



SERVICE MANUAL

VHF MARINE TRANSCEIVER

IC-M91D
IC-M92D

S-14904XZ-C1
Jun. 2012

Icom Inc.

INTRODUCTION

This service manual describes the latest technical information for the **IC-M91D, IC-M92D** VHF MARINE TRANSCEIVER, at the time of publication.

MODEL	VERSION	AC ADAPTER	TX POWER
IC-M92D	USA	BC-147SA	5 W
	EXP	BC-147SE	
IC-M91D	CHN		
	EUR		
	UK		
	FRG	BC-147SE	5 W (1 W)
	HOL	BC-147SV	5 W
AUS			

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

CAUTION

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

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 Icom part number
2. Component name
3. Equipment model name and unit name
4. Quantity required

<ORDER EXAMPLE>

1110003491	S.IC	TA31136FNG	IC-M92D	MAIN UNIT	5 pieces
8820001210	Screw	2438 screw	IC-M92D	Top cover	10 pieces

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



REPAIR NOTES

1. Make sure that the problem is internal before disassembling the transceiver.
2. **DO NOT** open the transceiver until the transceiver is disconnected from its power source.
3. **DO NOT** force any of the variable components. Turn them slowly and smoothly.
4. **DO NOT** short any circuits or electronic parts. An insulated tuning tool **MUST** be used for all adjustments.
5. **DO NOT** keep power ON for a long time when the transceiver is defective.
6. **DO NOT** transmit power into a Standard Signal Generator or a Sweep Generator.
7. **ALWAYS** connect a 30 dB to 40 dB attenuator between the transceiver and a Deviation Meter or Spectrum Analyzer, when using such test equipment.
8. **READ** the instructions of the test equipment thoroughly before connecting it to the transceiver.

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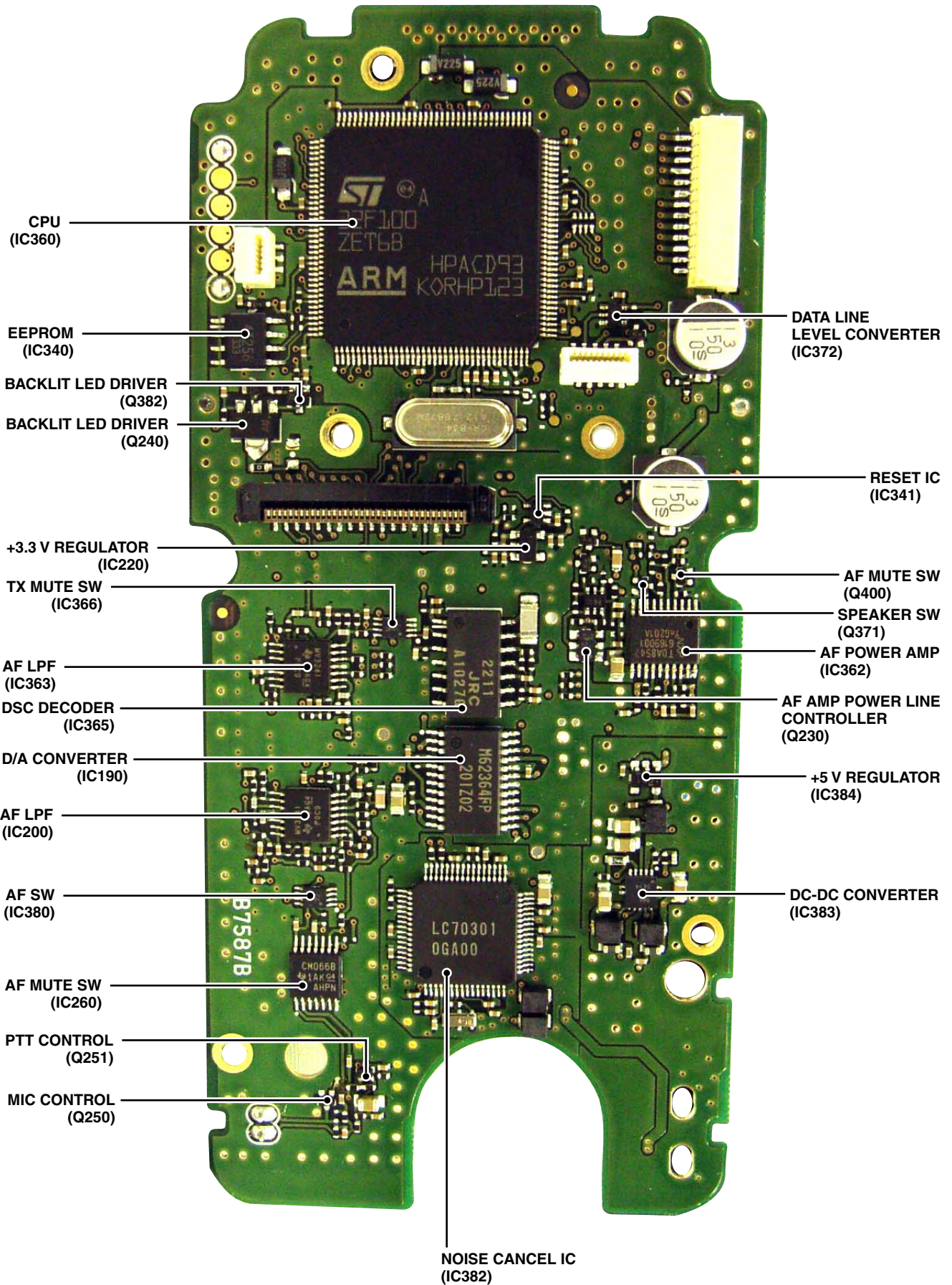
SECTION 1

SPECIFICATIONS

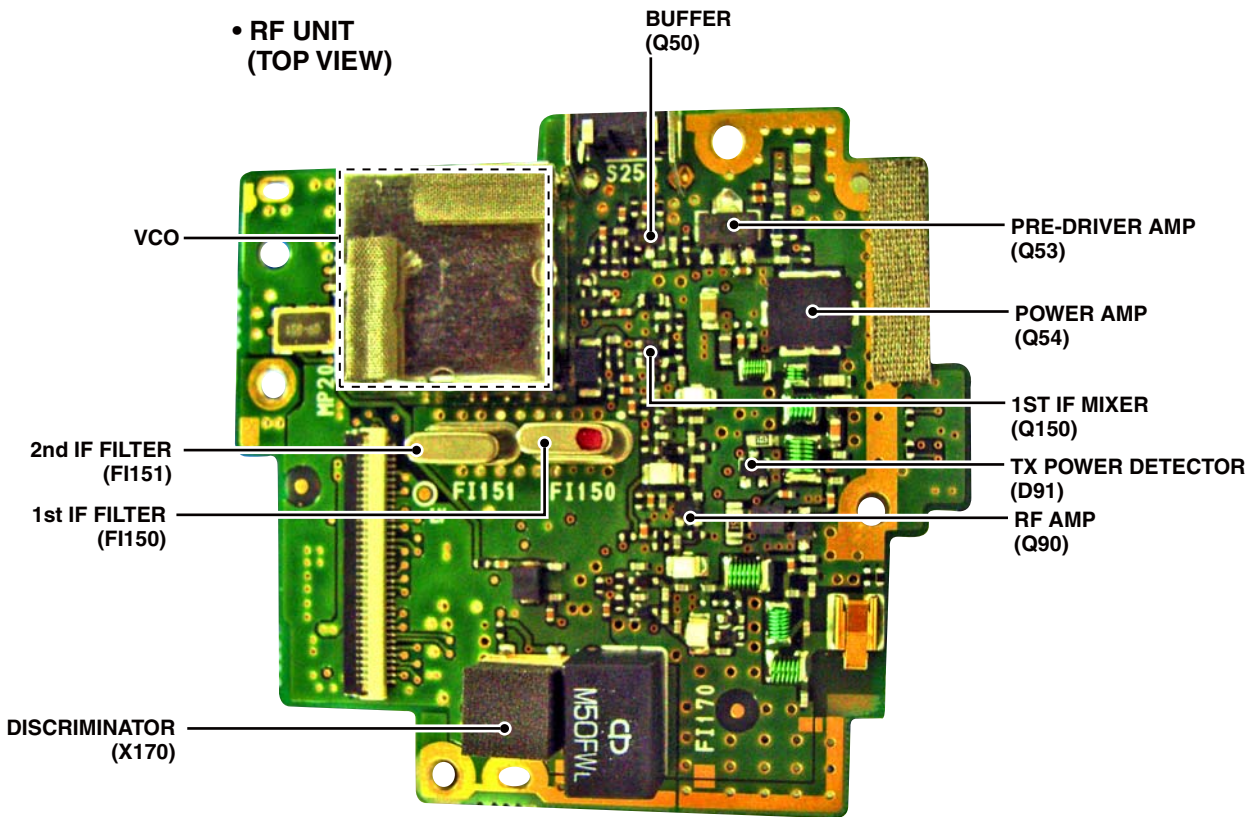
			[USA], [EXP]	[AUS]	[CHN], [EUR], [UK], [FRG], [HOL]	
GENERAL	• Frequency coverage	TX	156.025–157.425 MHz		156.000–161.450 MHz	
		RX	156.050–163.275 MHz	156.300–162.025 MHz	156.000–163.425 MHz	
	• Mode		FM (16K0G3E), DSC (16K0G2B)			
	• Operating temperature range		–20°C to +60°C (–4°F to +140°F)	–10°C to +55°C	–15°C to +55°C	
	• Power supply requirement		7.4 V DC nominal (negative ground)			
	• Current drain (approximately)	TX	at 5.0 W	1.5 A		
			at 1.0 W	0.7 A		
			at 0.5 W	–	0.6 A	
		RX	Max.audio	0.50 A		
	• Antenna impedance		50 Ω nominal			
• Dimensions (approximately) (Projections not included)		61.2(W) × 141.4(H) × 43.2(D) mm 2.4(W) × 5.6(H) × 1.7(D) inches				
• Weight (approximately)		287 g; 10.1 oz (with BP-275) 318 g; 11.2 oz (with BP-275, FA-SC59V and MB-109)				
TRANSMITTER	• Transmit output power		5 W (High power), 1 W (Low power)		5 W (High power) 1 W (Low power) 0.5 W* (E_Low power) *German version only	
	• Modulation		Variable reactance frequency modulation			
	• Maximum frequency deviation		±5 kHz			
	• Frequency error		±10 ppm		±1.5 kHz	
	• Spurious emission		–68 dBc (typical)	0.25 μW		
	• Adjacent channel power		70 dB			
	• Audio harmonic distortion		10% (at 60% deviation)			
	• Audio frequency response		+1 dB to –3 dB of 6 dB octave from 300 Hz to 3000 Hz			
	• Residual modulation		40 dB			
	• Microphone impedance		2 kΩ			
RECEIVER	• Intermediate frequencies		1st 21.7 MHz, 2nd 450 kHz			
	• Sensitivity (typical)		0.25 μV (12 dB SINAD)	–5 dBμ emf (20 dB SINAD)	–4 dBμ emf at 20 dB SINAD	
	• Squelch sensitivity (at threshold) (typical)		–9 dBμ (0.35 μV)	–6 dBμ emf	–5 dBμ emf	
	• Adjacent channel selectivity		70 dB (typical)	65 dB	70 dB	
	• Spurious response		70 dB (typical)	65 dB	70 dB	
	• Intermodulation		70 dB (typical)	65 dB	68 dB	
	• Audio output power (at 10% distortion with an 8 Ω load)		0.35 W typical (External) 0.7 W typical (Internal)	0.2 W (External) 0.7 W typical at 1 kHz (Internal)		
	• Hum and noise		40 dB			
	• Audio frequency response		+1 dB to –3 dB of –6 dB octave from 300 Hz to 3000 Hz			
	• Audio output impedance		8 Ω			

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

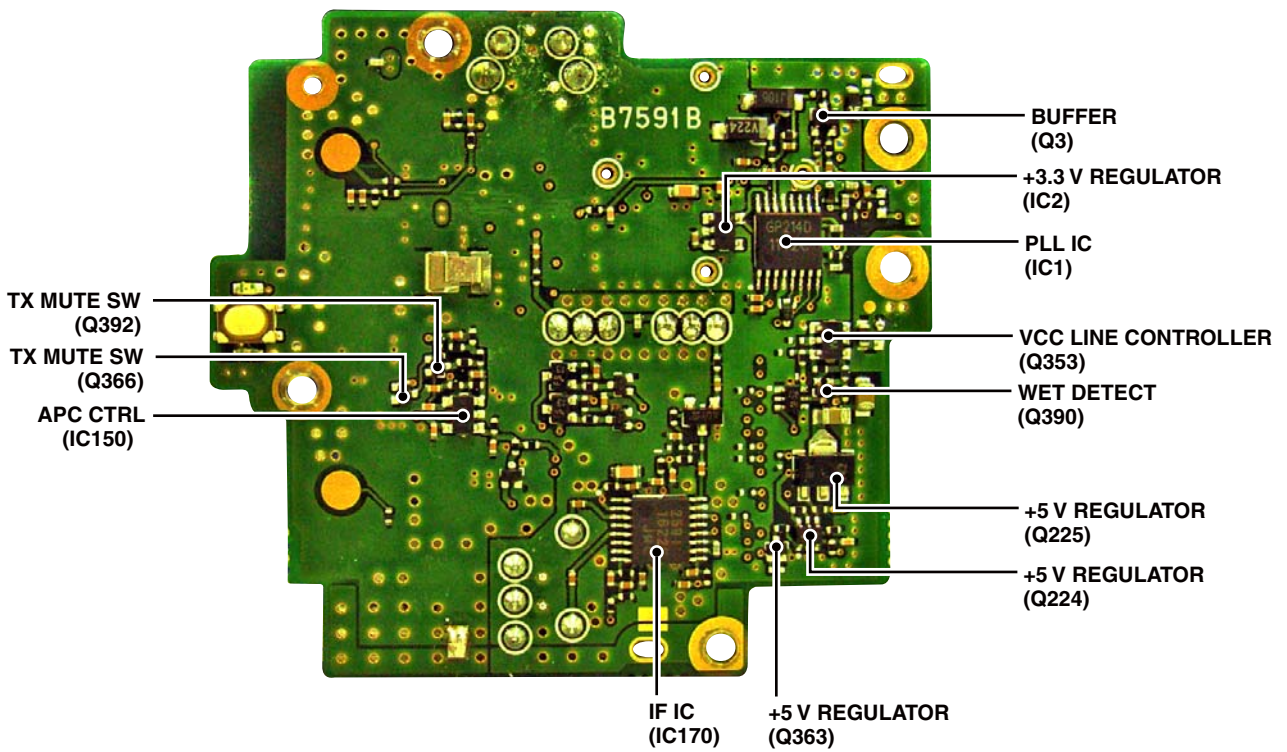
• MAIN UNIT



• RF UNIT
(TOP VIEW)



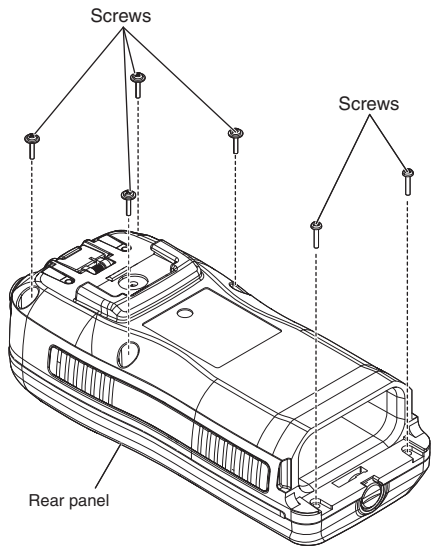
• RF UNIT
(BOTTOM VIEW)



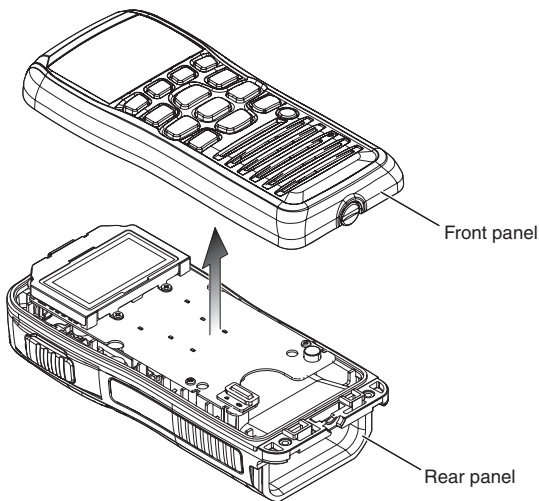
SECTION 3 DISASSEMBLY INSTRUCTION

1. REMOVING THE MAIN UNIT

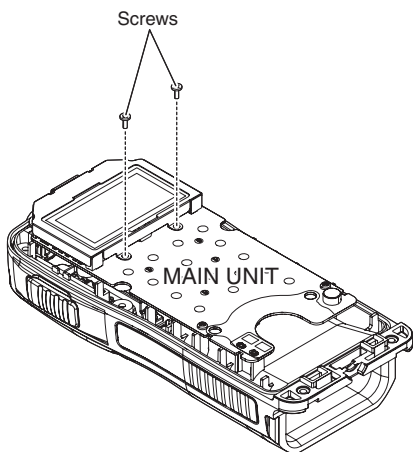
1) Remove 6 screws from the rear panel.



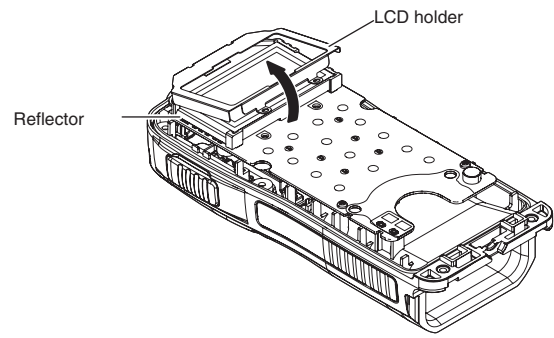
2) Separate the FRONT PANEL from the rear panel.



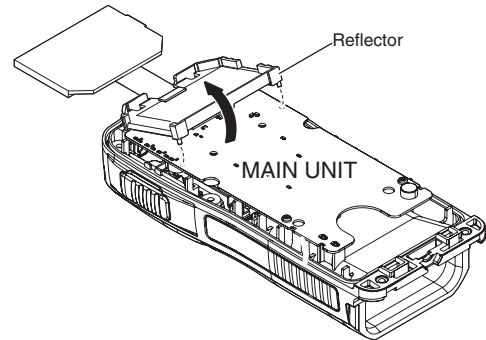
3) Remove 2 screws from the MAIN UNIT.



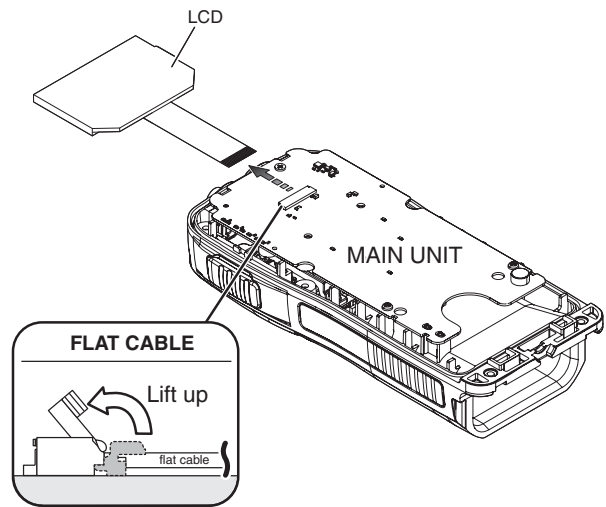
4) Remove the LCD holder from the MAIN UNIT.



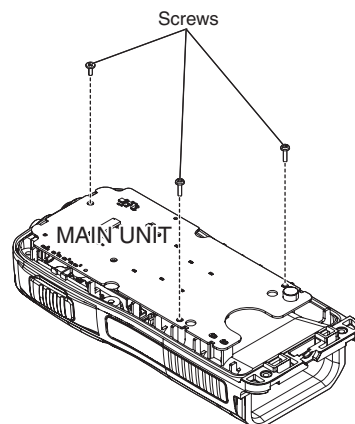
5) Remove the reflector from the MAIN UNIT.



6) Disconnect the flat cable.



7) Remove 3 screws from the MAIN UNIT.

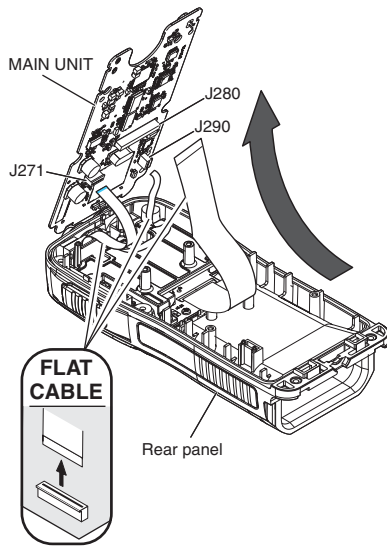


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1. REMOVING THE MAIN UNIT (Continued)

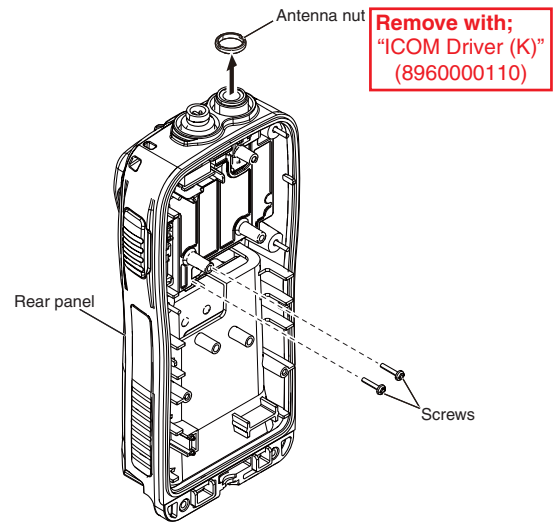
8) Disconnect flat cables from J271, J280 and J290, and then remove the MAIN UNIT from the rear panel.

BE CAREFUL about the **flat cables** when separating the MAIN UNIT from the chassis.

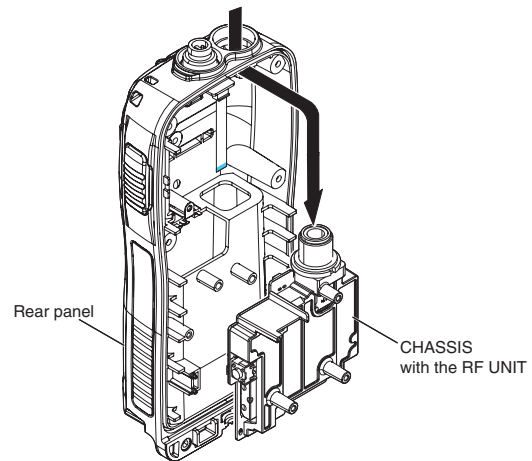


2. REMOVING THE RF UNIT

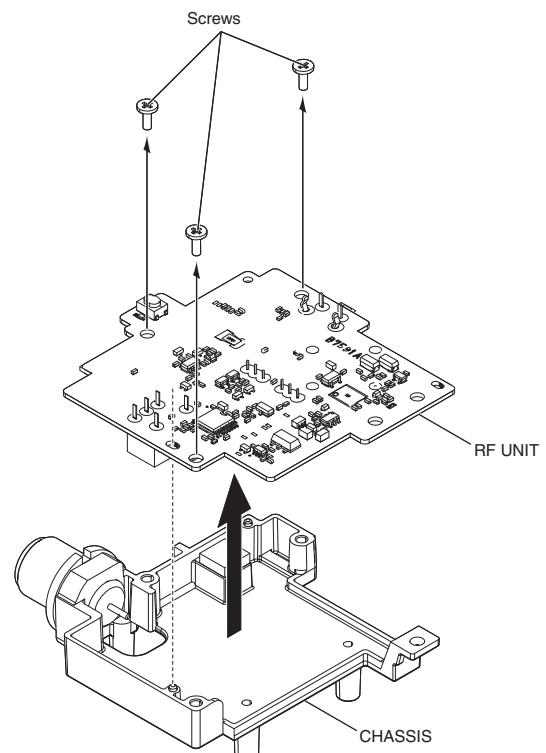
1) Remove 2 screws and antenna nut from the rear panel.



2) Remove chassis from the rear panel.



3) Remove 3 screws from the CHASSIS, and then remove the RF UNIT from the CHASSIS.



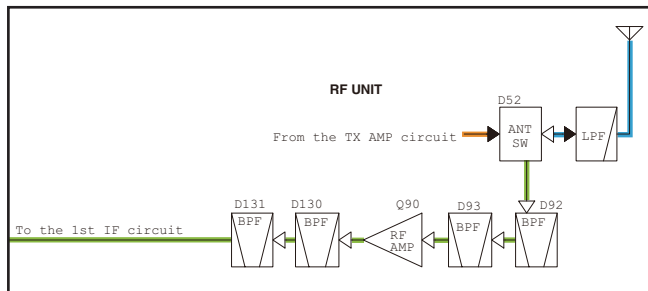
4-1 RECEIVE CIRCUITS

RF CIRCUIT (RF UNIT)

The RX signal from the antenna is passed through a two-staged LPF (L81, L82, C83–C86 and C89), ANT SW (D90), and two tuned BPFs (D92, D93, L92, L93, C95, C97–C100 and C117), and then applied to the RF AMP (Q90).

The amplified signal is applied to the 1st IF circuit, through two tuned BPFs (D130, D131, L96, L97, C109, C110 and C112–C115).

• RF CIRCUITS

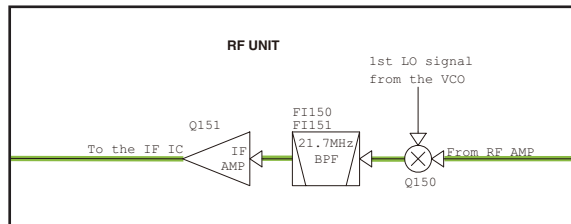


1ST IF CIRCUIT (RF UNIT)

The RX signal from the RF circuits is applied to the 1st IF mixer (Q150), and mixed with the 1st LO signal from the VCO (Q21, Q22, and D20–D22), resulting in a 21.7 MHz 1st IF signal.

The 1st IF signal is filtered by the 1st IF filters (FI150 and FI151), and then applied to the 1st IF AMP (Q151). The amplified signal is applied to the 2nd IF circuits.

• 1ST IF CIRCUITS



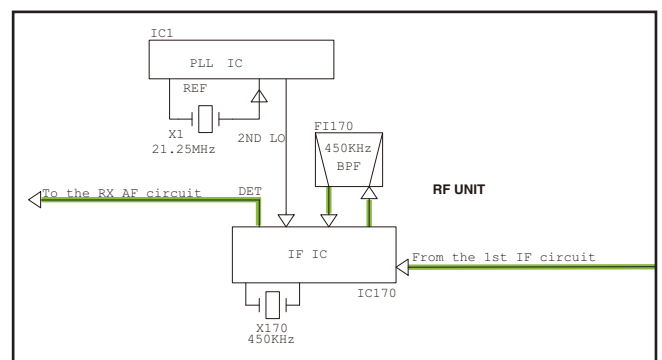
2ND IF CIRCUIT (RF UNIT)

The 1st IF signal from the 1st IF circuits is applied to the IF IC (IC170, pin 16). The IF IC contains the 2nd IF mixer, 2nd IF AMP, detector, and so on, in its package.

The 1st IF signal is mixed with the 21.25 MHz 2nd LO signal from the reference frequency oscillator (TCXO: X1), resulting in a 450 kHz 2nd IF signal. The 2nd IF signal is passed through the 2nd IF filter (FI170) to remove sideband noise. The filtered signal is amplified by the 2nd IF AMP, and demodulated by the quadrature detector with discriminator (X170).

The demodulated AF signal is applied to the RX AF circuits on the MAIN UNIT.

• 2ND IF CIRCUITS



RX AF CIRCUIT (MAIN UNIT)

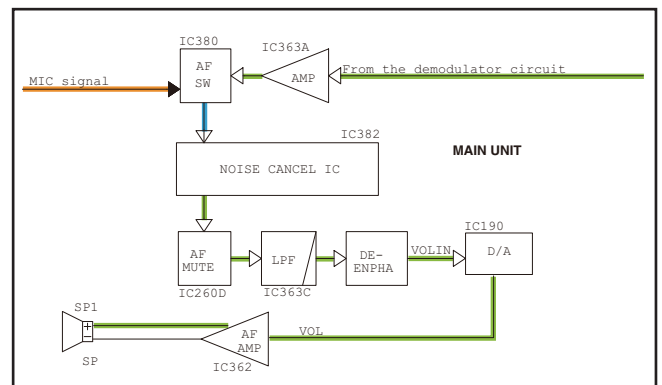
The demodulated AF signal from the IF IC (RF UNIT: IC170) is amplified by the AF AMP (IC363A), and then applied to the noise canceller IC (IC382, pin 36), through the AF SW (IC380, pins 7, 1).

The processed AF signal is passed through the AF mute SW (IC260D, pins 11, 10), LPF (IC363C, pins 9, 8) and de-emphasis circuit (R279 and C266), and then applied to the D/A converter (IC190, pin 1) to adjust the level.

The level-adjusted AF signal is amplified by the AF AMP (IC362), and then output to the internal speaker (CHASSIS: SP1).

When an external speaker is connected, the AF signal from the D/A converter (IC190, pin 2) is amplified by the AF AMP (IC362), and then output to the external speaker, through J290.

• RX AF CIRCUITS



4-2 TRANSMIT CIRCUITS

TX AF CIRCUIT (MAIN UNIT)

The AF signal from the internal microphone (MC250) is passed through the MIC mute SW (IC260A, pins 1, 2), and then applied to the MIC AMP (IC200B, pin 6).

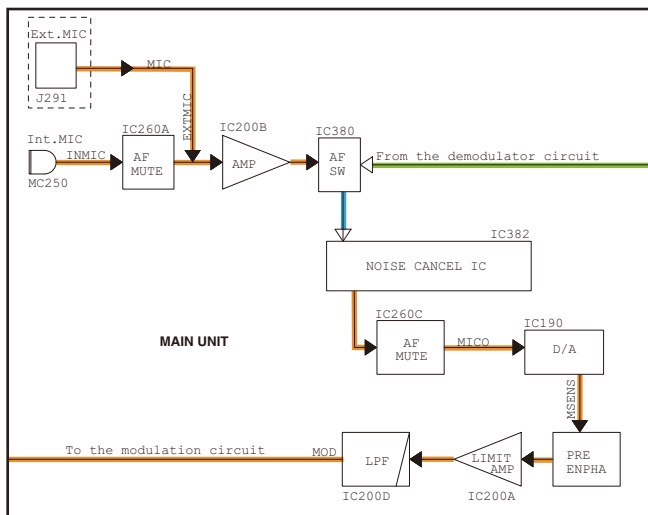
The MIC signal from the external microphone is directly applied to the MIC AMP (IC200B, pin 6), through J290.

The amplified AF signal is passed through the AF SW (IC380, pins 6, 1) and applied to the noise canceller IC (IC382, pin 36).

The processed AF signal is passed through the AF mute SW (IC260C, pins 8, 9), and then applied to the D/A converter (IC190, pin 13) to adjust the level.

The level-adjusted AF signal is passed through the pre-emphasis circuit (R201, C385), and then amplified by the limiter AMP (IC200A) which limits the amplitude of AF signal to prevent over deviation. The amplitude-limited signal is passed through the LPF (IC200D, pins 12, 14), and then applied to the modulation circuits on the RF UNIT.

• TX AF CIRCUITS

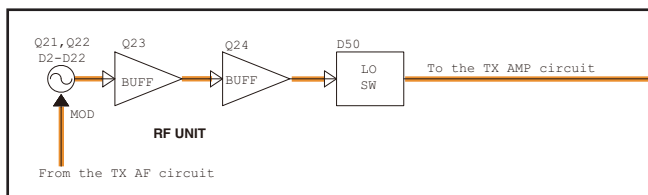


MODULATION CIRCUIT (RF UNIT)

The AF signal from the TX AF circuits is applied to the VCO (Q21, Q22, and D20–D22). The modulation signal is applied to D20, for Frequency Modulation.

The modulated VCO output signal is passed through the buffers (Q23 and Q24), and then applied to the TX AMP circuits as a TX signal, through the LO SW (D50).

• MODULATION CIRCUITS



TX AMP CIRCUIT (MAIN UNIT)

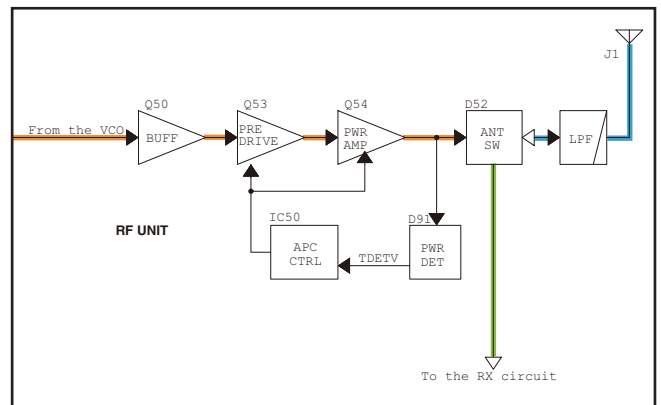
The TX signal is sequentially amplified by the buffer (Q50), YGR (Q53) and power (Q54) AMPs, and then passed through two LPFs (L57, C70, C71 and L80, C81, C82), TX output power detector (D91), ANT SW (D52), and a two stage LPF (L81, L82, C83–C86 and C89), before being sent to the antenna.

APC CIRCUIT (MAIN UNIT)

The voltage produced at two LPFs (L57, C70, C71 and L80, C81, C82) is rectified by D91, and is used as the TX power sensing voltage.

The voltage is applied to the APC AMP (IC50, pin 3), and the output voltage controls the gain of the pre-driver (Q53) and power (Q54) AMPs, to keep the TX output power constant.

• TX AMP AND APC CIRCUITS



4-3 FREQUENCY SYNTHESIZER (MAIN UNIT)

• VCO

The VCO (Q21, Q22, and D20–D22) generates both the 1st LO signal and the TX signal. The generated signal is amplified by buffers (Q23 and Q24), and then used as the TX or RX LO signal.

In receive, the LO signal is applied to the 1st IF mixer (Q150), through the LO SW (D51) and BPF (L26 and C122).

In transmit, the LO signal is applied to the TX AMP circuits, through the LO SW (D50).

• PLL

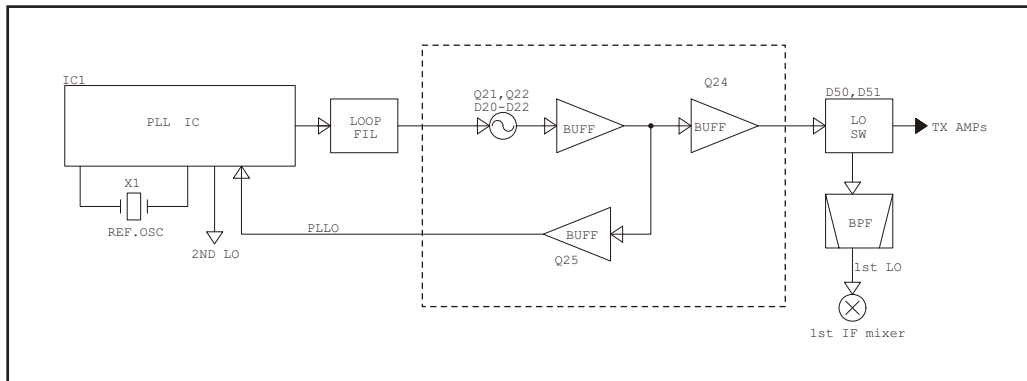
A portion of the VCO output signal is passed through two buffers (Q23 and Q25), and then fed back to the PLL IC (IC1, pin 16), through the LPF (L20, C21 and C22).

The PLL IC (IC1) phase compares the outputs of the reference frequency oscillator (TCXO; X1) and VCO, and the phase difference is output as the charge pump current.

The current is passed through the loop filter (R10, R22, C11, C13, C18 and C24) to be converted into the lock voltage, which controls the oscillating frequency of VCO.

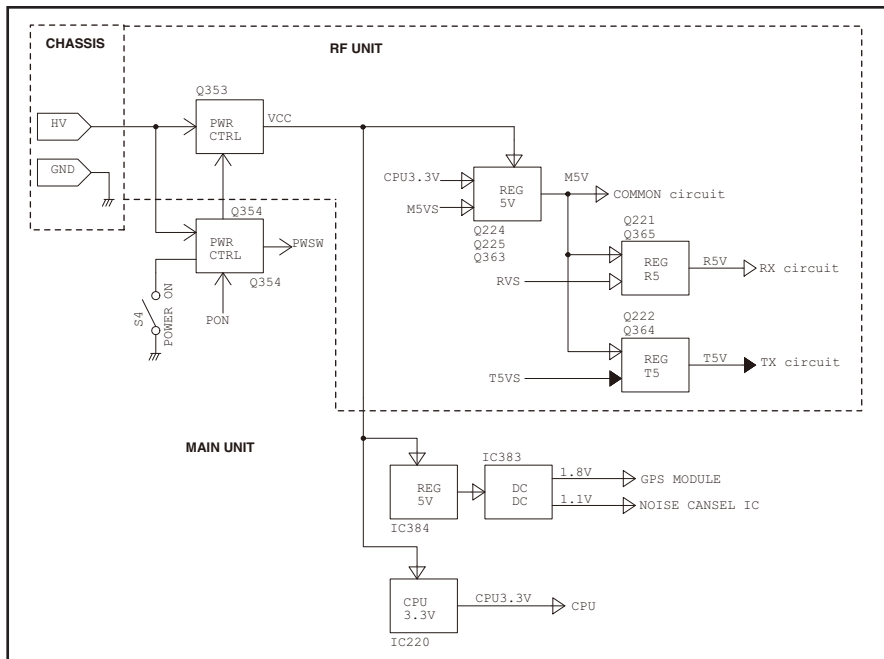
When the oscillation frequency drifts, its phase changes from that of the reference frequency, causing a lock voltage change to compensate for the drift in the VCO oscillating frequency.

• FREQUENCY SYNTHESIZER CIRCUITS



4-4 VOLTAGE DIAGRAMS

Voltage from the power supply is routed throughout the transceiver, through regulators and switches.



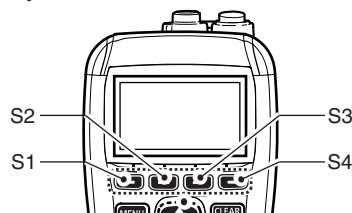
4-5 PORT ALLOCATIONS

• CPU (MAIN UNIT: IC360)

PIN No.	LINE NAME	DESCRIPTION	I/O
10	UP	[▲] key input. L=Pushed.	I
11	DN	[▼] key input. L=Pushed.	I
12	LEFT	[◀] key input. L=Pushed.	I
13	RIGHT	[▶] key input. L=Pushed.	I
14	ENT	[ENT] key input. L=Pushed.	I
15	CLR	[CLEAR] key input. L=Pushed.	I
18	MENU	[MENU] key input. L=Pushed.	I
19	CH16	[16/C] key input. L=Pushed.	I
20	DIST	[DISTRESS] key input. L=Pushed.	I
21	S1	Soft key (S1*) input. L=Pushed.	I
22	S2	Soft key (S2*) input. L=Pushed.	I
25	NRST	CPU reset. L=The CPU is reset.	I
26	TEMPV	Temperature sensing voltage.	I
27	TDETV	Transmit output power sensing voltage.	I
28	LOINV	Lock voltage input.	I
29	WDECV	Weather alert signal detect.	I
34	PWSW	Power switch input. L=Pushed.	I
36	MUTE	AF power AMP (IC362) control. L=AF Mute.	O
40	DSCOUT	DSC signal encoding output.	O
41	BEEP	Beep audio. (Square waves)	O
44	NOISEV	Noise level detect.	I
45	RSSIV	RSSI voltage from the IF IC (RF UNIT: IC170).	I
46	BATTV	Battery pack voltage.	I
47	EXTDET	External connection detect. L=Connection is detected.	I
49	S3	Soft key (S3*) input. L=Pushed.	I
50	S4	Soft key (S4*) input. L=Pushed.	I
53	PTTIN	[PTT] input. L=Pushed.	I
54	MONI	[VOL/SQL] key input. L=Pushed.	I
55	EXPTTIN	External [PTT] input. H=Pushed.	I
56, 57	DB0, DB1	LCD driver (DS246) control signal.	I/O
58	SDATA	Common serial data.	I
59	SCK	Common serial clock.	I
63	DASTB	D/A converter (IC190) strobe.	I
64	PLSTB	PLL (RF UNIT: IC1) strobe.	I
79	AFVS	AF power AMP control. H= AF power AMP (IC362) is activated.	O

PIN No.	LINE NAME	DESCRIPTION	I/O
80	SPON	RX AF line switching control. H=AF signal is output from the internal speaker.	O
81	LOW	Transmit output power control. L=High power is selected.	O
85	PTTM	MIC mute switch control. L=Internal MIC mute. H=External microphone is used, or while receiving.	O
86	M5VS	Power supply line "M5V" control. H=While transceiver's power is ON.	O
87-92	DB2-DB7	LCD driver (DS246) control signal.	O
93	WR0	LCD driver (DS246) write mode switch.	O
98	G_HIB	GPS module (CHASSIS: EP1) operating mode switching. L=Standby mode.	O
99	G_WKUP	GPS module (CHASSIS: EP1) status. L=Low power state (Hibemate mode/standby mode). H=Operation mode.	I
103	DSCIN	Decoded DSC signal input.	I
111	G_TXD	GPS data output. (4800 bps)	O
112	G_RXD	GPS data input. (4800 bps)	I
113	CLOTXD	Cloning data.	O
114	DTEST	DSC loop back testing signal.	O
116	CLORXD	Cloning data.	I
117	PON	Power supply line VCC control. L=While transceiver's power is ON.	O
118	T5VS	Power supply line "T5V" control. H=While transmitting.	O
119	TXMS	Transmission mute. H=TX Mute.	O
122	RVS	Power supply line "R3V" control. H=While receiving.	O
123	RINTM	RX AF mute switch control. H=AF mute.	O
124	CD	LCD driver (DS246) mode switching control. L=While sending control data. H=While sending display data.	O
125	CS	LCD driver (DS246) chip select.	O
126	RESETB	LCD driver (DS246) reset signal. L=The LCD driver is reset.	O
132	AFVCTRL	AF circuit power supply voltage control. L=While the internal speaker is used.	O
135	UNLK	PLL (RF UNIT: IC1) unlock detect. L=Unlocked.	I
136	DIMM	LCD brightness control.	O
141	ECK	EEPROM (IC340) serial clock.	O
142	EDATA	EEPROM (IC340) serial data.	I/O

*; Soft key location



• D/A CONVERTER (MAIN UNIT: IC190)

PIN No.	LINE NAME	DESCRIPTION
2	VOL	AF output level adjustment. (RX signal)
3	FCON	Reference frequency adjustment.
11	SQL	Noise squelch level adjustment.
14	MSENS	MIC sensitivity adjustment.
15	T1CON	<ul style="list-style-type: none">• While receiving: Tuned BPF tuning.• While transmitting: TX output power adjustment.

SECTION 5

PARTS LIST

[MAIN UNIT]

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
IC200	1110006470	S.IC LMV324IPWR	B	37.4/11.5
IC220	1180003480	S.REG NJU7772F33-TE1-#ZZZB	B	62.8/32.0
IC260	1130011770	S.IC CD4066BPWR	B	21.9/12.2
IC340	1130016310	S.IC BR24T256FJ-WE2	B	81.4/5.9
IC341	1110007620	S.IC NJU7704F3-42A-TE1-#ZZZB	B	65.8/32.8
IC360	1140016241	S.IC STM32F100ZET6B(FX3338A1) <AMSC>	B	90.8/23.0
IC362	1110006770	S.IC TD8547TS/N<-RYO>	B	54.4/44.8
IC363	1110006470	S.IC LMV324IPWR	B	51.5/11.5
IC364	1130016110	S.IC TC7WH14FK(TE85LF)	T	98.3/8.7
IC365	1110003650	S.IC NJM2211M-TE1-#ZZZB	B	52.0/27.1
IC366	1130009981	S.IC TC7W53FK(TE85LF)	B	55.2/19.7
IC372	1130015820	S.IC SN74AUP1T17DCKR	B	83.9/39.6
IC380	1130009981	S.IC TC7W53FK(TE85LF)	B	29.4/12.1
IC382	1190003240	S.IC LC70301W-UIC-H	B	26.4/26.5
IC383	6910022370	S.DC TP562400DRCR	B	30.6/43.1
IC384	1180003830	S.REG NJU7772F05-TE1-#ZZZB	B	41.3/43.3
Q230	1590003321	S.FET TPC6103(TE85LF)	B	53.7/37.6
Q231	1590003800	S.TRA KTC811U-GR-RTK/P	B	57.8/38.3
Q240	1520000840	S.TRA KTA1664Y-RTF/P	B	73.6/6.7
Q250	1590004070	S.TRA LDTCL44EET1G<SLVJ>	B	9.2/13.1
Q251	1510001100	S.TRA 2SA1832-GR(TE85RF)	B	12.2/16.9
Q350	1530004140	S.TRA L2SC4081RT1G<SLVJ>	T	91.5/9.2
Q354	1590004070	S.TRA LDTCL44EET1G<SLVJ>	T	78.5/11.6
Q361	1510001151	S.TRA L2SA1576AST1G<SLVJ>	T	94.7/8.2
Q370	1590004070	S.TRA LDTCL44EET1G<SLVJ>	B	61.3/37.4
Q371	1590004070	S.TRA LDTCL44EET1G<SLVJ>	B	59.2/42.7
Q380	1590004070	S.TRA LDTCL44EET1G<SLVJ>	B	82.1/41.7
Q382	1530004140	S.TRA L2SC4081RT1G<SLVJ>	B	76.1/10.7
Q400	1590004070	S.TRA LDTCL44EET1G<SLVJ>	B	60.1/46.3
Q401	1590004070	S.TRA LDTCL44EET1G<SLVJ>	B	63.4/37.6
D350	1750001810	S.DIO L1SS400T1G<SLVJ>	T	91.7/7.1
D355	1750001810	S.DIO L1SS400T1G<SLVJ>	B	84.8/6.9
D358	1750001850	S.DIO LDAN222T1G<SLVJ>	T	79.5/13.3
D359	1730002890	S.ZEN DZ2J033MOL	B	77.1/6.8
X200	6060000880	S.CER CSTCE8M19G55	B	17.6/26.0
X360	6050012460	S.XTA CR-834(SMD/49-7.9872 MHz) <JJE>	B	73.9/25.1
L100	6200002861	S.COI NLV25T-4R7J	B	20.1/33.2
L101	6200002861	S.COI NLV25T-4R7J	B	17.6/33.2
L103	6200002861	S.COI NLV25T-4R7J	B	37.7/44.3
L104	6200003281	S.COI NLV25T-2R2J	B	26.8/44.1
L105	6200003281	S.COI NLV25T-2R2J	B	26.9/40.0
R192	7030009280	S.RES ERJ2GEJ 391 X	B	40.1/21.4
R193	7030005000	S.RES ERJ2GEJ 471 X (470)	B	42.6/21.9
R194	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	38.3/21.4
R201	7030007290	S.RES ERJ2GEJ 222 X (2.2K)	B	34.4/16.8
R202	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	35.7/16.8
R203	7030008300	S.RES ERJ2GEJ 184 X (180K)	B	34.7/15.2
R204	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	B	34.1/13.5
R205	7030007280	S.RES ERJ2GEJ 331 X (330)	B	41.7/16.6
R206	7030008290	S.RES ERJ2GEJ 183 X (18K)	B	32.9/13.8
R207	7030007350	S.RES ERJ2GEJ 393 X (39K)	B	33.5/14.7
R212	7030005030	S.RES ERJ2GEJ 152 X (1.5K)	B	34.0/7.8
R213	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	32.4/7.4
R214	7030007340	S.RES ERJ2GEJ 153 X (15K)	B	31.9/6.2
R230	7030005070	S.RES ERJ2GEJ 683 X (68K)	B	58.7/10.1
R235	7030012660	S.RES ERJ2RKF 2203X (220.0K)	B	63.4/28.9
R236	7030012670	S.RES ERJ2RKF 5602X (56.0K)	B	65.4/30.2
R240	7030008280	S.RES ERJ2GEJ 271 X (270)	T	85.2/50.9
R241	7030007290	S.RES ERJ2GEJ 222 X (2.2K)	B	50.7/18.9
R242	7030007290	S.RES ERJ2GEJ 222 X (2.2K)	B	52.6/18.9
R243	7030007290	S.RES ERJ2GEJ 222 X (2.2K)	B	51.0/35.8
R244	7030007290	S.RES ERJ2GEJ 222 X (2.2K)	B	51.7/18.9
R248	7030008280	S.RES ERJ2GEJ 271 X (270)	T	79.2/50.7
R250	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	6.6/16.1
R251	7030008280	S.RES ERJ2GEJ 271 X (270)	B	7.8/16.4
R252	7030005060	S.RES ERJ2GEJ 333 X (33K)	B	6.0/14.0
R253	7030009140	S.RES ERJ2GEJ 272 X (2.7K)	B	42.2/17.8
R255	7030005230	S.RES ERJ2GEJ 334 X (330K)	B	40.1/14.8
R256	7030008290	S.RES ERJ2GEJ 183 X (18K)	B	38.4/16.6
R257	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	B	41.0/13.6
R258	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	B	41.0/12.7
R260	7030005110	S.RES ERJ2GEJ 224 X (220K)	B	37.5/16.6
R261	7030005720	S.RES ERJ2GEJ 563 X (56K)	B	36.6/16.7
R262	7030005240	S.RES ERJ2GEJ 473 X (4.7K)	B	39.9/17.3
R270	7030007290	S.RES ERJ2GEJ 222 X (2.2K)	B	7.6/14.9
R271	7030011650	S.RES ERJ2GEJ 243X (24K)	B	45.2/15.4
R272	7030005310	S.RES ERJ2GEJ 124 X (120K)	B	47.6/14.4
R273	7030005220	S.RES ERJ2GEJ 223 X (22K)	B	47.6/15.3
R277	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	50.8/16.2
R278	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	48.0/13.5
R279	7030005030	S.RES ERJ2GEJ 152 X (1.5K)	B	46.8/13.1
R286	7030005210	S.RES ERJ2GEJ 822 X (8.2K)	B	46.8/11.5
R289	7030007570	S.RES ERJ2GEJ 122 X (1.2K)	B	62.1/42.9
R300	7030005290	S.RES ERJ2GEJ 682 X (6.8K)	B	32.7/11.0
R340	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	83.6/10.5
R341	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	82.7/10.5

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REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
R343	7030005050	S.RES ERJ2GEJ 102 X (10K)	B	65.6/35.6
R351	7030005120	S.RES ERJ2GEJ 103 X (1K)	T	93.2/6.2
R352	7030005120	S.RES ERJ2GEJ 102 X (1K)	T	94.8/6.2
R353	7030005240	S.RES ERJ2GEJ 473 X (47K)	T	96.4/10.6
R361	7410001130	S.ARR EXB28V102JX	B	92.3/36.7
R376	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	32.2/15.0
R377	7030005080	S.RES ERJ2GEJ 823 X (82K)	B	33.2/12.6
R378	7030005080	S.RES ERJ2GEJ 823 X (82K)	B	33.9/10.5
R379	7030005080	S.RES ERJ2GEJ 823 X (82K)	B	33.9/9.6
R387	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	11.9/18.6
R388	7030005170	S.RES ERJ2GEJ 474 X (470K)	B	27.2/14.6
R391	7030005240	S.RES ERJ2GEJ 473 X (47K)	B	35.3/6.8
R395	7030005090	S.RES ERJ2GEJ 104 X (100K)	T	98.0/11.0
R412	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	40.0/6.3
R413	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	39.2/7.2
R414	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	37.2/5.9
R415	7030005240	S.RES ERJ2GEJ 473 X (47K)	B	40.8/7.2
R430	7030005160	S.RES ERJ2GEJ 105 X (1M)	B	55.9/36.6
R431	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	55.9/38.7
R449	7030005240	S.RES ERJ2GEJ 473 X (47K)	T	95.0/10.1
R450	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	B	60.0/39.0
R451	7030005600	S.RES ERJ2GEJ 273 X (27K)	B	57.2/36.5
R452	7030005080	S.RES ERJ2GEJ 823 X (82K)	B	59.8/37.7
R458	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	B	48.8/8.0
R459	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	B	47.9/8.0
R460	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	50.0/6.8
R500	7030004970	S.RES ERJ2GEJ 470 X (47)	B	57.2/22.4
R501	7030005170	S.RES ERJ2GEJ 474 X (470K)	B	52.8/22.6
R503	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	49.1/31.6
R504	7030007350	S.RES ERJ2GEJ 393 X (39K)	B	51.9/31.6
R505	7030012740	S.RES ERJ2RHD 1602X (16.0K)	B	53.1/32.0
R506	7030008400	S.RES ERJ2GEJ 182 X (1.8K)	B	51.9/32.5
R510	7030005220	S.RES ERJ2GEJ 223 X (22K)	B	58.9/36.5
R511	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	48.6/46.7
R512	7030005220	S.RES ERJ2GEJ 223 X (22K)	B	49.9/46.3
R513	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	49.0/45.5
R514	7030005210	S.RES ERJ2GEJ 822 X (8.2K)	B	48.2/43.7
R515	7030006610	S.RES ERJ2GEJ 394 X (390K)	B	49.7/43.2
R516	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	49.4/44.3
R517	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	59.0/44.3
R518	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	61.6/44.7
R519	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	60.9/43.5
R520	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	61.6/45.9
R531	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	84.2/41.5
R550	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	55.2/9.7
R551	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	54.8/8.5
R552	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	54.8/11.0
R553	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	B	56.0/8.0
R554	7030011650	S.RES ERJ2GEJ 243X (24K)	B	55.5/13.1
R555	7030005310	S.RES ERJ2GEJ 124 X (120K)	B	55.9/13.6
R556	7030005220	S.RES ERJ2GEJ 223 X (22K)	B	55.9/14.4
R557	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	52.2/16.2
R558	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	55.9/16.2
R559	7030005030	S.RES ERJ2GEJ 152 X (1.5K)	B	54.6/16.6
R570	7030005010	S.RES ERJ2GEJ 681 X (680)	B	18.8/21.9
R571	7030005000	S.RES ERJ2GEJ 471 X (470)	B	19.2/25.6
R572	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	33.5/27.2
R600	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	94.6/36.0
R601	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	96.5/35.1
R605	7410001140	S.ARR EXB28V104JX	T	86.2/30.3
R606	7030012350	S.RES ERJ2GEJ 335 X (3.3M)	T	87.5/23.2
R609	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	30.7/19.4
R610	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	29.0/19.4
R618	7030008280	S.RES ERJ2GEJ 271 X (270)	T	96.8/50.9
R620	7030005310	S.RES ERJ2GEJ 124 X (120K)	B	33.7/44.4
R621	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	33.7/45.3
R622	7030005310	S.RES ERJ2GEJ 124 X (120K)	B	31.9/39.6
R623	7030003880	S.RES ERJ3GEYJ 244 V (240K)	B	33.5/40.8
R624	7030009320	S.RES ERJ2GEJ 477 X (4.7)	B	74.7/3.7
R625	7030005110	S.RES ERJ2GEJ 224 X (220K)	B	78.4/10.5
R626	7030004990	S.RES ERJ2GEJ 221 X (220)	B	77.2/8.9
R627	7030003860	S.RES ERJ3GE JPW V	B	69.8/7.0
R628	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	85.5/10.7
R629	7030007290	S.RES ERJ2GEJ 222 X (2.2K)	B	49.0/35.8
R630	7030007290	S.RES ERJ2GEJ 222 X (2.2K)	B	50.0/35.8
R631	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	33.8/24.2
R632	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	33.8/23.2
R633	7030005530	S.RES ERJ2GEJ 100 X (10)	B	48.1/42.4
R634	7030007340	S.RES ERJ2GEJ 153 X (15K)	B	10.6/17.3
R635	7030007290	S.RES ERJ2GEJ 222 X (2.2K)	B	10.6/15.7
R636	7030005160	S.RES ERJ2GEJ 105 X (1M)	B	58.6/46.2
R637	7030007250	S.RES ERJ2GEJ 220 X (22)	B	77.9/45.1
R638	7030010670	S.RES ERJ2GEJ 379X (3.9)	B	77.4/46.4
R639	7030008280	S.RES ERJ2GEJ 271 X (270)	T	91.1/50.9
R640	7030010040	S.RES ERJ2GEJ-JPW	T	85.0/35.2
	7030005090	S.RES ERJ2GEJ 104 X (100K)	[USA]	
	7030008010	S.RES ERJ2GEJ 123 X (12K)	[EUR]	
	7030009290	S.RES ERJ2GEJ 562 X (5.6K)	[UK]	
	7030005060	S.RES ERJ2GEJ 333 X (33K)	[FRG]	
	7030009710	S.RES ERJ2GEJ 203 X (20K)	[HOL]	
	7030005720	S.RES ERJ2GEJ 563 X (56K)	[AUS]	
	7030005600	S.RES ERJ2GEJ 273 X (27K)	[EXP]	
R641	7030005600	S.RES ERJ2GEJ 273 X (27K)	[CHN]	83.1/34.8
	7030005600	S.RES ERJ2GEJ 273 X (27K)	[EUR]	
	7030005600	S.RES ERJ2GEJ 273 X (27K)	[UK]	
	7030005600	S.RES ERJ2GEJ 2		

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REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
C191	4030016790	S.CER C1005 JB 1E 103K-T	B	7.8/18.0
C192	4030019560	S.CER GRM21BB31C106KE15L	B	39.0/20.0
C193	4030016790	S.CER C1005 JB 1E 103K-T	B	43.5/21.0
C194	4030016790	S.CER C1005 JB 1E 103K-T	B	41.8/32.3
C200	4030016790	S.CER C1005 JB 1E 103K-T	B	40.9/11.1
C202	4030016930	S.CER C1005 JB 1A 104K-T	B	32.3/12.6
C205	4030016960	S.CER C1005 JB 1E 183K-T	[USA]	34.0/6.9
	4030016960	S.CER C1005 JB 1E 183K-T	[EXP]	
	4030016790	S.CER C1005 JB 1E 103K-T	[CHN]	
	4030016790	S.CER C1005 JB 1E 103K-T	[EUR]	
	4030016790	S.CER C1005 JB 1E 103K-T	[UK]	
	4030016790	S.CER C1005 JB 1E 103K-T	[FRG]	
	4030016790	S.CER C1005 JB 1E 103K-T	[HOL]	
	4030016960	S.CER C1005 JB 1E 183K-T	[AUS]	
C206	4030017460	S.CER C1005 JB 1H 102K-T	B	32.8/6.2
C207	4030016930	S.CER C1005 JB 1A 104K-T	B	30.9/6.7
C227	4030018860	S.CER C1005 JB 0J 105K-T	B	63.4/35.0
C228	4030017460	S.CER C1005 JB 1H 102K-T	B	63.4/34.1
C229	4030017460	S.CER C1005 JB 1H 102K-T	B	61.7/29.8
C230	4030016930	S.CER C1005 JB 1A 104K-T	B	61.7/28.9
C232	4030018890	S.CER C1005 JB 0J 224K-T	B	57.5/40.4
C251	4030019560	S.CER GRM21BB31C106KE15L	B	9.2/17.2
C252	4030017460	S.CER C1005 JB 1H 102K-T	B	6.0/14.9
C254	4030018890	S.CER C1005 JB 0J 224K-T	B	42.6/16.6
C260	4030018910	S.CER C1608 JB 0J 475K-T	B	39.1/18.4
C262	4030016790	S.CER C1005 JB 1E 103K-T	B	26.7/10.3
C264	4030018920	S.CER C1005 JB 1H 392K-T	B	46.4/14.9
C265	4030017710	S.CER C1005 CH 1H 181J-T	B	48.8/14.9
C266	4030017030	S.CER C1005 JB 1A 273K-T	B	48.0/12.6
C282	4030019560	S.CER GRM21BB31C106KE15L	B	51.8/40.4
C283	4030016930	S.CER C1005 JB 1A 104K-T	B	53.9/40.5
C285	4030016930	S.CER C1005 JB 1A 104K-T	B	48.0/11.7
C286	4510009530	S.ELE 10 CE 150 BSS	B	67.9/44.9
C340	4030016790	S.CER C1005 JB 1E 103K-T	B	84.6/9.2
C341	4030017030	S.CER C1005 JB 1A 273K-T	B	65.2/34.7
C351	4030016790	S.CER C1005 JB 1E 103K-T	T	97.2/37.0
C361	4030016950	S.CER C1005 JB 1A 473K-T	B	78.2/28.9
C363	4030016950	S.CER C1005 JB 1A 473K-T	B	86.6/37.4
C364	4030016950	S.CER C1005 JB 1A 473K-T	B	86.6/36.2
C365	4030016950	S.CER C1005 JB 1A 473K-T	B	78.2/27.1
C366	4030016950	S.CER C1005 JB 1A 473K-T	B	78.2/26.2
C370	4030017410	S.CER C1005 CH 1H 240J-T	B	77.0/23.6
C371	4030017410	S.CER C1005 CH 1H 240J-T	B	77.0/25.2
C377	4030017740	S.CER C1005 JB 1H 821K-T	B	33.9/11.4
C378	4030017780	S.CER C1005 JB 1H 472K-T	B	34.0/8.7
C379	4030017420	S.CER C1005 CH 1H 470J-T	B	37.0/7.2
C382	4030018860	S.CER C1005 JB 0J 105K-T	B	9.5/14.6
C383	4030018860	S.CER C1005 JB 0J 105K-T	B	13.2/15.3
C384	4030016930	S.CER C1005 JB 1A 104K-T	B	12.8/18.6
C385	4030016790	S.CER C1005 JB 1E 103K-T	B	33.5/16.5
C387	4030017460	S.CER C1005 JB 1H 102K-T	B	87.8/36.5
C393	4030016950	S.CER C1005 JB 1A 473K-T	B	78.2/28.0
C400	4030018860	S.CER C1005 JB 0J 105K-T	B	41.2/5.9
C404	4030016790	S.CER C1005 JB 1E 103K-T	B	40.5/16.4
C433	4030016930	S.CER C1005 JB 1A 104K-T	B	51.8/6.8
C435	4030018890	S.CER C1005 JB 0J 224K-T	B	85.2/5.2
C440	4030016930	S.CER C1005 JB 1A 104K-T	B	50.9/6.8
C468	4030018910	S.CER C1608 JB 0J 475K-T	B	61.7/40.2
C500	4030016790	S.CER C1005 JB 1E 103K-T	B	54.7/22.6
C501	4340000310	S.MYL ECHU 1C 333JX5	B	56.0/32.2
C502	4030016930	S.CER C1005 JB 1A 104K-T	B	50.6/32.0
C503	4030017760	S.CER C1005 JB 1H 222K-T	B	48.6/32.8
C504	4030016790	S.CER C1005 JB 1E 103K-T	B	49.5/32.8
C505	4030018890	S.CER C1005 JB 0J 224K-T	B	52.8/21.7
C506	4030016930	S.CER C1005 JB 1A 104K-T	B	56.8/23.6
C507	4030017760	S.CER C1005 JB 1H 222K-T	B	57.7/23.6
C511	4030018860	S.CER C1005 JB 0J 105K-T	B	47.7/47.6
C512	4030018890	S.CER C1005 JB 0J 224K-T	B	47.7/44.9
C514	4030018860	S.CER C1005 JB 0J 105K-T	B	62.5/45.9
C515	4030018860	S.CER C1005 JB 0J 105K-T	B	63.0/41.9
C524	4030019550	S.CER C1608 JB 1E 334K-T	T	86.4/21.7
C525	4550007750	S.TAN TEESVA 1V 225M8R	B	106.3/24.2
Eqv.	4550008330	S.TAN F931V225MAA		
C526	4550007750	S.TAN TEESVA 1V 225M8R	B	104.6/28.1
Eqv.	4550008330	S.TAN F931V225MAA		
C545	4030016930	S.CER C1005 JB 1A 104K-T	B	85.7/40.1
C550	4030018860	S.CER C1005 JB 0J 105K-T	B	56.4/10.6
C551	4030016930	S.CER C1005 JB 1A 104K-T	B	56.4/12.2
C552	4030018240	S.CER C1005 JB 1H 562K-T	B	56.7/13.5
C553	4030017430	S.CER C1005 CH 1H 101J-T	B	54.7/14.9
C554	4030017030	S.CER C1005 JB 1A 273K-T	B	56.5/17.1
C560	4030016930	S.CER C1005 JB 1A 104K-T	B	20.1/21.6
C561	4030017770	S.CER C1005 JB 1H 332K-T	B	19.3/23.2
C562	4030017040	S.CER C1005 JB 1A 333K-T	B	18.4/23.2
C563	4030016930	S.CER C1005 JB 1A 104K-T	B	17.2/23.6
C564	4030016930	S.CER C1005 JB 1A 104K-T	B	19.3/28.8
C565	4030016930	S.CER C1005 JB 1A 104K-T	B	18.4/29.4
C566	4030016930	S.CER C1005 JB 1A 104K-T	B	25.5/33.6
C567	4030016930	S.CER C1005 JB 1A 104K-T	B	26.7/34.0
C568	4030016930	S.CER C1005 JB 1A 104K-T	B	28.4/34.0
C569	4030019560	S.CER GRM21BB31C106KE15L	B	30.5/34.0
C570	4030016930	S.CER C1005 JB 1A 104K-T	B	33.9/28.4
C571	4030016930	S.CER C1005 JB 1A 104K-T	B	34.4/27.2
C572	4030016930	S.CER C1005 JB 1A 104K-T	B	33.5/25.4
C573	4030016930	S.CER C1005 JB 1A 104K-T	B	26.4/19.4
C574	4030016930	S.CER C1005 JB 1A 104K-T	B	24.2/19.4
C577	4030016930	S.CER C1005 JB 1A 104K-T	B	33.5/29.8
C600	4550007480	S.TAN F930J106MAABMA	B	96.7/9.2
C601	4030016930	S.CER C1005 JB 1A 104K-T	B	80.5/11.2
C602	4030016930	S.CER C1005 JB 1A 104K-T	B	82.9/35.1
C603	4030016930	S.CER C1005 JB 1A 104K-T	B	85.0/35.7
C604	4030016930	S.CER C1005 JB 1A 104K-T	B	89.7/35.2
C605	4030016930	S.CER C1005 JB 1A 104K-T	B	94.2/35.1
C606	4030016930	S.CER C1005 JB 1A 104K-T	B	99.6/35.5
C607	4030016930	S.CER C1005 JB 1A 104K-T	B	102.9/13.8

Eqv.= This component is equivalent to the REF No. component listed above, and may be substituted on parts orders and repairs.

[MAIN UNIT]

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
C608	4030016930	S.CER C1005 JB 1A 104K-T	B	102.9/20.8
C609	4030016930	S.CER C1005 JB 1A 104K-T	B	103.0/26.6
C610	4030016930	S.CER C1005 JB 1A 104K-T	B	94.0/10.9
C611	4030016930	S.CER C1005 JB 1A 104K-T	B	88.6/10.9
C612	4030016930	S.CER C1005 JB 1A 104K-T	B	78.7/21.8
C615	4030019560	S.CER GRM21BB31C106KE15L	B	36.9/41.4
C616	4030019560	S.CER GRM21BB31C106KE15L	B	30.9/46.7
C617	4030018860	S.CER C1005 JB 0J 105K-T	B	23.8/43.3
C618	4030019560	S.CER GRM21BB31C106KE15L	B	29.8/39.6
C619	4030018860	S.CER C1005 JB 0J 105K-T	B	24.6/42.1
C620	4030017460	S.CER C1005 JB 1H 102K-T	B	42.0/41.1
C621	4030016930	S.CER C1005 JB 1A 104K-T	B	38.8/42.2
C622	4030019560	S.CER GRM21BB31C106KE15L	B	35.1/41.4
C623	4030017660	S.CER C1005 CH 1H 330J-T	B	33.7/46.2
C624	4030017460	S.CER C1005 JB 1H 102K-T	B	76.8/3.7
C625	4030016930	S.CER C1005 JB 1A 104K-T	B	78.4/11.4
C630	4030016950	S.CER C1005 JB 1A 473K-T	B	47.4/41.2
C631	4030016930	S.CER C1005 JB 1A 104K-T	B	56.6/40.4
C632	4030018860	S.CER C1005 JB 0J 105K-T	B	26.5/12.0
C633	4030016930	S.CER C1005 JB 1A 104K-T	B	47.7/45.8
C634	4510009530	S.ELE 10 CE 150 BSS	B	81.9/47.9
C650	4030017620	S.CER C1005 CH 1H 100C-T	[CHN]	39.3/16.1
	4030017620	S.CER C1005 CH 1H 100C-T	[EUR]	
	4030017620	S.CER C1005 CH 1H 100C-T	[UK]	
	4030017620	S.CER C1005 CH 1H 100C-T	[FRG]	
	4030017620	S.CER C1005 CH 1H 100C-T	[HOL]	
C651	4030017430	S.CER C1005 CH 1H 101J-T	[CHN]	B 38.4/6.3
	4030017430	S.CER C1005 CH 1H 101J-T	[EUR]	
	4030017430	S.CER C1005 CH 1H 101J-T	[UK]	
	4030017430	S.CER C1005 CH 1H 101J-T	[FRG]	
	4030017430	S.CER C1005 CH 1H 101J-T	[HOL]	
J260	6510028220	S.CON AYF532265	T	90.4/26.7
J271	6510025142	S.CON 10FLT-SM2-TB(LF)(SN)(M)	B	79.4/38.2
J280	6510024241	S.CON 04-6274-036-000-800	B	66.2/17.2
J290	6510022692	S.CON 06FLT-SM2-TB(LF)(SN)(M)	B	88.8/7.2
DS240	5040003060	S.LED SML-512WWT86	T	80.8/51.9
DS241	5040003060	S.LED SML-512WWT86	T	86.9/51.9
DS242	5040003510	S.LED LNJ426W83RA	T	62.0/15.0
DS243	5040003510	S.LED LNJ426W83RA	T	62.0/38.4
DS244	5040003510	S.LED LNJ426W83RA	T	39.6/18.7
DS245	5040003510	S.LED LNJ426W83RA	T	50.6/18.7
DS246	5030003540	LCD 8803L22022 <SKD>	T	
DS247	5040003060	S.LED SML-512WWT86	T	98.5/51.9
DS248	5040003510	S.LED LNJ426W83RA	T	39.6/34.7
DS249	5040003510	S.LED LNJ426W83RA	T	50.6/34.7
DS250	5040003060	S.LED SML-512WWT86	T	92.8/51.9
MC250	7700002710	MIC EM6027P-46C33-G <HOR>		
EP11	6910021630	S.BEA BLM18RK102SN1D	B	25.0/40.4
EP12	6910021630	S.BEA BLM18RK102SN1D	B	24.9/44.3
EP360	6910022780	E.O GB-E 3394 (P0.1*8.4L*3.4H*2W)		

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

[RF UNIT]

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
IC1	1130016080	S.IC GP214D <SEI>	B	11.5/33.3
IC2	1180003480	S.REG NJU772F33-TE1-#ZZZB	B	16.4/34.1
IC50	1120002830	S.IC NJM2125F-TE1-#FZZB	B	36.1/20.2
IC170	1110007320	S.IC NJM2591V-TE1-#ZZZB	B	21.4/11.4
Q3	1560000541	S.FET 2SK880-Y(T5RICOMF)	B	8.6/42.8
Q20	1590004070	S.TRA LDT144EET1G <SLVJ>	T	16.3/39.4
Q21	1530004011	S.TRA KTC3770U-C-RTK/P	[USA] T	20.6/40.4
	1530004011	S.TRA KTC3770U-C-RTK/P	[EXP]	
	1530002921	S.TRA 2SC4226-T1 Y25 (R25)	[CHN]	
	1530002921	S.TRA 2SC4226-T1 Y25 (R25)	[EUR]	
	1530002921	S.TRA 2SC4226-T1 Y25 (R25)	[UK]	
	1530002921	S.TRA 2SC4226-T1 Y25 (R25)	[FRG]	
	1530002921	S.TRA 2SC4226-T1 Y25 (R25)	[HOL]	
	1530004011	S.TRA KTC3770U-C-RTK/P	[AUS]	
Q22	1530004011	S.TRA KTC3770U-C-RTK/P	[USA] T	23.4/43.8
	1530004011	S.TRA KTC3770U-C-RTK/P	[EXP]	
	1530002921	S.TRA 2SC4226-T1 Y25 (R25)	[CHN]	
	1530002921	S.TRA 2SC4226-T1 Y25 (R25)	[EUR]	
	1530002921	S.TRA 2SC4226-T1 Y25 (R25)	[UK]	
	1530002921	S.TRA 2SC4226-T1 Y25 (R25)	[FRG]	
	1530002921	S.TRA 2SC4226-T1 Y25 (R25)	[HOL]	
	1530004011	S.TRA KTC3770U-C-RTK/P	[AUS]	
Q23	1530002381	S.TRA 2SC4215-Y(TE85LF)	T	19.0/35.0
Q24	1530002381	S.TRA 2SC4215-Y(TE85LF)	T	23.0/33.2
Q25	1530002381	S.TRA 2SC4215-Y(TE85LF)	T	14.7/33.1
Q50	1530004011	S.TRA KTC3770U-C-RTK/P	T	32.1/41.5
Q53	1560001550	S.FET RD01MUS2-T113	T	37.8/42.1
Q54	1560001700	S.FET RD07MUS2B-T112	T	43.7/36.0
Q90	1580000751	S.FET 3SK294(TE85LF)	T	35.0/22.0
Q150	1580000731	S.FET 3SK293(TE85LF)	T	32.3/33.2
Q151	1530003890	S.TRA KTC3880S-Y-RTK/P	B	18.1/20.0
Q221	1510001151	S.TRA L2SA1576AST1G <SLVJ>	B	28.9/23.1
Q222	1510001151	S.TRA L2SA1576AST1G <SLVJ>	B	28.9/20.6
Q224	1590003800	S.TRA KTC811U-GR-RTK/P	B	10.1/10.9
Q225	1520000840	S.TRA KTA1664Y-RTF/P	B	8.9/15.9
Q353	1550000090	S.FET RSQ035P03TR	B	8.3/25.7
Q357	1590004070	S.TRA LDT144EET1G <SLVJ>	B	32.5/15.6
Q363	1590004070	S.TRA LDT144EET1G <SLVJ>	B	12.5/9.8
Q364	1590004070	S.TRA LDT144EET1G <SLVJ>	B	24.4/19.8
Q365	1590004070	S.TRA LDT144EET1G <SLVJ>	B	24.3/22.4
Q366	1590004070	S.TRA LDT144EET1G <SLVJ>	B	40.5/21.8
Q390	1550000170	S.FET 2SJ347(TE85LF)	B	8.8/21.9
Q391	1590004230	S.TRA LMUN5213DW1T1G <SLVJ>	B	11.3/21.3
Q392	1590004050	S.TRA LDTA144EET1G <SLVJ>	B	38.0/23.9
D1	1750000771	S.VAR HVC376BTRF-E	B	8.2/36.8
D3	1750001810	S.DIO L1SS400T1G <SLVJ>	B	11.6/27.9
D20	1750001700	S.DIO HSC277TRF-E	T	13.8/40.9
D21	1750001700	S.DIO HSC277TRF-E	T	14.0/38.9
D22	1750001780	S.VAR HVB350BYPTL-E	T	19.8/43.9
D50	1750001910	S.DIO HVD144AKRF-E	T	27.4/39.2
D51	1750001910	S.DIO HVD144AKRF-E	T	28.9/36.9
D52	1750000581	S.DIO 1SV307(TPH3F)	T	43.3/20.7
D90	1750001910	S.DIO HVD144AKRF-E	T	38.1/14.2
D91	1790001670	S.DIO RB706F-40T106	T	39.7/24.9
D92	1750002300	S.VAR KDV214EA-RTK/P	T	31.7/14.6
D93	1750002300	S.VAR KDV214EA-RTK/P	T	31.7/16.8
D130	1750002300	S.VAR KDV214EA-RTK/P	T	33.5/26.2
D131	1750002300	S.VAR KDV214EA-RTK/P	T	33.5/28.4
D353	1750002170	S.DIO DB2S31400L	T	38.0/13.0
D354	1790001860	S.VAR EZJZ0V80010	B	36.6/35.5
FI150	2030000350	MON 21R15AB (FL-368)		
FI151	2030000481	MON 21R15AB (FL-399A)		
FI170	2020002410	CER LTM450FW <JJE>		
X1	6050013300	S.XTA CR-921(SX-53S 21.25 MHz) <SKD>	T	5.8/35.3
X170	6070000310	S.DIS JTBM450CX70 <JJE>	T	23.4/8.3
L1	6200009141	S.COI NLV25T-6R8J	T	23.3/16.6
L20	6200011021	S.COI ELJRF 82NJFB	T	12.0/33.3
L21	6200003711	S.COI NLV25T-2RTJ	T	12.6/44.1
L22	6200011410	S.COI C2520C-82NG-A	T	16.9/42.8
L23	6200011031	S.COI ELJRF R10JFB	T	20.9/35.6
L24	6200011031	S.COI ELJRF R10JFB	T	20.9/33.8
L25	6200011031	S.COI ELJRF R10JFB	T	14.5/35.0
L26	6200007001	S.COI ELJRE 82NGFA	T	32.4/37.0
L50	6200011031	S.COI ELJRF R10JFB	T	30.8/39.9
L51	6200011021	S.COI ELJRF 82NJFB	T	34.6/39.8
L53	6200005701	S.COI ELJRE 22NGFA	T	41.4/42.0
L55	6200012750	S.COI 0.20-1.0-7TL 25N <COMO>	T	39.8/32.0
L56	6200012750	S.COI 0.26-1.0-3TL 6.8N <COMO>	T	42.7/31.6
L57	6200012680	S.COI 0.30-1.3-5TL 20N <COMO>	T	43.0/29.1
L58	6200003711	S.COI NLV25T-2RTJ	T	40.8/21.3
L80	6200012470	S.COI 0.30-1.7-7TL 45.3N <COMO>	T	43.2/25.6
L81	6200012770	S.COI 0.26-1.1-7TR 24N <COMO>	T	41.5/14.0
L82	6200012780	S.COI 0.30-1.4-6TL 27.2N <COMO>	T	42.1/10.9
L90	6200012470	S.COI 0.30-1.7-7TL 45.3N <COMO>	T	39.2/17.4
L92	6200007750	S.COI LQW2BHN56N03L	T	35.8/13.1
L93	6200007750	S.COI LQW2BHN56N03L	T	34.9/17.9
L96	6200007750	S.COI LQW2BHN56N03L	T	33.1/24.5
L97	6200007750	S.COI LQW2BHN56N03L	T	35.5/29.9
L98	6200003680	S.COI LQH31MNR82M03L	T	27.7/32.2
R1	7510001661	S.THR NTCG16 4LH 473JT	T	8.2/39.0
R2	7030012480	S.RES ERJ2RKF 1003X (100K)	T	8.3/41.1
R3	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	5.6/36.1

Eqv.= This component is equivalent to the REF No. component listed above, and may be substituted on parts orders and repairs.

[RF UNIT]

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
R4	7030005240	S.RES ERJ2GEJ 473 X (47K)	B	6.7/35.2
R5	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	7.9/32.2
R6	7030005120	S.RES ERJ2GEJ 102 X (1K)	T	12.0/39.6
R7	7030005240	S.RES ERJ2GEJ 473 X (47K)	T	14.9/40.6
R10	7030008370	S.RES ERJ2GEJ 561 X (560)	T	11.4/41.5
R11	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	8.3/40.5
R12	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	9.0/44.7
R13	7030005210	S.RES ERJ2GEJ 822 X (8.2K)	B	9.2/40.5
R20	7030004980	S.RES ERJ2GEJ 101 X (100)	T	13.0/34.8
R22	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	B	12.7/40.0
R23	7030005120	S.RES ERJ2GEJ 102 X (1K)	T	14.8/42.5
R24	7030005090	S.RES ERJ2GEJ 104 X (100K)	T	14.1/37.5
R25	7030005090	S.RES ERJ2GEJ 104 X (100K)	T	13.2/37.5
R26	7030008010	S.RES ERJ2GEJ 123 X (12K)	[USA] T	21.1/38.6
	7030008010	S.RES ERJ2GEJ 123 X (12K)	[EXP]	
	7030005050	S.RES ERJ2GEJ 103 X (10K)	[CHN]	
	7030005050	S.RES ERJ2GEJ 103 X (10K)	[EUR]	
	7030005050	S.RES ERJ2GEJ 103 X (10K)	[UK]	
	7030005050	S.RES ERJ2GEJ 103 X (10K)	[FRG]	
	7030005050	S.RES ERJ2GEJ 103 X (10K)	[HOL]	
	7030008010	S.RES ERJ2GEJ 123 X (12K)	[AUS]	
R27	7030008010	S.RES ERJ2GEJ 123 X (12K)	T	23.7/41.9
R28	7030009160	S.RES ERJ2GEJ 181 X (180)	[USA] T	22.0/42.1
	7030009160	S.RES ERJ2GEJ 181 X (180)	[EXP]	
	7030004990	S.RES ERJ2GEJ 221 X (220)	[CHN]	
	7030004990	S.RES ERJ2GEJ 221 X (220)	[EUR]	
	7030004990	S.RES ERJ2GEJ 221 X (220)	[UK]	
	7030004990	S.RES ERJ2GEJ 221 X (220)	[FRG]	
	7030004990	S.RES ERJ2GEJ 221 X (220)	[HOL]	
R29	7030009160	S.RES ERJ2GEJ 181 X (180)	[USA] T	21.1/37.7
	7030005000	S.RES ERJ2GEJ 471 X (470)	[AUS]	
	7030005000	S.RES ERJ2GEJ 471 X (470)	[EXP]	
	7030005000	S.RES ERJ2GEJ 471 X (470)	[CHN]	
	7030007280	S.RES ERJ2GEJ 331 X (330)	[EUR]	
	7030007280	S.RES ERJ2GEJ 331 X (330)	[UK]	
	7030007280	S.RES ERJ2GEJ 331 X (330)	[FRG]	
	7030007280	S.RES ERJ2GEJ 331 X (330)	[HOL]	
	7030005000	S.RES ERJ2GEJ 471 X (470)	[AUS]	
R30	7030005070	S.RES ERJ2GEJ 683 X (68K)	T	19.3/37.7
R31	7030005010	S.RES ERJ2GEJ 681 X (680)	T	21.1/36.8
R32	7030005000	S.RES ERJ2GEJ 471 X (470)	T	22.1/35.6
R33	7030007350	S.RES ERJ2GEJ 393 X (39K)	T	21.2/32.5
R34	7030005000	S.RES ERJ2GEJ 471 X (470)	T	15.9/34.8
R35	7030005070	S.RES ERJ2GEJ 683 X (68K)	T	16.5/33.2
R36	7030009270	S.RES ERJ2GEJ 821 X (820)	B	26.2/35.7
R47	7030009290	S.RES ERJ2GEJ 562 X (5.6K)	T	19.7/17.9
R50	7030005120	S.RES ERJ2GEJ 102 X (1K)	T	27.6/37.6
R52	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	T	28.3/40.8
R53	7030004980	S.RES ERJ2GEJ 101 X (100)	T	28.7/39.5
R54	7030005530	S.RES ERJ2GEJ 100 X (100)	T	29.6/39.5
R55	7030007300	S.RES ERJ2GEJ 332 X (3.3K)	T	30.0/41.2
R56	7030007570	S.RES ERJ2GEJ 122 X (1.2K)	T	32.9/43.8
R57	7030005570	S.RES ERJ2GEJ 820 X (82)	T	31.0/43.8
R65	7030005100	S.RES ERJ2GEJ 154 X (150K)	B	31.0/17.9
R66	7030005240	S.RES ERJ2GEJ 473 X (47K)	B	33.8/19.3
R67	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	35.1/22.4
R68	7030004980	S.RES ERJ2GEJ 101 X (100)	B	36.7/22.4
R69	7030007340	S.RES ERJ2GEJ 153 X (15K)	B	35.5/41.0
R70	7030007340	S.RES ERJ2GEJ 153 X (15K)	B	36.4/42.6
R71	7030004980	S.RES ERJ2GEJ 101 X (100)	T	34.8/41.1
R72	7030005710	S.RES ERJ2GEJ 121 X (12K)	T	42.6/41.9
R73	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	41.5/37.0
R74	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	42.7/36.7
R75	7030004980	S.RES ERJ2GEJ 101 X (100)	T	43.5/40.2
R76	7030000280	S.RES MCR10EZH150 150 (151)	T	38.3/21.0
R80	7030005080	S.RES ERJ2GEJ 823 X (82K)	T	48.7/17.3
R83	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	37.9/25.8
R91	7030005110	S.RES ERJ2GEJ 224 X (220K)	T	30.0/15.2
R93	7030005050	S.RES ERJ2GEJ 103 X (10K)	T	28.5/16.4
R94	7030005110	S.RES ERJ2GEJ 224 X (220K)	T	30.0/16.8
R95	7030008300	S.RES ERJ2GEJ 184 X (180K)	T	33.0/20.2
R96	7030005700	S.RES ERJ2GEJ 274 X (270K)	T	35.6/20.2
R97	7030004990	S.RES ERJ2GEJ 221 X (220)	T	31.4/22.6
R103	7030005050	S.RES ERJ2GEJ 103 X (10K)	T	33.0/19.3
R104	7030009270	S.RES ERJ2GEJ 821 X (820)	T	36.4/26.5
R105	7030005110	S.RES ERJ2GEJ 224 X (220K)	T	31.8/26.7
R107	7030005110	S.RES ERJ2GEJ 224 X (220K)	T	31.8/29.3
R109	7030005530	S.RES ERJ2GEJ 100 X (10)	T	29.3/30.5
R110	7030008400	S.RES ERJ2GEJ 182 X (1.8K)	T	29.5/33.3
R111	7030005090	S.RES ERJ2GEJ 104 X (100K)	T	32.7/31.4
R113	7030004980	S.RES ERJ2GEJ 101 X (100)	T	30.6/20.0
R115	7030006610	S.RES ERJ2GEJ 394 X (390K)	T	33.1/35.0
R120	7030007290	S.RES ERJ2GEJ 222 X (2.2K)	T	27.6/36.2
R121	7030005700	S.RES ERJ2GEJ 274 X (270K)	T	34.3/35.5
R122	7030005230	S.RES ERJ2GEJ 334 X (330K)	T	34.3/33.3
R152	7030009270	S.RES ERJ2GEJ 821 X (820)	B	30.6/30.6
R153	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	17.0/24.0
R154	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	20.3/19.9
R155	7030007220	S.RES ERJ2GEJ 222 X (2.2K)	B	19.5/16.7
R156	7030005000	S.RES ERJ2GEJ 471 X (470)	B	18.6/17.6
R170	7030009280	S.RES ERJ2GEJ 391 X	B	21.3/16.2
R171	7030007300	S.RES ERJ2GEJ 332 X (3.3K)	T	21.1/13.1
R172	7030005000	S.RES ERJ2GEJ 471 X (470)	B	17.8/17.7
R173	7030005030	S.RES ERJ2GEJ 152 X (1.5K)	B	25.0/14.7
R174	7030005700	S.RES ERJ2GEJ 274 X (270K)	B	23.9/8.1
R175	7030005600	S.RES ERJ2GEJ 273 X (27K)	B	25.1/5.6
R176	7030005120</			

[RF UNIT]

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
R381	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	34.8/24.5
R382	7030005290	S.RES ERJ2GEJ 682 X (6.8K)	B	36.6/25.3
R383	7030008010	S.RES ERJ2GEJ 123 X (12K)	B	35.4/26.1
R397	7030005700	S.RES ERJ2GEJ 274 X (270K)	B	9.1/23.5
R398	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	10.5/24.4
R401	7030005060	S.RES ERJ2GEJ 333 X (33K)	B	32.2/17.7
R465	7030008010	S.RES ERJ2GEJ 123 X (12K)	B	10.8/12.8
R466	7030005220	S.RES ERJ2GEJ 223 X (22K)	B	8.1/11.2
R540	7030005170	S.RES ERJ2GEJ 474 X (470K)	B	7.2/23.2
R541	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	7.2/21.6
R542	7030005120	S.RES ERJ2GEJ 102 X (1K)	T	50.8/28.5
R543	7030005120	S.RES ERJ2GEJ 102 X (1K)	T	50.8/26.3
R544	7030007290	S.RES ERJ2GEJ 222 X (2.2K)	B	36.0/24.2
R545	7030003860	S.RES ERJ3GE JPW V [USA]	B	4.5/26.1
	7030003860	S.RES ERJ3GE JPW V [EXP]		
	7030003860	S.RES ERJ3GE JPW V [AUS]		
R546	7030003860	S.RES ERJ3GE JPW V [USA]	B	5.2/44.9
	7030003860	S.RES ERJ3GE JPW V [EXP]		
	7030003860	S.RES ERJ3GE JPW V [AUS]		
R547	7030000010	S.RES MCR10EZHZ JPW (000) [CHN]	B	36.5/2.6
	7030000010	S.RES MCR10EZHZ JPW (000) [EUR]		
	7030000010	S.RES MCR10EZHZ JPW (000) [UK]		
	7030000010	S.RES MCR10EZHZ JPW (000) [FRG]		
	7030000010	S.RES MCR10EZHZ JPW (000) [HOL]		
C2	4030016790	S.CER C1005 JB 1E 103K-T	B	5.4/37.3
C3	4030017440	S.CER C1005 CH 1H 221J-T	B	7.1/36.4
C4	4030017620	S.CER C1005 CH 1H 100C-T	B	6.6/37.6
C5	4030017670	S.CER C1005 CH 1H 390J-T	B	7.9/31.3
C6	4030017460	S.CER C1005 JB 1H 102K-T	T	12.0/40.5
C7	4030016790	S.CER C1005 JB 1E 103K-T	B	14.0/29.0
C8	4030017350	S.CER C1005 CH 1H 020B-T	T	25.3/17.8
C9	4030017350	S.CER C1005 CH 1H 020B-T	T	25.3/15.6
C11	4550007480	S.TAN F930J106MAABMA	B	12.6/44.1
C12	4030017460	S.CER C1005 JB 1H 102K-T	T	24.9/14.3
C13	4030016930	S.CER C1005 JB 1A 104K-T	B	11.4/40.6
C15	4030017460	S.CER C1005 JB 1H 102K-T	B	8.3/38.9
C18	4030016930	S.CER C1005 JB 1A 104K-T	B	13.0/38.6
C19	4030017690	S.CER C1005 CH 1H 121J-T	B	7.8/34.3
C20	4030017460	S.CER C1005 JB 1H 102K-T	T	11.7/35.4
C21	4030017610	S.CER C1005 CH 1H 090C-T	T	11.7/34.5
C22	4030017610	S.CER C1005 CH 1H 090C-T	T	11.7/32.1
C24	4550000550	S.TAN TEESVA 1V 224M8R	B	14.8/41.8
Eqv.	4550008150	S.TAN F921V224MAA		
C25	4030017460	S.CER C1005 JB 1H 102K-T	T	12.0/42.3
C26	4030018010	S.CER C1005 CH 1H 360J-T	T	14.8/44.1
C27	4030018010	S.CER C1005 CH 1H 360J-T	T	12.0/41.4
C29	4030017460	S.CER C1005 JB 1H 102K-T	T	17.8/39.7
C30	4030017460	S.CER C1005 JB 1H 102K-T	T	11.9/37.1
C31	4030017460	S.CER C1005 JB 1H 102K-T	T	22.7/37.7
C32	4030017550	S.CER C1005 CH 1H 1R5B-T [USA]	T	19.1/41.7
	4030017550	S.CER C1005 CH 1H 1R5B-T [EXP]		
	4030017350	S.CER C1005 CH 1H 020B-T [CHN]		
	4030017350	S.CER C1005 CH 1H 020B-T [EUR]		
	4030017350	S.CER C1005 CH 1H 020B-T [UK]		
	4030017350	S.CER C1005 CH 1H 020B-T [FRG]		
	4030017350	S.CER C1005 CH 1H 020B-T [HOL]		
	4030017550	S.CER C1005 CH 1H 1R5B-T [AUS]		
C33	4030017440	S.CER C1005 CH 1H 221J-T	T	23.0/40.1
C34	4030017550	S.CER C1005 CH 1H 1R5B-T	T	21.6/43.6
C35	4030017460	S.CER C1005 JB 1H 102K-T	T	23.0/41.0
C36	4030017460	S.CER C1005 JB 1H 102K-T	T	18.8/36.8
C37	4030017520	S.CER C1005 CH 1H 0R3B-T [USA]	T	19.3/38.6
	4030017520	S.CER C1005 CH 1H 0R3B-T [EXP]		
	4030017340	S.CER C1005 CH 1H 010B-T [CHN]		
	4030017340	S.CER C1005 CH 1H 010B-T [EUR]		
	4030017340	S.CER C1005 CH 1H 010B-T [UK]		
	4030017340	S.CER C1005 CH 1H 010B-T [FRG]		
	4030017340	S.CER C1005 CH 1H 010B-T [HOL]		
	4030017520	S.CER C1005 CH 1H 0R3B-T [AUS]		
C38	4030017460	S.CER C1005 JB 1H 102K-T	T	20.3/32.5
C39	4030017630	S.CER C1005 CH 1H 120J-T	T	19.4/32.9
C40	4030017640	S.CER C1005 CH 1H 150J-T	T	23.6/35.1
C41	4030017460	S.CER C1005 JB 1H 102K-T	T	17.4/32.9
C42	4030017380	S.CER C1005 CH 1H 050B-T	T	18.4/32.9
C43	4030017400	S.CER C1005 CH 1H 220J-T	T	12.9/32.5
C44	4030017460	S.CER C1005 JB 1H 102K-T	B	16.7/37.4
C50	4030017460	S.CER C1005 JB 1H 102K-T	T	28.7/42.0
C51	4030017400	S.CER C1005 CH 1H 220J-T	T	30.0/42.1
C52	4030017460	S.CER C1005 JB 1H 102K-T	T	30.1/43.4
C53	4030017460	S.CER C1005 JB 1H 102K-T	T	31.9/43.8
C54	4030017640	S.CER C1005 CH 1H 150J-T	T	32.9/39.6
C55	4030017410	S.CER C1005 CH 1H 240J-T	T	33.9/41.1
C56	4030016790	S.CER C1005 JB 1E 103K-T	B	33.9/17.7
C57	4030016930	S.CER C1005 JB 1A 104K-T	B	38.3/19.0
C58	4030016930	S.CER C1005 JB 1A 104K-T	B	35.1/23.3
C59	4030017730	S.CER C1005 JB 1H 471K-T	B	38.7/20.8
C60	4030017460	S.CER C1005 JB 1H 102K-T	B	38.3/22.2
C61	4030019560	S.CER GRM21BB31C106KE15L	T	36.5/36.4
C62	4030017460	S.CER C1005 JB 1H 102K-T [USA]	T	38.9/35.2
	4030017460	S.CER C1005 JB 1H 102K-T [EXP]		
	4030017460	S.CER C1005 JB 1H 102K-T [AUS]		
C63	4030016790	S.CER C1005 JB 1E 103K-T	T	40.1/45.1
C64	4030017460	S.CER C1005 JB 1H 102K-T	B	35.5/42.6
C65	4030017430	S.CER C1005 CH 1H 101J-T	B	41.8/39.8
C66	4030017460	S.CER C1005 JB 1H 102K-T	B	44.5/36.7
C67	4030017730	S.CER C1005 JB 1H 471K-T	T	38.8/34.0
C68	4030017420	S.CER C1005 CH 1H 470J-T	T	39.7/34.0
C69	4030017460	S.CER C1005 JB 1H 102K-T	T	40.1/44.2
C70	4030007110	S.CER C1608 CH 1H 680J-T	T	45.5/31.1
C71	4030007060	S.CER C1608 CH 1H 270J-T	T	46.0/29.7
C72	4030006860	S.CER C1608 JB 1H 102K-T	T	45.5/27.6
C73	4030017460	S.CER C1005 JB 1H 102K-T	T	42.0/23.1
C74	4030017460	S.CER C1005 JB 1H 102K-T	T	45.2/22.7

Eqv.= This component is equivalent to the REF No. component listed above, and may be substituted on parts orders and repairs.

[RF UNIT]

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
C75	4030017400	S.CER C1005 CH 1H 220J-T [CHN]	T	38.9/39.0
	4030017400	S.CER C1005 CH 1H 220J-T [EUR]		
	4030017400	S.CER C1005 CH 1H 220J-T [UK]		
	4030017400	S.CER C1005 CH 1H 220J-T [FRG]		
	4030017400	S.CER C1005 CH 1H 220J-T [HOL]		
C77	4030016930	S.CER C1005 JB 1A 104K-T	B	37.3/42.6
C78	4030016930	S.CER C1005 JB 1A 104K-T	B	43.6/36.7
C80	4030017460	S.CER C1005 JB 1H 102K-T	T	42.4/18.1
C81	4030017390	S.CER C1005 CH 1H 180J-T	T	45.8/25.9
C82	4030017390	S.CER C1005 CH 1H 180J-T	T	45.6/24.1
C83	4030017400	S.CER C1005 CH 1H 220J-T	T	43.7/17.7
C84	4030018120	S.CER C1005 CH 1H 110J-T	T	42.5/16.1
C85	4030017410	S.CER C1005 CH 1H 240J-T	T	43.9/16.4
C86	4030017610	S.CER C1005 CH 1H 090C-T	T	43.4/8.6
C89	4030017590	S.CER C1005 CH 1H 070C-T	T	43.5/13.6
C90	4030017610	S.CER C1005 CH 1H 090C-T	T	43.7/18.6
C91	4030017620	S.CER C1005 CH 1H 100C-T	T	36.5/16.4
C94	4030017380	S.CER C1005 CH 1H 050B-T	T	37.6/11.9
C95	4030017400	S.CER C1005 CH 1H 220J-T	T	31.4/15.7
C96	4030017460	S.CER C1005 JB 1H 102K-T	T	29.1/14.7
C97	4030017350	S.CER C1005 CH 1H 020B-T	T	34.3/13.6
C98	4030017350	S.CER C1005 CH 1H 020B-T	T	33.4/14.3
C99	4030017650	S.CER C1005 CH 1H 270J-T	T	31.4/17.9
C100	4030017360	S.CER C1005 CH 1H 030B-T	T	34.6/16.4
C101	4030017420	S.CER C1005 CH 1H 470J-T	T	34.2/19.7
C102	4030016790	S.CER C1005 JB 1E 103K-T	T	32.3/22.6
C103	4030017420	S.CER C1005 CH 1H 470J-T	T	33.2/22.6
C104	4030016790	S.CER C1005 JB 1E 103K-T	T	31.8/20.4
C109	4030017460	S.CER C1005 JB 1H 102K-T	T	35.3/24.4
C110	4030017660	S.CER C1005 CH 1H 330J-T	T	33.1/27.3
C111	4030017460	S.CER C1005 JB 1H 102K-T	T	30.9/29.3
C112	4030017560	S.CER C1005 CH 1H 2R5B-T	T	35.7/25.6
C113	4030017540	S.CER C1005 CH 1H 7R5B-T	T	35.2/27.0
C114	4030017420	S.CER C1005 CH 1H 470J-T	T	32.7/30.1
C115	4030017370	S.CER C1005 CH 1H 3R5B-T	T	35.6/28.4
C116	4030017360	S.CER C1005 CH 1H 030B-T	T	34.5/31.7
C117	4030017560	S.CER C1005 CH 1H 2R5B-T [USA]	T	33.4/15.9
	4030017560	S.CER C1005 CH 1H 2R5B-T [EXP]		
	4030017550	S.CER C1005 CH 1H 1R5B-T [CHN]		
	4030017550	S.CER C1005 CH 1H 1R5B-T [EUR]		
	4030017550	S.CER C1005 CH 1H 1R5B-T [UK]		
	4030017550	S.CER C1005 CH 1H 1R5B-T [FRG]		
	4030017550	S.CER C1005 CH 1H 1R5B-T [HOL]		
	4030017560	S.CER C1005 CH 1H 2R5B-T [AUS]		
C119	4030017420	S.CER C1005 CH 1H 470J-T	T	29.5/34.2
C120	4030016970	S.CER C1005 JB 1E 223K-T	T	30.5/31.4
C121	4030017460	S.CER C1005 JB 1H 102K-T	T	30.5/30.5
C122	4030016970	S.CER C1005 JB 1E 103K-T	T	30.3/36.2
C125	4030016930	S.CER C1005 JB 1A 104K-T	B	18.6/33.5
C131	4030018120	S.CER C1005 CH 1H 110J-T	T	33.1/35.9
C132	4030018860	S.CER C1005 JB 0J 105K-T	B	14.0/28.1
C133	4030017460	S.CER C1005 JB 1H 102K-T	T	21.3/17.9
C140	4030019560	S.CER GRM21BB31C106KE15L	T	43.2/46.8
C154	4030017460	S.CER C1005 JB 1H 102K-T	B	30.6/32.5
C155	4030017360	S.CER C1005 CH 1H 030B-T	B	23.0/27.1
C156	4030017460	S.CER C1005 JB 1H 102K-T	B	17.0/22.4
C157	4030016970	S.CER C1005 JB 1E 223K-T	B	20.2/18.5
C159	4030016790	S.CER C1005 JB 1E 103K-T	B	18.2/16.0
C160	4030018240	S.CER C1005 JB 1H 562K-T	B	20.4/15.4
C170	4030017460	S.CER C1005 JB 1H 102K-T	B	21.6/15.0
C171	4030017420	S.CER C1005 CH 1H 470J-T	B	17.1/19.9
C174	4030017460	S.CER C1005 JB 1H 102K-T	B	19.0/8.1
C176	4030017460	S.CER C1005 JB 1H 102K-T	B	19.6/7.2
C177	4030016930	S.CER C1005 JB 1A 104K-T	B	23.4/14.7
C179	4030017450	S.CER C1005 JB 1H 271K-T	B	23.9/7.2
C180	4030017450	S.CER C1005 JB 1H 271K-T	B	25.1/7.7
C181	4030016930	S.CER C1005 JB 1A 104K-T	B	22.7/7.7
C182	4030018910	S.CER C1608 JB 0J 475K-T	B	23.9/15.8
C222	4030016790	S.CER C1005 JB 1E 103K-T	B	26.1/23.5
C223	4030016790	S.CER C1005 JB 1E 103K-T	B	25.5/21.1
C224	4030019560	S.CER GRM21BB31C106KE15L	B	8.2/19.9
C225	4030018890	S.CER C1005 JB 0J 224K-T	B	7.1/10.3
C380	4030017460	S.CER C1005 JB 1H 102K-T	B	36.6/26.2
C390	4030017460	S.CER C1005 JB 1H 102K-T [USA]	B	11.7/24.8
	4030017460	S.CER C1005 JB 1H 102K-T [EXP]		
	4030017460	S.CER C1005 JB 1H 102K-T [AUS]		
C391	4030017460	S.CER C1005 JB 1H 102K-T [USA]	B	10.9/25.7
	4030017460	S.CER C1005 JB 1H 102K-T [EXP]		
	4030017460	S.CER C1005 JB 1H 102K-T [AUS]		
C462	4030016930	S.CER C1005 JB 1A 104K-T	B	27.5/13.4
C463	4030016930	S.CER C1005 JB 1A 104K-T	B	28.0/7.7
C464	4030018890	S.CER C1005 JB 0J 224K-T	B	

[RF UNIT]

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
EP2	6910014690	S.BEA MPZ1608S221A-T	T	41.6/45.0
EP3	6910014690	S.BEA MPZ1608S221A-T	T	37.7/33.5
EP4	6910018460	S.BEA MMZ1005Y102C-T	B	41.7/12.5
EP5	6910018460	S.BEA MMZ1005Y102C-T	B	41.5/37.9
EP6	6910014690	S.BEA MPZ1608S221A-T	B	5.8/26.1
	6910014690	S.BEA MPZ1608S221A-T	[CHN]	
	6910014690	S.BEA MPZ1608S221A-T	[EUR]	
	6910014690	S.BEA MPZ1608S221A-T	[UK]	
	6910014690	S.BEA MPZ1608S221A-T	[FRG]	
	6910014690	S.BEA MPZ1608S221A-T	[HOL]	
EP7	6910014690	S.BEA MPZ1608S221A-T	B	6.4/44.2
	6910014690	S.BEA MPZ1608S221A-T	[CHN]	
	6910014690	S.BEA MPZ1608S221A-T	[EUR]	
	6910014690	S.BEA MPZ1608S221A-T	[UK]	
	6910014690	S.BEA MPZ1608S221A-T	[FRG]	
	6910014690	S.BEA MPZ1608S221A-T	[HOL]	

[MIC UNIT]

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
J291	6510021941	CON 246S-550-4P-68(JIS8)		
W1	8900017010	CAB OPC-1744 (P0.5N6L66) <TJM>		

Eqv.= This component is equivalent to the REF No. component listed above, and may be substituted on parts orders and repairs.

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

SECTION 6

MECHANICAL PARTS

[CHASSIS PARTS]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
J31	6910014190	2497 ANT CONNECTOR <EIK>	1
SP1	2510001660	036D0804	1
W1	8900014801	OPC-1573-1 (P0.5N10L50)	1
EP1	6910022640	PGS4ER-CX-412	1
MP1	8210028000	3394 FRONT PANEL ASSEMBLY	1
MP2	8310079610	3394 WINDOW PLATE	[USA] 1
	8310079610	3394 WINDOW PLATE	[EXP] 1
	8310079620	3394 WINDOW PLATE (A)	[CHN] 1
	8310079620	3394 WINDOW PLATE (A)	[EUR] 1
	8310079620	3394 WINDOW PLATE (A)	[UK] 1
	8310079620	3394 WINDOW PLATE (A)	[FRG] 1
	8310079620	3394 WINDOW PLATE (A)	[HOL] 1
	8310079620	3394 WINDOW PLATE (A)	[AUS] 1
MP4	8930068980	2905 VENT SHEET	1
MP5	8930084590	3394 KEYBOARD (A) <SEP>	1
MP6	8930084750	3394 PTT BUTTON (TOT)	1
MP7	8930084580	3394 PTT HOLDER	1
MP8	8610014250	3168 BATT LOCK	1
MP9	8930085710	3394 LOCK PLATE	1
MP14	8850001950	SEALING WASHER (Y) (TOT)	1
MP15	8830003440	3285 ANT NUT	1
MP16	8930084430	3394 MIC CAP	1
MP18	8930084780	3394 MIC SEAL (TOT)	1
MP19	8930084760	3394 WINDOW SHEET	1
MP21	8210027550	3394 REAR PANEL	1
MP22	8930084570	3394 MAIN SEAL (TOT)	1
MP23	8810010850	PHBT B0 M2X8 SUS SSBC	2
MP24	8820001510	3062 SCREW	4
MP25	8930063690	O-RING (BA) (TOP)	4
MP31	8010022320	3394 CHASSIS 2X1	1
MP33	8810009221	PHB0 M2 X 8 NI-ZK3 BT	2
MP34	8930084730	3394 TERMINAL Y1259	2
MP39	8810008641	BT M2 X 4 NI-ZC3	3
MP42	8810008641	BT M2 X 4 NI-ZC3	3
MP48	8930030920	1301 SHEET	1
MP56	8810009221	PHB0 M2 X 8 NI-ZK3 BT	2
MP59	8810008201	PHBT M2.6X 6 NI-ZC3	2
MP60	8930084770	3394 WHITE SHEET	1
MP66	8930084560	3394 DETECTION RUBBER (TOT)	2
MP67	8930070630	O-RING (BK) (TOP)S	1
MP68	8830002780	VR NUT (X)	1
MP70	8930084810	3394 SP HOLDER	1
MP72	8930084740	3394 DISTRESS PLATE	1
MP73	8930084550	3394 DISTRESS BUTTON <SEP>	1
MP75	8110010270	3054 D-COVER (A) ASS.Y	1
MP78	8930084870	3384 REAR SHEET	1
MP79	8930085670	SPONGE (LS)	1
MP80	8930085700	3394 GPS SHEET	1

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
J260*	6510028220	AYF532265	1
J271*	6510025142	10FLT-SM2-TB (LF) (SN) (M)	1
J280*	6510024241	04-6274-036-000-800+	1
J290*	6510022692	06FLT-SM2-TB (LF) (SN) (M)	1
DS246	5030003540	8803L22022 <SKD>	1
MC250	7700002710	EM6027P-46C33-G <HOR>	1
EP360	6910022780	GB-E 3394 (P0.1*8.4L*3.4H*2W)	1
MP360	8210027560	3394 REFLECTOR	1
MP361	8930084800	3394 LCD HOLDER	1
MP362*	8510017600	OG-363050	[CHN] 1
	8510017600	OG-363050	[EUR] 1
	8510017600	OG-363050	[UK] 1
	8510017600	OG-363050	[FRG] 1
	8510017600	OG-363050	[HOL] 1
MP363	8930085680	SPONGE (LT)	1

[RF UNIT]

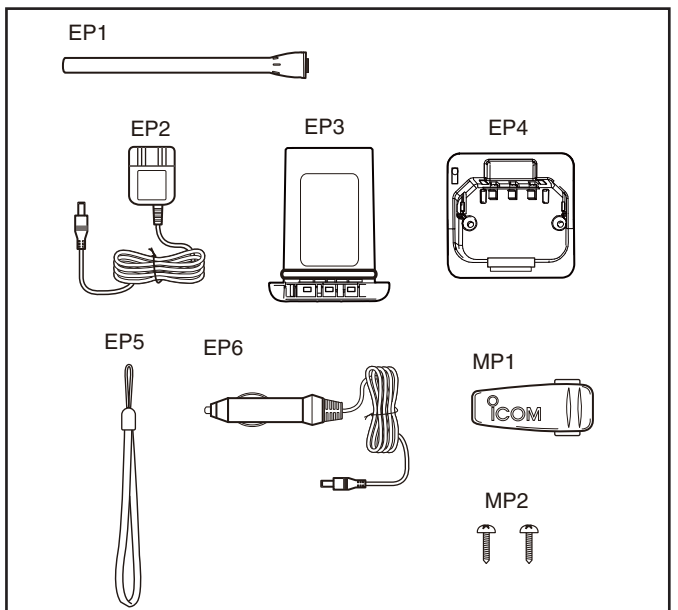
REF NO.	ORDER NO.	DESCRIPTION	QTY.
J280*	6510026130	IIMS-9681S-36Y900	1
S250	2260000980	SKHHLPO14A	1
S251*	2230001110	SKRSPACE010	1
W1	8900016840	OPC-1753 (P0.5N36L70)	1
MP20*	8510016471	2775 VCO CASE-1	1
MP21	8510016461	2775 VCO COVER-1	1
MP22	8930061120	SHIELD SPONGE (AA)	2
MP23*	8510020460	OG-363040G	1
MP24*	6910014760	OG-503040	[CHN] 1
	6910014760	OG-503040	[EUR] 1
	6910014760	OG-503040	[UK] 1
	6910014760	OG-503040	[FRG] 1
	6910014760	OG-503040	[HOL] 1
MP25	8930085690	SPONGE (LU)	1
MP26	8930085980	SHIELD TAPE (Z)	1
MP362	8930083480	THERMAL SHEET (BY)TC200TXS (6X6)	1

[MIC UNIT]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
J291	6510021941	246S-550-4P-68 (JIS8)	1
J292*	6510022692	06FLT-SM2-TB (LF) (SN) (M)	1
W1	8900017010	OPC-1744 (P0.5N6L66)	1

[ACCESSORIES]

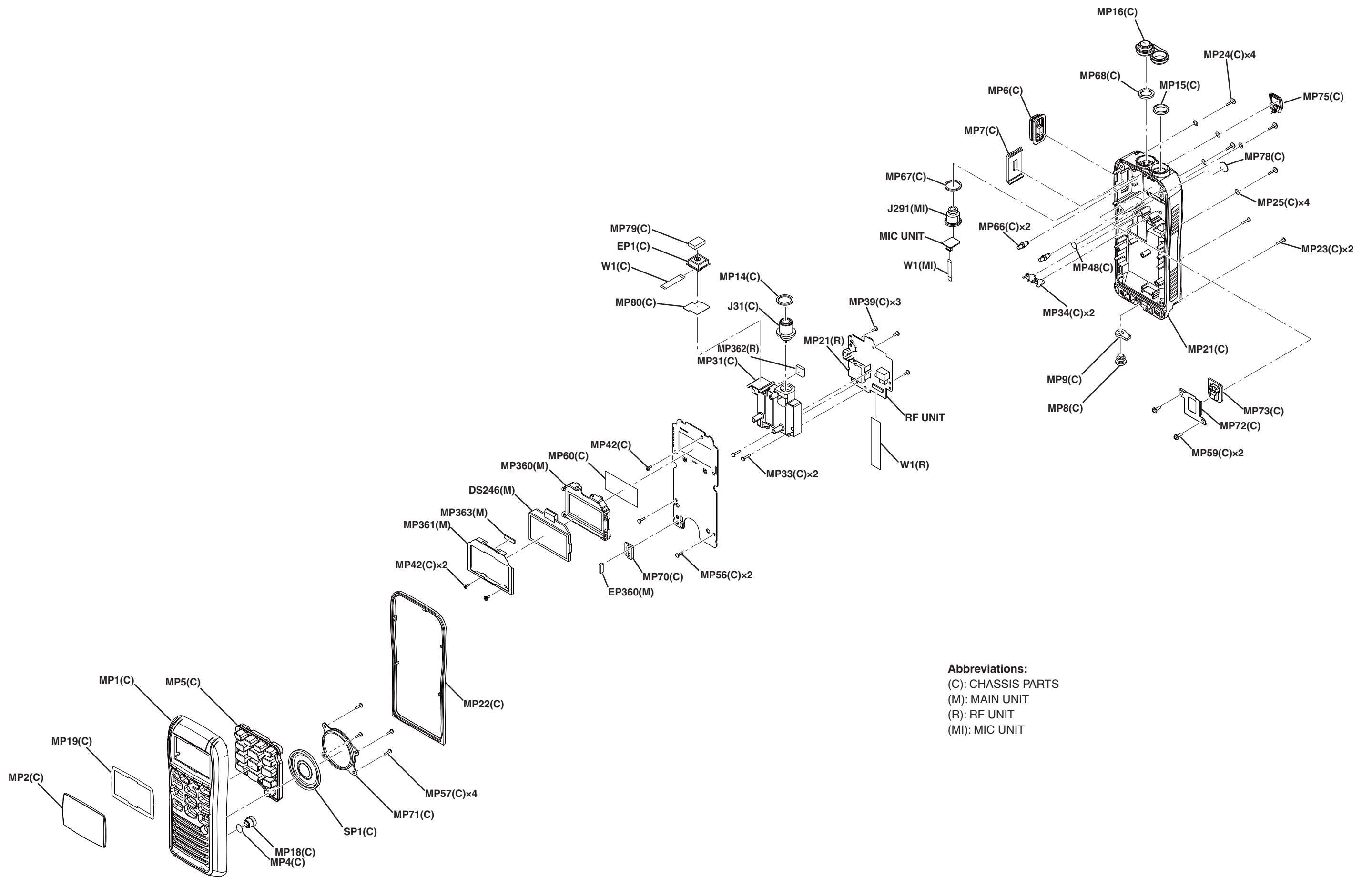
REF NO.	ORDER NO.	DESCRIPTION	QTY.
EP1	(Optional)	FA-SC59V	1
EP2	(Optional)	BC-147SA	[USA] 1
	(Optional)	BC-147SE	[EXP] 1
	(Optional)	BC-147SE	[CHN] 1
	(Optional)	BC-147SE	[EUR] 1
	(Optional)	BC-147SE	[FRG] 1
	(Optional)	BC-147SE	[HOL] 1
	(Optional)	BC-147SV	[AUS] 1
EP3	(Optional)	EX-3395	1
EP4	(Optional)	BC-204	1
EP5	6910018620	BLACK HANDY STRAP <TOM>	1
EP6	(Optional)	CP-25 <TDS>	[USA] 1
	(Optional)	CP-25 <TDS>	[EXP] 1
	(Optional)	CP-25 <TDS>	[CHN] 1
MP1	(Optional)	MB-109	1
MP2	8810001460	PHA M3.5X20 SUS	2



*: Refer to "BOARD LAYOUTS" for the location.

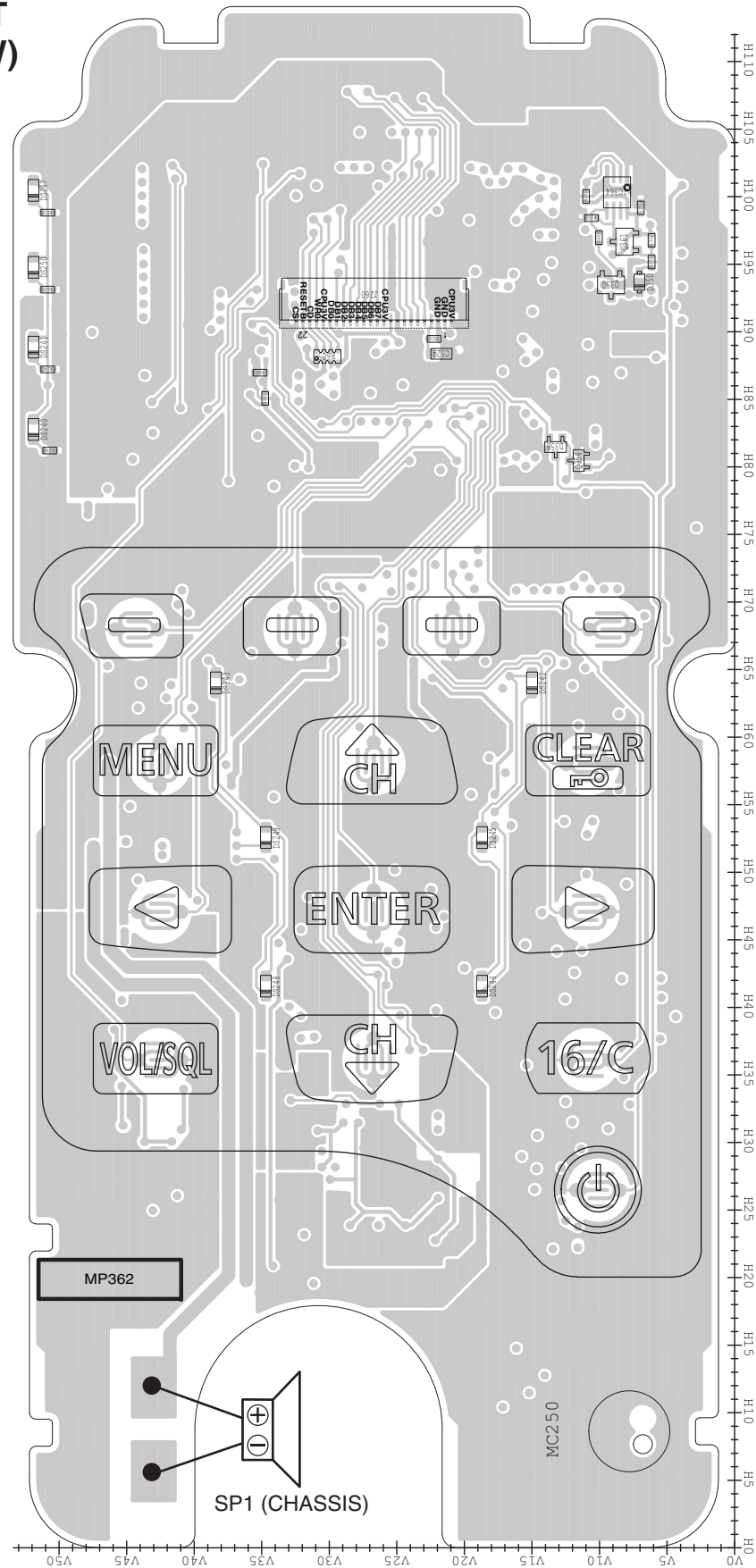
** : Refer to "GENERAL WIRING" for the connection

Screw abbreviations A, B0, BT: Self-tapping PH: Pan head ZK: Black NI-ZU: Nickel-Zinc SUS: Stainless

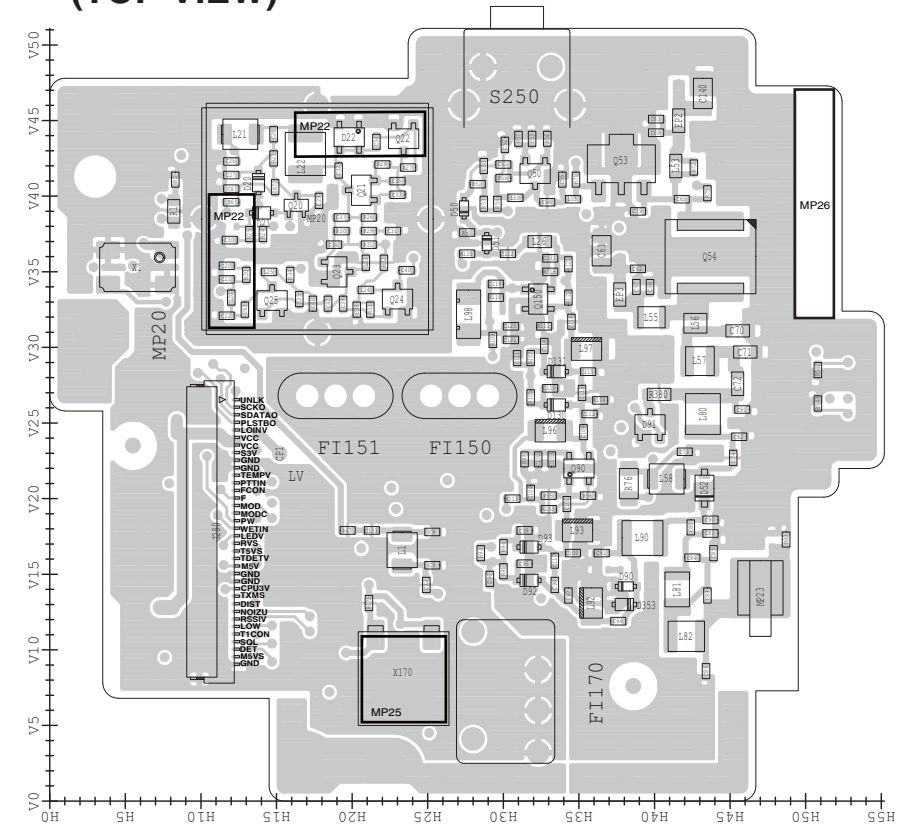


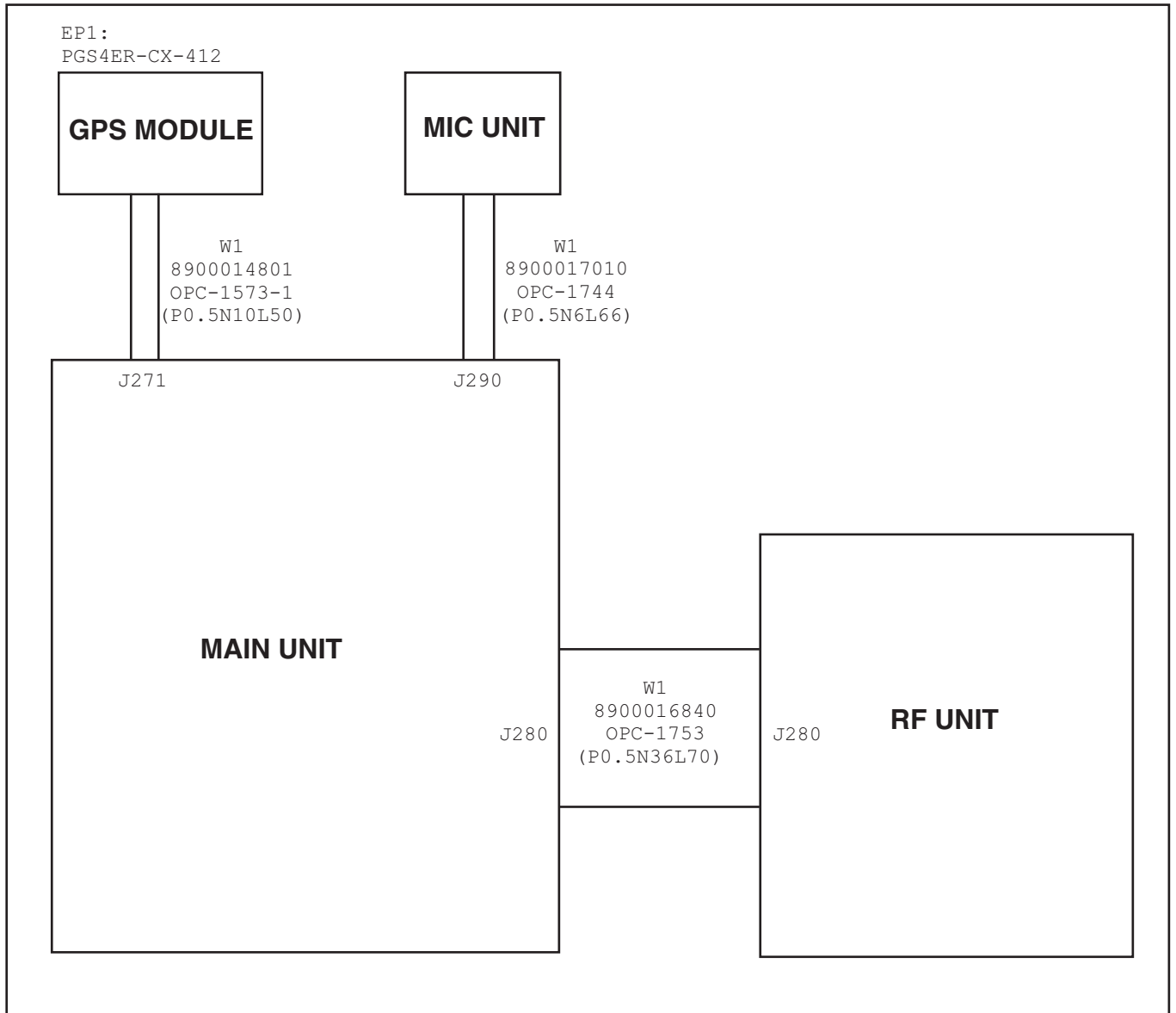
Abbreviations:
(C): CHASSIS PARTS
(M): MAIN UNIT
(R): RF UNIT
(MI): MIC UNIT

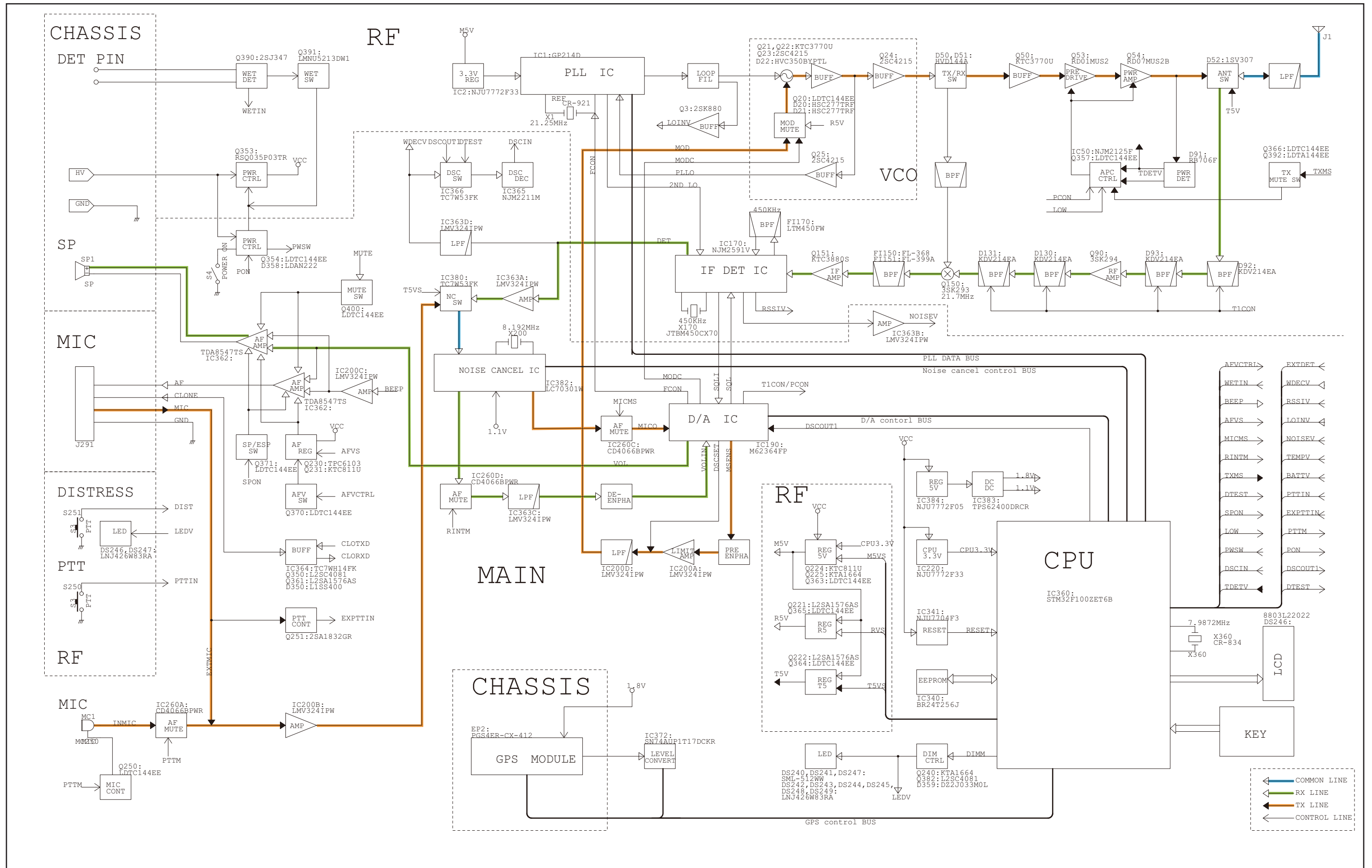
• MAIN UNIT
(TOP VIEW)



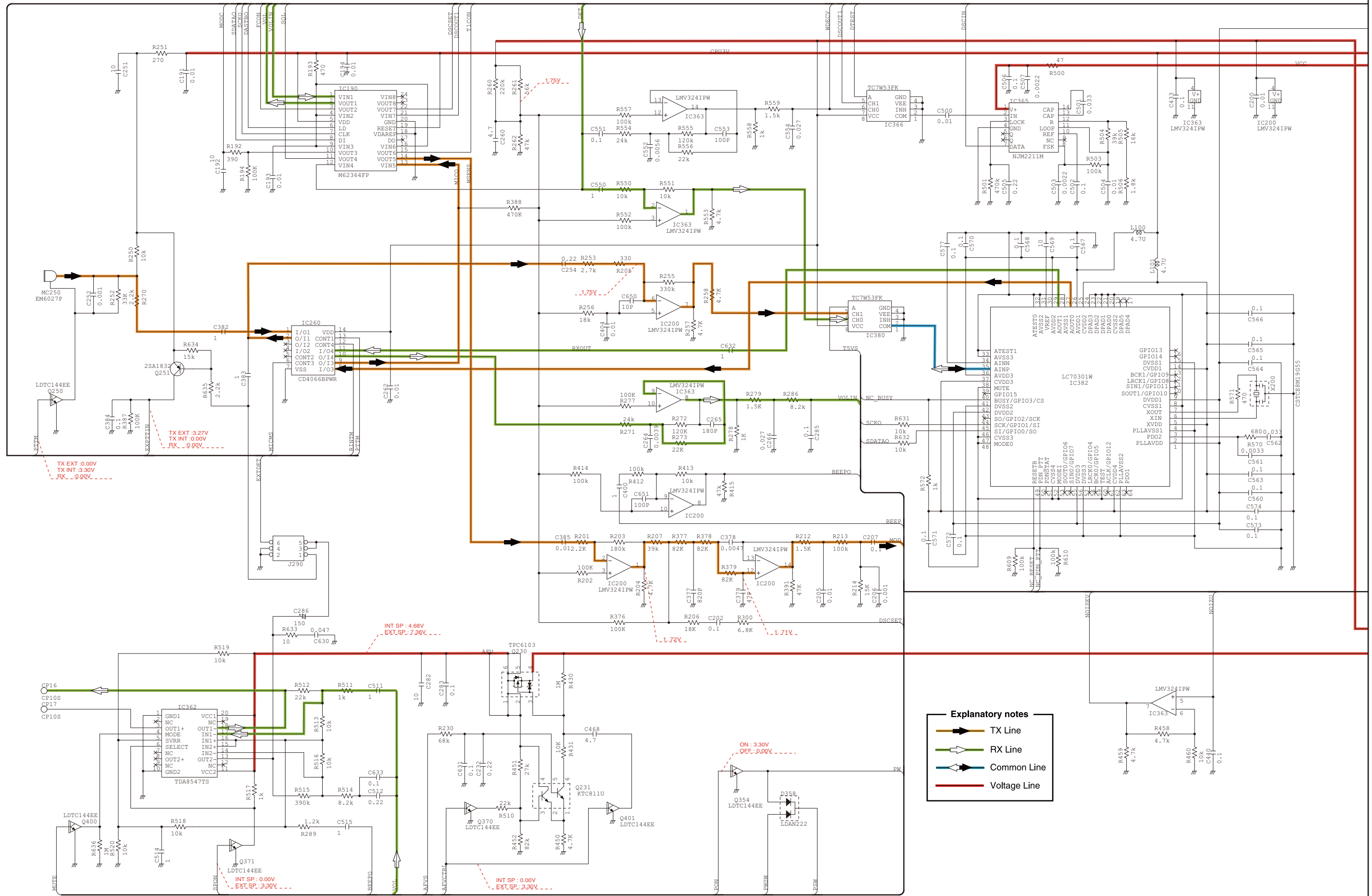
• RF UNIT
(TOP VIEW)







• MAIN UNIT (1/2)

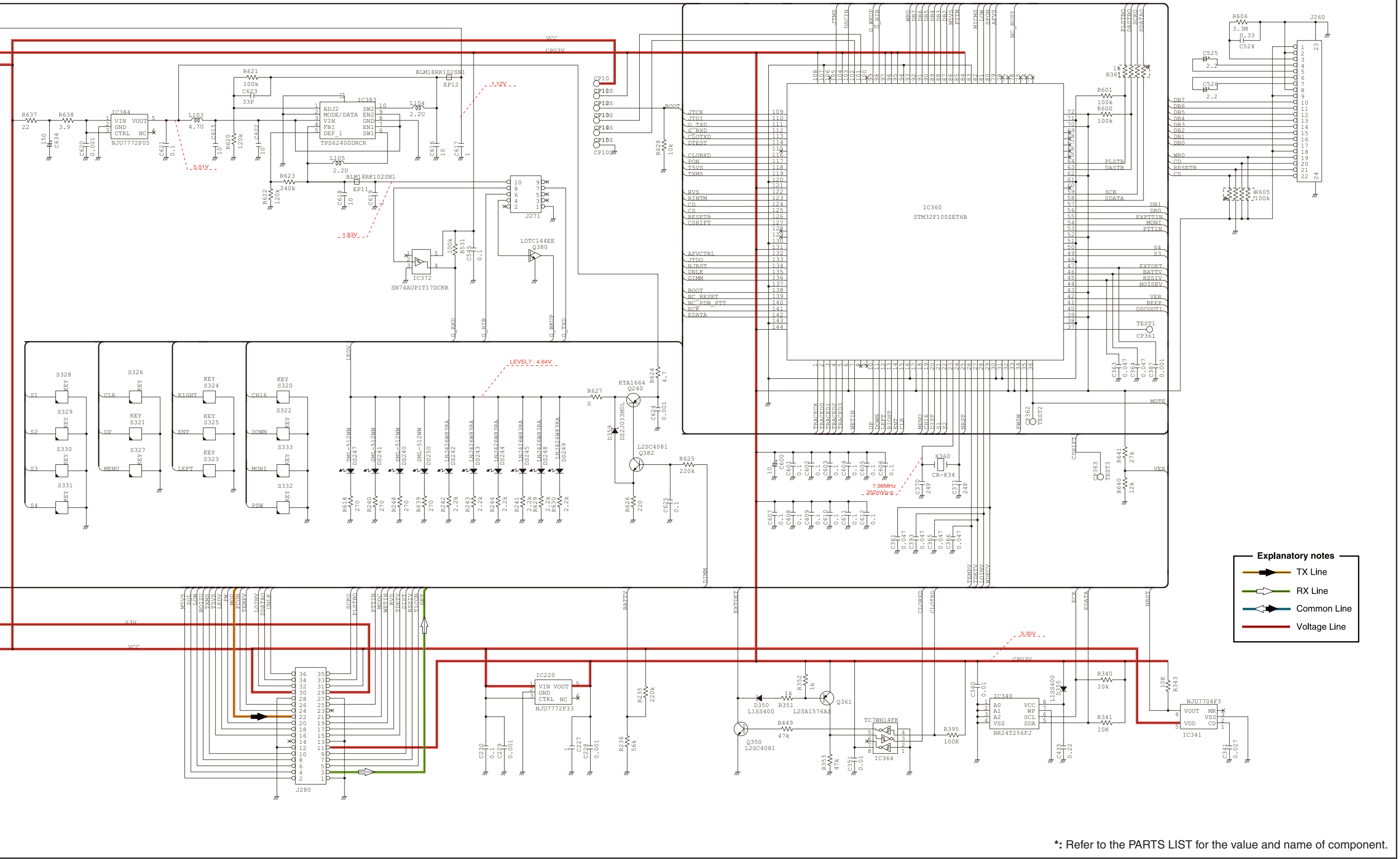


Explanatory notes

- TX Line
- RX Line
- Common Line
- Voltage Line

*: Refer to the PARTS LIST for the value and name of component.

• MAIN UNIT (2/2)



Explanatory notes

- TX Line
- RX Line
- Common Line
- Voltage Line

*: Refer to the PARTS LIST for the value and name of component.

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