August 2023

SERVICE MANUAL ADDENDUM

IC-905

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

	Definitions
Replacement page	The page to replace the original one.
Addendum page	The page to be added to the original set.
Amended page	The page to be added as change history, including corrections.

Page number information

The number of revisions can be easily understood by the addendum service manual's page number.
The number of revisions (a, b, c, ...) is added after the page number.

CONTENTS

SECTION 6 SPARE PARTS AND UNITS ..... 6-1a ~ 6-18a
SECTION 7 MECHANICAL PARTS ..... 7-1a ~ 7-7a
SECTION 8 BOARD LAYOUTS ..... 8-1a ~ 8-15a
SECTION 11 SCHEMATIC DIAGRAM ..... 11-1a ~ 11-27a

Version List

MODEL	Version Number†	Version	Frequency Coverage (MHz)	Transmit Output Power	Installed Unit											Remarks
					MAIN	CONTROL	DISPLAY	DIAL-A	DIAL-B	DIAL-C	CONNECT-A	CONNECT-B	CONNECT-C	RF-A	RF-B	
IC-905	#12	USA	144.000000 ~ 148.000000 430.000000 ~ 450.000000 1240.000000 ~ 1300.000000 2300.000000 ~ 2309.999999 2390.000001 ~ 2450.000000 5650.000000 ~ 5925.000000	VHF, UHF, and 1.2 GHz bands: 10 W 2.4 GHz and 5.6 GHz bands: 2 W	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	–
IC-905	#13	EUR	144.000000 ~ 146.000000 430.000000 ~ 440.000000 1240.000000 ~ 1300.000000 2300.000000 ~ 2450.000000 5650.000000 ~ 5850.000000		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	–

This addendum service manual provides service information for the versions listed above, excluding out of production versions.
†The first two digits of the serial number show its Version Number.
✓: Applicable

SECTION 6 SPARE PARTS AND UNITS

The underlined parts have been updated from the addendum of the previous version, or from the original page.

■ ABOUT SPARE UNITS

Information about ordering spare units for the IC-905 is described in this section.
The mechanical parts information for each unit is also shown in exploded illustrations.
When you order a part that is not described in this section, see SECTION 7 MECHANICAL PARTS for details.

■ COMPOSED ASSEMBLED UNITS

The name of the IC-905's assembled units are shown below.

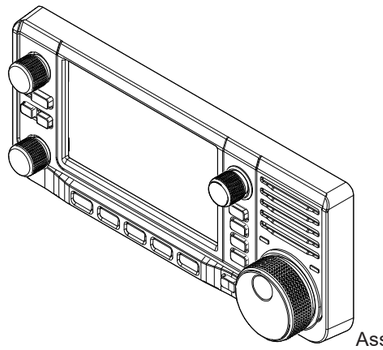
UNIT NAME
FRONT UNIT
DISPLAY UNIT
MAIN UNIT
CONNECT-A UNIT
CONNECT-B UNIT
RF-A UNIT
RF-B UNIT
MAIN DIAL

■ASSEMBLED FRONT UNIT

The underlined parts have been updated from the previous version of the addendum, or from the original page.

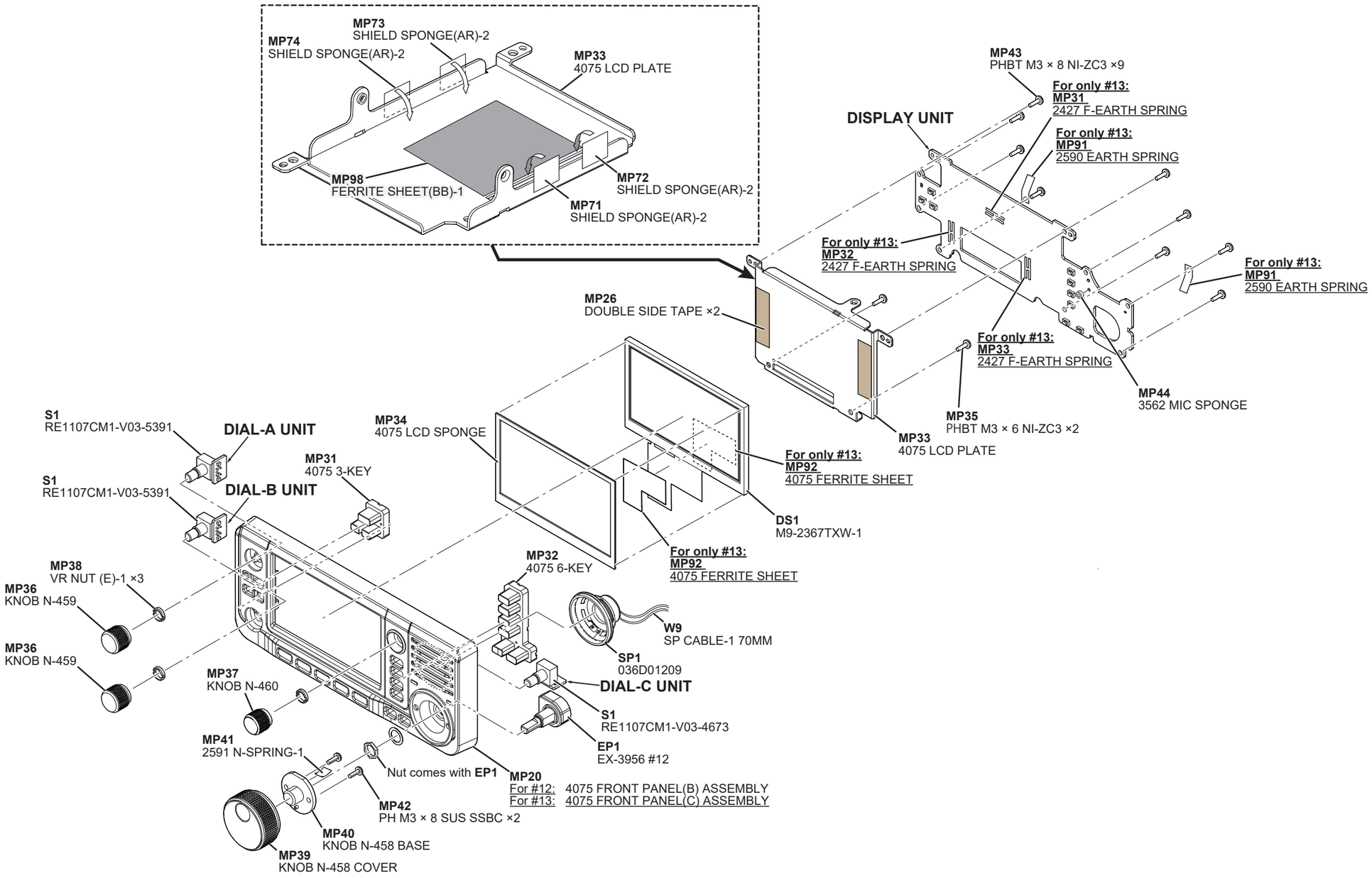
Spare unit name	Order Number	Version	Remarks
C 905 #12 FRONT	0342091201	#12	–
C 905 #13 FRONT	0342091301	#13	–

See the illustrations below for the individual parts in the unit.



Assembled front unit image

• Individual parts illustrations



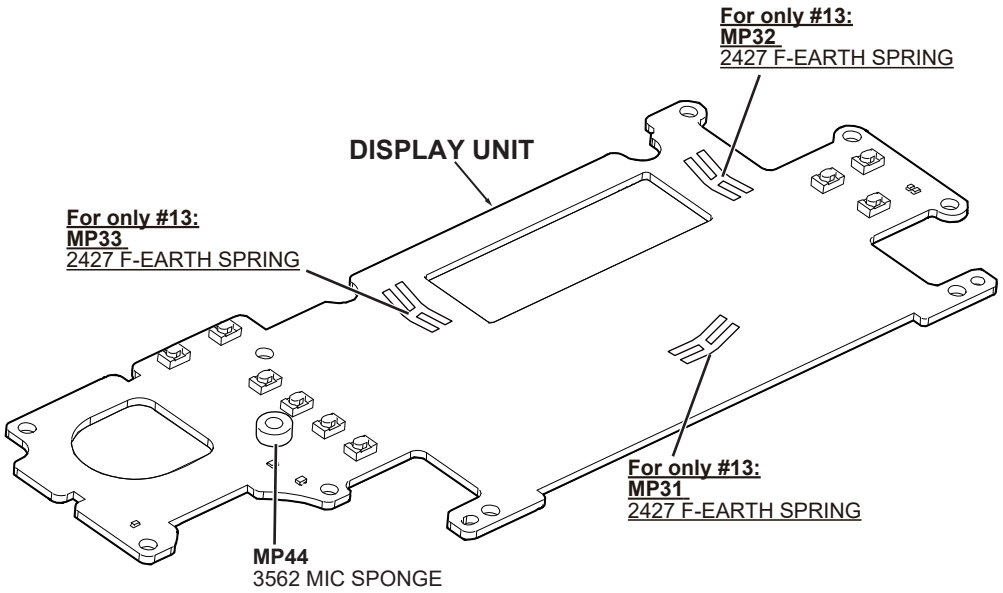
The underlined parts have been updated from the previous version of the addendum, or from the original page.

■ ASSEMBLED DISPLAY UNIT

Spare unit name	Order Number	Version	Remarks
C 905 #12 DISPLAY	0342091205	#12	–
C 905 #13 DISPLAY	0342091305	#13	–

See the illustrations below for the individual parts in the unit.

• Individual parts illustrations



NOTE: The LCD (DS1, FRONT UNIT) is not included in the DISPLAY UNIT.
Therefore, order the LCD separately, if necessary.

The underlined parts have been updated from the previous version of the addendum, or from the original page.

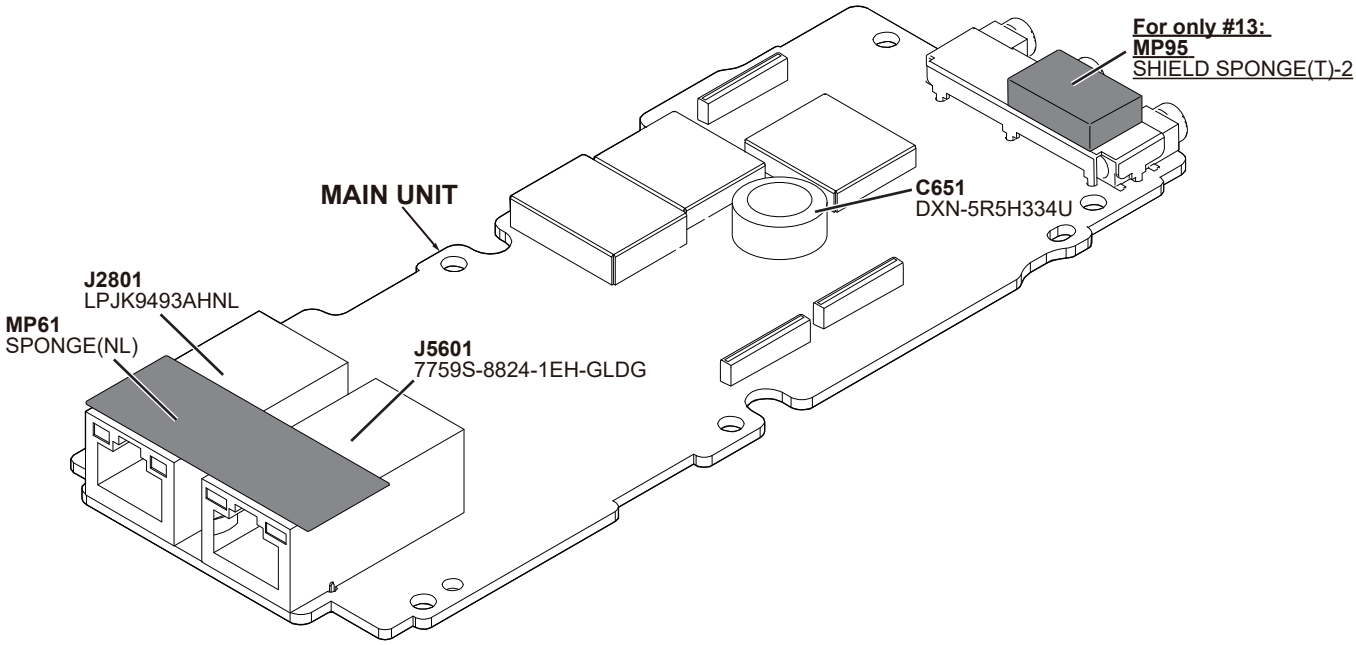
■ ASSEMBLED MAIN UNIT

Spare unit name	Order Number	Version	Remarks
C 905 #12 MAIN	0342091202	#12	–
C 905 #13 MAIN	0342091302	#13	–

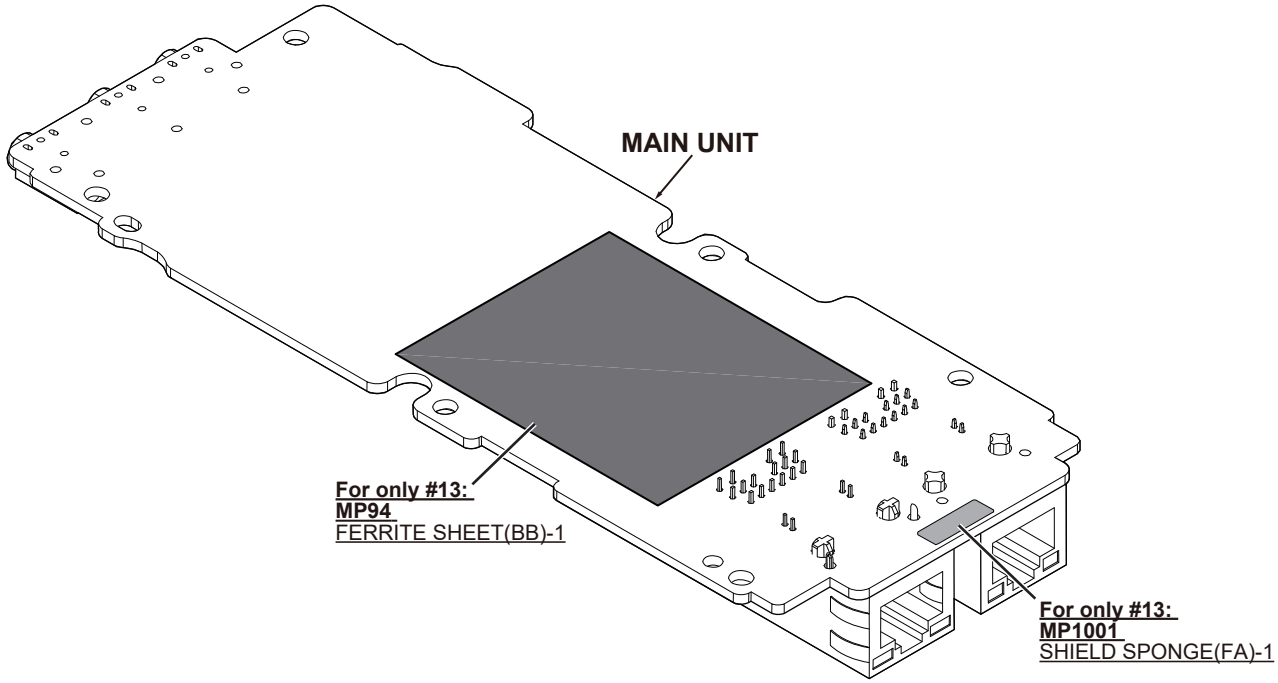
See the illustrations below for the individual parts in the unit.

• Individual parts illustrations

<Top view>



<Bottom view>



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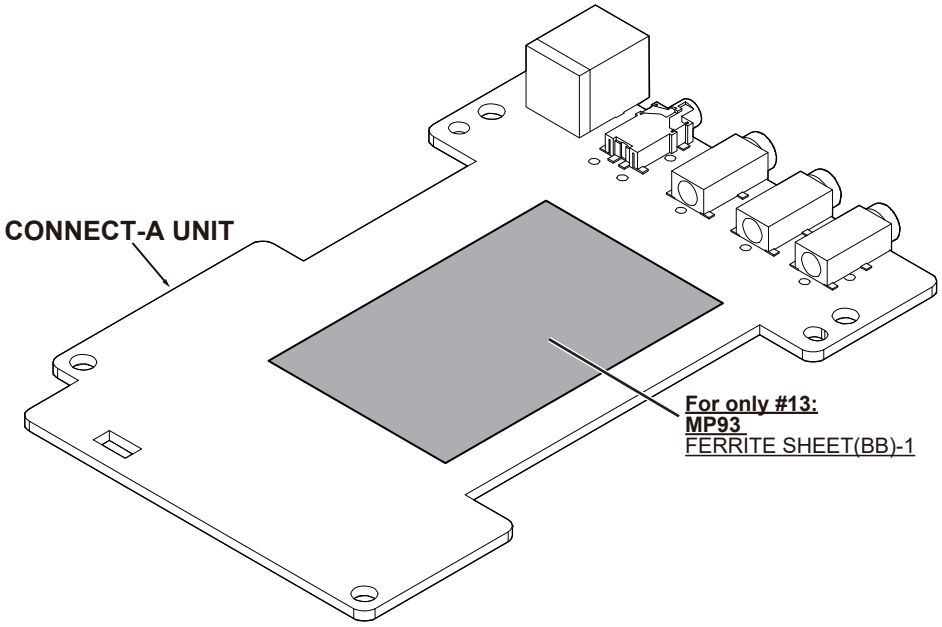
■ ASSEMBLED CONNECT-A UNIT

Spare unit name	Order Number	Version	Remarks
C 905 #12 CONNECT-A	0342091203	#12	–
C 905 #13 CONNECT-A	0342091303	#13	–

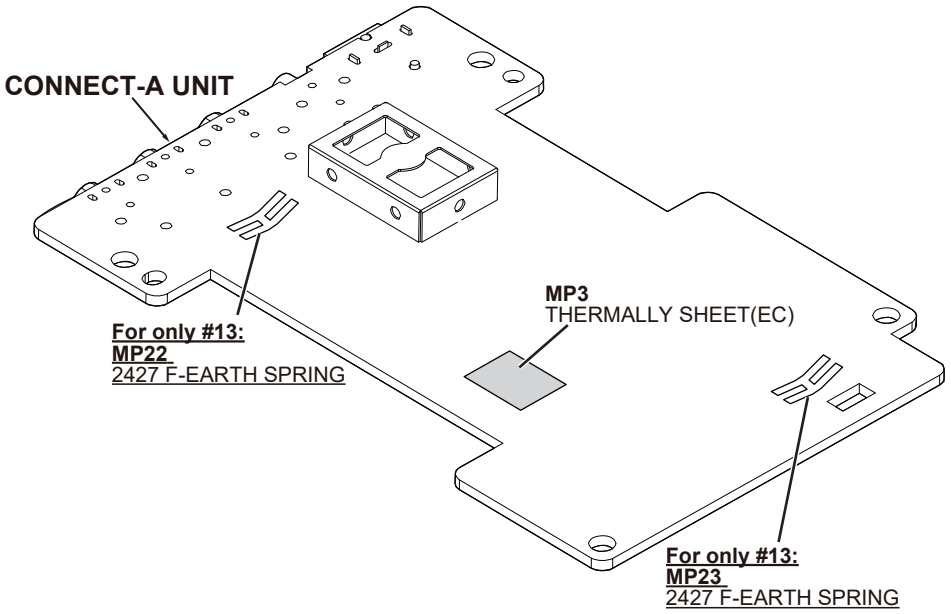
See the illustrations below for the individual parts in the unit.

• Individual parts illustrations

<Top view>



<Bottom view>



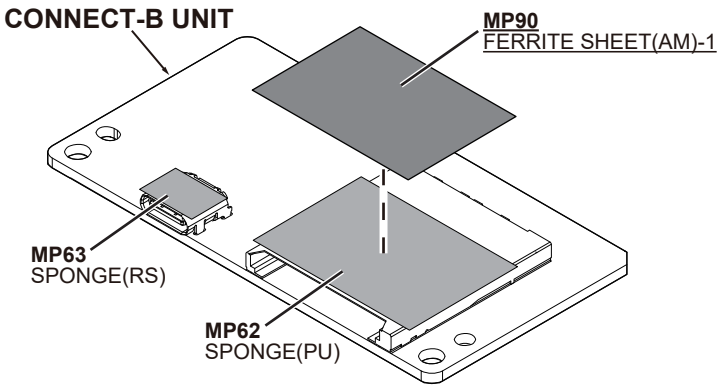
The underlined parts have been updated from the previous version of the addendum, or from the original page.

■ASSEMBLED CONNECT-B UNIT

Spare unit name	Order Number	Version	Remarks
C 905 #12 CONNECT-B	0342091204	#12	–
C 905 #13 CONNECT-B	0342091304	#13	–

See the illustrations below for the individual parts in the unit.

• Individual parts illustrations

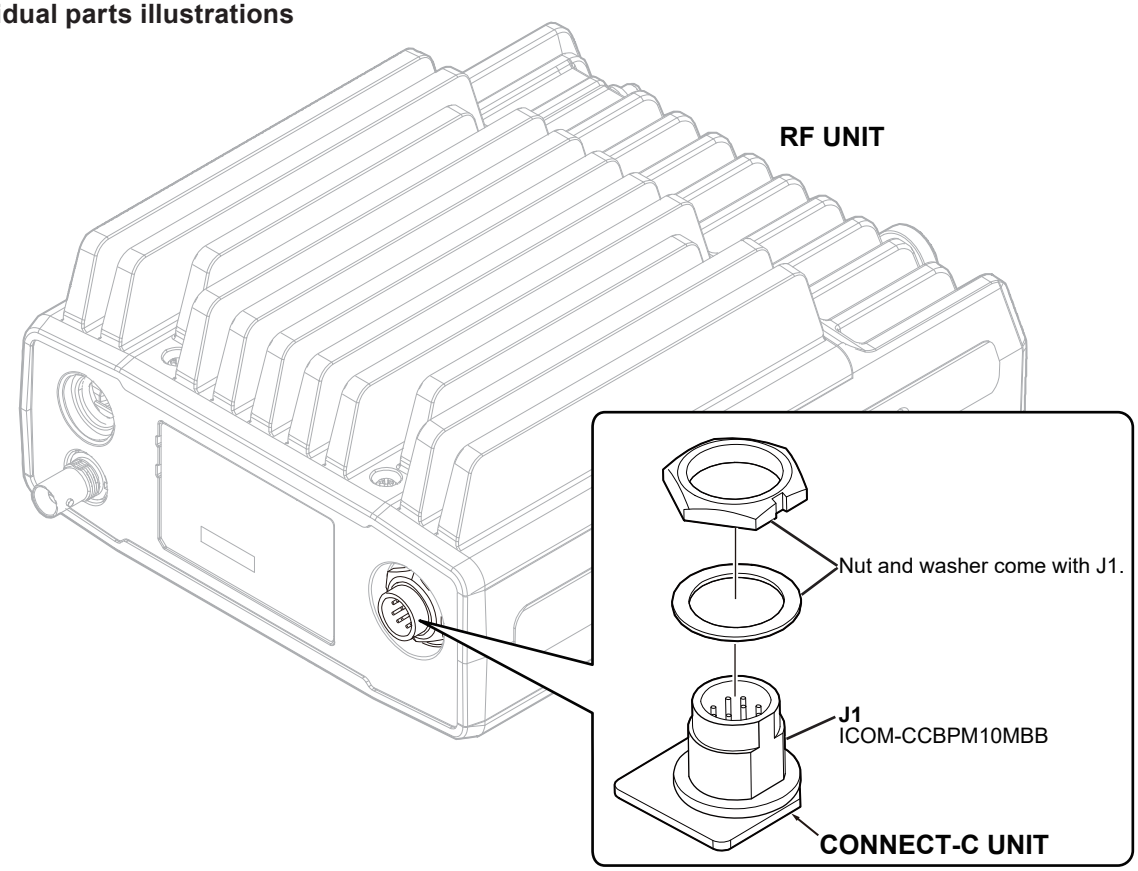


■ASSEMBLED CONNECT-C UNIT

Spare unit name	Order Number	Version	Remarks
C 905 #12 CONNECT-C	0342091209	#12 and #13	–

See the illustrations below for the individual parts in the unit.

• Individual parts illustrations



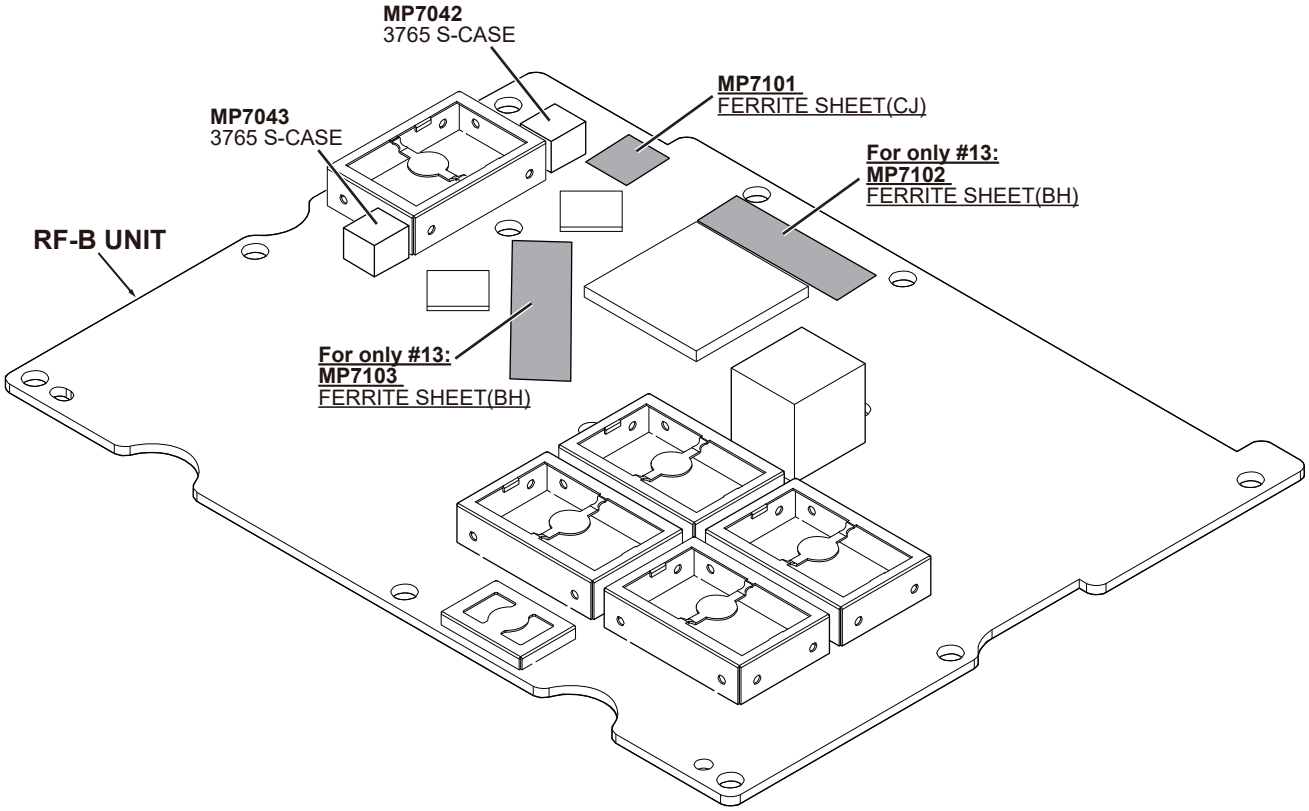
The underlined parts have been updated from the previous version of the addendum, or from the original page.

■ ASSEMBLED RF-A UNIT

Spare unit name	Order Number	Version	Remarks
C 905 #12 RF-A	0342091207	#12	–
C 905 #13 RF-A	0342091307	#13	–

See the illustrations below for the individual parts in the unit.

• Individual parts illustrations



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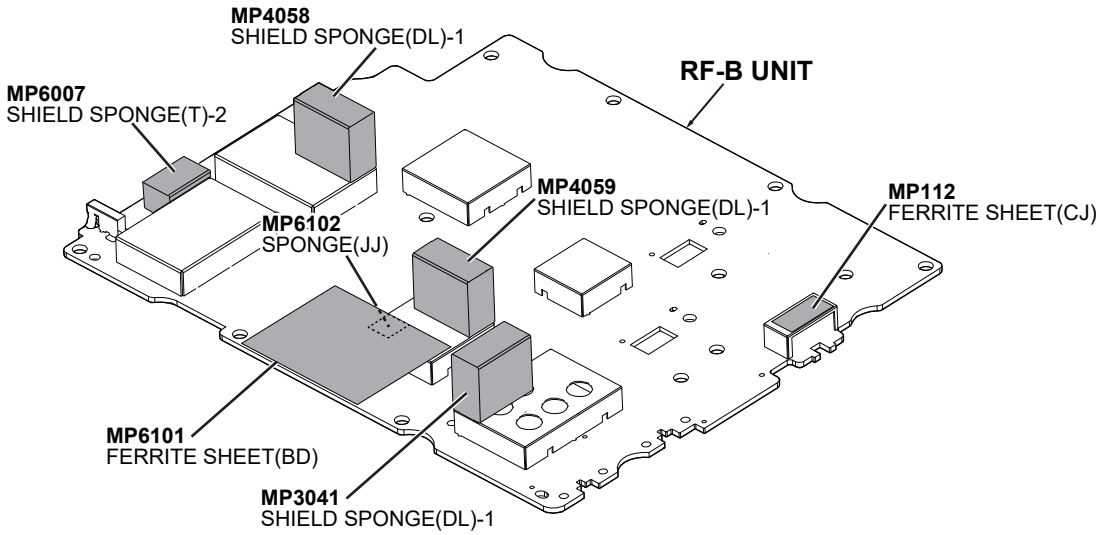
■ASSEMBLED RF-B UNIT

Spare unit name	Order Number	Versions	Remarks
C 905 #12 RF-B	0342091208	#12	–
C 905 #13 RF-B	0342091308	#13	–

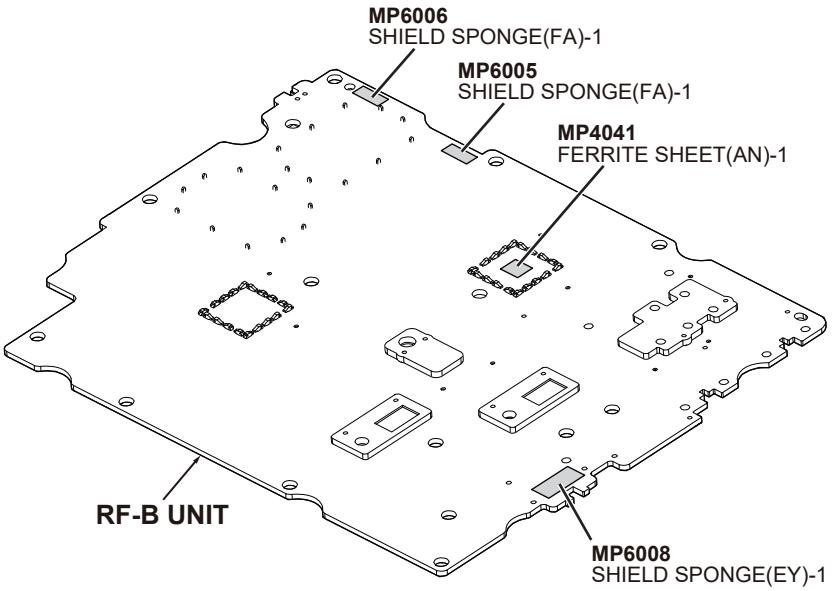
See the illustrations below for the individual parts in the unit.

• Individual parts illustrations

<Top view>



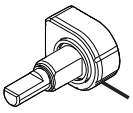
<Bottom view>



The underlined parts have been updated from the previous version of the addendum, or from the original page.

■ ASSEMBLED MAIN DIAL

Spare unit name	Order Number	Versions	Remarks
C 905 #12 SENSOR	0342091206	#12 and #13	–



IC-905 MAIN DIAL SENSOR

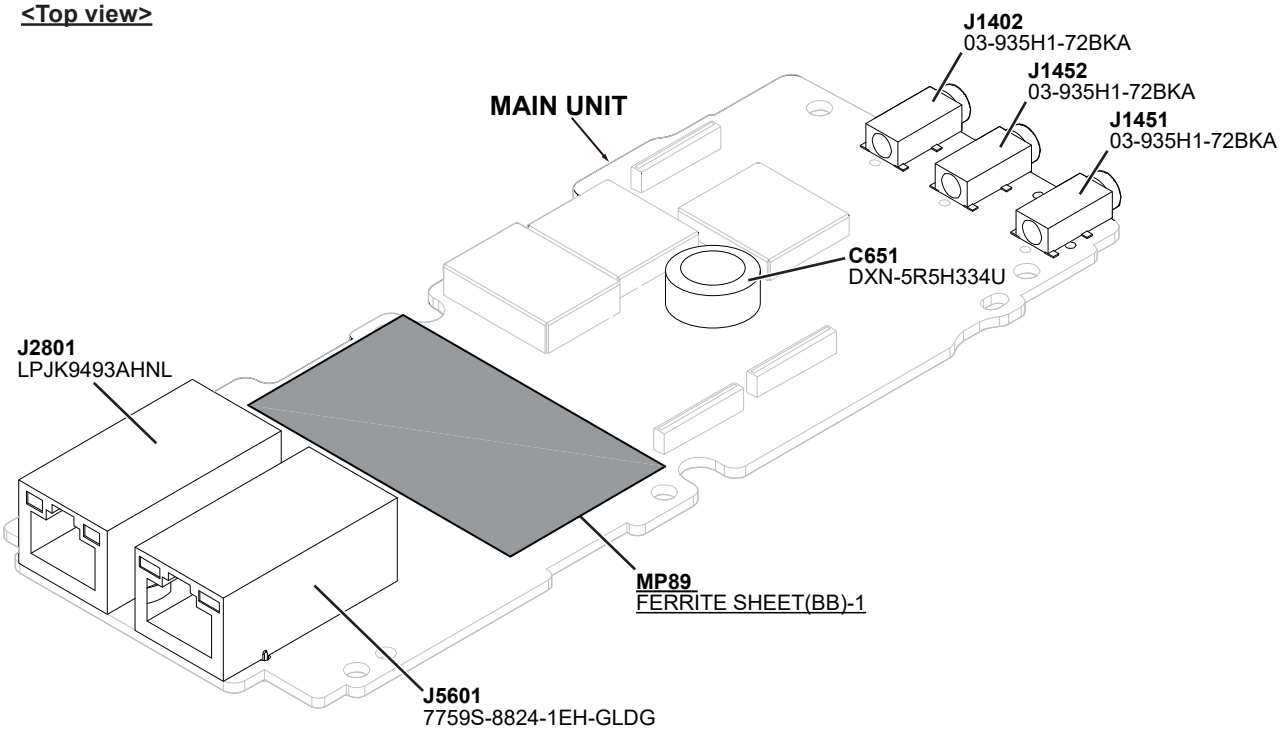
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■ SPARE PARTS INFORMATION

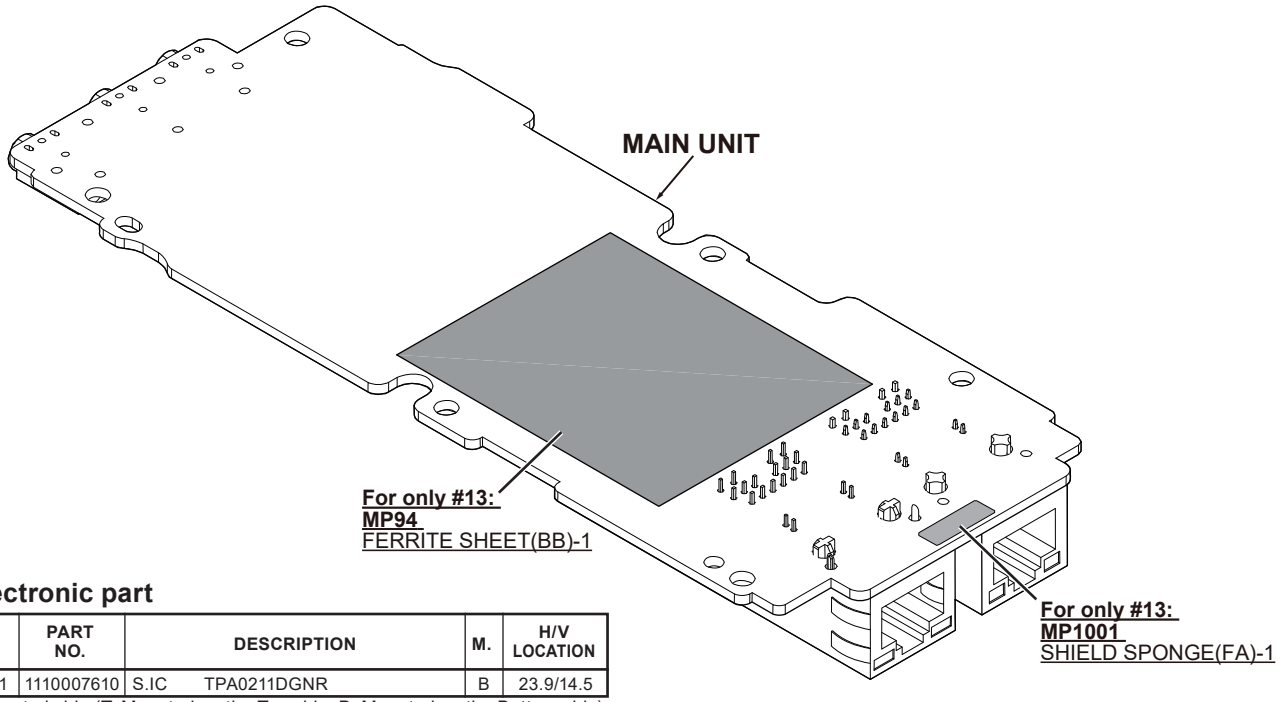
• For the MAIN UNIT

	Reference number	Parts name	Order Number	Versions	Remarks
CAPACITOR	C651	DXN-5R5H334U	4510010460	All	–
CONNECTOR	J1402	03-935H1-72BKA	6510025771		–
CONNECTOR	J1451	03-935H1-72BKA	6510025771		–
CONNECTOR	J1452	03-935H1-72BKA	6510025771		–
CONNECTOR	J2801	LPJK9493AHNL-1	6510035131		–
CONNECTOR	J5601	7759S-8824-1EH-GLDG	6510034850		–
SHEET	MP89	FERRITE SHEET(BB)-1	8930095181		–
SHEET	MP94	FERRITE SHEET(BB)-1	8930095181	Only #13	–
SPONGE	MP1001	SHIELD SPONGE(FA)-1	8930105431		–

<Top view>



<Bottom view>



• Electronic part

REF NO.	PART NO.	DESCRIPTION	M.	H/V LOCATION
IC2401	1110007610	S.IC TPA0211DGNR	B	23.9/14.5

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

NOTE: The parts that are not listed are indicated in gray.

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■SPARE PARTS INFORMATION (CONTINUED)

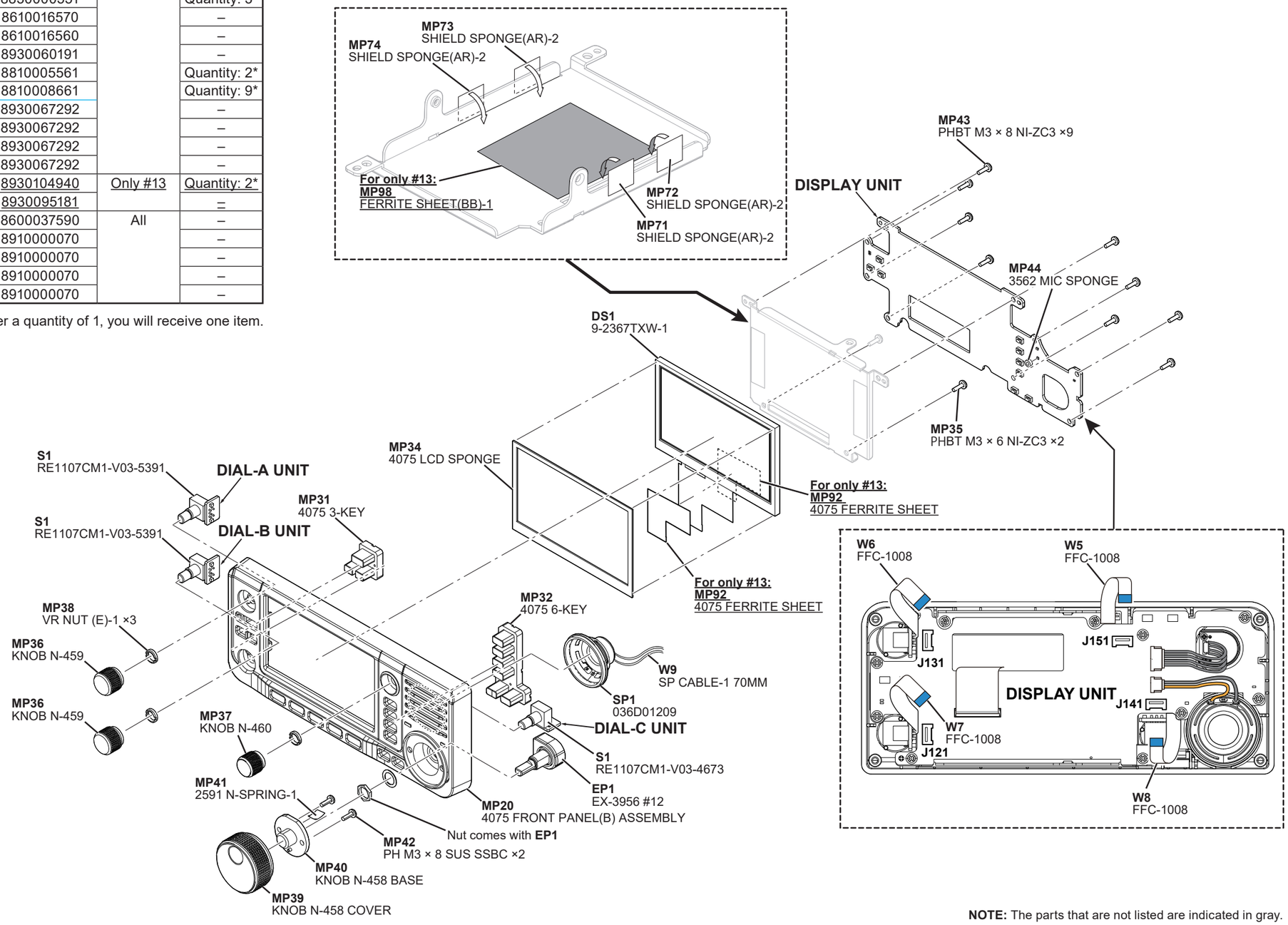
• For the FRONT PANEL

	Reference number	Parts name	Order Number	Versions	Remarks
LCD	DS1	M9-2367TXW-1	5030004620	All	–
SPEAKER	SP1	036D01209	2510002160		–
PANEL	MP20	4075 FRONT PANEL(B) ASSEMBLY	8210036660	#12	–
PANEL	MP20	4075 FRONT PANEL(C) ASSEMBLY	8210037390	#13	–
KEYPAD	MP31	4075 3-KEY	8930103030	All	–
KEYPAD	MP32	4075 6-KEY	8930103050		–
SPONGE	MP34	4075 LCD SPONGE	8930103390		–
SCREW	MP35	PHBT M3 × 6 NI-ZC3	8810008631		Quantity: 2*
KNOB	MP36	KNOB N-459 M1200	8610016580		–
KNOB	MP37	KNOB N-460 M600	8610016590		–
NUT	MP38	VR NUT (E)-1	8830000551		Quantity: 3*
KEYPAD	MP39	KNOB N-458 COVER	8610016570		–
KEYPAD	MP40	KNOB N-458 BASE	8610016560		–
SPRING	MP41	2591 N-SPRING-1	8930060191		–
SCREW	MP42	PH M3 × 8 SUS SSBC	8810005561		Quantity: 2*
SCREW	MP43	PHBT M3 × 8 NI-ZC3	8810008661		Quantity: 9*
SPONGE	MP71	SHIELD SPONGE(AR)-2	8930067292		–
SPONGE	MP72	SHIELD SPONGE(AR)-2	8930067292		–
SPONGE	MP73	SHIELD SPONGE(AR)-2	8930067292		–
SPONGE	MP74	SHIELD SPONGE(AR)-2	8930067292		–
SHEET	MP92	4075 FERRITE SHEET	8930104940	Only #13	Quantity: 2*
SHEET	MP98	FERRITE SHEET(BB)-1	8930095181		–
CABLE	W9	SP CABLE-1 70MM	8600037590	All	–
FFC	W5	FFC-1008	8910000070		–
FFC	W6	FFC-1008	8910000070		–
FFC	W7	FFC-1008	8910000070		–
FFC	W8	FFC-1008	8910000070		–

*When you order a quantity of 1, you will receive one item.

• For the DIAL-A, DIAL-B, and DIAL-C UNITS

	Reference number	Parts name	Order Number	Remarks
ENCODER	S1	RE1107CM1-V03-5391	2250001110	For DIAL-A UNIT
ENCODER	S1	RE1107CM1-V03-5391	2250001110	For DIAL-B UNIT
ENCODER	S1	RE1107CM1-V03-4673	2250001030	For DIAL-C UNIT



NOTE: The parts that are not listed are indicated in gray.

■SPARE PARTS INFORMATION (CONTINUED)

• For the controller

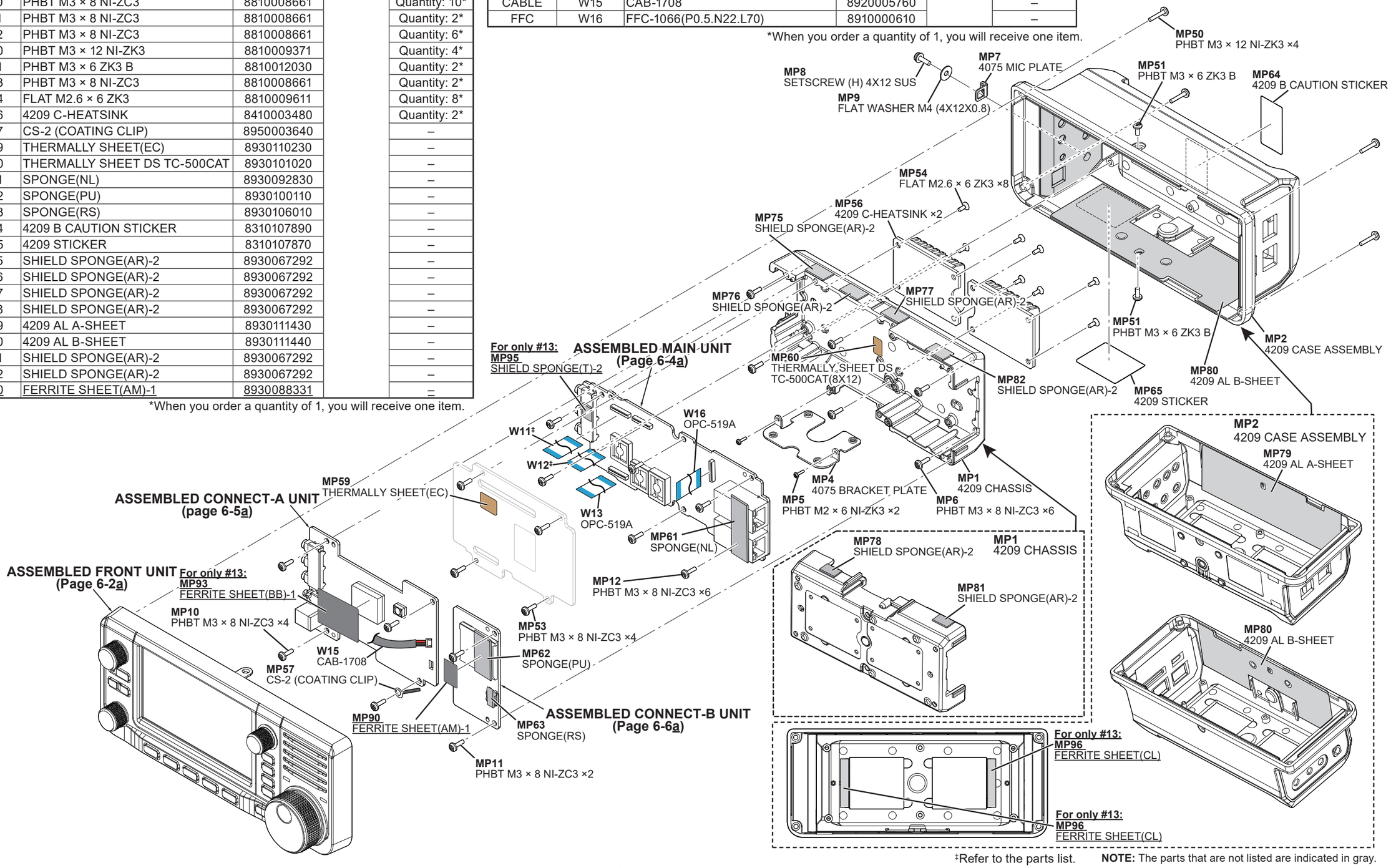
The underlined parts have been updated from the previous version of the addendum, or from the original page.

	Reference number	Parts name	Order Number	Versions	Remarks
CHASSIS	MP1	4209 CHASSIS	8010026180	All	–
CASE	MP2	4209 CASE ASSEMBLY	8010026200		–
PLATE	MP4	4075 BRACKET PLATE	8930103410		–
SCREW	MP5	PHBT M2 × 6 NI-ZK3	8810009561		Quantity: 2*
SCREW	MP6	PHBT M3 × 8 NI-ZC3	8810008661		Quantity: 6*
PLATE	MP7	4075 MIC PLATE	8930104120		–
SCREW	MP8	SETSCREW (H) 4X12 SUS	8810012240		–
SCREW	MP9	FLAT WASHER M4 (4X12X0.8) SUS	8850001800		–
SCREW	MP10	PHBT M3 × 8 NI-ZC3	8810008661		Quantity: 10*
SCREW	MP11	PHBT M3 × 8 NI-ZC3	8810008661		Quantity: 2*
SCREW	MP12	PHBT M3 × 8 NI-ZC3	8810008661		Quantity: 6*
SCREW	MP50	PHBT M3 × 12 NI-ZK3	8810009371		Quantity: 4*
SCREW	MP51	PHBT M3 × 6 ZK3 B	8810012030		Quantity: 2*
SCREW	MP53	PHBT M3 × 8 NI-ZC3	8810008661		Quantity: 2*
SCREW	MP54	FLAT M2.6 × 6 ZK3	8810009611		Quantity: 8*
HEATSINK	MP56	4209 C-HEATSINK	8410003480		Quantity: 2*
WIRE	MP57	CS-2 (COATING CLIP)	8950003640		–
SHEET	MP59	THERMALLY SHEET(EC)	8930110230		–
SHEET	MP60	THERMALLY SHEET DS TC-500CAT	8930101020		–
SPONGE	MP61	SPONGE(NL)	8930092830		–
SPONGE	MP62	SPONGE(PU)	8930100110		–
SPONGE	MP63	SPONGE(RS)	8930106010		–
STICKER	MP64	4209 B CAUTION STICKER	8310107890		–
STICKER	MP65	4209 STICKER	8310107870		–
SPONGE	MP75	SHIELD SPONGE(AR)-2	8930067292		–
SPONGE	MP76	SHIELD SPONGE(AR)-2	8930067292		–
SPONGE	MP77	SHIELD SPONGE(AR)-2	8930067292		–
SPONGE	MP78	SHIELD SPONGE(AR)-2	8930067292		–
SHEET	MP79	4209 AL A-SHEET	8930111430		–
SHEET	MP80	4209 AL B-SHEET	8930111440		–
SPONGE	MP81	SHIELD SPONGE(AR)-2	8930067292		–
SPONGE	MP82	SHIELD SPONGE(AR)-2	8930067292		–
SHEET	MP90	FERRITE SHEET(AM)-1	8930088331		–

*When you order a quantity of 1, you will receive one item.

	Reference number	Parts name	Order Number	Versions	Remarks
SHEET	MP93	FERRITE SHEET(BB)-1	8930095181	Only #13	–
SPONGE	MP95	SHIELD SPONGE(T)-2	8930058842		–
SHEET	MP96	FERRITE SHEET(CL)	8930109670		Quantity: 2*
FFC	W11	FFC-1056	8910000520	#12	–
		OPC-1332A-1	8900014871	#13	–
FFC	W12	FFC-1056	8910000520	#12	–
		OPC-1332A-1	8900014871	#13	–
CABLE	W13	OPC-519A	8900014750	All	–
CABLE	W15	CAB-1708	8920005760		–
FFC	W16	FFC-1066(P0.5.N22.L70)	8910000610		–

*When you order a quantity of 1, you will receive one item.



‡Refer to the parts list.

NOTE: The parts that are not listed are indicated in gray.

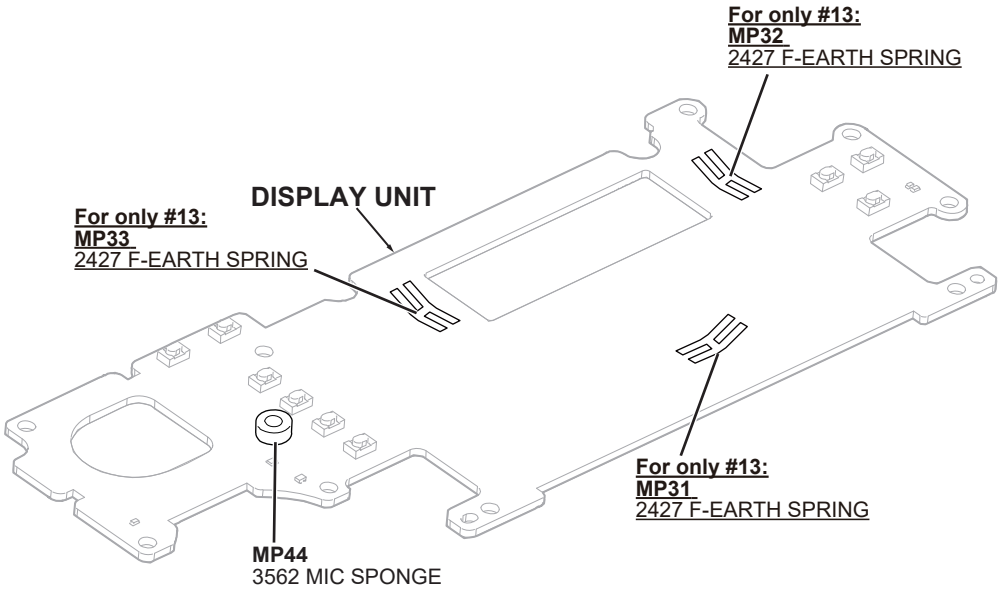
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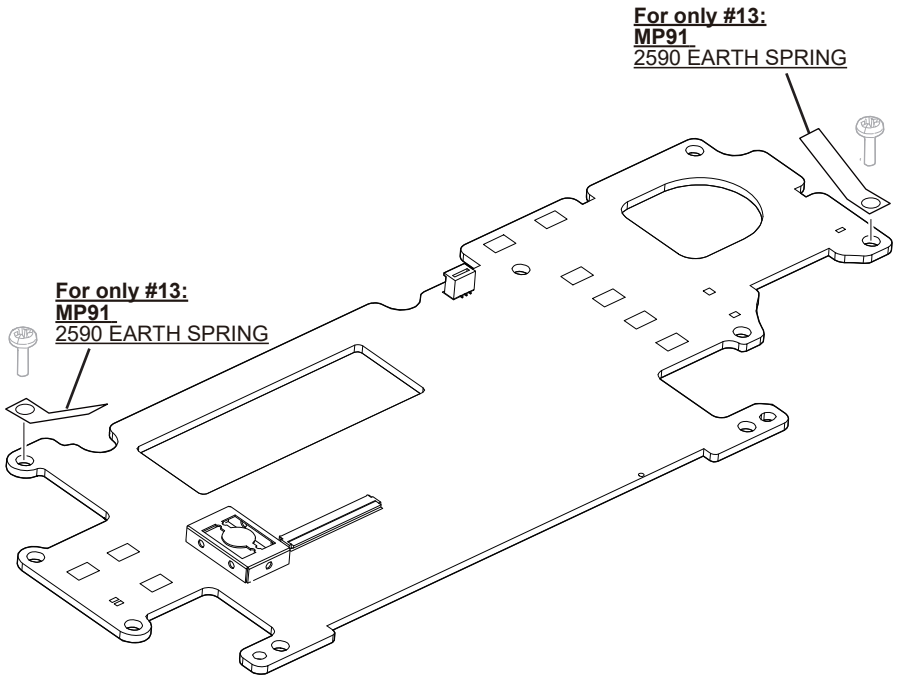
■ SPARE PARTS INFORMATION (CONTINUED)

• For the DISPLAY UNIT

	Reference number	Parts name	Order Number	Versions	Remarks
SPRING	MP31	2427 F-EARTH SPRING	8930071160	Only #13	–
SPRING	MP32	2427 F-EARTH SPRING	8930071160		–
SPRING	MP33	2427 F-EARTH SPRING	8930071160		–
SPONGE	MP44	3562 MIC SPONGE	8930089670	All	–
SPRING	MP91	2590 EARTH SPRING	8930063270	Only #13	Quantity: 2*

*When you order a quantity of 1, you will receive one item.





NOTE: The parts that are not listed are indicated in gray.

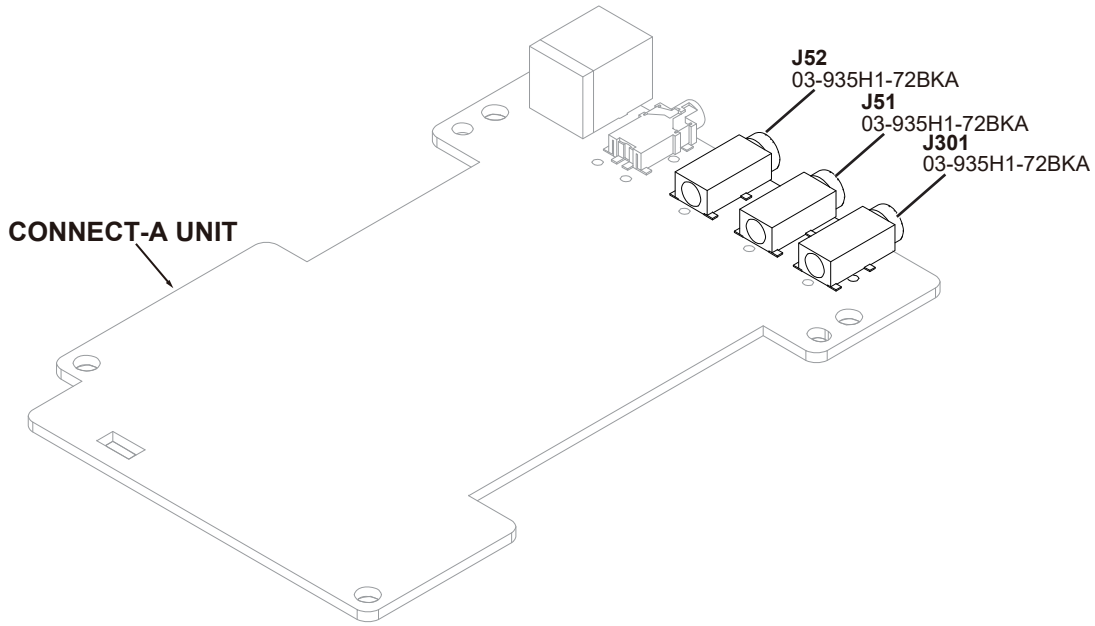
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■ SPARE PARTS INFORMATION (CONTINUED)

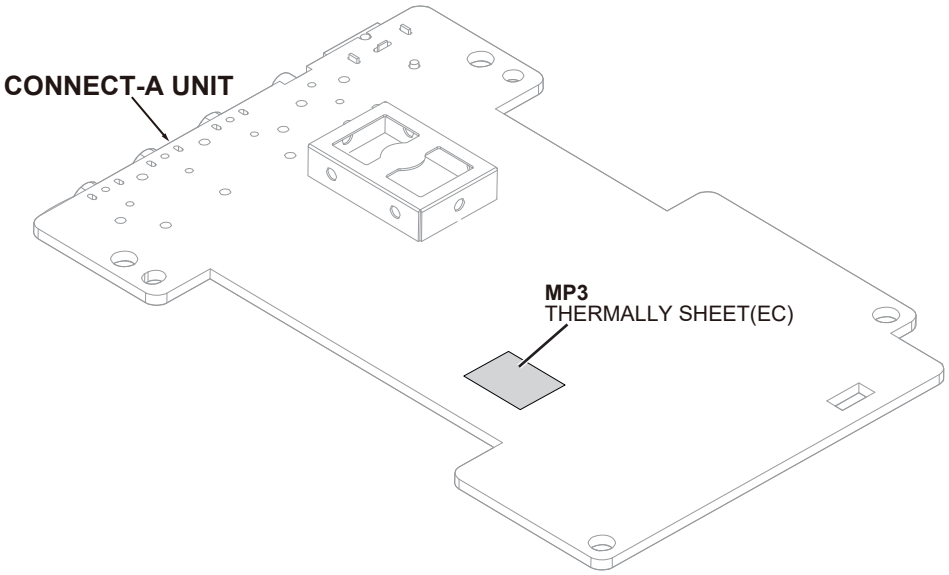
• For the CONNECT-A UNIT

	Reference number	Parts name	Order Number	Remarks
CONNECTOR	J51	03-935H1-72BKA	6510025771	–
CONNECTOR	J52	03-935H1-72BKA	6510025771	–
CONNECTOR	J301	03-935H1-72BKA	6510025771	–
SHEET	MP3	THERMALLY SHEET(EC)	8930110230	–

<Top view>



<Bottom view>



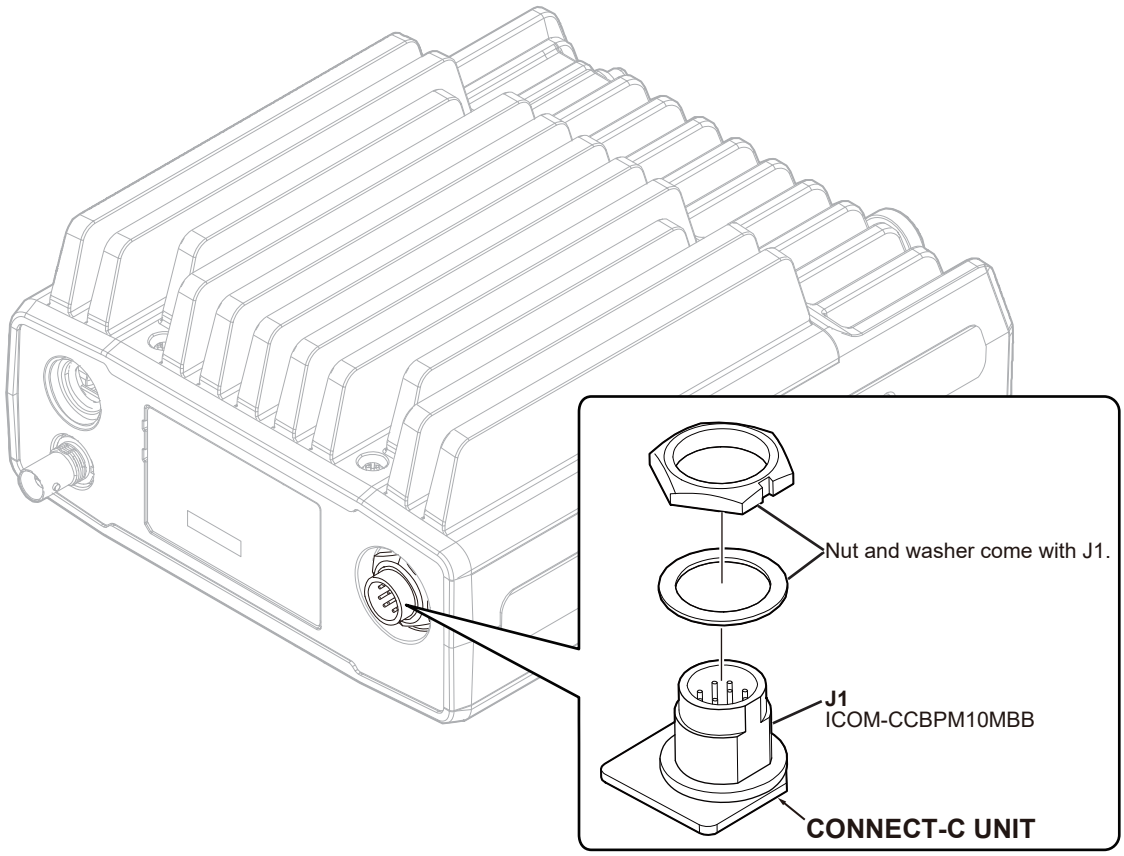
NOTE: The parts that are not listed are indicated in gray.

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■ SPARE PARTS INFORMATION (CONTINUED)

• For the CONNECT-C UNIT

	Reference number	Parts name	Order Number	Remarks
CONNECTOR	J1	ICOM-CCBPM10MBB	6510031421	–



NOTE: The parts that are not listed are indicated in gray.

■SPARE PARTS INFORMATION (CONTINUED)

• For the RF UNIT (RF-A UNIT side)

	Reference number	Parts name	Order Number	Remarks
CONNECTOR	J1	BNC-R4066	6510032950	–
CONNECTOR	J2	NR-DS-E 01	6510004910	–
CONNECTOR	J3	SMA-R26.9ICW	6510035330	–
CONNECTOR	J4	SMA-R26.9ICW	6510035330	–
CABLE	W22	CAB-1367	8920002950	–
CABLE	W23	CAB-1727	8920006060	–
SCREW	MP9	PH B0 M3 × 8 SUS S (BT)	8810010610	Quantity: 2*
COVER	MP11	4209 RF-A A-COVER	8110012550	–
SEAL	MP12	4209 RF-A SEAL (TOP)	8930109360	–
SCREW	MP13	PHBT M3 × 8 NI-ZC3	8810008661	Quantity: 12*
SCREW	MP24	PHBT M3 × 12 SUS	8810012610	Quantity: 6*
PLATE	MP25	3803 BUSH PLATE	8930094980	–
SEAL	MP26	4209 CONNECTOR SEAL	8930109950	–
CHASSIS	MP28	4209 RF CHASSIS	8010026190	–
SEAL	MP33	O-RING(DF) (TOP)	8930094800	–
SHEET	MP34	2438 SHEET	8930055070	–
SEAL	MP39	O-RING(DV)	8930109960	–
SHEET	MP41	THERMALLY SHEET (EC)	8930110230	–
SHEET	MP43	THERMALLY SHEET (EB) RM-5(30) 29X29XT5	8930110140	–
HEATSINK	MP44	4209 A-HEATSINK	8410003490	–
SCREW	MP45	SET SCREW C M3 × 6 ZC3	8810003361	Quantity: 4*
SHEET	MP48	THERMALLY SHEET DT TC-200CAT-20(8X12)	8930101210	–
SHEET	MP49	THERMALLY SHEET DS TC-500CAT(8X12)	8930101020	–
SHEET	MP50	THERMALLY SHEET (DI) TC250CAT20(18X18)	8930098010	–
SHEET	MP51	THERMALLY SHEET (CP) TC150CAT(17X17)	8930091000	–
SCREW	MP52	PHBT M2 × 6 SUS	8810012600	Quantity: 8*
SHEET	MP53	THERMALLY SHEET DT TC-200CAT-20(8X12)	8930101210	–
SHEET	MP54	THERMALLY SHEET DS TC-500CAT(8X12)	8930101020	–
SHEET	MP55	THERMALLY SHEET (DI) TC250CAT20(18X18)	8930098010	–
SHEET	MP56	THERMALLY SHEET (CP) TC150CAT(17X17)	8930091000	–
SHEET	MP122	FERRITE SHEET (CP)	8930111410	–
SHEET	MP133	FERRITE SHEET(BH)	8930097440	–
CABLE	W25	CAB-1741	8920006170	–
FFC	W26	OPC-2283	8900021240	–

*When you order a quantity of 1, you will receive one item.

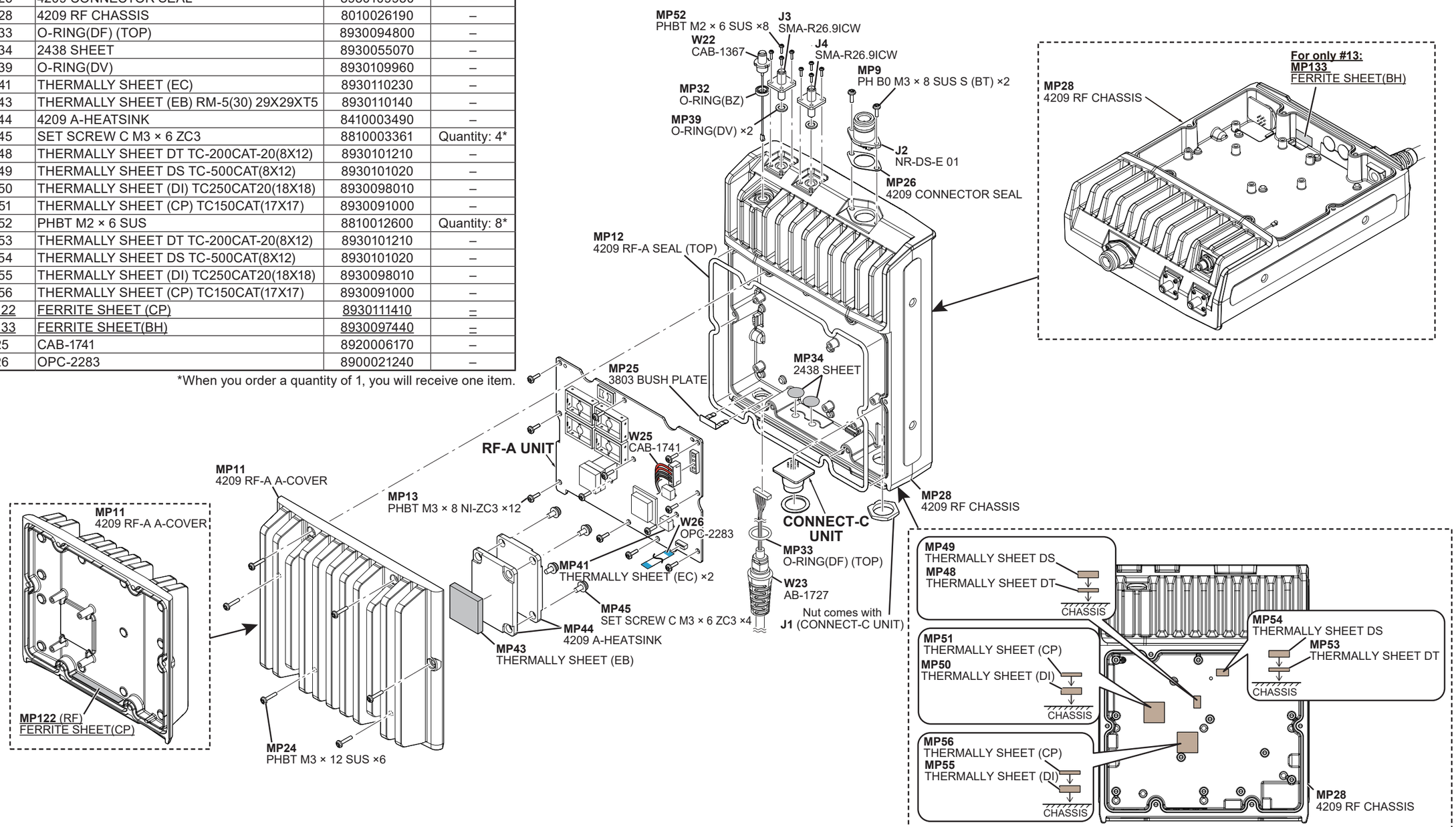
The underlined parts have been updated from the previous version of the addendum, or from the original page.

• Electronic part

REF NO.	PART NO.	DESCRIPTION	M.	H/V LOCATION
IC6701	1190005440	S.IC GSU-141A-103A	T	51.9/112.1

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

Viewing from RF-A UNIT side



NOTE: The parts that are not listed are indicated in gray.

■SPARE PARTS INFORMATION (CONTINUED)

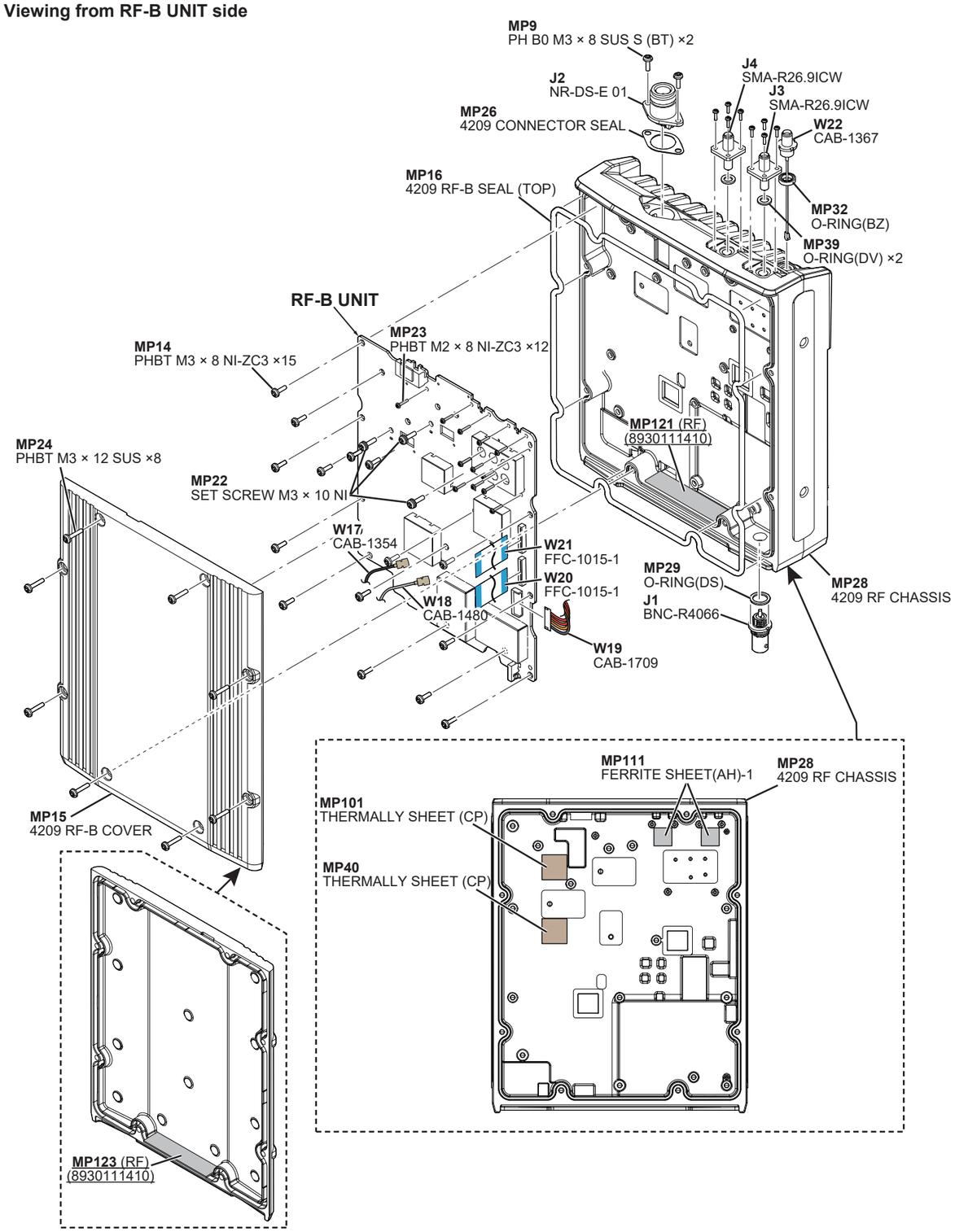
• For the RF UNIT (RF-B UNIT side)

	Reference number	Parts name	Order Number	Remarks
CONNECTOR	J1	BNC-R4066	6510032950	–
CONNECTOR	J2	NR-DS-E 01	6510004910	–
CONNECTOR	J3	SMA-R26.9ICW	6510035330	–
CONNECTOR	J4	SMA-R26.9ICW	6510035330	–
CABLE	W22	CAB-1367	8920002950	–
SCREW	MP9	PH B0 M3 × 8 SUS S (BT)	8810010610	Quantity: 2*
SCREW	MP14	PHBT M3 × 8 NI-ZC3	8810008661	Quantity: 15*
COVER	MP15	4209 RF-B COVER	8110012470	–
SEAL	MP16	4209 RF-B SEAL (TOP)	8930109370	–
SCREW	MP22	SET SCREW M3 × 10 NI	8810009050	Quantity: 3*
SCREW	MP23	PHBT M2 × 8 NI-ZC3	8810008761	Quantity: 12*
SCREW	MP24	PHBT M3 × 12 SUS	8810012610	Quantity: 8*
SEAL	MP26	4209 CONNECTOR SEAL	8930109950	–
CHASSIS	MP28	4209 RF CHASSIS	8010026190	–
SEAL	MP29	O-RING(DS)	8930109710	–
SEAL	MP32	O-RING(BZ)	8930075620	–
SEAL	MP39	O-RING(DV)	8930109960	Quantity: 2*
SHEET	MP40	THERMALLY SHEET (CP) TC150CAT(17X17)	8930091000	–
SHEET	MP101	THERMALLY SHEET (CP) TC150CAT(17X17)	8930091000	–
SHEET	MP111	FERRITE SHEET (AH)-1	8930084711	–
SHEET	MP121	FERRITE SHEET (CP)	8930111410	–
SHEET	MP123	FERRITE SHEET (CP)	8930111410	–
CABLE	W17	CAB-1354	8920003110	–
CABLE	W18	CAB-1480	8920003740	–
CABLE	W19	CAB-1709	8920005770	–
FFC	W20	FFC-1015-1	8910000141	–
FFC	W21	FFC-1015-1	8910000141	–

*When you order a quantity of 1, you will receive one item.

The underlined parts have been updated from the previous version of the addendum, or from the original page.

Viewing from RF-B UNIT side



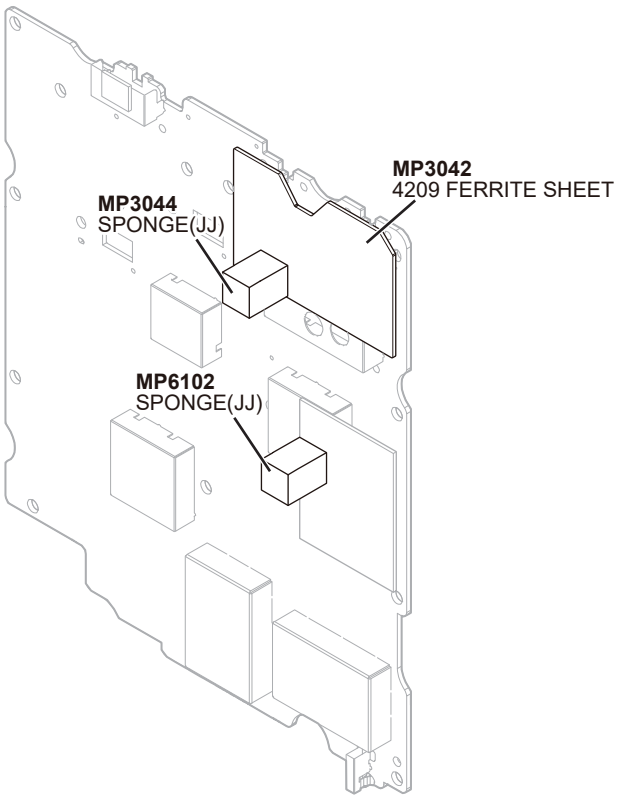
NOTE: The parts that are not listed are indicated in gray.

The underlined parts have been updated from the previous version of the addendum, or from the original page.

■ SPARE PARTS INFORMATION (CONTINUED)

• For the RF-B UNIT

	Reference number	Parts name	Order Number	Remarks
SHEET	MP3042	4209 FERRITE SHEET	8930111240	–
SPONGE	MP3044	SPONGE(JJ)	8930071240	–
SPONGE	MP6102	SPONGE(JJ)	8930071240	–



NOTE: The parts that are not listed are indicated in gray.

• Electronic parts

REF NO.	PART NO.	DESCRIPTION	M.	H/V LOCATION
IC1001	1110009950	S.IC TRF37C75IDSGR	T	36.7/105.8
IC2001	1110009950	S.IC TRF37C75IDSGR	T	76.8/114.5
IC2003	1110010910	S.IC GRF5115-TR	T	67.2/118.3
IC2005	1110008550	S.IC NJM2904CRB1-TE1	T	84.9/124.6
IC3001	1110009950	S.IC TRF37C75IDSGR	T	115.2/130.5
IC3004	1110009950	S.IC TRF37C75IDSGR	T	98.7/145
IC3005	1110010830	S.IC GRF2093-TR	T	129.3/134.3
IC3006	1110010820	S.IC TQP9224	T	108.9/150.6
IC3007	1110010820	S.IC TQP9224	T	116.8/150.6
IC3010	1110010830	S.IC GRF2093-TR	T	145.8/152.3
IC3012	1110010880	S.IC SE5004L-R	T	126.0/153.4
IC3013	1110010880	S.IC SE5004L-R	T	135.7/153.4
IC3015	1110010830	S.IC GRF2093-TR	T	144.1/160.1
IC4019	1110009950	S.IC TRF37C75IDSGR	T	56.4/94.7
IC4200	1110009950	S.IC TRF37C75IDSGR	T	97.5/110.1

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

SECTION 7 MECHANICAL PARTS

The underlined parts have been updated from the addendum of the previous version, or from the original page.

[MAIN UNIT]

REF NO.	PART NO.	DESCRIPTION		QTY.
J751*	6510021722	30FLT-SM2-TB (LF) (SN) (M)		1
J801*	6510026101	22FLT-SM2-TB (LF) (SN) (M)		1
J901*	6510022472	40FLT-SM2-TB (LF) (SN) (M)		1
J951*	6510022472	40FLT-SM2-TB (LF) (SN) (M)		1
J1402*	6510025771	03-935H1-72BKA		1
J1451*	6510025771	03-935H1-72BKA		1
J1452*	6510025771	03-935H1-72BKA		1
J2801*	6510035131	LPJK9493AHNL-1		1
J2802*	6510018961	B2B-PH-SM4-TB (LF) (SN)		1
J5601*	6510034850	7759S-8824-1EH-GLDG		1
T5801*	5920001110	ALT3232M-151-T001		1
T5802*	5920001110	ALT3232M-151-T001		1
BT4701*	3020000390	ML414HIV01E		1
MP1	8930109390	4209 C-JACK HOLDER		1
MP201*	8510023310	4075 A-SHIELD CASE		1
MP501*	8510023320	4075 B-SHIELD CASE		1
MP551*	8510023310	4075 A-SHIELD CASE		1
MP1001*	8930105431	SHIELD SPONGE(FA)-1	Only [#13]	1

[CONTROL UNIT]

REF NO.	PART NO.	DESCRIPTION		QTY.
P1	6510009580	ZHR-2	Only [#13]	1
DS1	5030004620	M9-2367TXW-1		1
SP1	2510002160	036D01209		1
W5**	8910000070	FFC-1008 (P0.5N6L50)		1
W6**	8910000070	FFC-1008 (P0.5N6L50)		1
W7**	8910000070	FFC-1008 (P0.5N6L50)		1
W8**	8910000070	FFC-1008 (P0.5N6L50)		1
W9	8600037590	SP CABLE-1 70MM		1
W11**	8910000520	FFC-1056 (P0.5N40L100 S)	[#12]	1
	8900014871	OPC-1332A-1(P0.5,N40,L100)	[#13]	1
W12**	8910000520	FFC-1056 (P0.5N40L100 S)	[#12]	1
	8900014871	OPC-1332A-1(P0.5,N40,L100)	[#13]	1
W13	8900014750	OPC-519A (P0.5N30L55)		1
W15	8920005760	CAB-1708		1
W16	8910000610	FFC-1066 (P0.5.N22.L70)		1
EP1	0880004930	EX-3956 #12		1
MP1	8010026180	4209 CHASSIS		1
MP2	8010026200	4209 CASE ASSEMBLY		1
MP4	8930103410	4075 BRACKET PLATE		1
MP5	8810009561	PHBT M2 × 6 NI-ZK3		2
MP6	8810008661	PHBT M3 × 8 NI-ZC3		6
MP7	8930104120	4075 MIC PLATE		1
MP8	8810012240	SET SCREW (H) 4 × 12 SUS		1
MP9	8850001800	FLAT WASHER M4 (4X12X0.8)SUS		1
MP10	8810008661	PHBT M3 × 8 NI-ZC3		4
MP11	8810008661	PHBT M3 × 8 NI-ZC3		2
MP12	8810008661	PHBT M3 × 8 NI-ZC3		6
MP20	8210036660	4075 FRONT PANEL (B) ASSEMBLY	[#12]	1
	8210037390	4075 FRONT PANEL (C) ASSEMBLY	[#13]	1
MP26	8930057950	DOUBLE SIDE TAPE (AH)		2
MP31	8930103030	4075 3-KEY		1
MP32	8930103050	4075 6-KEY		1
MP33	8930103400	4075 LCD PLATE		1
MP34	8930103390	4075 LCD SPONGE		1
MP35	8810008631	PHBT M3 × 6 NI-ZC3		2
MP36	8610016580	KNOB N-459		2
MP37	8610016590	KNOB N-460		1
MP38	8830000551	VR NUT (E)-1		3
MP39	8610016570	KNOB N-458 COVER		1
MP40	8610016560	KNOB N-458 BASE		1
MP41	8930060191	2591 N-SPRING-1		1
MP42	8810005561	PH M3 × 8 SUS SSBC		2
MP43	8810008661	PHBT M3 × 8 NI-ZC3		9
MP50	8810009371	PHBT M3 × 12 NI-ZK3		4
MP51	8810012030	SCREW PH M3 × 6 ZK3		2
MP52	8930110050	4209 AL PLATE		1
MP53	8810008661	PHBT M3 × 8 NI-ZC3		4
MP54	8810009611	FLAT M2.6 × 6 ZK3		8
MP55	8930102100	THERMAL SHEET (DV) TC400CAT 13.8X18.5		1
MP56	8410003480	4209 C-HEATSINK		2
MP57	8950003640	CS-2 (COATING CLIP) UL		1
MP59	8930110230	THERMALLY SHEET (EC)		1
MP60	8930101020	THERMAL SHEET DS TC-500CAT		1

[CONTROL UNIT]

REF NO.	PART NO.	DESCRIPTION		QTY.
MP61	8930092830	SPONGE (NL)		1
MP62	8930100110	SPONGE (PU)		1
MP63	8930106010	SPONGE (RS)		1
MP64	8310107890	4209 B CAUTION STICKER		1
MP65	8310107870	4209 CAUTION STICKER		1
MP71	8930067292	SHIELD SPONGE (AR)-2		1
MP72	8930067292	SHIELD SPONGE (AR)-2		1
MP73	8930067292	SHIELD SPONGE (AR)-2		1
MP74	8930067292	SHIELD SPONGE (AR)-2		1
MP75	8930067292	SHIELD SPONGE (AR)-2		1
MP76	8930067292	SHIELD SPONGE (AR)-2		1
MP77	8930067292	SHIELD SPONGE (AR)-2		1
MP78	8930067292	SHIELD SPONGE (AR)-2		1
MP79	8930111430	4209 AL A-SHEET		1
MP80	8930111440	4209 AL B-SHEET		1
MP81	8930067292	SHIELD SPONGE (AR)-2		1
MP82	8930067292	SHIELD SPONGE (AR)-2		1
MP83	8930111460	4209 AL C-SHEET		1
MP84	8930111450	4209 AL D-SHEET		1
MP85	8930072062	SHIELD SPONGE (BU)-2		1
MP86	8930072062	SHIELD SPONGE (BU)-2		1
MP87	8930072062	SHIELD SPONGE (BU)-2		1
MP88	8930072062	SHIELD SPONGE (BU)-2		1
MP89*	8930095181	FERRITE SHEET (BB)-1		1
MP90	8930088331	FERRITE SHEET (AM)-1		1
MP91	8930063270	2590 EARTH SPRING	Only [#13]	2
MP92	8930104940	4075 FERRITE SHEET	Only [#13]	2
MP93*	8930095181	FERRITE SHEET(BB)-1	Only [#13]	1
MP94*	8930095181	FERRITE SHEET(BB)-1	Only [#13]	1
MP95	8930058842	SHIELD SPONGE(T)-2	Only [#13]	1
MP96	8930109670	FERRITE SHEET(CL)	Only [#13]	2
MP97	8930072062	SHIELD SPONGE(BU)-2	Only [#13]	2
MP98	8930095181	FERRITE SHEET(BB)-1	Only [#13]	1

[DISPLAY UNIT]

REF NO.	PART NO.	DESCRIPTION		QTY.
J21*	6510033810	AYF564035		1
J71*	6510022472	40FLT-SM2-TB (LF) (SN) (M)		1
J81*	6510022472	40FLT-SM2-TB (LF) (SN) (M)		1
J121*	6510022692	06FLT-SM2-TB (LF) (SN) (M)		1
J131*	6510022692	06FLT-SM2-TB (LF) (SN) (M)		1
J141*	6510022692	06FLT-SM2-TB (LF) (SN) (M)		1
J151*	6510022692	06FLT-SM2-TB (LF) (SN) (M)		1
J161*	6510023801	S4B-ZR-SM4A-TF (LF) (SN)		1
J171*	6510018301	S2B-ZR-SM4A-TF (LF) (SN)		1
S101*	2260002740	LS8J2M-T		1
S102*	2260002740	LS8J2M-T		1
S103*	2260002740	LS8J2M-T		1
S104*	2260002740	LS8J2M-T		1
S105*	2260002740	LS8J2M-T		1
S106*	2260002740	LS8J2M-T		1
S107*	2260002740	LS8J2M-T		1
S108*	2260002740	LS8J2M-T		1
S109*	2260002740	LS8J2M-T		1
MP21*	8510019650	3250 VCO CASE		1
MP31*	8930071160	2427 F-EARTH SPRING	Only [#13]	1
MP32*	8930071160	2427 F-EARTH SPRING	Only [#13]	1
MP33*	8930071160	2427 F-EARTH SPRING	Only [#13]	1
MP44	8930089670	3562 MIC SPONGE		1

[DIAL-A UNIT]

REF NO.	PART NO.	DESCRIPTION	QTY.
J1*	6510022692	06FLT-SM2-TB (LF) (SN) (M)	1
S1	2250001110	RE1107CM1-V03-5391	1

[DIAL-B UNIT]

REF NO.	PART NO.	DESCRIPTION	QTY.
J1*	6510022692	06FLT-SM2-TB (LF) (SN) (M)	1
S1	2250001110	RE1107CM1-V03-5391	1

[DIAL-C UNIT]

REF NO.	PART NO.	DESCRIPTION	QTY.
J1*	6510022692	06FLT-SM2-TB (LF) (SN) (M)	1
S1	2250001030	RE1107CM1-V03-4673	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 BS: Brass NI: Nickel ZU: Zinc SUS: Stainless

The underlined parts have been updated from the addendum of the previous version, or from the original page.

[CONNECT-A UNIT]

REF NO.	PART NO.	DESCRIPTION	QTY.
J51*	6510025771	03-935H1-72BKA	1
J52*	6510025771	03-935H1-72BKA	1
J53*	6450002950	02-909B0-66BKY	1
J54*	6510021722	30FLT-SM2-TB (LF) (SN) (M)	1
J55*	6510018961	B2B-PH-SM4-TB (LF) (SN)	1
J101*	6450003000	DC0146B-BH100AS01	1
J301*	6510025771	03-935H1-72BKA	1
F101*	5210001170	ERBRE2R50V	1
F102*	5210001250	ERBRE1R25V	1
T2501*	5910001470	750342911	1
MP1	8930109340	4209 A-JACK HOLDER	1
MP2	8930109350	4209 B-JACK HOLDER	1
MP3	8930110230	THERMALLY SHEET (EC)	1
MP22	8930071160	2427 F-EARTH SPRING Only [#13]	1
MP23	8930071160	2427 F-EARTH SPRING Only [#13]	1
MP201*	8510022610	3913 SHIELD CASE	1

[CONNECT-B UNIT]

REF NO.	PART NO.	DESCRIPTION	QTY.
J1*	6510035110	SDK-9BNS-K13-GS-TB (LF) (SN)	1
J2*	6510026101	22FLT-SM2-TB (LF) (SN) (M)	1
J3*	6510033720	DX07S024JA1R1300	1

[RF UNIT]

REF NO.	PART NO.	DESCRIPTION	QTY.
J1	6510032950	BNC-R4066	1
J2	6510004910	NR-DS-E 01	1
J3	6510035330	SMA-R26.9ICW	1
J4	6510035330	SMA-R26.9ICW	1
W17	8920003110	CAB-1354 (822Z82150000000101)	1
W18	8920003740	CAB-1480 (822Z83090000000101)	1
W19	8920005770	CAB-1709	1
W20	8910000141	FFC-1015-1 (P0.5N30L80)	1
W21	8910000141	FFC-1015-1 (P0.5N30L80)	1
W22	8920002950	CAB-1367 (CA20410113000070G)	1
W23	8920006060	CAB-1727	1
W25	8920006170	CAB-1741	1
W26	8900021240	OPC-2283 (P0.5N10L31)	1
MP9	8810010610	PHB0 M3 × 8 SUS S (BT)	2
MP11	8110012550	4209 RF-A A-COVER	1
MP12	8930109360	4209 RF-A SEAL (TOP)	1
MP13	8810008661	PHBT M3 × 8 NI-ZC3	12
MP14	8810008661	PHBT M3 × 8 NI-ZC3	15
MP15	8110012470	4209 RF-B COVER	1
MP16	8930109370	4209 RF-B SEAL (TOP)	1
MP22	8810009050	SET SCREW H M3 × 10 NI	3
MP23	8810008761	PHBT M2 × 8 NI-ZC3	12
MP24	8810012610	PHBT M3 × 12 SUS	14
MP25	8930094980	3803 BUSH PLATE	1
MP26	8930109950	4209 CONNECTOR SEAL	1
MP28	8010026190	4209 RF CHASSIS	1
MP29	8930109710	O-RING (DS)	1
MP32	8930075620	O-RING (BZ)	1
MP33	8930094800	O-RING (DF) (TOP)	1
MP34	8930055070	2438 SHEET	2
MP35	8930109780	4209 BNC CAP (TOP)	1
MP36	8930109790	4209 CAP (TOP)	1
MP37	8930109800	4209 SMA CAP (TOP)	2
MP38	6910030560	ICOM-CPBPPMCKN71	1
MP39	8930109960	O-RING (DV)	2
MP40	8930091000	THERMAL SHEET (CP) TC150CAT (17X17)	1
MP41*	8930110230	THERMALLY SHEET (EC)	2
MP42*	8930092980	THERMAL SHEET (CX) TC500CAT 16.8X16.8	1
MP43	8930110140	THERMAL SHEET (EB) RM-5 (30) 29X29XT5	1
MP44	8410003490	4209 A-HEATSINK	2
MP45	8810003361	SET SCREW C M3 × 6 ZC3	4
MP48	8930101210	THERMAL SHEET DT TC-200CAT-20 (8X12)	1
MP49	8930101020	THERMAL SHEET DS TC-500CAT (8X12)	1
MP50	8930098010	THERMAL SHEET (DI) TC250CAT20 18X18	1
MP51	8930091000	THERMAL SHEET (CP) TC150CAT (17X17)	1
MP52	8810012600	PHBT M2 × 6 SUS	8
MP53	8930101210	THERMAL SHEET DT TC-200CAT-20 (8X12)	1
MP54	8930101020	THERMAL SHEET DS TC-500CAT (8X12)	1
MP55	8930098010	THERMAL (DI) TC250CAT20 18X18	1
MP56	8930091000	THERMAL SHEET (CP) TC150CAT (17X17)	1
MP101	8930091000	THERMAL SHEET (CP) TC150CAT (17X17)	1
MP107	8930092980	THERMAL SHEET (CX) TC500CAT (16.8X16.8)	2
MP111	8930084711	FERRITE SHEET (AH)-1	2
MP112	8930109550	FERRITE SHEET (CJ)	1

[RF UNIT]

REF NO.	PART NO.	DESCRIPTION	QTY.
MP121	8930111410	FERRITE SHEET (CP)	1
MP122	8930111410	FERRITE SHEET (CP)	1
MP123	8930111410	FERRITE SHEET (CP)	1
MP124	8930111420	FERRITE SHEET (CQ)	1
MP125	8930111420	FERRITE SHEET (CQ)	1
MP131	8930088331	FERRITE SHEET(AM)-1 Only [#13]	1
MP132	8930088331	FERRITE SHEET(AM)-1 Only [#13]	1
MP133	8930097440	FERRITE SHEET(BH) Only [#13]	1

[RF-A UNIT]

REF NO.	PART NO.	DESCRIPTION	QTY.
J201*	6510018971	B4B-PH-SM4-TB (LF) (SN)	1
J751*	6510021722	30FLT-SM2-TB (LF) (SN) (M)	1
J752*	6510021722	30FLT-SM2-TB (LF) (SN) (M)	1
J1101*	6510030190	BM09B-SRSS-TBT (LF) (SN)	1
J5601*	6510025142	10FLT-SM2-TB (LF) (SN) (M)	1
J5602*	6510018971	B4B-PH-SM4-TB (LF) (SN)	1
J6701*	6510032350	20279-001E-01	1
J7001*	6510032350	20279-001E-01	1
J8001*	6510032350	20279-001E-01	1
F5601*	5210001500	0686F4000-01	1
T1001*	5910001440	POE72PR-12ED	1
T1101*	5910001460	VP6150M HF	1
T6501*	5920001110	ALT3232M-151-T001	1
T6502*	5920001110	ALT3232M-151-T001	1
MP101*	8510021680	3697 VCO CASE	1
MP102*	8510021680	3697 VCO CASE	1
MP103*	8510021680	3697 VCO CASE	1
MP104*	8510021680	3697 VCO CASE	1
MP6701*	8510022450	3754 GPS CASE	1
MP7041*	8510021680	3697 VCO CASE	1
MP7042*	8510021830	3765 S-CASE	1
MP7043*	8510021830	3765 S-CASE	1
MP7101*	8930109550	FERRITE SHEET (CJ)	1
MP7102*	8930097440	FERRITE SHEET(BH) Only [#13]	1
MP7103*	8930097440	FERRITE SHEET(BH) Only [#13]	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 BS: Brass NI: Nickel ZU: Zinc SUS: Stainless

The underlined parts have been updated from the addendum of the previous version, or from the original page.

[RF-B UNIT]

REF NO.	PART NO.	DESCRIPTION	QTY.
J501*	6510021722	30FLT-SM2-TB (LF) (SN) (M)	1
J531*	6510021722	30FLT-SM2-TB (LF) (SN) (M)	1
J532*	6510018971	B4B-PH-SM4-TB (LF) (SN)	1
J4000*	6510032350	20279-001E-01	1
J6042*	6510032350	20279-001E-01	1
EP2004*	6910030160	X4C20K1-20SR1	1
EP2005*	6910030160	X4C20K1-20SR1	1
EP3003*	6910029730	C2327J5003AHF	1
EP3011*	6910029730	C2327J5003AHF	1
EP3012*	6910029720	C5060J5003AHF	1
EP3021*	6910029790	X4C20J1-20G-R	1
EP3026*	6910029720	C5060J5003AHF	1
EP3027*	6910029790	X4C20J1-20G-R	1
EP3028*	6910029760	X4C60J1-20G-R	1
EP3029*	6910029760	X4C60J1-20G-R	1
MP1001*	8410003140	4048 HEATSINK	1
MP1010*	8510024590	4209 A-ANT SHIELD	1
MP2002*	8410003140	4048 HEATSINK	1
MP2010*	8510024220	4209 C-SHIELD CASE Only [#13]	1
MP2014*	8410003390	4171 P-HEATSINK	1
MP3040*	8510024120	4209 A-SHIELD CASE	1
MP3041*	8930091981	SHIELD SPONGE (DL)-1	1
MP3042*	8930111240	4209 FERRITE SHEET	1
MP3043*	8930094670	SPONGE (OD)	1
MP3044*	8930071240	SPONGE (JJ)	1
MP3100*	8410003410	4209 HEATSINK	1
MP4001*	8510022290	E01J1113Y	1
MP4002*	8510022290	E01J1113Y	1
MP4003*	8510022290	E01J1113Y	1
MP4004*	8510022290	E01J1113Y	1
MP4005*	8510022290	E01J1113Y	1
MP4006*	8510022290	E01J1113Y	1
MP4007*	8510022290	E01J1113Y	1
MP4008*	8510022290	E01J1113Y	1
MP4009*	8510022290	E01J1113Y	1
MP4010*	8510022290	E01J1113Y	1
MP4011*	8510022290	E01J1113Y	1
MP4012*	8510022290	E01J1113Y	1
MP4013*	8510022290	E01J1113Y	1
MP4014*	8510022290	E01J1113Y	1
MP4015*	8510022290	E01J1113Y	1
MP4016*	8510022290	E01J1113Y	1
MP4017*	8510022290	E01J1113Y	1
MP4018*	8510022290	E01J1113Y	1
MP4021*	8510022290	E01J1113Y	1
MP4022*	8510022290	E01J1113Y	1
MP4023*	8510022290	E01J1113Y	1
MP4024*	8510022290	E01J1113Y	1
MP4025*	8510022290	E01J1113Y	1
MP4026*	8510022290	E01J1113Y	1
MP4027*	8510022290	E01J1113Y	1
MP4028*	8510022290	E01J1113Y	1
MP4029*	8510022290	E01J1113Y	1
MP4030*	8510022290	E01J1113Y	1
MP4031*	8510022290	E01J1113Y	1
MP4032*	8510022290	E01J1113Y	1
MP4033*	8510022290	E01J1113Y	1
MP4034*	8510022290	E01J1113Y	1
MP4035*	8510022290	E01J1113Y	1
MP4036*	8510022290	E01J1113Y	1
MP4037*	8510022290	E01J1113Y	1
MP4038*	8510022290	E01J1113Y	1
MP4041	8930088691	FERRITE SHEET (AN)-1	1
MP4055*	8510024210	4209 B-SHIELD CASE	1
MP4057*	8510024210	4209 B-SHIELD CASE	1
MP4058*	8930091981	SHIELD SPONGE (DL)-1	1
MP4059*	8930091981	SHIELD SPONGE (DL)-1	1
MP6001*	8510020100	3182 DC-DC CASE	1
MP6002*	8510020100	3182 DC-DC CASE	1
MP6003*	8930109380	4209 ANT SPRING	1
MP6005*	8930105431	SHIELD SPONGE (FA)-1	1
MP6006*	8930105431	SHIELD SPONGE (FA)-1	1
MP6007*	8930058842	SHIELD SPONGE (T)-2	1
MP6101	8930097300	FERRITE SHEET (BD)	1
MP6102	8930071240	SPONGE (JJ)	1

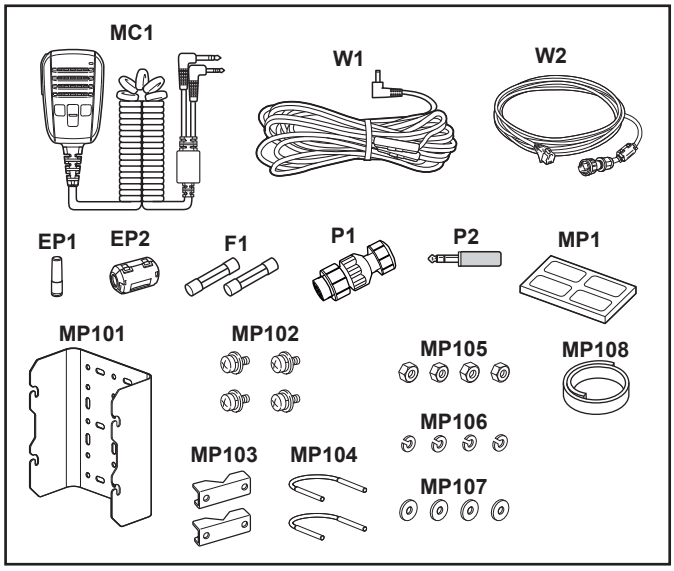
[CONNECT-C UNIT]

REF NO.	PART NO.	DESCRIPTION	QTY.
J1	6510031421	ICOM-CCBPM10MBB	1
J2*	6510018971	B4B-PH-SM4-TB (LF) (SN)	1
J4*	6510025142	10FLT-SM2-TB (LF) (SN) (M)	1

[SUPPLIED ACCESSORIES UNIT]

REF NO.	PART NO.	DESCRIPTION	QTY.
P1	5610000960	ICOM-CCBDF10FBB	1
P2	5610000750	MP-013MS-R	1
F1	5210001610	FGBO-A 250V 8A PBF	2
MC1	–	HM-243†	1
W1	8900023240	OPC-2488	1
W2	8900023420	OPC-2508	1
EP1	3310005760	YH1111004	1
EP2	6910013530	ZCAT2035-0930A-BK	1
MP1	8930103510	LEG CUSHION (S)	1
MP101	8930109930	4209 BRACKET (NC)	1
MP102	8810012620	SET SCREW (K) M6 × 15 SUS GEOMET	4
MP103	8010000010	BRACKET EX143	2
MP104	8820000440	U-BOLT A SUS	2
MP105	8830000260	NUT M6 SUS	4
MP106	8850000510	S-WASHER M6 SUS	4
MP107	8850000200	FLAT WASHER M6 (6X20X1.5) SUS	4
MP108	8950007580	RUBBER VULCANIZING TAPE NO.11 L=500MM	1

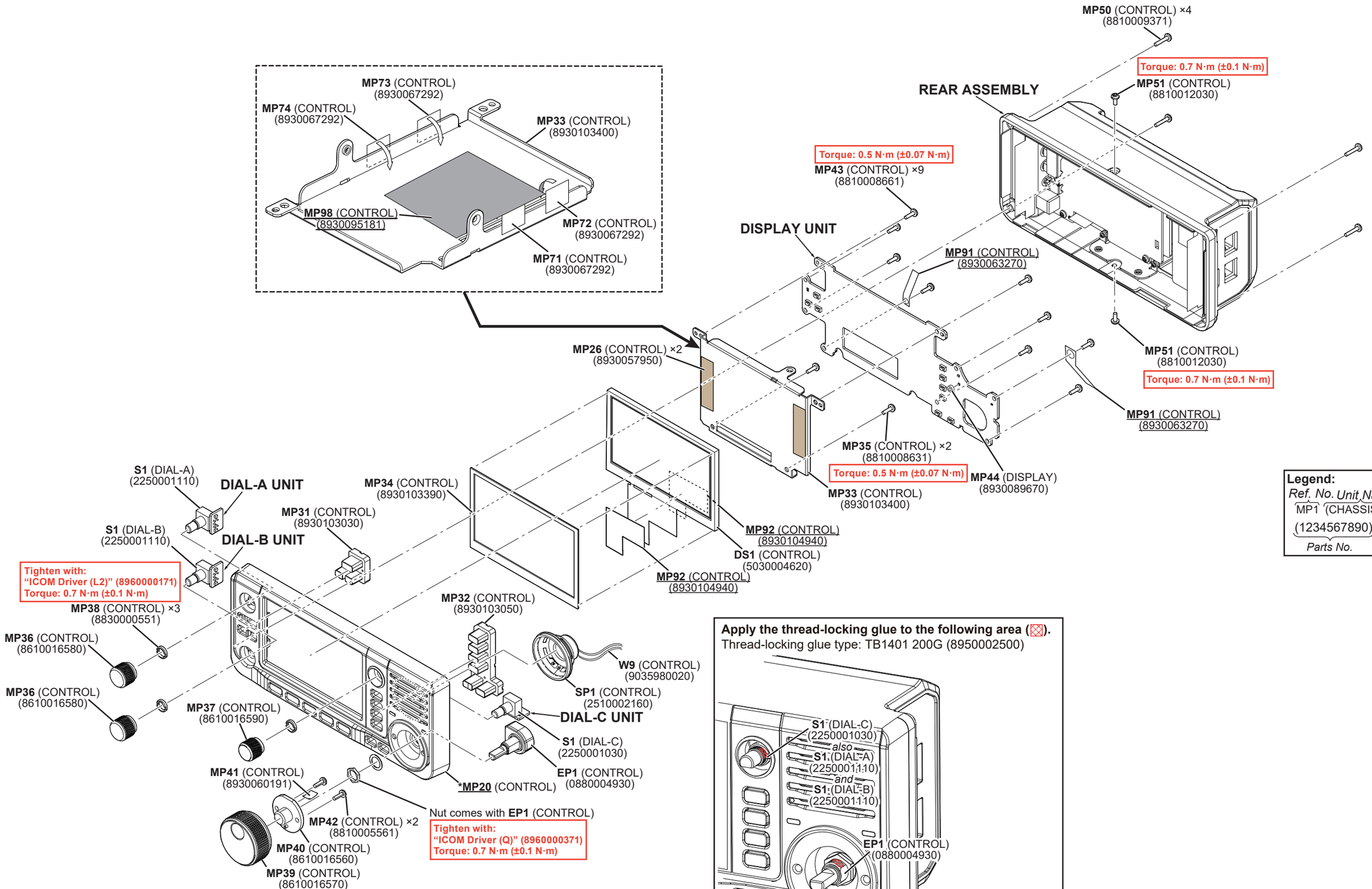
†Sold as an option.



*: Refer to “BOARD LAYOUTS” for the location.
**: Refer to “GENERAL WIRING” for the connection
Screw abbreviations A, B0, BT: Self-tapping PH: Pan head BS: Brass NI: Nickel ZU: Zinc SUS: Stainless

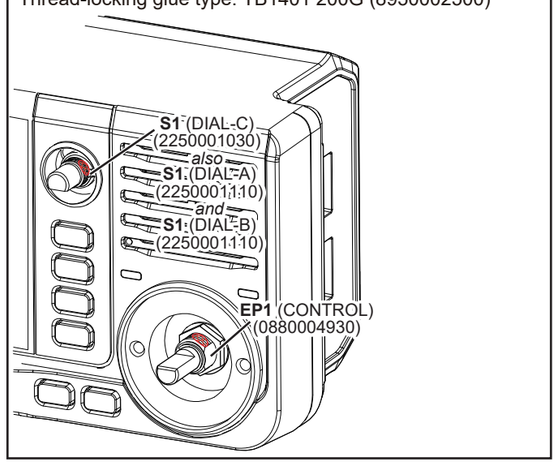
• **CONTROLLER (Front assembly)**

The underlined parts have been updated from the addendum of the previous version, or from the original page.



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

Apply the thread-locking glue to the following area (▨).
Thread-locking glue type: TB1401 200G (8950002500)



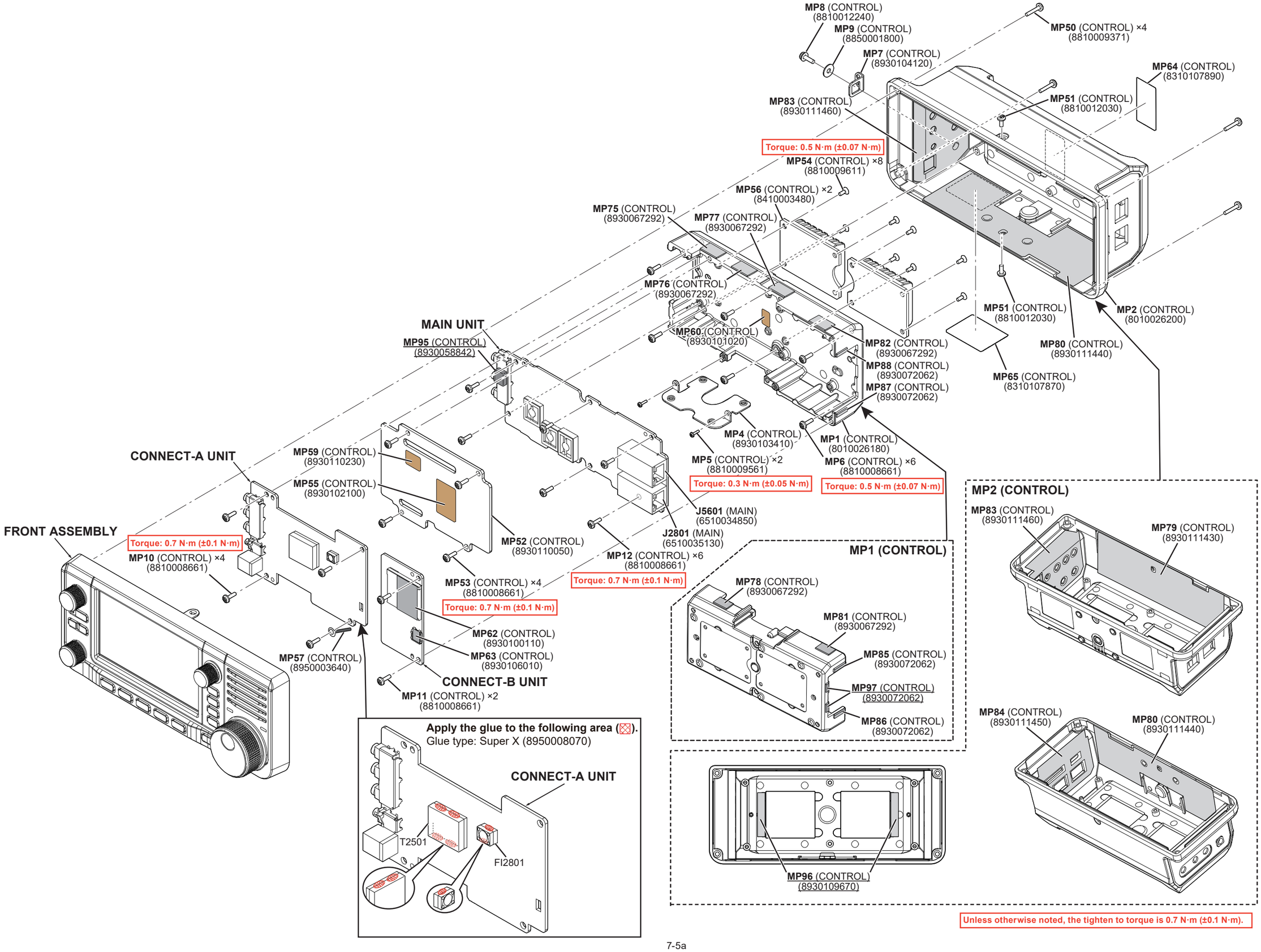
Unless otherwise noted, the tighten to torque is 0.5 N·m (±0.07 N·m).

NOTE: When replacing a flat cable, form the new one in the same shape as the original.

*Refer to the Mechanical Parts list.

• **CONTROLLER (Rear assembly)**

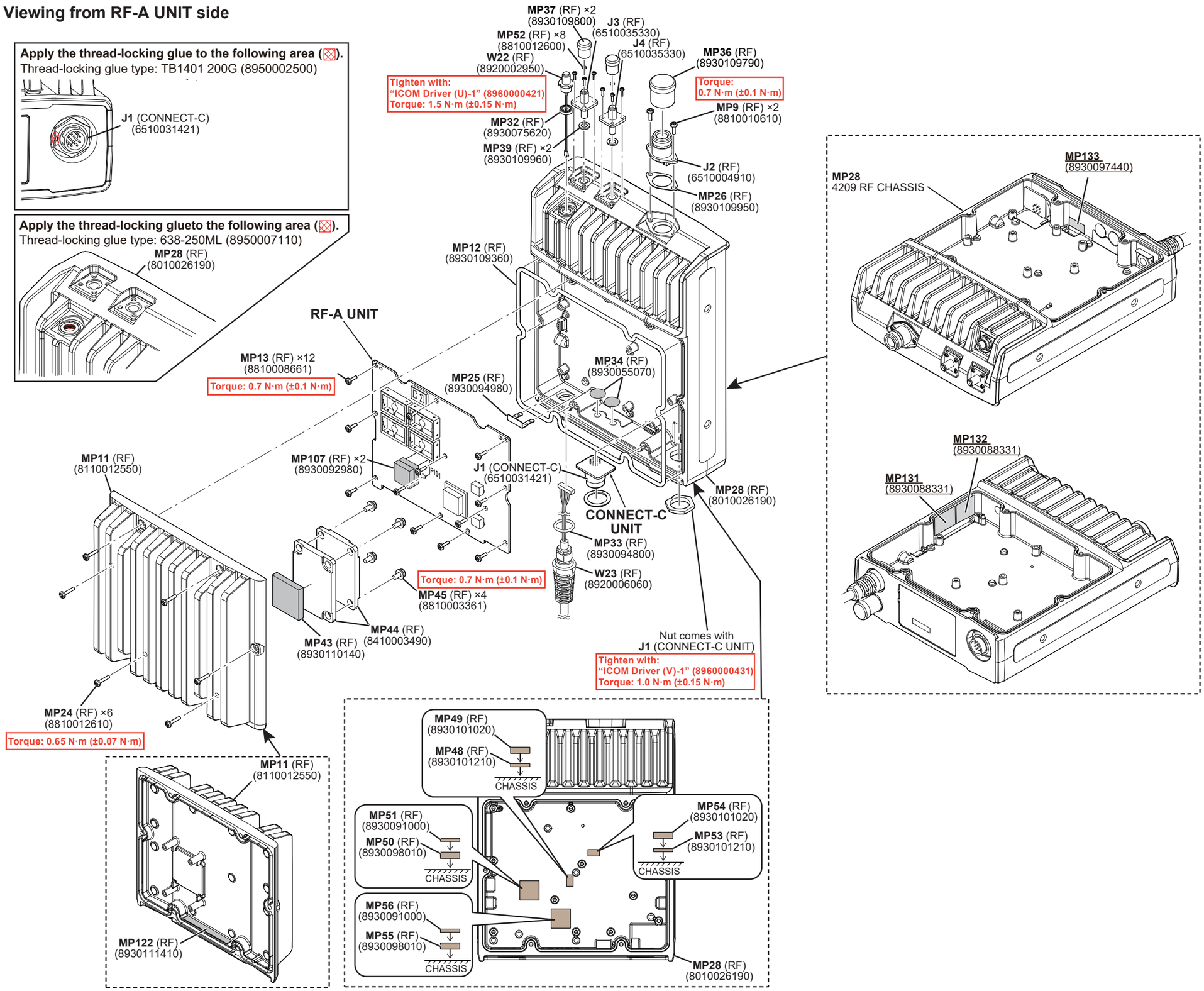
The underlined parts have been updated from the addendum of the previous version, or from the original page.



• **RF UNIT**

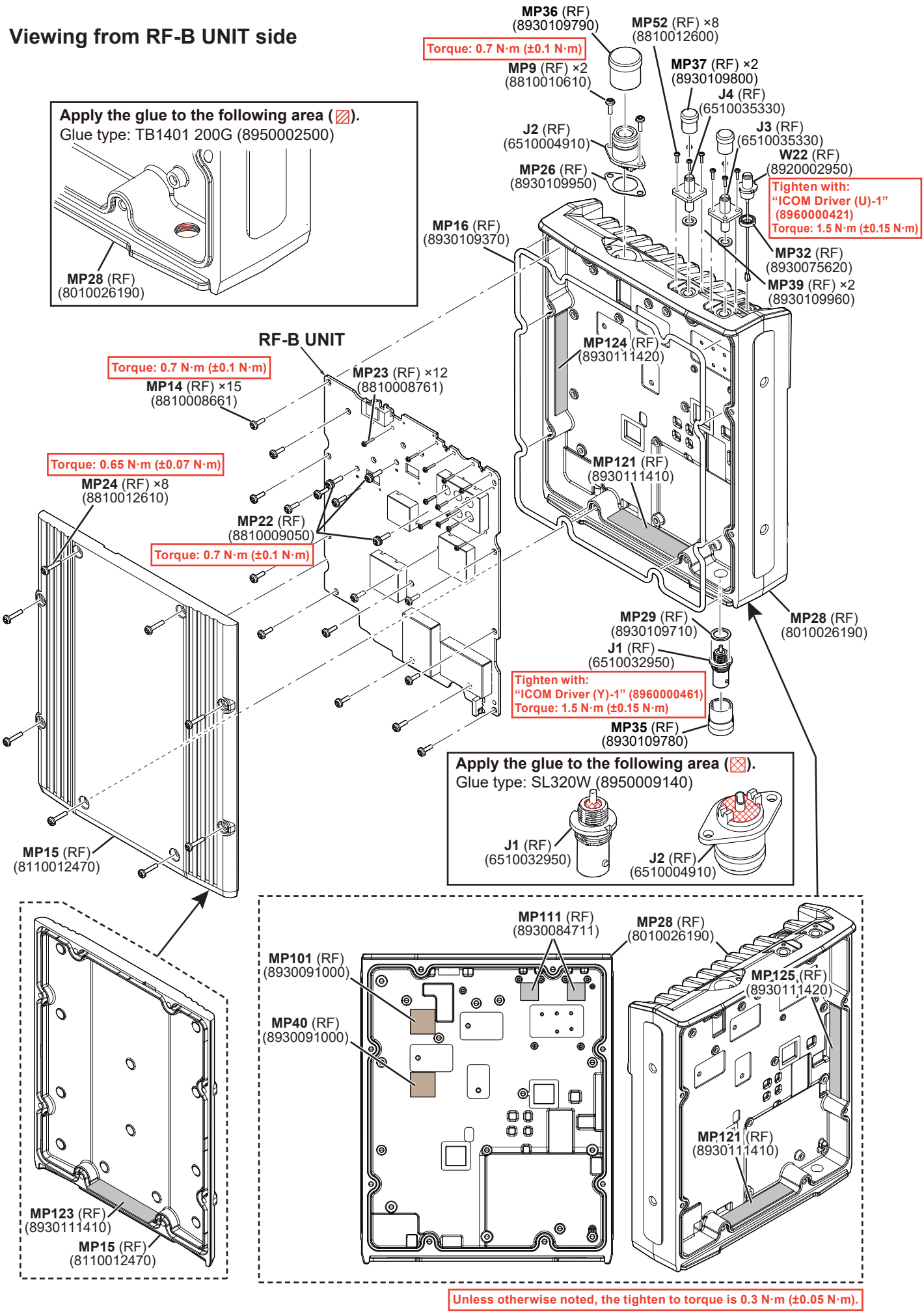
The underlined parts have been updated from the addendum of the previous version, or from the original page.

Viewing from RF-A UNIT side



The underlined parts have been updated from the addendum of the previous version, or from the original page.

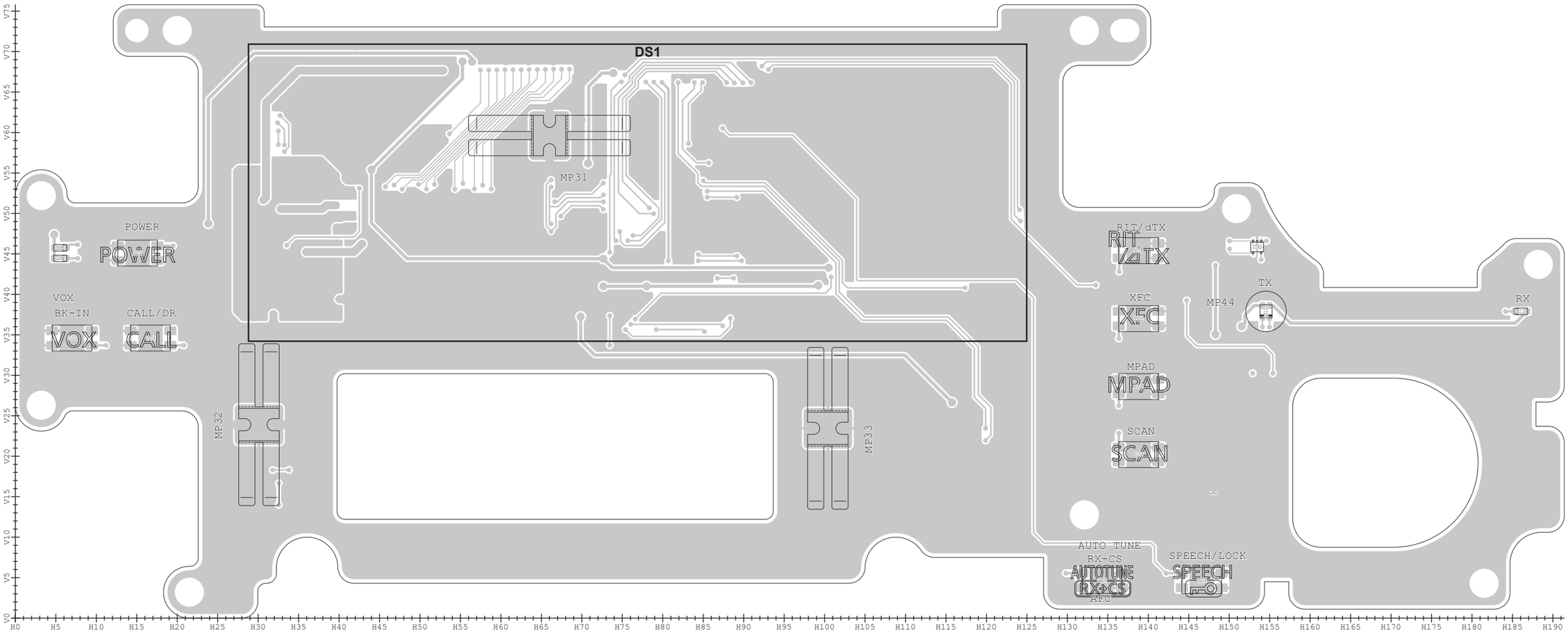
Viewing from RF-B UNIT side



SECTION 8 BOARD LAYOUTS

The underlined parts have been updated from the addendum of the previous version, or from the original page.

• DISPLAY UNIT (B-9551C: Top view)



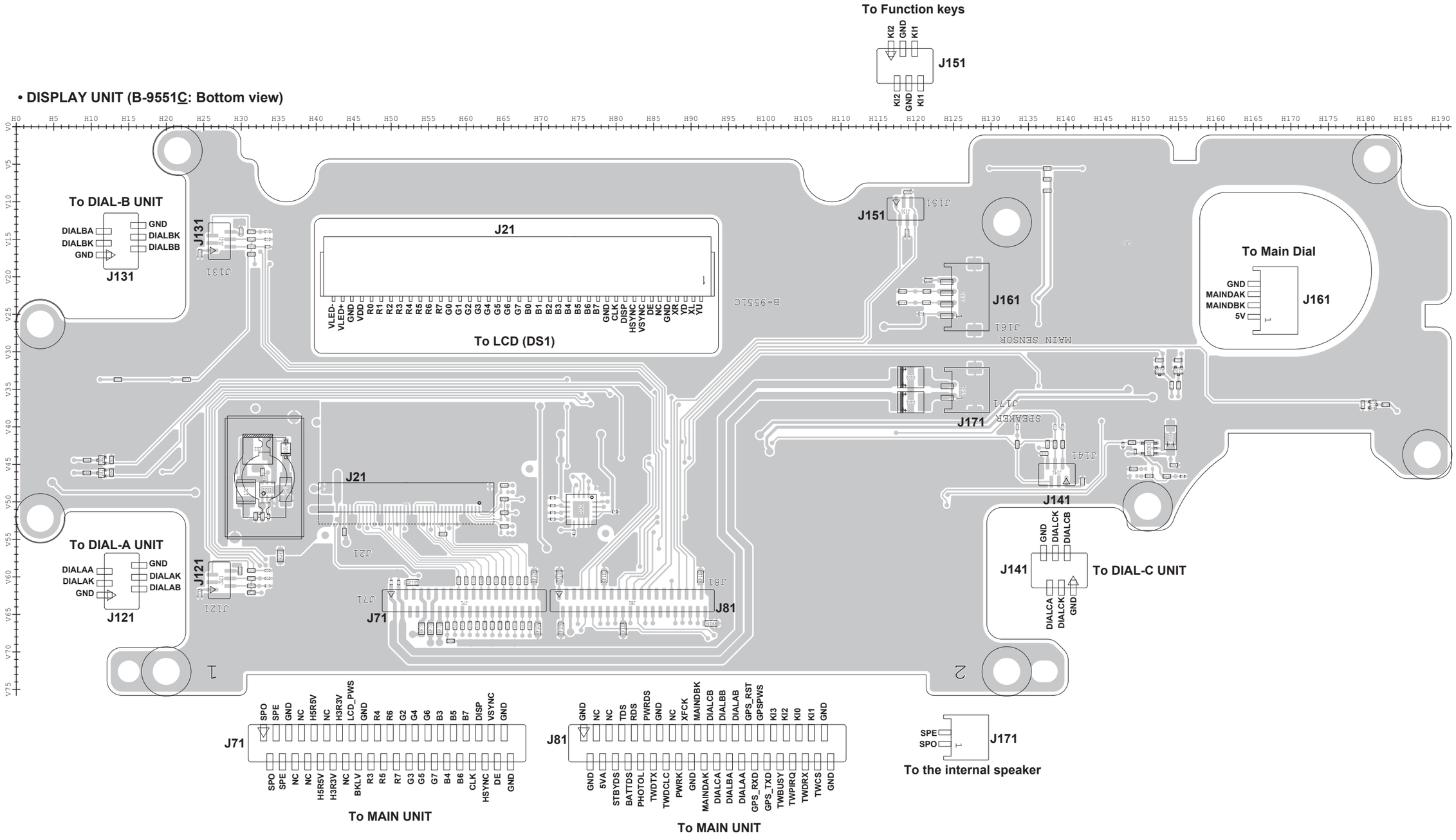
The serial numbers of transceivers that use the PCB (B-9551C).

Model Name	Version	Serial Numbers
IC-905	[#12]	12001501 and above
IC-905	[#13]	13001001 and above

NOTE: Some parts may not be mounted on the PCB, depending on the transceiver version.

The underlined parts have been updated from the addendum of the previous version, or from the original page.

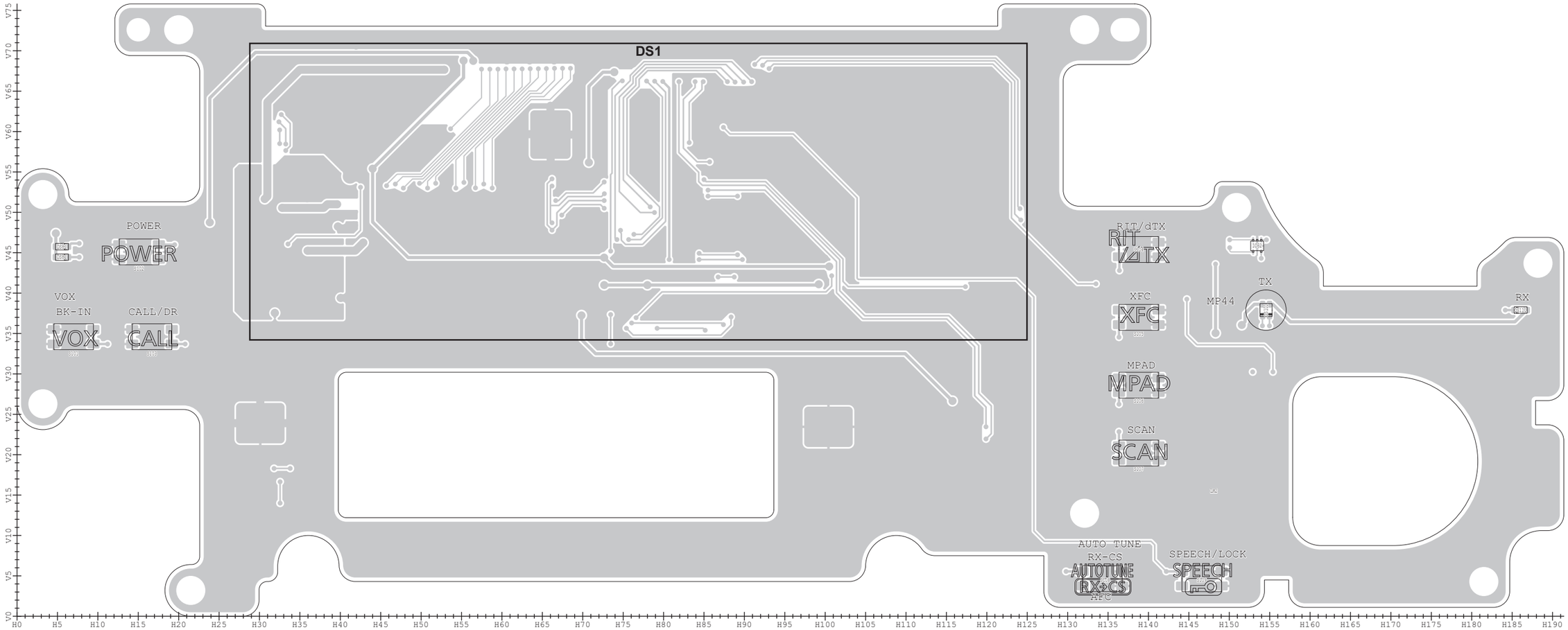
• DISPLAY UNIT (B-9551C: Bottom view)



NOTE: Some parts may not be mounted on the PCB, depending on the transceiver version.

The underlined parts have been updated from the addendum of the previous version, or from the original page.

• DISPLAY UNIT (B-9551B: Top view)



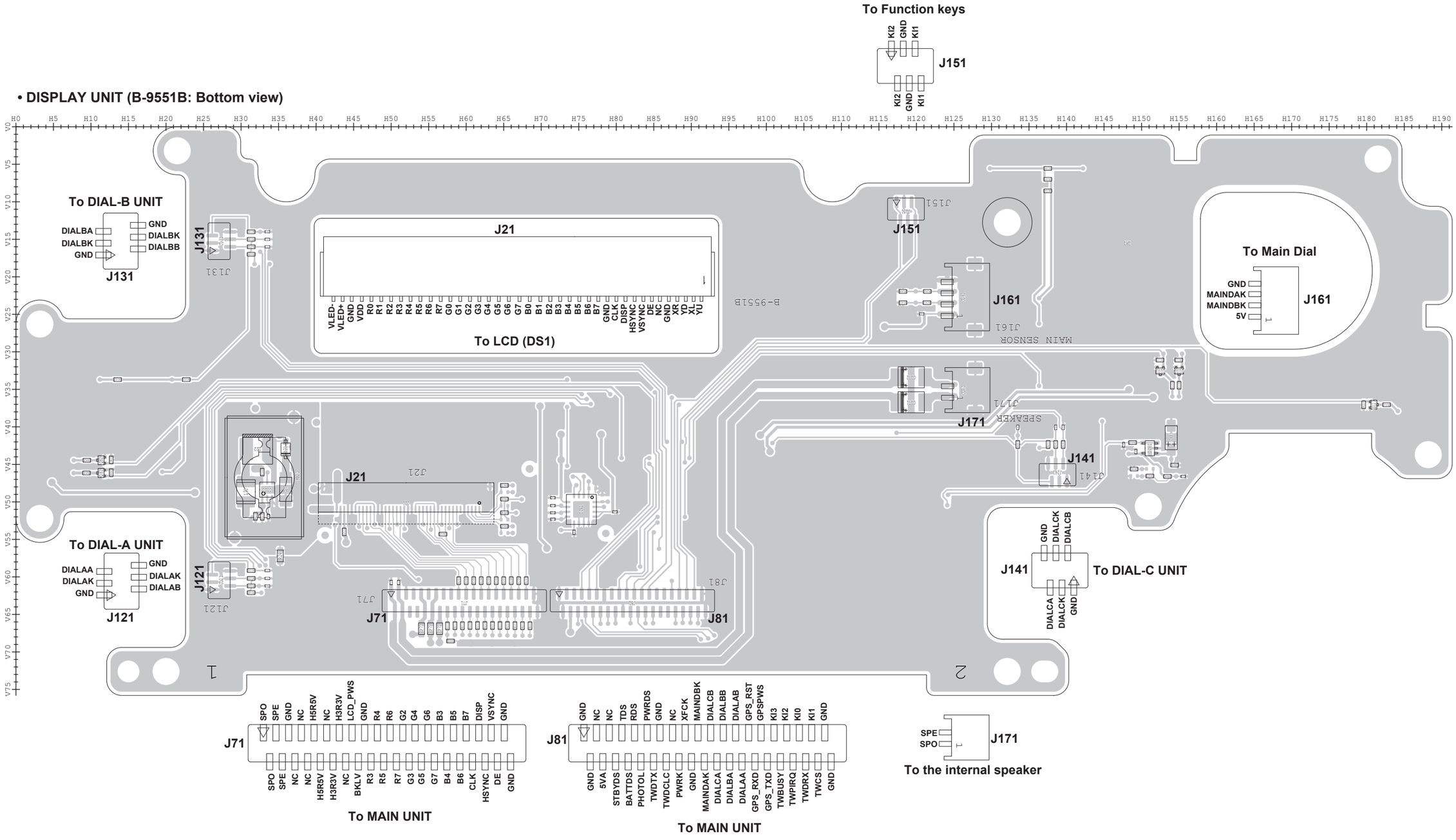
The serial numbers of transceivers that use the PCB (B-9551B).

Model Name	Version	Serial Numbers
IC-905	[#12]	12001001 and 12001500
IC-905	[#13]	Not used

NOTE: Some parts may not be mounted on the PCB, depending on the transceiver version.

The underlined parts have been updated from the addendum of the previous version, or from the original page.

• DISPLAY UNIT (B-9551B: Bottom view)

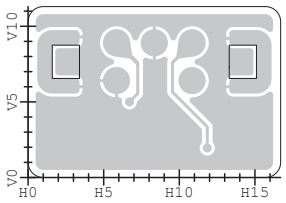


NOTE: Some parts may not be mounted on the PCB, depending on the transceiver version.

The underlined parts have been updated from the addendum of the previous version, or from the original page.

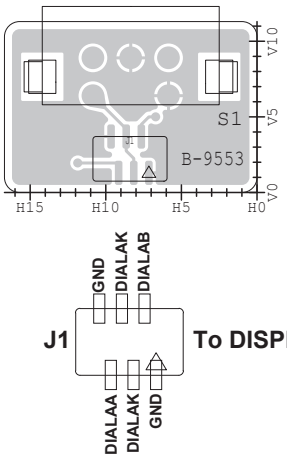
• DIAL-A UNIT (B-9553)

(Top view)



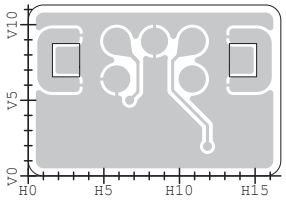
(Bottom view)

[TWIN PBT]



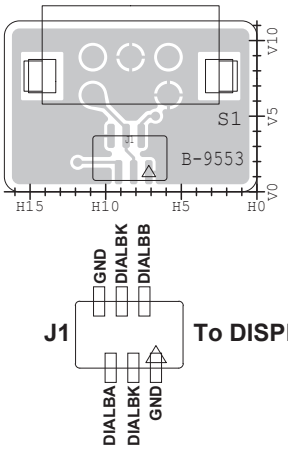
• DIAL-B UNIT (B-9553)

(Top view)



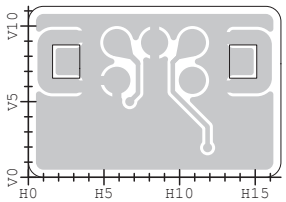
(Bottom view)

[AF/RF/SQL]



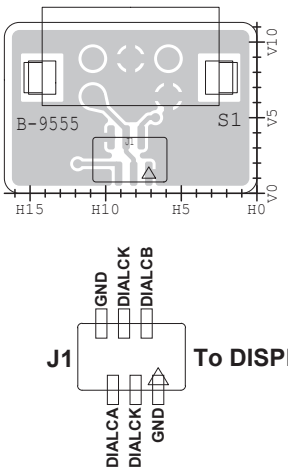
• DIAL-C UNIT (B-9555)

(Top view)



(Bottom view)

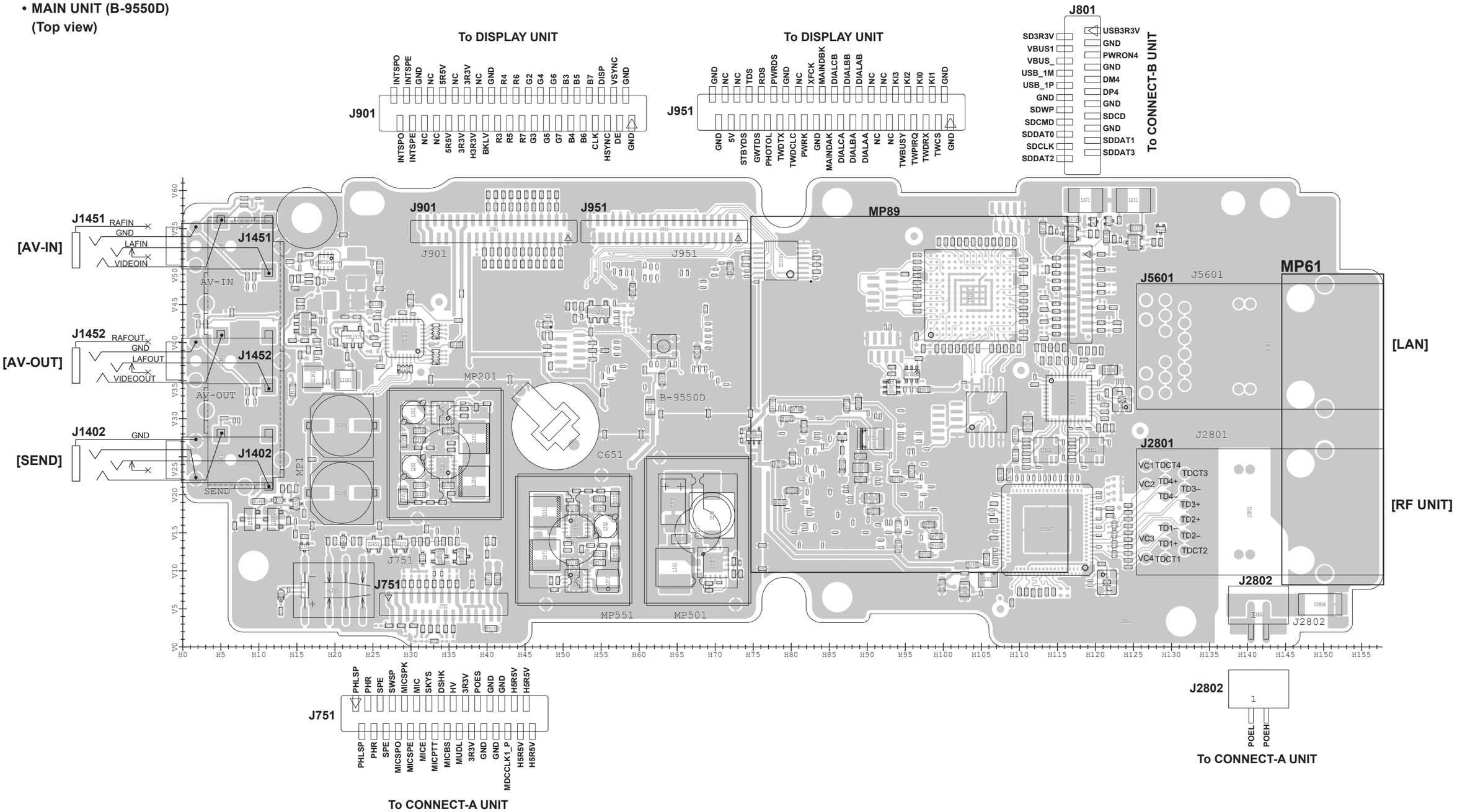
[MULTI]



NOTE: Some parts may not be mounted on the PCB, depending on the transceiver version.

The underlined parts have been updated from the addendum of the previous version, or from the original page.

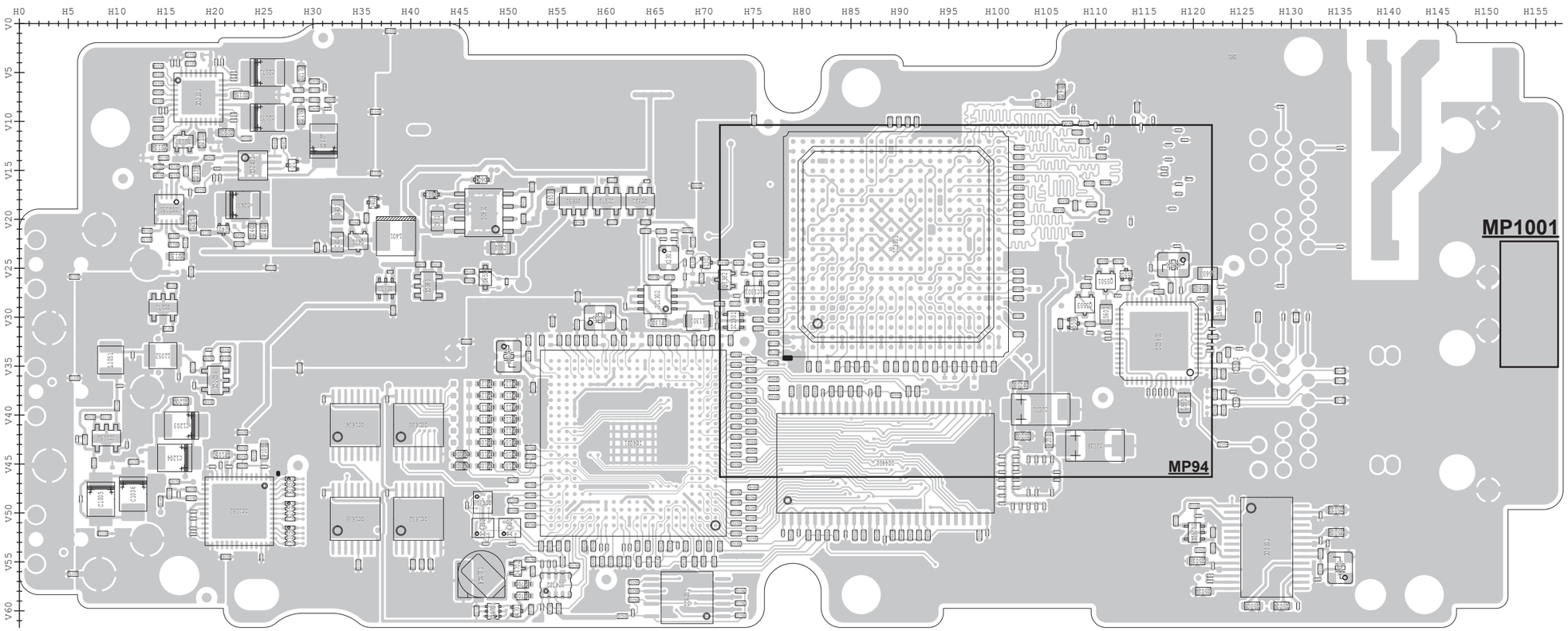
• **MAIN UNIT (B-9550D)**
(Top view)



NOTE: Some parts may not be mounted on the PCB, depending on the transceiver version.

The underlined parts have been updated from the addendum of the previous version, or from the original page.

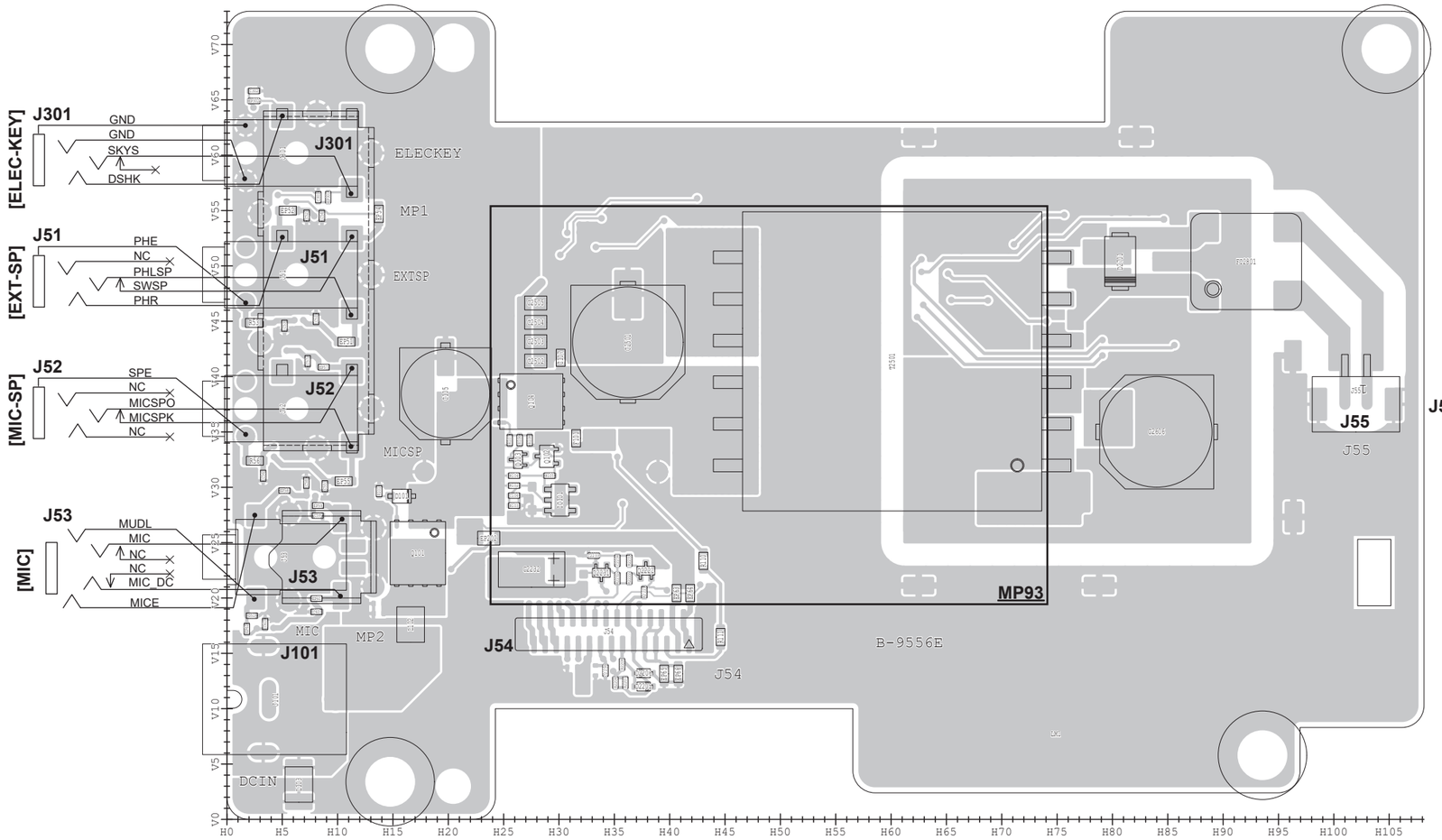
- **MAIN UNIT (B-9550D)**
  (Bottom view)

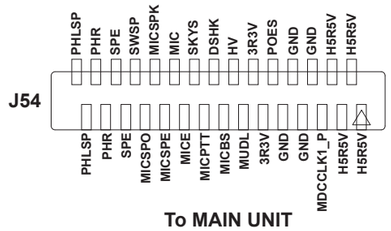


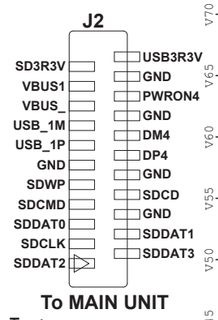
NOTE: Some parts may not be mounted on the PCB, depending on the transceiver version.

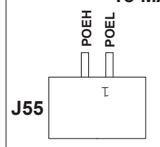
The underlined parts have been updated from the addendum of the previous version, or from the original page.

• CONNECT-A UNIT (B-9556E)
(Top view)

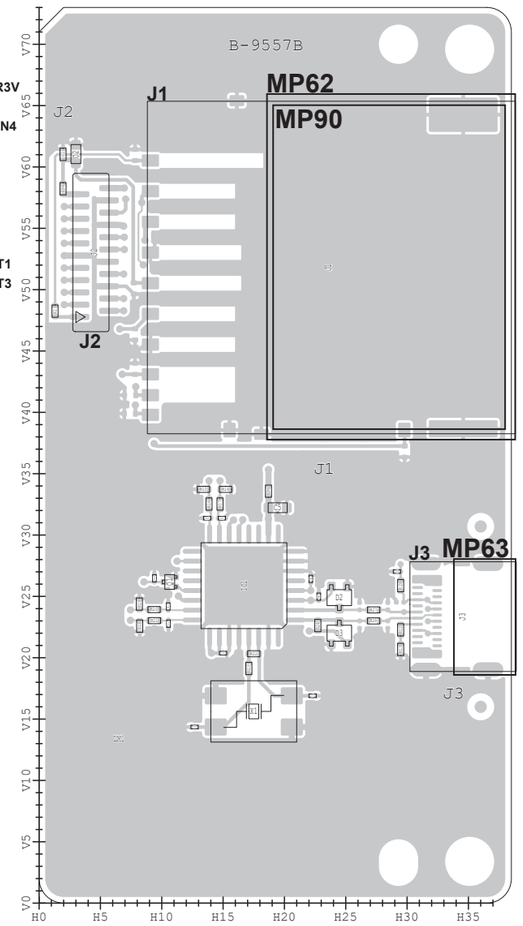




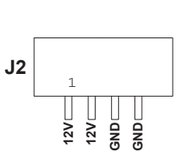


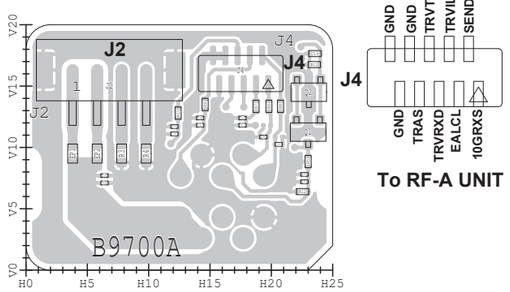


• CONNECT-B UNIT (B-9557B)
(Top view)



• CONNECT-C UNIT (B-9700A)
(Top view)





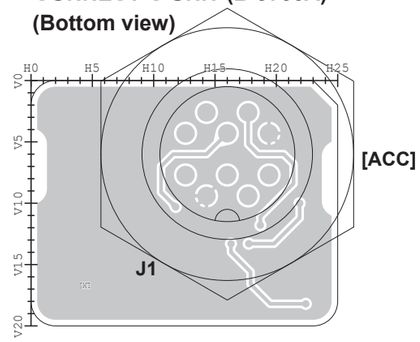
The serial numbers of transceivers that use the PCB (B-9556E).

Model Name	Version	Serial Numbers
IC-905	[#12]	12001501 and above
IC-905	[#13]	13001001 and above

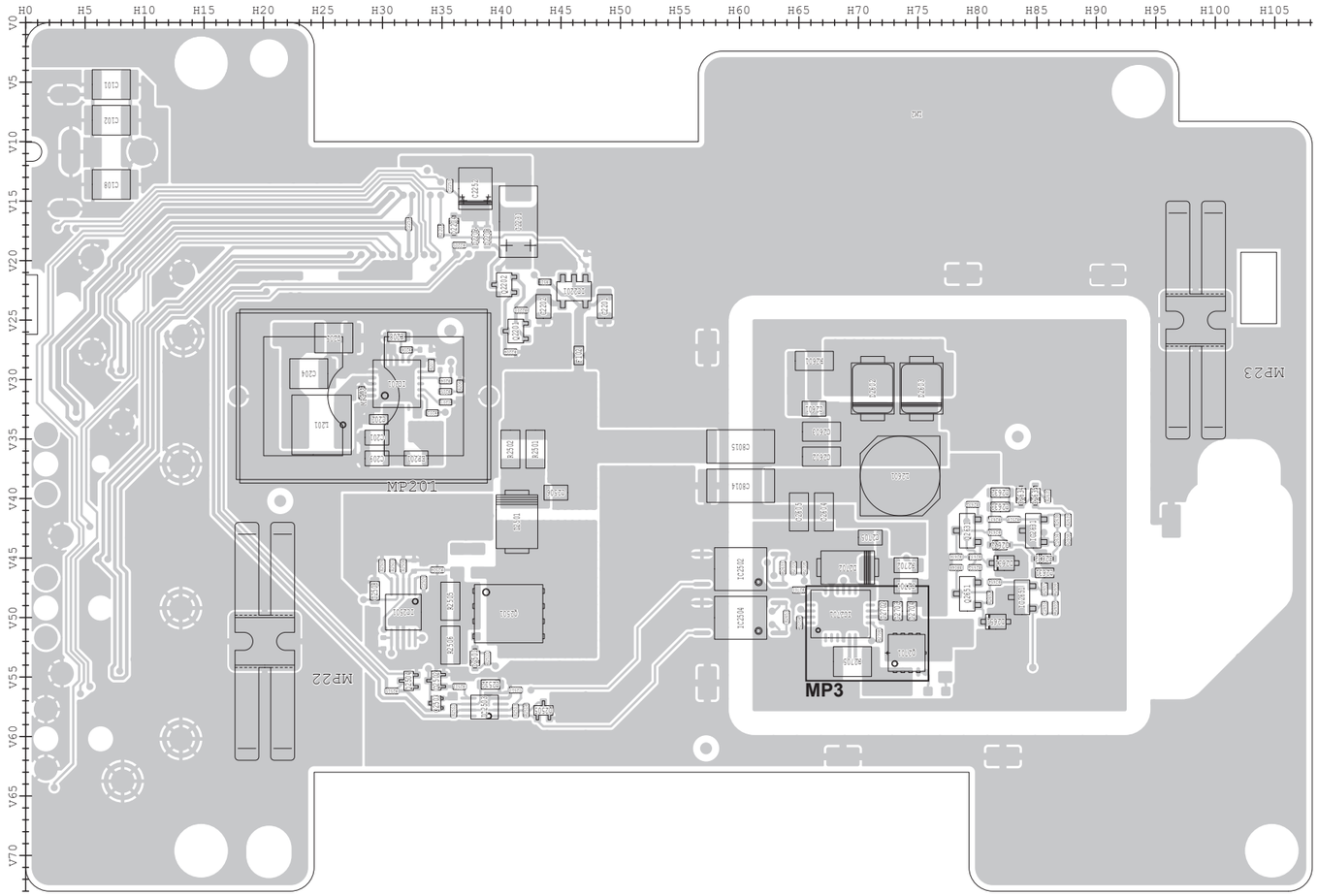
NOTE: Some parts may not be mounted on the PCB, depending on the transceiver version.

The underlined parts have been updated from the addendum of the previous version, or from the original page.

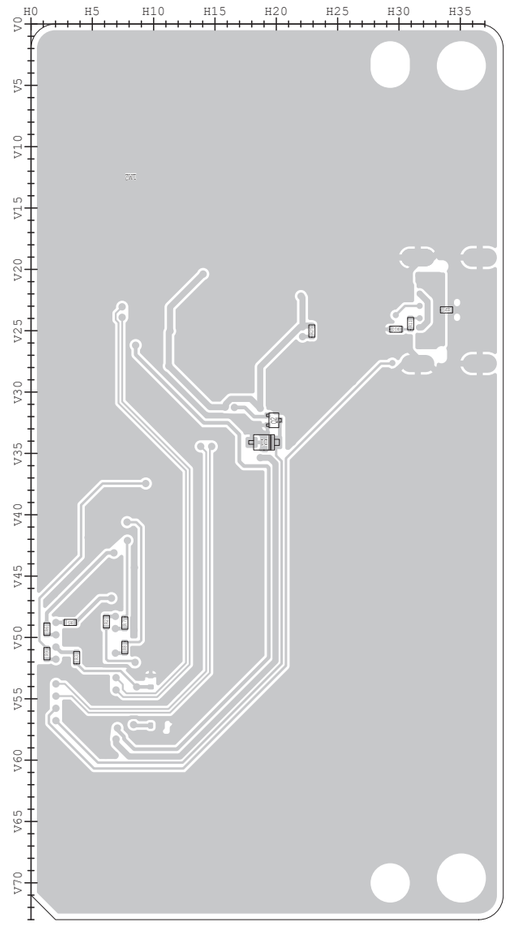
• CONNECT-C UNIT (B-9700A)
(Bottom view)



• CONNECT-A UNIT (B-9556E)
(Bottom view)



• CONNECT-B UNIT (B-9557B)
(Bottom view)

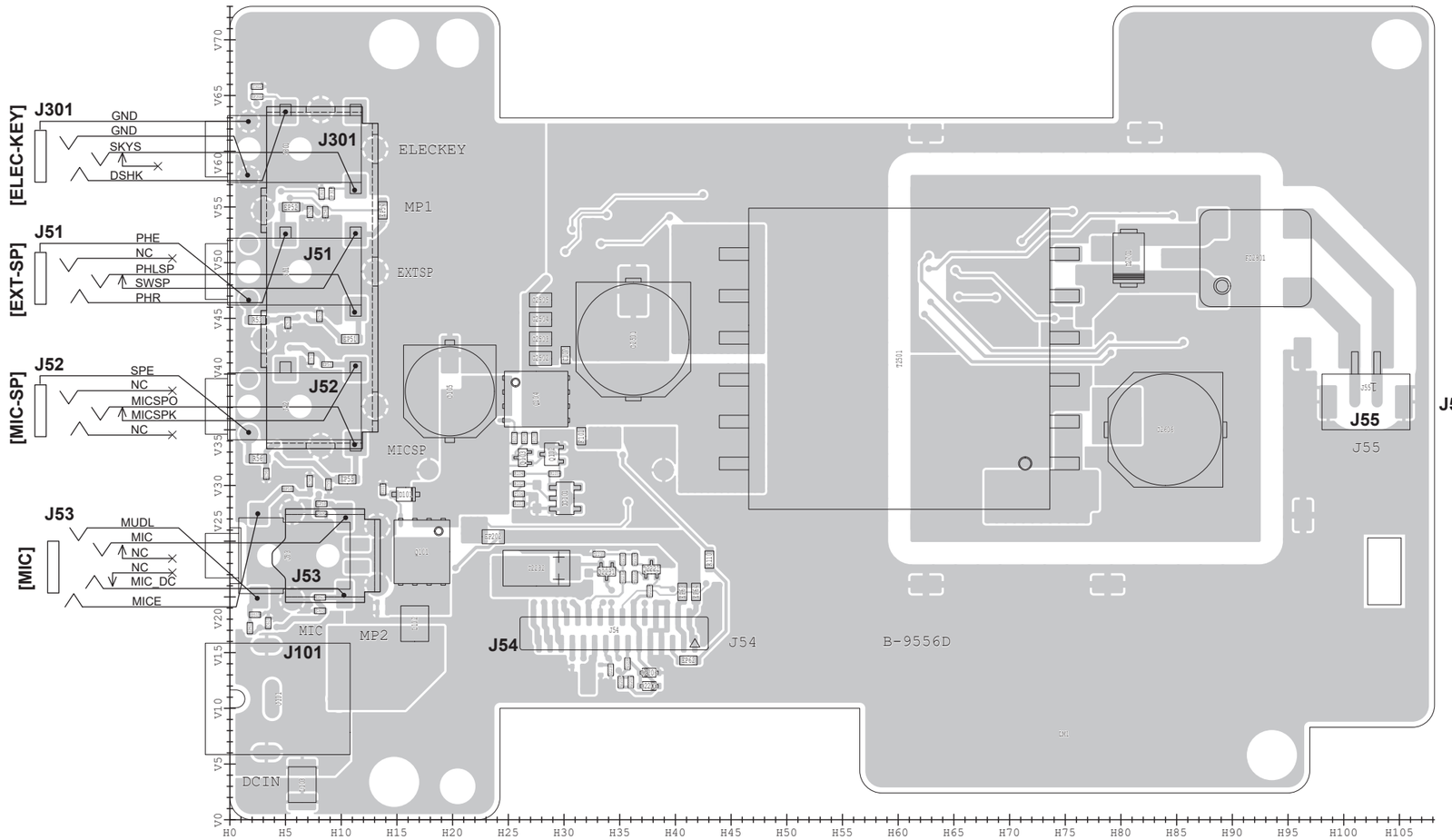


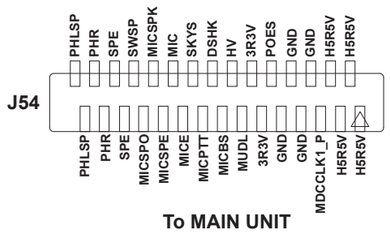
NOTE: Some parts may not be mounted on the PCB, depending on the transceiver version.

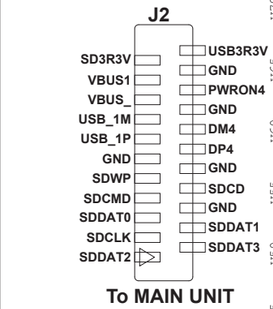
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The underlined parts have been updated from the addendum of the previous version, or from the original page.

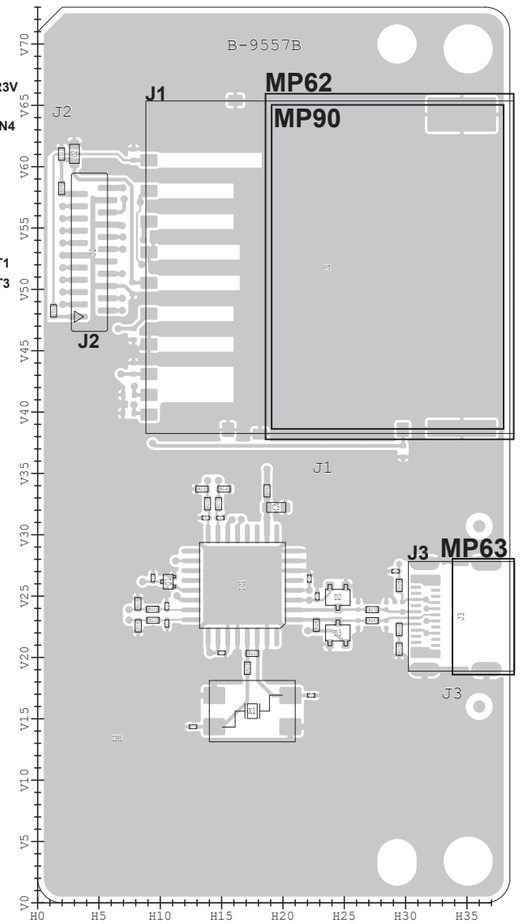
• **CONNECT-A UNIT (B-9556D)**
(Top view)



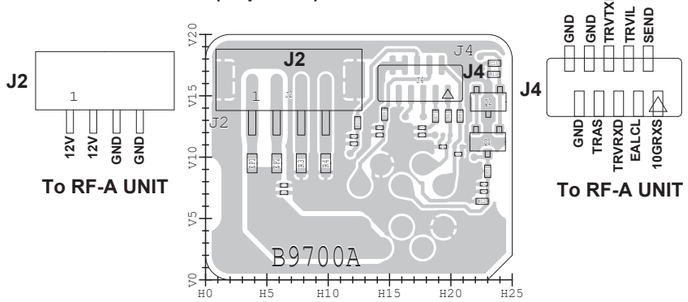




• **CONNECT-B UNIT (B-9557B)**
(Top view)



• **CONNECT-C UNIT (B-9700A)**
(Top view)



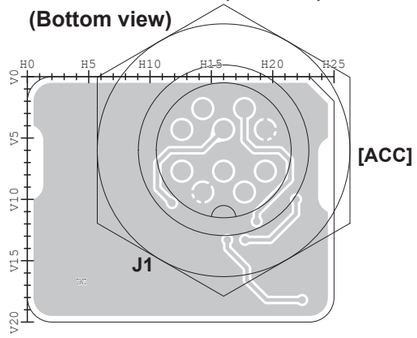
The serial numbers of transceivers that use the PCB (B-9556D).

Model Name	Version	Serial Numbers
IC-905	[#12]	12001001 ~ 12001500
IC-905	[#13]	Not used

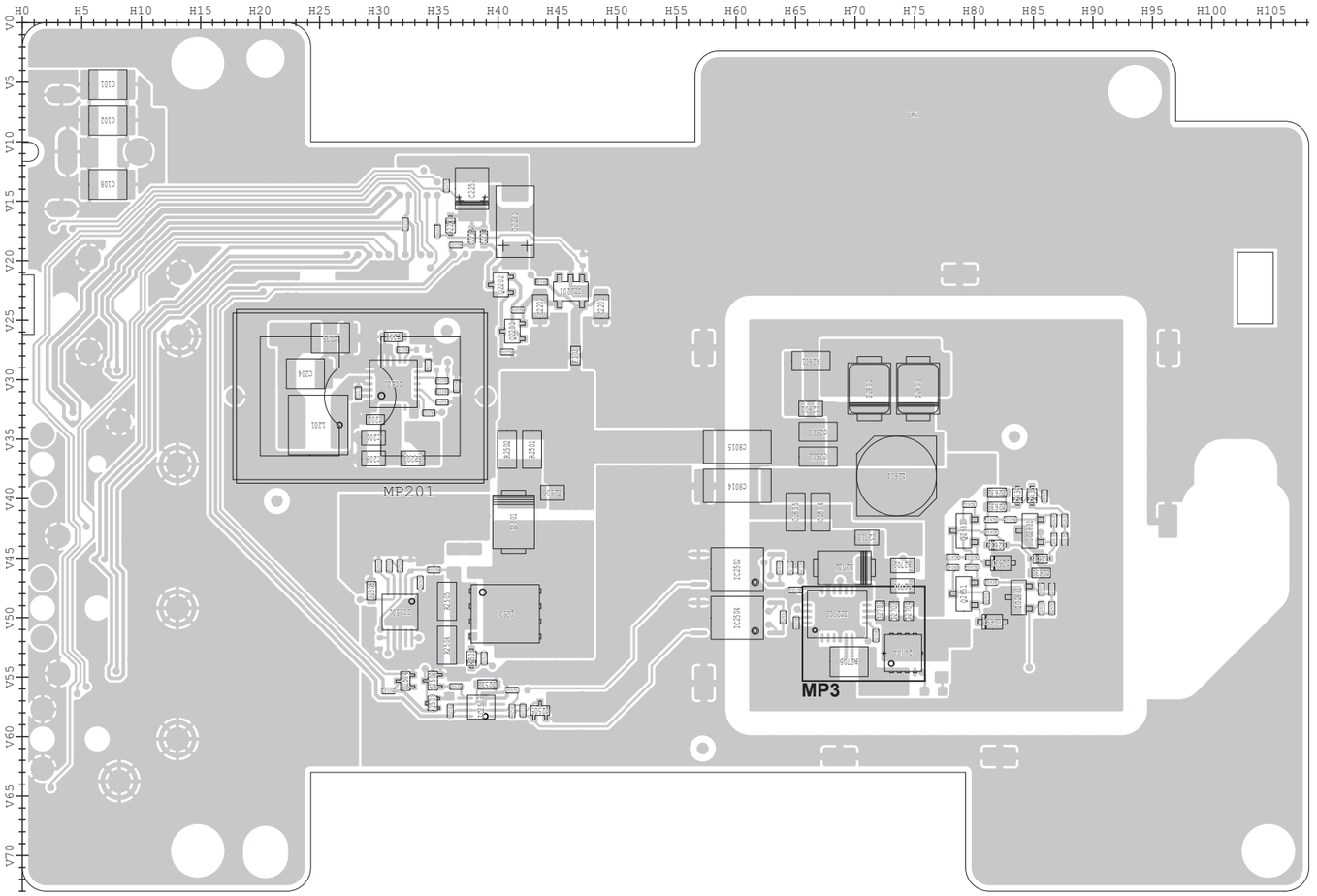
NOTE: Some parts may not be mounted on the PCB, depending on the transceiver version.

The underlined parts have been updated from the addendum of the previous version, or from the original page.

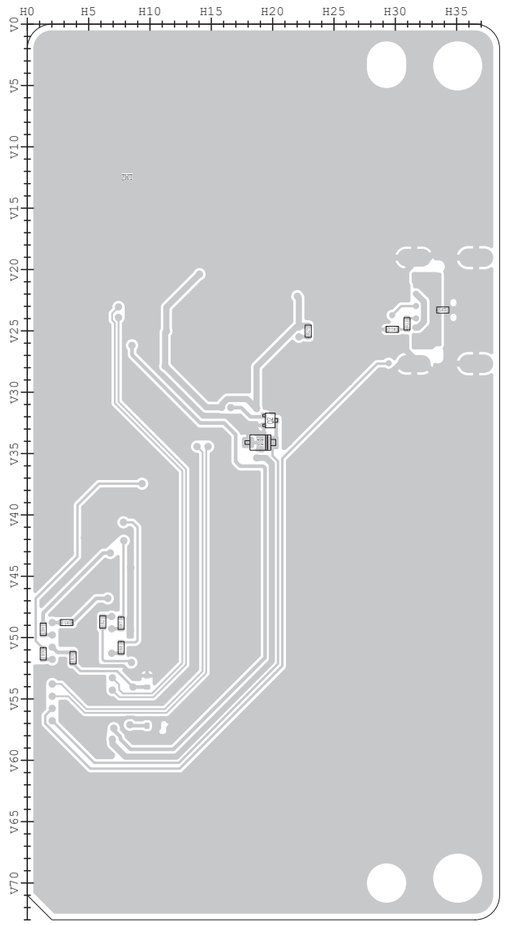
• CONNECT-C UNIT (B-9700A)
(Bottom view)



• CONNECT-A UNIT (B-9556D)
(Bottom view)



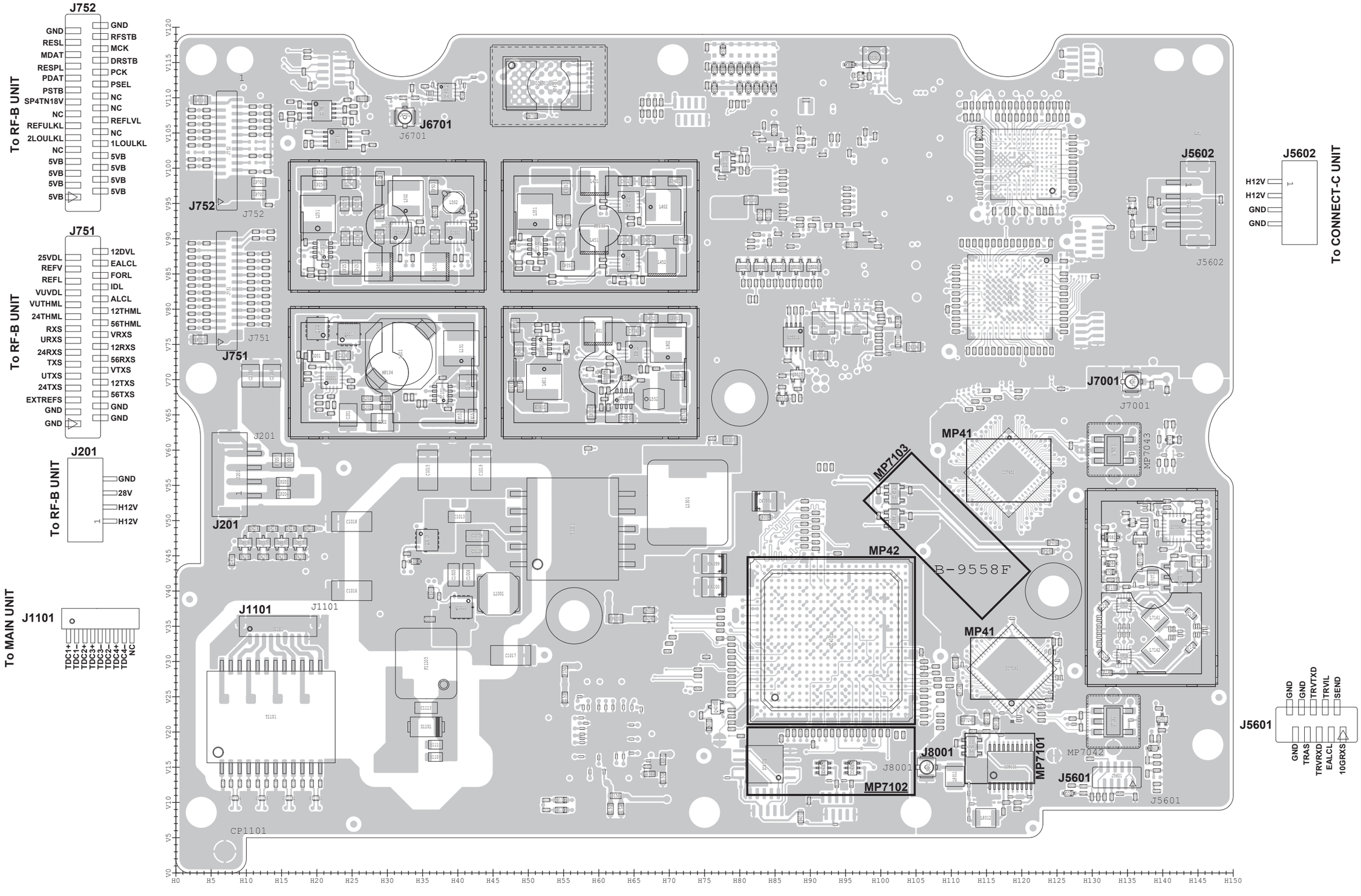
• CONNECT-B UNIT (B-9557B)
(Bottom view)



NOTE: Some parts may not be mounted on the PCB, depending on the transceiver version.

The underlined parts have been updated from the addendum of the previous version, or from the original page.

• RF-A UNIT (B-9558F)
(Top view)

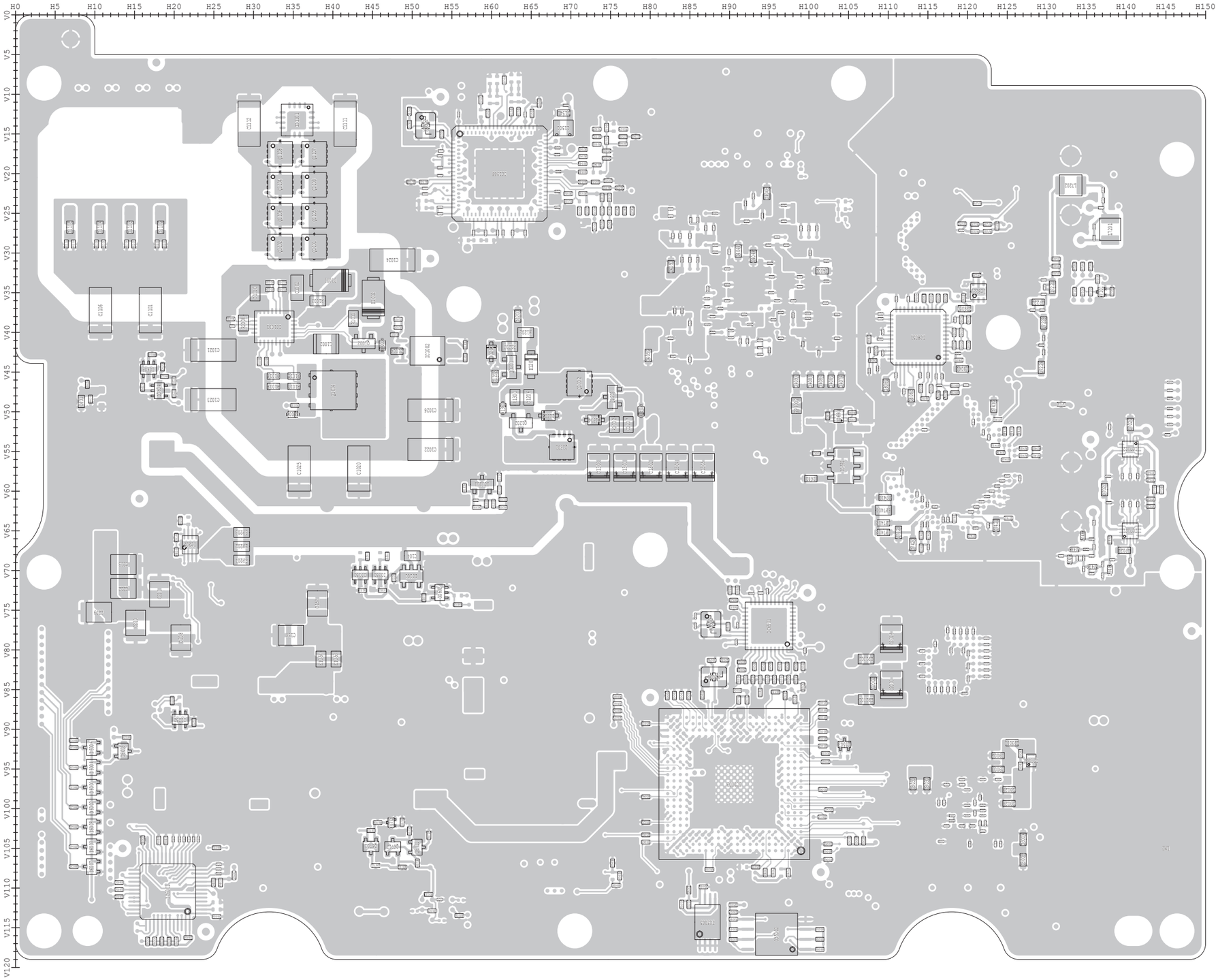


NOTE: Some parts may not be mounted on the PCB, depending on the transceiver version.

(Amended page)

The underlined parts have been updated from the addendum of the previous version, or from the original page.

- **RF-A UNIT (B-9558F)**
  (Bottom view)

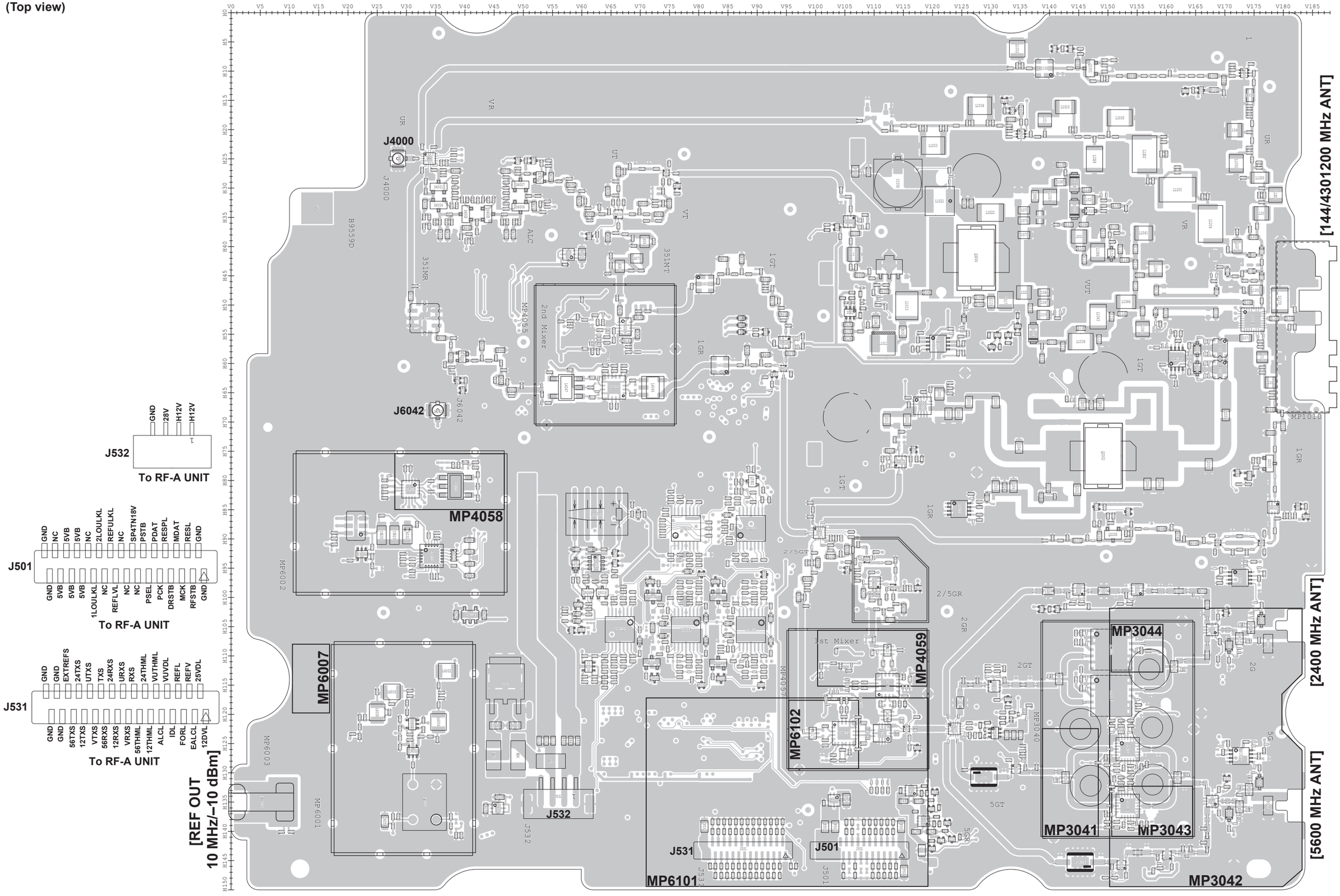


NOTE: Some parts may not be mounted on the PCB, depending on the transceiver version.

(Amended page)

The underlined parts have been updated from the addendum of the previous version, or from the original page.

• RF-B UNIT (B-9559D)
(Top view)

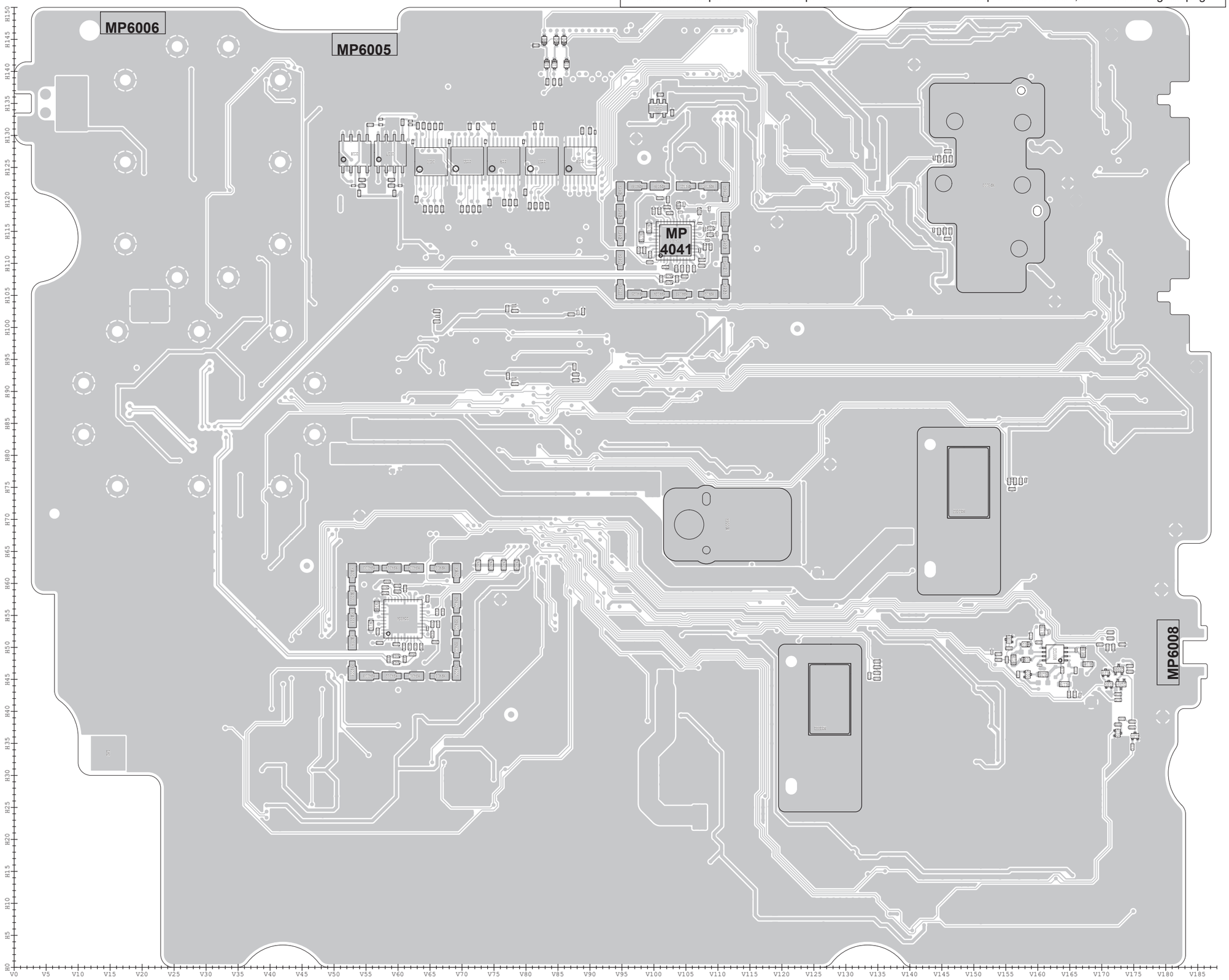


NOTE: Some parts may not be mounted on the PCB, depending on the transceiver version.

(Amended page)

- **RF-B UNIT (B-9559D)**
  (Bottom view)

The underlined parts have been updated from the addendum of the previous version, or from the original page.

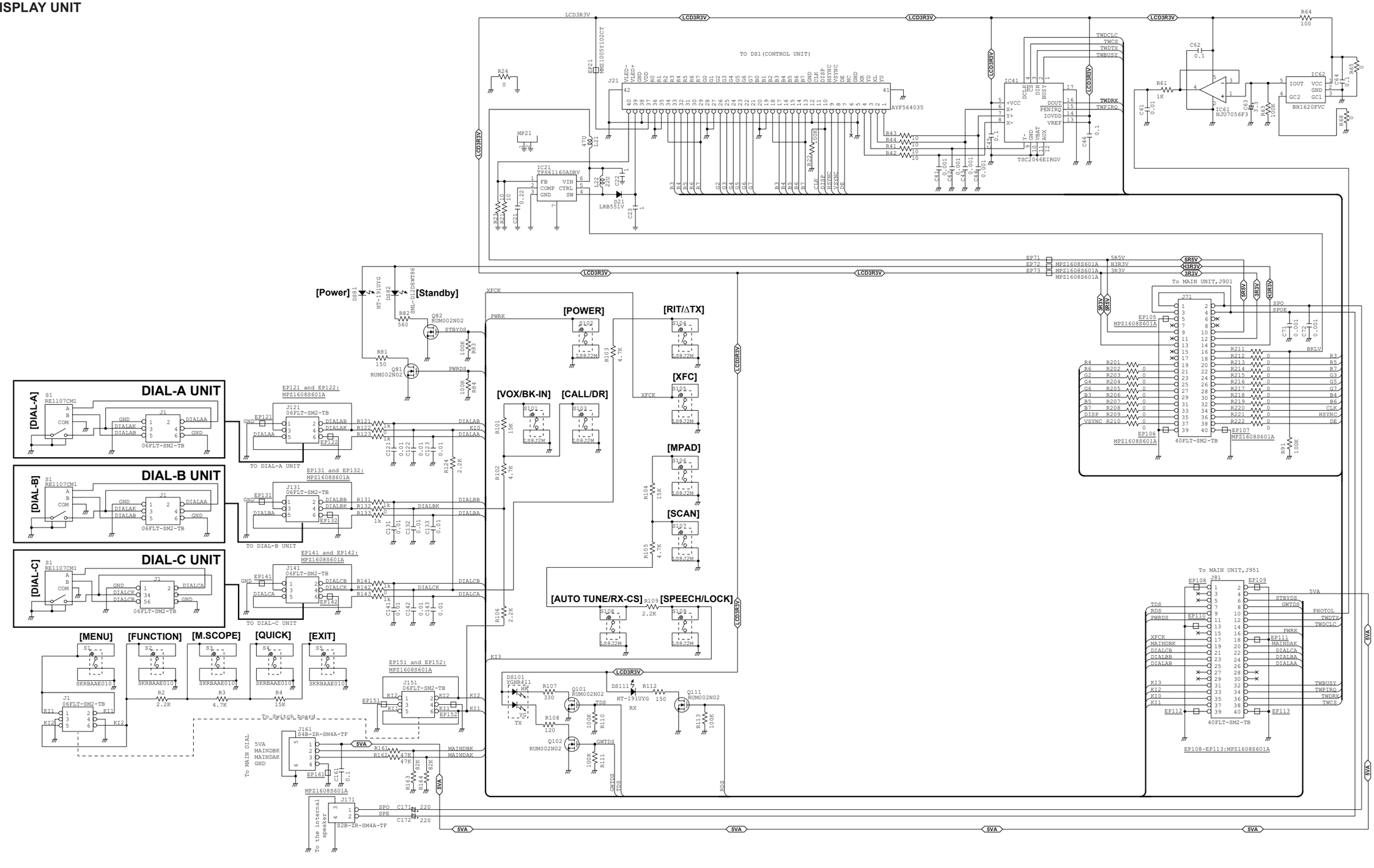


NOTE: Some parts may not be mounted on the PCB, depending on the transceiver version.

SECTION 11 SCHEMATIC DIAGRAM

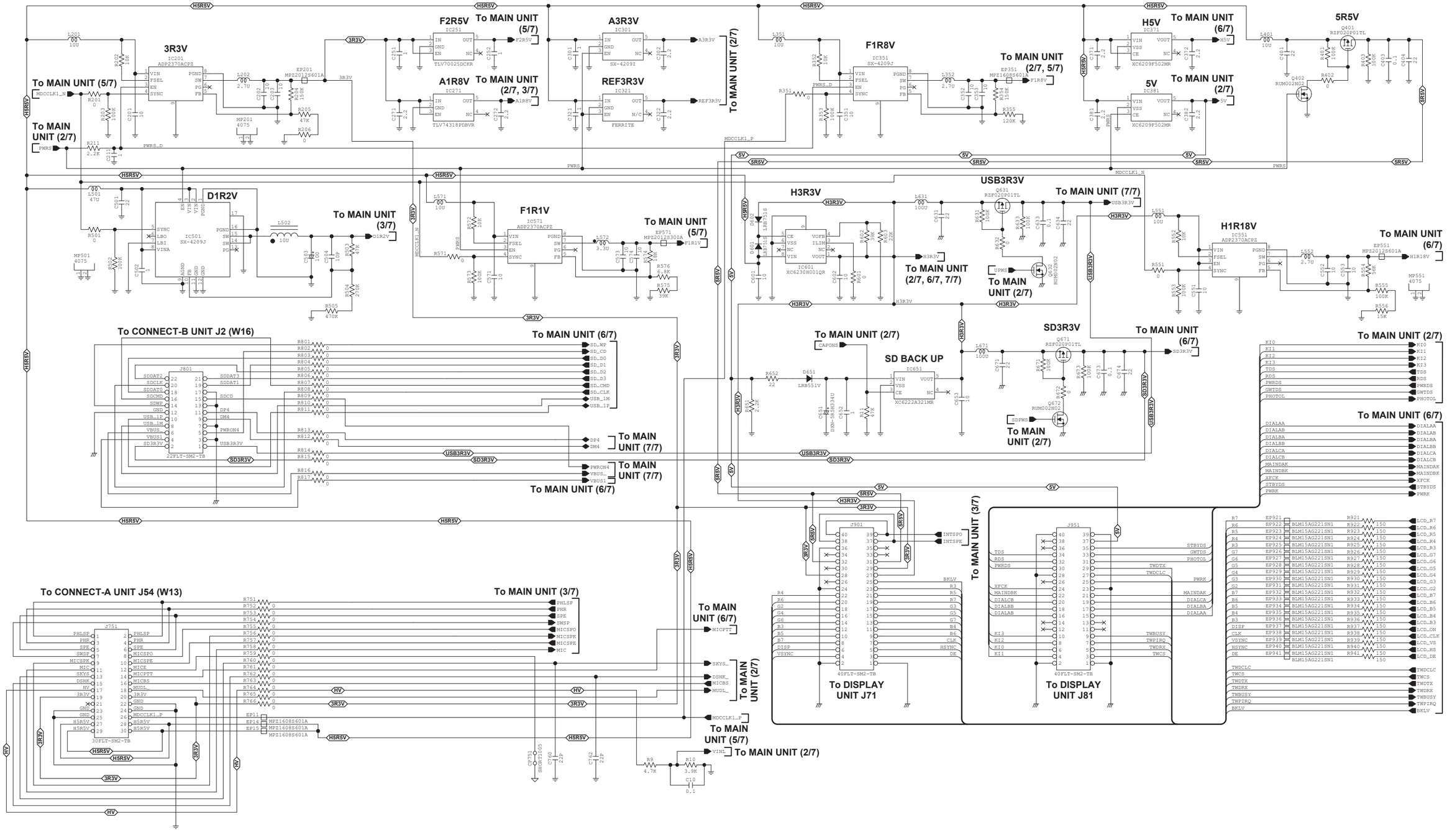
The underlined parts have been updated from the addendum of the previous version, or from the original page.

• DISPLAY UNIT



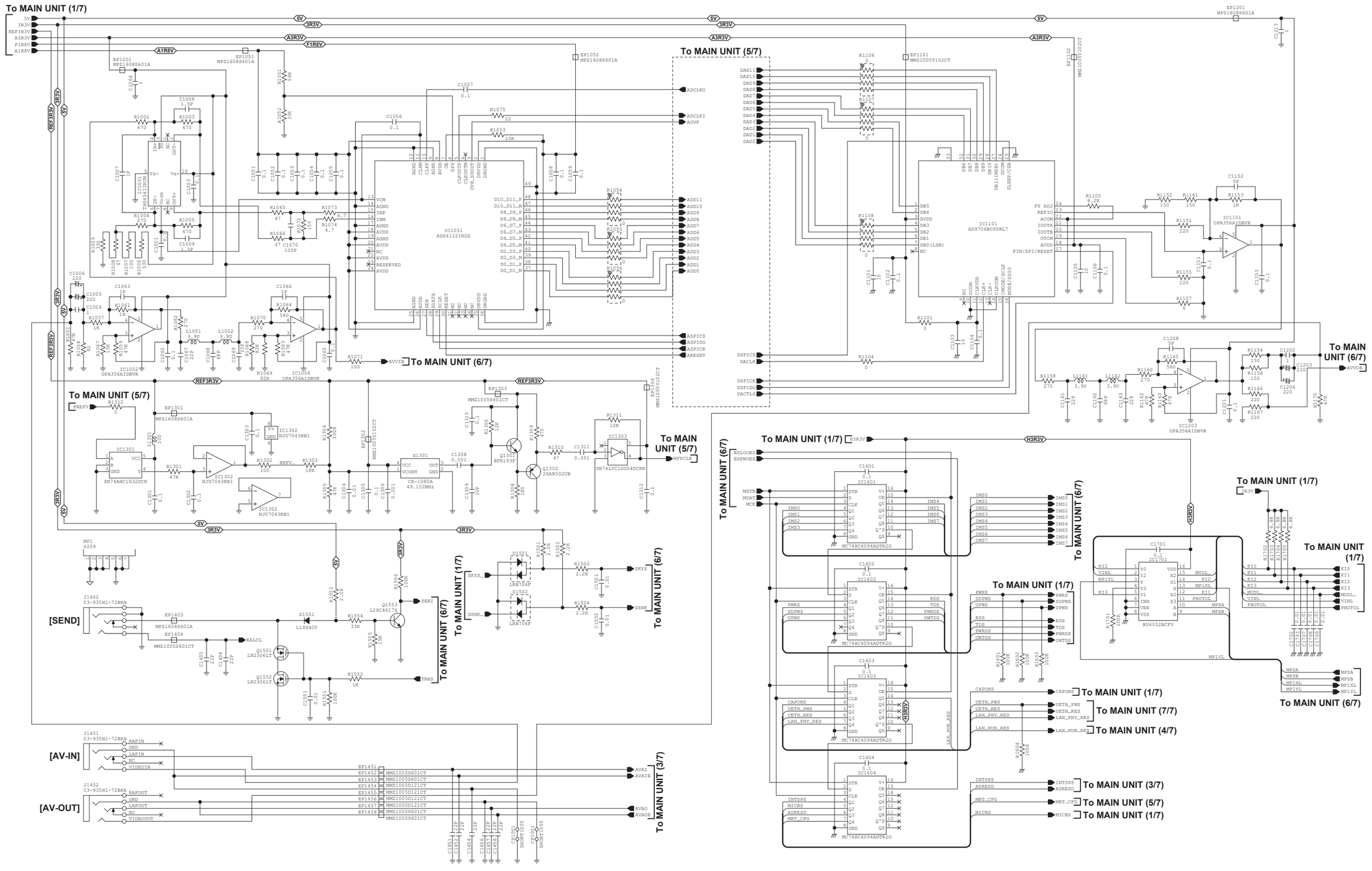
The underlined parts have been updated from the addendum of the previous version, or from the original page.

• MAIN UNIT (1/7)



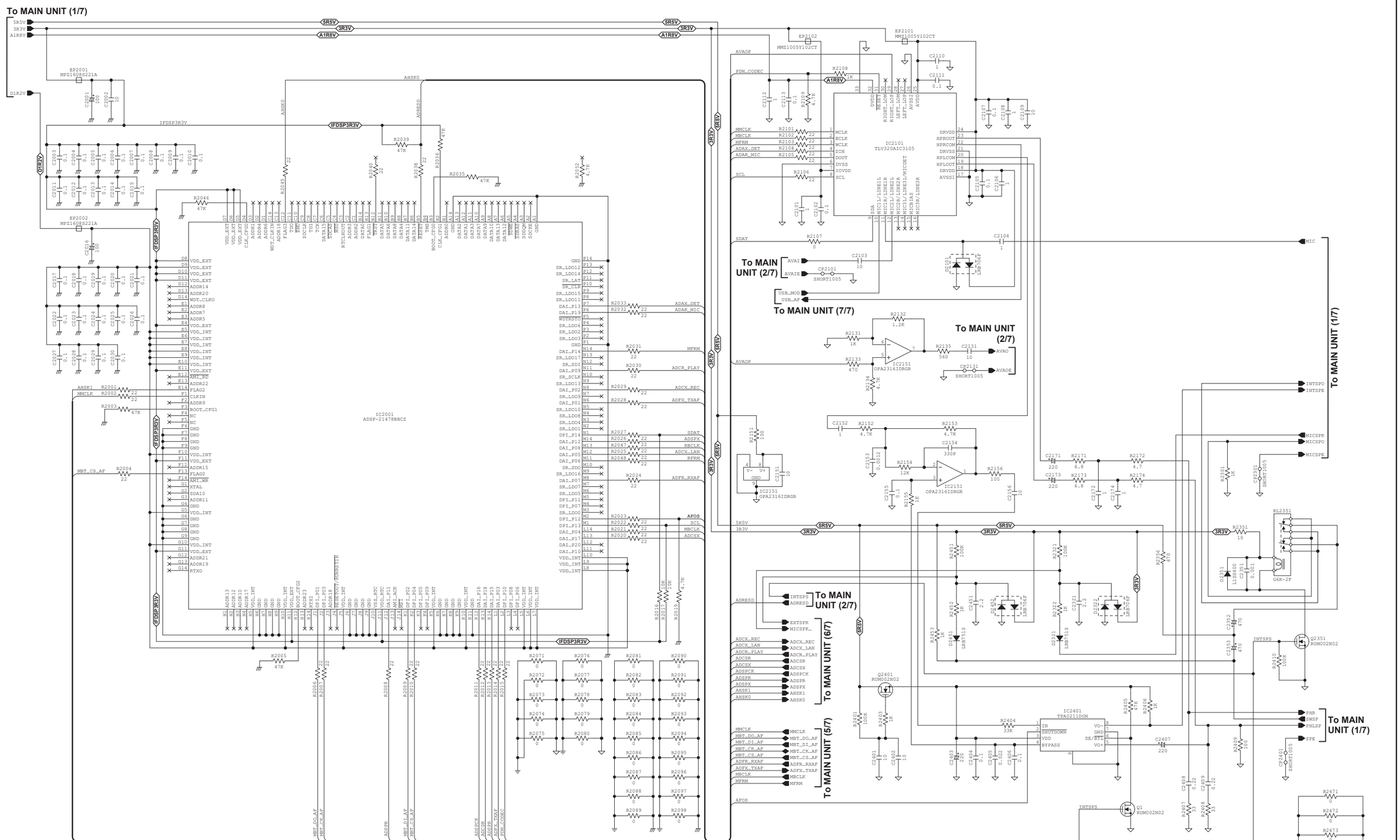
The underlined parts have been updated from the addendum of the previous version, or from the original page.

• MAIN UNIT (2/7)



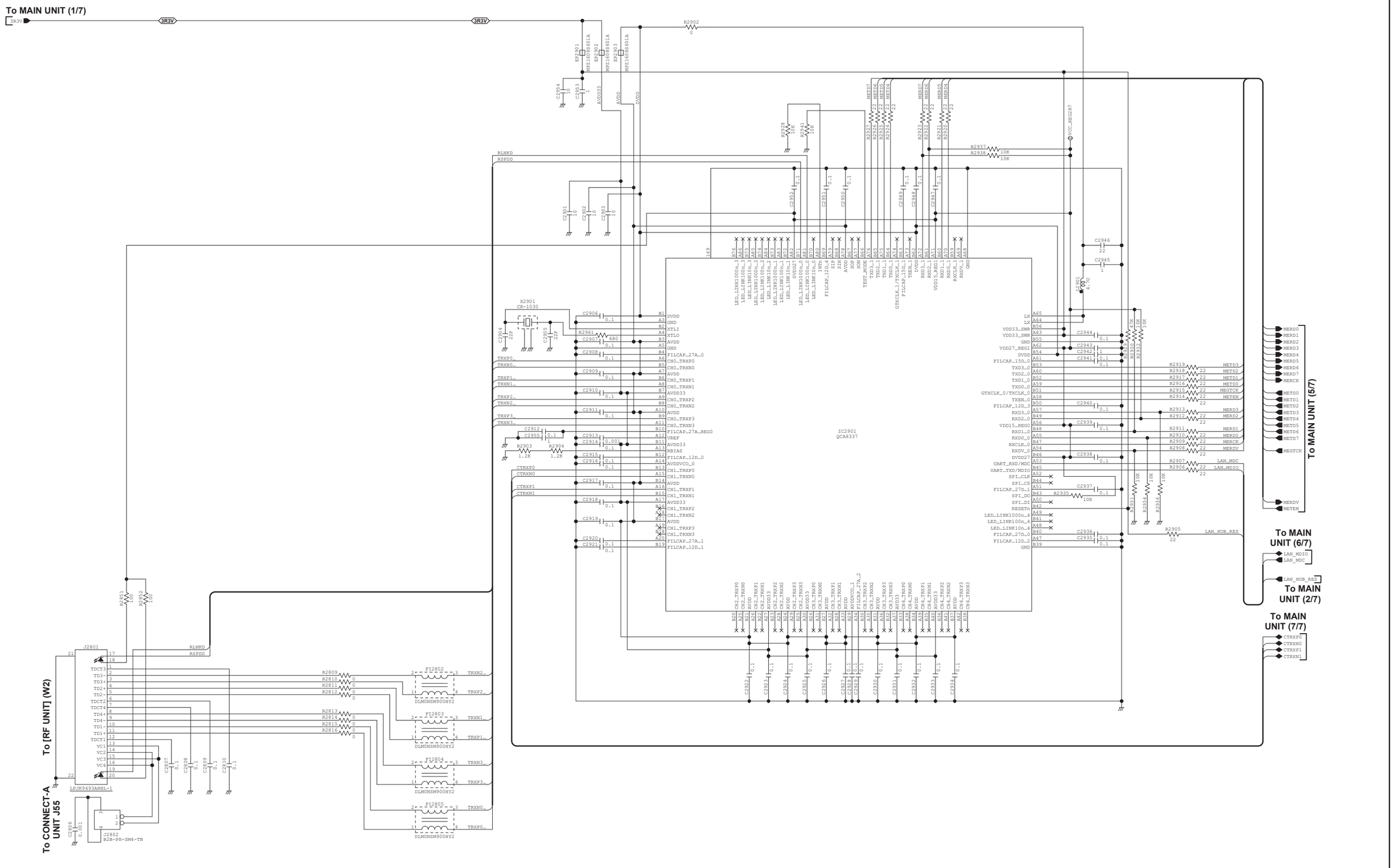
The underlined parts have been updated from the addendum of the previous version, or from the original page.

• MAIN UNIT (3/7)



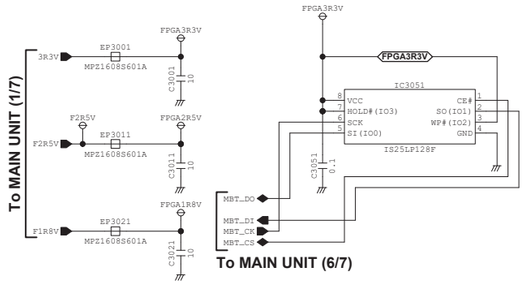
The underlined parts have been updated from the addendum of the previous version, or from the original page.

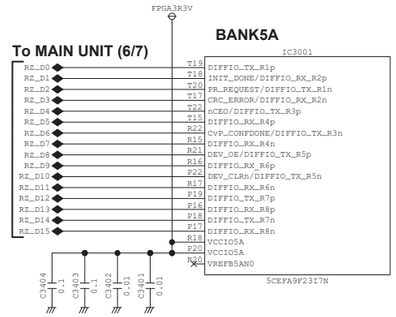
• MAIN UNIT (4/7)

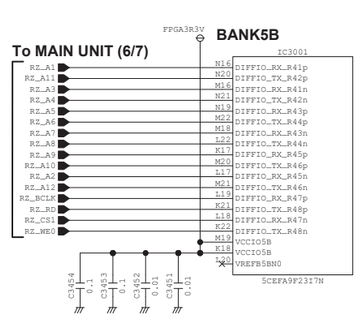


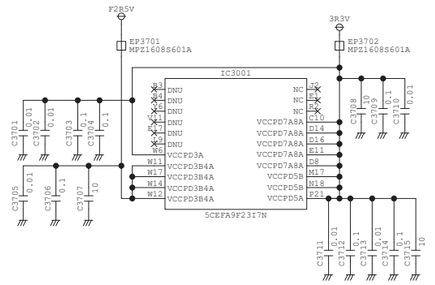
The underlined parts have been updated from the addendum of the previous version, or from the original page.

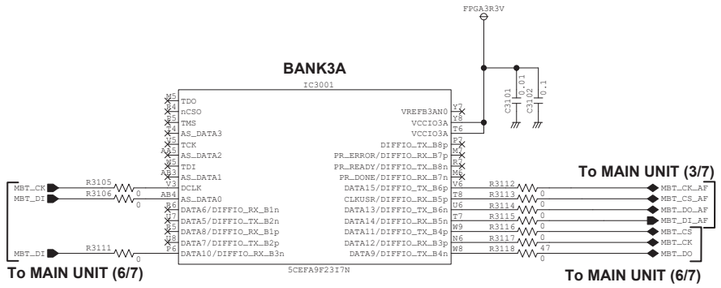
• MAIN UNIT (5/7)

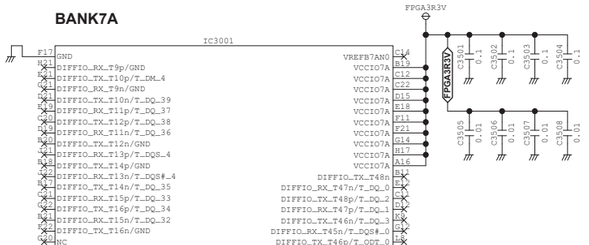


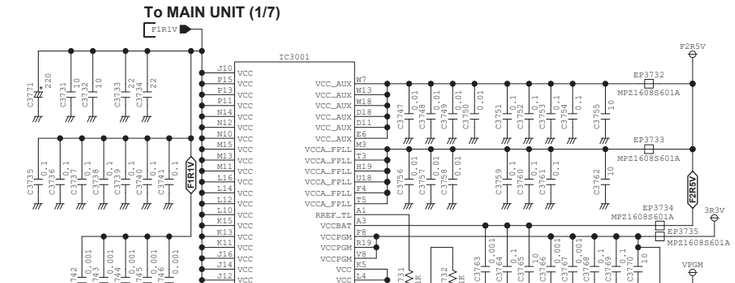


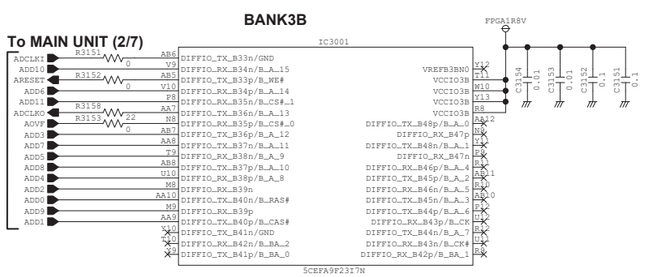


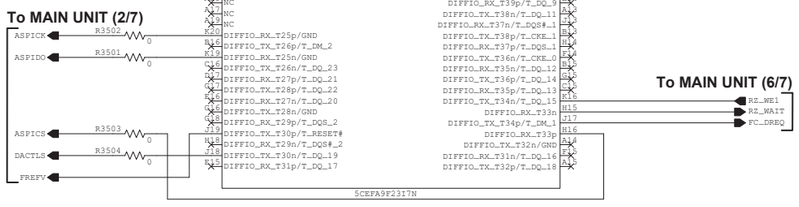


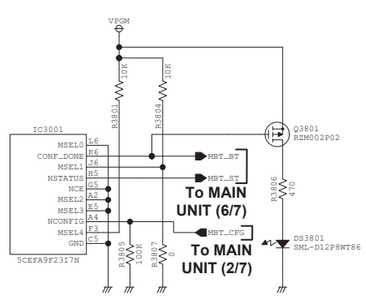


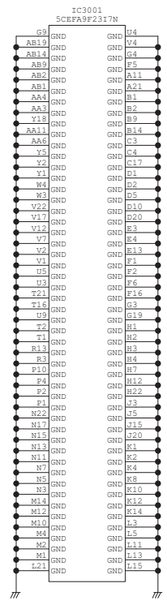






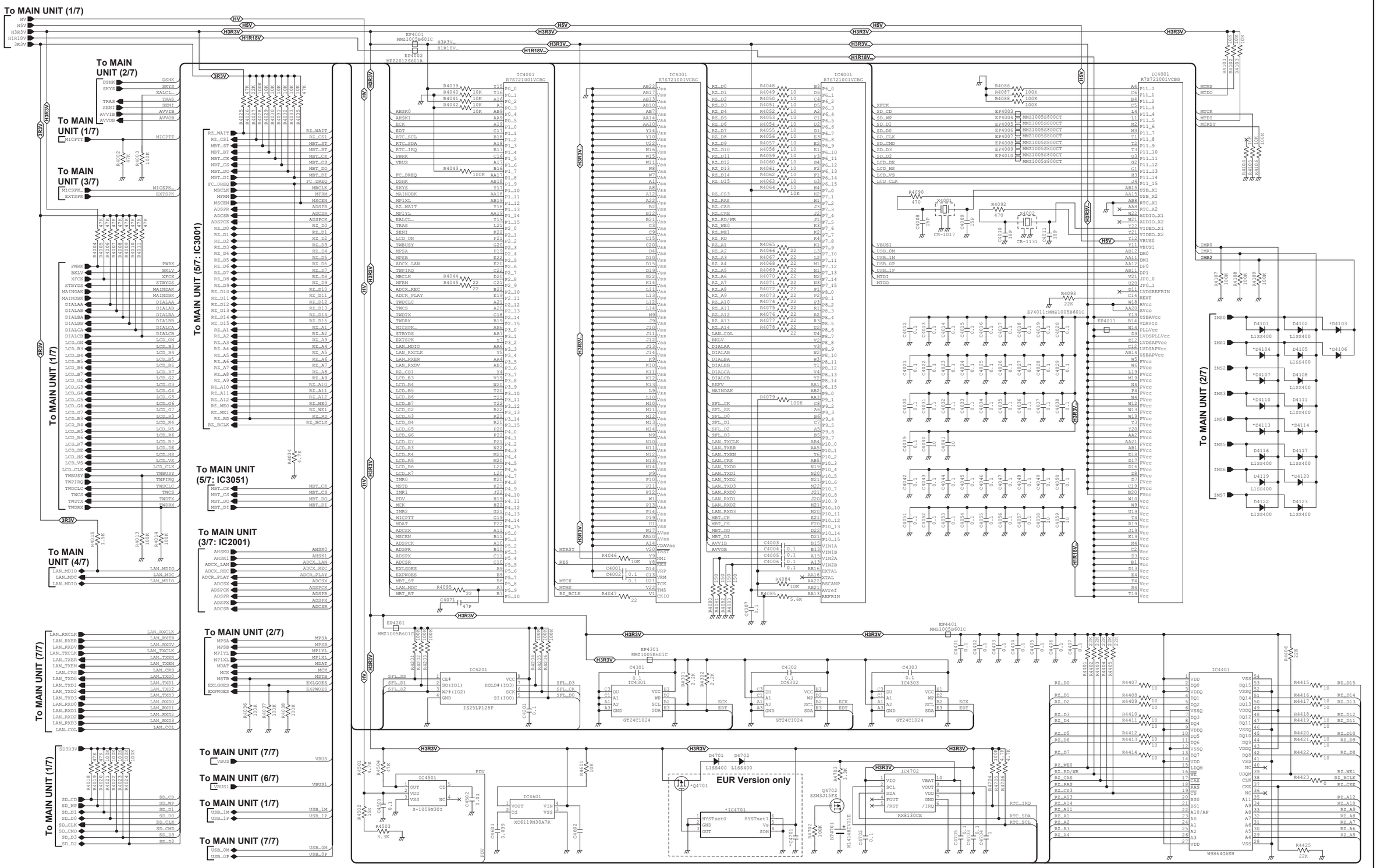





IC3001
5CEFA9F2317N
GND
GND
GND

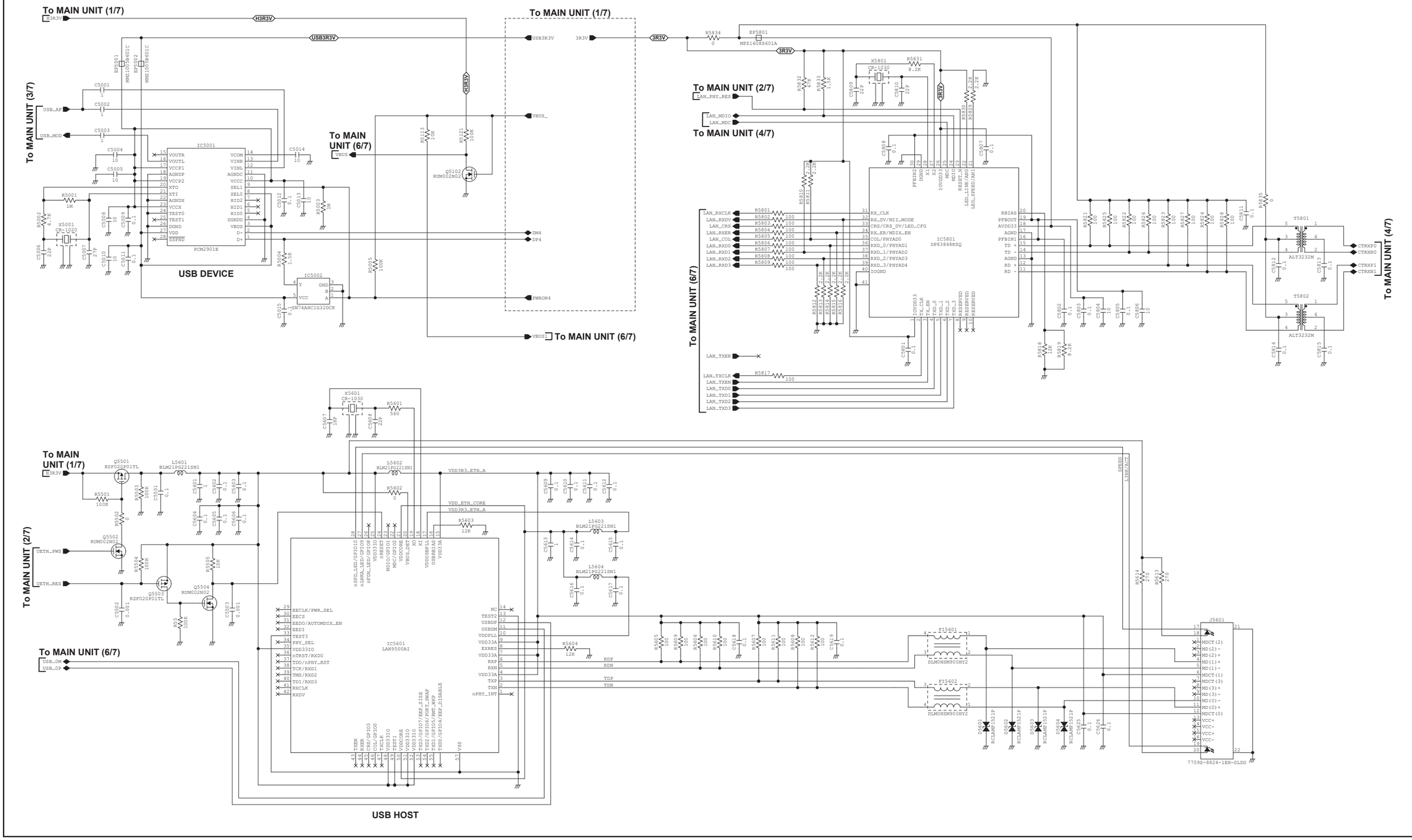
The underlined parts have been updated from the addendum of the previous version, or from the original page.

• MAIN UNIT (6/7)



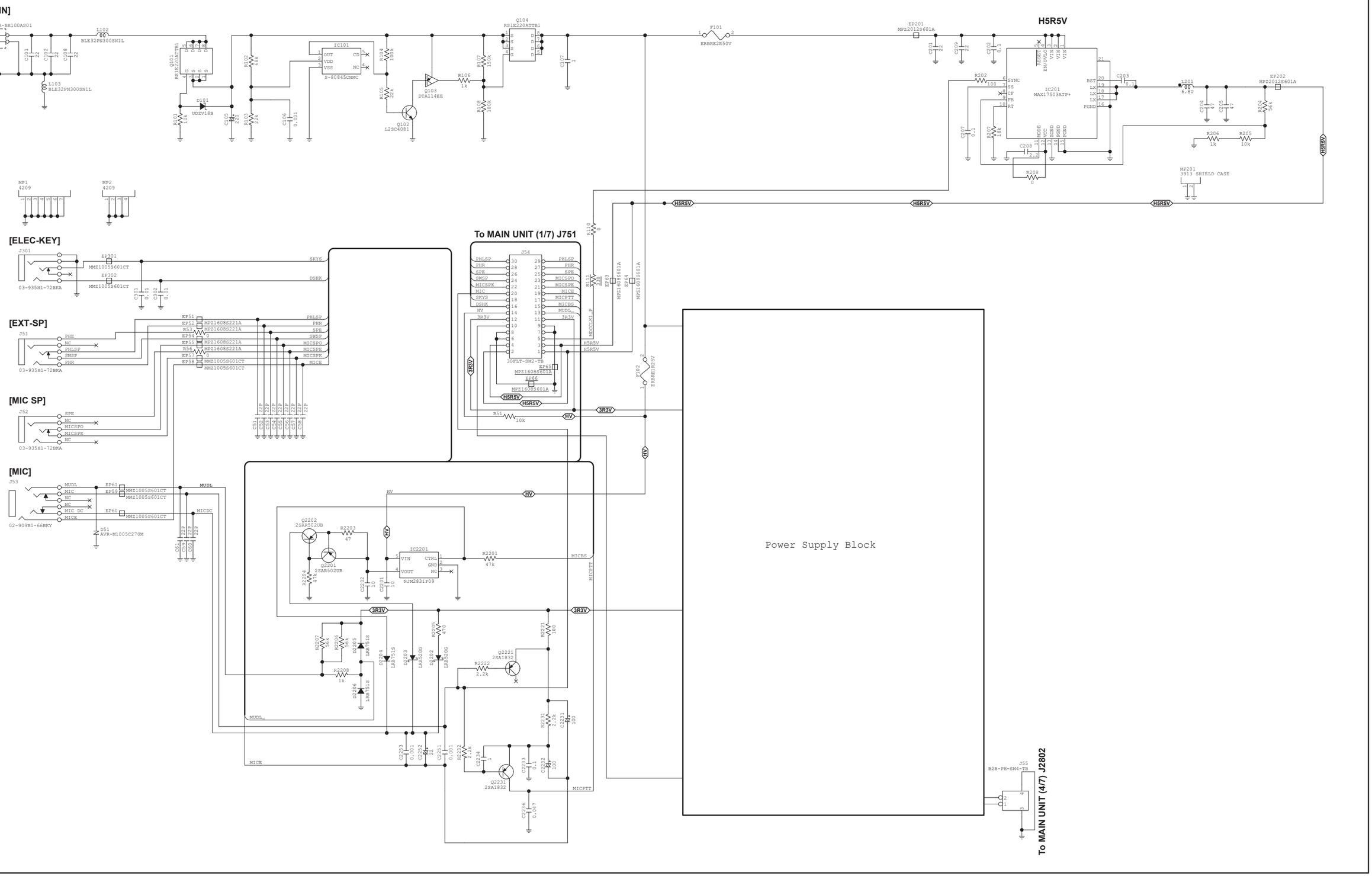
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• MAIN UNIT (7/7)



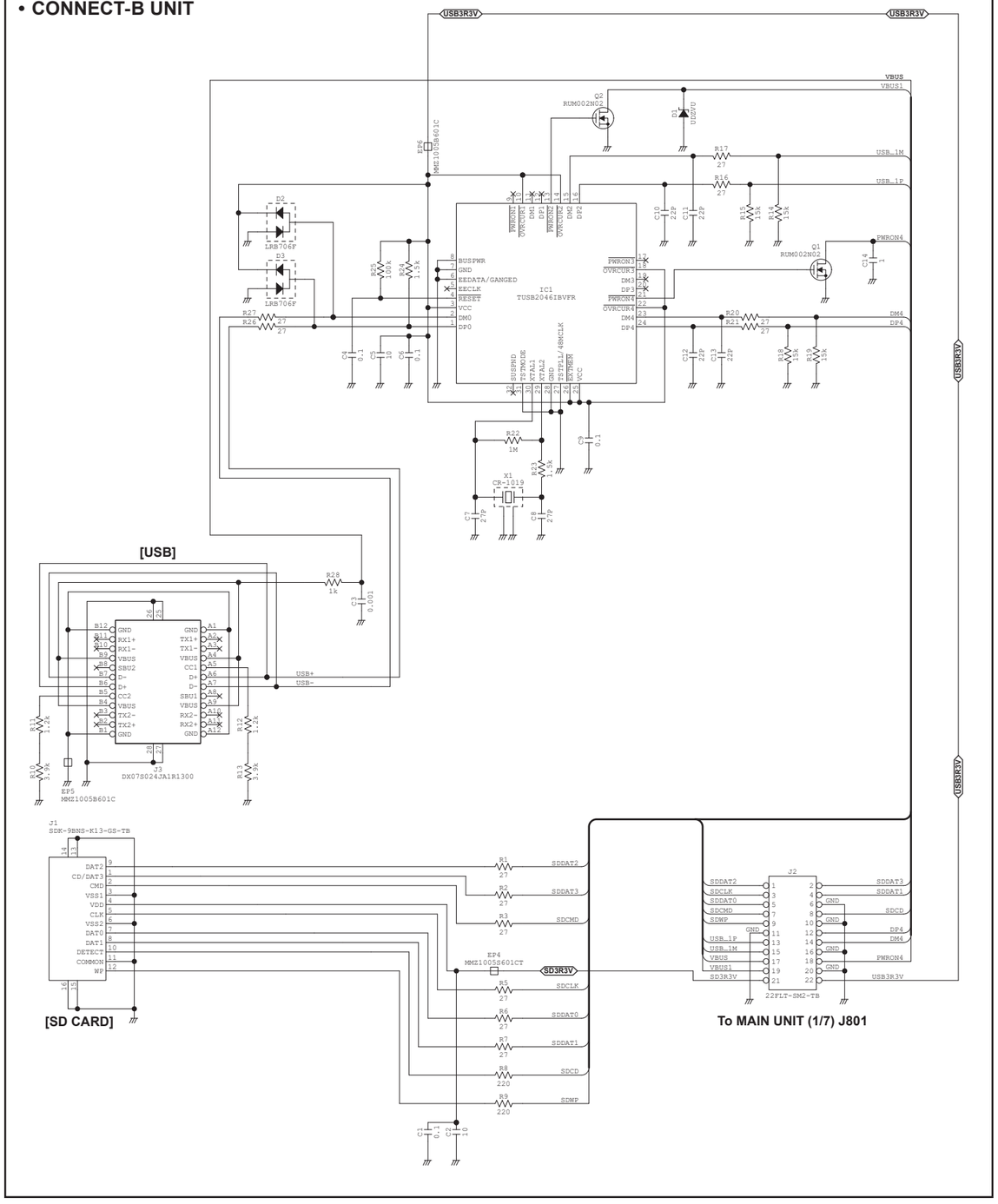
The underlined parts have been updated from the addendum of the previous version, or from the original page.

• CONNECT-A UNIT

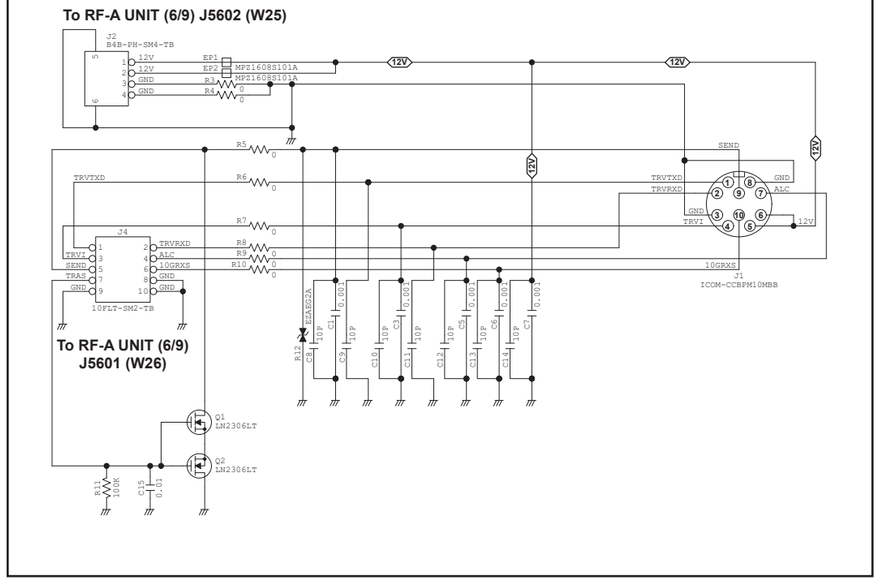


The underlined parts have been updated from the addendum of the previous version, or from the original page.

• CONNECT-B UNIT

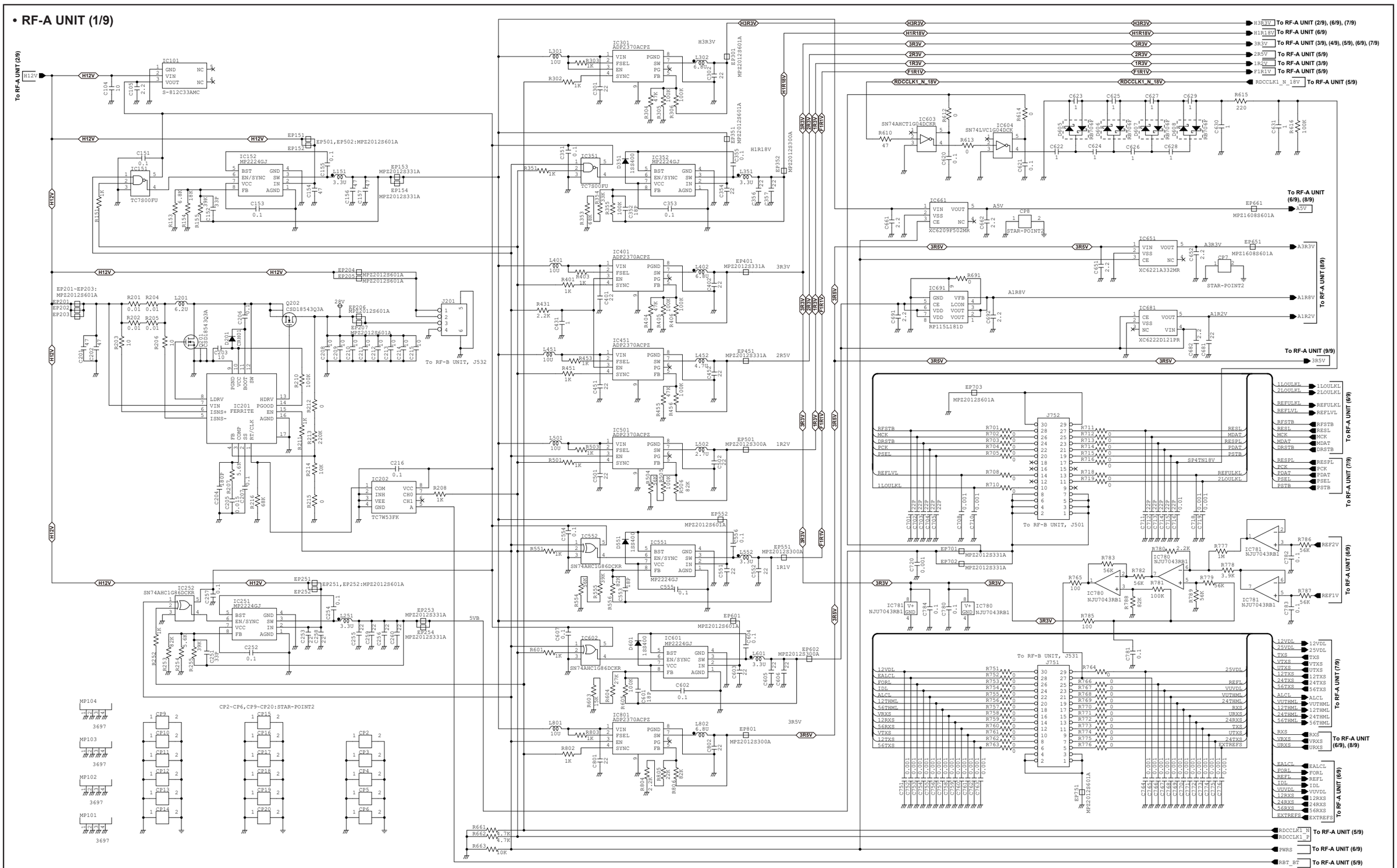


• CONNECT-C UNIT



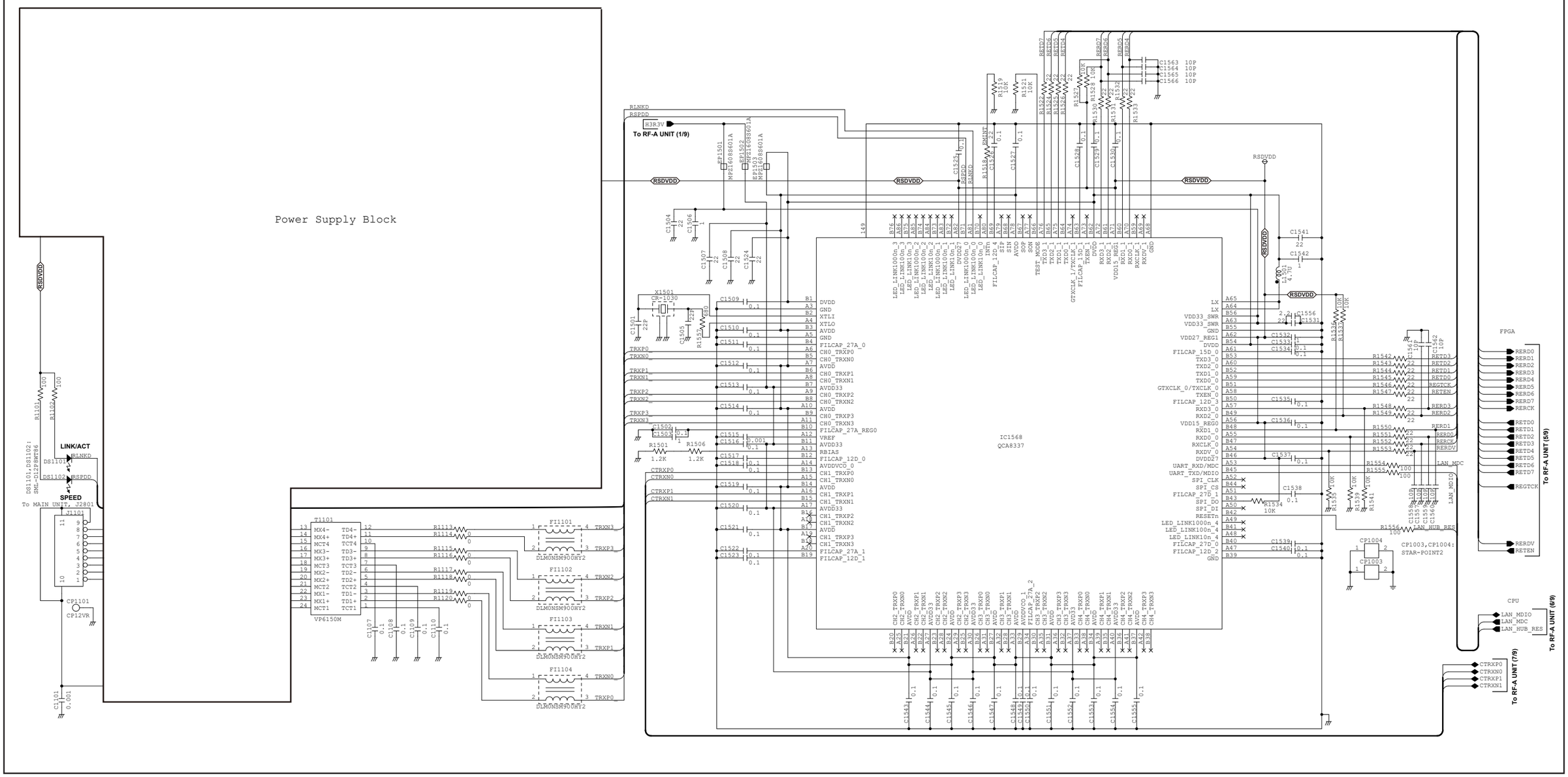
The underlined parts have been updated from the addendum of the previous version, or from the original page.

• RF-A UNIT (1/9)



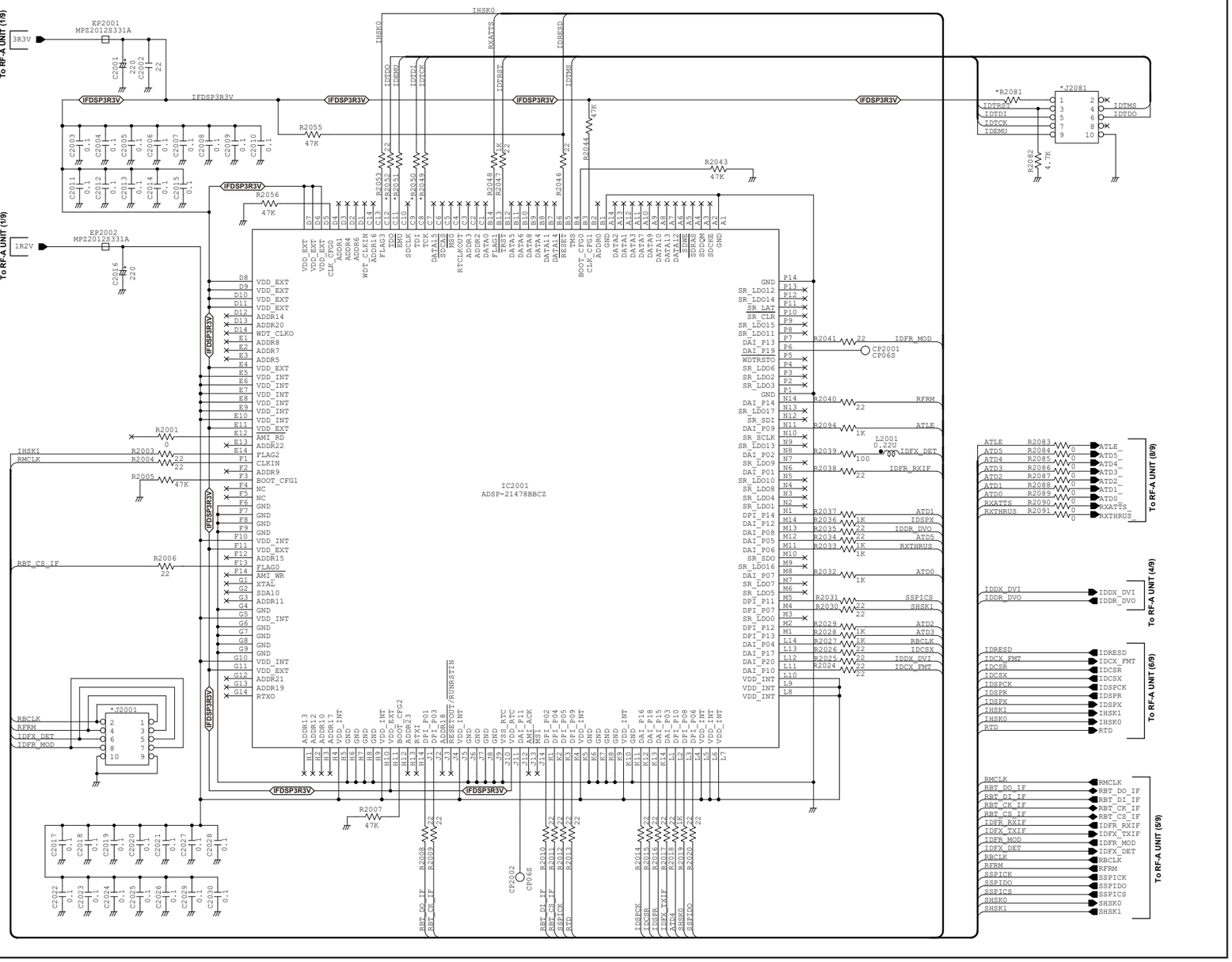
The underlined parts have been updated from the addendum of the previous version, or from the original page.

• RF-A UNIT (2/9)



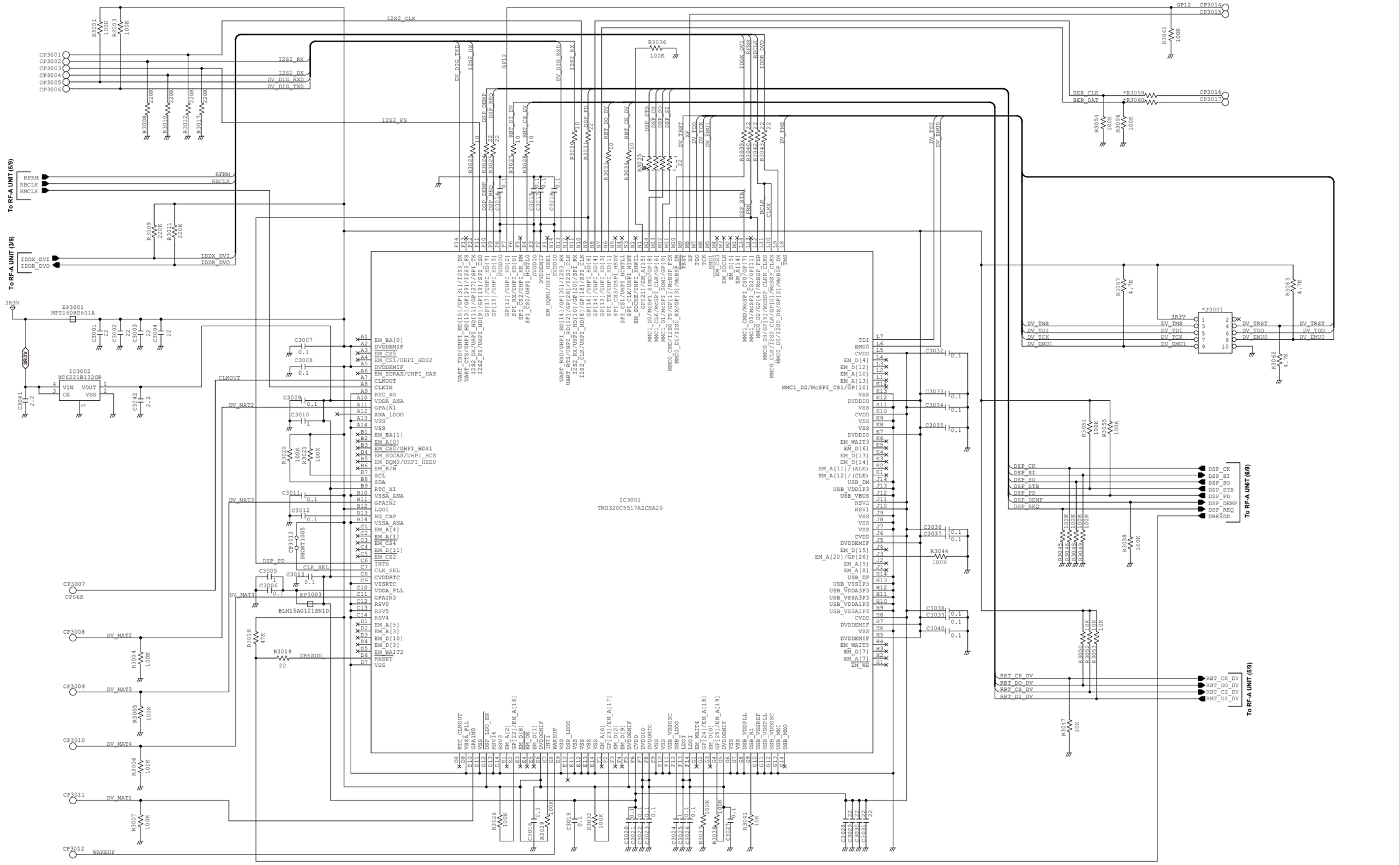
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• RF-A UNIT (3/9)



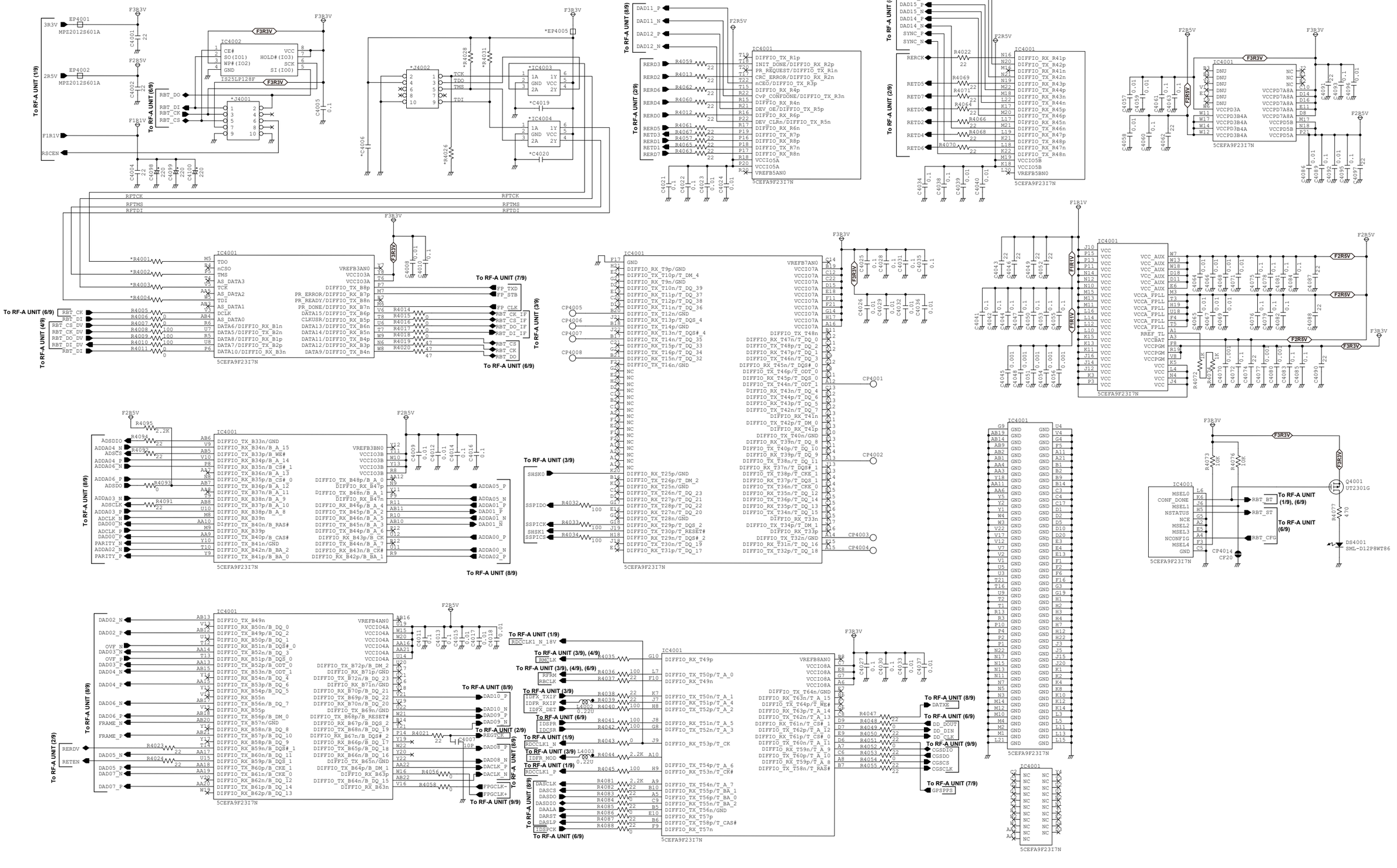
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• RF-A UNIT (4/9)



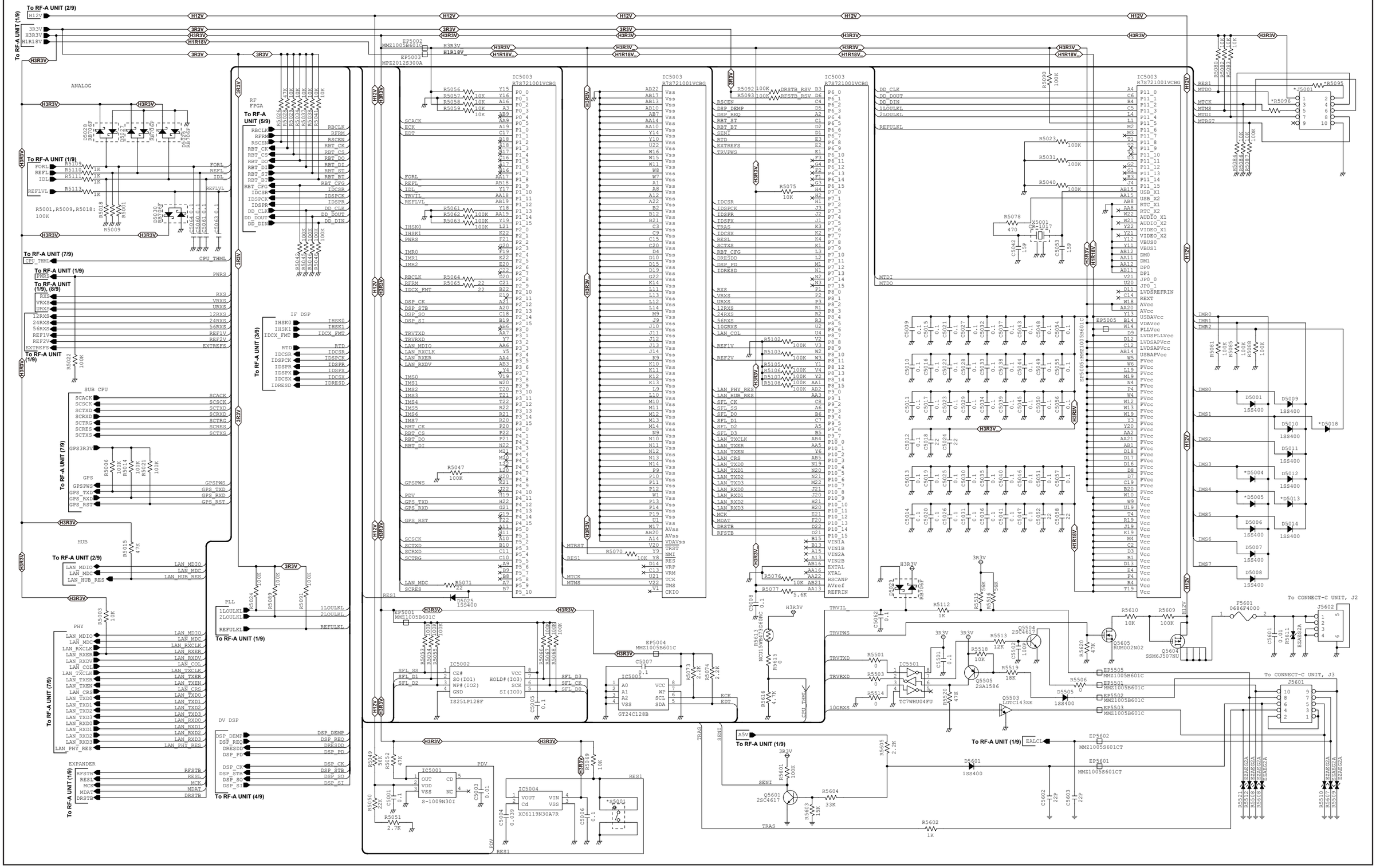
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• RF-A UNIT (5/9)



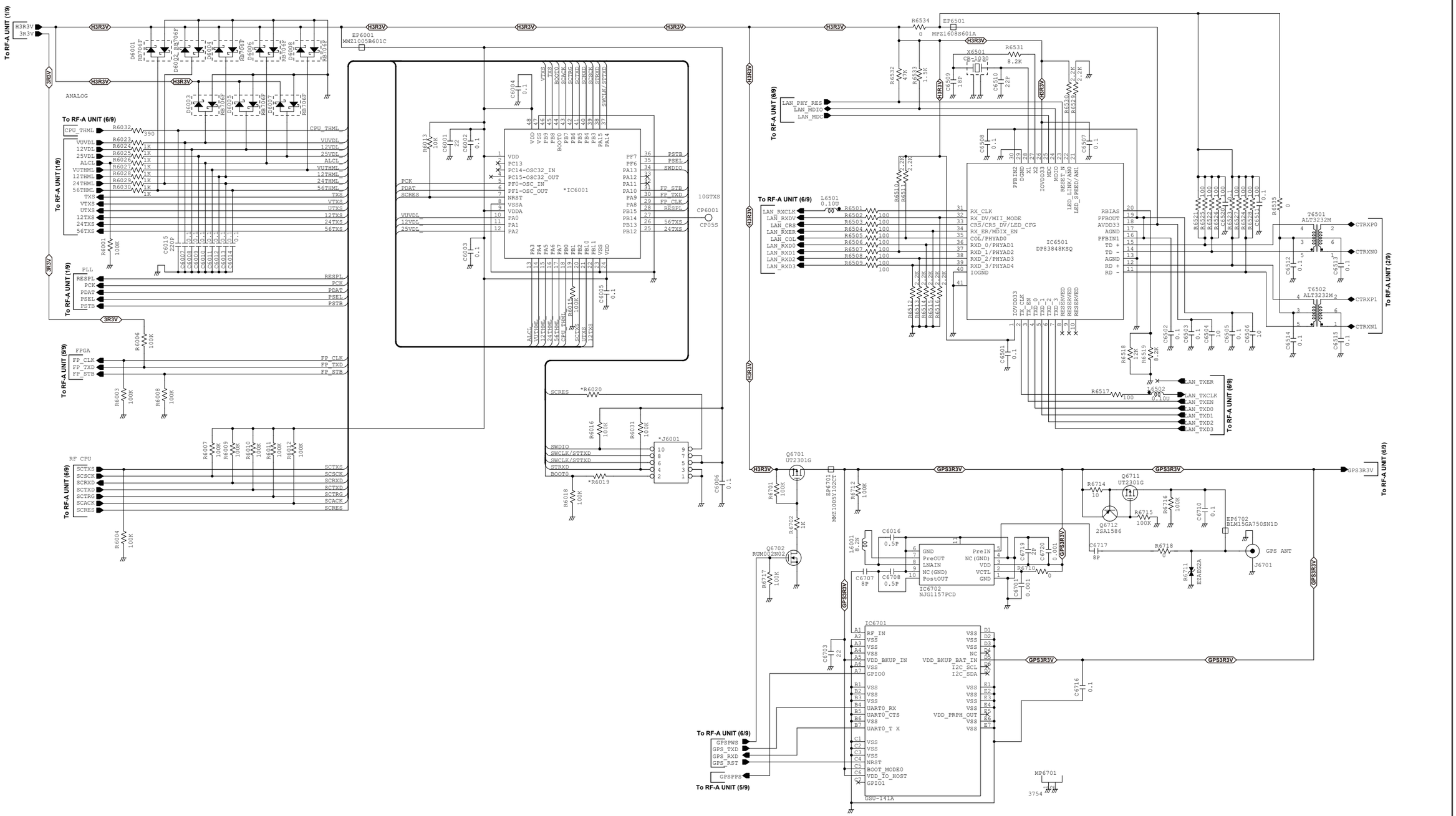
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• RF-A UNIT (6/9)



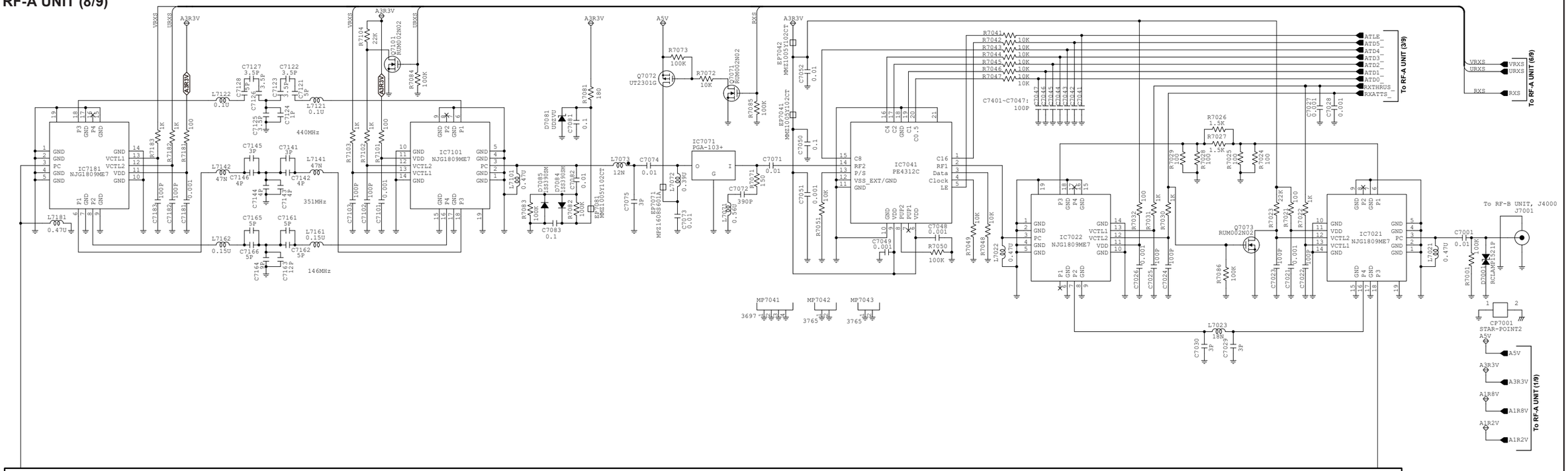
The underlined parts have been updated from the addendum of the previous version, or from the original page.

• RF-A UNIT (7/9)



The underlined parts have been updated from the addendum of the previous version, or from the original page.

• RF-A UNIT (8/9)

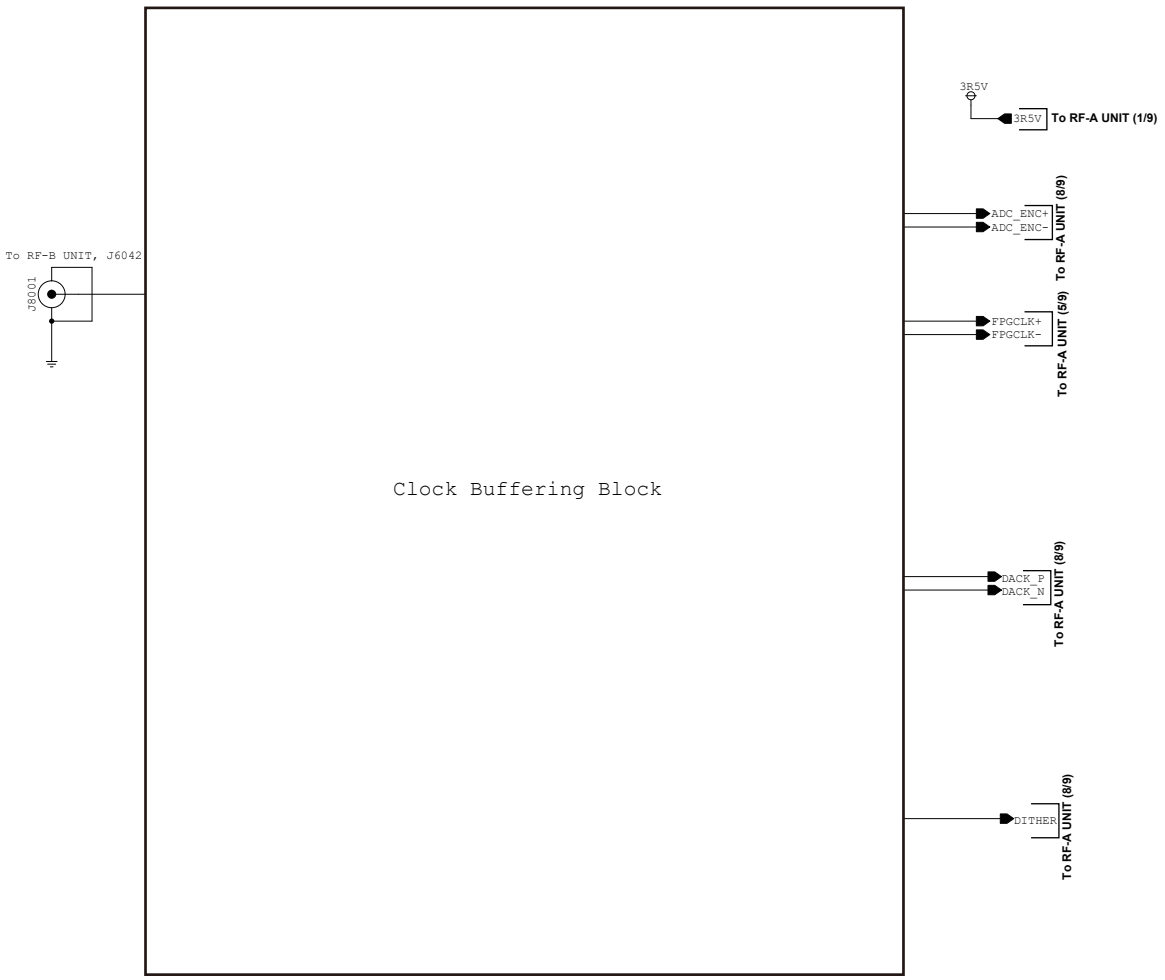


RF TRX Block

(Amended page)

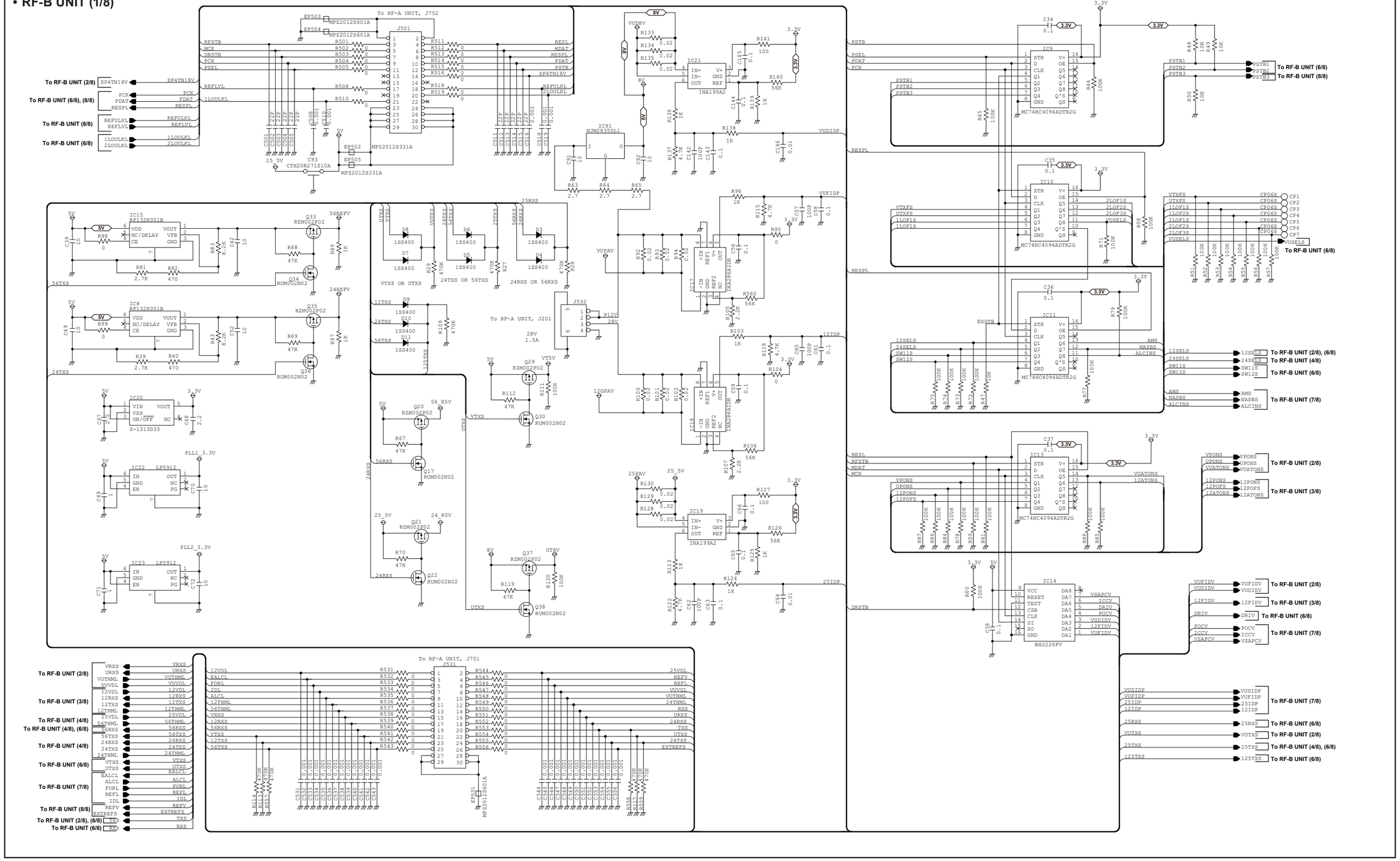
The underlined parts have been updated from the addendum of the previous version, or from the original page.

• RF-A UNIT (9/9)



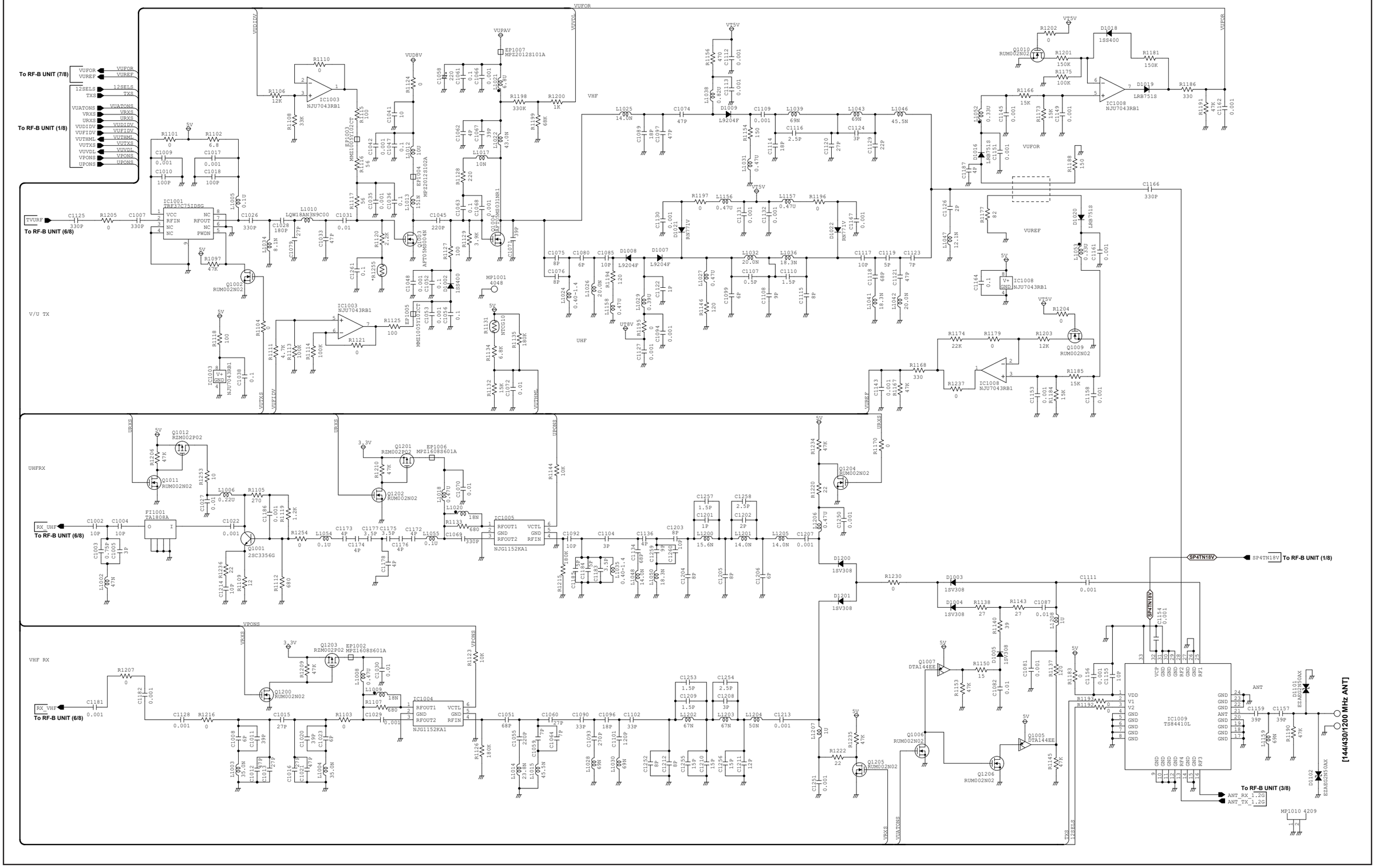
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• RF-B UNIT (1/8)



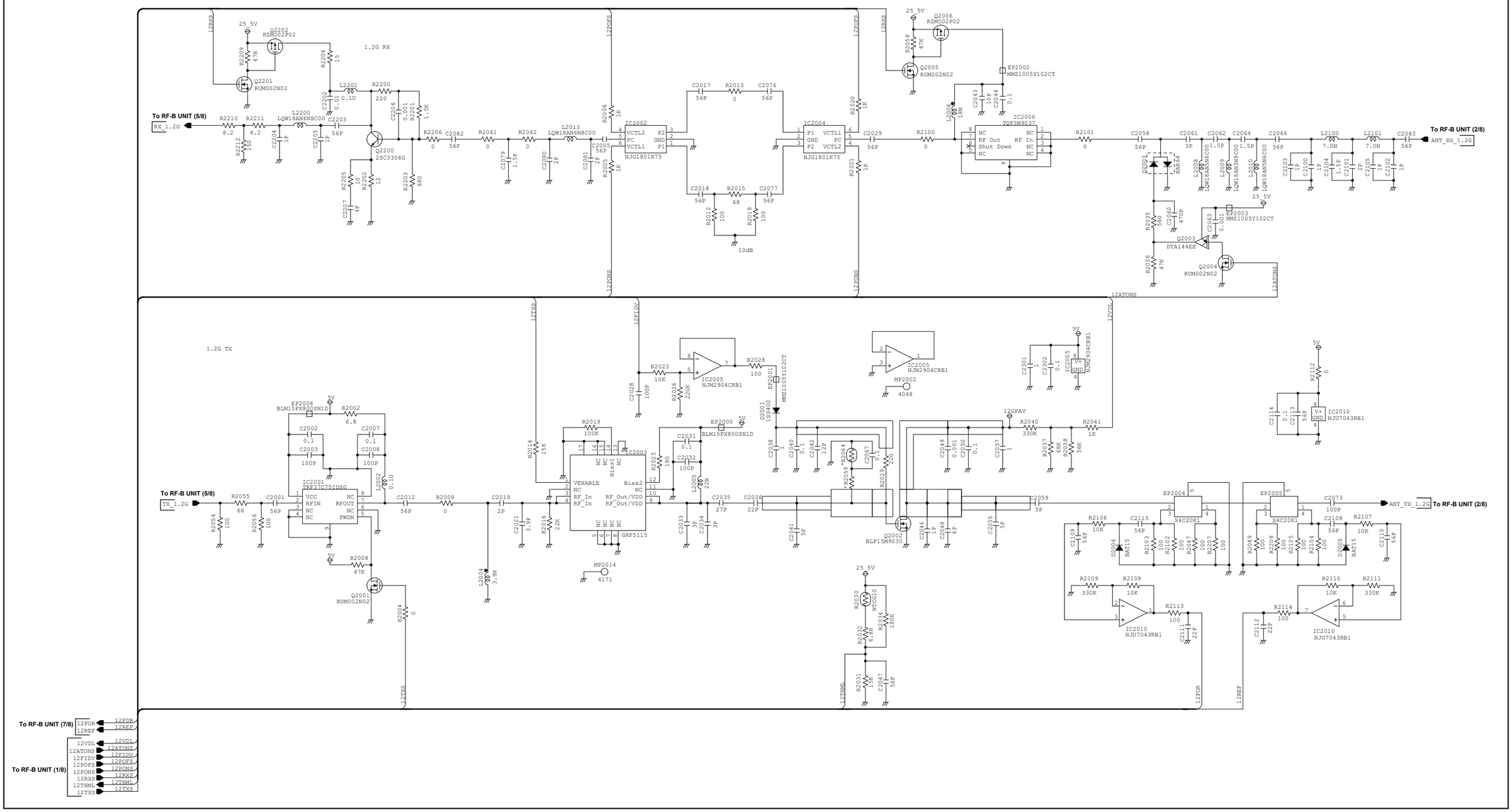
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• RF-B UNIT (2/8)



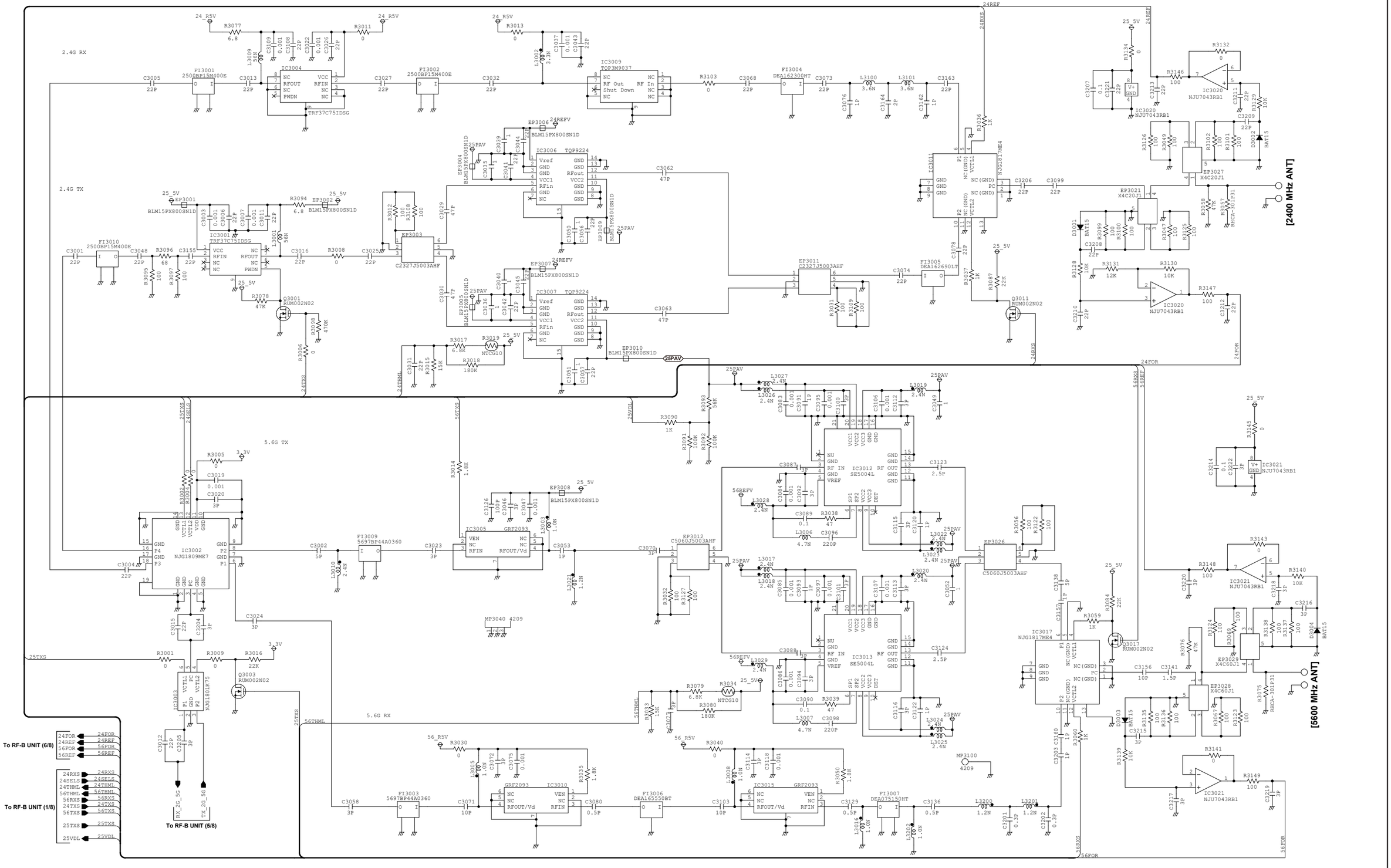
The underlined parts have been updated from the addendum of the previous version, or from the original page.

• RF-B UNIT (3/8)



The underlined parts have been updated from the addendum of the previous version, or from the original page.

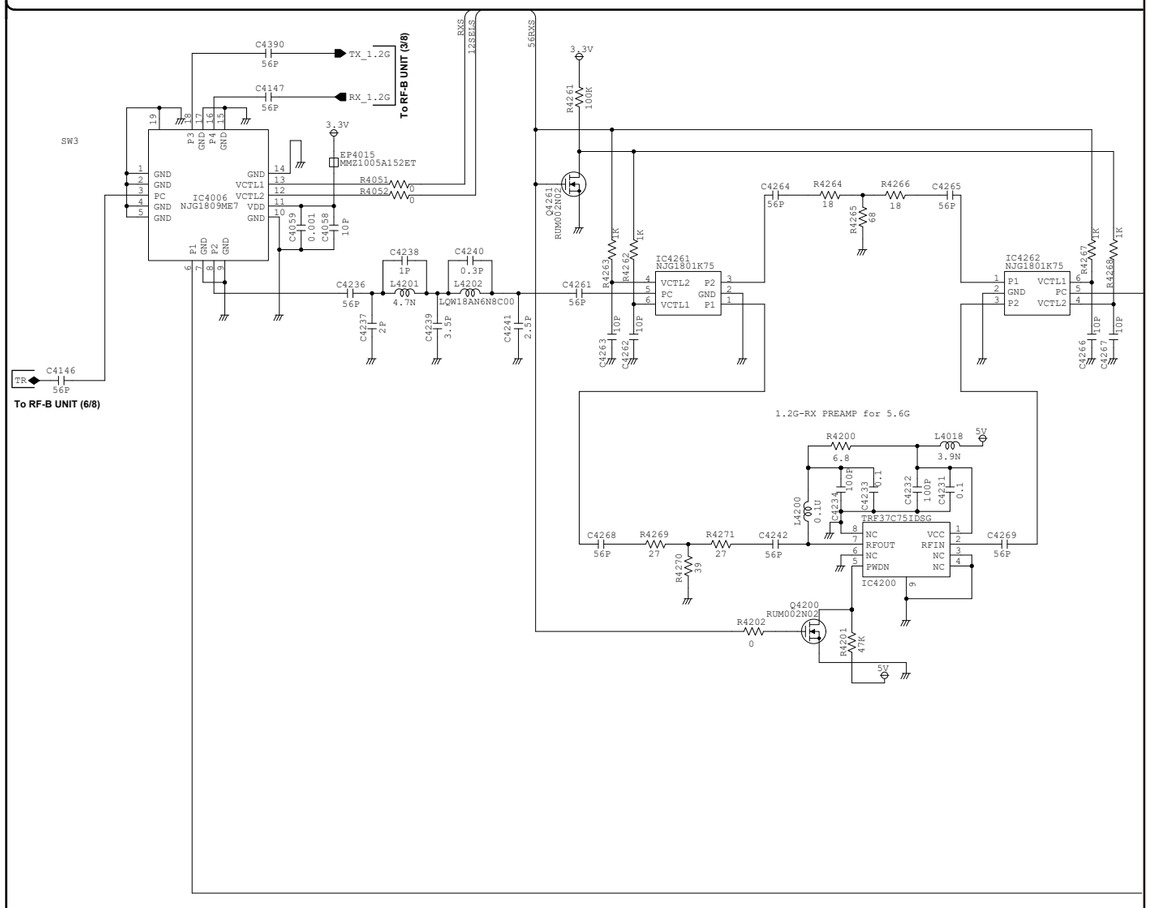
• RF-B UNIT (4/8)



The underlined parts have been updated from the addendum of the previous version, or from the original page.

• RF-B UNIT (5/8)

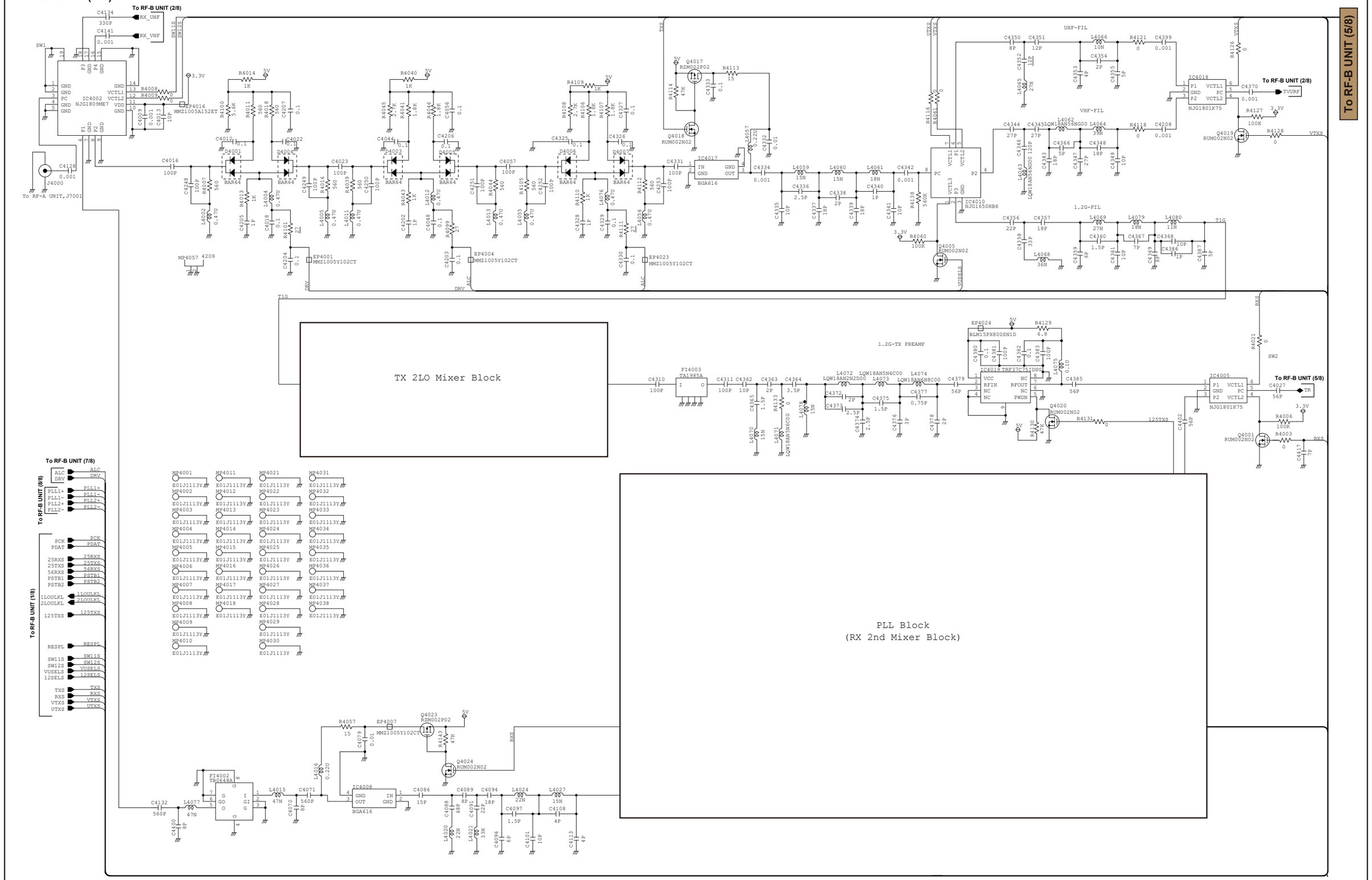
To RF-B UNIT (6/8)



PLL Block
(TX 2nd Mixer Block)

The underlined parts have been updated from the addendum of the previous version, or from the original page.

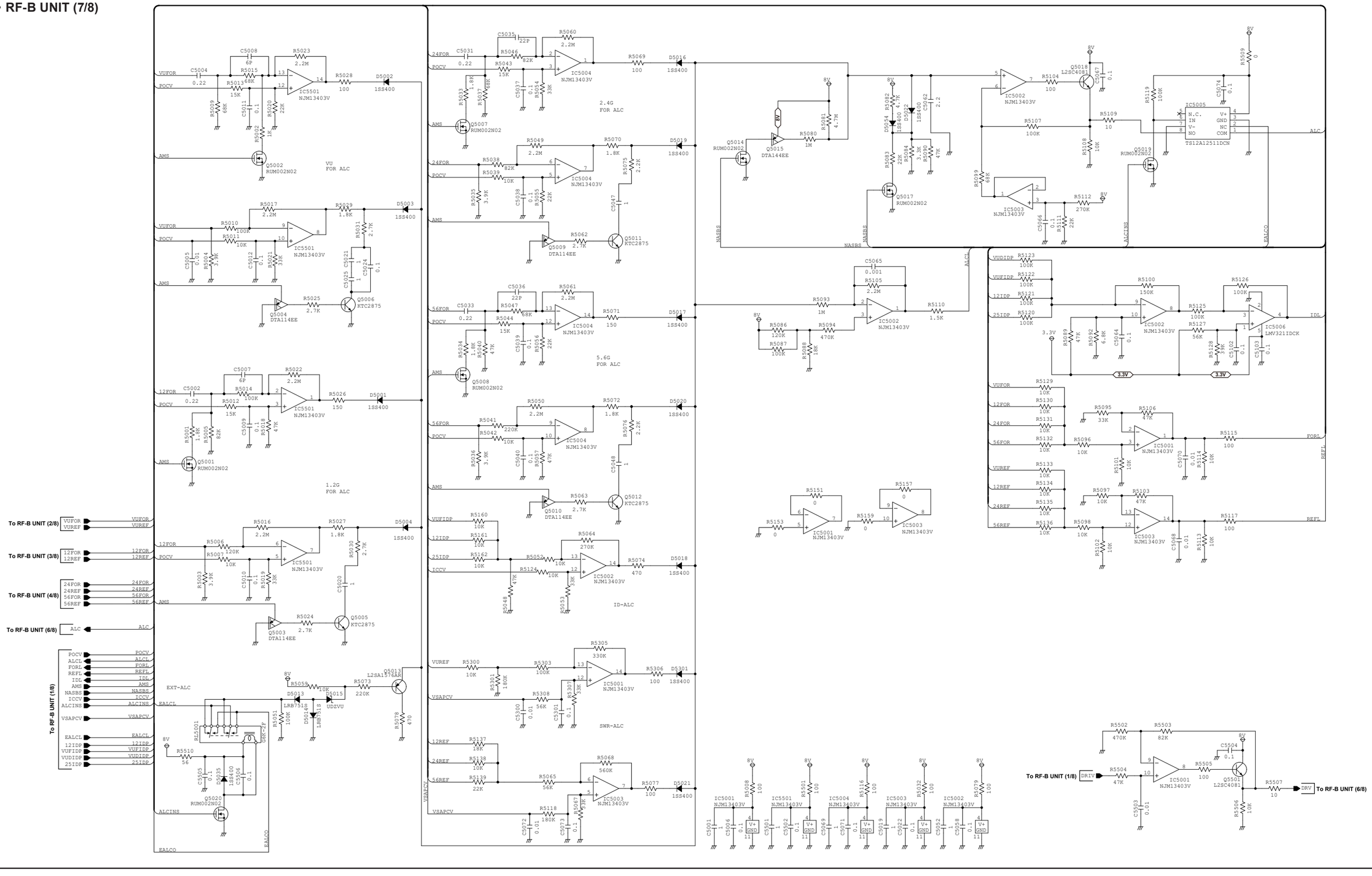
• RF-B UNIT (6/8)



(Amended page)

The underlined parts have been updated from the addendum of the previous version, or from the original page.

• RF-B UNIT (7/8)



The underlined parts have been updated from the addendum of the previous version, or from the original page.

• RF-B UNIT (8/8)



SERVICE MANUAL

ALL MODE TRANSCEIVER

IC-905

S-15913XZ-C1
May 2023

Icom Inc.

INTRODUCTION

We will supply spare units for the IC-905 (only #12) described in this service manual.
Accordingly, this service manual focuses on the spare units that can be supplied, consumable parts and parts that are considered necessary in case of physical damage, instead of those on the individual electronic parts list.

This service manual describes the latest technical information for the IC-905 ALL MODE TRANSCEIVER at the time of publication.

Model	Version	Version Number	TX output power
IC-905	USA	#12	VHF, UHF, and 1.2 GHz bands: 10 W 2.4 GHz and 5.6 GHz bands: 2 W
	EUR	#13	

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

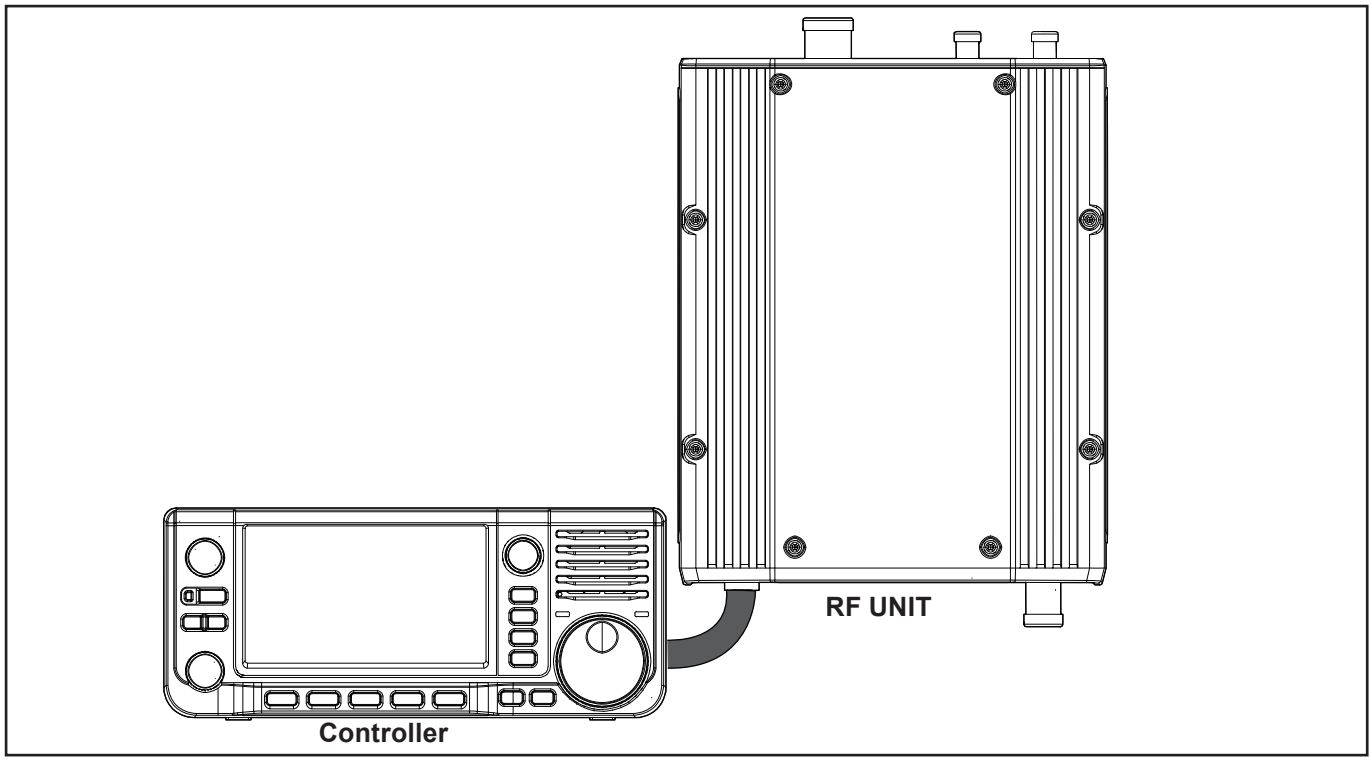
SERVICE CAUTION

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

DO NOT expose the DUT to rain, snow or liquids.

DO NOT reverse the polarity of the DC power cable when directly applying power to the DUT/circuit.

DO NOT apply an RF signal of more than 20 dBm (100 mW) to the antenna connector. This could damage the DUT'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>

0342091202	C 905 #12 MAIN	IC-905	MAIN UNIT	1 piece
8010026180	4209 CHASSIS	IC-905	CHASSIS	1 piece

REPAIR NOTES

1. Make sure that the problem is internal before disassembling the DUT.
2. **DO NOT** open the DUT until the DUT is disconnected from its power source.
3. **DO NOT** short any circuits or electronic parts.
4. **DO NOT** keep power ON for a long time when the DUT is defective.
5. **NEVER** transmit power into a Standard Signal Generator or a Sweep Generator.
   Otherwise the RF power may damage them.
6. **ALWAYS** connect a 30 dB to 40 dB attenuator between the DUT and such test equipment.
7. **READ** the instructions of the test equipment thoroughly before connecting it to the DUT.

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SECTION 1 SPECIFICATIONS

■ GENERAL

- Frequency coverage (unit: MHz):

  USA version

Receiver/Transmitter	144.000000 ~ 148.000000
	430.000000 ~ 450.000000
	1240.000000 ~ 1300.000000
	2300.000000 ~ 2309.999999
	2390.000001 ~ 2450.000000
	5650.000000 ~ 5925.000000

  EUR version

Receiver/Transmitter	144.000000 ~ 146.000000
	430.000000 ~ 440.000000
	1240.000000 ~ 1300.000000
	2300.000000 ~ 2450.000000
	5650.000000 ~ 5850.000000

  ⓘ **BE SURE** to check your local regulations or laws to select the appropriate operating frequency.

- Operating modes: USB/LSB (J3E), CW (A1A), RTTY (F1B), AM (A3E), FM (F2D/F3E), DV (F7W), DD (F1D), and ATV (F3F/F8W)
- Number of memory channels: 500 channels (in up to 100 groups)
- Number of program scan channels: 25 channels (2 edge frequencies in each channel)
- Number of call channels: 12 channels (2 channels in each of the 6 bands)
- Number of repeater memories: 2500
- Number of GPS memories: 300
- Antenna impedance: 50 Ω unbalanced
- Antenna connector: SMA (50 Ω) × 2 (for the 2400/5600 MHz band)
  Type-N × 1 (for the 144/430/1200 MHz band)
- Power source requirement:
  Controller: 13.8 V DC (±15%)
- Operating temperature range:
  Controller: 0°C ~ 50°C, 32°F ~ 122°F
  RF UNIT: –10°C ~ +55°C, 14°F ~ 131°F
- Frequency stability: ±65 ppb or less
  (Total deviation including variations in operating temperature.)
- Frequency resolution: 1 Hz (minimum)
- Power consumption:

Receive	Standby	2 A (typical)
	Maximum audio	3 A or less
Transmit	Maximum power	5.5 A or less

  (When using an external DC power (13.8 V DC) and supplied control cable)
- Dimensions (projections not included):
  Controller: 200.0 (W) × 83.5 (H) × 82.0 (D) mm, 7.9 (W) × 3.3 (H) × 3.2 (D) in
  RF unit: 172.0 (W) × 87.0 (H) × 210.0 (D) mm, 6.8 (W) × 3.4 (H) × 8.3 (D) in
- Weight (approximate, without the supplied accessories):
  Controller: 940 g, 2.1 lb
  RF UNIT: 3.2 kg, 7.1 lb

■ TRANSMITTER

- Transmit output power:
  - 144/430 MHz band
    - SSB, CW, FM, RTTY, DV: 10 W
    - AM: 2.5 W
  - 1200 MHz band
    - SSB, CW, FM, RTTY, DV, DD, ATV: 10 W
    - AM: 2.5 W
  - 2400/5600 MHz band
    - SSB, CW, FM, RTTY, DV, DD, ATV: 2 W
    - AM: 0.5 W
- Modulation system:
  - SSB: Digital PSN modulation
  - FM: Digital Reactance modulation
  - AM: Digital Low power modulation
  - DV and DD: Digital GMSK modulation
  - ATV: Digital Reactance modulation
- Spurious emission:
  - Spurious
    - 144 MHz band: –60 dBc or less
    - 430 MHz band: –60 dBc or less
    - 1200 MHz band: –53 dBc or less
    - 2400 MHz band: –46 dBc or less
    - 5600 MHz band: –46 dBc or less
  - Out-of-band
    - 144 MHz band: –60 dBc or less
    - 430 MHz band: –60 dBc or less
    - 1200 MHz band: –50 dBc or less
    - 2400 MHz band: –43 dBc or less
    - 5600 MHz band: –43 dBc or less
- Carrier suppression: 50 dB or more
- Unwanted sideband suppression: 50 dB or more
- Microphone impedance: 2.2 kΩ (When using PTT by the [MIC] jack, 1.2 kΩ)
- Video signal input level: 1 Vp-p (typical, at 75 Ω)
- Video signal input impedance: 75 Ω

■ RECEIVER

- Receive system:
  - 144/430 MHz band: RF Direct Sampling
  - 1200/2400/5600 MHz band: Down Conversion IF Sampling
- Intermediate frequencies:
  - 1200 MHz band: 1st 331 ~ 371 MHz
  - 2400/5600 MHz band: 1st 914 MHz band, 2nd 346 MHz band
- Sensitivity:
  - SSB/CW (Filter: SOFT, 10 dB S/N)
    - 144/430/1200/2400 MHz band: –19 dBμV (PD) (0.11 μV) or less
    - 5600 MHz band: –16 dBμV (PD) (0.15 μV) or less
  - AM (at 10 dB S/N)
    - 144/430/1200/2400 MHz band: 0 dBμV (PD) (1.0 μV) or less
    - 5600 MHz band: +3 dBμV (PD) (1.4 μV) or less
  - FM (at 12 dB SINAD)
    - 144/430/1200/2400 MHz band: –15 dBμV (PD) (0.17 μV) or less
    - 5600 MHz band: –12 dBμV (PD) (0.25 μV) or less
  - DV (1% BER (PN9))
    - 144/430/1200/2400 MHz band: –9 dBμV (PD) (0.35 μV) or less
    - 5600 MHz band: –6 dBμV (PD) (0.50 μV) or less
  - DD (1% BER (PN9))
    - 1200/2400 MHz band: +4 dBμV (PD) (1.58 μV) or less
    - 5600 MHz band: +7 dBμV (PD) (2.23 μV) or less

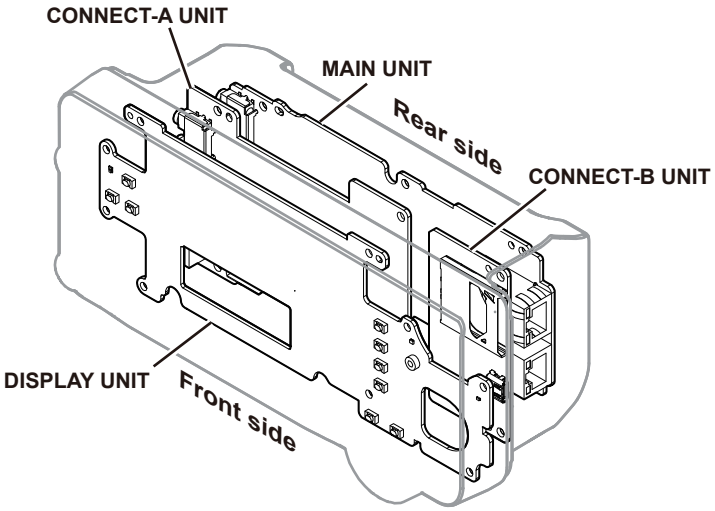
  ⓘ Preamp is ON in the 144 MHz, 430 MHz, and 1200 MHz bands.
- Sensitivity for the European version:
  - SSB/CW (BW=2.4 kHz, Filter: SOFT, 12 dB SINAD)
    - 144/430/1200/2400/5600 MHz band: –6 dBμV emf or less
  - AM (BW=4 kHz, 60% deviation, 12 dB SINAD)
    - 144/430/1200/2400/5600 MHz band: 0 dBμV emf or less
  - FM (BW=7 kHz, 60% deviation, 12 dB SINAD)
    - 144/430/1200/2400/5600 MHz band: –6 dBμV emf or less

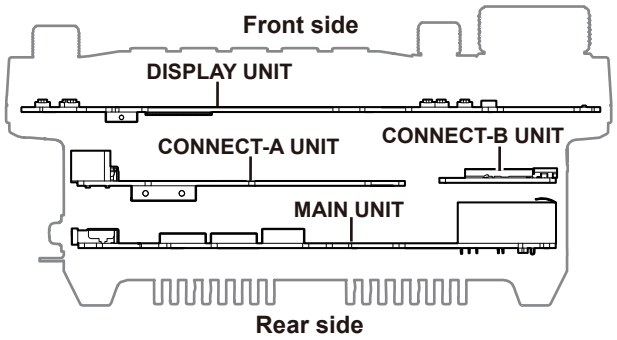
  ⓘ Preamp is ON in the 144 MHz, 430 MHz, and 1200 MHz bands.
- Selectivity (Filter: SHARP):
  - SSB (BW=2.4 kHz): 2.4 kHz/–3 dB or more, 3.6 kHz/–60 dB or less
  - CW (BW=500 Hz): 500 Hz/–3 dB or more, 700 Hz/–60 dB or less
  - RTTY (BW=500 Hz): 500 Hz/–3 dB or more, 700 Hz/–60 dB or less
  - AM (BW=6 kHz): 6.0 kHz/–3 dB or more, 15 kHz/–60 dB or less
  - FM (BW=15 kHz): 12.0 kHz/–6 dB or more, 20 kHz/–60 dB or less
  - DV (Channel spacing=12.5 kHz): –50 dB or less
  - DD (Channel spacing=300 kHz): –40 dB or less
- Spurious and image rejection:
  - SSB/CW
    - 144/430 MHz band: 70 dB or more
    - 1200/2400/5600 MHz band: 50 dB or more
  - AM/FM/DV
    - 144/430 MHz band: 60 dB or more
    - 1200/2400/5600 MHz band: 50 dB or more
  - DD
    - 1200/2400/5600 MHz band: 50 dB or more
- Audio output power:
  - Internal speaker: 0.53 W or more (12 Ω load, 1 kHz, 10% distortion)
  - External speaker: 0.2 W or more (8 Ω load, 1 kHz, 10% distortion)
  - [AV-OUT] jack: –6 dBV or more (maximum audio, 600 Ω load) (audio), 1 Vp-p (typical, test pattern) (video)
- Output impedance:
  - [EXT-SP] jack: 8 Ω
  - [AV-OUT] jack: 600 Ω (audio), 75 Ω (video)
- RIT variable range: ±9.999 kHz
- ANF attenuation: 30 dB or more (with 1 kHz single tone)
- MNF attenuation: 70 dB or more
- NR attenuation: 6 dB or more (noise rejection in SSB)

ⓘ All stated specifications are typical and subject to change without notice or obligation.
ⓘ See the optional CX-10G service manual about the specifications on the 10 GHz band.

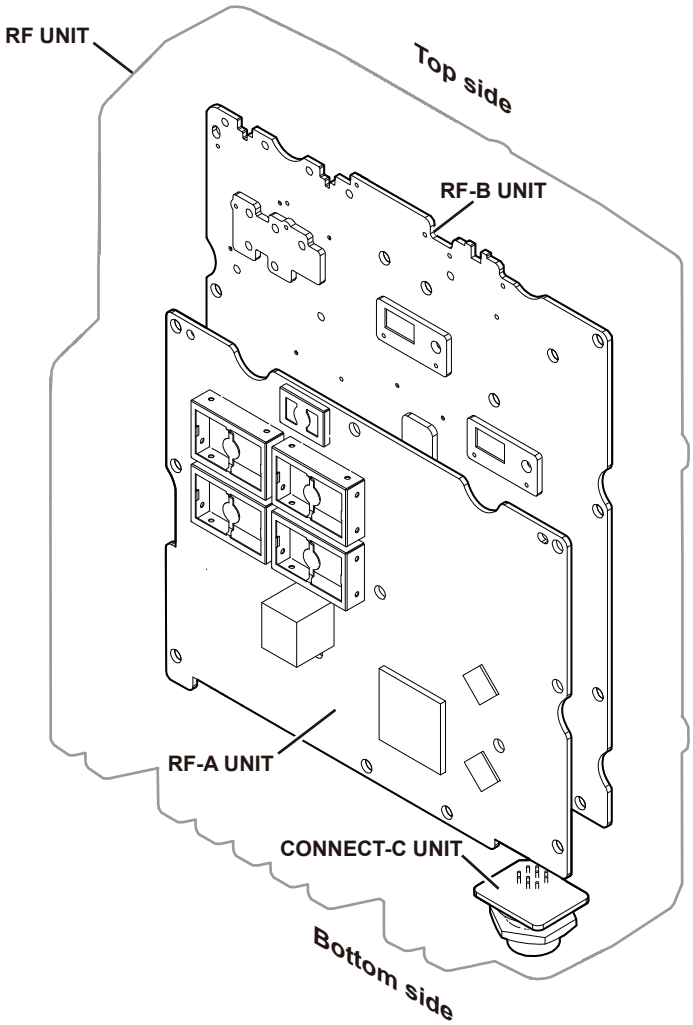
SECTION 2 INSIDE VIEW

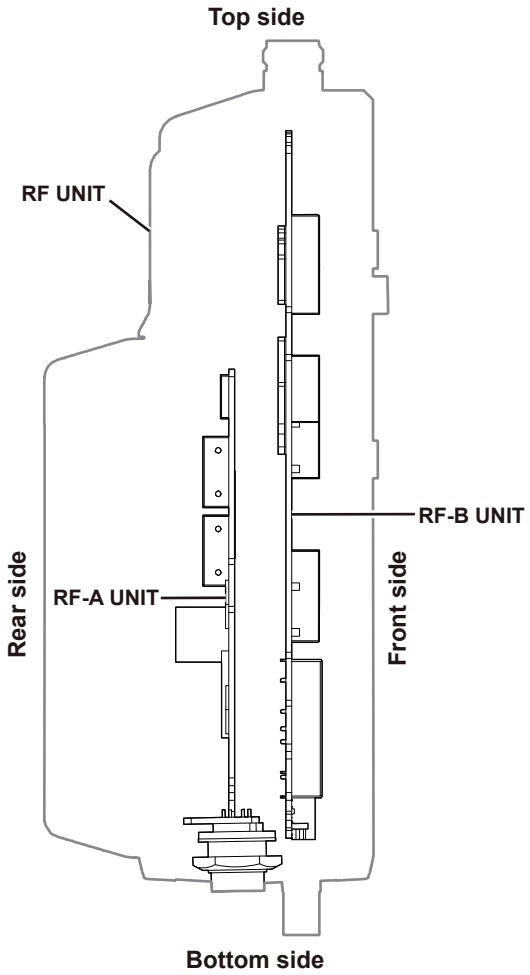
• **CONTROLLER**



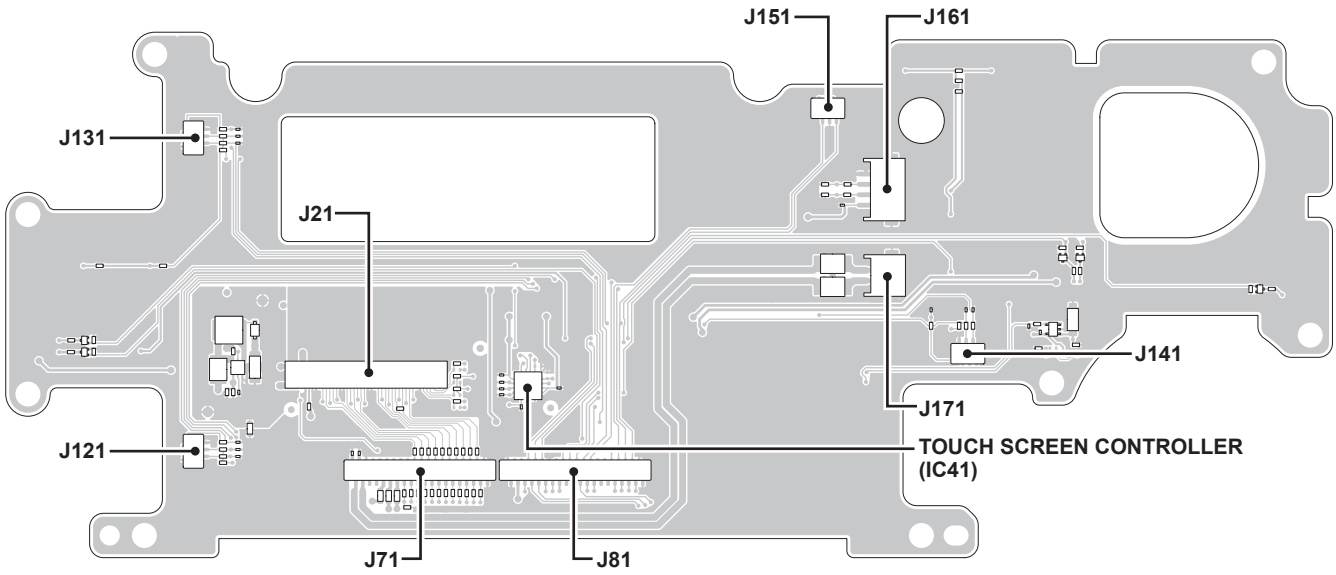


• **RF UNIT**

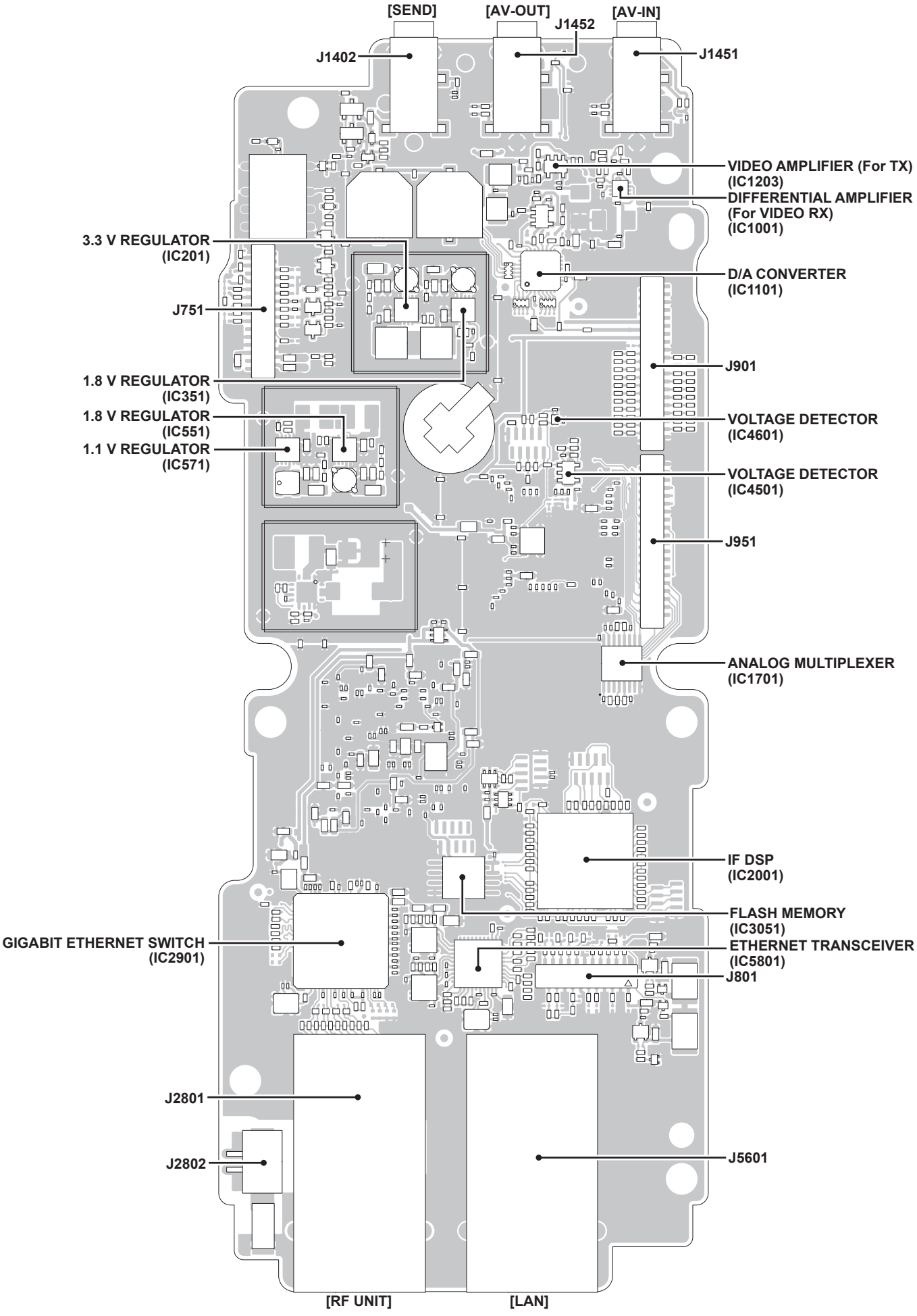




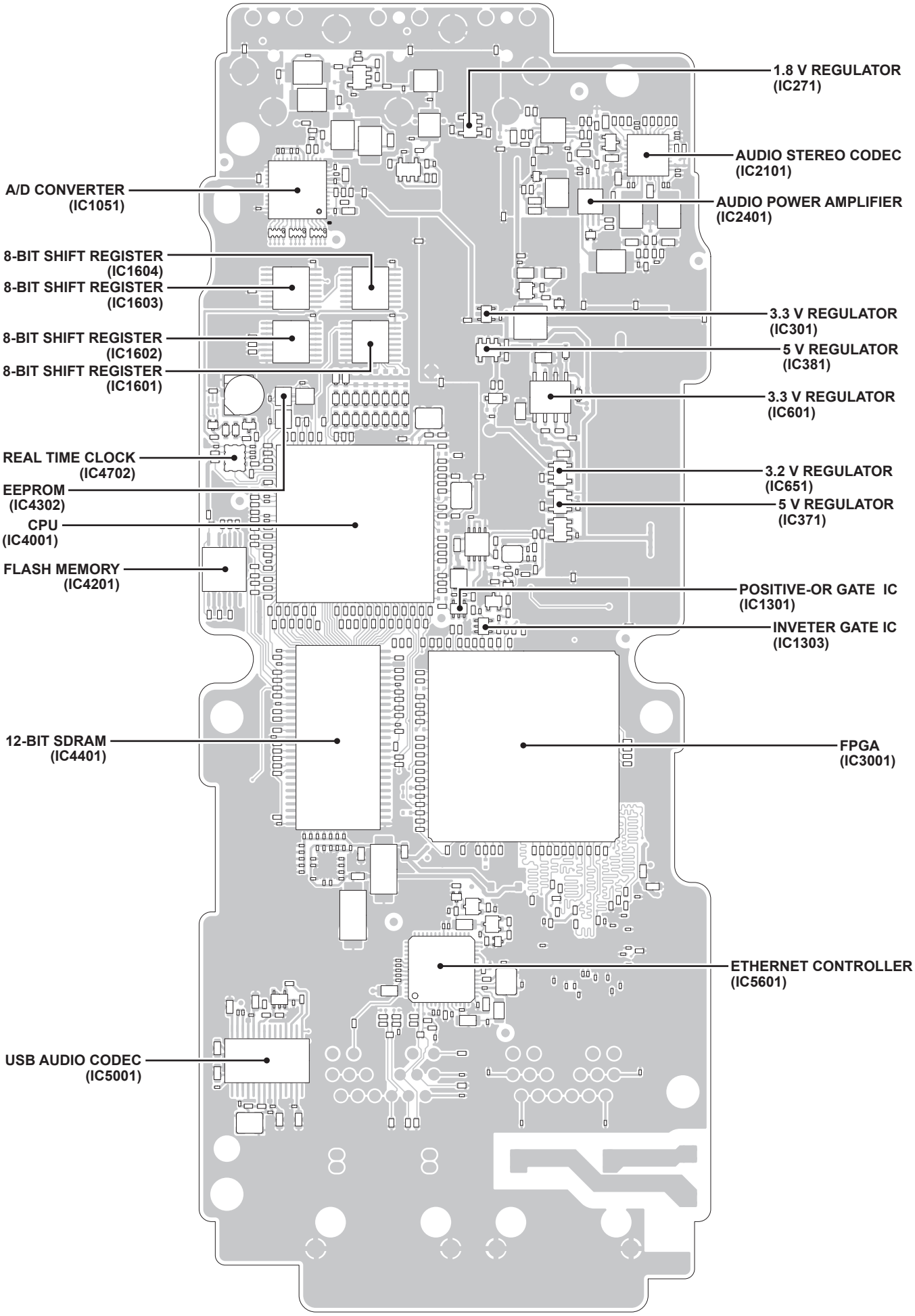
• **DISPLAY UNIT**



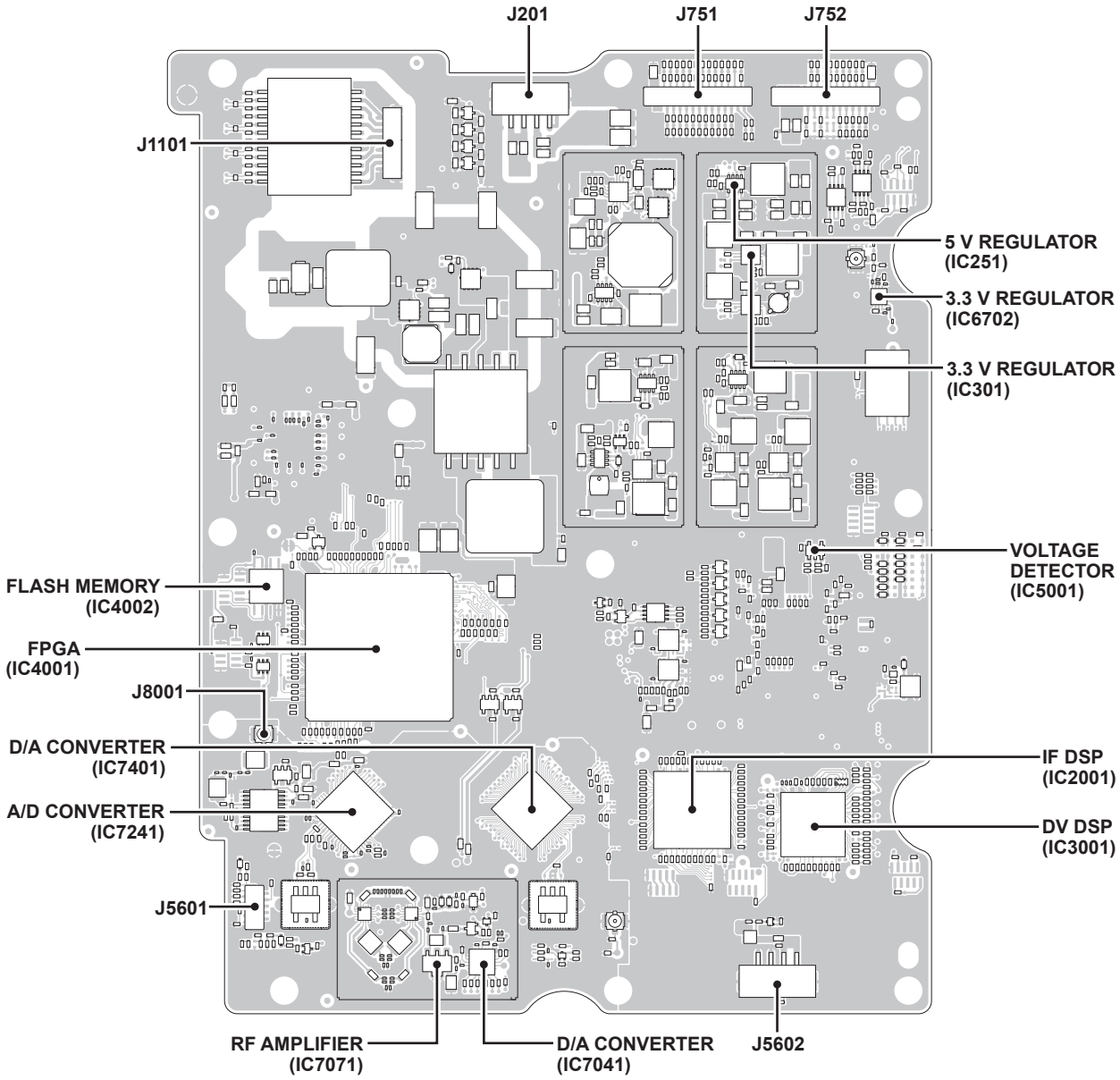
• **MAIN UNIT (Top view)**



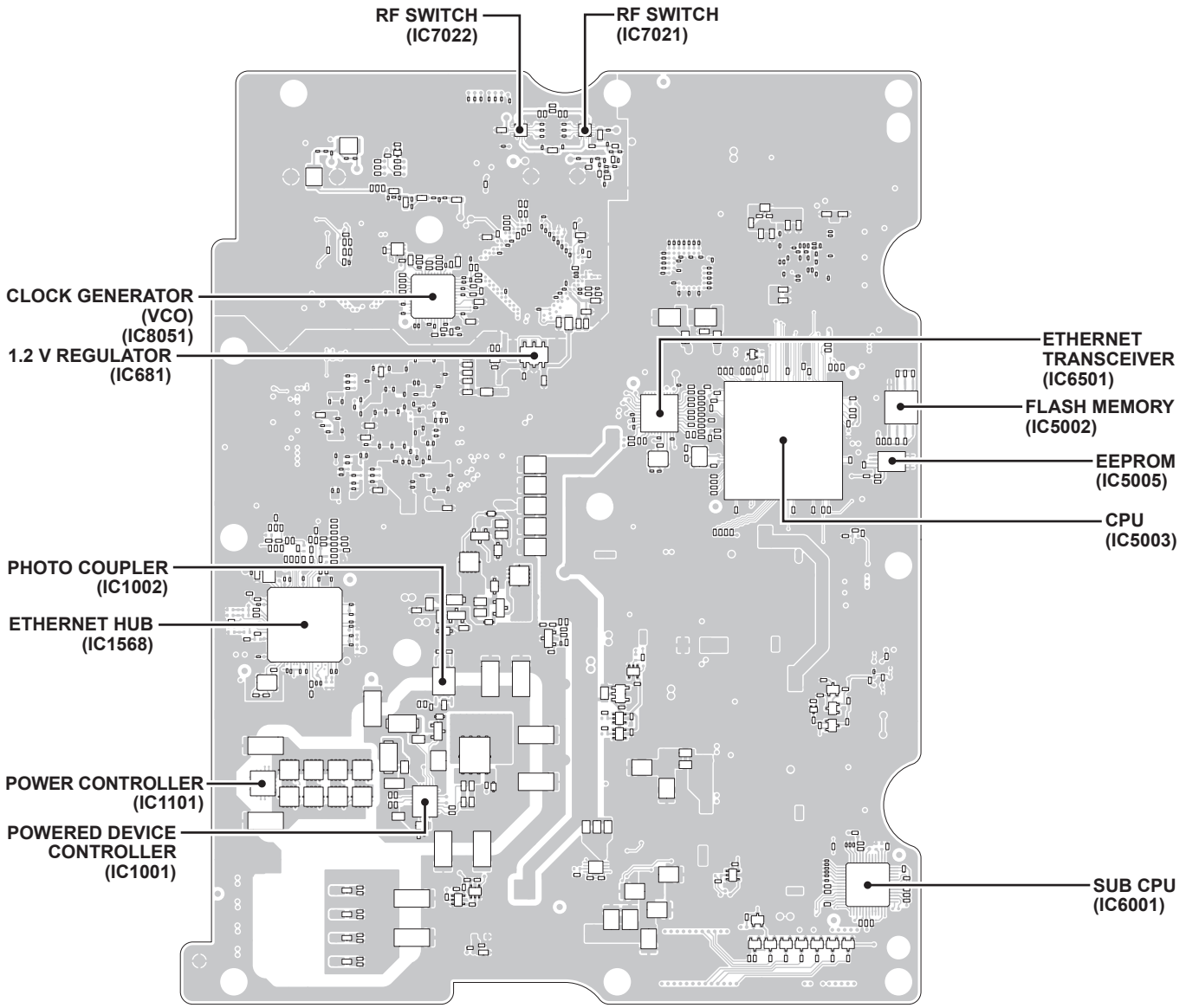
• **MAIN UNIT (Bottom view)**



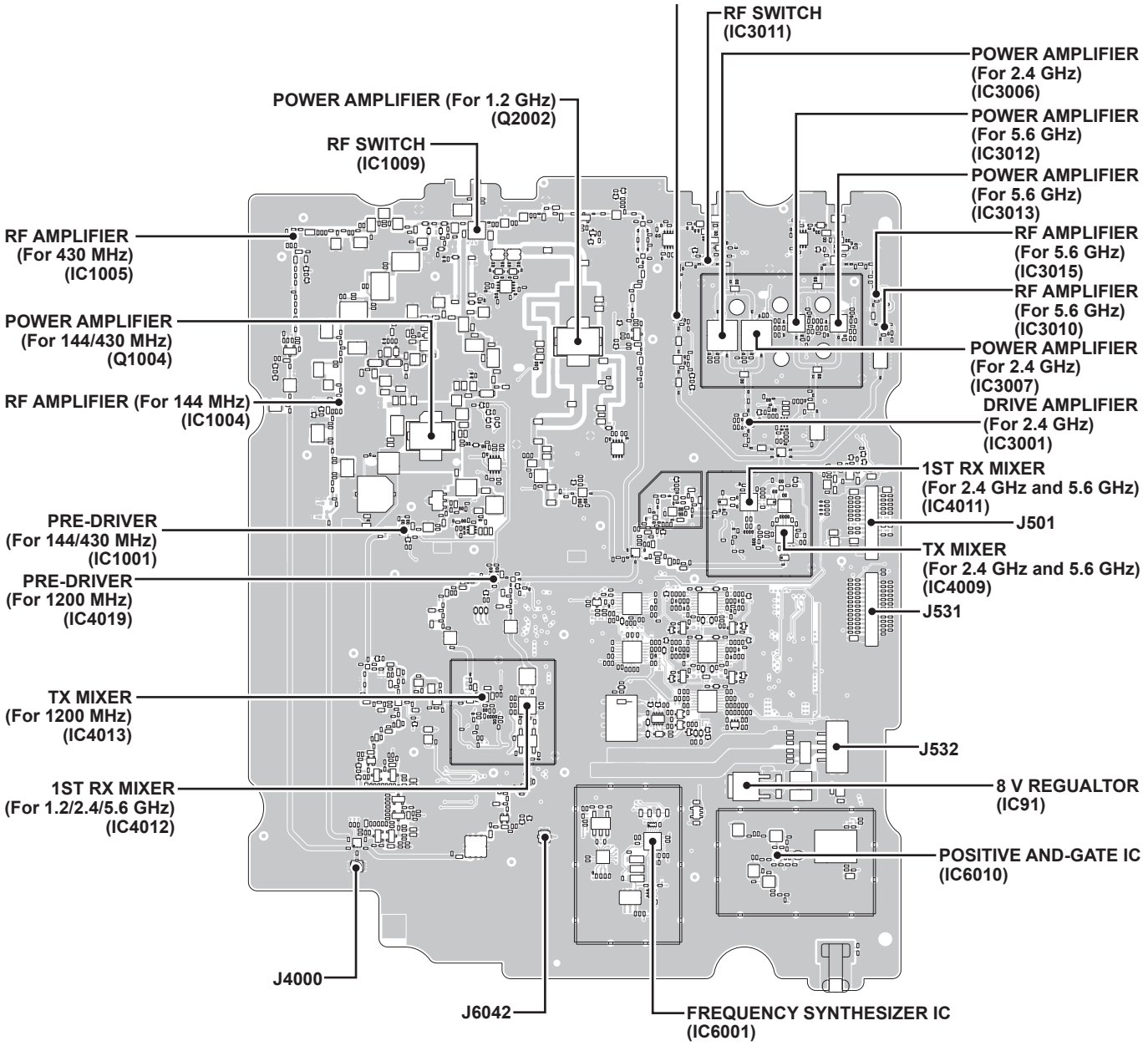
• **RF-A UNIT (Top view)**



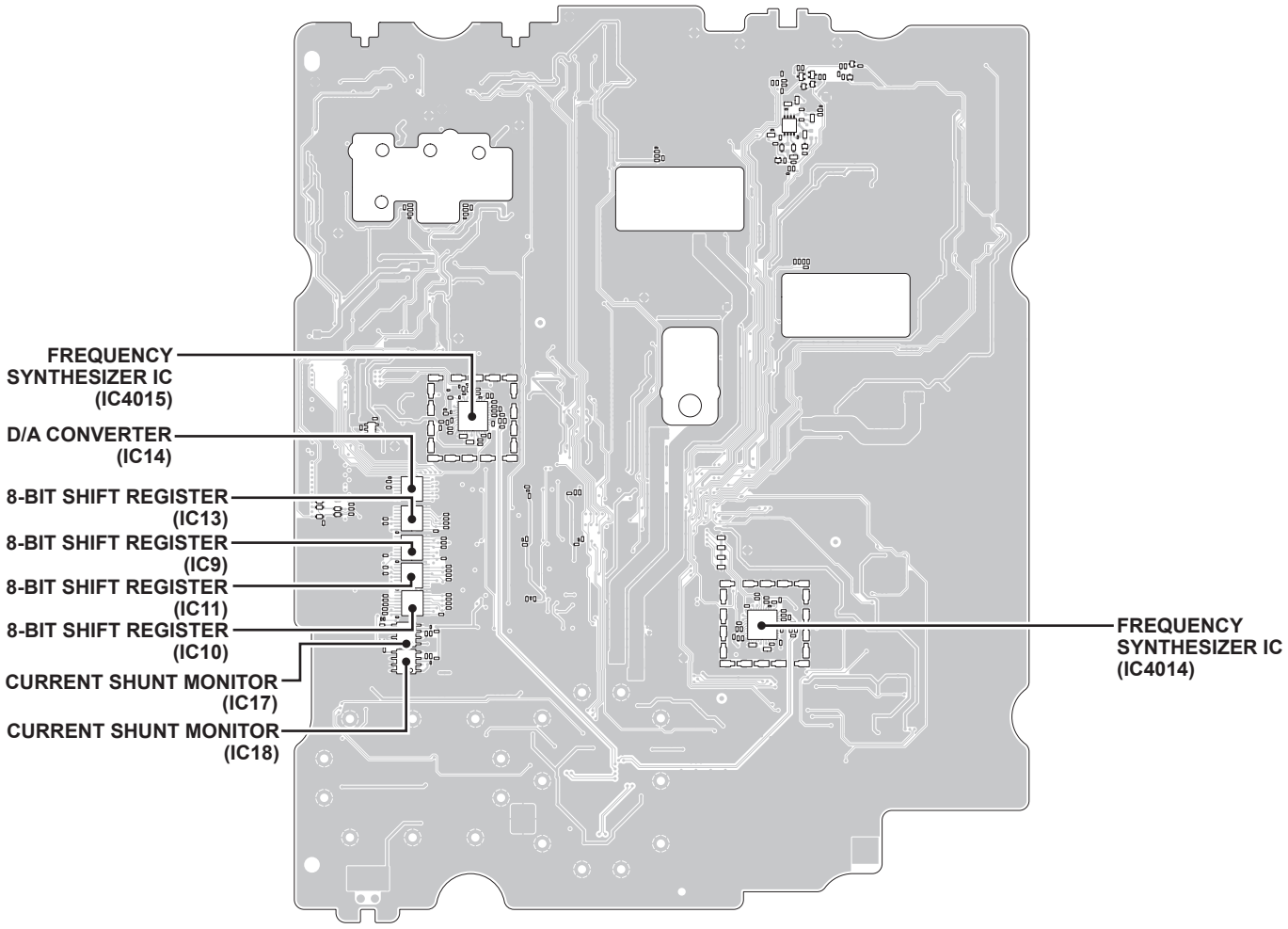
• **RF-A UNIT (Bottom view)**



• **RF-B UNIT (Top view)**



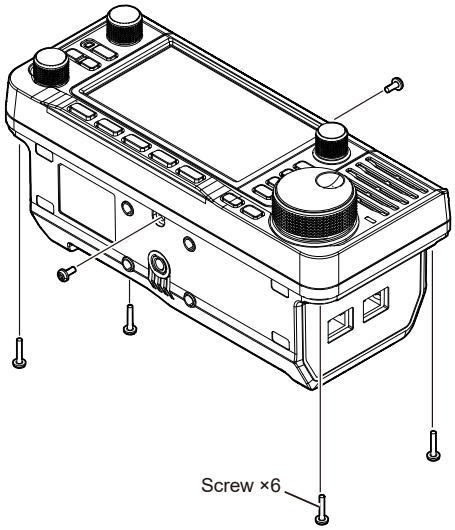
• **RF-B UNIT (Bottom view)**



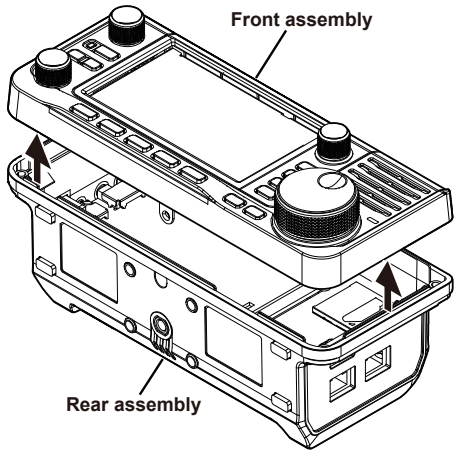
SECTION 3 DISASSEMBLY INSTRUCTION

1. Removing the front panel assembly

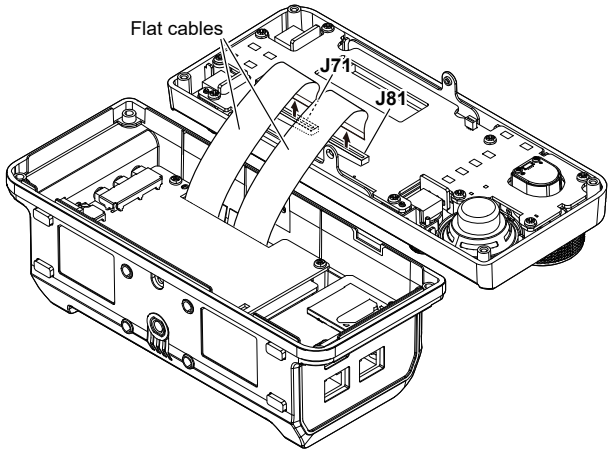
1) Remove the 4 screws from the rear panel, 1 screw each from the top and bottom of the controller.



2) Separate the front assembly from the rear assembly in the direction of the arrow.

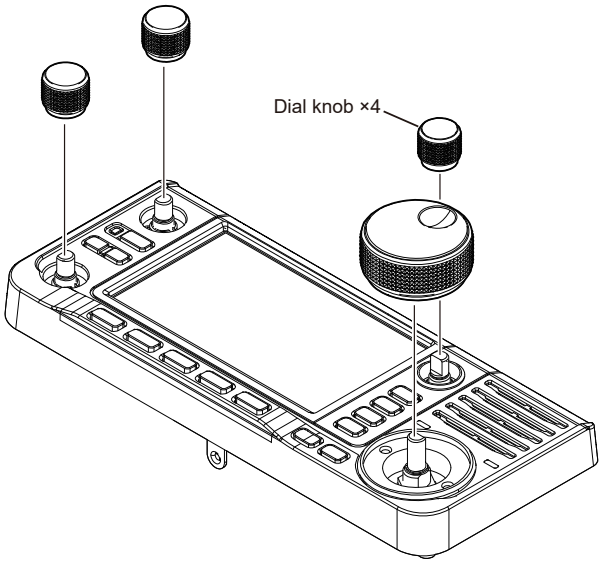


3) Disconnect 2 flat cables from the PCB as illustrated below.

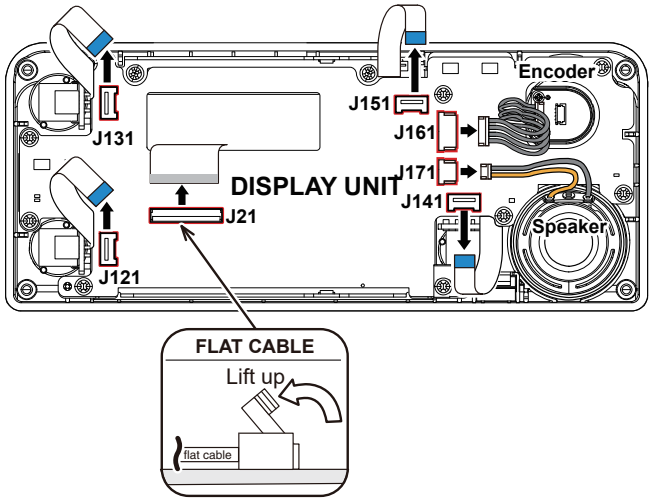


2. Removing the DISPLAY UNIT

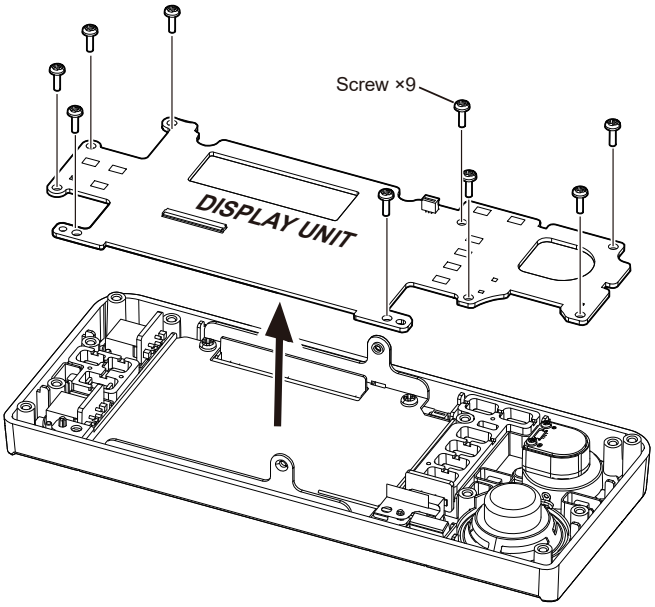
1) Pull the 4 dial knobs to remove them from the front panel.



2) Disconnect the 5 flat cables, encoder cable, and speaker cable from the DISPLAY UNIT, as illustrated below.

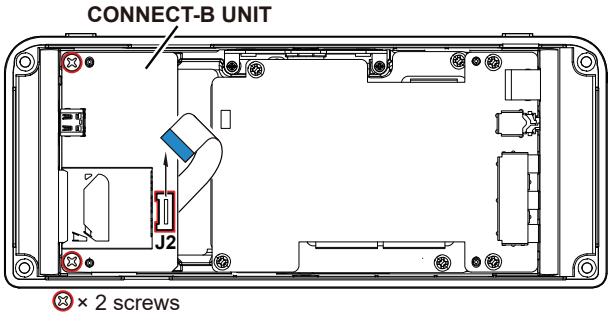


3) Remove the 9 screws from the DISPLAY UNIT, then take the DISPLAY UNIT from the front panel.

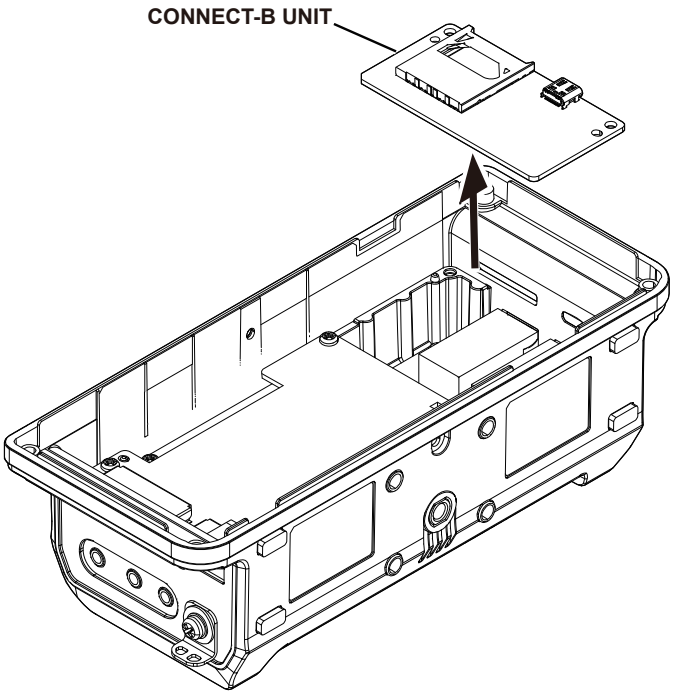


3. Removing the CONNECT-B UNIT

1) Disconnect 1 flat cable, and remove the 2 screws from the CONNECT-B UNIT.

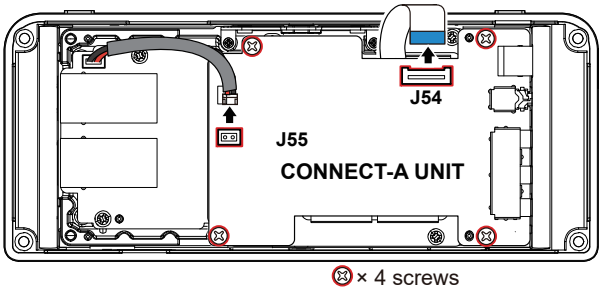


2) Remove the CONNECT-B UNIT in the direction of the arrow.

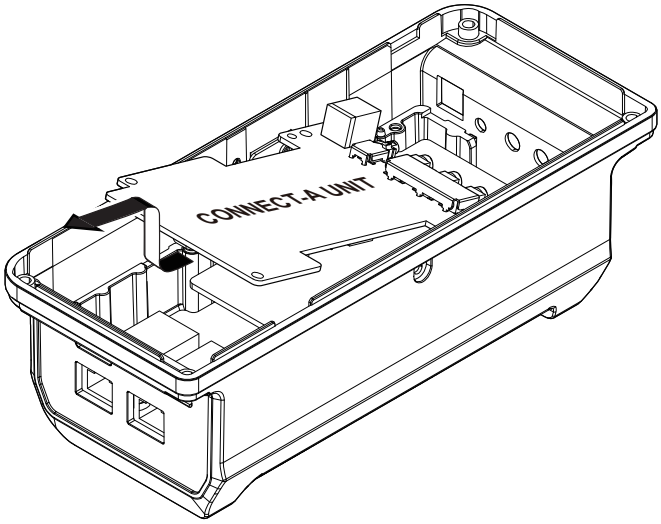


4. Removing the CONNECT-A UNIT

1) Remove the 4 screws, a DC power cable and a flat cable from the CONNECT-A UNIT.

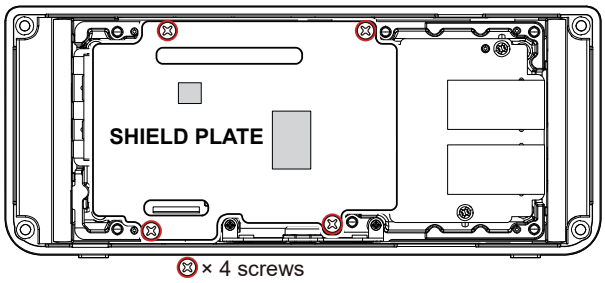


2) Remove the CONNECT-A UNIT in the direction of the arrow.

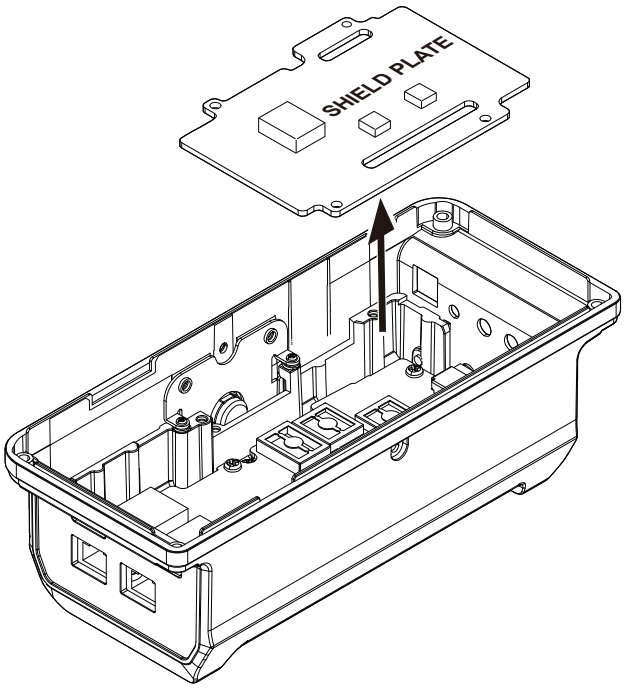


5. Removing the MAIN UNIT

1) Remove the 4 screws from the shield plate.

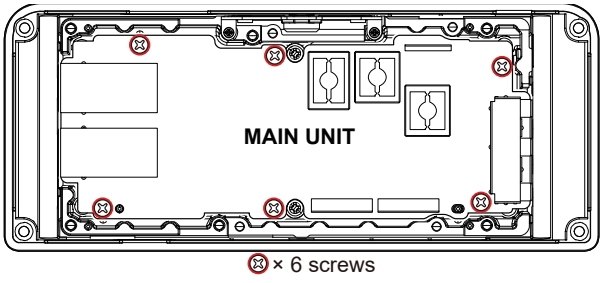


2) Remove the shield plate in the direction of the arrow.
(The MAIN UNIT appears.)

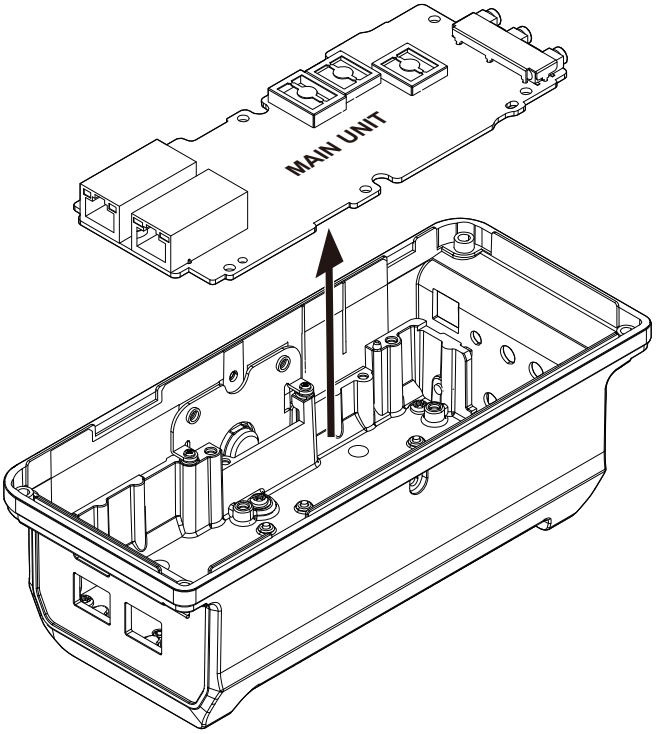


(Continued on the right above)

3) Remove the 6 screws from the MAIN UNIT.

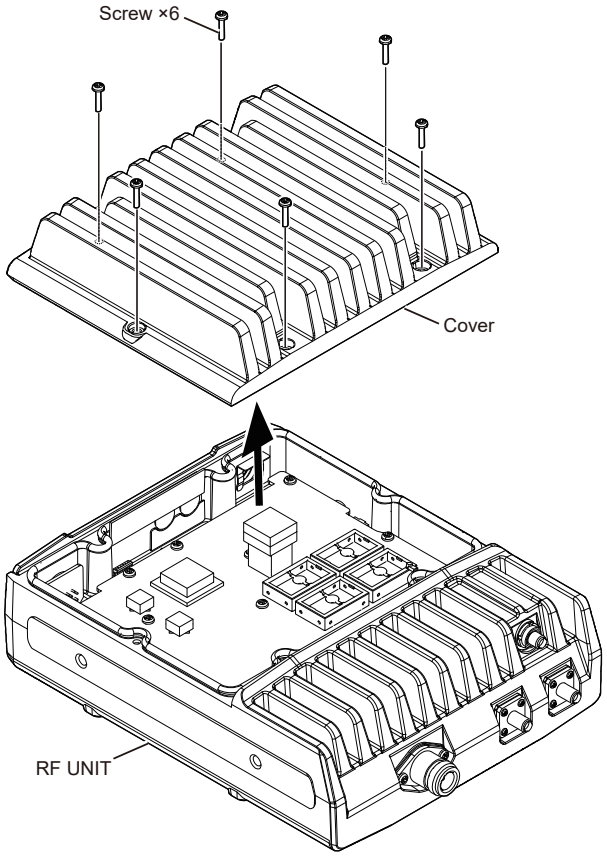


4) Remove the MAIN UNIT in the direction of the arrow.

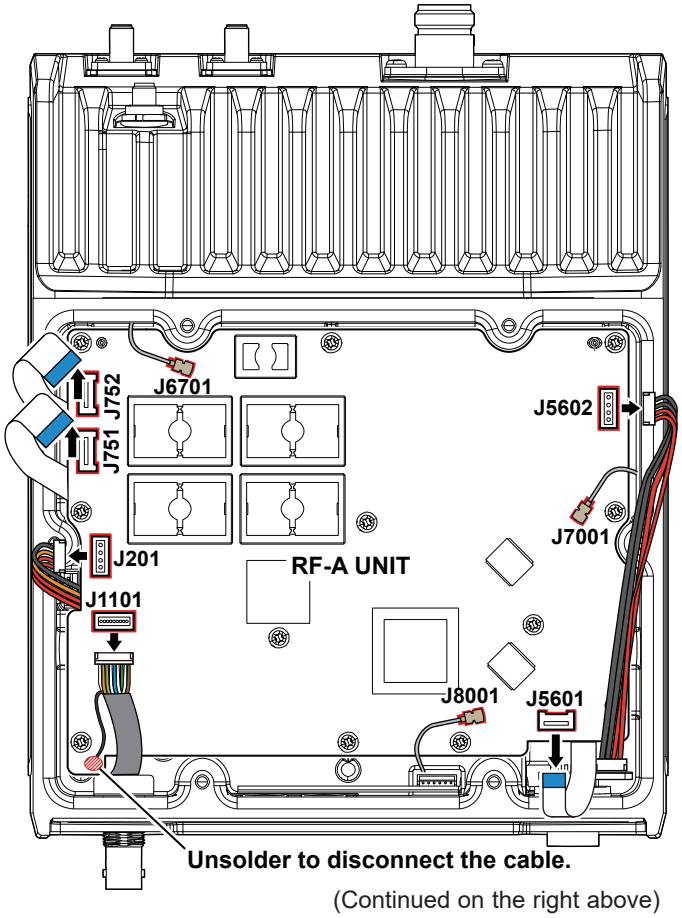


6. Removing the RF-A UNIT

1) Remove the cover from the RF UNIT.

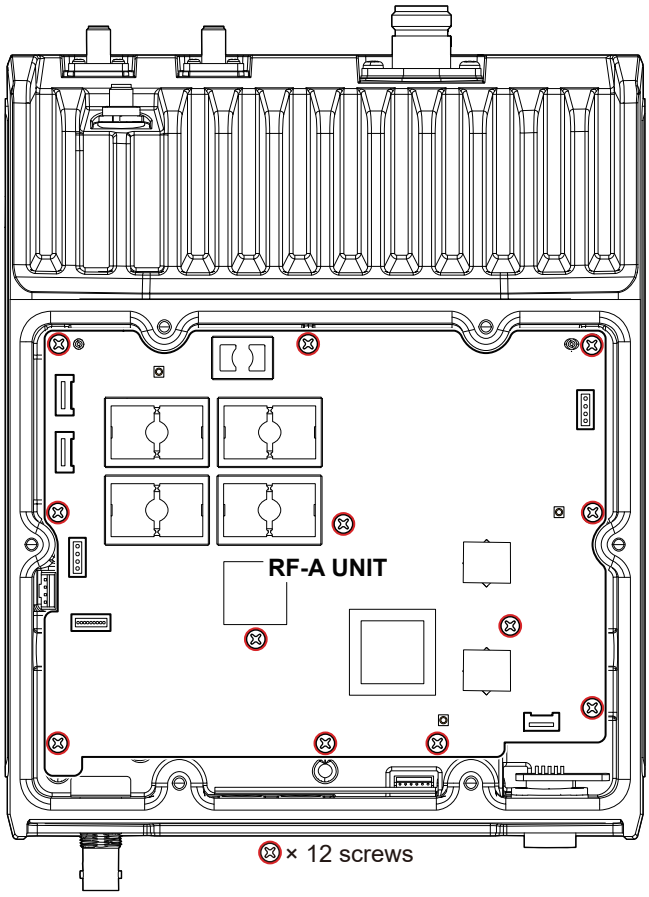


2) Remove the 3 cables, 3 flat cables, and 3 coaxial cables from the RF-A UNIT.

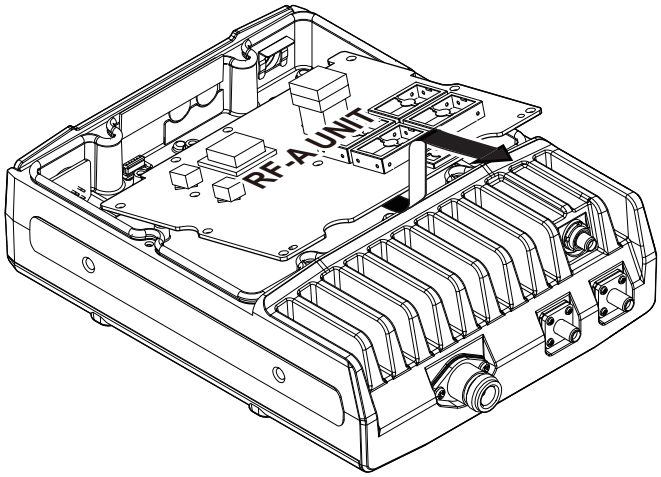


(Continued on the right above)

3) Remove the 12 screws from the RF-A UNIT.

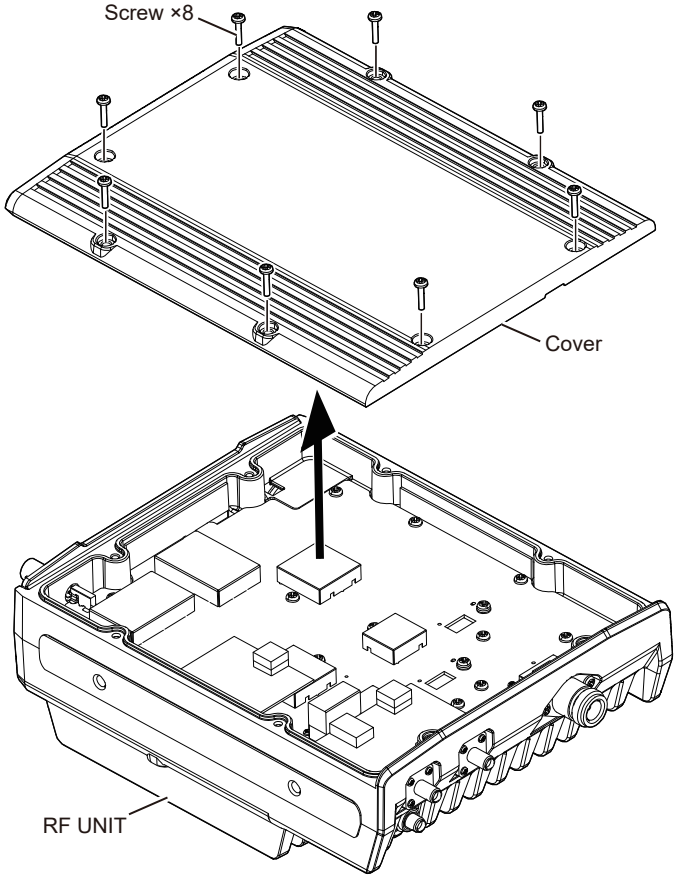


4) Remove the RF-A UNIT in the direction of the arrow.

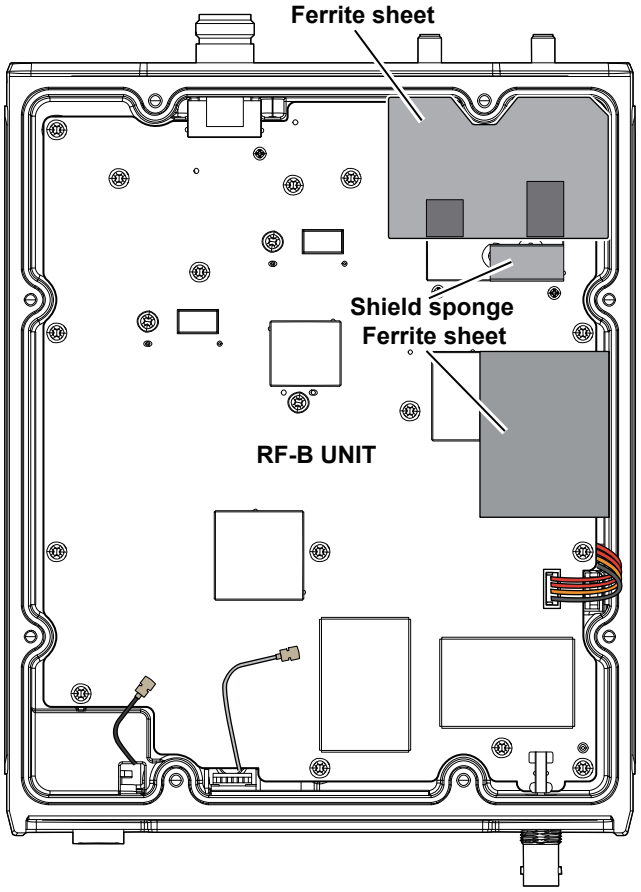


7. Removing the RF-B UNIT

1) Remove the 8 screws from the cover, then emove the cover from the RF UNIT.

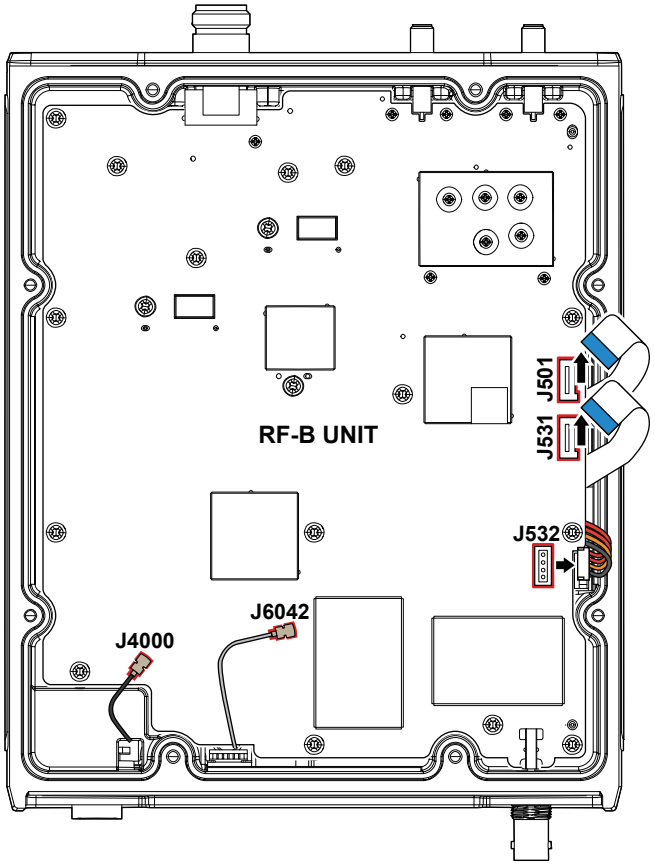


2) Remove the 2 ferrite sheets and 1 shield sponge from the RF-B UNIT.

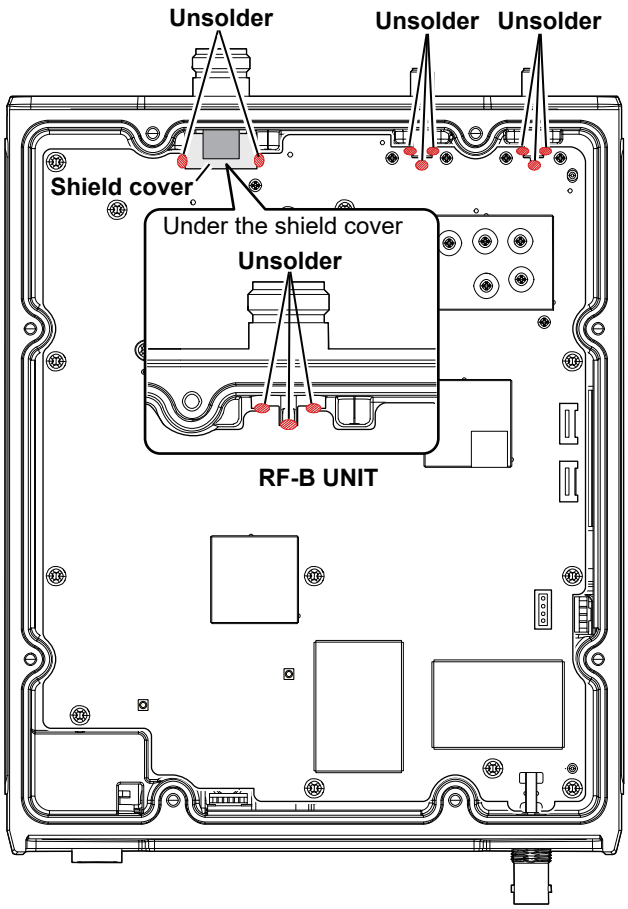


(Continued on the right above)

3) Remove the 1 cable, 2 flat cables, and 2 coaxial cables from the RF-B UNIT.



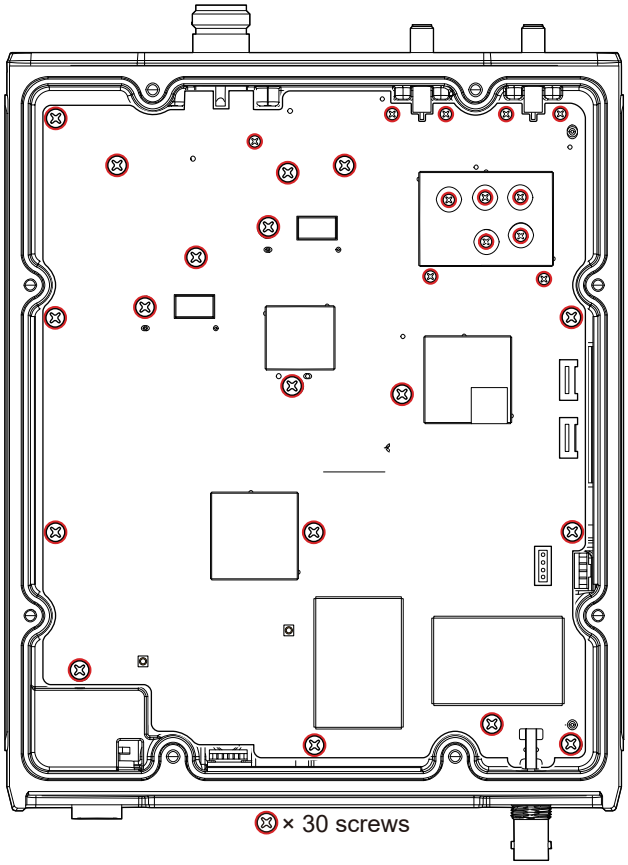
4) Remove the solder from total of 11 points on the RF-B UNIT.



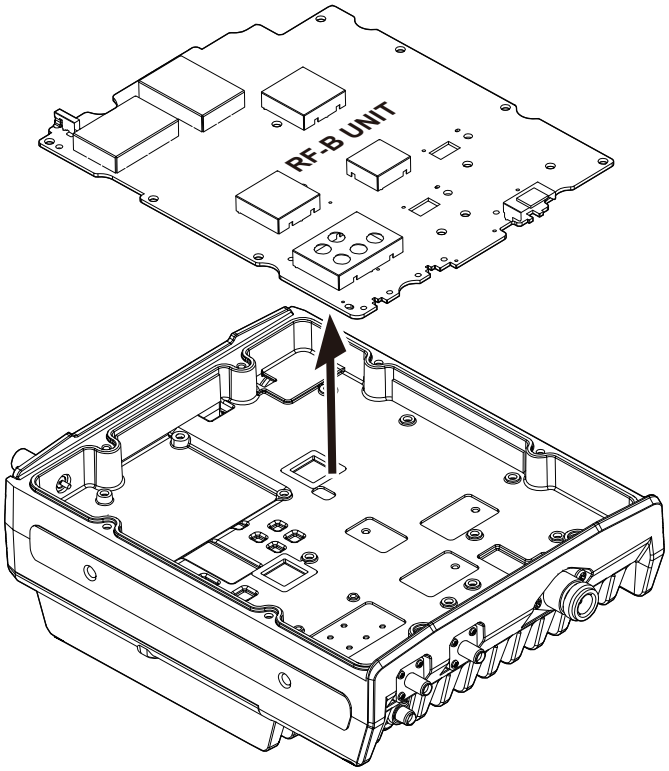
(Continued on the next page)

7. Removing the RF-B UNIT (continued)

5) Remove the total of 30 screws from the RF-B UNIT.

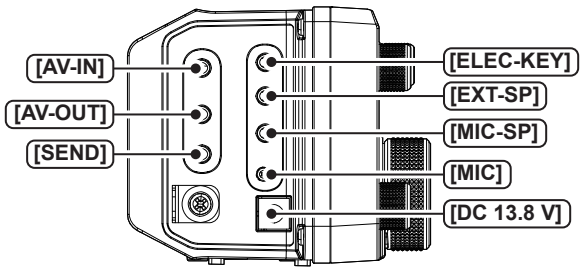


6) Remove the RF-B UNIT in the direction of the arrow.

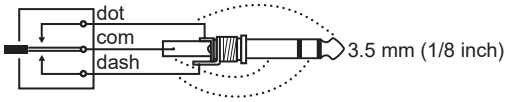
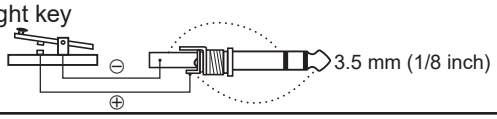


SECTION 4 INTERFACE INFORMATION

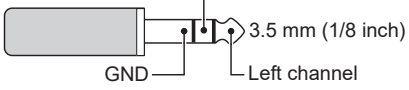
• CONTROLLER



[ELEC-KEY]

ELEC-KEY	Pin name	Description	Specification
• Paddle key 	Dot	–	–
	Common	–	–
	Dash	–	–
• Straight key 	+	–	–
	–	–	–

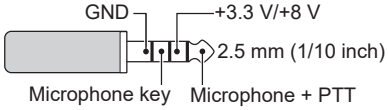
[EXT-SP]

EXT-SP	Pin name	Description	Specification
	Left channel	AF output (Left channel)	When using the amplifier for a speaker: • Output impedance: 8 Ω • Output level: 200 mW or more (8 Ω load, 10% distortion) When using the amplifier for a headset: • Output impedance: 16 Ω • Output level: 5 mW or more (16 Ω load, 10% distortion)
	Right channel	AF output (Right channel)	
	GND	Ground	–

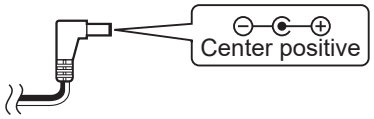
[MIC-SP]

MIC-SP	Pin name	Description	Specification
	AF	AF output	Output level: 150 mW or more (at 8 Ω load, 10% distortion)
	GND	Ground	–

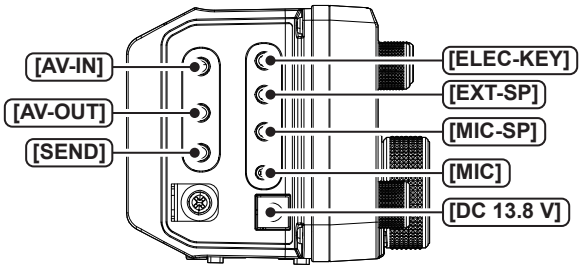
[MIC]

MIC	Pin name	Description	Specification
	Microphone + PTT	MIC signal input and superimposed PTT	–
	+3.3 V/8 V	DC voltage output	+3.3 V (through 470 Ω) or +8.0 V (maximum 10 mA)
	Microphone key	Key input signal from HM-243	–
	GND	Ground	–

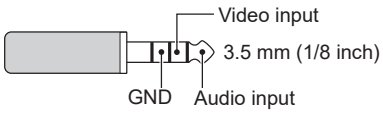
[DC 13.8 V]

DC 13.8 V	Pin name	Description	Specification
	DC IN	Power supply input	13.8 V DC (±15%, 5.5 A or more)
	GND	Ground	–

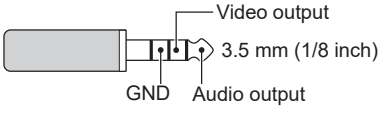
• CONTROLLER (CONTINUED)



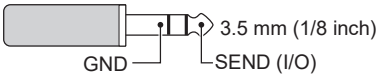
[AV-IN]

AV-IN	Pin name	Description	Specification
	Video input	Video signal	Input impedance: 75 Ω
	Audio input	Audio signal	Input impedance: 600 Ω Input level: –10 dBV ±3 dB
	GND	Ground	–

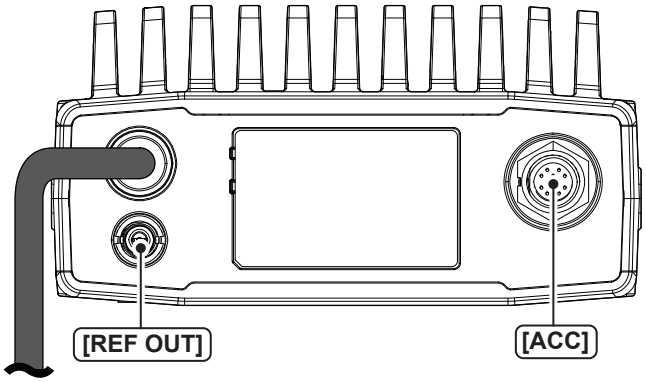
[AV-OUT]

AV-OUT	Pin name	Description	Specification
	Video output	Video signal	Output impedance: 75 Ω
	Audio output	Audio signal	Output impedance: 600 Ω Output level: –10 dBV ±3 dB
	GND	Ground	–

[SEND]

SEND	Pin name	Description		Specification
	SEND	Input pin	When this pin goes to ground, the transceiver transmits.	Input: • Input voltage (RX): 2.0 ~ 20.0 V • Input voltage (TX): –0.5 ~ +0.8 V • Current flow: Maximum 20 mA Output: • Output voltage (TX): 0.1 V or less • Current flow: Maximum 200 mA
		Output pin	This pin goes low when the transceiver transmits.	
	GND	Ground		–

• RF UNIT



[ACC]

ACC	Pin No.	Port name	Description		Specification
10-pin ① ⑧ ② ⑨ ⑦ ③ ⑩ ⑥ ④ ⑤ Bottom panel view	1	NC	–		–
	2	NC	–		–
	3	GND	Connects to ground.		–
	4	NC	–		–
	5	NC	–		–
	6	NC	–		–
	7	ALC	ALC voltage input.		Input impedance: 10 kΩ or more Input level: –4 ~ 0 V Input voltage: 30 V or less Input current: 0.5 mA or less
	8	GND	Connects to ground.		–
	9	SEND	Input	When this pin goes to ground, the transceiver transmits.	Voltage: 30 V or less Reverse voltage: 80 V Open circuit voltage: 5 V Voltage (TX): –0.5 ~ +0.8 V Current flow: Maximum 2.27 mA
			Output	This pin goes low when the transceiver transmits.	
	10	NC	–		–

[REF OUT 10 MHz/–10 dBm]

REF OUT 10 MHz/–10 dBm	Description	Specification
BNC	Outputs the 10 MHz signal as a reference frequency signal.	• Output frequency: 10 MHz • Output impedance: 50 Ω (unbalanced) • Output level: –10 dBm (approximate)

SECTION 5 ADJUSTMENT PROCEDURES

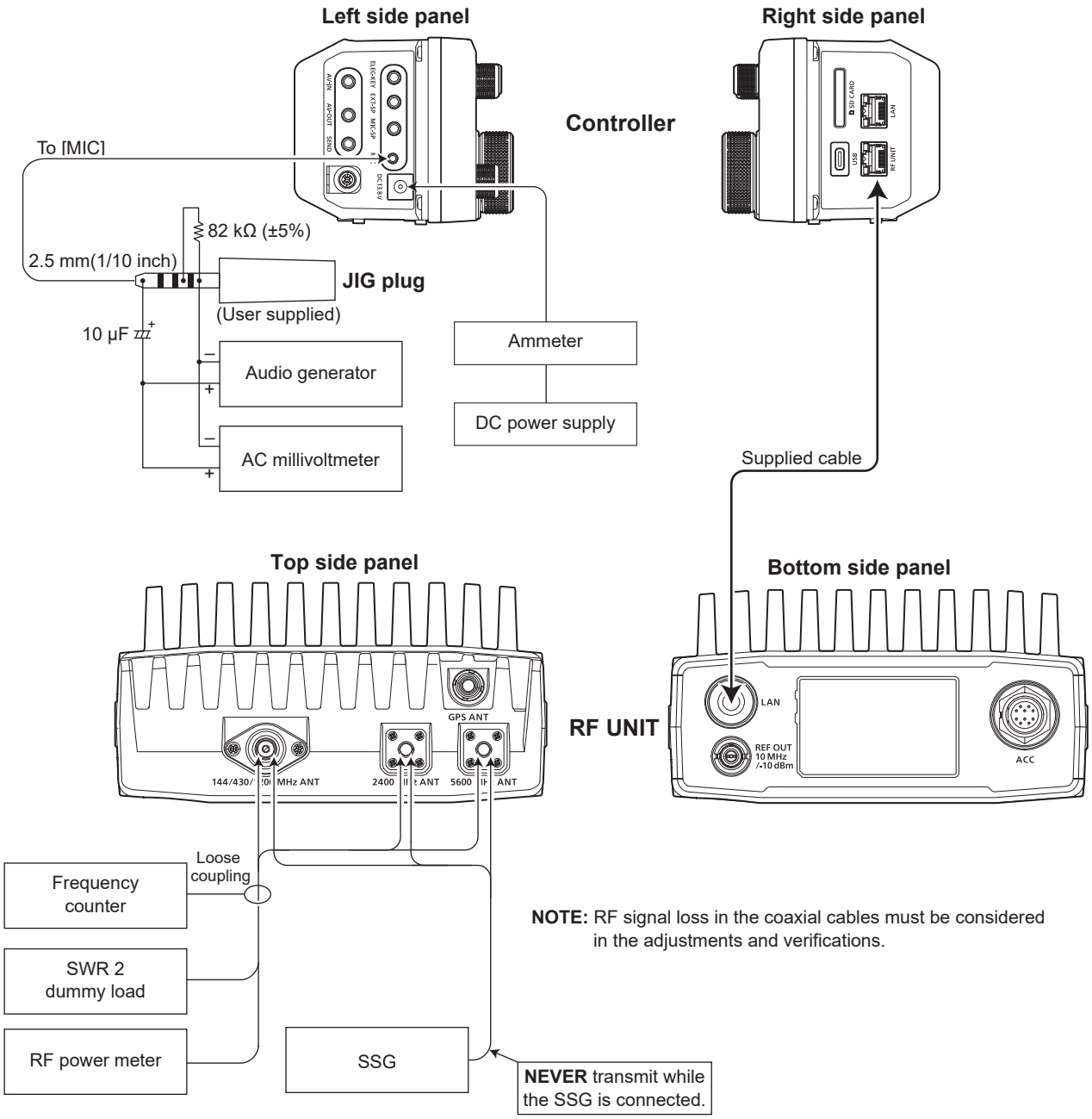
5-1 PREPARATION

■ REQUIRED EQUIPMENT

EQUIPMENT	GRADE AND RANGE	EQUIPMENT	GRADE AND RANGE
DC power supply	Output voltage: 13.8 V DC Rated output current: 6 A or more	Standard signal generator (SSG)	Frequency range: Up to 15 GHz Output level: −20 dBμV~90 dBμV (−127 dBm~−17 dBm)
Ammeter	Current range: 500 mA to 6 A		
Frequency counter	Frequency range: Up to 6 GHz Measuring accuracy: ±1 ppb or better	RF power meter (50 Ω terminated)	Measuring range: 10 mW to 20 W Frequency range: Up to 15 GHz
Audio generator (AG)	Frequency range: Up to 3000 Hz Output level: 1~500 mV	SWR 2 dummy load	Rated input power: 10 W or more Impedance: 25 Ω
Spectrum analyzer	Measuring range: Up to 26 GHz	Attenuator	Power attenuation: 30 dB Rated input power: 3 W or more
Dummy load	Impedance: 50 Ω Rated input power: 10 W or more	AC millivoltmeter	Measuring range: 1 mV to 10 V
		JIG plug	See the illustration below.

■ CONNECTIONS

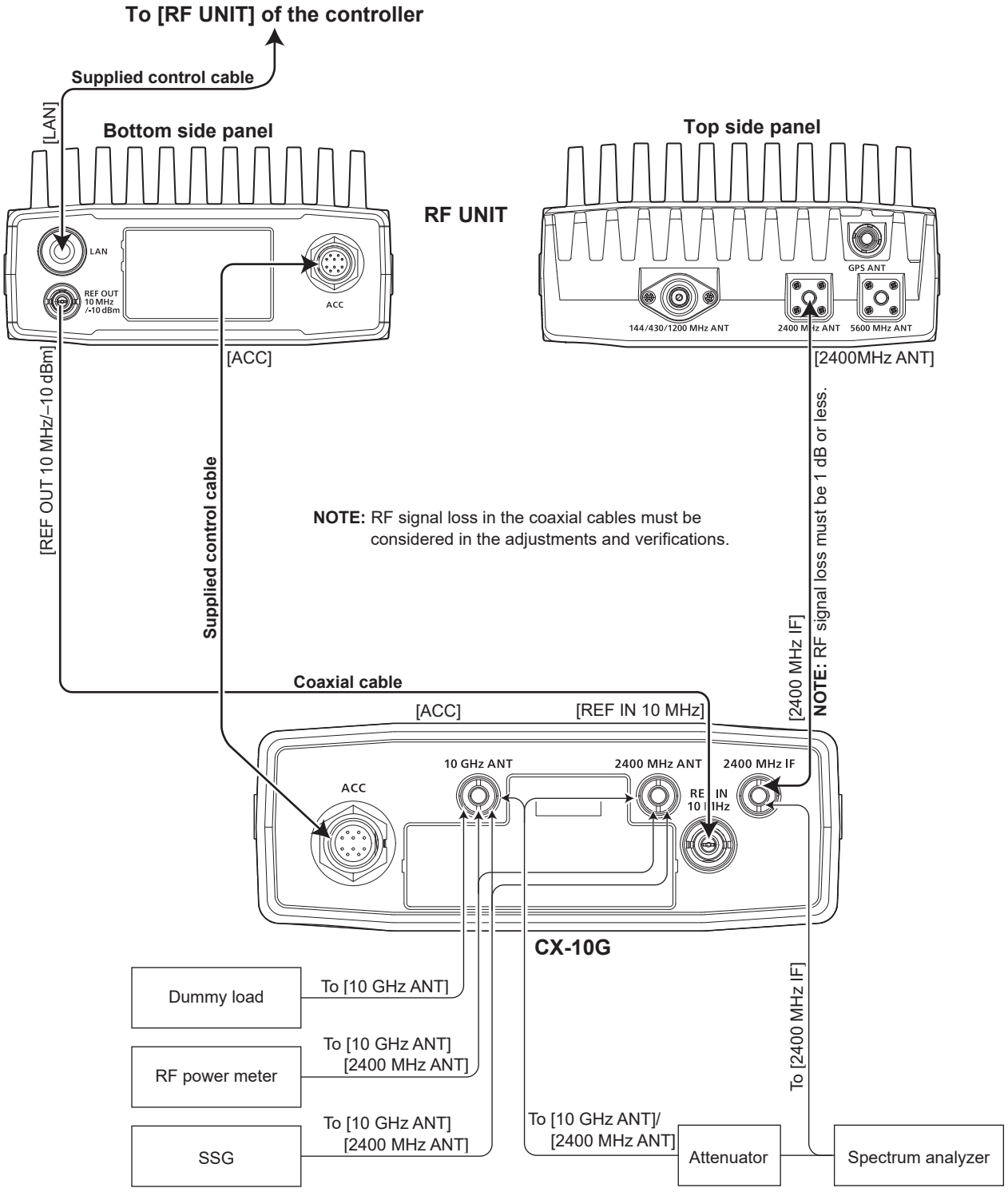
• For IC-905 adjustment



NOTE: RF signal loss in the coaxial cables must be considered in the adjustments and verifications.

■ CONNECTIONS (CONTINUED)

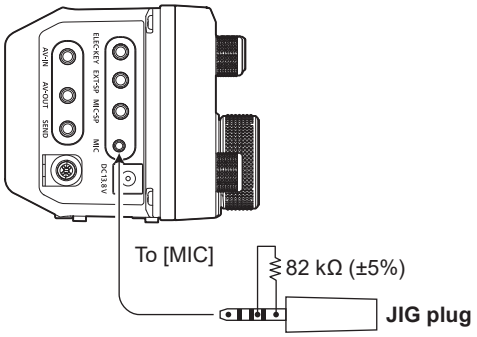
• For CX-10G (Optional product) adjustment (See page 5-18)



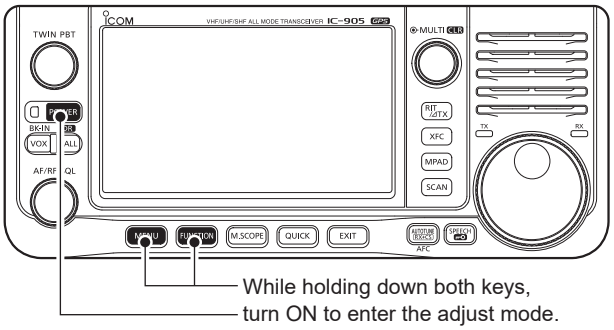
■ENTERING THE ADJUST MODE

1. Turn OFF the power.
2. Connect the JIG plug to the [MIC] jack.

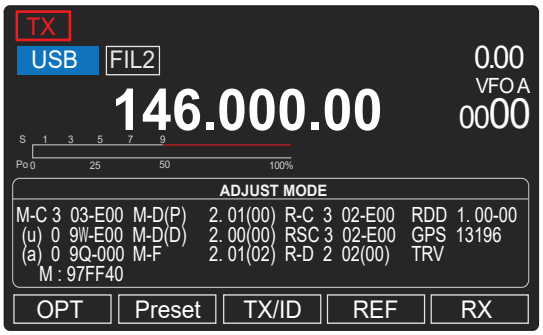
Left side panel



3. While holding down both [MENU] and [FUNC], turn ON to enter the adjust mode.



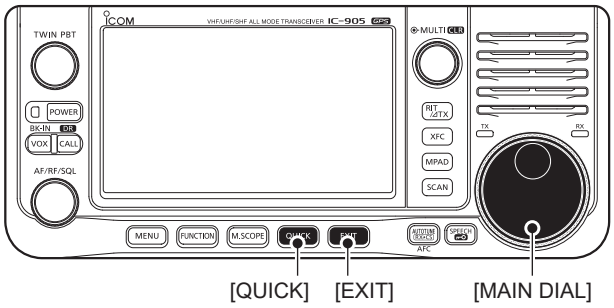
4. The Adjust Mode Main menu is displayed.



(This screen is an example.)

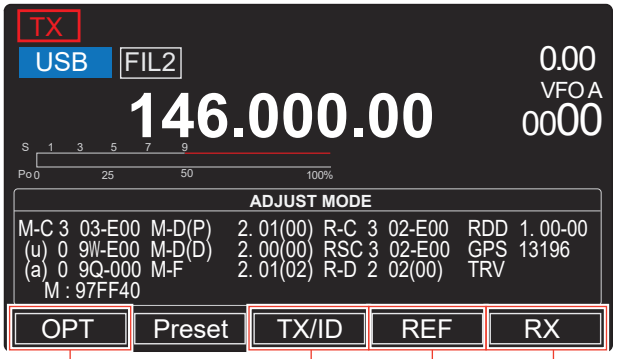
■ KEY ASSIGNMENTS FOR THE ADJUST MODE

- Touch [▼] to select the next adjustment item, touch [▲] to select the previous adjustment item.
- Rotate [MAIN DIAL] to set or modify the adjustment value.
- Touch [SET] to start automatic adjustment, or store the adjusted value, and select the next adjustment item.
- Push [EXIT] to exit from the adjustment item.



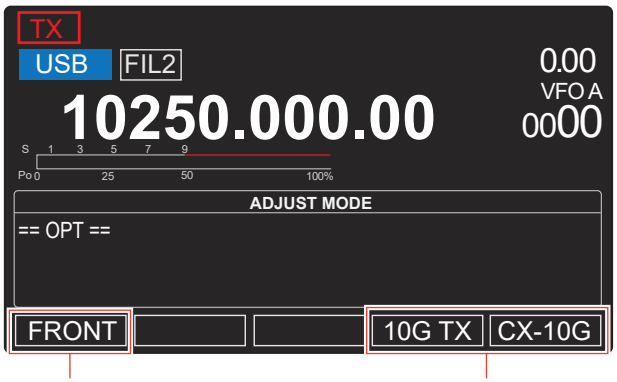
■ ADJUST MODE SCREENS

• MAIN MENU



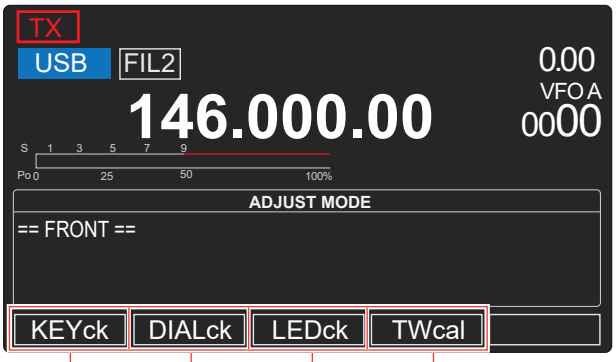
Enter the RX adjust menu.
Enter the REF adjust menu.
Enter the TX/ID adjust menu.
Enter the FRONT key verification or CX-10G (optional product) adjust menu.

• FRONT PANEL/CX-10G ADJUST MENU



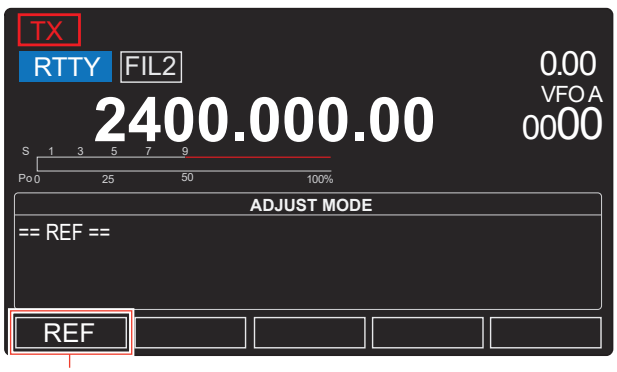
Enter the FRONT key verification menu.
CX-10G adjustments

• FRONT KEY VERIFICATION MENU



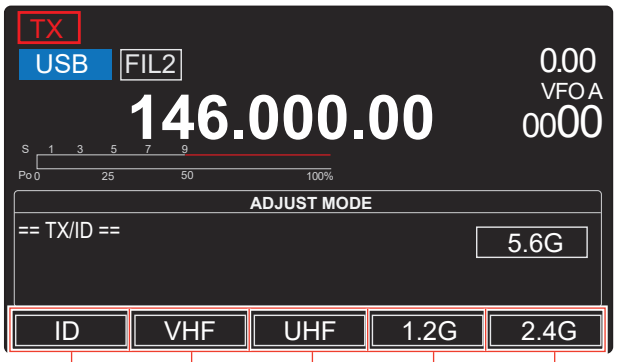
Starts the touch screen calibration.
Starts the LED verification.
Starts the dial verification.
Starts the key verification.

• REF ADJUST MENU



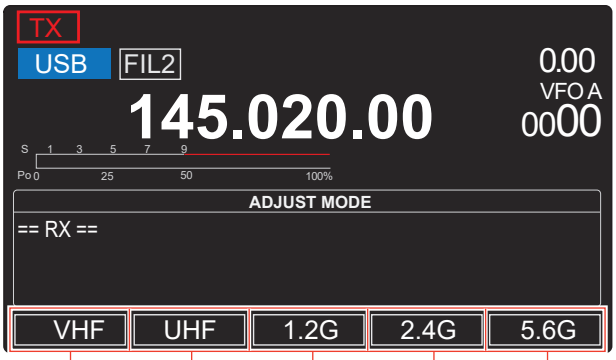
Starts the reference frequency adjustment.

• TX/ID ADJUST MENU



Starts the 2.4 GHz band transmit adjsutment.
Starts the 1.2 GHz band transmit adjsutment.
Starts the UHF band transmit adjsutment.
Starts the VHF band transmit adjsutment.
Starts the idling current adjustment.

• RX ADJUST MENU



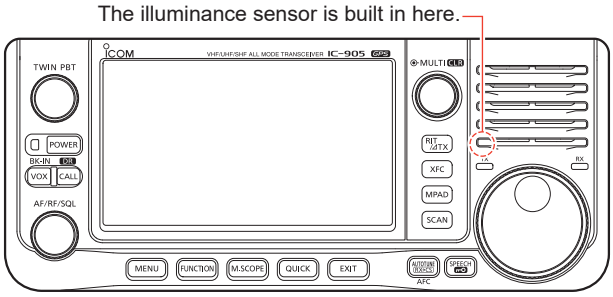
Starts the 5.6 GHz band receive adjsutment.
Starts the 2.4 GHz band receive adjsutment.
Starts the 1.2 GHz band receive adjsutment.
Starts the UHF band receive adjsutment.
Starts the VHF band receive adjsutment.

NOTE: These screens are example.

5-2 FRONT PANEL OPERATION VERIFICATION

1. Touch [OPT] on the Adjust mode Main menu.
2. Touch [FRONT] on the OPT Adjust Mode menu.
3. Touch [KEYck] to enter to the Key Operation Verification mode.
4. Follow the instructions displayed on the screen, and push the corresponding key or knob.
5. Follow the instructions displayed on the screen, and rotate the corresponding dial and sensor.

   NOTE: Verification items "25. PHOTO DARK" and "26. PHOTO BRIGHT" check the illuminance sensor. The sensor is built in to the area that assigned with a doted red circle of the behind of the FRONT panel. (See the figure below)
   So, when verifying "25. PHOTO DARK," hide the sensor such as by covering it with your finger. When verifying "26. PHOTO BRIGHT," face the front panel to a light.



6. Follow the instructions displayed on the screen, and verify the corresponding LED is lit.
7. Push the [XFC] key, and verify the LCD screen changes in order of black, red, green, blue, minimum, and maximum backlight brightness.
8. Push the [XFC] key to start the touch screen calibration, and touch the dot in order of the instructions displayed on the screen.
   - After 2 beeps sound, it automatically Returns to the Adjust Mode Main menu.

5-3 IDLING ADJUSTMENT

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

ADJUSTMENT		ADJUSTMENT ITEM DISPLAY	SETTING CONDITION	OPERATION
IDLING	1	–	• Connect the 13.8 V DC power source to [DC 13.8 V]. • Connect the ammeter between the 13.8 V DC power source and the CONTROLLER.	Touch [ID] to enter the ID adjustment menu.
REFERENCE VOLTAGE LOADING	2	VHF/UHF IDL SET	• Receive	Touch [SET]. (The IC-905 briefly transmits and then 3 beeps sound.)
	3	1.2G IDL SET		
	4	2.4G/5.6G IDL SET		
VHF BAND ~ FINAL IDLING CURRENT ~	5	VHF ID SET	–	Touch [SET].
	6	VHF FIDV	• Automatically transmits.	Touch [SET]. (2 beeps sound.)
~ DRIVER IDLING CURRENT ~	7	VHF DIDV		Touch [SET]. (2 beeps sound.)
UHF BAND ~ FINAL IDLING CURRENT ~	8	UHF ID SET	• Returns to receive.	Touch [SET]. (The IC-905 briefly transmits and then 3 beeps sound.)
	9	UHF FIDV	• Automatically transmits.	Touch [SET].
~ DRIVER IDLING CURRENT ~	10	UHF DIDV		Touch [SET]. (2 beeps sound.)
1.2 GHz BAND ~ FINAL IDLING CURRENT ~	11	1.2G ID SET	• Returns to receive.	Touch [SET]. (The IC-905 briefly transmits and then 3 beeps sound.)
	12	1.2G FIDV	• Automatically transmits.	Touch [SET].

5-4 VHF BAND TRANSMIT ADJUSTMENT

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

ADJUSTMENT		ADJUSTMENT ITEM DISPLAY	SETTING CONDITION	OPERATION
TRANSMIT	1	–	• Connect the 13.8 V DC power source to [DC 13.8 V]. • Connect the RF power meter to [144/430/1200 MHz ANT] of RF UNIT. • Connect the audio generator and the AC millivoltmeter to the JIG plug, and set it to: Frequency: 1.5 kHz Waveform: Sine wave Level: 30 mVrms	• When adjusting following from the idling adjustment, touch [SET]. • When adjusting the VHF band transmit items from the TX/ID Adjust menu, touch [VHF].
TX OUTPUT POWER	2	TX VHF	• Receive	Touch [SET]. (2 beeps sound.)
	3	TX POWER VHF SET		
	4	TX Total VHF Gain	• Automatically transmits.	Rotate [MAIN DIAL] to set to 5.0 W, and then touch [SET].
	5	POWER VHF2 MIN		Rotate [MAIN DIAL] to set to 0.1 W, and then touch [SET]. Note the adjustment value as the reference.
	6	POWER VHF2 1%		Rotate [MAIN DIAL] to set the adjustment value to the same as the reference, and then touch [SET].
	7	POWER VHF2 10%		Rotate [MAIN DIAL] to set to 1.0 W, and then touch [SET].
	8	POWER VHF2 50%		Rotate [MAIN DIAL] to set to 5.0 W, and then touch [SET].
	9	POWER VHF2 100%		Rotate [MAIN DIAL] to set to 10.0 W, and then touch [SET].
TX OUTPUT POWER BALANCE	10	POWER VHF Balance SET	• Returns to receive.	Touch [SET]. (2 beeps sound.)
	11	POWER VHF1 100%	• Automatically transmits.	Rotate [MAIN DIAL] to set to 10.0 W, and then touch [SET].
	12	POWER VHF3 100%		
AM TX OUTPUT POWER	13	POWER AM Ratio VHF	• Returns to receive.	Touch [SET]. (2 beeps sound.)
	14		• Automatically transmits.	Rotate [MAIN DIAL] to set to 2.5 W, and then touch [SET].
ALC	15	ALC VHF	• Returns to receive.	Touch [SET]. (A beep sound.)
	16		• Automatically transmits.	The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
DRIVE GAIN	17	DRIVE VHF	• Returns to receive.	Touch [SET]. (A beep sound.)
	18		• Automatically transmits.	The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
SWR METER	19	SWR2(VHF)	• Connect the SWR 2 dummy load to Connect the RF power meter to [144/430/1200 MHz ANT] of RF UNIT.	Touch [SET]. (A beep sound.)
	20		• Automatically transmits.	The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.

5-5 UHF BAND TRANSMIT ADJUSTMENT

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

ADJUSTMENT		ADJUSTMENT ITEM DISPLAY	SETTING CONDITION	OPERATION
TRANSMIT	1	–	• Connect the 13.8 V DC power source to [DC 13.8 V]. • Connect the RF power meter to [144/430/1200 MHz ANT] of RF UNIT. • Connect the audio generator and the AC millivoltmeter to the JIG plug, and set it to: Frequency: 1.5 kHz Waveform: Sine wave Level: 30 mVrms	• When adjusting following from the idling adjustment, touch [SET]. • When adjusting the UHF band transmit items from the TX/ID Adjust menu, touch [UHF].
TX OUTPUT POWER	2	TX POWER UHF SET	• Receive	Touch [SET]. (2 beeps sound.)
	3	TX Total UHF Gain	• Automatically transmits.	Rotate [MAIN DIAL] to set to 5.0 W, and then touch [SET].
	4	POWER UHF2 MIN		Rotate [MAIN DIAL] to set to 0.1 W, and then touch [SET]. Note the adjustment value as the reference.
	5	POWER UHF2 1%		Rotate [MAIN DIAL] to set the adjustment value to the same as the reference, and then touch [SET].
	6	POWER UHF2 10%		Rotate [MAIN DIAL] to set to 1.0 W, and then touch [SET].
	7	POWER UHF2 50%		Rotate [MAIN DIAL] to set to 5.0 W, and then touch [SET].
	8	POWER UHF2 100%		Rotate [MAIN DIAL] to set to 10.0 W, and then touch [SET].
TX OUTPUT POWER BALANCE	9	POWER UHF Balance SET	• Returns to receive.	Touch [SET]. (2 beeps sound.)
	10	POWER UHF1 100%	• Automatically transmits.	Rotate [MAIN DIAL] to set to 10.0 W, and then touch [SET].
	11	POWER UHF3 100%		
	12	POWER UHF4 100%		
AM TX OUTPUT POWER	13	POWER UHF AM Ratio	• Returns to receive.	Touch [SET]. (2 beeps sound.)
	14		• Automatically transmits.	Rotate [MAIN DIAL] to set to 2.5 W, and then touch [SET].
ALC	15	ALC UHF	• Returns to receive.	Touch [SET]. (A beep sound.)
	16		• Automatically transmits.	The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
UHF DRIVE GAIN	17	DRIVE UHF	• Returns to receive.	Touch [SET]. (A beep sound.)
	18		• Automatically transmits.	The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
SWR METER	19	SWR2(UHF)	• Connect the SWR 2 dummy load to [144/430/1200 MHz ANT] of RF UNIT.	Touch [SET]. (A beep sound.)
	20		• Automatically transmits.	The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.

5-6 1.2 GHZ BAND TRANSMIT ADJUSTMENT

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

ADJUSTMENT		ADJUSTMENT ITEM DISPLAY	SETTING CONDITION	OPERATION
TRANSMIT	1	–	• Connect the 13.8 V DC power source to [DC 13.8 V]. • Connect the RF power meter to [144/430/1200 MHz ANT] of RF UNIT. • Connect the audio generator and the AC millivoltmeter to the JIG plug, and set it to: Frequency: 1.5 kHz Waveform: Sine wave Level: 30 mVrms	• When adjusting following from the idling adjustment, touch [SET]. • When adjusting the 1.2 GHz band transmit items from the TX/ID Adjust menu, touch [1.2G].
TX OUTPUT POWER	2	TX POWER 1.2G SET	• Receive	Touch [SET]. (2 beeps sound.)
	3	TX Total 1.2G Gain	• Automatically transmits.	Rotate [MAIN DIAL] to set to 5.0 W, and then touch [SET].
	4	POWER 1.2G3 MIN		Rotate [MAIN DIAL] to set to 0.1 W, and then touch [SET]. Note the adjustment value as the reference.
	5	POWER 1.2G3 1%		Rotate [MAIN DIAL] to set the adjustment value to the same as the reference, and then touch [SET].
	6	POWER 1.2G3 10%		Rotate [MAIN DIAL] to set to 1.0 W, and then touch [SET].
	7	POWER 1.2G3 50%		Rotate [MAIN DIAL] to set to 5.0 W, and then touch [SET].
	8	POWER 1.2G3 100%		Rotate [MAIN DIAL] to set to 10.0 W, and then touch [SET].
TX OUTPUT POWER BALANCE	9	POWER 1.2G Balance SET	• Returns to receive.	Touch [SET]. (2 beeps sound.)
	10	POWER 1.2G1 100%	• Automatically transmits.	Rotate [MAIN DIAL] to set to 10.0 W, and then touch [SET].
	11	POWER 1.2G2 100%		
	12	POWER 1.2G4 100%		
AM TX OUTPUT POWER	13	POWER AM Ratio 1.2G	• Returns to receive.	Touch [SET]. (2 beeps sound.)
	14		• Automatically transmits.	Rotate [MAIN DIAL] to set to 2.5 W, and then touch [SET].
ALC	15	ALC 1.2G	• Returns to receive.	Touch [SET]. (A beep sound.)
	16		• Automatically transmits.	The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
DRIVE GAIN	17	DRIVE 1.2G	• Returns to receive.	Touch [SET]. (A beep sound.)
	18		• Automatically transmits.	The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
SWR METER	19	SWR2(1.2G)	• Connect the SWR 2 dummy load to [144/430/1200 MHz ANT] of RF UNIT.	Touch [SET]. (A beep sound.)
	20		• Automatically transmits.	The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.

5-7 2.4 GHZ BAND TRANSMIT ADJUSTMENT

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

ADJUSTMENT		ADJUSTMENT ITEM DISPLAY	SETTING CONDITION	OPERATION
TRANSMIT	1	–	• Connect the 13.8 V DC power source to [DC 13.8 V]. • Connect the RF power meter to [2400 MHz ANT] of RF UNIT. • Connect the audio generator and the AC millivoltmeter to the JIG plug, and set it to: Frequency: 1.5 kHz Waveform: Sine wave Level: 30 mVrms	• When adjusting following from the idling adjustment, touch [SET]. • When adjusting the 2.4 GHz band transmit items from the TX/ID Adjust menu, touch [2.4G].
TX OUTPUT POWER	2	TX POWER 2.4G SET	• Receive	Touch [SET]. (2 beeps sound.)
	3	TX Total 2.4G Gain	• Automatically transmits.	Rotate [MAIN DIAL] to set to 1.0 W, and then touch [SET].
	4	POWER 2.4G2 MIN		Rotate [MAIN DIAL] to set to 0.02 W, and then touch [SET]. Note the adjustment value as the reference.
	5	POWER 2.4G2 1%		Rotate [MAIN DIAL] to set the adjustment value to the same as the reference, and then touch [SET].
	6	POWER 2.4G2 10%		Rotate [MAIN DIAL] to set to 0.2 W, and then touch [SET].
	7	POWER 2.4G2 50%		Rotate [MAIN DIAL] to set to 1.0 W, and then touch [SET].
	8	POWER 2.4G2 100%		Rotate [MAIN DIAL] to set to 2.0 W, and then touch [SET].
TX OUTPUT POWER BALANCE	9	POWER 2.4G Balance SET	• Returns to receive.	Touch [SET]. (2 beeps sound.)
	10	POWER 2.4G1 100%	• Automatically transmits.	Rotate [MAIN DIAL] to set to 2.0 W, and then touch [SET].
	11	POWER 2.4G3 100%		
AM TX OUTPUT POWER	12	POWER AM Ratio 2.4G	• Returns to receive.	Touch [SET]. (2 beeps sound.)
	13		• Automatically transmits.	Rotate [MAIN DIAL] to set to 0.5 W, and then touch [SET].
ALC	14	ALC 2.4G	• Returns to receive.	Touch [SET]. (A beep sound.)
	15		• Automatically transmits.	The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
DRIVE GAIN	16	DRIVE 2.4G	• Returns to receive.	Touch [SET]. (A beep sound.)
	17		• Automatically transmits.	The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
SWR METER	18	SWR2(2.4G)	• Connect the SWR 2 dummy load to [2400 MHz ANT] of RF UNIT.	Touch [SET]. (A beep sound.)
	19		• Automatically transmits.	The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.

5-8 5.6 GHZ BAND TRANSMIT ADJUSTMENT

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

ADJUSTMENT		ADJUSTMENT ITEM DISPLAY	SETTING CONDITION	OPERATION
TRANSMIT	1	–	• Connect the 13.8 V DC power source to [DC 13.8 V]. • Connect the RF power meter to [5600 MHz ANT] of RF UNIT. • Connect the audio generator and the AC millivoltmeter to the JIG plug, and set it to: Frequency: 1.5 kHz Waveform: Sine wave Level: 30 mVrms	• When adjusting following from the idling adjustment, touch [SET]. • When adjusting the 5.6 GHz band transmit items from the TX/ID Adjust menu, touch [5.6G].
TX OUTPUT POWER	2	TX POWER 5.6G SET	• Receive	Touch [SET]. (2 beeps sound.)
	3	TX Total 5.6G Gain	• Automatically transmits.	Rotate [MAIN DIAL] to set to 1.0 W, and then touch [SET].
	4	POWER 5.6G2 MIN		Rotate [MAIN DIAL] to set to 0.02 W, and then touch [SET]. Note the adjustment value as the reference.
	5	POWER 5.6G2 1%		Rotate [MAIN DIAL] to set the adjustment value to the same as the reference, and then touch [SET].
	6	POWER 5.6G2 10%		Rotate [MAIN DIAL] to set to 0.2 W, and then touch [SET].
	7	POWER 5.6G2 50%		Rotate [MAIN DIAL] to set to 1.0 W, and then touch [SET].
	8	POWER 5.6G2 100%		Rotate [MAIN DIAL] to set to 2.0 W, and then touch [SET].
TX OUTPUT POWER BALANCE	9	POWER 5.6G Balance SET	• Returns to receive.	Touch [SET]. (2 beeps sound.)
	10	POWER 5.6G1 100%	• Automatically transmits.	Rotate [MAIN DIAL] to set to 2.0 W, and then touch [SET].
	11	POWER 5.6G3 100%		
	12	POWER 5.6G4 100%		
AM TX OUTPUT POWER	13	POWER AM Ratio 5.6G	• Returns to receive.	Touch [SET]. (2 beeps sound.)
	14		• Automatically transmits.	Rotate [MAIN DIAL] to set to 0.5 W, and then touch [SET].
ALC	15	ALC 5.6G	• Returns to receive.	Touch [SET]. (A beep sound.)
	16		• Automatically transmits.	The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
DRIVE GAIN	17	DRIVE 5.6G	• Returns to receive.	Touch [SET]. (A beep sound.)
	18		• Automatically transmits.	The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
SWR METER	19	SWR2(5.6G)	• Connect the SWR 2 dummy load to [5600 MHz ANT] of RF UNIT.	Touch [SET]. (A beep sound.)
	20		• Automatically transmits.	The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and returns to the TX/ID adjustment screen.

5-9 REFERENCE FREQUENCY ADJUSTMENT

Touch [REF] on the adjustment mode main menu.

ADJUSTMENT		ADJUSTMENT ITEM DISPLAY	SETTING CONDITION	OPERATION
REFERENCE FREQUENCY	1	–	• Connect the 13.8 V DC power source to [DC 13.8 V]. • Connect the RF power meter to [2400 MHz ANT] of RF UNIT. • Loosely couple the frequency counter to [2400 MHz ANT] of RF UNIT.	Touch [REF] to enter the Reference Frequency Adjustment menu.
	2	REF OSC 1	• Receive	Touch [SET]. (2 beeps sound.)
	3		• Automatically transmits.	Rotate [MAIN DIAL] to set to 2400.000000 MHz (within ±4 Hz), and then touch [SET].
	4	REF OSC 2	• Receive	Touch [SET]. (2 beeps sound.)
	5		• Automatically transmits.	Rotate [MAIN DIAL] to set to 2400.000000 MHz (within ±1 Hz), and then touch [SET]. Returns to the reference frequency adjust menu.

5-10 VHF BAND RECEIVE ADJUSTMENT

Touch [RX] on the adjustment mode main menu.

ADJUSTMENT		ADJUSTMENT ITEM DISPLAY	SETTING CONDITION	OPERATION
RECEIVE SENSITIVITY	1	–	• Connect the 13.8 V DC power source to [DC 13.8 V]. • Connect the SSG to [144/430/1200 MHz ANT] of RF UNIT.	• When adjusting following from the VHF band receive adjustment, touch [SET]. • When adjusting the VHF band receive items from the RX Adjust menu, touch [VHF], and then [SET].
	2	Total Gain VHF PRE OFF ref	• Set the SSG to: Frequency: 145.0215 MHz Level: +10 dBμ (PD) (–97 dBm) Modulation: OFF	Touch [SET]. (A beep sound.)
	3			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
	4	Total Gain VHF PRE OFF set	• Set the SSG to: Level: OFF	Touch [SET]. (A beep sound.)
	5			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
	6	Total Gain VHF PRE ON ref	• Set the SSG to: Level: +10 dBμ (PD) (–97 dBm)	Touch [SET]. (A beep sound.)
	7			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
	8	Total Gain VHF PRE ON set	• Set the SSG to: Level: OFF	Touch [SET]. (A beep sound.)
	9			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
S-METER ~ S0 LEVEL ~	10	VHF S0 LEVEL	• Set the SSG to: Level: –13 dBμ (PD) (–120 dBm)	Touch [SET]. (A beep sound.)
	11			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
~ S9 LEVEL ~	12	VHF S9 LEVEL	• Set the SSG to: Level: +10 dBμ (PD) (–97 dBm)	Touch [SET]. (A beep sound.)
	13			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
~ S9+60 LEVEL ~	14	VHF S9+60 LEVEL	• Set the SSG to: Level: +70 dBμ (PD) (–37 dBm)	Touch [SET]. (A beep sound.)
	15			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.

5-11 UHF BAND RECEIVE ADJUSTMENT

Touch [RX] on the adjustment mode main menu.

ADJUSTMENT		ADJUSTMENT ITEM DISPLAY	SETTING CONDITION	OPERATION
RECEIVE SENSITIVITY	1	–	• Connect the 13.8 V DC power source to [DC 13.8 V]. • Connect the SSG to [144/430/1200 MHz ANT] of RF UNIT.	• When adjusting following from the UHF band receive adjustment, touch [SET]. • When adjusting the UHF band receive items from the RX Adjust menu, touch [UHF], and then [SET].
	2	Total Gain UHF PRE OFF ref	• Set the SSG to: Frequency: 435.0215 MHz Level: +10 dBμ (PD) (–97 dBm) Modulation: OFF	Touch [SET]. (A beep sound.)
	3			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
	4	Total Gain UHF PRE OFF set	• Set the SSG to: Level: OFF	Touch [SET]. (A beep sound.)
	5			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
	6	Total Gain UHF PRE ON ref	• Set the SSG to: Level: +10 dBμ (PD) (–97 dBm)	Touch [SET]. (A beep sound.)
	7			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
	8	Total Gain UHF PRE ON set	• Set the SSG to: Level: OFF	Touch [SET]. (A beep sound.)
	9			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
S-METER ~ S0 LEVEL ~	10	UHF S0 LEVEL	• Set the SSG to: Level: –13 dBμ (PD) (–120 dBm)	Touch [SET]. (A beep sound.)
	11			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
~ S9 LEVEL ~	12	UHF S9 LEVEL	• Set the SSG to: Level: +10 dBμ (PD) (–97 dBm)	Touch [SET]. (A beep sound.)
	13			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
~ S9+60 LEVEL ~	14	UHF S9+60 LEVEL	• Set the SSG to: Level: +70 dBμ (PD) (–37 dBm)	Touch [SET]. (A beep sound.)
	15			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.

5-12 1.2 GHz BAND RECEIVE ADJUSTMENT

Touch [RX] on the adjustment mode main menu.

ADJUSTMENT		ADJUSTMENT ITEM DISPLAY	SETTING CONDITION	OPERATION
RECEIVE SENSITIVITY	1	–	• Connect the 13.8 V DC power source to [DC 13.8 V]. • Connect the SSG to [144/430/1200 MHz ANT] of RF UNIT.	• When adjusting following from the 1.2 GHz band receive adjustment, touch [SET]. • When adjusting the 1.2 GHz band receive items from the RX Adjust menu, touch [1.2G], and then [SET].
	2	Total Gain 1.2G PRE OFF ref	• Set the SSG to: Frequency: 1280.0215 MHz Level: +10 dBμ (PD) (–97 dBm) Modulation: OFF	Touch [SET]. (A beep sound.)
	3			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
	4	Total Gain 1.2G PRE OFF set	• Set the SSG to: Level: OFF	Touch [SET]. (A beep sound.)
	5			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
	6	Total Gain 1.2G PRE ON ref	• Set the SSG to: Level: +10 dBμ (PD) (–97 dBm)	Touch [SET]. (A beep sound.)
	7			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
	8	Total Gain 1.2G PRE ON set	• Set the SSG to: Level: OFF	Touch [SET]. (A beep sound.)
	9			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
S-METER ~ S0 LEVEL ~	10	1.2G S0 LEVEL	• Set the SSG to: Level: –13 dBμ (PD) (–120 dBm)	Touch [SET]. (A beep sound.)
	11			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
~ S9 LEVEL ~	12	1.2G S9 LEVEL	• Set the SSG to: Level: +10 dBμ (PD) (–97 dBm)	Touch [SET]. (A beep sound.)
	13			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
~ S9+60 LEVEL ~	14	1.2G S9+60 LEVEL	• Set the SSG to: Level: +70 dBμ (PD) (–37 dBm)	Touch [SET]. (A beep sound.)
	15			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.

5-13 2.4 GHz BAND RECEIVE ADJUSTMENT

Touch [RX] on the adjustment mode main menu.

ADJUSTMENT		ADJUSTMENT ITEM DISPLAY	SETTING CONDITION	OPERATION
RECEIVE SENSITIVITY	1	–	• Connect the 13.8 V DC power source to [DC 13.8 V]. • Connect the SSG to [2400 MHz ANT] of RF UNIT.	• When adjusting following from the 2.4 GHz band receive adjustment, touch [SET]. • When adjusting the 2.4 GHz band receive items from the RX Adjust menu, touch [2.4G], and then [SET].
	2	Total Gain 2.4G ref	• Set the SSG to: Frequency: 2400.0215 MHz Level: +10 dBμ (PD) (–97 dBm) Modulation: OFF	Touch [SET]. (A beep sound.)
	3			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
	4	2.4G Total Gain set	• Set the SSG to: Level: OFF	Touch [SET]. (A beep sound.)
	5			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
S-METER ~ S0 LEVEL ~	6	2.4G S0 LEVEL	• Set the SSG to: Level: –13 dBμ (PD) (–120 dBm)	Touch [SET]. (A beep sound.)
	7			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
~ S9 LEVEL ~	8	2.4G S9 LEVEL	• Set the SSG to: Level: +10 dBμ (PD) (–97 dBm)	Touch [SET]. (A beep sound.)
	9			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
~ S9+60 LEVEL ~	10	2.4G S9+60 LEVEL	• Set the SSG to: Level: +70 dBμ (PD) (–37 dBm)	Touch [SET]. (A beep sound.)
	11			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.

5-14 5.6 GHz BAND RECEIVE ADJUSTMENT

Touch [RX] on the adjustment mode main menu.

ADJUSTMENT		ADJUSTMENT ITEM DISPLAY	SETTING CONDITION	OPERATION
RECEIVE SENSITIVITY	1	–	• Connect the 13.8 V DC power source to [DC 13.8 V]. • Connect the SSG to [5600 MHz ANT] of RF UNIT.	• When adjusting following from the 5.6 GHz band receive adjustment, touch [SET]. • When adjusting the 5.6 GHz band receive items from the RX Adjust menu, touch [5.6G], and then [SET].
	2	Total Gain 5.6G ref	• Set the SSG to: Frequency: 5750.0415 MHz Level: +10 dBμ (PD) (–97 dBm) Modulation: OFF	Touch [SET]. (A beep sound.)
	3			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
	4	Total Gain 5.6G set	• Set the SSG to: Level: OFF	Touch [SET]. (A beep sound.)
	5			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
S-METER ~ S0 LEVEL ~	6	5.6G S0 LEVEL	• Set the SSG to: Level: –13 dBμ (PD) (–120 dBm)	Touch [SET]. (A beep sound.)
	7			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
~ S9 LEVEL ~	8	5.6G S9 LEVEL	• Set the SSG to: Level: +10 dBμ (PD) (–97 dBm)	Touch [SET]. (A beep sound.)
	9			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
~ S9+60 LEVEL ~	10	5.6G S9+60 LEVEL	• Set the SSG to: Level: +70 dBμ (PD) (–37 dBm)	Touch [SET]. (A beep sound.)
	11			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and returns to the RX adjustment screen.

5-15 CX-10G TRANSMIT ADJUSTMENT

Touch [OPT] on the adjustment main menu.

ADJUSTMENT		ADJUSTMENT ITEM DISPLAY	SETTING CONDITION	OPERATION
TX OUTPUT POWER	1	–	• Connect the RF power meter to [10 GHz ANT]. • Connect the audio generator and the AC millivoltmeter to the JIG plug, and set it to: Frequency: 1.5 kHz Waveform: Sine wave Level: 30 mVrms	Touch [10G TX] to enter the 10G TX adjustment screen. ([OPT] > [10G TX])
	2	10G TX POWER SET (905 Side)		Touch [SET]. (2 beeps sound.)
	3	10G TX Total Gain (905 Total)	• Automatically transmits.	Rotate [MAIN DIAL] to set to 0.25 W, and then touch [SET].
ALC	4	10G ALC for DRIVE ADJ	• Returns to receive.	Touch [SET]. (A beep sound.)
	5		• Automatically transmits.	The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.
DRIVE GAIN	6	10G Drive	• Returns to receive.	Touch [SET]. (A beep sound.)
	7		• Automatically transmits.	The automatic adjustment starts. When the adjustment is completed, 2 beeps sound returns to the 10G TX adjustment screen.
REFERENCE VOLTAGE LOADING	1	–	• Connect the audio generator and the AC millivoltmeter to the JIG plug, and set it to: Frequency: 1.5 kHz Waveform: Sine wave Level: 30 mVrms • Connect the dummy load (50 Ω) to [10 GHz ANT].	• Touch [CX-10G], [TX/ID] then [ID] to enter the ID adjustment mode. ([OPT] > [CX-10G] > [TX/ID] > [ID])
10 GHz BAND ~ FINAL IDLING CURRENT ~	2	10G FINAL ID SET	• Returns to receive.	Touch [SET]. (A beep sound)
	3	10G FINAL IDV	• Automatically transmits.	Touch [SET]. (A beep sound)
	4			The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.

5-15 CX-10G TRANSMIT ADJUSTMENT (CONTINUED)

Touch [OPT] on the adjustment main menu.

ADJUSTMENT		ADJUSTMENT ITEM DISPLAY	SETTING CONDITION	OPERATION
2.4 GHz BAND CARRIER OUTPUT	1	–	• Connect the RF power meter to [2400 MHz ANT] (IC-905). • Connect the audio generator and the AC millivoltmeter to the JIG plug, and set it to: Frequency: 1.5 kHz Waveform: Sine wave Level: 30 mVrms	• When adjusting following from the idling adjustment, touch [SET]. • When adjusting the CX-10G transmit items from the TX/ID adjust screen, touch [10G TX]. ([OPT] > [CX-10G] > [TX-ID] > [10G TX])
	2	2.4G TX Po ADJ	• Automatically transmits.	Touch [SET]. (2 beeps sound.)
	3			Rotate [MAIN DIAL] to set the 2400 MHz output level to 65 mW, and then touch [SET].
10 GHz BAND TX OUTPUT POWER	4	10G TX Total Gain SET	• Returns to receive.	Touch [SET]. (2 beeps sound.)
			• Connect the RF power meter to [10 GHz ANT]. • Connect the SSG to [2400 MHz IF], and set it to: Frequency: 2.400 GHz Level: +124 dBμ (PD) (+17 dBm) Modulation: OFF	
	5	10G1 TX Total Gain	• Automatically transmits.	Rotate [MAIN DIAL] to set to +24 dBm (within ±0.5 dB), and then touch [SET].
	6	10G2 TX Total Gain	• Set the SSG to: Frequency: 2.405 GHz	
	7	10G3 TX Total Gain	• Set the SSG to: Frequency: 2.410 GHz	
	8	10G POWER SET	• Returns to receive.	Touch [SET]. (2 beeps sound.)
	9	10G2 Po 0%(MIN)	• Automatically transmits.	Rotate [MAIN DIAL] to set to 25 mW (within ±2 mW), and then touch [SET]. Note the adjustment value as the reference.
	10	10G2 Po 1%		Rotate [MAIN DIAL] to set the adjustment value to the same as the reference, and then touch [SET].
	11	10G2 Po 10%		Rotate [MAIN DIAL] to set to 50 mW (within ±4 mW), and then touch [SET].
	12	10G2 Po 50%		Rotate [MAIN DIAL] to set to 0.25 W (within ±0.015 W), and then touch [SET].
	13	10G2 Po 100%		Rotate [MAIN DIAL] to set to 0.5 W (within ±0.015 W), and then touch [SET].
10 GHz BAND TX OUTPUT POWER BALANCE	14	10G POWER Balance SET	• Returns to receive.	Touch [SET]. (2 beeps sound.)
	15	10G1 Po 100%	• Automatically transmits.	Rotate [MAIN DIAL] to set to 0.5 W (within ±0.015 W), and then touch [SET].
	16	10G3 Po 100%		
10 GHz BAND AM TX OUTPUT POWER	17	10G POWER AM Ratio	• Returns to receive.	Touch [SET]. (2 beeps sound.)
	18		• Automatically transmits.	Rotate [MAIN DIAL] to set to 0.125 W (within ±0.01 W), and then touch [SET].
10 GHz BAND ALC	19	10G ALC	• Returns to receive.	Touch [SET]. (A beep sound.)
	20		• Automatically transmits.	The automatic adjustment starts. When the adjustment is completed, 2 beeps sound and selects the next adjustment item.

5-16 CX-10G RECEIVE ADJUSTMENT

Touch [OPT] on the adjustment main menu.

ADJUSTMENT		ADJUSTMENT ITEM DISPLAY	SETTING CONDITION	OPERATION
RECEIVE SENSITIVITY	1	–	• Connect the spectrum analyzer to [2400 MHz IF]. • Connect the SSG to [10 GHz ANT], and set it to: Frequency: 10.000 GHz Level: +82 dBμ (PD) (–25 dBm) Modulation: OFF	• Touch [CX-10G], and then touch [RX]. ([OPT] > [CX-10G] > [RX])
	2	10G1 RX Total Gain		Rotate [MAIN DIAL] to set the 2400 MHz IF signal level to –19 dBm (within ±0.5 dB), and then touch [SET].
	3	10G2 RX Total Gain	• Set the SSG to: Frequency: 10.250 GHz	
	4	10G3 RX Total Gain	• Set the SSG to: Frequency: 10.500 GHz	

5-17 CX-10G TRANSMIT VERIFICATION

Turn OFF the UDT, then turn ON it again to exit from the adjustment mode.

ADJUSTMENT		DUT'S CONDITION	SETTING CONDITION	Value
SPURIOUS EMISSIONS (at 10.25 GHz) - Out-of-band -	1	• Frequency: 10.250 GHz • Mode: FM • Transmitting	• Connect the spectrum analyzer to [10 GHz ANT], through the attenuator, and set it to: Start frequency: 10.24925 GHz Stop frequency: 10.24998 GHz RBW: 300 Hz VBW: 300 Hz Detector mode: Sampling Video averaging: OFF	–10 dBm or less
	2		• Set the spectrum analyzer to: Start frequency: 10.25002 GHz Stop frequency: 10.25075 GHz	
- Spurious -	1	• Frequency: 10.250 GHz • Mode: FM • Transmitting	• Connect the spectrum analyzer to [10 GHz ANT], through the attenuator, and set it to: Start frequency: 0.03 GHz Stop frequency: 1 GHz RBW: 1 MHz VBW: 1 MHz Detector mode: Positive peak Video averaging: OFF	–13 dBm or less
	2		• Set the spectrum analyzer to: Start frequency: 1 GHz Stop frequency: 4 GHz	
	3		• Set the spectrum analyzer to: Start frequency: 4 GHz Stop frequency: 7 GHz	
	4		• Set the spectrum analyzer to: Start frequency: 7 GHz Stop frequency: 13 GHz	
	5		• Set the spectrum analyzer to: Start frequency: 13 GHz Stop frequency: 19 GHz	
	6		• Set the spectrum analyzer to: Start frequency: 19 GHz Stop frequency: 26 GHz	
	7		• Set the spectrum analyzer to: Start frequency: 10.24000 GHz Stop frequency: 10.24925 GHz RBW: 30 kHz VBW: 30 kHz Video averaging: ON (15 times)	–28.2 dBm or less
	8		• Set the spectrum analyzer to: Start frequency: 10.25075 GHz Stop frequency: 10.26000 GHz	

5-17 CX-10G TRANSMIT VERIFICATION (CONTINUED)

ADJUSTMENT		DUT'S CONDITION	SETTING CONDITION	Value
SPURIOUS EMISSIONS (at 10.5 GHz) - Spurious -	1	• Frequency: 10.500 GHz • Mode: FM • Transmitting	• Connect the spectrum analyzer to [10 GHz ANT], through the attenuator, and set it to: Start frequency: 7 GHz Stop frequency: 13 GHz RBW: 1 MHz VBW: 1 MHz Detector mode: Positive peak Video averaging: OFF	–13 dBm or less
SPURIOUS EMISSIONS (at 2.420 GHz) - Out-of-band -	1	• Frequency: 2.420 GHz • Mode: FM • Transmitting	• Connect the spectrum analyzer to [2400 MHz ANT] (CX-10G), through the attenuator, and set it to: Start frequency: 2.41975 GHz Stop frequency: 2.41998 GHz RBW: 300 Hz VBW: 300 Hz Detector mode: Sampling Video averaging: OFF	–10 dBm or less
	2		• Set the spectrum analyzer to: Start frequency: 2.42002 GHz Stop frequency: 2.42025 GHz	
SPURIOUS EMISSIONS (at 2.420 GHz) - Spurious -	1	• Frequency: 2.420 GHz • Mode: FM • Transmitting	• Connect the spectrum analyzer to [2400 MHz ANT] (CX-10G), through the attenuator, and set it to: Start frequency: 0.03 GHz Stop frequency: 1 GHz RBW: 1 MHz VBW: 1 MHz Detector: Positive Peak Video averaging: OFF	–13 dBm or less
	2		• Set the spectrum analyzer to: Start frequency: 1 GHz Stop frequency: 4 GHz	
	3		• Set the spectrum analyzer to: Start frequency: 4 GHz Stop frequency: 7 GHz	
	4		• Set the spectrum analyzer to: Start frequency: 7 GHz Stop frequency: 13 GHz	
	5		• Set the spectrum analyzer to: Start frequency: 2.41000 GHz Stop frequency: 2.41975 GHz RBW: 30 kHz VBW: 30 kHz Video averaging: ON (15 times)	–28.2 dBm or less
	6		• Set the spectrum analyzer to: Start frequency: 2.42025 GHz Stop frequency: 2.43000 GHz	

5-17 CX-10G TRANSMIT VERIFICATION (CONTINUED)

ADJUSTMENT		DUT'S CONDITION	SETTING CONDITION	Value
LO LEAKAGE IN RECEIVING (at [10 GHz ANT])	1	• Frequency: 10.250 GHz • Mode: FM • Stand-by	• Connect the spectrum analyzer to [10 GHz ANT].	2 nW or less
(at [2400 MHz ANT])	2		• Connect the spectrum analyzer to [2400 MHz ANT] (CX-10G).	

SECTION 6 SPARE PARTS AND UNITS

■ ABOUT SPARE UNITS

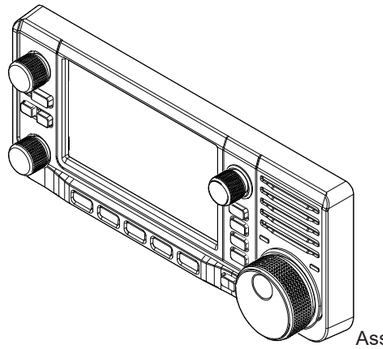
Information about ordering spare units for the IC-905 (only #12) is described in this section.
The mechanical parts information for each unit is also shown in exploded illustrations.
When you order a part that is not described in this section, see SECTION 7 MECHANICAL PARTS for details.

■ COMPOSED ASSEMBLED UNITS

The name of the IC-905's assembled units are shown below.

UNIT NAME
FRONT UNIT
DISPLAY UNIT
MAIN UNIT
CONNECT-A UNIT
CONNECT-B UNIT
RF-A UNIT
RF-B UNIT
MAIN DIAL

■ASSEMBLED FRONT UNIT

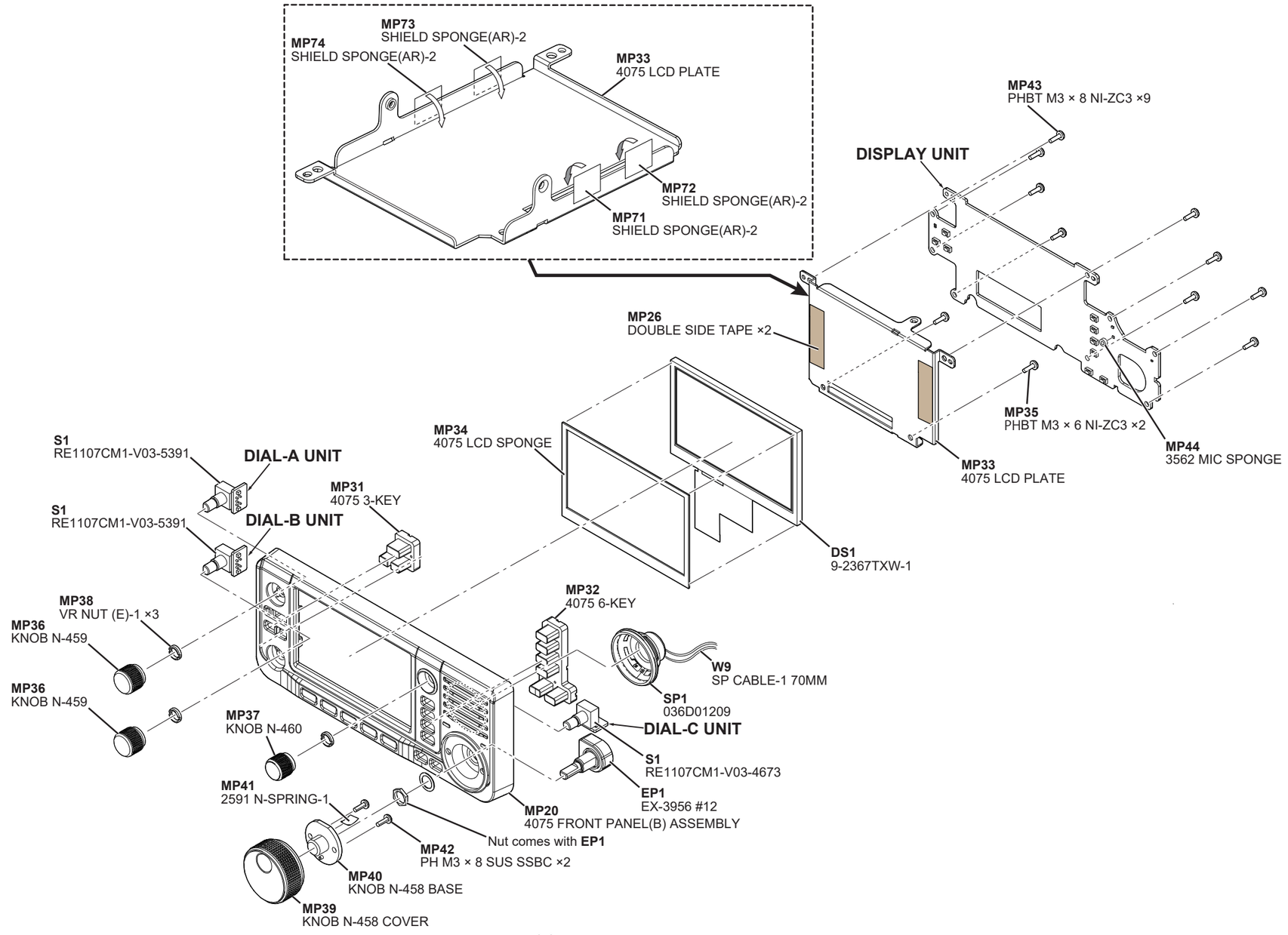


Assembled front unit image

Spare unit name	Order Number	Remarks
C 905 #12 FRONT	0342091201	–

See the illustrations below for the individual parts in the unit.

• Individual parts illustrations

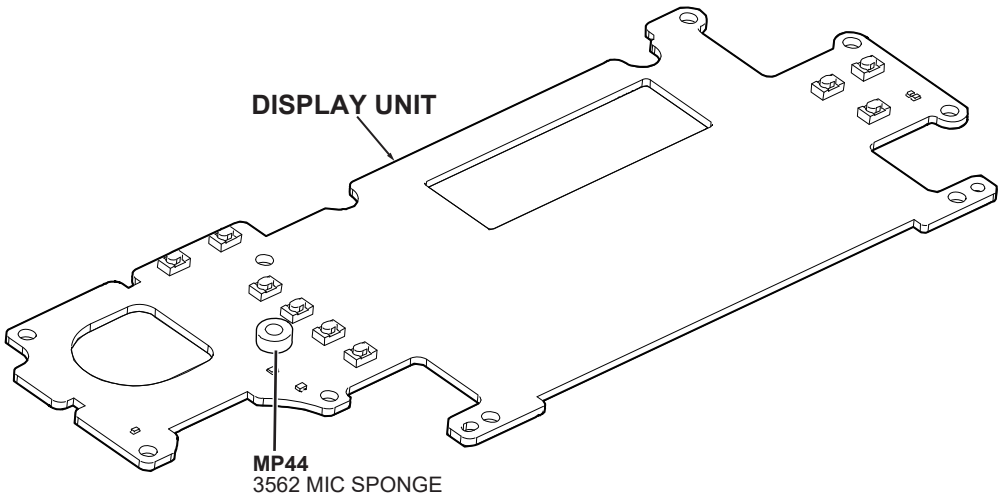


■ ASSEMBLED DISPLAY UNIT

Spare unit name	Order Number	Remarks
C 905 #12 DISPLAY	0342091205	–

See the illustrations below for the individual parts in the unit.

• Individual parts illustrations



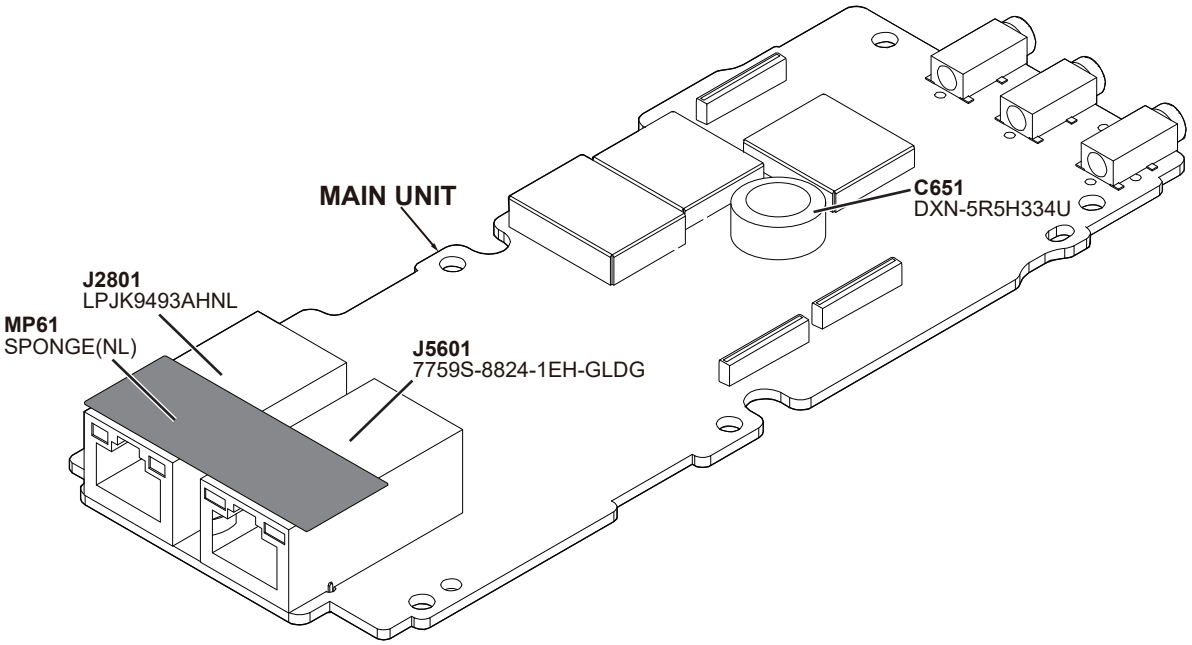
NOTE: The LCD (DS1, FRONT UNIT) is not included in the DISPLAY UNIT.
Therefore, order the LCD separately, if necessary.

■ ASSEMBLED MAIN UNIT

Spare unit name	Order Number	Remarks
C 905 #12 MAIN	0342091202	–

See the illustrations below for the individual parts in the unit.

• Individual parts illustrations



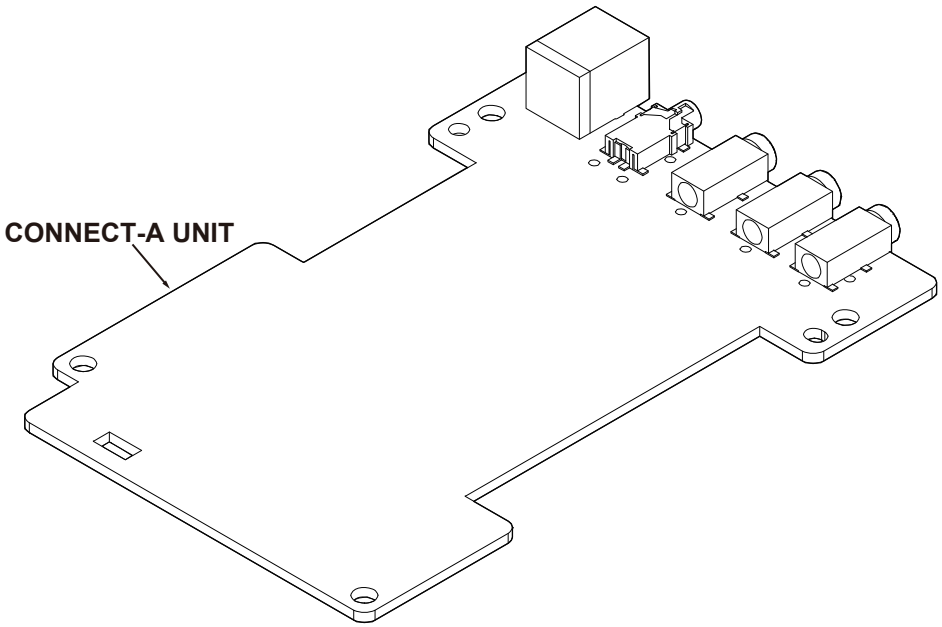
■ ASSEMBLED CONNECT-A UNIT

Spare unit name	Order Number	Remarks
C 905 #12 CONNECT-A	0342091203	–

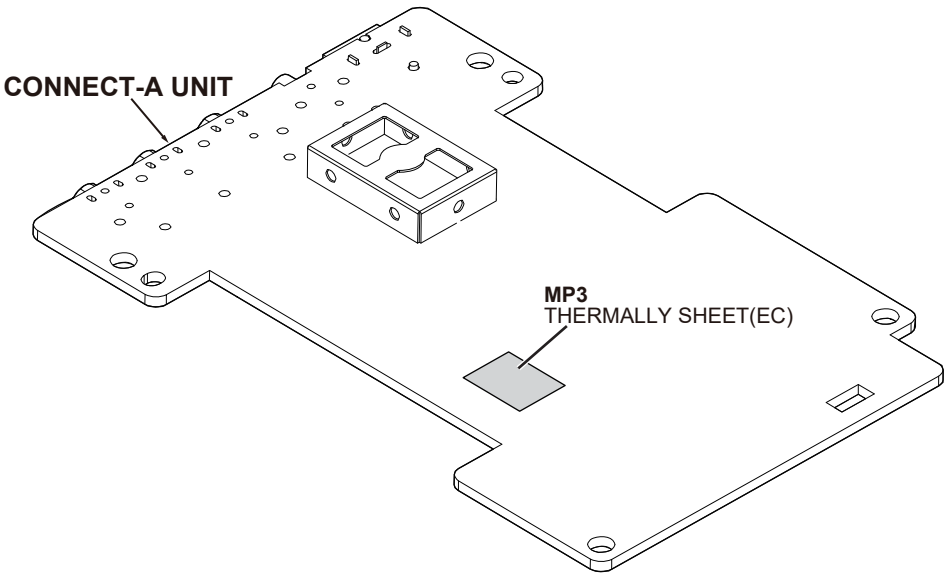
See the illustrations below for the individual parts in the unit.

• Individual parts illustrations

<Top view>



<Bottom view>

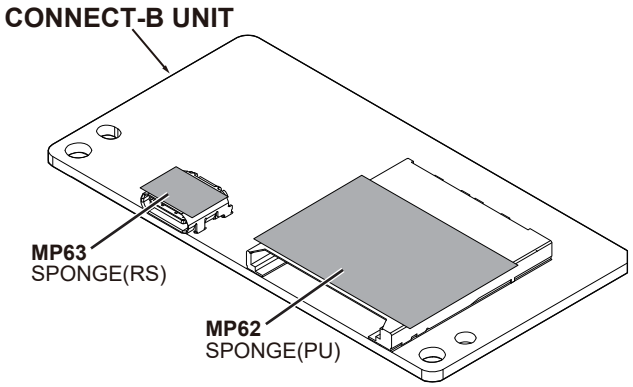


■ ASSEMBLED CONNECT-B UNIT

Spare unit name	Order Number	Remarks
C 905 #12 CONNECT-B	0342091204	–

See the illustrations below for the individual parts in the unit.

• Individual parts illustrations

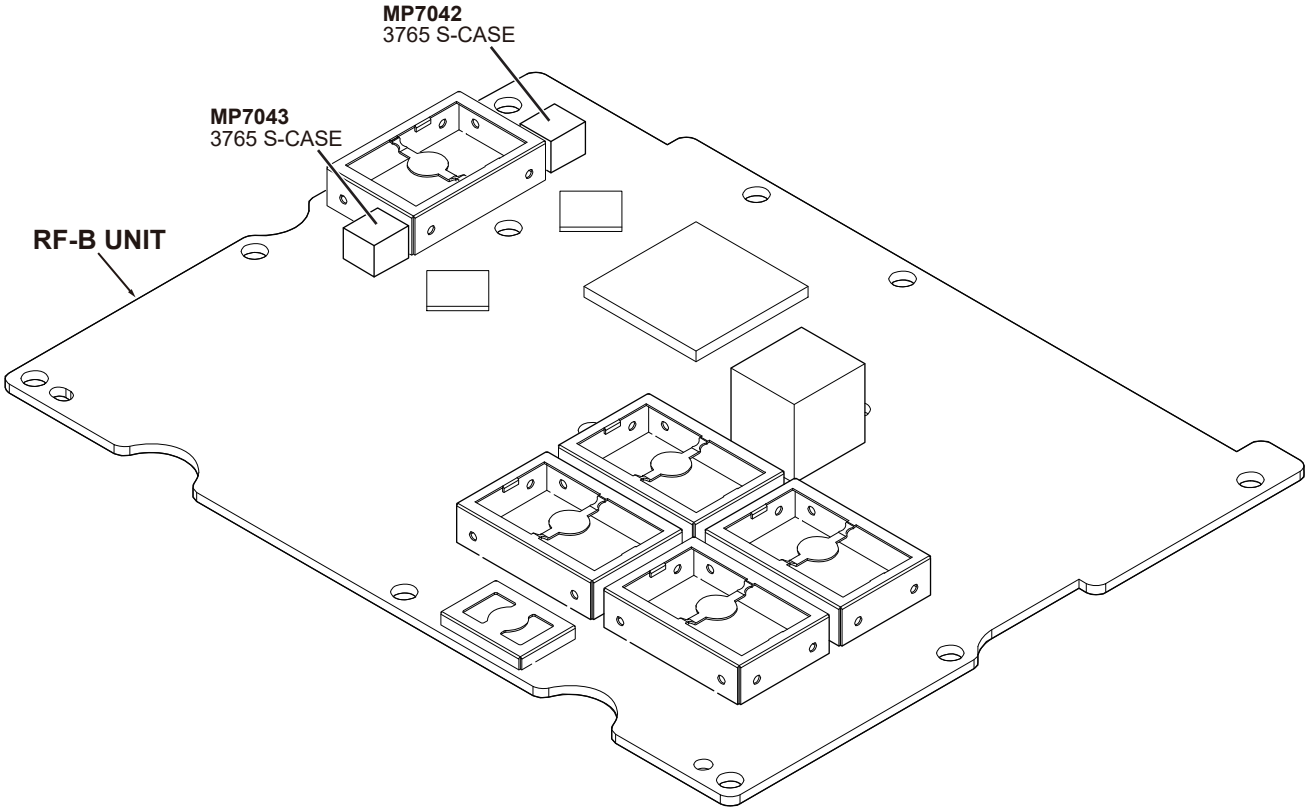


■ ASSEMBLED RF-A UNIT

Spare unit name	Order Number	Remarks
C 905 #12 RF-A	0342091207	–

See the illustrations below for the individual parts in the unit.

• Individual parts illustrations



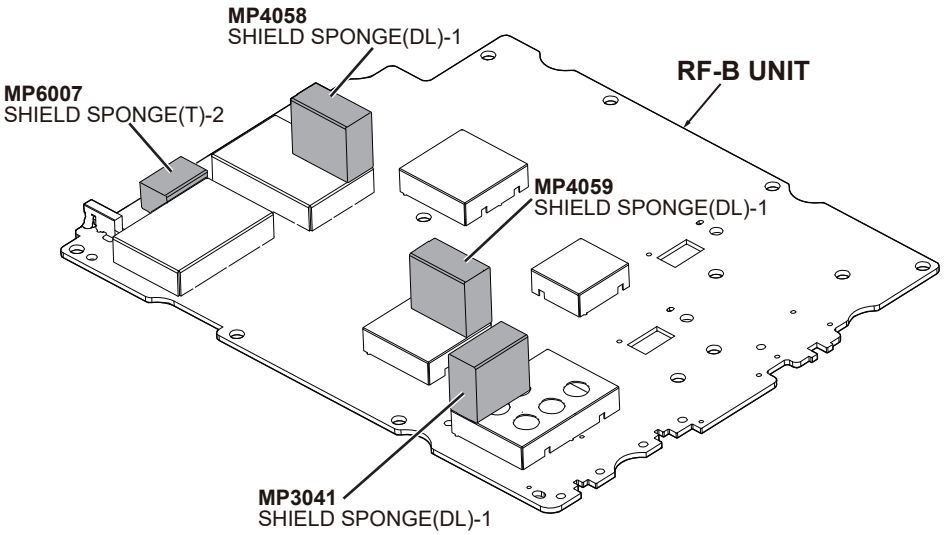
■ ASSEMBLED RF-B UNIT

Spare unit name	Order Number	Remarks
C 905 #12 RF-B	0342091208	–

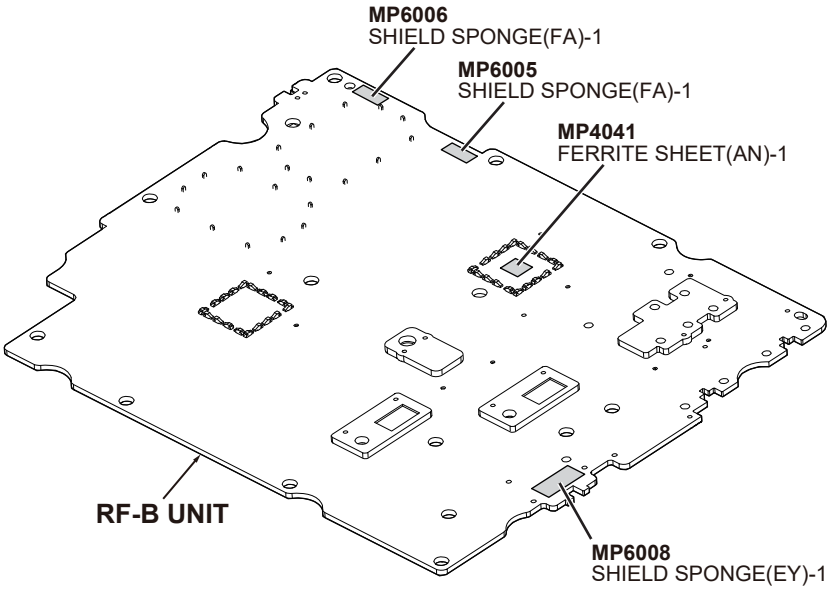
See the illustrations below for the individual parts in the unit.

• Individual parts illustrations

<Top view>

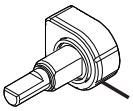


<Bottom view>



■ ASSEMBLED MAIN DIAL

Spare unit name	Order Number	Remarks
C 905 #12 SENSOR	0342091206	–

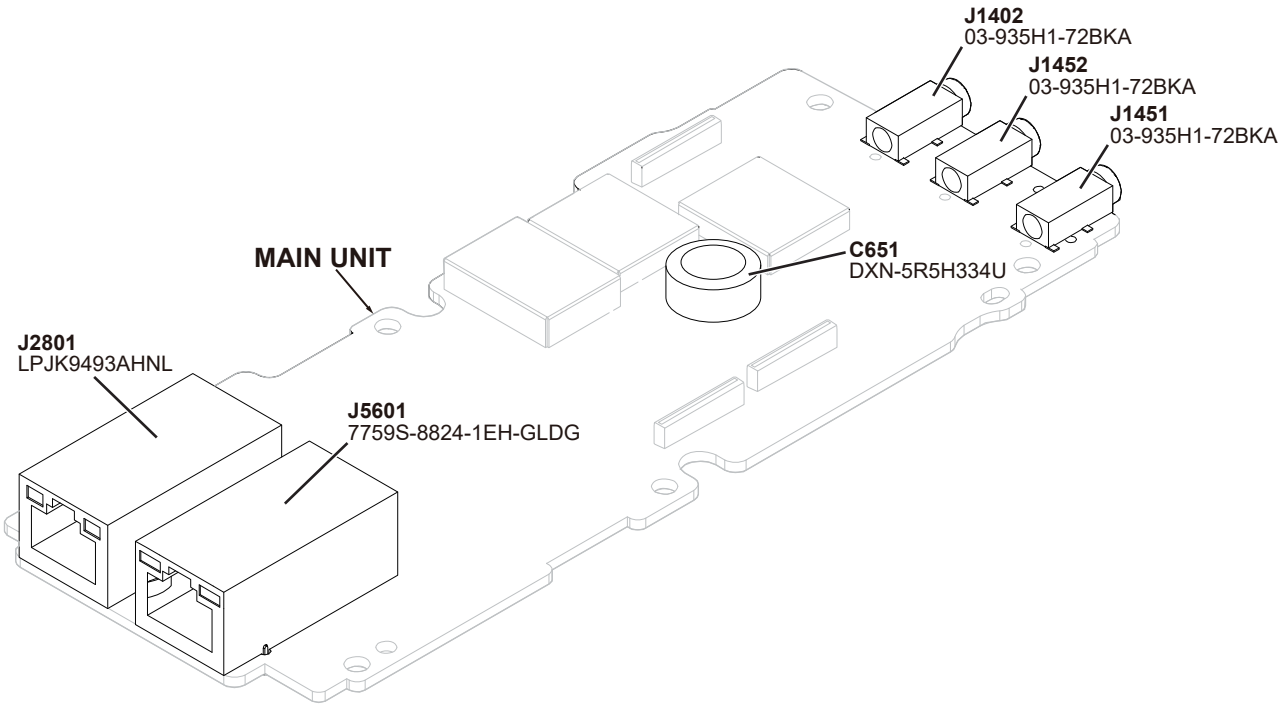


IC-905 MAIN DIAL SENSOR

■ SPARE PARTS INFORMATION

• For the MAIN UNIT

	Reference number	Parts name	Order Number	Remarks
CAPACITOR	C651	DXN-5R5H334U	4510010460	–
CONNECTOR	J1402	03-935H1-72BKA	6510025771	–
CONNECTOR	J1451	03-935H1-72BKA	6510025771	–
CONNECTOR	J1452	03-935H1-72BKA	6510025771	–
CONNECTOR	J2801	LPJK9493AHNL	6510035130	–
CONNECTOR	J5601	7759S-8824-1EH-GLDG	6510034850	–



• Electronic part

REF NO.	PART NO.	DESCRIPTION	M.	H/V LOCATION
IC2401	1110007610	S.IC TPA0211DGNR	B	23.9/14.5

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

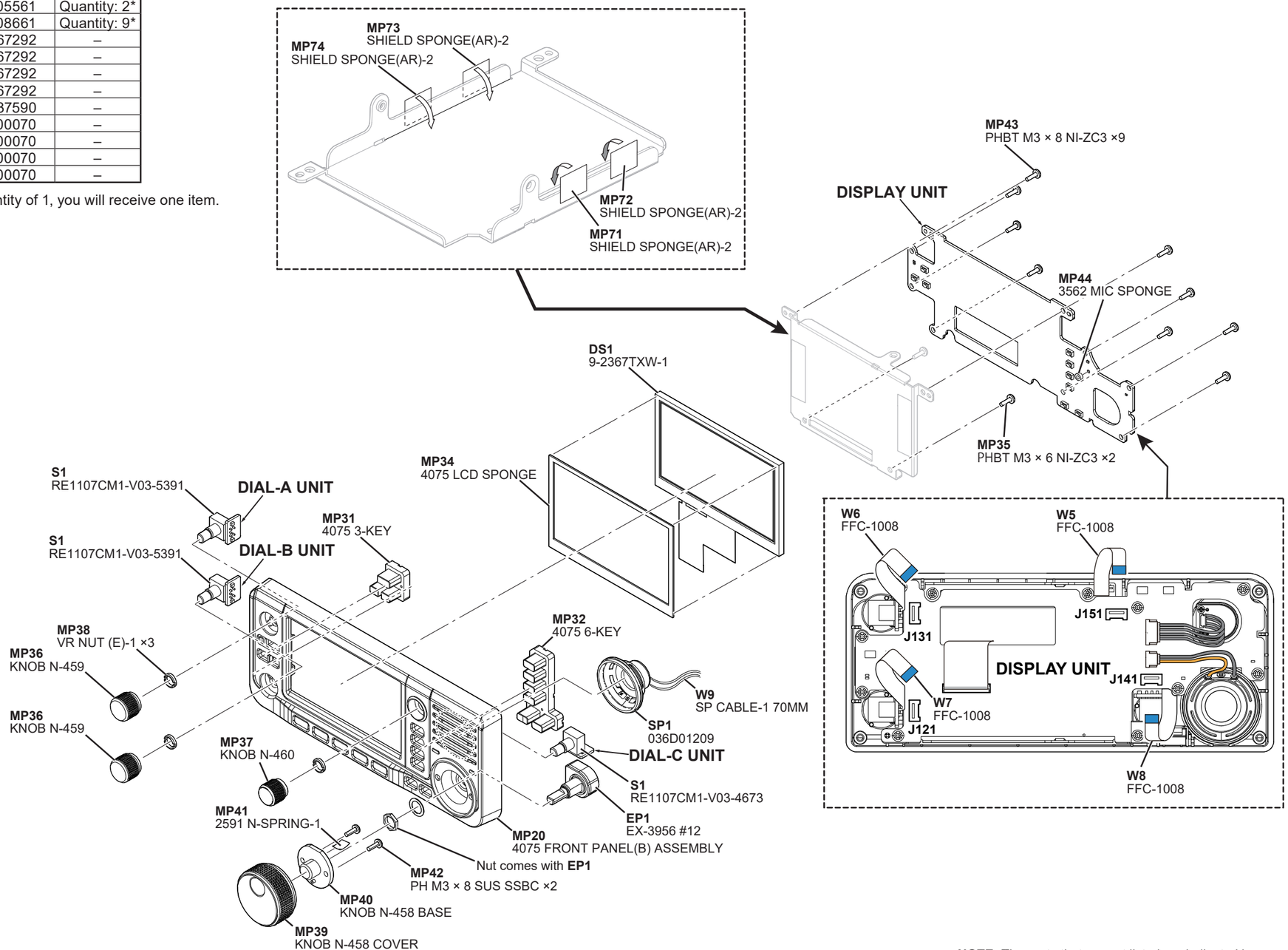
NOTE: The parts that are not listed are indicated in gray.

■SPARE PARTS INFORMATION (CONTINUED)

• For the FRONT UNIT

	Reference number	Parts name	Order Number	Remarks
LCD	DS1	M9-2367TXW-1	5030004620	–
SPEAKER	SP1	036D01209	2510002160	–
PANEL	MP20	4075 FRONT PANEL(B) ASSEMBLY	8210036660	–
KEYPAD	MP31	4075 3-KEY	8930103030	–
KEYPAD	MP32	4075 6-KEY	8930103050	–
SPONGE	MP34	4075 LCD SPONGE	8930103390	–
SCREW	MP35	PHBT M3 × 6 NI-ZC3	8810008631	Quantity: 2*
KNOB	MP36	KNOB N-459 M1200	8610016580	–
KNOB	MP37	KNOB N-460 M600	8610016590	–
NUT	MP38	VR NUT (E)-1	8830000551	Quantity: 3*
KEYPAD	MP39	KNOB N-458 COVER	8610016570	–
KEYPAD	MP40	KNOB N-458 BASE	8610016560	–
SPRING	MP41	2591 N-SPRING-1	8930060191	–
SCREW	MP42	PH M3 × 8 SUS SSBC	8810005561	Quantity: 2*
SCREW	MP43	PHBT M3 × 8 NI-ZC3	8810008661	Quantity: 9*
SPONGE	MP71	SHIELD SPONGE(AR)-2	8930067292	–
SPONGE	MP72	SHIELD SPONGE(AR)-2	8930067292	–
SPONGE	MP73	SHIELD SPONGE(AR)-2	8930067292	–
SPONGE	MP74	SHIELD SPONGE(AR)-2	8930067292	–
CABLE	W9	SP CABLE-1 70MM	8600037590	–
FFC	W5	FFC-1008	8910000070	–
FFC	W6	FFC-1008	8910000070	–
FFC	W7	FFC-1008	8910000070	–
FFC	W8	FFC-1008	8910000070	–

*When you order a quantity of 1, you will receive one item.



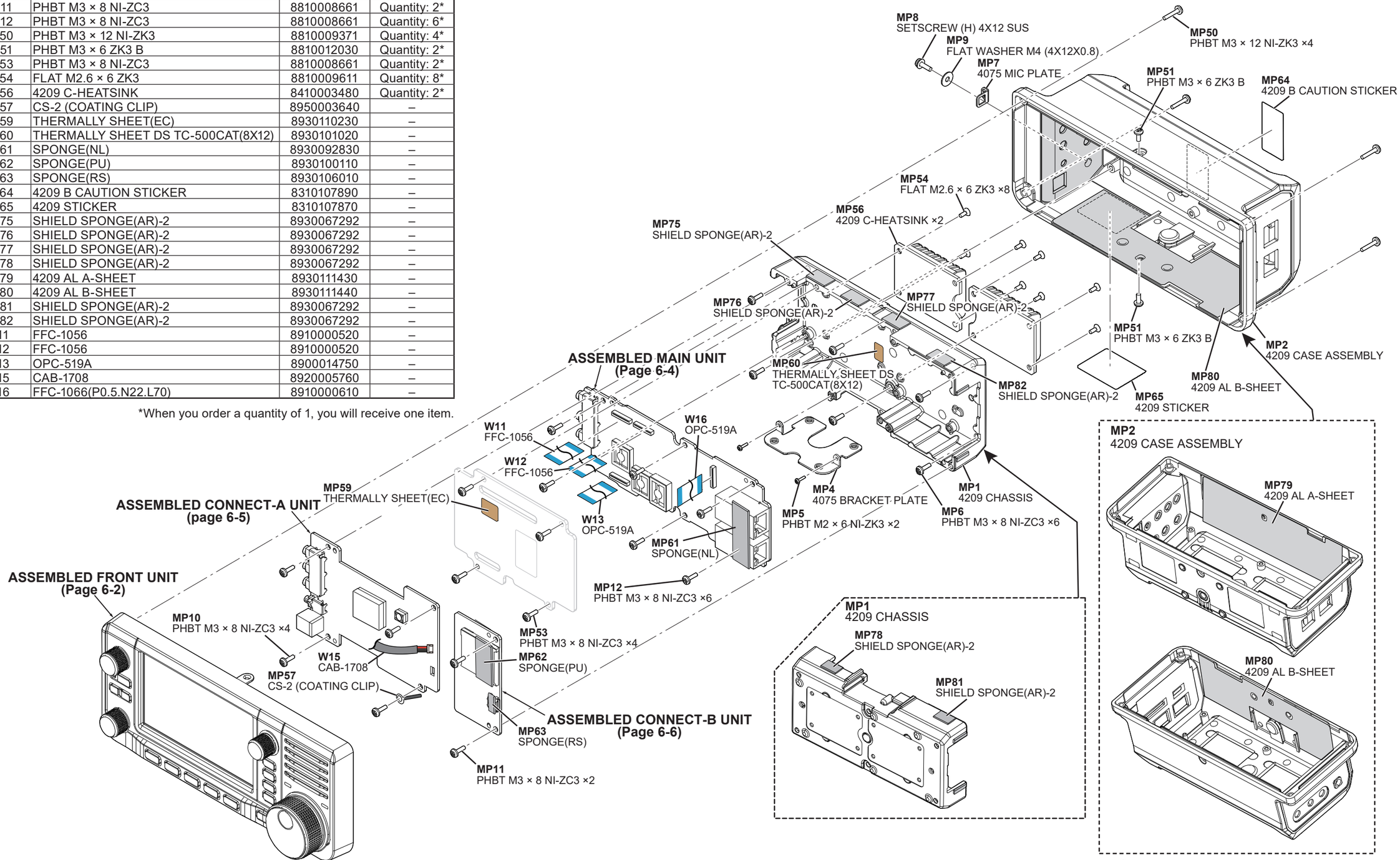
NOTE: The parts that are not listed are indicated in gray.

■SPARE PARTS INFORMATION (CONTINUED)

• For the controller

	Reference number	Parts name	Order Number	Remarks
CHASSIS	MP1	4209 CHASSIS	8010026180	–
CASE	MP2	4209 CASE ASSEMBLY	8010026200	–
PLATE	MP4	4075 BRACKET PLATE	8930103410	–
SCREW	MP5	PHBT M2 × 6 NI-ZK3	8810009561	Quantity: 2*
SCREW	MP6	PHBT M3 × 8 NI-ZC3	8810008661	Quantity: 6*
PLATE	MP7	4075 MIC PLATE	8930104120	–
SCREW	MP8	SETSCREW (H) 4X12 SUS	8810012240	–
SCREW	MP9	FLAT WASHER M4 (4X12X0.8) SUS	8850001800	–
SCREW	MP10	PHBT M3 × 8 NI-ZC3	8810008661	Quantity: 10*
SCREW	MP11	PHBT M3 × 8 NI-ZC3	8810008661	Quantity: 2*
SCREW	MP12	PHBT M3 × 8 NI-ZC3	8810008661	Quantity: 6*
SCREW	MP50	PHBT M3 × 12 NI-ZK3	8810009371	Quantity: 4*
SCREW	MP51	PHBT M3 × 6 ZK3 B	8810012030	Quantity: 2*
SCREW	MP53	PHBT M3 × 8 NI-ZC3	8810008661	Quantity: 2*
SCREW	MP54	FLAT M2.6 × 6 ZK3	8810009611	Quantity: 8*
HEATSINK	MP56	4209 C-HEATSINK	8410003480	Quantity: 2*
WIRE	MP57	CS-2 (COATING CLIP)	8950003640	–
SHEET	MP59	THERMALLY SHEET(EC)	8930110230	–
SHEET	MP60	THERMALLY SHEET DS TC-500CAT(8X12)	8930101020	–
SPONGE	MP61	SPONGE(NL)	8930092830	–
SPONGE	MP62	SPONGE(PU)	8930100110	–
SPONGE	MP63	SPONGE(RS)	8930106010	–
STICKER	MP64	4209 B CAUTION STICKER	8310107890	–
STICKER	MP65	4209 STICKER	8310107870	–
SPONGE	MP75	SHIELD SPONGE(AR)-2	8930067292	–
SPONGE	MP76	SHIELD SPONGE(AR)-2	8930067292	–
SPONGE	MP77	SHIELD SPONGE(AR)-2	8930067292	–
SPONGE	MP78	SHIELD SPONGE(AR)-2	8930067292	–
SHEET	MP79	4209 AL A-SHEET	8930111430	–
SHEET	MP80	4209 AL B-SHEET	8930111440	–
SPONGE	MP81	SHIELD SPONGE(AR)-2	8930067292	–
SPONGE	MP82	SHIELD SPONGE(AR)-2	8930067292	–
FFC	W11	FFC-1056	8910000520	–
FFC	W12	FFC-1056	8910000520	–
CABLE	W13	OPC-519A	8900014750	–
CABLE	W15	CAB-1708	8920005760	–
FFC	W16	FFC-1066(P0.5.N22.L70)	8910000610	–

*When you order a quantity of 1, you will receive one item.

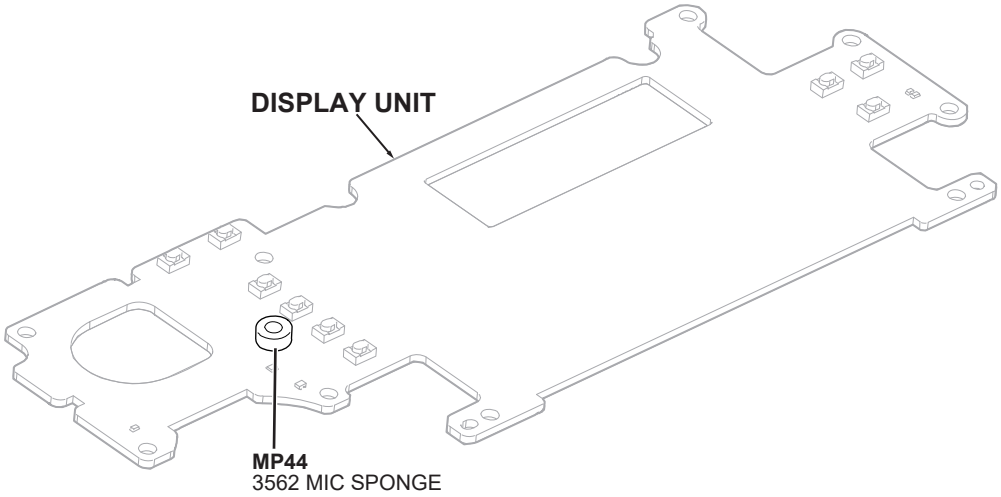


NOTE: The parts that are not listed are indicated in gray.

■ SPARE PARTS INFORMATION (CONTINUED)

• For the DISPLAY UNIT

	Reference number	Parts name	Order Number	Remarks
SPONGE	MP44	3562 MIC SPONGE	8930089670	–



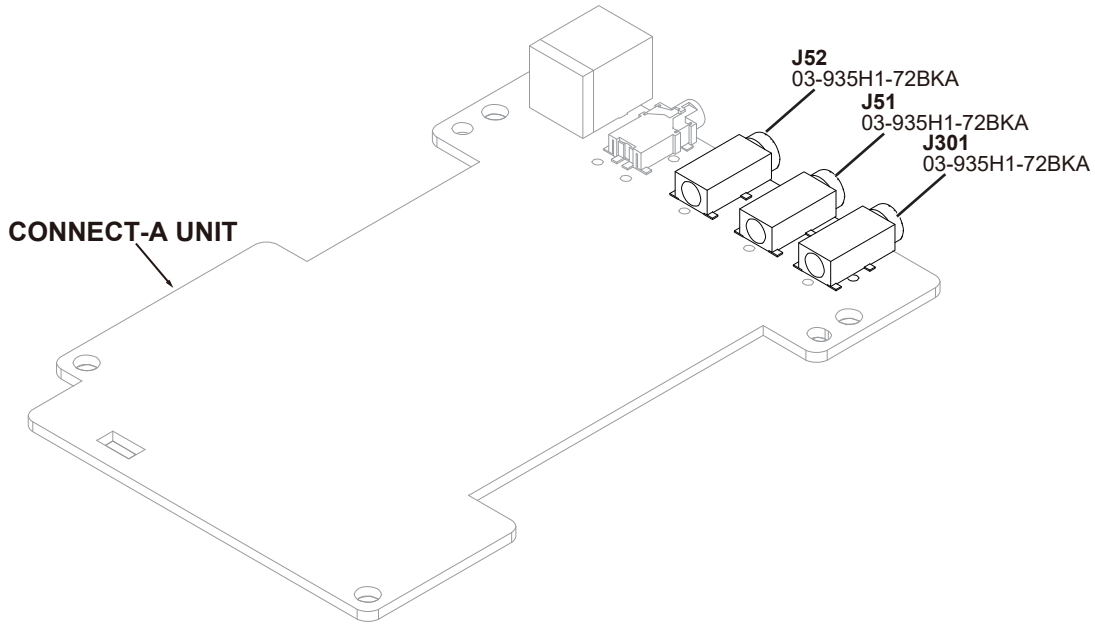
NOTE: The parts that are not listed are indicated in gray.

■ SPARE PARTS INFORMATION (CONTINUED)

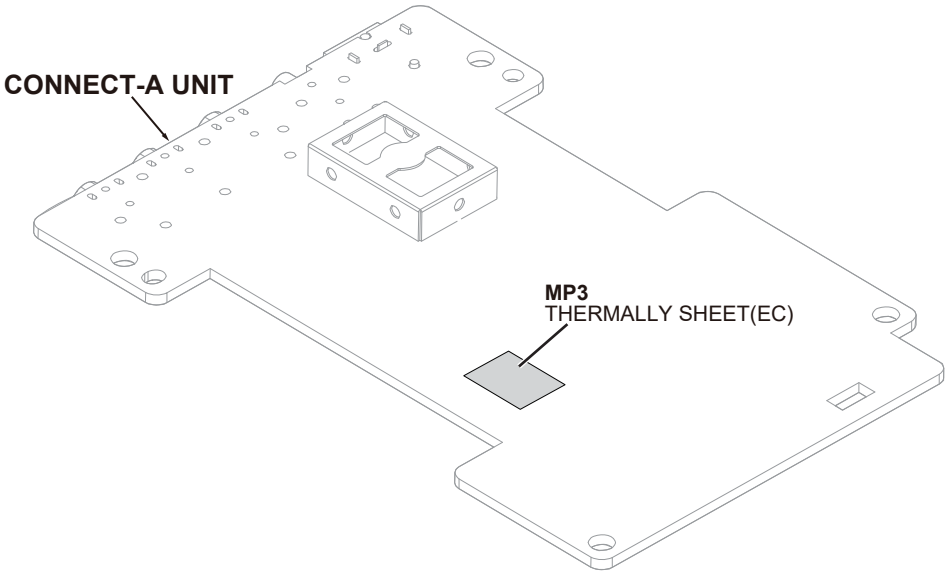
• For the CONNECT-A UNIT

	Reference number	Parts name	Order Number	Remarks
CONNECTOR	J51	03-935H1-72BKA	6510025771	–
CONNECTOR	J52	03-935H1-72BKA	6510025771	–
CONNECTOR	J301	03-935H1-72BKA	6510025771	–
SHEET	MP3	THERMALLY SHEET(EC)	8930110230	–

<Top view>



<Bottom view>

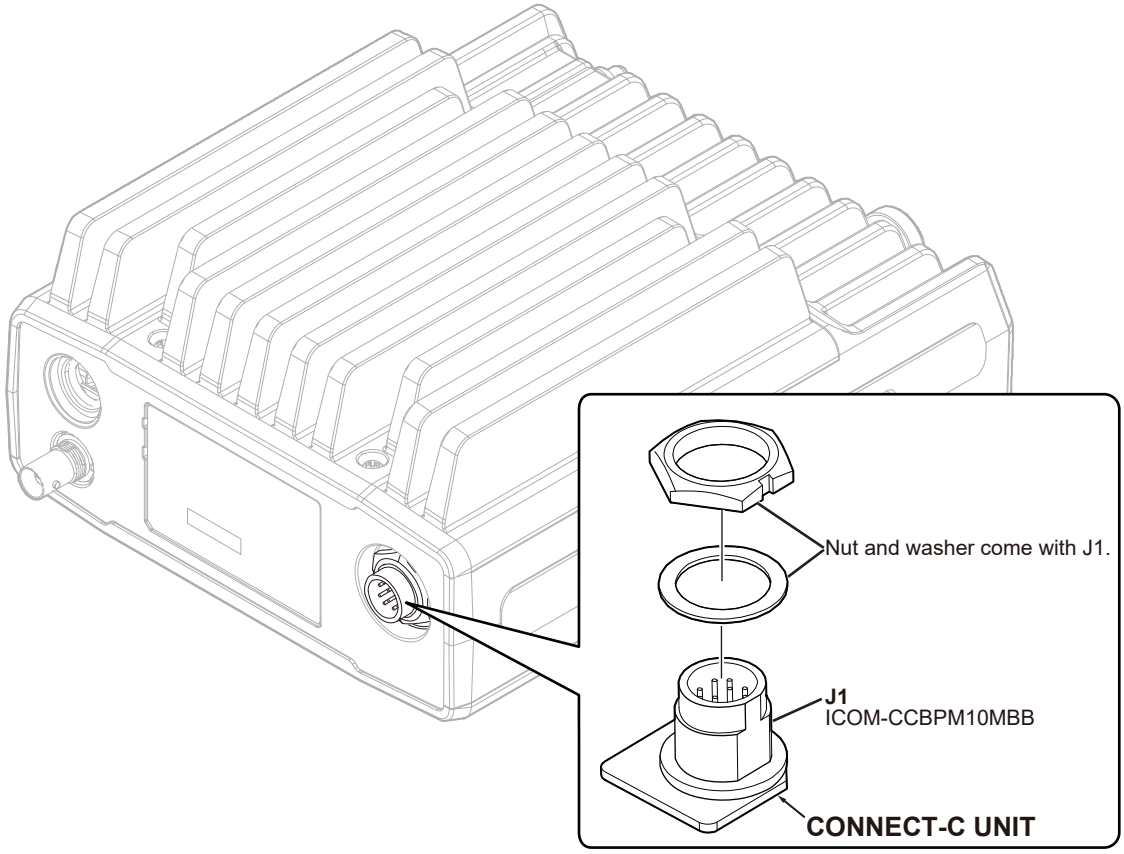


NOTE: The parts that are not listed are indicated in gray.

■ SPARE PARTS INFORMATION (CONTINUED)

• For the CONNECT-C UNIT

	Reference number	Parts name	Order Number	Remarks
CONNECTOR	J1	ICOM-CCBPM10MBB	6510031421	–



NOTE: The parts that are not listed are indicated in gray.

■SPARE PARTS INFORMATION (CONTINUED)

• For the RF UNIT (RF-A UNIT side)

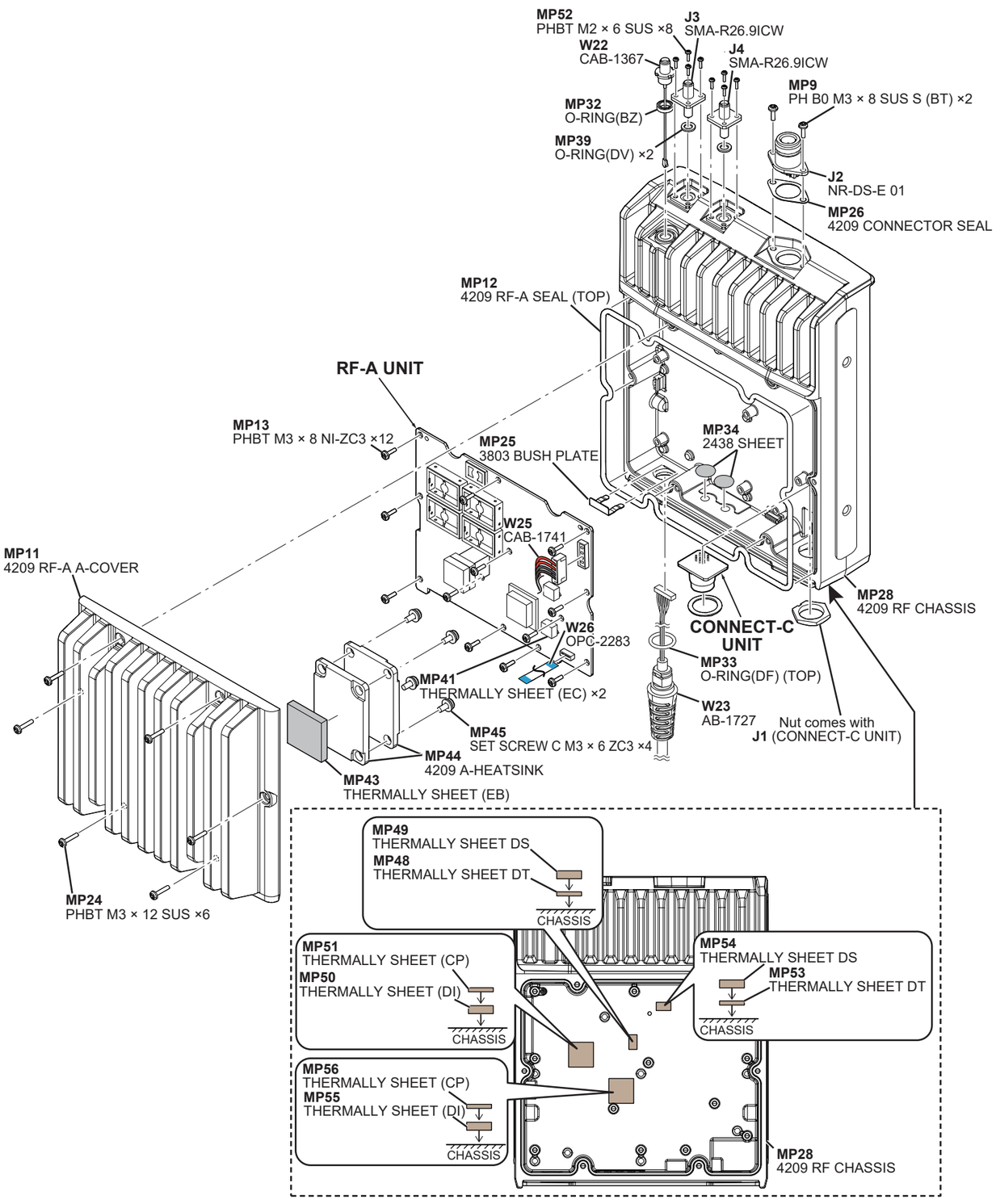
	Reference number	Parts name	Order Number	Remarks
CONNECTOR	J1	BNC-R4066	6510032950	–
CONNECTOR	J2	NR-DS-E 01	6510004910	–
CONNECTOR	J3	SMA-R26.9ICW	6510035330	–
CONNECTOR	J4	SMA-R26.9ICW	6510035330	–
CABLE	W22	CAB-1367	8920002950	–
CABLE	W23	CAB-1727	8920006060	–
SCREW	MP9	PH B0 M3 × 8 SUS S (BT)	8810010610	Quantity: 2*
COVER	MP11	4209 RF-A A-COVER	8110012550	–
SEAL	MP12	4209 RF-A SEAL (TOP)	8930109360	–
SCREW	MP13	PHBT M3 × 8 NI-ZC3	8810008661	Quantity: 12*
SCREW	MP24	PHBT M3 × 12 SUS	8810012610	Quantity: 6*
PLATE	MP25	3803 BUSH PLATE	8930094980	–
SEAL	MP26	4209 CONNECTOR SEAL	8930109950	–
CHASSIS	MP28	4209 RF CHASSIS	8010026190	–
SEAL	MP33	O-RING(DF) (TOP)	8930094800	–
SHEET	MP34	2438 SHEET	8930055070	–
SEAL	MP39	O-RING(DV)	8930109960	–
SHEET	MP41	THERMALLY SHEET (EC)	8930110230	–
SHEET	MP43	THERMALLY SHEET (EB) RM-5(30) 29X29XT5	8930110140	–
HEATSINK	MP44	4209 A-HEATSINK	8410003490	–
SCREW	MP45	SET SCREW C M3 × 6 ZC3	8810003361	Quantity: 4*
SHEET	MP48	THERMALLY SHEET DT TC-200CAT-20(8X12)	8930101210	–
SHEET	MP49	THERMALLY SHEET DS TC-500CAT(8X12)	8930101020	–
SHEET	MP50	THERMALLY SHEET (DI) TC250CAT20(18X18)	8930098010	–
SHEET	MP51	THERMALLY SHEET (CP) TC150CAT(17X17)	8930091000	–
SCREW	MP52	PHBT M2 × 6 SUS	8810012600	Quantity: 8*
SHEET	MP53	THERMALLY SHEET DT TC-200CAT-20(8X12)	8930101210	–
SHEET	MP54	THERMALLY SHEET DS TC-500CAT(8X12)	8930101020	–
SHEET	MP55	THERMALLY SHEET (DI) TC250CAT20(18X18)	8930098010	–
SHEET	MP56	THERMALLY SHEET (CP) TC150CAT(17X17)	8930091000	–
CABLE	W25	CAB-1741	8920006170	–
FFC	W26	OPC-2283	8900021240	–

• Electronic part

REF NO.	PART NO.	DESCRIPTION	M.	H/V LOCATION
IC6701	1190005440	S.IC GSU-141A-103A	T	51.9/112.1

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

Viewing from RF-A UNIT side



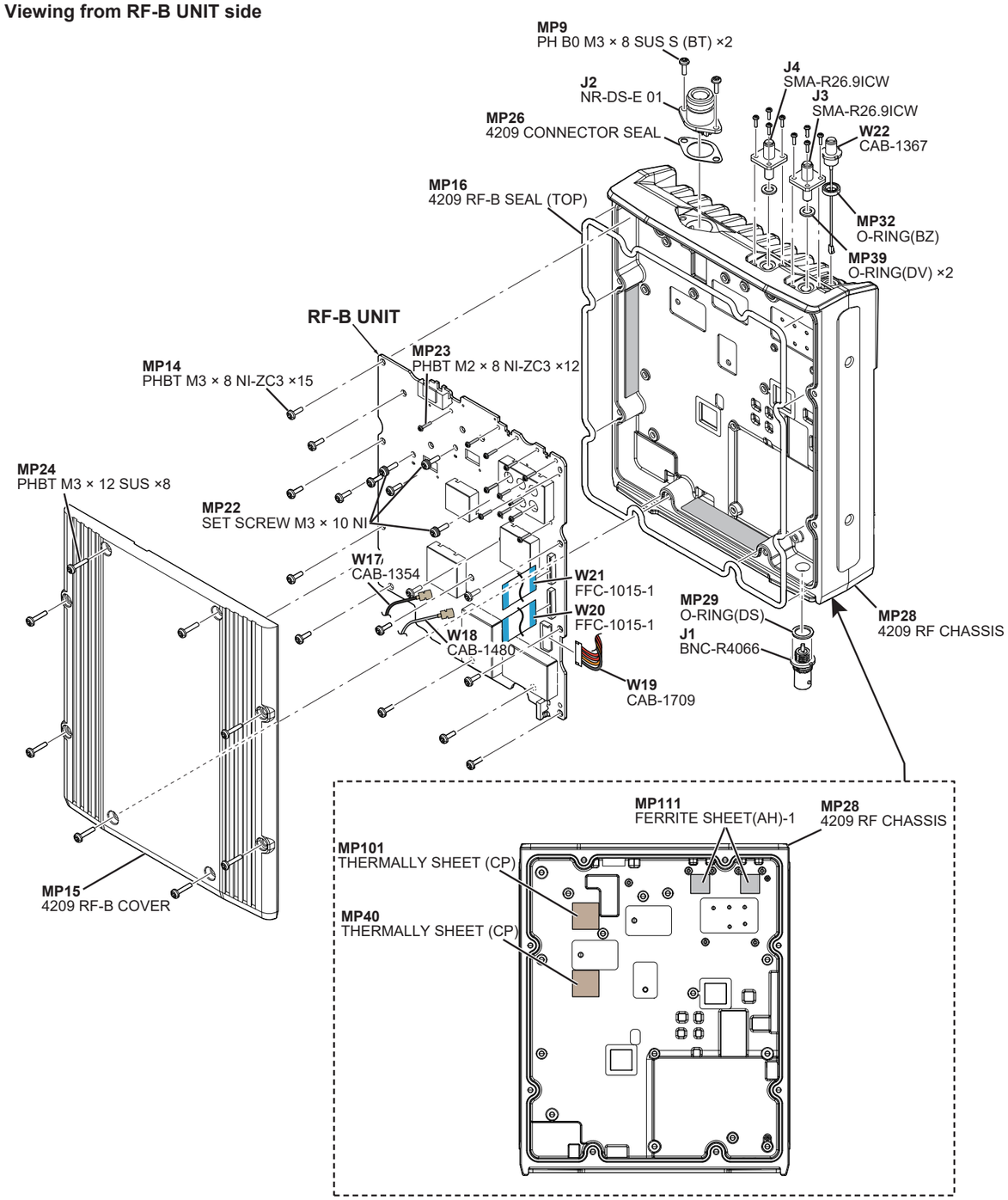
NOTE: The parts that are not listed are indicated in gray.

■SPARE PARTS INFORMATION (CONTINUED)

• For the RF UNIT (RF-B UNIT side)

	Reference number	Parts name	Order Number	Remarks
CONNECTOR	J1	BNC-R4066	6510032950	–
CONNECTOR	J2	NR-DS-E 01	6510004910	–
CONNECTOR	J3	SMA-R26.9ICW	6510035330	–
CONNECTOR	J4	SMA-R26.9ICW	6510035330	–
CABLE	W22	CAB-1367	8920002950	–
SCREW	MP9	PH B0 M3 × 8 SUS S (BT)	8810010610	Quantity: 2*
SCREW	MP14	PHBT M3 × 8 NI-ZC3	8810008661	Quantity: 15*
COVER	MP15	4209 RF-B COVER	8110012470	–
SEAL	MP16	4209 RF-B SEAL (TOP)	8930109370	–
SCREW	MP22	SET SCREW M3 × 10 NI	8810009050	Quantity: 3*
SCREW	MP23	PHBT M2 × 8 NI-ZC3	8810008761	Quantity: 12*
SCREW	MP24	PHBT M3 × 12 SUS	8810012610	Quantity: 8*
SEAL	MP26	4209 CONNECTOR SEAL	8930109950	–
CHASSIS	MP28	4209 RF CHASSIS	8010026190	–
SEAL	MP29	O-RING(DS)	8930109710	–
SEAL	MP32	O-RING(BZ)	8930075620	–
SEAL	MP39	O-RING(DV)	8930109960	Quantity: 2*
SHEET	MP40	THERMALLY SHEET (CP) TC150CAT(17X17)	8930091000	–
SHEET	MP101	THERMALLY SHEET (CP) TC150CAT(17X17)	8930091000	–
SHEET	MP111	FERRITE SHEET (AH)-1	8930084711	–
CABLE	W17	CAB-1354	8920003110	–
CABLE	W18	CAB-1480	8920003740	–
CABLE	W19	CAB-1709	8920005770	–
FFC	W20	FFC-1015-1	8910000141	–
FFC	W21	FFC-1015-1	8910000141	–

Viewing from RF-B UNIT side

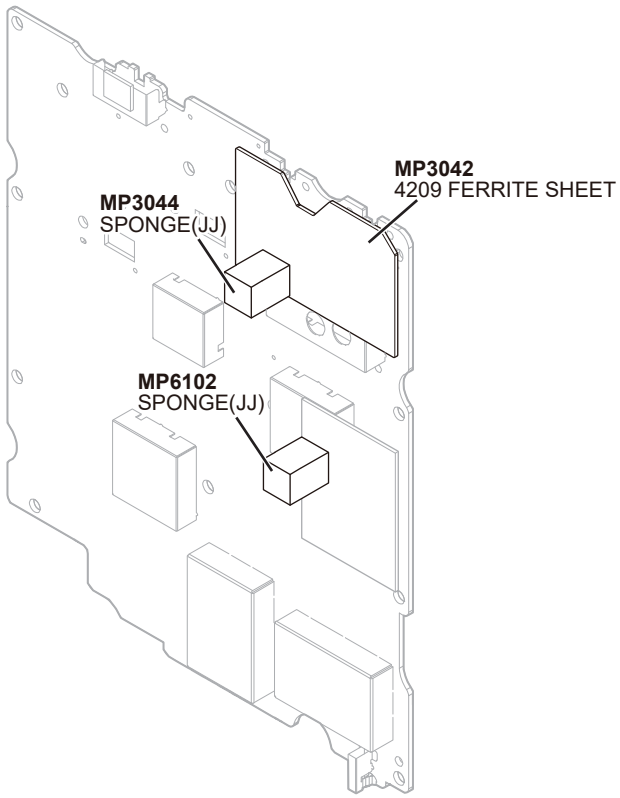


NOTE: The parts that are not listed are indicated in gray.

■ SPARE PARTS INFORMATION (CONTINUED)

• For the RF-B UNIT

	Reference number	Parts name	Order Number	Remarks
SHEET	MP3042	4209 FERRITE SHEET	8930111240	–
SPONGE	MP3044	SPONGE(JJ)	8930071240	–
SPONGE	MP6102	SPONGE(JJ)	8930071240	–



NOTE: The parts that are not listed are indicated in gray.

• Electronic parts

REF NO.	PART NO.	DESCRIPTION		M.	H/V LOCATION
IC1001	1110009950	S.IC	TRF37C75IDSGR	T	36.7/105.8
IC2001	1110009950	S.IC	TRF37C75IDSGR	T	76.8/114.5
IC2003	1110010910	S.IC	GRF5115-TR	T	67.2/118.3
IC2005	1110008550	S.IC	NJM2904CRB1-TE1	T	84.9/124.6
IC3001	1110009950	S.IC	TRF37C75IDSGR	T	115.2/130.5
IC3004	1110009950	S.IC	TRF37C75IDSGR	T	98.7/145
IC3005	1110010830	S.IC	GRF2093-TR	T	129.3/134.3
IC3006	1110010820	S.IC	TQP9224	T	108.9/150.6
IC3007	1110010820	S.IC	TQP9224	T	116.8/150.6
IC3010	1110010830	S.IC	GRF2093-TR	T	145.8/152.3
IC3012	1110010880	S.IC	SE5004L-R	T	126.0/153.4
IC3013	1110010880	S.IC	SE5004L-R	T	135.7/153.4
IC3015	1110010830	S.IC	GRF2093-TR	T	144.1/160.1
IC4019	1110009950	S.IC	TRF37C75IDSGR	T	56.4/94.7
IC4200	1110009950	S.IC	TRF37C75IDSGR	T	97.5/110.1

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

SECTION 7 MECHANICAL PARTS

[MAIN UNIT]

REF NO.	PART NO.	DESCRIPTION	QTY.
J751*	6510021722	30FLT-SM2-TB (LF) (SN) (M)	1
J801*	6510026101	22FLT-SM2-TB (LF) (SN) (M)	1
J901*	6510022472	40FLT-SM2-TB (LF) (SN) (M)	1
J951*	6510022472	40FLT-SM2-TB (LF) (SN) (M)	1
J1402*	6510025771	03-935H1-72BKA	1
J1451*	6510025771	03-935H1-72BKA	1
J1452*	6510025771	03-935H1-72BKA	1
J2801*	6510035130	LPJK9493AHNL	1
J2802*	6510018961	B2B-PH-SM4-TB (LF) (SN)	1
J5601*	6510034850	7759S-8824-1EH-GLDG	1
T5801*	5920001110	ALT3232M-151-T001	1
T5802*	5920001110	ALT3232M-151-T001	1
BT4701*	3020000390	ML414HIV01E	1
MP1	8930109390	4209 C-JACK HOLDER	1
MP201*	8510023310	4075 A-SHIELD CASE	1
MP501*	8510023320	4075 B-SHIELD CASE	1
MP551*	8510023310	4075 A-SHIELD CASE	1

[CONTROL UNIT]

REF NO.	PART NO.	DESCRIPTION	QTY.
P1	6510009580	ZHR-2 Only [#13]	1
DS1	5030004620	M9-2367TXW-1	1
SP1	2510002160	036D01209	1
W5**	8910000070	FFC-1008 (P0.5N6L50)	1
W6**	8910000070	FFC-1008 (P0.5N6L50)	1
W7**	8910000070	FFC-1008 (P0.5N6L50)	1
W8**	8910000070	FFC-1008 (P0.5N6L50)	1
W9	8600037590	SP CABLE-1 70MM	1
W11	8910000520	FFC-1056 (P0.5N40L100 S)	1
W12	8910000520	FFC-1056 (P0.5N40L100 S)	1
W13	8900014750	OPC-519A (P0.5N30L55)	1
W15	8920005760	CAB-1708	1
W16	8910000610	FFC-1066 (P0.5.N22.L70)	1
EP1	0880004930	EX-3956 #12	1
MP1	8010026180	4209 CHASSIS	1
MP2	8010026200	4209 CASE ASSEMBLY	1
MP4	8930103410	4075 BRACKET PLATE	1
MP5	8810009561	PHBT M2 × 6 NI-ZK3	2
MP6	8810008661	PHBT M3 × 8 NI-ZC3	6
MP7	8930104120	4075 MIC PLATE	1
MP8	8810012240	SET SCREW (H) 4 × 12 SUS	1
MP9	8850001800	FLAT WASHER M4 (4X12X0.8)SUS	1
MP10	8810008661	PHBT M3 × 8 NI-ZC3	4
MP11	8810008661	PHBT M3 × 8 NI-ZC3	2
MP12	8810008661	PHBT M3 × 8 NI-ZC3	6
MP20	8210036660	4075 FRONT PANEL (B) ASSEMBLY	1
MP26	8930057950	DOUBLE SIDE TAPE (AH)	2
MP31	8930103030	4075 3-KEY	1
MP32	8930103050	4075 6-KEY	1
MP33	8930103400	4075 LCD PLATE	1
MP34	8930103390	4075 LCD SPONGE	1
MP35	8810008631	PHBT M3 × 6 NI-ZC3	2
MP36	8610016580	KNOB N-459	2
MP37	8610016590	KNOB N-460	1
MP38	8830000551	VRNUT (E)-1	3
MP39	8610016570	KNOB N-458 COVER	1
MP40	8610016560	KNOB N-458 BASE	1
MP41	8930060191	2591 N-SPRING-1	1
MP42	8810005561	PH M3 × 8 SUS SSBC	2
MP43	8810008661	PHBT M3 × 8 NI-ZC3	9
MP50	8810009371	PHBT M3 × 12 NI-ZK3	4
MP51	8810012030	SCREW PH M3 × 6 ZK3	2
MP52	8930110050	4209 AL PLATE	1
MP53	8810008661	PHBT M3 × 8 NI-ZC3	4
MP54	8810009611	FLAT M2.6 × 6 ZK3	8
MP55	8930102100	THERMAL SHEET (DV) TC400CAT 13.8X18.5	1
MP56	8410003480	4209 C-HEATSINK	2
MP57	8950003640	CS-2 (COATING CLIP) UL	1
MP59	8930110230	THERMALLY SHEET (EC)	1
MP60	8930101020	THERMAL SHEET DS TC-500CAT Only [#12]	1
MP61	8930092830	SPONGE (NL) Only [#12]	1
MP62	8930100110	SPONGE (PU) Only [#12]	1

[CONTROL UNIT]

REF NO.	PART NO.	DESCRIPTION	QTY.
MP63	8930106010	SPONGE (RS) Only [#12]	1
MP64	8310107890	4209 B CAUTION STICKER	1
MP65	8310107870	4209 CAUTION STICKER	1
MP71	8930067292	SHIELD SPONGE (AR)-2 Only [#12]	1
MP72	8930067292	SHIELD SPONGE (AR)-2 Only [#12]	1
MP73	8930067292	SHIELD SPONGE (AR)-2 Only [#12]	1
MP74	8930067292	SHIELD SPONGE (AR)-2 Only [#12]	1
MP75	8930067292	SHIELD SPONGE (AR)-2 Only [#12]	1
MP76	8930067292	SHIELD SPONGE (AR)-2 Only [#12]	1
MP77	8930067292	SHIELD SPONGE (AR)-2 Only [#12]	1
MP78	8930067292	SHIELD SPONGE (AR)-2 Only [#12]	1
MP79	8930111430	4209 AL A-SHEET Only [#12]	1
MP80	8930111440	4209 AL B-SHEET Only [#12]	1
MP81	8930067292	SHIELD SPONGE (AR)-2 Only [#12]	1
MP82	8930067292	SHIELD SPONGE (AR)-2 Only [#12]	1
MP83	8930111460	4209 AL C-SHEET Only [#12]	1
MP84	8930111450	4209 AL D-SHEET Only [#12]	1
MP85	8930072062	SHIELD SPONGE (BU)-2 Only [#12]	1
MP86	8930072062	SHIELD SPONGE (BU)-2 Only [#12]	1
MP87	8930072062	SHIELD SPONGE (BU)-2 Only [#12]	1
MP88	8930072062	SHIELD SPONGE (BU)-2 Only [#12]	1
MP89	8930095181	FERRITE SHEET (BB)-1 Only [#12]	1
MP90	8930088331	FERRITE SHEET (AM)-1 Only [#12]	1

[DISPLAY UNIT]

REF NO.	PART NO.	DESCRIPTION	QTY.
J21*	6510033810	AYF564035	1
J71*	6510022472	40FLT-SM2-TB (LF) (SN) (M)	1
J81*	6510022472	40FLT-SM2-TB (LF) (SN) (M)	1
J121*	6510022692	06FLT-SM2-TB (LF) (SN) (M)	1
J131*	6510022692	06FLT-SM2-TB (LF) (SN) (M)	1
J141*	6510022692	06FLT-SM2-TB (LF) (SN) (M)	1
J151*	6510022692	06FLT-SM2-TB (LF) (SN) (M)	1
J161*	6510023801	S4B-ZR-SM4A-TF (LF) (SN)	1
J171*	6510018301	S2B-ZR-SM4A-TF (LF) (SN)	1
S101*	2260002740	LS8J2M-T	1
S102*	2260002740	LS8J2M-T	1
S103*	2260002740	LS8J2M-T	1
S104*	2260002740	LS8J2M-T	1
S105*	2260002740	LS8J2M-T	1
S106*	2260002740	LS8J2M-T	1
S107*	2260002740	LS8J2M-T	1
S108*	2260002740	LS8J2M-T	1
S109*	2260002740	LS8J2M-T	1
MP21*	8510019650	3250 VCO CASE	1
MP44	8930089670	3562 MIC SPONGE	1

[DIAL-A UNIT]

REF NO.	PART NO.	DESCRIPTION	QTY.
J1*	6510022692	06FLT-SM2-TB (LF) (SN) (M)	1
S1	2250001110	RE1107CM1-V03-5391	1

[DIAL-B UNIT]

REF NO.	PART NO.	DESCRIPTION	QTY.
J1*	6510022692	06FLT-SM2-TB (LF) (SN) (M)	1
S1	2250001110	RE1107CM1-V03-5391	1

[DIAL-C UNIT]

REF NO.	PART NO.	DESCRIPTION	QTY.
J1*	6510022692	06FLT-SM2-TB (LF) (SN) (M)	1
S1	2250001030	RE1107CM1-V03-4673	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 BS: Brass NI: Nickel ZU: Zinc SUS: Stainless

[CONNECT-A UNIT]

REF NO.	PART NO.	DESCRIPTION	QTY.
J51*	6510025771	03-935H1-72BKA	1
J52*	6510025771	03-935H1-72BKA	1
J53*	6450002950	02-909B0-66BKY	1
J54*	6510021722	30FLT-SM2-TB (LF) (SN) (M)	1
J55*	6510018961	B2B-PH-SM4-TB (LF) (SN)	1
J101*	6450003000	DC0146B-BH100AS01	1
J301*	6510025771	03-935H1-72BKA	1
F101*	5210001170	ERBRE2R50V	1
F102*	5210001250	ERBRE1R25V ATEX	1
T2501*	5910001470	750342911	1
MP1	8930109340	4209 A-JACK HOLDER	1
MP2	8930109350	4209 B-JACK HOLDER	1
MP3	8930110230	THERMALLY SHEET (EC)	1
MP201*	8510022610	3913 SHIELD CASE	1

[CONNECT-B UNIT]

REF NO.	PART NO.	DESCRIPTION	QTY.
J1*	6510035110	SDK-9BNS-K13-GS-TB (LF) (SN)	1
J2*	6510026101	22FLT-SM2-TB (LF) (SN) (M)	1
J3*	6510033720	DX07S024JA1R1300	1

[RF UNIT]

REF NO.	PART NO.	DESCRIPTION	QTY.
J1	6510032950	BNC-R4066	1
J2	6510004910	NR-DS-E 01	1
J3	6510035330	SMA-R26.9ICW	1
J4	6510035330	SMA-R26.9ICW	1
W17	8920003110	CAB-1354 (822Z82150000000101)	1
W18	8920003740	CAB-1480 (822Z83090000000101)	1
W19	8920005770	CAB-1709	1
W20	8910000141	FFC-1015-1 (P0.5N30L80)	1
W21	8910000141	FFC-1015-1 (P0.5N30L80)	1
W22	8920002950	CAB-1367 (CA20410113000070G)	1
W23	8920006060	CAB-1727	1
W25	8920006170	CAB-1741	1
W26	8900021240	OPC-2283 (P0.5N10L31) [#12]	1
	8910000300	FFC-1036 (P0.5N10L30) [#13]	1
MP9	8810010610	PHB0 M3 × 8 SUS S (BT)	2
MP11	8110012550	4209 RF-A A-COVER [#12]	1
	8110012460	4209 RF-A COVER [#13]	1
MP12	8930109360	4209 RF-A SEAL (TOP)	1
MP13	8810008661	PHBT M3 × 8 NI-ZC3 [#12]	12
	8810010620	PHB0 M3 × 12 SUS S [#13]	6
MP14	8810008661	PHBT M3 × 8 NI-ZC3	15
MP15	8110012470	4209 RF-B COVER	1
MP16	8930109370	4209 RF-B SEAL (TOP)	1
MP22	8810009050	SET SCREWH M3 × 10 NI	3
MP23	8810008761	PHBT M2 × 8 NI-ZC3	12
MP24	8810012610	PHBT M3 × 12 SUS [#12]	14
	8810008661	PHBT M3 × 8 NI-ZC3 [#13]	14
MP25	8930094980	3803 BUSH PLATE	1
MP26	8930109950	4209 CONNECTOR SEAL	1
MP28	8010026190	4209 RF CHASSIS	1
MP29	8930109710	O-RING (DS)	1
MP31	8310108150	4209 RF LABEL (B) [#12]	1
	8310105990	4209 RF LABEL [#13]	1
MP32	8930075620	O-RING (BZ)	1
MP33	8930094800	O-RING (DF) (TOP)	1
MP34	8930055070	2438 SHEET	2
MP35	8930109780	4209 BNC CAP (TOP)	1
MP36	8930109790	4209 CAP (TOP)	1
MP37	8930109800	4209 SMA CAP (TOP)	2
MP38	6910030560	ICOM-CPBPPMCKN71 [#12]	1
	8930055041	2438 CAP-1 (KOB) [#13]	1
MP39	8930109960	O-RING (DV)	2
MP40	8930091000	THERMAL SHEET (CP) TC150CAT (17X17)	1
MP41*	8930110230	THERMALLY SHEET (EC)	2
MP42*	8930092980	THERMAL SHEET (CX) TC500CAT 16.8X16.8	1
MP43	8930110140	THERMAL SHEET (EB) RM-5 (30) 29X29XT5	1
MP44	8410003490	4209 A-HEATSINK	2
MP45	8810003361	SET SCREWC M3 × 6 ZC3	4
MP48	8930101210	THERMAL SHEET DT TC-200CAT-20 (8X12)	1
MP49	8930101020	THERMAL SHEET DS TC-500CAT (8X12)	1
MP50	8930098010	THERMAL SHEET (DI) TC250CAT20 18X18	1
MP51	8930091000	THERMAL SHEET (CP) TC150CAT (17X17)	1
MP52	8810012600	PHBT M2 × 6 SUS [#12]	8
	8810010750	PHBT M2 × 6 SUS SSBC [#13]	8
MP53	8930101210	THERMAL SHEET DT TC-200CAT-20 (8X12)	1
MP54	8930101020	THERMAL SHEET DS TC-500CAT (8X12)	1

[RF UNIT]

REF NO.	PART NO.	DESCRIPTION	QTY.
MP55	8930098010	THERMAL (DI) TC250CAT20 18X18 Only [#12]	1
MP56	8930091000	THERMAL SHEET (CP) TC150CAT (17X17) Only [#12]	1
MP101	8930091000	THERMAL SHEET (CP) TC150CAT (17X17)	1
MP107	8930092980	THERMAL SHEET (CX) TC500CAT (16.8X16.8)	2
MP111	8930084711	FERRITE SHEET (AH)-1 Only [#12]	2
MP112	8930109550	FERRITE SHEET (CJ) Only [#12]	1
MP121	8930111410	FERRITE SHEET (CP) Only [#12]	1
MP122	8930111410	FERRITE SHEET (CP) Only [#12]	1
MP123	8930111410	FERRITE SHEET (CP) Only [#12]	1
MP124	8930111420	FERRITE SHEET (CQ) Only [#12]	1
MP125	8930111420	FERRITE SHEET (CQ) Only [#12]	1

[RF-A UNIT]

REF NO.	PART NO.	DESCRIPTION	QTY.
J201*	6510018971	B4B-PH-SM4-TB (LF) (SN)	1
J751*	6510021722	30FLT-SM2-TB (LF) (SN) (M)	1
J752*	6510021722	30FLT-SM2-TB (LF) (SN) (M)	1
J1101*	6510030190	BM09B-SRSS-TBT (LF) (SN)	1
J5601*	6510025142	10FLT-SM2-TB (LF) (SN) (M)	1
J5602*	6510018971	B4B-PH-SM4-TB (LF) (SN)	1
J6701*	6510032350	20279-001E-01	1
J7001*	6510032350	20279-001E-01	1
J8001*	6510032350	20279-001E-01	1
F5601*	5210001500	0686F4000-01	1
T1001*	5910001440	POE72PR-12ED	1
T1101*	5910001460	VP6150M HF	1
T6501*	5920001110	ALT3232M-151-T001	1
T6502*	5920001110	ALT3232M-151-T001	1
MP101*	8510021680	3697 VCO CASE	1
MP102*	8510021680	3697 VCO CASE	1
MP103*	8510021680	3697 VCO CASE	1
MP104*	8510021680	3697 VCO CASE	1
MP6701*	8510022450	3754 GPS CASE	1
MP7041*	8510021680	3697 VCO CASE	1
MP7042*	8510021830	3765 S-CASE	1
MP7043*	8510021830	3765 S-CASE	1
MP7101*	8930109550	FERRITE SHEET (CJ) Only [#12]	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 BS: Brass NI: Nickel ZU: Zinc SUS: Stainless

[RF-B UNIT]

REF NO.	PART NO.	DESCRIPTION		QTY.
J501*	6510021722	30FLT-SM2-TB (LF) (SN) (M)		1
J531*	6510021722	30FLT-SM2-TB (LF) (SN) (M)		1
J532*	6510018971	B4B-PH-SM4-TB (LF) (SN)		1
J4000*	6510032350	20279-001E-01		1
J6042*	6510032350	20279-001E-01		1
EP2004*	6910030160	X4C20K1-20SR1		1
EP2005*	6910030160	X4C20K1-20SR1		1
EP3003*	6910029730	C2327J5003AHF		1
EP3011*	6910029730	C2327J5003AHF		1
EP3012*	6910029720	C5060J5003AHF		1
EP3021*	6910029790	X4C20J1-20G-R		1
EP3026*	6910029720	C5060J5003AHF		1
EP3027*	6910029790	X4C20J1-20G-R		1
EP3028*	6910029760	X4C60J1-20G-R		1
EP3029*	6910029760	X4C60J1-20G-R		1
MP1001*	8410003140	4048 HEATSINK		1
MP1010	8510024590	4209 A-ANT SHIELD	Only [#12]	1
MP2002*	8410003140	4048 HEATSINK		1
MP2010*	8510024220	4209 C-SHIELD CASE	Only [#13]	1
MP2014*	8410003390	4171 P-HEATSINK		1
MP3040*	8510024120	4209 A-SHIELD CASE		1
MP3041	8930091981	SHIELD SPONGE (DL)-1		1
MP3042	8930111240	4209 FERRITE SHEET	Only [#12]	1
MP3043	8930094670	SPONGE (OD)	Only [#12]	1
MP3044	8930071240	SPONGE (JJ)	Only [#12]	1
MP3100*	8410003410	4209 HEATSINK		1
MP4001*	8510022290	E01J1113Y		1
MP4002*	8510022290	E01J1113Y		1
MP4003*	8510022290	E01J1113Y		1
MP4004*	8510022290	E01J1113Y		1
MP4005*	8510022290	E01J1113Y		1
MP4006*	8510022290	E01J1113Y		1
MP4007*	8510022290	E01J1113Y		1
MP4008*	8510022290	E01J1113Y		1
MP4009*	8510022290	E01J1113Y		1
MP4010*	8510022290	E01J1113Y		1
MP4011*	8510022290	E01J1113Y		1
MP4012*	8510022290	E01J1113Y		1
MP4013*	8510022290	E01J1113Y		1
MP4014*	8510022290	E01J1113Y		1
MP4015*	8510022290	E01J1113Y		1
MP4016*	8510022290	E01J1113Y		1
MP4017*	8510022290	E01J1113Y		1
MP4018*	8510022290	E01J1113Y		1
MP4021*	8510022290	E01J1113Y		1
MP4022*	8510022290	E01J1113Y		1
MP4023*	8510022290	E01J1113Y		1
MP4024*	8510022290	E01J1113Y		1
MP4025*	8510022290	E01J1113Y		1
MP4026*	8510022290	E01J1113Y		1
MP4027*	8510022290	E01J1113Y		1
MP4028*	8510022290	E01J1113Y		1
MP4029*	8510022290	E01J1113Y		1
MP4030*	8510022290	E01J1113Y		1
MP4031*	8510022290	E01J1113Y		1
MP4032*	8510022290	E01J1113Y		1
MP4033*	8510022290	E01J1113Y		1
MP4034*	8510022290	E01J1113Y		1
MP4035*	8510022290	E01J1113Y		1
MP4036*	8510022290	E01J1113Y		1
MP4037*	8510022290	E01J1113Y		1
MP4038*	8510022290	E01J1113Y		1
MP4041	8930088691	FERRITE SHEET (AN)-1	Only [#12]	1
MP4055*	8510024210	4209 B-SHIELD CASE		1
MP4057*	8510024210	4209 B-SHIELD CASE		1
MP4058	8930091981	SHIELD SPONGE (DL)-1		1
MP4059	8930091981	SHIELD SPONGE (DL)-1		1
MP6001*	8510020100	3182 DC-DC CASE		1
MP6002*	8510020100	3182 DC-DC CASE		1
MP6003*	8930109380	4209 ANT SPRING		1
MP6005	8930105431	SHIELD SPONGE (FA)-1		1
MP6006	8930105431	SHIELD SPONGE (FA)-1		1
MP6007	8930058842	SHIELD SPONGE (T)-2		1
MP6101	8930097300	FERRITE SHEET (BD)	Only [#12]	1
MP6102	8930071240	SPONGE (JJ)	Only [#12]	1

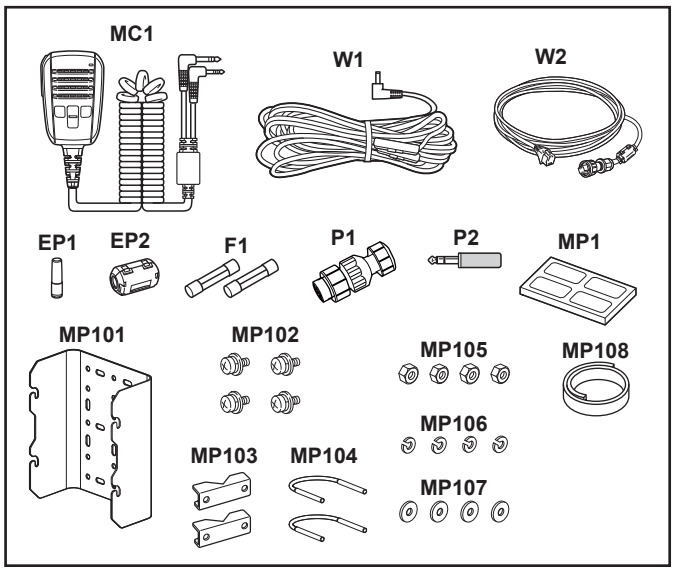
[CONNECT-C UNIT]

REF NO.	PART NO.	DESCRIPTION	QTY.
J1	6510031421	ICOM-CCBPM10MBB	1
J2*	6510018971	B4B-PH-SM4-TB (LF) (SN)	1
J4*	6510025142	10FLT-SM2-TB (LF) (SN) (M)	1

[SUPPLIED ACCESSORIES UNIT]

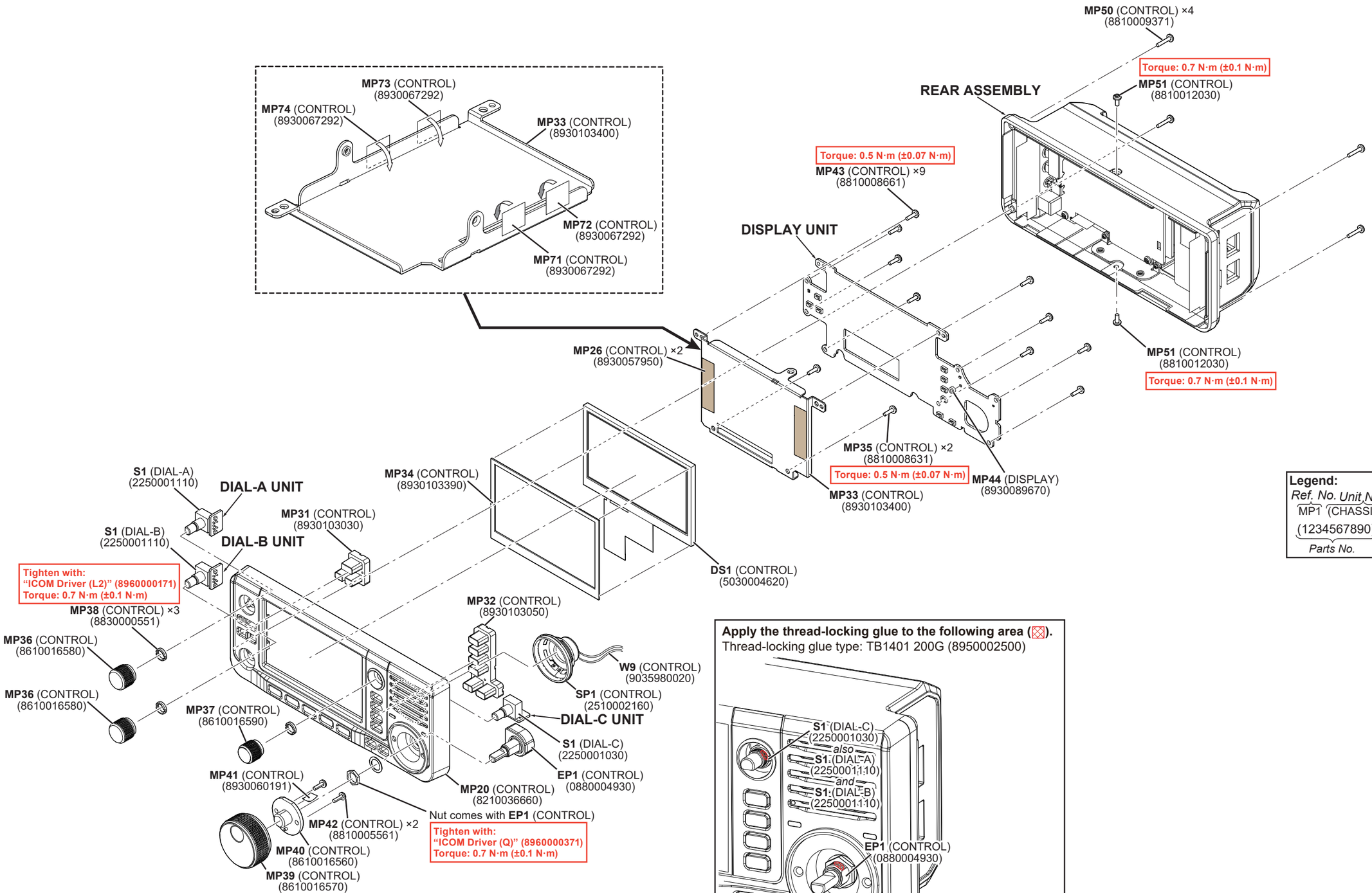
REF NO.	PART NO.	DESCRIPTION		QTY.
P1	5610000960	ICOM-CCBDF10FBB		1
P2	5610000750	MP-013MS-R		1
F1	5210001610	FGBO-A 250V 8A PBF		2
MC1	–	HM-243†		1
W1	8900023240	OPC-2488		1
W2	8900023420	OPC-2508	[#12]	1
	8900019882	OPC-2102A-1	[#13]	1
EP1	3310005760	YH1111004	[#12]	1
	3310005710	YH1101101A	[#13]	1
EP2	6910013530	ZCAT2035-0930A-BK	Only [#12]	1
MP1	8930103510	LEG CUSHION (S)		1
MP101	8930109930	4209 BRACKET (NC)		1
MP102	8810012620	SET SCREW (K) M6 × 15 SUS GEOMET	[#12]	4
	8810011010	SET SCREW (K) M6 × 15 SUS	[#13]	4
MP103	8010000010	BRACKET EX143	[#12]	2
MP104	8820000440	UBOLT A SUS		2
MP105	8830000260	NUT M6 SUS		4
MP106	8850000510	S-WASHER M6 SUS		4
MP107	8850000200	FLAT WASHER M6 (6X20X1.5) SUS		4
MP108	8950007580	RUBBER VULCANIZING TAPE NO.11 L=500MM	Only [#12]	1

†Sold as an option.

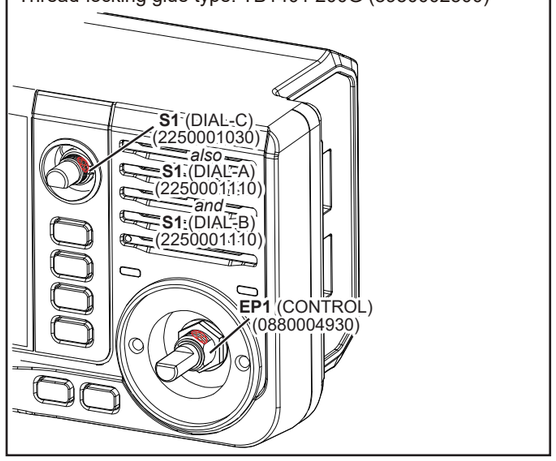


*: Refer to “BOARD LAYOUTS” for the location.
**: Refer to “GENERAL WIRING” for the connection
Screw abbreviations A, B0, BT: Self-tapping PH: Pan head BS: Brass NI: Nickel ZU: Zinc SUS: Stainless

• **CONTROLLER (Front assembly)**



Apply the thread-locking glue to the following area (▨).
Thread-locking glue type: TB1401 200G (8950002500)



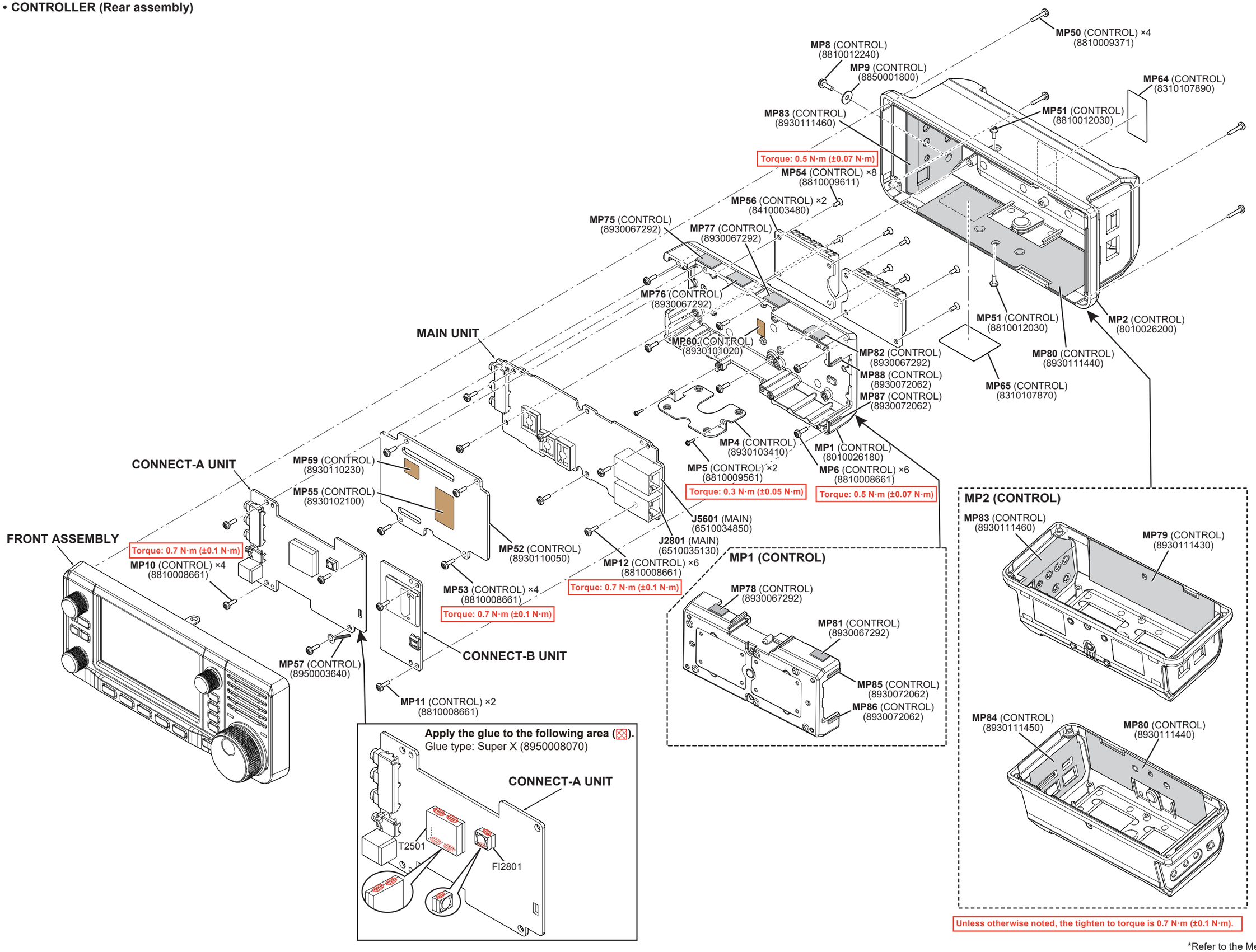
Legend:
Ref. No. Unit Name
MP1 (CHASSIS)
(1234567890)
Parts No.

Unless otherwise noted, the tighten to torque is 0.5 N·m (±0.07 N·m).

NOTE: When replacing a flat cable, form the new one in the same shape as the original.

*Refer to the Mechanical Parts list.

• **CONTROLLER (Rear assembly)**



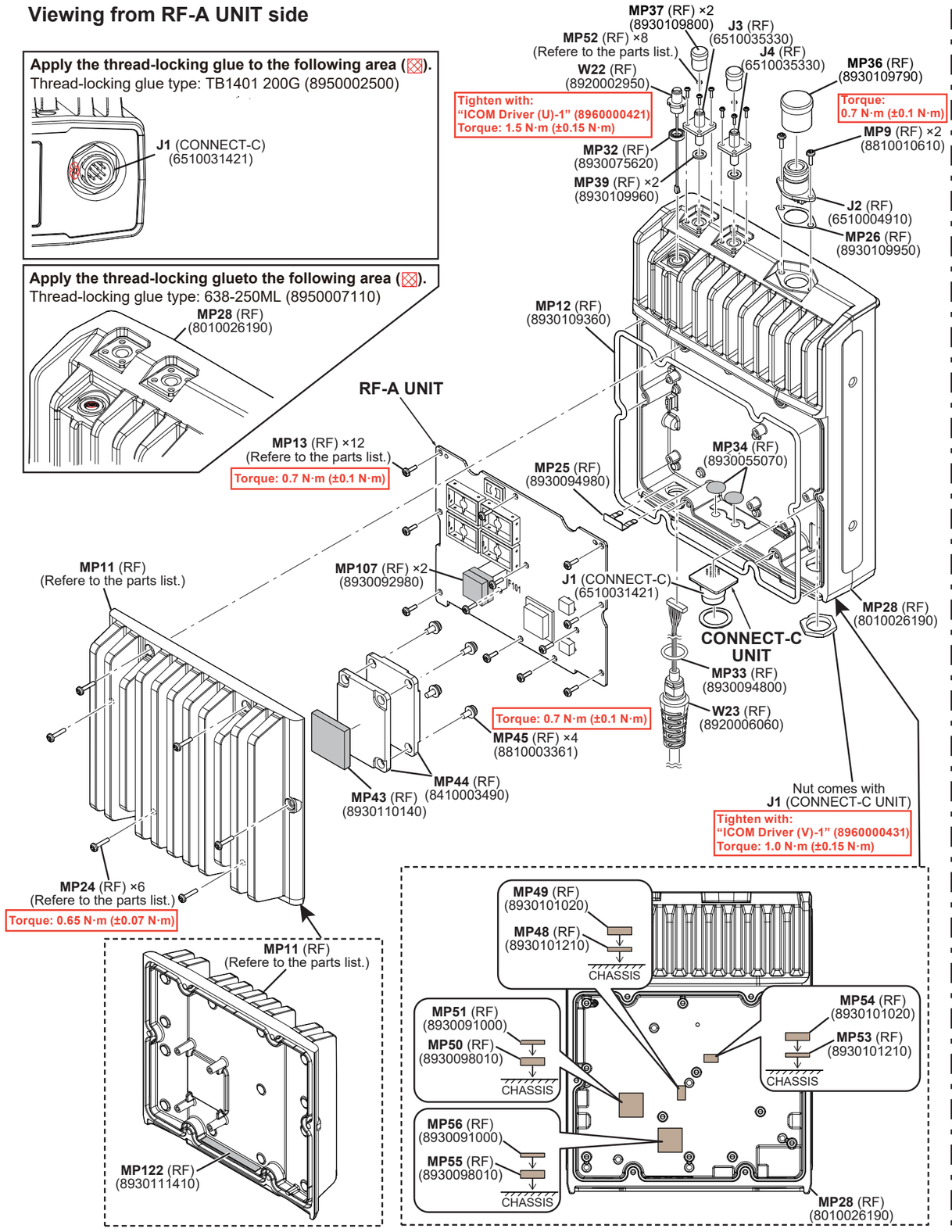
*Refer to the Mechanical Parts list.

• RF UNIT

Viewing from RF-A UNIT side

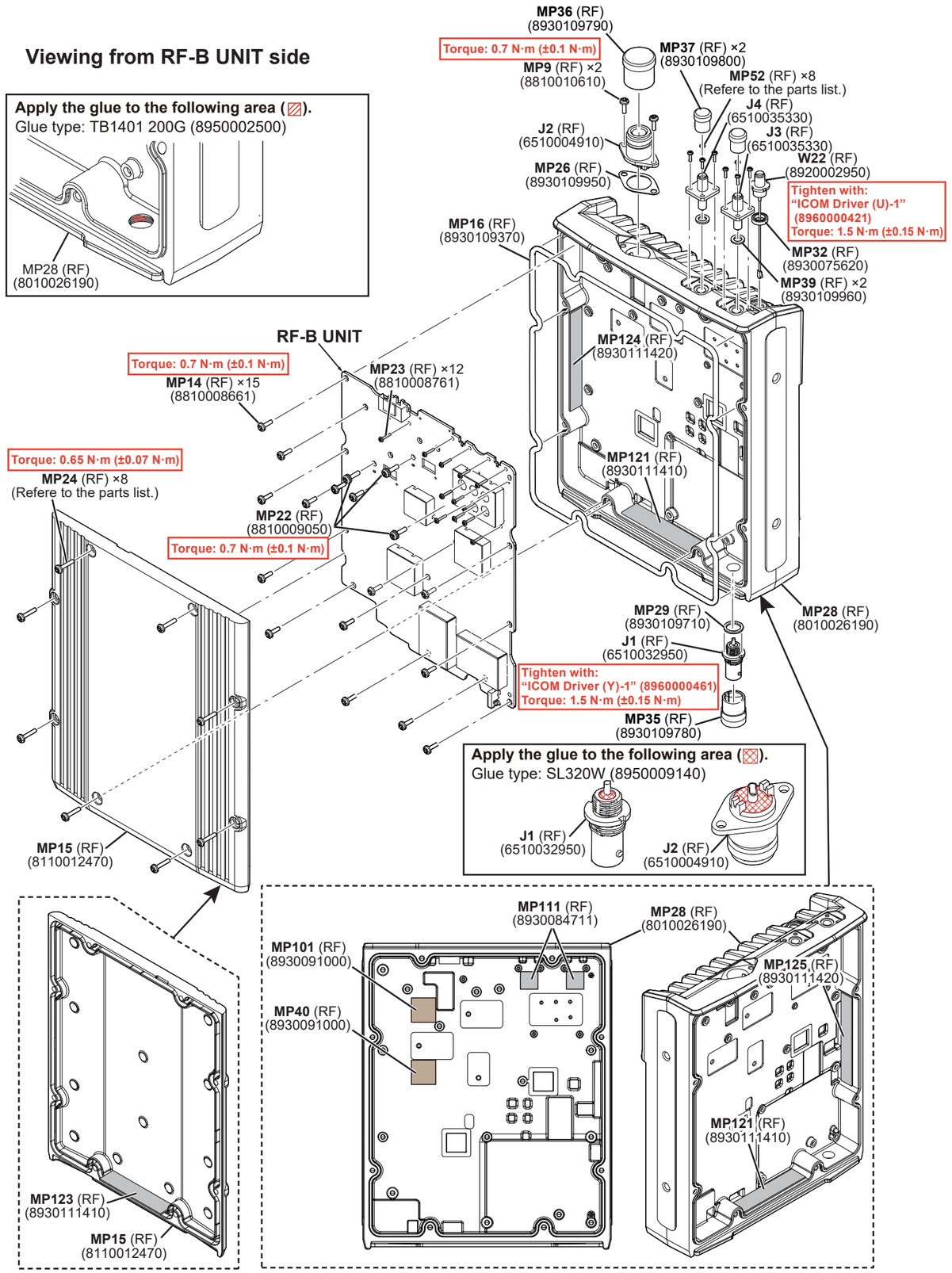
Apply the thread-locking glue to the following area (▨).
Thread-locking glue type: TB1401 200G (8950002500)

Apply the thread-locking glueto the following area (▨).
Thread-locking glue type: 638-250ML (8950007110)



Viewing from RF-B UNIT side

Apply the glue to the following area (▨).
Glue type: TB1401 200G (8950002500)

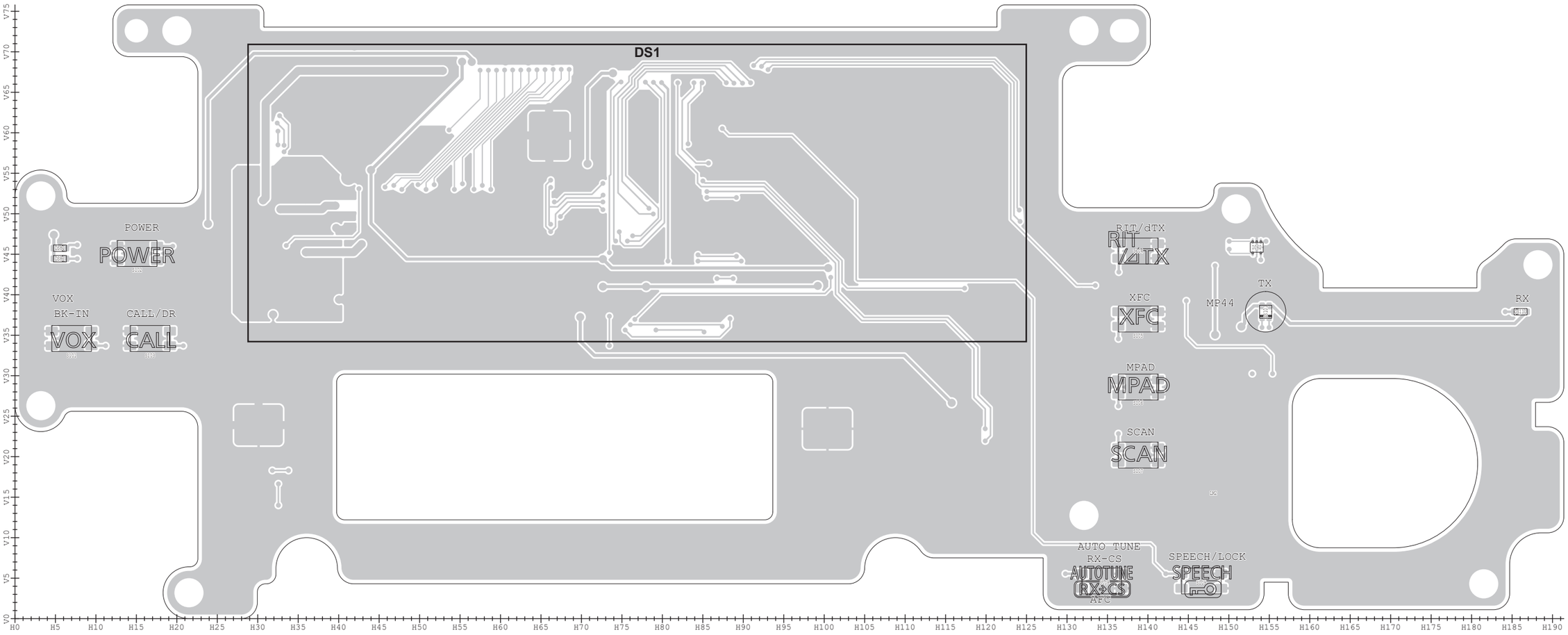


Unless otherwise noted, the tighten to torque is 0.3 N·m (±0.05 N·m).

*Refer to the Mechanical Parts list.

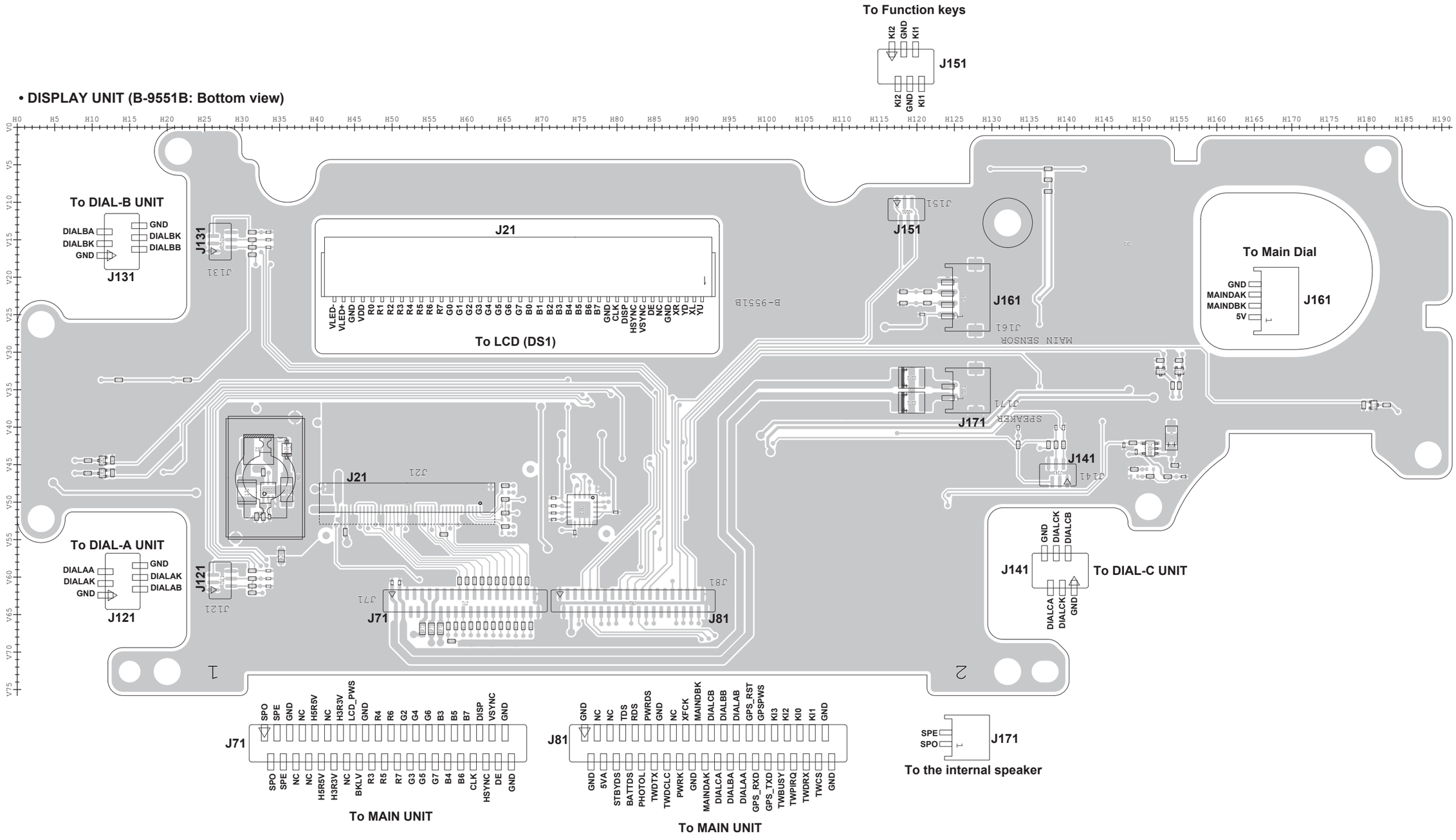
SECTION 8 BOARD LAYOUTS

• DISPLAY UNIT (B-9551B: Top view)



NOTE: Some parts may not be mounted on the PCB, depending on the transceiver version.

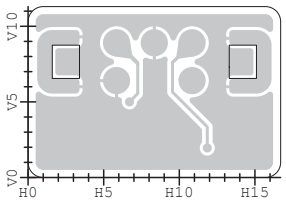
• DISPLAY UNIT (B-9551B: Bottom view)



NOTE: Some parts may not be mounted on the PCB, depending on the transceiver version.

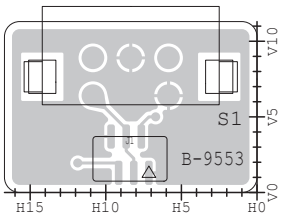
• **DIAL-A UNIT (B-9553)**

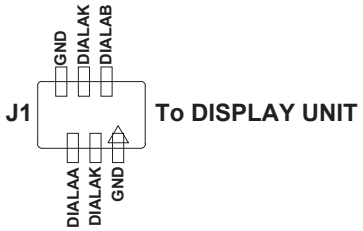
(Top view)



(Bottom view)

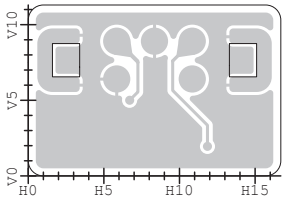
[TWIN PBT]





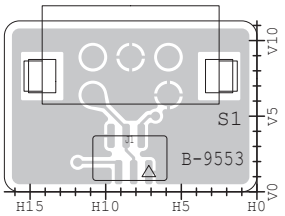
• **DIAL-B UNIT (B-9553)**

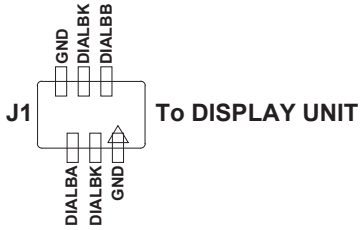
(Top view)



(Bottom view)

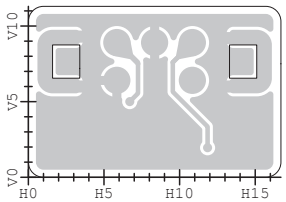
[AF/RF/SQL]





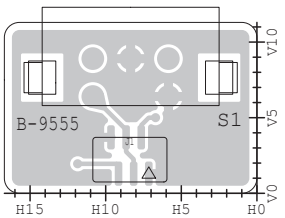
• **DIAL-C UNIT (B-9555)**

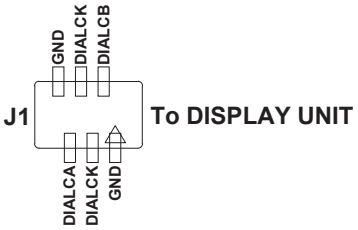
(Top view)



(Bottom view)

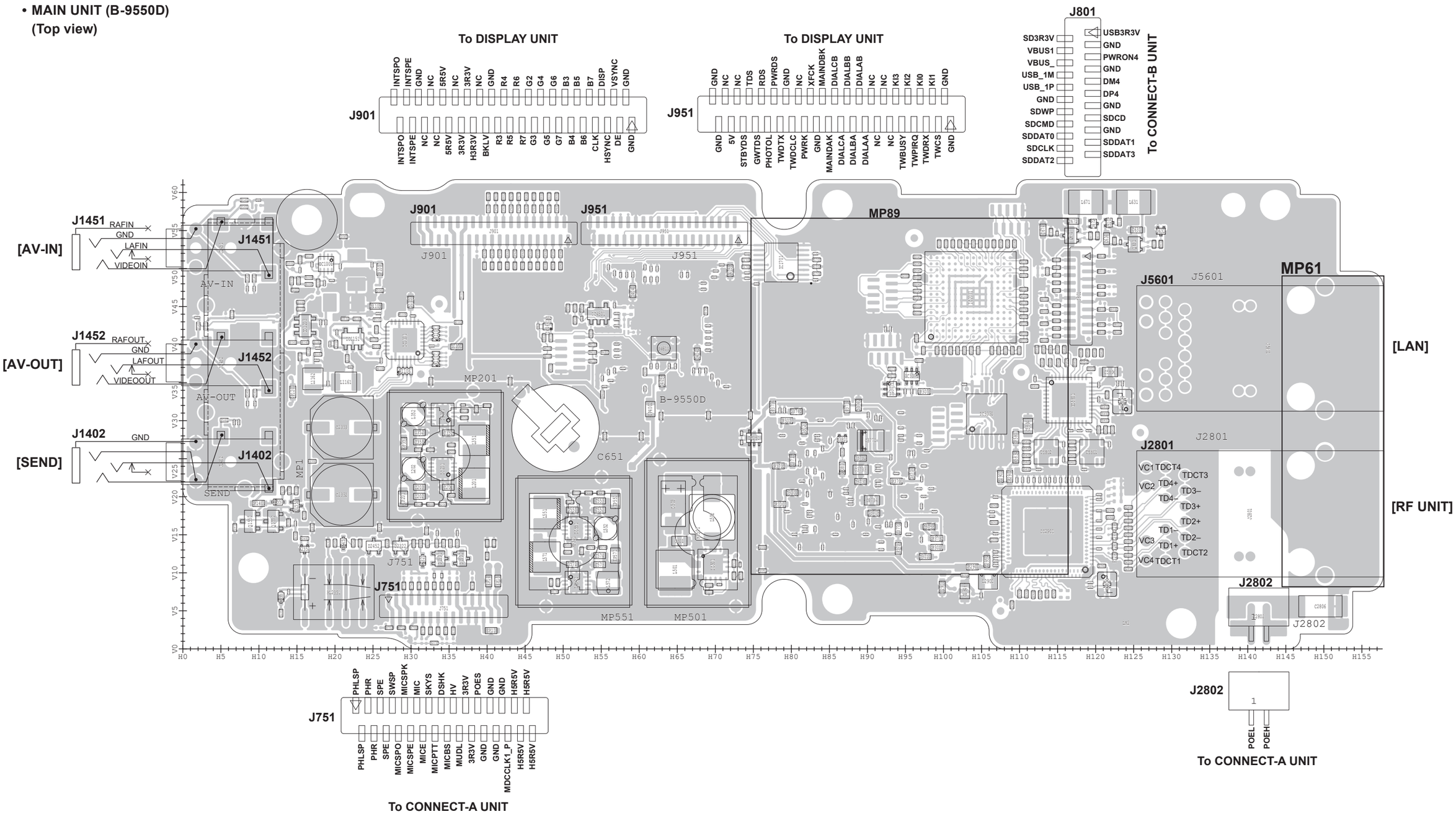
[MULTI]





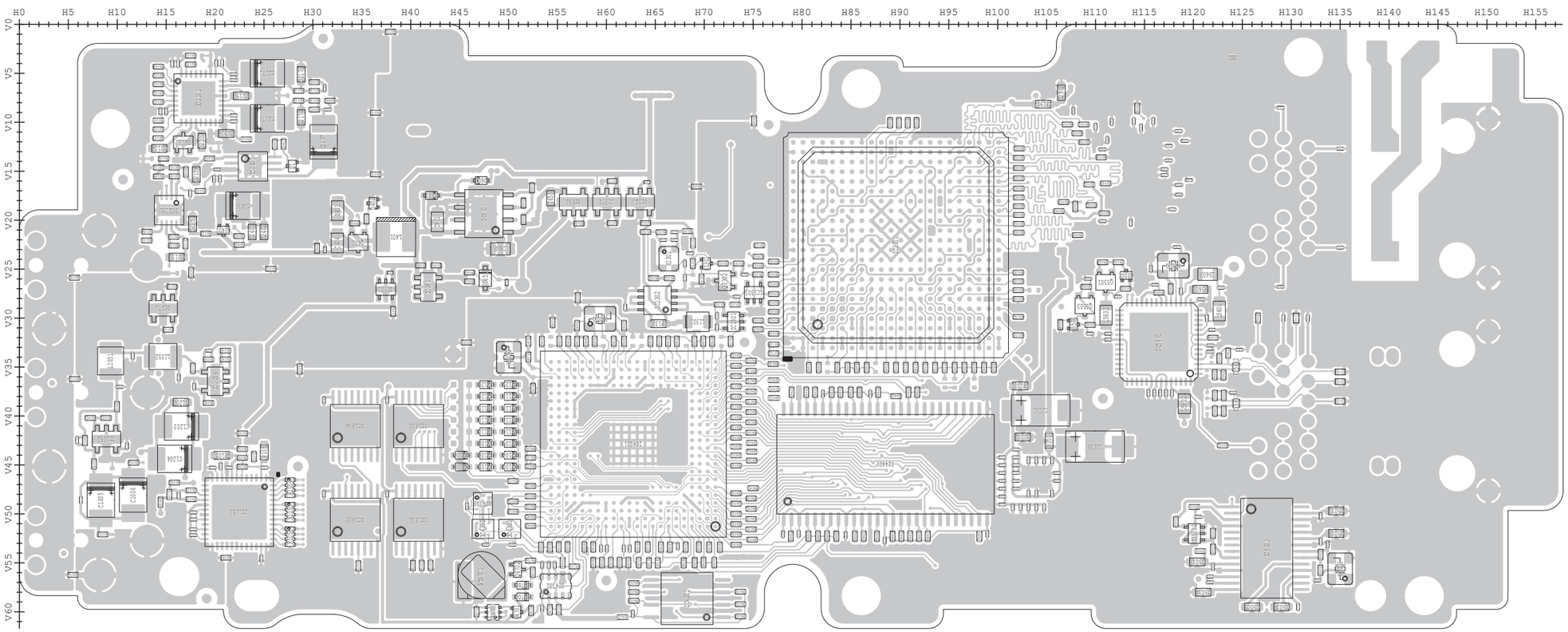
NOTE: Some parts may not be mounted on the PCB, depending on the transceiver version.

• **MAIN UNIT (B-9550D)**
(Top view)



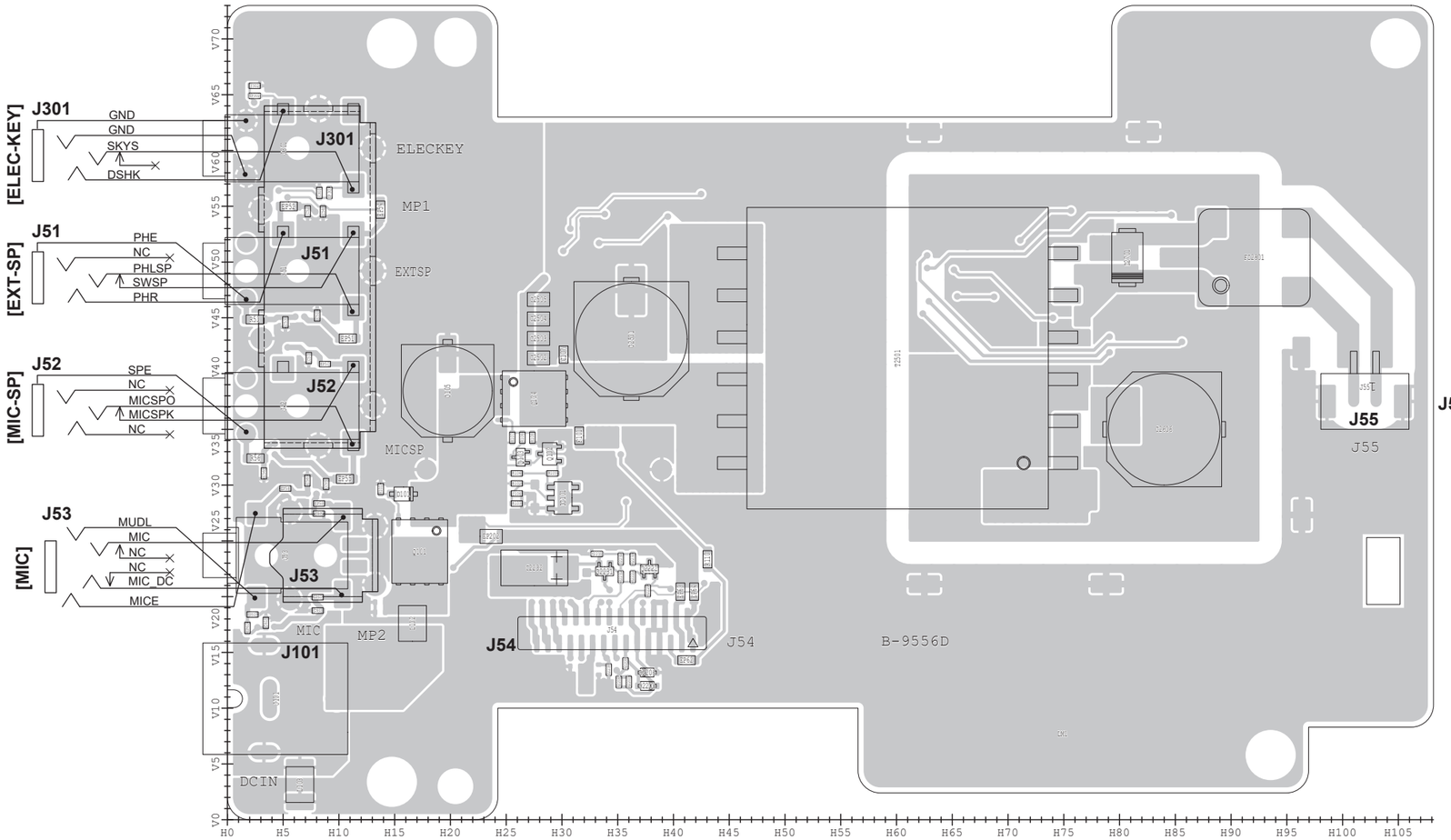
NOTE: Some parts may not be mounted on the PCB, depending on the transceiver version.

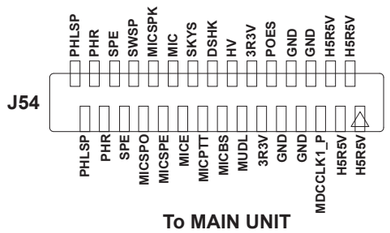
• **MAIN UNIT (B-9550D)**
(Bottom view)



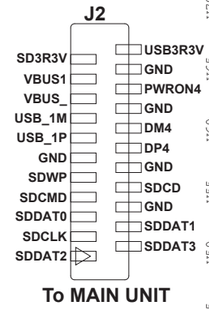
NOTE: Some parts may not be mounted on the PCB, depending on the transceiver version.

• **CONNECT-A UNIT (B-9556D)**
(Top view)

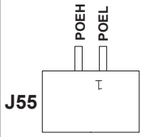




To MAIN UNIT

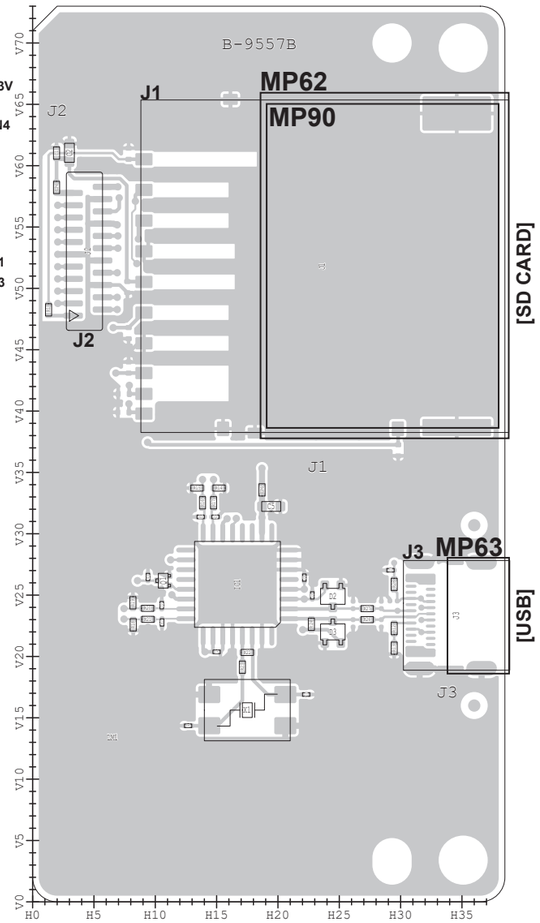


To MAIN UNIT

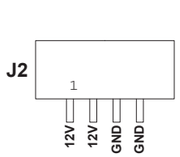


To MAIN UNIT

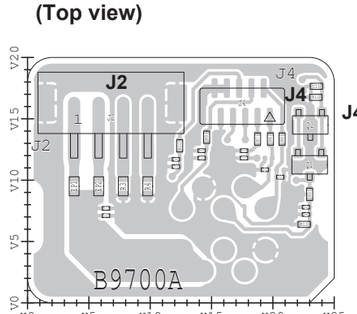
• **CONNECT-B UNIT (B-9557B)**
(Top view)

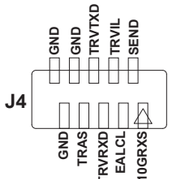


• **CONNECT-C UNIT (B-9700A)**
(Top view)



To RF-A UNIT

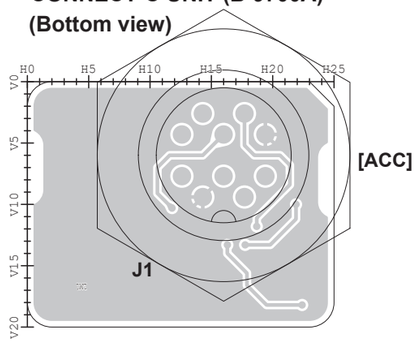




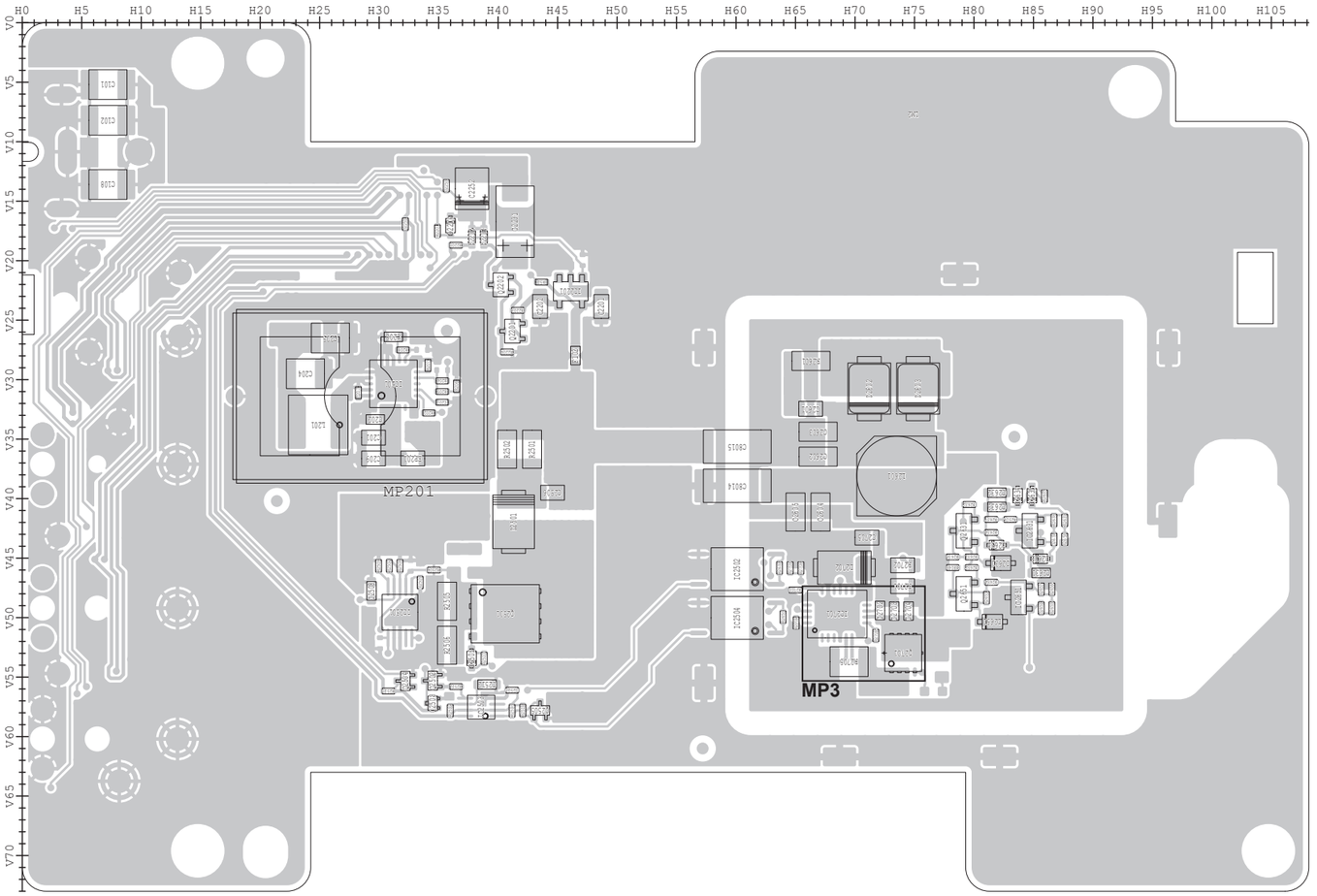
To RF-A UNIT

NOTE: Some parts may not be mounted on the PCB, depending on the transceiver version.

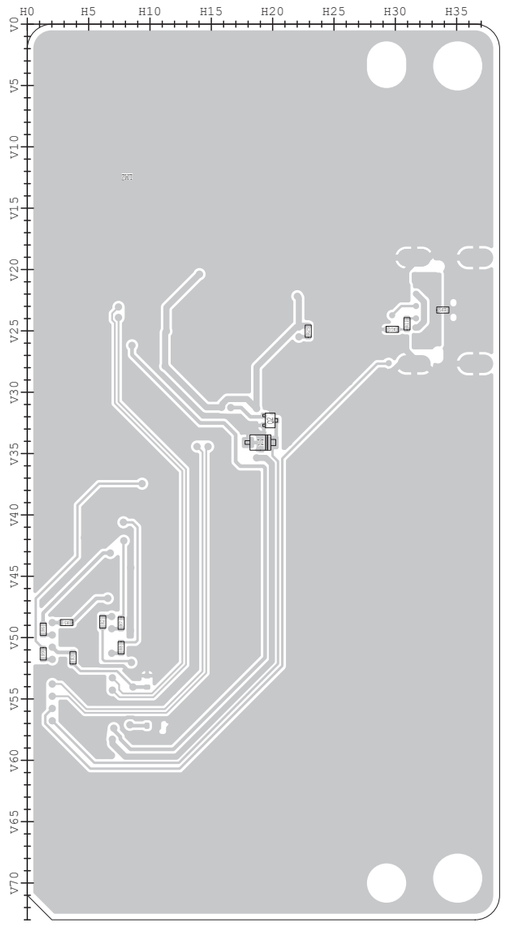
• **CONNECT-C UNIT (B-9700A)**
(Bottom view)



• **CONNECT-A UNIT (B-9556D)**
(Bottom view)

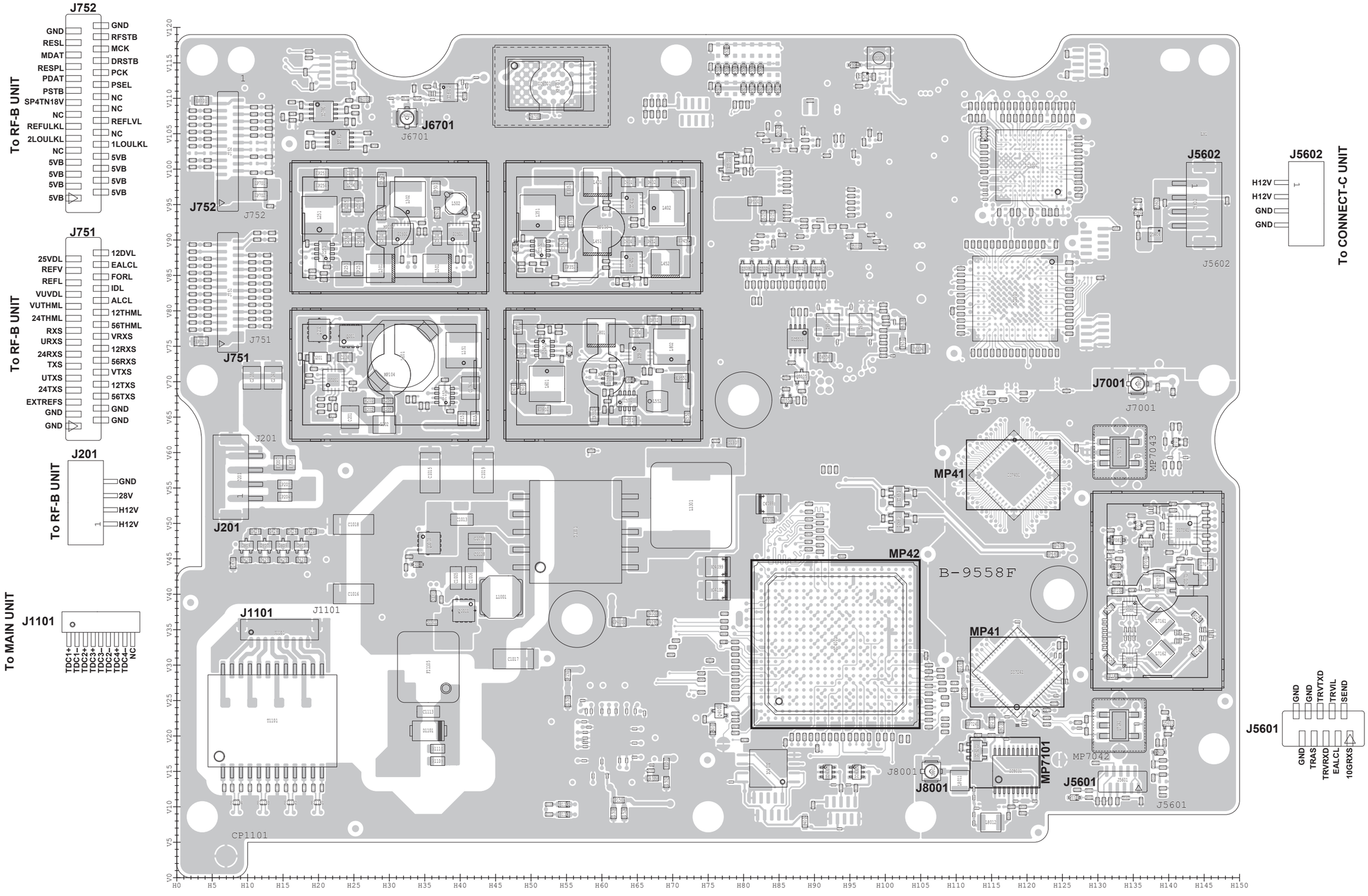


• **CONNECT-B UNIT (B-9557B)**
(Bottom view)



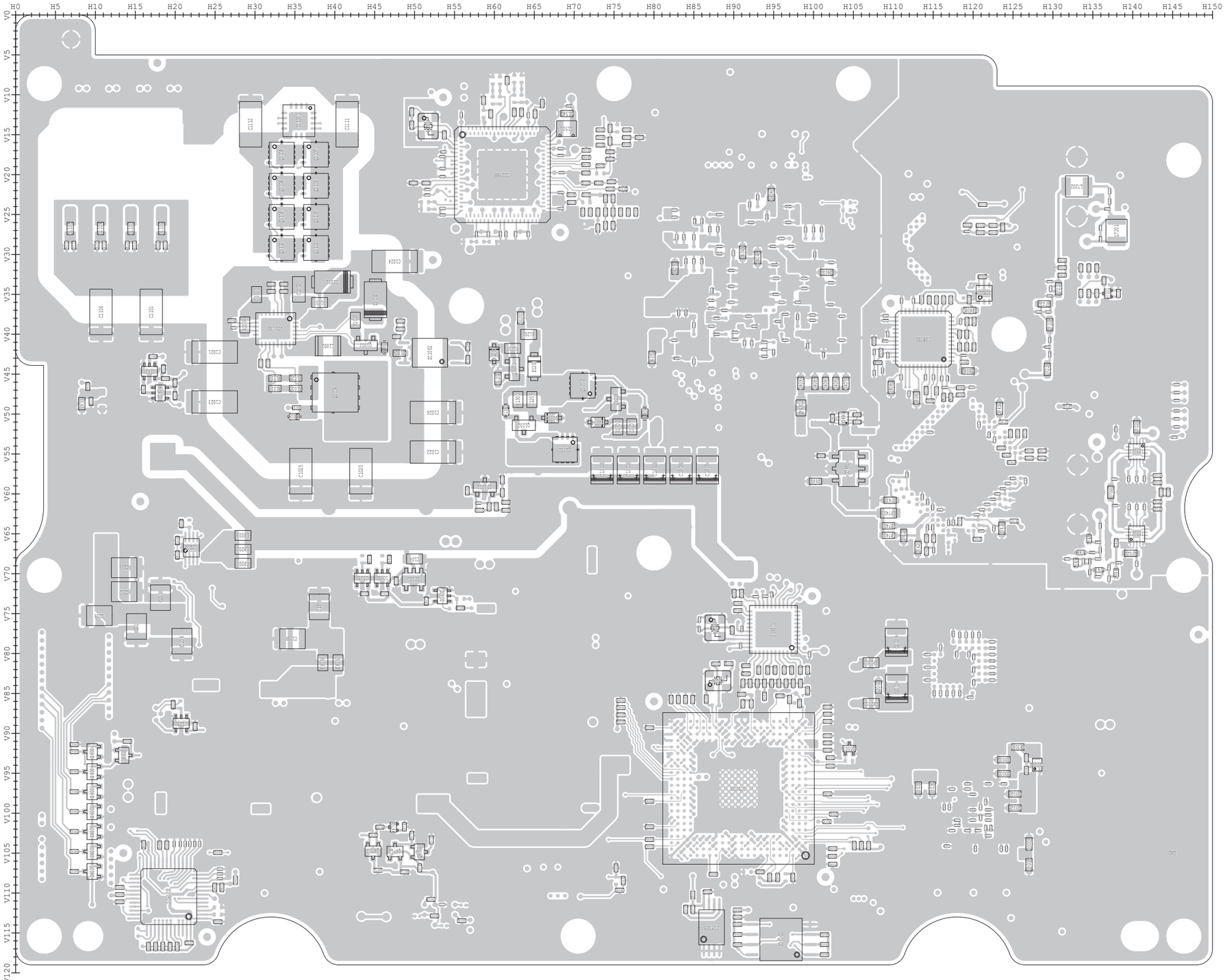
NOTE: Some parts may not be mounted on the PCB, depending on the transceiver version.

• **RF-A UNIT (B-9558F)**
(Top view)



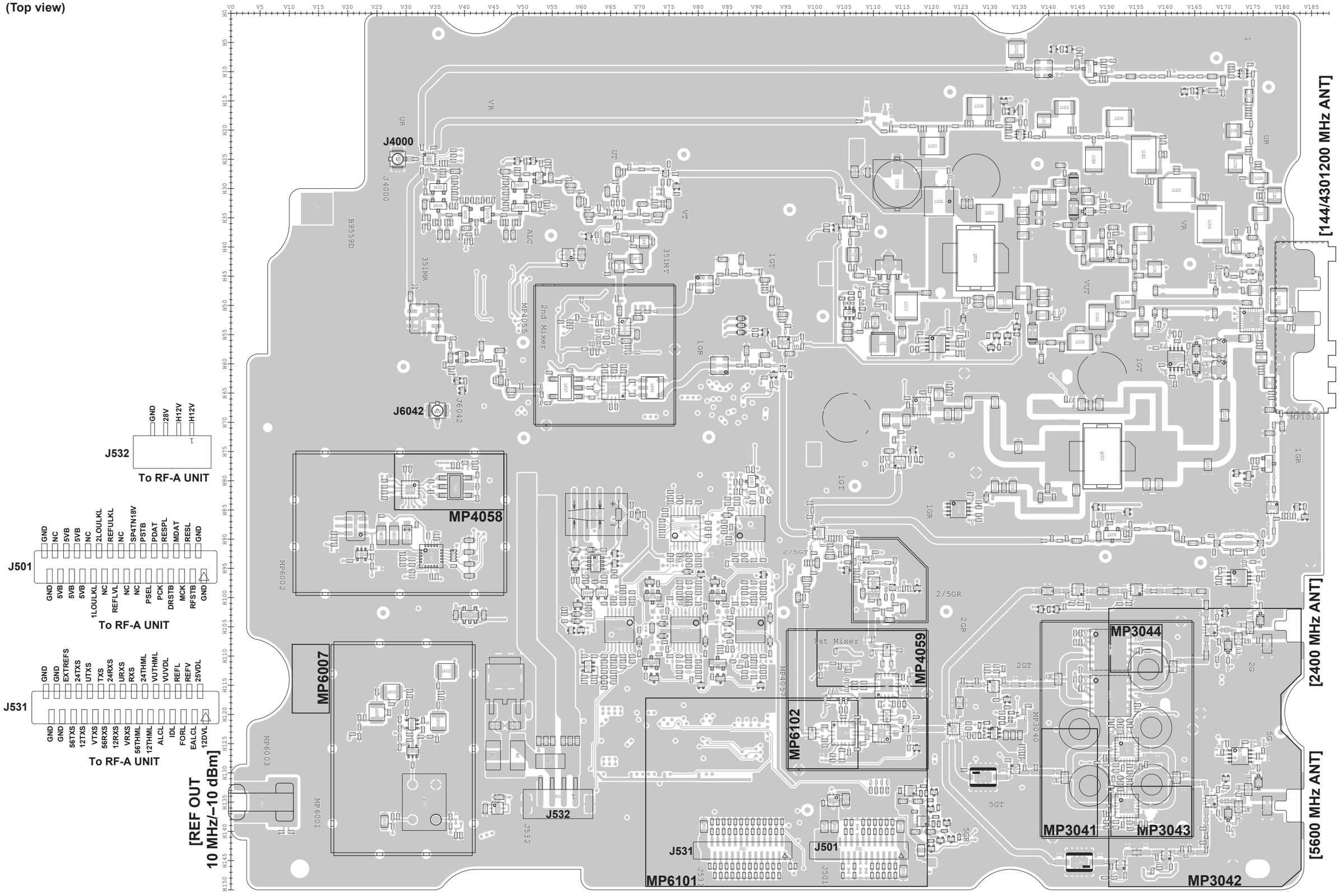
NOTE: Some parts may not be mounted on the PCB, depending on the transceiver version.

• **RF-A UNIT (B-9558F)**
(Bottom view)



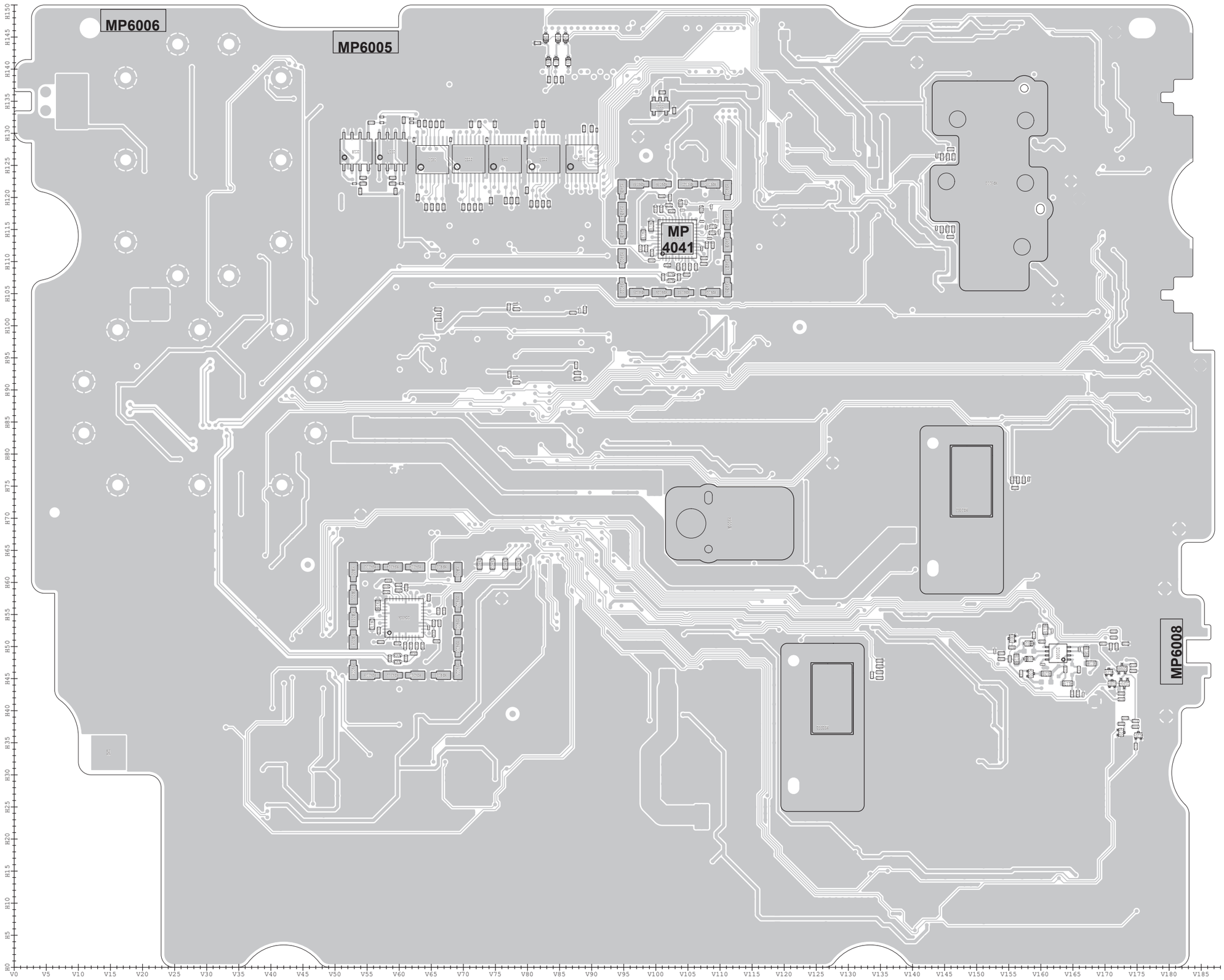
NOTE: Some parts may not be mounted on the PCB, depending on the transceiver version.

• **RF-B UNIT (B-9559D)**
(Top view)



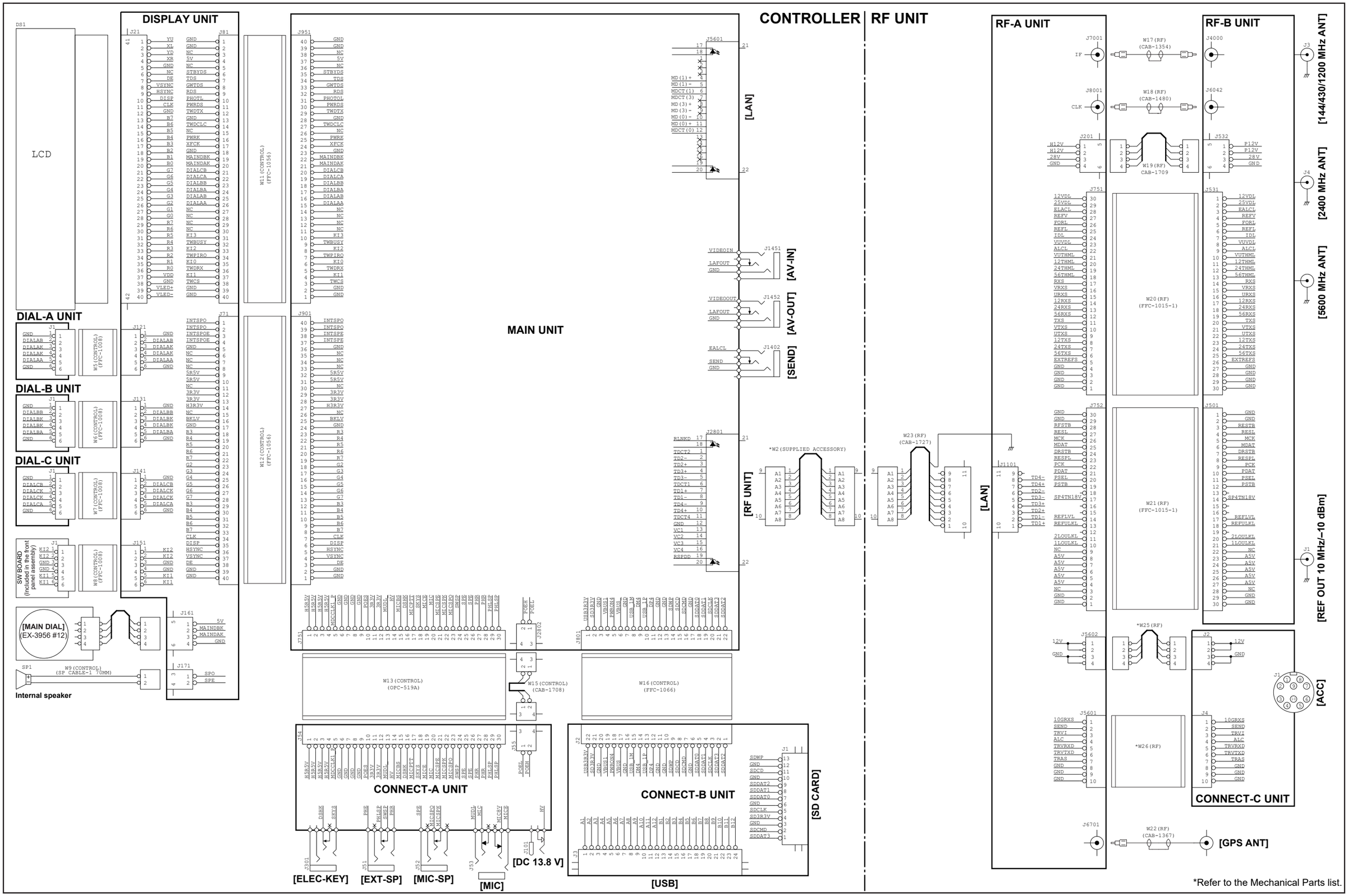
NOTE: Some parts may not be mounted on the PCB, depending on the transceiver version.

• **RF-B UNIT (B-9559D)**
(Bottom view)



NOTE: Some parts may not be mounted on the PCB, depending on the transceiver version.

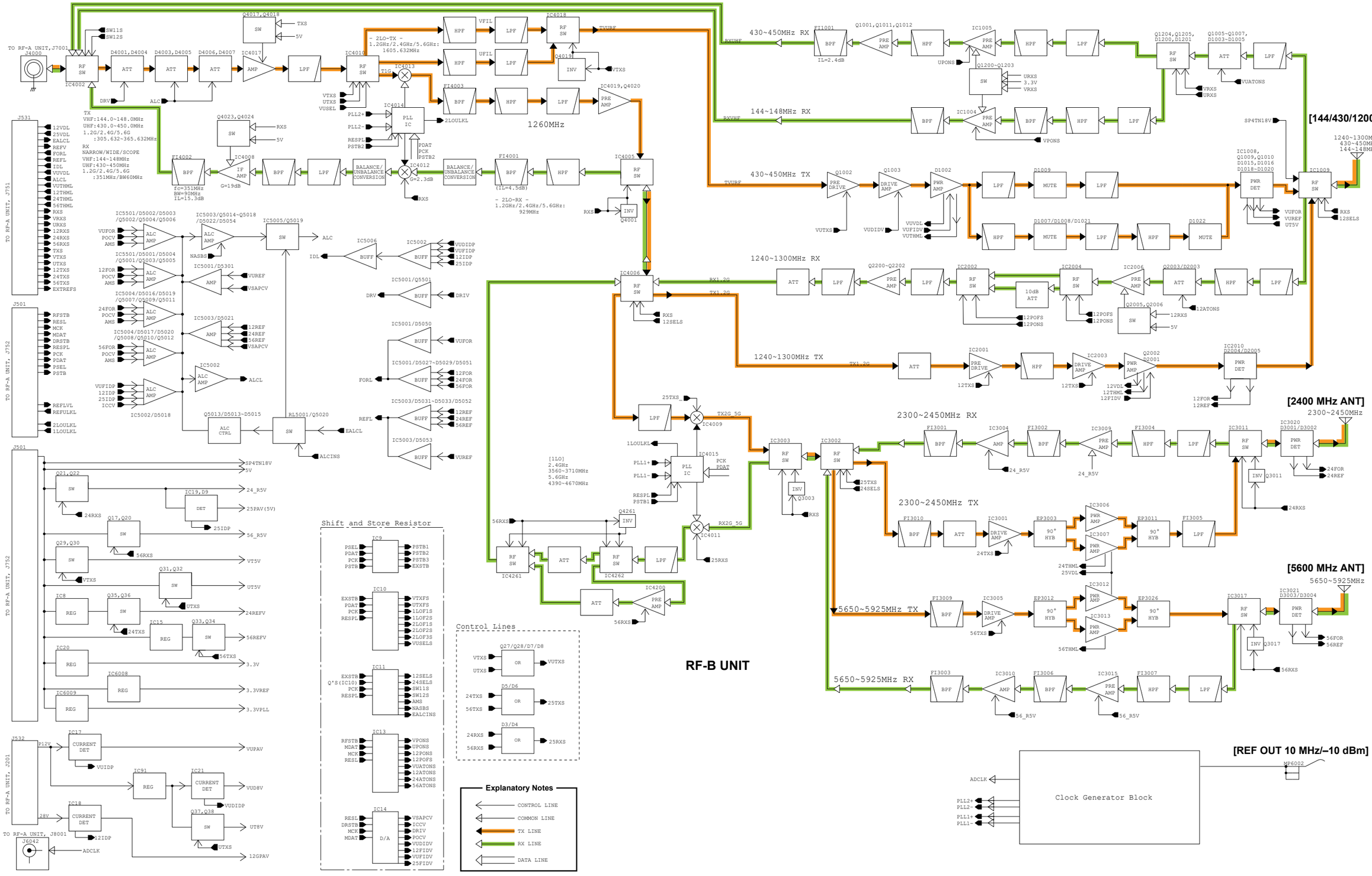
SECTION 9 GENERAL WIRING



*Refer to the Mechanical Parts list.

SECTION 10 BLOCK DIAGRAM

RF-B UNIT



RF-A UNIT

Power Supply Block

[ACC]

W25

ETHERNET HUB
IC1568

TRANS
T1101

PHY
IC6501

X6501

DV DSP
IC3001

FPGA
IC4001

FLASH ROM
IC4002

CPU
(For RF-A and RF-B)
IC5003

IF DSP
IC2001

SUB CPU
IC6001

Clock Buffering Block

RX ADC Block

TX DAC Block

VOLTAGE DET
IC5001

FLASH
IC5002

EEPROM
IC5005

RESET
IC5004

+1.3 REG
IC101

+3.3 REG
IC101

DIODE MATRIX
D5001~D5024

X5001

AMP
IC781

AMP
IC780

DC-DC
IC152

DC-DC
IC251

DC-DC
IC201,Q201,Q202,D201

GATE
IC151

GATE
IC252

GATE
IC202

DC-DC
IC352,D351

DC-DC
IC301

DC-DC
IC401

DC-DC
IC451

DC-DC
IC501

DC-DC
IC551

DC-DC
IC401,D601

+3.3 REG
IC661

DC-DC
IC801

DC-DC
IC603,IC604
D603~D608

GATE
IC602

+1.2 REG
IC681

DC-DC
IC691

+3.3 REG
IC651

+3.3 REG
IC6702

GPS MODULE
IC6701

AMP
IC6702

[GPS]
J6701

CTRL
Q4001

DS4001

RF SW
IC7181

BPF
fc=146MHz

BPF
fc=351MHz

BPF
fc=440MHz

RF SW
IC7101,Q7101

LIMIT
D7081,D7084,D7085

AMP
IC7071

SW
Q7072,Q7071

ATT
IC7041

RF SW
IC7022

LPF

ATT

RF SW
IC7021

From RF-B UNIT
J8001

TO RF-B UNIT
J7001

TO RF-B UNIT, J4000

SW
Q5605/Q5604

SEND OUT
Q5602,Q5603

PTT CTRL
Q5601

BUFF
Q5501,Q5503

BUFF
IC5501,
Q5504/Q5505/D5505

CONNECT-C UNIT

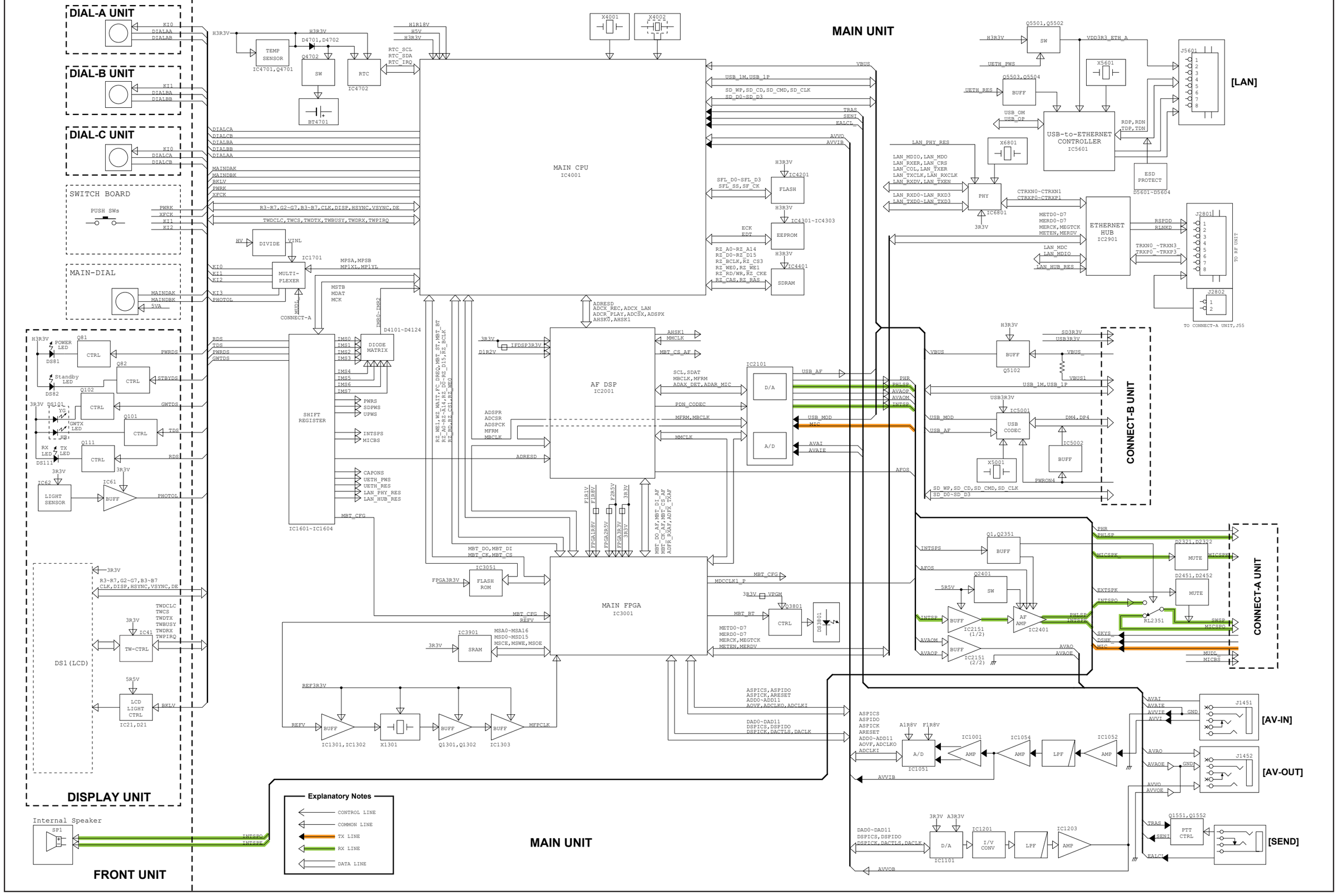
To CX-10G (Optional product)

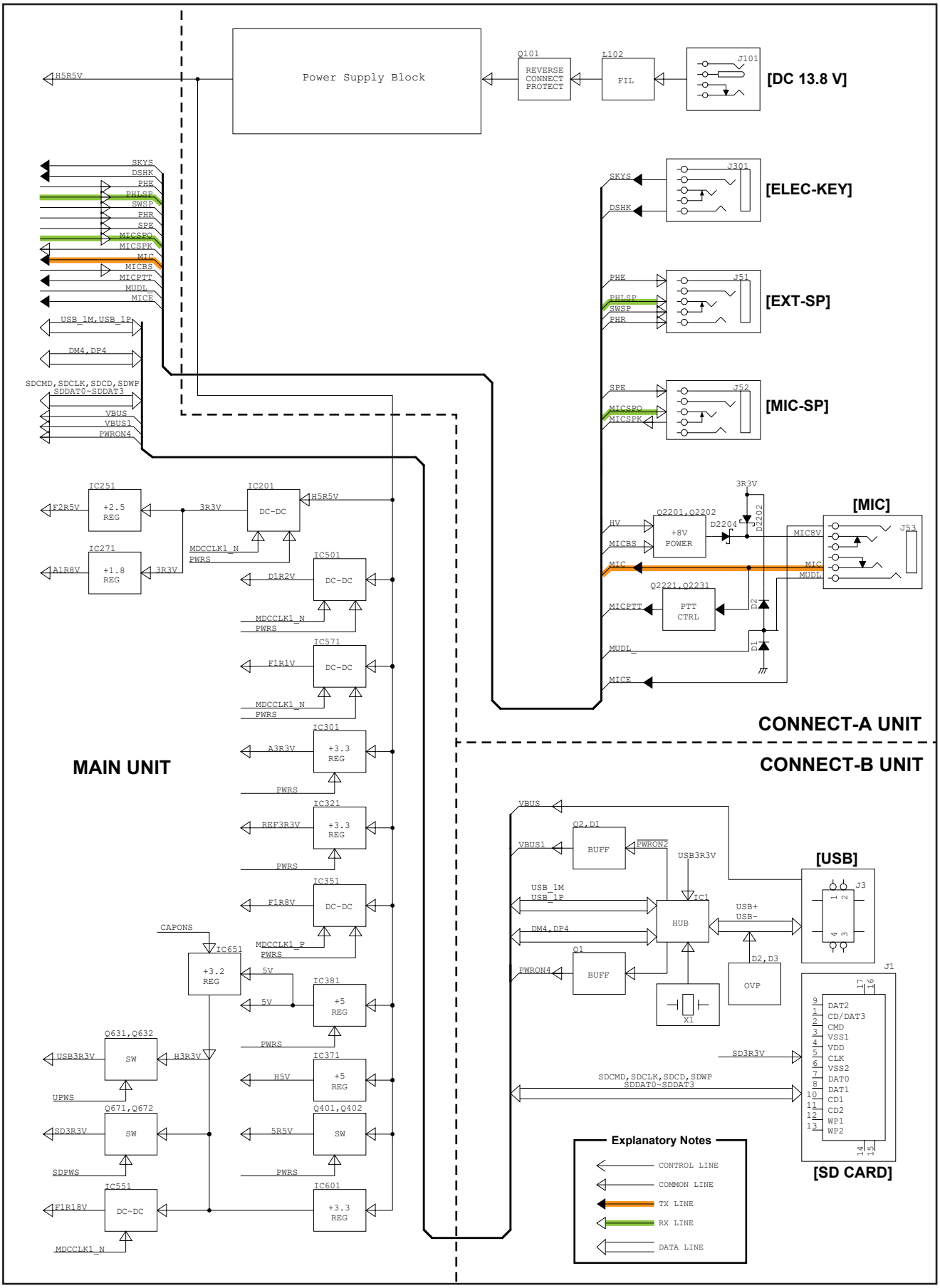
Explanatory Notes

- CONTROL LINE
- COMMON LINE
- TX LINE
- RX LINE
- DATA LINE

RX
NARROW/WIDE/SCOPE
VHF:144~148MHz
UHF:430~450MHz
1.2G/2.4G/5.6G:351MHz/BW60MHz

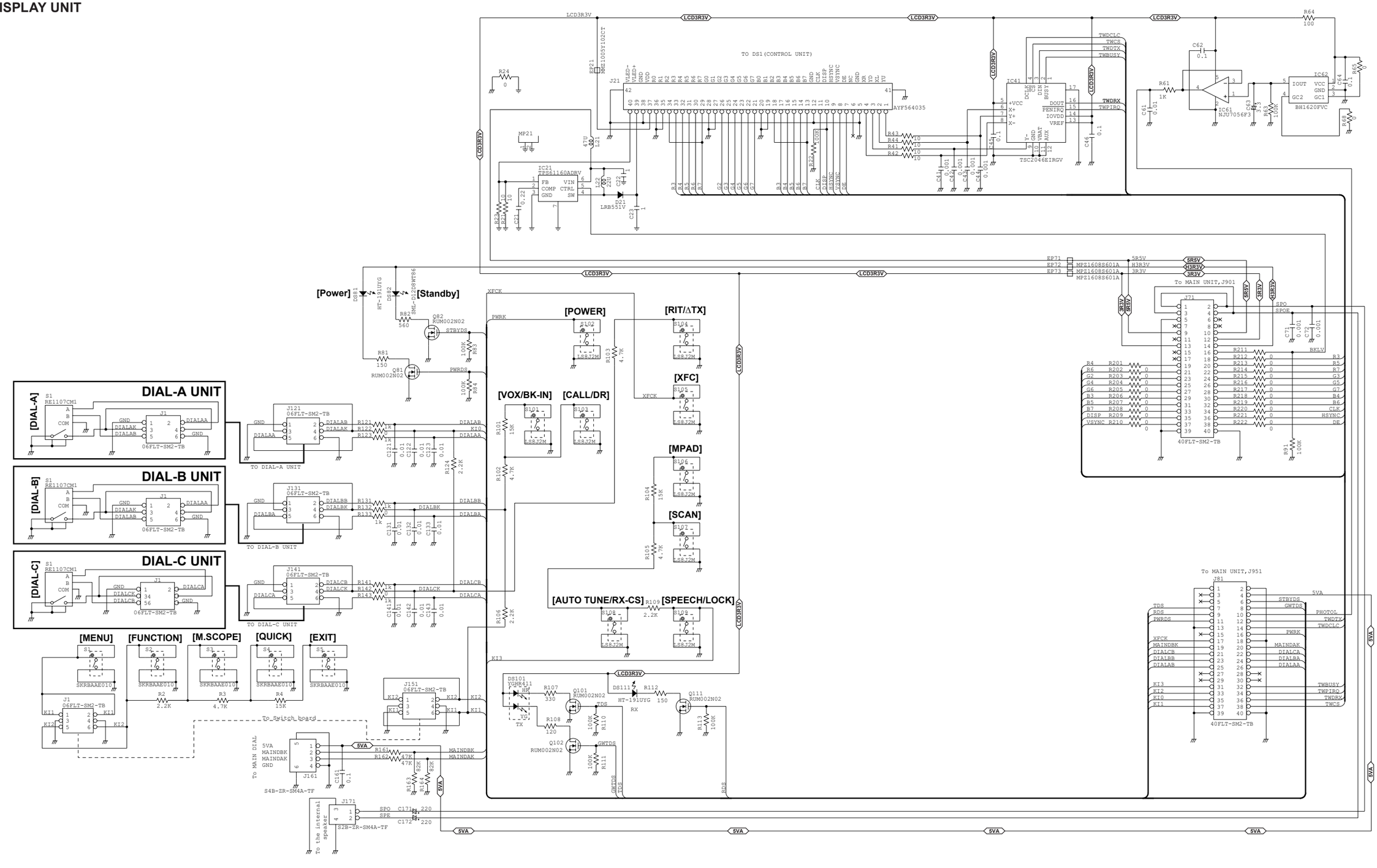
TX
VHF:144.0~148.0MHz
UHF:430.0~450.0MHz
1.2G/2.4G/5.6G:305.632~365.632MHz


DIAL-A UNIT
DIAL-B UNIT
DIAL-C UNIT
SWITCH BOARD
PUSH SWs
MAIN-DIAL
MAIN UNIT
MAIN CPU
IC4001
MAIN FPGA
IC3001
AF DSP
IC2001
SHIFT REGISTER
DIODE MATRIX
MULTI-PLEXER
DIVIDE
TEMP SENSOR
IC4701,Q4701
RTC
IC4702
BT4701
FLASH
IC4201
EEPROM
IC4301~IC4303
SDRAM
IC4401
FLASH ROM
IC3051
SRAM
IC3901
[LAN]
USB-to-ETHERNET CONTROLLER
IC5601
PHY
IC6801
ETHERNET HUB
IC2901
ESD PROTECT
D5601~D5604
TO CONNECT-A UNIT,J55
TO RF UNIT
CONNECT-B UNIT
CONNECT-A UNIT
[AV-IN]
[AV-OUT]
[SEND]
USB CODEC
IC5001
MUTE
AF AMP
IC2401
PTT CTRL
Q1551,Q1552
DISPLAY UNIT
DS1(LCD)
TW-CTRL
IC41
LCD LIGHT CTRL
IC21,D21
LIGHT SENSOR
IC62
FRONT UNIT
Internal Speaker
SP1
Explanatory Notes
CONTROL LINE
COMMON LINE
TX LINE
RX LINE
DATA LINE
MAIN UNIT

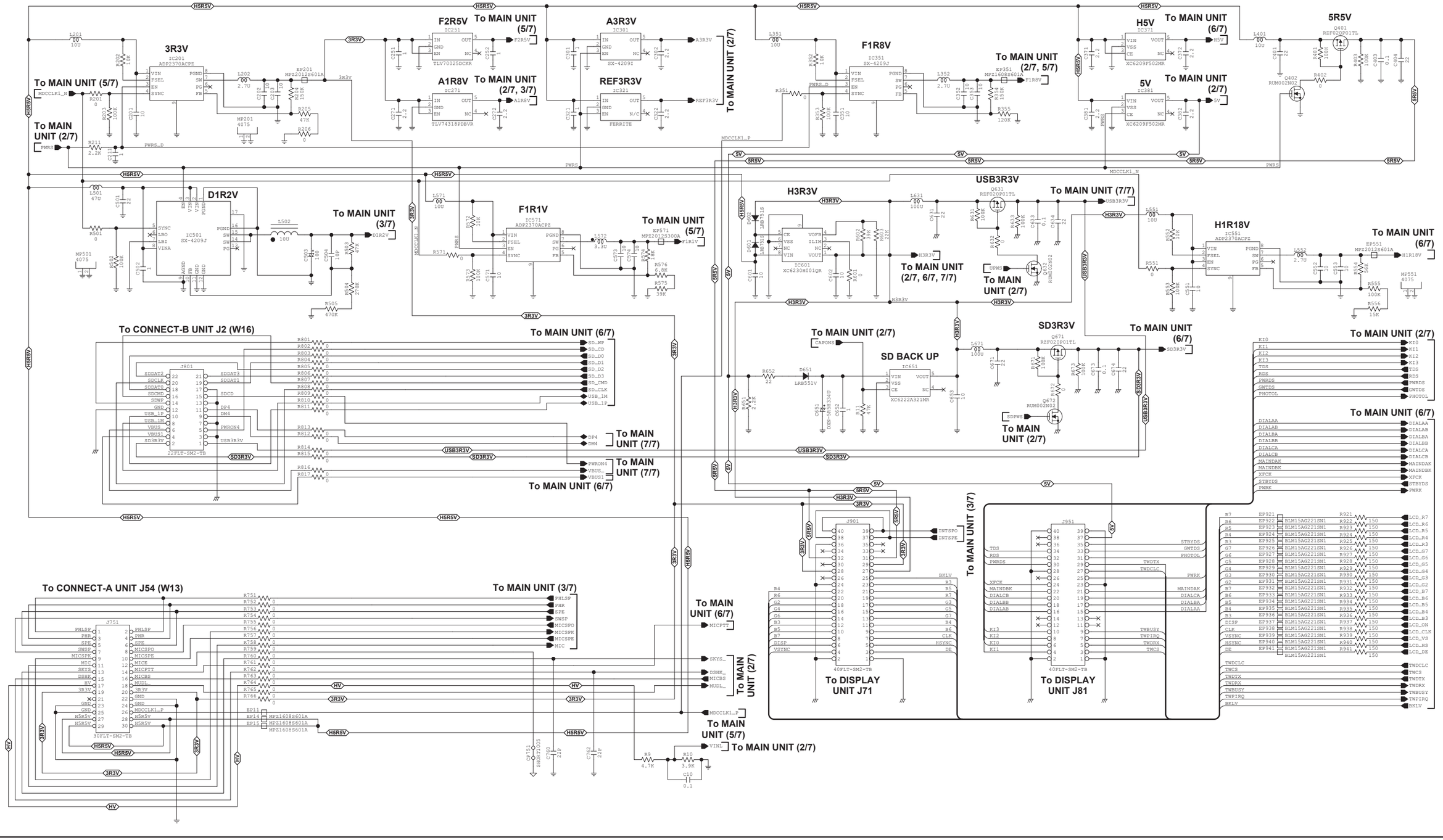

Power Supply Block
H5R5V
Q101
REVERSE CONNECT PROTECT
L102
FIL
J101
[DC 13.8 V]
SKYS
DSHK
PHE
PHLSP
SWSP
PHR
SPE
MICSPO
MICSPK
MIC
MICBS
MICPTT
MUDL_
MICE
USB_1M,USB_1P
DM4,DP4
SDCMD,SDCLK,SDCD,SDWP
SDDAT0~SDDAT3
VBUS
VBUS1
PWRON4
J301
[ELEC-KEY]
J51
[EXT-SP]
J52
[MIC-SP]
3R3V
Q2201,Q2202
D2204
D2202
+8V POWER
HV
MICBS
MIC
MUDL
MICPTT
MICE
PTT CTRL
Q2221,Q2231
D2
D1
MIC8V
J53
[MIC]
CONNECT-A UNIT
CONNECT-B UNIT
MAIN UNIT
IC251
+2.5 REG
F2R5V
IC201
DC-DC
IC271
+1.8 REG
A1R8V
MDCCLK1_N
PWRS
IC501
D1R2V
IC571
F1R1V
IC301
+3.3 REG
A3R3V
IC321
REF3R3V
IC351
F1R8V
CAPONS
IC651
+3.2 REG
MDCCLK1_P
5V
IC381
+5 REG
IC371
H5V
Q401,Q402
5R5V
SW
Q631,Q632
USB3R3V
H3R3V
UPWS
Q671,Q672
SD3R3V
SDPWS
IC551
F1R18V
DC-DC
IC601
VBUS
VBUS1
Q2,D1
BUFF
PWRON2
USB3R3V
[USB]
J3
USB_1M
USB_1P
DM4,DP4
IC1
HUB
USB+
USB-
Q1
PWRON4
D2,D3
OVP
X1
J1
SD3R3V
SDCMD,SDCLK,SDCD,SDWP
SDDAT0~SDDAT3
DAT2
CD/DAT3
CMD
VSS1
VDD
CLK
VSS2
DAT0
DAT1
CD1
CD2
WP1
WP2
[SD CARD]
Explanatory Notes
CONTROL LINE
COMMON LINE
TX LINE
RX LINE
DATA LINE

SECTION 11 SCHEMATIC DIAGRAM

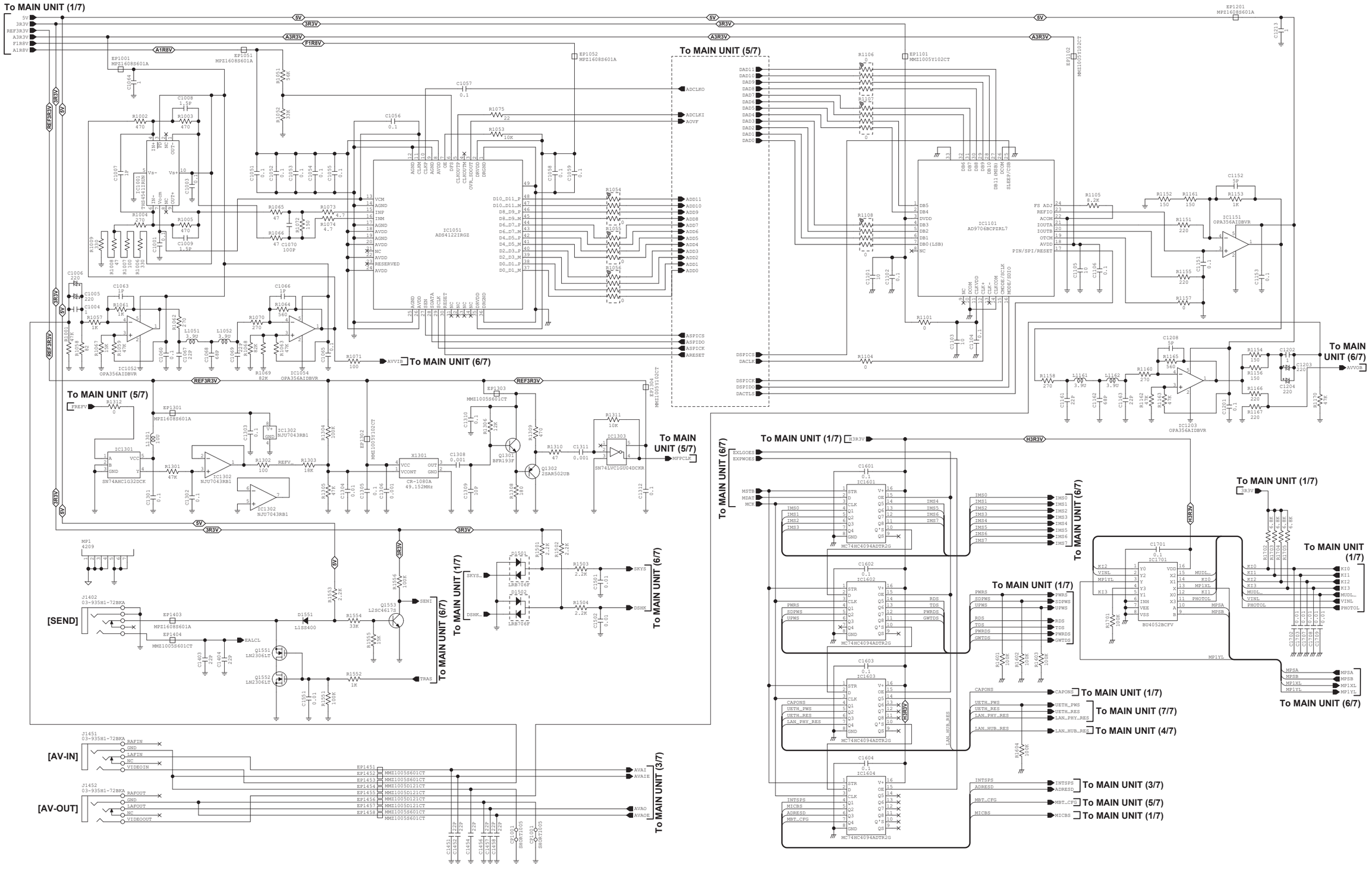
• DISPLAY UNIT



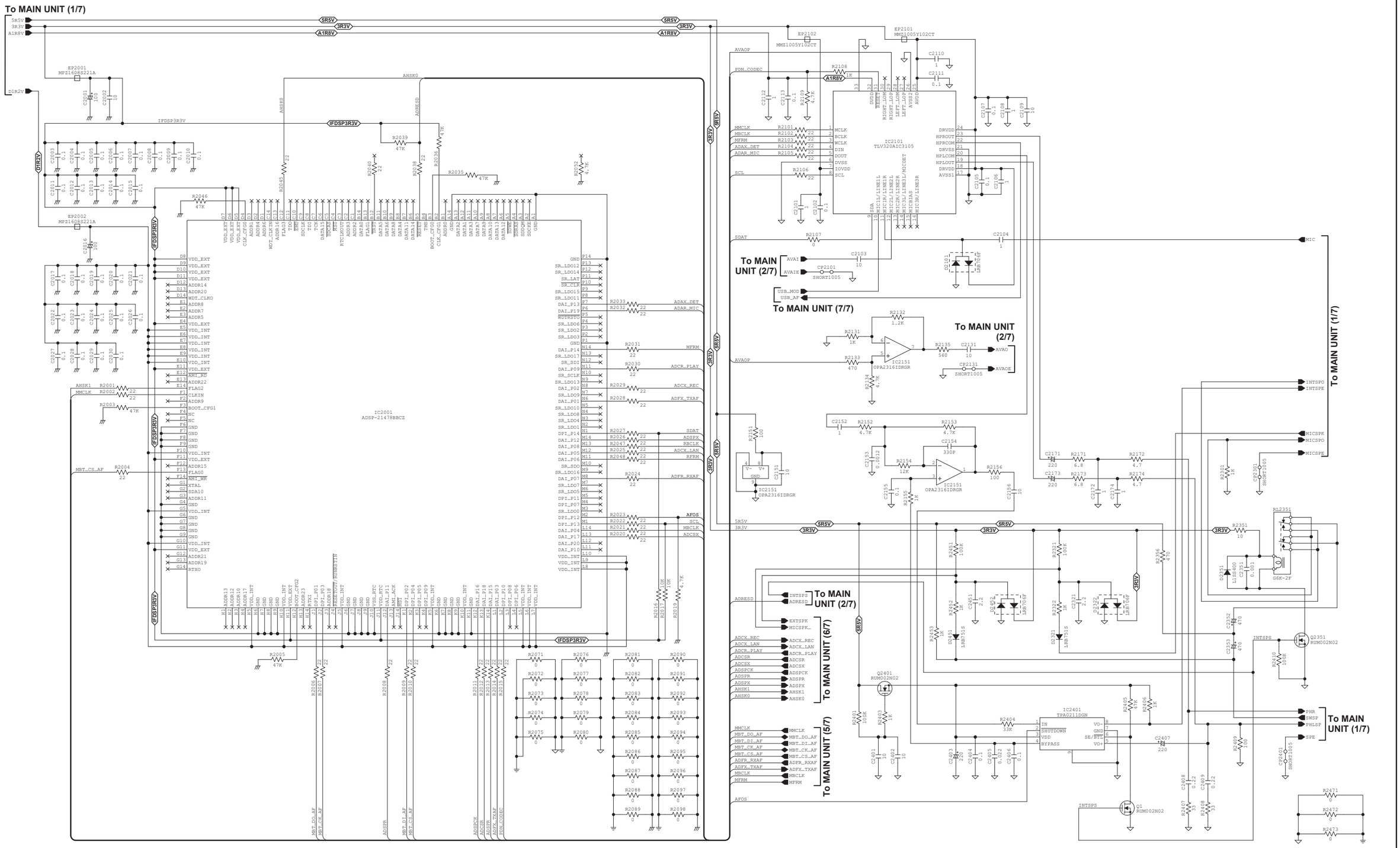
• MAIN UNIT (1/7)


3R3V
F2R5V
A3R3V
A1R8V
REF3R3V
F1R8V
H5V
5V
5R5V
D1R2V
F1R1V
H3R3V
USB3R3V
H1R18V
SD3R3V
SD BACK UP
To MAIN UNIT (5/7)
To MAIN UNIT (2/7)
To MAIN UNIT (3/7)
To MAIN UNIT (6/7)
To MAIN UNIT (7/7)
To MAIN UNIT (2/7, 3/7)
To MAIN UNIT (2/7, 5/7)
To MAIN UNIT (2/7, 6/7, 7/7)
To CONNECT-B UNIT J2 (W16)
To CONNECT-A UNIT J54 (W13)
To DISPLAY UNIT J71
To DISPLAY UNIT J81
To MAIN UNIT (5/7)
To MAIN UNIT (2/7)
To MAIN UNIT (6/7)
To MAIN UNIT (7/7)
To MAIN UNIT (3/7)
To MAIN UNIT (2/7)
To MAIN UNIT (5/7)
To MAIN UNIT (2/7)

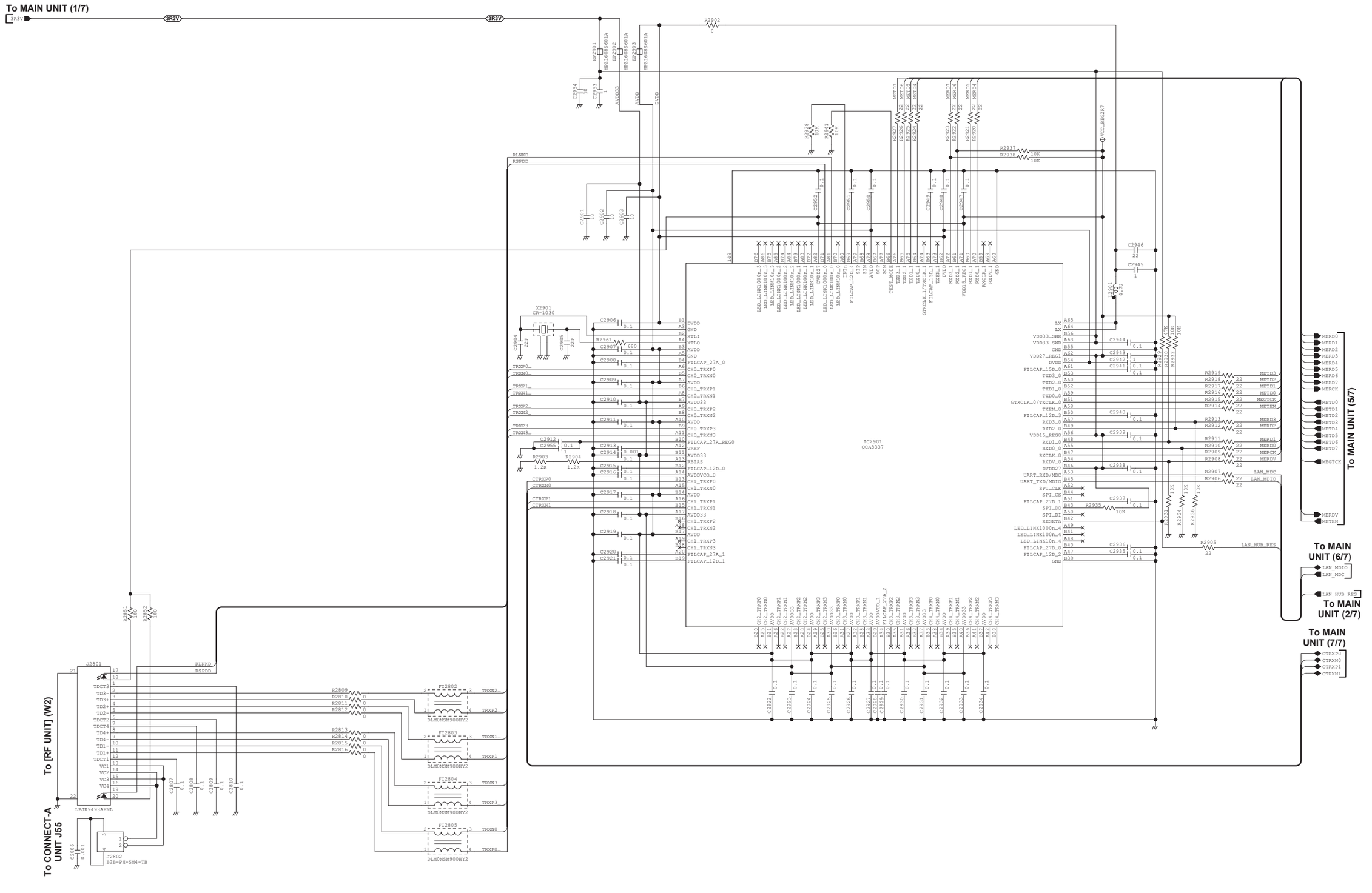
• MAIN UNIT (2/7)


To MAIN UNIT (1/7)
To MAIN UNIT (5/7)
To MAIN UNIT (6/7)
To MAIN UNIT (7/7)
To MAIN UNIT (4/7)
To MAIN UNIT (3/7)
To MAIN UNIT (1/7)
IC1051 ADS41221IRGZ
IC1101 AD9706BCPZRL7
IC1151 OPA356AIDBVR
IC1203 OPA356AIDBVR
IC1052 OPA356AIDBVR
IC1054 OPA356AIDBVR
IC1301 SN74AHC1G32DCK
IC1302 NJU7043RB1
IC1303 SN74LVC1GU04DCKR
X1301 CR-1080A 49.152MHz
Q1301 BFR193F
Q1302 2SAR502UB
Q1551 LN2306LT
Q1552 LN2306LT
Q1553 L2SC4617S
D1501 LRB706F
D1502 LRB706F
D1551 LLSS400
IC1601 MC74HC4094ADTR2G
IC1602 MC74HC4094ADTR2G
IC1603 MC74HC4094ADTR2G
IC1604 MC74HC4094ADTR2G
IC1701 BU4052BCFV
[SEND]
[AV-IN]
[AV-OUT]

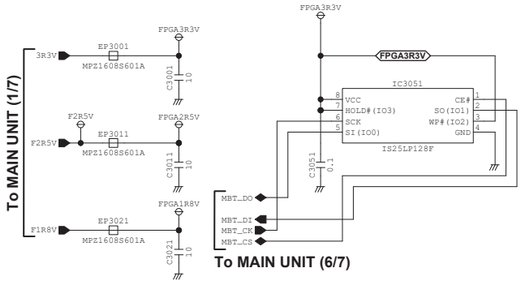
• MAIN UNIT (3/7)

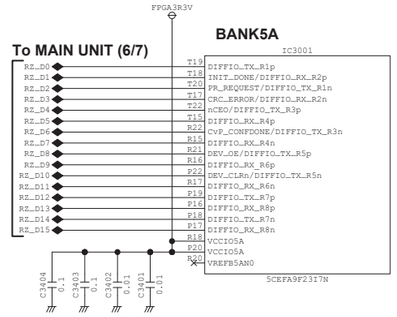

To MAIN UNIT (1/7)
5R5V
3R3V
A1R8V
D1R2V
IFDSP3R3V
AHSK0
AHSK1
MMCLK
MBT_CS_AF
IC2001
ADSP-21478BBCZ
IC2101
TLV320AIC3105
EP2001
EP2002
EP2101
EP2102
MMZ1005Y102CT
MPZ1608S221A
AVAOP
PDN_CODEC
SDAT
SCL
To MAIN UNIT (2/7)
To MAIN UNIT (7/7)
To MAIN UNIT (2/7)
To MAIN UNIT (1/7)
To MAIN UNIT (6/7)
To MAIN UNIT (5/7)
To MAIN UNIT (1/7)
MIC
INTSPO
INTSPE
MICSPK
MICSPO
MICSPE
RL2351
G6K-2F
Q2351
RUM002N02
Q2401
RUM002N02
Q1
RUM002N02
IC2401
TPA2211DGN
IC2151
OPA2316IDRGR
CP2101
SHORT1005
D2101
1SR70-6F
D2121
1SR751S
D2131
1SR70-6F
D2232
1SR70-6F
D2451
1SR751S
D2452
1SR70-6F
ADAX_DET
ADAR_MIC
MFRM
ADCR_PLAY
ADCX_REC
SDAT
RBCLK
ADCX_LAN
RFRM
ADFR_RXAF
AFOS
SCS
MBCLK
ADCSX
ADSPX
ADSPR
ADSPCK
ADFX_TXAF
MBT_DO_AF
MBT_CK_AF
MBT_D1_AF
MBT_CS_AF
PDN_CODEC
INTSPS
ADRESD
EXTSPK
MICSPK
PHR
PHSP
SPE

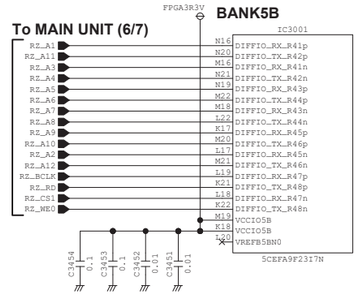
• MAIN UNIT (4/7)

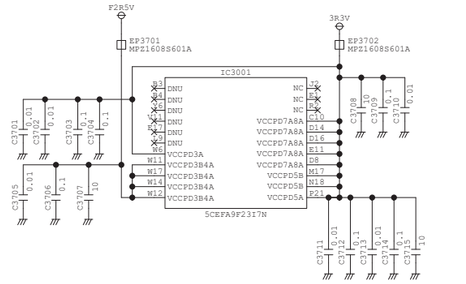

To MAIN UNIT (1/7)
3R3V
IC2901
QCA8337
X2901
CR-1030
J2801
LFJK9493AHNL
J2802
B2B-PH-SM4-TB
DLM0NSM900HY2
To [RF UNIT] (W2)
To CONNECT-A UNIT J55
To MAIN UNIT (5/7)
To MAIN UNIT (6/7)
To MAIN UNIT (2/7)
To MAIN UNIT (7/7)

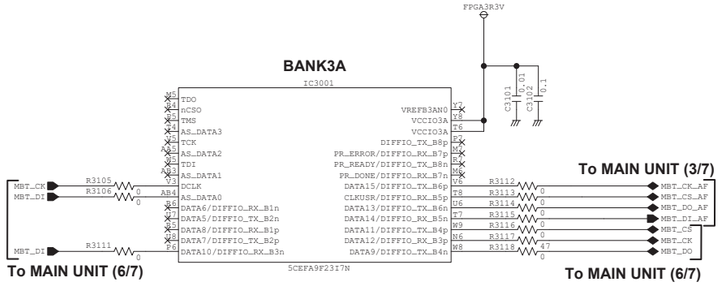
• MAIN UNIT (5/7)

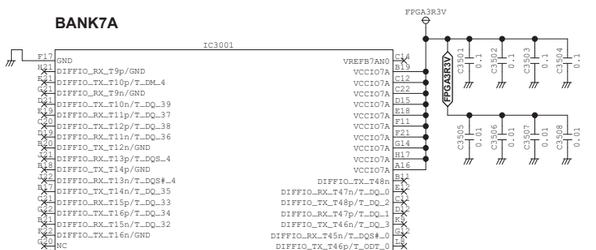

To MAIN UNIT (1/7)
FPGA3R3V
FPGA2R5V
FPGA1R8V
EP3001
EP3011
EP3021
MPZ1608S601A
C3001
C3011
C3021
3R3V
F2R5V
F1R8V
FPGA3R3V
IC3051
VCC
HOLD#(IO3)
SCK
SI(IO0)
CE#
SO(IO1)
WP#(IO2)
GND
IS25LP128F
C3051
0.1
MBT_DO
MBT_DI
MBT_CK
MBT_CS
To MAIN UNIT (6/7)

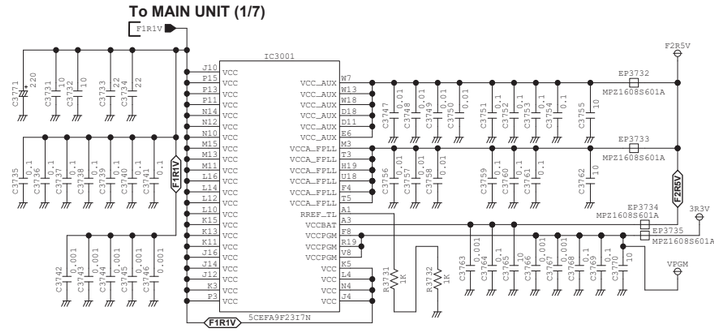

FPGA3R3V
BANK5A
To MAIN UNIT (6/7)
IC3001
RZ_D0
RZ_D1
RZ_D2
RZ_D3
RZ_D4
RZ_D5
RZ_D6
RZ_D7
RZ_D8
RZ_D9
RZ_D10
RZ_D11
RZ_D12
RZ_D13
RZ_D14
RZ_D15
DIFFIO_TX_R1p
INIT_DONE/DIFFIO_RX_R2p
PR_REQUEST/DIFFIO_TX_R1n
CRC_ERROR/DIFFIO_RX_R2n
nCEO/DIFFIO_TX_R3p
DIFFIO_RX_R4p
Cvp_CONFDONE/DIFFIO_TX_R3n
DIFFIO_RX_R4n
DEV_OE/DIFFIO_TX_R5p
DIFFIO_RX_R6p
DEV_CLRn/DIFFIO_TX_R5n
DIFFIO_RX_R6n
DIFFIO_TX_R7p
DIFFIO_RX_R8p
DIFFIO_TX_R7n
DIFFIO_RX_R8n
VCCIO5A
VCCIO5A
VREFB5AN0
5CEFA9F2317N
C3404
C3403
C3402
C3401
0.1
0.01
0.01
0.1

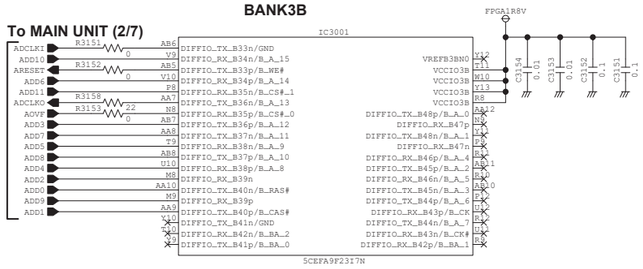

FPGA3R3V
BANK5B
To MAIN UNIT (6/7)
IC3001
RZ_A1
RZ_A11
RZ_A2
RZ_A4
RZ_A5
RZ_A6
RZ_A7
RZ_A8
RZ_A9
RZ_A10
RZ_A3
RZ_A12
RZ_BCLK
RZ_RA
RZ_CS1
RZ_WE0
DIFFIO_RX_R41p
DIFFIO_TX_R42p
DIFFIO_RX_R41n
DIFFIO_TX_R42n
DIFFIO_RX_R43p
DIFFIO_TX_R44p
DIFFIO_RX_R43n
DIFFIO_TX_R44n
DIFFIO_RX_R45p
DIFFIO_TX_R46p
DIFFIO_RX_R45n
DIFFIO_TX_R46n
DIFFIO_RX_R47p
DIFFIO_TX_R48p
DIFFIO_RX_R47n
DIFFIO_TX_R48n
VCCIO5B
VCCIO5B
VREFB5BN0
5CEFA9F2317N
C3454
C3453
C3452
C3451
0.1
0.01
0.01
0.1

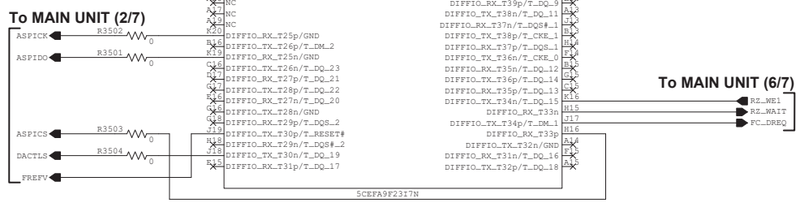

F2R5V
3R3V
EP3701
MPZ1608S601A
EP3702
MPZ1608S601A
IC3001
DNU
VCCPD3A
VCCPD3B4A
VCCPD5B
VCCPD5A
VCCPD7A8A
5CEFA9F2317N
C3701
C3702
C3703
C3704
C3705
C3706
C3707
C3708
C3709
C3710
C3711
C3712
C3713
C3714
C3715

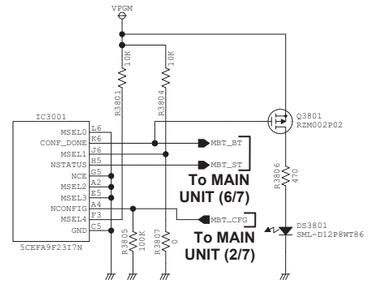

FPGA3R3V
BANK3A
IC3001
TDO
nCSO
TMS
AS_DATA3
TCK
AS_DATA2
TDI
AS_DATA1
DCLK
AS_DATA0
DATA6/DIFFIO_RX_B1n
DATA5/DIFFIO_TX_B2n
DATA8/DIFFIO_RX_B1p
DATA7/DIFFIO_TX_B2p
DATA10/DIFFIO_RX_B3n
VREFB3AN0
VCCIO3A
VCCIO3A
DIFFIO_TX_B8p
PR_ERROR/DIFFIO_RX_B7p
PR_READY/DIFFIO_TX_B8n
PR_DONE/DIFFIO_RX_B7n
DATA15/DIFFIO_TX_B6p
CLKUSR/DIFFIO_RX_B5p
DATA13/DIFFIO_TX_B6n
DATA14/DIFFIO_RX_B5n
DATA11/DIFFIO_TX_B4p
DATA12/DIFFIO_RX_B3p
DATA9/DIFFIO_TX_B4n
5CEFA9F2317N
C3101
C3102
0.01
0.1
MBT_CK
MBT_DI
R3105
R3106
R3111
To MAIN UNIT (6/7)
R3112
R3113
R3114
R3115
R3116
R3117
R3118
MBT_CK_AF
MBT_CS_AF
MBT_DO_AF
MBT_DI_AF
MBT_CS
MBT_CK
MBT_DO
To MAIN UNIT (3/7)
To MAIN UNIT (6/7)

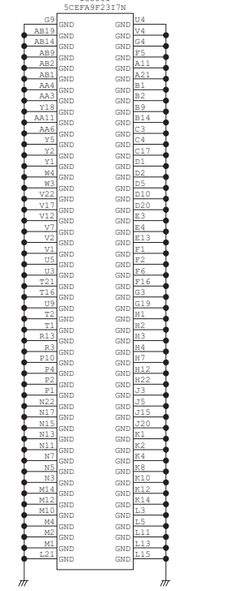

FPGA3R3V
BANK7A
IC3001
GND
DIFFIO_RX_T9p/GND
DIFFIO_TX_T10p/T_DM_4
DIFFIO_RX_T9n/GND
DIFFIO_TX_T10n/T_DQ_39
DIFFIO_RX_T11p/T_DQ_37
DIFFIO_TX_T12p/T_DQ_38
DIFFIO_RX_T11n/T_DQ_36
DIFFIO_TX_T12n/GND
DIFFIO_RX_T13p/T_DQS#_4
DIFFIO_TX_T14p/GND
DIFFIO_RX_T13n/T_DQS#_4
DIFFIO_TX_T14n/T_DQ_35
DIFFIO_RX_T15p/T_DQ_33
DIFFIO_TX_T16p/T_DQ_34
DIFFIO_RX_T15n/T_DQ_32
DIFFIO_TX_T16n/GND
VREFB7AN0
VCCIO7A
VCCIO7A
VCCIO7A
VCCIO7A
VCCIO7A
VCCIO7A
VCCIO7A
VCCIO7A
DIFFIO_TX_T48n
DIFFIO_RX_T47n/T_DQ_0
DIFFIO_TX_T48p/T_DQ_1
DIFFIO_RX_T47p/T_DQ_1
DIFFIO_TX_T46n/T_DQ_3
DIFFIO_RX_T45n/T_DQS#_0
DIFFIO_TX_T46p/T_ODT_0
DIFFIO_RX_T45p/T_DQS_0
DIFFIO_TX_T44n/T_ODT_1
DIFFIO_RX_T43n/T_DQ_4
DIFFIO_TX_T44p/T_DQ_6
DIFFIO_RX_T43p/T_DQ_5
DIFFIO_TX_T42n/T_DQ_7
DIFFIO_RX_T41n
DIFFIO_TX_T42p/T_DM_0
DIFFIO_RX_T41p
DIFFIO_TX_T40n/GND
DIFFIO_RX_T39n/T_DQ_8
DIFFIO_TX_T40p/T_DQ_10
DIFFIO_RX_T39p/T_DQ_9
DIFFIO_TX_T38n/T_DQ_11
DIFFIO_RX_T37n/T_DQS#_1
DIFFIO_TX_T38p/T_CKE_1
DIFFIO_RX_T37p/T_DQS_1
DIFFIO_TX_T36n/T_CKE_0
DIFFIO_RX_T35n/T_DQ_12
DIFFIO_TX_T36p/T_DQ_14
DIFFIO_RX_T35p/T_DQ_13
DIFFIO_TX_T34n/T_DQ_15
DIFFIO_RX_T33n
DIFFIO_TX_T34p/T_DM_1
DIFFIO_RX_T33p
DIFFIO_TX_T32n/GND
DIFFIO_RX_T31n/T_DQ_16
DIFFIO_TX_T32p/T_DQ_18
5CEFA9F2317N
C3501
C3502
C3503
C3504
C3505
C3506
C3507
C3508
0.1
0.01
0.01
0.01
To MAIN UNIT (6/7)
RZ_WE1
RZ_WAIT
FC_DREQ

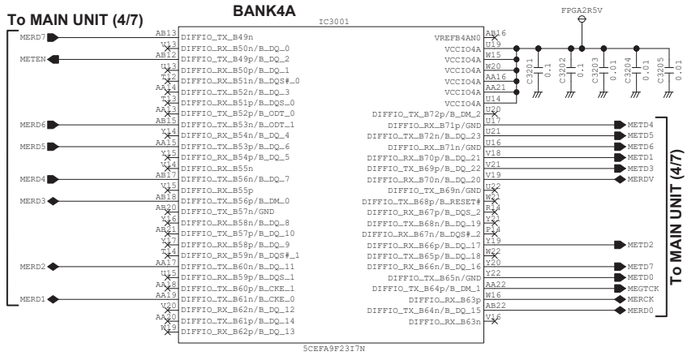

To MAIN UNIT (1/7)
F1R1V
IC3001
VCC
VCC_AUX
VCCA_FPLL
VCCRF_TL
VCCBAT
VCCPGM
VCCPD3A
VCCPD3B4A
VCCPD5B
VCCPD5A
VCCPD7A8A
5CEFA9F2317N
C3721
C3731
C3732
C3733
C3734
C3735
C3736
C3737
C3738
C3739
C3740
C3741
C3742
C3743
C3744
C3745
C3746
C3747
C3748
C3749
C3750
C3751
C3752
C3753
C3754
C3755
C3756
C3757
C3758
C3759
C3760
C3761
C3762
C3763
C3764
C3765
C3766
C3767
C3768
C3769
C3770
F2R5V
EP3732
MPZ1608S601A
EP3733
MPZ1608S601A
EP3734
MPZ1608S601A
EP3735
MPZ1608S601A
3R3V
VPGM
R3720
1K
R3721
1K

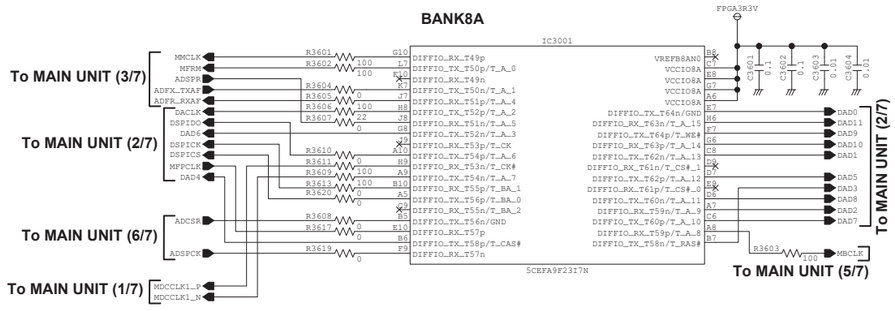

BANK3B
To MAIN UNIT (2/7)
IC3001
ADCLK
ADD10
ARESET
ADD6
ADD11
ADCLKO
AOVF
ADD3
ADD7
ADD5
ADD8
ADD4
ADD2
ADD0
ADD9
ADD1
R3151
R3152
R3158
R3153
22
DIFFIO_TX_B33n/GND
DIFFIO_RX_B34n/B_A_15
DIFFIO_TX_B33p/B_WE#
DIFFIO_RX_B34p/B_A_14
DIFFIO_RX_B35n/B_CS#_1
DIFFIO_TX_B36n/B_A_13
DIFFIO_RX_B35p/B_CS#_0
DIFFIO_TX_B36p/B_A_12
DIFFIO_TX_B37n/B_A_11
DIFFIO_RX_B38n/B_A_9
DIFFIO_TX_B37p/B_A_10
DIFFIO_RX_B38p/B_A_8
DIFFIO_RX_B39n
DIFFIO_TX_B40n/B_RAS#
DIFFIO_RX_B39p
DIFFIO_TX_B40p/B_CAS#
DIFFIO_TX_B41n/GND
DIFFIO_RX_B42n/B_BA_2
DIFFIO_TX_B41p/B_BA_0
VREFB3BN0
VCCIO3B
VCCIO3B
VCCIO3B
VCCIO3B
DIFFIO_TX_B48p/B_A_0
DIFFIO_RX_B47p
DIFFIO_TX_B48n/B_A_1
DIFFIO_RX_B47n
DIFFIO_RX_B46p/B_A_5
DIFFIO_TX_B45n/B_A_3
DIFFIO_TX_B44p/B_A_6
DIFFIO_RX_B43p/B_CK
DIFFIO_TX_B44n/B_A_7
DIFFIO_RX_B43n/B_CKE#
DIFFIO_RX_B42p/B_BA_1
5CEFA9F2317N
FPGA1R8V
C3154
C3153
C3152
C3151
0.01
0.01
0.1
0.1

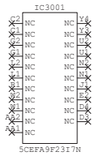

To MAIN UNIT (2/7)
ASPICK
ASPIDO
ASPICS
DACTLS
FREFV
R3502
R3501
R3503
R3504
IC3001
DIFFIO_RX_T25p/GND
DIFFIO_TX_T26p/T_DM_2
DIFFIO_RX_T25n/GND
DIFFIO_TX_T26n/T_DQ_23
DIFFIO_RX_T27p/T_DQ_21
DIFFIO_TX_T28p/T_DQ_22
DIFFIO_RX_T27n/T_DQ_20
DIFFIO_TX_T28n/GND
DIFFIO_RX_T29p/T_DQS_2
DIFFIO_TX_T30p/T_RESET#
DIFFIO_RX_T29n/T_DQS#_2
DIFFIO_TX_T30n/T_DQ_19
DIFFIO_RX_T31p/T_DQ_17
5CEFA9F2317N


VPGM
R3801
R3804
100
IC3001
MSEL0
CONF_DONE
MSEL1
NSTATUS
NCE
MSEL2
MSEL3
NCONFIG
MSEL4
GND
5CEFA9F2317N
Q3801
RZM002P02
MBT_ST
MBT_CFG
To MAIN UNIT (6/7)
To MAIN UNIT (2/7)
R3805
10M
R3807
0
R3806
470
DS3801
SML-D12P8WT86

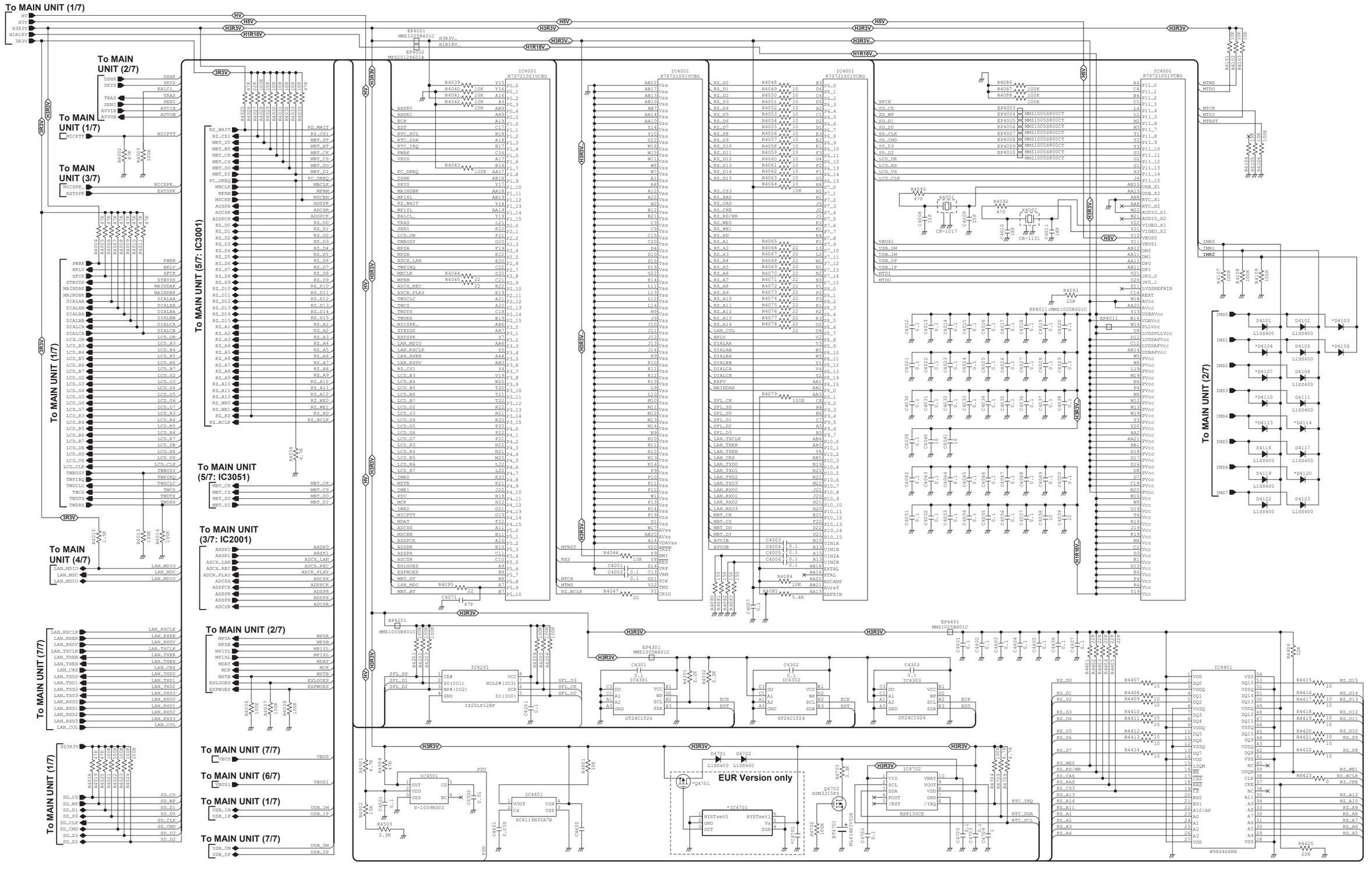

IC3001
5CEFA9F2317N
GND
C17
D1
D2
D5
D10
D20
E3
E4
E13
F1
F2
F6
F16
G3
G19
H1
H2
H3
H4
H7
H12
H22
J3
J5
J15
J20
K1
K2
K4
K8
K10
K12
K14
L3
L5
L11
L13
L15


To MAIN UNIT (4/7)
BANK4A
IC3001
MERD7
METEN
MERD6
MERD5
MERD4
MERD3
MERD2
MERD1
DIFFIO_TX_B49n
DIFFIO_RX_B50n/B_DQ_0
DIFFIO_TX_B49p/B_DQ_2
DIFFIO_RX_B50p/B_DQ_1
DIFFIO_RX_B51n/B_DQS#_0
DIFFIO_TX_B52n/B_DQ_3
DIFFIO_RX_B51p/B_DQS_0
DIFFIO_TX_B52p/B_ODT_0
DIFFIO_TX_B53n/B_ODT_1
DIFFIO_RX_B54n/B_DQ_4
DIFFIO_TX_B53p/B_DQ_6
DIFFIO_RX_B54p/B_DQ_5
DIFFIO_RX_B55n
DIFFIO_TX_B56n/B_DQ_7
DIFFIO_RX_B55p
DIFFIO_TX_B56p/B_DM_0
DIFFIO_TX_B57n/GND
DIFFIO_RX_B58n/B_DQ_8
DIFFIO_TX_B57p/B_DQ_10
DIFFIO_RX_B58p/B_DQ_9
DIFFIO_RX_B59n/B_DQS#_1
DIFFIO_TX_B60n/B_DQ_11
DIFFIO_RX_B59p/B_DQS_1
DIFFIO_TX_B60p/B_CKE_1
DIFFIO_TX_B61n/B_CKE_0
DIFFIO_RX_B62n/B_DQ_12
DIFFIO_TX_B61p/B_DQ_14
DIFFIO_RX_B62p/B_DQ_13
VREFB4AN0
VCCIO4A
VCCIO4A
VCCIO4A
VCCIO4A
VCCIO4A
DIFFIO_TX_B72p/B_DM_2
DIFFIO_RX_B71p/GND
DIFFIO_TX_B72n/B_DQ_23
DIFFIO_RX_B71n/GND
DIFFIO_RX_B70p/B_DQ_21
DIFFIO_TX_B69p/B_DQ_22
DIFFIO_RX_B70n/B_DQ_20
DIFFIO_TX_B69n/GND
DIFFIO_TX_B68p/B_RESET#
DIFFIO_RX_B67p/B_DQS_2
DIFFIO_TX_B68n/B_DQ_19
DIFFIO_RX_B67n/B_DQS#_2
DIFFIO_RX_B66p/B_DQ_17
DIFFIO_TX_B65p/B_DQ_18
DIFFIO_RX_B66n/B_DQ_16
DIFFIO_TX_B65n/GND
DIFFIO_TX_B64p/B_DM_1
DIFFIO_RX_B63p
DIFFIO_TX_B64n/B_DQ_15
DIFFIO_RX_B63n
5CEFA9F2317N
FPGA2R5V
C3201
C3202
C3203
C3204
C3205
0.1
0.01
0.01
0.01
METD4
METD5
METD6
METD1
METD3
MERDV
METD2
METD7
METD0
MEGTCK
MERCK
MERD0
To MAIN UNIT (4/7)

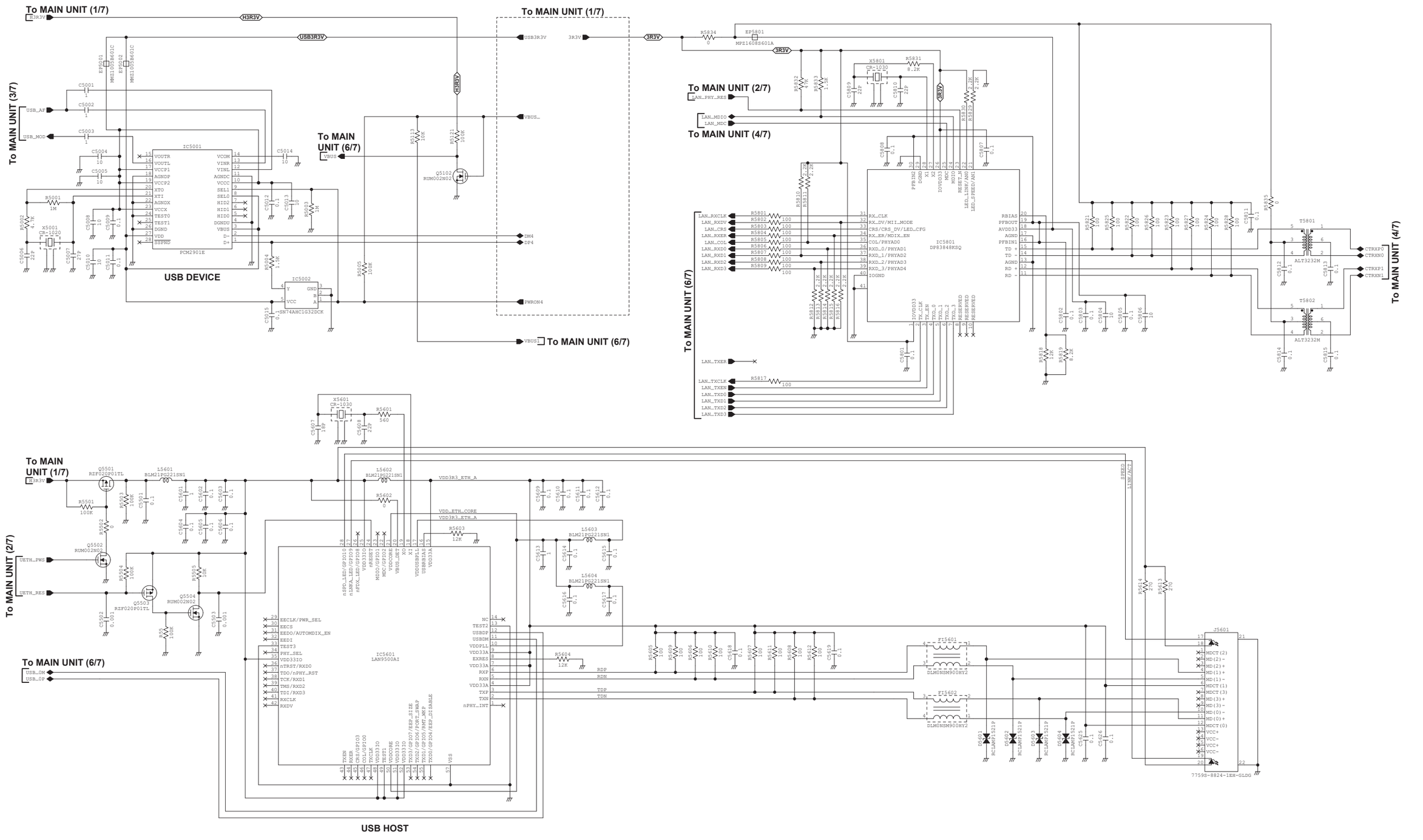

BANK8A
FPGA3R3V
IC3001
To MAIN UNIT (3/7)
To MAIN UNIT (2/7)
To MAIN UNIT (6/7)
To MAIN UNIT (1/7)
MMCLK
MFRM
ADSPR
ADFX_TXAF
ADFR_RXAF
DACLK
DSPIDO
DAD6
DSPICK
DSPICS
MFPCLK
DAD4
ADCSR
ADSPCK
MDCCLK1_P
MDCCLK1_N
R3601
R3602
R3604
R3605
R3606
R3607
R3610
R3611
R3609
R3613
R3620
R3608
R3617
R3618
100
0
22
VREFB8AN0
VCCIO8A
VCCIO8A
VCCIO8A
VCCIO8A
DIFFIO_TX_T49p
DIFFIO_TX_T50p/T_A_0
DIFFIO_RX_T49n
DIFFIO_TX_T50n/T_A_1
DIFFIO_RX_T51p/T_A_4
DIFFIO_TX_T52p/T_A_2
DIFFIO_RX_T51n/T_A_5
DIFFIO_TX_T52n/T_A_3
DIFFIO_RX_T53p/T_CK
DIFFIO_TX_T54p/T_A_6
DIFFIO_RX_T53n/T_CK#
DIFFIO_TX_T54n/T_A_7
DIFFIO_RX_T55p/T_BA_1
DIFFIO_TX_T56p/T_BA_0
DIFFIO_RX_T55n/T_BA_2
DIFFIO_TX_T56n/GND
DIFFIO_RX_T57p
DIFFIO_TX_T58p/T_CAS#
DIFFIO_RX_T57n
5CEFA9F2317N
C3601
C3602
C3603
C3604
0.1
0.1
0.1
0.01
DAD0
DAD11
DAD9
DAD10
DAD1
DAD5
DAD3
DAD8
DAD2
DAD7
MBCLK
To MAIN UNIT (2/7)
To MAIN UNIT (5/7)


IC3001
5CEFA9F2317N
NC

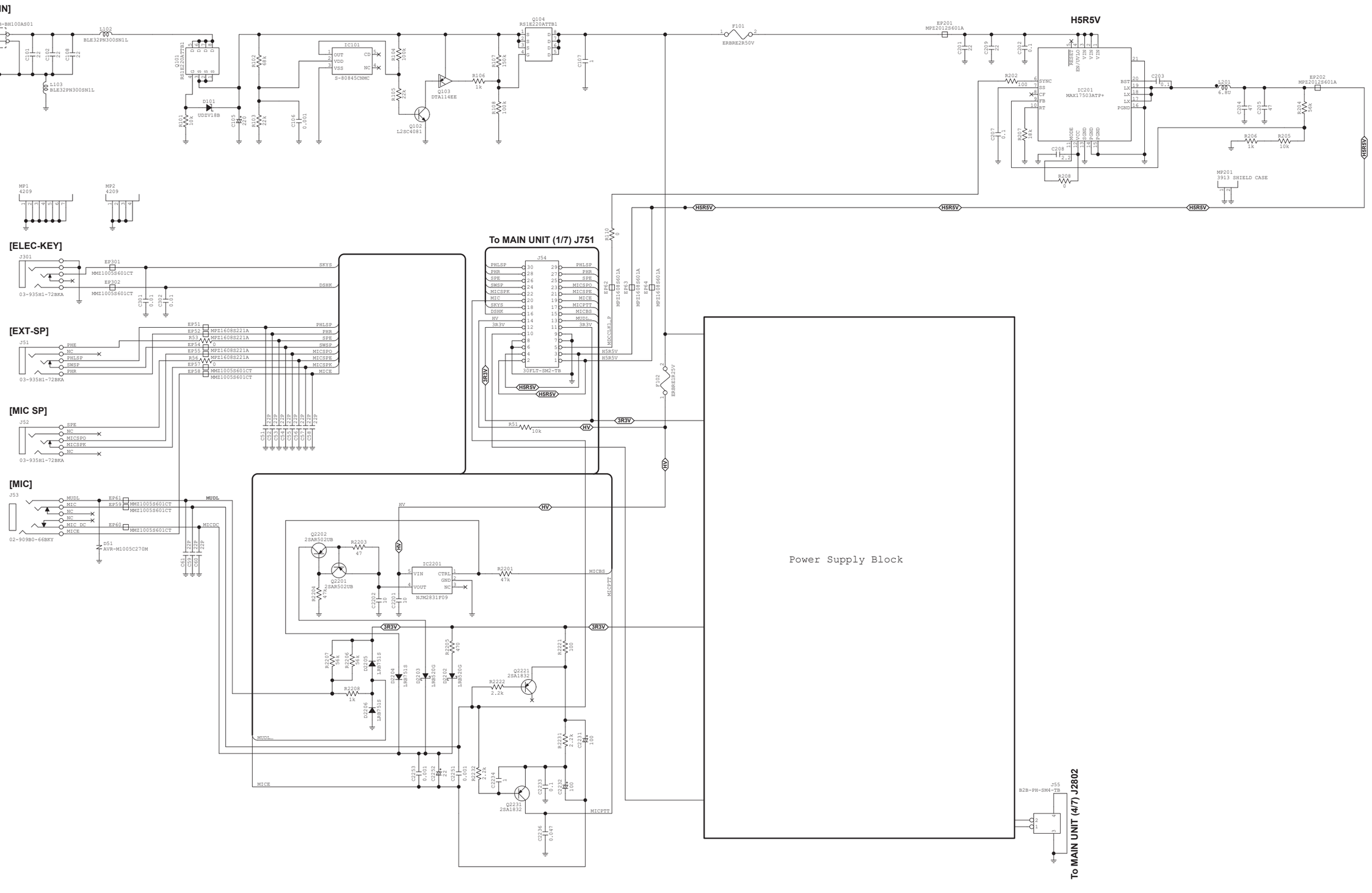
• MAIN UNIT (6/7)


To MAIN UNIT (1/7)
To MAIN UNIT (2/7)
To MAIN UNIT (3/7)
To MAIN UNIT (4/7)
To MAIN UNIT (5/7: IC3001)
To MAIN UNIT (5/7: IC3051)
To MAIN UNIT (3/7: IC2001)
To MAIN UNIT (2/7)
To MAIN UNIT (7/7)
To MAIN UNIT (6/7)
To MAIN UNIT (1/7)
To MAIN UNIT (7/7)
To MAIN UNIT (7/7)
To MAIN UNIT (2/7)
IC4001
R7S721001VCBG
IC4201
IS25LP128F
IC4301
GT24C1024
IC4302
GT24C1024
IC4303
GT24C1024
IC4401
W9864G6KH
IC4501
S-1009N30I
IC4601
XC6119N30A7R
IC4702
RX8130CE
EP4001
MMZ1005B601C
EP4002
MPZ2012S601A
EP4201
MMZ1005B601C
EP4301
MMZ1005B601C
EP4401
MMZ1005B601C
EP4011:MMZ1005S601C
EUR Version only
*Q4701
*IC4701
Q4702
SSM3J15FS
PDV

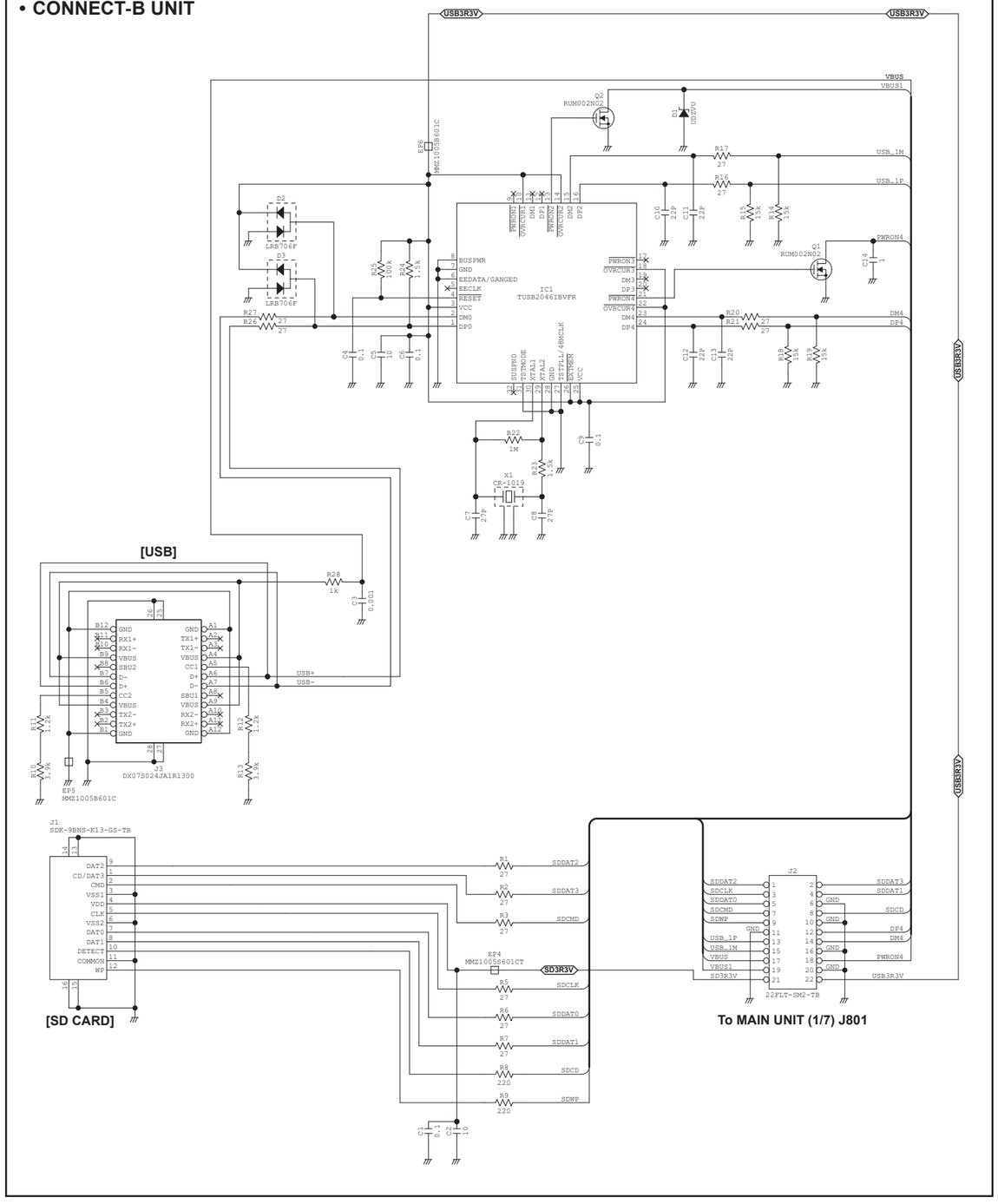
• MAIN UNIT (7/7)


To MAIN UNIT (1/7)
To MAIN UNIT (3/7)
To MAIN UNIT (6/7)
To MAIN UNIT (2/7)
To MAIN UNIT (4/7)
To MAIN UNIT (1/7)
To MAIN UNIT (2/7)
To MAIN UNIT (6/7)
USB DEVICE
USB HOST
IC5001
PCM2901E
IC5002
SN74AHC1G32DCK
IC5601
LAN9500Ai
IC5801
DP83848KSQ
X5001
CR-1020
X5601
CR-1030
X5801
CR-1030
EP5801
MPZ1608S601A
Q5102
RUM002N02
Q5501
RZF020P01TL
Q5502
RUM002N02
Q5503
RZF020P01TL
Q5504
RUM002N02
T5801
T5802
ALT3232M
FI5601
FI5602
DLM0NSM900HY2
J5601
7759S-8824-1EH-GLDG
D5601
D5602
D5603
D5604
RCLAMP1521P

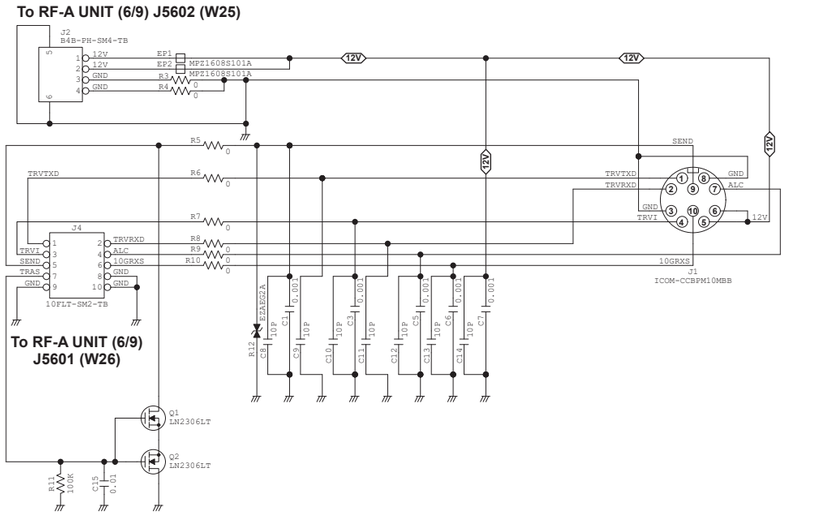
• CONNECT-A UNIT



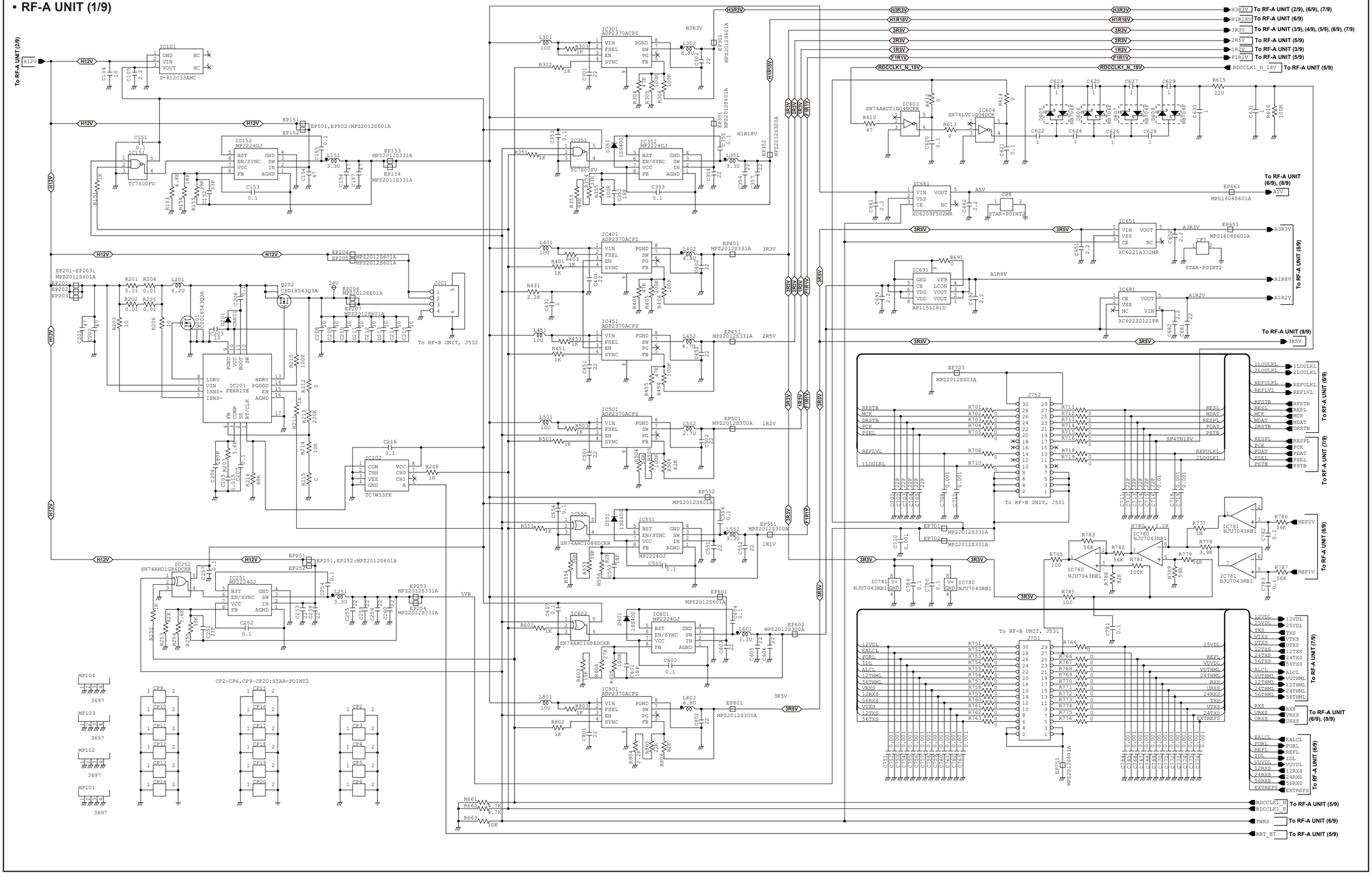
• CONNECT-B UNIT



• CONNECT-C UNIT

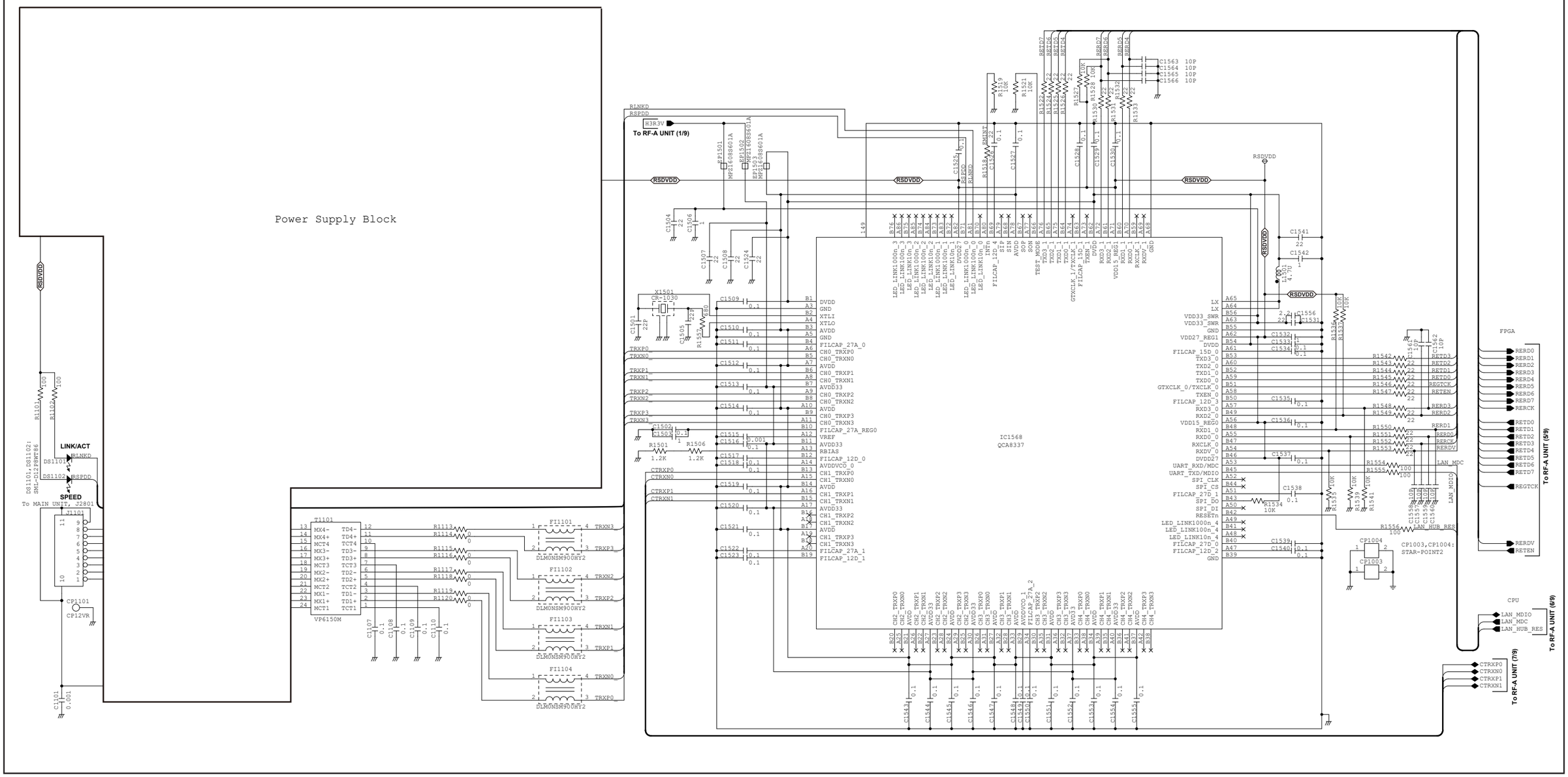


• RF-A UNIT (1/9)

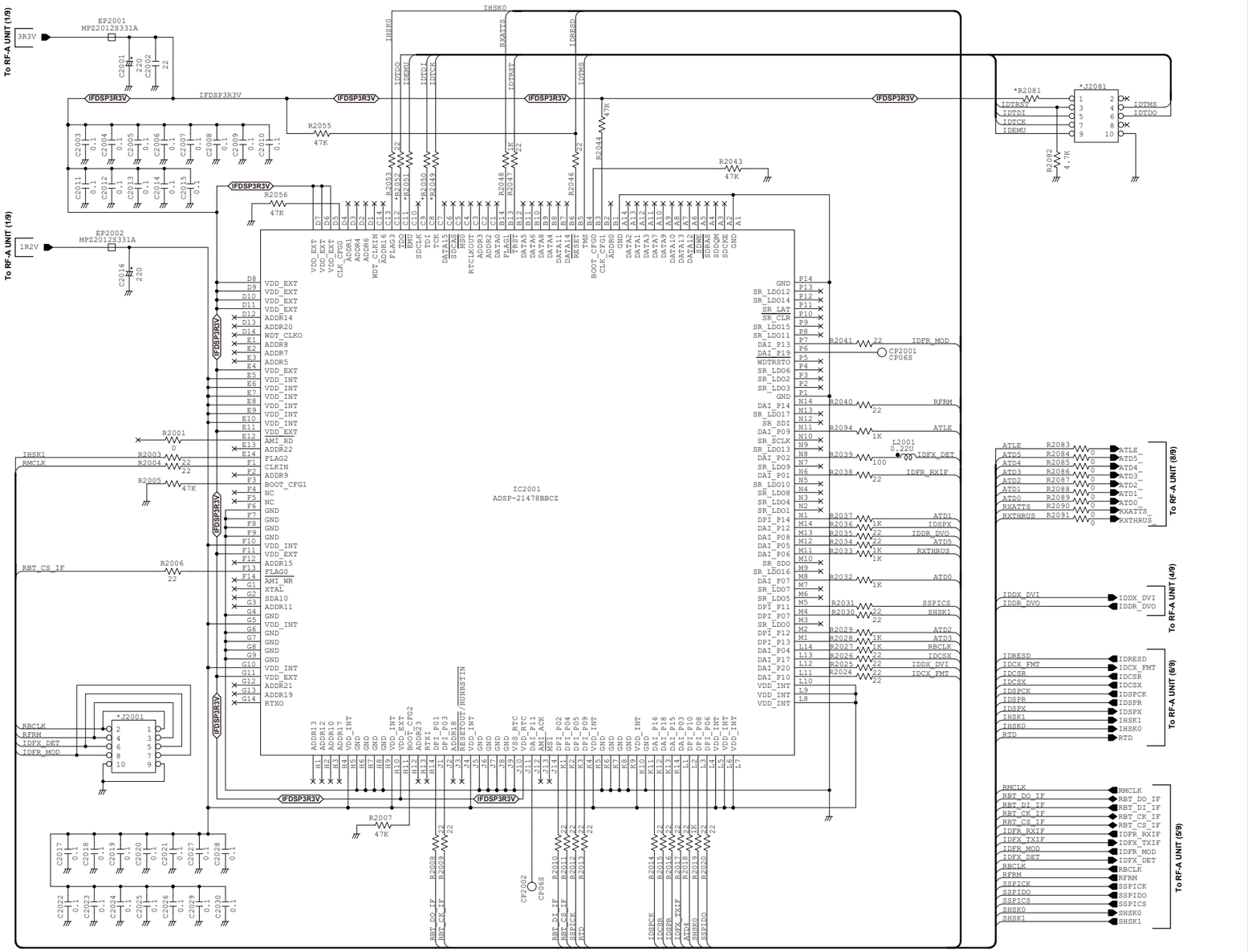

To RF-A UNIT (2/9)
H12V
IC101 S-812C33AMC
IC301 ADP2370ACPZ
IC351 TC7S00FU
IC352 MP2224GJ
IC401 ADP2370ACPZ
IC451 ADP2370ACPZ
IC501 ADP2370ACPZ
IC801 ADP2370ACPZ
IC151 TC7S00FU
IC152 MP2224GJ
IC201 FERRITE
IC202 TC7W53FK
IC252 SN74AHC1G86DCKR
IC552 SN74AHC1G86DCKR
IC602 SN74AHC1G86DCKR
IC603 SN74AHCT1G04DCKR
IC604 SN74LVC1G04DCK
IC661 XC6209F502MR
IC651 XC6221A332MR
IC691 RP115L181D
IC681 XC6222D121PR
IC780 NJU7043RB1
IC781 NJU7043RB1
Q201 CSD18543Q3A
Q202 CSD18543Q3A
D201 CRH01
D203 CRH01
D251 1SS400
D351 1SS400
D401 1SS400
D451 1SS400
D501 1SS400
D551 1SS400
D601 1SS400
D801 1SS400
J201
To RF-B UNIT, J532
To RF-B UNIT, J501
To RF-B UNIT, J531
EP151 EP501,EP502:MPZ2012S601A
EP152
EP153 MPZ2012S331A
EP154 MPZ2012S331A
EP201-EP203: MPZ2012S601A
EP204 EP205 MPZ2012S601A
EP206 MPZ2012S601A
EP207 MPZ2012S601A
EP251 EP251,EP252:MPZ2012S601A
EP252
EP253 MPZ2012S331A
EP254 MPZ2012S331A
EP301 MPZ2012S601A
EP351 MPZ2012S601A
EP352 MPZ2012S300A
EP401 MPZ2012S331A
EP451 MPZ2012S331A
EP501 MPZ2012S300A
EP552 MPZ2012S601A
EP551 MPZ2012S300A
EP601 MPZ2012S601A
EP602 MPZ2012S300A
EP801 MPZ2012S300A
EP661 MPZ1608S601A
EP651 MPZ1608S601A
EP703 MPZ2012S601A
EP701 MPZ2012S331A
EP702 MPZ2012S331A
EP751 MPZ2012S601A
L151 3.3U
L201 6.2U
L301 10U
L302 6.8U
L351 3.3U
L352 3.3U
L401 10U
L402 6.8U
L451 10U
L452 4.7U
L501 10U
L502 2.7U
L551 3.3U
L552 3.3U
L601 3.3U
L801 10U
L802 6.8U
H3R3V
H1R18V
3R3V
2R5V
1R3V
F1R1V
1R1V
3R5V
5VB
28V
RDCCLK1_N_18V
A5V
A3R3V
A1R8V
A1R2V
CP8 STAR-POINT
CP7 STAR-POINT2
MP104 MP103 MP102 MP101 3697
CP2~CP6,CP9~CP20:STAR-POINT2
To RF-A UNIT (2/9), (6/9), (7/9)
To RF-A UNIT (6/9)
To RF-A UNIT (3/9), (4/9), (5/9), (6/9), (7/9)
To RF-A UNIT (5/9)
To RF-A UNIT (3/9)
To RF-A UNIT (5/9)
To RF-A UNIT (6/9), (8/9)
To RF-A UNIT (9/9)
To RF-A UNIT (8/9)
To RF-A UNIT (8/9)
To RF-A UNIT (7/9)
To RF-A UNIT (6/9), (8/9)
To RF-A UNIT (6/9)
To RF-A UNIT (7/9)
To RF-A UNIT (5/9)
To RF-A UNIT (6/9)
To RF-A UNIT (5/9)

• RF-A UNIT (2/9)

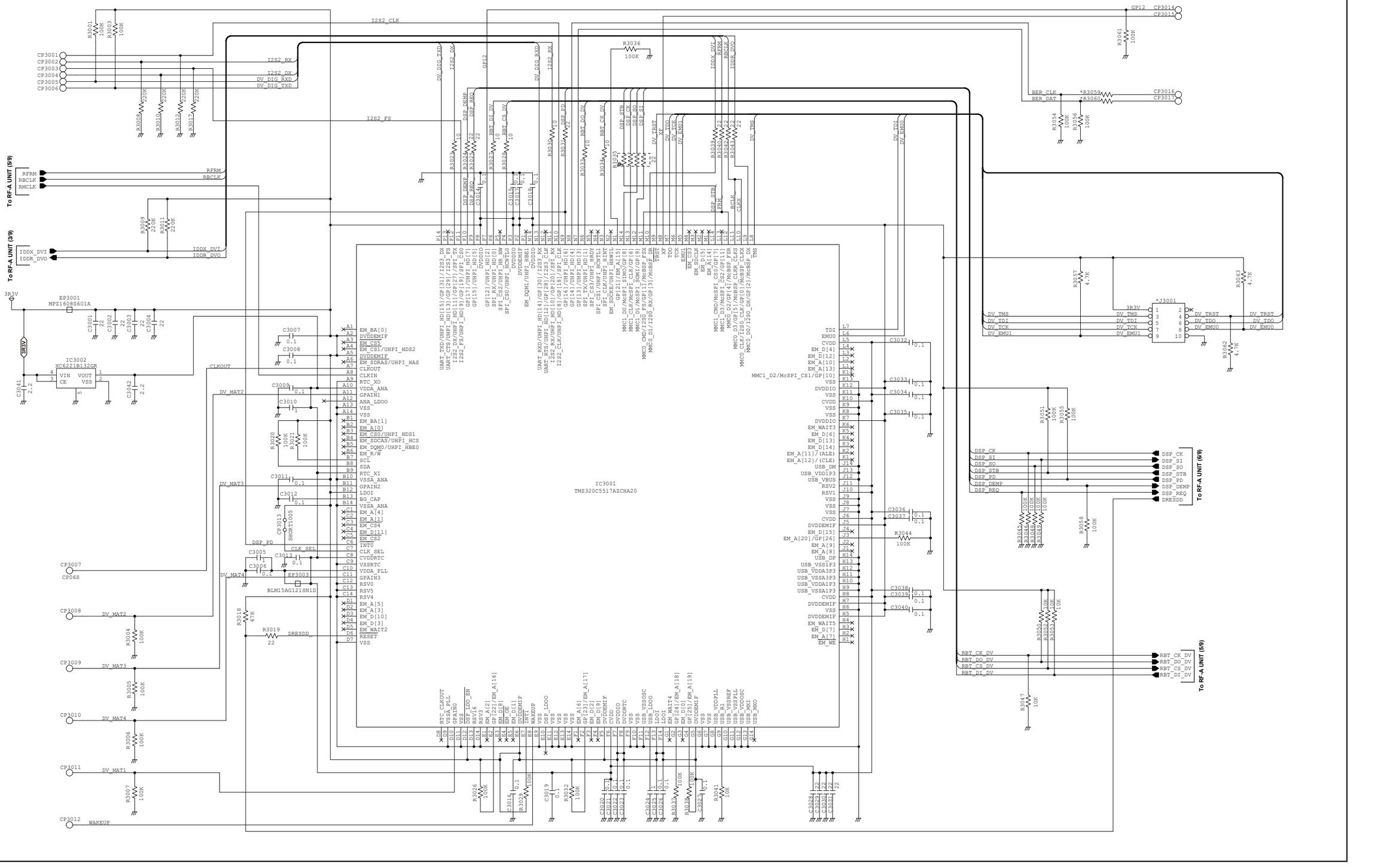
Power Supply Block



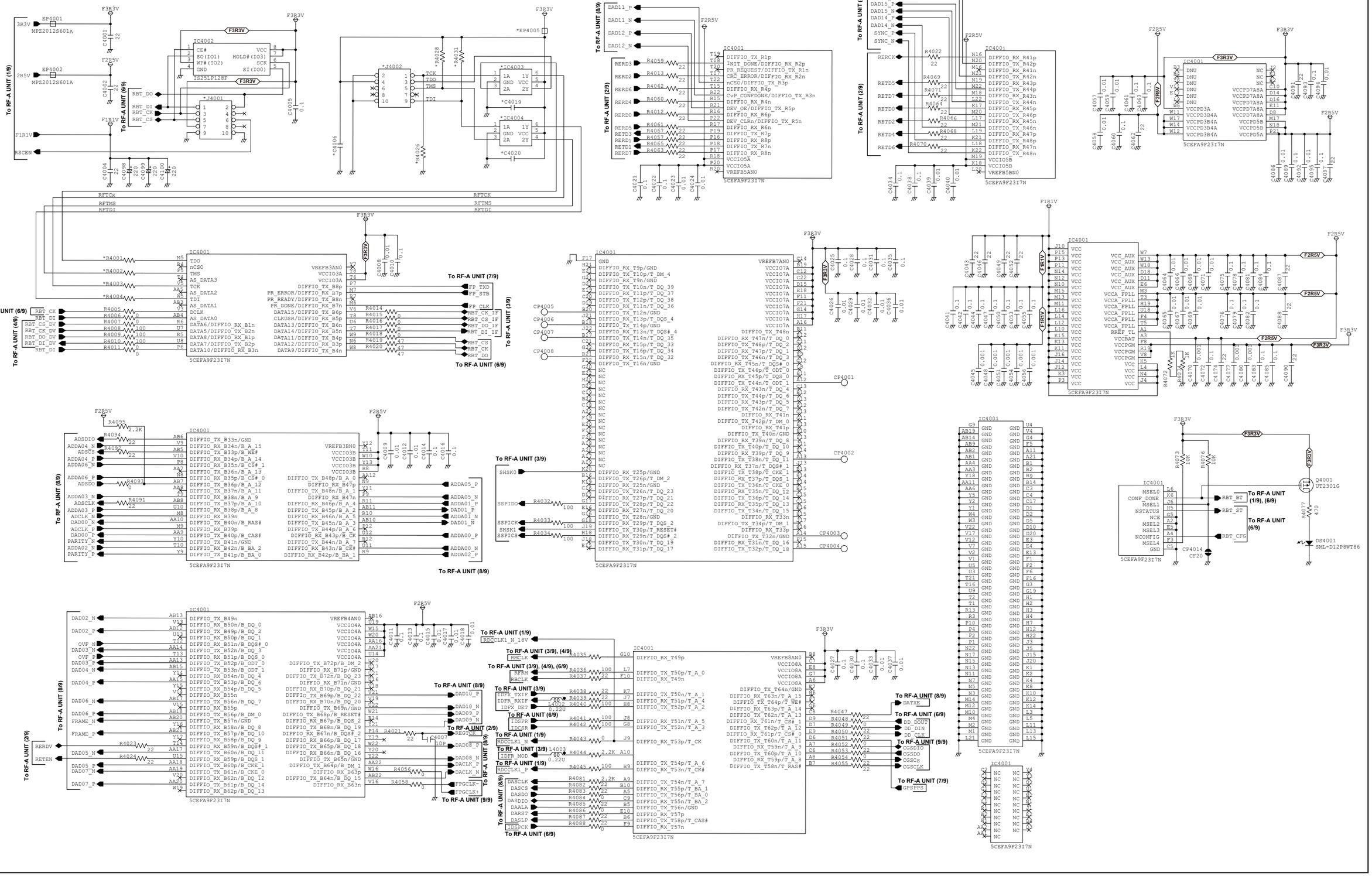
• RF-A UNIT (3/9)


IC2001
ADSP-21478BBCZ
EP2001
MPZ2012S331A
EP2002
MPZ2012S331A
*J2001
*J2081
IFDSP3R3V
To RF-A UNIT (1/9)
To RF-A UNIT (8/9)
To RF-A UNIT (4/9)
To RF-A UNIT (6/9)
To RF-A UNIT (5/9)

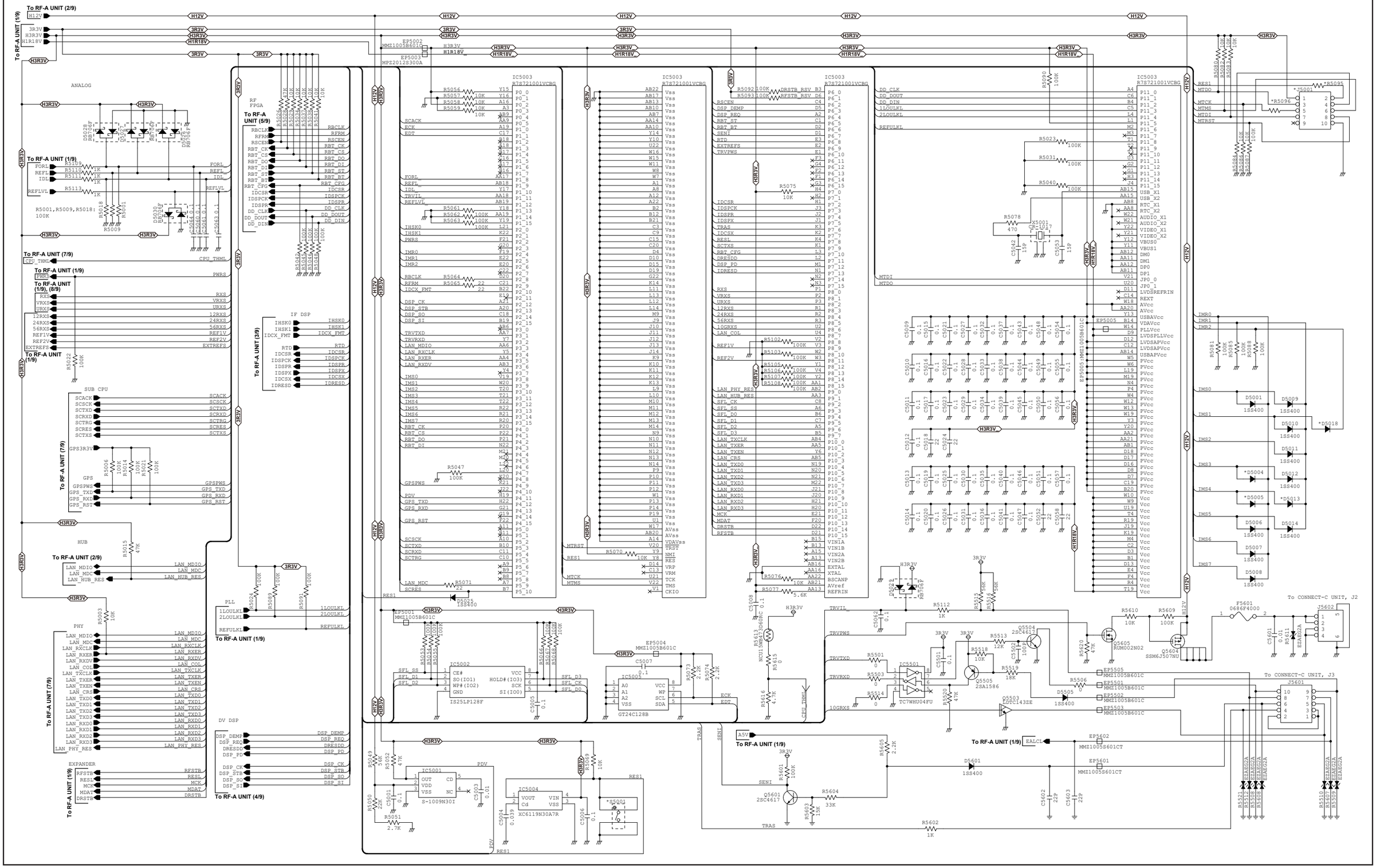
• RF-A UNIT (4/9)


I2S2_CLK
I2S2_RX
I2S2_DX
DV_DIG_RXD
DV_DIG_TXD
I2S2_FS
RFRM
RBCLK
RMCLK
To RF-A UNIT (5/9)
IDDX_DVI
IDDR_DVO
To RF-A UNIT (3/9)
3R3V
EP3001
MPZ1608S601A
IC3002
XC6221B132GR
CLKOUT
DV_MAT2
DV_MAT3
DV_MAT4
DV_MAT1
DSP_PD
CLK_SEL
WAKEUP
DRESDD_
IC3001
TMS320C5517AZCHA20
BER_CLK
BER_DAT
*R3059
*R3060
*J3001
DV_TMS
DV_TDI
DV_TCK
DV_EMU1
DV_TRST
DV_TDO
DV_EMU0
DSP_CK
DSP_SI
DSP_SO
DSP_STB
DSP_PD
DSP_DEMP
DSP_REQ
To RF-A UNIT (6/9)
RBT_CK_DV
RBT_DO_DV
RBT_CS_DV
RBT_DI_DV
To RF-A UNIT (5/9)
SHORT1005
BLM15AG121SN1D
EM_BA[0]
EM_CS0/UHPI_HDS1
EM_SDCAS/UHPI_HCS
EM_DQM0/UHPI_HBE0
EM_R/W
EM_CS1/UHPI_HDS2
EM_SDRAS/UHPI_HAS
EM_BA[1]
EM_A[0]
EM_A[1]
EM_CS4
EM_D[11]
EM_CS2
EM_A[5]
EM_A[3]
EM_D[10]
EM_D[3]
EM_WAIT2

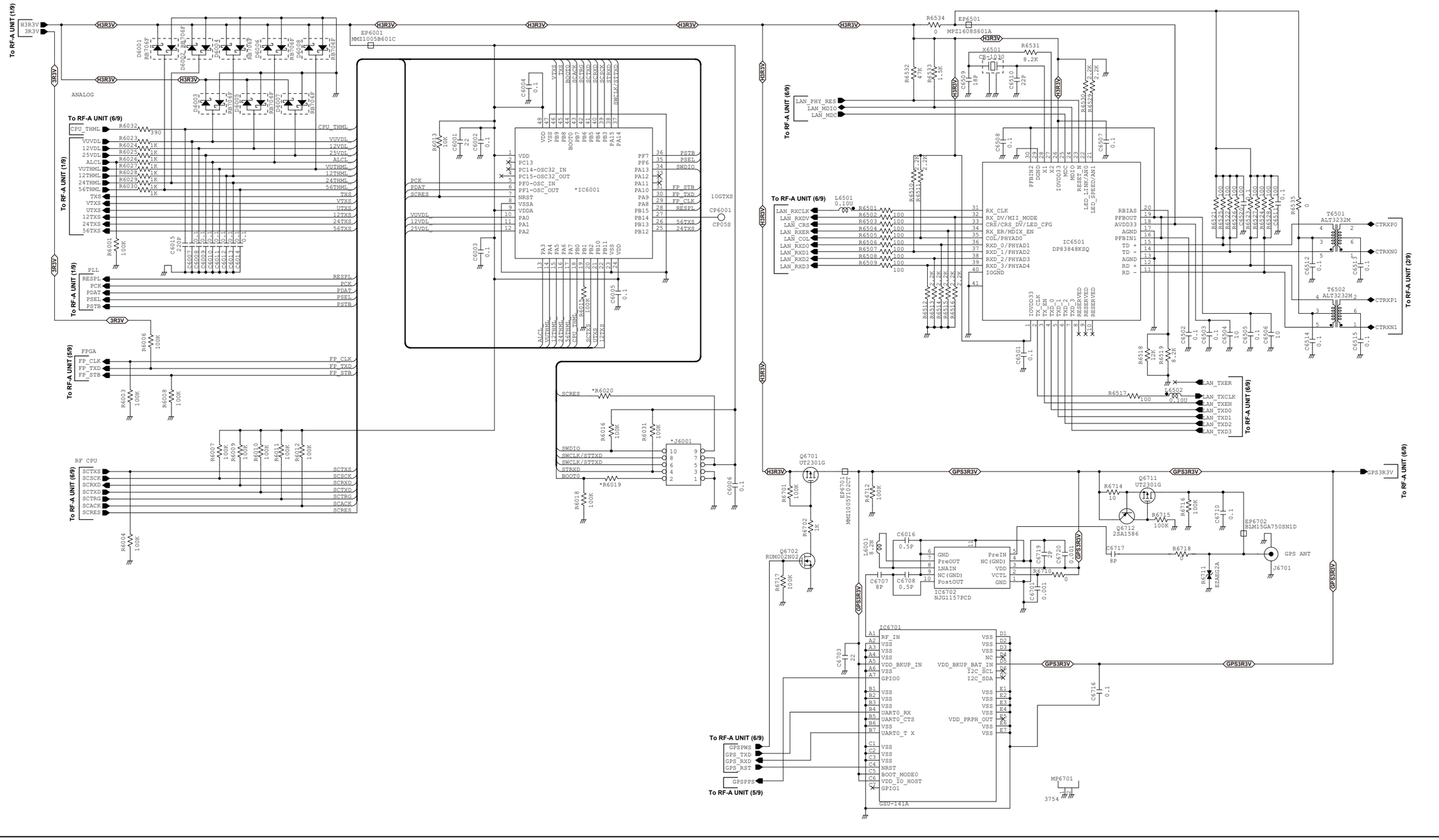
• RF-A UNIT (5/9)


F3R3V
F2R5V
F1R1V
IC4001
5CEFA9F23I7N
IC4002
IS25LP128F
EP4001
MPZ2012S601A
EP4002
MPZ2012S601A
J4001
J4002
IC4003
IC4004
To RF-A UNIT (1/9)
To RF-A UNIT (6/9)
To RF-A UNIT (8/9)
To RF-A UNIT (2/9)
To RF-A UNIT (7/9)
To RF-A UNIT (3/9)
To RF-A UNIT (4/9)
To RF-A UNIT (9/9)
RFTCK
RFTMS
RFTDI
RBT_DO
RBT_DI
RBT_CK
RBT_CS
TCK
TDO
TMS
TDI
DAD11_P
DAD11_N
DAD12_P
DAD12_N
RERD3
RERD2
RERD6
RERD4
RERD0
RERD5
RERD3
RERD1
RERD7
RERCK
RETD5
RETD7
RETD0
RETD2
RETD4
RETD6
SYNC_P
SYNC_N
DAD13_P
DAD13_N
DAD15_P
DAD15_N
DAD14_P
DAD14_N
DIFFIO_TX_R1p
INIT_DONE/DIFFIO_RX_R2p
PR_REQUEST/DIFFIO_TX_R1n
CRC_ERROR/DIFFIO_RX_R2n
nCEO/DIFFIO_TX_R3p
DIFFIO_RX_R4p
CvP_CONFDONE/DIFFIO_TX_R3n
DIFFIO_RX_R4n
DEV_OE/DIFFIO_TX_R5p
DIFFIO_RX_R6p
DEV_CLRn/DIFFIO_TX_R5n
DIFFIO_RX_R6n
DIFFIO_TX_R7p
DIFFIO_RX_R8p
DIFFIO_TX_R7n
DIFFIO_RX_R8n
VCCIO5A
VCCIO5A
VREFB5BN0
DIFFIO_RX_R41p
DIFFIO_TX_R42p
DIFFIO_RX_R41n
DIFFIO_TX_R42n
DIFFIO_RX_R43p
DIFFIO_TX_R44p
DIFFIO_RX_R43n
DIFFIO_TX_R44n
DIFFIO_RX_R45p
DIFFIO_TX_R46p
DIFFIO_RX_R45n
DIFFIO_TX_R46n
DIFFIO_RX_R47p
DIFFIO_TX_R48p
DIFFIO_RX_R47n
DIFFIO_TX_R48n
VCCIO5B
VCCIO5B
VREFB5BN0
VCCPD7A8A
VCCPD3A
VCCPD3B4A
VCCPD5B
VCCPD5A
DNU
NC
CP4001
CP4002
CP4003
CP4004
CP4005
CP4006
CP4007
CP4008
CP4014
CF20
Q4001
UT2301G
DS4001
SML-D12P8WT86
RBT_BT
RBT_ST
RBT_CFG
DATXE
DD_DOUT
DD_DIN
DD_CLK
CGSDIO
CGSDO
CGSCS
CGSCLK
GPSPPS
FP_TXD
FP_STB
FP_CLK
RBT_CK_IF
RBT_CS_IF
RBT_DO_IF
RBT_DI_IF
RBT_CS
RBT_CK
RBT_DO
RBT_CK
RBT_DI
RBT_CS_DV
RBT_CK_DV
RBT_DO_DV
RBT_DI_DV
ADDA05_P
ADDA05_N
ADDA01_P
ADDA01_N
ADDA00_P
ADDA00_N
ADDA02_P
DAD01_P
DAD01_N
DAD10_P
DAD10_N
DAD09_P
DAD09_N
DAD08_P
DAD08_N
DACLK_P
DACLK_N
FPGCLK-
FPGCLK+
REGTCK
RDCCLK1_N 18V
RDCCLK1_P
RDCCLK1_N
RMCLK
RFRM
RBCLK
IDFX_TXIF
IDFR_RXIF
IDFX_DET
IDSPR
IDCSR
IDFR_MOD
IDSPCK
DASCLK
DASCS
DASDO
DASDIO
DAALA
DARST
DASLP
ADSDIO
ADDA04_P
ADSCS
ADDA04_N
ADDA06_P
ADSDO
ADDA03_N
ADSCLK
ADDA03_P
ADCLK_N
DAD00_N
ADCLK_P
DAD00_P
PARITY_N
ADDA02_N
PARITY_P
RERDV
RETEN
FRAME_N
FRAME_P
OVF_N
OVF_P
DAD02_N
DAD02_P
DAD04_P
DAD06_N
DAD06_P
DAD05_N
DAD05_P
DAD07_N
DAD07_P
DIFFIO_TX_T9p/GND
DIFFIO_TX_T10p/T_DM_4
DIFFIO_RX_T9n/GND
DIFFIO_TX_T10n/T_DQ_39
DIFFIO_RX_T11p/T_DQ_37
DIFFIO_TX_T12p/T_DQ_38
DIFFIO_RX_T11n/T_DQ_36
DIFFIO_TX_T12n/GND
DIFFIO_RX_T13p/T_DQS#_4
DIFFIO_TX_T14p/GND
DIFFIO_RX_T13n/T_DQS#_4
DIFFIO_TX_T14n/T_DQ_35
DIFFIO_RX_T15p/T_DQ_33
DIFFIO_TX_T16p/T_DQ_34
DIFFIO_RX_T15n/T_DQ_32
DIFFIO_TX_T16n/GND
DIFFIO_RX_T48n
DIFFIO_RX_T47n/T_DQ_0
DIFFIO_TX_T48p/T_DQ_2
DIFFIO_RX_T47p/T_DQ_1
DIFFIO_TX_T46n/T_DQ_3
DIFFIO_RX_T45n/T_DQS#_0
DIFFIO_TX_T46p/T_ODT_0
DIFFIO_RX_T45p/T_DQS_0
DIFFIO_TX_T44n/T_ODT_1
DIFFIO_RX_T43n/T_DQ_4
DIFFIO_TX_T44p/T_DQ_6
DIFFIO_RX_T43p/T_DQ_5
DIFFIO_TX_T42n/T_DQ_7
DIFFIO_RX_T41n
DIFFIO_TX_T42p/T_DM_0
DIFFIO_RX_T41p
DIFFIO_TX_T40n/GND
DIFFIO_RX_T39n/T_DQ_8
DIFFIO_TX_T40p/T_DQ_10
DIFFIO_RX_T39p/T_DQ_9
DIFFIO_TX_T38n/T_DQ_11
DIFFIO_RX_T37n/T_DQS#_1
DIFFIO_TX_T38p/T_CKE_1
DIFFIO_RX_T37p/T_DQS_1
DIFFIO_TX_T36n/T_CKE_0
DIFFIO_RX_T35n/T_DQ_12
DIFFIO_TX_T36p/T_DQ_14
DIFFIO_RX_T35p/T_DQ_13
DIFFIO_TX_T34n/T_DQ_15
DIFFIO_RX_T33n
DIFFIO_TX_T34p/T_DM_1
DIFFIO_RX_T33p
DIFFIO_TX_T32n/GND
DIFFIO_RX_T31n/T_DQ_16
DIFFIO_TX_T32p/T_DQ_18
DIFFIO_RX_T25p/GND
DIFFIO_TX_T26p/T_DM_2
DIFFIO_RX_T25n/GND
DIFFIO_TX_T26n/T_DQ_23
DIFFIO_RX_T27p/T_DQ_21
DIFFIO_TX_T28p/T_DQ_22
DIFFIO_RX_T27n/T_DQ_20
DIFFIO_TX_T28n/GND
DIFFIO_RX_T29p/T_DQS_2
DIFFIO_TX_T30p/T_RESET#
DIFFIO_RX_T29n/T_DQS#_2
DIFFIO_TX_T30n/T_DQ_19
DIFFIO_RX_T31p/T_DQ_17
DIFFIO_TX_B33n/GND
DIFFIO_RX_B34n/B_A_15
DIFFIO_TX_B33p/B_WE#
DIFFIO_RX_B34p/B_A_14
DIFFIO_RX_B35n/B_CS#_1
DIFFIO_TX_B36n/B_A_13
DIFFIO_RX_B35p/B_CS#_0
DIFFIO_TX_B36p/B_A_12
DIFFIO_TX_B37n/B_A_11
DIFFIO_RX_B38n/B_A_9
DIFFIO_TX_B37p/B_A_10
DIFFIO_RX_B38p/B_A_8
DIFFIO_RX_B39n
DIFFIO_TX_B40n/B_RAS#
DIFFIO_RX_B39p
DIFFIO_TX_B40p/B_CAS#
DIFFIO_TX_B41n/GND
DIFFIO_RX_B42n/B_BA_2
DIFFIO_TX_B41p/B_BA_0
DIFFIO_TX_B48p/B_A_0
DIFFIO_RX_B47p
DIFFIO_TX_B48n/B_A_1
DIFFIO_RX_B47n
DIFFIO_TX_B45p/B_A_2
DIFFIO_RX_B46n/B_A_5
DIFFIO_TX_B45n/B_A_3
DIFFIO_TX_B44p/B_A_6
DIFFIO_RX_B43p/B_CK
DIFFIO_TX_B44n/B_A_7
DIFFIO_RX_B43n/B_CK#
DIFFIO_RX_B42p/B_BA_1
DIFFIO_TX_B49n/GND
DIFFIO_TX_B49p/B_DQ_2
DIFFIO_RX_B50p/B_DQ_1
DIFFIO_RX_B51n/B_DQS#_0
DIFFIO_TX_B52n/B_DQ_3
DIFFIO_RX_B51p/B_DQS_0
DIFFIO_TX_B52p/B_ODT_0
DIFFIO_TX_B53n/B_ODT_1
DIFFIO_RX_B54n/B_DQ_4
DIFFIO_TX_B53p/B_DQ_6
DIFFIO_RX_B54p/B_DQ_5
DIFFIO_RX_B55n
DIFFIO_TX_B56n/B_DQ_7
DIFFIO_RX_B55p
DIFFIO_TX_B56p/B_DM_0
DIFFIO_TX_B57n/GND
DIFFIO_RX_B58n/B_DQ_8
DIFFIO_TX_B57p/B_DQ_10
DIFFIO_RX_B58p/B_DQ_9
DIFFIO_RX_B59n/B_DQS#_1
DIFFIO_TX_B60n/B_DQ_11
DIFFIO_RX_B59p/B_DQS_1
DIFFIO_TX_B60p/B_CKE_1
DIFFIO_TX_B61n/B_CKE_0
DIFFIO_RX_B62n/B_DQ_12
DIFFIO_TX_B61p/B_DQ_14
DIFFIO_RX_B62p/B_DQ_13
DIFFIO_TX_B72p/B_DM_2
DIFFIO_RX_B71p/GND
DIFFIO_RX_B72n/B_DQ_23
DIFFIO_TX_B71n/GND
DIFFIO_RX_B70p/B_DQ_21
DIFFIO_TX_B69p/B_DQ_22
DIFFIO_RX_B70n/B_DQ_20
DIFFIO_TX_B69n/GND
DIFFIO_TX_B68p/B_RESET#
DIFFIO_RX_B67p/B_DQS_2
DIFFIO_TX_B68n/B_DQ_19
DIFFIO_RX_B67n/B_DQS#_2
DIFFIO_RX_B66p/B_DQ_17
DIFFIO_TX_B65p/B_DQ_18
DIFFIO_RX_B66n/B_DQ_16
DIFFIO_TX_B65n/GND
DIFFIO_TX_B64p/B_DM_1
DIFFIO_RX_B63p
DIFFIO_TX_B64n/B_DQ_15
DIFFIO_RX_B63n
VREFB3AN0
VCCIO3A
VREFB4AN0
VCCIO4A
VREFB7AN0
VCCIO7A
VREFB8AN0
VCCIO8A
VCCIO3B
VCC_AUX
VCCA_FPLL
VCCBAT
VCCPGM
VCCPGN
RREF_TL
VCC
GND
NC

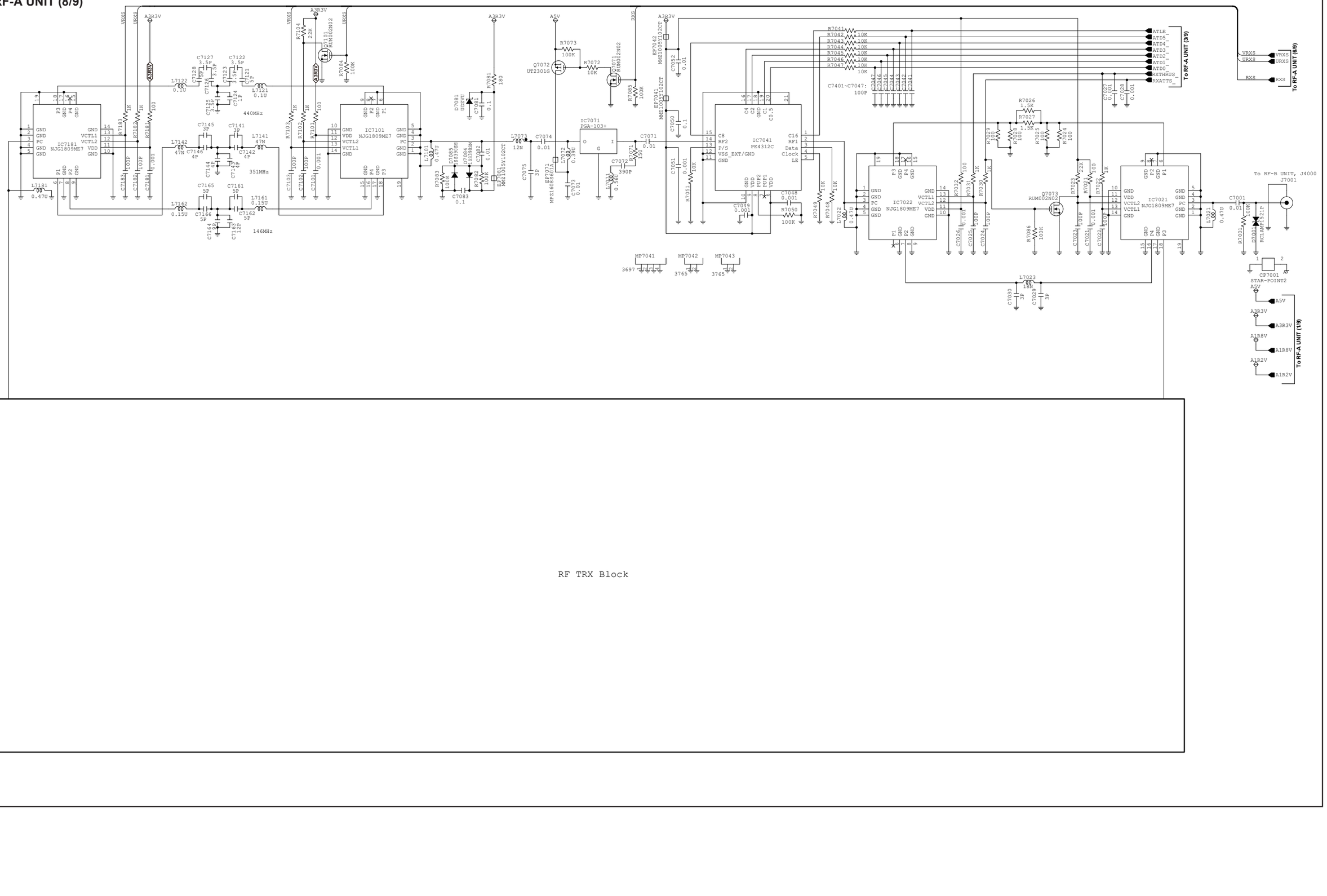
• RF-A UNIT (6/9)


To RF-A UNIT (2/9)
To RF-A UNIT (1/9)
ANALOG
RF FPGA
To RF-A UNIT (5/9)
IF DSP
To RF-A UNIT (3/9)
SUB CPU
GPS
To RF-A UNIT (7/9)
HUB
To RF-A UNIT (2/9)
PHY
To RF-A UNIT (7/9)
EXPANDER
To RF-A UNIT (1/9)
DV DSP
To RF-A UNIT (4/9)
PLL
To RF-A UNIT (1/9)
IC5003
R7S721001VCBG
IC5002
IS25LP128F
IC5009
GT24C128B
IC5001
S-1009N30I
IC5004
XC6119N30A7R
EP5001
MMZ1005B601C
EP5002
MMZ1005B601C
EP5003
MP220128300A
EP5004
MMZ1005B601C
EP5005
MMZ1005B601C
X5001
CR-1017
Q5501
TC7WHU04FU
Q5504
2SC4617
Q5505
2SA1586
Q5503
EMC1432E
Q5601
2SC4617
Q5604
SSM6J507NU
Q5605
RUM002N02
To CONNECT-C UNIT, J2
To CONNECT-C UNIT, J3
J5602
J5601
F5601
0686F4000
To RF-A UNIT (1/9)
EALCL
A5V
TRAS
SENI
TRVIL
TRVPWS
TRVTXD
TRVRXD
10GRXS
ECK
EDT
CPU_THML
PDV
RES1

• RF-A UNIT (7/9)

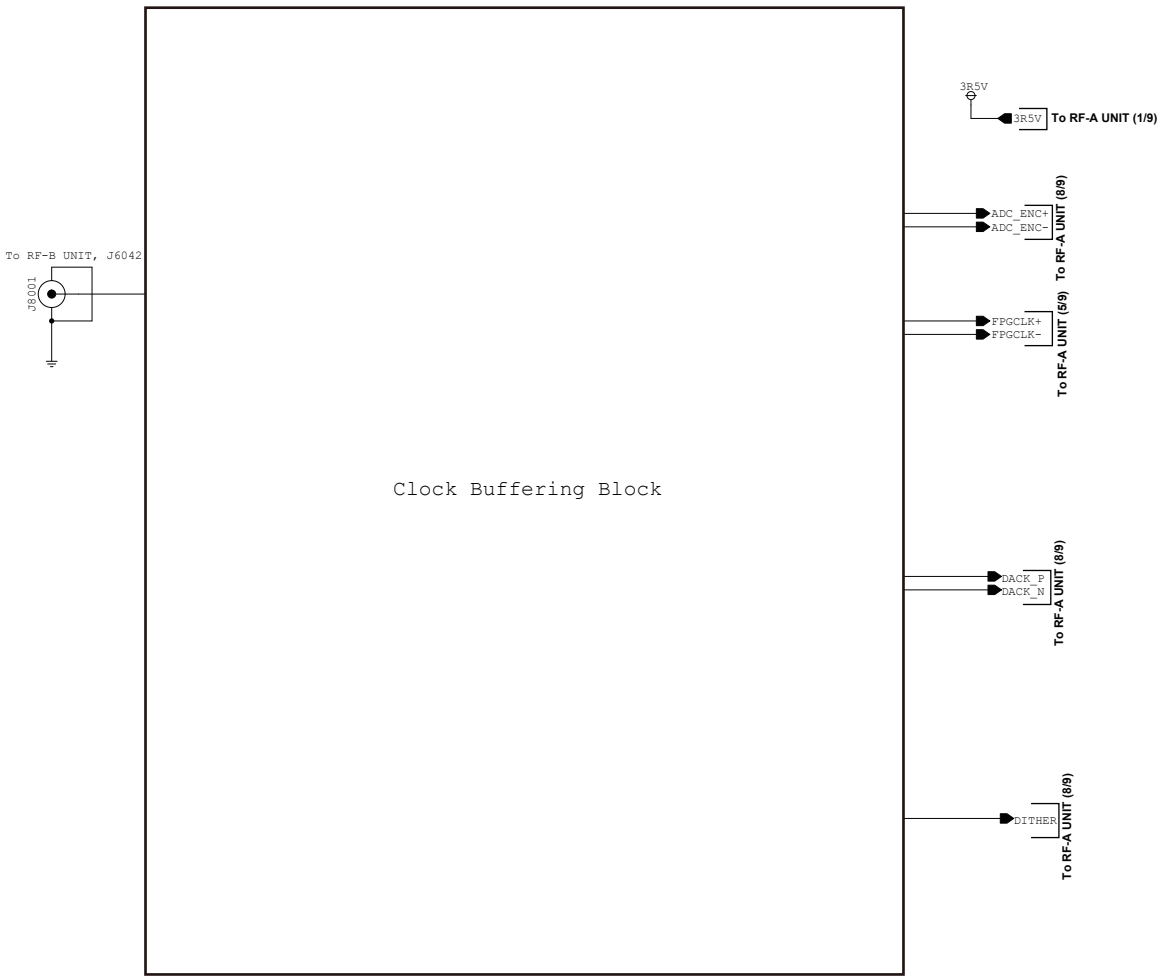

To RF-A UNIT (1/9)
H3R3V
3R3V
ANALOG
D6001 RB706F
D6002 RB706F
D6004 RB706F
D6005 RB706F
D6006 RB706F
D6008 RB706F
D6003 RB706F
D6007 RB706F
D6009 RB706F
To RF-A UNIT (6/9)
CPU_THML
VUVDL
12VDL
25VDL
ALCL
VUTHML
12THML
24THML
56THML
TXS
VTXS
UTXS
12TXS
24TXS
56TXS
R6032 390
R6023 1K
R6024 1K
R6025 1K
R6026 1K
R6027 1K
R6028 1K
R6029 1K
R6030 1K
R6001 100K
C6015 220P
C6007 0.1
C6008 0.1
C6009 0.1
C6010 0.1
C6012 0.1
C6013 0.1
C6014 0.1
To RF-A UNIT (1/9)
PLL
RESPL
PCK
PDAT
PSEL
PSTB
To RF-A UNIT (6/9)
FPGA
FP_CLK
FP_TXD
FP_STB
R6006 100K
R6003 100K
R6008 100K
To RF-A UNIT (6/9)
RF CPU
SCTXS
SCSCK
SCRXD
SCTXD
SCTRG
SCACK
SCRES
R6007 100K
R6009 100K
R6010 100K
R6011 100K
R6012 100K
R6004 100K
EP6001
MMZ1005B601C
H3R3V
C6004 0.1
R6013 10K
C6001 2.2
C6002 0.1
*IC6001
VDD
PC13
PC14-OSC32_IN
PC15-OSC32_OUT
PF0-OSC_IN
PF1-OSC_OUT
NRST
VSSA
VDDA
PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PB0
PB1
PB10
PB11
VSS
VDD
PF7
PF6
PA13
PA12
PA11
PA10
PA9
PA8
PB15
PB14
PB13
PB12
PSTR
PSEL
SWDIO
FP_STB
FP_TXD
FP_CLK
RESPL
56TXS
24TXS
PCK
PDAT
SCRES
VUVDL
12VDL
25VDL
10GTXS
CP6001
CP05S
C6003 0.1
C6005 0.1
R6014 100K
SCRES
*R6020
R6016 100K
R6031 100K
SWDIO
SWCLK/STTXD
SWCLK/STTXD
STRXD
BOOT0
*R6019
R6018 100K
*J6001
C6006 0.1
R6534 0
EP6501
MP216088601A
X6501
CB-1030
C6509 18P
C6510 22P
R6531 8.2K
R6532 47K
R6533 1.5K
LAN_PHY_RES
LAN_MDIO
LAN_MDC
C6508 0.1
C6507 0.1
R6530 2.2K
R6534 2.2K
L6501 0.10U
LAN_RXCLK
LAN_RXDV
LAN_CRS
LAN_RXER
LAN_COL
LAN_RXD0
LAN_RXD1
LAN_RXD2
LAN_RXD3
R6501 100
R6502 100
R6503 100
R6504 100
R6505 100
R6506 100
R6507 100
R6508 100
R6509 100
R6512 2.2K
R6513 2.2K
R6514 2.2K
R6515 2.2K
R6516 2.2K
IC6501
DP83848KSQ
RX_CLK
RX_DV/MII_MODE
CRS/CRS_DV/LED_CFG
RX_ER/MDIX_EN
COL/PHYAD0
RXD_0/PHYAD1
RXD_1/PHYAD2
RXD_2/PHYAD3
RXD_3/PHYAD4
IOGND
PFBIN2
DGND
X1
X2
IOVDD33
MDC
MDIO
RESET_N
LED_LINK/AN0
LED_SPEED/AN1
RBIAS
PFBOUT
AVDD33
AGND
PFBIN1
TD +
TD -
AGND
RD +
RD -
R6521 100
R6522 100
R6523 100
R6524 100
R6525 100
R6526 100
R6527 100
R6528 100
R6529 100
R6535 0
T6501
ALT3232M
T6502
ALT3232M
CTRXP0
CTRXN0
CTRXP1
CTRXN1
C6512 0.1
C6513 0.1
C6514 0.1
C6515 0.1
C6501 0.1
C6502 0.1
C6503 0.1
C6504 10
C6505 0.1
C6506 10
R6518 12K
R6519 8.2K
R6517 100
L6502 0.10U
LAN_TXER
LAN_TXCLK
LAN_TXEN
LAN_TXD0
LAN_TXD1
LAN_TXD2
LAN_TXD3
To RF-A UNIT (6/9)
To RF-A UNIT (2/9)
Q6701
UT2301G
GPS3R3V
R6701 100K
EP6701
MMZ1005Y102CT
R6712 100K
R6702 1K
Q6702
RUM002N02
R6717 100K
Q6711
UT2301G
R6714 10
Q6712
2SA1586
R6715 100K
R6716 100K
C6710 0.1
EP6702
BLM15GA750SN1D
J6701
GPS ANT
C6717 8P
R6718 0
R6711 BZAEG2A
L6001 8.2N
C6016 0.5P
C6707 8P
C6708 0.5P
C6719 2P
C6720 0.001
R6710 0
C6701 0.001
IC6702
NJG1157PCD
GND
PreOUT
LNAIN
NC(GND)
PostOUT
PreIN
NC(GND)
VDD
VCTL
GND
IC6701
GSU-141A
RF_IN
VDD_BKUP_IN
VDD_BKUP_BAT_IN
I2C_SCL
I2C_SDA
GPIO0
UART0_RX
UART0_CTS
UART0_T X
VDD_PRPH_OUT
BOOT_MODE0
VDD_IO_HOST
GPIO1
C6703 22
C6716 0.1
MP6701
3754
To RF-A UNIT (6/9)
GPSPWS
GPS_TXD
GPS_RXD
GPS_RST
GPSPPS
To RF-A UNIT (5/9)

• RF-A UNIT (8/9)

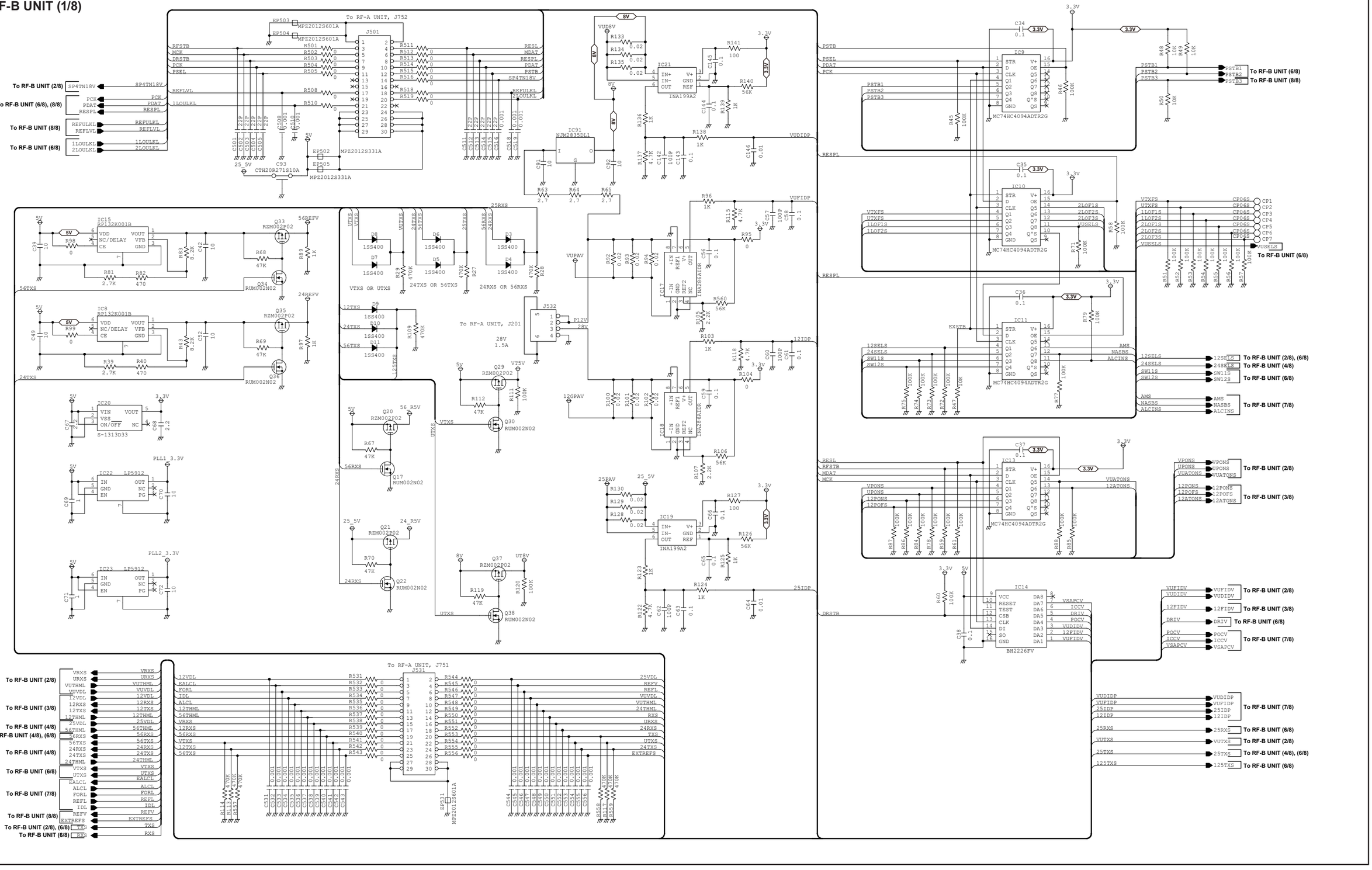


RF TRX Block

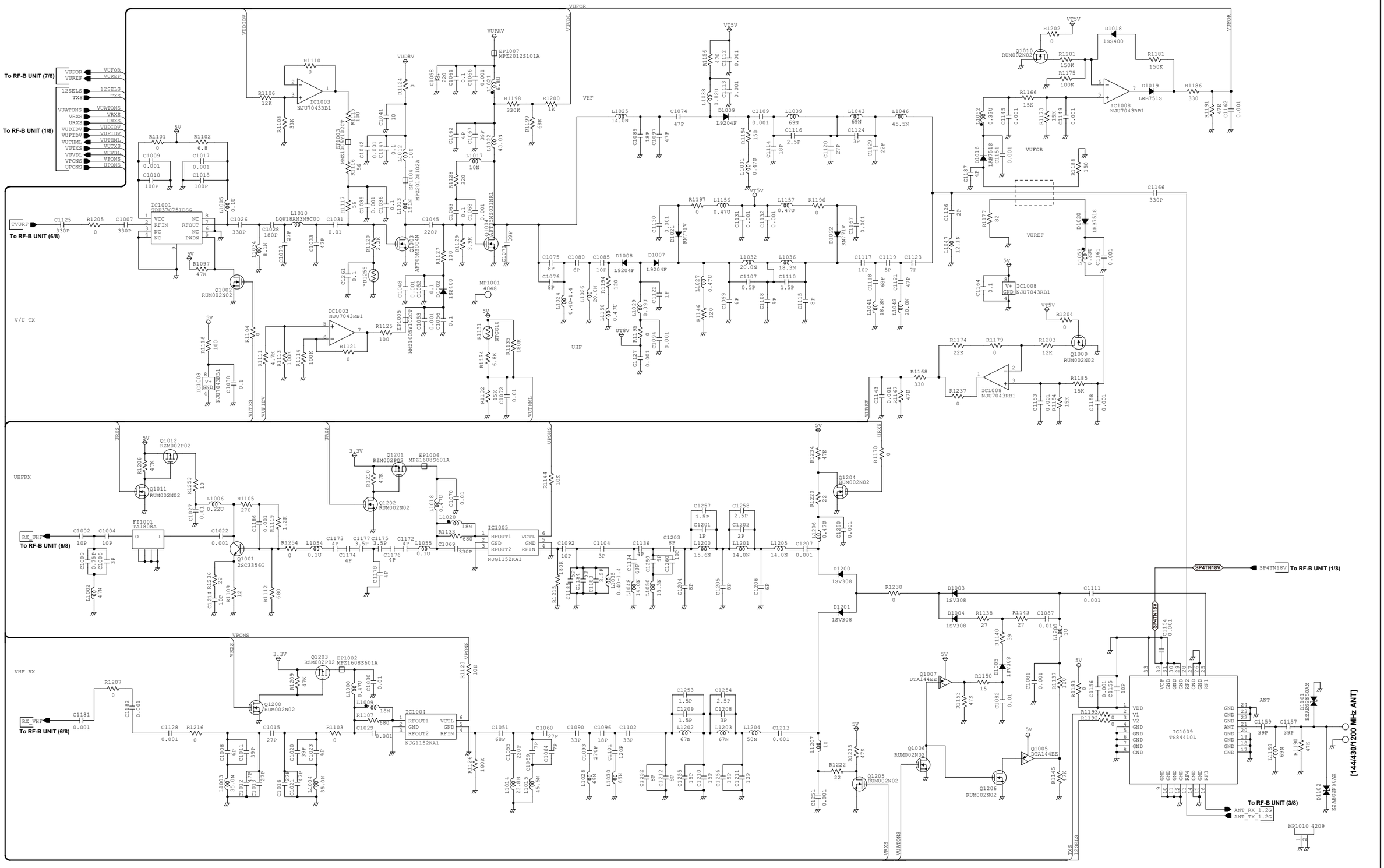
• RF-A UNIT (9/9)


3R5V
3R5V
To RF-A UNIT (1/9)
To RF-B UNIT, J6042
J8001
ADC_ENC+
ADC_ENC-
To RF-A UNIT (8/9)
FPGCLK+
FPGCLK-
To RF-A UNIT (5/9)
Clock Buffering Block
DACK_P
DACK_N
To RF-A UNIT (8/9)
DITHER
To RF-A UNIT (8/9)

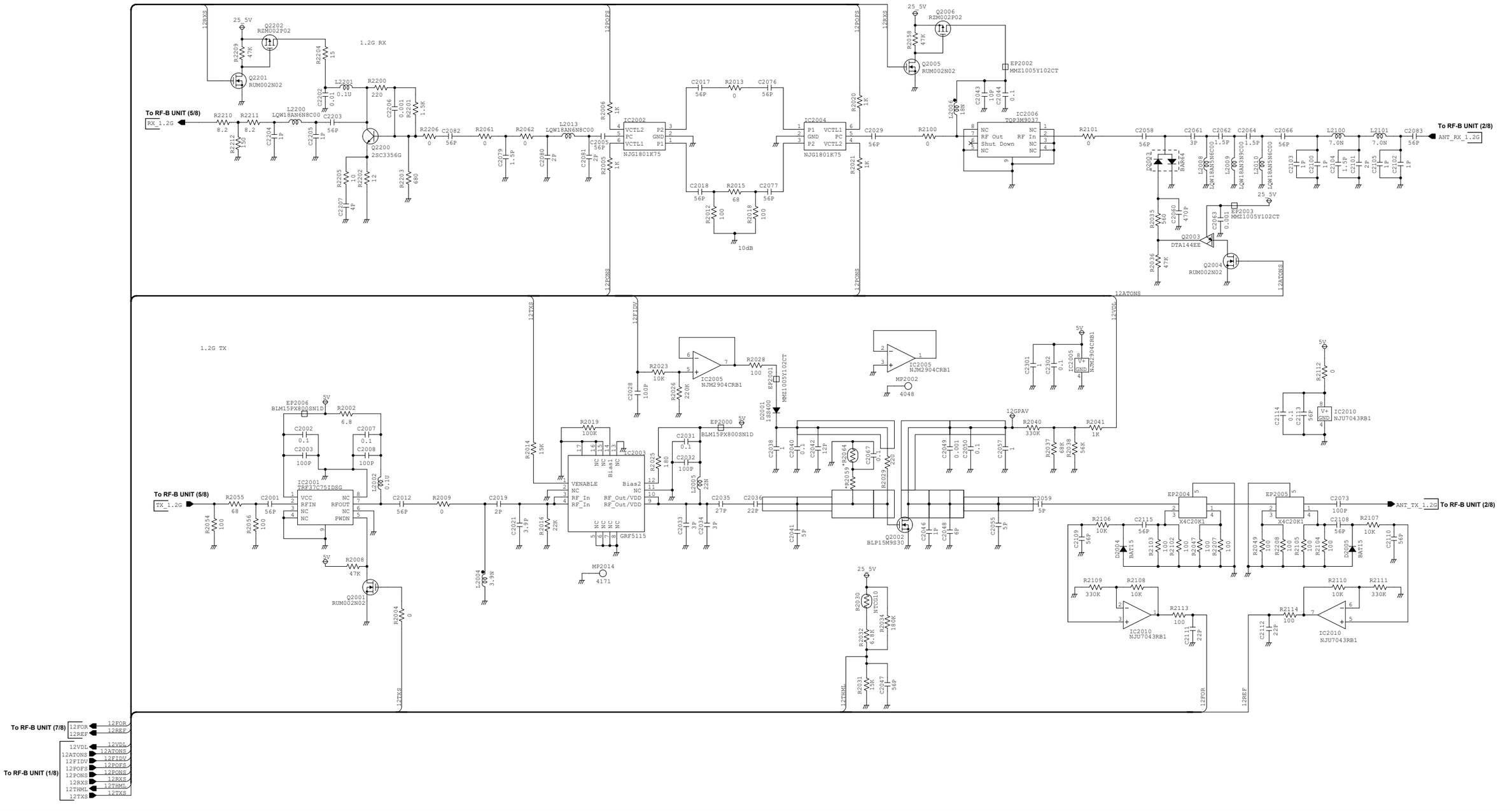
• RF-B UNIT (1/8)


To RF-A UNIT, J752
J501
EP503
EP504
MPZ2012S601A
RFSTB
MCK
DRSTB
PCK
PSEL
RESL
MDAT
RESPL
PDAT
PSTB
SP4TN18V
REFLVL
1LOULKL
REFULKL
2LOULKL
To RF-B UNIT (2/8)
To RF-B UNIT (6/8), (8/8)
To RF-B UNIT (8/8)
To RF-B UNIT (6/8)
EP502
EP505
MPZ2012S331A
CTH20R271S10A
IC91
NJM2835DL1
IC21
INA199A2
IC9
IC10
IC11
IC13
IC14
MC74HC4094ADTR2G
BH2226FV
IC15
IC8
RP132K001B
S-1313D33
IC20
IC22
IC23
LP5912
PLL1 3.3V
PLL2_3.3V
Q33
Q34
Q35
Q36
RZM002P02
RUM002N02
56REFV
24REFV
56TXS
24TXS
J532
To RF-A UNIT, J201
P12V
28V
1.5A
J531
To RF-A UNIT, J751
EP501
MPZ2012S601A
VTXS OR UTXS
24TXS OR 56TXS
24RXS OR 56RXS
VUPAV
12GPAV
25PAV
VUDIDP
12IDP
25IDP
VUFIDP
12FIDP
25FIDP
VUSELS
12SELS
24SELS
SW11S
SW12S
AMS
NASBS
ALCINS
VPONS
UPONS
VUATONS
12PONS
12POFS
12ATONS
DRIV
PCCV
ICCV
VSAPCV
VRXS
URXS
VUTHML
VUVDL
12VDL
12RXS
12TXS
12THML
25VDL
56THML
56RXS
56TXS
24RXS
24TXS
24THML
VTXS
UTXS
EALCL
ALCL
FORL
REFL
IDL
REFV
EXTREFS
TXS
RXS
To RF-B UNIT (2/8)
To RF-B UNIT (3/8)
To RF-B UNIT (4/8)
To RF-B UNIT (4/8), (6/8)
To RF-B UNIT (6/8)
To RF-B UNIT (7/8)
To RF-B UNIT (8/8)
To RF-B UNIT (2/8), (6/8)
To RF-B UNIT (6/8)
To RF-B UNIT (3/8)
To RF-B UNIT (4/8)
To RF-B UNIT (7/8)

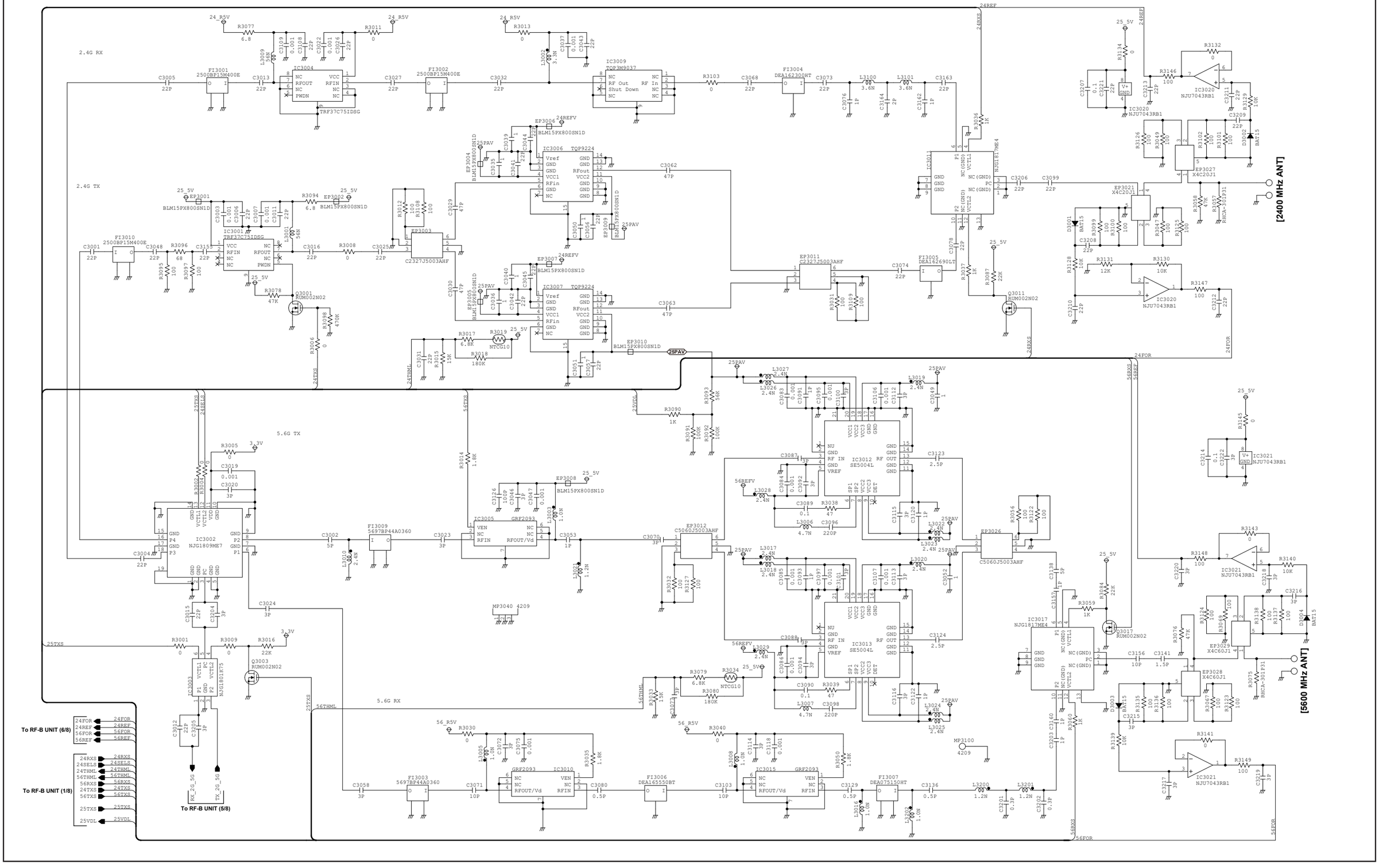
• RF-B UNIT (2/8)


To RF-B UNIT (7/8)
To RF-B UNIT (1/8)
To RF-B UNIT (6/8)
V/U TX
UHFRX
VHF RX
VHF
UHF
VUFOR
VUREF
VUVDL
VUD8V
VUPAV
VUVDH
VUTXS
VUFIDV
VUTXHL
VUFIDH
VUTXHH
VUTXH
VUTXL
VUATONS
VRXS
VRXH
VRXL
VPONS
VPONH
VPONL
URXS
URXH
URXL
UPONS
UPONH
UPONL
TVURF
RX_UHF
RX_VHF
SP4TN18V
ANT_RX_1.2G
ANT_TX_1.2G
[144/430/1200 MHz ANT]
IC1001 TRF37C75IDSG
IC1003 NJU7043RB1
IC1004 NJG1152KA1
IC1005 NJG1152KA1
IC1008 NJU7043RB1
IC1009 TS84410L
FI1001 TA1808A
Q1001 2SC3356G
Q1002 RUM002N02
Q1003 AFT05MS004N
Q1004 RF3S03BS31HR1
Q1005 DTA144EE
Q1006 RUM002N02
Q1007 DTA144EE
Q1009 RUM002N02
Q1010 RUM002N02
Q1011 RUM002N02
Q1012 RZM002P02
Q1200 RUM002N02
Q1201 RZM002P02
Q1202 RUM002N02
Q1203 RZM002P02
Q1204 RUM002N02
Q1205 RUM002N02
Q1206 RUM002N02

• RF-B UNIT (3/8)

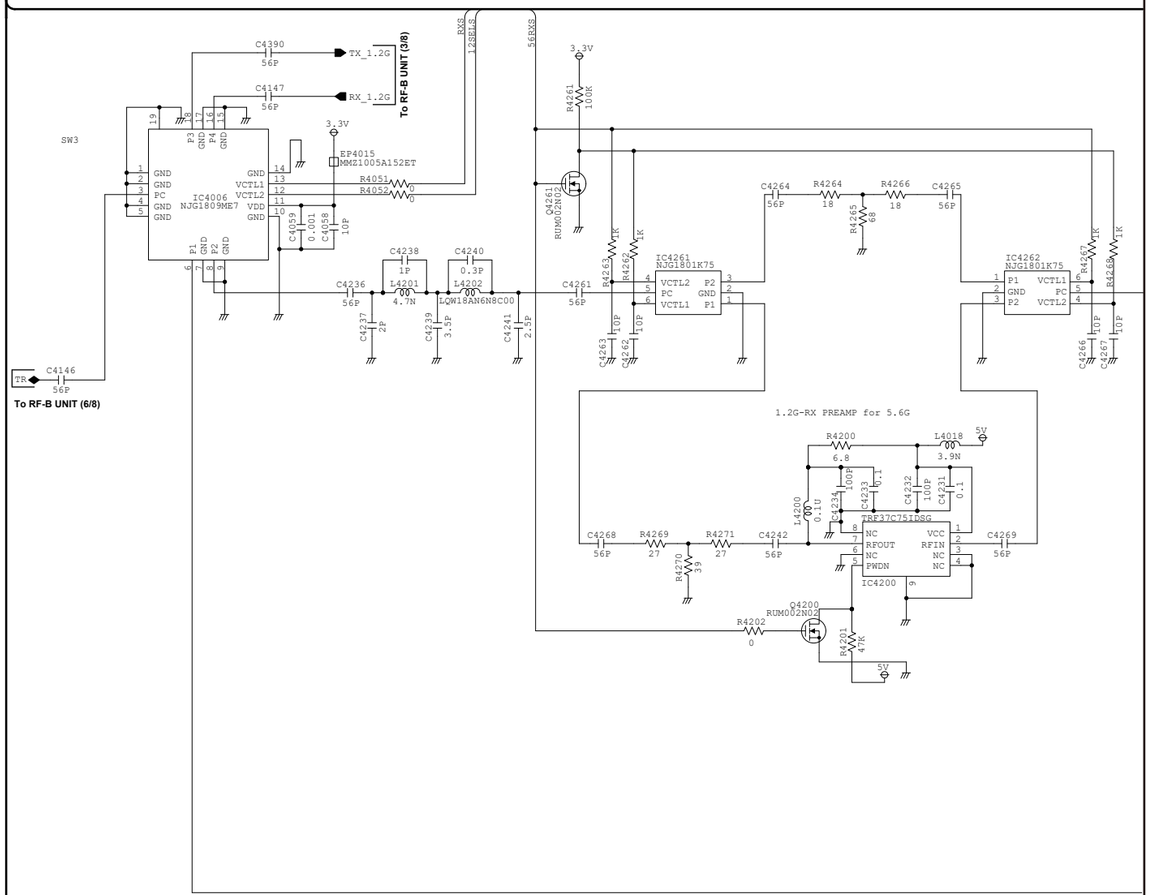

1.2G RX
1.2G TX
To RF-B UNIT (5/8)
To RF-B UNIT (2/8)
To RF-B UNIT (7/8)
To RF-B UNIT (1/8)
RX_1.2G
ANT_RX_1.2G
TX_1.2G
ANT_TX_1.2G
25_5V
5V
Q2202 RZM002P02
Q2201 RUM002N02
Q2200 2SC3356G
Q2006 RZM002P02
Q2005 RUM002N02
Q2003 DTA144EE
Q2004 RUM002N02
Q2001 RUM002N02
Q2002 BLP15M9S30
IC2002 NJG1801K75
IC2004 NJG1801K75
IC2006 TOP3M9037
IC2001 TRF37C75IDSG
IC2005 NJM2904CRB1
IC2010 NJU7043RB1
GRF5115
EP2002 MMZ1005Y102CT
EP2003 MMZ1005Y102CT
EP2006 BLM15PX8005N1D
EP2000 BLM15PX800SN1D
EP2001 MMZ1005Y102CT
EP2004 X4C20K1
EP2005 X4C20K1
D2001 1SS400
D2003 BAB64
D2004 BAT15
D2005 BAT15
MP2002 4048
MP2014 4171
10dB
12RXS
12PCFS
12PCNS
12ATCNS
12VDL
12TXS
12FIDV
12PCFS
12PONS
12GPAV
12THML
12FOR
12REF

• RF-B UNIT (4/8)


2.4G RX
2.4G TX
5.6G TX
5.6G RX
[2400 MHz ANT]
[5600 MHz ANT]
To RF-B UNIT (6/8)
To RF-B UNIT (1/8)
To RF-B UNIT (5/8)
FI3001 2500BP15M400E
FI3002 2500BP15M400E
FI3004 DEA162300HT
IC3009 TQP3M9037
IC3004 TRF37C75IDSG
FI3010 2500BP15M400E
IC3001 TRF37C75IDSG
FI3005 DEA162690LT
EP3011 C2327J5003AHF
IC3006 TQP9224
IC3007 TQP9224
EP3010 BLM15PX800SN1D
IC3011 NJG1817ME4
EP3027 X4C20J1
EP3021 X4C20J1
IC3020 NJU7043RB1
IC3017 NJG1817ME4
EP3029 X4C60J1
EP3028 X4C60J1
IC3021 NJU7043RB1
IC3002 NJG1809ME7
IC3003 NJG1801K75
FI3009 5697BP44A0360
IC3005 GRF2093
FI3003 5697BP44A0360
IC3010 GRF2093
FI3006 DEA165550BT
IC3015 GRF2093
FI3007 DEA075150HT
EP3012 C5060J5003AHF
EP3026 C5060J5003AHF
MP3040 4209
MP3100 4209
24REF
24RXS
24FOR
25TXS
25VDL
25PAV
56REFV
56RXS
56FOR
56THML
5.6G RX

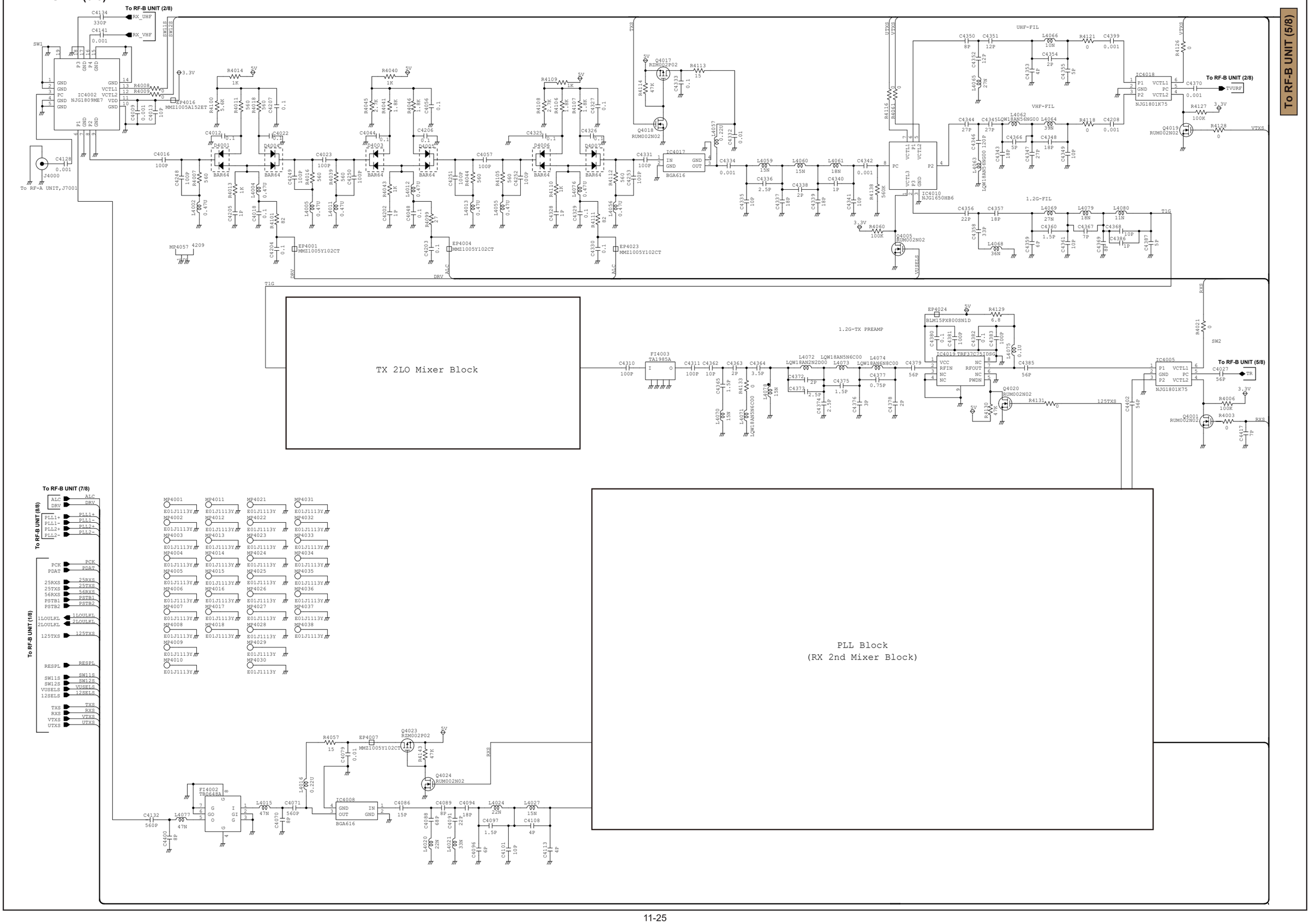
• **RF-B UNIT (5/8)**

To RF-B UNIT (6/8)

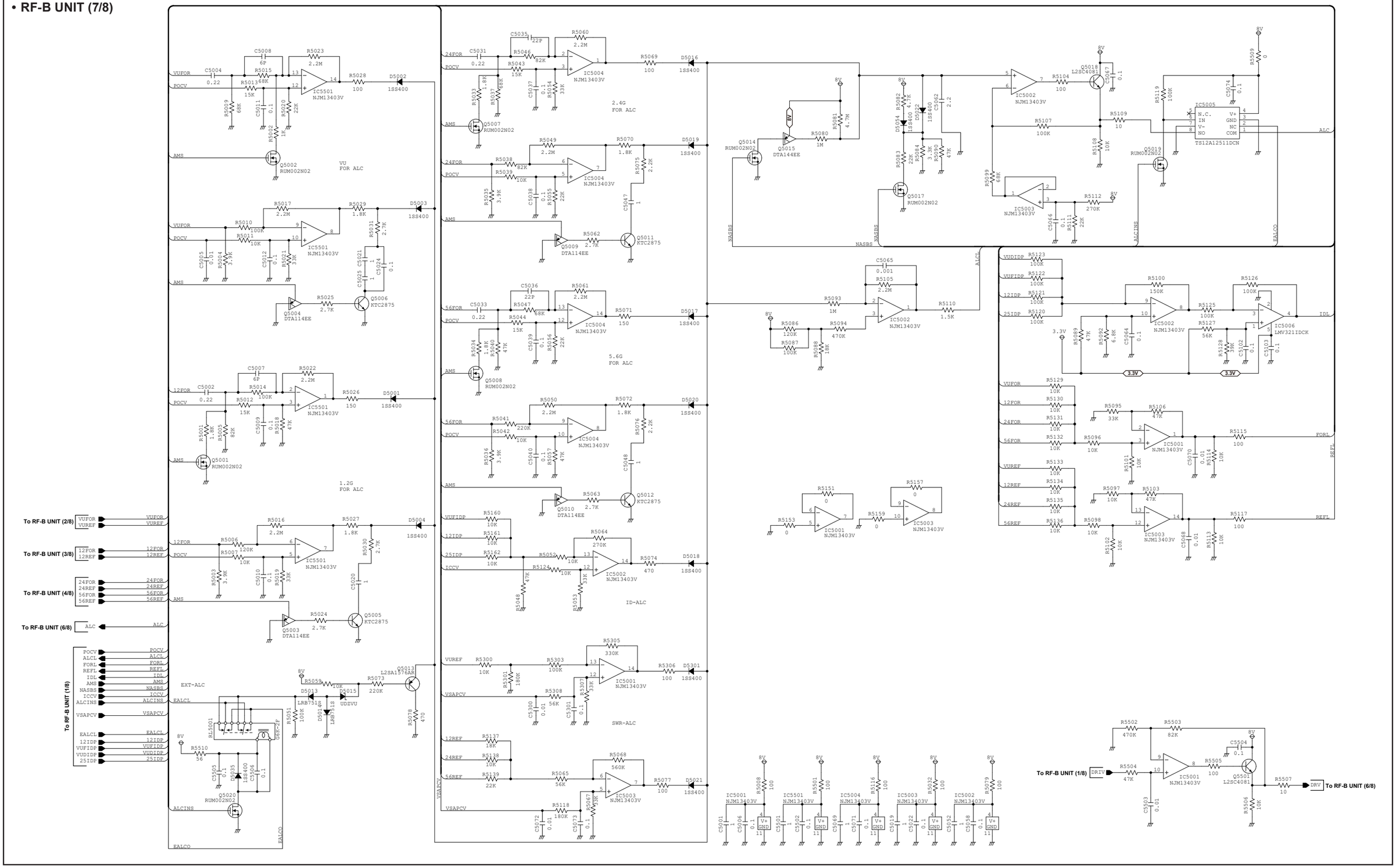


PLL Block
(TX 2nd Mixer Block)

• RF-B UNIT (6/8)


To RF-B UNIT (2/8)
To RF-B UNIT (5/8)
To RF-B UNIT (7/8)
To RF-B UNIT (8/8)
To RF-B UNIT (1/8)
To RF-A UNIT,J7001
TX 2LO Mixer Block
PLL Block
(RX 2nd Mixer Block)
1.2G-TX PREAMP
UHF-FIL
VHF-FIL
1.2G-FIL
BGA616
BLM15PX800SN1D

• **RF-B UNIT (7/8)**


VUFOR
POCV
AMS
VU FOR ALC
12FOR
1.2G FOR ALC
24FOR
2.4G FOR ALC
56FOR
5.6G FOR ALC
ID-ALC
SWR-ALC
EXT-ALC
NASBS
ALCINS
EALCO
ALC
IDL
REFL
FORL
REFH
To RF-B UNIT (1/8)
To RF-B UNIT (2/8)
To RF-B UNIT (3/8)
To RF-B UNIT (4/8)
To RF-B UNIT (6/8)
IC5501 NJM13403V
IC5004 NJM13403V
IC5002 NJM13403V
IC5001 NJM13403V
IC5003 NJM13403V
IC5005 TS12A12511DCN
IC5006 LMV321IDCK

• RF-B UNIT (8/8)


Clock Generator Block
To RF-A UNIT, J8001
J6042
[REF OUT 10MHz/-10dBm]
MP6003
To RF-B UNIT (1/8)
PCK
PDAT
PSTB3
RESPL
REFULKL
REFLVL
REFV
EXTREFS
MP6001 3182
MP6002 3182

If you have any inquiries regarding service, contact your distributor. The contact number or E-mail address of your distributor can be found on our website.

https://www.icomjapan.com/

How the World Communicates

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