CUBE-STEX

SERVICE NOTES
Issued by RJA

Table of Contents

Cautionary Notes

Before beginning the procedure, please read through this document. The matters described may differ according to the model.

No User Data

This product cannot save user data. Backing up user data during servicing is not required.

Part Replacement

When replacing components near the power-supply circuit or a heat-generating circuit (such as a circuit provided with a heat sink or including a cement resistor), carry out the procedure according to the instructions with respect to the part number, direction, and attachment position (mounting so as to leave an air gap between the component and the circuit board, etc.).

Parts List

A component whose part code is ******** will not be supplied as a service part because one of the following reasons applies.

- Because it is supplied as an assembled part (under a different part code).
- Because a number of circuit boards are grouped together and supplied as a single circuit board (under a different part code).
- Because supply is prohibited due to copyright restrictions.
- Because reissuance is restricted.
- Because the part is made to order (at current market price).
- Because it is carried in electronic data on the Roland web site.
- Because it is a package or an accessory irrelevant to the function maintenance of the main body.
- Because it can be replaced with an article on the market. (battery or etc.)

Circuit Diagram

In the circuit diagram, “NIU” is an abbreviation for “Not in Use,” and “UnPop” is an abbreviation for “Unpopulated.” They both mean non-mounted components. The circuit board and circuit board diagram show silk-screened indications, but no components are mounted.

Specifications

CUBE Street EX: BATTERY POWERED STEREO AMPLIFIER

Maximum Power Output

50 W (25 W + 25 W)

Nominal Input Level (1 kHz)

MIC/INSTRUMENT INPUT:	-50/-10 dBu
MIC/GUITAR INPUT:	-10 dBu
LINE IN:	-10 dBu
AUDIO IN (i-CUBE LINK):	-10 dBu
AUX IN, STEREO LINK IN:	-10 dBu

Nominal Output Level (1 kHz)

LINE OUT (L/MONO, R), STEREO LINK OUT (L, R): -10 dBu

Speakers

Woofer: 20 cm (8 inches) x 2
Tweeter: 5 cm (2 inches) x 2

Controls

POWER switch
BATTERY CHECK/MUTE button
OUTPUT POWER switch (ECO, NORMAL, MAX)

[MIC/INSTRUMENT]
SELECT switch (MIC, INST)
VOLUME knob
BASS knob
MIDDLE knob
TREBLE knob
REVERB knob

[MIC/GUITAR]
TUNER button
TYPE switch (A-GUITAR, ACOUSTIC SIM, CLEAN, CRUNCH, LEAD, MIC)
VOLUME knob
BASS knob
MIDDLE knob
TREBLE knob
CHORUS/DELAY knob (CHORUS, DELAY)
REVERB knob

[AUDIO IN]
VOLUME knob

[LINE IN]
VOLUME knob

BATTERY CHECK/MUTE button
STEREO LINK/LINE OUT switch

Indicators

POWER
BATTERY
BATTERY CHECK/MUTE
TUNER

Connectors

[MIC/INSTRUMENT]

INPUT jack: Combo type (XLR type, 1/4-inch TRS phone), balanced
FOOT SW (REVERB) jack: 1/4-inch TRS phone type

[MIC/GUITAR]

INPUT jack: Combo type (XLR type, 1/4-inch TRS phone), unbalanced
FOOT SW (TIP: CHORUS/DELAY, RING: REVERB) jack: 1/4-inch TRS phone type

[AUDIO IN]

STEREO AUDIO IN (i-CUBE LINK) jack: 4-pole miniature phone type

[LINE IN]

STEREO LINE IN (L/MONO, R) jacks: 1/4-inch phone type

AUX IN, STEREO LINK IN jack: 1/4-inch phone type
LINE OUT (L/MONO, R), STEREO LINK OUT (L, R) jacks: 1/4-inch phone type
PHONES jack: Stereo 1/4-inch phone type
DC IN jack

Power Supply

AC adaptor (DC 13 V)
Alkaline battery (AA, LR6) x 8
Rechargeable Ni-MH battery (AA, HR6) x 8

Current Draw

730 mA

Expected battery life under continuous use

[OUTPUT POWER switch: MAX (Maximum power output: 50 W)]

Alkaline battery: Approximately 4 hours
Rechargeable Ni-MH battery: Approximately 5 hours (*1)

[OUTPUT POWER switch: NORMAL (Maximum power output: 25 W)]

Alkaline battery: Approximately 8 hours
Rechargeable Ni-MH battery: Approximately 10 hours (*1)

[OUTPUT POWER switch: ECO (Maximum power output: 10 W)]

Alkaline battery: Approximately 16 hours
Rechargeable Ni-MH battery: Approximately 20 hours (*1)

*1 *When using batteries having a capacity of 2,450 mAh.*

* *These can vary depending on the specifications of the batteries, capacity of the batteries, and the conditions of use.*

Dimensions

490 (W) x 341 (D) x 305 (H) mm
19-5/16 (W) x 13-7/16 (D) x 12-1/16 (H) inches

Weight

7.4 kg (excluding batteries)
16 lbs 6 oz

Accessories

Owner's manual multilanguage (#5100038582)
Owner's manual chinese (#5100038578)
AC adaptor (#5100010587)
Power cord (#5100012740, #5100009482, #5100009486, #5100009484, #5100009483, #5100009485)
Mini cable (4-pole miniature phone type) (#5100031008)

Options (sold separately)

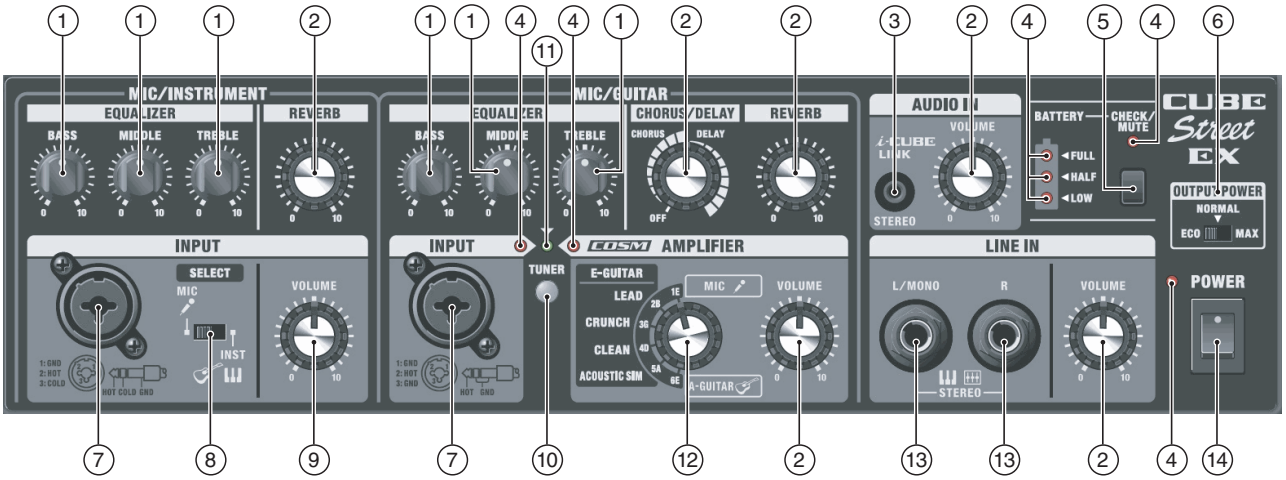
Carrying Case: CB-CS2
Footswitch (BOSS FS-5U, BOSS FS-6)
Speaker Stand: ST-A95

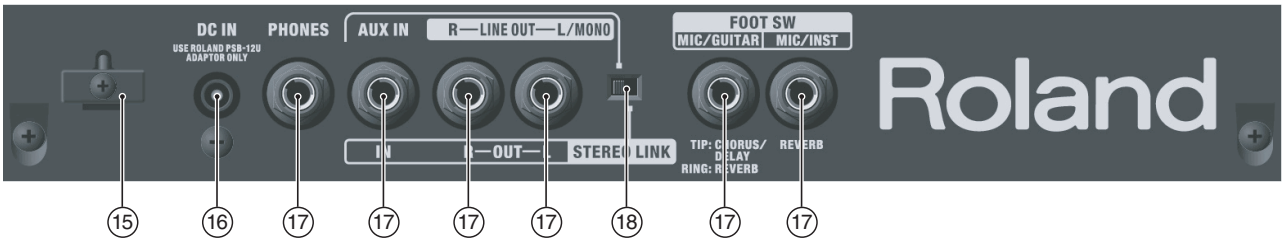
* *0 dBu = 0.775 Vrms*

* *Printed matters will not be supplied after the end of the production. Then, download the electronic file from the Roland web site.*

* *In the interest of product improvement, the specifications and/or appearance of this unit are subject to change without prior notice.*

Location of Controls

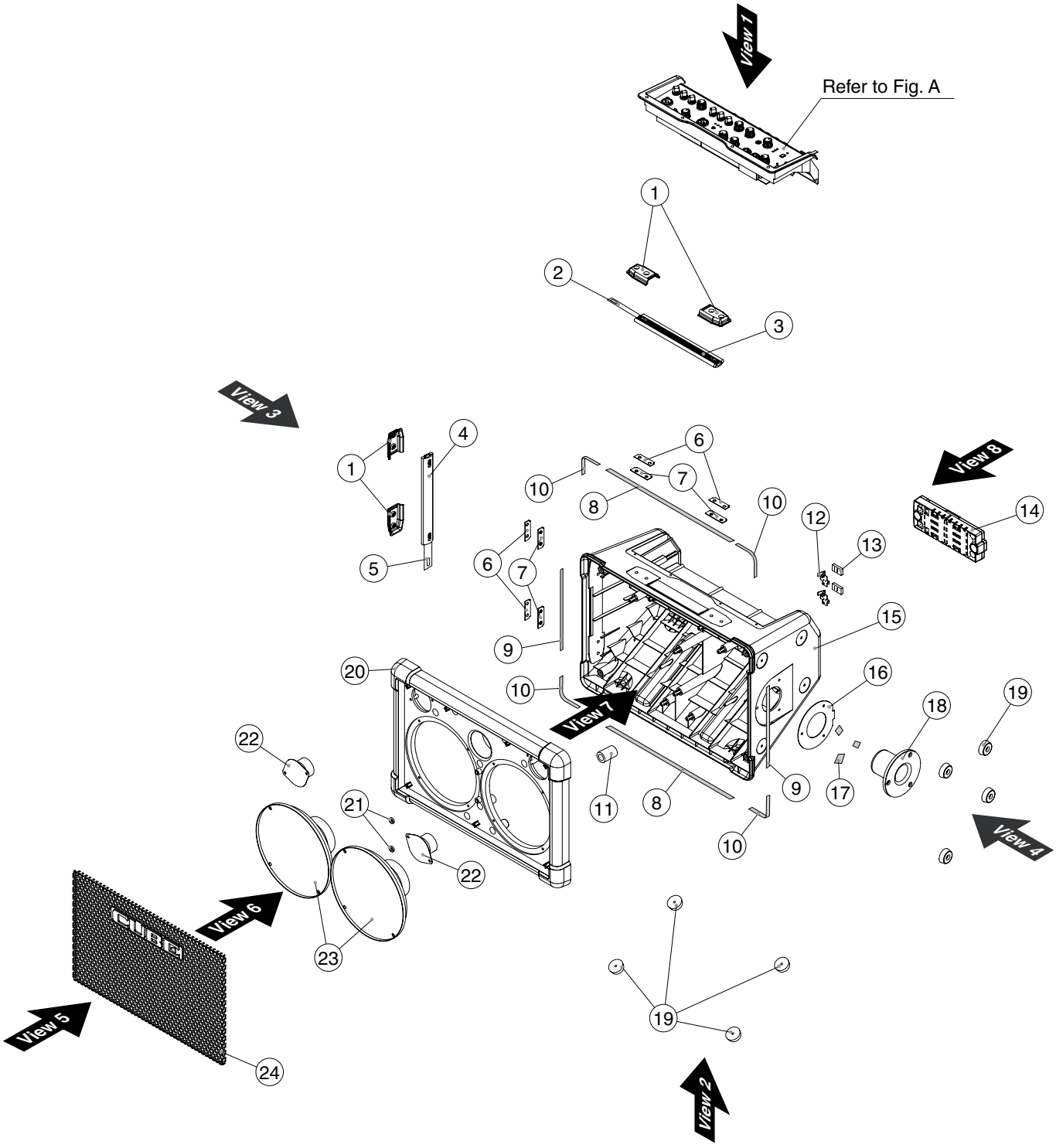




Location of Controls Parts List

No.	Part Code	Part Name	Descriptions	Q'ty
1	5100033433	ROTARY POTENTIOMETER	R0923NOCV1B103FE00A1	6
	5100023950	R-KNOB	10-11017-01-01	6
	17048630	VR ACCESSORY NUT M9	(attached to VR)	6
	40452178	VR WASHER M9	(attached to VR)	6
2	5100033433	ROTARY POTENTIOMETER	R0923NOCV1B103FE00A1	6
	5100038983	R-KNOB	SF BLK/SLV	6
	17048630	VR ACCESSORY NUT M9		6
	40452178	VR WASHER M9		6
3	5100037105	3.5MM JACK	LJE0393-7	1
4	5100019878	LED (RED)	L-710XSURD-E-SZ	7
	5100039063	LED SPACER	LEDH-9	7
5	01780101	TACT SWITCH	SKQKABD010	1
	5100036682	S-KEYTOP		1
6	5100007725	SWITCH	SS71020F-0103-6T-025-NP-017	1
7	5100014678	CANNON CONNECTOR	CT/PJ-02-EP	2
8	04459978	SLIDE SWITCH	SV70050F-0202-10T-NN	1
9	5100037962	ROTARY POTENTIOMETER	R0923NOCH1P104FE00B4	1
	5100038983	R-KNOB	SF BLK/SLV	1
	17048630	VR ACCESSORY NUT M9	(attached to VR)	1
	40452178	VR WASHER M9	(attached to VR)	1
10	01780101	TACT SWITCH	SKQKABD010	1
	5100032968	C-KEYTOP	SD1H CLR	1
	5100019878	LED (RED)	L-710XSURD-E-SZ	1
	5100004215	LED SPACER	LEDH-2	1
11	5100019879	LED (GREEN)	L-710XVGD-E-SZ	1
	5100039063	LED SPACER	LEDH-9	1
12	5100033436	ROTARY POTENTIOMETER	R0923NOAV1B103FE0EA6	1
	5100038983	R-KNOB	SF BLK/SLV	1
	40128923	HEX NUT M7	H5039521R0	1
	17048651	VR ACCESSORY WASHER M7	M7X12X0.5 NO.476	1
13	13449146	6.5MM JACK	YKB21-5012 (W/SW)	2
	5100032952	JACK NUT		2
14	02897801	SEESAW SWITCH	SDDJE13200 94V-0	1
15	5100027106	CORD HOOK	40516-014	1
16	03562412	DC JACK	HEC3900-010110	1
	5100009659	DC JACK HOLDER	350-AP011-DH(750-11041-01-00)	1
17	13449252	6.5MM JACK	YKB21-5006 (STEREO W/SW)	6
	5100032952	JACK NUT		6
18	5100000485	SLIDE SWITCH	SV71040F-0102-9T-NP	1

Exploded View



* *Attach the following parts to the inner side of the No.15 rear case.*
No.6, 7, 11, 12, 13, 16 and 17

* *An internal sound absorbing material uses the following.*
#5100039407 ABSORPTIVE FOAM
When attaching the sound absorbing material just described to the rear case, use the following adhesive.
#40236878 KONISHI CYEREX 100 120ML

Exploded View Parts List

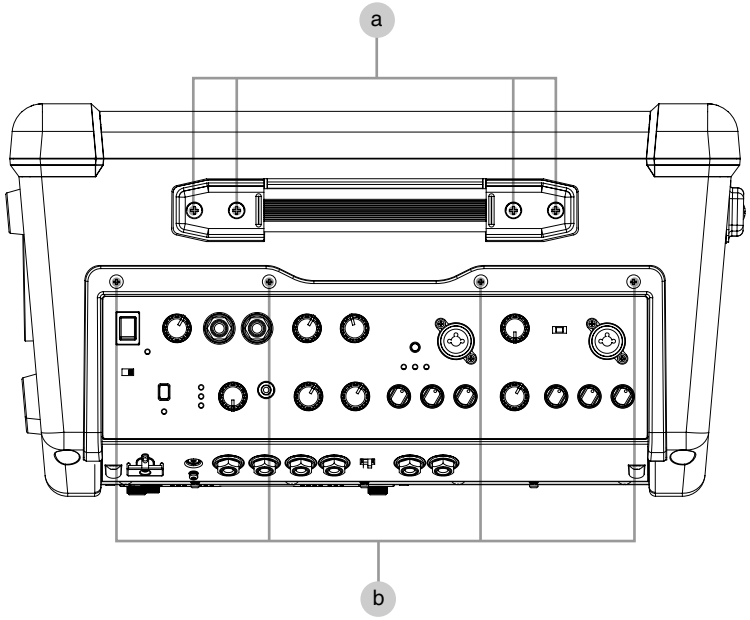
No.	Part Code	Part Name	Description	Q'ty
1	5100004814	HANDLE HOLDER	08343-512	4
2	5100004813	HANDLE PLATE	08492-511 (SD000462)	1
3	5100004812	HANDLE RUBBER	08492-511 (SD000461)	1
4	5100038982	HANDLE		1
5	5100011382	HANDLE PLATE	750-11038-03-00	1
6	5100039398	HIMELON	HANDLE	4
7	5100038980	HANDLE HOLDER PLATE		4
8	5100039394	HIMELON L		2
9	5100039395	HIMELON M		2
10	5100039396	HIMELON S		4
11	5100017151	RUBBER SPONGE BUSHING		1
12	5100009062	BATTERY TERMINAL		2
13	5100010782	CUSHION	BATTERY TERMINAL	2
14	5100022626	BATTERY PACK (990-11046-10-00	AA X 8 PCS	1
15	5100038354	REAR CASE		1
16	5100038981	TOP HAT HOLDER PLATE		1
17	5100039397	HIMELON	TOPHAT	3
18	5100009845	STAND ADAPTOR (TOP HAT)	49A-10179 (#17055020)	1
19	5100027159	RUBBER FOOT	D30.5XT9.5	8
20	5100038353	FRONT CASE		1
21	5100039421	CUSHION	GRILLE	2
22	5100039225	SPEAKER	T0204-045A	2
23	5100039224	SPEAKER	W0804-045A	2
24	5100038544	GRILLE ASSY		1

Disassembly Procedure

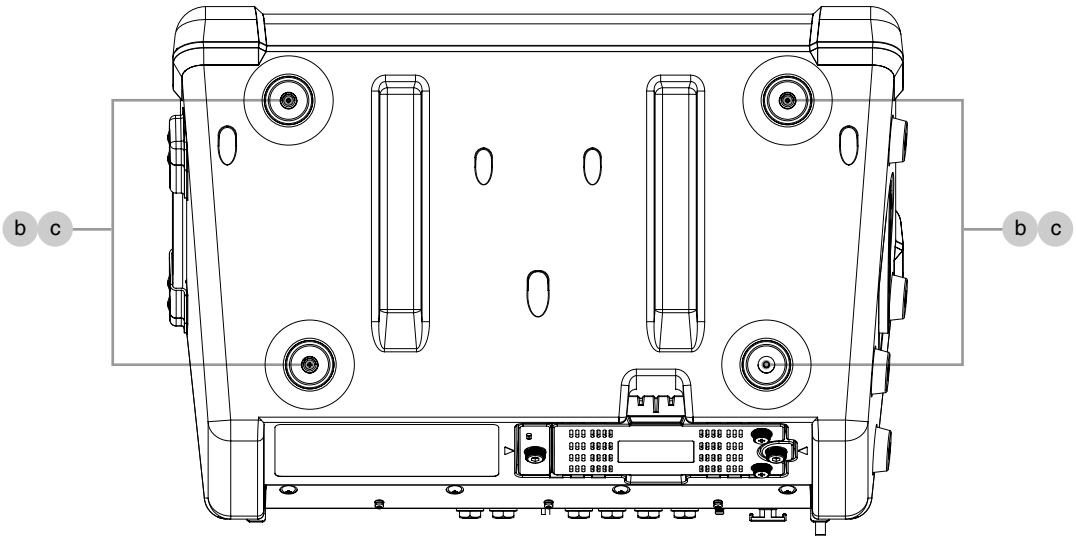
1. Remove screws **b** (7) and washers **c** (7) in **View 5** (p. 10), and detach the grill assy (**24**).
2. Remove the screws **e** (8) attaching the woofer (**23**) in **View 6** (p. 10).
3. Disconnect the speaker wires from the terminal of the woofer and detach the woofer.
4. Remove screws **b** (4) in **View 1** (p. 8).
5. Remove screws **b** (6) in **View 8** (p. 11).
6. Detach the connector for the power supply cable (black and white) connecting to the battery jack inside of the rear case.
7. Detach the rubber sponge bushing (**11**), then also detach the speaker wires disconnected from the woofer from the interior of the rear case, and then remove the chassis.

Plane View (View 1, 2)

View 1



View 2



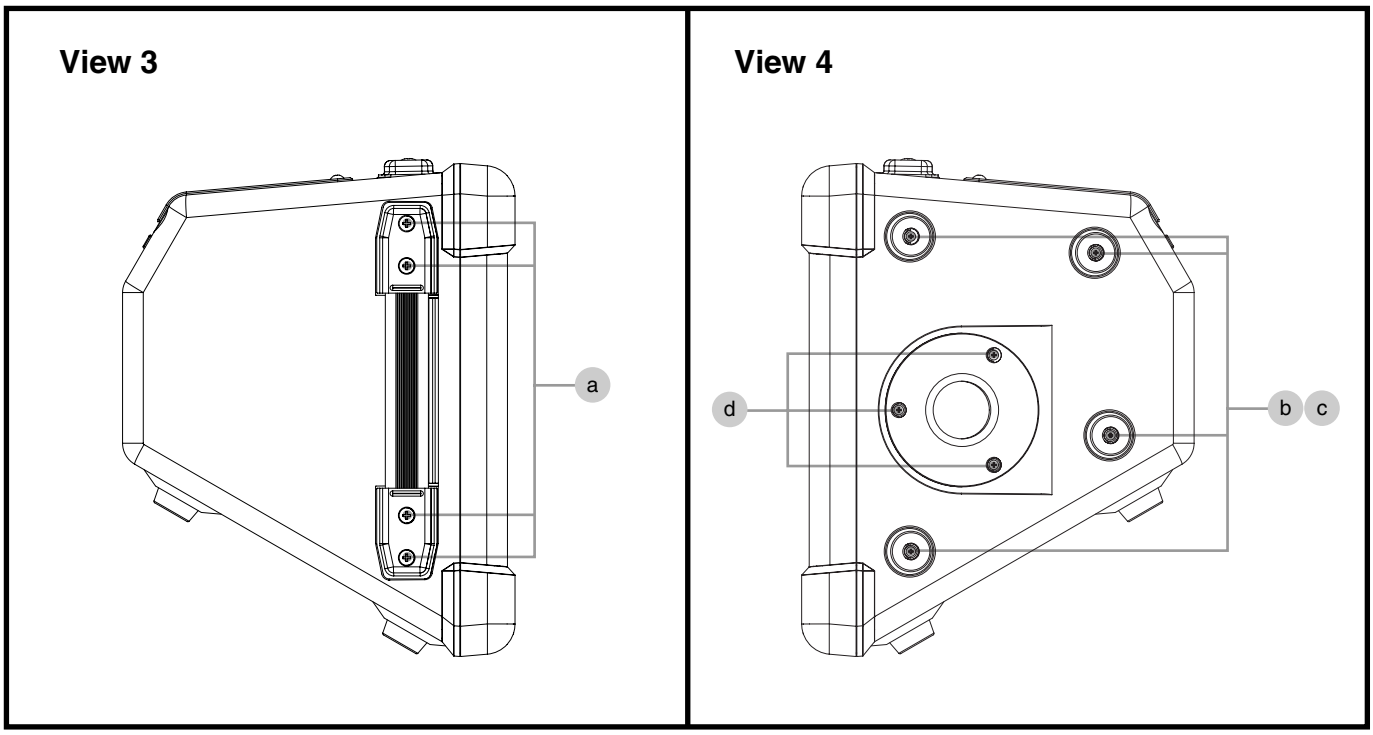
View 1

No.	Part Code	Part Name	Description	Q'ty
a	40010478	SCREW M5X25	OVAL MACHINE FE BZC FOR HANDL	4
b	5100013786	SCREW 4X12 (JC7000193R0)	TRUSS TAPTITE P BZC	4

View 2

No.	Part Code	Part Name	Description	Q'ty
b	5100013786	SCREW 4X12 (JC7000193R0)	TRUSS TAPTITE P BZC	4
c	5100005100	WASHER	FLAT 4.2X10X0.5 BZC	4

Plane View (View 3, 4)



View 3

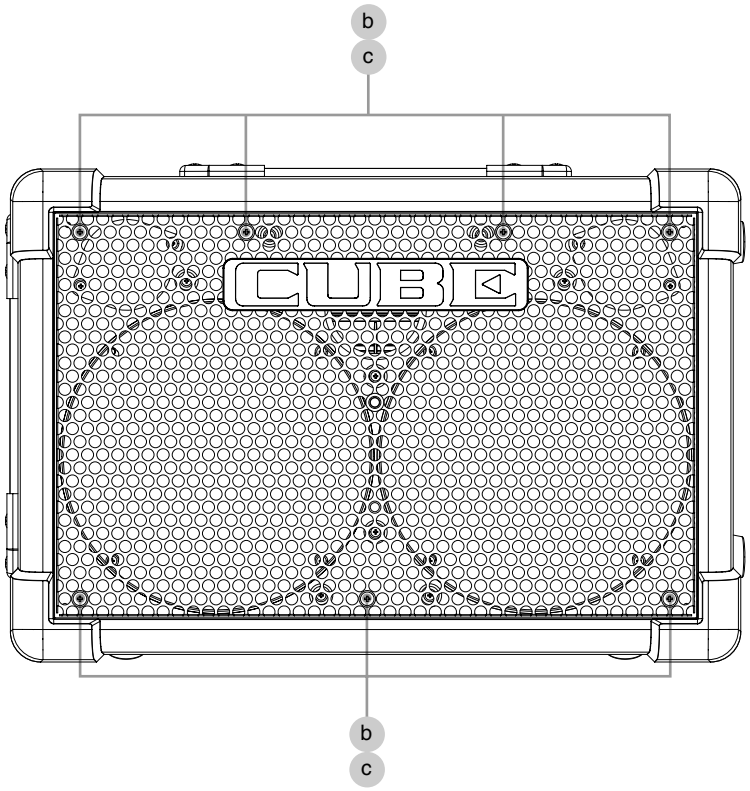
No.	Part Code	Part Name	Description	Q'ty
a	40010478	SCREW M5X25	OVAL MACHINE FE BZC FOR HANDL	4

View 4

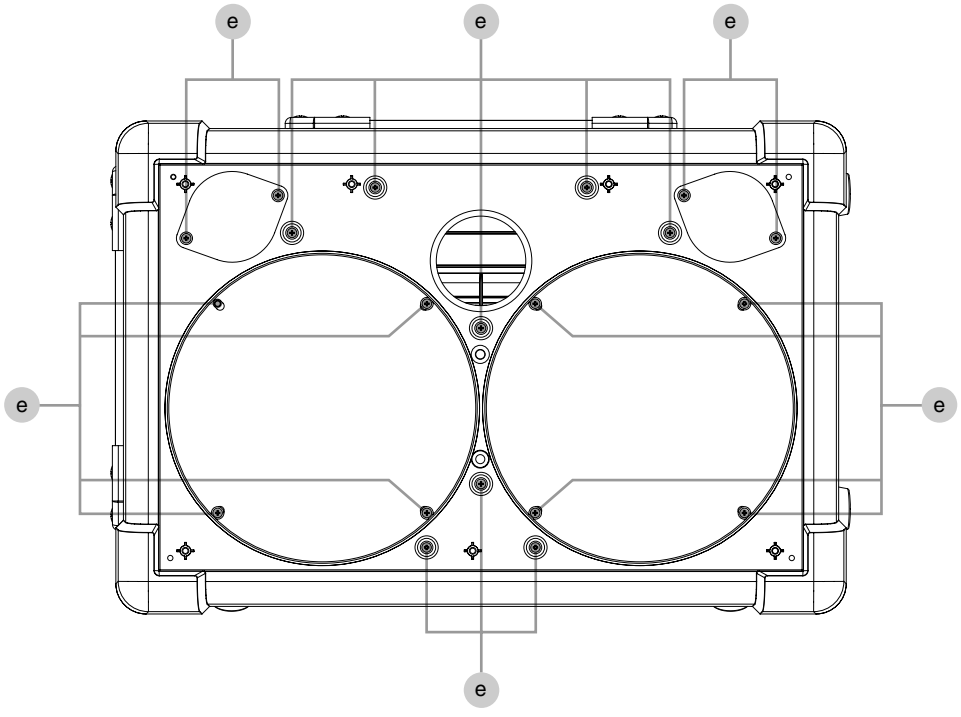
No.	Part Code	Part Name	Description	Q'ty
b	5100013786	SCREW 4X12 (JC7000193R0)	TRUSS TAPTITE P BZC	4
c	5100005100	WASHER	FLAT 4.2X10X0.5 BZC	4
d	40128012	SCREW M4X16	PAN MACHINE W/SW+PW BZC	3

Plane View (View 5, 6)

View 5



View 6



View 5

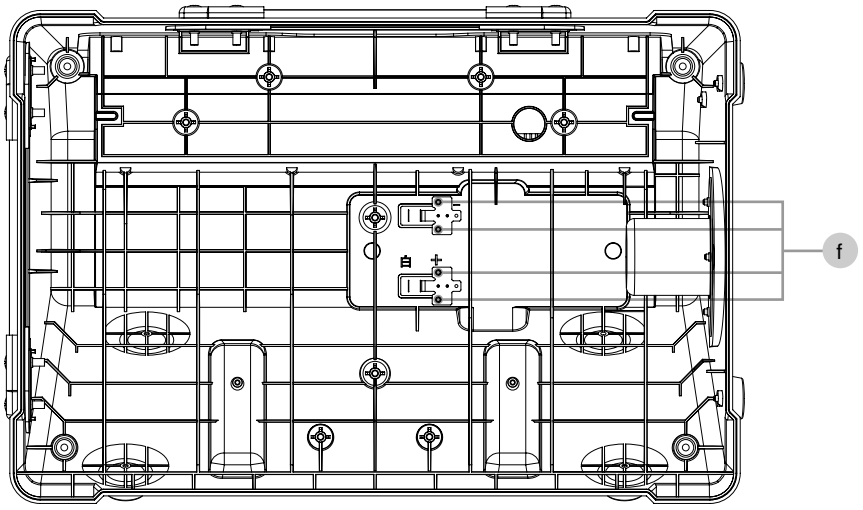
No.	Part Code	Part Name	Description	Q'ty
b	5100013786	SCREW 4X12 (JC7000193R0)	TRUSS TAPTITE P BZC	7
c	5100005101	WASHER	RESIN 4.1X11X1 BLACK	7

View 6

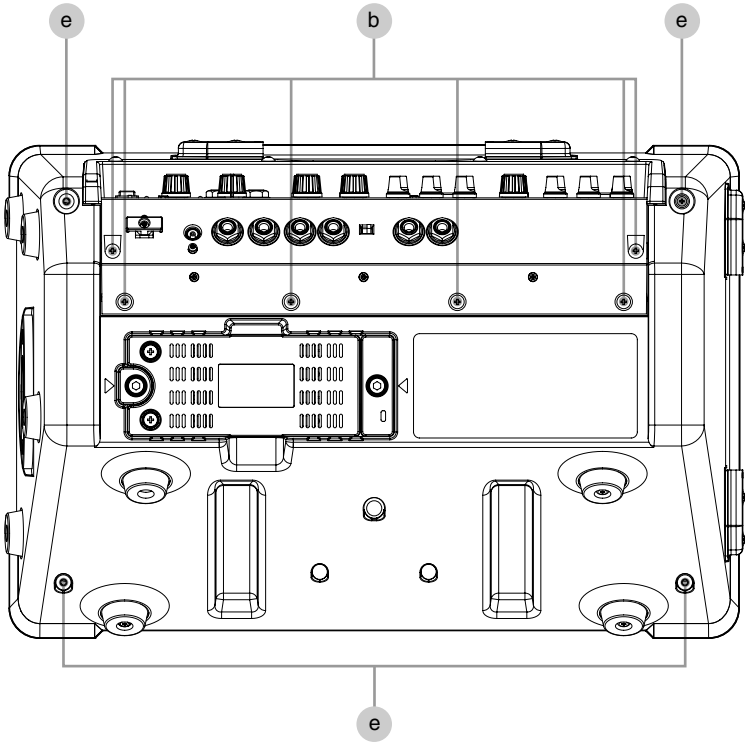
No.	Part Code	Part Name	Description	Q'ty
e	5100020467	SCREW 4X15 (501-11044-06-00)	BINDING TAPTITE P BZC	20

Plane View (View 7, 8)

View 7



View 8



View 7

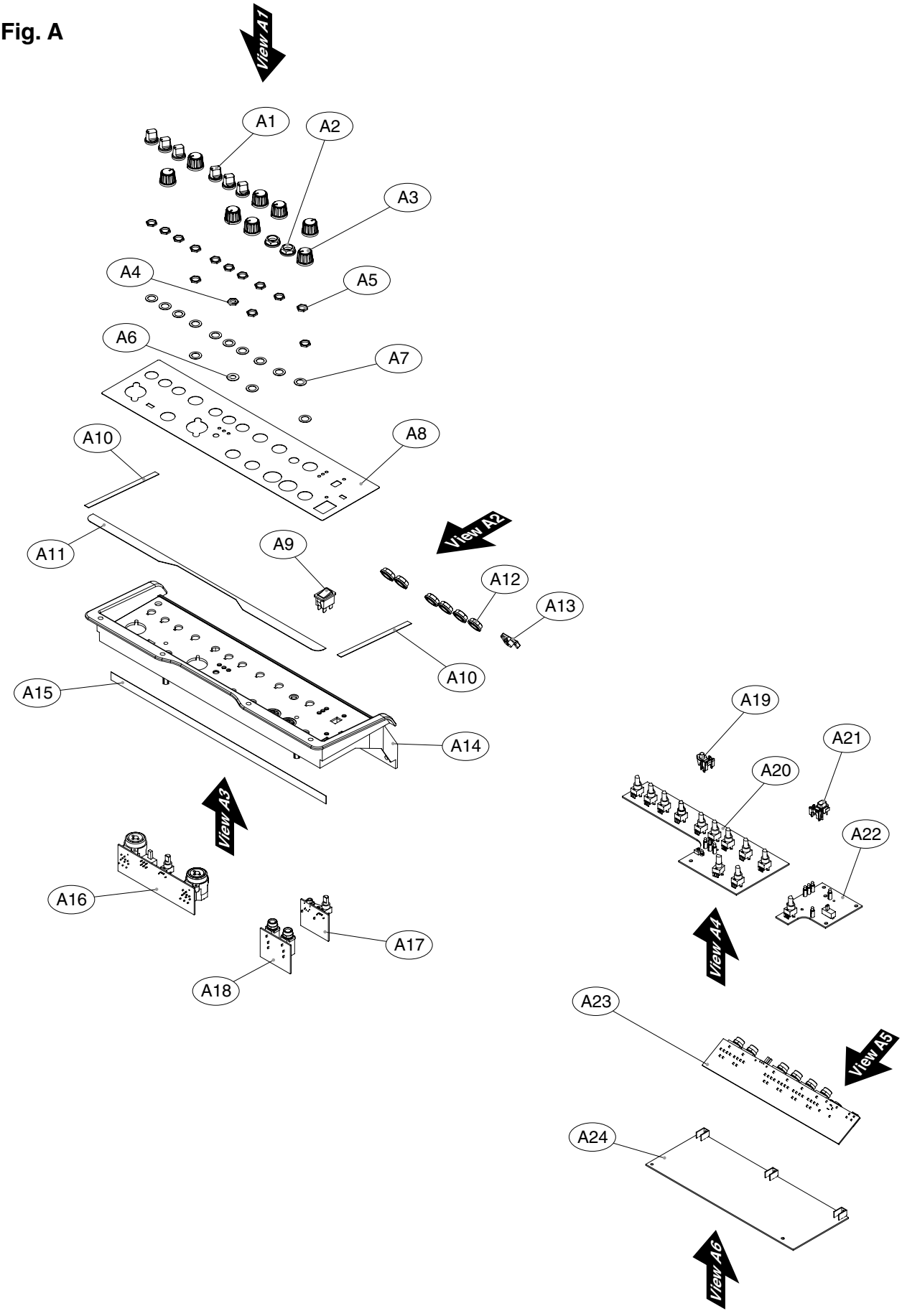
No.	Part Code	Part Name	Description	Q'ty
f	40011312	SCREW 3X8	BINDING TAPTITE P FE BZC	4

View 8

No.	Part Code	Part Name	Description	Q'ty
b	5100013786	SCREW 4X12 (JC7000193R0)	TRUSS TAPTITE P BZC	6
e	5100020467	SCREW 4X15 (501-11044-06-00)	BINDING TAPTITE P BZC	4

Exploded View (Fig. A)

Fig. A

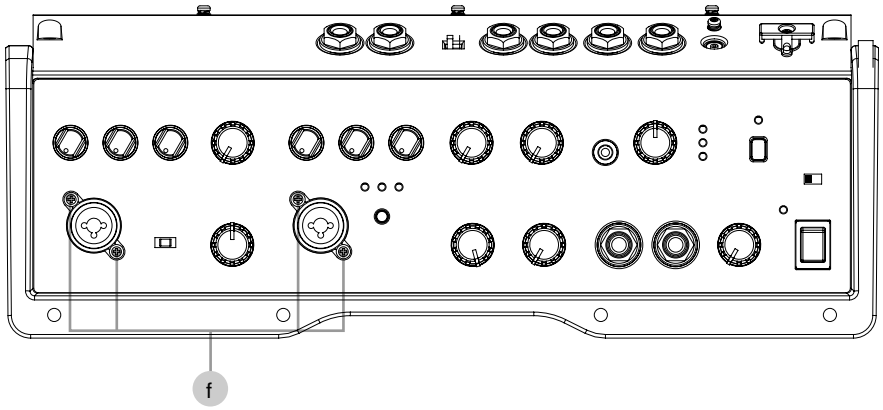


Exploded View (Fig. A) Parts List

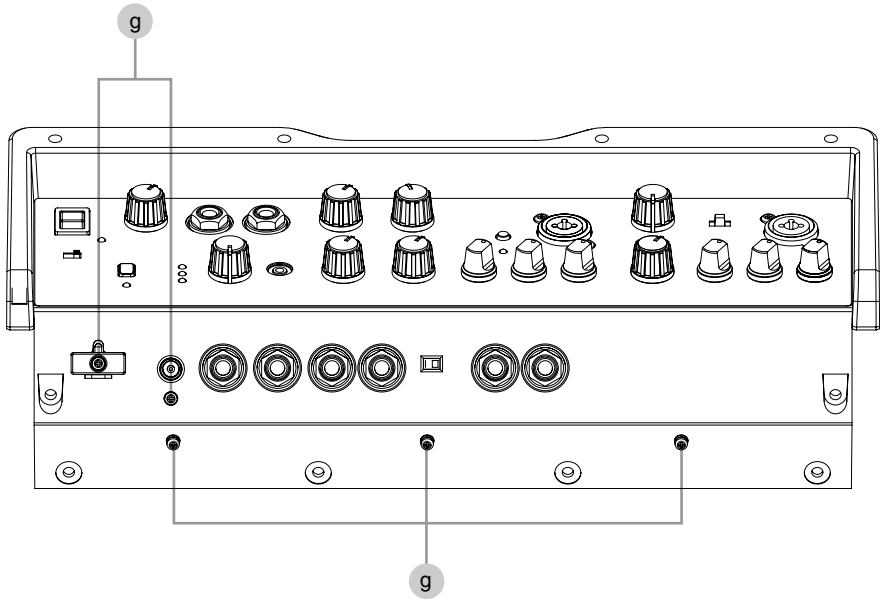
No.	Part Code	Part Name	Description	Q'ty	
A1	5100023950	R-KNOB	10-11017-01-01	6	
A2	5100032952	JACK NUT		2	
A3	5100038983	R-KNOB	SF BLK/SLV	8	
A4	40128923	HEX NUT M7	H5039521R0	1	attached to VR
A5	17048630	VR ACCESSORY NUT M9		13	attached to VR
A6	17048651	VR ACCESSORY WASHER M7	M7X12X0.5 NO.476	1	attached to VR
A7	40452178	VR WASHER M9		13	attached to VR
A8	5100038356	PANEL SHEET		1	
A9	02897801	SEESAW SWITCH	SDDJE13200 94V-0	1	
A10	5100039400	CUSHION B		2	
A11	5100039399	CUSHION A		1	
A12	5100032952	JACK NUT		6	
A13	5100027106	CORD HOOK	40516-014	1	
A14	5100038355	CHASSIS		1	
A15	5100039401	CUSHION C		1	
	5100038562	MAIN SHEET ASSY		1	
	* *This unit includes the following parts.*				
A16	********	INPUT BOARD		1	
A17	********	AUDIO INPUT BOARD		1	
A24	********	MAIN BOARD		1	
	5100038548	PANEL SHEET ASSY		1	
	* *This unit includes the following parts.*				
A18	********	LINE INPUT BOARD		1	
A20	********	PANEL R BOARD		1	
A22	********	PANEL L BOARD		1	
A23	********	JACK BOARD		1	
A19	5100032968	C-KEYTOP	SD1H CLR	1	
A21	5100036682	S-KEYTOP		1	

Plane View (View A1, A2)

View A1



View A2



View A1

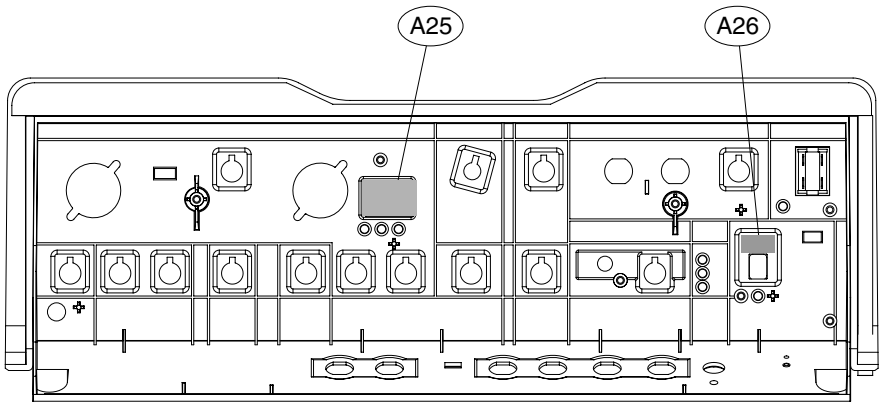
No.	Part Code	Part Name	Description	Q'ty
f	40011312	SCREW 3X8	BINDING TAPTITE P FE BZC	4

View A2

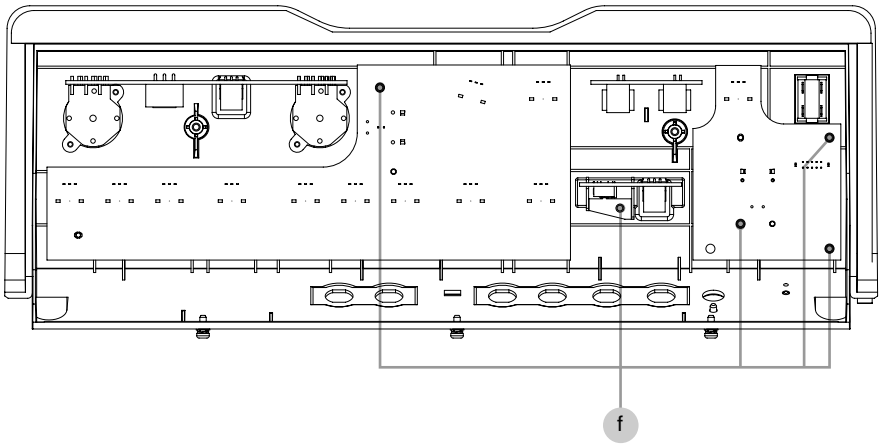
No.	Part Code	Part Name	Description	Q'ty
g	5100034002	SCREW M3X12	PAN MACHINE W/SMW+PW BZC	5

Plane View (View A3, A4)

View A3



View A4



View A3

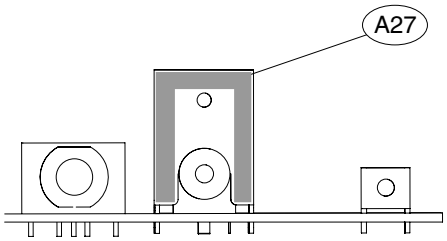
No.	Part Code	Part Name	Description	Q'ty
A25	5100036045	CUSHION	C-KEYTOP	1
A26	5100036269	EVA PACKING	S-KEYTOP	1

View A4

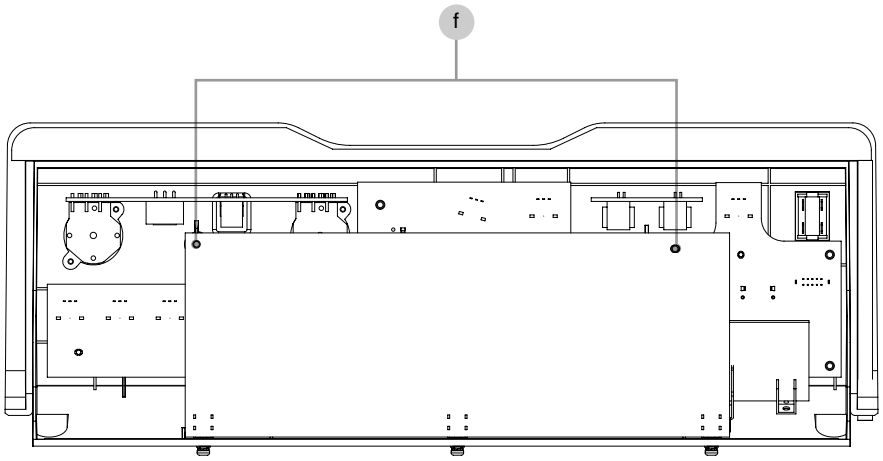
No.	Part Code	Part Name	Description	Q'ty
f	40011312	SCREW 3X8	BINDING TAPTITE P FE BZC	5

Plane View (View A5, A6)

View A5



View A6



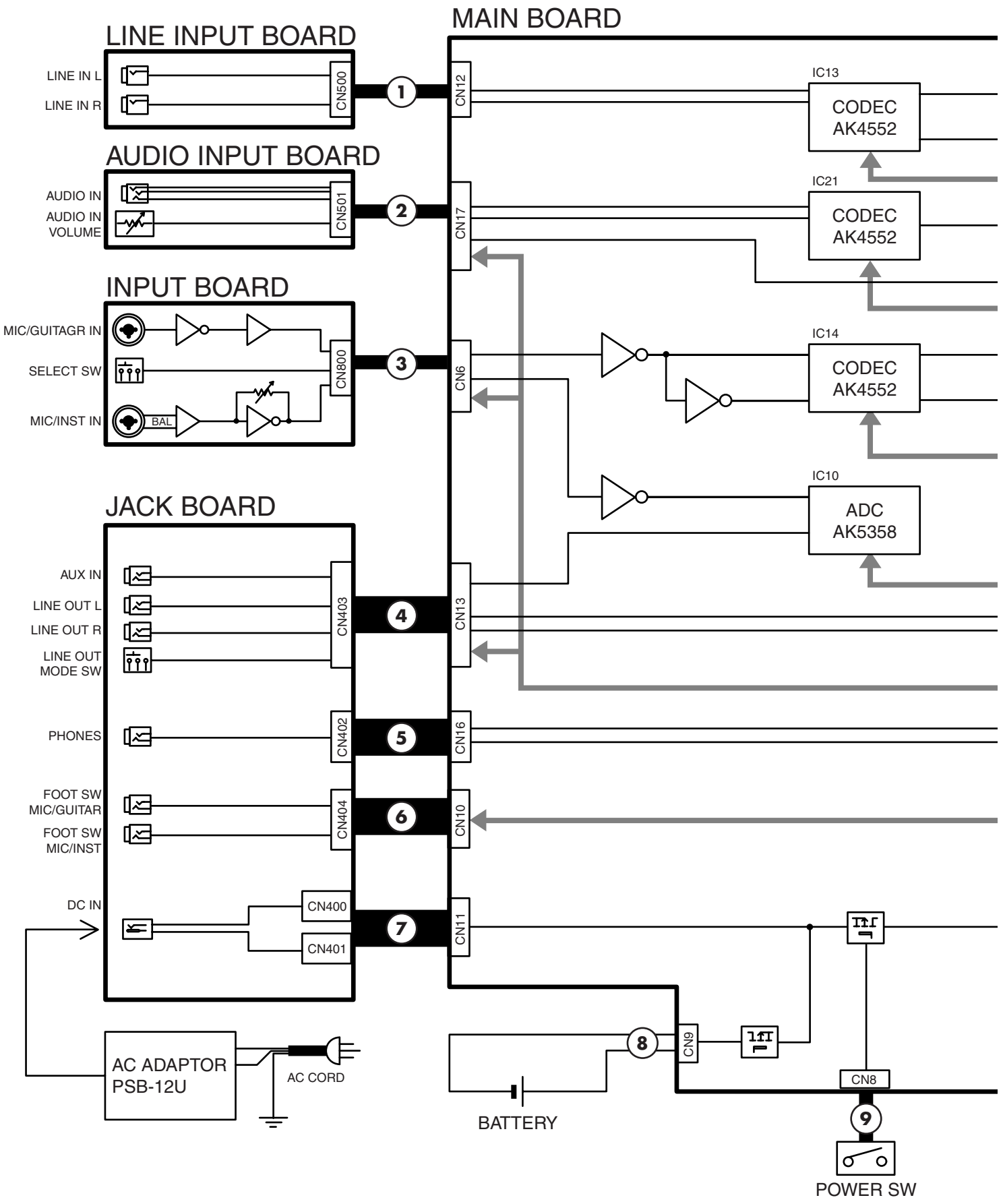
View A5

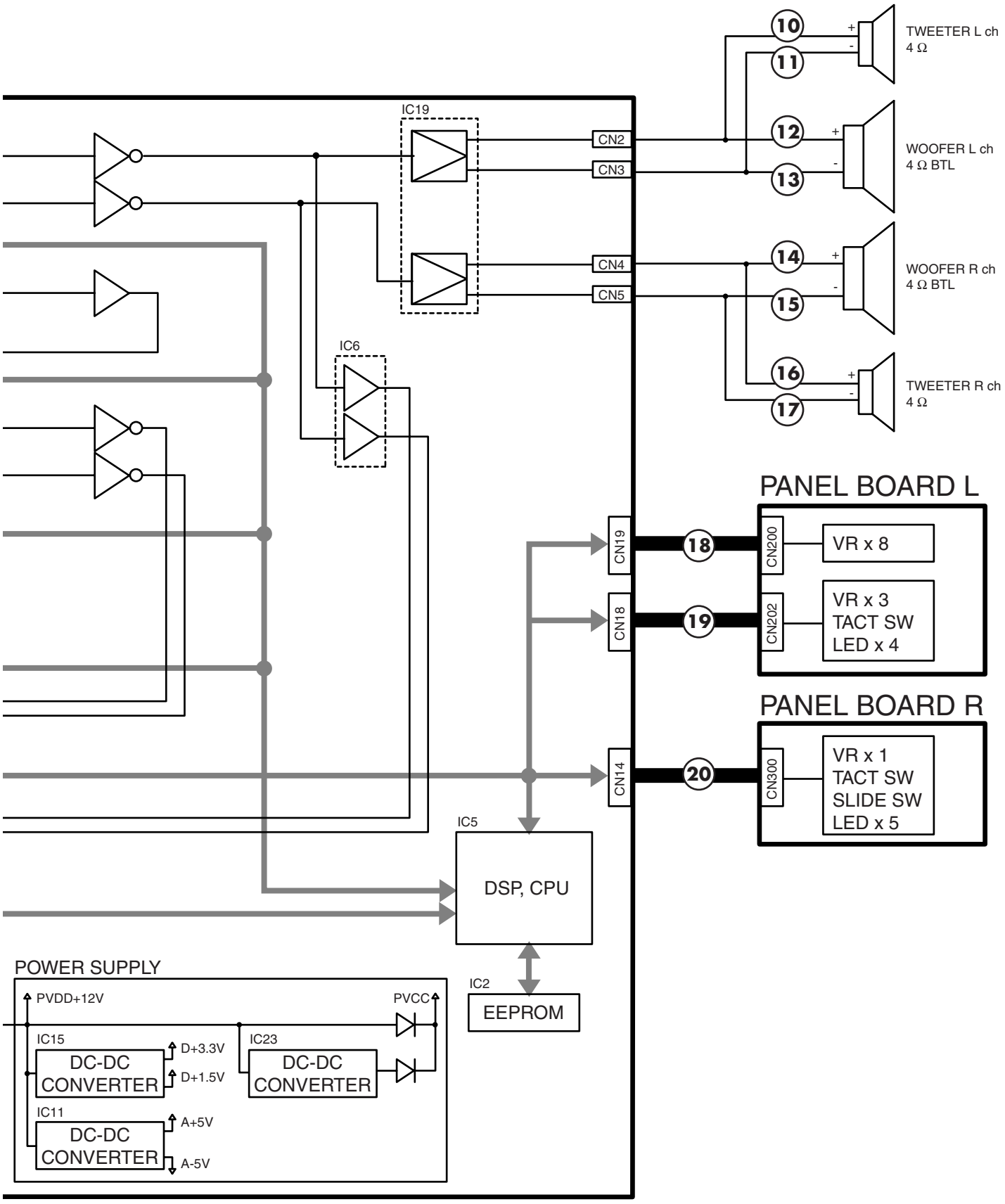
No.	Part Code	Part Name	Description	Q'ty
A27	5100010540	EVA PACKING (429-AP011-DH)	FOR DC JACK HOLDER A	1

View A6

No.	Part Code	Part Name	Description	Q'ty
f	40011312	SCREW 3X8	BINDING TAPTITE P FE BZC	2

Wiring Diagram/Block Diagram




10
11
TWEETER L ch
4 Ω
12
13
WOOFER L ch
4 Ω BTL
14
15
WOOFER R ch
4 Ω BTL
16
17
TWEETER R ch
4 Ω
IC19
CN2
CN3
CN4
CN5
IC6
CN19
CN18
CN14
18
19
20
PANEL BOARD L
CN200
VR x 8
CN202
VR x 3
TACT SW
LED x 4
PANEL BOARD R
CN300
VR x 1
TACT SW
SLIDE SW
LED x 5
IC5
DSP, CPU
IC2
EEPROM
POWER SUPPLY
PVDD+12V
PVCC
IC15
DC-DC
CONVERTER
D+3.3V
D+1.5V
IC23
DC-DC
CONVERTER
IC11
DC-DC
CONVERTER
A+5V
A-5V

Wirings

No.	Part Code	Part Name	Description	Q'ty	
1	5100038992	WIRING W12	1007#26 3X165-PHR-SAN-F	1	3P
2	5100038996	WIRING W6	1007#26 8X230-PHR-SAN-F	1	8P
3	5100038997	WIRING W8	1007#26 10X165-PHR-SAN-F	1	10P
4	5100033888	WIRING W2		1	10P
5	5100038993	WIRING W11	1007#26 4X110-PHR-SAN-F	1	4P
6	5100038995	WIRING W9	1007#26 7X90-PHR-SAN-F	1	7P
7	5100039001	WIRING W5	1015#22	1	3P
8	5100039002	WIRING W7	1015#22	1	3P
9	5100039000	WIRING W16	1007#26	1	3P
10	5100039007	WIRING W17	1015#22-RED 1X160	1	1P (RED)
11	5100039008	WIRING W18	1015#22-BLK 1X160	1	1P (BLACK)
12	5100039003	WIRING W1	1015#22-RED 1X480	1	1P, SLEEVE (RED)
13	5100039004	WIRING W2	1015#22-BLK 1X480	1	1P, SLEEVE (BLACK)
14	5100039005	WIRING W3	1015#22-ORG 1X330	1	1P, SLEEVE (ORANGE)
15	5100039006	WIRING W4	1015#22-BRN 1X330	1	1P, SLEEVE (BROWN)
16	5100039009	WIRING W19	1015#22-ORG 1X165	1	1P (ORANGE)
17	5100039010	WIRING W20	1015#22-BRN 1X160	1	1P (BROWN)
18	5100038994	WIRING W14	1007#26 6X235-PHR-SAN-F	1	6P
19	5100038998	WIRING W13	1007#26 10X175-PHR-SAN-F	1	10P
20	5100038999	WIRING W15	1007#26 11X350-PHR-SAN-F	1	11P

Cusions

No.	Part Code	Part Name	Description	Q'ty
1, 3, 18	5100039404	CUSHION	WIRING C	3
2, 17, 19	5100039405		WIRING D	3
19	5100039403	CUSHION	WIRING B	1

Parts List

Safety Precautions:
The parts marked ⚠ have safety-related characteristics. Use only listed parts for replacement.

Due to one or more of the following reasons, parts with parts code ******** cannot be supplied as service parts.

- Part supplied only as a component in a complete assembly
- Copyright does not permit the part to be supplied
- Part is sold commercially

Note: The parts marked # are new. (initial parts) The description "Q'ty" means a necessary number of the parts per one product.

CASING

#	5100038353	FRONT CASE		1
#	5100038544	GRILLE ASSY		1
	5100004812	HANDLE RUBBER	08492-511 (SD000461)	1
#	5100038982	HANDLE		1
#	5100038356	PANEL SHEET		1
#	5100038354	REAR CASE		1
	5100009845	STAND ADAPTOR (TOP HAT)	49A-10179 (#17055020)	1

CHASSIS

#	5100038355	CHASSIS		1
	5100004813	HANDLE PLATE	08492-511 (SD000462)	1
	5100011382	HANDLE PLATE	750-11038-03-00	1
	5100004814	HANDLE HOLDER	08343-512	4
#	5100038980	HANDLE HOLDER PLATE		4
#	5100038981	TOP HAT HOLDER PLATE		1

KNOB, BUTTON

#	5100038983	R-KNOB	SF BLK/SLV	8
	5100023950	R-KNOB	10-11017-01-01	6
	5100032968	C-KEYTOP	SD1H CLR	1
	5100036682	S-KEYTOP		1

SWITCH

	02897801	SEESAW SWITCH	SDDJE13200 94V-0	1
	5100000485	SLIDE SWITCH	SV71040F-0102-9T-NP	1
	04459978	SLIDE SWITCH	SV70050F-0202-10T-NN	1
	5100007725	SWITCH	SS71020F-0103-6T-025-NP-017	1
	01780101	TACT SWITCH	SKQKABD010	2

JACK, EXT TERMINAL

#	5100037105	3.5MM JACK	LJE0393-7	1
	13449146	6.5MM JACK	YKB21-5012 (W/SW)	2
	13449252	6.5MM JACK	YKB21-5006 (STEREO W/SW)	6
	5100014678	CANNON CONNECTOR	CT/PJ-02-EP	2
	03562412	DC JACK	HEC3900-010110	1

SPEAKER, BUZZER

#	5100039224	SPEAKER	W0804-045A	2
#	5100039225	SPEAKER	T0204-045A	2

PWB ASSY

#	5100038562	MAIN SHEET ASSY		1
		* *This unit includes the following parts.*		
	********	MAIN BOARD		1
	********	AUDIO INPUT BOARD		1
	********	INPUT BOARD		1
#	5100038548	PANEL SHEET ASSY		1
		* *This unit includes the following parts.*		
	********	JACK BOARD		1
	********	LINE INPUT BOARD		1
	********	PANEL L BOARD		1
	********	PANEL R BOARD		1

DIODE

	5100019878	LED (RED)	L-710XSURD-E-SZ	8
	5100019879	LED (GREEN)	L-710XVGD-E-SZ	1

POTENTIOMETER

	5100033436	ROTARY POTENTIOMETER	R0923NOAV1B103FE0EA6		1
#	5100037963	ROTARY POTENTIOMETER	R0923NOCH1B103FE00A1		1
#	5100037962	ROTARY POTENTIOMETER	R0923NOCH1P104FE00B4		1
	5100033433	ROTARY POTENTIOMETER	R0923NOCV1B103FE00A1		11

FUSEÅAFUSE HOLDER

	5100005125	FUSE	MRT3.15	F400 on Jack Board	1
	5100005117	FUSE	MRT80	F1, F3 on Main Board	2
	5100002537	RADIAL TYPE FUSE	MRT 2A	F2 on Main Board	1

WIRING, CABLE

#	5100039003	WIRING W1	1015#22-RED 1X480		1
#	5100039004	WIRING W2	1015#22-BLK 1X480		1
	5100033888	WIRING W2			1
#	5100039005	WIRING W3	1015#22-ORG 1X330		1
#	5100039006	WIRING W4	1015#22-BRN 1X330		1
#	5100039001	WIRING W5	1015#22		1
#	5100038996	WIRING W6	1007#26 8X230-PHR-SAN-F		1
#	5100039002	WIRING W7	1015#22		1
#	5100038997	WIRING W8	1007#26 10X165-PHR-SAN-F		1
#	5100038995	WIRING W9	1007#26 7X90-PHR-SAN-F		1
#	5100038993	WIRING W11	1007#26 4X110-PHR-SAN-F		1
#	5100038992	WIRING W12	1007#26 3X165-PHR-SAN-F		1
#	5100038998	WIRING W13	1007#26 10X175-PHR-SAN-F		1
#	5100038994	WIRING W14	1007#26 6X235-PHR-SAN-F		1
#	5100038999	WIRING W15	1007#26 11X350-PHR-SAN-F		1
#	5100039000	WIRING W16	1007#26		1
#	5100039007	WIRING W17	1015#22-RED 1X160		1
#	5100039008	WIRING W18	1015#22-BLK 1X160		1
#	5100039009	WIRING W19	1015#22-ORG 1X165		1
#	5100039010	WIRING W20	1015#22-BRN 1X160		1

SCREWS

	5100034002	SCREW M3X12	PAN MACHINE W/SMW+PW BZC		5
	40128012	SCREW M4X16	PAN MACHINE W/SW+PW BZC		3
	40010478	SCREW M5X25	OVAL MACHINE FE BZC FOR HANDL		8
	40011312	SCREW 3X8	BINDING TAPTITE P FE BZC		15
	5100013786	SCREW 4X12 (JC7000193R0)	TRUSS TAPTITE P BZC		25
	5100020467	SCREW 4X15 (501-11044-06-00)	BINDING TAPTITE P BZC		24
	40128923	HEX NUT M7	H5039521R0	attached to VR	1
	17048630	VR ACCESSORY NUT M9		attached to VR	13
	5100032952	JACK NUT			8
	17048651	VR ACCESSORY WASHER M7	M7X12X0.5 NO.476	attached to VR	1
	40452178	VR WASHER M9		attached to VR	13
	5100005101	WASHER	RESIN 4.1X11X1 BLACK		7
	5100005100	WASHER	FLAT 4.2X10X0.5 BZC		8

MISCELLANEOUS

	5100022626	BATTERY PACK (990-11046-10-00	AA X 8 PCS		1
	5100009659	DC JACK HOLDER	350-AP011-DH(750-11041-01-00)		1
	5100032961	INPUT PCB HOLDER			1
	5100004215	LED SPACER	LEDH-2		1
#	5100039063	LED SPACER	LEDH-9		8
	5100027106	CORD HOOK	40516-014		1
	5100027159	RUBBER FOOT	D30.5XT9.5		8
	5100017151	RUBBER SPONGE BUSHING			1
#	5100009062	BATTERY TERMINAL			2
	5100003695	TERMINAL	PCB-12		4
#	5100039407	ABSORPTIVE FOAM			1
#	5100010782	CUSHION	BATTERY TERMINAL		2
#	5100039399	CUSHION A			1
#	5100039400	CUSHION B			2
#	5100039401	CUSHION C			1
	5100036045	CUSHION	C-KEYTOP		1
#	5100039421	CUSHION	GRILLE		2
#	5100039403	CUSHION	WIRING B		1
#	5100039404	CUSHION	WIRING C		3
#	5100039405	CUSHION	WIRING D		3
#	5100039394	HIMELON L			2
#	5100039395	HIMELON M			2
#	5100039396	HIMELON S			4
#	5100039398	HIMELON	HANDLE		4
#	5100039397	HIMELON	TOPHAT		3
	5100036269	EVA PACKING	S-KEYTOP		1
	5100010540	EVA PACKING (429-AP011-DH)	FOR DC JACK HOLDER A		1
	5100027814	LOCKING CABLE TIE	CV-100V0K		4
	40236878	KONISHI CYEREX 100	120ML	for absorptive form	-

ACCESSORIES (Standard)

	⚠	5100010587	AC ADAPTOR	PSB-12U	1
	⚠	5100009481	AC CORD 100V 1.0M	181-AP009-J 3-230202-024266 for 100V	1
	⚠	5100012740	AC CORD	181-AP009-BL 117VBL 1.0M for 117VBL	1
	⚠	5100009482	AC CORD	181-AP009-UC 117V 1.0M for 117VU, 117VU/CS	1
	⚠	5100009486	AC CORD	181-AP009-CN 220VCN 1.0M for 220VCN	1
	⚠	5100009484	AC CORD	181-AP009-B 230VE for 230VE	1
	⚠	5100009483	AC CORD 181-AP009-G	181-AP009-G 230V EU 1.0M for 230VEU	1
	⚠	5100009485	AC CORD	181-AP009-A 240VA 1.0M for 240VA	1
		5100031008	4POLES MINI CABLE	452-12020-01-00	1
#		5100038579	OWNER'S MANUAL	JAPANESE	1
#		5100038582	OWNER'S MANUAL	MULTILANGUAGE	1
#		5100038578	OWNER'S MANUAL	CHINESE	1

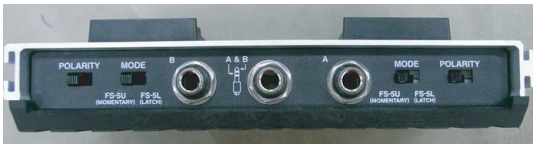
Verifying the Version

Items Required

- Foot switch (FS-5U x 2 or FS-6 x 1)

* *Set the POLARITY switch and the MODE switch on the foot switch as shown below.*

FS-5U



FS-6

- Foot-switch connection cable (PCS-31 or PCS-33)

Procedure

1. Connect a foot switch to the **FOOT SW MIC/GUITAR** jack.

* *If you're using a PCS-31 cable, white is for tip and red is for ring. If you're using a PCS-33 cable, the pedal connected to B on the FS-6 is for tip and the pedal connected to A is for ring. Also check the panel indication on the FS-6.*

2. Make the following settings on the main unit.

- POWER: OFF
- INPUT SELECT: MIC
- OUTPUT POWER: ECO
- STEREO LINK: Left side (LINE OUT side)
- All controls: Minimum
  (Turn the controls all the way counterclockwise.)

3. Hold down the ring section of the foot switch connected to the **FOOT SW MIC/GUITAR** jack and switch on the power.
All LEDs light up.

* *Continue to hold down the foot switch.*

4. After all LEDs have lighted up and then flashed once, within 2 seconds, depress first the ring section and then the tip section of the foot switch.
All LEDs flash rapidly several times, then the three LEDs at the center of the panel indicate the software version, as described below.

* *In this document, the three LEDs at the center of the panel are called LEFT, CENTER, and RIGHT.*

Version	LEFT	CENTER	RIGHT
1.00	*	-	-
1.01	-	*	-
1.02	-	-	*
1.03	*	*	-
1.04	*	-	*
1.05	-	*	*

*: flashes, -: goes off

5. Switch off the power to the unit.

Test Mode

Items Required

- Foot switch (FS-5U x 2 or FS-6 x 1)
- Foot-switch connection cable (PCS-31 or PCS-33)
- 1/4-inch phone plug
- Miniature stereo phone plug

Entering the Test Mode

1. Go to **Verifying the Version** (p. 23) and execute steps **1** through **4**.

2. Depress the tip section of the foot switch connected to the **FOOT SW MIC/GUITAR** jack to enter the first test item, **DSP/EEPROM Test** (p. 24).

Quitting the Test Mode

Switch off the power.

Skipping Test Items

Test items cannot be skipped.

DSP/EEPROM Test

When the unit enters the Test Mode, DSP and EEPROM Test starts automatically.

The three LEDs at the center of the panel light up in the sequence of **LEFT** → **CENTER** → **RIGHT** to indicate the progress of the testing, then go dark in this sequence of **LEFT** → **CENTER** → **RIGHT**.

If the test result is OK, testing is completed in a very brief time, and the LEDs are automatically initialized for the following **Switch and LED Test** (p. 24).

If the test result is NG (not OK), one of the LEDs shown in the table below lights up to indicate the corresponding device where the problem occurred.

LED	Faulty Device
LEFT	IRAM
CENTER	PRAM
RIGHT	ERAM
BATTERY LOW	EEPROM

* *If the test result is NG (not OK), execution cannot advance to the next test item.*

Switch and LED Test

Carry out operations in the sequence shown in the table below and verify the status of the corresponding LEDs.

* *If an error is made in the order of operations, or of a test is failed, execution cannot advance to the next operation.*

* *When operating the OUTPUT POWER switch, make a definite stop at each position. If the switch is moved too rapidly, without sufficient stopping, its operation might be ignored.*
In this case, return the switch to its original position and redo the operation.

		LED							
Operation		TUNER	LEFT	CENTER	RIGHT	CHECK /MUTE	FULL	HALF	LOW
Initial state		o	*	o	o	o	o	o	o
Slide the switch, press/release the buttons.									
1	Set INPUT SELECT to INST.	*	-	o	o	o	o	o	o
2	Press TUNER.	*	-	-	o	o	o	o	o
3	Press TUNER again.	-	-	-	-	*	o	o	o
4	Press and hold CHECK/MUTE.	-	-	-	-	o	o	o	o
5	Release CHECK/MUTE.	-	-	-	-	-	*	o	o
6	Set OUTPUT POWER to NORMAL.	-	-	-	-	-	-	*	o
7	Set OUTPUT POWER to MAX.	-	-	-	-	-	-	-	*
8	Set LINE OUT MODE to STEREO LINK.	o	o	o	o	*	o	o	o
Insert a 1/4-inch phone plug/pull out, depress a pedal.									
9	Insert into PHONES.	o	o	o	o	o	o	o	o
10	Pull out from PHONES.	o	o	o	o	-	*	o	o
11	Insert into AUX IN.	o	o	o	o	-	o	o	o
12	Pull out from AUX IN.	o	o	o	o	-	-	*	o
13	Insert into LINE OUT R.	o	o	o	o	-	-	o	o
14	Pull out from LINE OUT R.	o	o	o	o	-	-	-	*
15	Insert into LINE OUT L.	o	o	o	o	-	-	-	o
16	Pull out from LINE OUT L.	o	o	o	*	-	-	-	-
Insert a foot switch/pull out, depress a foot switch.									
17	Pull out from FOOT SW MIC/GUITAR.	o	o	*	-	-	-	-	-
18	Insert into FOOT SW MIC/INST.	o	*	o	-	-	-	-	-
19	Press and hold FOOT SW MIC/INST TIP.	o	o	o	-	-	-	-	-
20	Release FOOT SW MIC/INST TIP.	*	-	o	-	-	-	-	-
21	Press and hold FOOT SW MIC/INST RING.	o	-	o	-	-	-	-	-
22	Release FOOT SW MIC/INST RING.	-	-	*	-	-	-	-	-
23	Pull out from FOOT SW MIC/INST.	-	-	-	-	-	*	*	*
Insert a miniature stereo phone plug.									
24	Insert into AUDIO IN.	-	-	-	-	-	o	o	o

o: lights, *: flashes, -: goes off

Pulling out the plug from AUDIO IN makes execution advance automatically to the next test item.

Test of Volume Control with Notch

Turn the **AMPLIFIER** volume control with notch at the center of the panel slowly and verify the reading of LEFT and RIGHT LEDs display.

* *If the control is turned either too fast or in the opposite direction, the LED flashes rapidly. If this happens, return it to the original position and redo the operation.*

Control position	LEFT	RIGHT
A-GUITAR (6E)	o	-
ACOUSTIC SIM (5A)	-	o
CLEAN (4D)	o	-
CRUNCH (3G)	-	o
LEAD (2B)	o	-
MIC (1E)	-	o
LEAD (2B)	o	-
CRUNCH (3G)	-	o
CLEAN (4D)	o	-
ACOUSTIC SIM (5A)	-	o
A-GUITAR (6E)	o	-

o: lights, -: goes off

When the control has been turned all the way to the end, execution automatically advances to the next test item and LEFT, CENTER and RIGHT LEDs light up.

Volume Control Test

Operate the following controls of (1)-(12) minimum-center-maximum in numerical order and confirm the all controls work correctly with its LED lighting and sound from the speaker.

* *Operation out of sequence is ignored.*

* *After detecting all of the minimum, center and the maximum value, test program advances to test of the next control.*

(1) MIC/INSTRUMENT EQUALIZER BASS
(2) MIC/INSTRUMENT EQUALIZER MIDDLE
(3) MIC/INSTRUMENT EQUALIZER TREBLE
(4) MIC/INSTRUMENT REVERB
(5) MIC/GUITAR EQUALIZER BASS
(6) MIC/GUITAR EQUALIZER MIDDLE
(7) MIC/GUITAR EQUALIZER TREBLE
(8) MIC/GUITAR CHORUS/DELAY
(9) MIC/GUITAR REVERB
(10) AUDIO IN VOLUME
(11) LINE IN VOLUME
(12) AMPLIFIER VOLUME

Control position	LEFT	CENTER	RIGHT
Minimum (all the way counterclockwise)	o	-	-
Center	o	o	-
Maximum (all the way clockwise)	o	o	o

o: lights, -: goes off

The volume level of the speaker sound increases as the control is operated toward the maximum position, and the pitch rises at the intermediate position.

When all volume testing has ended, the LEFT, CENTER, RIGHT and FULL, HALF, LOW LEDs flash.

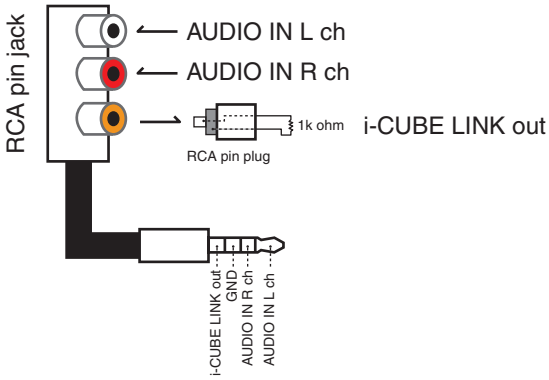
Switch off the power.
This ends the Test Mode.

Input/Output Level Test (for Reference)

When components on the circuit board have been replaced, perform this test.

Items Required

- Level meter
- Signal generator
- Dummy load resistor tool
  - 4 Ω load resistor
  - 1/4-inch phone plug with 47 kΩ load resister
  - 1/4-inch stereo phone plug with 100 Ω load resistor
  - i-CUBE LINK input/output tool



Procedure

1. Switch on the power and start the unit in the normal usage state.
2. Make the following settings on the main unit.

Controls and switches	Controls and switches position
MIC INSTRUMENT BASS/ MIDDLE/TREBLE, MIC GUITAR BASS/MIDDLE/TREBLE	Center
MIC INSTRUMENT REVERB, MIC/GUITAR CHORUS/DELAY, REVERB	0
AUDIO IN VOLUME, INPUT VOLUME, AMPLIFIER VOLUME, LINE IN VOLUME	Center
OUTPUT POWER	NORMAL
LINE OUT MODE	STEREO LINK

Verifying Speaker Output

1. Connect a noise meter and a 4 Ω load resistor to the speaker lines.
2. Set the **INPUT SELECT** switch to **MIC**.
3. Connect the signal generator to the **MIC/LINE CHANNEL INPUT** jack (unbalanced) and input the following signals.
   1-kHz sine wave at -26.0 dBm
4. Verify that signals like the following are output from the speaker lines.
   SP OUT L: +15.0 ±1.5 dBm
   SP OUT R: +15.0 ±1.5 dBm
5. Set the **INPUT SELECT** switch to **INST**.
6. Input the following signals to the **MIC/INSTRUMENT INPUT** jack.
   1-kHz sine wave at +5.5 dBm
7. Verify that signals like the following are output from the speaker lines.
   SP OUT L: +15.0 ±1.5 dBm
   SP OUT R: +15.0 ±1.5 dBm

8. Set the **AMPLIFIER** type switch to **MIC**.
9. Connect the signal generator to the **MIC/GUITAR INPUT** jack (unbalanced) and input the following signals.
   1-kHz sine wave at -35.0 dBm
10. Verify that signals like the following are output from the speaker lines.
    SP OUT L: +6.8 ±1.5 dBm
    SP OUT R: +6.8 ±1.5 dBm
11. Set the **AMPLIFIER** type switch to **CLEAN**.
12. Input the following signals to the **MIC/GUITAR INPU** jack.
    1-kHz sine wave at -20.0 dBm
13. Verify that signals like the following are output from the speaker lines.
    SP OUT L: +15.3 ±1.5 dBm
    SP OUT R: +15.3 ±1.5 dBm
14. Connect the signal generator to the **AUX IN** jack (monaural) and input the following signals.
    1-kHz sine wave at -3.0 dBm
15. Verify that signals like the following are output from the speaker lines.
    SP OUT L: +15.1 ±1.5 dBm
    SP OUT R: +15.1 ±1.5 dBm
16. Connect the i-CUBE LINK input/output tool to the **i-CUBE LINK** jack.
17. Connect the signal generator to the AUDIO IN L jack on the i-CUBE LINK input/output tool and input the following signals.
    1-kHz sine wave at -6.0 dBm
18. Verify that signals like the following are output from the speaker lines.
    SP OUT L: +15.2 ±1.5 dBm
19. Connect the signal generator to the AUDIO IN R jack on the i-CUBE LINK input/output tool and input the following signals.
    1-kHz sine wave at -6.0 dBm
20. Verify that signals like the following are output from the speaker lines.
    SP OUT R: +15.2 ±1.5 dBm
21. Connect the signal generator to the **LINE IN L/MONO** jack and input the following signals.
    1-kHz sine wave at -8.0 dBm
22. Verify that signals like the following are output from the speaker lines.
    SP OUT L: +14.7 ±1.5 dBm
23. Connect the signal generator to the **LINE IN R** jack and input the following signals.
    1-kHz sine wave at -8.0 dBm
24. Verify that signals like the following are output from the speaker lines.
    SP OUT R: +14.7 ±1.5 dBm

PHONES Verification

1. Connect the noise meter and the 1/4-inch stereo phone plug with 100 Ω load resistor to the **PHONES** jack.
2. Connect the signal generator to the **LINE IN L/MONO** jack and input the following signals.
   1-kHz sine wave at -9.5 dBm
3. Verify that signals like the following are output from the **PHONES** jack (L).
   PHONES L: +2.5 ±1.5 dBm
4. Connect the signal generator to the **LINE IN R** jack and input the following signals.
   1-kHz sine wave at -9.5 dBm
5. Verify that signals like the following are output from the **PHONES** jack (R).
   PHONES R: +2.5 ±1.5 dBm

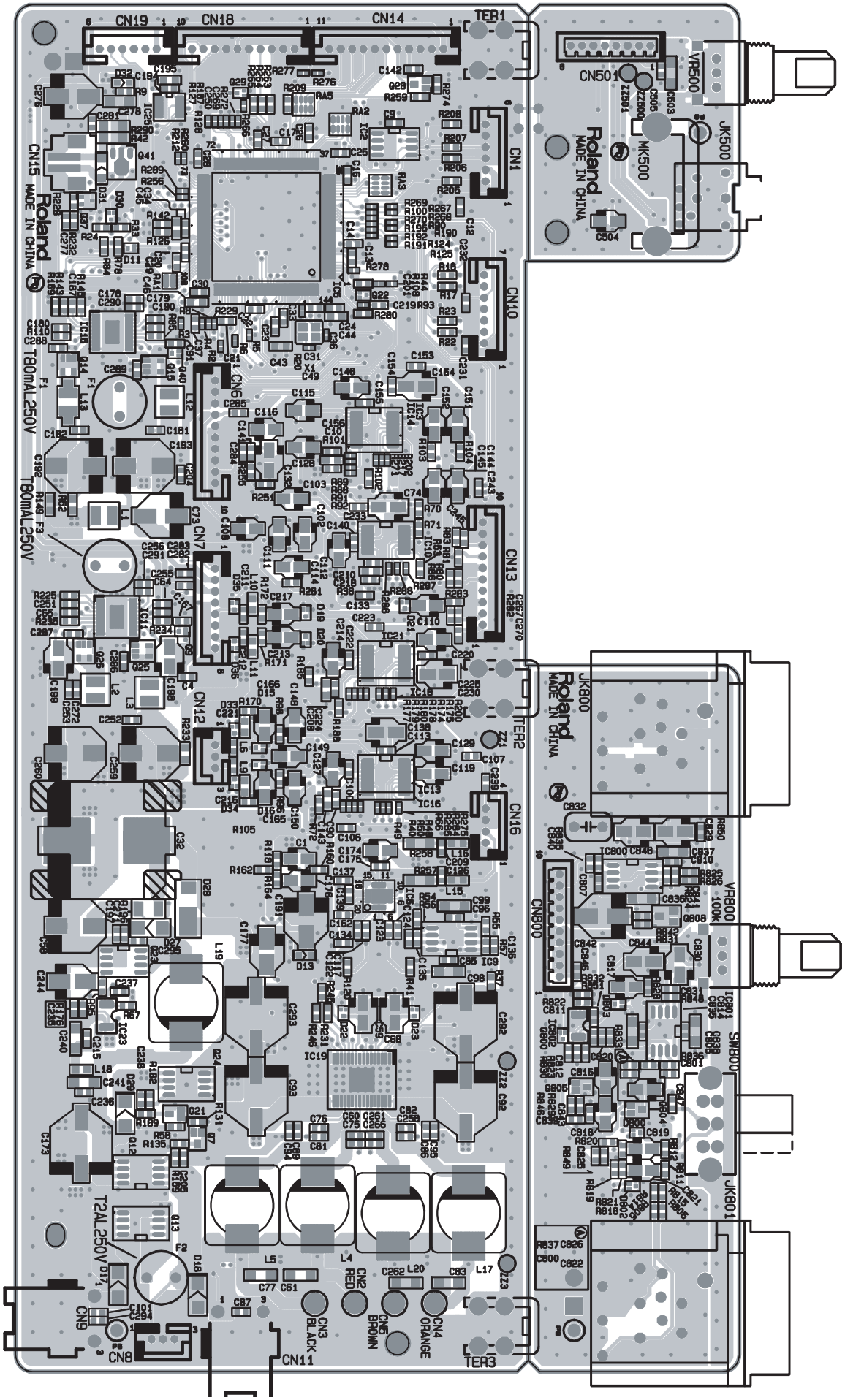
LINE OUT Verification

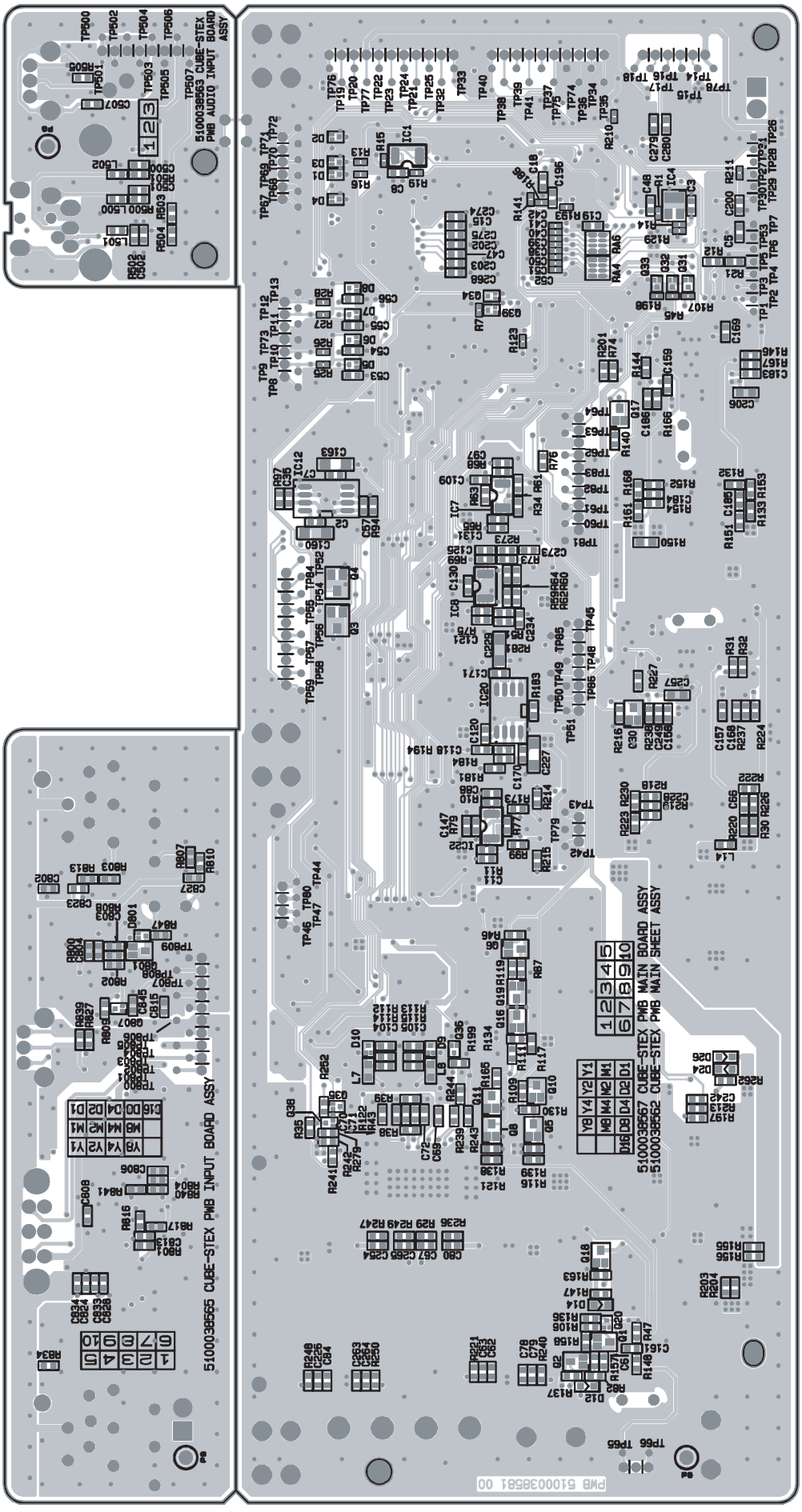
1. Connect the noise meter and the 1/4-inch phone plug with 47 kΩ load resister to the **LINE OUT L/MONO** jack.
2. Connect the signal generator to the **LINE IN L/MONO** jack and input the following signals.
   1-kHz sine wave at +2.5 dBm
3. Verify that signals like the following are output from the **LINE OUT L/MONO** jacks.
   LINE OUT L/MONO: +8.0 ±1.5 dBm
4. Connect the 1/4-inch phone plug with 47 kΩ load resister to the **LINE OUT R** jack.
5. Connect the signal generator to the **LINE IN R** jack and input the following signals.
   1-kHz sine wave at -2.5 dBm
6. Verify that signals like the following are output from the **LINE OUT R** jack.
   LINE OUT R: +8.0 ±1.5 dBm

i-CUBE LINK Verification

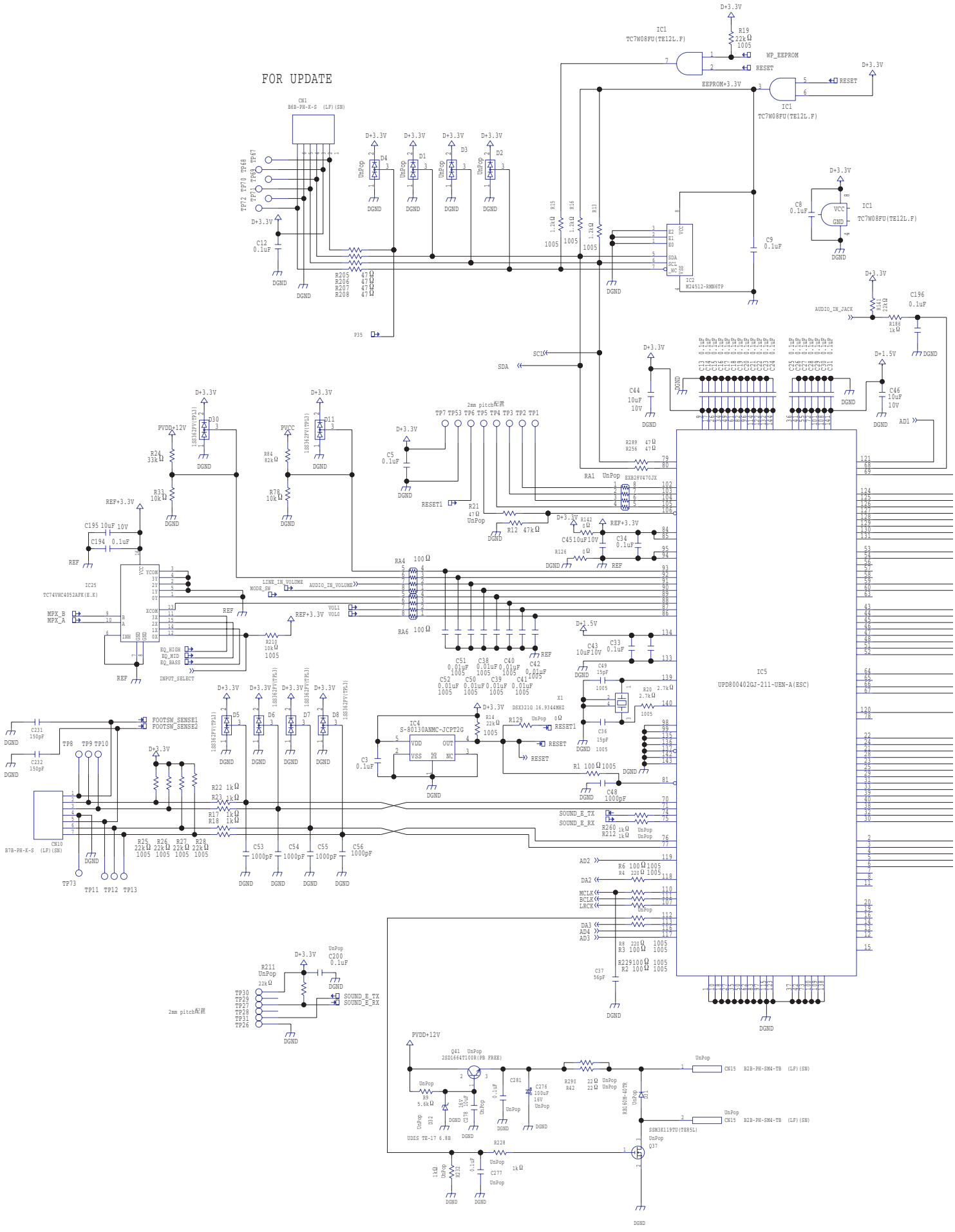
1. Connect the noise meter to the **i-CUBE LINK OUT** jack (with 1 kΩ load resistor) on the i-CUBE LINK input/output tool.
2. Connect the signal generator to the **LINE IN L/MONO** jack and input the following signals.
   1-kHz sine wave at -19.0 dBm
3. Verify that signals like the following are output from the i-CUBE LINK OUT jack on the i-CUBE LINK input/output tool.
   i-CUBE LINK: -45.5 ±1.5 dBm

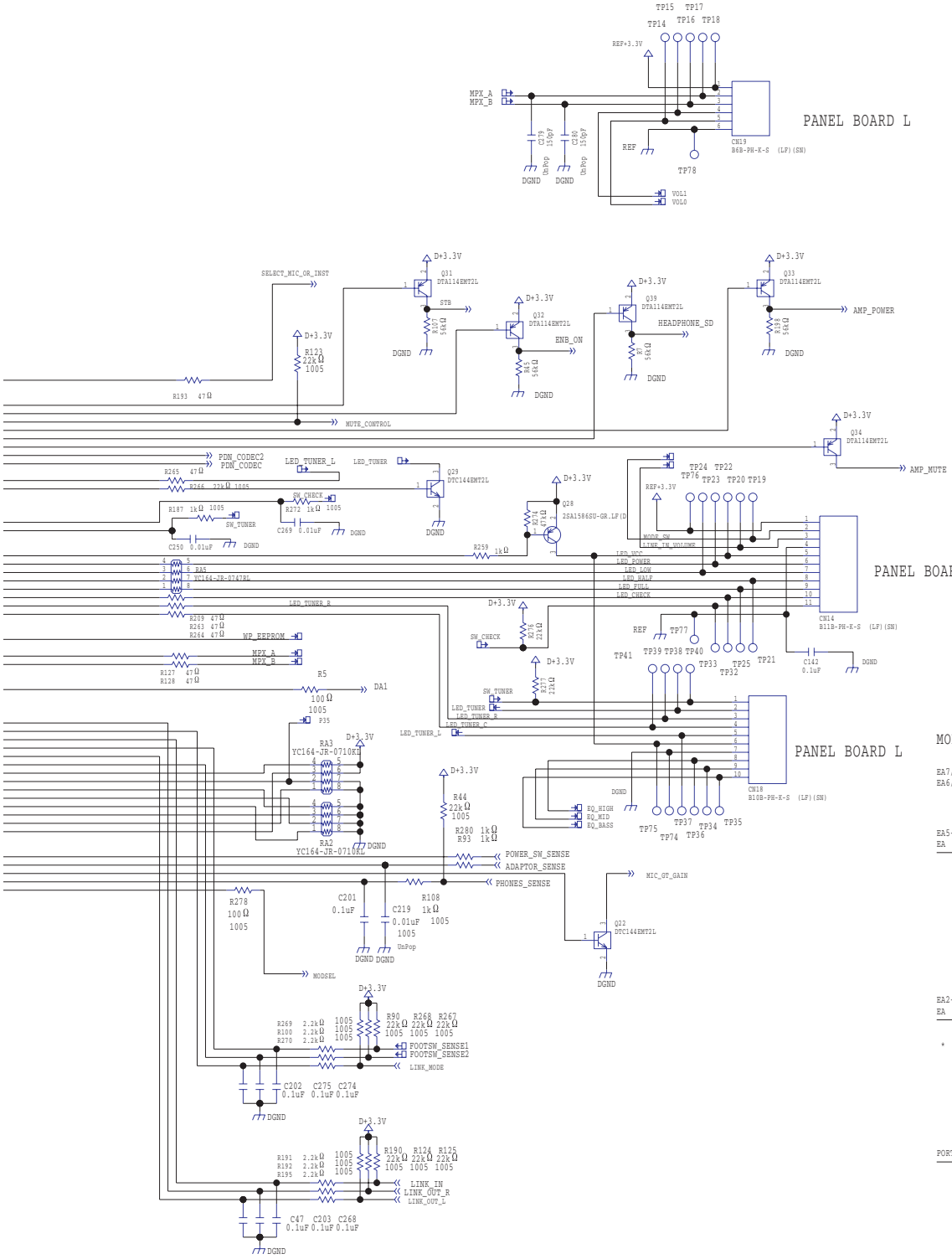
Circuit Board (Main, Audio Input, Input Board)




5100038563 CUBE-STEX PWB AUDIO INPUT BOARD ASSY
5100038565 CUBE-STEX PWB INPUT BOARD ASSY
5100038567 CUBE-STEX PWB MAIN BOARD ASSY
5100038562 CUBE-STEX PWB MAIN SHEET ASSY

Circuit Diagram (Main Board: 1/4)





MODE SETTING

EA7/H: CLOCK 15-20MHz , L: 12-15MHz
EA6/H: EEPROM program mode, L: Normal mode

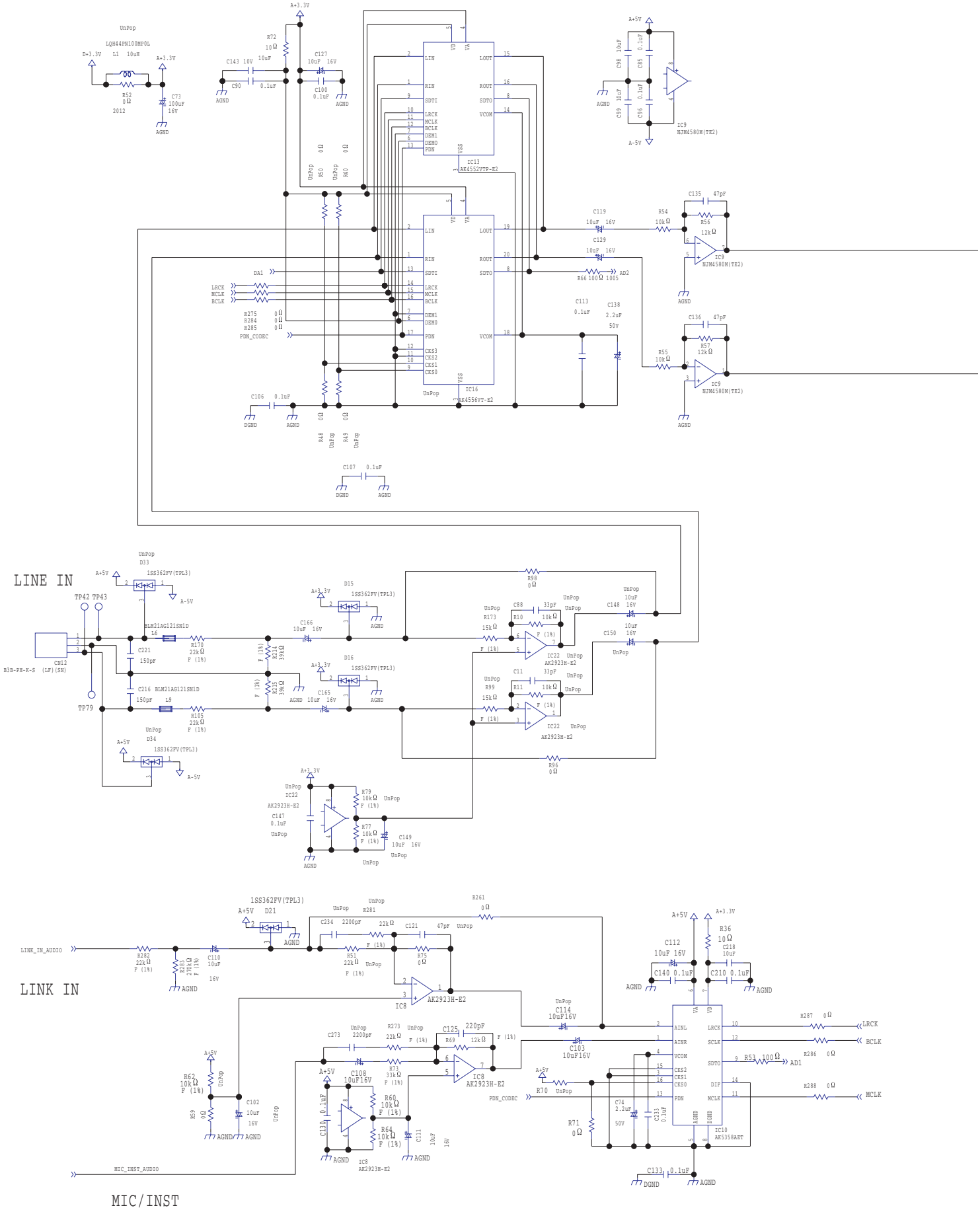
EA5-3(PROG_SEL) EA 5 4 3	destination
0 0 0	IIC EEPROM (2byte address)*
0 0 1	IIC EEPROM (1byte address)
0 1 0	SPI EEPROM
0 1 1	(same upper)
1 0 0	ROM CS1 (0x0040_0000)
1 0 1	ROM CS3 (0x0400_0000)
1 1 0	ROM CS6 (0x0800_0000)
1 1 1	ROM CS7 (0x0C00_0000)

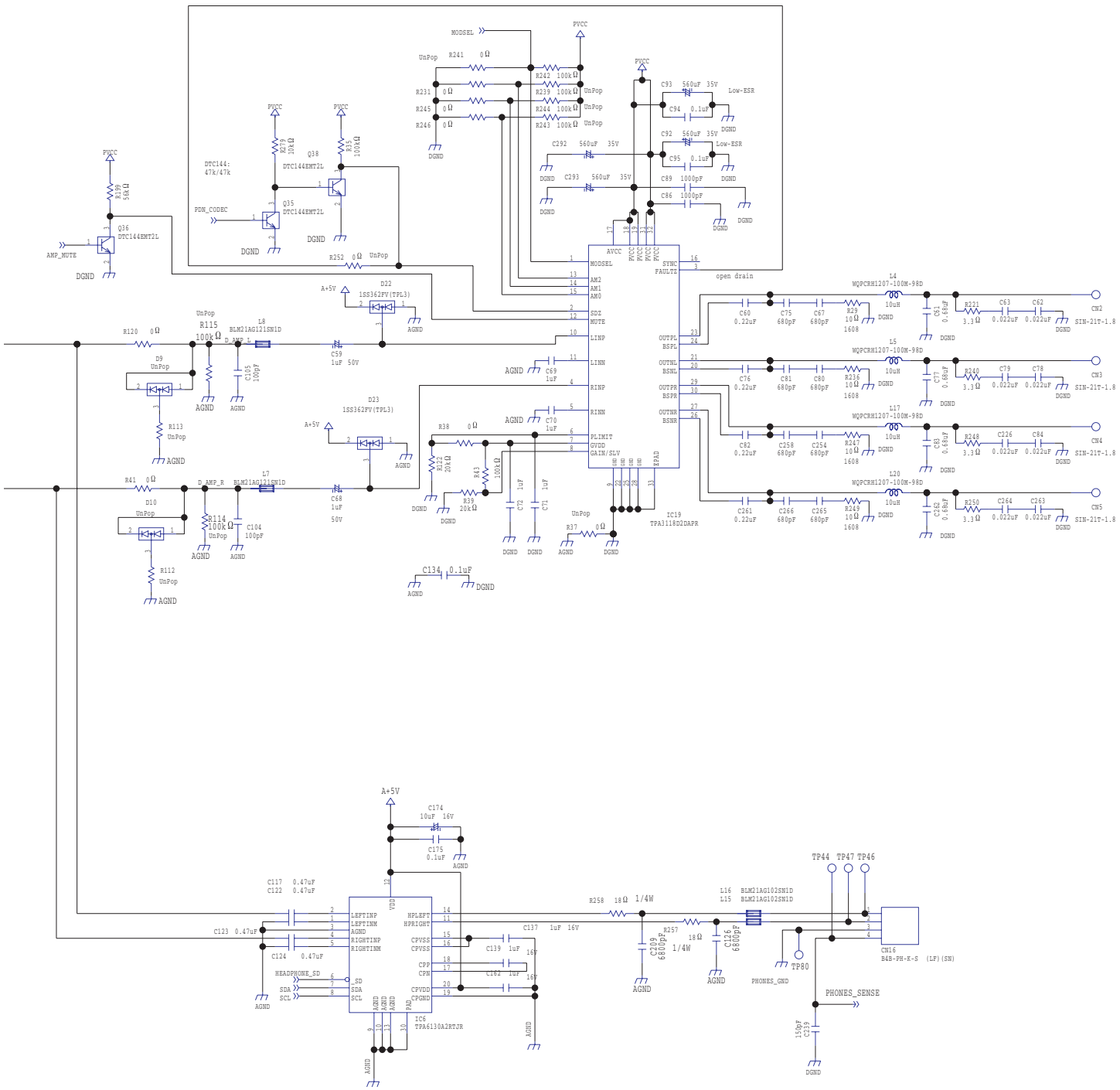
EA2-0(PIN_MODE) EA 2 1 0	mode
0 0 0	MODE 0
* 0 0 1	MODE 1
0 1 0	MODE 2 (not Exist CSI pin)
0 1 1	MODE 3
1 0 0	MODE 4
1 0 1	(N/A)
1 1 0	(N/A)
1 1 1	(N/A)

PORT PIN (MODE 1)

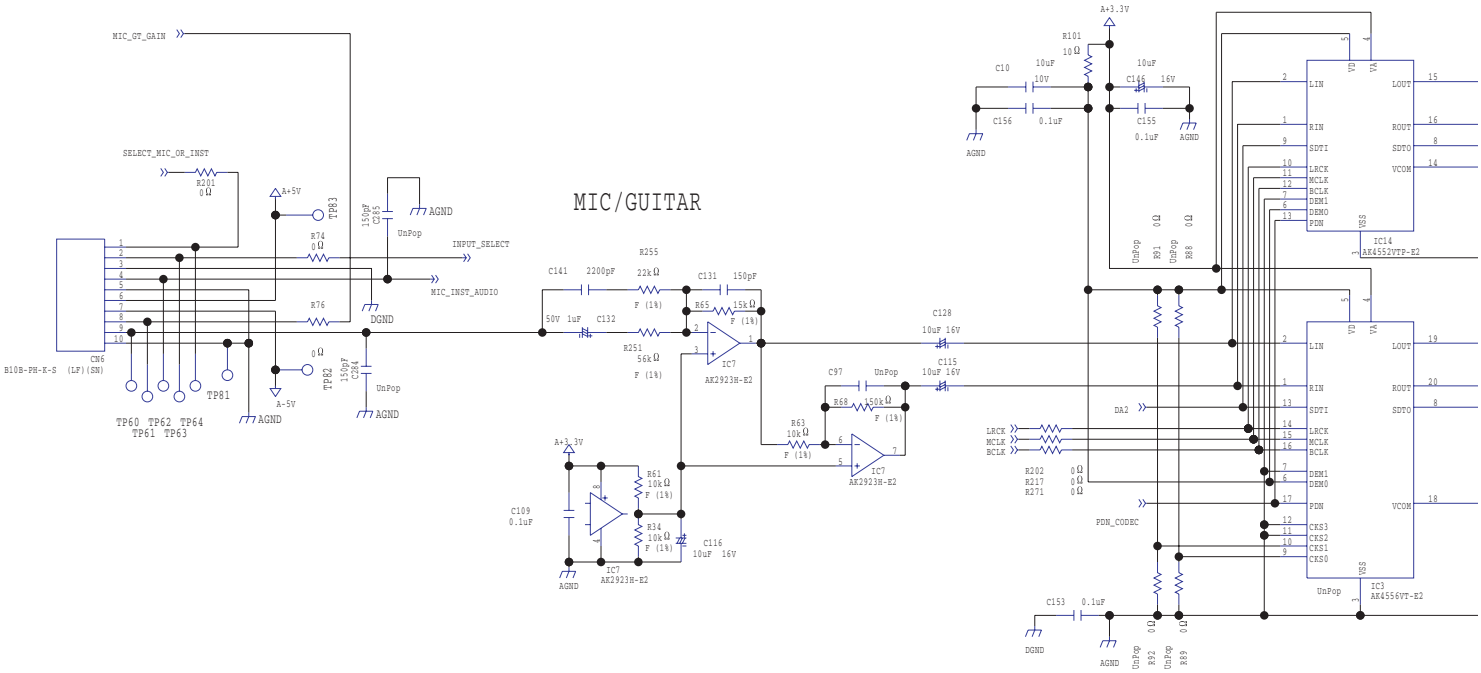
P40-P47
P50
P63-P67
P90-P96

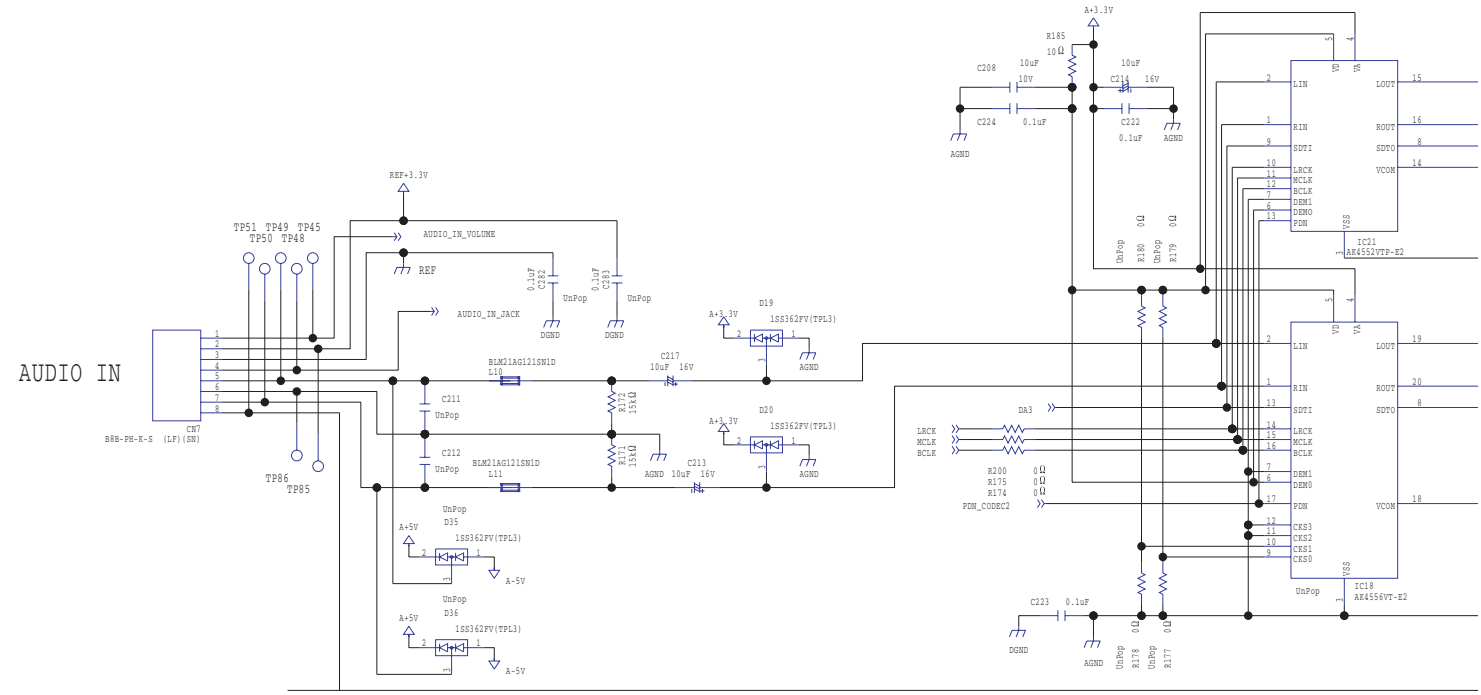
Circuit Diagram (Main Board: 2/4)

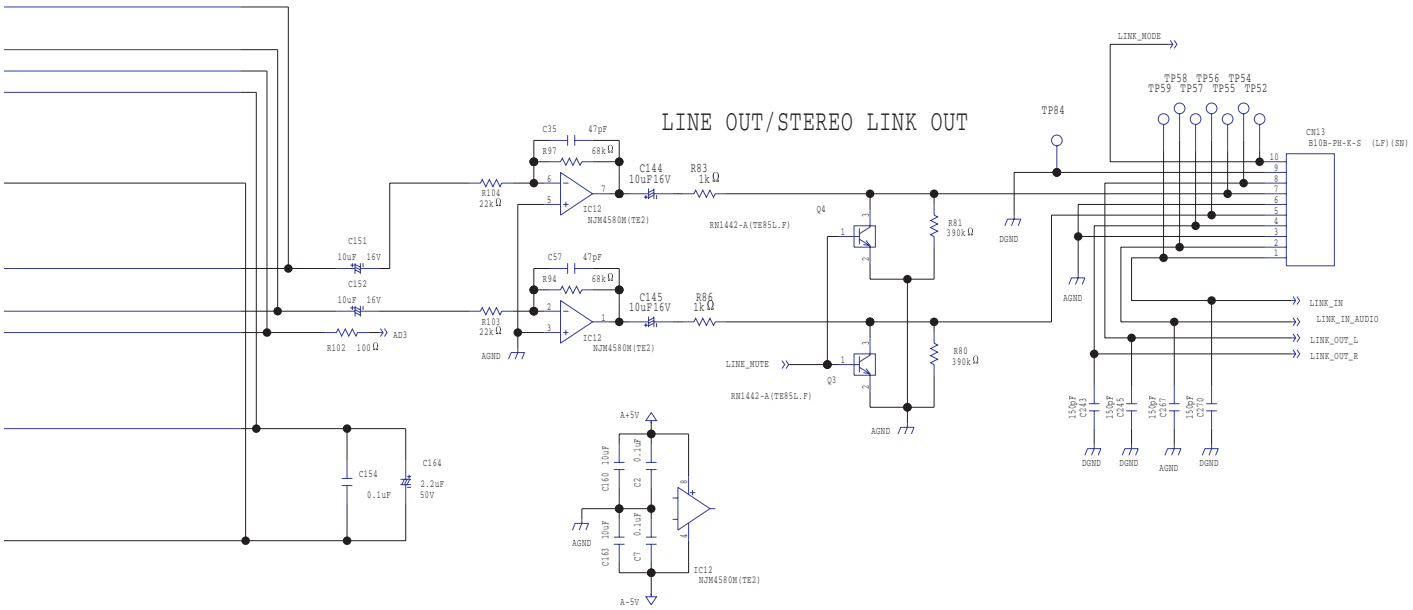


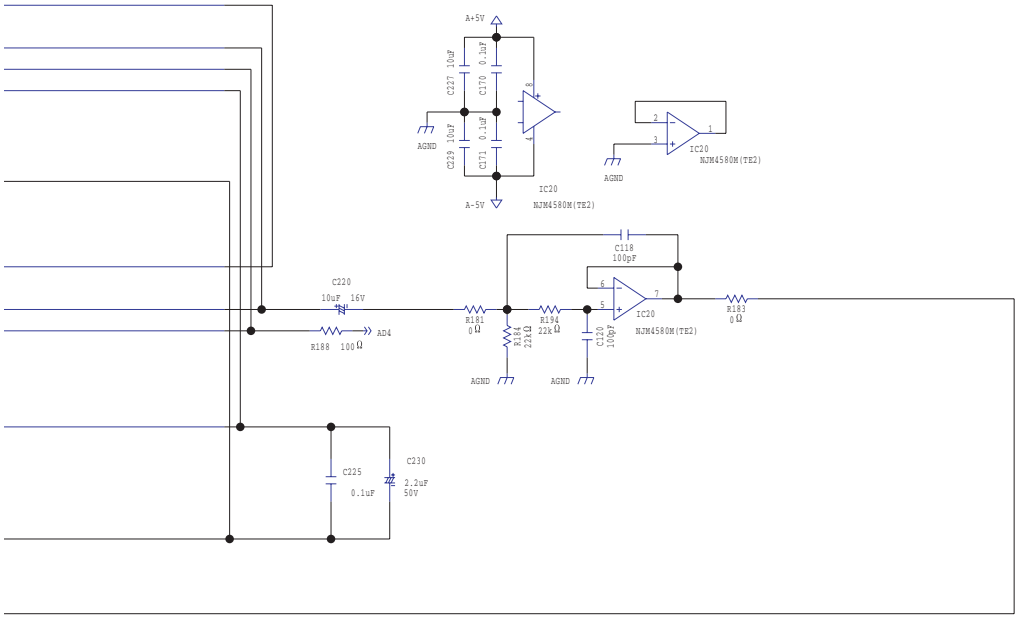

MODSEL
PVCC
UnPop
R241 0Ω
R242 100kΩ
R239 100kΩ
R244 100kΩ
R243 100kΩ
R231 0Ω
R245 0Ω
R246 0Ω
DGND
C93 560uF 35V
Low-ESR
C94 0.1uF
C292 560uF 35V
C92 560uF 35V
C95 0.1uF
C293 560uF 35V
C89 1000pF
C86 1000pF
R279 10kΩ
R35 100kΩ
Q38 DTC144EMT2L
DTC144: 47k/47k
Q35 DTC144EMT2L
PDN_CODEC
R34 56kΩ
Q36 DTC144EMT2L
AMP_MUTE
R252 0Ω UnPop
AVCC
MODSEL
AM2
AM1
AM0
SDZ
MUTE
LINP
LINN
RINP
RINN
PLIMIT
GVDD
GAIN/SLV
PVCC
SYNC
FAULTZ
open drain
OUTPL
BSPL
OUTNL
BSNL
OUTPR
BSPR
OUTNR
BSNR
EPAD
IC19
TPA3118D2DAPR
D22 1SS362FV(TPL3)
A+5V
AGND
C59 1uF 50V
C69 1uF
C70 1uF
D23 1SS362FV(TPL3)
C68 1uF 50V
R38 0Ω
R122 20kΩ
R43 100kΩ
R39 20kΩ
C72 1uF
C71 1uF
R37 0Ω
C134 0.1uF
R120 0Ω
R115 100kΩ
L8 BLM21AG121SN1D
D9 UnPop
C105 100pF
R113 UnPop
R41 0Ω
D_AMP_R
L7 BLM21AG121SN1D
D10 UnPop
R114 100kΩ UnPop
C104 100pF
R112 UnPop
L4 WQPCRH1207-100M-98D
L5 WQPCRH1207-100M-98D
L17 WQPCRH1207-100M-98D
L20 WQPCRH1207-100M-98D
10uH
C60 0.22uF
C75 680pF
C67 680pF
R29 10Ω 1608
C51 0.68uF
R231 3.3Ω
C63 0.022uF
C62 0.022uF
CN2 SIN-21T-1.8
C76 0.22uF
C81 680pF
C80 680pF
R236 10Ω 1608
C77 0.68uF
R240 3.3Ω
C79 0.022uF
C78 0.022uF
CN3 SIN-21T-1.8
C82 0.22uF
C258 680pF
C254 680pF
R247 10Ω 1608
C83 0.68uF
R248 3.3Ω
C226 0.022uF
C84 0.022uF
CN4 SIN-21T-1.8
C261 0.22uF
C266 680pF
C265 680pF
R249 10Ω 1608
C262 0.68uF
R250 3.3Ω
C264 0.022uF
C263 0.022uF
CN5 SIN-21T-1.8
A+5V
C174 10uF 16V
C175 0.1uF
C117 0.47uF
C122 0.47uF
C123 0.47uF
C124 0.47uF
LEFTINP
LEFTINM
AGND
RIGHTINP
RIGHTINM
HEADPHONE_SD
_SD
SDA
SCL
VDD
HPLEFT
HPRIGHT
CPVSS
CPVSS
CPP
CPN
CPVDD
CPGND
PAD
IC6
TPA6130A2RTJR
C137 1uF 16V
C139 1uF 16V
C162 1uF 16V
R258 18Ω 1/4W
R257 18Ω 1/4W
C209 6800pF
C145 6800pF
L16 BLM21AG102SN1D
L15 BLM21AG102SN1D
TP44 TP47 TP46
TP80
CN16 B4B-PH-K-S (LF)(SN)
PHONES_GND
PHONES_SENSE
150pF C239

Circuit Diagram (Main Board: 3/4)

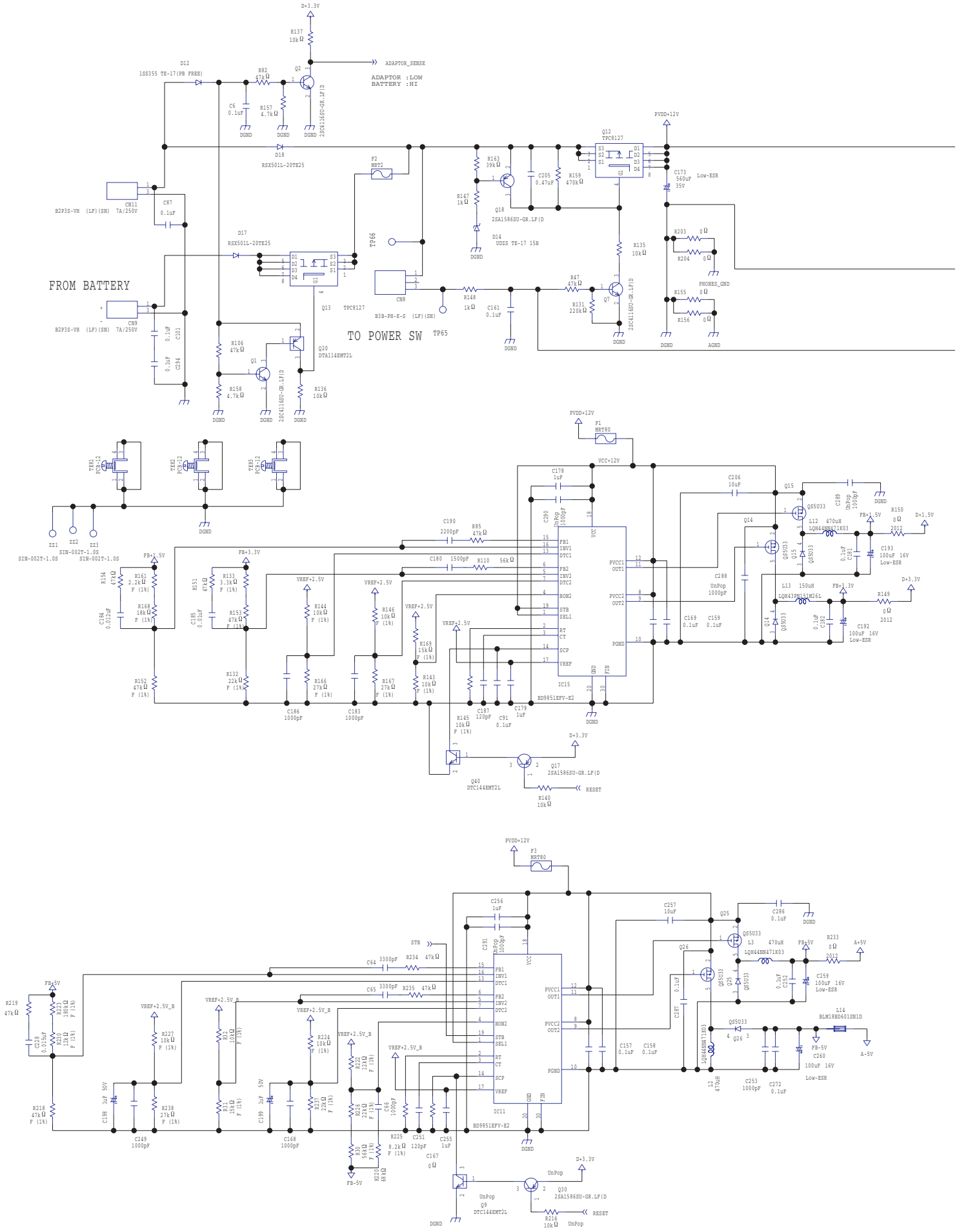


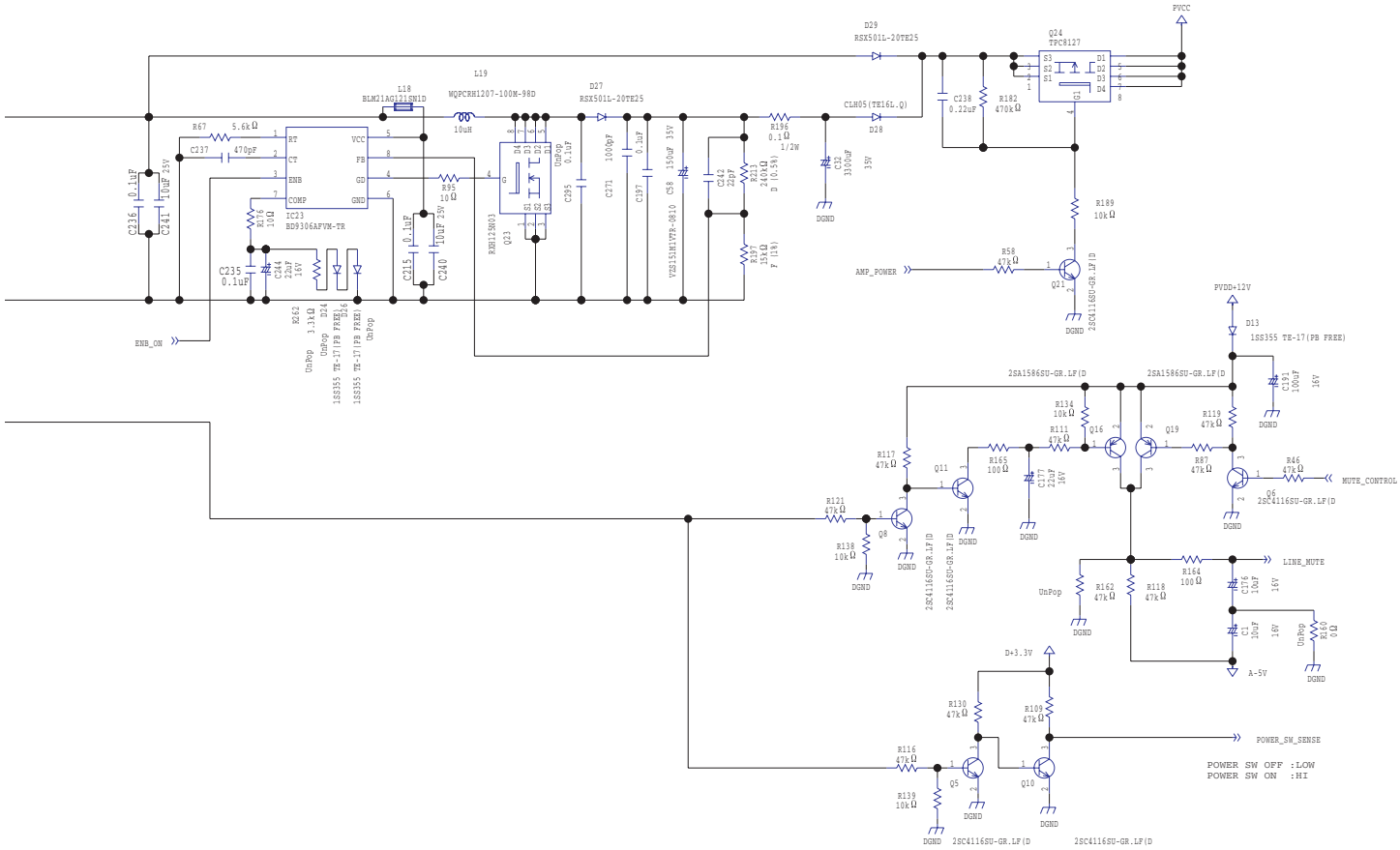


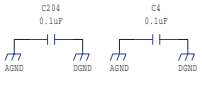

LINE OUT/STEREO LINK OUT
LINK_MODE
TP58 TP56 TP54
TP59 TP57 TP55 TP52
TP84
CN13
B10B-PH-K-S (LF)(SN)
C35 47pF
R97 68kΩ
C144 10uF16V
R83 1kΩ
R104 22kΩ
IC12
NJM4580M(TE2)
RN1442-A(TE85L.F)
Q4
R81 390kΩ
DGND
C57 47pF
R94 68kΩ
C145 10uF16V
R86 1kΩ
R103 22kΩ
AGND
LINE_MUTE
Q3
R80 390kΩ
C151 10uF 16V
C152 10uF 16V
R102 100Ω
AD3
C154 0.1uF
C164 2.2uF 50V
A+5V
A-5V
C160 10uF
C2 0.1uF
C163 10uF
C7 0.1uF
LINK_IN
LINK_IN_AUDIO
LINK_OUT_L
LINK_OUT_R
C243 150pF
C245 150pF
C257 150pF
C259 150pF
DGND
AGND


A+5V
C227 10uF
C170 0.1uF
C229 10uF
C171 0.1uF
AGND
A-5V
IC20
NJM4580M(TE2)
C118 100pF
C220 10uF 16V
R188 100Ω
AD4
R181 0Ω
R194 22kΩ
R183 0Ω
C120 100pF
C225 0.1uF
C230 2.2uF 50V

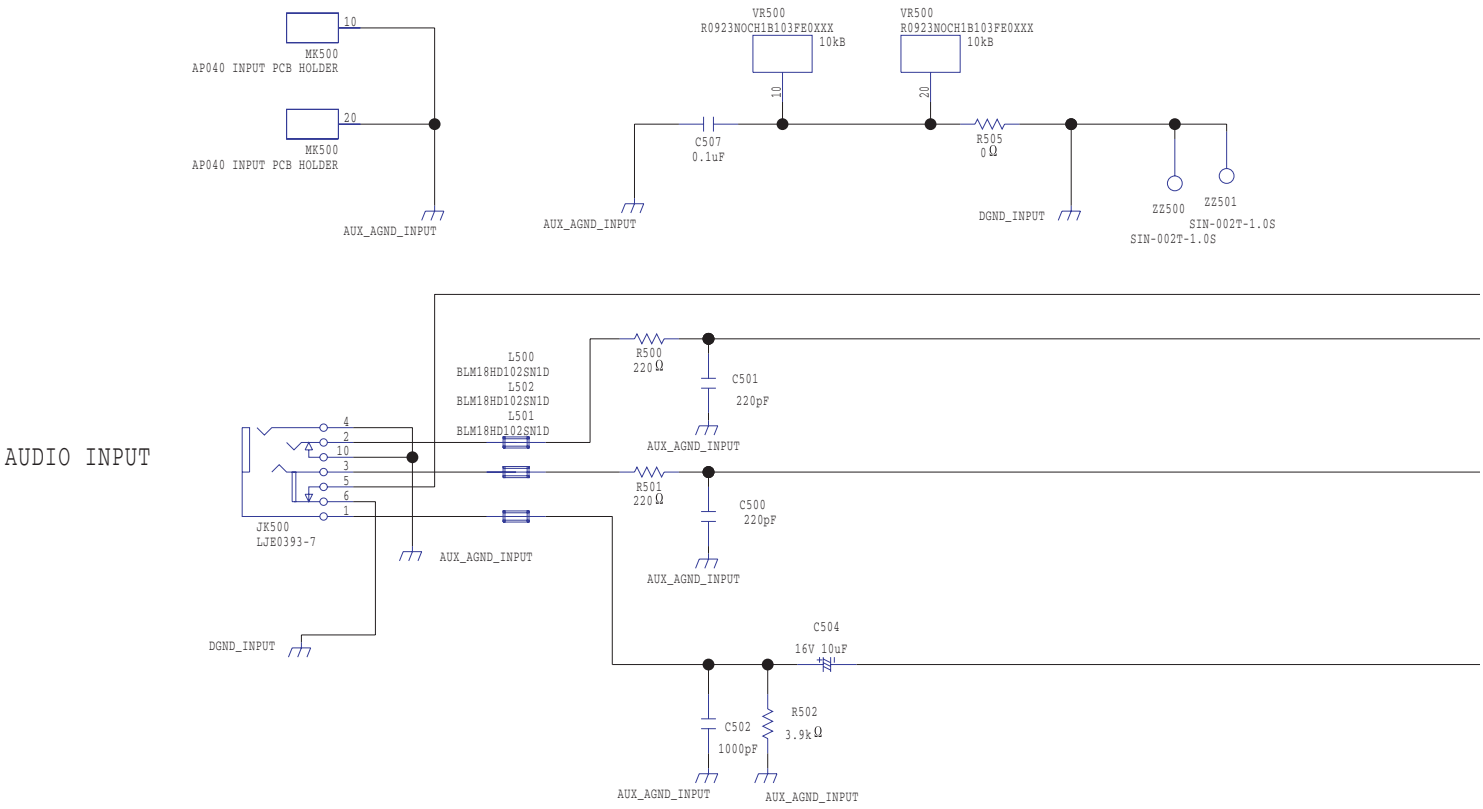
Circuit Diagram (Main Board: 4/4)

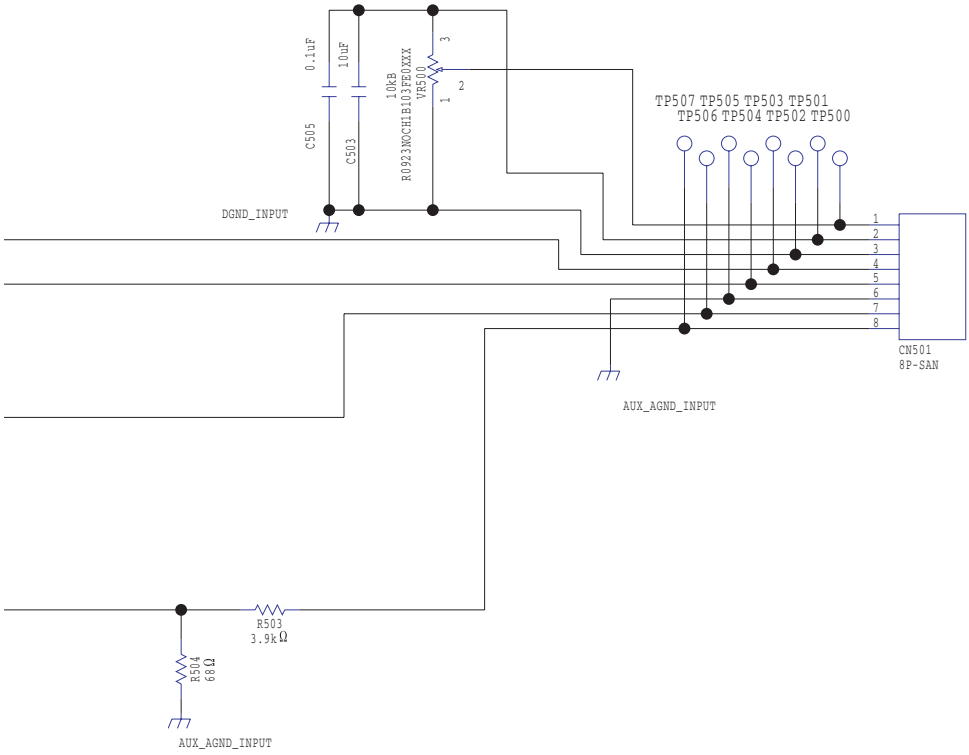



PVCC
D29
RSX501L-20TE25
Q24
TPC8127
L18
BLM21AG121SN1D
L19
WQPCRH1207-100M-98D
D27
RSX501L-20TE25
CLH05(TE16L,Q)
D28
C238
0.22uF
R182
470kΩ
R189
10kΩ
R196
0.1Ω
1/2W
C213
3300uF
35V
C58
150uF 35V
C271
100pF
C197
0.1uF
C395
0.1uF
UnPop
R67
5.6kΩ
C237
470pF
IC23
BD9306AFVM-TR
R95
10Ω
R176
10Ω
C236
0.1uF
C241
10uF 25V
C235
0.1uF
C244
22uF
16V
C215
0.1uF
C240
10uF 25V
R62
1.1kΩ
UnPop
D24
1SS355 TE-17(PB FREE)
D16
1SS355 TE-17(PB FREE)
UnPop
ENB_ON
RXH125N03
Q23
C242
220pF
R213
240kΩ
D (0.5%)
R197
15kΩ
F (1%)
VS2S15M17YR-0810
R58
47kΩ
Q21
2SC4116GU-GR.LF(D
AMP_POWER
DGND
PVDD+12V
D13
1SS355 TE-17(PB FREE)
C137
100uF
16V
2SA1586SU-GR.LF(D
2SA1586SU-GR.LF(D
R134
10kΩ
R111
47kΩ
Q16
Q19
R119
47kΩ
R46
47kΩ
MUTE_CONTROL
Q6
2SC4116SU-GR.LF(D
R117
47kΩ
Q11
R165
100Ω
C127
22uF
16V
R87
47kΩ
R121
47kΩ
Q8
R138
10kΩ
2SC4116SU-GR.LF(D
2SC4116SU-GR.LF(D
R164
100Ω
LINE_MUTE
UnPop
R162
47kΩ
R118
47kΩ
C135
10uF
16V
C132
10uF
16V
UnPop
R160
0Ω
A-5V
D+3.3V
R130
47kΩ
R109
47kΩ
POWER_SW_SENSE
POWER SW OFF :LOW
POWER SW ON :HI
R116
47kΩ
Q5
Q10
R139
10kΩ
2SC4116SU-GR.LF(D
2SC4116SU-GR.LF(D


C204
0.1uF
C4
0.1uF
AGND
DGND
AGND
DGND

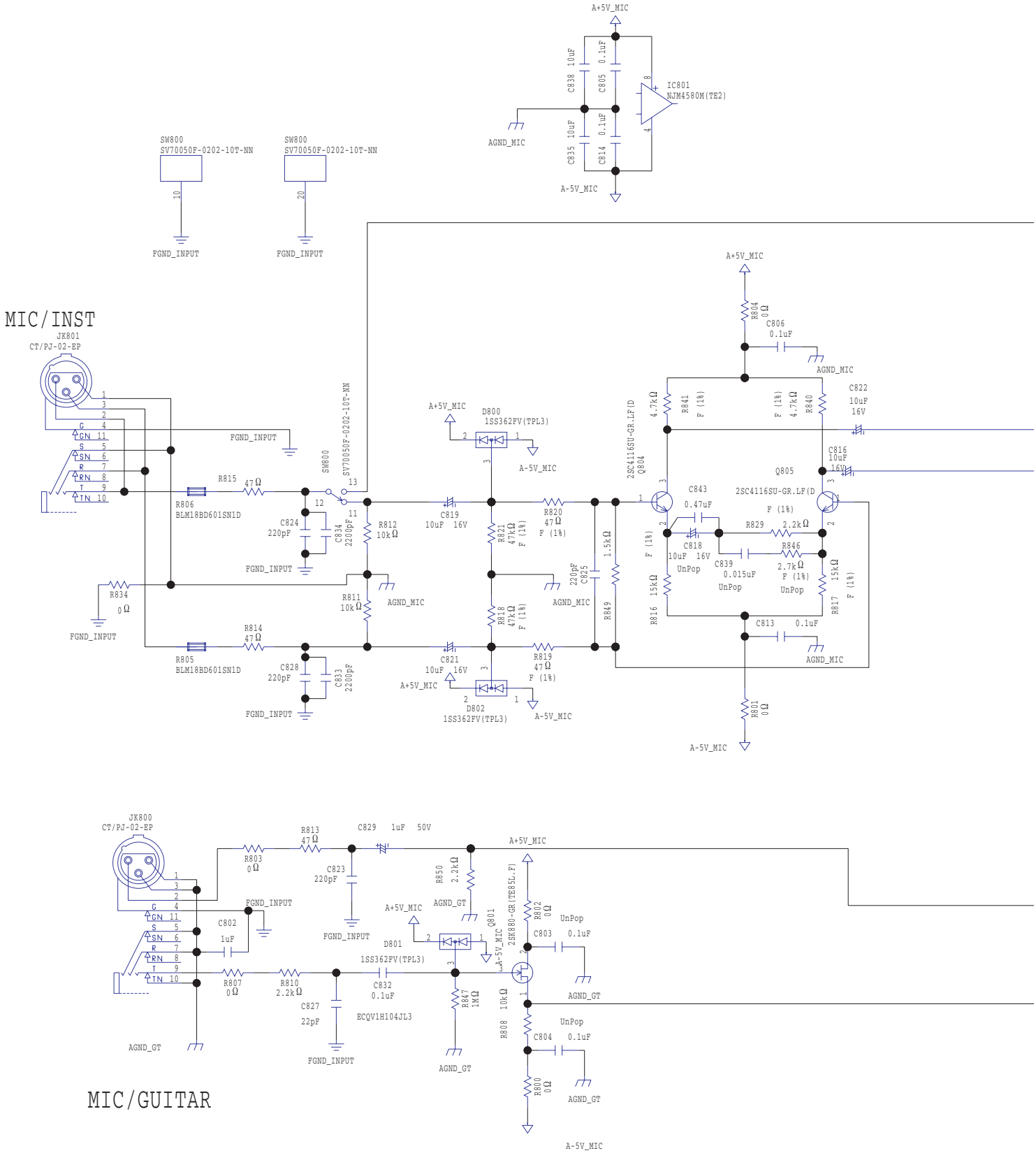
Circuit Diagram (Audio Input Board)

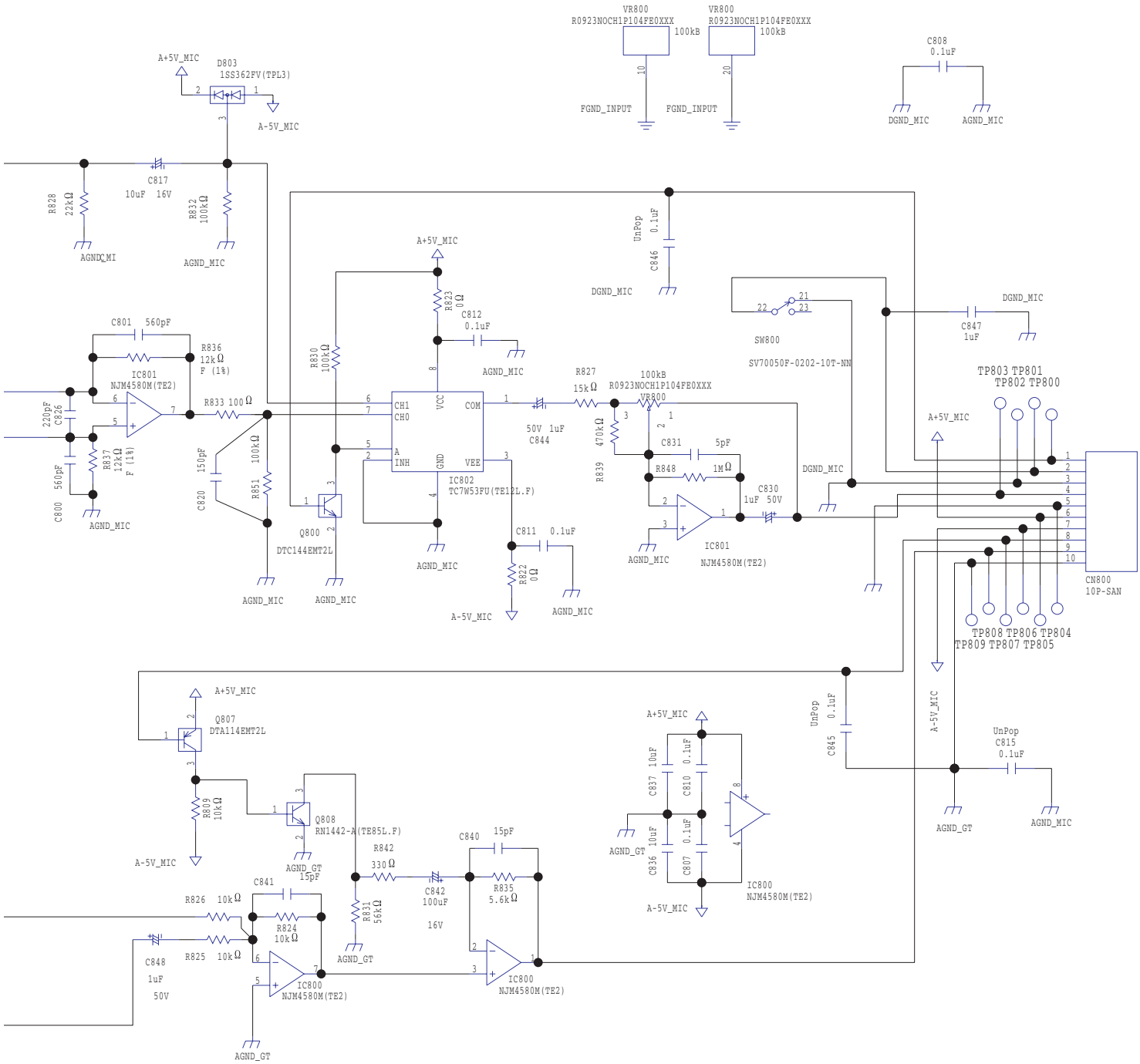



0.1uF
10uF
C505
C503
10kB
RJ923NOCH1B103FE0XXX
VR500
3
2
1
DGND_INPUT
TP507 TP505 TP503 TP501
TP506 TP504 TP502 TP500
1
2
3
4
5
6
7
8
CN501
8P-SAN
AUX_AGND_INPUT
R503
3.9kΩ
R504
68Ω
AUX_AGND_INPUT

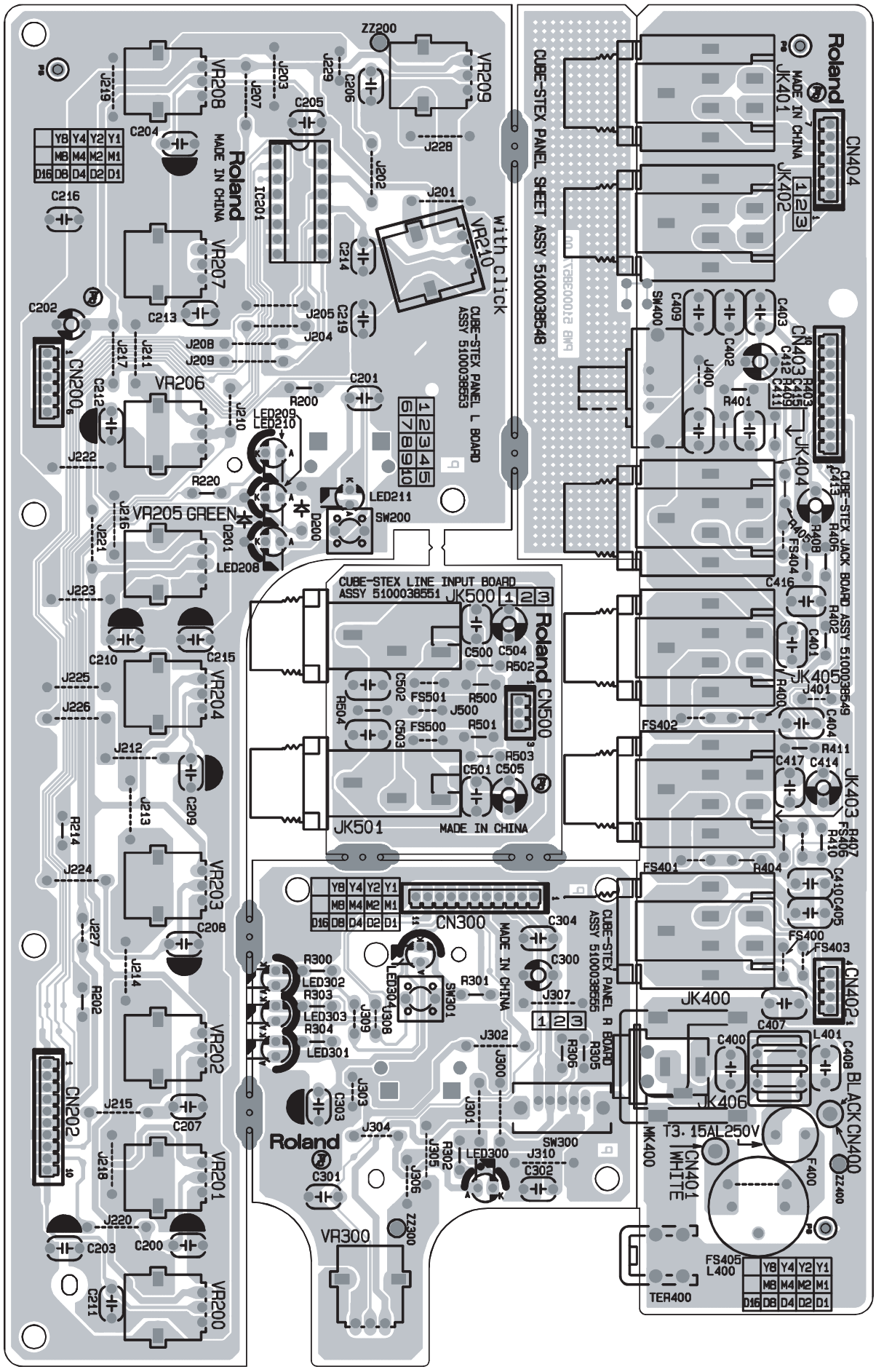
To MAIN CN7

Circuit Diagram (Input Board)

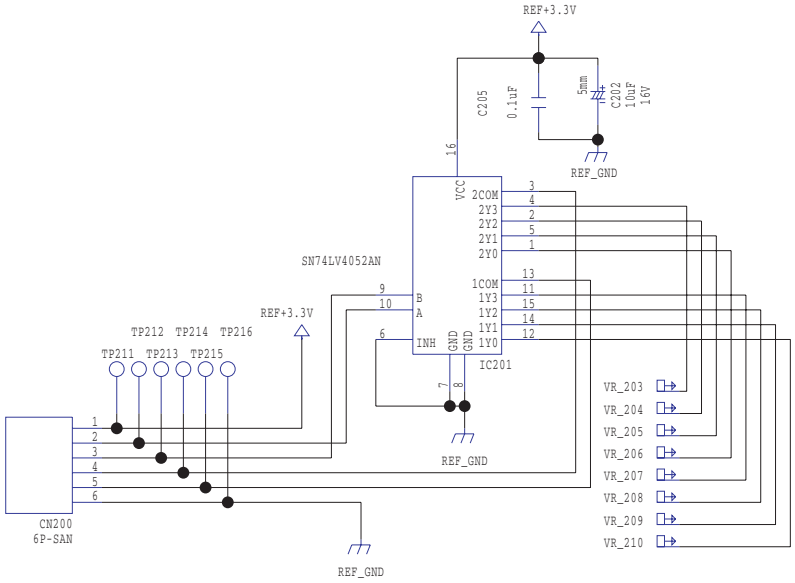


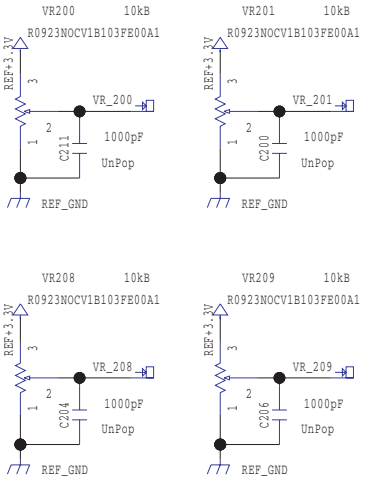

VR800
R0923NOCH1P104FE0XXX
100kB
FGND_INPUT
C808
0.1uF
DGND_MIC
AGND_MIC
A+5V_MIC
D803
1SS362FV(TPL3)
A-5V_MIC
C817
10uF 16V
R828
22kΩ
R832
100kΩ
AGND_MI
UnPop
C846
0.1uF
SW800
SV70050F-0202-10T-NN
C847
1uF
TP803 TP801
TP802 TP800
C801 560pF
R836
12kΩ
F (1%)
IC801
NJM4580M(TE2)
R833 100Ω
R823
0Ω
C812
0.1uF
R830
100kΩ
CH1
CH0
VCC
COM
A
INH
GND
VEE
IC802
TC7W53FU(TE12L,F)
R827
15kΩ
R0923NOCH1P104FE0XXX
VR800
50V 1uF
C844
470kΩ
R839
C831 5pF
R848 1MΩ
C830
1uF 50V
IC801
NJM4580M(TE2)
C826 220pF
C800 560pF
R837
12kΩ
F (1%)
C820 150pF
R851 100kΩ
Q800
DTC144EMT2L
C811 0.1uF
R822
0Ω
CN800
10P-SAN
TP808 TP806 TP804
TP809 TP807 TP805
Q807
DTA114EMT2L
R809
10kΩ
Q808
RN1442-A(TE85L.F)
R842
330Ω
C840 15pF
C841
15pF
R826 10kΩ
R824
10kΩ
R825 10kΩ
C848
1uF
50V
R831
56kΩ
C842
100uF
16V
R835
5.6kΩ
IC800
NJM4580M(TE2)
C837 10uF
C810 0.1uF
C836 10uF
C807 0.1uF
IC800
NJM4580M(TE2)
C845
0.1uF
UnPop
C815
0.1uF
AGND_GT
AGND_MIC

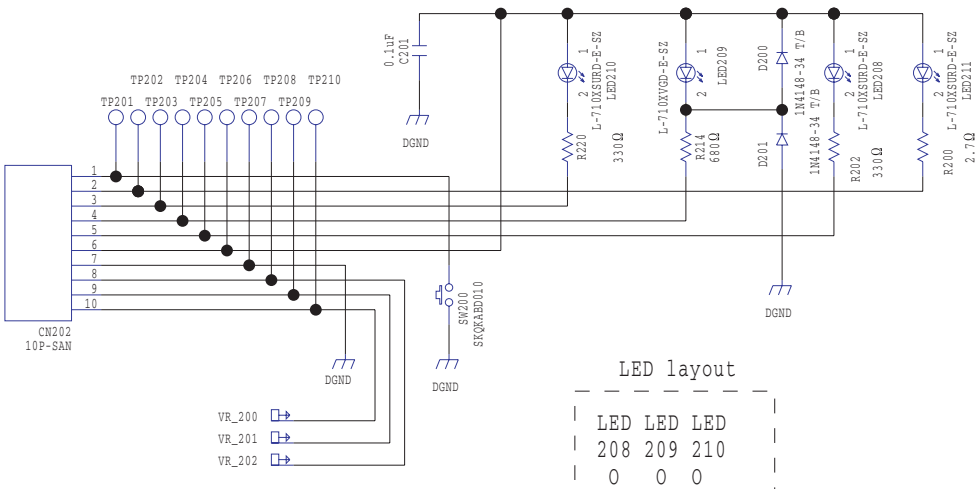
Circuit Board (Panel L/R, Line Input, Jack Board)

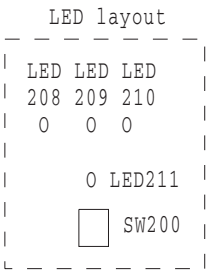


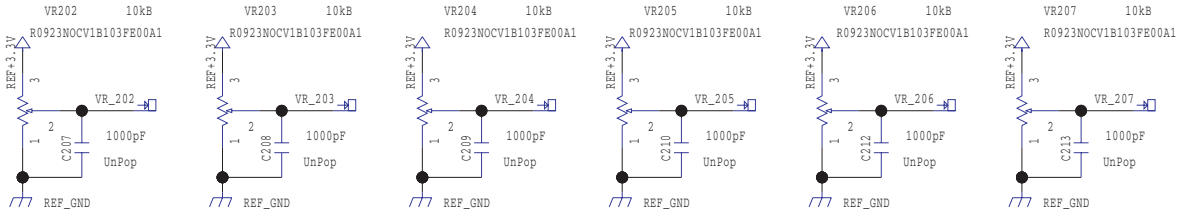
Circuit Diagram (Panel L Board)

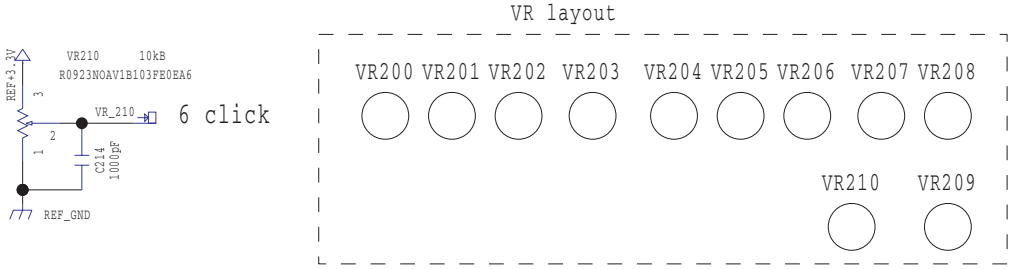


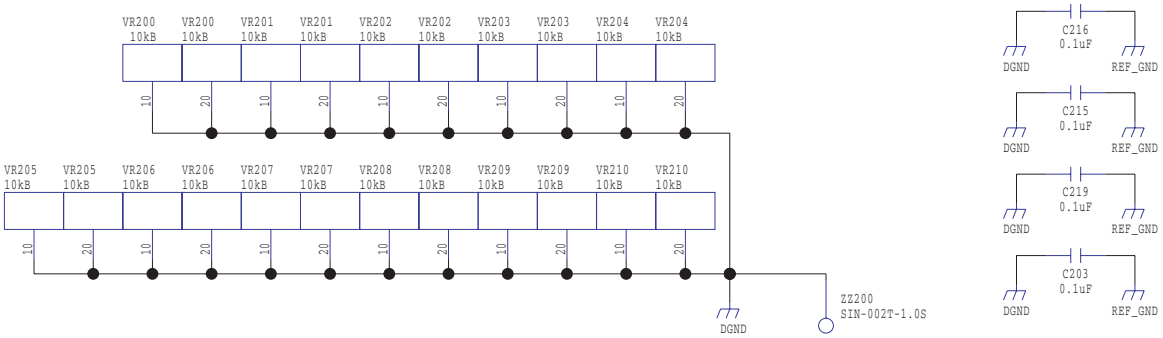




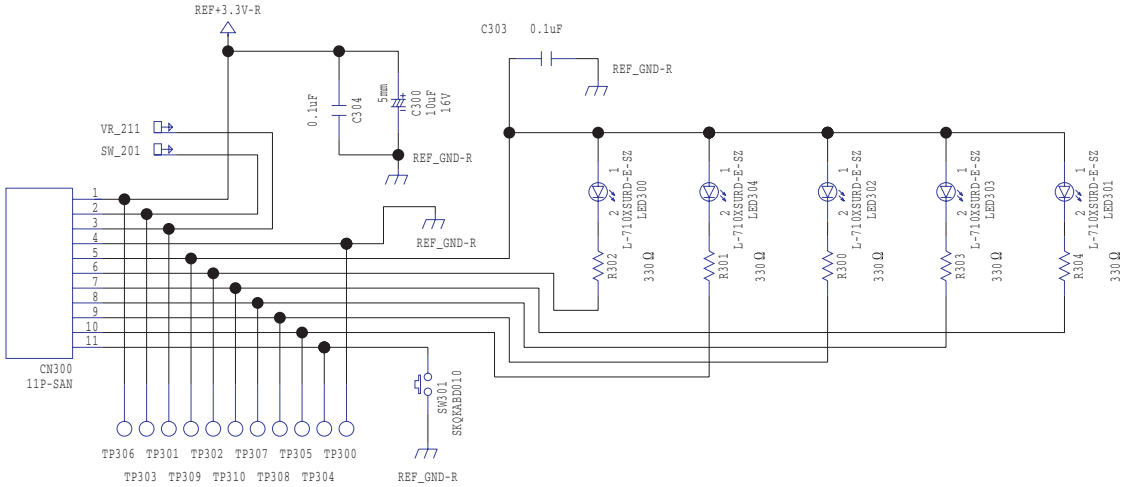


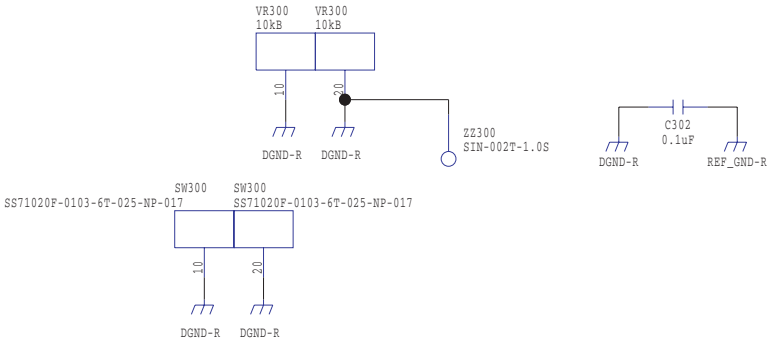

VR202 10kB
R0923NOCV1B103FE00A1
REF+3.3V
VR_202
C207
1000pF
UnPop
REF_GND
VR203 10kB
R0923NOCV1B103FE00A1
VR_203
C208
1000pF
UnPop
VR204 10kB
R0923NOCV1B103FE00A1
VR_204
C209
1000pF
UnPop
VR205 10kB
R0923NOCV1B103FE00A1
VR_205
C210
1000pF
UnPop
VR206 10kB
R0923NOCV1B103FE00A1
VR_206
C212
1000pF
UnPop
VR207 10kB
R0923NOCV1B103FE00A1
VR_207
C213
1000pF
UnPop

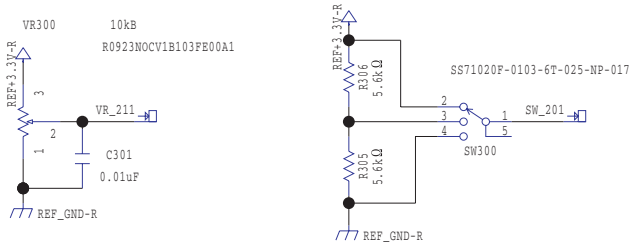

VR210 10kB
R0923NOAV1B103FE0EA6
VR_210
6 click
C214
1000pF
REF_GND
VR layout
VR200 VR201 VR202 VR203 VR204 VR205 VR206 VR207 VR208
VR210 VR209

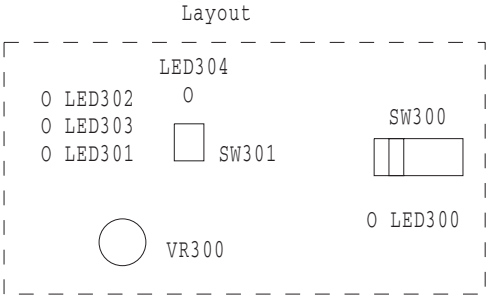

VR200 10kB
VR201 10kB
VR202 10kB
VR203 10kB
VR204 10kB
VR205 10kB
VR206 10kB
VR207 10kB
VR208 10kB
VR209 10kB
VR210 10kB
10
20
DGND
ZZ200
SIN-002T-1.0S
C216
0.1uF
C215
0.1uF
C219
0.1uF
C203
0.1uF
DGND
REF_GND

Circuit Diagram (Panel R Board)

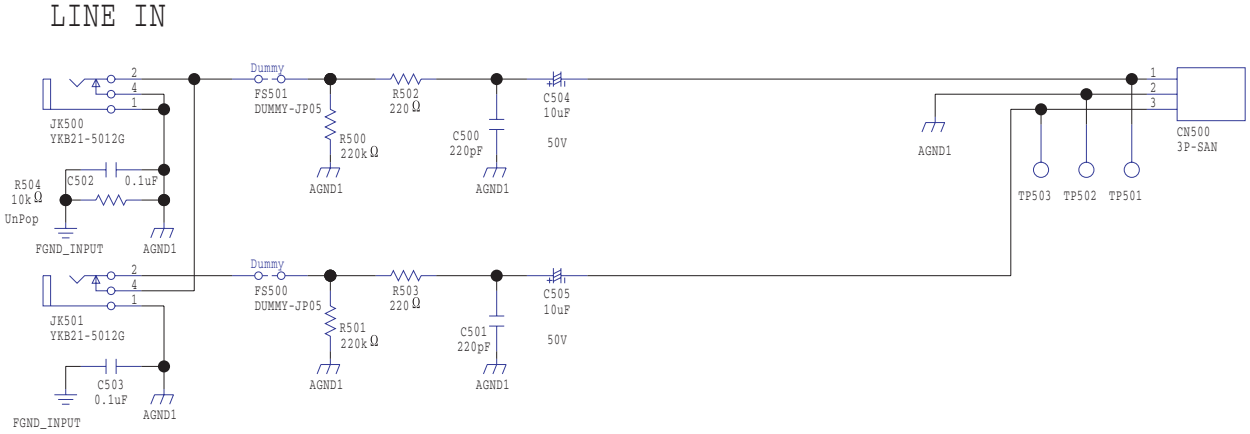




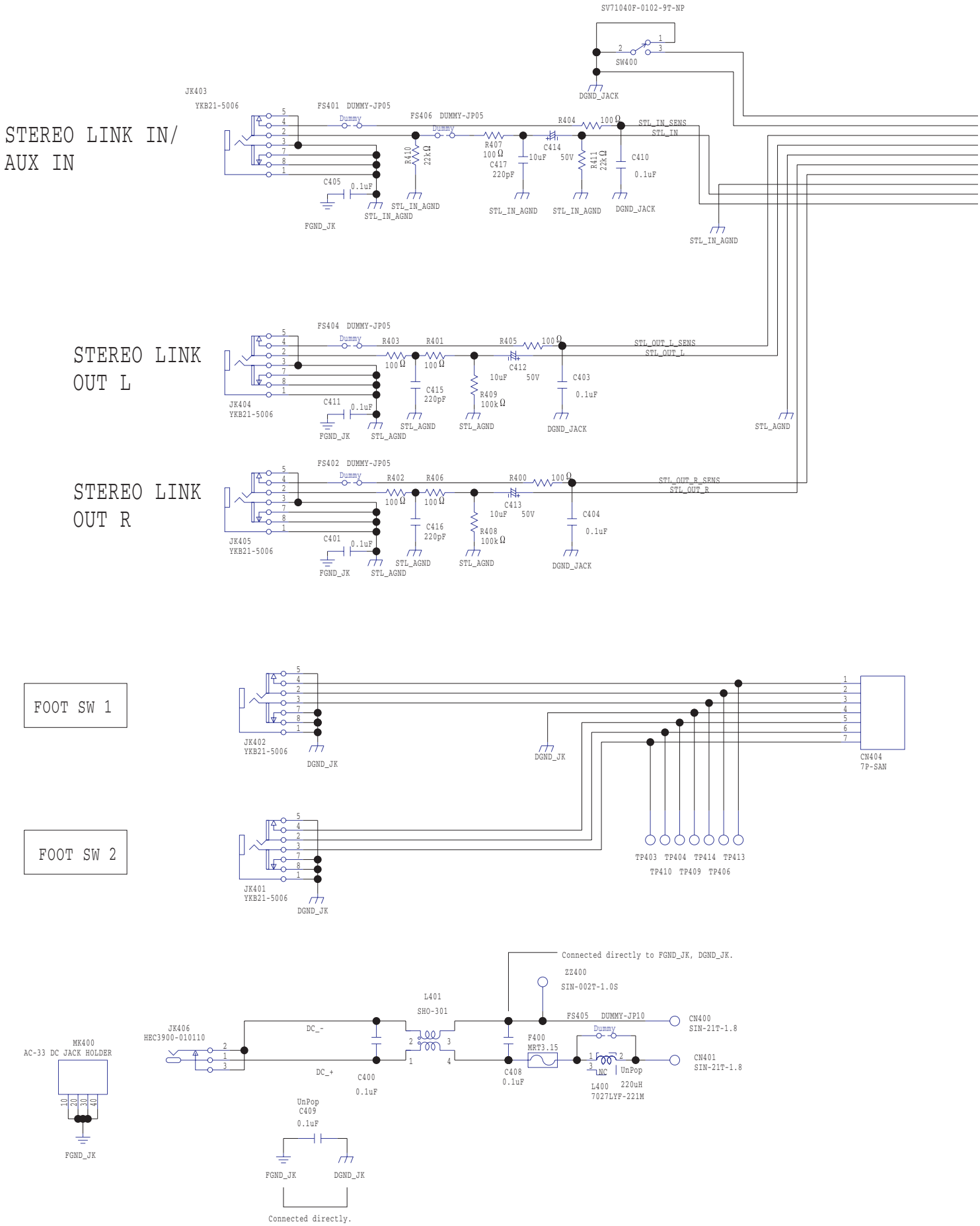


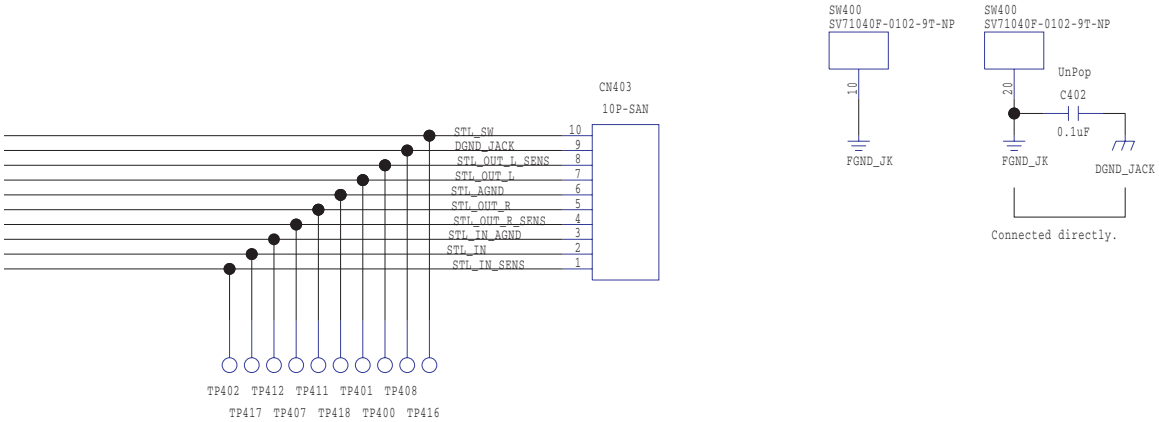


Circuit Diagram (Line Input Board)



Circuit Diagram (Jack Board)




CN403
10P-SAN
STL_SW 10
DGND_JACK 9
STL_OUT_L_SENS 8
STL_OUT_L 7
STL_AGND 6
STL_OUT_R 5
STL_OUT_R_SENS 4
STL_IN_AGND 3
STL_IN 2
STL_IN_SENS 1
TP402 TP412 TP411 TP401 TP408
TP417 TP407 TP418 TP400 TP416
SW400
SV71040F-0102-9T-NP
10
FGND_JK
SW400
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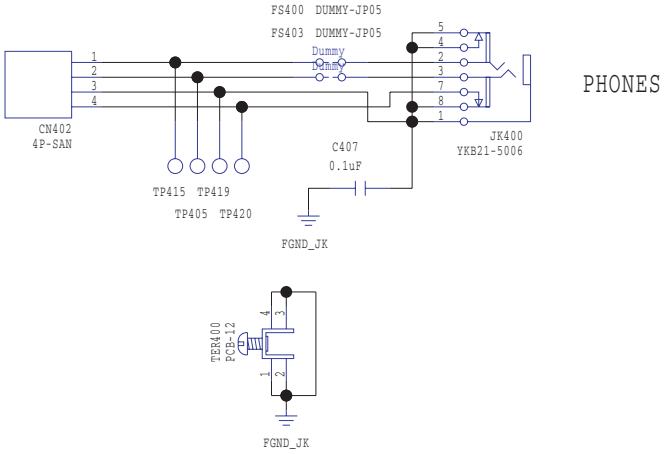
UnPop
C402
20
0.1uF
FGND_JK
DGND_JACK
Connected directly.


FS400 DUMMY-JP05
FS403 DUMMY-JP05
Dummy
Dummy
CN402
4P-SAN
JK400
YKB21-5006
C407
0.1uF
TP415 TP419
TP405 TP420
FGND_JK
TER400
PCB-12
FGND_JK

PHONES