ICOM

SERVICE MANUAL

PMR446 TRANSCEIVER

IC-F27SR

S-14809XZ-C1
Oct. 2011

Icom Inc.

INTRODUCTION

This service manual describes the latest technical information for the **IC-F27SR** PMR446 TRANSCEIVER, at the time of publication.

MODEL	VERSION	FREQUENCY RANGE	CHANNEL SPACING
IC-F27SR	EUR-22	446.00625–446.09375 MHz	12.5 kHz
	EUR-23		
	UK-02		
	UK-03		

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

<ORDER EXAMPLE>

1110003491	S.IC	TA31136FNG	IC-F27SR	MAIN UNIT	5 pieces
8820001210	Screw	2438 screw	IC-F27SR	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 throughly before connecting it to the transceiver.

TABLE OF CONTENTS

SECTION 1 SPECIFICATIONS

■ GENERAL

• Frequency coverage	: 446.00625–446.09375 MHz
• Mode	: 8K50F3E (FM)
• Current drain (at 7.2 V)	: TX 400 mA (approximately) RX Max. audio 330 mA (approximately)
• Power supply requirement	: 7.2 V DC nominal* (negative ground) *Only specified Icom's battery pack
• Frequency stability	: ±2.5 ppm (–25°C to +55°C)
• Antenna impedance	: 50 Ω nominal
• Weight (approximately)	: 340 g (with BP-264) 285 g (with BP-265)

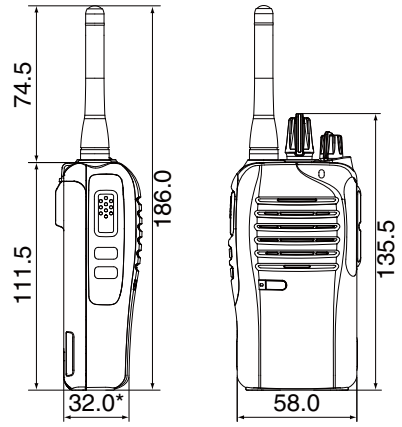
■ TRANSMITTER

• Output power	: 0.5 W ERP
• Modulation system	: Variable reactance frequency modulation
• Max. frequency deviation	: ±2.5 kHz
• Spurious emissions	: 0.25 µW (1 GHz or below) 1.00 µW (above 1 GHz)
• Adjacent channel power	: 60 dB
• External mic. connector	: 3 conductor 2.5 (d) mm/2.2 kΩ

■ RECEIVER

• Receive system	: Double conversion superheterodyne
• Sensitivity (20 dB SINAD)	: 26.5 dBµV/m
• Squelch sensitivity	: 26.5 dBµV/m (threshold)
• Intermodulation rejection ratio	: 86.29 dBµV/m
• Spurious response rejection ratio	: 91.29 dBµV/m
• Adjacent channel selectivity	: 81.29 dBµV/m
• Audio output power	: 0.8 W (typical) at 5% distortion with a 12 Ω load 0.4 W (typical) at 5% distortion with an 8 Ω load
• External speaker connector	: 2 conductor 3.5 (d) mm/8 Ω

■ DIMENSIONS

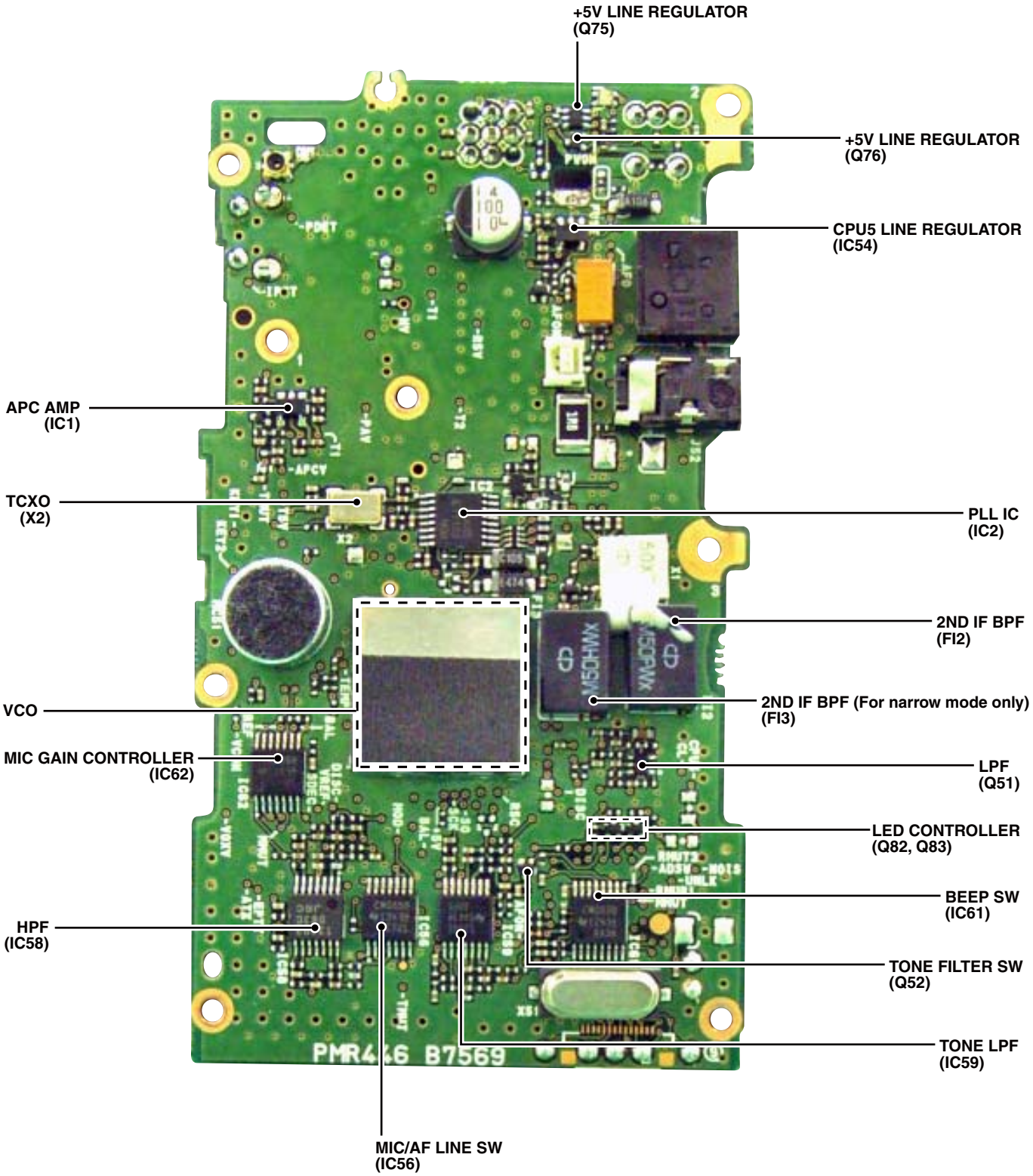


Unit: mm
*with a BP-264
36.5 mm with a BP-265

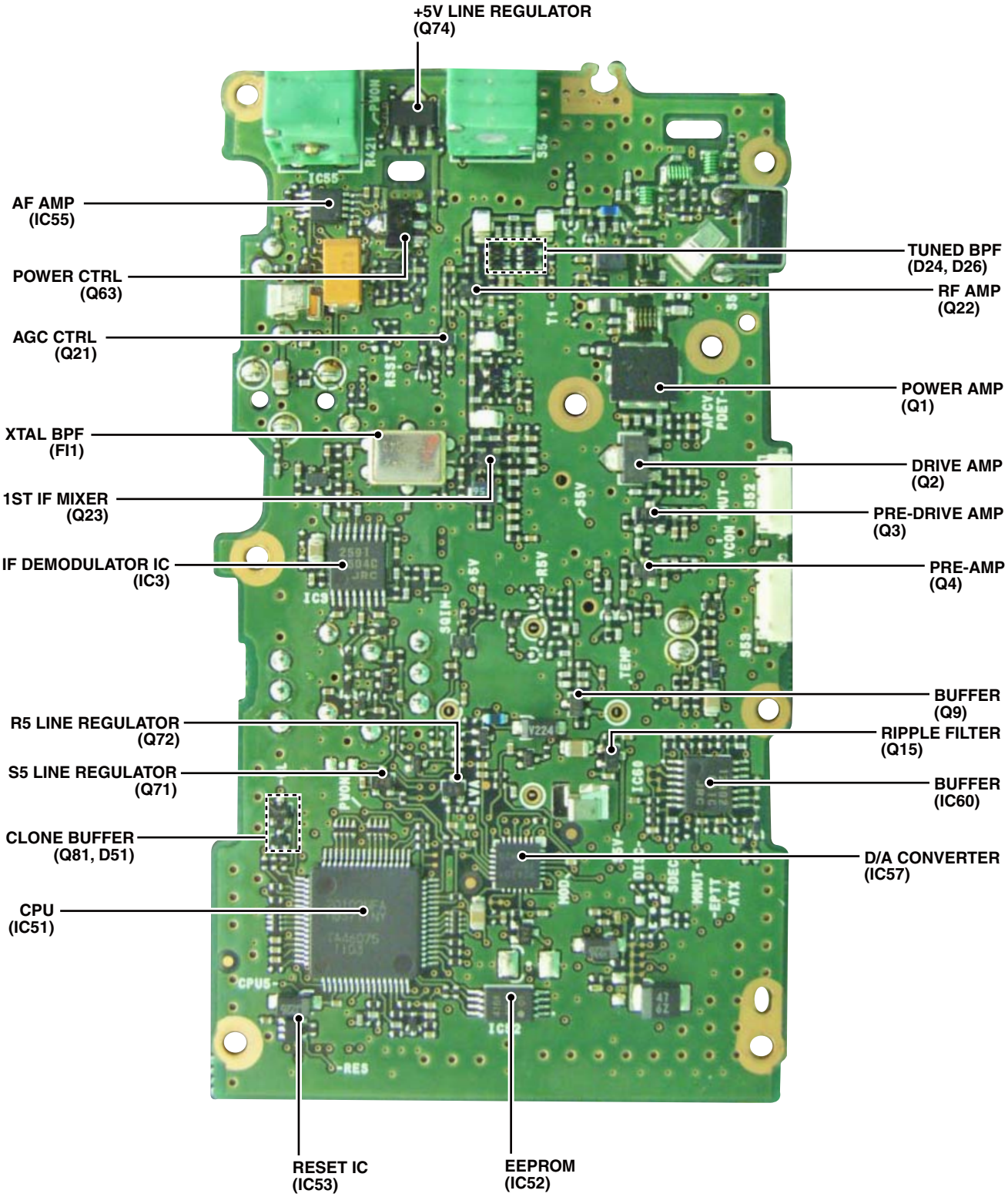
Specifications are measured in accordance with EN 300 296.
All stated specifications are subject to change without notice or obligation.

SECTION 2 INSIDE VIEWS

• MAIN-D UNIT
(TOP VIEW)



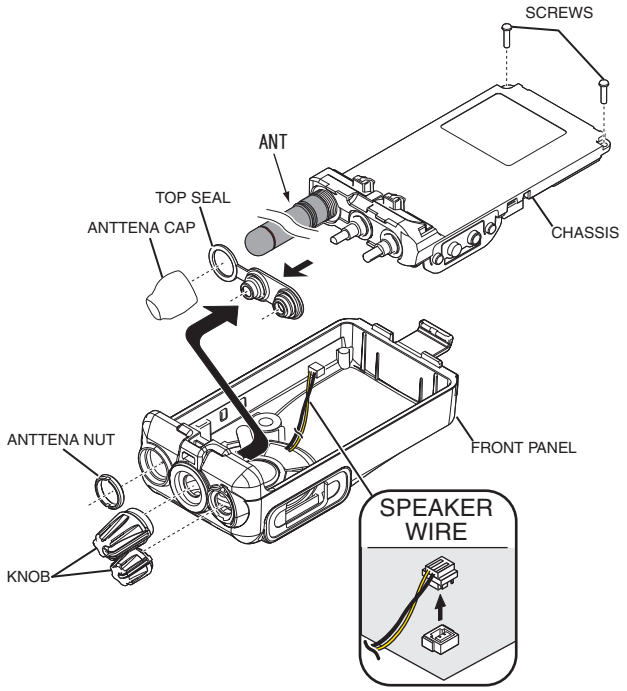
• MAIN-D UNIT
(BOTTOM VIEW)



SECTION 3 DISASSEMBLY INSTRUCTION

1. REMOVING THE CHASSIS

1) Remove the antenna cap, antenna nut, top seal and 2 knobs from the front panel.
2) Remove 2 screws from the chassis.
3) Unplug the speaker connector from the MAIN UNIT (J53).
4) Take off the chassis in the direction of the arrow.



BE CAREFUL to not pull out the **speaker wire** when separating the CHASSIS and the FRONT PANEL.

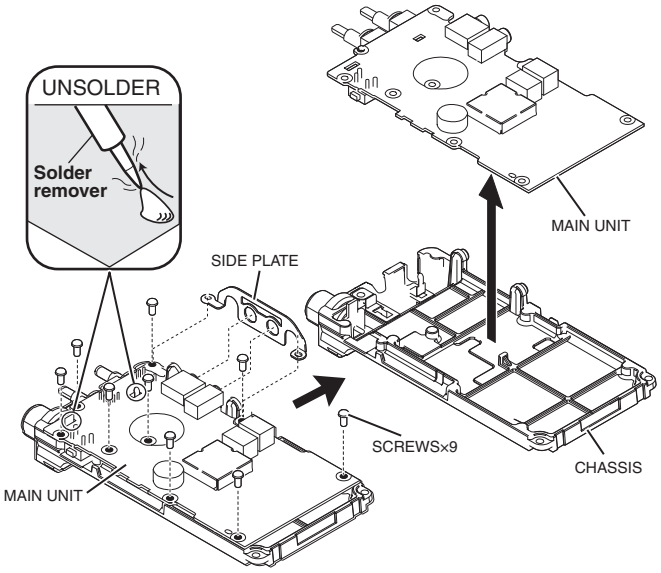
For easy separation of the CHASSIS

Use a suction lifter to lift the bottom of the CHASSIS up.

Suction lifter
- Part name : EA950R-2
- Manufacture : ESCO CO.LTD

2. REMOVING THE MAIN UNIT

1) Remove the 9 screws and the side plate from the MAIN UNIT.
2) Unsolder the 2 points shown, and then remove the MAIN UNIT from the chassis.



SECTION 4 CIRCUIT DESCRIPTION

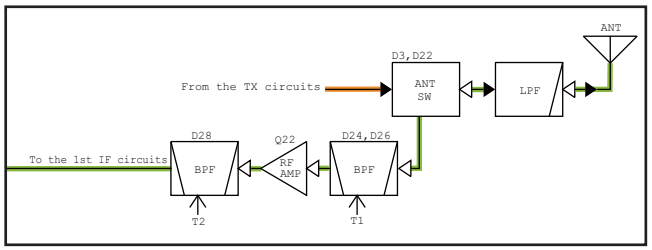
4-1 RECEIVER CIRCUITS

RF CIRCUITS

The RX signal from the antenna is passed through the LPF and antenna SW, then filtered by the 2-staged tuned BPF to eliminate unwanted out-of-band signal. The filtered RX signal is amplified by the RF AMP, and filtered by another 2-staged tuned BPF to obtain a good image response, then applied to the 1st IF circuits.

The tuned BPFs are tuned to the RX frequency by applying adequate tuning voltages; “T1” and “T2” to the variable capacitors.

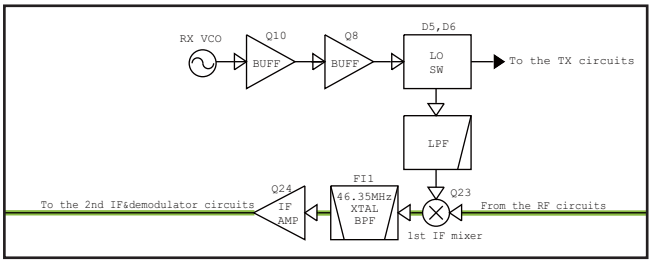
• RF CIRCUITS



1ST IF CIRCUITS

The RX signal from the RF circuits is applied to the 1st IF mixer and mixed with the 1st LO signal from the RX VCO, resulting in the 46.35 MHz 1st IF signal. The 1st IF signal is filtered by the crystal filter, amplified by the 1st IF AMP, then applied to the 2nd IF circuits.

• 1ST IF CIRCUITS



2ND IF CIRCUITS AND DEMODULATOR

The signal from the 1st IF circuits is applied to the IF demodulator IC which contains the 2nd IF mixer, 2nd IF AMP, FM detector, etc. in its package.

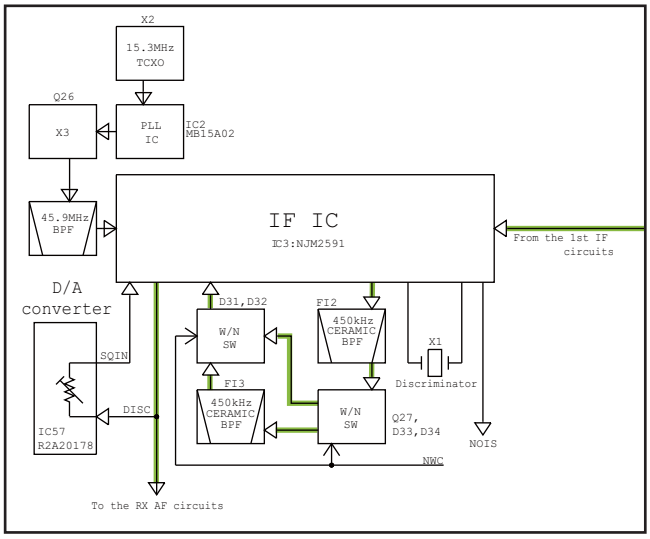
The 1st IF signal is applied to the 2nd IF mixer and mixed with the 2nd LO signal resulting in the 450 kHz 2nd IF signal.

The 2nd LO signal is generated by tripling the 15.3 MHz reference frequency signal oscillated by the reference frequency oscillator (TCXO).

The converted 2nd IF signal is filtered by the crystal filter/ filters to eliminate unwanted signal, and amplified by the 2nd IF AMP, then demodulated by the detector circuit which employs a discriminator as the phase shifter.

The demodulated AF signal is applied to the RX AF circuits.

• 2ND IF CIRCUITS

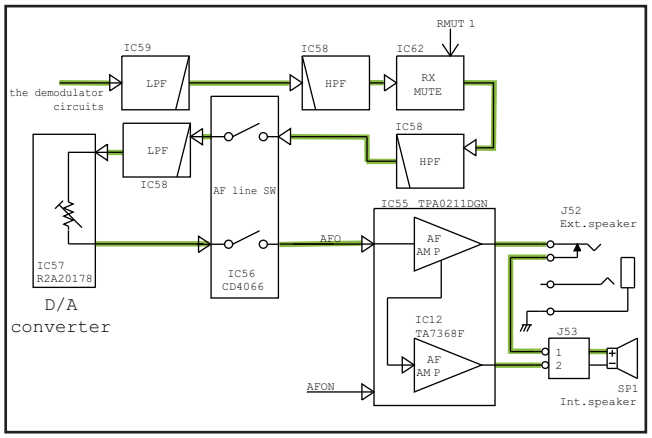


RX AF CIRCUITS

The demodulated AF signal from the IF demodulator IC is passed through the LPF, HPF which attenuates frequencies 300 Hz and below. The filtered AF signal is passed through the AF line SW, HPF which additionally attenuates frequencies 300 Hz and below, de-emphasis circuit which provides –6 dB/oct of frequency response. The de-emphasized AF signal is passed through the AF SW, LPF which attenuates frequencies 3 kHz and above, is adjusted in level by the D/A converter. The level-adjusted AF signal is then applied to the AF power AMP via the AF line SW.

The amplified AF signal is applied to the internal or external speaker.

• RX AF CIRCUITS



4-2 TRANSMITTER CIRCUITS

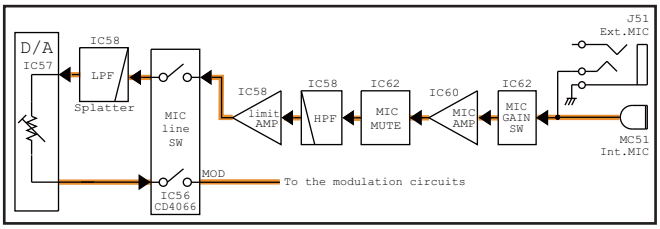
TX AF CIRCUITS

The audio signal from the internal or external microphone (MIC signal) is passed through the MIC gain SW and applied to the MIC AMP. The amplified MIC signal is passed through the MIC mute SW, HPF which attenuates frequencies 300 Hz and below. The filtered MIC signal is passed through the pre-emphasis circuit which provides +6 dB/oct of frequency response, then they applied to the limiter AMP.

The amplitude-limited MIC signal is passed through the MIC line SW, and applied to the splatter filter, which attenuate harmonics in the MIC signal to prevent exceeding permissible deviation.

The filtered MIC signal is applied to the D/A converter which adjusts its level (=deviation). The level-adjusted MIC signal is applied to the TX VCO as the modulation signal.

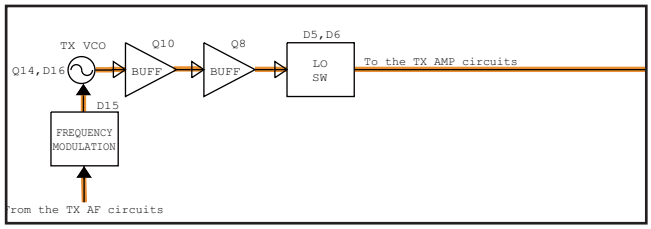
• TX AF CIRCUITS



MODULATION CIRCUIT

The modulation signal from the TX AF circuits is applied to D15 of the TX VCO to frequency-modulate it. The frequency-modulated signal from the TX VCO is buffer-amplified by two buffers, and applied to the TX AMP circuits via the TX/RX SW (D5).

• MODULATION CIRCUITS



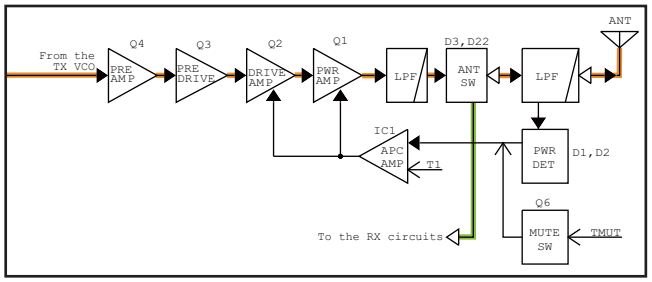
TX AMPLIFIERS

The buffer amplified signal from the LO SW (D5) is amplified by; the pre-AMP, pre-drive AMP, drive AMP, and power AMP in sequence, to obtain TX power. The amplified TX signal is passed through the antenna SW and the LPF, which eliminates harmonics, and then fed to the antenna.

APC CIRCUITS

D1 and D2 rectify a portion of the TX signal to direct current, and the APC AMP compares the voltage and the TX power control reference voltage, "T1." The resulting voltage controls the gain of the power and drive AMPs to keep the TX power constant.

• TX AMPLIFIERS AND APC CIRCUIT



4-3 FREQUENCY SYNTHESIZER CIRCUITS

The RX VCO is composed of Q13, D11 and D12. The VCO output signal is buffer-amplified by two buffers and applied to the 1st IF mixer, via the LO SW (D6) and the LPF.

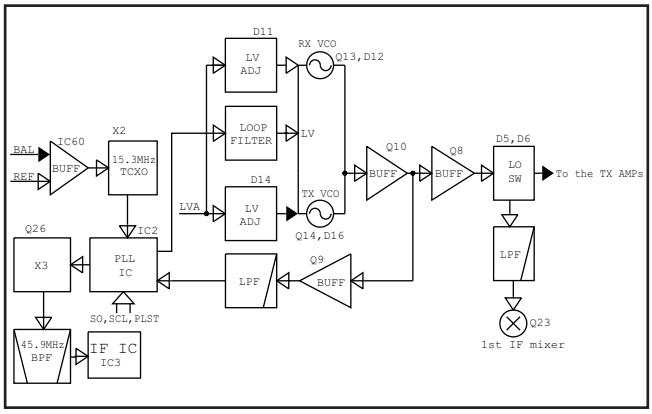
The TX VCO is composed of Q14 and D14–D16. The VCO output signal is buffer-amplified by two buffers and applied to the 1st IF mixer, via the LO SW (D6) and the LPF.

A portion of oscillated signal from each VCO is fed back to the PLL IC via the buffer and the LPF.

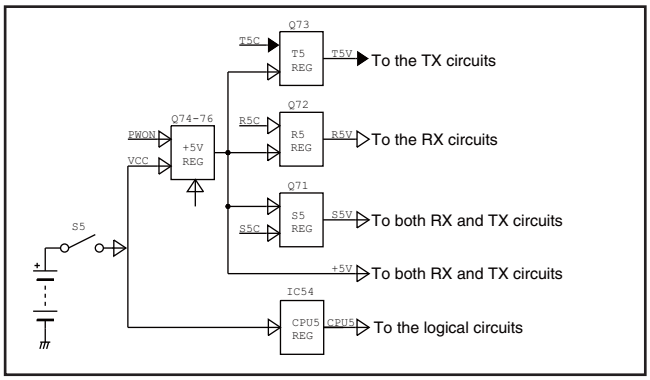
The applied VCO output signal is divided and phase-compared with a 15.3 MHz reference frequency signal from the TCXO, which is also divided. The resulting signal is output from the PLL IC, and DC-converted by the loop filter, and then applied to the VCO as the lock voltage.

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 BLOCK DIAGRAM



4-5 PORT ALLOCATIONS

• CPU (IC51)

PIN NO.	LINE NAME	DESCRIPTION	I/O
1	CDEC	Tone signal (CTCSS/DTCS) decoding input.	I
2	STONE	Tone signal (5/2 TONE, DTMF, BIIS) decoding/encoding .	I/O
13	CSFT	Clock frequency shift. H=Clock frequency is shifted.	O
14	NWC	RX mode (narrow/wide) switching. L=While receiving in the narrow mode	O
15	EPTT	External PTT input. H=An external PTT is pushed.	I
16	ATX	Automatic TX control for VOX mode. H=Microphone input is detected.	O
17	BEEP	Beep sounds. (Square waves)	O
18	AFON	AF power AMP control. H=AF power AMP (IC55) is activated.	O
19	SCK	Common clock.	O
20	SO	Common serial data.	O
22	KEY2	**[UPPER]** key input. L=Pushed	I
23	KEY1	**[LOWER]** key input. L=Pushed	I
24	PLST	PLL strobe. H=Load enable.	I/O
25	DAST	D/A converter strobe. H=Load enable.	I/O
26	ESDA	EEPROM data.	I/O
27	ESCL	EEPROM clock.	I/O
28	R5C	Power supply switching control. H=Supplying current to the receiver circuits ("R5"line).	O
29	T5C	Power supply switching control. H=Supplying current to the transmitter circuits ("T5"line).	O
30	S5C	Power supply switching control. H=Supplying current to the RX/TX common circuits ("S5"line).	O
31	PWON	Power supply switching control. H=The transceiver's power is ON.	O
32	IPTT	Internal PTT input. L=PTT pushed.	I
33, 34, 36	CENC2, CENC1, CENC0	CTCSS/DTCS signal.	O
37–40	CBI0–CBI3	**[ROTARY SELECTOR]** input.	I
41	DUSE	Frequency response switching. H=DTCS encoding	O
42	RLED	Busy LED (Green) control. L=LED lights. (Squelch open)	O
43	TLED	Busy LED (Red) control. L=LED lights. (Transmit)	O
47	MGC0	MIC gain control.	O
48	MGC1	MIC gain control.	O
49	CLI	Cloning data.	I
50	CLO		O
51	ADSW	A/D conversion select. H=RSSI input, L=BATV input	O
53	NOIS	Noise level detect. H=Squelch close	I
54	UNLK	PLL unlock detect.	I
55	RMUT2	RX AF mute switch control. L=AF mute.	O
56	RMUT1	RX AF mute switch control. L=AF mute.	O
57	MMUT	MIC mute switch control. L=MIC mute.	O
58	TMUT	Transmission mute. L=TX inhibit.	O
59	MDET	External microphone connection detect.	I
60	LVIN	Lock voltage input.	I
61	TEMP	Temperature sensing voltage.	I
62	AFVI	**[VOLUME CONTROL]** input.	I
63	VOXV	Microphone input sensing voltage.	I
64	AD5	Remaining battery voltage. (or) RSSI voltage. (The input signal depends on the status of pin 51.)	I

• D/A CONVERTER (IC57)

PIN No.	LINE NAME	DESCRIPTION
23	T1 (TXPO)	BPF tuning voltage TX power control
24	T2	BPF tuning voltage
7	REF	Reference frequency adjust voltage.
8	LVA	Additional lock voltage adjustment.
11	SQLC	Squelch threshold setting.
12	TENC	CTCSS deviation adjustment.
19	BAL	DTCS balance.
20	VRAF	Max. deviation/AF volume adjustment.

SECTION 5 PARTS LIST

[MAIN-D UNIT]

REF NO.	PARTS NO.	DESCRIPTION		M.	H/V LOCATION
IC1	1110002751	S.IC	TA75S01F(TE85RF)	T	32.5/8.8
IC2	1140005991	S.IC	MB15A02PFV1-G-BND-ERE1	T	42.9/24.7
IC3	1110007320	S.IC	NJM2591V-TE1-#ZZZB	B	45.8/38.9
IC51	1140015230	S.IC	R4F20102NFA (EMPTY)	B	77.7/38.0
IC52	1130015240	S.IC	R1EX24016ATA00A	B	85.0/25.2
IC53	1110007620	S.IC	NJU7704F3-42A-TE1-#ZZZB	B	87.6/44.6
IC54	1180003600	S.REG	NJM2871BF05-TE1-#ZZZB	T	15.6/34.8
IC55	1110007610	S.IC	TPA0211DGNR	B	13.3/42.1
IC56	1130011770	S.IC	CD4066BPWR	T	80.1/18.8
IC57	1110007550	S.IC	R2A20178NP	B	72.5/24.5
IC58	1110005320	S.IC	NJM13403V-TE1-#ZZZB	T	80.1/12.0
IC59	1110006350	S.IC	LM2902PWR	T	80.1/25.9
IC60	1110005340	S.IC	NJM12902V-TE1-#ZZZB	B	65.1/7.5
IC61	1140013200	S.IC	CD4053BPWR	T	80.1/38.3
IC62	1130011770	S.IC	CD4066BPWR	T	66.7/8.1
Q1	1560001700	S.FET	RD07MUS2B-T112	B	28.6/13.5
Q2	1560001241	S.FET	RD01MUS1-T113	B	36.1/14.4
Q3	1530004180	S.TRA	2SC3356-T1B YS (R25)	B	41.3/12.9
Q4	1530003311	S.TRA	2SC5107-O(TE85RF)	B	46.2/13.4
Q6	1590004050	S.TRA	LDTA144EET1G <SLVJ>	T	33.3/5.9
Q8	1530003311	S.TRA	2SC5107-O(TE85RF)	T	55.6/18.6
Q9	1530003311	S.TRA	2SC5107-O(TE85RF)	B	58.1/19.4
Q10	1530003311	S.TRA	2SC5107-O(TE85RF)	T	61.0/19.4
Q11	1590004070	S.TRA	LDTC144EET1G <SLVJ>	B	50.8/25.2
Q12	1590004070	S.TRA	LDTC144EET1G <SLVJ>	B	63.0/23.6
Q13	1530002921	S.TRA	2SC4226-T1 Y25 (R25)	T	56.5/22.6
Q14	1530002921	S.TRA	2SC4226-T1 Y25 (R25)	T	62.2/22.3
Q15	1530002851	S.TRA	2SC4116-BL(TE85RF)	B	62.7/16.2
Q17	1560000541	S.FET	2SK880-Y(T5RICOMF)	B	52.6/29.5
Q18	1560001360	S.FET	2SK3019 TL	B	61.1/27.7
Q19	1590004070	S.TRA	LDTC144EET1G <SLVJ>	B	63.5/33.6
Q21	1560000841	S.FET	2SK1829(TE85RF)	B	25.7/31.5
Q22	1580000731	S.FET	3SK293(TE85LF)	B	21.2/29.0
Q23	1580000731	S.FET	3SK293(TE85LF)	B	36.4/27.3
Q24	1530002601	S.TRA	2SC4215-O(TE85RF)	B	38.3/42.6
Q25	1590004070	S.TRA	LDTC144EET1G <SLVJ>	T	49.3/35.1
Q26	1530002851	S.TRA	2SC4116-BL(TE85RF)	T	39.6/30.1
Q27	1590004050	S.TRA	LDTA144EET1G <SLVJ>	B	56.0/36.4
Q51	1590004390	S.TRA	DMG504010R	T	65.5/42.0
Q52	1590004070	S.TRA	LDTC144EET1G <SLVJ>	T	75.4/31.4
Q58	1590004220	S.TRA	DRA9123Y0L	B	54.9/7.1
Q59	1590004070	S.TRA	LDTC144EET1G <SLVJ>	B	49.1/7.3
Q63	1520000460	S.TRA	2SB1132 T100 R	B	15.1/35.5
Q64	1590004590	S.TRA	DMC506010R	B	19.3/36.0
Q71	1510001090	S.TRA	KTA2015Y-RTK/P	B	65.1/36.6
Q72	1510000771	S.TRA	2SA1586-GR(TE85LF)	B	65.7/30.3
Q73	1510001090	S.TRA	KTA2015Y-RTK/P	B	78.6/23.8
Q74	1520000460	S.TRA	2SB1132 T100 R	B	5.3/34.4
Q75	1590004590	S.TRA	DMC506010R	T	4.5/35.2
Q76	1590004070	S.TRA	LDTC144EET1G <SLVJ>	T	6.8/35.2
Q81	1590004340	S.TRA	DRC9144T0L	B	70.5/45.8
Q82	1590004050	S.TRA	LDTA144EET1G <SLVJ>	T	71.6/39.5
Q83	1590004050	S.TRA	LDTA144EET1G <SLVJ>	T	71.6/41.6
Q84	1590004070	S.TRA	LDTC144EET1G <SLVJ>	B	19.2/44.1
Q85	1590004070	S.TRA	LDTC144EET1G <SLVJ>	T	21.1/31.9
D1	1750001800	S.DIO	RB886CS T2RA	B	13.7/6.2
D2	1750001800	S.DIO	RB886CS T2RA	B	13.5/11.4
D3	1750001890	S.DIO	HVD142AKRF-E	B	15.7/14.8
D5	1750001890	S.DIO	HVD142AKRF-E	B	49.6/15.2
D6	1750001890	S.DIO	HVD142AKRF-E	B	49.6/16.6
D11	1750001550	S.VAR	HVD376BKRF-E	T	56.8/26.4
D12	1750001840	S.VAR	HVD350BKRF-E	T	54.0/28.7
D14	1750001550	S.VAR	HVD376BKRF-E	T	60.4/26.1
D15	1750001650	S.VAR	1SV309(TPH3F)	T	64.6/28.2
D16	1750001840	S.VAR	HVD350BKRF-E	T	62.5/28.2
D18	1750001810	S.DIO	L1SS400T1G <SLVJ>	T	46.3/32.6
D21	1750001810	S.DIO	L1SS400T1G <SLVJ>	B	28.1/33.3
D22	1750001890	S.DIO	HVD142AKRF-E	B	15.7/18.3
D24	1750001780	S.VAR	HVB350BYPTL-E	B	18.1/23.8
D26	1750001780	S.VAR	HVB350BYPTL-E	B	18.1/26.7
D28	1750001780	S.VAR	HVB350BYPTL-E	B	29.2/26.7
D31	1750001790	S.DIO	1SS390 TE61	B	54.1/39.8
D32	1750001790	S.DIO	1SS390 TE61	B	51.7/36.8
D33	1750001790	S.DIO	1SS390 TE61	B	56.7/39.8
D34	1750001790	S.DIO	1SS390 TE61	B	58.1/38.5
D51	1750001820	S.DIO	LRB706F-40T1G <SLVJ>	B	67.9/45.8
D52	1750001790	S.DIO	1SS390 TE61	B	87.0/33.7
D53	1750001810	S.DIO	L1SS400T1G <SLVJ>	B	69.1/3.1
D55	1750001810	S.DIO	L1SS400T1G <SLVJ>	B	21.9/33.8
FI1	2030000870	S.MON	MFT46.3P3 46.350 MHz (FL-442)	B	36.2/34.6
FI2	2020002410	CER	LTM450FW <JJE>		
FI3	2020002570	CER	LTM450HW <JJE>		
X1	6070000310	S.DIS	JTBM450CX70 <JJE>	T	47.6/40.9
X2	6050012050	S.XTA	CR-794 TTS14VSB-A6 15.3 MHz	T	41.9/15.0
X51	6050012730	S.XTA	CR-864(SMD-49/12.288 MHz) <JJE>	T	86.9/38.5
L1	6200012490	S.COI	0.30-0.9-6TR 13.6N <COMO>	B	9.5/7.5
L2	6200012490	S.COI	0.30-0.9-6TR 13.6N <COMO>	B	10.4/10.5

[MAIN-D UNIT]

REF NO.	PARTS NO.	DESCRIPTION		M.	H/V LOCATION
L3	6200013010	S.COI	0.30-0.9-5TL 10.3N <COMO>	B	12.7/13.4
L4	6200002851	S.COI	NLV25T-R82J	B	18.2/16.6
L5	6200012610	S.COI	0.40-0.9-2TL 2.8N <COMO>	B	18.2/13.4
L6	6200012610	S.COI	0.40-0.9-2TL 2.8N <COMO>	B	20.7/13.4
L7	6200012980	S.COI	0.40-1.4-5TR 18.3N <COMO>	B	23.6/13.4
L8	6200013860	S.COI	MLK1005S12NJT	B	41.0/10.7
L9	6200013840	S.COI	MLK1005S18NJT	B	45.5/10.7
L11	6200010850	S.COI	LQW18AN22NG00D (LQW1608A22NG00)	B	13.9/16.6
L13	6200007700	S.COI	LQW2BHN22NJ03L	B	15.1/22.4
L14	6200007700	S.COI	LQW2BHN22NJ03L	B	15.2/28.1
L15	6200007680	S.COI	LQW2BHN12NJ03L	B	25.8/27.6
L16	6200007680	S.COI	LQW2BHN12NJ03L	B	32.7/27.6
L18	6200013800	S.COI	MLK1005S39NJT	B	36.4/23.5
L19	6200013780	S.COI	MLK1005S56NJT	B	34.4/25.1
L20	6200004770	S.COI	ELJNC R56J-F	B	39.4/27.7
L23	6200012170	S.COI	MLG1608S R18J-T	T	39.4/34.6
L24	6200012170	S.COI	MLG1608S R18J-T	T	41.5/31.8
L31	6200013810	S.COI	MLK1005S33NJT	T	53.8/17.7
L32	6200013810	S.COI	MLK1005S33NJT	B	56.3/20.4
L33	6200013830	S.COI	MLK1005S22NJT	T	59.2/18.3
L35	6200011860	S.COI	LQW18ANR47G00D	B	59.4/26.6
L36	6200013581	S.COI	0.30-0.9-4TR 8.6J <COMO>	T	54.3/26.1
L37	6190002030	S.COI	MLG1608S 1R0J-T	T	56.5/28.7
L40	6200014240	S.COI	0.30-0.9-3TR 5.8J <COMO>	T	63.8/24.9
L41	6200011860	S.COI	LQW18ANR47G00D	T	58.9/27.4
L42	6190002030	S.COI	MLG1608S 1R0J-T	T	60.5/28.8
L47	6200013840	S.COI	MLK1005S18NJT	B	51.3/20.4
L48	6200013990	S.COI	MLK1005S1N0ST	B	32.7/13.1
R1	7030005070	S.RES	ERJ2GEJ 683 X (68K)	B	7.2/5.5
R2	7030009140	S.RES	ERJ2GEJ 272 X (2.7K)	B	12.2/8.9
R3	7030005120	S.RES	ERJ2GEJ 102 X (1K)	B	13.5/8.0
R4	7030005120	S.RES	ERJ2GEJ 102 X (1K)	B	13.5/9.6
R5	7030009140	S.RES	ERJ2GEJ 272 X (2.7K)	B	12.2/10.9
R6	7030004990	S.RES	ERJ2GEJ 221 X (220)	B	20.3/17.9
R11	7030009140	S.RES	ERJ2GEJ 272 X (2.7K)	T	29.9/5.9
R12	7030005050	S.RES	ERJ2GEJ 103 X (10K)	T	31.7/5.9
R13	7030005090	S.RES	ERJ2GEJ 104 X (100K)	T	32.6/11.3
R14	7030005310	S.RES	ERJ2GEJ 124 X (120K)	T	30.8/11.3
R15	7030005170	S.RES	ERJ2GEJ 474 X (470K)	T	34.8/5.9
R16	7030005530	S.RES	ERJ2GEJ 100 X (10)	T	35.7/9.6
R17	7030008280	S.RES	ERJ2GEJ 271 X (270)	T	34.8/7.6
R18	7030005120	S.RES	ERJ2GEJ 102 X (1K)	T	35.7/7.6
R21	7030005530	S.RES	ERJ2GEJ 100 X (10)	B	33.2/10.8
R22	7030005040	S.RES	ERJ2GEJ 472 X (4.7K)	B	34.1/9.1
R23	7030005060	S.RES	ERJ2GEJ 333 X (33K)	B	32.3/9.1
R26	7030004970	S.RES	ERJ2GEJ 470 X (47)	B	38.2/10.8
R27	7030005040	S.RES	ERJ2GEJ 472 X (4.7K)	B	38.2/9.1
R29	7030004970	S.RES	ERJ2GEJ 470 X (47)	B	41.0/9.8
R30	7030005220	S.RES	ERJ2GEJ 223 X (22K)	B	41.8/15.1
R31	7030004980	S.RES	ERJ2GEJ 101 X (100)	B	45.5/9.8
R32	7030005220	S.RES	ERJ2GEJ 223 X (22K)	B	45.7/15.2
R33	7030005050	S.RES	ERJ2GEJ 103 X (10K)	B	49.6/13.1
R34	7030004980	S.RES	ERJ2GEJ 101 X (100)	B	49.6/14.0
R35	7030005040	S.RES	ERJ2GEJ 472 X (4.7K)	B	51.8/16.6
R41	7030005530	S.RES	ERJ2GEJ 100 X (10)	T	57.4/17.7
R42	7030005070	S.RES	ERJ2GEJ 683 X (68K)	T	57.4/19.3
R43	7030004980	S.RES	ERJ2GEJ 101 X (100)	B	54.5/18.8
R44	7030005090	S.RES	ERJ2GEJ 104 X (100K)	B	59.9/18.9
R45	7030004980	S.RES	ERJ2GEJ 101 X (100)	T	63.2/17.9
R46	7030005090	S.RES	ERJ2GEJ 104 X (100K)	T	62.8/19.3
R51	7030005010	S.RES	ERJ2GEJ 681 X (680)	B	52.8/25.2
R52	7030008370	S.RES	ERJ2GEJ 561 X (560)	B	62.3/22.0
R53	7030006020	S.RES	RR0510P-682-D (6.8K)	T	58.3/23.8
R54	7030006020	S.RES	RR0510P-682-D (6.8K)	T	58.1/25.4
R55	7030006020	S.RES	RR0510P-682-D (6.8K)	T	59.5/23.8
R56	7030006020	S.RES	RR0510P-682-D (6.8K)	T	60.3/25.1
R57	7030009320	S.RES	ERJ2GEJ 4R7 X (4.7)	T	61.9/24.2
R63	7030005110	S.RES	ERJ2GEJ 224 X (220K)	B	62.6/27.7
R64	7030005530	S.RES	ERJ2GEJ 100 X (10)	T	64.2/26.4
R65	7030008290	S.RES	ERJ2GEJ 183 X (18K)	B	64.4/26.1
R66	7030005090	S.RES	ERJ2GEJ 104 X (100K)	B	65.4/26.1
R67	7030007290	S.RES	ERJ2GEJ 222 X (2.2K)	B	60.9/16.4
R68	7030005170	S.RES	ERJ2GEJ 474 X (470K)	B	62.6/29.9
R70	7030005310	S.RES	ERJ2GEJ 124 X (120K)	B	62.6/31.8
R71	7030005050	S.RES	ERJ2GEJ 103 X (10K)	B	50.3/29.5
R72	7030004980	S.RES	ERJ2GEJ 101 X (100)	B	49.9/27.9
R73	7030005040	S.RES	ERJ2GEJ 472 X (4.7K)	B	55.6/30.5
R76	7030005120	S.RES	ERJ2GEJ 102 X (1K)	T	49.1/25.5
R77	7030008410	S.RES	ERJ2GEJ 392 X (3.9K)	T	46.7/25.5
R78	7030005120	S.RES	ERJ2GEJ 102 X (1K)	T	46.7/24.3
R80	7410001130	S.ARR	EXB28V102JX	T	44.4/29.9
R81	7030005100	S.RES	ERJ2GEJ 154 X (150K)	B	62.0/35.3
R82	7030005050	S.RES	ERJ2GEJ 103 X (10K)	T	40.1/19.4
R83	7030005580	S.RES	ERJ2GEJ 560 X (56)	T	46.7/20.9
R87	7030005090	S.RES	ERJ2GEJ 104 X (100K)	T	63.5/27.7
R88	7510001730	S.THE	ERTJOEP 473J	T	56.6/13.3
R89	7030010080	S.RES	ERJ2RHD 1003X (100K)	T	58.3/13.3
R101	7030005110	S.RES	ERJ2GEJ 224 X (220K)	B	28.1/32.1
R102	7030005170	S.RES	ERJ2GEJ 474 X (470K)	B	25.8/33.3
R103	7030008400	S.RES	ERJ2GEJ 182 X (1.8K)	B	28.1/30.9
R104	7030005050	S.RES	ERJ2GEJ 103 X (10K)	B	18.1/21.8
R105	7030005050	S.RES	ERJ2GEJ 103 X (10K)	B	20.3/27.2
R106	7030005240	S.RES	ERJ2GEJ 473 X (47K)	B	18.3/29.0
R107	7030005050	S.RES	ERJ2GEJ 103 X (10K)	B	20.2/31.0
R108	7030005080	S.RES	ERJ2GEJ 823 X (82K)	B	19.2/29.0

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

[MAIN-D UNIT]

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
R109	7030005530	S.RES ERJ2GEJ 100 X (10)	B	21.2/31.0
R110	7030004980	S.RES ERJ2GEJ 101 X (100)	B	22.1/25.4
R112	7030004970	S.RES ERJ2GEJ 470 X (47)	B	25.8/25.4
R113	7030005010	S.RES ERJ2GEJ 681 X (680)	B	24.2/28.5
R114	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	27.4/26.8
R115	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	31.0/26.8
R116	7030005310	S.RES ERJ2GEJ 124 X (120K)	B	35.4/29.3
R117	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	33.4/25.1
R118	7030005310	S.RES ERJ2GEJ 124 X (120K)	B	36.4/25.1
R119	7030005100	S.RES ERJ2GEJ 154 X (150K)	B	36.4/29.3
R120	7030005710	S.RES ERJ2GEJ 121 X (120)	B	39.4/25.1
R121	7030007300	S.RES ERJ2GEJ 332 X (3.3K)	B	41.2/27.7
R122	7030004970	S.RES ERJ2GEJ 470 X (47)	B	43.3/25.1
R123	7030005530	S.RES ERJ2GEJ 100 X (10)	B	39.2/29.8
R125	7030008370	S.RES ERJ2GEJ 561 X (560)	B	35.6/40.8
R126	7030007290	S.RES ERJ2GEJ 222 X (2.2K)	B	39.0/40.8
R127	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	37.3/40.8
R128	7030005010	S.RES ERJ2GEJ 681 X (680)	B	39.1/44.4
R132	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	47.4/17.6
R134	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	40.4/40.3
R135	7030007290	S.RES ERJ2GEJ 222 X (2.2K)	T	43.0/36.7
R136	7030007290	S.RES ERJ2GEJ 222 X (2.2K)	T	43.0/37.6
R137	7030008410	S.RES ERJ2GEJ 392 X (3.9K)	T	45.7/36.4
R138	7030005000	S.RES ERJ2GEJ 471 X (470)	B	43.0/35.5
R139	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	48.3/35.5
R140	7030008410	S.RES ERJ2GEJ 392 X (3.9K)	B	46.5/34.6
R141	7030005220	S.RES ERJ2GEJ 223 X (22K)	B	46.5/33.7
R142	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	46.5/31.9
R146	7030004970	S.RES ERJ2GEJ 470 X (47)	B	45.6/44.0
R147	7030005030	S.RES ERJ2GEJ 152 X (1.5K)	B	47.1/42.2
R148	7030005120	S.RES ERJ2GEJ 102 X (1K)	T	37.8/31.4
R149	7030007060	S.RES ERJ2GEJ 684X (680K)	T	37.8/29.6
R151	7030005600	S.RES ERJ2GEJ 273 X (27K)	B	51.7/39.0
R152	7030005210	S.RES ERJ2GEJ 822 X (8.2K)	B	53.9/35.1
R153	7030007300	S.RES ERJ2GEJ 332 X (3.3K)	B	55.5/38.5
R154	7030005210	S.RES ERJ2GEJ 822 X (8.2K)	B	57.5/36.9
R155	7030005600	S.RES ERJ2GEJ 273 X (27K)	B	58.8/39.8
R156	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	20.3/21.8
R157	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	31.0/25.1
R158	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	59.4/35.7
R159	7030008010	S.RES ERJ2GEJ 123 X (12K)	B	29.7/23.8
R301	7030007340	S.RES ERJ2GEJ 153 X (15K)	B	68.4/12.4
R302	7030008010	S.RES ERJ2GEJ 123 X (12K)	B	66.6/12.4
R303	7030005720	S.RES ERJ2GEJ 563 X (56K)	B	67.5/12.4
R304	7030005030	S.RES ERJ2GEJ 152 X (1.5K)	B	69.3/10.7
R310	7030005220	S.RES ERJ2GEJ 223 X (22K)	T	66.2/36.7
R311	7030005220	S.RES ERJ2GEJ 223 X (22K)	T	64.6/37.9
R312	7030005220	S.RES ERJ2GEJ 223 X (22K)	T	64.6/39.6
R313	7030007300	S.RES ERJ2GEJ 332 X (3.3K)	T	62.6/39.6
R314	7030006610	S.RES ERJ2GEJ 394 X (390K)	T	63.7/41.2
R315	7030005080	S.RES ERJ2GEJ 823 X (82K)	T	63.7/42.8
R316	7030005000	S.RES ERJ2GEJ 471 X (470)	T	67.3/42.8
R317	7030005290	S.RES ERJ2GEJ 682 X (6.8K)	T	66.4/39.6
R318	7030005050	S.RES ERJ2GEJ 103 X (10K)	T	67.3/39.6
R321	7030007340	S.RES ERJ2GEJ 153 X (15K)	T	73.7/27.7
R322	7030008300	S.RES ERJ2GEJ 184 X (180K)	B	69.1/33.0
R323	7030005720	S.RES ERJ2GEJ 563 X (56K)	B	70.0/33.0
R324	7030005220	S.RES ERJ2GEJ 223 X (22K)	B	70.9/33.0
R325	7030005290	S.RES ERJ2GEJ 682 X (6.8K)	T	72.8/29.5
R326	7030005240	S.RES ERJ2GEJ 473 X (47K)	T	73.7/29.5
R327	7030005240	S.RES ERJ2GEJ 473 X (47K)	T	75.5/29.5
R328	7030005240	S.RES ERJ2GEJ 473 X (47K)	T	75.5/27.7
R329	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	T	77.9/29.5
R330	7030005090	S.RES ERJ2GEJ 104 X (100K)	T	74.5/32.9
R331	7030005240	S.RES ERJ2GEJ 473 X (47K)	T	77.4/31.6
R341	7030005070	S.RES ERJ2GEJ 683 X (68K)	T	84.8/31.1
R342	7030005070	S.RES ERJ2GEJ 683 X (68K)	T	84.8/29.4
R343	7030005070	S.RES ERJ2GEJ 683 X (68K)	T	84.8/27.7
R344	7030005070	S.RES ERJ2GEJ 683 X (68K)	T	86.6/27.7
R345	7030005070	S.RES ERJ2GEJ 683 X (68K)	T	85.7/26.0
R346	7030005170	S.RES ERJ2GEJ 474 X (470K)	T	85.7/24.3
R347	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	81.3/15.4
R348	7030005160	S.RES ERJ2GEJ 105 X (1M)	T	82.3/34.6
R349	7030005160	S.RES ERJ2GEJ 105 X (1M)	T	83.2/34.6
R350	7030005050	S.RES ERJ2GEJ 103 X (10K)	T	86.6/24.3
R351	7030008290	S.RES ERJ2GEJ 183 X (18K)	T	75.5/24.3
R352	7030005050	S.RES ERJ2GEJ 103 X (10K)	T	71.8/12.0
R353	7030005210	S.RES ERJ2GEJ 822 X (8.2K)	T	72.7/10.2
R354	7030005160	S.RES ERJ2GEJ 105 X (1M)	T	75.4/10.2
R355	7030005050	S.RES ERJ2GEJ 103 X (10K)	T	73.7/24.3
R356	7030010040	S.RES ERJ2GEJ-JPW	T	85.7/23.1
R359	7030010040	S.RES ERJ2GEJ-JPW	B	56.1/10.5
R360	7030007290	S.RES ERJ2GEJ 222 X (2.2K)	B	56.1/9.6
R361	7030005000	S.RES ERJ2GEJ 471 X (470)	B	25.1/43.9
R362	7030005060	S.RES ERJ2GEJ 333 X (33K)	B	51.6/7.5
R363	7030005000	S.RES ERJ2GEJ 471 X (470)	B	57.8/8.7
R364	7030005090	S.RES ERJ2GEJ 104 X (100K)	T	59.5/5.5
R366	7030005100	S.RES ERJ2GEJ 154 X (150K)	B	57.8/9.6
R368	7030005700	S.RES ERJ2GEJ 274 X (270K)	T	61.7/8.7
R369	7030005100	S.RES ERJ2GEJ 154 X (150K)	T	61.7/10.4
R370	7030005170	S.RES ERJ2GEJ 474 X (470K)	B	61.7/11.0
R371	7030005290	S.RES ERJ2GEJ 682 X (6.8K)	T	74.5/8.4
R372	7030009290	S.RES ERJ2GEJ 562 X (5.6K)	T	80.2/8.4
R373	7030005080	S.RES ERJ2GEJ 823 X (82K)	T	84.7/10.2
R374	7030008410	S.RES ERJ2GEJ 392 X (3.9K)	T	86.5/10.2
R375	7030005000	S.RES ERJ2GEJ 471 X (470)	T	85.6/12.0
R376	7030008300	S.RES ERJ2GEJ 184 X (180K)	T	85.6/13.8
R377	7030005720	S.RES ERJ2GEJ 563 X (56K)	T	84.7/13.8
R378	7030005050	S.RES ERJ2GEJ 103 X (10K)	T	86.5/15.6
R379	7030005700	S.RES ERJ2GEJ 274 X (270K)	T	84.7/15.6
R381	7030005700	S.RES ERJ2GEJ 274 X (270K)	T	70.9/15.6
R382	7030006610	S.RES ERJ2GEJ 394 X (390K)	T	71.8/13.8
R383	7030008310	S.RES ERJ2GEJ 564 X (560K)	T	70.9/13.8
R384	7030005090	S.RES ERJ2GEJ 104 X (100K)	T	80.9/15.4
R385	7030005310	S.RES ERJ2GEJ 124 X (120K)	T	74.5/13.8

[MAIN-D UNIT]

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
R386	7030005060	S.RES ERJ2GEJ 333 X (33K)	T	73.6/13.8
R387	7030005030	S.RES ERJ2GEJ 152 X (1.5K)	T	73.6/15.6
R388	7030005060	S.RES ERJ2GEJ 333 X (33K)	B	82.7/17.3
R389	7030005990	S.RES RR0510P-122-D (1.2K)	B	83.6/17.3
R390	7030005810	S.RES RR0510P-152-D (1.5K)	B	77.2/15.5
R391	7030007290	S.RES ERJ2GEJ 222 X (2.2K)	T	74.5/15.6
R393	7030005700	S.RES ERJ2GEJ 274 X (270K)	B	61.7/7.8
R394	7030005720	S.RES ERJ2GEJ 563 X (56K)	B	60.8/6.2
R395	7030005310	S.RES ERJ2GEJ 124 X (120K)	B	60.8/7.8
R396	7030005700	S.RES ERJ2GEJ 274 X (270K)	B	61.7/6.2
R397	7030008300	S.RES ERJ2GEJ 184 X (180K)	B	60.8/4.6
R398	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	61.7/9.4
R401	7030005120	S.RES ERJ2GEJ 102 X (1K)	T	66.2/35.8
R402	7030005000	S.RES ERJ2GEJ 471 X (470)	B	68.5/22.5
R403	7030010040	S.RES ERJ2GEJ-JPW	B	67.6/28.7
R405	7030011290	S.RES ERJ12YJ1R8U (1.8)	T	33.6/35.3
R406	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	12.6/45.7
R407	7030010040	S.RES ERJ2GEJ-JPW	T	34.0/38.0
R408	7030004980	S.RES ERJ2GEJ 101 X (100)	B	35.6/46.3
R412	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	B	15.9/39.5
R413	7030005090	S.RES ERJ2GEJ 104 X (100K)	T	20.8/33.4
R414	7030005230	S.RES ERJ2GEJ 334 X (330K)	B	21.5/34.9
R416	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	21.5/35.8
R417	7030007340	S.RES ERJ2GEJ 153 X (15K)	B	21.3/37.1
R418	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	19.8/37.9
R420	7030005090	S.RES ERJ2GEJ 104 X (100K)	T	79.6/32.3
R421	7210003390	VAR F081165S-5 A10K L15FCX7 <SLVJ>		
R423	7030005090	S.RES ERJ2GEJ 104 X (100K)	T	6.9/37.8
R424	7030005090	S.RES ERJ2GEJ 104 X (100K)	T	5.2/38.7
R426	7030007340	S.RES ERJ2GEJ 153 X (15K)	B	69.3/6.3
R427	7030005230	S.RES ERJ2GEJ 334 X (330K)	B	69.3/4.6
R428	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	65.1/3.1
R429	7030008300	S.RES ERJ2GEJ 184 X (180K)	B	66.8/3.1
R430	7030005160	S.RES ERJ2GEJ 105 X (1M)	B	71.7/3.1
R431	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	66.6/34.8
R432	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	B	70.5/30.9
R433	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	67.6/30.3
R434	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	70.5/30.0
R435	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	76.8/24.5
R436	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	B	75.4/30.0
R437	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	8.4/34.7
R438	7030007290	S.RES ERJ2GEJ 222 X (2.2K)	T	4.8/33.3
R439	7030007290	S.RES ERJ2GEJ 222 X (2.2K)	T	83.2/8.4
R440	7030009280	S.RES ERJ2GEJ 391 X	B	17.5/43.6
R441	7030005050	S.RES ERJ2GEJ 103 X (10K)	T	19.2/32.5
R442	7030007280	S.RES ERJ2GEJ 331 X (330)	B	20.2/33.7
R451	7030005530	S.RES ERJ2GEJ 100 X (10)	B	85.2/37.3
R453	7030008010	S.RES ERJ2GEJ 123 X (12K)	B	87.9/35.2
R454	7030005220	S.RES ERJ2GEJ 223 X (22K)	B	87.0/32.2
R455	7030008010	S.RES ERJ2GEJ 123 X (12K)	B	86.1/35.2
R456	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	87.6/42.7
R457	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	T	80.7/35.0
R458	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	81.3/30.0
R459	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	80.4/30.0
R460	7410001140	S.ARR EXB28V104JX	B	77.7/30.0
R461	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	B	84.0/30.8
R462	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	B	84.0/29.9
R463	7030005050	S.RES ERJ2GEJ 103 X (10K)	T	71.8/37.7
R464	7030005090	S.RES ERJ2GEJ 104 X (100K)	T	73.4/34.8
R466	7410001140	S.ARR EXB28V104JX	B	69.5/40.0
R467	7410001140	S.ARR EXB28V104JX	B	69.5/37.0
R468	7030008400	S.RES ERJ2GEJ 182 X (1.8K)	T	70.0/41.6
R469	7030009280	S.RES ERJ2GEJ 391 X	T	70.0/39.5
R470	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	74.7/46.1
R471	7030007340	S.RES ERJ2GEJ 153 X (15K)	B	72.6/45.4
R472	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	72.6/47.2
R473	7410001140	S.ARR EXB28V104JX	B	77.7/46.1
R474	7030007340	S.RES ERJ2GEJ 153 X (15K)	B	72.6/46.3
R475	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	79.5/30.0
R476	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	75.9/46.1
R477	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	85.2/34.5
C1	4030017550	S.CER C1005 CH 1H 1R5B-T	B	8.5/5.6
C2	4030017600	S.CER C1005 CH 1H 080C-T	B	10.6/5.6
C3	4030017530	S.CER C1005 CH 1H 0R5B-T	B	12.2/8.0
C4	4030017550	S.CER C1005 CH 1H 1R5B-T	B	8.9/10.5
C5	4030017600	S.CER C1005 CH 1H 080C-T	B	10.7/14.9
C6	4030017530	S.CER C1005 CH 1H 0R5B-T	B	12.2/10.0
C7	4030017460	S.CER C1005 JB 1H 102K-T	B	14.4/9.6
C8	4030017560	S.CER C1005 CH 1H 2R5B-T	B	12.4/14.9
C9	4030017570	S.CER C1005 CH 1H 040B-T	B	12.4/15.8
C10	4030017460	S.CER C1005 JB 1H 102K-T	B	14.8/13.4
C11	4030017460	S.CER C1005 JB 1H 102K-T	B	16.5/13.4
C12	4030017600	S.CER C1005 CH 1H 080C-T	B	17.2/12.0
C13	4030017390	S.CER C1005 CH 1H 180J-T	B	19.7/11.8
C15	4030007060	S.CER C1608 CH 1H 270J-T	B	22.8/10.3
C18	4030017460	S.CER C1005 JB 1H 102K-T	B	19.8/19.1
C19	4030017460	S.CER C1005 JB 1H 102K-T	B	18.2/19.2
C20	4030017460	S.CER C1005 JB 1H 102K-T	T	33.5/11.3
C21	4030017460	S.CER C1005 JB 1H 102K-T	T	30.8/5.9
C22	4030017460	S.CER C1005 JB 1H 102K-T	T	39.2/5.9
C23	4030016930	S.CER C1005 JB 1A 104K-T	T	31.7/11.3
C24	4030018890	S.CER C1005 JB 0J 224K-T	T	35.7/5.9
C25	4030016790	S.CER C1005 JB 1E 103K-T	T	35.7/11.3
C26	4030017460	S.CER C1005 JB 1H 102K-T	T	36.6/9.6
C27	4030017460	S.CER C1005 JB 1H 102K-T	T	36.6/7.6
C28	4030020120	S.CER C1005 JB 0J 225M-T	T	37.5/7.6
C29	4030017460	S.CER C1005 JB 1H 102K-T	B	37.3/9.1
C36	4030017420	S.CER C1005 CH 1H 470J-T	B	23.8/16.1
C37	4030017720	S.CER C1005 JB 1H 331K-T	B	24.7/16.1
C38	4030017460	S.CER C1005 JB 1H 102K-T	B	32.7/15.1
C39	4030017420	S.CER C1005 CH 1H 470J-T	B	32.7/14.1
C45	4030017420	S.CER C1005 CH 1H 470J-T	B	32.7/12.1

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

[MAIN-D UNIT]

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
C47	4030017720	S.CER C1005 JB 1H 331K-T	B	33.2/9.1
C51	4030017570	S.CER C1005 CH 1H 040B-T	B	39.1/14.2
C52	4030017460	S.CER C1005 JB 1H 102K-T	B	41.0/8.9
C53	4030017720	S.CER C1005 JB 1H 331K-T	B	42.7/10.7
C54	4030017460	S.CER C1005 JB 1H 102K-T	B	42.7/9.8
C55	4030017620	S.CER C1005 CH 1H 100C-T	B	39.1/12.5
C57	4030017720	S.CER C1005 JB 1H 331K-T	B	37.3/10.8
C59	4030017380	S.CER C1005 CH 1H 050B-T	B	43.7/14.0
C60	4030017420	S.CER C1005 CH 1H 470J-T	B	45.5/8.9
C61	4030017460	S.CER C1005 JB 1H 102K-T	B	47.2/11.6
C62	4030017600	S.CER C1005 CH 1H 080C-T	B	45.5/11.6
C63	4030017380	S.CER C1005 CH 1H 050B-T	B	47.4/15.2
C64	4030017460	S.CER C1005 JB 1H 102K-T	B	49.6/12.1
C65	4030017460	S.CER C1005 JB 1H 102K-T	B	51.2/14.0
C66	4030017350	S.CER C1005 CH 1H 020B-T	T	60.1/17.7
C67	4030017350	S.CER C1005 CH 1H 020B-T	B	51.8/15.7
C71	4030017620	S.CER C1005 CH 1H 100C-T	T	52.9/17.7
C72	4030017460	S.CER C1005 JB 1H 102K-T	B	55.4/17.1
C73	4030017460	S.CER C1005 JB 1H 102K-T	T	53.8/19.3
C74	4030017380	S.CER C1005 CH 1H 050B-T	T	58.3/19.3
C76	4030017460	S.CER C1005 JB 1H 102K-T	B	56.3/18.8
C77	4030017460	S.CER C1005 JB 1H 102K-T	T	64.6/19.3
C78	4030017460	S.CER C1005 JB 1H 102K-T	T	59.2/19.9
C79	4030016930	S.CER C1005 JB 1A 104K-T	B	64.5/16.4
C80	4030017720	S.CER C1005 JB 1H 331K-T	B	62.0/25.2
C81	4030017360	S.CER C1005 CH 1H 030B-T	T	58.3/17.7
C82	4030017420	S.CER C1005 CH 1H 470J-T	B	55.4/18.8
C83	4030017540	S.CER C1005 CH 1H R75B-T	T	58.3/22.2
C84	4030017720	S.CER C1005 JB 1H 331K-T	T	54.4/22.7
C85	4030017460	S.CER C1005 JB 1H 102K-T	T	54.4/21.8
C86	4030017590	S.CER C1005 CH 1H 070C-T	T	56.5/24.5
C87	4030017390	S.CER C1005 CH 1H 180J-T	T	54.4/23.6
C88	4030017390	S.CER C1005 CH 1H 180J-T	T	56.5/25.4
C89	4030017510	S.CER C1005 CH 1H 680J-T	T	56.8/27.6
C90	4030017550	S.CER C1005 CH 1H 1R5B-T	T	53.6/27.6
C92	4030017390	S.CER C1005 CH 1H 180J-T	T	55.2/27.6
C93	4030017720	S.CER C1005 JB 1H 331K-T	B	57.6/29.4
C94	4030017420	S.CER C1005 CH 1H 470J-T	T	49.1/26.4
C101	4030017530	S.CER C1005 CH 1H 0R5B-T	T	59.5/22.2
C102	4030016930	S.CER C1005 JB 1A 104K-T	T	64.2/20.6
C103	4030017460	S.CER C1005 JB 1H 102K-T	T	64.2/21.5
C104	4030017570	S.CER C1005 CH 1H 040B-T	T	60.4/23.8
C105	4030017610	S.CER C1005 CH 1H 090C-T	T	64.2/22.4
C106	4030017640	S.CER C1005 CH 1H 150J-T	T	61.9/25.1
C107	4030017510	S.CER C1005 CH 1H 680J-T	T	60.6/27.4
C108	4030017380	S.CER C1005 CH 1H 050B-T	T	64.2/23.3
C109	4030017460	S.CER C1005 JB 1H 102K-T	B	61.7/29.9
C110	4030017530	S.CER C1005 CH 1H 0R5B-T	T	62.6/26.4
C111	4030017630	S.CER C1005 CH 1H 120J-T	T	61.5/27.4
C116	4030018860	S.CER C1005 JB 0J 105K-T	B	64.4/27.7
C117	4030017760	S.CER C1005 JB 1H 222K-T	B	63.5/27.7
C118	4030017420	S.CER C1005 CH 1H 470J-T	B	65.9/24.9
C119	4550000550	S.TAN TEESVA 1V 224M8R	B	60.2/22.7
C120	4030017460	S.CER C1005 JB 1H 102K-T	B	61.7/31.8
C121	4030019490	S.CER C2012 JB 1A 106K-T	B	61.9/19.3
C122	4030016790	S.CER C1005 JB 1E 103K-T	B	60.9/14.8
C123	4030017460	S.CER C1005 JB 1H 102K-T	B	48.1/27.9
C124	4030017460	S.CER C1005 JB 1H 102K-T	B	54.7/30.5
C127	4030017910	S.CER C1005 JB 1H 152K-T	B	63.5/29.9
C132	4550000270	S.TAN TEESVA 1E 474M8R	T	48.9/29.5
C133	4030016950	S.CER C1005 JB 1A 473K-T	T	46.7/26.4
C134	4550000460	S.TAN TEESVA 1C 105M8R	T	46.7/29.5
C141	4030017580	S.CER C1005 CH 1H 060C-T	B	55.4/20.4
C142	4030017590	S.CER C1005 CH 1H 070C-T	B	53.5/20.4
C147	4030017590	S.CER C1005 CH 1H 070C-T	B	51.3/19.5
C149	4030017460	S.CER C1005 JB 1H 102K-T	T	46.7/21.8
C150	4030017460	S.CER C1005 JB 1H 102K-T	T	43.1/20.3
C152	4030017460	S.CER C1005 JB 1H 102K-T	T	43.1/18.5
C153	4030017420	S.CER C1005 CH 1H 470J-T	T	44.5/32.6
C154	4030017420	S.CER C1005 CH 1H 470J-T	T	43.6/32.6
C155	4030017420	S.CER C1005 CH 1H 470J-T	T	42.7/32.6
C156	4030016930	S.CER C1005 JB 1A 104K-T	T	48.6/32.6
C157	4030016790	S.CER C1005 JB 1E 103K-T	T	41.0/19.4
C158	4030017620	S.CER C1005 CH 1H 100C-T	T	39.2/19.4
C159	4030016930	S.CER C1005 JB 1A 104K-T	T	40.1/10.9
C160	4030017460	S.CER C1005 JB 1H 102K-T	T	41.9/10.9
C171	4030017570	S.CER C1005 CH 1H 040B-T	B	15.3/16.0
C172	4030017350	S.CER C1005 CH 1H 020B-T	B	15.3/17.2
C173	4030017460	S.CER C1005 JB 1H 102K-T	B	13.9/18.8
C175	4030017420	S.CER C1005 CH 1H 470J-T	B	13.9/20.5
C176	4030017410	S.CER C1005 CH 1H 240J-T	B	15.8/23.9
C177	4030017600	S.CER C1005 CH 1H 080C-T	B	15.8/24.8
C178	4030017560	S.CER C1005 CH 1H 2R5B-T	B	14.5/25.2
C179	4030017580	S.CER C1005 CH 1H 060C-T	B	15.8/25.7
C180	4030017410	S.CER C1005 CH 1H 240J-T	B	15.8/26.6
C181	4030017590	S.CER C1005 CH 1H 070C-T	B	17.4/29.0
C182	4030017460	S.CER C1005 JB 1H 102K-T	B	20.3/22.7
C183	4030017460	S.CER C1005 JB 1H 102K-T	B	20.3/25.4
C184	4030016930	S.CER C1005 JB 1A 104K-T	B	20.3/26.3
C186	4030016930	S.CER C1005 JB 1A 104K-T	B	19.2/31.0
C188	4030017460	S.CER C1005 JB 1H 102K-T	B	23.2/31.0
C189	4030017460	S.CER C1005 JB 1H 102K-T	B	23.9/25.4
C192	4030017460	S.CER C1005 JB 1H 102K-T	B	23.9/27.2
C194	4030017460	S.CER C1005 JB 1H 102K-T	B	22.1/27.2
C195	4030017560	S.CER C1005 CH 1H 2R5B-T	B	23.2/28.5
C196	4030017630	S.CER C1005 CH 1H 120J-T	B	27.4/28.5
C197	4030017530	S.CER C1005 CH 1H 0R5B-T	B	29.2/28.9
C198	4030017630	S.CER C1005 CH 1H 120J-T	B	31.0/28.5
C199	4030017560	S.CER C1005 CH 1H 2R5B-T	B	34.4/26.8
C200	4030017400	S.CER C1005 CH 1H 220J-T	B	34.4/28.5
C201	4030017460	S.CER C1005 JB 1H 102K-T	B	31.5/23.8
C203	4030016930	S.CER C1005 JB 1A 104K-T	B	29.7/24.7
C206	4030017380	S.CER C1005 CH 1H 050B-T	B	47.4/16.6
C208	4030017350	S.CER C1005 CH 1H 020B-T	B	37.4/23.5
C209	4030017350	S.CER C1005 CH 1H 020B-T	B	35.4/23.5

[MAIN-D UNIT]

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
C210	4030017380	S.CER C1005 CH 1H 050B-T	B	35.4/25.1
C212	4030017460	S.CER C1005 JB 1H 102K-T	B	34.4/23.5
C213	4030017420	S.CER C1005 CH 1H 470J-T	B	38.4/25.1
C214	4030017460	S.CER C1005 JB 1H 102K-T	B	37.4/25.1
C215	4030017390	S.CER C1005 CH 1H 180J-T	B	42.2/27.7
C216	4030017460	S.CER C1005 JB 1H 102K-T	B	41.4/25.1
C217	4030016790	S.CER C1005 JB 1E 103K-T	B	40.4/25.1
C218	4030016790	S.CER C1005 JB 1E 103K-T	B	37.6/29.8
C220	4030017590	S.CER C1005 CH 1H 070C-T	B	40.4/34.6
C221	4030017420	S.CER C1005 CH 1H 470J-T	B	42.4/25.1
C223	4030017460	S.CER C1005 JB 1H 102K-T	B	43.3/23.5
C224	4030017460	S.CER C1005 JB 1H 102K-T	B	45.7/17.6
C225	4030016790	S.CER C1005 JB 1E 103K-T	B	39.0/39.8
C226	4030016790	S.CER C1005 JB 1E 103K-T	B	37.3/44.4
C227	4030016790	S.CER C1005 JB 1E 103K-T	B	35.6/41.8
C228	4030017530	S.CER C1005 CH 1H 0R5B-T	B	35.6/39.8
C231	4030017430	S.CER C1005 CH 1H 101J-T	B	40.9/41.8
C232	4030017400	S.CER C1005 CH 1H 220J-T	T	43.0/38.6
C233	4030017420	S.CER C1005 CH 1H 470J-T	B	40.9/39.0
C234	4030016790	S.CER C1005 JB 1E 103K-T	T	47.3/35.5
C235	4030019490	S.CER C2012 JB 1A 106K-T	B	44.5/42.6
C236	4030017460	S.CER C1005 JB 1H 102K-T	B	47.1/43.1
C238	4030017460	S.CER C1005 JB 1H 102K-T	B	41.3/40.3
C239	4030017720	S.CER C1005 JB 1H 331K-T	T	43.0/39.6
C240	4030017460	S.CER C1005 JB 1H 102K-T	B	44.7/35.5
C241	4030017670	S.CER C1005 CH 1H 390J-T	B	46.5/32.8
C242	4030017440	S.CER C1005 CH 1H 221J-T	B	48.3/34.6
C243	4030017440	S.CER C1005 CH 1H 221J-T	B	46.5/35.5
C244	4030016930	S.CER C1005 JB 1A 104K-T	B	50.2/37.0
C251	4030017360	S.CER C1005 CH 1H 030B-T	T	41.5/34.6
C252	4030017500	S.CER C1005 CH 1H 560J-T	T	39.4/33.4
C253	4030017580	S.CER C1005 CH 1H 060C-T	T	41.5/33.6
C254	4030017500	S.CER C1005 CH 1H 560J-T	T	39.4/32.5
C255	4030016790	S.CER C1005 JB 1E 103K-T	T	41.5/29.6
C256	4030017620	S.CER C1005 CH 1H 100C-T	T	39.2/24.6
C257	4030016790	S.CER C1005 JB 1E 103K-T	T	36.9/31.4
C261	4030016930	S.CER C1005 JB 1A 104K-T	B	50.5/38.6
C262	4030016790	S.CER C1005 JB 1E 103K-T	B	50.2/40.7
C263	4030016790	S.CER C1005 JB 1E 103K-T	B	57.1/41.5
C264	4030016790	S.CER C1005 JB 1E 103K-T	B	53.9/36.0
C265	4030016790	S.CER C1005 JB 1E 103K-T	B	58.7/36.9
C266	4030016790	S.CER C1005 JB 1E 103K-T	B	57.4/35.1
C267	4030016930	S.CER C1005 JB 1A 104K-T	T	50.9/34.6
C301	4030016930	S.CER C1005 JB 1A 104K-T	B	69.3/12.4
C302	4030016960	S.CER C1005 JB 1E 183K-T	B	66.6/14.1
C303	4030017440	S.CER C1005 CH 1H 221J-T	B	68.4/10.7
C304	4030019460	S.CER C1608 JB 0J 106M-T	T	62.6/42.0
C305	4030016950	S.CER C1005 JB 1A 473K-T	T	76.4/32.9
C306	4030016940	S.CER C1005 JB 1A 393K-T	T	65.5/37.9
C307	4030016930	S.CER C1005 JB 1A 104K-T	T	63.5/39.6
C308	4030017790	S.CER C1005 JB 1H 682K-T	T	65.5/39.6
C309	4030016970	S.CER C1005 JB 1E 223K-T	T	67.3/41.2
C310	4030016930	S.CER C1005 JB 1A 104K-T	T	62.6/37.9
C312	4030016960	S.CER C1005 JB 1E 183K-T	T	74.6/29.5
C313	4030016930	S.CER C1005 JB 1A 104K-T	T	77.0/29.5
C314	4030017750	S.CER C1005 JB 1H 122K-T	T	74.6/26.0
C316	4030016930	S.CER C1005 JB 1A 104K-T	T	77.4/30.7
C318	4030016790	S.CER C1005 JB 1E 103K-T	B	70.6/28.7
C321	4030018100	S.CER C1005 JB 1H 681K-T	T	85.7/29.4
C322	4030017460	S.CER C1005 JB 1H 102K-T	T	85.7/27.7
C323	4030018140	S.CER C1005 JB 1H 391K-T	T	84.8/26.0
C324	4030016790	S.CER C1005 JB 1E 103K-T	T	86.6/26.0
C325	4030017670	S.CER C1005 CH 1H 390J-T	T	87.5/26.0
C326	4030016790	S.CER C1005 JB 1E 103K-T	T	71.8/15.6
C328	4030018860	S.CER C1005 JB 0J 105K-T	T	72.8/24.3
C329	4030017780	S.CER C1005 JB 1H 472K-T	T	74.6/24.3
C330	4030016790	S.CER C1005 JB 1E 103K-T	T	72.7/13.8
C331	4030016790	S.CER C1005 JB 1E 103K-T	T	72.7/12.0
C332	4030017780	S.CER C1005 JB 1H 472K-T	T	73.6/10.2
C333	4030017780	S.CER C1005 JB 1H 472K-T	T	74.5/10.2
C334	4030017460	S.CER C1005 JB 1H 102K-T	B	15.0/46.6
C335	4030017460	S.CER C1005 JB 1H 102K-T	B	26.0/43.9
C336	4030018860	S.CER C1005 JB 0J 105K-T	B	56.1/8.7
C337	4030017460	S.CER C1005 JB 1H 102K-T	B	52.5/7.5
C338	4030017460	S.CER C1005 JB 1H 102K-T	B	50.7/7.5
C339	4030017460	S.CER C1005 JB 1H 102K-T	B	53.4/7.5
C340	4030016930	S.CER C1005 JB 1A 104K-T	B	57.8/10.5
C342	4030017460	S.CER C1005 JB 1H 102K-T	B	47.1/6.4
C343	4030019490	S.CER C2012 JB 1A 106K-T	B	57.6/7.3
C344	4030016930	S.CER C1005 JB 1A 104K-T	T	59.5/6.4
C346	4030016940	S.CER C1005 JB 1A 393K-T	T	79.2/8.4
C347	4030016790	S.CER C1005 JB 1E 103K-T	T	82.2/8.4
C348	4030016940	S.CER C1005 JB 1A 393K-T	T	81.2/8.4
C349	4030016930	S.CER C1005 JB 1A 104K-T	T	85.6/10.2
C350	4030018140	S.CER C1005 JB 1H 391K-T	T	86.5/13.8
C351	4030017440	S.CER C1005 CH 1H 221J-T	T	85.6/15.6
C352	4030016930	S.CER C1005 JB 1A 104K-T	T	86.5/12.0
C353	4030016790	S.CER C1005 JB 1E 103K-T	T	87.4/23.1
C354	4030016790	S.CER C1005 JB 1E 103K-T	T	84.0/23.1
C356	4030019490	S.CER C2012 JB 1A 106K-T	B	76.9/28.0
C357	4030016790	S.CER C1005 JB 1E 103K-T	T	83.2/33.0
C358	4030016930	S.CER C1005 JB 1A 104K-T	T	82.3/33.0
C361	4030016930	S.CER C1005 JB 1A 104K-T	B	76.8/22.2
C362	4030016930	S.CER C1005 JB 1A 104K-T	B	72.1/19.7
C363	4030016930	S.CER C1005 JB 1A 104K-T	B	69.0/28.7
C364	4030017780	S.CER C1005 JB 1H 472K-T	B	60.8/9.4
C365	4030017420	S.CER C1005 CH 1H 470J-T	B	61.7/4.6
C371	4030017780	S.CER C1005 JB 1H 472K-T	T	74.5/12.0
C372	4030017710	S.CER C1005 CH 1H 181J-T	T	75.4/13.8
C373	4030016950	S.CER C1005 JB 1A 473K-T	T	74.5/17.4
C376	4030017460	S.CER C1005 JB 1H 102K-T	B	77.6/16.7
C377	4550007320	S.TAN F930J226MAABMA	B	79.7/17.1
C378	4030017460	S.CER C1005 JB 1H 102K-T	B	76.7/17.5
C379	4550006780	S.TAN TEESVB2 0J 476M8R	B	84.5/11.6
C380	4030017420	S.CER C1005 CH 1H 470J-T	B	60.8/11.0

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

[MAIN-D UNIT]

REF NO.	PARTS NO.	DESCRIPTION		M.	H/V LOCATION
C381	4030016960	S.CER	C1005 JB 1E 183K-T	B	68.4/8.0
C382	4030016960	S.CER	C1005 JB 1E 183K-T	B	68.4/6.3
C383	4030017730	S.CER	C1005 JB 1H 471K-T	B	70.2/4.6
C385	4030016930	S.CER	C1005 JB 1A 104K-T	B	71.7/4.1
C388	4030017460	S.CER	C1005 JB 1H 102K-T	B	20.9/3.5
C389	4030017460	S.CER	C1005 JB 1H 102K-T	B	43.6/2.8
C390	4030017460	S.CER	C1005 JB 1H 102K-T	B	53.1/2.8
C391	4030017420	S.CER	C1005 CH 1H 470J-T	B	37.3/46.3
C392	4030017420	S.CER	C1005 CH 1H 470J-T	B	29.5/43.9
C393	4520000020	S.NIO	NOJC227M006RWJV	B	19.8/40.5
C395	4520000020	S.NIO	NOJC227M006RWJV	T	21.7/37.1
C397	4030017460	S.CER	C1005 JB 1H 102K-T	T	25.5/37.5
C398	4030017460	S.CER	C1005 JB 1H 102K-T	B	12.2/32.0
C399	4030016930	S.CER	C1005 JB 1A 104K-T	B	22.2/37.1
C400	4550006250	S.TAN	TEESVA 1A 106M8R	T	12.9/40.8
C401	4030016930	S.CER	C1005 JB 1A 104K-T	B	12.2/37.6
C403	4030016930	S.CER	C1005 JB 1A 104K-T	B	15.0/39.5
C404	4030016930	S.CER	C1005 JB 1A 104K-T	B	12.2/38.5
C405	4030018860	S.CER	C1005 JB 0J 105K-T	B	19.3/33.7
C406	4030017460	S.CER	C1005 JB 1H 102K-T	T	21.4/34.6
C408	4030016930	S.CER	C1005 JB 1A 104K-T	T	5.2/37.8
C412	4030017460	S.CER	C1005 JB 1H 102K-T	T	6.5/42.8
C413	4030017460	S.CER	C1005 JB 1H 102K-T	T	6.8/44.8
C414	4030017460	S.CER	C1005 JB 1H 102K-T	T	8.1/23.1
C415	4030017460	S.CER	C1005 JB 1H 102K-T	T	6.5/30.8
C416	4030017460	S.CER	C1005 JB 1H 102K-T	T	6.1/23.1
C417	4030017460	S.CER	C1005 JB 1H 102K-T	T	3.7/30.8
C419	4030017420	S.CER	C1005 CH 1H 470J-T	T	5.7/46.5
C421	4030016930	S.CER	C1005 JB 1A 104K-T	T	75.4/12.0
C423	4030016790	S.CER	C1005 JB 1E 103K-T	B	65.2/38.4
C424	4030017460	S.CER	C1005 JB 1H 102K-T	T	63.8/34.4
C426	4030016790	S.CER	C1005 JB 1E 103K-T	B	69.0/30.3
C427	4030016930	S.CER	C1005 JB 1A 104K-T	T	73.7/26.0
C429	4030016790	S.CER	C1005 JB 1E 103K-T	B	77.2/25.7
C430	4030016930	S.CER	C1005 JB 1A 104K-T	T	65.9/11.4
C431	4510009870	S.ELE	10 CE 100 LD	T	14.7/27.1
C432	4030017460	S.CER	C1005 JB 1H 102K-T	T	14.3/31.7
C433	4030016930	S.CER	C1005 JB 1A 104K-T	T	16.2/32.2
C434	4030016790	S.CER	C1005 JB 1E 103K-T	T	14.3/32.6
C435	4030017460	S.CER	C1005 JB 1H 102K-T	T	18.0/32.2
C436	4550007320	S.TAN	F930J226MAABMA	B	85.2/44.4
C437	4030016930	S.CER	C1005 JB 1A 104K-T	T	17.1/32.2
C448	4030019490	S.CER	C2012 JB 1A 106K-T	B	29.0/46.0
C451	4030017660	S.CER	C1005 CH 1H 330J-T	B	86.6/38.5
C452	4030017620	S.CER	C1005 CH 1H 100C-T	B	86.1/37.3
C453	4030017400	S.CER	C1005 CH 1H 220J-T	B	87.0/35.2
C454	4030016930	S.CER	C1005 JB 1A 104K-T	B	86.1/32.2
C456	4030016930	S.CER	C1005 JB 1A 104K-T	B	87.9/32.2
C457	4030017030	S.CER	C1005 JB 1A 273K-T	B	86.8/46.9
C458	4030016930	S.CER	C1005 JB 1A 104K-T	T	84.7/45.5
C459	4030016930	S.CER	C1005 JB 1A 104K-T	B	85.2/40.6
C460	4030016930	S.CER	C1005 JB 1A 104K-T	B	79.5/46.1
C461	4030016930	S.CER	C1005 JB 1A 104K-T	B	80.4/46.1
C462	4030016930	S.CER	C1005 JB 1A 104K-T	B	81.3/46.1
C465	4030016930	S.CER	C1005 JB 1A 104K-T	T	77.4/35.0
C466	4030016790	S.CER	C1005 JB 1E 103K-T	T	79.0/35.0
C467	4030016930	S.CER	C1005 JB 1A 104K-T	B	85.2/32.2
J1	6510028180	S.CON	MM8130-2600RA2	T	9.3/7.1
J51	6450000131	CON	HSJ1102-018540		
J52	6450002250	CON	HSJ1456-010320		
J53	6510021901	S.CON	BM02B-ASRS-TF(LF)(SN)	T	27.9/34.4
F51	5210001160	S.FUS	ERBRE3R00V	T	10.7/37.6
DS51	5040002670	S.LED	CL-165HR/YG	T	2.6/37.9
MC51	7700002920	MIC	EM9745P-38-G-01 <HOR>		
S51	2260001900	SWI	SW-149 (SKHLLD)		
S52	2260002800	S.SWI	SW-167 (SKQTLAE010)	B	39.2/1.9
S53	2260002800	S.SWI	SW-167 (SKQTLAE010)	B	48.7/1.9
S54	2250000680	ENC	FSR080453W-01+16C L15.9 <SLVJ>		
EP3	6910018460	S.BEA	MMZ1005Y102C-T	T	63.7/19.3
EP4	6910018460	S.BEA	MMZ1005Y102C-T	T	41.9/19.4
EP5	6910018460	S.BEA	MMZ1005Y102C-T	T	41.0/10.9
EP6	6910014730	S.BEA	MPZ2012S331A-T	B	22.4/17.0
EP11	6910021240	S.BEA	MMZ1005A152ET	T	54.9/24.5
EP14	6910021240	S.BEA	MMZ1005A152ET	T	60.4/22.2
EP51	6910018460	S.BEA	MMZ1005Y102C-T	B	19.1/46.2

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

SECTION 6 MECHANICAL PARTS

[CHASSIS PARTS]

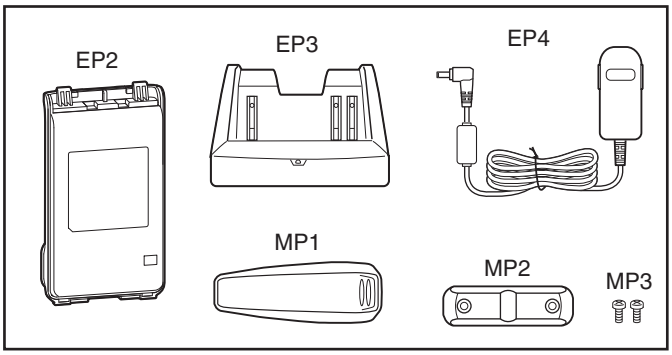
REF NO.	ORDER NO.	DESCRIPTION	QTY.
SP1	2510001560	045P01202-02	1
W1	8900009640	OPC-963	1
EP2	3310003640	2927 ANT <EIK>	1
MP1	8010022041	3286 CHASSIS-1 2X2	1
MP2	8210026490	3328 FRONT PANELASSEMBLY	1
MP10	8930082160	3285 NAME SHEET (A)	1
MP11	8930081140	3328 LENS	1
MP12	8930080620	O-RING (CF) <KRI>	1
MP13	8930080630	3285 SP PLATE Y1174	1
MP14	8930042350	1922 MIC SHEET	1
MP15	8930080410	3285 MIC SPONGE	1
MP16	8930079900	3285 TERMINAL HOLDER	1
MP17	8930080100	3285 PLUS TERMINAL	1
MP18	8930080400	3285 MINUS TERMINAL	1
MP19	8930069710	THERMAL SHEET (BC) TC200HS-1.4 (7.9X7)	1
MP20	8830003390	VR NUT (AB)	2
MP21	8930080092	3285 SIDE PLATE-2 Y1173B	1
MP22	8930080150	3285 SIDE SEAL <KRI>	1
MP23	8930080140	3285 TOP SEAL <KRI>	1
MP25	8610014180	KNOB N-389	1
MP27	8610014190	KNOB N-390	1
MP31	8810008761	PHBT M2 X 8 NI-ZC3	2
MP32	8810009511	PHBT M2 X 4 NI-ZC3 (3.6-4.0)	9
MP33	8810009511	PHBT M2 X 4 NI-ZC3 (3.6-4.0)	1
MP34	8810009181	BT M2 X 5 NI-ZC3	2
MP35	8830002900	2927 ANT NUT <SSC>	1
MP36	6910018220	2927 ANT CAP <EIK>	1

[MAIN-D UNIT]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
J1*	6510028180	MM8130-2600RA2	1
J51	6450000131	HSJ1102-018540	1
J52	6450002250	HSJ1456-010320	1
J53*	6510021901	BM02B-ASRS-TF (LF) (SN)	1
F51	5210001160	ERBRE3R00V	1
MC51	7700002920	EM9745P-38-G-01 <HOR>	1
S51	2260001900	SW-149 (SKHLLD)	1
S52*	2260002800	SW-167 (SKQTLAE010)	1
S53*	2260002800	SW-167 (SKQTLAE010)	1
S54	2250000680	FSR080453W-01+16C L15.9 <SLVJ>	1
MP2	8510016461	2775 VCO COVER-1	1
MP3*	8510016471	2775 VCO CASE-1	1
MP4*	6910014760	OG-503040	1
MP5*	6910014760	OG-503040	1
MP6	8930083030	SPONGE (LF)	1
MP8*	8510019750	3285 SHIELD PLATE Y1189	1
MP51*	6910014760	OG-503040	1

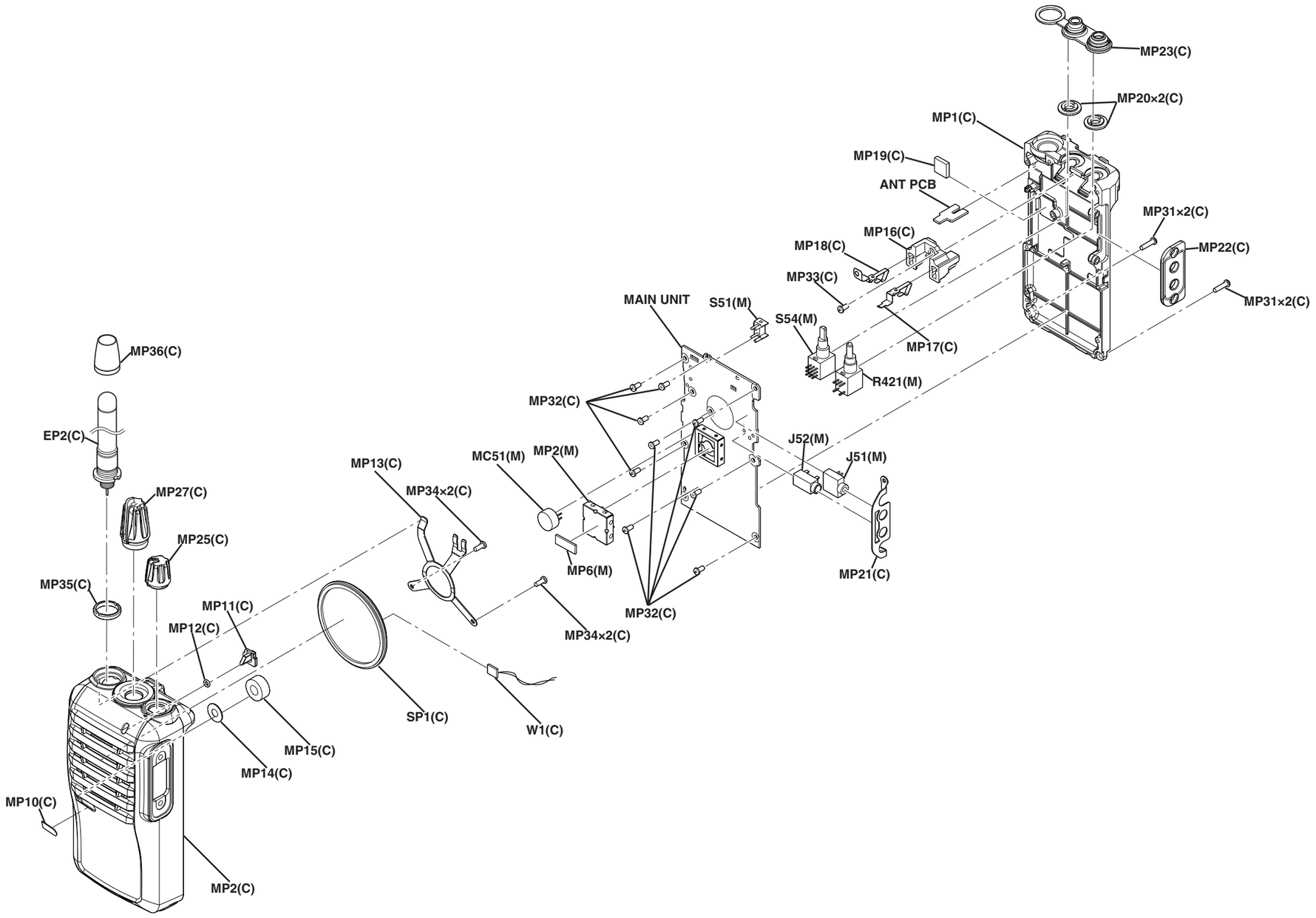
[ACCESSORIES]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
EP2	(Optional)	BP-264 EXP [EUR-22]	1
	(Optional)	BP-265 EU [EUR-23]	1
	(Optional)	BP-264 EXP [UK-02]	1
	(Optional)	BP-265 EU [UK-03]	1
EP3	0880002840	EX-3289 #02 BC-192 EXP [EUR-22]	1
	0880002870	EX-3290 #02 BC-193 EX [EUR-23]	1
	0880002840	EX-3289 #02 BC-192 EXP [UK-02]	1
	0880002870	EX-3290 #02 BC-193 EX [UK-03]	1
EP4	(Optional)	BC-147SE [EUR-22]	1
	(Optional)	BC-123SE [EUR-23]	1
MP1	(Optional)	MB-124 (3297 CLIP)	1
MP2	8210025840	3285 JACK PANEL	1
MP3	8810004861	PH M2 X 6 ZK3	2



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

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

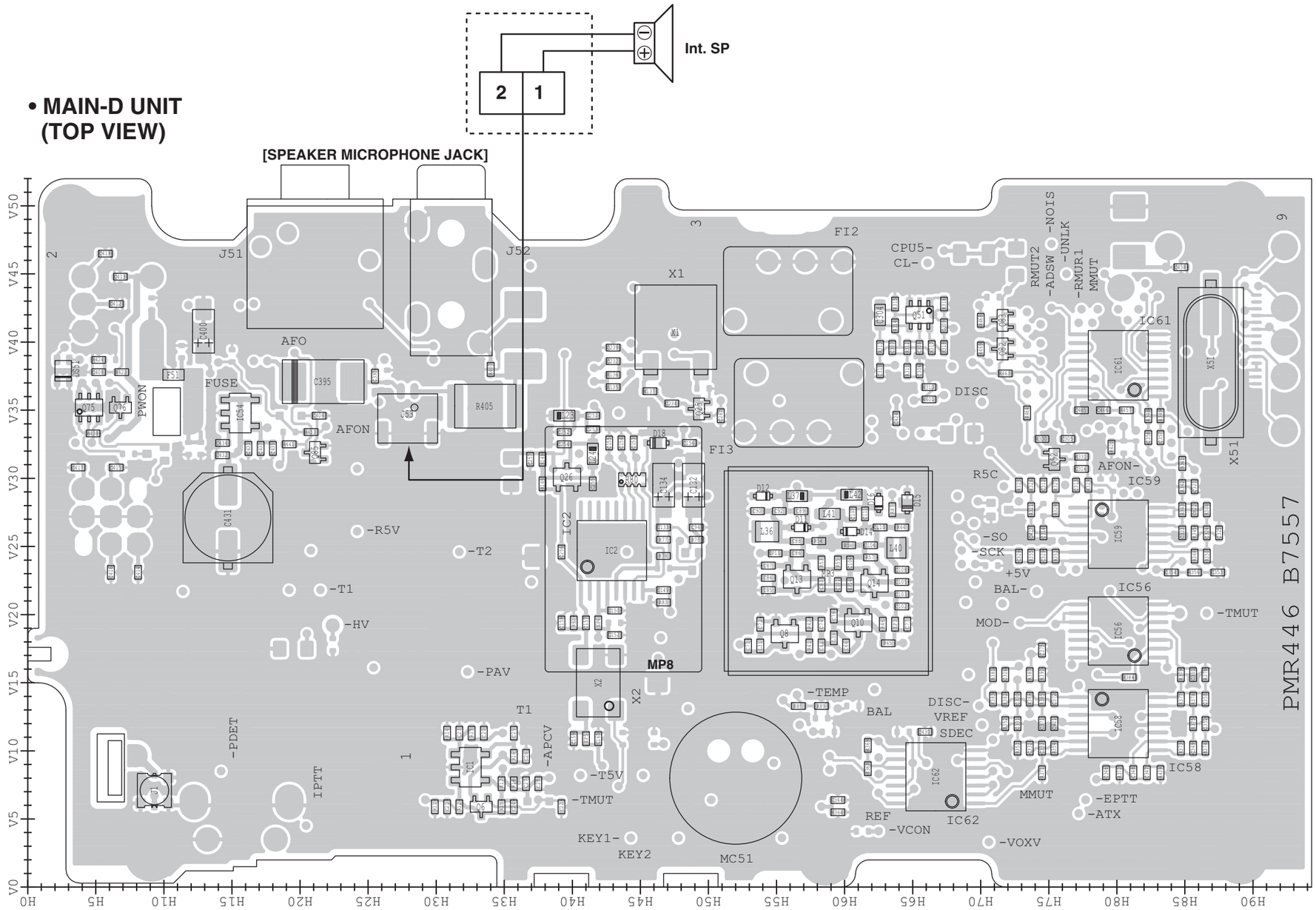


UNIT ABBREVIATIONS
(C): CHASSIS PARTS
(M): MAIN-D UNIT

SECTION 7 BOARD LAYOUTS

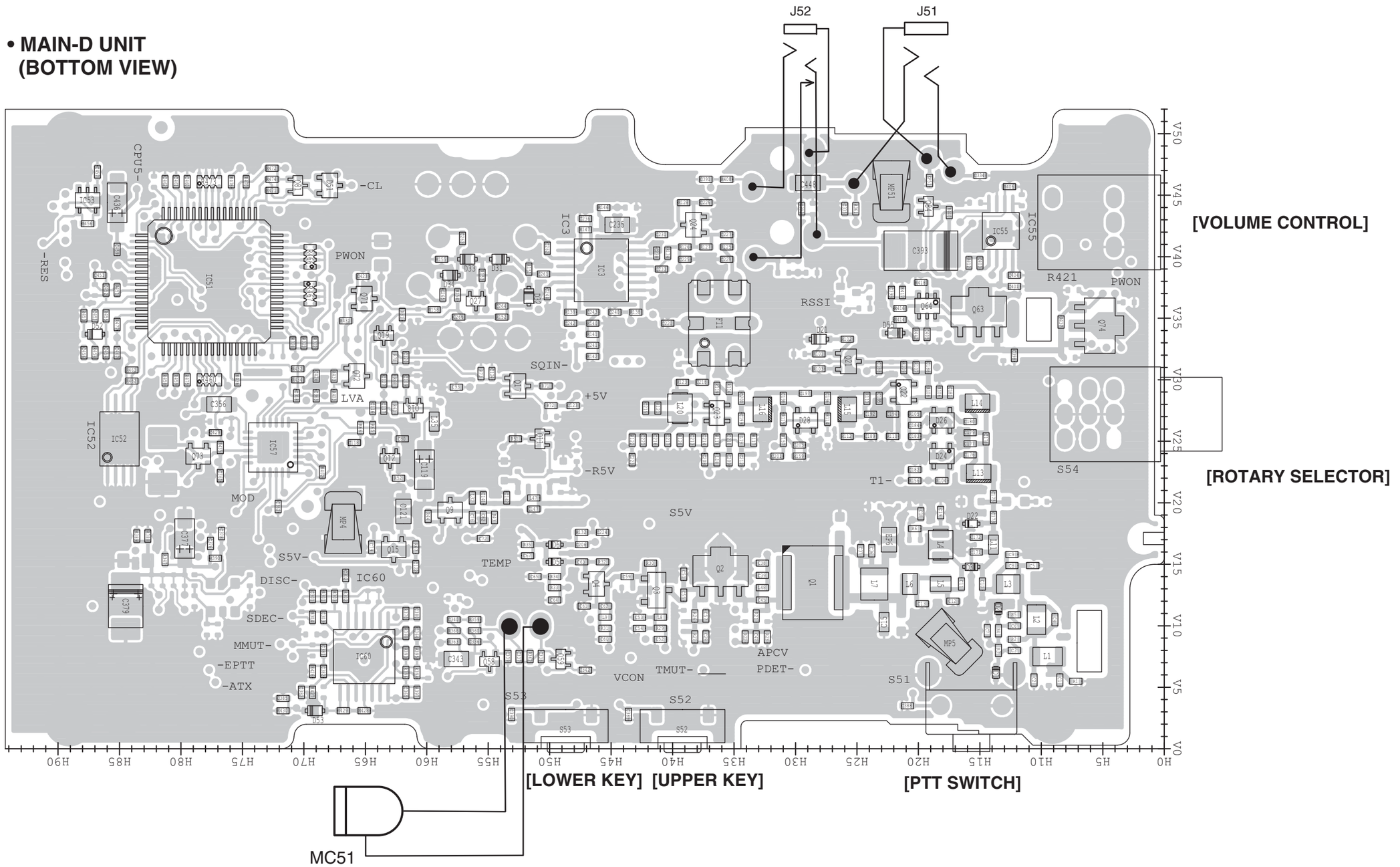
The combination of this page and next page shows the top side and bottom side of actual P.C. board.

• MAIN-D UNIT (TOP VIEW)

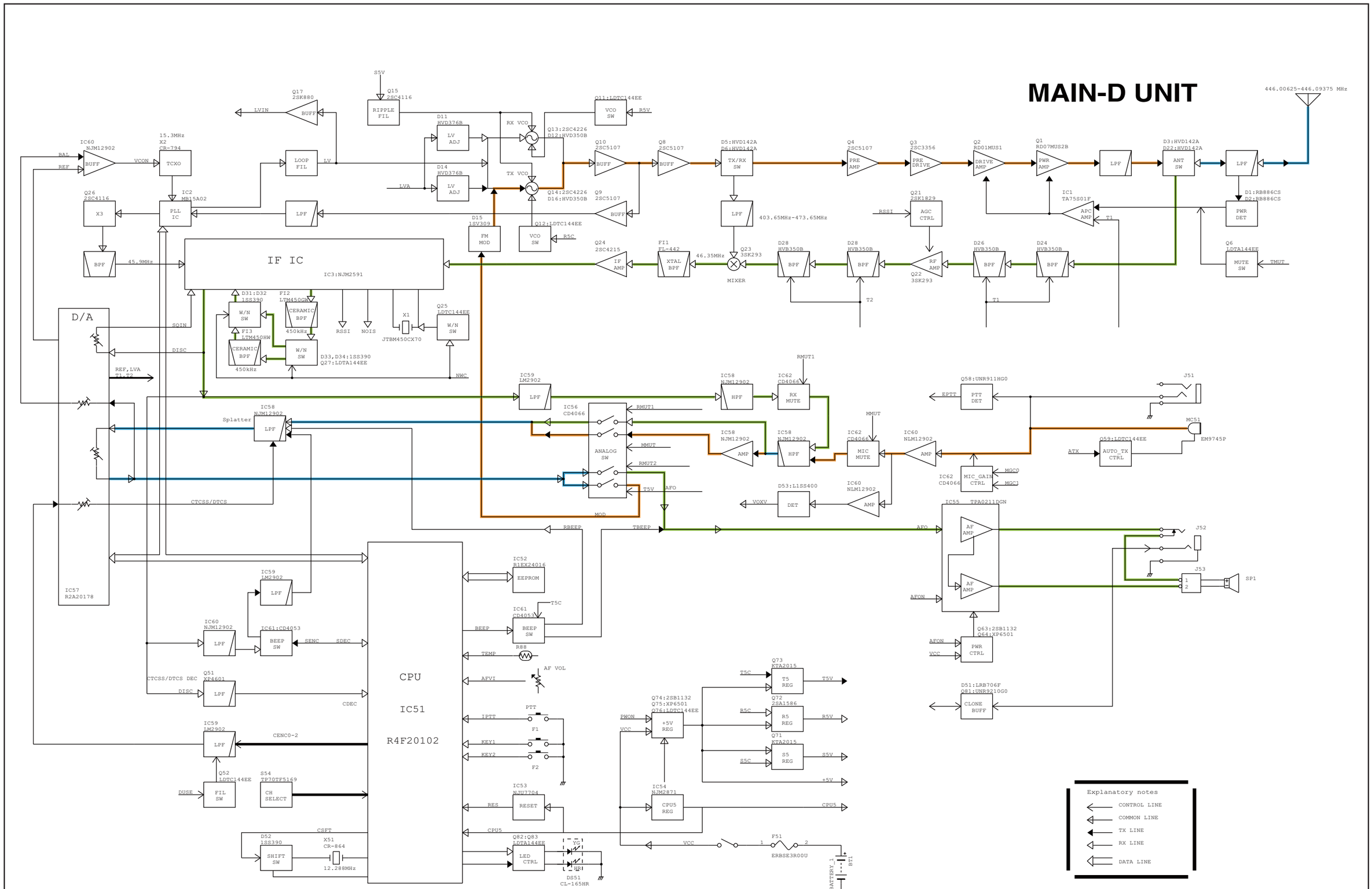


The combination of this page and next page shows the top side and bottom side of actual P.C. board.

• MAIN-D UNIT (BOTTOM VIEW)

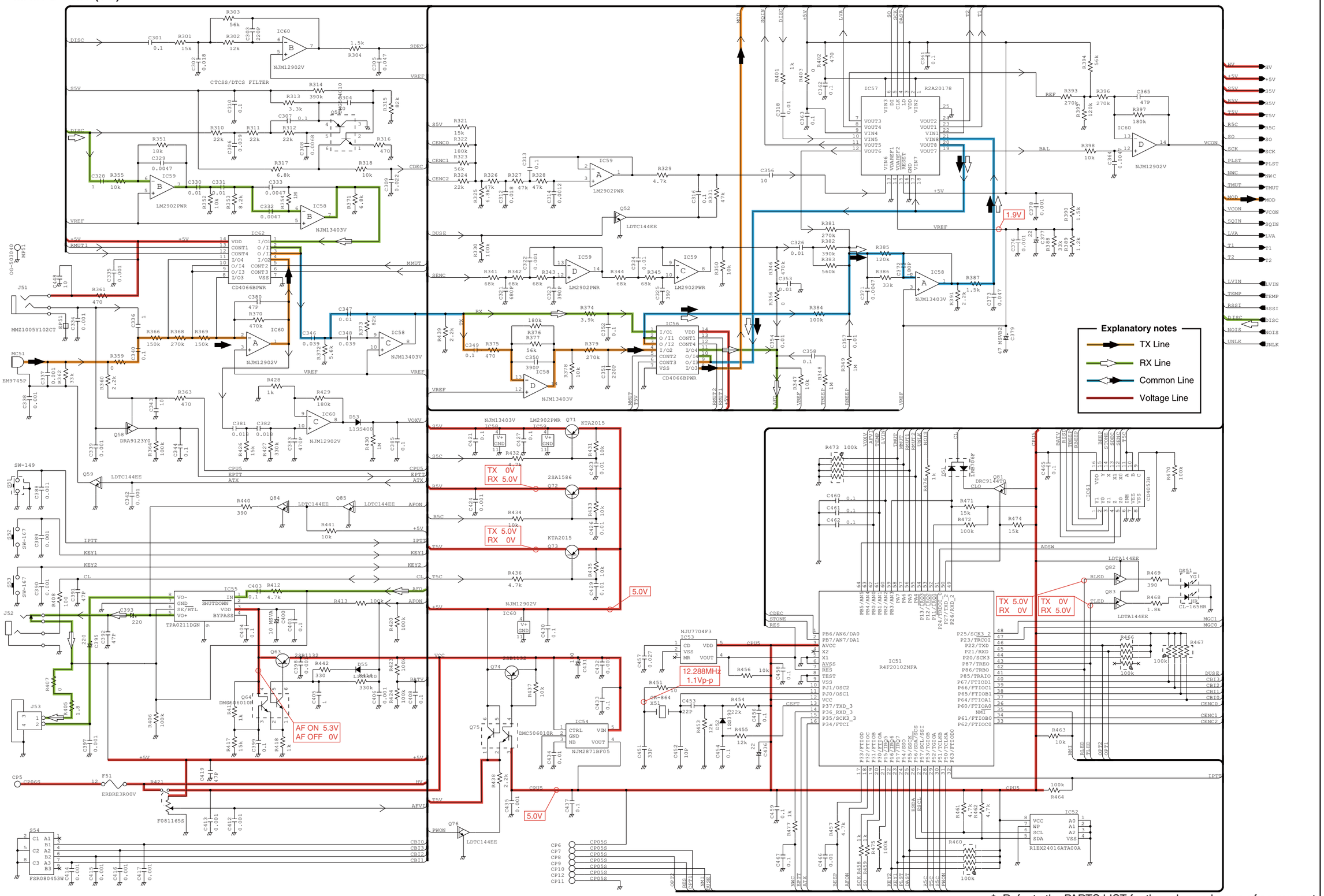


SECTION 8 BLOCK DIAGRAM



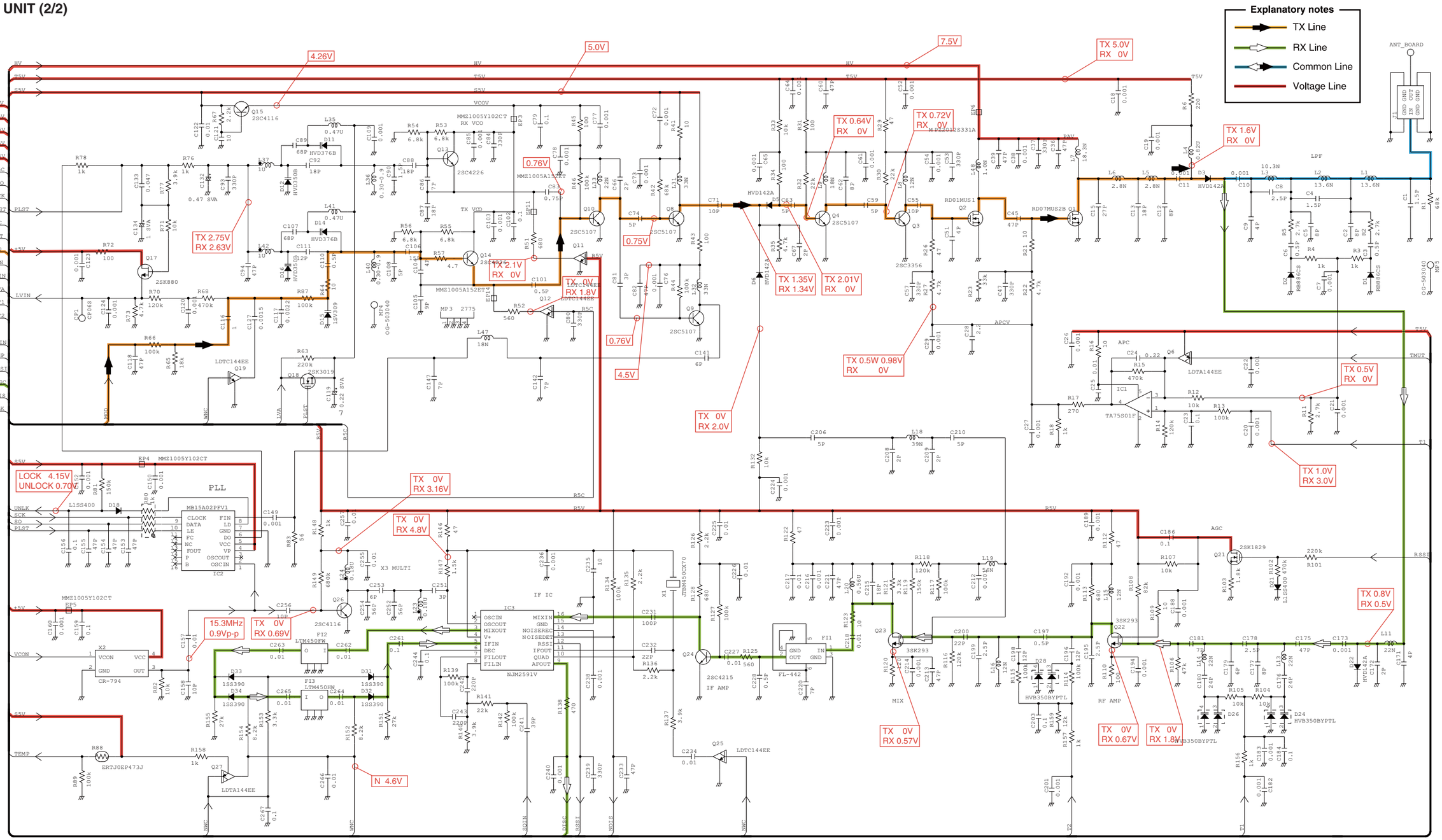
SECTION 9 VOLTAGE DIAGRAM

• MAIN-D UNIT (1/2)



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

• MAIN-D UNIT (2/2)



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

Icom Inc.

1-1-32, Kamiminami, Hirano-ku, Osaka 547-0003, Japan
Phone : +81 (06) 6793 5302
Fax : +81 (06) 6793 0013
URL : http://www.icom.co.jp/world/index.html

Icom America Inc.

<Corporate Headquarters>
2380 116th Avenue N.E., Bellevue, WA 98004, U.S.A.
Phone : +1 (425) 454-8155 Fax : +1 (425) 454-1509
URL : http://www.icomamerica.com
E-mail : sales@icomamerica.com
<Customer Service>
Phone : +1 (425) 454-7619

Icom Canada

Glenwood Centre #150-6165
Highway 17 Delta, B.C., V4K 5B8, Canada
Phone : +1 (604) 952-4266 Fax : +1 (604) 952-0090
URL : http://www.icomcanada.com
E-mail : info@icomcanada.com

Icom (Australia) Pty. Ltd.

Unit 1 / 103 Garden Road, Clayton VIC 3168 Australia
Phone : +61 (03) 9549-7500 Fax : +61 (03) 9549-7505
URL : http://www.icom.net.au
E-mail : sales@icom.net.au

Icom New Zealand

146A Harris Road, East Tamaki,
Auckland, New Zealand
Phone : +64 (09) 274 4062 Fax : +64 (09) 274 4708
URL : http://www.icom.co.nz
E-mail : inquiries@icom.co.nz

Beijing Icom Ltd.

10C07, Long silver Mansion, No.88, Yong Ding
Road, Haidian District, Beijing, 100039, China
Phone : +86 (010) 5889 5391/5392/5393
Fax : +86 (010) 5889 5395
E-mail : bjicom@bjicom.com
URL : http://www.bjicom.com

Icom (Europe) GmbH

Communication Equipment
Auf der Krautweide 24
65812 Bad Soden am Taunus, Germany
Phone : +49 (6196) 76685-0 Fax : +49 (6196) 76685-50
URL : http://www.icomeurope.com
E-mail : info@icomeurope.com

Icom Spain S.L

Ctra. Rubi, No. 88 Bajos A 08174, Sant Cugat del Valles, Barcelona, Spain
Phone : +34 (93) 590 26 70 Fax : +34 (93) 589 04 46
URL : http://www.icomspain.com
E-mail : icom@icomspain.com

Icom (UK) Ltd.

Blacksole House, The Boulevard, Altira Business Park, Herne Bay, CT6 6GZ, UK
Phone : +44 (01227) 741741 Fax : +44 (01227) 741742
URL : http://www.icomuk.co.uk
E-mail : info@icomuk.co.uk

Icom France s.a.s.

Zac de la Plaine
1 Rue Brindejonc des Moulinais BP 5804
31505 Toulouse Cedex, France
Phone : +33 (5) 61 36 03 03 Fax : +33 (5) 61 36 03 00
URL : http://www.icom-france.com
E-mail : icom@icom-france.com

Asia Icom Inc.

6F No.68, Sec. 1 Cheng-Teh Road, Taipei, Taiwan, R.O.C.
Phone : +886 (02) 2559 1899 Fax : +886 (02) 2559 1874
URL : http://www.asia-icom.com
E-mail : sales@asia-icom.com

Icom Polska

81-850 Sopot, ul. 3 Maja 54, Poland
Phone : +48 (58) 550 7135 Fax : +48 (58) 551 0484
E-mail : icompolska@icompolska.com.pl

Count on us!

Icom Inc.
1-1-32, Kamiminami, Hirano-ku, Osaka 547-0003, Japan

S-14809XZ-C1