



SERVICE MANUAL

dPMR446/PMR446 TRANSCEIVER

IC-F29DR

S-15207XZ-C1
August 2015

Icom Inc.

INTRODUCTION

This service manual describes the latest technical information for the **IC-F29DR** DPMR446/PMR446 TRANSCEIVERS, at the time of publication.

MODEL	VERSION	VERSION NUMBER	CHANNEL SPACING (kHz)
IC-F29DR	EUR-01	[#21]	6.25/12.5
	UK-01	[#22]	

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-F29DR MAIN UNIT 5 pieces
8820001210 Screw 2438 screw IC-F29DR 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, otherwise the RF power may damage them.
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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GENERAL

- Frequency range: 446.006250 MHz to 446.093750 MHz (PMR446)
446.103125 MHz to 446.196875 MHz (dPMR446)
- Number of conventional channels: 16 channels
- Type of emission: Analog (Narrow) 8K50F3E (12.5 kHz)
Digital 4K00F1E, D (6.25 kHz)
- Antenna impedance: 50 Ω (Nominal)
- Operating temperature range: -25°C to $+55^{\circ}\text{C}$
- Power supply: Only specified Icom's battery packs (7.5 V DC, negative ground)
- Current drain (approximately): Receiving 0.11 A (Digital mode, stand-by)
0.4 A (maximum audio, internal speaker)
Transmitting 0.5 A (at 0.5 W ERP)
- Dimensions : 52.2(W) \times 186.1(H) \times 24.5(D) mm (with the BP-279)
(projections not included) 52.2(W) \times 186.1(H) \times 30.3(D) mm (with the BP-280)
- Weight (approximately): 147 g (without belt clip and battery pack)
236 g (with the MB-133 and the BP-279)
270 g (with the MB-133 and the BP-280)

TRANSMITTER

- Output power: 0.5 W ERP
- Modulation: Variable reactance frequency modulation
- Maximum permissible deviation: Narrow ± 2.5 kHz
- Frequency stability: ± 1.0 ppm
- Spurious emissions: 0.25 μW (≤ 1 GHz), 1.00 μW (> 1 GHz)
- Adjacent channel power: Analog (Narrow) 60 dB minimum, 68 dB typical
Digital 60 dB minimum, 65 dB typical
- Audio harmonic distortion: Analog (Narrow) 1.5% typical (at AF 1 kHz 40% deviation)
- FSK Error: Digital 5% maximum
- Residual modulation: Analog (Narrow) 40 dB minimum, 48 dB typical
(with CCITT FILTER)
- Limiting characteristic of modulation: 60–100% of maximum deviation
- Input impedance (microphone): 2.2 k Ω

RECEIVER

• Sensitivity:	Analog (Narrow)	26.5 dB μ V/m (at 20 dB SINAD)
	Digital	-8 dB μ V emf typical (at 5% BER)
• Squelch sensitivity (threshold):		26.5 dB μ V/m
• Intermediate frequency:	1st	46.35 MHz
	2nd	450 kHz
• Intermodulation:	Analog (Narrow)	86.29 dB μ V/m
	Digital	71 dB μ V (EMF) minimum, 74 dB μ V (EMF) typical
• Spurious response:	Analog (Narrow)	91.29 dB μ V/m
	Digital	70 dB minimum, 80 dB typical
• Audio output power:		0.8 W typical (at 5% distortion into the 12 Ω internal speaker)
		0.4 W typical (at 5% distortion into an 8 Ω external speaker)
• Output impedance (speaker):		12 Ω (internal speaker)
		8 Ω (external speaker)
• Hum and noise: (with CCITT Filter)	Analog (Narrow)	40 dB minimum, 45 dB typical
• Adjacent channel selectivity:	Analog (Narrow)	81.29 dB μ V/m
	Digital	50 dB minimum, 58 dB typical

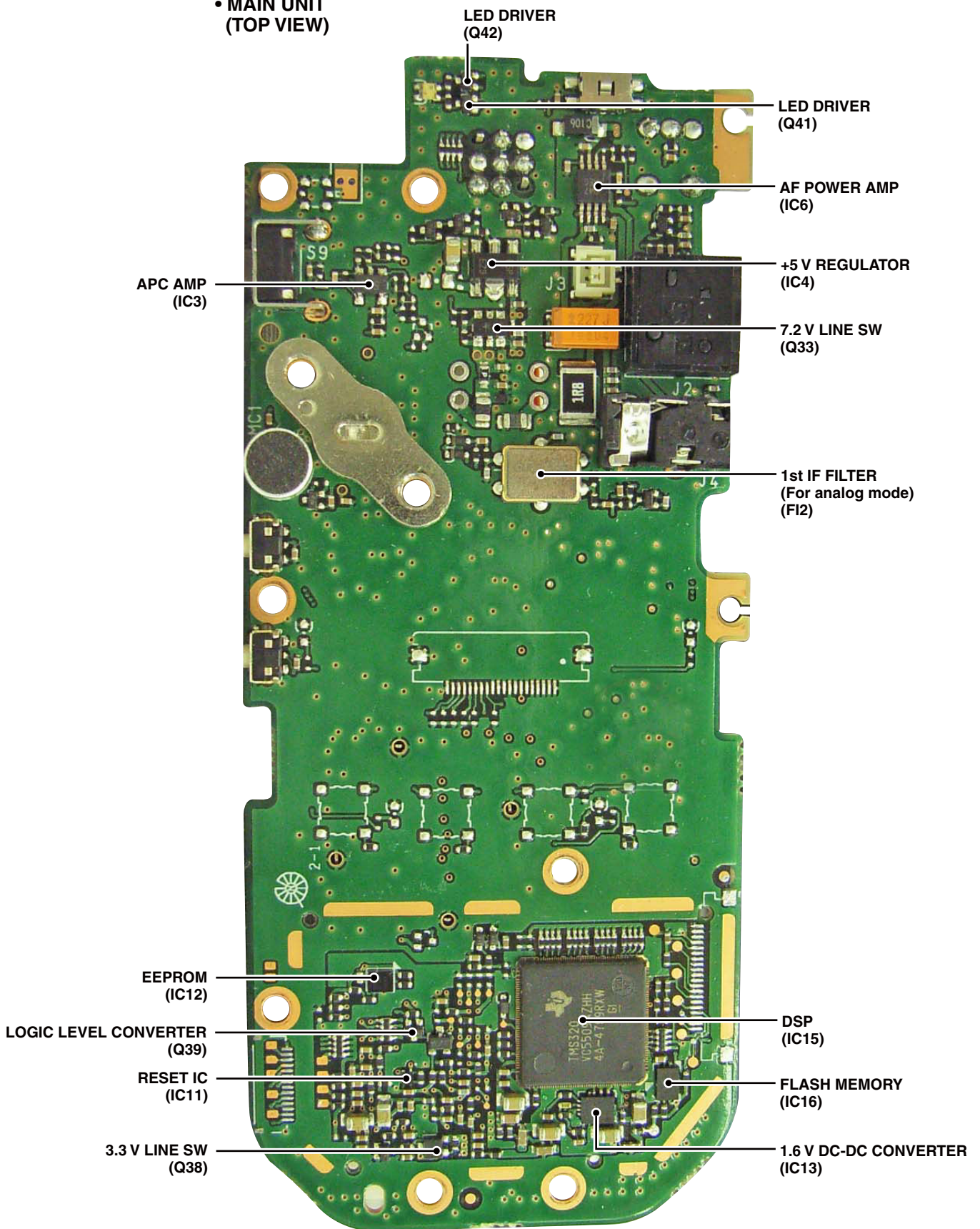
Specifications are measured in accordance with EN 300 296 and EN301 166.

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

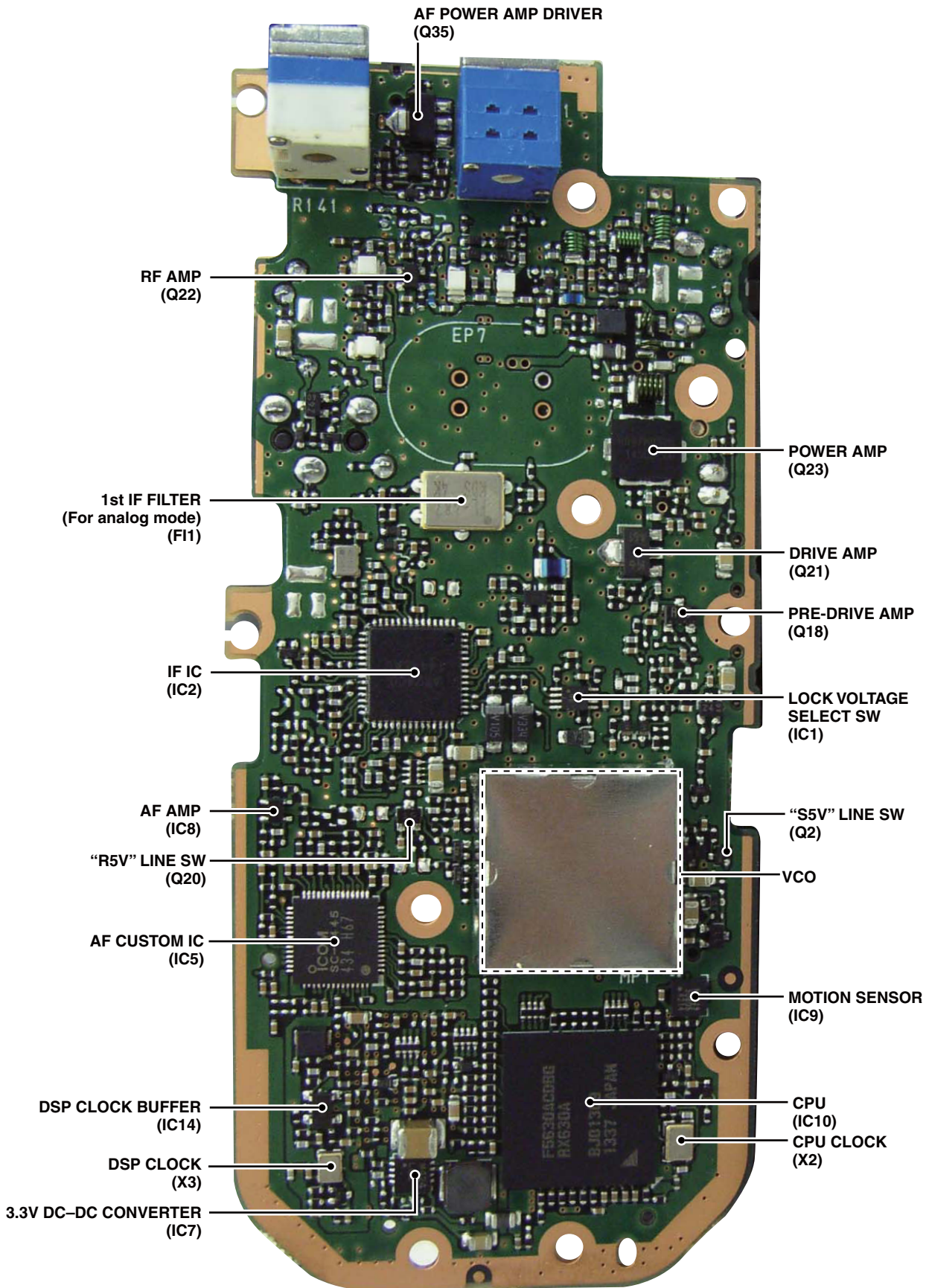
SECTION 2

INSIDE VIEWS

• MAIN UNIT
(TOP VIEW)



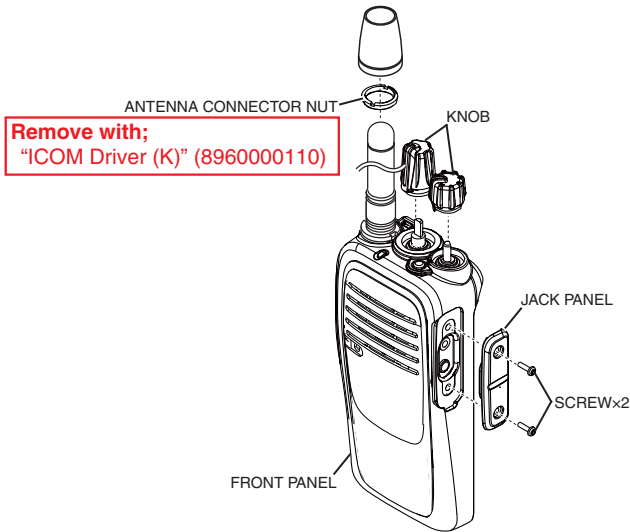
• MAIN UNIT
(BOTTOM VIEW)



SECTION 3 DISASSEMBLY INSTRUCTION

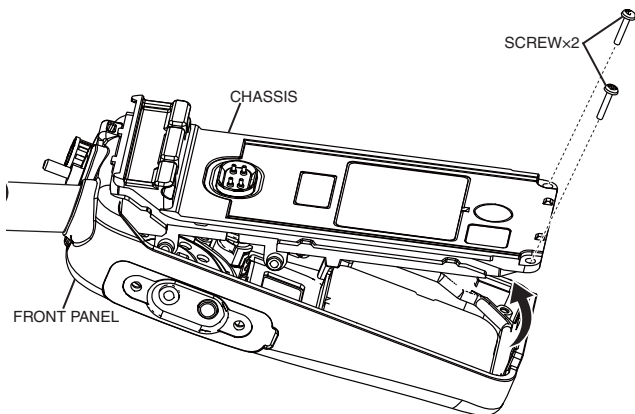
1. REMOVING THE FRONT PANEL

- 1) Remove the antenna connector nut and 2 knobs.
- 2) Remove 2 screws and jack panel.



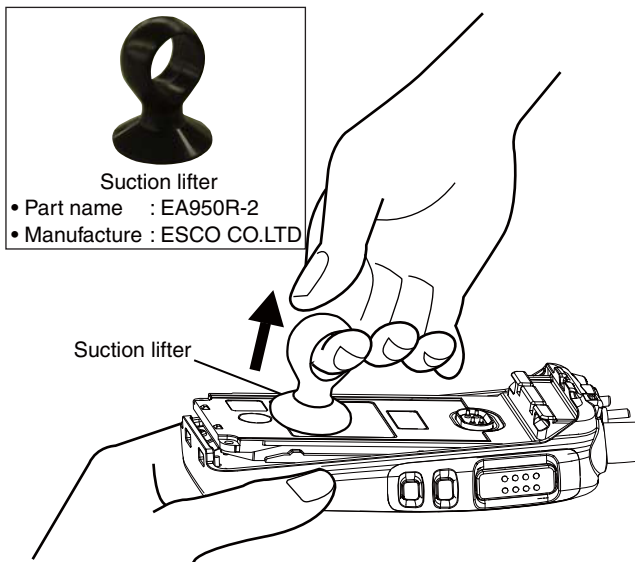
- 3) Remove 2 screws from the bottom of the CHASSIS.
- 4) Lift the bottom of the CHASSIS up in the direction of the arrow.

BE CAREFUL when you disassemble the front panel from the transceiver body. Otherwise the **speaker cable** and the **connector** may be cut.



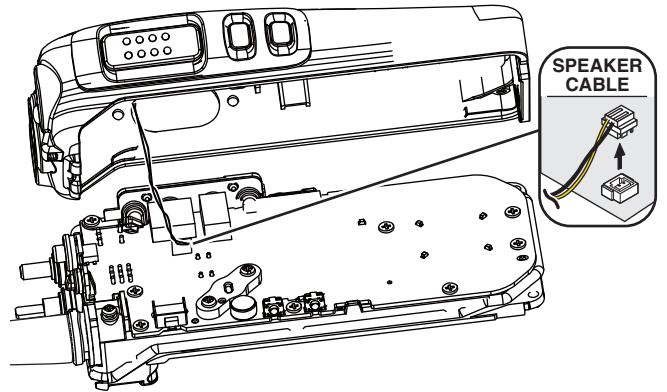
For easy separation of the CHASSIS

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



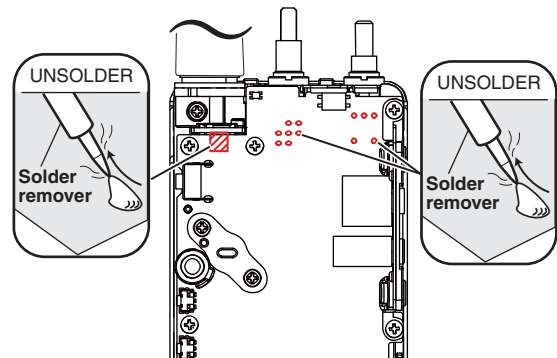
(Continued on the right above)

- 5) CAREFULLY lift the chassis out of the front panel and turn it over in order to unplug the speaker cable.

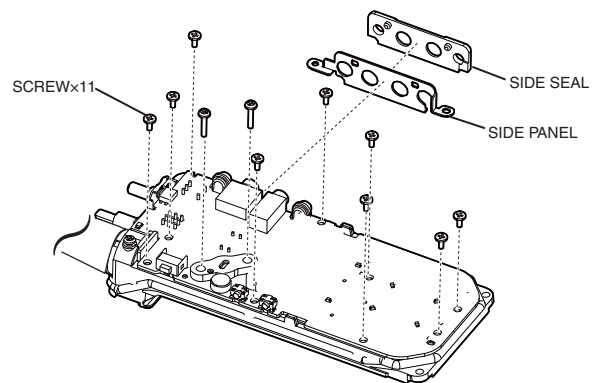


2. REMOVING THE MAIN UNIT

- 1) Unsolder total of 13 points as shown.



- 2) Remove 11 screws and the side panel and side seal from the MAIN UNIT.
- 3) Remove the MAIN UNIT from the chassis.



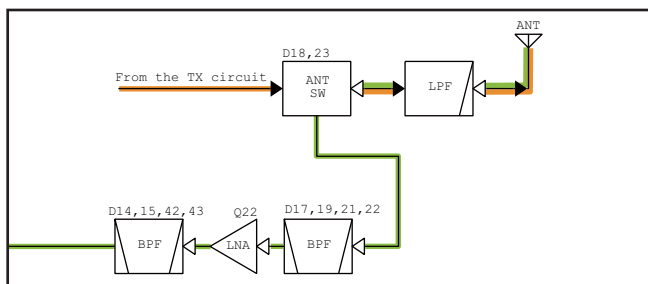
4-1 RECEIVER CIRCUITS

RF CIRCUITS

The RX signal from the antenna is passed through the LPF (L29, L32, L34, C191, C194, C199, C202 and C205), another LPF (L30, C187 and C195) and antenna SW (D18 and D23), and then filtered by the 2-staged tuned BPF (D17, D19, D21, D22, L26, L28, C182, C185, C186, C189 and C192) to eliminate unwanted out-of-band signals. The filtered RX signal is amplified by the low noise AMP (Q22), and filtered by another 2-staged tuned BPF (D14, D15, L19, L21, C140, C144, C148, C153 and C156) to obtain a good image response, and then applied to the 1st IF circuits.

The BPFs are tuned to the RX frequency by applying adequate tuning voltages ("T1" and "T2") to the variable capacitance diodes.

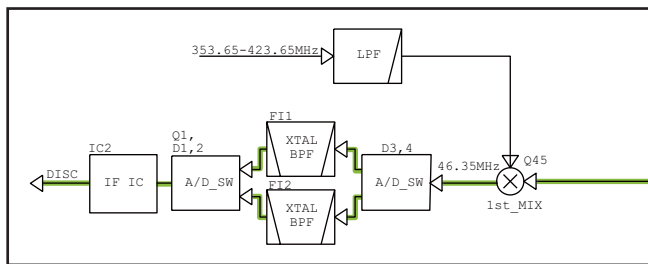
• RF CIRCUITS



1ST IF CIRCUITS

The RX signal from the RF circuits is applied to the 1st IF mixer (Q45) 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 passed through the IF SWs (D1 to D4) and the crystal filter (F11: analog mode, F12: digital mode) to be filtered, and then applied to the 2nd IF circuits.

• 1ST IF CIRCUITS



2ND IF AND DEMODULATOR CIRCUITS

The signal from the 1st IF circuits is applied to the IF IC (IC2) which contains the 2nd IF mixer, 2nd IF AMP, FM detector, squelch circuit and AF AMP 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.

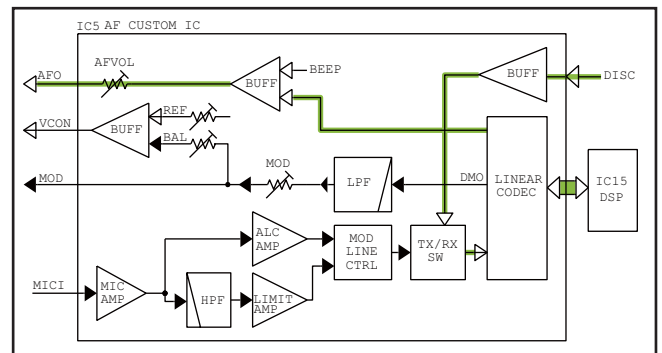
The 2nd LO signal is generated by tripling the 15.3 MHz reference frequency signal, which is generated by the reference frequency oscillator (TCXO: X1).

• WHILE OPERATING IN THE ANALOG MODE

The demodulated AF signal is applied to the AF custom IC (IC5), and amplified by the AF AMP, and then applied to the linear codec. The AF signal is converted into a digital audio signal, then processed by the DSP (IC15), and then decoded into an analog audio signal.

The AF signal is applied to the RX AF circuits.

• 2ND IF CIRCUITS

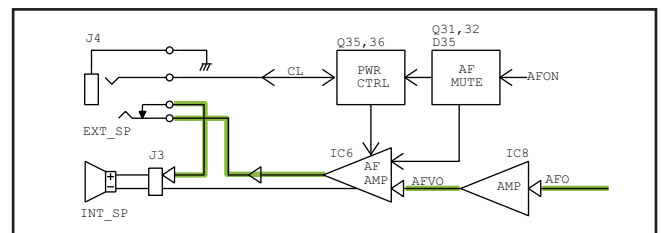


RX AF CIRCUITS

The demodulated AF signal from the linear codec is passed through the LPF, and then adjusted in level by the D/A converter.

The level-adjusted AF signal is output from the AF custom IC (IC5), and amplified by AF AMP (IC8). The amplified AF signal is amplified by the AF power AMP (IC6), and then applied to the internal or external speaker.

• RX AF CIRCUITS



4-2 TRANSMITTER CIRCUITS

TX AF CIRCUITS (MAIN UNIT)

The audio signal from the internal or external microphone (MIC signal) is applied to the AF custom IC (IC5).

• WHILE OPERATING IN THE ANALOG MODE

The MIC signal is amplified and passed through the HPF, and then applied to the limiter AMP. The amplitude-limited signal is applied to the linear codec, through the MIC line SW.

The MIC signal is converted into a digital audio signal by the linear codec, processed by the DSP (IC15), and then converted into an analog baseband signal (modulation signal).

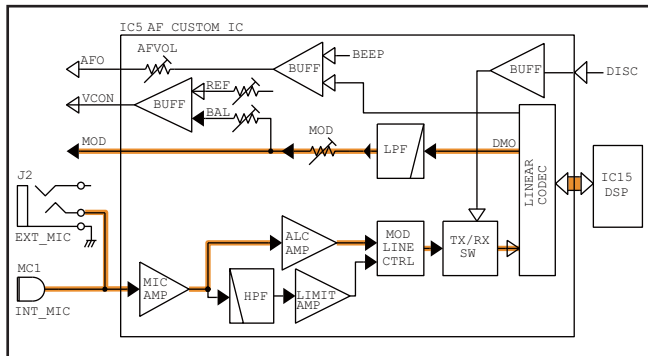
• WHILE OPERATING IN THE DIGITAL MODE

The MIC signal is amplified and applied to the ALC AMP, which keeps the signal level fixed.

The MIC signal is converted into a digital audio signal by the linear codec, processed by the DSP (IC15), and then converted into the digital baseband signal (modulation signal).

The signal from the linear codec (inside the AF custom IC (IC5)) is passed through the LPF and the D/A converter, which adjusts the signal in level (=deviation). The level-adjusted modulation signal is output from the AF custom IC (IC5), and then applied to the modulation circuit.

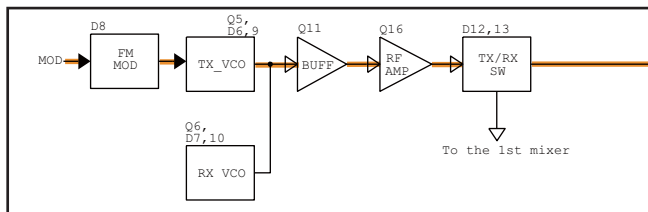
• TX AF CIRCUITS



MODULATION CIRCUIT (MAIN UNIT)

The modulation signal from the TX AF circuits is applied to D9 of the TX VCO (Q5, D6, D8 and D9) to modulate it (FM for the analog mode, 4FSK for the digital mode). The modulated signal from the TX VCO is buffer-amplified by two buffers (Q11 and Q16) and applied to the TX AMP circuits, through the LO SW (D12).

• MODULATION CIRCUIT



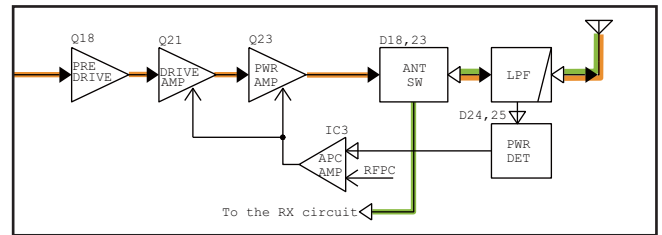
TX AMPLIFIERS

The buffer amplified signal from the LO SW (D12) is sequentially amplified by the pre-drive AMP (Q18), drive AMP (Q21), and power AMP (Q23), to obtain TX power. The amplified TX signal is passed through the antenna SW (D18) and the LPF (L29, L32, L34, C191, C194, C199, C202 and C205), which eliminates harmonics, and then fed to the antenna.

APC CIRCUITS (PA UNIT)

D24 and D25 rectify a portion of the TX signal to direct current, and the APC AMP (IC3) compares the voltage and the TX power control reference voltage, "RFPC." The resulting voltage controls the gain of the power and drive AMPs to keep the TX power constant.

• TX AMP AND APC CIRCUITS



4-3 FREQUENCY SYNTHESIZER CIRCUITS

The RX VCO is composed of Q6, D7 and D10. The VCO output signal is buffer-amplified by two buffers (Q11 and Q16) and applied to the 1st IF mixer, through the LO SW (D13) and the LPF (L17, C126 and C131).

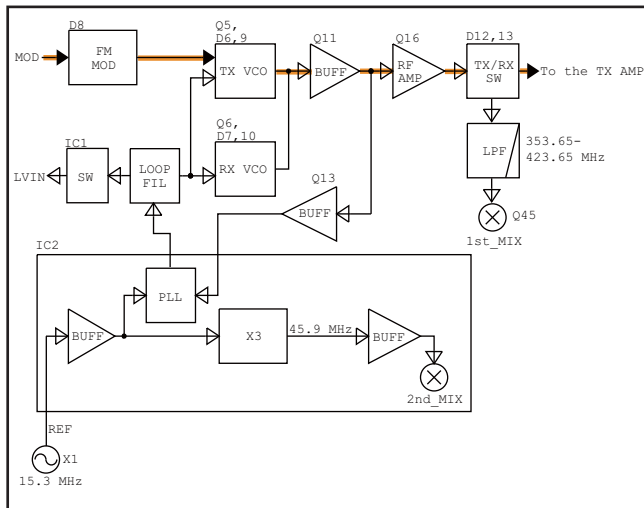
The TX VCO is composed of Q5, D6, D8 and D9. The VCO output signal is buffer-amplified by two buffers (Q11 and Q16) and applied to the pre-amp (Q18), through the LO SW (D12).

A portion of signal, which is generated by each VCO, is fed back to the PLL circuit in the IF IC (IC2), through the buffer (Q13).

The applied VCO output signal is divided and phase-compared with a 15.3 MHz reference frequency signal from the TCXO (X1), which is also divided. The resulting signal is output from the PLL IC (IC1), and DC-converted by the loop filter (R18, R22, C23, C28 and C31), and then applied to the VCO as the lock voltage.

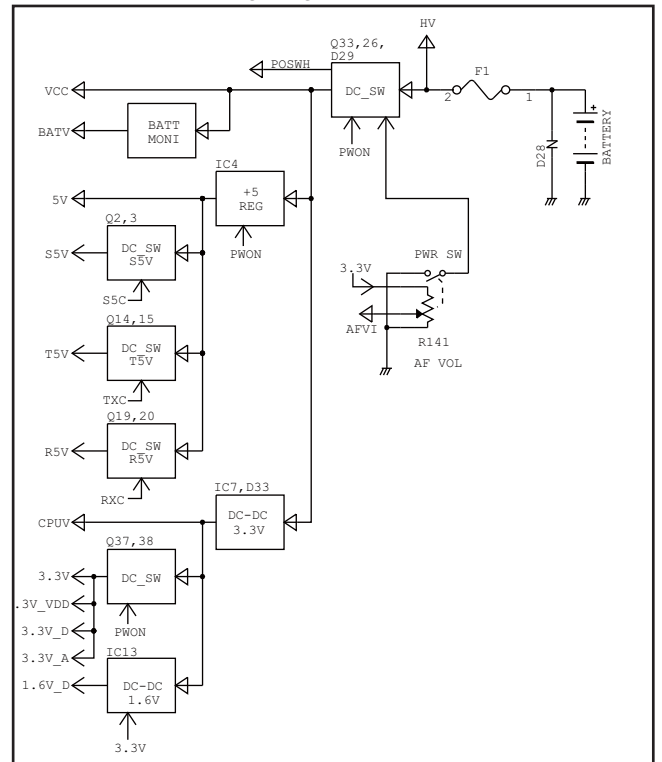
When the oscillation frequency drifts, its phase changes from that of the reference frequency, causing a lock voltage change to compensate for the drift in the VCO oscillating frequency.

• **FREQUENCY SYNTHESIZER CIRCUITS**



4-4 VOLTAGE DIAGRAMS

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



SECTION 5

PARTS LIST

[MAIN UNIT]

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
IC2	1110008770	S.IC AK2400-L	B	52.4/15.6
IC3	1110002751	S.IC TA75S01F(TE85RF)	T	84.1/34.0
IC4	1180003320	S.REG NJM2830U1-05-TE1-#ZZZB	T	85.9/23.2
IC5	1110007920	S.IC SC-1445-E2	B	30.5/9.3
IC6	1110007610	S.IC TPA0211DGNR	T	93.0/14.6
IC7	6910024090	S.DC ADP2370ACPZ-R7 <FE>	B	10.8/15.6
IC8	1110008890	S.IC NJU7056F3-TE2-#ZZZ	B	41.2/4.4
IC9	1190003700	S.IC KXCJ9-1008	B	25.3/38.9
IC10	1140017381	S.IC R5F5630ACDBG (FX-3694A-1)	B	16.0/29.6
IC11	1110008850	S.IC RP300K28AA-TR	T	14.5/30.8
IC12	1140017190	S.IC GT24C1024-2CLI-TR <MSK>	T	23.4/33.1
IC13	6910024980	S.DC MPM3805GQB-Z <TKC>	T	11.3/13.6
IC14	1110006230	S.IC NJM2711F-TE1-#ZZZB	B	16.5/8.2
IC15	1140013290	S.IC TMS320VC5509AZHH	T	19.3/15.0
IC16	1130017750	S.IC EN25Q40A-104XIP <MSK>	T	13.4/7.2
Q1	1590004090	S.TRA LDTC114YET1G <SLVJ>	T	65.9/9.5
Q2	1590004090	S.TRA LDTC114YET1G <SLVJ>	B	37.1/41.5
Q3	1510000771	S.TRA 2SA1586-GR(TE85LF)	B	37.5/39.2
Q4	1590004090	S.TRA LDTC114YET1G <SLVJ>	B	35.8/19.4
Q5	1530002921	S.TRA 2SC4226-T1 Y25 (R25)	B	31.7/23.7
Q6	1530002921	S.TRA 2SC4226-T1 Y25 (R25)	B	35.6/30.3
Q7	1590004090	S.TRA LDTC114YET1G <SLVJ>	B	32.2/29.4
Q8	1530002851	S.TRA 2SC4116-BL(TE85RF)	B	30.3/41.2
Q9	1590004090	S.TRA LDTC114YET1G <SLVJ>	B	30.8/27.3
Q11	1530003321	S.TRA 2SC5108-Y(TE85RF)	B	30.3/34.2
Q13	1530003321	S.TRA 2SC5108-Y(TE85RF)	B	35.0/34.5
Q14	1590004090	S.TRA LDTC114YET1G <SLVJ>	B	42.7/39.8
Q15	1510001090	S.TRA KTA2015Y-RTK/P	B	49.6/40.5
Q16	1530003321	S.TRA 2SC5108-Y(TE85RF)	B	41.3/35.5
Q18	1530004180	S.TRA 2SC3356-11B YS (R25)	B	57.4/37.9
Q19	1590004090	S.TRA LDTC114YET1G <SLVJ>	B	37.8/19.4
Q20	1510000771	S.TRA 2SA1586-GR(TE85LF)	B	40.7/15.3
Q21	1560001910	S.FET RD01MUS2B-T113	B	62.6/33.9
Q22	1580000731	S.FET 3SK293(TE85LF)	B	85.1/15.1
Q23	1560001701	S.FET RD07MUS2B-T214	B	71.2/34.9
Q26	1590004090	S.TRA LDTC114YET1G <SLVJ>	T	89.6/26.4
Q27	1590004090	S.TRA LDTC114YET1G <SLVJ>	T	65.6/38.9
Q28	1510001090	S.TRA KTA2015Y-RTK/P	B	74.7/7.2
Q29	1590004090	S.TRA LDTC114YET1G <SLVJ>	B	71.7/8.7
Q30	1590004220	S.TRA DRA9123YOL	T	89.9/8.4
Q31	1590004090	S.TRA LDTC114YET1G <SLVJ>	T	90.5/21.9
Q32	1590004070	S.TRA LDTC114EET1G <SLVJ>	T	89.4/18.8
Q33	1550000090	S.FET RSQ035P03TR	T	80.6/23.6
Q35	1520000910	S.TRA 2SB1132L-R-AB3-R <SLVJ>	B	98.3/15.9
Q36	1590004590	S.TRA DMC506010R	B	94.5/15.3
Q37	1590004090	S.TRA LDTC114YET1G <SLVJ>	T	7.7/32.9
Q38	1550000500	S.FET RZF020P01TL	T	8.0/28.5
Q39	1590004100	S.TRA LDTC114EET1G <SLVJ>	T	18.8/30.2
Q41	1590005220	S.TRA LDTC114YET1G <SLVJ>	T	100.1/25.8
Q42	1590005220	S.TRA LDTC114YET1G <SLVJ>	T	102.1/25.8
Q43	1590004090	S.TRA LDTC114YET1G <SLVJ>	B	18.5/37.4
Q44	1590004050	S.TRA LDTC114EET1G <SLVJ>	B	9.0/9.6
Q45	1580000731	S.FET 3SK293(TE85LF)	B	58.7/25.6
Q46	1590004090	S.TRA LDTC114YET1G <SLVJ>	B	54.0/5.3
D2	1750002990	S.DIO BAR88-02V H6327 <RYOYO>	B	62.8/13.6
D3	1750002990	S.DIO BAR88-02V H6327 <RYOYO>	T	69.6/26.4
D4	1750002990	S.DIO BAR88-02V H6327 <RYOYO>	T	70.8/26.3
D6	1720000701	S.VAR 1SV305(TPL3F)	B	38.8/25.1
D7	1720000701	S.VAR 1SV305(TPL3F)	B	41.2/28.2
D8	1750003380	S.VAR BB857-02V H7902 <RYOYO>	B	39.6/26.8
D9	1720000701	S.VAR 1SV305(TPL3F)	B	37.6/25.5
D10	1720000701	S.VAR 1SV305(TPL3F)	B	38.5/28.5
D11	1750002170	S.DIO DB2S3140L	B	33.2/41.0
D12	1750002990	S.DIO BAR88-02V H6327 <RYOYO>	B	47.9/34.8
D13	1750002990	S.DIO BAR88-02V H6327 <RYOYO>	B	47.9/33.4
D14	1720000701	S.VAR 1SV305(TPL3F)	B	80.7/10.9
D15	1720000701	S.VAR 1SV305(TPL3F)	B	83.8/10.9
D17	1720000701	S.VAR 1SV305(TPL3F)	B	88.3/20.3
D18	1750002990	S.DIO BAR88-02V H6327 <RYOYO>	B	83.5/31.9
D19	1720000701	S.VAR 1SV305(TPL3F)	B	87.1/20.3
D21	1720000701	S.VAR 1SV305(TPL3F)	B	87.1/22.8
D22	1720000701	S.VAR 1SV305(TPL3F)	B	88.3/22.8
D23	1750002990	S.DIO BAR88-02V H6327 <RYOYO>	B	85.2/26.7
D24	1750002230	S.DIO LRB751S-40T1G <SLVJ>	B	84.7/32.8
D25	1750002230	S.DIO LRB751S-40T1G <SLVJ>	B	85.6/34.6
D26	1750002230	S.DIO LRB751S-40T1G <SLVJ>	B	71.9/6.2
D28	1750003390	S.ZEN RCLAMP1521PTCT <MSK>	T	74.5/22.5
D29	1750001850	S.DIO LDAN222T1G <SLVJ>	T	89.0/28.8
D30	1790002030	S.VAR LXES15AAA1-100	T	89.1/6.4
D31	1750001810	S.DIO L1SS400T1G <SLVJ>	T	27.0/24.3
D32	1750001810	S.DIO L1SS400T1G <SLVJ>	T	27.0/24.3
D33	1750002230	S.DIO LRB751S-40T1G <SLVJ>	B	7.3/14.1
D34	1750001820	S.DIO LRB706F-40T1G <SLVJ>	T	17.8/27.9
D35	1750001810	S.DIO L1SS400T1G <SLVJ>	B	92.1/15.1
D36	1750001790	S.DIO 1SS390 TE61	B	16.9/40.7
D37	1750002230	S.DIO LRB751S-40T1G <SLVJ>	B	19.8/20.0
D38	1750002230	S.DIO LRB751S-40T1G <SLVJ>	T	20.8/22.1
D39	1750002230	S.DIO LRB751S-40T1G <SLVJ>	B	18.4/13.4
FI1	2030001220	S.MON DSF753SBF 46.35 MHz (FL-487)	B	66.6/19.5
FI2	2030001210	S.MON XDCAG 46.350 MHz (FL-486)	T	68.0/19.0

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
X2	6050013800	S.XTA CR-980 14.7456 MHz<SKD>	B	12.8/38.3
X3	6050013980	S.XTA CR-997 DSA221SCM 12.288 MHz	B	11.5/8.8
L2	6190002030	S.COI MLG1608S 1R0J-T	B	43.0/27.3
L3	6200011860	S.COI LQW18ANR47G00D	B	38.6/22.8
L4	6200011860	S.COI LQW18ANR47G00D	B	39.7/32.1
L6	6200015460	S.COI MLG1005S R22J-T	B	61.3/12.3
L9	6200015460	S.COI MLG1005S R22J-T	B	59.5/12.0
L10	6200014240	S.COI 0.30-0.9-3TR 5.8J <COMO>	B	35.0/25.7
L11	6200013581	S.COI 0.30-0.9-4TR 8.6J <COMO>	B	41.0/30.0
L13	6200013860	S.COI MLK1005S12NJT	B	32.4/35.5
L14	6200013810	S.COI MLK1005S33NJT	B	36.4/34.1
L15	6200013810	S.COI MLK1005S33NJT	B	42.6/34.4
L17	6200013820	S.COI MLK1005S27NJT	B	51.7/32.7
L18	6200013860	S.COI MLK1005S12NJT	B	58.0/35.7
L19	6200007670	S.COI LQW2BHN10NJ03L	B	79.0/11.5
L20	6200007680	S.COI LQW2BHN12NJ03L	B	65.6/35.7
L21	6200007680	S.COI LQW2BHN12NJ03L	B	85.7/11.5
L22	6200012980	S.COI 0.40-1.4-5TR 18.3N <COMO>	B	76.3/35.0
L23	6200012610	S.COI 0.40-0.9-2TL 2.8N <COMO>	B	79.8/35.0
L24	6200015140	S.COI LQW15AN22NJ00D	B	83.4/17.0
L25	6200012610	S.COI 0.40-0.9-2TL 2.8N <COMO>	B	81.9/34.8
L26	6200007690	S.COI LQW2BHN18NJ03L	B	84.7/18.9
L27	6200002851	S.COI NLV25T-R82J-PF	B	81.6/31.7
L28	6200007690	S.COI LQW2BHN18NJ03L	B	84.7/23.0
L29	6200013010	S.COI 0.30-0.9-5TL 10.3N <COMO>	B	88.1/28.8
L30	6200009070	S.COI LQW18AN18NG00D (LQW1608A18NG00)	B	83.6/28.6
L32	6200012490	S.COI 0.30-0.9-6TR 13.6N <COMO>	B	88.8/33.3
L34	6200012490	S.COI 0.30-0.9-6TR 13.6N <COMO>	B	89.8/36.2
L35	6200014470	S.COI LQH44PN100MP0L	B	9.7/20.3
L37	6200002851	S.COI NLV25T-R82J-PF	B	22.3/7.4
L38	6200015510	S.COI LQW2BASR56J00L	B	61.2/27.1
L39	6200013810	S.COI MLK1005S33NJT	B	56.9/24.3
L40	6200013990	S.COI MLK1005S1N0ST	B	78.9/38.4
R1	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	66.8/11.7
R2	7030009290	S.RES ERJ2GEJ 562 X (5.6K)	T	66.6/11.1
R3	7030013840	S.RES ERJ2RKD 6803X (680K)	B	53.1/28.8
R4	7030012310	S.RES ERJ2RKD 3303X (330K)	B	52.4/27.5
R5	7030004980	S.RES ERJ2GEJ 101 X (100)	B	52.3/30.9
R6	7030010040	S.RES ERJ2GEJ-JPW	B	67.0/13.8
R7	7030004980	S.RES ERJ2GEJ 101 X (100)	T	65.8/14.3
R8	7030008010	S.RES ERJ2GEJ 123 X (12K)	B	38.9/41.0
R9	7030007300	S.RES ERJ2GEJ 332 X (3.3K)	T	65.4/11.5
R10	7030007300	S.RES ERJ2GEJ 332 X (3.3K)	B	65.4/12.9
R11	7030005220	S.RES ERJ2GEJ 223 X (22K)	B	62.7/16.5
R12	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	39.4/38.9
R13	7030005080	S.RES ERJ2GEJ 823 X (82K)	B	48.6/29.8
R14	7030008290	S.RES ERJ2GEJ 183 X (18K)	B	51.7/22.1
R15	7030007570	S.RES ERJ2GEJ 122 X (1.2K)	B	50.1/20.7
R16	7030007300	S.RES ERJ2GEJ 332 X (3.3K)	T	69.6/24.7
R17	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	41.6/18.5
R18	7030007570	S.RES ERJ2GEJ 122 X (1.2K)	B	51.7/23.0
R19	7030010040	S.RES ERJ2GEJ-JPW	B	66.0/24.8
R20	7030007300	S.RES ERJ2GEJ 332 X (3.3K)	B	69.2/25.2
R21	7030010040	S.RES ERJ2GEJ-JPW	T	69.6/23.8
R22	7030004980	S.RES ERJ2GEJ 101 X (100)	B	51.7/24.8
R23	7030005220	S.RES ERJ2GEJ 223 X (22K)	T	72.0/26.8
R24	7030008290	S.RES ERJ2GEJ 183 X (18K)	B	42.0/17.3
R25	7030005170	S.RES ERJ2GEJ 474 X (470K)	B	41.1/19.7
R26	7030007570	S.RES ERJ2GEJ 122 X (1.2K)	B	60.1/14.8
R28	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	39.9/20.1
R29	7030010040	S.RES ERJ2GEJ-JPW	B	39.9/17.4
R30	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	58.7/10.3
R33	7030005530	S.RES ERJ2GEJ 100 X (10)	B	41.3/26.1
R34	7030006020	S.RES RR0510P-682-D (6.8K)	B	33.5/25.5
R35	7030006020	S.RES RR0510P-682-D (6.8K)	B	36.5/32.3
R38	7030005000	S.RES ERJ2GEJ 471 X (470)	B	30.7/25.3
R39	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	36.7/18.0
R41	7030009320	S.RES ERJ2GEJ 4R7 X (4.7)	B	33.5/23.0
R42	7030011060	S.RES RR0510P-273-D (27K)	B	55.9/21.4
R43	7030005840	S.RES RR0510P-473-D (47K)	B	55.0/7.5
R44	7030006020	S.RES RR0510P-682-D (6.8K)	B	34.7/22.5
R45	7030006020	S.RES RR0510P-682-D (6.8K)	B	35.3/32.0
R46	7030005110	S.RES ERJ2GEJ 224 X (220K)	B	53.1/9.9
R47	7030005580	S.RES ERJ2GEJ 560 X (56)	B	54.5/24.1
R48	7030005160	S.RES ERJ2GEJ 105 X (1M)	B	52.7/8.7
R49	7030007290	S.RES ERJ2GEJ 222 X (2.2K)	B	32.1/41.4
R50	7030005000	S.RES ERJ2GEJ 471 X (470)	B	33.4/28.2
R51	7030005000	S.RES ERJ2GEJ 471 X (470)	B	52.0/7.2
R54	7030008300	S.RES ERJ2GEJ 184 X (180K)	B	32.0/33.3
R55	7030005000	S.RES ERJ2GEJ 471 X (470)	B	32.0/31.2
R57	7030004980	S.RES ERJ2GEJ 101 X (100)	B	32.0/32.4
R58	7030004980	S.RES ERJ2GEJ 101 X (100)	B	39.3/33.6
R59	7030005110	S.RES ERJ2GEJ 224 X (220K)	B	33.5/33.7

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

[MAIN UNIT]

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
R60	7030008300	S.RES ERJ2GGEJ 184 X (180K)	B	51.2/10.4
R61	7030005080	S.RES ERJ2GGEJ 823 X (82K)	B	38.9/35.6
R62	7030005090	S.RES ERJ2GGEJ 104 X (100K)	B	47.0/15.5
R63	7030009290	S.RES ERJ2GGEJ 562 X (5.6K)	B	48.9/8.0
R64	7030007300	S.RES ERJ2GGEJ 332 X (3.3K)	B	44.7/39.8
R66	7030005090	S.RES ERJ2GGEJ 104 X (100K)	B	44.4/10.4
R67	7030005530	S.RES ERJ2GGEJ 100 X (10)	B	41.3/33.8
R68	7410001220	S.ARR EXB28V103JX	B	44.3/15.7
R69	7030005050	S.RES ERJ2GGEJ 103 X (10K)	B	50.5/8.0
R70	7030005090	S.RES ERJ2GGEJ 104 X (100K)	B	42.6/10.4
R72	7030005050	S.RES ERJ2GGEJ 103 X (10K)	B	47.7/40.4
R73	7030005050	S.RES ERJ2GGEJ 103 X (10K)	B	48.2/32.3
R74	7030004970	S.RES ERJ2GGEJ 470 X (47)	B	42.6/15.7
R75	7030004970	S.RES ERJ2GGEJ 470 X (47)	B	43.4/13.9
R76	7030004990	S.RES ERJ2GGEJ 221 X (220)	B	46.6/12.5
R77	7030010040	S.RES ERJ2GGEJ-JPW	B	49.6/35.3
R78	7030005070	S.RES ERJ2GGEJ 683 X (68K)	B	46.1/9.0
R79	7030005040	S.RES ERJ2GGEJ 472 X (4.7K)	B	46.7/36.0
R80	7030005050	S.RES ERJ2GGEJ 103 X (10K)	B	50.5/38.5
R81	7030005040	S.RES ERJ2GGEJ 472 X (4.7K)	B	49.6/36.9
R83	7030010040	S.RES ERJ2GGEJ-JPW	B	52.4/35.6
R86	7030005290	S.RES ERJ2GGEJ 682 X (6.8K)	B	54.1/39.1
R88	7030004980	S.RES ERJ2GGEJ 101 X (100)	[#01] B	55.4/37.1
	7030005710	S.RES ERJ2GGEJ 121 X (120)	[#02]	
	7030005710	S.RES ERJ2GGEJ 121 X (120)	[#03]	
	7030004980	S.RES ERJ2GGEJ 101 X (100)	[#04]	
R89	7030005530	S.RES ERJ2GGEJ 100 X (10)	B	56.5/34.2
R90	7030005120	S.RES ERJ2GGEJ 102 X (1K)	[#01] B	77.2/10.1
	7030005050	S.RES ERJ2GGEJ 103 X (10K)	[#02]	
	7030005050	S.RES ERJ2GGEJ 103 X (10K)	[#03]	
	7030005120	S.RES ERJ2GGEJ 102 X (1K)	[#04]	
R91	7030004970	S.RES ERJ2GGEJ 470 X (47)	B	58.7/34.1
R92	7030005050	S.RES ERJ2GGEJ 103 X (10K)	B	38.7/18.0
R93	7030005060	S.RES ERJ2GGEJ 333 X (33K)	[#01] B	59.3/32.0
	7030005240	S.RES ERJ2GGEJ 473 X (47K)	[#02]	
	7030005240	S.RES ERJ2GGEJ 473 X (47K)	[#03]	
	7030005060	S.RES ERJ2GGEJ 333 X (33K)	[#04]	
R95	7030005040	S.RES ERJ2GGEJ 472 X (4.7K)	B	58.1/32.5
R96	7030005090	S.RES ERJ2GGEJ 104 X (100K)	[#01] B	81.8/12.1
	7030005030	S.RES ERJ2GGEJ 152 X (1.5K)	[#02]	
	7030005030	S.RES ERJ2GGEJ 152 X (1.5K)	[#03]	
	7030005090	S.RES ERJ2GGEJ 104 X (100K)	[#04]	
R97	7030005050	S.RES ERJ2GGEJ 103 X (10K)	B	38.9/15.9
R98	7030005090	S.RES ERJ2GGEJ 104 X (100K)	[#01] B	82.7/12.1
	7030005030	S.RES ERJ2GGEJ 152 X (1.5K)	[#02]	
	7030005030	S.RES ERJ2GGEJ 152 X (1.5K)	[#03]	
	7030005090	S.RES ERJ2GGEJ 104 X (100K)	[#04]	
R99	7030010430	S.RES ERJ2GGEJ 120 X (12)	[#01] B	67.6/36.4
	7030005530	S.RES ERJ2GGEJ 100 X (10)	[#02]	
	7030005530	S.RES ERJ2GGEJ 100 X (10)	[#03]	
	7030010430	S.RES ERJ2GGEJ 120 X (12)	[#04]	
R100	7030005090	S.RES ERJ2GGEJ 104 X (100K)	[#01] B	67.0/38.0
	7030005080	S.RES ERJ2GGEJ 823 X (82K)	[#02]	
	7030005080	S.RES ERJ2GGEJ 823 X (82K)	[#03]	
	7030005090	S.RES ERJ2GGEJ 104 X (100K)	[#04]	
R101	7030005010	S.RES ERJ2GGEJ 681 X (680)	[#01] B	87.5/12.6
	7030005120	S.RES ERJ2GGEJ 102 X (1K)	[#02]	
	7030005120	S.RES ERJ2GGEJ 102 X (1K)	[#03]	
	7030005010	S.RES ERJ2GGEJ 681 X (680)	[#04]	
R102	7030005040	S.RES ERJ2GGEJ 472 X (4.7K)	B	66.1/37.8
R103	7030004970	S.RES ERJ2GGEJ 470 X (47)	B	87.6/10.6
R104	7030004980	S.RES ERJ2GGEJ 101 X (100)	B	82.4/14.8
R105	7030005120	S.RES ERJ2GGEJ 102 X (1K)	T	85.3/38.4
R106	7030008370	S.RES ERJ2GGEJ 561 X (560)	T	84.1/38.3
R107	7030005080	S.RES ERJ2GGEJ 823 X (82K)	B	85.0/16.9
R108	7030005240	S.RES ERJ2GGEJ 473 X (47K)	B	83.1/16.0
R109	7030005530	S.RES ERJ2GGEJ 100 X (10)	T	81.0/33.4
R110	7030005530	S.RES ERJ2GGEJ 100 X (10)	B	87.1/15.9
R111	7030005120	S.RES ERJ2GGEJ 102 X (1K)	B	90.4/24.1
R112	7030005050	S.RES ERJ2GGEJ 103 X (10K)	B	86.8/17.1
R113	7030005110	S.RES ERJ2GGEJ 224 X (220K)	T	84.7/36.2
R114	7030005050	S.RES ERJ2GGEJ 103 X (10K)	B	89.9/19.5
R115	7030004990	S.RES ERJ2GGEJ 221 X (220)	B	82.2/29.2
R116	7030005050	S.RES ERJ2GGEJ 103 X (10K)	T	86.7/35.1
R119	7030005050	S.RES ERJ2GGEJ 103 X (10K)	T	86.7/34.2
R122	7030005240	S.RES ERJ2GGEJ 473 X (47K)	T	83.9/31.4
R123	7030010040	S.RES ERJ2GGEJ-JPW	T	86.6/33.0
R124	7030005090	S.RES ERJ2GGEJ 104 X (100K)	T	83.0/30.8
R127	7030005050	S.RES ERJ2GGEJ 103 X (10K)	B	88.6/24.4
R128	7030005120	S.RES ERJ2GGEJ 102 X (1K)	B	85.2/31.1
R129	7030008400	S.RES ERJ2GGEJ 182 X (1.8K)	B	87.5/31.2
R130	7030005120	S.RES ERJ2GGEJ 102 X (1K)	B	85.8/32.3
R131	7030008400	S.RES ERJ2GGEJ 182 X (1.8K)	B	87.3/33.9
R132	7030005070	S.RES ERJ2GGEJ 683 X (68K)	B	91.8/38.9
R133	7030005000	S.RES ERJ2GGEJ 471 X (470)	B	64.5/41.6
R134	7030010040	S.RES ERJ2GGEJ-JPW	B	81.9/4.8
R135	7030005060	S.RES ERJ2GGEJ 333 X (33K)	B	72.2/42.0
R136	7030009290	S.RES ERJ2GGEJ 562 X (5.6K)	T	96.8/7.7
R137	7030007290	S.RES ERJ2GGEJ 222 X (2.2K)	B	65.8/42.3
R138	7030004980	S.RES ERJ2GGEJ 101 X (100)	B	66.6/7.4
R139	7030007300	S.RES ERJ2GGEJ 332 X (3.3K)	B	73.6/9.0
R140	7030011290	S.RES ERJ12V1R8U (1.8)	T	75.1/15.8
R141	7210003700	VAR R08717NSFK150S070A103-00A <EVT>		
R142	7030005600	S.RES ERJ2GGEJ 273 X (27K)	T	91.4/8.1
R143	7030010040	S.RES ERJ2GGEJ-JPW	T	87.3/6.5
R144	7030010040	S.RES ERJ2GGEJ-JPW	B	73.4/42.3
R145	7030005090	S.RES ERJ2GGEJ 104 X (100K)	T	88.9/24.4
R146	7030005040	S.RES ERJ2GGEJ 472 X (4.7K)	B	71.6/7.2
R147	7030005240	S.RES ERJ2GGEJ 473 X (47K)	T	91.4/6.4
R148	7030005220	S.RES ERJ2GGEJ 223 X (22K)	T	87.7/9.5
R149	7030005050	S.RES ERJ2GGEJ 103 X (10K)	T	89.3/20.4
R150	7030005050	S.RES ERJ2GGEJ 103 X (10K)	B	28.1/18.1
R151	7030005050	S.RES ERJ2GGEJ 103 X (10K)	B	28.1/17.2
R152	7030008290	S.RES ERJ2GGEJ 183 X (18K)	B	27.7/19.4

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
R153	7030005220	S.RES ERJ2GGEJ 223 X (22K)	B	28.6/19.4
R154	7030005160	S.RES ERJ2GGEJ 105 X (1M)	T	24.5/24.8
R155	7030005210	S.RES ERJ2GGEJ 822 X (8.2K)	T	29.5/17.7
R156	7030005100	S.RES ERJ2GGEJ 154 X (150K)	T	24.9/23.5
R157	7030008010	S.RES ERJ2GGEJ 123 X (12K)	B	26.3/15.0
R158	7030009280	S.RES ERJ2GGEJ 391 X	T	90.9/18.6
R159	7030005090	S.RES ERJ2GGEJ 104 X (100K)	T	88.5/14.3
R160	7030005700	S.RES ERJ2GGEJ 274 X (270K)	T	79.8/25.8
R161	7030005090	S.RES ERJ2GGEJ 104 X (100K)	T	81.5/25.8
R162	7030005220	S.RES ERJ2GGEJ 223 X (22K)	B	29.5/16.0
R163	7030006610	S.RES ERJ2GGEJ 394 X (390K)	B	38.4/12.5
R164	7030005700	S.RES ERJ2GGEJ 274 X (270K)	B	26.3/14.7
R165	7030008300	S.RES ERJ2GGEJ 184 X (180K)	B	28.1/14.7
R166	7030009140	S.RES ERJ2GGEJ 272 X (2.7K)	B	37.0/13.4
R167	7030005240	S.RES ERJ2GGEJ 473 X (47K)	B	25.9/19.4
R168	7030009140	S.RES ERJ2GGEJ 272 X (2.7K)	B	26.8/19.4
R169	7030007340	S.RES ERJ2GGEJ 153 X (15K)	B	37.3/12.2
R170	7030005090	S.RES ERJ2GGEJ 104 X (100K)	T	96.1/11.4
R171	7030005110	S.RES ERJ2GGEJ 224 X (220K)	B	8.5/14.2
R173	7030005170	S.RES ERJ2GGEJ 474 X (470K)	B	8.6/13.2
R174	7030005050	S.RES ERJ2GGEJ 103 X (10K)	B	40.5/6.7
R175	7030005090	S.RES ERJ2GGEJ 104 X (100K)	T	95.7/12.4
R176	7030005090	S.RES ERJ2GGEJ 104 X (100K)	B	25.5/11.8
R178	7030005050	S.RES ERJ2GGEJ 103 X (10K)	T	92.3/12.3
R179	7030005030	S.RES ERJ2GGEJ 152 X (1.5K)	B	38.0/10.1
R180	7030010040	S.RES ERJ2GGEJ-JPW	B	39.3/10.5
R181	7030012530	S.RES ERJ2RHD 3302X (33.0K)	B	13.2/19.4
R182	7030009280	S.RES ERJ2GGEJ 391 X	B	96.3/13.4
R183	7030005310	S.RES ERJ2GGEJ 124 X (120K)	B	36.4/8.1
R184	7030012530	S.RES ERJ2RHD 3302X (33.0K)	B	12.8/51.7
R185	7030005720	S.RES ERJ2GGEJ 563 X (56K)	B	7.6/16.9
R186	7030005030	S.RES ERJ2GGEJ 152 X (1.5K)	B	8.5/16.0
R187	7030005700	S.RES ERJ2GGEJ 274 X (270K)	B	38.0/9.0
R188	7030008300	S.RES ERJ2GGEJ 184 X (180K)	B	6.6/20.3
R189	7030012530	S.RES ERJ2RHD 3302X (33.0K)	B	12.8/20.6
R190	7030005120	S.RES ERJ2GGEJ 102 X (1K)	B	93.2/13.2
R191	7030007570	S.RES ERJ2GGEJ 122 X (1.2K)	B	94.4/12.8
R193	7030005090	S.RES ERJ2GGEJ 104 X (100K)	B	38.0/7.2
R194	7030005060	S.RES ERJ2GGEJ 333 X (33K)	B	39.0/3.3
R195	7030007280	S.RES ERJ2GGEJ 331 X (330)	B	92.2/17.2
R196	7030004970	S.RES ERJ2GGEJ 470 X (47)	B	25.4/6.3
R197	7030005240	S.RES ERJ2GGEJ 473 X (47K)	B	42.9/5.6
R198	7030005240	S.RES ERJ2GGEJ 473 X (47K)	B	43.4/4.4
R199	7030005230	S.RES ERJ2GGEJ 334 X (330K)	B	93.1/17.4
R200	7030010040	S.RES ERJ2GGEJ-JPW	T	8.1/30.9
R201	7030005310	S.RES ERJ2GGEJ 124 X (120K)	B	31.2/3.2
R202	7030008400	S.RES ERJ2GGEJ 124 X (1.8K)	B	32.4/3.7
R203	7030005310	S.RES ERJ2GGEJ 124 X (120K)	B	38.5/4.5
R204	7030007340	S.RES ERJ2GGEJ 153 X (15K)	T	14.5/28.5
R205	7030005090	S.RES ERJ2GGEJ 104 X (100K)	B	34.9/3.7
R206	7030007340	S.RES ERJ2GGEJ 153 X (15K)	T	20.3/30.3
R207	7030005170	S.RES ERJ2GGEJ 474 X (470K)	T	8.2/26.5
R208	7030005120	S.RES ERJ2GGEJ 102 X (1K)	T	14.5/27.6
R209	7030010040	S.RES ERJ2GGEJ-JPW	B	33.6/4.1
R210	7510001730	S.THE ERTJOEP 473J	T	7.2/22.9
R211	7030010080	S.RES ERJ2RHD 1003X (100K)	T	7.2/24.5
R212	7030005090	S.RES ERJ2GGEJ 104 X (100K)	B	23.0/39.3
R217	7030007270	S.RES ERJ2GGEJ 151 X (150)	T	100.2/27.4
R218	7030009270	S.RES ERJ2GGEJ 102 X (820)	T	101.9/27.2
R219	7410001130	S.ARR EXB28V102JX	T	96.0/27.4
R221	7030005090	S.RES ERJ2GGEJ 104 X (100K)	T	11.5/27.2
R222	7030005090	S.RES ERJ2GGEJ 104 X (100K)	T	10.4/31.3
R223	7030005120	S.RES ERJ2GGEJ 102 X (1K)	T	9.1/32.5
R224	7030005120	S.RES ERJ2GGEJ 102 X (1K)	B	8.2/27.4
R225	7030009290	S.RES ERJ2GGEJ 562 X (5.6K)	B	7.8/36.7
R226	7030005110	S.RES ERJ2GGEJ 224 X (220K)	B	8.2/35.5
R227	7030005120	S.RES ERJ2GGEJ 102 X (1K)	B	8.2/29.2
R228	7030005120	S.RES ERJ2GGEJ 102 X (1K)	B	8.2/28.3
R229	7030005120	S.RES ERJ2GGEJ 102 X (1K)	B	8.2/26.5
R230	7030005120	S.RES ERJ2GGEJ 102 X (1K)	B	8.2/30.1
R231	7030005120	S.RES ERJ2GGEJ 102 X (1K)	B	8.2/31.0
R235	7030005120	S.RES ERJ2GGEJ 102 X (1K)	B	25.1/22.1
R236	7030005090	S.RES ERJ2GGEJ 104 X (100K)	B	23.5/27.4
R238	7030005120	S.RES ERJ2GGEJ 102 X (1K)	T	13.6/34.0
R243	7410001150	S.ARR EXB28V471JX	B	24.1/32.8
R245	7030005090	S.RES ERJ2GGEJ 104 X (100K)	B	23.5/34.5
R246	7030007290	S.RES ERJ2GGEJ 222 X (2.2K)	T	21.9/37.1
R247	7030004970	S.RES ERJ2GGEJ 470 X (47)	B	21.9/37.1
R248	7030004970	S.RES ERJ		

[MAIN UNIT]

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
R279	7030005050	S.RES ERJ2GEJ 103 X (10K)	T	14.5/29.6
R280	7410001130	S.ARR EXB28V102JX	B	24.1/25.7
R281	7030005160	S.RES ERJ2GEJ 105 X (1M)	B	15.6/37.8
R282	7030010040	S.RES ERJ2GEJ-JPW	B	6.6/26.5
R284	7030010040	S.RES ERJ2GEJ-JPW	B	4.5/25.5
R285	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	16.5/39.0
R286	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	23.5/36.3
R287	7030004980	S.RES ERJ2GEJ 101 X (100)	B	20.6/22.1
R288	7030004980	S.RES ERJ2GEJ 101 X (100)	B	21.5/22.1
R289	7030004980	S.RES ERJ2GEJ 101 X (100)	B	22.4/22.1
R291	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	T	22.6/35.4
R292	7030004980	S.RES ERJ2GEJ 101 X (100)	T	21.6/34.2
R296	7030004970	S.RES ERJ2GEJ 470 X (47)	B	21.9/38.7
R298	7030005090	S.RES ERJ2GEJ 104 X (100K)	T	14.7/37.0
R299	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	17.9/22.1
R300	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	16.1/22.1
R301	7030005090	S.RES ERJ2GEJ 104 X (100K)	T	16.4/24.8
R302	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	14.3/22.1
R303	7030005120	S.RES ERJ2GEJ 102 X (1K)	T	35.3/10.9
R304	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	19.7/22.1
R305	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	15.2/22.1
R306	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	18.8/22.1
R307	7030005090	S.RES ERJ2GEJ 104 X (100K)	T	15.2/24.4
R308	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	14.9/40.7
R309	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	B	20.1/38.7
R310	7410001140	S.ARR EXB28V104JX	T	17.5/36.9
R311	7410001130	S.ARR EXB28V102JX	T	19.0/32.6
R312	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	21.0/38.7
R313	7030005050	S.RES ERJ2GEJ 103 X (10K)	T	100.3/19.0
R314	7030005090	S.RES ERJ2GEJ 104 X (100K)	T	12.5/16.5
R315	7030011110	S.RES ERJ2RHD 6802X (68.0K)	T	9.0/15.3
R316	7030008340	S.RES RR0510P-182-D (1.8K)	T	11.6/16.5
R317	7030013680	S.RES ERJ2RHD 3902X (39K)	T	10.6/16.5
R318	7410001170	S.ARR EXB28V470JX	B	21.4/15.2
R319	7030005240	S.RES ERJ2GEJ 473 X (47K)	B	17.0/20.5
R320	7410001140	S.ARR EXB28V104JX	T	17.4/7.8
R321	7030005240	S.RES ERJ2GEJ 473 X (47K)	B	14.1/12.6
R322	7030005240	S.RES ERJ2GEJ 473 X (47K)	T	24.8/7.4
R323	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	19.7/18.4
R324	7030005240	S.RES ERJ2GEJ 473 X (47K)	B	17.9/20.5
R325	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	19.1/15.0
R326	7410001140	S.ARR EXB28V104JX	B	22.0/20.1
R327	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	19.1/15.9
R328	7030005710	S.RES ERJ2GEJ 121 X (120)	B	21.1/13.5
R329	7030005240	S.RES ERJ2GEJ 473 X (47K)	T	12.2/19.2
R330	7030005240	S.RES ERJ2GEJ 473 X (47K)	B	15.2/20.5
R331	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	8.5/7.6
R332	7030005240	S.RES ERJ2GEJ 473 X (47K)	B	16.1/20.5
R333	7030005240	S.RES ERJ2GEJ 473 X (47K)	B	14.3/20.5
R334	7030005240	S.RES ERJ2GEJ 473 X (47K)	B	18.8/20.5
R335	7030005240	S.RES ERJ2GEJ 473 X (47K)	B	7.2/9.4
R336	7030004970	S.RES ERJ2GEJ 470 X (47)	B	9.5/7.6
R337	7030005240	S.RES ERJ2GEJ 473 X (47K)	B	16.9/13.1
R338	7030005240	S.RES ERJ2GEJ 473 X (47K)	B	17.7/11.5
R339	7030005240	S.RES ERJ2GEJ 473 X (47K)	B	14.5/10.8
R340	7030005240	S.RES ERJ2GEJ 473 X (47K)	B	15.3/12.3
R341	7030004970	S.RES ERJ2GEJ 470 X (47)	B	20.5/7.4
R342	7030005220	S.RES ERJ2GEJ 223 X (22K)	B	14.4/6.6
R343	7030005220	S.RES ERJ2GEJ 223 X (22K)	B	15.8/6.0
R344	7030004980	S.RES ERJ2GEJ 101 X (100)	B	14.0/8.9
R345	7030007290	S.RES ERJ2GEJ 222 X (2.2K)	B	18.7/7.4
R346	7030005710	S.RES ERJ2GEJ 121 X (120)	T	20.6/8.2
R347	7030005710	S.RES ERJ2GEJ 121 X (120)	T	20.6/7.3
R348	7030005240	S.RES ERJ2GEJ 473 X (47K)	B	20.6/9.4
R349	7030005240	S.RES ERJ2GEJ 473 X (47K)	B	20.2/10.7
R350	7030005240	S.RES ERJ2GEJ 473 X (47K)	T	19.2/7.8
R351	7410001140	S.ARR EXB28V104JX	T	26.6/18.0
R352	7030005240	S.RES ERJ2GEJ 473 X (47K)	T	18.3/22.1
R353	7030005240	S.RES ERJ2GEJ 473 X (47K)	T	17.4/22.1
R354	7030005240	S.RES ERJ2GEJ 473 X (47K)	T	16.5/22.1
R355	7410001140	S.ARR EXB28V104JX	T	26.6/13.0
R356	7410001140	S.ARR EXB28V104JX	T	26.6/15.5
R357	7410001140	S.ARR EXB28V104JX	T	26.6/10.4
R358	7030005240	S.RES ERJ2GEJ 473 X (47K)	T	13.7/5.4
R359	7030005120	S.RES ERJ2GEJ 102 X (1K)	T	10.7/8.3
R360	7030005240	S.RES ERJ2GEJ 473 X (47K)	T	10.7/7.4
R361	7030010040	S.RES ERJ2GEJ-JPW	B	22.5/13.0
R362	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	B	46.7/5.9
R363	7030004970	S.RES ERJ2GEJ 470 X (47)	B	56.9/28.6
R364	7030005010	S.RES ERJ2GEJ 681 X (680)	B	62.8/26.6
R365	7030005100	S.RES ERJ2GEJ 154 X (150K)	B	56.0/26.8
R366	7030005310	S.RES ERJ2GEJ 124 X (120K)	B	56.0/24.3
R367	7030005080	S.RES ERJ2GEJ 823 X (82K)	B	57.4/23.0
R368	7030005590	S.RES ERJ2GEJ 680 X (68)	B	59.9/23.9
R369	7030005310	S.RES ERJ2GEJ 124 X (120K)	B	56.9/26.8
R372	7540000380	S.ABS EZAEAG2A50AX	B	67.0/6.2
R374	7030010040	S.RES ERJ2GEJ-JPW	B	80.2/38.5
R378	7030010040	S.RES ERJ2GEJ-JPW	B	48.1/10.9
R379	7030010040	S.RES ERJ2GEJ-JPW	B	44.4/6.5
R381	7030010040	S.RES ERJ2GEJ-JPW	B	45.7/7.7
R386	7030005110	S.RES ERJ2GEJ 224 X (220K)	B	64.5/8.8
R388	7030007300	S.RES ERJ2GEJ 332 X (3.3K)	B	52.1/5.9
C1	4030017440	S.CER C1005 CH 1H 221J-T	T	65.7/7.9
C2	4030017730	S.CER C1005 JB 1H 471K-T	B	54.0/28.8
C3	4030019560	S.CER GRM21BB31C106KE15L	B	35.3/39.7
C4	4030016790	S.CER C1005 JB 1E 103K-T	B	65.4/13.8
C5	4030016790	S.CER C1005 JB 1E 103K-T	T	65.4/13.1
C6	4030017460	S.CER C1005 JB 1H 102K-T	B	50.1/31.6
C7	4030017460	S.CER C1005 JB 1H 102K-T	B	52.2/29.7
C10	4030016790	S.CER C1005 JB 1E 103K-T	B	39.8/40.1
C11	4030016930	S.CER C1005 JB 1A 104K-T	T	66.6/12.0
C12	4030017400	S.CER C1005 CH 1H 220J-T	B	70.4/20.0
C13	4030017630	S.CER C1005 CH 1H 120J-T	T	71.3/17.6

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

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REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
C14	4030017460	S.CER C1005 JB 1H 102K-T	B	65.6/9.7
C15	4030016930	S.CER C1005 JB 1A 104K-T	B	67.0/12.9
C17	4030016930	S.CER C1005 JB 1A 104K-T	B	63.6/11.3
C18	4030017420	S.CER C1005 CH 1H 470J-T	B	41.1/17.3
C19	4030017340	S.CER C1005 CH 1H 010B-T	B	67.2/12.2
C20	4030017360	S.CER C1005 CH 1H 030B-T	T	68.0/23.8
C21	4550008310	S.TAN F921C105MPA	B	47.2/29.2
C22	4030017420	S.CER C1005 CH 1H 470J-T	B	62.7/7.9
C23	4550007650	S.TAN F931V105MAABMA	B	48.3/22.3
C24	4030016790	S.CER C1005 JB 1E 103K-T	B	67.2/26.1
C25	4030016790	S.CER C1005 JB 1E 103K-T	T	70.8/24.2
C26	4030016790	S.CER C1005 JB 1E 103K-T	B	62.7/15.6
C27	4030020000	S.CER C1005 JB 1A 105K-T	B	42.0/19.7
C28	4550007550	S.TAN F931V334MAABMA	B	48.3/24.5
C29	4030016790	S.CER C1005 JB 1E 103K-T	B	64.0/26.1
C31	4030017730	S.CER C1005 JB 1H 471K-T	B	42.5/23.5
C33	4030017460	S.CER C1005 JB 1H 102K-T	B	43.2/19.8
C34	4030017460	S.CER C1005 JB 1H 102K-T	B	39.9/19.2
C35	4030017460	S.CER C1005 JB 1H 102K-T	B	40.7/22.8
C37	4030017460	S.CER C1005 JB 1H 102K-T	B	59.6/10.3
C39	4030017500	S.CER C1005 CH 1H 560J-T	B	60.4/12.9
C42	4030016790	S.CER C1005 JB 1E 103K-T	B	57.7/15.9
C43	4030017360	S.CER C1005 CH 1H 030B-T	B	59.0/13.3
C44	4030017390	S.CER C1005 CH 1H 180J-T	B	37.3/23.9
C45	4030017390	S.CER C1005 CH 1H 180J-T	B	35.6/24.3
C46	4030017640	S.CER C1005 CH 1H 150J-T	B	46.2/29.8
C47	4030017640	S.CER C1005 CH 1H 150J-T	B	38.9/30.1
C50	4030017500	S.CER C1005 CH 1H 560J-T	B	58.4/12.0
C51	4030017620	S.CER C1005 CH 1H 100C-T	B	57.8/10.3
C52	4030017430	S.CER C1005 CH 1H 101J-T	B	58.7/14.5
C53	4030017530	S.CER C1005 CH 1H 0R5B-T	B	40.1/25.4
C54	4030017730	S.CER C1005 JB 1H 471K-T	B	57.8/13.6
C55	4030017430	S.CER C1005 CH 1H 101J-T	B	57.5/12.0
C58	4030017620	S.CER C1005 CH 1H 100C-T	B	34.7/23.4
C59	4030017610	S.CER C1005 CH 1H 090C-T	B	38.7/31.0
C60	4030020000	S.CER C1005 JB 1A 105K-T	B	56.6/10.7
C62	4030017430	S.CER C1005 CH 1H 101J-T	B	56.6/9.8
C63	4030017380	S.CER C1005 CH 1H 050B-T	B	33.8/24.3
C64	4030017610	S.CER C1005 CH 1H 090C-T	B	32.6/25.3
C65	4030017590	S.CER C1005 CH 1H 070C-T	B	37.4/30.5
C66	4030017640	S.CER C1005 CH 1H 150J-T	B	37.4/28.9
C69	4030017570	S.CER C1005 CH 1H 040B-T	B	56.5/25.5
C70	4030018890	S.CER C1005 JB 0J 224K-T	B	55.0/9.3
C71	4030020000	S.CER C1005 JB 1A 105K-T	B	55.0/10.2
C72	4030020000	S.CER C1005 JB 1A 105K-T	B	55.0/8.4
C73	4030018890	S.CER C1005 JB 0J 224K-T	B	55.0/21.4
C74	4030017430	S.CER C1005 CH 1H 101J-T	B	53.8/22.9
C75	4030017460	S.CER C1005 JB 1H 102K-T	B	53.2/7.7
C76	4030017430	S.CER C1005 CH 1H 101J-T	B	53.6/24.3
C77	4030017460	S.CER C1005 JB 1H 102K-T	B	53.2/6.8
C78	4030019560	S.CER GRM21BB31C106KE15L	B	32.5/39.0
C79	4030017460	S.CER C1005 JB 1H 102K-T	B	31.6/25.9
C80	4030017530	S.CER C1005 CH 1H 0R5B-T	B	29.8/25.3
C81	4030017460	S.CER C1005 JB 1H 102K-T	B	36.2/28.5
C82	4030017340	S.CER C1005 CH 1H 010B-T	B	33.7/30.0
C83	4030016930	S.CER C1005 JB 1A 104K-T	B	30.0/38.9
C84	4030017460	S.CER C1005 JB 1H 102K-T	B	53.3/22.0
C85	4030017460	S.CER C1005 JB 1H 102K-T	B	30.3/31.0
C87	4030019560	S.CER GRM21BB31C106KE15L	B	45.9/19.2
C88	4030017460	S.CER C1005 JB 1H 102K-T	B	29.9/32.2
C89	4030017460	S.CER C1005 JB 1H 102K-T	B	47.3/19.3
C91	4030017460	S.CER C1005 JB 1H 102K-T	B	37.3/34.8
C92	4030017590	S.CER C1005 CH 1H 070C-T	B	37.6/33.6
C94	4030017350	S.CER C1005 CH 1H 020B-T	B	31.5/35.5
C95	4030017460	S.CER C1005 JB 1H 102K-T	B	44.3/18.9
C96	4030017420	S.CER C1005 CH 1H 470J-T	B	43.5/10.4
C97	4030017460	S.CER C1005 JB 1H 102K-T	B	32.0/34.2
C98	4030017620	S.CER C1005 CH 1H 100C-T	B	45.3/10.4
C99	4030020000	S.CER C1005 JB 1A 105K-T	B	47.0/17.1
C100	4030017420	S.CER C1005 CH 1H 470J-T	B	46.6/13.4
C101	4030017440	S.CER C1005 CH 1H 221J-T	B	51.2/29.2
C102	4030019560	S.CER GRM21BB31C106KE15L	B	44.1/17.5
C103	4030017420	S.CER C1005 CH 1H 470J-T	B	46.6/14.3
C104	4030017380	S.CER C1005 CH 1H 050B-T	B	37.4/36.0
C105	4030016790	S.CER C1005 JB 1E 103K-T	B	46.1/17.1
C106	4030017420	S.CER C1005 CH 1H 470J-T	B	45.0/12.6
C107	4030017420	S.CER C1005 CH 1H 470J-T	B	43.8/11.9
C108	4030017420	S.CER C1005 CH 1H 470J-T</		

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REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
C135	4030017580	S.CER C1005 CH 1H 060C-T	[#01] B	76.3/12.5
	4030017380	S.CER C1005 CH 1H 050B-T	[#02] B	
	4030017380	S.CER C1005 CH 1H 050B-T	[#03] B	
	4030017580	S.CER C1005 CH 1H 060C-T	[#04] B	
C137	4030017730	S.CER C1005 JB 1H 471K-T	B	56.8/35.4
C138	4030017730	S.CER C1005 JB 1H 471K-T	B	59.3/32.9
C140	4030017540	S.CER C1005 CH 1H R75B-T	[#01] B	77.5/12.1
	4030017540	S.CER C1005 CH 1H R75B-T	[#04] B	
C143	4030016930	S.CER C1005 JB 1A 104K-T	T	65.5/36.0
C144	4030017390	S.CER C1005 CH 1H 180J-T	[#01] B	80.7/13.0
	4030017390	S.CER C1005 CH 1H 180J-T	[#04] B	
C145	4030016930	S.CER C1005 JB 1A 104K-T	B	82.7/10.5
C146	4030016790	S.CER C1005 JB 1E 103K-T	B	38.4/14.6
C147	4030017460	S.CER C1005 JB 1H 102K-T	B	85.5/9.5
C148	4030017530	S.CER C1005 CH 1H 0R5B-T	[#01] B	82.3/13.3
	4030017540	S.CER C1005 CH 1H R75B-T	[#02] B	
	4030017540	S.CER C1005 CH 1H R75B-T	[#03] B	
	4030017530	S.CER C1005 CH 1H 0R5B-T	[#04] B	
C149	4030017420	S.CER C1005 CH 1H 470J-T	B	64.9/37.9
C151	4030017670	S.CER C1005 CH 1H 390J-T	[#01] B	67.2/35.2
	4030017500	S.CER C1005 CH 1H 560J-T	[#02] B	
	4030017500	S.CER C1005 CH 1H 560J-T	[#03] B	
	4030017670	S.CER C1005 CH 1H 390J-T	[#04] B	
C152	4030017460	S.CER C1005 JB 1H 102K-T	B	87.5/13.5
C153	4030017390	S.CER C1005 CH 1H 180J-T	[#01] B	83.9/12.6
	4030017390	S.CER C1005 CH 1H 180J-T	[#04] B	
C154	4030017730	S.CER C1005 JB 1H 471K-T	B	64.9/37.0
C155	4030017730	S.CER C1005 JB 1H 471K-T	B	67.9/38.0
C156	4030017570	S.CER C1005 CH 1H 040B-T	[#01] B	87.6/11.7
	4030017350	S.CER C1005 CH 1H 020B-T	[#02] B	
	4030017350	S.CER C1005 CH 1H 020B-T	[#03] B	
	4030017570	S.CER C1005 CH 1H 040B-T	[#04] B	
C157	4030017460	S.CER C1005 JB 1H 102K-T	B	64.9/39.6
C158	4030017460	S.CER C1005 JB 1H 102K-T	B	88.0/9.1
C160	4030017460	S.CER C1005 JB 1H 102K-T	B	83.3/14.8
C161	4030020000	S.CER C1005 JB 1A 105K-T	B	65.8/39.5
C164	4030017460	S.CER C1005 JB 1H 102K-T	T	85.3/39.3
C166	4030020090	S.CER GQM1882C1H240JB01D	B	78.3/36.3
C167	4030016930	S.CER C1005 JB 1A 104K-T	T	81.9/33.4
C168	4030017420	S.CER C1005 CH 1H 470J-T	B	76.2/32.4
C170	4030017730	S.CER C1005 JB 1H 471K-T	B	77.1/32.4
C171	4030017460	S.CER C1005 JB 1H 102K-T	T	80.1/33.4
C172	4030017390	S.CER C1005 CH 1H 180J-T	B	80.2/36.9
C173	4030017460	S.CER C1005 JB 1H 102K-T	B	86.9/14.7
C174	4030017620	S.CER C1005 CH 1H 100C-T	B	82.6/18.2
C175	4030018890	S.CER C1005 JB 0J 224K-T	T	84.7/37.1
C178	4030016930	S.CER C1005 JB 1A 104K-T	B	89.5/23.2
C179	4030017600	S.CER C1005 CH 1H 080C-T	[#01] B	82.0/36.3
	4030017620	S.CER C1005 CH 1H 100C-T	[#02] B	
	4030017620	S.CER C1005 CH 1H 100C-T	[#03] B	
	4030017600	S.CER C1005 CH 1H 080C-T	[#04] B	
C180	4030017460	S.CER C1005 JB 1H 102K-T	B	81.6/27.4
C182	4030017670	S.CER C1005 CH 1H 390J-T	B	87.2/18.6
C183	4030017460	S.CER C1005 JB 1H 102K-T	B	83.5/34.0
C185	4030017610	S.CER C1005 CH 1H 090C-T	B	84.8/20.4
C186	4030017560	S.CER C1005 CH 1H 2R5B-T	B	83.6/21.0
C187	4030017380	S.CER C1005 CH 1H 050B-T	B	84.7/29.0
C189	4030017610	S.CER C1005 CH 1H 090C-T	B	84.8/21.5
C190	4030017460	S.CER C1005 JB 1H 102K-T	B	85.9/29.3
C191	4030017580	S.CER C1005 CH 1H 060C-T	B	87.3/27.0
C192	4030017670	S.CER C1005 CH 1H 390J-T	B	87.0/24.4
C194	4030017560	S.CER C1005 CH 1H 2R5B-T	B	87.4/30.3
C195	4030017380	S.CER C1005 CH 1H 050B-T	B	85.0/27.8
C197	4030017630	S.CER C1005 CH 1H 120J-T	B	83.5/24.7
C199	4030017600	S.CER C1005 CH 1H 080C-T	B	89.1/31.2
C200	4030017730	S.CER C1005 JB 1H 471K-T	B	85.8/30.2
C202	4030017340	S.CER C1005 CH 1H 010B-T	B	90.3/32.9
C204	4030017530	S.CER C1005 CH 1H 0R5B-T	B	87.0/32.1
C205	4030017620	S.CER C1005 CH 1H 100C-T	[#01] B	90.8/34.1
	4030017600	S.CER C1005 CH 1H 080C-T	[#02] B	
	4030017600	S.CER C1005 CH 1H 080C-T	[#03] B	
	4030017620	S.CER C1005 CH 1H 100C-T	[#04] B	
C206	4030017530	S.CER C1005 CH 1H 0R5B-T	B	86.1/33.5
C207	4030017460	S.CER C1005 JB 1H 102K-T	B	83.5/26.3
C208	4030017530	S.CER C1005 CH 1H 0R5B-T	B	92.0/35.4
C210	4030017460	S.CER C1005 JB 1H 102K-T	B	71.8/40.8
C211	4030017460	S.CER C1005 JB 1H 102K-T	T	65.5/37.3
C212	4030017460	S.CER C1005 JB 1H 102K-T	B	75.2/9.0
C213	4030017460	S.CER C1005 JB 1H 102K-T	B	71.3/42.0
C214	4030019560	S.CER GRM21BB31C106KE15L	B	62.1/41.7
C215	4030017460	S.CER C1005 JB 1H 102K-T	T	95.9/7.7
C216	4030017420	S.CER C1005 CH 1H 470J-T	B	66.1/6.2
C217	4030019560	S.CER GRM21BB31C106KE15L	B	79.9/4.8
C218	4030017460	S.CER C1005 JB 1H 102K-T	T	88.2/6.4
C220	4030017460	S.CER C1005 JB 1H 102K-T	T	89.9/12.8
C222	4030020000	S.CER C1005 JB 1A 105K-T	T	87.7/7.7
C223	4030016930	S.CER C1005 JB 1A 104K-T	T	72.5/42.7
C224	4030017430	S.CER C1005 CH 1H 101J-T	T	75.7/3.8
C226	4030017460	S.CER C1005 JB 1H 102K-T	T	75.3/12.8
C227	4030017460	S.CER C1005 JB 1H 102K-T	T	75.6/22.5
C229	4030020000	S.CER C1005 JB 1A 105K-T	T	87.7/8.6
C230	4030016930	S.CER C1005 JB 1A 104K-T	T	90.5/6.4
C231	4030017420	S.CER C1005 CH 1H 470J-T	T	76.2/12.8
C233	4030019560	S.CER GRM21BB31C106KE15L	T	87.0/26.9
C234	4030017430	S.CER C1005 CH 1H 101J-T	T	77.1/12.8
C237	4030016930	S.CER C1005 JB 1A 104K-T	T	25.4/24.8
C238	4520000020	S.NIO NOJC227M006RWJV	T	80.5/15.4
C239	4030017430	S.CER C1005 CH 1H 101J-T	T	89.4/14.9
C240	4030017460	S.CER C1005 JB 1H 102K-T	T	77.2/22.5
C241	4030016930	S.CER C1005 JB 1A 104K-T	T	25.9/16.8
C242	4030020000	S.CER C1005 JB 1A 105K-T	T	26.8/16.8
C244	4030019990	S.CER C1005 JB 1C 104K-T	T	82.7/21.1
C245	4030016930	S.CER C1005 JB 1A 104K-T	T	25.8/13.8
C246	4030016780	S.CER C1005 JB 1E 153K-T	B	27.7/16.0
C247	4030017710	S.CER C1005 CH 1H 181J-T	B	28.6/16.0

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
C248	4030016930	S.CER C1005 JB 1A 104K-T	B	35.4/13.4
C249	4030020000	S.CER C1005 JB 1A 105K-T	B	29.7/14.7
C250	4030020120	S.CER C1005 JB 0J 225M-T	B	39.3/12.5
C251	4030017620	S.CER C1005 CH 1H 100C-T	B	10.8/12.8
C252	4030016930	S.CER C1005 JB 1A 104K-T	B	36.6/12.2
C253	4030020000	S.CER C1005 JB 1A 105K-T	B	26.3/18.1
C255	4030020000	S.CER C1005 JB 1A 105K-T	B	35.4/12.3
C256	4030020000	S.CER C1005 JB 1A 105K-T	T	26.7/21.9
C257	4030017460	S.CER C1005 JB 1H 102K-T	T	79.3/21.1
C259	4030020190	S.CER GRM32EB31C476KE15L	B	14.0/16.1
C261	4030016930	S.CER C1005 JB 1A 104K-T	T	94.8/16.9
C262	4030017420	S.CER C1005 CH 1H 470J-T	T	80.2/21.1
C265	4030018890	S.CER C1005 JB 0J 224K-T	T	93.9/12.3
C266	4030016790	S.CER C1005 JB 1E 103K-T	B	36.4/11.0
C267	4550008220	S.TAN F931C106MAA	T	98.2/15.8
C268	4030020000	S.CER C1005 JB 1A 105K-T	B	36.4/10.1
C269	4030016930	S.CER C1005 JB 1A 104K-T	T	96.6/15.4
C270	4030020000	S.CER C1005 JB 1A 105K-T	B	36.4/9.0
C271	4030017670	S.CER C1005 CH 1H 390J-T	B	38.0/8.1
C272	4030016930	S.CER C1005 JB 1A 104K-T	B	95.3/12.8
C273	4030020000	S.CER C1005 JB 1A 105K-T	B	36.4/5.4
C275	4030016930	S.CER C1005 JB 1A 104K-T	B	24.9/8.4
C276	4030020000	S.CER C1005 JB 1A 105K-T	B	36.4/6.3
C277	4030017460	S.CER C1005 JB 1H 102K-T	B	24.9/7.5
C278	4030020000	S.CER C1005 JB 1A 105K-T	B	37.6/3.7
C279	4030019560	S.CER GRM21BB31C106KE15L	B	4.8/21.3
C281	4030020000	S.CER C1005 JB 1A 105K-T	B	36.4/7.2
C282	4030020000	S.CER C1005 JB 1A 105K-T	B	43.4/3.5
C283	4030020000	S.CER C1005 JB 1A 105K-T	B	94.0/17.6
C284	4030020000	S.CER C1005 JB 1A 105K-T	B	34.9/5.3
C285	4030016930	S.CER C1005 JB 1A 104K-T	B	23.2/4.2
C286	4030020000	S.CER C1005 JB 1A 105K-T	B	39.3/7.6
C287	4030017460	S.CER C1005 JB 1H 102K-T	B	26.6/3.3
C288	4030020000	S.CER C1005 JB 1A 105K-T	B	4.5/24.6
C289	4030017450	S.CER C1005 JB 1H 271K-T	B	31.2/4.1
C290	4030016930	S.CER C1005 JB 1A 104K-T	B	26.6/4.2
C291	4030020000	S.CER C1005 JB 1A 105K-T	T	7.2/30.9
C292	4030017430	S.CER C1005 CH 1H 101J-T	B	39.4/4.5
C293	4030017460	S.CER C1005 JB 1H 102K-T	B	93.2/12.3
C294	4030017900	S.CER C1005 JB 1E 123K-T	B	36.4/3.2
C296	4030016930	S.CER C1005 JB 1A 104K-T	B	42.1/6.7
C297	4030016930	S.CER C1005 JB 1A 104K-T	T	8.1/24.5
C298	4030020000	S.CER C1005 JB 1A 105K-T	B	23.0/37.7
C299	4030016930	S.CER C1005 JB 1A 104K-T	B	25.5/36.6
C300	4030019560	S.CER GRM21BB31C106KE15L	T	10.7/35.3
C301	4030016930	S.CER C1005 JB 1A 104K-T	T	8.1/34.9
C302	4030016930	S.CER C1005 JB 1A 104K-T	T	9.1/30.7
C303	4030017460	S.CER C1005 JB 1H 102K-T	B	8.2/32.8
C304	4030017460	S.CER C1005 JB 1H 102K-T	T	10.6/27.2
C305	4030017460	S.CER C1005 JB 1H 102K-T	B	8.2/34.6
C306	4030017460	S.CER C1005 JB 1H 102K-T	B	8.2/33.7
C307	4030017460	S.CER C1005 JB 1H 102K-T	B	7.0/31.4
C308	4030016930	S.CER C1005 JB 1A 104K-T	T	13.2/35.3
C309	4030017460	S.CER C1005 JB 1H 102K-T	T	10.3/25.1
C310	4030017460	S.CER C1005 JB 1H 102K-T	B	8.2/31.9
C311	4030016930	S.CER C1005 JB 1A 104K-T	T	12.0/30.5
C312	403			

[MAIN UNIT]

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
C374	4030016790	S.CER C1005 JB 1E 103K-T	B	20.2/12.3
C375	4030016790	S.CER C1005 JB 1E 103K-T	B	16.8/17.8
C376	4030016790	S.CER C1005 JB 1E 103K-T	B	16.0/10.8
C377	4030017460	S.CER C1005 JB 1H 102K-T	B	17.2/10.3
C378	4030020000	S.CER C1005 JB 1A 105K-T	B	23.6/17.4
C379	4030018910	S.CER C1608 JB 0J 475K-T	B	24.1/11.1
C380	4030016930	S.CER C1005 JB 1A 104K-T	B	13.6/10.1
C381	4030017380	S.CER C1005 CH 1H 050B-T	B	19.6/7.4
C382	4030016930	S.CER C1005 JB 1A 104K-T	B	19.4/9.1
C383	4030016930	S.CER C1005 JB 1A 104K-T	B	21.1/10.7
C384	4030020000	S.CER C1005 JB 1A 105K-T	B	16.1/15.5
C385	4030019560	S.CER GRM21BB31C106KE15L	T	12.1/21.3
C386	4030016930	S.CER C1005 JB 1A 104K-T	B	17.0/15.5
C387	4030016930	S.CER C1005 JB 1A 104K-T	T	13.8/22.1
C388	4030016790	S.CER C1005 JB 1E 103K-T	B	17.9/15.5
C389	4030016930	S.CER C1005 JB 1A 104K-T	T	14.9/22.1
C390	4030018910	S.CER C1608 JB 0J 475K-T	T	10.6/21.6
C391	4030020000	S.CER C1005 JB 1A 105K-T	T	26.8/7.4
C392	4030016930	S.CER C1005 JB 1A 104K-T	T	15.7/7.9
C393	4030017460	S.CER C1005 JB 1H 102K-T	B	58.2/29.0
C394	4030017460	S.CER C1005 JB 1H 102K-T	B	58.7/27.7
C395	4030017640	S.CER C1005 CH 1H 150J-T	B	59.7/27.7
C396	4030017460	S.CER C1005 JB 1H 102K-T	B	58.1/23.9
C397	4030017420	S.CER C1005 CH 1H 470J-T	B	59.9/23.0
C398	4030017460	S.CER C1005 JB 1H 102K-T	B	59.9/22.1
C399	4030016790	S.CER C1005 JB 1E 103K-T	B	57.8/27.7
C404	4030016970	S.CER C1005 JB 1E 223K-T	B	45.0/13.9
C408	4030017690	S.CER C1005 CH 1H 121J-T	B	50.9/6.8
J2	6450000131	CON HSJ1102-018540		
J3	6510021901	S.CON BM02B-ASRS-TF(LF)(SN)	T	85.5/14.5
J4	6510025880	CON TC38-108-01 <CFE>		
F1	5210001160	S.FUS ERBRE3R00V	T	76.5/24.1
DS5	5040002670	S.LED CL-165HR/YG-D-T	T	101.0/29.2
MC1	7700002900	MIC EM6027P-38C33-G <HOR>		
S1	2250000900	ENC ED08D13OFT176S065A-1010 <EVT>		
S6	2260003490	S.SWI TAFG-12W-QR <DIP>	T	61.7/42.9
S7	2260003490	S.SWI TAFG-12W-QR <DIP>	T	52.2/42.9
S8	2230001060	S.SWI EVQ-PUL 02K	T	101.4/13.7
S9	2260001900	SWI SW-149 (SKHLLDA010)		
EP1	6910018460	S.BEA MMZ1005Y102C-T	B	64.5/10.4
EP2	6910021240	S.BEA MMZ1005A152ET	B	30.0/23.7
EP3	6910021240	S.BEA MMZ1005A152ET	B	34.6/28.4
EP4	6910018460	S.BEA MMZ1005Y102C-T	B	30.8/32.2
EP5	6910021140	S.BEA MMZ1005S800CT	B	78.0/32.7
EP6	6910014730	S.BEA MPZ2012S331A-T	B	79.4/31.7
EP7	6910024510	E.O 3621 CONTACT SPRING		
EP8	6910023820	S.BEA MPZ2012S101A-T	T	73.5/24.2
EP9	6910023820	S.BEA MPZ2012S101A-T	T	72.5/21.4
EP10	6910021770	S.BEA MMZ1005F560CT	B	25.3/9.4
EP11	6910021240	S.BEA MMZ1005A152ET	B	38.0/6.3
EP12	6910021240	S.BEA MMZ1005A152ET	B	27.8/3.8
EP13	6910021240	S.BEA MMZ1005A152ET	T	12.4/28.9
EP14	6910021240	S.BEA MMZ1005A152ET	B	9.2/38.2
EP18	6910021240	S.BEA MMZ1005A152ET	T	8.9/9.8
EP19	6910021240	S.BEA MMZ1005A152ET	T	10.5/11.3
EP20	6910021770	S.BEA MMZ1005F560CT	T	22.4/8.2
EP21	6910021770	S.BEA MMZ1005F560CT	T	22.4/7.3
EP22	6910021770	S.BEA MMZ1005F560CT	B	18.5/10.0
EP23	6910021770	S.BEA MMZ1005F560CT	T	9.3/21.6
EP24	6910021240	S.BEA MMZ1005A152ET	T	9.3/22.5
EP26	6910018460	S.BEA MMZ1005Y102C-T	B	12.6/11.9
EP27	6910018460	S.BEA MMZ1005Y102C-T	B	11.7/12.8
EP28	6910014730	S.BEA MPZ2012S331A-T	B	6.6/23.3

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

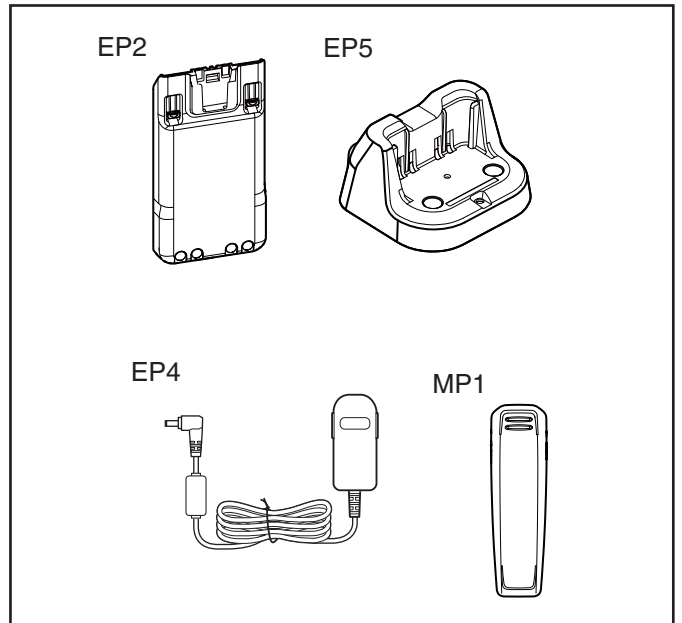
MECHANICAL PARTS

[CHASSIS PARTS]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
EP2	3310004750	3621 ANT <EIK>	1
SP1	2510001980	036D01204	1
MP1	8010023041	3621 CHASSIS-1	1
MP2	8210031290	3621 FRONT PANEL (B) ASSEMBLYA-4 (including W1, SP1, MP3, 4, 5, 9, 10, 23, 28, 32, 33, MP42, 47, 48, 53)	1
MP3	8210029620	3621 3621 PTT PANEL	1
MP4	8930089210	3621 PTT BUTTON	1
MP5	8930089230	3621 PTT RUBBER	1
MP9	8930089220	3621 LENS	1
MP10	8930089250	3621 TOP KEY	1
MP6	8930089290	3621 SIDE PLATE Y1318	1
MP7	8930089240	3621 SIDE SEAL (TOP)	1
MP11	8930089300	3621 TOP PLATE	1
MP12	8930089281	3621 MIC SEAL-1 (TOP)	1
MP15	8930068980	2905 VENT SHEET	1
MP16	8930084870	3384 REAR SHEET	1
MP19	8830003440	3285 ANT NUT	1
MP22	8930091600	3696 MAIN SEAL (SHJ)	1
MP23	8930089320	3621 NAME SHEET	1
MP24	8610014711	KNOB N-421-1	1
MP25	8610014720	KNOB N-422	1
MP26	8930089270	3621 CONTACT RUBBER (TOP)	1
MP28	8930089310	3621 SP PLATE	1
MP30	8930090130	3621 SPONGE	1
MP32	8930070010	2893 VOL RUBBER	2
MP33	8930091580	SP NET(J)	1
MP34	8830001701	VR NUT (Q)-1	2
MP35	8850003421	SEALING WASHER (AA)-1 (TOT)	1
MP39	8930085330	O-RING (CQ) (TOP)	1
MP40	8810010850	PHBT B0 M2X8 SUS SSBC	2
MP41	8810008971	BT M2 X3.5 NI-ZC3	9
MP42	8810008641	BT M2 X4 NI-ZC3	2
MP43	8810007391	PH M2 X 6 SUS SSBC	2
MP44	8810009511	PHBT M2 X 4 NI-ZC3 (3.6-4.0)	2
MP45	8810008761	PHBT M2 X 8 NI-ZC3	1
MP47	8930083881	O-RING(CK)-1	1
MP48	8930090100	O-RING(CX)	1
MP49	8210029630	3621 JACK PANEL <VNM>	1
MP51	8930090110	THERMAL SHEET (CJ) TC-150CAT-20 (6X6)	1
MP53	8930088670	3521 VENT SHEET	1
MP55	6910018220	2927 ANT CAP <EIK>	1

[ACCESSORIES]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
EP2	(Optional)	BP-280	1
EP4	(Optional)	BC-123SE	[#21] 1
EP5	(Optional)	BC-123SUK	[#22] 1
	(Optional)	BC-213	1
MP1	(Optional)	MB-133	1

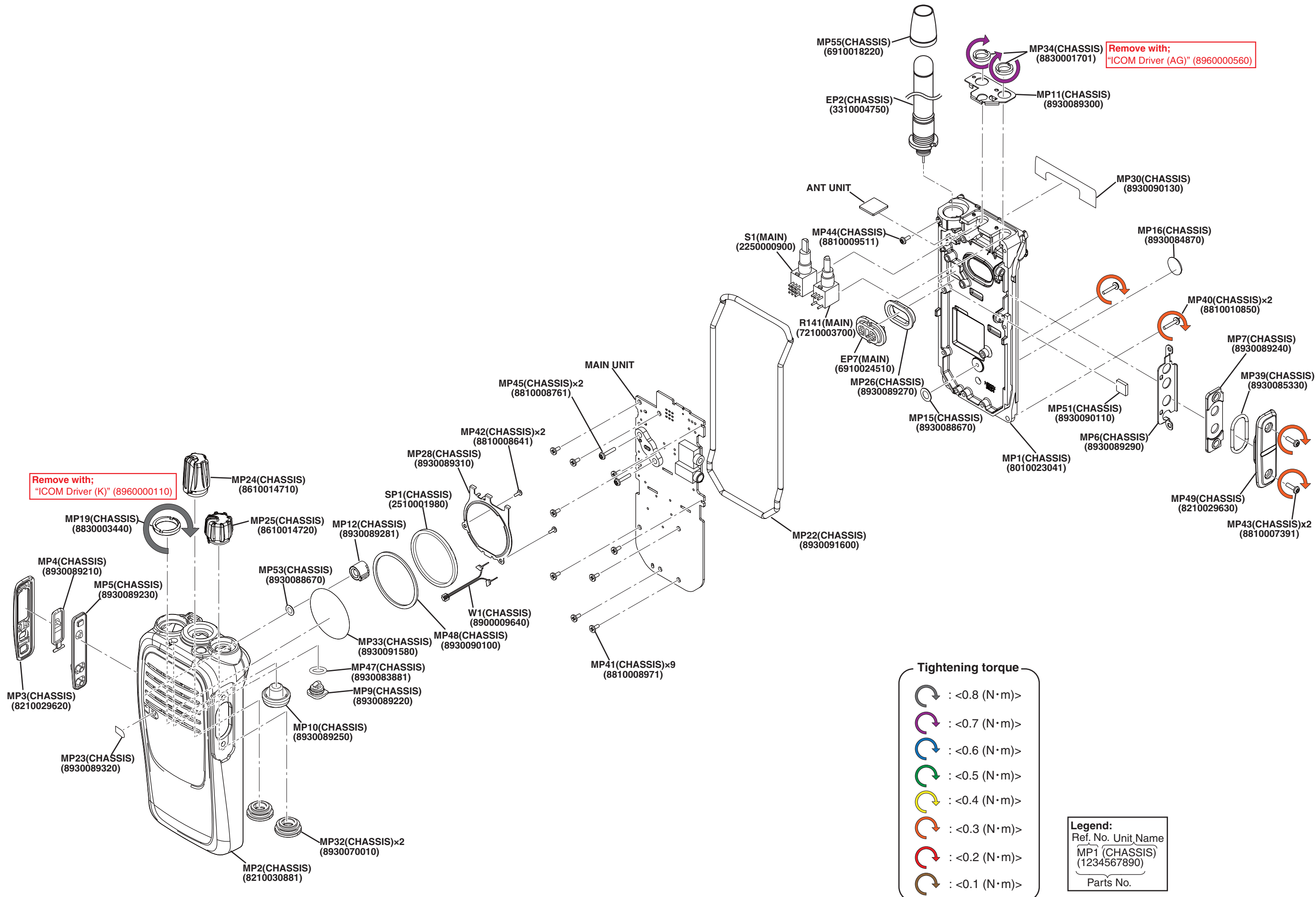


[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
J1*	6510028180	MM8130-2600RA2	1
J2*	6450000131	HSJ1102-018540	1
J3*	6510021901	BM02B-ASRS-TF (LF) (SN)	1
J4*	6450002250	HSJ1456-010320	1
F1*	5210001160	ERBRE3R00V	1
MC1	7700002900	EM6027P-38C33-G <HOR>	1
S1	2250000900	ED08D13OFT176S065A-1010 <EVT>	1
S6*	2260003490	TAFG-12W-QR <DIP>	1
S7*	2260003490	TAFG-12W-QR <DIP>	1
S8*	2230001060	EVQ-PUL 02K	1
S9	2260001900	SW-149 (SKHLLDA010)	1
EP7	6910024510	3621 CONTACT SPRING	1
MP1*	8510021150	3621 VCO CASE Y1314	1
MP3*	8410002790	3621 PA HEATSINK	1
MP4*	6910014760	OG-503040	1
MP5	8510021160	3621 VCO COVER Y1315	1
MP7	8510021530	3696 DSP CASE Y1345	1
MP8	8930076930	INSULATION SHEET (MH)	1

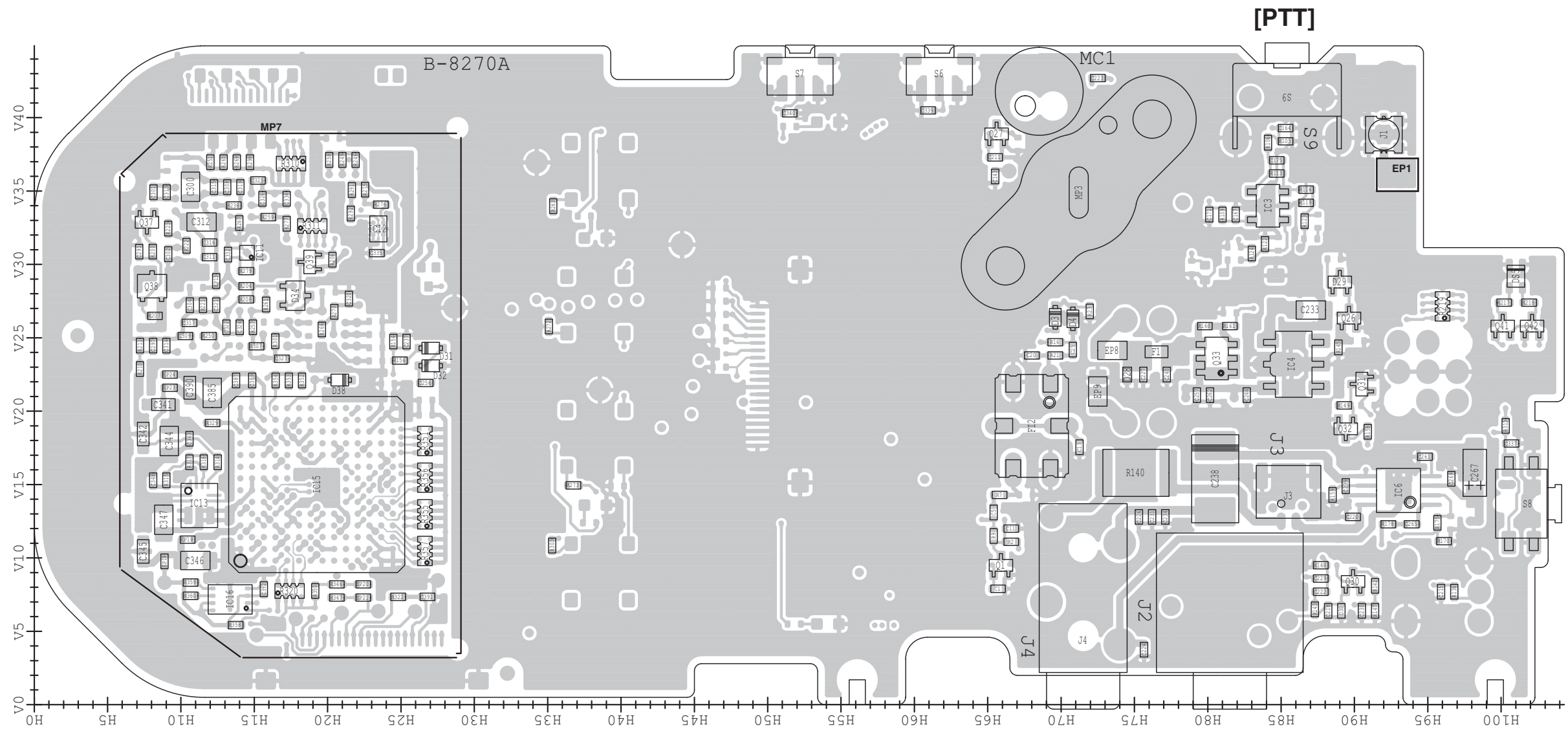
*: Refer to "BOARD LAYOUTS" for the location.

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



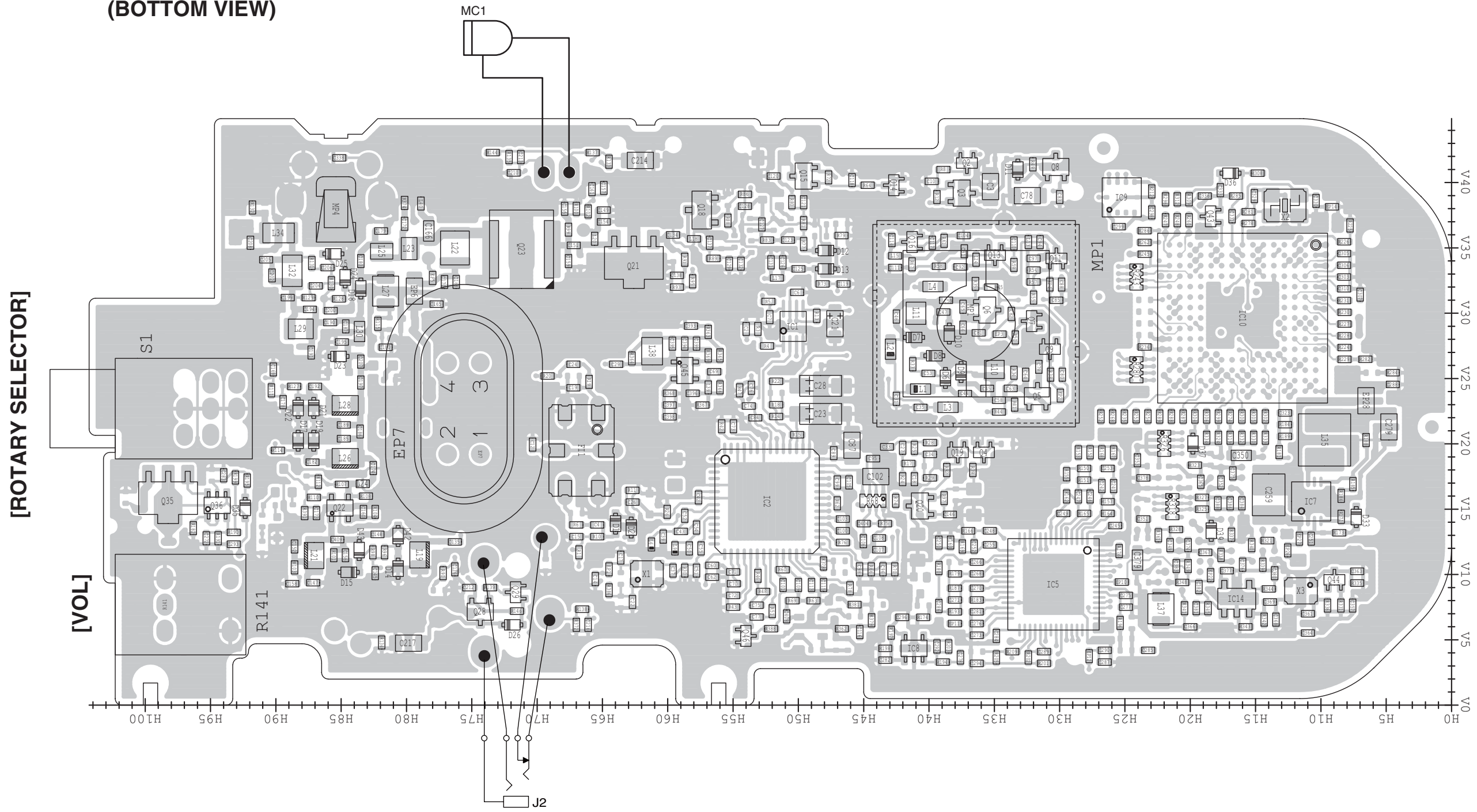
The actual configuration of the PC board can be seen by viewing the top and bottom BOARD LAYOUT pages together.

• MAIN UNIT B-8270A
(TOP VIEW)



The actual configuration of the PC board can be seen by viewing the top and bottom BOARD LAYOUT pages together.

• MAIN UNIT B-8270A
(BOTTOM VIEW)



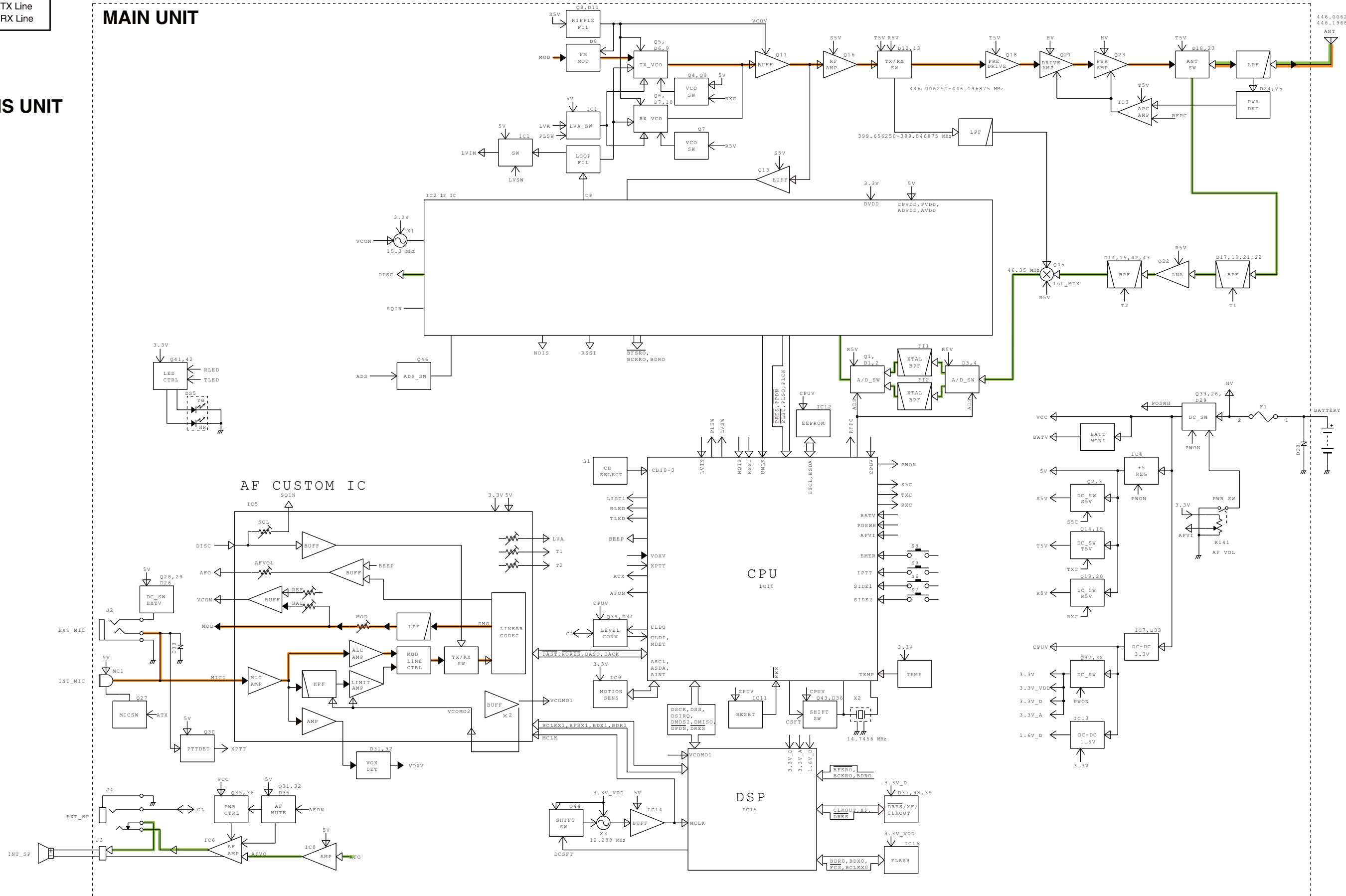
SECTION 8

BLOCK DIAGRAM

Explanatory notes
 TX Line
 RX Line

CHASSIS UNIT

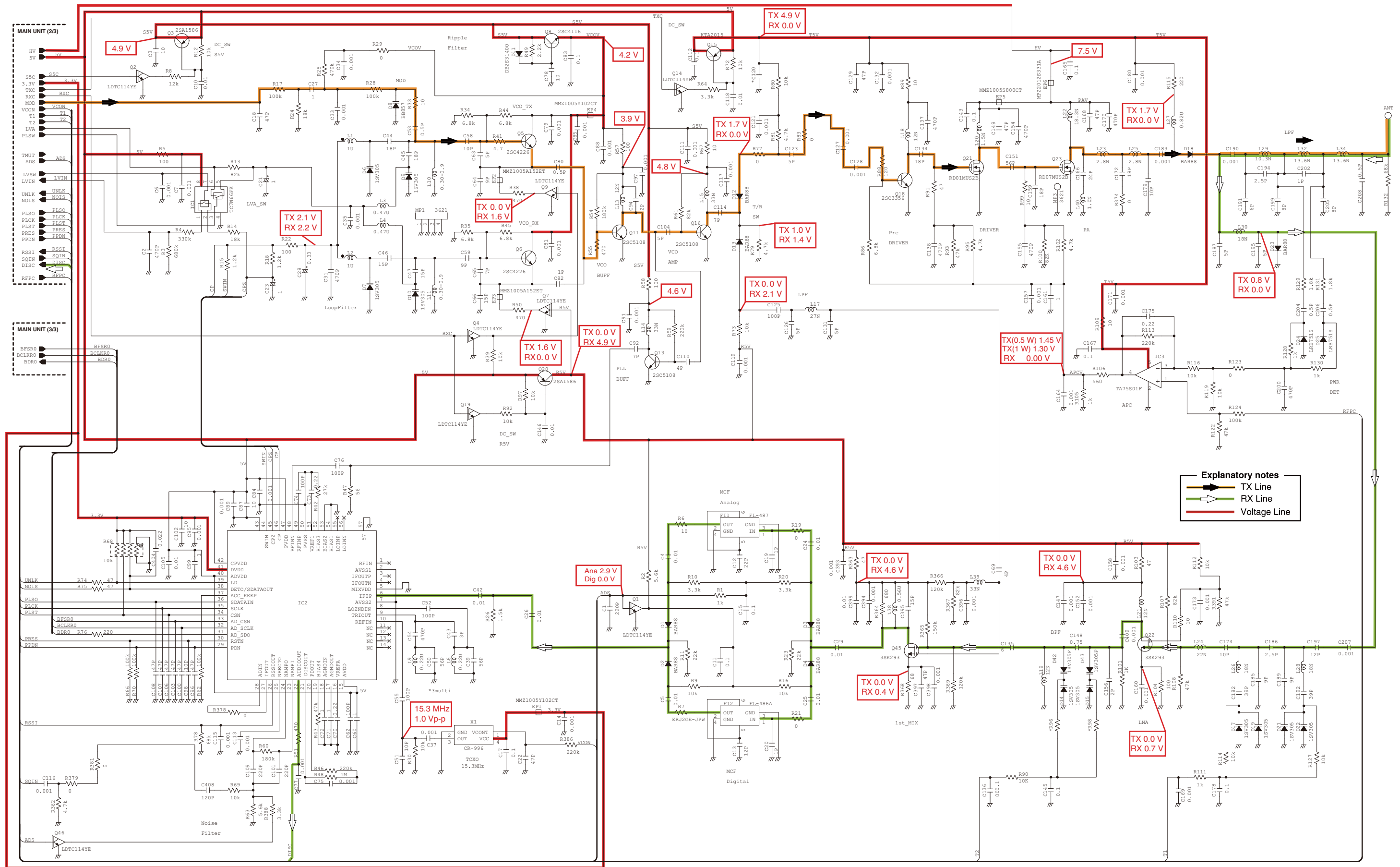
MAIN UNIT



SECTION 9

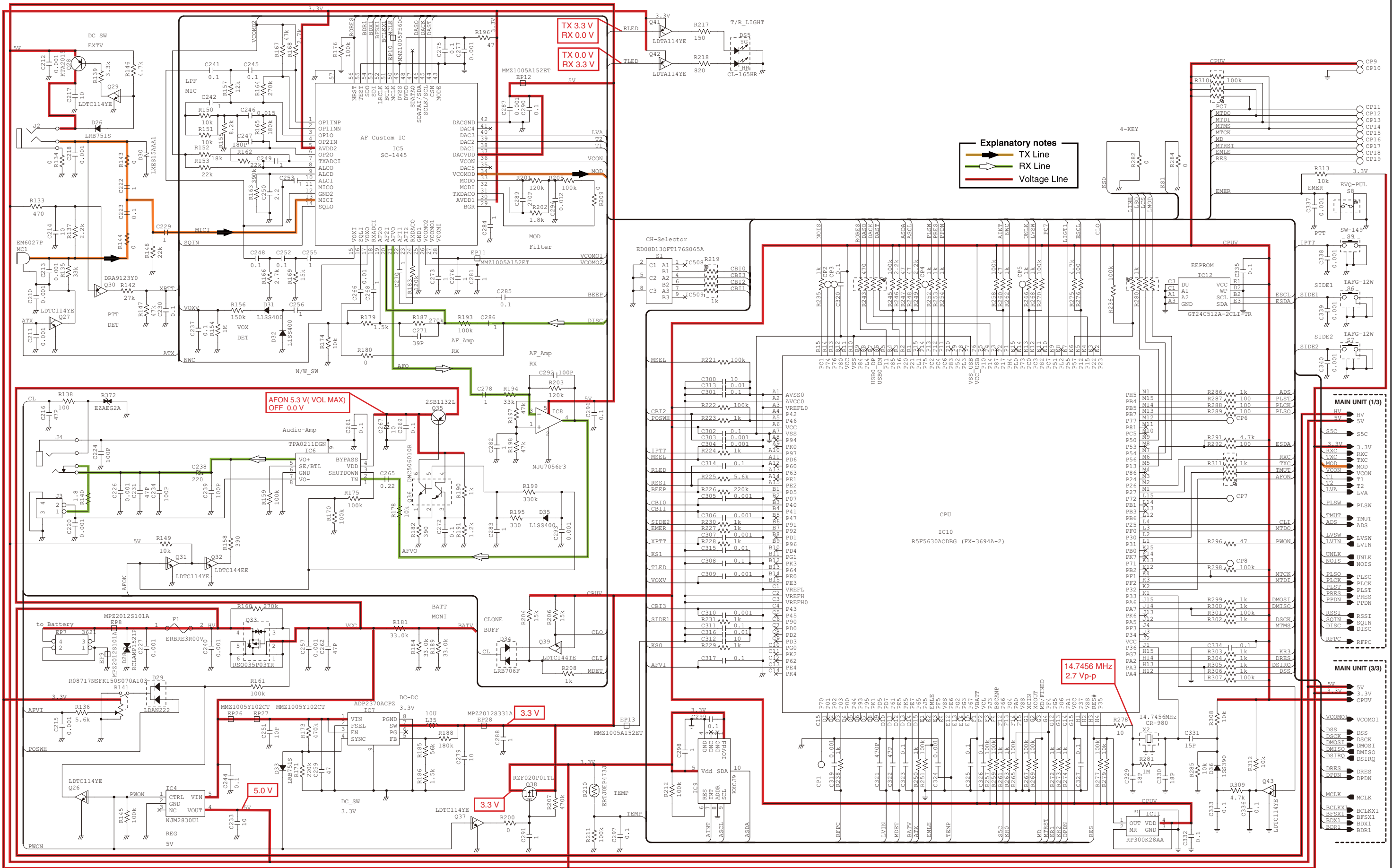
VOLTAGE DIAGRAM

• MAIN UNIT (1/3)



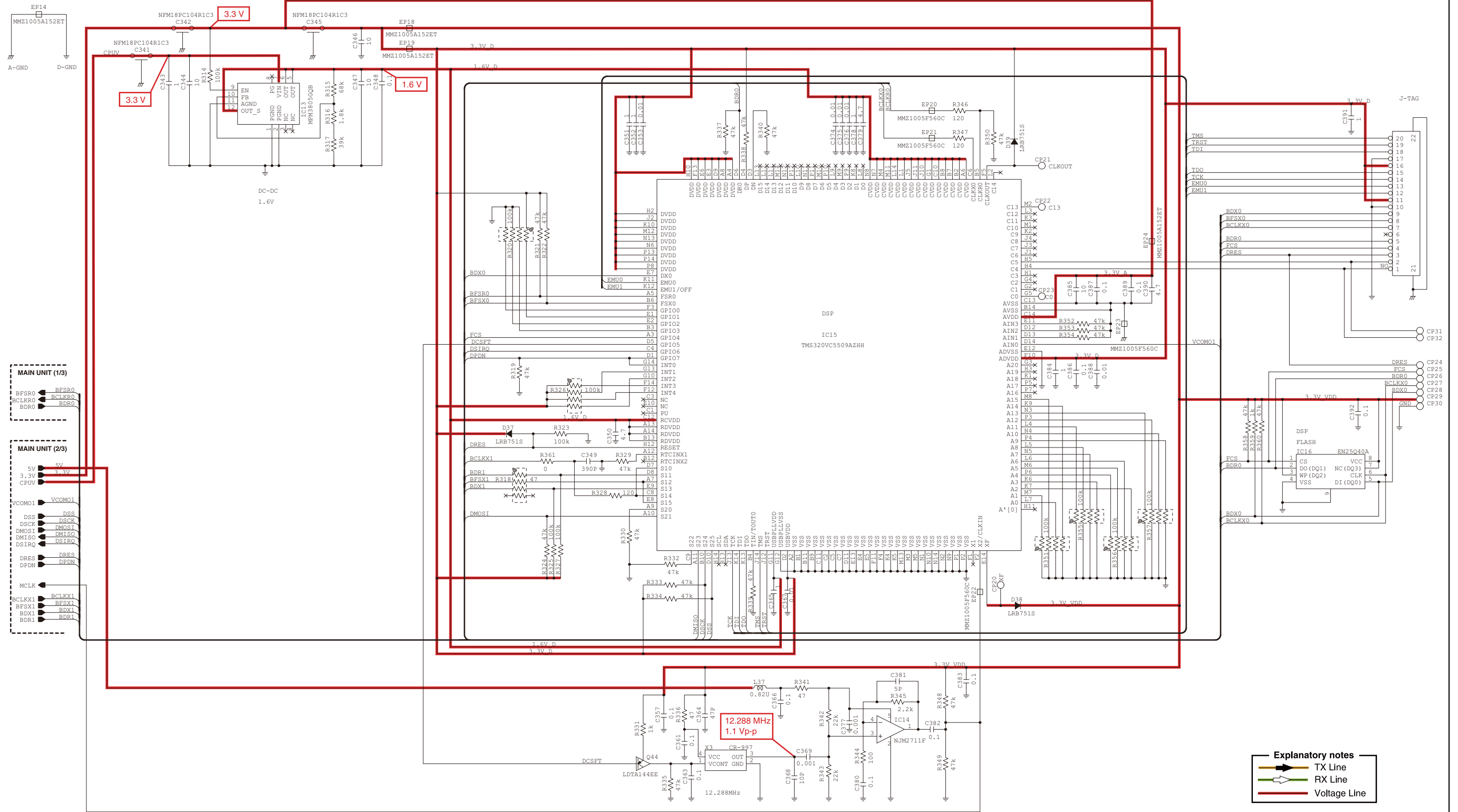
*Refer to the PARTS LIST for the value and name of component.

• MAIN UNIT (2/3)



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

• MAIN UNIT (3/3)



Explanatory notes

- TX Line
- RX Line
- Voltage Line

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

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