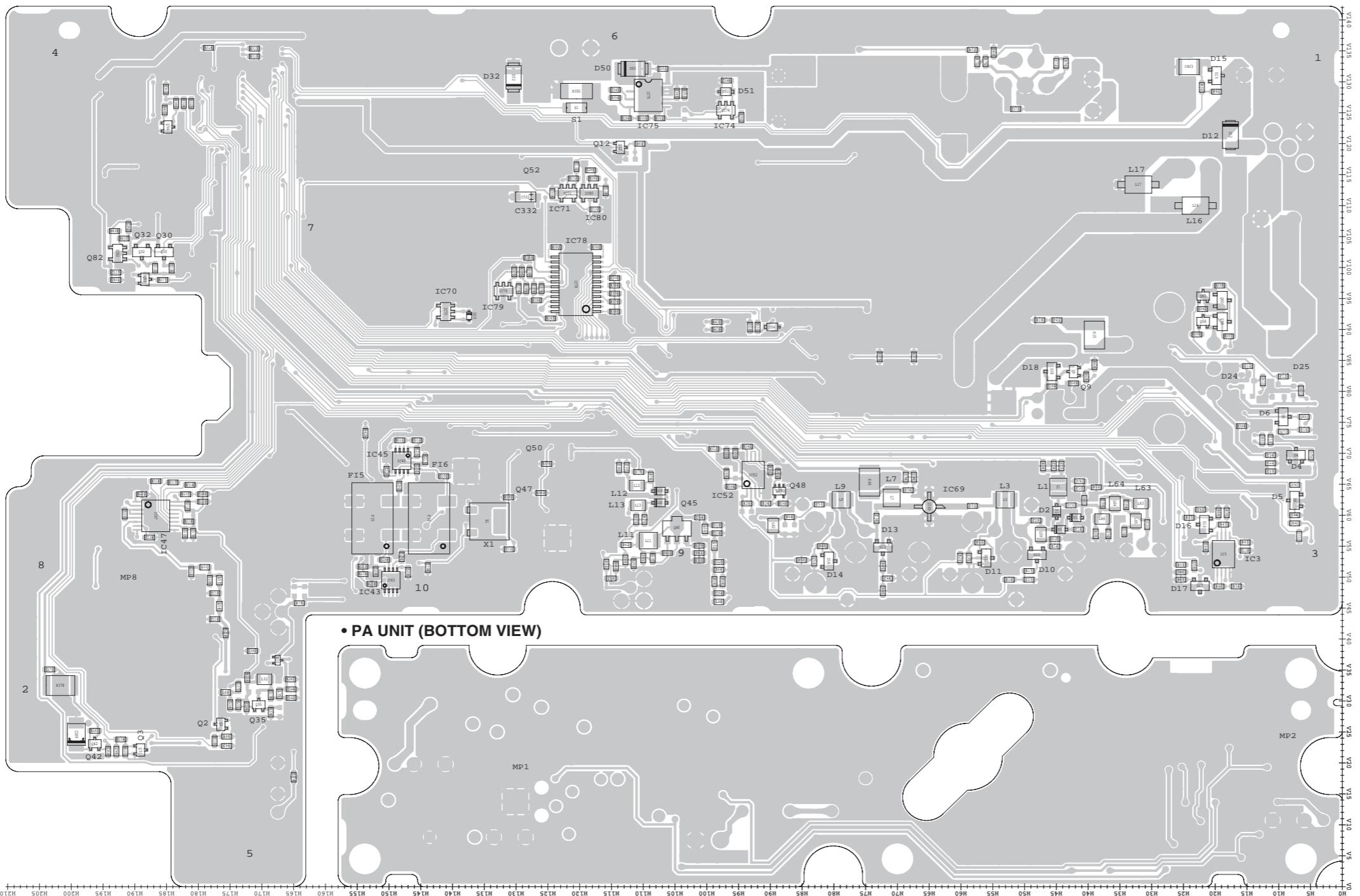
• MB-113
(TOP VIEW) V25



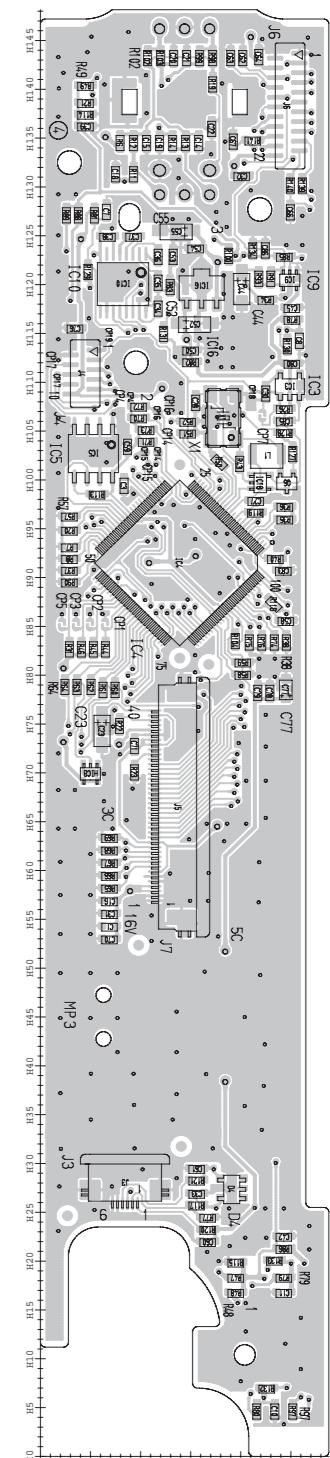
- K-CONNECT UNIT
(TOP VIEW)

The combination of this side and the bottom side shows the board layout in the same configuration as the actual P.C.Board.

• MAIN UNIT (BOTTOM VIEW)

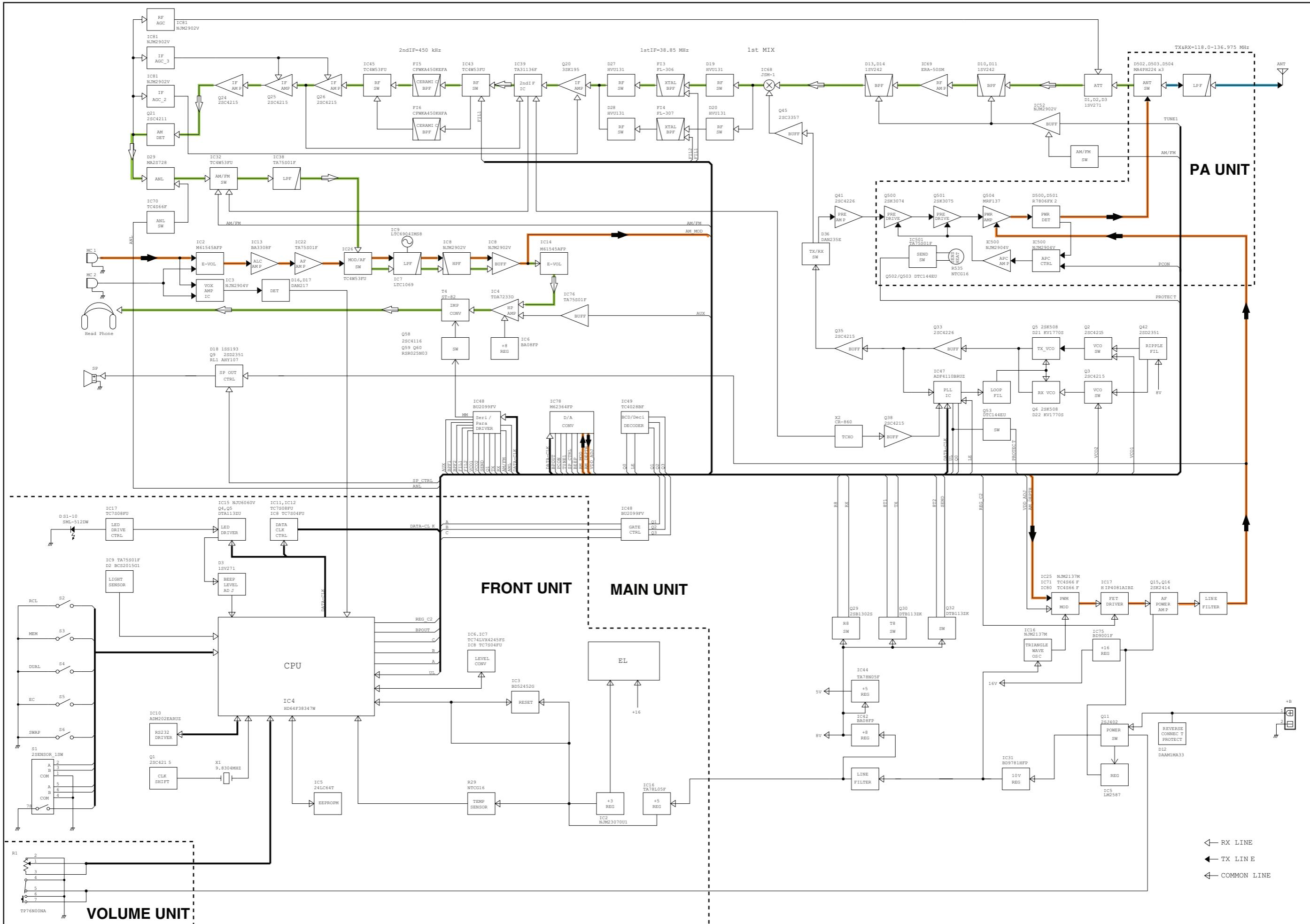


• FRONTUNIT (BOTTOM VIEW)



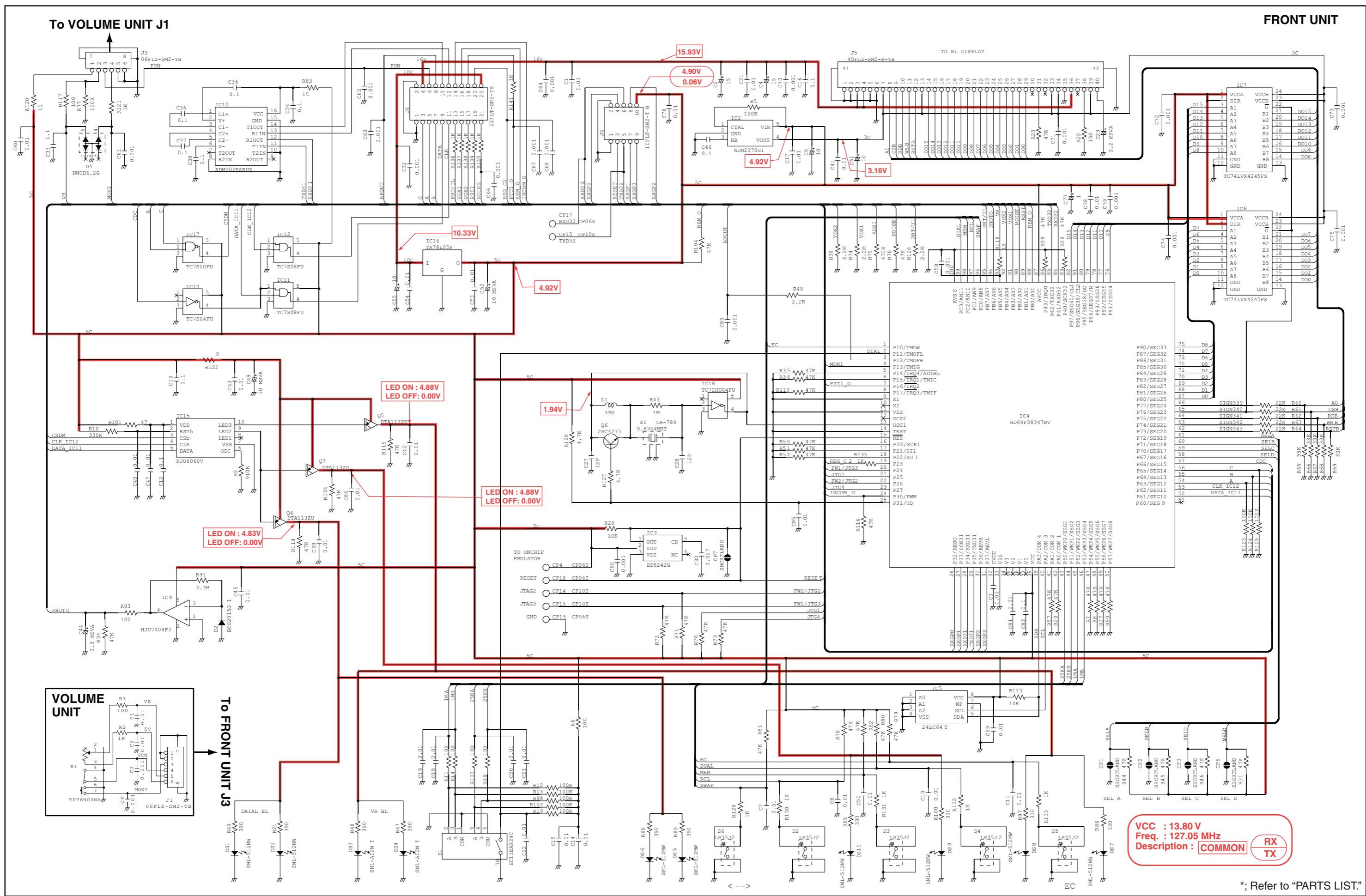
SECTION 8

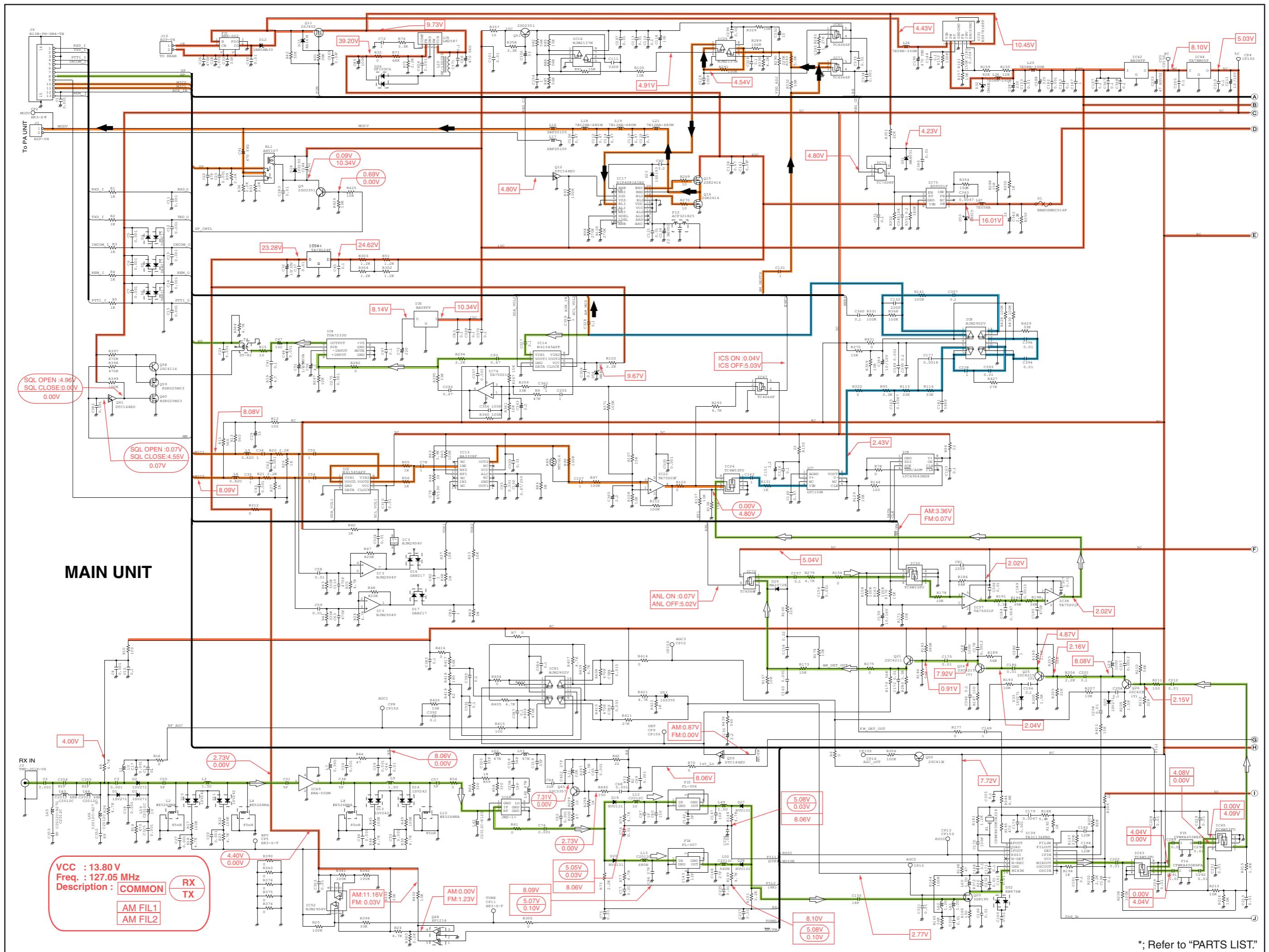
BLOCK DIAGRAM



SECTION 9

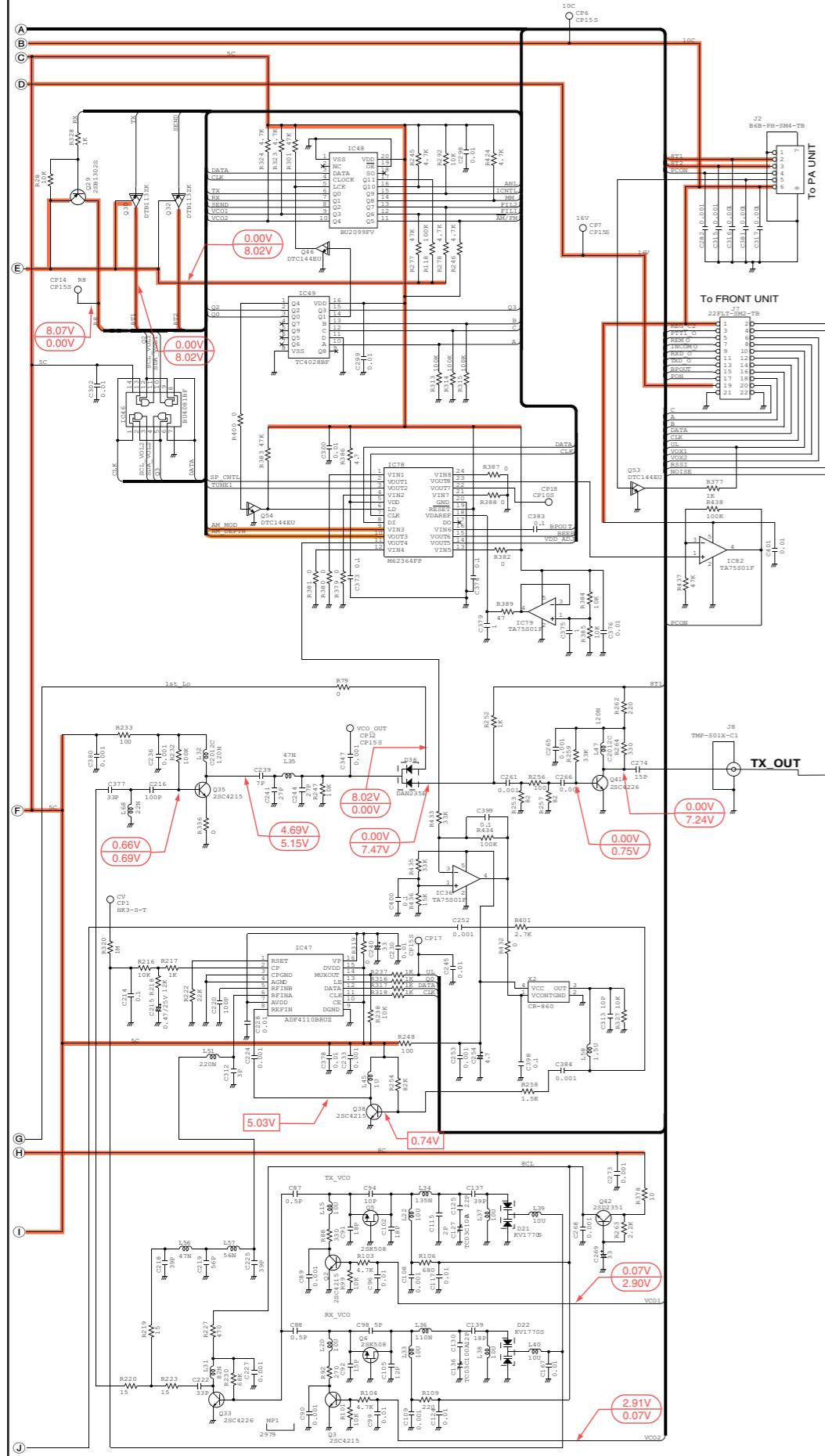
VOLTAGE DIAGRAM



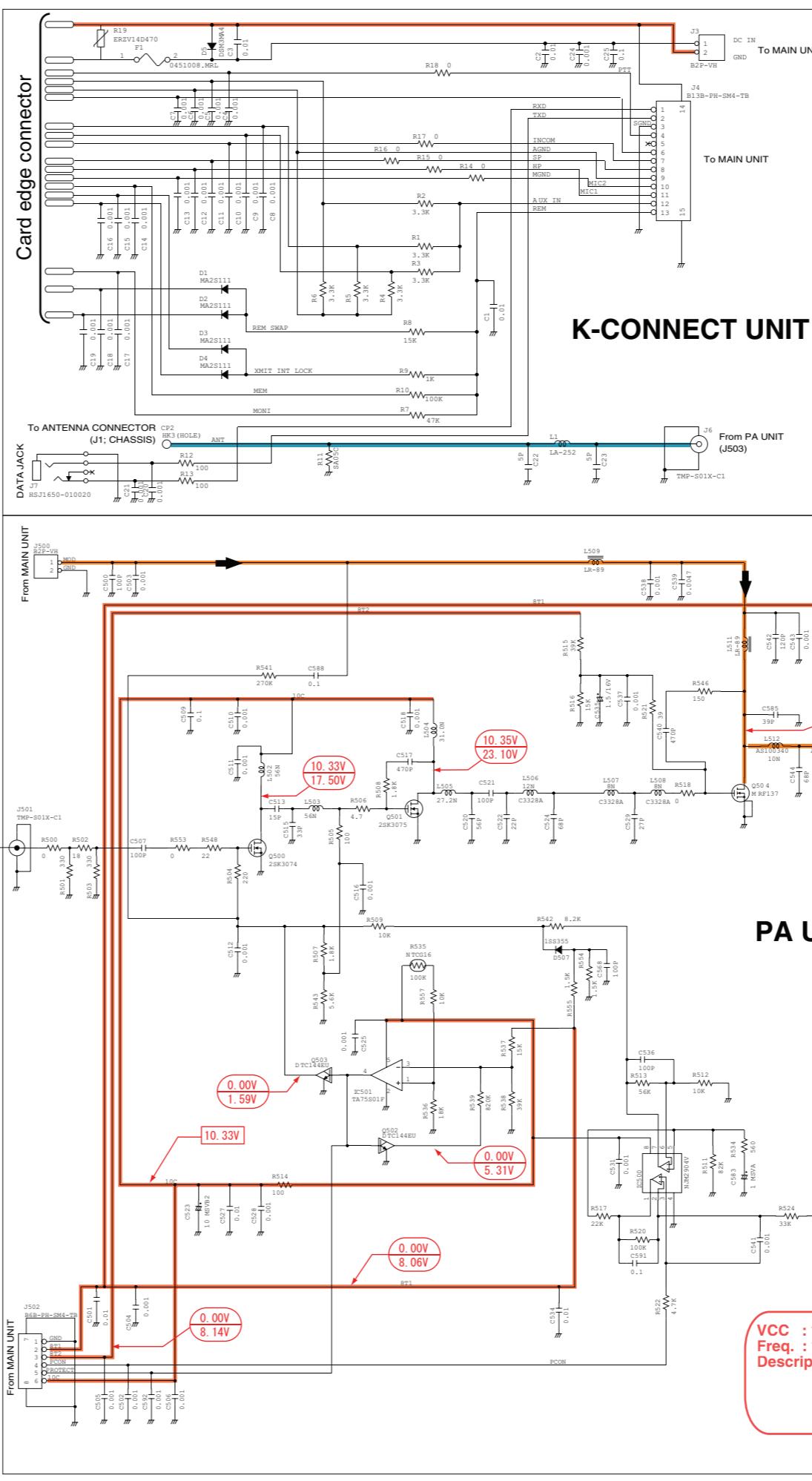


*; Refer to "PARTS LIST."

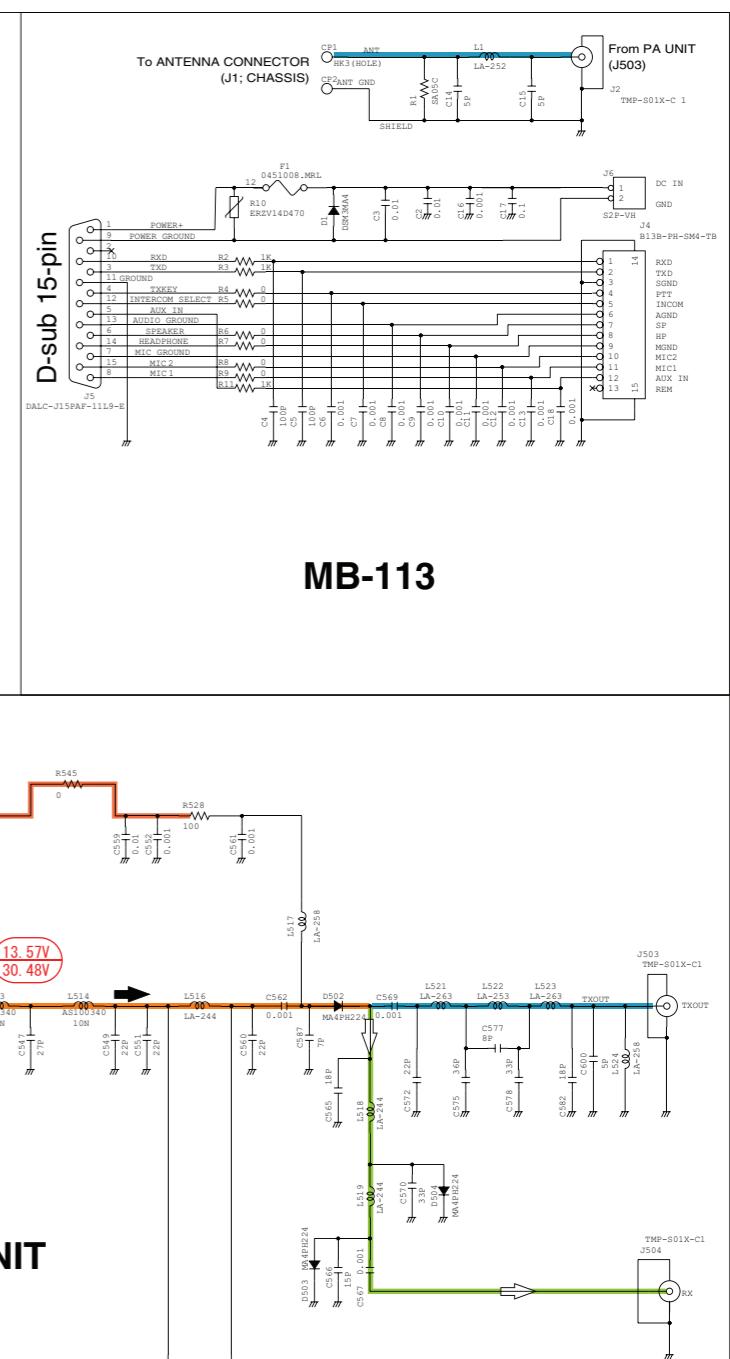
MAIN UNIT



Card edge connector



K-CONNECT UNIT



PA UNIT

VCC : 13.80 V
Freq. : 127.05 MHz
Description : COMMON
RX
TX
AM FIL1
AM FIL2

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