


SERVICE MANUAL

MODEL	JP	E3	E2	EK	EA	E1	E1K	E1C
AVR-1312		✓	✓		✓			✓

AV SURROUND RECEIVER

MODEL	JP	E3	E2	EK	EA	E1	E1K	E1C
DHT-1312XP 		✓	✓					

5.1CH HOME THEATER SYSTEM

• For purposes of improvement, specifications and design are subject to change without notice.

• Please use this service manual with referring to the operating instructions without fail.

• Some illustrations using in this service manual are slightly different from the actual set.

DENON

D&M Holdings Inc.

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SAFETY PRECAUTIONS

The following items should be checked for continued protection of the customer and the service technician.

LEAKAGE CURRENT CHECK

Before returning the set to the customer, be sure to carry out either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the set is defective.

Be sure to test for leakage current with the AC plug in both polarities, in addition, when the set's power is in each state (on, off and standby mode), if applicable.

CAUTION Please heed the following cautions and instructions during servicing and inspection.

⊙ Heed the cautions!

Cautions which are delicate in particular for servicing are labeled on the cabinets, the parts and the chassis, etc. Be sure to heed these cautions and the cautions described in the handling instructions.

⊙ Cautions concerning electric shock!

- (1) An AC voltage is impressed on this set, so if you touch internal metal parts when the set is energized, you may get an electric shock. Avoid getting an electric shock, by using an isolating transformer and wearing gloves when servicing while the set is energized, or by unplugging the power cord when replacing parts, for example.
- (2) There are high voltage parts inside. Handle with extra care when the set is energized.

⊙ Caution concerning disassembly and assembly!

Through great care is taken when parts were manufactured from sheet metal, there may be burrs on the edges of parts. The burrs could cause injury if fingers are moved across them in some rare cases. Wear gloves to protect your hands.

⊙ Use only designated parts!

The set's parts have specific safety properties (fire resistance, voltage resistance, etc.). Be sure to use parts which have the same properties for replacement. The burrs have the same properties. In particular, for the important safety parts that are indicated by the \triangle mark on schematic diagrams and parts lists, be sure to use the designated parts.

⊙ Be sure to mount parts and arrange the wires as they were originally placed!

For safety reasons, some parts use tapes, tubes or other insulating materials, and some parts are mounted away from the surface of printed circuit boards. Care is also taken with the positions of the wires by arranging them and using clamps to keep them away from heating and high voltage parts, so be sure to set everything back as it was originally placed.

⊙ Make a safety check after servicing!

Check that all screws, parts and wires removed or disconnected when servicing have been put back in their original positions, check that no serviced parts have deteriorate the area around. Then make an insulation check on the external metal connectors and between the blades of the power plug, and otherwise check that safety is ensured.

(Insulation check procedure)

Unplug the power cord from the power outlet, disconnect the antenna, plugs, etc., and on the power. Using a 500V insulation resistance tester, check that the insulation resistance value between the inplug and the externally exposed metal parts (antenna terminal, headphones terminal, input terminal, etc.) is 1M Ω or greater. If it is less, the set must be inspected and repaired.

CAUTION Concerning important safety parts

Many of the electric and the structural parts used in the set have special safety properties. In most cases these properties are difficult to distinguish by sight, and the use of replacement parts with higher ratings (rated power and withstand voltage) does not necessarily guarantee that safety performance will be preserved. Parts with safety properties are indicated as shown below on the wiring diagrams and the parts list in this service manual. Be sure to replace them with the parts which have the designated part number.

- (1) Schematic diagrams.....Indicated by the \triangle mark.
- (2) Parts lists.....Indicated by the \triangle mark.

The use of parts other than the designated parts could cause electric shocks, fires or other dangerous situations.

NOTE FOR SCHEMATIC DIAGRAM

WARNING:

Parts indicated by the \triangle mark have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

CAUTION:

Before returning the set to the customer, be sure to carry out either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the set is defective.

WARNING:

DO NOT return the set to the customer unless the problem is identified and remedied.

NOTICE:

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM / M=1,000,000 OHM

ALL CAPACITANCE VALUES ARE EXPRESSED IN MICRO FARAD, UNLESS OTHERWISE INDICATED. P INDICATES MICRO-MICRO FARAD. EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION. CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

NOTE FOR PARTS LIST

1. Parts indicated by "nsp" on this table cannot be supplied.
2. When ordering a part, make a clear distinction between "1" and "I" (i) to avoid mis-supplying.
3. A part ordered without specifying its part number can not be supplied.
4. Part indicated by "★" mark is not illustrated in the exploded view.
5. General-purpose Carbon Film Resistor in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)
6. General-purpose Carbon Chip Resistors are not included in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)

WARNING: Parts indicated by the \triangle mark have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

TECHNICAL SPECIFICATIONS

Audio Section

Power amplifier

Rated output :

Front :

75 W + 75 W (8 Ω, 20 Hz – 20 kHz with 0.08 % T.H.D.)
 110 W + 110 W (6 Ω, 1 kHz with 0.7 % T.H.D.)

Center :

75 W (8 Ω, 20 Hz – 20 kHz with 0.08 % T.H.D.)
 110 W (6 Ω, 1 kHz with 0.7 % T.H.D.)

Surround :

75 W + 75 W (8 Ω, 20 Hz – 20 kHz with 0.08 % T.H.D.)
 110 W + 110 W (6 Ω, 1 kHz with 0.7 % T.H.D.)

Output connectors : 6 – 16 Ω

Analog

Input sensitivity/Input impedance : 200 mV/47 kΩ

Frequency response: 10 Hz – 100 kHz — 0, -3 dB (DIRECT mode)

S/N : 98 dB (IHF-A weighted, DIRECT mode)

Tuner section

[FM](Note: μV at 75 Ω, 0 dBf = 1 x 10⁻¹⁵ W)

Receiving Range (for E3) :

[FM] 87.5 MHz – 107.9 MHz [AM] 520 kHz – 1710 kHz

Receiving Range (for E2, EA, E1C) :

[FM] 57.5 MHz – 108.0 MHz [AM] 522 kHz – 1611 kHz

Usable Sensitivity :

[FM] 1.2 μV (12.8 dBf) [AM] 18 μV

50 dB Quieting Sensitivity :

[FM] MONO 2.8 μV (20.2 dBf)

S/N (IHF-A) :

[FM] MONO 70 dB
 STEREO 67 dB

Total harmonic Distortion (at 1 kHz) :

[FM] MONO 0.7 %
 STEREO 1.0 %

General

Power supply (for E3) : AC 120 V, 60 Hz
 (for E2, EA) : AC 230 V, 50 Hz / 60Hz
 (for E1C) : AC 220 V, 50 Hz

Power consumption :

330 W
 0.5 W (Standby)

Maximum external dimensions :

435 (W) x 162 (H) x 382 (D) mm

Weight : 9.2 kg

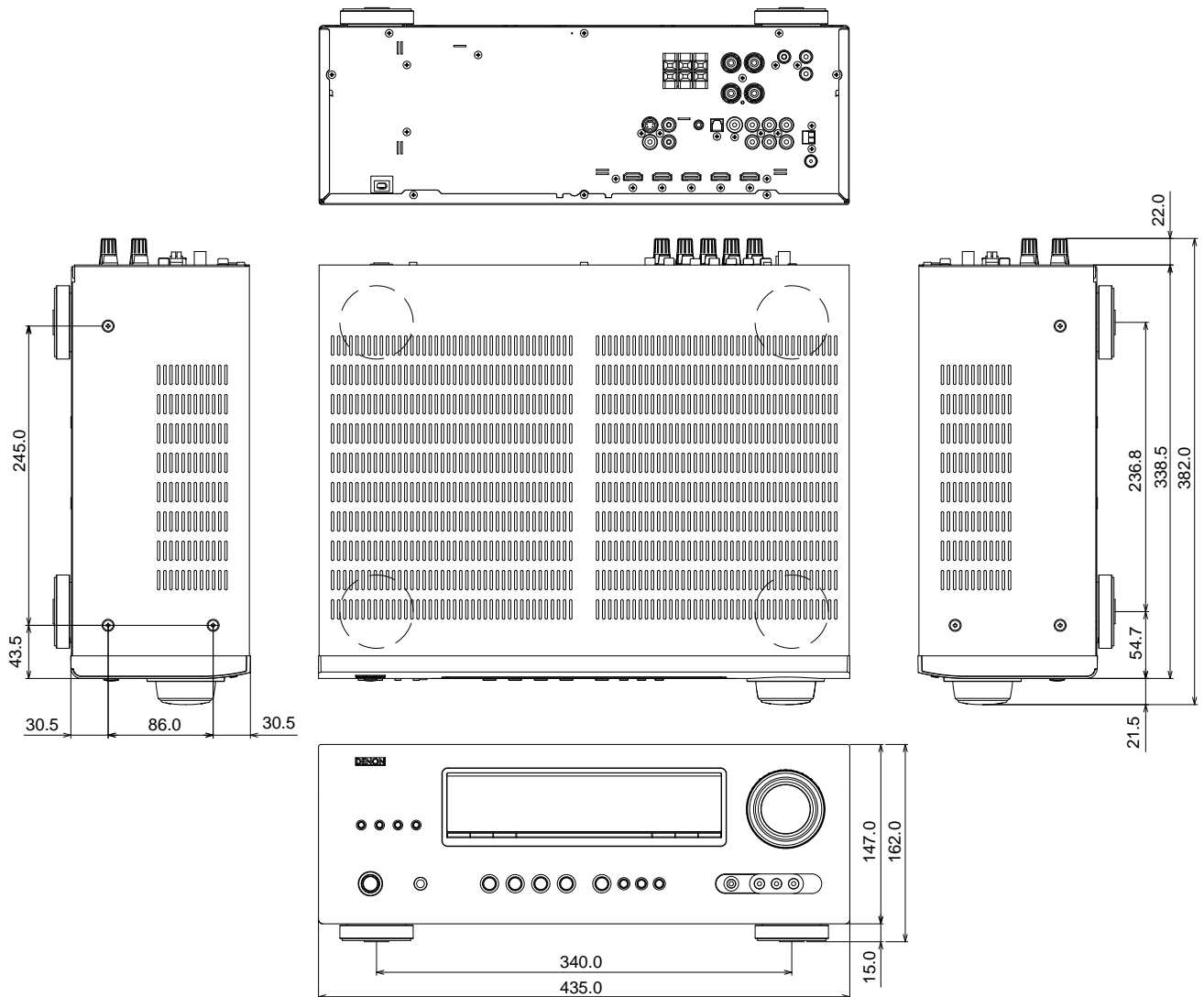
Remote Control Unit (RC-1158)

Batteries : R03/AAA Type (two batteries)

Maximum external dimensions : 50 (W) x 211 (H) x 22 (D) mm

Weight : 110 g (including batteries)

DIMENSION



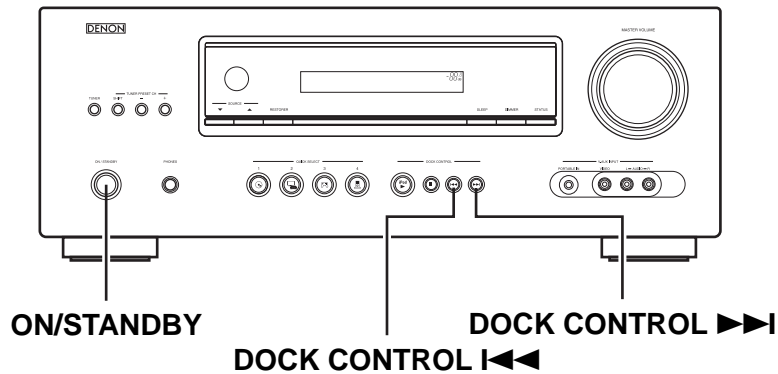
CAUTIONS IN SERVICING

Initializing AV SURROUND RECEIVER

AV SURROUND RECEIVER initialization should be performed when the μ com, peripheral parts of μ com, and Digital P.W.B. were replaced.

1. Turn off the power pressing ON/STANDBY button.
2. Press ON/STANDBY button while simultaneously while pressing DOCK CONTROL **I◀◀** and DOCK CONTROL **▶▶I** buttons.
3. Check that the entire display is flashing at intervals of about 1 second, and then release the 2 buttons.
The microprocessor will be initialized.

Note: • If step 3 fails, start over from step 1.
• All user settings will be lost and the factory setting will be recovered after the set is initialized.
So make sure to note down your setting beforehand for restoring after the initialization.



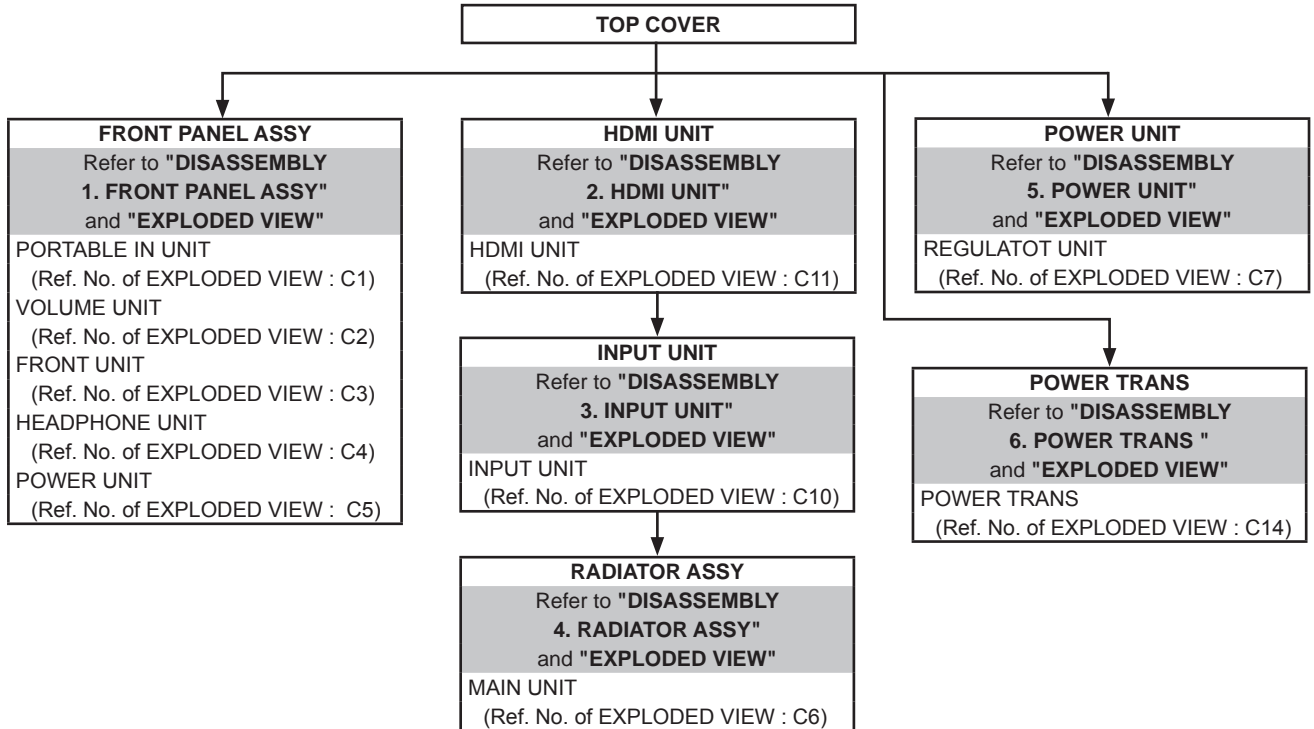
Service Jig

When you update the firmware, you can use the following JIG (RS232C to internal connector conversion adapter). Please order it from Denon Official Service Distributor in your region if necessary.

8U-210100S : WRITING KIT : 1 Set
606050028012P : 7P FFC(1.0) L-240 : 1 Set
(Refer to "PROCEDURE FOR UPGRADING THE VERSION OF THE FIRMWARE".)

DISASSEMBLY

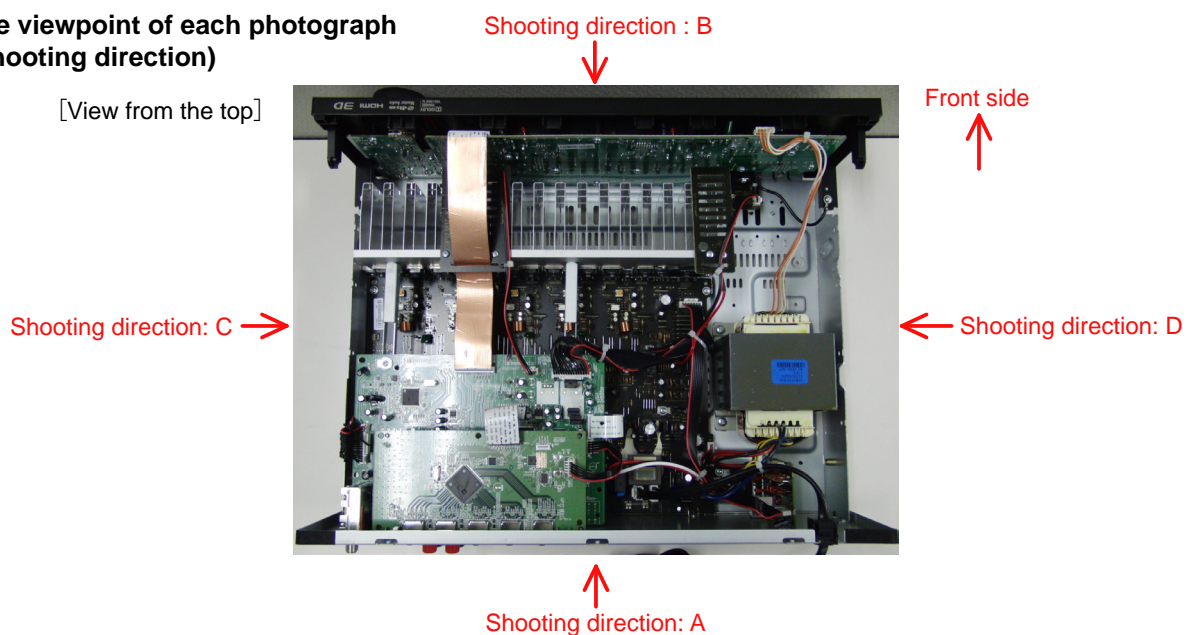
- Disassemble in order of the arrow in the following figure.
 - In the case of the re-assembling, assemble it in order of the reverse of the following flow.
 - In the case of the re-assembling, observe "attention of assembling".
 - If wire bundles are untied or moved to perform adjustment or replace parts etc., be sure to rearrange them neatly as they were originally bundled or placed afterward.
- Otherwise, incorrect arrangement can be a cause of noise generation.



About the photos used for "descriptions of the DISASSEMBLY" section

- The shooting direction of each photograph used herein is indicated on the left side of the respective photograph as "Shooting direction: ****".
- Refer to the diagram below about the shooting direction of each photograph.
- Photographs with no shooting direction indicated were taken from the top of the set.

The viewpoint of each photograph (Shooting direction)

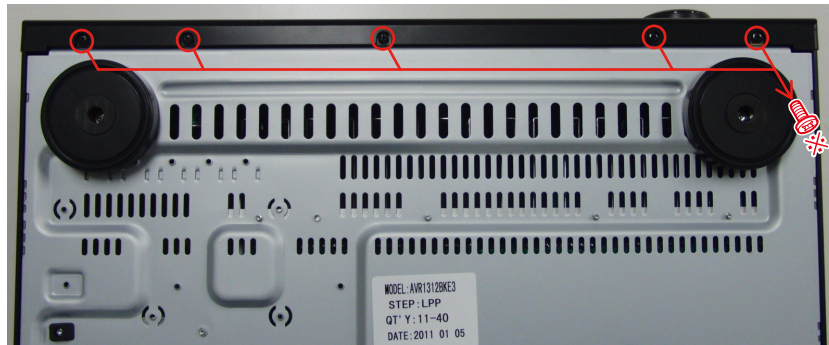


1. FRONT PANEL ASSY

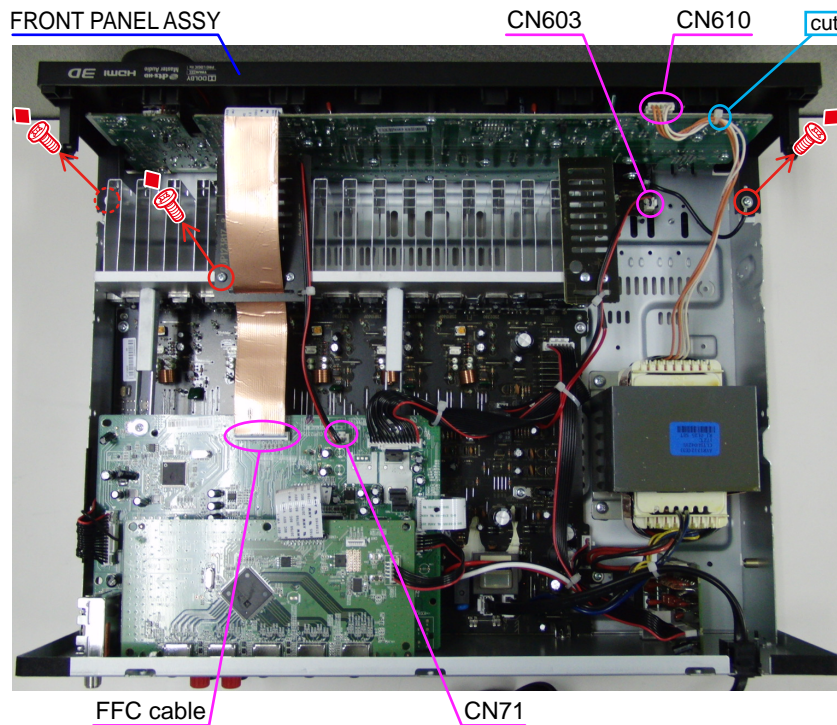
Proceeding : **TOP COVER** → **FRONT PANEL ASSY**

- (1) Remove the screws.

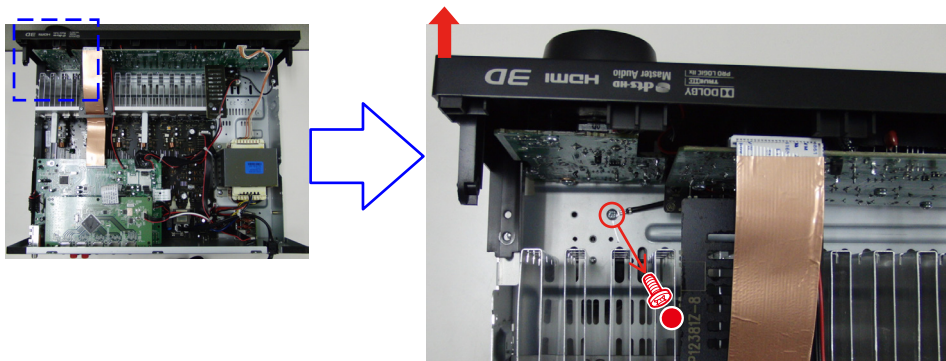
View from the bottom



- (2) Cut the wire clamp band, then disconnect the connector wires and FFC cable. Remove the screws.



- (3) Remove the screws.



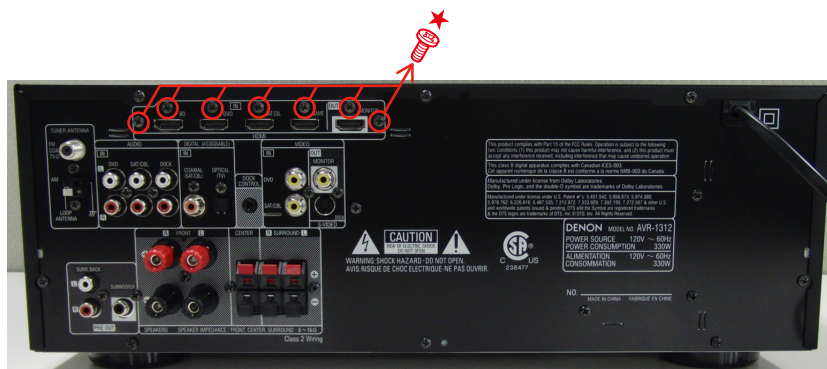
Please refer to "EXPLODED VIEW" for the disassembly method of each P.W.B included in FRONT PANEL ASSY.

2. HDMI UNIT

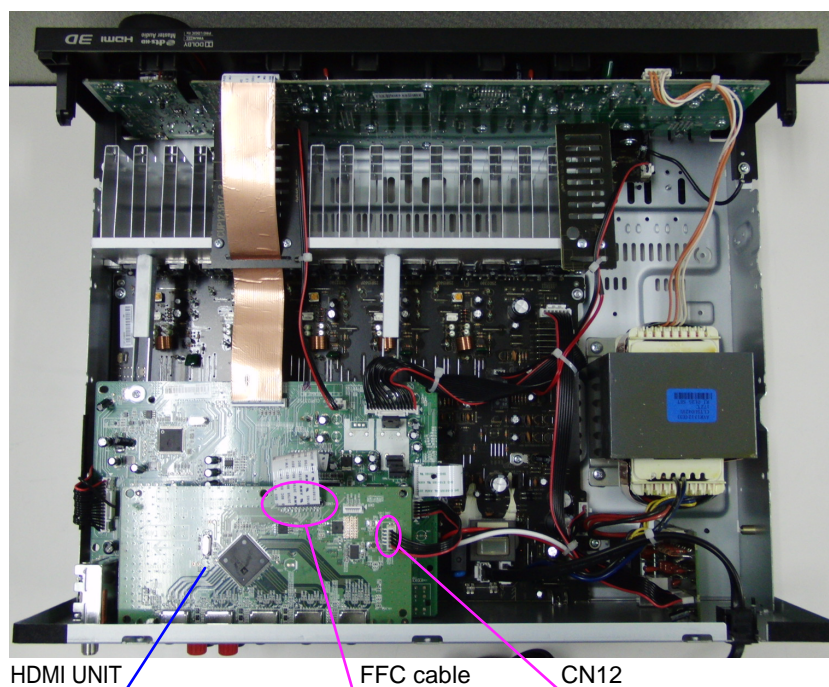
Proceeding : **TOP COVER** → **HDMI UNIT**

- (1) Remove the screws.

Shooting direction: A



- (2) Disconnect the connector wire and FFC cable.

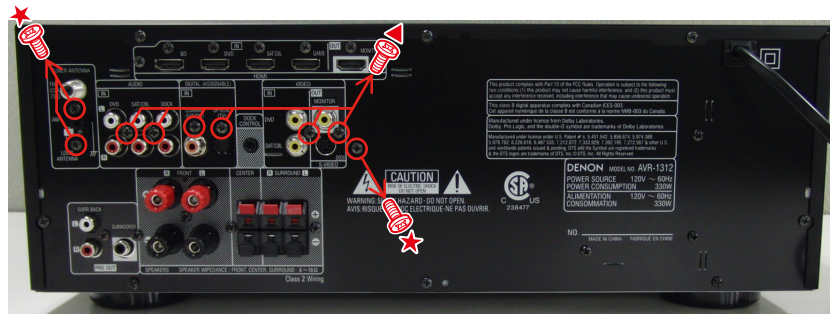


3. INPUT UNIT

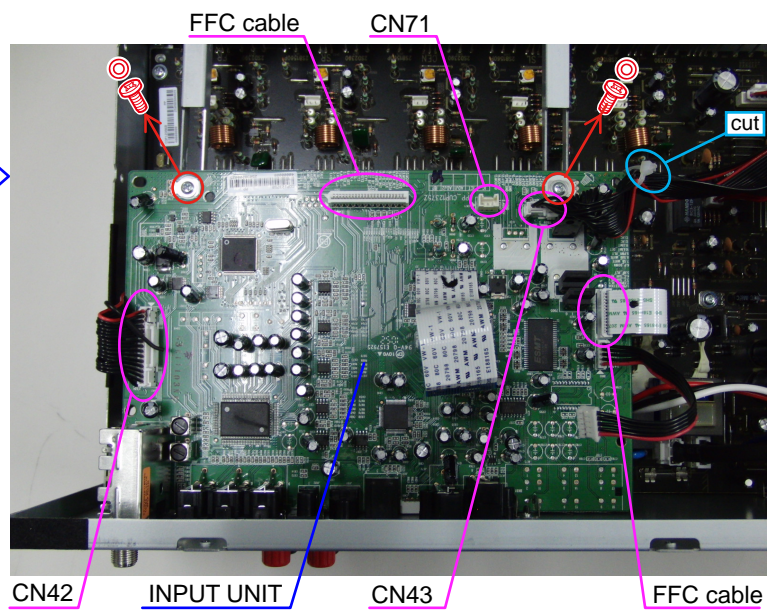
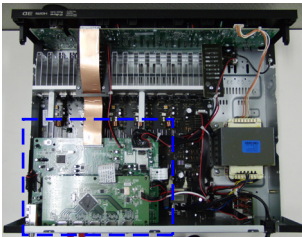
Proceeding : **TOP COVER** → **HDMI UNIT** → **INPUT UNIT**

- (1) Remove the screws.

Shooting direction: A



- (2) Disconnect the connector wires and FFC cables, then remove the screws.



4. RADIATOR ASSY

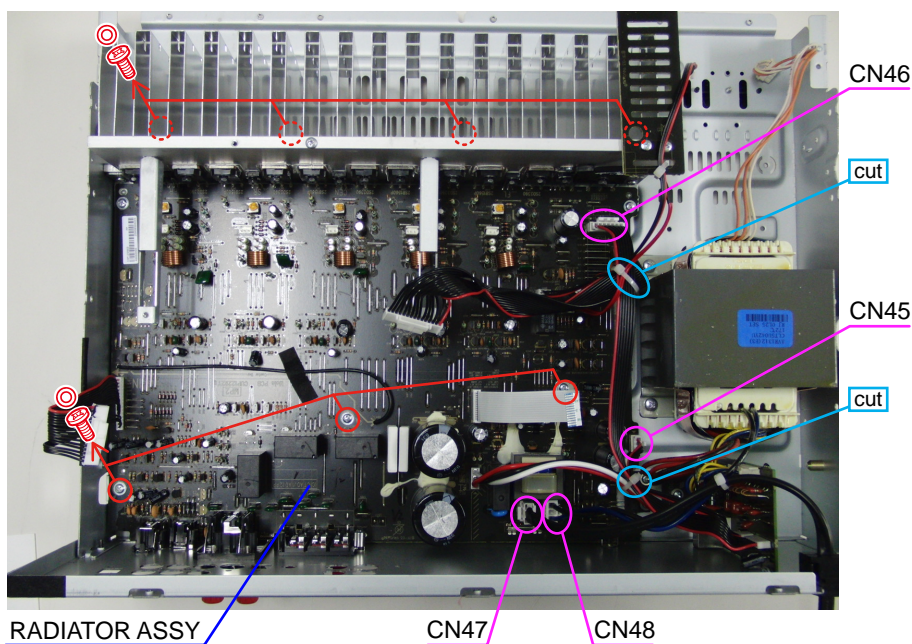
Proceeding : **TOP COVER** → **HDMI UNIT** → **INPUT UNIT** → **RADIATOR ASSY**

- (1) Remove the screws.

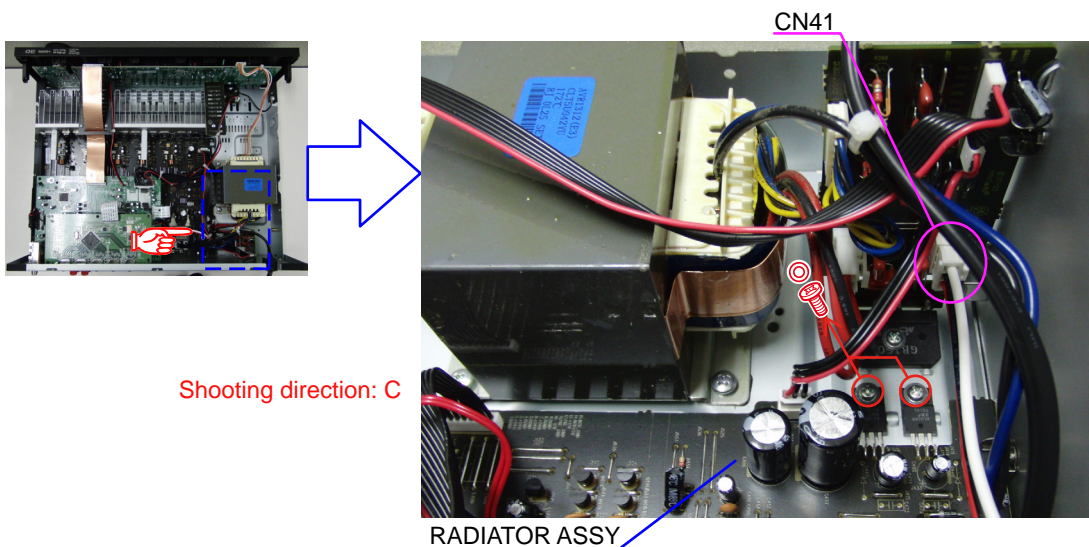
Shooting direction: A



- (2) Disconnect the connector wires, then remove the screws.



- (3) Disconnect the connector wire, then remove the screws. Remove the RADIATOR ASSY from the main unit.



Shooting direction: C

Please refer to "EXPLODED VIEW" for the disassembly method of each P.W.B included in RADIATOR ASSY.

5. POWER UNIT

Proceeding : **TOP COVER** → **POWER UNIT**

Please refer to "EXPLODED VIEW" for the disassembly method of POWER UNIT.

6. POWER TRANS

Proceeding : **CABINET TOP** → **TRANS MAIN**

Please refer to "EXPLODED VIEW" for the disassembly method of POWER TRANS.

SPECIAL MODE

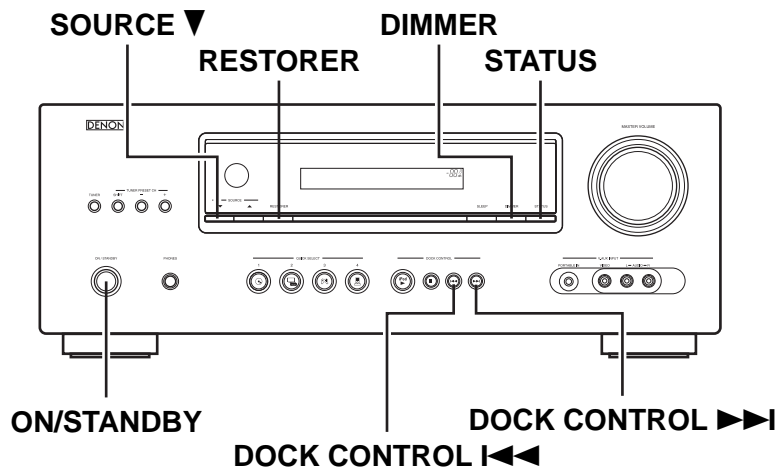
Special mode setting button

※ Press the ON/STANDBY button to turn on the power while pressing both the button A and the button B at the same time.

Mode	Button A	Button B	Contents
μcom/DSP Version display mode	STATUS	DIMMER	Firmware versions such as Main or DSP are displayed in the FL display. Errors are displayed or when they occur. (Refer to page 14 .)
Initialization mode	DOCK CONTROL ◀◀	DOCK CONTROL ▶▶	Backup data initialization is carried out. (Refer to page 6 .)
Mode for switching tuner frequency step	DIMMER	PRESET CH +	---E2 model only--- Change tuner frequency step to AM9k/FM50kHz STEP or AM:10k/FM:200kHz.
Mode for preventing remote control acceptance	RESTORER	SOURCE ▼	Operations using the remote control are rejected. "REMOTE LOCK:ON" is displayed in FL display. (Mode the cancellation: Turn off the power and execute the same button operations as when performing setup.)

※ When power is turned on, pressing both buttons A and B at the same time for 3 seconds or more.

Mode	Button A	Button B	Contents
Select the video signal format	STATUS	DIMMER	Select with the "+", "-", and iPod play button change video format NTSC or PAL



1. μ com/DSP Version display mode

1.1. Operation specifications

μ com/DSP version display mode:

When the set is started up in this mode, the version information is displayed.

Starting up:

Press the "ON/STANDBY" button to turn on the power while pressing the "RETURN" and "STATUS" buttons. Now, press the "STATUS" button to the display the 2nd item information on the FL Display.

1.2. Display Order

① Model destination information → ② Main- μ com version → ③ DSP version → ④ OSD version
→ ⑤ iPod Dock version (Connecting iPod Dock)

Display	State
① Model destination information	
AVR-1312 E3 model	A V R 1 3 1 2 E 3
AVR-1312 E2 model	A V R 1 3 1 2 E 2
AVR-1312 E1C model	A V R 1 3 1 2 E 1 C
② Main- μ com version	M a i n : * * . * *
③ DSP version	D S P . * . * . *
④ OSD version	O S D : * * . * *
⑤ iPod Dock version (Connecting iPod Dock)	
(ASD-1R/11R)	D o c k V e r : * * . * *
(ASD-3/51)	D o c k : I * * * * * * *

Cleared of mode:

Press the "ON/STANDBY" button to turn the power off.

1.3. Error display

See the following table for each "Error information" display and its contents (status).

Condition	-	State
DSP NG	When DSP boot, executing DSP reset makes to becomes error.	D S P E R R O R 0 1
DSP OK		(No error display, version display only)

WHEN THE MICROPROCESSOR IS REPLACED WITH A NEW ONE

When the U-PRO (Microprocessor) or the Flash ROM is replaced, confirm the following.

PWB Name	Ref. No.	Description	After replaced	Remark
INPUT	IC91	T5CN5	B	SOFTWARE: Main
INPUT	IC82	ST25VF080B-50-4C-S2AF	B	SOFTWARE: DSP ROM

After replacing

A : Mask ROM (With software). No need for write-in of software to the microprocessor.

B : Flash ROM (With software). Usually, no need for write-in of software. But, when the software was updated, you should write the new software on the microprocessor or flash ROM. Please check the software version.

C : Empty Flash ROM (Without software). You should write the software on the microprocessor or flash ROM. Refer to "Update procedure" or "writing procedure", when you write the software.

PROCEDURE FOR UPGRADING THE VERSION OF THE FIRMWARE

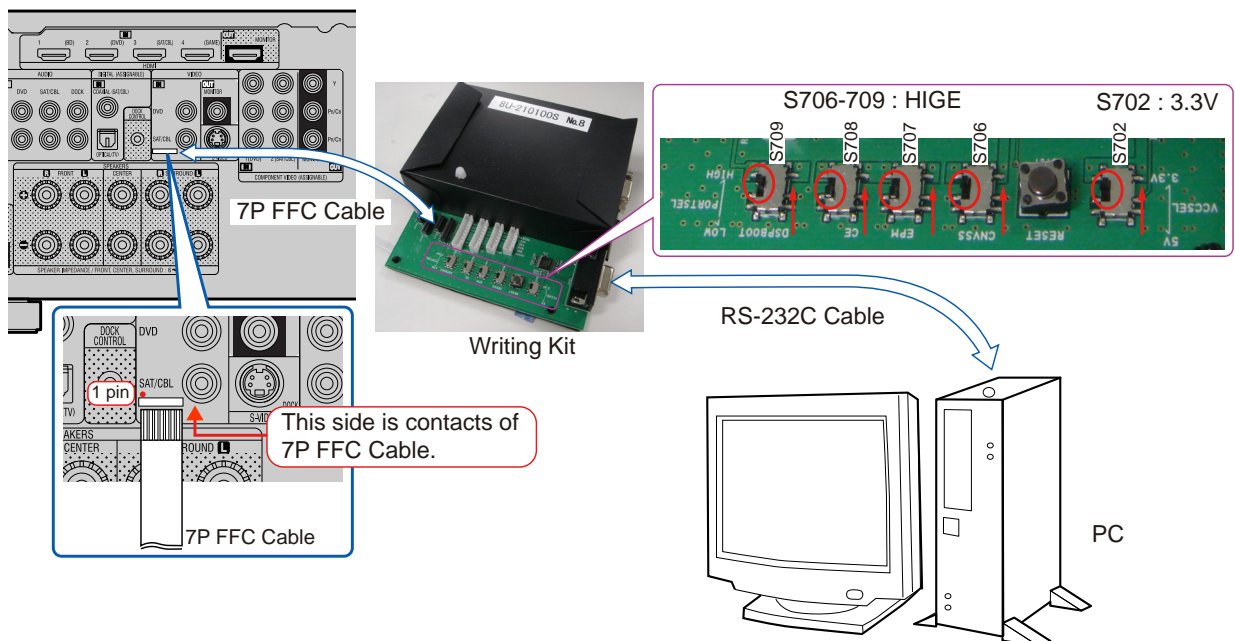
1. Preparations

1.1. Before starting the operation

- (1) Personal Computer (Installed "BootTool_M330(Writing program).exe").
- (2) RS-232 cable (9P (Male), Straight).
- (3) 8U-210100S Writing Kit.
- (4) 606050028012P / 7P FFC(1.0) L=240.

1.2. Connection of the AV receiver

- (1) Confirm the power on/off switch of the AV receiver is turning off.
- (2) Connect the update terminal of AV receiver with the "Writing Kit".
(Refer to figure below for the connection of the 7P FFC cable.)
- (3) Connect the RS-232C cable from PC with the "Writing Kit".



2. UPDATE FIRMWARE

- (1) Connect the update terminal of AV receiver with the "Writing Kit".
- (2) Set the switch of "Writing Kit" (Refer to the table below).

DSPBOOT	CE	EPM	CNVSS
H	H	H	H

- (3) Press the "ON/STANDBY" button to turn the power on of AV receiver.
- (4) Set the switch of "Writing Kit" (Refer to the table below).

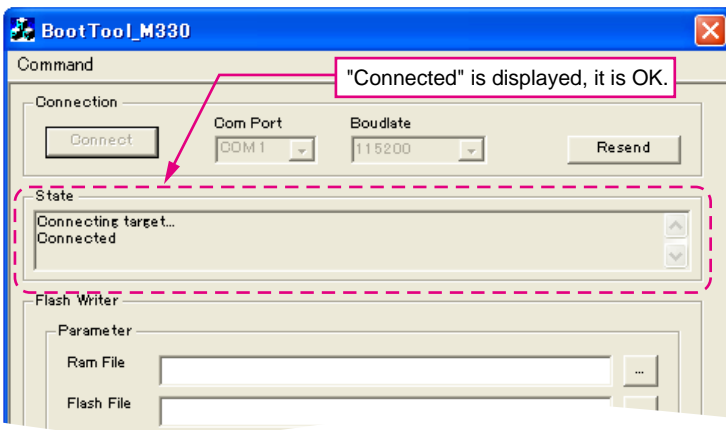
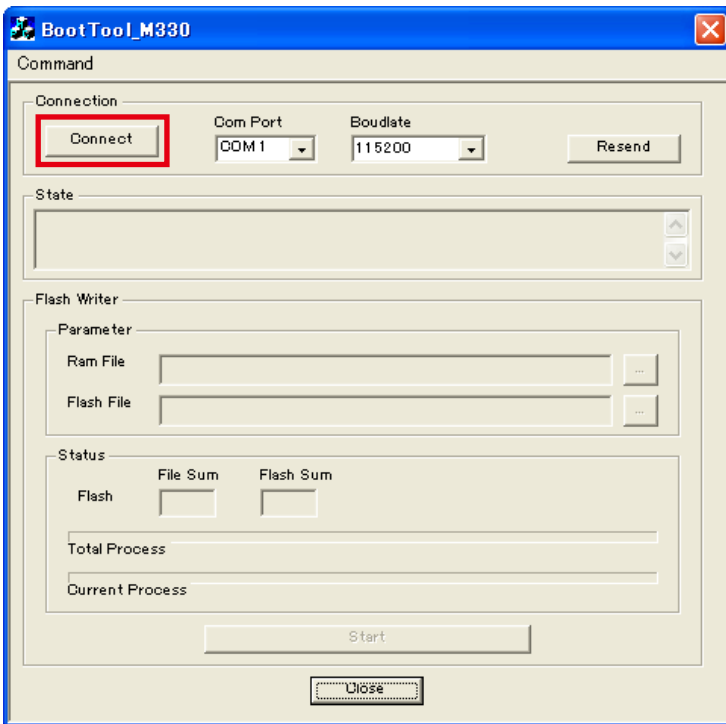
DSPBOOT	CE	EPM	CNVSS
H	H	L	H

- (5) Press the "RESET" switch of "Writing Kit".
- (6) Run the "BootTool_M330(Writing program).exe" on desktop of PC.



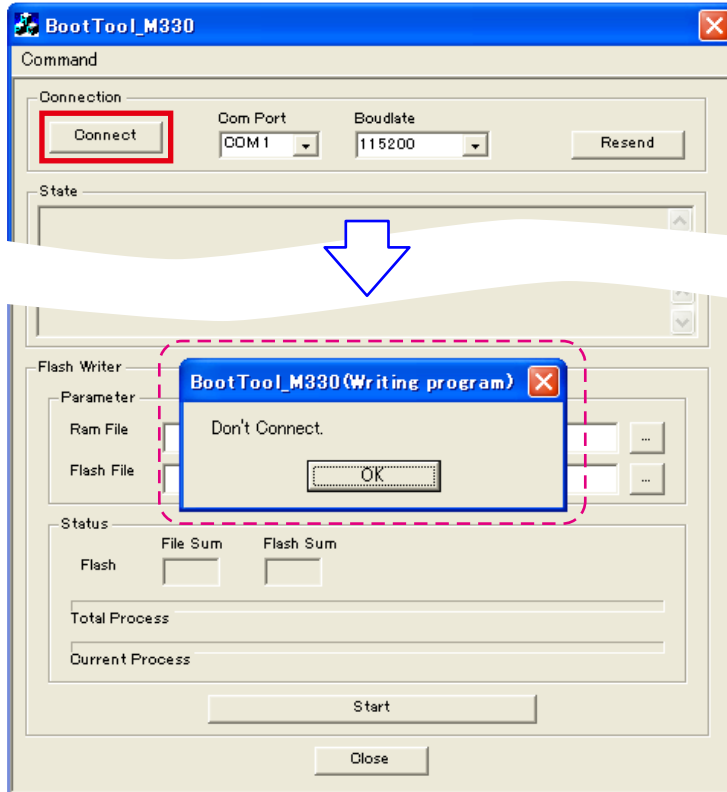
BootTool_M330(Writing program).exe

- (7)-1 Click the "Connect" button.



[If you can't get a "Connected" message.]

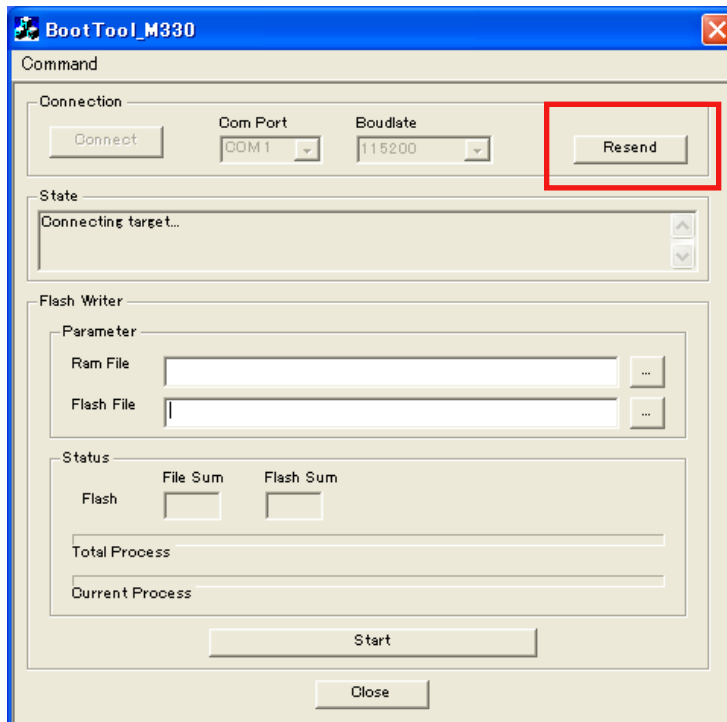
(7-a) Click the "Connect" button. If connection is not good, then you can see the "Don't Connect" message.



Please confirm the following

- (i) Check the connection of the AV receiver and PC. (Refer to "1.2. Connection of the AV receiver")
- (ii) Check the selection of the RS-232C port number of PC.
- (ii) Refer to "3. Notice: ". (page 27)

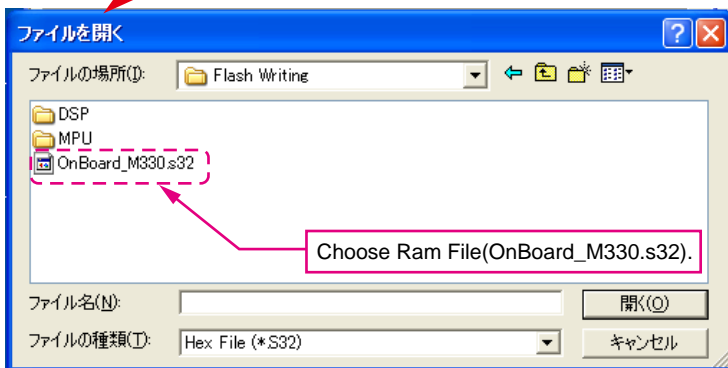
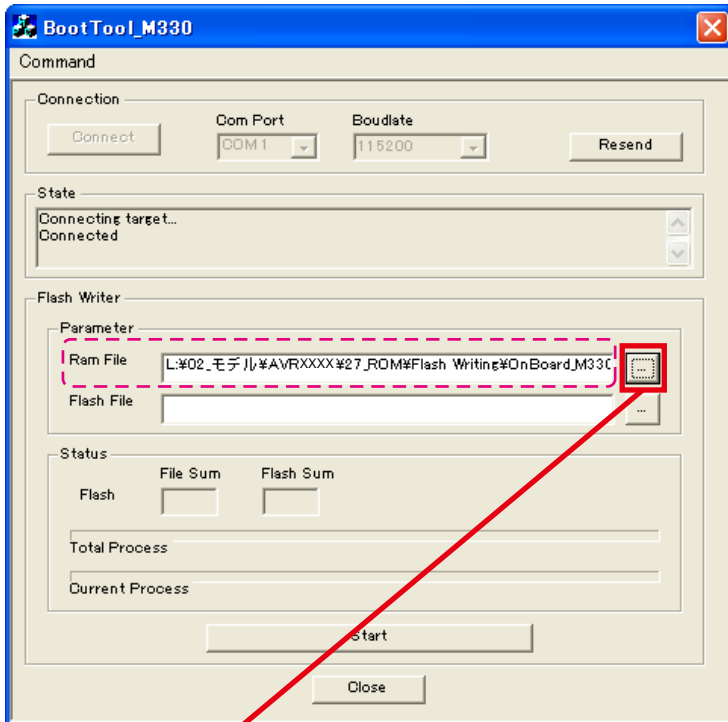
(7-b) If Ram/Flash file selection screen is active, after you Click "Resend" button.



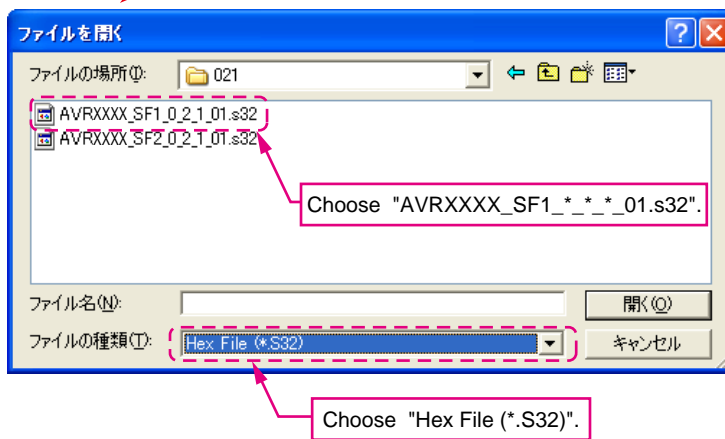
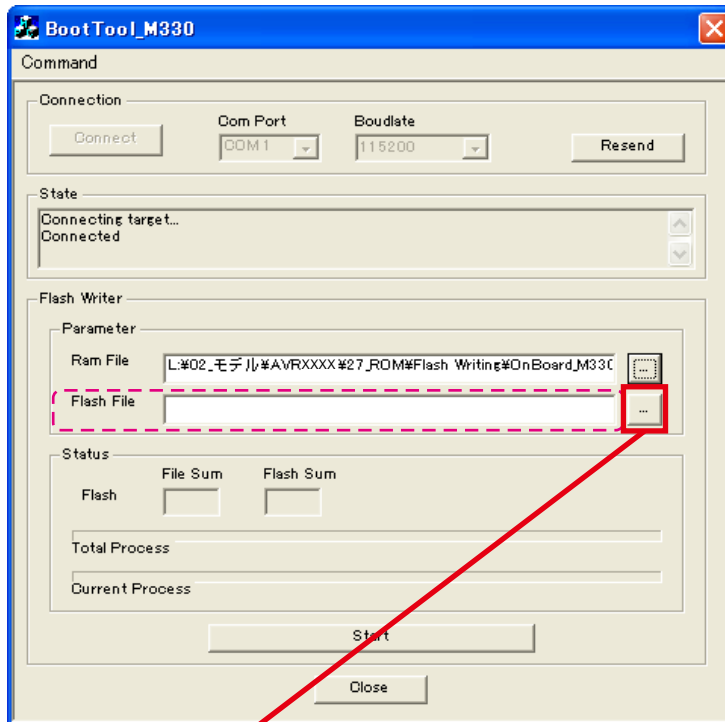
Connection is good, go to next step.

SP SF1

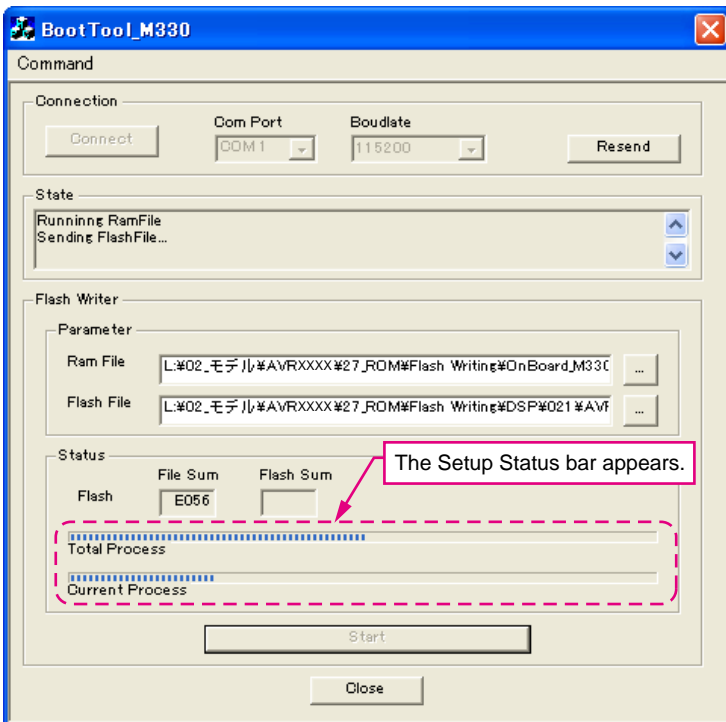
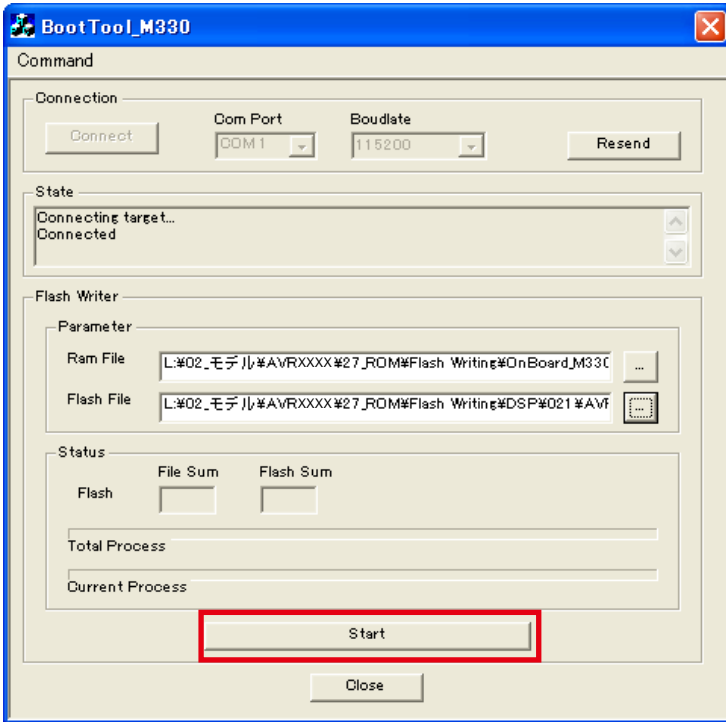
(8) Choose Ram File(OnBoard_M330.s32).



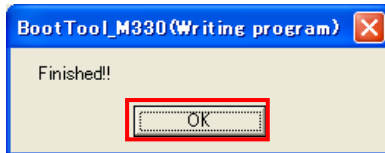
(9) Choose Flash File(DSP : SF1).



(10) Click the "Start" button.



(11) "Finished!!" is displayed. Click the "OK" button.



(12) Set the switch of "Writing Kit" (Refer to the table below).

DSPBOOT	CE	EPM	CNVSS
H	H	H	H

(13) Press the "RESET" switch of "Writing Kit".

(14) AV receiver is power on and starts update of DSP1.

(15) "Write Completed" is displayed in the FL tube.

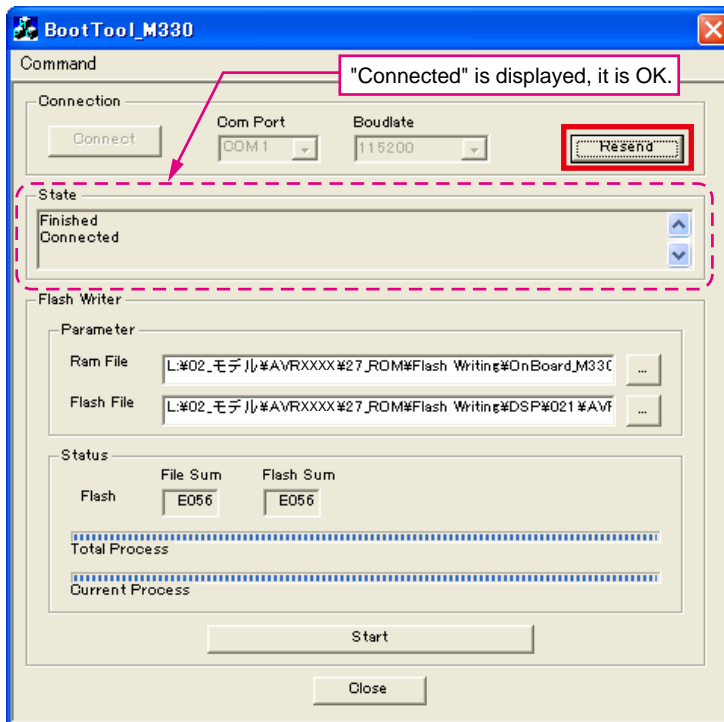
(16) Set the switch of "Writing Kit" (Refer to the table below).

DSPBOOT	CE	EPM	CNVSS
H	H	L	H

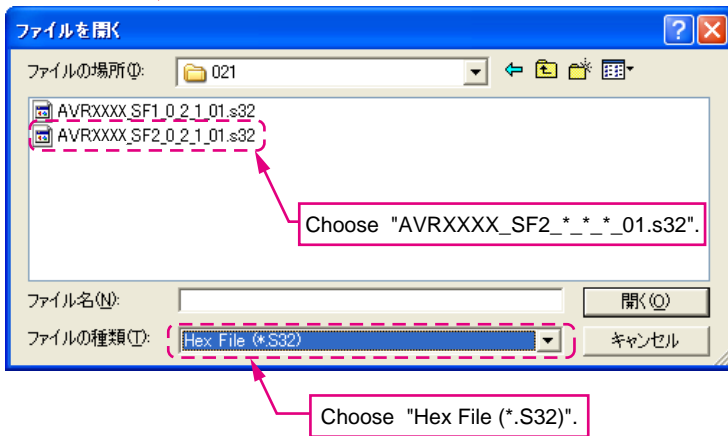
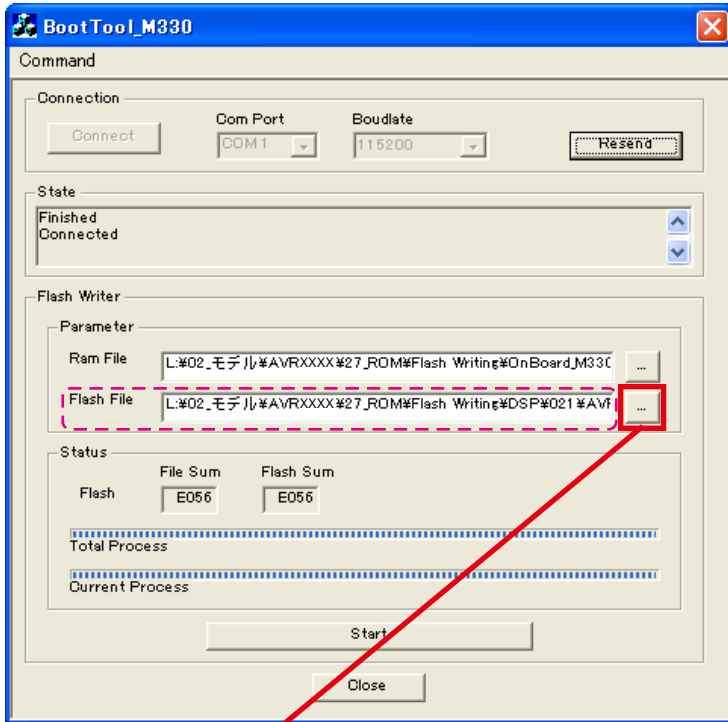
(17) Press the "RESET" switch of "Writing Kit".

DSP SF2

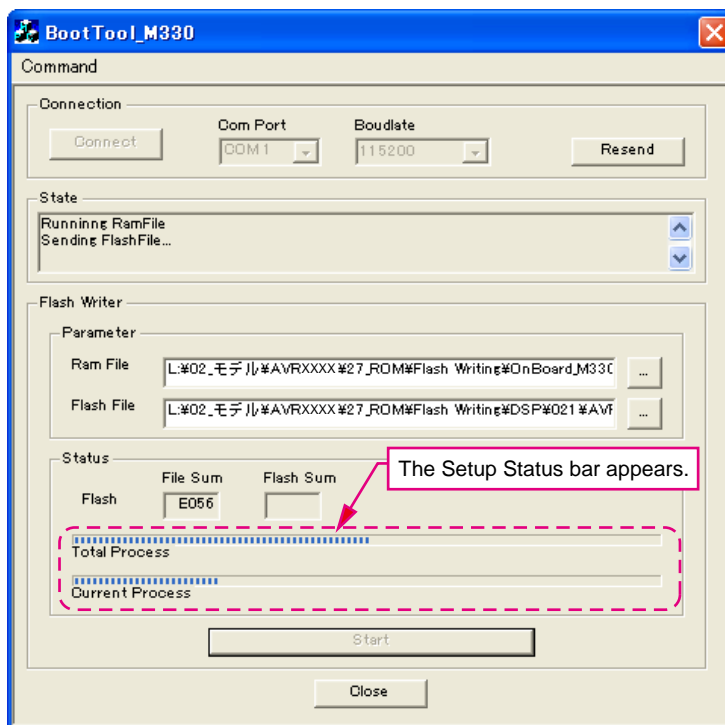
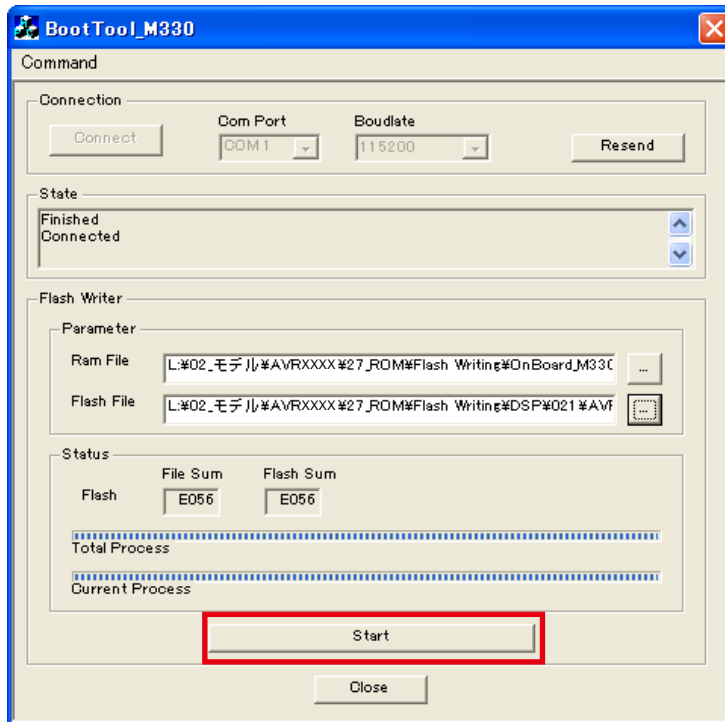
(18) Click the "Resend" button.



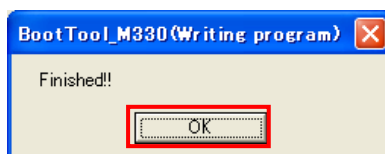
(19) Choose Flash File(DSP : SF2).



(20) Click the "Start" button.



(21) "Finished!!" is displayed. Click the "OK" button.



(22) Set the switch of "Writing Kit" (Refer to the table below).

DSPBOOT	CE	EPM	CNVSS
H	H	H	H

(23) Press the "RESET" switch of "Writing Kit".

(24) AV receiver is power on and starts update of DSP2.

(25) "Write Completed" is displayed in the FL tube.

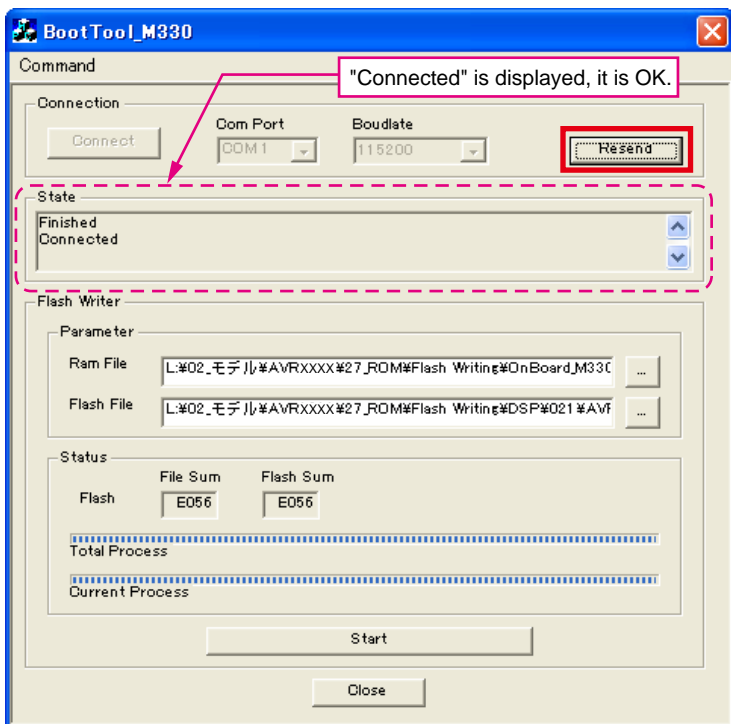
(26) Set the switch of "Writing Kit" (Refer to the table below).

DSPBOOT	CE	EPM	CNVSS
H	H	L	H

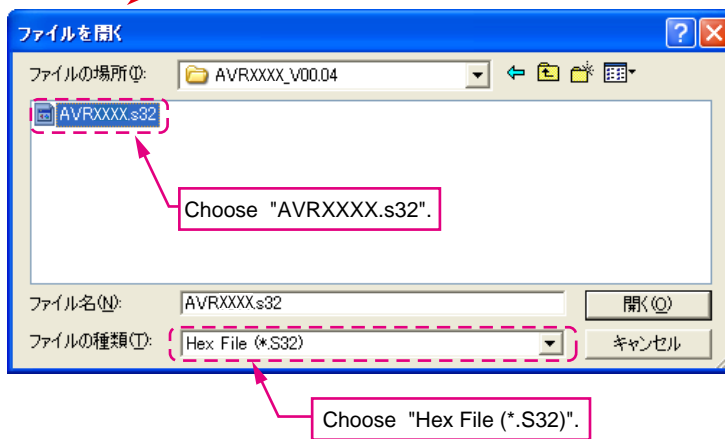
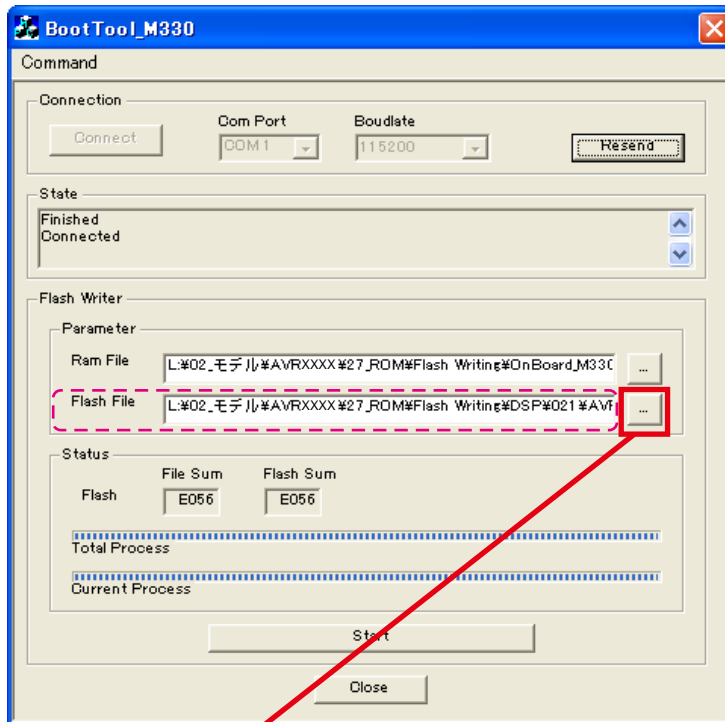
(27) Press the "RESET" switch of "Writing Kit".

MAIN

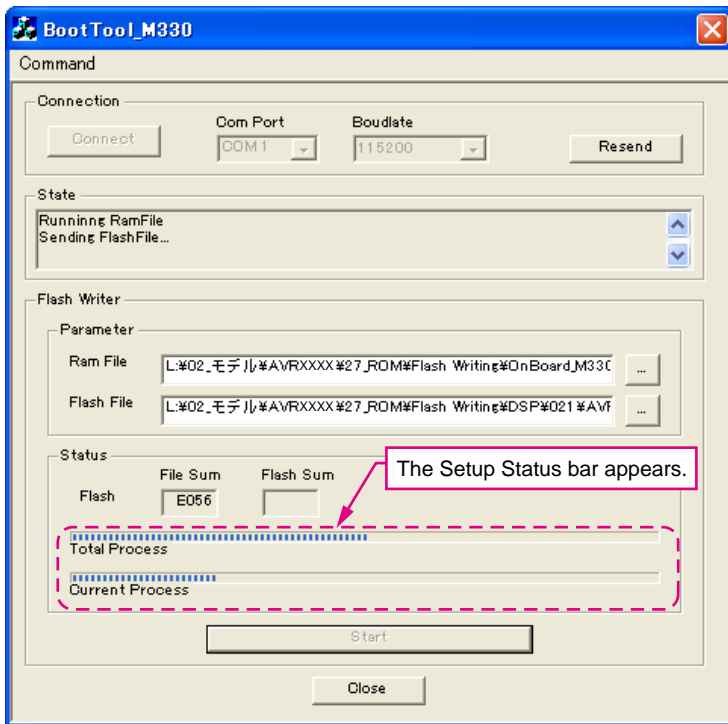
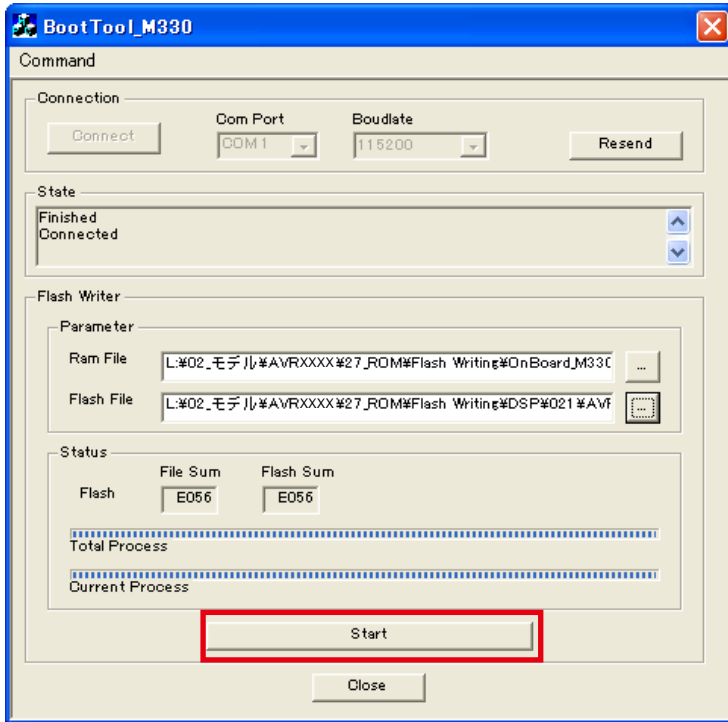
(28) Click the "Resend" button.



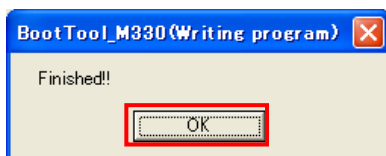
(29) Choose Flash File(MAIN).



(30) Click the "Start" button.



(31) "Finished!!" is displayed. Click the "OK" button.



(32) Set the switch of "Writing Kit" (Refer to the table below).

DSPBOOT	CE	EPM	CNVSS
H	H	H	H

(33) Press the "RESET" switch of "Writing Kit".

(34) Initializing.

1. Turn off the power using ON/STANDBY button.
2. Press ON/STANDBY button while simultaneously pressing DOCK CONTROL ◀◀ and DOCK CONTROL ▶▶ buttons.
3. Check that the entire display is flashing with an interval of about 1 second, and release your fingers from the 2 buttons and the microprocessor will be initialized.

Note: • If step 3 does not work, start over from step 1.
• All user settings will be lost and this factory setting will be recovered when this initialization mode. So make sure to memorize your setting for restoring after the initialization.

3. Notice:

Please keep the following notice for firmware update.

- (a) Keep the PC environment
- (b) Avoid the communication cable from the electrical noise source. (e.g. telephone cable, AC line, a fluorescent light)
- (c) Don't remove cable during update.
- (d) Don't turn off the power during update.
- (e) Don't run other PC application during update.
- (f) Stop the resident program on PC (Virus checker and System check utility, etc)
- (g) Stop the screen saver on PC.
- (h) Stop the power save ability on PC.
- (i) In case of laptop PC, Use the AC adaptor.

Confirming the firmware's number after upgraded

After completion of the updating operation, the new version number can be confirmed by starting up the AVR-1312 according to the following procedure.

With the following operation, the AVR-1312 can be set to the Flash ROM Version-Number Confirmation mode.

Turn on power switch while simultaneously pressing "DIMMER" and "STATUS" buttons on the front panel. Every time the "STATUS" button is pressed, version number of the Model, Main, DSP, ... are indicated on the front panel section. (Refer to "1.2. Display other" (page 14))

ADJUSTMENT

Audio Section

Adjusting Idling Current

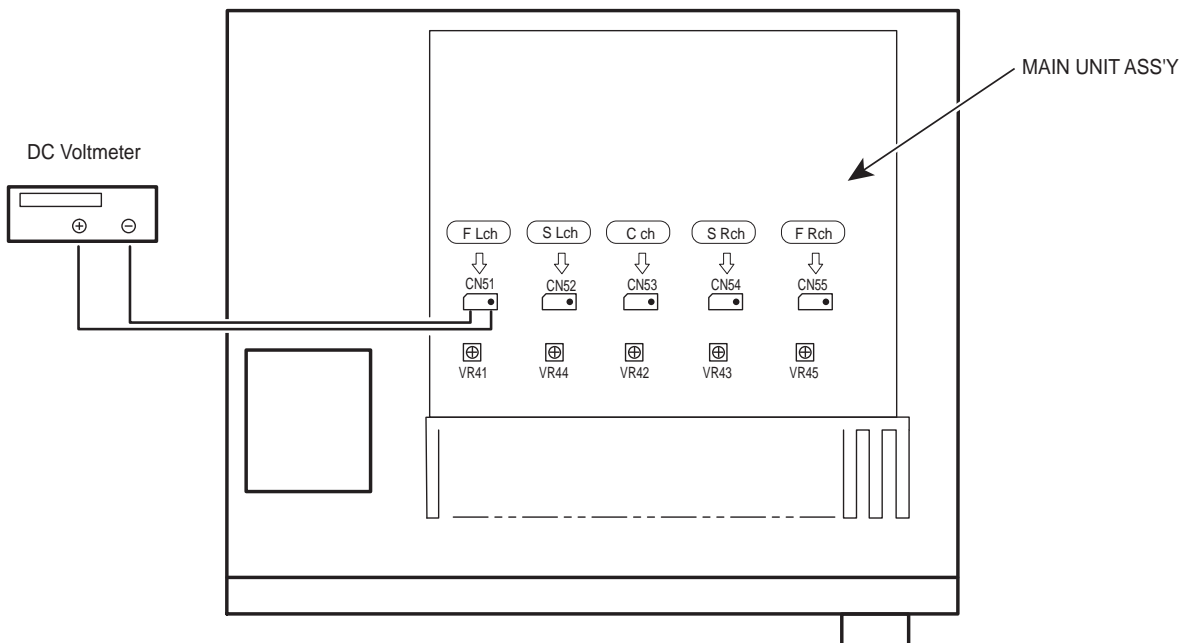
Required measurement equipment: DC Voltmeter

1. Preparation

- (1) Avoid direct blow from an air conditioner or an electric fan and humidity should be moderate, and place the set at normal usage environment.
Temperature should be at 15 °C ~ 30 °C.
- (2) Presetting
 - POWER (Power source switch) OFF
 - SPEAKER (Speaker terminal) No load(Do not connect speaker, dummy resistor, etc.)

2. Adjustment

- (1) Removed the top cover and set VR41(FL),VR45(FR),VR42(C),VR44(SL),VR43(SR), on Main Amp. Unit at fully counterclockwise position.
- (2) Connect DC Voltmeter to test points (Front-Lch:CN51,Front-Rch:CN55,CENTERch:CN53, Surround-Lch:CN52,Surround-Rch:CN54).
- (3) Connect the power cord to AC Line, and set the power switch to "ON".
- (4) Presetting.
MASTER VOLUME : "---" counterclockwise (⊖ min.)
SPEAKER (Speaker terminal) : No load
(Do not connect speaker, dummy resistor, etc.)
FUNCTION : DVD
- (5) Within 2 minutes after the power on, turn VR41 clockwise (⊕) to adjust the TEST POINT voltage at $1.5 \text{ mV} \pm 0.5 \text{ mV DC}$.
- (6) After 10 minutes from the preset above, turn VR41 to set the voltage to $2.0 \text{ mV} \pm 0.5 \text{ mV DC}$.
- (7) Adjust the Variable Resistors of each channel (VR42-VR45) in the same way.



SURROUND MODES AND PARAMETERS

Symbols in the table

- This indicates the audio output channels or surround parameters that can be set.
- ⊙ This indicates the audio output channels. The output channels depend on the settings of "[Speaker Config.](#)".

Surround mode)	Channel output					Audio Adjust				
	Front L/R	Center	Surround L/R	Surround Back L/R	Subwoofer	Mmode	D. Comp *3	DRC *4	LFE *5	
DIRECT (2channel)	○				⊙*2		○	○		
DIRECT (Multi-channel)	○	⊙	⊙	⊙*1	○		○	○	○	
STEREO	○				○		○	○	○	
MULTI CH IN	○	⊙	⊙	⊙	○		○	○	○	
DOLBY PRO LOGIC IIx	○	⊙	⊙	⊙	○		○	○	○	
DOLBY PRO LOGIC II	○	⊙	⊙	⊙	○		○	○	○	
DTS NEO6	○	⊙	⊙	⊙	○		○	○	○	
DOLBY DIGITAL	○	⊙	⊙	⊙	○		○	○	○	
DOLBY DIGITAL Plus	○	⊙	⊙	⊙	○		○	○	○	
DOLBY TrueHD	○	⊙	⊙	⊙	○		○	○	○	
DTS SURROUND	○	⊙	⊙	⊙	○		○	○	○	
DTS 96/24	○	⊙	⊙	⊙	○		○	○	○	
DTS-HD	○	⊙	⊙	⊙	○		○	○	○	
DTS Express	○	⊙	⊙	⊙	○		○	○	○	
MULTI CH STEREO	○	⊙	⊙	⊙	○		○	○	○	
VIRTUAL	○				⊙*2		○	○	○	

- *1 A signal for each channel contained in an input signal is output as audio.
- *2 Only when "SW Mode" is set to "LFE+Main" ("Bass Setting"), sound is output from the subwoofer.
- *3 This item can be selected when a Dolby Digital or DTS signal is played.
- *4 This item can be selected when a Dolby TrueHD signal is played.
- *5 This item can be selected when a Dolby Digital or DTS signal or DVD-Audio is played.

Surround mode	Audio Adjust						RESTORER #7
	AFDM #6	SB CH OUT	Subwoofer	PRO LOGIC II/Ix Music mode only			
				Panorama	Dimension	Center Width	Center Image
DIRECT (2 channel)			<input type="radio"/> *2				
DIRECT (Multi-channel)							
STEREO							<input type="radio"/>
MULTI CH IN	<input type="radio"/>	<input type="radio"/>					<input type="radio"/>
DOLBY PRO LOGIC IIx		<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
DOLBY PRO LOGIC II		<input type="radio"/>		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
DTS NEO.6		<input type="radio"/>					<input type="radio"/>
DOLBY DIGITAL	<input type="radio"/>	<input type="radio"/>					<input type="radio"/>
DOLBY DIGITAL Plus	<input type="radio"/>	<input type="radio"/>					<input type="radio"/>
DOLBY TrueHD	<input type="radio"/>	<input type="radio"/>					<input type="radio"/>
DTS SURROUND	<input type="radio"/>	<input type="radio"/>					<input type="radio"/>
DTS 96/24	<input type="radio"/>	<input type="radio"/>					<input type="radio"/>
DTS-HD	<input type="radio"/>	<input type="radio"/>					<input type="radio"/>
DTS Express	<input type="radio"/>	<input type="radio"/>					<input type="radio"/>
MULTI CH STEREO		<input type="radio"/>					<input type="radio"/>
VIRTUAL		<input type="radio"/>					<input type="radio"/>

*2 Only when "SW Mode" is set to "LFE+Main" ("Bass Setting"), sound is output from the subwoofer.

*6 This item can be selected when a Dolby Digital or DTS or DVD-Audio signal is played.

*7 This item can be set when the input signal is analog, PCM 48 kHz or 44.1 kHz.

Symbols in the table

- This indicates the default surround mode.
- ◎ This indicates the surround mode that is fixed when "AFDM1" is set to "ON".
- This indicates the selectable surround mode.

Surround mode	NOTE	Input signal types and formats																
		ANALOG		PCM		DTS-HD		DTS			DOLBY		DOLBY DIGITAL					
		LINEAR PCM (multi ch)	LINEAR PCM (2ch)	DTS-HD Master Audio	DTS-HD High Resolution Audio	DTS EXPRESS	DTS ES DSCRT (With Flag)	DTS ES MTRX (With Flag)	DTS (5.1ch)	DTS 96/24	DOLBY TrueHD	DOLBY DIGITAL Plus	DOLBY DIGITAL EX (With Flag)	DOLBY DIGITALEX (With no Flag)	DOLBY DIGITAL (5.1/5/4ch)	DOLBY DIGITAL (4/3ch)	DOLBY DIGITAL (2ch)	
DTS SURROUND																		
DTS-HD MSTR																		
DTS-HD HI RES				●														
DTS ES DSCRT6.1	*					◎												
DTS ES MTRX6.1	*							●										
DTS SURROUND																		
DTS 96/24									●									
DTS + PLIIx CINEMA	*																	
DTS + PLIIx MUSIC	*																	
DTS EXPRESS								●										
DTS + NEO:6	*																	
DTS NEO:6 CINEMA																		○
DTS NEO:6 MUSIC																		○
DOLBY SURROUND																		
DOLBY TrueHD										●								
DOLBY DIGITAL+																		
DOLBY DIGITAL EX	*																	
DOLBY DIGITAL																		
DOLBY (D) +PLIIx CINEMA	*																	
DOLBY (D) +PLIIx MUSIC	*																	
DOLBY PRO LOGIC IIX CINEMA	*																	
DOLBY PRO LOGIC IIX MUSIC	*																	
DOLBY PRO LOGIC IIX GAME	*																	
DOLBY PRO LOGIC IICINEMA																		
DOLBY PRO LOGIC IIMUSIC																		
DOLBY PRO LOGIC IIGAME																		

* If "Speaker Config." - "Surround Back" ("Speaker Config.") is set to "None", this surround mode cannot be selected.

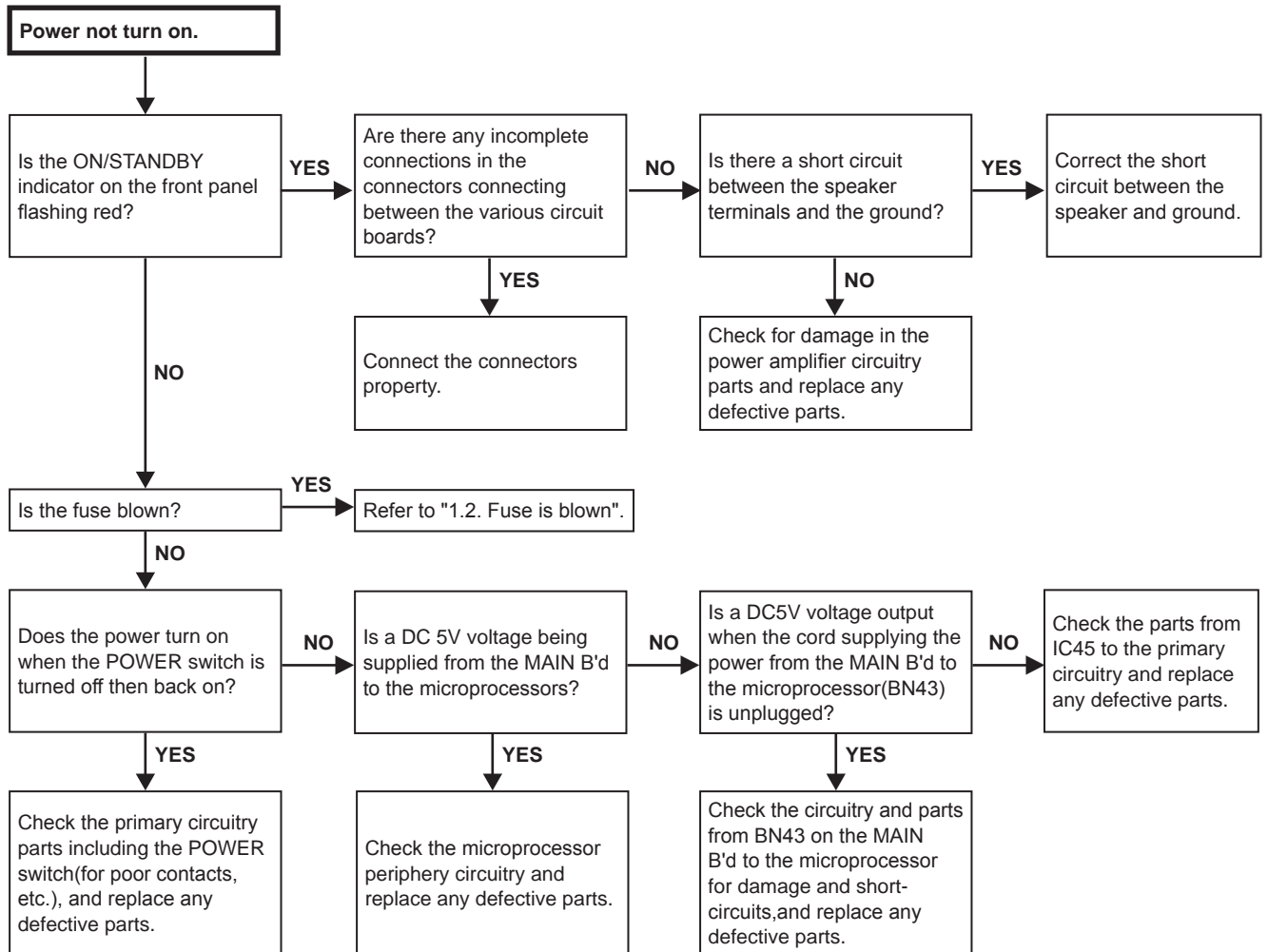
Surround mode	NOTE	Input signal types and formats																
		ANALOG	PCM		DTS-HD		DTS EXPRESS	DTS ES DSCRT (With Flag)	DTS ES MTRX (With Flag)	DTS (5.1ch)	DTS 96/24	DOLBY		DOLBY DIGITAL				
			LINEAR PCM (multi ch)	LINEAR PCM (2ch)	DTS-HD Master Audio	DTS-HD High Resolution Audio						DOLBY DIGITAL TrueHD	DOLBY DIGITAL Plus	DOLBY DIGITAL EX (With Flag)	DOLBY DIGITAL EX (With no Flag)	DOLBY DIGITAL (5.1/5.4ch)	DOLBY DIGITAL (4/3ch)	DOLBY DIGITAL (2ch)
MULTI CH IN																		
MULTI CH IN			●															
MULTI CH IN + PLIIx CINEMA	*		○															
MULTI CH IN + PLIIx MUSIC	*		○															
MULTI CH IN 7.1			● (7.1)															
DIRECT																		
DSP SIMULATION																		
MULTI CH STEREO			○															
VIRTUAL			○															
STEREO			○															
STEREO		●																

* If "Speaker Config." – "Surround Back" ("Speaker Config.) is set to "None", this surround mode cannot be selected.

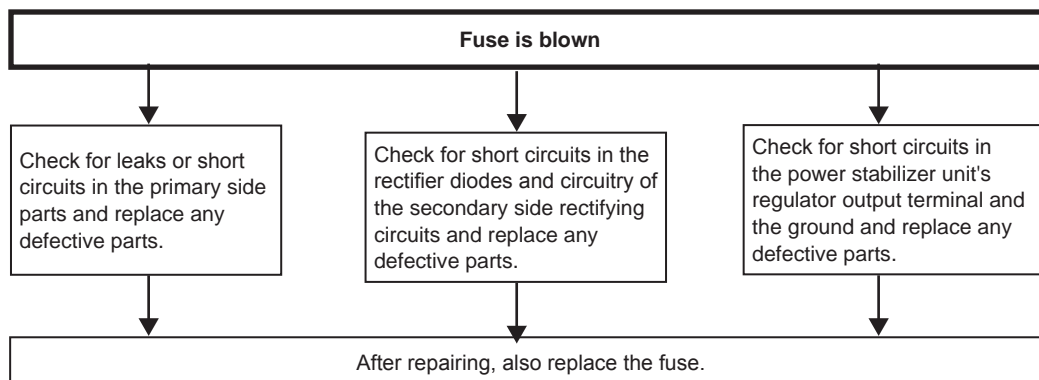
TROUBLE SHOOTING

1. POWER

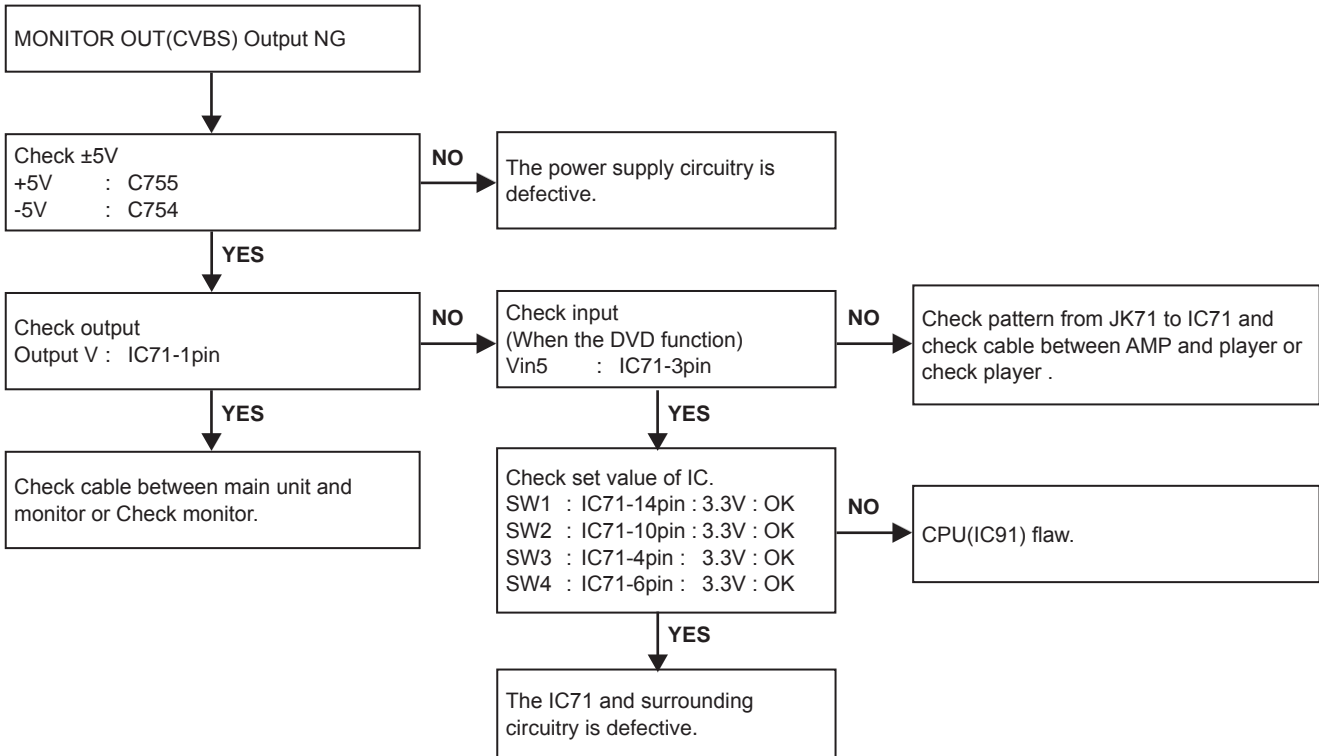
1.1. Power not turn on



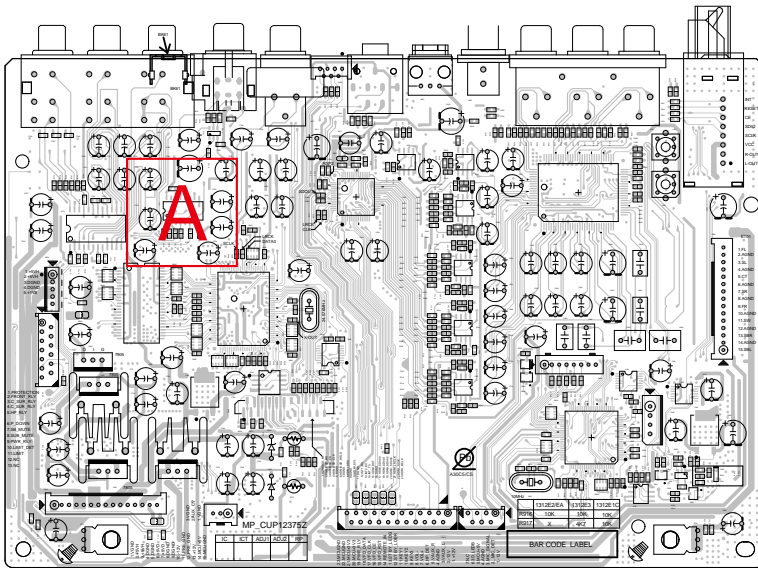
1.2. Fuse is blown



2. Analog video

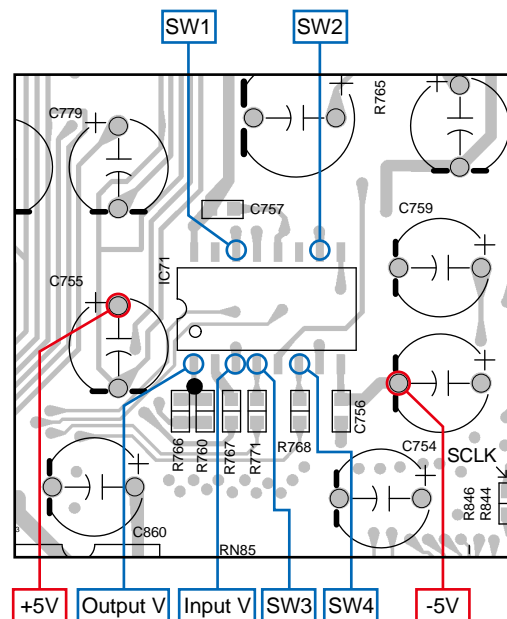


VIDEO test point



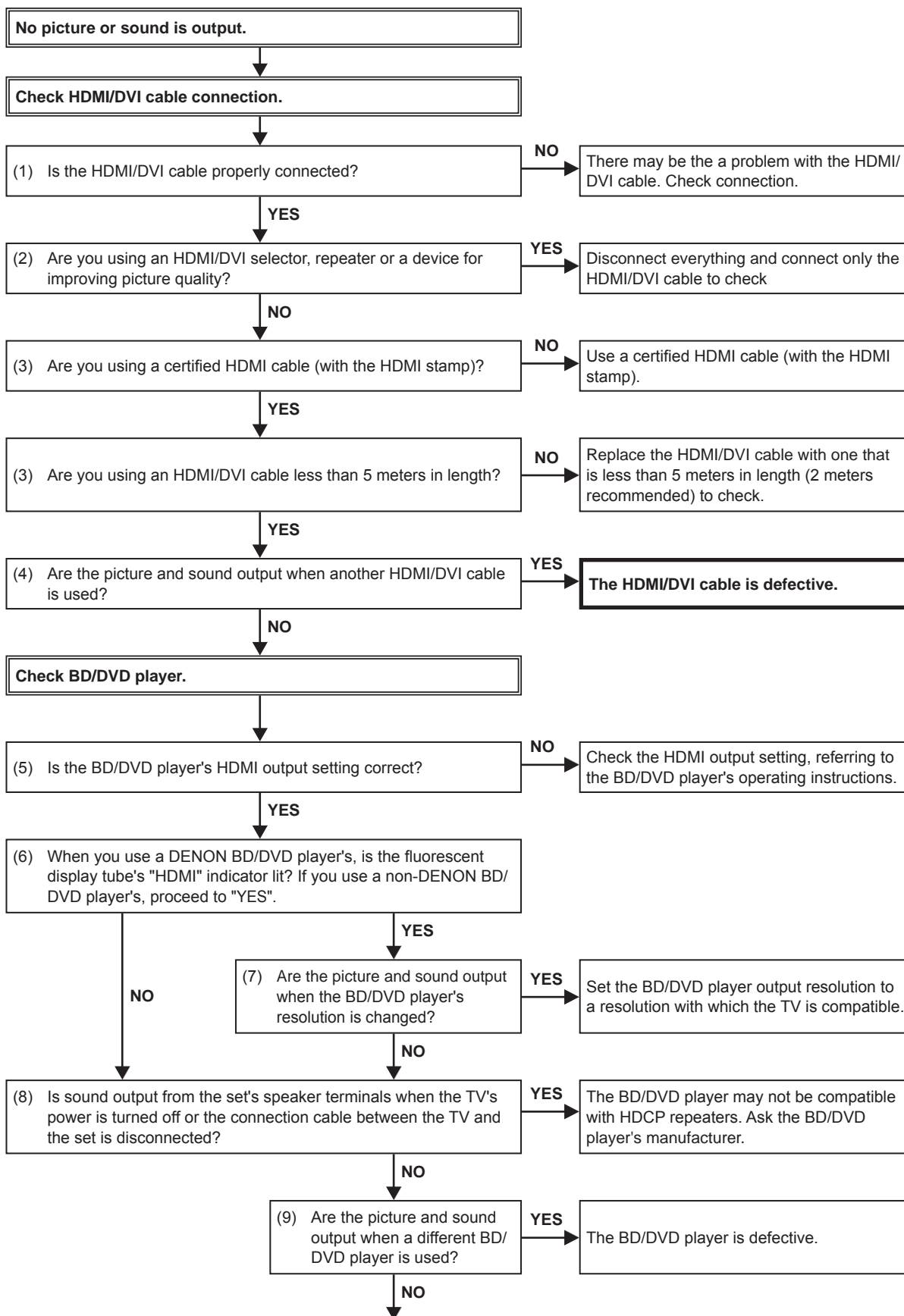
INPUT (COMPONENT SIDE)

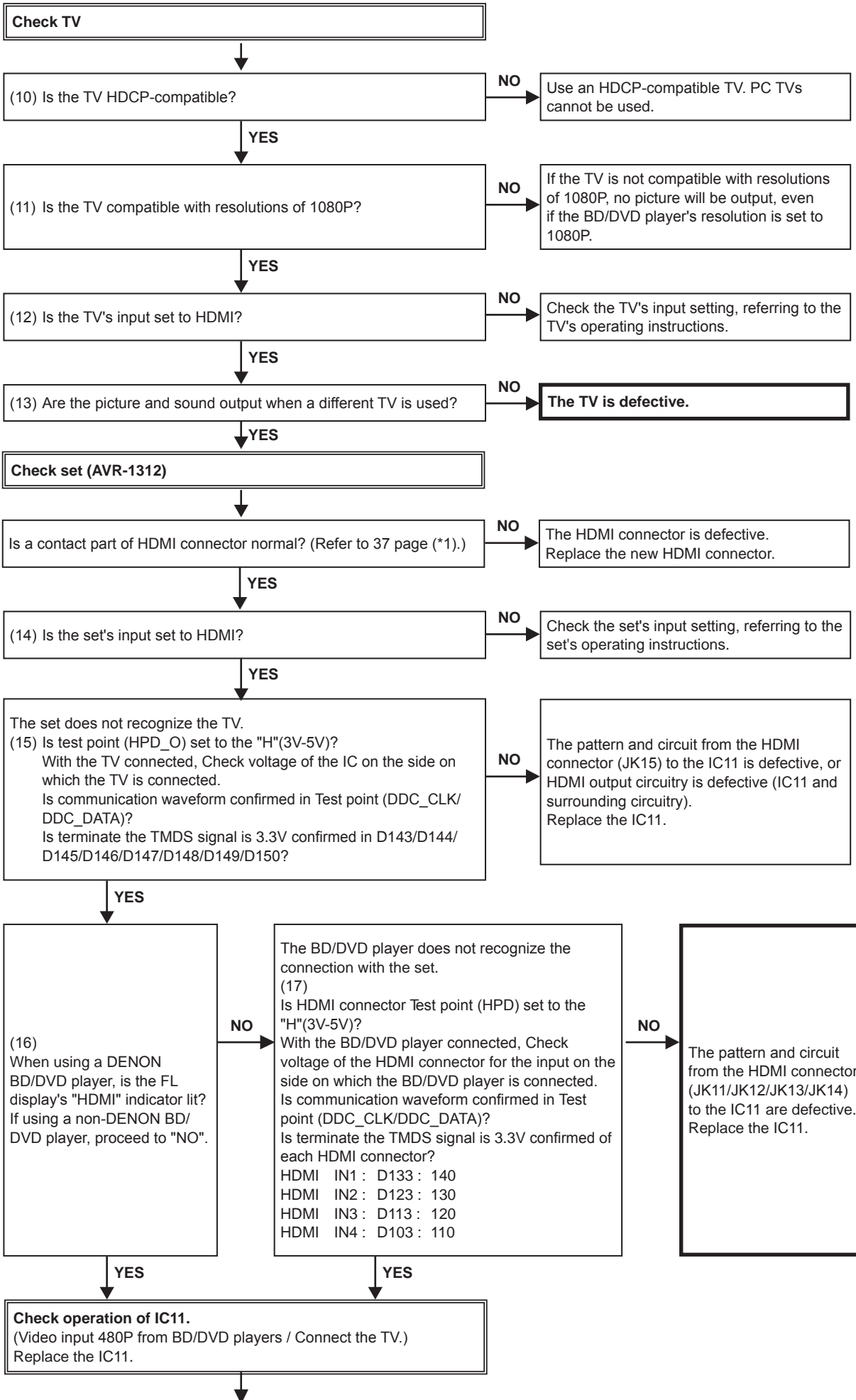
Detail A

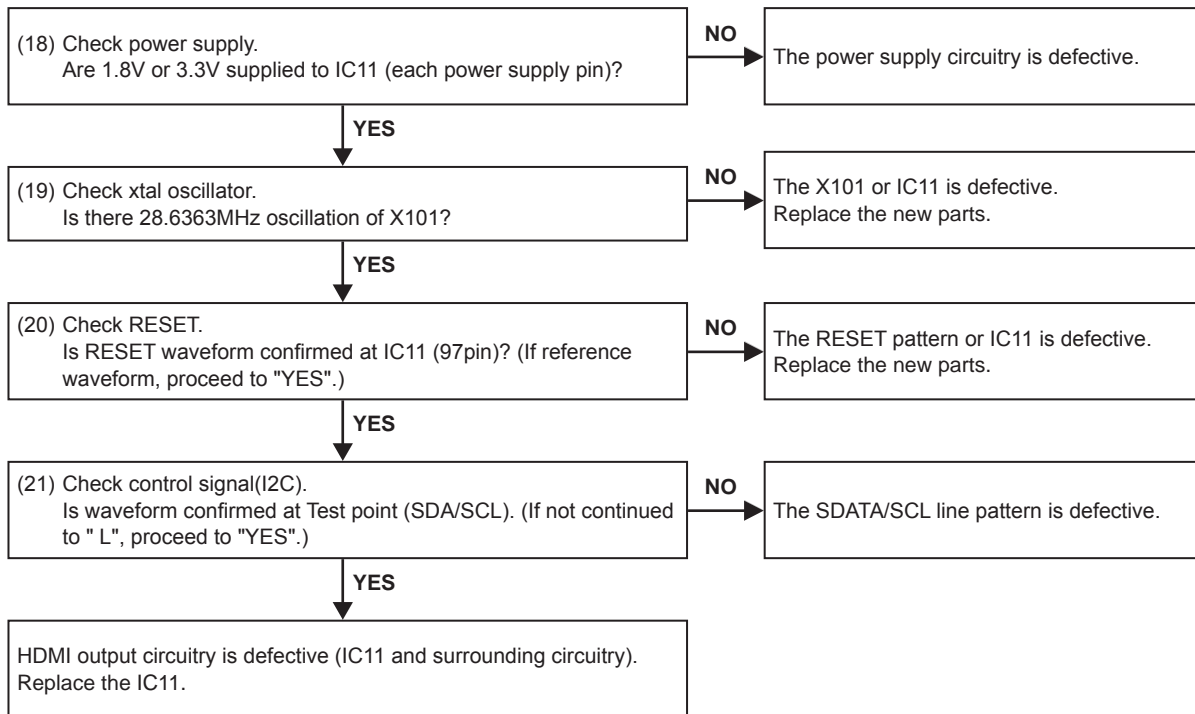


3. HDMI/DVI

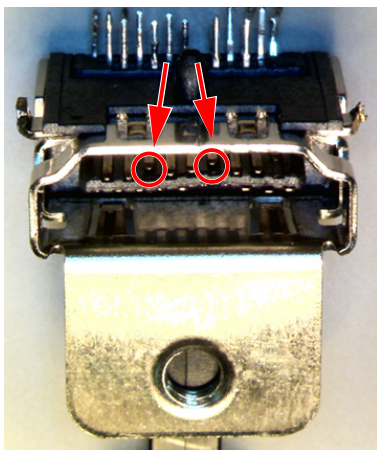
3.1. No picture or sound is output



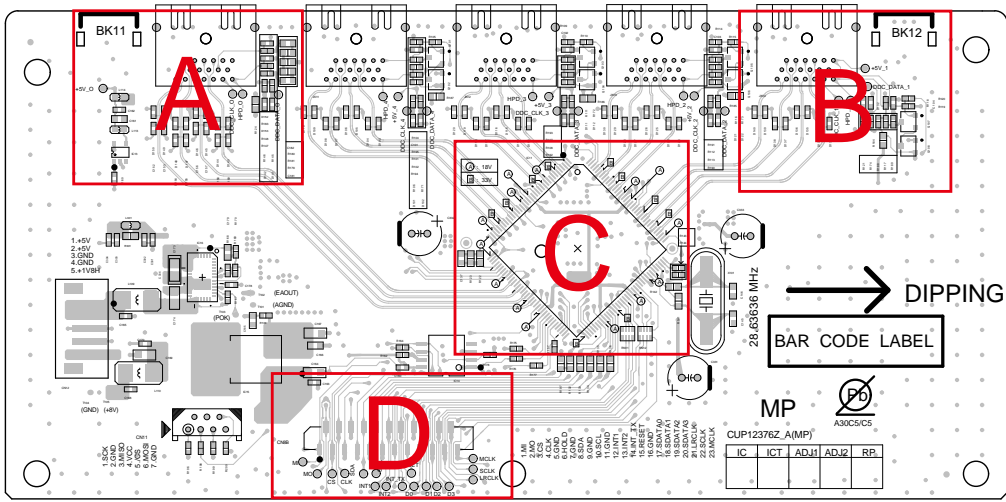




(*1) Abnormal sample of HDMI connector : The internal terminal has bent.

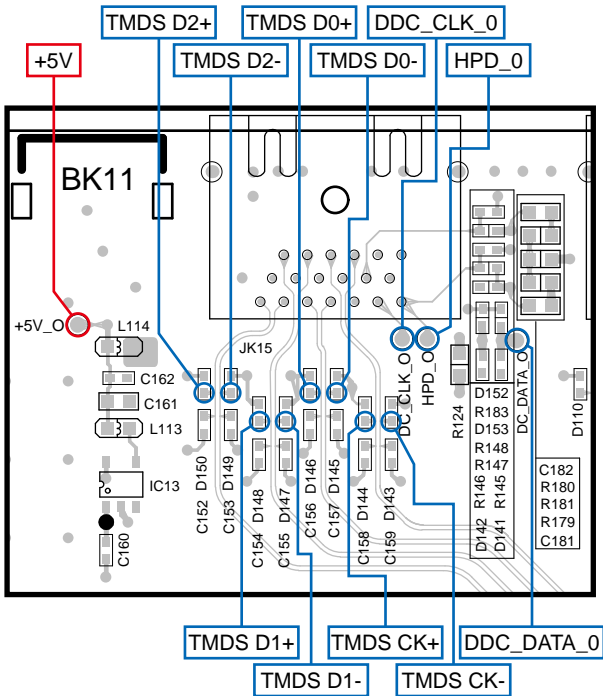


3.2. HDMI test point and waveforms

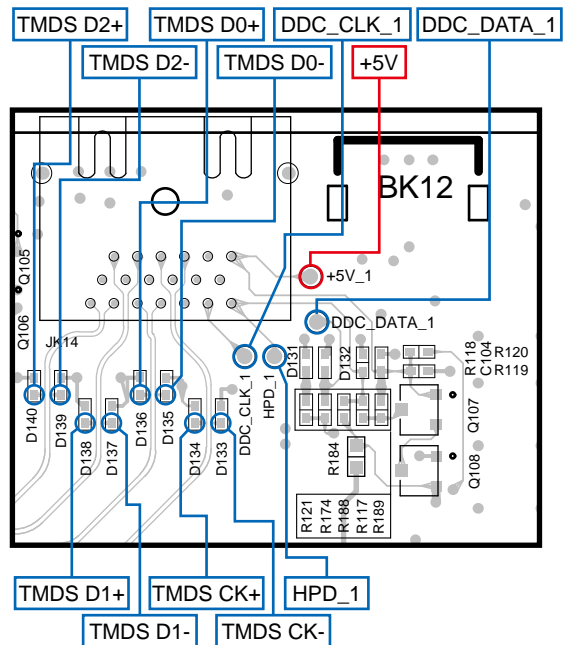


HDMI (COMPONENT SIDE)

Detail A

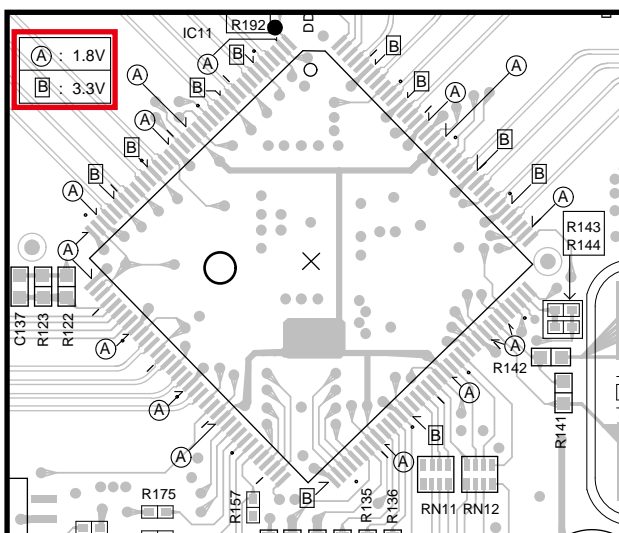


Detail B

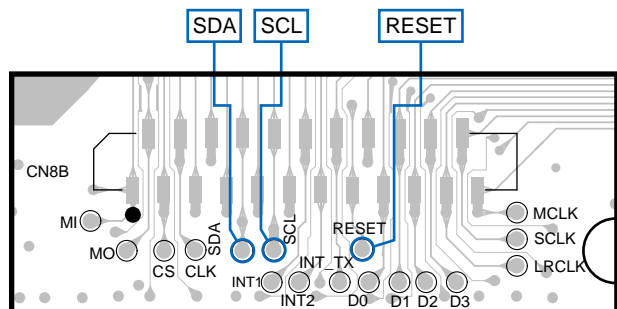


Detail C

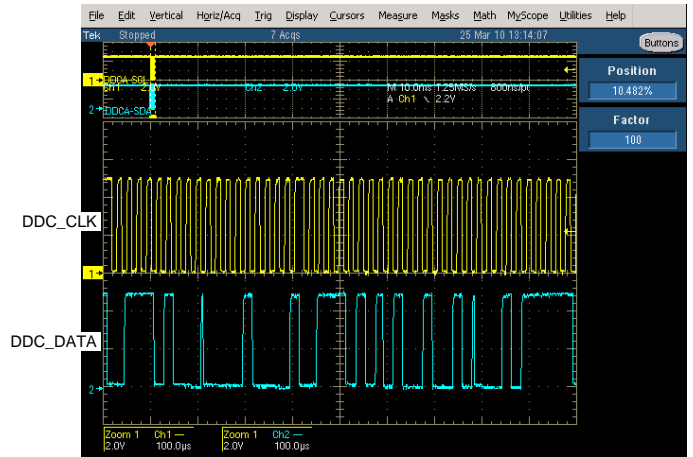
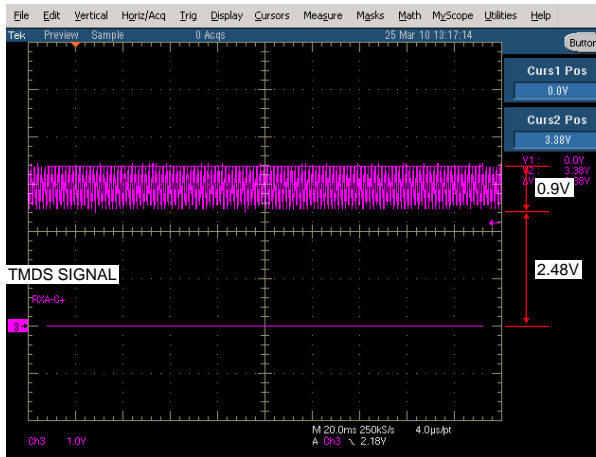
Check that silk A/B described in the terminal is numerical value of a red frame.



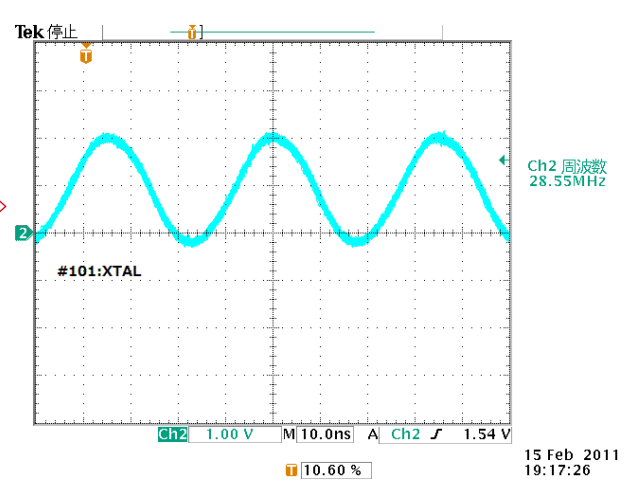
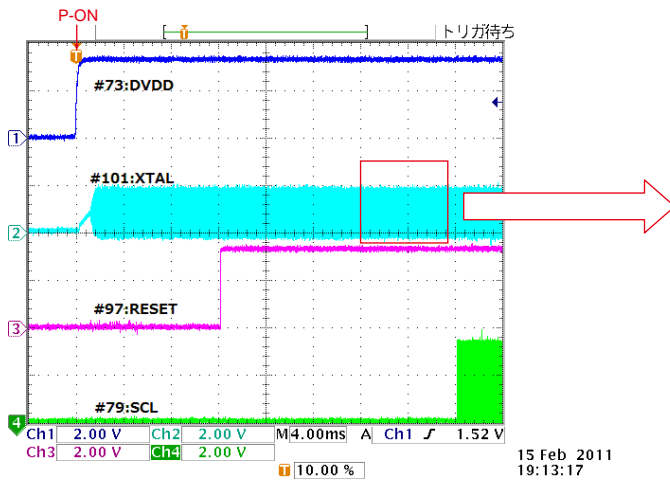
Detail D



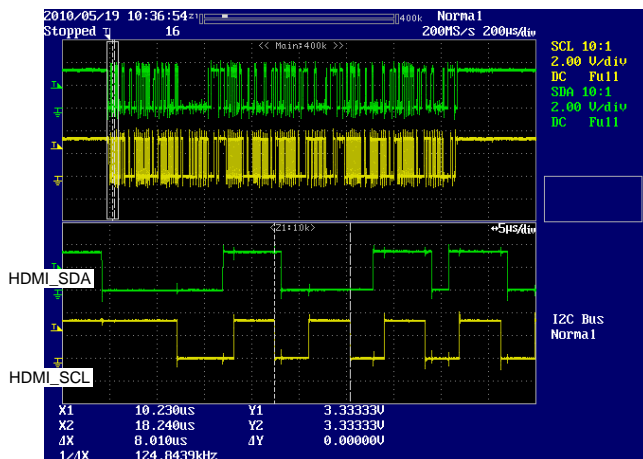
DDC_CLK/DDC_DATA/TMDS : Check items (15),(17)



DVDD/XTAL/RESET/SCL : Check items (18),(19),(20)

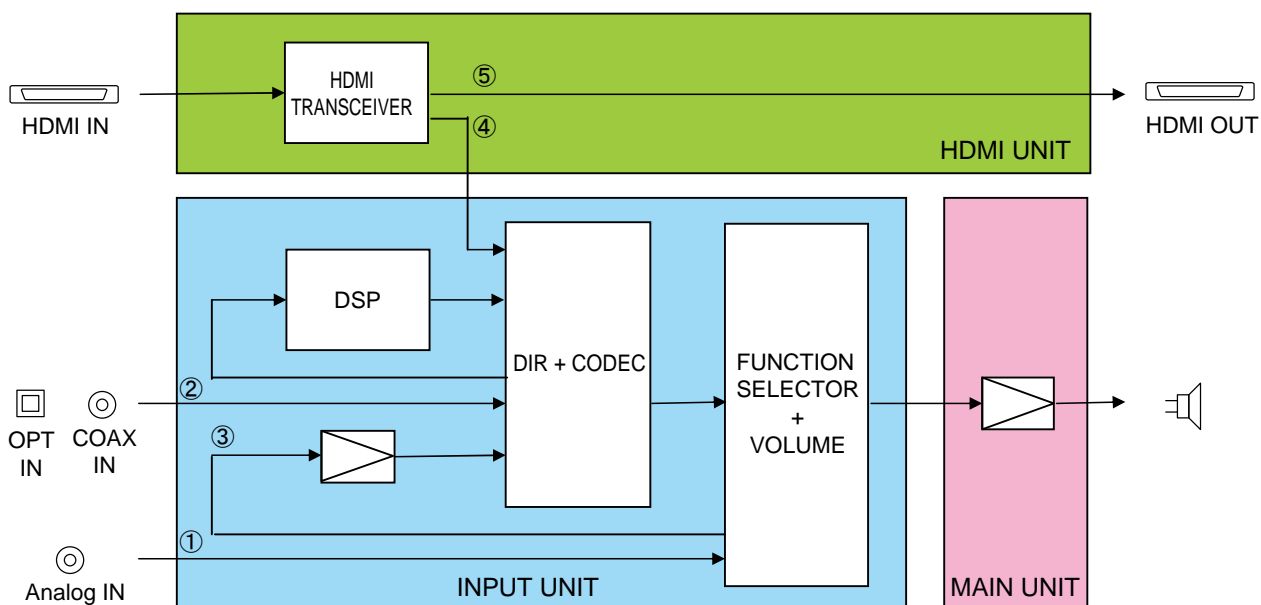
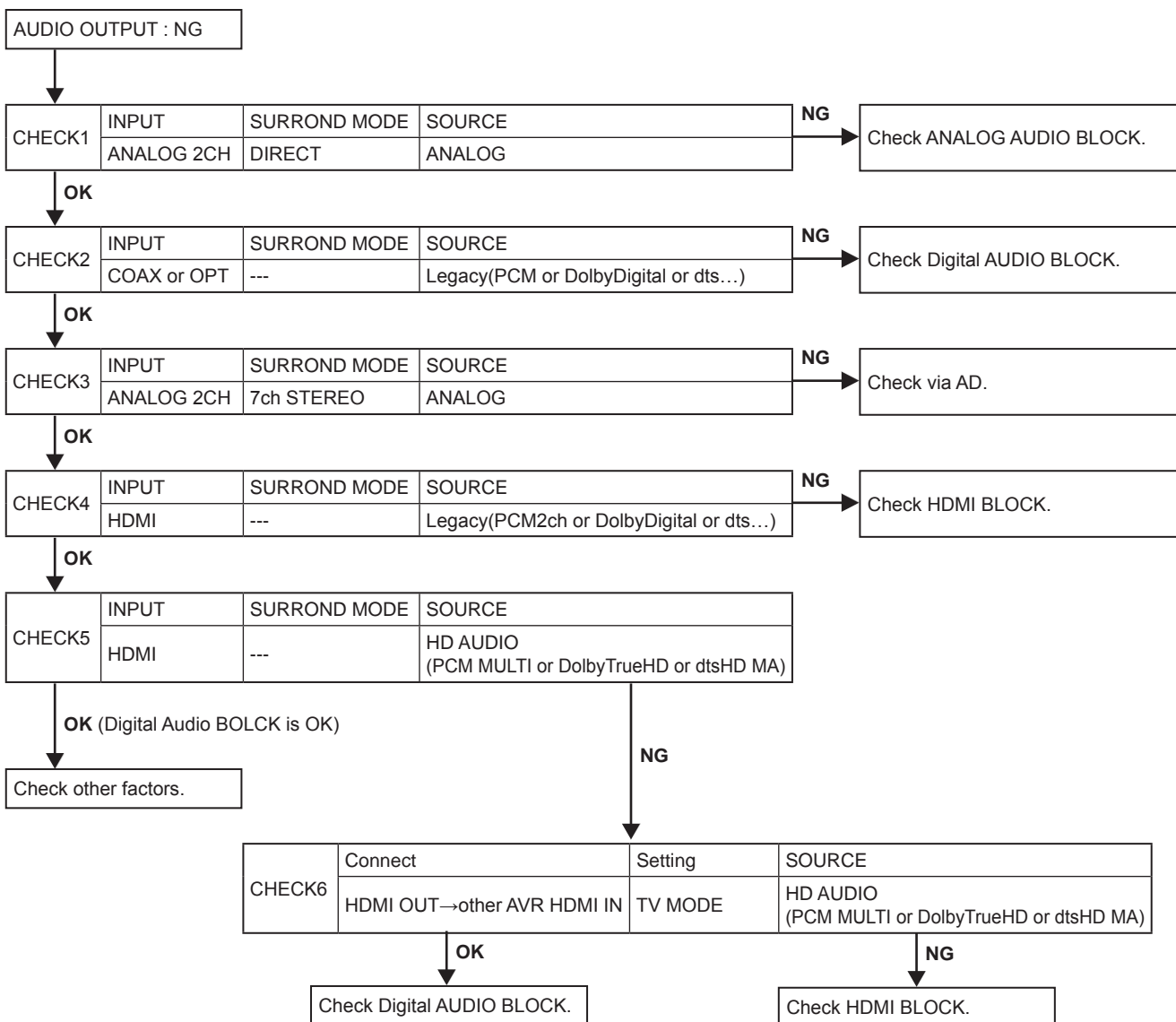


HDMI_SDA/SCL(I2C) : Check item (21)

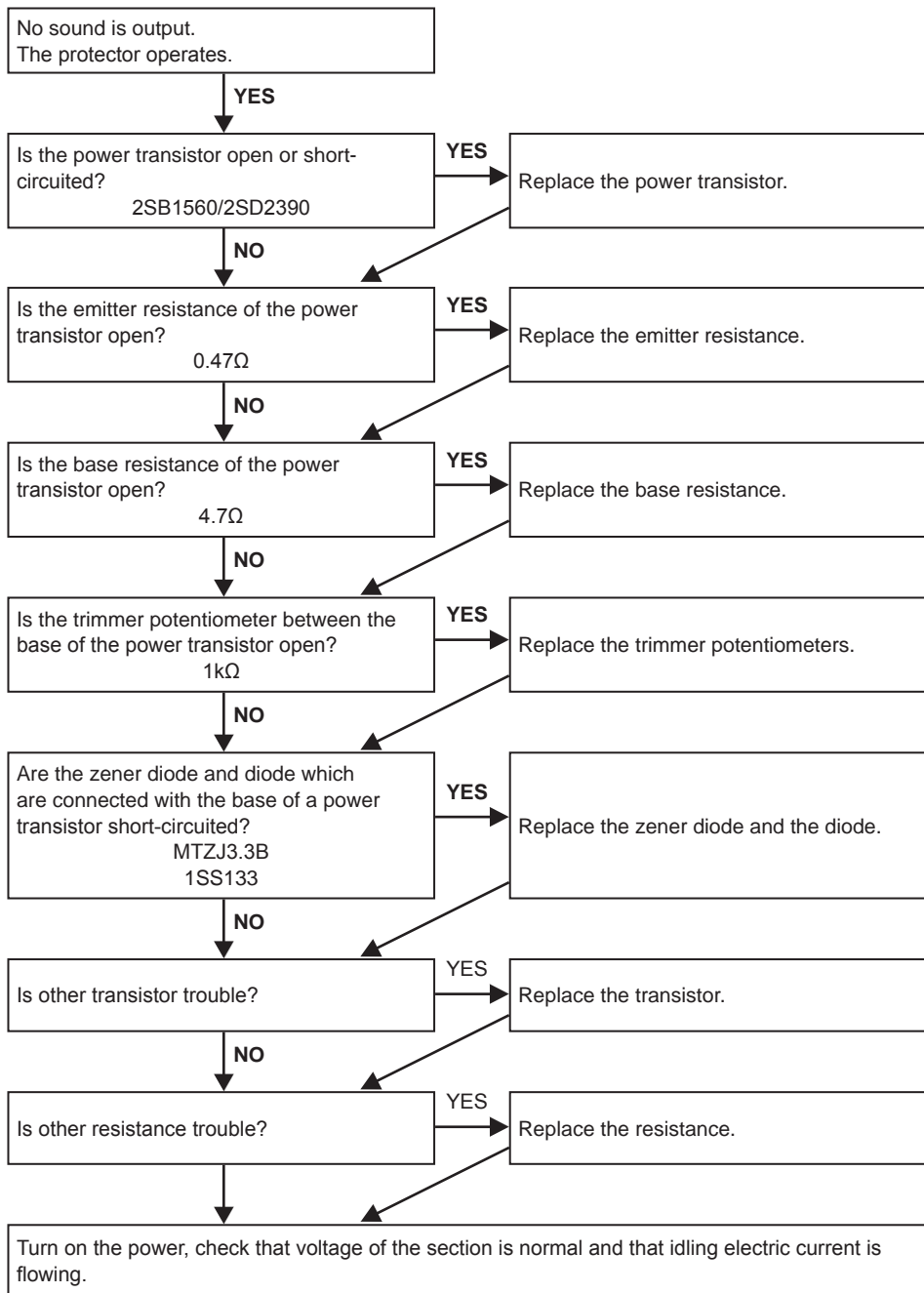


4. AUDIO

4.1. AUDIO CHECK

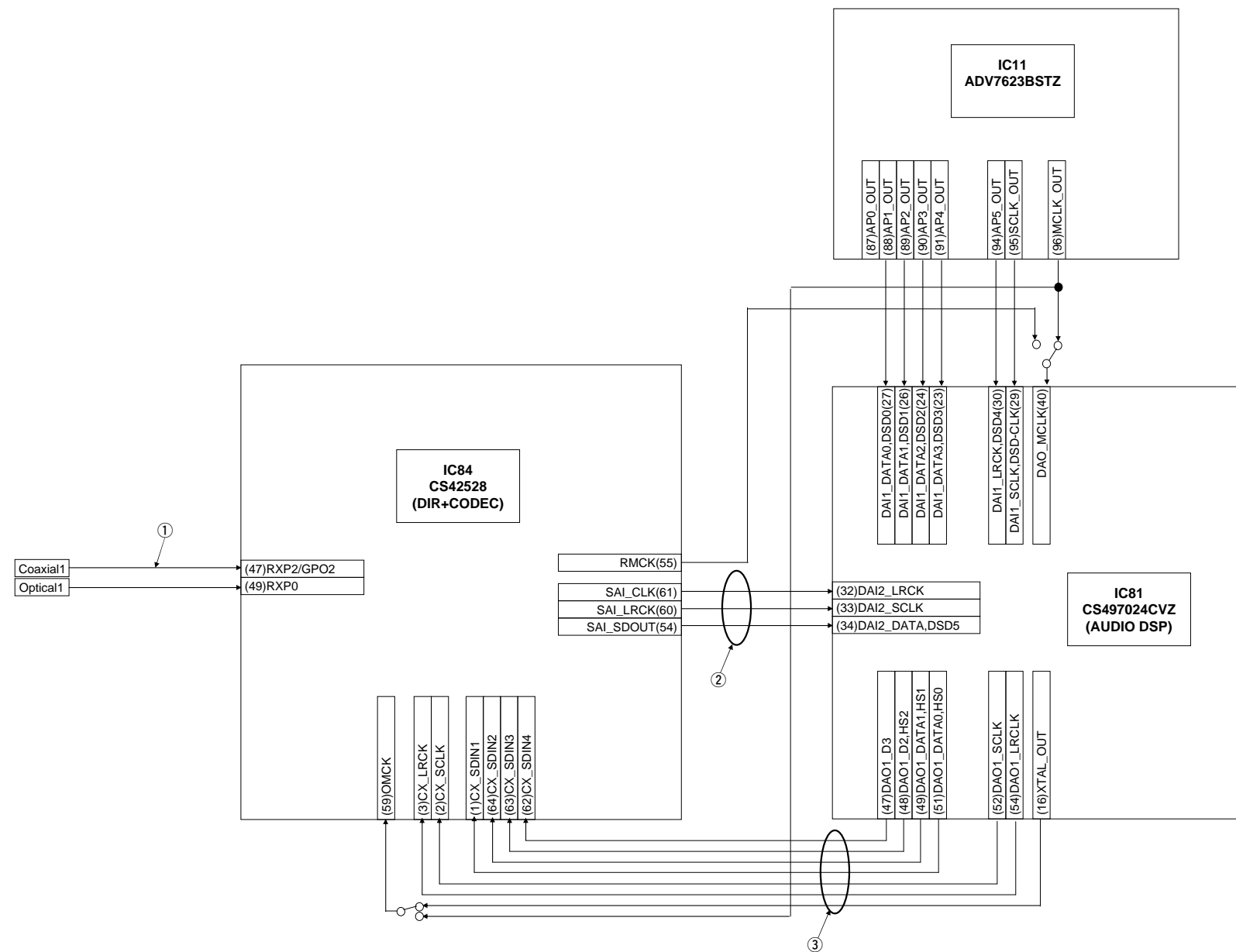
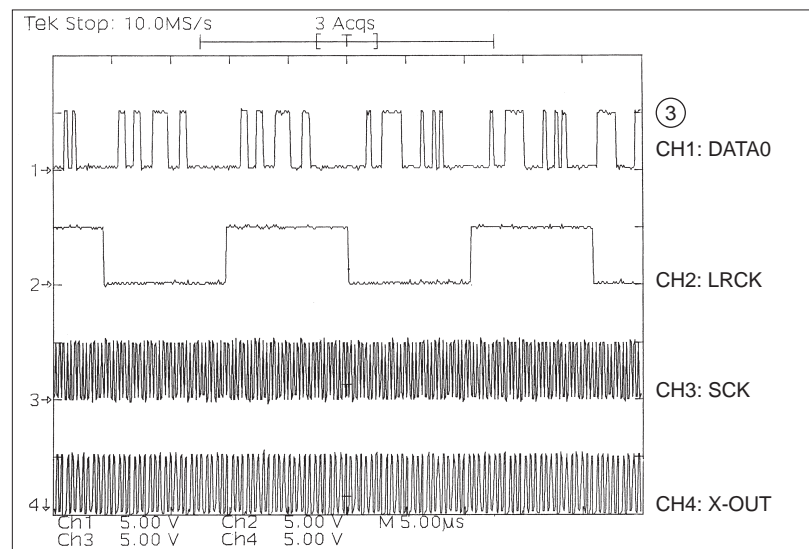
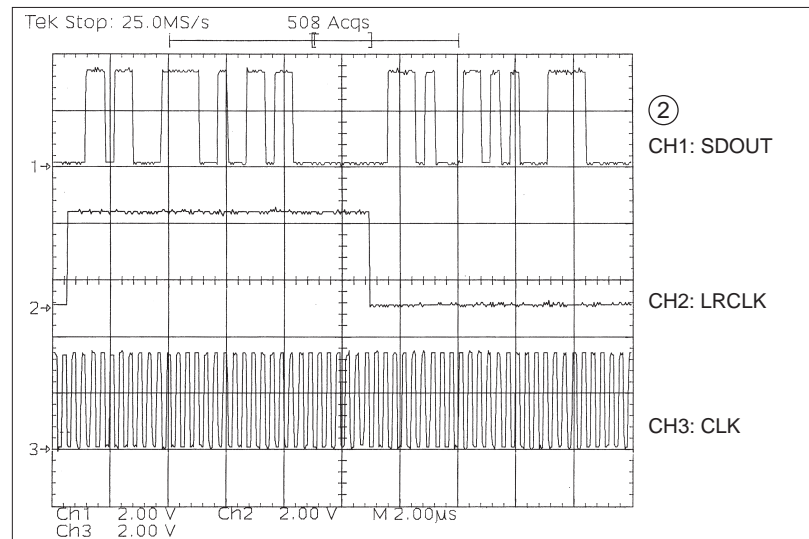
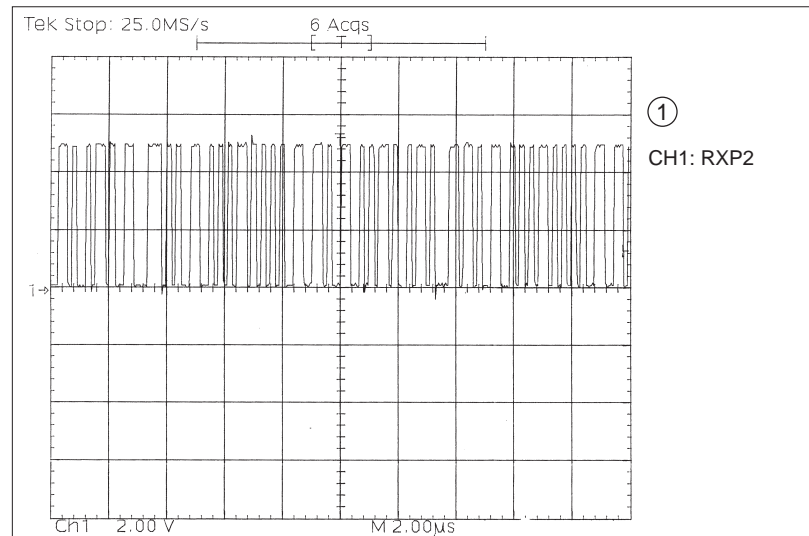


4.2. Power AMP (MAIN UNIT)

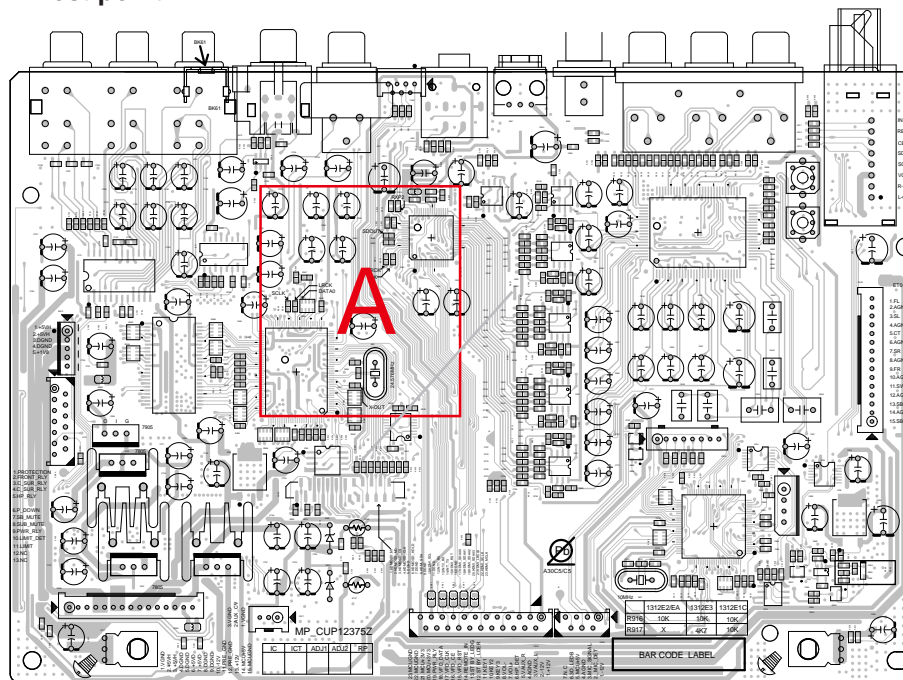


CLOCK FLOW & WAVE FORM IN DIGITAL BLOCK

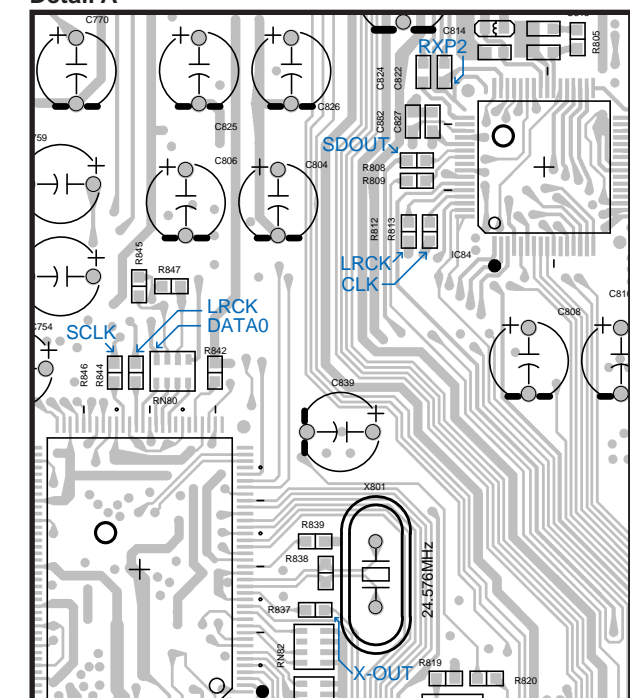
Wave form



Test point

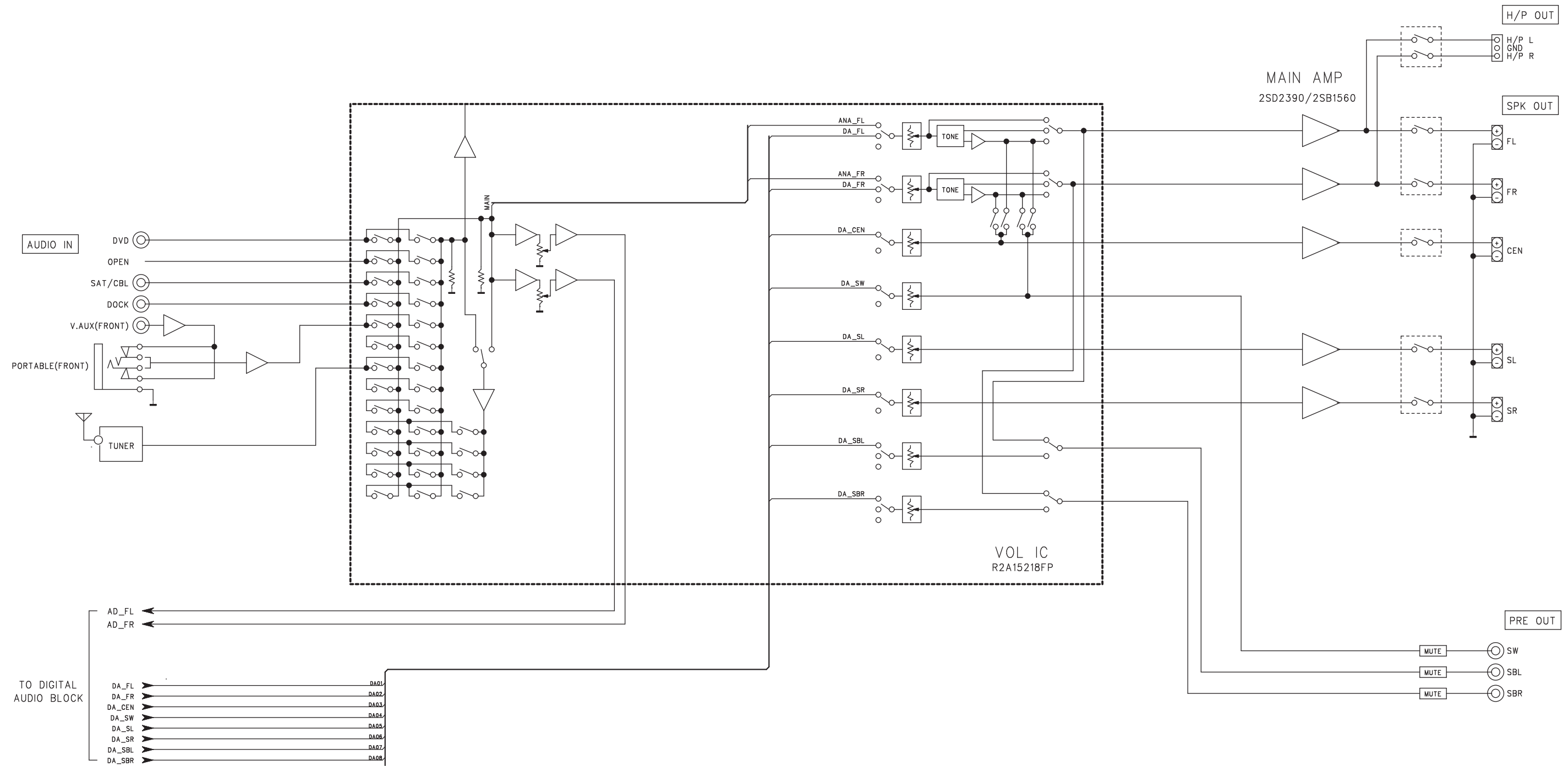


Detail A

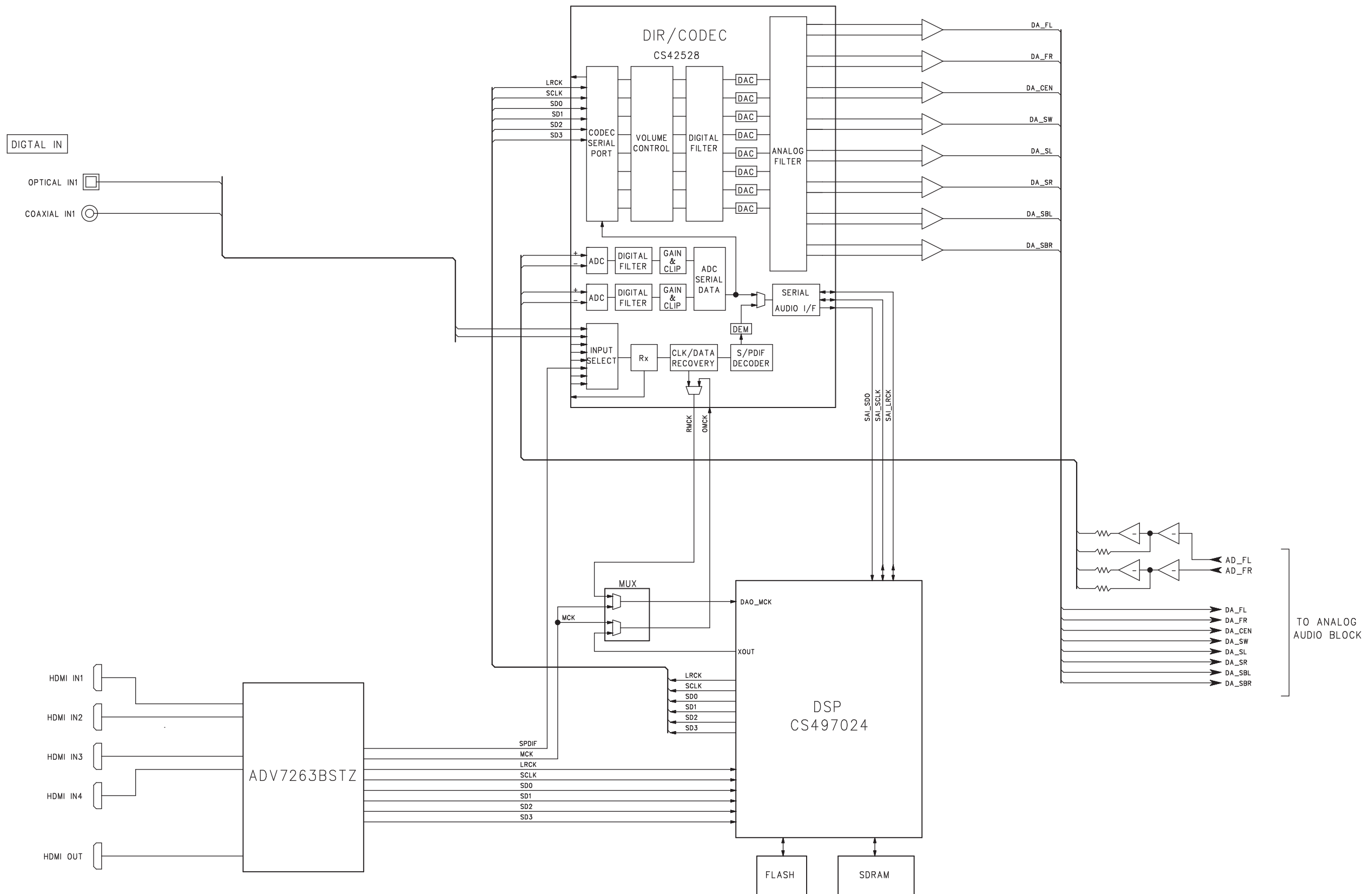


BLOCK DIAGRAM

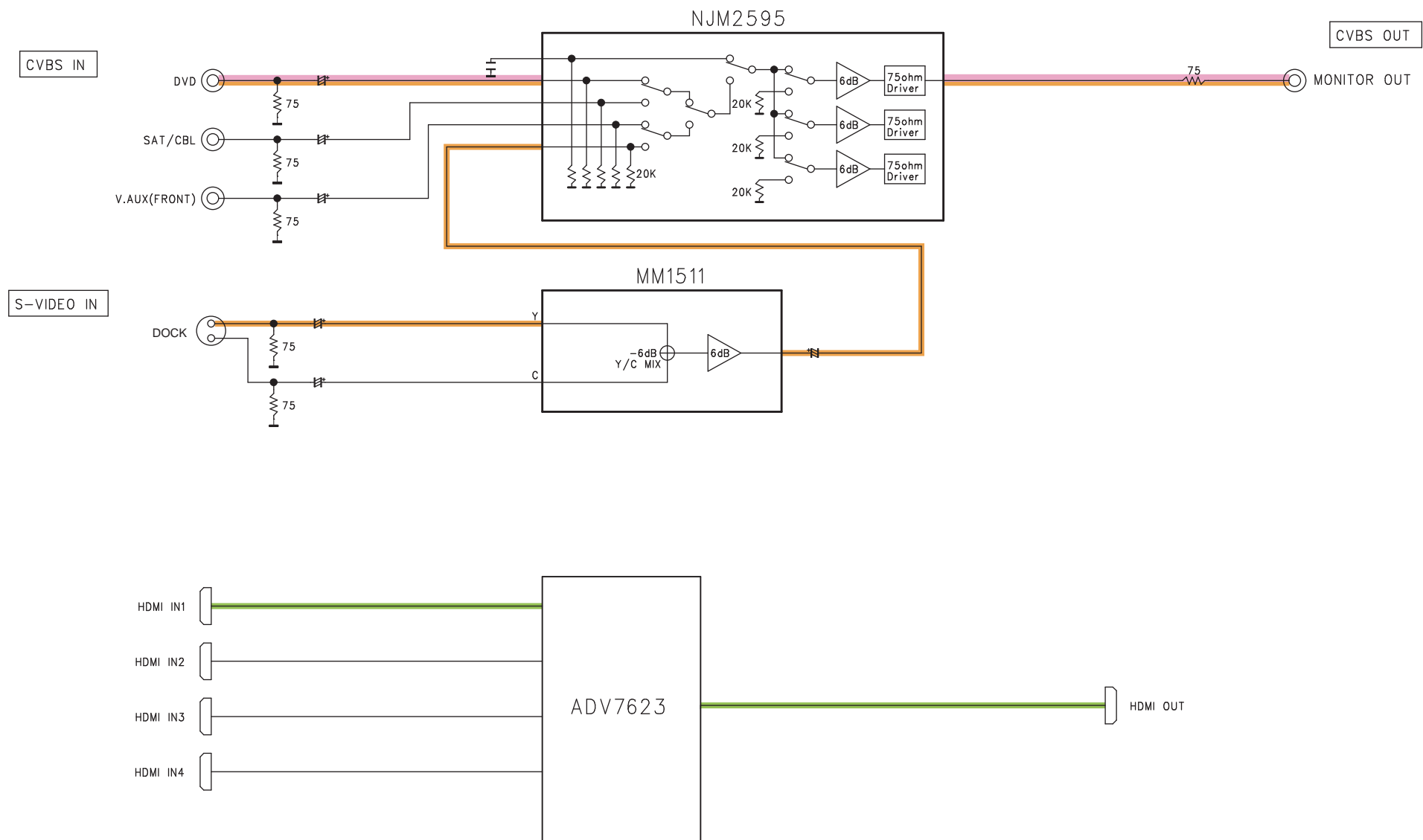
ANALOG AUDIO BLOCK



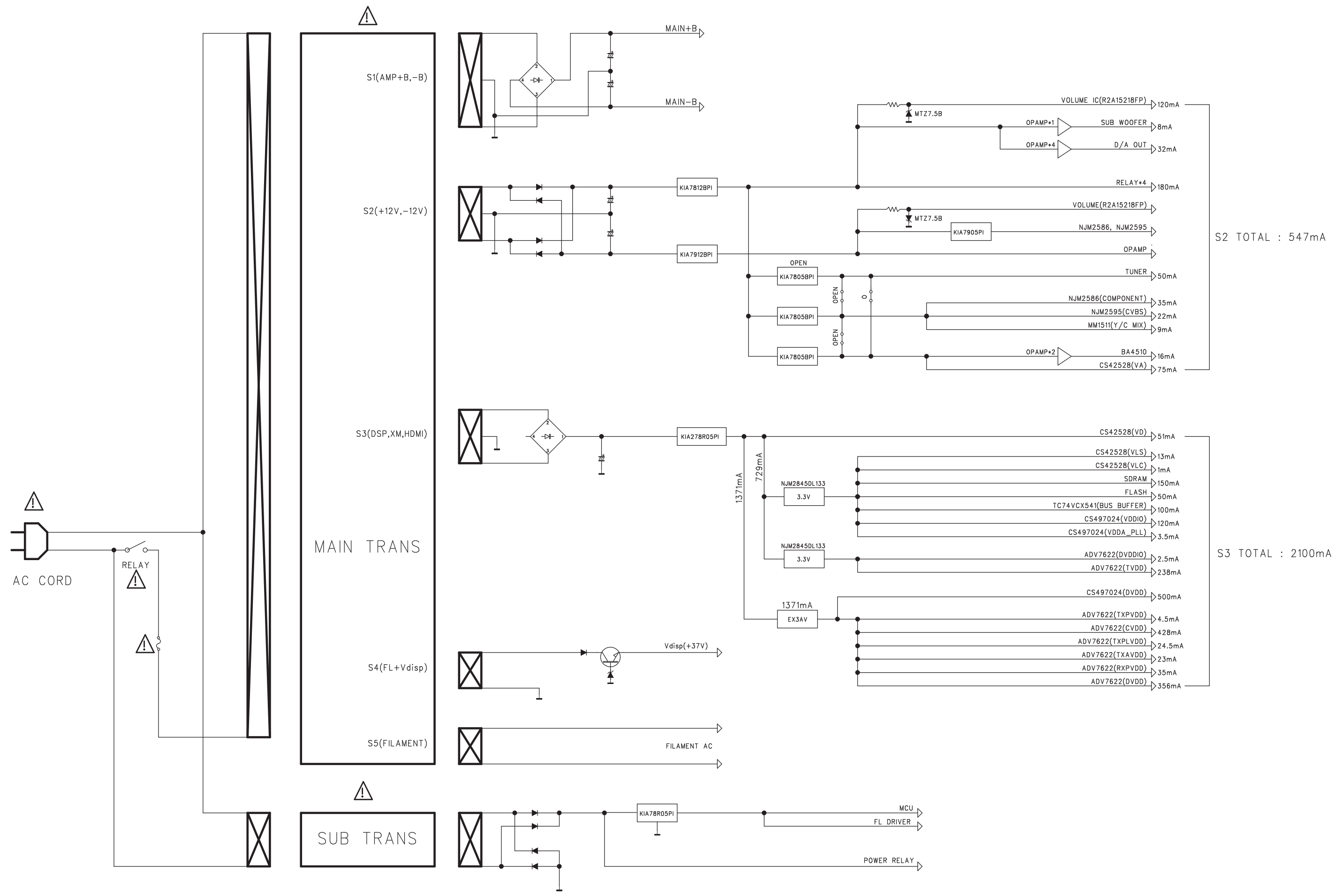
DIGITAL AUDIO BLOCK



VIDEO BLOCK

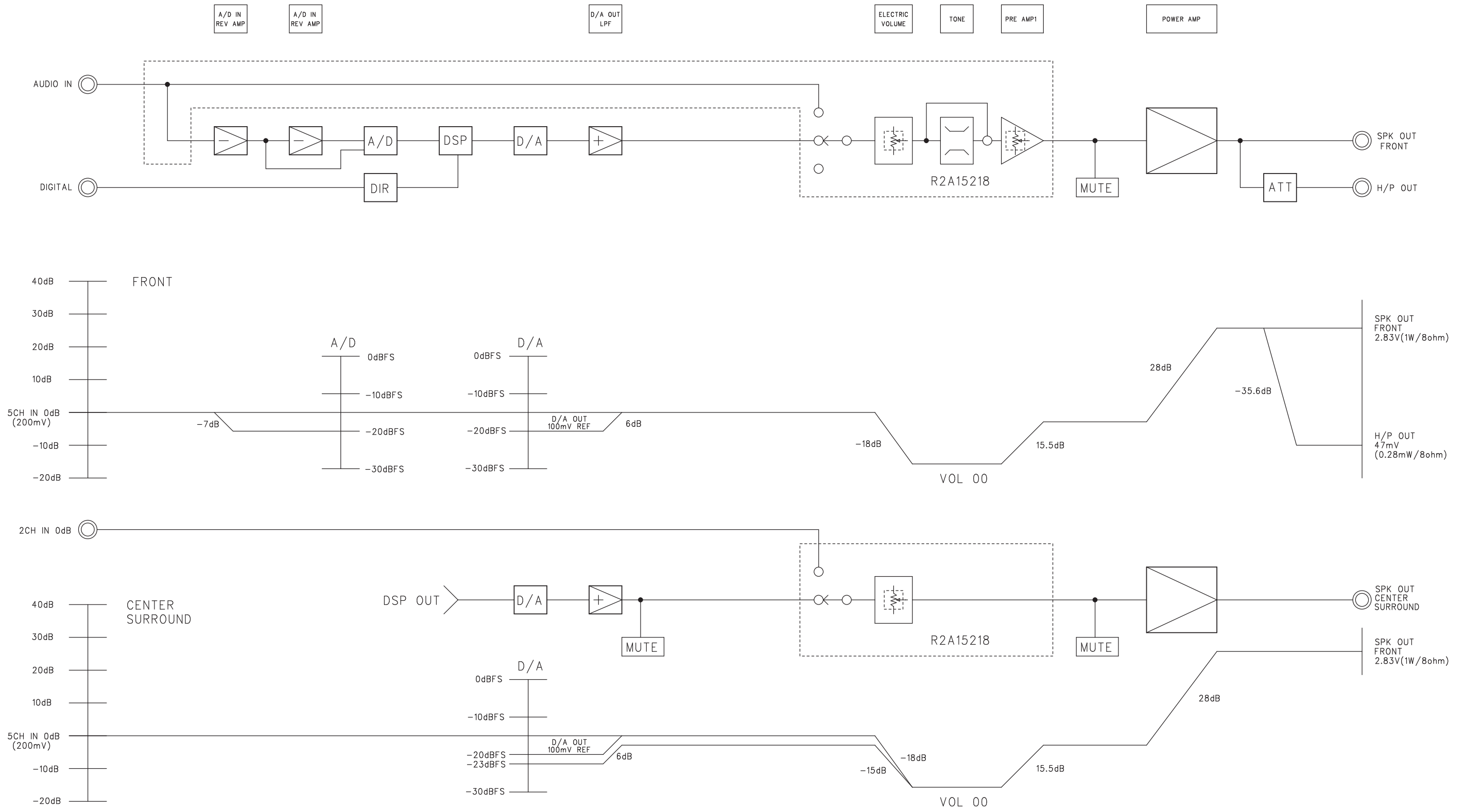


POWER BLOCK DIAGRAM

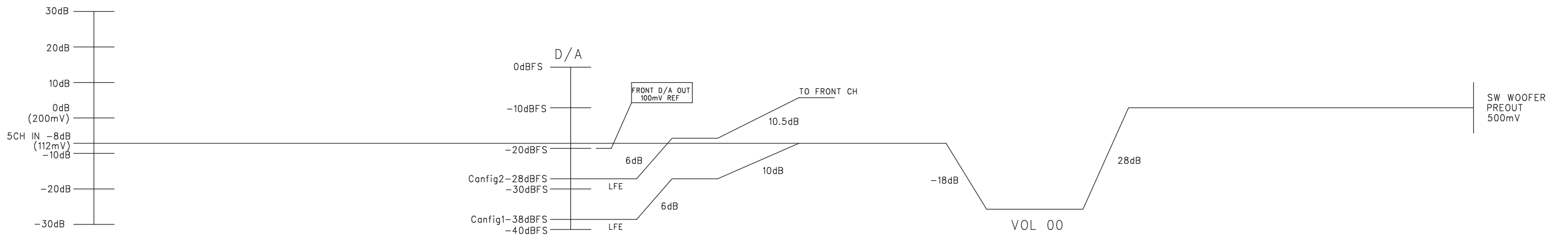
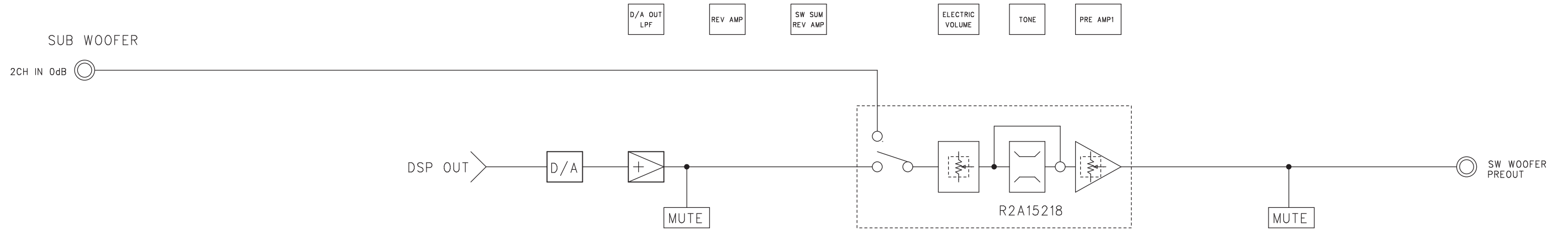


LA LEVEL DIAGRAM

5CH LEVEL DIAGRAM

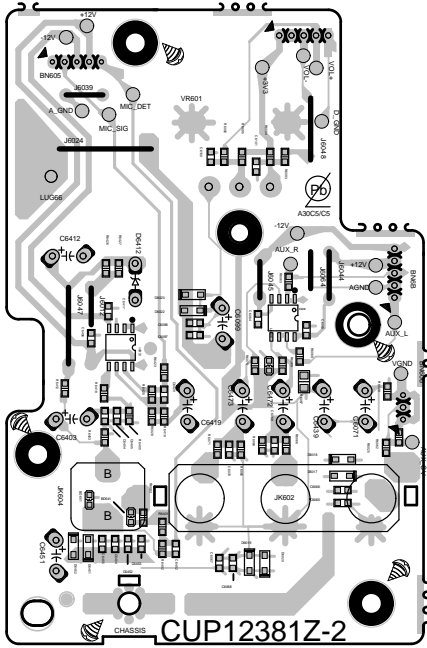


SUB WOOFER LEVEL DIAGRAM

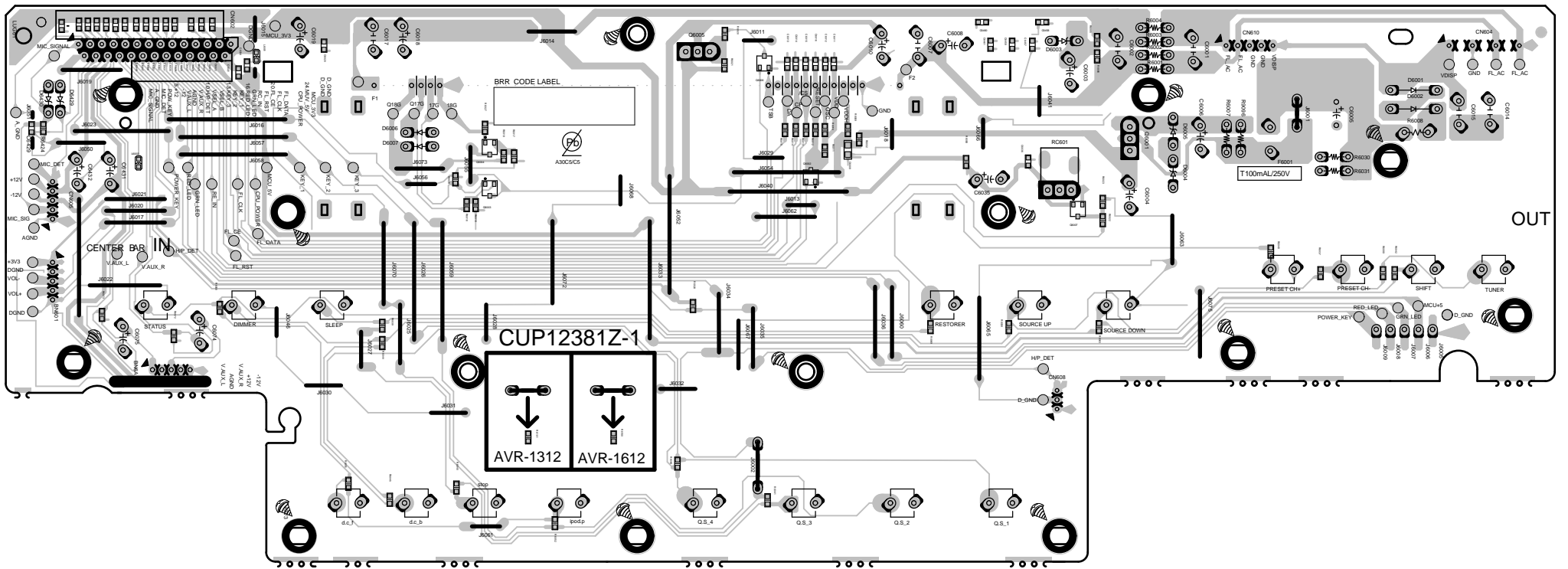


18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

VOLUME (FOIL SIDE)

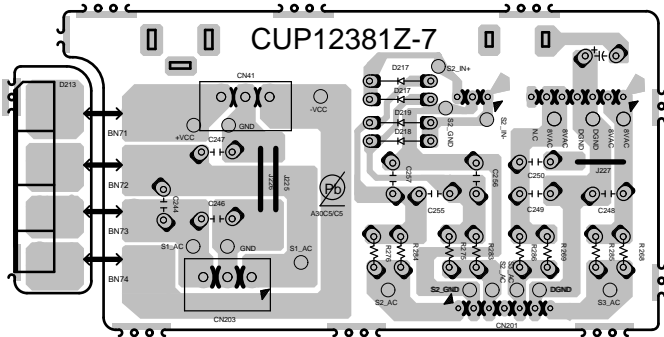


FRONT (FOIL SIDE)

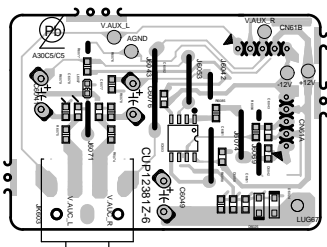


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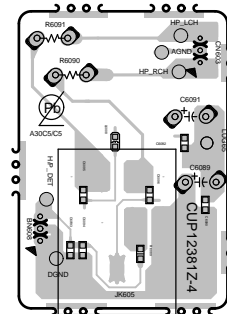
REGULATOR (FOIL SIDE)



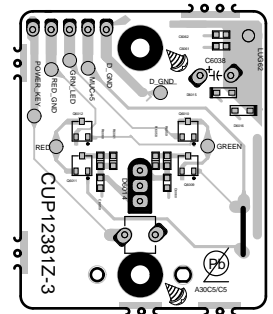
PORTABLE IN (FOIL SIDE)



HEADPHONE (FOIL SIDE)

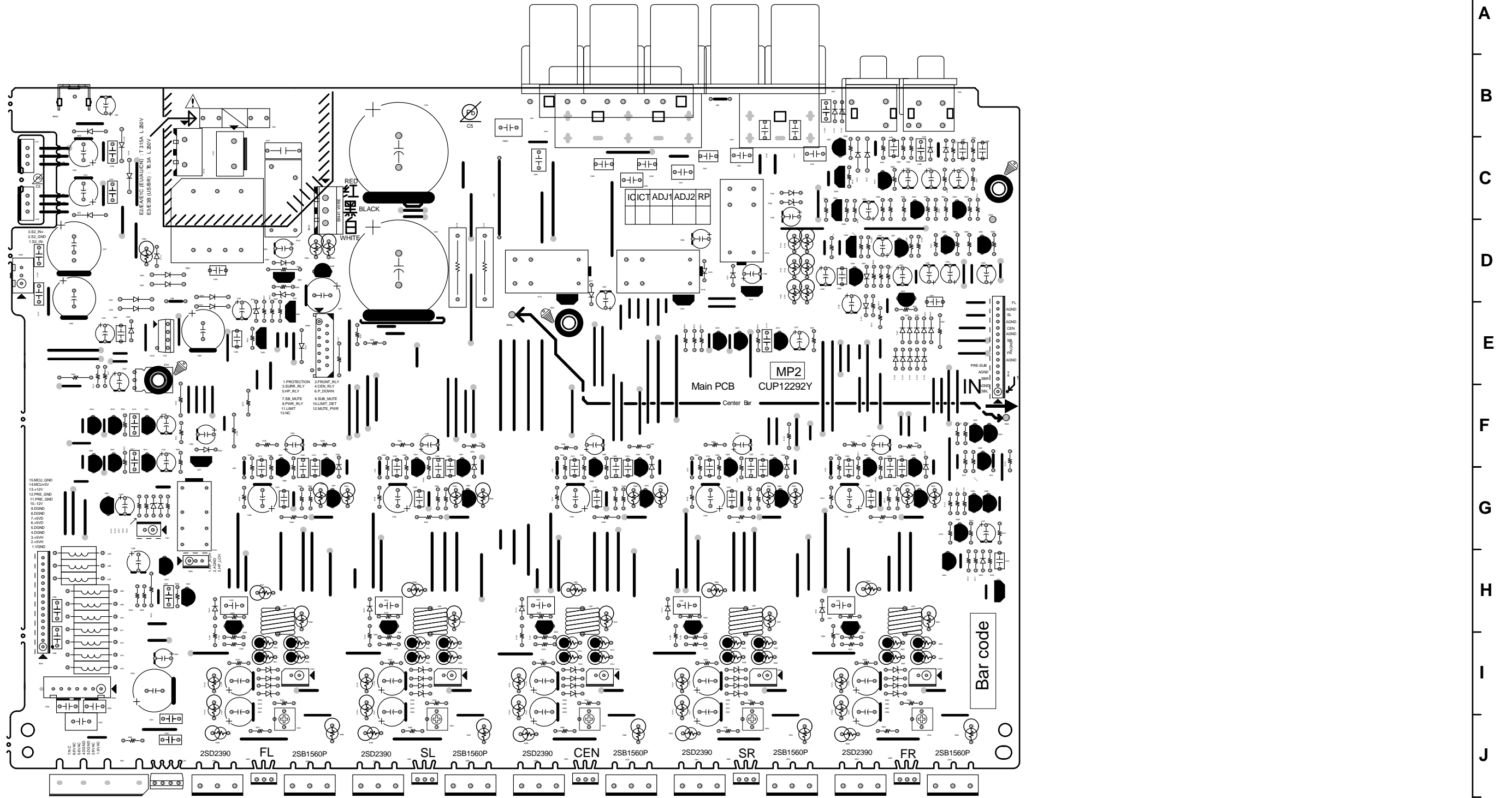


POWER (FOIL SIDE)



鉛フリー半田
半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。

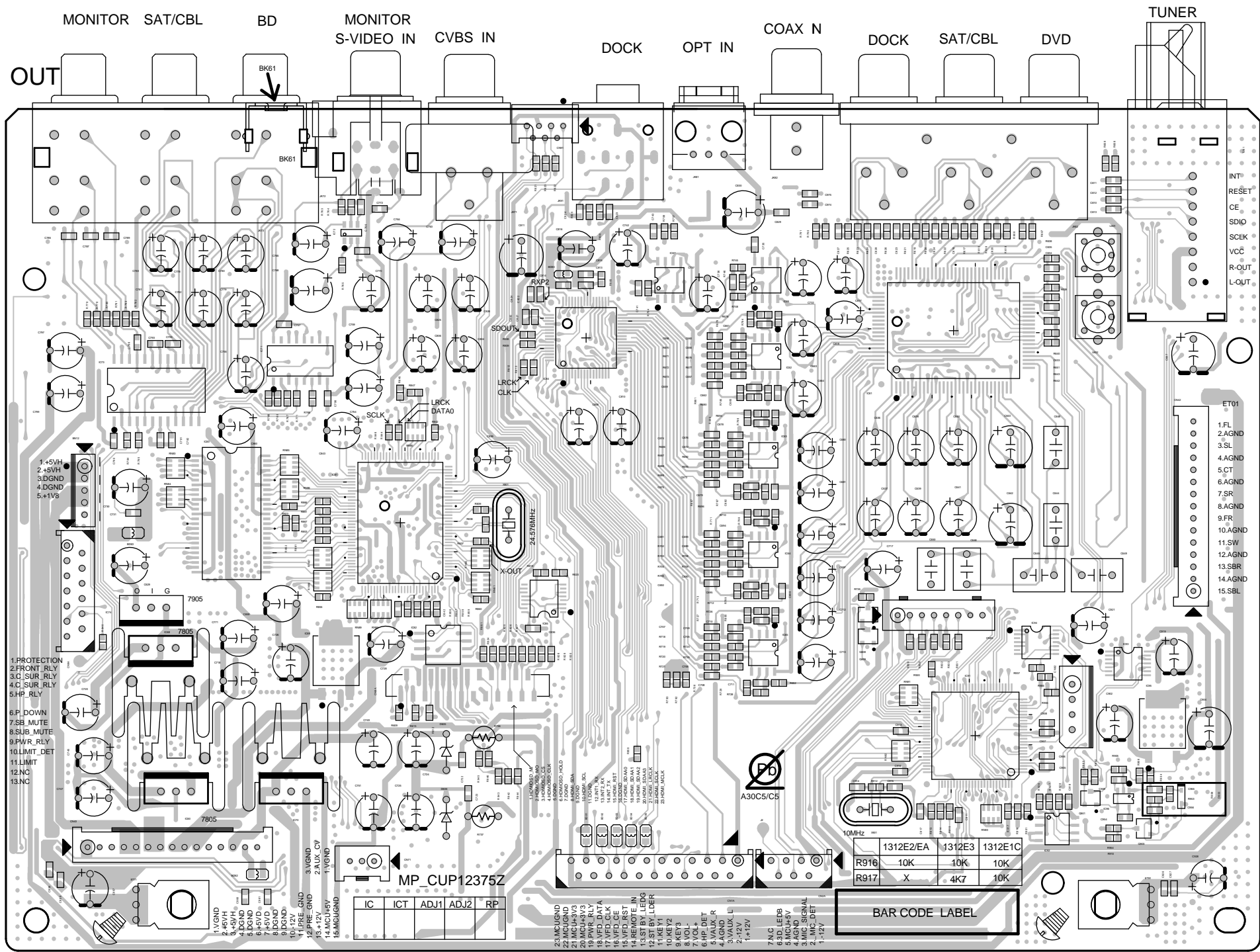
Lead-free Solder
When soldering, use the Lead-free Solder (Sn-Ag-Cu).



鉛フリー半田
 半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。

Lead-free Solder
 When soldering, use the Lead-free Solder (Sn-Ag-Cu).

INPUT (COMPONENT SIDE)



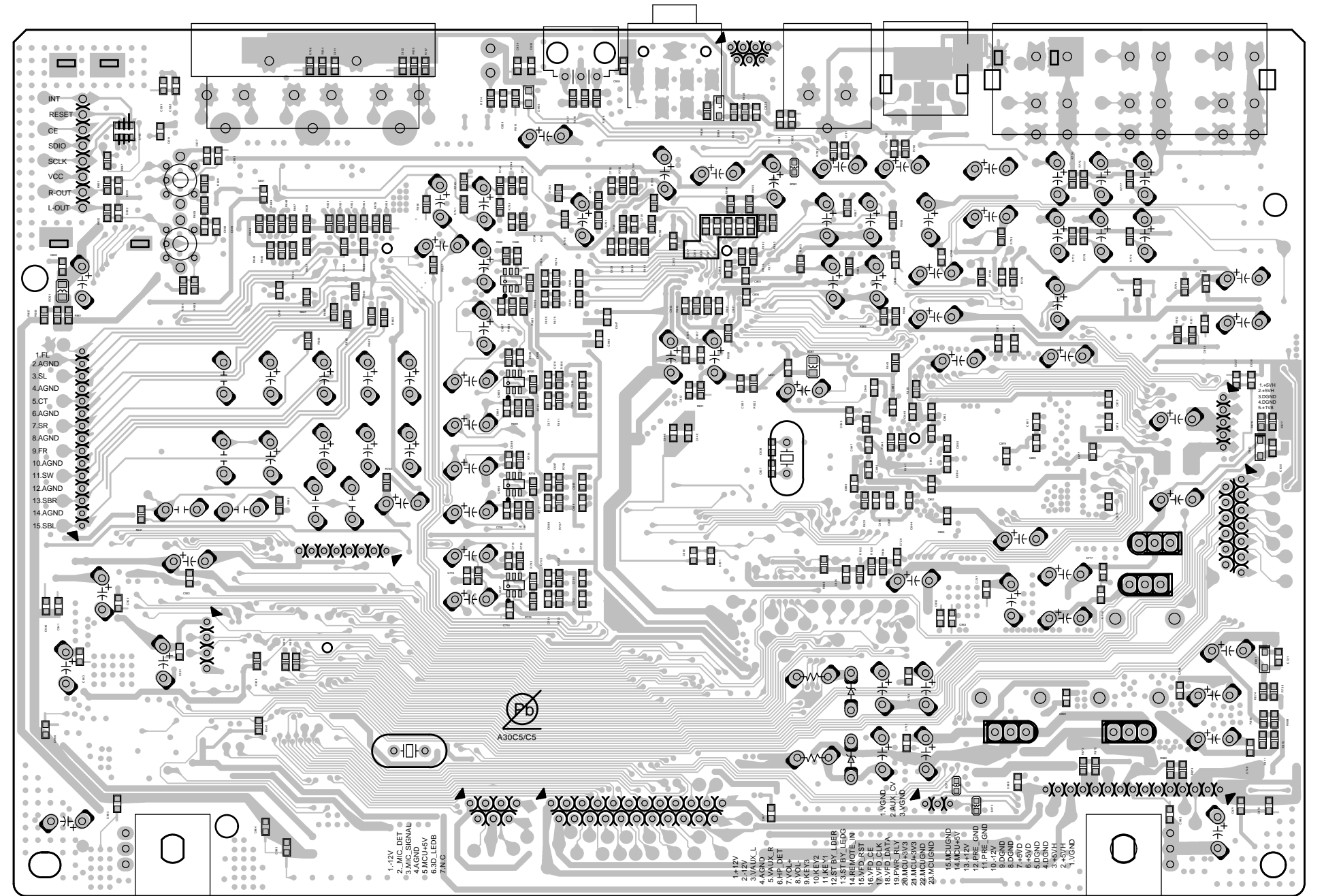
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鉛フリー半田
半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。

Lead-free Solder
When soldering, use the Lead-free Solder (Sn-Ag-Cu).

18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1

INPUT (FOIL SIDE)



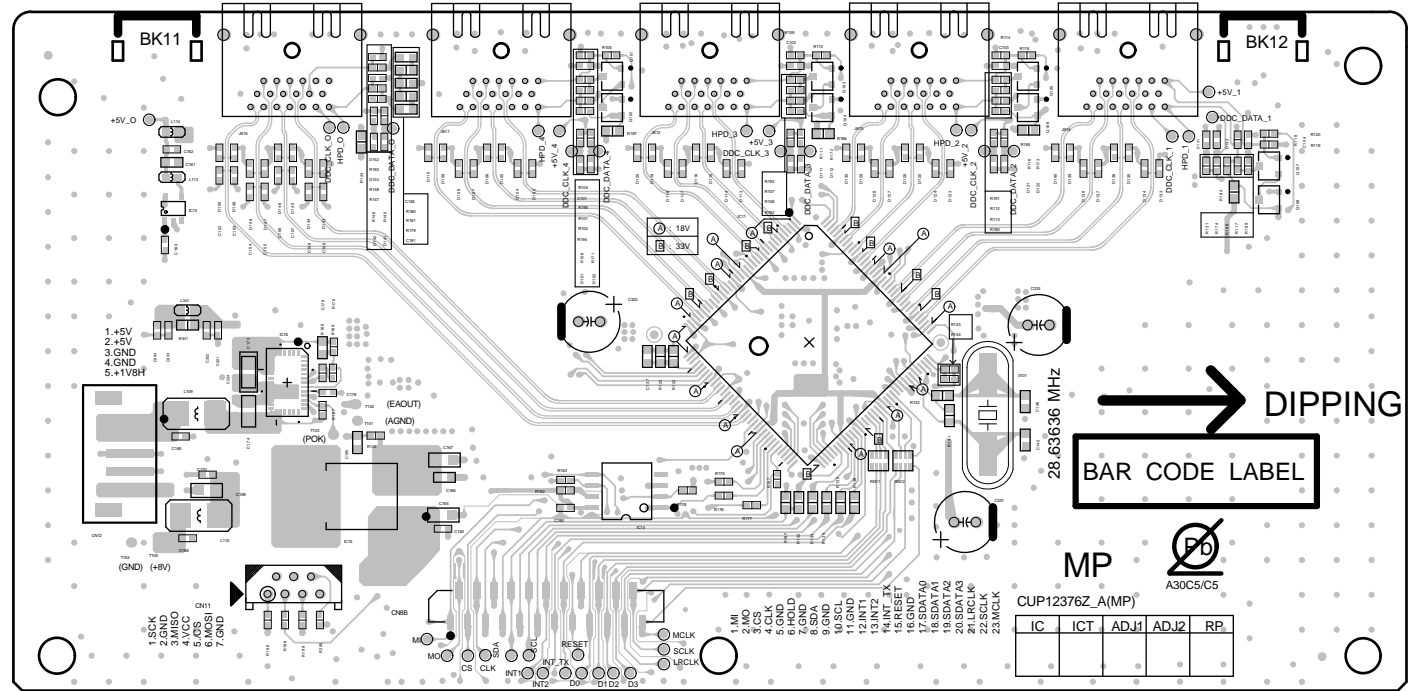
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鉛フリー半田
半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。

Lead-free Solder
When soldering, use the Lead-free Solder (Sn-Ag-Cu).

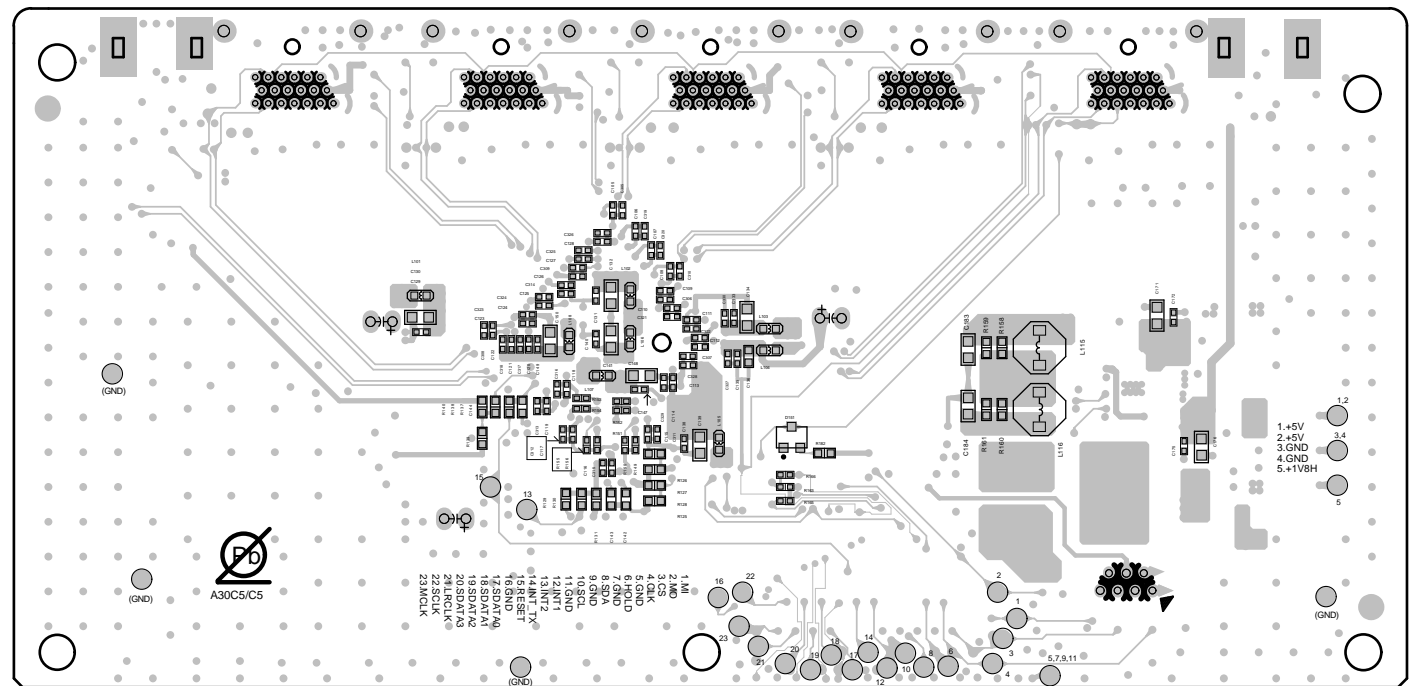
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

HDMI (COMPONENT SIDE)



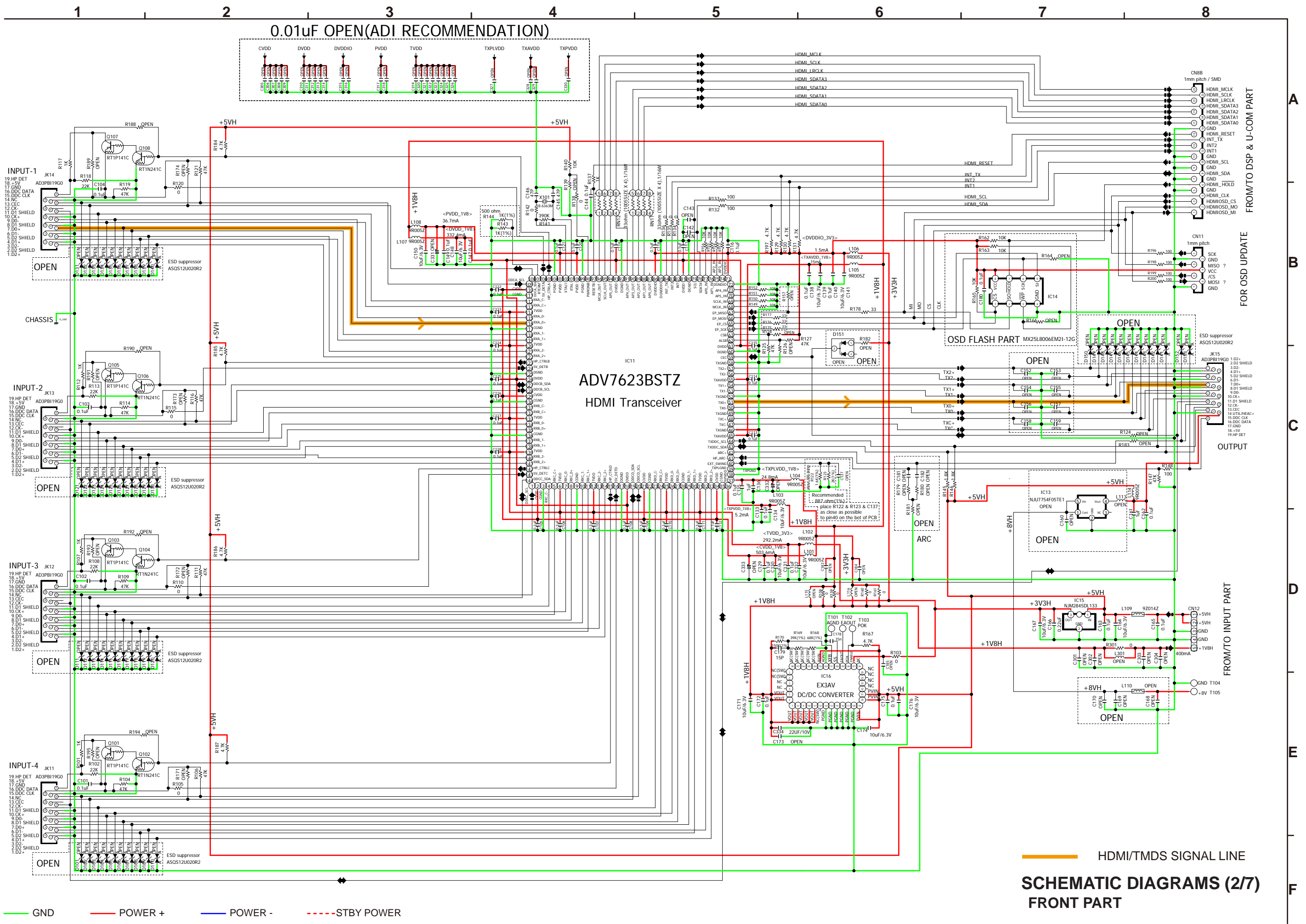
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HDMI (FOIL SIDE)



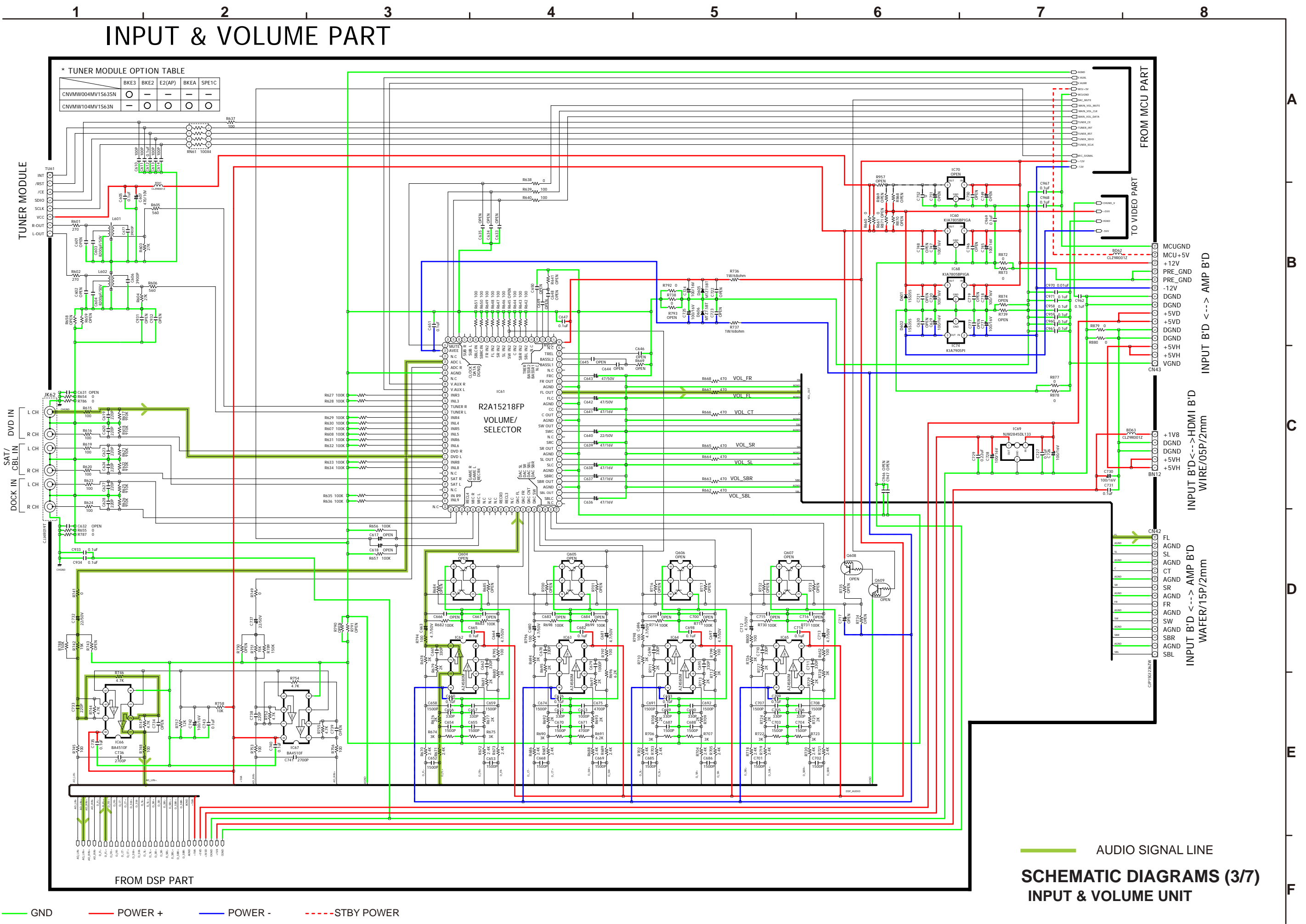
鉛フリー半田
半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。

Lead-free Solder
When soldering, use the Lead-free Solder (Sn-Ag-Cu).



HDMI/TMDS SIGNAL LINE
SCHEMATIC DIAGRAMS (2/7)
 FRONT PART

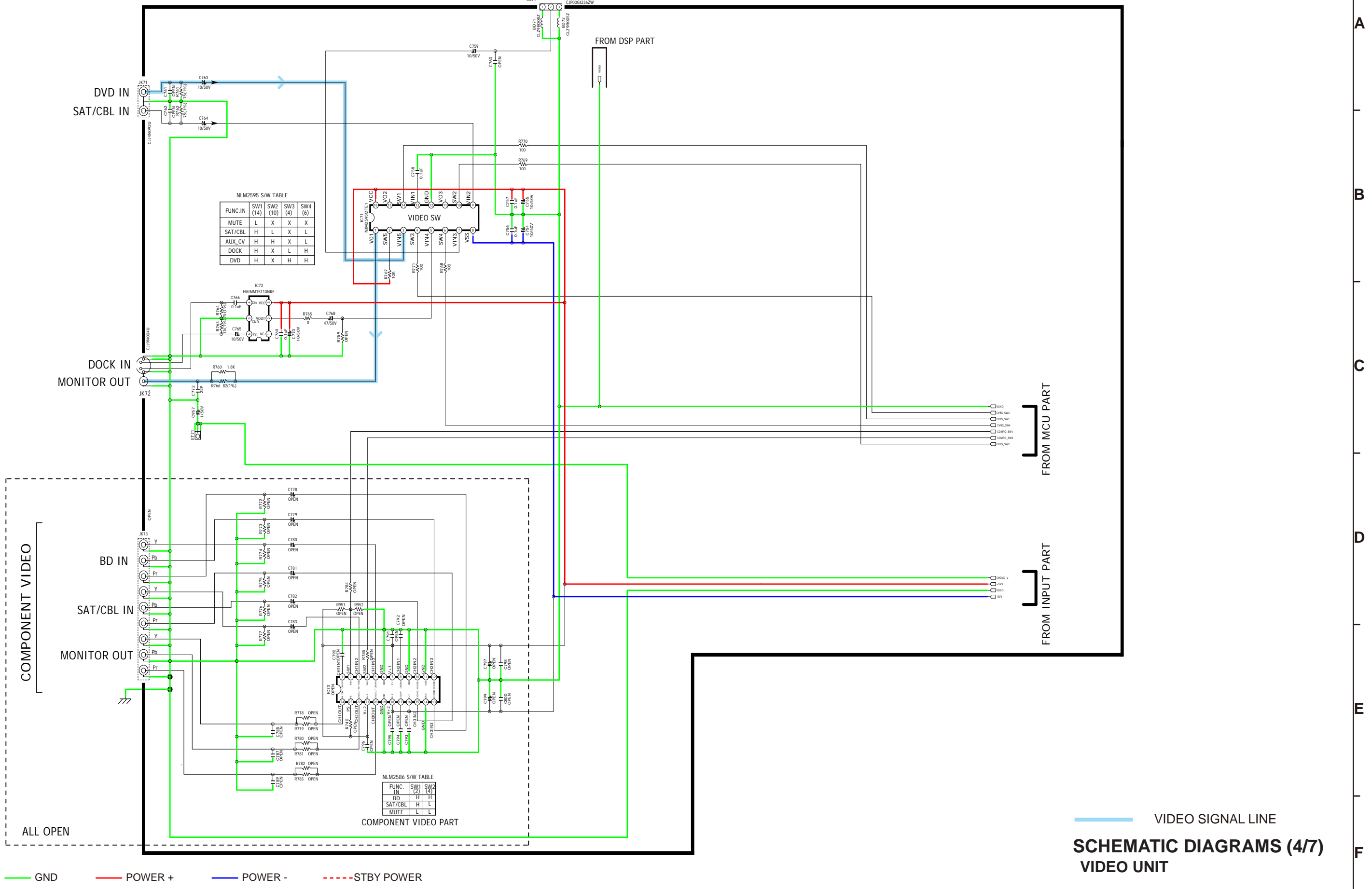
INPUT & VOLUME PART



SCHEMATIC DIAGRAMS (3/7)
INPUT & VOLUME UNIT

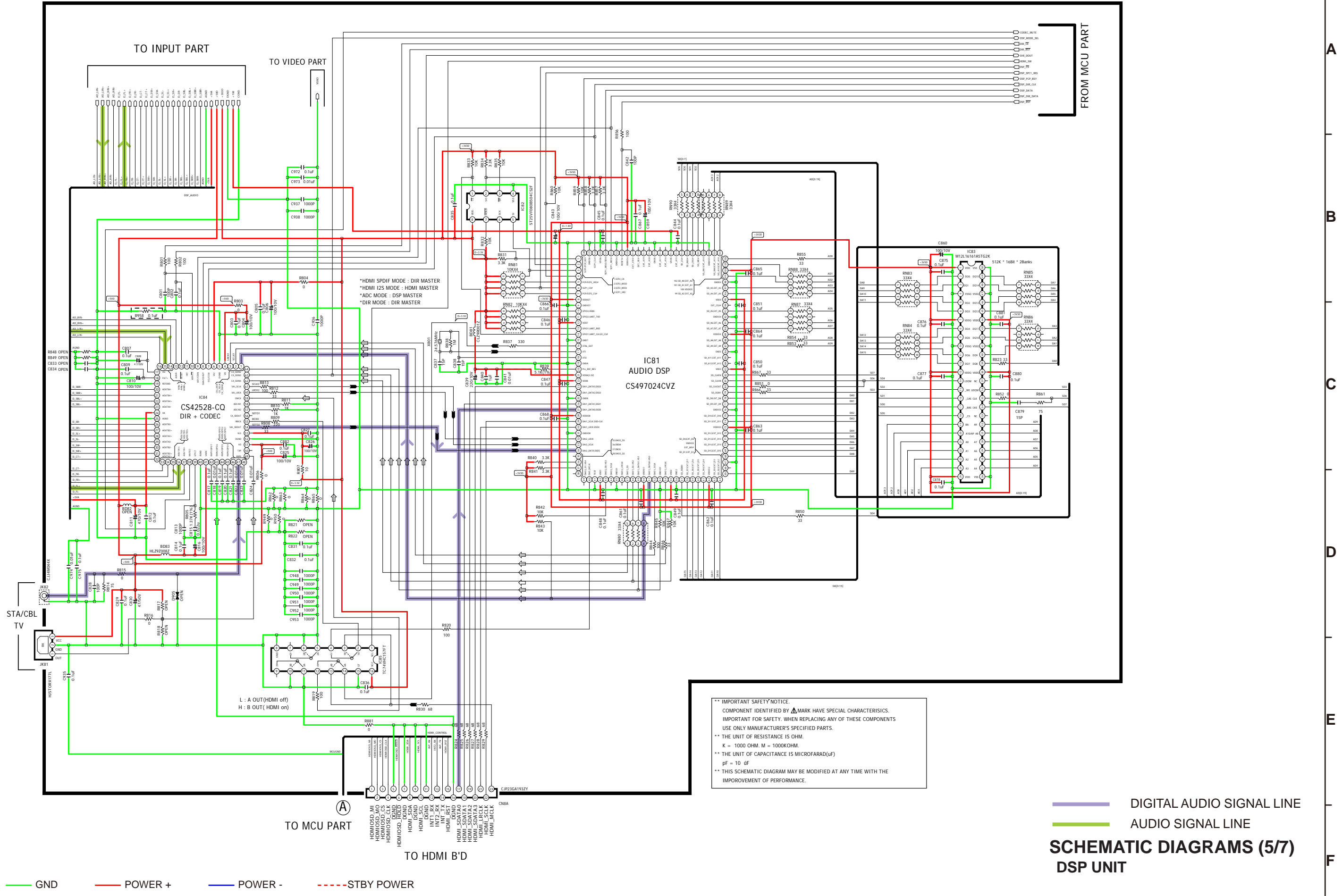
VIDEO PART

WAFER/03P/2mm
TO FRONT B'D



SCHEMATIC DIAGRAMS (4/7)
VIDEO UNIT

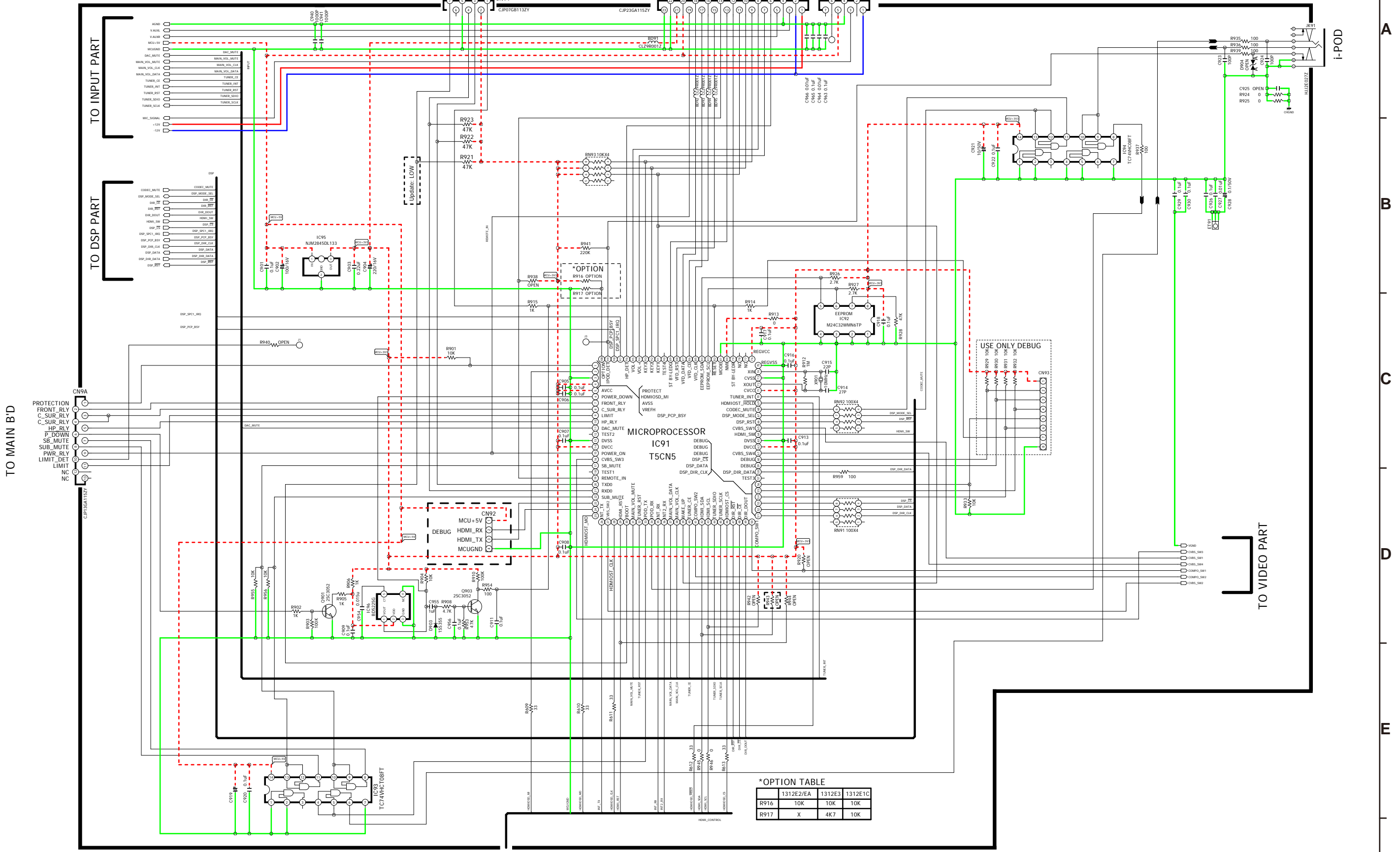
DSP PART



**** IMPORTANT SAFETY NOTICE.**
 COMPONENT IDENTIFIED BY Δ MARK HAVE SPECIAL CHARACTERISTICS.
 IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS
 USE ONLY MANUFACTURER'S SPECIFIED PARTS.
 ** THE UNIT OF RESISTANCE IS OHM.
 K = 1000 OHM. M = 1000KOHM.
 ** THE UNIT OF CAPACITANCE IS MICROFARAD(μ F)
 μ F = 10 UF
 ** THIS SCHEMATIC DIAGRAM MAY BE MODIFIED AT ANY TIME WITH THE
 IMPROVEMENT OF PERFORMANCE.

SCHEMATIC DIAGRAMS (5/7)
DSP UNIT

MCU PART



FOR UPDATE TO FRONT B'D

TO INPUT PART

TO DSP PART

TO MAIN B'D

i-POD

A

B

C

D

E

F

TO VIDEO PART

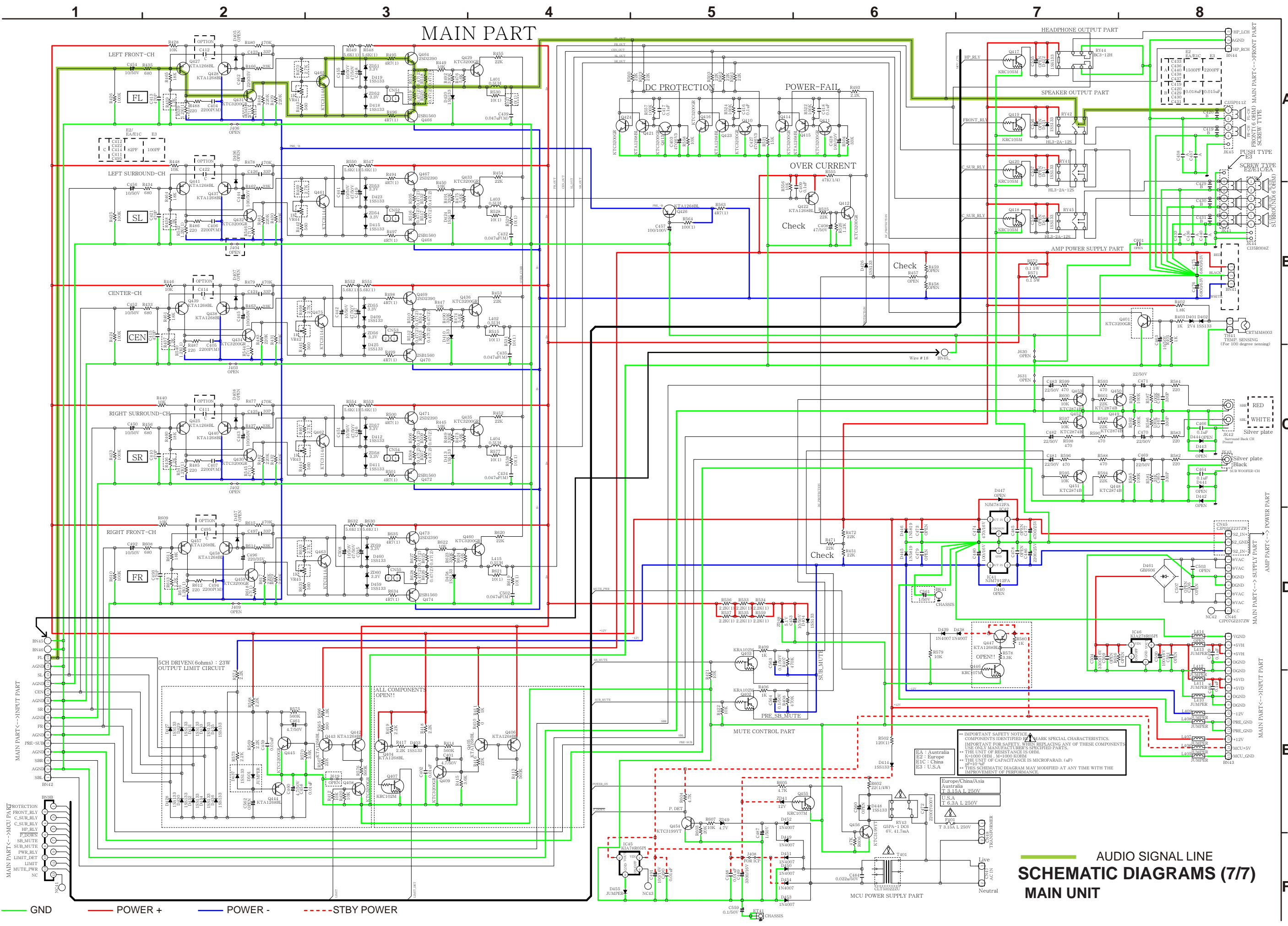
TO DSP PART

*OPTION TABLE

	1312E2/EA	1312E3	1312E1C
R916	10K	10K	10K
R917	X	4K7	10K

SCHEMATIC DIAGRAMS (6/7)
MCU UNIT

— GND — POWER + — POWER - - - - STBY POWER



MAIN PART

AUDIO SIGNAL LINE SCHEMATIC DIAGRAMS (7/7) MAIN UNIT

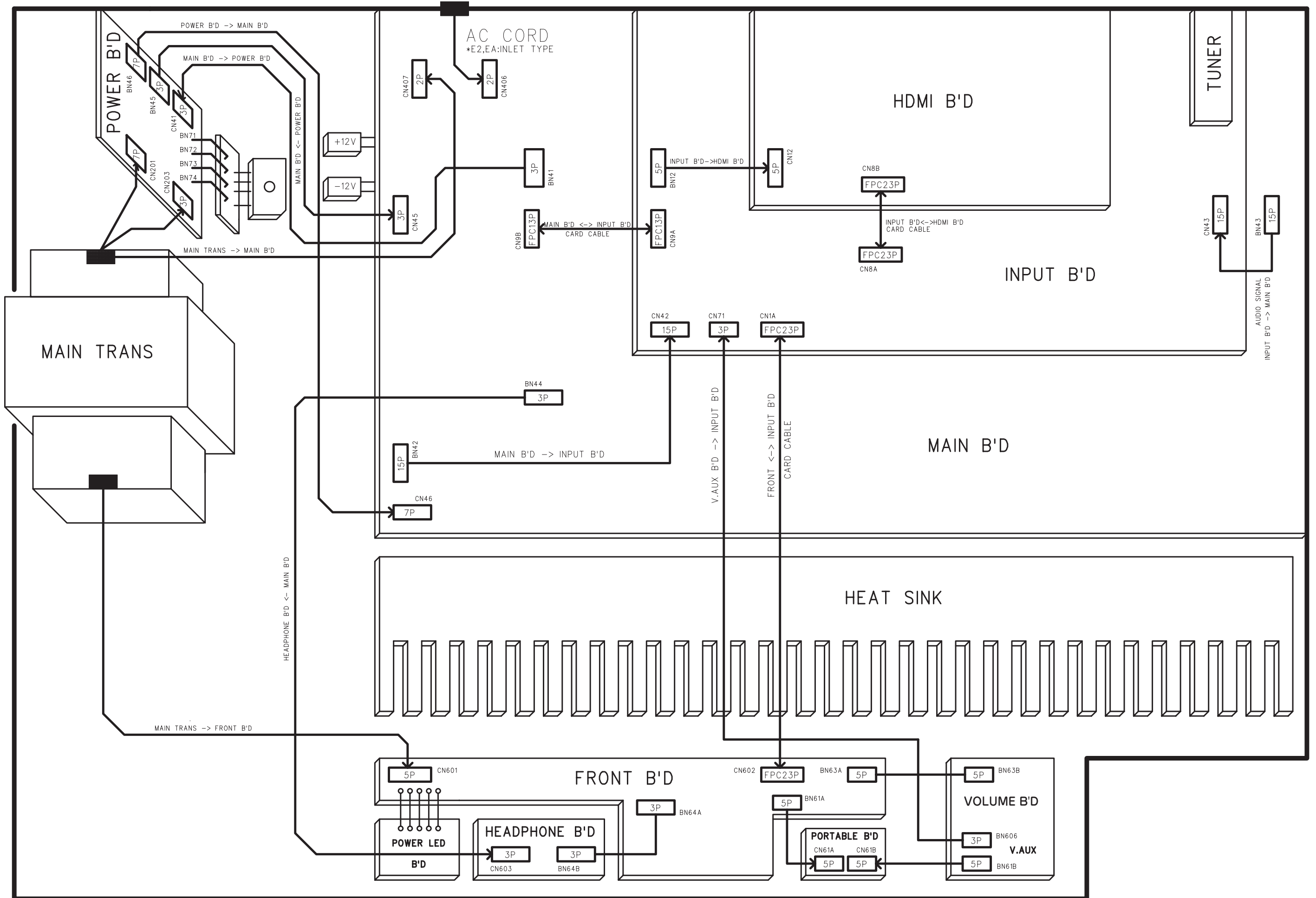
— GND — POWER + — POWER - - - - STBY POWER

IMPORTANT SAFETY NOTICE
 COMPONENTS IDENTIFIED BY MARK SPECIAL CHARACTERISTICS.
 IMPORTANT FOR SAFETY, WHEN REPLACING ANY OF THESE COMPONENTS
 USE ONLY MANUFACTURER'S SPECIFIED PARTS.
 * THE UNIT OF RESISTANCE IS OHM.
 * THE UNIT OF CAPACITANCE IS MICROFARAD. (μF)
 * THIS SCHEMATIC DIAGRAM MAY MODIFIED AT ANY TIME WITH THE
 IMPROVEMENT OF PERFORMANCE.

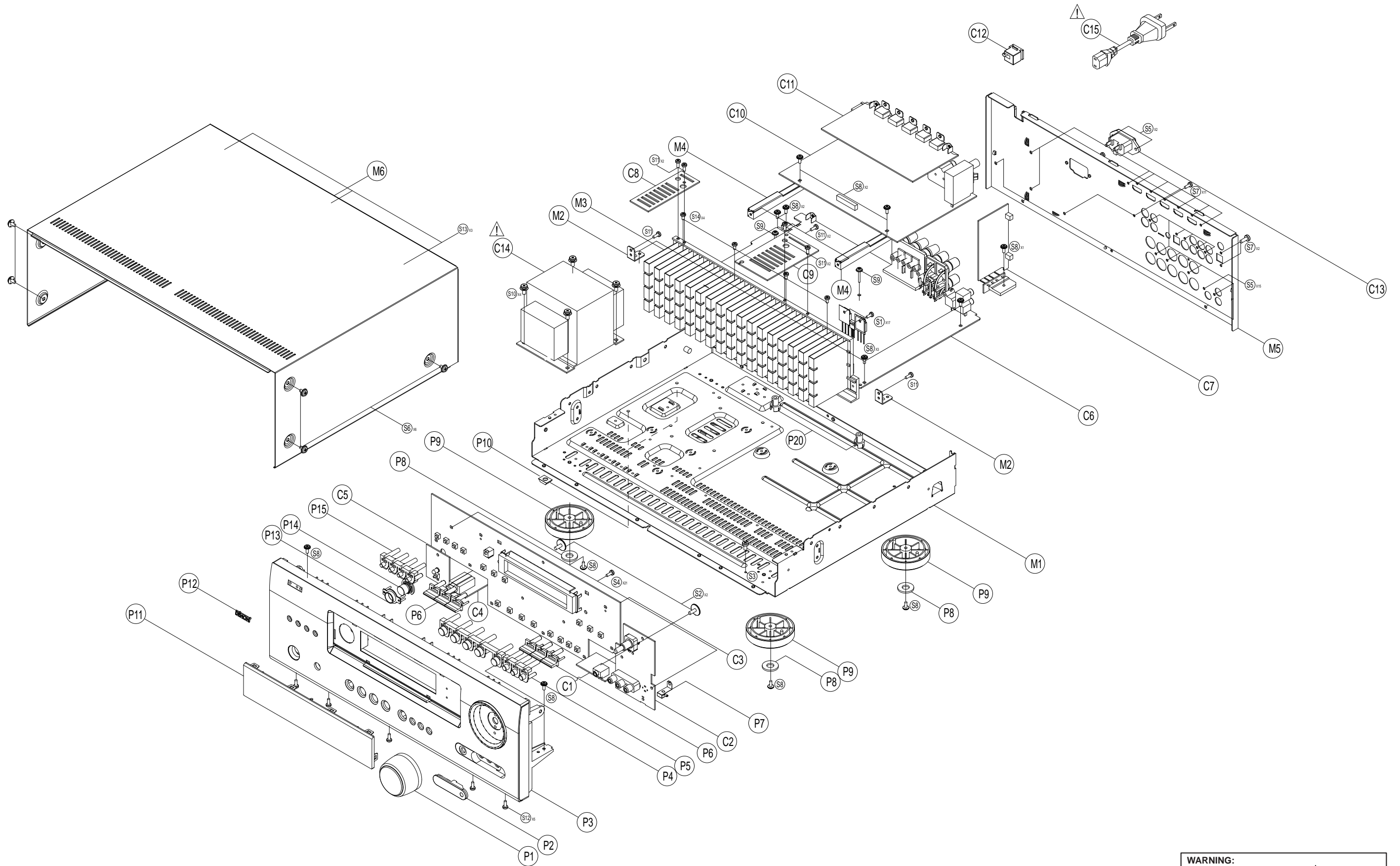
EA : Australia
 E2 : Europe
 E3 : China
 E3 : U.S.A

Europe/China/Asia
 Australia
 T 3.3kA L 250V
 U.S.A
 T 6.3A L 250V

WIRING DIAGRAM



EXPLODED VIEW



WARNING:
 Parts marked with this symbol ⚠ have critical characteristics.
 Use ONLY replacement parts recommended by the manufacturer.

PARTS LIST OF EXPLODED VIEW

*Parts indicated by "nsp" on this table cannot be supplied.

*P.W.B. ASS'Y indicated by "nsp" on this table cannot be supplied. When repairing the P.W.B. ASS'Y, check the board parts list and order replacement parts.

*Parts indicated by the "★" mark are not illustrated in the exploded view.

*The parts listed below are only for maintenance. Therefore they might differ from the parts used in the unit in appearances or dimensions.

Note: The symbols in the column "Remarks" indicate the following destinations.

E3 : U.S.A. & Canada model

E2 : Europe model

E1C : China model

EA : Australia model

BK : Black model

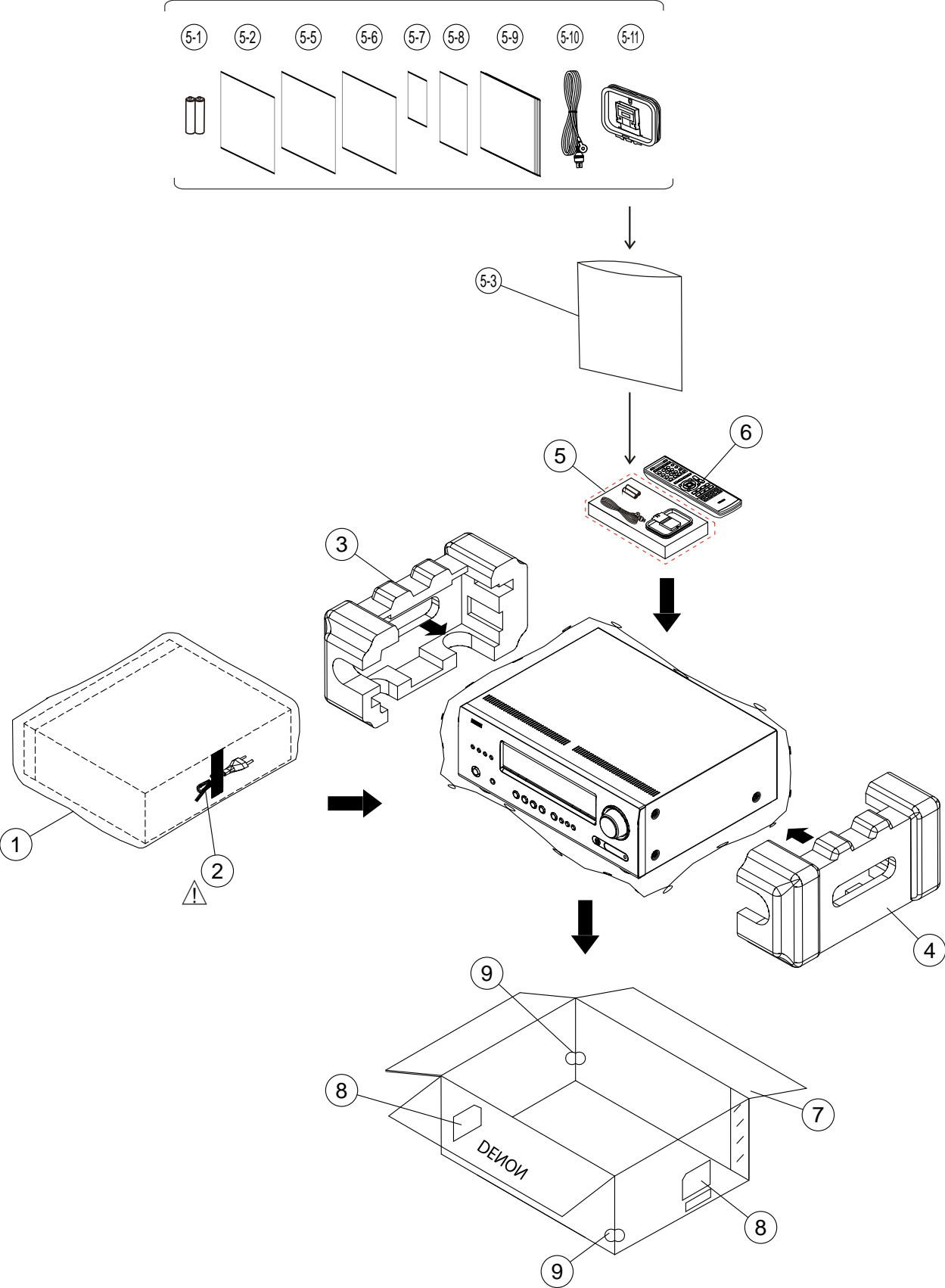
SP : Premium Silver model

Ref.No.	Part No.	Part Name	Remarks		Q'ty	New												
C3'	nsp	FRONT PCB ASS'Y	E3	COP12381G	1	*												
C3'	nsp	FRONT PCB ASS'Y	E2,EA,E1C	COP12381H	1	*												
C1	-	PORTABLE IN PCB																
C2	-	VOLUME PCB																
C3	-	FRONT PCB																
C4	-	HEADPHONE PCB																
C5	-	POWER PCB																
C7	-	REGULATOR PCB																
C9	-	WIRE SUPPORT																
C6'	nsp	MAIN PCB ASS'Y	E3	COP12396B	1	*												
C6'	nsp	MAIN PCB ASS'Y	E2,EA	COP12396C	1	*												
C6'	nsp	MAIN PCB ASS'Y	E1C	COP12396D	1	*												
C6	-	MAIN PCB																
C8	-	WIRE SUPPORT PCB																
C10	nsp	INPUT PCB ASS'Y	E3	COP12375B	1	*												
C10	nsp	INPUT PCB ASS'Y	E2,EA	COP12375C	1	*												
C10	nsp	INPUT PCB ASS'Y	E1C	COP12375D	1	*												
C11	943633012250D	HDMI PCB ASS'Y	E3	COP12376B	1	*												
<p>NOTE : Please change the destination-resistors when changing 1312E3 (943633012250D) to other destination. Please refer to destination-resistors page 60 . (SCHEMATIC DIAGRAMS : 6/7)</p> <table border="1"> <thead> <tr> <th></th> <th>R916</th> <th>R917</th> </tr> </thead> <tbody> <tr> <td>1312 E3</td> <td>10K</td> <td>4.7K</td> </tr> <tr> <td>1312 E2/EA</td> <td>10K</td> <td>OPEN</td> </tr> <tr> <td>1312 E1C</td> <td>10K</td> <td>10K</td> </tr> </tbody> </table>								R916	R917	1312 E3	10K	4.7K	1312 E2/EA	10K	OPEN	1312 E1C	10K	10K
	R916	R917																
1312 E3	10K	4.7K																
1312 E2/EA	10K	OPEN																
1312 E1C	10K	10K																
C12	nsp	AC CORD BUSHING	E3,E1C	CHR1A028	1													
C13	00MYJ04002640	AC RECEPTACLE (15A/250V,R-301,B21)	E2,EA	CJJ8A006ZW	1													
△	C14	943101009640D	TRANS POWER	E3	CLT5U042YU	1												
△	C14	943101009650D	TRANS POWER	E2,EA	CLT5U042YE	1												
△	C14	943101009660D	TRANS POWER	E1C	CLT5U042YH	1												
△	C15	90M-YC000780R	POWER CORD	E3	CJA523FBYA	1												
△	C15	90M-ZC000320R	POWER CORD	E2	CJA2B054Z	1												
△	C15	90M-ZC000430R	POWER CORD	EA	HJA2S084Z	1												
△	C15	90M-YC000850R	POWER CORD	E1C	CJA2N047ZA	1												
P1	943412009840D	VOLUME KNOB	BK	CBN1A249	1													
P1	943412009850D	VOLUME KNOB	SP	CBN1A249C73	1													
P2	943419100020D	RCA COVER	BK	CGR1A510B28	1	*												

Ref.No.	Part No.	Part Name	Remarks		Q'ty	New	
	P2	943419100030D	RCA COVER	SP	CGR1A510G45	1	*
	P3	943402012270D	FRONT PANEL	BKE2,BKEA	CGW1A510B28Y	1	*
	P3	943402012260D	FRONT PANEL	BKE3	CGW1A510B28Z	1	*
	P3	943402100040D	FRONT PANEL	BKE1C	CGW1A510B28W	1	*
	P3	943402012280D	FRONT PANEL	SPE1C	CGW1A510RGG45X	1	*
	P4	943411012470D	5KEY BUTTON	BK	CBT1A1153B28Z	1	*
	P4	943411012480D	5KEY BUTTON	SP	CBT1A1153G45Z	1	*
	P5	943411012510D	3KEY B BUTTON	BK	CBT1A1155B28Z	1	*
	P5	943411012520D	3KEY B BUTTON	SP	CBT1A1155G45Z	1	*
	P6	00D9630365002	WINE 3KEY BUTTON	BK	CBT1A1140B28	2	
	P6	00D9630365301	WINE 3KEY BUTTON	SP	CBT1A1140G45	2	
	P7	nsp	EARTH AUX		CMC1A421	1	*
	P8	00D9430202902	FOOT CUSHION		CHG2A289	4	
	P9	943407100020D	FOOT		CKL1A190	4	*
	P10	nsp	RUBBER		CHG1A113	2	
	P11	943416012530D	WINDOW FL		CGU1A459Z	1	*
	P12	00D9630362109	DENON BADGE(BLACK049)	BK	CGB1A140U	1	
	P12	00D9630362202	DENON BADGE(SILVER052)	SP	CGB1A140T	1	
	P13	00D9630137807	STANDBY LENS		CGL1A289	1	
	P14	943411009860D	BUTTON STANDBY ASS'Y	BK	CBT1A1141ZA	1	
	P14	943411009870D	BUTTON STANDBY ASS'Y	SP	CBT1A1141YA	1	
	P15	943411012490D	4KEY BUTTON	BK	CBT1A1154B28	1	*
	P15	943411012500D	4KEY BUTTON	SP	CBT1A1154G45	1	*
	P20	nsp	HOLDER,PCB		CHE2A030	2	
	M1	nsp	BOTTOM CHASSIS		CUA1A328	1	*
	M2	nsp	PCB BRACKET		CMD1A417	2	
	M3	nsp	HEAT SINK		CMY1A370	1	*
	M4	nsp	PCB BRACKET		CMD1A774	2	
	M5	nsp	REAR PANEL	E3	CKF1A446Z	1	*
	M5	nsp	REAR PANEL	E1C	CKF2A446Z	1	*
	M5	nsp	REAR PANEL	E2,EA	CKF3A446Z	1	*
	M6	00M07BW257010	TOP CABINET	BK	CKC2A155K117	1	
	M6	943403002040M	TOP CABINET	SP	CKC2A155D11	1	
	★ H1	943606500030S	CARD CABLE (13P 1.25mm 100mm rev.)		CWC4C4A13B100B	1	*
	★ H2	943606500040S	CARD CABLE (23P 1.25mm 220mm rev.)		CWC4C4A23B220B10S	1	*
	★ H3	943606500050S	CABLE,CARD (23P 1.0mm 80mm rev.)		CWC4F4A23A080B08	1	*
SCREWS							
	S1	nsp	SCREW,SPECIAL		CHD1A012R	17	
	S2	nsp	SCREW		CTWS3+10GR	2	
	S3	nsp	SCREW		CTB3+6JR	1	
	S4	nsp	SCREW		CTB3+10JR	21	
	S5	nsp	SCREW		CTBD3+8JFZR	18	
	S6	nsp	SCREW	BK	CTBD4+8JFZR	6	
	S6	nsp	SCREW	SP	CTBD4+8JFN	6	
	S7	nsp	SCREW		CTBD3+6FFZR	12	
	S8	nsp	SCREW		CTW3+8JR	14	

	Ref.No.	Part No.	Part Name	Remarks		Q'ty	New
	S9	nsp	SCREW		CTW3+18JR	2	
	S10	nsp	SCREW,TRANS		CHD2A023R	4	
	S11	nsp	SCREW		CTB3+8JR	8	
	S12	nsp	SCREW	BK	CTB3+8JFZR	5	
	S12	nsp	SCREW	SP	CTB3+8JFN	5	
	S13	nsp	SCREW	BK	CTBD3+8JFZR	3	
	S13	nsp	SCREW	SP	CTBD3+8JFN	3	
	S14	nsp	SCREW		CTB3+6FR	4	

PACKING VIEW (for AVR-1312)



PARTS LIST OF PACKING & ACCESSORIES (for AVR-1312)

*Parts indicated by "nsp" on this table cannot be supplied.

*Parts indicated by the "★" mark are not illustrated in the exploded view.

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Note: The symbols in the column "Remarks" indicate the following destinations.

E3 : U.S.A. & Canada model

E2 : Europe model

E1C : China model

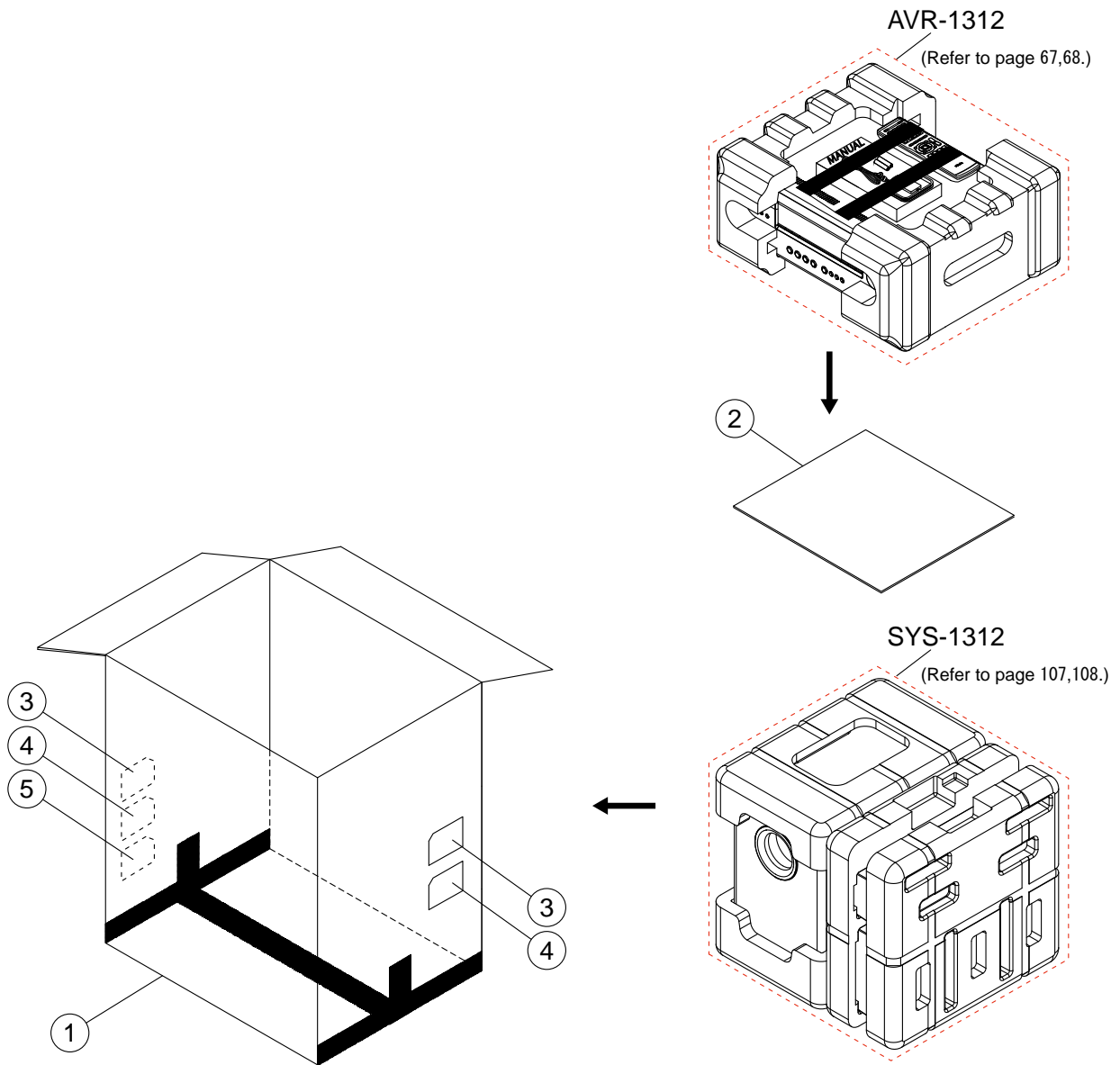
EA : Australia model

BK : Black model

SP : Premium Silver model

Ref.No.	Part No.	Part Name	Remarks		Q'ty	New	
1	nsp	POLY BAG		CPP1A081X	1		
△	2	90M-YC000780R	POWER CORD	E3	CJA523FBYA	1	
△	2	90M-ZC000320R	POWER CORD	E2	CJA2B054Z	1	
△	2	90M-ZC000430R	POWER CORD	EA	HJA2S084Z	1	*
△	2	90M-YC000850R	POWER CORD	E1C	CJA2N047ZA	1	
	3	943533012540D	SNOW PAD(L)		CPS1A909	1	*
	4	943533100040D	SNOW PAD(R)		CPS1A910	1	*
	5	-	INSTRUCTION MANUAL ASS'Y				
	5-1	nsp	BATTERY(AAA)		CABR03PPB	2	
	5-2	352010015007D	INST. MANUAL(E3 CD-ROM)	E3	CFTAVR1312ZA	1	*
	5-2	352010016000D	INST. MANUAL(E2 CD-ROM)	E2,EA	CFTAVR1312YA	1	*
	5-2	352010035001D	INST. MANUAL(E1C CD-ROM)	E1C	CFTAVR1312XA	1	*
	5-3	nsp	POLY BAG(MANUAL)		CPB1A197Z	1	
	★ 5-4	nsp	BARCODE LABEL(MANUAL)		CQB1A971	1	
	5-5	nsp	S.S LIST		CQE1A226P	1	
	5-6	nsp	WARRANTY CARD	E3	CQE1A224R	1	
	5-7	nsp	CARD FOR CHINA IDENTIFICATION	E1C	CQE1A450Z	1	
	5-8	nsp	WARRANTYCARD CHINA	E1C	CQE1A473Z	1	
	5-9	542110051003D	QUICK MANUAL(E3)	E3	CQX1A1612Z	1	*
	5-9	542110052006D	QUICK MANUAL(E2)	E2,EA	CQX1A1612Y	1	*
	5-9	542110061000D	QUICK MANUAL(E1C)	E1C	CQX1A1612X	1	*
	5-10	90M-ZA000230R	FM 1 POLANT(UL)	E3	CSA1A019Z	1	
	5-10	00D9430113403	FM 1 POLE ANT.	BKE2,EA,E1C	CSA1A018Z	1	
	5-11	943116009500S	AM LOOP ANT		CSA1A032Z	1	
	6	307010089008D	REMOCONASS'Y(RC-1158)		CARTAVR1312	1	*
	7	943531012550D	OUTCARTON BOX	E3,BKE1C	CPG1A942Z	1	*
	7	943531012560D	OUTCARTON BOX	E2,EA	CPG1A942Y	1	*
	7	943531100020D	OUTCARTON BOX	SPE1C	CPG1A942X	1	*
	8	nsp	CONTROL LABEL		CQB1A993Z	1	
	9	nsp	COLOR LABEL	SPE1C	CQB1A676	2	
	★ 10	nsp	ANGLE SIDEBAR		CPW1A011	1	
	★ 11	nsp	CLAMPER ARM		CHE154	1	
	★ 12	nsp	LABEL BARCODE(SET)		CQB1A978	1	
	★ 13	nsp	PALLET		CPW1A043	1	
	★ 14	nsp	PESHEET		CPE1D001	1	
	★ 15	nsp	RIBON BARCODE		CQS1A001	1	

PACKING VIEW (for DHT-1312XP)



PARTS LIST OF PACKING & ACCESSORIES (for DHT-1312XP)

*Parts indicated by "nsp" on this table cannot be supplied.

*Parts indicated by the "★" mark are not illustrated in the exploded view.

*The parts listed below are only for maintenance. Therefore they might differ from the parts used in the unit in appearances or dimensions.

Note: The symbols in the column "Remarks" indicate the following destinations.

E3 : U.S.A. & Canada model

E2 : Europe model

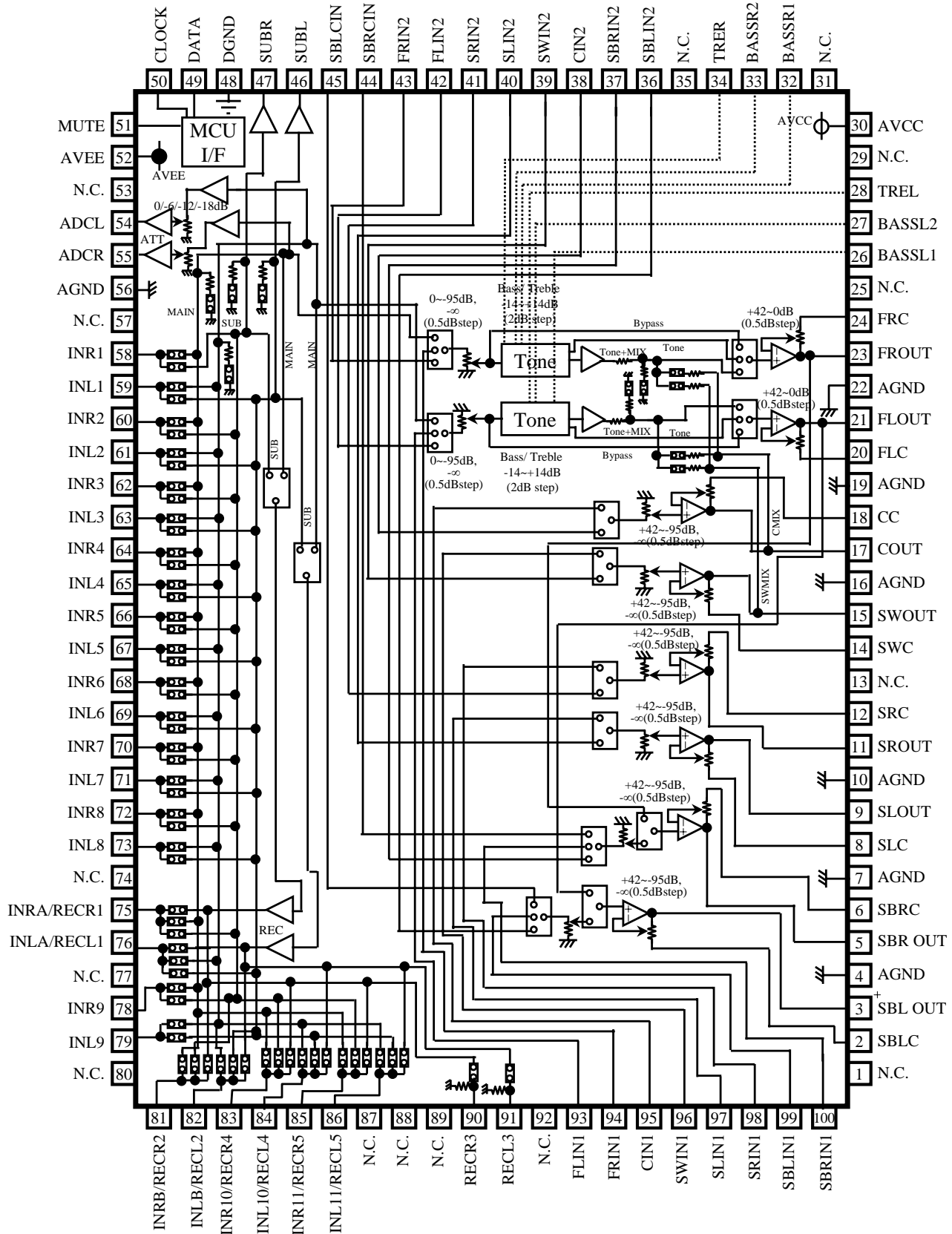
Ref.No.	Part No.	Part Name	Remarks	Q'ty	New
1	943531101920D	OUTCARTON BOX	CPG1A957	1	*
2	943537100190D	PAD BOX	CPG1A958	1	*
3	nsp	CONTROL LABEL	DHT1312XPE3,E2 CQB1A993Z	1	
4	nsp	CONTROL LABEL	SYS1312 CQB1A1076Z	1	
5	nsp	ATCM LABEL	DHT1312XPE3 CQB1A1077Z	1	
★ 6	54111074000AD	INST.MANUAL SYS1312	SYS1312 CQX1A1628Z	1	*

SEMICONDUCTORS

Only major semiconductors are shown. General semiconductors etc. are omitted from list.
The semiconductors which have a detailed drawing in a schematic diagram are omitted from list.

1. IC's

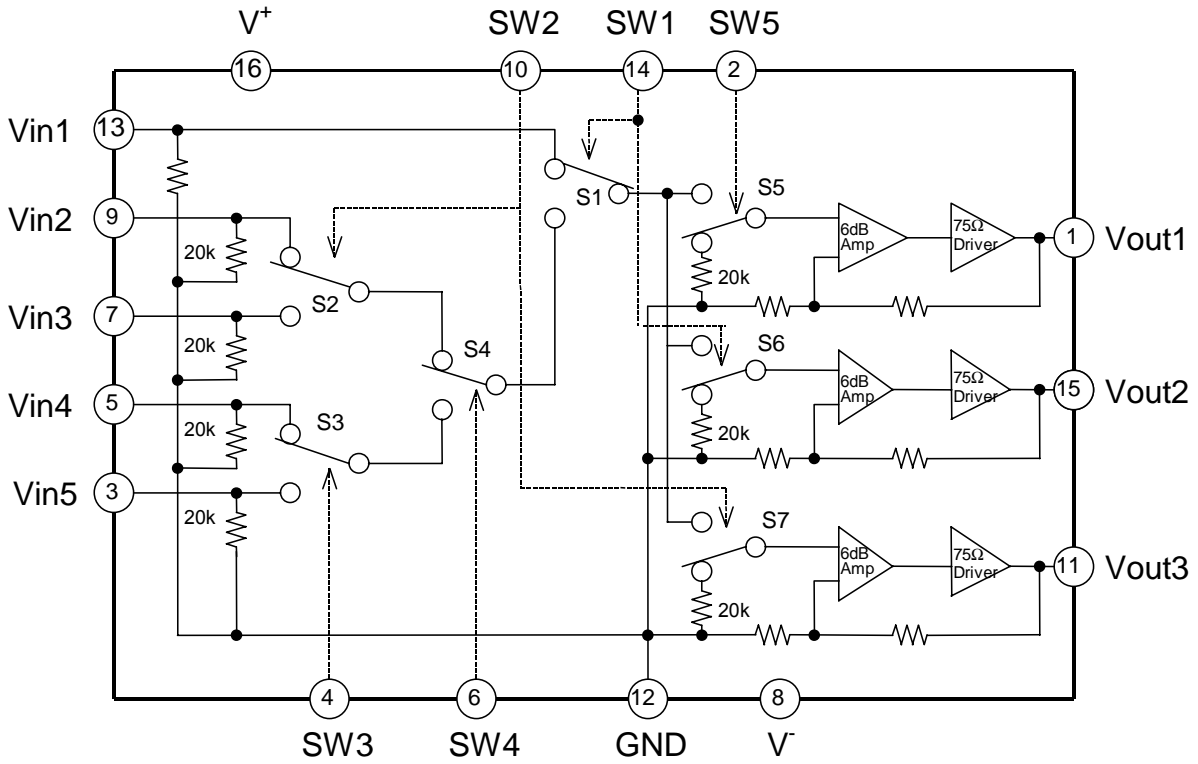
R2A15218FP (INPUT :IC61)



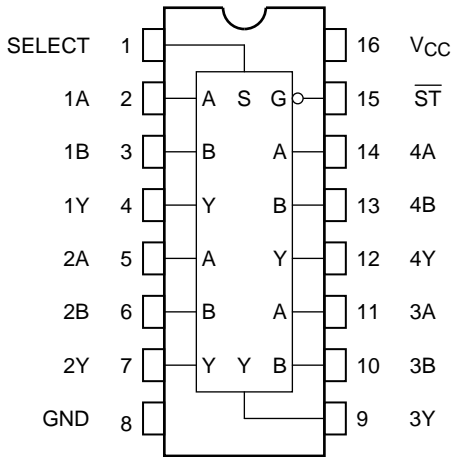
R2A15218FP Terminal Functions

PIN No.	Name	Function
23,21, 17,15, 11,9, 5,3	FROUT,FLOUT, COUT,SWOUT, SROUT, SLOUT, SBROUT,SBLOUT	Output pin of FL/FR/C/SW/SL/SR/SBL/SBR channel
24,20, 18,14, 12,8, 6,2	FRC,FLC, CC,SWC, SRC,SLC, SBRC,SBLC	Connects capacitor for reducing click noise of L/R/C/SW/SL/SR/SBL/SBR channel volume
4,7,10,16, 19,22,56	AGND	Analog ground of internal circuit
28,34	TREL, TRER	Frequency characteristic setting pin of L/R channel tone control (Treble)
26,27, 32,33	BASSL1,BASSL2 BASSR1,BASSR2	Frequency characteristic setting pin of L/R channel tone control (Bass)
30	AVCC	Positive power supply to internal circuit
43,42, 41,40, 39,38, 37,36	FRIN2, FLIN2, SRN2,SLIN2, SWIN2,CIN2, SBRIN2,SBLIN2	Input pin of L/R/C/SW/SL/SR/SBL/SBR channel (Multi IN 1/2)
93,94, 95,96, 97,98, 99,100	FLIN1, FRIN1, CIN1,SWIN1, SLIN1,SRIN1, SBLIN1,SBRIN1	
48	DGND	Digital ground of internal circuit
49	DATA	Input pin of control data
50	CLOCK	Input pin of control clock
52	AVEE	Negative power supply to internal circuit
59,61,63, 65,67,69, 71,73,79	INL1,INL2, INL3, INL4,INL5,INL6, INL7,INL8,INL9	Input pin of L/R channel (Input Selector)
58,60,62, 64,66,68, 70,72,78	INR1,INR2, INR3, INR4,INR5,INR6, INR7,INR8,INR9	
51	MUTE	Outside Mute Control PIN
44,45	SBRCIN,SBLCIN	Input pin for SBL/SBR channel Volume
46,47	SUBL,SUBR	Output pin for L/R channel SUB Output
54,55	ADCL, ADCR	Output pin for L/R channel ADC
90,91	RECR3,RECL3	Output pin for L/R channel REC Output
75,76, 81,82, 83,84, 85,86	INRA/RECR1,INLA/RECL1, INRB/RECR2,INLB/RECL2, INR10/RECR4,INL10/RECL4, INR11/RECR5,INL11/RECL5	Input pin of L/R channel (Input Selector)/ Output pin for L/R channel REC Output
1,13,25,29,31, 35,53, 57,74,77,80, 87,88,89,92	N.C.	No Connected PIN

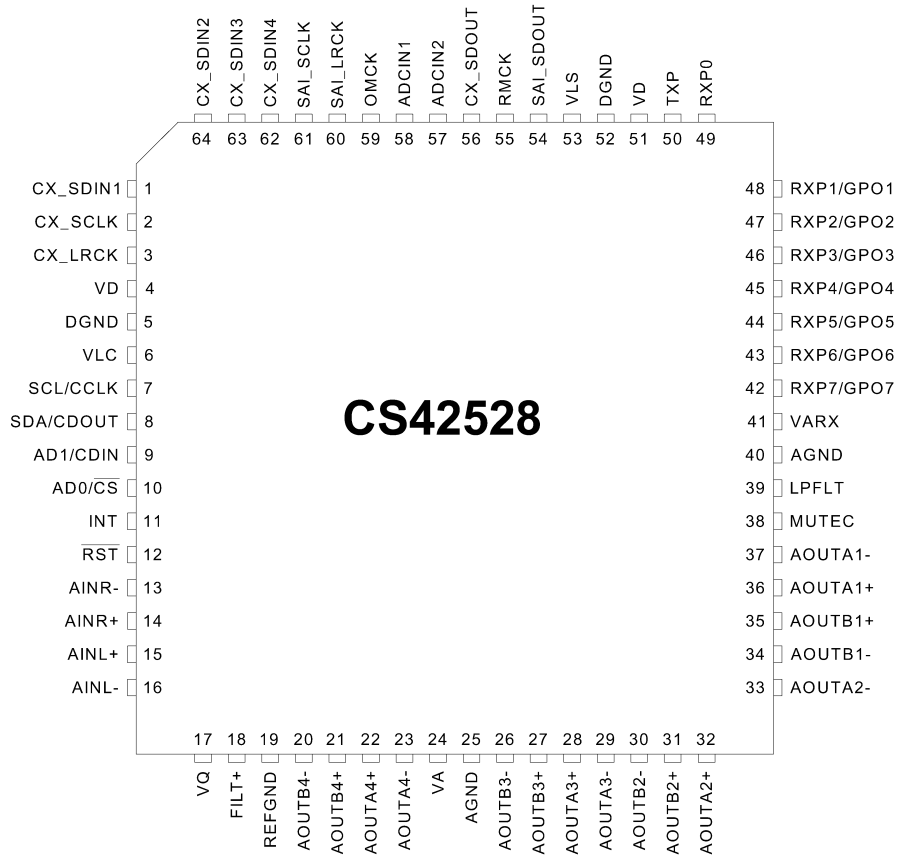
NJM2595M (INPUT : IC71)



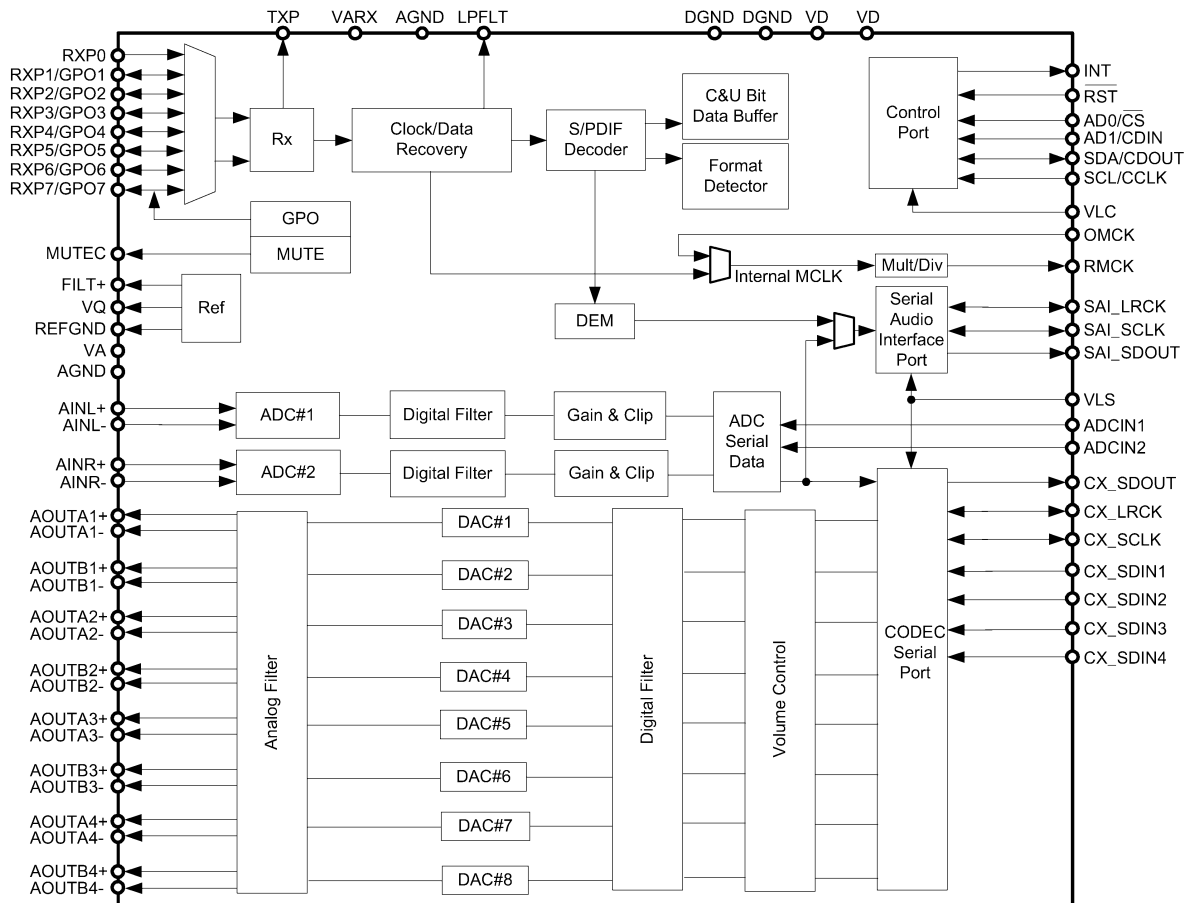
TC74VHC157FT (INPUT : IC85)



CS42528 (INPUT : IC84)



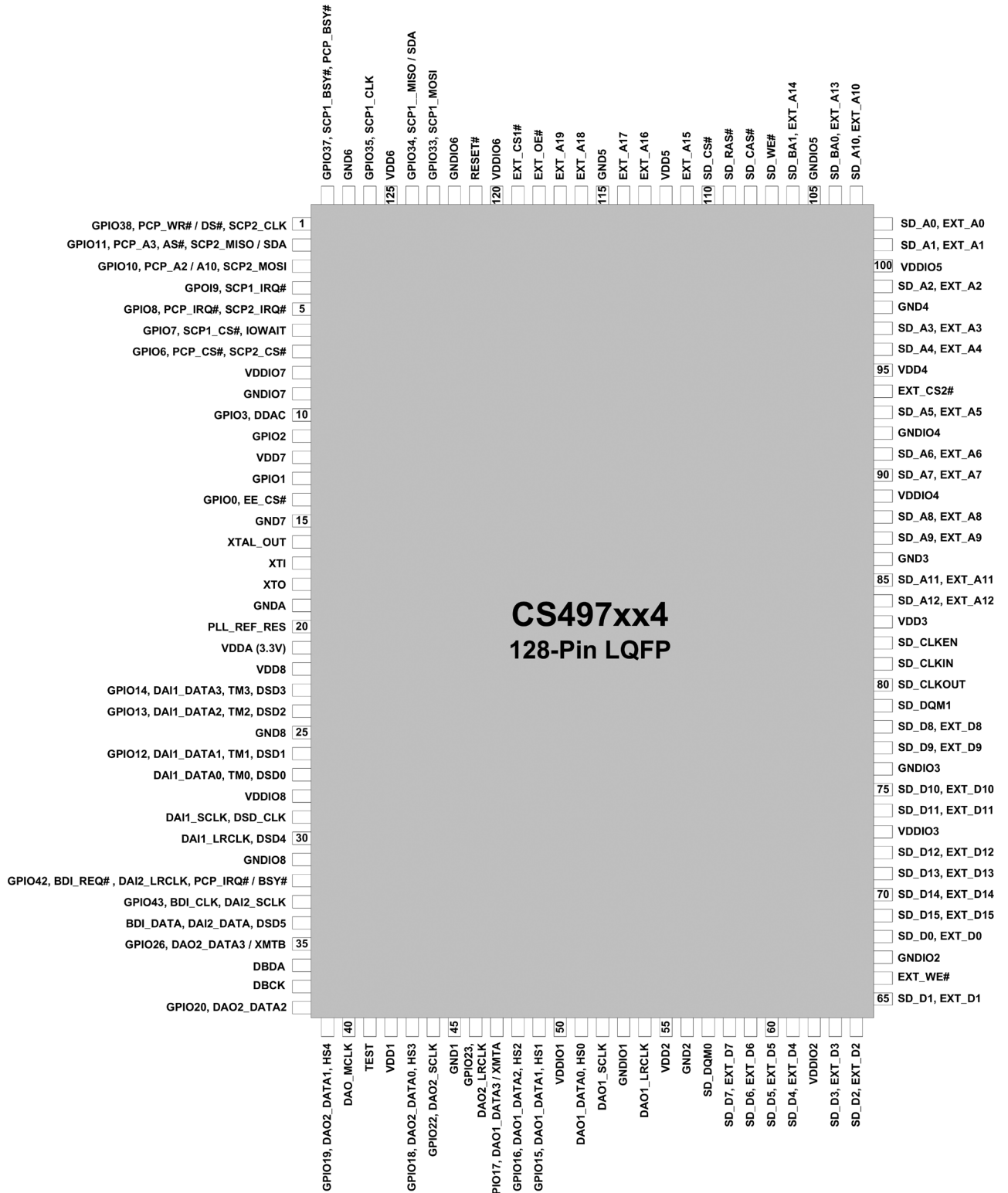
CS42528 Block diagram



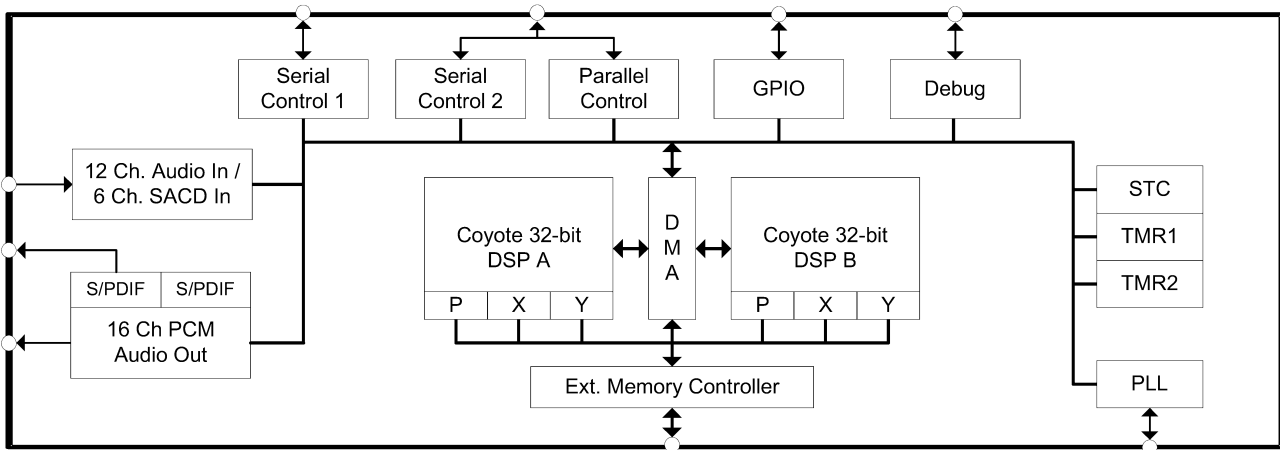
CS42528 Terminal Functions

INT	11	Interrupt (Output) - The CS42528 will generate an interrupt condition as per the Interrupt Mask register. See “Interrupts” on page 40 for more details.
$\overline{\text{RST}}$	12	Reset (Input) - The device enters a low power mode and all internal registers are reset to their default settings when low.
AINR- AINR+	13 14	Differential Right Channel Analog Input (Input) - Signals are presented differentially to the delta-sigma modulators via the AINR+/- pins.
AINL+ AINL-	15 16	Differential Left Channel Analog Input (Input) - Signals are presented differentially to the delta-sigma modulators via the AINL+/- pins.
VQ	17	Quiescent Voltage (Output) - Filter connection for internal quiescent reference voltage.
FILT+	18	Positive Voltage Reference (Output) - Positive reference voltage for the internal sampling circuits.
REFGND	19	Reference Ground (Input) - Ground reference for the internal sampling circuits.
AOUTA1 +,- AOUTB1 +,- AOUTA2 +,- AOUTB2 +,- AOUTA3 +,- AOUTB3 +,- AOUTA4 +,- AOUTB4 +,-	36,37 35,34 32,33 31,30 28,29 27,26 22,23 21,20	Differential Analog Output (Output) - The full-scale differential analog output level is specified in the Analog Characteristics specification table.
VA VARX	24 41	Analog Power (Input) - Positive power supply for the analog section.
AGND	25 40	Analog Ground (Input) - Ground reference. Should be connected to analog ground.
MUTE_C	38	Mute Control (Output) - The Mute Control pin outputs high impedance following an initial power-on condition or whenever the PDN bit is set to a ‘1’, forcing the codec into power-down mode. The signal will remain in a high impedance state as long as the part is in power-down mode. The Mute Control pin goes to the selected “active” state during reset, muting, or if the master clock to left/right clock frequency ratio is incorrect. This pin is intended to be used as a control for external mute circuits to prevent the clicks and pops that can occur in any single supply system. The use of external mute circuits are not mandatory but may be desired for designs requiring the absolute minimum in extraneous clicks and pops.
LPFLT	39	PLL Loop Filter (Output) - An RC network should be connected between this pin and ground.
RXP7/GPO7 RXP6/GPO6 RXP5/GPO5 RXP4/GPO4 RXP3/GPO3 RXP2/GPO2 RXP1/GPO1	42 43 44 45 46 47 48	S/PDIF Receiver Input/ General Purpose Output (Input/Output) - Receiver inputs for S/PDIF encoded data. The CS42528 has an internal 8:2 multiplexer to select the active receiver port, according to the Receiver Mode Control 2 register. These pins can also be configured as general purpose output pins, ADC Overflow indicators or Mute Control outputs according to the RXP/General Purpose Pin Control registers.
RXP0	49	S/PDIF Receiver Input (Input) - Dedicated receiver input for S/PDIF encoded data.
TXP	50	S/PDIF Transmitter Output (Output) - S/PDIF encoded data output, mapped directly from one of the receiver inputs as indicated by the Receiver Mode Control 2 register.
VLS	53	Serial Port Interface Power (Input) - Determines the required signal level for the serial port interfaces.
SAI_SDOUT	54	Serial Audio Interface Serial Data Output (Output) - Output for two's complement serial audio PCM data from the S/PDIF incoming stream. This pin can also be configured to transmit the output of the internal and external ADCs.
RMCK	55	Recovered Master Clock (Output) - Recovered master clock output from the External Clock Reference (OMCK, pin 59) or the PLL which is locked to the incoming S/PDIF stream or CX_LRCK.
CX_SDOUT	56	CODEC Serial Data Output (Output) - Output for two's complement serial audio data from the internal and external ADCs.
ADCIN1 ADCIN2	58 57	External ADC Serial Input (Input) - The CS42528 provides for up to two external stereo analog to digital converter inputs to provide a maximum of six channels on one serial data output line when the CS42528 is placed in One-Line Mode.
OMCK	59	External Reference Clock (Input) - External clock reference that must be within the ranges specified in the register “OMCK Frequency (OMCK Freqx)” on page 53.
SAI_LRCK	60	Serial Audio Interface Left/Right Clock (Input/Output) - Determines which channel, Left or Right, is currently active on the serial audio data line.
SAI_SCLK	61	Serial Audio Interface Serial Clock (Input/Output) - Serial clock for the Serial Audio Interface.

CS497024CVZ (INPUT : IC81)

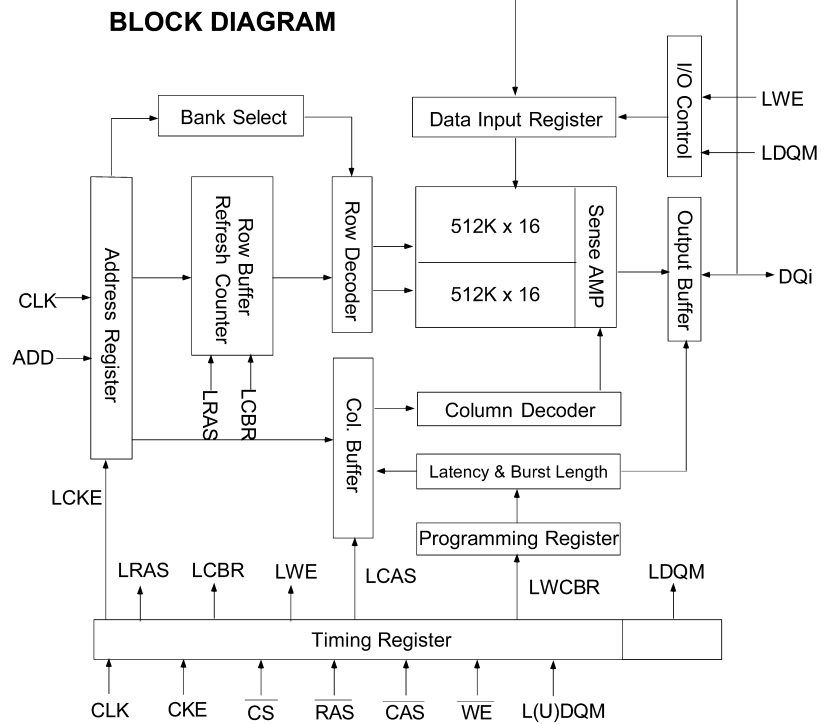


CS497024CVZ Block diagram



M12L16161A5TG (INPUT : IC83)

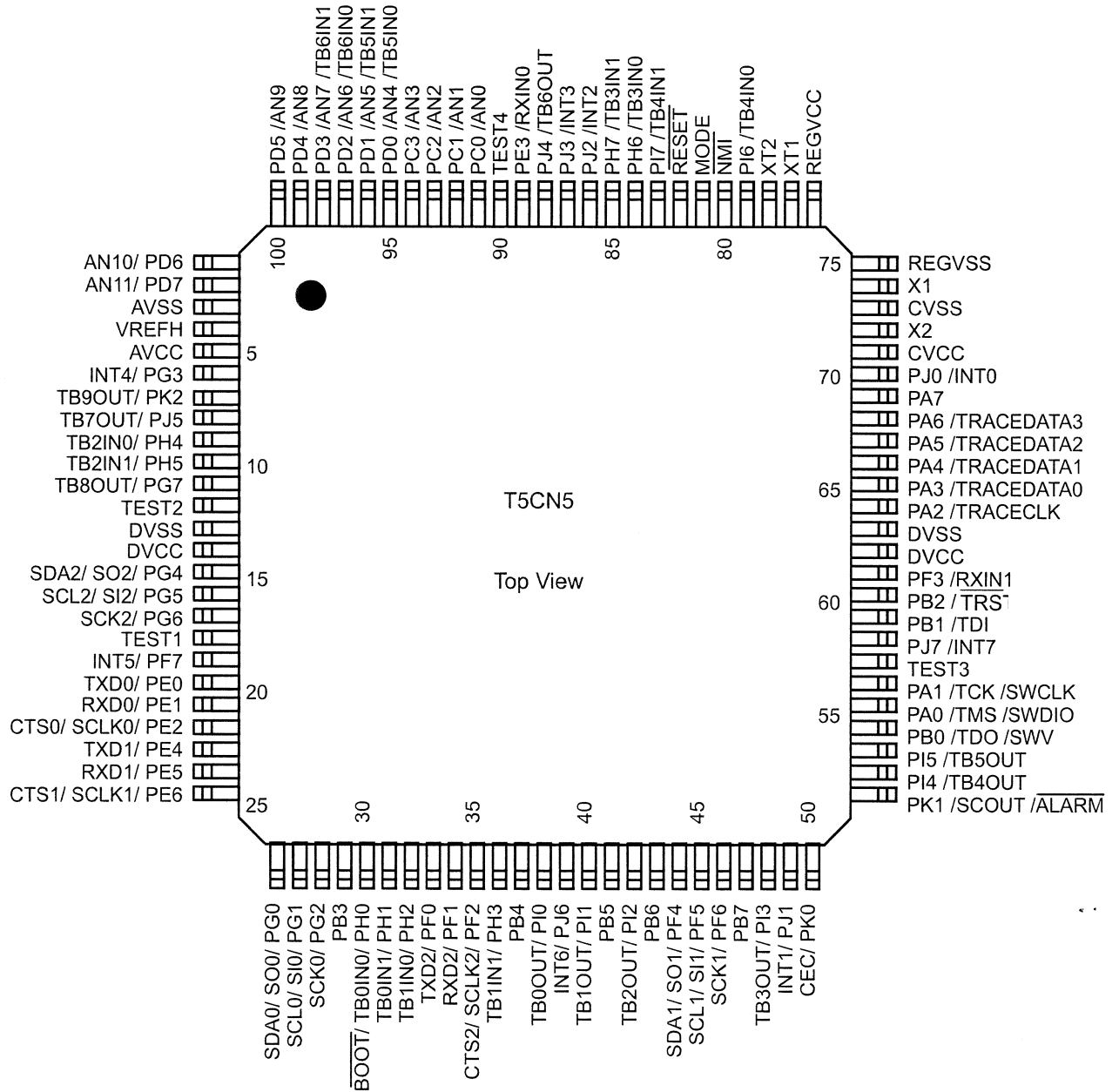
VDD	1	50	VSS
DQ0	2	49	DQ15
DQ1	3	48	DQ14
VSSQ	4	47	VSSQ
DQ2	5	46	DQ13
DQ3	6	45	DQ12
VDDQ	7	44	VDDQ
DQ4	8	43	DQ11
DQ5	9	42	DQ10
VSSQ	10	41	VSSQ
DQ6	11	40	DQ9
DQ7	12	39	DQ8
VDDQ	13	38	VDDQ
LDQM	14	37	N.C/RFU
WE	15	36	UDQM
CAS	16	35	CLK
RAS	17	34	CKE
CS	18	33	N.C
BA	19	32	A9
A10/AP	20	31	A8
A0	21	30	A7
A1	22	29	A6
A2	23	28	A5
A3	24	27	A4
VDD	25	26	VSS



PIN FUNCTION DESCRIPTION

Pin	Name	Input Function
CLK	System Clock	Active on the positive going edge to sample all inputs.
CS	Chip Select	Disables or enables device operation by masking or enabling all inputs except CLK, CKE and L(U)DQM.
CKE	Clock Enable	Masks system clock to freeze operation from the next clock cycle. CKE should be enabled at least one cycle prior to new command. Disable input buffers for power down in standby.
A0 ~ A10/AP	Address	Row / column addresses are multiplexed on the same pins. Row address : RA0 ~ RA10, column address : CA0 ~ CA7
BA	Bank Select Address	Selects bank to be activated during row address latch time. Selects bank for read/write during column address latch time.
RAS	Row Address Strobe	Latches row addresses on the positive going edge of the CLK with RAS low. Enables row access & precharge.
CAS	Column Address Strobe	Latches column addresses on the positive going edge of the CLK with CAS low. Enables column access.
WE	Write Enable	Enables write operation and row precharge. Latches data in starting from CAS, WE active.
L(U)DQM	Data Input / Output Mask	Makes data output Hi-Z, tSHZ after the clock and masks the output. Blocks data input when L(U)DQM active.

T5CN5 (INPUT : IC91)



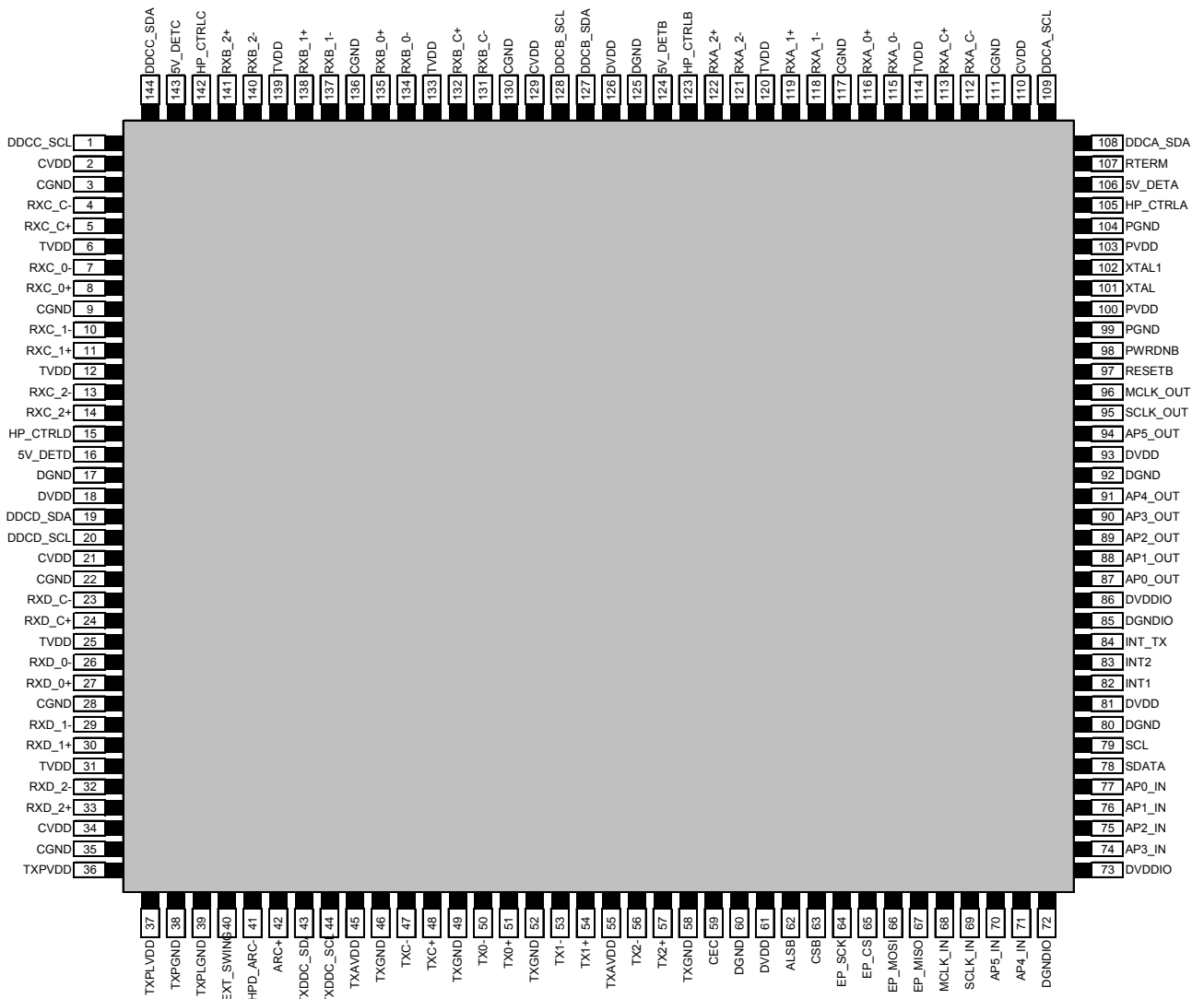
T5CN5 Terminal Functions

Pin	Pin Name	Symbol	TOLERANT	Nch	I/O	Type	Pullup	LvCnv	STBY	stop	Function
1	AN10/PD6	PROTECT	-	-	I	-	M3VPu	-	I	I	Protection detection pin
2	AN11/PD7	HDMIOST_MISI	-	-	I	-	-	-	I	O/L	DATA input pin for HDMI OST
3	AVSS	AVSS	-	-	-	-	-	-	-	-	Fixed GND
4	VREFH	VREFH	-	-	-	-	-	-	-	-	3.3V
5	AVCC	AVCC	-	-	-	-	-	-	-	-	3.3V
6	INT4/PG3	POWER_DOWN	-	-	I	-	M3VPu	-	I	I	Power Down detection pin
7	TB9OUT/PK2	FRONT_RLY	-	-	O	-	-	-	O/L	O/L	Front SP RLY control pin
8	TC7OUT/PJ5	SURR_RLY	-	-	O	-	-	-	O/L	O/L	Surround SP RLY control pin/Center SP RLY control pin
9	TB2IN0/PH4	LIMIT	-	-	O	-	-	-	O/L	O/L	Current LIMIT
10	TB2IN1/PH5	HP_RLY	-	-	O	-	-	-	O/L	O/L	H/P RLY control pin
11	TB8OUT/PG7	DAC_MUTE	-	-	O	-	-	-	O/L	O/L	DAC Mute control pin
12	TEST2	TEST2	-	-	-	-	-	-	-	-	OPEN
13	DVSS	DVSS	-	-	-	-	-	-	-	-	Fixed GND
14	DVCC	DVCC	-	-	-	-	-	-	-	-	3.3V
15	SDA2/SO2/PG4	POWER_ON	-	-	O	-	-	-	O/L	O/L	Power RELAY control pin
16	SCL2/SI2/PG5	CVBS_SW3	-	-	O	-	-	-	O/L	O/L	CVBS(Video) SW3 control pin

Pin	Pin Name	Symbol	TOLERANT	Nch	I/O	Type	Pullup	LvCnv	STBY	stop	Function
17	SCK2/PG6	SB_MUTE	-	-	O	-	-	-	O/L	O/L	Surround Back Mute control pin
18	TEST1	TEST1	-	-	-	-	-	-	-	-	OPEN
19	INT5/PF7	REMOTE_IN	-	-	I	-	-	-	I	O/L	REMOTE input pin
20	TXD0/PE0	TXD0	-	-	O	-	M3VPu	-	O/L	O/L	UPDATE TX pin
21	RXD0/PE1	RXD0	-	-	I	-	M3VPu	-	I	O/L	UPDATE RX pin
22	CTS0/SCLK0/PE2	SUB MUTE	-	-	O	-	-	-	O/L	O/L	Sub Woofer MUTE pin
23	TXD1/PE4	HDMI_TX	-	-	O	-	-	-	O/L	O/L	HDMI DEBUG TX pin
24	RXD1/PE5	HDMI_RX	-	-	I	-	-	-	I	O/L	HDMI DEBUG RX pin
25	CST1/SCLK1/PE6	HDMIOST_MISO	-	-	O	-	-	-	O/L	O/L	DATA output pin for HDMI OST
26	SDA0/SO0/PG0	INT_TX	-	-	I	-	+3VHPu	-	I	O/L	HDMI INT TX interrupt
27	SCL0/SI0/PG1	CVBS_SW2	-	-	O	-	-	-	O/L	O/L	CVBS(Video) SW2 control pin
28	SCK0/PG2	HDMIOST_CLK	-	-	O	-	-	-	O/L	O/L	Clock pin for HDMI OST
29	PB3	HDMI_RST	-	-	O	-	-	-	O/L	O/L	HDMI Reset control pin
30	BOOT/TB0IN0/PH0	/BOOT	-	-	I	-	M3VPu	-	I	O/L	Update Boot (At Update: Low)
31	TB0IN1/PH1	MAIN_VOL_MUTE	-	-	O	-	-	-	O/L	O/L	Volume Mute control pin
32	TB1IN0/PH2	TUNER_RST	-	-	O	-	-	-	O/L	O/L	TUNER Reset control pin
33	TXD2/PF0	IPOD_TX	-	-	O	-	-	-	O/L	O/L	iPod DOCK TX communication line
34	RXD2/PF1	IPOD_RX	-	-	I	-	-	-	I	O/L	iPod DOCK RX communication line
35	CTS2/SCLK2/PF2	INT_RX	-	-	I	-	+3VHPu	-	I	O/L	HDMI INT interrupt
36	TB1IN1/PH3	INT2_RX	-	-	I	-	+3VHPu	-	I	O/L	HDMI INT2 intreeupt
37	PB4	MAIN_VOL_DATA	-	-	O	-	-	-	O/L	O/L	Volume Data line
38	TB0OUT/PI0	MAIN_VOL_CLK	-	-	O	-	-	-	O/L	O/L	Volume CLK line
39	INT6/PJ6	WAKE_UP	-	-	I	-	M3VPu	-	I	I	WAKE UP pin
40	TB1OUT/PI1	TUNER_CE	-	-	O	-	-	-	O/L	O/L	TUNER CE pin
41	PB5	COMPO_SW2	-	-	O	-	-	-	O/L	O/L	COMPO_(Video) SW2 control pin
42	TB2OUT/PI2	HDMI_SDA	-	-	I/O	-	-	-	O/L	O/L	HDMI SDATA
43	PB6	HDMI_SCL	-	-	O	-	-	-	O/L	O/L	HDMI SCL
44	SDA1/SO1/PF4	TUNER_SDIO	-	-	I/O	-	-	-	O/L	O/L	TUNER SDIO
45	SCL1/SI1/PF5	TUNER_SCLK	-	-	O	-	-	-	O/L	O/L	TUNER SCLK
46	SCK1/PF6	HDMIOST_CS	-	-	O	-	+3VHPu	-	O/L	O/L	Chip Select pin for HDMI OST
47	PB7	DIR_RST	-	-	O	-	-	-	O/L	O/L	DIR Reset
48	TB3OUT/PI3	DIR_CE	-	-	O	-	-	-	O/L	O/L	DIR Chip Select
49	INT1/PJ1	DIR_DOUT	-	-	I	-	-	-	O/L	O/L	DIR Output Data
50	CEC/PK0	COMPO_SW1	-	-	O	-	M3VPu	-	O/L	O/L	COMPO_(Video) SW1 control pin
51	PK1/SCOUT/ALARM	DSP_DIR_CLK	-	-	O	-	-	-	O/L	O/L	DSP_DIR_CLK
52	PI4/TB4OUT	DSP_DATA	-	-	I/O	-	-	-	O/L	O/L	DSP DATA
53	PI5/TB5OUT	DSP_CS	-	-	O	-	D3VPu	-	O/L	O/L	DSP Chip Select
54	PB0/TDO/SWV	DEBUG	-	-	O	-	M3VPu	-	O/L	O/L	MICOM DEBUG
55	PA0/TMS/SWDIO	DEBUG	-	-	O	-	M3VPu	-	O/L	O/L	MICOM DEBUG
56	PA1/TCK/SWCLK	DEBUG	-	-	I	-	-	-	O/L	O/L	MICOM DEBUG
57	TEST3	TEST3	-	-	-	-	-	-	-	-	OPEN
58	PJ7/INT7	DSP_DIR_DATA	-	-	O	-	-	-	O/L	O/L	DSP_DIR_DATA
59	PB1/TDI	DEBUG	-	-	O	-	M3VPu	-	-	-	MICOM DEBUG
60	PB2/TRS-	DEBUG	-	-	O	-	M3VPu	-	-	-	MICOM DEBUG
61	PF3/RXIN1	CVBS_SW4	-	-	O	-	-	-	O/L	O/L	CVBS(Video) SW4 control pin
62	DVCC	DVCC	-	-	-	-	-	-	-	-	3.3V
63	DVSS	DVSS	-	-	-	-	-	-	-	-	Fixed GND
64	PA2/TRACECLK	HDMI_SW	-	-	O	-	-	-	O/L	O/L	HDMI Audio Data MCLK Select SW
65	PA3/TRACEDATA0	CVBS_SW1	-	-	O	-	-	-	O/L	O/L	CVBS(Video) SW1 control pin
66	PA4/TRACEDATA1	DSP_RST	-	-	O	-	-	-	O/L	O/L	DSP Reset control pin
67	PA5/TRACEDATA2	DSP_MODE_SEL	-	-	I	-	-	-	O/L	O/L	DSP_MODE_SEL
68	PA6/TRACEDATA3	CODEC_MUTE	-	-	I/O	-	-	-	O/L	O/L	CODEC Mute Control control pin
69	PA7	HDMIOST_HOLD	-	-	O	-	+3VHPu	-	O/L	O/L	HOLD pin for HDMI OST
70	PJ0/INT0	TUNER_INT	-	-	I	-	-	-	I	O/L	TUNER INTERRUPT
71	CVCC	CVCC	-	-	-	-	-	-	-	-	3.3V
72	X2	XOUT	-	-	-	-	-	-	-	-	XOUT
73	CVSS	CVSS	-	-	-	-	-	-	-	-	Fixed GND
74	X1	XIN	-	-	-	-	-	-	-	-	XIN
75	REGVSS	REGVSS	-	-	-	-	-	-	-	-	Fixed GND
76	REGVCC	REGVCC	-	-	-	-	-	-	-	-	3.3V
77	XT1	NC	-	-	-	-	-	-	-	-	OPEN
78	XT2	NC	-	-	-	-	-	-	-	-	OPEN
79	PI6/TB4IN0	STANDBY_LED	-	-	O	-	-	-	O/L	O/L	2COLOR LED RED
80	NMI	NMI	-	-	-	-	M3VPu	-	-	-	
81	MODE	MODE	-	-	-	-	-	-	-	-	Fixed GND
82	RESET	RESET	-	-	I	-	-	-	-	-	RESET

Pin	Pin Name	Symbol	TOLERANT	Nch	I/O	Type	Pullup	LvCnv	STBY	stop	Function
83	PI7/TB4IN1	EEPROM_SCL	-	-	O	-	M3VPu	-	O/L	O/L	EEPROM SCL
84	PH6/TB3IN0	EEPROM_SDA	-	-	I/O	-	M3VPu	-	I	O/L	EEPROM SDA
85	PH7/TB3IN3	VFD_CLK	-	-	O	-	-	-	O/L	O/L	VFD_CLK
86	PJ2/INT2	VFD_CE	-	-	O	-	-	-	O/L	O/L	VFD_CE
87	PJ3/INT3	VFD_DATA	-	-	O	-	-	-	O/L	O/L	VFD_DATA
88	PJ4/TB6OUT	VFD_RST	-	-	O	-	-	-	O/L	O/L	VFE_RESET
89	PE3/RXIN0	STANDBY_LEDG	-	-	O	-	-	-	O/L	O/L	2COLOR LED GREEN
90	TEST4	TEST4	-	-	-	-	-	-	-	-	OPEN
91	PC0/AN0	KEY1	-	-	I	-	M3VPu	-	I	I	KEY1 input pin
92	PC1/AN1	KEY2	-	-	I	-	M3VPu	-	I	O/L	KEY2 input pin
93	PC2/AN2	KEY3	-	-	I	-	M3VPu	-	I	O/L	KEY3 input pin
94	PC3/AN3	VOL+	-	-	I	-	-	-	O/L	O/L	VOLUME UP
95	PD0/AN4/TB5IN0	VOL-	-	-	I	-	-	-	O/L	O/L	VOLUME DOWN
96	PD1/AN5/TB5IN1	HP_DET	-	-	I	-	M3VPu	-	O/L	O/L	H/P DETECT
97	PD2/AN6/TB6IN0	DSP_SPC1_IRQ	-	-	I	-	-	-	O/L	O/L	DSP INTERRUPTQ
98	PD3/AN7/TB6IN1	DSP_PCP_BSY	-	-	I	-	-	-	O/L	O/L	DSP BSY
99	PD4/AN8	iPod_DET	-	-	I	-	-	-	O/L	O/L	iPod_DETECT
100	PD5/AN9	OPTION	-	-	I	-	M3VPu	-	-	-	MODEL OPTION

ADV7623 (HDMI : IC11)



ADV7623 Terminal Functions

Location	Mnemonic	Type	Description
1	DDCC_SCL	Digital Input	HDCP slave serial clock port C. DDCC_SCL is a 3.3 V input that is 5 V tolerant.
2	CVDD	Power	Receiver comparator supply voltage (1.8V)
3	CGND	Ground	TVDD and CVDD Ground
4	RXC_C-	HDMI Input	Digital input clock Complement of port C in the HDMI interface.
5	RXC_C+	HDMI Input	Digital input clock True of port C in the HDMI interface.
6	TVDD	Power	Receiver terminator supply voltage (3.3 V)
7	RXC_0-	HDMI Input	Digital input channel 0 Complement of port C in the HDMI interface.
8	RXC_0+	HDMI Input	Digital input channel 0 True of port C in the HDMI interface.
9	CGND	Ground	TVDD and CVDD Ground
10	RXC_1-	HDMI Input	Digital input channel 1 Complement of port C in the HDMI interface.
11	RXC_1+	HDMI Input	Digital input channel 1 True of port C in the HDMI interface.
12	TVDD	Power	Receiver terminator supply voltage (3.3 V)
13	RXC_2-	HDMI Input	Digital input channel 2 Complement of port C in the HDMI interface.
14	RXC_2+	HDMI Input	Digital input channel 2 True of port C in the HDMI interface.
15	HP_CTRLD	Digital Output	Hot Plug Detect for Port D.
16	5V_DETD	Digital Input	5 V detect pin for port D in the HDMI interface.
17	DGND	Ground	Ground for DVDD
18	DVDD	Power	Digital supply voltage (1.8 V)
19	DDCD_SDA	Digital I/O	HDCP slave serial data ports D. DDCD_SDA is a 3.3 V input/output that is 5 V tolerant.
20	DDCD_SCL	Digital Input	HDCP slave serial clock port D. DDCD_SCL is a 3.3 V input that is 5 V tolerant.
21	CVDD	Power	Receiver comparator supply voltage (1.8V)
22	CGND	Ground	TVDD and CVDD Ground
23	RXD_C-	HDMI Input	Digital input clock Complement of port D in the HDMI interface.
24	RXD_C+	HDMI Input	Digital input clock True of port D in the HDMI interface.
25	TVDD	Power	Receiver terminator supply voltage (3.3 V)
26	RXD_0-	HDMI Input	Digital input channel 0 Complement of port

Location	Mnemonic	Type	Description
			D in the HDMI interface.
27	RXD_0+	HDMI Input	Digital input channel 0 True of port D in the HDMI interface.
28	CGND	Ground	TVDD and CVDD Ground
29	RXD_1-	HDMI Input	Digital input channel 1 complement of port D in the HDMI interface.
30	RXD_1+	HDMI Input	Digital input channel 1 true of port D in the HDMI interface.
31	TVDD	Power	Receiver terminator supply voltage (3.3 V)
32	RXD_2-	HDMI Input	Digital input channel 2 complement of port D in the HDMI interface.
33	RXD_2+	HDMI Input	Digital input channel 2 true of port D in the HDMI interface.
34	CVDD	Power	Receiver comparator supply voltage (1.8V)
35	CGND	Ground	TVDD and CVDD Ground
36	TXPVDD	Power	1.8 V Power Supply for Digital and I/O Power Supply. These pins supply power to the digital logic and I/Os. They should be filtered and as quiet as possible.
37	TXPLVDD	Power	1.8 V Power Supply.
38	TXGND	Ground	TXPVDD Ground
39	TXPGND	Ground	TXPLVDD Ground
40	EXT_SWING	Analog Input	Sets Internal Reference Currents. Place 887 Ω resistor (1% tolerance) between this pin and ground.
41	HPD_ARC-	Analog Input	Hot Plug Detect Signal. This indicates to the interface whether the receiver is connected. Supports 1.8 V to 5.0V CMOS logic levels.
42	ARC+	Analog Input	Audio return channel input
43	TXDDC_SDA	Digital I/O	Serial Port Data I/O to Receiver. This pin serves as the master to the DDC bus. Supports a 5 V CMOS logic level.
44	TXDDC_SCL	Digital Input	Serial Port Data Clock to Receiver. This pin serves as the master clock for the DDC bus. Supports a 5 V CMOS logic level.
45	TXAVDD	Power	1.8V power supply for TMDS outputs
46	TXGND	Ground	TXAVDD Ground
47	TXC-	HDMI Output	Differential Clock Output. Differential clock output at the TMDS clock rate; supports TMDS logic level.
48	TXC+	HDMI Output	Differential Clock Output. Differential clock output at the TMDS clock rate; supports TMDS logic level.

Location	Mnemonic	Type	Description
49	TXGND	Ground	TXAVDD Ground
50	TX0-	HDMI Output	Differential Output Channel 0 Complement. Differential output of the red data at 10× the pixel clock rate; supports TMDS logic level.
51	TX0+	HDMI Output	Differential Output Channel 0 True. Differential output of the red data at 10× the pixel clock rate; supports TMDS logic level.
52	TXGND	Ground	TXAVDD Ground
53	TX1-	HDMI Output	Differential Output Channel 1 Complement. Differential output of the red data at 10× the pixel clock rate; supports TMDS logic level.
54	TX1+	HDMI Output	Differential Output Channel 1 True. Differential output of the red data at 10× the pixel clock rate; supports TMDS logic level.
55	TXAVDD	Power	1.8V power supply for TMDS outputs
56	TX2-	HDMI Output	Differential Output Channel 2 Complement. Differential output of the red data at 10× the pixel clock rate; supports TMDS logic level.
57	TX2+	HDMI Output	Differential Output Channel 2 True. Differential output of the red data at 10× the pixel clock rate; supports TMDS logic level.
58	TXGND	Ground	TXAVDD Ground
59	CEC	Digital I/O	Consumer electronic control channel.
60	DGND	Ground	Ground for DVDD
61	DVDD	Power	Digital supply voltage (1.8 V)
62	ALSB	Digital Input	This pin is used to set I2C address of the Rx IO and the Tx Main Map.
63	CSB	Digital Input	Chip Select pin. This pin must be set low or left floating for the chip to process I2C messages that are destined to the ADV7623. The ADV7623 ignores I2C messages which he receives if this pin is high.
64	EP_SCK	Digital Output	SPI clock interface for the EDID/OSD
65	EP_CS	Digital Output	SPI chip selected interface for the EDID/OSD
66	EP_MOSI	Digital Output	SPI master out/slave in for the EDID/OSD
67	EP_MISO	Digital Input	SPI master in/slave out for the EDID/OSD

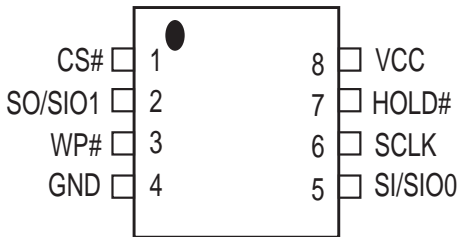
Location	Mnemonic	Type	Description
68	MCLK_IN	Digital Input	Audio Reference Clock. $128 \times N \times fs$ with $N = 1, 2, 3,$ or 4 . Set to $128 \times$ sampling frequency (fs), $256 \times fs$, $384 \times fs$, or $512 \times fs$. Supports 1.8 V to 3.3 V CMOS logic levels.
69	SCLK_IN	Digital Input	I2S Audio Clock. Supports CMOS logic levels from 1.8 V to 3.3 V.
70	AP5_IN	Digital Input	Audio Input Port 5. CMOS logic levels from 1.8 V to 3.3 V.
71	AP4_IN	Digital Input	Audio Input Port 4. CMOS logic levels from 1.8 V to 3.3 V.
72	DGNDIO	Ground	Ground for DVDDIO
73	DVDDIO	Power	Digital I/O supply voltage (3.3 V)
74	AP3_IN	Digital Input	Audio Input Port 3. CMOS logic levels from 1.8 V to 3.3 V.
75	AP2_IN	Digital Input	Audio Input Port 2. CMOS logic levels from 1.8 V to 3.3 V.
76	AP1_IN	Digital Input	Audio Input Port 1. CMOS logic levels from 1.8 V to 3.3 V.
77	AP0_IN	Digital Input	Audio Input Port 0. CMOS logic levels from 1.8 V to 3.3 V.
78	SDATA	Digital I/O	I2C port serial data input/output pin. SDA is the data line for the control port.
79	SCL	Digital Input	I2C port serial clock input. SCL is the clock line for the control port.
80	DGND	Ground	Ground for DVDD
81	DVDD	Power	Digital supply voltage (1.8 V)
82	INT1 (AMUTE1)	Digital Output	Interrupt pin, can be active low or active high. When status bits change, this pin is triggered. The events that trigger an interrupt are under user control. This pin can also output an audio mute signal
83	INT2 (AMUTE2)	Digital Output	Interrupt pin, can be active low or active high. When status bits change, this pin is triggered. The events that trigger an interrupt are under user control. This pin can also output an audio mute signal. I2C LSB selection.
84	INT_TX	Digital Output	Interrupt. Open drain. A $2\text{ k}\Omega$ pull-up resistor to the microcontroller I/O supply is recommended.
85	DGNDIO	Ground	Ground for DVDDIO
86	DVDDIO	Power	Digital I/O supply voltage (3.3 V)

Location	Mnemonic	Type	Description
87	AP0_OUT	Digital Output	Audio output port 0.
88	AP1_OUT	Digital Output	Audio output port 1.
89	AP2_OUT	Digital Output	Audio output port 2.
90	AP3_OUT	Digital Output	Audio output port 3.
91	AP4_OUT	Digital Output	Audio output port 4.
92	DGND	Ground	Ground for DVDD
93	DVDD	Power	Digital supply voltage (1.8 V)
94	AP5_OUT	Digital Output	Audio output port 5.
95	SCLK_OUT	Digital Output	Audio serial clock output.
96	MCLK_OUT	Digital Output	Audio master clock output.
97	RESETB	Digital Input	System reset input. Active low. A minimum low reset pulse width of 5 ms is required to reset the ADV7623 circuitry.
98	PWRDNB	Digital Input	Active low power-down pin. This pin should be used as a system power detect when the internal EDID is powered from the 5V signal from the HDMI port when connected to active equipment. Pin pulled down internally.
99	PGND	Ground	Ground for PVDD
100	PVDD	Power	PLL supply voltage
101	XTAL	Miscellaneous Analog	Input pin for 28.63636 MHz crystal or an external 1.8 V 28.63636 MHz clock oscillator source to clock the ADV7623. The following crystal frequencies are also supported: 24.576 MHz and 27 MHz.
102	XTAL1	Miscellaneous Analog	Crystal output pin. This pin should be left floating if a clock oscillator is used.
103	PVDD	Power	PLL supply voltage
104	PGND	Ground	PVDD Ground
105	HP_CTRLA	Digital Output	Hot Plug Detect for port A.
106	5V_DETA	Digital Input	5 V detect pin for port A in the HDMI interface.
107	RTERM	Miscellaneous Analog	Sets internal termination resistance. A 500 Ω resistor between this pin and GND should be used.
108	DDCA_SDA	Digital I/O	HDCP slave serial data port A. DDCA_SDA is a 3.3 V input/output that is 5 V tolerant.
109	DDCA_SCL	Digital Input	HDCP slave serial clock port A. DDCA_SCL is a 3.3 V input that is 5 V tolerant.
110	CVDD	Power	Receiver comparator supply voltage (1.8V)

Location	Mnemonic	Type	Description
111	CGND	Ground	TVDD and CVDD Ground
112	RXA_C-	HDMI Input	Digital input clock Complement of port A in the HDMI interface.
113	RXA_C+	HDMI Input	Digital input clock True of port A in the HDMI interface.
114	TVDD	Power	Receiver terminator supply voltage (3.3 V)
115	RXA_0-	HDMI Input	Digital input channel 0 complement of port A in the HDMI interface.
116	RXA_0+	HDMI Input	Digital input channel 0 true of port A in the HDMI interface.
117	CGND	Ground	TVDD and CVDD Ground
118	RXA_1-	HDMI Input	Digital input channel 1 complement of port A in the HDMI interface.
119	RXA_1+	HDMI Input	Digital input channel 1 true of port A in the HDMI interface.
120	TVDD	Power	Receiver terminator supply voltage (3.3 V)
121	RXA_2-	HDMI Input	Digital input channel 2 complement of port A in the HDMI interface.
122	RXA_2+	HDMI Input	Digital input channel 2 true of port A in the HDMI interface.
123	HP_CTRLB	Digital Output	Hot Plug Detect for port B.
124	5V_DET B	Digital Input	5 V detect pin for port B in the HDMI interface.
125	DGND	Ground	Ground for DVDD
126	DVDD	Power	Digital supply voltage (1.8 V)
127	DDCB_SDA	Digital I/O	HDCP slave serial data ports B. DDCB_SDA is a 3.3 V input/output that is 5 V tolerant.
128	DDCB_SCL	Digital Input	HDCP slave serial clock port B. DDCB_SCL is a 3.3 V input that is 5 V tolerant.
129	CVDD	Power	Receiver comparator supply voltage (1.8V)
130	CGND	Ground	TVDD and CVDD Ground
131	RXB_C-	HDMI Input	Digital input clock complement of port B in the HDMI interface.
132	RXB_C+	HDMI Input	Digital input clock true of port B in the HDMI interface.
133	TVDD	Power	Receiver terminator supply voltage (3.3 V)
134	RXB_0-	HDMI Input	Digital input channel 0 complement of port B in the HDMI interface.
135	RXB_0+	HDMI Input	Digital input channel 0 true of port B in the HDMI interface.
136	CGND	Ground	TVDD and CVDD Ground
137	RXB_1-	HDMI Input	Digital input channel 1 complement of port

Location	Mnemonic	Type	Description
			B in the HDMI interface.
138	RXB_1+	HDMI Input	Digital input channel 1 true of port B in the HDMI interface.
139	TVDD	Power	Receiver terminator supply voltage (3.3 V)
140	RXB_2-	HDMI Input	Digital input channel 2 complement of port B in the HDMI interface.
141	RXB_2+	HDMI Input	Digital input channel 2 true of port B in the HDMI interface.
142	HP_CTRL_C	Digital Output	Hot Plug Detect for port C.
143	5V_DETC	Digital Input	5 V detect pin for port C in the HDMI interface.
144	DDCC_SDA	Digital I/O	HDCP slave serial clock port C. DDCC_SDA is a 3.3 V input/output that is 5 V tolerant.

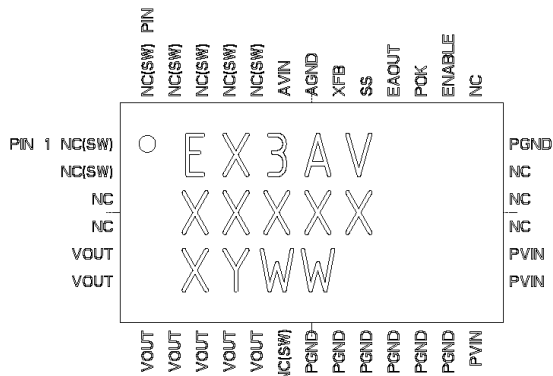
MX25L8006EM2I-12G (HDMI : IC14)



PIN DESCRIPTION

SYMBOL	DESCRIPTION
CS#	Chip Select
SI/SIO0	Serial Data Input (for 1 x I/O)/ Serial Data Input & Output (for Dual Output mode)
SO/SIO1	Serial Data Output (for 1 x I/O)/ Serial Data Output (for Dual Output mode)
SCLK	Clock Input
WP#	Write protection
HOLD#	Hold, to pause the device without deselecting the device
VCC	+ 3.3V Power Supply
GND	Ground

EX3AV (HDMI : IC16)



EX3AV Terminal Functions

PIN	NAME	FUNCTION
1-2, 12, 26, 34-38	NC(SW)	NO CONNECT – These pins are internally connected to the common switching node of the internal MOSFETs. They are not to be electrically connected to any external signal, ground, or voltage. Failure to follow this guideline may result in damage to the device.
3-4, 22-25	NC	NO CONNECT – These pins may be internally connected. Do not connect them to each other or to any other electrical signal. Failure to follow this guideline may result in device damage.
5-11	VOUT	Regulated converter output. Connect these pins to the load, and place output capacitor from these pins and PGND pins 13-15
13-18	PGND	Input/Output power ground. Connect these pins to the ground electrode of the Input and output filter capacitors. See VOUT and PVIN pin descriptions for more details.
19-21	PVIN	Input power supply. Connect to input power supply. Decouple with input capacitor to PGND pins 16-18.
27	ENABLE	Input Enable. Applying logic high enables the output and initiates a soft-start. Applying a logic low disables the output.
28	POK	Power OK is an open drain transistor for power system state indication. POK will be logic high when VOUT is with -10% to +20% of VOUT nominal.
29	EAOUT	Optional Error Amplifier output. Allows for customization of the control loop response.
30	SS	Soft-Start node. The soft-start capacitor is connected between this pin and AGND. The value of this capacitor determines the startup time.
31	XFB	External Feedback Input. The feedback loop is closed through this pin. A voltage divider at VOUT is used to set the output voltage. The mid point of the divider is connected to XFB. A phase lead capacitor from this pin to VOUT is also required to stabilize the loop.
32	AGND	Analog Ground. This is the Ground return for the controller. Needs to be connected to a quiet ground.
33	AVIN	Input power supply for the controller. Needs to be connected to input voltage at a quiet point.

ANODE CONNECTION

	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	12G	13G	14G	15G	16G	17G (AD3)	18G (AD4)
D0	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	S1	PCM
D1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	3d	AAC
D2	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	2d	S2
D3	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	3e	EQ
D4	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	2e	VOL
D5	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	3c	DYN
D6	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2c	XT
D7	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3g	MULTEQ
D8	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	2g	AUDYSSEY
D9	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	3f	X
D10	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	2f	II
D11	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	3b	PL
D12	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	2b	DQ (PL)
D13	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	3a	+
D14	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	2a	MASTER
D15	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	Dp	RDS
D16	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	dB	AUTO
D17	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	1d	TUNED
D18	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	1e	STEREO
D19	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	1c	Neo:6
D20	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1g	HD
D21	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	1f	dts
D22	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	1b	-
D23	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	1a	-
D24	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	SP-	-
D25	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	A	-
D26	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	B	-
D27	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	Z2	-
D28	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	Q1	-
D29	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	Q2	-
D30	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	Q3	-
D31	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	-	-
D32	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	-	-
D33	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	-	DIG.
D34	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	-	ANA.
AD1	-	-	-	-	-	-	AUTO	-	HDMI	DIGITAL	-	ANALOG	-	-	-	MUTE	-	DIGITAL
AD2	-	-	-	-	-	-	HDMI	-	RSTR	REC	-	BACK	-	-	-	SLEEP	-	DIGITAL TrueHD

PARTS LIST OF P.W.B. UNIT

*Parts indicated by "nsp" on this table cannot be supplied.

*The parts listed below are only for maintenance. Therefore they might differ from the parts used in the unit in appearances or dimensions.

Note: The symbols in the column "Remarks" indicate the following destinations.

E3 : U.S.A. & Canada model

E2 : Europe model

E1C : China model

EA : Australia model

BK : Black model

SP : Premium Silver model

FRONT P.W.B. UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New	
SEMICONDUCTORS GROUP						
	IC602,603	943239005300M	IC BA4560RF		HVIBA4560RF	
	Q6001	943219006820S	TR KTC1027Y		CVTKTC1027YT	
	Q6002	943216500020S	TR RT1N141C		CVTRT1N141C	*
	Q6003,6004	943214500020S	TR 2SC3052		CVT2SC3052	*
	Q6005	00MHT600141B1	TR KTA1271Y		HVTKTA1271YT	
	Q6006	943216500020S	TR RT1N141C		CVTRT1N141C	*
	Q6007	943215500020S	TR RT1P141C		CVTRT1P141C	*
	Q6009	943215500020S	TR RT1P141C		CVTRT1P141C	*
	Q6010	943216500020S	TR RT1N141C		CVTRT1N141C	*
	Q6011	943215500020S	TR RT1P141C		CVTRT1P141C	*
	Q6012	943216500020S	TR RT1N141C		CVTRT1N141C	*
	D213	943203003170S	DIODE GBJ606		HVDGBJ606	
	D216-219	943203003150S	DIODE 1N4007T		HVD1N4007T	
	D6001,6002	943203003150S	DIODE 1N4007T		HVD1N4007T	
	D6003	90M-HD302360R	DIODE ZJ6.8BT		CVDZJ6.8BT	
	D6004	00D9430087209	ZENER DIODE ZJ24B 1/2W		CVDZJ24BT	
	D6005	90M-HD302450R	ZENER DIODE ZJ13B 1/2W		CVDZJ13BT	
	D6014	943176010090S	LED BLBJEGJ204L		CVDBLBJEGJ204L	
	D6015,6016	943209001080S	DIODE 1SS355T	E1C	CVD1SS355T	
	D6017-6020	943209001080S	DIODE 1SS355T		CVD1SS355T	
RESISTORS GROUP						
	△ R268,269	943125500020S	METAL RES FILM, 0.22ohm 1W 5%		CRG1SANJR22RTP	*
	△ R275,276	943125500020S	METAL RES FILM, 0.22ohm 1W 5%		CRG1SANJR22RTP	*
	△ R283,284	943125500020S	METAL RES FILM, 0.22ohm 1W 5%		CRG1SANJR22RTP	*
	△ R285,286	943125500020S	METAL RES FILM, 0.22ohm 1W 5%		CRG1SANJR22RTP	*
	R6008	nsp	RES,M-OXIDEFILM(1W/4.7ohm)		CRG1SANJ4R7RT	
	R6062	nsp	CHIP RES1%75OHM		CRJ10DF75R0T	
	R6090,6091	nsp	RES,M-OXIDEFILM(2W/470ohm)		CRG2SANJ471RT	
	VR601	943671010330S	ENCODER VR		CSR2A055Z	
CAPACITORS GROUP						
	C244	nsp	METALLIZED CAP 0.1UF 250V J		KCME2E104JP04T	
	C246,247	nsp	METALLIZED CAP 0.1UF 250V J		KCME2E104JP04T	
	C248-250	nsp	METALLIZEDFILM CAP 0.047UF 100V		CCME2A473JXT	
	C255-257	nsp	METALLIZEDFILM CAP 0.047UF 100V		CCME2A473JXT	
	C6002	nsp	MYLAR CAP 0.1UF 50V J		HCQI1H104JZT	
	C6003	00D9430175108	ELECT CAP 10UF 50V		CCEA1HH100T	
	C6004	943134010530S	ELECT CAP 1UF 50V C		CCEA1HH1R0T	
	C6005	00MOA22706320	ELECT CAP 220UF 63V		CCEA1JH221E	
	C6006	943134010530S	ELECT CAP 1UF 50V C		CCEA1HH1R0T	
	C6007	nsp	METALLIZEDFILM CAP 0.047UF 100V		CCME2A473JXT	
	C6009	nsp	CHIP CAP 0.1UF/50V/2012		CCUC1H104KC	
	C6010	00D9430175108	ELECT CAP 10UF 50V		CCEA1HH100T	
	C6011	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
	C6013-6015	nsp	CHIP CAP 100PF 50V J		CCUS1H101JA	
	C6016	nsp	CHIP CAP 1000PF 50VK		CCUS1H102KC	
	C6017	nsp	METALLIZEDFILM CAP 0.047UF 100V		CCME2A473JXT	
	C6019	00D9430175108	ELECT CAP 10UF 50V		CCEA1HH100T	

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
C6020	nsp	CHIP CAP 0.01UF 50V K		CCUS1H103KC	
C6035	943134010670S	ELECT CAP 47UF 16V		CCEA1CK5470T	
C6036	nsp	CHIP CAP 100PF 50V J		CCUS1H101JA	
C6038	943134010530S	ELECT CAP 1UF 50V C	E1C	CCEA1HH1R0T	
C6039,6040	943134010530S	ELECT CAP 1UF 50V C		CCEA1HH1R0T	
C6041	00D9430175108	ELECT CAP 10UF 50V		CCEA1HH100T	
C6042,6043	nsp	CHIP CAP 220PF 50V		CCUS1H221JA	
C6049	943134010530S	ELECT CAP 1UF 50V C		CCEA1HH1R0T	
C6050	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C6059,6060	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C6062	nsp	CHIP CAP 0.1UF 50V K	E1C	CCUS1H104KC	
C6063-6065	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C6067	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C6069,6070	nsp	CHIP CAP 330PF 50V J		CCUS1H331JA	
C6071	943134010530S	ELECT CAP 1UF 50V C		CCEA1HH1R0T	
C6072-6076	00D9430175108	ELECT CAP 10UF 50V		CCEA1HH100T	
C6077,6078	nsp	CHIP CAP 330PF 50V J		CCUS1H331JA	
C6081,6082	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C6089	943134010530S	ELECT CAP 1UF 50V C		CCEA1HH1R0T	
C6090	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C6091	943134010530S	ELECT CAP 1UF 50V C		CCEA1HH1R0T	
C6092-6094	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C6095	nsp	CHIP CAP 220PF 50V	E3,E2,EA	CCUS1H221JA	
C6095	nsp	CHIP CAP 100PF 50V J	E1C	CCUS1H101JA	
C6096	nsp	CHIP CAP 220PF 50V	E3,E2,EA	CCUS1H221JA	
C6096	nsp	CHIP CAP 100PF 50V J	E1C	CCUS1H101JA	
C6100,6101	nsp	CHIP CAP 0.01UF 50V K		CCUS1H103KC	
OTHERS PARTS GROUP					
BK601,602	nsp	FIP BRACKET		CMD1A572	
BN45	nsp	WIRE ASSY(LOCK 3P 120MM 2.5MM)		CWB1D00312058	
BN46	nsp	WIRE ASS'Y (7P, 250MM)		CWB4D00725058	
BN606	nsp	WIRE ASS'Y (3P, 300MM)		CWB4B00330047	
BN61A	nsp	WIREASS'Y (5P, 50MM)		CWB1B00505047	
BN61B	nsp	WIREASS'Y (5P, 80MM)		CWB1B005080E7	
BN63A	nsp	WIREASS'Y (5P, 100MM)		CWB1B00510067	
BN64A	nsp	WIREASS'Y (3P, 80MM)		CWB1B00308077	
BN71-74	nsp	WIREASS'Y (1P, 40MM)		CWE7202040TT	
CN201	nsp	WAFER STRAIGHT(7PIN 2.5MM)		CJP07GA01ZY	
CN203	nsp	WAFER(3PIN 3.96MM)		CJP03GA148ZW	
CN41	nsp	WAFER STRAIGHT(3PIN 3.96MM)		CJP03GA90ZY	
CN602	nsp	WAFER,FPC 23P 1.25mm angle		CJP23GB286ZN	
CN603	nsp	LOCKINGTYPE STRAIGHTWAFER 2MM		CJP03GI236ZW	
CN610	nsp	WAFER ANGLE(2.5mm)		CJP05GB03ZY	
CN61A	nsp	LOCKINGTYPE STRAIGHTWAFER 2mm		CJP05GI236ZW	
CN61B	nsp	WAFER STRAIGHT		CJP05GA19ZY	
⚠ F6001	943652000620S	FUSE(0.1A 372SERIES/TR5)		CBA2D0100A3EYT	
FL601	943172012630S	V.F.D 18-ST-15GINK		CFL18ST15GINK	*
GND21	nsp	PCB BRACKET		CMD1A569	
GND22	nsp	PCB BRACKET		CMD1A188	
JK602	90M-YT004310R	JACK BOARD(3P)		CJJ4S041Z	
JK603	943643010140S	JACK HEADPHONE(3.5mm GOLD)		CJJ2E028Z	
JK605	943643010130S	JACK PHONES(6.35mm)		CJJ2E020Z	
L6001,6002	nsp	CHIP FERRITE BEAD(60ohm 1608)		CLZ9R005Z	
L6006-6008	nsp	CHIP FERRITE BEAD(60ohm 1608)		CLZ9R005Z	
LUG65,67	nsp	WIRE ASS'Y 1P, 100MM		CWE8102100RV	

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	RC601	943262010290S	REMOCON SENSOR		CRVKSM603TH5B		
	SW601-619	90M-SP001400R	TACT SW EVQ22505R		CST1A023ZT		

MAIN P.W.B. UNIT ASS'Y

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
SEMICONDUCTORS GROUP							
	IC41	00D2630641002	REGULATOR IC NJM7912FA		HVINJM7912FA		
	IC42	00D2630801004	REGULATOR IC NJM7812FA		HVINJM7812FA		
	IC45	00D2631162014	REGULATOR IC KIA78R05PI		HVIKIA78R05PI		
	IC46	231010031706S	REGULATOR IC KIA278R05PI		HVIKIA278R05PI		
	Q401	00MHT800931A0	TR KTC3200GR		HVTKTC3200GRT		
	Q402,403	00D9430154200	TR KRA102M		HVTKRA102MT		
	Q408	00MHT800931A0	TR KTC3200GR		HVTKTC3200GRT		
	Q410-414	00MHT800931A0	TR KTC3200GR		HVTKTC3200GRT		
	Q415	00D2710301903	TR KTA1268BLATP		CVTKTA1268BLATPA		
	Q416	00MHT800931A0	TR KTC3200GR		HVTKTC3200GRT		
	Q417-420	943216500030S	TR KRC105M		CVTKRC105MT		*
	Q421-423	00D2710301903	TR KTA1268BLATP		CVTKTA1268BLATPA		
	Q424	00MHT800931A0	TR KTC3200GR		HVTKTC3200GRT		
	Q425-428	00D2710301903	TR KTA1268BLATP		CVTKTA1268BLATPA		
	Q429-436	00MHT800931A0	TR KTC3200GR		HVTKTC3200GRT		
	Q437-444	00D2710301903	TR KTA1268BLATP		CVTKTA1268BLATPA		
	Q445	00MHT800931A0	TR KTC3200GR		HVTKTC3200GRT		
	Q448-453	00D9430108104	TR KTC2874B		HVTKTC2874BT		
	Q454	00MHT30001000	TR KTC3199Y		HVTKTC3199YT		
	Q455	00D9430004305	TR KRC107M		HVTKRC107MT		
	Q456	00MHT30001000	TR KTC3199Y		HVTKTC3199YT		
	Q457,458	00D2710301903	TR KTA1268BLATP		CVTKTA1268BLATPA		
	Q459,460	00MHT800931A0	TR KTC3200GR		HVTKTC3200GRT		
	Q461-463	90M-HT800120R	TR KTC3114A		HVTKTC3114A		
	Q464	90M-HT400490R	POWER TR 2SD2390		HVT2SD2390		
	Q465	90M-HT800120R	TR KTC3114A		HVTKTC3114A		
	Q466	90M-HT200440R	POWER TR HVT2SB1560		HVT2SB1560		
	Q467	90M-HT400490R	POWER TR 2SD2390		HVT2SD2390		
	Q468	90M-HT200440R	POWER TR HVT2SB1560		HVT2SB1560		
	Q469	90M-HT400490R	POWER TR 2SD2390		HVT2SD2390		
	Q470	90M-HT200440R	POWER TR HVT2SB1560		HVT2SB1560		
	Q471	90M-HT400490R	POWER TR 2SD2390		HVT2SD2390		
	Q472	90M-HT200440R	POWER TR HVT2SB1560		HVT2SB1560		
	Q473	90M-HT400490R	POWER TR 2SD2390		HVT2SD2390		
	Q474	90M-HT200440R	POWER TR HVT2SB1560		HVT2SB1560		
	Q475	90M-HT800120R	TR KTC3114A		HVTKTC3114A		
	D401	943202010050S	DIODE ZJ2.4B		CVDZJ2.4BT		
	D402	00D9430182609	DIODE 1SS133MT		CVD1SS133MT		
	D404	00D9430182609	DIODE 1SS133MT		CVD1SS133MT		
	D409-437	00D9430182609	DIODE 1SS133MT		CVD1SS133MT		
	D438,439	943203003150S	DIODE 1N4007T		HVD1N4007T		
	D445,446	90M-HD201850R	SCHOTTKY DIODE 1N5819		HVD1N5819T		
	D448	00D9430182609	DIODE 1SS133MT		CVD1SS133MT		
	D449-454	943203003150S	DIODE 1N4007T		HVD1N4007T		
	D455	nsp	COPPER WIRE		C3A206		
	D458-460	00D9430182609	DIODE 1SS133MT		CVD1SS133MT		
	D461	943203003170S	DIODE GBJ606		HVDGBJ606		
	D501	nsp	COPPER WIRE		C3A206		
	ZD41	943202008160S	DIODE ZJ12B		CVDZJ12BT		
	ZD48	943202010080S	DIODE ZJ5.1B		CVDZJ5.1BT		
	ZD49	90M-HD302440R	DIODE ZJ4.7B		CVDZJ4.7BT		
	ZD51-60	90M-HD302390R	DIODE ZJ3.3B		CVDZJ3.3BT		
RESISTORS GROUP							
	R494-501	943124500040S	RES,M-OXIDEFILM(1W/4.7ohm)	FLAMERETARDANT	CRG1SANJ4R7RT	*	
	R502	nsp	RES,M-OXIDEFILM(1W/120ohm)		CRG1SANJ121RT		
	R505-514	943124500050S	RES,M-OXIDEFILM(2W/0.47ohm)	FLAMERETARDANT	CRG2SANJR47RT	*	
	R515	nsp	RES,M-OXIDEFILM(1W/10ohm)		CRG1SANJ100RT		
	R516-520	943124500050S	RES,M-OXIDEFILM(2W/0.47ohm)	FLAMERETARDANT	CRG2SANJR47RT	*	
	R527-531	nsp	RES,M-OXIDEFILM(1W/10ohm)		CRG1SANJ100RT		

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
R532	943124500050S	RES,M-OXIDEFILM(2W/0.47ohm)	FLAMERETARDANT	CRG2SANJR47RT	*
R533-537	nsp	RES,M-OXIDEFILM(1W/2.2Kohm)		CRG1SANJ222RT	
R538	nsp	RES,M-OXIDEFILM(1W/10ohm)		CRG1SANJ100RT	
R539-542	nsp	METAL OXID EFILM RES(1.2KOHM 1W)		CRG1SANJ122RT	
R543-546	nsp	RES,M-OXIDEFILM(1W/47ohm)		CRG1SANJ470RT	
R547-554	nsp	METAL OXID EFILM RES(1W/5.6Kohm)		CRG1SANJ562RT	
R559	nsp	RES,M-OXIDEFILM(1W/2.2Kohm)		CRG1SANJ222RT	
R563	nsp	RES,M-OXIDEFILM(1W/4.7ohm)		CRG1SANJ4R7RT	
R564	nsp	RES,M-OXIDEFILM(1W/100ohm)		CRG1SANJ101RT	
R577	nsp	RES,M-OXIDEFILM(1W/10ohm)		CRG1SANJ100RT	
R616	nsp	METAL OXID EFILM RES(1.2KOHM 1W)		CRG1SANJ122RT	
R618	nsp	RES,M-OXIDEFILM(1W/47ohm)		CRG1SANJ470RT	
R619	nsp	RES,M-OXIDEFILM(1W/10ohm)		CRG1SANJ100RT	
R621	nsp	RES,M-OXIDEFILM(1W/10ohm)		CRG1SANJ100RT	
R625-628	943124500050S	RES,M-OXIDEFILM(2W/0.47ohm)	FLAMERETARDANT	CRG2SANJR47RT	*
R630	nsp	METAL OXID EFILM RES(1W/5.6Kohm)		CRG1SANJ562RT	
R632	nsp	METAL OXID EFILM RES(1W/5.6Kohm)		CRG1SANJ562RT	
R634,635	943124500040S	RES,M-OXIDEFILM(1W/4.7ohm)	FLAMERETARDANT	CRG1SANJ4R7RT	*
VR41-45	nsp	RES,SEMIFIXED(1K,BCURVE)		CVN1RA102B03T	
CAPACITORS GROUP					
C403	943134010660S	ELECT CAP 470UF 6.3V		CCEA0JH471T	
C404-407	nsp	MYLAR CAP 2200PF 100V J		HCQ1H222JZT	
C408	00D9430148708	ELECT CAP 47UF 50V		CCEA1HH470T	
C409	nsp	SEMICONDUCTOR CAP 0.1UF 50V ZF		CCFT1H104ZF	
C410	nsp	CERAMIC CAP 470PF 50V KB		CCKT1H471KB	
C411	nsp	CERAMIC CAP 100PF 50V KB	E3	CCKT1H101KB	
C411	nsp	CERAMIC CAP 82PF 50V J	E2,E1C,EA	CCCT1H820JC	
C412	nsp	CERAMIC CAP 100PF 50V KB	E3	CCKT1H101KB	
C412	nsp	CERAMIC CAP 82PF 50V J	E2,E1C,EA	CCCT1H820JC	
C413	nsp	CERAMIC CAP 470PF 50V KB		CCKT1H471KB	
C414	nsp	CERAMIC CAP 100PF 50V KB	E3	CCKT1H101KB	
C414	nsp	CERAMIC CAP 82PF 50V J	E2,E1C,EA	CCCT1H820JC	
C415	nsp	CERAMIC CAP 470PF 50V KB		CCKT1H471KB	
C416-418	nsp	SEMICONDUCTOR CAP 0.1UF 50V ZF		CCFT1H104ZF	
C419	nsp	FILM CAP 0.015UF 100V J MYLAR	E3	HCQ1H153JZT	
C419	nsp	MYLAR CAP 0.018UF 100V J MYLAR	E2,E1C,EA	HCQ1H183JZT	
C420	nsp	FILM CAP 0.015UF 100V J MYLAR	E3	HCQ1H153JZT	
C420	nsp	MYLAR CAP 0.018UF 100V J MYLAR	E2,E1C,EA	HCQ1H183JZT	
C421	nsp	CERAMIC CAP 470PF 50V KB		CCKT1H471KB	
C422	nsp	CERAMIC CAP 100PF 50V KB	E3	CCKT1H101KB	
C422	nsp	CERAMIC CAP 82PF 50V J	E2,E1C,EA	CCCT1H820JC	
C423-426	nsp	CERAMIC CAP 33PF 50V J		CCCT1H330JC	
C427	943134010660S	ELECT CAP 470UF 6.3V		CCEA0JH471T	
C428	943134010490S	ELECT CAP 100UF 10V		CCEA1AH101T	
C429	nsp	FILM CAP 0.015UF 100V J MYLAR	E3	HCQ1H153JZT	
C429	nsp	MYLAR CAP 0.018UF 100V J MYLAR	E2,E1C,EA	HCQ1H183JZT	
C430	nsp	FILM CAP 0.015UF 100V J MYLAR	E3	HCQ1H153JZT	
C430	nsp	MYLAR CAP 0.018UF 100V J MYLAR	E2,E1C,EA	HCQ1H183JZT	
C431	nsp	FILM CAP 0.015UF 100V J MYLAR	E3	HCQ1H153JZT	
C431	nsp	MYLAR CAP 0.018UF 100V J MYLAR	E2,E1C,EA	HCQ1H183JZT	
C432	nsp	MYLAR CAP 0.047UF 50V		HCQ1H473JZT	
C433	nsp	MYLAR CAP 2200PF 100V J	E3	HCQ1H222JZT	
C433	nsp	MYLAR CAP 1000PF 100V J MYLAR	E2,E1C,EA	HCQ1H102JZT	
C434	nsp	MYLAR CAP 0.047UF 50V		HCQ1H473JZT	
C435	nsp	MYLAR CAP 0.047UF 50V		HCQ1H473JZT	
C436	nsp	MYLAR CAP 2200PF 100V J	E3	HCQ1H222JZT	
C436	nsp	MYLAR CAP 1000PF 100V J MYLAR	E2,E1C,EA	HCQ1H102JZT	
C437	nsp	MYLAR CAP 2200PF 100V J	E3	HCQ1H222JZT	
C437	nsp	MYLAR CAP 1000PF 100V J MYLAR	E2,E1C,EA	HCQ1H102JZT	
C438	nsp	MYLAR CAP 2200PF 100V J	E3	HCQ1H222JZT	
C438	nsp	MYLAR CAP 1000PF 100V J MYLAR	E2,E1C,EA	HCQ1H102JZT	
C439	nsp	MYLAR CAP 0.047UF 50V		HCQ1H473JZT	
C440	nsp	MYLAR CAP 2200PF 100V J	E3	HCQ1H222JZT	
C440	nsp	MYLAR CAP 1000PF 100V J MYLAR	E2,E1C,EA	HCQ1H102JZT	

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
C441,442	00D9430175108	ELECT CAP 10UF 50V		CCEA1HH100T	
C443-445	00MOA10705020	ELECT CAP 100UF 50V		CCEA1HH101T	
C446-449	00D9430148708	ELECT CAP 47UF 50V		CCEA1HH470T	
C450-456	00D9430175108	ELECT CAP 10UF 50V		CCEA1HH100T	
C457	943134010480S	ELECT CAP 100UF 100V		CCEA2AH101E	
C458,459	nsp	CERAMIC CAP 0.01UF 50V ZF		CCFT1H103ZF	
C460	943134010610S	ELECT CAP 4.7UF 50V		CCEA1HH4R7T	
C461	943134010610S	ELECT CAP 4.7UF 50V		CCEA1HH4R7T	
C462	943134010580S	ELECT CAP 220UF 35V		CCEA1VH221T	
C463	00D9430175108	ELECT CAP 10UF 50V		CCEA1HH100T	
C464	nsp	SEMICONDUCTOR CAP 0.1UF 50V ZF		CCFT1H104ZF	
C465	nsp	CERAMIC CAP 330PF 50V KB		CCKT1H331KB	
C466	nsp	SEMICONDUCTOR CAP 0.1UF 50V ZF		CCFT1H104ZF	
C467,468	nsp	CERAMIC CAP 330PF 50V KB		CCKT1H331KB	
C469-471	943134010590S	ELECT CAP 22UF 50V		CCEA1HH220T	
⚠ C472	943132500020S	CERAMIC CAP (400V Y-CAP)		CCKDHS222ME	*
C474	00D943010390S	ELECT CAP470UF 16V		CCEA1CH471T	
C475,476	943134010460S	ELECT CAP 6800UF 63V (30X35)		CCET63VKL5682NKZ	
C477	943134010620S	ELECT CAP 4700UF 25V		CCEA1EH472E	
C480	00D9430062101	ELECT CAP 100UF 16V		CCEA1CH101T	
C481-483	943134010590S	ELECT CAP 22UF 50V		CCEA1HH220T	
C484	nsp	CERAMIC CAP 0.022UF 50V ZF		CCFT1H223ZF	
C486	943134001290S	ELECT CAP 2200UF 25V		CCEA1EH222E	
C487	943134010530S	ELECT CAP 1UF 50V C		CCEA1HH1R0T	
C488	nsp	CERAMIC CAP 0.01UF 50V ZF		CCFT1H103ZF	
C489	943134010600S	ELECT CAP 3300UF 16V		CCEA1CH332E	
C490	nsp	CERAMIC CAP 0.01UF 50V ZF		CCFT1H103ZF	
C491	00D9430062101	ELECT CAP 100UF 16V		CCEA1CH101T	
C492	00D9430175108	ELECT CAP 10UF 50V		CCEA1HH100T	
C493	nsp	CERAMIC CAP 470PF 50V KB		CCKT1H471KB	
C494	nsp	MYLAR CAP 2200PF 100V J		HCQ1H222JZT	
C495	nsp	CERAMIC CAP 100PF 50V KB		CCKT1H101KB	
C495	nsp	CERAMIC CAP 82PF 50V J	E2,E1C,EA	CCCT1H820JC	
C496	943134010580S	ELECT CAP 220UF 35V		CCEA1VH221T	
C497	nsp	CERAMIC CAP 33PF 50V J		CCCT1H330JC	
C498,499	nsp	SEMICONDUCTOR CAP 0.1UF 50V ZF		CCFT1H104ZF	
C500	00D9430062101	ELECT CAP 100UF 16V		CCEA1CH101T	
C502	nsp	MYLAR CAP 0.047UF 50V		HCQ1H473JZT	
C504	943134010600S	ELECT CAP 3300UF 16V		CCEA1CH332E	
C505	00D9430148708	ELECT CAP 47UF 50V		CCEA1HH470T	
C508	00D9430175108	ELECT CAP 10UF 50V		CCEA1HH100T	
C559	943134010470S	ELECT CAP 0.1UF 50V		CCEA1HH0R1T	
C561	943134010530S	ELECT CAP 1UF 50V C		CCEA1HH1R0T	
C563,564	943134010470S	ELECT CAP 0.1UF 50V		CCEA1HH0R1T	
OTHERS PARTS GROUP					
BK41	nsp	PCB BRACKET		CMD1A569	
BN41	nsp	WIRE ASS'Y (3P, 200MM)		CWB3FE03200UZ	
BN42	nsp	WIREASS'Y (15P, 100MM)		CWB1B01510047	
BN43	nsp	WIRE ASS'Y (15P, 200MM)		CWB4C01520047	
BN44	nsp	WIREASS'Y (3P, 250MM)		CWB4B00325047	
BN45	nsp	WIRE ASS'Y (1P, 200MM)		CWE8202200VV	
BN9B	nsp	WAFER CARD CABLE, 13PIN 1.25MM		CJP13GA115ZY	
CN45	nsp	STRAIGHT WAFER 3PIN 2.5MM		CJP03GI237ZW	
CN46	nsp	STRAIGHT WAFER 7PIN 2.5MM		CJP07GI237ZW	
CN47	nsp	WAFER 2PIN 2MM		CJP02KA060ZY	
CN48	nsp	WAFER 2PIN		CJP02GA89ZY	
CN51-55	nsp	WAFER STRAIGHT 2PIN		CJP02GA01ZY	
ET41	nsp	EARTH PALTE		HJT1A025	
⚠ F401	90M-FS001420R	FUSE(218Series 250V 3.15A)	E2,EA,E1C	KBA2C3150TLEY	
⚠ F401	90M-FS001430R	FUSE(218Series 250V 6.3A)	E3	KBA2C6300TLEY	

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
JK41	943646010230S	JACK NOSPCC6PRRR/BBB	E3		
JK42	943643010150S	JACK NOSPCC2PW/R			
JK43	943643010160S	JACK NOSPCC1PBLACK			
JK44	943646010240S	JACK NOSPCC6PRRR/BBB	E2,E1C,EA		
JK45	943646010250S	JACK NOSPCC4PRR/BB			
L401-404	943115010260S	SPEAKER COIL (0.5UH)			
L405-L413	nsp	COPPER WIRE			
L415	943115010260S	SPEAKER COIL (0.5UH)			
RY41,42	682010023006S	RELAY 12V 2C1P			
⚠ RY43	943682004660S	POWER RERAY G5PA-1			
RY44	943682000810S	RELAY 12V 2C2P			
RY45	682010023006S	RELAY 12V 2C1P			
⚠ T401	943101012290D	SUB TRANS(6.9V,65mA)	E3		
⚠ T401	943101012300D	SUB TRANS(6.9V,65mA)	E2,EA		
⚠ T401	943101012310D	SUB TRANS(6.9V,65mA)	E1C		
⚠ TH41	943252010310S	POSISTOR ASS'Y(100)			
	nsp	FUSE HOLDER	F401		

INPUT P.W.B. UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
SEMICONDUCTORS GROUP					
IC60	943231010390S	REGULATOR IC KIA7805BPI			
IC61	943235003810S	IC R2A15218FP			
IC62-65	00D2631289900	IC AZ4580MTR-E1			
IC66,67	00D2630934900	IC BA4510F			
IC68	943231010390S	REGULATOR IC KIA7805BPI			
IC69	943239010400S	REGULATOR IC NJM2845DL133			
IC71	90M-HC109700R	IC NJM2595MTE1			
IC72	00MHC1010455Y	IC MM1511XNRE			
IC74	00D2631099006	REGULATOR IC KIA7905PI			
IC81	943245010410S	IC CS497024CVZ			
IC82	943246010420S	IC, SST25VF080B-50-4C-S2AF			
IC83	943246012710S	IC, M12L16161A-5TG			*
IC84	90M-HC110090R	IC CS42528-CQ			
IC85	00D2623198902	IC C74VHC157FT			
IC91	943243100020S	IC IT5CN5(512KB/32KB,LQFP100P)			*
IC92	943246010440S	IC M24C32WMMN6TP			
IC93	00D2623410907	IC TC74VHCT08AFT			
IC94	00D2623444902	IC TC74VHC08FT			
IC95	943239010400S	REGULATOR IC NJM2845DL133			
IC96	943234010450S	IC BD5225G			
Q901	943214500020S	TR 2SC3052			*
Q903	943214500020S	TR 2SC3052			*
D601,602	943209001080S	DIODE 1SS355T			
D605,606	00D9430196306	DIODE ZJ7.5B			
D903	943209001080S	DIODE 1SS355T			
RESISTORS GROUP					
R736,737	nsp	METAL OXID EFILM RES(68OHM 1W)			
R761-764	nsp	CHIP RES1%75OHM			
R766	nsp	CHIP RES(82OHM 1%)			
R805	nsp	CHIP RES(1.37KOHM 1/16W 1% 1608)			
R839	nsp	CHIP RES(5.1K 1%)			
R916	nsp	CHIP RES,10K OHM 1/10W J			
R917	nsp	CHIP RES,4.7K OHM 1/10W J	E3		
R917	nsp	CHIP RES,10K OHM 1/10W J	E1C		
R958	nsp	CHIP CAP 0.1UF 50V K			
RN61	nsp	CHIP RES(100OHM 5% 1608X4)			
RN80	nsp	CHIP RES(10KOHM 5% 1608X4)			
RN81,82	nsp	CHIP RES(10KOHM 5% 1608X4)			
RN83-90	nsp	CHIP RES(10KOHM 5% 1608X4)			
RN91,92	nsp	CHIP RES(100OHM 5% 1608X4)			
RN93	nsp	CHIP RES(10KOHM 5% 1608X4)			
CAPACITORS GROUP					
C603	nsp	CHIP CAP 8200UF 50V			
C604	nsp	CHIP CAP 8200UF 50V			
C605	nsp	CHIP CAP 0.1UF 50V K			
C606	nsp	CHIP CAP 3900PF 50V K			
C607	00D9430103808	ELECT CAP 470UF 10V			
C610,611	nsp	CHIP CAP 100PF 50V J			
C612	nsp	CHIP CAP 0.1UF 50V K			
C613,614	nsp	CHIP CAP 100PF 50V J			
C619,620	nsp	CHIP CAP 220PF 50V			
C623,624	nsp	CHIP CAP 220PF 50V			
C627,628	nsp	CHIP CAP 220PF 50V			
C629	00D9430062101	ELECT CAP 100UF 16V			
C636-639	nsp	ELECT CAP 47UF 16V			
C640	943134010590S	ELECT CAP 22UF 50V			
C641	nsp	ELECT CAP 47UF 16V			

NOTE :
 When update Firmware,
 please confirm a last
 version in SDI.
 Use the service board
 after updating it.

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
C642,643	00D9430148708	ELECT CAP 47UF 50V		CCEA1HH470T	
C647	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C651	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C652-655	nsp	CHIP CAP 1500PF 50VK		CCUS1H152KC	
C656,657	nsp	CHIP CAP 330PF 50V J		CCUS1H331JA	
C658,659	nsp	CHIP CAP 1500PF 50VK		CCUS1H152KC	
C660	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C661,662	nsp	CHIP CAP 330PF 50V J		CCUS1H331JA	
C663,664	943134010610S	ELECT CAP 4.7UF 50V		CCEA1HH4R7T	
C665	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C668-670	nsp	CHIP CAP 1500PF 50VK		CCUS1H152KC	
C671	nsp	CHIP CAP 4700PF 50V		CCUS1H472KC	
C672	nsp	CHIP CAP 330PF 50V J		CCUS1H331JA	
C673	nsp	CHIP CAP 1000PF 50VK		CCUS1H102KC	
C674	nsp	CHIP CAP 1500PF 50VK		CCUS1H152KC	
C675	nsp	CHIP CAP 4700PF 50V		CCUS1H472KC	
C676	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C677	nsp	CHIP CAP 3900PF 50V K		CCUS1H392KC	
C678	nsp	CHIP CAP 330PF 50V J		CCUS1H331JA	
C679	nsp	CHIP CAP 1000PF 50VK		CCUS1H102KC	
C680,681	943134010610S	ELECT CAP 4.7UF 50V		CCEA1HH4R7T	
C682	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C685-688	nsp	CHIP CAP 1500PF 50VK		CCUS1H152KC	
C689,690	nsp	CHIP CAP 330PF 50V J		CCUS1H331JA	
C691,692	nsp	CHIP CAP 1500PF 50VK		CCUS1H152KC	
C693	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C694,695	nsp	CHIP CAP 330PF 50V J		CCUS1H331JA	
C696,697	943134010610S	ELECT CAP 4.7UF 50V		CCEA1HH4R7T	
C698	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C701-704	nsp	CHIP CAP 1500PF 50VK		CCUS1H152KC	
C705,706	nsp	CHIP CAP 330PF 50V J		CCUS1H331JA	
C707,708	nsp	CHIP CAP 1500PF 50VK		CCUS1H152KC	
C709	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C710,711	nsp	CHIP CAP 330PF 50V J		CCUS1H331JA	
C712,713	943134010610S	ELECT CAP 4.7UF 50V		CCEA1HH4R7T	
C714	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C718	00D9430062101	ELECT CAP 100UF 16V		CCEA1CH101T	
C720	00D9430062101	ELECT CAP 100UF 16V		CCEA1CH101T	
C724-726	00D9430062101	ELECT CAP 100UF 16V		CCEA1CH101T	
C727	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C728	00D9430062101	ELECT CAP 100UF 16V		CCEA1CH101T	
C729	nsp	CHIP CAP 0.22UF 16VK		CCUS1C224KC	
C730	00D9430062101	ELECT CAP 100UF 16V		CCEA1CH101T	
C731	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C732	943134010590S	ELECT CAP 22UF 50V		CCEA1HH220T	
C733	nsp	CHIP CAP 220PF 50V		CCUS1H221JA	
C735	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C736	nsp	CHIP CAP 2700PF 50V K		CCUS1H272KC	
C737	943134010590S	ELECT CAP 22UF 50V		CCEA1HH220T	
C738	nsp	CHIP CAP 220PF 50V		CCUS1H221JA	
C740	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C741	nsp	CHIP CAP 2700PF 50V K		CCUS1H272KC	
C742	00D9430062101	ELECT CAP 100UF 16V		CCEA1CH101T	
C743	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C745	00D9430062101	ELECT CAP 100UF 16V		CCEA1CH101T	
C747	00D9430062101	ELECT CAP 100UF 16V		CCEA1CH101T	
C752	nsp	RES,CHIP(0OHM,5%,1608)		CRJ10DJ0R0T	
C754,755	00D9430175108	ELECT CAP 10UF 50V		CCEA1HH100T	
C756-C758	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C759	00D9430175108	ELECT CAP 10UF 50V		CCEA1HH100T	
C763-765	00D9430175108	ELECT CAP 10UF 50V		CCEA1HH100T	
C766	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C768	00D9430148708	ELECT CAP 47UF 50V		CCEA1HH470T	
C769	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C770	00D9430175108	ELECT CAP 10UF 50V		CCEA1HH100T	
C771	00D9430062101	ELECT CAP 100UF 16V		CCEA1CH101T	
C772	nsp	CHIP CAP 22PF 50V		CCUS1H220JA	

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
C801	nsp	CHIP CAP 100PF 50V J		CCUS1H101JA	
C802,803	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C804	943134010490S	ELECT CAP 100UF 10V		CCEA1AH101T	
C805	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C806	943134010490S	ELECT CAP 100UF 10V		CCEA1AH101T	
C807	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C808	943134010610S	ELECT CAP 4.7UF 50V		CCEA1HH4R7T	
C809	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C810	943134010490S	ELECT CAP 100UF 10V		CCEA1AH101T	
C811	00D9430103808	ELECT CAP 470UF 10V		CCEA1AH471T	
C812	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C813	nsp	CHIP CAP 1000PF 50VK		CCUS1H102KC	
C814	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C815	nsp	CHIP CAP 0.022UF 50VK		CCUS1H223KC	
C816	943134010490S	ELECT CAP 100UF 10V		CCEA1AH101T	
C817	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C818	nsp	CHIP CAP 0.01UF 50V K		CCUS1H103KC	
C821-819	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C822-824	nsp	CHIP CAP 0.01UF 50V K		CCUS1H103KC	
C825	943134010490S	ELECT CAP 100UF 10V		CCEA1AH101T	
C826	943134010490S	ELECT CAP 100UF 10V		CCEA1AH101T	
C827	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C828	nsp	CHIP CAP 100PF 50V J		CCUS1H101JA	
C829	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C830	00D9430148708	ELECT CAP 47UF 50V		CCEA1HH470T	
C831,832	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C835,836	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C837,838	nsp	CHIP CAP 15PF 50V		CCUS1H150JA	
C839	00D9430173003	ELECT CAP 220UF 10V		CCEA1AH221T	
C840	nsp	CHIP CAP 1UF 10V		CCUS1A105KC	
C841	nsp	CHIP CAP 0.01UF 50V K		CCUS1H103KC	
C842	nsp	CHIP CAP 100PF 50V J		CCUS1H101JA	
C843	943134010490S	ELECT CAP 100UF 10V		CCEA1AH101T	
C844-851	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C859	943134010490S	ELECT CAP 100UF 10V		CCEA1AH101T	
C860	943134010490S	ELECT CAP 100UF 10V		CCEA1AH101T	
C861-868	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C875-878	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C879	nsp	CHIP CAP 15PF 50V		CCUS1H150JA	
C880-882	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C901	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C902	00D9430062101	ELECT CAP 100UF 16V		CCEA1CH101T	
C903	nsp	CHIP CAP 0.22UF 16VK		CCUS1C224KC	
C904	943134010570S	ELECT CAP 220UF 16V		CCEA1CH221T	
C905-909	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C911	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C913	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C914	nsp	CHIP CAP 27PF 50V J		CCUS1H270JA	
C915	nsp	CHIP CAP 22PF 50V		CCUS1H220JA	
C916-918	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C919	00D9430175108	ELECT CAP 10UF 50V		CCEA1HH100T	
C920	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C921	00D9430175108	ELECT CAP 10UF 50V		CCEA1HH100T	
C922	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C923,924	nsp	CHIP CAP 100PF 50V J		CCUS1H101JA	
C926	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C927	nsp	CHIP CAP 0.01UF 50V K		CCUS1H103KC	
C928	943134010470S	ELECT CAP 0.1UF 50V		CCEA1HH0R1T	
C929,930	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C933-935	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C936-938	nsp	CHIP CAP 1000PF 50VK		CCUS1H102KC	
C940,941	nsp	CHIP CAP 1000PF 50VK		CCUS1H102KC	
C946-953	nsp	CHIP CAP 1000PF 50VK		CCUS1H102KC	
C954	nsp	CHIP CAP 0.015UF 50V		CCUS1H153KC	
C955	nsp	CHIP CAP 1UF 10V		CCUS1A105KC	
C956	nsp	CHIP CAP 0.1UF 50V K		CCUS1H104KC	
C957	943134010530S	ELECT CAP 1UF 50V C		CCEA1HH1R0T	

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
C958-963	nsp	CHIP CAP 0.1UF 50V K			
C964	nsp	CHIP CAP 0.01UF 50V K			
C965	nsp	CHIP CAP 0.1UF 50V K			
C966	nsp	CHIP CAP 0.01UF 50V K			
C967-969	nsp	CHIP CAP 0.1UF 50V K			
C970	nsp	CHIP CAP 0.01UF 50V K			
C971,972	nsp	CHIP CAP 0.1UF 50V K			
C973,974	nsp	CHIP CAP 0.01UF 50V K			
C975	nsp	CHIP CAP 0.1UF 50V K			
OTHERS PARTS GROUP					
BD61-63	nsp	CHIP FERRITE BEAD(60ohm 2012)			
BD71,72	nsp	CHIP FERRITE BEAD(60ohm 1608)			
BD81	nsp	CHIP FERRITE BEAD(60ohm 2012)			
BD83	nsp	CHIP,BEAD			
BD91-95	nsp	CHIP FERRITE BEAD(60ohm 2012)			
BK61	nsp	PCB BRACKET			
BN12	nsp	WIRE ASS'Y (5P, 100MM)			
CN1A	nsp	WAFER FPC 23P 1.25mm			
CN42,43	nsp	LOCKING TYPE, STRAIGHT WAFER 2MM			
CN71	nsp	LOCKINGTYPE STRAIGHTWAFER 2MM			
CN8A	nsp	WAFER CARD CABLE 23P, 1.0MM			
CN91	nsp	WAFER CARD CABLE 7P 1.25MM			
CN9A	nsp	WAFER CARD CABLE 13P 1.25MM			
ET71	nsp	EARTH PALTE			
ET91	nsp	EARTH PALTE			
JK62	943643010170S	JACK NOSPCC6PWWW/RRR			
JK71	943643010180S	JACK NOSPCC2PY/Y			
JK72	943643010190S	JACK NOSPCCRCA/SVIDEO			
JK81	943643010210S	JACK ASS'Y CJS9U017Z+HJSTORX177L			
JK82	943643100030S	JACK RCA			*
JK91	943643010220S	JACK 3.5PIHORIZONTALWITHOUTRING			
L601,602	943115010270S	MPX COIL(FM19KHzFILTER)			
TU61	943183010320S	TUNER(USA)FM(SCREW:FTYPE) ,AM(S/LAB)	E3		
TU61	943183010310S	TUNER(EUR)FM,AM,RDS(S/LAB)	E2,E1C,EA		
X801	943141010360S	CRYSTAL 24.576MHz 15PF 30PPM			
X901	943141010370S	CRYSTAL 10.000MHz 22PF 30PPM			

HDMI P.W.B. UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
SEMICONDUCTORS GROUP					
IC11	943236012460S	IC HDMI Transceiver(LQFP-144P)	CVIADV7623BSTZ		*
IC14	943248100030S	I.C, MX25L8006EM2I	CVIANAM1571AV		*
IC15	943239010400S	REGULATOR IC NJM2845DL133	CVINJM2845DL133		
IC16	nsp	IC EX3AV	CVIEX3AV		
Q101	943215500020S	TR RT1P141C	CVTRT1P141C		*
Q102	943216500040S	TR RT1N241C	CVTRT1N241C		*
Q103	943215500020S	TR RT1P141C	CVTRT1P141C		*
Q104	943216500040S	TR RT1N241C	CVTRT1N241C		*
Q105	943215500020S	TR RT1P141C	CVTRT1P141C		*
Q106	943216500040S	TR RT1N241C	CVTRT1N241C		*
Q107	943215500020S	TR RT1P141C	CVTRT1P141C		*
Q108	943216500040S	TR RT1N241C	CVTRT1N241C		*
RESISTORS GROUP					
R122	nsp	RES,CHIP(1608/1%/1.6Kohm)	CRJ10DF1601T		
R123	nsp	RES,CHIP(1608/1%/2Kohm)	CRJ10DF2001T		
R143,144	nsp	RES,CHIP1005,1K0,1/16W,1%	CRJ06IF1001T		
R168	nsp	RES,CHIP(68K / 1% / 1005 size)	CRJ06IF6802T		
R169	nsp	RES,CHIP(39K / 1% / 1005 size)	CRJ06IF3902T		
R170	nsp	RES,CHIP(150K / 1% / 1005 size)	CRJ06IF1503T		
RN11,13	nsp	RESNETWORK CHIP (33ohm 1/16W)	CRJ064IJ330T		
CAPACITORS GROUP					
C101-129	nsp	CHIP CAP 0.1UF 16V	CCUI1C104KC		
C130	nsp	CHIP CAP 10UF 6.3V	CCUC0J106KC		
C131	nsp	CHIP CAP 0.1UF 16V	CCUI1C104KC		
C132	nsp	CHIP CAP 10UF 6.3V	CCUC0J106KC		
C133	nsp	CHIP CAP 0.1UF 16V	CCUI1C104KC		
C134	nsp	CHIP CAP 10UF 6.3V	CCUC0J106KC		
C135	nsp	CHIP CAP 0.1UF 16V	CCUI1C104KC		
C136	nsp	CHIP CAP 1UF 10V	CCUS1A105KC		
C138	nsp	CHIP CAP 0.1UF 16V	CCUI1C104KC		
C139	nsp	CHIP CAP 10UF 6.3V	CCUC0J106KC		
C140	nsp	CHIP CAP 0.1UF 16V	CCUI1C104KC		
C141	nsp	CHIP CAP 10UF 6.3V	CCUC0J106KC		
C144	nsp	CHIP CAP 0.1UF 50V K	CCUS1H104KC		
C145	nsp	CHIP CAP 47PF 50V	CCUS1H470JA		
C146	nsp	CHIP CAP 47PF 50V	CCUS1H470JA		
C147	nsp	CHIP CAP 0.1UF 16V	CCUI1C104KC		
C148	nsp	CHIP CAP 10UF 6.3V	CCUC0J106KC		
C149	nsp	CHIP CAP 0.1UF 16V	CCUI1C104KC		
C150	nsp	CHIP CAP 10UF 6.3V	CCUC0J106KC		
C161	nsp	CHIP CAP 1UF 10V	CCUS1A105KC		
C162,163	nsp	CHIP CAP 0.1UF 16V	CCUI1C104KC		
C164	nsp	CHIP CAP 10UF 6.3V	CCUC0J106KC		
C165	nsp	CHIP CAP 0.1UF 16V	CCUI1C104KC		
C166	nsp	CHIP CAP 0.22UF 16VK	CCUS1C224KC		
C167	nsp	CHIP CAP 10UF 6.3V	CCUC0J106KC		
C171	nsp	CHIP CAP 10UF 6.3V	CCUC0J106KC		
C172	nsp	CHIP CAP 0.1UF 16V	CCUI1C104KC		
C174	nsp	CHIP CAP 10UF 6.3V	CCUC0J106KC		
C175	nsp	CHIP CAP 0.1UF 16V	CCUI1C104KC		
C176	nsp	CHIP CAP 10UF 6.3V	CCUC0J106KC		
C178	nsp	CHIP CAP 0.015UF 25V	CCUI1E153KC		
C179	nsp	CHIP CAP 15PF 50V	CCUS1H150JA		
C180	nsp	CHIP CAP 0.1UF 16V	CCUI1C104KC		
C334	nsp	CAP,CHIP(2012,10V/22uF)	CCUC1A226KC		

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
OTHERS PARTS GROUP					
BK11,12	nsp	PCB BRACKET	CMD1A569		
CN11	nsp	WAFER 7P 1.25MM	CJP07GA117ZY		
CN12	nsp	WAFER SMD(2MMPITCH)	CJP05GA208ZY		
CN8B	nsp	WAFER CARD CABLE(23P, 1MM)	CJP23GA193ZY		
JK11-15	943643100040S	JACK,HDMI(KSI-TWI,W/FLANGE)	CJJ9H014Z		*
L101-108	nsp	CHIP FERRITE BEAD(60ohm 1608)	CLZ9R005Z		
L109	nsp	CHIP FERRITE BEAD(60ohm 4516)	CLZ9Z014Z		
L114	nsp	CHIP FERRITE BEAD(60ohm 1608)	CLZ9R005Z		
X101	943141010350S	CRYSTAL 28.636MHz 33PF 30PPM	COX28636E330S		

SYS-1312 section

SPEAKER SYSTEM PACK

TECHNICAL SPECIFICATIONS

□ Center speaker [SC-C1312]

Type: Full-range, 1-speaker
Closed box

Drive units: 8 cm cone full range x 1

Input impedance: 6 Ω

Max. input: 60 W (IEC)
120 W (PEAK)

Frequency range: 150 Hz – 20 kHz

Dimensions: 200 (W) x 105 (H) x 150 (D) mm
(7-7/8" x 4-9/64" x 5-29/32")

Weight: 0.8 kg (1 lbs 12 oz)

□ Front and Surround speaker [SC-F1312(F) (SC-F1312(R))]

Type: Full-range, 1-speaker
Closed box

Drive units: 8 cm cone full range x 1

Input impedance: 6 Ω

Max. input: 60 W (IEC)
120 W (PEAK)

Frequency range: 150 Hz – 20 kHz

Dimensions: 105 (W) x 200 (H) x 150 (D) mm
(4-9/64" x 7-7/8" x 5-29/32")

Weight: 0.8 kg (1 lbs 12 oz)

□ Subwoofer [DSW-1312]

Type: Reflex box
Built-in amplifier

Drive unit: 20 cm cone woofer x 1

Frequency range: 35 Hz – 150 Hz

Dynamic power: 100 W

Input impedance: 22 kΩ

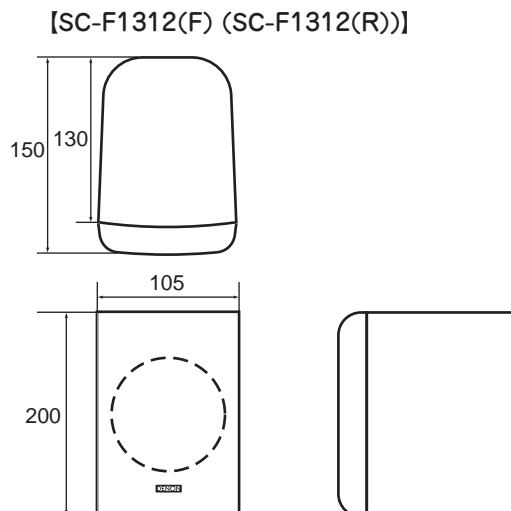
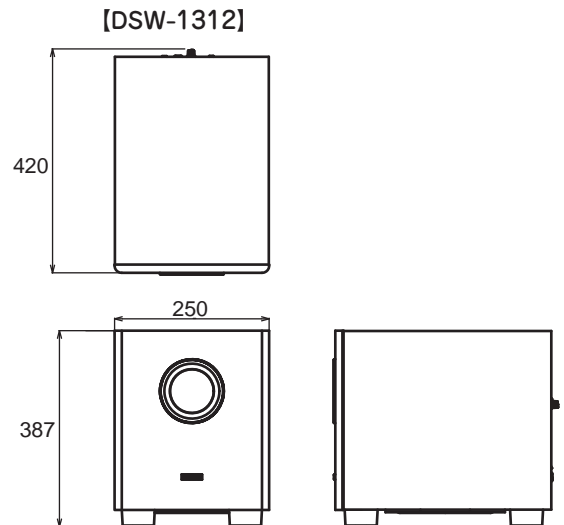
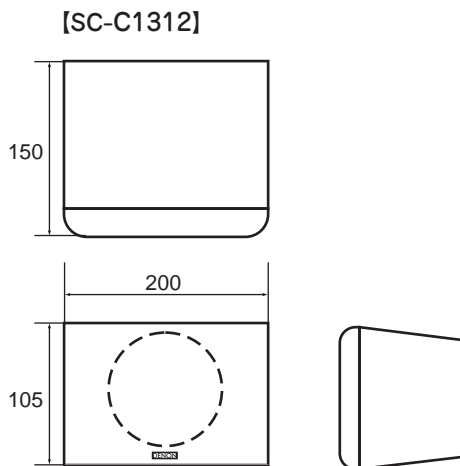
Power supply: 120 V / 60 Hz (North American)
230 V / 50 Hz (European model)

Power consumption: 65 W
MAX. 0.5 W (Standby)

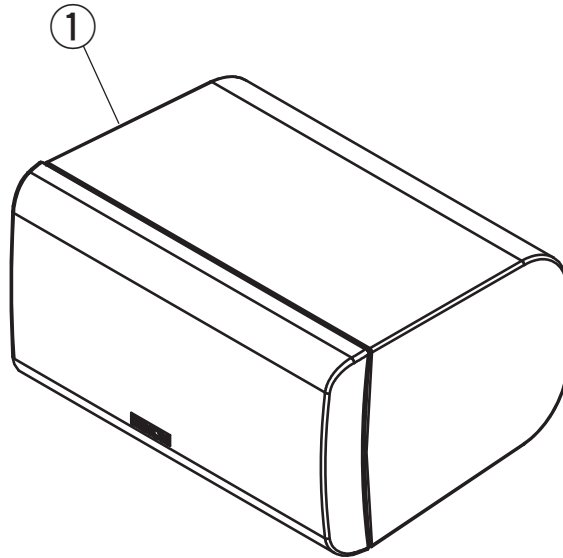
Dimensions: 250 (W) x 387 (H) x 420 (D) mm
(9-27/32" x 15-15/64" x 16-17/32")

Weight: 11 kg (24 lbs 4 oz)

DIMENSION



SC-C1312 EXPLODED VIEW



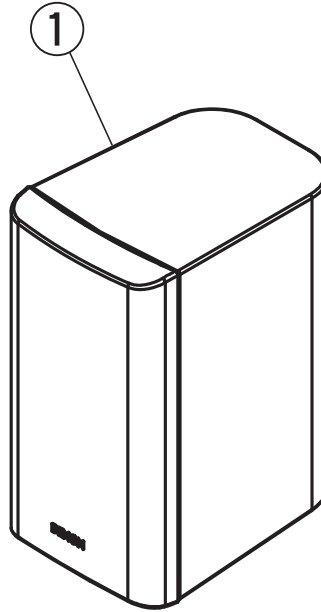
SC-C1312 PARTS LIST OF EXPLODED VIEW

* Parts for which "nsp" is indicated on this table cannot be supplied.

* The parts listed below are for maintenance only, might differ from the parts used in the unit in appearances or dimensions.

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
1	984189100150D	SPEAKER ASSY C1312	00N-SCC1312	1	*

SC-F1312 EXPLODED VIEW



SC-F1312(F) PARTS LIST OF EXPLODED VIEW

- * Parts for which "nsp" is indicated on this table cannot be supplied.
- * The parts listed below are for maintenance only, might differ from the parts used in the unit in appearances or dimensions.
- * This speaker can be ordered from one.

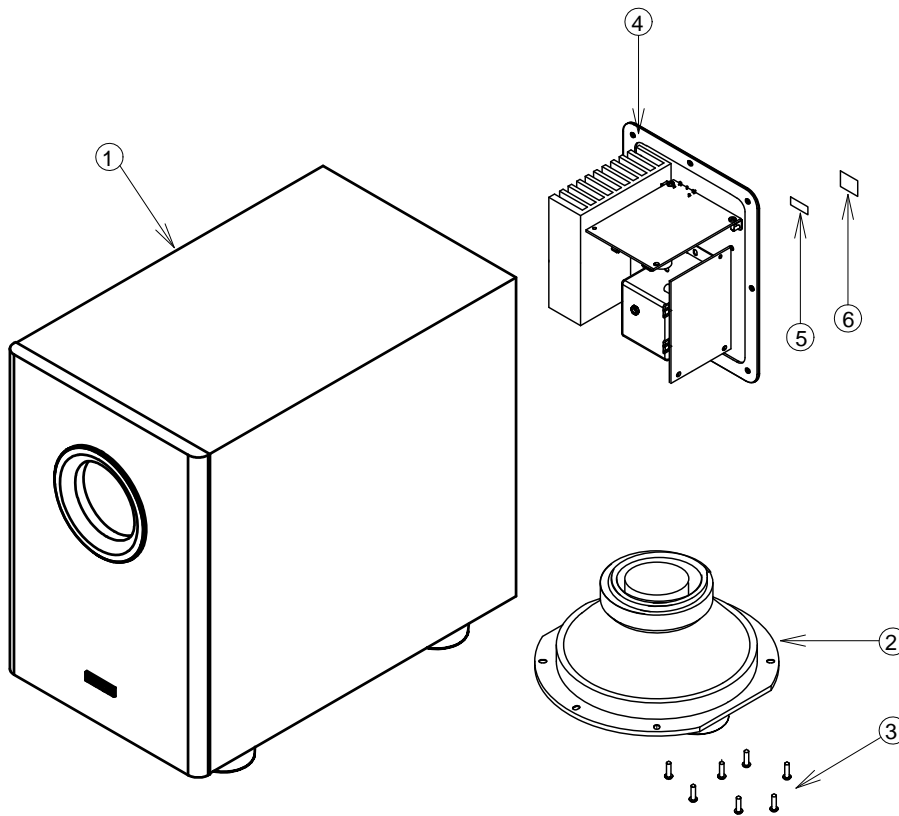
Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
1	984189100160D	SPEAKER ASSY F1312(F)		00N-SCF1312	2	*

SC-F1312(R) PARTS LIST OF EXPLODED VIEW

- * Parts for which "nsp" is indicated on this table cannot be supplied.
- * The parts listed below are for maintenance only, might differ from the parts used in the unit in appearances or dimensions.
- * This speaker can be ordered from one.

Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
1	984189100170D	SPEAKER ASSY F1312(R)		00N-SCR1312	2	*

DSW-1312 EXPLODED VIEW



DSW-1312 PARTS LIST OF EXPLODED VIEW

* Parts for which "nsp" is indicated on this table cannot be supplied.

* The parts listed below are for maintenance only, might differ from the parts used in the unit in appearances or dimensions.

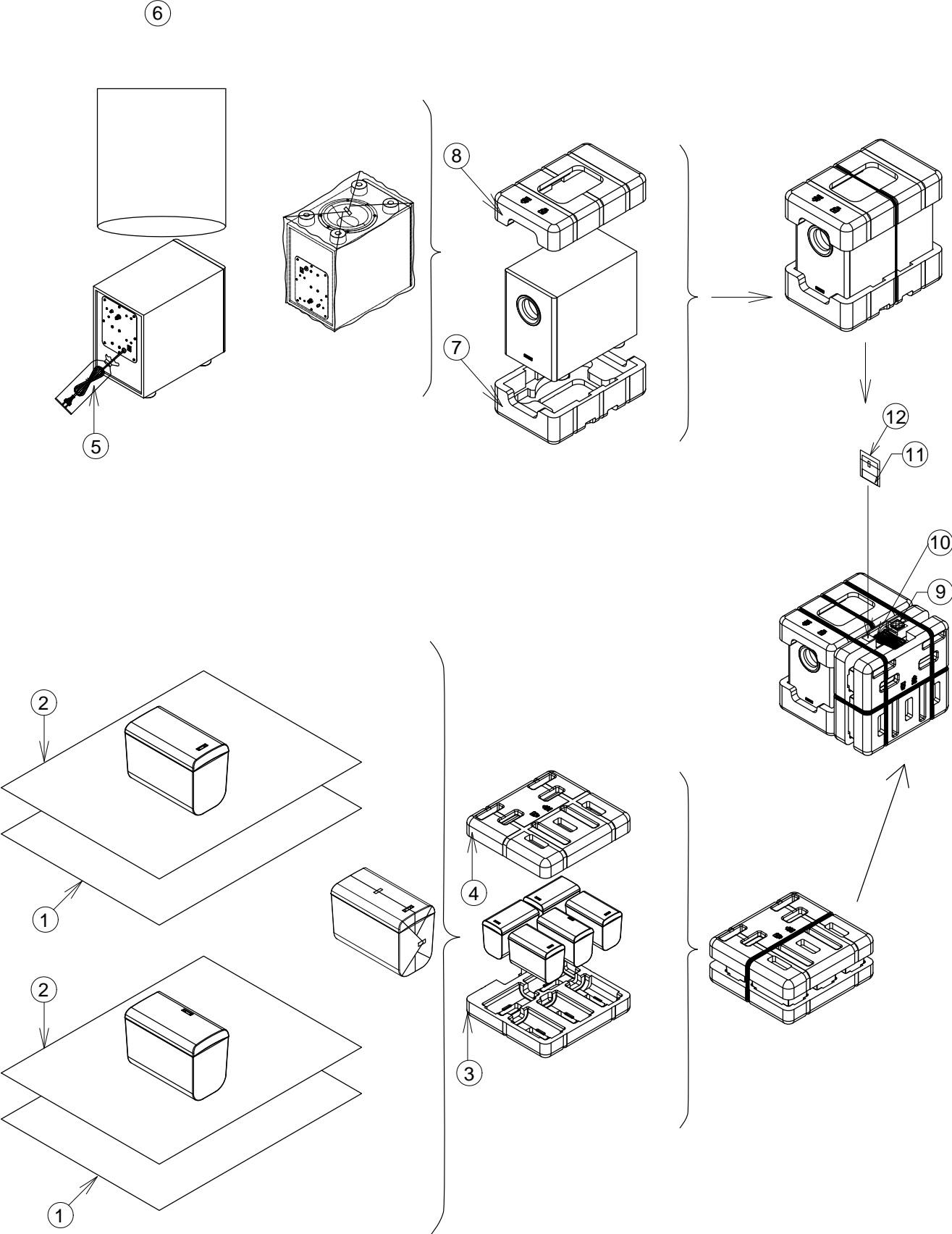
Note: The symbols in the column "Remarks" indicate the following destinations.

E3 : U.S.A. and Canada model

E2 : Europe model

Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
1	nsp	CABINET ASSY		-	1	*
2	984323100060D	DRIVER		304-00050-00	1	*
3	nsp	SCREW		S411-A4020E1J	16	*
4	984189000150D	AMPLIFIER	E2	326-W391CE-K0	1	*
4	984189000160D	AMPLIFIER	E3	326-W391UL-K0	1	*
5	nsp	SAFETY LABEL	E2	660-0W1312-00	1	*
5	nsp	SAFETY LABEL	E3	660-00W391-00	1	*
6	nsp	SPEC LABEL	E2	600-0W1312-00	1	*
6	nsp	SPEC LABEL	E3	600-1W1312-00	1	*

SYS-1312 PACKING VIEW



SYS-1312 PARTS LIST OF PACKING VIEW

* Parts for which "nsp" is indicated on this table cannot be supplied.

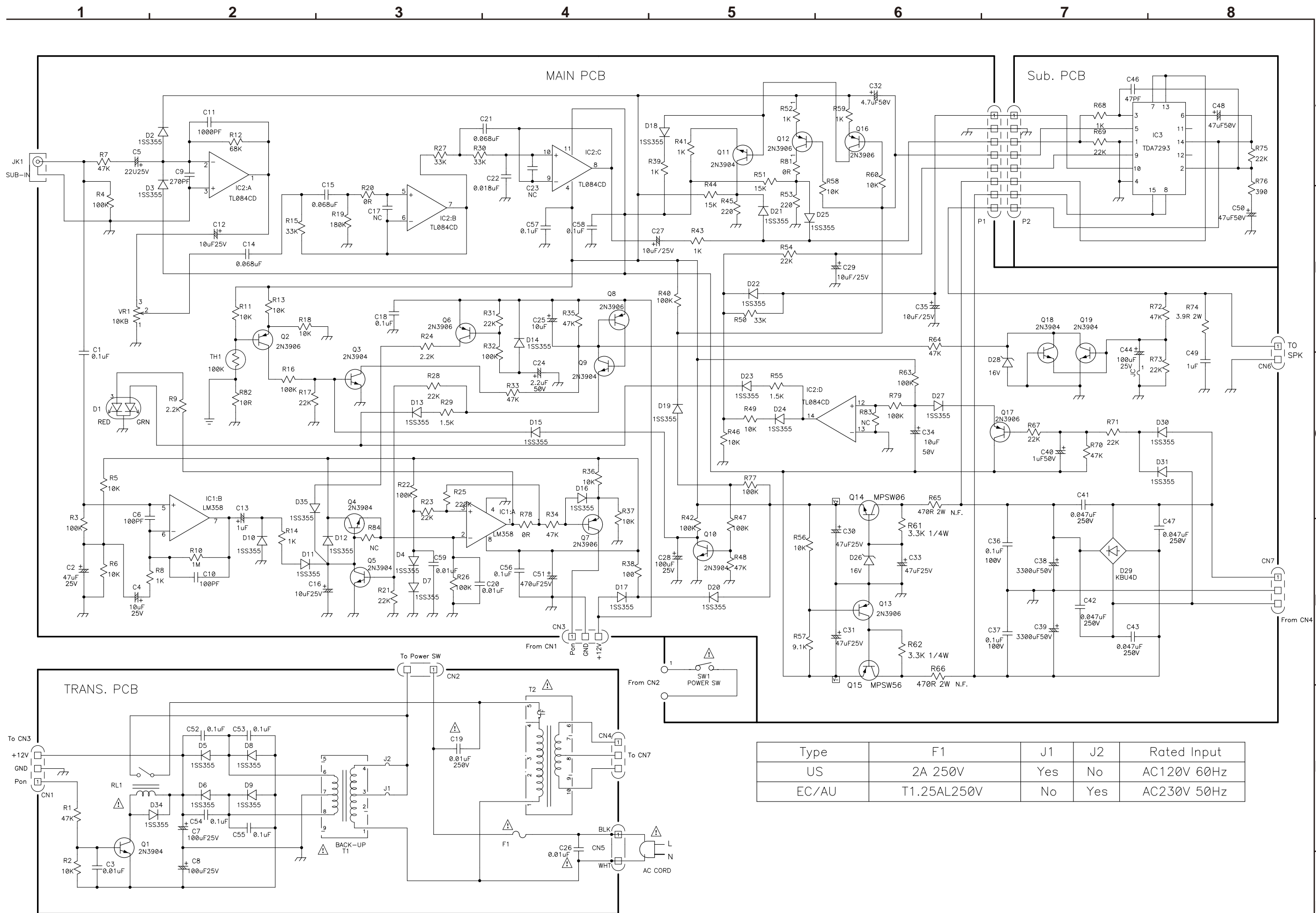
* The parts listed below are for maintenance only, might differ from the parts used in the unit in appearances or dimensions.

Note: The symbols in the column "Remarks" indicate the following destinations.

E3 : U.S.A. and Canada model

E2 : Europe model

Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
1	nsp	MIRROR MAT		715-140031-00	5	*
2	nsp	UNWOVEN CLOTH		442-9A3W04-00	5	*
3	nsp	POLYFORM		720-S1312B-00	1	*
4	nsp	POLYFORM		720-S1312T-00	1	*
5	nsp	PE BAG		700-220001-00	1	*
6	nsp	EPE BAG		710-140037-00	1	*
7	nsp	POLYFORM		720-W1312B-00	1	*
8	nsp	POLYFORM		720-W1312T-00	1	*
9	nsp	CORK		441-902N01-00	1	*
10	nsp	CORD		319-131201-10	1	*
11	nsp	CONTROL LABEL		605-W13120-00	1	*
12	nsp	PE BAG		700-120006-00	1	*



Type	F1	J1	J2	Rated Input
US	2A 250V	Yes	No	AC120V 60Hz
EC/AU	T1.25AL250V	No	Yes	AC230V 50Hz

SCHEMATIC DIAGRAMS (1/1)