# OCOM

# SERVICE MANUAL

**FM TRANSCEIVER** 

IC-T8A

Icom Inc.

# INTRODUCTION

This service manual describes the latest service information for the IC-T8A/E FM TRANSCEIVER at the time of publication.

MODEL	VERSION	SYMBOL
IC TOA	U.S.A.	USA
IC-T8A	Asia	SEA
5	Europe	EUR
	U.K.	UK
IC-T8E	Italy	ITA
	Thailand	THA
	Taiwan	TPE

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

### DANGER

**NEVER** connect the transceiver to an AC outlet or to a DC power supply that uses more than 16 V. Such a connection could cause a fire hazard and/or electric shock.

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

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

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

# ORDERING PARTS

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

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

## <SAMPLE ORDER>

1110003490 S.IC TA31136FN IC-T8A/E RF UNIT 1 piece 8810008990 Screw B0 2 × 10 ZK IC-T8A/E CHASSIS 6 pieces

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



# REPAIR NOTES

- 1. Make sure a problem is internal before disassembling the transceiver.
- 2. DO NOT open the transceiver until the transceiver is disconnected from its power source.
- DO NOT force any of the variable components. Turn them slowly and smoothly.
- 4. DO NOT short any circuits or electronic parts. An insulated tuning tool MUST be used for all adjustments.
- 5. DO NOT keep power ON for a long time when the transceiver is defective.
- 6. DO NOT transmit power into a signal generator or a sweep generator.
- ALWAYS connect a 40 dB or 50 dB attenuator between the transceiver and a deviation meter or spectrum analyser when using such test equipment.
- 8. READ the instructions of test equipment thoroughly before connecting equipment to the transceiver.

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#### **SECTION 1 SPECIFICATIONS**

#### GENERAL

• Frequency coverage (MHz):

	50 MHz	VHF	UHF
USA	50–54	Tx: 144–148	Tx: 440-450*3
USA	50-54	Rx: 118-174*1	Rx:440-470*3
Europe, UK	50-52 (Rx only)	144–146	430-440
Italy	50–52	Tx: 144–148	Tx: 430-440
italy	50-52	Rx: 136-174*1	Rx:400-470*2
Asia	50–54	Tx: 144-148	430–440
ASIA	50-54	Rx: 118-174*1	100 110
THA	50–54	144–146	430–440
TPE	Not available	144–146	430–440

Guaranteed range (MHz): \*1144-148, \*2430-440, \*3440-450

 Mode : FM (F3E), WFM (Rx only), AM (118-135.995 MHz; Rx only)

· Frequency stability : ±5 ppm (0°C to +50°C; 32°F to 122°F)

• No. of memory channels : 123 (incl. 10 scan edges + 1 call channel for each band)

 Antenna connector : SMA (50 Ω)

• Usable battery pack/case : BP-198-BP-200/BP-197

• Power supply requirement : 4.5-16 V DC (negative ground) • Current drain (at 13.5 V DC) : Transmit high at 5 W 1.4 A (typical)

low at 0.5 W 0.6 A (typical)

Receive max. audio 200 mA (typical)

standby 70 mA (typical)

• Usable temperature range : -10°C to 60°C; 14°F to 140°F

• Dimensions (Projections not included) : 106(W) × 58(H) × 28.5(D) mm; 43/16(W) × 25/16(H) × 11/8(D) in

• Weight (with BP-199) : 280 g; 9.9 oz

#### **TRANSMITTER**

• Output power (13.5 V DC) : 5 W (high) 0.5 W (low)

 Modulation system : Variable reactance frequency modulation

 Spurious emissions : Less than -60 dB

 Max. frequency deviation : ±5 kHz

 External microphone connector : 3-conductor 2.5 (d) mm  $(1/_{10})$  /2 k $\Omega$ 

#### RECEIVER

 Receive system : Double conversion superheterodyne

• Intermediate frequencies : 1st 41.85 MHz 13.35 MHz WFM

450 kHz (except WFM)

: Less than 0.18 µV (-122 dBm) Sensitivity (12 dB SINAD) Less than 1.99 µV (WFM) (-101.5 dBm)

 Squelch sensitivity (threshold) : Less than 0.18 µV (-122 dBm)

Less than 5.6 µV (WFM) (-92 dBm)

: Less than 15 kHz/-6 dB Selectivity

More than 30 kHz/-60 dB

: 50/144 MHz band -60 dB (typical) · Spurious and image refection ratio

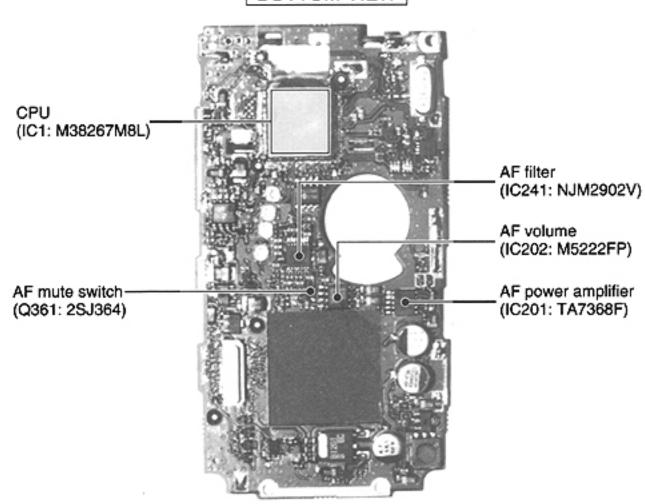
-50 dB (typical) (except 2nd IF image frequency) 440 MHz band : 250 mW (typical with an 8  $\Omega$  load) Audio output power (at 13.5 V DC) • External speaker connector : 3-conductor 3.5 (d) mm ( $\frac{1}{8}$ ") /8  $\Omega$ 

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

# SECTION 2 INSIDE VIEWS

# LOGIC UNIT

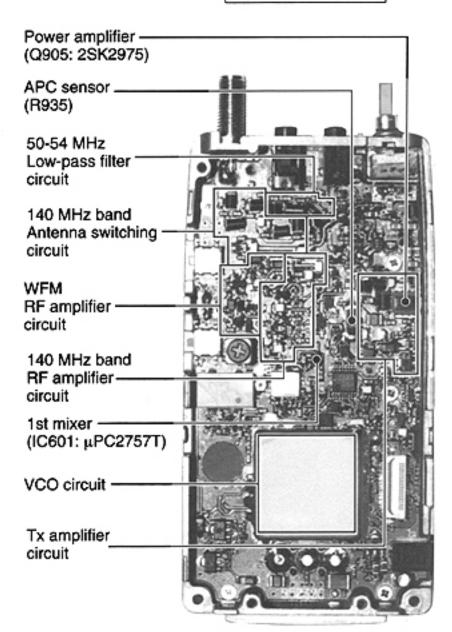
# BOTTOM VIEW

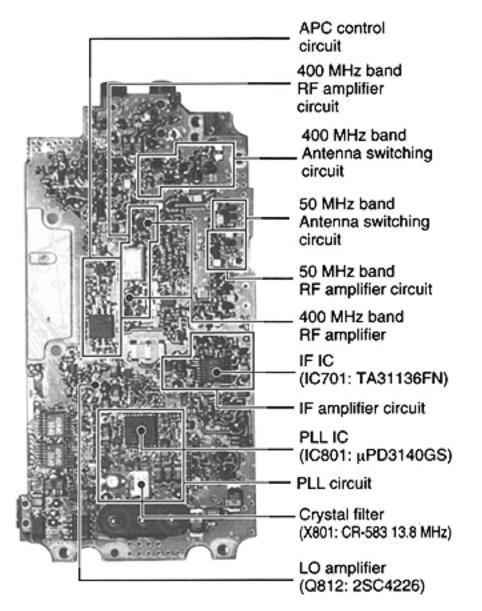


# RF UNIT

# TOP VIEW

# BOTTOM VIEW





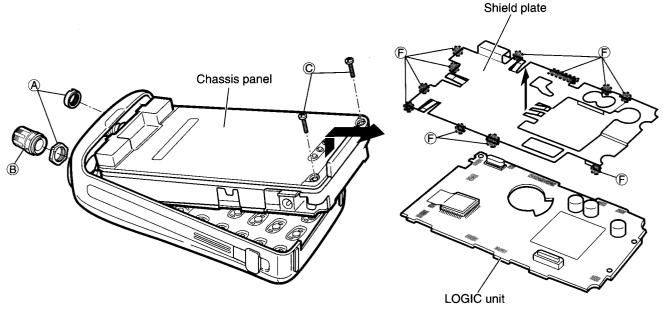
# **SECTION 3 DISASSEMBLY INSTRUCTIONS**

#### 1 Removing the chassis panel

- 1 Remove 1 knob, B, and unscrew 2 nuts, A.
- 2 Unscrew 2 screws, ©.
- 3 Remove the chassis panel in the direction of the arrow.

### 3 Removing the shield plate

① Unsolder 11 points, ⑤, to separate the shield plate and LOGIC unit.

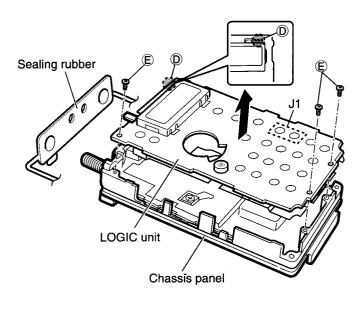


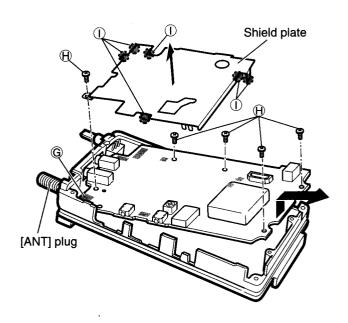
#### 2 Removing the LOGIC unit

- ① Remove the sealing rubber.
- 2 Unsolder 1 point, 0, to separate a SENSOR control.
- 3 Unscrew 3 screws, E.
- 4 Unplug J1 to separate LOGIC unit and RF unit.
- (5) Remove the LOGIC unit in the direction of the arrow.

#### 4 Removing the RF unit

- 1) Unsolder 1 point, (3), to separate [ANT] plug.
- ② Unscrew 5 screws, ①, to separate the RF unit.
- (3) Remove the RF unit in the direction of the thick arrow.
- 4 Unsolder 6 points ① to separate the shield plate, then remove it in the direction of the thin arrow.





# SECTION 4 CIRCUIT DESCRIPTION

#### 4-1 RECEIVER CIRCUITS

#### 4-1-1 DUPLEXER CIRCUITS (RF UNIT)

The transceiver has two duplexers (low-pass and high-pass filters) on the first stage from the antenna connector to separate the RF signals into VHF and UHF signals. The low-pass filter (L10–L12, C15–C20) is for VHF (50 and 144 MHz) signals and the high-pass filter (L5, L6, C4–C8) is for UHF (440 MHz) signals.

The VHF signals are applied to the 2nd duplexer circuit for separation into 50 and 144 MHz band signals. The low-pass filter (L16–L18, C27–C32) is for 50 MHz band signals and the high-pass filter (L13–L15, C21–C24, C84) is for 144 MHz band signals.

The separated signals are applied to each RF circuit.

# 4-1-2 144 MHz BAND ANTENNA SWITCHING CIRCUIT (RF UNIT)

The antenna switching circuit functions as a low-pass filter while receiving. However, its impedance becomes very high while transmitting by applying a current to D302 and D303.

Thus, transmit signals are blocked from entering the receiver circuits. The antenna switching circuit employs a 1/4  $\lambda$  type diode switching system. The passed signals then applied to the RF amplifier circuit.

#### 4-1-3 50 MHz BAND RF CIRCUIT (RF UNIT)

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

The signals from the antenna switching circuit (D101, D102) are applied to the tunable bandpass filter (D104) to suppress out-of-band signals. The filtered signals are amplified at the RF amplifier (Q101) and are then applied to the 1st mixer circuit (IC601) via the tunable bandpass filter (D105–D107).

#### 4-1-4 144 MHz BAND RF CIRCUIT (RF UNIT)

The signals from the antenna switching circuit (D302, D303) are applied to the RF amplifier (Q301) via the tunable bandpass filter (D305, D306). The amplified signals are applied to the 1st mixer circuit (IC601) after out-of-band signals are suppressed at the tunable bandpass filter (D307–D310).

Varactor diodes (D305–D310) are employed by the tunable bandpass filters to tune the center frequency of the bandpass filter. These diodes are controlled by the PLL lock voltage and obtain good image response rejection.

#### 4-1-5 UHF RF CIRCUIT (RF UNIT)

The signals from the antenna switching circuit (D402, D403) are amplified at the RF amplifier (Q401). The amplified signals are passed through the bandpass filter (Fl401) then applied to the 1st mixer circuit (IC601) after being amplified at another RF amplifier (Q402).

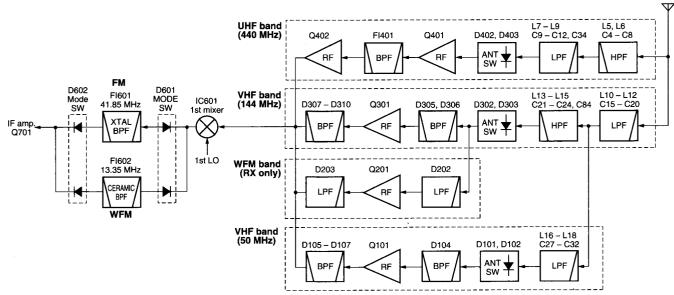
#### 4-1-6 1st MIXER CIRCUIT (RF UNIT)

The mixer circuit converts the received signal to a fixed frequency of the 1st IF signal with a 1st LO (VCO output) frequency. By changing the PLL frequency, only the desired frequency will pass through a crystal filter at the next stage of the mixer. From this stage, the following circuits are used for all bands.

The receive signals from the 50, 144 MHz band RF or UHF RF circuit are mixed with the 1st LO signals (VCO output signals) at the 1st mixer circuit (IC601) to produce a 41.85 MHz 1st IF signal.

The 1st IF signal is applied to a crystal filter (FI601) to suppress out-of-band signals. The filtered signal is amplified at the IF amplifier (Q701) and is applied to the 2nd mixer circuit (IC701).

#### • RF circuit



# 4-1-7 2nd IF AND DEMODULATOR CIRCUITS (RF UNIT)

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

The FM IF IC (IC701) contains 2nd local oscillator, 2nd mixer, limiter amplifier, quadrature detector and S-meter detector circuits.

The 1st IF signal (41.85 MHz) from the 1st IF amplifier (Q701) is applied to the 2nd mixer section in the FM IF IC (IC701, pin 16), and is mixed with the 2nd LO signal (41.4 MHz) for conversion to a 450 kHz 2nd IF signal at the 2nd mixer section.

The 2nd IF signal (450 kHz) from the 2nd mixer section (IC701, pin 3) passes through the ceramic filter (FI701) where unwanted heterodyne signals are suppressed. It is then amplified at the limiter amplifier section (IC701, pin 5) and applied to the quadrature detector section to demodulate the 2nd IF signal into AF signals.

The demodulated AF signals are output from pin 9 of the IC and are applied to the AF circuit in the LOGIC unit.

#### 4-1-8 AF AMPLIFIER CIRCUIT (LOGIC UNIT)

The AF circuit, including an AF filter, AF mute switch and volume controller, amplifies the demodulated signals to drive a speaker.

The demodulated AF signals (DETO signal) from the FM IF IC (RF unit; IC701, pin 9) are applied to the AF mute switch (Q361) after passing through the AF filter circuit (IC241). The switched signals are applied to the volume controller (IC202, IC203) to adjust the input level of the AF power amplifier (IC201). The level controlled AF signals are power amplified at the AF power amplifier (IC201), then applied to the internal speaker (SP1) via the [EXT SP] jack (RF unit; J2) when no plug is connected to the jack.

The AF filter circuit (IC241) removes AF signals below 300 Hz (CTCSS signals) for clear AF output and these are applied to the CPU (IC1, pin 4) for CTCSS squelch detection.

# 4-1-9 NOISE SQUELCH CIRCUIT (RF AND LOGIC UNITS)

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

Some of the noise components in the AF signals from the FM IF IC (RF unit; IC701, pin 9) are amplified and filtered at the active filter section (pins 7, 8). The filtered signals are rectified at the noise detector section and converted into pulse-type signals (NOISE signal)at the noise comparator section. The NOISE signal is applied to the CPU (LOGIC unit; IC1, pin 12).

The CPU detects the receive signal level from the number of the pulses, and outputs an RM/MM signal from pin 44. This signal controls the AF mute switch (LOGIC unit; Q361) to cut the AF signal line. The variable resistor (R733) adjusts the active filter input level.

# 4-2 TRANSMITTER CIRCUITS 4-2-1 MICROPHONE AMPLIFIER CIRCUIT (LOGIC UNIT)

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

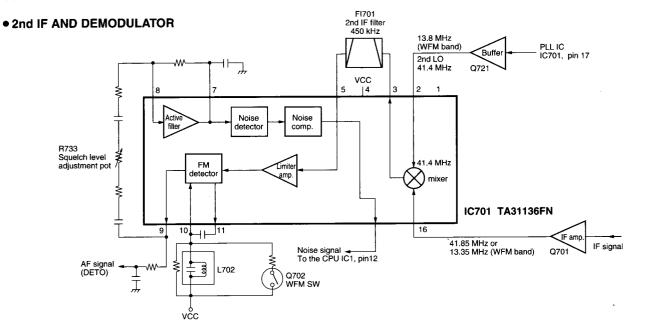
The AF signals from the internal microphone (MC1) or the [MIC] jack (RF unit; J1) are applied to the limiter amplifier (IC301, pin 3) which has +6 dB/octave pre-emphasis characteristics. The amplified AF signals are passed through the low-pass filter (IC301, pins 6, 7). The filtered signals are applied to the modulation circuit for each band in the RF unit via the band switch (Q304: for 144 MHz band, Q305: for UHF band, Q306: for 50 MHz band) as the MOD signal.

#### 4-2-2 MODULATION CIRCUIT (VCO BOARD)

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

#### (1) 50 MHz band

The microphone audio signals (MOD) change the reactance



of a diode (D341) via the 6MOD line to modulate the oscillating signal at the 50-VCO (Q341, Q342, D341).

#### (2) 144 MHz band

The microphone audio signals change the reactance of a diode (D302) to modulate the oscillating signal at the 144-VCO circuit (Q301, Q302, D301, D302).

#### (3) UHF band

The microphone audio signals change the reactance of a diode (D321) via the USHIFT line to modulate the oscillating signal at the UHF-VCO (Q321, Q322, D321, D322).

Each VCO output is amplified at the buffer amplifier (Q303) and then applied to the TX/RX switch (RF unit; D802) via the LO amplifier (RF unit; Q812).

#### 4-2-3 POWER AMPLIFIER CIRCUIT (RF UNIT)

Q904 is a drive and Q905 is a power amplifier. They are designed to use all 50, 144 and 440 MHz bands commonly. They provides more than 5 W for all 50, 144 and 440 MHz bands with a 13.5 V DC power source via one power amplifier system.

An RF signal from the TX/RX switch (D802) is amplified at the buffer (Q901) and YGR (Q902: for 50 and 144 MHz band bands, Q903: for 440 MHz band) amplifiers. The amplified RF signal is applied to the drive amplifier (Q904) via the band switch (D917, D918). The amplified signal at the drive amplifier is again amplified at the power amplifier (Q905).

The power amplified signal is passed through either the highpass (L915, L916, C928–C931 for 144 MHz band, L912, C923, C924 for 440 MHz band) or low-pass (L919, L920, C938–C940 for 50 MHz band) filter, and then applied to the antenna connector via the antenna switching and RF circuits for each band.

#### 4-2-4 APC CIRCUIT (RF UNIT)

The APC (Automatic Power Control) circuit stabilizes transmit output power and selects HIGH and LOW power. The APC circuit consists of an APC sensor and APC control circuits.

The APC sensor (R935) detects driving current from drive voltage at the drive (Q904) and power (Q905) amplifiers. The detected current is converted into DC voltage at Q915, then applied to the APC control circuit (IC901, pin 2). The applied voltage is compared with a PSET voltage from the CPU via the D/A converter (IC4), and the APC control circuit outputs VGGC voltage from pin 1 to control the drive and power amplifiers.

When the driving current is increased, input voltage of the differential amplifier (IC901, pin 2) will be increased. In snch cases, the differential amplifier output voltage (pin 1) is decreased to reduce the driving current.

#### 4-3 PLL CIRCUITS

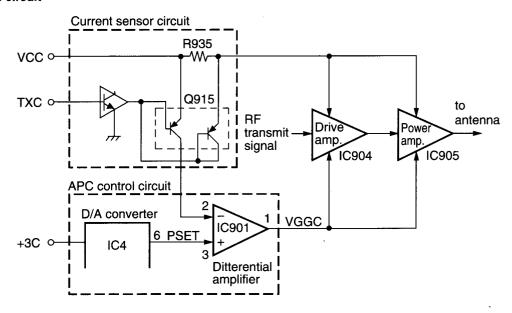
#### 4-3-1 144 MHz BAND AND UHF BAND PLL CIRCUITS (RF UNIT)

The oscillated signal at the 144-VCO circuit (VCO board, Q301, Q302, D301, D302) or UHF-VCO (VCO board, Q321, Q322, D321, D322) is amplified at the buffer amplifiers (VCO board, Q303, Q323). The amplified signal is applied to the PLL IC (IC801, pin 19) via a buffer amplifier (Q806).

The applied signal is divided by serial data from the CPU (N-data) and phase-detected with the divided reference frequency (5 kHz) at the phase detector section in the PLL IC. The phase-detected signal is output from pin 13 and converted into DC voltage at the active filter (Q801, Q802). The converted DC voltage is fed back to the VCO board as the lock voltage (LV).

While operating in the 144 MHz band, the lock voltage is applied to the CPU (LOGIC unit; IC1) via the tune control circuit (Q803) and band switch (IC802) to track the center frequency of the tunable bandpass filters (D305–D310) as the VTUNE signal.

#### • APC control circuit



#### 4-3-2 50 MHz BAND PLL CIRCUIT (RF UNIT)

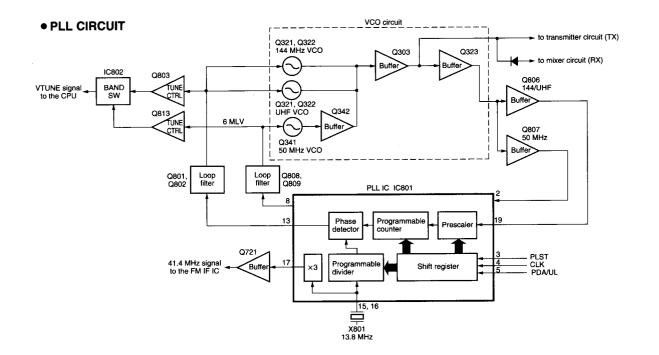
The oscillated signal at the 6MVCO (VCO board, Q341, D341) is amplified at the buffer amplifiers (VCO board, Q303, Q323). The amplified signal is applied to the PLL IC (IC801, pin 2) via the buffer amplifier (Q807).

The applied signal is divided by N-data from the CPU and phase-detected with the divided reference frequency (5 kHz) then output from pin 8. The output signal is converted into DC voltage at the active filter (Q808, Q809) and is fed back to the VCO board as the lock voltage (6MLV).

While operating in the 50 MHz band, the lock voltage is applied to the CPU (LOGIC unit; IC1) via the tune control circuit (Q813) and band switch (IC802) to track the center frequency of the tunable bandpass filters (D104–D107) as the VTUNE signal.

#### 4-4 POWER SUPPLY CIRCUITS

Line	Description
HV	The voltage from the external power supply or attached battery pack.
vcc	The same voltage as the HV line (external power supply) passed through a diode (RF unit; D1).
+3CPU	Common 3 V converted from the VCC line by the +3 CPU regulator IC (LOGIC unit; IC141). The output voltage is supplied to the +3C regurator circuits, etc.
+3C	Common 3V converted from the VCC line by the +3C regurator circuit (LOGIC unit; Q142, Q143, Q145) using the +3CPU regurator (LOGIC unit, IC141)
+3	Common 3V converted from the VCC line by the +3 regurator circuit (RF unit; IC5, Q2, Q3) using the +3C regurator (LOGIC unit; Q142, Q143, Q145).
R3	3 V for receiver circuit converted from the VCC line by the R3 regulator circuit (RF unit; Q7, Q8).
Т4	4V for transmitter circuit converted from the VCC line by the T4 regurator circuit (RF unit; Q906–Q908). The T4 regurator circuit is controlled by the CPU (LOGIC unit; IC1 pin 45).



# **4-5 CPU PORT ALLOCATIONS**

4-5-1 CPU (IC1): LOGIC UNIT

Pin number	Port name	Description			
1	VIN	Input port for the over-voltage detection from connected battery pack or external power supply.			
2	REMOTE	Input port for remote control signals from an optional HM-75A microphone via the [MIC] jack.			
3	SD	Input port for the S-meter voltage.			
4	CTCIN	Input port for CTCSS decoded signals.			
5	VTUNE	Input port for the tune voltage.			
6	THERMC	Input port for the tranceiver's internal temprature.			
7	SBATT	Input port for the VCC voltage (connected battery voltage).			
8	PDA/UL	Outputs data signals to the PLL IC. Input port for PLL unlock signal from the PLL IC (RF unit; IC801).			
9	стсоит	Outputs CTCSS signals while transmitting.			
10	BEEP	Output port for:  •Beep audio signals while receiving.  •DTMF signals or 1750 Hz Europe tone signal while transmitting.  (according to versions)			
11	PTT	Input ports for the [PTT] switch. High: While [PTT] switch is pushed.			
12	NOISE	Input port for noise signal (pulse-type) from the IF IC (RF unit; IC701).			
13	PLST	Outputs strobe signals to the PLL IC (RF unit; IC801).			
14	DAST	Outputs strobe signals to the D/A IC (RF unit; IC4).			
15	IOST	Outputs strobe signals to the I/O IC (RF unit; IC2, IC3).			
16	DATA	Data bus line for the D/A IC (IC4) and I/O IC (IC2, IC3).			
17	CLK	Outputs clock signal to the PLL IC (IC801), D/A IC (IC4) and I/O IC (IC2, IC3), etc. on the RF unit.			
18	ESIO	Data bus line for the EEPROM (LOGIC unit; IC2).			
19	CLONEOUT	3 0			
20	CLONEIN	Input port for the cloning signal.			
21, 22	DIUD, DICK	Input port for the up/down signal from main dial.			
23	POWER	Input port for the [POWER] switch.			
24	EURDEV	Outputs deviation switching signal for deviation switch (Q307).			
25	H/L	Inputs TX output power control signal from [H/L] switch.			
28–31	KR3-KR0	Input ports for key matrix.			
32	CPUHV	Input port for the reset signal from Q151 (LOGIC unit).			

Pin number	Port name	Description
33	RESET	Input port for the reset signal from IC142 (LOGIC unit).
36, 37	CPU CLOCK	Input port for clock signal.
39	PCON	Outputs +3C control signal.
40	AFON	Outputs the AF amplifier control signal for the regulator circuit.
41	BLED	Outputs BUSY LED control signal.
42	LIGHT	Outputs LCD backlight control signal.
43	МІСС	Outputs the control signal for the regulator section of the mic amp (LOGIC unit; IC301).
44	RM/MM	Outputs RX mute/Mic. mute control signals.
45	BPCPI	Outputs the bias control signal for a type of battery.
47	R3C	Outputs R3 regulator control signal. High: While receiving.
48	CHGC	Outputs control signal for charger circuit ( RF unit; Q4).
49–54	KS0-KS5	Output ports for key matrix.
55	CONT	Outputs LCD contrast control signal.
56	TXC	Outputs T4 regulator control signal. High: While transmitting.

# 4-5-2 I/O EXPANDER IC (IC2: RF UNIT)

Pin number	Port name	Description
4	Q1	Outputs VVCO3 regulator control signal (140 MHz band).
5	Q2	Outputs UVCO3 regulator control signal (UHF band).
6	Q3	Outputs 6MVCO3 regulator control signal (50 MHz band).
7	Q4	Outputs VCO shift signal for UHF, 140 MHz and 50 MHz bands.
14	Q5	Outputs transmitting control signal for a 50 MHz band.
13	Q6	Outputs the switching signal to select U-V bands when transmitting.

**4-5-3 I/O EXPANDER IC (IC3: RF UNIT)**• Outputs power source ON–OFF signal while receiving.

Pin number	Port name	Description			
4	Q1	Receiving 300 MHz band.			
6	Q3	Receiving UHF band.			
7	Q4	Receiving WFM band.			
14	Q5	Receiving 440 MHz band.			
13	Q6	Receiving 144 MHz band.			
12	Q7	Receiving 50 MHz band.			
11	Q8	Receiving WFM band.			

# SECTION 5 ADJUSTMENT PROCEDURES

#### 5-1 PREPARATION

#### **■ REQUIRED TEST EQUIPMENT**

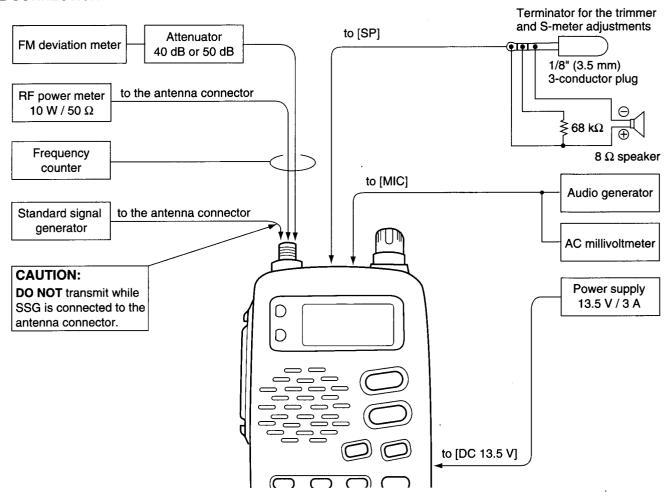
EQUIPMENT	GRADE AND RANGE		EQUIPMENT	GRADE	AND RANGE
DC power supply	Output voltage Current capacity	: 13.5 V DC : 3 A or more	Audio generator	Frequency range Output level	: 300–3000 Hz : 1–500 mV
RF power meter (terminated type)	Measuring range Frequency range	: 1–10 W : 28–500 MHz : 50 Ω : Less than 1.2 : 1	Attenuator	Power attenuation Capacity	: 40 or 50 dB : 10 W or more
	Impedance SWR		Standard signal generator (SSG)	Frequency range Output level	: 28–500 MHz : 0.1 µV–32 mV
	Frequency range Frequency accuracy Sensitivity	: 28–500 MHz : ±1 ppm or better : 100 mV or better	goniaion (CCC)	Output level	(–127 to –17 dBm)
Frequency counter			DC voltmeter	Input impedance	: 50 kΩ/V DC or better
FM deviation meter	Frequency range Measuring range	: 28-500 MHz : 0 to ±5 kHz	Oscilloscope	Frequency range Measuring range	: DC-20 MHz : 0.01-20 V
Digital multimeter	Input impedance	: 10 MΩ/V DC or better	AC millivoltmeter	Measuring range	: 10 mV-10 V

#### **■ ENTERING ADJUSTMENT MODE**

- ① Connect a 68 k $\Omega$  terminator to the [SP] jack.
- ② Push and hold the [H/L] key, then turn power ON.

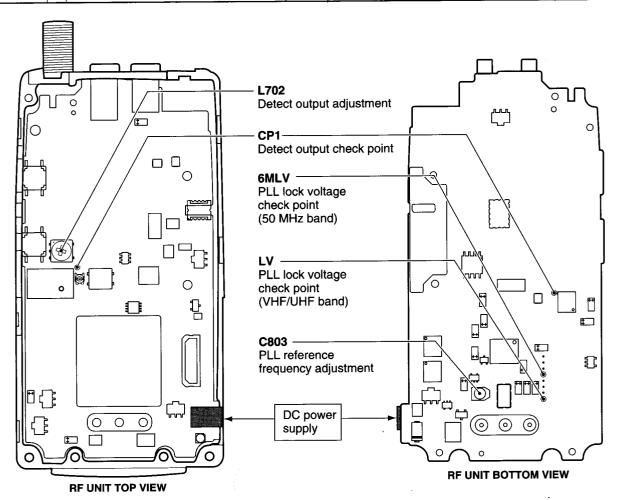
  Note: The frequency of the wide range appears at the display using this operation.

#### **■** CONNECTION



#### **5-2 PLL ADJUSTMENT**

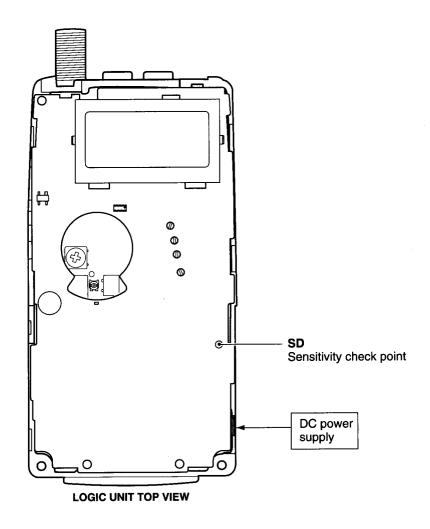
		AD MOTATAL CONDITIONS		MEASUREMENT	VALUE	ADJUSTMENT	
ADJUSTMENT		ADJUSTMENT CONDITIONS		LOCATION	VALUE	UNIT	ADJUST
PLL LOCK VOLTAGE	1	Operating Frequency : 51.000 MHz     Receiving	RF	Connect a digital multimeter or an oscillo-	0.8 V-1.8 V		Verify
	2	Transmitting		scope to 6MLV.	1.8 V-2.8 V		
	3	Operating Frequency : 145.000 MHz     Receiving		Connect a digital mul- timeter or an oscillo-	0.6 V-1.2 V		
-	4	Transmitting		scope to LV.	1 V–1.6 V		
	5	Operating Frequency: 445.000 MHz [USA] 435.000 MHz [Other] Receiving			2.7 V-3.7 V [USA] 2.2 V-3.2 V [Other]		
		Transmitttig			2.6 V-3.6 V [USA] 2.2 V-3.2 V [Other]		
PLL REFERENCE FREQUENCY	1	Operating Frequency: 445.000 MHz [USA] 435.000 MHz [Other] Transmitting	Top panel	Loosely couple a frequency counter to the antenna connector.	[USA] 445.000000 MHz [Other] 435.000000 MHz	RF	C803
DETECT OUTPUT	1	Operating Frequency: 445.000 MHz [USA] 435.000 MHz [Other] Connect an SSG to the [ANT] connector and set as: Level: 1.0 mV (-47 dBm) Modulation: OFF Receiving	RF	Connect a digital multimeter or an oscilloscope to check point CP1 (IC701 pin 9).	1.0 V	RF	L702



# **5-3 TRIMMER ADJUSTMENT**

The following adjustment must be performed at "ADJUSTMENT MODE."

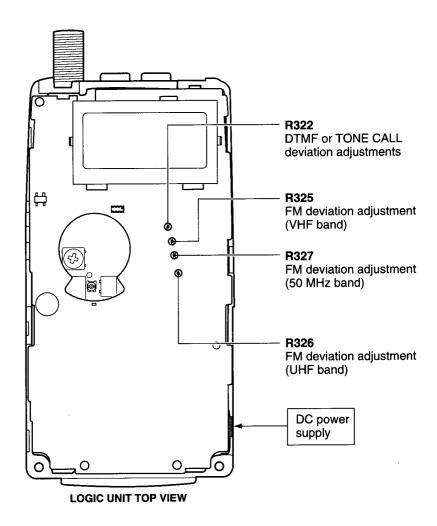
AD IIICTME		ADJUSTMENT CONDITIONS		MEASUREMENT	VALUE	ADJUSTMENT	
ADJUSTMEN	<b>V</b> I	ADJUSTMENT CONDITIONS		LOCATION	VALUE	ADOUGHMENT	
50 MHz SENSITIVITY		<ul> <li>Operating Frequency: 50.000 MHz</li> <li>Connect an SSG to the [ANT] connector and a SINAD meter with an 8 Ω load to the [SP] jack.</li> <li>Set an SSG as:         <ul> <li>Level</li> <li>1 μV* (-107 dBm)</li> <li>Modulation</li> <li>1 kHz</li> <li>Deviation</li> <li>3.5 kHz</li> </ul> </li> <li>Receiving</li> </ul>		Connect a multimeter to check point SD.	Maximum voltage	While receiving, turn [DIAL] to set maximum voltage and push [D] key to program into memory.	
	Operating Frequency: 52.000 MHz [EUR], [UK] 53.000 MHz [Other] Receiving						
WFM SENSITIVITY			LOGIC	Connect a multimeter to check point SD.	Maximum voltage		
	2	Operating Frequency: 107.000 MHz     Receiving					
VHF SENSITIVITY	1	Operating Frequency: 136.000 MHz     Set an SSG as:     Level : 1 µV* (-107 dBm)     Modulation : 1 kHz     Deviation : 3.5 kHz     Receiving	LOGIC	Connect a multimeter to check point SD.	Maximum voltage		
OUTPUT POWER	' ' ' '		Top panel	Connect an RF power meter to the [ANT] connector.	5 W	While transmitting, turn [DIAL] to set power and push [D] key to program into memory.	
		Transmitting					
	2	Output power : Low    Transmitting			0.5 W		



# **TRIMMER ADJUSTMENT (Continued)**

The following adjustment must be performed after "PLL REFERENCE FREQUENCY ADJUSTMENT" in section 5–2.

ADJUSTMENT			MEASUREMENT		3/41115	ADJUSTMENT	
		ADJUSTMENT CONDITIONS		LOCATION	VALUE	UNIT	ADJUST
FM DEVIATION	1	Operating Frequency: 52.000 MHz [Other] 51.000 MHz [Italy] Connect an audio generator to the [MIC] connector and set as: 1 kHz/95 mV Set an FM deviation meter as: HPF: OFF LPF: 20 kHz De-emphasis: OFF Detector: (P-P)/2 Output power: High Push [H/L] key while transmitting.	Top panel	Connect an FM deviation meter to the [ANT] connector through an attenuator.		LOGIC	R327
	2	Operating Frequency : 145.000 MHz     Push [H/L] key while transmitting.     Transmitting			±4.5 kHz		R325
	3	Operating Frequency:     445.000 MHz [USA]     435.000 MHz [Other]      Transmitting			±4.5 kHz		R326
DTMF DEVIATION	4	Operating Frequency: (except Europe, UK and Italy versions.) 445.000 MHz [USA] 435.000 MHz [Other] Push [D] key while transmitting. Transmitting.	Top panel	Connect an FM deviation meter to the [ANT] connector through an attenuator.		LOGIC	R322
TONE CALL DEVIATION	1	Operating Frequency: 435.000 MHz (Europe, UK and Italy versions only) Set an FM deviation meter as: HPF: OFF LPF: 20 kHz De-emphasis: OFF Detector: (P-P)/2 Output power: High Push [TONE] key while transmitting.	Top panel	Connect an FM deviation meter to the [ANT] connector through an attenuator.	1	LOGIC	R322
CTCSS DEVIATION	1	Operating Frequency: 445.000 MHz [USA] 435.000 MHz [Other]  TONE frequency: 88.5 MHz  [SQELCH] key: ON Set an FM deviation meter as: HPF: OFF LPF: 3 kHz De-emphasis: OFF Detector: (P-P)/2  No audio applied to the [MIC] jack. Transmitting	Top panel	Connect an FM deviation meter to the [ANT] connector through an attenuator.	0.5–1.0 kHz		Verify



# **5-4 RECEIVER ADJUSTMENT**

The following adjustment must be performed after "SENSITIVITY ADJUSTMENT."

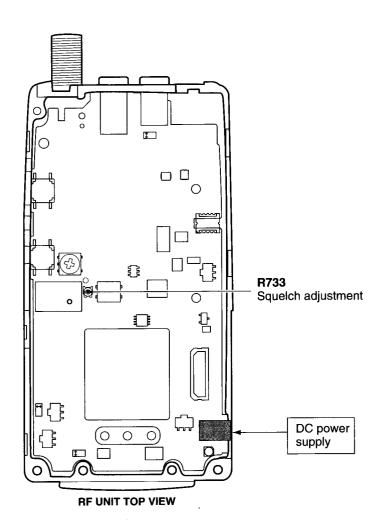
ADJUSTMENT		A D ILLOTATENT CONDITIONS		MEASUREMENT	VALUE	ADJU	STMENT
		ADJUSTMENT CONDITIONS	UNIT	LOCATION	VALUE	UNIT	ADJUST
SQUELCH LEVEL	1	<ul> <li>Operating Frequency:         445.000 MHz [USA]         435.000 MHz [Other]</li> <li>Connect an SSG to the [ANT] connector and set as:         Level : 0.1 μV* (-127 dBm)         Modulation : 1 kHz         Deviation : ±3.5 kHz</li> <li>Pre-set the R733 to maximum clockwise.</li> <li>Receiving</li> </ul>	Spea- ker		At the point where the AF signal just disappears	RF	R733
S-METER (50 MHz band)	1	<ul> <li>Operating Frequency: 52.000 MHz [USA] 51.000 MHz [Italy]</li> <li>Connect an SSG to the [ANT] connector and set as: Level : 1 µV* (-106 dBm) Modulation : 1 kHz Deviation : ±3.5 kHz</li> <li>Connect a terminator to the [SP] jack.</li> <li>Receiving</li> </ul>				the [S	and hold SQL] key
Set an SSG output level for the S-meter to S3.     Receiving     Increase an SSG output level.     Receiving		meter to S3.	SSG	Output level	0.56 to 1.8 µV (-112 to -102 dBm)	\	/erify
		Front panel	S-meter	Full scale	\	erify	
(WFM band)	4	Operating Frequency: 91.0000 MHz (WFM)  Connect an SSG to the [ANT] connector and set as:  Level: 2 μV* (-101 dBm)  Modulation: 1 kHz  Deviation: ±52.5 kHz  Connect a terminator to the [SP] jack.	Top panel Front panel				and hold SQL] key
	5	Increase an SSG output level.     Receiving		S-meter	Full scale	\	erify/
• Connector and Level Modu Devia		<ul> <li>Operating Frequency: 145.000 MHz</li> <li>Connect an SSG to the [ANT] connector and set as:         Level: 0.5 μV* (-113 dBM)         Modulation: 1 kHz         Deviation: ±3.5 kHz</li> <li>Connect a terminator to the [SP] jack.</li> <li>Receiving</li> </ul>	Top panel				and hold SQL] key
	7		SSG	Output level	0.28 to 0.89 µV (-118 to -108dBm)	1	/erify
	8	Increase an SSG output level.     Receiving	Front panel			\	/erify

<sup>\*</sup>This output level of a standard signal generator (SSG) is indicated as the SSG's open circuit.

# **RECEIVER ADJUSTMENT (Continued)**

			1	MEASUREMENT	VALUE	ADJUSTMENT
ADJUSTME	NT	T ADJUSTMENT CONDITIONS		LOCATION	VALUE	ADJUSTMENT
(UHF band)	9	<ul> <li>Operating Frequency: 445.000 MHz [USA] 435.000 MHz [Other]</li> <li>Connect an SSG to the [ANT] connector and set as: Level : 0.63 μV* (-111 dBm) Modulation : 1 kHz Deviation : ±3.5 kHz</li> <li>Connect a terminator to the [SP] jack.</li> <li>Receiving</li> </ul>	Top panel			Push and hold the [SQL] key
	10	Set an SSG output level for the S- meter to S3.     Receiving	SSG	Output level	0.28 to 0.89 µV (-118 to -108dBm)	Verify

<sup>\*</sup>This output level of a standard signal generator (SSG) is indicated as the SSG's open circuit.



# SECTION 6 PARTS LIST

# [LOGIC UNIT]

C1	REF NO.	ORDER NO.		DESCRIPTION
IC2	IC1	1140007090	S.IC	M38267M8L-194-GP [THA]
IC3		1140007100	S.IC	M38267M8L-195-GP [Other]
IC44				
Ci-141   1180001720   S.I.C   S-81322HG-KC-T1   Ci-122   1110004540   S.I.C   TA7368F(TP1)   Ci-122   1110004520   S.I.C   TA7368F(TP1)   Ci-122   Ci-122				
Cit2  111000450				
IC201				
IC202				
IC203				
IC241   1110003780   S.IC   NJM2902V-TE1   S10001150   S.IC   BA4510F-T1   S100002620   S.TRANSISTOR XP1201 (TX)   S100002620   S.TRANSISTOR XP1201 (TX)   S10001170   S.TRANSISTOR UN9211 (TX)   S.TRANSISTOR UN9211 (TX)   S.TRANSISTOR UN9211 (TX)   S.TRANSISTOR UN9212 (TX)   S.TRANSISTOR UN9213 (TX)   S.TRANSISTOR S2B1132 T100 R   S.TRANSISTOR S2B1132 T100 R   S.TRANSISTOR S2B1132 T100 R   S.TRANSISTOR S2B1132 T100 R   S.TRANSISTOR S2B1121-STL   S.TRANSISTOR S2B1121-STL   S.TRANSISTOR S2B1121-STL   S.TRANSISTOR S2B1121-STL   S.TRANSISTOR S2B1121-STL   S.TRANSISTOR S2B1121-STL   S.TRANSISTOR UN9115 (TX)   S.TRANSISTOR UN9115 (TX)   S.TRANSISTOR UN9211 (TX)   S.TRANSISTOR UN9214 (TX)   S				
1590002620   S.TRANSISTOR XP1201 (TX)   159000150   S.TRANSISTOR XP1201 (TX)   1590001140   S.TRANSISTOR UN9211 (TX)   141   1590001140   S.TRANSISTOR UN9210 (TX)   141   1590001470   S.TRANSISTOR UN9210 (TX)   141   1590001470   S.TRANSISTOR UN9210 (TX)   143   1590001470   S.TRANSISTOR UN9210 (TX)   143   1590001470   S.TRANSISTOR UN9213 (TX)   145   150000460   S.TRANSISTOR 2581132 T100 R   1520000650   S.TRANSISTOR 2581132 T100 R   1520000650   S.TRANSISTOR 258126-S (TX)   1520000650   S.TRANSISTOR 2581462-R (TX)   1520000460   S.TRANSISTOR 2581462-R (TX)   159001190   S.TRANSISTOR UN9115 (TX)   159001190   S.TRANSISTOR UN9115 (TX)   159001190   S.TRANSISTOR UN9111 (TX)   155000010   S.FET   25J364-Q (TX)   1550000010   S.FET   25J364-Q (TX)   1550000010   S.FET   25J364-Q (TX)   15500000000   S.FET   25			l .	
Q30	IC301	1110004110	S.IC	BA4510F-T1
Q30	ا ہا			VD4004 (TV)
Q101   1590001140   S.TRANSISTOR UN9211 (TX)   1590001470   S.TRANSISTOR XP1501-(TX).AB   1590001470   S.TRANSISTOR XP1501-(TX).AB   1520000460   S.TRANSISTOR XP1501-(TX).AB   1520000460   S.TRANSISTOR SB1132 T100 R   1540000350   S.TRANSISTOR 2SB1201-S-TL   S20000410   S.TRANSISTOR 2SB1201-S-TL   S190001170   S.TRANSISTOR SCREET   STANSISTOR SCREET   STANSISTOR SCREET   STANSISTOR XP1501-(TX).AB   S.TRANSISTOR SCREET   STANSISTOR XP1501-(TX).AB   S.TRANSISTOR XP1501-(TX).AB   S				• ,
C141   1590001140   S.TRANSISTOR VP1501-(TX)				• •
Q142				` '
Q143   1590001470   S.TRANSISTOR UN9213 (TX)   152000060   S.TRANSISTOR 2SD216-S (TX)   S.TRANSISTOR 2SD113-TL   S.TRANSISTOR 2SD113-TL   S.TRANSISTOR 2SD113-TL   S.TRANSISTOR 2SD140-S-TL   S.TRANSISTOR 2SD146-S (TX)   S.TRANSISTOR UN9115 (TX)   S.TRANSISTOR UN9115 (TX)   S.TRANSISTOR UN9115 (TX)   S.TRANSISTOR UN9115 (TX)   S.TRANSISTOR UN9211 (TX)   S.TRANSISTOR UN9214 (TX)   S.DIODE UN425111-(TX)   S.DIODE UN				
Q151				
Q201   1520000650   S.TRANSISTOR 2SB1201-S-TL	Q145	1520000460	S.TRANSISTOR	2SB1132 T100 R
C202	Q151	1540000350		
Q301   1590001690   S.TRANSISTOR UN9115 (TX)				
Q302   1520000430   S.TRANSISTOR 2SB1462-R (TX)				
Q303	1 1			
Q304   1550000010   S.FET   2SJ364-Q (TX)   Q305   1550000010   S.FET   2SJ364-Q (TX)   Q306   1550000140   S.FET   2SJ364-Q (TX)   Q307   1590001440   S.TRANSISTOR UN9214 (TX)   Q308   1590001210   S.TRANSISTOR XP5601-(TX).AB   Q361   1550000010   S.FET   2SJ364-Q (TX)   Q308   1590001210   S.TRANSISTOR XP5601-(TX).AB   Q361   1550000010   S.FET   2SJ364-Q (TX)   Q308   1790001250   S.DIODE   MA2S111-(TX)   Q309   M329				` '
Q305				, ,
Q306				
Q308				
Q361   1550000010   S.FET   2SJ364-Q (TX)	Q307	1590001440	S.TRANSISTOR	UN9214 (TX)
D2	Q308	1590001210	S.TRANSISTOR	
D3	Q361	1550000010	S.FET	2SJ364-Q (TX)
D3	D2	1790000670	S.DIODE	SB07-03C-TB
D51		1790001250	S.DIODE	MA2S111-(TX)
D52	D4	1790001250	S.DIODE	MA2S111-(TX)
D53				
1750000220   S.DIODE   DA113W T107   [UK], [THA]   1750000240   S.DIODE   DA112 T107   [EUR], [USA]   D54   116000050   S.DIODE   DA113W T107   [ITA], [THA]   1750000220   S.DIODE   DA113W T107   [USA], [SEA]   D57   1790001250   S.DIODE   DA113W T107   [USA], [SEA]   D58   1790001200   S.DIODE   MA2S111-(TX)   [EUR], [UK], [ITA]   D59   1790001200   S.DIODE   MA6S121   (TX)   MA6S121   (TX)   D61   1790001250   S.DIODE   MA2S111-(TX)   Except [ITA], [THA]   D141   1790001250   S.DIODE   MA2S111-(TX)   except [ITA], [THA]   MA2S111   (TX)   EXCEPT   [ITA], [ITA]   (TX)   EXCEPT   [ITA], [ITA]   (TX)   EXCEPT   [ITA], [ITA]   (TX)   EXCEPT   [ITA], [ITA]   (TX)   (				
1750000240   S.DIODE   DA112 T107   EUR], [USA]	D53		l	
D54			l .	
D55	D54		1	
D57				
D58		1750000240	S.DIODE	DA112 T107 [USA], [SEA]
D59	D57	1790001250	S.DIODE	, ,
D61				
D141				
D143				
D144	1 1		1	
D151   1730002330   S.ZENER   MA8100-M (TX)   D152   1790001250   S.DIODE   MA2S111-(TX)   MA8051-H (TX)				
D304   179000990   S.ZENER   MA8051-H (TX)     X1	. ,		!	
X1	D152	1790001250	S.DIODE	MA2S111-(TX)
L1 620006720 S.COIL 5CA-395KN-0369AQ=P3 L2 6200003550 S.COIL MLF1608A 4R7K-T  R1 751000910 S.THERMISTOR NTCCF2012 4AH 473KC-T R2 7030005090 S.RESISTOR ERJ2GEJ 104 X (100 kΩ) R4 7030008280 S.RESISTOR ERJ2GEJ 271 X (270 Ω) R5 7030005000 S.RESISTOR ERJ2GEJ 471 X (470 Ω) R6 7030009160 S.RESISTOR ERJ2GEJ 181 X (180 Ω) R7 7030009160 S.RESISTOR ERJ2GEJ 181 X (180 Ω) R8 7030005050 S.RESISTOR ERJ2GEJ 103 X (10 kΩ) R10 7030005220 S.RESISTOR ERJ2GEJ 223 X (22 kΩ) R11 7030005840 S.RESISTOR ERJ2GEJ 224 X (220 kΩ) R13 7030005840 S.RESISTOR RR0510R-473-D (47 kΩ) R14 7030005840 S.RESISTOR RR0510R-473-D (47 kΩ) R16 7030005050 S.RESISTOR ERJ2GEJ 103 X (10 kΩ)	D304	1790000990	S.ZENER	MA8051-H (TX)
R1	X1	6050009620	S.XTAL	CR-534 (5.039 MHz)
R1	L1	6200006720	S.COIL	5CA-395KN-0369AQ=P3
R2				
R2	<sub>B1</sub>	7510000910	S.THERMISTOR	NTCCF2012 4AH 473KC-T
R4         7030008280         S.RESISTOR         ERJ2GEJ 271 X (270 Ω)           R5         7030005000         S.RESISTOR         ERJ2GEJ 471 X (470 Ω)           R6         7030009160         S.RESISTOR         ERJ2GEJ 181 X (180 Ω)           R7         7030009160         S.RESISTOR         ERJ2GEJ 181 X (180 Ω)           R8         7030005050         S.RESISTOR         ERJ2GEJ 103 X (10 kΩ)           R10         7030005220         S.RESISTOR         ERJ2GEJ 223 X (22 kΩ)           R11         703000510         S.RESISTOR         ERJ2GEJ 224 X (220 kΩ)           R12         7030005840         S.RESISTOR         RR0510R-473-D (47 kΩ)           R13         7030005840         S.RESISTOR         RR0510R-473-D (47 kΩ)           R14         7030005840         S.RESISTOR         RR0510R-473-D (47 kΩ)           R16         7030005050         S.RESISTOR         ERJ2GEJ 103 X (10 kΩ)				
R5				, ,
R7		7030005000		, ,
R8				
R10	1 1			, ,
R11   7030005110   S.RESISTOR   ERJ2GEJ 224 X (220 kΩ)     R12   7030005840   S.RESISTOR   RR0510R-473-D (47 kΩ)     R13   7030005840   S.RESISTOR   RR0510R-473-D (47 kΩ)     R14   7030005840   S.RESISTOR   RR0510R-473-D (47 kΩ)     R16   7030005050   S.RESISTOR   ERJ2GEJ 103 X (10 kΩ)	1 .			
R12   7030005840   S.RESISTOR   RR0510R-473-D (47 kΩ)   R13   7030005840   S.RESISTOR   RR0510R-473-D (47 kΩ)   R14   7030005840   S.RESISTOR   RR0510R-473-D (47 kΩ)   R16   7030005050   S.RESISTOR   ERJ2GEJ 103 X (10 kΩ)				
R13   7030005840   S.RESISTOR   RR0510R-473-D (47 kΩ)   R14   7030005840   S.RESISTOR   RR0510R-473-D (47 kΩ)   R16   7030005050   S.RESISTOR   ERJ2GEJ 103 X (10 kΩ)				
R14   7030005840   S.RESISTOR   RR0510R-473-D (47 kΩ)   R16   7030005050   S.RESISTOR   ERJ2GEJ 103 X (10 kΩ)				
R16 7030005050 S.RESISTOR ERJ2GEJ 103 X (10 kΩ)				
R17   7030005000   S RESISTOR   FR 1205   104 V (100 PO)			S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
1117 / 1000000000   0.11L0101011   Enuzueu 104 A (100 kgz)	R17	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)

### [LOGIC UNIT]

լեսն	CUNIT		
REF	ORDER		DESCRIPTION
NO.	NO.		
R18 R19	7030005040 7030005040	S.RESISTOR S.RESISTOR	ERJ2GEJ 472 X (4.7 kΩ) ERJ2GEJ 472 X (4.7 kΩ)
R20	7030007250	S.RESISTOR	ERJ2GEJ 220 X (22 Ω)
R51	7410000580	S.ARRAY	EXB-V4V 224JV (220 kΩ)
R55	7410000710	S.ARRAY	EXB-V8V 224JV (220 kΩ)
R141 R142	7030007340 7030005830	S.RESISTOR S.RESISTOR	ERJ2GEJ 153 X (15 kΩ) RR0510R-223-D (22 kΩ)
R143	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R144	7030005040	S.RESISTOR	ERJ2GEJ 472 X (4.7 kΩ)
R145	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R146 R148	7030005160 7030008270	S.RESISTOR S.RESISTOR	ERJ2GEJ 105 X (1M Ω) RR0510R-104-D (100 kΩ)
R151	7030005270	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R152	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R153	7030005240	S.RESISTOR	ERJ2GEJ 473 X (47 kΩ)
R154 R196	7030005050 7030005110	S.RESISTOR S.RESISTOR	ERJ2GEJ 103 X (10 kΩ) ERJ2GEJ 224 X (220 kΩ)
R197	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R201	7030005530	S.RESISTOR	ERJ2GEJ 100 X (10 Ω)
R202	7030007270	S.RESISTOR	ERJ2GEJ 151 X (150 Ω)
R203 R204	7030000240 7030000240	S.RESISTOR S.RESISTOR	MCR10EZHJ 68 Ω (680) MCR10EZHJ 68 Ω (680)
R205	7030000240	S.RESISTOR	MCR10EZHJ 68 Ω (680)
R206	7030005040	S.RESISTOR	ERJ2GEJ 472 X (4.7 kΩ)
R207	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R208 R209	7030005050 7030005120	S.RESISTOR S.RESISTOR	ERJ2GEJ 103 X (10 kΩ) ERJ2GEJ 102 X (1 kΩ)
R210	7030005950	S.RESISTOR	RR0510R-123-D (12 kΩ)
R211	7030005820	S.RESISTOR	RR0510P-103-D (10 kΩ)
R212	7030005220	S.RESISTOR	ERJ2GEJ 223 X (22 kΩ)
R213 R214	7030005830 7030008270	S.RESISTOR S.RESISTOR	RR0510R-223-D (22 kΩ) RR0510R-104-D (100 kΩ)
R215	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R241	7030005160	S.RESISTOR	ERJ2GEJ 105 X (1M Ω)
R242	7030005170	S.RESISTOR	ERJ2GEJ 474 X (470 kΩ)
R243 R244	7030005080 7030005080	S.RESISTOR S.RESISTOR	ERJ2GEJ 823 X (82 kΩ) ERJ2GEJ 823 X (82 kΩ)
R245	7030005080	S.RESISTOR	ERJ2GEJ 823 X (82 kΩ)
R246	7030005310	S.RESISTOR	ERJ2GEJ 124 X (120 kΩ)
R247	7030005090	S.RESISTOR S.RESISTOR	ERJ2GEJ 104 X (100 kΩ) ERJ2GEJ 474 X (470 kΩ)
R248 R249	7030005170 7030005110	S.RESISTOR	ERJ2GEJ 474 X (470 kΩ)
R250	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R251	7030005600	S.RESISTOR	ERJ2GEJ 273 X (27 kΩ)
R252 R253	7030006610 7030007350	S.RESISTOR S.RESISTOR	ERJ2GEJ 394 X (390 kΩ) ERJ2GEJ 393 X (39 kΩ)
R254	7030007350	S.RESISTOR	ERJ2GEJ 393 X (39 kΩ)
R267	7030004980	S.RESISTOR	ERJ2GEJ 101 X (100 Ω)
R301	7030005720	S.RESISTOR	ERJ2GEJ 563 X (56 kΩ)
R302 R303	7030008290 7030005600	S.RESISTOR S.RESISTOR	ERJ2GEJ 183 X (18 kΩ) ERJ2GEJ 273 X (27 kΩ)
R304	7030005720	S.RESISTOR	ERJ2GEJ 273 X (27 kΩ2) ERJ2GEJ 563 X (56 kΩ)
R305	7030004980	S.RESISTOR	ERJ2GEJ 101 X (100 Ω)
R306	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)
R307 R308	7030007320 7030005100	S.RESISTOR S.RESISTOR	ERJ2GEJ 225 X (2.2M Ω) ERJ2GEJ 154 X (150 kΩ)
R309	7030005100	S.RESISTOR	ERJ2GEJ 472 X (4.7 kΩ)
R310	7030005040	S.RESISTOR	ERJ2GEJ 472 X (4.7 kΩ)
R311	7030005530	S.RESISTOR	ERJ2GE L 224 X (220 kg)
R312 R313	7030005110 7030005090	S.RESISTOR S.RESISTOR	ERJ2GEJ 224 X (220 kΩ) ERJ2GEJ 104 X (100 kΩ)
R314	7030004980	S.RESISTOR	ERJ2GEJ 101 X (100 Ω)
R315	7030005240	S.RESISTOR	ERJ2GEJ 473 X (47 kΩ)
R316	7030005000	S.RESISTOR	ERJ2GEJ 471 X (470 Ω) ERJ2GEJ 224 X (220 kΩ)
R317 R318	7030005110 7030005120	S.RESISTOR S.RESISTOR	ERJ2GEJ 224 X (220 kΩ) ERJ2GEJ 102 X (1 kΩ)
R319	7030007290	S.RESISTOR	ERJ2GEJ 222 X (2.2 kΩ)
R320	7030005060	S.RESISTOR	ERJ2GEJ 333 X (33 kΩ)
R321 R322	7030005290 7310004320	S.RESISTOR S.TRIMMER	ERJ2GEJ 682 X (6.8 kΩ) RH03APAS4 47K
R323	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R324	7030005210	S.RESISTOR	ERJ2GEJ 822 X (8.2 kΩ)
R325	7310004320	S.TRIMMER	RH03APAS4 47K
R326	7310004320	S.TRIMMER	RH03APAS4 47K
			S _Surface mount

# [LOGIC UNIT]

ř		<u> </u>		
	REF NO.	ORDER NO.		DESCRIPTION
ı	R327	7310004320	S.TRIMMER	RH03APAS4 47K
ı	R328	7030005170	S.RESISTOR	ERJ2GEJ 474 X (470 kΩ)
ı	R329	7030005170	S.RESISTOR	ERJ2GEJ 474 X (470 kΩ)
ı	R330	7030005170	S.RESISTOR	ERJ2GEJ 474 X (470 kΩ)
ı	R331	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
1	R332	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
١	R333	7030005050 7030005040	S.RESISTOR S.RESISTOR	ERJ2GEJ 103 X (10 kΩ) ERJ2GEJ 472 X (4.7 kΩ)
ı	R334 R335	7030005040	S.RESISTOR	ERJ2GEJ 102 X (1 kΩ)
ı	R336	7030005120	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
ı	R361	7030005040	S.RESISTOR	ERJ2GEJ 472 X (4.7 kΩ)
ı	R362	7030005160	S.RESISTOR	ERJ2GEJ 105 X (1M Ω)
١	R363	7030005170	S.RESISTOR	ERJ2GEJ 474 X (470 kΩ)
١				_
ı	C1	4550006540	S.TANTALUM	ECST1CY475R
ı	C2	4030013850	S.CERAMIC	GRM39 CH 270J 50PT
ı	C3 C4	4030012020 4030012100	S.CERAMIC S.CERAMIC	GRM39 CH 240J 50PT
ı	C5	4030012100	S.CERAMIC	ECUE1E102KBQ
ı	C6	4550006540	S.TANTALUM	ECST1CY475R
1	C7	4030013850	S.CERAMIC	ECUE1E102KBQ
ı	C8	4030012390	S.CERAMIC	GRM39 B 104K 16PT
١	C9	4030013850	S.CERAMIC	ECUE1E102KBQ
ı	C10	4030004310	S.CERAMIC	GRM39 B 103K 50PT
ı	C11	4030012390	S.CERAMIC	GRM39 B 104K 16PT
ı	C12	4030012390	S.CERAMIC S.CERAMIC	GRM39 B 104K 16PT ECUE1E102KBQ
ļ	C13 C17	4030013850 4550006460	S.TANTALUM	ECST1VX225R
١	C90	4030013850	S.CERAMIC	ECUE1E102KBQ
١	C91	4030013850	S.CERAMIC	ECUE1E102KBQ
ı	C92	4030013850	S.CERAMIC	ECUE1E102KBQ
ı	C93	4030013850	S.CERAMIC	ECUE1E102KBQ
ı	C101	4030013850	S.CERAMIC	ECUE1E102KBQ
ı	C102	4030013850	S.CERAMIC	ECUE1E102KBQ
ı	C103	4030013850	S.CERAMIC	ECUE1E102KBQ
ı	C141	4030013850	S.CERAMIC S.TANTALUM	ECUE1E102KBQ ECST0GX476R
1	C142 C143	4550006850 4030013850	S.CERAMIC	ECUE1E102KBQ
	C145	4030013850	S.CERAMIC	ECUE1E102KBQ
	C146	4030012390	S.CERAMIC	GRM39 B 104K 16PT
	C147	4550006630	S.TANTALUM	ECST0GY226R
	C148	4030013850	S.CERAMIC	ECUE1E102KBQ
	C149	4550006850	S.TANTALUM	ECST0GX476R
	C150	4030004310	S.CERAMIC	GRM39 B 103K 50PT
	C151	4030013850	S.CERAMIC	GRM39 B 223K 16PT
1	C152 C162	4030012340 4030013850	S.CERAMIC S.CERAMIC	ECUE1E102KBQ
	C201	4030013330	S.CERAMIC	GRM39 B 473K 16PT
	C202	4550006340	S.TANTALUM	ECST1AY335R
	C203	4030009160	S.CERAMIC	GRM39 CH 470J 50PT
	C204	4030013850	S.CERAMIC	ECUE1E102KBQ
	C205	4510004640	S.ELECTROLITIC	
	C206	4510005320	S.ELECTROLITIC	
	C207	4550006180	S.TANTALUM S.CERAMIC	ECST0GY475R ECUE1E102KBQ
ı	C208 C209	4030013850 4030013850	S.CERAMIC	ECUE1E102KBQ
	C210	4550006700	S.TANTALUM	ECST1AY106R
	C211	4030013850	S.CERAMIC	ECUE1E102KBQ
	C212	4510006960	S.ELECTROLITIC	ECEV0JA151WP
	C213	4550006680	S.TANTALUM	ECST0JY156R
	C214	4550006560	S.TANTALUM	ECST1CY225R
	C215	4030012390	S.CERAMIC	GRM39 B 104K 16PT GRM39 B 104K 16PT
	C216	4030012390	S.CERAMIC S.CERAMIC	GRM39 B 104K 16PT
	C217 C240	4030012390 4030012270	S.CERAMIC	GRM39 B 152K 50PT
	C241	4030012390	S.CERAMIC	GRM39 B 104K 16PT
	C242	4030012370		GRM39 B 393K 16PT
j	C243	4030012390	1	GRM39 B 104K 16PT
	C244	4030012390		GRM39 B 104K 16PT
	C245	4030012390	S.CERAMIC	GRM39 B 104K 16PT
	C246	4030012390	t .	GRM39 B 104K 16PT GRM39 CH 101J 50PT
	C247 C248	4030009150 4030012390		GRM39 B 104K 16PT
	C248	4030012390		GRM39 B 103K 50PT
	C250	4030004310		GRM39 B 103K 50PT
	C251	4030013850		ECUE1E102KBQ
	C252	4030004250	S.CERAMIC	GRM39 B 222K 50PT
	C253	4030004260	1	GRM39 B 272K 50PT
	C301	4030004250		GRM39 B 222K 50PT
	C302	4030004280		GRM39 B 472K 50PT GRM39 B 561K 50PT
	C303	4030012240	3.CETAIVIIC	GIANGS B SOTK SOT I

[LOGI	C UNIT]		
REF NO.	ORDER NO.		DESCRIPTION
C304	4030013850	S.CERAMIC	ECUE1E102KBQ
C305	4030004250	S.CERAMIC	GRM39 B 222K 50PT
C306	4550006850	S.TANTALUM S.CERAMIC	ECST0GX476R ECUE1E102KBQ
C307 C308	4030013850 4030012120	S.CERAMIC	GRM39 CH 121J 50PT
C309	4030013720	S.CERAMIC	GRM39 B 224K 10PT
C310	4030003890	S.CERAMIC	GRM39 B 471K 50PT
C311	4550006180	S.TANTALUM	ECSTOGY475R
C312 C313	4030003890 4030004280	S.CERAMIC S.CERAMIC	GRM39 B 471K 50PT GRM39 B 472K 50PT
C314	4030004280	S.CERAMIC	ECUE1E102KBQ
C315	4030013850	S.CERAMIC	ECUE1E102KBQ
C316	4550006180	S.TANTALUM	ECST0GY475R
C317 C318	4030012380 4030004310	S.CERAMIC S.CERAMIC	GRM39 B 473K 16PT GRM39 B 103K 50PT
C319	4030004310	S.CERAMIC	GRM39 B 471K 50PT
C320	4030013850	S.CERAMIC	ECUE1E102KBQ
C321	4030013850	S.CERAMIC	ECUE1E102KBQ
C322 C323	4030013850 4030013850	S.CERAMIC S.CERAMIC	ECUE1E102KBQ ECUE1E102KBQ
C324	4030013850	S.CERAMIC	ECUE1E102KBQ
C325	4030013850	S.CERAMIC	ECUE1E102KBQ
C326	4030013850	S.CERAMIC	ECUE1E102KBQ
C361 C362	4030012380 4030013850	S.CERAMIC S.CERAMIC	GRM39 B 473K 16PT ECUE1E102KBQ
C901	4030013850	S.CERAMIC	ECUE1E102KBQ
C903	4030013850	S.CERAMIC	ECUE1E102KBQ
C904	4030013850	S.CERAMIC	ECUE1E102KBQ
C906	4030013850 4030013850	S.CERAMIC S.CERAMIC	ECUE1E102KBQ ECUE1E102KBQ
C907 C908	4030013850	S.CERAMIC S.CERAMIC	ECUE1E102KBQ
C909	4030013850	S.CERAMIC	ECUE1E102KBQ
C910	4030013850	S.CERAMIC	ECUE1E102KBQ
C912 C913	4030013850 4030013850	S.CERAMIC S.CERAMIC	ECUE1E102KBQ ECUE1E102KBQ
C914	4030013850	S.CERAMIC	ECUE1E102KBQ
C915	4030013850	S.CERAMIC	ECUE1E102KBQ
C916	4030013850	S.CERAMIC	ECUE1E102KBQ ECUE1E102KBQ
C917 C918	4030013850 4030013850	S.CERAMIC S.CERAMIC	ECUE1E102KBQ
C919	4030012390	S.CERAMIC	GRM39 B 104K 16PT
C920	4030013850	S.CERAMIC	ECUE1E102KBQ
C921 C922	4030013850 4030013850	S.CERAMIC S.CERAMIC	ECUE1E102KBQ ECUE1E102KBQ
0022	1000010000	0.02	
DS1	5010000160	S.LED	LNJ310M6URA
DS2 DS3	5010000160 5010000150		LNJ310M6URA LT1EP53A
DS4	5030001550		LM-1526B
J1	6510019860	S.CONNECTOR	AXK6S40645P
W2	7030003860	S.JUMPER	ERJ3GE JPW V
MC1	7700002310	MICROPHONE	EM-140
EP1	910049695	PCB	B 5031E
EP2	8930046030	LCD CONTACT	SRCN-1903-SP-N-W
		!	

#### ORDER REF DESCRIPTION NO. NO. 1130007510 S.IC BU4094BCFV-E1 IC2 1130007510 S.IC BU4094BCFV-E1 IC3 1110004530 S.IC M62368GP 70ED IC4 1180001240 S.IC S-81335HG-KI-T1 IC5 1110003370 S.IC uPC2748T-E3 IC501 1110004020 S.IC uPC2757T-F3 IC601 TA31136FN (D EL) IC701 1110003490 S.IC TC4S66F (TE85R) IC751 1130004200 S.IC IC801 1130007610 S.IC uPD3140GS-E1 (DS8) IC802 1130006220 S.IC TC4W53FU (TE12L) 1110002700 S.IC NJM2904M-T1 IC901 TC7S32FU(TE85R) IC902 1130007280 S.IC 1540000350 S.TRANSISTOR 2SD2216-S (TX) Q2 S.TRANSISTOR 2SB1132 T100 R Q3 1520000460 S.TRANSISTOR 2SB1132 T100 R Q4 1520000460 Q5 1590001140 S.TRANSISTOR UN9210 (TX) HAT1024R-ÉL 1590002580 S.FET Q6 1590001170 S.TRANSISTOR XP1501-(TX).AB Ω7 S.TRANSISTOR 2SB1132 T100 R 1520000460 Q8 1590001650 S.TRANSISTOR XP4601 (TX) $\Omega_9$ 1590001650 S.TRANSISTOR XP4601 (TX) Q10 Q11 1590001650 S.TRANSISTOR XP4601 (TX) S.TRANSISTOR XP4601 (TX) Q12 1590001650 S.TRANSISTOR UN9211 (TX) 1590001150 Q13 Q101 1530002560 S.TRANSISTOR 2SC4403-3-TL Q201 1580000700 S.FET 3SK292 (TE85R) Q202 1590001690 S.TRANSISTOR UN9115 (TX) Q301 1580000690 S.FET 3SK291 (TE85R) Q302 1590002380 S.TRANSISTOR XP1115 (TX) S.TRANSISTOR UN9115 (TX) Q303 1590001690 S.TRANSISTOR 2SC4226-T2 R25 Q401 1530002920 S.TRANSISTOR 2SC4403-3-TL Q402 1530002560 S.TRANSISTOR UN9115 (TX) Q403 1590001690 S.TRANSISTOR 2SC4228(M)-T1 R45 Q501 1530002930 S.TRANSISTOR XP1115 (TX) Q502 1590002380 Q601 1530002560 S.TRANSISTOR 2SC4403-3-TL 1590001690 S.TRANSISTOR UN9115 (TX) Q602 S.TRANSISTOR UN9210 (TX) 1590001140 O603 1530002600 S.TRANSISTOR 2SC4215-O (TE85R) Q701 Q702 1590001690 S.TRANSISTOR UN9115 (TX) S.TRANSISTOR 2SC4215-O (TE85R) 1530002600 Q721 S TRANSISTOR XP1501-(TX) AB Q751 1590001170 S.TRANSISTOR 2SD2216-S (TX) Q752 1540000350 S TRANSISTOR UN9115 (TX) Q753 1590001690 Q754 1540000350 S.TRANSISTOR 2SD2216-S (TX) 2SK880-Y (TE85R) Q801 1560000540 S.FET S.TRANSISTOR 2SC4117-BL (TE85R) Q802 1530003000 Q803 1560000540 S.FET 2SK880-Y (TE85R) S.TRANSISTOR UN9115 (TX) Q804 1590001690 Q805 1590002380 S.TRANSISTOR XP1115 (TX) 1530003310 S.TRANSISTOR 2SC5107-O (TE85R) Q806 1530003310 S.TRANSISTOR 2SC5107-O (TE85R) Q807 2SK880-Y (TE85R) Q808 1560000540 S.FET Q809 1530003000 S.TRANSISTOR 2SC4117-BL (TE85R) S.TRANSISTOR XP1210 (TX) Q810 1590001180 S.TRANSISTOR XP4315 (TX) Q811 1590001980 Q812 1530002920 S.TRANSISTOR 2SC4226-T2 R25 Q813 1560000540 S.FET 2SK880-Y (TE85R) S.TRANSISTOR 2SC5107-O (TE85R) 1530003310 Q901 S.TRANSISTOR 2SC3356 R25-T2B 1530000371 Q902 S.TRANSISTOR 2SC3356 R25-T2B O903 1530000371 2SK2973 (MTS101P) 1560001020 S.FET Q904 2SK2975 (MTS103) Q905 1560001030 S.FFT S.TRANSISTOR 2SD2216-S (TX) Q906 1540000350 S.TRANSISTOR 2SB1132 T100 R Q907 1520000460 S.TRANSISTOR UN9211 (TX) Q908 1590001150 S.TRANSISTOR 2SA1588-GR (TE85R) Q909 1510000670 Q911 1510000670 S.TRANSISTOR 2SA1588-GR (TE85R) Q913 1510000670 S.TRANSISTOR 2SA1588-GR (TE85R) Q914 1590001860 S.TRANSISTOR UN9215 (TX) Q915 1590002160 S.TRANSISTOR XP6401- (TX) Q916 1590001150 S.TRANSISTOR UN9211 (TX) 1590001150 S.TRANSISTOR UN9211 (TX) Q917 1590001860 S.TRANSISTOR UN9215 (TX) Q918 S.TRANSISTOR UN9215 (TX) Q919 1590001860 Q920 1590001860 S.TRANSISTOR UN9215 (TX) 1590001860 S.TRANSISTOR UN9215 (TX) Q921 D1 1750000540 S.DIODE RB060L-40 TE-25 1790001250 S.DIODE D3 MA2S111-(TX)

#### [RF UNIT]

[RF U	RF UNIT]				
REF NO.	ORDER NO.		DESCRIPTION		
D4	1790001240	S.DIODE	MA2S728-(TX)		
D5	1790000860	S.DIODE	MA133 (TX)		
D6 D101	1790000670 1710000870	S.DIODE S.DIODE	SB07-03C-TB HVU131TRF		
D101	1710000870	S.DIODE	HVU131TRF		
D104	1720000370	S.VARICAP	HVU350TRF		
D105	1720000370	S.VARICAP	HVU350TRF		
D106	1720000370	S.VARICAP	HVU350TRF		
D107 D108	1720000370 1790001260	S.VARICAP S.DIODE	HVU350TRF MA2S077-(TX)		
D201	1790001260	S.DIODE	MA2S077-(TX)		
D202	1720000370	S.VARICAP	HVU350TRF		
D203	1720000370	S.VARICAP	HVU350TRF		
D204 D301	1790001260 1750000530	S.DIODE S.DIODE	MA2S077-(TX) 1SV271 (TPH3)		
D302	1790001260	S.DIODE	MA2S077-(TX)		
D303	1790001260	S.DIODE	MA2S077-(TX)		
D304 D305	1790001260 1790001260	S.DIODE S.DIODE	MA2S077-(TX) MA2S077-(TX)		
D306	1720000370	S.VARICAP	HVU350TRF		
D307	1790001260	S.DIODE	MA2S077-(TX)		
D308	1790001260	S.DIODE	MA2S077-(TX)		
D309 D310	1720000370 1720000370	S.VARICAP S.VARICAP	HVU350TRF HVU350TRF		
D311	1790001260	S.DIODE	MA2S077-(TX)		
D402	1790001260	S.DIODE	MA2S077-(TX)		
D403	1790001260	S.DIODE	MA2S077-(TX)		
D404 D405	1790001260 1790001260	S.DIODE S.DIODE	MA2S077-(TX) MA2S077-(TX)		
D501	1790001260	S.DIODE	MA2S077-(TX)		
D502	1790001260	S.DIODE	MA2S077-(TX)		
D503	1790001260	S.DIODE	MA2S077-(TX) MA2S077-(TX)		
D504 D505	1790001260 1790001260	S.DIODE S.DIODE	MA2S077-(TX) MA2S077-(TX)		
D506	1790000850	S.DIODE	MA132WK(TX)		
D507	1790001260	S.DIODE	MA2S077-(TX)		
D601 D602	1750000360 1750000360	S.DIODE S.DIODE	1SS364(TE85L) 1SS364(TE85L)		
D701	1750000360	S.DIODE	1SS364(TE85L)		
D702	1750000360	S.DIODE	1SS364(TE85L)		
D703 D801	1790000860 1750000360	S.DIODE S.DIODE	MA133 (TX) 1SS364(TE85L)		
D802	1790001260	S.DIODE	MA2S077-(TX)		
D905	1750000530	S.DIODE	1SV271 (TPH3)		
D906	1750000580 1790000850	S.DIODE S.DIODE	1SV307 (TPH3) MA132WK (TX)		
D908 D909	1750000580	S.DIODE	1SV307 (TPH3)		
D910	1750000530	S.DIODE	1SV271 (TPH3)		
D911	1750000580		1SV307 (TPH3)		
D912 D913	1790000860 1750000530	S.DIODE S.DIODE	MA133 (TX) 1SV271 (TPH3)		
D914	1750000580	S.DIODE	1SV307 (TPH3)		
D917	1790001260	S.DIODE	MA2S077-(TX)		
D918	1750000580	S.DIODE	1SV307 (TPH3) 1SV271 (TPH3)		
D919	1750000530	S.DIODE	15 (17 (17 (15))		
FI401	2040001020	S.SAW	EFCH445MWNP1 [USA]		
Ficos	2040001000	S.SAW S.XTAL	EFCH435MWNP1 [Other] FL-275 (41.850 MHz)		
FI601 FI602	2010002170	S.CERAMIC	SFECV13.35MA		
FI701	2020001480	S.CERAMIC	PBFC450R15DR		
L1	6200007760	S.COIL	LQN21A 82NJ04		
L2	6200007760	S.COIL	LQN21A 10NJ04		
L3	6200007670	S.COIL	LQN21A 10NJ04		
L5	6200008340	S.COIL	0.26-1.1-5TR 19.5N 0.30-1.3-5TL 22N		
L6 L7	6200008230 6200008240	S.COIL S.COIL	0.30-1.3-5TL 22N 0.30-0.9-5TL 14N		
L8	6200008230	S.COIL	0.30-1.3-5TL 22N		
L9	6200008250		0.30-0.9-7TL 21N		
L10 L11	6200008150 6200008300	S.COIL S.COIL	0.35-1.6-7TL 44N 0.35-1.6-9TL 65N		
L12	6200008260	S.COIL	0.30-1.7-8TL 60N		
L13	6200007800	S.COIL	LQN21A R18J04		
L14	6200008180	S.COIL	0.25-1.9-10TL 107N		
L15 L16	6200008190 6200008390	S.COIL S.COIL	0.25-1.9-8TL 80N 0.25-1.9-9TL		
L17	6200008360	S.COIL	0.25-1.9-13TL		
L18	6200008360	S.COIL	0.25-1.9-13TL		
L52 L53	6200005490 6200003640	S.COIL S.COIL	NL 322522T-331J MLF1608K 100K-T		

1	מר טו	NIIJ		
	REF NO.	ORDER NO.		DESCRIPTION
ĺ	L54	6200008420	S.COIL	HF50ACC 453215P-T
I	L55	6200003590	S.COIL	EXCCL3225U1
I	L56	6200003590	S.COIL	EXCCL3225U1
I	L57	6200003640	S.COIL	MLF1608K 100K-T
I	L101	6200007790	S.COIL	LQN21A R15J04
I	L102	6200007790	S.COIL	LQN21A R15J04
I	L105 L108	6200007790 6200007790	S.COIL S.COIL	LQN21A R15J04 LQN21A R15J04
I	L109	6200007790	S.COIL	LQN21A R18J04
Ì	L110	6200007800	S.COIL	LQN21A R18J04
١	L201	6200007050	S.COIL	ELJND 27NKF
ı	L202	6200007130	S.COIL	ELJND R15J 0.15U
I	L203	6200007130	S.COIL	ELJND R15J 0.15U
ı	L204	6200007130	S.COIL	ELJND R15J 0.15U
ı	L205	6200007130	S.COIL S.COIL	ELJND R15J 0.15U ELJND R33J 0.33U
ı	L206 L301	6200007820 6200007750	S.COIL	LQN21A 56NJ04
ı	L302	6200007750	S.COIL	LQN21A 56NJ04
ı	L303	6200007710	S.COIL	LQN21A 27NJ04
ı	L304	6200008090	S.COIL	LQN21A 68NJ04
ı	L305	6200007770	S.COIL	LQN21A R10J04
ı	L306	6200007770	S.COIL S.COIL	LQN21A R10J04 LQN21A 22NJ04
ı	L401 L402	6200007700 6200007690	S.COIL	LQN21A 22N304 LQN21A 18NJ04
ı	L403	6200007680	S.COIL	ELJRE 15NG-F
ı	L404	6200005690	S.COIL	ELJRE 18NG-F
ı	L405	6200005670	S.COIL	ELJRE 12NG-F
ı	L406	6200005670	S.COIL	ELJRE 12NG-F
ı	L501	6200005650	S.COIL	ELJRE 8N2Z-F ELJRE 10NG-F
ı	L502 L503	6200005660 6200005660	S.COIL S.COIL	ELJRE 10NG-F
ı	L504	6200005700	S.COIL	ELJRE 22NG-F
ı	L505	6200005700	S.COIL	ELJRE 22NG-F
ı	L506	6200005740	S.COIL	ELJRE 47NG-F
١	L602	6200005190	S.COIL	MLF1608D R56K-T
١	L701	6200002710	S.COIL S.COIL	ELJFC 1R8K-F LS-510 (taping)
ı	L702 L721	6150004840 6200004600	S.COIL	MLF1608D R15K-T
١	L722	6200004940	S.COIL	MLF1608D R27K-T
١	L723	6200005140	S.COIL	MLF1608D R33K-T
ı	L724	6200008070	S.COIL	MLF1608E 6R8K 6.8U
	L801	6200003550	S.COIL	MLF1608A 4R7K-T MLF1608A 4R7K-T
	L802 L803	6200003550 6200005710	S.COIL S.COIL	ELJRE 27NG-F
	L804	6200006780	S.COIL	ELJRE 1N8Z-F
	L902	6200005680	S.COIL	ELJRE 15NG-F
	L903	6200004470	S.COIL	MLF1608D R12K-T
	L905	6200007680	S.COIL S.COIL	LQN21A 12NJ04
	L906 L907	6200003590 6200003590	-	EXCCL3225U1 EXCCL3225U1
	L908	6200007810	S.COIL	LQN 1H 95NK04
	L909	6200005580	S.COIL	ELJRE 2N2Z-F
	L911	6200008170	S.COIL	0.35-1.6-8TL 54N
	L912	6200008370	S.COIL	0.40-1.3-2TL [USA] 0.40-1.4-2TL [Other]
ı	L914	6200008200 6200003300	S.COIL S.COIL	ELJNC R22K-F
ļ	L915	6200008210		0.45-1.5-5TL 23.2N
	L916	6200008190	S.COIL	0.25-1.9-8TL 80N
	L917	6200008400	S.COIL	0.35-1.6-6TL 36N
1	L918	6200003300	i	ELJNC R22K-F
	L919	6200008220		0.40-1.4-5TR 21N
	L920 L921	6200008390 6200004480	S.COIL S.COIL	0.25-1.9-9TL MLF1608D R82K-T
	L922	6200003300		ELJNC R22K-F
	L923	6200004480		MLF1608D R82K-T
	L924	6200004480	S.COIL	MLF1608D R82K-T
	L925	6200004480		MLF1608D R82K-T
	L926	6200004480 6200007800	S.COIL S.COIL	MLF1608D R82K-T LQN21A R18J04
	L928 L929	6200007800	S.COIL S.COIL	ELJRE 56NG-F
	L930	6200008380	S.COIL	0.28-1.0-11TR 42N
	L931	6200003640		MLF1608K 100K-T
	L932	6200004480	S.COIL	MLF1608D R82K-T
	L933	6200004480		MLF1608D R82K-T
	L934 X801	6200005670 6050010160	S.COIL S.XTAL	ELJRE 12NG-F CR-583 (13.800 MHz)
	7001	3030010160	J.A IAL	0.1-000 (10.000 WII IZ)
	R1	7030000330	S.RESISTOR	MCR10EZHJ 390 Ω (391)
ļ	R2	7030005040	S.RESISTOR	ERJ2GEJ 472 X (4.7 kΩ)
	R6	7030007290	1	ERJ2GEJ 222 X (2.2 kΩ)
	R7	7030005090	S.RESISTOR	ERJ2GEJ 104 X (100 kΩ)

## [RF UNIT]

REF NO.   NO.   NO.   NO.   DESCRIPTION	
R9	
R10	
R11	
R12	
R13         7510000910         S.THERMISTOR NTCCF2012 4AH 473KC-T           R14         7030005240         S.RESISTOR         ERJ2GEJ 473 X (47 kΩ)           R15         7030008260         S.RESISTOR         RR0510R-393-D (39 kΩ)           R16         7030008260         S.RESISTOR         RR0510R-393-D (22 kΩ)           R17         7030008260         S.RESISTOR         RR0510R-393-D (22 kΩ)           R18         7030008260         S.RESISTOR         RR0510R-223-D (22 kΩ)           R19         7030008260         S.RESISTOR         RR0510R-223-D (22 kΩ)           R20         7030005830         S.RESISTOR         RR0510R-223-D (22 kΩ)           R21         7030005830         S.RESISTOR         RR0510R-223-D (22 kΩ)           R103         7030005830         S.RESISTOR         RR0510R-223-D (22 kΩ)           R104         7030005720         S.RESISTOR         ERJ2GEJ 563 X (56 kΩ)           R106         7030005030         S.RESISTOR         ERJ2GEJ 563 X (56 kΩ)           R107         7030005170         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R110         7030005170         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R111         7030005000         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R20	1
R15         7030008260         S.RESISTOR         RR0510R-393-D (39 kΩ)           R16         7030005830         S.RESISTOR         RR0510R-223-D (22 kΩ)           R17         7030008260         S.RESISTOR         RR0510R-223-D (22 kΩ)           R19         7030008260         S.RESISTOR         RR0510R-223-D (22 kΩ)           R20         7030008260         S.RESISTOR         RR0510R-393-D (39 kΩ)           R21         7030008260         S.RESISTOR         RR0510R-223-D (22 kΩ)           R103         7030005830         S.RESISTOR         RR0510R-223-D (22 kΩ)           R103         7030005720         S.RESISTOR         RR0510R-223-D (22 kΩ)           R104         7030005700         S.RESISTOR         ERJ2GEJ 563 X (56 kΩ)           R107         7030005170         S.RESISTOR         ERJ2GEJ 152 X (1.5 kΩ)           R107         7030005170         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R110         7030005170         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R111         7030005170         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R112         703000500         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R113         7030005000         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)	
R16         7030005830         S.RESISTOR         RR0510R-223-D (22 kΩ)           R17         7030008260         S.RESISTOR         RR0510R-393-D (39 kΩ)           R18         7030008260         S.RESISTOR         RR0510R-393-D (22 kΩ)           R19         7030008260         S.RESISTOR         RR0510R-293-D (22 kΩ)           R20         7030005830         S.RESISTOR         RR0510R-223-D (22 kΩ)           R21         7030005830         S.RESISTOR         RR0510R-223-D (22 kΩ)           R103         7030005720         S.RESISTOR         RR0510R-223-D (22 kΩ)           R104         7030005700         S.RESISTOR         ERJ2GEJ 563 X (56 kΩ)           R107         7030005170         S.RESISTOR         ERJ2GEJ 563 X (56 kΩ)           R109         7030005170         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R110         7030005170         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R111         7030005580         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R111         703000500         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R113         703000500         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R201         703000500         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ) <t< td=""><td></td></t<>	
R17	
R18	
R20	
R21         7030008260         S.RESISTOR         RR0510R-393-D (39 kΩ)           R22         7030005830         S.RESISTOR         RR0510R-223-D (22 kΩ)           R103         7030005720         S.RESISTOR         ERJ2GEJ 563 X (56 kΩ)           R106         7030005170         S.RESISTOR         ERJ2GEJ 152 X (1.5 kΩ)           R107         7030005170         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R110         7030005170         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R111         7030005170         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R111         7030005170         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R112         7030005170         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R113         7030005580         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R113         7030005000         S.RESISTOR         ERJ2GEJ 471 X (470 Ω)           R201         7030005000         S.RESISTOR         ERJ2GEJ 471 X (470 Ω)           R202         7030005000         S.RESISTOR         ERJ2GEJ 104 X (100 kΩ)           R203         7030005010         S.RESISTOR         ERJ2GEJ 104 X (100 kΩ)           R204         7030005200         S.RESISTOR         ERJ2GEJ 100 X (10 kΩ) </td <td></td>	
R22         7030005830         S.RESISTOR         RR0510R-223-D (22 kΩ)           R103         7030005720         S.RESISTOR         ERJ2GEJ 563 X (56 kΩ)           R106         7030005030         S.RESISTOR         ERJ2GEJ 1563 X (1.5 kΩ)           R107         7030005170         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R109         7030005170         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R110         7030005170         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R111         7030005580         S.RESISTOR         ERJ2GEJ 560 X (56 Ω)           R112         7030005170         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R113         7030005000         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R113         7030005000         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R201         7030005000         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R202         7030005000         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R201         7030005000         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R202         7030005000         S.RESISTOR         ERJ2GEJ 104 X (100 kΩ)           R203         7030005510         S.RESISTOR         ERJ2GEJ 105 X (1 MΩ)	
R103	
R107	
R109	
R110         7030005170         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R111         7030005580         S.RESISTOR         ERJ2GEJ 560 X (56 Ω)           R112         7030005170         S.RESISTOR         ERJ2GEJ 474 X (470 kΩ)           R113         7030005000         S.RESISTOR         ERJ2GEJ 471 X (470 Ω)           R201         7030005080         S.RESISTOR         ERJ2GEJ 471 X (470 Ω)           R202         7030005090         S.RESISTOR         ERJ2GEJ 104 X (100 kΩ)           R203         7030005310         S.RESISTOR         ERJ2GEJ 124 X (120 kΩ)           R204         7030005220         S.RESISTOR         ERJ2GEJ 105 X (10 kΩ)           R205         7030005530         S.RESISTOR         ERJ2GEJ 100 X (10 kΩ)           R206         7030005505         S.RESISTOR         ERJ2GEJ 100 X (10 kΩ)           R208         7030005090         S.RESISTOR         ERJ2GEJ 100 X (10 kΩ)           R209         7030005090         S.RESISTOR         ERJ2GEJ 104 X (100 kΩ)           R210         7030005040         S.RESISTOR         ERJ2GEJ 104 X (100 kΩ)           R301         7030005120         S.RESISTOR         ERJ2GEJ 472 X (4.7 kΩ)           R303         7030005040         S.RESISTOR         ERJ2GEJ 102 X (1 kΩ) <td></td>	
R111	
R113         7030005000         S.RESISTOR         ERJ2GEJ 471 X (470 Ω)           R201         7030005080         S.RESISTOR         ERJ2GEJ 823 X (82 kΩ)           R202         7030005090         S.RESISTOR         ERJ2GEJ 104 X (100 kΩ)           R203         7030005310         S.RESISTOR         ERJ2GEJ 124 X (120 kΩ)           R204         7030005220         S.RESISTOR         ERJ2GEJ 1223 X (22 kΩ)           R205         7030005160         S.RESISTOR         ERJ2GEJ 105 X (1 MΩ)           R206         7030005530         S.RESISTOR         ERJ2GEJ 100 X (10 kΩ)           R207         7030005050         S.RESISTOR         ERJ2GEJ 103 X (10 kΩ)           R208         7030005050         S.RESISTOR         ERJ2GEJ 101 X (100 Ω)           R209         7030005090         S.RESISTOR         ERJ2GEJ 104 X (100 kΩ)           R210         7030005040         S.RESISTOR         ERJ2GEJ 472 X (4.7 kΩ)           R301         7030005040         S.RESISTOR         ERJ2GEJ 102 X (1 kΩ)           R302         7030005120         S.RESISTOR         ERJ2GEJ 102 X (1 kΩ)           R303         7030005090         S.RESISTOR         ERJ2GEJ 104 X (100 kΩ)           R304         7030005090         S.RESISTOR         ERJ2GEJ 103 X (10 kΩ)	
R201         7030005080         S.RESISTOR         ERJ2GEJ 823 X (82 kΩ)           R202         7030005090         S.RESISTOR         ERJ2GEJ 104 X (100 kΩ)           R203         7030005310         S.RESISTOR         ERJ2GEJ 124 X (120 kΩ)           R204         7030005220         S.RESISTOR         ERJ2GEJ 1223 X (22 kΩ)           R205         7030005160         S.RESISTOR         ERJ2GEJ 105 X (11 MΩ)           R206         7030005500         S.RESISTOR         ERJ2GEJ 100 X (10 Ω)           R207         7030005050         S.RESISTOR         ERJ2GEJ 101 X (100 Ω)           R208         7030004980         S.RESISTOR         ERJ2GEJ 101 X (100 Ω)           R209         7030005040         S.RESISTOR         ERJ2GEJ 104 X (100 kΩ)           R301         7030005040         S.RESISTOR         ERJ2GEJ 472 X (4.7 kΩ)           R302         7030005120         S.RESISTOR         ERJ2GEJ 102 X (1 kΩ)           R303         7030005040         S.RESISTOR         ERJ2GEJ 102 X (1 kΩ)           R304         7030005040         S.RESISTOR         ERJ2GEJ 102 X (1 kΩ)           R303         7030005040         S.RESISTOR         ERJ2GEJ 102 X (1 kΩ)           R304         7030005050         S.RESISTOR         ERJ2GEJ 103 X (10 kΩ)	ļ
R202   7030005090   S.RESISTOR   ERJ2GEJ 104 X (100 kΩ)     R203   7030005310   S.RESISTOR   ERJ2GEJ 124 X (120 kΩ)     R204   7030005220   S.RESISTOR   ERJ2GEJ 223 X (22 kΩ)     R205   7030005160   S.RESISTOR   ERJ2GEJ 105 X (11 MΩ)     R206   7030005050   S.RESISTOR   ERJ2GEJ 105 X (10 kΩ)     R207   7030005050   S.RESISTOR   ERJ2GEJ 100 X (10 kΩ)     R208   7030004980   S.RESISTOR   ERJ2GEJ 101 X (100 kΩ)     R209   7030005090   S.RESISTOR   ERJ2GEJ 101 X (100 kΩ)     R210   7030005040   S.RESISTOR   ERJ2GEJ 104 X (100 kΩ)     R301   7030005040   S.RESISTOR   ERJ2GEJ 472 X (4.7 kΩ)     R302   7030005120   S.RESISTOR   ERJ2GEJ 102 X (11 kΩ)     R303   7030005040   S.RESISTOR   ERJ2GEJ 102 X (11 kΩ)     R304   7030005090   S.RESISTOR   ERJ2GEJ 104 X (100 kΩ)     R305   7030005050   S.RESISTOR   ERJ2GEJ 103 X (10 kΩ)     R306   7030005310   S.RESISTOR   ERJ2GEJ 103 X (10 kΩ)     R306   7030005310   S.RESISTOR   ERJ2GEJ 103 X (10 kΩ)     R307   R308	
R203   7030005310   S.RESISTOR   ERJ2GEJ 124 X (120 kΩ)     R204   7030005220   S.RESISTOR   ERJ2GEJ 223 X (22 kΩ)     R205   7030005160   S.RESISTOR   ERJ2GEJ 105 X (1 MΩ)     R206   7030005500   S.RESISTOR   ERJ2GEJ 100 X (10 Ω)     R207   703000500   S.RESISTOR   ERJ2GEJ 100 X (10 kΩ)     R208   7030004980   S.RESISTOR   ERJ2GEJ 101 X (100 kΩ)     R209   7030005090   S.RESISTOR   ERJ2GEJ 101 X (100 kΩ)     R210   7030005040   S.RESISTOR   ERJ2GEJ 102 X (4.7 kΩ)     R301   7030005040   S.RESISTOR   ERJ2GEJ 472 X (4.7 kΩ)     R302   7030005120   S.RESISTOR   ERJ2GEJ 102 X (1 kΩ)     R303   7030005040   S.RESISTOR   ERJ2GEJ 102 X (1 kΩ)     R304   7030005090   S.RESISTOR   ERJ2GEJ 104 X (100 kΩ)     R305   7030005050   S.RESISTOR   ERJ2GEJ 104 X (100 kΩ)     R306   7030005310   S.RESISTOR   ERJ2GEJ 103 X (10 kΩ)     R306   7030005310   S.RESISTOR   ERJ2GEJ 103 X (10 kΩ)     R307   R308   R	
R204   7030005220   S.RESISTOR   ERJ2GEJ 223 X (22 kΩ)     R205   7030005160   S.RESISTOR   ERJ2GEJ 105 X (1 MΩ)     R206   7030005530   S.RESISTOR   ERJ2GEJ 100 X (10 kΩ)     R207   7030005050   S.RESISTOR   ERJ2GEJ 103 X (10 kΩ)     R208   7030004980   S.RESISTOR   ERJ2GEJ 101 X (100 kΩ)     R209   7030005090   S.RESISTOR   ERJ2GEJ 104 X (100 kΩ)     R210   7030005040   S.RESISTOR   ERJ2GEJ 472 X (4.7 kΩ)     R301   7030005040   S.RESISTOR   ERJ2GEJ 472 X (4.7 kΩ)     R302   7030005120   S.RESISTOR   ERJ2GEJ 102 X (1 kΩ)     R303   7030005040   S.RESISTOR   ERJ2GEJ 472 X (4.7 kΩ)     R304   7030005090   S.RESISTOR   ERJ2GEJ 104 X (100 kΩ)     R305   7030005050   S.RESISTOR   ERJ2GEJ 104 X (100 kΩ)     R306   7030005310   S.RESISTOR   ERJ2GEJ 103 X (10 kΩ)     R306   7030005310   S.RESISTOR   ERJ2GEJ 103 X (10 kΩ)     R307   R308   R	
R206         7030005530         S.RESISTOR         ERJ2GEJ 100 X (10 Ω)           R207         7030005050         S.RESISTOR         ERJ2GEJ 103 X (10 kΩ)           R208         7030004980         S.RESISTOR         ERJ2GEJ 101 X (100 Ω)           R209         7030005090         S.RESISTOR         ERJ2GEJ 104 X (100 kΩ)           R210         7030005040         S.RESISTOR         ERJ2GEJ 472 X (4.7 kΩ)           R301         7030005040         S.RESISTOR         ERJ2GEJ 472 X (4.7 kΩ)           R302         7030005120         S.RESISTOR         ERJ2GEJ 102 X (1 kΩ)           R303         7030005040         S.RESISTOR         ERJ2GEJ 104 X (4.7 kΩ)           R304         7030005090         S.RESISTOR         ERJ2GEJ 104 X (100 kΩ)           R305         7030005050         S.RESISTOR         ERJ2GEJ 103 X (10 kΩ)           R306         7030005310         S.RESISTOR         ERJ2GEJ 103 X (10 kΩ)	
R207         7030005050         S.RESISTOR         ERJ2GEJ 103 X (10 kΩ)           R208         7030004980         S.RESISTOR         ERJ2GEJ 101 X (100 Ω)           R209         7030005090         S.RESISTOR         ERJ2GEJ 104 X (100 kΩ)           R210         7030005040         S.RESISTOR         ERJ2GEJ 472 X (4.7 kΩ)           R301         7030005040         S.RESISTOR         ERJ2GEJ 472 X (4.7 kΩ)           R302         7030005120         S.RESISTOR         ERJ2GEJ 102 X (1 kΩ)           R303         7030005040         S.RESISTOR         ERJ2GEJ 102 X (4.7 kΩ)           R304         7030005090         S.RESISTOR         ERJ2GEJ 104 X (100 kΩ)           R305         7030005050         S.RESISTOR         ERJ2GEJ 103 X (10 kΩ)           R306         7030005310         S.RESISTOR         ERJ2GEJ 124 X (120 kΩ)	
R208         7030004980         S.RESISTOR         ERJ2GEJ 101 X (100 Ω)           R209         7030005090         S.RESISTOR         ERJ2GEJ 104 X (100 kΩ)           R210         7030005040         S.RESISTOR         ERJ2GEJ 472 X (4.7 kΩ)           R301         7030005040         S.RESISTOR         ERJ2GEJ 472 X (4.7 kΩ)           R302         7030005120         S.RESISTOR         ERJ2GEJ 102 X (1 kΩ)           R303         7030005040         S.RESISTOR         ERJ2GEJ 472 X (4.7 kΩ)           R304         7030005090         S.RESISTOR         ERJ2GEJ 104 X (100 kΩ)           R305         7030005050         S.RESISTOR         ERJ2GEJ 103 X (10 kΩ)           R306         7030005310         S.RESISTOR         ERJ2GEJ 124 X (120 kΩ)	
R210   7030005040   S.RESISTOR   ERJ2GEJ 472 X (4.7 kΩ)     R301   7030005040   S.RESISTOR   ERJ2GEJ 472 X (4.7 kΩ)     R302   7030005120   S.RESISTOR   ERJ2GEJ 102 X (1 kΩ)     R303   7030005040   S.RESISTOR   ERJ2GEJ 472 X (4.7 kΩ)     R304   7030005090   S.RESISTOR   ERJ2GEJ 472 X (4.7 kΩ)     R305   7030005050   S.RESISTOR   ERJ2GEJ 104 X (100 kΩ)     R306   7030005310   S.RESISTOR   ERJ2GEJ 103 X (10 kΩ)     R306   7030005310   S.RESISTOR   ERJ2GEJ 124 X (120 kΩ)	
R301   7030005040   S.RESISTOR   ERJ2GEJ 472 X (4.7 kΩ)     R302   7030005120   S.RESISTOR   ERJ2GEJ 102 X (1 kΩ)     R303   7030005040   S.RESISTOR   ERJ2GEJ 472 X (4.7 kΩ)     R304   7030005090   S.RESISTOR   ERJ2GEJ 104 X (100 kΩ)     R305   7030005050   S.RESISTOR   ERJ2GEJ 103 X (10 kΩ)     R306   7030005310   S.RESISTOR   ERJ2GEJ 124 X (120 kΩ)	
R302   7030005120   S.RESISTOR   ERJ2GEJ 102 X (1 kΩ)     R303   7030005040   S.RESISTOR   ERJ2GEJ 472 X (4.7 kΩ)     R304   7030005090   S.RESISTOR   ERJ2GEJ 104 X (100 kΩ)     R305   7030005050   S.RESISTOR   ERJ2GEJ 103 X (10 kΩ)     R306   7030005310   S.RESISTOR   ERJ2GEJ 124 X (120 kΩ)	
R303   7030005040   S.RESISTOR   ERJ2GEJ 472 X (4.7 kΩ)     R304   7030005090   S.RESISTOR   ERJ2GEJ 104 X (100 kΩ)     R305   7030005050   S.RESISTOR   ERJ2GEJ 103 X (10 kΩ)     R306   7030005310   S.RESISTOR   ERJ2GEJ 124 X (120 kΩ)	
R305	
R306 7030005310 S.RESISTOR ERJ2GEJ 124 X (120 kΩ)	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
R307   7030005090   S.RESISTOR	
R308	ĺ
R309   7030004970   S.RESISTOR	
R311 7030005090 S.RESISTOR ERJ2GEJ 104 X (100 kΩ)	
R312 7030005110 S.RESISTOR ERJ2GEJ 224 X (220 kΩ) [USA	
7030005090   S.RESISTOR   ERJ2GEJ 104 X (100 kΩ)   Othe   R313   7030005050   S.RESISTOR   ERJ2GEJ 103 X (10 kΩ)	rJ
R314 7030005090 S.RESISTOR ERJ2GEJ 104 X (10 kΩ)	
R315 7030005050 S.RESISTOR ERJ2GEJ 103 X (10 kΩ)	
R316 7030005040 S.RESISTOR ERJ2GEJ 472 X (4.7 kΩ)	
R402   7030007300   S.RESISTOR	
R404   7030005060   S.RESISTOR   ERJ2GEJ 333 X (33 kΩ)	
R409 7030007270 S.RESISTOR ERJ2GEJ 151 X (150 Ω)	
R410   7030004990   S.RESISTOR	
R411 7030007280 S.RESISTOR ERJ2GEJ 331 X (330 Ω) R412 7030005070 S.RESISTOR ERJ2GEJ 683 X (68 kΩ)	
R413 7030005040 S.RESISTOR ERJ2GEJ 472 X (4.7 kΩ)	
R501 7030007300 S.RESISTOR ERJ2GEJ 332 X (3.3 kΩ)	
R502   7030005060   S.RESISTOR	
R504 7030004980 S.RESISTOR ERJ2GEJ 331 X (330 Ω)	
R505 7030005040 S.RESISTOR ERJ2GEJ 472 X (4.7 kΩ)	
R506 7030005090 S.RESISTOR ERJ2GEJ 104 X (100 kΩ)	
R507   7030007290   S.RESISTOR	
R509 7030007290 S.RESISTOR ERJ2GEJ 222 X (2.2 kΩ)	
R601 7030005040 S.RESISTOR ERJ2GEJ 472 X (4.7 kΩ)	
R602   7030005310   S.RESISTOR	
R604 7030005120 S.RESISTOR ERJ2GEJ 102 X (1 kΩ)	
R605 7030005040 S.RESISTOR ERJ2GEJ 472 X (4.7 kΩ)	
R606 7030007280 S.RESISTOR ERJ2GEJ 331 X (330 Ω)	
R609   7030005040   S.RESISTOR	
R611 7030005030 S.RESISTOR ERJ2GEJ 152 X (1.5 kΩ)	
R612 7030005040 S.RESISTOR ERJ2GEJ 472 X (4.7 kΩ)	
R613   7030005040   S.RESISTOR   ERJ2GEJ 472 X (4.7 kΩ)   R614   7030005040   S.RESISTOR   ERJ2GEJ 472 X (4.7 kΩ)	
R701 7030005000 S.RESISTOR ERJ2GEJ 471 X (470 Ω)	
R702 7030005090 S.RESISTOR ERJ2GEJ 104 X (100 kΩ)	

#### ORDER REF DESCRIPTION NO NO. 7030005050 S.RESISTOR R706 ERJ2GEJ 103 X (10 kΩ) 7030008010 S.RESISTOR ERJ2GEJ 123X R713 S.RESISTOR ERJ2GEJ 123X R714 7030008010 ERJ2GEJ 123X R716 7030008010 S.RESISTOR ERJ2GEJ 102 X (1 kΩ) R717 7030005120 S.RESISTOR 7030008010 S.RESISTOR ERJ2GEJ 123X **R718** 7030008010 S.RESISTOR ERJ2GEJ 123X **B719** 7030005240 S.RESISTOR ERJ2GEJ 473 X (47 kΩ) R721 ERJ2GEJ 471 X (470 Ω) 7030005000 S.RESISTOR R723 ERJ2GEJ 101 X (100 Ω) R725 7030004980 SIRESISTOR 7030005240 S.RESISTOR FRJ2GEJ 473 X (47 kΩ) R726 EBJ2GEJ 223 X (22 kQ) R727 7030005220 SIRESISTOR R728 7030007290 S.RESISTOR ERJ2GEJ 222 X (2.2 kΩ) R729 7030008400 S.RESISTOR ERJ2GEJ 182 X (1.8 kΩ) 7030005110 S.RESISTOR ERJ2GEJ 224 X (220 kΩ) R730 R731 7030008300 S.RESISTOR ERJ2GEJ 184 X (180 kΩ) 7030005040 S.RESISTOR ERJ2GEJ 472 X (4.7 kΩ) R732 R733 7310003590 S.TRIMMER EVM-1XSX50 B24 (20 kΩ) 7030005220 S.RESISTOR ERJ2GEJ 223 X (22 kΩ) R734 S.RESISTOR ERJ2GEJ 153 X (15 kΩ) R736 7030007340 S.THERMISTOR TBPS1R153K460H5Q R737 7510001040 7030007340 S.RESISTOR ERJ2GEJ 153 X (15 kΩ) R738 ERJ2GEJ 100 X (10 Ω) 7030005530 S.RESISTOR R739 7030005040 S.RESISTOR ERJ2GEJ 472 X (4.7 kΩ) R750 ERJ2GEJ 332 X (3.3 kΩ) 7030007300 S.RESISTOR **B751** ERJ2GEJ 334 X (330 kΩ) 7030005230 S.RESISTOR R752 ERJ2GEJ 471 X (470 Ω) S.RESISTOR 7030005000 **B753** 7030005240 S.RESISTOR ERJ2GEJ 473 X (47 kΩ) **B754** ERJ2GEJ 102 X (1 kΩ) 7030005120 S RESISTOR R755 FRJ2GFJ 101 X (100 Ω) 7030004980 S RESISTOR **B756** ERJ2GEJ 223 X (22 kΩ) R757 7030005220 S.RESISTOR R758 7030005240 S.RESISTOR ERJ2GEJ 473 X (47 kΩ) R759 7030005110 S.RESISTOR ERJ2GEJ 224 X (220 kΩ) R760 7030005160 S.RESISTOR ERJ2GEJ 105 X (1 M $\Omega$ ) R801 7030007280 S.RESISTOR FBJ2GFJ 331 X (330 Ω) 7030005090 S.RESISTOR ERJ2GEJ 104 X (100 kΩ) R802 R803 7030005050 S.RESISTOR ERJ2GEJ 103 X (10 k $\Omega$ ) 7030009190 S.RESISTOR RR0510P-332-D (3.3 k $\Omega$ ) R804 R805 7030008250 S.RESISTOR RR0510R-562-D (5.6 kΩ) 7030006010 S.RESISTOR RR0510P-472-D (4.7 k $\Omega$ ) R806 7030005820 S.RESISTOR RR0510P-103-D (10 kΩ) R807 R808 7030008280 S.RESISTOR ERJ2GEJ 271 X (270 Ω) R809 7030005820 S.RESISTOR RR0510P-103-D (10 kΩ) ERJ2GEJ 104 X (100 kΩ) 7030005090 SIRESISTOR R810 ERJ2GEJ 124 X (120 kΩ) 7030005310 S.RESISTOR R811 7030005310 S.RESISTOR ERJ2GEJ 124 X (120 kΩ) R812 S.RESISTOR ERJ2GEJ 151 X (150 Ω) 7030007270 R813 S.RESISTOR ERJ2GEJ 333 X (33 kΩ) 7030005060 R814 S.RESISTOR ERJ2GEJ 151 X (150 Ω) 7030007270 **R815** ERJ2GEJ 470 X (47 Ω) 7030004970 S.RESISTOR R816 ERJ2GEJ 150 X (15 Ω) 7030005300 S.RESISTOR **R817** FBJ2GEJ 333 X (33 kΩ) S RESISTOR R818 7030005060 FBJ2GF I 151 X (150 Ω) **B819** 7030007270 S RESISTOR EBJ2GEJ 470 X (47 Ω) R820 7030004970 S RESISTOR ERJ2GEJ 271 X (270 Ω) R821 7030008280 S.RESISTOR R822 7030009190 S.RESISTOR RR0510P-332-D (3.3 kΩ) RR0510P-103-D (10 kΩ) R823 7030005820 S.RESISTOR RR0510P-472-D (4.7 kΩ) R824 7030006010 S.RESISTOR RR0510P-103-D (10 kΩ) 7030005820 S.RESISTOR R825 R826 7030005820 S.RESISTOR RR0510P-103-D (10 kΩ) RR0510P-682-D (6.8 kΩ) S.RESISTOR R827 7030006020 7030005100 S.RESISTOR ERJ2GEJ 154 X (150 kΩ) R828 ERJ2GEJ 224 X (220 kΩ) B829 7030005110 S.RESISTOR ERJ2GEJ 224 X (220 kΩ) R830 7030005110 S.RESISTOR RR0510R-473-D (47 kΩ) R831 7030005840 S.RESISTOR ERJ2GEJ 334 X (330 kΩ) 7030005230 S.RESISTOR R832 ERJ2GEJ 333 X (33 kΩ) 7030005060 S.RESISTOR R833 R834 7030005090 S.RESISTOR ERJ2GEJ 104 X (100 kΩ) S.RESISTOR RR0510P-682-D (6.8 kΩ) 7030006020 R836 7030005600 S.RESISTOR ERJ2GEJ 273 X (27 kΩ) R837 ERJ2GEJ 151 X (150 Ω) 7030007270 S.RESISTOR R838 7030005040 S RESISTOR ERJ2GEJ 472 X (4.7 kΩ) R840 ERJ2GEJ 470 X (47 Ω) 7030004970 S.RESISTOR R841 ERJ2GEJ 151 X (150 Ω) 7030007270 S.RESISTOR R842 S RESISTOR ERJ2GEJ 471 X (470 Ω) R843 7030005000 7030005090 S RESISTOR FBJ2GFJ 104 X (100 kΩ) R844 ERJ2GEJ 100 X (10 Ω) R847 7030005530 S RESISTOR 7030005710 S RESISTOR EBJ2GEJ 121 X (120 Ω) R900 ERJ2GEJ 221 X (220 Ω) R901 7030004990 S.RESISTOR ERJ2GEJ 103 X (10 kΩ) R902 7030005050 S.RESISTOR R903 7030005050 S.RESISTOR ERJ2GEJ 103 X (10 kΩ)

#### [RF UNIT]

[RF U	MIII		
REF	ORDER		DESCRIPTION
NO.	NO.	0.05010700	ED 100E L 200 V (2.0 L/o)
R905 R907	7030008410 7030007260	S.RESISTOR S.RESISTOR	ERJ2GEJ 392 X (3.9 kΩ) ERJ2GEJ 330 X (33 Ω)
R908	7030007200	S.RESISTOR	ERJ2GEJ 332 X (3.3 kΩ)
R909	7030005580	S.RESISTOR	ERJ2GEJ 560 X (56 Ω)
R910	7030007300	S.RESISTOR S.RESISTOR	ERJ2GEJ 332 X (3.3 kΩ) ERJ2GEJ 151 X (150 Ω)
R911 R912	7030007270 7030005300	S.RESISTOR	ERJ2GEJ 151 X (150 Ω2) ERJ2GEJ 150 X (15 Ω)
R915	7030007260	S.RESISTOR	ERJ2GEJ 330 X (33 Ω)
R918	7030007260	S.RESISTOR	ERJ2GEJ 330 X (33 Ω)
R920 R921	7030005580 7030009200	S.RESISTOR S.RESISTOR	ERJ2GEJ 560 X (56 Ω) ERJ2GEJ 390 X (39 Ω)
R922	7030005530	S.RESISTOR	ERJ2GEJ 100 X (10 Ω)
R923	7030004970	S.RESISTOR	ERJ2GEJ 470 X (47 Ω) ERJ2GEJ 472 X (4.7 kΩ)
R924 R925	7030005040 7030005040	S.RESISTOR S.RESISTOR	ERJ2GEJ 472 X (4.7 kΩ)
R926	7030005040	S.RESISTOR	ERJ2GEJ 472 X (4.7 kΩ)
R927	7030005040	S.RESISTOR	ERJ2GEJ 472 X (4.7 kΩ) ERJ2GEJ 472 X (4.7 kΩ)
R930 R931	7030005040 7030005040	S.RESISTOR S.RESISTOR	ERJ2GEJ 472 X (4.7 kΩ)
R933	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R934	7030008340	S.RESISTOR	RR0510P-182-D (1.8 kΩ) ERJ1WRSJR15U (0.15 Ω)
R935 R936	7030007330 7030005820	S.RESISTOR S.RESISTOR	RR0510P-103-D (10 kΩ)
R937	7030005050	S.RESISTOR	ERJ2GEJ 103 X (10 kΩ)
R938	7030005160	S.RESISTOR S.RESISTOR	ERJ2GEJ 105 X (1M Ω) ERJ2GEJ 104 X (100 kΩ)
R939 R940	7030005090 7030005040	S.RESISTOR	ERJ2GEJ 104 X (100 k2) ERJ2GEJ 472 X (4.7 kΩ)
R941	7030005160	S.RESISTOR	ERJ2GEJ 105 X (1M Ω)
R942	7030009150	S.RESISTOR	ERJ2GEJ 824 X (820 kΩ) ERJ2GEJ 102 X (1 kΩ)
R944 R945	7030005120 7030005090	S.RESISTOR S.RESISTOR	ERJ2GEJ 102 X (1 kΩ)
R946	7030005120	S.RESISTOR	ERJ2GEJ 102 X (1 kΩ)
R947	7030005090	S.RESISTOR S.RESISTOR	ERJ2GEJ 104 X (100 kΩ) ERJ2GEJ 471 X (470 Ω)
R948 R949	7030005000 7030007300	S.RESISTOR	ERJ2GEJ 332 X (3.3 kΩ)
R950	7030004990	S.RESISTOR	ERJ2GEJ 221 X (220 Ω)
R951	7030009160	S.RESISTOR	ERJ2GEJ 181 X (180 Ω) ERJ2GEJ 150 X (15 Ω)
R952 R953	7030005300	S.RESISTOR S.RESISTOR	ERJ2GEJ 190 X (1932) ERJ2GEJ 222 X (2.2 kΩ)
R954	7030008410	S.RESISTOR	ERJ2GEJ 392 X (3.9 kΩ)
R955 R956	7030008410 7030005530	S.RESISTOR S.RESISTOR	ERJ2GEJ 392 X (3.9 kΩ) ERJ2GEJ 100 X (10 Ω)
R957	7030003330	S.RESISTOR	ERJ2GEJ 100 X (10 Ω)
R958	7030005240	S.RESISTOR	ERJ2GEJ 473 X (47 kΩ)
R959 R960	7030007270 7030005240	S.RESISTOR S.RESISTOR	ERJ2GEJ 151 X (150 Ω) ERJ2GEJ 473 X (47 kΩ)
R961	7030003240	S.RESISTOR	ERJ2GEJ 151 X (150 Ω)
R962	7030005530	S.RESISTOR	ERJ2GEJ 100 X (10 Ω)
R963 R964	7030007270	S.RESISTOR S.RESISTOR	ERJ2GEJ 151 X (150 Ω) ERJ2GEJ 473 X (47 kΩ)
R965	7030005530	S.RESISTOR	ERJ2GEJ 100 X (10 Ω)
R966	7030005240	S.RESISTOR	ERJ2GEJ 473 X (47 kΩ)
R967	7030008410	S.RESISTOR	ERJ2GEJ 392 X (3.9 kΩ)
C1	4030012570	S.CERAMIC	GRM39 CH 020B 50PT
C2	4030012550	S.CERAMIC S.CERAMIC	GRM39 CH 010B 50PT GRM39 CH 030B 50PT
C3 C4	4030012580 4030011980	S.CERAMIC S.CERAMIC	GRM39 CH 100D 50PT
C5	4030012140	S.CERAMIC	GRM39 CH 151J 50PT
C6 C7	4030011930 4030009160	S.CERAMIC S.CERAMIC	GRM39 CH 060D 50PT GRM39 CH 470J 50PT
C8	4030009100	S.CERAMIC S.CERAMIC	GRM39 CH 120J 50PT
C9	4030013840	S.CERAMIC	GRM39 CH 2R5B 50PT
C10 C11	4030011940 4030012550	S.CERAMIC S.CERAMIC	GRM39 CH 070D 50PT GRM39 CH 010B 50PT
C12	4030012550	S.CERAMIC	GRM39 CH 100D 50PT
C13	4030013780	S.CERAMIC	GRM39 CH 0R3B 50PT
C14 C15	4030013850 4030012580	S.CERAMIC S.CERAMIC	ECUE1E102KBQ GRM39 CH 030B 50PT
C16	4030012380	S.CERAMIC	GRM39 CH 220J 50PT
C17	4030012430	S.CERAMIC	GRM39 CH 050B 50PT
C18 C19	4030012100 4030012570	S.CERAMIC S.CERAMIC	GRM39 CH 240J 50PT GRM39 CH 020B 50PT
C20	4030011940	S.CERAMIC	GRM39 CH 070D 50PT
C21	4030012050	S.CERAMIC	GRM39 CH 560J 50PT GRM39 CH 820J 50PT
C22 C23	4030009280 4030012030	S.CERAMIC S.CERAMIC	GRM39 CH 320J 50PT
C24	4030012200	S.CERAMIC	GRM39 CH 271J 50PT
C25	4030013850 4030012070	S.CERAMIC S.CERAMIC	ECUE1E102KBQ GRM39 CH 680J 50PT
C26 C27	4030012070	S.CERAMIC	GRM39 CH 080D 50PT
	l		0. 0

#### **ORDER** REF DESCRIPTION NO. NO. 4030012070 S.CERAMIC GRM39 CH 680J 50PT C28 S CERAMIC GRM39 CH 180J 50PT C29 4030012000 GRM39 CH 820J 50PT S.CERAMIC C30 4030009280 GBM39 CH 120J 50PT C31 4030011990 S.CERAMIC C32 4030012050 S.CERAMIC GRM39 CH 560J 50PT 4030009560 S.CERAMIC C1608 CH 1H R75B-T-A C34 4030004310 S.CERAMIC GRM39 B 103K 50PT C35 S.TANTALUM ECST1AY475R C36 4550006300 C37 4030013850 S.CERAMIC ECUE1E102KBQ S.CERAMIC ECUE1E102KBQ 4030013850 C38 ECUE1E102KBQ C39 4030013850 S.CERAMIC ECUE1E102KBQ C40 4030013850 S.CERAMIC 4030013850 S.CERAMIC ECUE1E102KBQ C50 4030013850 S.CERAMIC ECUE1E102KBQ C51 4030013850 S.CERAMIC ECUE1E102KBQ C53 S.CERAMIC ECUE1E102KBQ 4030013850 C54 ECUE1E102KBQ 4030013850 S.CERAMIC C56 ECUE1E102KBQ S.CERAMIC C57 4030013850 S FLECTROLITIC ECEV1CS100SR C58 4510005600 C60 4550006710 S.TANTALUM FCST1AX226B C61 4030013850 SICERAMIC FCUF1E102KBQ C62 4550006630 S.TANTALUM ECST0GY226R 4030013850 S.CERAMIC ECUE1E102KBQ C63 4030013850 S.CERAMIC ECUE1E102KBQ C64 4030013850 S.CERAMIC ECUE1E102KBQ C65 C66 4030013850 S.CERAMIC ECUE1E102KBQ 4030013850 S.CERAMIC ECUE1E102KBQ C67 4030004310 S.CERAMIC GRM39 B 103K 50PT C68 S.CERAMIC ECUE1E102KBQ C69 4030013850 C70 4030013850 S.CERAMIC ECUE1E102KBQ 4030013850 S.CERAMIC ECUE1E102KBQ C71 4030013850 S.CERAMIC ECUE1E102KBQ C72 4030013850 S.CERAMIC ECUE1E102KBQ C73 S.CERAMIC ECUE1E102KBQ 4030013850 C74 ECST1AY225R 4550006170 S.TANTALUM C75 ECUE1E102KBQ 4030013850 S.CERAMIC C76 4030013850 S.CERAMIC ECUE1E102KBQ C77 ECUE1E102KBQ 4030013850 S.CERAMIC C78 S CERAMIC FCUE1E102KBQ C79 4030013850 C80 4030013850 S.CERAMIC ECUE1E102KBQ S.CERAMIC C81 4030013850 ECUE1E102KBQ C82 4030013850 S.CERAMIC ECUE1E102KBQ C83 4550006710 S TANTAL UM ECST1AX226R C84 4030009160 S.CERAMIC GRM39 CH 470J 50PT C85 4030013850 S.CERAMIC ECUE1E102KBQ 4030013850 S.CERAMIC ECUE1E102KBQ C86 C87 4030012390 S.CERAMIC GRM39 B 104K 16PT 4030004310 S.CERAMIC GRM39 B 103K 50PT C88 4030012010 S.CERAMIC GRM39 CH 220J 50PT C89 4030012010 S.CERAMIC GRM39 CH 220J 50PT C90 C91 4030013850 S.CERAMIC ECUE1E102KBQ S.CERAMIC ECUE1E102KBQ C93 4030013850 ECUE1E102KBQ 4030013850 S.CERAMIC C94 4030012050 S.CERAMIC GRM39 CH 560J 50PT C101 4030012120 S.CERAMIC GRM39 CH 121J 50PT C102 S.CERAMIC GRM39 CH 560J 50PT 4030012050 C103 GRM39 CH 330J 50PT 4030012030 S.CERAMIC C107 GRM39 CH 470J 50PT 4030009160 S.CERAMIC C108 ECUE1E102KBQ 4030013850 S.CERAMIC C109 GRM39 CH 150J 50PT C110 4030008810 S.CERAMIC GRM39 B 103K 50PT C114 4030004310 S CERAMIC GRM39 CH 270J 50PT C115 4030012020 S CERAMIC GRM39 B 103K 50PT C116 4030004310 S.CERAMIC C117 4030011930 S.CERAMIC GRM39 CH 060D 50PT C118 4030012020 S.CERAMIC GRM39 CH 270J 50PT C119 4030013850 S.CERAMIC FCUE1E102KBQ C120 4030011930 S.CERAMIC GRM39 CH 060D 50PT 4030013850 S.CERAMIC ECUE1E102KBQ C121 C122 4030011990 S.CERAMIC GRM39 CH 120J 50PT 4030009160 S.CERAMIC GRM39 CH 470J 50PT C123 4030013850 S.CERAMIC ECUE1E102KBQ C124 S.CERAMIC GRM39 B 103K 50PT C201 4030004310 C202 4030013850 S.CERAMIC ECUE1E102KBQ ECUE1E102KBQ C203 4030013850 S.CERAMIC ECUE1E102KBQ C204 4030013850 S.CERAMIC GRM39 B 104K 16PT C205 4030012390 S.CERAMIC C206 4030013850 S.CERAMIC ECUE1E102KBQ C207 4030013850 S.CERAMIC ECUE1E102KBQ 4030013850 S.CERAMIC ECUE1E102KBQ C208 C209 4030013850 S.CERAMIC ECUE1E102KBQ ECUE1E102KBQ C210 4030013850 S.CERAMIC

#### [RF UNIT]

[RF UI	NIIJ			
REF NO.	ORDER NO.		DESCRIPTION	
C211	4030004310	_	GRM39 B 103K 50PT	
C212	4030013850		ECUE1E102KBQ	
C213 C301	4030013850 4030012000		ECUE1E102KBQ GRM39 CH 180J 50PT	
C302	4030012020		GRM39 CH 270J 50PT	
C303	4030011990		GRM39 CH 120J 50PT	
C304	4030013850	S.CERAMIC	ECUE1E102KBQ GRM39 CH 150J 50PT	
C305 C306	4030008810 4030011990	S.CERAMIC S.CERAMIC	GRM39 CH 1500 50FT GRM39 CH 120J 50PT	
C307	4030013850	S.CERAMIC	ECUE1E102KBQ	
C308	4030013850	S.CERAMIC	ECUE1E102KBQ	
C309 C310	4030011930 4030012390	S.CERAMIC S.CERAMIC	GRM39 CH 060D 50PT GRM39 B 104K 16PT	
C310	4030012330	S.CERAMIC	ECUE1E102KBQ	
C312	4030013850	S.CERAMIC	ECUE1E102KBQ	
C313	4030013850	S.CERAMIC	ECUE1E102KBQ	
C314 C315	4030013850 4030013850	S.CERAMIC S.CERAMIC	ECUE1E102KBQ ECUE1E102KBQ	
C316	4030012440	S.CERAMIC	GRM39 CH 040B 50PT	
C317	4030012440		GRM39 CH 040B 50PT	
C318	4030013780	S.CERAMIC S.CERAMIC	GRM39 CH 0R3B 50PT GRM39 CH 010B 50PT	
C319 C320	4030012550 4030011980	S.CERAMIC	GRM39 CH 010B 50F1 GRM39 CH 100D 50PT	
C321	4030011980	S.CERAMIC	GRM39 CH 100D 50PT	
C322	4030013850	S.CERAMIC	ECUE1E102KBQ	
C323	4030012440 4030013850	S.CERAMIC S.CERAMIC	GRM39 CH 040B 50PT ECUE1E102KBQ	
C324 C325	4030013650	S.CERAMIC	GRM39 CH 020B 50PT	
C326	4030012430	S.CERAMIC	GRM39 CH 050B 50PT	
C327	4030012390	S.CERAMIC	GRM39 B 104K 16PT	
C401 C402	4030011930 4030011980	S.CERAMIC S.CERAMIC	GRM39 CH 060D 50PT GRM39 CH 100D 50PT	
C403	4030011960	S.CERAMIC	GRM39 CH 040B 50PT	
C404	4030013850	S.CERAMIC	ECUE1E102KBQ	
C405	4030013850	S.CERAMIC	ECUE1E102KBQ	
C409 C410	4030011950 4030012120	S.CERAMIC S.CERAMIC	GRM39 CH 080D 50PT GRM39 CH 121J 50PT	
C411	4030013850		ECUE1E102KBQ	
C412	4030013850		ECUE1E102KBQ	
C413 C414	4030012030 4030013850	S.CERAMIC S.CERAMIC	GRM39 CH 330J 50PT ECUE1E102KBQ	
C414	4030013850	S.CERAMIC	ECUE1E102KBQ	
C416	4030013850	S.CERAMIC	ECUE1E102KBQ	
C501	4030013850	S.CERAMIC	ECUE1E102KBQ	
C502 C503	4030013850 4030013850	S.CERAMIC S.CERAMIC	ECUE1E102KBQ ECUE1E102KBQ	
C504	4030013850	S.CERAMIC	ECUE1E102KBQ	
C505	4030012570	S.CERAMIC	GRM39 CH 020B 50PT	
C506	4030012550 4030012570		GRM39 CH 010B 50P1 GRM39 CH 020B 50PT	
C507 C508	4030012370	S.CERAMIC	GRM39 CH 080D 50PT	
C509	4030012560	S.CERAMIC	GRM39 CH 1R5B 50PT	
C510	4030012430	S.CERAMIC	GRM39 CH 050B 50PT	
C511 C512	4030013850 4030013850	S.CERAMIC S.CERAMIC	ECUE1E102KBQ ECUE1E102KBQ	
C513	4030013850	S.CERAMIC	ECUE1E102KBQ	
C514	4030013850	S.CERAMIC	ECUE1E102KBQ	
C515 C516	4030013850 4030009150	S.CERAMIC S.CERAMIC	ECUE1E102KBQ GRM39 CH 101J 50PT	
C516	4030009150		ECUE1E102KBQ	
C518	4030013850	i .	ECUE1E102KBQ	
C519	4030013850	l	ECUE1E102KBQ	
C520 C600	4030012390 4030013850	S.CERAMIC S.CERAMIC	GRM39 B 104K 16PT ECUE1E102KBQ	
C601	4030013030	S.CERAMIC	GRM39 CH 050B 50PT	
C602	4030012430	S.CERAMIC	GRM39 CH 050B 50PT	
C604	4030012010	S.CERAMIC	GRM39 CH 220J 50PT ECUE1E102KBQ	
C605 C606	4030013850 4030013850	S.CERAMIC S.CERAMIC	ECUE1E102KBQ ECUE1E102KBQ	
C607	4030013850	S.CERAMIC	ECUE1E102KBQ	
C608	4030012570	S.CERAMIC	GRM39 CH 020B 50PT	
C609	4030013850 4030013850	S.CERAMIC S.CERAMIC	ECUE1E102KBQ ECUE1E102KBQ	
C610 C612	4030013850	1	ECUE1E102KBQ ECUE1E102KBQ	
C613	4030013850	S.CERAMIC	ECUE1E102KBQ	
C614	4030013850	1	ECUE1E102KBQ	
C615 C616	4030013850 4030013850	1	ECUE1E102KBQ ECUE1E102KBQ	
C700	4030013830	ł	GRM39 B 104K 16PT	
C701	4030013850	S.CERAMIC	ECUE1E102KBQ	
C702	4030013850	S.CERAMIC	ECUE1E102KBQ	

#### **IRF UNIT**

C845

#### ORDER RFF DESCRIPTION NO NO. S.CERAMIC C703 4030013850 ECUE1E102KBQ S.CERAMIC C706 4030004310 GRM39 B 103K 50PT C707 4030012390 S.CERAMIC GRM39 B 104K 16PT 4030012390 S.CERAMIC GRM39 B 104K 16PT C708 C709 4550006680 S.TANTALUM FCST0JY156R 4030012030 S CERAMIC GRM39 CH 330J 50PT C712 C713 4030013850 S CERAMIC ECUE1E102KBQ C714 4030012390 S.CERAMIC GRM39 B 104K 16PT C715 4030012390 S.CERAMIC GRM39 B 104K 16PT C716 4030012390 S.CERAMIC GRM39 B 104K 16PT C717 4030012390 S.CERAMIC GRM39 B 104K 16PT C719 4030012390 S.CERAMIC GRM39 B 104K 16PT C720 4030012380 S.CERAMIC GRM39 B 473K 16PT S.CERAMIC GRM39 CH 030B 50PT C721 4030012580 C722 4030013850 S.CERAMIC ECUE1E102KBQ C724 4030009150 S.CERAMIC GRM39 CH 101J 50PT C725 4030009150 S.CERAMIC GRM39 CH 101J 50PT S.CERAMIC GRM39 CH 680J 50PT C726 4030012070 C727 4030013850 S.CERAMIC ECUE1E102KBQ GRM39 CH 220J 50PT C729 4030012010 S.CERAMIC 4030012180 S.CERAMIC GRM39 CH 221J 50PT C730 S.CERAMIC GRM39 CH 101J 50PT C731 4030009150 C732 4030012050 S.CERAMIC GRM39 CH 560J 50PT C733 4030013850 S.CERAMIC ECUE1E102KBQ C734 4030013850 S.CERAMIC ECUE1E102KBQ C735 4030012390 S.CERAMIC GRM39 B 104K 16PT C736 4030013850 S.CERAMIC ECUE1E102KBQ C737 4030004310 S.CERAMIC GRM39 B 103K 50PT C751 4030012390 S.CERAMIC GRM39 B 104K 16PT C752 4030012010 S.CERAMIC GRM39 CH 220J 50PT 4030004310 S.CERAMIC GRM39 B 103K 50PT C753 C754 4030012390 S.CERAMIC GRM39 B 104K 16PT S.CERAMIC GRM39 B 473K 16PT C755 4030012380 C756 4030004310 S.CERAMIC GRM39 B 103K 50PT S.CERAMIC C757 4030013770 GRM40 B 224K 16PT C758 4550006180 S.TANTALUM ECST0GY475R C759 4030013850 S.CERAMIC ECUE1E102KBQ C801 4030008820 S.CERAMIC GRM39 CH 390J 50PT 4030012000 S.CERAMIC GRM39 CH 180J 50PT C802 4610002140 S.TRIMMER CTZ3S-20C-WI-PF C803 C804 4030013850 S.CERAMIC ECUE1E102KBQ C805 4030013850 S.CERAMIC ECUF1F102KBQ GRM39 B 104K 16PT C806 4030012390 S CERAMIC C807 4030013850 S.CERAMIC ECUE1E102KBQ GRM40 F 105Z 16PT C808 4030009170 S.CERAMIC C809 4030009160 S.CERAMIC GRM39 CH 470J 50PT C810 4030009160 S.CERAMIC GRM39 CH 470J 50PT C811 4030009160 SICERAMIC GRM39 CH 470J 50PT C812 4030004310 S.CERAMIC GRM39 B 103K 50PT C813 4550006160 S.TANTALUM ECST1CY155R C814 4550006160 S.TANTALUM ECST1CY155R 4030013850 S.CERAMIC ECUE1E102KBQ C815 C816 4030013850 S.CERAMIC ECUE1E102KBQ S.CERAMIC ECUE1E102KBQ C817 4030013850 C818 4550006170 S.TANTALUM ECST1AY225R C819 4030013850 S.CERAMIC ECUE1E102KBQ C820 4550006630 S.TANTALUM ECST0GY226R C821 4030013850 S.CERAMIC ECUE1E102KBQ C822 4550006630 S.TANTALUM ECST0GY226R C823 4030013850 S.CERAMIC ECUE1E102KBQ C824 4550006630 S.TANTALUM ECST0GY226R C825 4030013850 S.CERAMIC ECUE1F102KBQ C826 4030013850 S.CERAMIC ECUE1E102KBQ S.CERAMIC 4030013850 ECUE1E102KBQ C827 C828 4030013850 S CERAMIC ECUE1E102KBQ S.CERAMIC C829 4030013850 ECUE1E102KBQ C830 4030013850 S.CERAMIC ECUE1E102KBQ C831 4030013850 S.CERAMIC ECUE1E102KBQ C832 4030013850 S.CERAMIC ECUE1E102KBQ C833 4030004310 S.CERAMIC GRM39 B 103K 50PT C834 4550006150 S.TANTALUM ECST1CY105R C835 4550006150 S.TANTALUM ECST1CY105R C836 4550006360 S.TANTALUM ECST1VY104R C837 4030013850 S.CERAMIC ECUE1E102KBQ C838 4030013850 S.CERAMIC ECUE1E102KBQ C839 4030012390 S.CERAMIC GRM39 B 104K 16PT C841 4030013850 S.CERAMIC ECUE1E102KBQ GRM39 B 104K 16PT C842 S.CERAMIC 4030012390 C843 4030013850 S.CERAMIC ECUE1E102KBQ C844 4030012390 S.CERAMIC GRM39 B 104K 16PT 4030013850 S.CERAMIC

ECUE1E102KBQ

### (RE LINIT)

[RF U	NIIj	<u>[]</u>			
REF NO.	ORDER NO.		DESCRIPTION		
C846	4030013850	S.CERAMIC	ECUE1E102KBQ		
C847	4030013850	S.CERAMIC	ECUE1E102KBQ		
C848 C849	4550006360 4030013850	S.TANTALUM S.CERAMIC	ECST1VY104R ECUE1E102KBQ		
C850	4030013850	S.CERAMIC	ECUE1E102KBQ		
C851	4030013850	S.CERAMIC	ECUE1E102KBQ		
C853	4030013850	S.CERAMIC	ECUE1E102KBQ		
C854	4030012390	S.CERAMIC	GRM39 B 104K 16PT		
C856 C900	4030011990 4030013850	S.CERAMIC S.CERAMIC	GRM39 CH 120J 50PT ECUE1E102KBQ		
C901	4030011990	S.CERAMIC	GRM39 CH 120J 50PT		
C902	4030013850	S.CERAMIC	ECUE1E102KBQ		
C903	4030011930	S.CERAMIC	GRM39 CH 060D 50PT		
C904 C905	4030013850 4030013850	S.CERAMIC S.CERAMIC	ECUE1E102KBQ ECUE1E102KBQ		
C906	4030013850	S.CERAMIC	ECUE1E102KBQ		
C907	4030013850	S.CERAMIC	ECUE1E102KBQ		
C909	4030012500	S.CERAMIC	GRM39 CH 300J 50PT		
C910 C911	4030013850	S.CERAMIC S.CERAMIC	ECUE1E102KBQ GRM39 B 104K 16PT	ITDE	
Call	4030012390	S.CERAMIC S.CERAMIC	ECUE1E102KBQ	[TPE] [Other]	
C912	4030013850	S.CERAMIC	ECUE1E102KBQ	[04/01]	
C913	4030013850	S.CERAMIC	ECUE1E102KBQ		
C914	4030012390	S.CERAMIC	GRM39 B 104K 16PT		
C915 C916	4030013850 4030008820	S.CERAMIC S.CERAMIC	ECUE1E102KBQ GRM39 CH 390J 50PT		
C917	4030013850	S.CERAMIC	ECUE1E102KBQ		
C919	4030012010	S.CERAMIC	GRM39 CH 220J 50PT		
C920	4030013850	S.CERAMIC	ECUE1E102KBQ		
C921 C923	4030013850 4030012650	S.CERAMIC S.CERAMIC	ECUE1E102KBQ GRH708 CH 220J 200PT		
C924	4030012030	S.CERAMIC	GRM40 B 102K 50PT		
C926	4030001100	S.CERAMIC	GRM40 B 102K 50PT		
C927	4030013850	S.CERAMIC	ECUE1E102KBQ		
C928 C929	4030000960 4030000960	S.CERAMIC S.CERAMIC	GRM40 CH 390J 50PT GRM40 CH 390J 50PT		
C930	4030000900	S.CERAMIC	GRM40 CH 121J 50PT		
C931	4030000980	S.CERAMIC	GRM40 CH 560J 50PT		
C932	4030000900	S.CERAMIC	GRM40 CH 100D 50PT		
C934 C935	4030013850 4030001100	S.CERAMIC S.CERAMIC	ECUE1E102KBQ GRM40 B 102K 50PT		
C936	4030001100	S.CERAMIC	ECUE1E102KBQ		
C937	4030013850	S.CERAMIC	ECUE1E102KBQ		
C938	4030009610	S.CERAMIC	GRM40 CH 271J 50PT		
C939 C940	4030001000 4030001100	S.CERAMIC S.CERAMIC	GRM40 CH 820J 50PT GRM40 B 102K 50PT		
C941	4030013850	S.CERAMIC	ECUE1E102KBQ		
C942	4550006170	S.TANTALUM	ECST1AY225R		
C943	4030013850	S.CERAMIC	ECUE1E102KBQ		
C944 C945	4030012390 4030013850	S.CERAMIC S.CERAMIC	GRM39 B 104K 16PT ECUE1E102KBQ		
C946	4030013850	S.CERAMIC	ECUE1E102KBQ		
C947	4030013850	S.CERAMIC	ECUE1E102KBQ		
C948 C949	4030013850	S.CERAMIC S.CERAMIC	ECUE1E102KBQ GRM39 B 104K 16PT		
C949 C950	4030012390 4030013850	S.CERAMIC S.CERAMIC	ECUE1E102KBQ		
C951	4030013850	S.CERAMIC	ECUE1E102KBQ		
C953	4030013850	S.CERAMIC	ECUE1E102KBQ		
C955 C956	4030012140 4030012010	S.CERAMIC S.CERAMIC	GRM39 CH 151J 50PT GRM39 CH 220J 50PT		
C957	4030004310	S.CERAMIC	GRM39 B 103K 50PT		
C958	4030013850	S.CERAMIC	ECUE1E102KBQ		
C959	4030013850	S.CERAMIC	ECUE1E102KBQ	ł	
C960 C961	4030013850 4030013850	S.CERAMIC S.CERAMIC	ECUE1E102KBQ ECUE1E102KBQ		
C962	4030013850	S.CERAMIC	ECUE1E102KBQ		
C963	4030013850	S.CERAMIC	ECUE1E102KBQ		
C964	4030013850	S.CERAMIC	ECUE1E102KBQ		
C965 C966	4030013850 4030013850	S.CERAMIC S.CERAMIC	ECUE1E102KBQ ECUE1E102KBQ		
C967	4030013850	S.CERAMIC	ECUE1E102KBQ		
C968	4030013850	S.CERAMIC	ECUE1E102KBQ		
C969	4030013850	S.CERAMIC	ECUE1E102KBQ		
C970 C971	4030013850 4030004310	S.CERAMIC S.CERAMIC	ECUE1E102KBQ GRM39 B 103K 50PT		
C972	4030012100	S.CERAMIC	GRM39 CH 240J 50PT		
C973	4030013850	S.CERAMIC	ECUE1E102KBQ		
C974	4030013850	S.CERAMIC	ECUE1E102KBQ	IITA1	
C975	4030012390 4030013850	S.CERAMIC S.CERAMIC	GRM39 B 104K 16PT ECUE1E102KBQ	[ITA] [Other]	
C976	4030013850	S.CERAMIC	ECUE1E102KBQ	,	

**IRF UNIT** 

[ITI O	ii Oliitij			
REF NO.	ORDER NO.	·	DESCRIPTION	
C977	4030013850	S.CERAMIC	ECUE1E102KBQ	
C978	4030000890	S.CERAMIC	GRM40 CH 080D 50PT	
C979	4030000900	S.CERAMIC	GRM40 CH 100D 50PT	
C980	4030013850	S.CERAMIC	ECUE1E102KBQ	
C981	4030012390	S.CERAMIC	GRM39 B 104K 16PT	
J1	6450001680	CONNECTOR	H\$J1122-010010	
J2	6450001690	CONNECTOR	HSJ1456-01-220	
J3	6450000870	CONNECTOR		
J4	6510019870	S.CONNECTOR	AXK5S40045P	
S1	2230000900	S.SWITCH	JPM1990-2013R	
S2	2230000900	S.SWITCH	JPM1990-2013R	
EP1	910049687	РСВ	B 5030G	

# [VCO BOARD]

	REF NO.	ORDER NO.		DESCRIPTION	
١	Q301	1530003560	S.TRANSISTOR	2SC5195-T1	
١	Q302	1530003560			
١	Q303	1530003560			
١	Q321	1530003560	S.TRANSISTOR		
١	Q322	1530003560			
١	Q323	1530003560			
١	Q341	15300035640			
١	Q341 Q342	1530003640		2SC4215-O (TE85R)	
١	Q343	1530002000		2SC4226-T2 R25	
١	Q343	1330002920	3.1HAN3131011	2004220-12 1123	
1	D301	1790001260	S.DIODE	MA2S077-(TX)	
1				1SV305 (TPL3)	
1	D302	1720000700 1790001260		MA2S077-(TX)	
1	D321			1SV270(TPH3)	
1	D322	1790001310		MA2S077-(TX)	
1	D323	1790001260			
1	D324	1790001260		MA2S077-(TX)	
١	D341	1720000660		1SV288 (TPH2)	
-	D350	1750000360		1SS364(TE85L)	
-	D351	1790001260	S.DIODE	MA2S077-(TX)	
				MI ELOOOD DOOK T	
١	L301	6200004480		MLF1608D R82K-T	
- 1	L302	6200008260		0.30-1.7-8TL 60N	
- 1	L321	6200004480		MLF1608D R82K-T	
- 1	L322	6200008330		0.45-1.4-4TL 15N	
- 1	L341	6200004920		MLF1608A 2R2K-T	
- 1	L342	6200007670		LQN21A 10NJ04	
-	L343	6200008410		LQN 1H R21J04	
- 1	L344	6200006980		ELJRE R10G-F	
- 1	L345	6200007000		ELJRE 82NG-F	
	L346	6200006670	l	ELJRE 68NG-F	
	L347	6200006990	S.COIL	ELJRE 56NG-F	
	L348	6200007000	S.COIL	ELJRÉ 82NG-F	
	J301	6910011530		IMSA-9230B-1-08Z057-T	
	J302	6910011530	CONNECTOR	IMSA-9230B-1-08Z057-T	
1	R301	7030005290		ERJ2GEJ 682 X (6.8 kΩ)	
- 1	R302	7030004980	S.RESISTOR	ERJ2GEJ 101 X (100 Ω)	
- 1	R303	7030005120	S.RESISTOR	ERJ2GEJ 102 X (1 kΩ)	
	R305	7030005120		ERJ2GEJ 102 X (1 kΩ)	
	R306	7030005290	S.RESISTOR	ERJ2GEJ 682 X (6.8 kΩ)	
	R307	7030004990	S.RESISTOR	ERJ2GEJ 221 X (220 Ω)	
	R308	7030004970	S.RESISTOR	ERJ2GEJ 470 X (47 Ω)	
	R311	7030005060	S.RESISTOR	ERJ2GEJ 333 X (33 kΩ)	
	R313	7030007270	S.RESISTOR	ERJ2GEJ 151 X (150 Ω)	
	R314	7030004970	S.RESISTOR	ERJ2GEJ 470 X (47 Ω)	
-	R315	7030005700	S.RESISTOR	ERJ2GEJ 274 X (270 kΩ)	
	R321	7030009140	S.RESISTOR	ERJ2GEJ 272 X (2.7 kΩ)	
	R322	7030005290	S.RESISTOR	ERJ2GEJ 682 X (6.8 kΩ)	
	R323	7030004980	S.RESISTOR	ERJ2GEJ 101 X (100 Ω)	
	R324	7030005290	S.RESISTOR	ERJ2GEJ 682 X (6.8 kΩ)	
	R325	7030005710	S.RESISTOR	ERJ2GEJ 121 X (120 Ω)	
	R328	7030004970	1	ERJ2GEJ 470 X (47 Ω)	
	R329	7030005040		ERJ2GEJ 472 X (4.7 kΩ)	
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# [VCO BOARD]

[VCO	BOARD]	·	
REF NO.	ORDER NO.		DESCRIPTION
R330	7030005040	S.RESISTOR	ERJ2GEJ 472 X (4.7 kΩ)
R331 R332	7030005040	S.RESISTOR S.RESISTOR	ERJ2GEJ 472 X (4.7 kΩ) ERJ2GEJ 101 X (100 Ω)
R333	7030004300	S.RESISTOR	ERJ2GEJ 150 X (15 Ω)
R334	7030005300	S.RESISTOR	ERJ2GEJ 150 X (15 Ω)
R337	7030005720	S.RESISTOR	ERJ2GEJ 563 X (56 kΩ)
R338 R339	7030004990 7030005040	S.RESISTOR S.RESISTOR	ERJ2GEJ 221 X (220 Ω) ERJ2GEJ 472 X (4.7 kΩ)
R340	7030005040	S.RESISTOR	ERJ2GEJ 472 X (4.7 kΩ)
R341	7030006610	S.RESISTOR	ERJ2GEJ 394 X (390 kΩ)
R342	7030009140	S.RESISTOR	ERJ2GEJ 272 X (2.7 kΩ)
R343 R344	7030005600	S.RESISTOR S.RESISTOR	ERJ2GEJ 273 X (27 kΩ) ERJ2GEJ 151 X (150 Ω)
R345	7030007270	S.RESISTOR	ERJ2GEJ 823 X (82 kΩ)
R346	7030004990	S.RESISTOR	ERJ2GEJ 221 X (220 Ω)
R347	7030004980	S.RESISTOR	ERJ2GEJ 101 X (100 Ω) ERJ2GEJ 470 X (47 Ω)
R348 R349	7030004970 7030005080	S.RESISTOR S.RESISTOR	ERJ2GEJ 470 X (47 Ω) ERJ2GEJ 823 X (82 kΩ)
R350	1	S.RESISTOR	ERJ2GEJ 470 X (47 Ω)
R351	7030004970	S.RESISTOR	ERJ2GEJ 470 X (47 Ω)
R353	7030005710	S.RESISTOR	ERJ2GEJ 121 X (120 Ω) ERJ2GEJ 150 X (15 Ω)
R354 R355	7030005300 7030004990	S.RESISTOR S.RESISTOR	ERJ2GEJ 130 X (13 Ω) ERJ2GEJ 221 X (220 Ω)
R356	7030005300	S.RESISTOR	ERJ2GEJ 150 X (15 Ω)
C301 C302	4030013850 4030013850	S.CERAMIC S.CERAMIC	ECUE1E102KBQ ECUE1E102KBQ
C303	4030012560	S.CERAMIC	GRM39 CH 1R5B 50PT
C304	4030012560	S.CERAMIC	GRM39 CH 1R5B 50PT
C305 C306	4030013850 4030013780	S.CERAMIC S.CERAMIC	ECUE1E102KBQ GRM39 CH 0R3B 50PT
C307	4030013760	S.CERAMIC	ECUE1E102KBQ
C308	4030013850	S.CERAMIC	ECUE1E102KBQ
C309	4030013850	S.CERAMIC	ECUE1E102KBQ
C310 C311	4030013850 4030013850	S.CERAMIC S.CERAMIC	ECUE1E102KBQ ECUE1E102KBQ
C312	4030013850		ECUE1E102KBQ
C313	4030013850	S.CERAMIC	ECUE1E102KBQ
C314	4030012580	S.CERAMIC	GRM39 CH 030B 50PT GRM39 CH 240J 50PT
C315 C321	4030012100		GRM39 CH 180J 50PT
C323	4030012560	S.CERAMIC	GRM39 CH 1R5B 50PT
C324	4030012560		GRM39 CH 1R5B 50PT
C325 C326	4030013850 4030013850		ECUE1E102KBQ ECUE1E102KBQ
C327	4030012550		GRM39 CH 010B 50PT
C328	4030012560		GRM39 CH 1R5B 50PT
C329	4030013850		ECUE1E102KBQ
C330 C331	4030013850 4030013850		ECUE1E102KBQ ECUE1E102KBQ
C332	4030013850		ECUE1E102KBQ
C333	4030013850		ECUE1E102KBQ
C334	4030013850 4030012000		ECUE1E102KBQ GRM39 CH 180J 50PT
C335 C336	4030012000		GRM39 CH 030B 50PT
C337	4030013850	S.CERAMIC	ECUE1E102KBQ
C341	4030013850		ECUE1E102KBQ
C342 C343	4030012180 4030004310	l _	GRM39 CH 221J 50PT GRM39 B 103K 50PT
C343	4030004310	1	GRM39 CH 030B 50PT
C345	4030012180	S.CERAMIC	GRM39 CH 221J 50PT
C346	4030013780		GRM39 CH 0R3B 50PT
C347 C348	4030004310 4030004310		GRM39 B 103K 50PT GRM39 B 103K 50PT
C349	4030004310	_	GRM39 B 103K 50PT
C350	4030013850	S.CERAMIC	ECUE1E102KBQ
C351	4030013850		ECUE1E102KBQ
C352 C353	4030009160 4030012070		GRM39 CH 470J 50PT GRM39 CH 680J 50PT
C354	4030012010		GRM39 CH 220J 50PT
C356	4030008820		GRM39 CH 390J 50PT
C357	4030012000	1	GRM39 CH 180J 50PT GRM39 CH 180J 50PT
C358 C359	4030012000 4030008820		GRM39 CH 1803 50FT GRM39 CH 390J 50PT
C360	4030013760	S.CERAMIC	GRM39 CH 3R5B 50PT
C361	4030012010		GRM39 CH 220J 50PT
C362 C363	4030013850 4030013850		ECUE1E102KBQ ECUE1E102KBQ
EP1	910049707	PCB B 5032G	
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# SECTION 7 MECHANICAL PARTS AND DISASSEMBLY

# 7-1 CABINET PARTS [CHASSIS PARTS]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
J1	6510020650	Antenna connector SMA-R224	1
S1	7600000210	Sensor TP70N00E20-15F-1903	-1
MP1	8210015120	   1903 Front panel (A)   [EUR, UK, ITA, THA,TPE]	1
	8210015130	1903 Front panel (B) [USA, SEA]	1
MP2	8010017150	1903 Chassis	1
мР3	8930044580	1903 Rubber seal	1
MP4	8930044550	1903 10-Kev	1
MP5	8930044490	1903 Microphone cap	1
мР6	8930044510	1903 PTT button	1
MP7	8930015050	1903 PTT panel	1
MP8	8930044560	1903 2-Key	1
MP9	8830001220	Nut (F)	1
MP10	8930018220	870 net	1
MP11	8930046020	1123 Sheet (A)-1	1
MP12	8930044460	1903 Contact rubber	1
MP13	8930044470	1903 DC cap	1
MP14	8930044480	1903 Lens	1
MP15	8830001340	1903 Hex nut	1
MP16	8930044970	1903 Rear sheet (A) [USA]	1
	8930044980	1903 Rear sheet (B) [SEA]	1
	8930044990	1903 Rear sheet (C) [EUR, UK, ITA]	1
	8930045000	1903 Rear sheet (D) [THA, TPE]	1
MP17	8930044530	1903 Rubber sheet	1
MP18	8950004810	1903 SP spring	2
MP19	8610010530	Knob N263	1
MP20	8810008990	Screw PH BT M2×10 ZK	2
MP21	8810008970	Screw FH BT No.0 M2×3.5 NI-ZU	9
MP22	8810009630	Screw FH No.0 M2×4.5 NI B	2
MP25	8310041950	1903 Window plate w/sheet	1
MP27	8930046000	1903 Microphone sponge	1
MP28	8930045940	1903 Bottom sheet	1
MP29	8930040410	Isolating sheet EO	2
SP1	2510000840	Speaker CS028014-12	1
MP1*	8210015400	1903 Front panel (A) assembly (incl. MP1, MP6, MP7 and MP10)	1
	8210015410	(Incl. MP1, MP6, MP7 and MP10) 1903 Front panel (B) assembly (incl. MP1, MP6, MP7 and MP10)	1

#### [RF UNIT]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
MP1	8510002162	1903 PA heatsink-2	1
MP2	8950004800	1903 Contact spring	1
мР3	8510011630	1903 RF shield	1
MP4	8930045990	1903 RF sheet	1

### [LOGIC UNIT]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
DS4	5030001550	LCD LM-1526B	1
EP2	8930046030	Contact screen SRCN-1903-SP-N-W	1
MP1	8930044570	1903 LCD holder	1
MP2	8210015060	1903 Reflector	1
мР3	8930045910	Himeron sheet	1
MP5	8510011621	1903 LOGIC shield	1
мР6	8930045980	1903 LOGIC sheet	1

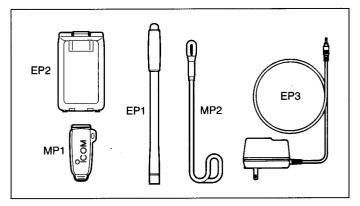
### [VCO BOARD]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
MP1	8510011430	1903 VCO case	1

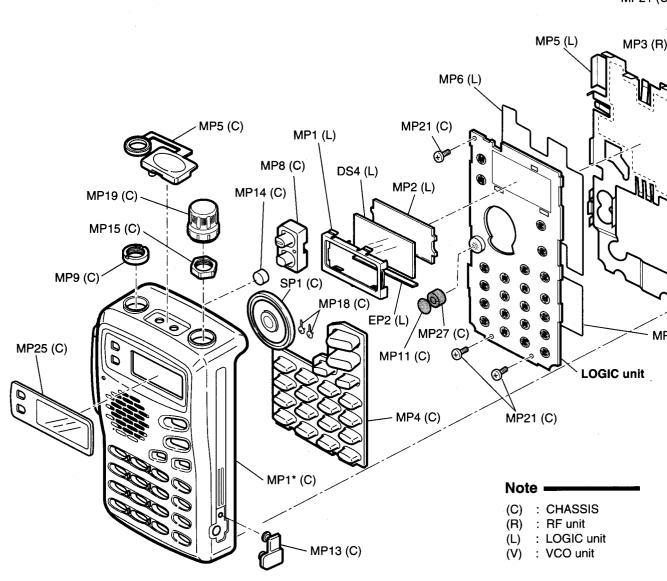
 $\Omega \textbf{Screw abbreviations} : \mathsf{PH} : \mathsf{Pan \ head} \quad \mathsf{NI} : \mathsf{Nickel} \quad \mathsf{ZK} : \mathsf{Black}$ 

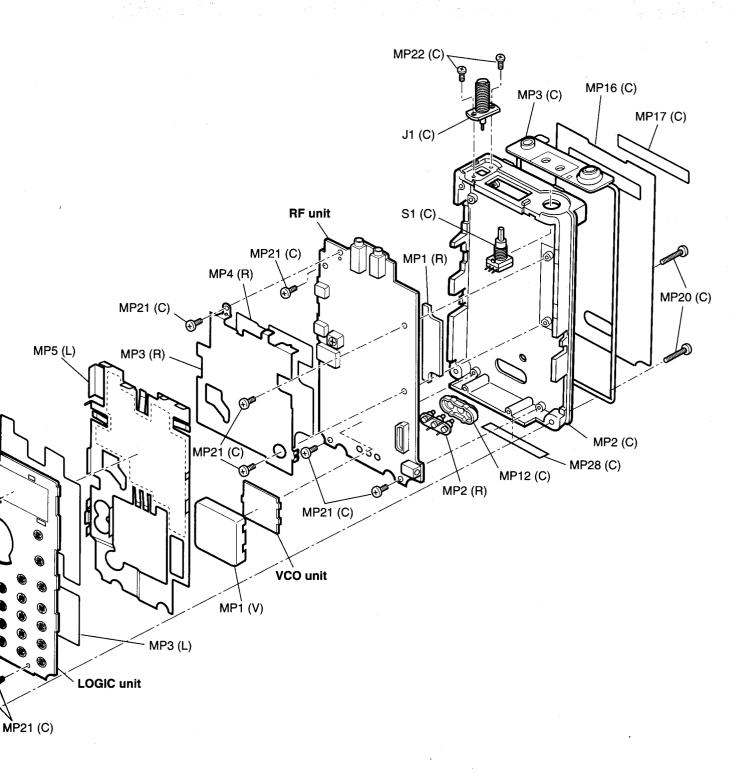
### 7-2 ACCESSORIES

REF NO.	ORDER NO.	DESCRIPTION	QTY.
EP1	Optional product	Antenna FA-S6270B	1
EP2	Optional product	Battery BP-200 [USA only]	1
	Optional product	Battery BP-199 [other]	1
EP3	Optional product	Charger BC-110A [USA]	1
	Optional product	Charger BC-110D [EUR, ITA]	1
MP1	8930044450	1903 Belt clip	1
MP2	8010011960	Strap belt HK-005	1



### MP21 (C





### Note —

(C) : CHASSIS (R) : RF unit (L) : LOGIC unit (V) : VCO unit

# SECTION 8 SEMI-CONDUCTOR INFORMATION

# 8-1 TRANSISTORS

NAME	SYMBOL	INSIDE VIEW
2SB1201-S	2M	C B E
2SC3356-R25 2SC4117-BL 2SC4215-O 2SC4226-R25 2SC4228-R45 2SC4403-3 2SC5107-O 2SC5195 2SD2216-S	R25 CL QO R25 R44 LY3 MFO 88 YS	C C E
2SA1588-GR-ZG 2SB1462-R	A6	C B E
UN9210 UN9213	8L 8C	C B E
UN9211 UN9215	8A 8E	C B B E
UN9115	Н	C B E
2SB1132-R	BAR	C B C E
XP1501-AB	5R	C1 C2

NAME	SYMBOL	INSIDE VIEW
XP1210	AC	C1 C2
XP4601	5C	C B E
XP5601-AB	4N	C1 E2 C2
XP6401	50	
2SJ364-Q	4M	G G S D
2SK880-Y	XY	G S D
UN9214	8A	C B B E
XP1115	7M	C1 C2
XP1201	AI	C1 C2

NAME	SYMBOL	INSIDE VIEW
XP4315	СВ	C1 B2 E2  W E1 B2 C2
2SK2973	K1	S C C C C C C C C C C C C C C C C C C C
2SK2975	K2975	(TOP VIEW)  D
3SK291 3SK292	UF UK	G2 G1

8 - 2 DIODES	8 -	2	D	Ю	D	E\$
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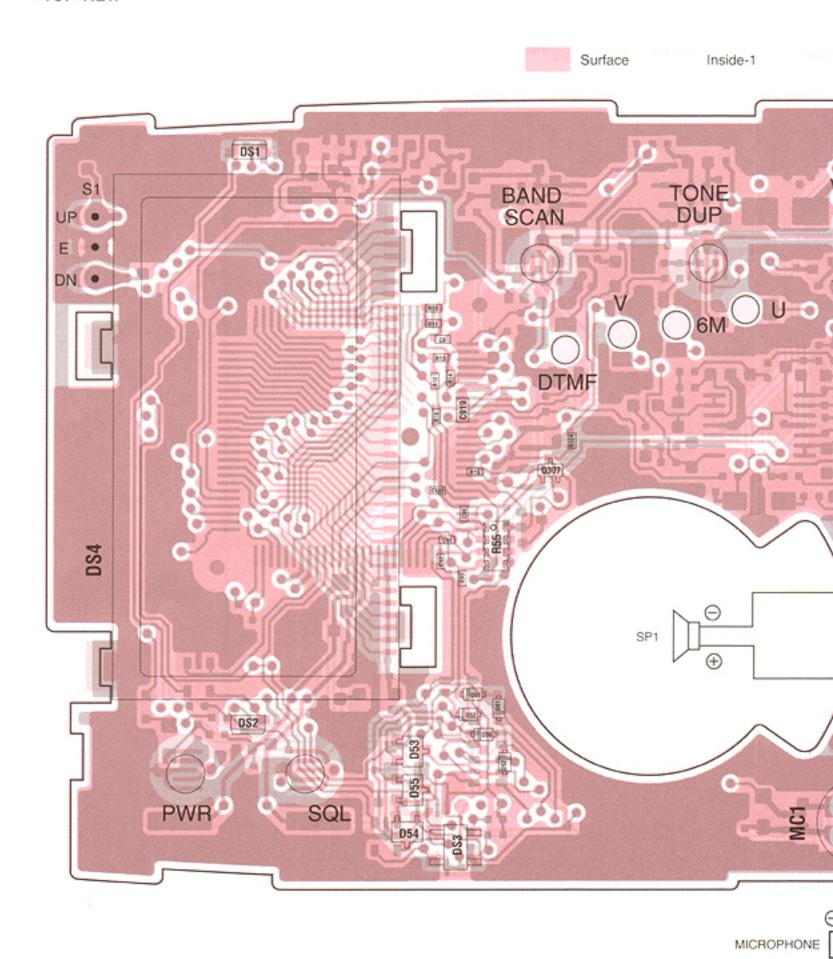
NAME	SYMBOL	INSIDE VIEW
SB07-03C-TB	J	K A
MA6S121	M2D	K3 K2 K1 A3 A2 A1
1SV270 HVU350TRF 1SV305	TF 4 TV	A □ □ K
MA2S077 MA2S111 MA2S728	S A B	A CITTO K

NAME	SYMBOL	INSIDE VIEW
MA8051-H	5–1	A CITICAL K
RB060L-40 1SV307	No symbol TX	A □ □ ■ K □ ■ □ K
1SV271 1SV288	TG TJ	pink A □ □ □ □ □ K -►II-
DAP202U T107	Р	A
MA8100-M	10-	A □ □ □ K  → 1
1SS364 MA132WK	BF MU	K A1 A2
DA112 T107	AZ	A C
DA113W T107	AY	A K
MA133	MP	AK
HVU131TRF	P1	A □ □ ■□ K → → □

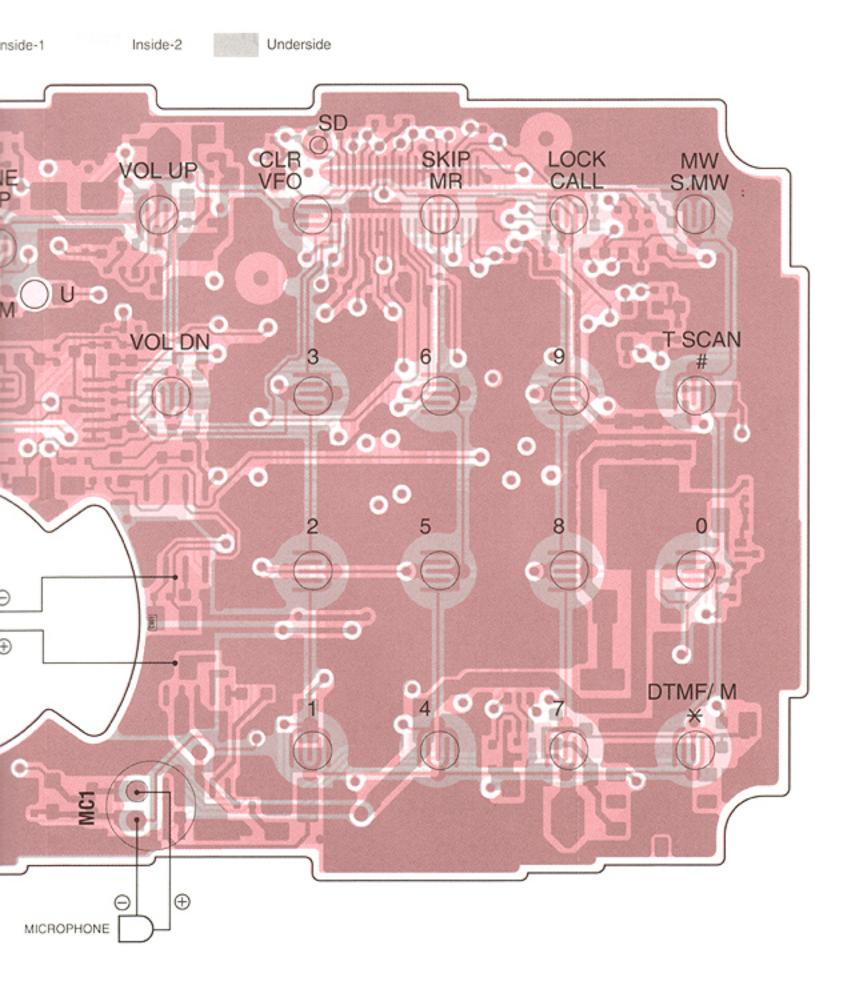
# SECTION 9 BOARD LAYOUTS

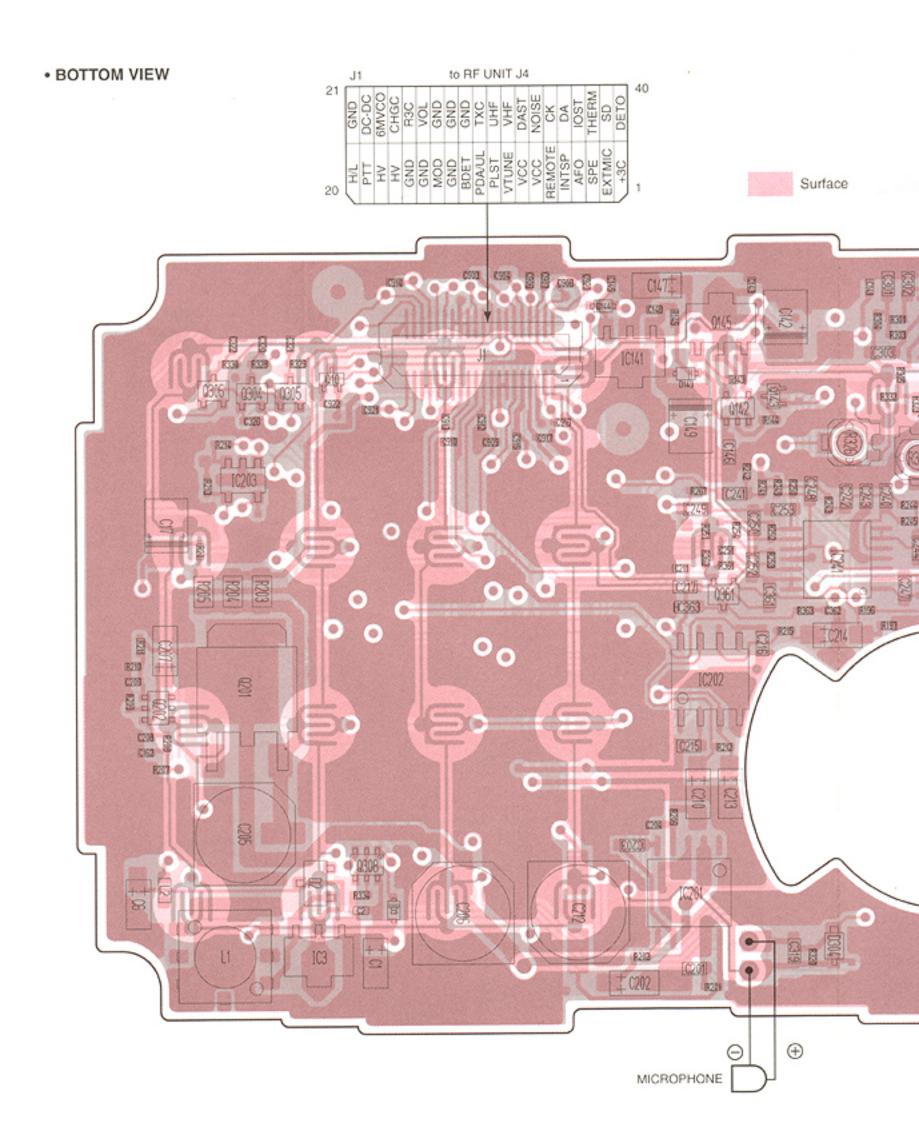
# 9-1 LOGIC UNIT

## TOP VIEW



The combination of this page and the next page shows the unit layout in the same configuration as the actual P.C. Board.





The combination of this page and the previous page shows the unit layout in the same configuration as the actual P.C. Board.

S1 UP Ε DN E240 E245 F363 C362 F1: R199 [3] 00.0 9 0

Underside

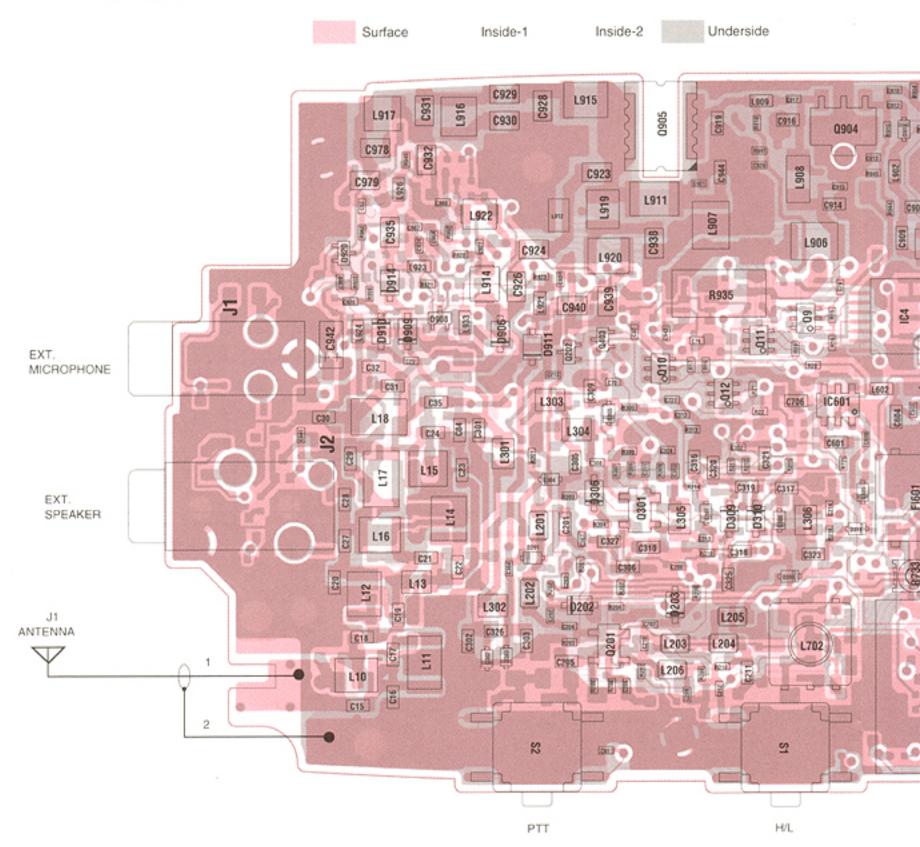
Inside-1

Surface

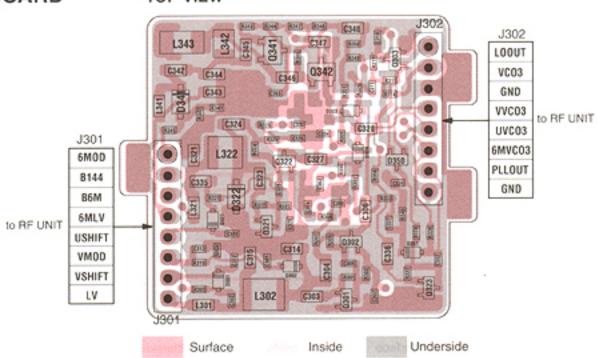
Inside-2

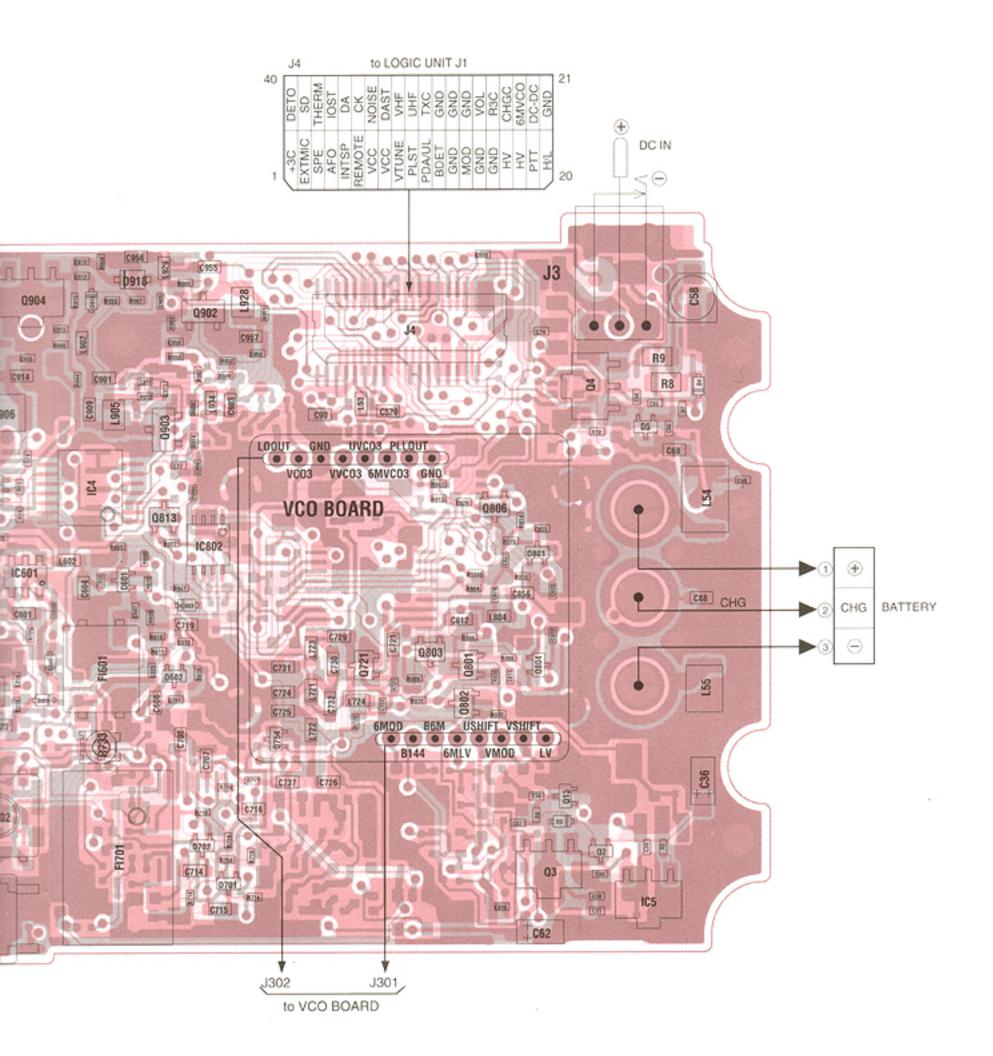
# 9-2 RF UNIT

## TOP VIEW

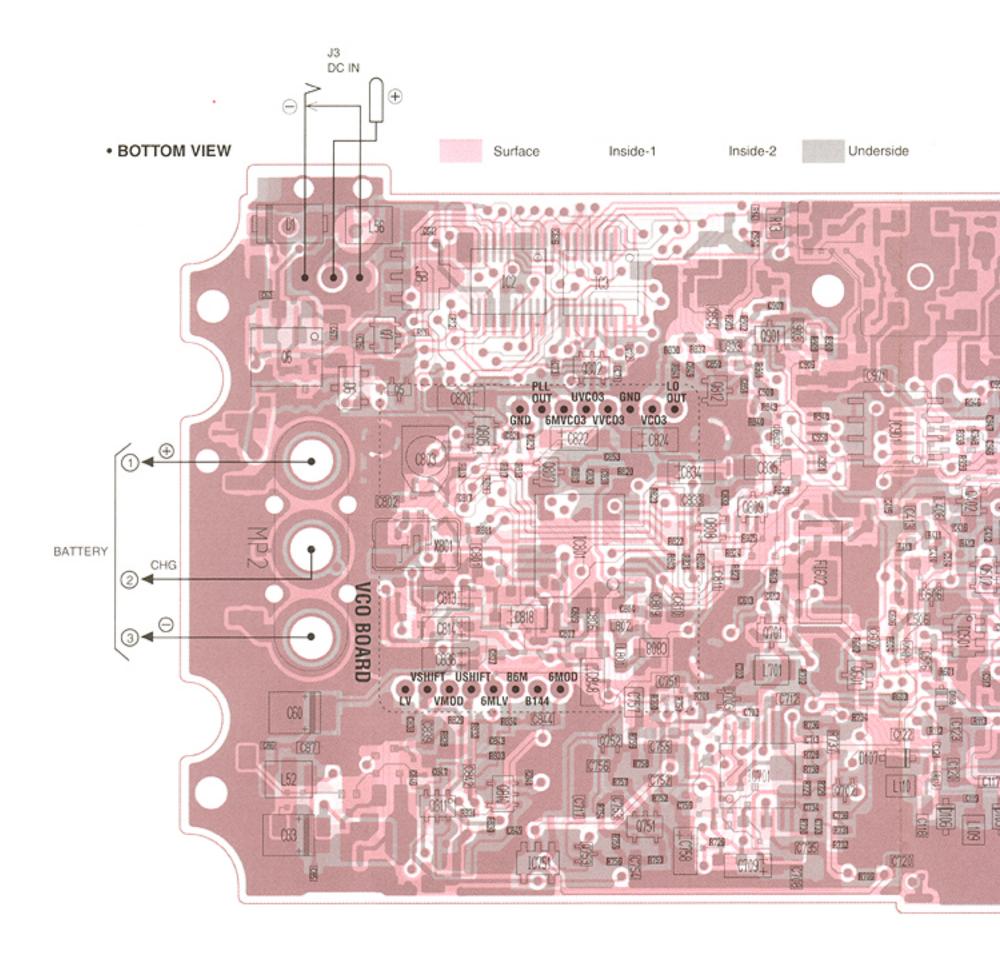


# 9 - 3 VCO BOARD • TOP VIEW



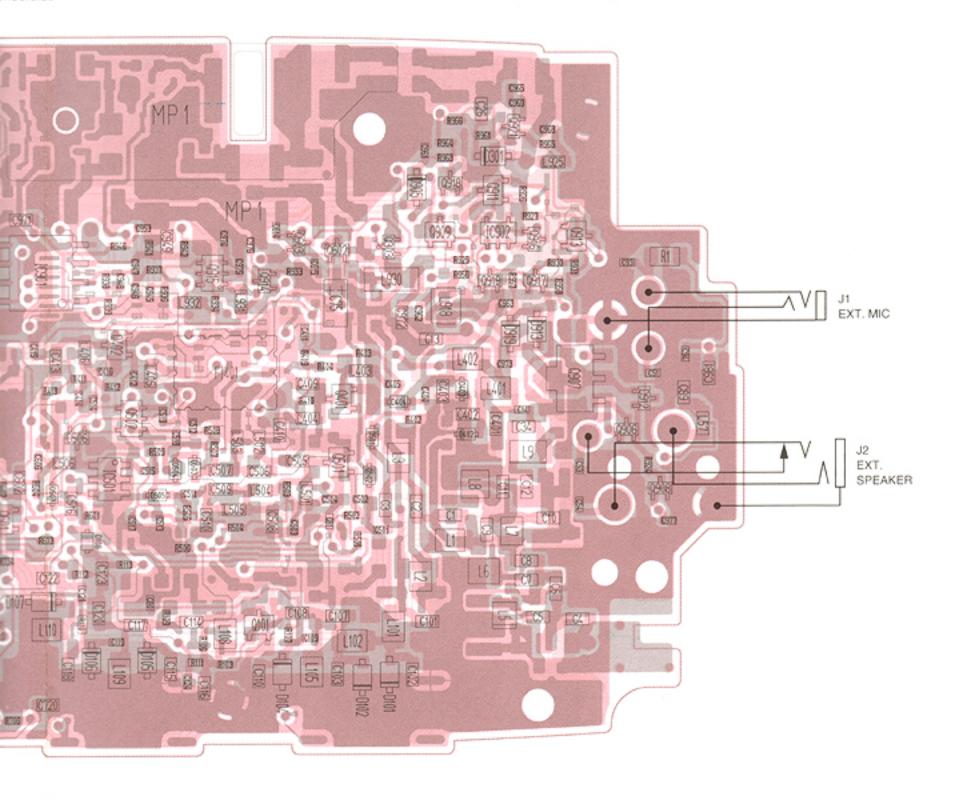


The combination of this page and the next page shows the unit layout in the same configuration as the actual P.C. Board.

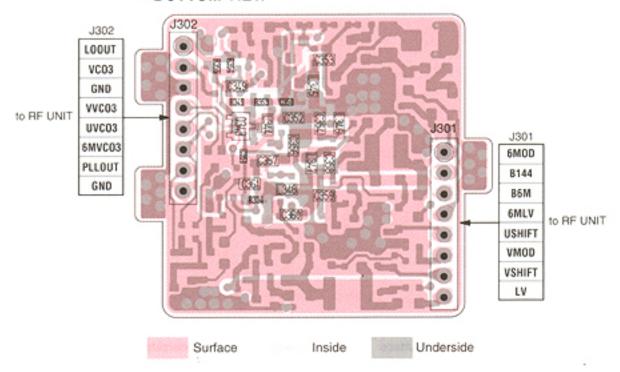


The combination of this page and the previous page shows the unit layout in the same configuration as the actual P.C. Board.

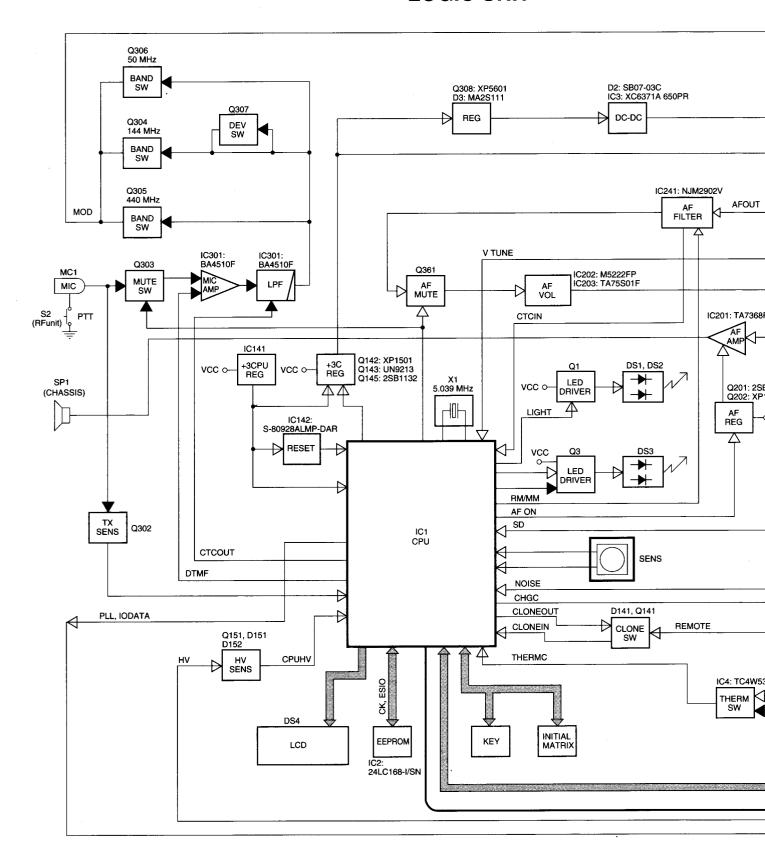
### Inderside

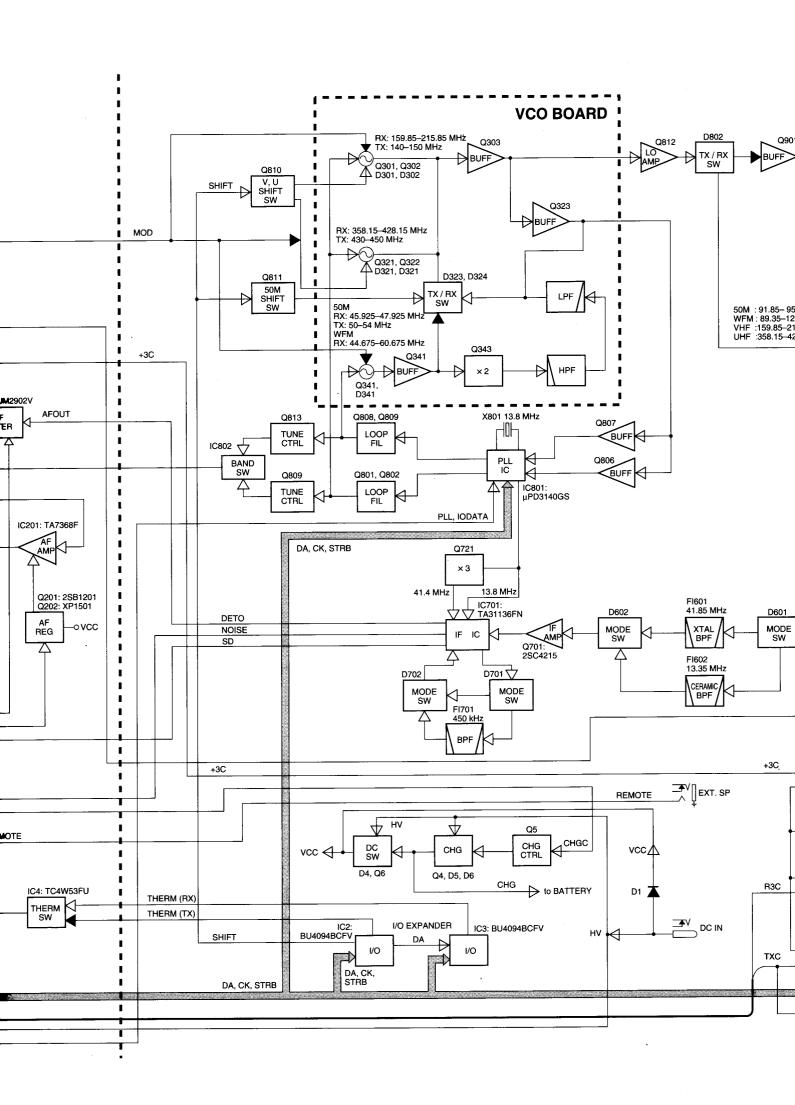


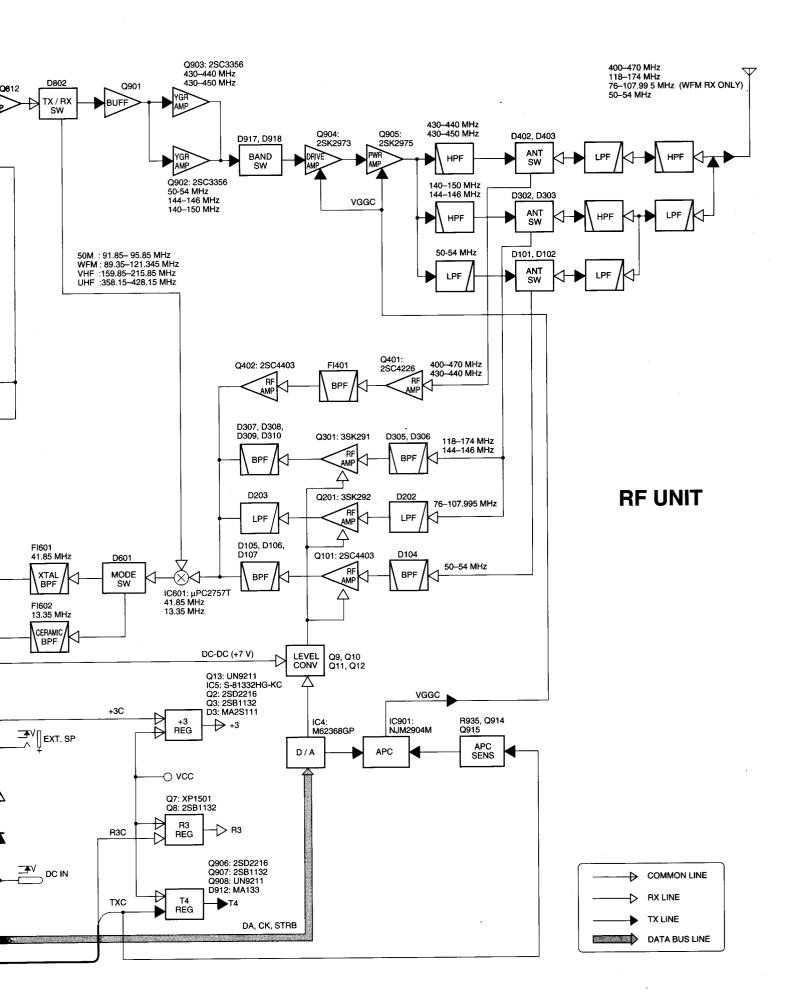
## BOTTOM VIEW



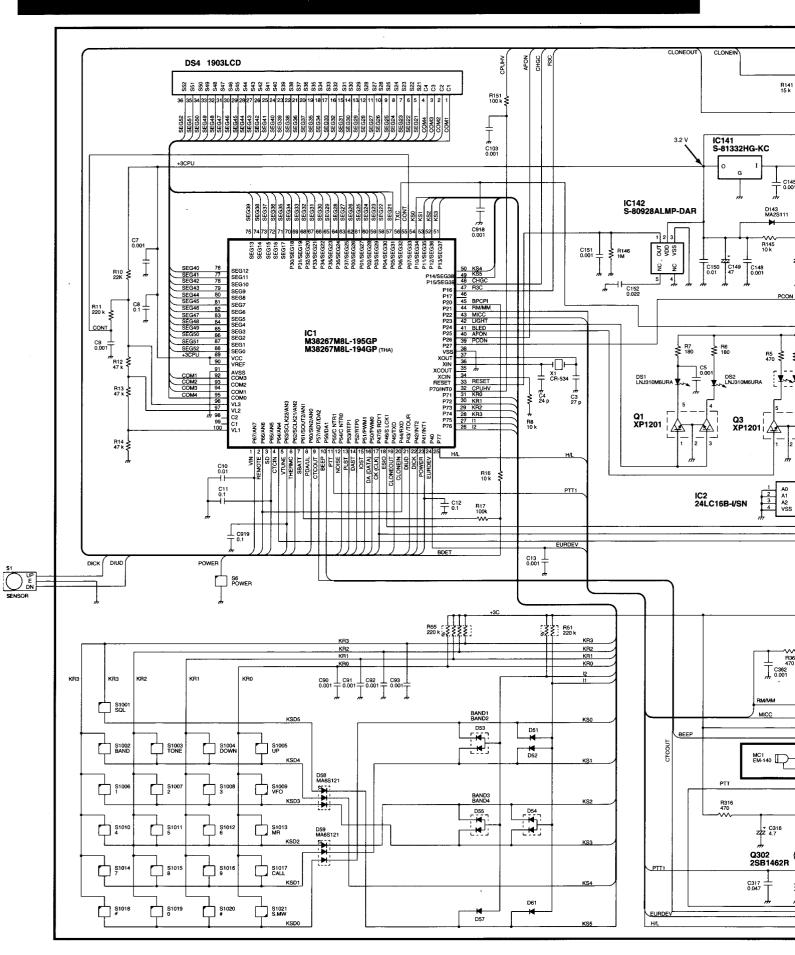
# **LOGIC UNIT**

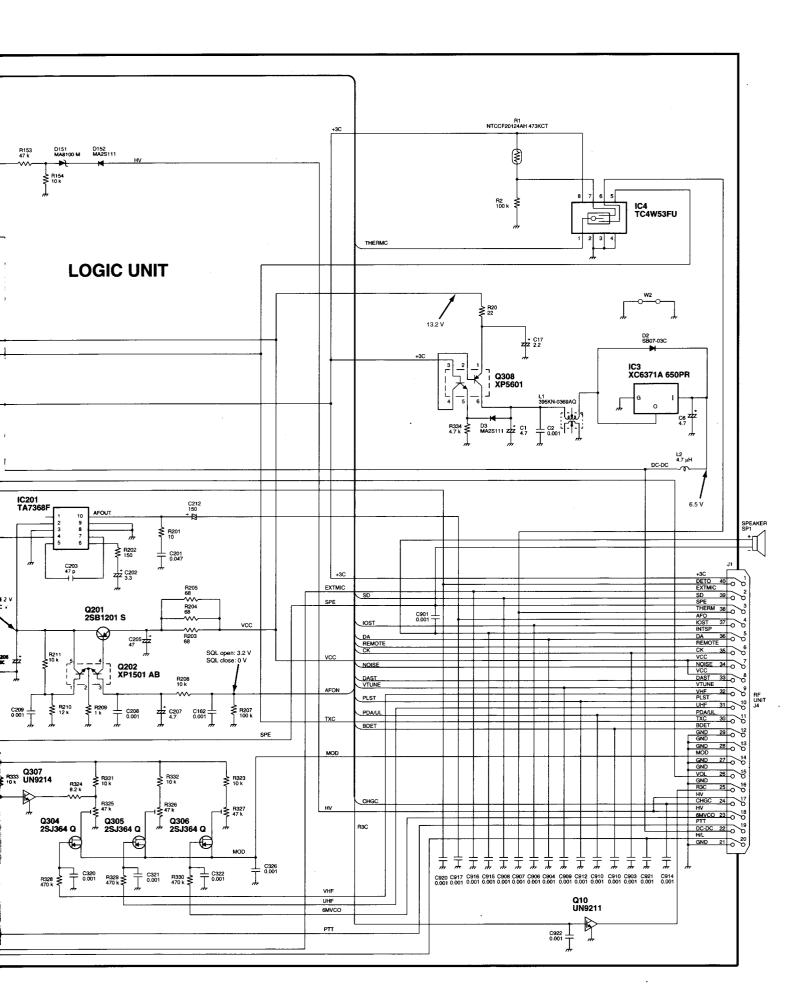


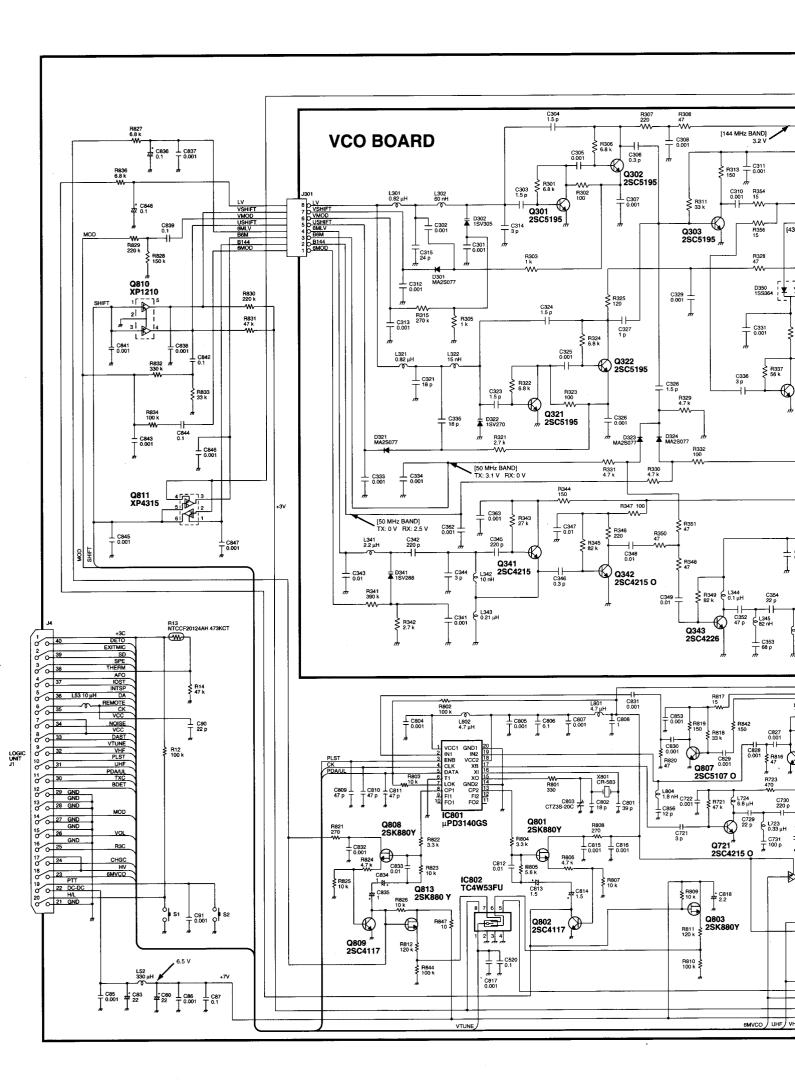


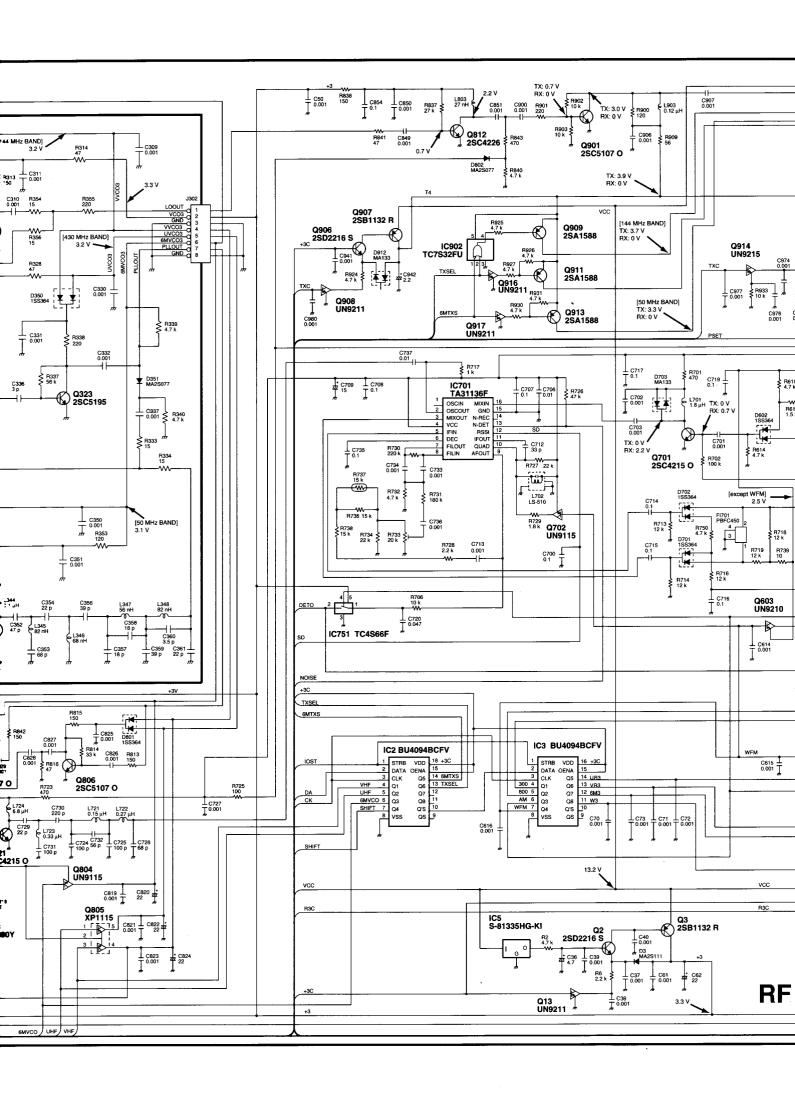


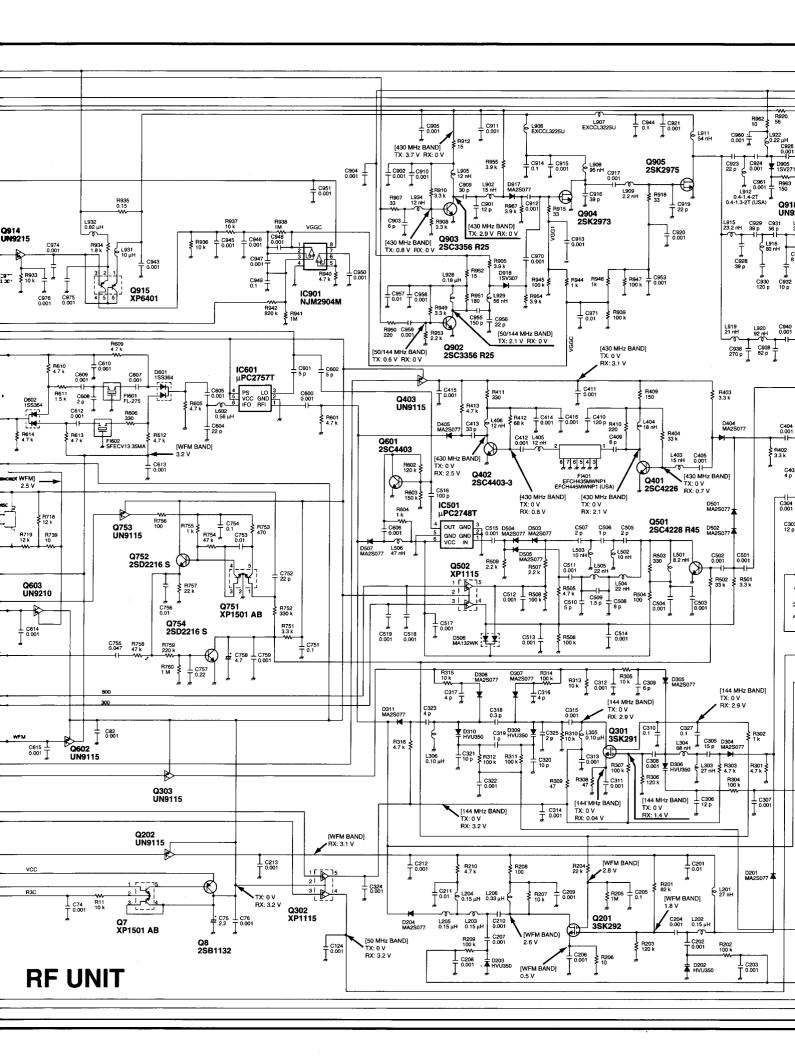
# SECTION 11 VOLTAGE DIAGRAM

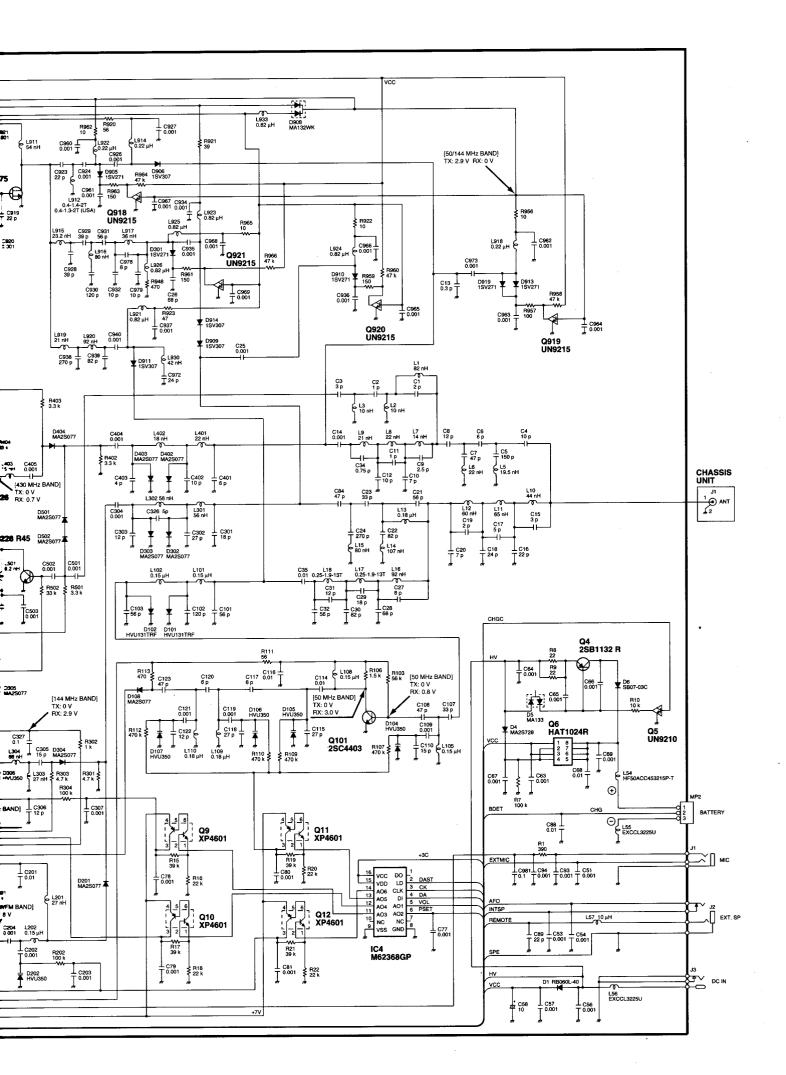












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