



# SERVICE MANUAL

D-STAR REPEATER SYSTEM

## **ID-RP2**

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S-14205HZ-C1

Nov. 2005

**Icom Inc.**

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## INTRODUCTION

This service manual describes the latest service information for the **ID-RP2** D-STAR REPEATER SYSTEM at the time of publication.

MODEL	DESCRIPTION		
ID-RP2C	REPEATER CONTROLLER		
ID-RP2L	10GHz MICROWAVE LINK REPEATER		
	Version	TX frequency	RX frequency
	USA	10.150-10.175 GHz	10.000-10.025 GHz
	USA-1	10.000-10.025 GHz	10.150-10.175 GHz
ID-RP2D	1.2 GHz DATA REPEATER		
ID-RP2V	1.2 GHz DIGITAL VOICE REPEATER		

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

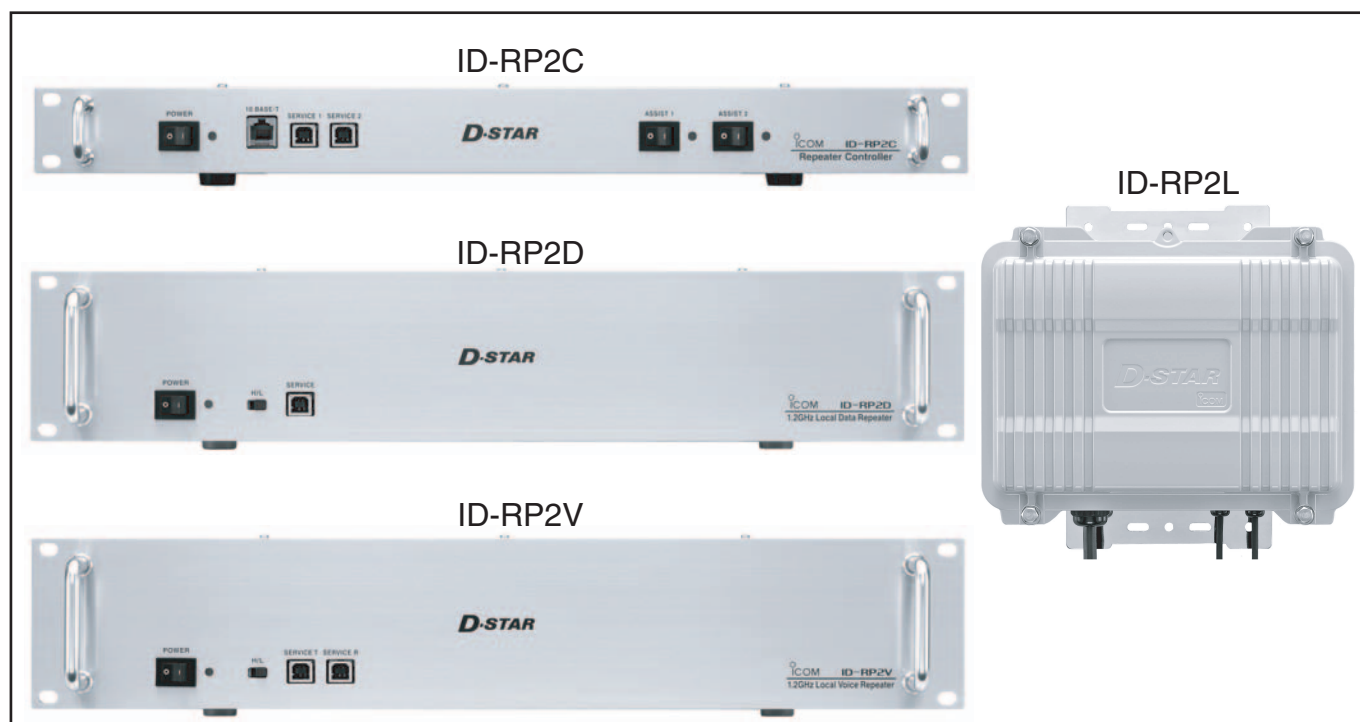
## DANGER

**NEVER** connect the transceiver to an AC outlet or to a DC power supply that uses more than 16 V. 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 parts number
2. Component name and informations
3. Equipment model name and unit name
4. Quantity required

### <SAMPLE ORDER>

1130009850 S.IC TC74LCX245FT ID-RP2C MAIN UNIT 5 pieces  
8810002950 Screw BiH M3×6 SUS ID-RP2C Cover 10 pieces

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

## REPAIR NOTES

1. Make sure a problem is internal before disassembling the transceiver.
2. **DO NOT** open the transceiver until the transceiver is disconnected from its power source.
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 signal generator or a sweep generator.
7. **ALWAYS** connect a 50 dB to 60 dB attenuator between the transceiver and a deviation meter or spectrum analyzer when using such test equipment.
8. **READ** the instructions of test equipment thoroughly before connecting equipment to the transceiver.

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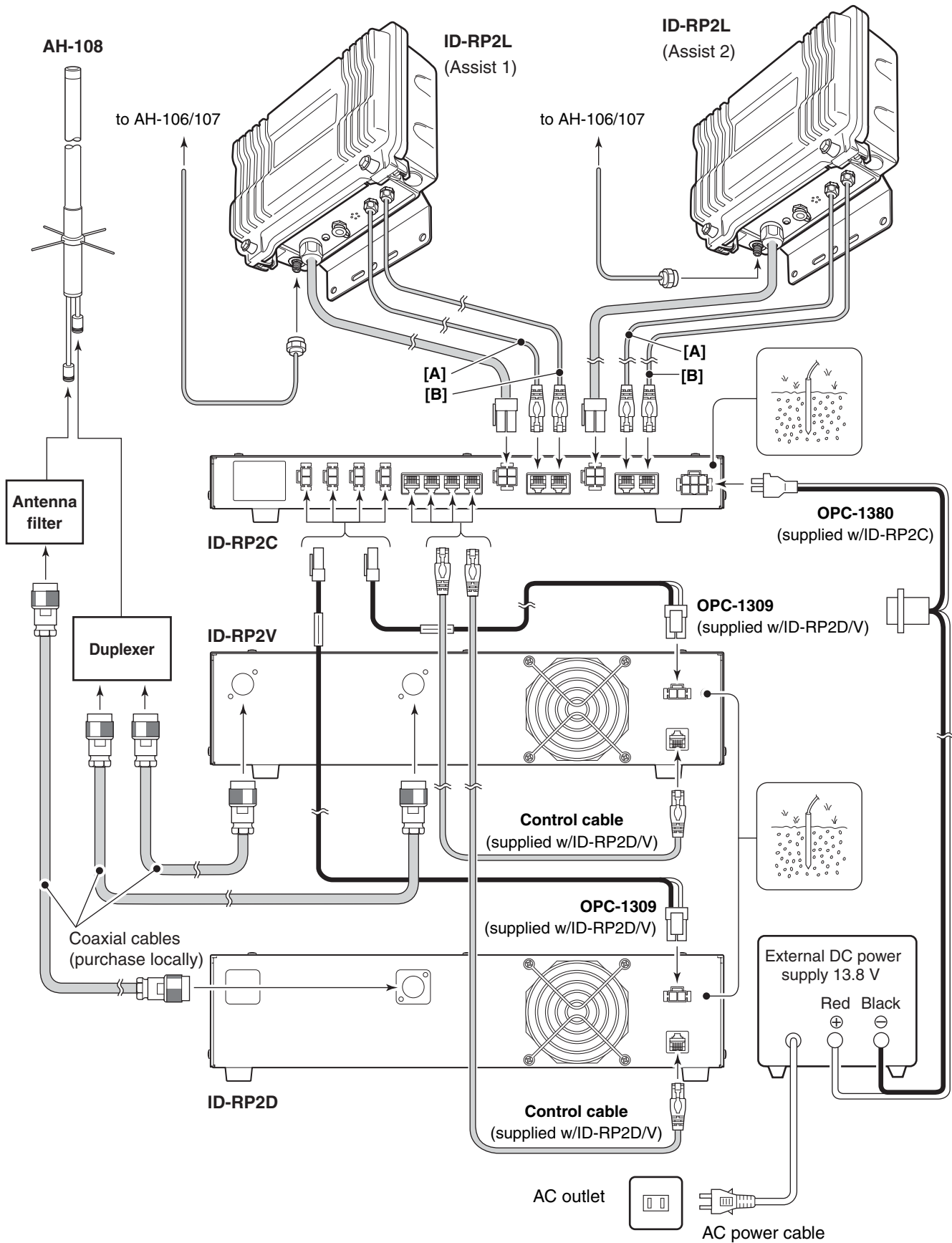
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• SYSTEM CONNECTION





# SERVICE MANUAL

REPEATER CONTROLLER

# ID-RP2C

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# SECTION 1 SPECIFICATIONS

## ■ GENERAL

- Power supply requirement : 13.8 V DC  $\pm$ 15% (Negative ground)
- Current drain : Less than 0.5 A
- Usable temperature range :  $-10^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$ ;  $+14^{\circ}\text{F}$  to  $+122^{\circ}\text{F}$
- Dimensions (proj. not included) : 483(W) $\times$ 44(H) $\times$ 257(D) mm; 19(W) $\times$ 1 $\frac{3}{4}$ (H) $\times$ 10 $\frac{1}{8}$ (D) in.
- Weight (Approx.) : 2.7 kg; 5 lb 15 oz
- Repeater control protocol : Compatible to D-STAR standard

## ■ LOCAL REPEATER INTERFACE

- Max. number of connections : 4
- Communication speed : Data 128 kbps  
Voice 4.8 kbps
- Cable length (approx.) : 3 m; 10 ft (standard; supplied cable of the ID-RP2D/V)

## ■ ASSIST REPEATER INTERFACE

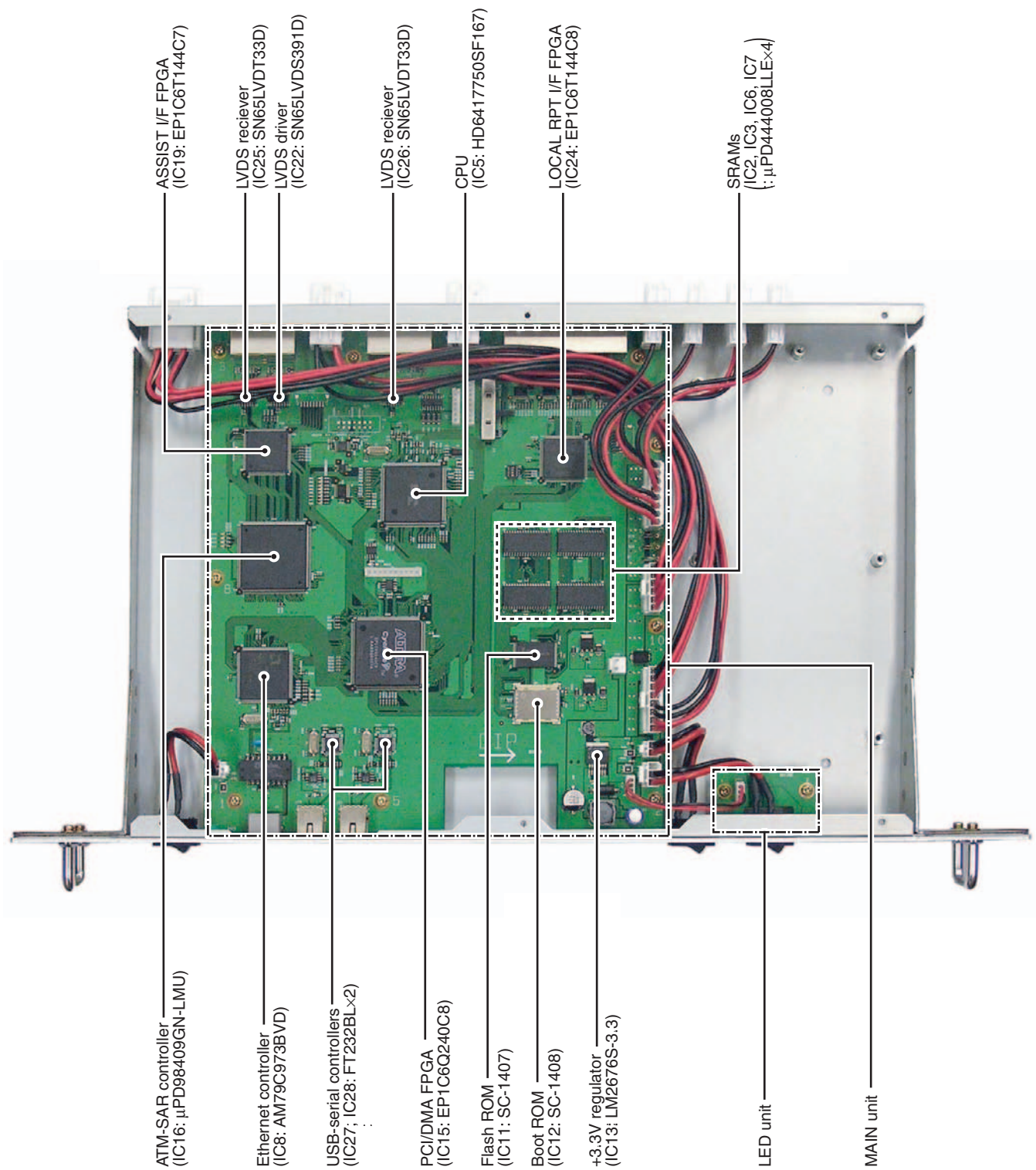
- Max. number of connections : 2
- Communication speed : Data 10 Mbps  
Setting CPU communication 19.2 kbps
- Cable length (approx.) : 30 m; 100 ft (standard; supplied cable of the ID-RP2L)

## ■ WIRED INTER FACE

- Number of connector : 1
- Type of connection : 10Base-T
- MAC address : Unique ID
- IP address : Programmed with the utility

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

# SECTION 2 INSIDE VIEWS



- ATM-SAR controller (IC16:  $\mu$ PD98409GN-LMU)
- Ethernet controller (IC8: AM79C973BVD)
- USB-serial controllers (IC27; IC28: FT232BLx2)
- PCI/DMA FPGA (IC15: EP1C6Q240C8)
- Flash ROM (IC11: SC-1407)
- Boot ROM (IC12: SC-1408)
- +3.3V regulator (IC13: LM2676S-3.3)
- LED unit
- MAIN unit
- ASSIST I/F FPGA (IC19: EP1C6T144C7)
- LVDS receiver (IC25: SN65LVDT33D)
- LVDS driver (IC22: SN65LVDS391D)
- LVDS receiver (IC26: SN65LVDT33D)
- CPU (IC5: HD6417750SF167)
- LOCAL RPT I/F FPGA (IC24: EP1C6T144C8)
- SRAMs (IC2, IC3, IC6, IC7;  $\mu$ PD444008LLEx4)

# SECTION 3 CIRCUIT DESCRIPTION

## 3-1 RECEIVED DATA PROCESS

### 3-1-1 DURING ASSIST REPEATER OPERATION (MAIN UNIT)

The demodulated data signal from the connected ASSIST repeater (ID-RP2L) is applied to [ASSIST-1 A/B] (J13) or [ASSIST-2 A/B] (J12) connector. The demodulated data signal is applied to the LVDS receivers (IC25, IC26) and converted to the I/O signal and then applied to the ASSIST I/F FPGA IC (IC19).

The ASSIST I/F FPGA IC (IC19) converts the applied I/O signal format to the ATM-SAR interface signal format.

The converted ATM-SAR interface signal is applied to the ATM-SAR controller (IC16) and converts the data format into the PCI bus line data format.

The converted data signal is applied to the PCI/DMA FPGA IC (IC15).

### 3-1-2 DURING LOCAL REPEATER OPERATION (MAIN UNIT)

The demodulated data signal from the connected LOCAL repeater (ID-RP2D or ID-RP2V) is applied to [LOCAL RPT-CONT I/O] connector (J10). The applied signal is amplified at the buffer amplifiers (IC17, IC20, IC21, IC23) and then applied to the LOCAL RPT I/F FPGA IC (IC24).

The LOCAL RPT I/F FPGA (IC24) detects header frame synchronization and then converts the format into the serial data signal.

The converted serial data signal is applied to the PCI/DMA FPGA IC (IC15).

### 3-1-3 DURING CONNECTED SERVER OPERATION (MAIN UNIT)

The data signal from the connected server is applied to the [10BASE-T] connector (J1) and then applied to the Ethernet controller (IC8). The Ethernet controller (IC8) converts the data format into the PCI bus line data format.

The converted signal is applied to the PCI/DMA FPGA IC (IC15).

### 3-1-4 SRAM CIRCUIT (MAIN UNIT)

The PCI/DMA FPGA IC bridges the data signal from the ATM-SAR controller (IC16), LOCAL RPT I/F FPGA (IC24) or Ethernet controller (IC8) to the SRAM circuit.

The bridged data signal from the PCI/DMA FPGA IC (IC15) is applied to the SRAM circuit (IC2, IC3, IC6, IC7) and then memorized for transmission.

The bridged data signal from the PCI/DMA FPGA IC (IC15) is also applied to the CPU (IC5) and the CPU analyzes the call sign settings. The CPU (IC5) selects the desired repeater or connected server for transmission according to the analyzed call sign settings.

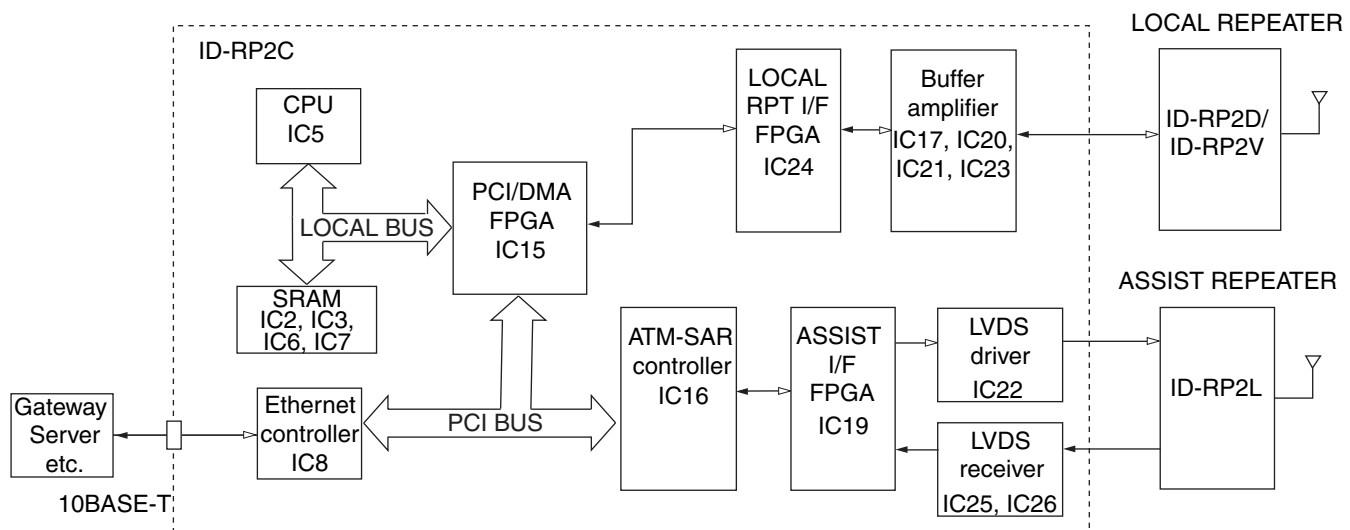
## 3-2 TRANSMIT DATA PROCESS

### 3-2-1 SRAM CIRCUIT (MAIN UNIT)

The memorized data from the SRAM circuit is transferred to the desired repeaters or connected server at the PCI/DMA FPGA IC according to the analyzed call sign settings at the CPU.

The data signal from the SRAM circuit (IC2, IC3, IC6, IC7) is applied to the PCI/DMA FPGA IC (IC15) and the PCI/DMA FPGA IC (IC15) selects one of the ATM-SAR controller (IC16), LOCAL RPT I/F FPGA (IC24) or Ethernet controller (IC8) by the CPU (IC5).

## • REPEATER CONTROL CIRCUIT



### 3-2-2 DURING ASSIST REPEATER OPERATION (MAIN UNIT)

The data signal from the PCI/DMA FPGA IC (IC15) is applied to the ATM-SAR controller (IC16) and converts the signal format into the ATM-SAR interface signal format.

The converted interface signal is applied to the ASSIST I/F FPGA IC (IC19) to convert the signal format into the I/O signal format. The converted I/O signal is applied to the LVDS driver (IC22) and converts the I/O signal format into the differential signal format.

The differential signal is applied to the connected ASSIST repeater (ID-RP2L) via [ASSIST-1 A/B] (J13) or [ASSIST-2 A/B] (J12) connector.

### 3-2-3 DURING LOCAL REPEATER OPERATION (MAIN UNIT)

The data signal from the PCI/DMA FPGA IC (IC15) is applied to the LOCAL RPT I/F FPGA IC (IC24) and converts the signal format into the parallel data signal format.

The converted parallel data signal is applied to the buffer amplifiers (IC17, IC20, IC21, IC23) and then applied to the connected LOCAL repeater (ID-RP2D or ID-RP2V) via [LOCAL RPT CONT I/O] connector (J10).

### 3-2-4 DURING CONNECTED SERVER OPERATION (MAIN UNIT)

The data signal from the PCI/DMA FPGA IC (IC15) is applied to the Ethernet controller (IC8) and converts the data format into the Ethernet data format.

The converted Ethernet data is applied to the connected server via [10BASE-T] connector (J1).

## 3-3 POWER SUPPLY CIRCUITS

Line	Description
3.3 V	Common 3.3 V converted from the 13.8 V line by the 3.3 V regulator circuit (IC13). The output voltage is applied to the SRAM ICs (IC2, IC3, IC6, IC7), ATM-SAR controller (IC16), etc.
1.8 V	Common 1.8 V converted from the 3.3 V line by the 1.8 V regulator circuit (IC33). The output voltage is applied to the CPU (IC5).
1.5 V	Common 1.5 V converted from the 3.3 V line by the 1.5 V regulator circuit (IC34). The output voltage is applied to the ASSIST I/F FPGA IC (IC19), LOCAL RPT I/F FPGA IC (IC24), etc.

## 3-4 OTHER CIRCUITS

### • REPEATER CONTROL CIRCUITS (MAIN UNIT)

The repeater control circuits consist of the CPU (IC5), Boot ROM (IC12), Flash ROM (IC11), SRAM (IC2, IC3, IC6, IC7).

A 32-bit processor is adopted as the CPU (IC5), and the 22 MHz signal, generated by the clock oscillator (X2), is used for the CPU clock after being multiplied by 6 at the inside the CPU.

The Boot ROM (IC12) is 16 M-bit flash memory as 8 bits each.

The Flash ROM (IC11) is 32 M-bit flash memory as 16 bits each.

The SRAM circuit (IC2, IC3, IC6, IC7) contains four 4 M-bit SRAM IC as 32 bits each.

### • 33 MHz CLOCK CIRCUIT (MAIN UNIT)

The 22 MHz clock signal is multiplied by  $\frac{3}{2}$  at the inside of the CPU (IC5) and then amplified at the clock driver (IC15).

The amplified clock signal is applied to the PCI/DMA FPGA IC (IC15), Ethernet controller (IC8), ATM-SAR controller (IC16).

### • USB CONTROLLER (MAIN UNIT)

While setting the ASSIST repeater (ID-RP2L), the USB controllers are used for communication with the connected PC.

While reading the setting data from the connected ASSIST repeater (ID-RP2L), the setting data is applied to the LVDS receivers (IC25, IC26) in the differential data format. The applied data format is converted into the serial data format at the LVDS receivers (IC25, IC26).

The converted serial data is applied to the USB controllers (IC27, IC28) to be converted into the USB data format. The converted USB data is applied to the connected PC via [SERVICE 1] (J19) or [SERVICE 2] (J20) connector.

While writing the setting data to the connected ASSIST repeater (ID-RP2L), the setting data is applied to the USB controllers (IC25, IC26) via [SERVICE 1] (J19) or [SERVICE 2] (J20) connector. The USB controllers (IC25, IC26) convert the applied data format into the serial data format.

The converted serial data is applied to the LVDS driver (IC22) and converted into the differential data format. The converted differential data is applied to the connected ASSIST repeater (ID-RP2L).



# SECTION 4 PARTS LIST

## [MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
IC1	1130009850	S.IC TC74LXC245FT (EL)	T	65.5/166.5
IC2	1130011731	S.IC μPD444008LLE-A12	T	155/140.5
IC3	1130011731	S.IC μPD444008LLE-A12	T	181/140.5
IC4	1130011360	S.IC HD74LVC14TELL	T	65.5/188.5
IC5	1140011870	S.IC HD6417750SF167	T	100/164.5
IC6	1130011731	S.IC μPD444008LLE-A12	T	155/114.5
IC7	1130011731	S.IC μPD444008LLE-A12	T	181/114.5
IC8	1130012730	S.IC AM79C937BVD/W	T	29/76.5
IC9	1130007030	S.IC TC7W08FU (TE12L)	T	65.5/178
IC10	1120002990	S.IC MAX3232CSE	T	108.5/210
IC11	1130012300	S.IC MBM29LV320TE-90TN/SC-1407	T	159.5/86
IC12	1130012310	S.IC MBM29LV160TE90TN/SC-1408	T	160.3/62.5
IC13	6910015300	S.DC LM2676S-3.3	T	190/42.5
IC14	1130012330	S.IC EPCS1S18 / SC-1409	T	89/120.3
IC15	1130011710	S.IC EP1C6Q240C8	T	88.5/87
IC16	1130011420	S.IC μPD98409GN-LMU	T	33/134
IC17	1120002960	S.IC TC74AC541FT (EL)	T	151.5/215.5
IC18	1130006891	S.IC TC7S04FU (TE85R, F)	T	27/220.5
IC19	1140011420	S.IC EP1C6T144C7	T	29/186
IC20	1120002960	S.IC TC74AC541FT (EL)	T	165.5/215.5
IC21	1120002960	S.IC TC74AC541FT (EL)	T	179.5/215.5
IC22	1190001980	S.IC SN65LVDS391D	T	34/212.5
IC23	1120002960	S.IC TC74AC541FT (EL)	T	193.5/215.5
IC24	1140011410	S.IC EP1C6T144C8	T	172.5/182
IC25	1190001970	S.IC SN65LVDT33D	T	18.5/212.5
IC26	1190001970	S.IC SN65LVDT33D	T	89.5/212.5
IC27	1130012051	S.IC FT232BL	T	62/43
IC28	1130012051	S.IC FT232BL	T	87.5/43
IC29	1130009570	S.IC BR93LC46F-WE2	T	53/27
IC30	1130009570	S.IC BR93LC46F-WE2	T	78.5/27
IC33	1180002470	S.REG TA48018F (TE16L1,NQ)	T	184.4/90
IC34	1180002601	S.REG TA48015F (TE16L1,NQ)	T	185.7/72.6
IC35	1130011160	S.IC IDT2305-1DC	T	80/137
IC36	1130006551	S.IC TC7S08FU (TE85R, F)	T	106.5/111.4
Q1	1590001040	S.TR DTA113ZU T106	T	32/220.5
Q2	1590000430	S.TR DTC144EUA T106	T	37.5/220.5
Q3	1590000430	S.TR DTC144EUA T106	T	102.5/220.5
Q4	1590001040	S.TR DTA113ZU T106	T	97.5/220.5
D1	1790000700	DIO DSA3A1	T	
D2	1710001190	DIO 1N5820	T	
D3	1730002531	S.ZEN NNCD6.2G-T1	T	149/223
D4	1730002531	S.ZEN NNCD6.2G-T1	T	158/224.5
D5	1730002531	S.ZEN NNCD6.2G-T1	T	167/224.5
D6	1730002531	S.ZEN NNCD6.2G-T1	T	178.5/224.5
D7	1730002531	S.ZEN NNCD6.2G-T1	T	186.5/224.5
D8	1730002531	S.ZEN NNCD6.2G-T1	T	195/224.5
D13	1730002531	S.ZEN NNCD6.2G-T1	T	101.5/227
D19	1790000700	DIO DSA3A1	T	
D20	1790000700	DIO DSA3A1	T	
D21	1750000550	S.DIO 1SS355 TE-17	T	184.5/83.9
D22	1750000550	S.DIO 1SS355 TE-17	T	185.2/66.6
X1	6050010910	S.XTL CR-670 (25.000 MHz)	T	24/55.5
X2	6050011620	S.XTL SMD-49 (22.000 MHz)	T	82.5/186.5
X3	6050011030	S.XTL DMX-26S (32.768 kHz)	T	122/185.5
X5	6050011290	S.XTL CR-715 (6 MHz)	T	53/44
X6	6050011290	S.XTL CR-715 (6 MHz)	T	78.5/44
L1	6200010750	S.COL 931BS-220M=P3	T	192.5/15
L2	6200005741	S.COL ELJRE 47NG-F	T	51/181
L3	6200005741	S.COL ELJRE 47NG-F	T	71.5/19.3
L4	6190001561	S.COL CDRH5D18NP-101NC	T	186.1/55.3
R1	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	T	58/172.7
R2	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	T	58/171
R3	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	T	58/169.2
R4	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	T	58/167.5
R5	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	T	58/165.7
R6	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	T	58/164
R7	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	T	58/162.2
R8	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	T	58/160.5
R9	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	T	12.5/76
R10	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	65.5/162
R11	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	78.2/168
R12	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	78.2/166.5
R13	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	78.2/165

## [MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
R14	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	78.2/163.5
R15	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	78.2/161.5
R16	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	78.2/160
R17	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	78.2/158.5
R18	7030003860	S.RES ERJ3GE JPW V	T	74.7/163.5
R19	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	25/95
R20	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	26.5/95
R21	7030003200	S.RES ERJ3GEYJ 100 V (10 Ω)	T	32.5/59
R22	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	24.5/59.5
R23	7030010900	S.RES ERJ3GEYJ 750 V (75 Ω)	T	30.5/21
R24	7030003570	S.RES ERJ3GEYJ 123 V (12 kΩ)	T	35.5/59
R25	7030010900	S.RES ERJ3GEYJ 750 V (75 Ω)	T	30.5/39
R26	7030005420	S.RES ERJ3GEYJ 202 V (2 kΩ)	T	37.5/56
R27	7030010890	S.RES ERJ3EKF 49R9 V (49.9 Ω)	T	37/59
R28	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	60/188.5
R29	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	78.2/171.5
R30	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	78.2/173
R31	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	78.2/174.5
R32	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	78.2/176
R33	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	78.2/177.5
R34	7030003860	S.RES ERJ3GE JPW V	T	77/182.5
R35	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	78.2/169.5
R36	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	48.5/73.5
R37	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	48.5/72
R38	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	T	48.5/69
R39	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	T	48.5/67
R40	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	T	48.5/63.5
R41	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	T	48.5/65
R42	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	48.5/70.5
R43	7030010890	S.RES ERJ3EKF 49R9 V (49.9 Ω)	T	38.5/59
R44	7030010890	S.RES ERJ3EKF 49R9 V (49.9 Ω)	T	40/59
R45	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	40/55
R46	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	71/188.7
R47	7030003200	S.RES ERJ3GEYJ 100 V (10 Ω)	T	90.8/195
R48	7030003200	S.RES ERJ3GEYJ 100 V (10 Ω)	T	93.6/195
R49	7030003200	S.RES ERJ3GEYJ 100 V (10 Ω)	T	96.3/195
R50	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	96.5/186
R52	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	100/186
R54	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	103/186
R56	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	101.5/189.5
R60	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	89/143
R61	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	90.5/143
R62	7030003860	S.RES ERJ3GE JPW V	T	99/143
R63	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	103/143
R64	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	104.5/143
R65	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	108/186
R66	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	109.5/186
R67	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	110.4/216
R68	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	111/186
R69	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	113/186
R70	7030003860	S.RES ERJ3GE JPW V	T	116/184
R71	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	121.5/178.5
R72	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	106/143
R73	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	107.5/143
R74	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	109/143
R75	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	110.5/143
R76	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	116.2/143
R77	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	114.7/143
R78	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	113.2/143
R79	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	170/94.5
R80	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	146.5/85.5
R82	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	125/174
R83	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	125/172.5
R85	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	125/175.5
R88	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	121.5/171
R89	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	121.5/169.5
R90	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	121.5/168
R91	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	121.5/166.5
R94	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	93/115.8
R95	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	103.6/112.1
R96	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	85/115.8
R97	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	64/104.5
R98	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	64/99.5
R99	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	64/101
R100	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	64/103
R101	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	35.5/111
R102	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	37/111
R103	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	89.5/63.5
R104	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	86.5/63.5
R105	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	92.5/63.5
R106	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	91/63.5
R107	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	64.5/85
R108	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	64.5/83.5

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

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
R109	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	64.5/82
R110	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	64.5/80.5
R111	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	64.5/79
R112	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	T	10.6/139.5
R113	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	T	10.6/141.5
R114	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	T	10.6/143.5
R115	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	T	10.6/145.5
R116	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	85/63.5
R117	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	88/63.5
R118	7030003860	S.RES ERJ3GE JPW V	T	14/183.5
R119	7030003860	S.RES ERJ3GE JPW V	T	45.5/182
R120	7030003860	S.RES ERJ3GE JPW V	T	45.5/183.5
R121	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	45.5/185
R122	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	45.5/186.5
R123	7030003860	S.RES ERJ3GE JPW V	T	151/208.5
R124	7030003860	S.RES ERJ3GE JPW V	T	149.5/208.5
R125	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	157/208.5
R126	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	155.5/208.5
R127	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	154/208.5
R128	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	152.5/208.5
R131	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	189.5/185
R132	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	189.5/182
R133	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	189.5/180.5
R134	7030003860	S.RES ERJ3GE JPW V	T	189.5/179
R135	7030003860	S.RES ERJ3GE JPW V	T	189.5/177.5
R136	7030003860	S.RES ERJ3GE JPW V	T	13.5/195.5
R137	7030003860	S.RES ERJ3GE JPW V	T	27.5/202.5
R138	7030003860	S.RES ERJ3GE JPW V	T	29/202.5
R139	7030003860	S.RES ERJ3GE JPW V	T	31/202.5
R140	7030003860	S.RES ERJ3GE JPW V	T	32.5/202.5
R141	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	45.5/188
R142	7030003860	S.RES ERJ3GE JPW V	T	165/208.5
R143	7030003860	S.RES ERJ3GE JPW V	T	163.5/208.5
R144	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	171/208.5
R145	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	169.5/208.5
R146	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	168/208.5
R147	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	166.5/208.5
R150	7030003860	S.RES ERJ3GE JPW V	T	179/208.5
R151	7030003860	S.RES ERJ3GE JPW V	T	177.5/208.5
R152	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	185/208.5
R153	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	183.5/208.5
R154	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	182/208.5
R155	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	180.5/208.5
R158	7030003860	S.RES ERJ3GE JPW V	T	193/208.5
R159	7030003860	S.RES ERJ3GE JPW V	T	191.5/208.5
R160	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	199/208.5
R161	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	197.5/208.5
R162	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	196/208.5
R163	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	194.5/208.5
R167	7030003860	S.RES ERJ3GE JPW V	T	155.5/181
R171	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	155.5/171.5
R172	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	34.5/220.5
R173	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	32/223
R174	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	100/220.5
R177	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	97.5/223
R178	7540000280	S.ASB ERZVF2M220	T	210.3/87.4
R179	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	T	65/50.5
R180	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	T	90.5/50.5
R181	7030003200	S.RES ERJ3GEYJ 100 V (10 Ω)	T	66/33.5
R182	7030003200	S.RES ERJ3GEYJ 100 V (10 Ω)	T	91.5/33.5
R183	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	T	48/27
R184	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	T	73.5/27
R185	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	58.5/26
R186	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	84/26
R187	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	48/30.5
R188	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	73.5/30.5
R193	7030003400	S.RES ERJ3GEYJ 471 V (470 Ω)	T	54/33.5
R194	7030003400	S.RES ERJ3GEYJ 471 V (470 Ω)	T	79.5/33.5
R195	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	T	88.5/33.5
R196	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	T	63/33.5
R197	7030003200	S.RES ERJ3GEYJ 100 V (10 Ω)	T	64.5/33.5
R198	7030003200	S.RES ERJ3GEYJ 100 V (10 Ω)	T	90/33.5
R201	7030009220	S.RES ERJ12YJ561U	T	204.2/43.5
R202	7030009220	S.RES ERJ12YJ561U	T	204.7/35.6
R205	7030009220	S.RES ERJ12YJ561U	T	9.5/22.3
R206	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	174.5/67.5
R207	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	146.5/229.5
R208	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	148/230.3
R209	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	151/230.3
R210	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	155.5/229.5
R211	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	146.5/229.5
R212	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	148/229.5
R213	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	151/229.5
R214	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	155.5/229.5
R215	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	160/229.5
R216	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	161.5/229.5
R217	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	164.5/230.3
R218	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	166/229.5
R219	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	160/229.5
R220	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	161.5/229.5

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
R221	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	164.5/229.5
R222	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	166/229.5
R223	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	174/229.5
R224	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	175.5/230.3
R225	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	178.5/230.3
R226	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	174/229.5
R227	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	175.5/229.5
R228	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	178.5/229.5
R229	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	180/229.5
R230	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	189.5/229.5
R231	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	188/230.3
R232	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	194/230.3
R233	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	192.5/229.5
R234	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	189.5/229.5
R235	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	188/229.5
R236	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	194/229.5
R237	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	192.5/229.5
R238	7030003860	S.RES ERJ3GE JPW V	T	48.5/77.4
R239	7030003860	S.RES ERJ3GE JPW V	T	54.9/125.4
R240	7030003860	S.RES ERJ3GE JPW V	B	109.3/96.5
R248	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	147.5/63.5
R249	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	T	58.5/33.5
R250	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	T	84/33.5
R251	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	180/229.5
R252	7030003300	S.RES ERJ3GEYJ 680 V (68 Ω)	B	152.5/229.5
R253	7030003300	S.RES ERJ3GEYJ 680 V (68 Ω)	B	154/230.2
R254	7030003300	S.RES ERJ3GEYJ 680 V (68 Ω)	B	167.5/230.3
R255	7030003300	S.RES ERJ3GEYJ 680 V (68 Ω)	B	169/229.5
R256	7030003300	S.RES ERJ3GEYJ 680 V (68 Ω)	B	181.5/230.3
R257	7030003300	S.RES ERJ3GEYJ 680 V (68 Ω)	B	183/229.5
R258	7030003300	S.RES ERJ3GEYJ 680 V (68 Ω)	B	197/230.3
R259	7030003300	S.RES ERJ3GEYJ 680 V (68 Ω)	B	195.5/229.5
R260	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	63.5/205.5
R265	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	155.5/189
R266	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	155.5/187.5
R267	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	165.5/202.5
R268	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	166.5/201
R269	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	180/201.5
R270	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	178.5/201.5
R271	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	189/188.8
R272	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	189/190.2
R273	7030003860	S.RES ERJ3GE JPW V	T	35.4/223.2
R274	7030003860	S.RES ERJ3GE JPW V	T	43/220.4
R275	7030003860	S.RES ERJ3GE JPW V	T	97/227
R276	7030003860	S.RES ERJ3GE JPW V	T	105.2/226.2
R277	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	144.2/64.5
R278	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	144.2/61.1
R279	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	147.1/60.2
R280	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	175.2/69.7
R300	7030003550	S.RES ERJ3GEYJ 822 V (8.2 kΩ)	T	57.3/47.4
R301	7030003580	S.RES ERJ3GEYJ 153 V (15 kΩ)	T	56.6/50.3
R302	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	T	59.2/49.5
R303	7030003550	S.RES ERJ3GEYJ 822 V (8.2 kΩ)	T	82.8/47.5
R304	7030003580	S.RES ERJ3GEYJ 153 V (15 kΩ)	T	82.1/50.1
R305	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	T	84.8/49.2
C1	4030011600	S.CER C1608 JB 1E 104K-T	B	63/164
C2	4030011600	S.CER C1608 JB 1E 104K-T	B	12.7/85.2
C3	4030011600	S.CER C1608 JB 1E 104K-T	B	12.7/81.7
C4	4030011600	S.CER C1608 JB 1E 104K-T	B	19.8/78.7
C5	4030011600	S.CER C1608 JB 1E 104K-T	B	19/75.7
C6	4030011600	S.CER C1608 JB 1E 104K-T	B	19.8/72.7
C7	4030011600	S.CER C1608 JB 1E 104K-T	B	19/69.7
C8	4030011600	S.CER C1608 JB 1E 104K-T	B	21.5/66.5
C9	4030011600	S.CER C1608 JB 1E 104K-T	T	155/133
C10	4030011600	S.CER C1608 JB 1E 104K-T	T	155/148
C11	4030011600	S.CER C1608 JB 1E 104K-T	T	181/133
C12	4030011600	S.CER C1608 JB 1E 104K-T	T	181/148
C13	4030011600	S.CER C1608 JB 1E 104K-T	B	21/86.5
C14	4030011600	S.CER C1608 JB 1E 104K-T	B	24/88.9
C15	4030011600	S.CER C1608 JB 1E 104K-T	B	27/86.5
C16	4030011600	S.CER C1608 JB 1E 104K-T	B	28.6/89.7
C17	4030011600	S.CER C1608 JB 1E 104K-T	B	32/88.7
C18	4030011600	S.CER C1608 JB 1E 104K-T	B	33.8/86.5
C19	4030011600	S.CER C1608 JB 1E 104K-T	B	37.5/86.5
C20	4030011600	S.CER C1608 JB 1E 104K-T	B	26/66.5
C21	4030011600	S.CER C1608 JB 1E 104K-T	B	28.5/63.4
C22	4030011600	S.CER C1608 JB 1E 104K-T	B	31/66.5
C23	4030011600	S.CER C1608 JB 1E 104K-T	B	31.7/64.2
C24	4030011600	S.CER C1608 JB 1E 104K-T	B	34.2/67.3
C25	4030006890	S.CER C1608 JF 1H 103K-T	T	34/59
C26	4030007050	S.CER C1608 CH 1H 220J-T	T	18.5/52
C27	4030007050	S.CER C1608 CH 1H 220J-T	T	29.5/52
C28	4030011600	S.CER C1608 JB 1E 104K-T	T	33.5/56
C29	4010008500	CER DEBB3D102KA2B		
C30	4030006900	S.CER C1608 JB 1H 103K-T	T	60/191.5
C31	4030011600	S.CER C1608 JB 1E 104K-T	B	88.1/173.2
C32	4030011600	S.CER C1608 JB 1E 104K-T	B	88.1/167.2
C33	4030011600	S.CER C1608 JB 1E 104K-T	B	88.1/162.2

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

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
C34	4030011600	S.CER C1608 JB 1E 104K-T	B	88.1/156.2
C35	4030011600	S.CER C1608 JB 1E 104K-T	B	88.7/152.6
C36	4030011600	S.CER C1608 JB 1E 104K-T	B	95.2/153.4
C37	4030011600	S.CER C1608 JB 1E 104K-T	B	99.7/152.6
C38	4030011600	S.CER C1608 JB 1E 104K-T	B	104.2/153.4
C39	4030007050	S.CER C1608 CH 1H 220J-T	T	77/190
C40	4030007050	S.CER C1608 CH 1H 220J-T	T	88/190
C41	4030011600	S.CER C1608 JB 1E 104K-T	T	92.8/198.6
C42	4030011600	S.CER C1608 JB 1E 104K-T	T	155/107
C43	4030011600	S.CER C1608 JB 1E 104K-T	T	155/122
C44	4030011600	S.CER C1608 JB 1E 104K-T	T	181/106.5
C45	4030011600	S.CER C1608 JB 1E 104K-T	T	181/122
C46	4030011600	S.CER C1608 JB 1E 104K-T	B	37.5/66.5
C47	4030011600	S.CER C1608 JB 1E 104K-T	B	37.5/64.2
C48	4030011600	S.CER C1608 JB 1E 104K-T	B	41.2/67.5
C49	4030011600	S.CER C1608 JB 1E 104K-T	B	38.7/72.7
C50	4030011600	S.CER C1608 JB 1E 104K-T	B	38/76.4
C51	4030011600	S.CER C1608 JB 1E 104K-T	B	42.1/77.2
C52	4030011600	S.CER C1608 JB 1E 104K-T	B	41.2/80.2
C53	4550000460	S.TAN TEESVA 1C 105M8R	T	365/52.5
C54	4030006890	S.CER C1608 JF 1H 103Z-T	T	27/21
C55	4030006890	S.CER C1608 JF 1H 103Z-T	T	25.5/39
C56	4030011600	S.CER C1608 JB 1E 104K-T	T	72.5/188.7
C57	4030006890	S.CER C1608 JF 1H 103Z-T	T	90/193
C58	4030006890	S.CER C1608 JF 1H 103Z-T	T	92.8/193
C59	4030006890	S.CER C1608 JF 1H 103Z-T	T	95.5/193
C60	4030007050	S.CER C1608 CH 1H 220J-T	T	116/185.5
C61	4550000530	S.TAN TEESVA 1V 104M8L	T	107/202
C62	4030007050	S.CER C1608 CH 1H 220J-T	T	116/187
C63	4550000530	S.TAN TEESVA 1V 104M8L	T	109.5/202
C64	4550000530	S.TAN TEESVA 1V 104M8L	T	112/202
C65	4550000530	S.TAN TEESVA 1V 104M8L	T	104.5/202
C66	4030011600	S.CER C1608 JB 1E 104K-T	B	110.2/152.6
C67	4030011600	S.CER C1608 JB 1E 104K-T	B	111.9/155.7
C68	4030011600	S.CER C1608 JB 1E 104K-T	B	111.9/161.7
C69	4030011600	S.CER C1608 JB 1E 104K-T	B	111.9/166.7
C70	4030011600	S.CER C1608 JB 1E 104K-T	B	111.9/172.7
C71	4030011600	S.CER C1608 JB 1E 104K-T	B	111.2/176.4
C72	4030011600	S.CER C1608 JB 1E 104K-T	B	102.7/176.4
C73	4030011600	S.CER C1608 JB 1E 104K-T	B	97.7/176.4
C74	4550000530	S.TAN TEESVA 1V 104M8L	T	102.5/215
C75	4030011600	S.CER C1608 JB 1E 104K-T	B	88.1/171.2
C76	4030011600	S.CER C1608 JB 1E 104K-T	B	88.9/158.2
C77	4030011600	S.CER C1608 JB 1E 104K-T	B	93.2/152.6
C78	4030011600	S.CER C1608 JB 1E 104K-T	B	106.2/152.6
C79	4030011600	S.CER C1608 JB 1E 104K-T	B	111.1/157.7
C80	4030011600	S.CER C1608 JB 1E 104K-T	B	111.1/170.7
C81	4030011600	S.CER C1608 JB 1E 104K-T	B	106.7/176.4
C82	4030011600	S.CER C1608 JB 1E 104K-T	B	93.7/176.4
C83	4030011600	S.CER C1608 JB 1E 104K-T	T	172/86
C84	4030011600	S.CER C1608 JB 1E 104K-T	T	173.5/62
C85	4510008780	S.ELE EEEV1EA471P	T	178.5/21
C86	4030006900	S.CER C1608 JB 1H 103K-T	T	187.5/30
C87	4510008210	ELE 10 SP 270M	T	
C88	4550000560	S.TAN TEESVA 1V 334M-8L	T	178/87.7
C90	4550006240	S.TAN TEMSVB2 0G 336M-8L	T	190.2/88.4
C92	4030011600	S.CER C1608 JB 1E 104K-T	B	101.5/97.5
C93	4030011600	S.CER C1608 JB 1E 104K-T	B	99.2/100.9
C94	4030011600	S.CER C1608 JB 1E 104K-T	B	97.8/100.1
C95	4030011600	S.CER C1608 JB 1E 104K-T	B	92.7/100.9
C96	4030011600	S.CER C1608 JB 1E 104K-T	B	78.2/100.9
C97	4030011600	S.CER C1608 JB 1E 104K-T	B	79.6/100.1
C98	4030011600	S.CER C1608 JB 1E 104K-T	B	74.6/97.6
C99	4030011600	S.CER C1608 JB 1E 104K-T	B	21.5/120.2
C100	4030011600	S.CER C1608 JB 1E 104K-T	B	24.7/121.2
C101	4030011600	S.CER C1608 JB 1E 104K-T	B	27.7/120.2
C102	4030011600	S.CER C1608 JB 1E 104K-T	B	33.5/121.2
C103	4030011600	S.CER C1608 JB 1E 104K-T	B	36.5/120.2
C104	4030011600	S.CER C1608 JB 1E 104K-T	B	40.7/121.2
C105	4030011600	S.CER C1608 JB 1E 104K-T	B	43.7/120.2
C106	4030011600	S.CER C1608 JB 1E 104K-T	B	45.2/117.2
C107	4030011600	S.CER C1608 JB 1E 104K-T	B	48.2/118
C108	4030011600	S.CER C1608 JB 1E 104K-T	B	47.2/122.7
C109	4030011600	S.CER C1608 JB 1E 104K-T	B	46.2/125.8
C110	4030011600	S.CER C1608 JB 1E 104K-T	B	47.2/128.7
C111	4030011600	S.CER C1608 JB 1E 104K-T	B	75.4/85.9
C112	4030011600	S.CER C1608 JB 1E 104K-T	B	74.6/75.9
C113	4030011600	S.CER C1608 JB 1E 104K-T	B	79.6/73.9
C114	4030011600	S.CER C1608 JB 1E 104K-T	B	18.2/118
C115	4030011600	S.CER C1608 JB 1E 104K-T	B	18.7/121
C116	4030011600	S.CER C1608 JB 1E 104K-T	B	19.7/124
C117	4030011600	S.CER C1608 JB 1E 104K-T	B	18.7/128.2
C118	4030011600	S.CER C1608 JB 1E 104K-T	B	19.8/136.5
C119	4030011600	S.CER C1608 JB 1E 104K-T	B	18.7/139.7
C120	4030011600	S.CER C1608 JB 1E 104K-T	B	19.7/143.8
C121	4030011600	S.CER C1608 JB 1E 104K-T	B	47.2/133.5
C122	4030011600	S.CER C1608 JB 1E 104K-T	B	50.7/137.5
C123	4030011600	S.CER C1608 JB 1E 104K-T	B	100.7/96
C124	4030011600	S.CER C1608 JB 1E 104K-T	B	90.2/100.9
C125	4030011600	S.CER C1608 JB 1E 104K-T	B	75.4/95.9

[MAIN UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
C126	4030011600	S.CER C1608 JB 1E 104K-T	B	74.6/87.6
C127	4030011600	S.CER C1608 JB 1E 104K-T	B	75.4/77.6
C128	4030011600	S.CER C1608 JB 1E 104K-T	B	90.2/73.1
C129	4030011600	S.CER C1608 JB 1E 104K-T	B	100.6/77.5
C130	4030011600	S.CER C1608 JB 1E 104K-T	B	101.5/87.5
C131	4030011600	S.CER C1608 JB 1E 104K-T	B	78.2/73.1
C132	4030011600	S.CER C1608 JB 1E 104K-T	B	91.7/73.9
C133	4030011600	S.CER C1608 JB 1E 104K-T	B	99.2/73.1
C134	4030011600	S.CER C1608 JB 1E 104K-T	B	101.5/76
C135	4030011600	S.CER C1608 JB 1E 104K-T	B	100.7/86
C136	4030011600	S.CER C1608 JB 1E 104K-T	B	18.7/146.7
C137	4030011600	S.CER C1608 JB 1E 104K-T	B	24.2/147.5
C138	4030011600	S.CER C1608 JB 1E 104K-T	B	29.5/147.5
C139	4030011600	S.CER C1608 JB 1E 104K-T	B	33.2/147.5
C140	4030011600	S.CER C1608 JB 1E 104K-T	B	39/147.5
C141	4030011600	S.CER C1608 JB 1E 104K-T	B	44/146.5
C142	4030011600	S.CER C1608 JB 1E 104K-T	B	47.5/147.5
C143	4030011600	S.CER C1608 JB 1E 104K-T	B	21.4/181.6
C144	4030011600	S.CER C1608 JB 1E 104K-T	B	21.4/184.2
C145	4030011600	S.CER C1608 JB 1E 104K-T	B	21.4/190.4
C146	4030011600	S.CER C1608 JB 1E 104K-T	B	23.4/178.4
C147	4030011600	S.CER C1608 JB 1E 104K-T	B	35.1/178.4
C148	4030011600	S.CER C1608 JB 1E 104K-T	B	25.1/179.2
C149	4030011600	S.CER C1608 JB 1E 104K-T	B	29.2/178.4
C150	4030011600	S.CER C1608 JB 1E 104K-T	B	37.6/178.4
C151	4030011600	S.CER C1608 JB 1E 104K-T	B	36.6/181.2
C152	4030011600	S.CER C1608 JB 1E 104K-T	B	180.1/186.6
C153	4030011600	S.CER C1608 JB 1E 104K-T	B	178.6/189.6
C154	4030011600	S.CER C1608 JB 1E 104K-T	B	180.1/183.7
C155	4030011600	S.CER C1608 JB 1E 104K-T	B	176.9/188.8
C156	4030011600	S.CER C1608 JB 1E 104K-T	B	180.1/177.2
C157	4030011600	S.CER C1608 JB 1E 104K-T	B	181.8/189.5
C158	4030011600	S.CER C1608 JB 1E 104K-T	B	178.6/174.4
C159	4030011600	S.CER C1608 JB 1E 104K-T	B	21.4/187.7
C160	4030011600	S.CER C1608 JB 1E 104K-T	B	25.1/192.8
C161	4030011600	S.CER C1608 JB 1E 104K-T	B	33.4/193.6
C162	4030011600	S.CER C1608 JB 1E 104K-T	B	29.2/193.6
C163	4030011600	S.CER C1608 JB 1E 104K-T	B	23.4/193.6
C164	4030011600	S.CER C1608 JB 1E 104K-T	B	35.1/192.7
C165	4030011600	S.CER C1608 JB 1E 104K-T	B	33.4/179.2
C166	4030011600	S.CER C1608 JB 1E 104K-T	B	36.6/187.7
C167	4030011600	S.CER C1608 JB 1E 104K-T	B	38.3/193.5
C168	4030011600	S.CER C1608 JB 1E 104K-T	B	179.3/178.7
C169	4030011600	S.CER C1608 JB 1E 104K-T	B	168.6/175.2
C170	4030011600	S.CER C1608 JB 1E 104K-T	B	172.7/174.4
C171	4030011600	S.CER C1608 JB 1E 104K-T	B	176.9/175.2
C172	4030011600	S.CER C1608 JB 1E 104K-T	T	27/223
C173	4030011600	S.CER C1608 JB 1E 104K-T	T	34/207.2
C174	4030011600	S.CER C1608 JB 1E 104K-T	B	172.7/189.6
C175	4030011600	S.CER C1608 JB 1E 104K-T	B	168.6/188.8
C176	4030011600	S.CER C1608 JB 1E 104K-T	B	164.9/183.7
C177	4030011600	S.CER C1608 JB 1E 104K-T	B	166.9/174.4
C178	4030011600	S.CER C1608 JB 1E 104K-T	B	164.9/176.7
C179	4030011600	S.CER C1608 JB 1E 104K-T	B	164.9/180.2
C180	4030011600	S.CER C1608 JB 1E 104K-T	B	165.7/181.7
C181	4030011600	S.CER C1608 JB 1E 104K-T	B	164.8/187.2
C182	4030011600	S.CER C1608 JB 1E 104K-T	B	166.9/189.6
C183	4550007480	S.TAN F930J106MAABMA	T	54.9/18.8
C184	4550007480	S.TAN F930J106MAABMA	T	75.3/20
C185	4030006900	S.CER C1608 JB 1H 103K-T	T	54.1/20.8
C186	4030006900	S.CER C1608 JB 1H 103K-T	T	74.6/21.8
C187	4030008560	S.CER C1608 CH 1H 300J-T	T	49.5/38.5
C188	4030008560	S.CER C1608 CH 1H 300J-T	T	49.5/49.5
C189	4030008560	S.CER C1608 CH 1H 300J-T	T	75/38.5
C190	4030008560	S.CER C1608 CH 1H 300J-T	T	75/49.5
C195	4030011600	S.CER C1608 JB 1E 104K-T	T	55.5/33.5
C196	4030011600	S.CER C1608 JB 1E 104K-T	T	81/33.5
C197	4030011600	S.CER C1608 JB 1E 104K-T	T	58.7/51.5
C198	4030011600	S.CER C1608 JB 1E 104K-T	T	84.2/51.3
C199	4030008900	S.CER C1608 JB 1H 333K-T	T	61/33.5
C200	4030008900	S.CER C1608 JB 1H 333K-T	T	86.5/33.5
C201	4030004760	S.CER C2012 JF 1H 104Z-T	T	14.2/24.5
C202	4030004760	S.CER C2012 JF 1H 104Z-T	T	206/48
C203	4030004760	S.CER C2012 JF 1H 104Z-T	T	207/39.5
C204	4550000560	S.TAN TEESVA 1V 334M-8L	T	179.6/70.6
C206	4550006240	S.TAN TEMSVB2 0G 336M-8L	T	192.5/71
C207	4030011600	S.CER C1608 JB 1E 104K-T	T	157/121
C208	4030011600	S.CER C1608 JB 1E 104K-T	T	171/121.2
C209	4030011600	S.CER C1608 JB 1E 104K-T	T	185/121.2
C210	4030011600	S.CER C1608 JB 1E 104K-T	T	199.5/212
C211	4030011600	S.CER C1608 JB 1E 104K-T	T	17.8/205.8
C212	4030011600	S.CER C1608 JB 1E 104K-T	T	90.1/204.2
C213	4030011600	S.CER C1608 JB 1E 104K-T	T	80.2/132
C215	4030011600	S.CER C1608 JB 1E 104K-T	T	106.4/113.5
J1	6510016170	CNR 52018-8835		
J2	6510011460	CNR B6P-VH		
J3	6510011480	CNR B8P-VH		
J4	6510			



**[MAIN UNIT]**

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
J5	6510011590	CNR B2P-VH		
J6	6510003420	CNR B06B-EH-S		
J8	6510003460	CNR B10B-EH-S		
J10	6510022961	CNR 3012S-04R		
J12	6510023331	CNR 3012S-02R		
J13	6510023331	CNR 3012S-02R		
J14	6510003390	CNR B03B-EH-S		
J19	6450002100	CNR CMS1410-010010		
J20	6450002100	CNR CMS1410-010010		
J22	6510011590	CNR B2P-VH		
J23	6510011430	CNR B3P-VH		
J24	6510011590	CNR B2P-VH		
J25	6510003440	CNR B08B-EH-S		
J26	6510024420	S.CNR IC197-4807-2000	T	160.3/62.5
DS1	5040002420	S.LED SML-310MT T86	T	55/172.7
DS2	5040002420	S.LED SML-310MT T86	T	55/171
DS3	5040002420	S.LED SML-310MT T86	T	55/169.2
DS4	5040002420	S.LED SML-310MT T86	T	55/167.5
DS5	5040002420	S.LED SML-310MT T86	T	55/165.7
DS6	5040002420	S.LED SML-310MT T86	T	55/164
DS7	5040002420	S.LED SML-310MT T86	T	55/162.2
DS8	5040002420	S.LED SML-310MT T86	T	55/160.5
DS9	5040002420	S.LED SML-310MT T86	T	51.5/69
DS10	5040002420	S.LED SML-310MT T86	T	51.5/67
DS11	5040002420	S.LED SML-310MT T86	T	51.5/65
DS12	5040002420	S.LED SML-310MT T86	T	7.8/139.5
DS13	5040002420	S.LED SML-310MT T86	T	7.8/141.5
DS14	5040002420	S.LED SML-310MT T86	T	7.8/143.5
DS15	5040002420	S.LED SML-310MT T86	T	7.8/145.5
DS16	5040003070	LED MPG4371F		
S2	2220000570	SW HSW1196-01-020		
T1	5910000930	S.TSM H1081 <QUA>	T	30/30.5

**[LED UNIT]**

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
J1	6510003390	CNR B03B-EH-S		
DS1	5040003070	LED MPG4371F		
DS2	5040003070	LED MPG4371F		

**[CHASSIS UNIT]**

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
W1	8900013310	CBL OPC-1324		
W2	8900013300	CBL OPC-1325		
W3	8900013290	CBL OPC-1326		
W4	8900013280	CBL OPC-1327		
W5	8900013270	CBL OPC-1328		
W6	8900013260	CBL OPC-1329		

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

# SECTION 5 MECHANICAL PARTS AND DISASSEMBLY

## [CHASSIS PARTS]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
W1	8900013310	Cable OPC-1324	1
W2	8900013300	Cable OPC-1325	1
W3	8900013290	Cable OPC-1326	1
W4	8900013280	Cable OPC-1327	2
W5	8900013270	Cable OPC-1328	1
W6	8900013260	Cable OPC-1329	1
MP1	8110008160	2730 cover (NC)	1
MP2	8010019610	2730 chassis assembly (NC)	1
MP5	8210020720	2730 panel (NC)	1
MP6	8930063100	Handle BH-26S	1
MP7	8850002050	Washer Z-6S	4
MP8	8930058750	Insulation plate (HH)	1
MP9	8930048350	2146 lens	3
MP10	8810005060	Setscrew C M3 × 12	4
MP11	8810003360	Setscrew C M3 × 6	12
MP12	8810002950	Screw BiH M3 × 6 SUS	11
MP13	8830000110	Nut M4	1
MP14	8850000130	Flat washer M3 (3 × 8 × 0.5) NI BS	1
MP15	8950000180	Cable tie -80	1
MP16	8850000140	Flat washer M4 NI BS	1

## [MAIN UNIT]

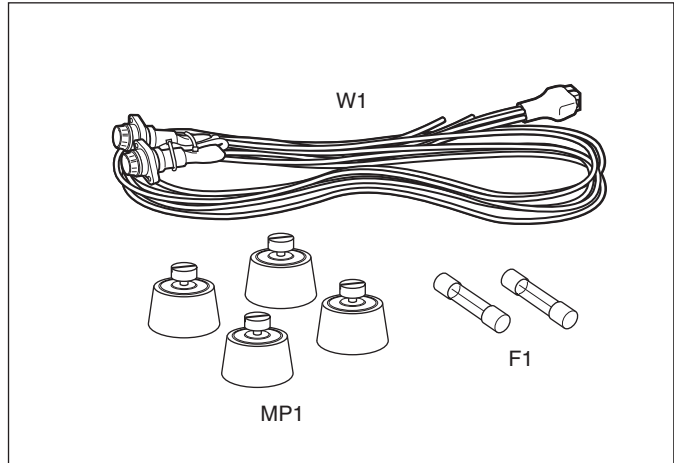
REF. NO.	ORDER NO.	DESCRIPTION	QTY.
J1	6510016170	Connector 52018-8835	1
J10	6510022960	Connector 3012S-04	1
J12	6510023330	Connector 3012S-2	1
J13	6510023330	Connector 3012S-2	1
J19	6450002100	Connector CMS1410-010010	1
J20	6450002100	Connector CMS1410-010010	1

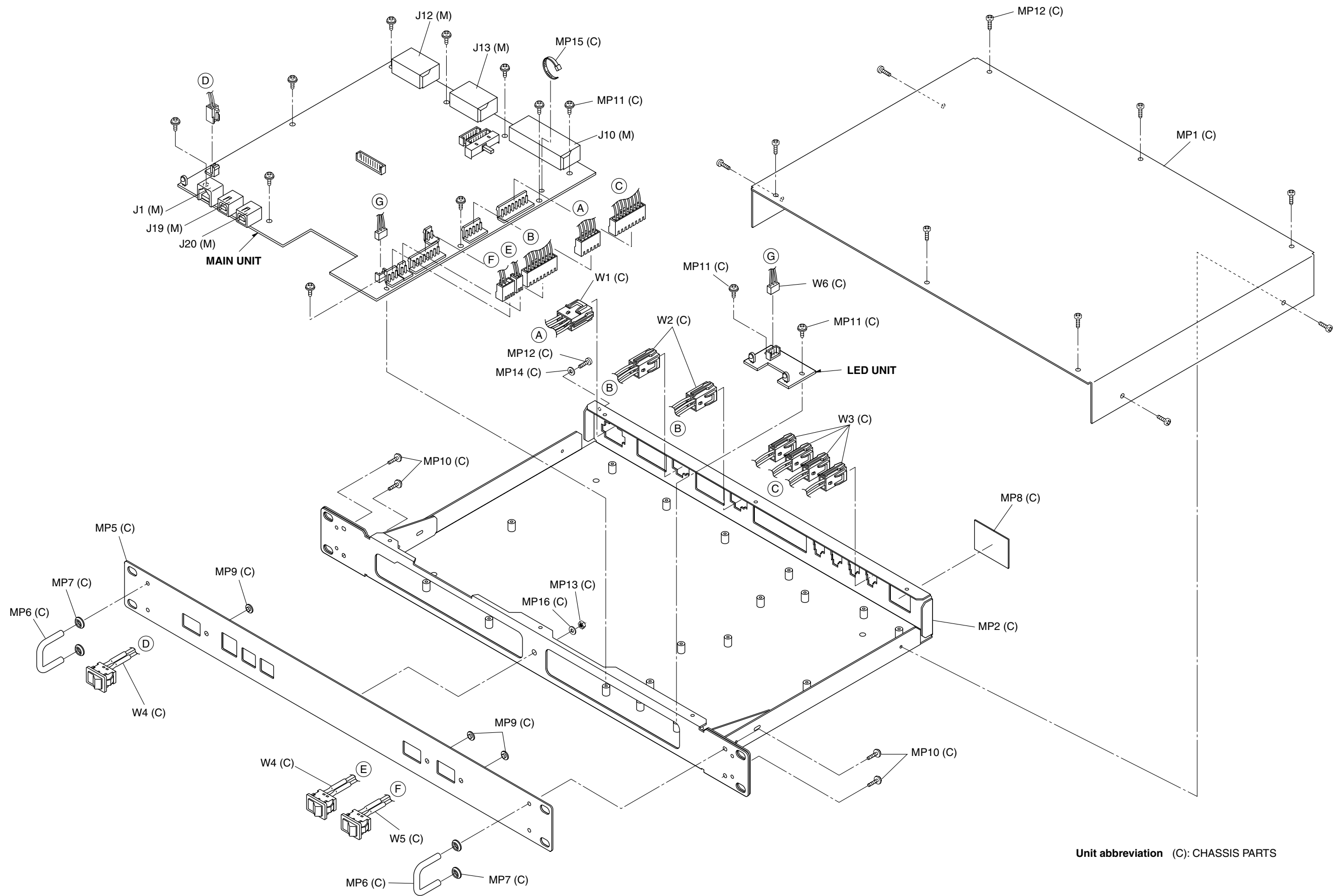
### Screw abbreviations

BiH: Binding head  
 SUS: Stainless NI: Nickel  
 BS: Brass

## [ACCESSORIES]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
F1	5210000930	Fuse FGB01 250V 30A	2
W1	8900013250	Cable OPC-1380	1
MP1	8930057680	Rubber stand (O)	4

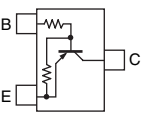
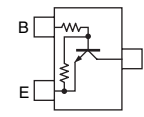




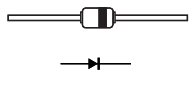
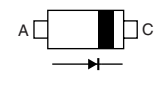
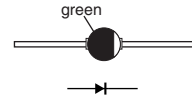
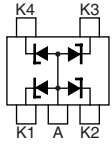
Unit abbreviation (C): CHASSIS PARTS

# SECTION 6 SEMI-CONDUCTOR INFORMATION

## • TRANSISTORS AND FET'S

<p><b>DTA113 ZU T106</b> (Symbol: 111)</p> 	<p><b>DTC144EUA T106</b> (Symbol: 26_)</p> 			
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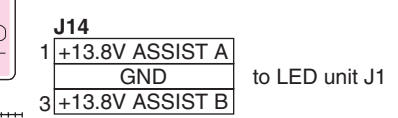
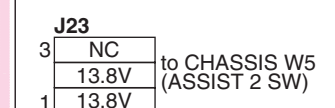
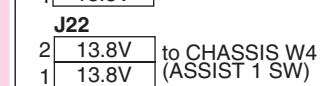
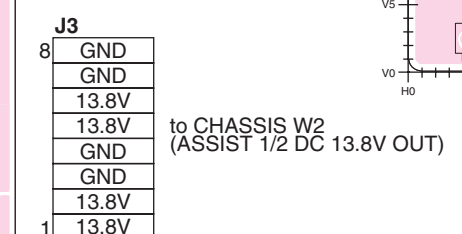
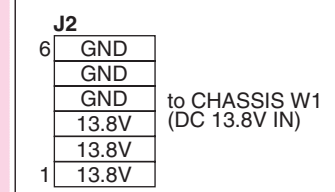
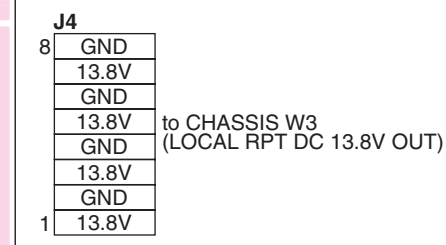
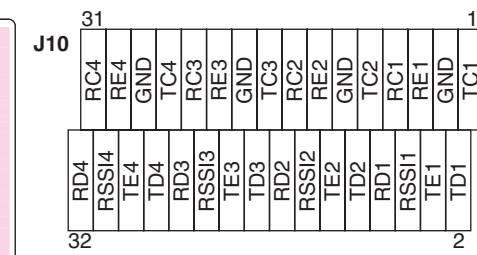
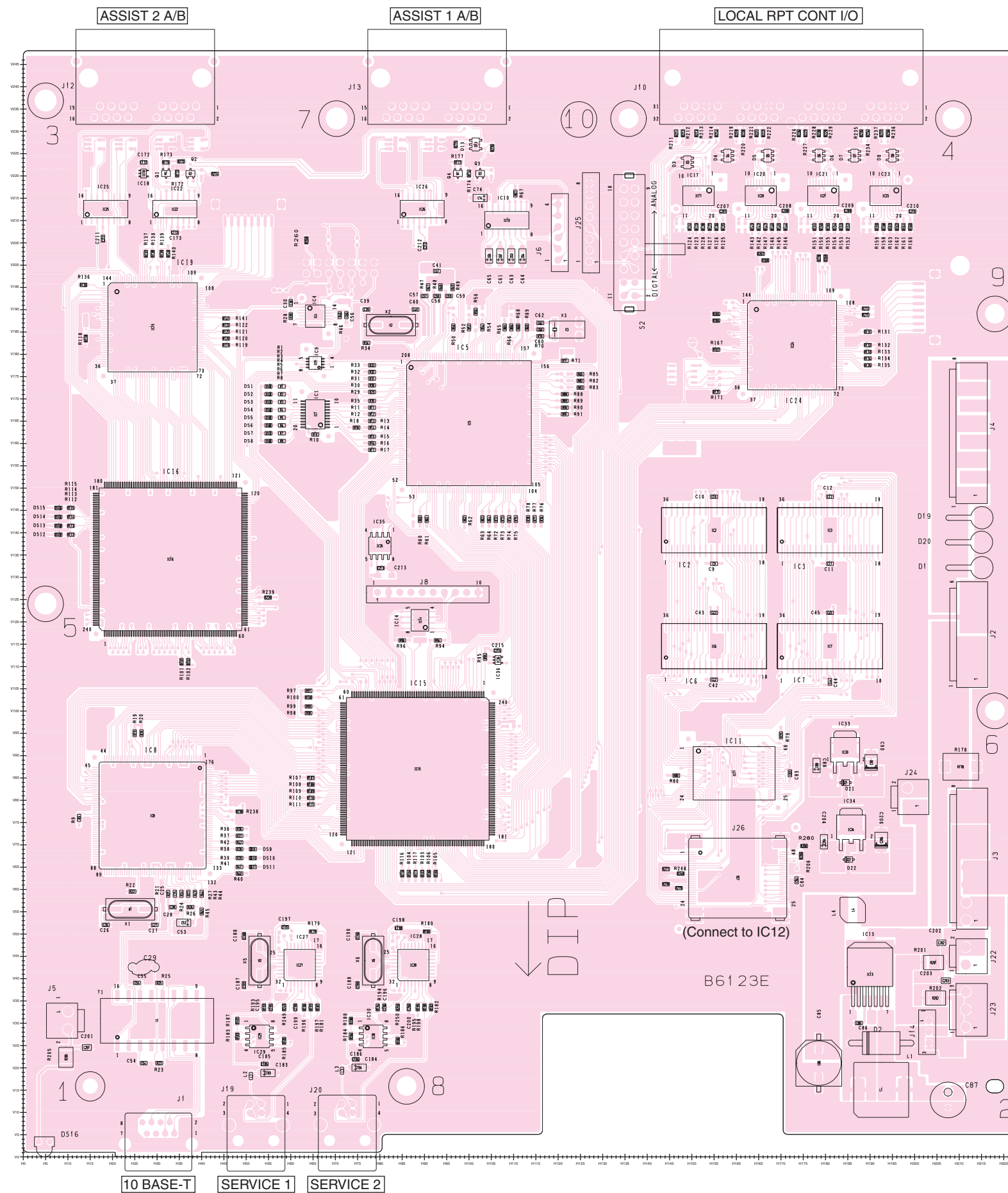
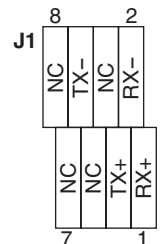
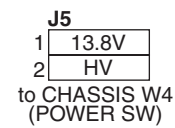
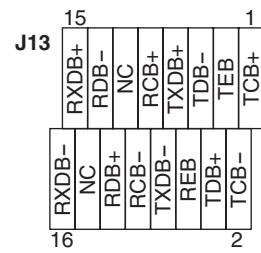
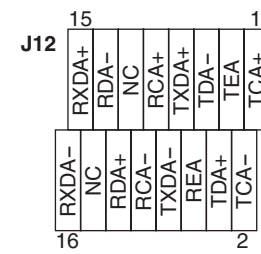
## • DIODES

<p><b>1N5820</b> (Symbol: 1N5820)</p> 	<p><b>1SS355</b> (Symbol: A)</p> 	<p><b>DSA3A1</b> (Color: Green)</p> 	<p><b>NNCD6.2G</b> (Symbol: 62G)</p> 	
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# SECTION 7 BOARD LAYOUTS

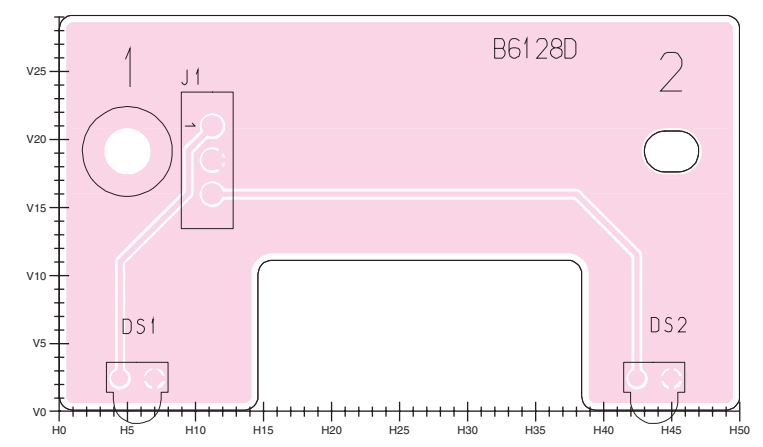
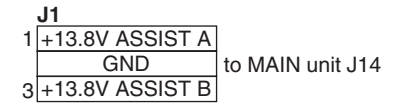
## 7-1 MAIN UNIT

• TOP VIEW

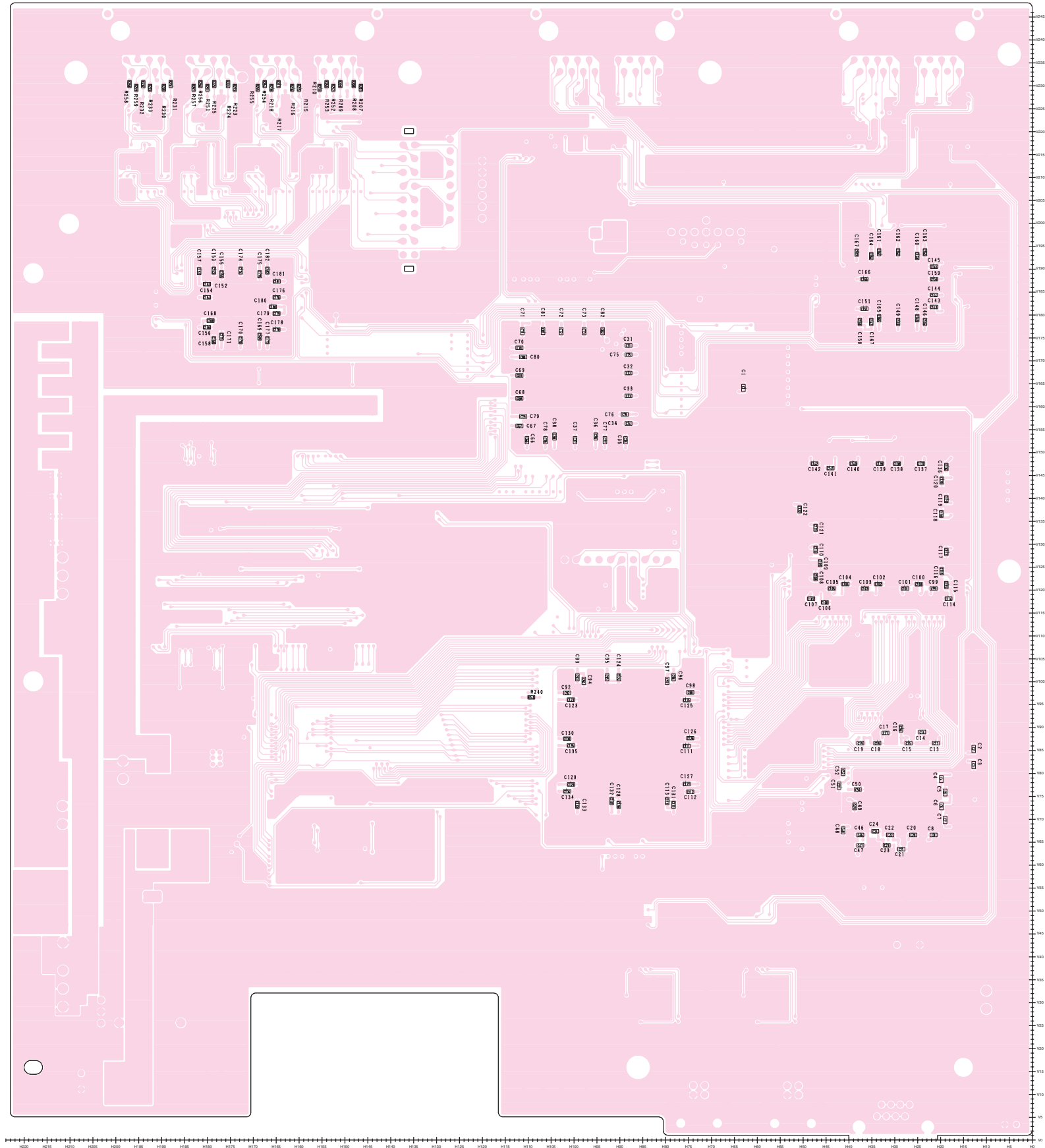


## 7-2 LED UNIT

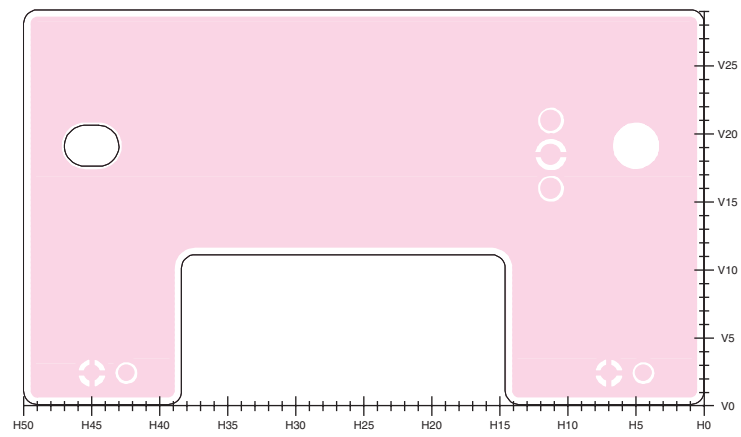
• TOP VIEW



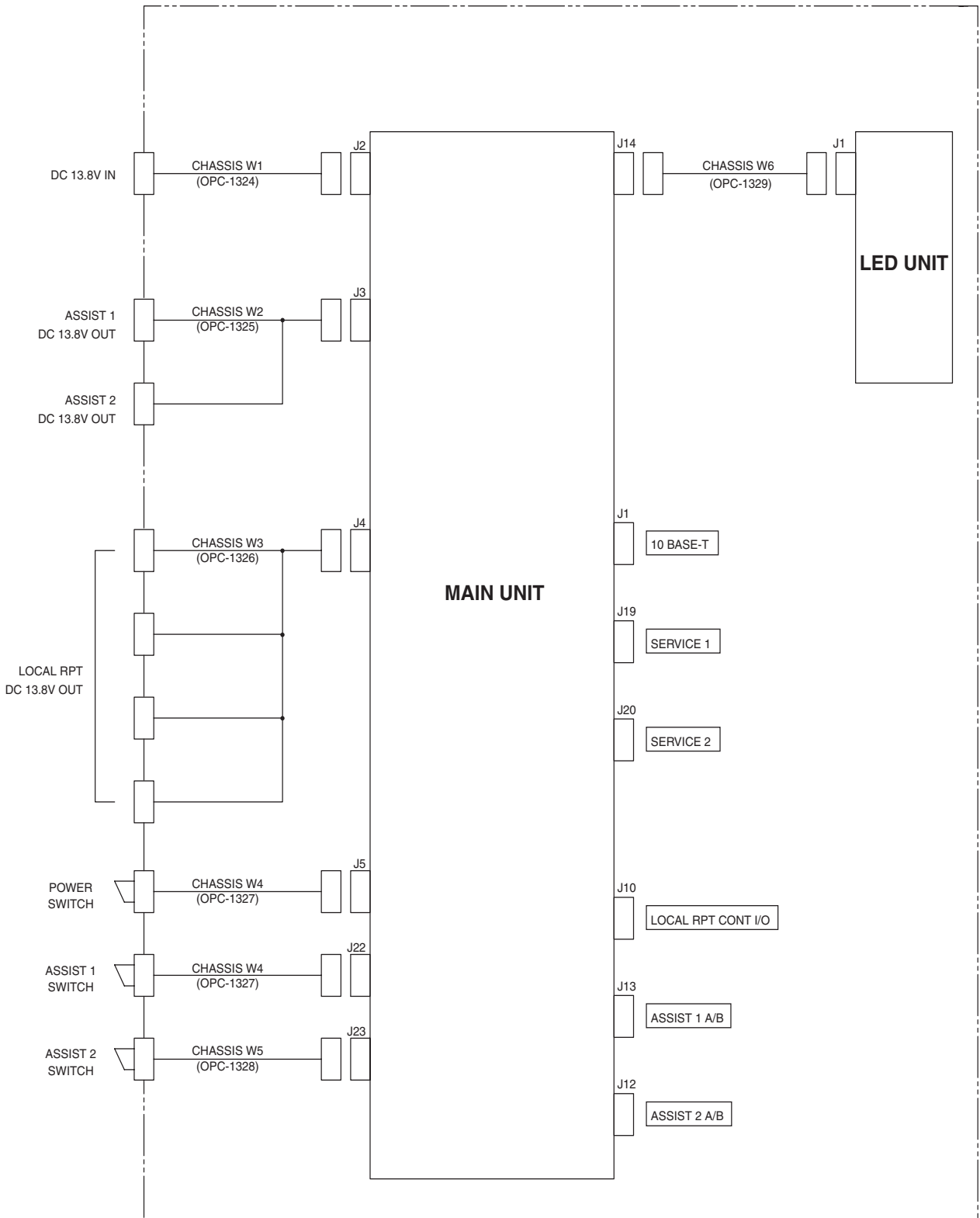
• BOTTOM VIEW (MAIN UNIT)



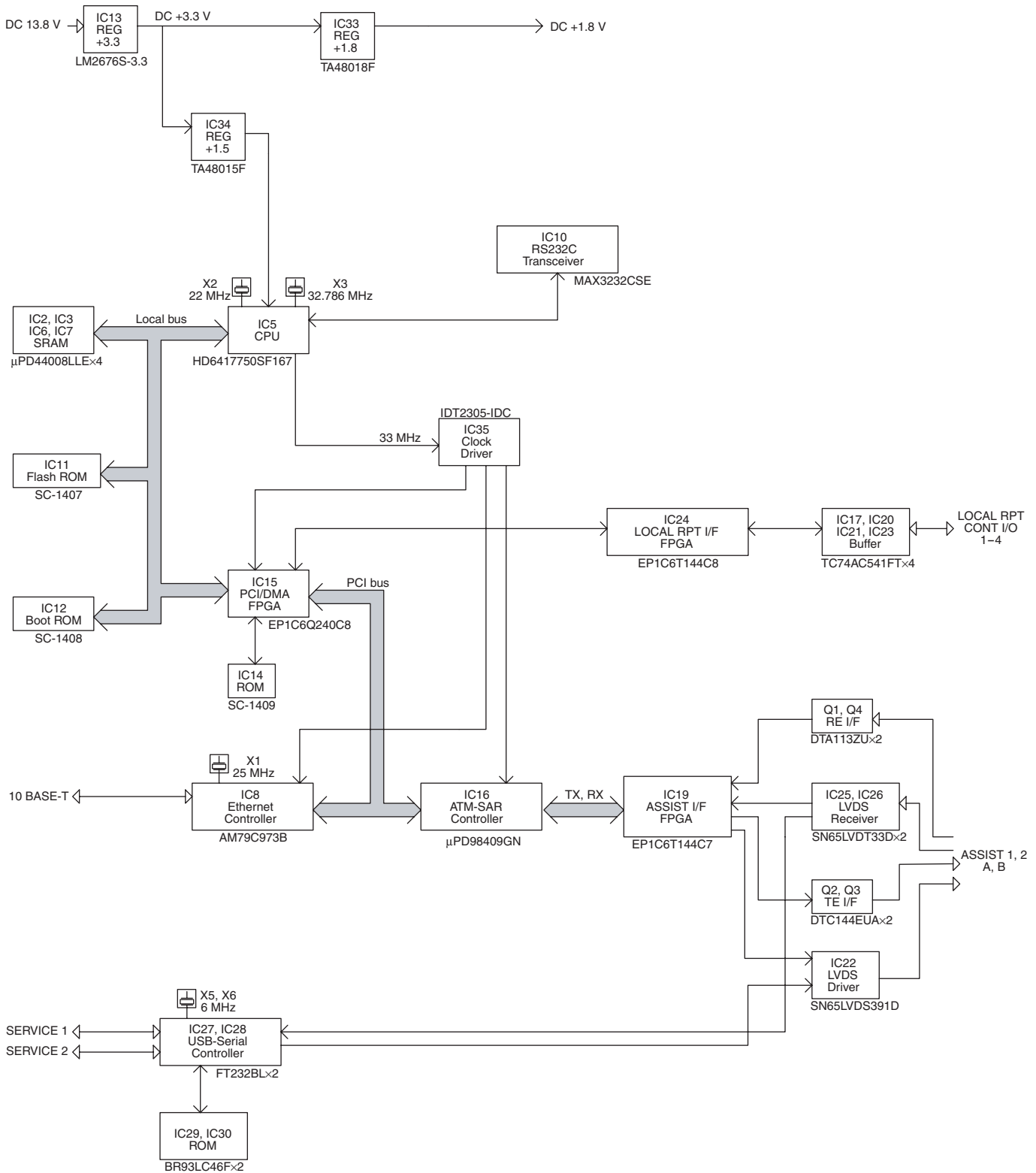
• BOTTOM VIEW (LED UNIT)



# SECTION 8 WIRING DIAGRAM



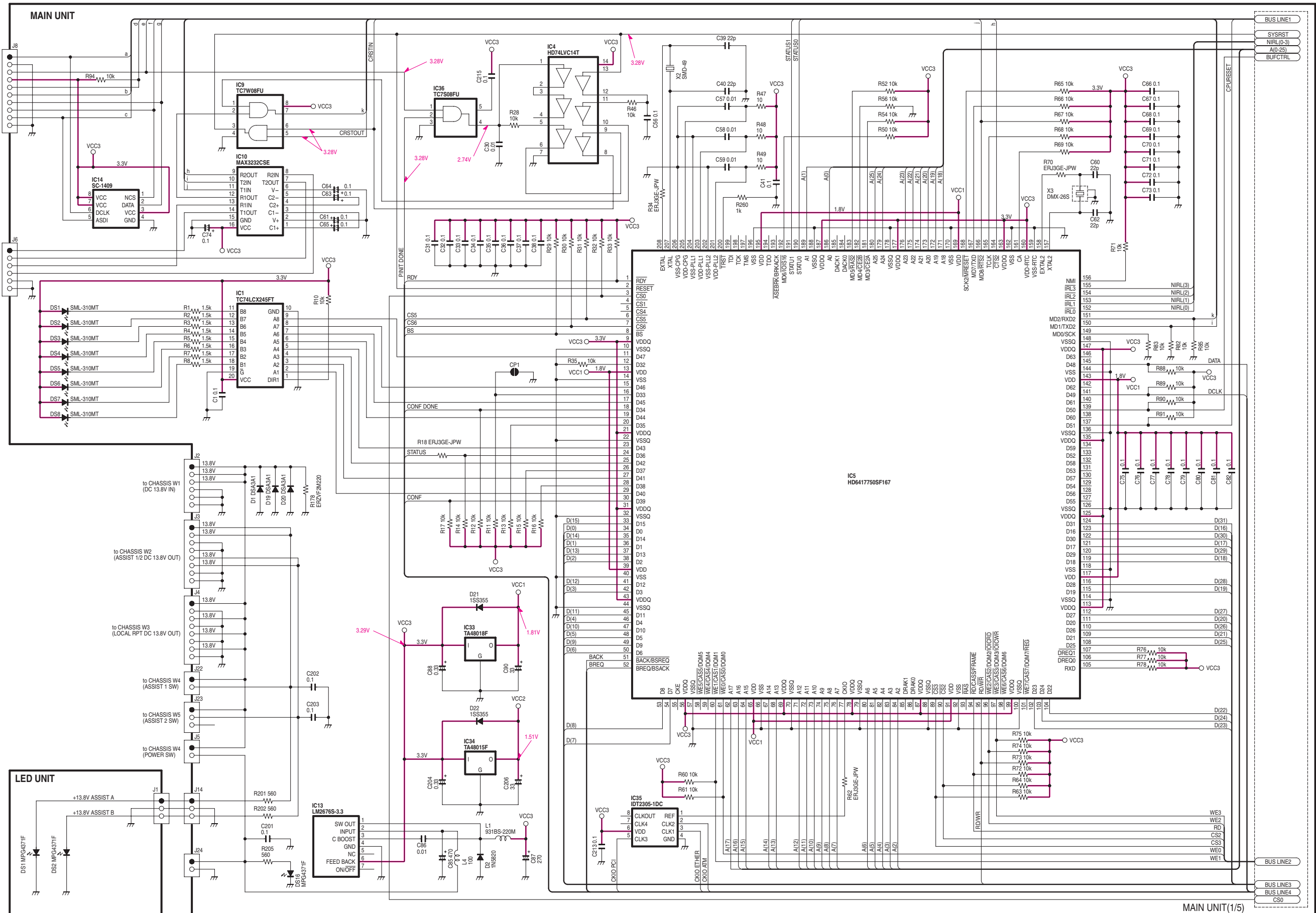
# SECTION 9 BLOCK DIAGRAM



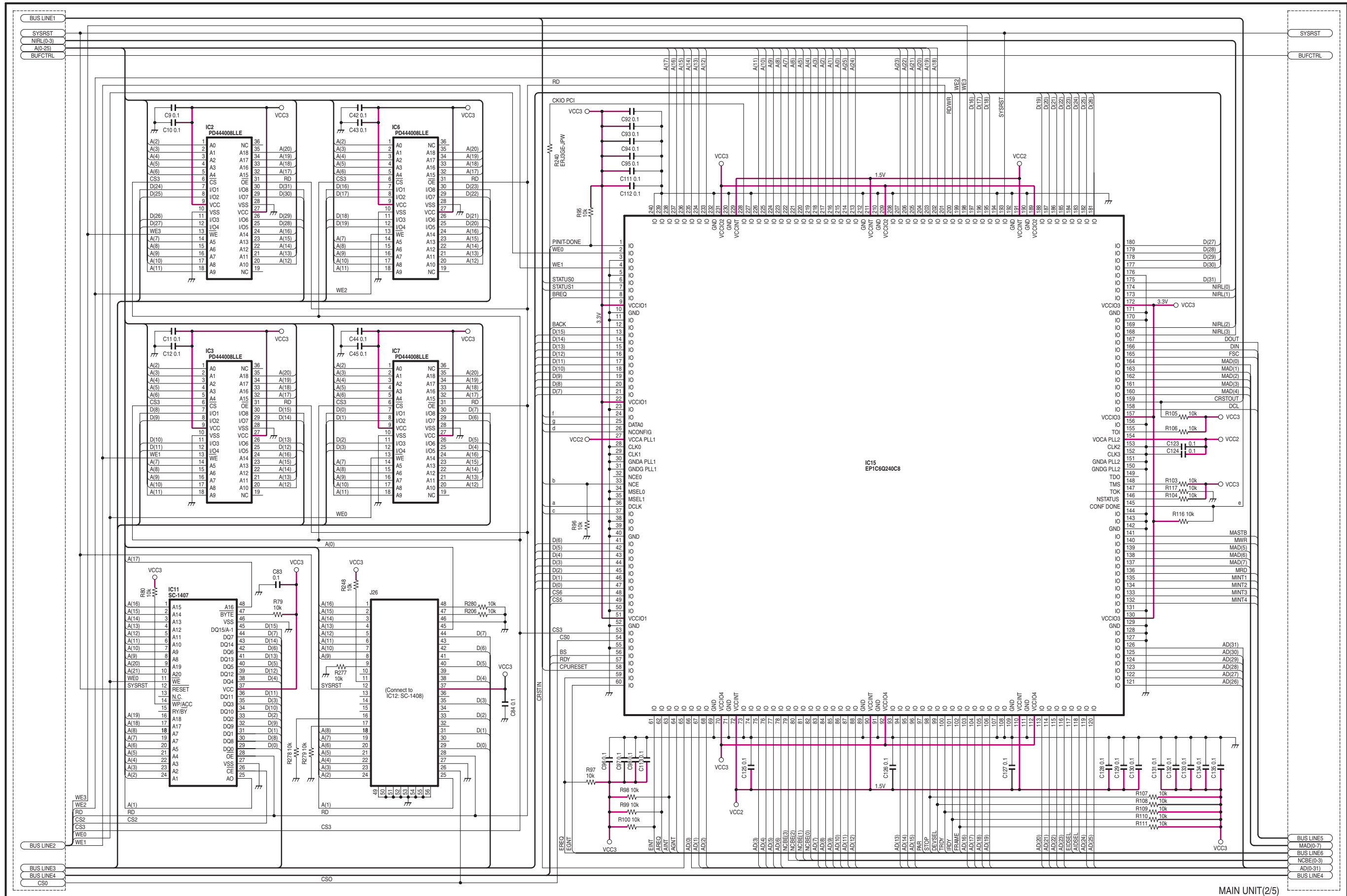


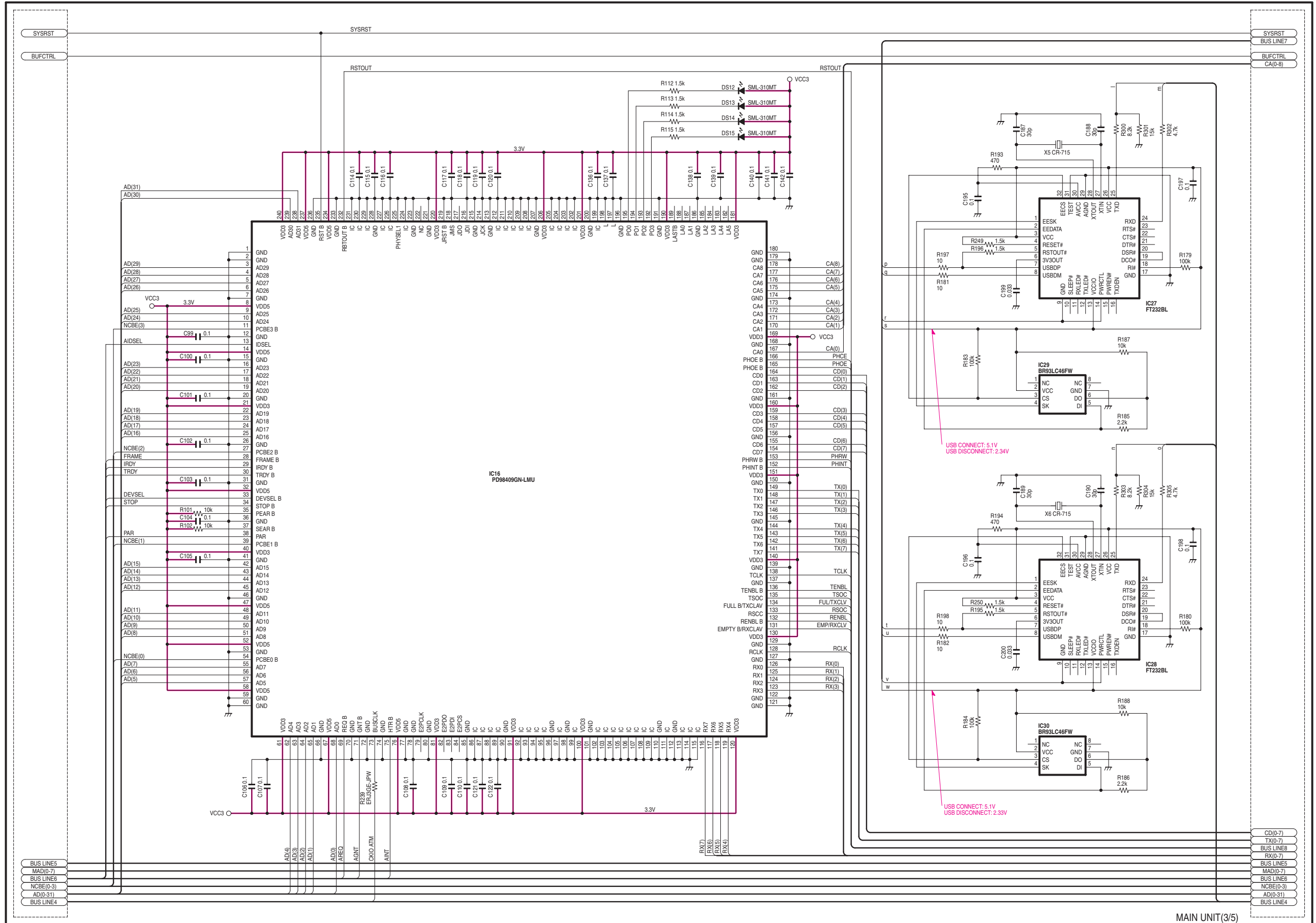
# SECTION 10 VOLTAGE DIAGRAM

## 10-1 MAIN UNIT

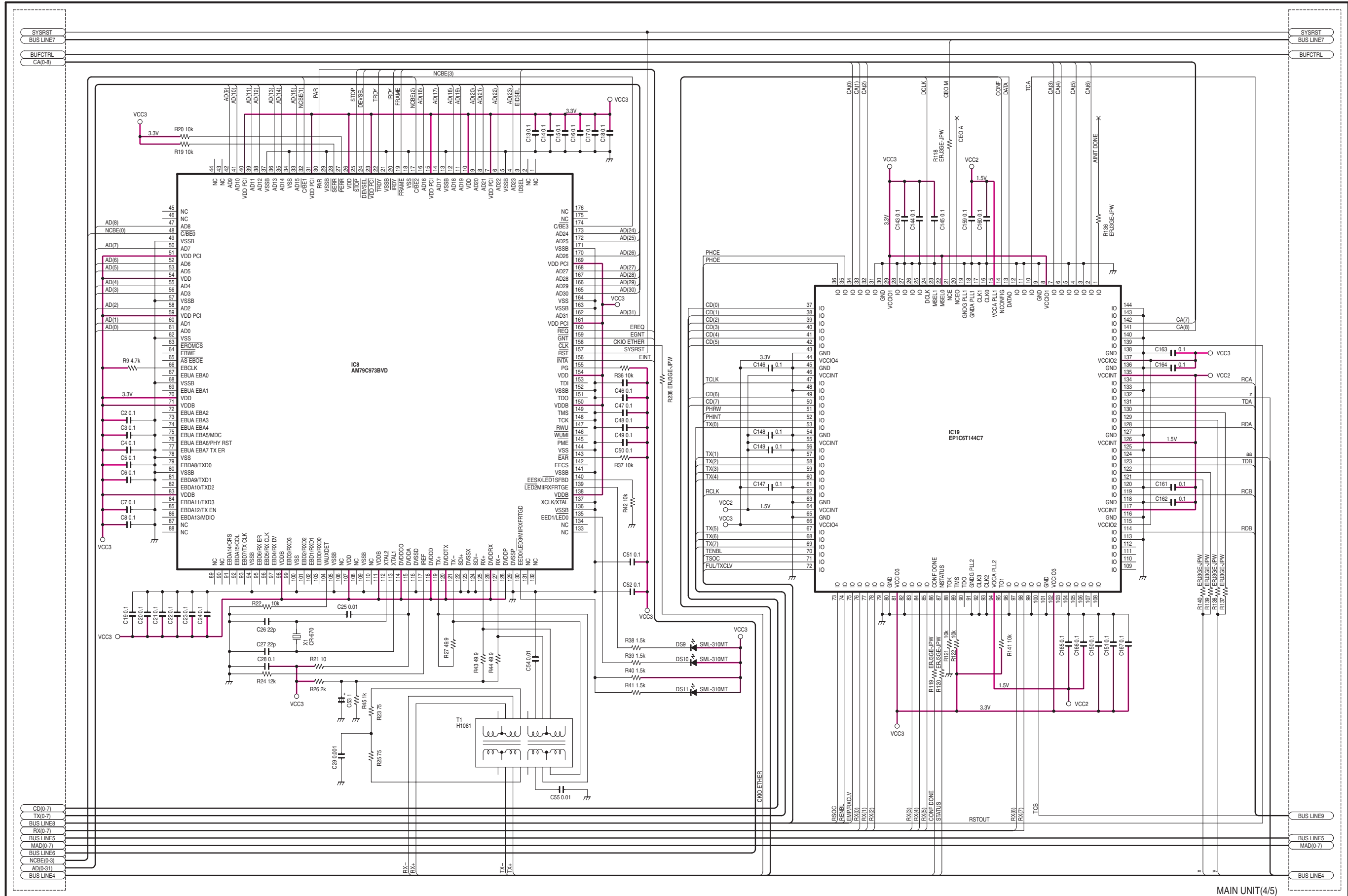


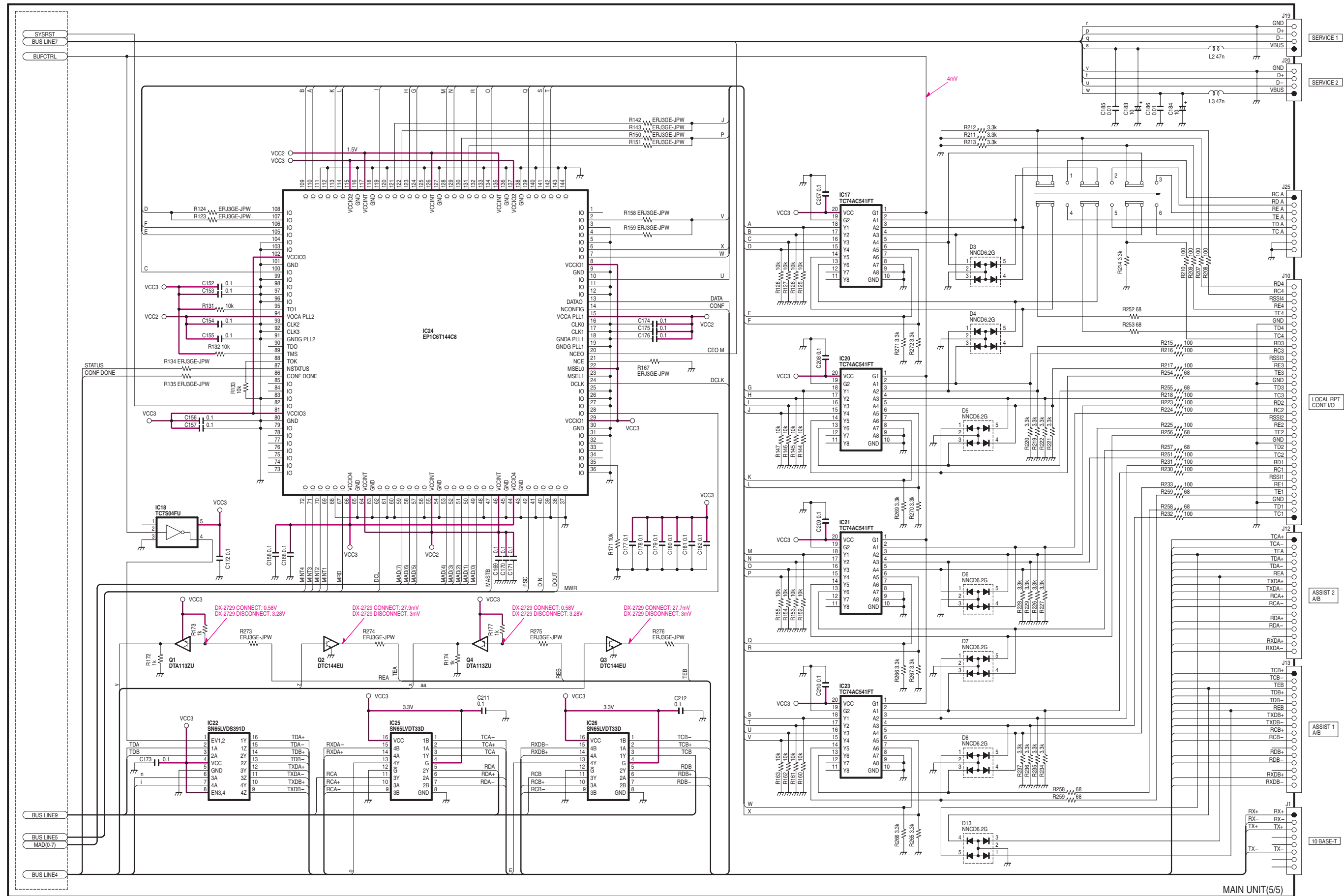
MAIN UNIT(1/5)





MAIN UNIT(3/5)





# SERVICE MANUAL

10GHz MICROWAVE LINK REPEATER

## ID-RP2L

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**SECTION 9 WIRING DIAGRAM**

**SECTION 10 BLOCK DIAGRAM**

**SECTION 11 VOLTAGE DIAGRAM**

11-1	IF UNIT .....	C-11-1
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# SECTION 1 SPECIFICATIONS

## ■ GENERAL

- Frequency range : Receive USA 10.000–10.025 GHz  
USA-1 10.150–10.175 GHz  
Transmit USA 10.150–10.175 GHz  
USA-1 10.000–10.025 GHz
- Type of emission : F1D\* (GMSK)  
\*F7W for system operation (with ID-RP2C)
- Frequency stability :  $\pm 5$  ppm (based on 25°C; +77°F)
- Frequency resolution : 250 kHz
- Antenna connector : Type-N (50  $\Omega$ )
- Communication speed : 10 Mbps
- Power supply requirement : 13.8 V DC  $\pm 15\%$  (Negative ground)
- Current drain : Transmit Less than 2.3 A  
Stand-by Less than 0.7 A
- Usable temperature range :  $-30^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ ;  $-22^{\circ}\text{F}$  to  $+140^{\circ}\text{F}$
- Dimensions (proj. not included) : 328(W) $\times$ 262(H) $\times$ 116(D) mm; 12<sup>29</sup>/<sub>32</sub>(W) $\times$ 10<sup>5</sup>/<sub>16</sub>(H) $\times$ 4<sup>9</sup>/<sub>16</sub>(D) in.
- Weight (Approx.; incl. cables) : 14.6 kg; 32 lb 3 oz

## ■ TRANSMITTER

- Output power (at 13.8 V DC) : 2.0 W
- Modulation system : Quadrature (525.75 MHz)
- Occupied bandwidth : Less than 10.5 MHz
- Spurious emissions : Less than 100  $\mu\text{W}$

## ■ RECEIVER

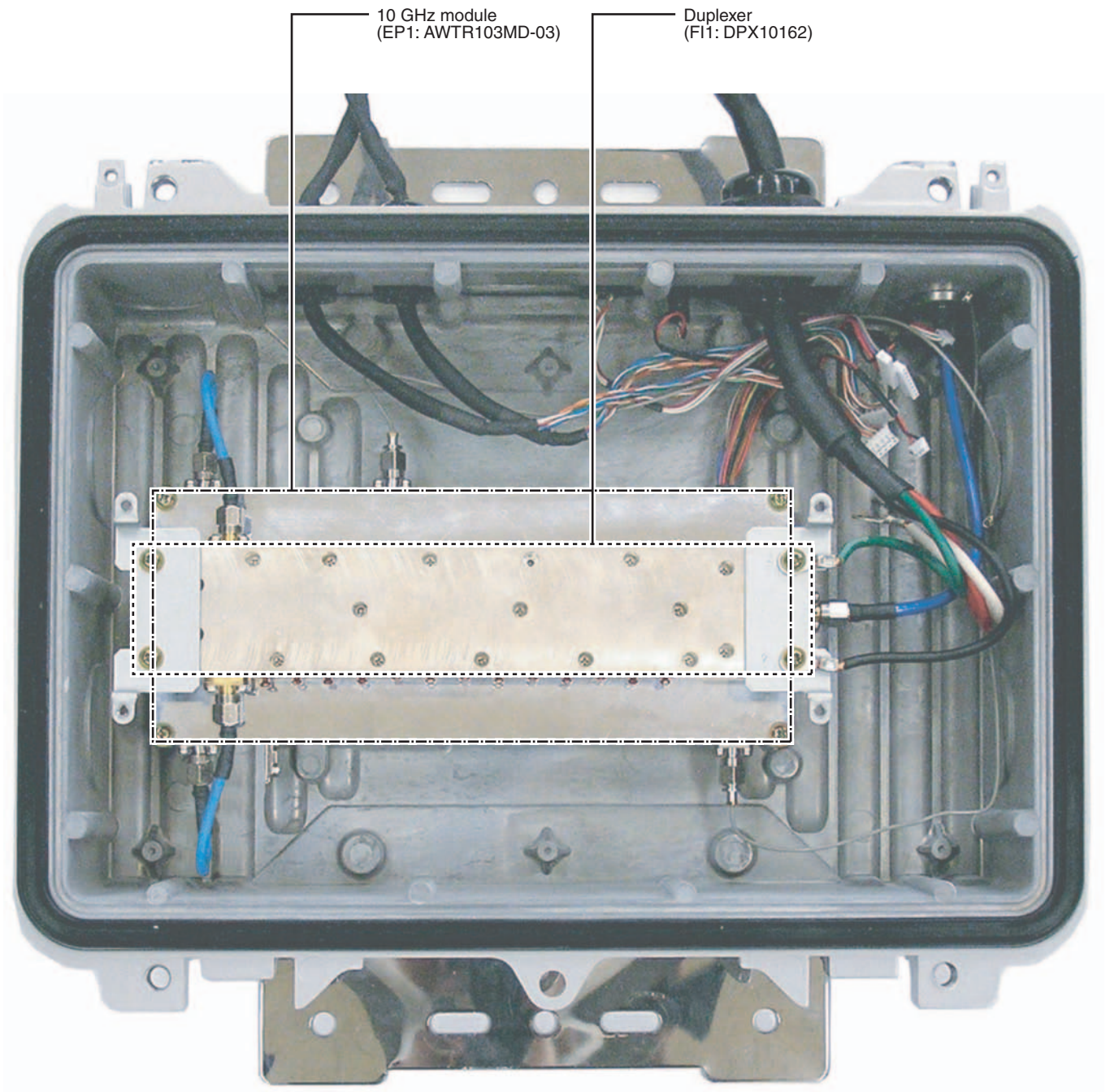
- Receive system : Double-conversion superheterodyne system
- Intermediate frequencies : 1st 1747.5 MHz  
2nd 374 MHz
- Sensitivity (BER  $1 \times 10^{-2}$ ) : Less than  $-78$  dBm
- Selectivity : More than 1 MHz/6 dB  
Less than 1.5 MHz/40 dB
- Receive spurious : Less than  $-57$  dBm

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



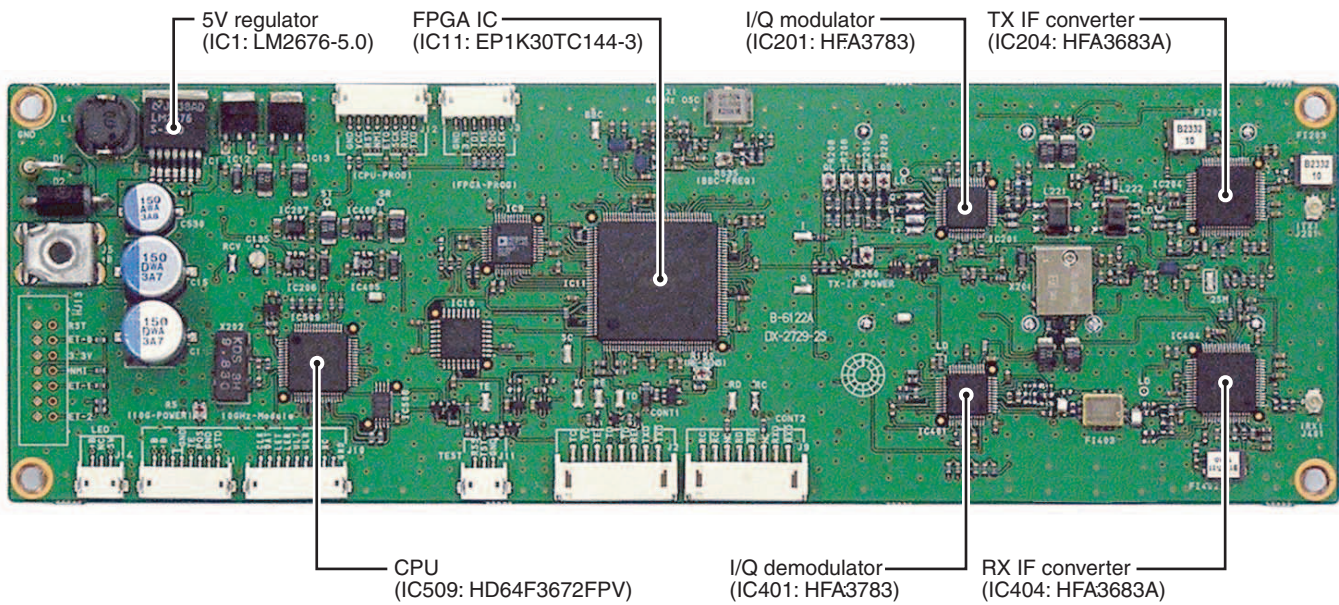
## SECTION 2 INSIDE VIEWS

### • TOP VIEW

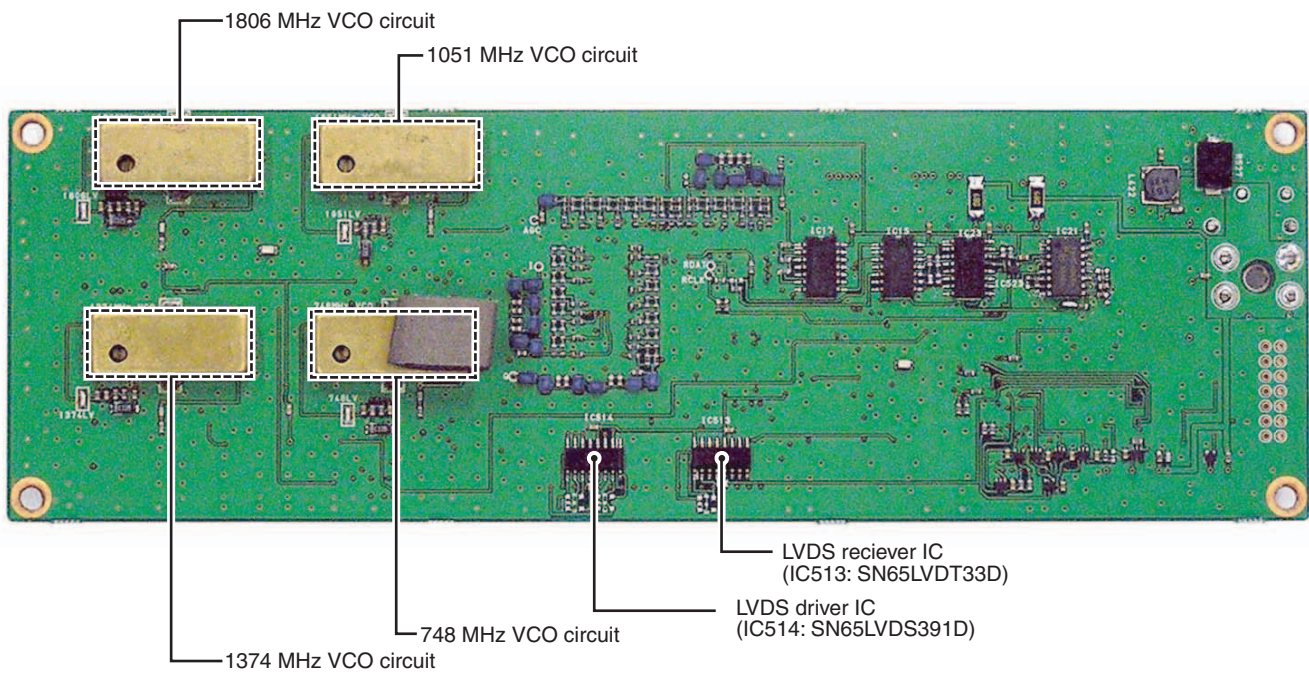




• IF UNIT (TOP VIEW)



• IF UNIT (BOTTOM VIEW)



## SECTION 3 CIRCUIT DESCRIPTION

### 3-1 RECEIVER CIRCUITS

#### 3-1-1 RF CIRCUIT (10 GHz MODULE)

The RF circuit amplifies signals within the range of frequency coverage and filters out-of-band signals. And converts the filtered signals to the fixed frequency of the 1st IF signal.

The signals from the antenna are applied to [ANT] connector (CHASSIS unit; W1) and then passed through the duplexer unit (CHASSIS unit; FI1). The received signals from the duplexer are amplified at 2 RF amplifiers in the 10 GHz module and then passed through the bandpass filter. The filtered signals are mixed with the 1st LO signal coming from the RX VCO circuit in the 10 GHz module to produce the 1747.5 MHz 1st IF signal. The 1st IF signal passes through the bandpass filter to suppress out-of-band signals.

The filtered signal is applied to the IF circuit (IF unit).

#### 3-1-2 IF CIRCUITS (IF UNIT)

The IF circuit converts the 1st IF signal to the 2nd IF signal with the PLL output frequency.

The 1st IF signal from the 10 GHz module is applied to the level adjust section of the IF converter (IC404, pin 4) and output from pin 61 (IC404). The level adjusted signal is passed through the bandpass filter (FI402) and then applied to the mixer section of the IF converter (IC404, pin 52). The applied signal is mixed with the 2nd LO signal coming from the RX 2nd VCO circuit (Q404, Q405, D402) via the doubler circuit (Q406) to convert to a 374 MHz 2nd IF signal.

The 2nd IF signal is output from pins 48 and 49 of the IF converter (IC404) and then applied to the level adjust section of the I/Q demodulator (IC401, pins 3, 4) via the bandpass filter (FI403). The level adjusted signal is mixed with the 3rd LO signal coming from the RX 3rd VCO circuit (Q401, Q402, D401) at the demodulator section (IC401, pins 3, 4) to demodulate the I/Q signals.

The demodulated I/Q signals are output from pins 37 and 38 (IC401; for I signals), and pins 35 and 36 (IC401; for Q signals) and are applied to the A/D converter.

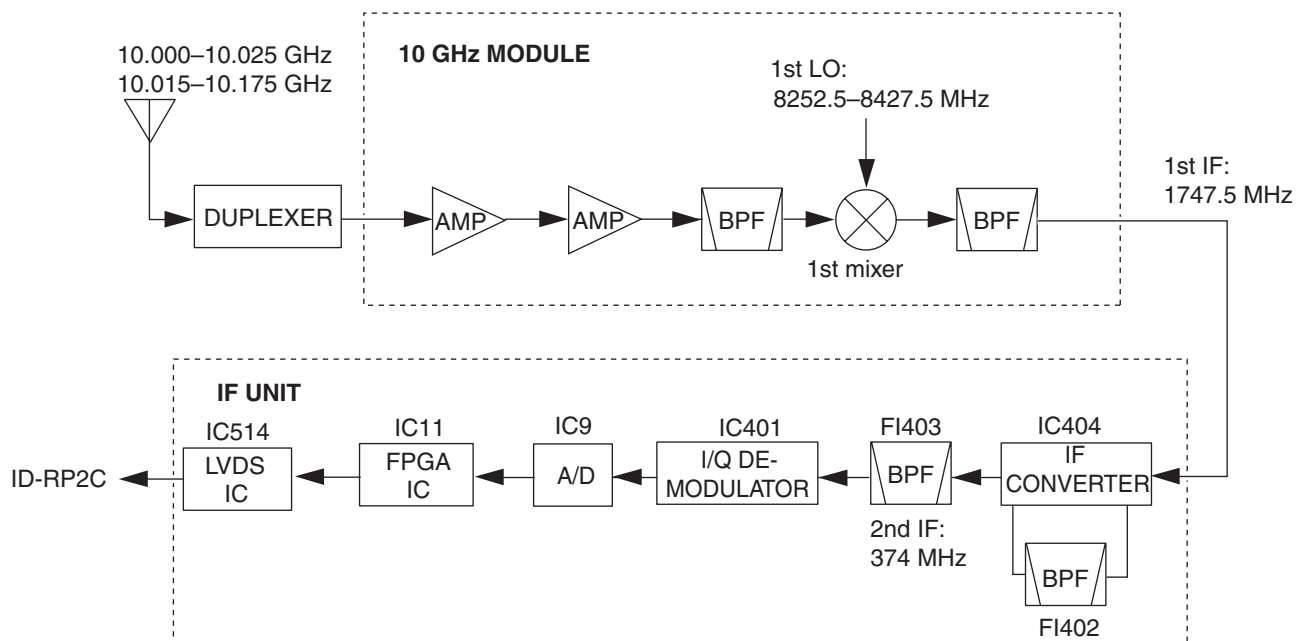
#### 3-1-3 FPGA CIRCUIT (IF UNIT)

The demodulated I/Q signals from the I/Q demodulator (IC401) are applied to the A/D converter (IC9, pins 2, 3 for I signals, pins 10, 11 for Q signals) to convert to 5-bit digital I/Q signals, and output from pins 40–44 (IC9; for I signals) and pins 17–21 (IC9; for Q signals).

The digital I/Q signals are applied to the FM detector section of the FPGA IC (IC11, pins 7–11 for I signals, pins 17–21 for Q signals) and output from pins 140–144 (IC11). The detected signals are applied to the D/A converter (R121–R136) and I/Q filter (L23–L28, C123, C125, C126, C128, C129) to convert to analog FM demodulated signal.

The analog FM demodulated signal is applied to the clock recovery circuit (IC15, IC17, IC21, IC523) to recover the clock and data signals. The recovered clock and data signals are applied to the latch section of FPGA IC (IC11, pins 135, 136) and then output from pins 27 and 28. The RX clock (RX\_CLK) and RX data (RX\_DAT) signals are applied to the TX LVDS controller (IC514) to convert to differential signal and then applied to the connected repeater controller (ID-RP2C) via [DATA B] that is connected to J9.

#### • RF AND IF CIRCUITS (RECEIVER)



## 3-2 TRANSMITTER CIRCUITS

### 3-2-1 FPGA CIRCUIT (IF UNIT)

The TX data signal (10 Mbps) from the connected repeater controller (ID-RP2C) is applied to the RX LVDS controller (IC513) via [DATA A] that is connected to J2. The TX data signals are converted differential signals to I/Q signals at the RX LVDS controller (IC513). The converted signals from the RX LVDS controller (IC513, pin 3) is applied to the baseband section of the FPGA IC (IC11, pin 27) and then applied to the D/A converters (R18–R39 for I signals, R41–R62 for Q signals) and I/Q filters (L10–L15, C29, C31, C32, C34, C35 for I signals, L17–L21, C37, C39, C40, C42, C43 for Q signals) to convert to I/Q baseband signals.

The converted I/Q baseband signals are applied to the I/Q modulation circuit.

### 3-2-2 MODULATION CIRCUIT (IF UNIT)

The modulation circuit modulates the VCO oscillating signal using the I/Q baseband signals.

The I/Q baseband signals are applied to the I/Q modulator section of the I/Q modulator (IC201, pin 34 for I signal, pin 31 for Q signal) and then modulates the 3rd LO signal coming from the TX 3rd VCO circuit (Q201, Q202, D201) via the tripler circuit (Q203). The modulated signals (2nd IF signals) are output from pins 8 and 9 (IC201) via the level adjust section.

The 2nd IF signals are amplified at Q209 and are then applied to the mixer section of the IF converter IC (IC204, pins 47, 50). The applied signals are mixed with the 2nd LO signal coming from the TX 2nd VCO circuit (Q204, Q205, D203) via the tripler circuit (Q206) to convert to a 2332.5 MHz 1st IF signal. The 1st IF signal is output from pin 34 (IC204) and then passed through the bandpass filter (FI202). The filtered

signal is applied to the level adjust section of the IF converter (IC204, pin 19) and then output from pin 13 (IC204).

The level adjusted signal is passed through the bandpass filter (FI203) to suppress unwanted signals and then applied to the 10 GHz module via J201.

### 3-2-3 RF CIRCUIT (10 GHz MODULE)

The RF circuit converts the 1st IF signal to the RF signal and amplifies output power level.

The 2332.5 MHz 1st IF signal from the IF unit is passed through the bandpass, low-pass filters and attenuator, and then mixed with the 1st LO signal coming from the TX VCO circuit in the 10 GHz module to convert to the RF signal. The RF signal is amplified at 2 driver and 5 power amplifiers to produce 2 W output power.

The power amplified signal is applied to the antenna connector via the duplexer unit.

## 3-3 PLL CIRCUITS

### 3-3-1 PLL CIRCUITS (IF UNIT)

The PLL circuit provides stable oscillation of the RX 2nd LO, RX 3rd LO, TX 2nd LO and TX 3rd LO frequencies.

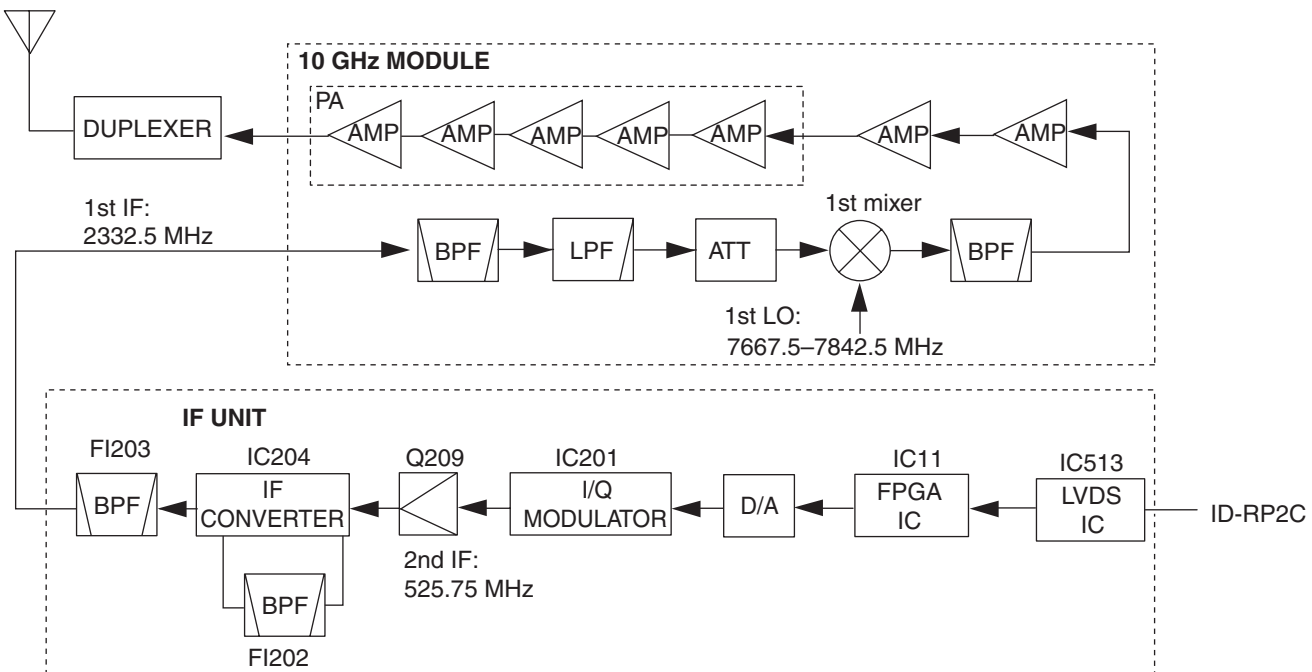
### 3-3-2 RX 2ND PLL CIRCUIT (IF UNIT)

The RX 2nd PLL circuit oscillates the RX 2nd LO frequency, and the signal is applied to the 2nd mixer section in the IF converter IC (IC404).

The oscillated signal from the RX 2nd VCO (Q404, Q405, D402) is applied to the doubler circuit (Q406) and is then applied to the 2nd mixer section in the IF converter IC (IC404, pin 40).

### • RF AND IF CIRCUITS (TRANSMITTER)

10.000–10.025 GHz  
10.015–10.175 GHz





The portion of the signal is applied to the PLL section as the comparison signal. The PLL section compares the phase of divided VCO frequency to the reference frequency (X204; 25 MHz). The output signal from the PLL section (IC404, pin 30) is passed through the loop filter and is then applied to the RX 2nd VCO circuit.

The portion of the signal is applied to the PLL section as the comparison signal. The PLL section compares the phase of divided VCO frequency to the reference frequency (X204; 25 MHz). The output signal from the PLL section (IC201, pin 22) is passed through the loop filter and is then applied to the TX 3rd VCO circuit.

### 3-3-3 RX 3RD PLL CIRCUIT (IF UNIT)

The RX 3rd PLL circuit oscillates the RX 3rd LO frequency and the signal is applied to the 3rd mixer section in the I/Q demodulator IC (IC401).

The oscillated signal from the RX 3rd VCO circuit (Q401, Q402, D401) is amplified at the buffer amplifier (Q403) and then applied to the 3rd mixer section of the I/Q demodulator IC (IC401, pin 26).

The portion of the signal is applied to the PLL section as the comparison signal. The PLL section compares the phase of divided VCO frequency to the reference frequency (X204; 25 MHz). The output signal from the PLL section (IC401, pin 22) is passed through the loop filter and is then applied to the RX 3rd VCO circuit.

### 3-3-5 TX 2ND PLL CIRCUIT (IF UNIT)

The 2nd PLL circuit oscillates the TX 2nd LO frequency and the signal is applied to the 2nd mixer section in the IF converter (IC204).

The oscillated signal from the TX 2nd VCO circuit (Q204, Q205, D204) is applied to the tripler circuit (Q206) and then applied to the 2nd mixer section of IF converter (IC204, pin 40).

The portion of the signal is applied to the PLL section as the comparison signal. The PLL section compares the phase of divided VCO frequency to the reference frequency (X204; 25 MHz). The output signal from the PLL section (IC204, pin 30) is passed through the loop filter and is then applied to the TX 2nd VCO circuit.

### 3-3-4 TX 3RD PLL CIRCUIT (IF UNIT)

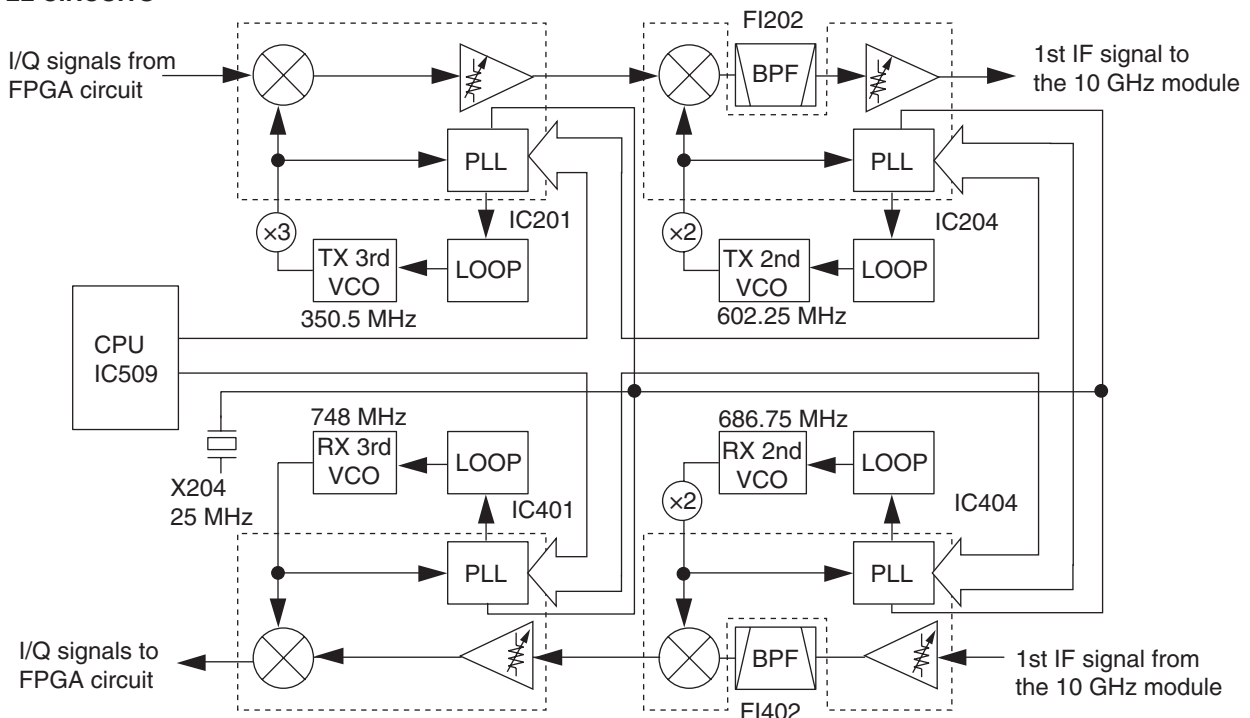
The 3rd PLL circuit oscillates the TX 3rd LO frequency and the signal is applied to the 3rd mixer section in the I/Q modulator (IC201).

The oscillated signal from the TX 3rd VCO circuit (Q201, Q202, D201) is applied to the tripler circuit (Q203) and then applied to the 3rd mixer section of the I/Q modulator (IC201, pin 26).

## 3-4 POWER SUPPLY CIRCUITS

Line	Description
5 V	Common 5 V controlled by the +5 V regulator circuit (IC1). The output voltage is applied to the baseband clock circuit (Q1, X1), etc.
3.3 V	Common 3.3 V converted from the 5V line by the 3.3 V regulator circuit (IC12). The output voltage is applied to the FPGA IC (IC11) and A/D converter (IC9), etc.
2.5 V	Common 2.5 V converted from the 5V line by the 2.5 V regulator circuit (IC13). The output voltage is applied to the FPGA IC (IC11), etc.

## • PLL CIRCUITS



# SECTION 4 ADJUSTMENT PROCEDURES

## 4-1 PREPARATION

When adjusting ID-RP2L, ID-RP2C REPEATER CONTROLLER, UTILITY SOFTWARE (Rev. 1.0 or more), USB cable (A-B type) and the test plug are required.

### ■ REQUIRED TEST EQUIPMENT

EQUIPMENT	GRADE AND RANGE	EQUIPMENT	GRADE AND RANGE
DC power supply	Output voltage : 13.8 V DC Current capacity : 10 A or more	Attenuator	Power attenuation : 40 or 50 dB Capacity : 10 W
Modulation analyzer	Frequency range : DC–10.5 GHz Measuring range : 0 to ±10 kHz	Oscilloscope	Frequency rang : DC–20 MHz Measuring range : 0.01–20 V
Frequency counter	Frequency range : 1 MHz to 10.5 GHz Frequency accuracy : ±1 ppm or better Sensitivity : 100 mV or better	Standard signal generator (SSG)	Frequency range : 0.1–10.5 GHz Output level : 0.1 μV to 71 mV (–127 to –10 dBm)
RF power meter	Measuring range : 1–5 W Frequency range : 10–10.5 GHz Impedance : 50 Ω SWR : Better than 1.2 : 1	Spectrum analyzer	Frequency range : At least 10.5 GHz Spectrum bandwidth : 100 kHz or more
		Digital multimeter	Input impedance : 10 MΩ/V DC or more

### ■ SYSTEM REQUIREMENTS

- Microsoft® Windows® 98/98SE/Me/2000/XP
- USB port

### ■ BEFORE STARTING ADJUSTMENT

Program the adjustment frequencies (see adjustment frequency list) into the repeater using with the utility software before starting the adjustment. Otherwise, the repeater cannot be adjusted properly.

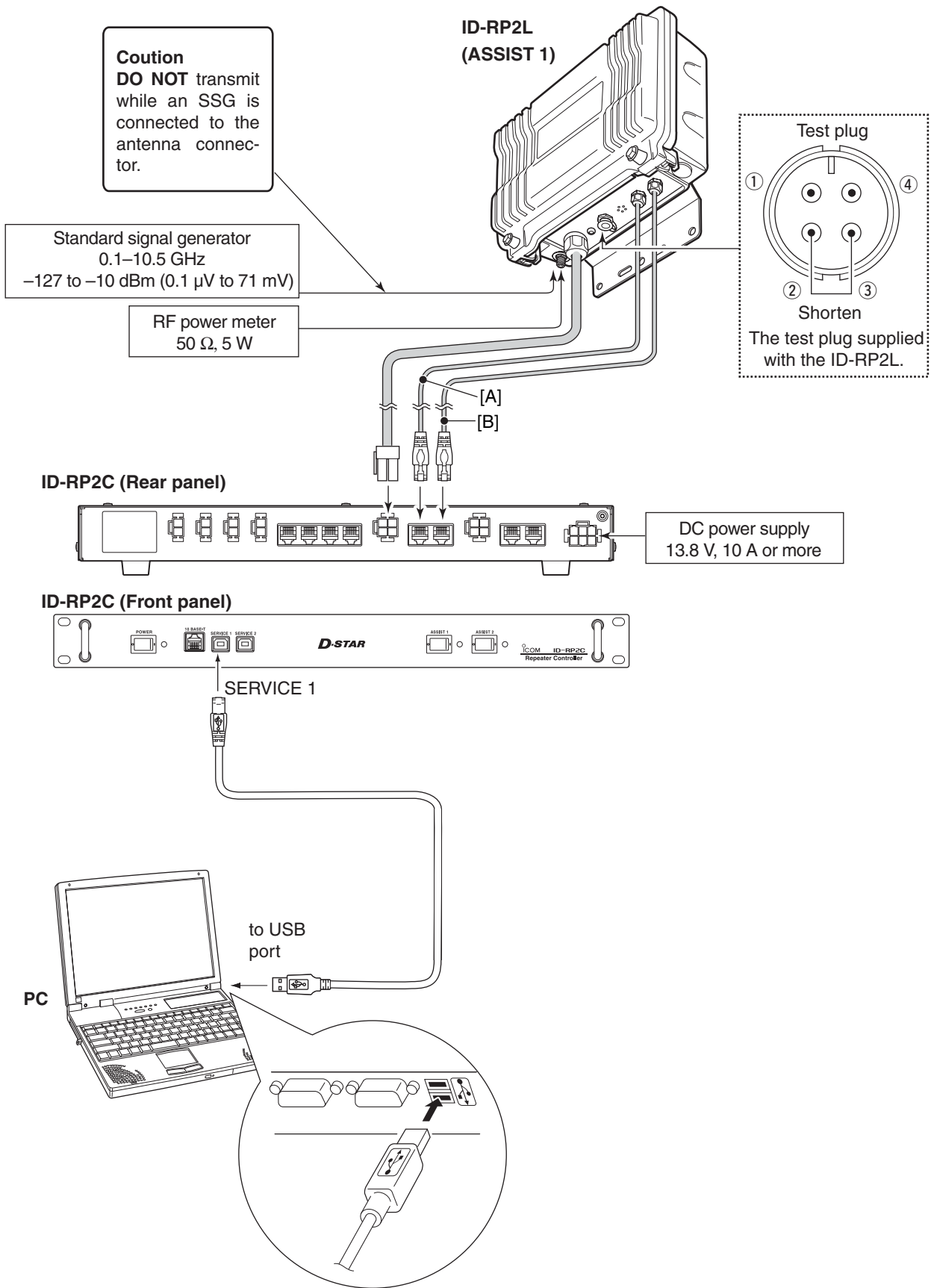
**CAUTION!: BACK UP** the originally programmed memory data in the repeater before programming the adjustment frequencies. When program the adjustment frequencies into the repeater, the repeater's memory data will be overwritten and lose original memory data at the same time.

### • ADJUSTMENT FREQUENCY LIST

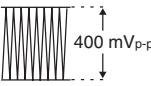
VRESION	TX FREQUENCY	RX FREQUENCY
USA	10.150 GHz	10.000 GHz
USA-1	10.000 GHz	10.150 GHz

Microsoft and Windows are registered trademarks of Microsoft Corporation in the U.S.A. and other countries.

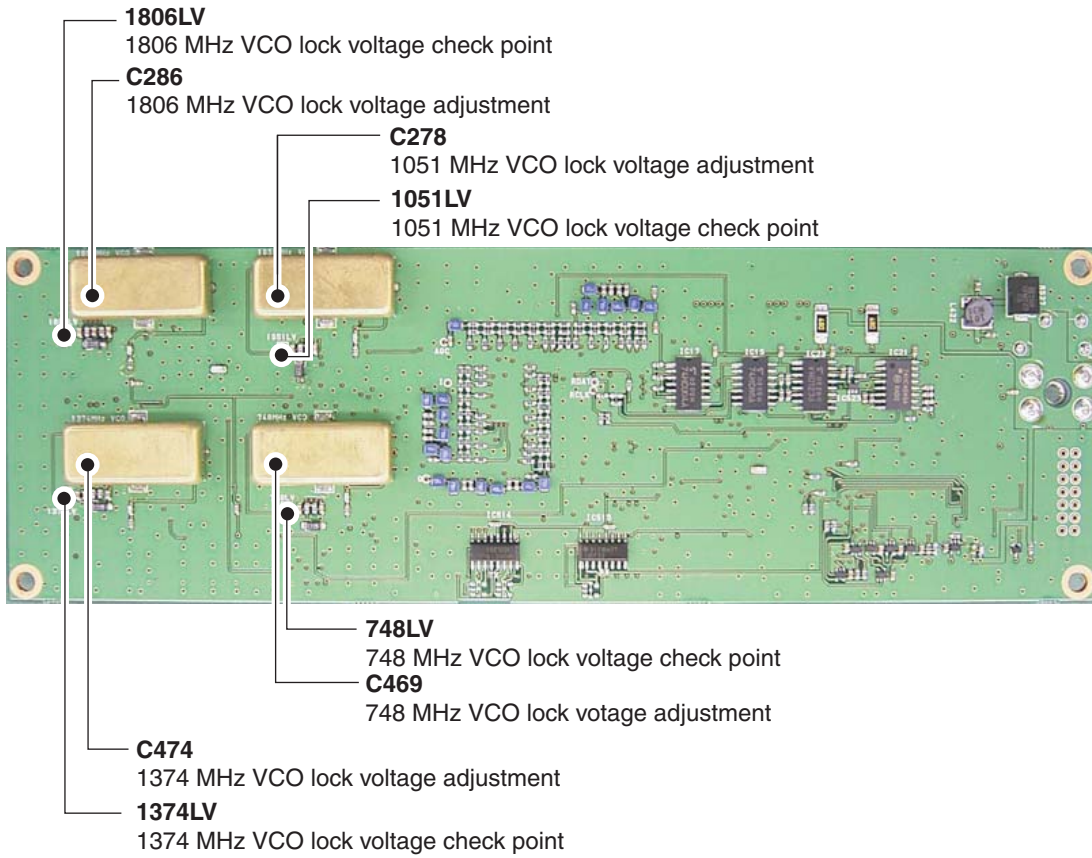
• CONNECTION



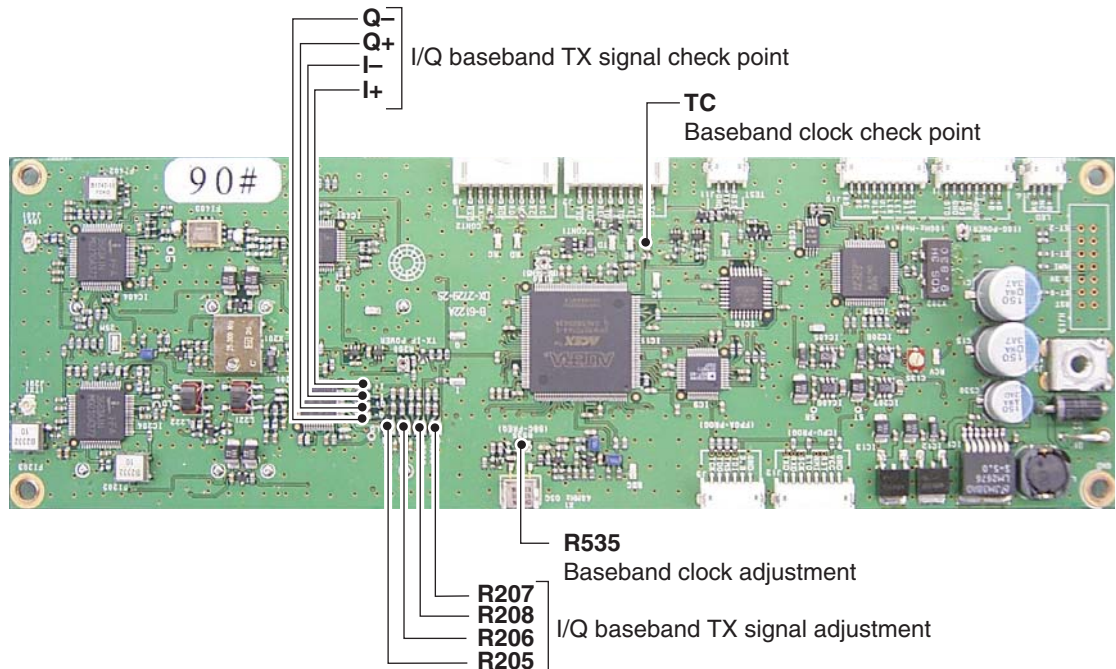
## 4-2 PLL AND BASEBAND ADJUSTMENT

ADJUSTMENT	ADJUSTMENT CONDITION	MEASUREMENT		VALUE	ADJUSTMENT		
		UNIT	LOCATION		UNIT	ADJUST	
PLL LOCK VOLTAGE	1 • Receiving	IF unit	Connect a digital multimeter or oscilloscope to the check point "1051LV."	1.5 V	IF unit	C278	
	2 • Receiving		Connect a digital multimeter or oscilloscope to the check point "1806LV."			C286	
	3 • Receiving		Connect a digital multimeter or oscilloscope to the check point "748LV."			C469	
	4 • Receiving		Connect a digital multimeter or oscilloscope to the check point "1374LV."			C474	
BASEBAND CLOCK	1 • Connect the test plug to [TEST] connector or select the TX mode "PN" in the utility screen. • Transmitting	IF unit	Connect a frequency counter to the check point "TC."	10 MHz	IF unit	R535	
	After adjustment, unplug the test plug or select the TX mode "Normal" in the utility screen.						
I/Q BASEBAND TX SIGNAL	1 • Connect the test plug to [TEST] connector or select the TX mode "PN" in the utility screen. • Transmitting	IF unit	Connect an oscilloscope to the check point "Q+."	400 mV <sub>p-p</sub>	IF unit	R207	
	2 • Transmitting		Connect an oscilloscope to the check point "I+."				R208
	3 • Transmitting		Connect a digital multimeter between the check points "I+" and "I-."			0 V	R206
	4 • Transmitting		Connect a digital multimeter between the check points "Q+" and "Q-."				R205
After adjustment, unplug the test plug or select the TX mode "Normal" in the utility screen.							

• IF UNIT (BOTTOM SIDE)



• IF UNIT (TOP SIDE)



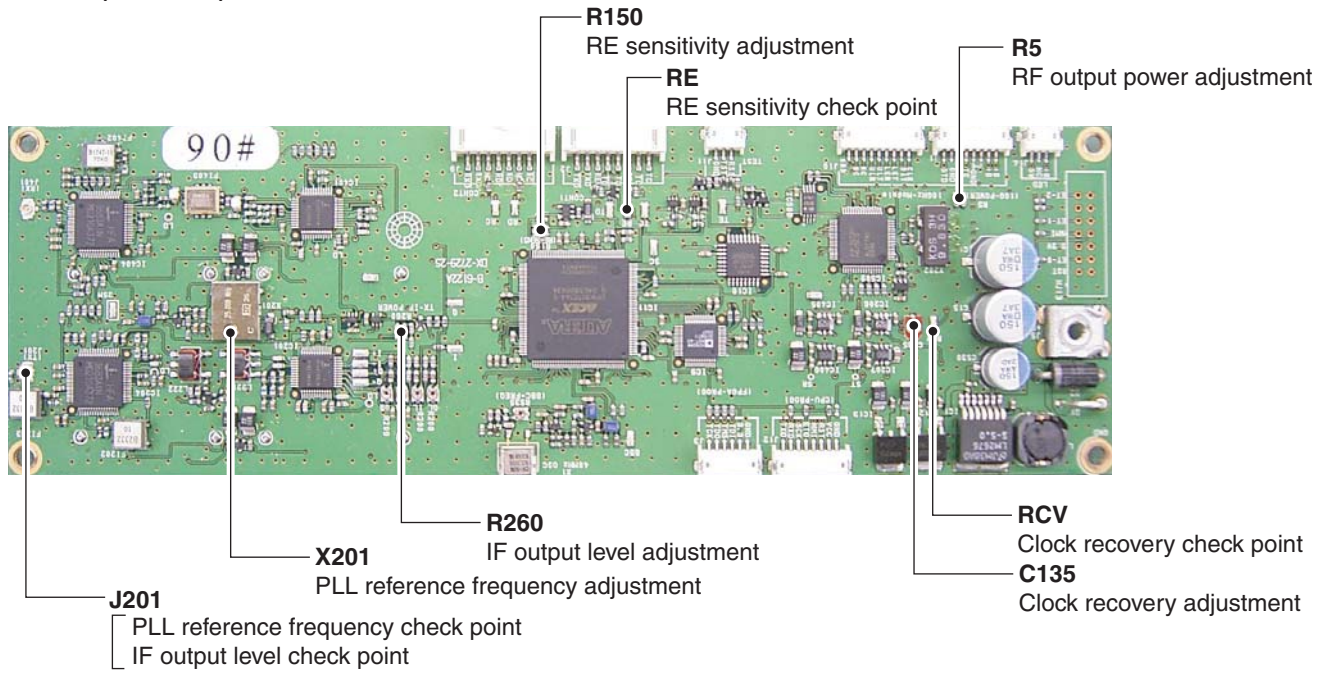


### 4-3 TRANSMITTER AND RECEIVER ADJUSTMENT

ADJUSTMENT	ADJUSTMENT CONDITION	MEASUREMENT		VALUE	ADJUSTMENT			
		UNIT	LOCATION		UNIT	ADJUST		
PLL REFERENCE FREQUENCY	1	<ul style="list-style-type: none"> <li>Connect the test plug to [TEST] connector or select the TX mode "PN" in the utility screen.</li> <li>Transmitting</li> </ul>	IF unit	Connect a frequency counter to J201.	2332.500 MHz	IF unit	X201	
	After adjustment, unplug the test plug or select the TX mode "Normal" in the utility screen.							
IF OUTPUT LEVEL	1	<ul style="list-style-type: none"> <li>Connect the test plug to [TEST] connector or select the TX mode "PN" in the utility screen.</li> <li>Set a spectrum analyzer as: RBW : MAX (more than 3 MHz)</li> <li>Transmitting</li> </ul>	IF unit	Connect a spectrum analyzer to J201.	-5 dBm	IF unit	R260	
	After adjustment, unplug the test plug or select the TX mode "Normal" in the utility screen.							
RF OUTPUT POWER	1	<ul style="list-style-type: none"> <li>Connect the test plug to [TEST] connector or select the TX mode "PN" in the utility screen.</li> <li>Transmitting</li> </ul>	CHASSIS	Connect an RF power meter to [ANT] connector.	2.0 W	IF unit	R5	
	After adjustment, unplug the test plug or select the TX mode "Normal" in the utility screen.							
CLOCK RECOVERY	1	<ul style="list-style-type: none"> <li>Connect an SSG to J401 and set as: Frequency : 1747.5 MHz Level : 71 mV* (-10 dBm) Modulation : GMSK (10 Mbps, BT=0.5, PN9)</li> <li>Receiving</li> </ul>	IF unit	Connect a digital multimeter or oscilloscope to the check point "RCV."	1.5 V	IF unit	C135	
RE SENSITIVITY	1	<ul style="list-style-type: none"> <li>Connect an SSG to [ANT] and set as: Frequency : 10.000 GHz (USA) 10.150 GHz (USA-1) Level : 40 <math>\mu</math>V* (-75 dBm) Modulation : GMSK (10 Mbps, BT=0.5, 1/0)</li> <li>Receiving.</li> </ul>	IF unit	Connect a digital multimeter or oscilloscope to the check point "RE."	3.3 V	IF unit	R150	
	2	<ul style="list-style-type: none"> <li>Set an SSG as: Level : 28 <math>\mu</math>V* (-78 dBm)</li> <li>Receiving</li> </ul>			0 V			Verify
	3	<ul style="list-style-type: none"> <li>Set an SSG as: Level : 56 <math>\mu</math>V* (-72 dBm)</li> <li>Receiving</li> </ul>			3.3 V			

\*The output level of the standard signal generator (SSG) is indicated the SSG's open circuit.

• IF UNIT (TOP SIDE)



# SECTION 5 PARTS LIST

[IF UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
IC1	6910015280	S.IC LM2676-5.0	T	27.7/62.7
IC9	1190001880	S.IC AD9288BST-40	T	83.2/43
IC10	1130012320	S.IC EPC2TC32 / SC-1410	T	74.7/27.2
IC11	1140011100	S.IC EP1K30TC144-3	T	107/36.7
IC12	1180002071	S.IC TA48M033F (TE16L, SQ)	T	38.2/62.5
IC13	1180002450	S.REG TA48025F (TE16L)	T	46/63.5
IC15	1130005591	S.IC TC74HC86AF (F)	B	70/43
IC17	1130005231	S.IC TC74HC04AF (F)	B	83/43
IC21	1110003290	S.IC MC74HC4046AF	B	33.7/42.4
IC23	1130011451	S.IC TC74VHC123AF (F)	B	58/42.9
IC24	1130008561	S.IC TC75S51F (TE85L, F)	T	109.3/17.7
IC26	1130006551	S.IC TC7S08FU (TE85R, F)	B	29.5/11.1
IC201	1190001310	S.IC HFA3783 <ZCO>	T	158/49
IC204	1190001300	S.IC HFA3683A <ZCO>	T	201/51
IC206	1180002241	S.IC TK11229CMCL-G	T	47.5/39.7
IC207	1180002271	S.REG TK11250CMCL-G	T	47.5/45.7
IC401	1190001310	S.IC HFA3783 <ZCO>	T	158/18
IC404	1190001300	S.IC HFA3683A <ZCO>	T	201/20
IC405	1180002241	S.IC TK11229CMCL-G	T	58.7/39.7
IC406	1180002271	S.REG TK11250CMCL-G	T	58.7/45.7
IC407	1110005730	S.IC S-80928CNMC-G8Y-T2	T	43.7/32.2
IC508	1130010390	S.IC HN58X2416TI	T	61.7/16.2
IC509	1140011521	S.IC HD64F3672FPV	T	51.2/23.2
IC513	1190001970	S.IC SN65LVD733D	B	99.8/10.6
IC514	1190001980	S.IC SN65LVDS391D	B	121.2/10.5
IC515	1130006551	S.IC TC7S08FU (TE85R, F)	B	52.6/5.8
IC516	1130006551	S.IC TC7S08FU (TE85R, F)	B	49.5/10.8
IC517	1130006551	S.IC TC7S08FU (TE85R, F)	T	151/38.7
IC518	1130006551	S.IC TC7S08FU (TE85R, F)	T	146.2/38.7
IC519	1130006551	S.IC TC7S08FU (TE85R, F)	B	44.3/5.8
IC520	1130006551	S.IC TC7S08FU (TE85R, F)	B	46.6/11
IC521	1130006551	S.IC TC7S08FU (TE85R, F)	B	42.6/11
IC522	1130006551	S.IC TC7S08FU (TE85R, F)	B	38.6/11
IC523	1130005252	S.IC TC74HC08AF (EL, F)	B	46.2/42.9
IC524	1130006891	S.IC TC7S04FU (TE85R, F)	T	88.5/16.2
IC525	1130006891	S.IC TC7S04FU (TE85R, F)	T	84.2/16.2
Q1	1530002381	S.TR 2SC4215-Y (TE85R, F)	T	111.3/59.5
Q2	1530002381	S.TR 2SC4215-Y (TE85R, F)	T	105.3/59.6
Q100	1590000430	S.TR DTC144EUA T106	T	83.3/12.1
Q201	1530003560	S.TR 2SC5195-T1	B	158.5/62.2
Q202	1530003560	S.TR 2SC5195-T1	B	151.8/61.2
Q203	1530003760	S.TR 2SC5508-T2	B	146.5/61.2
Q204	1530003560	S.TR 2SC5195-T1	B	195.2/61.2
Q205	1530003560	S.TR 2SC5195-T1	B	190.3/62.1
Q206	1530003760	S.TR 2SC5508-T2	B	184.8/61.7
Q207	1530002691	S.TR 2SC4116-GR (TE85R, F)	T	173/63.2
Q208	1530002381	S.TR 2SC4215-Y (TE85R, F)	T	185.2/39
Q209	1530002880	S.TR 2SC4226-T1 R24	T	179.1/54.1
Q401	1530003560	S.TR 2SC5195-T1	B	158.5/29.5
Q402	1530003560	S.TR 2SC5195-T1	B	152/29.5
Q403	1530003760	S.TR 2SC5508-T2	B	146.7/29.5
Q404	1530003560	S.TR 2SC5195-T1	B	196.2/29.5
Q405	1530003560	S.TR 2SC5195-T1	B	189.7/27.5
Q406	1530003760	S.TR 2SC5508-T2	B	185.7/29.7
Q407	1530002691	S.TR 2SC4116-GR (TE85R, F)	T	173.5/29.5
Q500	1590000680	S.TR DTC114EUA T106	B	17/10.5
Q501	1590000430	S.TR DTC144EUA T106	T	70.7/15.5
Q502	1590001040	S.TR DTA113ZU T106	T	73.5/15.7
Q503	1590000430	S.TR DTC144EUA T106	T	100.2/14
D1	1790000700	DIO DSA3A1		
D2	1710001190	DIO 1N5820		
D201	1720000781	S.VCP HVU350B TRF-E	B	166/60.5
D202	1790001641	S.DIO 1SS373 (TPH3, F)	T	137.7/39.5
D203	1720000781	S.VCP HVU350B TRF-E	B	203/59.8
D401	1720000781	S.VCP HVU350B TRF-E	B	166.3/28.5
D402	1720000781	S.VCP HVU350B TRF-E	B	203.7/29
D406	1790001711	S.DIO NNCD5.6C-T1-A	T	103.8/13.7
D407	1790001711	S.DIO NNCD5.6C-T1-A	T	97.1/14
D408	1790001711	S.DIO NNCD5.6C-T1-A	T	77.1/12.2
D409	1790001711	S.DIO NNCD5.6C-T1-A	T	78.5/12.1
D410	1720000730	S.VCP MA2S30400L	T	122.7/60.2
FI202	2020002070	S.DET TDFM1B-2332E-10	T	194.5/61.2
FI203	2020002070	S.DET TDFM1B-2332E-10	T	215.6/55.3
FI402	2020002080	S.DET TDFM1B-17470-11AP	T	200.7/6.3
FI403	2040001840	S.SAW FL-370 (855653) <JOR>	T	180.5/15.5

[IF UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
X1	6050009350	S.XTL CR-504 (40 MHz)	T	118.7/65.8
X201	6050011250	S.XTL CR-710 (25.000 MHz)	T	173.7/37
X202	6050010550	S.XTL CR-635 (9.8304 MHz)	T	37.2/22.2
L1	6200010690	S.COL #B952AS-470M=P3	T	16.5/62.5
L10	6200009860	S.COL NL 252018T-1R5J	B	133.7/30.3
L11	6200002000	S.COL NL 252018T-3R3J	B	130.8/29.3
L12	6200003660	S.COL NL 252018T-R68J	B	131.2/33.3
L13	6200003940	S.COL NL 252018T-5R6J	B	131.2/37
L14	6200004950	S.COL NL 252018T-1R8J	B	134.5/39.7
L15	6200005020	S.COL NL 252018T-150J	B	131.5/40
L16	6200009860	S.COL NL 252018T-1R5J	B	114.5/23.1
L17	6200002000	S.COL NL 252018T-3R3J	B	111.3/23.7
L18	6200003660	S.COL NL 252018T-R68J	B	120.7/22.6
L19	6200003940	S.COL NL 252018T-5R6J	B	123.8/23.1
L20	6200005020	S.COL NL 252018T-150J	B	132.3/24.1
L21	6200004950	S.COL NL 252018T-1R8J	B	129.3/23.1
L22	6200002040	S.COL NL 252018T-101J	B	129/54.2
L23	6200009860	S.COL NL 252018T-1R5J	B	103.2/58
L24	6200002000	S.COL NL 252018T-3R3J	B	102.5/61.2
L25	6200003660	S.COL NL 252018T-R68J	B	100/58
L26	6200003940	S.COL NL 252018T-5R6J	B	97.5/7
L27	6200005020	S.COL NL 252018T-150J	B	93.7/58.5
L28	6200004950	S.COL NL 252018T-1R8J	B	90.7/57.7
L29	6200004960	S.COL NL 252018T-R33J	T	100.6/59.5
L201	6200007710	S.COL LQW2BHN27NJ03L	B	161.9/64.7
L202	6200006981	S.COL ELJRE R10G-F	B	157.2/64.2
L203	6200007510	S.COL LL1608-FH5N6S	B	151.7/63
L204	6200007600	S.COL LL1608-FH33NJ	T	166.5/52.7
L205	6200007600	S.COL LL1608-FH33NJ	T	168.2/52.7
L206	6200005250	S.COL LL1608-F5N6K	T	176/54.2
L207	6200007540	S.COL LL1608-FH10NJ	B	150/59.3
L208	6200005390	S.COL LL1608-F22NJ	T	181.2/52.7
L209	6200007470	S.COL LL1608-FH2N7S	B	145.1/64.3
L210	6200007680	S.COL LQW2BHN12NJ03L	B	198.5/64.5
L211	6200006981	S.COL ELJRE R10G-F	B	194.3/63.2
L212	6200007480	S.COL LL1608-FH3N3S	B	191/64.6
L213	6200007530	S.COL LL1608-FH8N2J	B	186.8/59
L214	6200007460	S.COL LL1608-FH2N2S	B	181.5/61.7
L215	6200007540	S.COL LL1608-FH10NJ	B	144.2/58.5
L216	6200002610	S.COL NL 252018T-R47J	T	191.5/39
L217	6200007470	S.COL LL1608-FH2N7S	B	181.3/59
L220	6200007440	S.COL LL1608-FH1N5S	T	199.3/60.7
L221	620010490	S.COL 458DB-1011=P3	T	173/47.1
L222	6200010490	S.COL 458DB-1011=P3	T	182.8/47.5
L233	6200004490	S.COL LL1608-F39NK	T	193.2/45.5
L234	6200004490	S.COL LL1608-F39NK	T	193.2/42.5
L401	6200008440	S.COL LQW2BHN8N2D03L	B	162/32.7
L402	6200006981	S.COL ELJRE R10G-F	B	157.5/31.5
L403	6200007570	S.COL LL1608-FH18NJ	B	153/31.5
L404	6200007700	S.COL LQW2BHN22NJ03L	T	173.7/16
L406	6200005721	S.COL ELJRE 33NG-F	T	190.5/15.2
L407	6200007730	S.COL LQW2BHN39NJ03L	T	186/14.2
L408	6200005721	S.COL ELJRE 33NG-F	T	190.5/12.5
L409	6200007510	S.COL LL1608-FH5N6S	B	148.7/29.5
L410	6200007580	S.COL LL1608-FH22NJ	B	144.5/31.7
L411	6200007670	S.COL LQW2BHN10NJ03L	B	199.3/32.3
L412	6200006981	S.COL ELJRE R10G-F	B	195/31.7
L413	6200007470	S.COL LL1608-FH2N7S	B	191/31.6
L414	6200007540	S.COL LL1608-FH10NJ	B	188/29.7
L416	6200007440	S.COL LL1608-FH1N5S	B	182.8/31.8
L419	6200005010	S.COL NL 252018T-100J	T	104.3/56.5
L420	6200007430	S.COL LL1608-FH1N2S	T	210.6/16.2
L421	6200005320	S.COL LL1608-F5N6S	T	196/9.2
L422	6190001561	S.COL CDRH5D18NP-101NC	B	25.3/57
R1	7030003860	S.RES ERJ3GE JPW V	T	73/39.7
R2	7030003860	S.RES ERJ3GE JPW V	T	76/38.2
R3	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	110.6/57.2
R4	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	T	113.3/59.6
R5	7310004590	S.TRI EVM-2WSX80 B13 (102)	T	31.7/15.2
R7	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	T	111.3/63.1
R8	7030003400	S.RES ERJ3GEYJ 471 V (470 Ω)	T	107.8/62.3
R10	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	T	98.5/56.5
R11	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	100.2/56.5
R17	7030007230	S.RES ERA3YED 102V	B	124/46
R18	7030007230	S.RES ERA3YED 102V	B	124/44.5
R19	7030007230	S.RES ERA3YED 102V	B	124/43
R20	7030007230	S.RES ERA3YED 102V	B	124/40.7
R21	7030007230	S.RES ERA3YED 102V	B	124.1/36.7
R22	7030007230	S.RES ERA3YED 102V	B	124/35.2

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

[IF UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
R23	7030007230	S.RES ERA3YED 102V	B	124/33.7
R24	7030007230	S.RES ERA3YED 102V	B	124/31
R25	7030007230	S.RES ERA3YED 102V	B	124/28.2
R26	7030007230	S.RES ERA3YED 102V	B	126.5/45.5
R27	7030007230	S.RES ERA3YED 102V	B	128/45.5
R28	7030007230	S.RES ERA3YED 102V	B	126.5/42.7
R29	7030007230	S.RES ERA3YED 102V	B	128/42.7
R30	7030007230	S.RES ERA3YED 102V	B	126.5/40
R31	7030007230	S.RES ERA3YED 102V	B	128/40
R32	7030007230	S.RES ERA3YED 102V	B	126.5/37.2
R33	7030007230	S.RES ERA3YED 102V	B	128/37.2
R34	7030007230	S.RES ERA3YED 102V	B	128/34.5
R35	7030007230	S.RES ERA3YED 102V	B	126.5/34.5
R36	7030007230	S.RES ERA3YED 102V	B	128/31.7
R37	7030007230	S.RES ERA3YED 102V	B	126.5/31.7
R38	7030007230	S.RES ERA3YED 102V	B	128/29
R39	7030007230	S.RES ERA3YED 102V	B	126.5/29
R40	7030007230	S.RES ERA3YED 102V	B	114.2/46.2
R41	7030007230	S.RES ERA3YED 102V	B	114.2/44.7
R42	7030007230	S.RES ERA3YED 102V	B	114.2/42
R43	7030007230	S.RES ERA3YED 102V	B	114.2/39.2
R44	7030007230	S.RES ERA3YED 102V	B	114.2/36.5
R45	7030007230	S.RES ERA3YED 102V	B	114.1/33.7
R46	7030007230	S.RES ERA3YED 102V	B	114.4/31.1
R47	7030007230	S.RES ERA3YED 102V	B	114.5/29.5
R48	7030007230	S.RES ERA3YED 102V	B	114.5/28
R49	7030007230	S.RES ERA3YED 102V	B	112.2/44
R50	7030007230	S.RES ERA3YED 102V	B	110.7/44
R51	7030007230	S.RES ERA3YED 102V	B	112.2/41.2
R52	7030007230	S.RES ERA3YED 102V	B	110.7/41.2
R53	7030007230	S.RES ERA3YED 102V	B	112.2/38.5
R54	7030007230	S.RES ERA3YED 102V	B	110.7/38.5
R55	7030007230	S.RES ERA3YED 102V	B	112.2/35.7
R56	7030007230	S.RES ERA3YED 102V	B	110.7/35.7
R57	7030007230	S.RES ERA3YED 102V	B	112.2/33
R58	7030007230	S.RES ERA3YED 102V	B	110.7/33
R59	7030007230	S.RES ERA3YED 102V	B	112.2/30.2
R60	7030007230	S.RES ERA3YED 102V	B	110.7/30.2
R61	7030007230	S.RES ERA3YED 102V	B	112.2/27.2
R62	7030007230	S.RES ERA3YED 102V	B	110.7/27.2
R63	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	T	43.5/29.7
R64	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	92/31.5
R65	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	94.2/44.2
R66	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	121.5/46.8
R67	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	107/57.5
R68	7030003370	S.RES ERJ3GEYJ 271 V (270 Ω)	T	107/55.7
R69	7030003360	S.RES ERJ3GEYJ 221 V (220 Ω)	T	104.8/62.3
R70	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	95.7/13.8
R71	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	97.5/23.2
R72	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	97.5/21.7
R73	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	101/21.7
R74	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	75.7/15.7
R75	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	77/56.6
R76	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	78.5/56.6
R77	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	80/56.6
R78	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	81.5/56.6
R79	7030007230	S.RES ERA3YED 102V	B	106.7/51
R80	7030007230	S.RES ERA3YED 102V	B	108.2/51
R81	7030007230	S.RES ERA3YED 102V	B	109.7/51.1
R82	7030007230	S.RES ERA3YED 102V	B	111.2/51.1
R83	7030007230	S.RES ERA3YED 102V	B	114.2/51
R84	7030007230	S.RES ERA3YED 102V	B	117.2/50.7
R85	7030007230	S.RES ERA3YED 102V	B	120.2/50.7
R86	7030007230	S.RES ERA3YED 102V	B	123.2/50.7
R87	7030007230	S.RES ERA3YED 102V	B	126.2/50.7
R88	7030007230	S.RES ERA3YED 102V	B	107.5/54.5
R89	7030007230	S.RES ERA3YED 102V	B	107.5/53
R90	7030007230	S.RES ERA3YED 102V	B	110.5/53
R91	7030007230	S.RES ERA3YED 102V	B	110.5/54.5
R92	7030007230	S.RES ERA3YED 102V	B	113.5/54.5
R93	7030007230	S.RES ERA3YED 102V	B	113.5/53
R94	7030007230	S.RES ERA3YED 102V	B	116.5/54.5
R95	7030007230	S.RES ERA3YED 102V	B	116.5/53
R96	7030007230	S.RES ERA3YED 102V	B	119.5/53
R97	7030007230	S.RES ERA3YED 102V	B	119.5/54.5
R98	7030007230	S.RES ERA3YED 102V	B	122.5/54.5
R99	7030007230	S.RES ERA3YED 102V	B	125.5/53
R100	7030007230	S.RES ERA3YED 102V	B	125.5/53
R101	7030007230	S.RES ERA3YED 102V	B	125.5/54.5
R102	7030003860	S.RES ERJ3GGE JPW V	T	74.5/39.7
R103	7030007230	S.RES ERA3YED 102V	B	91.7/51
R104	7030007230	S.RES ERA3YED 102V	B	93.2/51.1
R105	7030007230	S.RES ERA3YED 102V	B	94.7/51.1
R106	7030007230	S.RES ERA3YED 102V	B	96.2/51
R107	7030007230	S.RES ERA3YED 102V	B	99.2/51
R108	7030007230	S.RES ERA3YED 102V	B	102.2/51
R109	7030007230	S.RES ERA3YED 102V	B	105.2/51
R110	7030007230	S.RES ERA3YED 102V	B	92.5/53
R111	7030007230	S.RES ERA3YED 102V	B	92.5/54.5
R112	7030007230	S.RES ERA3YED 102V	B	95.5/54.5
R113	7030007230	S.RES ERA3YED 102V	B	95.5/54.5

[IF UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
R130	7030007230	S.RES ERA3YED 102V	B	95.5/53
R131	7030007230	S.RES ERA3YED 102V	B	98.5/54.5
R132	7030007230	S.RES ERA3YED 102V	B	98.5/53
R133	7030007230	S.RES ERA3YED 102V	B	101.5/53
R134	7030007230	S.RES ERA3YED 102V	B	101.5/54.5
R135	7030007230	S.RES ERA3YED 102V	B	104.5/54.5
R136	7030007230	S.RES ERA3YED 102V	B	104.5/53
R137	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	89/46.7
R138	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	89/44.2
R139	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	27.7/40.5
R140	7030003610	S.RES ERJ3GEYJ 273 V (27 kΩ)	B	27.7/35
R141	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	27.7/36.4
R142	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	101/23.2
R143	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	106.8/18
R144	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	89/42.2
R145	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	63.2/44
R146	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	52/47.7
R147	7030003410	S.RES ERJ3GEYJ 561 V (560 Ω)	B	89.7/60.7
R148	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	114/19.2
R149	7310004530	S.TRI EVM-2WSX80 B14 (103)	T	114.2/21.5
R150	7030003360	S.RES ERJ3GEYJ 221 V (220 Ω)	B	64.6/44
R151	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	T	81.3/12
R152	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	134.5/39.2
R201	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	138.5/47
R202	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	135.2/47
R203	7030003450	S.RES ERJ3GEYJ 122 V (1.2 kΩ)	T	138.5/49.7
R204	7030003450	S.RES ERJ3GEYJ 122 V (1.2 kΩ)	T	135.2/49.7
R205	7310004590	S.TRI EVM-2WSX80 B13 (102)	T	144.2/53.2
R206	7310004590	S.TRI EVM-2WSX80 B13 (102)	T	141.2/53.2
R207	7310004590	S.TRI EVM-2WSX80 B13 (102)	T	135.2/53.2
R208	7310004590	S.TRI EVM-2WSX80 B13 (102)	T	138.2/53.2
R209	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	140/49.7
R210	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	136.7/49.7
R211	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	140/47
R212	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	136.7/47
R213	7030003450	S.RES ERJ3GEYJ 122 V (1.2 kΩ)	T	141.7/49.7
R214	7030003450	S.RES ERJ3GEYJ 122 V (1.2 kΩ)	T	143.5/49.7
R215	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	T	141.7/46.7
R216	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	T	143.5/46.7
R217	7030003580	S.RES ERJ3GEYJ 382 V (6.8 kΩ)	B	160.2/62.5
R218	7030003280	S.RES ERJ3GEYJ 470 V (47 Ω)	B	159.2/65
R219	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	156.2/59.5
R220	7030003390	S.RES ERJ3GEYJ 391 V (390 Ω)	B	159.7/49.7
R221	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	158.2/49.7
R222	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	166.7/64.5
R223	7030003360	S.RES ERJ3GEYJ 221 V (220 Ω)	B	153.6/59.5
R224	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	153.5/65
R225	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	B	153.7/62.2
R226	7030003620	S.RES ERJ3GEYJ 333 V (33 kΩ)	T	179.1/56.1
R227	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	139.5/43.2
R228	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	139.5/40.5
R229	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	166.5/50
R230	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	199.7/53.2
R231	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	171/63.2
R232	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	199/41.7
R233	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	T	200.5/41.7
R234	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	202/42.5
R235	7030003200	S.RES ERJ3GEYJ 100 V (10 Ω)	T	205.7/42.5
R236	7030003400	S.RES ERJ3GEYJ 471 V (470 Ω)	T	183.2/41.7
R237	7030003290	S.RES ERJ3GEYJ 560 V (56 Ω)	T	187.7/36.2
R238	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	157.6/38.1
R239	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	159/38.1
R240	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	163.6/37.3
R241	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	207/37
R242	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	204/37
R243	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	201/37
R244	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	155.3/41.1
R245	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	160.8/38.1
R246	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	163.8/39.7
R247	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	208.5/38.5
R248	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	205.5/37
R249	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	202.5/37
R250	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	190/50.7
R251	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	155/55.7
R252	7310004530	S.TRI EVM-2WSX80 B14 (103)	T	141.5/41
R253	7030003400	S.RES ERJ3GEYJ 471 V (470 Ω)	T	136/39.2
R254	7030003390	S.RES ERJ3GEYJ 391 V (390 Ω)	B	202.7/53.2
R255	7030003620	S.RES ERJ3GEYJ 333 V (33 kΩ)	B	148.5/62.1
R256	7030003620	S.RES ERJ3GEYJ 333 V (33 kΩ)	B	148.5/58.5
R257	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	147.1/58.5
R258	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	148.5/65
R259	7030003360	S.RES ERJ3GEYJ 221 V (220 Ω)	T	181.8/54.7
R260	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	203.7/64.2
R261	7030003540	S.RES ERJ3GEYJ 682 V (6.8 kΩ)	B	197/61.2
R262	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	195.8/58.5
R263	7030003280	S.RES ERJ3GEYJ 470 V (47 Ω)	B	196.5/64
R264	7030003360	S.RES ERJ3GEYJ 221 V (220 Ω)	B	191/57.5
R265	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	B	192.1/62.1
R266	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	188.2/64.6
R267	7030003620	S.RES ERJ3GEYJ 333 V (33 kΩ)	B	186.8/61.7

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

S.=Surface mount



**[IF UNIT]**

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
R277	7030003620	S.RES ERJ3GEYJ 333 V (33 kΩ)	B	185.5/59
R278	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	182.8/64.5
R279	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	182.7/69
R280	7030003360	S.RES ERJ3GEYJ 221 V (220 Ω)	T	191.7/45.5
R281	7030003360	S.RES ERJ3GEYJ 221 V (220 Ω)	T	191.7/42.5
R283	7030003860	S.RES ERJ3GE JPW V	T	192.3/49.7
R284	7030003860	S.RES ERJ3GE JPW V	T	160.5/42
R285	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	183.2/39
R286	7030003290	S.RES ERJ3GEYJ 560 V (56 Ω)	B	194/47
R287	7030003860	S.RES ERJ3GE JPW V	T	191.2/55
R302	7030003860	S.RES ERJ3GE JPW V	T	77.3/38.2
R303	7030003860	S.RES ERJ3GE JPW V	T	134.2/44.1
R304	7030003860	S.RES ERJ3GE JPW V	T	133/39.2
R305	7030003860	S.RES ERJ3GE JPW V	T	209.2/19
R402	7030003540	S.RES ERJ3GEYJ 682 V (6.8 kΩ)	B	160.2/29.5
R403	7030003280	S.RES ERJ3GEYJ 470 V (47 Ω)	B	159.5/32.2
R404	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	159.3/26.7
R405	7030003390	S.RES ERJ3GEYJ 391 V (390 Ω)	B	158.5/18.7
R406	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	B	157/18.7
R407	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	166.7/32.5
R408	7030003360	S.RES ERJ3GEYJ 221 V (220 Ω)	B	153.9/26.7
R409	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	153/33
R410	7030003720	S.RES ERJ3GEYJ 224 V (220 kΩ)	B	153.7/29.5
R411	7030003290	S.RES ERJ3GEYJ 560 V (56 Ω)	B	150.5/18.5
R412	7030003490	S.RES ERJ3GEYJ 272 V (2.7 kΩ)	T	149.6/18.2
R413	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	147.5/17.5
R415	7030003390	S.RES ERJ3GEYJ 391 V (390 Ω)	B	201.7/21.5
R416	7030003530	S.RES ERJ3GEYJ 562 V (5.6 kΩ)	B	200.2/21.5
R417	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	171.5/29.5
R420	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	B	149.5/32.5
R421	7030003400	S.RES ERJ3GEYJ 471 V (470 Ω)	T	192/15.2
R422	7030003400	S.RES ERJ3GEYJ 471 V (470 Ω)	T	192/12.5
R423	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	199.5/11.5
R424	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	T	201/11.5
R425	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	202.5/11.5
R426	7030003200	S.RES ERJ3GEYJ 100 V (10 Ω)	T	205.5/11.5
R427	7030003620	S.RES ERJ3GEYJ 333 V (33 kΩ)	B	148.1/26.7
R428	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	156.5/5.8
R429	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	158/5.7
R430	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	162.5/5.7
R431	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	157/10
R432	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	205.2/32.2
R433	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	203.2/32.7
R434	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	201.7/31.2
R435	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	155/5.8
R436	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	159.5/5.7
R437	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	161/5.7
R438	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	157/11.5
R439	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	205.2/33.7
R440	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	204/30.7
R441	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	200.2/31.2
R450	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	144.5/33.2
R451	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	146.7/26.7
R452	7030003290	S.RES ERJ3GEYJ 560 V (56 Ω)	B	143.2/29.5
R453	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	204/33.2
R454	7030003540	S.RES ERJ3GEYJ 682 V (6.8 kΩ)	B	198/29.5
R455	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	197/26.7
R456	7030003280	S.RES ERJ3GEYJ 470 V (47 Ω)	B	197/32.5
R457	7030003360	S.RES ERJ3GEYJ 221 V (220 Ω)	B	191.5/26.7
R458	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	B	191.5/29.5
R459	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	191/33
R460	7030003290	S.RES ERJ3GEYJ 560 V (56 Ω)	B	194/15.7
R461	7030003620	S.RES ERJ3GEYJ 333 V (33 kΩ)	B	187.5/32.5
R462	7030003620	S.RES ERJ3GEYJ 333 V (33 kΩ)	B	188/27
R463	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	182.8/33.2
R464	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	185.2/27
R465	7030003290	S.RES ERJ3GEYJ 560 V (56 Ω)	B	182.6/27
R466	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	192.7/25
R467	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	153.7/23.1
R468	7030003860	S.RES ERJ3GE JPW V	T	192.7/20.5
R469	7030003860	S.RES ERJ3GE JPW V	T	165/17.5
R471	7030003860	S.RES ERJ3GE JPW V	T	204/11.5
R500	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	60/10.7
R501	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	61.5/10.7
R502	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	55/33
R503	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	53.5/33
R504	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	14/10.6
R505	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	15.3/21.8
R506	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	73.5/13.2
R507	7030003860	S.RES ERJ3GE JPW V	T	58/56.6
R508	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	51.5/33
R509	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	50/33
R510	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	48.5/33
R511	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	47/33
R512	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	15.3/27
R513	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	15.3/19.3
R514	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	15.3/15.3
R515	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	87.7/18.7
R516	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	15.3/16.7
R517	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	65.5/56.6

**[IF UNIT]**

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
R518	7030003450	S.RES ERJ3GEYJ 122 V (1.2 kΩ)	T	62.5/56.6
R519	7030003860	S.RES ERJ3GE JPW V	T	83.5/20.2
R520	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	29.5/13.3
R521	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	94.7/42.8
R522	7030003860	S.RES ERJ3GE JPW V	T	43/23
R523	7030003860	S.RES ERJ3GE JPW V	T	114.8/59.6
R524	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	180.2/37.5
R525	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	49.2/6
R526	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	47.7/6
R527	7540000280	S.ASB ERZVF2M220	B	16.3/60.1
R528	7030003860	S.RES ERJ3GE JPW V	B	34.8/10.8
R529	7030001110	S.RES MCR50JZHJ 68 Ω (680)	B	46.5/54.7
R530	7030001110	S.RES MCR50JZHJ 68 Ω (680)	B	56.7/54.7
R531	7030003290	S.RES ERJ3GEYJ 560 V (56 Ω)	B	148.7/49.3
R532	7030003300	S.RES ERJ3GEYJ 680 V (68 Ω)	T	102.5/13.8
R533	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	75.7/12.1
R534	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	79.8/12
R535	7310004610	S.TRI EVM-2WSX80 B15 (104)	T	118.2/57.1
R536	7510001660	S.TMR NTCG16 4LH 473KT	T	124.1/60.2
R537	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	T	122.6/57.3
R538	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	T	125.7/60.2
R539	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	124.1/57.3
R540	7030003410	S.RES ERJ3GEYJ 561 V (560 Ω)	B	76.8/45.5
R541	7030003410	S.RES ERJ3GEYJ 561 V (560 Ω)	B	82.9/36.1
R542	7030003370	S.RES ERJ3GEYJ 271 V (270 Ω)	B	79.6/36.1
R543	7030003860	S.RES ERJ3GE JPW V	T	71.5/39.7
R545	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	118.5/13
R546	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	124.5/13
R548	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	58.3/18.8
R549	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	59.7/18.8
R550	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	56.7/21.8
R551	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	57.8/25
R552	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	50.3/27.5
R553	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	55.3/15.5
R554	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	54/15.5
R555	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	14/13.5
R556	7030003860	S.RES ERJ3GE JPW V	B	27.7/37.9
R557	7030003860	S.RES ERJ3GE JPW V	B	42.6/36.8
R560	7030003860	S.RES ERJ3GE JPW V	B	39.1/42.7
R561	7030003860	S.RES ERJ3GE JPW V	B	39.8/44.8
R562	7030003860	S.RES ERJ3GE JPW V	B	33/35.5
R563	7030003860	S.RES ERJ3GE JPW V	B	39.8/46.3
R565	7030003860	S.RES ERJ3GE JPW V	T	130.9/19.8
R566	7030003370	S.RES ERJ3GEYJ 271 V (270 Ω)	B	75.5/45.4
C1	4510008620	S.ELE 20SVP150M	T	24.5/27.5
C2	4030004760	S.CER C2012 JF 1H 104Z-T	B	25.3/62.1
C3	4030006890	S.CER C1608 JF 1H 103Z-T	T	21.3/55.7
C4	4030011600	S.CER C1608 JB 1E 104K-T	T	29.5/51.5
C6	4030006860	S.CER C1608 JB 1H 102K-T	T	114.1/57.2
C7	4030007090	S.CER C1608 CH 1H 470J-T	T	111.3/61.7
C8	4030007090	S.CER C1608 CH 1H 470J-T	T	109.2/62.3
C9	4030007010	S.CER C1608 CH 1H 100D-T	T	107.8/59.6
C10	4030011600	S.CER C1608 JB 1E 104K-T	T	103.2/59.6
C11	4030007100	S.CER C1608 CH 1H 560J-T	T	101.6/62.3
C12	4030007100	S.CER C1608 CH 1H 560J-T	T	99.6/62.3
C13	4030006860	S.CER C1608 JB 1H 102K-T	T	110.6/57.7
C14	4030006860	S.CER C1608 JB 1H 102K-T	T	105.1/54.2
C15	4510008620	S.ELE 20SVP150M	T	24.5/38.3
C16	4030004760	S.CER C2012 JF 1H 104Z-T	B	22.6/56.6
C29	4030007010	S.CER C1608 CH 1H 100D-T	B	133.3/28.3
C31	4030007050	S.CER C1608 CH 1H 220J-T	B	134.3/32.5
C32	4030006940	S.CER C1608 CH 1H 030C-T	B	134.3/33.9
C34	4030007070	S.CER C1608 CH 1H 330J-T	B	134.2/35.5
C35	4030006940	S.CER C1608 CH 1H 030C-T	B	134.2/37.1
C37	4030007010	S.CER C1608 CH 1H 100D-T	B	114/25.1
C39	4030007050	S.CER C1608 CH 1H 220J-T	B	118.3/23.6
C40	4030006940	S.CER C1608 CH 1H 030C-T	B	116.8/23.6
C42	4030007070	S.CER C1608 CH 1H 330J-T	B	125.8/23.5
C43	4030006940	S.CER C1608 CH 1H 030C-T	B	127.2/23.5
C45	4030011600	S.CER C1608 JB 1E 104K-T	T	36/55.2
C46	4030011600	S.CER C1608 JB 1E 104K-T	T	40/55.2
C47	4030011600	S.CER C1608 JB 1E 104K-T	T	45.5/55.2
C48	4550006250	S.TAN TEESVA 1A 106M8R	T	38/54
C49	4550006760	S.TAN TEESVB21A336M8R	T	42.5/53.7
C50	4550006760	S.TAN TEESVB21A336M8R	T	48.2/53.7
C51	4030011600	S.CER C1608 JB 1E 104K-T	T	43.5/28.2
C53	4030011600	S.CER C1608 JB 1E 104K-T	T	90/43
C54	4030011600	S.CER C1608 JB 1E 104K-T	T	90/41.5
C55	4030011600	S.CER C1608 JB 1E 104K-T	T	80/35.7
C56	4030011600	S.CER C1608 JB 1E 104K-T	T	81.5/35.7
C57	4030011600	S.CER C1608 JB 1E 104K-T	T	75.1/42.5
C58	4030011600	S.CER C1608 JB 1E 104K-T	T	75.1/44
C59	4030011600	S.CER C1608 JB 1E 104K-T	T	103.2/23
C60	4030011600	S.CER C1608 JB 1E 104K-T	T	109.2/23
C61	4030011600	S.CER C1608 JB 1E 104K-T	T	110.7/23
C62	4030011600	S.CER C1608 JB 1E 104K-T	T	123.2/39.7
C63	4030011600	S.CER C1608 JB 1E 104K-T	T	119.3/46.7
C64	4030011600	S.CER C1608 JB 1E 104K-T	T	122.8/46.8

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

[IF UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
C65	4030011600	S.CER C1608 JB 1E 104K-T	T	103.2/50.2
C66	4030011600	S.CER C1608 JB 1E 104K-T	T	93.4/46.2
C67	4030011600	S.CER C1608 JB 1E 104K-T	T	106.2/23
C68	4030011600	S.CER C1608 JB 1E 104K-T	T	90.7/39
C69	4030011600	S.CER C1608 JB 1E 104K-T	T	121/29
C70	4030011600	S.CER C1608 JB 1E 104K-T	T	121/34
C71	4030011600	S.CER C1608 JB 1E 104K-T	T	119.7/42.2
C72	4030011600	S.CER C1608 JB 1E 104K-T	T	105.8/51
C73	4030011600	S.CER C1608 JB 1E 104K-T	T	93/34
C76	4030006860	S.CER C1608 JB 1H 102K-T	T	106.3/62.3
C80	4030011600	S.CER C1608 JB 1E 104K-T	T	67.2/25.2
C81	4030011600	S.CER C1608 JB 1E 104K-T	T	67.2/30
C82	4030011600	S.CER C1608 JB 1E 104K-T	T	73.5/20
C83	4030011600	S.CER C1608 JB 1E 104K-T	T	82.2/26
C120	4030011600	S.CER C1608 JB 1E 104K-T	T	79.5/49.5
C121	4030011600	S.CER C1608 JB 1E 104K-T	T	88.2/50
C122	4030011600	S.CER C1608 JB 1E 104K-T	B	130/51.5
C123	4030007010	S.CER C1608 CH 1H 100D-T	B	105.7/57.7
C125	4030006940	S.CER C1608 CH 1H 030C-T	B	99.7/61.2
C126	4030007050	S.CER C1608 CH 1H 220J-T	B	98.2/61.2
C128	4030006940	S.CER C1608 CH 1H 030C-T	B	96.7/61.2
C129	4030007070	S.CER C1608 CH 1H 330J-T	B	95.2/61.2
C131	4030011600	S.CER C1608 JB 1E 104K-T	B	89.5/54
C132	4030011600	S.CER C1608 JB 1E 104K-T	B	79.2/49.5
C133	4030011600	S.CER C1608 JB 1E 104K-T	B	66.2/49.5
C134	4030007070	S.CER C1608 CH 1H 330J-T	B	39.1/39.9
C135	4610001930	S.TRI TZC3P300A110R00	T	38.2/40.2
C136	4030006900	S.CER C1608 JB 1H 103K-T	B	27.7/39.3
C139	4030011600	S.CER C1608 JB 1E 104K-T	B	42.5/49.5
C140	4030011600	S.CER C1608 JB 1E 104K-T	B	34/49.5
C141	4030007010	S.CER C1608 CH 1H 100D-T	B	63.2/40.8
C142	4030007090	S.CER C1608 CH 1H 470J-T	B	52/45.1
C143	4030011600	S.CER C1608 JB 1E 104K-T	B	54.5/49.5
C144	4550006250	S.TAN TEESVA 1A 106M8R	T	105.1/17.6
C145	4030011600	S.CER C1608 JB 1E 104K-T	T	109.7/20.1
C146	4030011600	S.CER C1608 JB 1E 104K-T	T	124.2/46.8
C147	4030011600	S.CER C1608 JB 1E 104K-T	B	31.5/11.1
C148	4030007150	S.CER C1608 CH 1H 151J-T	B	64.6/40.8
C150	4030006860	S.CER C1608 JB 1H 102K-T	B	172.5/18.7
C199	4030007010	S.CER C1608 CH 1H 100D-T	T	179.5/51.6
C200	4030007130	S.CER C1608 CH 1H 101J-T	T	165.5/46.2
C201	4030009530	S.CER C1608 CH 1H 030B-T	T	189.7/46
C202	4030009530	S.CER C1608 CH 1H 030B-T	T	196/42.5
C203	4030007010	S.CER C1608 CH 1H 100D-T	T	176/52.8
C204	4030006850	S.CER C1608 JB 1H 471K-T	B	157.5/59.5
C205	4030011600	S.CER C1608 JB 1E 104K-T	B	158.8/59.5
C206	4550006390	S.TAN TEESVA 1C 335M8L	B	159.7/45.8
C207	4030006900	S.CER C1608 JB 1H 103K-T	B	156.7/49.7
C208	4030011600	S.CER C1608 JB 1E 104K-T	B	161.2/49.7
C209	4030007060	S.CER C1608 CH 1H 270J-T	B	165.2/64.5
C210	4030007030	S.CER C1608 CH 1H 150J-T	B	156.7/62.2
C211	4030007130	S.CER C1608 CH 1H 101J-T	B	163.7/64.5
C212	4030009500	S.CER C1608 CH 1H 0R5B-T	B	155.2/62.2
C213	4550006350	S.TAN TEESVB2 1A 226M8L	T	171.2/58.5
C214	4030006860	S.CER C1608 JB 1H 102K-T	T	175/63.2
C215	4030007010	S.CER C1608 CH 1H 100D-T	B	154.8/65
C216	4030011600	S.CER C1608 JB 1E 104K-T	T	140.1/57
C217	4030007050	S.CER C1608 CH 1H 220J-T	T	168.2/55.5
C218	4030009920	S.CER C1608 CH 1H 050B-T	B	144.2/61.2
C219	4030007130	S.CER C1608 CH 1H 101J-T	B	148.7/52
C220	4030007050	S.CER C1608 CH 1H 220J-T	T	153/55.2
C221	4030007130	S.CER C1608 CH 1H 101J-T	T	153/53.7
C222	4030011600	S.CER C1608 JB 1E 104K-T	T	158.7/42
C223	4030011600	S.CER C1608 JB 1E 104K-T	T	156.7/42
C225	4030011600	S.CER C1608 JB 1E 104K-T	T	166.5/55.5
C226	4030006860	S.CER C1608 JB 1H 102K-T	T	161.5/55.7
C227	4030017810	S.CER C1608 CH 1H 102J-T	T	160.1/55.7
C228	4030011600	S.CER C1608 JB 1E 104K-T	T	164.7/52.7
C229	4030009510	S.CER C1608 CH 1H 010B-T	T	164.7/50
C230	4030009510	S.CER C1608 CH 1H 010B-T	T	168.2/50
C231	4030007130	S.CER C1608 CH 1H 101J-T	T	165.5/47.7
C232	4030007130	S.CER C1608 CH 1H 101J-T	T	182.6/52.7
C233	4030006860	S.CER C1608 JB 1H 102K-T	T	200.2/58.5
C234	4030006860	S.CER C1608 JB 1H 102K-T	T	195.2/39.2
C235	4030011600	S.CER C1608 JB 1E 104K-T	T	143.1/57
C236	4030012660	S.CER C1608 JB 1E 683K-T	B	198.2/53.3
C237	4550006390	S.TAN TEESVA 1C 335M8L	B	201.2/50.7
C238	4030006860	S.CER C1608 JB 1H 102K-T	B	204.2/53.2
C239	4030011600	S.CER C1608 JB 1E 104K-T	B	201.2/53.2
C240	4030006860	S.CER C1608 JB 1H 102K-T	B	186.8/64.6
C241	4550006350	S.TAN TEESVB2 1A 226M8L	T	174.7/58.5
C242	4030006860	S.CER C1608 JB 1H 102K-T	B	152/65
C247	4030006900	S.CER C1608 JB 1H 103K-T	T	192.2/51.2
C248	4030006900	S.CER C1608 JB 1H 103K-T	T	192.7/43.1
C249	4030007170	S.CER C1608 CH 1H 221J-T	T	197.5/42.5
C250	4030007170	S.CER C1608 CH 1H 221J-T	T	189.7/47.3
C251	4030006900	S.CER C1608 JB 1H 103K-T	T	207.2/42.5
C252	4030009350	S.CER C1608 CH 1H 3R5B-T	T	204.2/42.5
C254	4030006900	S.CER C1608 JB 1H 103K-T	T	209.2/48
C255	4030006900	S.CER C1608 JB 1H 103K-T	T	207.7/58.5

[IF UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
C256	4030006900	S.CER C1608 JB 1H 103K-T	T	209.2/49.7
C257	4030006900	S.CER C1608 JB 1H 103K-T	T	209.2/52.2
C258	4030006900	S.CER C1608 JB 1H 103K-T	T	209.2/58.5
C259	4030007090	S.CER C1608 CH 1H 470J-T	T	210.3/53.6
C260	4030011600	S.CER C1608 JB 1E 104K-T	T	180.2/40.5
C261	4550006250	S.TAN TEESVA 1A 106M8R	T	167/40
C262	4030011600	S.CER C1608 JB 1E 104K-T	T	184/36.7
C263	4030006900	S.CER C1608 JB 1H 103K-T	T	181.7/40.5
C266	4030011600	S.CER C1608 JB 1E 104K-T	T	50.2/38.2
C267	4030011600	S.CER C1608 JB 1E 104K-T	T	50.2/41.2
C268	4510006450	S.TAN TEESVA2 0J 475M8R	T	52.2/39.5
C269	4030011600	S.CER C1608 JB 1E 104K-T	T	50.2/44.5
C270	4030011600	S.CER C1608 JB 1E 104K-T	T	50.2/47.2
C272	4030009520	S.CER C1608 CH 1H 020B-T	B	149.8/62.1
C273	4030011600	S.CER C1608 JB 1E 104K-T	T	188.5/50.7
C274	4030011600	S.CER C1608 JB 1E 104K-T	T	156.5/55.7
C275	4030007030	S.CER C1608 CH 1H 150J-T	B	154.9/59.5
C276	4030006850	S.CER C1608 JB 1H 471K-T	B	157.2/65.6
C277	4550006350	S.TAN TEESVB2 1A 226M8L	T	53/45.7
C278	4610001590	S.TRI TZC3R100A110R00	B	162.9/60.2
C279	4030009520	S.CER C1608 CH 1H 020B-T	B	160.3/59.5
C280	4030007010	S.CER C1608 CH 1H 100D-T	B	150/65
C281	4030007130	S.CER C1608 CH 1H 101J-T	B	145.7/58.5
C282	4030009520	S.CER C1608 CH 1H 020B-T	B	143.7/64.3
C283	4030007130	S.CER C1608 CH 1H 101J-T	B	142.8/58.5
C284	4030007010	S.CER C1608 CH 1H 100D-T	B	202.4/64.2
C285	4030007050	S.CER C1608 CH 1H 220J-T	B	200.9/64.2
C286	4610001590	S.TRI TZC3R100A110R00	B	199.8/60.1
C287	4030009510	S.CER C1608 CH 1H 010B-T	B	187.2/58.5
C288	4030006850	S.CER C1608 JB 1H 471K-T	B	194.5/58.5
C289	4030011600	S.CER C1608 JB 1E 104K-T	B	193.1/58.5
C290	4030006850	S.CER C1608 JB 1H 471K-T	B	194.3/64.6
C291	4030011770	S.CER C1608 CH 1H 060B-T	B	193.5/61.2
C292	4030011770	S.CER C1608 CH 1H 060B-T	B	191/58.8
C293	4030009500	S.CER C1608 CH 1H 0R5B-T	B	191.3/60.2
C294	4030007030	S.CER C1608 CH 1H 150J-T	B	192.3/64.8
C295	4030009510	S.CER C1608 CH 1H 010B-T	B	188.2/61.7
C296	4030009510	S.CER C1608 CH 1H 010B-T	B	188.2/59
C297	4030007040	S.CER C1608 CH 1H 180J-T	B	181.5/64.5
C298	4030007130	S.CER C1608 CH 1H 101J-T	B	184.1/59
C299	4030009520	S.CER C1608 CH 1H 020B-T	B	180/61.7
C300	4030009920	S.CER C1608 CH 1H 050B-T	B	180/59
C301	4030007120	S.CER C1608 CH 1H 820J-T	T	192.5/36.2
C302	4030007120	S.CER C1608 CH 1H 820J-T	T	189.2/36.2
C303	4030006860	S.CER C1608 JB 1H 102K-T	T	188.5/38.2
C304	4030007130	S.CER C1608 CH 1H 101J-T	B	194/49.6
C306	4030004760	S.CER C2012 JF 1H 104Z-T	T	44.5/45.7
C307	4030007130	S.CER C1608 CH 1H 101J-T	B	146.5/64.1
C308	4030007130	S.CER C1608 CH 1H 101J-T	B	185/64.5
C403	4030006850	S.CER C1608 JB 1H 471K-T	B	157.5/33
C404	4030006850	S.CER C1608 JB 1H 471K-T	B	158/26.7
C405	4030011600	S.CER C1608 JB 1E 104K-T	B	156.6/26.7
C406	4550006390	S.TAN TEESVA 1C 335M8L	B	157.2/15.5
C407	4030006900	S.CER C1608 JB 1H 103K-T	B	155.5/18.7
C408	4030011600	S.CER C1608 JB 1E 104K-T	B	160/18.7
C409	4030009920	S.CER C1608 CH 1H 050B-T	B	165.2/32.5
C410	4030011770	S.CER C1608 CH 1H 060B-T	B	156.7/29.5
C411	4030011770	S.CER C1608 CH 1H 060B-T	B	155.2/26.7
C412	4030009500	S.CER C1608 CH 1H 0R5B-T	B	155.2/29.5
C413	4550006350	S.TAN TEESVB2 1A 226M8L	T	171/24.7
C414	4030006860	S.CER C1608 JB 1H 102K-T	T	175.5/29.5
C415	4030007010	S.CER C1608 CH 1H 100D-T	B	155.2/32.2
C417	4030011600	S.CER C1608 JB 1E 104K-T	T	158/25.2
C418	4030007050	S.CER C1608 CH 1H 220J-T	T	147.5/19
C420	4030007130	S.CER C1608 CH 1H 101J-T	B	150.5/21.1
C421	4030007050	S.CER C1608 CH 1H 220J-T	T	149/20.3
C422	4030007130	S.CER C1608 CH 1H 101J-T	T	149/21.7
C423	4030011600	S.CER C1608 JB 1E 104K-T	T	159.2/10.7
C425	4030011600	S.CER C1608 JB 1E 104K-T	T	162.7/12.7
C426	4030011600	S.CER C1608 JB 1E 104K-T	T	166.5/17.5
C427	4030011600	S.CER C1608 JB 1E 104K-T	T	164.7/21
C428	4030006860	S.CER C1608 JB 1H 102K-T	T	162/24
C429	4030017810	S.CER C1608 CH 1H 102J-T	T	161/26
C430	4030007030	S.CER C1608 CH 1H 150J-T	T	175.5/15.7
C431	4030007030	S.CER C1608 CH 1H 150J-T	T	174.5/18.5
C432	4030006860	S.CER C1608 JB 1H 102K-T	T	200/28.5
C433	4030006860	S.CER C1608 JB 1H 102K-T	T	194.5/36.2
C434	4030011600	S.CER C1608 JB 1E 104K-T	T	198/28.2
C435	4030012660	S.CER C1608 JB 1E 683K-T	B	198.5/21.3
C436	4550006390	S.TAN TEESVA 1C 335M8L	B	200.2/19
C437	4030006860	S.CER C1608 JB 1H 102K-T	B	203.2/21.2
C438	4030011600	S.CER C1608 JB 1E 104K-T	B	204.7/21.2
C439	4030006860	S.CER C1608 JB 1H 102K-T	B	189/32.5
C440	4550006350	S.TAN TEESVB2 1A 226M8L	T	175.5/24.7
C441	4030006860	S.CER C1608 JB 1H 102K-T	B	151/32.5
C445	4030006900	S.CER C1608 JB 1H 103K-T	T	192/18.2
C447				



[IF UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
C451	4030007090	S.CER C1608 CH 1H 470J-T	T	197.5/10.8
C452	4030009350	S.CER C1608 CH 1H 3R5B-T	T	207.7/12.2
C453	4030007010	S.CER C1608 CH 1H 100D-T	B	150.2/29.5
C454	4030006900	S.CER C1608 JB 1H 103K-T	T	207.7/10.7
C455	4030006900	S.CER C1608 JB 1H 103K-T	T	210/21.2
C456	4030006900	S.CER C1608 JB 1H 103K-T	T	210/23
C457	4030006900	S.CER C1608 JB 1H 103K-T	T	210/24.5
C458	4030006900	S.CER C1608 JB 1H 103K-T	T	206.2/27.2
C459	4030007090	S.CER C1608 CH 1H 470J-T	T	209.2/16.2
C460	4030007090	S.CER C1608 CH 1H 470J-T	B	148/32.5
C461	4030007130	S.CER C1608 CH 1H 101J-T	B	145.3/26.7
C462	4030011600	S.CER C1608 JB 1E 104K-T	T	61.7/38.2
C463	4030011600	S.CER C1608 JB 1E 104K-T	T	61.7/41
C464	4510006450	S.TAN TEESVA2 0J 475M8R	T	63.7/39.5
C465	4030011600	S.CER C1608 JB 1E 104K-T	T	61.5/44.5
C466	4030011600	S.CER C1608 JB 1E 104K-T	T	61.5/47.2
C467	4550006350	S.TAN TEESV2 1A 226M8L	T	64.2/46
C468	4030007010	S.CER C1608 CH 1H 100D-T	B	163.7/32.5
C469	4610001590	S.TRI T2C3R100A110R00	B	163.5/28.2
C470	4030009510	S.CER C1608 CH 1H 010B-T	B	144.7/29.5
C471	4030007130	S.CER C1608 CH 1H 101J-T	B	143.2/26.7
C472	4030009920	S.CER C1608 CH 1H 050B-T	B	202.5/32.5
C473	4030007010	S.CER C1608 CH 1H 100D-T	B	201/32.5
C474	4610001590	S.TRI T2C3R100A110R00	B	201/28.2
C475	4030006850	S.CER C1608 JB 1H 471K-T	B	195/33.2
C476	4030011770	S.CER C1608 CH 1H 060B-T	B	194.5/29.5
C477	4030011770	S.CER C1608 CH 1H 060B-T	B	192.8/26.7
C478	4030006850	S.CER C1608 JB 1H 471K-T	B	195.6/26.7
C479	4030011600	S.CER C1608 JB 1E 104K-T	B	194.2/26.7
C480	4030009500	S.CER C1608 CH 1H 0R5B-T	B	193/29.5
C481	4030007010	S.CER C1608 CH 1H 100D-T	B	193/32.3
C482	4030009520	S.CER C1608 CH 1H 020B-T	B	182.8/30.5
C483	4030007130	S.CER C1608 CH 1H 101J-T	B	194/18.5
C484	4030009520	S.CER C1608 CH 1H 020B-T	B	189.3/29.8
C485	4030007040	S.CER C1608 CH 1H 180J-T	B	186.1/32.5
C486	4030007130	S.CER C1608 CH 1H 101J-T	B	186.6/27
C487	4030009520	S.CER C1608 CH 1H 020B-T	B	182.8/29.1
C488	4030007130	S.CER C1608 CH 1H 101J-T	B	181.1/27
C489	4030009520	S.CER C1608 CH 1H 020B-T	B	198.5/26.7
C490	4030011600	S.CER C1608 JB 1E 104K-T	T	191.2/25
C491	4030011600	S.CER C1608 JB 1E 104K-T	T	152.3/23.1
C500	4030007050	S.CER C1608 CH 1H 220J-T	T	41.5/23
C501	4030007060	S.CER C1608 CH 1H 270J-T	T	41.5/20
C502	4030006880	S.CER C1608 JB 1H 472K-T	T	43.7/34.7
C503	4030007010	S.CER C1608 CH 1H 100D-T	T	89.3/20.3
C504	4030009520	S.CER C1608 CH 1H 020B-T	T	196/6.6
C505	4030007130	S.CER C1608 CH 1H 101J-T	T	171.2/15
C506	4030007130	S.CER C1608 CH 1H 101J-T	T	171.2/18
C508	4030004760	S.CER C2012 JF 1H 104Z-T	T	55.7/45.7
C509	4030009510	S.CER C1608 CH 1H 010B-T	T	212.1/16.2
C511	4030011600	S.CER C1608 JB 1E 104K-T	T	44.7/38.7
C512	4030011600	S.CER C1608 JB 1E 104K-T	T	56/38.7
C513	4030006900	S.CER C1608 JB 1H 103K-T	B	42.1/5.7
C514	4030006900	S.CER C1608 JB 1H 103K-T	B	44.6/10.8
C515	4030006900	S.CER C1608 JB 1H 103K-T	B	36.3/10.8
C516	4030006900	S.CER C1608 JB 1H 103K-T	B	40.6/10.8
C517	4030006900	S.CER C1608 JB 1H 103K-T	T	148.2/38.7
C518	4030006900	S.CER C1608 JB 1H 103K-T	T	150.8/40.8
C519	4030006900	S.CER C1608 JB 1H 103K-T	B	50.6/6
C520	4030006900	S.CER C1608 JB 1H 103K-T	B	51.5/11.2
C521	4030006900	S.CER C1608 JB 1H 103K-T	B	98.5/15.3
C522	4030006900	S.CER C1608 JB 1H 103K-T	T	82.2/16.2
C523	4030006900	S.CER C1608 JB 1H 103K-T	T	86.5/16.2
C524	4030006900	S.CER C1608 JB 1H 103K-T	B	121.2/15.8
C525	4030006900	S.CER C1608 JB 1H 103K-T	T	64.2/14
C526	4030007010	S.CER C1608 CH 1H 100D-T	T	181.7/37.5
C527	4030007130	S.CER C1608 CH 1H 101J-T	B	146.5/32.5
C528	4030007130	S.CER C1608 CH 1H 101J-T	B	184.7/32.5
C529	4030007090	S.CER C1608 CH 1H 470J-T	T	218.7/49.8
C530	4510008610	S.ELE 10SVP150MX	T	23.7/48.3
C531	4030007130	S.CER C1608 CH 1H 101J-T	T	120.5/59.2
C532	4030004760	S.CER C2012 JF 1H 104Z-T	B	25.8/10.7
C533	4030006860	S.CER C1608 JB 1H 102K-T	B	17.8/41.5
C534	4030007130	S.CER C1608 CH 1H 101J-T	B	24.2/10.6
C535	4030011600	S.CER C1608 JB 1E 104K-T	T	145.7/15.5
C537	4030009500	S.CER C1608 CH 1H 0R5B-T	B	160.9/26.7
CP5	6910009670	S.CHK HK3-S-T	B	176.1/45.8
CP6	6910009670	S.CHK HK3-S-T	B	69/26.3
CP7	6910009670	S.CHK HK3-S-T	T	147.5/30.6
CP8	6910009670	S.CHK HK3-S-T	T	60.7/34.1
J1	6510021430	S.CNR S8B-ZR-SM3A-TF	T	29.5/3.2
J2	6510019120	S.CNR S8B-PH-SM3-TB	T	100.1/3.7
J3	6510021410	S.CNR S6B-ZR-SM3A-TF	T	77.7/66.7
J5	6910015990	CNR F4054CS		
J9	6510019120	S.CNR S8B-PH-SM3-TB	T	121.5/3.7
J10	6510023860	S.CNR S9B-ZR-SM3A-TF	T	47.7/3.2

[IF UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
J11	6510023800	S.CNR S4B-ZR-SM3A-TF	T	79.3/3.1
J12	6510021430	S.CNR S8B-ZR-SM3A-TF	T	61.7/66.7
J14	6510018350	S.CNR S3B-ZR-SM3A-TF	T	15.5/3.2
J201	2610000450	S.CNR U.FL-R-SMT (01)	T	215.5/49.1
J401	2610000450	S.CNR U.FL-R-SMT (01)	T	215.7/16.8

[CHASSIS UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
FI1	6910015720	DUP DPX10162 <UMT>		
J1	6510024480	CNR LTWBD-04PMMS-LC		
DS1	5040002530	LED BDW4-1755RGW-B		
W1	8900012810	CBL OPC-1314		
W2	8900012820	CBL OPC-1315		
W3	8900012820	CBL OPC-1315		
W4	8900012830	CBL OPC-1316		
W5	8900012830	CBL OPC-1316		
W6	8900013110	CBL OPC-1317		
W7	8900013230	CBL OPC-1318		
W8	8900013120	CBL OPC-1320		
W9	8900013120	CBL OPC-1320		
W10	8900013221	CBL OPC-1321A		
EP1	6910016850	OTH AWTR103MD-03		

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

# SECTION 6 MECHANICAL PARTS AND DISASSEMBLY

## [CHASSIS PARTS]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
J1	6510024480	Connector LTWBD-04PMMS-LC	1
W1	8900012810	Cable OPC-1314	1
W2	8900012820	Cable OPC-1315	1
W3	8900012820	Cable OPC-1315	1
W4	8900012830	Cable OPC-1316	1
W5	8900012830	Cable OPC-1316	1
W6	8900013110	Cable OPC-1317	1
W7	8900013230	Cable OPC-1318	1
W8	8900013120	Cable OPC-1320	1
W9	8900013120	Cable OPC-1320	1
W10	8900013221	Cable OPC-1321A	1
DS1	5040002530	LED BDW4-1755RGW-B	1
EP1	6910015730	Module AWTR103MD-03	1
FI1	6910015720	Duplexer DPX10162	1
MP1	8510016270	2729 case	1
MP2	8110008150	2729 cover	1
MP3	8930062790	2729 connector seal	1
MP4	8930062830	2729 connector plate	1
MP5	8930062820	2729 P.C.B. plate	2
MP6	8930062800	2729 rubber	1
MP7	8820001300	2729 screw	4
MP9	8930054280	2440 vent. sheet	1
MP11	8810000660	Screw PH M4 × 14 SUS	2
MP12	8810002950	Screw BiH M3 × 6 SUS	8
MP13	8810008660	Screw PH BT M3 × 8 NI-ZU	4
MP14	8810007120	Setscrew (C) M3 × 25	4
MP15	8810010130	Setscrew (C) M3 × 35	4
MP16	8850000210	Flat washer M8 SUS	4
MP17	6910014570	FGA13-08B	2
MP18	6910016030	FGA26-16B	1
MP19	8930062880	LTD-M4/8-PA	1
MP20	8930038100	1653 angle	2
MP21	8810009330	Hex head bolt M6 × 10 SUS (+)	4
MP22	8850000510	Spring washer M6 SUS	4
MP23	8850000200	Flat washer M6 SUS	4

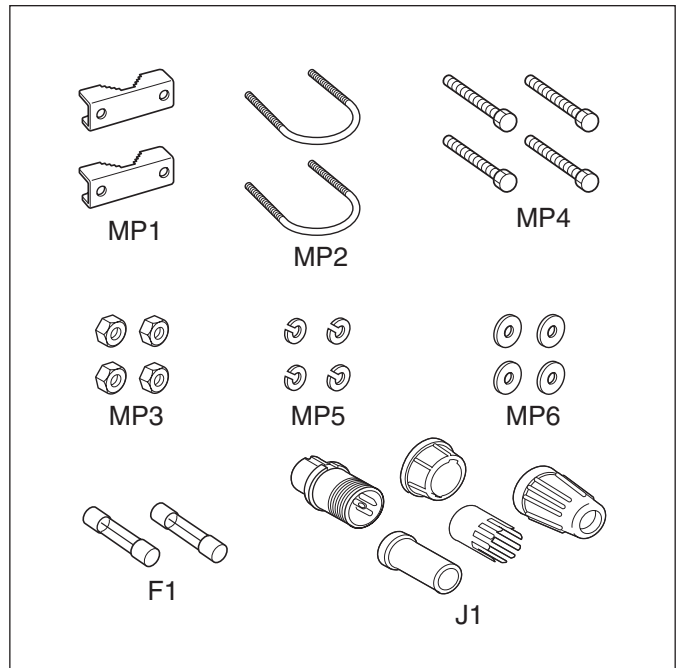
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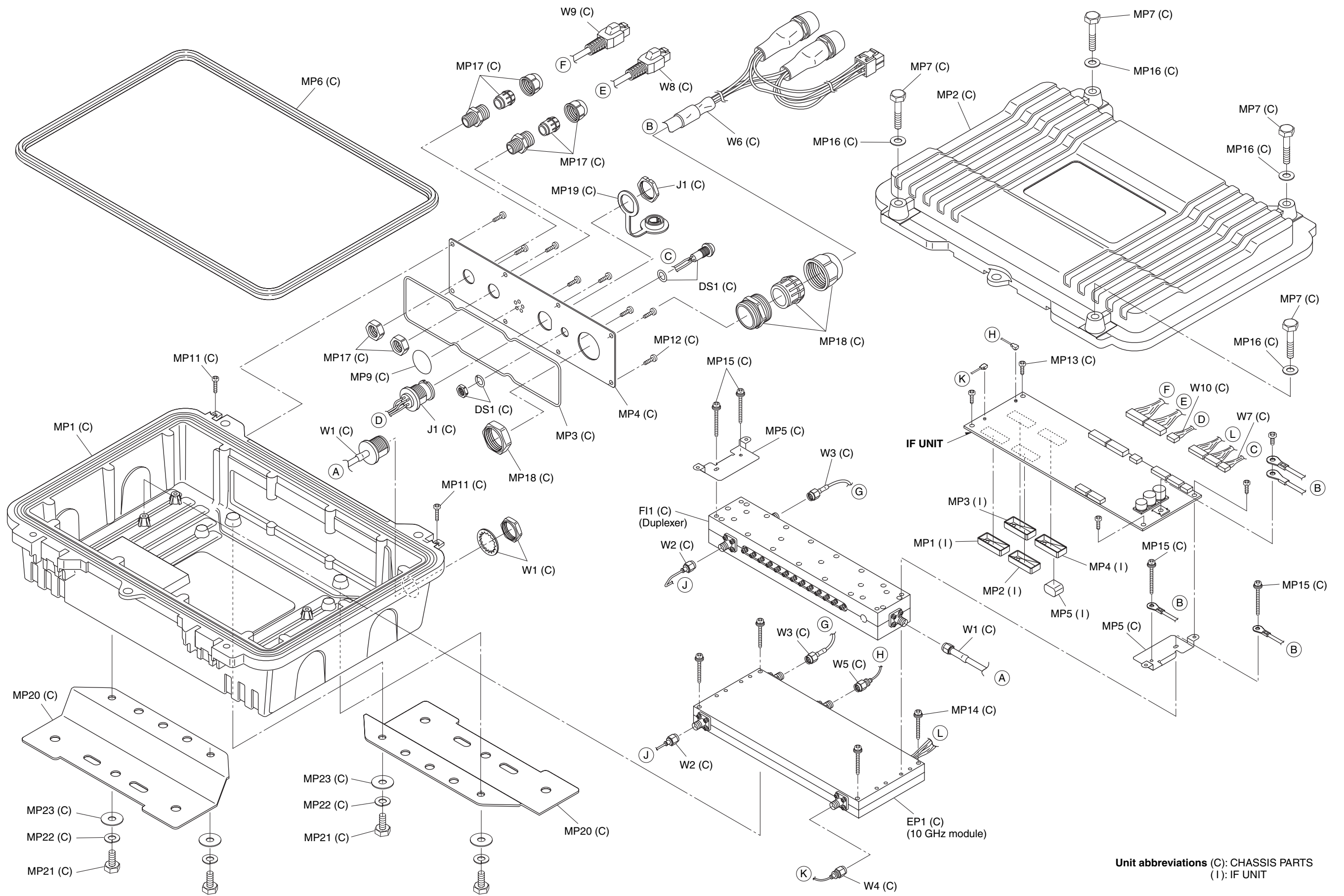
REF. NO.	ORDER NO.	DESCRIPTION	QTY.
MP1	8510016380	2729 shield case	1
MP2	8510016380	2729 shield case	1
MP3	8510016380	2729 shield case	1
MP4	8510016380	2729 shield case	1
MP5	8930058840	Shield sponge (T)	1

**Screw abbreviations**    BT: Self-tapping  
    BiH: Binding head    PH: Pan head  
    NI-ZU: Nickel-Zinc    SUS: Stainless

## [ACCESSORIES]

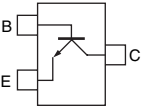
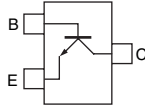
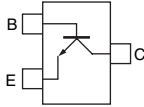
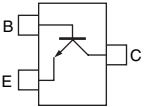
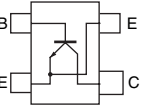
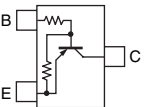
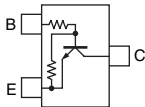
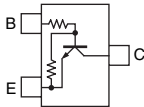
REF. NO.	ORDER NO.	DESCRIPTION	QTY.
F1	5210000060	Fuse FGB 5A (FGB0 125V)	2
J1	6510024490	Connector LTWBD-04BFFA-L180	1
MP1	8010000010	Pole clamp	2
MP2	8820000440	U bolt A SUS	2
MP3	8830000260	Nut M6 SUS	4
MP4	8810003500	Hex head bolt M6 × 50 SUS	4
MP5	8850000510	Spring washer M6 SUS	4
MP6	8850000200	Flat washer M6 SUS	4



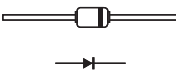

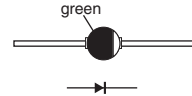





# SECTION 7 SEMI-CONDUCTOR INFORMATION

## • TRANSISTORS AND FET'S

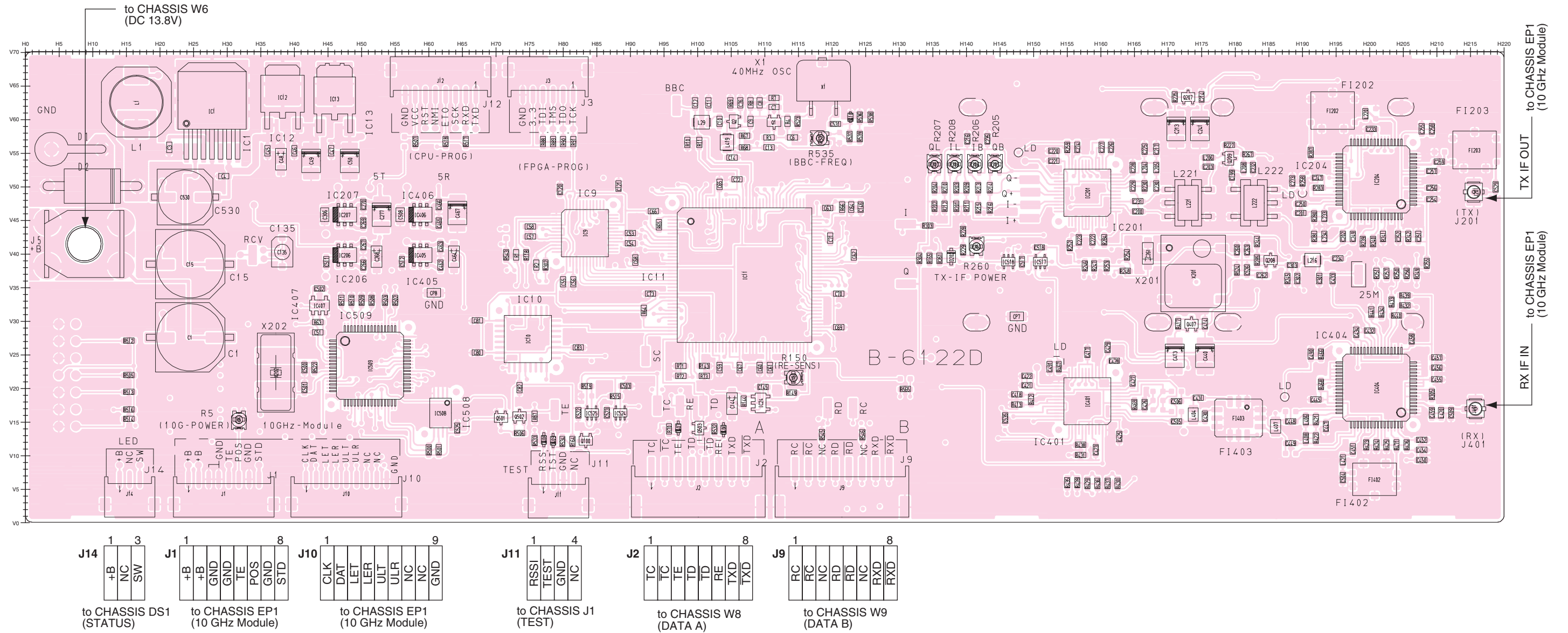
<p><b>2SC4116 GR</b> (Symbol: LG)</p> 	<p><b>2SC4215 Y</b> (Symbol: QY)</p> 	<p><b>2SC4226 T1 R24</b> (Symbol: R24)</p> 	<p><b>2SC5195</b> (Symbol: 88)</p> 	<p><b>2SC5508</b> (Symbol: T79)</p> 
<p><b>DTA113 ZU T106</b> (Symbol: 111)</p> 	<p><b>DTC114EUA T106</b> (Symbol: 24)</p> 	<p><b>DTC144EUA T106</b> (Symbol: 26_)</p> 		

## • DIODES

<p><b>1N5820</b> (Symbol: 1N5820)</p> 	<p><b>1SS373</b> (Symbol: S4)</p> 	<p><b>DSA3A1</b> (Color: Green)</p> 	<p><b>HVU350B TRF</b> (Symbol: B0)</p> 	<p><b>MA2S30400 L</b> (Symbol: K)</p> 
<p><b>NNCD5.6C-T1</b> (Symbol: 56G)</p> 				

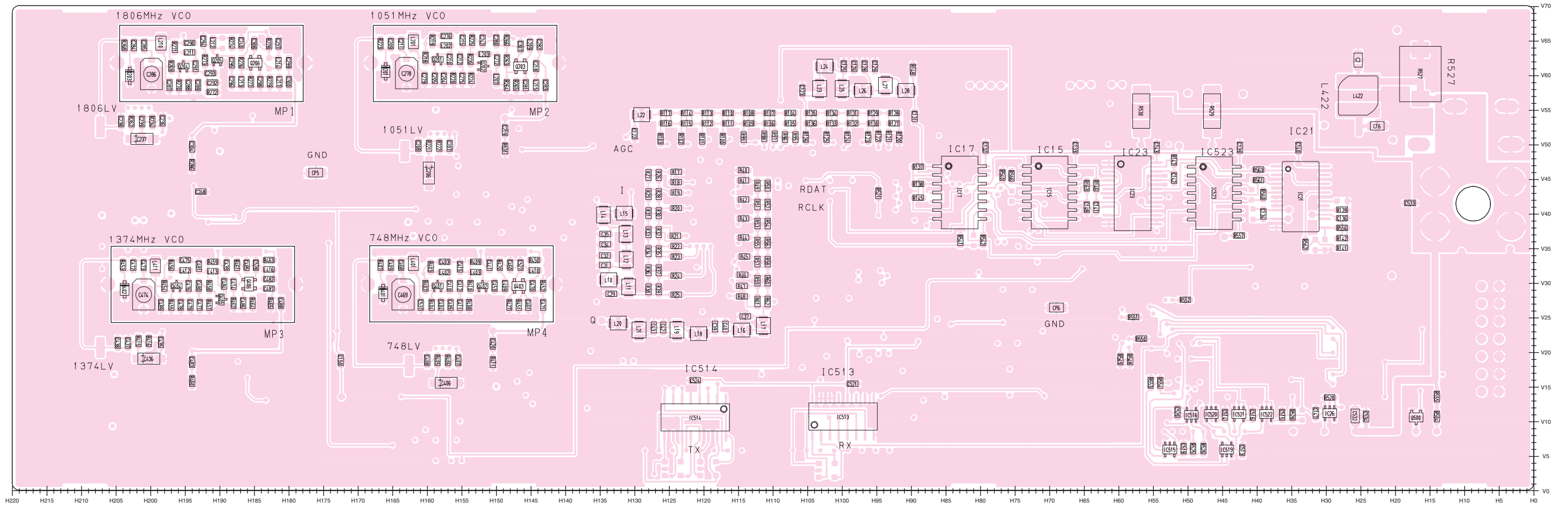
# SECTION 8 BOARD LAYOUT

## 8-1 IF UNIT • TOP VIEW



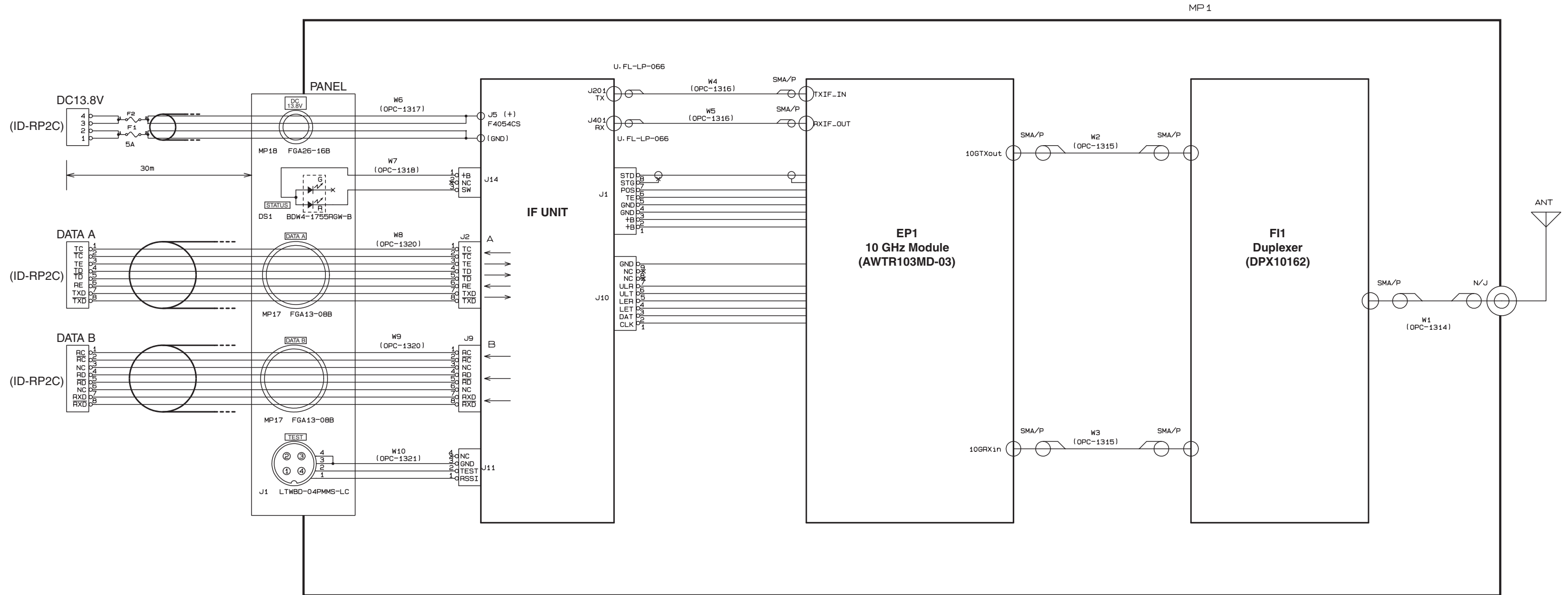


• BOTTOM VIEW (IF UNIT)





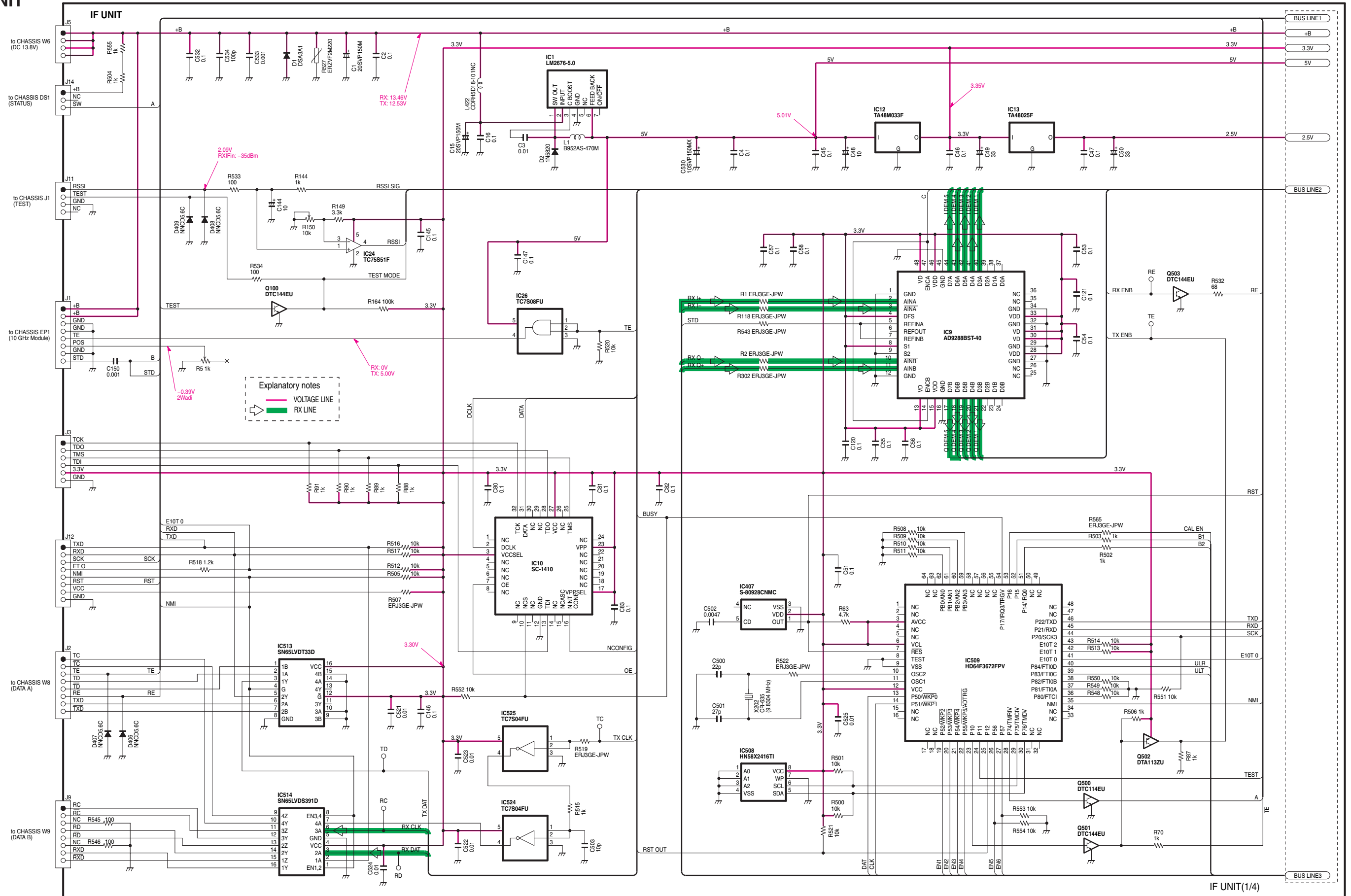
# SECTION 9 WIRING DIAGRAM





# SECTION 11 VOLTAGE DIAGRAM

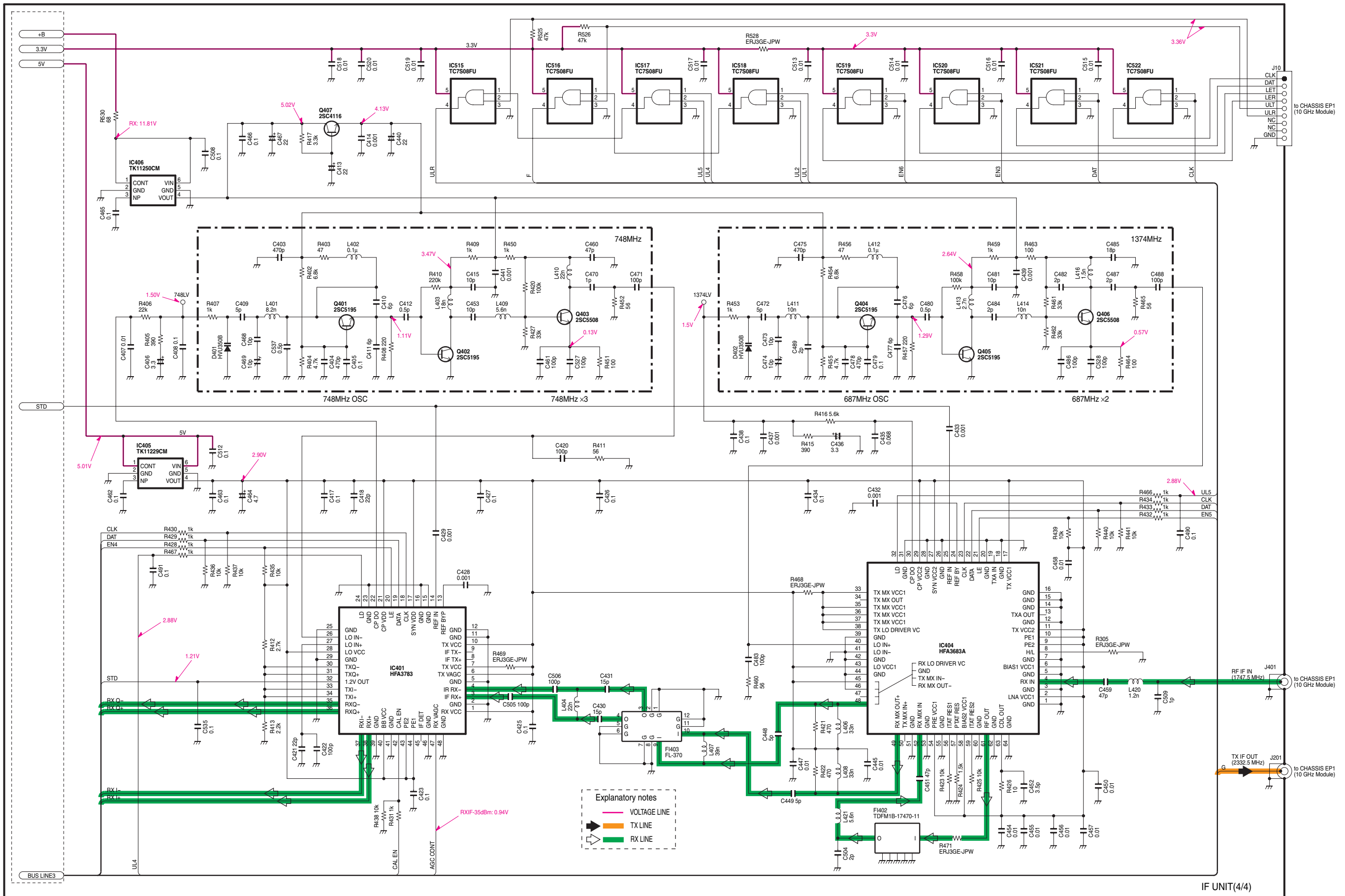
## 11-1 IF UNIT











Explanatory notes

- VOLTAGE LINE
- TX LINE
- RX LINE

# SERVICE MANUAL

1.2 GHz DATA REPEATER

## ID-RP2D

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**SECTION 1 SPECIFICATIONS**

**SECTION 2 INSIDE VIEWS**

**SECTION 3 DISASSEMBLY INFORMATION**

**SECTION 4 CIRCUIT DESCRIPTION**

4-1	RECEIVER CIRCUITS .....	D-4-1
4-2	TRANSMITTER CIRCUITS .....	D-4-2
4-3	PLL CIRCUITS .....	D-4-3
4-4	POWER SUPPLY CIRCUITS .....	D-4-4
4-5	PORT ALLOCATION .....	D-4-5

**SECTION 5 PARTS LIST**

**SECTION 6 MECHANICAL PARTS AND DISASSEMBLY**

**SECTION 7 SEMI-CONDUCTOR INFORMATION**

**SECTION 8 BOARD LAYOUTS**

8-1	MAIN-D UNIT .....	D-8-1
8-2	LOGIC-D UNIT .....	D-8-3
8-3	FRONT UNIT .....	D-8-5
8-4	REAR UNIT .....	D-8-5

**SECTION 9 WIRING DIAGRAM**

**SECTION 10 BLOCK DIAGRAM**

**SECTION 11 VOLTAGE DIAGRAMS**

11-1	MAIN-D UNIT .....	D-11-1
11-2	LOGIC-D UNIT .....	D-11-4

# SECTION 1 SPECIFICATIONS

## GENERAL

• Frequency range	: Transmit	1240.000–1300.000 MHz
	Receive	1240.000–1300.000 MHz
• Type of emission	: F1D (GMSK)	
• Communication speed	: 128 kbps	
• Frequency stability	: $\pm 2.5$ ppm (based on 25°C; +77°F)	
• Frequency resolutions	: 5, 6.25 kHz	
• Usable temperature range	: –10°C to +50°C; +14°F to +122°F	
• Antenna connector	: Type-N (50 $\Omega$ )	
• Power supply requirement	: 13.8 V DC $\pm 15\%$ (Negative ground)	
• Current drain	: Transmit (High)	Less than 6.0 A
	(Low)	Less than 2.7 A
	Receive (Stand-by)	Less than 0.7 A
• Dimensions (proj. not included)	: 483(W) $\times$ 88(H) $\times$ 428(D) mm; 19(W) $\times$ 3 <sup>15/32</sup> (H) $\times$ 16 <sup>27/32</sup> (D) in.	
• Weight (Approx.)	: 6.2 kg; 13 lb 10 oz	

## TRANSMITTER

• Output power (at 13.8 V DC)	: High	9–12 W
	Low	0.5–1.2 W
• Modulation system	: Quadrature (243.95 MHz)	
• Occupied bandwidth	: Less than 130 kHz	
• Spurious emissions	: Less than –50 dB	

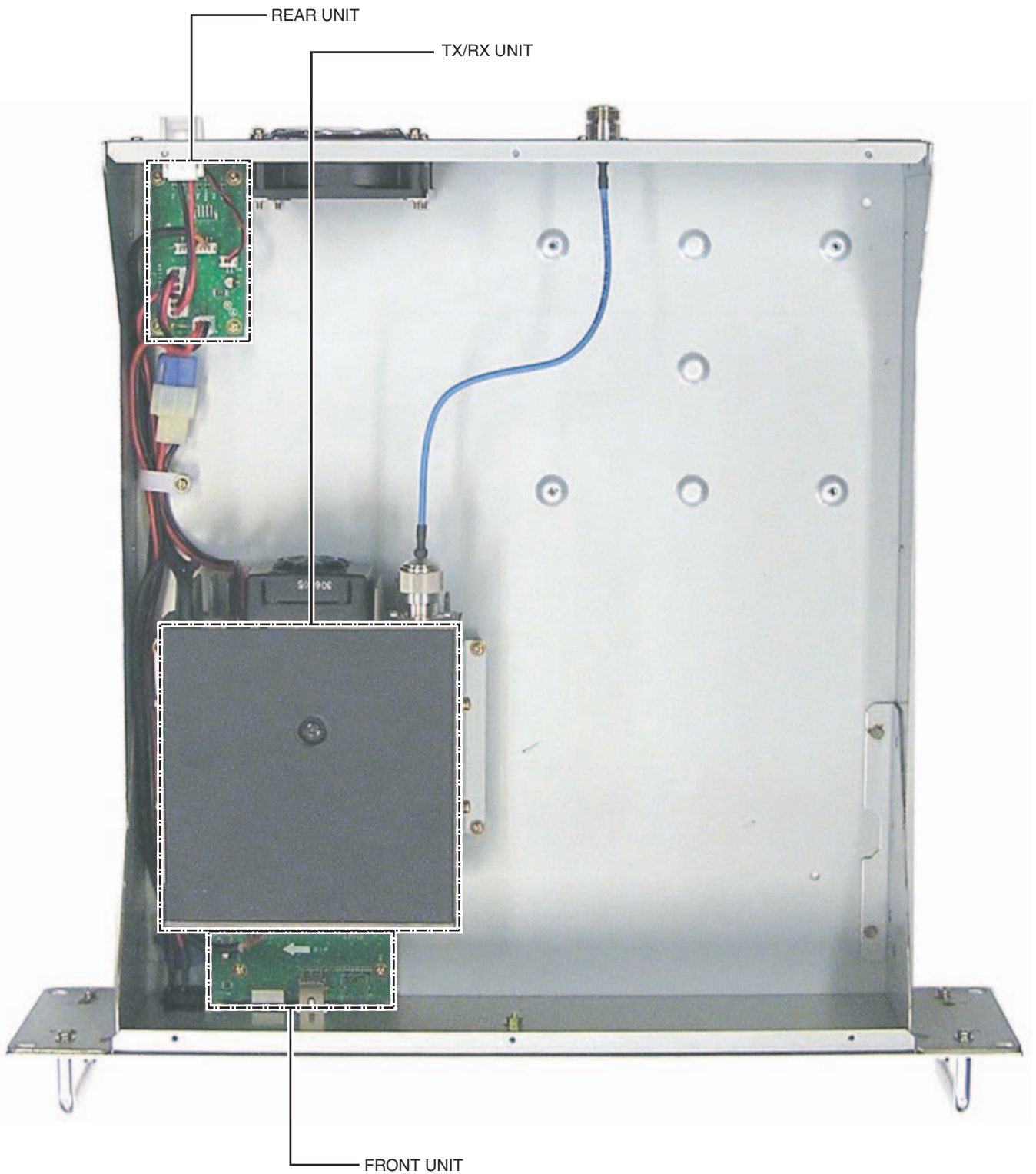
## RECEIVER

• Receive system	: Double-conversion superheterodyne	
• Intermediate frequencies	: 1st	243.95 MHz
	2nd	10.7 MHz
• Sensitivity (BER $1 \times 10^{-2}$ )	: Less than +7 dB $\mu$ (2.24 $\mu$ V)	
• Selectivity	: More than 140 kHz/6 dB	
	Less than 520 kHz/40 dB	
• Spurious and image rejection	: More than 60 dB (General)	
	More than 50 dB (IF, $1F/2$ )	
• Receive spurious	: Less than –57 dBm	

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

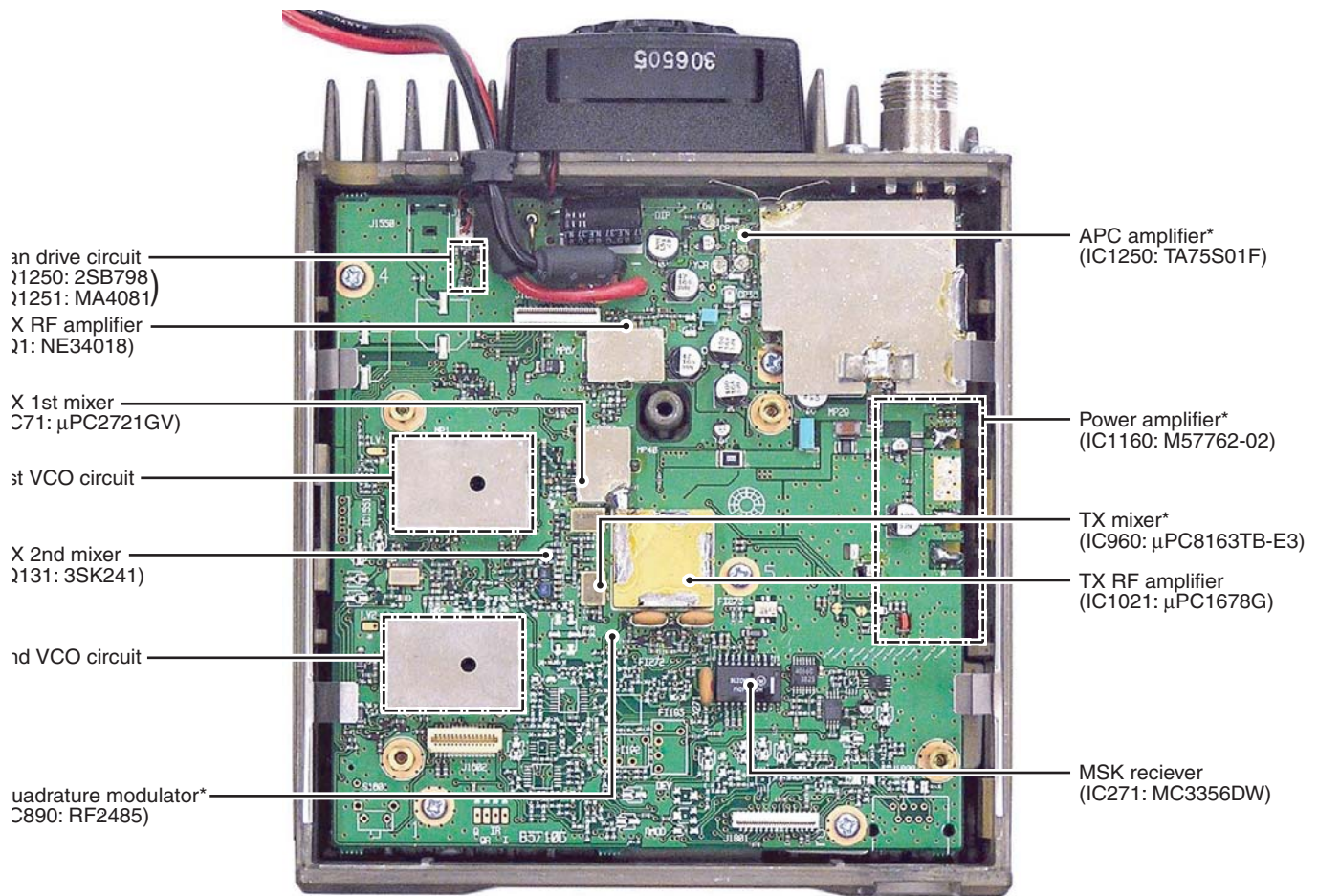
## SECTION 2 INSIDE VIEWS

- OVERALL



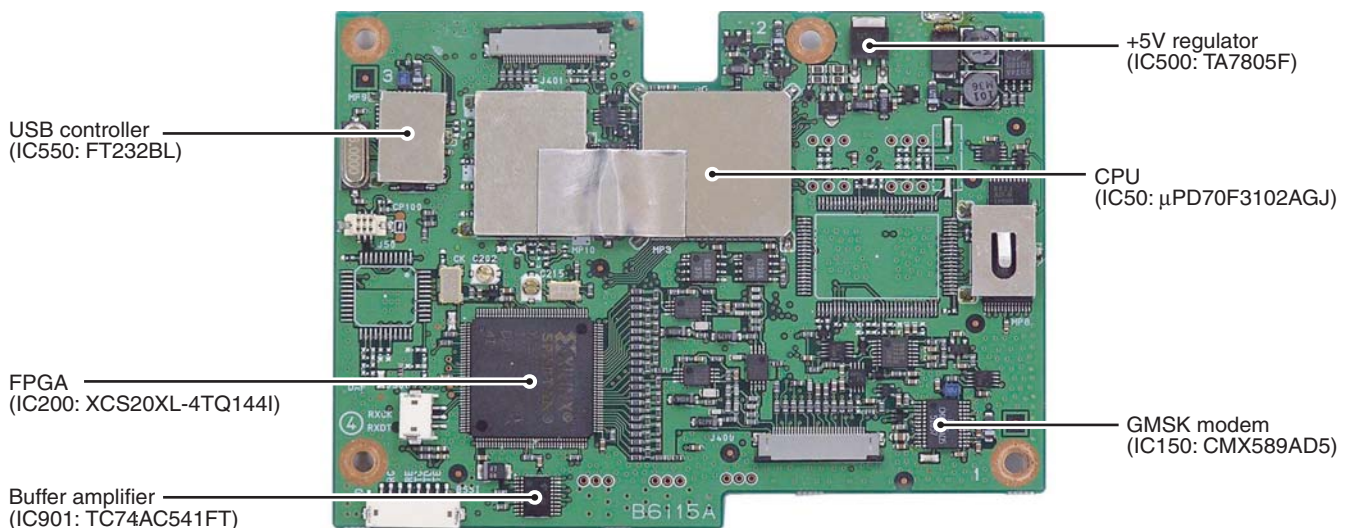


• MAIN-D UNIT



\*: Located under side of this points.

• LOGIC-D UNIT

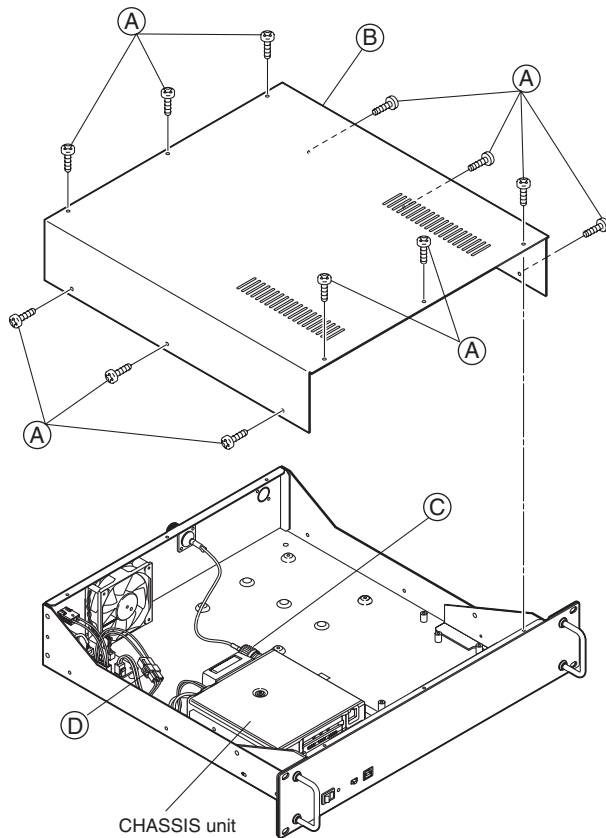




# SECTION 3 DISASSEMBLY INSTRUCTIONS

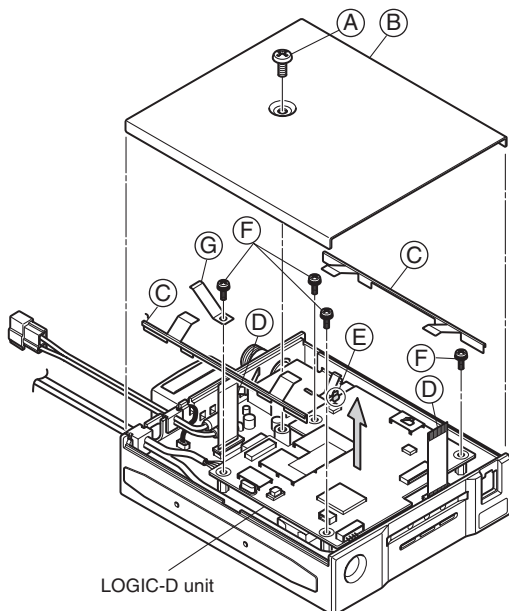
## ● REMOVING THE COVER

- ① Unscrew 12 screws (A), and remove the cover (B).
- ② Disconnect the cable (C), and disconnect the cable (D).



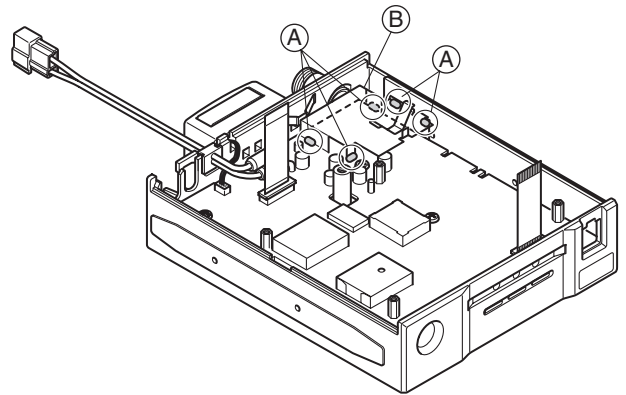
## ● REMOVING THE LOGIC-D UNIT

- ① Unscrew 1 screw (A), and remove the cover (B).
- ② Remove 2 main shield plates (C).
- ③ Disconnect 2 cables (D), and unsolder 1 point (E).
- ④ Unscrew 4 screws (F), and remove the earth spring (G).
- ⑤ Take off the LOGIC-D unit.

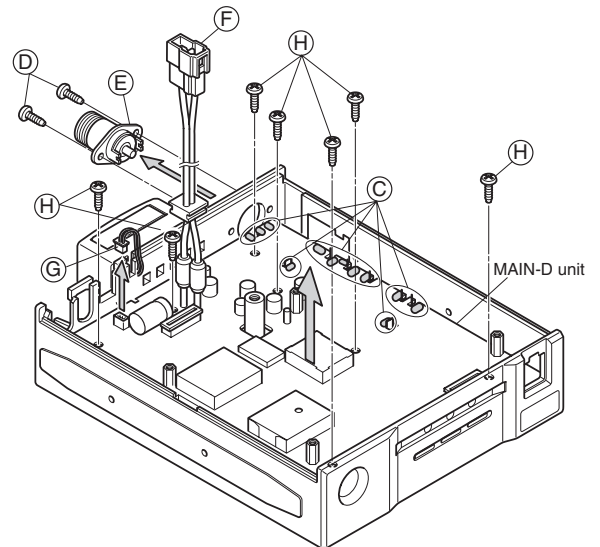


## ● REMOVING THE MAIN-D UNIT

- ① Unsolder 5 points (A), and remove the ANT plate (B).



- ② Unsolder 12 points (C).
- ③ Unscrew 2 screws (D), and remove the ANT connector (E).
- ④ Take off the cable (F) from the chassis.
- ⑤ Disconnect the cable (G).
- ⑥ Unscrew 7 screws (H), and take off the MAIN-D unit.



# SECTION 4 CIRCUIT DESCRIPTION

## 4-1 RECEIVER CIRCUITS

### 4-1-1 ANTENNA SWITCHING CIRCUIT (MAIN-D UNIT)

The antenna switching circuit functions as a low-pass filter while receiving and a resonator circuit while transmitting. This circuit does not allow transmit signals to enter the receiver circuits.

Received signals from the antenna connector (CASE; W4) are applied to the MAIN-D unit via J1 (CHASSIS-D). The applied signals are passed through the low-pass filter which contains strip-line and C1198, and are then applied to the  $\frac{1}{4}$  type antenna switching circuit (D1161–D1162, L1162).

While receiving, no voltage is applied to D1161–D1162. Thus, the receive line and ground are disconnected and received signals are applied to the RF circuit.

ID-RP2D's transmitting and receiving are different timing.

### 4-1-2 RF CIRCUIT (MAIN-D UNIT)

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

The signals from the antenna switching circuit pass through the high-pass filter (L1–L4, C2–C5) and then applied to the RF amplifier (Q1). The amplified signals are passed through the bandpass filters (FI1, FI2) to suppress unwanted signals.

The filtered signals are applied to the 1st mixer circuit.

### 4-1-3 1ST MIXER AND 1ST IF CIRCUITS (MAIN-D UNIT)

The 1st mixer circuit converts the received signals into fixed frequency of the 1st IF signal with the 1st LO signal. By changing the 1st LO signal, only the desired frequency passes through the bandpass filter at the next stage of the 1st mixer circuit.

The RF signals from the bandpass filter (FI2) are mixed with the 1st LO signal, where come from the 1st VCO circuit (Q471, Q472, D471), at the 1st mixer circuit (IC71) to produce a 243.95 MHz 1st IF signal. The 1st IF signal is passed through the bandpass filter (FI71) to suppress unwanted signals and pass only the desired signals.

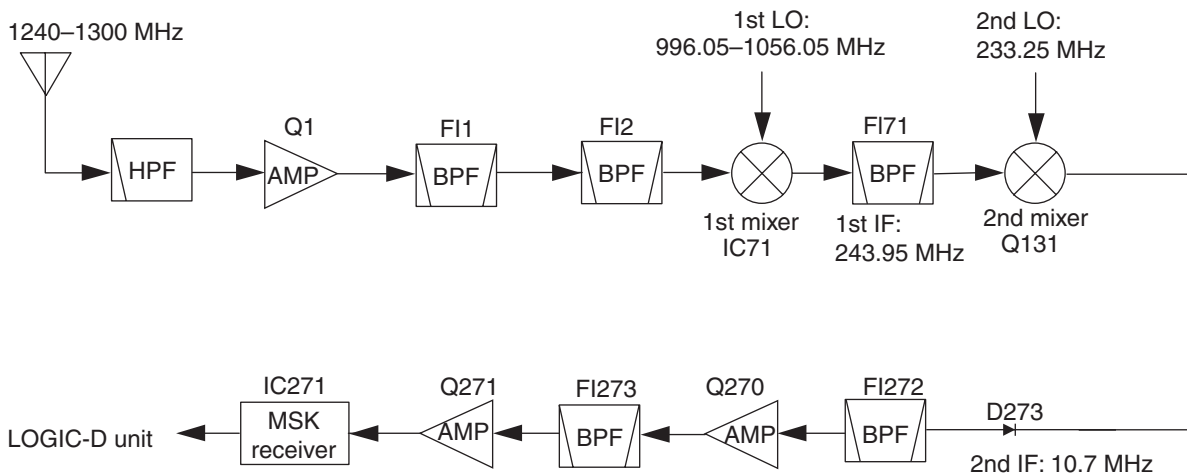
The filtered signal is applied to the 2nd IF circuit.

### 4-1-4 2ND MIXER AND 2ND IF CIRCUITS (MAIN-D UNIT)

The 2nd mixer circuit converts the 1st IF signal into the 2nd IF signal with the 2nd LO signal.

The filtered 1st IF signal from the bandpass filter (FI71) is mixed with the 2nd LO signal (233.25 MHz), where come from the 2nd VCO circuit (Q631, D630), at the 2nd mixer circuit (Q131) to produce a 2nd IF signal (10.7 MHz). The 2nd IF signal is passed through the bandpass filter (FI272) to remove unwanted heterodyned frequencies via the mode switch (D273). The filtered signal is amplified at the IF amplifier (Q270) and then passed through another bandpass filter (FI273). The filtered signal is applied to another IF amplifier (Q271) and then applied to the MSK receiver (IC271).

## • RF AND IF CIRCUITS



#### 4-1-5 DEMODULATOR CIRCUITS (MAIN-D UNIT)

The MSK receiver IC (IC271) contains the limiter amplifier, quadrature detector, etc.

The amplified 2nd IF signal from the IF amplifier (Q271) is applied to the limiter amplifier section of the MSK receiver (IC271, pin 7) and then applied to the quadrature detector section (IC271, pin 11) to demodulate to the data signals.

The demodulated data signals are output from pin 13 of the MSK receiver (IC271) and are amplified at IC343 (pins 1, 2). The amplified signals are switched at the mode switch (IC342, pins 1, 6) and then applied to the LOGIC-D unit via J1801 (pin 20).

#### 4-1-6 DIGITAL CIRCUITS (LOGIC-D UNIT)

The digital circuits convert the demodulated data signals format for communication to the repeater controller (ID-RP2C).

The demodulated data signals from the mode switch (MAIN-D unit: IC342, pin 1) are applied to the GMSK MODEM (IC150, pin 11). The applied signals are synchronized with the clock signal, then the synchronized signals are applied to the CPU (IC50) via the FPGA IC (IC200).

The output signals from the CPU (IC50) are applied to the buffer amplifier (IC901) and then applied to the REAR unit via J901.

The amplified signals are applied to the connected repeater controller (ID-RP2C) via [CONT I/O] (REAR unit; J2).

## 4-2 TRANSMITTER CIRCUITS

### 4-2-1 DIGITAL CIRCUITS (LOGIC-D UNIT)

The digital circuits convert the data signals form for transmit.

The data signals from the connected repeater controller (ID-RP2C) are applied to the buffer amplifier (IC901) and then applied to the CPU (IC50) via [CONT I/O] (REAR unit; J2).

The applied data signals to the CPU (IC50) are processed and then applied to the FPGA IC (IC200) to split to the I and Q baseband signals for quadrature modulation. The I/Q baseband signals output from pins 75–80, 82–89, 92–99 (IC200) and then applied to the D/A converters (R250–R293).

The converted signals are passed through the baseband filter (IC300–IC302) and then applied to the MAIN-D unit via J400 (pins 1, 3).

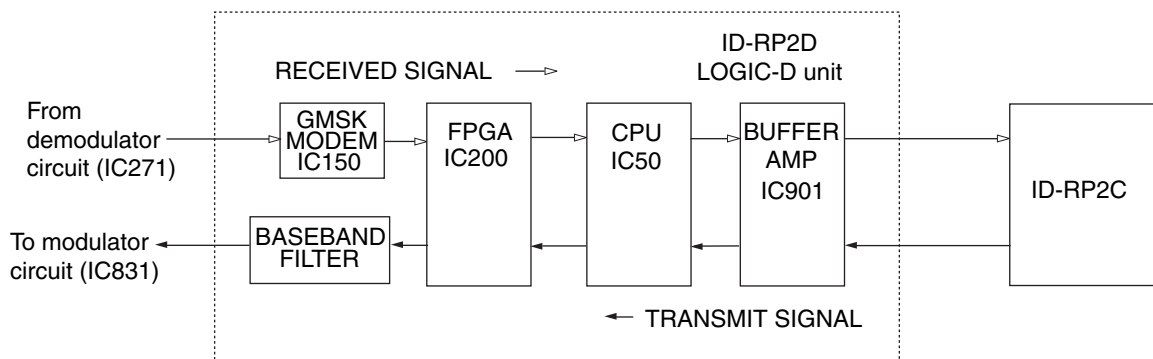
### 4-2-3 MODULATION CIRCUIT (MAIN-D UNIT)

The modulation circuit modulates the 2nd LO signal at the quadrature modulation circuit (IC890) using the I/Q baseband signals.

The I/Q baseband signals from the LOGIC-D unit are amplified at the I/Q baseband amplifiers (IC832, pins 1, 2, 6, 7) and then applied to the amplifier section of the quadrature modulator (IC890, pins 4, 7). The 2nd LO signal is also applied to the  $\pm 45^\circ$  phase splitter section of the quadrature modulator (IC890, pin 8) and then the  $\pm 45^\circ$  phase shifted and split LO signals are applied to the LO amplifier sections. The amplified LO signals are modulated with the I/Q baseband signals at the I/Q modulator sections and then combined at combining amplifier section. The modulated signal is output from pin 14 (IC890) after amplified at the RF amplifier section.

The modulated signal is passed through the bandpass (FI880) and low-pass (L892, L893, C904–C908) filters and then applied to the 1st mixer circuit.

## • DIGITAL CIRCUITS



#### 4-2-4 1ST MIXER CIRCUITS (MAIN-D UNIT)

The 1st mixer circuits convert to the RF signal with the 1st LO signal.

The filtered signal from the low-pass filter (L892, L893, C904 –C908) is applied to the 1st mixer circuit (IC960, pins 1, 6). The applied signal is mixed with the 1st LO signal coming from the 1st VCO circuit (Q471, Q472, D471) via the buffer amplifiers (Q473, Q710) to convert into the RF signal. The RF signal from the 1st mixer circuit (IC960, pin 6) is passed through the bandpass filter (F1961) and then amplified at the RF amplifier (IC1021).

The amplified signal is passed through the bandpass filter (F11020) to suppress spurious components and then applied to the drive/power amplifier circuits.

#### 4-2-5 DRIVE/POWER AMPLIFIER CIRCUITS (MAIN-D UNIT)

The drive/power amplifier circuits amplify the RF signal to the output level.

The filtered RF signal from the bandpass filter (F11020) is amplified at the pre-drive (Q1080), drive (Q1081) and power (IC1160) amplifiers to obtain a stable 10 W of output power.

The power amplified signal from the power amplifier (IC1160, pin 4) is passed through the antenna switch (D1160), SWR detector circuit (D1166, D1167), low-pass filter which contains strip-line and C1198, and then applied to the antenna connector (CASE; W4) via J1 (CHASSIS-D).

#### 4-2-6 APC CIRCUIT (MAIN-D UNIT)

The APC circuit protects the driver and power amplifiers from a mismatched output load and stabilizes the output power.

The SWR detector circuit (D1166, D1167) detects the forward signals and reflection signals, and converts it into DC voltage. The output voltage is at a minimum level when the antenna impedance is matched with 50 Ω and is increased when it is mismatched.

The detected voltage is applied to the APC amplifier (IC1250, pins 3, 4) and is compared with the reference voltage which is supplied from the CPU (LOGIC-D unit: IC50, pin 85) as "PCON" signal.

When antenna impedance is mismatched, the detected voltage exceeds the power setting voltage. The output voltage of the APC amplifiers (IC1250, IC1251) controls the bias voltage of the drive amplifiers (Q1080, Q1081) and to reduce the output power.

### 4-3 PLL CIRCUITS

#### 4-3-1 PLL CIRCUITS (MAIN-D UNIT)

The PLL circuit provides stable oscillation of the 1st LO frequencies and 2nd LO frequency. The PLL output compares the phase of the divided VCO frequency to the reference frequency. The PLL output frequency is controlled by the divided ratio (N-data) of a programmable divider.

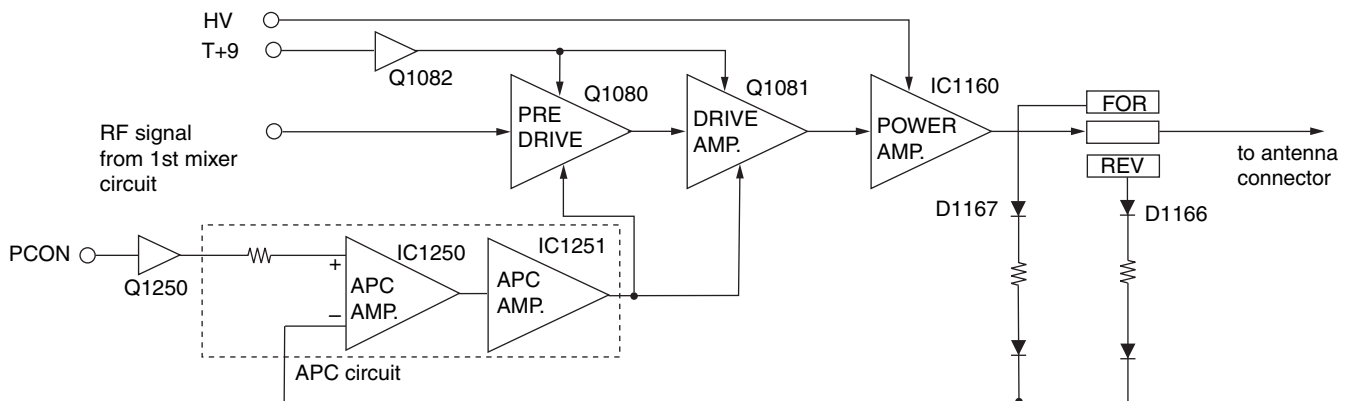
#### 4-3-2 1ST PLL CIRCUIT (MAIN-D UNIT)

The 1st PLL circuit oscillates the 1st LO frequencies, and signals are applied to the 1st mixer circuits. The oscillated signals from the 1st VCO circuit (Q471, Q472, D471) are applied to the buffer amplifiers (Q473, Q474) and are then applied to the PLL IC (IC400, pin 6).

The PLL IC contains a prescaler, programmable counter, programmable divider and phase detector, etc.

The applied signal is divided at the prescaler and programmable counter section by the N-data ratio from the CPU (LOGIC-D unit; IC50). The divided signal is detected on phase at the phase detector using the reference frequency (X400: 15.3 MHz) and output from pin 4 (IC400). The output signal is passed through the loop filter and is then applied to the 1st VCO circuit.

#### • APC CIRCUIT



The oscillated signal at the 1st VCO is buffer amplified at Q473 and then passed through the bandpass filter (L474–L477, C488–C497).

The filtered signal is applied to the buffer amplifier (Q710) and then applied to the T/R switch (D710, D711).

The receive 1st LO signal from the T/R switch (D711) is applied to the 1st mixer circuit (IC71).

The transmit signal from the T/R switch (D710) is applied to the 1st mixer circuit (IC960).

### 4-3-3 2ND PLL CIRCUIT (MAIN-D UNIT)

The 2nd PLL circuit oscillates the 2nd LO frequency, and the signal is applied to the 2nd mixer circuit and quadrature modulator.

The signal oscillated at the 2nd VCO circuit (Q631, D630) is amplified at the buffer amplifiers (Q632, Q633), then applied to the PLL IC (IC550, pin 19). The applied signal is divided at the prescaler and programmable counter section by the N-data ratio from the CPU (LOGIC-D unit; IC50). The divided signal is detected on phase at the phase detector using the reference frequency (X400: 15.3 MHz) and output from pin 13 (IC550). The detected signal is passed through the loop filter (R555–R557, C564, C567) and then applied to the 2nd VCO circuit via the mode switch (IC551, pins 1, 7).

The oscillated signal at the 2nd VCO is amplified at the buffer amplifiers (Q632–Q771), and is then applied to the T/R switch (D770, D771).

The receive 2nd LO signal from the T/R switch (D771) is applied to the 2nd mixer circuit (Q131).

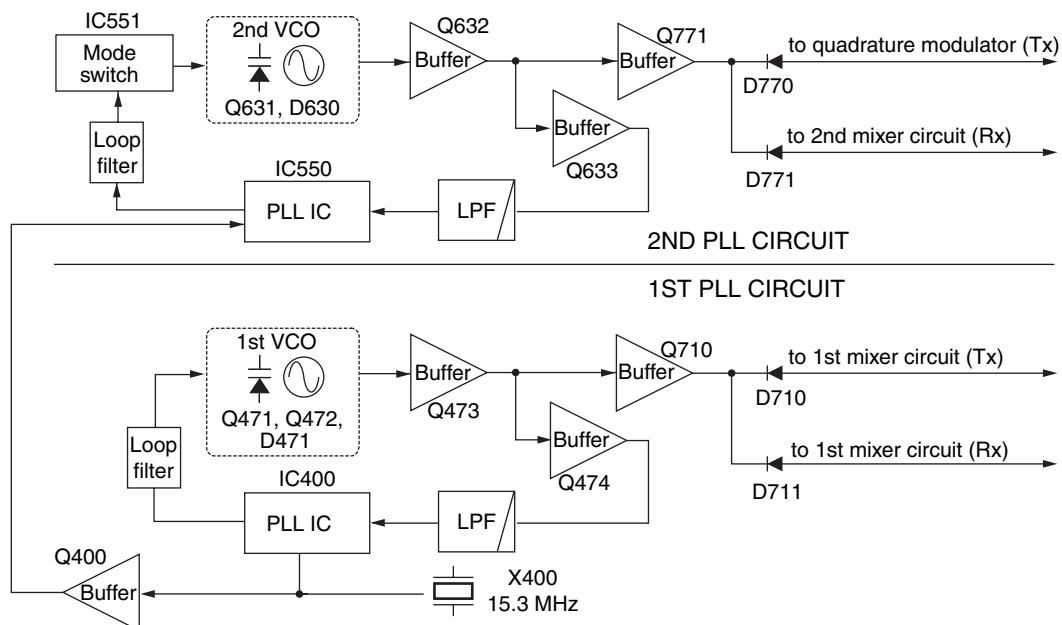
The transmit signal from the T/R switch (D770) is applied to the quadrature modulator (IC890).

## 4-4 POWER SUPPLY CIRCUITS

### 4-4-1 LOGIC-D UNIT VOLTAGE LINE

Line	Description
5V	Common 5 V controlled by the +5 V regulator circuit (IC500, Q500, Q501) using the “PWRS” signal from the CPU (IC50, pin 101). The output voltage is applied to the baseband filters (IC300–302), etc.
3.3V	Common 3.3 V converted from the 5V line by the 3.3V regulator circuit (IC502). The output voltage is applied to the FPGA IC (IC200) and buffer amplifier (IC901), etc.
3.3V	Common 3.3 V converted from the 5V line by the 3.3V regulator circuit (IC504). The output voltage is applied to the CPU (IC50) and A/D converter (IC55), etc.

### • PLL CIRCUIT





#### 4-4-2 MAIN-D UNIT VOLTAGE LINE

Line	Description
HV	The voltage from a DC power supply.
VCC	The same voltage as the HV line which is controlled by the power switching circuit (Q23, Q24). When the power switch is pushed, the CPU outputs the "PWR" control signal to the power switching circuit to turn the circuit ON.
+9	Common 9 V converted from the HV line at the +9 CTRL circuit (IC1330). The output voltage is applied to the 1st VCO (Q471), etc.
+5	Common 5 V converted from the +9V line at the 5 V regulator circuit (IC1331). The output voltage is applied to the APC amplifier (IC1251) and buffer amplifier (Q710), etc.
DM+5	Common 5 V converted from the +9V line at the 5 V regulator circuit (IC830). The output voltage is applied to the modulation amplifiers (IC831, IC832), etc.
T+9	Transmit 9 V controlled by the T+9 regulator circuit (Q1333, Q1334, D1331) using the "TXS" signal from the CPU (LOGIC-D unit; IC50, pin 94). The output voltage is applied to the APC amplifier (IC1250), etc.
T+5	Transmit 5 V controlled by the T+5 regulator circuit (Q1336, D1332, D1333) using the "TXS" signal from the CPU (LOGIC-D unit; IC50, pin 94). The output voltage is applied to the RF amplifier (IC1021), etc.
R+5	Receive 5 V controlled by the R+5 regulator circuit (Q1337) using the "RXS" signal from the CPU (LOGIC-D unit; IC50, pin 95). The output voltage is applied to the RF amplifier (Q2) and 1st mixer (IC71), etc.
T+3	Transmit 3 V controlled by the T+3 regulator circuit (Q1342) using the "TXS" signal from the CPU (LOGIC-D unit; IC50, pin 94). The output voltage is applied to the 1st mixer (IC960), etc.
R+3	Receive 3 V controlled by the R+3 regulator circuit (Q1343) using the "RXS" signal from the CPU (LOGIC-D unit; IC50, pin 95). The output voltage is applied to the RF amplifier (Q1), etc.

#### 4-5 PORT ALLOCATIONS

##### 4-5-1 CPU (LOGIC-D UNIT; IC50)

Pin number	Port name	Description
42	TXD1	Output data signals to the USB controller (IC550, pin 24).
43	RXD1	Input port for data signals from the USB controller (IC550, pin 25) via the (IC553).
53	SDA	I/O port for data signals from/to the EEPROM (IC54, pin 5).
54	SCL	Outputs clock signal to the EEPROM (IC54, pin 6).
71	RESET	Input port for reset signal from the reset IC (IC52, pin 1).
72	P2RSC	Outputs control signal to the mode switch (MAIN-D unit; IC551, pin 5) via the level converter (IC55).
73	P2STC	Outputs strobe signal to the 2nd PLL IC (MAIN-D unit; IC550, pin 3) via the level converter (IC55).
74	PDATC	Outputs the data signal to the 1st and 2nd PLL ICs (MAIN-D unit; IC400, pin 15, IC550, pin 5) via the level converter (IC55).
75	PSCKC	Outputs clock signal to the 1st and 2nd PLL ICs (MAIN-D unit; IC400, pin 14, IC550, pin 4) via the level converter (IC55).
76	P1STC	Outputs strobe signal to the 1st PLL IC (MAIN-D unit; IC400, pin 16) via the level converter (IC55).
77	+5AC	Outputs control signal to the 5A (Q1345) and D+5 (Q1347) regulators via the level converter (IC55). Low: While the +5 and D+5 regulators are activated.
85	PCON	Outputs control signal to the TX power controller (MAIN-D unit; Q1250).
86	ULCK	Input port for the PLL unlock signal. High: The PLL circuit is unlocked.
94	TXS	Outputs the T+5, T+3 regulator circuits (MAIN-D unit; Q1336, Q1342) control signal. High: During transmit.
95	RXS	Outputs the R+5, R+3 regulator circuits (MAIN-D unit; Q1337, Q1343) control signal. High: During receive.

<b>Pin number</b>	<b>Port name</b>	<b>Description</b>
103	AFCSW	Outputs AFC switch (IC352, pin 5) control signal.
105	DACK2	Outputs clock signal to the D/A converter (IC57, pin 7).
106	DADAT2	Outputs the data signal to the D/A converter (IC57, pin 6).
107	DACK1	Outputs clock signal to the D/A converter (IC56, pin 7).
108	DADAT1	Outputs the data signal to the D/A converter (IC56, pin 6).
128	FSTB	Outputs strobe signal to the FPGA IC (IC200).
129	MSTRC	Outputs strobe signal to the liner CODEC IC (IC1) and FPGA IC (IC200).
130	MDATC	Outputs the data signal to the liner CODEC IC (IC1) and FPGA IC (IC200).
131	MCLKC	Outputs clock signal to the liner CODEC IC (IC1) and FPGA IC (IC200).
132	MRESC	Outputs reset signal to the liner CODEC IC (IC1) and FPGA IC (IC200).

# SECTION 5 PARTS LIST

## [MAIN-D UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
IC71	1110004470	S.IC μPC2721GV-E1	T	49.9/74.1
IC271	1110004070	S.IC MC3356DW-R2	T	81.8/33.5
IC341	1130008090	S.IC BU4066BCFV-E1	T	92.5/35.1
IC342	1130006220	S.IC TC4W53FU (TE12L)	T	106.9/33.8
IC343	1110005290	S.IC NJM2115V-TE1	T	98.2/28.2
IC400	1130010100	S.IC LMX2352TMX	B	25.6/64.8
IC550	1130007610	S.IC μPD3140GS-E1 (DS8)	B	12.7/35
IC551	1130006220	S.IC TC4W53FU (TE12L)	B	21/43.6
IC830	1110006090	S.IC XC6202P502PR	B	38.3/28.2
IC831	1110002751	S.IC TA75S01F (TE85R, F)	B	62/33.4
IC832	1110004050	S.IC NJM3404AV-TE1-#ZZZB	B	57.9/32.6
IC890	1110005410	S.IC RF2485	B	48.5/41.7
IC960	1110005150	S.IC μPC8163TB-E3	B	53.3/61.8
IC1021	1110001890	S.IC μPC1678G-E2	T	68.1/53.9
IC1250	1110002751	S.IC TA75S01F (TE85R, F)	B	78.9/124.3
IC1251	1110002751	S.IC TA75S01F (TE85R, F)	B	80.1/116
IC1330	1180002080	S.REG BA09FP-E2	B	75.3/89
IC1331	1180001071	S.IC TA7805F (TE16L, Q)	B	77/100.9
IC1332	1180002020	S.REG BA033FP-E2	B	36.4/96.1
Q1	1590002970	S.FET NE34018-T1 64	T	57.3/105.2
Q131	1580000680	S.FET 3SK241-R (TX)	T	41.9/58.9
Q270	1530002601	S.TR 2SC4215-O (TE85R, F)	T	66.1/41.6
Q271	1530002601	S.TR 2SC4215-O (TE85R, F)	B	79/42.6
Q272	1590000720	S.TR DTA144EUA T106	T	60.4/41.9
Q400	1530003311	S.TR 2SC5107-O (TE85R, F)	T	23.2/52.5
Q470	1540000660	S.TR 2SD2216J-S	T	15.7/67.2
Q471	1530003560	S.TR 2SC5195-T1	T	25.6/73.3
Q472	1530003560	S.TR 2SC5195-T1	T	23.5/73.3
Q473	1530003311	S.TR 2SC5107-O (TE85R, F)	T	29.9/67.7
Q474	1530003311	S.TR 2SC5107-O (TE85R, F)	B	27.2/73.5
Q631	1530003311	S.TR 2SC5107-O (TE85R, F)	T	23.7/32.8
Q632	1530003311	S.TR 2SC5107-O (TE85R, F)	T	29/30.2
Q633	1530003311	S.TR 2SC5107-O (TE85R, F)	B	26.3/29.8
Q634	1540000660	S.TR 2SD2216J-S	T	30.3/35
Q710	1530003311	S.TR 2SC5107-O (TE85R, F)	B	38.6/73.3
Q770	1590001330	S.TR DTA114EUA T106	B	34.1/58.9
Q771	1530003311	S.TR 2SC5107-O (TE85R, F)	T	26.6/39.7
Q890	1530003311	S.TR 2SC5107-O (TE85R, F)	B	35.3/39.4
Q1080	1560001091	S.FET 2SK2854 (T2LICOM, F)	B	98.4/39.4
Q1081	1560001140	S.FET 2SK2855 (TE12L)	B	108.6/38.2
Q1082	1540000470	S.TR 2SD1801S-TL-E	B	76.3/65.4
Q1250	1590000430	S.TR DTC144EUA T106	B	67.3/127.1
Q1330	1590001320	S.TR DTC143ZUA T106	B	63.8/108.7
Q1331	1510000890	S.TR DTA143TU T106	B	63.8/105.3
Q1332	1530003910	S.TR 2SC4684 (TE16L1 NQ)	B	63.4/98.6
Q1333	1520000730	S.TR 2SB934P (DS) -(TX)	B	76.3/75.5
Q1334	1530002280	S.TR 2SC4081 T106 S	B	63.1/74.7
Q1335	1590000430	S.TR DTC144EUA T106	B	62.8/71.6
Q1336	1540000440	S.TR 2SD1619-T-TD	B	26.6/95.1
Q1337	1510000581	S.TR 2SA1362-GR (TE85R, F)	B	37.1/89.5
Q1338	1590000430	S.TR DTC144EUA T106	T	27.5/95.2
Q1340	1590000430	S.TR DTC144EUA T106	T	25/95.2
Q1341	1590000430	S.TR DTC144EUA T106	T	35.4/96.8
Q1342	1510000581	S.TR 2SA1362-GR (TE85R, F)	B	40.7/87.4
Q1343	1510000581	S.TR 2SA1362-GR (TE85R, F)	B	42.9/93.8
Q1344	1590000430	S.TR DTC144EUA T106	T	44.6/89.2
Q1345	1590000430	S.TR DTC144EUA T106	B	63.4/57.8
Q1346	1590000430	S.TR DTC144EUA T106	B	63.5/51.9
Q1347	1590000430	S.TR DTC144EUA T106	B	66.1/53.7
Q1348	1510000581	S.TR 2SA1362-GR (TE85R, F)	B	55.2/55.7
Q1349	1510000581	S.TR 2SA1362-GR (TE85R, F)	B	60.9/55.4
Q1350	1510000581	S.TR 2SA1362-GR (TE85R, F)	B	39.9/34.3
Q1351	1590000430	S.TR DTC144EUA T106	B	35.6/32.9
Q1352	1590000430	S.TR DTC144EUA T106	T	48.2/89.1
Q1750	1520000200	S.TR 2SB798-T2 DK	B	23.2/114.9
Q1751	1530002280	S.TR 2SC4081 T106 S	T	26.5/119.1
Q1800	1590000720	S.TR DTA144EUA T106	T	10.6/24.8
D273	1790001621	S.DIO 1SV308 (TPL, 3L)	B	41.1/52.5
D274	1790000491	S.DIO HSM88ASTR-E	B	73.9/49.3
D470	1730002300	S.ZEN MA8082-M (TX)	T	15.1/71.6
D471	1720000471	S.VCP 1SV239 (TPH3, F)	T	20.8/76.9
D630	1720000690	S.VCP 1SV282 (TPH2)	T	13.8/41.3
D633	1730002300	S.ZEN MA8082-M (TX)	T	35.3/38.7
D710	1790001621	S.DIO 1SV308 (TPL, 3L)	B	41.8/64.6
D711	1790001621	S.DIO 1SV308 (TPL, 3L)	B	41.5/69.5
D770	1750000581	S.DIO 1SV307 (TPH3, F)	B	31.2/39.9
D771	1750000581	S.DIO 1SV307 (TPH3, F)	B	29/44.3
D1080	1730002300	S.ZEN MA8082-M (TX)	B	83.1/67.6
D1160	1750000760	S.DIO MA4PH224	T	90.9/106.4

## [MAIN-D UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
D1161	1750000760	S.DIO MA4PH224	T	81/108.5
D1162	1750000760	S.DIO MA4PH224	T	77.8/111.5
D1164	1720000361	S.DIO HSU88TRF-E	T	88.4/121.8
D1165	1720000361	S.DIO HSU88TRF-E	B	93.1/126.3
D1166	1720000361	S.DIO HSU88TRF-E	T	95.7/109.5
D1167	1720000361	S.DIO HSU88TRF-E	T	111.9/118
D1168	1790001040	S.ZEN MA8033-L (TX)	B	64.7/119.4
D1169	1790001040	S.ZEN MA8033-L (TX)	B	64.7/122.1
D1250	1720000361	S.DIO HSU88TRF-E	T	69.1/124.2
D1251	1720000361	S.DIO HSU88TRF-E	B	71.6/121.4
D1252	1720000361	S.DIO HSU88TRF-E	B	74.6/120.2
D1254	1720000361	S.DIO HSU88TRF-E	B	79.8/120.4
D1330	1790000700	DIO DSA3A1	T	39/127
D1331	1750000550	S.DIO 1SS355 TE-17	B	68.1/70.7
D1332	1750000550	S.DIO 1SS355 TE-17	T	27.3/92
D1333	1750000550	S.DIO 1SS355 TE-17	T	29.1/92
D1602	1730002280	S.ZEN MA8091-M (TX)	B	105.3/9.7
D1605	1730002280	S.ZEN MA8091-M (TX)	B	111.7/14.4
D1606	1730002280	S.ZEN MA8091-M (TX)	B	99.7/10.6
D1750	1730002300	S.ZEN MA8082-M (TX)	T	26.4/121.3
D1800	1750000550	S.DIO 1SS355 TE-17	T	13.7/23.9
D1801	1750000550	S.DIO 1SS355 TE-17	T	8.6/22.3
F1	2040001660	S.FIL LFB431G28SN1A362	T	51.3/100.6
F12	2040001660	S.FIL LFB431G28SN1A362	T	53.2/83
F171	2040001650	S.SAW WF447B-T	T	50.2/66.2
F1272	2020002190	CER SFELF10M7HA0G-B0	T	59.7/46.2
F1273	2020002190	CER SFELF10M7HA0G-B0	T	68.9/46.2
F1880	2040001650	S.SAW WF447B-T	T	51.2/52.5
F1961	2040001360	S.FIL LFB431G27AL1A303	T	63.6/62.6
F11020	2040001360	S.FIL LFB431G27AL1A303	T	85/48.4
X271	6070000260	DCR CDALFA10M7C004A-B0	T	73.4/35.5
X400	6050010930	S.XTL CR-662 (15.3 MHz)	T	14.3/55.1
L1	6200006030	S.COL LQP18MN4N7C02D	T	66.8/105.6
L2	6200006020	S.COL LQP18MN3N9C02D	T	64.7/108.8
L3	6200006030	S.COL LQP18MN4N7C02D	T	60.5/105.3
L4	6200006060	S.COL LQP18MN8N2C02D	T	59.2/105.3
L5	6200006040	S.COL LQP18MN5N6C02D	T	56.6/102.5
L71	6200006991	S.COL ELJRE 56NG-F	T	44.5/76.9
L72	6200006991	S.COL ELJRE 56NG-F	T	56.2/70
L73	6200006991	S.COL ELJRE 56NG-F	T	45.3/67.2
L74	6200009351	S.COL ELJRE R22G-F3	T	44/63.2
L131	6200002710	S.COL ELJFC 1R8K-F	T	41.8/55.5
L132	6200001980	S.COL NL 252018T-1R0J	T	41.8/52.1
L400	6200006991	S.COL ELJRE 56NG-F	T	9.4/66.9
L403	6200006991	S.COL ELJRE 56NG-F	T	14.5/60.4
L404	6200006991	S.COL ELJRE 56NG-F	T	17.6/59.9
L415	6200006991	S.COL ELJRE 56NG-F	T	9.4/49.4
L470	6200006991	S.COL ELJRE 56NG-F	T	23.5/69.5
L471	6200007770	S.COL LQW2BHN10J03L	T	25.1/71.2
L472	6200009390	S.COL C3328A-8N0J-A	T	24.6/78.2
L473	6200002630	S.COL NL 252018T-R10J	T	20/79.4
L474	6200005621	S.COL ELJRE 4N7Z-F	T	31.8/67.6
L475	6200005641	S.COL ELJRE 6N8Z-F	T	31.8/70.2
L476	6200005651	S.COL ELJRE 8N2Z-F	T	35.3/73.4
L477	6200005641	S.COL ELJRE 6N8Z-F	T	35.3/77.3
L480	6200005641	S.COL ELJRE 6N8Z-F	B	24.7/75.1
L481	6200006991	S.COL ELJRE 56NG-F	T	22.1/66.3
L550	6200001980	S.COL NL 252018T-1R0J	B	21.7/36.1
L553	6200006991	S.COL ELJRE 56NG-F	B	18/48.1
L554	6200006991	S.COL ELJRE 56NG-F	B	24.9/37.7
L630	6200009700	S.COL C6328A-28NG-A	T	17.7/39.1
L631	6200005701	S.COL ELJRE 22NG-F	B	21.4/30.4
L632	6200006991	S.COL ELJRE 56NG-F	T	32.8/30.8
L633	6200001980	S.COL NL 252018T-1R0J	T	17.7/43.9
L635	6200006991	S.COL ELJRE 56NG-F	B	24.9/36.1
L636	6200006991	S.COL ELJRE 56NG-F	T	26.7/33.5
L710	6200006991	S.COL ELJRE 56NG-F	B	38.8/60.3
L711	6200006991	S.COL ELJRE 56NG-F	T	43.6/78.2
L712	6200006991	S.COL ELJRE 56NG-F	T	41.5/78.7
L713	6200005621	S.COL ELJRE 4N7Z-F	B	36.5/68.7
L714	6200005641	S.COL ELJRE 6N8Z-F	B	36.4/74.3
L717	6200006991	S.COL ELJRE 56NG-F	T	9.9/69.5
L718	6200006991	S.COL ELJRE 56NG-F	T	35.3/58.6
L719	6200006991	S.COL ELJRE 56NG-F	T	44/80.5
L720	6200006991	S.COL ELJRE 56NG-F	T	36.2/55.9
L721	6200006991	S.COL ELJRE 56NG-F	B	32.1/83.2
L770	6200005701	S.COL ELJRE 22NG-F	B	31/50.4

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

[MAIN-D UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
L880	6200006991	S.COL ELJRE 56NG-F	T	50.6/46.5
L881	6200006991	S.COL ELJRE 56NG-F	T	46.2/53.8
L891	6200005711	S.COL ELJRE 27NG-F	B	40.9/45
L892	6200005721	S.COL ELJRE 33NG-F	T	47.5/59.1
L893	6200005731	S.COL ELJRE 39NG-F	T	47.5/61.7
L895	6200006991	S.COL ELJRE 56NG-F	B	38.2/36.5
L896	6200006991	S.COL ELJRE 56NG-F	B	37.5/38.6
L897	6200006991	S.COL ELJRE 56NG-F	B	42.5/41.2
L898	6200001980	S.COL NL 252018T-1R0J	B	40.7/37.6
L961	6200006991	S.COL ELJRE 56NG-F	B	52.6/64.6
L962	6200005651	S.COL ELJRE 8N2Z-F	B	55.5/61.8
L964	6200006991	S.COL ELJRE 56NG-F	B	45.2/81.3
L1020	6200006991	S.COL ELJRE 56NG-F	B	69.1/53.7
L1021	6200005660	S.COL ELJRE 10NG-F	T	72.8/53.8
L1080	6200005741	S.COL ELJRE 47NG-F	B	100.6/43.6
L1081	6200008180	S.COL 0.25-1.9-10TL 107N	T	112.1/45.6
L1082	6200007740	S.COL LQW2BHN47NJ03L	T	107.3/48.1
L1084	6200006770	S.COL ELJRE 1N5Z-F	B	101.9/42
L1085	6200006991	S.COL ELJRE 56NG-F	T	106.5/50.4
L1086	6200006991	S.COL ELJRE 56NG-F	T	99.8/46.7
L1087	6200006991	S.COL ELJRE 56NG-F	B	81.2/106.9
L1160	6200003590	S.COL EXCCL3225U1	T	114.7/82
L1161	6200009700	S.COL C6328A-28NG-A	T	105.2/95.9
L1162	6200009410	S.COL C3328A-2N5K-A	T	85.1/108.6
L1163	6200009410	S.COL C3328A-2N5K-A	T	73.7/107.3
L1164	6200006991	S.COL ELJRE 56NG-F	B	97.4/127.1
L1165	6200009700	S.COL C6328A-28NG-A	T	116.9/106.2
L1166	6200009700	S.COL C6328A-28NG-A	T	93/83.6
L1167	6200008911	S.COL 1812CS-122XJIC	T	101.1/84.8
L1168	6200003590	S.COL EXCCL3225U1	T	100.7/81.1
L1250	6200005741	S.COL ELJRE 47NG-F	B	57.6/126.3
L1251	6200006991	S.COL ELJRE 56NG-F	B	76.2/113
L1330	6200006991	S.COL ELJRE 56NG-F	T	21.2/93.5
L1331	6200006991	S.COL ELJRE 56NG-F	B	22.9/92.3
L1332	6200006991	S.COL ELJRE 56NG-F	B	22.5/91
L1333	6200006991	S.COL ELJRE 56NG-F	B	43.2/80.9
L1334	6200006991	S.COL ELJRE 56NG-F	B	53.9/71.6
L1335	6200006991	S.COL ELJRE 56NG-F	B	62.2/76.6
L1348	6200006991	S.COL ELJRE 56NG-F	B	51.8/67.2
L1349	6200006991	S.COL ELJRE 56NG-F	B	58.7/57.8
L1360	6200006991	S.COL ELJRE 56NG-F	T	37.4/53.2
L1550	6200006991	S.COL ELJRE 56NG-F	B	17.7/56.8
L1801	6200006991	S.COL ELJRE 56NG-F	B	27.4/103.3
L1802	6200006991	S.COL ELJRE 56NG-F	B	26.6/102
L1803	6200006991	S.COL ELJRE 56NG-F	B	26.2/100.7
L1804	6200006991	S.COL ELJRE 56NG-F	B	26.2/99.4
L1805	6200006991	S.COL ELJRE 56NG-F	B	54.5/108.5
R1	7030003260	S.RES ERJ3GEYJ 330 V (33 Ω)	T	55.4/106.3
R2	7030003240	S.RES ERJ3GEYJ 220 V (22 Ω)	T	56.6/98.5
R3	7030005430	S.RES ERJ3GEYJ 3R3 V (3.3 Ω)	T	53.5/93.2
R5	7030003860	S.RES ERJ3GE JPW V	T	55.2/89.3
R7	7030003340	S.RES ERJ3GEYJ 151 V (150 Ω)	T	55.1/79.4
R8	7030003220	S.RES ERJ3GEYJ 150 V (15 Ω)	T	53.2/78.6
R70	7030003200	S.RES ERJ3GEYJ 100 V (10 Ω)	T	43.6/75.2
R71	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	45.5/74.5
R84	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	91/28.7
R85	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	T	95.5/27.4
R87	7030003790	S.RES ERJ3GEYJ 824 V (820 kΩ)	T	98.2/23
R91	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	100.9/27.5
R92	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	T	95.5/30
R93	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	93.6/30
R94	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	T	98.9/33.3
R131	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	T	44.2/61.3
R132	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	44.8/60
R133	7030003300	S.RES ERJ3GEYJ 680 V (68 Ω)	T	44.3/56.1
R134	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	58.8/72.9
R135	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	39.1/54.5
R188	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	58.4/43.8
R270	7030003490	S.RES ERJ3GEYJ 272 V (2.7 kΩ)	B	82.6/30.5
R271	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	T	78.7/25.6
R272	7030003510	S.RES ERJ3GEYJ 392 V (3.9 kΩ)	B	84.7/31.3
R273	7030003590	S.RES ERJ3GEYJ 183 V (18 kΩ)	B	77.9/33
R274	7030003590	S.RES ERJ3GEYJ 183 V (18 kΩ)	B	80/32.2
R276	7030003450	S.RES ERJ3GEYJ 122 V (1.2 kΩ)	T	71/35.7
R277	7030003280	S.RES ERJ3GEYJ 470 V (47 Ω)	T	74.2/38.3
R278	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	T	79.4/40.6
R279	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	63.2/41.1
R280	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	57.6/41.9
R281	7030003380	S.RES ERJ3GEYJ 331 V (330 Ω)	T	68.1/40.6
R282	7030003410	S.RES ERJ3GEYJ 561 V (560 Ω)	B	43.7/53.9
R283	7030003660	S.RES ERJ3GEYJ 683 V (68 kΩ)	T	66.5/43.5
R284	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	69.4/40.6
R287	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	73.9/41.7
R288	7030003400	S.RES ERJ3GEYJ 471 V (470 Ω)	B	75.8/41.3
R289	7030003620	S.RES ERJ3GEYJ 333 V (33 kΩ)	B	77.1/42.1
R291	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	T	71.3/22.7
R292	7510001670	S.TMR NTCG16 4BH 103KT	T	72.1/40.3
R293	7030003450	S.RES ERJ3GEYJ 122 V (1.2 kΩ)	T	72.1/42.9

[MAIN-D UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
R294	7030003280	S.RES ERJ3GEYJ 470 V (47 Ω)	B	46.3/51.8
R296	7030003530	S.RES ERJ3GEYJ 562 V (5.6 kΩ)	T	73.4/40.3
R331	7030003720	S.RES ERJ3GEYJ 224 V (220 kΩ)	B	81.6/124.3
R340	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	T	66.6/35.7
R400	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	26.3/56.2
R401	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	28.3/57.8
R402	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	31.5/69.2
R403	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	29.9/58.6
R404	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	31.5/59.4
R405	7030003290	S.RES ERJ3GEYJ 560 V (56 Ω)	B	23.1/75.1
R406	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	B	18.3/73.5
R407	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	20.7/74.3
R409	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	23/55.7
R410	7030003660	S.RES ERJ3GEYJ 683 V (68 kΩ)	T	23/54.4
R411	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	20.8/49.7
R412	7030003670	S.RES ERJ3GEYJ 823 V (82 kΩ)	T	20.4/51.7
R413	7030003360	S.RES ERJ3GEYJ 221 V (220 Ω)	T	21/55
R414	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	23/57.1
R415	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	11/50.7
R416	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	20.3/57.1
R470	7030003360	S.RES ERJ3GEYJ 221 V (220 Ω)	T	16.3/69.5
R471	7030006601	S.RES ERA3YED 272V	T	27.3/74
R472	7030006571	S.RES ERA3YED 392V	T	27.3/76.7
R473	7030006571	S.RES ERA3YED 392V	T	21.2/72.7
R474	7030003400	S.RES ERJ3GEYJ 471 V (470 Ω)	T	21.2/75.3
R475	7030003280	S.RES ERJ3GEYJ 470 V (47 Ω)	T	26.7/67.6
R476	7030003650	S.RES ERJ3GEYJ 563 V (56 kΩ)	T	28/67.6
R478	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	27.3/69.5
R479	7030003420	S.RES ERJ3GEYJ 681 V (680 Ω)	T	35/66.8
R480	7030003290	S.RES ERJ3GEYJ 560 V (56 Ω)	B	36.1/77.1
R481	7030003310	S.RES ERJ3GEYJ 820 V (82 Ω)	B	29.4/75
R483	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	22.7/75.7
R484	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	26.4/79.2
R485	7030003270	S.RES ERJ3GEYJ 390 V (39 Ω)	T	31.3/65.7
R486	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	15/69.5
R487	7030009691	S.RES ERA3YED 101V (100 Ω)	T	21.9/79
R550	7030003290	S.RES ERJ3GEYJ 560 V (56 Ω)	B	18.2/34.1
R551	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	11.1/27.5
R552	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	9.5/26.7
R553	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	7.9/27.5
R554	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	6.3/26.7
R555	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	10.1/40.8
R556	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	B	7.3/40.8
R557	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	10.1/42.4
R558	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	23.3/39.8
R559	7030003450	S.RES ERJ3GEYJ 122 V (1.2 kΩ)	T	8.6/36.7
R560	7030003430	S.RES ERJ3GEYJ 821 V (820 Ω)	T	6.7/34.7
R561	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	8.6/34.1
R632	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	20/42.8
R634	7030003860	S.RES ERJ3GE JPW V	T	14.4/37.8
R636	7030003490	S.RES ERJ3GEYJ 272 V (2.7 kΩ)	T	22.6/35.8
R637	7030003490	S.RES ERJ3GEYJ 272 V (2.7 kΩ)	T	20.9/33.4
R638	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	21.3/29.6
R639	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	24.6/35.4
R640	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	25.9/35.4
R642	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	27.1/30.2
R643	7030003290	S.RES ERJ3GEYJ 560 V (56 Ω)	T	28.6/38.2
R644	7030003360	S.RES ERJ3GEYJ 221 V (220 Ω)	B	28.7/35.2
R645	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	28.7/31
R646	7030003610	S.RES ERJ3GEYJ 273 V (27 kΩ)	B	26.3/31.8
R647	7030003380	S.RES ERJ3GEYJ 331 V (330 Ω)	B	23.8/31.2
R648	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	25.5/33.9
R649	7030003360	S.RES ERJ3GEYJ 221 V (220 Ω)	T	32/34.8
R710	7030003370	S.RES ERJ3GEYJ 271 V (270 Ω)	B	40.1/61.9
R711	7030003370	S.RES ERJ3GEYJ 271 V (270 Ω)	T	41.5/75.9
R712	7030003340	S.RES ERJ3GEYJ 151 V (150 Ω)	B	42.3/67.7
R715	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	34/75.1
R716	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	38.6/75.5
R770	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	35.6/34.9
R771	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	31.5/35.2
R772	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	33.6/50.7
R773	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	31/48.8
R775	7030003270	S.RES ERJ3GEYJ 390 V (39 Ω)	T	36.2/57.2
R777	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	28.6/43.9
R778	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	26.7/41.6
R779	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	26.6/37.8
R780	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	24.6/38.9
R781	7030003650	S.RES ERJ3GEYJ 563 V (56 kΩ)	T	26.7/42.9
R830	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	63/29.8
R831	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	64.7/33.3
R832	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	66.5/36.2
R833	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	56/27.2
R834	7030006091	S.RES ERA3YED 822V	B	58.6/37.5
R835	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	57.1/39.1
R836	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	54.3/35.6
R837	7030006091	S.RES ERA3YED 822V	B	60.5/28.4
R838	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	57.9/26.1
R839	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	44.7/35.5
R842	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	48.2/35.6
R845	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	41.5/30.7

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



[MAIN-D UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
R846	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	42.8/29.9
R847	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	46.2/32.9
R848	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	47.5/32.9
R890	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	35.4/37.5
R891	7030003400	S.RES ERJ3GEYJ 471 V (470 Ω)	B	38.1/44.3
R892	7030003400	S.RES ERJ3GEYJ 471 V (470 Ω)	B	35.4/42.6
R893	7030003200	S.RES ERJ3GEYJ 100 V (10 Ω)	B	38.9/42.2
R895	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	35.6/36.2
R897	7030003290	S.RES ERJ3GEYJ 560 V (56 Ω)	B	44.7/46.8
R898	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	46.8/35.5
R899	7030003290	S.RES ERJ3GEYJ 560 V (56 Ω)	B	52.9/47.3
R960	7030003370	S.RES ERJ3GEYJ 271 V (270 Ω)	T	60.4/60.6
R961	7030003340	S.RES ERJ3GEYJ 151 V (150 Ω)	B	48.6/64.5
R962	7030003290	S.RES ERJ3GEYJ 560 V (56 Ω)	B	45.6/58.3
R1020	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	82.4/121.9
R1022	7030003300	S.RES ERJ3GEYJ 680 V (68 Ω)	T	66.8/58
R1023	7030003430	S.RES ERJ3GEYJ 821 V (820 Ω)	T	78.6/46.6
R1024	7030004030	S.RES ERJ3GEYJ 5R6 V (5.6 Ω)	T	79.4/48.5
R1025	7030003430	S.RES ERJ3GEYJ 821 V (820 Ω)	T	80.2/46.6
R1028	7030003430	S.RES ERJ3GEYJ 821 V (820 Ω)	B	88.6/41
R1029	7030004030	S.RES ERJ3GEYJ 5R6 V (5.6 Ω)	B	89.4/43.1
R1030	7030003430	S.RES ERJ3GEYJ 821 V (820 Ω)	B	90.8/41
R1080	7030003360	S.RES ERJ3GEYJ 221 V (220 Ω)	B	94.6/43.9
R1081	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	B	93/45.5
R1083	7030003350	S.RES ERJ3GEYJ 181 V (180 Ω)	B	76.3/69.9
R1084	7030003300	S.RES ERJ3GEYJ 680 V (68 Ω)	B	105.1/43.3
R1085	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	107.3/49.5
R1086	7310005050	S.TRI RH03ADCS3X (4.7 kΩ)	T	75.8/117.3
R1087	7310005050	S.TRI RH03ADCS3X (4.7 kΩ)	T	79.9/118.3
R1088	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	T	104.6/44
R1090	7030006150	S.RES ERJ1WYJ271U (270 Ω)	B	121.6/53.8
R1160	7030010420	S.RES ERJ1TYJ 560U (56 Ω)	T	106.4/88.2
R1161	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	86.8/119.1
R1162	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	B	89.6/119.3
R1164	7030000260	S.RES MCR10EZJH 100 Ω (101)	T	111.7/109.5
R1165	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	95/127.9
R1166	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	111.1/125.4
R1167	7030000250	S.RES MCR10EZJH 82 Ω (820)	T	95.9/118
R1169	7030000500	S.RES MCR10EZJH 10 kΩ	B	120.8/126.2
R1170	7030006260	S.RES ERJ12YJ471U (470 Ω)	B	67.7/121.7
R1250	7030003530	S.RES ERJ3GEYJ 562 V (5.6 kΩ)	B	71.6/124.6
R1251	7310005140	S.TRI RH03ADCS3X (2.2 kΩ)	T	73.4/126.7
R1252	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	69.7/127.7
R1254	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	70.3/127.1
R1255	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	75.9/127.1
R1256	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	B	87.6/125.1
R1257	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	88.4/127.5
R1258	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	77.9/121
R1259	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	77/115.1
R1260	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	77.4/117.5
R1261	7030003340	S.RES ERJ3GEYJ 151 V (150 Ω)	B	73.1/127.1
R1330	7030003200	S.RES ERJ3GEYJ 100 V (10 Ω)	B	64.6/102.8
R1331	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	66/104.9
R1332	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	65.8/75.5
R1333	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	64.1/74.4
R1334	7030000410	S.RES MCR10EZJH 1.8 kΩ	B	59.5/73.3
R1335	7030000410	S.RES MCR10EZJH 1.8 kΩ	B	59.5/75.3
R1336	7030007180	S.RES ERJ12YJ150U (15 Ω)	B	71.5/100
R1338	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	T	25.7/91.3
R1339	7030000100	S.RES MCR10EZJH 4.7 Ω (4R7)	B	28.8/98.4
R1340	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	25.2/93.2
R1342	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	37.1/91.9
R1343	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	35.4/94
R1344	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	40.7/89.8
R1345	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	42.1/90.1
R1346	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	42.9/91.1
R1347	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	45.7/91.1
R1348	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	60.6/57.8
R1349	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	67.4/55.7
R1350	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	60.7/53
R1351	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	58.7/55.2
R1352	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	86.9/37.5
R1353	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	37.5/33.9
R1562	7030007180	S.RES ERJ12YJ150U (15 Ω)	B	43.6/113.9
R1750	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	T	25.3/115.6
R1751	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	29.4/121.3
R1800	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	9.5/20.2
R1801	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	B	4.2/25.9
R1802	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	T	13.4/25.5
R1803	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	61.6/6.9
R9001	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	47.3/26.4
R9002	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	51.9/24.1
R9007	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	83.2/1
R9008	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	65.6/6.2
R9009	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	93.2/11.9
R9010	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	20.6/20.5
R9301	7030005430	S.RES ERJ3GEYJ 3R3 V (3.3 Ω)	T	51.3/96.2
R9302	7030003390	S.RES ERJ3GEYJ 391 V (390 Ω)	T	49.4/95.4
R9303	7030005430	S.RES ERJ3GEYJ 3R3 V (3.3 Ω)	T	57.1/89.9
R9304	7030003390	S.RES ERJ3GEYJ 391 V (390 Ω)	T	53.2/87.4

[MAIN-D UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
R9305	7030005430	S.RES ERJ3GEYJ 3R3 V (3.3 Ω)	T	53.2/87.4
C2	4030009530	S.CER C1608 CH 1H 030B-T	T	67.6/107.5
C3	4030009540	S.CER C1608 CH 1H 1R5B-T	T	65/107.5
C4	4030009540	S.CER C1608 CH 1H 1R5B-T	T	62.4/107.2
C5	4030009510	S.CER C1608 CH 1H 010B-T	T	59.7/107.2
C6	4030007090	S.CER C1608 CH 1H 470J-T	T	54.1/106.3
C7	4030006860	S.CER C1608 JB 1H 102K-T	T	54.3/108.2
C8	4030007090	S.CER C1608 CH 1H 470J-T	T	57.5/108
C9	4030007090	S.CER C1608 CH 1H 470J-T	T	58.8/103.2
C10	4030006860	S.CER C1608 JB 1H 102K-T	T	58.8/101.9
C11	4030007010	S.CER C1608 CH 1H 100D-T	T	58.8/100.6
C12	4030009910	S.CER C1608 CH 1H 040B-T	T	54.8/104.4
C13	4030007090	S.CER C1608 CH 1H 470J-T	T	58.8/99.3
C14	4030007010	S.CER C1608 CH 1H 100D-T	T	58.8/98
C15	4030006860	S.CER C1608 JB 1H 102K-T	T	58.8/96.7
C21	4030007010	S.CER C1608 CH 1H 100D-T	T	55.2/86.7
C23	4030006860	S.CER C1608 JB 1H 102K-T	T	54.3/75.9
C70	4030006860	S.CER C1608 JB 1H 102K-T	T	42.3/73.9
C72	4030007090	S.CER C1608 CH 1H 470J-T	T	45.5/71.9
C74	4030007090	S.CER C1608 CH 1H 470J-T	T	46.4/77.3
C75	4030009500	S.CER C1608 CH 1H 0R5B-T	T	47.7/77.3
C76	4030006860	S.CER C1608 JB 1H 102K-T	T	56.2/76.4
C77	4030007090	S.CER C1608 CH 1H 470J-T	T	56.2/75.1
C78	4030006860	S.CER C1608 JB 1H 102K-T	T	56.2/72.9
C79	4030009910	S.CER C1608 CH 1H 040B-T	T	54.3/72.2
C81	4030009550	S.CER C1608 CH 1H 2R5B-T	T	43.9/67.2
C82	4030009910	S.CER C1608 CH 1H 040B-T	T	44.7/65.2
C131	4030006860	S.CER C1608 JB 1H 102K-T	T	38.9/57.5
C132	4030010760	S.CER C1608 CH 1H 331J-T	T	44.3/54.8
C133	4030006860	S.CER C1608 JB 1H 102K-T	T	44.9/58.7
C134	4030011600	S.CER C1608 JB 1E 104K-T	T	44.7/57.4
C136	4030006860	S.CER C1608 JB 1H 102K-T	T	44.3/53.5
C137	4030006900	S.CER C1608 JB 1H 103K-T	T	44.3/52.2
C138	4030011600	S.CER C1608 JB 1E 104K-T	T	44.3/50.9
C140	4030006860	S.CER C1608 JB 1H 102K-T	T	38.5/55.5
C207	4030011600	S.CER C1608 JB 1E 104K-T	T	63.2/39.8
C271	4030011600	S.CER C1608 JB 1E 104K-T	T	82/41.9
C272	4550006250	S.TAN TEESVA 1A 106M8R	T	82.8/43.6
C273	4030006900	S.CER C1608 JB 1H 103K-T	T	82/40.6
C274	4030006900	S.CER C1608 JB 1H 103K-T	T	76.3/42.5
C275	4030006900	S.CER C1608 JB 1H 103K-T	T	77.6/42.5
C276	4030006900	S.CER C1608 JB 1H 103K-T	T	76.8/40.6
C277	4030006860	S.CER C1608 JB 1H 102K-T	B	81.9/41.5
C278	4030011600	S.CER C1608 JB 1E 104K-T	T	74/43.1
C279	4030009550	S.CER C1608 CH 1H 2R5B-T	T	69.7/35.7
C281	4030006860	S.CER C1608 JB 1H 102K-T	T	80/25.6
C282	4030007130	S.CER C1608 CH 1H 101J-T	T	77.4/25.6
C283	4030011600	S.CER C1608 JB 1E 104K-T	T	75.5/23.3
C286	4030011600	S.CER C1608 JB 1E 104K-T	B	81.2/43.4
C287	4030006900	S.CER C1608 JB 1H 103K-T	B	78.4/45.4
C288	4030006860	S.CER C1608 JB 1H 102K-T	B	78.9/40.5
C291	4030006860	S.CER C1608 JB 1H 102K-T	B	43.7/51.8
C293	4030011600	S.CER C1608 JB 1E 104K-T	B	45.6/54.7
C295	4030006900	S.CER C1608 JB 1H 103K-T	T	64.1/43
C296	4030011600	S.CER C1608 JB 1E 104K-T	T	66.1/39.7
C297	4030006900	S.CER C1608 JB 1H 103K-T	T	68.9/43.2
C341	4030006860	S.CER C1608 JB 1H 102K-T	T	91/25.5
C342	4030011600	S.CER C1608 JB 1E 104K-T	T	95.9/35.9
C343	4030011600	S.CER C1608 JB 1E 104K-T	T	108/31.4
C346	4030011600	S.CER C1608 JB 1E 104K-T	T	102.4/25.9
C347	4510008490	S.ELE EEE1CS100SR	T	104.8/28.8
C348	4030011600	S.CER C1608 JB 1E 104K-T	T	98.9/35.9
C349	4030011810	S.CER C1608 JB 1A 224K-T	T	91/30
C400	4030006900	S.CER C1608 JB 1H 103K-T	B	23.8/58
C403	4030011810	S.CER C1608 JB 1A 224K-T	B	20.5/68.6
C404	4030007010	S.CER C1608 CH 1H 100D-T	B	25.3/69.7
C405	4030006860	S.CER C1608 JB 1H 102K-T	B	23.1/72.3
C406	4550000270	S.TAN TEESVA 1E 474M8L	B	14.2/74.2
C408	4030008880	S.CER C1608 JB 1H 223K-T	B	22.5/70.2
C409	4030008900	S.CER C1608 JB 1H 333K-T	B	19.9/76.2
C410	4030007090	S.CER C1608 CH 1H 470J-T	B	17.4/77.5
C414	4030007090	S.CER C1608 CH 1H 470J-T	B	26.3/58.6
C416	4030007010	S.CER C1608 CH 1H 100D-T	T	12.6/59.6
C417	4030011600	S.CER C1608 JB 1E 104K-T	T	12.6/60.9
C418	4030006880	S.CER C1608 JB 1H 472K-T	T	24.9/55.2
C419	4030012600	S.CER C2012 JB 1A 105M-T	T	14/50.4
C420	4030006880	S.CER C1608 JB 1H 472K-T	B	19.4/60.5
C421	4030007010	S.CER C1608 CH 1H 100D-T	T	19.7/55
C422	4030006880	S.CER C1608 JB 1H 472K-T	T	20.4/53
C423	4030007010	S.CER C1608 CH 1H 100D-T	T	19.5/49.7
C424	4030007090	S.CER C1608 CH 1H 470J-T	B	29.6/70
C425	4030007090	S.CER C1608 CH 1H 470J-T	B	32.3/61.5
C426	4030007090	S.CER C1608 CH 1H 470J-T	B	27.2/59.9
C427	4030007090	S.CER C1608 CH 1H 470J-T	B	30.4/63.5
C428	4030006850	S.CER C1608 JB 1H 471K-T	B	13.6/94.8
C429	4030007090	S.CER C1608 CH 1H 470J-T	B	16.5/67



[MAIN-D UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
C432	4030007090	S.CER C1608 CH 1H 470J-T	T	26.2/56.8
C433	4030006850	S.CER C1608 JB 1H 471K-T	B	31.8/56
C435	4030007090	S.CER C1608 CH 1H 470J-T	T	23/57
C436	4030007090	S.CER C1608 CH 1H 470J-T	T	23/60
C437	4030007010	S.CER C1608 CH 1H 100D-T	B	26.5/69.7
C438	4030007010	S.CER C1608 CH 1H 100D-T	B	18/72.3
C439	4030007010	S.CER C1608 CH 1H 100D-T	B	21/76.2
C470	4030006850	S.CER C1608 JB 1H 471K-T	T	23.5/68.2
C471	4550006770	S.TAN TEESVD2 1C 476M-12R	T	15.9/76.9
C472	4030012600	S.CER C2012 JB 1A 105M-T	T	19.2/65.6
C473	4030006850	S.CER C1608 JB 1H 471K-T	T	14.8/65.5
C474	4030011600	S.CER C1608 JB 1E 104K-T	T	21.6/68.9
C475	4030006860	S.CER C1608 JB 1H 102K-T	T	20.3/68.4
C476	4030007090	S.CER C1608 CH 1H 470J-T	T	18.9/67.8
C478	4030009500	S.CER C1608 CH 1H 0R5B-T	T	28.6/76.7
C479	4030009920	S.CER C1608 CH 1H 050B-T	T	27.3/79.3
C481	4030009530	S.CER C1608 CH 1H 030B-T	T	23.8/75
C482	4030009530	S.CER C1608 CH 1H 030B-T	T	21.2/74
C483	4030006860	S.CER C1608 JB 1H 102K-T	T	21.2/71.4
C484	4030009510	S.CER C1608 CH 1H 010B-T	T	27.3/71.4
C485	4030007090	S.CER C1608 CH 1H 470J-T	T	29.2/70.8
C486	4030007010	S.CER C1608 CH 1H 100D-T	T	29.2/72.1
C487	4030007090	S.CER C1608 CH 1H 470J-T	T	25.4/68.7
C488	4030009540	S.CER C1608 CH 1H 1R5B-T	T	35/68.1
C489	4030009510	S.CER C1608 CH 1H 010B-T	T	33.1/67.6
C490	4030009530	S.CER C1608 CH 1H 030B-T	T	35/69.4
C491	4030009570	S.CER C1608 CH 1H 0R3B-T	T	33.1/70.2
C492	4030009520	S.CER C1608 CH 1H 020B-T	T	33.9/72.1
C493	4030009920	S.CER C1608 CH 1H 050B-T	T	31.8/72.8
C494	4030007020	S.CER C1608 CH 1H 120J-T	T	33.7/74.7
C495	4030009520	S.CER C1608 CH 1H 020B-T	T	31.8/75.4
C496	4030007070	S.CER C1608 CH 1H 330J-T	T	33.7/776
C497	4030009530	S.CER C1608 CH 1H 030B-T	T	33.7/78.6
C498	4030007090	S.CER C1608 CH 1H 470J-T	B	25.3/70.5
C499	4030006850	S.CER C1608 JB 1H 471K-T	B	27.2/77.3
C500	4030009910	S.CER C1608 CH 1H 040B-T	T	28.6/74
C501	4030009910	S.CER C1608 CH 1H 040B-T	B	24.7/72.3
C503	4550006250	S.TAN TEESVA 1A 106M8R	T	18.9/71.7
C550	4030006860	S.CER C1608 JB 1H 102K-T	B	19/32.2
C551	4030007030	S.CER C1608 CH 1H 150J-T	B	19.2/38.9
C552	4030006860	S.CER C1608 JB 1H 102K-T	B	17.1/38.9
C553	4030007030	S.CER C1608 CH 1H 150J-T	B	21.4/29.6
C554	4030007090	S.CER C1608 CH 1H 470J-T	B	18.2/35.7
C555	4030011600	S.CER C1608 JB 1E 104K-T	B	13.2/40.3
C556	4030007090	S.CER C1608 CH 1H 470J-T	B	27/39.8
C558	4030007090	S.CER C1608 CH 1H 470J-T	B	13.2/41.6
C559	4030011600	S.CER C1608 JB 1E 104K-T	B	23.4/42.6
C561	4030007090	S.CER C1608 CH 1H 470J-T	B	27/20.5
C562	4030007090	S.CER C1608 CH 1H 470J-T	B	12.7/27.5
C564	4550000270	S.TAN TEESVA 1E 474M8L	B	5/39.2
C567	4550000520	S.TAN TEESVA 1V 683M8R	B	17.5/40.4
C569	4030006860	S.CER C1608 JB 1H 102K-T	B	17.1/44.8
C570	4030007090	S.CER C1608 CH 1H 470J-T	B	24.7/43.4
C571	4550000530	S.TAN TEESVA 1V 104M8R	B	6.9/34.3
C574	4550003080	S.TAN TEESVA 1A 335M8R	T	5/37.38
C575	4030006880	S.CER C1608 JB 1H 472K-T	T	18.2/49.7
C582	4030007090	S.CER C1608 CH 1H 470J-T	B	7.1/30.3
C583	4030007090	S.CER C1608 CH 1H 470J-T	B	8.4/30.3
C584	4030007090	S.CER C1608 CH 1H 470J-T	B	4.2/28.2
C585	4030007090	S.CER C1608 CH 1H 470J-T	B	25.5/20.5
C586	4030007090	S.CER C1608 CH 1H 470J-T	B	28.3/51.4
C587	4030007090	S.CER C1608 CH 1H 470J-T	B	26.8/44.1
C630	4030011810	S.CER C1608 JB 1A 224K-T	T	13.7/30.2
C632	4030007030	S.CER C1608 CH 1H 150J-T	T	15.9/34.8
C634	4030006860	S.CER C1608 JB 1H 102K-T	T	12.8/37.8
C635	4030006860	S.CER C1608 JB 1H 102K-T	T	15/31.3
C638	4030006860	S.CER C1608 JB 1H 102K-T	T	20.3/34.7
C639	4030007050	S.CER C1608 CH 1H 220J-T	T	21.7/31.5
C640	4030007050	S.CER C1608 CH 1H 220J-T	T	23.8/30.9
C641	4030009510	S.CER C1608 CH 1H 010B-T	T	23.9/29.6
C642	4550006250	S.TAN TEESVA 1A 106M8R	T	22.9/39.2
C643	4030011600	S.CER C1608 JB 1E 104K-T	T	20.6/37.6
C644	4030006860	S.CER C1608 JB 1H 102K-T	T	20.6/38.9
C645	4030007010	S.CER C1608 CH 1H 100D-T	T	26.7/32.2
C646	4030011600	S.CER C1608 JB 1E 104K-T	T	30.9/30.2
C647	4030006860	S.CER C1608 JB 1H 102K-T	T	25.8/30.2
C648	4030007090	S.CER C1608 CH 1H 470J-T	T	28.6/33
C649	4030007090	S.CER C1608 CH 1H 470J-T	T	28.6/35.6
C650	4030007090	S.CER C1608 CH 1H 470J-T	B	27.9/33.1
C651	4030007050	S.CER C1608 CH 1H 220J-T	B	23/28.8
C652	4030006860	S.CER C1608 JB 1H 102K-T	B	26.3/27.6
C653	4030007020	S.CER C1608 CH 1H 120J-T	B	20.6/28
C654	4030007020	S.CER C1608 CH 1H 120J-T	B	19/29.6
C655	4030012600	S.CER C2012 JB 1A 105M-T	T	32/32.5
C656	4030006850	S.CER C1608 JB 1H 471K-T	T	33.9/35.5
C657	4550006770	S.TAN TEESVD2 1C 476M-12R	T	31.8/40.6
C658	4030007090	S.CER C1608 CH 1H 470J-T	T	33.9/34.2
C659	4030009530	S.CER C1608 CH 1H 030B-T	B	21.4/32
C661	4030007090	S.CER C1608 CH 1H 470J-T	T	3.3/23.2
C662	4550006250	S.TAN TEESVA 1A 106M8R	T	5.7/26.7

[MAIN-D UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
C710	4030006850	S.CER C1608 JB 1H 471K-T	T	35.6/61
C711	4030007090	S.CER C1608 CH 1H 470J-T	T	33.3/61
C712	4030006850	S.CER C1608 JB 1H 471K-T	T	41.5/81.4
C713	4030009520	S.CER C1608 CH 1H 020B-T	B	38.9/67.9
C714	4030009510	S.CER C1608 CH 1H 010B-T	B	34.9/68.7
C715	4030009520	S.CER C1608 CH 1H 020B-T	B	38.9/69.5
C716	4030011770	S.CER C1608 CH 1H 060B-T	B	36.4/71.5
C718	4030007090	S.CER C1608 CH 1H 470J-T	B	34.8/72.7
C719	4030007030	S.CER C1608 CH 1H 150J-T	B	39.4/76.8
C720	4030006860	S.CER C1608 JB 1H 102K-T	B	38.6/78.1
C721	4030007090	S.CER C1608 CH 1H 470J-T	T	32.5/55.7
C722	4030007090	S.CER C1608 CH 1H 470J-T	B	37.8/64
C770	4030011770	S.CER C1608 CH 1H 060B-T	B	32.3/37.3
C772	4030006860	S.CER C1608 JB 1H 102K-T	B	32.6/33.2
C773	4030006860	S.CER C1608 JB 1H 102K-T	B	34.4/48.8
C774	4030007020	S.CER C1608 CH 1H 050B-T	B	31.8/53.9
C775	4030009530	S.CER C1608 CH 1H 030B-T	B	31/52
C776	4030007020	S.CER C1608 CH 1H 120J-T	B	28.2/50.1
C777	4030006860	S.CER C1608 JB 1H 102K-T	B	29/47.5
C778	4030007090	S.CER C1608 CH 1H 470J-T	T	28.6/41.2
C779	4030006850	S.CER C1608 JB 1H 471K-T	T	24.6/41.5
C780	4030007090	S.CER C1608 CH 1H 470J-T	B	35.7/51.5
C830	4550006080	S.TAN TEESVB2 1C 106M8R	B	36/22.4
C831	4030011600	S.CER C1608 JB 1E 104K-T	B	33.7/21.4
C832	4030011600	S.CER C1608 JB 1E 104K-T	B	38.8/22.8
C833	4550006250	S.TAN TEESVA 1A 106M8R	B	40.5/22.8
C834	4030011600	S.CER C1608 JB 1E 104K-T	B	63/37
C835	4030011600	S.CER C1608 JB 1E 104K-T	B	52.5/30.5
C836	4550006250	S.TAN TEESVA 1A 106M8R	B	54.5/31.3
C837	4030007130	S.CER C1608 CH 1H 101J-T	B	56/37.5
C838	4030007130	S.CER C1608 CH 1H 101J-T	B	57.9/27.7
C839	4030007030	S.CER C1608 CH 1H 150J-T	B	64.4/37
C840	4030007030	S.CER C1608 CH 1H 150J-T	B	66/33.3
C841	4030007030	S.CER C1608 CH 1H 150J-T	B	49.8/36.2
C880	4030009910	S.CER C1608 CH 1H 040B-T	T	52.5/47
C881	4030009510	S.CER C1608 CH 1H 010B-T	T	50.6/47.8
C882	4030009510	S.CER C1608 CH 1H 010B-T	T	47.5/53.8
C883	4030009910	S.CER C1608 CH 1H 040B-T	T	47.5/56.5
C891	4030006850	S.CER C1608 JB 1H 471K-T	B	54.2/44.9
C893	4030007030	S.CER C1608 CH 1H 150J-T	B	45.2/37.4
C894	4030007030	S.CER C1608 CH 1H 150J-T	B	43.1/36.3
C895	4030007030	S.CER C1608 CH 1H 150J-T	B	51.1/36.2
C896	4030007020	S.CER C1608 CH 1H 120J-T	B	42.8/45.2
C897	4030009530	S.CER C1608 CH 1H 030B-T	B	40.9/46.3
C898	4030007020	S.CER C1608 CH 1H 120J-T	B	49.1/48.2
C899	4030006850	S.CER C1608 JB 1H 471K-T	B	35/41.3
C900	4030007090	S.CER C1608 CH 1H 470J-T	B	37.5/41.4
C901	4030006860	S.CER C1608 JB 1H 102K-T	B	53.9/42.4
C902	4030007090	S.CER C1608 CH 1H 470J-T	B	55.2/42.4
C904	4030007020	S.CER C1608 CH 1H 120J-T	T	50.7/58.3
C905	4030009530	S.CER C1608 CH 1H 030B-T	T	48.8/59.1
C906	4030007050	S.CER C1608 CH 1H 220J-T	T	50.7/60.9
C907	4030009510	S.CER C1608 CH 1H 010B-T	T	48.8/61.7
C908	4030007030	S.CER C1608 CH 1H 150J-T	T	50.7/62.5
C909	4030011600	S.CER C1608 JB 1E 104K-T	B	56.5/42.4
C910	4030007090	S.CER C1608 CH 1H 470J-T	B	61/38.6
C912	4030009910	S.CER C1608 CH 1H 040B-T	B	38.8/38.6
C913	4030007010	S.CER C1608 CH 1H 100D-T	B	33.1/39.4
C961	4030006850	S.CER C1608 JB 1H 471K-T	B	43.3/59.9
C962	4030009510	S.CER C1608 CH 1H 010B-T	B	52.3/58.6
C963	4030009530	S.CER C1608 CH 1H 030B-T	B	49/59.4
C965	4030006850	S.CER C1608 JB 1H 471K-T	B	49.4/62.6
C969	4030006860	S.CER C1608 JB 1H 102K-T	B	56.8/59.2
C970	4030007090	S.CER C1608 CH 1H 470J-T	B	54.7/59.9
C972	4030009510	S.CER C1608 CH 1H 010B-T	B	58.1/62.7
C974	4030006860	S.CER C1608 JB 1H 102K-T	B	53.9/64.6
C977	4030009540	S.CER C1608 CH 1H 1R5B-T	B	61.8/64.9
C978	4030006850	S.CER C1608 JB 1H 471K-T	B	53.7/66.5
C1022	4030006850	S.CER C1608 JB 1H 471K-T	T	65.5/58
C1023	4030006880	S.CER C1608 JB 1H 472K-T	T	70.7/58
C1024	4030006860	S.CER C1608 JB 1H 102K-T	T	68.1/58
C1025	4030007090	S.CER C1608 CH 1H 470J-T	T	69.4/58
C1026	4030006850	S.CER C1608 JB 1H 471K-T	T	72.8/51.2
C1029	4030011770	S.CER C1608 CH 1H 060B-T	B	92.2/43.1
C1030	4030009920	S.CER C1608 CH 1H 050B-T	B	97/43.1
C1031	4030009530	S.CER C1608 CH 1H 030B-T	B	93/41
C1081	4030007090	S.CER C1608 CH 1H 470J-T	B	97/44.7
C1082	4030007130	S.CER C1608 CH 1H 101J-T	B	97/46.3
C1083	4030007010	S.CER C1608 CH 1H 100D-T	B	96.2/49.9
C1088	4030006860	S.CER C1608 JB 1H 102K-T	T	98.7/51.8
C1090	4030006860	S.CER C1608 JB 1H 102K-T	B	82.8/65.7
C1091	4550003220	S.TAN TEESVA 1E 105M8R	B	84/69.9
C1092	4030006850	S.CER C1608 JB 1H 471K-T	B	66.9/68.4
C1094	4030009520	S.CER C1608 CH 1H 020B-T	B	101.9/38
C1095	4030009530	S.CER C1608 CH 1H 030B-T	B	102.7/39.9
C1096	4030007000	S.CER C1608 CH 1H 090D-T	B	105.1/39.2
C1098	4030006980	S.CER C1608 CH 1H 070D-T	B	107.7/41.9
C1099				

[MAIN-D UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
C1102	4030006900	S.CER C1608 JB 1H 103K-T	T	96.6/49.6
C1105	4030007010	S.CER C1608 CH 1H 100D-T	T	112.1/48.9
C1106	4030007090	S.CER C1608 CH 1H 470J-T	T	110.8/48.9
C1107	4030007130	S.CER C1608 CH 1H 101J-T	T	109.5/48.9
C1108	4030009920	S.CER C1608 CH 1H 050B-T	B	112.1/37.6
C1110	4030011770	S.CER C1608 CH 1H 060B-T	B	110.1/42.7
C1113	4030007090	S.CER C1608 CH 1H 470J-T	B	100.6/47.4
C1114	4030007090	S.CER C1608 CH 1H 470J-T	T	79.9/60.6
C1115	4030011600	S.CER C1608 JB 1E 104K-T	T	79.9/61.9
C1116	4030006850	S.CER C1608 JB 1H 471K-T	B	101.9/47.4
C1118	4030007090	S.CER C1608 CH 1H 470J-T	B	79.2/109.5
C1119	4030009540	S.CER C1608 CH 1H 1R5B-T	B	117.7/53.2
C1120	4030011600	S.CER C1608 JB 1E 104K-T	T	95.3/49.6
C1121	4030007090	S.CER C1608 CH 1H 470J-T	T	78.6/121.7
C1123	4030007090	S.CER C1608 CH 1H 470J-T	T	82.8/114.9
C1161	4030006860	S.CER C1608 JB 1H 102K-T	B	112.9/41.6
C1164	4030009520	S.CER C1608 CH 1H 020B-T	B	113.7/50
C1166	4510008500	S.ELE EEE1CA101WP	T	112/66.2
C1167	4030006850	S.CER C1608 JB 1H 471K-T	T	113.2/70.4
C1168	4030007090	S.CER C1608 CH 1H 470J-T	T	113.2/71.7
C1170	4030007090	S.CER C1608 CH 1H 470J-T	T	113.2/74.3
C1172	4030007090	S.CER C1608 CH 1H 470J-T	T	120.8/87.7
C1173	4030006850	S.CER C1608 JB 1H 471K-T	T	122.1/87.7
C1174	4030006860	S.CER C1608 JB 1H 102K-T	T	119.4/87.6
C1176	4510008500	S.ELE EEE1CA101WP	T	93.7/91.8
C1180	4030006860	S.CER C1608 JB 1H 102K-T	T	108.6/80.9
C1181	4030008920	S.CER C1608 JB 1H 473K-T	T	106.3/79.2
C1182	4510008490	S.ELE EEE1CS100SR	T	111.2/80.7
C1183	4030007090	S.CER C1608 CH 1H 470J-T	T	105/79.6
C1186	4030006860	S.CER C1608 JB 1H 102K-T	T	109.1/91.9
C1187	4030007090	S.CER C1608 CH 1H 470J-T	T	110.4/91.9
C1188	4030006850	S.CER C1608 JB 1H 471K-T	T	111.7/91.9
C1189	4030009510	S.CER C1608 CH 1H 010B-T	T	77.8/107.8
C1191	4030007090	S.CER C1608 CH 1H 470J-T	T	86.8/121.8
C1192	4030007090	S.CER C1608 CH 1H 470J-T	B	91.2/125.9
C1193	4030006850	S.CER C1608 JB 1H 471K-T	B	86.4/119.3
C1194	4030006850	S.CER C1608 JB 1H 471K-T	B	88/119.3
C1196	4030006860	S.CER C1608 JB 1H 102K-T	T	99/106.3
C1198	4030011030	S.CER GRM31M4C2H1R5CY21L	T	90.9/116.3
C1199	4030017200	S.CER GRM31BR32J102KY01L	T	117.5/121.2
C1200	4030000810	S.CER GRM2164C1HR50CD01D	B	120.8/124.4
C1201	4030006860	S.CER C1608 JB 1H 102K-T	T	111.1/120.2
C1203	4030006850	S.CER C1608 JB 1H 471K-T	T	111.1/122.8
C1204	4030011040	S.CER GRM31M4C2H2R0CY21L	T	116.1/100.4
C1206	4030009500	S.CER C1608 CH 1H 0R5B-T	T	110.3/118
C1207	4030000810	S.CER GRM2164C1HR50CD01D	B	114.2/124.4
C1250	4030007010	S.CER C1608 CH 1H 100D-T	T	69.1/121.2
C1251	4030007010	S.CER C1608 CH 1H 100D-T	B	68.3/125.2
C1252	4030006900	S.CER C1608 JB 1H 103K-T	B	73.5/122.8
C1253	4030006850	S.CER C1608 JB 1H 471K-T	B	75/116.4
C1255	4030006850	S.CER C1608 JB 1H 471K-T	B	64.8/127.1
C1256	4030012610	S.CER C2012 JB 1C 474K-T	B	72.8/128.7
C1260	4030006850	S.CER C1608 JB 1H 471K-T	T	46.6/112.2
C1261	4030007010	S.CER C1608 CH 1H 100D-T	B	78.7/127.1
C1262	4030007010	S.CER C1608 CH 1H 100D-T	B	86.8/127.5
C1263	4030011600	S.CER C1608 JB 1E 104K-T	B	76.2/124.4
C1264	4510008490	S.ELE EEE1CS1000SR	T	73.5/121.8
C1265	4030006860	S.CER C1608 JB 1H 102K-T	B	83.2/124.3
C1267	4030011600	S.CER C1608 JB 1E 104K-T	B	79.9/113.2
C1268	4030006860	S.CER C1608 JB 1H 102K-T	B	82.1/120
C1330	4510004601	ELE 16 ME 1000 HC	T	42.7/122.8
C1331	4030006860	S.CER C1608 JB 1H 102K-T	B	56.8/105.6
C1332	4030007090	S.CER C1608 CH 1H 470J-T	B	56.8/104
C1333	4510008520	S.ELE EEE1CA470SP	T	64.5/121.6
C1334	4030006860	S.CER C1608 JB 1H 102K-T	B	67.6/104.9
C1335	4510008520	S.ELE EEE1CA470SP	T	69.1/97.8
C1336	4030011600	S.CER C1608 JB 1E 104K-T	B	73.9/94.7
C1337	4030011600	S.CER C1608 JB 1E 104K-T	B	76.7/94.7
C1338	4510008500	S.ELE EEE1CA101WP	T	78.1/92.3
C1340	4510008520	S.ELE EEE1CA470SP	T	68.7/113.5
C1341	4030011600	S.CER C1608 JB 1E 104K-T	B	75.6/108.1
C1342	4030011600	S.CER C1608 JB 1E 104K-T	B	78.4/108.1
C1343	4510008500	S.ELE EEE1CA101WP	T	77/101.1
C1345	4030011600	S.CER C1608 JB 1E 104K-T	B	39.8/100.6
C1346	4030011600	S.CER C1608 JB 1E 104K-T	B	43.5/89.5
C1348	4550006780	S.TAN TEESVB2 0J 476M8R	T	42.6/97.2
C1349	4510008490	S.ELE EEE1CS1000SR	T	76.3/84.2
C1351	4030012600	S.CER C2012 JB 1A 105M-T	B	29.6/90.9
C1352	4030012610	S.CER C2012 JB 1C 474K-T	B	37.1/86
C1353	4030006860	S.CER C1608 JB 1H 102K-T	T	31.2/92.9
C1355	4030007090	S.CER C1608 CH 1H 470J-T	T	38.3/94.7
C1356	4030011600	S.CER C1608 JB 1E 104K-T	B	40.7/84.3
C1357	4030011600	S.CER C1608 JB 1E 104K-T	B	42.9/97.3
C1361	4030007090	S.CER C1608 CH 1H 470J-T	T	44.6/87.2
C1366	4030006860	S.CER C1608 JB 1H 102K-T	B	27.4/91.7
C1367	4030007090	S.CER C1608 CH 1H 470J-T	B	57.8/65.4
C1368	4030007090	S.CER C1608 CH 1H 470J-T	T	35.4/98.8
C1369	4030007090	S.CER C1608 CH 1H 470J-T	T	25/97.2
C1370	4030007090	S.CER C1608 CH 1H 470J-T	B	41.9/80.9
C1371	4030006860	S.CER C1608 JB 1H 102K-T	B	53.1/85.3

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REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
C1372	4030007090	S.CER C1608 CH 1H 470J-T	B	55.5/107.1
C1373	4030007090	S.CER C1608 CH 1H 470J-T	T	62.1/108.8
C1374	4030007090	S.CER C1608 CH 1H 470J-T	B	62.2/115.4
C1507	4030007090	S.CER C1608 CH 1H 470J-T	B	30.2/23.5
C1509	4030007090	S.CER C1608 CH 1H 470J-T	T	17.3/23.4
C1510	4030007090	S.CER C1608 CH 1H 470J-T	B	50.6/107.2
C1511	4030007090	S.CER C1608 CH 1H 470J-T	B	80.6/5.7
C1512	4030007090	S.CER C1608 CH 1H 470J-T	B	79.5/4.1
C1514	4030007090	S.CER C1608 CH 1H 470J-T	B	81/7.9
C1515	4030007090	S.CER C1608 CH 1H 470J-T	B	83.7/6.8
C1516	4030007090	S.CER C1608 CH 1H 470J-T	T	88.3/10.2
C1517	4030007090	S.CER C1608 CH 1H 470J-T	B	89.5/6.9
C1518	4030007090	S.CER C1608 CH 1H 470J-T	B	91/6.9
C1519	4030007090	S.CER C1608 CH 1H 470J-T	T	93.2/9.3
C1520	4030007090	S.CER C1608 CH 1H 470J-T	B	97.7/12
C1521	4030007090	S.CER C1608 CH 1H 470J-T	T	93.4/2.4
C1522	4030007090	S.CER C1608 CH 1H 470J-T	T	92.1/1.9
C1523	4030007090	S.CER C1608 CH 1H 470J-T	B	91.7/4.1
C1524	4030007090	S.CER C1608 CH 1H 470J-T	T	89.4/2.3
C1525	4030007090	S.CER C1608 CH 1H 470J-T	B	84.4/3.4
C1600	4030007090	S.CER C1608 CH 1H 470J-T	T	4.1/21.6
C1601	4030007090	S.CER C1608 CH 1H 470J-T	B	3.3/20
C1602	4030007090	S.CER C1608 CH 1H 470J-T	T	20.9/15.5
C1603	4030007090	S.CER C1608 CH 1H 470J-T	T	22.4/15.5
C1612	4030006860	S.CER C1608 JB 1H 102K-T	B	108.5/14.2
C1613	4030006860	S.CER C1608 JB 1H 102K-T	B	103.5/9.9
C1617	4030007090	S.CER C1608 CH 1H 470J-T	T	99.2/11
C1750	4030006900	S.CER C1608 JB 1H 103K-T	T	27.9/12.2
C1751	4030006850	S.CER C1608 JB 1H 471K-T	T	42.7/120.3
C1752	4030006900	S.CER C1608 JB 1H 103K-T	T	28.6/119.3
C1753	4030006860	S.CER C1608 JB 1H 102K-T	T	24.2/120.5
C1754	4510008520	S.ELE EEE1CA470SP	T	31.8/126.5
C1755	4030007090	S.CER C1608 CH 1H 470J-T	T	25.8/113.2
C1800	4030007090	S.CER C1608 CH 1H 470J-T	B	24/20.5
C1801	4030006900	S.CER C1608 JB 1H 103K-T	T	42/103.6
C1802	4030006900	S.CER C1608 JB 1H 103K-T	T	42.5/112.3
C1803	4030006850	S.CER C1608 JB 1H 471K-T	T	28.6/104.1
C1804	4030006850	S.CER C1608 JB 1H 471K-T	T	32.4/103.3
C1805	4030006850	S.CER C1608 JB 1H 471K-T	T	27.8/101.5
C1806	4030006850	S.CER C1608 JB 1H 471K-T	T	32.4/99.7
C1807	4030006850	S.CER C1608 JB 1H 471K-T	T	42/101.4
C9301	4030007140	S.CER C1608 CH 1H 121J-T	T	39.9/55.5
J1602	6510021970	S.CNR AXN330C130P	T	26.2/21.8
J1750	6510009350	CNR B2B-ZR	T	25.4/125.5
J1800	6510021720	S.CNR 30FLT-SM1-TB	T	44/107.5
J1801	6510021720	S.CNR 30FLT-SM1-TB	T	87/5.8
W11	7030008240	S.RES ERJ12YJ0R00U	T	78.2/78.7
W296	7030003860	S.RES ERJ3GE JPW V	T	71/38.3
W340	7030003860	S.RES ERJ3GE JPW V	B	67.1/9.8
W550	7030003860	S.RES ERJ3GE JPW V	B	26/42.3
W840	7030003860	S.RES ERJ3GE JPW V	B	49.8/33.6
W841	7030003860	S.RES ERJ3GE JPW V	B	42.5/39.9
W896	7030000010	S.RES MCR10EZHH JPW (000)	B	44.8/85.8
W1021	7030003860	S.RES ERJ3GE JPW V	T	66.8/60.6
W1022	7030003860	S.RES ERJ3GE JPW V	T	33.3/53.5
W1025	7030003860	S.RES ERJ3GE JPW V	B	94.4/3.3
W1026	7030003860	S.RES ERJ3GE JPW V	T	18.1/26
W1029	7030008240	S.RES ERJ12YJ0R00U	B	68.9/113
W1030	7030000010	S.RES MCR10EZHH JPW (000)	B	112.2/1.7
W1032	7030000010	S.RES MCR10EZHH JPW (000)	B	98.3/33.6
W1033	7030008240	S.RES ERJ12YJ0R00U	B	21.6/53.5
W1083	7030003860	S.RES ERJ3GE JPW V	B	104.3/41.2
W1089	7030003860	S.RES ERJ3GE JPW V	T	81.5/114.2
W1161	7030003860	S.RES ERJ3GE JPW V	T	36.1/23.8
W1164	7120000490	JMP ERD25T0	B	86.4/116.7
W1330	8900011960	CBL OPC-1216	T	
W1601	7030003860	S.RES ERJ3GE JPW V	T	86.8/23.9
W1670	7030003860	S.RES ERJ3GE JPW V	B	86/7.3
W1750	7030003860	S.RES ERJ3GE JPW V	B	88/5
EP5	6910000630	BEA FSRH070140RN000B		
EP6	6910000630	BEA FSRH070140RN000B		
EP271	6910012350	S.BEA MMZ1608Y 102BT	T	74.9/41.2
EP401	6910012350	S.BEA MMZ1608Y 102BT	B	16.5/70.2
EP402	6910012350	S.BEA MMZ1608Y 102BT	T	23/58
EP403	6910012350	S.BEA MMZ1608Y 102BT	T	23/59
EP470	6910012350	S.BEA MMZ1608Y 102BT	T	17.6/67.8
EP550	6910012350	S.BEA MMZ1608Y 102BT	B	24.9/39.8
EP551	6910012350	S.BEA MMZ1608Y 102BT	B	35.1/26.6
EP552	6910012350	S.BEA MMZ1608Y 102BT	B	27.1/48.7

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

[LOGIC-D UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
IC50	11400010090	S.IC μPD70F3102AGJ-33-8EU	T	61.6/60
IC51	1130007281	S.IC TC7S32FU (TE85R, F)	T	45.3/71.2
IC52	1110005730	S.IC S-80928CNMC-G8Y-T2	B	54.3/48.2
IC53	1130007111	S.IC TC7W04FU (TE12L, F)	T	44.6/68.1
IC54	1140008650	S.IC HN58X2464T1	T	45.2/62.4
IC55	1130010630	S.IC SN74AHC541PWR	B	43/42.3
IC56	1190001340	S.IC M62334FP 600C	T	59.8/43.1
IC57	1190001340	S.IC M62334FP 600C	T	68.2/43.2
IC58	1110002861	S.IC TA75S393F (TE85R, F)	B	4/54.1
IC100	1130010620	S.IC SN74AHC541PWR	B	109.6/55.6
IC101	1130007111	S.IC TC7W04FU (TE12L, F)	T	106.1/62.2
IC102	1130008711	S.IC TC7SET04FU (T5L, JF)	T	110.9/61.3
IC103	1130010630	S.IC SN74AHC541PWR	T	108.9/55.3
IC105	1130010580	S.IC μPD43256BGW-70LL-9JL	T	108.7/43.2
IC150	1110005430	S.IC CMX589AD5	T	98.2/17.4
IC151	1130008711	S.IC TC7SET04FU (T5L, JF)	T	89.1/22.9
IC152	1130004201	S.IC TC4S66F (TE85R, F)	B	103.9/13.5
IC153	1130004201	S.IC TC4S66F (TE85R, F)	B	100.9/19.9
IC200	1120002870	S.IC XCS20XL-4TQ1441	T	32.1/24.9
IC201	1130006891	S.IC TC7S04FU (TE85R, F)	B	36.5/60.2
IC202	1130008361	S.IC TC7SHU04FU (TE85L, JF)	T	25.6/38.9
IC203	1130008361	S.IC TC7SHU04FU (TE85L, JF)	T	35.4/37.1
IC300	1110005290	S.IC NJM2115V-TE1	T	58.6/25.4
IC301	1110005290	S.IC NJM2115V-TE1	T	57.1/26.5
IC302	1110005290	S.IC NJM2115V-TE1	T	68.4/26.7
IC350	1130006220	S.IC TC4W53FU (TE12L)	T	84.4/25.1
IC351	1110003780	S.IC NJM2902V-TE1-#ZZZB	T	90.6/29.1
IC352	1130006220	S.IC TC4W53FU (TE12L)	T	81.2/29.6
IC353	1130008561	S.IC TC7S51F (TE85L, F)	T	100.8/29.8
IC354	1130006220	S.IC TC4W53FU (TE12L)	T	104.8/24.8
IC355	1110002751	S.IC TA75S01F (TE85R, F)	B	87.5/23.5
IC500	1180001071	S.REG TA7805F (TE16L, Q)	T	86.3/79.9
IC502	1180002390	S.REG S-812C33AMC-C2N-T2	T	92.8/72
IC503	1110005440	S.IC NJM2374AM-TE1	T	110.5/76.6
IC504	1180002390	S.REG S-812C33AMC-C2N-T2	T	64.3/80.8
IC550	1130012051	S.IC FT232BL	T	11.8/67.4
IC551	1130009570	S.IC BR93LC46F-WE2	T	12.8/58.2
IC553	1130007281	S.IC TC7S32FU (TE85R, F)	B	10.4/55
IC901	1120002960	S.IC TC74AC541FT (EL)	T	33.1/5.4
IC902	1120002830	S.IC NJM2125F-TE1-#ZZZB	B	34.5/10.9
Q50	1530002280	S.TR 2SC4081 T106 S	B	8.3/49.6
Q51	1510000771	S.TR 2SA1586-GR (TE85R, F)	B	5.7/49.9
Q52	1590000430	S.TR DTC144EUA T106	B	7.9/53.6
Q100	1590000430	S.TR DTC144EUA T106	T	79/32.4
Q101	1590001980	S.TR XP4315 (TX)	B	42/13.9
Q102	1590001980	S.TR XP4315 (TX)	B	39.5/13.9
Q150	1590001400	S.TR XP1214 (TX)	T	91.3/18.8
Q151	1590001400	S.TR XP1214 (TX)	B	97.2/12.4
Q153	1590000430	S.TR DTC144EUA T106	B	76.3/30.3
Q154	1590000430	S.TR DTC144EUA T106	B	106.3/18.5
Q155	1590000430	S.TR DTC144EUA T106	B	74.5/26.6
Q156	1590000430	S.TR DTC144EUA T106	B	72/28.4
Q400	1590000430	S.TR DTC144EUA T106	B	73.3/20.4
Q500	1520000200	S.TR 2SB798-T2 DK	T	80.3/69.6
Q501	1590000430	S.TR DTC144EUA T106	T	76.6/72.1
Q502	1530002280	S.TR 2SC4081 T106 S	T	67.9/78.3
Q503	1520000200	S.TR 2SB798-T2 DK	B	74.3/74.5
Q504	1530002280	S.TR 2SC4081 T106 S	B	70/80.5
Q550	1590000430	S.TR DTC144EUA T106	B	15.5/55.9
D50	1790001240	S.DIO MA2S728-(TX)	T	59.3/72.6
D51	1750000550	S.DIO 1SS355 TE-17	B	1.4/54.1
D52	1750000550	S.DIO 1SS355 TE-17	T	50.1/66.5
D53	1750000550	S.DIO 1SS355 TE-17	T	46.6/65.5
D54	1750000550	S.DIO 1SS355 TE-17	B	48.1/72.7
D350	1720000361	S.DIO HSU88TRF-E	T	85.3/30.3
D351	1720000361	S.DIO HSU88TRF-E	T	87.7/25.4
D501	1790000671	S.DIO SB07-03C-TB-E	T	72.2/75.6
D502	1750000550	S.DIO 1SS355 TE-17	T	71.2/78.3
D503	1790000671	S.DIO SB07-03C-TB-E	T	99.4/71.9
D504	1790000671	S.DIO SB07-03C-TB-E	B	110.2/80.1
X50	6050011290	S.XTL CR-715 (6 MHz)	T	44.3/53.2
X200	6050011240	S.XTL CR-708 (16.384 MHz)	T	19/40.3
X201	6050011700	S.XTL CR-760 (9.8304 MHz)	T	37.2/39.3
X550	6050011290	S.XTL CR-715 (6 MHz)	T	3.4/61.5
L50	6200005741	S.COL ELJRE 47NG-F	T	65.2/73.6
L51	6200005741	S.COL ELJRE 47NG-F	B	48.4/52
L100	6200005741	S.COL ELJRE 47NG-F	T	111.3/62
L101	6200005741	S.COL ELJRE 47NG-F	B	111.3/63.3
L103	6200005741	S.COL ELJRE 47NG-F	B	108.5/33.6
L150	6200002040	S.COL NL 252018T-101J	T	99.7/23
L210	6200005741	S.COL ELJRE 47NG-F	T	70.6/73.4
L211	6200005741	S.COL ELJRE 47NG-F	B	47.7/59.7

[LOGIC-D UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
L214	6200005741	S.COL ELJRE 47NG-F	B	49/62.4
L420	6200003590	S.COL EXCCL3225U1	B	30.4/78.4
L421	6200003590	S.COL EXCCL3225U1	B	38.8/79.9
L500	6190001561	S.COL CDRH5D18NP-101NC	T	104.3/80
L501	6190001561	S.COL CDRH5D18NP-101NC	T	104.3/72.8
L510	6200003590	S.COL EXCCL3225U1	B	108.8/76.7
L550	6200002040	S.COL NL 252018T-101J	T	11.2/74.3
L551	6200005741	S.COL ELJRE 47NG-F	T	11.1/77
L552	6200006991	S.COL ELJRE 56NG-F	B	14.6/61.8
R18	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	35.5/46.5
R50	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	44.4/75.8
R51	7030003620	S.RES ERJ3GEYJ 333 V (33 kΩ)	T	47.2/71
R53	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	48.5/68.4
R54	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	15.5/50.4
R55	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	14.7/48.5
R57	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	3.7/49.9
R58	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	T	15.4/52.2
R59	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	B	2.4/49.9
R60	7030003570	S.RES ERJ3GEYJ 123 V (12 kΩ)	B	47.7/62.4
R61	7030003570	S.RES ERJ3GEYJ 123 V (12 kΩ)	B	45.8/62.4
R62	7030003620	S.RES ERJ3GEYJ 333 V (33 kΩ)	B	49.3/51.1
R63	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	53.9/50.5
R64	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	61.5/45.7
R65	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	62.8/45.7
R66	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	72.5/41.1
R67	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	72.5/43.8
R68	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	B	9.1/51.6
R69	7030003490	S.RES ERJ3GEYJ 272 V (2.7 kΩ)	T	8.2/52.7
R70	7030003620	S.RES ERJ3GEYJ 333 V (33 kΩ)	B	4.4/51.8
R71	7030003620	S.RES ERJ3GEYJ 333 V (33 kΩ)	B	4/56.5
R72	7030003620	S.RES ERJ3GEYJ 333 V (33 kΩ)	B	6.3/57.4
R73	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	B	7.1/55.6
R74	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	46.3/74.7
R75	7030003570	S.RES ERJ3GEYJ 123 V (12 kΩ)	B	48.1/75
R76	7030003510	S.RES ERJ3GEYJ 392 V (3.9 kΩ)	B	67.9/44.3
R78	7030003360	S.RES ERJ3GEYJ 221 V (220 Ω)	T	50.9/49.3
R79	7030003340	S.RES ERJ3GEYJ 151 V (150 Ω)	T	48.6/56.2
R100	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	76.5/32.2
R110	7030003370	S.RES ERJ3GEYJ 271 V (270 Ω)	B	52.3/14
R113	7030003370	S.RES ERJ3GEYJ 271 V (270 Ω)	B	42.1/11.9
R114	7030003420	S.RES ERJ3GEYJ 681 V (680 Ω)	B	39.5/11.9
R115	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	110.9/60.7
R116	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	106.3/63.8
R146	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	79.1/29.5
R148	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	105.5/15.9
R149	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	88.4/20.2
R150	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	97.9/17
R151	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	97.9/15.7
R152	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	97.9/18.3
R153	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	97.9/20.9
R154	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	97.9/19.6
R155	7030003800	S.RES ERJ3GEYJ 105 V (1 MΩ)	T	92.4/21.3
R156	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	90.7/14.2
R157	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	95.3/14.8
R158	7030003750	S.RES ERJ3GEYJ 394 V (390 kΩ)	B	100.8/13.5
R159	7030009340	S.RES ERJ3GEYJ 275V (2.7 MΩ)	B	99.7/16.1
R199	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	32.7/59.4
R200	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	28.1/38
R201	7030003800	S.RES ERJ3GEYJ 105 V (1 MΩ)	T	22.4/38.8
R202	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	T	45.2/15.4
R203	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	T	31.6/11.8
R204	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	39/11.8
R205	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	24.3/29.2
R206	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	18.2/30.7
R207	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	18.9/32.1
R208	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	34.8/40.8
R209	7030003800	S.RES ERJ3GEYJ 105 V (1 MΩ)	B	35.6/39
R210	7030003400	S.RES ERJ3GEYJ 471 V (470 Ω)	T	41.5/39.3
R211	7030003400	S.RES ERJ3GEYJ 471 V (470 Ω)	B	37.8/58
R250	7030005661	S.RES ERA3YED 203V	T	52.9/11.8
R251	7030005661	S.RES ERA3YED 203V	T	48.9/11.8
R252	7030005321	S.RES ERA3YED 103V	T	50.8/12.6
R253	7030005661	S.RES ERA3YED 203V	T	48.9/13.1
R254	7030005321	S.RES ERA3YED 103V	T	52.5/13.9
R255	7030005661	S.RES ERA3YED 203V	T	48.9/14.4
R256	7030005321	S.RES ERA3YED 103V	T	50.8/15.2
R257	7030005661	S.RES ERA3YED 203V	T	48.9/15.7
R258	7030005321	S.RES ERA3YED 103V	T	52.5/16.5
R259	7030005661	S.RES ERA3YED 203V	T	48.9/17
R260	7030005321	S.RES ERA3YED 103V	T	50.8/17.8
R261	7030005661	S.RES ERA3YED 203V	T	48.9/18.3
R262	7030005321	S.RES ERA3YED 103V	T	52.5/19.1
R263	7030005661	S.RES ERA3YED 203V	T	48.9/19.6
R264	7030005321	S.RES ERA3YED 103V	T	50.8/20.4
R265	7030005661	S.RES ERA3YED 203V	T	48.9/20.9
R266	7030005321	S.RES ERA3YED 103V	T	52.5/21.7
R267	7030005661	S.RES ERA3YED 203V	T	48.9/22.2
R268	7030005321	S.RES ERA3YED 103V	T	50.8/23

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



[LOGIC-D UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
R269	7030005661	S.RES ERA3YED 203V	T	48.9/23.5
R270	7030005321	S.RES ERA3YED 103V	T	52.5/24.3
R271	7030005661	S.RES ERA3YED 203V	T	48.9/24.8
R272	7030005661	S.RES ERA3YED 203V	T	52.7/26.2
R273	7030005661	S.RES ERA3YED 203V	T	48.9/26.2
R274	7030005321	S.RES ERA3YED 103V	T	50.8/26.7
R275	7030005661	S.RES ERA3YED 203V	T	48.9/27.5
R276	7030005321	S.RES ERA3YED 103V	T	52.1/28.1
R277	7030005661	S.RES ERA3YED 203V	T	48.9/28.8
R278	7030005321	S.RES ERA3YED 103V	T	50.8/29.3
R279	7030005661	S.RES ERA3YED 203V	T	48.9/30.1
R280	7030005321	S.RES ERA3YED 103V	T	52.1/30.7
R281	7030005661	S.RES ERA3YED 203V	T	48.9/31.4
R282	7030005321	S.RES ERA3YED 103V	T	50.8/31.9
R283	7030005661	S.RES ERA3YED 203V	T	48.9/32.7
R284	7030005321	S.RES ERA3YED 103V	T	52.1/33.3
R285	7030005661	S.RES ERA3YED 203V	T	48.9/34
R286	7030005321	S.RES ERA3YED 103V	T	50.8/34.5
R287	7030005661	S.RES ERA3YED 203V	T	48.9/35.3
R288	7030005321	S.RES ERA3YED 103V	T	52.1/35.9
R289	7030005661	S.RES ERA3YED 203V	T	48.9/36.6
R290	7030005321	S.RES ERA3YED 103V	T	50.8/37.1
R291	7030005661	S.RES ERA3YED 203V	T	48.9/37.9
R292	7030005321	S.RES ERA3YED 103V	T	52.1/38.7
R293	7030005661	S.RES ERA3YED 203V	T	48.9/39.2
R300	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	60.7/20.9
R301	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	T	56.4/28.1
R302	7030003530	S.RES ERJ3GEYJ 562 V (5.6 kΩ)	T	61.8/28.1
R303	7030003530	S.RES ERJ3GEYJ 562 V (5.6 kΩ)	T	63.7/25.4
R304	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	67.4/17.7
R305	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	67.4/19
R306	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	63.7/22.8
R307	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	63.7/20.2
R308	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	T	64.2/18.1
R310	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	59.3/32
R311	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	T	55/39.2
R312	7030003530	S.RES ERJ3GEYJ 562 V (5.6 kΩ)	T	60.4/39.2
R313	7030003530	S.RES ERJ3GEYJ 562 V (5.6 kΩ)	T	62.3/36.5
R314	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	68.1/34.4
R315	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	68.1/33.1
R316	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	65.5/37
R317	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	68.1/37
R318	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	T	67.3/31.8
R320	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	61.5/24.3
R348	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	101.4/30
R349	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	77.5/26.4
R350	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	80.1/27.2
R351	7030003730	S.RES ERJ3GEYJ 274 V (270 kΩ)	T	96.5/31
R352	7030004710	S.RES ERJ3GEYJ 475 V (4.7 MΩ)	T	98.4/30.4
R353	7030003730	S.RES ERJ3GEYJ 274 V (270 kΩ)	T	96.5/27.1
R354	7030004710	S.RES ERJ3GEYJ 475 V (4.7 MΩ)	T	98.4/27.8
R355	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	T	103.2/27.8
R356	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	B	84.1/28.7
R357	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	B	84.9/26.8
R358	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	99.7/24.9
R359	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	84/20.3
R360	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	86.6/21.2
R361	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	B	87.9/25.9
R362	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	90/25.1
R363	7030003800	S.RES ERJ3GEYJ 105 V (1 MΩ)	B	90.6/28.9
R364	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	92.4/29.6
R365	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	90.7/25.7
R368	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	82.8/28.7
R400	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	86.1/16.8
R402	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	12.2/21
R403	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	15/11.9
R405	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	15/13.2
R406	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	82/20.2
R407	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	83.3/20.2
R410	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	16.7/21
R411	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	18/21
R412	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	15.4/21
R413	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	14.1/21
R414	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	10.9/21
R416	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	82.2/13.3
R417	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	83.5/13.3
R418	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	29.3/74.9
R419	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	28.5/74.9
R420	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	29.8/74.9
R421	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	31.1/74.9
R422	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	75.5/20.2
R423	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	28/74.9
R424	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	42/74.9
R425	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	74.2/20.2
R426	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	71.5/20.2
R427	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	80.9/16.8
R428	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	72.9/20.2
R429	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	78.1/20.2
R430	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	80.7/20.2
R431	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	76.8/20.2

[LOGIC-D UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
R432	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	75.3/19.4
R433	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	27.2/74.9
R434	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	85.4/14
R435	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	79.4/20.2
R436	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	22/21
R437	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	73.4/18.5
R438	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	B	87.4/16.8
R439	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	T	86.5/19.4
R440	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	71.5/23.4
R500	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	80.4/72.8
R501	7030000420	S.RES MCR10EZJH 2.2 kΩ	T	78.1/76.1
R502	7030003470	S.RES ERJ3GEYJ 182 V (1.8 kΩ)	B	72/79.7
R503	7030003530	S.RES ERJ3GEYJ 562 V (5.6 kΩ)	T	108.4/71.2
R504	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	111/71.2
R505	7030000020	S.RES MCR10EZJH 1 Ω (010)	B	112.2/77.7
R506	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	66.7/77.9
R507	7030003570	S.RES ERJ3GEYJ 123 V (12 kΩ)	B	68/77.9
R508	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	68/80.5
R509	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	T	109.7/71.2
R510	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	T	69.8/76.1
R511	7030000180	S.RES MCR10EZJH 22 Ω (220)	T	81.4/74.4
R512	7030000180	S.RES MCR10EZJH 22 Ω (220)	T	81.4/76.1
R513	7030000420	S.RES MCR10EZJH 2.2 kΩ	T	78.1/74.4
R552	7030003550	S.RES ERJ3GEYJ 151 V (8.2 kΩ)	B	9.9/62.8
R553	7030003580	S.RES ERJ3GEYJ 153 V (15 kΩ)	B	9.9/61.5
R556	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	B	10.5/69.4
R558	7030003400	S.RES ERJ3GEYJ 471 V (470 Ω)	B	17.2/61.8
R559	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	B	12.4/68.6
R561	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	12.9/58.4
R562	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	B	15.9/68.2
R563	7030003200	S.RES ERJ3GEYJ 100 V (10 Ω)	T	17.9/71.1
R564	7030003200	S.RES ERJ3GEYJ 100 V (10 Ω)	T	19.2/69.6
R566	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	B	12.1/60.3
R567	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	13.6/55
R568	7030003340	S.RES ERJ3GEYJ 151 V (150 Ω)	B	11.9/57
R901	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	27/6
R902	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	27.3/3.6
R903	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	51.8/43.5
R904	7030003860	S.RES ERJ3GE JPW V	T	11/26.1
R905	7030003860	S.RES ERJ3GE JPW V	T	51.8/73
R906	7030003860	S.RES ERJ3GE JPW V	B	47/65.2
R907	7030003860	S.RES ERJ3GE JPW V	B	59.2/70.3
R908	7030003860	S.RES ERJ3GE JPW V	B	58.3/22
R909	7030003860	S.RES ERJ3GE JPW V	B	43.7/35.1
R910	7030003860	S.RES ERJ3GE JPW V	T	55.5/11.8
R911	7030003860	S.RES ERJ3GE JPW V	T	71.6/27.4
R912	7030003860	S.RES ERJ3GE JPW V	B	77.3/18.3
R913	7030003860	S.RES ERJ3GE JPW V	B	77.7/13.3
R914	7030003860	S.RES ERJ3GE JPW V	B	7.7/40.4
R915	7030003860	S.RES ERJ3GE JPW V	B	36/77.1
R916	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	33.3/14.9
R917	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	31.4/9.9
R918	7030003860	S.RES ERJ3GE JPW V	B	16.7/66.9
R919	7030003860	S.RES ERJ3GE JPW V	B	14.3/63.6
C51	4030006860	S.CER C1608 JB 1H 102K-T	B	44.4/74
C52	4030011600	S.CER C1608 JB 1E 104K-T	T	43.4/71
C53	4030011600	S.CER C1608 JB 1E 104K-T	B	43.9/63.2
C54	4030011600	S.CER C1608 JB 1E 104K-T	B	36.7/44.6
C55	4030011600	S.CER C1608 JB 1E 104K-T	T	54.4/73
C56	4030008560	S.CER C1608 CH 1H 300J-T	T	48.9/54.4
C57	4030008560	S.CER C1608 CH 1H 300J-T	T	47.6/54.1
C58	4030006900	S.CER C1608 JB 1H 103K-T	B	54.1/45.9
C59	4030011600	S.CER C1608 JB 1E 104K-T	T	61.9/46.6
C60	4030011600	S.CER C1608 JB 1E 104K-T	T	70.4/46.7
C61	4030007090	S.CER C1608 CH 1H 470J-T	B	46.4/57.3
C62	4030007090	S.CER C1608 CH 1H 470J-T	B	61.4/51.7
C63	4030007090	S.CER C1608 CH 1H 470J-T	B	63.3/52.8
C64	4030007090	S.CER C1608 CH 1H 470J-T	B	64.6/47.1
C65	4030007090	S.CER C1608 CH 1H 470J-T	B	57.3/44
C66	4030007090	S.CER C1608 CH 1H 470J-T	B	57.2/42.7
C67	4030007090	S.CER C1608 CH 1H 470J-T	B	71.5/67.3
C68	4030007090	S.CER C1608 CH 1H 470J-T	B	70.3/60.4
C69	4030007090	S.CER C1608 CH 1H 470J-T	B	66/52.2
C86	4030006900	S.CER C1608 JB 1H 103K-T	B	47.1/55.5
C88	4030006850	S.CER C1608 JB 1H 471K-T	B	46.3/77.3
C101	4030006900	S.CER C1608 JB 1H 103K-T	T	106.1/64.6
C102	4030006900	S.CER C1608 JB 1H 103K-T	T	110.9/63.2
C103	4030006900	S.CER C1608 JB 1H 103K-T	B	113.2/62.4
C104	4030006900	S.CER C1608 JB 1H 103K-T	T	113.1/53.2
C113	4030011600	S.CER C1608 JB 1E 104K-T	T	108.5/33.6
C118	4030007050	S.CER C1608 CH 1H 220J-T	B	12/76.3
C119	4030007050	S.CER C1608 CH 1H 220J-T	B	13.5/76.3
C120	4030007050	S.CER C1608 CH 1H 220J-T	B	15/76.3
C150	4030006900	S.CER C1608 JB 1H 103K-T	T	86.5/21.2
C151	4030011600	S.CER C1608 JB 1E 104K-T	T	104/16.1
C152	4550006700	S.TAN ECST1AY106R	T	105.7/16.9
C153	4030012600	S.CER C2012 JB 1A 105M-T	T	91.3/15.3
C154	4030011600	S.CER C1608 JB 1E 104K-T	T	91.5/13.7

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

[LOGIC-D UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
C155	4030006860	S.CER C1608 JB 1H 102K-T	T	100.9/12.4
C156	4030006860	S.CER C1608 JB 1H 102K-T	T	104/13.5
C157	4030011600	S.CER C1608 JB 1E 104K-T	B	102.9/15.9
C158	4030011600	S.CER C1608 JB 1E 104K-T	T	91.1/21.3
C159	4030007130	S.CER C1608 CH 1H 101J-T	T	91.4/16.9
C160	4030008890	S.CER C1608 JB 1H 273K-T	B	100/12.2
C161	4030008890	S.CER C1608 JB 1H 273K-T	B	98.2/14.3
C162	4030007000	S.CER C1608 CH 1H 090D-T	B	93.3/14.5
C200	4030011600	S.CER C1608 JB 1E 104K-T	B	34.6/60.2
C202	4610001590	S.TRI TZC3R100A110R00	T	24.6/42.1
C203	4030011600	S.CER C1608 JB 1E 104K-T	T	28.1/39.3
C204	4030006980	S.CER C1608 CH 1H 070D-T	T	23.7/38.8
C206	4030006900	S.CER C1608 JB 1H 103K-T	T	18.2/25
C207	4030011600	S.CER C1608 JB 1E 104K-T	T	24.2/11.8
C208	4030006900	S.CER C1608 JB 1H 103K-T	T	33.4/11
C209	4030011600	S.CER C1608 JB 1E 104K-T	T	43.5/13.8
C210	4030011600	S.CER C1608 JB 1E 104K-T	B	32.1/35.7
C211	4030011600	S.CER C1608 JB 1E 104K-T	B	23.4/32.6
C212	4030009650	S.CER C1608 CH 1H 240J-T	T	39.3/43
C213	4030006980	S.CER C1608 CH 1H 070D-T	B	32.3/39
C214	4030006900	S.CER C1608 JB 1H 103K-T	B	38.1/36.3
C215	4610001590	S.TRI TZC3R100A110R00	T	32/39.8
C216	4550006780	S.TAN TEESVB2 0J 476M8R	T	26.1/19.4
C300	4550006250	S.TAN TEESVA 1A 106M8R	T	56.5/21.4
C301	4030010040	S.CER C1608 JB 1H 561K-T	T	59/28.1
C302	4030009490	S.CER C1608 JB 1H 821K-T	T	65/25.4
C303	4340000270	S.MLR ECHU 1H 121GB5	T	60.7/22.5
C304	4030007170	S.CER C1608 CH 1H 221J-T	T	67.4/20.3
C305	4030007170	S.CER C1608 CH 1H 221J-T	T	67.7/21.6
C306	4030007170	S.CER C1608 CH 1H 221J-T	T	65/22.8
C307	4030007170	S.CER C1608 CH 1H 221J-T	T	65/20.2
C308	4550005980	S.TAN TEESVA 1A 475M8R	T	60.3/17.7
C309	4030010760	S.CER C1608 CH 1H 331J-T	T	61.8/19.4
C310	4550006250	S.TAN TEESVA 1A 106M8R	T	55.2/32.5
C311	4030010040	S.CER C1608 JB 1H 561K-T	T	57.6/39.2
C312	4030009490	S.CER C1608 JB 1H 821K-T	T	63.6/36.5
C313	4340000270	S.MLR ECHU 1H 121GB5	T	59.4/33.6
C314	4030007170	S.CER C1608 CH 1H 221J-T	T	68.1/38.3
C315	4030007170	S.CER C1608 CH 1H 221J-T	T	68.1/39.6
C316	4030007170	S.CER C1608 CH 1H 221J-T	T	65.5/35.7
C317	4030007170	S.CER C1608 CH 1H 221J-T	T	68.1/35.7
C318	4550005980	S.TAN TEESVA 1A 475M8R	T	63.4/31.8
C319	4030010760	S.CER C1608 CH 1H 331J-T	T	65.1/28.4
C320	4510008490	S.ELE EEE1C100SR	B	59.6/27.7
C349	4550006250	S.TAN TEESVA 1A 106M8R	B	87.7/30.7
C350	4030011600	S.CER C1608 JB 1E 104K-T	T	82/26.4
C351	4030011600	S.CER C1608 JB 1E 104K-T	T	90.6/32.5
C352	4030011600	S.CER C1608 JB 1E 104K-T	T	76.5/28.3
C353	4030011810	S.CER C1608 JB 1A 224K-T	T	92.4/33.1
C354	4030011600	S.CER C1608 JB 1E 104K-T	T	93.7/33.1
C355	4030006860	S.CER C1608 JB 1H 102K-T	T	96.5/29.7
C356	4030006860	S.CER C1608 JB 1H 102K-T	T	96.5/28.4
C357	4030011600	S.CER C1608 JB 1E 104K-T	T	100.6/32.3
C358	4030006860	S.CER C1608 JB 1H 102K-T	T	101.3/27
C359	4030008920	S.CER C1608 JB 1H 473K-T	B	85.7/28.7
C360	4030011600	S.CER C1608 JB 1E 104K-T	T	104.8/22.4
C361	4030011810	S.CER C1608 JB 1A 224K-T	T	93.3/25.7
C362	4030011600	S.CER C1608 JB 1E 104K-T	B	85.2/23.8
C363	4030008920	S.CER C1608 JB 1H 473K-T	T	82/23.8
C364	4030011600	S.CER C1608 JB 1E 104K-T	T	93.3/24.4
C400	4030006850	S.CER C1608 JB 1H 471K-T	T	17.6/11.9
C401	4030007090	S.CER C1608 CH 1H 470J-T	T	17.6/13.2
C402	4030006900	S.CER C1608 JB 1H 103K-T	B	82/23.6
C403	4030007090	S.CER C1608 CH 1H 470J-T	B	16.8/25.1
C404	4030007090	S.CER C1608 CH 1H 470J-T	B	18.1/24.6
C405	4030007090	S.CER C1608 CH 1H 470J-T	B	15.5/25.1
C406	4030007090	S.CER C1608 CH 1H 470J-T	B	14.2/25.1
C407	4030007090	S.CER C1608 CH 1H 470J-T	T	38.8/74.1
C408	4030007090	S.CER C1608 CH 1H 470J-T	B	83.4/16.8
C409	4030007130	S.CER C1608 CH 1H 101J-T	B	77.1/20.2
C410	4030007130	S.CER C1608 CH 1H 101J-T	T	76.8/23.6
C411	4030007130	S.CER C1608 CH 1H 101J-T	B	83.9/23.8
C412	4030007130	S.CER C1608 CH 1H 101J-T	B	86.6/19.4
C413	4030007090	S.CER C1608 CH 1H 470J-T	T	43.3/74.9
C414	4030007090	S.CER C1608 CH 1H 470J-T	B	31.7/71.5
C415	4030007090	S.CER C1608 CH 1H 470J-T	B	30.4/71.5
C416	4030007090	S.CER C1608 CH 1H 470J-T	B	31.2/74.2
C417	4030007090	S.CER C1608 CH 1H 470J-T	B	29.1/71.5
C418	4030007090	S.CER C1608 CH 1H 470J-T	B	27.8/71.5
C419	4030007090	S.CER C1608 CH 1H 470J-T	B	26.5/71.5
C420	4030007090	S.CER C1608 CH 1H 470J-T	B	41.6/80.7
C421	4030007090	S.CER C1608 CH 1H 470J-T	B	29.6/81.1
C422	4030007090	S.CER C1608 CH 1H 470J-T	B	8.2/21.4
C423	4030007090	S.CER C1608 CH 1H 470J-T	B	9.5/21.4
C424	4030007090	S.CER C1608 CH 1H 470J-T	B	72/22.8
C425	4030007090	S.CER C1608 CH 1H 470J-T	B	71.3/20.2
C426	4030007090	S.CER C1608 CH 1H 470J-T	B	73.4/16.7
C427	4030007090	S.CER C1608 CH 1H 470J-T	T	74.9/24.1
C428	4030007090	S.CER C1608 CH 1H 470J-T	B	76.9/22.9
C429	4030007090	S.CER C1608 CH 1H 470J-T	T	78.1/22.8

[LOGIC-D UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
C430	4030007090	S.CER C1608 CH 1H 470J-T	T	79.4/22.8
C431	4030007090	S.CER C1608 CH 1H 470J-T	B	87.3/13.2
C432	4030007090	S.CER C1608 CH 1H 470J-T	B	80.6/23.6
C433	4030007090	S.CER C1608 CH 1H 470J-T	B	80.9/20.2
C434	4030007090	S.CER C1608 CH 1H 470J-T	B	80.3/12.5
C435	4030007090	S.CER C1608 CH 1H 470J-T	B	82.2/20.2
C437	4030007090	S.CER C1608 CH 1H 470J-T	B	84.7/18.4
C438	4030007090	S.CER C1608 CH 1H 470J-T	B	22/23.6
C442	4030011600	S.CER C1608 JB 1E 104K-T	T	80.7/23.6
C443	4030011810	S.CER C1608 JB 1A 224K-T	B	71.3/24.6
C500	4510008520	S.ELE EEE1CA470SP	B	84.4/69.5
C501	4030011600	S.CER C1608 JB 1E 104K-T	T	84.1/72.4
C502	4030011600	S.CER C1608 JB 1E 104K-T	T	86.5/73
C503	4510008520	S.ELE EEE1CA470SP	B	96.2/69.9
C504	4030006850	S.CER C1608 JB 1H 471K-T	T	86.5/71.7
C506	4030011600	S.CER C1608 JB 1E 104K-T	T	58.6/13.5
C509	4550006250	S.TAN TEESVA 1A 106M8R	T	85.3/70
C510	4030011600	S.CER C1608 JB 1E 104K-T	T	97.4/23.8
C511	4030011600	S.CER C1608 JB 1E 104K-T	T	90.5/70.2
C512	4550006250	S.TAN TEESVA 1A 106M8R	T	88.8/70.4
C513	4510007130	S.ELE EEFCD 0J 470R	T	98.6/79.1
C514	4030006850	S.CER C1608 JB 1H 471K-T	T	109.3/81.9
C515	4510008850	S.ELE EEE1CA220NP	B	109.5/69.3
C516	4510008490	S.ELE EEE1CS100SR	B	64.2/82
C517	4030011600	S.CER C1608 JB 1E 104K-T	T	66.9/81.3
C518	4030011600	S.CER C1608 JB 1E 104K-T	T	64.5/78.5
C519	4550006250	S.TAN TEESVA 1A 106M8R	T	65.2/75.9
C520	4550006200	S.TAN ECSTOJY106R	T	71.7/81.7
C521	4550006200	S.TAN ECSTOJY106R	B	69.4/70.9
C522	4550006620	S.TAN ECSTOJY226R	T	96.6/71.7
C550	4030008560	S.CER C1608 CH 1H 300J-T	T	4.2/69
C551	4030008560	S.CER C1608 CH 1H 300J-T	T	4.2/54
C553	4030011600	S.CER C1608 JB 1E 104K-T	B	15.4/59.9
C554	4030011600	S.CER C1608 JB 1E 104K-T	T	18.1/62.2
C556	4030008900	S.CER C1608 JB 1H 333K-T	B	18.7/70.1
C557	4550006200	S.TAN ECSTOJY106R	T	13.5/75.1
C558	4030006900	S.CER C1608 JB 1H 103K-T	T	15.2/73.9
C559	4030007090	S.CER C1608 CH 1H 470J-T	T	84/61.1
C561	4030007090	S.CER C1608 CH 1H 470J-T	T	85.7/57.4
C578	4030007090	S.CER C1608 CH 1H 470J-T	B	12.3/55
C579	4030007090	S.CER C1608 CH 1H 470J-T	B	10.7/53
C901	4030011600	S.CER C1608 JB 1E 104K-T	B	31.4/11.9
J50	6510019271	S.CON 52365-0671	T	5.1/49.9
J100	6510023860	S.CNR S9B-ZR-SM3A-TF	B	18/83.2
J101	6510022820	S.CNR AXN430C530P	B	17.2/14.8
J300	6510018350	S.CNR S3B-ZR-SM3A-TF	T	13.9/18.4
J400	6510022710	S.CNR 30FLZ-SM1-TB	T	78/13.7
J401	6510022710	S.CNR 30FLZ-SM1-TB	T	35/80.4
J901	6510021430	S.CNR S8B-ZR-SM3A-TF	T	13.2/3
W1	8900013200	CBL OPC-1308		

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



**[FRONT UNIT]**

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
D1	1730002300	S.ZEN MA8082-M (TX)	T	7.5/21.8
D3	1790001711	S.DIO NNCD5.6C-T1-A	T	57.5/16.7
D4	1790001711	S.DIO NNCD5.6C-T1-A	T	53/16.7
D5	1790001711	S.DIO NNCD5.6C-T1-A	T	48.4/16.7
D6	1790001711	S.DIO NNCD5.6C-T1-A	T	43.9/16.7
R1	7030006250	S.RES ERJ12YJ271U (270 Ω)	T	8.5/30.5
R2	7030008180	S.RES ERJ12YJ331U (330 Ω)	T	8.5/7.8
R3	7030003860	S.RES ERJ3GE JPW V	T	60.5/16.5
R4	7030003860	S.RES ERJ3GE JPW V	T	56/16.5
R5	7030003860	S.RES ERJ3GE JPW V	T	51.5/16.5
R6	7030003860	S.RES ERJ3GE JPW V	T	46.9/16.5
C1	4030011600	S.CER C1608 JB 1E 104K-T	T	7.2/18.8
C2	4510008800	S.ELE EEE1EA100SR	T	9.4/25.7
C3	4030007050	S.CER C1608 CH 1H 220J-T	T	59/16.5
C4	4030007050	S.CER C1608 CH 1H 220J-T	T	54.5/16.5
C5	4030007050	S.CER C1608 CH 1H 220J-T	T	49.9/16.5
C6	4030007050	S.CER C1608 CH 1H 220J-T	T	45.4/16.5
C11	4030006850	S.CER C1608 JB 1H 471K-T	T	7.2/20.1
J1	6450002100	CNR CMS1410-010010	T	22.4/39.5
J3	6510020250	S.CNR B9B-PH-SM3-TB		
DS1	5040003070	LED MPG4371F		
S1	2220000630	SW MFS201N-16		

**[REAR UNIT]**

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
D1	1790001711	S.DIO NNCD5.6C-T1-A	T	36.9/71.8
D2	1790001711	S.DIO NNCD5.6C-T1-A	T	32.9/71.8
D3	1790001711	S.DIO NNCD5.6C-T1-A	T	24.9/71.8
D4	1790001711	S.DIO NNCD5.6C-T1-A	T	20.9/71.8
D5	1790001711	S.DIO NNCD5.6C-T1-A	T	16.9/71.7
D6	1790001711	S.DIO NNCD5.6C-T1-A	T	12.9/71.8
D7	1790000700	DIO DSA3A1		
D8	1790001711	S.DIO NNCD5.6C-T1-A	T	28.9/71.8
R1	7030003300	S.RES ERJ3GEYJ 680 V (68 Ω)	T	36/76.4
R2	7030003300	S.RES ERJ3GEYJ 680 V (68 Ω)	T	32/76.4
R3	7030003300	S.RES ERJ3GEYJ 680 V (68 Ω)	T	24/76.4
R4	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	20/76.4
R5	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	16/76.4
R6	7030003300	S.RES ERJ3GEYJ 680 V (68 Ω)	T	12/76.4
R7	7030011030	S.RES ERJ1TYJ 270U (27 Ω)	T	35.3/21.3
R8	7030003340	S.RES ERJ3GEYJ 151 V (150 Ω)	T	28/76.4
C7	4510008800	S.ELE EEE1EA100SR	T	40.8/26.6
J1	6510018920	S.CNR B8B-PH-SM3-TB		
J2	6510016170	CNR 52018-8835		
J4	6510011590	CNR B2P-VH		
J5	6510011460	CNR B6P-VH		
J6	6510018960	S.CNR B2B-PH-SM3-TB		

**[CHASSIS-D UNIT]**

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
IC1160	1150002020	IC M57762-02		
J1	6510004910	CNR NR-DS-E 01		
MF1	2710000590	FAN MF40D-12H-001		
W1	8900010890	CBL OPC-1115		
W2	8900010890	CBL OPC-1115		
EP1160	6910000970	BEA DL-2OP 2.6-3-1.2H		
EP1161	6910000970	BEA DL-2OP 2.6-3-1.2H		
EP1162	6910000970	BEA DL-2OP 2.6-3-1.2H		

**[CASE]**

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
MF1	2710000750	FAN FBA08A12LZ		
W1	8900013140	CBL OPC-1323		
W2	8900013210	CBL OPC-1307		
W3	8900013240	CBL OPC-1373		
W4	8900013170	CBL OPC-1306		
EP1	6910008330	E.OTH G80-18		

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

# SECTION 6 MECHANICAL PARTS AND DISASSEMBLY

## [CASE]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
W1	8900013140	Cable OPC-1323 (2731 POWER-SW CABLE)	1
W2	8900013210	Cable OPC-1307 (2731 DC CABLE)	1
W3	8900013240	Cable OPC-1373 (2731 FAN CABLE)	1
W4	8900013170	Cable OPC-1306 (2731 TRX-ANT CABLE)	1
EP1	6910008330	Fan guard G80-18	1
MF1	2710000750	Fan FBA08A12LZ	1
MP1	8010019630	2731 chassis assembly (NC)	1
MP4	8110008170	2731 cover (NC)	1
MP5	8210020760	2731 panel (NC)	1
MP6	8930062850	2731 M-plate (NC)	2
MP8	8930062841	2731 fan holder-1 (NC)	2
MP9	8930063090	Handle BH-60S	1
MP10	8850002040	Washer Z-8S	4
MP11	8930058750	Insulation plate (HH)	1
MP12	8930048350	2146 lens	1
MP13	8950003170	Nylon clip SL-8N	1
MP14	8810006470	Setscrew (C) M4 × 12 SUS	4
MP15	8810003360	Setscrew (C) M3 × 6	4
MP16	8810003360	Setscrew (C) M3 × 6	4
MP17	8810003360	Setscrew (C) M3 × 6	4
MP20	8810003360	Setscrew (C) M3 × 6	1
MP21	8810002950	Screw BiH M3 × 6 SUS	12
MP22	8810002950	Screw BiH M3 × 6 SUS	2
MP23	8810002950	Screw BiH M3 × 6 SUS	1
MP24	8810010130	Setscrew (C) M3 × 35	4
MP25	8810003390	Setscrew (C) M4 × 8	4
MP27	8830000110	Nut M4	1
MP28	8850000140	Flat washer M4 NI BS	1
MP29	8850000130	Flat washer M3 (3 × 8 × 0.5) NI BS	1

## [CHASSIS-D PARTS]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
J1	6510004910	Connector NR-DS-E 01	1
W1	8900010890	Cable OPC-1115	1
W2	8900010890	Cable OPC-1115	1
MF1	2710000590	Fan MF40D-12H-001	1
IC1160	1150002020	IC M57762-02	1
EP1160	6910000970	Bead DL2-OP2.6-3-1.2H	1
EP1161	6910000970	Bead DL2-OP2.6-3-1.2H	1
EP1162	6910000970	Bead DL2-OP2.6-3-1.2H	1
MP1	8010019620	2506 chassis (A)-1	1
MP2	8810008660	Screw PH BT M3 × 8 NI-ZU	2
MP3	8810008660	Screw PH BT M3 × 8 NI-ZU	2
MP4	8810008660	Screw PH BT M3 × 8 NI-ZU	7
MP5	8110006640	2047 cover	1
MP6	8810008450	Screw BiH M4 × 8 ZK	1
MP9	8110005751	1729 FAN cover-1	1
MP10	8810009110	Screw PH 0 M2.6 × 16 ZK	4
MP14	8510012210	2047 main shield	2
MP17	8810007130	Setscrew H M3 × 6	4
MP22	8930049650	Thermally sheet (H)	2
MP23	8930053472	Thermally sheet (R)-2 TC200HS (10 × 10)	3
MP24	8930055051	Thermally sheet (V)-1 TC400HS (10 × 15)	1
MP26	8510014251	2506 M-plate-1	1
MP27	8930037120	1647 M-holder	1
MP28	8930056781	2506 YGR plate-1	1
MP29	8510014241	2506 ANT plate-1	1
MP33	8930014140	Earth spring (D)	1
MP34	8930014140	Earth spring (D)	1
MP50	8930040010	Insulation plate EM	1

## [REAR UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
J2	6510016170	Connector 52018-8835	1

## [FRONT UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
J1	6450002100	Connector CMS1410-010010	1
S1	2220000630	Switch MFS201N-16	1
DS1	5040003070	LED MPG4371F	1

## [LOGIC-D UNIT]

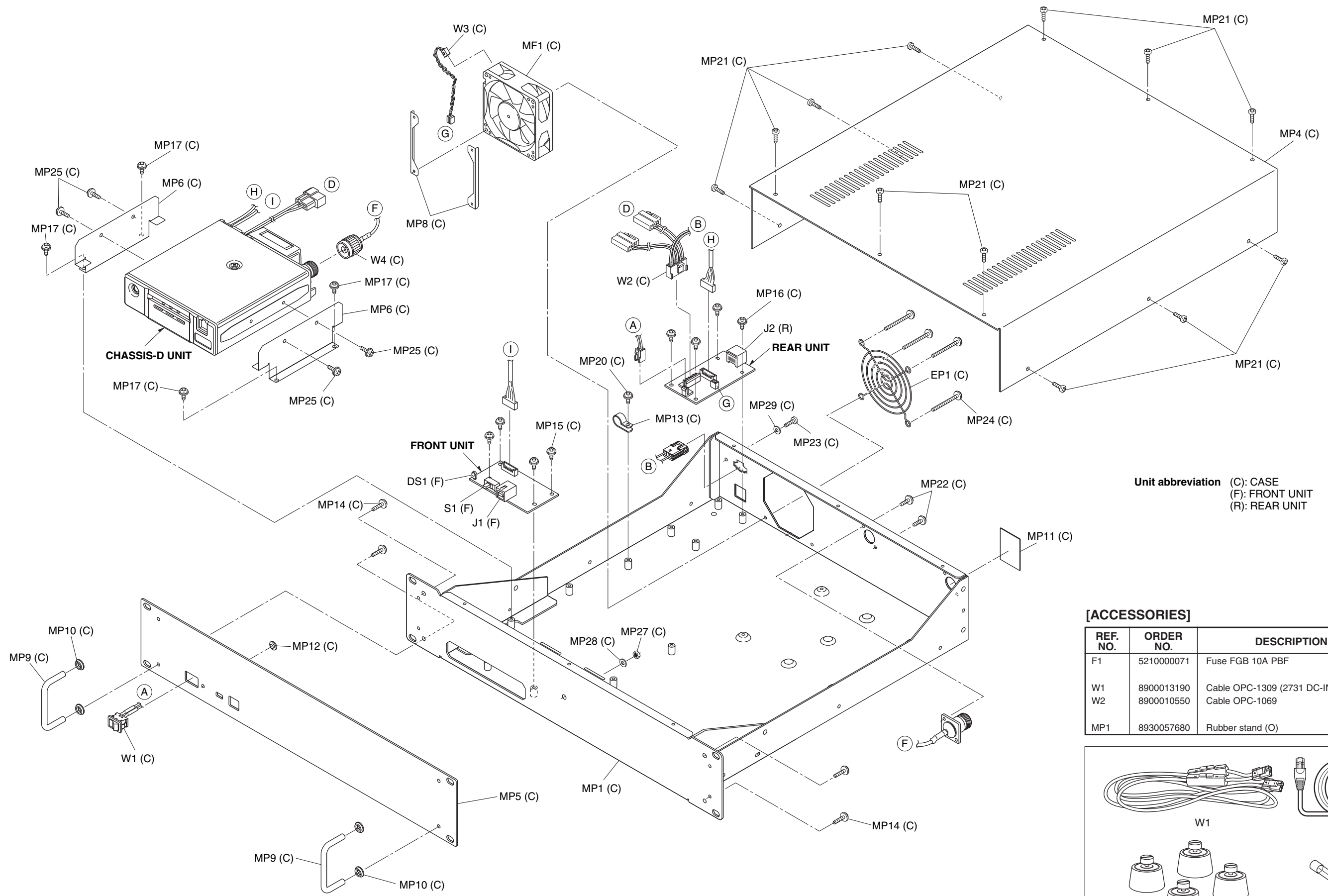
REF. NO.	ORDER NO.	DESCRIPTION	QTY.
W1	8900013200	Cable OPC-1308 (2731 TX-CTRL CABLE)	1
MP1	8510012500	2176 shield plate	1
MP2	8510012500	2176 shield plate	1
MP3	8510014481	2506 CPU shield-1	1
MP6	8930001170	Earth spring (A)	1
MP7	8930007280	Aluminium sheet (H)	1
MP8	8510010460	1691 main shield plate	1
MP9	8510002280	VCO shield plate (A)	1
MP10	8510005070	599 shield plate	1

## [MAIN-D UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
W1330	8900011960	Cable OPC-1216	1
MP1	8510010880	1642 VCO case	1
MP2	8510010880	1642 VCO case	1
MP30	8930014140	Earth spring (D)	1
MP39	8930054521	Shield sponge (E)-1	1
MP40	8510002280	VCO shield plate (A)	1
MP54	8510000210	194 shield plate	1
MP55	8510000210	194 shield plate	1
MP57	8510010460	1691 main shield plate	1
MP58	8510011111	1922 VCO case-1	1
MP60	8510011101	1922 VCO cover-1	1
MP64	8930056580	Spacer with screw (AD)	4
MP65	8810007130	Setscrew (H) M3 × 6	4
MP66	8510010460	1691 main shield plate	1
MP67	8510002280	VCO shield plate (A)	1

### Screw abbreviations

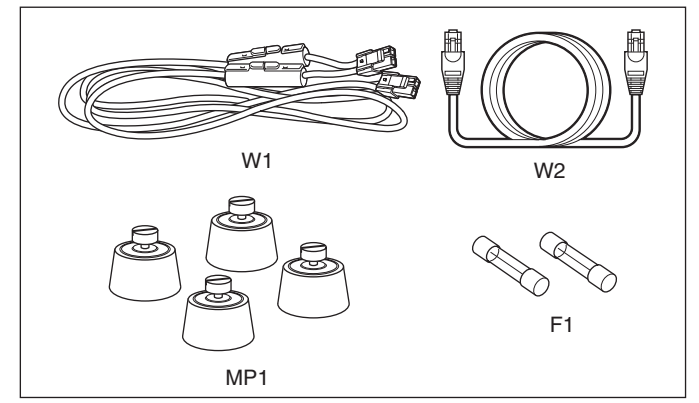
BT: Self-tapping PH: Pan head  
 BiH: Binding head  
 ZK: Black NI: Nickel  
 NI-ZU: Nickel-Zinc  
 SUS: Stainless BS: Brass

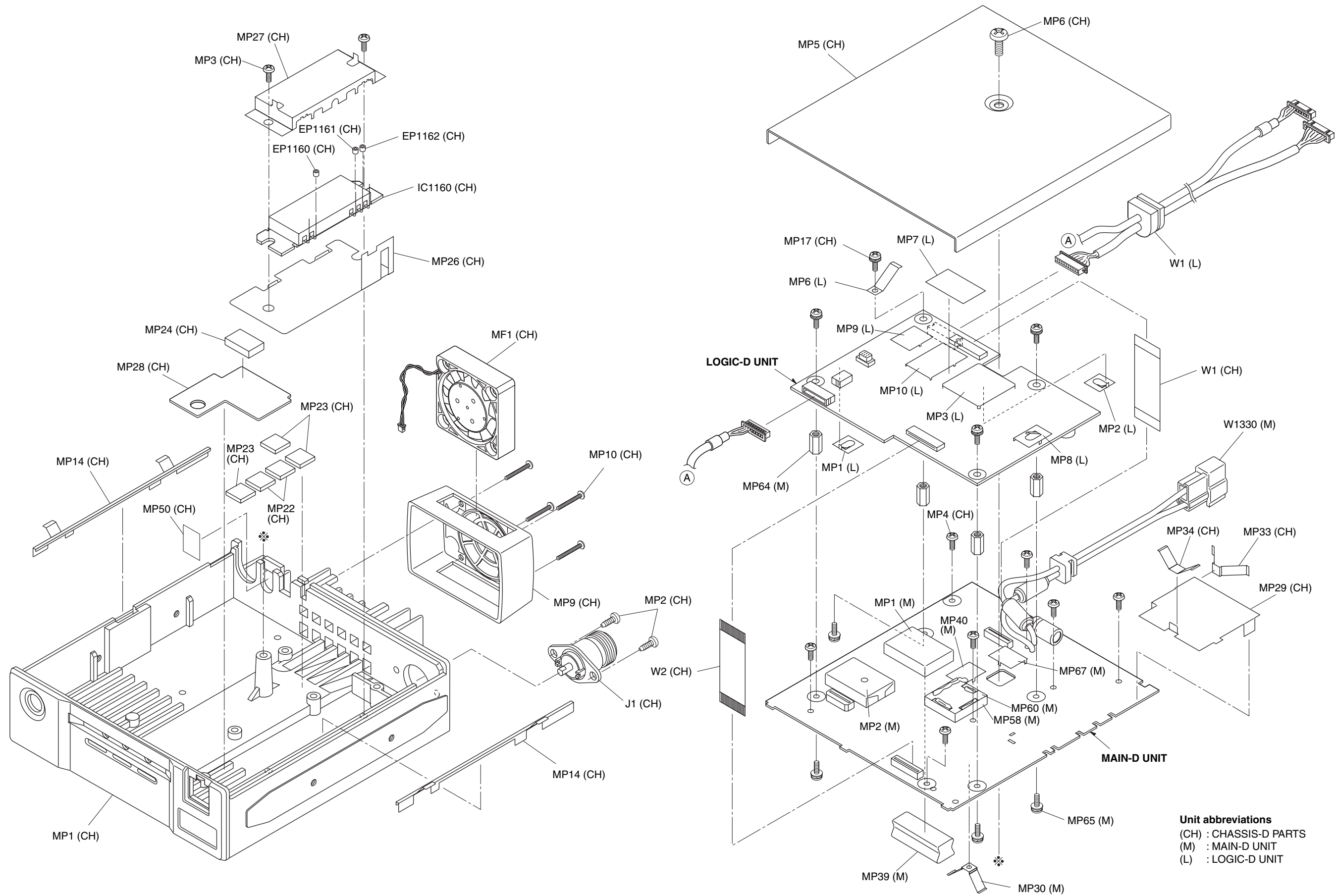


**Unit abbreviation** (C): CASE  
(F): FRONT UNIT  
(R): REAR UNIT

**[ACCESSORIES]**

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
F1	521000071	Fuse FGB 10A PBF	2
W1	8900013190	Cable OPC-1309 (2731 DC-IN CABLE)	1
W2	8900010550	Cable OPC-1069	1
MP1	8930057680	Rubber stand (O)	4

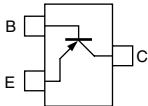
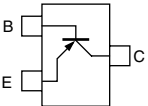
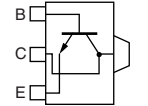
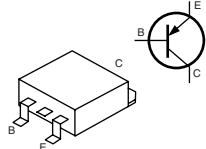
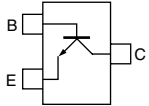
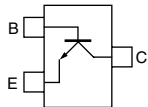
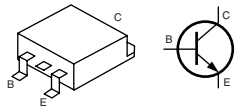
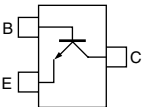
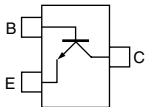
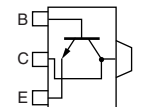
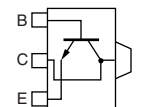
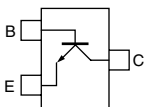
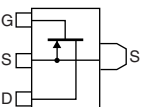
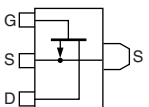
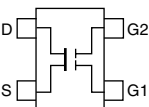
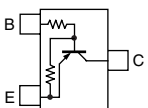
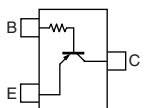
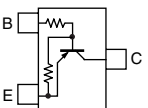
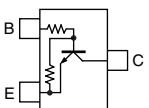
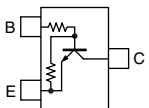
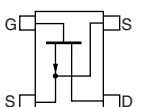
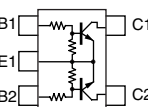
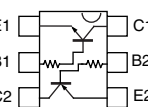




# SECTION 7

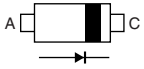
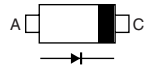
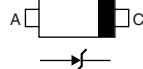
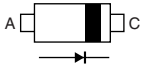
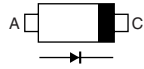
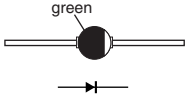
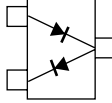
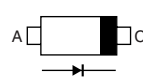
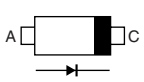
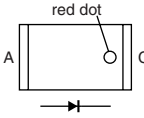
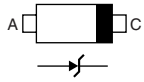
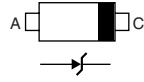
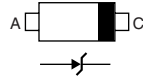
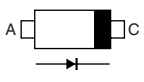
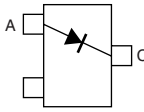
# SEMI-CONDUCTOR INFORMATION

## • TRANSISTORS AND FET'S

<p><b>2SA1362 GR</b> (Symbol: AEG)</p> 	<p><b>2SA1586 GR</b> (Symbol: SG)</p> 	<p><b>2SB798 T2 DK</b> (Symbol: DK)</p> 	<p><b>2SB934 P</b> (Symbol: None)</p> 	<p><b>2SC4081 T106 S</b> (Symbol: BS)</p> 
<p><b>2SC4215 O</b> (Symbol: QO)</p> 	<p><b>2SC4684</b> (Symbol: 2SC4684)</p> 	<p><b>2SC5107 O</b> (Symbol: MFO)</p> 	<p><b>2SC5195</b> (Symbol: 88)</p> 	<p><b>2SD1619 T TD</b> (Symbol: DB)</p> 
<p><b>2SD1801 S TL</b> (Symbol: CE)</p> 	<p><b>2SD2216J</b> (Symbol: Y)</p> 	<p><b>2SK2854</b> (Symbol: UP)</p> 	<p><b>2SK2855</b> (Symbol: UT)</p> 	<p><b>3SK241</b> (Symbol: DU)</p> 
<p><b>DTA114EUA T106</b> (Symbol: 14)</p> 	<p><b>DTA143TUA</b> (Symbol: 93)</p> 	<p><b>DTA144EUA T106</b> (Symbol: 16)</p> 	<p><b>DTC143ZUA</b> (Symbol: 123)</p> 	<p><b>DTC144EUA T106</b> (Symbol: 26)</p> 
<p><b>NE34018-T1 64</b> (Symbol: V64)</p> 	<p><b>XP1214</b> (Symbol: 9H)</p> 	<p><b>XP4315</b> (Symbol: CB)</p> 		

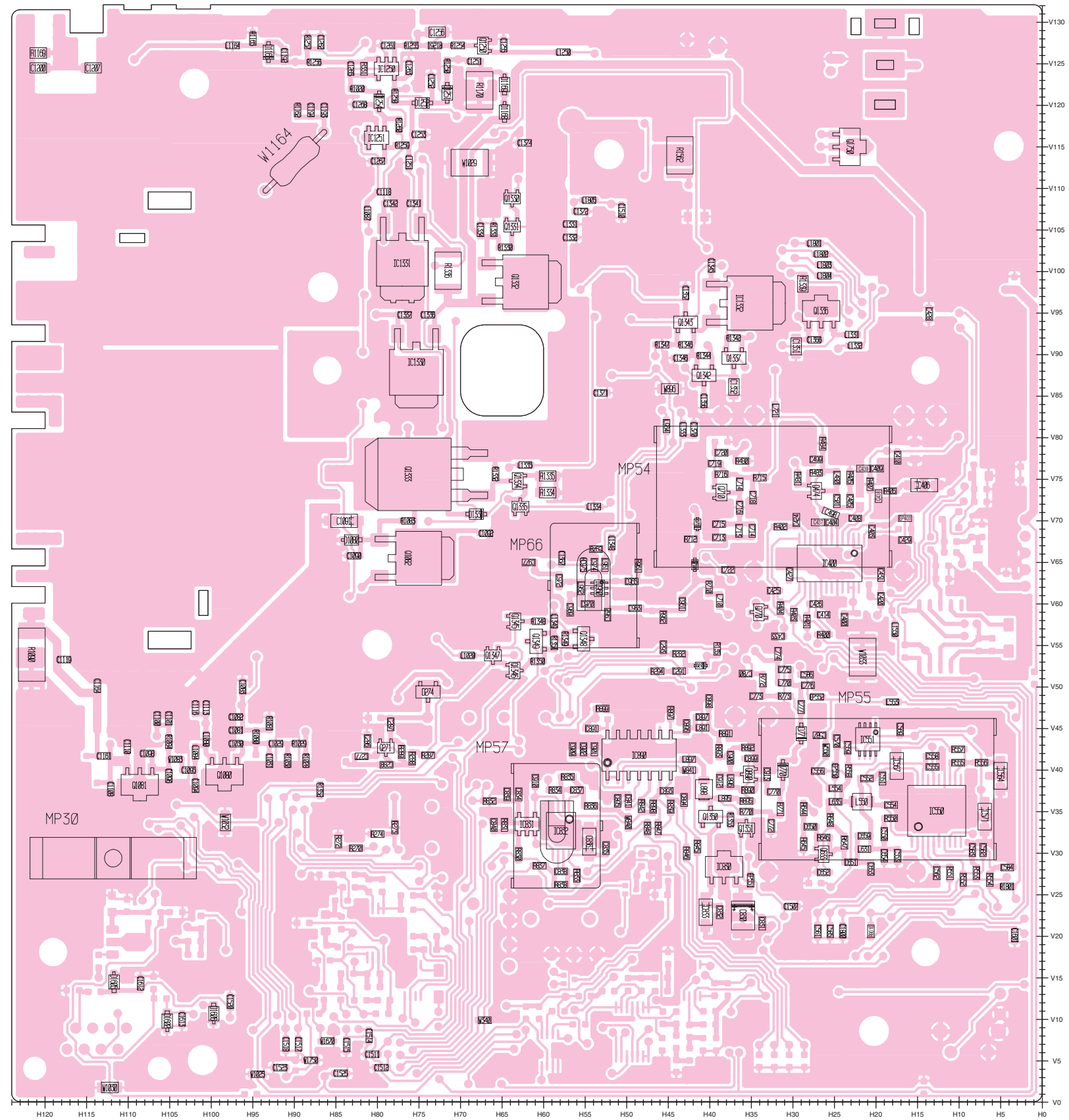


• DIODES

<p><b>1SS355</b> (Symbol: A)</p> 	<p><b>1SV239</b> (Symbol: TC)</p> 	<p><b>1SV282</b> (Symbol: TD)</p> 	<p><b>1SV307</b> (Symbol: TX)</p> 	<p><b>1SV308</b> (Symbol: TX)</p> 
<p><b>DSA3A1</b> (Color: Green)</p> 	<p><b>HSM88AS TR</b> (Symbol: C1)</p> 	<p><b>HSU88TRF</b> (Symbol: 9)</p> 	<p><b>MA2S728</b> (Symbol: B)</p> 	<p><b>MA4PH224</b> (Symbol: Red dot)</p> 
<p><b>MA8033 L</b> (Symbol: 3_3)</p> 	<p><b>MA8082 M</b> (Symbol: 8-2)</p> 	<p><b>MA8091 M</b> (Symbol: 9-1)</p> 	<p><b>NNCD5.6C-T1</b> (Symbol: NNCD5.6C)</p> 	<p><b>SB07-03C</b> (Symbol: J)</p> 



• BOTTOM VIEW (MAIN-D UNIT)



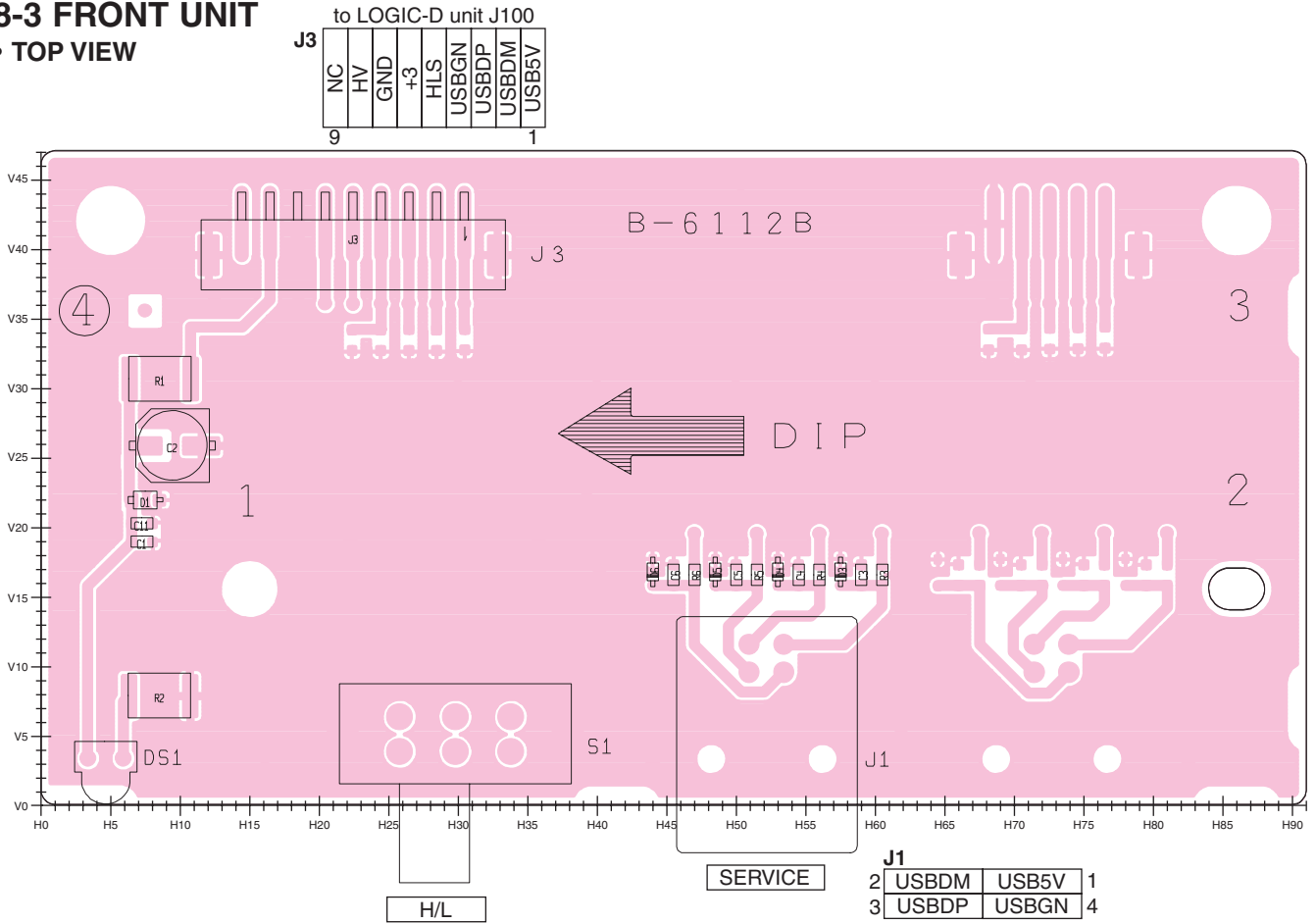






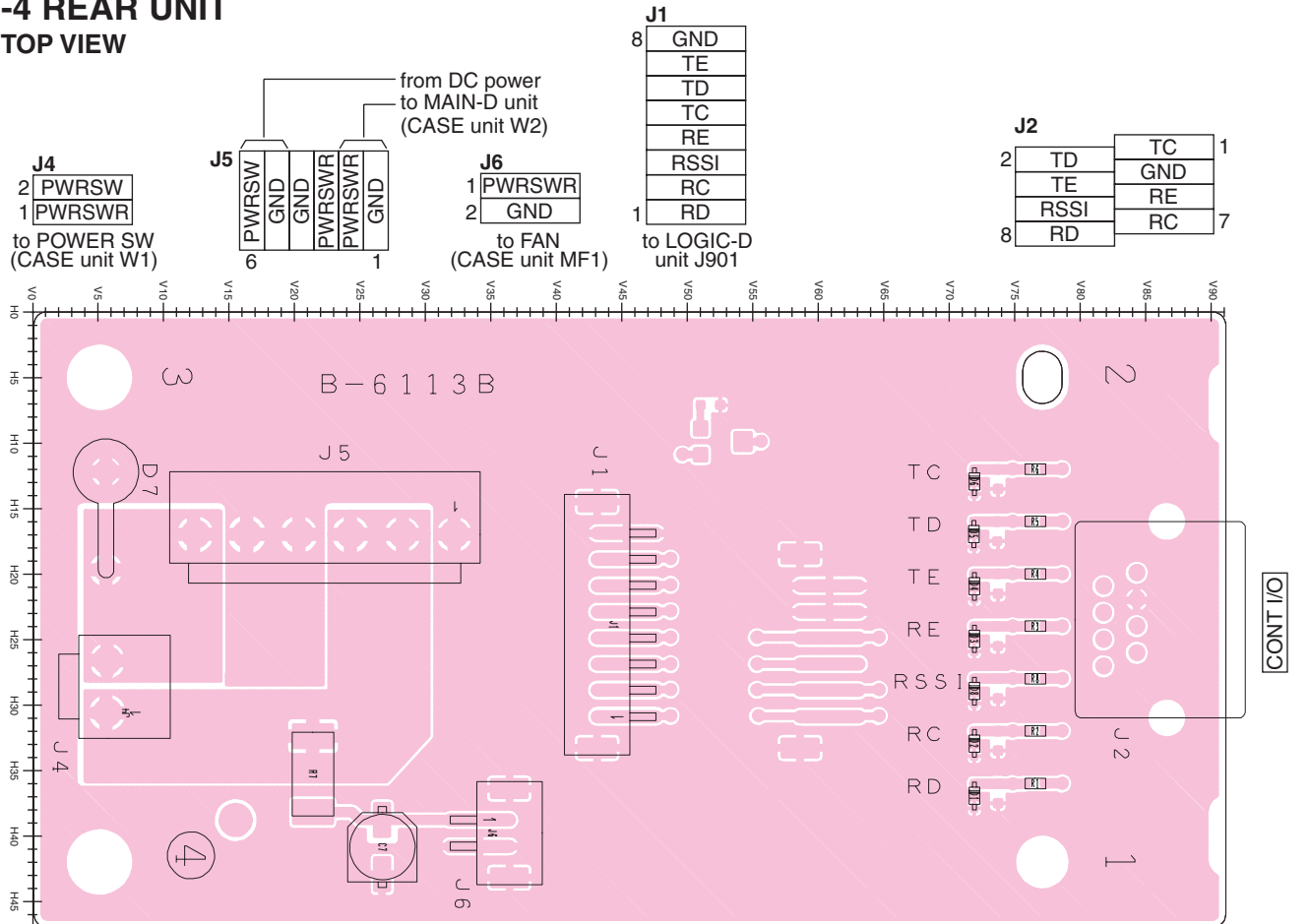
### 8-3 FRONT UNIT

#### • TOP VIEW

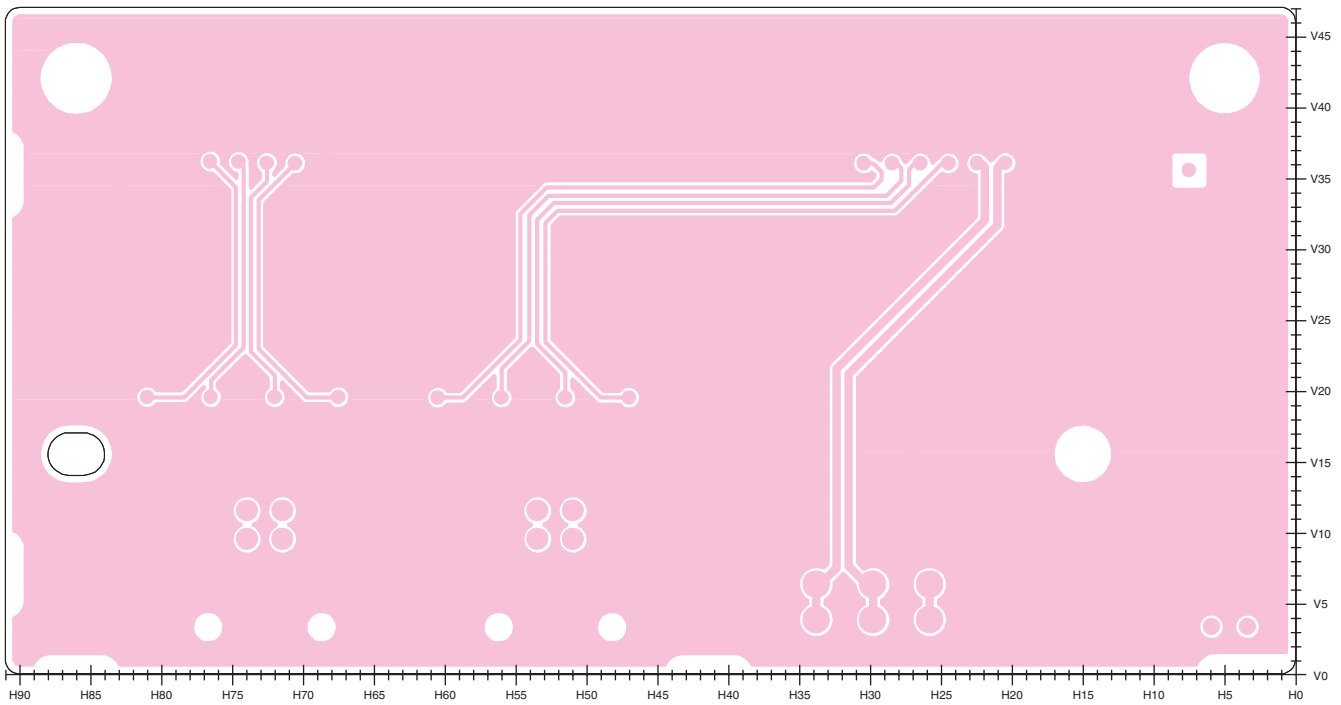


### 8-4 REAR UNIT

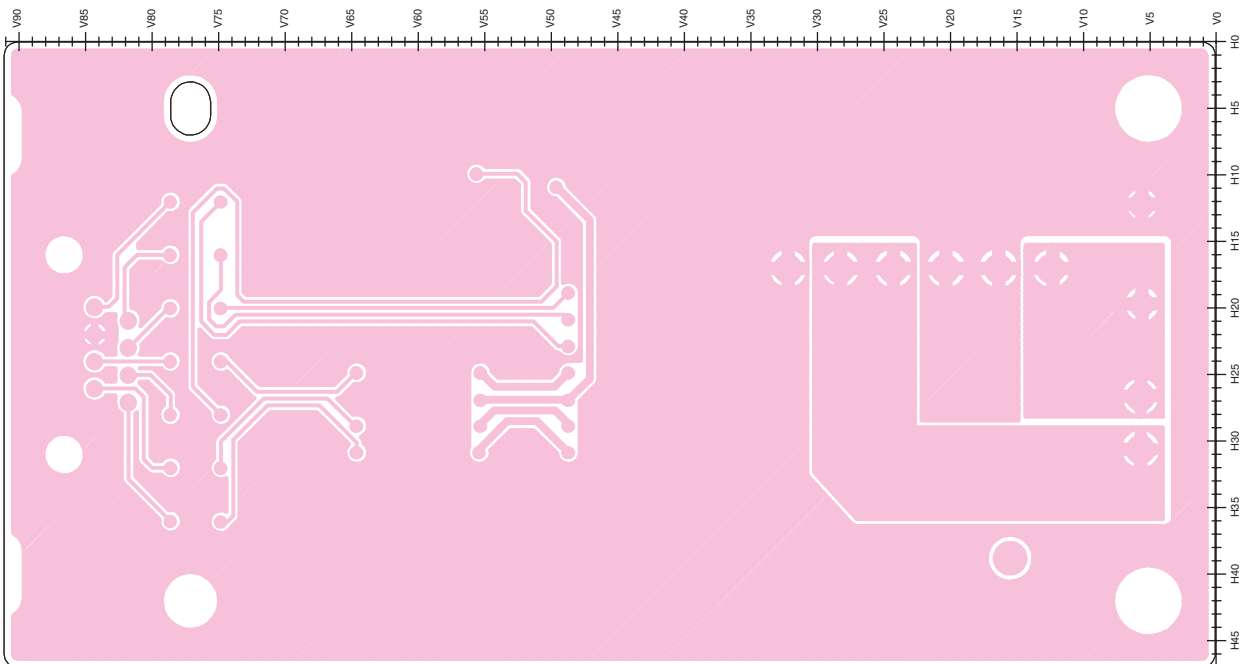
#### • TOP VIEW



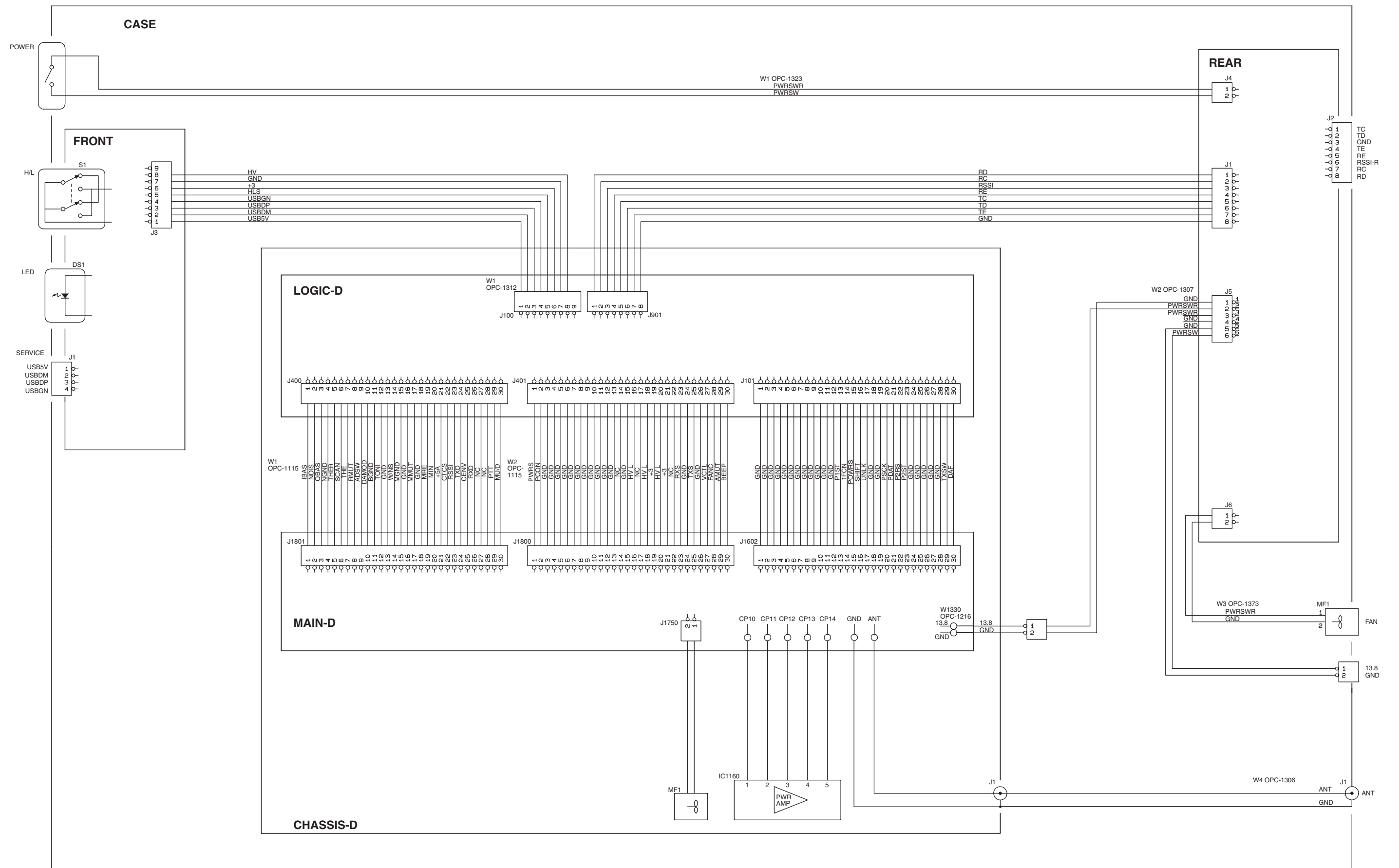
• **BOTTOM VIEW (FRONT UNIT)**



• **BOTTOM VIEW (REAR UNIT)**



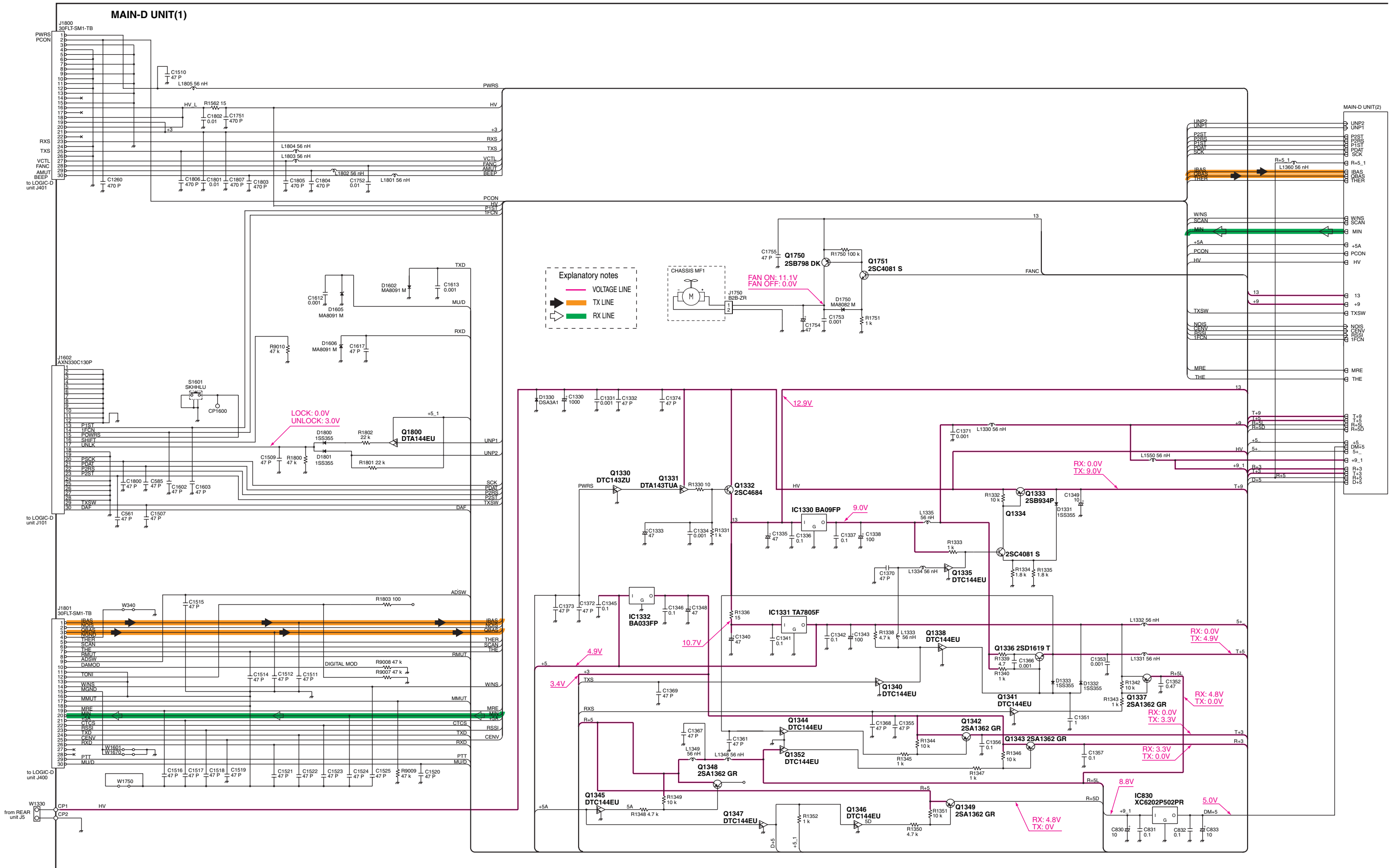
# SECTION 9 WIRING DIAGRAM



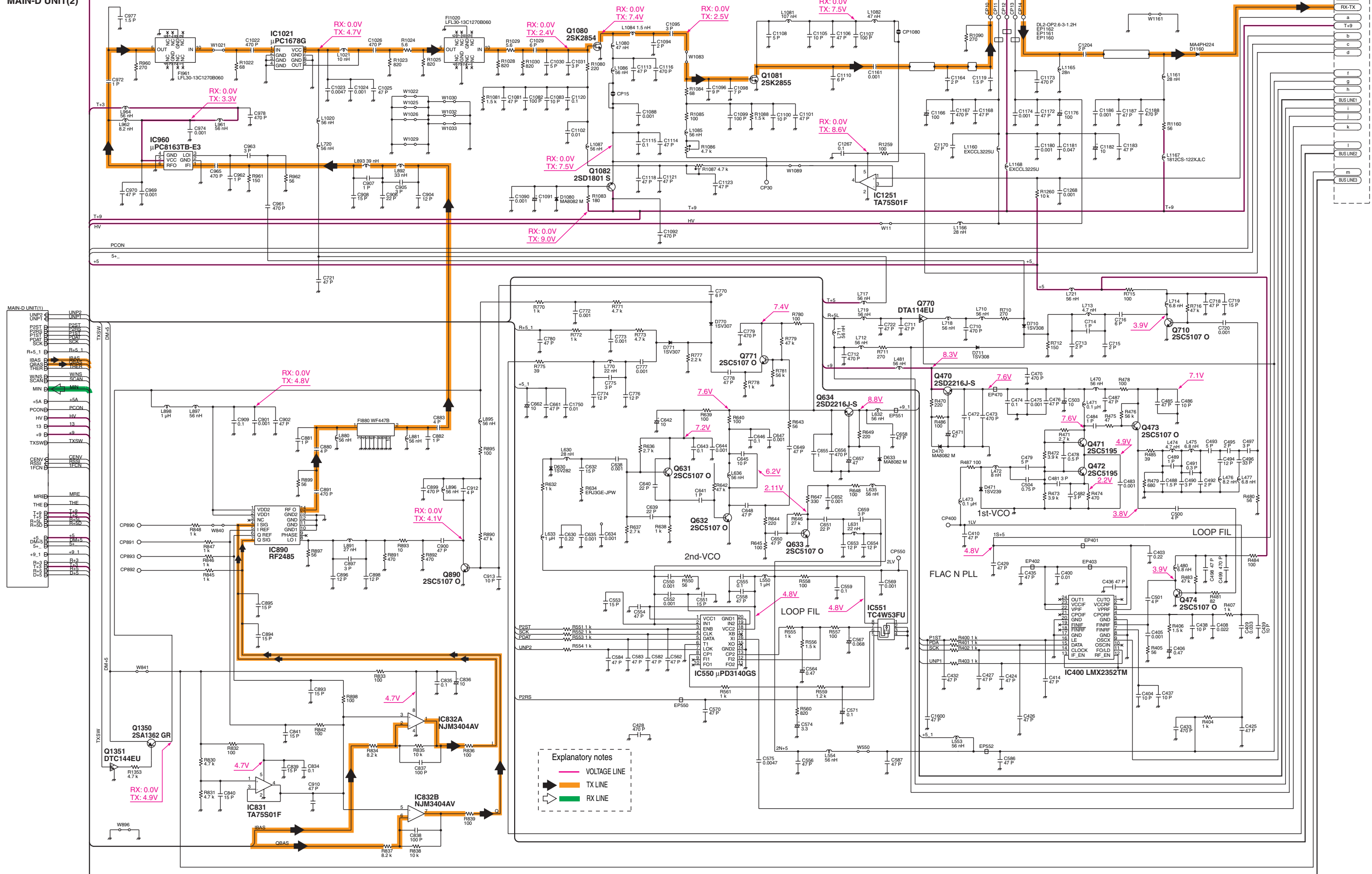


# SECTION 11 VOLTAGE DIAGRAMS

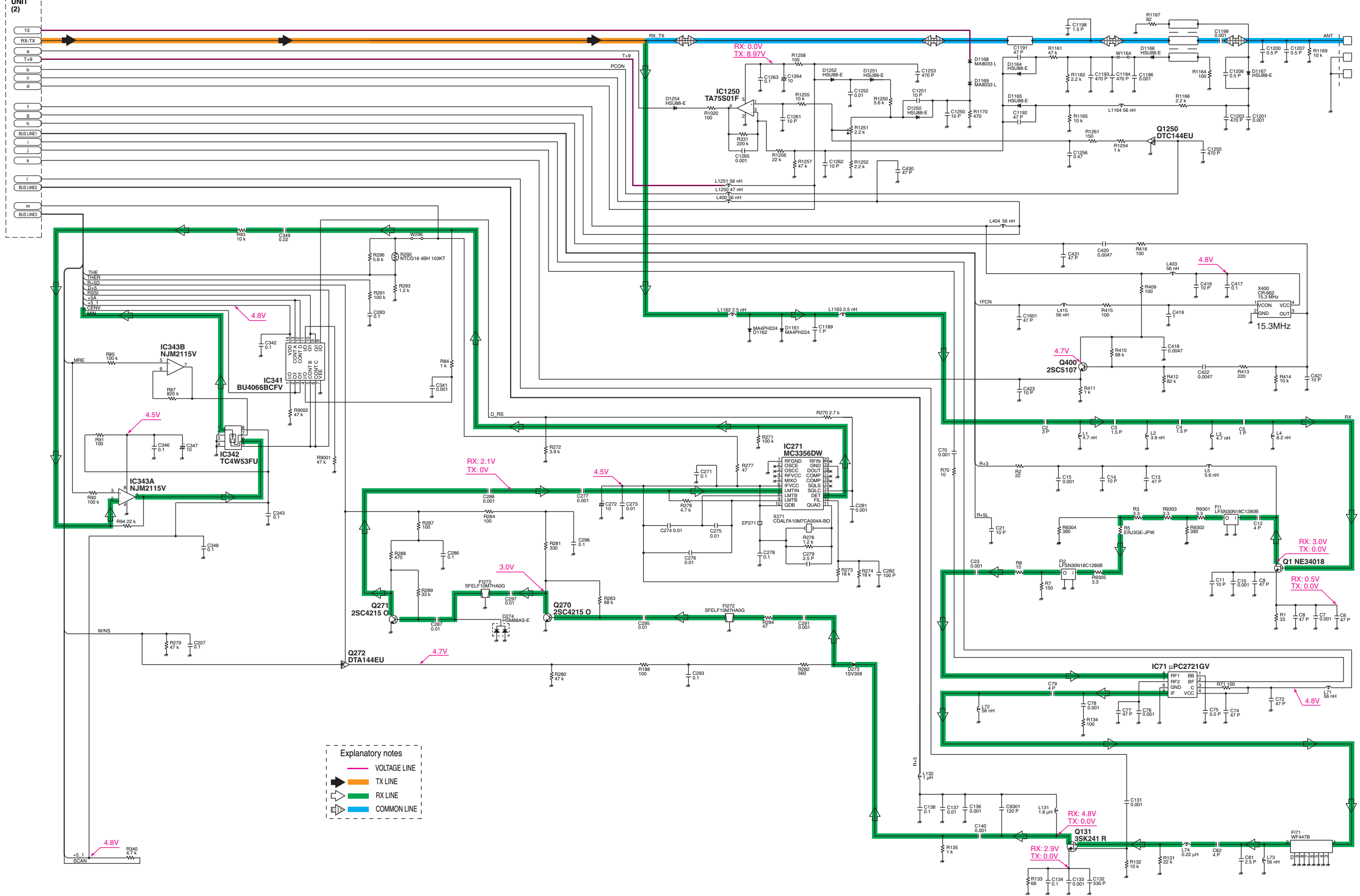
## 11-1 MAIN-D UNIT







MAIN-D UNIT(3)

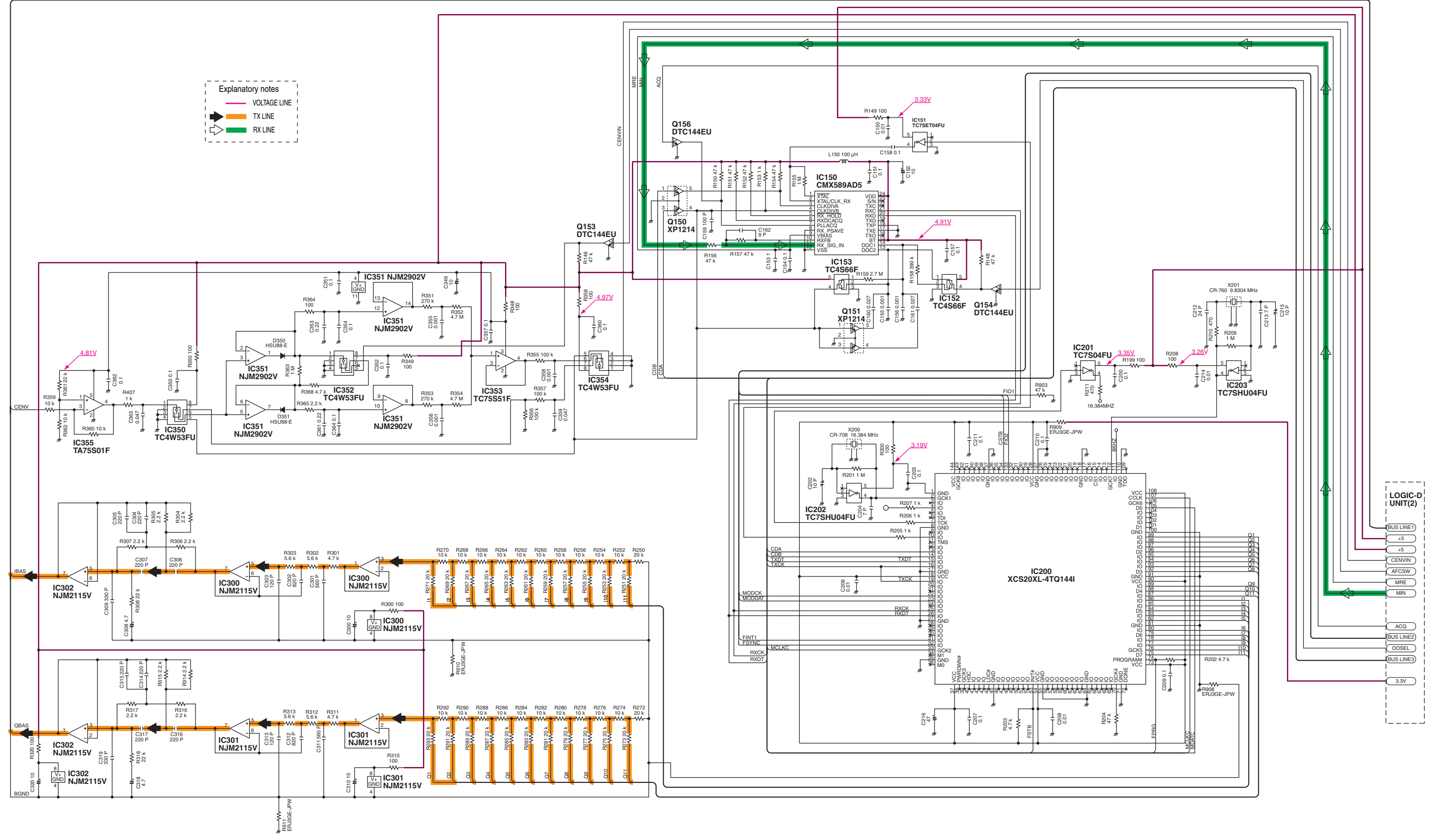


Explanatory notes

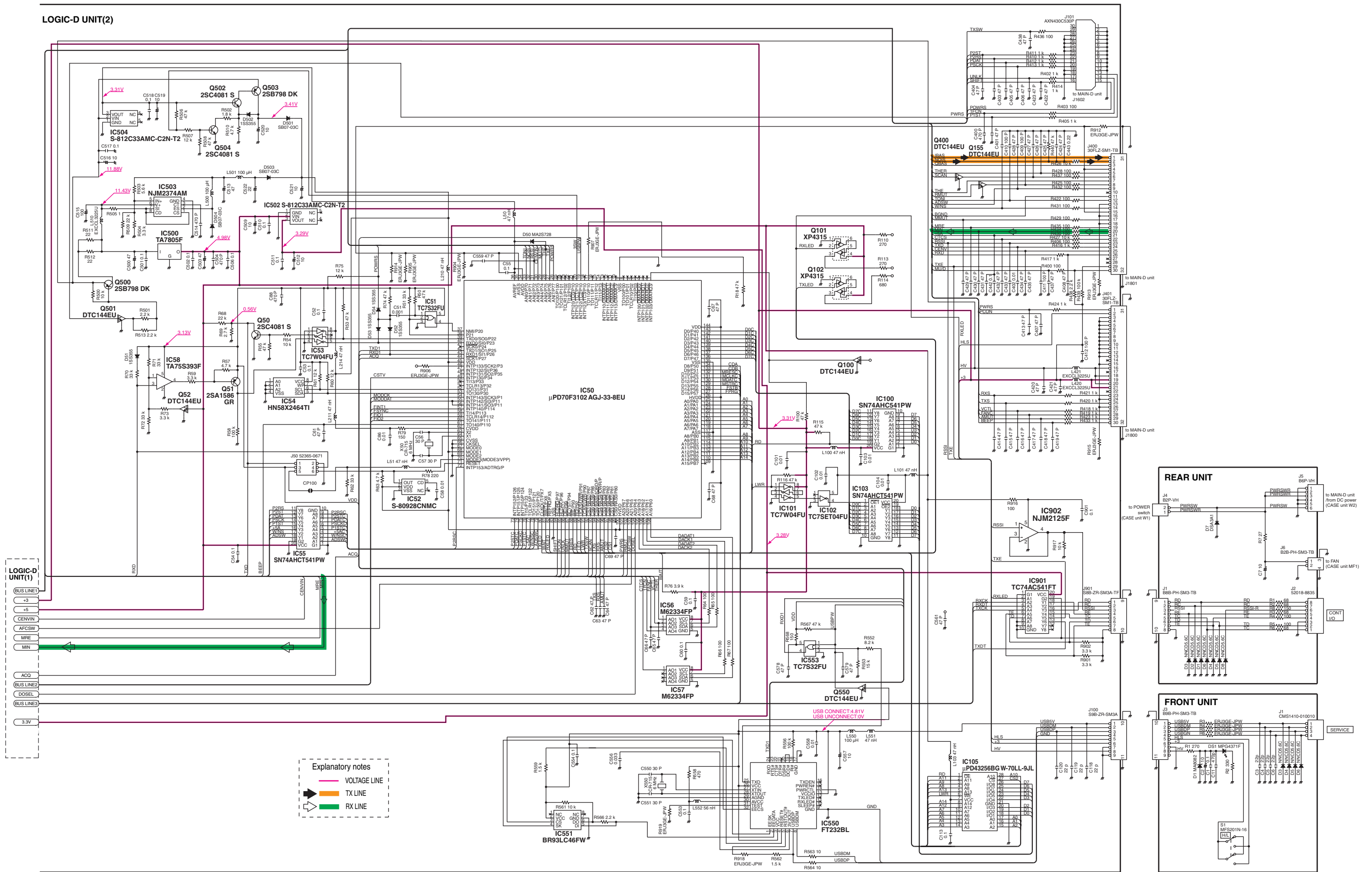
- VOLTAGE LINE
- TX LINE
- RX LINE
- COMMON LINE

# 11-2 LOGIC-D UNIT

## LOGIC-D UNIT(1)



LOGIC-D UNIT(2)



# SERVICE MANUAL

1.2 GHz DIGITAL VOICE REPEATER

## ID-RP2V

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**SECTION 2 INSIDE VIEWS**

**SECTION 3 DISASSEMBLY INFORMATION**

**SECTION 4 CIRCUIT DESCRIPTION**

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**SECTION 6 MECHANICAL PARTS AND DISASSEMBLY**

**SECTION 7 SEMI-CONDUCTOR INFORMATION**

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# SECTION 1 SPECIFICATIONS

## ■ GENERAL

• Frequency range	: Transmit 1240.000–1300.000 MHz Receive 1240.000–1300.000 MHz
• Type of emission	: F1D* (GMSK) *F7W for system operation
• Communication speed	: 4.8 kbps
• Frequency resolutions	: 5, 6.25 kHz
• Frequency stability	: $\pm 2.5$ ppm (based on 25°C; +77°F)
• Usable temperature range	: –10°C to +50°C; +14°F to +122°F
• Antenna connectors	: Type-N (50 $\Omega$ ) $\times$ 2
• Power supply requirement	: 13.8 V DC $\pm$ 15% (Negative ground)
• Current drain	: Transmit (High) Less than 7.0 A (Low) Less than 3.0 A Receive (Stand-by) Less than 1.0 A
• Dimensions (proj. not included)	: 483(W) $\times$ 88(H) $\times$ 428(D) mm; 19(W) $\times$ 3 <sup>15</sup> / <sub>32</sub> (H) $\times$ 16 <sup>27</sup> / <sub>32</sub> (D) in
• Weight (Approx.)	: 7.5 kg; 16 lb 9 oz

## ■ TRANSMITTER

• Output power (at 13.8 V DC)	: High 6–12 W Low 0.5–1.2 W
• Modulation system	: Quadrature (243.95 MHz)
• Occupied bandwidth	: Less than 5.5 kHz
• Spurious emissions	: Less than –50 dB

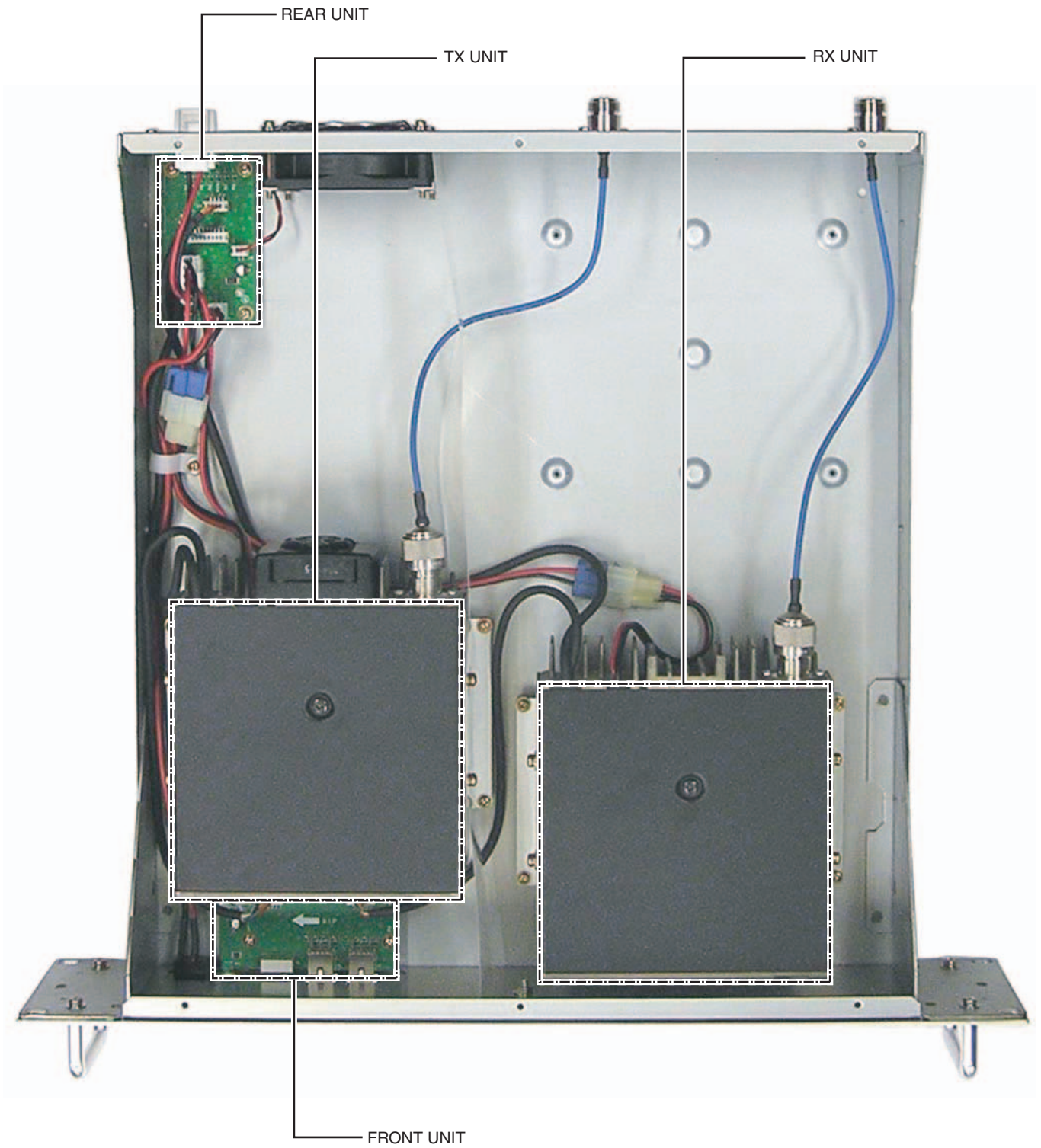
## ■ RECEIVER

• Receive system	: Triple-conversion superheterodyne system
• Intermediate frequencies	: 1st 243.95 MHz 2nd 31.05 MHz 3rd 450 kHz
• Sensitivity (BER $1 \times 10^{-2}$ )	: Less than –7 dB $\mu$ (0.45 $\mu$ V)
• Selectivity	: More than 6 kHz/6 dB Less than 18 kHz/50 dB
• Spurious and image rejection	: More than 60 dB (General) More than 50 dB (IF, IF/2)
• Receive spurious	: Less than –57 dBm

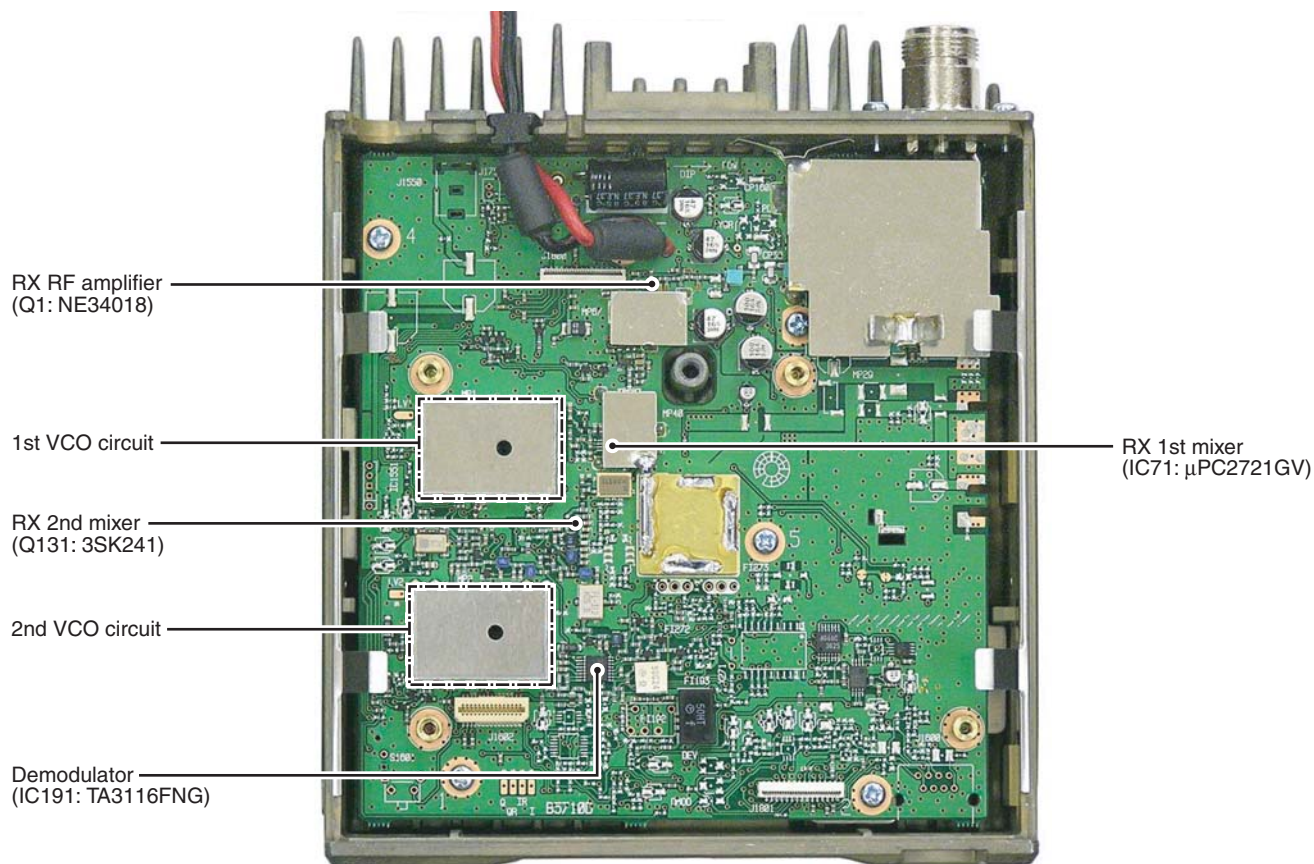
All stated specifications are subject to change without notice or obligation.

## SECTION 2 INSIDE VIEWS

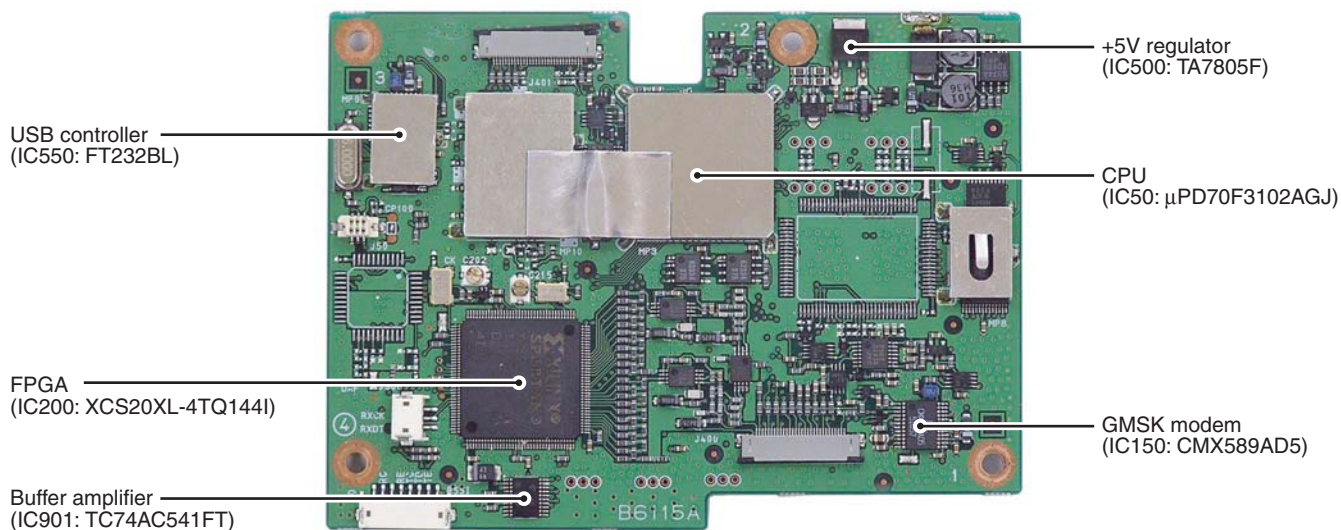
- OVERALL



• MAIN-R UNIT

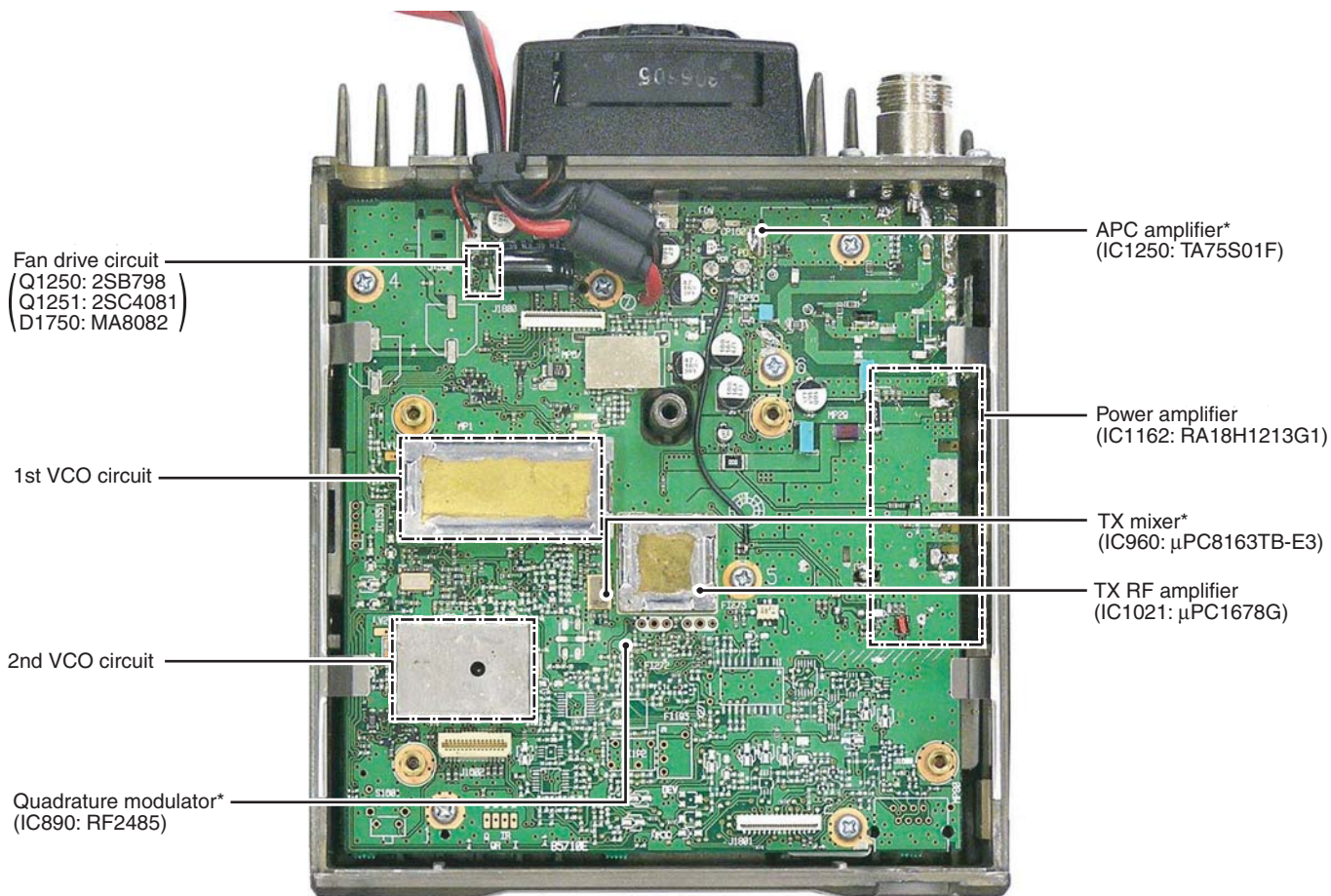


• LOGIC-T/R UNIT





• MAIN-T UNIT



Fan drive circuit  
(Q1250: 2SB798  
Q1251: 2SC4081  
D1750: MA8082)

1st VCO circuit

2nd VCO circuit

Quadrature modulator\*  
(IC890: RF2485)

APC amplifier\*  
(IC1250: TA75S01F)

Power amplifier  
(IC1162: RA18H1213G1)

TX mixer\*  
(IC960:  $\mu$ PC8163TB-E3)

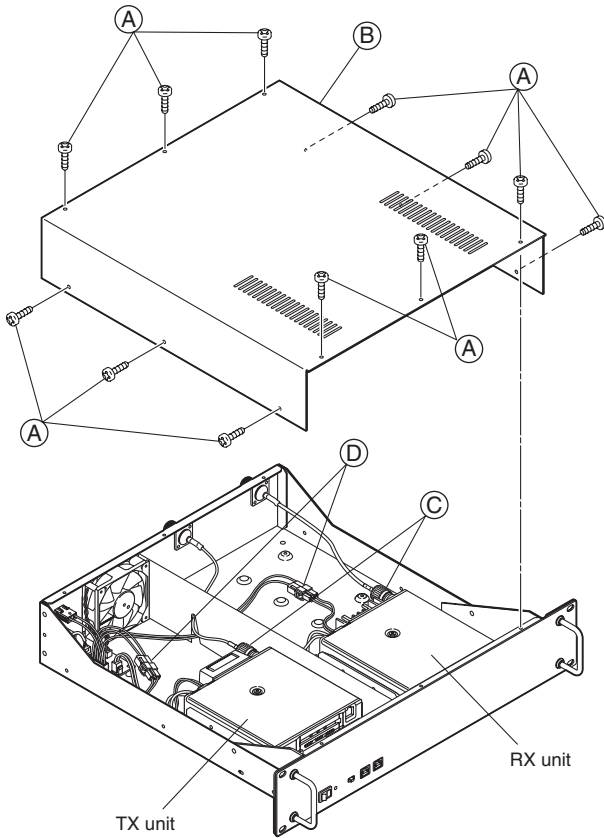
TX RF amplifier  
(IC1021:  $\mu$ PC1678G)

\*: Located under side of this points.

# SECTION 3 DISASSEMBLY INSTRUCTIONS

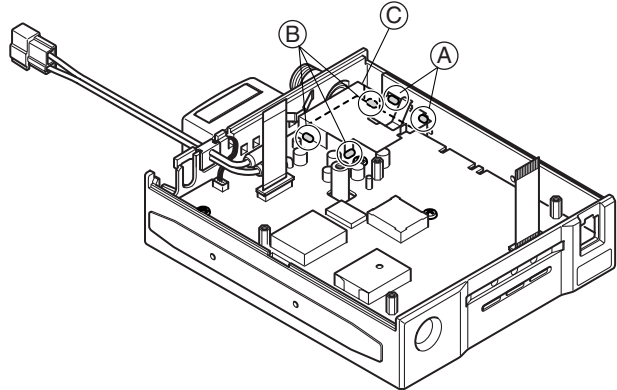
## ● REMOVING THE COVER

- ① Unscrew 12 screws (A), and remove the cover (B).
- ② Disconnect 2 cables (C), and disconnect 2 cables (D).



## ● REMOVING THE MAIN-T/R UNIT

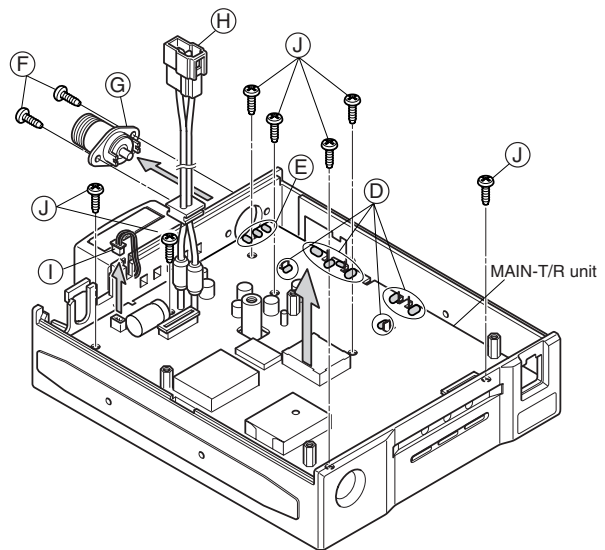
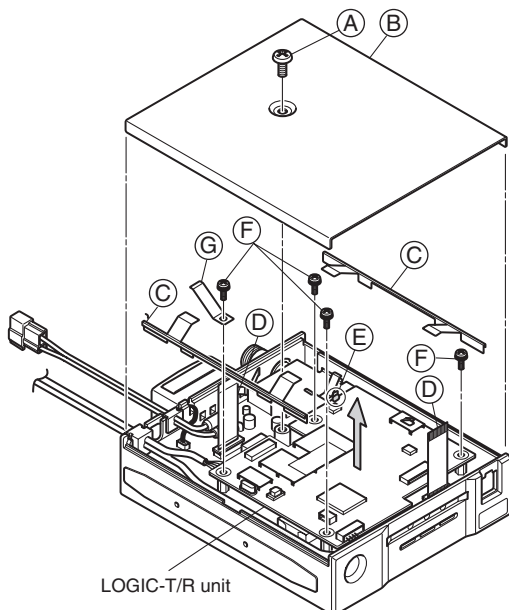
- ① Unsolder 2 points (A). (MAIN-T unit only)
- ② Unsolder 3 points (B), and remove the ANT plate (C).



- ③ Unsolder 8 points (D). (MAIN-T unit only)
- ④ Unsolder 3 points (E).
- ⑤ Unscrew 2 screws (F), and remove the ANT connector (G).
- ⑥ Take off the cable (H) from the chassis.
- ⑦ Disconnect the cable (I). (MAIN-T unit only)
- ⑧ Unscrew 7 screws (J), and take off the MAIN-T/R unit.

## ● REMOVING THE LOGIC-T/R UNIT

- ① Unscrew 1 screw (A), and remove the cover (B).
- ② Remove 2 main shield plates (C).
- ③ Disconnect 2 cables (D), and unsolder 1 point (E).
- ④ Unscrew 4 screws (F), and remove the earth spring (G).
- ⑤ Take off the LOGIC-T/R unit.





# SECTION 4 CIRCUIT DESCRIPTION

## 4-1 RECEIVER CIRCUITS

### 4-1-1 RF CIRCUIT (MAIN-R UNIT)

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

The received signals from the receive antenna connector (CASE; W6) are applied to the MAIN-R unit via J1 (CHASSIS-R). The applied signals are passed through the low-pass filter which contains strip-line, L1162, L1193, C1189, C1198, C9202 and C9203. The filtered signals are through the high-pass filter (L1-L4, C2-C5) and then applied to the RF amplifier (Q1). The amplified signals are passed through the bandpass filter (F11) and then applied to another RF amplifier (Q2). The amplified signals are passed through another bandpass filter (F12) to suppress unwanted signals.

The filtered signals are applied to the 1st mixer circuit.

### 4-1-2 1ST MIXER AND 1ST IF CIRCUITS (MAIN-R UNIT)

The 1st mixer circuit converts the received signals into fixed frequency of the 1st IF signal with the 1st LO signal. By changing the 1st LO signal, only the desired frequency passes through the bandpass filter at the next stage of the 1st mixer circuit.

The RF signals from the bandpass filter (F12) are mixed with the 1st LO signal, where come from the 1st VCO circuit (Q471, Q472, D471), at the 1st mixer circuit (IC71) to produce a 243.95 MHz 1st IF signal. The 1st IF signal is passed through the bandpass filter (F171) to suppress unwanted signals and pass only the desired signals.

The filtered signal is applied to the 2nd IF circuit.

### 4-1-3 2ND MIXER AND 2ND IF CIRCUITS (MAIN-R UNIT)

The 2nd mixer circuit converts the 1st IF signal into the 2nd IF signal with the 2nd LO signal.

The filtered 1st IF signal from the bandpass filter (F171) is mixed with the 2nd LO signal (275.00 MHz), where come from the 2nd VCO circuit (Q631, D630), at the 2nd mixer circuit (Q131) to produce a 31.05 MHz 2nd IF signal. The 2nd IF signal is passed through the MCF (F1191). The filtered signal is applied to the IF amplifier (Q191) and then applied to the 3rd mixer circuit in the demodulator IC (IC191).

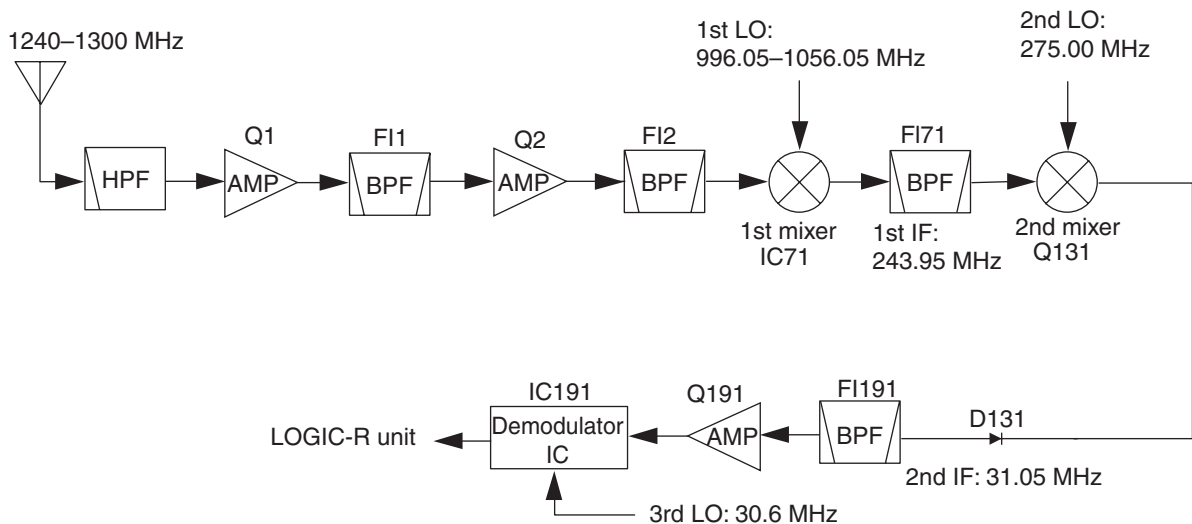
### 4-1-4 DEMODULATOR CIRCUIT (MAIN-R UNIT)

The demodulator IC (IC191) contains the 3rd mixer, limiter amplifier, quadrature detector, active filter and noise amplifier, etc.

The amplified 2nd IF signal from the IF amplifier (Q191) is applied to the 3rd mixer section of the demodulator IC (IC191, pin 16) and is then mixed with the 3rd LO signal to be converted into a 450 kHz 3rd IF signal. The 3rd IF signal from the 3rd mixer section (IC191, pin 3) passes through the ceramic filter (F1193) to remove unwanted heterodyned frequencies. The filtered signal is amplified at the limiter amplifier section (IC191, pin 5) and then applied to the quadrature detector section (IC191, pins 10, 11) to demodulate the digital audio or low speed data signals.

The 3rd LO signal (30.6 MHz) is produced at the 1st PLL circuit by doubling it's reference frequency (X400: 15.3 MHz) at the doubler circuit (Q550).

### • RF AND IF CIRCUITS



The digital audio or low speed data signals are output from pin 9 of the demodulator IC (IC191) and are amplified at IC343 (pins 6, 7).

The amplified signals are applied to the LOGIC-R unit via J1801 (pin 20).

#### 4-1-5 DIGITAL CIRCUITS (LOGIC-R UNIT)

The digital circuits convert the demodulated digital audio or low speed data signals format for communication to ID-RP2C.

The demodulated digital audio or low speed data signals from the amplifier (MAIN-R unit; IC343, pin 7) are applied to the GMSK MODEM (IC150, pin 11) via J400 (pin 20). The applied signals are synchronized with the clock signal, then the synchronized signals are applied to the CPU (IC50) via the FPGA IC (IC200).

The output signals from the CPU (IC50) are amplified at the buffer amplifier (IC901) and then applied to the REAR unit via J901.

The amplified signals are applied to the connected repeater controller (ID-RP2C) via [CONT I/O] (REAR unit; J2).

## 4-2 TRANSMITTER CIRCUITS

### 4-2-1 DIGITAL CIRCUIT (LOGIC-T UNIT)

The digital circuits convert the digital audio or low speed data signals for transmit.

The digital audio or low speed data signals from the connected repeater controller (ID-RP2C) are amplified at the buffer amplifier (IC901) and then applied to the CPU (IC50) via [CONT I/O] (REAR unit; J2).

The applied digital audio or low speed data signals to the CPU (IC50) are processed and then applied to the FPGA IC (IC200) to split to the I and Q baseband signals for quadrature modulation. The I/Q baseband signals output from pins 75–80, 82–86 (IC200; for I signals), and 87–89, 92–99 (IC200; for Q signals) and then applied to the D/A converters (R250–R271 for I signals, R272–R293 for Q signals).

The converted I/Q baseband signals are passed through the baseband filters (IC300, IC302; for I signal), and (IC301, IC302; for Q signal) and then applied to the MAIN-T unit via J400 (pin 1 for I signal, pin 3 for Q signal).

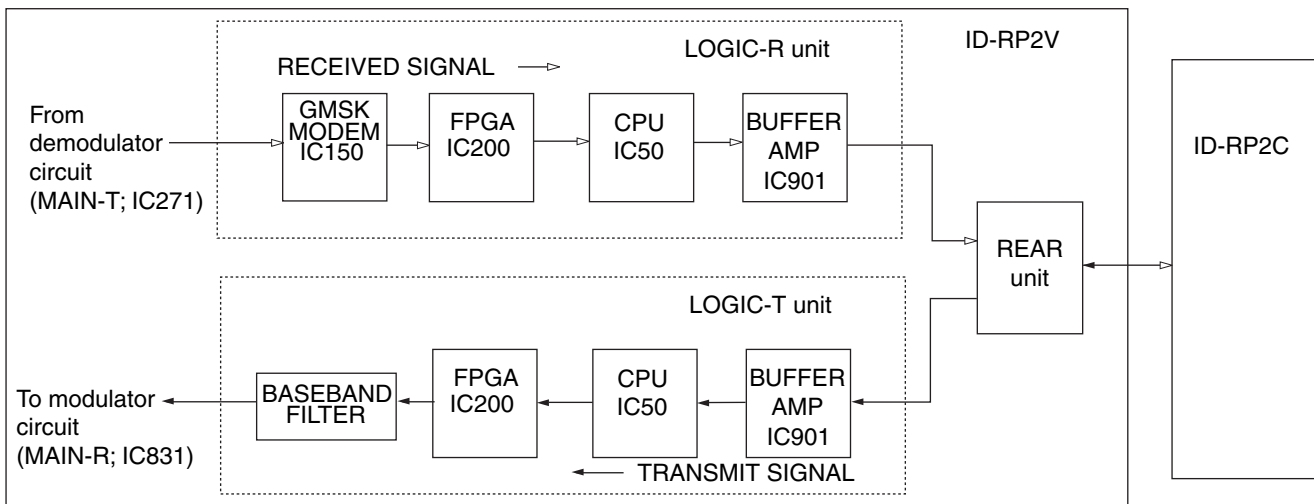
### 4-2-3 MODULATION CIRCUIT (MAIN-T UNIT)

The modulation circuit modulates the 2nd LO signal at the quadrature modulation circuit (IC890) using the I/Q baseband signals from the LOGIC-T unit.

The I/Q baseband signals from the LOGIC-T unit are amplified at the I/Q baseband amplifiers (IC832, pins 1, 2 for I signal, pins 6, 7 for Q signal) via J400 (pin 1 for I signal, pin 3 for Q signal) and then applied to amplifier section of the quadrature modulator (IC890, pin 4 for I signal, pin 7 for Q signal). The 2nd LO signal is also applied to the  $\pm 45^\circ$  phase splitter section of the quadrature modulator (IC890, pin 8) and then phase shifted and split 2nd LO signals are amplified at the LO amplifier sections. The amplified LO signals are modulated with the I/Q baseband signals at I/Q modulator sections and then combined at the combining amplifier section. The modulated signal is output from pin 14 (IC890) after amplified at the RF amplifier section.

The modulated signal is passed through the bandpass (FI880) and low-pass (L892, L893, C904–C907) filters and then applied to the 1st mixer circuit.

## • DIGITAL CIRCUITS



#### 4-2-4 1ST MIXER CIRCUIT (MAIN-T UNIT)

The filtered signal from the low-pass filter (L892, L893, C904–C907) is applied to the 1st mixer circuit (IC960, pins 1, 6). The applied signal is mixed with the 1st LO signal coming from the 1st VCO circuit (Q471, Q472, D471) via the buffer amplifiers (Q473, Q710) to convert into the RF signal. The RF signal from the 1st mixer circuit (IC960, pin 6) is passed through the bandpass filter (F1961) and then amplified at the RF amplifier (IC1021). The amplified signal is passed through the bandpass filter (F11020) to suppress spurious components.

The filtered signal is applied to the pre-drive circuit.

#### 4-2-5 DRIVE/POWER AMPLIFIER CIRCUITS (MAIN-T UNIT)

The drive/power amplifier circuits amplify the RF signal to the to the output level.

The filtered RF signal from the bandpass filter (F11020) is amplified at the pre-drive (Q1080), drive (Q1081) and power (IC1160) amplifiers to obtain a stable 10 W of output power.

The power amplified signal from the power amplifier (IC1160, pin 4) is passed through the SWR detector circuit (D1166, D1170), low-pass filter which contains strip-line and C1198, and then applied to the transmit antenna connector (CASE; W5) via J1 (CHASSIS-T).

#### 4-2-6 APC CIRCUIT (MAIN-T UNIT)

The APC circuit protects power amplifier from a mismatched output load and stabilizes the output power.

The SWR detector circuit (D1166, D1170) detects the forward signals and reflection signals, and converts it into DC voltage. The output voltage is at a minimum level when the antenna impedance is matched with 50 Ω and is increased when it is mismatched.

The detected voltage is applied to the APC amplifier (IC1250, pins 3, 4) and is compared with the reference voltage which is supplied from the CPU (LOGIC-T unit; IC50, pin 85) as "PCON" signal.

When antenna impedance is mismatched, the detected voltage exceeds the power setting voltage. The output voltage of the APC amplifiers (IC1250, IC1251) controls the bias voltage of the power amplifier (IC1160) to reduce the output power.

### 4-3 PLL CIRCUITS

#### 4-3-1 PLL CIRCUITS (MAIN-R/MAIN-T UNITS)

The PLL circuit provides stable oscillation of the 1st LO frequencies and 2nd LO frequency. The PLL output compares the phase of the divided VCO frequency to the reference frequency. The PLL output frequency is controlled by the divided ratio (N-data) of a programmable divider.

#### 4-3-2 1ST PLL CIRCUITS (MAIN-R/MAIN-T UNITS)

The 1st PLL circuit oscillates the 1st LO frequencies, and the signals are applied to the 1st mixer circuit. The oscillated signals from the 1st VCO circuit (Q471, Q472, D471) are applied to the buffer amplifiers (Q473, Q474) and are then applied to the PLL IC (IC400, pin 6).

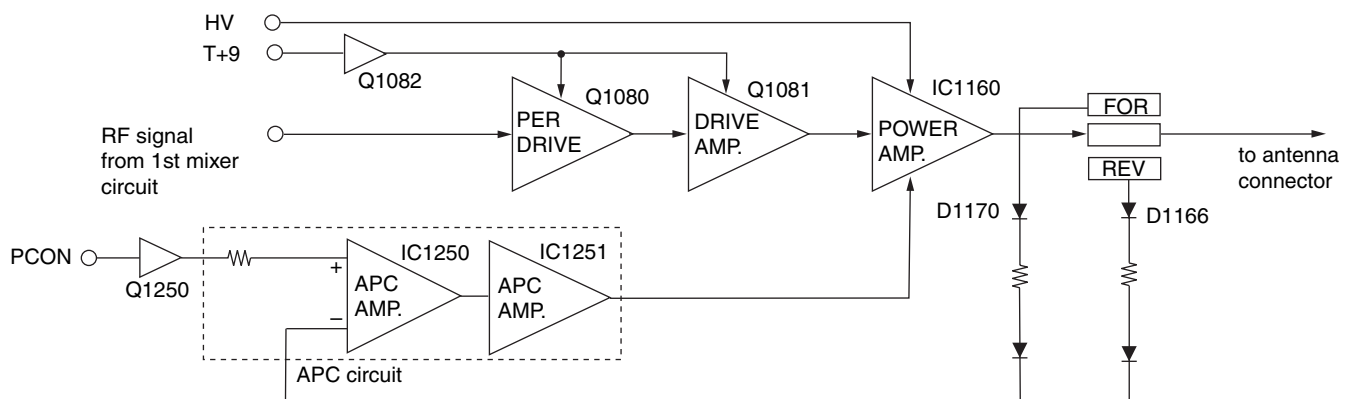
The PLL IC contains a prescaler, programmable counter, programmable divider and phase detector, etc.

The applied signal is divided at the prescaler and programmable counter section by the N-data ratio from the CPU (LOGIC-R/LOGIC-T units; IC50). The divided signal is detected on phase at the phase detector using the reference frequency (X400: 15.3 MHz) and output from pin 4 (IC400). The output signal is passed through the loop filter and is then applied to the 1st VCO circuit.

The oscillated signal at the 1st VCO is buffer amplified at Q473 and then passed through the bandpass filter (L474–L477, C488–C497).

The filtered signal is applied to the buffer amplifier (Q710) and then applied to the RX switch (MAIN-R unit; D711), and TX switch (MAIN-T unit; D710).

### • APC CIRCUITS



**RECEIVE SIGNAL (MAIN-R UNIT)**

The receive 1st LO signal from the RX switch (D711) is applied to the 1st mixer circuit (IC71).

**TRANSMIT SIGNAL (MAIN-T UNIT)**

The transmit signal from the TX switch (D710) is applied to the 1st mixer circuit (IC960).

**4-3-3 2ND PLL CIRCUIT (MAIN-R/MAIN-T UNITS)**

The 2nd PLL circuit oscillates the 2nd LO frequency, and the signal is applied to the 2nd mixer circuit and quadrature modulator.

The signal oscillated at the 2nd VCO circuit (Q631, D630) is amplified at the buffer amplifiers (Q632, Q633) via low-pass filter (L631, C653, C654) and then applied to the PLL IC (IC550, pin 19). The applied signal is divided at the prescaler and programmable counter section by the N-data ratio from the CPU (LOGIC-R/LOGIC-T units; IC50). The divided signal is detected on phase at the phase detector using the reference frequency (X400: 15.3 MHz) and output from pin 13 (IC550).

The detected signal is passed through the loop filter (R555–R557, C564, C567) and then applied to the 2nd VCO circuit.

The oscillated signal at the 2nd VCO is amplified at the buffer amplifiers (Q632 Q771) and is then applied to the RX switch (MAIN-R unit; D771), and TX switch (MAIN-T unit; D770).

**RECEIVE SIGNAL (MAIN-R UNIT)**

The receive 2nd LO signal from the RX switch (D771) is applied to the 2nd mixer circuit (Q131).

**TRANSMIT SIGNAL (MAIN-T UNIT)**

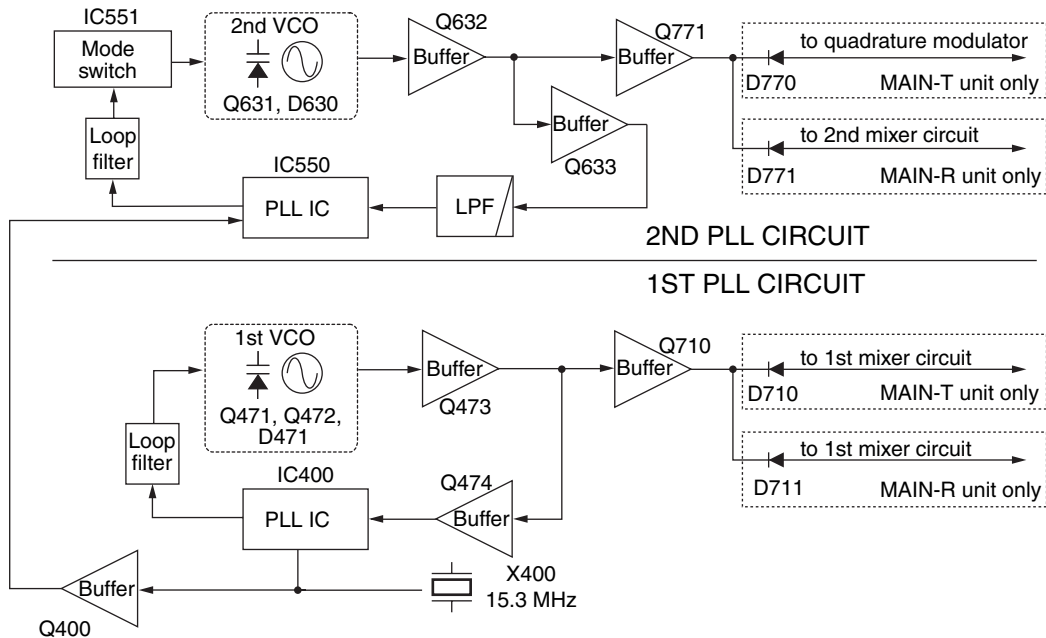
The transmit signal from the TX switch (D770) is applied to the quadrature modulator (IC890).

**4-4 POWER SUPPLY CIRCUITS**

**4-4-1 LOGIC-R/LOGIC-T UNITS VOLTAGE LINE**

Line	Description
5V	Common 5 V controlled by the +5 V regulator circuit (IC500, Q500, Q501) using the "PWRS" signal from the CPU (IC50, pin 101). The output voltage is applied to the baseband filters (IC300–302), etc.
3.3V	Common 3.3 V converted from the 5V line by the 3.3V regulator circuit (IC502). The output voltage is applied to the FPGA IC (IC200) and buffer amplifier (IC901), etc.
3.3V	Common 3.3 V converted from the 5V line by the 3.3V regulator circuit (IC504). The output voltage is applied to the CPU (IC50) and A/D converter (IC55), etc.

**• PLL CIRCUITS**



#### 4-4-2 MAIN-R/MAIN-T UNITS VOLTAGE LINE

Line	Description
HV	The voltage from a DC power supply.
VCC	The same voltage as the HV line which is controlled by the power switching circuit (Q23, Q24). When the power switch is pushed, the CPU outputs the "PWR" control signal to the power switching circuit to turn the circuit ON.
+9	Common 9 V converted from the HV line at the +9 regulator circuit (IC1330). The output voltage is applied to the 1st VCO (Q471), etc.
+5	Common 5 V converted from the +9V line at the 5 V regulator circuit (IC1331). The output voltage is applied to the APC amplifier (IC1251) and buffer amplifier (Q710), etc.
DM+5 (MAIN-T unit only)	Common 5 V converted from the +9V line at the 5 V regulator circuit (IC830). The output voltage is applied to the modulation amplifiers (IC831, IC832), etc.
T+9 (MAIN-T unit only)	Transmit 9 V controlled by the T+9 regulator circuit (Q1333, Q1334, D1331) using the "TXS" signal from the CPU (LOGIC-T unit; IC50, pin 94). The output voltage is applied to the APC amplifier (IC1250), etc.
T+5 (MAIN-T unit only)	Transmit 5 V controlled by the T+5 regulator circuit (Q1336, D1332, D1333) using the "TXS" signal from the CPU (LOGIC-T unit; IC50, pin 94). The output voltage is applied to the RF amplifier (IC1021), etc.
R+5 (MAIN-R unit only)	Receive 5 V controlled by the R+5 regulator circuit (Q1337) using the "RXS" signal from the CPU (LOGIC-R unit; IC50, pin 95). The output voltage is applied to the RF amplifier (Q2) and 1st mixer (IC71), etc.
T+3 (MAIN-T unit only)	Transmit 3 V controlled by the T+3 regulator circuit (Q1342) using the "TXS" signal from the CPU (LOGIC-T unit; IC50, pin 94). The output voltage is applied to the 1st mixer (IC960), etc.
R+3 (MAIN-R unit only)	Receive 3 V controlled by the R+3 regulator circuit (Q1343) using the "RXS" signal from the CPU (LOGIC-R unit; IC50, pin 95). The output voltage is applied to the RF amplifier (Q1), etc.

#### 4-5 PORT ALLOCATIONS

##### 4-5-1 CPU (LOGIC-R/LOGIC-T UNITS; IC50)

Pin number	Port name	Description
42	TXD1	Output data signals to the USB controllers (IC550, pin 24).
43	RXD1	Input port for data signals from the USB controllers (IC550, pin 25) via the (IC553).
53	SDA	I/O port for data signals from/to the EEPROMs (IC54, pin 5).
54	SCL	Outputs clock signal to the EEPROMs (IC54, pin 6).
71	RESET	Input port for reset signal form the reset ICs (IC52, pin 1).
72	P2RSC	Outputs control signal to the mode switches (MAIN-R/MAIN-T units; IC551, pin 5) via the level converter (IC55).
73	P2STC	Outputs strobe signal to the 2nd PLL ICs (MAIN-R/MAIN-T units; IC550, pin 3) via the level converter (IC55).
74	PDATC	Outputs the data signal to the 1st and 2nd PLL ICs (MAIN-R/MAIN-T units; IC400, pin 15, IC550, pin 5) via the level converter (IC55).
75	PSCKC	Outputs clock signal to the 1st and 2nd PLL ICs (MAIN-R/MAIN-T units; IC400, pin 14, IC550, pin 4) via the level converter (IC55).
76	P1STC	Outputs strobe signal to the 1st PLL ICs (MAIN-R/MAIN-T units; IC400, pin 16) via the level converter (IC55).
77	+5AC	Outputs control signal to the 5A and D+5 regulator circuits (MAIN-R/MAIN-T units; Q1345, Q1347) via the level converter (IC55). Low: While the +5 and D+5 regulators are activated.
85	PCON	Outputs control signal to the TX power controller (MAIN-T unit; Q1250).
86	ULCK	Input port for the PLL unlock signal. High: The PLL circuit is unlocked.
94	TXS	Outputs control signal to the T+5, T+3 regulator circuits (MAIN-T unit; Q1336, Q1342). High: During transmit.
95	RXS	Outputs control signal to the R+5, R+3 regulator circuits (MAIN-R unit; Q1337, Q1343). High: During receive.
103	AFCSW	Outputs control signal to AFC switch (IC352, pin 5).
105	DACK2	Outputs clock signal to the D/A converter (IC57, pin 7).
106	DADAT2	Outputs the data signal to the D/A converter (IC57, pin 6).
107	DACK1	Outputs clock signal to the D/A converter (IC56, pin 7).



Pin number	Port name	Description
108	DADAT1	Outputs the data signal to the D/A converter (IC56, pin 6).
128	FSTB	Outputs strobe signal to the FPGA IC (IC200).
129	MSTRC	Outputs strobe signal to the liner CODEC IC (IC1) and FPGA IC (IC200).
130	MDATC	Outputs the data signal to the liner CODEC IC (IC1) and FPGA IC (IC200).
131	MCLKC	Outputs clock signal to the liner CODEC IC (IC1) and FPGA IC (IC200).
132	MRESC	Outputs reset signal to the liner CODEC IC (IC1) and FPGA IC (IC200).

# SECTION 5 PARTS LIST

## [MAIN-T UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
IC400	1130010100	S.IC LMX2352TMX	B	25.6/64.8
IC550	1130007610	S.IC µPD3140GS-E1 (DS8)	B	12.7/35
IC551	1130006220	S.IC TC4W53FU (TE12L)	B	21/43.6
IC830	1110006090	S.IC XC6202P502PR	B	38.3/28.2
IC831	1110002751	S.IC TA75S01F (TE85R, F)	B	62/33.4
IC832	1110004050	S.IC NJM3404AV-TE1-#ZZB	B	57.9/32.6
IC890	1110005410	S.IC RF2485	B	48.5/41.7
IC960	1110005150	S.IC µPC8163TB-E3	B	53.3/61.8
IC1021	1110001890	S.IC µPC1678G-E2	T	68.1/53.9
IC1250	1110002751	S.IC TA75S01F (TE85R, F)	B	78.9/124.3
IC1251	1110002751	S.IC TA75S01F (TE85R, F)	B	80.1/116
IC1330	1180002080	S.REG BA09FP-E2	B	75.3/89
IC1331	1180001071	S.IC TA7805F (TE16L, Q)	B	77/100.9
IC1332	1180002020	S.REG BA033FP-E2	B	36.4/96.1
Q400	1530002920	S.TR 2SC4226-T1 R25	T	23.2/52.5
Q470	1540000660	S.TR 2SD2216J-S	T	14.6/74.6
Q471	1530003560	S.TR 2SC5195-T1	T	25.6/73.1
Q472	1530003560	S.TR 2SC5195-T1	T	23.5/73.3
Q473	1530002920	S.TR 2SC4226-T1 R25	T	29.9/67.7
Q474	1530003311	S.TR 2SC5107-O (TE85R, F)	B	28.9/72.8
Q630	1590000430	S.TR DTC144EUA T106	B	8/27.7
Q631	1530002920	S.TR 2SC4226-T1 R25	T	23.7/32.8
Q632	1530002920	S.TR 2SC4226-T1 R25	T	29/30.2
Q633	1530002920	S.TR 2SC4226-T1 R25	B	26.3/29.8
Q634	1540000660	S.TR 2SD2216J-S	T	30.3/35
Q710	1530003311	S.TR 2SC5107-O (TE85R, F)	B	38.6/73.3
Q770	1590001330	S.TR DTA114EUA T106	B	34.1/58.9
Q771	1530002920	S.TR 2SC4226-T1 R25	T	26.5/39.9
Q890	1530003311	S.TR 2SC5107-O (TE85R, F)	B	35.3/39.4
Q1080	1560001091	S.FET 2SK2854 (T2LICOM, F)	B	98.4/39.4
Q1081	1560001140	S.FET 2SK2855 (TE12L)	B	108.6/38.2
Q1082	1540000470	S.TR 2SD1801S-TL-E	B	76.3/65.4
Q1250	1590000430	S.TR DTC144EUA T106	B	64.7/127.1
Q1330	1590001320	S.TR DTC143ZUA T106	B	63.8/108.7
Q1331	1510000890	S.TR DTA143TU T106	B	63.8/105.3
Q1332	1530003910	S.TR 2SC4684 (TE16L1 NQ)	B	63.4/98.6
Q1333	1520000730	S.TR 2SB934P (DS) -(TX)	B	76.3/75.5
Q1334	1530002280	S.TR 2SC4081 T106 S	B	63.1/74.7
Q1335	1590000430	S.TR DTC144EUA T106	B	62.8/71.6
Q1336	1540000440	S.TR 2SD1619-TD	B	26.6/95.1
Q1337	1510000581	S.TR 2SA1362-GR (TE85R, F)	B	37/89.7
Q1338	1590000430	S.TR DTC144EUA T106	T	27.5/95.2
Q1340	1590000430	S.TR DTC144EUA T106	T	25/95.2
Q1341	1590000430	S.TR DTC144EUA T106	T	35.4/96.8
Q1342	1510000581	S.TR 2SA1362-GR (TE85R, F)	B	40.2/87.8
Q1343	1510000581	S.TR 2SA1362-GR (TE85R, F)	B	42.9/93.8
Q1344	1590000430	S.TR DTC144EUA T106	T	44.6/89.2
Q1345	1590000430	S.TR DTC144EUA T106	B	63.4/57.8
Q1346	1590000430	S.TR DTC144EUA T106	B	63.5/51.9
Q1347	1590000430	S.TR DTC144EUA T106	B	66.1/53.7
Q1348	1510000581	S.TR 2SA1362-GR (TE85R, F)	B	55.2/55.7
Q1349	1510000581	S.TR 2SA1362-GR (TE85R, F)	B	60.9/55.4
Q1350	1510000581	S.TR 2SA1362-GR (TE85R, F)	B	39.9/34.3
Q1351	1590000430	S.TR DTC144EUA T106	B	35.6/32.9
Q1352	1590000430	S.TR DTC144EUA T106	B	48.2/89.4
Q1750	1520000200	S.TR 2SB798-T2 DK	B	23.2/114.9
Q1751	1530002280	S.TR 2SC4081 T106 S	T	26.5/119.1
Q1800	1590000430	S.TR DTC144EUA T106	T	11/24.8
D401	1730002260	S.ZEN MA8030-H (TX)	B	22.4/58
D470	1730002360	S.ZEN MA8062-M (TX)	T	14.1/69.1
D471	1720000471	S.VCP 1SV239 (TPH3, F)	T	20.8/76.9
D630	1720000690	S.VCP 1SV282 (TPH2)	T	13.8/41.3
D632	1790001260	S.DIO MA2S077-(TX)	T	13.6/35.9
D633	1730002300	S.ZEN MA8082-M (TX)	T	35.3/38.7
D710	1790001621	S.DIO 1SV308 (TPL3, F)	B	41.8/64.6
D770	1750000581	S.DIO 1SV307 (TPH3, F)	B	31.2/39.9
D1080	1730002300	S.ZEN MA8082-M (TX)	B	83.1/67.6
D1164	1720000361	S.DIO HSU88TRF-E	T	88.4/121.8
D1165	1720000361	S.DIO HSU88TRF-E	B	93.1/126.3
D1166	1720000361	S.DIO HSU88TRF-E	T	95.7/109.5
D1168	1790001040	S.ZEN MA8033-L (TX)	B	64.7/119.1
D1169	1790001040	S.ZEN MA8033-L (TX)	B	64.7/122.4
D1170	1720000361	S.DIO HSU88TRF-E	T	111.9/118
D1250	1720000361	S.DIO HSU88TRF-E	T	69.1/124.2
D1251	1720000361	S.DIO HSU88TRF-E	B	71.6/121.4
D1252	1720000361	S.DIO HSU88TRF-E	B	74.6/120.2
D1254	1790001260	S.DIO MA2S077-(TX)	B	80/121.3
D1330	1790000700	DIO DSA3A1	T	50.6/120.4
D1331	1750000550	S.DIO 1SS355 TE-17	B	68.1/70.7

## [MAIN-T UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
D1332	1750000550	S.DIO 1SS355 TE-17	T	27.3/92
D1333	1750000550	S.DIO 1SS355 TE-17	T	29.1/92
D1602	1730002280	S.ZEN MA8091-M (TX)	B	105.9/11
D1605	1730002280	S.ZEN MA8091-M (TX)	B	111.9/12.4
D1606	1730002280	S.ZEN MA8091-M (TX)	B	99.7/12.6
D1750	1730002300	S.ZEN MA8082-M (TX)	T	26.4/121.3
D1800	1750000550	S.DIO 1SS355 TE-17	T	13.5/23.2
D1801	1750000550	S.DIO 1SS355 TE-17	T	8.6/22.3
F1880	2040001650	S.SAW WF447B-T	T	51.2/52.5
F1961	2040001360	S.FIL LFB431G27AL1A303	T	63.6/62.6
F11020	2040001360	S.FIL LFB431G27AL1A303	T	85/48.4
X400	6050010930	S.XTL CR-662 (15.3 MHz)	T	14.3/55.1
L400	6200006991	S.COL ELJRE 56NG-F	T	9.4/66.9
L404	6200006991	S.COL ELJRE 56NG-F	B	14.9/63.7
L415	6200006991	S.COL ELJRE 56NG-F	T	9.4/49.4
L470	6200006991	S.COL ELJRE 56NG-F	T	23.5/69.5
L471	6200005641	S.COL ELJRE 6N8Z-F	T	25.1/71.2
L472	6200009390	S.COL C3328A-8N0J-A	T	24.6/78.2
L473	6200002630	S.COL NL 252018T-R10J	T	20/79.4
L474	6200005621	S.COL ELJRE 4N7Z-F	T	32.2/67.6
L475	6200005641	S.COL ELJRE 6N8Z-F	T	32.2/70.2
L476	6200005651	S.COL ELJRE 8N2Z-F	T	35.3/73.4
L477	6200005641	S.COL ELJRE 6N8Z-F	T	35.3/77.3
L480	6200005641	S.COL ELJRE 6N8Z-F	B	27.5/74.6
L481	6200006991	S.COL ELJRE 56NG-F	T	14.3/77.8
L550	6200001980	S.COL NL 252018T-1R0J	B	21.7/36.1
L554	6200006991	S.COL ELJRE 56NG-F	B	24.9/37.6
L555	6200009351	S.COL ELJRE R22G-F3	B	23.7/27.5
L556	6200009351	S.COL ELJRE R22G-F3	B	2.5/44.9
L557	6200009351	S.COL ELJRE R22G-F3	T	4/29.7
L630	6200009700	S.COL C6328A-28NG-A	T	17.7/39.1
L631	6200005701	S.COL ELJRE 22NG-F	B	21.4/30.4
L632	6200006991	S.COL ELJRE 56NG-F	T	32.8/30.8
L633	6200001980	S.COL NL 252018T-1R0J	T	17.7/43.9
L634	6200006991	S.COL ELJRE 56NG-F	T	12.4/30.1
L636	6200006991	S.COL ELJRE 56NG-F	T	26.7/33.5
L710	6200006991	S.COL ELJRE 56NG-F	B	38.8/60.3
L713	6200005621	S.COL ELJRE 4N7Z-F	B	36.8/68.7
L714	6200005641	S.COL ELJRE 6N8Z-F	B	36.4/74.3
L715	6200006991	S.COL ELJRE 56NG-F	B	32.1/77.1
L717	6200006991	S.COL ELJRE 56NG-F	T	9.9/69.5
L718	6200006991	S.COL ELJRE 56NG-F	T	35.3/58.6
L720	6200006991	S.COL ELJRE 56NG-F	T	36.2/55.9
L880	6200006991	S.COL ELJRE 56NG-F	T	50.6/46.5
L881	6200006991	S.COL ELJRE 56NG-F	T	46.2/53.6
L891	6200005711	S.COL ELJRE 27NG-F	B	40.9/45
L892	6200005721	S.COL ELJRE 33NG-F	T	47.5/58.8
L893	6200005731	S.COL ELJRE 39NG-F	T	47.5/61.4
L895	6200006991	S.COL ELJRE 56NG-F	B	38.2/36.5
L896	6200006991	S.COL ELJRE 56NG-F	B	37.5/38.6
L897	6200006991	S.COL ELJRE 56NG-F	B	42.5/41.2
L898	6200001980	S.COL NL 252018T-1R0J	B	40.7/37.6
L961	6200006991	S.COL ELJRE 56NG-F	B	52.6/64.6
L962	6200005651	S.COL ELJRE 8N2Z-F	B	55.5/61.8
L964	6200006991	S.COL ELJRE 56NG-F	B	43.6/81
L1020	6200006991	S.COL ELJRE 56NG-F	B	69.1/53.7
L1021	6200005661	S.COL ELJRE 10NG-F	T	72.8/53.8
L1080	6200006771	S.COL ELJRE 1N5Z-F	B	100.6/43.6
L1081	6200008180	S.COL 0.25-1.9-10TL 107N	T	112.1/45.6
L1082	6200007740	S.COL LQW2BHN47NJO3L	T	107.3/48.1
L1085	6200006991	S.COL ELJRE 56NG-F	T	106.5/50.4
L1086	6200006991	S.COL ELJRE 56NG-F	T	99.8/46.7
L1087	6200006991	S.COL ELJRE 56NG-F	B	80.9/106.5
L1161	6200009700	S.COL C6328A-28NG-A	T	105.2/95.9
L1162	6200009410	S.COL C3328A-2N5K-A	T	85.1/108.6
L1164	6200006991	S.COL ELJRE 56NG-F	B	97.4/127.1
L1166	6200009700	S.COL C6328A-28NG-A	T	93/83.6
L1167	6200008911	S.COL 1812CS-122XJLC	T	101.1/84.8
L1169	6200006991	S.COL ELJRE 56NG-F	T	113.2/69.8
L1170	6200006991	S.COL ELJRE 56NG-F	B	82.7/114
L1250	6200005741	S.COL ELJRE 47NG-F	B	60.8/126.1
L1251	6200006991	S.COL ELJRE 56NG-F	B	76.2/113
L1330	6200006991	S.COL ELJRE 56NG-F	T	21.2/93.5
L1331	6200006991	S.COL ELJRE 56NG-F	B	22.9/92.3
L1332	6200006991	S.COL ELJRE 56NG-F	B	22.5/91
L1333	6200006991	S.COL ELJRE 56NG-F	B	45.2/81
L1334	6200006991	S.COL ELJRE 56NG-F	B	53.9/71.6

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

[MAIN-T UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
L1335	6200006991	S.COL ELJRE 56NG-F	B	62.2/76.6
L1348	6200006991	S.COL ELJRE 56NG-F	B	51.8/67.2
L1349	6200006991	S.COL ELJRE 56NG-F	B	58.7/57.8
L1360	6200006991	S.COL ELJRE 56NG-F	T	37.4/53.2
L1550	6200006991	S.COL ELJRE 56NG-F	B	17.7/56.8
L1801	6200006991	S.COL ELJRE 56NG-F	B	27.4/103.3
L1802	6200006991	S.COL ELJRE 56NG-F	B	26.6/102
L1803	6200006991	S.COL ELJRE 56NG-F	B	26.2/100.7
L1804	6200006991	S.COL ELJRE 56NG-F	B	26.2/99.4
L1805	6200006991	S.COL ELJRE 56NG-F	B	54.5/108.5
R272	7030003510	S.RES ERJ3GEYJ 392 V (3.9 kΩ)	B	84.7/31.3
R279	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	63.2/41.1
R292	7510001670	S.TMR NTCG16 4BH 103KT	T	72.1/40.3
R293	7030003450	S.RES ERJ3GEYJ 122 V (1.2 kΩ)	T	71.2/42.9
R296	7030005331	S.RES ERA3YED 562V	T	73.4/40.3
R331	7030003770	S.RES ERJ3GEYJ 564 V (560 kΩ)	B	81.6/124.3
R340	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	T	66.6/35.7
R400	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	25.2/54.9
R401	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	28.4/56.8
R402	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	31.6/68.9
R403	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	29.9/58.6
R404	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	31.5/59.4
R405	7030003290	S.RES ERJ3GEYJ 560 V (56 Ω)	B	27.9/70.5
R406	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	B	18.8/73.4
R407	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	20.7/74.3
R409	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	23/55.7
R410	7030003660	S.RES ERJ3GEYJ 683 V (68 kΩ)	T	23/54.4
R411	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	20.8/49.7
R412	7030003670	S.RES ERJ3GEYJ 823 V (82 kΩ)	T	20.4/51.7
R413	7030003360	S.RES ERJ3GEYJ 221 V (220 Ω)	T	21/55
R414	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	23/57.1
R415	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	11/50.7
R416	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	20.3/57.1
R417	7030003490	S.RES ERJ3GEYJ 272 V (2.7 kΩ)	B	25.2/56.4
R418	7030003490	S.RES ERJ3GEYJ 272 V (2.7 kΩ)	B	27.1/59
R419	7030003490	S.RES ERJ3GEYJ 272 V (2.7 kΩ)	B	31/61.3
R420	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	B	32.3/64.5
R421	7030003350	S.RES ERJ3GEYJ 181 V (180 Ω)	T	22/59
R422	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	15.4/78.2
R470	7030003360	S.RES ERJ3GEYJ 221 V (220 Ω)	T	14.9/71.5
R471	7030006571	S.RES ERA3YED 392V	T	27.5/74
R472	7030005331	S.RES ERA3YED 562V	T	27.3/76.7
R473	7030005331	S.RES ERA3YED 562V	T	21.2/72.7
R474	7030003400	S.RES ERJ3GEYJ 471 V (470 Ω)	T	21.2/75.3
R475	7030003360	S.RES ERJ3GEYJ 221 V (220 Ω)	T	26.7/67.6
R476	7030003650	S.RES ERJ3GEYJ 563 V (56 kΩ)	T	28/67.6
R478	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	27.3/69.5
R479	7030003420	S.RES ERJ3GEYJ 681 V (680 Ω)	T	35.4/66.8
R480	7030003370	S.RES ERJ3GEYJ 271 V (270 Ω)	B	36.1/76.5
R481	7030003280	S.RES ERJ3GEYJ 470 V (47 Ω)	T	29.9/75.7
R483	7030003650	S.RES ERJ3GEYJ 563 V (56 kΩ)	B	29.3/74.7
R484	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	28.7/78.1
R485	7030003240	S.RES ERJ3GEYJ 220 V (22 Ω)	T	31.3/65.7
R486	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	14.9/72.8
R487	7030007230	S.RES ERA3YED 102V	T	21.9/79
R550	7030003290	S.RES ERJ3GEYJ 560 V (56 Ω)	B	18.2/34.1
R551	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	11.1/27.5
R552	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	9.5/26.7
R553	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	7.9/27.5
R554	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	6.3/26.7
R555	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	10.1/40.8
R556	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	B	7.3/40.8
R557	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	10.1/42.4
R558	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	23.3/39.8
R632	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	20/42.8
R633	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	14.1/34
R634	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	14.4/37.8
R635	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	12.8/34
R636	7030003490	S.RES ERJ3GEYJ 272 V (2.7 kΩ)	T	22.6/35.8
R637	7030003490	S.RES ERJ3GEYJ 272 V (2.7 kΩ)	T	20.9/33.4
R638	7030003420	S.RES ERJ3GEYJ 681 V (680 Ω)	T	21.3/29.6
R639	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	24.6/35.4
R640	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	25.9/35.4
R642	7030003650	S.RES ERJ3GEYJ 563 V (56 kΩ)	T	27.1/30.2
R643	7030003290	S.RES ERJ3GEYJ 560 V (56 Ω)	T	28.6/38.2
R644	7030003360	S.RES ERJ3GEYJ 221 V (220 Ω)	B	28.7/35.2
R645	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	28.7/31
R646	7030003670	S.RES ERJ3GEYJ 823 V (82 kΩ)	B	26.3/31.8
R647	7030003380	S.RES ERJ3GEYJ 331 V (330 Ω)	B	23.8/31.2
R648	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	25.5/33.9
R649	7030003360	S.RES ERJ3GEYJ 221 V (220 Ω)	T	32/34.8
R651	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	13.1/32.1
R710	7030003370	S.RES ERJ3GEYJ 271 V (270 Ω)	B	40.1/61.9
R712	7030003340	S.RES ERJ3GEYJ 151 V (150 Ω)	B	42.3/67.7
R715	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	32.1/79.9
R716	7030003650	S.RES ERJ3GEYJ 563 V (56 kΩ)	B	38.6/75.2
R770	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	35.6/34.9
R771	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	31.5/35.2

[MAIN-T UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
R777	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	28.6/43.9
R778	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	26.7/41.8
R779	7030003650	S.RES ERJ3GEYJ 563 V (56 kΩ)	T	26.4/38
R780	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	24.6/38.9
R781	7030003650	S.RES ERJ3GEYJ 563 V (56 kΩ)	T	26.7/43.1
R830	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	63/29.8
R831	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	64.7/33.3
R832	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	66.5/36.2
R833	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	56/27.2
R834	7030006091	S.RES ERA3YED 822V	B	58.6/37.5
R835	7030003540	S.RES ERJ3GEYJ 682 V (6.8 kΩ)	B	57.1/39.1
R836	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	54.3/35.6
R837	7030006091	S.RES ERA3YED 822V	B	60.5/28.4
R838	7030003540	S.RES ERJ3GEYJ 682 V (6.8 kΩ)	B	57.9/26.1
R839	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	44.7/35.5
R842	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	48.2/35.6
R845	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	41.5/30.7
R846	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	42.8/29.9
R847	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	46.2/32.9
R848	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	47.5/32.9
R890	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	35.4/37.9
R891	7030003400	S.RES ERJ3GEYJ 471 V (470 Ω)	B	38.1/44.3
R892	7030003400	S.RES ERJ3GEYJ 471 V (470 Ω)	B	35.4/42.6
R893	7030003200	S.RES ERJ3GEYJ 100 V (10 Ω)	B	38.9/42.2
R895	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	35.6/36.2
R897	7030003290	S.RES ERJ3GEYJ 560 V (56 Ω)	B	44.7/46.8
R898	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	46.8/35.5
R899	7030003290	S.RES ERJ3GEYJ 560 V (56 Ω)	B	52.9/47.3
R960	7030003370	S.RES ERJ3GEYJ 271 V (270 Ω)	T	60.4/60.6
R961	7030003340	S.RES ERJ3GEYJ 151 V (150 Ω)	B	47.4/61.8
R962	7030003290	S.RES ERJ3GEYJ 560 V (56 Ω)	B	48.7/60.2
R963	7030003370	S.RES ERJ3GEYJ 271 V (270 Ω)	B	55.2/64.6
R964	7030003230	S.RES ERJ3GEYJ 180 V (18 Ω)	B	59.8/63.5
R1020	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	83.2/121.9
R1023	7030003430	S.RES ERJ3GEYJ 821 V (820 Ω)	T	78.6/46.6
R1024	7030004030	S.RES ERJ3GEYJ 5R6 V (5.6 Ω)	T	79.4/48.5
R1025	7030003430	S.RES ERJ3GEYJ 821 V (820 Ω)	T	80.2/46.6
R1028	7030003430	S.RES ERJ3GEYJ 821 V (820 Ω)	B	88.6/41
R1029	7030004030	S.RES ERJ3GEYJ 5R6 V (5.6 Ω)	B	89.4/43.1
R1030	7030003430	S.RES ERJ3GEYJ 821 V (820 Ω)	B	90.0/40.9
R1080	7030003360	S.RES ERJ3GEYJ 221 V (220 Ω)	B	94.6/43.5
R1081	7030003420	S.RES ERJ3GEYJ 681 V (680 Ω)	B	93/45.9
R1083	7030003350	S.RES ERJ3GEYJ 181 V (180 Ω)	B	76.3/69.9
R1084	7030003300	S.RES ERJ3GEYJ 680 V (68 Ω)	B	105.1/43.3
R1085	7030003420	S.RES ERJ3GEYJ 681 V (680 Ω)	T	107.3/45.9
R1086	7310005050	S.TRI RH03ADCS3X (4.7 kΩ)	T	73.9/117.4
R1087	7310005050	S.TRI RH03ADCS3X (4.7 kΩ)	T	80/118.3
R1088	7030003430	S.RES ERJ3GEYJ 821 V (820 Ω)	T	104.6/44
R1090	7030010970	S.RES ERJ1TYJ 151U	B	121.6/53.8
R1091	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	110.4/69.8
R1160	7030010420	S.RES ERJ1TYJ 560U (56 Ω)	T	106.4/88.2
R1161	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	T	86.8/119.1
R1163	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	98.6/106.5
R1164	7030000260	S.RES MCR10EZJH 100 Ω (101)	T	99.8/109.5
R1165	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	95/127.9
R1167	7030000340	S.RES MCR10EZJH 470 Ω (471)	T	105.8/118
R1169	7030000500	S.RES MCR10EZJH 10 kΩ	B	120.8/126.2
R1170	7030006260	S.RES ERJ12YJ471U (470 Ω)	B	67.7/121.7
R1172	7030000380	S.RES MCR10EZJH 1 kΩ	T	102.3/110.6
R1250	7030003530	S.RES ERJ3GEYJ 562 V (5.6 kΩ)	B	71.6/124.6
R1251	7310005140	S.TRI RH03ADCJ3X (2.2 kΩ)	T	73.4/126.7
R1252	7030003470	S.RES ERJ3GEYJ 182 V (1.8 kΩ)	T	69.7/127.8
R1254	7030003400	S.RES ERJ3GEYJ 471 V (470 Ω)	B	70.3/127.1
R1255	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	75.9/127.1
R1256	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	B	87.6/125.1
R1257	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	B	88.4/127.5
R1258	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	77.6/121
R1259	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	77/115.1
R1260	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	78/117.5
R1330	7030003200	S.RES ERJ3GEYJ 100 V (10 Ω)	B	64.6/102.8
R1331	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	66/104.9
R1332	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	65.8/75.5
R1333	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	64.1/74.4
R1334	7030000410	S.RES MCR10EZJH 1.8 kΩ	B	59.5/73.3
R1335	7030000410	S.RES MCR10EZJH 1.8 kΩ	B	59.5/75.3
R1336	7030007180	S.RES ERJ12YJ150U (15 Ω)	B	71.5/100
R1338	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	T	25.7/91.3
R1339	7030000100	S.RES MCR10EZJH 4.7 Ω (4R7)	B	28.8/98.4
R1340	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	25.2/93.2
R1342	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	37.1/91.9
R1343	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	35.4/94
R1344	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	40.2/90.1
R1345	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	42.1/90.1
R1346	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	42.9/91.1
R1347	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	45.7/91.1
R1348	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	60.6/57.8
R1349	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	57.4/55.7
R1350	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	60.7/53
R1351	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	58.7/55.2
R1352	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	

[MAIN-T UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
R1353	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	37.5/33.9
R1562	7030007180	S.RES ERJ12YJ150U (15 Ω)	B	42.9/113.9
R1750	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	T	25.3/115.6
R1751	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	29.4/121.3
R1800	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	9.5/20.2
R1801	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	B	4.2/25.9
R1802	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	T	13.7/24.8
R1803	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	61.9/6.9
R9001	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	47.3/26.4
R9002	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	51.9/24.1
R9003	7030003860	S.RES ERJ3GE JPW V	B	38.4/64.3
R9004	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	88.3/10.2
R9005	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	91/6.9
R9006	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	93.2/9.3
R9007	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	83.1/1
R9008	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	65.6/6.2
R9009	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	93.2/11.9
R9010	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	20.6/20.5
R9101	7030011140	S.RES ERJ8GEYJ JPW	T	90.9/106.4
R9102	7030011140	S.RES ERJ8GEYJ JPW	T	81/108.5
R9103	7030011140	S.RES ERJ8GEYJ JPW	T	77.8/11.5
R9104	7030003280	S.RES ERJ3GEYJ 470 V (47 Ω)	T	68.7/61.4
R9105	7030003420	S.RES ERJ3GEYJ 681 V (680 Ω)	T	78.7/115.3
R9106	7030003490	S.RES ERJ3GEYJ 272 V (2.7 kΩ)	T	69.7/126.5
R9107	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	111.1/125.4
C80	4030009510	S.CER C1608 CH 1H 010B-T	T	47.5/73.6
C400	4030006900	S.CER C1608 JB 1H 103K-T	B	24.5/58.9
C402	4030007090	S.CER C1608 CH 1H 470J-T	B	23.2/69.5
C403	4030011810	S.CER C1608 JB 1A 224K-T	B	20.5/68.5
C404	4030007090	S.CER C1608 CH 1H 470J-T	B	24.9/70.5
C405	4030006860	S.CER C1608 JB 1H 102K-T	B	26.6/71.8
C406	4550000270	S.TAN TEESVA 1E 474M8L	B	15.8/74.8
C408	4030008880	S.CER C1608 JB 1H 223K-T	B	21.4/70.9
C409	4030008900	S.CER C1608 JB 1H 333K-T	B	19.9/76.1
C410	4030007090	S.CER C1608 CH 1H 470J-T	B	17.3/77.5
C411	4030017490	S.CER C1608 JB 1A 105K-T	T	22/61.6
C412	4030007090	S.CER C1608 CH 1H 470J-T	T	14.5/58.5
C414	4030007090	S.CER C1608 CH 1H 470J-T	B	26.6/57.7
C416	4030007010	S.CER C1608 CH 1H 100D-T	T	12.6/59.6
C417	4030011600	S.CER C1608 JB 1E 104K-T	T	12.6/60.9
C418	4030006880	S.CER C1608 JB 1H 472K-T	T	24.9/55.2
C419	4030017490	S.CER C1608 JB 1A 105K-T	T	14/50.4
C420	4030006880	S.CER C1608 JB 1H 472K-T	B	19.4/60.5
C421	4030007010	S.CER C1608 CH 1H 100D-T	T	19.7/55
C422	4030006880	S.CER C1608 JB 1H 472K-T	T	20.4/53
C423	4030007010	S.CER C1608 CH 1H 100D-T	T	19.5/49.7
C424	4030007090	S.CER C1608 CH 1H 470J-T	B	29.8/69.8
C425	4030007090	S.CER C1608 CH 1H 470J-T	B	33.6/62.6
C426	4030007090	S.CER C1608 CH 1H 470J-T	B	27.1/60.4
C427	4030007090	S.CER C1608 CH 1H 470J-T	B	31/62.6
C429	4030007090	S.CER C1608 CH 1H 470J-T	B	16.5/67.6
C430	4030007090	S.CER C1608 CH 1H 470J-T	T	20.1/61.5
C431	4030007130	S.CER C1608 CH 1H 101J-T	B	20.9/59
C432	4030007090	S.CER C1608 CH 1H 470J-T	T	26.2/56.8
C433	4030006850	S.CER C1608 JB 1H 471K-T	B	31.8/56
C435	4030007090	S.CER C1608 CH 1H 470J-T	T	27.5/57.7
C436	4030007090	S.CER C1608 CH 1H 470J-T	T	23.7/67.1
C437	4030007090	S.CER C1608 CH 1H 470J-T	B	26.7/69.2
C467	4030007090	S.CER C1608 CH 1H 470J-T	B	13.6/77.5
C468	4030007090	S.CER C1608 CH 1H 470J-T	B	11/82
C469	4030007090	S.CER C1608 CH 1H 470J-T	B	12.9/80.3
C470	4030006850	S.CER C1608 JB 1H 471K-T	T	17.2/73.7
C471	4550006760	S.TAN TEESVB21A336M8R	T	16.6/78.5
C472	4030017490	S.CER C1608 JB 1A 105K-T	T	14.8/65.6
C473	4030006850	S.CER C1608 JB 1H 471K-T	T	14.8/66.9
C474	4030011600	S.CER C1608 JB 1E 104K-T	T	18.5/66.4
C475	4030006860	S.CER C1608 JB 1H 102K-T	T	17.2/66.4
C476	4030007090	S.CER C1608 CH 1H 470J-T	T	17.1/70.6
C478	4030009570	S.CER C1608 CH 1H 0R3B-T	T	28.6/76.7
C479	4030009920	S.CER C1608 CH 1H 050B-T	T	27.3/79.3
C480	4030006860	S.CER C1608 JB 1H 102K-T	T	22.7/80.9
C481	4030009550	S.CER C1608 CH 1H 2R5B-T	T	23.8/75
C482	4030009350	S.CER C1608 CH 1H 3R5B-T	T	21.2/74
C483	4030006860	S.CER C1608 JB 1H 102K-T	T	21.2/71.4
C484	4030009510	S.CER C1608 CH 1H 010B-T	T	27.5/71.4
C485	4030007090	S.CER C1608 CH 1H 470J-T	T	30.1/70.1
C486	4030007010	S.CER C1608 CH 1H 100D-T	T	30.1/71.4
C488	4030009540	S.CER C1608 CH 1H 1R5B-T	T	35.4/68.1
C489	4030009510	S.CER C1608 CH 1H 010B-T	T	33.5/67.6
C490	4030009530	S.CER C1608 CH 1H 030B-T	T	35.4/69.4
C491	4030009500	S.CER C1608 CH 1H 0R5B-T	T	33.5/70.2
C492	4030009520	S.CER C1608 CH 1H 020B-T	T	34.3/72.1
C493	4030009920	S.CER C1608 CH 1H 050B-T	T	32.2/72.8
C494	4030007020	S.CER C1608 CH 1H 120J-T	T	34.1/74.7
C495	4030009520	S.CER C1608 CH 1H 020B-T	T	32.2/75.4
C496	4030007070	S.CER C1608 CH 1H 330J-T	T	34.1/76
C497	4030009530	S.CER C1608 CH 1H 030B-T	T	33.7/78.6
C498	4030006850	S.CER C1608 JB 1H 471K-T	B	29.9/76

[MAIN-T UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
C500	4030006990	S.CER C1608 CH 1H 040D-T	T	29.4/73.1
C501	4030009910	S.CER C1608 CH 1H 040B-T	B	25.6/73.3
C503	4550006250	S.TAN TEESVA 1A 106M8R	T	18.8/70.3
C504	4030009560	S.CER C1608 CH 1H 875B-T	T	28.6/79.3
C550	4030006860	S.CER C1608 JB 1H 102K-T	B	19/32.2
C551	4030007030	S.CER C1608 CH 1H 150J-T	B	19.2/38.9
C552	4030006860	S.CER C1608 JB 1H 102K-T	B	21.1/38.9
C553	4030007030	S.CER C1608 CH 1H 150J-T	B	17.4/29.6
C554	4030007090	S.CER C1608 CH 1H 470J-T	B	18.2/35.7
C555	4030011600	S.CER C1608 JB 1E 104K-T	B	13.2/40.3
C556	4030007090	S.CER C1608 CH 1H 470J-T	B	26.7/40.2
C558	4030007090	S.CER C1608 CH 1H 470J-T	B	13.2/41.6
C559	4030011600	S.CER C1608 JB 1E 104K-T	B	23.4/42.6
C561	4030007090	S.CER C1608 CH 1H 470J-T	B	27/20.5
C562	4030007090	S.CER C1608 CH 1H 470J-T	B	12.7/27.5
C564	4550000270	S.TAN TEESVA 1E 474M8L	B	5/39.2
C567	4550000520	S.TAN TEESVA 1V 683M8R	B	17.5/40.4
C569	4030006860	S.CER C1608 JB 1H 102K-T	B	17.1/44.8
C570	4030007090	S.CER C1608 CH 1H 470J-T	B	24.7/43.4
C575	4030006880	S.CER C1608 JB 1H 472K-T	T	18.2/49.7
C582	4030007090	S.CER C1608 CH 1H 470J-T	B	7.1/30.3
C583	4030007090	S.CER C1608 CH 1H 470J-T	B	8.4/30.3
C584	4030007090	S.CER C1608 CH 1H 470J-T	B	4.3/28.2
C585	4030007090	S.CER C1608 CH 1H 470J-T	B	25.5/20.5
C586	4030007090	S.CER C1608 CH 1H 470J-T	B	28.3/51.4
C587	4030007090	S.CER C1608 CH 1H 470J-T	B	26.8/44.1
C588	4030007090	S.CER C1608 CH 1H 470J-T	B	26.4/38.9
C630	4030011810	S.CER C1608 JB 1A 224K-T	T	13.7/30.2
C632	4030007030	S.CER C1608 CH 1H 150J-T	T	15.9/34.8
C634	4030006860	S.CER C1608 JB 1H 102K-T	T	12.8/37.8
C635	4030006860	S.CER C1608 JB 1H 102K-T	T	15/31.3
C638	4030006860	S.CER C1608 JB 1H 102K-T	T	20.3/34.7
C639	4030007050	S.CER C1608 CH 1H 220J-T	T	21.7/31.5
C640	4030007050	S.CER C1608 CH 1H 220J-T	T	23.8/30.9
C641	4030009500	S.CER C1608 CH 1H 0R5B-T	T	23.9/29.6
C642	4550006250	S.TAN TEESVA 1A 106M8R	T	22.9/39.2
C643	4030011600	S.CER C1608 JB 1E 104K-T	T	20.6/37.6
C644	4030006860	S.CER C1608 JB 1H 102K-T	T	20.6/38.9
C645	4030007010	S.CER C1608 CH 1H 100D-T	T	26.7/32.2
C646	4030011600	S.CER C1608 JB 1E 104K-T	T	30.9/30.2
C647	4030006860	S.CER C1608 JB 1H 102K-T	T	25.8/30.2
C648	4030007090	S.CER C1608 CH 1H 470J-T	T	28.6/33
C649	4030007090	S.CER C1608 CH 1H 470J-T	T	28.6/35.6
C650	4030007090	S.CER C1608 CH 1H 470J-T	B	27.9/33.1
C651	4030007050	S.CER C1608 CH 1H 220J-T	B	23/28.8
C652	4030006860	S.CER C1608 JB 1H 102K-T	B	26.3/27.6
C653	4030007020	S.CER C1608 CH 1H 120J-T	B	20.6/28
C654	4030007020	S.CER C1608 CH 1H 120J-T	B	19/29.6
C655	4030017490	S.CER C1608 JB 1A 105K-T	T	32/32.5
C656	4030006850	S.CER C1608 JB 1H 471K-T	T	33.9/35.5
C657	4550006770	S.TAN TEESVD2 1C 476M-12R	T	31.8/40.6
C658	4030007090	S.CER C1608 CH 1H 470J-T	T	33.9/34.2
C659	4030009530	S.CER C1608 CH 1H 030B-T	B	21.4/32
C661	4030007090	S.CER C1608 CH 1H 470J-T	T	3.5/23.2
C662	4550006250	S.TAN TEESVA 1A 106M8R	T	5.7/26.7
C710	4030006850	S.CER C1608 JB 1H 471K-T	T	35.6/61
C711	4030007090	S.CER C1608 CH 1H 470J-T	T	38.2/66.6
C713	4030009520	S.CER C1608 CH 1H 020B-T	B	38.6/68.2
C714	4030009510	S.CER C1608 CH 1H 010B-T	B	35.5/68.7
C715	4030009520	S.CER C1608 CH 1H 020B-T	B	38.6/69.5
C716	4030011770	S.CER C1608 CH 1H 060B-T	B	36.2/71.4
C718	4030007090	S.CER C1608 CH 1H 470J-T	B	34/75.9
C719	4030007030	S.CER C1608 CH 1H 150J-T	B	38.6/76.5
C720	4030006860	S.CER C1608 JB 1H 102K-T	B	37.6/71.8
C721	4030007090	S.CER C1608 CH 1H 470J-T	T	32.5/55.7
C723	4030007090	S.CER C1608 CH 1H 470J-T	B	38.3/82.1
C770	4030011770	S.CER C1608 CH 1H 060B-T	B	32.3/37.1
C772	4030006860	S.CER C1608 JB 1H 102K-T	B	32.6/33.2
C778	4030007090	S.CER C1608 CH 1H 470J-T	T	28.6/41.2
C779	4030006850	S.CER C1608 JB 1H 471K-T	T	24.6/41.5
C830	4550006080	S.TAN TEESVB2 1C 106M8R	B	36/22.4
C831	4030011600	S.CER C1608 JB 1E 104K-T	B	33.7/21.4
C832	4030011600	S.CER C1608 JB 1E 104K-T	B	38.8/22.8
C833	4550006250	S.TAN TEESVA 1A 106M8R	B	40.5/22.8
C834	4030011600	S.CER C1608 JB 1E 104K-T	B	63/37
C835	4030011600	S.CER C1608 JB 1E 104K-T	B	52.5/30.5
C836	4550006250	S.TAN TEESVA 1A 106M8R	B	54.5/31.3
C837	4030007130	S.CER C1608 CH 1H 101J-T	B	56/37.5
C838	4030007130	S.CER C1608 CH 1H 101J-T	B	57.9/27.7
C839	4030007030	S.CER C1608 CH 1H 150J-T	B	64.4/37
C840	4030007030	S.CER C1608 CH 1H 150J-T	B	66/33.3
C841	4030007030	S.CER C1608 CH 1H 150J-T	B	49.8/36.2
C880	4030009910	S.CER C1608 CH 1H 040B-T	T	52.5/47
C881	4030009510	S.CER C1608 CH 1H 010B-T	T	50.6/47.8
C882	4030009510	S.CER C1608 CH 1H 010B-T	T	47.5/53.6
C883	4030009910	S.CER C1608 CH 1H 040B-T	T	47.5/56.2
C887	4030007090	S.CER C1608 CH 1H 470J-T	B	34/4.9
C888	4030007090	S.CER C1608 CH 1H 470J-T	B	32.2/4.9
C889	4030007090	S.CER C1608 CH 1H 470J-T	B	30.4/4.9
C890	4			



[MAIN-T UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
C891	4030006850	S.CER C1608 JB 1H 471K-T	B	54.2/44.9
C893	4030007030	S.CER C1608 CH 1H 150J-T	B	45.2/37.4
C894	4030007030	S.CER C1608 CH 1H 150J-T	B	43.1/36.3
C895	4030007030	S.CER C1608 CH 1H 150J-T	B	51.1/36.2
C896	4030007020	S.CER C1608 CH 1H 120J-T	B	42.8/45.2
C897	4030009530	S.CER C1608 CH 1H 030B-T	B	40.9/46.3
C898	4030007020	S.CER C1608 CH 1H 120J-T	B	40.1/48.2
C899	4030006850	S.CER C1608 JB 1H 471K-T	B	35/41.3
C900	4030007090	S.CER C1608 CH 1H 470J-T	B	37.5/41.4
C901	4030006860	S.CER C1608 JB 1H 102K-T	B	53.9/42.4
C902	4030007090	S.CER C1608 CH 1H 470J-T	B	55.2/42.4
C904	4030007020	S.CER C1608 CH 1H 120J-T	T	50.7/58
C905	4030009530	S.CER C1608 CH 1H 030B-T	T	48.8/58.8
C906	4030007050	S.CER C1608 CH 1H 220J-T	T	50.7/60.6
C907	4030009510	S.CER C1608 CH 1H 010B-T	T	48.8/61.4
C909	4030011600	S.CER C1608 JB 1E 104K-T	B	56.5/42.4
C910	4030007090	S.CER C1608 CH 1H 470J-T	B	61/38.6
C912	4030009910	S.CER C1608 CH 1H 040B-T	B	38.8/38.6
C913	4030007010	S.CER C1608 CH 1H 100D-T	B	33.1/39.4
C961	4030006850	S.CER C1608 JB 1H 471K-T	B	43.3/59.9
C962	4030009510	S.CER C1608 CH 1H 010B-T	B	52.4/58.6
C963	4030009530	S.CER C1608 CH 1H 030B-T	B	50.5/59.4
C965	4030006850	S.CER C1608 JB 1H 471K-T	B	49.3/62.6
C966	4030007030	S.CER C1608 CH 1H 150J-T	B	51.2/61.8
C969	4030006860	S.CER C1608 JB 1H 102K-T	B	56.8/59.2
C970	4030007090	S.CER C1608 CH 1H 470J-T	B	54.7/59.9
C972	4030009510	S.CER C1608 CH 1H 010B-T	B	58.1/62.7
C974	4030006860	S.CER C1608 JB 1H 102K-T	B	53.9/64.6
C977	4030009560	S.CER C1608 CH 1H R75B-T	B	56.5/64.6
C978	4030006850	S.CER C1608 JB 1H 471K-T	B	53.7/66.5
C1022	4030006850	S.CER C1608 JB 1H 471K-T	T	65.5/58
C1023	4030006880	S.CER C1608 JB 1H 472K-T	T	70.7/58
C1024	4030006860	S.CER C1608 JB 1H 102K-T	T	68.1/58
C1025	4030007090	S.CER C1608 CH 1H 470J-T	T	69.4/58
C1026	4030006850	S.CER C1608 JB 1H 471K-T	T	72.8/51.2
C1029	4030011770	S.CER C1608 CH 1H 060B-T	B	92.2/43.1
C1030	4030009920	S.CER C1608 CH 1H 050B-T	B	97/43.1
C1031	4030009530	S.CER C1608 CH 1H 030B-T	B	93/41
C1081	4030007090	S.CER C1608 CH 1H 470J-T	B	97/44.7
C1082	4030007130	S.CER C1608 CH 1H 101J-T	B	97/46.3
C1083	4030007010	S.CER C1608 CH 1H 100D-T	B	96.2/49.9
C1088	4030006860	S.CER C1608 JB 1H 102K-T	T	98.7/51.8
C1090	4030006860	S.CER C1608 JB 1H 102K-T	B	82.8/65.7
C1091	4550003220	S.TAN TEESVA 1E 105M8R	B	84/69.9
C1092	4030006850	S.CER C1608 JB 1H 471K-T	B	66.9/68.4
C1094	4030009520	S.CER C1608 CH 1H 020B-T	B	101.9/38
C1095	4030009910	S.CER C1608 CH 1H 040B-T	B	102.7/39.9
C1096	4030006970	S.CER C1608 CH 1H 060D-T	B	105.1/39.2
C1098	4030009920	S.CER C1608 CH 1H 050B-T	B	107.7/41.9
C1099	4030011600	S.CER C1608 JB 1E 104K-T	T	104.6/45.3
C1100	4030007010	S.CER C1608 CH 1H 100D-T	B	106.5/46.1
C1101	4030007090	S.CER C1608 CH 1H 470J-T	B	105.1/46.1
C1102	4030006900	S.CER C1608 JB 1H 103K-T	T	96.6/49.6
C1105	4030007010	S.CER C1608 CH 1H 100D-T	T	112.1/48.9
C1106	4030007090	S.CER C1608 CH 1H 470J-T	T	110.8/48.9
C1107	4030007130	S.CER C1608 CH 1H 101J-T	T	109.5/48.9
C1108	4030009520	S.CER C1608 CH 1H 020B-T	B	112.1/37.6
C1110	4030011770	S.CER C1608 CH 1H 060B-T	B	110.1/42.7
C1113	4030007090	S.CER C1608 CH 1H 470J-T	B	100.6/47.4
C1114	4030007090	S.CER C1608 CH 1H 470J-T	T	77.5/60.6
C1115	4030011600	S.CER C1608 JB 1E 104K-T	T	77.5/61.9
C1116	4030006850	S.CER C1608 JB 1H 471K-T	B	101.9/47.4
C1118	4030007090	S.CER C1608 CH 1H 470J-T	B	79.2/109.5
C1120	4030011600	S.CER C1608 JB 1E 104K-T	T	95.3/49.6
C1121	4030007090	S.CER C1608 CH 1H 470J-T	T	78.6/121.7
C1123	4030007090	S.CER C1608 CH 1H 470J-T	T	82.8/114.9
C1161	4030006860	S.CER C1608 JB 1H 102K-T	B	112.9/41.6
C1162	4030009520	S.CER C1608 CH 1H 020B-T	B	115.7/41.6
C1167	4030006850	S.CER C1608 JB 1H 471K-T	T	113.2/65.9
C1168	4030007090	S.CER C1608 CH 1H 470J-T	T	113.2/67.2
C1172	4030007090	S.CER C1608 CH 1H 470J-T	T	120.8/87.7
C1173	4030006850	S.CER C1608 JB 1H 471K-T	T	122.1/87.7
C1174	4030006860	S.CER C1608 JB 1H 102K-T	T	119.4/87.7
C1176	4510008500	S.ELE EEE1CAT101WP	T	93.7/91.8
C1186	4030006860	S.CER C1608 JB 1H 102K-T	T	109.1/91.9
C1187	4030007090	S.CER C1608 CH 1H 470J-T	T	110.4/91.9
C1188	4030006850	S.CER C1608 JB 1H 471K-T	T	111.7/91.9
C1191	4030007090	S.CER C1608 CH 1H 470J-T	T	86.8/121.8
C1192	4030007090	S.CER C1608 CH 1H 470J-T	B	91.2/125.9
C1193	4030006850	S.CER C1608 JB 1H 471K-T	B	86.4/119.3
C1196	4030006860	S.CER C1608 JB 1H 102K-T	T	97.3/107.6
C1197	4030009570	S.CER C1608 CH 1H 0R3B-T	T	104.8/112.4
C1198	4030011030	S.CER GRM31M4C2H1R5CY21L	T	90.9/116.3
C1199	4030017200	S.CER GRM31BR32J102KY01L	T	117.5/121.2
C1200	4030000810	S.CER GRM2164C1HR50CD01D	B	120.8/124.4
C1201	4030006850	S.CER C1608 JB 1H 471K-T	T	111.1/120.2
C1204	4030011070	S.CER GRM31M2C2H5R0CY21L	T	116.1/100.4
C1207	4030000810	S.CER GRM2164C1HR50CD01D	B	114.2/124.4
C1250	4030007010	S.CER C1608 CH 1H 100D-T	T	69.1/121.2
C1251	4030007010	S.CER C1608 CH 1H 100D-T	B	68.3/125.2

[MAIN-T UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
C1252	4030006900	S.CER C1608 JB 1H 103K-T	B	73.5/122.8
C1253	4030006850	S.CER C1608 JB 1H 471K-T	B	75/116.4
C1255	4030006850	S.CER C1608 JB 1H 471K-T	B	62.7/127.1
C1256	4030012610	S.CER C2012 JB 1C 474K-T	B	72.8/128.7
C1259	4030007090	S.CER C1608 CH 1H 470J-T	B	50.4/126.8
C1260	4030006850	S.CER C1608 JB 1H 471K-T	T	45.8/112.2
C1261	4030007010	S.CER C1608 CH 1H 100D-T	B	77.9/127.5
C1262	4030007010	S.CER C1608 CH 1H 100D-T	B	86.8/127.5
C1263	4030011600	S.CER C1608 JB 1E 104K-T	B	76.2/124.4
C1264	4510008490	S.ELE EEE1CS1000SR	T	73.5/121.8
C1265	4030006880	S.CER C1608 JB 1H 472K-T	B	83.2/124.3
C1267	4030011600	S.CER C1608 JB 1E 104K-T	B	79.3/113.5
C1268	4030006860	S.CER C1608 JB 1H 102K-T	B	83.2/120
C1269	4030007090	S.CER C1608 CH 1H 470J-T	B	81.3/120.7
C1329	4030007090	S.CER C1608 CH 1H 470J-T	B	67.7/109.5
C1330	4510004601	ELE 16 ME 1000 HC	T	47.3/121.2
C1331	4030006860	S.CER C1608 JB 1H 102K-T	B	56.8/105.6
C1332	4030007090	S.CER C1608 CH 1H 470J-T	B	56.8/104.1
C1333	4510008520	S.ELE EEE1CA4705P	T	64.5/121.1
C1334	4030006860	S.CER C1608 JB 1H 102K-T	B	67.6/104.9
C1335	4510008520	S.ELE EEE1CA4705P	T	69.1/97.8
C1336	4030011600	S.CER C1608 JB 1E 104K-T	B	73.9/94.7
C1337	4030011600	S.CER C1608 JB 1E 104K-T	B	76.7/94.7
C1338	4510008500	S.ELE EEE1CAT101WP	T	78.1/92.3
C1339	4030007090	S.CER C1608 CH 1H 470J-T	B	70.4/106.6
C1340	4510008520	S.ELE EEE1CA4705P	T	68.7/113.5
C1341	4030011600	S.CER C1608 JB 1E 104K-T	B	75.6/108.1
C1342	4030011600	S.CER C1608 JB 1E 104K-T	B	78.4/108.1
C1343	4510008500	S.ELE EEE1CAT101WP	T	77/101.1
C1344	4030007090	S.CER C1608 CH 1H 470J-T	B	62.3/117.3
C1345	4030011600	S.CER C1608 JB 1E 104K-T	B	39.8/100.6
C1346	4030011600	S.CER C1608 JB 1E 104K-T	B	43.5/89.5
C1347	4030007010	S.CER C1608 CH 1H 100D-T	T	56.8/109.7
C1348	4550006760	S.TAN TEESVB21A336M8R	T	42.6/97.2
C1349	4510008490	S.ELE EEE1CS1000SR	T	76.3/84.2
C1350	4030006850	S.CER C1608 JB 1H 471K-T	T	34/87.7
C1351	4030017490	S.CER C1608 JB 1A 105K-T	B	29.6/90.9
C1352	4030012610	S.CER C2012 JB 1C 474K-T	B	37.1/86
C1353	4030006860	S.CER C1608 JB 1H 102K-T	T	31.2/92.9
C1355	4030007090	S.CER C1608 CH 1H 470J-T	T	38.3/94.7
C1356	4030011600	S.CER C1608 JB 1E 104K-T	B	39.3/85.1
C1357	4030011600	S.CER C1608 JB 1E 104K-T	B	42.9/97.3
C1358	4030007090	S.CER C1608 CH 1H 470J-T	B	8.2/92.2
C1359	4030007090	S.CER C1608 CH 1H 470J-T	B	19.1/99.4
C1360	4030007090	S.CER C1608 CH 1H 470J-T	B	20.4/99.8
C1361	4030007090	S.CER C1608 CH 1H 470J-T	T	42.9/86.4
C1366	4030006860	S.CER C1608 JB 1H 102K-T	B	27.4/91.7
C1367	4030007090	S.CER C1608 CH 1H 470J-T	B	57.8/65.4
C1368	4030007090	S.CER C1608 CH 1H 470J-T	T	35.4/98.8
C1369	4030007090	S.CER C1608 CH 1H 470J-T	T	25/97.2
C1370	4030007090	S.CER C1608 CH 1H 470J-T	B	51.7/72.4
C1371	4030006860	S.CER C1608 JB 1H 102K-T	B	53.1/85.3
C1372	4030007090	S.CER C1608 CH 1H 470J-T	B	55.5/107.1
C1373	4030007090	S.CER C1608 CH 1H 470J-T	T	62.1/108.8
C1374	4030007090	S.CER C1608 CH 1H 470J-T	B	62.2/115.4
C1375	4030007090	S.CER C1608 CH 1H 470J-T	B	63.8/112.1
C1376	4030007090	S.CER C1608 CH 1H 470J-T	T	58.1/122.8
C1507	4030007090	S.CER C1608 CH 1H 470J-T	B	30.2/23.5
C1509	4030007090	S.CER C1608 CH 1H 470J-T	T	17.3/23.4
C1510	4030007090	S.CER C1608 CH 1H 470J-T	B	50.6/107.2
C1511	4030007090	S.CER C1608 CH 1H 470J-T	B	80.6/5.7
C1512	4030007090	S.CER C1608 CH 1H 470J-T	B	79.5/4.1
C1514	4030007090	S.CER C1608 CH 1H 470J-T	B	81/7.9
C1515	4030007090	S.CER C1608 CH 1H 470J-T	B	83.7/6.8
C1517	4030007090	S.CER C1608 CH 1H 470J-T	B	89.5/6.9
C1520	4030007090	S.CER C1608 CH 1H 470J-T	B	97.7/12
C1521	4030007090	S.CER C1608 CH 1H 470J-T	T	93.4/2.4
C1522	4030007090	S.CER C1608 CH 1H 470J-T	T	92.1/1.9
C1523	4030007090	S.CER C1608 CH 1H 470J-T	B	91.7/4.1
C1524	4030007090	S.CER C1608 CH 1H 470J-T	T	89.4/2.3
C1525	4030007090	S.CER C1608 CH 1H 470J-T	B	84.4/3.4
C1600	4030007090	S.CER C1608 CH 1H 470J-T	T	4.4/21.6
C1601	4030007090	S.CER C1608 CH 1H 470J-T	B	3.3/20
C1602	4030007090	S.CER C1608 CH 1H 470J-T	T	20.9/15.5
C1603	4030007090	S.CER C1608 CH 1H 470J-T	T	22.4/15.5
C1604	4030007090	S.CER C1608 CH 1H 470J-T	B	39.7/2.2
C1610	4030006860	S.CER C1608 JB 1H 102K-T	B	112.0/12.1
C1613	4030006860	S.CER C1608 JB 1H 102K-T	B	103.5/12
C1617	4030007090	S.CER C1608 CH 1H 470J-T	T	99.2/11
C1624	4030007090	S.CER C1608 CH 1H 470J-T	T	28.9/16.6
C1625	4030007090	S.CER C1608 CH 1H 470J-T	T	30.2/16.6
C1626	4030007090	S.CER C1608 CH 1H 470J-T	T	31.5/16.6
C1750	4030006900	S.CER C1608 JB 1H 103K-T	T	27.9/12.2
C1751	4030006850	S.CER C1608 JB 1H 471K-T	T	54.5/123.7
C1752				



[MAIN-T UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
C1802	4030006900	S.CER C1608 JB 1H 103K-T	T	42.5/112.3
C1803	4030006850	S.CER C1608 JB 1H 471K-T	T	28.6/104.1
C1804	4030006850	S.CER C1608 JB 1H 471K-T	T	32.4/103.3
C1805	4030006850	S.CER C1608 JB 1H 471K-T	T	27.8/101.5
C1806	4030006850	S.CER C1608 JB 1H 471K-T	T	32.4/99.7
C1807	4030006850	S.CER C1608 JB 1H 471K-T	T	42/101.4
C1808	4030007090	S.CER C1608 CH 1H 470J-T	T	38.8/112
C9101	4030009540	S.CER C1608 CH 1H 1R5B-T	T	66.8/58
J1602	6510021970	S.CNR AXN330C130P	T	26.2/21.8
J1750	6510009350	CNR B2B-ZR	T	25.4/125.5
J1800	6510021720	S.CNR 30FLT-SM1-TB	T	44/107.5
J1801	6510021720	S.CNR 30FLT-SM1-TB	T	87/5.8
W11	7030008240	S.RES ERJ12YJ0R00U	T	78.2/78.7
W296	7030003860	S.RES ERJ3GE JPW V	T	71/38.3
W340	7030003860	S.RES ERJ3GE JPW V	B	67.1/19.8
W404	7030003860	S.RES ERJ3GE JPW V	T	17.5/59.6
W428	7030003860	S.RES ERJ3GE JPW V	B	13.6/94.8
W429	7030003860	S.RES ERJ3GE JPW V	B	33.6/61.3
W480	7030003860	S.RES ERJ3GE JPW V	T	20.5/69.2
W550	7030003860	S.RES ERJ3GE JPW V	B	26/42.3
W700	7030003860	S.RES ERJ3GE JPW V	T	39/70.7
W840	7030003860	S.RES ERJ3GE JPW V	B	49.8/33.6
W841	7030003860	S.RES ERJ3GE JPW V	B	42.5/39.9
W896	7030000010	S.RES MCR10EZJH JPW (000)	B	42.4/85.8
W1021	7030003860	S.RES ERJ3GE JPW V	T	66.8/60.6
W1022	7030003860	S.RES ERJ3GE JPW V	T	33.3/53.5
W1026	7030003860	S.RES ERJ3GE JPW V	T	18.1/26
W1029	7030008240	S.RES ERJ12YJ0R00U	B	68.9/113
W1030	7030000010	S.RES MCR10EZJH JPW (000)	B	112.2/1.7
W1032	7030000010	S.RES MCR10EZJH JPW (000)	B	98.3/33.6
W1033	7030008240	S.RES ERJ12YJ0R00U	B	21.6/53.5
W1083	7030003860	S.RES ERJ3GE JPW V	B	104.3/41.2
W1084	7030003860	S.RES ERJ3GE JPW V	B	101.9/42
W1161	7030003860	S.RES ERJ3GE JPW V	T	36.1/23.8
W1164	7120000490	JMP ERD25T0	B	86.4/116.7
W1261	7030003860	S.RES ERJ3GE JPW V	B	73.1/127.1
W1330	8900011960	CBL OPC-1216		
W1601	7030003860	S.RES ERJ3GE JPW V	T	86.8/23.9
W1670	7030003860	S.RES ERJ3GE JPW V	B	86/7.3
W1750	7030003860	S.RES ERJ3GE JPW V	B	88/5
W9001	9044901007	WIR 23/00/060/W01/W01		
EP401	6910012350	S.BEA MMZ1608Y 102BT	B	16.5/70.2
EP403	6910012350	S.BEA MMZ1608Y 102BT	B	20.8/63
EP404	6910012350	S.BEA MMZ1608Y 102BT	T	14.4/60.4
EP405	6910012350	S.BEA MMZ1608Y 102BT	T	21.3/66.3
EP470	6910012350	S.BEA MMZ1608Y 102BT	T	16.4/68.2
EP482	6910012350	S.BEA MMZ1608Y 102BT	B	12.9/82.8
EP550	6910012350	S.BEA MMZ1608Y 102BT	B	24.6/39.8
EP551	6910012350	S.BEA MMZ1608Y 102BT	B	35.1/26.6
EP552	6910012350	S.BEA MMZ1608Y 102BT	B	27.1/48.7
EP553	6910012350	S.BEA MMZ1608Y 102BT	B	18/48.1
EP721	6910012350	S.BEA MMZ1608Y 102BT	B	32.1/85.5
EP1750	6910012350	S.BEA MMZ1608Y 102BT	B	27.8/124
EP1751	6910012350	S.BEA MMZ1608Y 102BT	B	27.8/125.5

[LOGIC-T UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
IC50	1140010090	S.IC µPD70F3102AGJ-33-8EU	T	61.6/60
IC51	1130007281	S.IC TC7S32FU (TE85R, F)	T	45.3/71.2
IC52	1110005730	S.IC S-80928CNMC-G8Y-T2	B	54.3/48.2
IC53	1130007111	S.IC TC7W04FU (TE12L, F)	T	44.6/68.1
IC54	1140008650	S.IC HN58X2464TI	T	45.2/62.4
IC55	1130010630	S.IC SN74AHC541PWR	B	43/42.3
IC56	1190001340	S.IC M62334FP 600C	T	59.8/43.1
IC57	1190001340	S.IC M62334FP 600C	T	68.2/43.2
IC58	1110002861	S.IC TA75S39F (TE85R, F)	B	4/54.1
IC100	1130010620	S.IC SN74AHC541PWR	B	109.6/55.6
IC101	1130007111	S.IC TC7W04FU (TE12L, F)	T	106.1/62.2
IC102	1130008711	S.IC TC7SET04FU (T5L, JF)	T	110.9/61.3
IC103	1130010630	S.IC SN74AHC541PWR	T	108.9/55.3
IC105	1130010580	S.IC µPD43256BGW-70LL-9JL	T	108.7/43.2
IC150	1110005430	S.IC CMX589AD5	T	98.2/17.4
IC151	1130008711	S.IC TC7SET04FU (T5L, JF)	T	89.1/22.9
IC152	1130004201	S.IC TC4S66F (TE85R, F)	B	103.9/13.5
IC153	1130004201	S.IC TC4S66F (TE85R, F)	B	100.9/19
IC200	1120002870	S.IC XCS20XL-4TQ144I	T	32.1/24.9
IC201	1130006891	S.IC TC7S04FU (TE85R, F)	B	36.5/60.2
IC202	1130008361	S.IC TC7SHU04FU (TE85L, JF)	T	25.6/38.9
IC203	1130008361	S.IC TC7SHU04FU (TE85L, JF)	B	35.4/37.1
IC300	1110005290	S.IC NJM2115V-TE1	T	58.6/25.4
IC301	1110005290	S.IC NJM2115V-TE1	T	57.2/36.5
IC302	1110005290	S.IC NJM2115V-TE1	T	68.4/26.7
IC350	1130006220	S.IC TC4W53FU (TE12L)	T	84.4/25.1
IC351	1110003780	S.IC NJM2902V-TE1-#ZZZB	T	90.6/29.1
IC352	1130006220	S.IC TC4W53FU (TE12L)	T	81.2/29.6
IC353	1130008561	S.IC TC7S51F (TE85L, F)	T	100.8/28.8
IC354	1130006220	S.IC TC4W53FU (TE12L)	T	104.8/24.8
IC355	1110002751	S.IC TA75S01F (TE85R, F)	B	87.5/23.5
IC500	1180001071	S.IC TA7805F (TE16L, Q)	T	86.3/79.9
IC502	1180002390	S.REG S-812C33AMC-C2N-T2	T	92.8/72
IC503	1110005440	S.IC NJM2374AM-TE1	T	110.5/76.6
IC504	1180002390	S.REG S-812C33AMC-C2N-T2	T	64.3/80.8
IC550	1130012051	S.IC FT232BL	T	11.8/67.4
IC551	1130009570	S.IC BR93LC46F-WE2	T	12.8/58.2
IC553	1130007281	S.IC TC7S32FU (TE85R, F)	B	10.4/55
IC901	1120002960	S.IC TC74AC541FT (EL)	T	33.1/5.4
IC902	1120002830	S.IC NJM2125F-TE1-#ZZZB	B	34.5/10.9
Q50	1530002280	S.TR 2SC4081 T106 S	B	8.3/49.6
Q51	1510000771	S.TR 2SA1586-GR (TE85R, F)	B	5.7/49.9
Q52	1590000430	S.TR DTC144EUA T106	B	7.9/53.6
Q100	1590000430	S.TR DTC144EUA T106	T	79/32.4
Q101	1590001980	S.TR XP4315 (TX)	B	42/13.9
Q102	1590001980	S.TR XP4315 (TX)	B	39.5/13.9
Q150	1590001400	S.TR XP1214 (TX)	T	91.3/18.8
Q151	1590001400	S.TR XP1214 (TX)	B	97.2/12.4
Q153	1590000430	S.TR DTC144EUA T106	B	76.2/30.3
Q154	1590000430	S.TR DTC144EUA T106	B	106.3/18.5
Q155	1590000430	S.TR DTC144EUA T106	B	74.5/26.6
Q156	1590000430	S.TR DTC144EUA T106	B	72/28.4
Q400	1590000430	S.TR DTC144EUA T106	B	73.3/20.4
Q500	1520000200	S.TR 2SB798-T2 DK	T	80.3/69.6
Q501	1590000430	S.TR DTC144EUA T106	T	76.6/72.1
Q502	1530002280	S.TR 2SC4081 T106 S	T	67.9/78.3
Q503	1520000200	S.TR 2SB798-T2 DK	B	74.3/74.5
Q504	1530002280	S.TR 2SC4081 T106 S	B	70/80.5
Q550	1590000430	S.TR DTC144EUA T106	B	15.5/55.9
D50	1790001240	S.DIO MA2S728-(TX)	T	59.3/72.6
D51	1750000550	S.DIO 1SS355 TE-17	B	1.4/54.1
D52	1750000550	S.DIO 1SS355 TE-17	B	50.1/66.5
D53	1750000550	S.DIO 1SS355 TE-17	T	46.6/65.5
D54	1750000550	S.DIO 1SS355 TE-17	B	48.1/72.7
D350	1720000361	S.DIO HSU88TRF-E	T	85.3/30.3
D351	1720000361	S.DIO HSU88TRF-E	T	87.7/25.4
D501	1790000671	S.DIO SB07-03C-TB-E	T	72.2/75.6
D502	1750000550	S.DIO 1SS355 TE-17	T	71.2/78.3
D503	1790000671	S.DIO SB07-03C-TB-E	T	99.4/71.9
D504	1790000671	S.DIO SB07-03C-TB-E	B	110.2/80.1
X50	6050011290	S.XTL CR-715 (6 MHz)	T	44.3/53.2
X200	6050011240	S.XTL CR-708 (16.384 MHz)	T	19/40.3
X201	6050011700	S.XTL CR-760 (9.8304 MHz)	T	37.2/39.3
X550	6050011290	S.XTL CR-715 (6 MHz)	T	3.4/61.5
L50	6200005741	S.COL ELJRE 47NG-F	T	65.2/73.6
L51	6200005741	S.COL ELJRE 47NG-F	T	48.4/52
L100	6200005741	S.COL ELJRE 47NG-F	B	111.3/62
L101	6200005741	S.COL ELJRE 47NG-F	B	111.3/63.3
L103	6200005741	S.COL ELJRE 47NG-F	B	108.5/33.6
L150	6200002040	S.COL NL 252018T-101J	T	99.7/23
L210	6200005741	S.COL ELJRE 47NG-F	T	70.6/73.4
L211	6200005741	S.COL ELJRE 47NG-F	B	47.7/59.7

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

[LOGIC-T UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
L214	6200005741	S.COL ELJRE 47NG-F	B	49/62.4
L420	6200003590	S.COL EXCCCL3225U1	B	30.4/78.4
L421	6200003590	S.COL EXCCCL3225U1	B	38.8/79.9
L500	6190001561	S.COL LQN 5N 1R0M	T	104.3/80
L501	6190001561	S.COL LQN 5N 1R0M	T	104.3/72.8
L510	6200003590	S.COL EXCCCL3225U1	B	108.8/76.7
L550	6200002040	S.COL NL 252018T-101J	T	11.2/74.3
L551	6200005741	S.COL ELJRE 47NG-F	T	11.1/77
L552	6200006991	S.COL ELJRE 56NG-F	B	14.6/61.8
R18	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	35.5/46.5
R50	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	44.4/75.8
R51	7030003620	S.RES ERJ3GEYJ 333 V (33 kΩ)	T	47.2/71
R53	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	45.5/68.4
R54	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	18.5/50.4
R55	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	14.7/48.5
R57	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	3.7/49.9
R58	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	T	15.4/52.2
R59	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	B	2.4/49.9
R60	7030003570	S.RES ERJ3GEYJ 123 V (12 kΩ)	B	47.7/62.4
R61	7030003570	S.RES ERJ3GEYJ 123 V (12 kΩ)	B	45.8/62.4
R62	7030003620	S.RES ERJ3GEYJ 333 V (33 kΩ)	B	49.3/51.1
R63	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	53.9/50.5
R64	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	61.5/45.7
R65	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	62.8/45.7
R66	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	72.5/41.1
R67	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	72.5/43.8
R68	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	B	9.1/51.6
R69	7030003490	S.RES ERJ3GEYJ 272 V (2.7 kΩ)	T	8.2/52.7
R70	7030003620	S.RES ERJ3GEYJ 333 V (33 kΩ)	B	4.4/51.8
R71	7030003620	S.RES ERJ3GEYJ 333 V (33 kΩ)	B	4/56.5
R72	7030003620	S.RES ERJ3GEYJ 333 V (33 kΩ)	B	6.3/57.4
R73	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	B	7.1/55.6
R74	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	46.3/74.7
R75	7030003570	S.RES ERJ3GEYJ 123 V (12 kΩ)	B	48.1/75
R76	7030003510	S.RES ERJ3GEYJ 392 V (3.9 kΩ)	B	67.9/44.3
R78	7030003360	S.RES ERJ3GEYJ 221 V (220 Ω)	T	50.9/49.3
R79	7030003340	S.RES ERJ3GEYJ 151 V (150 Ω)	T	48.6/56.2
R100	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	76.5/32.2
R110	7030003370	S.RES ERJ3GEYJ 271 V (270 Ω)	B	52.3/14
R113	7030003370	S.RES ERJ3GEYJ 271 V (270 Ω)	B	42.1/11.9
R114	7030003420	S.RES ERJ3GEYJ 681 V (680 Ω)	B	39.5/11.9
R115	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	110.9/60.7
R116	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	106.3/63.8
R146	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	79.1/29.5
R148	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	105.5/15.9
R149	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	88.4/20.2
R150	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	97.9/17
R151	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	97.9/15.7
R152	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	97.9/18.3
R153	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	97.9/20.9
R154	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	97.9/19.6
R155	7030003800	S.RES ERJ3GEYJ 105 V (1 MΩ)	T	92.4/21.3
R156	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	90.7/14.2
R157	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	95.3/14.8
R158	7030003750	S.RES ERJ3GEYJ 394 V (390 kΩ)	B	100.8/13.5
R159	7030009340	S.RES ERJ3GEYJ 275V (2.7 MΩ)	B	99.7/16.1
R199	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	32.7/59.4
R200	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	28.1/38
R201	7030003800	S.RES ERJ3GEYJ 105 V (1 MΩ)	T	22.4/38.8
R202	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	T	45.2/15.4
R203	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	T	31.6/11.8
R204	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	39/11.8
R205	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	24.3/29.2
R206	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	18.2/30.7
R207	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	18.9/32.1
R208	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	34.8/40.8
R209	7030003800	S.RES ERJ3GEYJ 105 V (1 MΩ)	B	35.6/39
R210	7030003400	S.RES ERJ3GEYJ 471 V (470 Ω)	T	41.5/39.3
R211	7030003400	S.RES ERJ3GEYJ 471 V (470 Ω)	B	37.8/58
R250	7030005661	S.RES ERA3YED 203V	T	52.9/11.8
R251	7030005661	S.RES ERA3YED 203V	T	48.9/11.8
R252	7030005321	S.RES ERA3YED 103V	T	50.8/12.6
R253	7030005661	S.RES ERA3YED 203V	T	48.9/13.1
R254	7030005321	S.RES ERA3YED 103V	T	52.5/13.9
R255	7030005661	S.RES ERA3YED 203V	T	48.9/14.4
R256	7030005321	S.RES ERA3YED 103V	T	50.8/15.2
R257	7030005661	S.RES ERA3YED 203V	T	48.9/15.7
R258	7030005321	S.RES ERA3YED 103V	T	52.5/16.5
R259	7030005661	S.RES ERA3YED 203V	T	48.9/17
R260	7030005321	S.RES ERA3YED 103V	T	50.8/17.8
R261	7030005661	S.RES ERA3YED 203V	T	48.9/18.3
R262	7030005321	S.RES ERA3YED 103V	T	52.5/19.1
R263	7030005661	S.RES ERA3YED 203V	T	48.9/19.6
R264	7030005321	S.RES ERA3YED 103V	T	50.8/20.4
R265	7030005661	S.RES ERA3YED 203V	T	48.9/20.9
R266	7030005321	S.RES ERA3YED 103V	T	52.5/21.7
R267	7030005661	S.RES ERA3YED 203V	T	48.9/22.2
R268	7030005321	S.RES ERA3YED 103V	T	50.8/23

[LOGIC-T UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
R269	7030005661	S.RES ERA3YED 203V	T	48.9/23.5
R270	7030005321	S.RES ERA3YED 103V	T	52.5/24.3
R271	7030005661	S.RES ERA3YED 203V	T	48.9/24.8
R272	7030005661	S.RES ERA3YED 203V	T	52.7/26.2
R273	7030005661	S.RES ERA3YED 203V	T	48.9/26.2
R274	7030005321	S.RES ERA3YED 103V	T	50.8/26.7
R275	7030005661	S.RES ERA3YED 203V	T	48.9/27.5
R276	7030005321	S.RES ERA3YED 103V	T	52.1/28.1
R277	7030005661	S.RES ERA3YED 203V	T	48.9/28.8
R278	7030005321	S.RES ERA3YED 103V	T	50.8/29.3
R279	7030005661	S.RES ERA3YED 203V	T	48.9/30.1
R280	7030005321	S.RES ERA3YED 103V	T	52.1/30.7
R281	7030005661	S.RES ERA3YED 203V	T	48.9/31.4
R282	7030005321	S.RES ERA3YED 103V	T	50.8/31.9
R283	7030005661	S.RES ERA3YED 203V	T	48.9/32.7
R284	7030005321	S.RES ERA3YED 103V	T	52.1/33.3
R285	7030005661	S.RES ERA3YED 203V	T	48.9/34
R286	7030005321	S.RES ERA3YED 103V	T	50.8/34.5
R287	7030005661	S.RES ERA3YED 203V	T	48.9/35.3
R288	7030005321	S.RES ERA3YED 103V	T	52.1/35.9
R289	7030005661	S.RES ERA3YED 203V	T	48.9/36.6
R290	7030005321	S.RES ERA3YED 103V	T	50.8/37.1
R291	7030005661	S.RES ERA3YED 203V	T	48.9/37.9
R292	7030005321	S.RES ERA3YED 103V	T	52.1/38.7
R293	7030005661	S.RES ERA3YED 203V	T	48.9/39.2
R300	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	60.7/20.9
R301	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	T	56.4/28.1
R302	7030003530	S.RES ERJ3GEYJ 562 V (5.6 kΩ)	T	61.8/28.1
R303	7030003530	S.RES ERJ3GEYJ 562 V (5.6 kΩ)	T	63.7/25.4
R304	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	67.4/17.7
R305	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	67.4/19
R306	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	63.7/22.8
R307	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	63.7/20.2
R308	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	T	64.2/18.1
R310	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	59.3/32
R311	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	T	55/39.2
R312	7030003530	S.RES ERJ3GEYJ 562 V (5.6 kΩ)	T	60.4/39.2
R313	7030003530	S.RES ERJ3GEYJ 562 V (5.6 kΩ)	T	62.3/36.5
R314	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	68.1/34.4
R315	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	68.1/33.1
R316	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	65.5/37
R317	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	68.1/37
R318	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	T	67.3/31.8
R320	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	61.5/24.3
R348	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	101.4/30
R349	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	77.5/26.4
R350	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	80.1/27.2
R351	7030003730	S.RES ERJ3GEYJ 274 V (270 kΩ)	T	96.5/31
R352	7030004710	S.RES ERJ3GEYJ 475 V (4.7 MΩ)	T	98.4/30.4
R353	7030003730	S.RES ERJ3GEYJ 274 V (270 kΩ)	T	96.5/27.1
R354	7030004710	S.RES ERJ3GEYJ 475 V (4.7 MΩ)	T	98.4/27.8
R355	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	T	103.2/27.8
R356	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	B	84.1/28.7
R357	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	B	84.9/26.8
R358	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	99.7/24.9
R359	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	84/20.3
R360	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	86.6/21.2
R361	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	B	87.9/25.9
R362	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	90/25.1
R363	7030003800	S.RES ERJ3GEYJ 105 V (1 MΩ)	B	90.6/28.9
R364	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	92.4/29.6
R365	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	90.7/25.7
R368	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	82.8/28.7
R400	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	86.1/16.8
R402	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	12.2/21
R403	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	15/11.9
R405	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	15/13.2
R406	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	82/20.2
R407	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	83.3/20.2
R410	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	16.7/21
R411	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	18/21
R412	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	15.4/21
R413	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	14.1/21
R414	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	10.9/21
R416	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	82.2/13.3
R417	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	83.5/13.3
R418	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	29.3/74.9
R419	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	28.5/74.9
R420	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	29.8/74.9
R421	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	31.1/74.9
R422	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	75.5/20.2
R423	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	28/74.9
R424	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	42/74.9
R425	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	74.2/20.2
R426	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	71.5/20.2
R427	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	80.9/16.8
R428	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	72.9/20.2
R429	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	78.1/20.2
R430	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	80.7/20.2
R431	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	76.8/20.2

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

S.=Surface mount

[LOGIC-T UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
R432	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	75.3/19.4
R433	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	27.2/74.9
R434	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	85.4/17.4
R435	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	79.4/20.2
R436	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	22/21
R437	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	73.4/18.5
R438	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	B	87.4/16.8
R439	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	T	86.5/19.4
R440	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	71.5/23.4
R500	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	80.4/72.8
R501	7030000420	S.RES MCR10EZJH 2.2 kΩ	T	78.1/76.1
R502	7030003470	S.RES ERJ3GEYJ 182 V (1.8 kΩ)	B	72/79.7
R503	7030003530	S.RES ERJ3GEYJ 562 V (5.6 kΩ)	T	108.4/71.2
R504	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	111/71.2
R505	7030000020	S.RES MCR10EZJH 1 Ω (010)	B	112.2/77.7
R506	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	66.7/77.9
R507	7030003570	S.RES ERJ3GEYJ 123 V (12 kΩ)	B	68/77.9
R508	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	68/80.5
R509	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	T	109.7/71.2
R510	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	T	69.8/76.1
R511	7030000180	S.RES MCR10EZJH 22 Ω (220)	T	81.4/74.4
R512	7030000180	S.RES MCR10EZJH 22 Ω (220)	T	81.4/76.1
R513	7030000420	S.RES MCR10EZJH 2.2 kΩ	T	78.1/74.4
R552	7030003550	S.RES ERJ3GEYJ 822 V (8.2 kΩ)	B	9.9/62.8
R553	7030003580	S.RES ERJ3GEYJ 153 V (15 kΩ)	B	9.9/61.5
R556	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	B	10.5/69.4
R558	7030003400	S.RES ERJ3GEYJ 471 V (470 Ω)	B	17.2/61.8
R559	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	B	12.4/68.6
R561	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	12.9/58.4
R562	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	B	15.9/68.2
R563	7030003200	S.RES ERJ3GEYJ 100 V (10 Ω)	T	17.9/71.1
R564	7030003200	S.RES ERJ3GEYJ 100 V (10 Ω)	T	19.2/69.6
R566	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	B	12.1/60.3
R567	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	13.6/55
R568	7030003340	S.RES ERJ3GEYJ 151 V (150 Ω)	B	11.9/57
R901	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	27/6
R902	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	27.3/3.6
R903	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	51.8/43.5
R904	7030003860	S.RES ERJ3GE JPW V	T	11/26.1
R905	7030003860	S.RES ERJ3GE JPW V	T	51.8/73
R906	7030003860	S.RES ERJ3GE JPW V	B	47/65.2
R907	7030003860	S.RES ERJ3GE JPW V	B	59.2/70.3
R908	7030003860	S.RES ERJ3GE JPW V	B	58.3/22
R909	7030003860	S.RES ERJ3GE JPW V	B	43.7/35.1
R910	7030003860	S.RES ERJ3GE JPW V	T	55.5/11.8
R911	7030003860	S.RES ERJ3GE JPW V	T	71.6/27.4
R912	7030003860	S.RES ERJ3GE JPW V	B	77.3/18.3
R913	7030003860	S.RES ERJ3GE JPW V	B	77.7/13.6
R914	7030003860	S.RES ERJ3GE JPW V	B	7.7/40.4
R915	7030003860	S.RES ERJ3GE JPW V	B	36/77.1
R916	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	33.3/14.9
R917	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	31.4/9.9
R918	7030003860	S.RES ERJ3GE JPW V	B	16.7/66.9
R919	7030003860	S.RES ERJ3GE JPW V	B	14.3/63.6
C51	4030006860	S.CER C1608 JB 1H 102K-T	B	44.4/74
C52	4030011600	S.CER C1608 JB 1E 104K-T	T	43.4/71
C53	4030011600	S.CER C1608 JB 1E 104K-T	B	43.9/63.2
C54	4030011600	S.CER C1608 JB 1E 104K-T	B	36.7/44.6
C55	4030011600	S.CER C1608 JB 1E 104K-T	T	54.4/73.3
C56	4030008560	S.CER C1608 CH 1H 300J-T	T	48.9/54.4
C57	4030008560	S.CER C1608 CH 1H 300J-T	T	47.6/54.1
C58	4030006900	S.CER C1608 JB 1H 103K-T	B	54.1/45.9
C59	4030011600	S.CER C1608 JB 1E 104K-T	T	61.9/46.6
C60	4030011600	S.CER C1608 JB 1E 104K-T	T	70.4/46.7
C61	4030007090	S.CER C1608 CH 1H 470J-T	B	46.4/57.3
C62	4030007090	S.CER C1608 CH 1H 470J-T	B	61.4/51.7
C63	4030007090	S.CER C1608 CH 1H 470J-T	B	63.3/52.5
C64	4030007090	S.CER C1608 CH 1H 470J-T	B	64.6/47.1
C65	4030007090	S.CER C1608 CH 1H 470J-T	B	57.3/44
C66	4030007090	S.CER C1608 CH 1H 470J-T	B	57.2/42.7
C67	4030007090	S.CER C1608 CH 1H 470J-T	B	71.5/67.3
C68	4030007090	S.CER C1608 CH 1H 470J-T	B	70.3/60.4
C69	4030007090	S.CER C1608 CH 1H 470J-T	B	66/52.2
C86	4030006900	S.CER C1608 JB 1H 103K-T	B	47.1/55.5
C88	4030006850	S.CER C1608 JB 1H 471K-T	B	46.3/77.3
C101	4030006900	S.CER C1608 JB 1H 103K-T	T	106.1/64.6
C102	4030006900	S.CER C1608 JB 1H 103K-T	T	110.9/63.2
C103	4030006900	S.CER C1608 JB 1H 103K-T	B	113.2/62.4
C104	4030006900	S.CER C1608 JB 1H 103K-T	T	113.1/53.2
C113	4030011600	S.CER C1608 JB 1E 104K-T	T	108.5/33.6
C118	4030007050	S.CER C1608 CH 1H 220J-T	B	12/76.3
C119	4030007050	S.CER C1608 CH 1H 220J-T	B	13.5/76.3
C120	4030007050	S.CER C1608 CH 1H 220J-T	B	15/76.3
C150	4030006900	S.CER C1608 JB 1H 103K-T	T	86.5/21.2
C151	4030011600	S.CER C1608 JB 1E 104K-T	T	104/16.1
C152	4550006700	S.TAN ECST1AY106R	T	105.7/16.9
C153	4030012600	S.CER C2012 JB 1A 105M-T	T	91.3/15.3
C154	4030011600	S.CER C1608 JB 1E 104K-T	T	91.5/13.7

[LOGIC-T UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
C155	4030006860	S.CER C1608 JB 1H 102K-T	T	100.9/12.4
C156	4030006860	S.CER C1608 JB 1H 102K-T	T	104/13.5
C157	4030011600	S.CER C1608 JB 1E 104K-T	B	102.9/15.9
C158	4030011600	S.CER C1608 JB 1E 104K-T	T	91.1/21.3
C159	4030007130	S.CER C1608 CH 1H 101J-T	T	91.4/16.9
C160	4030008890	S.CER C1608 JB 1H 273K-T	B	100/12.2
C161	4030008890	S.CER C1608 JB 1H 273K-T	B	98.2/14.3
C162	4030007000	S.CER C1608 CH 1H 090D-T	B	93.3/14.5
C200	4030011600	S.CER C1608 JB 1E 104K-T	B	34.6/60.2
C202	4610001590	S.TRI TZC3R100A110R00	T	24.6/42.1
C203	4030011600	S.CER C1608 JB 1E 104K-T	T	28.1/39.3
C204	4030006980	S.CER C1608 CH 1H 070D-T	T	23.7/38.8
C206	4030006900	S.CER C1608 JB 1H 103K-T	T	18.2/25.5
C207	4030011600	S.CER C1608 JB 1E 104K-T	T	24.2/11.8
C208	4030006900	S.CER C1608 JB 1H 103K-T	T	33.4/11
C209	4030011600	S.CER C1608 JB 1E 104K-T	T	43.5/13.8
C210	4030011600	S.CER C1608 JB 1E 104K-T	B	32.1/35.7
C211	4030011600	S.CER C1608 JB 1E 104K-T	B	23.4/32.6
C212	4030009650	S.CER C1608 CH 1H 240J-T	T	39.3/46.3
C213	4030006980	S.CER C1608 CH 1H 070D-T	B	32.3/39
C214	4030006900	S.CER C1608 JB 1H 103K-T	B	38.1/36.3
C215	4610001590	S.TRI TZC3R100A110R00	T	32/39.8
C216	4550006780	S.TAN TEESVB2 0J 476M8R	T	26.1/9.4
C300	4550006250	S.TAN TEESVA 1A 106M8R	T	56.5/21.4
C301	4030010040	S.CER C1608 JB 1H 561K-T	T	59/28.1
C302	4030009490	S.CER C1608 JB 1H 821K-T	T	65/25.4
C303	4340000270	S.MLR ECHU 1H 121GB5	T	60.7/22.5
C304	4030007170	S.CER C1608 CH 1H 221J-T	T	67.4/20.3
C305	4030007170	S.CER C1608 CH 1H 221J-T	T	67.7/21.6
C306	4030007170	S.CER C1608 CH 1H 221J-T	T	65/22.8
C307	4030007170	S.CER C1608 CH 1H 221J-T	T	65/20.2
C308	4550005980	S.TAN TEESVA 1A 475M8R	T	60.3/17.7
C309	4030010760	S.CER C1608 CH 1H 331J-T	T	61.8/19.4
C310	4550006250	S.TAN TEESVA 1A 106M8R	T	55.2/32.5
C311	4030010040	S.CER C1608 JB 1H 561K-T	T	57.6/29.2
C312	4030009490	S.CER C1608 JB 1H 821K-T	T	63.6/36.5
C313	4340000270	S.MLR ECHU 1H 121GB5	T	59.4/33.6
C314	4030007170	S.CER C1608 CH 1H 221J-T	T	68.1/38.3
C315	4030007170	S.CER C1608 CH 1H 221J-T	T	68.1/39.6
C316	4030007170	S.CER C1608 CH 1H 221J-T	T	65.5/35.7
C317	4030007170	S.CER C1608 CH 1H 221J-T	T	68.1/35.7
C318	4550005980	S.TAN TEESVA 1A 475M8R	T	63.4/31.8
C319	4030010760	S.CER C1608 CH 1H 331J-T	T	65.1/28.4
C320	4510008490	S.ELE EEE1CS1000SR	B	59.6/27.5
C349	4550006250	S.TAN TEESVA 1A 106M8R	B	87.7/30.7
C350	4030011600	S.CER C1608 JB 1E 104K-T	T	82/26.4
C351	4030011600	S.CER C1608 JB 1E 104K-T	T	90.6/32.5
C352	4030011600	S.CER C1608 JB 1E 104K-T	T	76.5/28.3
C353	4030011810	S.CER C1608 JB 1A 224K-T	T	92.4/33.1
C354	4030011600	S.CER C1608 JB 1E 104K-T	T	93.7/33.1
C355	4030006860	S.CER C1608 JB 1H 102K-T	T	96.5/29.7
C356	4030006860	S.CER C1608 JB 1H 102K-T	T	96.5/28.4
C357	4030011600	S.CER C1608 JB 1E 104K-T	T	100.6/32.3
C358	4030006860	S.CER C1608 JB 1H 102K-T	T	101.3/27
C359	4030008920	S.CER C1608 JB 1H 473K-T	B	85.7/28.7
C360	4030011600	S.CER C1608 JB 1E 104K-T	T	104.8/22.4
C361	4030011810	S.CER C1608 JB 1A 224K-T	T	93.3/25.7
C362	4030011600	S.CER C1608 JB 1E 104K-T	B	85.2/23.8
C363	4030008920	S.CER C1608 JB 1H 473K-T	T	82/23.8
C364	4030011600	S.CER C1608 JB 1E 104K-T	T	93.3/24.4
C400	4030006850	S.CER C1608 JB 1H 471K-T	T	17.6/11.9
C401	4030007090	S.CER C1608 CH 1H 470J-T	T	17.6/13.2
C402	4030006900	S.CER C1608 JB 1H 103K-T	B	82/23.6
C403	4030007090	S.CER C1608 CH 1H 470J-T	B	16.8/25.1
C404	4030007090	S.CER C1608 CH 1H 470J-T	B	18.1/24.6
C405	4030007090	S.CER C1608 CH 1H 470J-T	B	15.5/25.1
C406	4030007090	S.CER C1608 CH 1H 470J-T	B	14.2/25.1
C407	4030007090	S.CER C1608 CH 1H 470J-T	T	38.8/74.1
C408	4030007090	S.CER C1608 CH 1H 470J-T	B	83.4/16.8
C409	4030007130	S.CER C1608 CH 1H 101J-T	B	77.1/20.2
C410	4030007130	S.CER C1608 CH 1H 101J-T	T	76.8/23.6
C411	4030007130	S.CER C1608 CH 1H 101J-T	B	83.9/23.8
C412	4030007130	S.CER C1608 CH 1H 101J-T	B	86.6/19.4
C413	4030007090	S.CER C1608 CH 1H 470J-T	T	43.3/74.9
C414	4030007090	S.CER C1608 CH 1H 470J-T	B	31.7/71.5
C415	4030007090	S.CER C1608 CH 1H 470J-T	B	30.4/71.5
C416	4030007090	S.CER C1608 CH 1H 470J-T	B	31.2/74.2
C417	4030007090	S.CER C1608 CH 1H 470J-T	B	29.1/71.5
C418	4030007090	S.CER C1608 CH 1H 470J-T	B	27.8/71.5
C419	4030007090	S.CER C1608 CH 1H 470J-T	B	26.5/71.5
C420	4030007090	S.CER C1608 CH 1H 470J-T	B	41.6/80.7
C421	4030007090	S.CER C1608 CH 1H 470J-T	B	29.6/81.1
C422	4030007090	S.CER C1608 CH 1H 470J-T	B	8.2/21.4
C423	4030007090	S.CER C1608 CH 1H 470J-T	B	9.5/21.4
C424	4030007090	S.CER C1608 CH 1H 470J-T	B	72/22.8
C425	4030007090	S.CER C1608 CH 1H 470J-T	B	71.3/20.2
C426	4030007090	S.CER C1608 CH 1H 470J-T	B	73.4/16.7
C427	4030007090	S.CER C1608 CH 1H 470J-T	T	74.9/24.1
C428	4030007090	S.CER C1608 CH 1H 470J-T	B	76.9/22.9
C429	4030007090	S.CER C1608 CH 1H 470J-T	T	78.1/22.8

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



[LOGIC-T UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
C430	4030007090	S.CER C1608 CH 1H 470J-T	T	79.4/22.8
C431	4030007090	S.CER C1608 CH 1H 470J-T	B	87.3/13.2
C432	4030007090	S.CER C1608 CH 1H 470J-T	B	80.6/23.6
C433	4030007090	S.CER C1608 CH 1H 470J-T	B	80.9/20.2
C434	4030007090	S.CER C1608 CH 1H 470J-T	B	80.3/12.5
C435	4030007090	S.CER C1608 CH 1H 470J-T	B	82.2/20.2
C437	4030007090	S.CER C1608 CH 1H 470J-T	B	84.7/18.4
C438	4030007090	S.CER C1608 CH 1H 470J-T	B	22/23.6
C442	4030011600	S.CER C1608 JB 1E 104K-T	T	80.7/23.6
C443	4030011810	S.CER C1608 JB 1A 224K-T	B	71.3/24.6
C500	4510008520	S.ELE EEE1CA470SP	B	84.4/69.5
C501	4030011600	S.CER C1608 JB 1E 104K-T	T	84.1/72.4
C502	4030011600	S.CER C1608 JB 1E 104K-T	T	86.5/73
C503	4510008520	S.ELE EEE1CA470SP	B	96.2/69.9
C504	4030006850	S.CER C1608 JB 1H 471K-T	T	86.5/71.7
C506	4030011600	S.CER C1608 JB 1E 104K-T	T	58.6/13.5
C509	4550006250	S.TAN TEESVA 1A 106M8R	T	85.3/70
C510	4030011600	S.CER C1608 JB 1E 104K-T	T	97.4/23.8
C511	4030011600	S.CER C1608 JB 1E 104K-T	T	90.5/70.2
C512	4550006250	S.TAN TEESVA 1A 106M8R	T	88.8/70.4
C513	4510007130	S.ELE EEEFCJ 470R	T	98.6/79.1
C514	4030006850	S.CER C1608 JB 1H 471K-T	T	109.3/81.9
C515	4510008850	S.ELE EEE1CA101P	B	109.5/69.3
C516	4510008490	S.ELE EEE1CS1000SR	B	64.2/82
C517	4030011600	S.CER C1608 JB 1E 104K-T	T	66.9/81.3
C518	4030011600	S.CER C1608 JB 1E 104K-T	T	64.5/78.5
C519	4550006250	S.TAN TEESVA 1A 106M8R	T	65.2/75.9
C520	4550006200	S.TAN ECST0JY106R	T	71.7/81.7
C521	4550006200	S.TAN ECST0JY106R	B	69.4/70.9
C522	4550006620	S.TAN ECST0JY226R	T	96.6/71.7
C550	4030008560	S.CER C1608 CH 1H 300J-T	T	4.2/69
C551	4030008560	S.CER C1608 CH 1H 300J-T	T	4.2/54
C553	4030011600	S.CER C1608 JB 1E 104K-T	B	15.4/59.9
C554	4030011600	S.CER C1608 JB 1E 104K-T	T	18.1/62.2
C556	4030008900	S.CER C1608 JB 1H 333K-T	B	18.7/70.1
C557	4550006200	S.TAN ECST0JY106R	T	13.5/75.1
C558	4030006900	S.CER C1608 JB 1H 103K-T	T	15.2/73.9
C559	4030007090	S.CER C1608 CH 1H 470J-T	T	84/61.1
C561	4030007090	S.CER C1608 CH 1H 470J-T	T	85.7/57.4
C578	4030007090	S.CER C1608 CH 1H 470J-T	B	12.3/55
C579	4030007090	S.CER C1608 CH 1H 470J-T	B	10.7/53
C901	4030011600	S.CER C1608 JB 1E 104K-T	B	31.4/11.9
J50	6510019271	S.CON 52365-0671	T	5.1/49.9
J100	6510023860	S.CNR S9B-ZR-SM3A-TF	B	18/83.2
J101	6510022820	S.CNR AXN430C530P	B	17.2/14.8
J300	6510018350	S.CNR S3B-ZR-SM3A-TF	T	13.9/18.4
J400	6510022710	S.CNR 30FLZ-SM1-TB	T	78/13.7
J401	6510022710	S.CNR 30FLZ-SM1-TB	T	35/80.4
J901	6510021430	S.CNR S8B-ZR-SM3A-TF	T	13.2/3
W1	8900013180	CBL OPC-1312		

[MAIN-R UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
IC71	1110004470	S.IC μPC2721GV-E1	T	49.9/74.1
IC191	1110003491	S.IC TA31136FNG (D, EL)	T	46.5/29.9
IC341	1130008090	S.IC BU4066BCFV-E1	T	92.5/35.1
IC342	1130006220	S.IC TC4W53FU (TE12L)	T	106.9/33.8
IC343	1110005290	S.IC NJM2115V-TE1	T	98.2/28.2
IC400	1130010100	S.IC LMX2352TMX	B	25.6/64.8
IC550	1130007610	S.IC μPD3140GS-E1 (DS8)	B	12.7/35
IC551	1130006220	S.IC TC4W53FU (TE12L)	B	21/43.6
IC830	1110006090	S.IC XC6202P502PR	B	38.3/28.2
IC1330	1180002080	S.REG BA09FP-E2	B	75.3/89
IC1331	1180001071	S.IC TA7805F (TE16L, Q)	B	77/100.9
IC1332	1180002020	S.REG BA033FP-E2	B	36.4/96.1
Q1	1590002970	S.FET NE34018-T1 64	T	57.3/105.2
Q2	1530003660	S.TR 2SC5454-T1 R54	T	52.2/90.4
Q131	1580000680	S.FET 3SK241-R (TX)	T	41.9/58.9
Q191	1530002601	S.TR 2SC4215-O (TE85R, F)	T	45.4/35.3
Q192	1530002280	S.TR 2SC4081 T106 S	T	56.7/32.9
Q193	1530002280	S.TR 2SC4081 T106 S	T	59.4/35.7
Q400	1530003311	S.TR 2SC5107-O (TE85R, F)	T	23.2/52.5
Q470	1540000660	S.TR 2SD2216J-S	T	15.7/67.2
Q471	1530003560	S.TR 2SC5195-T1	T	25.6/73.3
Q472	1530003560	S.TR 2SC5195-T1	T	23.5/73.3
Q473	1530003311	S.TR 2SC5107-O (TE85R, F)	T	29.9/67.7
Q474	1530003311	S.TR 2SC5107-O (TE85R, F)	B	27.2/73.5
Q550	1530002280	S.TR 2SC4081 T106 S	T	25.3/48.6
Q631	1530003311	S.TR 2SC5107-O (TE85R, F)	T	23.7/32.8
Q632	1530003311	S.TR 2SC5107-O (TE85R, F)	T	29/30.2
Q633	1530003311	S.TR 2SC5107-O (TE85R, F)	B	26.3/29.8
Q634	1540000660	S.TR 2SD2216J-S	T	30.3/35
Q710	1530003311	S.TR 2SC5107-O (TE85R, F)	B	38.6/73.3
Q771	1530003311	S.TR 2SC5107-O (TE85R, F)	T	26.6/39.7
Q1330	1590001320	S.TR DTC143ZUA T106	B	63.8/108.7
Q1331	1510000890	S.TR DTA143TU T106	B	63.8/105.3
Q1332	1530003910	S.TR 2SC4684 (TE16L1 NQ)	B	63.4/98.6
Q1333	1520000730	S.TR 2SB934P (DS) -(TX)	B	76.3/75.5
Q1334	1530002280	S.TR 2SC4081 T106 S	B	63.1/74.7
Q1335	1590000430	S.TR DTC144EUA T106	B	62.8/71.6
Q1336	1540000440	S.TR 2SD1619-TTD	B	26.6/95.1
Q1337	1510000581	S.TR 2SA1362-GR (TE85R, F)	B	37.1/89.5
Q1338	1590000430	S.TR DTC144EUA T106	T	27.5/95.2
Q1340	1590000430	S.TR DTC144EUA T106	T	25.9/95.2
Q1341	1590000430	S.TR DTC144EUA T106	T	35.4/96.8
Q1342	1510000581	S.TR 2SA1362-GR (TE85R, F)	B	40.7/87.4
Q1343	1510000581	S.TR 2SA1362-GR (TE85R, F)	B	42.9/93.8
Q1344	1590000430	S.TR DTC144EUA T106	T	44.6/89.2
Q1345	1590000430	S.TR DTC144EUA T106	B	63.4/57.8
Q1346	1590000430	S.TR DTC144EUA T106	B	63.5/51.9
Q1347	1590000430	S.TR DTC144EUA T106	B	66.1/53.7
Q1348	1510000581	S.TR 2SA1362-GR (TE85R, F)	B	55.2/55.7
Q1349	1510000581	S.TR 2SA1362-GR (TE85R, F)	B	60.9/55.4
Q1352	1590000430	S.TR DTC144EUA T106	T	48.2/89.1
Q1800	1590000720	S.TR DTA144EUA T106	T	10.6/24.8
D131	1790001621	S.DIO 1SV308 (TPL3, F)	T	39.3/52.9
D192	1750000361	S.DIO 1SS364 (TE85L, F)	B	49.5/25.5
D193	1750000361	S.DIO 1SS364 (TE85L, F)	B	56.9/14.7
D194	1750000550	S.DIO 1SS355 TE-17	T	55.3/39.4
D195	1790001561	S.DIO 1SS372 (TE85R, F)	T	63.3/33.2
D470	1730002300	S.ZEN MA8082-M (TX)	T	15.1/71.6
D471	1720000471	S.VCP 1SV239 (TPH3, F)	T	20.8/76.9
D630	1720000690	S.VCP 1SV282 (TPH2)	T	13.8/41.3
D632	1790001260	S.DIO MA2S077-(TX)	T	13.6/35.9
D633	1730002300	S.ZEN MA8082-M (TX)	T	35.3/38.7
D711	1790001621	S.DIO 1SV308 (TPL3, F)	B	41.5/69.5
D771	1750000581	S.DIO 1SV307 (TPH3, F)	B	29/44.3
D1330	1790000700	DIO DSA3A1	T	39/127
D1331	1750000550	S.DIO 1SS355 TE-17	B	68.1/70.7
D1332	1750000550	S.DIO 1SS355 TE-17	T	27.3/92
D1333	1750000550	S.DIO 1SS355 TE-17	T	29.1/92
D1602	1730002280	S.ZEN MA8091-M (TX)	B	105.3/9.7
D1605	1730002280	S.ZEN MA8091-M (TX)	B	111.7/14.4
D1606	1730002280	S.ZEN MA8091-M (TX)	B	99.7/10.6
D1800	1750000550	S.DIO 1SS355 TE-17	T	13.7/23.9
D1801	1750000550	S.DIO 1SS355 TE-17	T	8.6/22.3
FI1	2040001660	S.FIL LFB431G28SN1A362	T	51.3/100.6
FI2	2040001660	S.FIL LFB431G28SN1A362	T	53.2/83
FI71	2040001650	S.SAW WF447B-T	T	50.2/66.2
FI191	2010002440	S.XTL FL-312 (31.05 MHz)	T	45.6/43.1
FI193	2020001460	CER CFWLA450KHFA-B0	T	64.1/16.3
X191	6070000190	S.DCR CDBC450KCA24-R0	T	57.5/28.1
X400	6050010930	S.XTL CR-662 (15.3 MHz)	T	14.3/55.1

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

[MAIN-R UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
L1	6200006030	S.COL LQP18MN4N7C02D	T	66.8/105.6
L2	6200006020	S.COL LQP18MN3N9C02D	T	64.7/108.8
L3	6200006030	S.COL LQP18MN4N7C02D	T	60.5/105.3
L4	6200006060	S.COL LQP18MN8N2C02D	T	59.2/105.3
L5	6200006040	S.COL LQP18MN5N6C02D	T	56.6/102.5
L6	6200006050	S.COL LQP18MN6N8C02D	T	49.4/95.4
L7	6200009950	S.COL LQP18MN3N3C02D	T	55.2/90.6
L71	6200006991	S.COL ELJRE 56NG-F	T	44.5/76.9
L72	6200006991	S.COL ELJRE 56NG-F	T	56.2/70
L73	6200006991	S.COL ELJRE 56NG-F	T	45.3/67.2
L74	6200009351	S.COL ELJRE R22G-F3	T	44/63.2
L131	6200002710	S.COL ELJFJC 1R8K-F	T	41.8/55.5
L132	6200001980	S.COL NL 252018T-1R0J	T	41.8/52.1
L191	6200002710	S.COL ELJFJC 1R8K-F	T	50.6/35.8
L192	6200002000	S.COL NL 252018T-3R3J	T	44.6/48.8
L390	6200006991	S.COL ELJRE 56NG-F	T	31.4/53.4
L391	6200006991	S.COL ELJRE 56NG-F	T	37/51.3
L400	6200006991	S.COL ELJRE 56NG-F	T	9.4/66.9
L403	6200006991	S.COL ELJRE 56NG-F	T	14.5/60.4
L404	6200006991	S.COL ELJRE 56NG-F	T	17.6/59.6
L415	6200006991	S.COL ELJRE 56NG-F	T	9.4/49.4
L470	6200006991	S.COL ELJRE 56NG-F	T	23.5/69.5
L471	6200007770	S.COL LQW2BHNR10J03L	T	25.1/177.2
L472	6200009390	S.COL C3328A-8N0J-A	T	24.6/78.2
L473	6200002630	S.COL NL 252018T-R10J	T	20/79.4
L474	6200005621	S.COL ELJRE 4N7Z-F	T	31.8/67.6
L475	6200005641	S.COL ELJRE 6N8Z-F	T	31.8/70.2
L476	6200005651	S.COL ELJRE 8N2Z-F	T	35.3/73.4
L477	6200005641	S.COL ELJRE 6N8Z-F	T	35.3/77.3
L480	6200005641	S.COL ELJRE 6N8Z-F	B	24.7/75.1
L481	6200006991	S.COL ELJRE 56NG-F	T	22.1/66.3
L550	6200001980	S.COL NL 252018T-1R0J	B	21.7/36.4
L551	6200001980	S.COL NL 252018T-1R0J	T	28.3/51
L552	6200001980	S.COL NL 252018T-1R0J	T	33.8/49.3
L553	6200006991	S.COL ELJRE 56NG-F	B	18/48.1
L554	6200006991	S.COL ELJRE 56NG-F	B	24.9/37.1
L630	6200009700	S.COL C6328A-28NG-A	T	17.7/39.7
L631	6200005701	S.COL ELJRE 22NG-F	B	21.4/30.4
L632	6200006991	S.COL ELJRE 56NG-F	T	32.8/30.8
L633	6200001980	S.COL NL 252018T-1R0J	T	17.7/43.9
L634	6200006991	S.COL ELJRE 56NG-F	T	12.4/30.1
L635	6200006991	S.COL ELJRE 56NG-F	B	24.9/36.1
L636	6200006991	S.COL ELJRE 56NG-F	T	26.7/33.5
L711	6200006991	S.COL ELJRE 56NG-F	T	43.6/78.2
L712	6200006991	S.COL ELJRE 56NG-F	T	41.5/78.7
L713	6200005621	S.COL ELJRE 4N7Z-F	B	36.5/68.7
L714	6200005641	S.COL ELJRE 6N8Z-F	B	36.4/74.3
L721	6200006991	S.COL ELJRE 56NG-F	B	32.1/83.2
L770	6200005701	S.COL ELJRE 22NG-F	B	31/50.4
L1161	6200009700	S.COL C6328A-28NG-A	T	105.2/95.9
L1162	6200009410	S.COL C3328A-2N5K-A	T	85.1/108.6
L1163	6200009410	S.COL C3328A-2N5K-A	T	73.7/107.3
L1165	6200009700	S.COL C6328A-28NG-A	T	116.9/106.2
L1330	6200006991	S.COL ELJRE 56NG-F	T	21.2/93.5
L1331	6200006991	S.COL ELJRE 56NG-F	B	22.9/92.3
L1332	6200006991	S.COL ELJRE 56NG-F	B	22.5/91
L1333	6200006991	S.COL ELJRE 56NG-F	B	43.2/80.9
L1334	6200006991	S.COL ELJRE 56NG-F	B	53.9/71.6
L1335	6200006991	S.COL ELJRE 56NG-F	B	62.2/76.6
L1348	6200006991	S.COL ELJRE 56NG-F	B	51.8/67.2
L1349	6200006991	S.COL ELJRE 56NG-F	B	58.7/57.8
L1360	6200006991	S.COL ELJRE 56NG-F	T	37.4/53.2
L1550	6200006991	S.COL ELJRE 56NG-F	B	17.7/56.8
L1801	6200006991	S.COL ELJRE 56NG-F	B	27.4/103.3
L1802	6200006991	S.COL ELJRE 56NG-F	B	26.6/102
L1803	6200006991	S.COL ELJRE 56NG-F	B	26.2/100.7
L1804	6200006991	S.COL ELJRE 56NG-F	B	26.2/99.4
L1805	6200006991	S.COL ELJRE 56NG-F	B	54.5/108.5
R1	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	55.4/106.3
R2	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	56.6/98.5
R3	7030003540	S.RES ERJ3GEYJ 682 V (6.8 kΩ)	T	53.5/93.2
R4	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	49.4/92.8
R5	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	55.2/89.3
R6	7030003280	S.RES ERJ3GEYJ 470 V (47 Ω)	T	55.2/88
R7	7030003340	S.RES ERJ3GEYJ 151 V (150 Ω)	T	55.1/79.4
R8	7030003270	S.RES ERJ3GEYJ 390 V (39 Ω)	T	53.2/78.6
R9	7030003340	S.RES ERJ3GEYJ 151 V (150 Ω)	T	55.1/77.8
R70	7030003200	S.RES ERJ3GEYJ 100 V (10 Ω)	T	43.6/75.2
R71	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	45.5/74.5
R78	7030003710	S.RES ERJ3GEYJ 184 V (180 kΩ)	T	93.6/27.4
R85	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	T	95.5/27.4
R87	7030003780	S.RES ERJ3GEYJ 684 V (680 kΩ)	T	98.2/23
R91	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	100.9/27.5
R92	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	T	95.5/30
R94	7030003620	S.RES ERJ3GEYJ 333 V (33 kΩ)	T	98.9/33.3
R131	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	T	44.2/61.3
R132	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	44.8/60
R133	7030003300	S.RES ERJ3GEYJ 680 V (68 Ω)	T	44.3/56.1

[MAIN-R UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
R134	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	58.8/72.9
R135	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	39.1/54.5
R136	7030003400	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	40.2/49.8
R144	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	T	37.6/26
R190	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	54.8/13.6
R191	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	T	47.9/36.3
R192	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	T	44.8/37.5
R193	7030003400	S.RES ERJ3GEYJ 471 V (47 Ω)	T	52.5/36.1
R194	7030003280	S.RES ERJ3GEYJ 470 V (47 Ω)	T	51.8/33.3
R195	7030003450	S.RES ERJ3GEYJ 122 V (1.2 kΩ)	T	52.9/27.9
R196	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	T	40.2/32.4
R199	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	38.3/50.1
R200	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	56.7/14.4
R201	7030003570	S.RES ERJ3GEYJ 123 V (12 kΩ)	B	48/27.2
R202	7030003570	S.RES ERJ3GEYJ 123 V (12 kΩ)	B	45.8/24.9
R203	7030003720	S.RES ERJ3GEYJ 224 V (220 kΩ)	T	41/27.9
R204	7030003740	S.RES ERJ3GEYJ 334 V (330 kΩ)	T	39.9/24.7
R205	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	43.6/23.8
R206	7510001530	S.TMR NTCG20 3NH 103JT	T	42/23.8
R207	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	T	39.9/22.8
R208	7030003600	S.RES ERJ3GEYJ 123 V (22 kΩ)	T	43.2/26
R209	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	48.5/25.1
R210	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	51.1/26
R211	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	T	50.3/24.1
R212	7030003550	S.RES ERJ3GEYJ 822 V (8.2 kΩ)	T	54.5/34.7
R213	7030003620	S.RES ERJ3GEYJ 333 V (33 kΩ)	T	55.6/36.1
R214	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	54.8/32.8
R215	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	T	57.5/35.6
R216	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	T	58.9/32.8
R217	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	54.3/37.7
R218	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	62.7/29.9
R219	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	T	57.4/24
R272	7030003510	S.RES ERJ3GEYJ 392 V (3.9 kΩ)	B	84.7/31.3
R279	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	63.2/41.1
R292	7510001670	S.TMR NTCG16 4BH 103KT	T	72.1/40.3
R293	7030003450	S.RES ERJ3GEYJ 122 V (1.2 kΩ)	T	72.1/42.9
R296	7030003530	S.RES ERJ3GEYJ 562 V (5.6 kΩ)	T	73.4/40.3
R340	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	T	66.6/35.7
R394	7030003360	S.RES ERJ3GEYJ 221 V (220 Ω)	T	28.7/53.5
R400	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	26.3/56.2
R401	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	28.3/57.8
R402	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	31.5/69.2
R403	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	29.9/58.6
R404	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	31.5/59.4
R405	7030003290	S.RES ERJ3GEYJ 560 V (56 Ω)	B	23.1/75.1
R406	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	B	18.3/73.5
R407	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	20.7/74.3
R409	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	23/55.7
R410	7030003660	S.RES ERJ3GEYJ 683 V (68 kΩ)	T	23/54.4
R411	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	20.8/49.7
R412	7030003670	S.RES ERJ3GEYJ 823 V (82 kΩ)	T	20.4/51.7
R413	7030003360	S.RES ERJ3GEYJ 221 V (220 Ω)	T	21/55
R414	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	23/57.1
R415	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	11/50.7
R416	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	20.3/57.1
R470	7030003360	S.RES ERJ3GEYJ 221 V (220 Ω)	T	16.3/69.5
R471	7030006571	S.RES ERA3YED 392V	T	27.3/74
R472	7030005331	S.RES ERA3YED 562V	T	27.3/76.7
R473	7030005331	S.RES ERA3YED 562V	T	21.2/72.7
R474	7030003400	S.RES ERJ3GEYJ 471 V (470 Ω)	T	21.2/75.3
R475	7030003280	S.RES ERJ3GEYJ 470 V (47 Ω)	T	26.7/67.6
R476	7030003650	S.RES ERJ3GEYJ 563 V (56 kΩ)	T	28/67.6
R478	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	27.3/69.5
R479	7030003420	S.RES ERJ3GEYJ 681 V (680 Ω)	T	35/66.8
R480	7030003290	S.RES ERJ3GEYJ 560 V (56 Ω)	B	36.1/77.1
R481	7030003310	S.RES ERJ3GEYJ 820 V (82 Ω)	B	29.4/75
R483	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	27.2/75.7
R484	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	26.4/79.2
R485	7030003270	S.RES ERJ3GEYJ 390 V (39 Ω)	T	31.3/65.7
R486	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	15/69.5
R487	7030007230	S.RES ERA3YED 102V	T	21.9/79
R550	7030003290	S.RES ERJ3GEYJ 560 V (56 Ω)	B	18.2/34.1
R551	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	11.1/27.5
R552	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	9.5/26.7
R553	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	7.9/27.5
R554	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	6.3/26.7
R555	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	10.1/40.8
R556	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	B	7.3/40.8
R557	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	10.1/42.4
R558	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	23.3/39.8
R559	7030003450	S.RES ERJ3GEYJ 122 V (1.2 kΩ)	T	8.6/36.7
R560	7030003430	S.RES ERJ3GEYJ 821 V (820 Ω)	T	6.7/34.7
R561	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	8.6/34.1
R562	7030003780	S.RES ERJ3GEYJ 684 V (680 kΩ)	T	25.3/50.9
R632	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	20/42.8
R633	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	14.1/34
R634	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	14.4/37.8
R635	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	12.8/34
R636	7030003490	S.RES ERJ3GEYJ 272 V (2.7 kΩ)	T	22.6/35.8
R637	7030003490	S.RES ERJ3GEYJ 272 V (2.7 kΩ)	T	20.9/33.4

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



[MAIN-R UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
R638	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	21.3/29.6
R639	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	24.6/35.4
R640	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	25.9/35.4
R642	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	27.1/30.2
R643	7030003290	S.RES ERJ3GEYJ 560 V (56 Ω)	T	28.6/38.2
R644	7030003360	S.RES ERJ3GEYJ 221 V (220 Ω)	B	28.7/35.2
R645	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	28.7/31
R646	7030003610	S.RES ERJ3GEYJ 273 V (27 kΩ)	B	26.3/31.8
R647	7030003380	S.RES ERJ3GEYJ 331 V (330 Ω)	B	23.8/31.2
R648	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	25.5/33.9
R649	7030003360	S.RES ERJ3GEYJ 221 V (220 Ω)	T	32/34.8
R651	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	13.1/32.1
R711	7030003370	S.RES ERJ3GEYJ 271 V (270 Ω)	T	41.5/75.9
R712	7030003340	S.RES ERJ3GEYJ 151 V (150 Ω)	B	42.3/67.7
R715	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	34/75.1
R716	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	38.6/75.5
R772	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	33.6/50.7
R773	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	31/48.8
R775	7030003270	S.RES ERJ3GEYJ 390 V (39 Ω)	T	36.2/57.2
R777	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	28.6/43.9
R778	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	26.7/41.6
R779	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	26.6/37.8
R780	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	24.6/38.9
R781	7030003650	S.RES ERJ3GEYJ 563 V (56 kΩ)	T	26.7/42.9
R1164	7030000260	S.RES MCR10EZJH 100 Ω (101)	T	111.7/109.5
R1167	7030000250	S.RES MCR10EZJH 82 Ω (820)	T	95.9/118
R1169	7030000500	S.RES MCR10EZJH 10 kΩ	B	120.8/126.2
R1330	7030003200	S.RES ERJ3GEYJ 100 V (10 Ω)	B	64.6/102.8
R1331	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	66/104.9
R1332	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	65.8/75.5
R1333	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	64.1/74.4
R1334	7030000410	S.RES MCR10EZJH 1.8 kΩ	B	59.5/73.3
R1335	7030000410	S.RES MCR10EZJH 1.8 kΩ	B	59.5/73.3
R1336	7030007180	S.RES ERJ12YJ150U (15 Ω)	B	71.5/100
R1338	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	T	25.7/91.3
R1339	7030000100	S.RES MCR10EZJH 4.7 Ω (4R7)	B	28.8/98.4
R1340	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	25.2/93.2
R1342	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	37.1/91.9
R1343	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	35.4/94
R1344	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	40.7/89.8
R1345	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	42.1/90.1
R1346	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	42.9/91.1
R1347	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	45.7/91.1
R1348	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	60.6/57.8
R1349	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	57.4/55.7
R1350	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	60.7/53
R1351	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	58.7/55.2
R1352	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	86.9/37.5
R1562	7030007180	S.RES ERJ12YJ150U (15 Ω)	B	43.6/113.9
R1800	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	9.5/20.2
R1801	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	B	4.2/25.9
R1802	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	T	13.4/25.5
R1803	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	61.6/6.9
R9007	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	83.2/1
R9008	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	65.6/6.2
R9009	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	93.2/11.9
R9010	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	20.6/20.5
R9201	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	91/25.5
R9202	7030010420	S.RES ERJ1TYJ 560U (56 Ω)	T	122/116
C2	4030009530	S.CER C1608 CH 1H 030B-T	T	67.6/107.5
C3	4030009540	S.CER C1608 CH 1H 1R5B-T	T	65/107.5
C4	4030009540	S.CER C1608 CH 1H 1R5B-T	T	62.4/107.2
C5	4030009510	S.CER C1608 CH 1H 010B-T	T	59.7/107.2
C6	4030007090	S.CER C1608 CH 1H 470J-T	T	54.1/106.3
C7	4030006860	S.CER C1608 JB 1H 102K-T	T	54.3/108.2
C8	4030007090	S.CER C1608 CH 1H 470J-T	T	57.5/108
C9	4030007090	S.CER C1608 CH 1H 470J-T	T	58.8/103.2
C10	4030006860	S.CER C1608 JB 1H 102K-T	T	58.8/101.9
C11	4030007010	S.CER C1608 CH 1H 100D-T	T	58.8/100.6
C12	4030009910	S.CER C1608 CH 1H 040B-T	T	54.8/104.4
C13	4030007090	S.CER C1608 CH 1H 470J-T	T	58.8/99.3
C14	4030007010	S.CER C1608 CH 1H 100D-T	T	58.8/98
C15	4030006860	S.CER C1608 JB 1H 102K-T	T	58.8/96.7
C16	4030006860	S.CER C1608 JB 1H 102K-T	T	51.3/96.2
C17	4030009910	S.CER C1608 CH 1H 040B-T	T	51.3/93.6
C18	4030006860	S.CER C1608 JB 1H 102K-T	T	55.2/91.9
C19	4030006850	S.CER C1608 JB 1H 471K-T	T	57/89.8
C21	4030007010	S.CER C1608 CH 1H 100D-T	T	55.2/86.7
C22	4030009550	S.CER C1608 CH 1H 2R5B-T	T	53.2/87.4
C23	4030006860	S.CER C1608 JB 1H 102K-T	T	54.3/75.9
C70	4030006860	S.CER C1608 JB 1H 102K-T	T	42.3/73.9
C72	4030007090	S.CER C1608 CH 1H 470J-T	T	45.5/71.9
C74	4030007090	S.CER C1608 CH 1H 470J-T	T	46.4/77.3
C75	4030009500	S.CER C1608 CH 1H 0R5B-T	T	47.7/77.3
C76	4030006860	S.CER C1608 JB 1H 102K-T	T	56.2/76.4
C77	4030007090	S.CER C1608 CH 1H 470J-T	T	56.2/75.1
C78	4030006860	S.CER C1608 JB 1H 102K-T	T	56.2/72.9
C79	4030009910	S.CER C1608 CH 1H 040B-T	T	54.3/72.2

[MAIN-R UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
C81	4030009550	S.CER C1608 CH 1H 2R5B-T	T	43.9/67.2
C82	4030009910	S.CER C1608 CH 1H 040B-T	T	44.7/65.2
C131	4030006860	S.CER C1608 JB 1H 102K-T	T	38.9/57.5
C132	4030010760	S.CER C1608 CH 1H 331J-T	T	44.3/54.8
C133	4030006860	S.CER C1608 JB 1H 102K-T	T	49.9/58.7
C134	4030011600	S.CER C1608 JB 1E 104K-T	T	44.7/57.4
C136	4030006860	S.CER C1608 JB 1H 102K-T	T	44.3/53.5
C137	4030006900	S.CER C1608 JB 1H 103K-T	T	44.3/52.2
C138	4030011600	S.CER C1608 JB 1E 104K-T	T	44.3/50.9
C140	4030006860	S.CER C1608 JB 1H 102K-T	T	38.5/55.5
C141	4030007050	S.CER C1608 CH 1H 220J-T	T	41.6/48.5
C191	4030011770	S.CER C1608 CH 1H 060B-T	T	46.9/48.9
C192	4030009540	S.CER C1608 CH 1H 1R5B-T	T	50.3/43.1
C195	4030011600	S.CER C1608 JB 1E 104K-T	T	47.4/34.4
C196	4030006900	S.CER C1608 JB 1H 103K-T	T	39.7/47.9
C197	4030006860	S.CER C1608 JB 1H 102K-T	T	48.7/34.4
C198	4030007120	S.CER C1608 CH 1H 820J-T	T	51.6/29.2
C199	4030006860	S.CER C1608 JB 1H 102K-T	T	47.3/26.4
C200	4550006250	S.TAN TEESVA 1A 106M8R	T	41.4/34.1
C201	4030006850	S.CER C1608 JB 1H 471K-T	T	52.9/31.8
C202	4030011600	S.CER C1608 JB 1E 104K-T	T	40.2/31.1
C203	4030011600	S.CER C1608 JB 1E 104K-T	T	40.2/29.8
C204	4030007160	S.CER C1608 CH 1H 181J-T	T	39.4/27.9
C205	4030007160	S.CER C1608 CH 1H 181J-T	T	40.2/26
C206	4030011600	S.CER C1608 JB 1E 104K-T	B	45/27.3
C207	4030011600	S.CER C1608 JB 1E 104K-T	T	63.2/39.8
C208	4030011600	S.CER C1608 JB 1E 104K-T	B	48.2/29.1
C209	4030006860	S.CER C1608 JB 1H 102K-T	T	45.9/25.1
C210	4030006860	S.CER C1608 JB 1H 102K-T	T	51.9/24.1
C211	4030011810	S.CER C1608 JB 1A 224K-T	T	57.7/38.8
C212	4030006880	S.CER C1608 JB 1H 472K-T	T	60.8/33.6
C213	4030011810	S.CER C1608 JB 1A 224K-T	T	62.7/31.2
C214	4030011600	S.CER C1608 JB 1E 104K-T	T	54.8/24
C217	4030011600	S.CER C1608 JB 1E 104K-T	T	61.2/24.2
C218	4030011600	S.CER C1608 JB 1E 104K-T	T	60.7/14.4
C220	4030011810	S.CER C1608 JB 1A 224K-T	T	52.3/39.4
C342	4030011600	S.CER C1608 JB 1E 104K-T	T	95.9/35.9
C343	4030011600	S.CER C1608 JB 1E 104K-T	T	108/31.4
C344	4030011810	S.CER C1608 JB 1A 224K-T	T	91/27.4
C346	4030011600	S.CER C1608 JB 1E 104K-T	T	102.4/25.9
C347	4510008490	S.ELE EEE1CS1000SR	T	104.8/28.8
C390	4030007090	S.CER C1608 CH 1H 470J-T	T	35.7/51.3
C400	4030006900	S.CER C1608 JB 1H 103K-T	B	23.8/58
C403	4030011810	S.CER C1608 JB 1A 224K-T	B	20.5/68.6
C404	4030007010	S.CER C1608 CH 1H 100D-T	B	25.6/69.7
C405	4030006860	S.CER C1608 JB 1H 102K-T	B	23.1/72.3
C406	4550000270	S.TAN TEESVA 1E 474M8L	B	14.7/47.2
C408	4030008880	S.CER C1608 JB 1H 223K-T	B	22.5/70.2
C409	4030008900	S.CER C1608 JB 1H 333K-T	B	19.9/76.2
C410	4030007090	S.CER C1608 CH 1H 470J-T	B	17.4/77.5
C414	4030007090	S.CER C1608 CH 1H 470J-T	B	26.3/58.6
C416	4030007010	S.CER C1608 CH 1H 100D-T	T	12.6/59.6
C417	4030011600	S.CER C1608 JB 1E 104K-T	T	12.6/60.9
C418	4030006880	S.CER C1608 JB 1H 472K-T	T	24.9/55.2
C419	4030012600	S.CER C2012 JB 1A 105M-T	T	14/50.4
C420	4030006880	S.CER C1608 JB 1H 472K-T	B	19.4/60.5
C421	4030007010	S.CER C1608 CH 1H 100D-T	T	19.7/55
C422	4030006880	S.CER C1608 JB 1H 472K-T	T	20.4/53
C423	4030007010	S.CER C1608 CH 1H 100D-T	T	19.5/49.7
C424	4030007090	S.CER C1608 CH 1H 470J-T	B	29.6/70
C425	4030007090	S.CER C1608 CH 1H 470J-T	B	32.3/61.5
C426	4030007090	S.CER C1608 CH 1H 470J-T	B	27.2/59.9
C427	4030007090	S.CER C1608 CH 1H 470J-T	B	30.4/63.5
C428	4030006850	S.CER C1608 JB 1H 471K-T	B	13.6/94.8
C429	4030007090	S.CER C1608 CH 1H 470J-T	B	16.5/67.6
C430	4030007090	S.CER C1608 CH 1H 470J-T	T	20/62
C431	4030007090	S.CER C1608 CH 1H 470J-T	B	19.4/63.4
C432	4030007090	S.CER C1608 CH 1H 470J-T	T	26.2/56.8
C433	4030006850	S.CER C1608 JB 1H 471K-T	B	31.8/56
C435	4030007090	S.CER C1608 CH 1H 470J-T	T	23/57
C436	4030007090	S.CER C1608 CH 1H 470J-T	T	23/60
C437	4030007010	S.CER C1608 CH 1H 100D-T	B	26.5/69.7
C438	4030007010	S.CER C1608 CH 1H 100D-T	B	18/72.3
C439	4030007010	S.CER C1608 CH 1H 100D-T	B	21/76.2
C470	4030006850	S.CER C1608 JB 1H 471K-T	T	23.5/68.2
C471	4550006770	S.TAN TEESVD2 1C 476M-12R	T	15.9/76.9
C472	4030012600	S.CER C2012 JB 1A 105M-T	T	19.2/65.6
C473	4030006850	S.CER C1608 JB 1H 471K-T	T	14.8/65.5
C474	4030011600	S.CER C1608 JB 1E 104K-T	T	21.6/68.9
C475	4030006860	S.CER C1608 JB 1H 102K-T	T	20.3/68.4
C476	4030007090	S.CER C1608 CH 1H 470J-T	T	18.9/67.8
C478	4030009500	S.CER C1608 CH 1H 0R5B-T	T	28.6/76.7
C479	4030009920	S.CER C1608 CH 1H 050B-T	T	27.3/79.3
C480	4030006860	S.CER C1608 JB 1H 102K-T	T	22.7/80.9
C481	4030009550	S.CER C1608 CH 1H 2R5B-T	T	23.8/75
C482	4030009550	S.CER C1608 CH 1H 2R5B-T	T	21.2/74
C483	4030006860	S.CER C1608 JB 1H 102K-T	T	21.2/71.4
C484	4030009510	S.CER C1608 CH 1H 010B-T	T	27.3/71.4
C485	4030007090	S.CER C1608 CH 1H 470J-T	T	29.2/70.8

[MAIN-R UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
C487	4030007090	S.CER C1608 CH 1H 470J-T	T	25.4/68.7
C488	4030009540	S.CER C1608 CH 1H 1R5B-T	T	35/68.1
C489	4030009510	S.CER C1608 CH 1H 010B-T	T	33.1/67.6
C490	4030009530	S.CER C1608 CH 1H 030B-T	T	35/69.4
C491	4030009570	S.CER C1608 CH 1H 0R3B-T	T	33.1/70.2
C492	4030009520	S.CER C1608 CH 1H 020B-T	T	33.9/72.1
C493	4030009920	S.CER C1608 CH 1H 050B-T	T	31.8/72.8
C494	4030007020	S.CER C1608 CH 1H 120J-T	T	33.7/74.8
C495	4030009520	S.CER C1608 CH 1H 020B-T	T	31.8/75.4
C496	4030007070	S.CER C1608 CH 1H 330J-T	T	33.7/76
C497	4030009530	S.CER C1608 CH 1H 030B-T	T	33.7/78.6
C498	4030007090	S.CER C1608 CH 1H 470J-T	B	25.3/70.5
C499	4030006850	S.CER C1608 JB 1H 471K-T	B	27.2/77.3
C500	4030009910	S.CER C1608 CH 1H 040B-T	T	28.6/74
C501	4030009910	S.CER C1608 CH 1H 040B-T	T	24.7/72.3
C503	4550006250	S.TAN TEESVA 1A 106M8R	T	18.9/71.7
C504	4030009560	S.CER C1608 CH 1H R75B-T	T	28.6/79.3
C550	4030006860	S.CER C1608 JB 1H 102K-T	B	19/32.2
C551	4030007030	S.CER C1608 CH 1H 150J-T	B	19.2/38.9
C552	4030006860	S.CER C1608 JB 1H 102K-T	B	21.1/38.9
C553	4030007030	S.CER C1608 CH 1H 150J-T	B	17.4/29.6
C554	4030007090	S.CER C1608 CH 1H 470J-T	B	18.2/35.7
C555	4030011600	S.CER C1608 JB 1E 104K-T	B	13.2/40.3
C556	4030007090	S.CER C1608 CH 1H 470J-T	B	27/39.8
C558	4030007090	S.CER C1608 CH 1H 470J-T	B	13.2/41.6
C559	4030011600	S.CER C1608 JB 1E 104K-T	B	23.4/42.6
C561	4030007090	S.CER C1608 CH 1H 470J-T	B	27/40.5
C562	4030007090	S.CER C1608 CH 1H 470J-T	B	12.7/27.5
C564	4550000270	S.TAN TEESVA 1E 474M8L	B	5/39.2
C567	4550000520	S.TAN TEESVA 1V 683M8R	B	17.5/40.4
C569	4030006860	S.CER C1608 JB 1H 102K-T	B	17.1/44.8
C570	4030007090	S.CER C1608 CH 1H 470J-T	B	24.7/43.4
C571	4550000530	S.TAN TEESVA 1V 104M8R	B	6.9/34.3
C574	4550003080	S.TAN TEESVA 1A 335M8R	T	5.7/37.8
C575	4030006880	S.CER C1608 JB 1H 472K-T	T	18.2/49.7
C576	4030007010	S.CER C1608 CH 1H 100D-T	T	22.7/50.5
C577	4030006900	S.CER C1608 JB 1H 103K-T	T	27.9/48.5
C578	4030007040	S.CER C1608 CH 1H 180J-T	T	30.5/48.5
C579	4030009520	S.CER C1608 CH 1H 020B-T	T	31.3/50.4
C580	4030007040	S.CER C1608 CH 1H 180J-T	T	31.8/48.5
C581	4030007010	S.CER C1608 CH 1H 100D-T	T	36.3/49
C582	4030007090	S.CER C1608 CH 1H 470J-T	B	7.1/30.3
C583	4030007090	S.CER C1608 CH 1H 470J-T	B	8.4/30.3
C584	4030007090	S.CER C1608 CH 1H 470J-T	B	4.2/28.2
C585	4030007090	S.CER C1608 CH 1H 470J-T	B	25.5/20.5
C586	4030007090	S.CER C1608 CH 1H 470J-T	B	28.3/51.4
C587	4030007090	S.CER C1608 CH 1H 470J-T	B	26.8/44.1
C630	4030011810	S.CER C1608 JB 1A 224K-T	T	13.7/30.2
C632	4030007030	S.CER C1608 CH 1H 150J-T	T	15.9/34.8
C634	4030006860	S.CER C1608 JB 1H 102K-T	T	12.8/37.8
C635	4030006860	S.CER C1608 JB 1H 102K-T	T	15/31.3
C638	4030006860	S.CER C1608 JB 1H 102K-T	T	20.3/34.7
C639	4030007050	S.CER C1608 CH 1H 220J-T	T	21.7/31.5
C640	4030007050	S.CER C1608 CH 1H 220J-T	T	23.8/30.9
C641	4030009510	S.CER C1608 CH 1H 010B-T	T	23.9/29.6
C642	4550006250	S.TAN TEESVA 1A 106M8R	T	22.9/32.1
C643	4030011600	S.CER C1608 JB 1E 104K-T	T	20.6/37.6
C644	4030006860	S.CER C1608 JB 1H 102K-T	T	20.6/38.9
C645	4030007010	S.CER C1608 CH 1H 100D-T	T	26.7/32.2
C646	4030011600	S.CER C1608 JB 1E 104K-T	T	30.9/30.2
C647	4030006860	S.CER C1608 JB 1H 102K-T	T	25.8/30.2
C648	4030007090	S.CER C1608 CH 1H 470J-T	T	28.6/33
C649	4030007090	S.CER C1608 CH 1H 470J-T	T	28.6/35.6
C650	4030007090	S.CER C1608 CH 1H 470J-T	T	27.9/33.1
C651	4030007050	S.CER C1608 CH 1H 220J-T	B	23/28.8
C652	4030006860	S.CER C1608 JB 1H 102K-T	B	26.3/27.6
C653	4030007020	S.CER C1608 CH 1H 120J-T	B	20.6/28
C654	4030007020	S.CER C1608 CH 1H 120J-T	B	19/29.6
C655	4030012600	S.CER C2012 JB 1A 105M-T	T	32/32.5
C656	4030006850	S.CER C1608 JB 1H 471K-T	T	33.9/35.5
C657	4550006770	S.TAN TEESVD2 1C 476M-12R	T	31.8/40.6
C658	4030007090	S.CER C1608 CH 1H 470J-T	T	33.9/34.2
C659	4030009530	S.CER C1608 CH 1H 030B-T	B	21.4/32
C661	4030007090	S.CER C1608 CH 1H 470J-T	T	3.3/23.2
C662	4550006250	S.TAN TEESVA 1A 106M8R	T	5.7/26.7
C712	4030006850	S.CER C1608 JB 1H 471K-T	T	41.5/81.4
C713	4030009520	S.CER C1608 CH 1H 020B-T	B	38.9/67.9
C714	4030009510	S.CER C1608 CH 1H 010B-T	B	34.9/68.7
C715	4030009520	S.CER C1608 CH 1H 020B-T	B	38.9/69.5
C716	4030011770	S.CER C1608 CH 1H 060B-T	B	36.4/71.5
C718	4030007090	S.CER C1608 CH 1H 470J-T	B	34.8/72.7
C719	4030007030	S.CER C1608 CH 1H 150J-T	B	39.4/76.8
C720	4030006860	S.CER C1608 JB 1H 102K-T	B	38.6/78.1
C773	4030006860	S.CER C1608 JB 1H 102K-T	B	34.4/48.8
C774	4030007020	S.CER C1608 CH 1H 120J-T	B	31.8/53.9
C775	4030009530	S.CER C1608 CH 1H 030B-T	B	31/52
C776	4030007020	S.CER C1608 CH 1H 120J-T	B	28.2/50.1
C777	4030006860	S.CER C1608 JB 1H 102K-T	B	29/47.5
C778	4030007090	S.CER C1608 CH 1H 470J-T	T	28.6/41.2
C779	4030006850	S.CER C1608 JB 1H 471K-T	T	24.6/41.5

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REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
C780	4030007090	S.CER C1608 CH 1H 470J-T	B	35.7/51.5
C830	4550006080	S.TAN TEESVB2 1C 106M8R	B	36/22.4
C831	4030011600	S.CER C1608 JB 1E 104K-T	B	33.7/21.4
C832	4030011600	S.CER C1608 JB 1E 104K-T	B	38.8/22.8
C833	4550006250	S.TAN TEESVA 1A 106M8R	B	40.5/22.8
C1186	4030006860	S.CER C1608 JB 1H 102K-T	T	109.1/91.9
C1187	4030007090	S.CER C1608 CH 1H 470J-T	T	110.4/91.9
C1188	4030006850	S.CER C1608 JB 1H 471K-T	T	111.7/91.9
C1189	4030009510	S.CER C1608 CH 1H 010B-T	T	77.8/107.8
C1198	4030011030	S.CER GRM31M4C2H1R5CY21L	T	90.9/116.3
C1199	4030017200	S.CER GRM31BR32J102KY01L	T	117.5/121.2
C1200	4030000810	S.CER GRM2164C1HR50CD01D	B	120.8/124.4
C1204	4030011040	S.CER GRM31M4C2H2RCY21L	T	116.1/100.4
C1207	4030000810	S.CER GRM2164C1HR50CD01D	B	114.2/124.4
C1260	4030006850	S.CER C1608 JB 1H 471K-T	T	46.6/112.2
C1330	4510004601	ELE 16 ME 1000 HC	T	42.7/122.8
C1331	4030006860	S.CER C1608 JB 1H 102K-T	B	56.8/105.6
C1332	4030007090	S.CER C1608 CH 1H 470J-T	B	56.8/104
C1333	4510008520	S.ELE EEE1CA4705P	T	64.5/121.6
C1334	4030006860	S.CER C1608 JB 1H 102K-T	B	67.6/104.9
C1335	4510008520	S.ELE EEE1CA4705P	T	69.1/97.8
C1336	4030011600	S.CER C1608 JB 1E 104K-T	B	73.9/94.7
C1337	4030011600	S.CER C1608 JB 1E 104K-T	B	76.7/94.7
C1338	4510008500	S.ELE EEE1CAT101WP	T	78.1/92.3
C1340	4510008520	S.ELE EEE1CA4705P	T	68.7/113.5
C1341	4030011600	S.CER C1608 JB 1E 104K-T	B	75.6/108.1
C1342	4030011600	S.CER C1608 JB 1E 104K-T	B	78.4/108.1
C1343	4510008500	S.ELE EEE1CAT101WP	T	77/101.1
C1345	4030011600	S.CER C1608 JB 1E 104K-T	B	39.8/100.6
C1346	4030011600	S.CER C1608 JB 1E 104K-T	B	43.5/89.5
C1348	4550006780	S.TAN TEESVB2 1J 476M8R	T	42.6/97.2
C1349	4510008490	S.ELE EEE1CS1000SR	T	76.3/84.2
C1351	4030012600	S.CER C2012 JB 1A 105M-T	B	29.6/90.9
C1352	4030012610	S.CER C2012 JB 1C 474K-T	B	37.1/86
C1353	4030006860	S.CER C1608 JB 1H 102K-T	T	31.2/92.9
C1355	4030007090	S.CER C1608 CH 1H 470J-T	T	38.3/94.7
C1356	4030011600	S.CER C1608 JB 1E 104K-T	B	40.7/84.3
C1357	4030011600	S.CER C1608 JB 1E 104K-T	B	42.9/97.3
C1361	4030007090	S.CER C1608 CH 1H 470J-T	T	44.6/87.2
C1366	4030006860	S.CER C1608 JB 1H 102K-T	B	27.4/91.7
C1367	4030007090	S.CER C1608 CH 1H 470J-T	B	57.8/65.4
C1368	4030007090	S.CER C1608 CH 1H 470J-T	T	35.4/98.8
C1369	4030007090	S.CER C1608 CH 1H 470J-T	T	25/97.2
C1370	4030007090	S.CER C1608 CH 1H 470J-T	B	41.9/80.9
C1371	4030006860	S.CER C1608 JB 1H 102K-T	B	53.1/85.3
C1372	4030007090	S.CER C1608 CH 1H 470J-T	B	55.5/107.1
C1373	4030007090	S.CER C1608 CH 1H 470J-T	T	62.1/108.8
C1374	4030007090	S.CER C1608 CH 1H 470J-T	B	62.2/115.4
C1507	4030007090	S.CER C1608 CH 1H 470J-T	B	30.2/23.5
C1509	4030007090	S.CER C1608 CH 1H 470J-T	T	17.3/23.4
C1510	4030007090	S.CER C1608 CH 1H 470J-T	B	50.6/107.2
C1511	4030007090	S.CER C1608 CH 1H 470J-T	B	80.6/5.7
C1512	4030007090	S.CER C1608 CH 1H 470J-T	B	79.5/4.1
C1514	4030007090	S.CER C1608 CH 1H 470J-T	B	81/7.9
C1515	4030007090	S.CER C1608 CH 1H 470J-T	B	83.7/6.8
C1516	4030007090	S.CER C1608 CH 1H 470J-T	T	88.3/10.2
C1517	4030007090	S.CER C1608 CH 1H 470J-T	B	89.5/6.9
C1518	4030007090	S.CER C1608 CH 1H 470J-T	B	91/6.9
C1519	4030007090	S.CER C1608 CH 1H 470J-T	T	93.2/9.3
C1520	4030007090	S.CER C1608 CH 1H 470J-T	B	97.7/12
C1521	4030007090	S.CER C1608 CH 1H 470J-T	T	93.4/2.4
C1522	4030007090	S.CER C1608 CH 1H 470J-T	T	92.1/1.9
C1523	4030007090	S.CER C1608 CH 1H 470J-T	B	91.7/4.1
C1524	4030007090	S.CER C1608 CH 1H 470J-T	T	89.4/2.3
C1525	4030007090	S.CER C1608 CH 1H 470J-T	B	84.4/3.4
C1600	4030007090	S.CER C1608 CH 1H 470J-T	T	4.1/21.6
C1601	4030007090	S.CER C1608 CH 1H 470J-T	B	3.3/20
C1602	4030007090	S.CER C1608 CH 1H 470J-T	T	20.9/15.5
C1603	4030007090	S.CER C1608 CH 1H 470J-T	T	22.4/15.5
C1612	4030006860	S.CER C1608 JB 1H 102K-T	B	108.5/14.2
C1613	4030006860	S.CER C1608 JB 1H 102K-T	B	103.5/9.9
C1617	4030007090	S.CER C1608 CH 1H 470J-T	T	99.2/11
C1750	4030006900	S.CER C1608 JB 1H 103K-T	T	27.9/12.2
C1751	4030006850	S.CER C1608 JB 1H 471K-T	T	42.7/120.3
C1752	4030006900	S.CER C1608 JB 1H 103K-T	T	28.6/119.3
C1800	4030007090	S.CER C1608 CH 1H 470J-T	B	24/20.5
C1801	4030006900	S.CER C1608 JB 1H 103K-T	T	42/103.6
C1802	4030006900	S.CER C1608 JB 1H 103K-T	T	42.5/112.3
C1803	4030006850	S.CER C1608 JB 1H 471K-T	T	28.6/104.1
C1804	4030006850	S.CER C1608 JB 1H 471K-T	T	32.4/103.3
C1805	4030006850	S.CER C1608 JB 1H 471K-T	T	27.8/101.5
C1806	4030006850	S.CER C1608 JB 1H 471K-T	T	32.4/99.7
C1807	4030006850	S.CER C1608 JB 1H 471K-T	T	42/101.4
C9201	4030003860	S.CER GRM2164C1HR75CD01D	T	99/106.4
C9202	4030003860	S.CER GRM2164C1HR75CD01D	T	81/108.5
C9203	4030003860	S.CER GRM2164C1HR75CD01D	T	77.8/111.5
J				

[MAIN-R UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
J1801	6510021720	S.CNR 30FLT-SM1-TB	T	87/5.8
W296	7030003860	S.RES ERJ3GE JPW V	T	71/38.3
W340	7030003860	S.RES ERJ3GE JPW V	B	67.1/9.8
W550	7030003860	S.RES ERJ3GE JPW V	B	26/42.3
W896	7030000010	S.RES MCR10EZHZ JPW (000)	B	44.8/85.8
W1022	7030003860	S.RES ERJ3GE JPW V	T	33.3/53.5
W1025	7030003860	S.RES ERJ3GE JPW V	B	94.4/3.3
W1026	7030003860	S.RES ERJ3GE JPW V	T	18.1/26
W1029	7030008240	S.RES ERJ12YJ0R00U	B	68.9/113
W1030	7030000010	S.RES MCR10EZHZ JPW (000)	B	112.2/1.7
W1032	7030000010	S.RES MCR10EZHZ JPW (000)	B	98.3/33.6
W1033	7030008240	S.RES ERJ12YJ0R00U	B	21.6/53.5
W1161	7030003860	S.RES ERJ3GE JPW V	T	36.1/23.8
W1330	8900011960	CBL OPC-1216		
W1601	7030003860	S.RES ERJ3GE JPW V	T	86.8/23.9
W1670	7030003860	S.RES ERJ3GE JPW V	B	86/7.3
W1750	7030003860	S.RES ERJ3GE JPW V	B	88/5
EP5	6910000630	BEA FSRH070140RN000B		
EP6	6910000630	BEA FSRH070140RN000B		
EP401	6910012350	S.BEA MMZ1608Y 102BT	B	16.5/70.2
EP402	6910012350	S.BEA MMZ1608Y 102BT	T	23/58
EP403	6910012350	S.BEA MMZ1608Y 102BT	T	23/59
EP470	6910012350	S.BEA MMZ1608Y 102BT	T	17.6/67.8
EP550	6910012350	S.BEA MMZ1608Y 102BT	B	24.9/39.8
EP551	6910012350	S.BEA MMZ1608Y 102BT	B	35.1/26.6
EP552	6910012350	S.BEA MMZ1608Y 102BT	B	27.1/48.7

[LOGIC-R UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
IC50	1140010090	S.IC μPD70F3102AGJ-33-8EU	T	61.6/60
IC51	1130007281	S.IC TC7S32FU (TE85R, F)	T	45.3/71.2
IC52	1110005730	S.IC S-80928CNMC-G8Y-T2	B	54.3/48.2
IC53	1130007111	S.IC TC7W04FU (TE12L, F)	T	44.6/68.1
IC54	1140008650	S.IC HN58X2464T1	T	45.2/62.4
IC55	1130010630	S.IC SN74AHCT541PWR	B	43/42.3
IC56	1190001340	S.IC M62334FP 600C	T	59.8/43.1
IC57	1190001340	S.IC M62334FP 600C	T	68.2/43.2
IC58	1110002861	S.IC TA75S393F (TE85R, F)	B	4/54.1
IC100	1130010620	S.IC SN74AHC541PWR	B	109.6/55.6
IC101	1130007111	S.IC TC7W04FU (TE12L, F)	T	106.1/62.2
IC102	1130008711	S.IC TC7SET04FU (T5L, JF)	T	110.9/61.3
IC103	1130010630	S.IC SN74AHCT541PWR	T	108.9/55.3
IC105	1130010580	S.IC μPD43256BGW-70LL-9JL	T	108.7/43.2
IC150	1110005430	S.IC CMX589AD5	T	98.2/17.4
IC151	1130008711	S.IC TC7SET04FU (T5L, JF)	T	89.1/22.9
IC152	1130004201	S.IC TC4S66F (TE85R, F)	B	103.9/13.5
IC153	1130004201	S.IC TC4S66F (TE85R, F)	B	100.9/19
IC200	1120002870	S.IC XCS20XL-4TQ144I	T	57.2/24.9
IC201	1130006891	S.IC TC7S04FU (TE85R, F)	B	36.5/60.2
IC202	1130008361	S.IC TC7SHU04FU (TE85L, JF)	T	25.6/38.9
IC203	1130008361	S.IC TC7SHU04FU (TE85L, JF)	B	35.4/37.1
IC300	1110005290	S.IC NJM2115V-TE1	T	58.6/25.4
IC301	1110005290	S.IC NJM2115V-TE1	T	57.2/36.5
IC302	1110005290	S.IC NJM2115V-TE1	T	68.4/26.7
IC350	1130006220	S.IC TC4W53FU (TE12L)	T	84.4/25.1
IC351	1110003780	S.IC NJM2902V-TE1-#ZZZB	T	90.6/29.1
IC352	1130006220	S.IC TC4W53FU (TE12L)	T	81.2/29.6
IC353	1130008561	S.IC TC75S51F (TE85L, F)	T	100.8/29.8
IC354	1130006220	S.IC TC4W53FU (TE12L)	T	104.8/24.8
IC355	1110002751	S.IC TA75S01F (TE85R, F)	B	87.5/23.5
IC500	1180001071	S.IC TA7805F (TE16L, Q)	T	86.3/79.9
IC502	1180002390	S.REG S-812C33AMC-C2N-T2	T	92.8/72
IC503	1110005440	S.IC NJM2374AM-TE1	T	110.5/76.6
IC504	1180002390	S.REG S-812C33AMC-C2N-T2	T	64.3/80.8
IC550	1130012051	S.IC FT232BL	T	11.8/67.4
IC551	1130009570	S.IC BR93LC46F-WE2	T	12.8/58.2
IC553	1130007281	S.IC TC7S32FU (TE85R, F)	B	10.4/55
IC901	1120002960	S.IC TC74AC541FT (EL)	T	33.1/5.4
IC902	1120002830	S.IC NJM2125F-TE1-#ZZZB	B	34.5/10.9
Q50	1530002280	S.TR 2SC4081 T106 S	B	8.3/49.6
Q51	1510000771	S.TR 2SA1586-GR (TE85R, F)	B	5.7/49.9
Q52	1590000430	S.TR DTC144EUA T106	B	7.9/53.6
Q100	1590000430	S.TR DTC144EUA T106	T	79/32.4
Q101	1590001980	S.TR XP4315 (TX)	B	42/13.9
Q102	1590001980	S.TR XP4315 (TX)	B	39.5/13.9
Q150	1590001400	S.TR XP1214 (TX)	T	91.3/18.8
Q151	1590001400	S.TR XP1214 (TX)	B	97.2/12.4
Q153	1590000430	S.TR DTC144EUA T106	B	76.3/30.3
Q154	1590000430	S.TR DTC144EUA T106	B	106.3/18.5
Q155	1590000430	S.TR DTC144EUA T106	B	74.5/26.6
Q156	1590000430	S.TR DTC144EUA T106	B	72/28.4
Q400	1590000430	S.TR DTC144EUA T106	B	73.3/20.4
Q500	1520000200	S.TR 2SB798-T2 DK	T	80.3/69.6
Q501	1590000430	S.TR DTC144EUA T106	T	76.6/72.1
Q502	1530002280	S.TR 2SC4081 T106 S	T	67.9/78.3
Q503	1520000200	S.TR 2SB798-T2 DK	B	74.3/74.5
Q504	1530002280	S.TR 2SC4081 T106 S	B	70/80.5
Q550	1590000430	S.TR DTC144EUA T106	B	15.5/55.9
D50	1790001240	S.DIO MA2S728-(TX)	T	59.3/72.6
D51	1750000550	S.DIO 1SS355 TE-17	B	1.4/54.1
D52	1750000550	S.DIO 1SS355 TE-17	B	50.1/66.5
D53	1750000550	S.DIO 1SS355 TE-17	T	46.6/65.5
D54	1750000550	S.DIO 1SS355 TE-17	B	48.1/72.7
D350	1720000361	S.DIO HSU88TRF-E	T	85.3/30.3
D351	1720000361	S.DIO HSU88TRF-E	T	87.7/25.4
D501	1790000671	S.DIO SB07-03C-TB-E	T	72.2/75.6
D502	1750000550	S.DIO 1SS355 TE-17	T	71.2/78.3
D503	1790000671	S.DIO SB07-03C-TB-E	T	99.4/71.9
D504	1790000671	S.DIO SB07-03C-TB-E	B	110.2/80.1
X50	6050011290	S.XTL CR-715 (6 MHz)	T	44.3/53.2
X200	6050011240	S.XTL CR-708 (16.384 MHz)	T	19/40.3
X201	6050011700	S.XTL CR-760 (9.8304 MHz)	T	37.2/39.3
X550	6050011290	S.XTL CR-715 (6 MHz)	T	3.4/61.5
L50	6200005741	S.COL ELJRE 47NG-F	T	65.2/73.6
L51	6200005741	S.COL ELJRE 47NG-F	T	48.4/52
L100	6200005741	S.COL ELJRE 47NG-F	B	111.3/62
L101	6200005741	S.COL ELJRE 47NG-F	B	111.3/63.3
L103	6200005741	S.COL ELJRE 47NG-F	B	108.5/33.6
L150	6200002040	S.COL NL 252018T-101J	T	99.7/23
L210	6200005741	S.COL ELJRE 47NG-F	T	70.6/73.4
L211	6200005741	S.COL ELJRE 47NG-F	B	47.7/59.7

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

S.=Surface mount



[LOGIC-R UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
L214	6200005741	S.COL ELJURE 47NG-F	B	49/62.4
L420	6200003590	S.COL EXCC3225U1	B	30.4/78.4
L421	6200003590	S.COL EXCC3225U1	B	38.8/79.9
L500	6190001561	S.COL LQN 5N 1R0M	T	104.3/80
L501	6190001561	S.COL LQN 5N 1R0M	T	104.3/72.8
L510	6200003590	S.COL EXCC3225U1	B	108.8/76.7
L550	6200002040	S.COL NL 252018T-101J	T	11.2/74.3
L551	6200005741	S.COL ELJURE 47NG-F	T	11.1/77
L552	6200006991	S.COL ELJURE 56NG-F	B	14.6/61.8
R18	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	35.5/46.5
R50	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	44.4/75.8
R51	7030003620	S.RES ERJ3GEYJ 333 V (33 kΩ)	T	47.2/71
R53	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	48.5/68.4
R54	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	15.5/50.4
R55	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	14.7/48.5
R57	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	3.7/49.9
R58	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	T	15.4/52.2
R59	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	B	2.4/49.9
R60	7030003570	S.RES ERJ3GEYJ 123 V (12 kΩ)	B	47.7/62.4
R61	7030003570	S.RES ERJ3GEYJ 123 V (12 kΩ)	B	45.8/62.4
R62	7030003620	S.RES ERJ3GEYJ 333 V (33 kΩ)	B	49.3/51.1
R63	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	53.9/50.5
R64	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	61.5/45.7
R65	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	62.8/45.7
R66	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	72.5/41.1
R67	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	72.5/43.8
R68	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	B	9.1/51.6
R69	7030003490	S.RES ERJ3GEYJ 272 V (2.7 kΩ)	T	8.2/52.7
R70	7030003620	S.RES ERJ3GEYJ 333 V (33 kΩ)	B	4.4/51.8
R71	7030003620	S.RES ERJ3GEYJ 333 V (33 kΩ)	B	4/56.5
R72	7030003620	S.RES ERJ3GEYJ 333 V (33 kΩ)	B	6.3/57.4
R73	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	B	7.1/55.6
R74	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	46.3/74.7
R75	7030003570	S.RES ERJ3GEYJ 123 V (12 kΩ)	B	48.1/75
R76	7030003510	S.RES ERJ3GEYJ 392 V (3.9 kΩ)	B	67.9/44.3
R78	7030003360	S.RES ERJ3GEYJ 221 V (220 Ω)	T	50.9/49.3
R79	7030003340	S.RES ERJ3GEYJ 151 V (150 Ω)	T	48.6/56.2
R100	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	76.5/32.2
R110	7030003370	S.RES ERJ3GEYJ 271 V (270 Ω)	B	52.3/14
R113	7030003370	S.RES ERJ3GEYJ 271 V (270 Ω)	B	42.1/11.9
R114	7030003420	S.RES ERJ3GEYJ 681 V (680 Ω)	B	39.5/11.9
R115	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	110.9/60.7
R116	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	106.3/63.8
R146	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	79.1/29.5
R148	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	105.5/15.9
R149	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	88.4/20.2
R150	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	97.9/17
R151	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	97.9/15.7
R152	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	97.9/18.3
R153	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	97.9/20.9
R154	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	97.9/19.6
R155	7030003800	S.RES ERJ3GEYJ 105 V (1 MΩ)	T	92.4/21.3
R156	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	90.7/14.2
R157	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	95.3/14.8
R158	7030003750	S.RES ERJ3GEYJ 394 V (390 kΩ)	B	100.8/13.5
R159	7030009340	S.RES ERJ3GEYJ 275 V (2.7 MΩ)	B	99.7/16.1
R199	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	32.7/59.4
R200	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	28.1/38
R201	7030003800	S.RES ERJ3GEYJ 105 V (1 MΩ)	T	22.4/38.8
R202	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	T	45.2/15.4
R203	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	T	31.6/11.8
R204	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	39/11.8
R205	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	24.3/29.2
R206	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	18.2/30.7
R207	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	18.9/32.1
R208	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	34.8/40.8
R209	7030003800	S.RES ERJ3GEYJ 105 V (1 MΩ)	B	35.6/39
R210	7030003400	S.RES ERJ3GEYJ 471 V (470 Ω)	T	41.5/39.3
R211	7030003400	S.RES ERJ3GEYJ 471 V (470 Ω)	B	37.8/58
R250	7030005661	S.RES ERA3YED 203V	T	52.9/11.8
R251	7030005661	S.RES ERA3YED 203V	T	48.9/11.8
R252	7030005321	S.RES ERA3YED 103V	T	50.8/12.6
R253	7030005661	S.RES ERA3YED 203V	T	48.9/13.1
R254	7030005321	S.RES ERA3YED 103V	T	52.5/13.9
R255	7030005661	S.RES ERA3YED 203V	T	48.9/14.4
R256	7030005321	S.RES ERA3YED 103V	T	50.8/15.2
R257	7030005661	S.RES ERA3YED 203V	T	48.9/17.5
R258	7030005321	S.RES ERA3YED 103V	T	52.5/16.5
R259	7030005661	S.RES ERA3YED 203V	T	48.9/17
R260	7030005321	S.RES ERA3YED 103V	T	50.8/17.8
R261	7030005661	S.RES ERA3YED 203V	T	48.9/18.3
R262	7030005321	S.RES ERA3YED 103V	T	52.5/19.1
R263	7030005661	S.RES ERA3YED 203V	T	48.9/19.6
R264	7030005321	S.RES ERA3YED 103V	T	50.8/20.4
R265	7030005661	S.RES ERA3YED 203V	T	48.9/20.9
R266	7030005321	S.RES ERA3YED 103V	T	52.5/21.7
R267	7030005661	S.RES ERA3YED 203V	T	48.9/22.2
R268	7030005321	S.RES ERA3YED 103V	T	50.8/23

[LOGIC-R UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
R269	7030005661	S.RES ERA3YED 203V	T	48.9/23.5
R270	7030005321	S.RES ERA3YED 103V	T	52.5/24.8
R271	7030005661	S.RES ERA3YED 203V	T	48.9/24.3
R272	7030005661	S.RES ERA3YED 203V	T	52.7/26.2
R273	7030005661	S.RES ERA3YED 203V	T	48.9/26.2
R274	7030005321	S.RES ERA3YED 103V	T	50.8/26.7
R275	7030005661	S.RES ERA3YED 203V	T	48.9/27.5
R276	7030005321	S.RES ERA3YED 103V	T	52.1/28.1
R277	7030005661	S.RES ERA3YED 203V	T	48.9/28.8
R278	7030005321	S.RES ERA3YED 103V	T	50.8/29.3
R279	7030005661	S.RES ERA3YED 203V	T	48.9/30.1
R280	7030005321	S.RES ERA3YED 103V	T	52.1/30.7
R281	7030005661	S.RES ERA3YED 203V	T	48.9/31.4
R282	7030005321	S.RES ERA3YED 103V	T	50.8/31.9
R283	7030005661	S.RES ERA3YED 203V	T	48.9/32.7
R284	7030005321	S.RES ERA3YED 103V	T	52.1/33.3
R285	7030005661	S.RES ERA3YED 203V	T	48.9/34
R286	7030005321	S.RES ERA3YED 103V	T	50.8/34.5
R287	7030005661	S.RES ERA3YED 203V	T	48.9/35.3
R288	7030005321	S.RES ERA3YED 103V	T	52.1/35.9
R289	7030005661	S.RES ERA3YED 203V	T	48.9/36.6
R290	7030005321	S.RES ERA3YED 103V	T	50.8/37.1
R291	7030005661	S.RES ERA3YED 203V	T	48.9/37.9
R292	7030005321	S.RES ERA3YED 103V	T	52.1/38.7
R293	7030005661	S.RES ERA3YED 203V	T	48.9/39.2
R300	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	60.7/20.9
R301	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	T	56.4/28.1
R302	7030003530	S.RES ERJ3GEYJ 562 V (5.6 kΩ)	T	61.8/28.1
R303	7030003530	S.RES ERJ3GEYJ 562 V (5.6 kΩ)	T	63.7/25.4
R304	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	67.4/17.7
R305	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	67.4/19
R306	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	63.7/22.8
R307	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	63.7/20.2
R308	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	T	64.2/18.1
R310	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	59.3/32
R311	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	T	55/39.2
R312	7030003530	S.RES ERJ3GEYJ 562 V (5.6 kΩ)	T	60.4/39.2
R313	7030003530	S.RES ERJ3GEYJ 562 V (5.6 kΩ)	T	62.3/36.5
R314	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	68.1/34.4
R315	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	68.1/33.1
R316	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	65.5/37
R317	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	68.1/37
R318	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	T	67.3/31.8
R320	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	61.5/24.3
R348	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	101.4/30
R349	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	77.5/26.4
R350	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	80.1/27.2
R351	7030003730	S.RES ERJ3GEYJ 274 V (270 kΩ)	T	96.5/31
R352	7030004710	S.RES ERJ3GEYJ 475 V (4.7 MΩ)	T	98.4/30.4
R353	7030003730	S.RES ERJ3GEYJ 274 V (270 kΩ)	T	96.5/27.1
R354	7030004710	S.RES ERJ3GEYJ 475 V (4.7 MΩ)	T	98.4/27.8
R355	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	T	103.2/27.8
R356	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	B	84.1/28.7
R357	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	B	84.9/26.8
R358	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	99.7/24.9
R359	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	84/20.3
R360	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	86.6/21.2
R361	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	B	87.9/25.9
R362	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	90/25.1
R363	7030003800	S.RES ERJ3GEYJ 105 V (1 MΩ)	B	90.6/28.9
R364	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	92.4/29.6
R365	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	90.7/25.7
R368	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	B	82.8/28.7
R400	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	86.1/16.8
R402	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	12.2/21
R403	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	15/11.9
R405	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	15/13.2
R406	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	82/20.2
R407	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	83.3/20.2
R410	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	16.7/21
R411	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	18/21
R412	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	15.4/21
R413	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	14.1/21
R414	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	10.9/21
R416	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	82.2/13.3
R417	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	83.5/13.3
R418	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	29.3/74.9
R419	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	28.5/74.9
R420	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	29.8/74.9
R421	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	31.1/74.9
R422	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	75.5/20.2
R423	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	B	28/74.9
R424	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	42/74.9
R425	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	74.2/20.2
R426	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	71.5/20.2
R427	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	80.9/16.8
R428	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	72.9/20.2
R429	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	78.1/20.2
R430	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	80.7/20.2
R431	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	76.8/20.2

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

[LOGIC-R UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
R432	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	75.3/19.4
R433	7030003440	S.RES ERJ3GEYJ 102 V (1 kΩ)	T	27.2/74.9
R434	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	85.4/14
R435	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	79.4/20.2
R436	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	22/21
R437	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	73.4/18.5
R438	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	T	87.4/16.8
R439	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	B	86.5/19.4
R440	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	T	71.5/23.4
R500	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	T	80.4/72.8
R501	7030000420	S.RES MCR10EZJH 2.2 kΩ	T	78.1/76.1
R502	7030003470	S.RES ERJ3GEYJ 182 V (1.8 kΩ)	B	72/79.7
R503	7030003530	S.RES ERJ3GEYJ 562 V (5.6 kΩ)	T	108.4/71.2
R504	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	111/71.2
R505	7030000020	S.RES MCR10EZJH 1 Ω (010)	B	112.2/77.7
R506	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	66.7/77.9
R507	7030003570	S.RES ERJ3GEYJ 123 V (12 kΩ)	B	68/77.9
R508	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	68/80.5
R509	7030003600	S.RES ERJ3GEYJ 223 V (22 kΩ)	T	109.7/71.2
R510	7030003520	S.RES ERJ3GEYJ 472 V (4.7 kΩ)	T	69.8/76.1
R511	7030000180	S.RES MCR10EZJH 22 Ω (220)	T	81.4/74.4
R512	7030000180	S.RES MCR10EZJH 22 Ω (220)	T	81.4/76.1
R513	7030000420	S.RES MCR10EZJH 2.2 kΩ	T	78.1/74.4
R552	7030003550	S.RES ERJ3GEYJ 822 V (8.2 kΩ)	B	9.9/62.8
R553	7030003580	S.RES ERJ3GEYJ 153 V (15 kΩ)	B	9.9/61.5
R556	7030003680	S.RES ERJ3GEYJ 104 V (100 kΩ)	B	10.5/69.4
R558	7030003400	S.RES ERJ3GEYJ 471 V (470 Ω)	B	17.2/61.8
R559	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	B	12.4/68.6
R561	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	12.9/58.4
R562	7030003460	S.RES ERJ3GEYJ 152 V (1.5 kΩ)	B	15.9/68.2
R563	7030003200	S.RES ERJ3GEYJ 100 V (10 Ω)	T	17.9/71.1
R564	7030003200	S.RES ERJ3GEYJ 100 V (10 Ω)	T	19.2/69.6
R566	7030003480	S.RES ERJ3GEYJ 222 V (2.2 kΩ)	B	12.1/60.3
R567	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	13.6/55
R568	7030003340	S.RES ERJ3GEYJ 151 V (150 Ω)	B	11.9/57
R901	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	27/6
R902	7030003500	S.RES ERJ3GEYJ 332 V (3.3 kΩ)	T	27.3/3.6
R903	7030003640	S.RES ERJ3GEYJ 473 V (47 kΩ)	B	51.8/43.5
R904	7030003860	S.RES ERJ3GE JPW V	T	11/26.1
R905	7030003860	S.RES ERJ3GE JPW V	T	51.8/73
R906	7030003860	S.RES ERJ3GE JPW V	B	47/65.2
R907	7030003860	S.RES ERJ3GE JPW V	B	59.2/70.3
R908	7030003860	S.RES ERJ3GE JPW V	B	58.3/22
R909	7030003860	S.RES ERJ3GE JPW V	B	43.7/35.1
R910	7030003860	S.RES ERJ3GE JPW V	T	55.5/11.8
R911	7030003860	S.RES ERJ3GE JPW V	T	71.6/27.4
R912	7030003860	S.RES ERJ3GE JPW V	B	77.3/18.3
R913	7030003860	S.RES ERJ3GE JPW V	B	77.7/13.3
R914	7030003860	S.RES ERJ3GE JPW V	B	7.7/40.4
R915	7030003860	S.RES ERJ3GE JPW V	B	36/77.1
R916	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	B	33.3/14.9
R917	7030003560	S.RES ERJ3GEYJ 103 V (10 kΩ)	B	31.4/9.9
R918	7030003860	S.RES ERJ3GE JPW V	B	16.7/66.9
R919	7030003860	S.RES ERJ3GE JPW V	B	14.3/63.6
C51	4030006860	S.CER C1608 JB 1H 102K-T	B	44.4/74
C52	4030011600	S.CER C1608 JB 1E 104K-T	T	43.4/71
C53	4030011600	S.CER C1608 JB 1E 104K-T	B	43.9/63.2
C54	4030011600	S.CER C1608 JB 1E 104K-T	B	36.7/44.6
C55	4030011600	S.CER C1608 JB 1E 104K-T	T	54.4/73
C56	4030008560	S.CER C1608 CH 1H 300J-T	T	48.9/54.4
C57	4030008560	S.CER C1608 CH 1H 300J-T	T	47.6/54.1
C58	4030006900	S.CER C1608 JB 1H 103K-T	B	54.1/45.9
C59	4030011600	S.CER C1608 JB 1E 104K-T	T	61.9/46.6
C60	4030011600	S.CER C1608 JB 1E 104K-T	T	70.4/46.7
C61	4030007090	S.CER C1608 CH 1H 470J-T	B	46.4/57.3
C62	4030007090	S.CER C1608 CH 1H 470J-T	B	61.4/51.7
C63	4030007090	S.CER C1608 CH 1H 470J-T	B	63.3/52.5
C64	4030007090	S.CER C1608 CH 1H 470J-T	B	64.6/47.1
C65	4030007090	S.CER C1608 CH 1H 470J-T	B	57.3/44
C66	4030007090	S.CER C1608 CH 1H 470J-T	B	57.2/42.7
C67	4030007090	S.CER C1608 CH 1H 470J-T	B	71.5/67.3
C68	4030007090	S.CER C1608 CH 1H 470J-T	B	70.3/60.4
C69	4030007090	S.CER C1608 CH 1H 470J-T	B	66/52.2
C86	4030006900	S.CER C1608 JB 1H 103K-T	B	47.1/55.5
C88	4030006850	S.CER C1608 JB 1H 471K-T	B	46.3/77.3
C101	4030006900	S.CER C1608 JB 1H 103K-T	T	106.1/64.6
C102	4030006900	S.CER C1608 JB 1H 103K-T	T	110.9/63.2
C103	4030006900	S.CER C1608 JB 1H 103K-T	B	113.2/62.4
C104	4030006900	S.CER C1608 JB 1H 103K-T	T	113.1/53.2
C113	4030011600	S.CER C1608 JB 1E 104K-T	T	108.5/33.6
C118	4030007050	S.CER C1608 CH 1H 220J-T	B	12/76.3
C119	4030007050	S.CER C1608 CH 1H 220J-T	B	13.5/76.3
C120	4030007050	S.CER C1608 CH 1H 220J-T	B	15/76.3
C150	4030006900	S.CER C1608 JB 1H 103K-T	T	86.5/21.2
C151	4030011600	S.CER C1608 JB 1E 104K-T	T	104/16.1
C152	4550006700	S.TAN ECST1AY106R	T	105.7/16.9
C153	4030012600	S.CER C2012 JB 1A 105M-T	T	91.3/15.3
C154	4030011600	S.CER C1608 JB 1E 104K-T	T	91.5/13.7

[LOGIC-R UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
C155	4030006860	S.CER C1608 JB 1H 102K-T	T	100.9/12.4
C156	4030006860	S.CER C1608 JB 1H 102K-T	T	104/13.5
C157	4030001600	S.CER C1608 JB 1E 104K-T	B	102.9/15.9
C158	4030001600	S.CER C1608 JB 1E 104K-T	T	91.1/21.3
C159	4030007130	S.CER C1608 CH 1H 101J-T	T	91.4/16.9
C160	4030008890	S.CER C1608 JB 1H 273K-T	B	100/12.2
C161	4030008890	S.CER C1608 JB 1H 273K-T	B	98.2/14.3
C162	4030007000	S.CER C1608 CH 1H 090D-T	B	93.3/14.5
C200	4030011600	S.CER C1608 JB 1E 104K-T	B	34.6/60.2
C202	4610001590	S.TRI TZC3R100A110R00	T	24.6/42.1
C203	4030011600	S.CER C1608 JB 1E 104K-T	T	28.1/39.3
C204	4030006980	S.CER C1608 CH 1H 070D-T	T	23.7/38.8
C206	4030006900	S.CER C1608 JB 1H 103K-T	T	18.2/25
C207	4030011600	S.CER C1608 JB 1E 104K-T	T	24.2/11.8
C208	4030006900	S.CER C1608 JB 1H 103K-T	T	33.4/11
C209	4030011600	S.CER C1608 JB 1E 104K-T	T	43.5/13.8
C210	4030011600	S.CER C1608 JB 1E 104K-T	B	32.1/35.7
C211	4030011600	S.CER C1608 JB 1E 104K-T	B	23.4/32.6
C212	4030009650	S.CER C1608 CH 1H 240J-T	T	39.3/43
C213	4030006980	S.CER C1608 CH 1H 070D-T	B	32.3/39
C214	4030006900	S.CER C1608 JB 1H 103K-T	B	38.1/36.3
C215	4610001590	S.TRI TZC3R100A110R00	T	32/39.8
C216	4550006780	S.TAN TEESVB2 0J 476M8R	T	26.1/9.4
C300	4550006250	S.TAN TEESVA 1A 106M8R	T	56.5/21.4
C301	4030010040	S.CER C1608 JB 1H 561K-T	T	59/28.1
C302	4030009490	S.CER C1608 JB 1H 821K-T	T	65/25.4
C303	4340000270	S.MLR ECHU 1H 121GB5	T	60.7/22.5
C304	4030007170	S.CER C1608 CH 1H 221J-T	T	67.4/20.3
C305	4030007170	S.CER C1608 CH 1H 221J-T	T	67.7/21.6
C306	4030007170	S.CER C1608 CH 1H 221J-T	T	65/22.8
C307	4030007170	S.CER C1608 CH 1H 221J-T	T	65/20.2
C308	4550005980	S.TAN TEESVA 1A 475M8R	T	60.3/17.7
C309	4030010760	S.CER C1608 CH 1H 331J-T	T	61.8/19.4
C310	4550006250	S.TAN TEESVA 1A 106M8R	T	55.2/32.5
C311	4030010040	S.CER C1608 JB 1H 561K-T	T	57.6/39.2
C312	4030009490	S.CER C1608 JB 1H 821K-T	T	63.6/36.5
C313	4340000270	S.MLR ECHU 1H 121GB5	T	59.4/33.6
C314	4030007170	S.CER C1608 CH 1H 221J-T	T	68.1/38.3
C315	4030007170	S.CER C1608 CH 1H 221J-T	T	68.1/39.6
C316	4030007170	S.CER C1608 CH 1H 221J-T	T	65.5/35.7
C317	4030007170	S.CER C1608 CH 1H 221J-T	T	68.1/35.7
C318	4550005980	S.TAN TEESVA 1A 475M8R	T	63.4/31.8
C319	4030010760	S.CER C1608 CH 1H 331J-T	T	65.1/28.4
C320	4510008490	S.ELLE EEE1CS1000SR	B	59.6/27.7
C349	4550006250	S.TAN TEESVA 1A 106M8R	B	87.7/30.7
C350	4030011600	S.CER C1608 JB 1E 104K-T	T	82/26.4
C351	4030011600	S.CER C1608 JB 1E 104K-T	T	90.6/32.5
C352	4030011600	S.CER C1608 JB 1E 104K-T	T	76.5/28.3
C353	4030011810	S.CER C1608 JB 1A 224K-T	T	92.4/33.1
C354	4030011600	S.CER C1608 JB 1E 104K-T	T	93.7/33.1
C355	4030006860	S.CER C1608 JB 1H 102K-T	T	96.5/29.7
C356	4030006860	S.CER C1608 JB 1H 102K-T	T	96.5/28.4
C357	4030011600	S.CER C1608 JB 1E 104K-T	T	100.6/32.3
C358	4030006860	S.CER C1608 JB 1H 102K-T	T	101.3/27
C359	4030008920	S.CER C1608 JB 1H 473K-T	B	85.7/28.7
C360	4030011600	S.CER C1608 JB 1E 104K-T	T	104.8/22.4
C361	4030011810	S.CER C1608 JB 1A 224K-T	T	93.3/25.7
C362	4030011600	S.CER C1608 JB 1E 104K-T	B	85.2/23.8
C363	4030008920	S.CER C1608 JB 1H 473K-T	T	82/23.8
C364	4030011600	S.CER C1608 JB 1E 104K-T	T	93.3/24.4
C400	4030006850	S.CER C1608 JB 1H 471K-T	T	17.6/11.9
C401	4030007090	S.CER C1608 CH 1H 470J-T	T	17.6/13.2
C402	4030006900	S.CER C1608 JB 1H 103K-T	B	82/23.6
C403	4030007090	S.CER C1608 CH 1H 470J-T	B	16.8/25.1
C404	4030007090	S.CER C1608 CH 1H 470J-T	B	18.1/24.6
C405	4030007090	S.CER C1608 CH 1H 470J-T	B	15.5/25.1
C406	4030007090	S.CER C1608 CH 1H 470J-T	B	14.2/25.1
C407	4030007090	S.CER C1608 CH 1H 470J-T	T	38.8/74.1
C408	4030007090	S.CER C1608 CH 1H 470J-T	B	83.4/16.8
C409	4030007130	S.CER C1608 CH 1H 101J-T	B	77.1/20.2
C410	4030007130	S.CER C1608 CH 1H 101J-T	T	76.8/23.6
C411	4030007130	S.CER C1608 CH 1H 101J-T	B	83.9/23.8
C412	4030007130	S.CER C1608 CH 1H 101J-T	B	86.6/19.4
C413	4030007090	S.CER C1608 CH 1H 470J-T	T	43.3/74.9
C414	4030007090	S.CER C1608 CH 1H 470J-T	B	31.7/71.5
C415	4030007090	S.CER C1608 CH 1H 470J-T	B	30.4/71.5
C416	4030007090	S.CER C1608 CH 1H 470J-T	B	31.2/74.2
C417	4030007090	S.CER C1608 CH 1H 470J-T	B	29.1/71.5
C418	4030007090	S.CER C1608 CH 1H 470J-T	B	27.8/71.5
C419	4030007090	S.CER C1608 CH 1H 470J-T	B	26.5/71.5
C420	4030007090	S.CER C1608 CH 1H 470J-T	B	41.6/80.7
C421	4030007090	S.CER C1608 CH 1H 470J-T	B	29.6/81.1
C422	4030007090	S.CER C1608 CH 1H 470J-T	B	8.2/21.4
C423	4030007090	S.CER C1608 CH 1H 470J-T	B	9.5/21.4
C424	4030007090	S.CER C1608 CH 1H 470J-T	B	72/22.8
C425	4030007090	S.CER C1608 CH 1H 470J-T	B	71.3/20.2
C426	4030007090	S.CER C1608 CH 1H 470J-T	B	73.4/16.7
C427	4030007090	S.CER C1608 CH 1H 470J-T	T	74.9/24.1
C428	4030007090	S.CER C1608 CH 1H 470J-T	B	76.9/22.9
C429	4030007090	S.CER C1608 CH 1H 470J-T	T	78.1/22.8

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



[LOGIC-R UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
C430	4030007090	S.CER C1608 CH 1H 470J-T	T	79.4/22.8
C431	4030007090	S.CER C1608 CH 1H 470J-T	B	87.3/13.2
C432	4030007090	S.CER C1608 CH 1H 470J-T	B	80.6/23.6
C433	4030007090	S.CER C1608 CH 1H 470J-T	B	80.9/20.2
C434	4030007090	S.CER C1608 CH 1H 470J-T	B	80.3/12.5
C435	4030007090	S.CER C1608 CH 1H 470J-T	B	82.2/20.2
C437	4030007090	S.CER C1608 CH 1H 470J-T	B	84.7/18.4
C438	4030007090	S.CER C1608 CH 1H 470J-T	B	22/23.6
C442	4030011600	S.CER C1608 JB 1E 104K-T	T	80.7/23.6
C443	4030011810	S.CER C1608 JB 1A 224K-T	B	71.3/24.6
C500	4510008520	S.ELE EEE1CA470SP	B	84.4/69.5
C501	4030011600	S.CER C1608 JB 1E 104K-T	T	84.1/72.4
C502	4030011600	S.CER C1608 JB 1E 104K-T	T	86.5/73
C503	4510008520	S.ELE EEE1CA470SP	B	96.2/69.9
C504	4030006850	S.CER C1608 JB 1H 471K-T	T	86.5/71.7
C506	4030011600	S.CER C1608 JB 1E 104K-T	T	58.6/13.5
C509	4550006250	S.TAN TEESVA 1A 106M8R	T	85.3/70
C510	4030011600	S.CER C1608 JB 1E 104K-T	T	97.4/23.8
C511	4030011600	S.CER C1608 JB 1E 104K-T	T	90.5/70.2
C512	4550006250	S.TAN TEESVA 1A 106M8R	T	88.8/70.4
C513	4510007130	S.ELE EEFCD QJ 470R	T	98.6/79.1
C514	4030006850	S.CER C1608 JB 1H 471K-T	T	109.3/81.9
C515	4510008850	S.ELE EEE1CA101P	B	109.5/69.3
C516	4510008490	S.ELE EEE1CS1000SR	B	64.2/82
C517	4030011600	S.CER C1608 JB 1E 104K-T	T	66.9/81.3
C518	4030011600	S.CER C1608 JB 1E 104K-T	T	64.5/78.5
C519	4550006250	S.TAN TEESVA 1A 106M8R	T	65.2/75.9
C520	4550006200	S.TAN ECST0JY106R	T	71.7/81.7
C521	4550006200	S.TAN ECST0JY106R	B	69.4/70.9
C522	4550006620	S.TAN ECST0JY226R	T	96.6/71.7
C550	4030008560	S.CER C1608 CH 1H 300J-T	T	4.2/69
C551	4030008560	S.CER C1608 CH 1H 300J-T	T	4.2/54
C553	4030011600	S.CER C1608 JB 1E 104K-T	B	15.4/59.9
C554	4030011600	S.CER C1608 JB 1E 104K-T	T	18.1/62.2
C556	4030008900	S.CER C1608 JB 1H 333K-T	B	18.7/70.1
C557	4550006200	S.TAN ECST0JY106R	T	13.5/75.1
C558	4030006900	S.CER C1608 JB 1H 103K-T	T	15.2/73.9
C559	4030007090	S.CER C1608 CH 1H 470J-T	T	84/61.1
C561	4030007090	S.CER C1608 CH 1H 470J-T	T	85.7/57.4
C578	4030007090	S.CER C1608 CH 1H 470J-T	B	12.3/55
C579	4030007090	S.CER C1608 CH 1H 470J-T	B	10.7/53
C901	4030011600	S.CER C1608 JB 1E 104K-T	B	31.4/11.9
J50	6510019271	S.CNR 52365-0671	T	5.1/49.9
J100	6510023860	S.CNR S9B-ZR-SM3A-TF	B	18/83.2
J101	6510022820	S.CNR AXN430C530P	B	17.2/14.8
J300	6510018350	S.CNR S3B-ZR-SM3A-TF	T	13.9/18.4
J400	6510022710	S.CNR 30FLZ-SM1-TB	T	78/13.7
J401	6510022710	S.CNR 30FLZ-SM1-TB	T	35/80.4
J901	6510021430	S.CNR S8B-ZR-SM3A-TF	T	13.2/3
W1	8900013161	CBL OPC-1313A		

[FRONT UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
D1	1730002300	S.ZEN MA8082-M (TX)	T	7.5/21.8
D3	1790001711	S.DIO NNCD5.6C-T1-A	T	57.5/16.7
D4	1790001711	S.DIO NNCD5.6C-T1-A	T	53/16.7
D5	1790001711	S.DIO NNCD5.6C-T1-A	T	48.4/16.7
D6	1790001711	S.DIO NNCD5.6C-T1-A	T	43.9/16.7
D7	1790001711	S.DIO NNCD5.6C-T1-A	T	78/16.6
D8	1790001711	S.DIO NNCD5.6C-T1-A	T	73.5/16.6
D9	1790001711	S.DIO NNCD5.6C-T1-A	T	69/16.7
D10	1790001711	S.DIO NNCD5.6C-T1-A	T	64.5/16.6
R1	7030006250	S.RES ERJ12YJ271U (270 Ω)	T	8.5/30.5
R2	7030008180	S.RES ERJ12YJ331U (330 Ω)	T	8.5/7.8
R3	7030003860	S.RES ERJ3GE JPW V	T	60.5/16.5
R4	7030003860	S.RES ERJ3GE JPW V	T	56/16.5
R5	7030003860	S.RES ERJ3GE JPW V	T	51.5/16.5
R6	7030003860	S.RES ERJ3GE JPW V	T	46.9/16.5
R7	7030003860	S.RES ERJ3GE JPW V	T	81/16.5
R8	7030003860	S.RES ERJ3GE JPW V	T	76.5/16.5
R9	7030003860	S.RES ERJ3GE JPW V	T	72/16.5
R10	7030003860	S.RES ERJ3GE JPW V	T	67.5/16.5
C1	4030011600	S.CER C1608 JB 1E 104K-T	T	7.2/18.8
C2	4510008800	S.ELE EEE1EA100SR	T	9.4/25.7
C3	4030007050	S.CER C1608 CH 1H 220J-T	T	59/16.5
C4	4030007050	S.CER C1608 CH 1H 220J-T	T	54.5/16.5
C5	4030007050	S.CER C1608 CH 1H 220J-T	T	49.9/16.5
C6	4030007050	S.CER C1608 CH 1H 220J-T	T	45.4/16.5
C7	4030007050	S.CER C1608 CH 1H 220J-T	T	79.5/16.5
C8	4030007050	S.CER C1608 CH 1H 220J-T	T	75/16.5
C9	4030007050	S.CER C1608 CH 1H 220J-T	T	70.5/16.5
C10	4030007050	S.CER C1608 CH 1H 220J-T	T	66/16.5
C11	4030006850	S.CER C1608 JB 1H 471K-T	T	7.2/20.1
J1	6450002100	CNR CMS1410-010010		
J2	6450002100	CNR CMS1410-010010		
J3	6510020250	S.CNR B9B-PH-SM3-TB	T	22.4/39.5
J4	6510022310	S.CNR B5B-PH-SM3-TB	T	72.5/39.5
DS1	5040003070	LED MPG4371F		
S1	2220000630	SW MFS201N-16		

[REAR UNIT]

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
D1	1790001711	S.DIO NNCD5.6C-T1-A	T	36.9/71.8
D2	1790001711	S.DIO NNCD5.6C-T1-A	T	32.9/71.8
D3	1790001711	S.DIO NNCD5.6C-T1-A	T	24.9/71.8
D4	1790001711	S.DIO NNCD5.6C-T1-A	T	20.9/71.8
D5	1790001711	S.DIO NNCD5.6C-T1-A	T	16.9/71.7
D6	1790001711	S.DIO NNCD5.6C-T1-A	T	12.9/71.8
D7	1790000700	DIO DSA3A1		
D8	1790001711	S.DIO NNCD5.6C-T1-A	T	28.9/71.8
R1	7030003300	S.RES ERJ3GEYJ 680 V (68 Ω)	T	36/76.4
R2	7030003300	S.RES ERJ3GEYJ 680 V (68 Ω)	T	32/76.4
R3	7030003300	S.RES ERJ3GEYJ 680 V (68 Ω)	T	24/76.4
R4	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	20/76.4
R5	7030003320	S.RES ERJ3GEYJ 101 V (100 Ω)	T	16/76.4
R6	7030003300	S.RES ERJ3GEYJ 680 V (68 Ω)	T	12/76.4
R7	7030011030	S.RES ERJ1TYJ 270U (27 Ω)	T	35.3/21.3
R8	7030003340	S.RES ERJ3GEYJ 151 V (150 Ω)	T	28/76.4
C7	4510008800	S.ELE EEE1EA100SR	T	40.8/26.8
J1	6510018920	S.CNR B8B-PH-SM3-TB	T	23.9/43
J2	6510016170	CNR 52018-8835		
J3	6510023260	S.CNR B6B-PH-SM3-TB	T	25.9/58.5
J4	6510011590	CNR B2P-VH		
J5	6510011460	CNR B6P-VH		
J6	6510018960	S.CNR B2B-PH-SM3-TB	T	39.8/36.3

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

**[CHASSIS-T UNIT]**

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
IC1160	1150002200	IC RA18H1213G1-22		
J1	6510004910	CNR NR-DS-E 01		
MF1	2710000590	FAN MF40D-12H-001		
W1	8900010890	CBL OPC-1115		
W2	8900010890	CBL OPC-1115		
EP1161	6910000970	BEA DL-2OP 2.6-3-1.2H		
EP1162	6910000970	BEA DL-2OP 2.6-3-1.2H		

**[CHASSIS-R UNIT]**

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
J1	6510004910	CNR NR-DS-E 01		
W1	8900010890	CBL OPC-1115		
W2	8900010890	CBL OPC-1115		

**[CASE]**

REF NO.	ORDER NO.	DESCRIPTION	M.	H/V LOCATION
MF1	2710000750	FAN FBA08A12LZ		
W1	8900013140	CBL OPC-1323		
W2	8900013210	CBL OPC-1307		
W3	8900013240	CBL OPC-1373		
W5	8900013170	CBL OPC-1306		
W6	8900013170	CBL OPC-1306		
EP1	6910008330	E.OTH G80-18		

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

S.=Surface mount

# SECTION 6

# MECHANICAL PARTS AND DISASSEMBLY

## [CASE]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
W1	8900013140	Cable OPC-1323 (2731 POWER-SW CABLE)	1
W2	8900013210	Cable OPC-1307 (2731 DC CABLE)	1
W3	8900013240	Cable OPC-1373 (2731 FAN CABLE)	1
W5	8900013170	Cable OPC-1306 (2731 TRX-ANT CABLE)	1
W6	8900013170	Cable OPC-1306 (2731 TRX-ANT CABLE)	1
EP1	6910008330	Fan guard G80-18	1
MF1	2710000750	Fan FBA08A12LZ	1
MP1	8010019640	2732 chassis assembly (NC)	1
MP4	8110008170	2731 cover (NC)	1
MP5	8210020750	2732 panel (NC)	1
MP6	8930062850	2731 M-plate (NC)	2
MP7	8930062850	2731 M-plate (NC)	2
MP8	8930062841	2731 fan holder-1 (NC)	2
MP9	8930063090	Handle BH-60S	1
MP10	8850002040	Washer Z-8S	4
MP12	8930048350	2146 lens	1
MP13	8950003170	Nylon clip SL-8N	1
MP14	8810006470	Setscrew (C) M4 × 12 SUS	4
MP15	8810003360	Setscrew (C) M3 × 6	4
MP16	8810003360	Setscrew (C) M3 × 6	4
MP17	8810003360	Setscrew (C) M3 × 6	4
MP18	8810003360	Setscrew (C) M3 × 6	4
MP20	8810003360	Setscrew (C) M3 × 6	1
MP21	8810002950	Screw BiH M3 × 6 SUS	12
MP23	8810002950	Screw BiH M3 × 6 SUS	1
MP24	8810010130	Setscrew (C) 3 × 35	4
MP25	8810003390	Setscrew (C) M4 × 8	4
MP26	8810003390	Setscrew (C) M4 × 8	4
MP27	8830000110	Nut M4	1
MP28	8850000140	Flat washer M4 NI BS	1
MP29	8850000130	Flat washer M3 (3 × 8 × 0.5) NI BS	1
MP30	8930065080	2732 sheet	1
MP31	8930050210	Double sided tape (V) 40 × 25	1
MP32	8930050210	Double sided tape (V) 40 × 25	1
MP34	8810002950	Screw BiH M3 × 6 SUS	2
MP35	8810002950	Screw BiH M3 × 6 SUS	2

## [FRONT UNIT]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
J1	6450002100	Connector CMS1410-010010	1
J2	6450002100	Connector CMS1410-010010	1
S1	2220000630	Switch MFS201N-16	1
DS1	5040003070	LED MPG4371F	1

## [REAR UNIT]

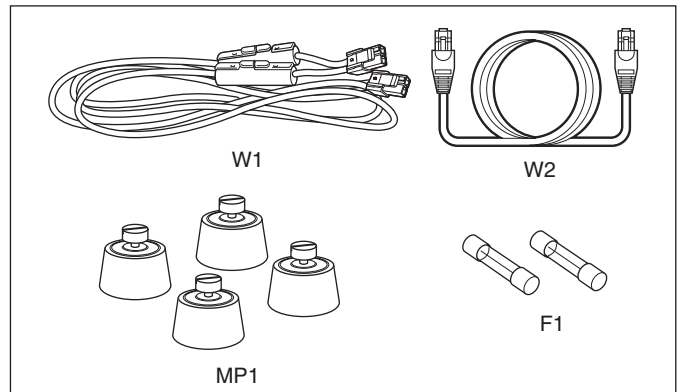
REF. NO.	ORDER NO.	DESCRIPTION	QTY.
J2	6510016170	Connector 52018-8835	1

### Screw abbreviations

BiH: Binding head  
 SUS: Stainless Ni: Nickel  
 BS: Brass

## [ACCESSORIES]

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
F1	5210000071	Fuse FGB 10A PBF	2
W1	8900013190	Cable OPC-1309 (2731 DC-IN CABLE)	1
W2	8900010550	Cable OPC-1069	1
MP1	8930057680	Rubber stand (O)	4



**[CHASSIS-T PARTS]**

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
J1	6510004910	Connector NR-DS-E 01	1
W1	8900010890	Cable OPC-1115	1
W2	8900010890	Cable OPC-1115	1
MF1	2710000590	Fan MF40D-12H-001	1
IC1160	1150002200	IC RA18H1213G1-22	1
EP1161	6910000970	Bead DL2-OP2.6-3-1.2H	1
EP1162	6910000970	Bead DL2-OP2.6-3-1.2H	1
MP1	8010019620	2506 chassis (A)-1	1
MP2	8810008660	Screw PH BT M3 × 8 NI-ZU	2
MP3	8810008660	Screw PH BT M3 × 8 NI-ZU	2
MP4	8810008660	Screw PH BT M3 × 8 NI-ZU	7
MP5	8110006640	2047 cover	1
MP6	8810008450	Screw BiH M4 × 8 ZK	1
MP9	8110005751	1729 fan cover-1	1
MP10	8810009110	Screw PH 0 M2.6 × 16 ZK	4
MP14	8510012210	2047 main shield	2
MP17	8810007130	Setscrew (H) M3 × 6	4
MP22	8930049650	Thermally sheet (H)	2
MP23	8930053472	Thermally sheet (R)-2 TC200HS (10 × 10)	3
MP24	8930055051	Thermally sheet (V)-1 TC400HS (10 × 15)	1
MP26	8510014251	2506 M-plate-1	1
MP27	8930059770	2633 M-holder	1
MP28	8930056781	2506 YGR plate-1	1
MP29	8510014241	2506 ANT plate-1	1
MP33	8930014140	Earth spring (D)	1
MP34	8930014140	Earth spring (D)	1
MP50	8930040010	Insulation plate EM	1

**[MAIN-T UNIT]**

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
W1330	8900011960	Cable OPC-1216	1
MP1	8510016420	2506 VCO case	1
MP2	8510010880	1642 VCO case	1
MP3*	8510016430	2506 VCO cover	1
MP30	8930014140	Earth spring (D)	1
MP39	8930054521	Shield sponge (E)-1	1
MP54*	8510016440	2506 shield plate	1
MP55*	8510000210	194 shield plate	1
MP57*	8510010460	1691 main shield plate	1
MP58	8510011111	1922 VCO case-1	1
MP60	8510011101	1922 VCO cover-1	1
MP64	8930056580	Spacer with screw (AD)	4
MP65	8810007130	Setscrew (H) M3 × 6	4
MP66*	8510010460	1691 main shield plate	1
MP67	8510002280	VCO shield plate (A)	1
MP69*	8930053600	2242 spring	1
MP70	8930001170	Earth spring (A)	1

**[LOGIC-T UNIT]**

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
W1	8900013180	Cable OPC-1312 (2732 TX-CTRL CABLE)	1
MP1	8510012500	2176 shield plate	1
MP2	8510012500	2176 shield plate	1
MP3	8510014481	2506 CPU shield-1	1
MP6	8930001170	Earth spring (A)	1
MP7	8930007280	Aluminium sheet (H)	1
MP8	8510010460	1691 main shield plate	1
MP9	8510002280	VCO shield plate (A)	1
MP10	8510005070	599 shield plate	1

**[CHASSIS-R PARTS]**

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
J1	6510004910	Connector NR-DS-E 01	1
W1	8900010890	Cable OPC-1115	1
W2	8900010890	Cable OPC-1115	1
MP1	8010019620	2506 chassis (A)-1	1
MP2	8810008660	Screw PH BT M3 × 8 NI-ZU	2
MP4	8810008660	Screw PH BT M3 × 8 NI-ZU	7
MP5	8110006640	2047 cover	1
MP6	8810008450	Screw BiH M4 × 8 ZK	1
MP14	8510012210	2047 main shield	2
MP17	8810007130	Setscrew (H) M3 × 6	4
MP22	8930049650	Thermally sheet (H)	2
MP23	8930053472	Thermally sheet (R)-2 TC200HS (10 × 10)	2
MP28	8930056781	2506 YGR plate-1	1
MP29	8510014241	2506 ANT plate-1	1
MP33	8930014140	Earth spring (D)	1
MP34	8930014140	Earth spring (D)	1

**[MAIN-R UNIT]**

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
W1330	8900011960	Cable OPC-1216	1
MP1	8510010880	1642 VCO case	1
MP2	8510010880	1642 VCO case	1
MP30	8930014140	Earth spring (D)	1
MP39	8930054521	Shield sponge (E)-1	1
MP40	8510002280	VCO shield plate (A)	1
MP54*	8510000210	194 shield plate	1
MP55*	8510000210	194 shield plate	1
MP57*	8510010460	1691 main shield plate	1
MP58	8510011111	1922 VCO case-1	1
MP60	8510011101	1922 VCO cover-1	1
MP64	8930056580	Spacer with screw (AD)	4
MP65	8810007130	Setscrew (H) M3 × 6	4
MP66*	8510010460	1691 main shield plate	1
MP67	8510002280	VCO shield plate (A)	1

**[LOGIC-R UNIT]**

REF. NO.	ORDER NO.	DESCRIPTION	QTY.
W1	8900013161	Cable OPC-1313A (2732 RX-CTRL CABLE)	1
MP1	8510012500	2176 shield plate	1
MP2	8510012500	2176 shield plate	1
MP3	8510014481	2506 CPU shield-1	1
MP6	8930001170	Earth spring (A)	1
MP7	8930007280	Aluminium sheet (H)	1
MP8	8510010460	1691 main shield plate	1
MP9	8510002280	VCO shield plate (A)	1
MP10	8510005070	599 shield plate	1

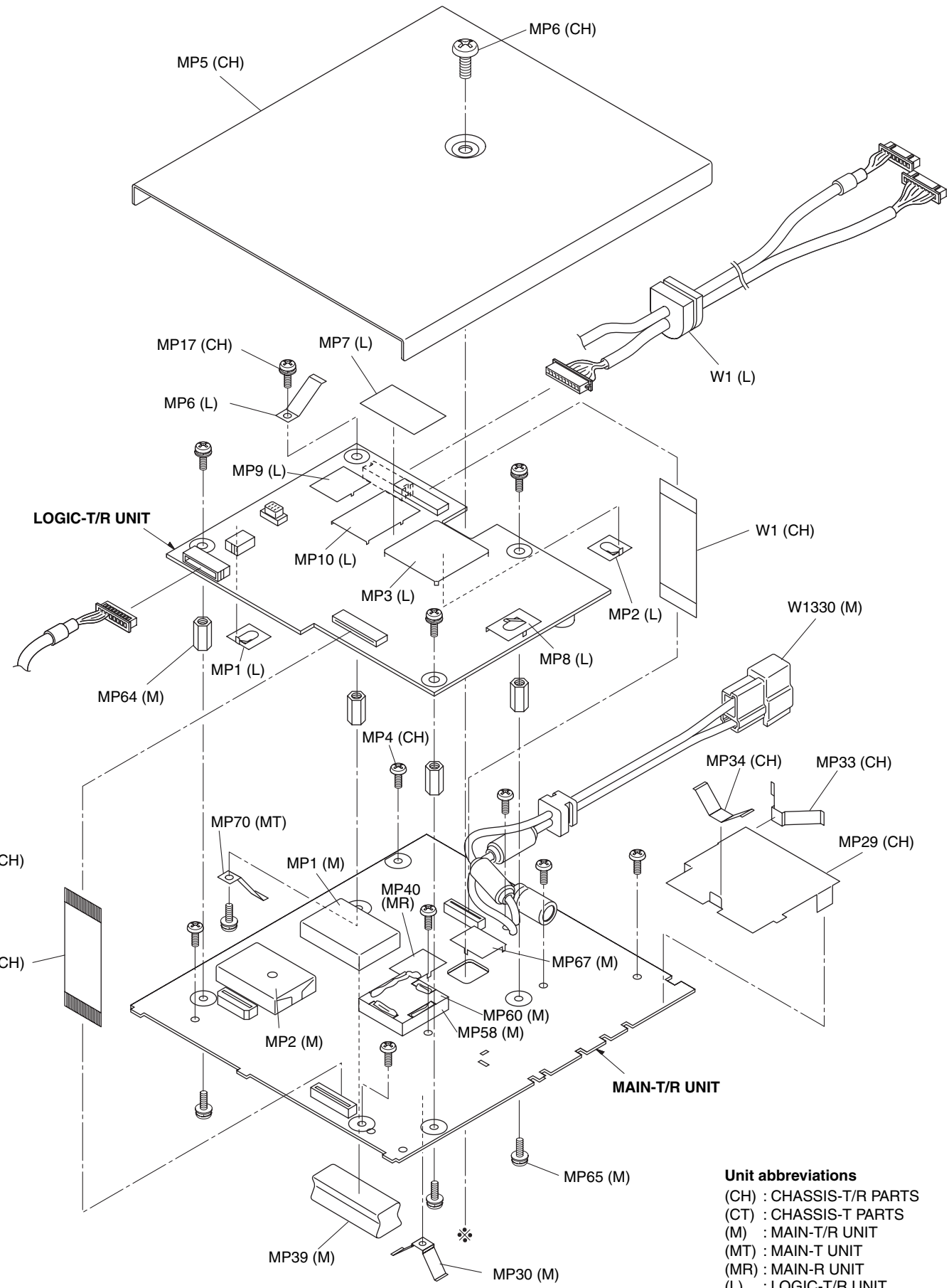
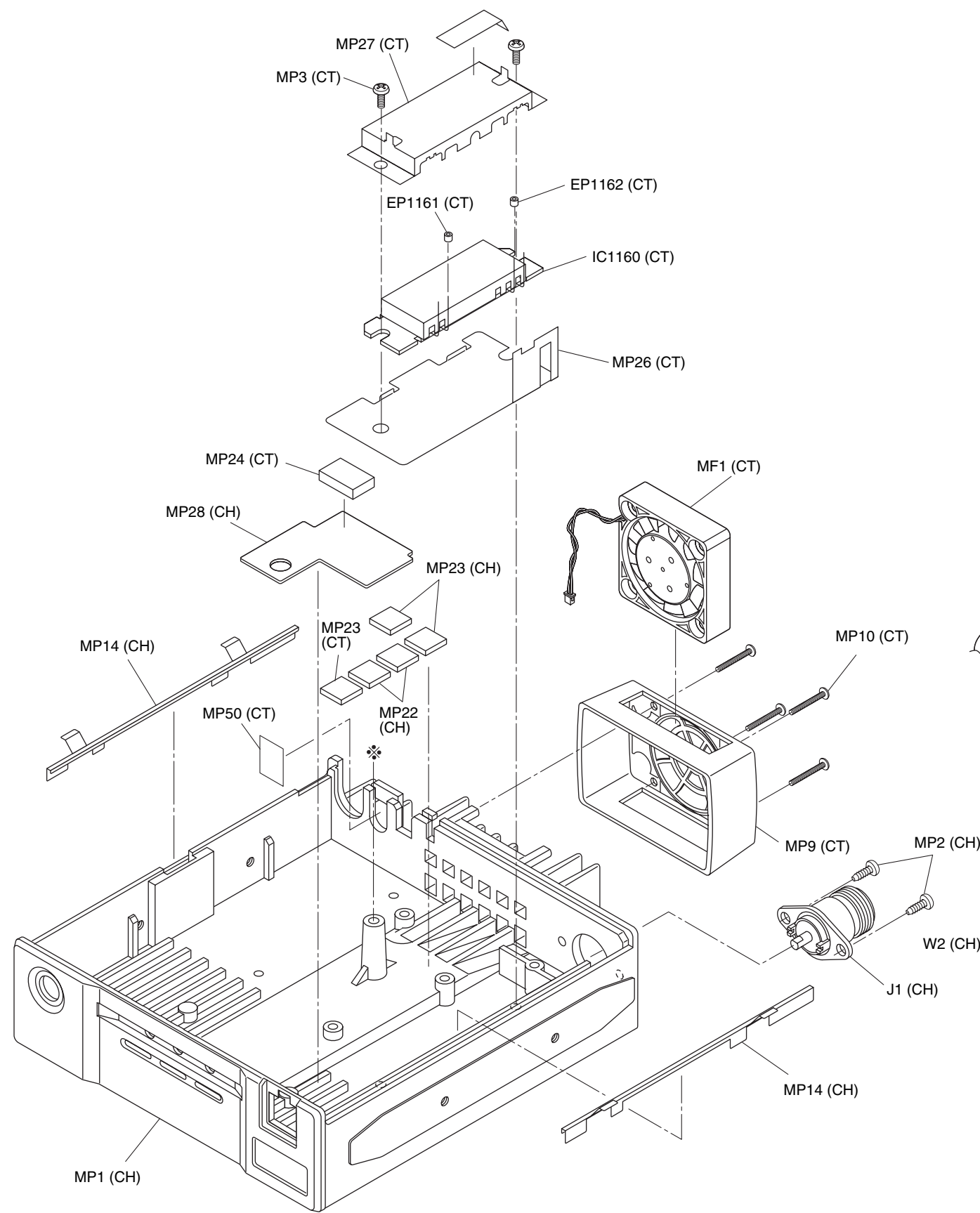
\*Note: Refer to SECTION 9 BOARD LAYOUTS.

**Screw abbreviations**

BT: Self-tapping PH: Pan head  
 BiH: Binding head  
 ZK: Black  
 NI-ZU: Nickel-Zinc





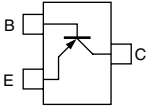
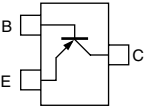
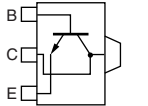
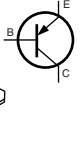
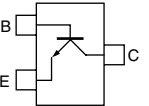
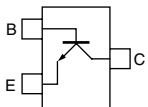
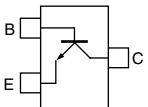
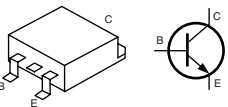
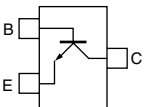
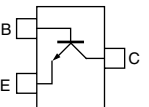
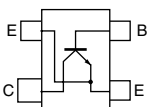
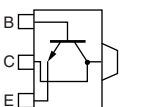
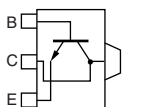
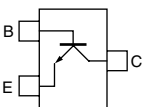
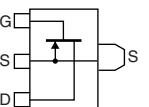
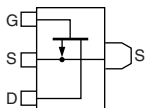
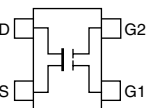
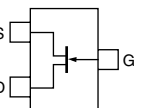
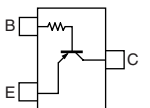
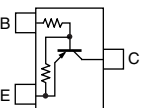
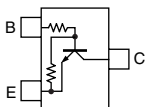
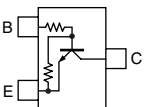
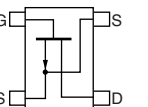
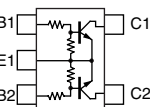
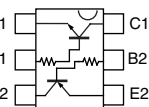


**Unit abbreviations**  
 (CH) : CHASSIS-T/R PARTS  
 (CT) : CHASSIS-T PARTS  
 (M) : MAIN-T/R UNIT  
 (MT) : MAIN-T UNIT  
 (MR) : MAIN-R UNIT  
 (L) : LOGIC-T/R UNIT


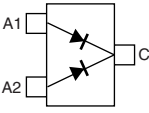
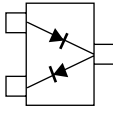
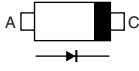
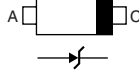

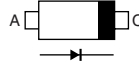
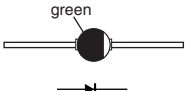

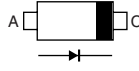

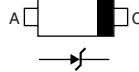

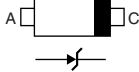
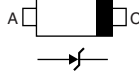

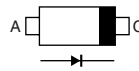
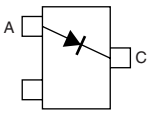
# SECTION 7

# SEMI-CONDUCTOR INFORMATION

## • TRANSISTORS AND FET'S

<p><b>2SA1362 GR</b> (Symbol: AEG)</p> 	<p><b>2SA1586 GR</b> (Symbol: SG)</p> 	<p><b>2SB798 T2 DK</b> (Symbol: DK)</p> 	<p><b>2SB934 P</b> (Symbol: None)</p> 	<p><b>2SC4081 T106 S</b> (Symbol: BS)</p> 
<p><b>2SC4215 O</b> (Symbol: QO)</p> 	<p><b>2SC4226 T1 R25</b> (Symbol: R25)</p> 	<p><b>2SC4684</b> (Symbol: 2SC4684)</p> 	<p><b>2SC5107 O</b> (Symbol: MFO)</p> 	<p><b>2SC5195</b> (Symbol: 88)</p> 
<p><b>2SC5454 R54</b> (Symbol: R54)</p> 	<p><b>2SD1619 T TD</b> (Symbol: DB)</p> 	<p><b>2SD1801 S TL</b> (Symbol: CE)</p> 	<p><b>2SD2216J</b> (Symbol: Y)</p> 	<p><b>2SK2854</b> (Symbol: UP)</p> 
<p><b>2SK2855</b> (Symbol: UT)</p> 	<p><b>3SK241</b> (Symbol: DU)</p> 	<p><b>DTA114EUA T106</b> (Symbol: 14)</p> 	<p><b>DTA143TUA</b> (Symbol: 93)</p> 	<p><b>DTA144EUA T106</b> (Symbol: 16)</p> 
<p><b>DTC143ZUA</b> (Symbol: 123)</p> 	<p><b>DTC144EUA T106</b> (Symbol: 26)</p> 	<p><b>NE34018-T1 64</b> (Symbol: V64)</p> 	<p><b>XP1214</b> (Symbol: 9H)</p> 	<p><b>XP4315</b> (Symbol: CB)</p> 

• DIODES

<p><b>1SS355</b> (Symbol: A)</p> 	<p><b>1SS364</b> (Symbol: BF)</p> 	<p><b>1SS372</b> (Symbol: N9)</p> 	<p><b>1SV239</b> (Symbol: TC)</p> 	<p><b>1SV282</b> (Symbol: TD)</p> 
<p><b>1SV307</b> (Symbol: TX)</p> 	<p><b>1SV308</b> (Symbol: TX)</p> 	<p><b>DSA3A1</b> (Color: Green)</p> 	<p><b>HSU88TRF</b> (Symbol: 9)</p> 	<p><b>MA2S077</b> (Symbol: S)</p> 
<p><b>MA2S728</b> (Symbol: B)</p> 	<p><b>MA8030 H</b> (Symbol: 3^0)</p> 	<p><b>MA8033 L</b> (Symbol: 3_3)</p> 	<p><b>MA8062 M</b> (Symbol: 6-2)</p> 	<p><b>MA8082 M</b> (Symbol: 8-2)</p> 
<p><b>MA8091 M</b> (Symbol: 9-1)</p> 	<p><b>NNCD5.6C-T1</b> (Symbol: NNCD5.6)</p> 	<p><b>SB07-03C</b> (Symbol: J)</p> 		

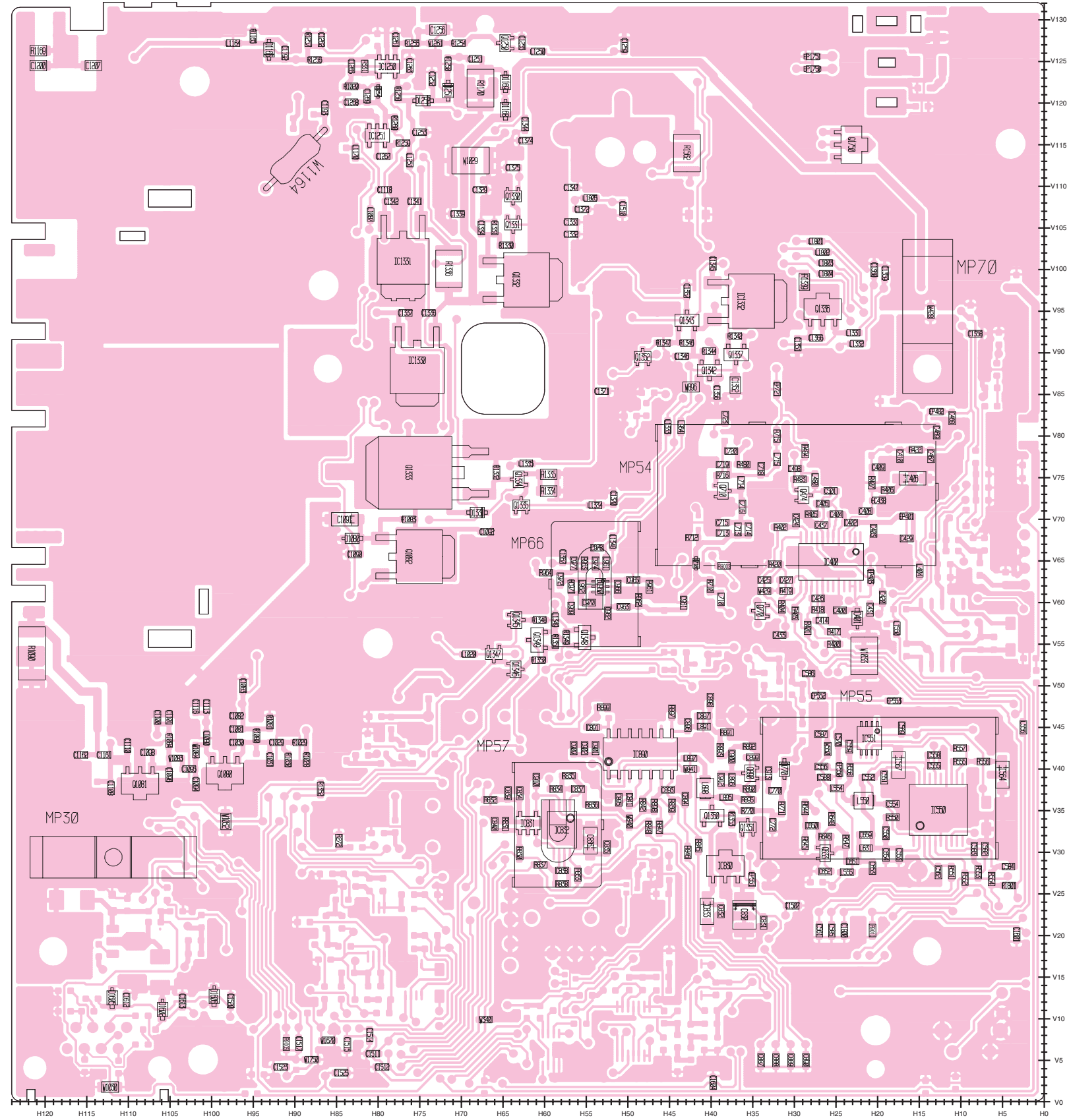








• BOTTOM VIEW (MAIN-T UNIT)



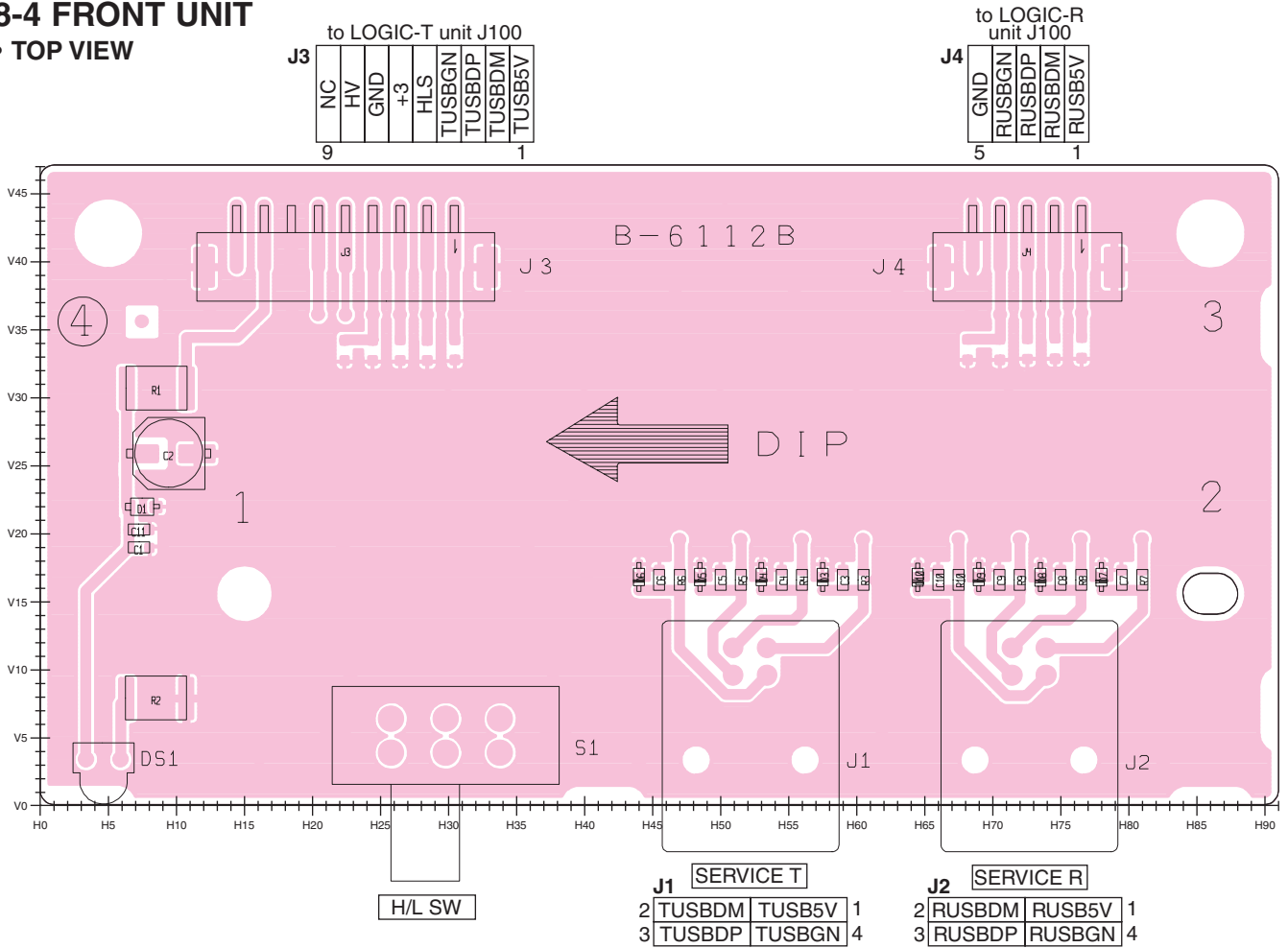






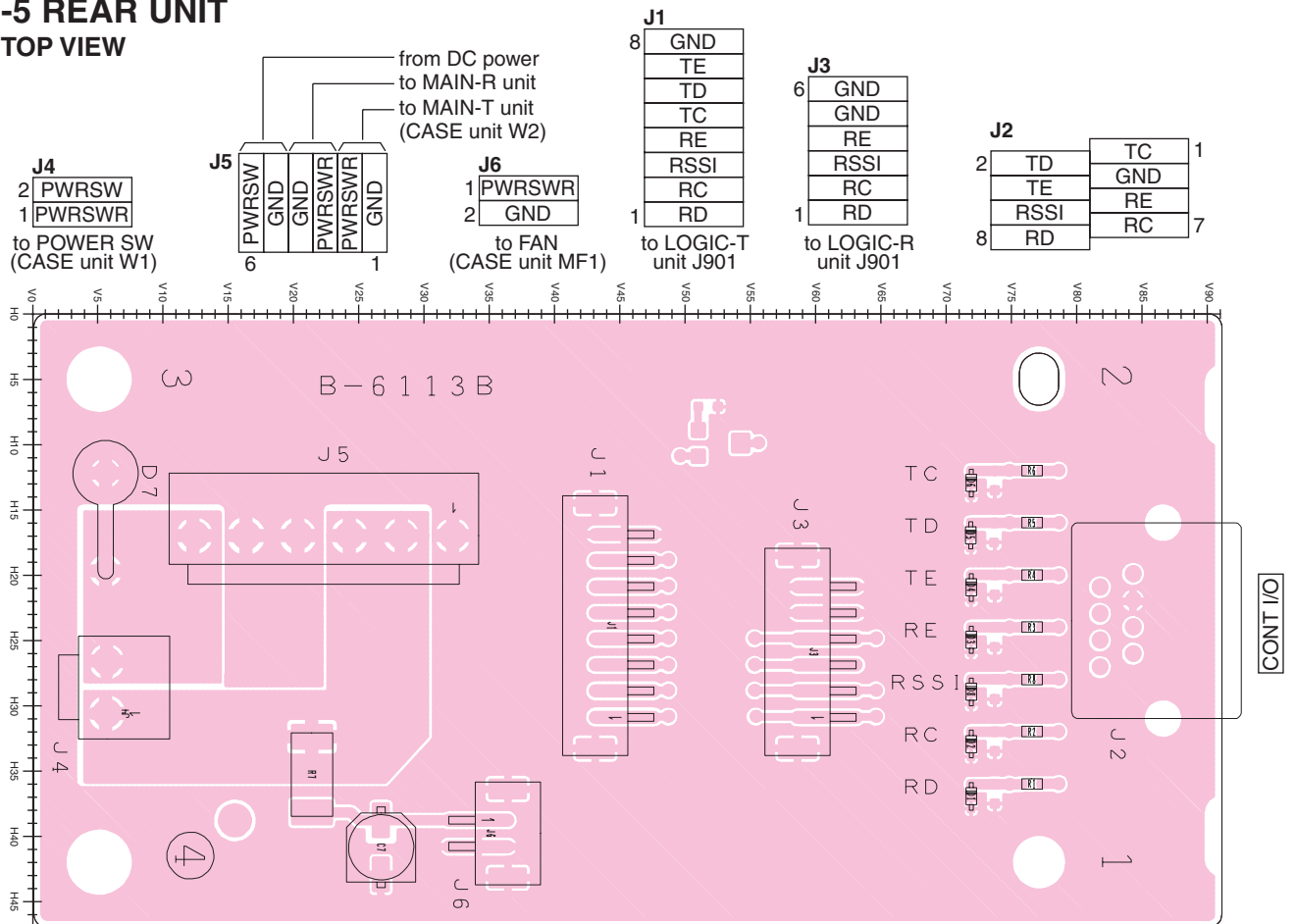
# 8-4 FRONT UNIT

## • TOP VIEW



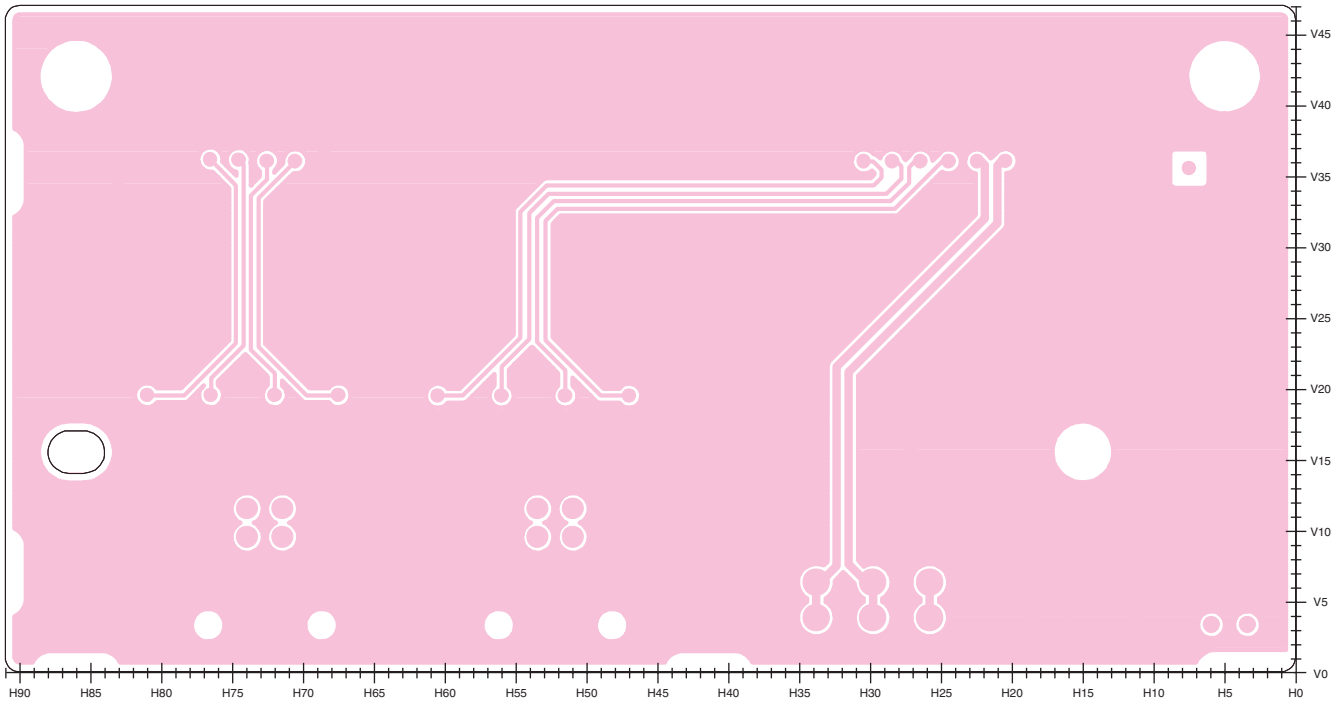
# 8-5 REAR UNIT

## • TOP VIEW

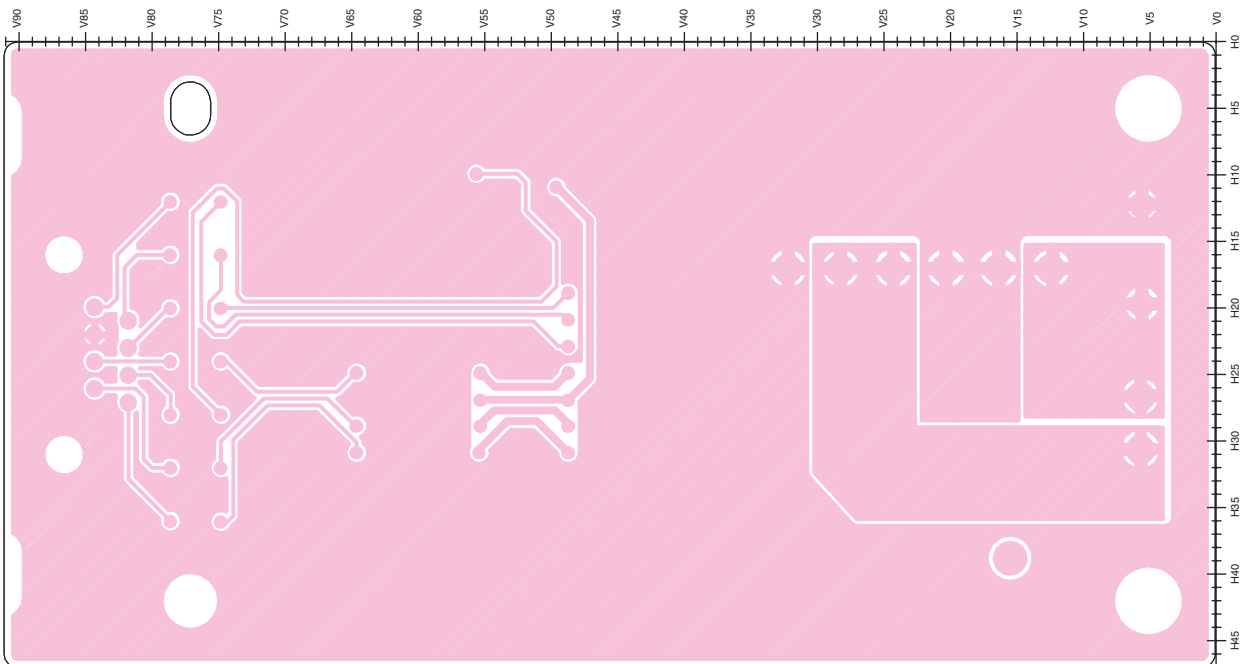




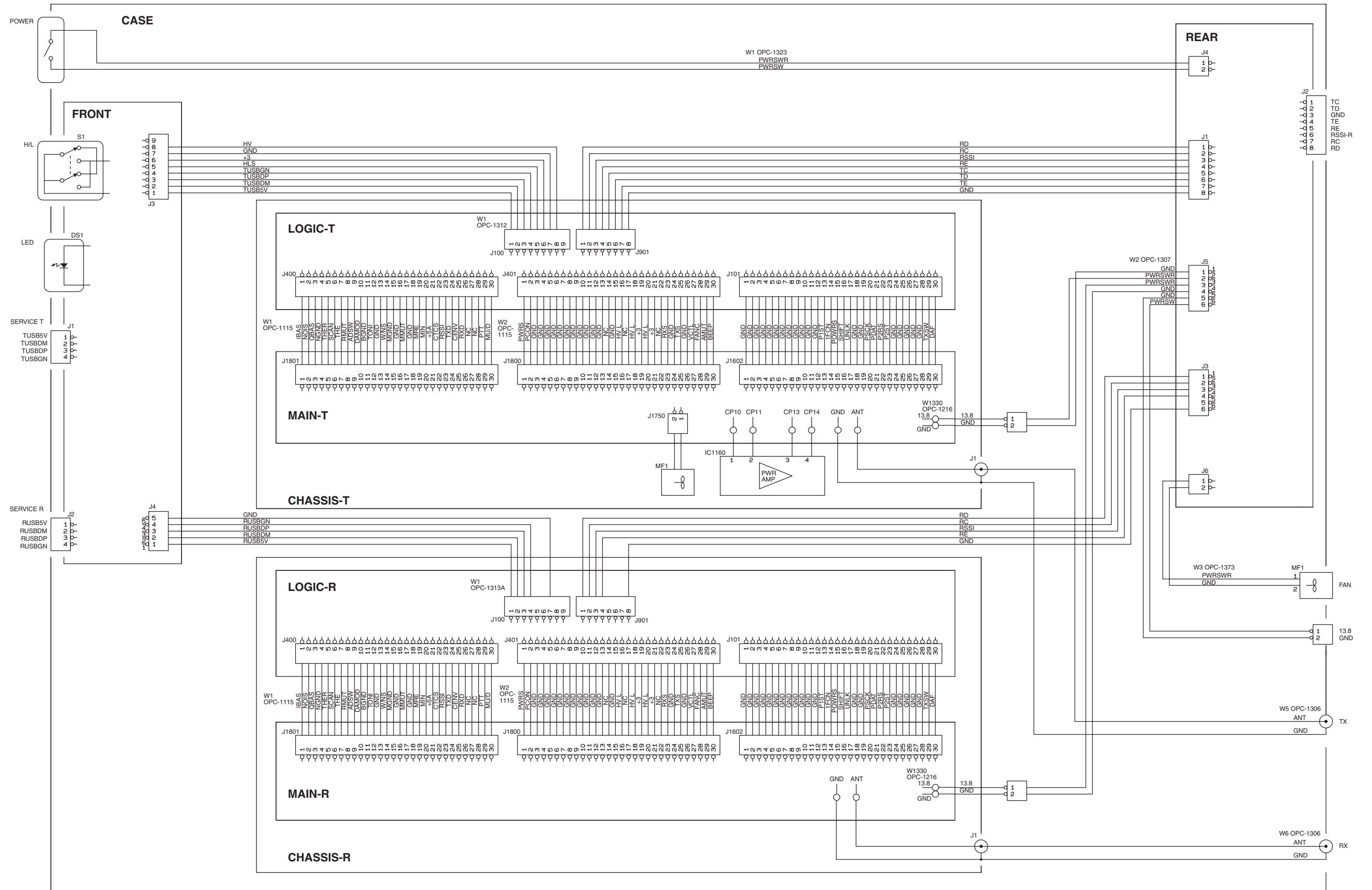
• **BOTTOM VIEW (FRONT UNIT)**



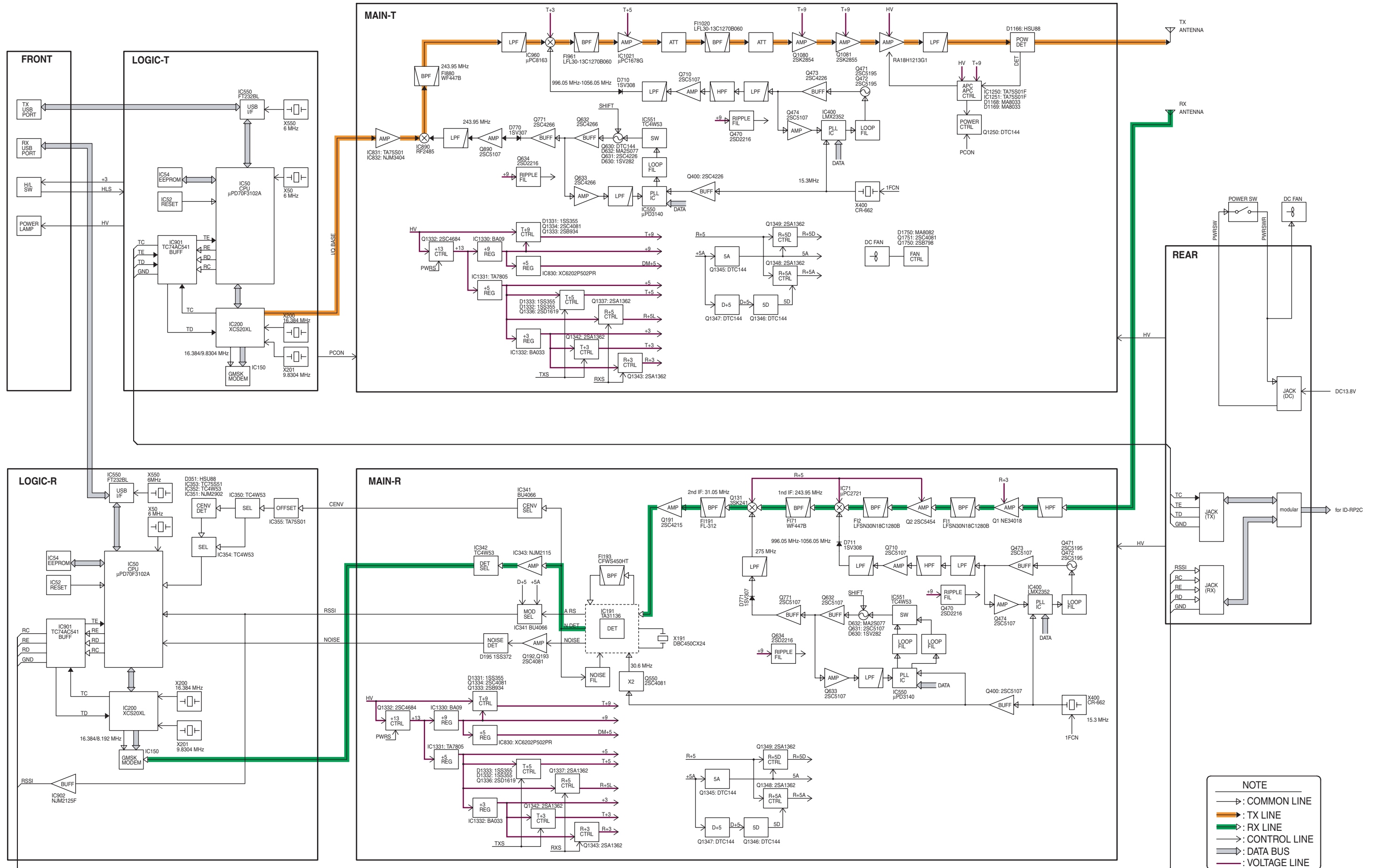
• **BOTTOM VIEW (REAR UNIT)**



# SECTION 9 WIRING DIAGRAM

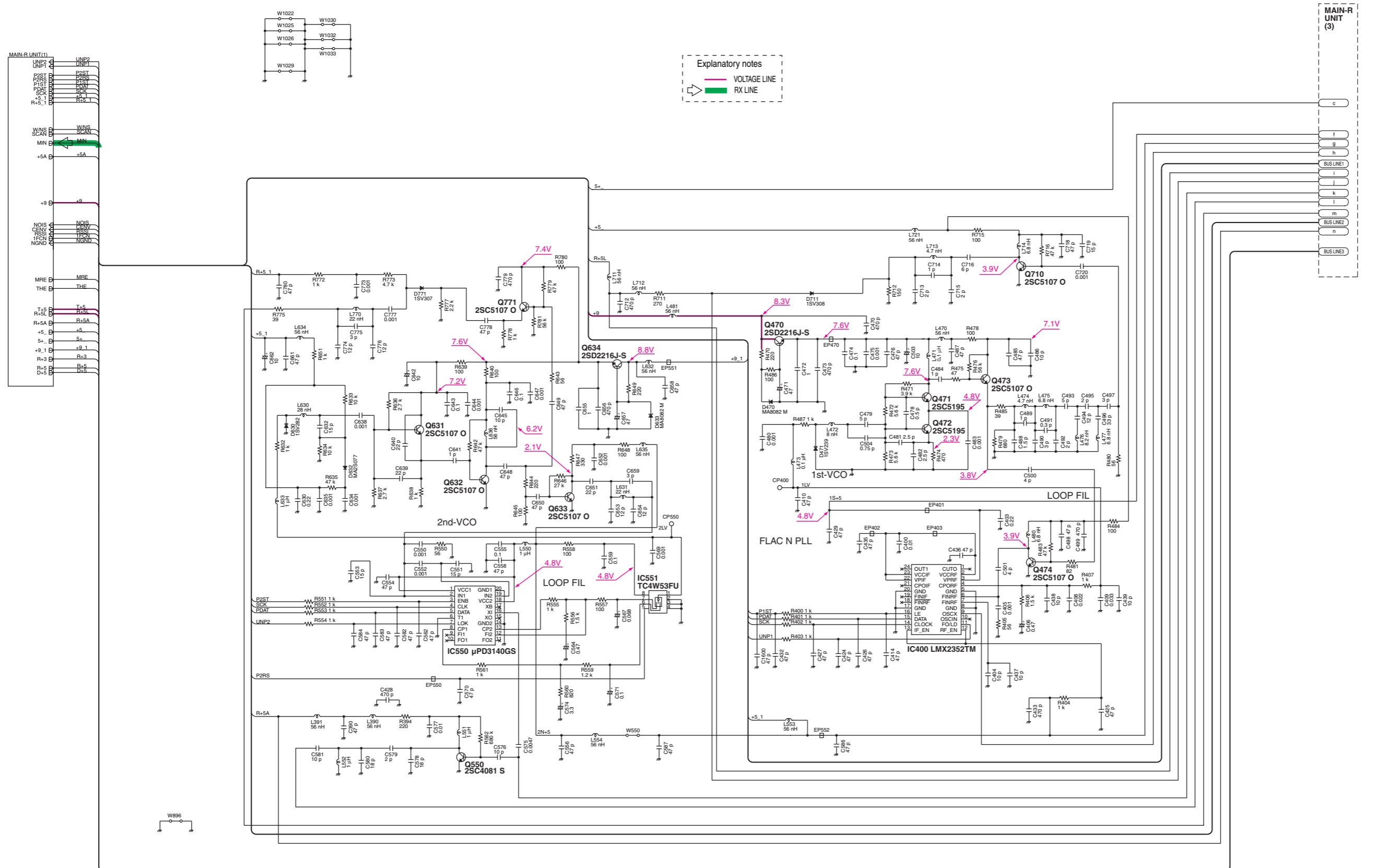


# SECTION 10 BLOCK DIAGRAM



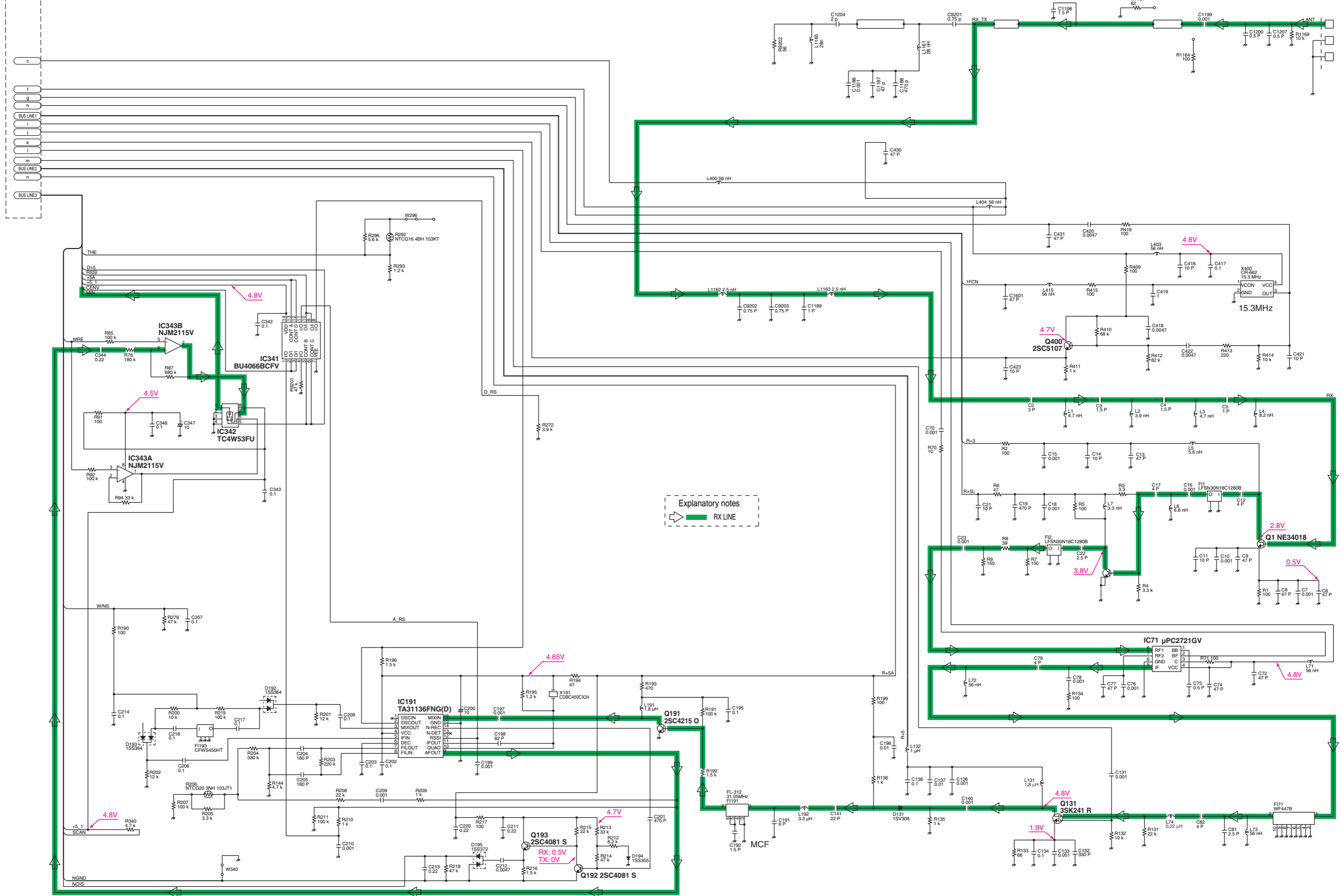


MAIN-R UNIT(2)



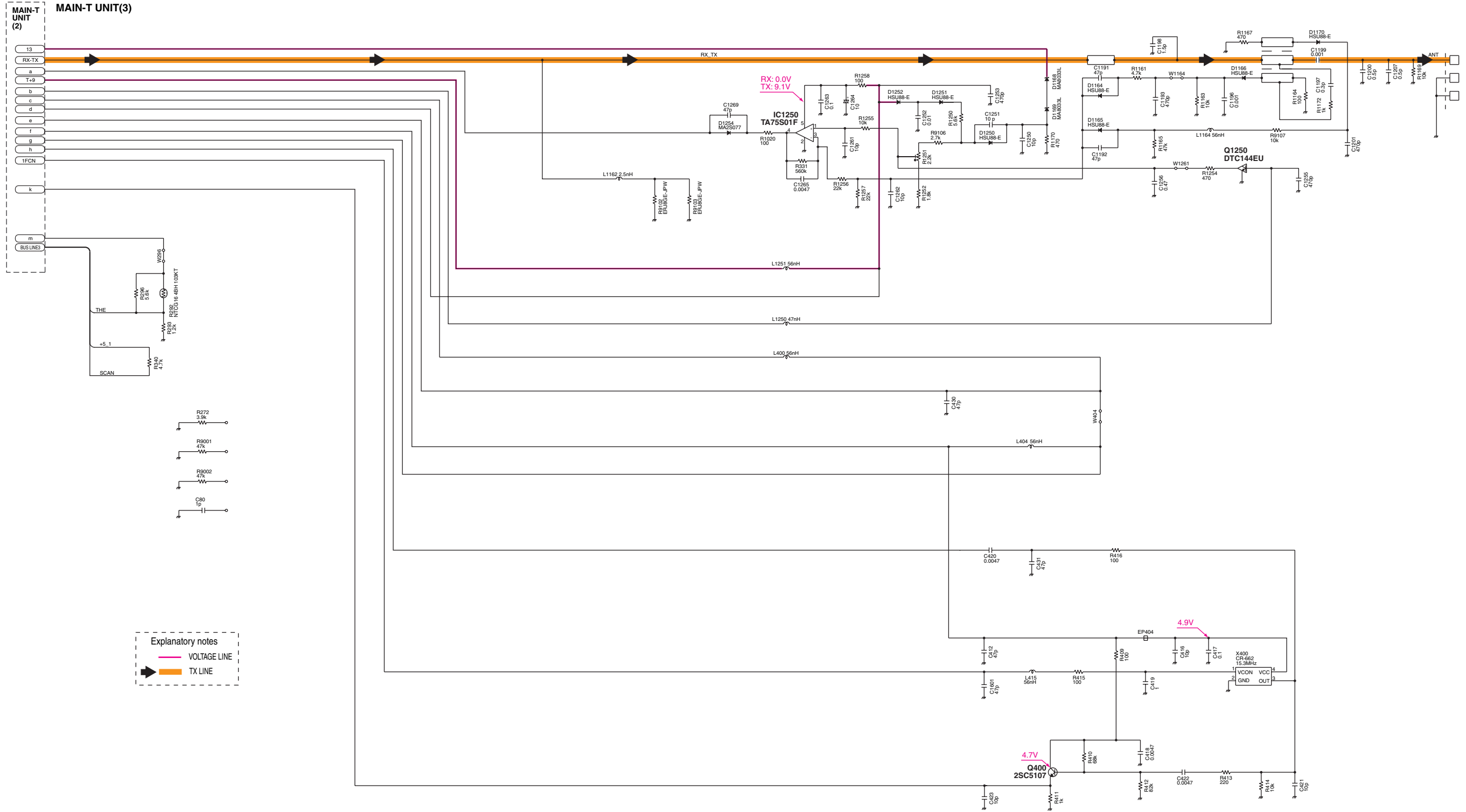


MAIN-R UNIT(3)  
MAIN-R UNIT (2)





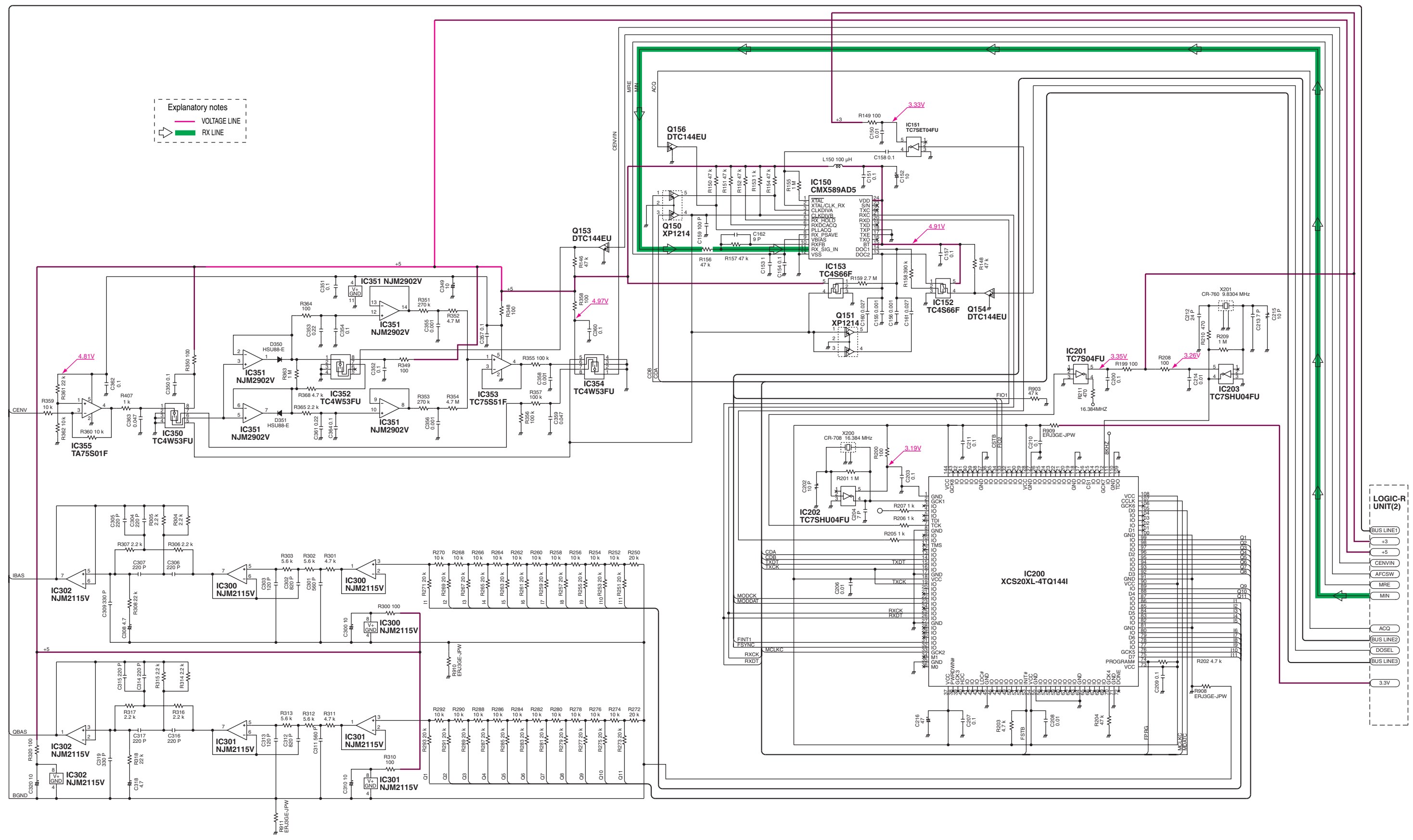




Explanatory notes  
 — VOLTAGE LINE  
 — TX LINE

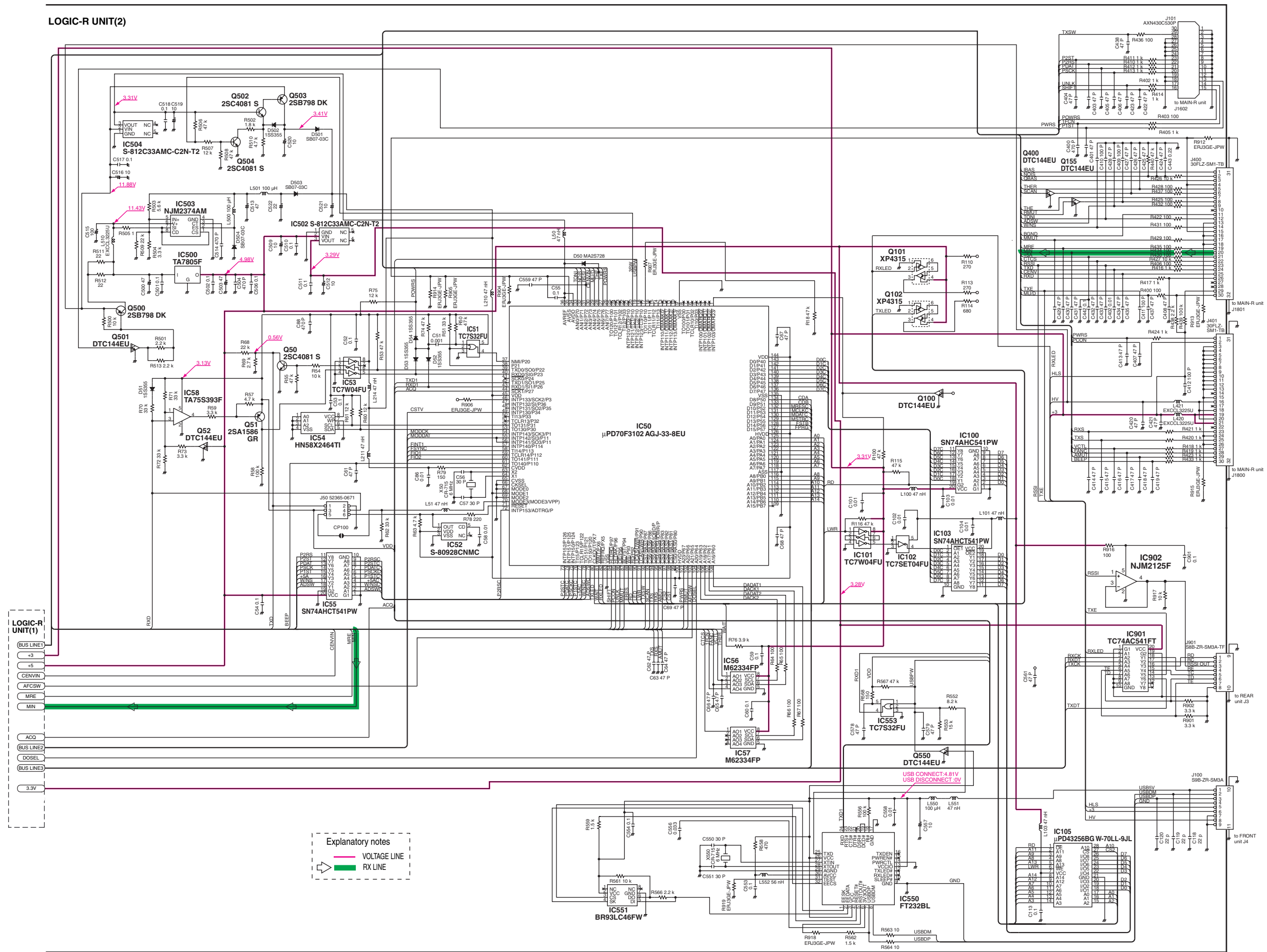
# 11-3 LOGIC-R UNIT

## LOGIC-R UNIT(1)



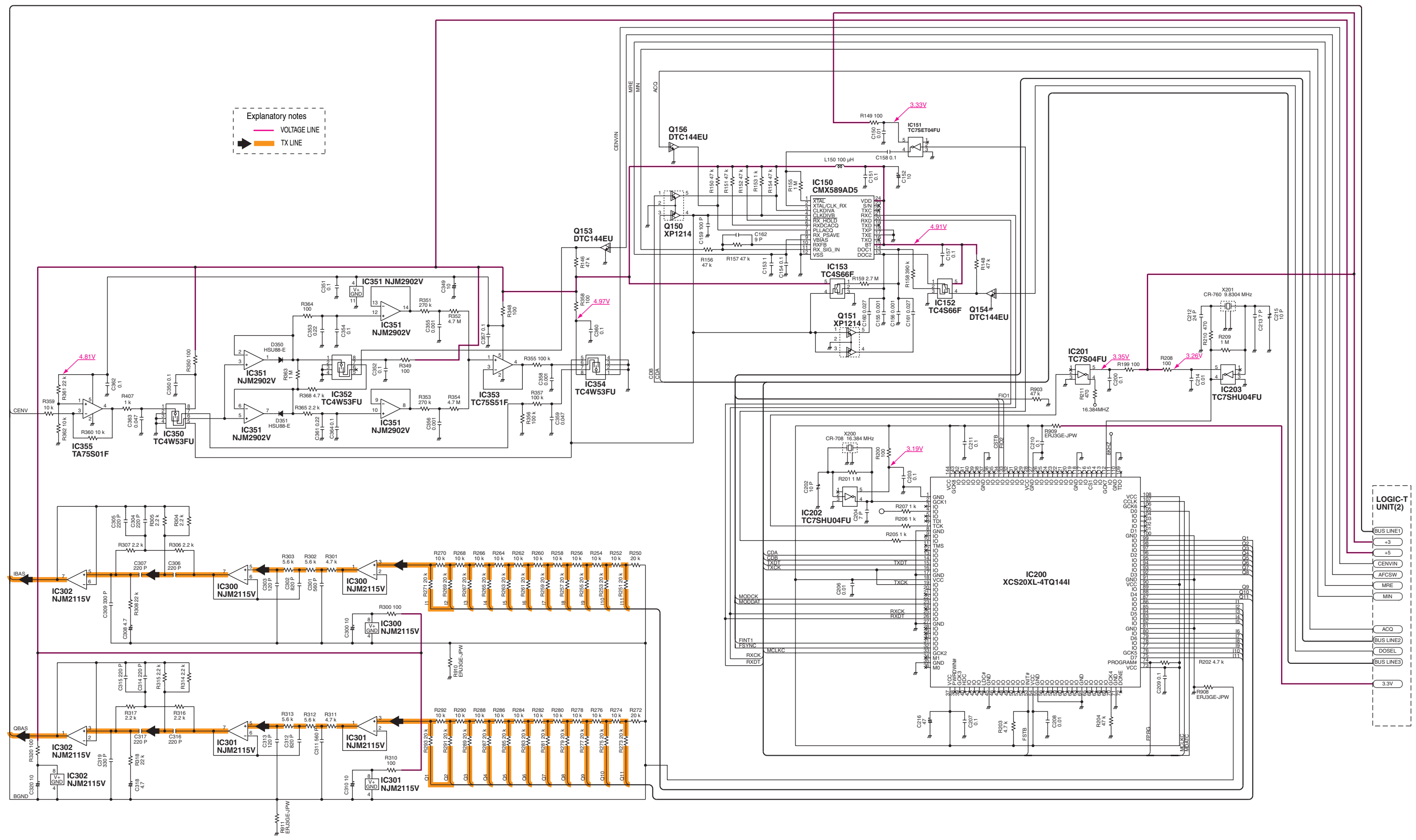


LOGIC-R UNIT(2)



# 11-4 LOGIC-T UNIT

LOGIC-T UNIT(1)





## 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](mailto: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](mailto:info@icomcanada.com)

### Icom (Australia) Pty. Ltd.

A.B.N. 88 006 092 575  
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](mailto: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](mailto:inquiries@icom.co.nz)

### Beijing Icom Ltd.

Room C01, 10th Floor, Long Silver Mansion, No. 88,  
Yong Ding Road, Haidian District, Beijing, 100039, China  
Phone : +86 (010) 5889 4250 Fax : +86 (010) 5889 4250  
URL : <http://www.bjicom.com>  
E-mail : [bjicom@bjicom.com](mailto:bjicom@bjicom.com)

### Icom (Europe) GmbH

Communication Equipment  
Himmelgeister Str. 100, D-40225 Düsseldorf, Germany  
Phone : +49 (0211) 346047 Fax : +49 (0211) 333639  
URL : <http://www.icomeurope.com>  
E-mail : [info@icomeurope.com](mailto:info@icomeurope.com)

### Icom Spain S.L

Crta. de Gracia a Manresa Km. 14,750  
08190 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](mailto:icom@icomspain.com)

### Icom (UK) Ltd.

Unit 9, Sea St., Herne Bay, Kent, CT6 8LD, U.K.  
Phone : +44 (01227) 741741 Fax : +44 (01227) 741742  
URL : <http://www.icomuk.co.uk>  
E-mail : [info@icomuk.co.uk](mailto:info@icomuk.co.uk)

### Icom France S.a

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](mailto: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](mailto:sales@asia-icom.com)

### Icom Polska

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

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