

---

**IC-7300**

---

**NOTE: Use these amended pages as one addendum set.  
Do not mix them up with the previous master pages.**

**CONTENTS****REPLACEMENT PAGES:**

ADJUSTMENT PROCEDURES..... 4-5

**AMENDED PAGES:**

PARTS LIST ..... 1  
BOARD LAYOUTS ..... 21  
BLOCK DIAGRAMS ..... 29  
SCHEMATIC DIAGRAMS ..... 32

4-4 TX POWER ADJUSTMENTS (continued)

ADJUSTMENT ITEM	TRANSCEIVER'S CONDITION	OPERATION	ADJUST POINT	VALUE
<b>TX POWER &amp; POWER METER SETTING (70 MHz band)</b>	18	• Display: "TX Total 70M Gain" • Transmit (automatic)	[MAIN DIAL]	25 W (A beep sounds, and then another beeps sound 0.5 sec. later.)
	19	• Display: "POWER 70M 1%" • Transmit (automatic)		2 W (A beep sounds, and then another beeps sound 0.5 sec. later.)
	20	• Display: "POWER 70M 10%" • Transmit (automatic)		7.5 W (A beep sounds, and then another beeps sound 0.5 sec. later.)
	21	• Display: "POWER 70M TUNE" • Transmit (automatic)		10 W (A beep sounds, and then another beeps sound 0.5 sec. later.)
	22	• Display: "POWER 70M 50%" • Transmit (automatic)		27.5 W (A beep sounds, and then another beeps sound 0.5 sec. later.)
	23	• Display: "POWER 70M 100%" • Transmit (automatic)		52.5 W (A beep sounds, and then another beeps sound 0.5 sec. later.)
<b>AM CARRIER POWER (70 MHz band)</b> <b>Only for [#03], [#05], and [#06]</b>	24	• Display: "POWER AM Ratio 70M" • Transmit (automatic)		12.5 W (A beep sounds, and then another beeps sound 0.5 sec. later.)
• Push [EXIT] to return to the main adjustment menu.				

4-5 TX AMPLIFIER ADJUSTMENTS

• Touch [TX/ID] on the main adjustment menu screen.

**NOTE:** The transceiver automatically transmits when a TX adjustment item is selected.

ADJUSTMENT ITEM	TRANSCEIVER'S CONDITION	OPERATION	VALUE	
<b>PREPARATION</b>	1	• Display: "TX POWER SET" • Receive	-	
		1) Connect the audio generator with the millivoltmeter to [MIC], and then set it to; Frequency: 1.5 kHz Level: 30 mV rms 2) Connect the power meter to the antenna connector. 3) Touch [ALC] on the TX adjustment menu, to enter to the TX amplifier adjustment mode.		
<b>ALC METER</b>	2	• Display: "ALC HF" • Transmit (automatic)	Touch [SET]. (A beep sounds, and then another beeps sound 3 sec. later.)	
	3	• Display: "ALC 50M" • Transmit (automatic)		
<b>Only for [#03], [#05], and [#06]</b>	4	• Display: "ALC 70M" • Transmit (automatic)		
<b>DRIVE AMP GAIN</b>	5	• Display: "DRIVE HF" • Transmit (automatic)	Touch [SET]. (A beep sounds, and then another beeps sound 10 sec. later.)	
	6	• Display: "DRIVE 50M" • Transmit (automatic)	Touch [SET]. (A beep sounds, and then another beeps sound 3 sec. later.)	
	7	• Display: "DRIVE 70M" • Transmit (automatic)	Touch [SET]. (A beep sounds, and then another beeps sound 1 sec. later.)	
<b>SWR METER</b>	8	• Display: "SWR2 (HF)" • Transmit (automatic)	Touch [SET]. (A beep sounds, and then another beeps sound 3 sec. later.)	
	9	• Display: "SWR2 (50M)" • Transmit (automatic)		
<b>Only for [#03], [#05], and [#06]</b>	10	• Display: "SWR2 (70M)" • Transmit (automatic)		
<b>Id APC</b>	11	• Display: "ID-APC" • Transmit (automatic)	Touch [SET]. (A beep sounds, and then another beeps sound 2 sec. later.)	
• Push [EXIT] to return to the main adjustment menu.				

PARTS LIST

[MAIN UNIT]

Table with columns: REF NO., PART NO., DESCRIPTION, M., H/V LOCATION. Contains multiple rows of part numbers and descriptions for the main unit assembly.

[MAIN UNIT]

Table with columns: REF NO., PART NO., DESCRIPTION, M., H/V LOCATION. Contains multiple rows of part numbers and descriptions for the main unit assembly.

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

M.=Mounted side (T: Mounted on the Top side, B: Mounted on the Bottom side) H/V LOCATION=See the BOARD LAYOUTS for details.

[MAIN UNIT]

Table with columns: REF NO., PART NO., DESCRIPTION, M., H/V LOCATION. Contains 30 rows of component data.

[MAIN UNIT]

Table with columns: REF NO., PART NO., DESCRIPTION, M., H/V LOCATION. Contains 30 rows of component data.

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

M.=Mounted side (T: Mounted on the Top side, B: Mounted on the Bottom side) H/V LOCATION=See the BOARD LAYOUTS for details.

[MAIN UNIT]

Table with columns: REF NO., PART NO., DESCRIPTION, M., H/V LOCATION. Lists components from R725 to R1011, including various ERJ2G and ERJ2GEJ parts.

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

[MAIN UNIT]

Table with columns: REF NO., PART NO., DESCRIPTION, M., H/V LOCATION. Lists components from R1012 to C19, including ERJ2G, ERJ2GEJ, and C1005 components.

M.=Mounted side (T: Mounted on the Top side, B: Mounted on the Bottom side) H/V LOCATION=See the BOARD LAYOUTS for details.

[MAIN UNIT]

Table with columns: REF NO., PART NO., DESCRIPTION, M., H/V LOCATION. Contains 307 rows of component data.

[MAIN UNIT]

Table with columns: REF NO., PART NO., DESCRIPTION, M., H/V LOCATION. Contains 307 rows of component data.

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

M.=Mounted side (T: Mounted on the Top side, B: Mounted on the Bottom side) H/V LOCATION=See the BOARD LAYOUTS for details.



[MAIN UNIT]

Table with columns: REF NO., PART NO., DESCRIPTION, M., H/V LOCATION. Lists various components like S.CER, S.CON, and S.SWI with their respective part numbers and locations.

[MAIN UNIT]

Table with columns: REF NO., PART NO., DESCRIPTION, M., H/V LOCATION. Lists various components like S.BEA, S.CER, and S.SWI with their respective part numbers and locations.

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

M.=Mounted side (T: Mounted on the Top side, B: Mounted on the Bottom side) H/V LOCATION=See the BOARD LAYOUTS for details.



[MAIN UNIT]

[RF UNIT]

REF NO.	PART NO.	DESCRIPTION	M.	H/V LOCATION
EP1261	6910018460	S.BEA MMZ1005Y102C-T	T	101.9/105.6
EP1300	6910026020	E.O CMBA0210101402-00		
EP1301	6910021230	S.BEA MMZ2012Y102BT	T	96.4/101.3
EP1302	6910018460	S.BEA MMZ1005Y102C-T	T	78.8/96.3
EP1315	6910018460	S.BEA MMZ1005Y102C-T	T	74.1/131.3
EP1331	6910018460	S.BEA MMZ1005Y102C-T	T	85.1/128.9
EP1332	6910018460	S.BEA MMZ1005Y102C-T	T	85.1/128.0
EP1351	6910019900	S.BEA MPZ1608S601AT	T	44.6/86.7
EP1352	6910019900	S.BEA MPZ1608S601AT	T	45.8/86.7
EP1353	6910019900	S.BEA MPZ1608S601AT	T	45.0/97.6
EP1354	6910019900	S.BEA MPZ1608S601AT	T	63.1/94.6
EP1355	6910019900	S.BEA MPZ1608S601AT	T	61.8/94.6
EP1364	6910018460	S.BEA MMZ1005Y102C-T	T	41.4/77.3
EP1365	6910018460	S.BEA MMZ1005Y102C-T	T	42.3/77.3
EP1401	6910018460	S.BEA MMZ1005Y102C-T	T	28.0/122.8

REF NO.	PART NO.	DESCRIPTION	M.	H/V LOCATION
IC1031	1110008080	S.IC BGA2866115	T	96.6/24.2
IC1061	1180004430	S.REG XC6209F502MR-G	T	64.3/39.3
IC1301	1130010550	S.IC SN74AHC595PWR	T	27.2/19.9
IC1302	1130010550	S.IC SN74AHC595PWR	T	17.6/19.9
IC1303	1130010550	S.IC SN74AHC595PWR	T	8.1/19.9
IC1501	1110005320	S.IC NJM13403V-TE1-#ZZZB	T	48.6/26.2
IC1502	1110008550	S.IC NJM2904CRB1-TE1-#HMZR	T	37.2/27.7
Q101	1590004690	S.TRA LDTC143ZET1G	T	104.9/11.2
Q1001	1590004690	S.TRA LDTC143ZET1G	T	70.9/6.2
Q1051	1530004140	S.TRA L2SC4081RT1G	T	86.3/30.7
Q1061	1590004310	S.TRA LDTA114EET1G	T	61.5/11.1
Q1062	1590004690	S.TRA LDTC143ZET1G	T	61.5/8.7
Q1091	1590004690	S.TRA LDTC143ZET1G	T	4.5/75.3
Q1092	1590004690	S.TRA LDTC143ZET1G	T	4.5/77.7
Q1093	1590004310	S.TRA LDTA114EET1G	T	7.0/77.7
Q1094	1590004310	S.TRA LDTA114EET1G	T	7.0/74.8
Q1095	1590004310	S.TRA LDTA114EET1G	T	7.0/72.6
Q1096	1590004690	S.TRA LDTC143ZET1G	T	4.5/73.1
Q1097	1590004690	S.TRA LDTC143ZET1G	T	58.3/12.9
Q1098	1590004690	S.TRA LDTC143ZET1G	T	56.1/12.9
Q1099	1590004310	S.TRA LDTA114EET1G	T	58.6/15.3
Q1110	1590004310	S.TRA LDTA114EET1G	T	56.6/15.3
Q1111	1590004690	S.TRA LDTC143ZET1G	T	31.0/31.5
Q1121	1590004690	S.TRA LDTC143ZET1G	T	5.8/31.5
Q1131	1590004690	S.TRA LDTC143ZET1G	T	6.9/27.7
Q1141	1590004690	S.TRA LDTC143ZET1G	T	9.4/31.5
Q1151	1590004690	S.TRA LDTC143ZET1G	T	10.5/27.7
Q1161	1590004690	S.TRA LDTC143ZET1G	T	13.0/31.5
Q1171	1590004690	S.TRA LDTC143ZET1G	T	14.1/27.7
Q1181	1590004690	S.TRA LDTC143ZET1G	T	16.6/31.5
Q1191	1590004690	S.TRA LDTC143ZET1G	T	17.7/27.7
Q1201	1590004690	S.TRA LDTC143ZET1G	T	20.2/31.5
Q1211	1590004690	S.TRA LDTC143ZET1G	T	21.3/27.7
Q1221	1590004690	S.TRA LDTC143ZET1G	T	23.8/31.5
Q1231	1590004690	S.TRA LDTC143ZET1G	T	25.0/27.7
Q1241	1590004690	S.TRA LDTC143ZET1G	T	27.4/31.5
Q1261	1590004690	S.TRA LDTC143ZET1G	T	28.6/27.7
			[#03]	
			[#05]	
			[#06]	
Q1411	1530004340	S.TRA 2SC3356L-B-AE3-R	T	55.0/77.9
Eqv.	1530004560	S.TRA 2SC3356G-B-AE2-R		
Q1412	1590004690	S.TRA LDTC143ZET1G	T	40.8/85.9
Q1413	1590004690	S.TRA LDTC143ZET1G	T	40.8/83.0
Q1511	1590004310	S.TRA LDTA114EET1G	T	33.6/24.6
Q1512	1590004690	S.TRA LDTC143ZET1G	T	31.5/24.0
Q1513	1560002190	S.FET RUM002N02T2L	T	31.2/22.0
Q1521	1510001200	S.TRA L2SA1576ART1G	T	47.9/17.2
Q1561	1590004310	S.TRA LDTA114EET1G	T	33.3/30.9
Q1562	1530003960	S.TRA KTC2875-B-RTK/P	T	36.0/32.8
Q1563	1560002190	S.FET RUM002N02T2L	T	42.0/31.0
Q1571	1530004140	S.TRA L2SC4081RT1G	T	54.0/20.4
D101	1750001810	S.DIO L1SS400T1G	T	106.6/11.3
D1001	1790001621	S.DIO 1SV308 (TPL3F)	T	72.0/11.5
Eqv.	1790001622	S.DIO 1SV308L3F		
D1021	1750003070	S.DIO BAP70Q	T	93.5/12.0
D1041	1750003070	S.DIO BAP70Q	T	91.6/27.5
D1051	1750003100	S.DIO BAR64-02V	T	83.7/26.5
D1052	1750003100	S.DIO BAR64-02V	T	82.7/30.4
D1053	1790001621	S.DIO 1SV308 (TPL3F)	T	77.9/21.5
Eqv.	1790001622	S.DIO 1SV308L3F		
D1081	1790001621	S.DIO 1SV308 (TPL3F)	T	75.5/16.7
Eqv.	1790001622	S.DIO 1SV308L3F		
D1082	1790001621	S.DIO 1SV308 (TPL3F)	T	74.7/18.5
Eqv.	1790001622	S.DIO 1SV308L3F		
D1083	1790001621	S.DIO 1SV308 (TPL3F)	T	72.1/18.5
Eqv.	1790001622	S.DIO 1SV308L3F		
D1091	1750001810	S.DIO L1SS400T1G	T	5.6/79.3
D1101	1790001621	S.DIO 1SV308 (TPL3F)	T	73.8/23.5
Eqv.	1790001622	S.DIO 1SV308L3F		
D1111	1790001621	S.DIO 1SV308 (TPL3F)	T	77.9/22.7
Eqv.	1790001622	S.DIO 1SV308L3F		
D1112	1790001621	S.DIO 1SV308 (TPL3F)	T	96.2/57.9
Eqv.	1790001622	S.DIO 1SV308L3F		
D1121	1790001621	S.DIO 1SV308 (TPL3F)	T	12.9/39.3
Eqv.	1790001622	S.DIO 1SV308L3F		
D1122	1790001621	S.DIO 1SV308 (TPL3F)	T	15.0/68.5
Eqv.	1790001622	S.DIO 1SV308L3F		
D1131	1790001621	S.DIO 1SV308 (TPL3F)	T	17.4/40.1
Eqv.	1790001622	S.DIO 1SV308L3F		
D1132	1790001621	S.DIO 1SV308 (TPL3F)	T	18.6/67.7
Eqv.	1790001622	S.DIO 1SV308L3FT		
D1141	1790001621	S.DIO 1SV308 (TPL3F)	T	26.8/40.1
Eqv.	1790001622	S.DIO 1SV308L3F		
D1142	1790001621	S.DIO 1SV308 (TPL3F)	T	25.2/66.8
Eqv.	1790001622	S.DIO 1SV308L3F		
D1151	1790001621	S.DIO 1SV308 (TPL3F)	T	30.2/40.1
Eqv.	1790001622	S.DIO 1SV308L3F		
D1152	1790001621	S.DIO 1SV308 (TPL3F)	T	30.3/66.8
Eqv.	1790001622	S.DIO 1SV308L3F		
D1161	1790001621	S.DIO 1SV308 (TPL3F)	T	37.0/40.1
Eqv.	1790001622	S.DIO 1SV308L3F		
D1162	1790001621	S.DIO 1SV308 (TPL3F)	T	35.4/66.8
Eqv.	1790001622	S.DIO 1SV308L3F		
D1171	1790001621	S.DIO 1SV308 (TPL3F)	T	39.6/40.1
Eqv.	1790001622	S.DIO 1SV308L3F		
D1172	1790001621	S.DIO 1SV308 (TPL3F)	T	40.4/66.8
Eqv.	1790001622	S.DIO 1SV308L3F		
D1181	1790001621	S.DIO 1SV308 (TPL3F)	T	47.8/40.1
Eqv.	1790001622	S.DIO 1SV308L3F		

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

M.=Mounted side (T: Mounted on the Top side, B: Mounted on the Bottom side)  
H/V LOCATION=See the BOARD LAYOUTS for details.

[RF UNIT]

Table with 6 columns: REF NO., PART NO., DESCRIPTION, M., H/V LOCATION. Rows include components like D1182, D1191, D1192, etc., up to D1563 and L1022.

[RF UNIT]

Table with 6 columns: REF NO., PART NO., DESCRIPTION, M., H/V LOCATION. Rows include components like L1151, L1152, L1153, etc., up to L1431 and R101.

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

M.=Mounted side (T: Mounted on the Top side, B: Mounted on the Bottom side) H/V LOCATION=See the BOARD LAYOUTS for details.





[RF UNIT]

[PA UNIT]

REF NO.	PART NO.	DESCRIPTION	M.	H/V LOCATION
EP1312	6910019900	S.BEA MPZ1608S601AT	T	49.4/14.0
EP1313	6910023350	S.BEA MMZ1005B601CT	T	46.8/14.3
EP1314	6910021240	S.BEA MMZ1005A152ET	T	39.3/7.9
EP1315	6910021240	S.BEA MMZ1005A152ET	T	38.8/14.3
EP1316	6910021240	S.BEA MMZ1005A152ET	T	38.3/7.9
EP1317	6910021240	S.BEA MMZ1005A152ET	T	37.8/14.3
EP1318	6910021240	S.BEA MMZ1005A152ET	T	37.3/7.9
EP1319	6910021240	S.BEA MMZ1005A152ET	T	36.8/14.3
EP1320	6910021240	S.BEA MMZ1005A152ET	T	36.3/7.9
EP1321	6910021240	S.BEA MMZ1005A152ET	T	35.8/14.3

REF NO.	PART NO.	DESCRIPTION	M.	H/V LOCATION
IC211	1110007950	S.IC INA199A2DCKR	T	98.6/90.2
IC221	1180002080	S.REG BA09FP-E2	T	105.4/72.7
IC751	1130001050	S.IC SN74AHC595PWR	T	20.5/81.0
IC981	1110008550	S.IC NJM2904CRB1-TE1-#HMZR	T	9.9/72.1
Q101	1560001091	S.FET 2SK2854 (T2LICOMF)	T	19.3/165.5
Q111	1560001550	S.FET RD01MUS2-T113	T	30.0/161.9
Q121	1560001530	FET RD15HVF1-101		
Q131	1560001591	FET RD70HVF1C-121		
Q132	1560001591	FET RD70HVF1C-121		
Q221	1590005140	S.FET TJ50S06M3L	T	107.0/82.3
Q222	1560002190	S.FET RUM002N02T2L	T	112.5/81.8
Q341	1590004690	S.TRA LDTC143ZET1G	T	10.9/103.8
Q342	1590004310	S.TRA LDTA114EET1G	T	13.2/103.8
Q771	1590004690	S.TRA LDTC143ZET1G	T	28.0/73.7
Q772	1590004690	S.TRA LDTC143ZET1G	T	28.0/75.8
Q773	1590004690	S.TRA LDTC143ZET1G	T	28.0/77.9
Q774	1590004690	S.TRA LDTC143ZET1G	T	28.0/80.0
Q775	1590004690	S.TRA LDTC143ZET1G	T	28.0/82.1
Q776	1590004690	S.TRA LDTC143ZET1G	T	28.0/84.2
Q777	1590004690	S.TRA LDTC143ZET1G	T	28.0/86.3
Q778	1590004690	S.TRA LDTC143ZET1G	T	28.0/88.4
Q781	1590004040	S.TRA LDTA123YET1G	T	30.4/73.2
Q782	1590004040	S.TRA LDTA123YET1G	T	30.4/75.3
Q783	1590004040	S.TRA LDTA123YET1G	T	30.4/77.4
Q784	1590004040	S.TRA LDTA123YET1G	T	30.4/79.5
Q785	1590004040	S.TRA LDTA123YET1G	T	30.4/81.6
Q786	1590004040	S.TRA LDTA123YET1G	T	30.4/83.7
Q787	1590004040	S.TRA LDTA123YET1G	T	30.4/85.8
Q811	1530003960	S.TRA KTC2875-B-RTK/P	T	44.2/4.7
D101	1750001180	S.DIO KDS122 RTK/P	T	12.3/157.8
D102	1750001180	S.DIO KDS122 RTK/P	T	14.8/157.8
D171	1750001810	S.DIO L1SS400T1G	T	66.4/126.3
D172	1750001810	S.DIO L1SS400T1G	T	37.5/126.3
D201	1750002000	S.ZEN DZ2J180M0L	T	86.4/132.6
D202	1710000831	S.DIO DF30SC4M-7072	T	97.5/130.4
D203	1750003510	S.ZEN TPSMD15A	T	79.0/142.5
D301	1750002230	S.DIO LRB751S-40T1G	T	76.6/133.4
D302	1750002230	S.DIO LRB751S-40T1G	T	27.4/133.4
D801	1750001180	S.DIO KDS122 RTK/P	T	76.9/6.8
D811	1750003100	S.DIO BAR64-02V	T	50.7/4.8
D812	1750003100	S.DIO BAR64-02V	T	47.3/4.8
D820	1750001180	S.DIO KDS122 RTK/P	T	41.7/58.3
D840	1750001180	S.DIO KDS122 RTK/P	T	99.5/64.8
D860	1750001180	S.DIO KDS122 RTK/P	T	87.3/64.8
D880	1750001180	S.DIO KDS122 RTK/P	T	53.6/58.3
D900	1750001180	S.DIO KDS122 RTK/P	T	15.2/58.8
D920	1750001180	S.DIO KDS122 RTK/P	T	111.4/64.8
D940	1750001180	S.DIO KDS122 RTK/P	T	29.1/58.3
D961	1750002230	S.DIO LRB751S-40T1G	T	84.3/2.2
D962	1750002230	S.DIO LRB751S-40T1G	T	98.1/2.2
D965	1750001810	S.DIO L1SS400T1G	T	24.3/88.9
D966	1750001810	S.DIO L1SS400T1G	T	24.3/87.6
L101	6200005051	S.COI NLV25T-330J-PF	B	65.0/49.2
L112	6200005131	S.COI NLC453232T-101K-PF	T	32.8/156.5
L121	6200010160	S.COI AS080440-22N	T	43.6/150.8
L131	6140005580	COI LR-606		
L132	6140005300	COI LR-580 (TRB10X5X5 6DB)		
L133	6140005570	COI LR-605		
L134	6140004570	COI LR-507		
L306	6110001730	COI LA-262		
L331	6200003241	S.COI NLV32T-221J-PF	T	12.3/140.4
L332	6200003241	S.COI NLV32T-221J-PF	T	12.3/143.4
L711	6200002041	S.COI NLV25T-101J-PF	T	102.4/66.9
L801	6200010650	S.COI C2520C-R12G-A (0.12U)	T	62.3/4.0
L802	6200010650	S.COI C2520C-R12G-A (0.12U)	T	66.7/5.0
L803	6200002041	S.COI NLV25T-101J-PF	T	76.9/4.3
L820	6200002041	S.COI NLV25T-101J-PF	T	38.9/58.7
L822	6110002900	COI LA-479		
L823	6140003460	COI LR-388 (T50-10)		
L831	6200002041	S.COI NLV25T-101J-PF	T	52.5/11.3
L840	6200002041	S.COI NLV25T-101J-PF	T	96.7/65.1
L841	6140001820	COI LR-218 (T50-10)		
L842	6140001800	COI LR-216 (T50-2)		
L851	6200002041	S.COI NLV25T-101J-PF	T	97.3/18.0
L860	6200002041	S.COI NLV25T-101J-PF	T	82.6/65.1
L861	6110003980	COI LA-604		
L862	6110003880	COI LA-590		
L863	6110003550	COI LA-547 (LA-214A)		
L871	6200002041	S.COI NLV25T-101J-PF	T	82.7/17.4
L880	6200002041	S.COI NLV25T-101J-PF	T	50.8/58.7
L881	6140002570	COI LR-294 (T50-2)		
L882	6140002580	COI LR-295 (T50-2)		
L891	6200002041	S.COI NLV25T-101J-PF	T	67.3/10.4
L900	6200002041	S.COI NLV25T-101J-PF	T	12.4/59.4
L901	6140002560	COI LR-293 (T50-10)		
L902	6140002560	COI LR-293 (T50-10)		
L903	6140002560	COI LR-293 (T50-10)		
L911	6200002041	S.COI NLV25T-101J-PF	T	23.0/11.3
L920	6200002041	S.COI NLV25T-101J-PF	T	108.6/64.3
L921	6140001800	COI LR-216 (T50-2)		
L922	6140001780	COI LR-214 (T50-2)		
L931	6200002041	S.COI NLV25T-101J-PF	T	112.0/18.6
L940	6200002041	S.COI NLV25T-101J-PF	T	26.3/58.7
L942	6140003540	COI LR-396		
L943	6140002020	COI LR-229 (T50-10)		
L951	6200002041	S.COI NLV25T-101J-PF	T	37.8/11.3
L952	6200002041	S.COI NLV25T-101J-PF	T	3.3/58.5
L961	6140004721	COI LR-532A		

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

M.=Mounted side (T: Mounted on the Top side, B: Mounted on the Bottom side)  
H/V LOCATION=See the BOARD LAYOUTS for details.



[PA UNIT]

REF NO.	PART NO.	DESCRIPTION	M.	H/V LOCATION
C862	4030020740	S.CER GRM31A5C2J180JW01D	T	60.5/58.8
C863	4030021200	S.CER GRM31A5C2J120JW01D	T	62.6/58.8
C864	4030021010	S.CER GRM31A5C2J390JW01D	T	61.1/54.7
C865	4030011080	S.CER GRM31M2C2H6R0DV01L	T	63.8/34.2
C866	4030020760	S.CER GRM31A5C2J270JW01D	T	63.8/25.3
C868	4030020770	S.CER GRM31A5C2J330JW01D	T	63.8/29.5
C869	4030020770	S.CER GRM31A5C2J330JW01D	T	63.0/18.5
C871	4030019990	S.CER C1005 JB 1C 104K-T	T	80.9/17.4
C875	4030021200	S.CER GRM31A5C2J120JW01D	T	64.8/21.9
C876	4030020760	S.CER GRM31A5C2J270JW01D	T	63.8/27.4
C877	4030020770	S.CER GRM31A5C2J330JW01D	T	61.1/52.6
C881	4030019990	S.CER C1005 JB 1C 104K-T	T	53.2/56.5
C882	4030021220	S.CER GRM31B5C2J681JW01L	T	57.8/43.2
C883	4030021220	S.CER GRM31B5C2J681JW01L	T	56.3/46.9
C884	4030020720	S.CER GRM31A5C2J391JW01D	T	56.3/39.6
C885	4030021220	S.CER GRM31B5C2J681JW01L	T	57.9/33.6
C886	4030018480	S.CER GRM31A5C2J221JW01D	T	51.6/31.5
C888	4030021220	S.CER GRM31B5C2J681JW01L	T	51.4/23.8
C889	4030020810	S.CER GRM31A5C2J820JW01D	T	52.7/19.7
C890	4030021220	S.CER GRM31B5C2J681JW01L	T	57.0/18.0
C891	4030019990	S.CER C1005 JB 1C 104K-T	T	65.5/11.3
C893	4030021220	S.CER GRM31B5C2J681JW01L	T	51.0/27.4
C894	4030018350	S.CER GRM31A5C2J151JW01D	T	57.9/35.7
C896	4030021220	S.CER GRM31B5C2J681JW01L	T	57.0/22.2
C897	4030018480	S.CER GRM31A5C2J221JW01D	T	57.0/20.1
C899	4030020800	S.CER GRM31A5C2J680JW01D	T	49.9/19.7
C901	4030019990	S.CER C1005 JB 1C 104K-T	T	14.8/57.1
C902	4030021020	S.CER GRM31A5C2J101JW01D	T	5.8/38.2
C903	4030021020	S.CER GRM31A5C2J101JW01D	T	5.8/40.3
C904	4030020760	S.CER GRM31A5C2J270JW01D	T	11.0/40.3
C905	4030020810	S.CER GRM31A5C2J820JW01D	T	11.0/38.2
C906	4030021020	S.CER GRM31A5C2J101JW01D	T	5.8/27.1
C907	4030021020	S.CER GRM31A5C2J101JW01D	T	5.8/25.0
C908	4030020790	S.CER GRM31A5C2J560JW01D	T	11.0/26.1
C909	4030020800	S.CER GRM31A5C2J680JW01D	T	6.5/14.0
C911	4030019990	S.CER C1005 JB 1C 104K-T	T	21.3/11.9
C921	4030019990	S.CER C1005 JB 1C 104K-T	T	110.9/63.0
C922	4030021040	S.CER GRM31A5C2J271JW01D	T	102.7/53.2
C923	4030021040	S.CER GRM31A5C2J271JW01D	T	100.6/47.5
C924	4030021040	S.CER GRM31A5C2J271JW01D	T	101.5/39.6
C925	4030020810	S.CER GRM31A5C2J820JW01D	T	103.0/36.0
C926	4030018340	S.CER GRM31A5C2J331JW01D	T	101.5/43.9
C927	4030021040	S.CER GRM31A5C2J271JW01D	T	101.5/26.6
C928	4030018340	S.CER GRM31A5C2J331JW01D	T	101.5/24.5
C929	4030018340	S.CER GRM31A5C2J331JW01D	T	101.5/41.8
C931	4030019990	S.CER C1005 JB 1C 104K-T	T	110.3/18.6
C933	4030021030	S.CER GRM31A5C2J181JW01D	T	100.6/53.2
C934	4030018350	S.CER GRM31A5C2J151JW01D	T	102.7/47.5
C941	4030019990	S.CER C1005 JB 1C 104K-T	T	28.7/56.5
C944	4030021010	S.CER GRM31A5C2J390JW01D	T	27.9/48.1
C945	4030020790	S.CER GRM31A5C2J560JW01D	T	26.4/44.6
C946	4030020780	S.CER GRM31A5C2J470JW01D	T	26.4/39.0
C949	4030021020	S.CER GRM31A5C2J101JW01D	T	27.5/28.6
C950	4030020760	S.CER GRM31A5C2J270JW01D	T	26.2/25.0
C951	4030019990	S.CER C1005 JB 1C 104K-T	T	36.0/11.9
C953	4030020780	S.CER GRM31A5C2J470JW01D	T	27.7/17.2
C954	4030020790	S.CER GRM31A5C2J560JW01D	T	27.7/19.3
C961	4030011040	S.CER GRM31M4C2H2R0CY21L	T	83.9/9.5
C962	4030009920	S.CER C1608 CH 1H 050B-T	T	84.3/5.5
C963	4030011540	S.CER C1608 CH 1H 750J-T	T	83.0/5.5
C966	4030008650	S.CER C1608 JB 1H 332K-T	T	96.7/2.2
C969	4030011040	S.CER GRM31M4C2H2R0CY21L	T	97.1/9.5
C970	4030011540	S.CER C1608 CH 1H 750J-T	T	96.7/5.5
C971	4030009920	S.CER C1608 CH 1H 050B-T	T	98.1/5.5
C972	4030011040	S.CER GRM31M4C2H2R0CY21L	T	99.4/12.4
C983	4030017460	S.CER C1005 JB 1H 102K-T	T	7.4/67.5
C985	4030019990	S.CER C1005 JB 1C 104K-T	T	12.3/70.5
C986	4030017460	S.CER C1005 JB 1H 102K-T	T	3.8/10.1
C987	4030017730	S.CER C1005 JB 1H 471K-T	T	2.8/11.2
RL801	6330002020	REL FTR-B4CA009Z		
RL820	6330002020	REL FTR-B4CA009Z		
RL821	6330002020	REL FTR-B4CA009Z		
RL840	6330002020	REL FTR-B4CA009Z		
RL841	6330002020	REL FTR-B4CA009Z		
RL860	6330002020	REL FTR-B4CA009Z		
RL861	6330002020	REL FTR-B4CA009Z		
RL880	6330002020	REL FTR-B4CA009Z		
RL881	6330002020	REL FTR-B4CA009Z		
RL900	6330002020	REL FTR-B4CA009Z		
RL901	6330002020	REL FTR-B4CA009Z		
RL920	6330002020	REL FTR-B4CA009Z		
RL921	6330002020	REL FTR-B4CA009Z		
RL940	6330002020	REL FTR-B4CA009Z		
RL941	6330002020	REL FTR-B4CA009Z		
J101	6510028210	CON SJ050010 (TMP-J01X-V6)		
J301	6510022472	S.CON 40FLT-SM2-TB (LF) (SN) (M)	T	9.5/89.0
J331	6510018971	S.CON B4B-PH-SM4-TB (LF) (SN)	T	5.0/144.4
J801	6510028210	CON SJ050010 (TMP-J01X-V6)		
J961	6510028210	CON SJ050010 (TMP-J01X-V6)		
F2	5210000940	FUS 1205		
F201	5220000400	HOL FHA010-01F		

[PA UNIT]

REF NO.	PART NO.	DESCRIPTION	M.	H/V LOCATION
W1	8900017860	CAB OPC-1857	[#02]	
	8900018220	CAB OPC-1943	[#03]	
	8900018220	CAB OPC-1943	[#05]	
	8900018220	CAB OPC-1943	[#06]	
	8900017860	CAB OPC-1857	[#07]	
	8900017860	CAB OPC-1857	[#08]	
	8900017860	CAB OPC-1857	[#12]	
EP111	6910014690	S.BEA MPZ1608S221A-T	T	26.6/154.9
EP121	6910012350	S.BEA MMZ1608Y 102BT	T	34.1/166.3
EP131	6910014640	S.BEA MPZ2012S221A-T	T	71.8/149.1
EP132	6910014640	S.BEA MPZ2012S221A-T	T	71.8/150.9
EP301	6910020910	S.BEA MPZ1608S300AT	T	6.1/81.3
EP302	6910019100	S.BEA MPZ1608S101AT	T	6.1/85.3
EP303	6910021240	S.BEA MMZ1005A152ET	T	6.5/91.3
EP305	6910021240	S.BEA MMZ1005A152ET	T	12.9/92.8
EP306	6910021240	S.BEA MMZ1005A152ET	T	12.9/93.8
EP307	6910021240	S.BEA MMZ1005A152ET	T	6.5/94.3
EP308	6910021240	S.BEA MMZ1005A152ET	T	12.9/94.8
EP309	6910021240	S.BEA MMZ1005A152ET	T	6.5/95.3
EP311	6910021240	S.BEA MMZ1005A152ET	T	6.5/96.3
EP312	6910021240	S.BEA MMZ1005A152ET	T	12.9/96.8
EP331	6910018930	S.BEA MPZ2012S601A	T	11.9/145.8
EP332	6910018930	S.BEA MPZ2012S601A	T	10.9/148.6

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

M.=Mounted side (T: Mounted on the Top side, B: Mounted on the Bottom side)  
H/V LOCATION=See the BOARD LAYOUTS for details.







[FRONT UNIT]

[DISPLAY UNIT]

REF NO.	PART NO.	DESCRIPTION	M.	H/V LOCATION
DS1	5030004050	LCD RFE430H-AZH-DNS-000		
W1	8910000070	FFC FFC-1008 (P0.5N6L50)		
W2	8910000070	FFC FFC-1008 (P0.5N6L50)		
W3	8910000070	FFC FFC-1008 (P0.5N6L50)		
W4	8900018000	CAB OPC-1344A (P1N10L70)		
EP1	0880001360	UNI EX-2500 #02 SENSOR		

REF NO.	PART NO.	DESCRIPTION	M.	H/V LOCATION
IC101	1190003620	S.IC TPS61161ADRVR	B	60.8/51.7
IC152	11300017190	S.IC UC6528XBNQ4GRC	B	100.0/48.7
IC501	1140017811	S.IC R5F104LCAFB	B	120.0/58.7
Q1	1590004690	S.TRA LDTC143ZET1G	B	6.5/68.0
Q2	1590004690	S.TRA LDTC143ZET1G	B	165.4/30.0
Q3	1590004690	S.TRA LDTC143ZET1G	B	165.4/27.9
Q461	1510001200	S.TRA L2SA1576ART1G	B	50.5/47.2
Q462	1520001010	S.TRA 2SB1132G-R-AB3-R	B	45.4/51.4
Q481	1590004690	S.TRA LDTC143ZET1G	B	20.8/65.5
Q491	1530004140	S.TRA L2SC4081RT1G	B	38.3/49.6
Q492	1530004210	S.TRA DSC7004S0L	B	30.2/52.9
Q493	1590004310	S.TRA LDTA114EET1G	B	35.9/50.4
D101	1750002240	S.DIO DB2141300L	B	68.2/50.1
D401	1750001820	S.DIO LRB706F-40T1G	B	23.1/51.3
D471	1750002230	S.DIO LRB751S-40T1G	B	33.5/50.3
D472	1750001820	S.DIO LRB706F-40T1G	B	35.9/46.7
D491	1750001810	S.DIO L1SS400T1G	B	35.1/53.7
L101	6200014850	S.COI LQH44PN220MP0L	T	23.1/164.1
L102	6200015990	S.COI LQH32CN470K23L	B	60.4/47.5
R1	7030004980	S.RES ERJ2GEJ 101 X (100)	B	6.5/70.2
R2	7030004980	S.RES ERJ2GEJ 101 X (100)	B	167.5/30.0
R3	7030007280	S.RES ERJ2GEJ 331 X (330)	B	167.5/27.9
R11	7030005290	S.RES ERJ2GEJ 682 X (6.8 k)	B	35.4/42.2
R12	7030007290	S.RES ERJ2GEJ 222 X (2.2 k)	B	41.2/41.0
R13	7030005040	S.RES ERJ2GEJ 472 X (4.7 k)	B	39.1/41.0
R14	7030007340	S.RES ERJ2GEJ 153 X (15 k)	B	39.1/40.1
R21	7030005290	S.RES ERJ2GEJ 682 X (6.8 k)	B	148.0/42.7
R22	7030007290	S.RES ERJ2GEJ 222 X (2.2 k)	B	150.4/42.7
R23	7030005040	S.RES ERJ2GEJ 472 X (4.7 k)	B	152.8/42.7
R24	7030007340	S.RES ERJ2GEJ 153 X (15 k)	B	155.2/42.7
R31	7030005290	S.RES ERJ2GEJ 682 X (6.8 k)	B	193.0/62.2
R32	7030007290	S.RES ERJ2GEJ 222 X (2.2 k)	B	195.5/62.2
R33	7030005040	S.RES ERJ2GEJ 472 X (4.7 k)	B	198.0/62.2
R34	7030007340	S.RES ERJ2GEJ 153 X (15 k)	B	200.5/62.2
R41	7030005290	S.RES ERJ2GEJ 682 X (6.8 k)	B	193.0/63.2
R42	7030007290	S.RES ERJ2GEJ 222 X (2.2 k)	B	195.5/63.2
R43	7030005040	S.RES ERJ2GEJ 472 X (4.7 k)	B	198.0/63.2
R44	7030007340	S.RES ERJ2GEJ 153 X (15 k)	B	200.5/63.2
R50	7030005120	S.RES ERJ2GEJ 102 X (1 k)	B	58.5/66.6
R51	7030005120	S.RES ERJ2GEJ 102 X (1 k)	B	58.5/67.5
R52	7030005120	S.RES ERJ2GEJ 102 X (1 k)	B	58.5/62.2
R53	7030005120	S.RES ERJ2GEJ 102 X (1 k)	B	58.5/65.2
R54	7030005120	S.RES ERJ2GEJ 102 X (1 k)	B	58.5/64.2
R61	7030005120	S.RES ERJ2GEJ 102 X (1 k)	B	61.5/17.2
R62	7030005120	S.RES ERJ2GEJ 102 X (1 k)	B	61.5/16.2
R71	7030005120	S.RES ERJ2GEJ 102 X (1 k)	B	169.0/50.4
R72	7030005120	S.RES ERJ2GEJ 102 X (1 k)	B	173.8/44.3
R73	7030005120	S.RES ERJ2GEJ 102 X (1 k)	B	173.9/45.3
R101	7030011010	S.RES ERJ2GEJ 8R2 X (8.2)	B	58.1/50.9
R102	7030005300	S.RES ERJ2GEJ 150 X (15)	B	58.1/50.0
R103	7030005240	S.RES ERJ2GEJ 473 X (47 k)	B	88.7/50.7
R141	7030005530	S.RES ERJ2GEJ 100 X (10)	B	91.9/47.8
R142	7030005530	S.RES ERJ2GEJ 100 X (10)	B	94.0/50.3
R143	7030005530	S.RES ERJ2GEJ 100 X (10)	B	93.0/47.8
R144	7030005530	S.RES ERJ2GEJ 100 X (10)	B	94.8/49.0
R201	7030005080	S.RES ERJ2GEJ 823 X (82 k)	B	168.0/15.8
R202	7030005240	S.RES ERJ2GEJ 473 X (47 k)	B	170.5/15.8
R203	7030005080	S.RES ERJ2GEJ 823 X (82 k)	B	168.0/17.8
R204	7030005240	S.RES ERJ2GEJ 473 X (47 k)	B	170.5/17.8
R301	7030005050	S.RES ERJ2GEJ 103 X (10 k)	B	113.5/74.0
R302	7030005120	S.RES ERJ2GEJ 102 X (1 k)	B	115.5/74.0
R303	7030005120	S.RES ERJ2GEJ 102 X (1 k)	B	114.5/74.0
R401	7030005220	S.RES ERJ2GEJ 223 X (22 k)	B	19.6/53.4
R402	7030005090	S.RES ERJ2GEJ 104 X (100 k)	B	20.6/53.4
R461	7030005040	S.RES ERJ2GEJ 472 X (4.7 k)	B	49.2/51.8
R462	7030009320	S.RES ERJ2GEJ 4R7 X (4.7)	B	49.2/49.0
R463	7030005040	S.RES ERJ2GEJ 472 X (4.7 k)	B	48.5/47.0
R464	7030005090	S.RES ERJ2GEJ 104 X (100 k)	B	47.5/47.0
R471	7030007290	S.RES ERJ2GEJ 222 X (2.2 k)	B	34.0/48.7
R472	7030005240	S.RES ERJ2GEJ 473 X (47 k)	B	33.9/47.7
R481	7030005050	S.RES ERJ2GEJ 103 X (10 k)	B	20.8/67.1
R491	7030005040	S.RES ERJ2GEJ 472 X (4.7 k)	B	37.1/53.5
R492	7030005060	S.RES ERJ2GEJ 333 X (33 k)	B	37.1/52.6
R493	7030007340	S.RES ERJ2GEJ 153 X (15 k)	B	38.0/51.6
R494	7030005240	S.RES ERJ2GEJ 473 X (47 k)	B	35.9/48.7
R495	7030005050	S.RES ERJ2GEJ 103 X (10 k)	B	29.5/49.6
R496	7030007270	S.RES ERJ2GEJ 151 X (150)	B	35.5/52.1
R501	7410001220	S.ARR EXB28V103JX	B	109.5/58.2
R502	7030005240	S.RES ERJ2GEJ 473 X (47 k)	B	126.0/64.7
R503	7410001220	S.ARR EXB28V103JX	B	128.5/51.2
R504	7410001220	S.ARR EXB28V103JX	B	109.5/51.2
R601	7030007250	S.RES ERJ2GEJ 220 X (22)	B	79.1/55.0
R602	7030007250	S.RES ERJ2GEJ 220 X (22)	B	80.3/55.0
R603	7030007250	S.RES ERJ2GEJ 220 X (22)	B	81.5/55.0
R604	7030007250	S.RES ERJ2GEJ 220 X (22)	B	82.7/55.0
R605	7030007250	S.RES ERJ2GEJ 220 X (22)	B	83.9/55.0
R606	7030007250	S.RES ERJ2GEJ 220 X (22)	B	85.1/55.0
R607	7030007250	S.RES ERJ2GEJ 220 X (22)	B	86.3/55.0
R608	7030007250	S.RES ERJ2GEJ 220 X (22)	B	87.5/55.0
R609	7030007250	S.RES ERJ2GEJ 220 X (22)	B	88.7/55.0
R610	7030007250	S.RES ERJ2GEJ 220 X (22)	B	89.9/55.0
R611	7030004980	S.RES ERJ2GEJ 101 X (100)	B	92.1/55.0
R612	7030007250	S.RES ERJ2GEJ 220 X (22)	B	93.3/55.0
R613	7030007250	S.RES ERJ2GEJ 220 X (22)	B	78.5/62.5
R614	7030007250	S.RES ERJ2GEJ 220 X (22)	B	79.7/62.5
R615	7030007250	S.RES ERJ2GEJ 220 X (22)	B	80.9/62.5

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

M.=Mounted side (T: Mounted on the Top side, B: Mounted on the Bottom side)  
H/V LOCATION=See the BOARD LAYOUTS for details.

[DISPLAY UNIT]

[PBT UNIT]

REF NO.	PART NO.	DESCRIPTION	M.	H/V LOCATION
R616	7030007250	S.RES ERJ2GEJ 220 X (22)	B	82.1/62.5
R617	7030007250	S.RES ERJ2GEJ 220 X (22)	B	83.3/62.5
R618	7030007250	S.RES ERJ2GEJ 220 X (22)	B	84.5/62.5
R619	7030007250	S.RES ERJ2GEJ 220 X (22)	B	85.7/62.5
R620	7030007250	S.RES ERJ2GEJ 220 X (22)	B	86.9/62.5
R621	7030007250	S.RES ERJ2GEJ 220 X (22)	B	88.1/62.5
R622	7030007250	S.RES ERJ2GEJ 220 X (22)	B	89.3/62.5
R623	7030007250	S.RES ERJ2GEJ 220 X (22)	B	90.5/62.5
R624	7030007250	S.RES ERJ2GEJ 220 X (22)	B	92.7/62.5
R625	7030004980	S.RES ERJ2GEJ 101 X (100)	B	93.9/62.5
C50	4030016790	S.CER C1005 JB 1E 103K-T	B	61.0/66.6
C51	4030016790	S.CER C1005 JB 1E 103K-T	B	61.0/67.5
C52	4030016790	S.CER C1005 JB 1E 103K-T	B	61.0/62.2
C53	4030016790	S.CER C1005 JB 1E 103K-T	B	61.0/65.2
C54	4030016790	S.CER C1005 JB 1E 103K-T	B	61.0/64.2
C61	4030019990	S.CER C1005 JB 1C 104K-T	B	64.0/17.2
C62	4030019990	S.CER C1005 JB 1C 104K-T	B	64.0/16.2
C71	4030016790	S.CER C1005 JB 1E 103K-T	B	167.2/50.4
C72	4030016790	S.CER C1005 JB 1E 103K-T	B	175.6/44.3
C73	4030016790	S.CER C1005 JB 1E 103K-T	B	175.6/45.3
C101	4030021530	S.CER C1608 JB 1E 224K-T	B	58.1/52.7
C102	4030021760	S.CER GRM31MB31H105KA87L	B	66.4/53.0
C103	4030020270	S.CER GRM188B11A105KA61D	B	61.1/49.7
C104	4030020270	S.CER GRM188B11A105KA61D	B	57.3/48.1
C141	4030017460	S.CER C1005 JB 1H 102K-T	B	95.5/50.3
C142	4030017460	S.CER C1005 JB 1H 102K-T	B	96.5/50.7
C143	4030017460	S.CER C1005 JB 1H 102K-T	B	95.1/47.8
C144	4030017460	S.CER C1005 JB 1H 102K-T	B	96.1/48.3
C151	4030019990	S.CER C1005 JB 1C 104K-T	B	96.9/46.6
C152	4030019990	S.CER C1005 JB 1C 104K-T	B	103.5/50.2
C201	4030019990	S.CER C1005 JB 1C 104K-T	B	168.0/13.8
C403	4030019620	S.CER GRM188B31C225KE14D	B	25.0/51.0
C452	4030016790	S.CER C1005 JB 1E 103K-T	B	20.8/62.7
C453	4030016790	S.CER C1005 JB 1E 103K-T	B	20.8/61.4
C461	4030017460	S.CER C1005 JB 1H 102K-T	B	48.8/50.4
C471	4030016790	S.CER C1005 JB 1E 103K-T	B	37.7/47.3
C491	4030016790	S.CER C1005 JB 1E 103K-T	B	28.5/49.6
C501	4030020270	S.CER GRM188B11A105KA61D	B	111.5/60.2
C502	4030019990	S.CER C1005 JB 1C 104K-T	B	111.5/61.8
C503	4030019990	S.CER C1005 JB 1C 104K-T	B	111.5/62.8
C611	4030016790	S.CER C1005 JB 1E 103K-T	B	92.1/52.5
C625	4030016790	S.CER C1005 JB 1E 103K-T	B	93.9/65.0
C626	4030019990	S.CER C1005 JB 1C 104K-T	B	74.8/65.0
C627	4030019990	S.CER C1005 JB 1C 104K-T	B	72.0/55.8
C628	4030019990	S.CER C1005 JB 1C 104K-T	B	76.2/65.0
J51	6510022692	S.CON 06FLT-SM2-TB (LF) (SN) (M)	B	55.0/64.8
J61	6510022692	S.CON 06FLT-SM2-TB (LF) (SN) (M)	B	57.5/16.6
J71	6510022692	S.CON 06FLT-SM2-TB (LF) (SN) (M)	B	170.2/47.1
J101	6510031070	S.CON AYF534035	B	83.4/44.6
J201	6510018971	S.CON B4B-PH-SM4-TB (LF) (SN)	B	177.1/16.8
J301	6510022692	S.CON 06FLT-SM2-TB (LF) (SN) (M)	B	110.0/73.7
J401	6510018971	S.CON B4B-PH-SM4-TB (LF) (SN)	B	15.8/50.7
J421	6510018971	S.CON B4B-PH-SM4-TB (LF) (SN)	B	39.5/30.4
J451	6510019971	S.CON 52808-1071	B	7.8/60.7
J601	6510022472	S.CON 40FLT-SM2-TB (LF) (SN) (M)	B	84.0/58.8
DS1	5040003500	S.LED HT-191 UYG-K828	T	8.8/76.3
DS2	5040003870	S.LED SSC-YGHR411-H	T	167.8/28.8
S1	2230001480	S.SWI LS37J2-T	T	9.0/72.0
S2	2230001480	S.SWI LS37J2-T	T	9.0/61.7
S3	2230001480	S.SWI LS37J2-T	T	9.0/51.7
S4	2230001480	S.SWI LS37J2-T	T	9.0/45.7
S5	2230001480	S.SWI LS37J2-T	T	28.3/45.8
S6	2230001480	S.SWI LS37J2-T	T	42.7/45.8
S7	2230001480	S.SWI LS37J2-T	T	28.3/41.1
S8	2230001480	S.SWI LS37J2-T	T	42.7/41.1
S9	2230001480	S.SWI LS37J2-T	T	68.4/3.1
S10	2230001480	S.SWI LS37J2-T	T	87.9/3.1
S11	2230001480	S.SWI LS37J2-T	T	107.4/3.1
S12	2230001480	S.SWI LS37J2-T	T	126.9/3.1
S13	2230001480	S.SWI LS37J2-T	T	146.4/3.1
S14	2230001480	S.SWI LS37J2-T	T	167.1/47.8
S15	2230001480	S.SWI LS37J2-T	T	165.8/14.8
S16	2230001480	S.SWI LS37J2-T	T	169.0/3.1
S17	2230001480	S.SWI LS37J2-T	T	191.1/74.1
S18	2230001480	S.SWI LS37J2-T	T	206.2/74.1
S19	2230001480	S.SWI LS37J2-T	T	221.3/74.1
S20	2230001480	S.SWI LS37J2-T	T	191.1/65.8
S21	2230001480	S.SWI LS37J2-T	T	206.2/65.8
S22	2230001480	S.SWI LS37J2-T	T	221.3/65.8
S23	2230001480	S.SWI LS37J2-T	T	191.1/59.5
S24	2230001480	S.SWI LS37J2-T	T	206.2/59.5
S25	2230001480	S.SWI LS37J2-T	T	222.4/59.5
EP401	6910018930	S.BEA MPZ2012S601A	B	19.9/50.2
EP402	6910018930	S.BEA MPZ2012S601A	B	20.8/47.7
EP451	6910018930	S.BEA MPZ2012S601A	B	16.8/59.7
EP452	6910019900	S.BEA MPZ1608S601AT	B	17.6/62.7
EP453	6910017350	S.BEA MMZ1608S601A-T	B	17.6/61.4
EP454	6910016330	S.BEA MMZ1005S 601CT-S	B	17.6/63.9
EP455	6910018930	S.BEA MPZ2012S601A	B	16.8/57.9
EP456	6910016330	S.BEA MMZ1005S 601CT-S	B	6.0/65.2
EP457	6910016330	S.BEA MMZ1005S 601CT-S	B	5.0/65.2
EP601	6910019900	S.BEA MPZ1608S601AT	B	73.7/63.0
EP602	6910019900	S.BEA MPZ1608S601AT	B	75.4/55.4
EP603	6910019900	S.BEA MPZ1608S601AT	B	77.3/63.0

REF NO.	PART NO.	DESCRIPTION	M.	H/V LOCATION
J1	6510029480	S.CON 06FH-SM1-TB (LF) (SN)	T	19.8/8.3
S1	2250000960	ENC TP90D96AE20-30.5F-3765		

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

M.=Mounted side (T: Mounted on the Top side, B: Mounted on the Bottom side)  
H/V LOCATION=See the BOARD LAYOUTS for details.

**[VR UNIT]**

REF NO.	PART NO.	DESCRIPTION	M.	H/V LOCATION
R1	7210002970	VAR RV-314		
J1	6510029480	S.CON 06FH-SM1-TB (LF) (SN)	T	19.8/9.3

**[RIT UNIT]**

REF NO.	PART NO.	DESCRIPTION	M.	H/V LOCATION
J1	6510029480	S.CON 06FH-SM1-TB (LF) (SN)	T	20.0/5.6
S1	2250001010	ENC TP90N00AE20-14.5F-3765A		

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

M.=Mounted side (T: Mounted on the Top side, B: Mounted on the Bottom side)  
H/V LOCATION=See the BOARD LAYOUTS for details.

[PHONE UNIT]

[MIC UNIT]

REF NO.	PART NO.	DESCRIPTION	M.	H/V LOCATION
W1	8600036921	EX2500 P01*J01MA-1		
R401	7030003440	S.RES ERJ3GEYJ 102 V (1 k)	T	18.5/8.4
R403	7030003320	S.RES ERJ3GEYJ 101 V (100)	T	13.1/12.9
R404	7030003320	S.RES ERJ3GEYJ 101 V (100)	T	15.9/12.9
C401	4030006900	S.CER C1608 JB 1H 103K-T ATEX	T	18.5/9.6
C404	4030006900	S.CER C1608 JB 1H 103K-T ATEX	T	10.4/12.9
J1	6450001630	CON HSJ1406-01-050		
EP401	6910018930	S.BEA MPZ2012S601A	T	18.0/13.3
EP402	6910018930	S.BEA MPZ2012S601A	T	15.6/11.3
EP403	6910018930	S.BEA MPZ2012S601A	T	10.2/11.3

REF NO.	PART NO.	DESCRIPTION	M.	H/V LOCATION
C1	4030006900	S.CER C1608 JB 1H 103K-T ATEX	T	10.3/17.4
C2	4030006900	S.CER C1608 JB 1H 103K-T ATEX	T	22.8/14.8
C3	4030006900	S.CER C1608 JB 1H 103K-T ATEX	T	8.1/15.3
C4	4030007130	S.CER C1608 CH 1H 101J-T ATEX	T	5.5/3.8
C5	4030006900	S.CER C1608 JB 1H 103K-T ATEX	T	23.6/11.7
C6	4030006900	S.CER C1608 JB 1H 103K-T ATEX	T	22.8/7.2
C7	4030006900	S.CER C1608 JB 1H 103K-T ATEX	T	7.4/9.2
C8	4030007090	S.CER C1608 CH 1H 470J-T	T	10.8/15.5
J1	6510000191	CON FM214-8SS(P)-1		
J2	6510019971	S.CON 52808-1071	T	4.0/11.2
EP2	6910012350	S.BEA MMZ1608Y 102BT	T	22.8/13.5
EP3	6910012350	S.BEA MMZ1608Y 102BT	T	23.6/9.1
EP4	6910012350	S.BEA MMZ1608Y 102BT	T	7.4/13.4
EP5	6910012350	S.BEA MMZ1608Y 102BT	T	21.3/16.1
EP7	6910018930	S.BEA MPZ2012S601A	T	7.6/6.2
EP9	6910015130	S.BEA MMZ1608D 301BT	T	10.1/2.5
EP10	6910015130	S.BEA MMZ1608D 301BT	T	10.1/3.7
EP11	6910012350	S.BEA MMZ1608Y 102BT	T	11.6/17.4
EP12	6910018930	S.BEA MPZ2012S601A	T	7.9/16.8

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

M.=Mounted side (T: Mounted on the Top side, B: Mounted on the Bottom side)  
H/V LOCATION=See the BOARD LAYOUTS for details.

[SD UNIT]

REF NO.	PART NO.	DESCRIPTION	M.	H/V LOCATION
R1	7030003360	S.RES ERJ3GEYJ 221 V (220)	T	35.1/11.5
R2	7030003250	S.RES ERJ3GEYJ 270 V (27)	T	35.1/13.9
R3	7030003250	S.RES ERJ3GEYJ 270 V (27)	T	35.1/15.1
R4	7030003250	S.RES ERJ3GEYJ 270 V (27)	T	35.1/18.7
R5	7030003250	S.RES ERJ3GEYJ 270 V (27)	T	35.1/19.9
R6	7030003250	S.RES ERJ3GEYJ 270 V (27)	T	35.1/17.5
R8	7030003250	S.RES ERJ3GEYJ 270 V (27)	T	35.1/12.7
R9	7030003360	S.RES ERJ3GEYJ 221 V (220)	T	35.1/10.3
C1	4030011600	S.CER C1608 JB 1E 104K-T	T	32.6/16.0
C2	4030019560	S.CER GRM21BB31C106KE15L	T	31.1/15.6
J1	6510028980	S.CON SCDABA0500	T	13.9/15.3
J2	6510031540	S.CON 12FHJ-SM1-TB (LF) (SN)	T	40.3/15.3
EP7	6910019900	S.BEA MPZ1608S601AT1	T	35.1/16.3

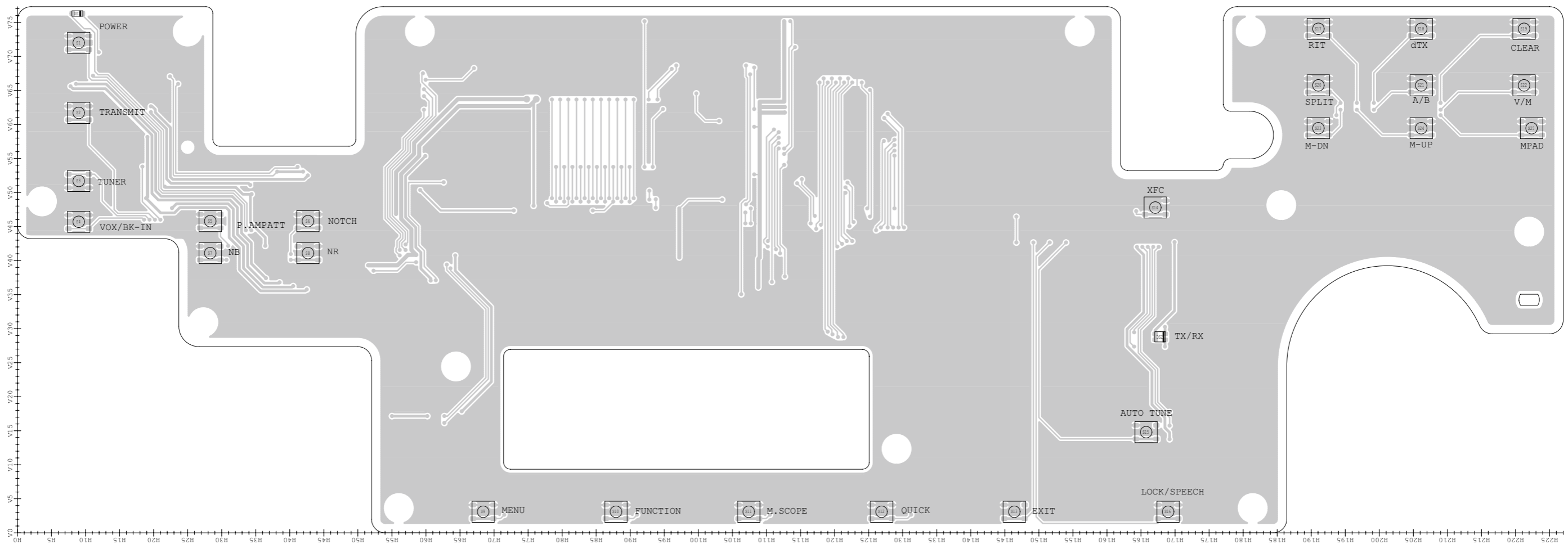
Eqv.= This component is equivalent to the REF No. component listed above, and may be substituted on parts orders and repairs.

M.=Mounted side (T: Mounted on the Top side, B: Mounted on the Bottom side)  
H/V LOCATION=See the BOARD LAYOUTS for details.

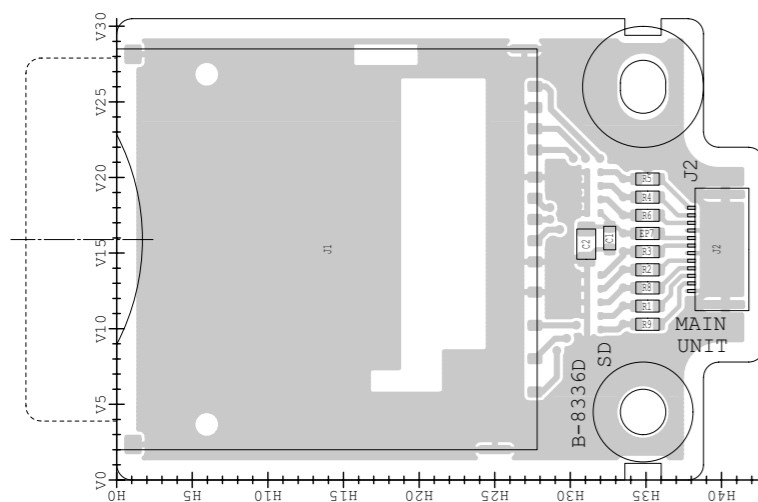
# BOARD LAYOUTS

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

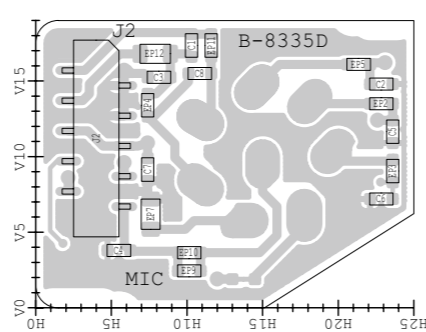
• DISPLAY UNIT B-8330D (Top view)



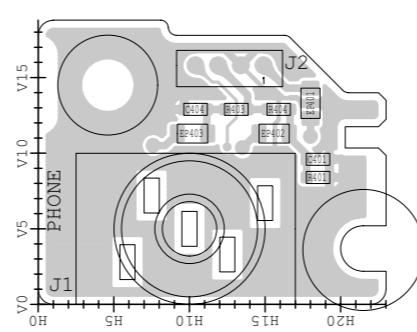
• SD UNIT B-8336D (Top view)



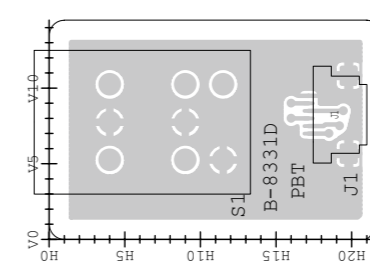
• MIC UNIT B-8335D (Top view)



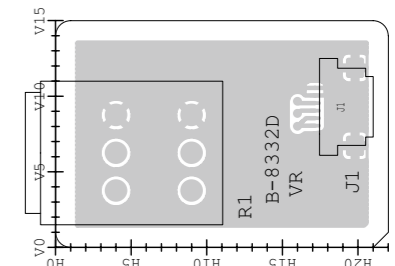
• PHONE UNIT B-8334C (Top view)



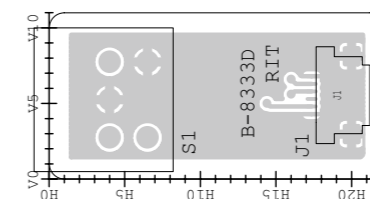
• PBT UNIT B-8331D (Top view)



• VR UNIT B-8332D (Top view)



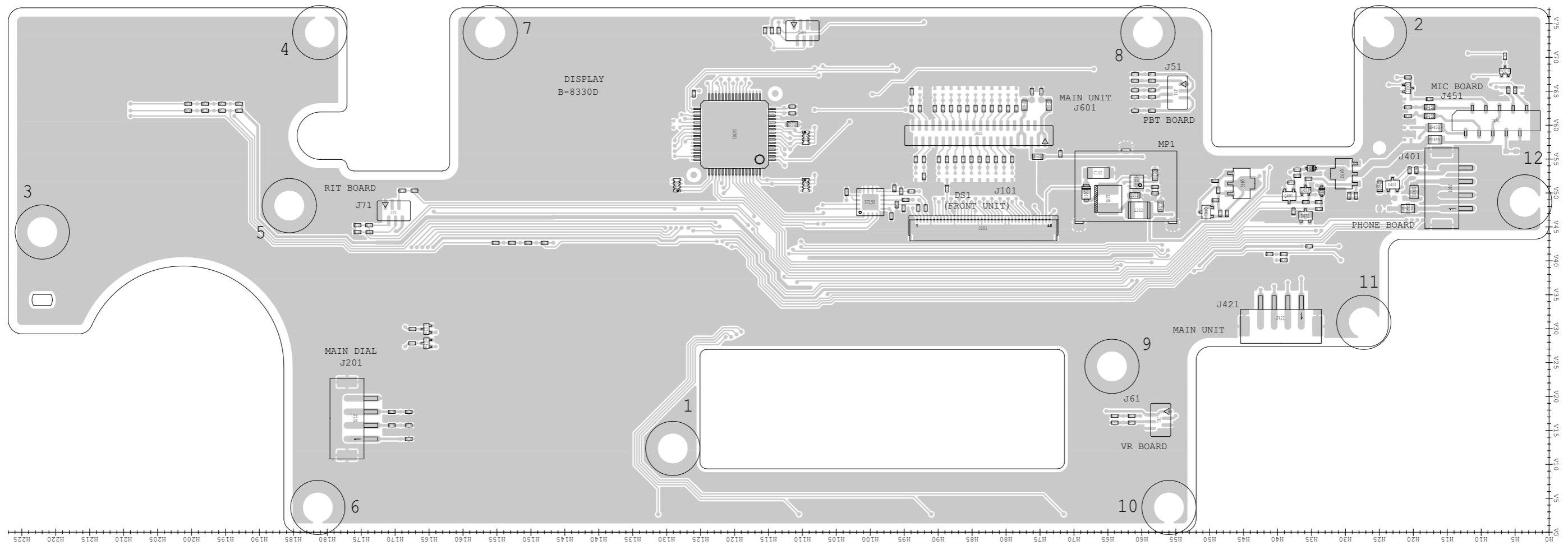
• RIT UNIT B-8333D (Top view)



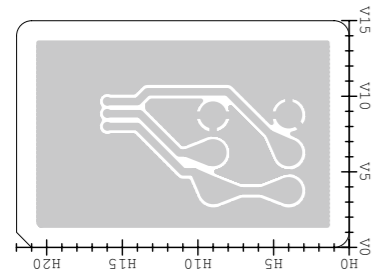
See the PARTS LIST H/V location on the PARTS LIST for location details.

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

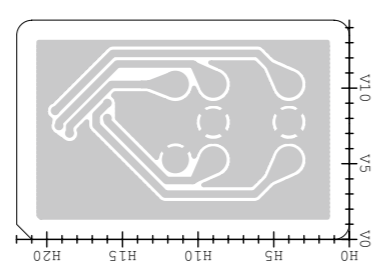
• DISPLAY UNIT B-8330D (Bottom view)



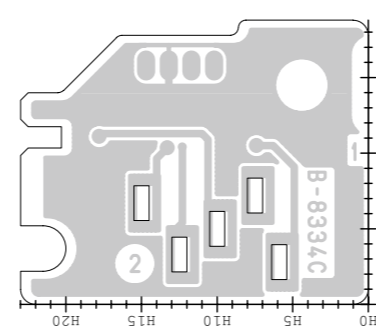
• VR UNIT B-8332D (Bottom view)



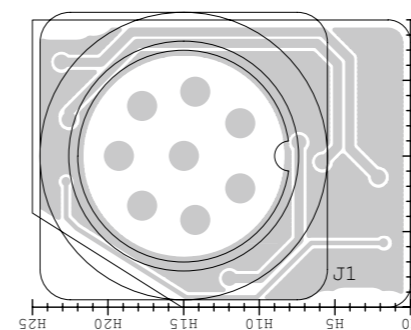
• PBT UNIT B-8331D (Bottom view)



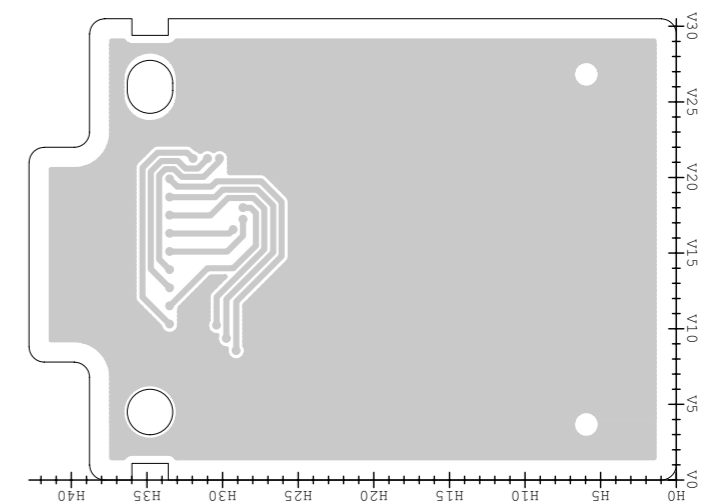
• PHONE UNIT B-8334C (Bottom view)



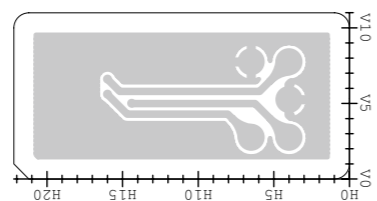
• MIC UNIT B-8335D (Bottom view)



• SD UNIT B-8336D (Bottom view)



• RIT UNIT B-8333D (Bottom view)

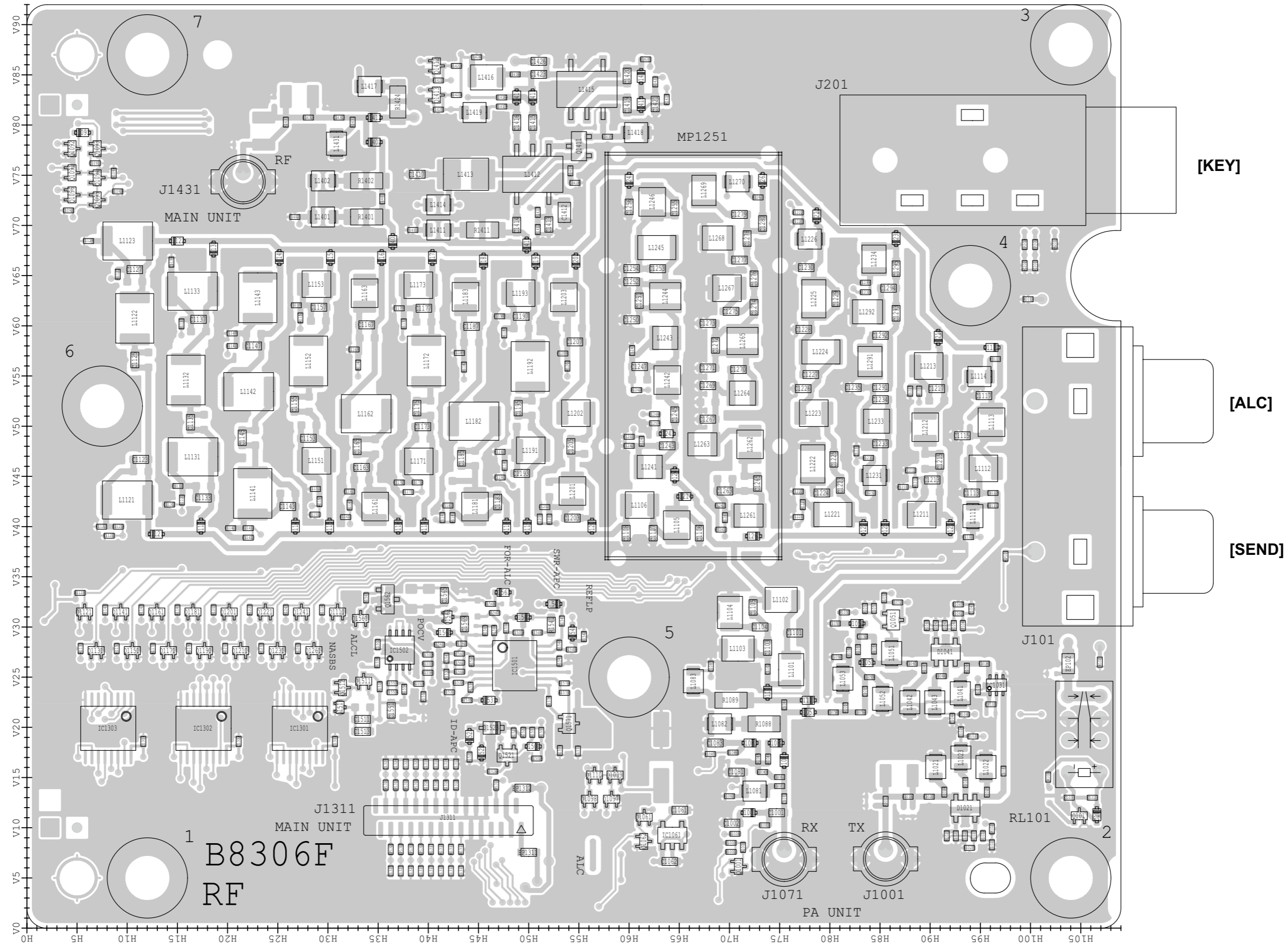


See the PARTS LIST H/V location on the PARTS LIST for location details.



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

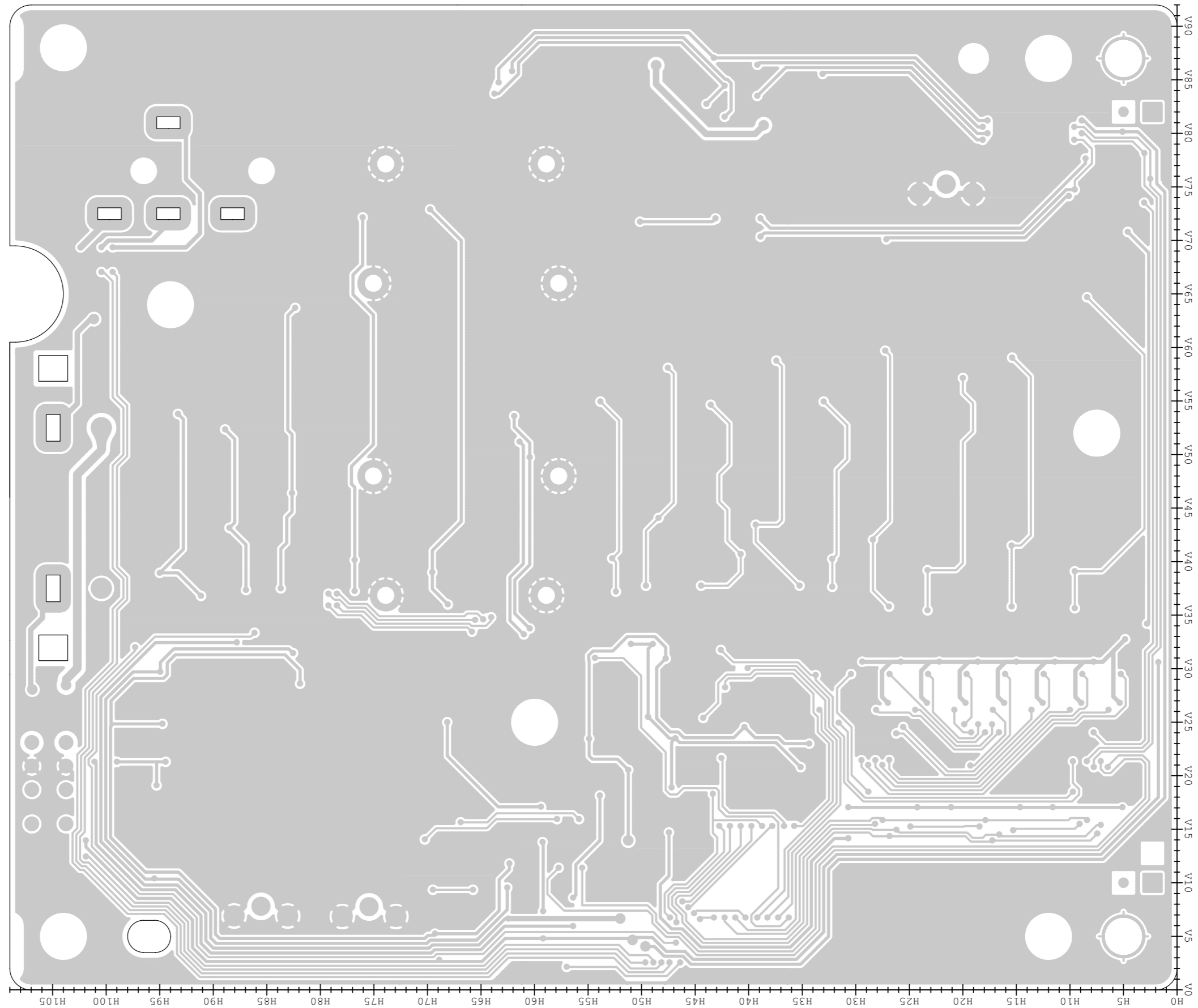
• RF UNIT B-8306F (Top view)



See the PARTS LIST H/V location on the PARTS LIST for location details.

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

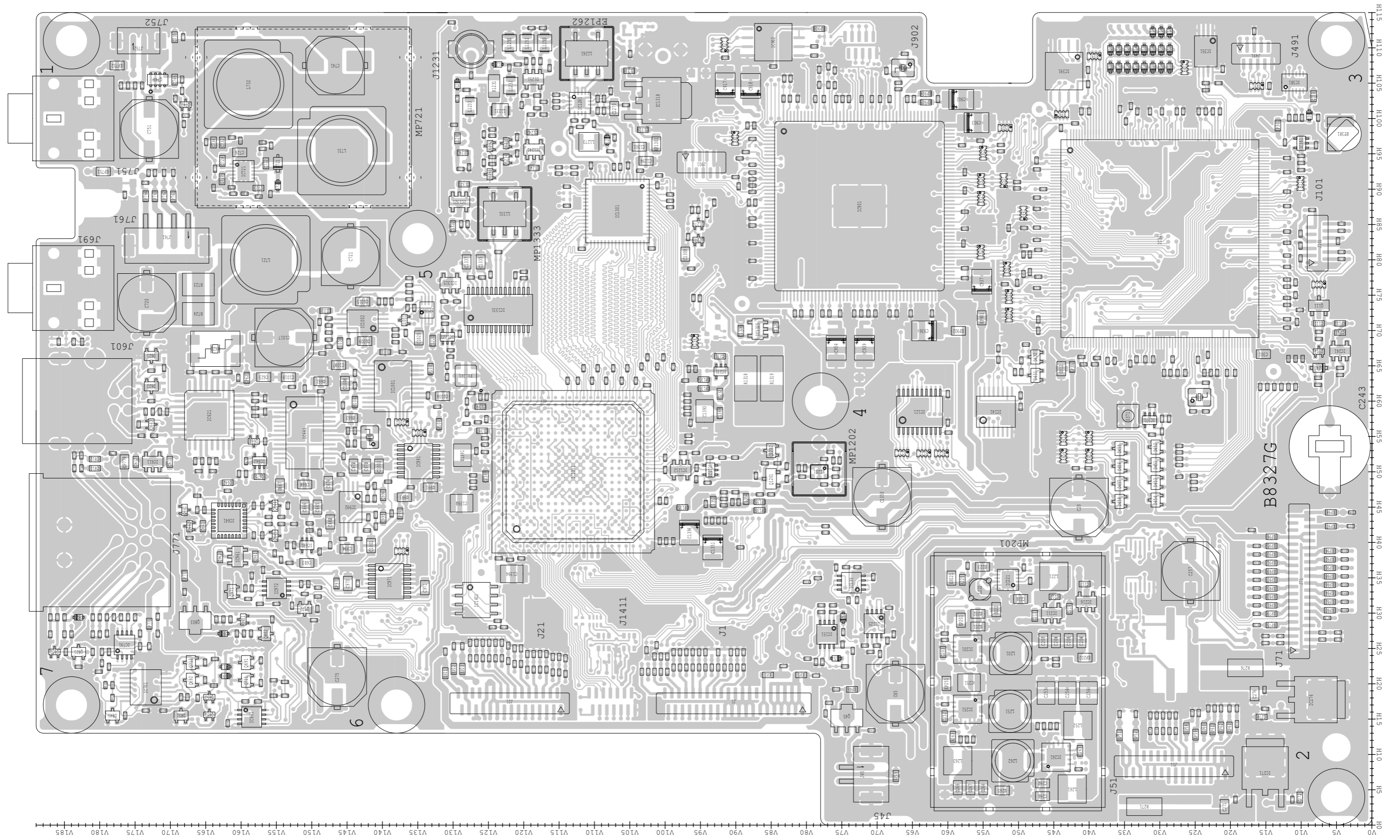
• RF UNIT B-8306F (Bottom view)



See the PARTS LIST H/V location on the PARTS LIST for location details.

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

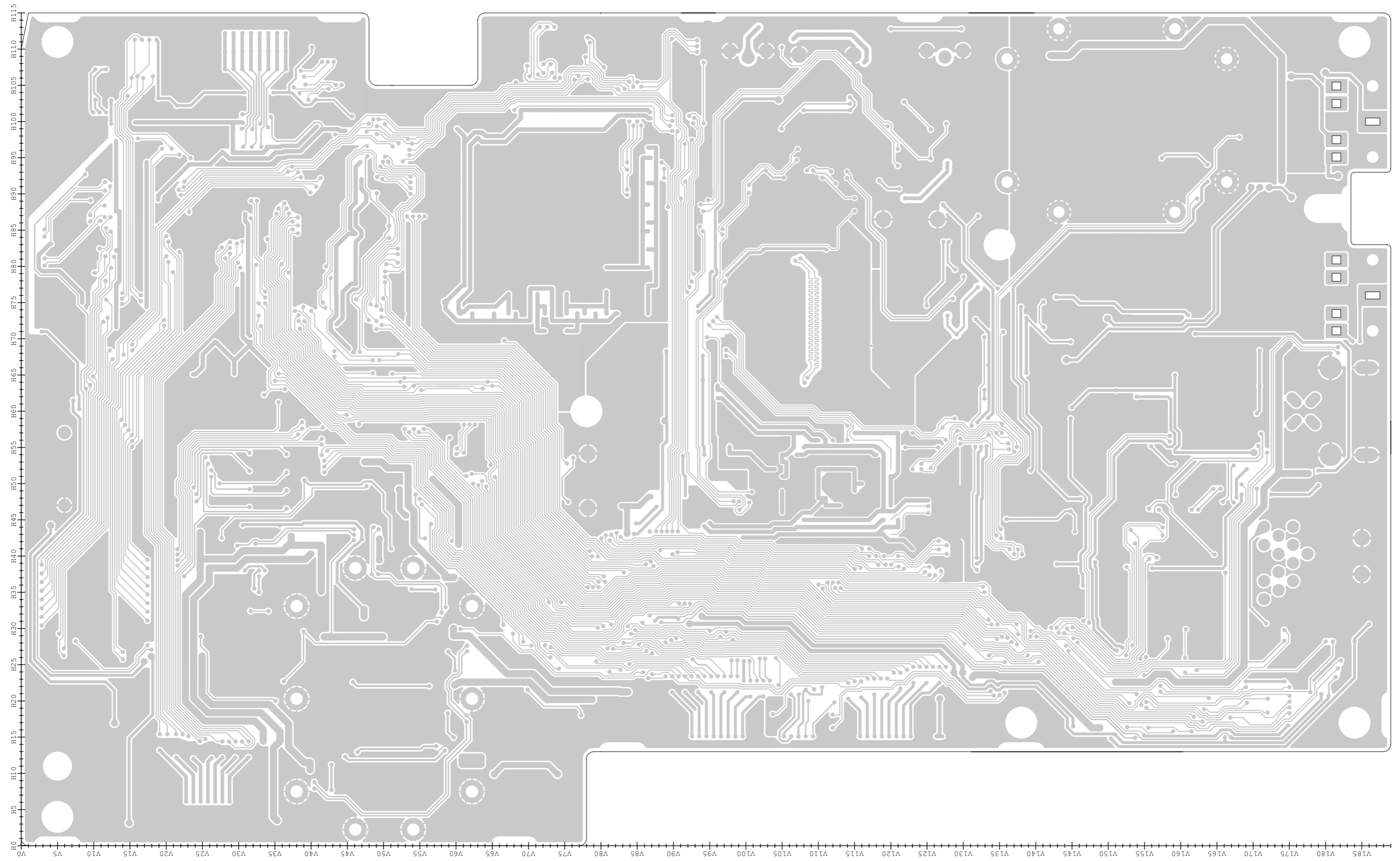
• MAIN UNIT B-8327G (Top view)



See the PARTS LIST H/V location on the PARTS LIST for location details.

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

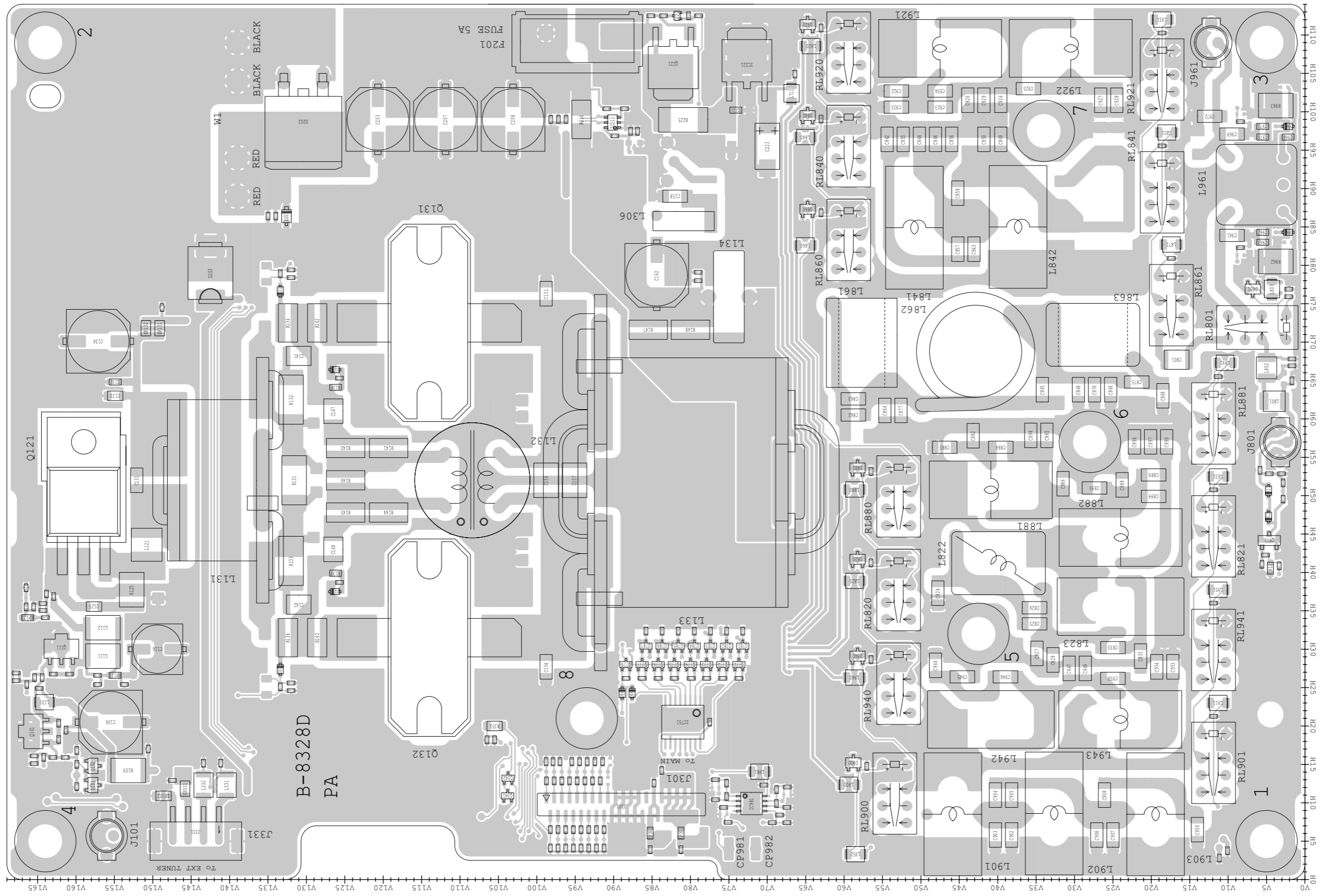
• MAIN UNIT B-8327G (Bottom view)



See the PARTS LIST H/V location on the PARTS LIST for location details.

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

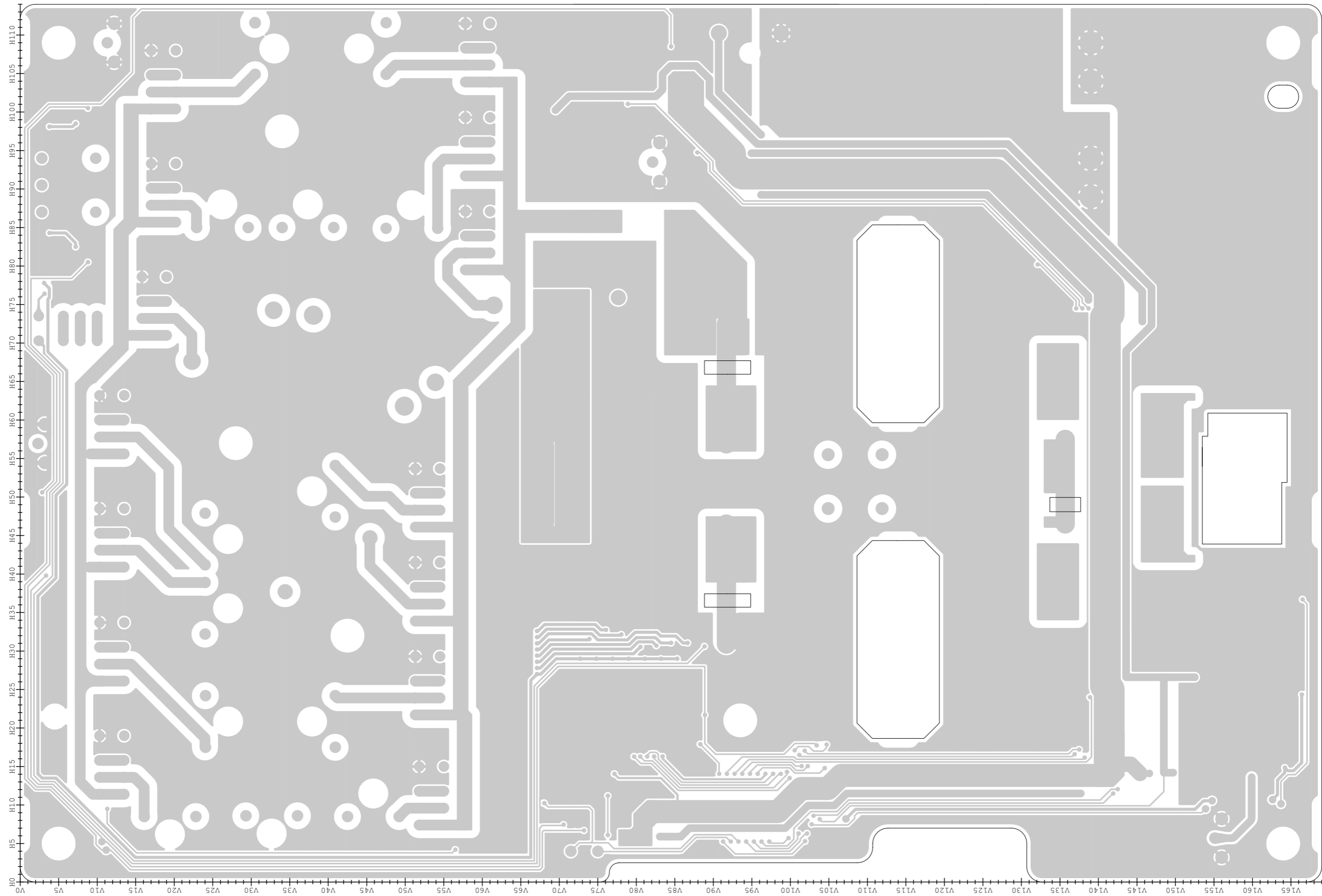
• PA UNIT B-8328D (Top view)



See the PARTS LIST H/V location on the PARTS LIST for location details.

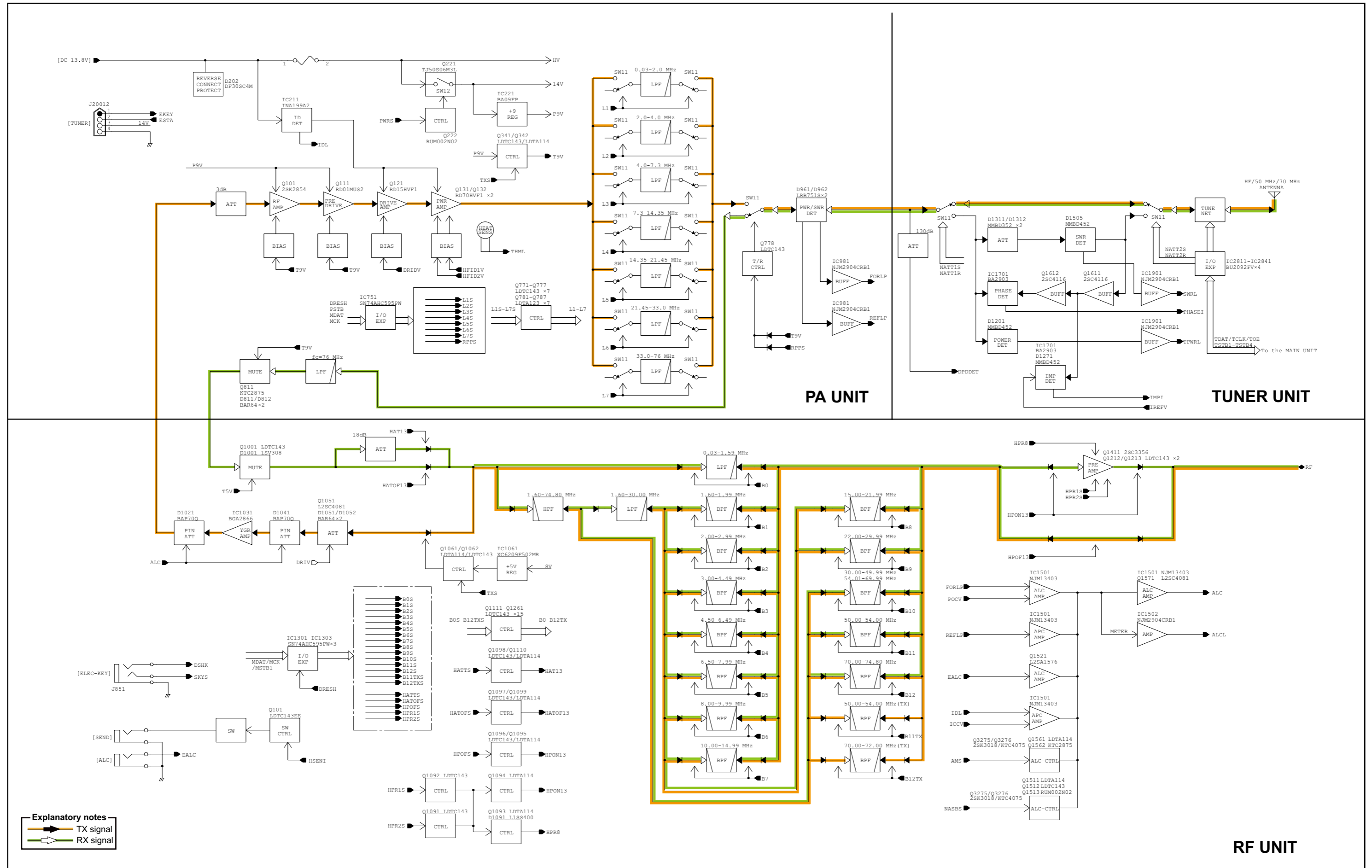
The actual configuration of the PC board can be seen by viewing the top and bottom BOARD LAYOUT pages together.

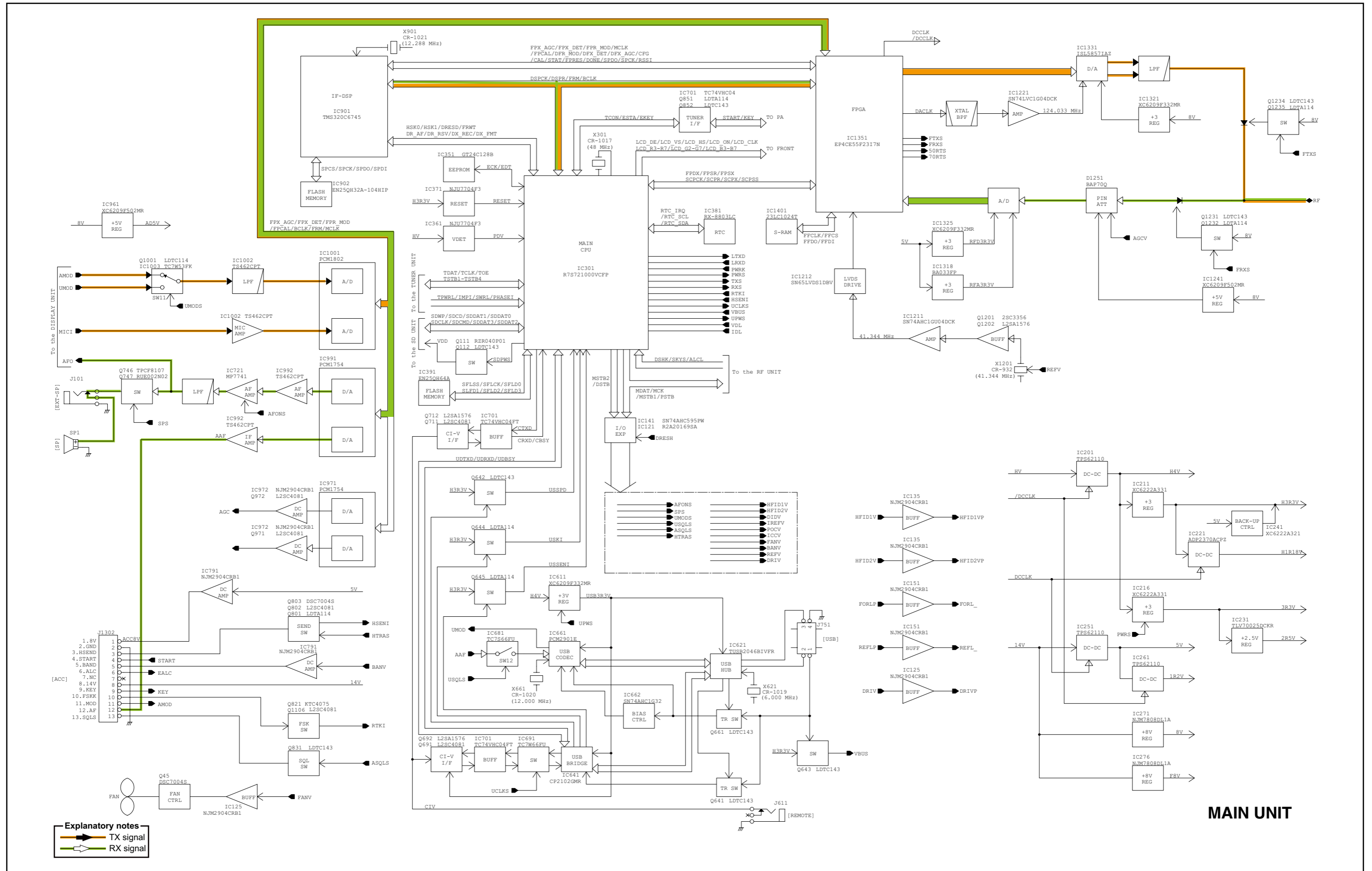
• PA UNIT B-8328D (Bottom view)



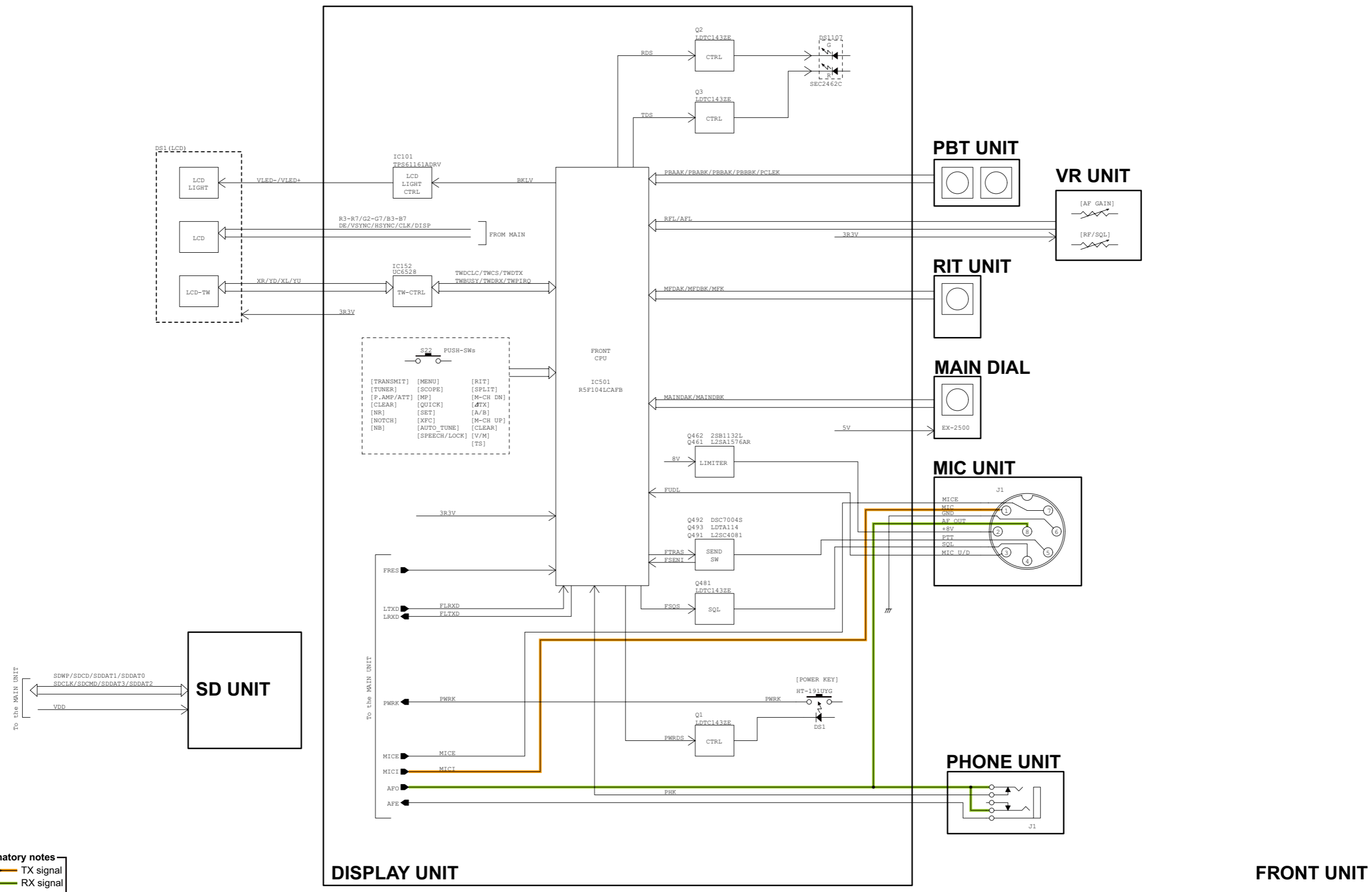
See the PARTS LIST H/V location on the PARTS LIST for location details.

# BLOCK DIAGRAMS



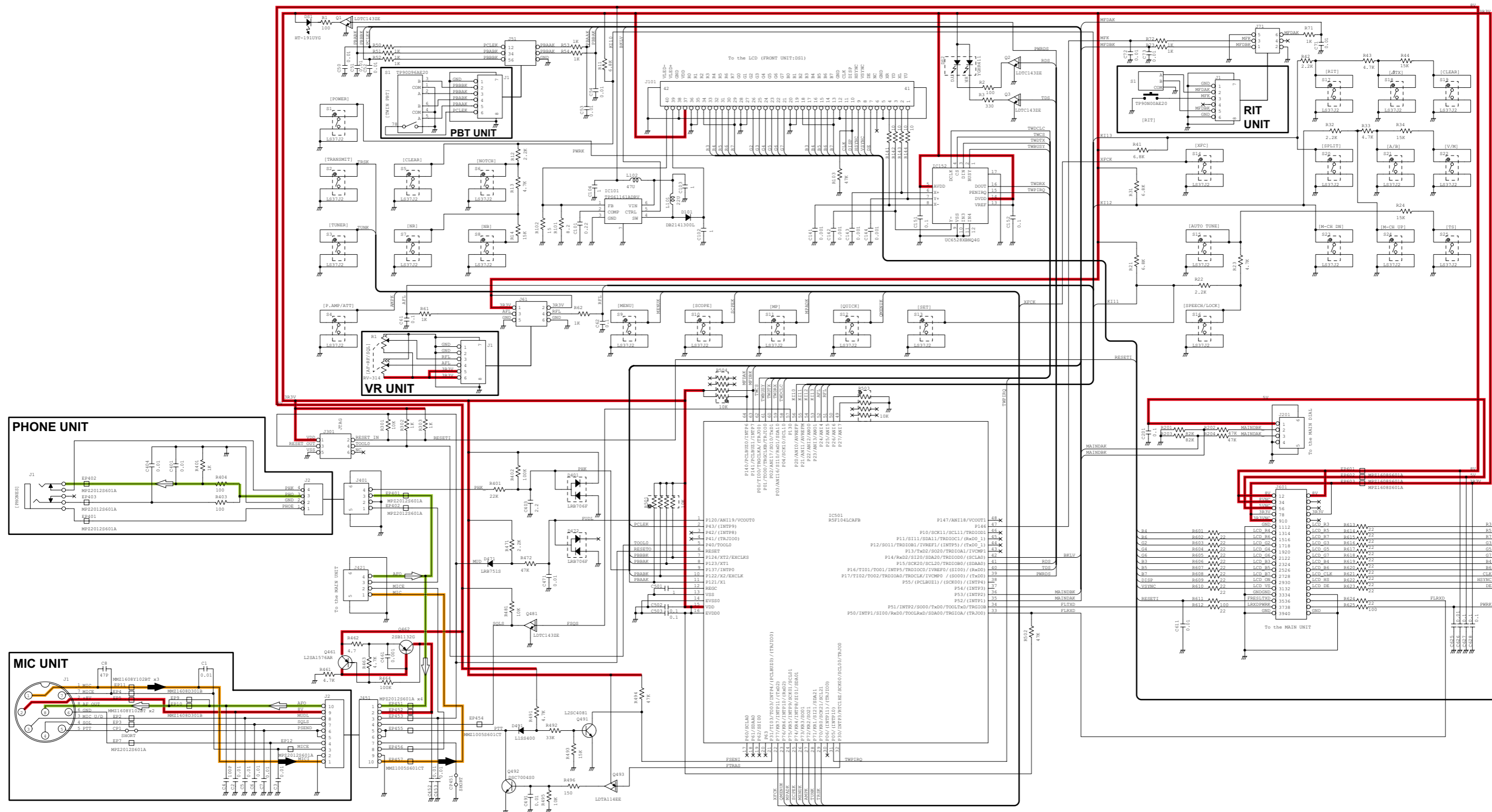






# SCHEMATIC DIAGRAMS

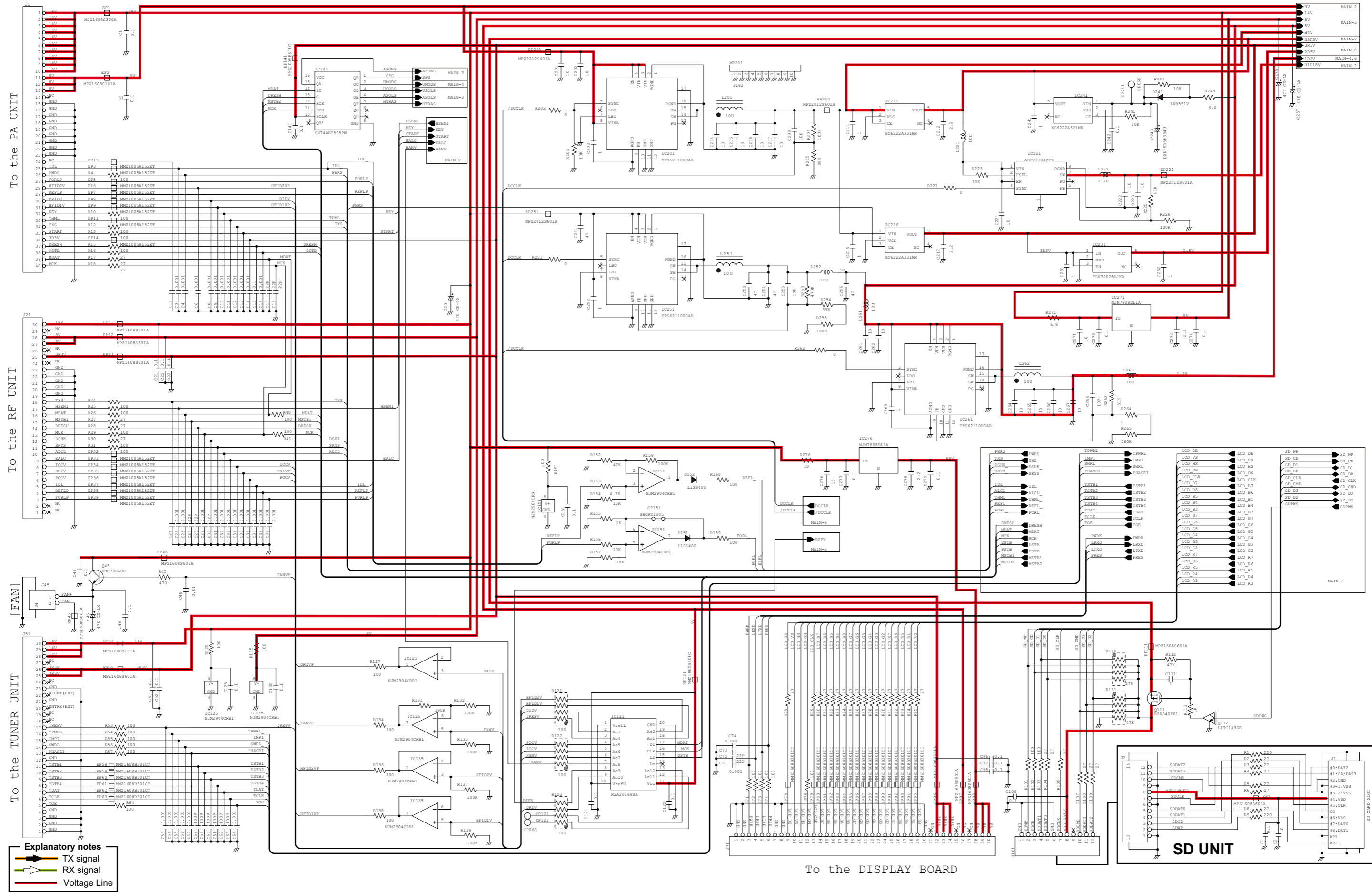
## • FRONT UNIT



- Explanatory notes**
- TX signal
  - RX signal
  - Voltage Line

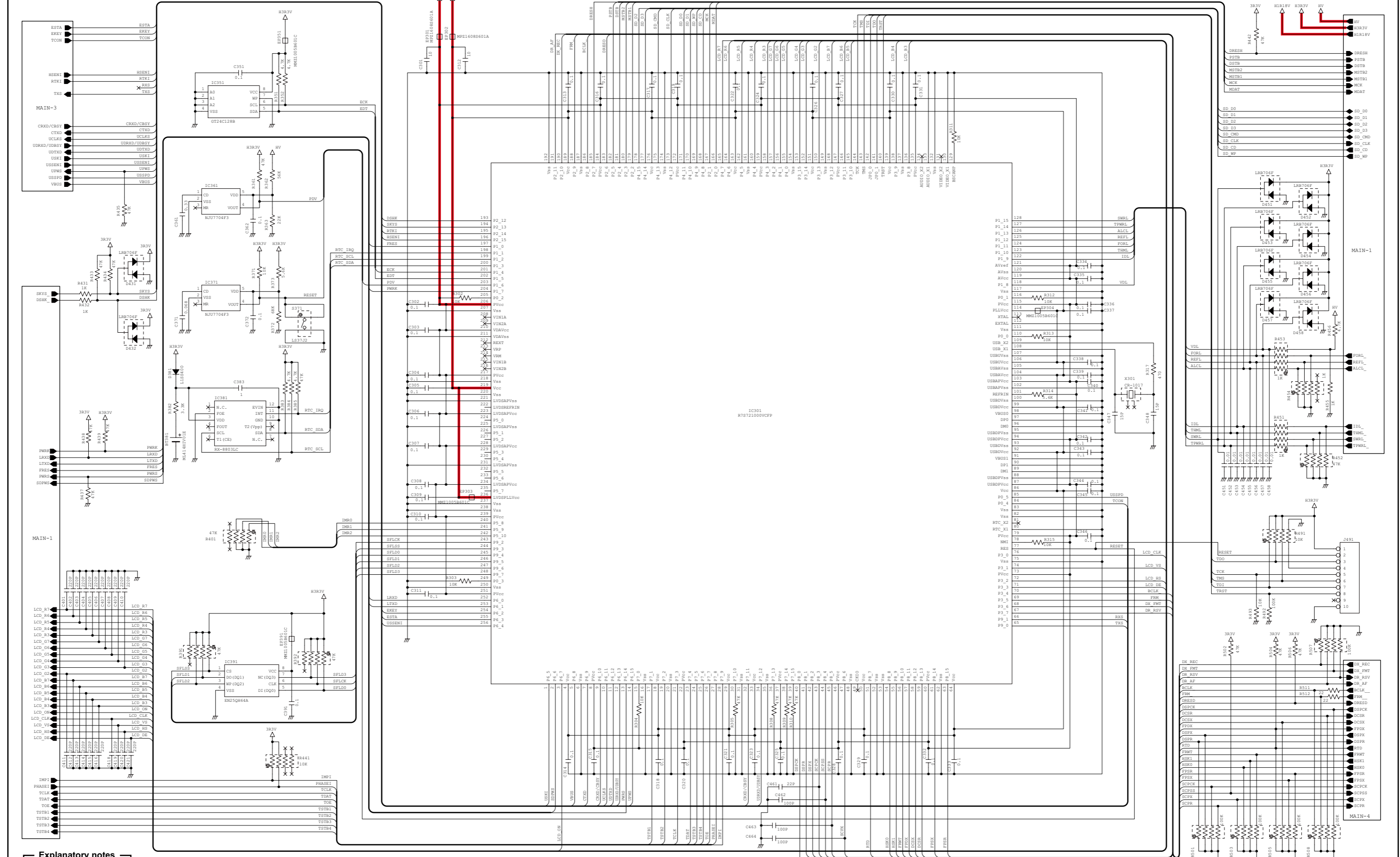
\*: Refer to the PARTS LIST for the value and name of component.

• MAIN UNIT (MAIN-1)



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

• MAIN UNIT (MAIN-2)

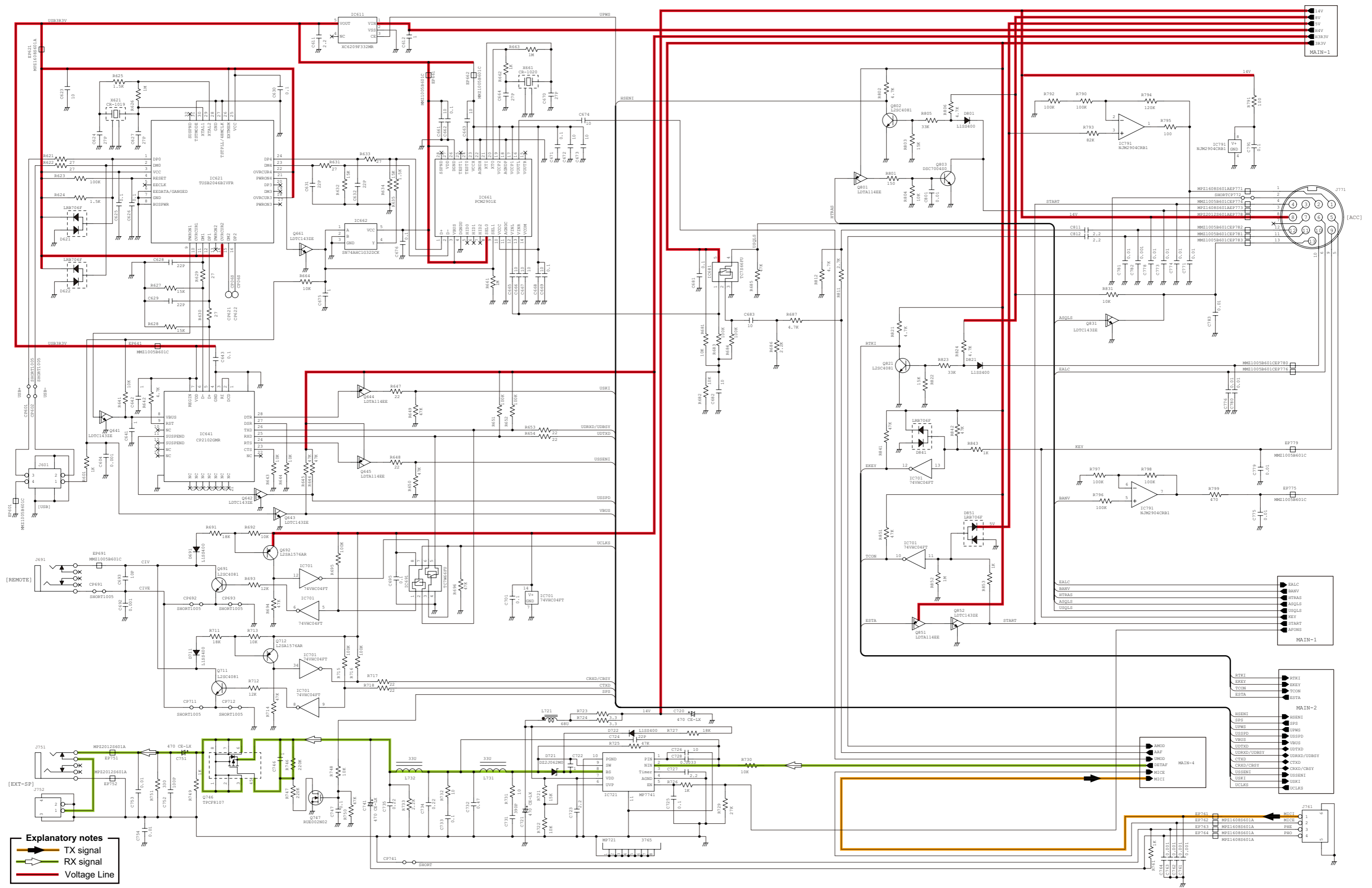


**Explanatory notes**

- TX signal
- RX signal
- Voltage Line

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

• MAIN UNIT (MAIN-3)

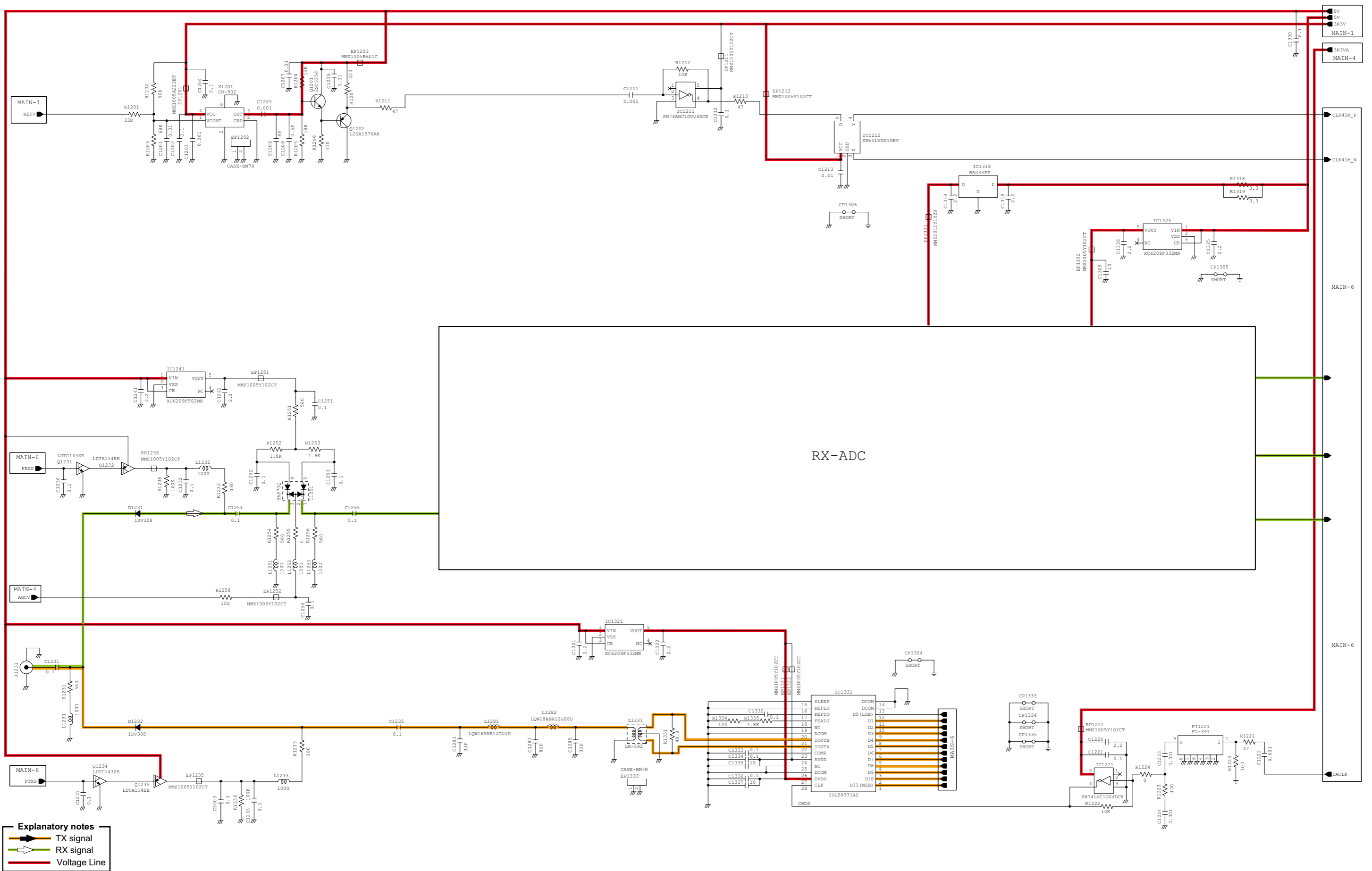


**Explanatory notes**  
 → TX signal  
 ← RX signal  
 — Voltage Line

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

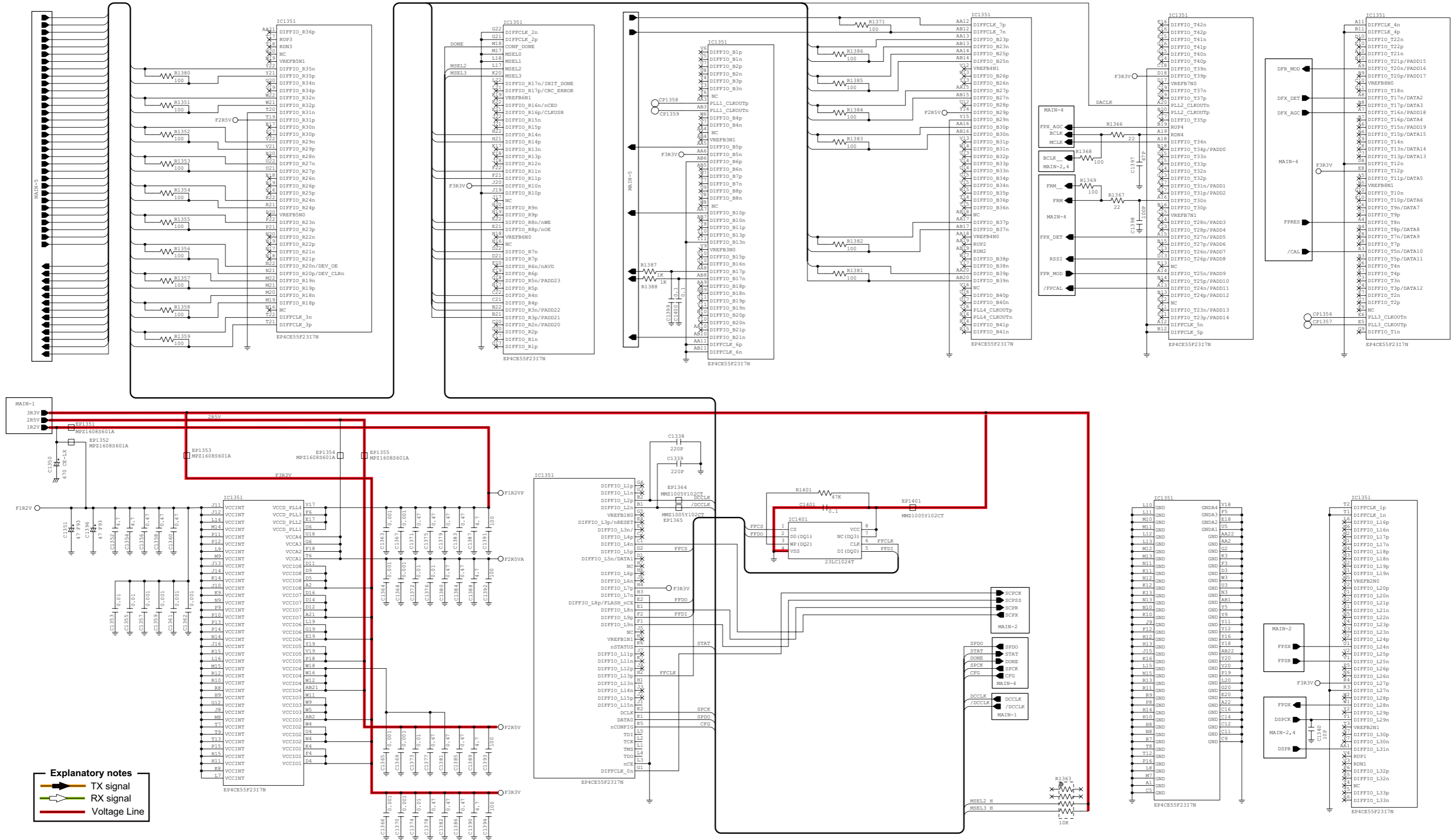


• MAIN UNIT (MAIN-5)



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

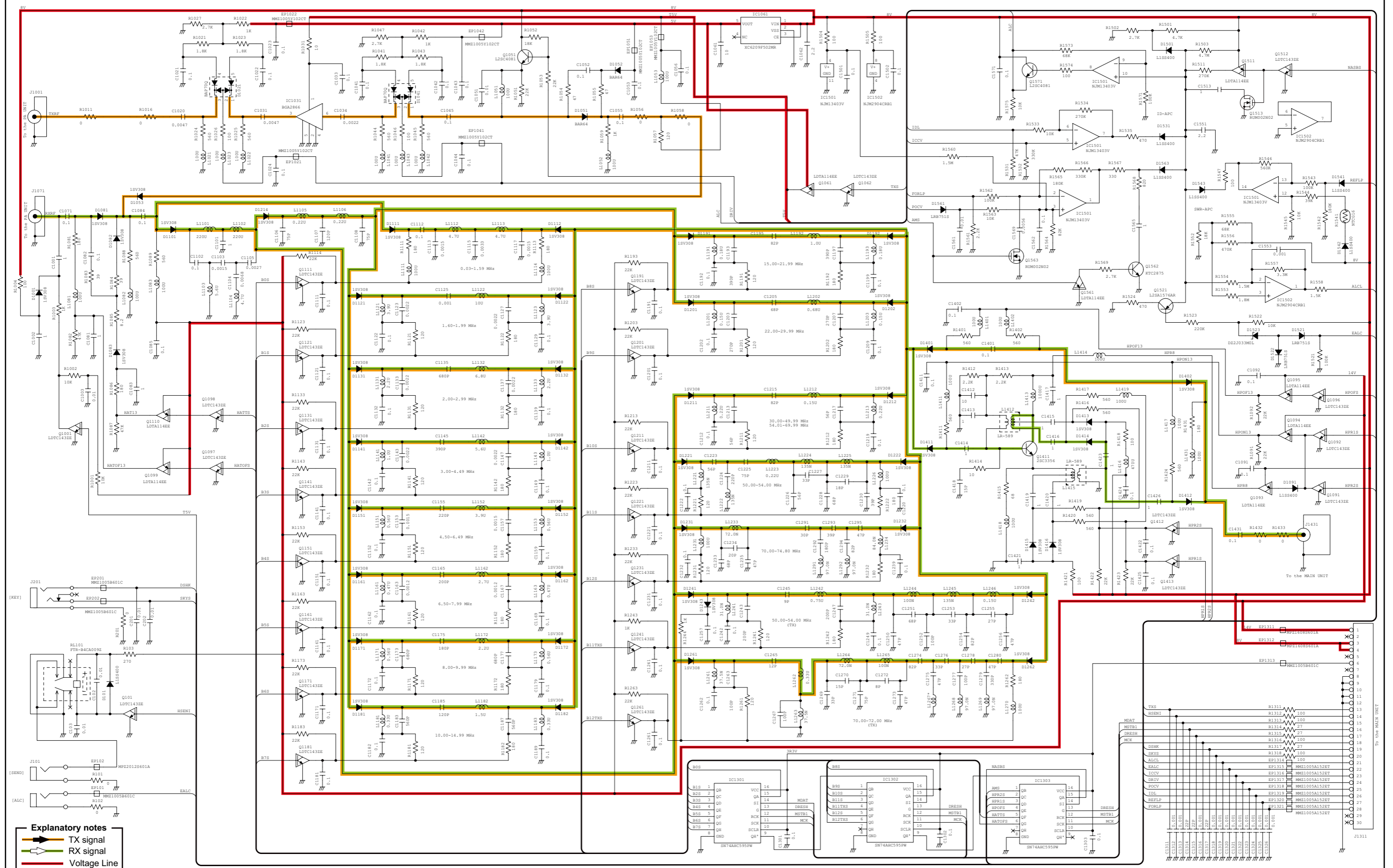
• MAIN UNIT (MAIN-6)



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



• RF UNIT

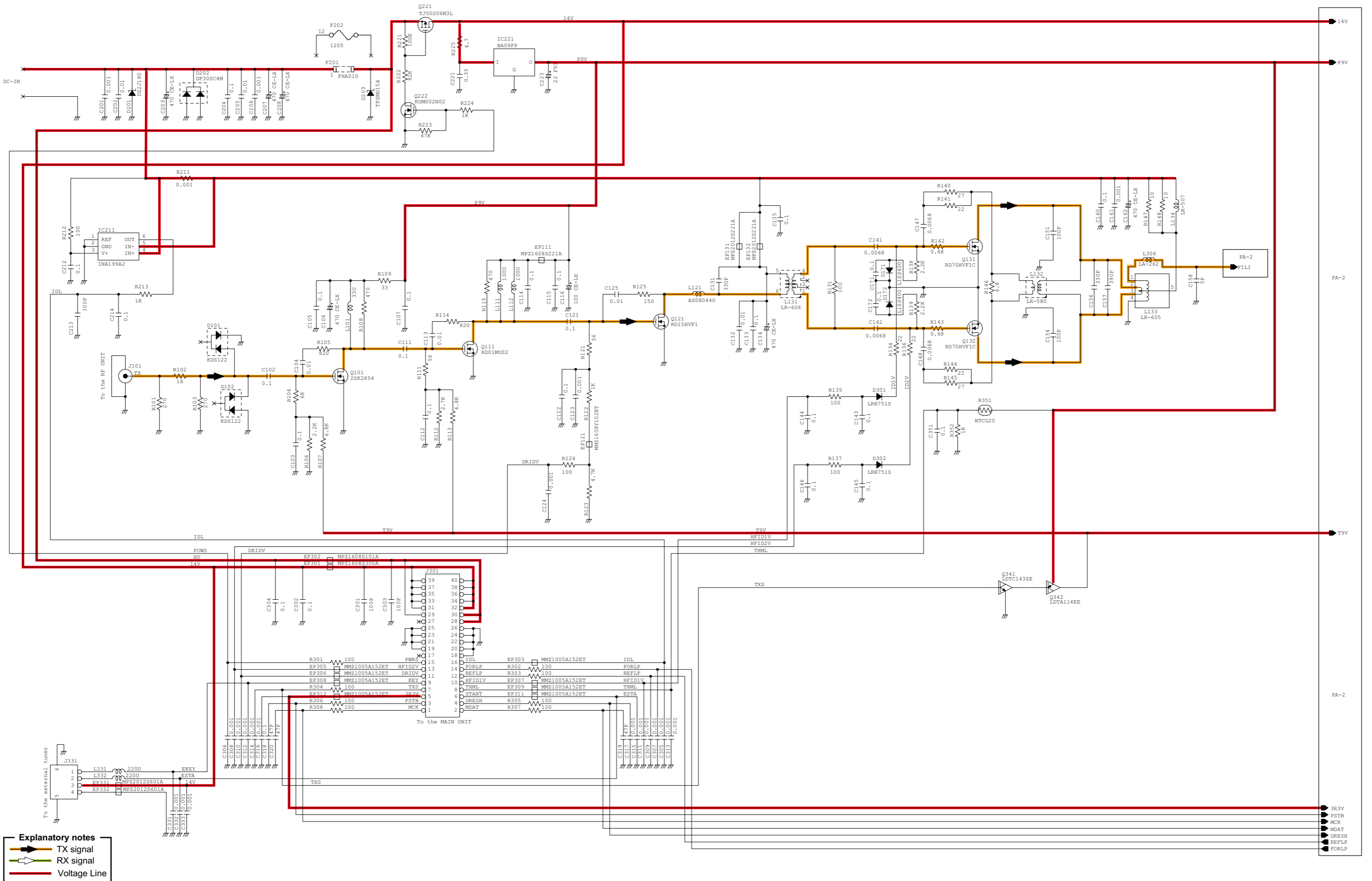


**Explanatory notes**

- TX signal
- RX signal
- Voltage Line

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

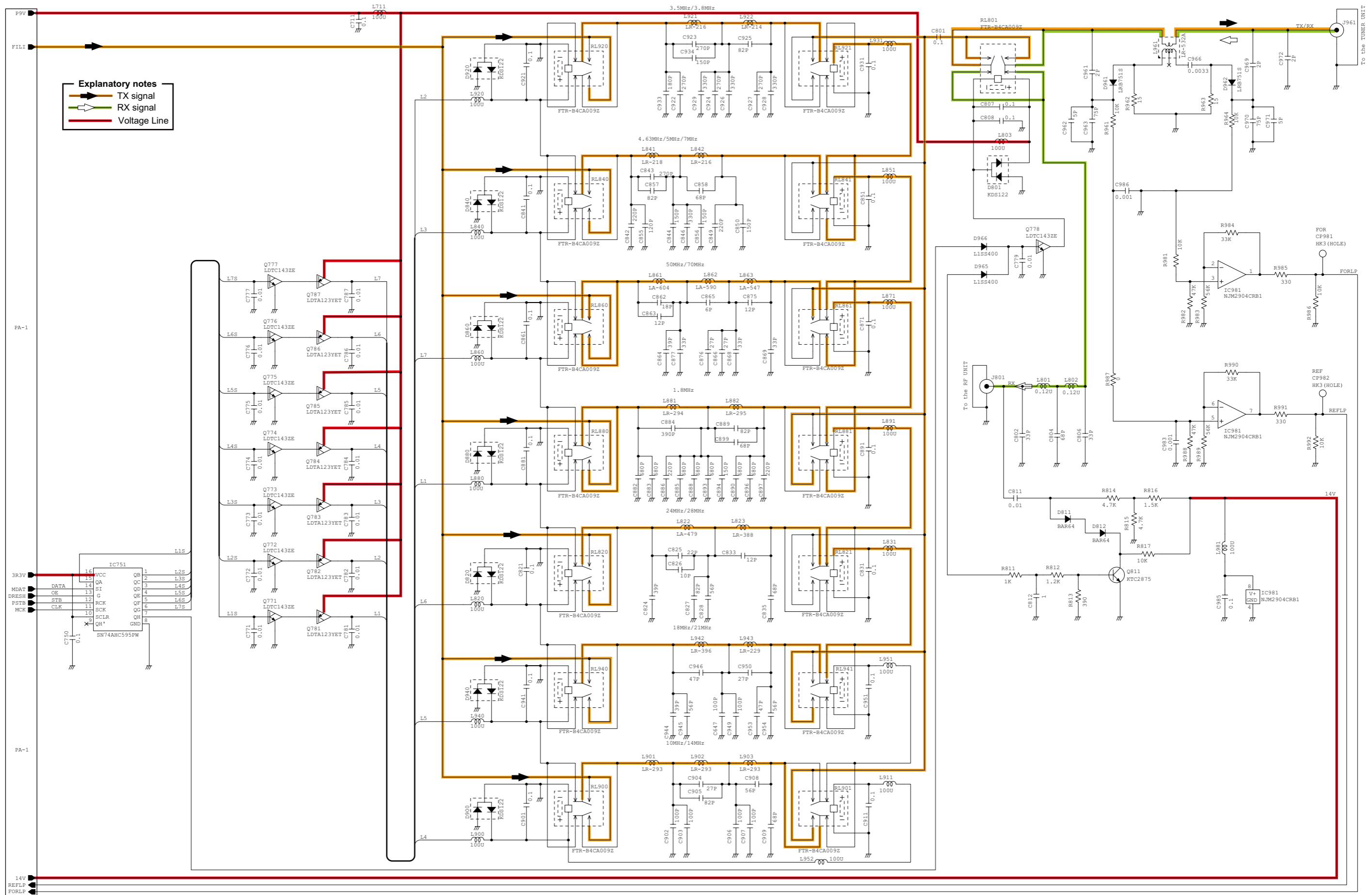
• PA UNIT (PA-1)



**Explanatory notes**  
 ● TX signal  
 ● RX signal  
 ● Voltage Line

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

• PA UNIT (PA-2)



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



# SERVICE MANUAL

HF/50 MHz TRANSCEIVER

## **IC-7300**

---

---

---

---

---

S-15218XZ-C1  
March 2016

Icom Inc.

---

## INTRODUCTION

This service manual describes the latest technical information for the **IC-7300** HF/50 MHz TRANSCEIVER, at the time of publication.

MODEL	VERSION	VERSION NUMBER	OPERATABLE BANDS
IC-7300	USA	#02	HF/50 MHz
	EUR	#03	HF/50/70 MHz
	ITR	#05	
	ESP	#06	
	TPE	#07	HF/50 MHz
	KOR	#08	
	EXP	#12	

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

## SERVICE CAUTION

**NEVER** connect the transceiver to a DC power supply that uses more than the specified voltage. This will ruin the transceiver.

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

**DO NOT** reverse the polarities of the power supply when directly applying power to the transceiver/circuit.

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



## ORDERING PARTS

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

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

### <ORDER EXAMPLE>

1180004830	XC6222A331MR	IC-7300	MAIN UNIT	5 pieces
8110010940	3765 U-COVER	IC-7300	CHASSIS	1 piece

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

## REPAIR NOTES

1. Make sure that the problem is internal before disassembling the transceiver.
2. **DO NOT** open the transceiver until the transceiver is disconnected from its power source.
3. **DO NOT** force any of the variable components. Turn them slowly and smoothly.
4. **DO NOT** short any circuits or electronic parts. An insulated tuning tool **MUST** be used for all adjustments.
5. **DO NOT** keep power ON for a long time when the transceiver is defective.
6. **NEVER** directly transmit power into any test equipment such as Standard Signal Generator or a Sweep Generator, otherwise the RF power may damage them.
7. **ALWAYS** connect a 50 dB to 60 dB attenuator between the transceiver and such test equipment.
8. **READ** the instructions of the test equipment thoroughly before connecting it to the transceiver.

---

## TABLE OF CONTENTS

---

<b>SECTION 1</b>	<b>SPECIFICATIONS</b>	
<b>SECTION 2</b>	<b>INSIDE VIEWS</b>	
<b>SECTION 3</b>	<b>CIRCUIT DESCRIPTION</b>	
3-1	PA UNIT .....	3-1
3-2	RF UNIT .....	3-2
3-3	MAIN UNIT .....	3-3
<b>SECTION 4</b>	<b>ADJUSTMENT PROCEDURE</b>	
4-1	PREPARATION .....	4-1
4-2	RECEIVE ADJUSTMENTS.....	4-2
4-3	TX IDLING CURRENT ADJUSTMENTS .....	4-3
4-4	TX POWER ADJUSTMENTS.....	4-4
4-5	TX AMPLIFIER ADJUSTMENTS .....	4-5
4-6	FREQUENCY ADJUSTMENTS.....	4-6
<b>SECTION 5</b>	<b>PARTS LIST</b>	
<b>SECTION 6</b>	<b>MECHANICAL PARTS</b>	
<b>SECTION 7</b>	<b>BOARD LAYOUTS</b>	
<b>SECTION 8</b>	<b>GENERAL WIRING</b>	
<b>SECTION 9</b>	<b>BLOCK DIAGRAM</b>	
<b>SECTION 10</b>	<b>SCHEMATIC DIAGRAM</b>	

## General

- Frequency coverage (unit: MHz):

Receiver	0.030000~74.800000* <sup>1</sup>
Transmitter	1.800000~ 1.999999* <sup>2</sup>
	3.500000~ 3.999999* <sup>2</sup>
	5.255000~ 5.405000* <sup>2</sup>
	7.000000~ 7.300000* <sup>2</sup>
	10.100000~ 10.150000* <sup>2</sup>
	14.000000~ 14.350000* <sup>2</sup>
	18.068000~ 18.168000* <sup>2</sup>
	21.000000~ 21.450000* <sup>2</sup>
	24.890000~ 24.990000* <sup>2</sup>
	28.000000~ 29.700000* <sup>2</sup>
	50.000000~ 54.000000* <sup>2</sup>
	70.000000~ 70.500000* <sup>2</sup>

\*<sup>1</sup> Some frequency ranges are not guaranteed.

\*<sup>2</sup> Depending on the transceiver version.

- Operating modes: USB/LSB (J3E), CW (A1A), RTTY (F1B), AM (A3E) and FM (F3E)
- Number of memory channels: 101 (including 2 scan edges)
- Antenna connector: SO-239 (antenna impedance: 50 Ω unbalanced)
- Power supply requirement: 13.8 V DC (±15%)
- Operating temperature range: -10°C to +60°C, +14°F to +140°F
- Frequency stability: Less than ±0.5 ppm (-10°C to +60°C, +14°F to +140°F)
- Frequency resolution: 1 Hz (minimum)
- Power consumption:
 

Receive	Standby	0.9 A
	Maximum audio	1.25 A
Transmit	Maximum power	21.0 A
- Dimensions (projections not included): 240 (W)×94 (H)×238 (D) mm, 9.4 (W)×3.7 (H)×9.4 (D) in
- Weight (approximately): 4.2 kg, 9.3 lb

## Transmitter

- Transmit output power:

HF and 50 MHz bands	
SSB/CW/RTTY/FM	2~100 W
AM	1~25 W
70 MHz band* <sup>2</sup>	
SSB/CW/RTTY/FM	2~50 W
AM	1~12.5 W

\*<sup>2</sup> Depending on the transceiver version.

- Modulation system:

SSB	P.S.N. modulation
AM	Low power modulation
FM	Reactance modulation

- Spurious emission:

Harmonics	Less than -50 dB (1.8~28 MHz)
	Less than -63 dB (50 MHz band)
	Less than -60 dB (70 MHz band* <sup>2</sup> )
Out-of-band emission	Less than -40 dB (1.8~28 MHz)
	Less than -60 dB (50 MHz band)
	Less than -60 dB (70 MHz band* <sup>2</sup> )

\*<sup>2</sup> Depending on the transceiver version.

- Carrier suppression: More than 50 dB
- Unwanted sideband suppression: More than 50 dB
- Input impedance (microphone): 600 Ω

## Receiver

• Receive system:	Direct sampling superheterodyne
• Intermediate frequency:	36 kHz
• Sensitivity (Filter: SOFT):	
SSB/CW (at 10 dB S/N)	
1.8 ~ 29.999999 MHz	Less than -123 dBm (0.16 $\mu$ V) (P.AMP1 ON)
50 MHz band	Less than -125 dBm (0.13 $\mu$ V) (P.AMP2 ON)
70 MHz band* <sup>2</sup>	Less than -123 dBm (0.16 $\mu$ V) (P.AMP2 ON)
	* <sup>2</sup> Depending on the transceiver version.
AM (at 10 dB S/N)	
0.5 ~ 1.8 MHz	Less than -85 dBm (12.6 $\mu$ V) (P.AMP1 ON)
1.8 ~ 29.999999 MHz	Less than -101 dBm (2.0 $\mu$ V) (P.AMP1 ON)
50 MHz and 70 MHz bands	Less than -107 dBm (1.0 $\mu$ V) (P.AMP2 ON)
FM (at 12 dB SINAD)	
28.0 ~ 29.7 MHz	Less than -113 dBm (0.5 $\mu$ V) (P.AMP1 ON)
50 MHz and 70 MHz bands	Less than -119 dBm (0.25 $\mu$ V) (P.AMP2 ON)
• Squelch sensitivity (threshold):	
SSB	Less than -92 dBm (5.6 $\mu$ V)
FM	Less than -117 dBm (0.3 $\mu$ V)
	(HF band: P.AMP1 ON, 50 MHz band: P.AMP2 ON)
• Selectivity (Filter: SHARP):	
SSB (BW=2.4 kHz)	More than 2.4 kHz/-6 dB
	Less than 3.4 kHz/-40 dB
CW (BW=500 Hz)	More than 500 Hz/-6 dB
	Less than 700 Hz/-40 dB
RTTY (BW=500 Hz)	More than 500 Hz/-6 dB
	Less than 800 Hz/-40 dB
AM (BW=6 kHz)	More than 6.0 kHz/-6 dB
	Less than 10 kHz/-40 dB
FM (BW=15 kHz)	More than 12.0 kHz/-6 dB
	Less than 22 kHz/-40 dB
• Spurious and image rejection:	More than 70 dB (except for ADC aliasing)
• Audio output power:	More than 2.5 W (at 10% distortion into the 8 $\Omega$ load, at the 1 kHz reference)
• Output impedance (Speaker):	8 $\Omega$
• RIT variable range:	$\pm$ 9.999 kHz

## Antenna tuner

• Tunable impedance range:	16.7~150 $\Omega$ (unbalanced) (less than 3:1 VSWR)
• Tuning accuracy:	Less than 1.5:1 VSWR
• Tuning time (approximately):	2~3 seconds (average)
	15 seconds (maximum)

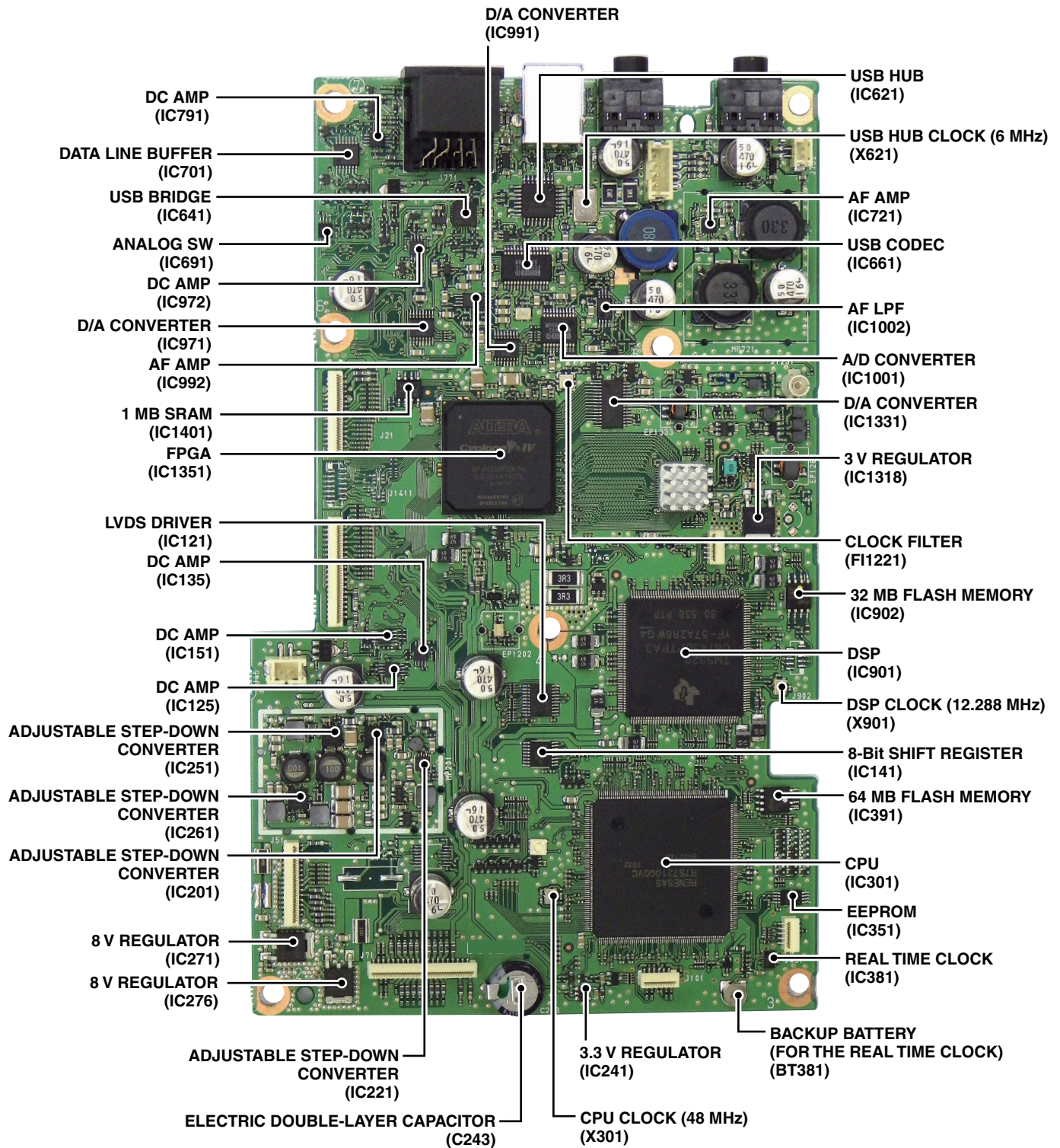
① All stated specifications are typical and subject to change without notice or obligation.



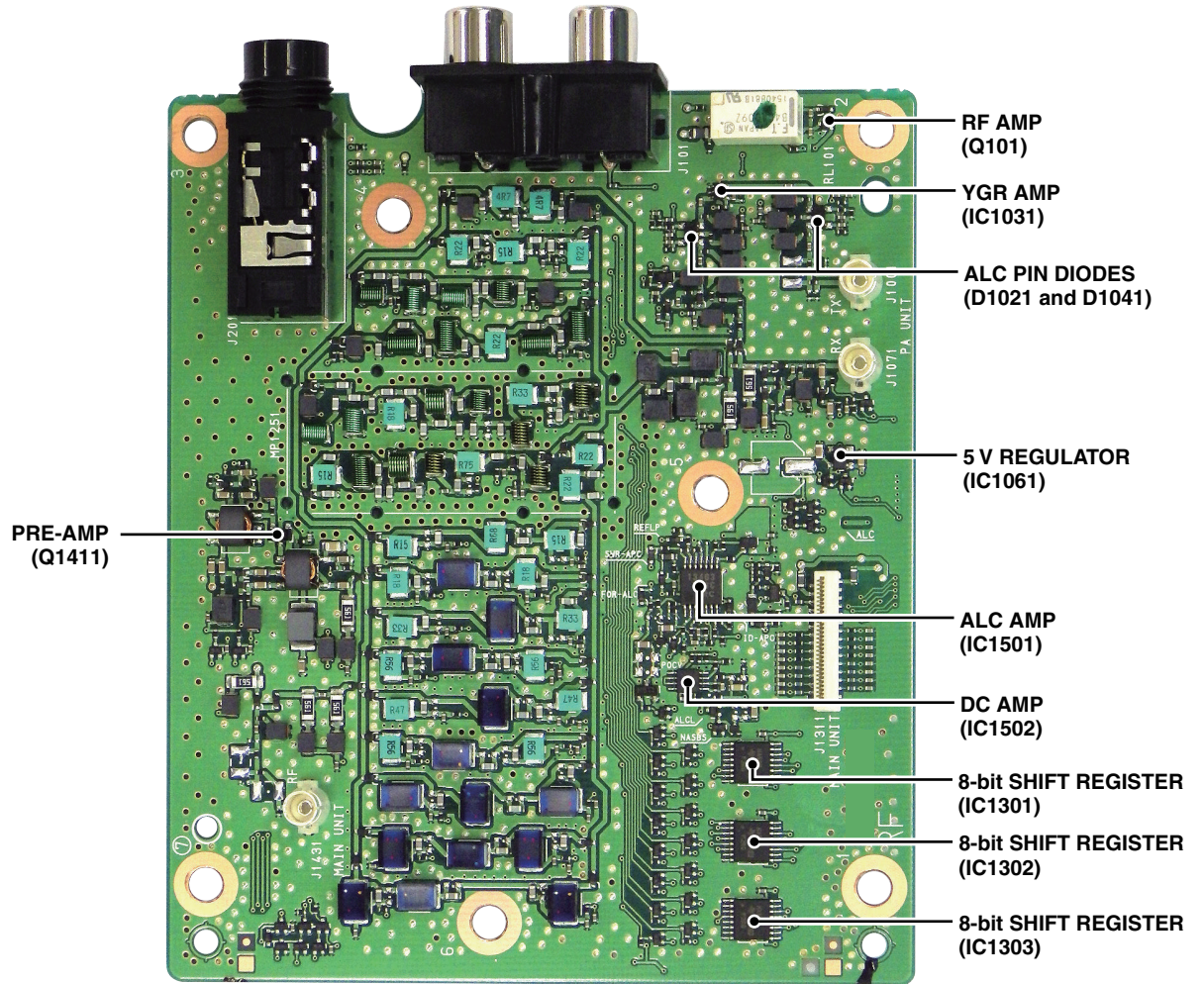
# SECTION 2

# INSIDE VIEWS

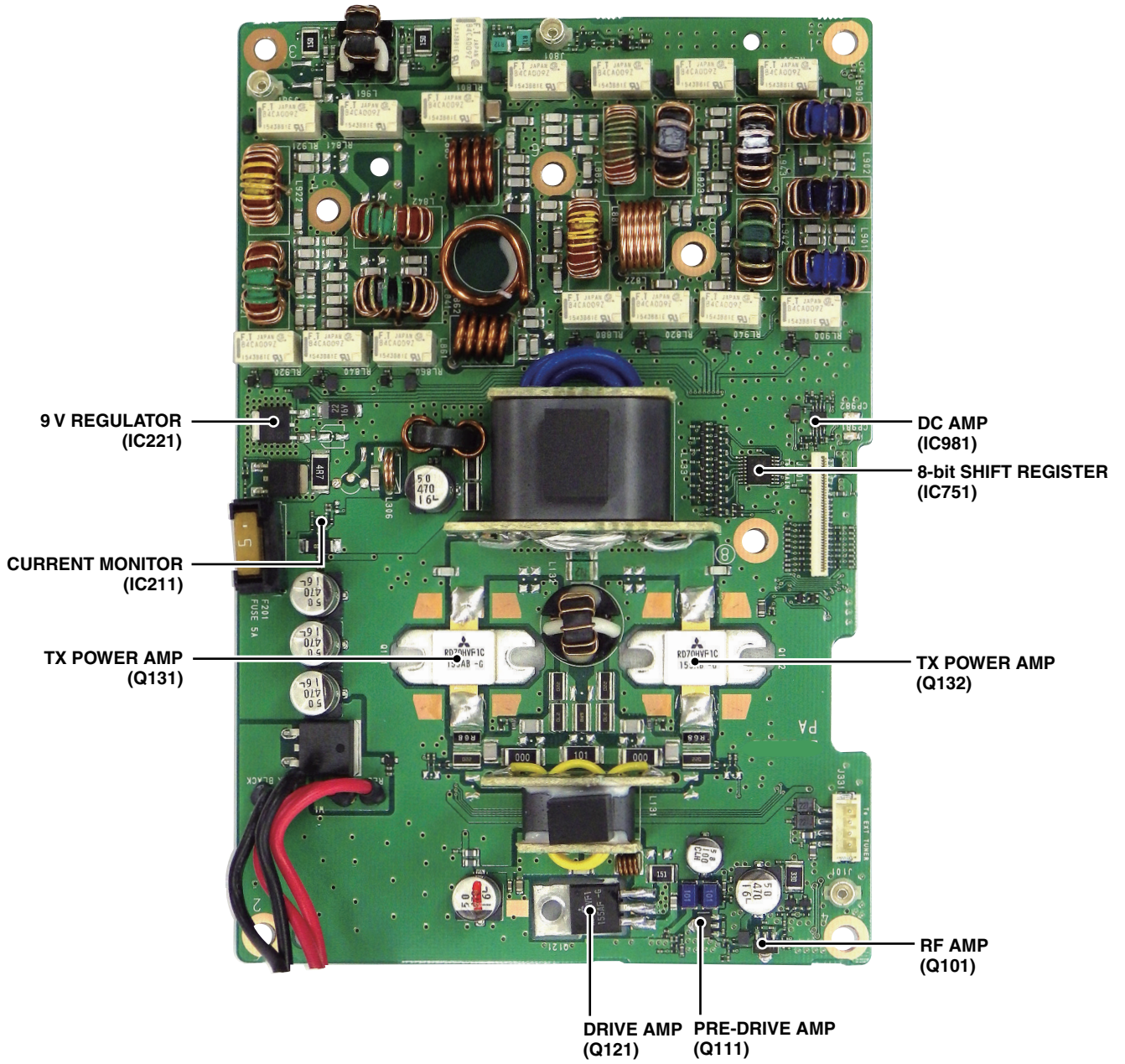
## • MAIN UNIT



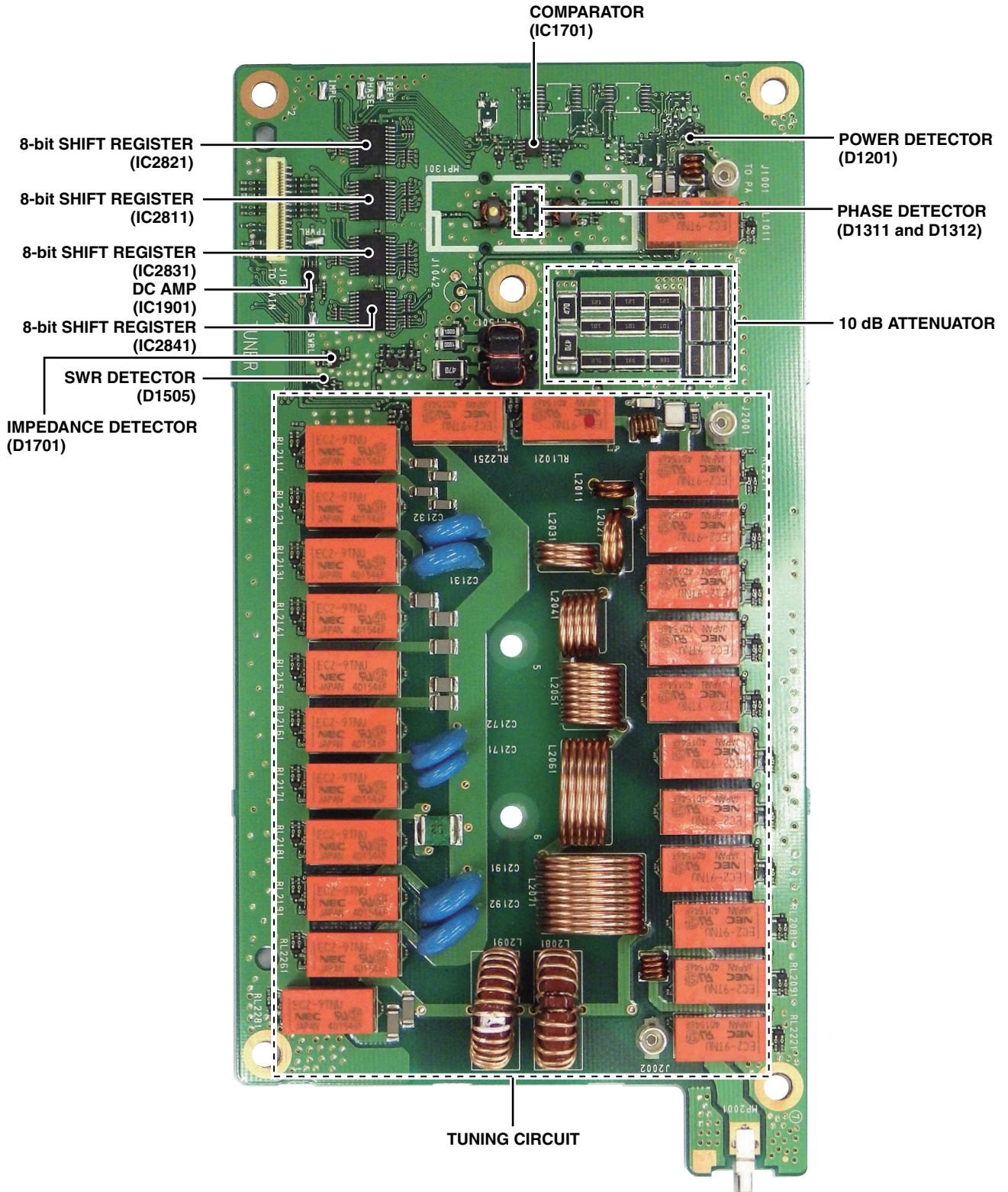
• RF UNIT



• PA UNIT



• TUNER UNIT



## 3-1 PA UNIT

The PA UNIT is composed of the transmit power amplifier, harmonic filters, and sensing circuits for the transmit power and SWR.

### (1) RECEIVE SIGNAL PROCESSING

The received signal from the TUNER UNIT is passed through the TX/RX SW (RL801), and applied to the RF UNIT through the LPF whose cut-off frequency is 76 MHz, and the TX mute switch (Q811, D811 and D812).

To prevent abnormal oscillations caused by feedback of the transmit signal, the TX mute switch connects the transmit line to ground while receiving.

### (2) TRANSMIT SIGNAL PROCESSING

#### • DRIVE AMPLIFIER

The transmit signal from the RF UNIT is sequentially amplified by the RF amplifier (Q101), pre-drive amplifier (Q111) and drive amplifier (Q121). These RF amplifiers are the high gain source-grounded amplifiers. The idling current of drive amplifier (Q121) is appropriately adjusted to compensate for variation in gain.

#### • POWER AMPLIFIER

The transmit signal from the drive amplifier (Q121) is applied to the push-pull power amplifier (Q131 and Q132) to be amplified up to 100 watts (for the HF/50 MHz band) or 50 watts (for the 70 MHz band). The idling current of the power amplifier is appropriately adjusted to compensate for variation in gain.

#### • LPF

The transmit signal from the power amplifier is filtered by one of the LPFs that is selected according to the transmit frequency. These LPFs are the Chebyshev filters with sharp cut-off characteristics, to reduce the harmonic components in the transmit signal.

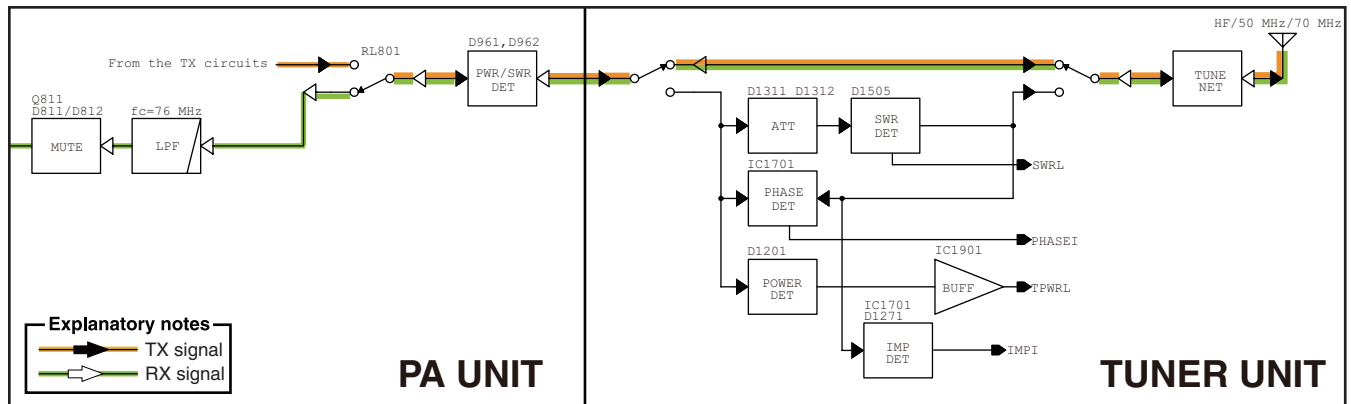
There are 7 BPFs with different cut-off frequencies. The LPFs are selected by the relays on both sides of each LPF, according to the transmit frequency.

#### • FORWARD AND REFLECT WAVES DETECTION CIRCUIT

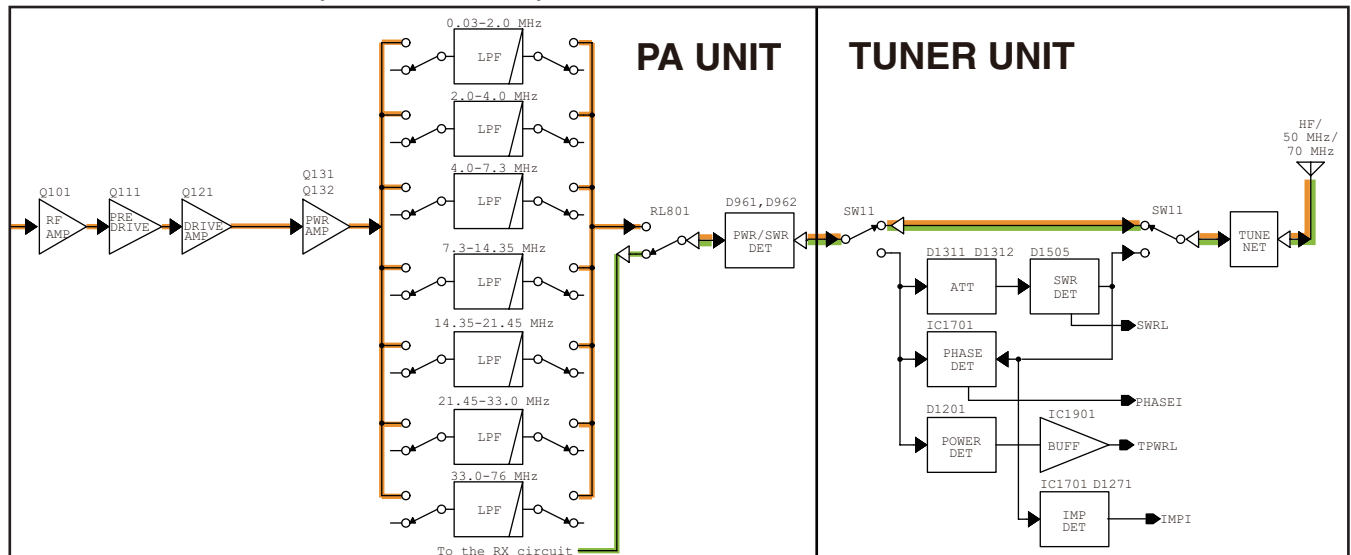
The transmit signal is passed through the SWR detection circuit, which is composed of the CM coupler and rectifier diodes (D961 and D962). The forward and reflect waves are detected, resulting in the forward wave and reflect wave sensing voltages. The sensing voltages are amplified by the buffer (IC1981), and then applied to the CPU in the MAIN UNIT for monitoring.

The amplified transmit signal is applied to the antenna, through the TUNER UNIT.

#### • PA AND TUNER UNITS (Receive circuits)



#### • PA AND TUNER UNITS (Transmit circuits)



### 3-2 RF UNIT

The RF UNIT is composed of the receive and transmit RF circuits.

The received signal from the PA UNIT is passed to the MAIN UNIT through the attenuator, filter, and preamp.

The transmit signal from the MAIN UNIT is passed to the PA UNIT through the filter, ALC circuit, and YGR AMP.

#### (1) RECEIVE SIGNAL PROCESSING

The received signal from the PA UNIT is passed through the RX mute switch (D1001), passes through or bypasses the attenuator (D1081 ~ D1083) according to the Attenuator function setting, and is then applied to the filter circuit. The attenuator (D1081 ~ D1083) is controlled to change the attenuation level to between 0 dB (bypass) and 20 dB.

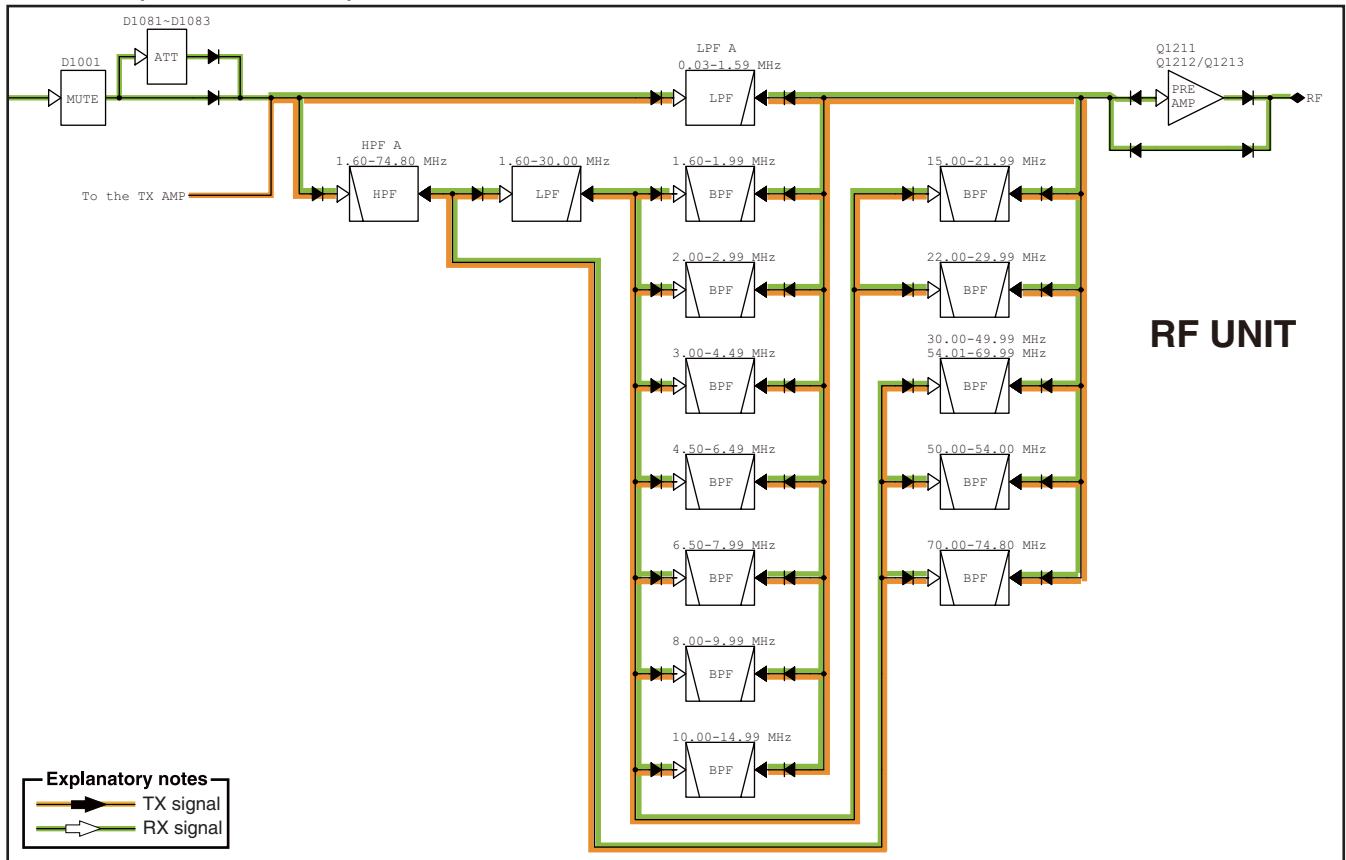
The filter circuit is composed of 15 filters. The received signal is passed through the filter that is selected according to the receive frequency.

The received signals of 1.6 MHz and below are passed through only "LPF (A)." The received signals of 1.6 MHz and above are passed through "HPF (A)," which is designed to prevent interference by strong MF band broadcast stations.

This HPF is designed to obtain more than 20 dB of isolation for 1.6 MHz and lower frequencies. The received signals of 1.6 MHz and above are also passed through one of the BPFs, according to the selected operating band.

The filtered signal is then applied to the preamp circuit. The received signal may be amplified by P.AMP1 (normal gain) or P.AMP2 (higher gain), or bypass both, according to the Pre-amp function setting. The received signal from the preamp circuit is then applied to the MAIN UNIT.

#### • RF UNIT (Receive circuits)



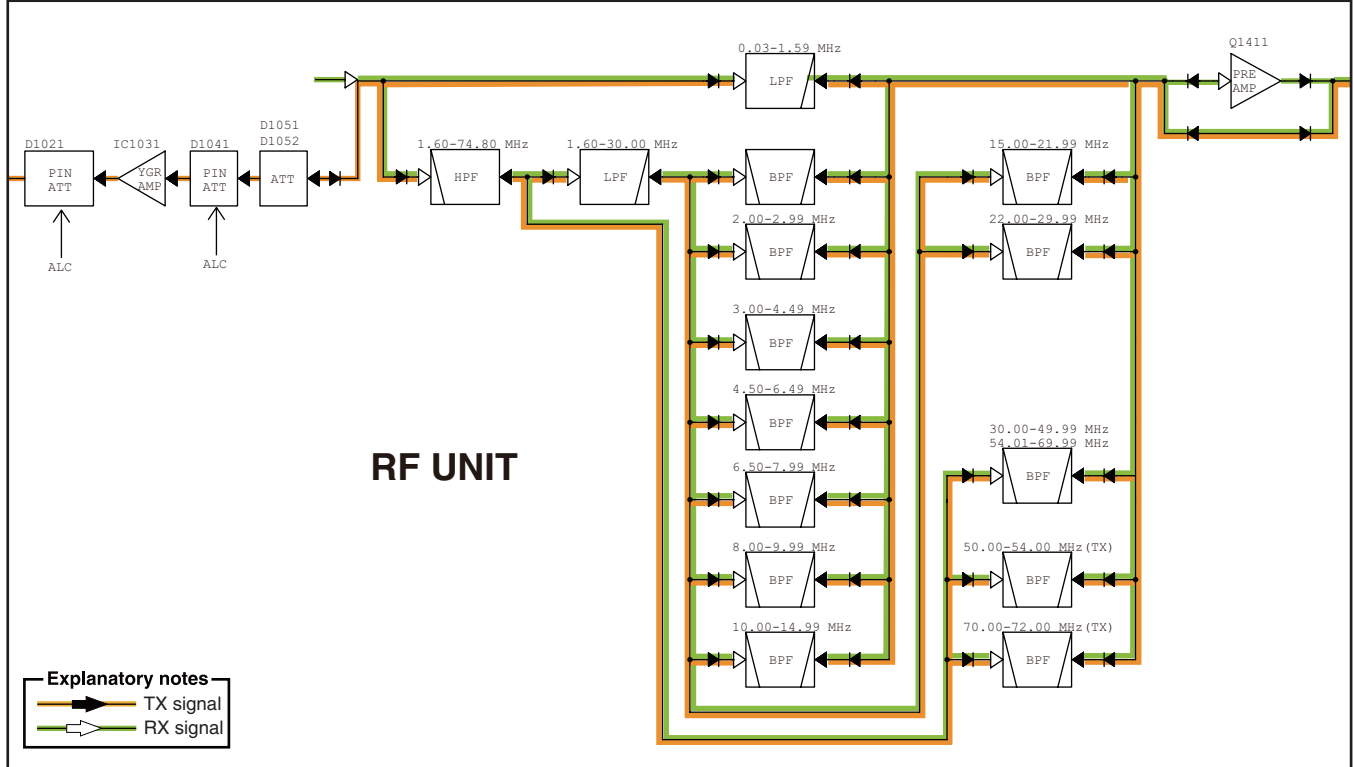
3-2 RF UNIT (continued)

(2) TRANSMIT SIGNAL PROCESSING

The transmit signal from the MAIN UNIT is passed through one of the BPFs in the filter circuit. The filtered signal level is adjusted by the gain controller (D1051 and D1052), which compensates the level difference in the band. The transmit signal is then amplified by the YGR AMP (IC1031) to obtain the input level needed in the transmit amplifier circuit.

The signal level is also adjusted by the ALC circuit (D1201 and D1041), which is located at the input and output of YGR AMP (IC1031). The ALC circuit automatically adjusts the transmit signal level according to the transmit power sensing voltage. The level-adjusted transmit signal is then applied to the PA UNIT.

• RF UNIT (Transmit circuits)



### 3-3 MAIN UNIT

The IC-7300 uses the Direct Conversion system, which directly converts the received signal into a digital signal by the A/D converter. The digital signal is then converted into the 36 kHz IF signal by the FPGA, before being processed by the DSP.

The transmit signal is processed and converted into the transmit IF signal by the DSP. The transmit IF signal is converted into an RF signal by the FPGA, and then converted into an analog transmit signal. Since the IF signal is directly processed as a digital signal in the FPGA, any analog heterodyne circuits, such as IF circuits, are not needed.

In a traditional transceiver, the received signal level (gain) was controlled by the DSP prior to the external AGC circuit.

But, this method will not work in the Direct Sampling system since the RF gain control cannot prevent over input to the A/D converter. This method has been replaced by adding an external AGC circuit, instead of using the DSP's internal AGC circuitry.

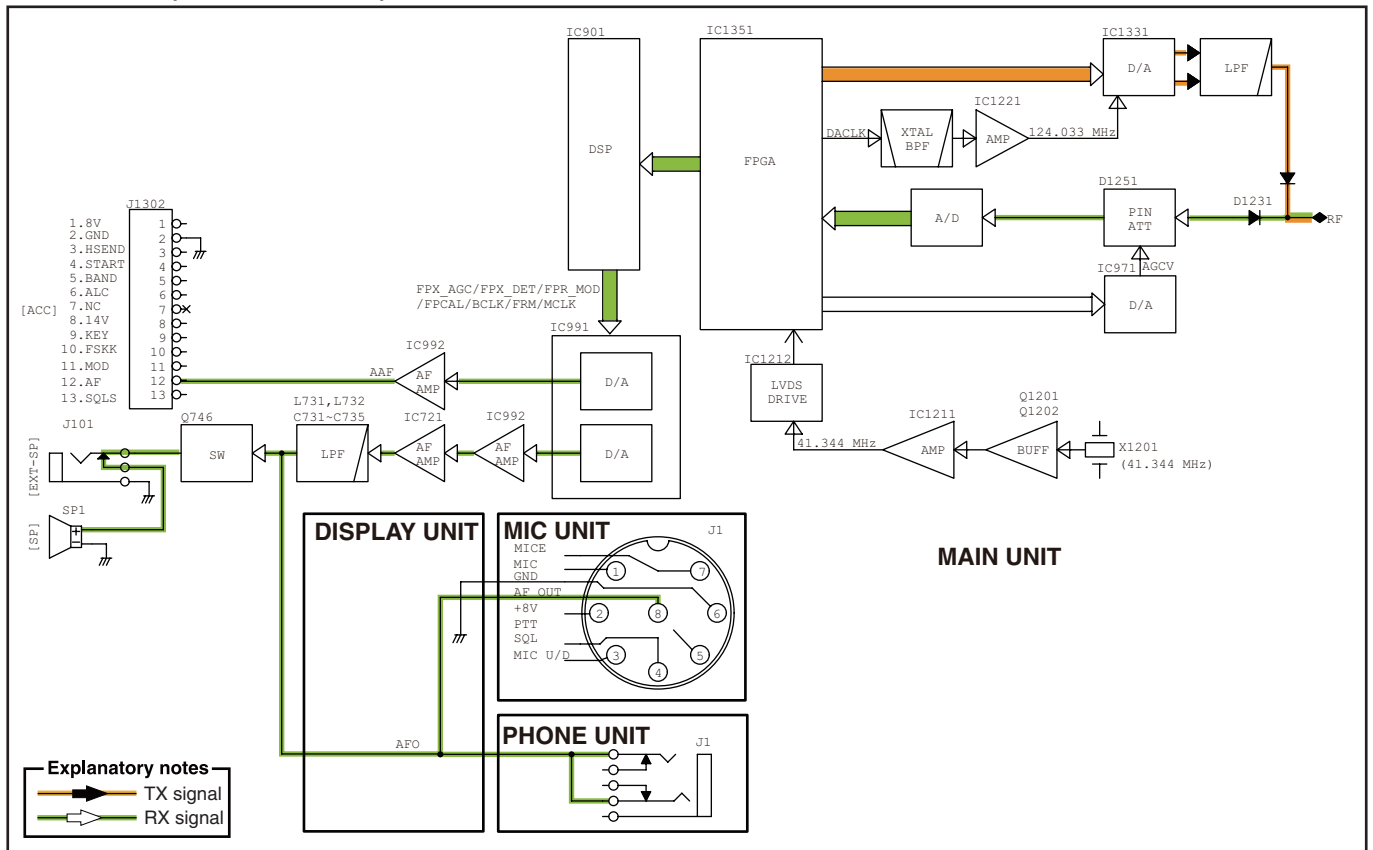
The level-adjusted received signal is applied to the A/D converter to be converted into a digital signal. The converted digital signal is applied to the FPGA (IC1351) where the received signal is converted into the 36 kHz IF signal.

#### (1) RECEIVE SIGNAL PROCESSING

##### • External attenuator and A/D conversion

The received signal from the RF UNIT is passed through the TX/RX switching diode (D1231) and applied to the external attenuator (PIN diode D1251). The attenuator is controlled by the AGC voltage from the D/A converter (IC971) to adjust the received signal level so that the signal amplitude is within the input dynamic range of the A/D converter.

##### • MAIN UNIT (Receive circuits)





### 3-3 MAIN UNIT (continued)

#### • FPGA

FPGA (Field-Programmable Gate Array) is a device that can digitally configure the virtual circuit in the chip.

The program that determines how it operates is written in the external EEPROM, and loaded when the transceiver power is turned ON. So the circuit can be reconfigured, even after the device is mounted on the PCB, by reprogramming it.

Using mathematical functions, the FPGA (IC1351) performs down conversion and filtering by controlling digital bits.

The received signal from the RF UNIT has been converted into a digital data stream by the A/D converter. The converted data is applied to the FPGA as a bit stream with the sampled signal spectrum, and then processed by manipulating the digital bits. The FPGA processes the signal mathematically to digitally obtain the oscillation and mixing (Image rejection mixer), as if the signal is processed in a hardware down conversion circuit.

The processed signal is applied to the DSP (IC901).

#### • Demodulator and D/A converter

The 36 kHz IF signal is digitally demodulated and processed by the DSP (IC901), whose design is based totally on that of the IC-7100. The internal AGC control, demodulation, noise reduction (NB, NR and Notch filter) and squelch functions are also the same as those of the IC-7100.

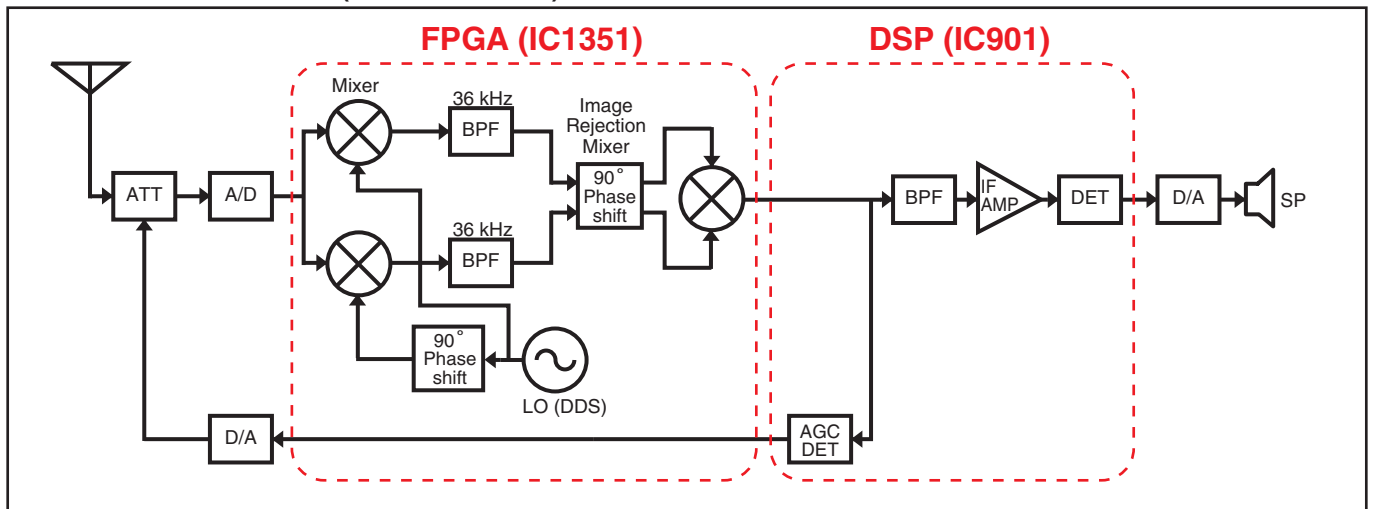
The demodulated and processed signal from the DSP (IC901) is applied to the D/A converter (IC991) to be converted into an analog AF signal. The AF signal is then applied to the AF circuit.

#### • AF circuit

The AF signal is amplified by the AF AMP (IC992), and then by the D-class AF power AMP (IC721) to obtain up to 2.5 watts (at 8 ohms, 1 kHz, 10% distortion) of output power. The amplified signal is applied to the speaker through the LPF (L731, L732 and C731 ~ C735), which attenuates unwanted frequency components, and to the speaker SW (Q746).

When an external speaker is connected to the [EXT-SP] jack, the audio output from the internal speaker (SP1) is disconnected.

#### • FPGA BLOCK DIAGRAM (Receive circuits)



## (2) TRANSMIT SIGNAL PROCESSING

### • MIC AMP and A/D converter

The audio signal from the [MIC] connector on the front panel is amplified by the MIC amplifier (IC1002), and then applied to the A/D converter (IC1001) to be converted into a digital signal. The audio signal from the [ACC] socket is applied to the A/D converter (IC1001), through the mute SW (IC1003) and LPF (IC1002), and is also converted into a digital signal. The converted digital signal is then applied to the DSP (IC901) for audio processing.

### • Modulation and D/A converter

The signal is digitally modulated in the DSP (IC901), resulting in the 36 kHz transmit IF signal, and then applied to the FPGA (IC1351).

The audio signal from the microphone has been converted into a digital data stream by the A/D converter. The converted data is applied to the DSP (IC901), and digitally processed, resulting in a modulated 36 kHz transmit IF signal.

### • FPGA

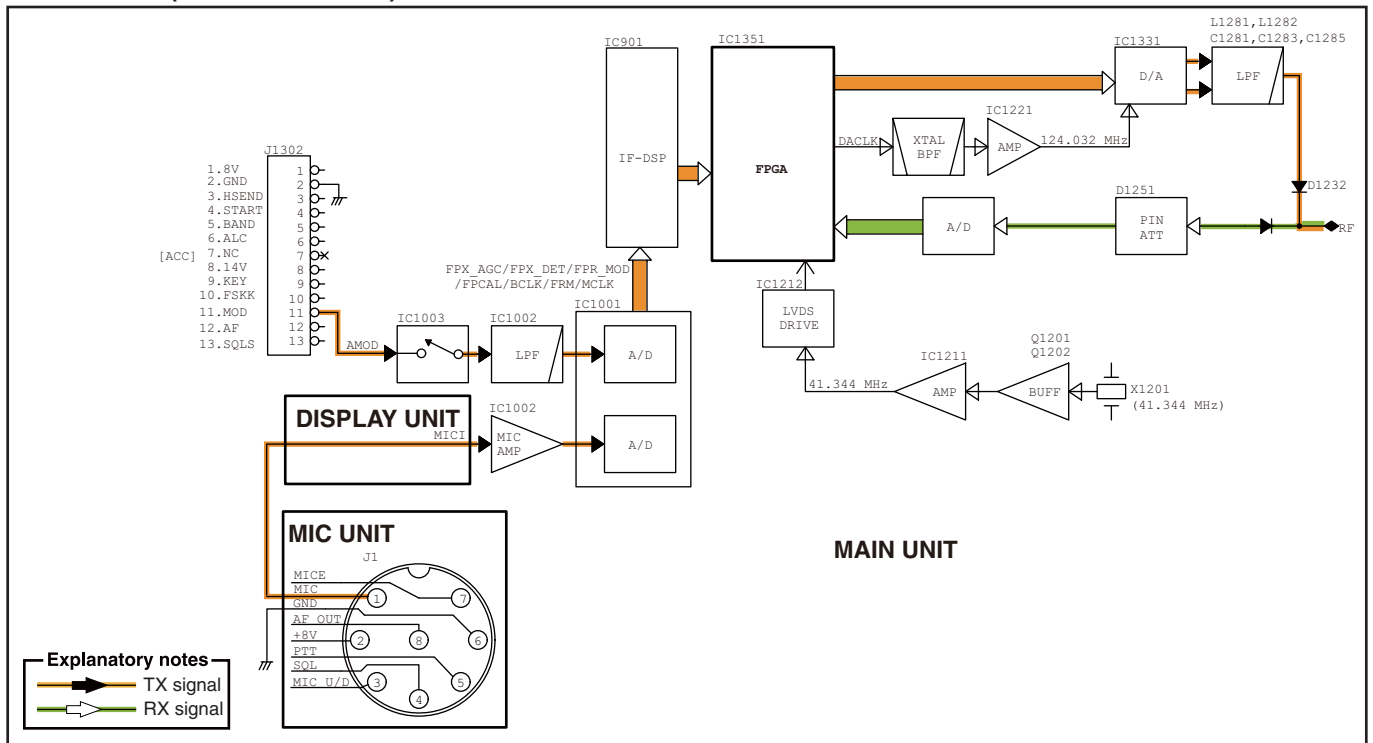
The transmit IF signal is applied to the FPGA (IC1351). The FPGA mathematically processes the signal to digitally obtain the oscillation (TX LO) and mixing (Image rejection mixer), as if the signal is processed in a hardware up conversion circuit.

The processed signal is applied to the D/A converter to be converted in to an analog RF transmit signal.

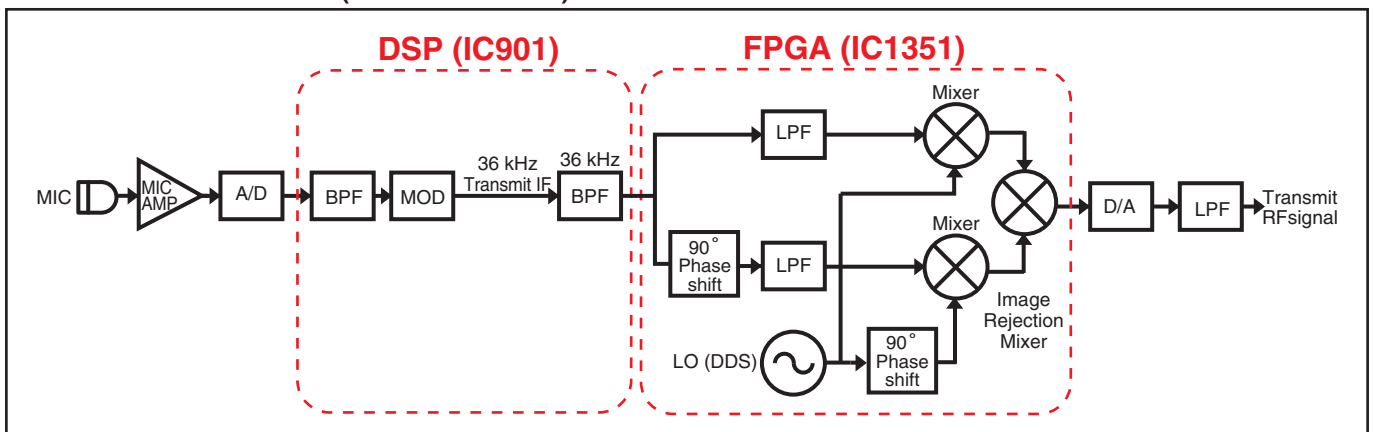
### • RF signal processing

The transmit signal, that is processed and up-converted in the FPGA (IC1351), is applied to the D/A converter (IC1331) to be converted into an analog transmit signal. The transmit signal is passed through the LPF (L1281, L1282, C1281, C1283 and C1285), which attenuates unwanted frequency components in the transmit signal, and is then applied to the RF UNIT.

### • MAIN UNIT (Transmit circuits)



### • FPGA BLOCK DIAGRAM (Transmit circuits)



# SECTION 4 ADJUSTMENT PROCEDURE

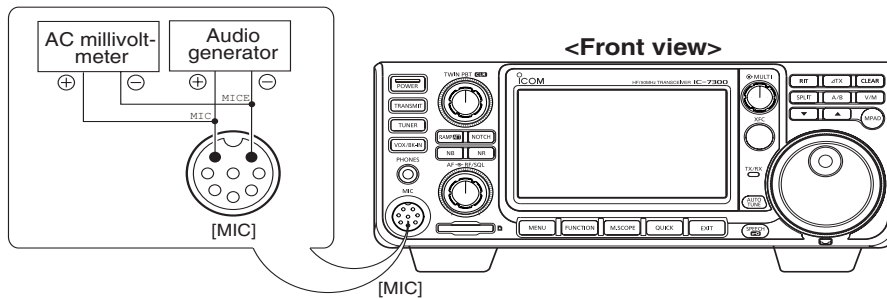
## 4-1 PREPARATION

### ■ REQUIRED EQUIPMENTS

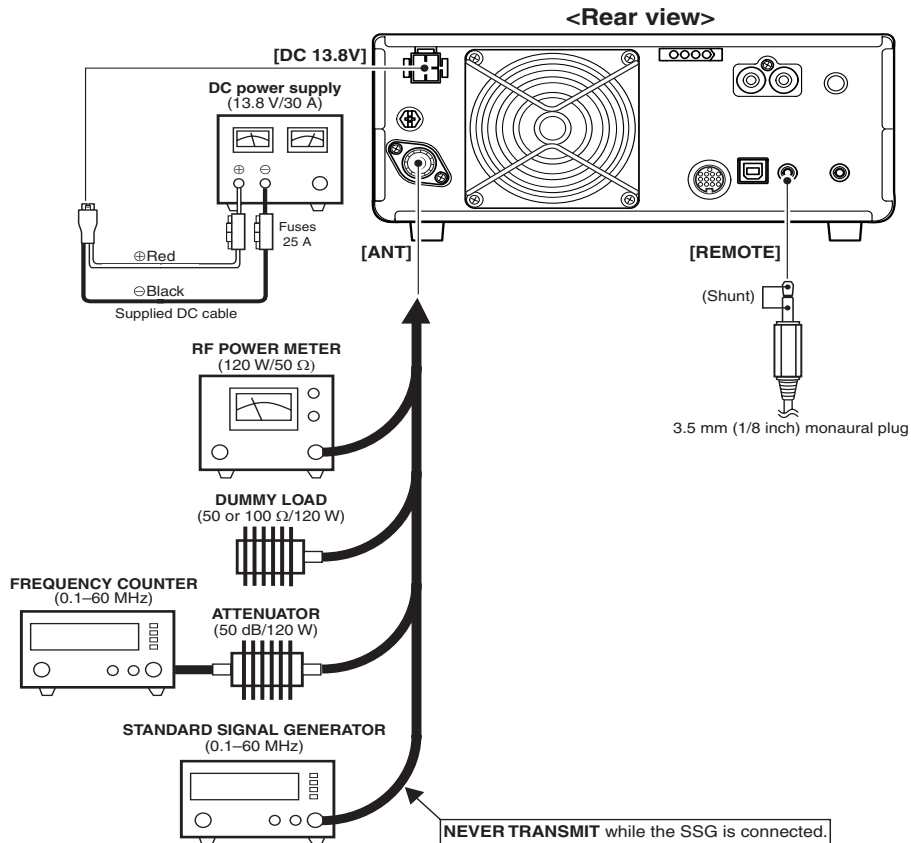
EQUIPMENT	GRADE AND RANGE	EQUIPMENT	GRADE AND RANGE
Shunt plug	Modified 3.5 mm (1/8 inch) monaural plug (See the illustration below.)	Dummy Loads	Impedance: 50 Ω and 100 Ω/120 W
		Attenuator	Attenuation: 50 dB/120 W
RF power meter (50 Ω terminated)	Measuring range: 1–120 W Frequency range: 0.1–60 MHz SWR: Less than 1.2 : 1	Standard signal generator (SSG)	Frequency range: 0.1–60 MHz Output level: -20 dBμ to +94 dBμ (-127 to -13 dBm)
Frequency counter	Frequency range: 0.1–60 MHz Frequency accuracy: ±1 ppm or better Input level: Less than 1 mW	Audio generator (AG)	Frequency range: 300–3000 Hz Output level: 1–500 mV
		AC Millivoltmeter	Measuring range: 10 mV to 10 V

### ■ GENERAL CONNECTION

#### • Front panel



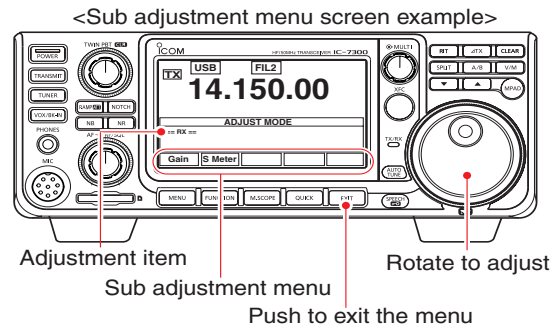
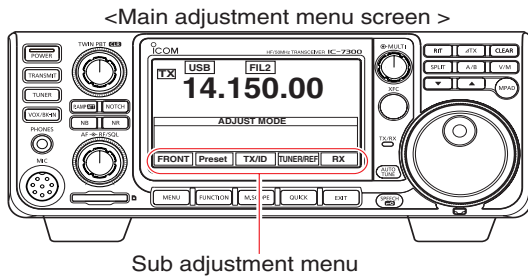
#### • Rear panel



## 4-1 PREPARATION (continued)

### ■ ENTERING THE ADJUSTMENT MODE

- 1) Connect the shunt plug to [REMOTE] (See page 5-1).
- 2) While holding down the [MENU] and [FUNCTION] keys, turn ON the transceiver power.
- 3) The main adjustment menu appears.



### ■ QUITTING THE ADJUSTMENT MODE

- 1) Remove the shunt plug from [REMOTE].
- 2) Turn OFF the power.
- 3) Turn ON the power again.

## 4-2 RECEIVE ADJUSTMENTS

- Touch [RX] on the main adjustment menu screen.

**NOTE: DO NOT** change the SSG output level until the second beep sounds.

ADJUSTMENT ITEM	TRANSCEIVER'S CONDITION	OPERATION	VALUE
<b>PREPARATION</b>	1	–	–
<b>RX TOTAL GAIN</b>	2	• Display: "Total Gain PRE OFF ref" • Receive	• Set the SSG as; Level : +34 dBμ (–73 dBm)
	3	• Display: "Total Gain PRE OFF set" • Receive	• Set the SSG as; Level : OFF
	4	• Display: "Total Gain PRE1 ref" • Receive	• Set the SSG as; Level : +34 dBμ (–73 dBm)
	5	• Display: "Total Gain PRE1 set" • Receive	• Set the SSG as; Level : OFF
<b>S-METER</b>	6	• Display: "HF S9 Level" • Receive	• Set the SSG as; Level : +34 dBμ (–73 dBm)
	7	• Display: "HF S9+60 Level" • Receive	• Set the SSG as; Level : +90 dBμ (–17 dBm)
			• Push [EXIT] to return to the main adjustment menu.

### 4-3 TX IDLING CURRENT ADJUSTMENTS

• Touch [TX/ID] on the main adjustment menu screen.

**NOTE:** The transceiver automatically transmits when a TX adjustment item is selected.

ADJUSTMENT ITEM	TRANSCEIVER'S CONDITION	OPERATION	VALUE
<b>PREPARATION</b>	1	1) Connect the power meter (or dummy load) to the antenna connector. 2) Touch [ID] to enter to the TX idling current adjustment mode.	–
<b>ADJUSTMENT</b>	2	• Display: "VDL IDL Set" • Receive	Touch [SET]. (A beep sounds, and then another beep sounds 0.5 sec. later.)
	3	• Display: "FINAL ID SET" • Receive	
	4	• Display: "FINAL1 IDV" • Transmit (automatic)	
	5	• Display: "FINAL2 IDV" • Transmit (automatic)	
	6	• Display: "DRIVER ID SET" • Transmit (automatic)	
	7	• Display: "DRIVER IDV" • Transmit (automatic)	
	• Push [EXIT] to return to the TX adjustment menu.		

## 4-4 TX POWER ADJUSTMENTS

• Touch [TX/ID] on the main adjustment menu screen.

**NOTE:** The transceiver automatically transmits when a TX adjustment item is selected.

ADJUSTMENT ITEM	TRANSCEIVER'S CONDITION	OPERATION	ADJUST POINT	VALUE	
<b>TX POWER &amp; POWER METER SETTING (Preparation)</b>	1 • Display: "TX POWER SET" • Receive	1) Connect the AG with the millivoltmeter to [MIC], and then set it as; Frequency : 1.5 kHz Level : 30 mVrms 2) Connect the power meter to the antenna connector. 3) Touch [Power] to enter to the TX power adjustment mode.	–	–	
<b>(HF BAND)</b>	2 • Display: "TX Total HF Gain" • Transmit (automatic)	• Adjust the TX power by rotating [MAIN DIAL], and then touch [SET].	[MAIN DIAL]	50 W (A beep sounds, and then another beeps sound 0.5 sec. later.)	
	3 • Display: "POWER HF 1%" • Transmit (automatic)			2 W (A beep sounds, and then another beeps sound 0.5 sec. later.)	
	4 • Display: "POWER HF 10%" • Transmit (automatic)			12.5 W (A beep sounds, and then another beeps sound 0.5 sec. later.)	
	5 • Display: "POWER HF TUNE" • Transmit (automatic)			52.5 W (A beep sounds, and then another beeps sound 0.5 sec. later.)	
	6 • Display: "POWER HF 50%" • Transmit (automatic)			105 W (A beep sounds, and then another beeps sound 0.5 sec. later.)	
	7 • Display: "POWER HF 100%" • Transmit (automatic)			25 W (A beep sounds, and then another beeps sound 0.5 sec. later.)	
	8 • Display: "POWER AM Ratio HF" • Transmit (automatic)			1) Touch [SET]. (Automatically starts to transmit.) 2) Adjust the TX power by rotating [MAIN DIAL], and then touch [SET].	–
<b>AM CARRIER POWER (HF BAND)</b>	9 • Display: "POWER 50M SET" • Transmit (automatic)	–	–	Touch [SET].	
	<b>TX POWER &amp; POWER METER SETTING (50 MHz band)</b>	10 • Display: "TX Total 50M Gain" • Transmit (automatic)	• Adjust the TX power by rotating [MAIN DIAL], and then touch [SET].	[MAIN DIAL]	50 W (A beep sounds, and then another beeps sound 0.5 sec. later.)
		11 • Display: "POWER 50M 1%" • Transmit (automatic)			2 W (A beep sounds, and then another beeps sound 0.5 sec. later.)
		12 • Display: "POWER 50M 10%" • Transmit (automatic)			12.5 W (A beep sounds, and then another beeps sound 0.5 sec. later.)
		13 • Display: "POWER 50M TUNE" • Transmit (automatic)			52.5 W (A beep sounds, and then another beeps sound 0.5 sec. later.)
		14 • Display: "POWER 50M 50%" • Transmit (automatic)			105 W (A beep sounds, and then another beeps sound 0.5 sec. later.)
15 • Display: "POWER 50M 100%" • Transmit (automatic)	25 W (A beep sounds, and then another beeps sound 0.5 sec. later.)				
<b>AM CARRIER POWER RATIO (50 MHz band)</b>	16 • Display: "POWER AM Ratio 50M" • Transmit (automatic)	1) Touch [SET]. (Automatically starts to transmit.) 2) Adjust the TX power by rotating [MAIN DIAL], and then touch [SET].	–	Touch [SET].	
	17 • Display: "POWER 70M SET" • Receive	–	–	Touch [SET].	

(Continued on the next page.)

#### 4-4 TX POWER ADJUSTMENTS (continued)

ADJUSTMENT ITEM	TRANSCIVER'S CONDITION	OPERATION	ADJUST POINT	VALUE
<b>TX POWER &amp; POWER METER SETTING (70 MHz band)</b>	18 • Display: "TX Total 70M Gain" • Transmit (automatic)	–	[MAIN DIAL]	25 W (A beep sounds, and then another beeps sound 0.5 sec. later.)
	19 • Display: "POWER 70M 1%" • Transmit (automatic)			2 W (A beep sounds, and then another beeps sound 0.5 sec. later.)
	20 • Display: "POWER 70M 10%" • Transmit (automatic)			7.5 W (A beep sounds, and then another beeps sound 0.5 sec. later.)
	21 • Display: "POWER 70M TUNE" • Transmit (automatic)			10 W (A beep sounds, and then another beeps sound 0.5 sec. later.)
	22 • Display: "POWER 70M 50%" • Transmit (automatic)			27.5 W (A beep sounds, and then another beeps sound 0.5 sec. later.)
	23 • Display: "POWER 70M 100%" • Transmit (automatic)			52.5 W (A beep sounds, and then another beeps sound 0.5 sec. later.)
<b>AM CARRIER POWER (70 MHz band) Only for [#03, 05 and 06]</b>	24 • Display: "POWER AM Ratio 70M" • Transmit (automatic)	1) Touch [SET]. (Automatically starts to transmit.) 2) Adjust the TX power by rotating [MAIN DIAL], and then touch [SET].		12.5 W (A beep sounds, and then another beeps sound 0.5 sec. later.)
	• Push [EXIT] to return to the main adjustment menu.			

#### 4-5 TX AMPLIFIER ADJUSTMENTS

• Touch [TX/ID] on the main adjustment menu screen.

**NOTE:** The transceiver automatically transmits when a TX adjustment item is selected.

ADJUSTMENT ITEM	TRANSCIVER'S CONDITION	OPERATION	VALUE	
<b>PREPARATION</b>	1 • Display: "TX POWER SET" • Receive	1) Connect the AG with the millivoltmeter to [MIC], and then set it as; Frequency : 1.5 kHz Level : 30 mVrms 2) Connect the power meter to the antenna connector. 3) Touch [ALC] on the TX adjustment menu, to enter to the TX amplifier adjustment mode.	–	
<b>ALC METER</b>	2 • Display: "ALC HF" • Transmit (automatic)	–	Touch [SET]. (A beep sounds, and then another beeps sound 3 sec. later.)	
	3 • Display: "ALC 50M" • Transmit (automatic)			
<b>Only for [#03, 05 and 06]</b>	4 • Display: "ALC 70M" • Transmit (automatic)			
<b>DRIVE AMP GAIN</b>	5 • Display: "DRIVE HF" • Transmit (automatic)	–	Touch [SET]. (A beep sounds, and then another beeps sound 10 sec. later.)	
	6 • Display: "DRIVE 50M" • Transmit (automatic)			
	7 • Display: "DRIVE 70M" • Transmit (automatic)			
<b>SWR METER</b>	8 • Display: "SWR2 (HF)" • Transmit (automatic)	• Connect the 50 Ω dummy load to the antenna connector.	Touch [SET]. (A beep sounds, and then another beeps sound 3 sec. later.)	
	9 • Display: "SWR2 (50M)" • Transmit (automatic)			
<b>Only for [#03, 05 and 06]</b>	10 • Display: "SWR2 (70M)" • Transmit (automatic)			
<b>ID APC</b>	11 • Display: "ID-APC" • Transmit (automatic)	–	Touch [SET]. (A beep sounds, and then another beeps sound 2 sec. later.)	
	• Push [EXIT] to return to the main adjustment menu.			

## 4-6 FREQUENCY ADJUSTMENTS

• Touch [TUNER/REF] on the main adjustment menu screen.

**NOTE:** The transceiver automatically transmits when a TX adjustment item is selected.

ADJUSTMENT ITEM		TRANSCEIVER'S CONDITION	OPERATION	VALUE
PREPARATION	1	–	1) Connect the power meter to the antenna connector. 2) Touch [TUNER/REF]. (Enters to the [TUNER/REF ADJ.] menu.) 3) Touch [TUNER].	Touch [TUNER/REF]. (Enters to the [TUNER/REF ADJ.] menu.)
TUNER REFERENCE VOLTAGE ADJUSTMENT (HF and 50 MHz bands)	2	• Display: "Tune IREFV HF 50M" • Transmit (automatic)	–	Touch [SET]. (A beep sounds, and then another beeps sound 11 sec. later.)
(70 MHz band) Only for [#03, 05 and 06]	3	• Display: "Tune IREFV HF 70M" • Transmit (automatic)		Touch [SET]. (A beep sounds, and then another beeps sound 1 sec. later.)
REFERENCE FREQUENCY	4	–	1) Connect the frequency counter to the antenna connector, through the 50 dB attenuator. 2) Touch [MENU] REF adjustment menu.	–
	5	• Display: "REF OSC" • Transmit (automatic)	1) Set the transmit frequency by rotating [MAIN DIAL]. 2) Touch [SET].	50.100000 MHz (±1.2 Hz) (A beep sounds, and then another beeps sound 0.5 sec. later.)
		• Push [EXIT] to return to the main adjustment menu.		

















[RF UNIT]

Table with columns: REF NO., PARTS NO., DESCRIPTION, M., H/V LOCATION. Contains parts like S.COI 0.30-2.5-7TL 100N <COMO> and S.COI NLV25T-101J-PF.

[RF UNIT]

Table with columns: REF NO., PARTS NO., DESCRIPTION, M., H/V LOCATION. Contains parts like S.RES ERJ2GEJ 223 X (22K) and S.THE NTCG16 4LH 223JT.

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

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









[PA UNIT]

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
C865	4030011080	S.CER GRM31M2C2H6R0DV01L (GRM42-6)	T	63.8/34.2
C866	4030020760	S.CER GRM31A5C2J270JW01D	T	63.8/25.3
C868	4030020770	S.CER GRM31A5C2J330JW01D	T	63.8/29.5
C869	4030020770	S.CER GRM31A5C2J330JW01D	T	63.0/18.5
C871	4030019990	S.CER C1005 JB 1C 104K-T	T	80.9/17.4
C875	4030021200	S.CER GRM31A5C2J120JW01D	T	64.8/21.9
C876	4030020760	S.CER GRM31A5C2J270JW01D	T	63.8/27.4
C877	4030020770	S.CER GRM31A5C2J330JW01D	T	61.1/52.6
C881	4030019990	S.CER C1005 JB 1C 104K-T	T	53.2/56.5
C882	4030021220	S.CER GRM31B5C2J681JW01L	T	57.8/43.2
C883	4030021220	S.CER GRM31B5C2J681JW01L	T	56.3/46.9
C884	4030020720	S.CER GRM31A5C2J391JW01D	T	56.3/39.6
C885	4030021220	S.CER GRM31B5C2J681JW01L	T	57.9/33.6
C886	4030018480	S.CER GRM31A5C2J221JW01D	T	51.6/31.5
C888	4030021220	S.CER GRM31B5C2J681JW01L	T	51.4/23.8
C889	4030020810	S.CER GRM31A5C2J820JW01D	T	52.7/19.7
C890	4030021220	S.CER GRM31B5C2J681JW01L	T	57.0/18.0
C891	4030019990	S.CER C1005 JB 1C 104K-T	T	65.5/11.3
C893	4030021220	S.CER GRM31B5C2J681JW01L	T	51.0/27.4
C894	4030018350	S.CER GRM31A5C2J151JW01D	T	57.9/35.7
C896	4030021220	S.CER GRM31B5C2J681JW01L	T	57.0/22.2
C897	4030018480	S.CER GRM31A5C2J221JW01D	T	57.0/20.1
C899	4030020800	S.CER GRM31A5C2J680JW01D	T	49.9/19.7
C901	4030019990	S.CER C1005 JB 1C 104K-T	T	14.8/57.1
C902	4030021020	S.CER GRM31A5C2J101JW01D	T	5.8/38.2
C903	4030021020	S.CER GRM31A5C2J101JW01D	T	5.8/40.3
C904	4030020760	S.CER GRM31A5C2J270JW01D	T	11.0/40.3
C905	4030020810	S.CER GRM31A5C2J820JW01D	T	11.0/38.2
C906	4030021020	S.CER GRM31A5C2J101JW01D	T	5.8/27.1
C907	4030021020	S.CER GRM31A5C2J101JW01D	T	5.8/25.0
C908	4030020790	S.CER GRM31A5C2J560JW01D	T	11.0/26.1
C909	4030020800	S.CER GRM31A5C2J680JW01D	T	6.5/14.0
C911	4030019990	S.CER C1005 JB 1C 104K-T	T	21.3/11.9
C921	4030019990	S.CER C1005 JB 1C 104K-T	T	110.9/63.0
C922	4030021040	S.CER GRM31A5C2J271JW01D	T	102.7/53.2
C923	4030021040	S.CER GRM31A5C2J271JW01D	T	100.6/47.5
C924	4030021040	S.CER GRM31A5C2J271JW01D	T	101.5/39.6
C925	4030020810	S.CER GRM31A5C2J820JW01D	T	103.0/36.0
C926	4030018340	S.CER GRM31A5C2J331JW01D	T	101.5/43.9
C927	4030021040	S.CER GRM31A5C2J271JW01D	T	101.5/26.6
C928	4030018340	S.CER GRM31A5C2J331JW01D	T	101.5/24.5
C929	4030018340	S.CER GRM31A5C2J331JW01D	T	101.5/41.8
C931	4030019990	S.CER C1005 JB 1C 104K-T	T	110.3/18.6
C933	4030021030	S.CER GRM31A5C2J181JW01D	T	100.6/53.2
C934	4030018350	S.CER GRM31A5C2J151JW01D	T	102.7/47.5
C941	4030019990	S.CER C1005 JB 1C 104K-T	T	28.7/56.5
C944	4030021010	S.CER GRM31A5C2J390JW01D	T	27.9/48.1
C945	4030020790	S.CER GRM31A5C2J560JW01D	T	26.4/44.6
C946	4030020780	S.CER GRM31A5C2J470JW01D	T	26.4/39.0
C949	4030021020	S.CER GRM31A5C2J101JW01D	T	27.5/28.6
C950	4030020760	S.CER GRM31A5C2J270JW01D	T	26.2/25.0
C951	4030019990	S.CER C1005 JB 1C 104K-T	T	36.0/11.9
C953	4030020780	S.CER GRM31A5C2J470JW01D	T	27.7/17.2
C954	4030020790	S.CER GRM31A5C2J560JW01D	T	27.7/19.3
C961	4030011040	S.CER GRM31M4C2H2R0CY21L (GRM42-6)	T	83.9/9.5
C962	4030009920	S.CER C1608 CH 1H 050B-T	T	84.3/5.5
C963	4030011540	S.CER C1608 CH 1H 750J-T	T	83.0/5.5
C966	4030008650	S.CER C1608 JB 1H 332K-T	T	96.7/2.2
C969	4030011040	S.CER GRM31M4C2H2R0CY21L (GRM42-6)	T	97.1/9.5
C970	4030011540	S.CER C1608 CH 1H 750J-T	T	96.7/5.5
C971	4030009920	S.CER C1608 CH 1H 050B-T	T	98.1/5.5
C972	4030011040	S.CER GRM31M4C2H2R0CY21L (GRM42-6)	T	99.4/12.4
C983	4030017460	S.CER C1005 JB 1H 102K-T	T	7.4/67.5
C985	4030019990	S.CER C1005 JB 1C 104K-T	T	12.3/70.5
C986	4030017460	S.CER C1005 JB 1H 102K-T	T	3.8/10.1
C987	4030017730	S.CER C1005 JB 1H 471K-T	T	2.8/11.2
RL801	6330002020	REL FTR-B4CA009Z		
RL820	6330002020	REL FTR-B4CA009Z		
RL821	6330002020	REL FTR-B4CA009Z		
RL840	6330002020	REL FTR-B4CA009Z		
RL841	6330002020	REL FTR-B4CA009Z		
RL860	6330002020	REL FTR-B4CA009Z		
RL861	6330002020	REL FTR-B4CA009Z		
RL880	6330002020	REL FTR-B4CA009Z		
RL881	6330002020	REL FTR-B4CA009Z		
RL900	6330002020	REL FTR-B4CA009Z		
RL901	6330002020	REL FTR-B4CA009Z		
RL920	6330002020	REL FTR-B4CA009Z		
RL921	6330002020	REL FTR-B4CA009Z		
RL940	6330002020	REL FTR-B4CA009Z		
RL941	6330002020	REL FTR-B4CA009Z		
J101	6510028210	CON SJ050010 (TMP-J01X-V6)		
J301	6510022472	S.CON 40FLT-SM2-TB(LF)(SN)(M)	T	9.5/89.0
J331	6510018971	S.CON B4B-PH-SM4-TB(LF)(SN)	T	5.0/144.4
J801	6510028210	CON SJ050010 (TMP-J01X-V6)		
J961	6510028210	CON SJ050010 (TMP-J01X-V6)		
F2	5210000940	FUS 1205		
F201	5220000400	HOL FHA010-01F		
EP111	6910014690	S.BEA MPZ1608S221A-T	T	26.6/154.9
EP121	6910012350	S.BEA MMZ1608Y 102BT	T	34.1/166.3
EP131	6910014640	S.BEA MPZ2012S221A-T	T	71.8/149.1
EP132	6910014640	S.BEA MPZ2012S221A-T	T	71.8/150.9
EP301	6910020910	S.BEA MPZ1608S300AT	T	6.1/81.3

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

[PA UNIT]

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
EP302	6910019100	S.BEA MPZ1608S101AT	T	6.1/85.3
EP303	6910021240	S.BEA MMZ1005A152ET	T	6.5/91.3
EP305	6910021240	S.BEA MMZ1005A152ET	T	12.9/92.8
EP306	6910021240	S.BEA MMZ1005A152ET	T	12.9/93.8
EP307	6910021240	S.BEA MMZ1005A152ET	T	6.5/94.3
EP308	6910021240	S.BEA MMZ1005A152ET	T	12.9/94.8
EP309	6910021240	S.BEA MMZ1005A152ET	T	6.5/95.3
EP311	6910021240	S.BEA MMZ1005A152ET	T	6.5/96.3
EP312	6910021240	S.BEA MMZ1005A152ET	T	12.9/96.8
EP331	6910018930	S.BEA MPZ2012S601A	T	11.9/145.8
EP332	6910018930	S.BEA MPZ2012S601A	T	10.9/148.6

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





**[FRONT UNIT]**

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
DS1	5030004050	LCD RFE430H-AZH-DNS-000 <TRIA>		
EP1	0880001360	UNI EX-2500 SENSOR		

**[DISPLAY UNIT]**

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
IC101	1190003620	S.IC TPS61161ADRV	B	60.8/51.7
IC152	1130017190	S.IC UC6528XBNQ4GRC <GOS>	B	100.0/48.7
IC501	1140017811	S.IC R5F104LCAFB (SX-3765C-1)	B	120.0/58.7
Q1	1590004690	S.TRA LDTC143ZET1G <SLVJ>	B	6.5/68.0
Q2	1590004690	S.TRA LDTC143ZET1G <SLVJ>	B	165.4/30.0
Q3	1590004690	S.TRA LDTC143ZET1G <SLVJ>	B	165.4/27.9
Q461	1510001200	S.TRA L2SA1576ART1G <SLVJ>	B	50.5/47.2
Q462	1520001010	S.TRA 2SB1132G-R-AB3-R <SLVJ>	B	45.4/51.4
Q481	1590004690	S.TRA LDTC143ZET1G <SLVJ>	B	20.8/65.5
Q491	1530004140	S.TRA L2SC4081RT1G <SLVJ>	B	38.3/49.6
Q492	1530004210	S.TRA DSC7004SOL	B	30.2/52.9
Q493	1590004310	S.TRA LDTA114EET1G <SLVJ>	B	35.9/50.4
D101	1750002240	S.DIO DB2141300L	B	68.2/50.1
D401	1750001820	S.DIO LRB706F-40T1G <SLVJ>	B	23.1/51.3
D471	1750002230	S.DIO LRB751S-40T1G <SLVJ>	B	33.5/50.3
D472	1750001820	S.DIO LRB706F-40T1G <SLVJ>	B	35.9/46.7
D491	1750001810	S.DIO L1SS400T1G <SLVJ>	B	35.1/53.7
L101	6200014850	S.COI LQH44PN220MP0L	T	23.1/164.1
L102	6200015990	S.COI LQH32CN470K23L	B	60.4/47.5
R1	7030004980	S.RES ERJ2GEJ 101 X (100)	B	6.5/70.2
R2	7030004980	S.RES ERJ2GEJ 101 X (100)	B	167.5/30.0
R3	7030007280	S.RES ERJ2GEJ 331 X (330)	B	167.5/27.9
R11	7030005290	S.RES ERJ2GEJ 682 X (6.8K)	B	35.4/42.2
R12	7030007290	S.RES ERJ2GEJ 222 X (2.2K)	B	41.2/41.0
R13	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	B	39.1/41.0
R14	7030007340	S.RES ERJ2GEJ 153 X (15K)	B	39.1/40.1
R21	7030005290	S.RES ERJ2GEJ 682 X (6.8K)	B	148.0/42.7
R22	7030007290	S.RES ERJ2GEJ 222 X (2.2K)	B	150.4/42.7
R23	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	B	152.8/42.7
R24	7030007340	S.RES ERJ2GEJ 153 X (15K)	B	155.2/42.7
R31	7030005290	S.RES ERJ2GEJ 682 X (6.8K)	B	193.0/62.2
R32	7030007290	S.RES ERJ2GEJ 222 X (2.2K)	B	195.5/62.2
R33	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	B	198.0/62.2
R34	7030007340	S.RES ERJ2GEJ 153 X (15K)	B	200.5/62.2
R41	7030005290	S.RES ERJ2GEJ 682 X (6.8K)	B	193.0/63.2
R42	7030007290	S.RES ERJ2GEJ 222 X (2.2K)	B	195.5/63.2
R43	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	B	198.0/63.2
R44	7030007340	S.RES ERJ2GEJ 153 X (15K)	B	200.5/63.2
R50	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	58.5/66.6
R51	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	58.5/67.5
R52	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	58.5/62.2
R53	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	58.5/65.2
R54	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	58.5/64.2
R61	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	61.5/17.2
R62	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	61.5/16.2
R71	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	169.0/50.4
R72	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	173.8/44.3
R73	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	173.9/45.3
R101	7030011010	S.RES ERJ2GEJ 8R2 X (8.2)	B	58.1/50.9
R102	7030005300	S.RES ERJ2GEJ 150 X (15)	B	58.1/50.0
R103	7030005240	S.RES ERJ2GEJ 473 X (47K)	B	88.7/50.7
R141	7030005530	S.RES ERJ2GEJ 100 X (10)	B	91.9/47.8
R142	7030005530	S.RES ERJ2GEJ 100 X (10)	B	94.0/50.3
R143	7030005530	S.RES ERJ2GEJ 100 X (10)	B	93.0/47.8
R144	7030005530	S.RES ERJ2GEJ 100 X (10)	B	94.8/49.0
R201	7030005080	S.RES ERJ2GEJ 823 X (82K)	B	168.0/15.8
R202	7030005240	S.RES ERJ2GEJ 473 X (47K)	B	170.5/15.8
R203	7030005080	S.RES ERJ2GEJ 823 X (82K)	B	168.0/17.8
R204	7030005240	S.RES ERJ2GEJ 473 X (47K)	B	170.5/17.8
R301	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	113.5/74.0
R302	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	115.5/74.0
R303	7030005120	S.RES ERJ2GEJ 102 X (1K)	B	114.5/74.0
R401	7030005220	S.RES ERJ2GEJ 223 X (22K)	B	19.6/53.4
R402	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	20.6/53.4
R461	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	B	49.2/51.8
R462	7030009320	S.RES ERJ2GEJ 4R7 X (4.7)	B	49.2/49.0
R463	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	B	48.5/47.0
R464	7030005090	S.RES ERJ2GEJ 104 X (100K)	B	47.5/47.0
R471	7030007290	S.RES ERJ2GEJ 222 X (2.2K)	B	34.0/48.7
R472	7030005240	S.RES ERJ2GEJ 473 X (47K)	B	33.9/47.7
R481	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	20.8/67.1
R491	7030005040	S.RES ERJ2GEJ 472 X (4.7K)	B	37.1/53.5
R492	7030005060	S.RES ERJ2GEJ 333 X (33K)	B	37.1/52.6
R493	7030007340	S.RES ERJ2GEJ 153 X (15K)	B	38.0/51.6
R494	7030005240	S.RES ERJ2GEJ 473 X (47K)	B	35.9/48.7
R495	7030005050	S.RES ERJ2GEJ 103 X (10K)	B	29.5/49.6
R496	7030007270	S.RES ERJ2GEJ 151 X (150)	B	35.5/52.1
R501	7410001220	S.ARR EXB28V103JX	B	109.5/58.2
R502	7030005240	S.RES ERJ2GEJ 473 X (47K)	B	126.0/64.7
R503	7410001220	S.ARR EXB28V103JX	B	128.5/51.2
R504	7410001220	S.ARR EXB28V103JX	B	109.5/51.2
R601	7030007250	S.RES ERJ2GEJ 220 X (22)	B	79.1/55.0
R602	7030007250	S.RES ERJ2GEJ 220 X (22)	B	80.3/55.0
R603	7030007250	S.RES ERJ2GEJ 220 X (22)	B	81.5/55.0
R604	7030007250	S.RES ERJ2GEJ 220 X (22)	B	82.7/55.0
R605	7030007250	S.RES ERJ2GEJ 220 X (22)	B	83.9/55.0
R606	7030007250	S.RES ERJ2GEJ 220 X (22)	B	85.1/55.0
R607	7030007250	S.RES ERJ2GEJ 220 X (22)	B	86.3/55.0
R608	7030007250	S.RES ERJ2GEJ 220 X (22)	B	87.5/55.0
R609	7030007250	S.RES ERJ2GEJ 220 X (22)	B	88.7/55.0
R610	7030007250	S.RES ERJ2GEJ 220 X (22)	B	89.9/55.0
R611	7030004980	S.RES ERJ2GEJ 101 X (100)	B	92.1/55.0
R612	7030007250	S.RES ERJ2GEJ 220 X (22)	B	93.3/55.0
R613	7030007250	S.RES ERJ2GEJ 220 X (22)	B	78.5/62.5
R614	7030007250	S.RES ERJ2GEJ 220 X (22)	B	79.7/62.5
R615	7030007250	S.RES ERJ2GEJ 220 X (22)	B	80.9/62.5
R616	7030007250	S.RES ERJ2GEJ 220 X (22)	B	82.1/62.5

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

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

[DISPLAY UNIT]

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
R617	7030007250	S.RES ERJ2GEJ 220 X (22)	B	83.3/62.5
R618	7030007250	S.RES ERJ2GEJ 220 X (22)	B	84.5/62.5
R619	7030007250	S.RES ERJ2GEJ 220 X (22)	B	85.7/62.5
R620	7030007250	S.RES ERJ2GEJ 220 X (22)	B	86.9/62.5
R621	7030007250	S.RES ERJ2GEJ 220 X (22)	B	88.1/62.5
R622	7030007250	S.RES ERJ2GEJ 220 X (22)	B	89.3/62.5
R623	7030007250	S.RES ERJ2GEJ 220 X (22)	B	90.5/62.5
R624	7030007250	S.RES ERJ2GEJ 220 X (22)	B	92.7/62.5
R625	7030004980	S.RES ERJ2GEJ 101 X (100)	B	93.9/62.5
C50	4030016790	S.CER C1005 JB 1E 103K-T	B	61.0/66.6
C51	4030016790	S.CER C1005 JB 1E 103K-T	B	61.0/67.5
C52	4030016790	S.CER C1005 JB 1E 103K-T	B	61.0/62.2
C53	4030016790	S.CER C1005 JB 1E 103K-T	B	61.0/65.2
C54	4030016790	S.CER C1005 JB 1E 103K-T	B	61.0/64.2
C61	4030019990	S.CER C1005 JB 1C 104K-T	B	64.0/17.2
C62	4030019990	S.CER C1005 JB 1C 104K-T	B	64.0/16.2
C71	4030016790	S.CER C1005 JB 1E 103K-T	B	167.2/50.4
C72	4030016790	S.CER C1005 JB 1E 103K-T	B	175.6/44.3
C73	4030016790	S.CER C1005 JB 1E 103K-T	B	175.6/45.3
C101	4030021530	S.CER C1608 JB 1E 224K-T	B	58.1/52.7
C102	4030021760	S.CER GRM31MB31H105KA87L	B	66.4/53.0
C103	4030020270	S.CER GRM188B11A105KA61D	B	61.1/49.7
C104	4030020270	S.CER GRM188B11A105KA61D	B	57.3/48.1
C141	4030017460	S.CER C1005 JB 1H 102K-T	B	95.5/50.3
C142	4030017460	S.CER C1005 JB 1H 102K-T	B	96.5/50.7
C143	4030017460	S.CER C1005 JB 1H 102K-T	B	95.1/47.8
C144	4030017460	S.CER C1005 JB 1H 102K-T	B	96.1/48.3
C151	4030019990	S.CER C1005 JB 1C 104K-T	B	96.9/46.6
C152	4030019990	S.CER C1005 JB 1C 104K-T	B	103.5/50.2
C201	4030019990	S.CER C1005 JB 1C 104K-T	B	168.0/13.8
C403	4030019620	S.CER GRM188B31C225KE14D	B	25.0/51.0
C452	4030016790	S.CER C1005 JB 1E 103K-T	B	20.8/62.7
C453	4030016790	S.CER C1005 JB 1E 103K-T	B	20.8/61.4
C461	4030017460	S.CER C1005 JB 1H 102K-T	B	48.8/50.4
C471	4030016790	S.CER C1005 JB 1E 103K-T	B	37.7/47.3
C491	4030016790	S.CER C1005 JB 1E 103K-T	B	28.5/49.6
C501	4030020270	S.CER GRM188B11A105KA61D	B	111.5/60.2
C502	4030019990	S.CER C1005 JB 1C 104K-T	B	111.5/61.8
C503	4030019990	S.CER C1005 JB 1C 104K-T	B	111.5/62.8
C611	4030016790	S.CER C1005 JB 1E 103K-T	B	92.1/52.5
C625	4030016790	S.CER C1005 JB 1E 103K-T	B	93.9/65.0
C626	4030019990	S.CER C1005 JB 1C 104K-T	B	74.8/65.0
C627	4030019990	S.CER C1005 JB 1C 104K-T	B	72.0/55.8
C628	4030019990	S.CER C1005 JB 1C 104K-T	B	76.2/65.0
J51	6510022692	S.CON 06FLT-SM2-TB(LF)(SN)(M)	B	55.0/64.8
J61	6510022692	S.CON 06FLT-SM2-TB(LF)(SN)(M)	B	57.5/16.6
J71	6510022692	S.CON 06FLT-SM2-TB(LF)(SN)(M)	B	170.2/47.1
J101	6510031070	S.CON AYP534035	B	83.4/44.6
J201	6510018971	S.CON B4B-PH-SM4-TB(LF)(SN)	B	177.1/16.8
J301	6510022692	S.CON 06FLT-SM2-TB(LF)(SN)(M)	B	110.0/73.7
J401	6510018971	S.CON B4B-PH-SM4-TB(LF)(SN)	B	15.8/50.7
J421	6510018971	S.CON B4B-PH-SM4-TB(LF)(SN)	B	39.5/30.4
J451	6510019971	S.CON 52808-1071	B	7.8/60.7
J601	6510022472	S.CON 40FLT-SM2-TB(LF)(SN)(M)	B	84.0/58.8
DS1	5040003350	S.LED HT-191 UYG-K828 <KOU>	T	8.8/76.3
DS2	5040003870	S.LED SSC-YGHR411-H	T	167.8/28.8
S1	2230001480	S.SWI LS37J2-T	T	9.0/72.0
S2	2230001480	S.SWI LS37J2-T	T	9.0/61.7
S3	2230001480	S.SWI LS37J2-T	T	9.0/51.7
S4	2230001480	S.SWI LS37J2-T	T	9.0/45.7
S5	2230001480	S.SWI LS37J2-T	T	28.3/45.8
S6	2230001480	S.SWI LS37J2-T	T	42.7/45.8
S7	2230001480	S.SWI LS37J2-T	T	28.3/41.1
S8	2230001480	S.SWI LS37J2-T	T	42.7/41.1
S9	2230001480	S.SWI LS37J2-T	T	68.4/3.1
S10	2230001480	S.SWI LS37J2-T	T	87.9/3.1
S11	2230001480	S.SWI LS37J2-T	T	107.4/3.1
S12	2230001480	S.SWI LS37J2-T	T	126.9/3.1
S13	2230001480	S.SWI LS37J2-T	T	146.4/3.1
S14	2230001480	S.SWI LS37J2-T	T	167.1/47.8
S15	2230001480	S.SWI LS37J2-T	T	165.8/14.8
S16	2230001480	S.SWI LS37J2-T	T	169.0/3.1
S17	2230001480	S.SWI LS37J2-T	T	191.1/74.1
S18	2230001480	S.SWI LS37J2-T	T	206.2/74.1
S19	2230001480	S.SWI LS37J2-T	T	221.3/74.1
S20	2230001480	S.SWI LS37J2-T	T	191.1/65.8
S21	2230001480	S.SWI LS37J2-T	T	206.2/65.8
S22	2230001480	S.SWI LS37J2-T	T	221.3/65.8
S23	2230001480	S.SWI LS37J2-T	T	191.1/59.5
S24	2230001480	S.SWI LS37J2-T	T	206.2/59.5
S25	2230001480	S.SWI LS37J2-T	T	222.4/59.5
EP401	6910018930	S.BEA MPZ2012S601A	B	19.9/50.2
EP402	6910018930	S.BEA MPZ2012S601A	B	20.8/47.7
EP451	6910018930	S.BEA MPZ2012S601A	B	16.8/59.7
EP452	6910019900	S.BEA MPZ1608S601AT	B	17.6/62.7
EP453	6910017350	S.BEA MMZ1608S601A-T	B	17.6/61.4
EP454	6910016330	S.BEA MMZ1005S 601CT-S	B	17.6/63.9
EP455	6910018930	S.BEA MPZ2012S601A	B	16.8/57.9
EP456	6910016330	S.BEA MMZ1005S 601CT-S	B	6.0/65.2
EP457	6910016330	S.BEA MMZ1005S 601CT-S	B	5.0/65.2
EP601	6910019900	S.BEA MPZ1608S601AT	B	73.7/63.0
EP602	6910019900	S.BEA MPZ1608S601AT	B	75.4/55.4
EP603	6910019900	S.BEA MPZ1608S601AT	B	77.3/63.0

[PBT UNIT]

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
J1	6510029480	S.CON 06FH-SM1-TB(LF)(SN)	T	19.8/8.3
S1	2250000960	ENC TP90D96AE20-30.5F-3765		

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

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



**[VR UNIT]**

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
R1	7210002970	VAR RV-314(RK0972210 10KB/10KB)		
J1	6510029480	S.CON 06FH-SM1-TB(LF)(SN)	T	19.8/9.3

**[RIT UNIT]**

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
J1	6510029480	S.CON 06FH-SM1-TB(LF)(SN)	T	20.0/5.6
S1	2250001010	ENC TP90N00AE20-14.5F-3765A		

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

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

[PHONE UNIT]

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
R401	7030003440	S.RES ERJ3GEYJ 102 V (1K)	T	18.5/8.4
R403	7030003320	S.RES ERJ3GEYJ 101 V (100)	T	13.1/12.9
R404	7030003320	S.RES ERJ3GEYJ 101 V (100)	T	15.9/12.9
C401	4030006900	S.CER C1608 JB 1H 103K-T ATEX	T	18.5/9.6
C404	4030006900	S.CER C1608 JB 1H 103K-T ATEX	T	10.4/12.9
J1	6450001630	CON HSJ1406-01-050		
EP401	6910018930	S.BEA MPZ2012S601A	T	18.0/13.3
EP402	6910018930	S.BEA MPZ2012S601A	T	15.6/11.3
EP403	6910018930	S.BEA MPZ2012S601A	T	10.2/11.3

[MIC UNIT]

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
C1	4030006900	S.CER C1608 JB 1H 103K-T ATEX	T	10.3/17.4
C2	4030006900	S.CER C1608 JB 1H 103K-T ATEX	T	22.8/14.8
C3	4030006900	S.CER C1608 JB 1H 103K-T ATEX	T	8.1/15.3
C4	4030007130	S.CER C1608 CH 1H 101J-T ATEX	T	5.5/3.8
C5	4030006900	S.CER C1608 JB 1H 103K-T ATEX	T	24.5/91.6
C6	4030006900	S.CER C1608 JB 1H 103K-T ATEX	T	24.5/92.5
C7	4030006900	S.CER C1608 JB 1H 103K-T ATEX	T	24.5/93.4
C8	4030007090	S.CER C1608 CH 1H 470J-T	T	24.5/94.3
J1	6510000191	CON FM214-8SS(P)-1		
J2	6510019971	S.CON 52808-1071	T	4.0/11.2
EP2	6910012350	S.BEA MMZ1608Y 102BT	T	22.8/13.5
EP3	6910012350	S.BEA MMZ1608Y 102BT	T	23.6/9.1
EP4	6910012350	S.BEA MMZ1608Y 102BT	T	7.4/13.4
EP5	6910012350	S.BEA MMZ1608Y 102BT	T	21.3/16.1
EP7	6910018930	S.BEA MPZ2012S601A	T	7.6/6.2
EP9	6910015130	S.BEA MMZ1608D 301BT	T	10.1/2.5
EP10	6910015130	S.BEA MMZ1608D 301BT	T	10.1/3.7
EP11	6910012350	S.BEA MMZ1608Y 102BT	T	11.6/17.4
EP12	6910018930	S.BEA MPZ2012S601A	T	7.9/16.8

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

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

[SD UNIT]

REF NO.	PARTS NO.	DESCRIPTION	M.	H/V LOCATION
R1	7030003360	S.RES ERJ3GEYJ 221 V (220)	T	35.1/11.5
R2	7030003250	S.RES ERJ3GEYJ 270 V (27)	T	35.1/13.9
R3	7030003250	S.RES ERJ3GEYJ 270 V (27)	T	35.1/15.1
R4	7030003250	S.RES ERJ3GEYJ 270 V (27)	T	35.1/18.7
R5	7030003250	S.RES ERJ3GEYJ 270 V (27)	T	35.1/19.9
R6	7030003250	S.RES ERJ3GEYJ 270 V (27)	T	35.1/17.5
R8	7030003250	S.RES ERJ3GEYJ 270 V (27)	T	35.1/12.7
R9	7030003360	S.RES ERJ3GEYJ 221 V (220)	T	35.1/10.3
C1	4030011600	S.CER C1608 JB 1E 104K-T ATEX	T	32.6/16.0
C2	4030019560	S.CER GRM21BB31C106KE15L	T	31.1/15.6
J1	6510028980	S.CON SCDABA0500	T	13.9/15.3
J2	6510031540	S.CON 12FHJ-SM1-TB(LF)(SN)	T	40.3/15.3
EP7	6910019900	S.BEA MPZ1608S601AT1	T	35.1/16.3

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

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

# SECTION 6

# MECHANICAL PARTS

## [CHASSIS PARTS]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
J1	6510028411	MR-DS-01-2 <GA>	1
SP1	2510002000	057D0805	1
MF1	2710001060	FD128025HB-N (2N7R1) <USE>	1
W1**	8970024631	1.5DCOAXIAL170MM-1 C31/C31	1
W3**	8970024412	1.5DCOAXIAL330MM-2 (T) C31/C31	1
W5**	8970024252	1.5DCOAXIAL240MM-2 C31/C31	1
W7**	8900016990	OPC-1741 (1.5DCOAXIAL110MM)	1
W11**	8600037600	SX3765 P11*P12CH (3765-1)	1
W15	8920001580	CAB-1186	[#02] 1
	8920001670	CAB-1205	[#03] 1
	8920001670	CAB-1205	[#05] 1
	8920001670	CAB-1205	[#06] 1
	8920001580	CAB-1186	[#07] 1
	8920001580	CAB-1186	[#08] 1
	8920001580	CAB-1186	[#12] 1
W16	8600037380	SX3183 J1101*P1102CH	1
W21**	8910000500	FFC-1055 (P0.5N30L150)	1
W22**	8910000220	FFC-1024 (P0.5N40L120)	1
W23**	8910000530	FFC-1057 (P0.5N30L65 S)	1
W24**	8910000520	FFC-1056 (P0.5N40L100 S) TJM	1
W25**	8900018810	OPC-1974 (P0.5N12L50)	1
EP2	6910025930	S80-5 <USE>	1
MP1	8010023570	3765 CHASSIS	1
MP2	8110010940	3765 U-COVER Y2203	1
MP3	8110010950	3765 L-COVER Y2202	1
MP4	8930093300	3765 SP RUBBER (TOP)	1
MP5	8930093310	3765 NET	1
MP6	8930075100	3015 STAND HOLDER	2
MP7	8930074520	3015 STAND	1
MP9	8930002900	RUBBER LEG (A) SK1912A	2
MP21	8820000530	FLANGE BOLT M4 X 8 NI	1
MP22	8850000140	FLAT WASHER M4 4 NI BS	2
MP23	8850000430	S-WASHER M 4 NI	1
MP24	8810008661	PHBT M3 X 8 NI-ZC3	7
MP25	8810008661	PHBT M3 X 8 NI-ZC3	7
MP26	8810008661	PHBT M3 X 8 NI-ZC3	8
MP27	8810008661	PHBT M3 X 8 NI-ZC3	7
MP28*	8810007231	SET SCREWH M3 X 8 ZC3	1
MP29*	8810007231	SET SCREWH M3 X 8 ZC3	4
MP30	8810009461	FLAT M3 X 8 ZK3	14
MP31	8810009461	FLAT M3 X 8 ZK3	10
MP32	8810005771	BIND M3 X 8 ZK3BLACK	2
MP33	8810005771	BIND M3 X 8 ZK3BLACK	2
MP34	8810008661	PHBT M3 X 8 NI-ZC3	2
MP35	8810008661	PHBT M3 X 8 NI-ZC3	1
MP36	8810010580	SET SCREWA M4 X32	4
MP37	8810009651	FLAT BT M3 X 8 NI-ZC3	4
MP51	8410002951	3765 MAIN HEATSINK-1 Y2205A	1
MP52	8930090910	THERMAL SHEET (CL) TC-200CAS (26X37)	1
MP54	8930091820	SHIELD SPONGE (DH)	1
MP55	8930082231	SHIELD SPONGE (CQ)-1	1
MP56	8930091820	SHIELD SPONGE (DH)	1
MP57	8930091820	SHIELD SPONGE (DH)	1
MP58	8850003650	PLAIN WASHER (BA)	4
MP59	8930094660	SPONGE (OC)	1
MP60	8930037770	THERMAL SHEET AY	2
MP61	8930037770	THERMAL SHEET AY	2
MP62	8930094670	SPONGE (OD)	1
MP63	8930084330	THERMAL SHEET (CA)TC600HS1.4 (6.9X9)	3
MP64	8930094510	SPONGE (NZ)	2
MP65	8930085780	SPONGE (LX)	1
MP66*	8930094670	SPONGE (OD)	1
MP67*	8930094720	RUBBER SHEET (CT)	1
MP68*	8930057311	SHIELD SPONGE (I)-1	[#03] 1
	8930057311	SHIELD SPONGE (I)-1	[#05] 1
	8930057311	SHIELD SPONGE (I)-1	[#06] 1
MP69*	8930095180	FERRITE SHEET (BB)	[#03] 1
	8930095180	FERRITE SHEET (BB)	[#05] 1
	8930095180	FERRITE SHEET (BB)	[#06] 1
MP70*	8930095110	SHIELD SPONGE (EH)	[#02] 1
	8930095110	SHIELD SPONGE (EH)	[#03] 1
	8930095110	SHIELD SPONGE (EH)	[#05] 1
	8930095110	SHIELD SPONGE (EH)	[#06] 1

## [MAIN PARTS]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
J1*	6510022472	40FLT-SM2-TB (LF) (SN) (M)	1
J21*	6510021722	30FLT-SM2-TB (LF) (SN) (M)	1
J45*	6510018961	B2B-PH-SM4-TB (LF) (SN)	1
J51*	6510021722	30FLT-SM2-TB (LF) (SN) (M)	1
J71*	6510022472	40FLT-SM2-TB (LF) (SN) (M)	1
J101*	6510024522	12FLT-SM2-TB (LF) (SN) (M)	1
J491*	6510025142	10FLT-SM2-TB (LF) (SN) (M)	1
J601	6510026540	UBB-4R-D14T-4D (LF) (SN)	1
J691	6510025940	PJ-3047S <XIN>	1
J751	6510025940	PJ-3047S <XIN>	1
J752*	6510014961	B2B-ZR-SM4-TF (LF) (SN)	1
J761*	6510018971	B4B-PH-SM4-TB (LF) (SN)	1
J771	6450001641	TCS5044-0141 177	1
J901*	6510025142	10FLT-SM2-TB (LF) (SN) (M)	1
J1231	6510028210	SJ050010 (TMP-J01X-V6)	1
S371*	2230001480	LS3J72-T	1
BT381*	3020000390	ML414HIV01E	1
EP1202*	6910002161	CASE-BM7H-LF	1
EP1262*	6910002161	CASE-BM7H-LF	1
EP1300*	6910026020	CMBAA0210101402-00 <MSK>	1
EP1333*	6910002161	CASE-BM7H-LF	1
MP201*	8510020100	3182 DC-DC CASE Y1220	1
MP721*	8510021840	3765 MAIN SHIELD CASE Y1377	1
MP1231*	8930067510	2427 B-EARTH SPRING	1
MP1262	8930094410	3765 BM SPRING	1
MP1263	8930082601	SHIELD SPONGE (CT)-1	1

## [RF UNIT]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
J101	6450002520	RL-1515-2 (B.B)-L <KUO>	1
J201	6510023740	LGR4609-7000	1
J1001	6510028210	SJ050010 (TMP-J01X-V6)	1
J1071	6510028210	SJ050010 (TMP-J01X-V6)	1
J1311*	6510021722	30FLT-SM2-TB (LF) (SN) (M)	1
J1431	6510028210	SJ050010 (TMP-J01X-V6)	1
MP1251*	8510021820	3765 RF-SHIELD CASE Y1375	1

## [PA UNIT]

REF NO.	ORDER NO.	DESCRIPTION	QTY.
J101*	6510028210	SJ050010 (TMP-J01X-V6)	1
J301*	6510022472	40FLT-SM2-TB (LF) (SN) (M)	1
J331*	6510018971	B4B-PH-SM4-TB (LF) (SN)	1
J801*	6510028210	SJ050010 (TMP-J01X-V6)	1
J961*	6510028210	SJ050010 (TMP-J01X-V6)	1
F2*	5210000940	1205	1
F201*	5220000400	FHA010-01F	1
W1	8900017860	OPC-1857	[#02] 1
	8900018220	OPC-1943	[#03] 1
	8900018220	OPC-1943	[#05] 1
	8900018220	OPC-1943	[#06] 1
	8900017860	OPC-1857	[#07] 1
	8900017860	OPC-1857	[#08] 1
	8900017860	OPC-1857	[#12] 1
MP301*	8930075440	3015 RUG SPRING Y1115	1
MP302*	8930075440	3015 RUG SPRING Y1115	1

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

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

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

**[TUNER UNIT]**

REF NO.	ORDER NO.	DESCRIPTION	QTY.
W2001*	8970024721	1.5DCOAXIAL140MM-1 C31/C31	1
J1001*	6510028210	SJ050010 (TMP-J01X-V6)	1
J1801*	6510021722	30FLT-SM2-TB (LF) (SN) (M)	1
J2001*	6510028210	SJ050010 (TMP-J01X-V6)	1
J2002*	6510028210	SJ050010 (TMP-J01X-V6)	1
MP1301*	8510013390	2355 MIX CASE	1
MP2001*	8930075430	3015 ANT SPRING Y1091	1

**[FRONT UNIT]**

REF NO.	ORDER NO.	DESCRIPTION	QTY.
DS1	5030004050	RFE430H-AZH-DNS-000 <TRIA>	1
W1**	8910000070	FFC-1008 (P0.5N6L50)	1
W2**	8910000070	FFC-1008 (P0.5N6L50)	1
W3**	8910000070	FFC-1008 (P0.5N6L50)	1
W4**	8900018000	OPC-1344A (P1N10L70)	1
EP1	0880001360	EX-2500 SENSOR	1
MP1	8210031701	3765 FRONT PANEL ASSEMBLY-1 (including MP2)	1
MP2	8930093270	3765 B-LENS	1
MP3	8610015840	KNOB K-300 ASSEMBLY (including MP4)	1
MP4	8930093260	3765 A-LENS	1
MP5	8610015710	KNOB K-301	1
MP6	8610015720	KNOB K-302	1
MP7	8610015730	KNOB K-303	1
MP8	8610015740	KNOB K-304	1
MP11	8010023630	3765 SUB CHASSIS Y2204	1
MP21	8810008661	PHBT M3 X 8 NI-ZC3	5
MP22	8810008661	PHBT M3 X 8 NI-ZC3	12
MP23	8810008661	PHBT M3 X 8 NI-ZC3	2
MP24	8810008631	PHBT M3 X 6 NI-ZC3	2
MP31	8930093290	3765 BRAKE PLATE	1
MP32	8930093280	3765 BRAKE BUTTON (including MP31)	1
MP33	8930077360	3073 BRAKE PAD	2
MP34	8930094550	3765 BRAKE SHEET	1
MP35	8610015830	KNOB N-432 ASSEMBLY (including MP42)	1
MP36	8610015760	KNOB N-432 COVER (TOP)	1
MP37	8610013880	KNOB N-379	1
MP38	8610011830	KNOB N301	1
MP39	8610013870	KNOB N-378	1
MP40	8610013290	KNOB N-361	1
MP41	8610015780	KNOB N-433	1
MP42	8610010040	KNOB N-239 FINGER REST	1
MP43	8810003560	M4 X 6 SUS	1
MP47	8930057950	DOUBLE SIDE TAPE (AH)	2
MP48	8930094510	SPONGE (NZ)	8
MP49	8930094520	SPONGE (OA)	3
MP50	8930094530	HIMELON SHEET (DM)	1
MP51	8930094530	HIMELON SHEET (DM)	1
MP52	8930094500	3765 VR SHEET	1
MP53	8930094540	DOUBLE SIDE TAPE (CA)	1
MP54	8930083180	SPONGE (LG)	4
MP55	8930032130	THERMAL SHEET AQ	2
MP56	8930094490	3765 KEY SPONGE	1
MP57*	8930037760	INSULATION SHEETDY	1
MP58	8930094650	SPONGE (OB)	1
MP60	8930094680	DOUBLE SIDE TAPE (CC)	1
MP61*	8930088580	HIMELON SHEET (DD)	1
MP62	8930094750	SPONGE (OF)	1

**[DISPLAY UNIT]**

REF NO.	ORDER NO.	DESCRIPTION	QTY.
J51*	6510022692	06FLT-SM2-TB (LF) (SN) (M)	1
J61*	6510022692	06FLT-SM2-TB (LF) (SN) (M)	1
J71*	6510022692	06FLT-SM2-TB (LF) (SN) (M)	1
J101*	6510031070	AYF534035	1
J201*	6510018971	B4B-PH-SM4-TB (LF) (SN)	1
J301*	6510022692	06FLT-SM2-TB (LF) (SN) (M)	1
J401*	6510018971	B4B-PH-SM4-TB (LF) (SN)	1
J421*	6510018971	B4B-PH-SM4-TB (LF) (SN)	1
J451*	6510019971	52808-1071	1
J601*	6510022472	40FLT-SM2-TB (LF) (SN) (M)	1
S1*	2230001480	LS37J2-T	1
S2*	2230001480	LS37J2-T	1
S3*	2230001480	LS37J2-T	1
S4*	2230001480	LS37J2-T	1
S5*	2230001480	LS37J2-T	1
S6*	2230001480	LS37J2-T	1
S7*	2230001480	LS37J2-T	1
S8*	2230001480	LS37J2-T	1
S9*	2230001480	LS37J2-T	1
S10*	2230001480	LS37J2-T	1
S11*	2230001480	LS37J2-T	1
S12*	2230001480	LS37J2-T	1
S13*	2230001480	LS37J2-T	1
S14*	2230001480	LS37J2-T	1
S15*	2230001480	LS37J2-T	1
S16*	2230001480	LS37J2-T	1
S17*	2230001480	LS37J2-T	1
S18*	2230001480	LS37J2-T	1
S19*	2230001480	LS37J2-T	1
S20*	2230001480	LS37J2-T	1
S21*	2230001480	LS37J2-T	1
S22*	2230001480	LS37J2-T	1
S23*	2230001480	LS37J2-T	1
S24*	2230001480	LS37J2-T	1
S25*	2230001480	LS37J2-T	1
MP1*	8510002280	VCOSHIELD PLATE (A) FX 15	1

**[PBT UNIT]**

REF NO.	ORDER NO.	DESCRIPTION	QTY.
J1*	6510029480	06FH-SM1-TB (LF) (SN)	1
S1	2250000960	TP90D96AE20-30.5F-3765	1

**[VR UNIT]**

REF NO.	ORDER NO.	DESCRIPTION	QTY.
J1*	6510029480	06FH-SM1-TB (LF) (SN)	1

**[RIT UNIT]**

REF NO.	ORDER NO.	DESCRIPTION	QTY.
J1*	6510029480	06FH-SM1-TB (LF) (SN)	1
S1	2250001010	TP90N00AE20-14.5F-3765A	1

**[PHONE UNIT]**

REF NO.	ORDER NO.	DESCRIPTION	QTY.
W1**	8600036920	EX2500 P01*J01MA	1
J1	6450001630	HSJ1406-01-050	1

**[MIC UNIT]**

REF NO.	ORDER NO.	DESCRIPTION	QTY.
J1	6510000191	FM214-8SS (P)-1	1
J2*	6510019971	52808-1071	1

**[SD UNIT]**

REF NO.	ORDER NO.	DESCRIPTION	QTY.
J1*	6510028980	SCDABA0500	1
J2*	6510031540	12FHJ-SM1-TB (LF) (SN)	1

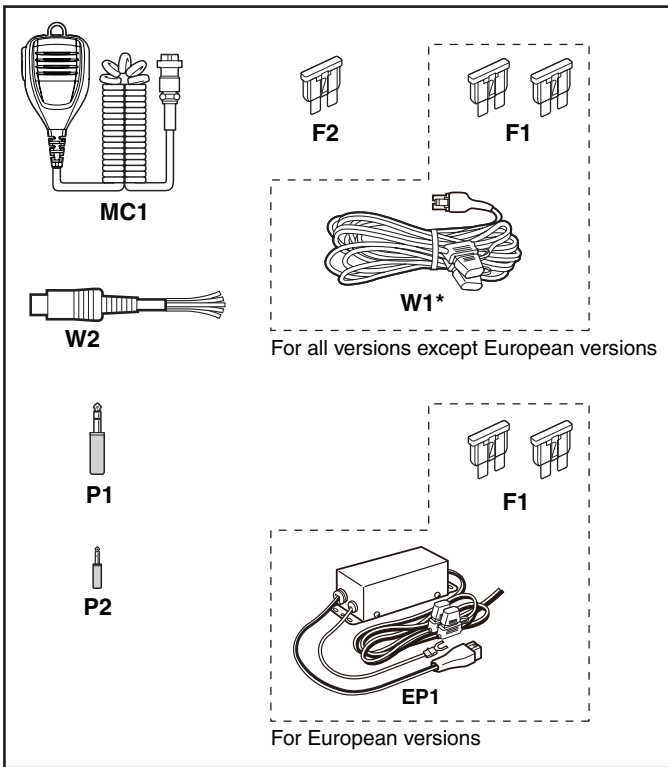
\*: Refer to "BOARD LAYOUTS" for the location.

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

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

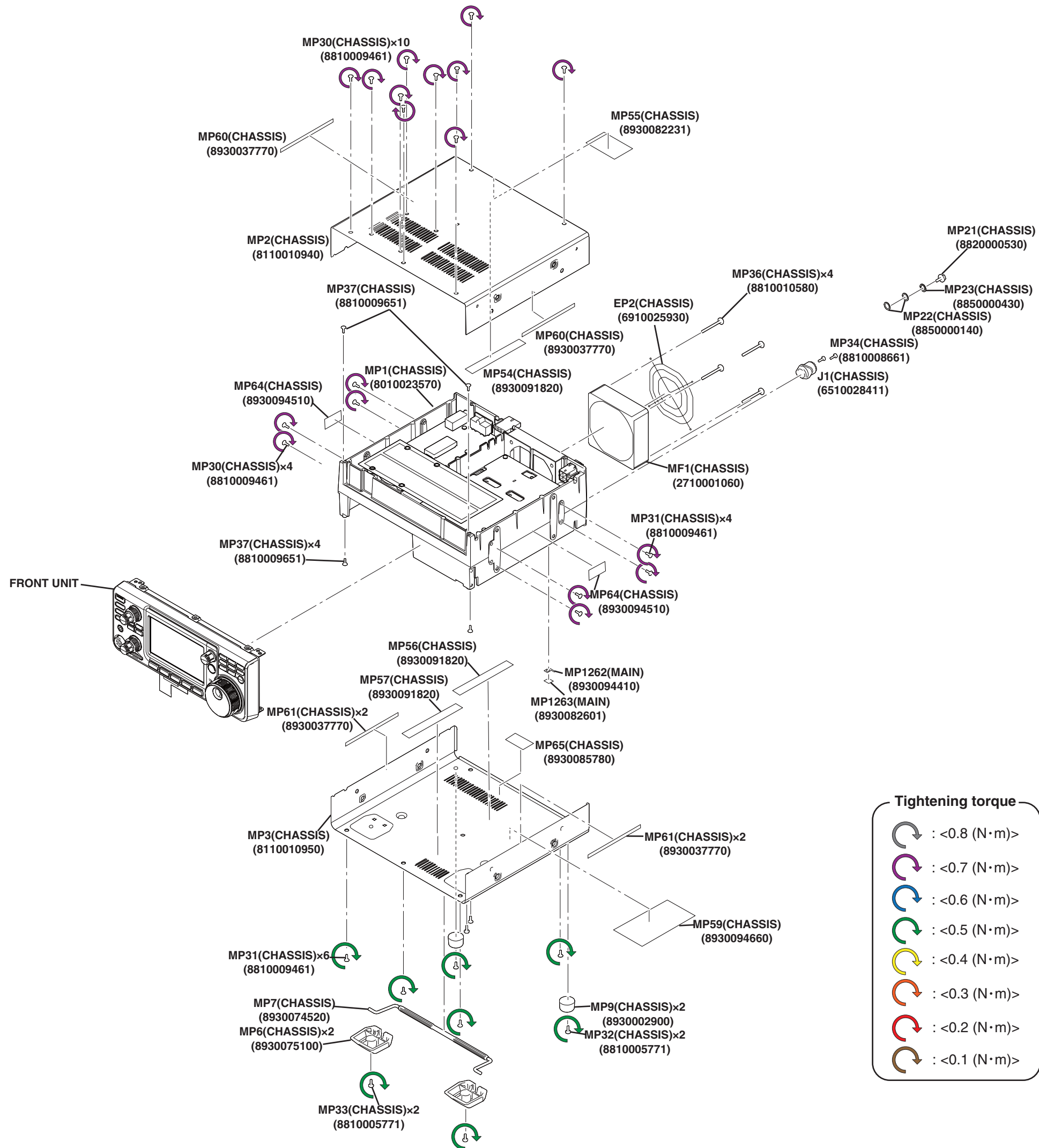
**[ACCESSORIES]**

REF NO.	ORDER NO.	DESCRIPTION	QTY.
P1	5610000410	AP-319	1
P2	5610000420	AP-338 (BK1)	1
F1	5210001360	ATQ 25A	[#02] 2
	5210000841	ATC 30-1	[#03] 2
	5210000841	ATC 30-1	[#05] 2
	5210000841	ATC 30-1	[#06] 2
	5210001360	ATQ 25A	[#07] 2
	5210001360	ATQ 25A	[#08] 2
	5210001360	ATQ 25A	[#12] 2
	F2	5210000940	1205
MC1	(Optional)	HM-219	1
W1	8900022020	OPC-2361	[#02] 1
	8900022020	OPC-2361	[#07] 1
	8900022020	OPC-2361	[#08] 1
	8900022020	OPC-2361	[#12] 1
	8900006110	OPC-596	1
EP1	0880001680	OPC1457R	[#03] 1
	0880001680	OPC1457R	[#05] 1



\* Different types of accessories may be supplied, or may not be supplied depending on the transceiver version.

• GENERAL



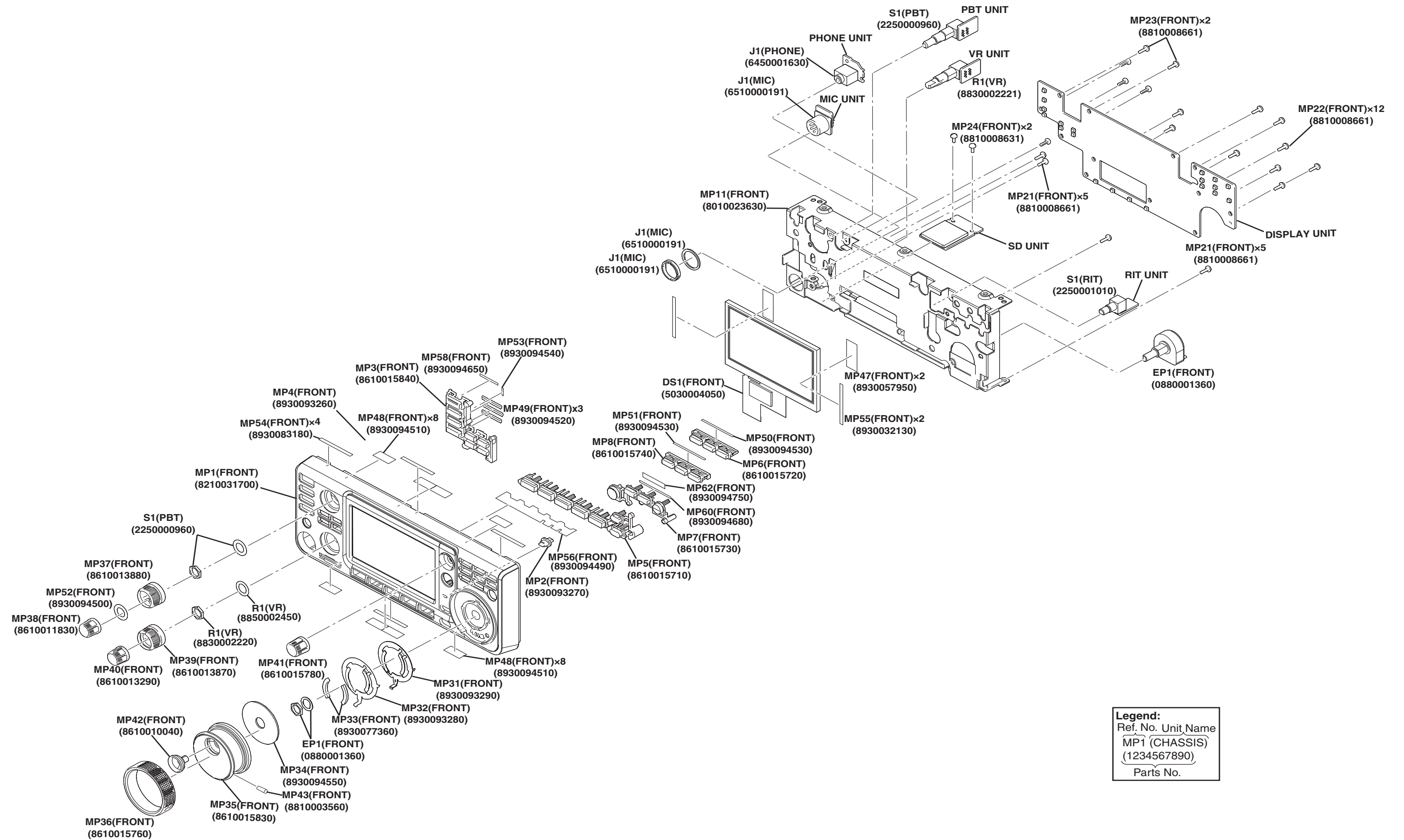
**Tightening torque**

- : <0.8 (N·m)>
- : <0.7 (N·m)>
- : <0.6 (N·m)>
- : <0.5 (N·m)>
- : <0.4 (N·m)>
- : <0.3 (N·m)>
- : <0.2 (N·m)>
- : <0.1 (N·m)>

**Legend:**

Ref. No.	Unit Name
MP1	(CHASSIS)
(1234567890)	Parts No.

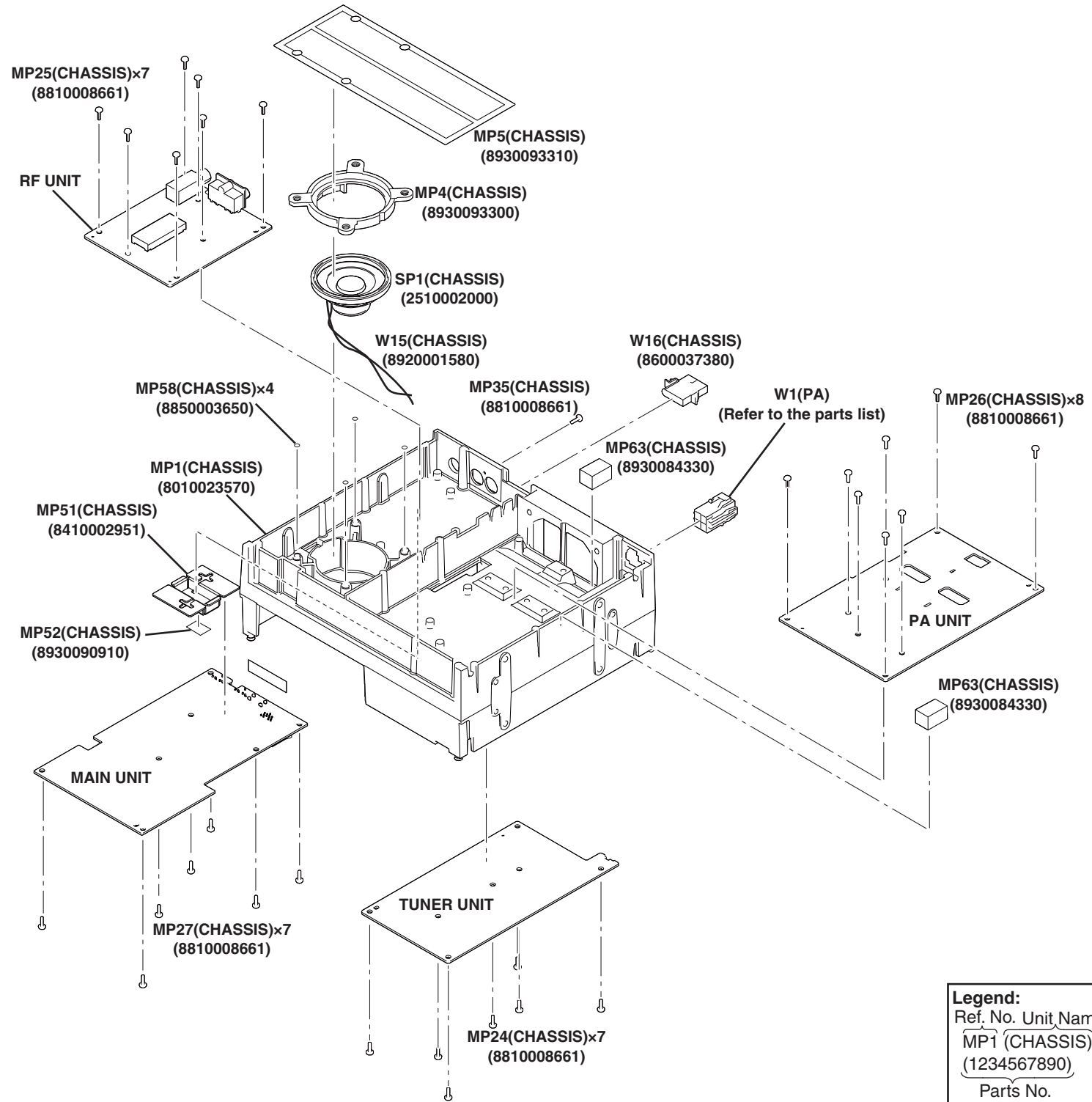
• FRONT UNIT



Legend:	
Ref. No.	Unit Name
MP1	(CHASSIS)
(1234567890)	
	Parts No.

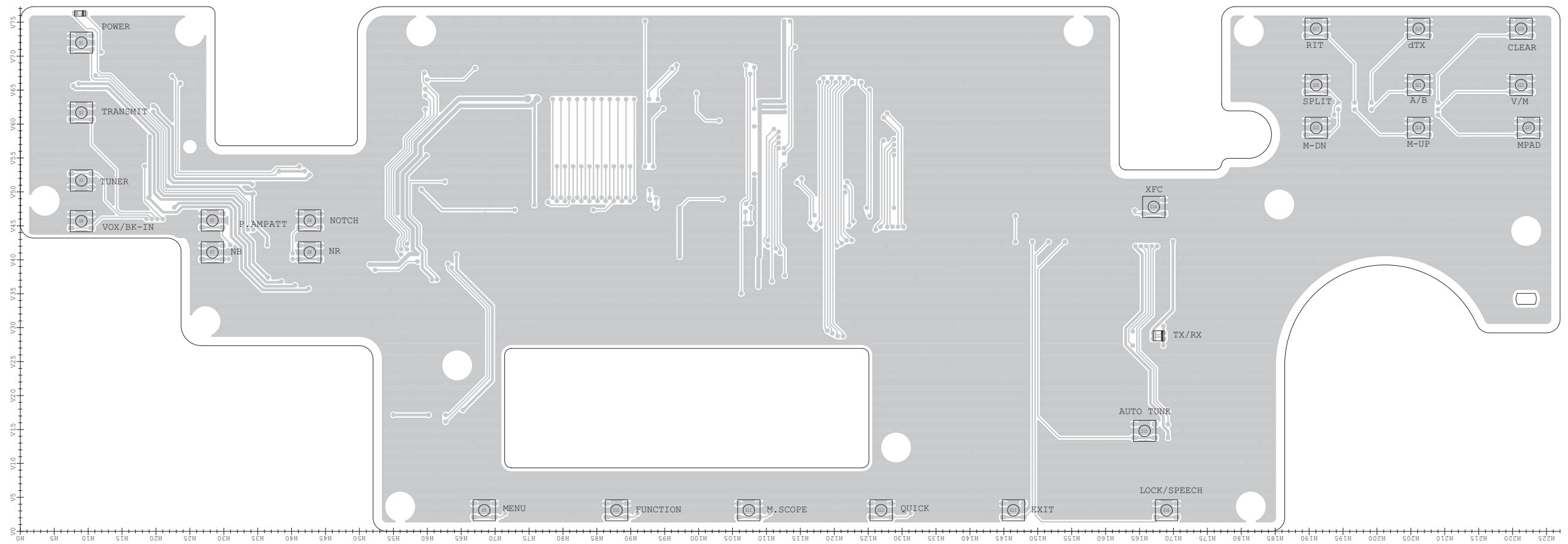


• CHASSIS

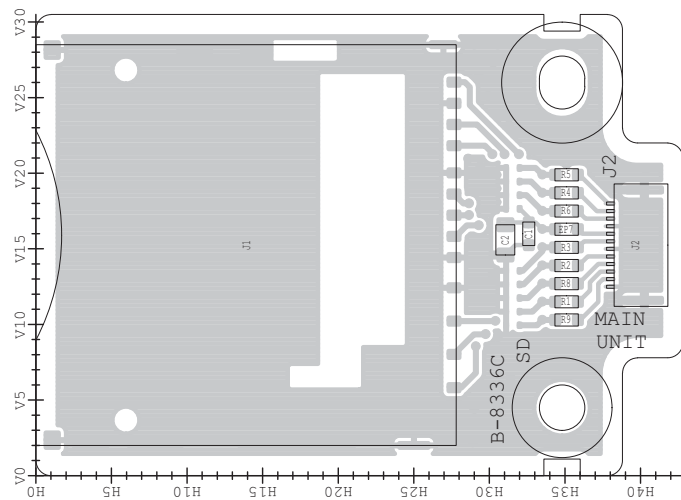


The actual configuration of the PC board can be seen by viewing the top and bottom BOARD LAYOUT pages together.

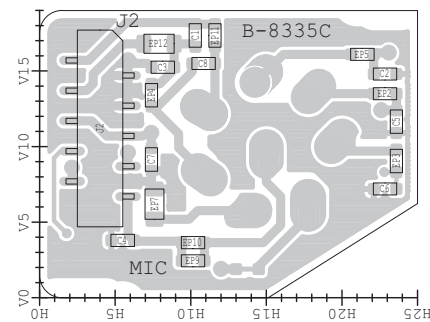
• DISPLAY UNIT B-8330C  
(TOP VIEW)



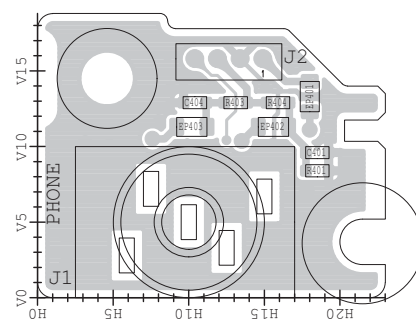
• SD UNIT B-8336C  
(TOP VIEW)



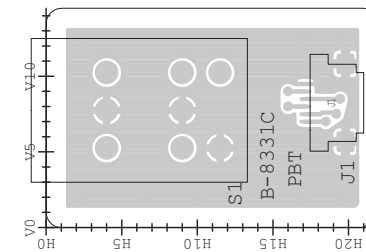
• MIC UNIT B-8335C  
(TOP VIEW)



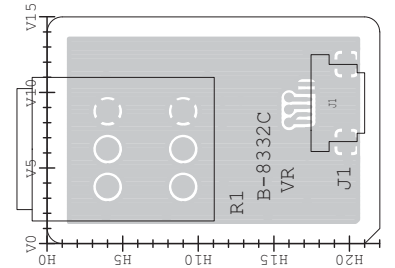
• PHONE UNIT B-8334B  
(TOP VIEW)



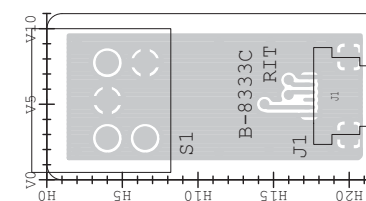
• PBT UNIT B-8331C  
(TOP VIEW)



• VR UNIT B-8332C  
(TOP VIEW)

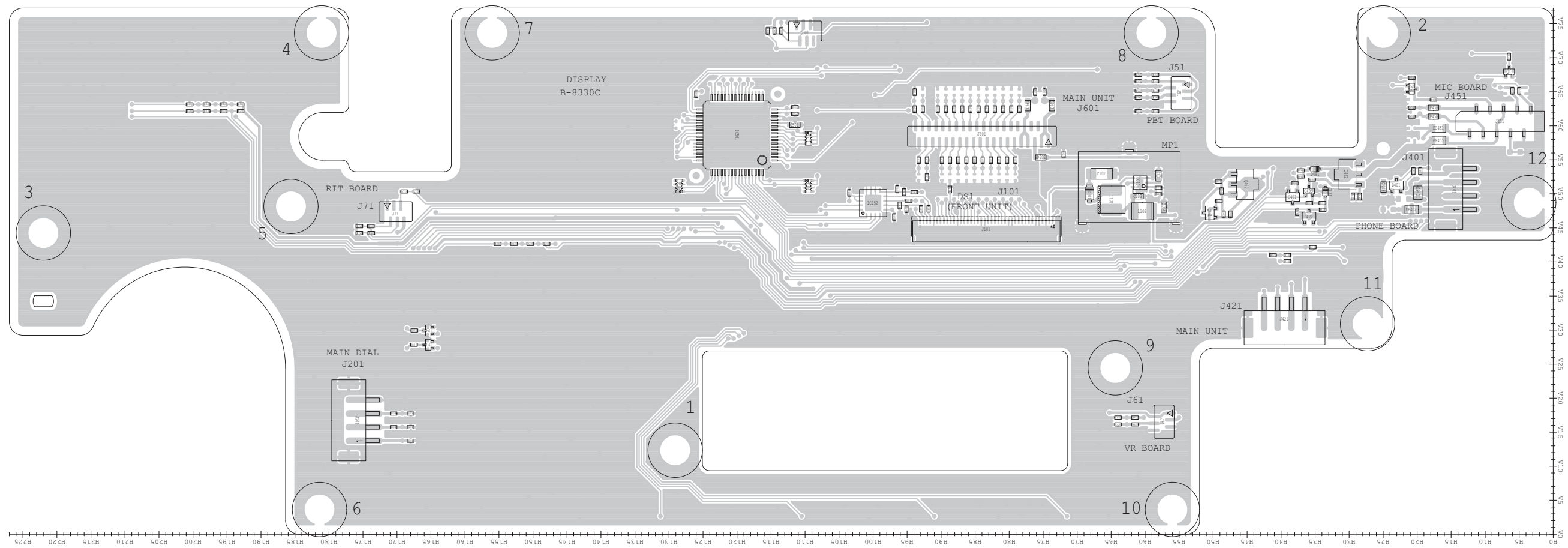


• RIT UNIT B-8333C  
(TOP VIEW)

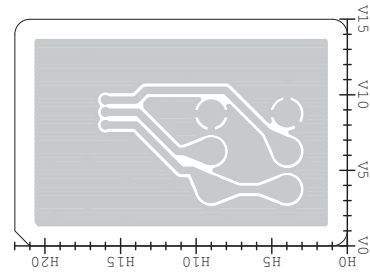


The actual configuration of the PC board can be seen by viewing the top and bottom BOARD LAYOUT pages together.

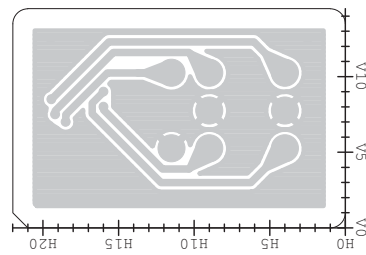
• **DISPALY UNIT B-8330C  
(BOTTOM VIEW)**



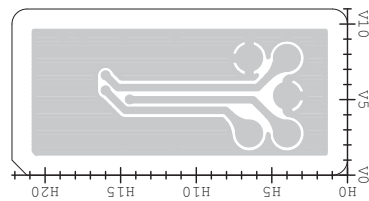
• **VR UNIT B-8332C  
(BOTTOM VIEW)**



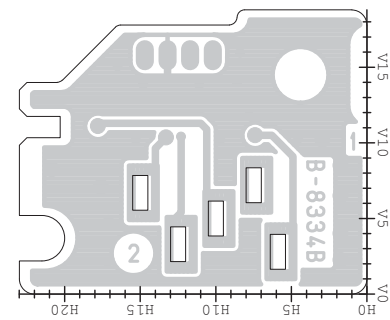
• **PBT UNIT B-8331C  
(BOTTOM VIEW)**



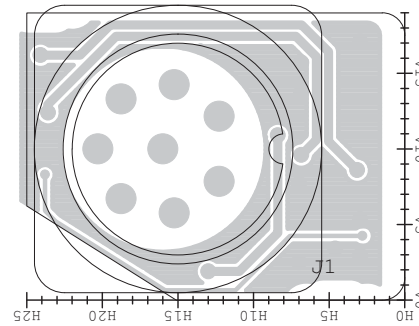
• **RIT UNIT B-8333C  
(BOTTOM VIEW)**



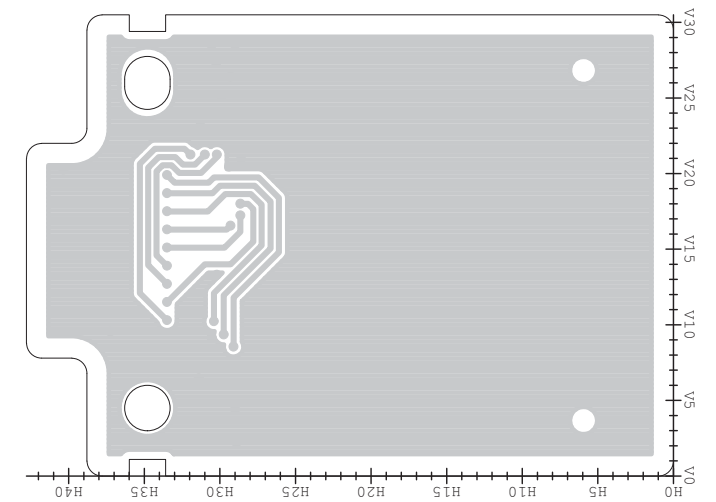
• **PHONE UNIT B-8334B  
(BOTTOM VIEW)**



• **MIC UNIT B-8335C  
(BOTTOM VIEW)**

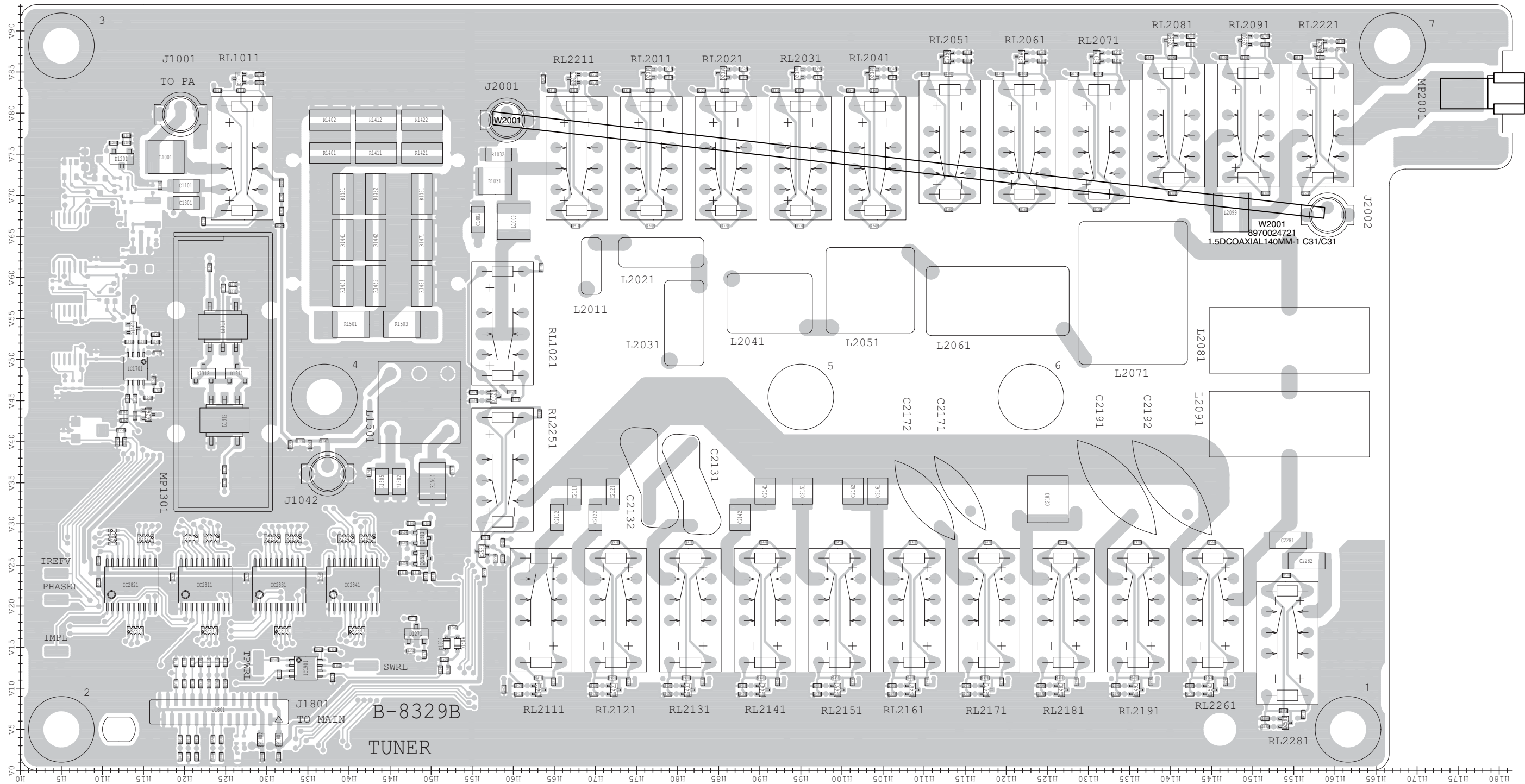


• **SD UNIT B-8336C  
(BOTTOM VIEW)**



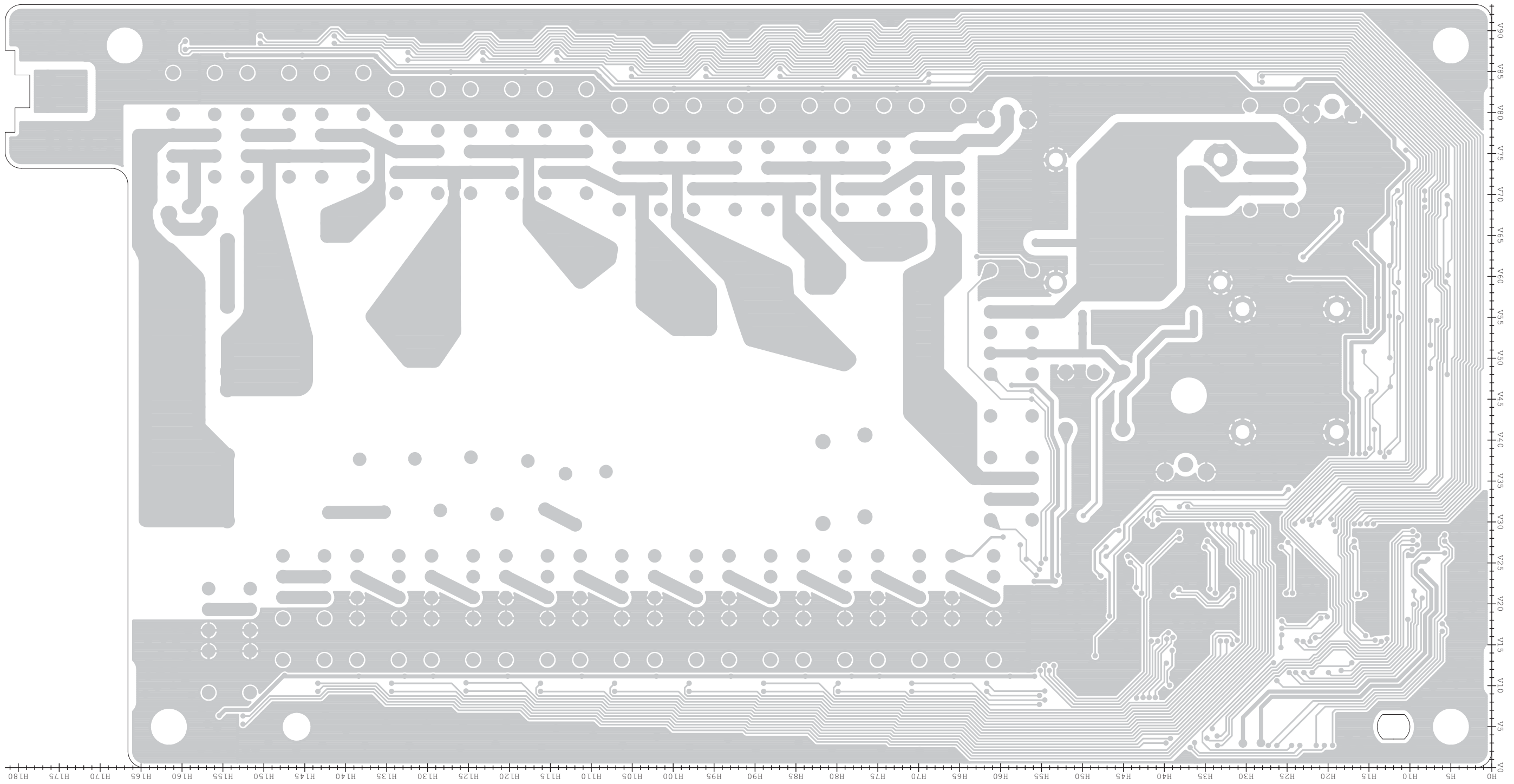
The actual configuration of the PC board can be seen by viewing the top and bottom BOARD LAYOUT pages together.

• TUNER UNIT B-8329B  
(TOP VIEW)



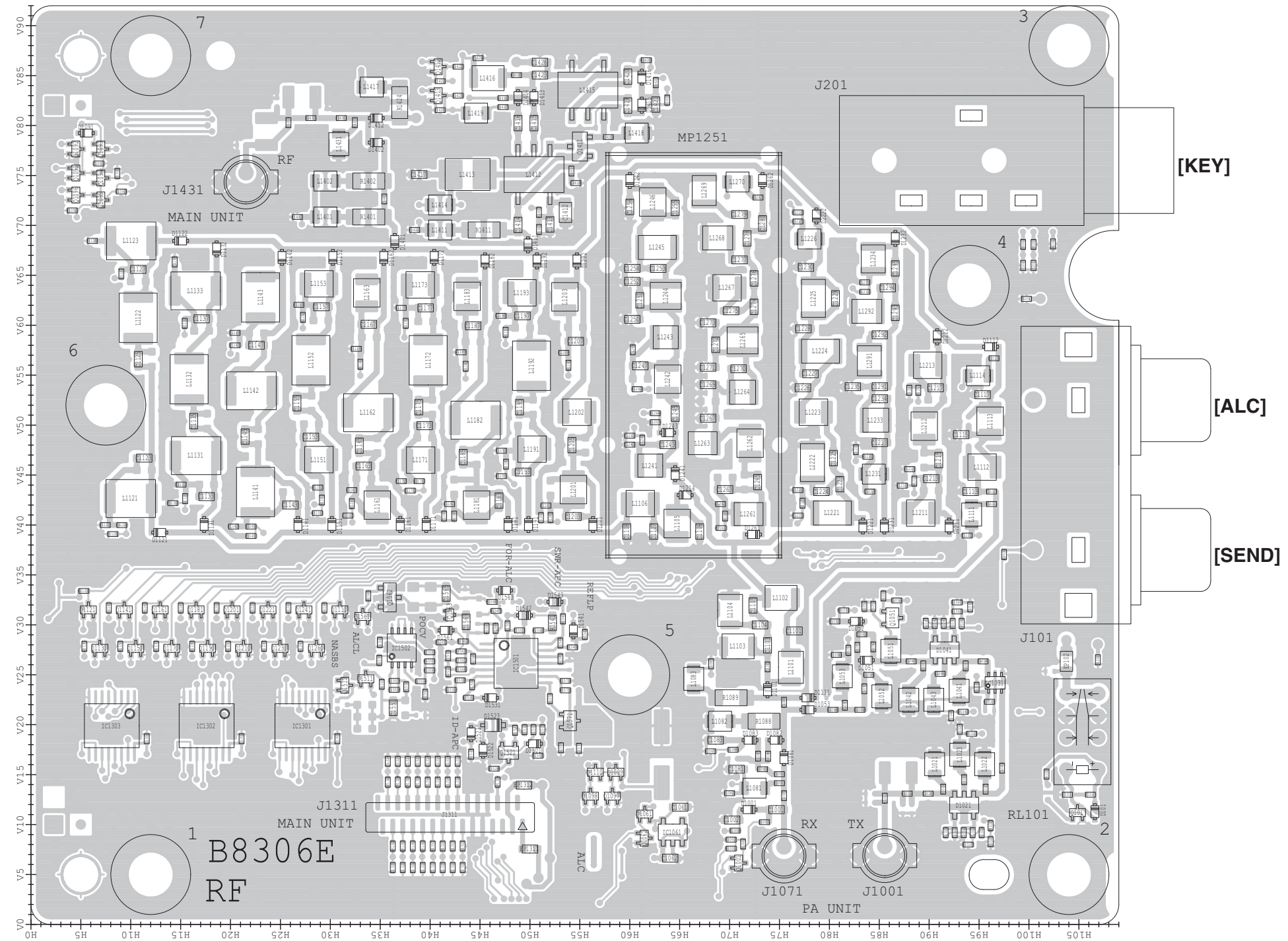
The actual configuration of the PC board can be seen by viewing the top and bottom BOARD LAYOUT pages together.

• TUNER UNIT B-8329B  
(BOTTOM VIEW)



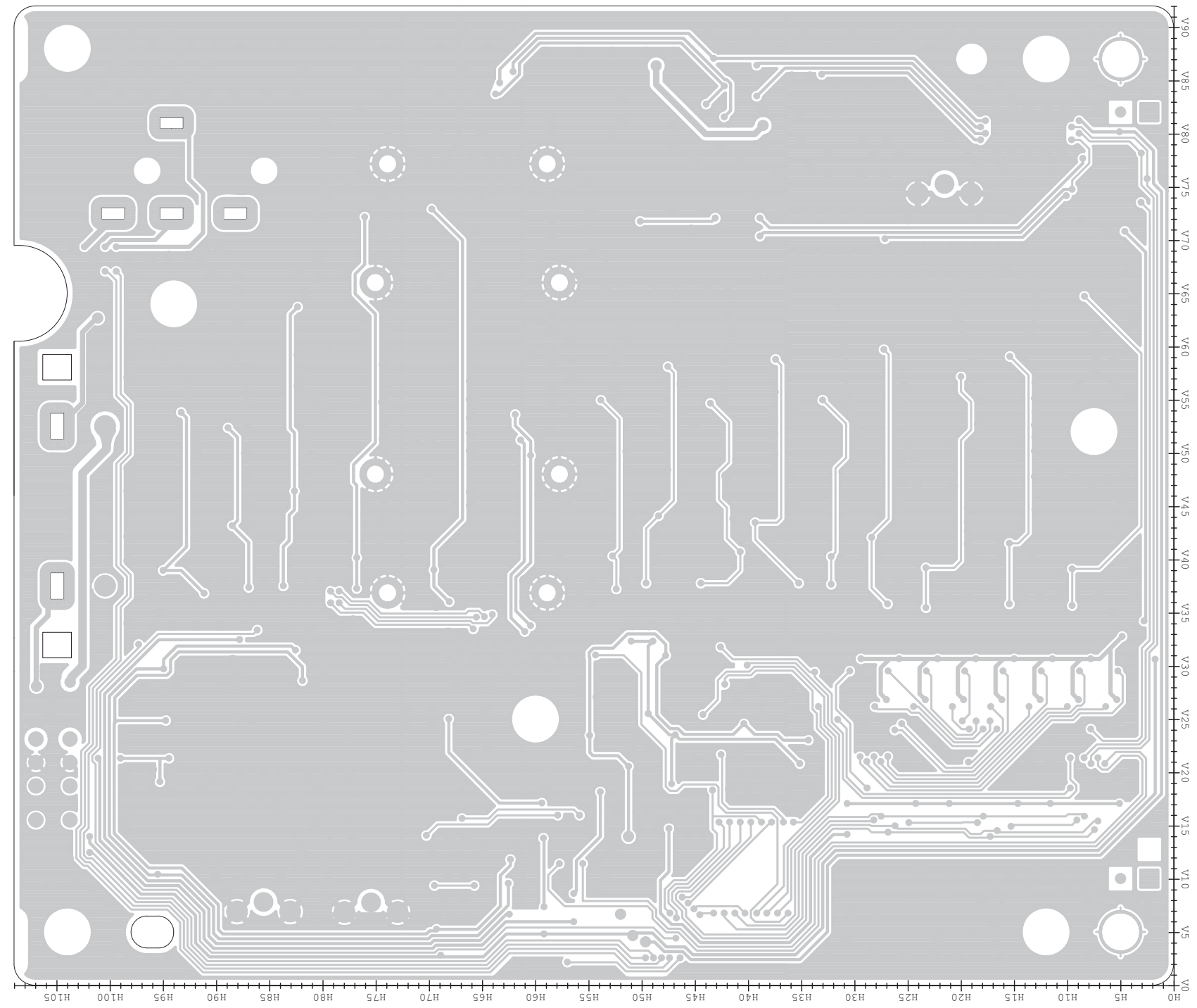
The actual configuration of the PC board can be seen by viewing the top and bottom BOARD LAYOUT pages together.

• RF UNIT B-8306E  
(TOP VIEW)

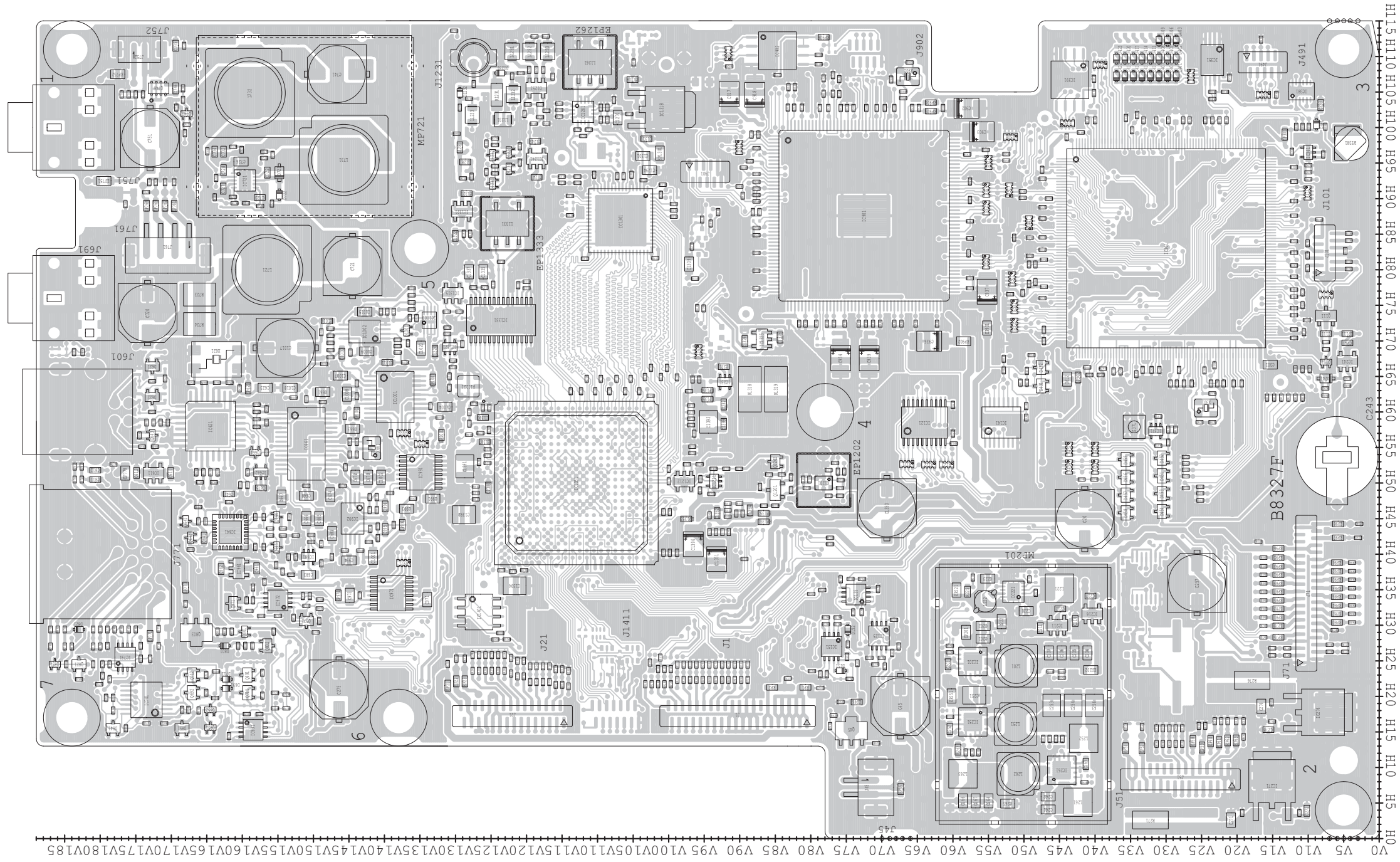


The actual configuration of the PC board can be seen by viewing the top and bottom BOARD LAYOUT pages together.

• RF UNIT B-8306E  
(BOTTOM VIEW)

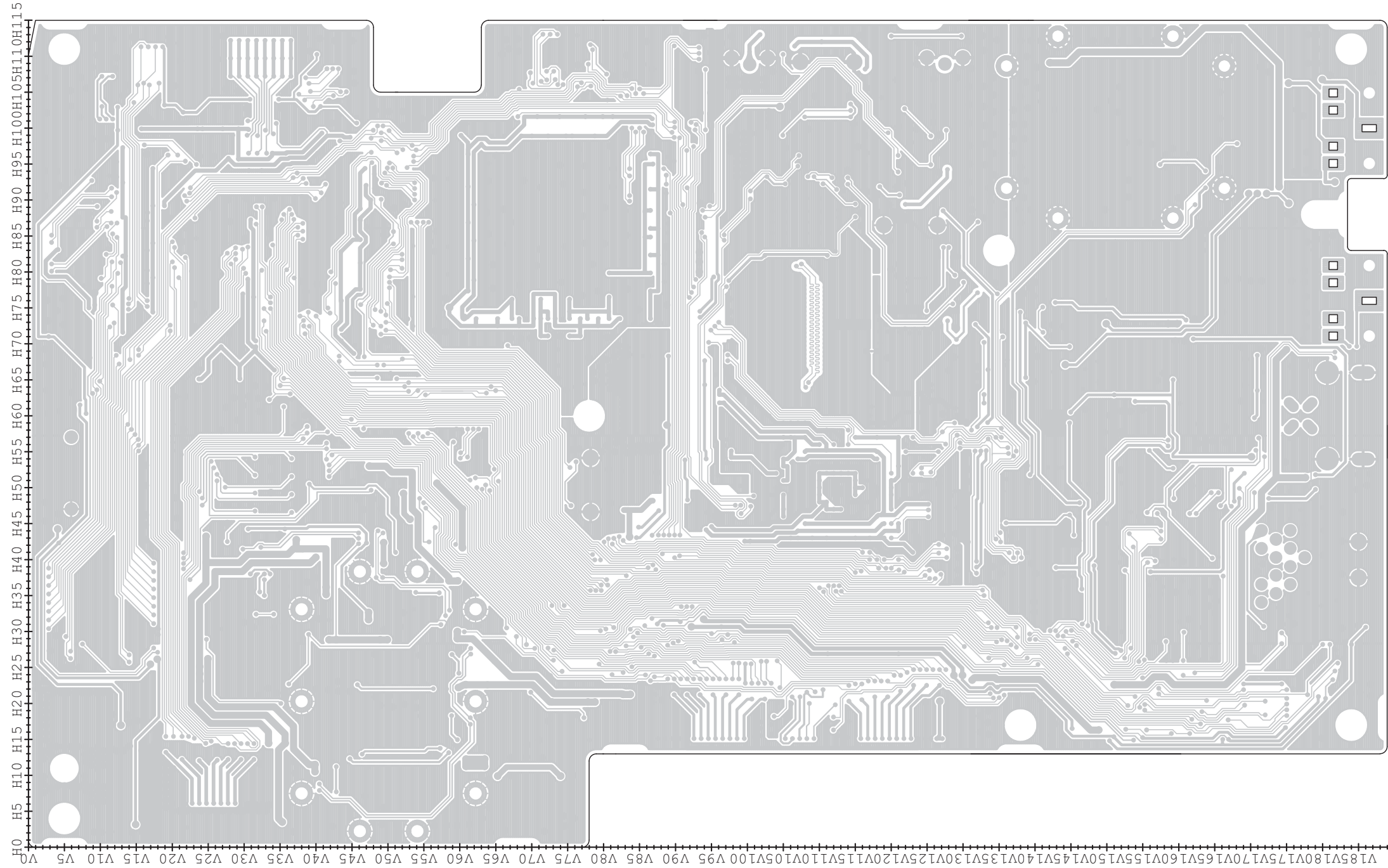


• MAIN UNIT B-8327F  
(TOP VIEW)

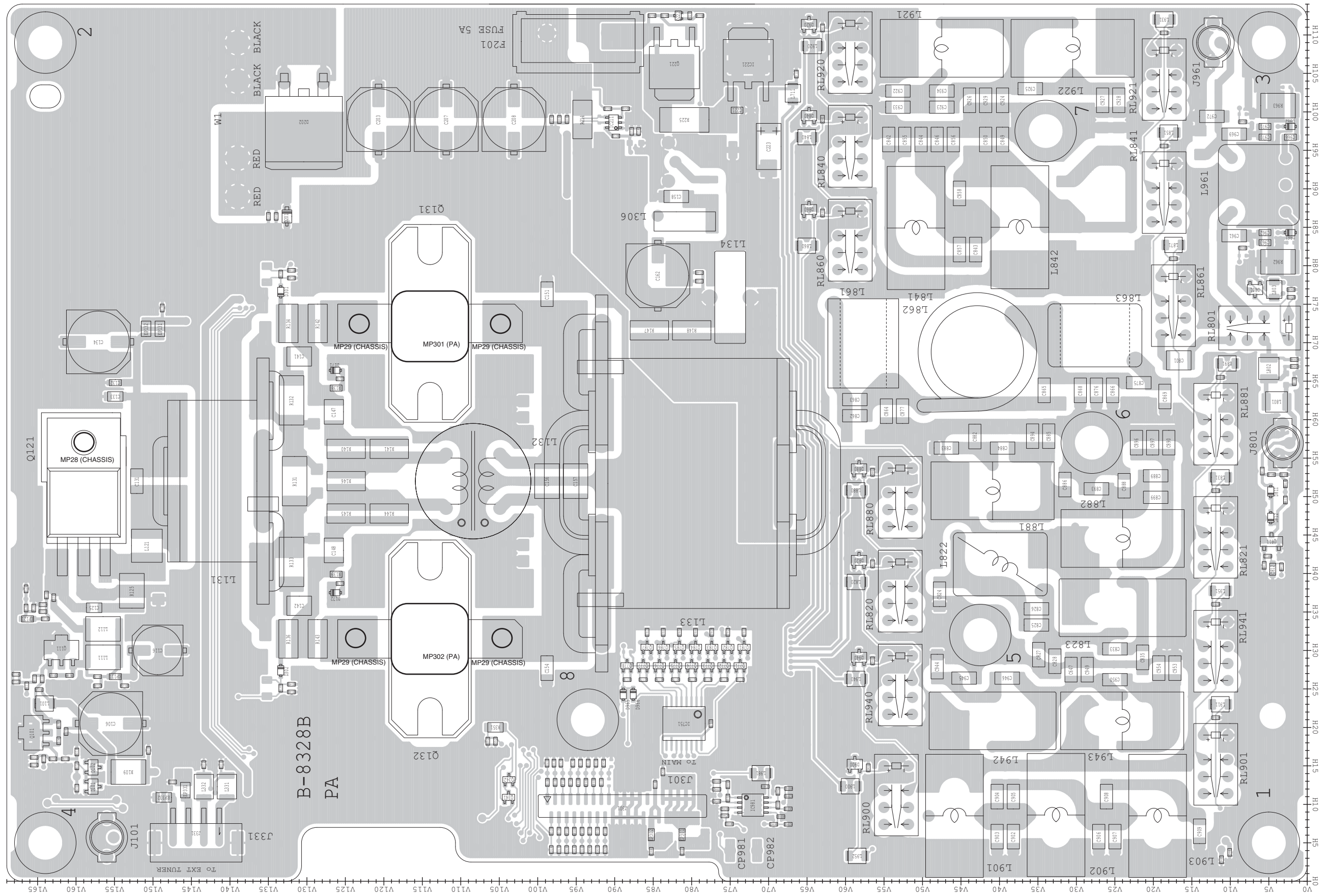




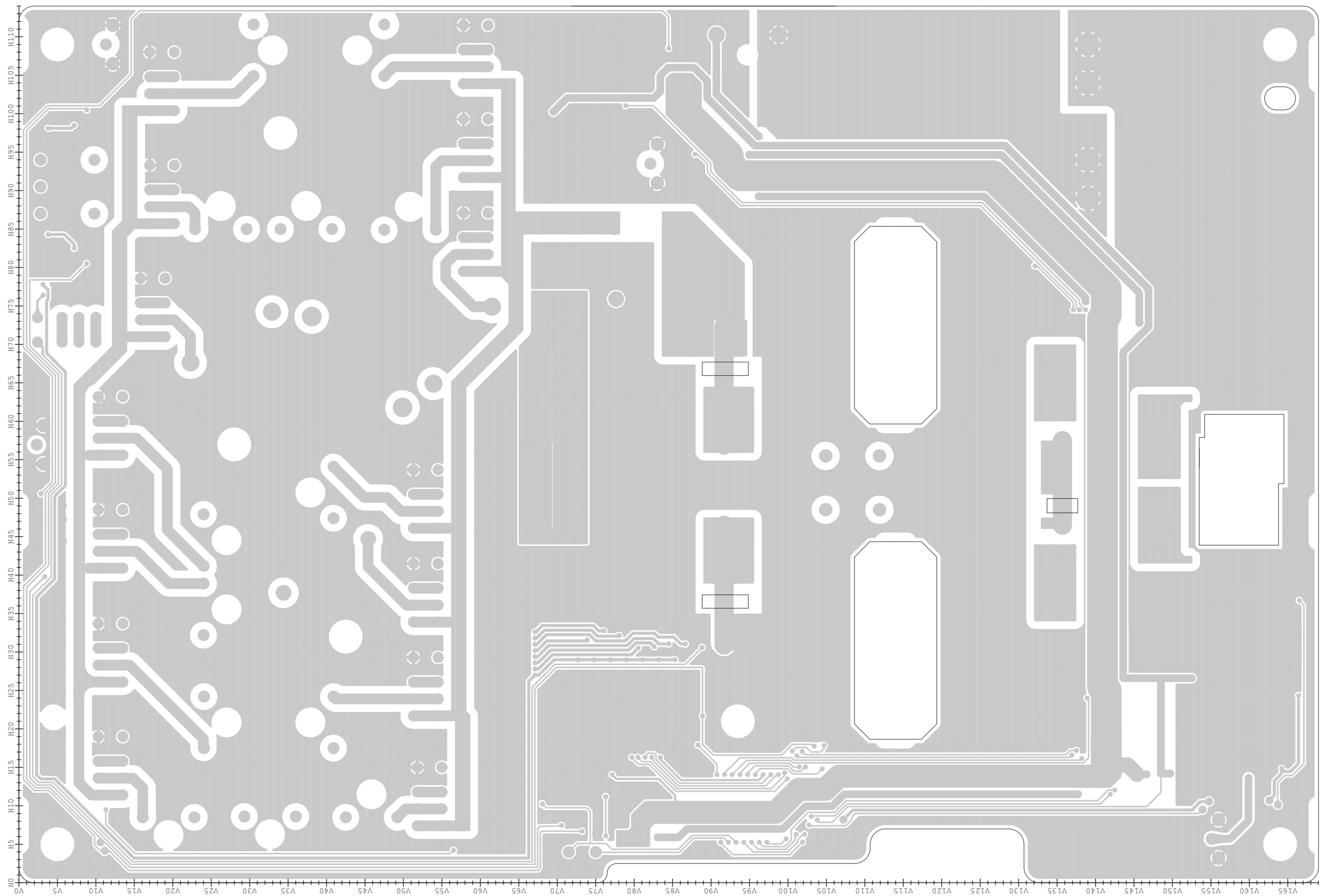
• MAIN UNIT B-8327F  
(BOTTOM VIEW)

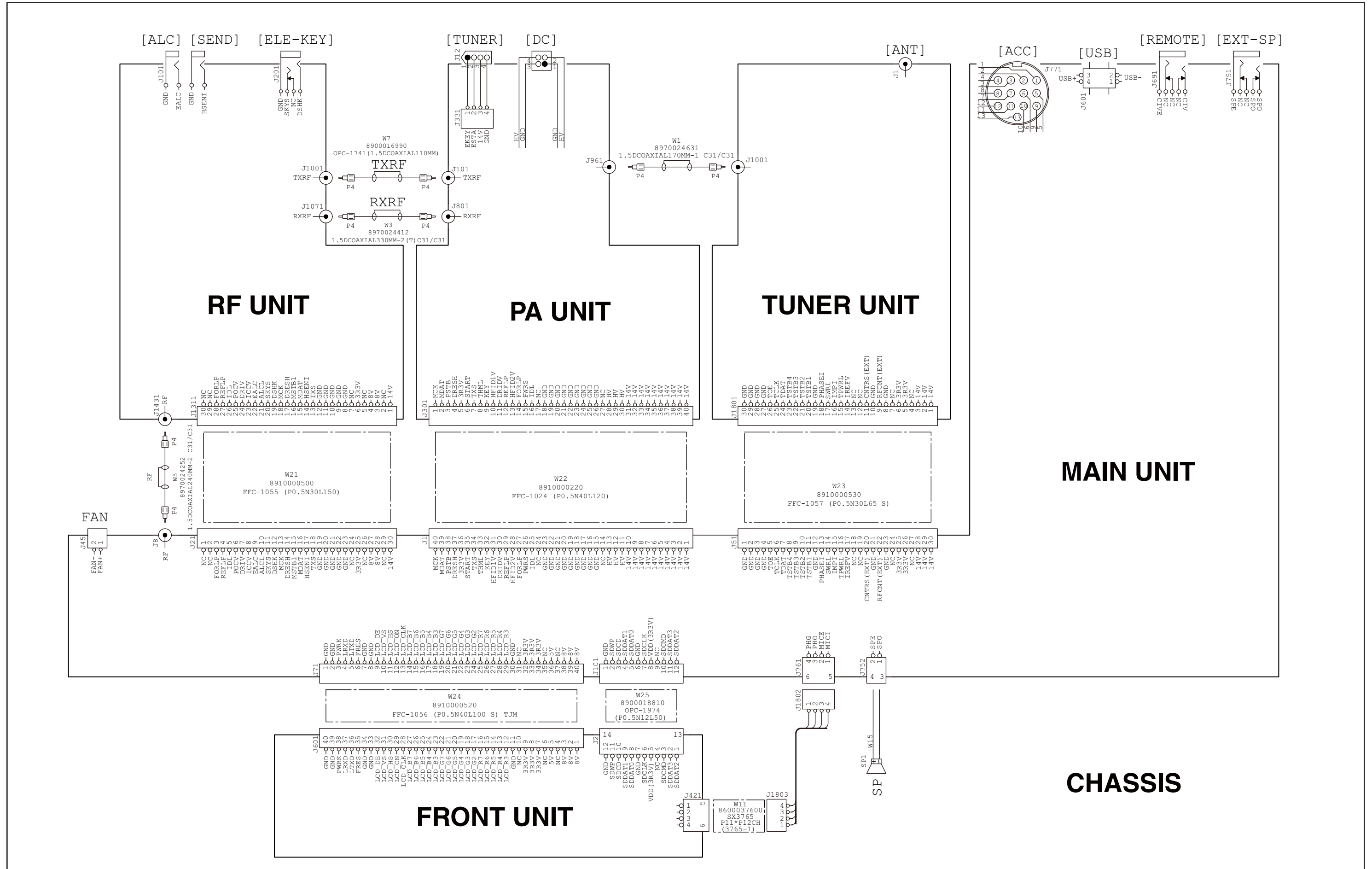


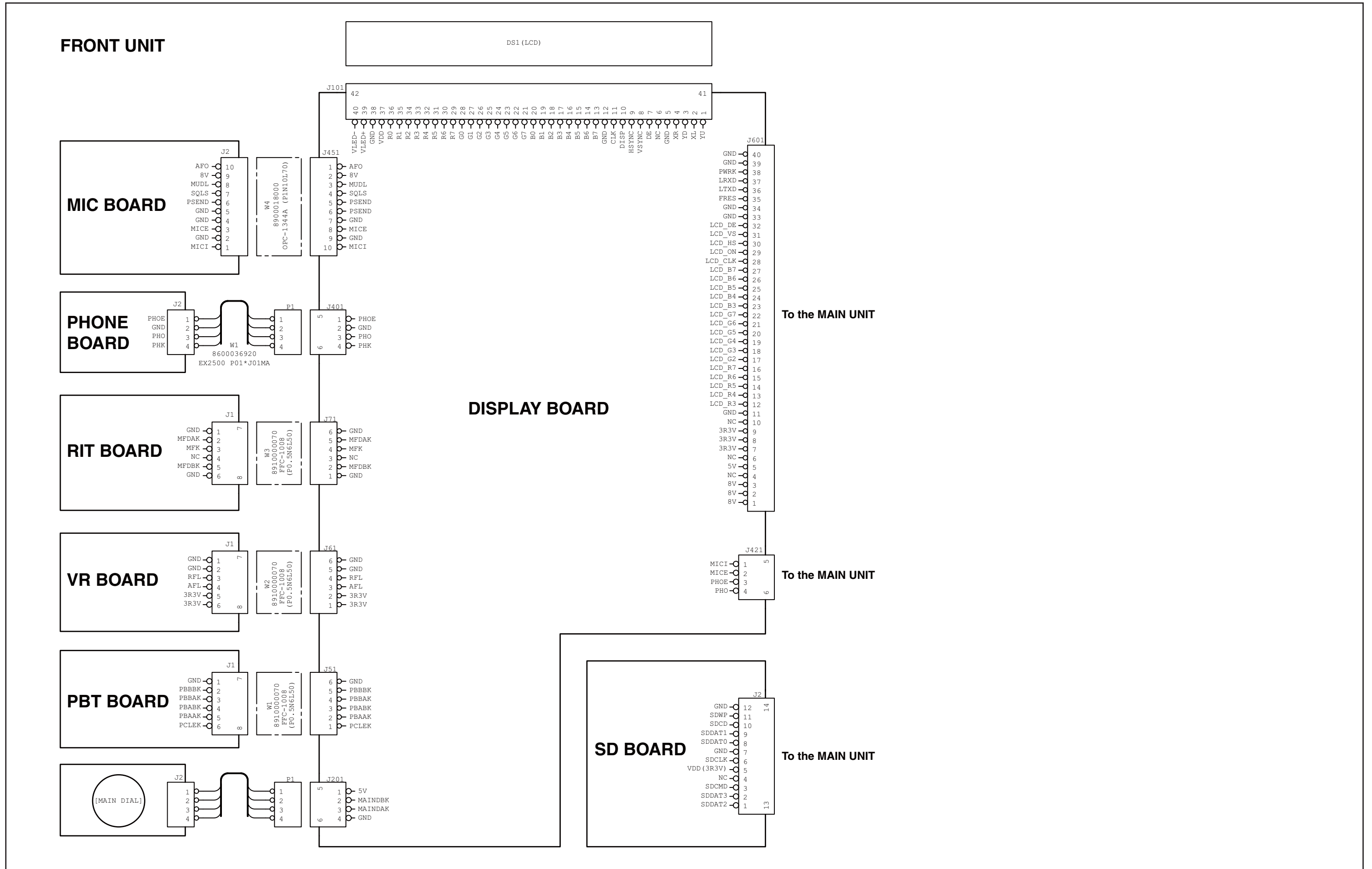
• PA UNIT B-8328B  
(TOP VIEW)



• PA UNIT B-8328B  
(BOTTOM VIEW)

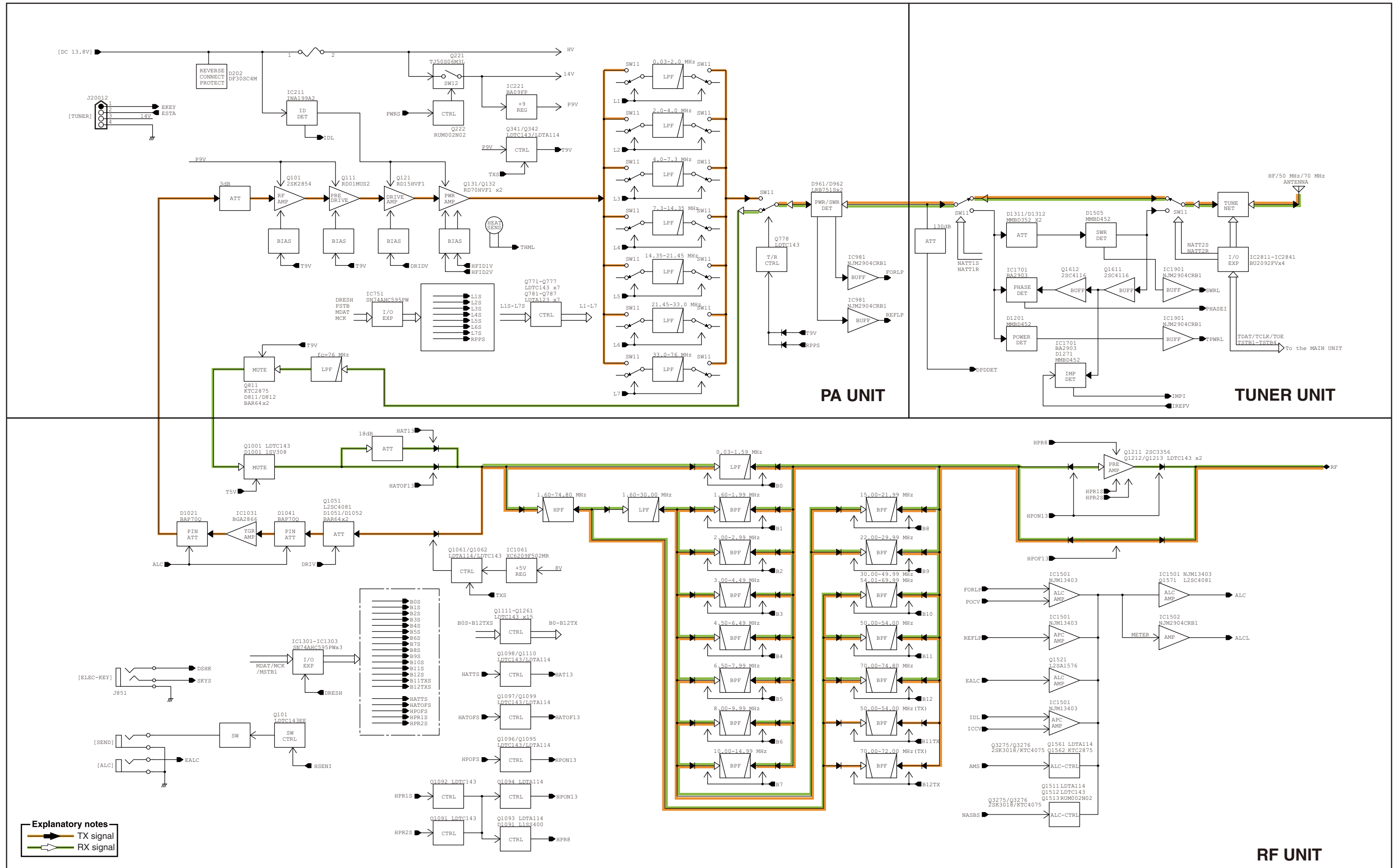


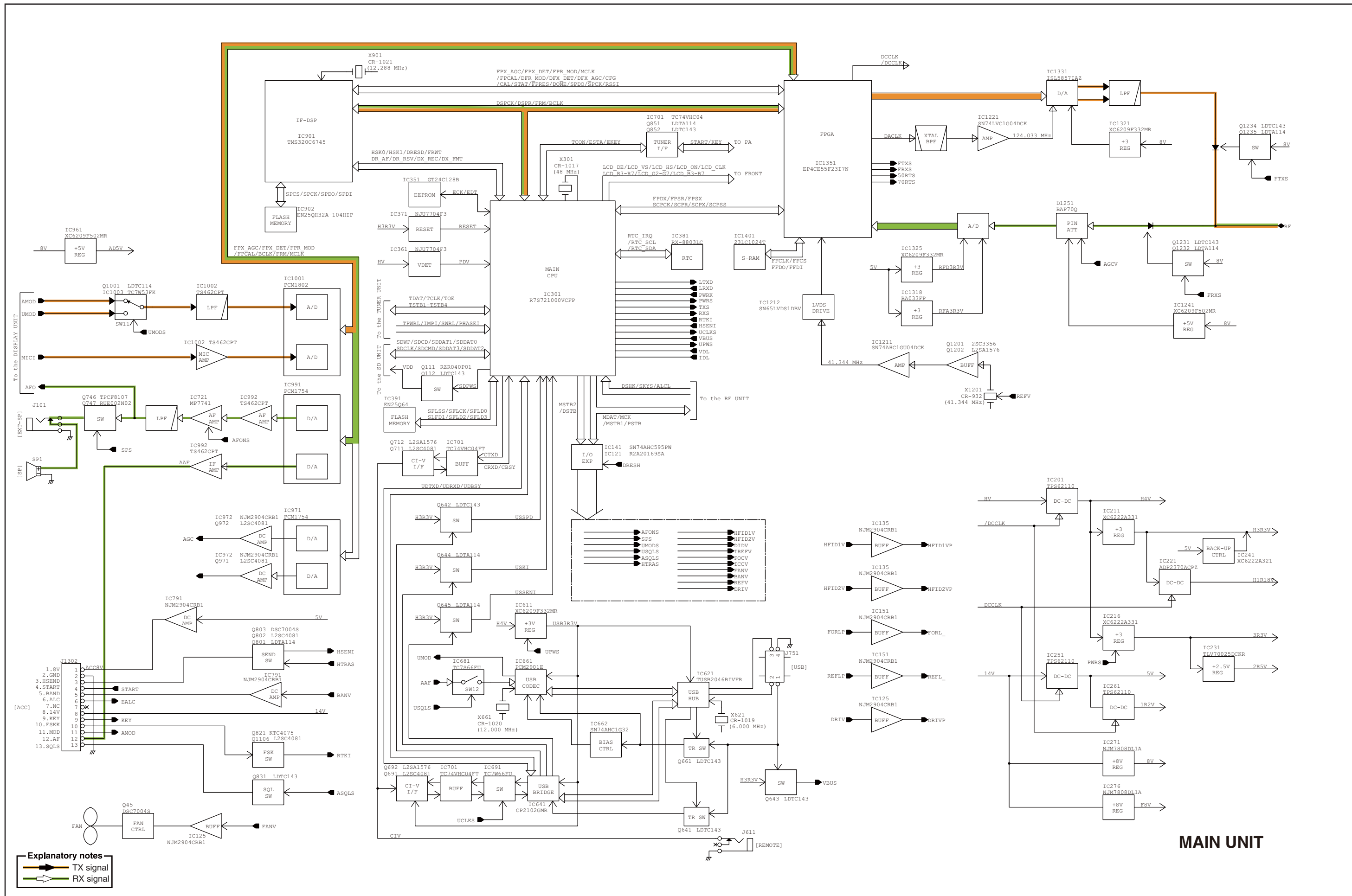




# SECTION 9

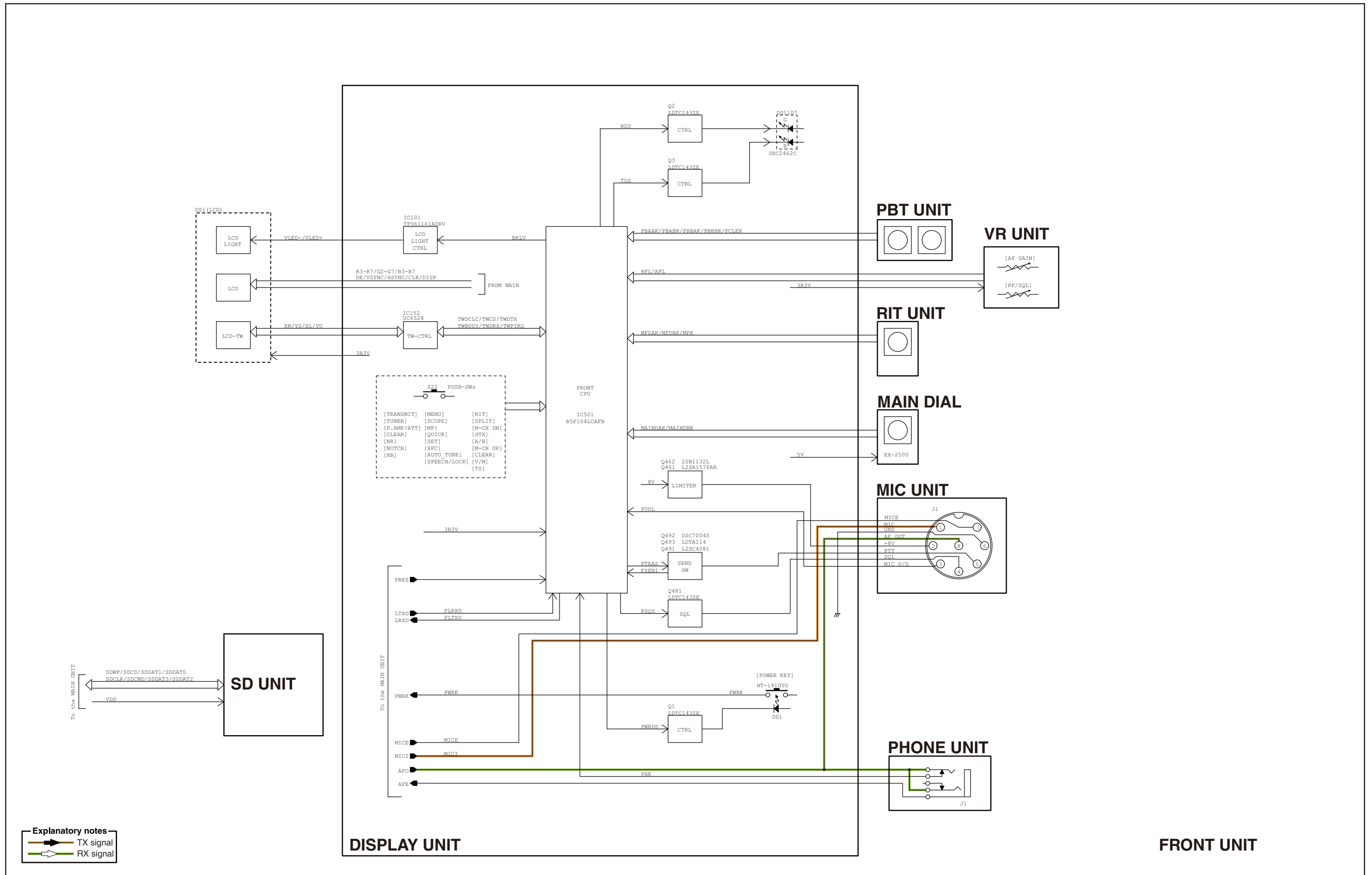
# BLOCK DIAGRAM





**MAIN UNIT**

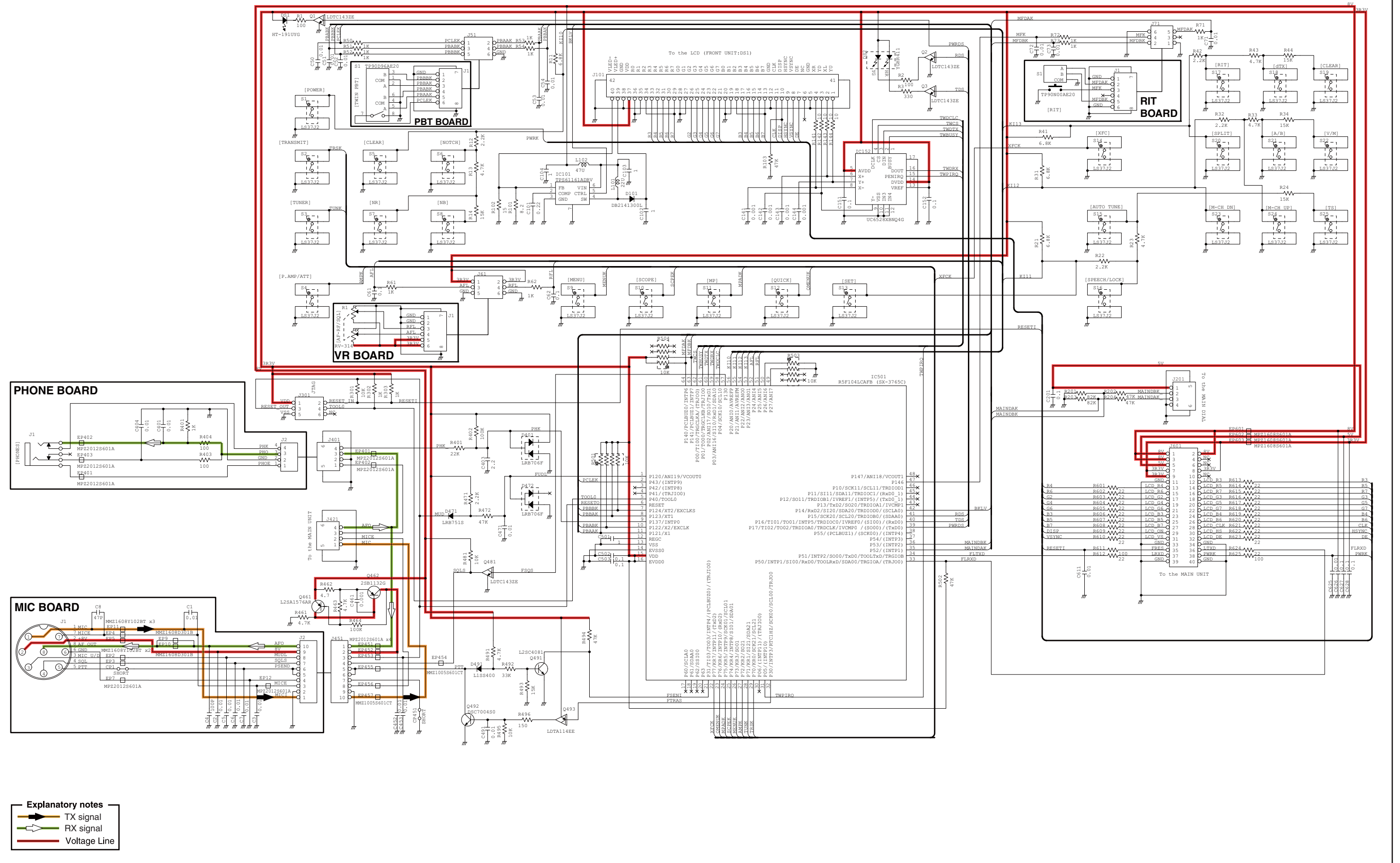
**Explanatory notes**  
 TX signal  
 RX signal



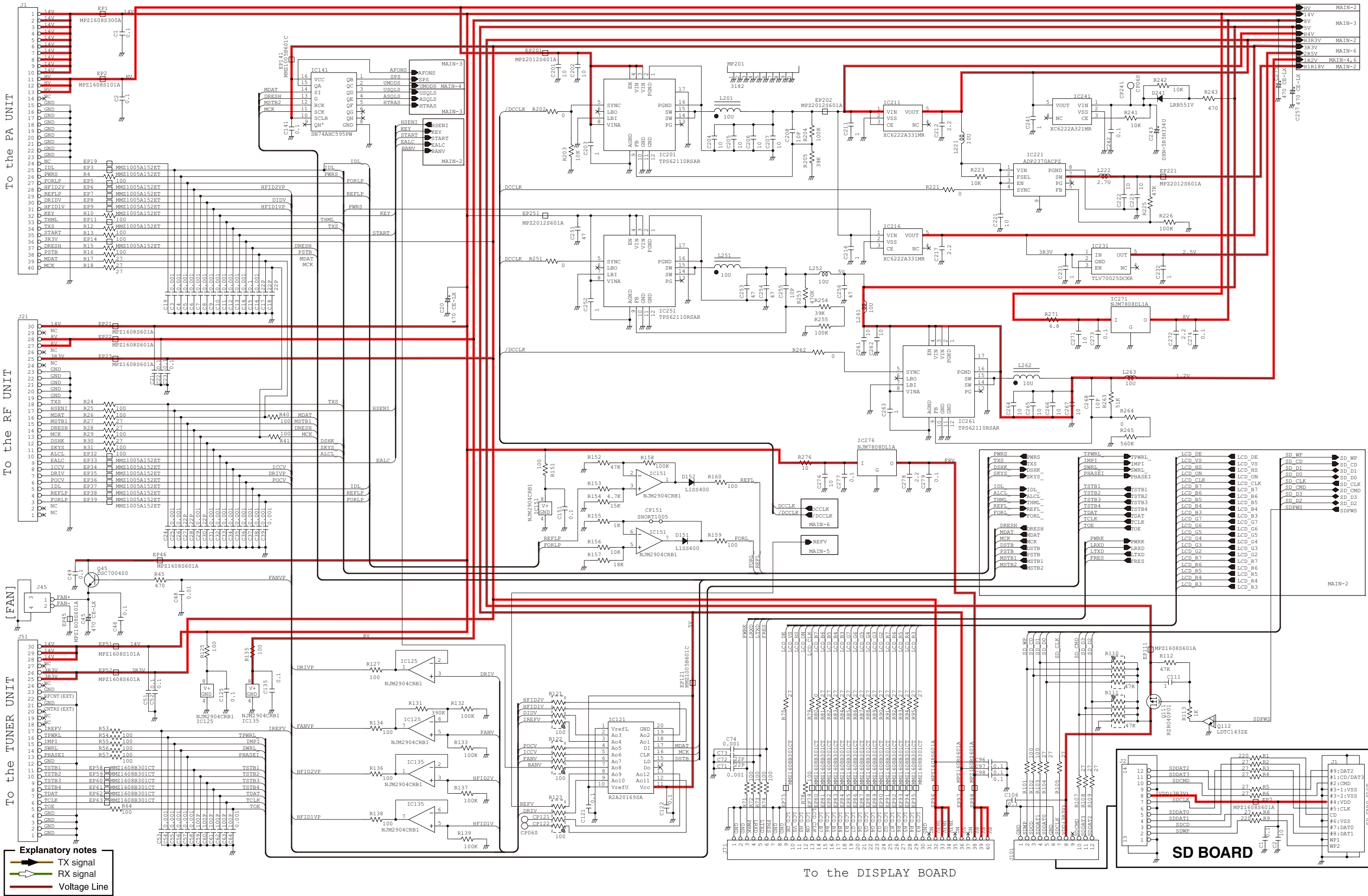


# SECTION 10 SCHEMATIC DIAGRAM

## • FRONT UNIT



• MAIN UNIT (MAIN-1)



To the PA UNIT

To the RF UNIT

[FAN]

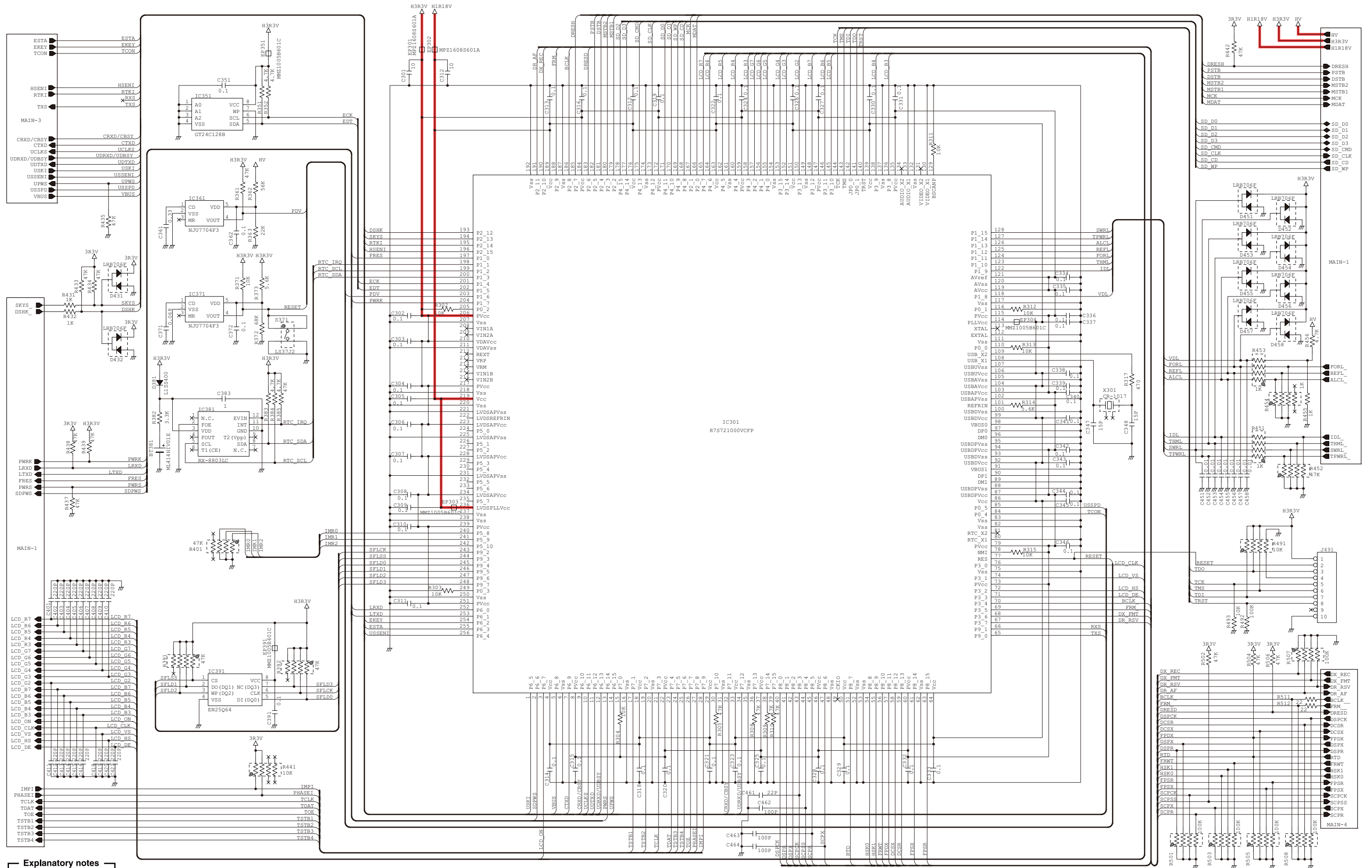
To the TUNER UNIT

**Explanatory notes**  
— TX signal  
— RX signal  
— Voltage Line

**SD BOARD**

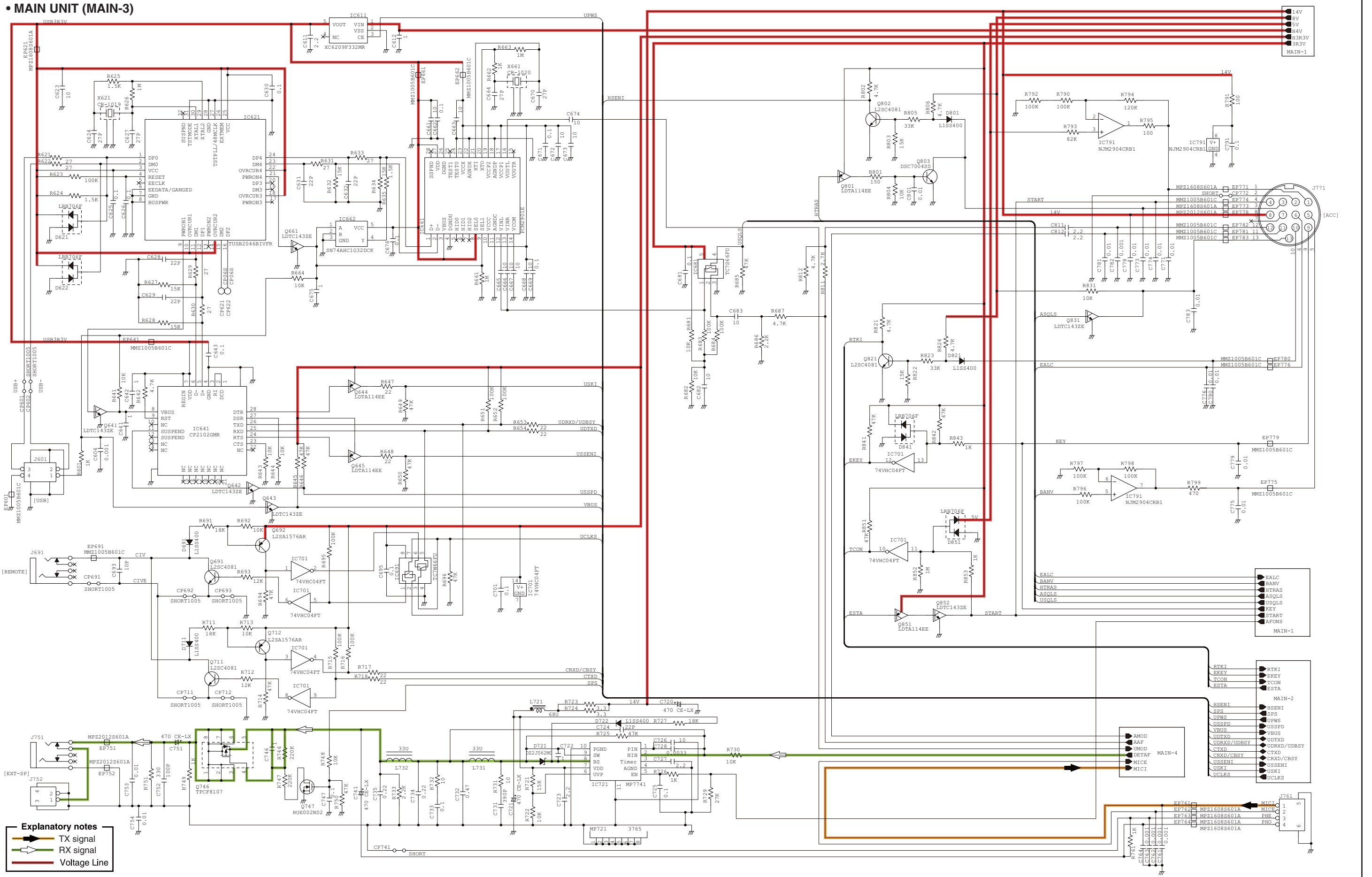
To the DISPLAY BOARD

• MAIN UNIT (MAIN-2)



**Explanatory notes**  
 TX signal  
 RX signal  
 Voltage Line

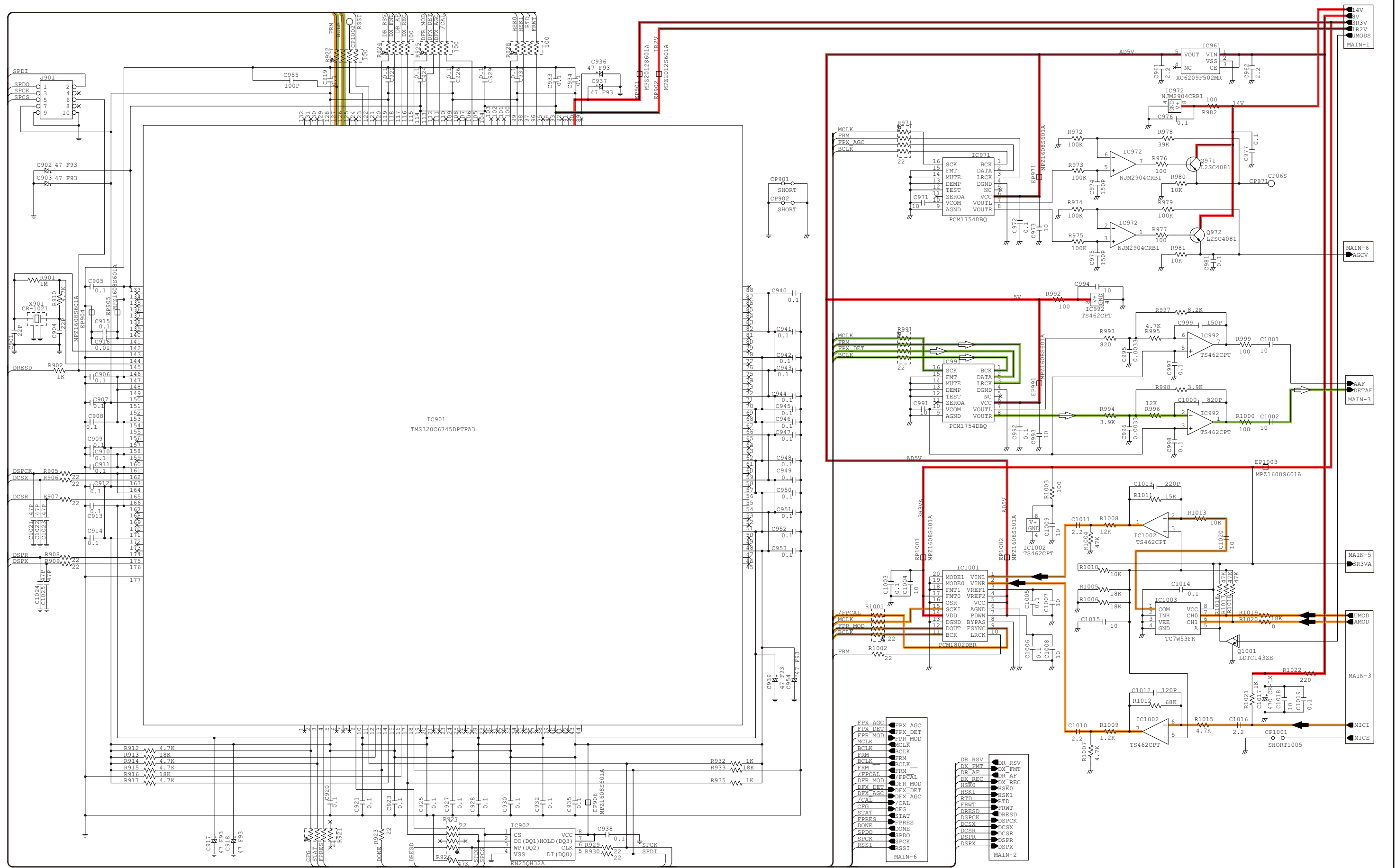
• MAIN UNIT (MAIN-3)



**Explanatory notes**

- TX signal
- RX signal
- Voltage Line

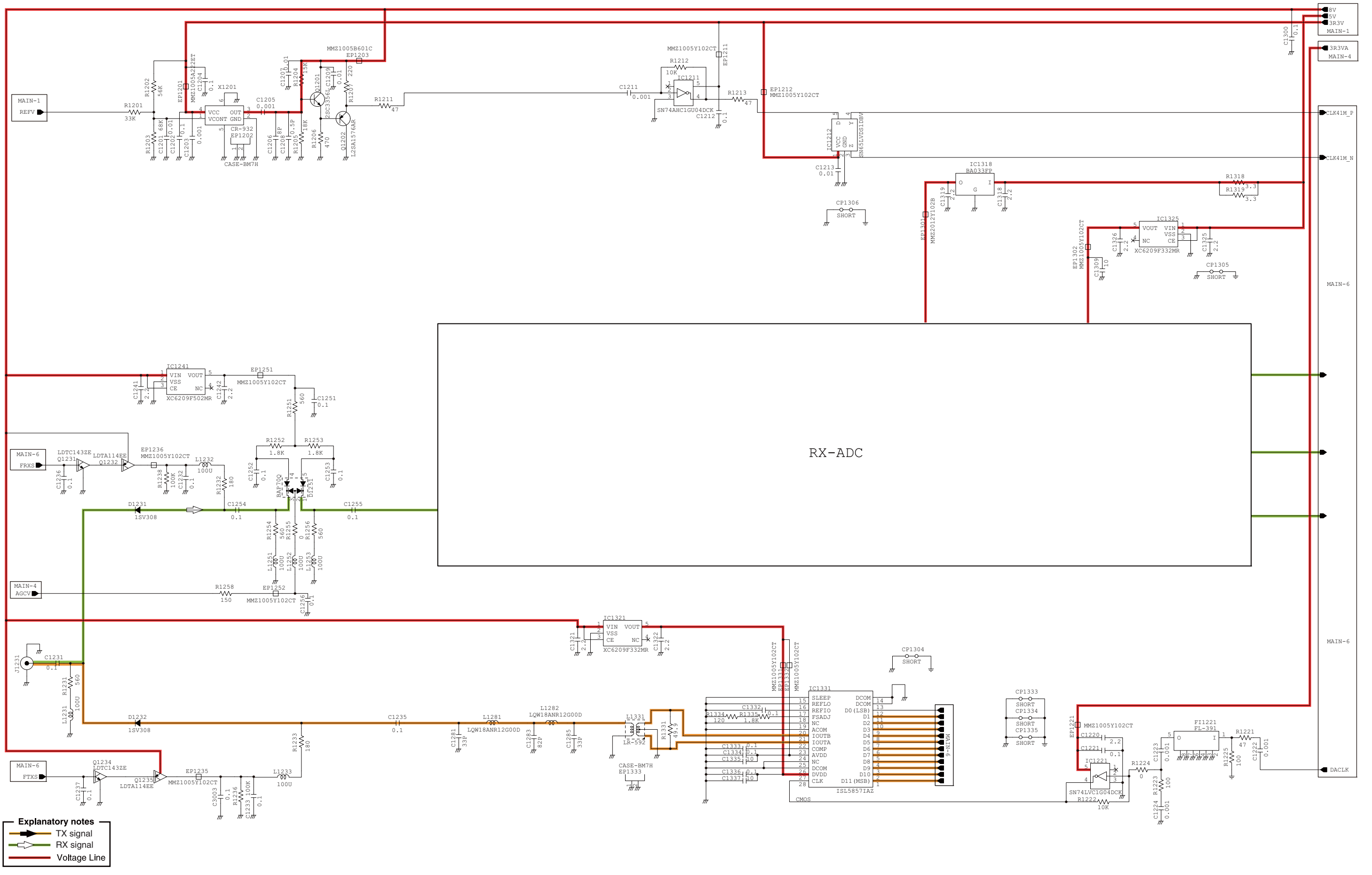
• MAIN UNIT (MAIN-4)



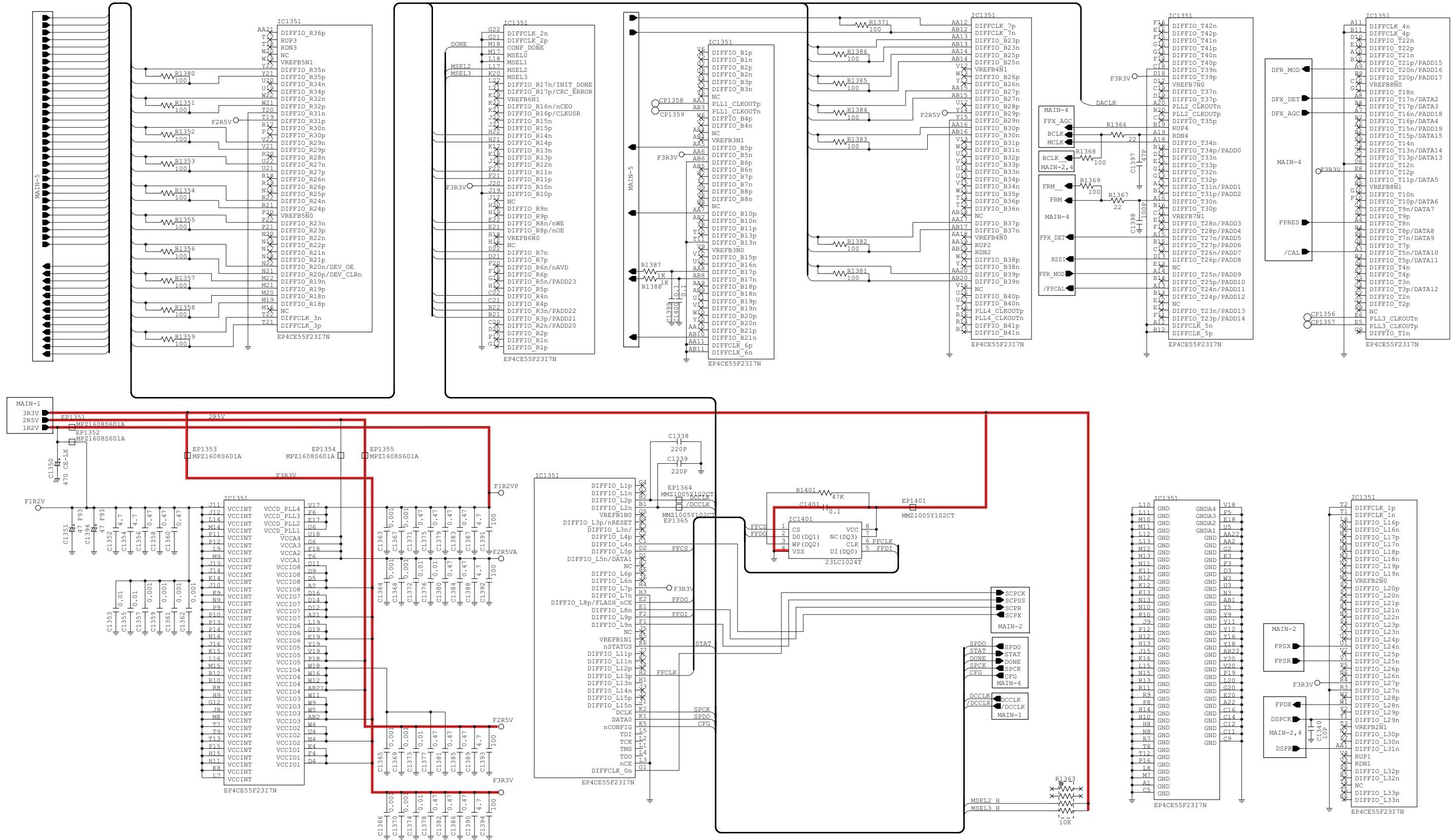
- Explanatory notes**
- TX signal
  - RX signal
  - Voltage Line

FX AGC	FX AGC	DR RSV	DR RSV
FX DET	FX DET	DX FMT	DX FMT
FPR MOD	FPR MOD	DR AF	DR AF
BCLK	BCLK	DX REC	DX REC
FRM	FRM	HSKO	HSKO
FRM	FRM	HSK1	HSK1
/FPCAL	/FPCAL	FTD	FTD
FRM MOD	FRM MOD	FRWT	FRWT
DFX DET	DFX DET	DRESO	DRESO
DFX AGC	DFX AGC	SPCK	SPCK
/CAL	/CAL	DCSX	DCSX
CFG	CFG	SPDO	SPDO
STAT	STAT	DSFR	DSFR
EPRES	EPRES	BSFX	BSFX
DONE	DONE		
SPDO	SPDO		
SPCK	SPCK		
RSST	RSST		

• MAIN UNIT (MAIN-5)



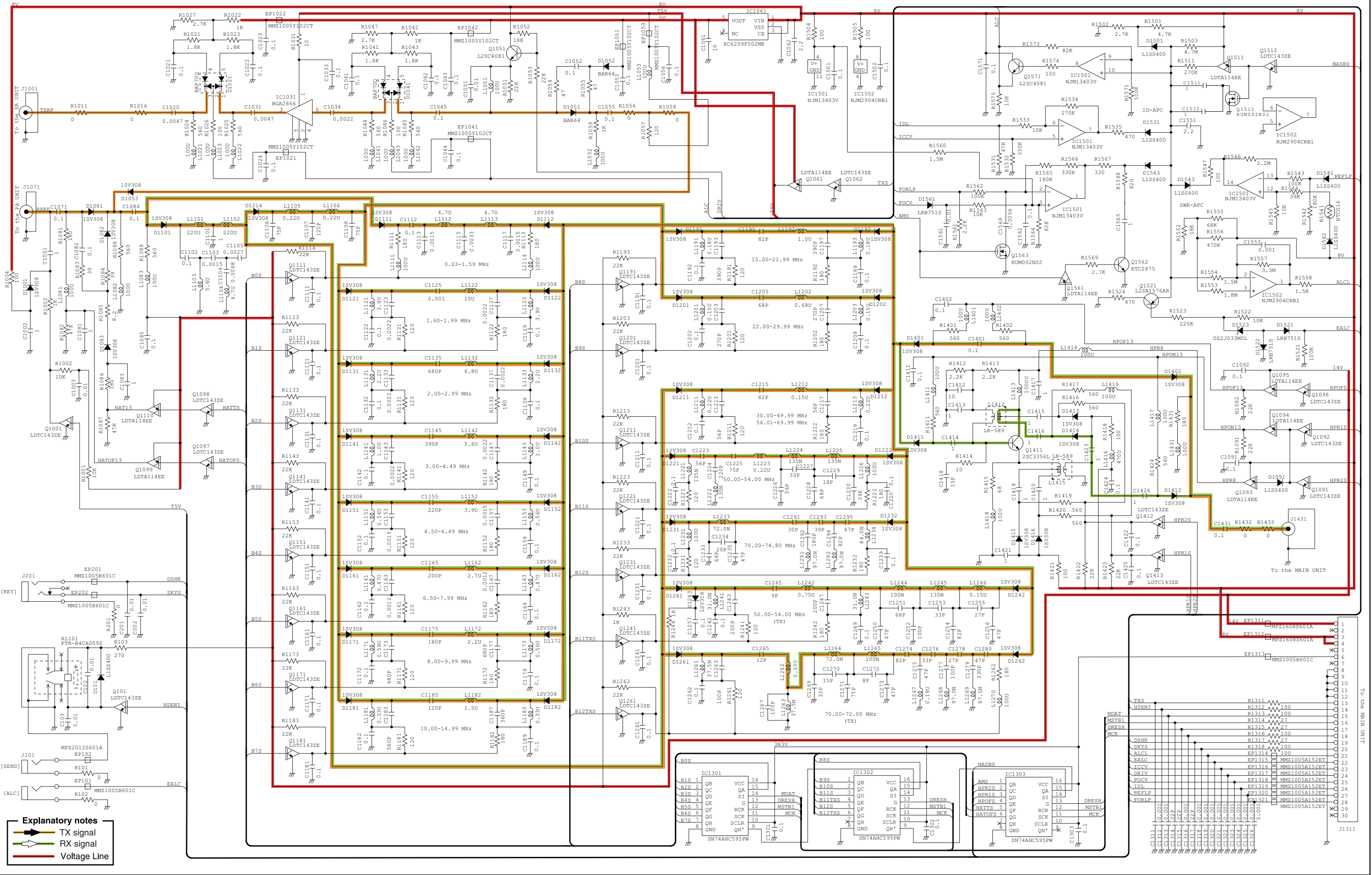
• MAIN UNIT (MAIN-6)



**Explanatory notes**

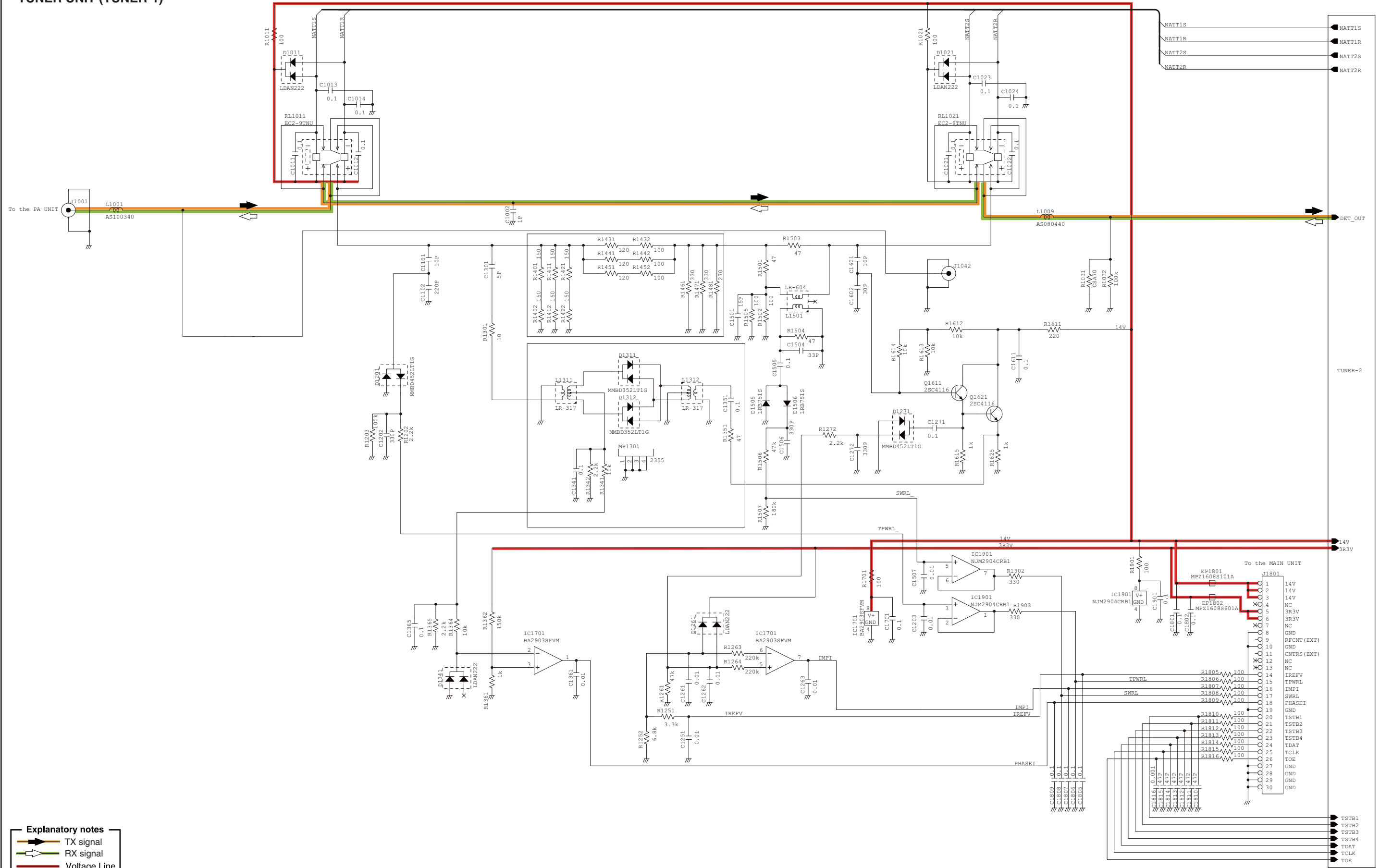
- TX signal
- RX signal
- Voltage Line

• RF UNIT



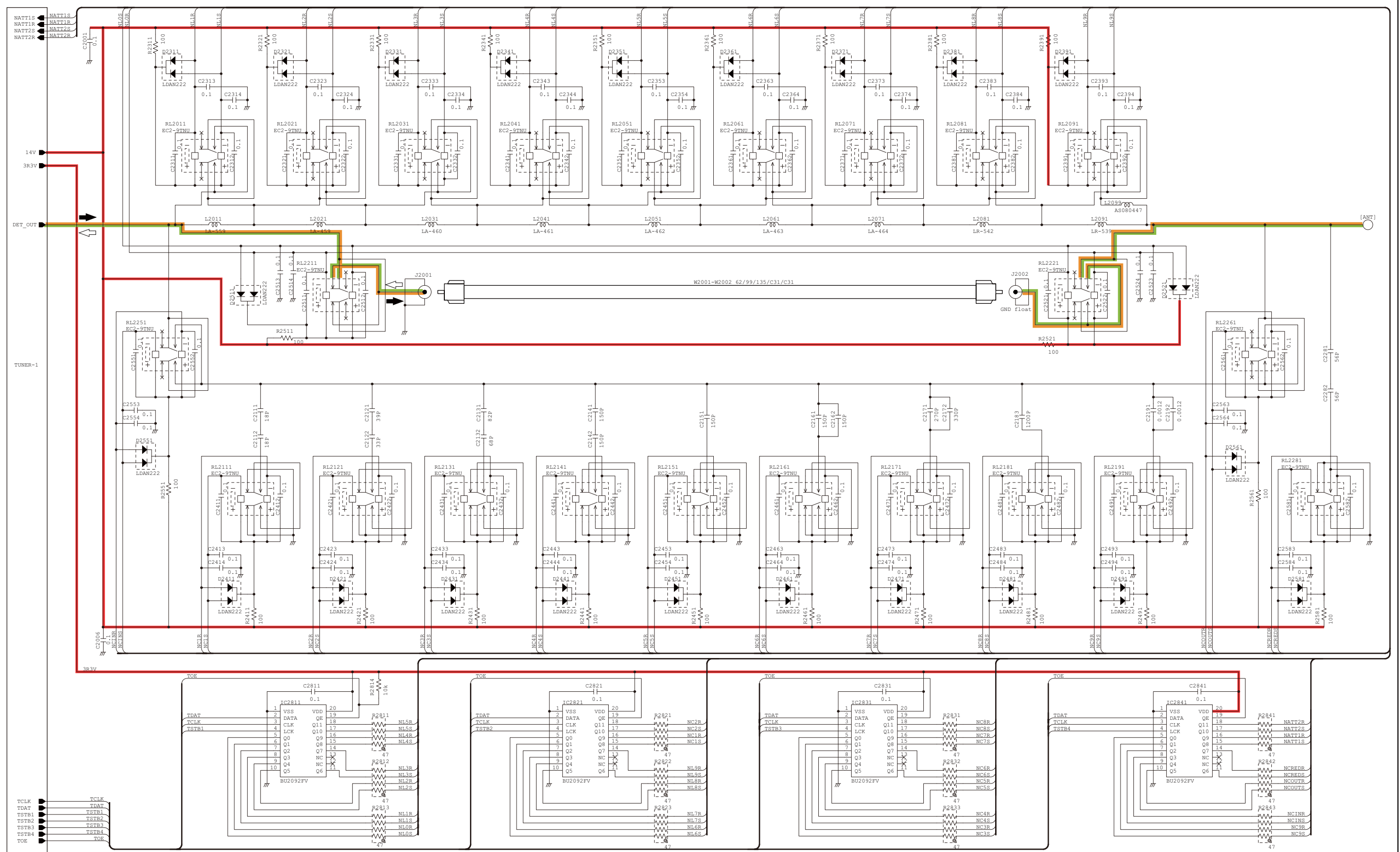


• TUNER UNIT (TUNER-1)



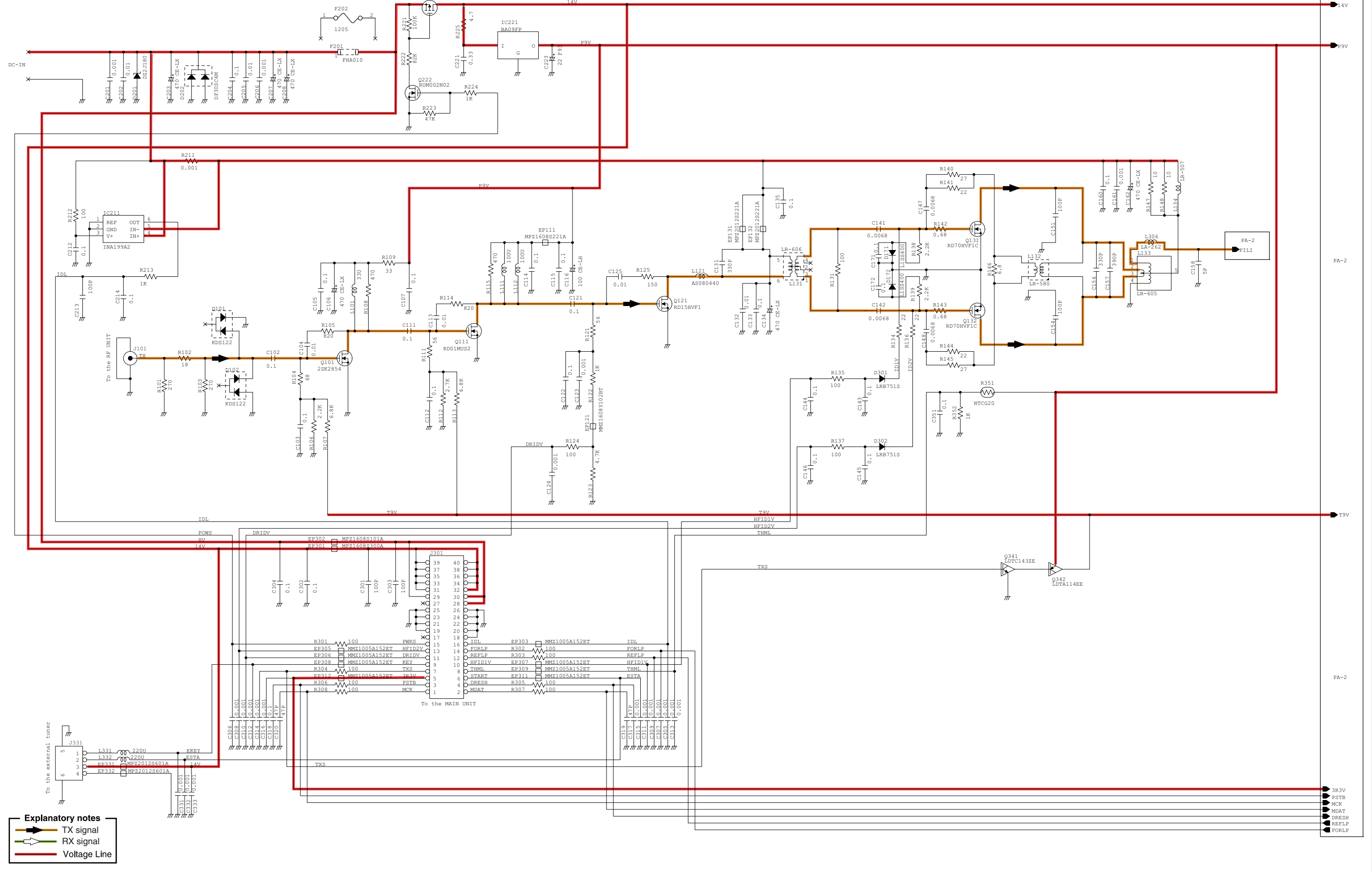
- Explanatory notes**
- TX signal
  - RX signal
  - Voltage Line

• TUNER UNIT (TUNER-2)

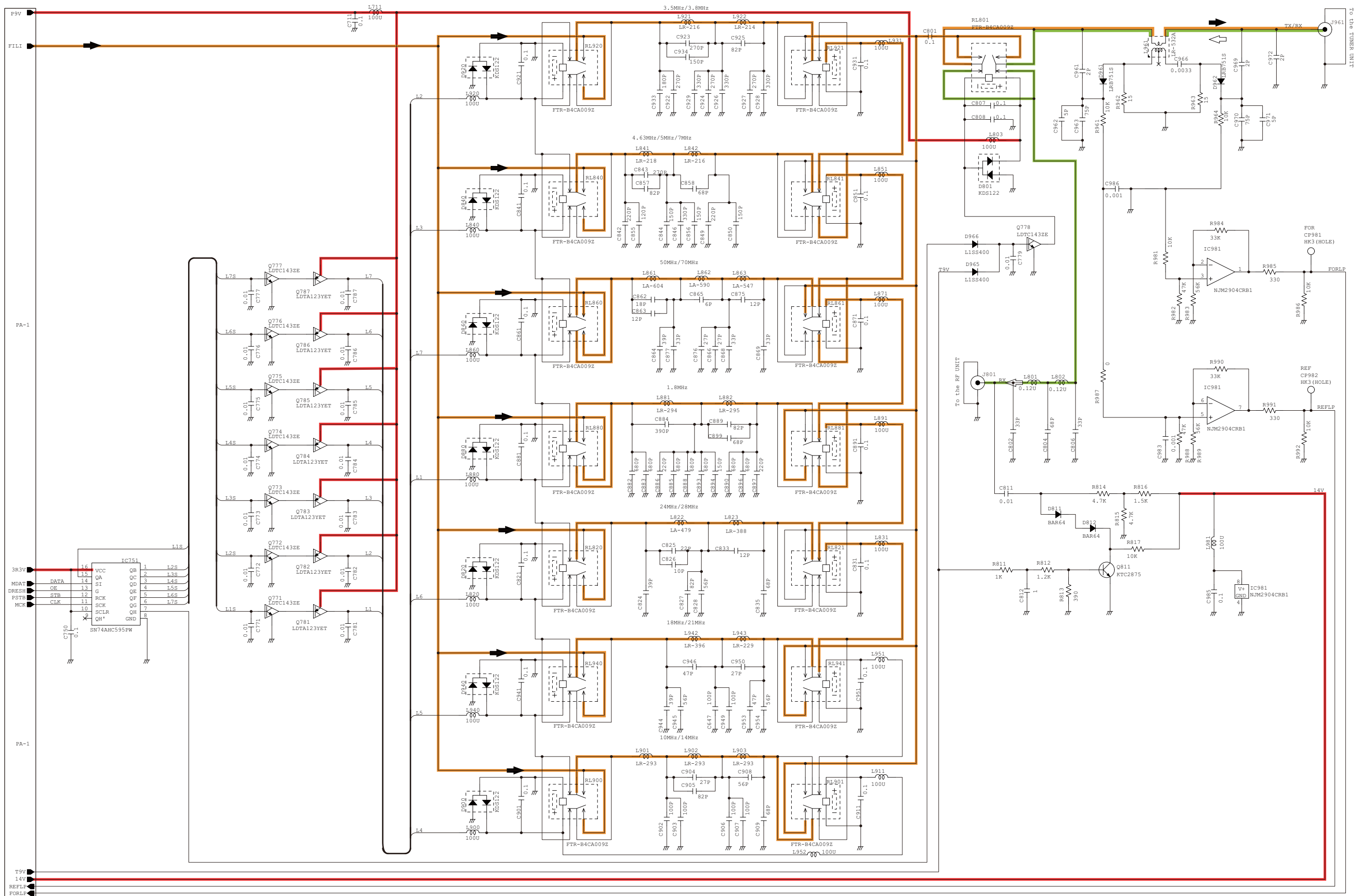


- Explanatory notes**
- TX signal
  - RX signal
  - Voltage Line

• PA UNIT (PA-1)



• PA UNIT (PA-2)



**Explanatory notes**

- TX signal
- ← RX signal
- Voltage Line

## 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>  
12421 Willows Road NE, Kirkland, WA 98034, 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 17A 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.

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

39C Rennie Drive, Airport Oaks,  
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)

### Icom Brazil

Rua Itororó, 444 Padre Eustáquio Belo Horizonte MG,  
CEP: 30720-450 Brazil  
Phone : +55 (31) 3582 8847 Fax : +55 (31) 3582 8987  
E-mail : [sales@icombrasil.com](mailto:sales@icombrasil.com)

### Icom (Europe) GmbH

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

### Icom Spain S.L

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

### Icom (UK) Ltd.

Blacksale House, Altira Park, Herne Bay, Kent CT6 6GZ, UK  
Phone : +44 (0) 1227 741741 Fax : +44 (0) 1227 741742  
URL : <http://www.icomuk.co.uk>  
E-mail : [info@icomuk.co.uk](mailto:info@icomuk.co.uk)

### Icom France s.a.s.

Zac de la Plaine  
1 Rue Brindejone 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)

**Count on us!**

**Icom Inc.**

1-1-32, Kamiminami, Hirano-ku, Osaka 547-0003, Japan

S-15218XZ-C1  
© 2016 Icom Inc.