DENON

Ver. 6

Please refer to the MODIFICATION NOTICE.

SERVICE MANUAL

MODEL	JP	E3	E2	EK	EA	E1C	E1K	E1C
AVR-3313CI		✓						
AVR-3313			✓			✓		

INTEGRATED NETWORK AV RECEIVER

• 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.

CONTENTS

ABOUT THIS MANUAL

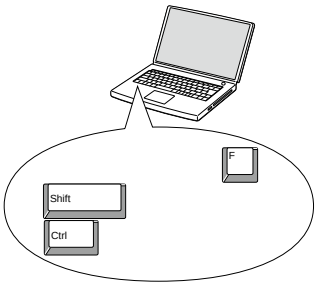
Read the following information before using the service manual.

What you can do with this manual

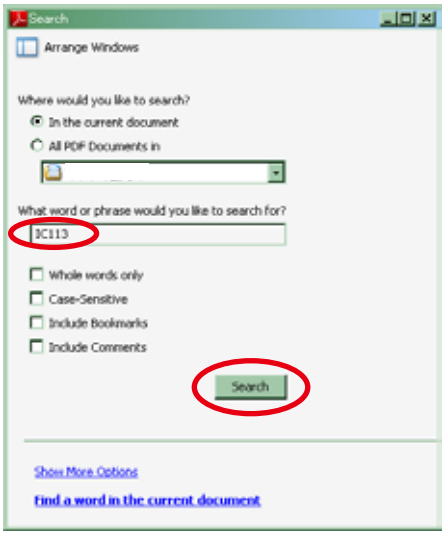
Search for a Ref. No. (phrase) (Ctrl+Shift+F)

You can use the search function in Acrobat Reader to search for a Ref. No. in schematic diagrams, printed wiring board diagrams, block diagrams, and parts lists.

1.Press **Ctrl**+**Shift**+**F** on the keyboard.
- The Search window appears.



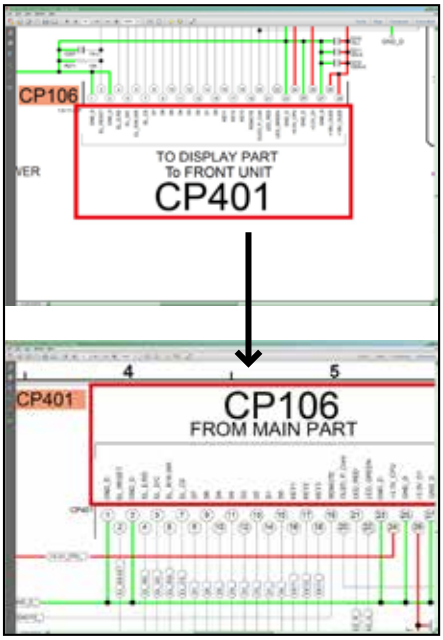
2.Enter the Ref. No. you want to search for in the Search window, and then click the **Search** button.
- A list of search results appears.



3.Click an item on the list.
- The screen jumps to the page for that item, and the search phrase is displayed.

Jump to the target of a schematic diagram connector

Click the Ref. No. of the target connector in the red box around a schematic diagram connector.
- The screen jumps to the target connector.



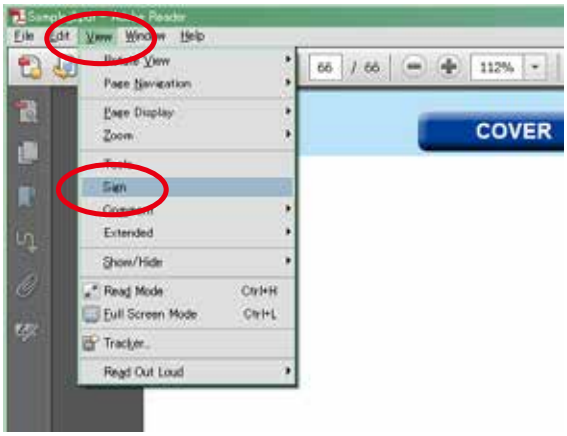
- Page magnification stays the same as before the jump.

Using Adobe Reader (Windows version)

Add notes to this data (Sign)

The Sign function lets you add notes to the data in this manual.
Save the file once you have finished adding notes.

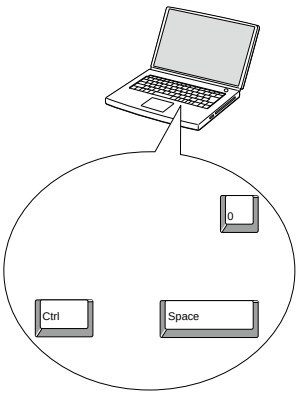
[Example using Adobe Reader X]
On the "**View**" menu, click "**Sign**".
- The Sign pane appears.



[Example using Adobe Reader 9]
On the "**Document**" menu, click "**Sign**".

Magnify schematic / printed wiring board diagrams - 1 (Ctrl+Space, mouse operation)

Press **Ctrl**+**Space** on the keyboard and drag the mouse to select the area you want to view.
- The selected area is magnified.

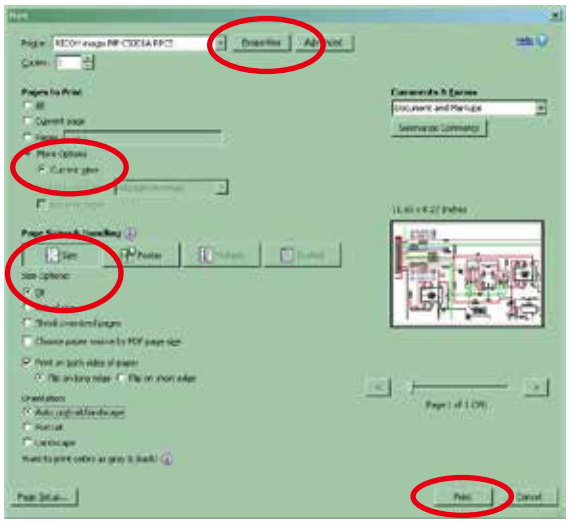


- When you want to move the area shown, hold down **Space** and drag the mouse.
- When you want to show a full page view, press **Ctrl**+**0** on the keyboard.

Print a magnified part of the manual

The Properties dialog box and functions will vary depending on your printer.

1. Drag the mouse to magnify the part you want to print.
2. On the "**File**" menu, click "**Print**".
3. Configure the following settings in the Print dialog box.



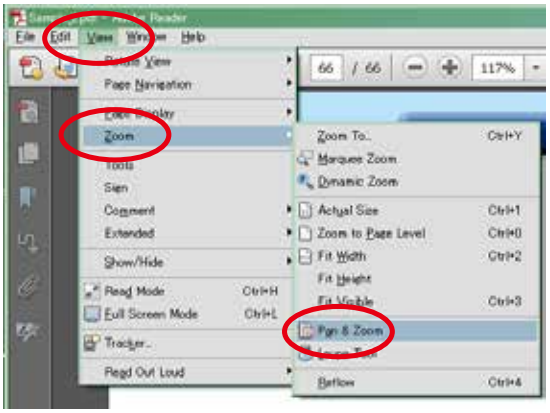
- **Properties**
  Click this button and check that the printer is set to a suitable paper size.
- **Page to print**
  Select the following checkbox.
  "**More Options**" : "**Current View**"
- **Page Sizing & Handling**
  Select the following checkbox.
  "**Size**" / "**Size Options**" : "**Fit**"

4. Click the **Print** button to start printing.

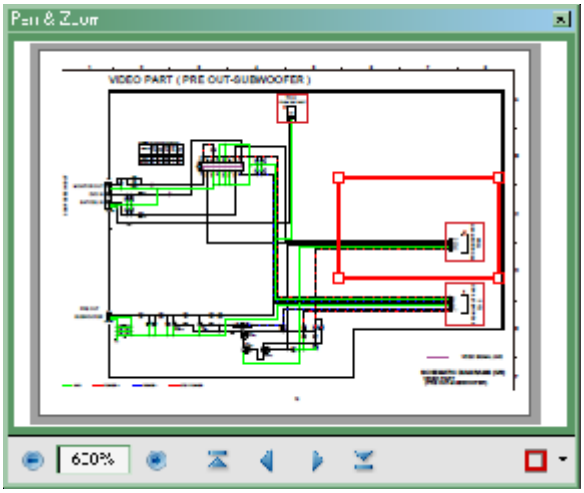
Magnify schematic / printed wiring board diagrams - 2
(Pan & Zoom function)

The Pan & Zoom function lets you see which part of a magnified diagram is being shown in a separate window.

[Example using Adobe Reader X]
On the "**View**" menu, point to "**Zoom**", and then click "**Pan & Zoom**".



- The Pan & Zoom window appears on the screen.

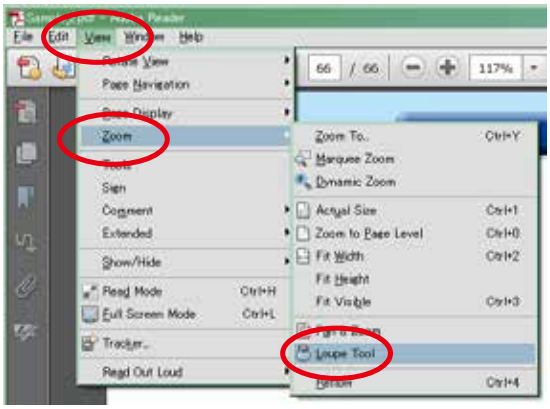


[Example using Adobe Reader 9]
On the "**Tools**" menu, point to "**Select & Zoom**", and then click "**Pan & Zoom Window**".

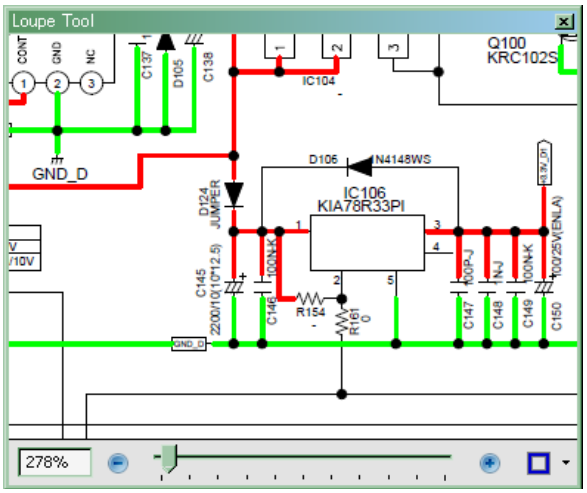
Magnify schematic / printed wiring board diagrams - 3
(Loupe Tool function)

The Loupe Tool function lets you magnify a specific part of a diagram in a separate window.

[Example using Adobe Reader X]
On the "**View**" menu, point to "**Zoom**", and then click "**Loupe Tool**".



- The Loupe Tool window appears on the screen.



[Example using Adobe Reader 9]
On the "**Tools**" menu, point to "**Select & Zoom**", and then click "**Loupe Tool Window**".

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 ⚠ 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 seasons, 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 1MΩ 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 ⚠ mark.
(2) Parts lists.....Indicated by the ⚠ 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 ⚠ 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 are not included in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)

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

TECHNICAL SPECIFICATIONS

❑ Audio Section

- **Power amplifier**

  Rated output :

  Front :
  125 W + 125 W (8 Ω, 20 Hz – 20 kHz with 0.05 % T.H.D.)
  165 W + 165 W (6 Ω, 1 kHz with 0.7 % T.H.D.)

  Center :
  125 W (8 Ω, 20 Hz – 20 kHz with 0.05 % T.H.D.)
  165 W (6 Ω, 1 kHz with 0.7 % T.H.D.)

  Surround :
  125 W + 125 W (8 Ω, 20 Hz – 20 kHz with 0.05 % T.H.D.)
  165 W + 165 W (6 Ω, 1 kHz with 0.7 % T.H.D.)

  Surround back / Front height / Front wide :
  125 W + 125 W (8 Ω, 20 Hz – 20 kHz with 0.05 % T.H.D.)
  165 W + 165 W (6 Ω, 1 kHz with 0.7 % T.H.D.)

  Dynamic power : 130 W x 2ch (8 Ω)
  190 W x 2ch (4 Ω)

  Output connectors : 6 – 16 Ω

- **Analog**

  Input sensitivity/Input impedance : 200 mV/47 kΩ
  Frequency response: 10 Hz – 100 kHz — +1, –3 dB (DIRECT mode)
  S/N : 102 dB (IHF–A weighted, DIRECT mode)
  Distortion: 0.005 % (20 Hz – 20 kHz) (DIRECT mode)
  Rated output : 1.2 V

- **Digital**

  D/A output : Rated output — 2 V (at 0 dB playback)
  Total harmonic distortion — 0.008 % (1 kHz, at 0 dB)
  S/N ratio — 102 dB
  Dynamic range — 100 dB

  Digital input : Format — Digital audio interface

- **Phono equalizer (PHONO input — MEDIA PLAYER OUT)**

  Input sensitivity : 2.5 mV
  RIAA deviation: ±1 dB (20 Hz to 20 kHz)
  S/N : 74 dB (A weighting, with 5 mV input)
  Rated output: 150 mV
  Distortion factor : 0.03 % (1 kHz, 3 V)

❑ Video section

- **Standard video connectors**

  Input/output level and impedance : 1 Vp-p, 75 Ω
  Frequency response: 5 Hz – 10 MHz — 0, –3 dB

- **Color component video connector**

  Input/output level and impedance : Y (brightness) signal — 1 Vp-p, 75 Ω
  P_B / C_B signal — 0.7 Vp-p, 75 Ω
  P_R / C_R signal — 0.7 Vp-p, 75 Ω

  Frequency response: 5 Hz – 60 MHz — 0, –3 dB

❑ Tuner section (E3 model)

(ANTENNA input – MEDIA PLAYER OUT)
[FM](Note: µV at 75 Ω, 0 dBf = 1 x 10^{-15} W)
Receiving Range :
[FM] 87.5 MHz – 107.9 MHz
[AM] 530 kHz – 1710 kHz
Usable Sensitivity :
[FM]1.5 µV (14.8 dBf)
[AM] 20 µV
S/N (IHF–A weighted) :
[FM]MONO 78 dB
STEREO 68 dB
HD 85 dB
[AM]HD 85 dB
Distortion (1 kHz) :
[FM]MONO 0.1 %
STEREO 0.2 %
HD 0.02 %
[AM]HD 0.02 %

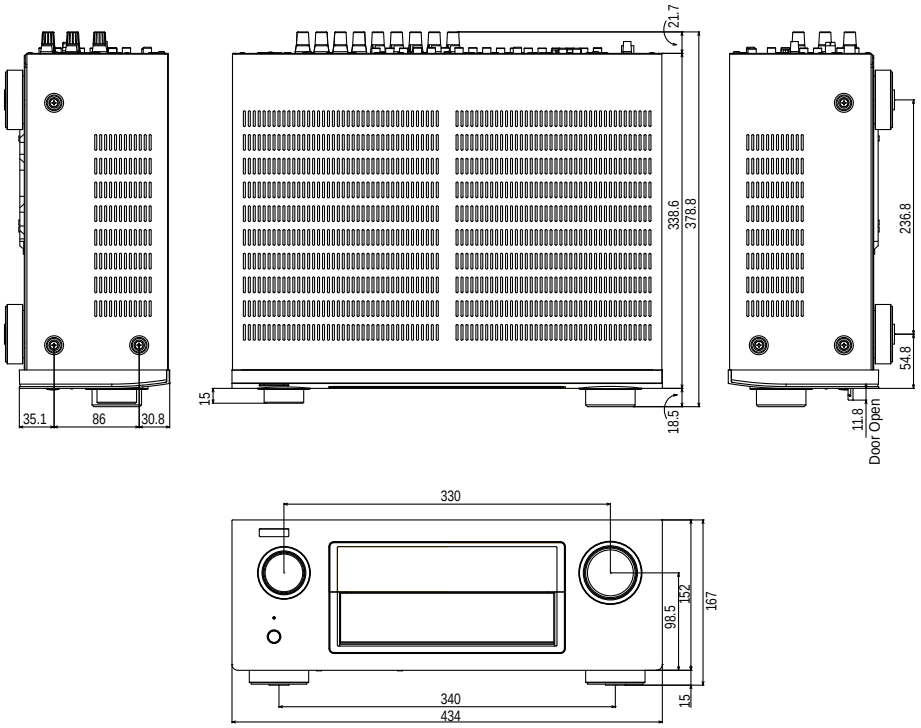
❑ Tuner section (E2,E1C model)

(ANTENNA input – MEDIA PLAYER OUT)
[FM](Note: µV at 75 Ω, 0 dBf = 1 x 10^{-15} W)
Receiving Range :
[FM] 87.5 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 2.0 µ (17.3 dBf)
STEREO 34.5 µV (42 dBf)
S/N :
[FM]MONO 72 dB (IHF–A weighted, DIRECT mode)
STEREO 67 dB (IHF–A weighted, DIRECT mode)
HD 85 dB
Distortion (1 kHz) :
[FM]MONO 0.3 %
STEREO 0.7 %

❑ General

Power supply (for E3 model) **:** AC 120 V, 60 Hz
Power supply (for E2 model) **:** AC 230 V, 50/60 Hz
Power supply (for E1C model) **:** AC 220 V, 50 Hz
Power consumption : 670 W
Power consumption in standby mode : 0.1 W
Power consumption in CEC standby mode : 0.5 W
Power comsumption in network standby mode : 2.7 W
Weight : 12.0 kg

DIMENSION



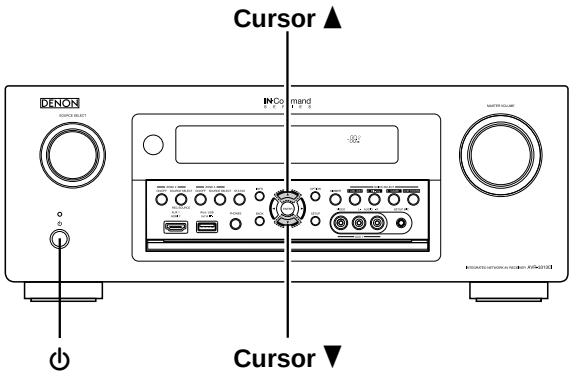
CAUTION IN SERVICING

Initializing INTEGRATED NETWORK AV RECEIVER

INTEGRATED NETWORK AV RECEIVER initialization should be performed when the µcom, peripheral parts of µcom, and Digital P.W.B. were replaced.

1. Turn off the power pressing ⏻ button.
2. Press ⏻ button while simultaneously while pressing "Cursor ▲" and "Cursor ▼" 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 repair the printing board, you can use the following JIG (Extension cable kit).
Please order it from Denon Official Service Distributor in your region if necessary.

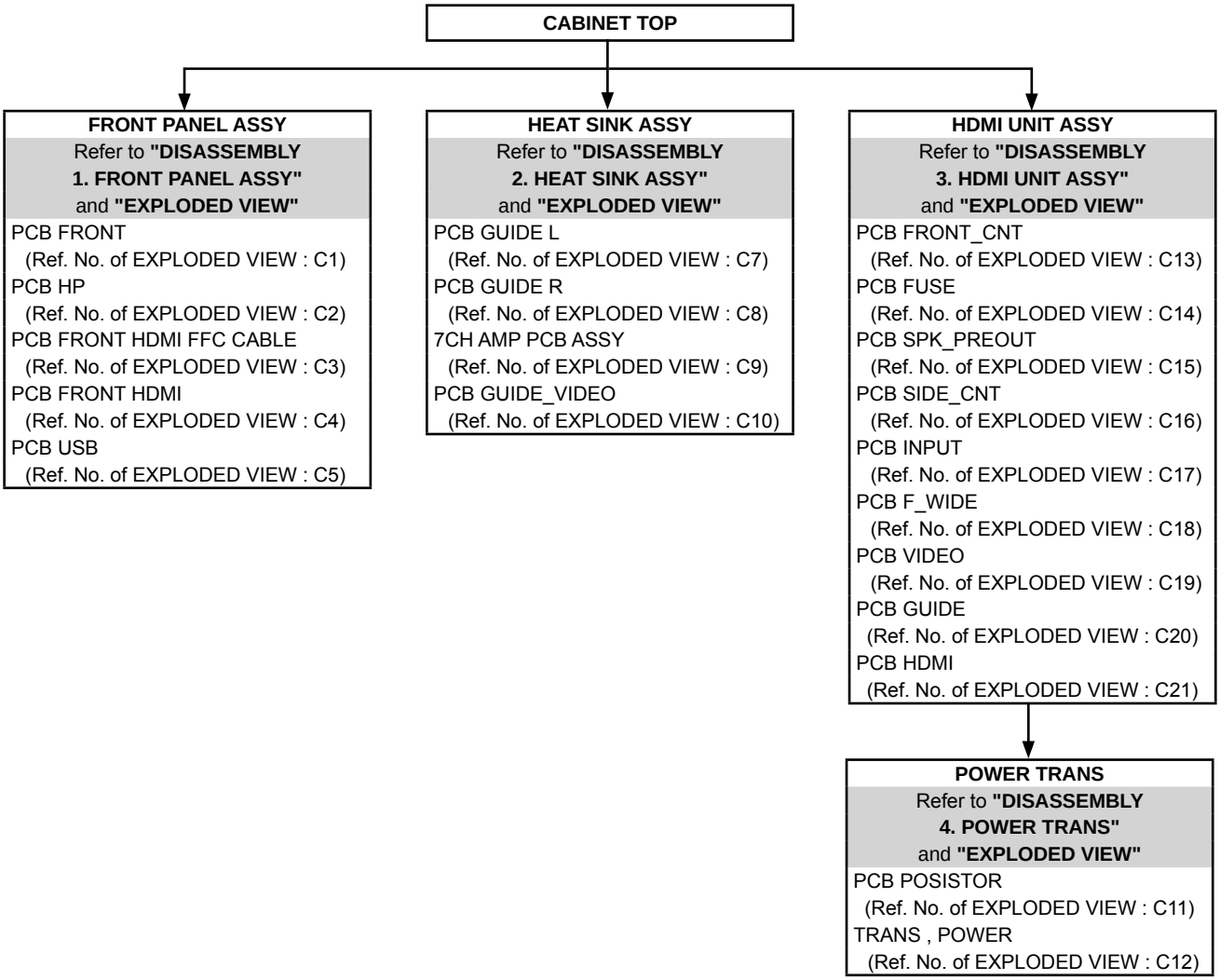
8U-110084S : EXTENSION UNIT KIT : 2 Set

When you update the firmware by DFW, you can use the following JIG (RS232C to internal connector conversion adapter with 4P FFC cable kit).
Please order to Denon Official Service Distributor in your region if necessary.

8U-210100S : WRITING KIT : 1 Set
(Refer to 66 page.)

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 reassembling, observe "Caution concerning disassembly and assembly!".
- 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.

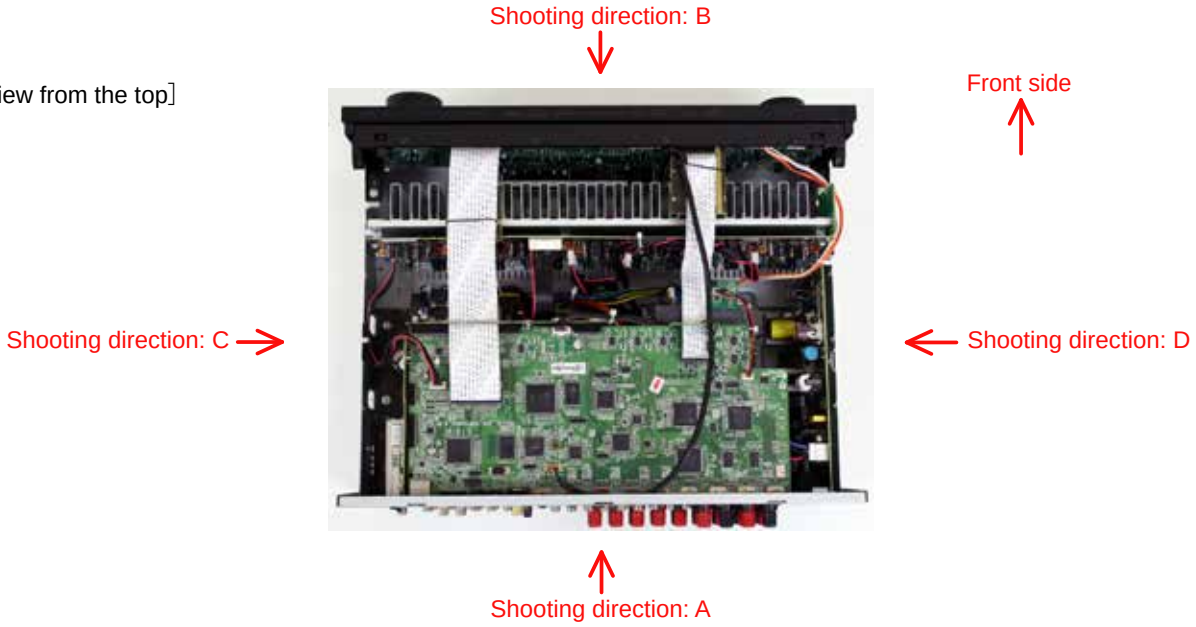


About the photos used for "descriptions of the DISASSEMBLY" section

- 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 photograph is AVR-3313CIE3 model.

The viewpoint of each photograph (Shooting direction)

［View from the top］



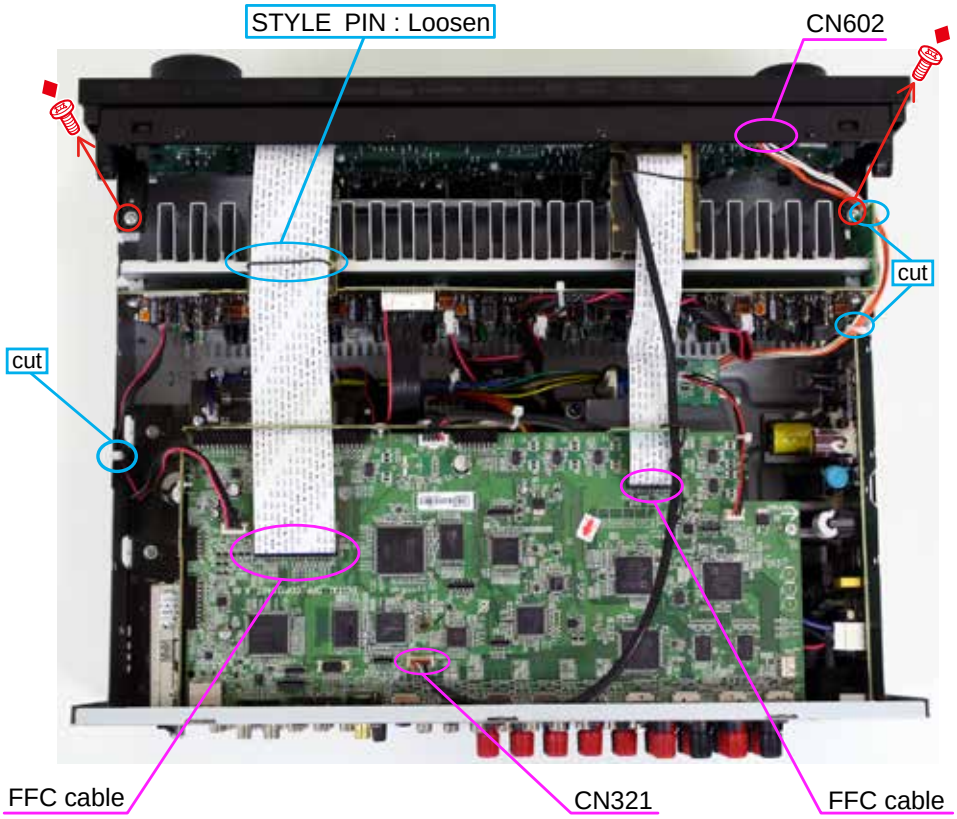
1. FRONT PANEL ASSY

Proceeding : CABINET TOP → FRONT PANEL ASSY

(1) Remove the screws.

View from the bottom

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

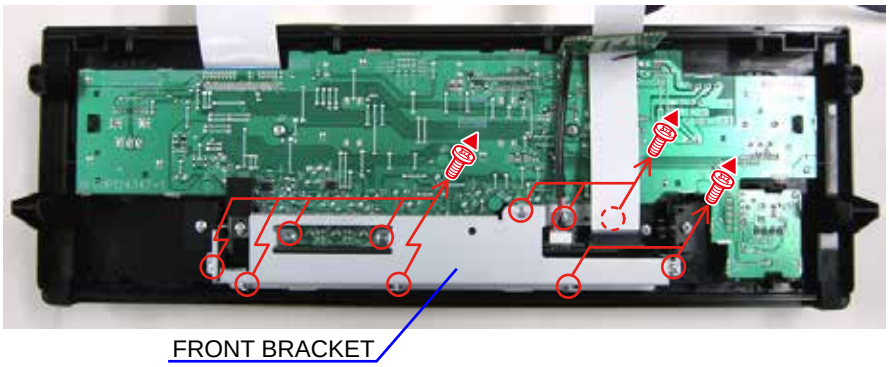


(3) Disconnect the connector wire and FFC cable.

Shooting of photograph: A

(4) Remove the screws, then detach the FRONT BRACKET.

Shooting of photograph: A

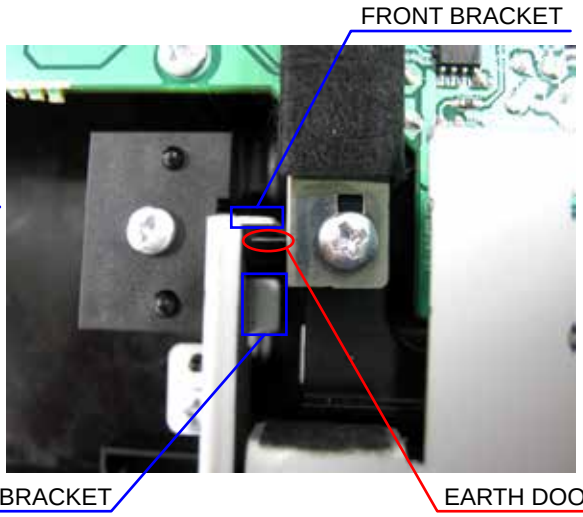


(5) Remove the screws and the COVER DOOR A/B.
Detach the DOOR UNIT ASSY.

Shooting of photograph: A

NOTE: EATH DOOR の水平曲げ部 (赤色) は必ず FRONT BRACKET の二つの曲げ部の間に入れてください。

Shooting of photograph: A

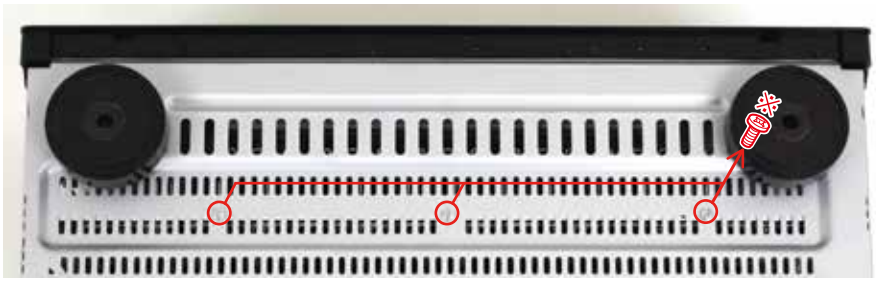


2. HEAT SINK ASSY

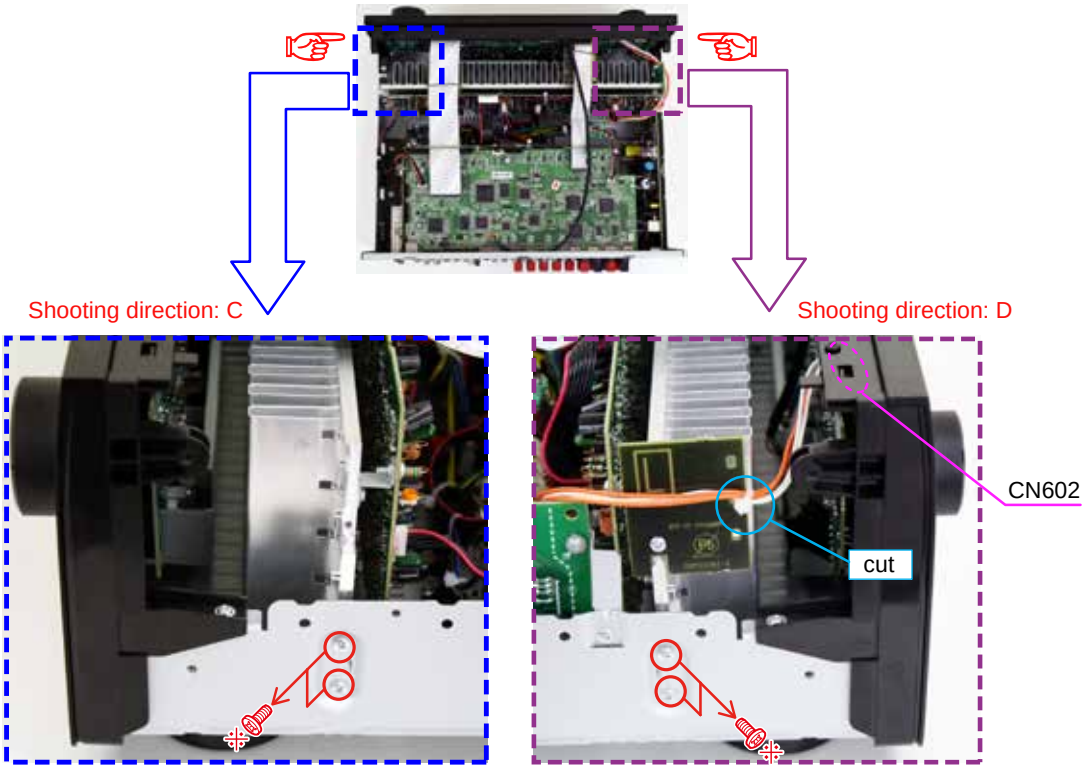
Proceeding : CABINET TOP → HEAT SINK ASSY

(1) Remove the screws.

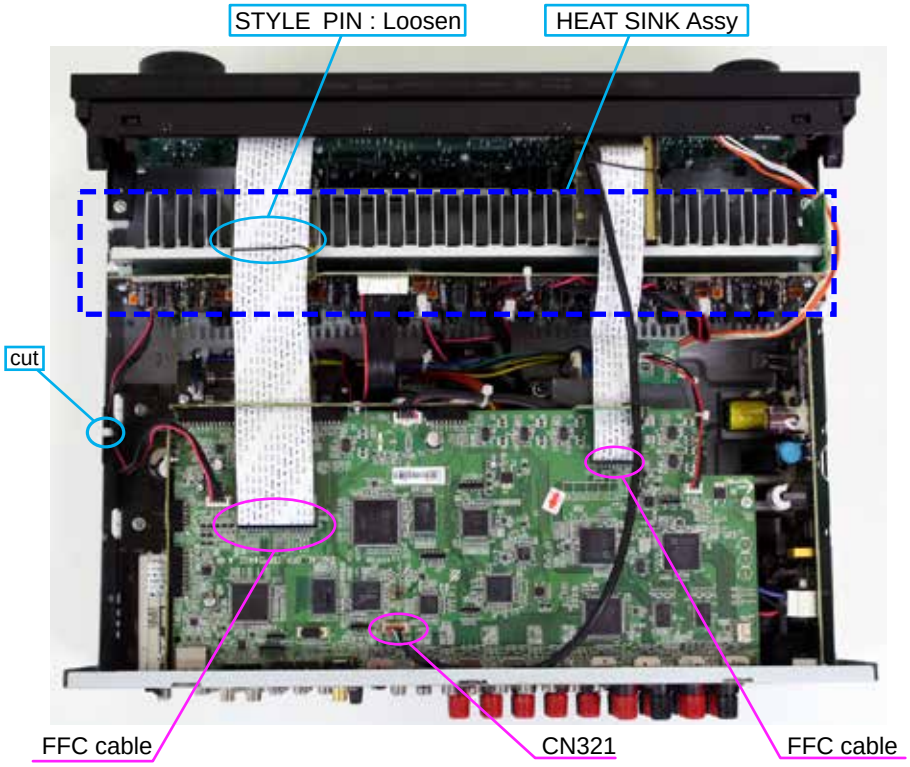
View from the bottom



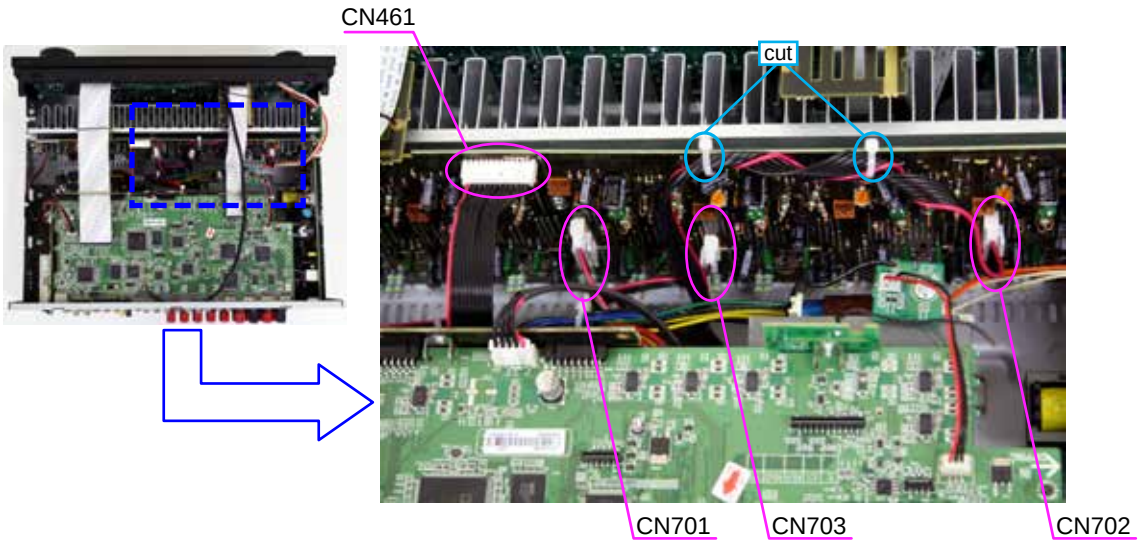
(2) Cut the wire clamp band, then remove the screws. Disconnect the connector wires.



(3) Cut the wire clamp band, then disconnect the connector wire and FFC cables .



(4) Cut the wire clamp bands, then disconnect the connector wires.



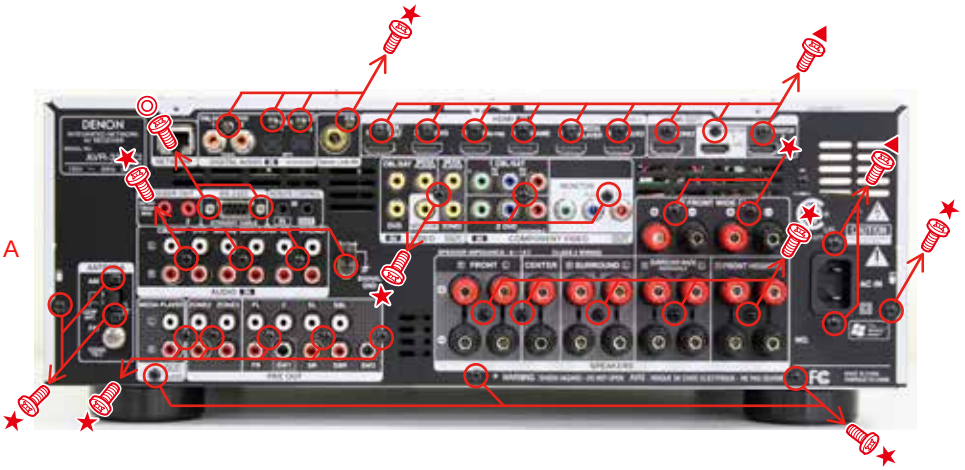
Please refer to "EXPLODED VIEW" for the disassembly method of each P.W.B included in HEAT SINK ASSY.

3. HDMI UNIT ASSY

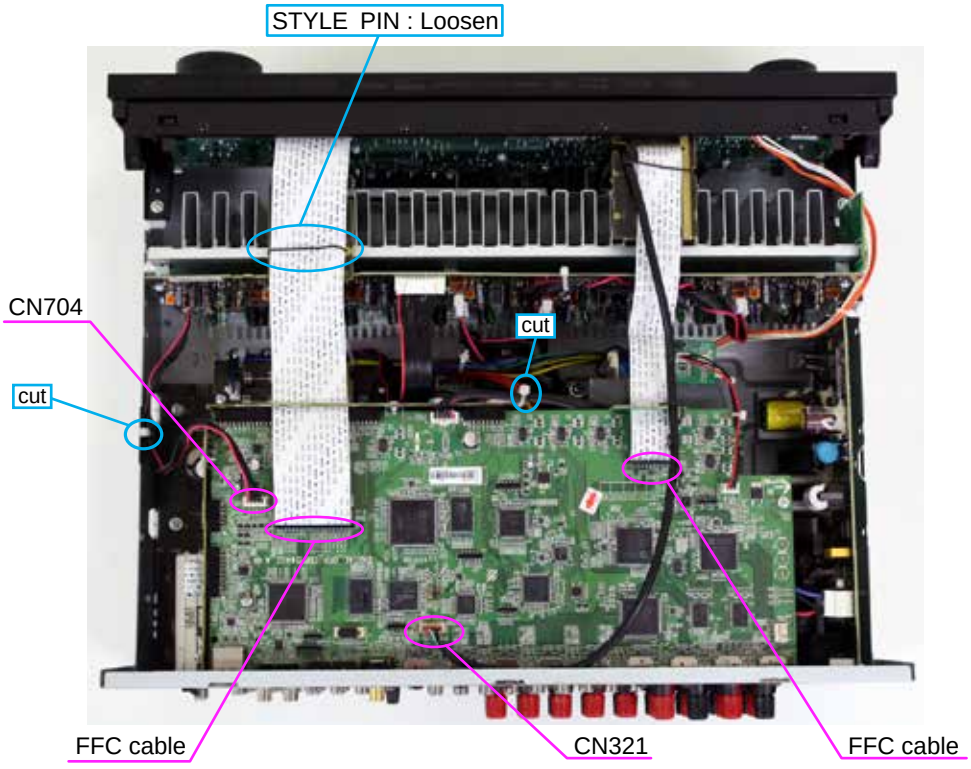
Proceeding : CABINET TOP → HDMI UNIT ASSY

(1) Remove the screws, then remove the BACK PANEL and the HDMI BRACKET.

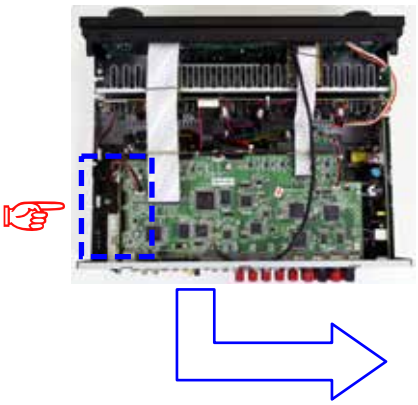
Shooting of photograph: A



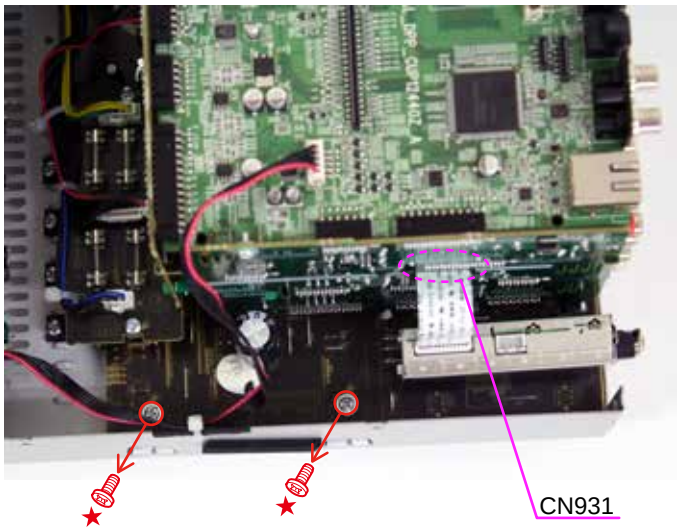
(2) Cut the wire clamp band, then disconnect the connector wires and the FFC cables.
Remove the PCB DOCK from the PCB SIDE CNT and PCB RS232C(Board to board).



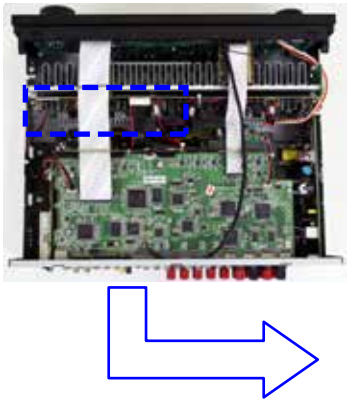
(3) Disconnect the connector wire. Remove the screws.

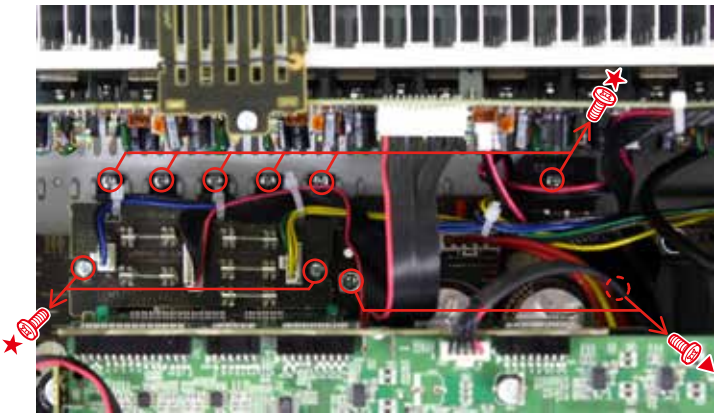


Shooting direction: C

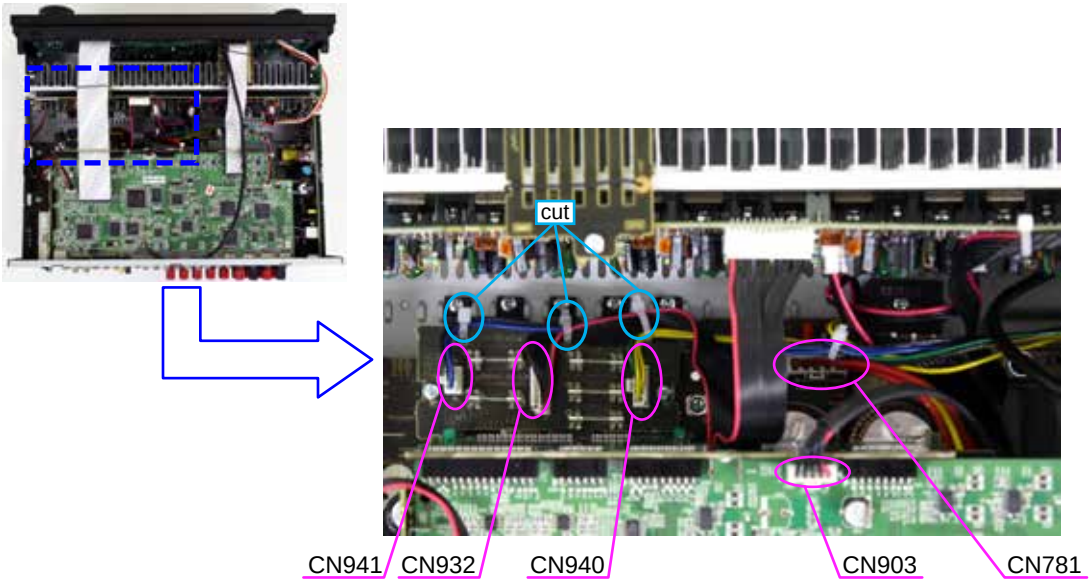


(4) Remove the screws.

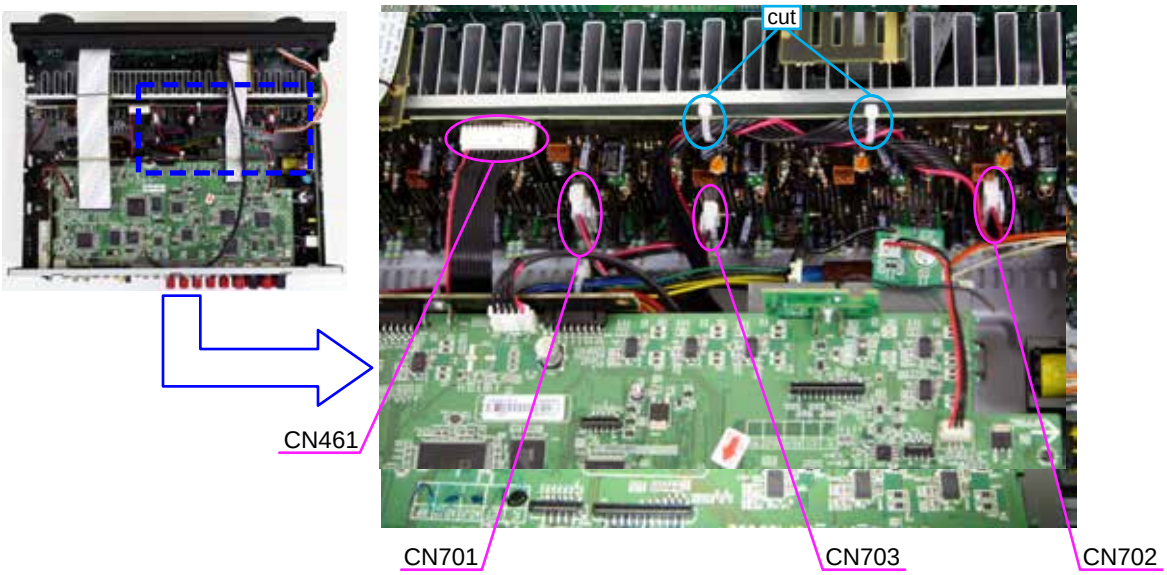




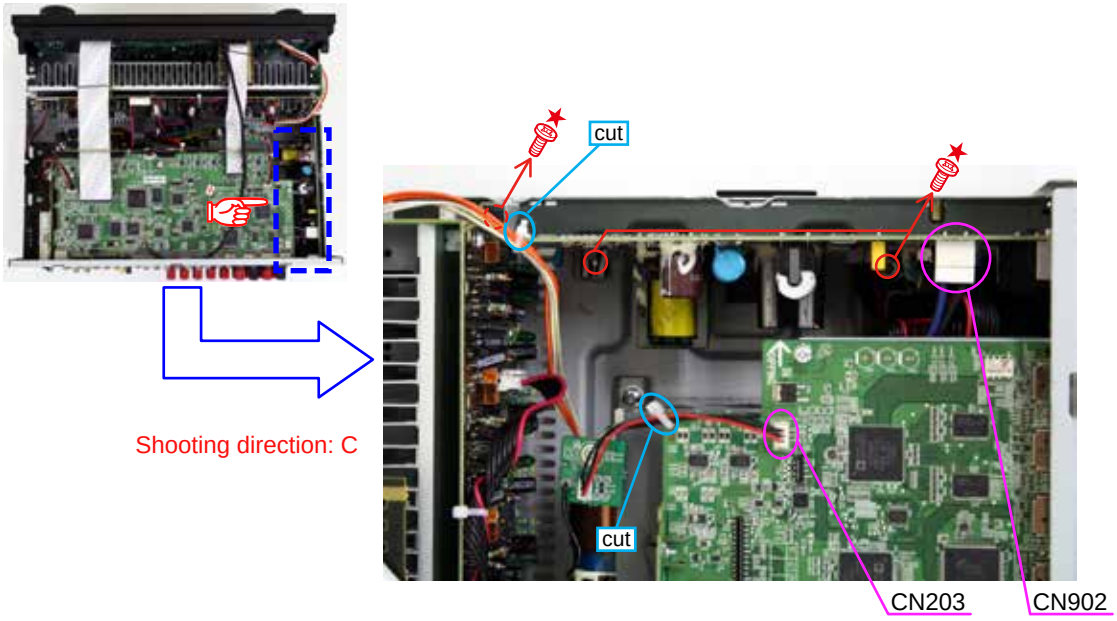
(5) Cut the wire clamp band, then disconnect the connector wires.



(6) Cut the wire clamp band, then disconnect the connector wires.



(7) Cut the wire clamp bands, then disconnect the connector wires, and remove the screws.



(8) Remove the screw.

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

4. TRANS MAIN

Proceeding : CABINET TOP → HDMI UNIT ASSY → POWER TRANS

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

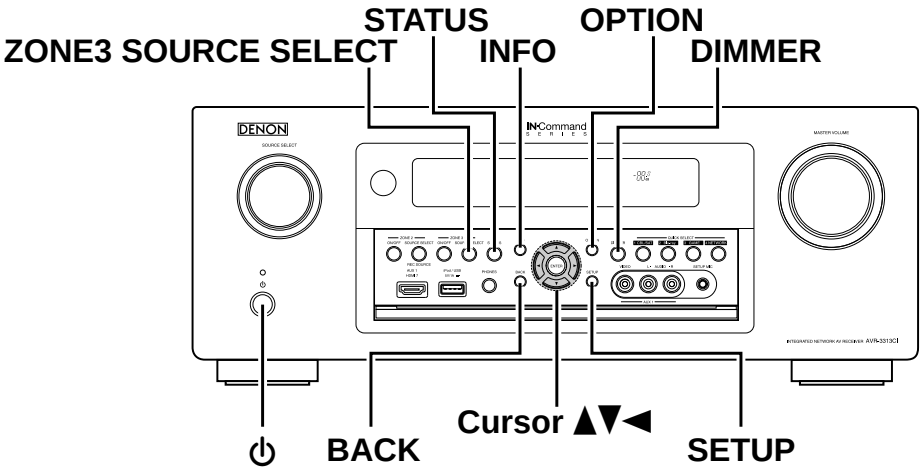
SPECIAL MODE

Special mode setting button

※ No.1 - 5, 7, 8 : Press the "Power operation (⏻)" button to turn on the power while pressing both the buttons A and the button B at the same time.

※ No.6 : Turn on the power, then press and hold down the A and B buttons for over 3 seconds.

No.	Mode	Button A	Button B	Contents
1	Version display (µcom/DSP Error Display)	SETUP	OPTION	Firmware versions such as Main or DSP are displayed in the FL Display. Errors are displayed when they occur. (Refer to 21 page)
2	User Initialization mode (Installer Setup settings are not initialized.)	INFO	BACK	Backup data initialization is carried out. (Installer Setup settings are not initialized.)
3	Factory Initialization mode (Installer Setup settings are also initialized.)	Cursor ▲	Cursor ▼	Backup data initialization is carried out. (Installer Setup settings are also initialized.)
4	PANEL/REMOTE LOCK Selection mode	STATUS	INFO	Selects to reject operations through panel buttons and the master volume knob on the main unit and operations via the remote control. (Refer to 25 page)
5	Service Related Selection mode	STATUS	ZONE3 SOURCE SELECT	Selects the “Diagnostic mode” or “Displaying the protection history mode”. (Refer to 26 page)
6	Remote ID Setup mode	DIMMER	STATUS	When using multiple DENON AV receivers in the same room, make this setting so that only the desired AV receiver operates. (Refer to 65 page)
7	Mode for switching tuner frequency step (E2 model Only)	OPTION	BACK	Change tuner frequency step to FM:50kHz/200kHz
8	Installer Setup mode	Cursor ◄	BACK	Access the Remote Maintenance mode via the internet. Installer Setup is displayed on GUI/Option Menu. ※ Refer to AVR_RemoteMaintenance_.pdf of SDI.



1. µcom/DSP Version display mode

1.1. Operation specifications

µcom/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 "SETUP" and "OPTION" buttons.
Now, press the "STATUS" button to the display the 2nd item information on the FL Display.
※ When the version is displayed on the FL Display, the version list is also displayed on the OSD.

1.2. Display Order

Error information(Refer to **1.3. Error display**) → ① Model destination information → ② Firmware Package Version
→ ③ Main µ-com/MAIN FBL(1st Boot Loader) Version → ④ Sub µ-com/Sub FBL → ⑤ DSP version → ⑥ Audio PLD
→ ⑦ GUI SFLASH → ⑧ Ethernet(DM860A) 1st Boot Loader, Hardware ID
→ ⑨ Ethernet(DM860A) 2nd Boot Loader → ⑩ Ethernet(DM860A) IMAGE
→ ⑪ Ethernet(DM860A)MAC ADDRESS information → ⑫ HD RADIO SDK/HD RADIO BBP(AVR-3313CIE3 only)
→ ⑬ MultEQ Pro APP(Displayed when Audyssey Pro is complete)
→ ⑭ MultEQ Pro ICL(Displayed when Audyssey Pro is complete

① Model destination information :

Upper	A	V	R	3	3	1	3		E	3		:	*	*	*	*
Lower	S	/	N	.			*	*	*	*	*	*	*	*	*	*

② Firmware Package Version :

Upper		F	i	r	m	.		P	a	c	k	a	g	e		
Lower								V	e	r	.	:	*	*	*	*

③ Main µ-com & MAIN FBL version :

Upper		M	a	i	n						:	*	*	.	*	*
Lower		M	a	i	n		F	B	L		:	*	*	.	*	*

④ Sub µ-com & Sub FBL :

Upper		S	u	b							:	*	*	.	*	*
Lower		S	u	b		F	B	L			:	*	*	.	*	*

⑤ DSP ROM :

Upper		D	S	P							:	*	*	.	*	*
Lower																

⑥ Audio PLD :

Upper		A	u	d	i	o		P	L	D	:	*	*	.	*	*
Lower																

⑦ GUI SFLASH :

Upper		G	U	I				:	*	*	*	*	*	*	*	*
Lower																

⑧ Ethernet(DM860A) 1st Boot Loader, Hardware ID :

Upper		E	t	h	e	r	n	e	t		F	B	L			
Lower	*	*	*	*	*	*	-	A	A							

⑨ Ethernet(DM860A) 2nd Boot Loader :

Upper		E	t	h	e	r	n	e	t		S	B	L			
Lower	*	*	*	*	*	*	*	*	*	*	*	*	*	-	B	B

⑩ Ethernet(DM860A) IMAGE :

Upper		E	t	h	e	r	n	e	t		I	M	G			
Lower	*	*	*	*	*	*	*	*	*	*	*	*	*			

⑪ Ethernet(DM860A)MAC ADDRESS information :

Upper	*	E	t	h	e	r	n	e	t		M	A	C			
Lower		*	*	*	*	*	*	-	*	*	*	*	*	*		

⑫ HD RADIO SDK/HD RADIO BBP (AVR-3313CIE3 onlly) :

Upper	*	H	D	S	D	K	:				*	*	.	*	*	
Lower	*	H	D	B	B	P	:	*	*	*	*	*	.	*	*	*

⑬ MultEQ Pro APP :

Upper	*	M	u	l	t	E	Q		P	r	o		A	P	P	
Lower	*	*	.	*	*	.	*	*	.	*	*	*	*			

⑭ MultEQ Pro ICL :

Upper	*	M	u	l	t	E	Q		P	r	o		I	C	L	
Lower	*	*	.	*	*	.	*	*	.	*	*	*	*			

1.3. Error display

See the following table for each "Error information" display and its explanation (status).
Display order is ①,②,③,④,⑤,⑥,⑦,⑧.

Condition	Status	FL Display	Trouble shooting
① Firm Check NG	Compared with the destination setting on the board. This is displayed when the model name or destination information written into the firmware does not match. (※1)	FIRM ERROR	• Please check the destination-resistors (R2060/R2061, HDMI B'D). • Please write the firmware of correct destination.
② GUI Version NG	Error occurs in GUI version and Main μ-com version.(※2)	GUI VER. ERROR	• Please check the firmware of correct version.
③ SUB NG	No response from SUB microcomputer.	SUB ERROR 01	• Please check SUB (IC231) and arroud circuits.
④ DIR NG	No response from DIR	DIR ERROR 01	• Please check DIR (IC403, HDMI B'D) and around circuits.
⑤ DSP NG	When DSP code boot is performed, the DSP FLAG0 port does not change to "H" even if DSP reset is executed.	DSP ERROR 01	• Please check DSP (IC408, HDMI B'D) and around circuits.
	Before DSP command is issued, the DSP BUSY port does not change to "L".	DSP ERROR 02	
	When DSP data read is performed, executing WRITE="L" does not result in ACK="H".	DSP ERROR 03	
	When DSP data read is performed, executing REQ="L" does not result in ACK="L".	DSP ERROR 04	
	When DSP data writing is performed, executing WRITE="H" does not result in ACK="H".	DSP ERROR 05	
	When DSP data writing is performed, executing REQ="L" does not result in ACK="L".	DSP ERROR 06	
⑥ IP SCALER NG	An error has occurred in the i/p Scaler (ADV8003)initial settings. The error is a DDR memory Loopback Test error.	IP SCALER ERR 01	• Please check ADV8003 (IC151) and arroud circuits.
	Testing writing data between IP SCALER and DRR resulted in no response.	IP SCALER ERR 02	
⑦ E2PROM NG	Error occurs in E2PROM checksum.(*** is a block address number.)	E2PROM ERR***	
⑧ Both DSP / EEPROM OK		(No error display, version display only)	

Status	FL Display
※1, ※2 The written Firmware and product settings (model name, brand name, destination) are compared. If Firmware that is not designed for this product is written, ▲ is displayed in the first column, as shown on the right.	▲Main :***.**
	▲SUB :***.**
	▲DSP :***.**
	▲Audio PLD:***.**
	▲GUI :********

1.4. Version display on the Setup Menu

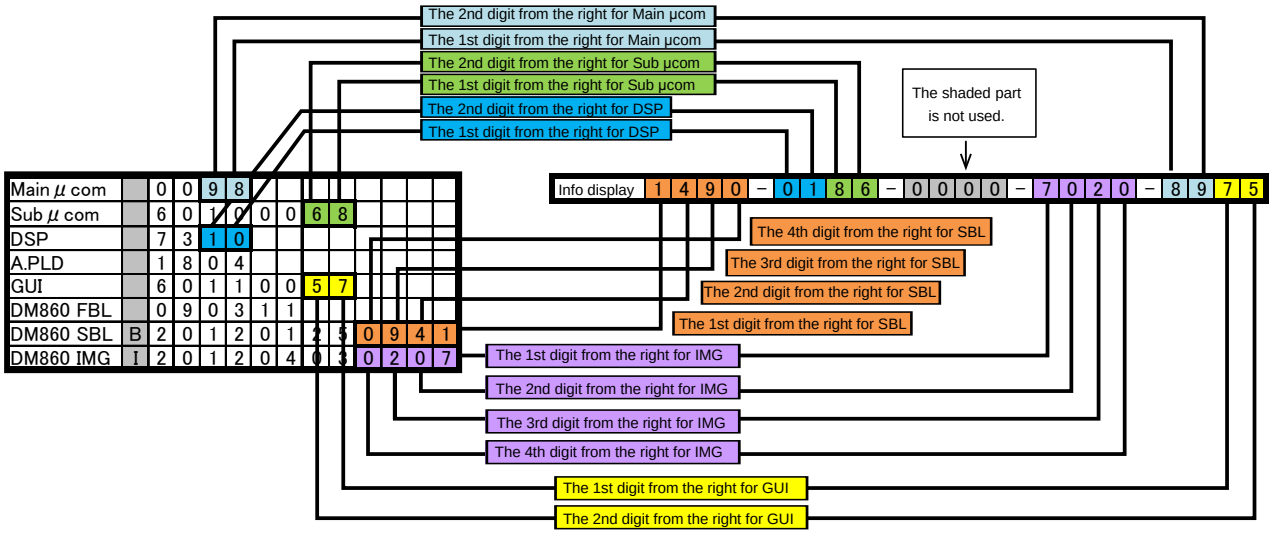
Use the following procedure to display the firmware version.

(1) Press the "SETUP" button on the remote control.
(2) Select "General-Information-Firmware".

A version with 20 digits is displayed as shown in the following image.

AVR-3313 GUI Image

The displayed 20 digits are derived from each device version as shown below



※ This firmware version No. (xxxx-xxxx-xxxx-xxxx) is included in the service contact document.
These 20 digits are also included in the document.

2. PANEL/REMOTE LOCK Selection mode

2.1. Behavior specifications

In this mode, you can switch between the PANEL LOCK MODE and the Mode for preventing remote control acceptance.

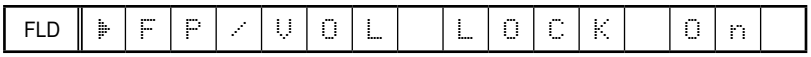
2.2. Starting up

Press the "Power operation (⏻)" button to turn on power while pressing the "STATUS" and "INFO" buttons.
Press the "Cursor ▲/▼" button to select the mode and the "STATUS" button to confirm the selection.

2.3. Mode selection method and how each mode is displayed

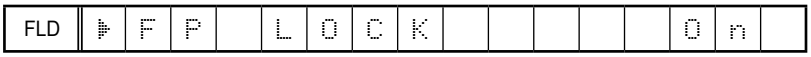
Each time you press the "Cursor ▲/▼" button, the mode displayed on the FL DISPLAY changes.
While the desired mode name is displayed on the FL DISPLAY, press the "STATUS" button. The set is restarted and the selected mode takes effect.
The currently set item is marked with " ∗ ".

①



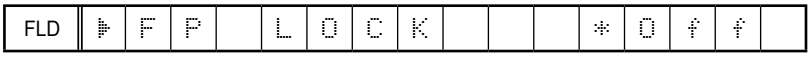
Operations using the main unit panel buttons and the master volume knob are rejected.

②



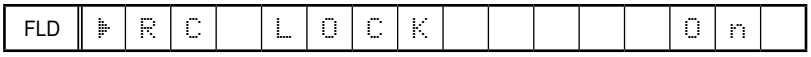
Operations using the main unit panel buttons are rejected.

③



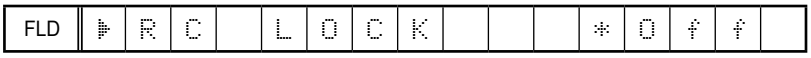
Panel lock mode is cancelled.

④



Operations using the remote control are rejected.

⑤



RC lock mode is cancelled.

3. Service Related Selection mode

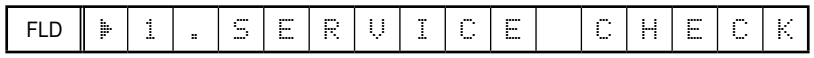
3.1. Behavior specifications

In this mode, you can switch between the Diagnostic mode (SERVICE CHECK), the Displaying the protection mode (PROTECTION) and the 232C clear mode (RS232C RESET).

3.2. Starting up

Press the "Power operation (⏻)" button to turn on power while pressing the "ZONE3 SOURCE SELECT" and "STATUS" buttons.
Press the "Cursor ▲/▼" button to select the mode and press the "ENTER" button to restart the set and make the setting take effect.

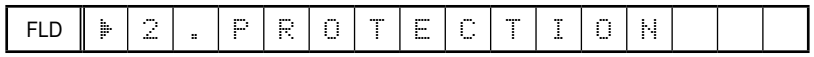
①



This mode is used for confirming the Video and Audio (signal) paths. (Diagnostic mode)

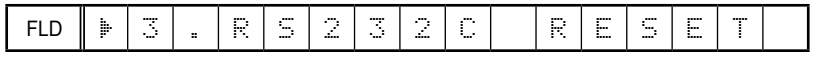
The signal paths of the set can be easily confirmed after repair.

②



The protection history can be checked.

③

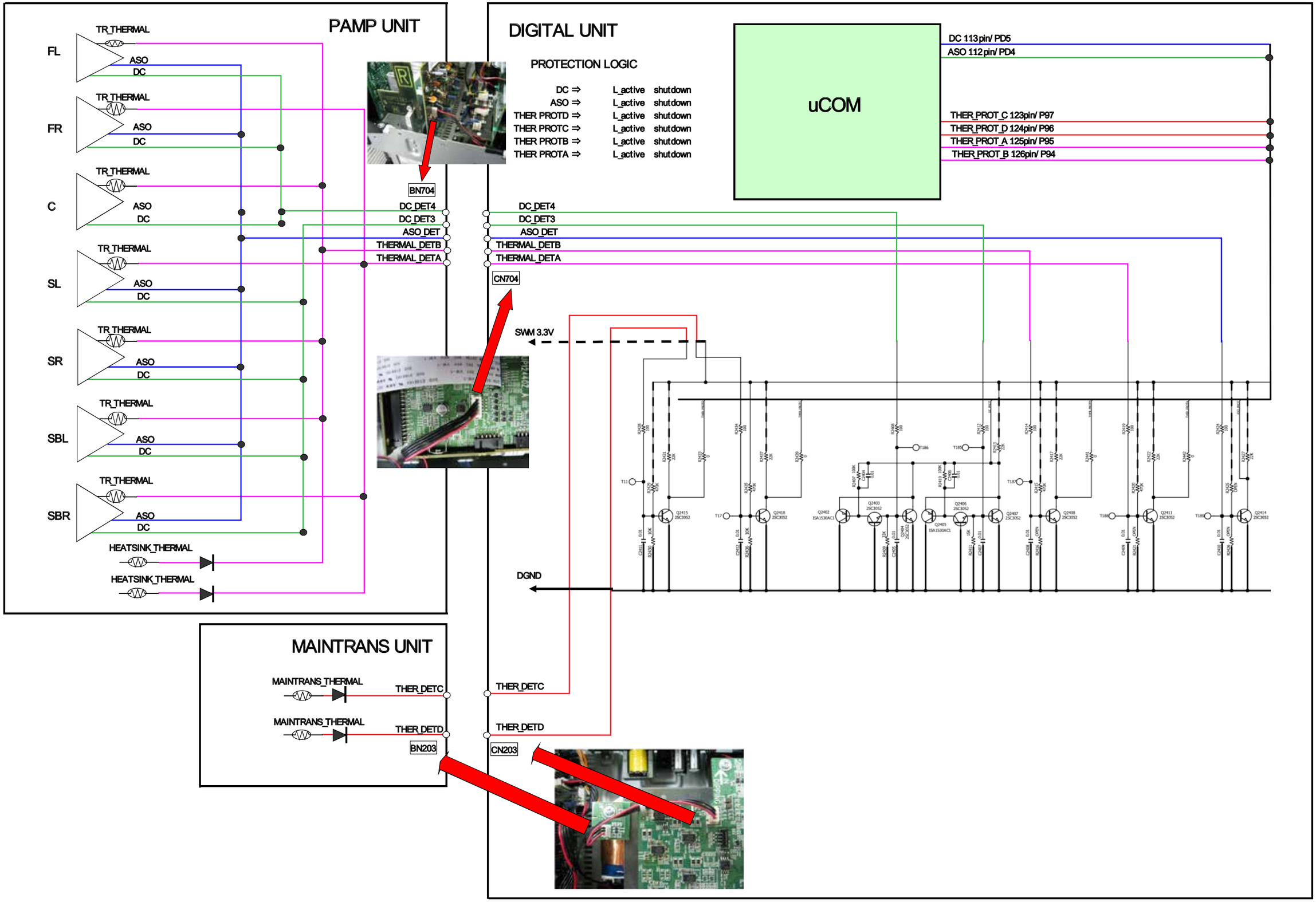


The 232C standby mode is changed to the Normal standby mode.

3.3. Canceling diagnostic mode

Turn off the power by pressing the "Power operation (⏻)" button.

PROTECTION DIAGRAM



3.4. DIAGNOSTIC MODE (Video/Audio (signal) path confirmation mode)

This mode is used for confirming the Video and Audio (signal) paths. (Troubleshooting)
Confirming the operation of unit can be easily done after repair.
Backup data will not be lost.

3.4.1. Starting diagnostic mode

Press the "ZONE3 SOURCE SELECT" and "STATUS" button while simultaneously pressing those two buttons of this unit.
TUNED, STEREO and RDS are lit in FL display.

3.4.2. Canceling diagnostic mode

Turn off the power by pressing the ON/Standby button.

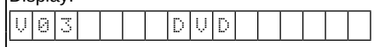
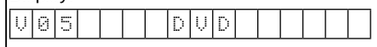
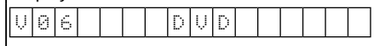
3.4.3. Operation

Use the remote control (RC-1156) that is supplied with the AVRxx12 model. Press buttons on the remote control in the order indicated in the “Details of how to operate remote control”[a)] column in the following table to establish the confirmation path.
You will find using another remote control unit with the macro functions very useful. To use the macro functions, program a macro function to output a remote control code in accordance with the steps in the table below.

3.4.4. Video system confirmation items

fig.XX : Refer to the block diagram of the fig.XXth.

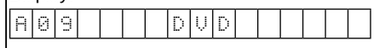
	Confirmation item	Setting and display	Details of how to operate remote controller *a)	Output sequence of remote control codes ※ It is useful to form a macro program. *b)	Contents of confirmation	Remarks
1	Analog Video (signal) Path **fig.1**	Video Convert (IP Scaler) : OFF , All Sources All ZONE : ON Display: V 0 1 D V D	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF]	①ZONE2 POWER OFF	·Input : CVBS / Output : CVBS ·Input : CVBS / Output : CVBS RECOUT (MEDIA PLAYER) ·Input : CVBS / Output : CVBS ZONE2 ·Input : Component / Output : Component ·Input : Component / Output : Component ZONE2 ·input ETHERNET (CVBS) / Output :CVBS (※ As the input source, you can switch from DVD to other ones.)	
			4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF]	②ZONE3 POWER OFF		
			6.Press [ZONE SELECT], Select "MAIN" 7.Press [1/./]	③KEY 1/CODE1 (Main Zone) Initialization & Video Convert All OFF		
			8.Press [ZONE SELECT], Select "ZONE2" 9.Press [ZONE ON]	④ZONE2 POWER ON		
			10.Press [ZONE SELECT], Select "ZONE3" 11.Press [ZONE ON]	⑤ZONE3 POWER ON		
			12.Press [ZONE SELECT], Select "MAIN" 13.Press [DVD]	⑥DVD (Main Zone)		
2	HDMI (signal) Path (Main Zone) **fig.2**	Video Convert(IP Scaler) : OFF, All Sources All ZONE:ON Display: V 0 1 D V D	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF]	①ZONE2 POWER OFF	·Input : HDMI / Output : HDMI (※ As the input source, you can switch from DVD to other ones.)	
			4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF]	②ZONE3 POWER OFF		
			6.Press [ZONE SELECT], Select "MAIN" 7.Press [1/./]	③KEY1/CODE1 (Main Zone) Initialization & Video Convert All OFF		
			8.Press [ZONE SELECT], Select "ZONE2" 9.Press [ZONE ON]	④ZONE2 POWER ON		
			10.Press [ZONE SELECT], Select "ZONE3" 11.Press [ZONE ON]	⑤ZONE3 POWER ON		
			12.Press [ZONE SELECT], Select "MAIN" 13.Press [DVD]	⑥DVD (Main Zone)		
3	Analog or HDMI to HDMI (signal) Path **fig.3**	Video Convert(IP Scaler) : ON, All Sources IP Scaler : Analog & HDMI , All Sources Resolution : "AUTO", All Sources Display: V 0 2 D V D	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF]	①ZONE2 POWER OFF	·Input CVBS / Through : IP Scaler / Output : HDMI ·Input Component / Through : IP Scaler / Output : HDMI ·Input HDMI / Through : IP Scaler / Output : HDMI ·Input ETHERNET (S) / Through : IP Scaler / Output : HDMI (※ As the input source, you can switch from DVD to other ones.)	Confirm the input pass one by one. Because it becomes only the input of the highest input becomes Convert/IP Scaler (signal) Path if it inputs it at the same time. (HDMI input > Component input > CVBS input)
			4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF]	②ZONE3 POWER OFF		
			6.Press [ZONE SELECT], Select "MAIN" 7.Press [2/ABC]	③KEY 2/ABC (Main Zone) Initialization & Video Convert All ON & IP Scaler "Analog & HDMI"		
			8.Press [DVD]	④DVD (Main Zone)		

	Confirmation item	Setting and display	Details of how to operate remote controller *a)	Output sequence of remote control codes ※ It is useful to form a macro program. *b)	Contents of confirmation	Remarks
4	OSD FUNCTION **fig.4**	Video Convert(IP Scaler) : ON, All Sources IP Scaler : Analog & HDMI , All Sources Resolution : "AUTO", All Sources Menu : ON All ZONE :ON Display: 	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF]	①ZONE2 POWER OFF	·OSD Display / Output : HDMI (※ As the input source, you can switch from DVD to other ones.)	
			4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF]	②ZONE3 POWER OFF		
			6.Press [ZONE SELECT], Select "MAIN" 7.Press [2/ABC]	③KEY 2/ABC (Main Zone) Initialization &VideoConvert All ON & IP Scaler"Analog&HDMI"		
			8.Press [ZONE SELECT], Select "ZONE2" 9.Press [ZONE ON]	④ZONE2 POWER ON		
			10.Press [ZONE SELECT], Select "ZONE3" 11.Press [ZONE ON]	⑤ZONE3 POWER ON		
			12.Press [ZONE SELECT], Select "MAIN" 13.Press [DVD]	⑥DVD (Main Zone)		
			14.Press [AMP] 15.Press [MENU]	⑦GUI MENU (Main Zone)		
5	CEC FUNCTION (Control Monitor : HDMI Monitor1) **fig.5**	HDMI Control : ON Control Monitor Monitor1 (When checking the HDMI Monitor Out1) Display: 	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF]	①ZONE2 POWER OFF	·When the power supply of a TV is put in the standby mode, make sure that the power supply of this unit is also put in the standby mode. (※ As the input source, you can switch from DVD to other ones.)	
			4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF]	②ZONE3 POWER OFF		
			6.Press [ZONE SELECT], Select "MAIN" 7.Press [3/DEF]	③KEY 3/DEF (Main Zone) Initialization & CEC Control ON & Select Control Monitor 1		
			8.Press [DVD]	④DVD (Main Zone)		
6	CEC FUNCTION (Control Monitor : HDMI Monitor 2) **fig.6**	HDMI Control : ON Control Monitor Monitor 2 (When checking the HDMI Monitor Out 2) Display: 	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF]	①ZONE2 POWER OFF	When the power supply of a TV is put in the standby mode, make sure that the power supply of this unit is also put in the standby mode. (※ As the input source, you can switch from DVD to other ones.)	
			4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF]	②ZONE3 POWER OFF		
			6.Press [ZONE SELECT], Select "MAIN" 7.Press [4/GHI]	③KEY 4/GHI (Main Zone) Initialization & CEC Control ON & Select Control Monitor 2		
			8.Press [DVD]	④DVD (Main Zone)		
7	HDMI Audio (signal) Path (Audio : AMP) **fig.7**	Audio : AMP(When checking the audio output from AMP) Display: 	1.Press [AMP] 2.Press [ZONE SELECT], Select "ZONE2" 3.Press [ZONE OFF]	①ZONE2 POWER OFF	·Input : HDMI (Signal of PCM, DolbyDigital or DTS) / Output : Speakers ·Input : HDMI (Signal of HD Audio) / Output : Speakers (※ As the input source, you can switch from DVD to other ones.)	
			4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF]	②ZONE3 POWER OFF		
			6.Press [ZONE SELECT], Select "MAIN" 7.Press [5/JKL]	③KEY 5/JKL (Main Zone) Initialization & Select Audio AMP		
			8.Press [DVD]	④DVD (Main Zone)		
8	HDMI Audio (signal) Path (Audio : TV) **fig.8**	Audio : TV(When checking the audio output from TV) Display: 	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF]	①ZONE2 POWER OFF	·Input : HDMI (Signal of PCM or DolbyDigital or DTS) / Output : HDMI (Audio output from connected TV) (※ As the input source, you can switch from DVD to other ones.)	
			4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF]	②ZONE3 POWER OFF		
			6.Press [ZONE SELECT], Select "MAIN" 7.Press [6/MNO]	③KEY 6/MNO (Main Zone) Initialization & Audio Select TV		
			8.Press [DVD]	④DVD (Main Zone)		
9	HDMI (signal) Path (ZONE2) **fig.9**	Video Convert(IP Scaler) : OFF, All Sources All ZONE:ON Display: 	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF]	①ZONE2 POWER OFF	·Input : HDMI (ZONE2 Function) / Output : HDMI (ZONE2) (※ As the input source, you can switch from DVD to other ones.)	
			4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF]	②ZONE3 POWER OFF		
			6.Press [ZONE SELECT], Select "MAIN" 7.Press [1/./]	③KEY1/CODE1 (Main Zone) Initialization & Video Convert All OFF		
			8.Press [ZONE SELECT], Select "ZONE2" 9.Press [ZONE ON]	④ZONE2 POWER ON		
			10.Press [ZONE SELECT], Select "MAIN" 11.Press [DVD]	⑥DVD (Main Zone)		

3.5. Audio system confirmation items

fig.XX : Refer to the block diagram of the fig.XXth.

	Confirmation item	Setting and display	Details of how to operate remote controller	Output sequence of remote control codes ※ It is useful to form a macro program.	Contents of confirmation	Remarks
1	Analog (signal) Path **fig.10**	Input Mode : Fixed ANALOG SURROUND mode : DIRECT Amp assign : NORMAL Display: A01 DVD	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF]	①ZONE2 POWER OFF	·Input : Analog / Output : Speakers (Front L/R) ·Input : Analog / Output : Pre OUT(Front L/R) (※ As the input source, you can switch from DVD to other ones.)	
			4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF]	②ZONE3 POWER OFF		
			6.Press [ZONE SELECT], Select "MAIN" 7.Press [7/PQRS]	③KEY 7/PQRS (Main Zone) Initialization & Amp assign NORMAL& Input Mode Fixed ANALOG & SURROUND mode DIRECT		
			8.Press [DVD]	④DVD (Main Zone)		
2	DIGITAL (signal) Path (MAIN) **fig.11**	Input Mode : Fixed DIGITAL Amp assign : NORMAL Display: A02 DVD	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF]	①ZONE2 POWER OFF	·Input : Digital / Output : Speakers (Front L/R) ·Input : Digital / Output : Pre OUT(Front L/R) (※ As the input source, you can switch from DVD to other ones.)	
			4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF]	②ZONE3 POWER OFF		
			6.Press [ZONE SELECT], Select "MAIN" 7.Press [8/TUV]	③KEY 8/TUV (Main Zone) Initialization & Amp assign NORMAL& Input Mode Fixed DIGITAL		
			8.Press [DVD]	④DVD (Main Zone)		
4	HDMI (signal) Path **fig.12**	Input Mode : Fixed HDMI Amp assign : NORMAL Display: A05 DVD	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF]	①ZONE2 POWER OFF	·Input : HDMI / Output : Speakers (Front L/R) ·Input : HDMI / Output : Pre OUT(Front L/R) (※ As the input source, you can switch from DVD to other ones.)	
			4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF]	②ZONE3 POWER OFF		
			6.Press [ZONE SELECT], Select "MAIN" 7.Press [MOVIE]	③MOVIE Initialization &Amp assign NORMAL & Input Mode Fixed HDMI		
			8.Press [DVD]	④DVD (Main Zone)		
5	A/D (signal) Path (Main Zone) **fig.13**	Amp assign : NORMAL SURROUND mode : Multi ch STEREO Vol -20dB Speaker Config : SSSSY (Front/Center/Surround/SourroundBack : Small, SW : Yes) Display: A06 DVD	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF]	①ZONE2 POWER OFF	·Input : Analog / Output : Speakers (Front L/R) ·Input : Analog / Output : Pre OUT(Front L/R), SW(20Hz) (※ As the input source, you can switch from DVD to other ones.)	
			4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF]	②ZONE3 POWER OFF		
			6.Press [ZONE SELECT], Select "MAIN" 7.Press [MUSIC]	③MUSIC Initialization &Amp assign NORMAL & SURROUND mode : Multi ch STEREO & Volume -20dB		
			8.Press [DVD]	④DVD (Main Zone)		
6	Amp Assign (signal) Path (Amp Assign : ZONE2) **fig.14**	Amp assign : ZONE2 ZONE2 Function : Source Zone2 Vol -20dB Display: A07 DVD	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF]	①ZONE2 POWER OFF	·Input : Analog / Output : Speakers (SURR BACK L/R) ·Input : Analog / Output : Pre OUT (ZONE2 L/R) (※ As the input source, you can switch from DVD to other ones.)	
			4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF]	②ZONE3 POWER OFF		
			6.Press [ZONE SELECT], Select "MAIN" 7.Press [GAME]	③GAME Initialization & Amp assign ZONE2 & SURROUND mode : Multi ch STEREO & ZONE2 Volume -20dB		
			8.Press [ZONE SELECT], Select "ZONE2" 9.Press [ZONE ON]	④ZONE2 POWER ON		
			10.Press [ZONE SELECT], Select "MAIN" 11.Press [DVD]	⑤DVD (Main Zone)		

	Confirmation item	Setting and display	Details of how to operate remote controller	Output sequence of remote control codes ※ It is useful to form a macro program.	Contents of confirmation	Remarks
7	Amp Assign (signal) Path (Amp Assign : ZONE3) **fig.15**	Amp assign : ZONE3 SURROUND mode : Multi ch STEREO Zone3 Vol -20dB Display: 	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF]	①ZONE2 POWER OFF	·Input : Analog / Output : Speakers (SURR BACK L/R) ·Input : Analog / Output : Pre OUT (ZONE3 L/R) (※ As the input source, you can switch from DVD to other ones.)	
			4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF]	②ZONE3 POWER OFF		
			6.Press [ZONE SELECT], Select "MAIN" 7.Press [DIRECT]	③DIRECT Initialization & Amp assign ZONE3 & SURROUND mode : Multi ch STEREO & ZONE3 Volume -20dB		
			8.Press [ZONE SELECT], Select "ZONE3" 9.Press [ZONE ON]	④ZONE3 POWER ON		
			10.Press [ZONE SELECT], Select "MAIN" 11.Press [DVD]	⑤DVD (Main Zone)		
8	Amp Assign (signal) Path (Amp Assign : ZONE2/ZONE3-MONO) **fig.16**	Amp assign : ZONE2/ZONE3-MONO SURROUND mode : Multi ch STEREO ZONE2 Vol -20dB ZONE3 Vol -20dB Display: 	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF]	①ZONE2 POWER OFF	·Input : Analog / Output : Speakers (SURR BACK L/R) ·Input : Analog / Output : Pre OUT (ZONE2 L/R) ·Input : Analog / Output : Pre OUT (ZONE3 L/R) (※ As the input source, you can switch from DVD to other ones.)	
			4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF]	②ZONE3 POWER OFF		
			6.Press [ZONE SELECT], Select "MAIN" 7.Press [◀◀]	③◀◀ Initialization & Amp assign ZONE2/ZONE3-MONO & SURROUND mode : Multi ch STEREO & ZONE2 Volume -20dB & ZONE3 Volume -20dB		
			8.Press [ZONE SELECT], Select "ZONE2" 9.Press [ZONE ON]	④ZONE2 POWER ON		
			10.Press [ZONE SELECT], Select "ZONE3" 11.Press [ZONE ON]	⑤ZONE3 POWER ON		
			12.Press [ZONE SELECT], Select "MAIN" 13.Press [DVD]	⑥DVD (Main Zone)		
9	Amp Assign (signal) Path (Amp Assign : 2CH) **fig.17**	Amp assign : 2CH SURROUND mode : DIRECT Vol -20dB Display: 	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF]	①ZONE2 POWER OFF	·Input : Analog / Output : Speakers (SURR BACK L/R) ·Input : Analog / Output : Pre OUT (Front L/R) (※ As the input source, you can switch from DVD to other ones.)	
			4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF]	②ZONE3 POWER OFF		
			6.Press [ZONE SELECT], Select "MAIN" 7.Press [▶▶]	③▶▶ Initialization &Amp assign 2CH & SURROUND mode : DIRECT & Volume -20dB		
			8.Press [DVD]	④DVD (Main Zone)		
10	Amp Assign (signal) Path (Amp Assign : BiAMP) **fig.18**	Amp assign : BiAMP SURROUND mode : Multi ch STEREO Vol -20dB Display: 	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF]	①ZONE2 POWER OFF	·Input : Analog / Output : Speakers (SURR BACK L/R) ·Input : Analog / Output : Pre OUT (SB L/R) (※ As the input source, you can switch from DVD to other ones.)	
			4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF]	②ZONE3 POWER OFF		
			6.Press [ZONE SELECT], Select "MAIN" 7.Press [I◀◀]	③I◀◀ Initialization & Amp assign BiAMP & SURROUND mode : Multi ch STEREO & Volume -20dB		
			8.Press [DVD]	④DVD (Main Zone)		

	Confirmation item	Setting and display	Details of how to operate remote controller	Output sequence of remote control codes ※ It is useful to form a macro program.	Contents of confirmation	Remarks
11	Amp Assign (signal) Path (Amp Assign : Front-B) **fig.18**	Amp assign : Front-B SURROUND mode : Multi ch STEREO Vol -20dB Display: A 1 2 D V D	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF]	①ZONE2 POWER OFF	·Input : Analog / Output : Speakers (SURR BACK L/R) ·Input : Analog / Output : Pre OUT (SB L/R) (※ As the input source, you can switch from DVD to other ones.)	
			4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF]	②ZONE3 POWER OFF		
			6.Press [ZONE SELECT], Select "MAIN" 7.Press [▶▶I]	③▶▶I Initialization & Amp assign Front-B & SURROUND mode Multi ch STEREO & Volume -20dB		
			8.Press [DVD]	④DVD (Main Zone)		
12	Front Height (signal) Path **fig.19**	Amp assign : Front Height SURROUND mode : Multi ch STEREO Vol -20dB Surround Parameter-Speaker : F.Height Display: A 1 4 D V D	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF]	①ZONE2 POWER OFF	·Input : Analog / Output : Speakers (F.HEIGHT L/R) (※ As the input source, you can switch from DVD to other ones.)	
			4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF]	②ZONE3 POWER OFF		
			6.Press [ZONE SELECT], Select "MAIN" 7.Press [+10/MEMORY]	③MEMORY/+10 (Main Zone) Initialization & Amp assign NORMAL & SURROUND mode:Multi ch STEREO & Volume -20dB & Surround Parameter-Speaker : F.Height		
			8.Press [DVD]	④DVD (Main Zone)		
13	Front Wide (signal) Path **fig.20**	Amp assign : NORMAL SURROUND mode : Multi ch STEREO Vol -20dB Surround Parameter-Speaker : F.Wide Display: A 1 5 D V D	1.Press [AMP] 2.Press [ZONE SELECT], Select "ZONE2" 3.Press [ZONE OFF]	①ZONE2 POWER OFF	·Input : Analog / Output : Speakers (F.WIDE L/R) (※ As the input source, you can switch from DVD to other ones.)	
			4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF]	②ZONE3 POWER OFF		
			6.Press [ZONE SELECT], Select "MAIN" 7.Press [SLEEP]	③SLEEP MODE Initialization &Amp assign NORMAL & SURROUND mode:Multi ch STEREO & Volume -20dB Surround Parameter-Speaker : F.Wide		
			8.Press [DVD]	④DVD (Main Zone)		

BLOCK DIAGRAM

fig.1

AVR3313 ANALOG VIDEO BLOCK

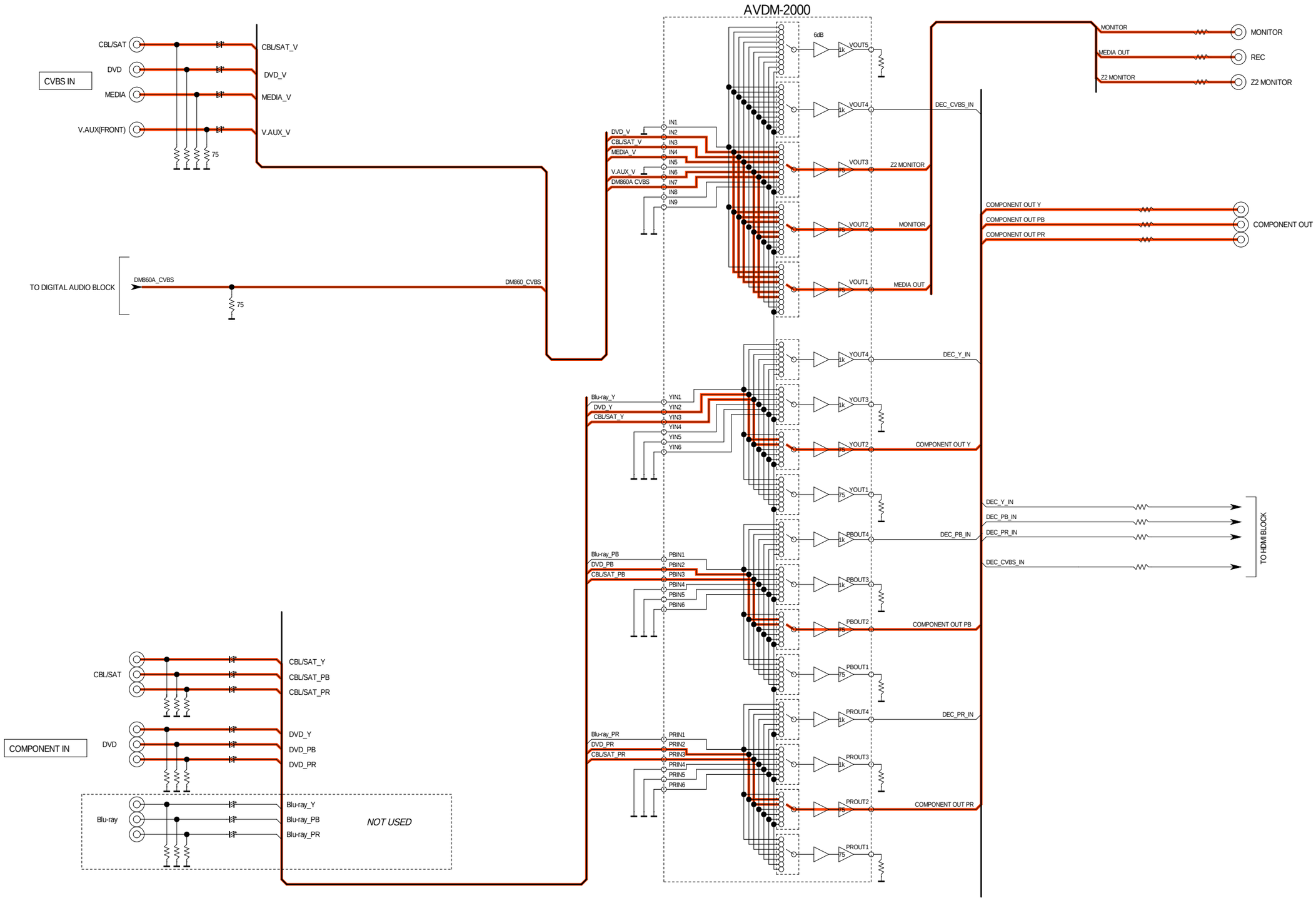


fig.2

AVR3313 HDMI VIDEO BLOCK

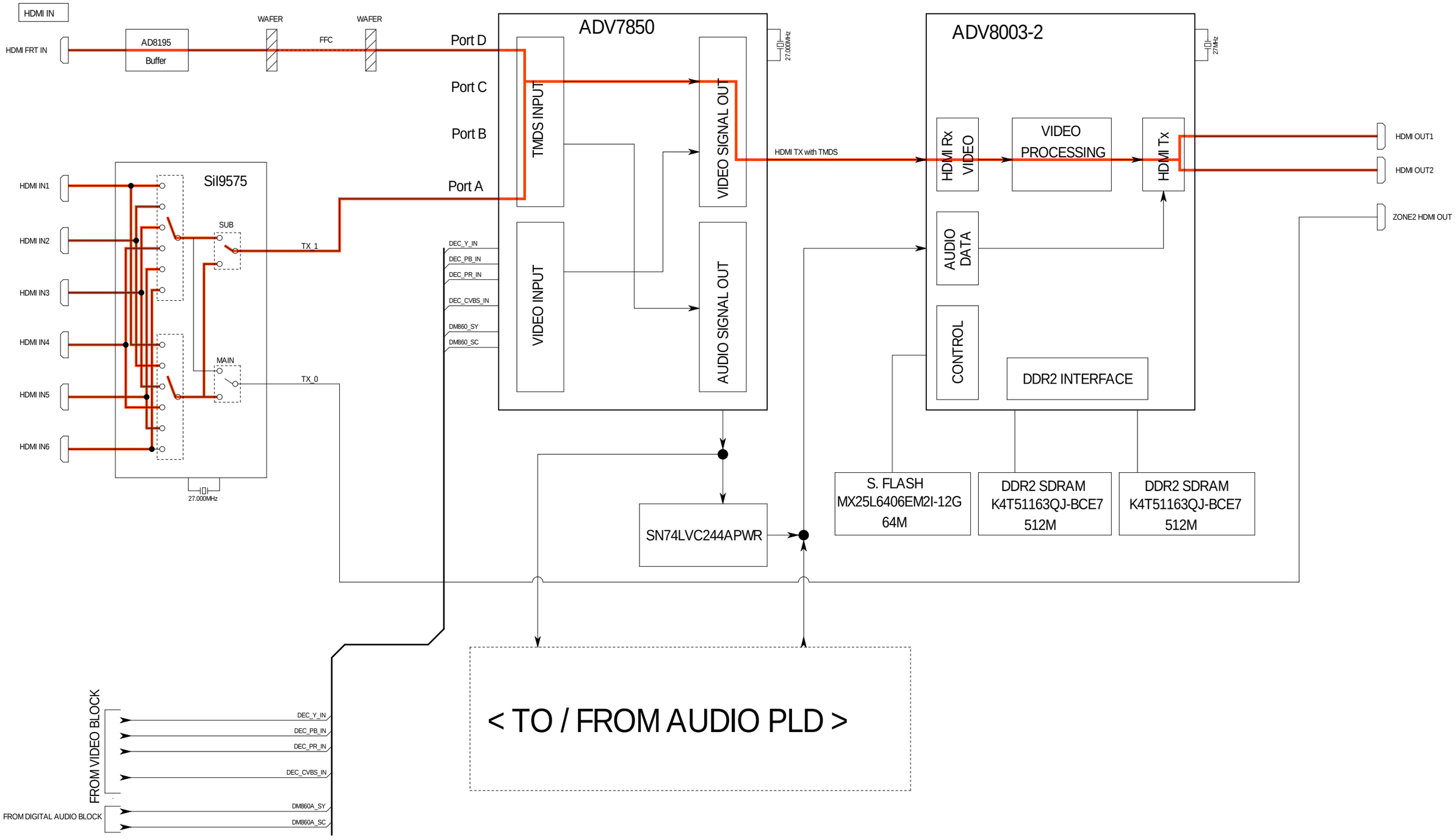


fig.3a

AVR3313 ANALOG VIDEO BLOCK

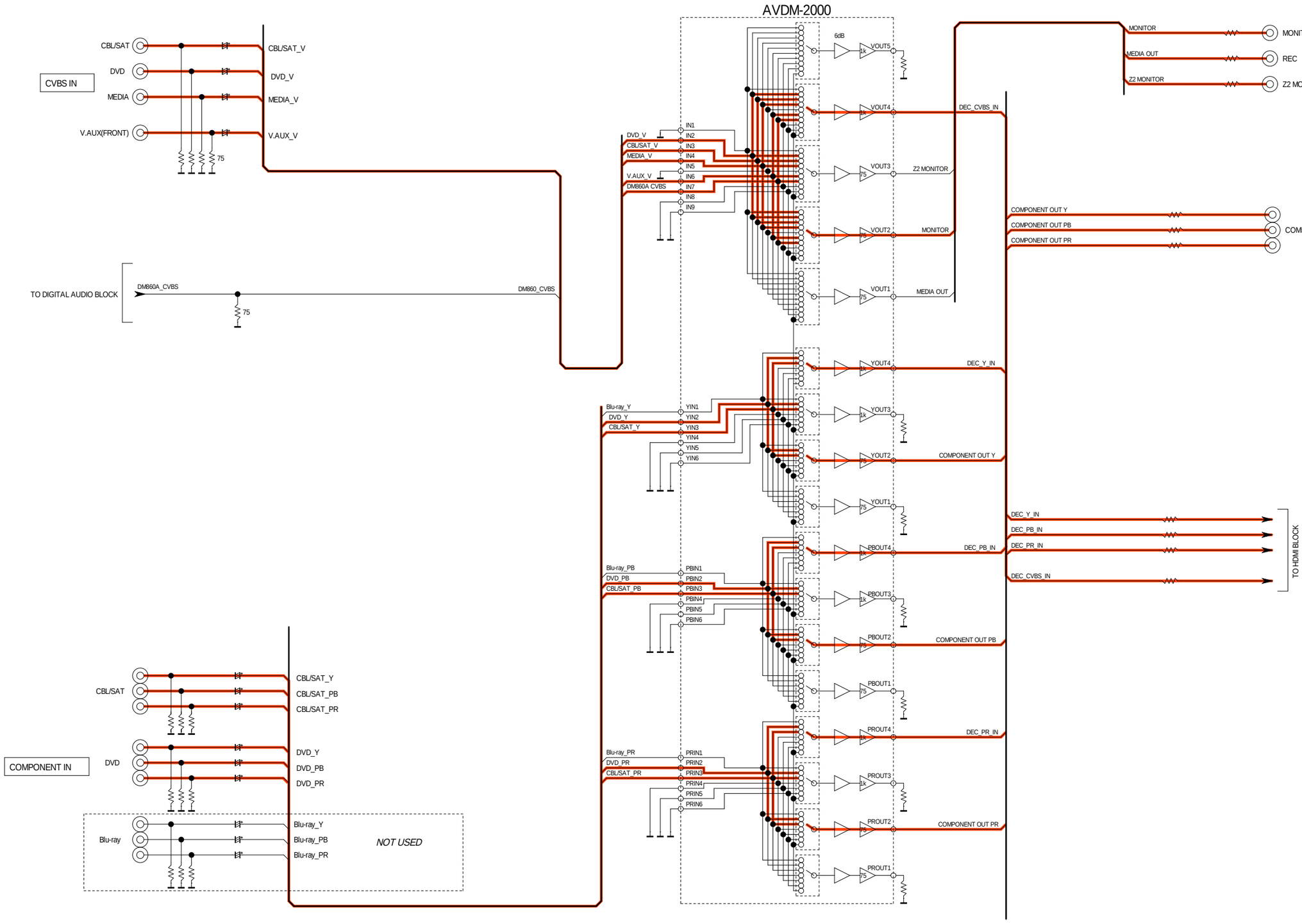


fig.3b

AVR3313 HDMI VIDEO BLOCK

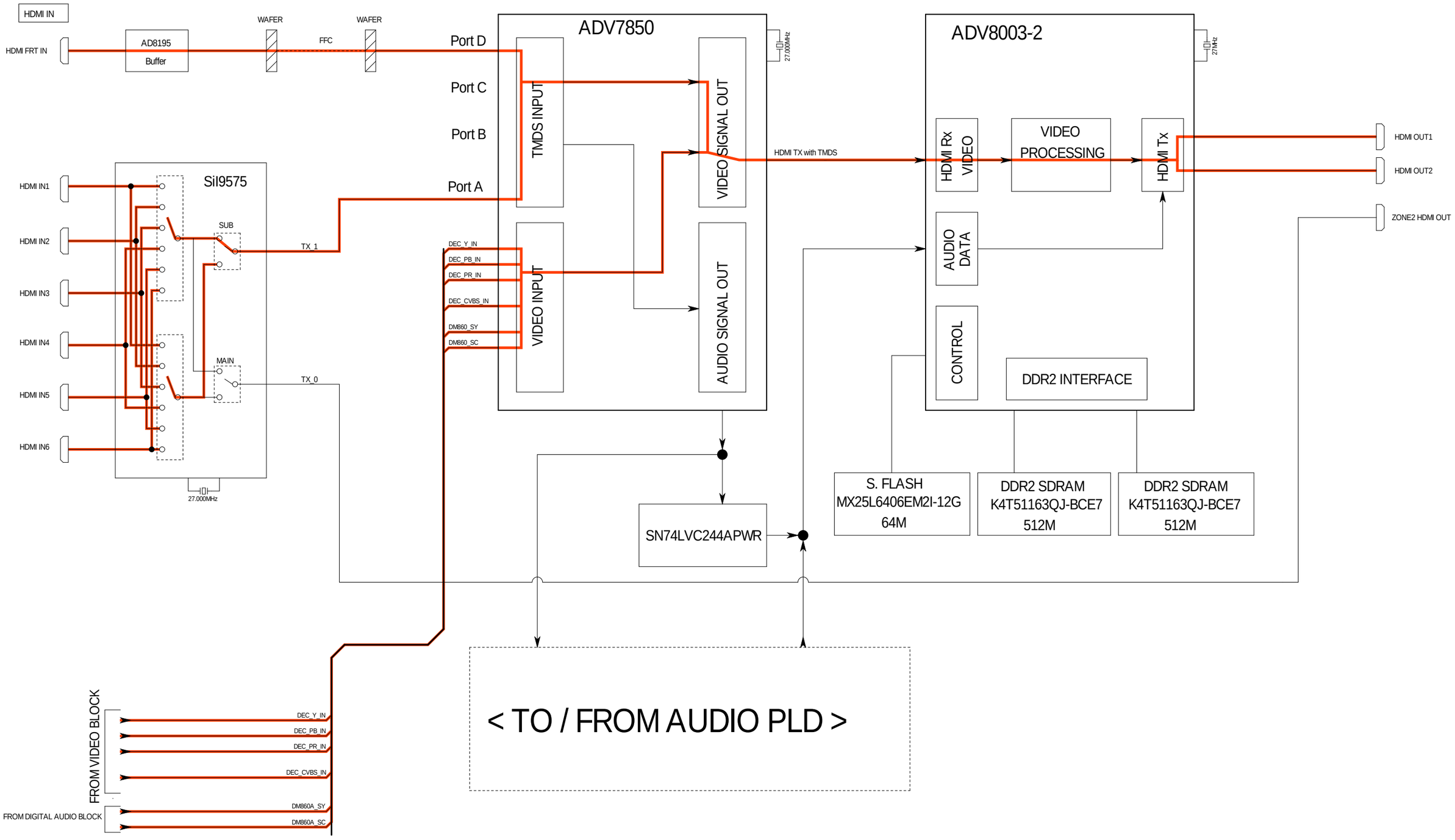


fig.4

AVR3313 HDMI VIDEO BLOCK

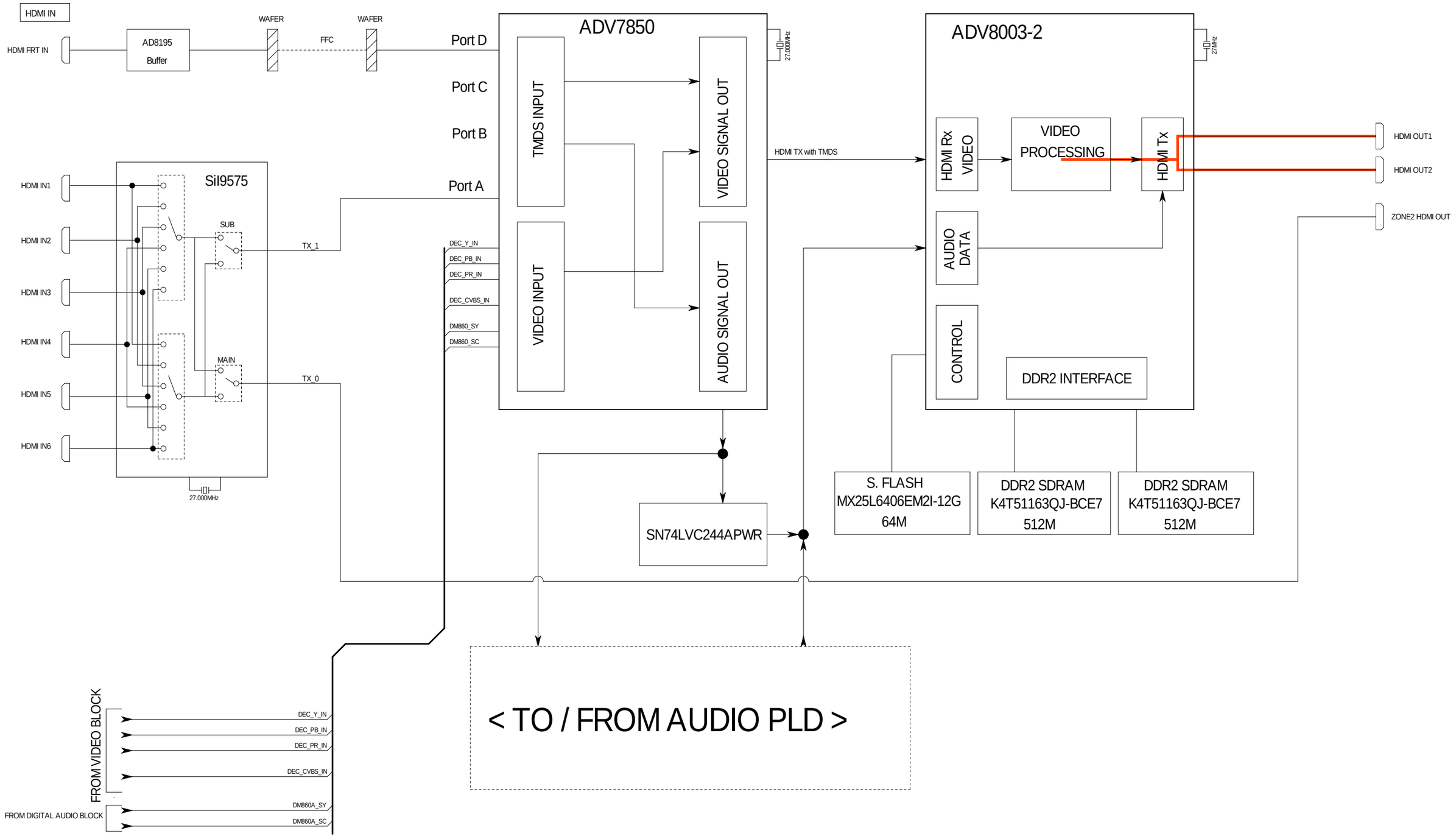


fig.5

AVR3313 HDMI VIDEO BLOCK

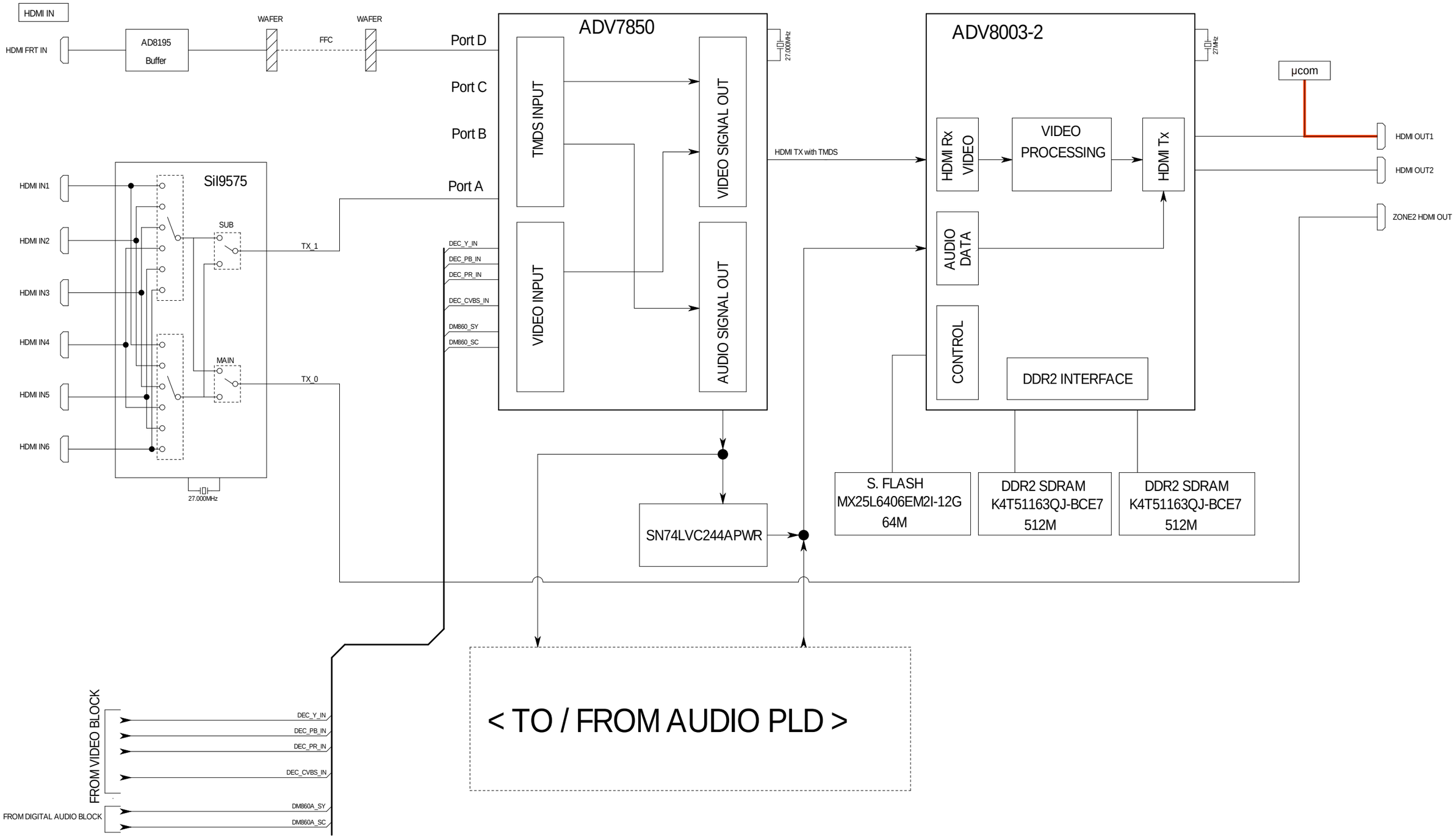


fig.6

AVR3313 HDMI VIDEO BLOCK

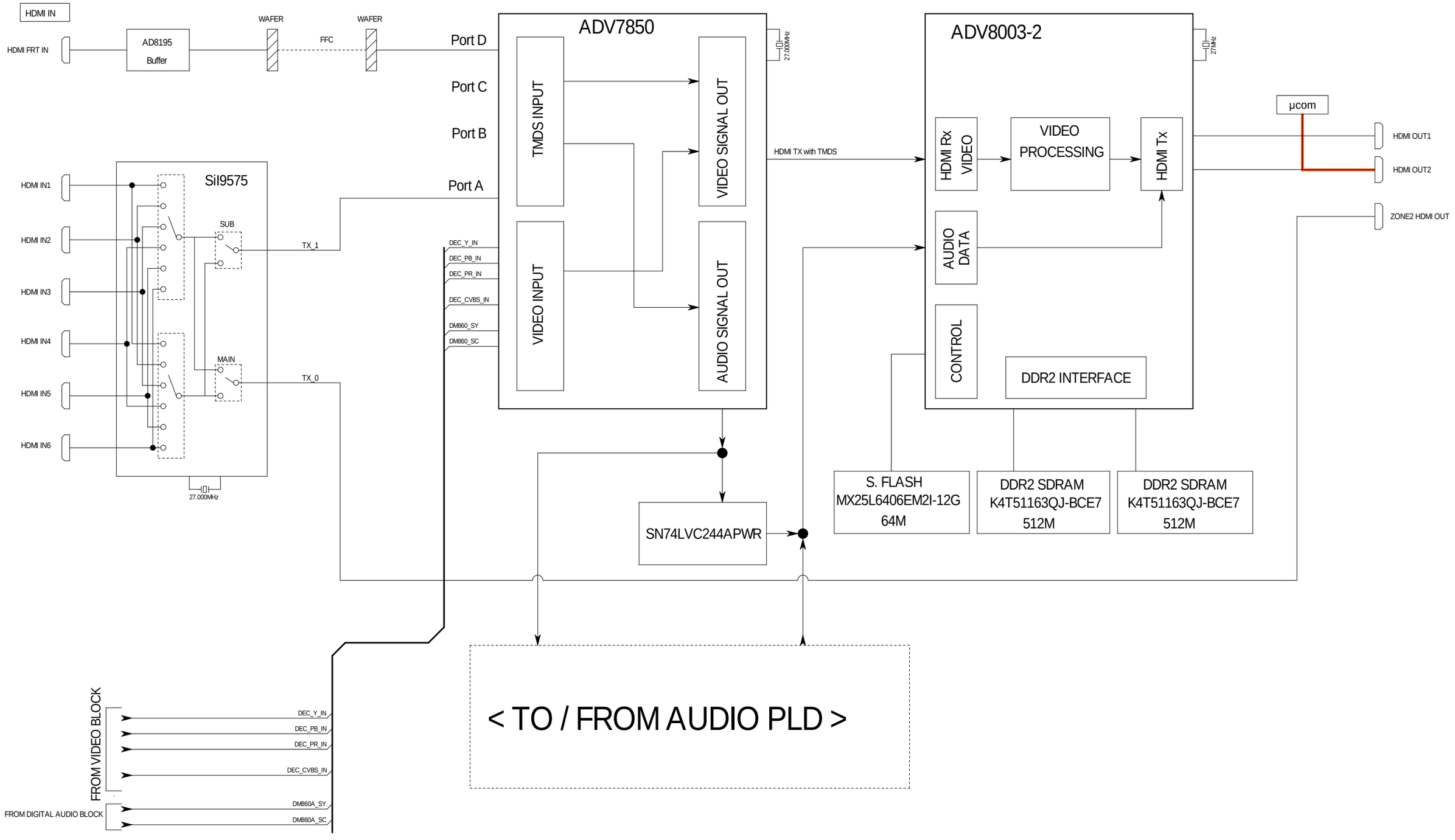


fig.7a

AVR3313 ANALOG AUDIO BLOCK

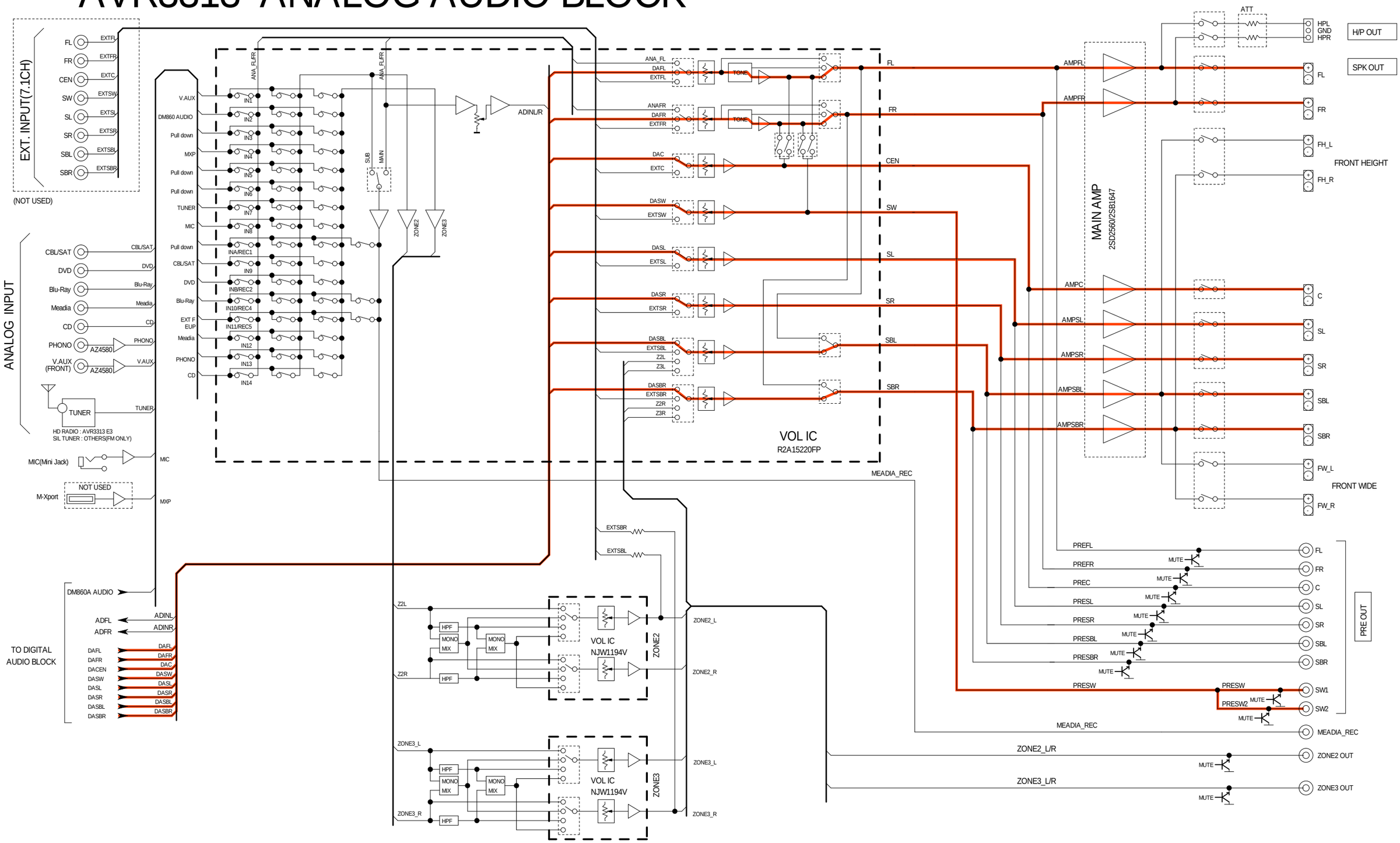


fig.7b

AVR3313 DIGITAL AUDIO BLOCK

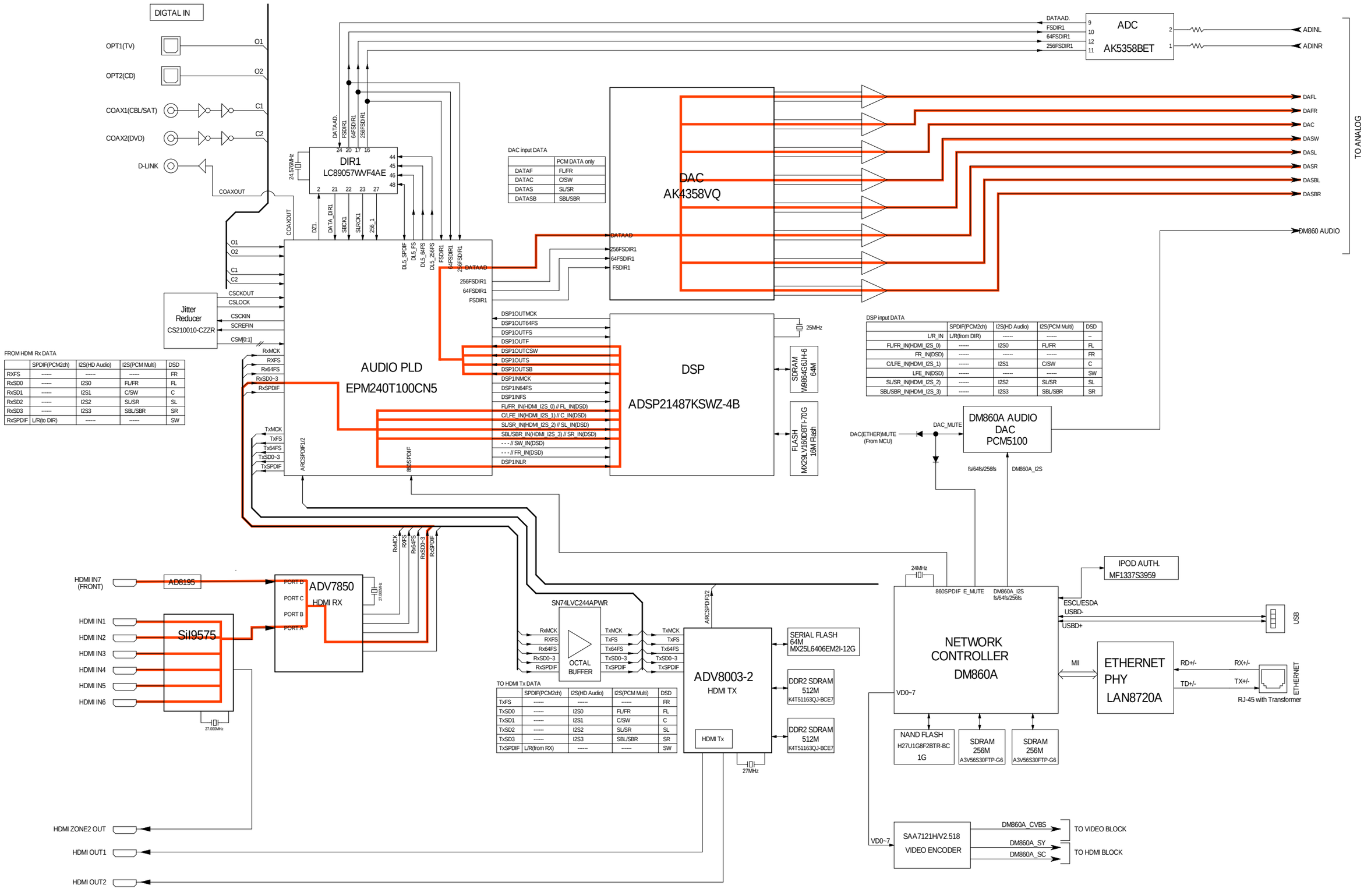
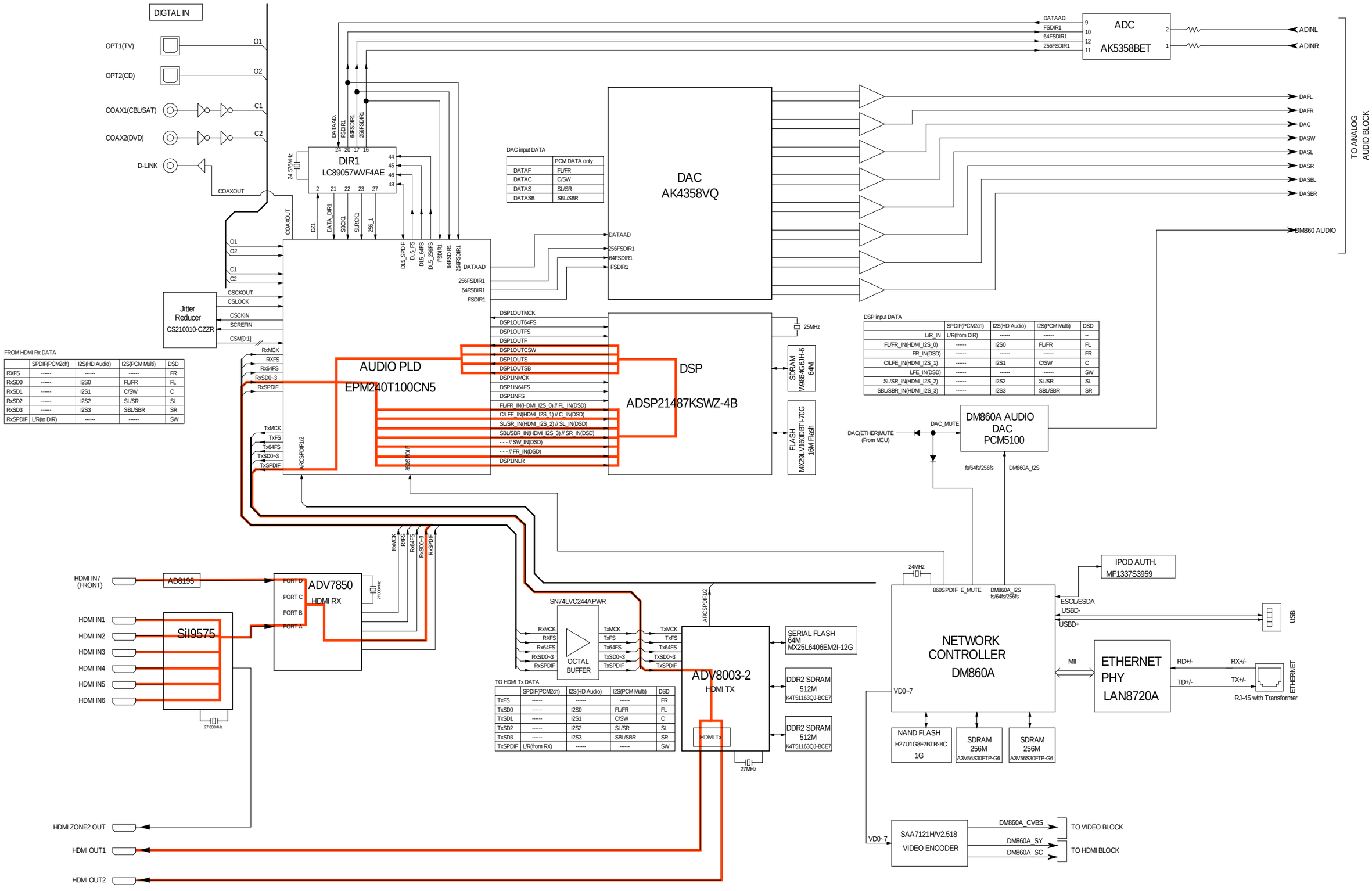


fig.8

AVR3313 DIGITAL AUDIO BLOCK



DAC input DATA

	PCM DATA only
DATAF	FL/FR
DATAC	C/SW
DATAS	SL/SR
DATASB	SBL/SBR

DSP input DATA

	SPDIF(PCM2ch)	I2S(HD Audio)	I2S(PCM Multi)	DSD
L/R_IN	L/R(from DIR)	------	------	--
FL/FR_IN(HDMI_I2S_0)	------	I2S0	FL/FR	FL
FR_IN(DSD)	------	------	------	FR
C/LFE_IN(HDMI_I2S_1)	------	I2S1	C/SW	C
LFE_IN(DSD)	------	------	------	SW
SL/SR_IN(HDMI_I2S_2)	------	I2S2	SL/SR	SL
SBL/SBR_IN(HDMI_I2S_3)	------	I2S3	SBL/SBR	SR

FROM HDMI Rx DATA

	SPDIF(PCM2ch)	I2S(HD Audio)	I2S(PCM Multi)	DSD
RXFS	------	------	------	FR
RxSD0	------	I2S0	FL/FR	FL
RxSD1	------	I2S1	C/SW	C
RxSD2	------	I2S2	SL/SR	SL
RxSD3	------	I2S3	SBL/SBR	SR
RxSPDIF	L/R(to DIR)	------	------	SW

TO HDMI Tx DATA

	SPDIF(PCM2ch)	I2S(HD Audio)	I2S(PCM Multi)	DSD
TxFS	------	------	------	FR
TxSD0	------	I2S0	FL/FR	FL
TxSD1	------	I2S1	C/SW	C
TxSD2	------	I2S2	SL/SR	SL
TxSD3	------	I2S3	SBL/SBR	SR
TxSPDIF	L/R(from RX)	------	------	SW

fig.9

AVR3313 HDMI VIDEO BLOCK

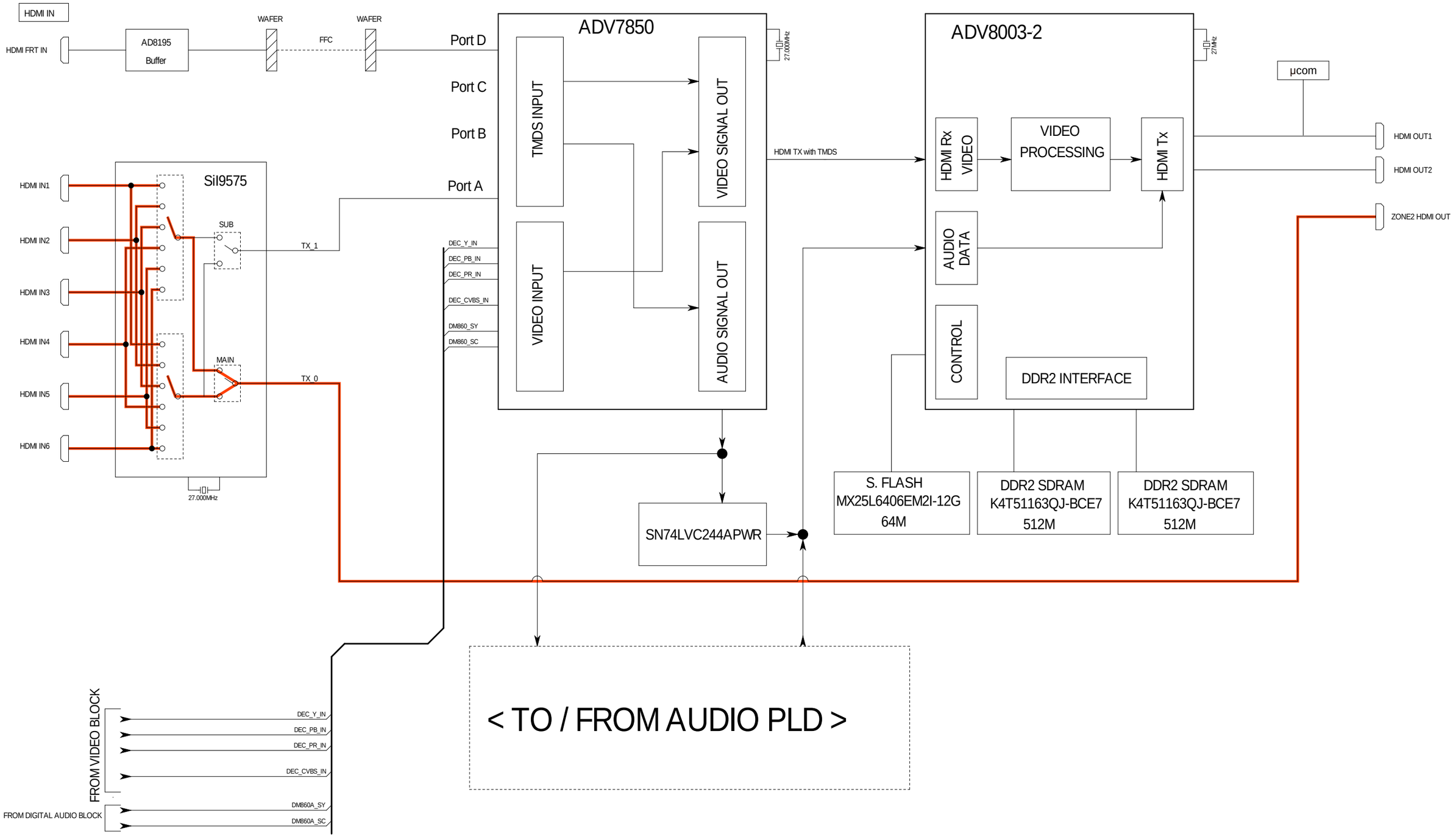


fig.10

AVR3313 ANALOG AUDIO BLOCK

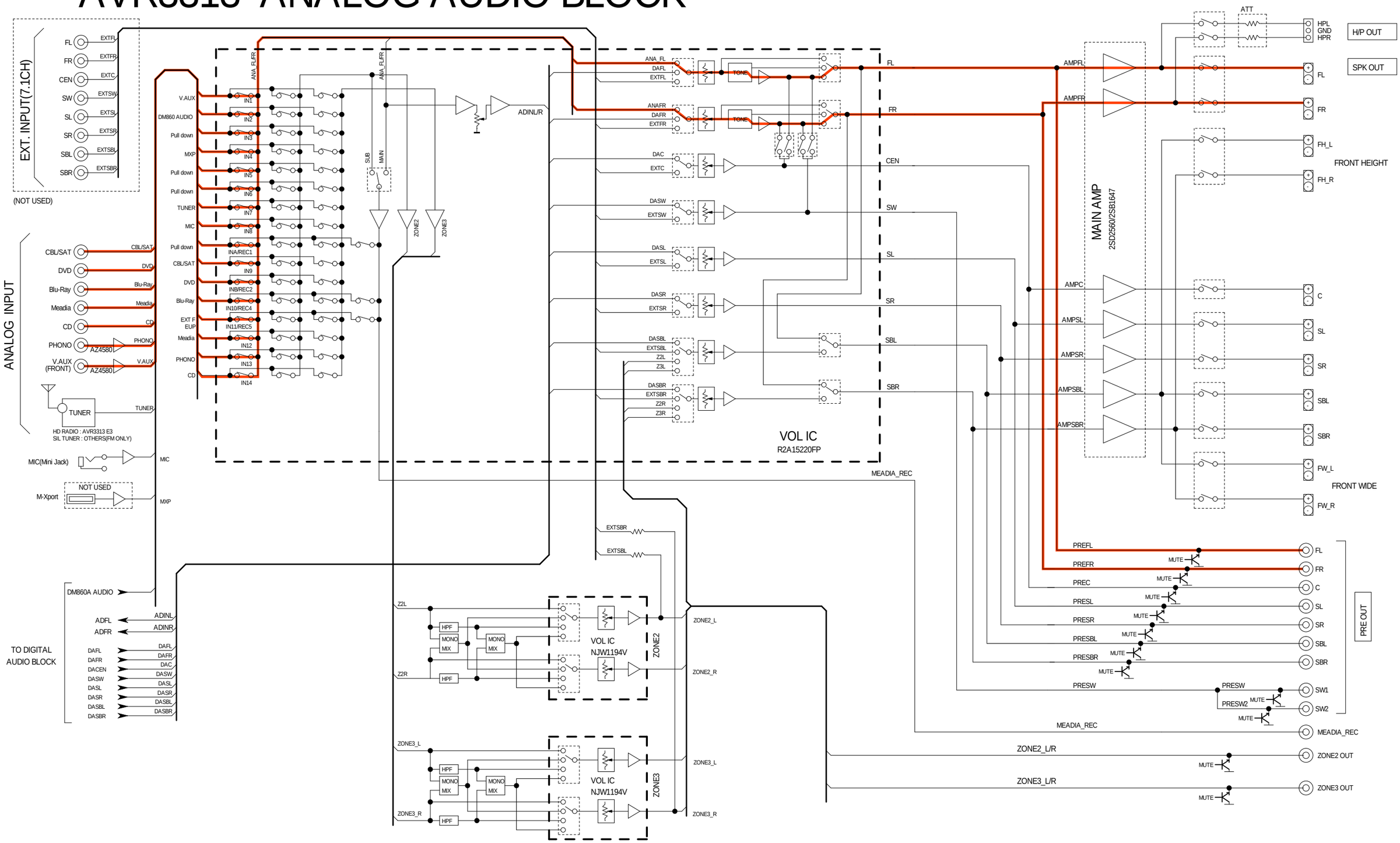


fig.11a

AVR3313 ANALOG AUDIO BLOCK

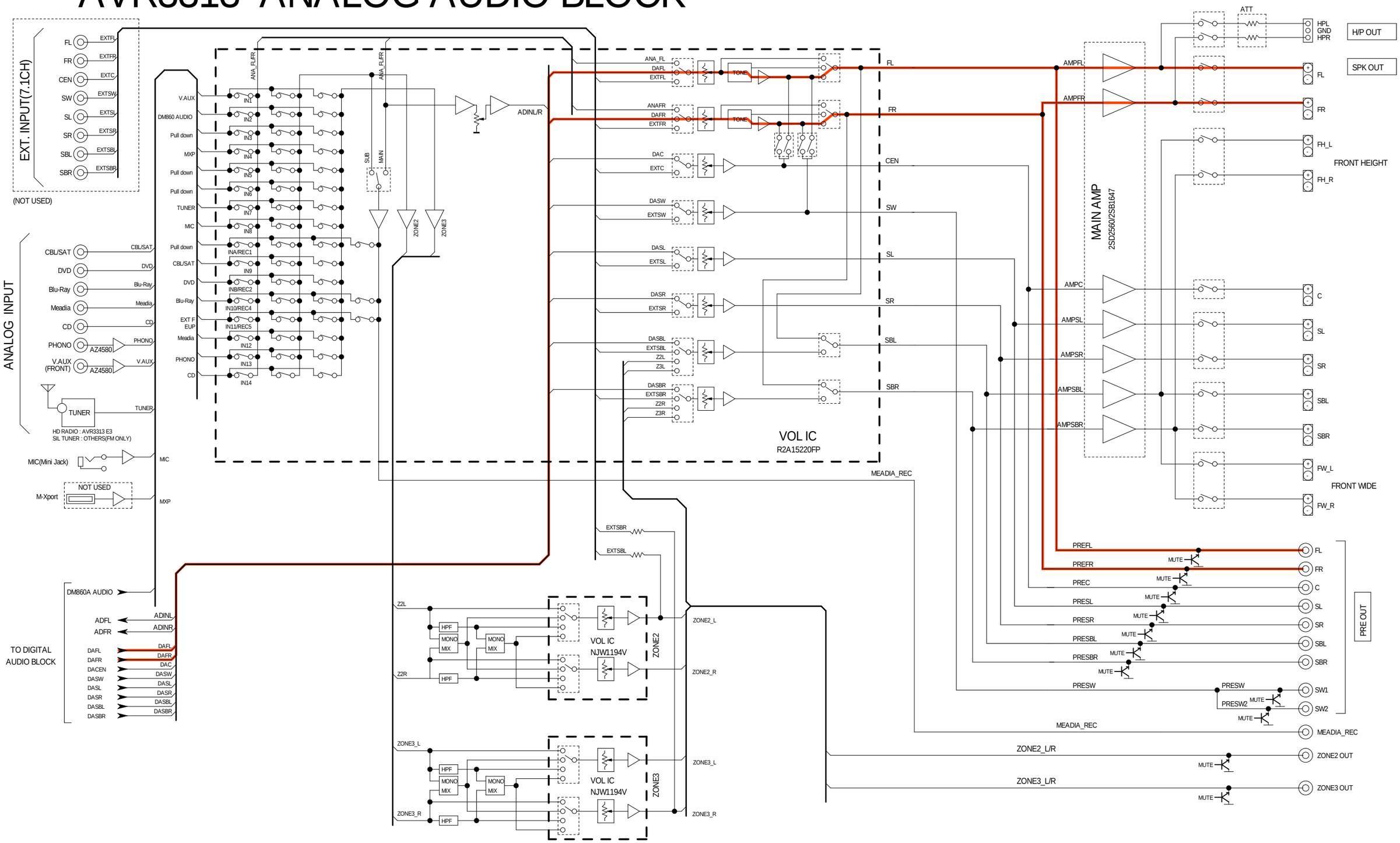


fig.11b

AVR3313 DIGITAL AUDIO BLOCK

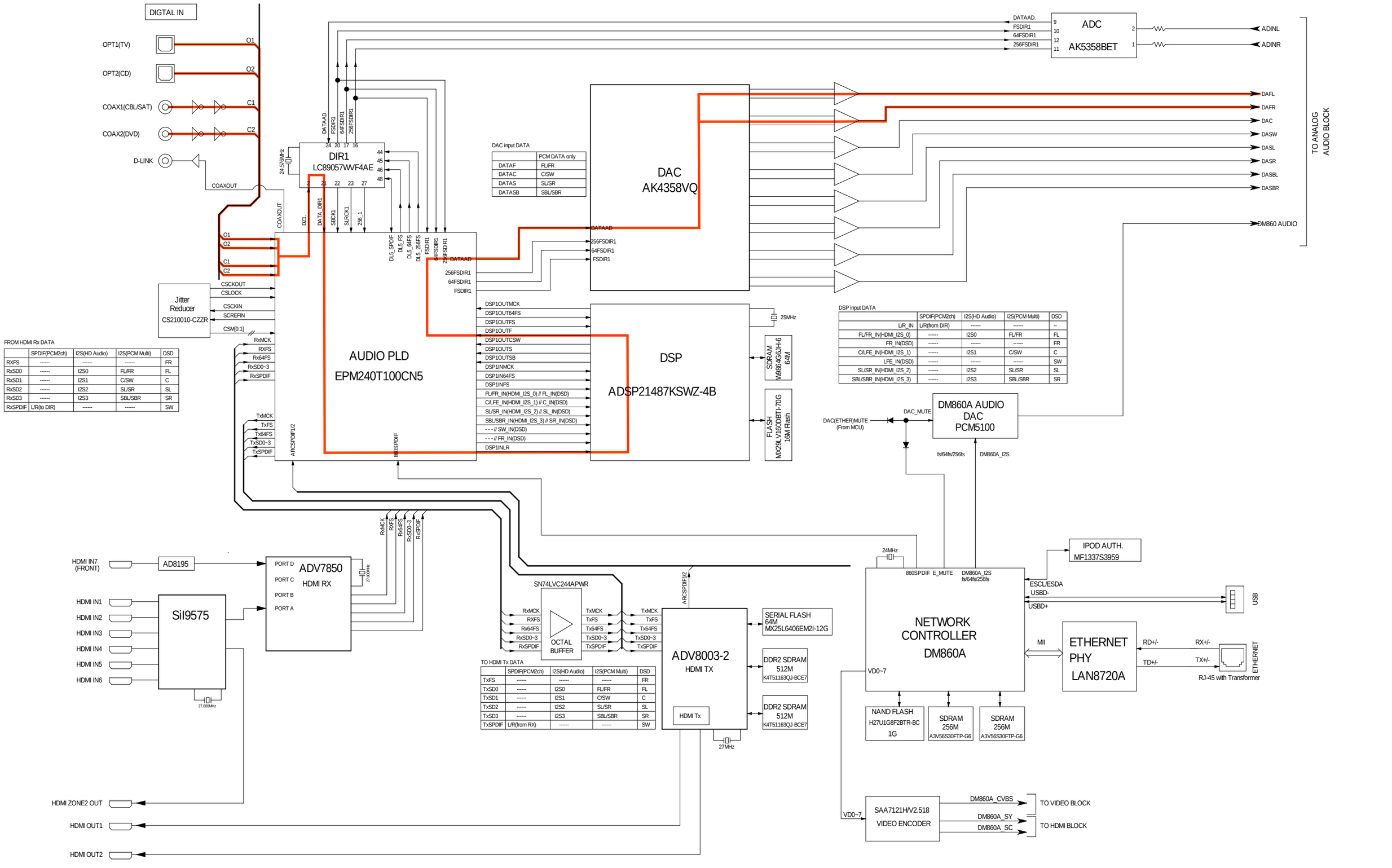


fig.12a

AVR3313 ANALOG AUDIO BLOCK

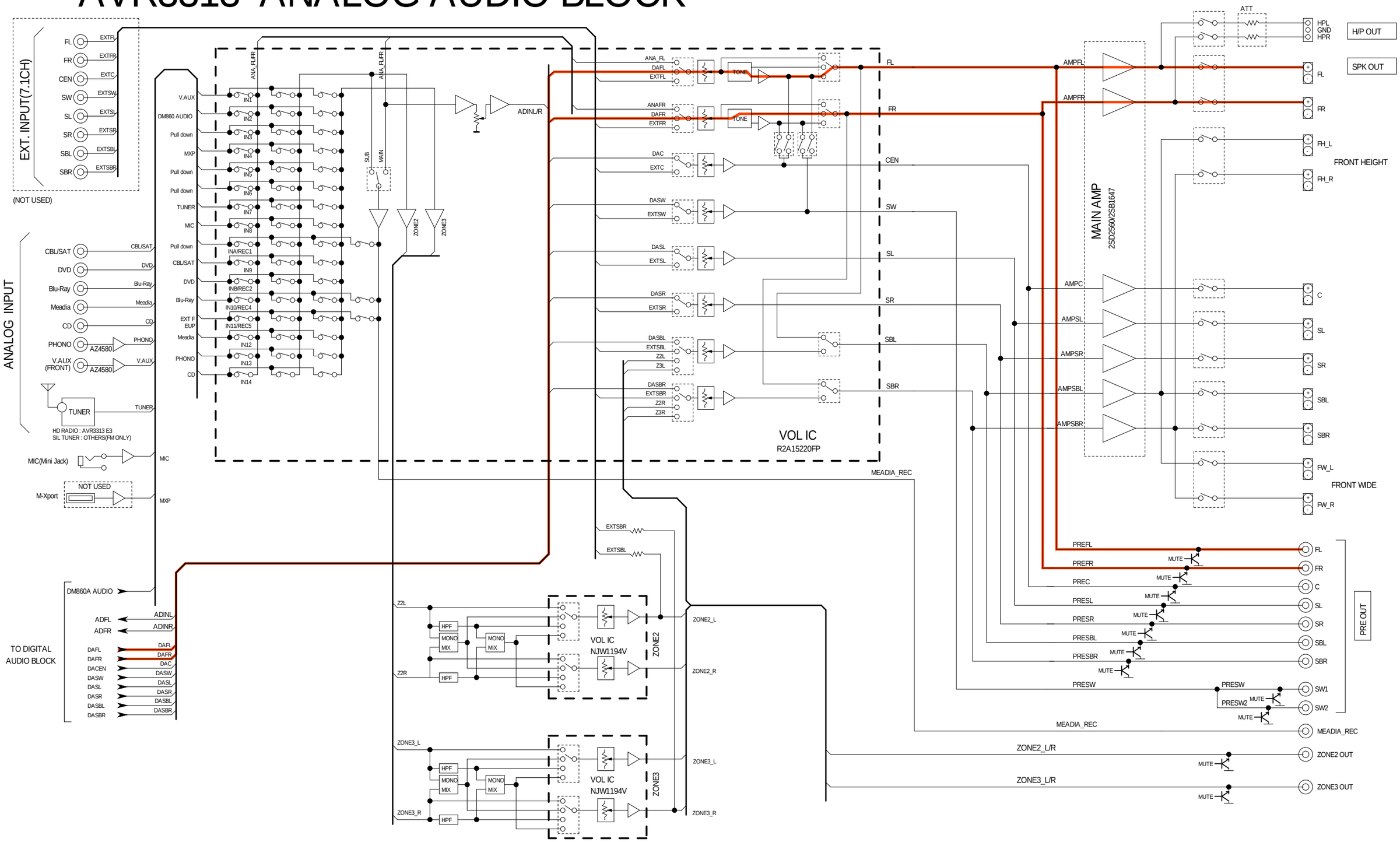


fig.12b

AVR3313 DIGITAL AUDIO BLOCK

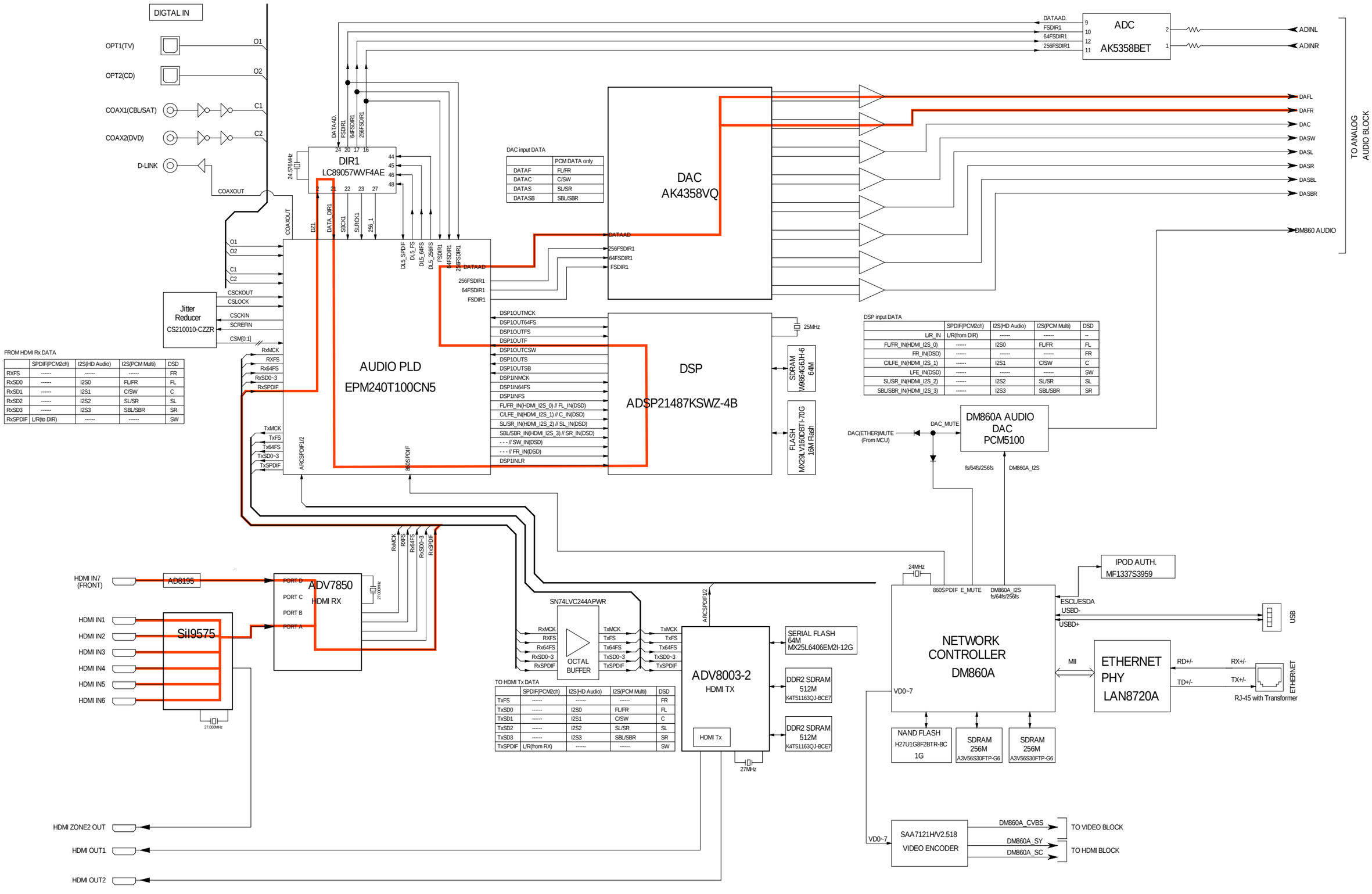


fig.13a

AVR3313 ANALOG AUDIO BLOCK

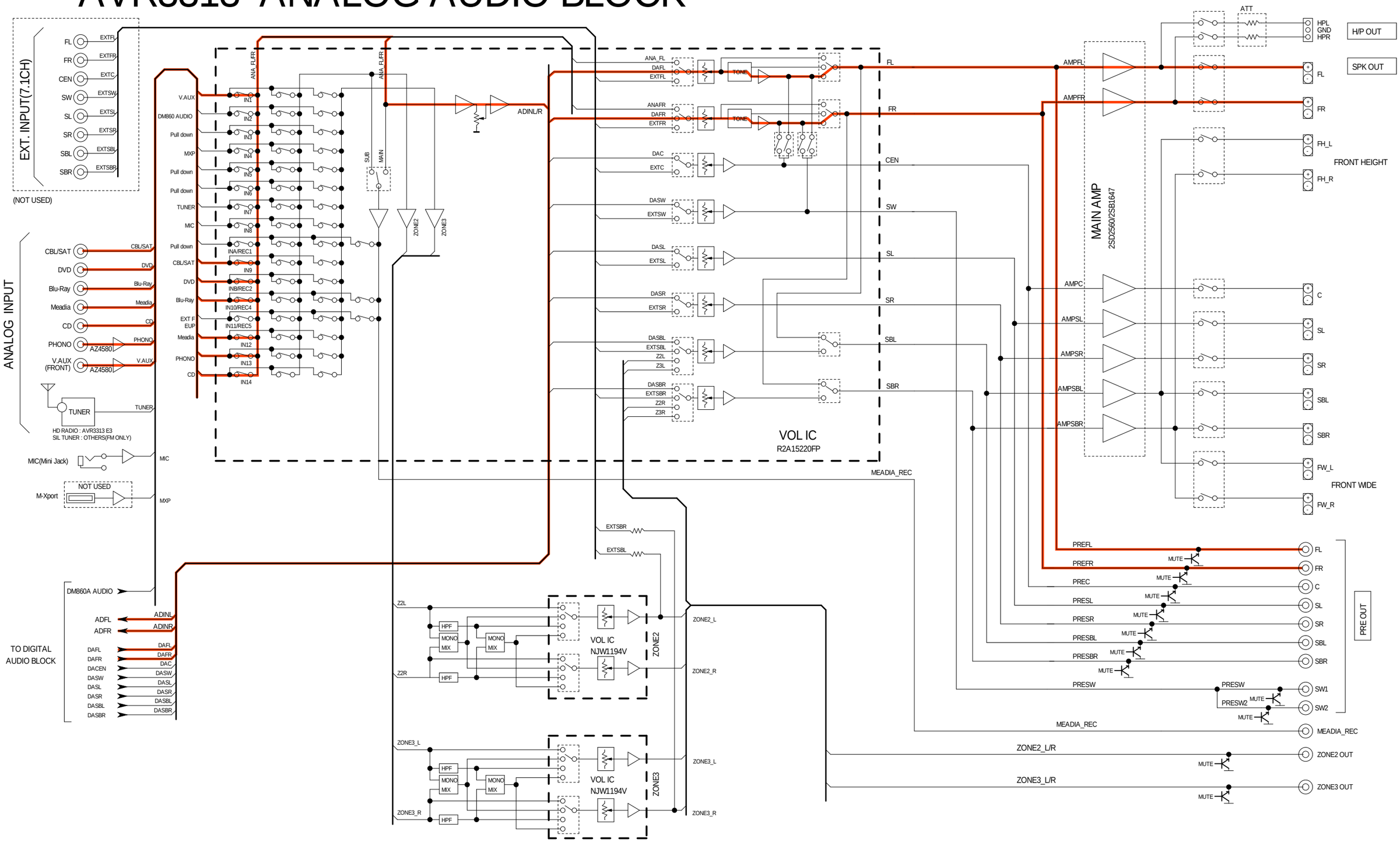


fig.13b

AVR3313 DIGITAL AUDIO BLOCK

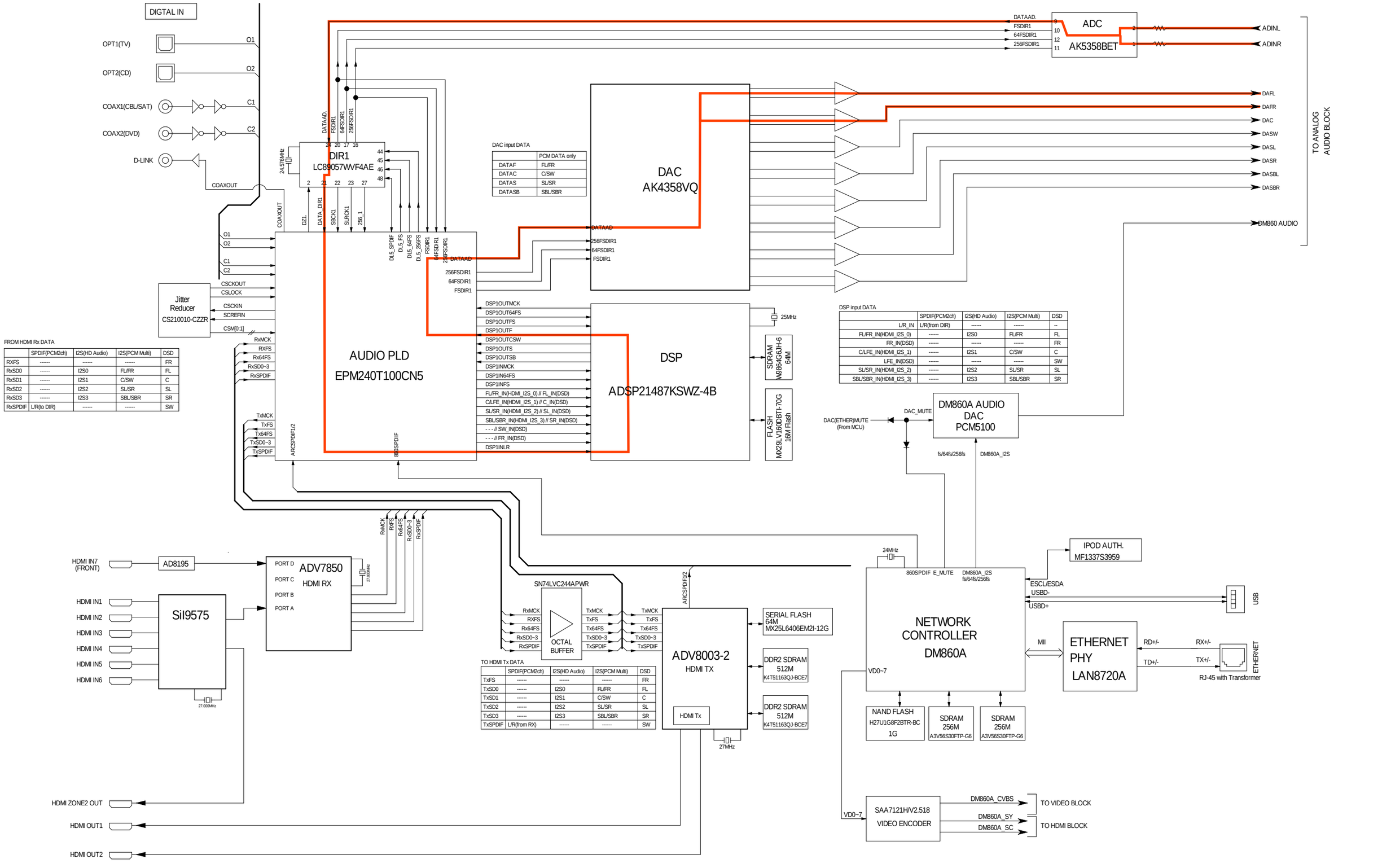


fig.14a

AVR3313 ANALOG AUDIO BLOCK

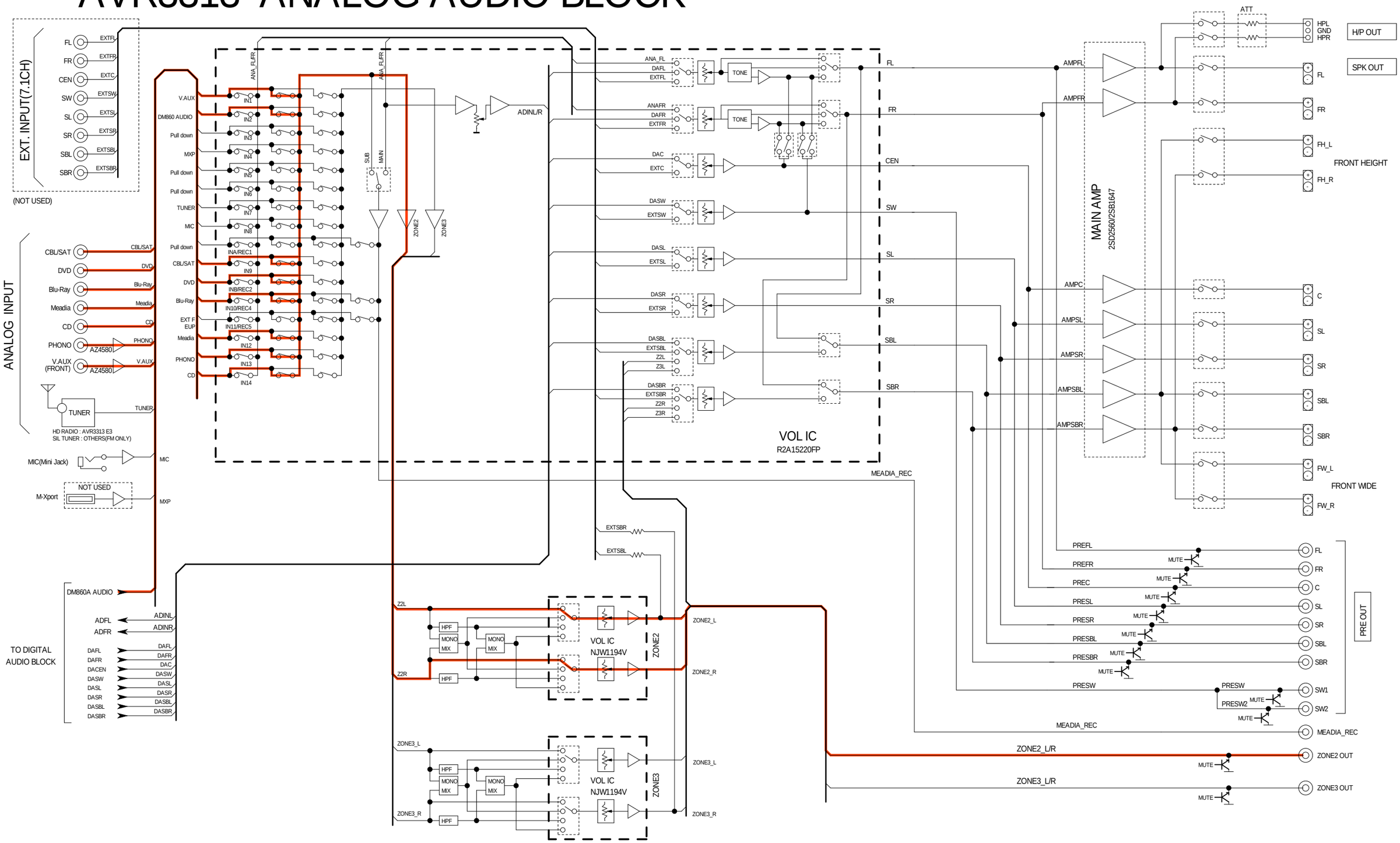


fig.14b

AVR3313 DIGITAL AUDIO BLOCK

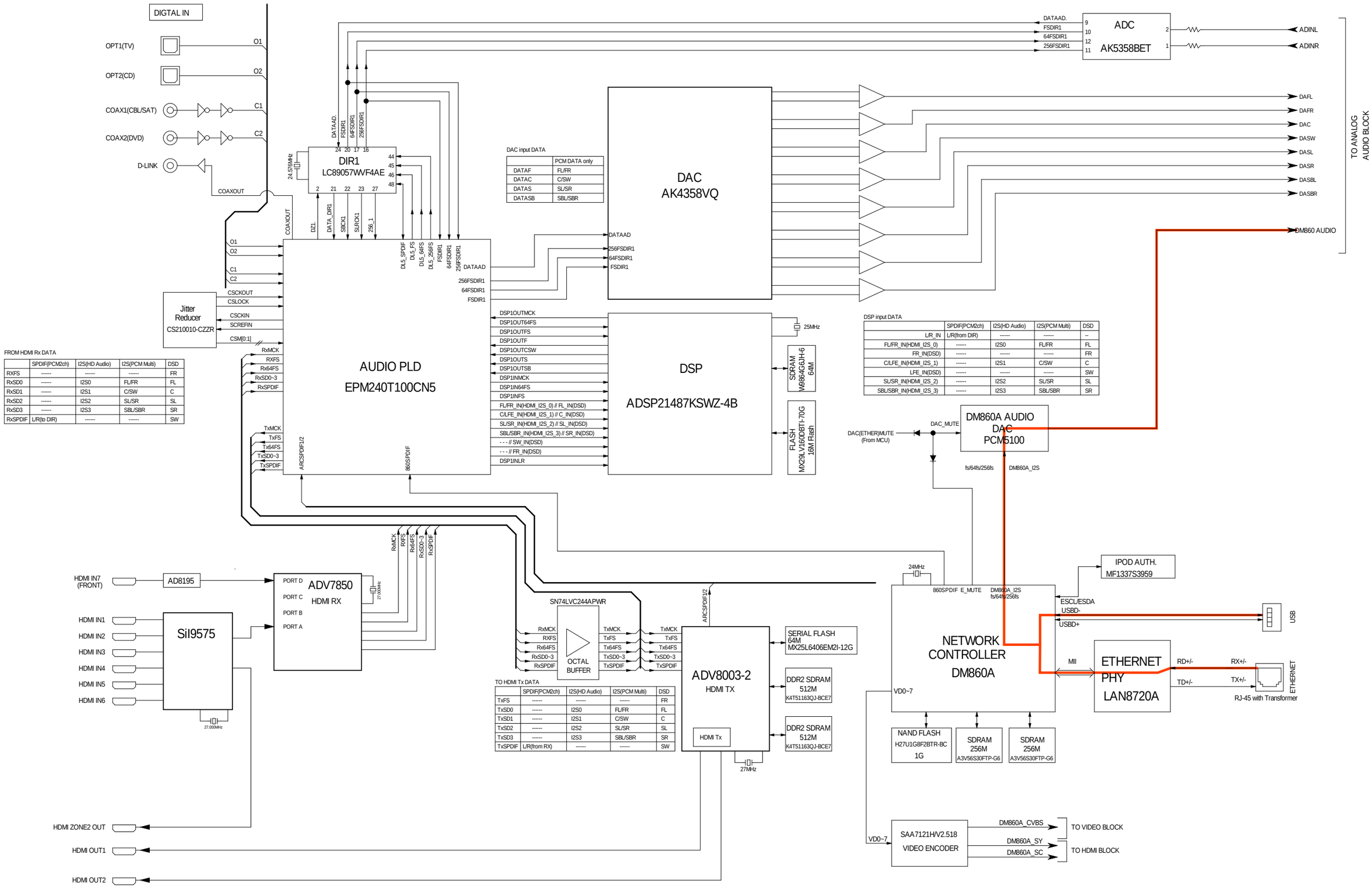


fig.15a

AVR3313 ANALOG AUDIO BLOCK

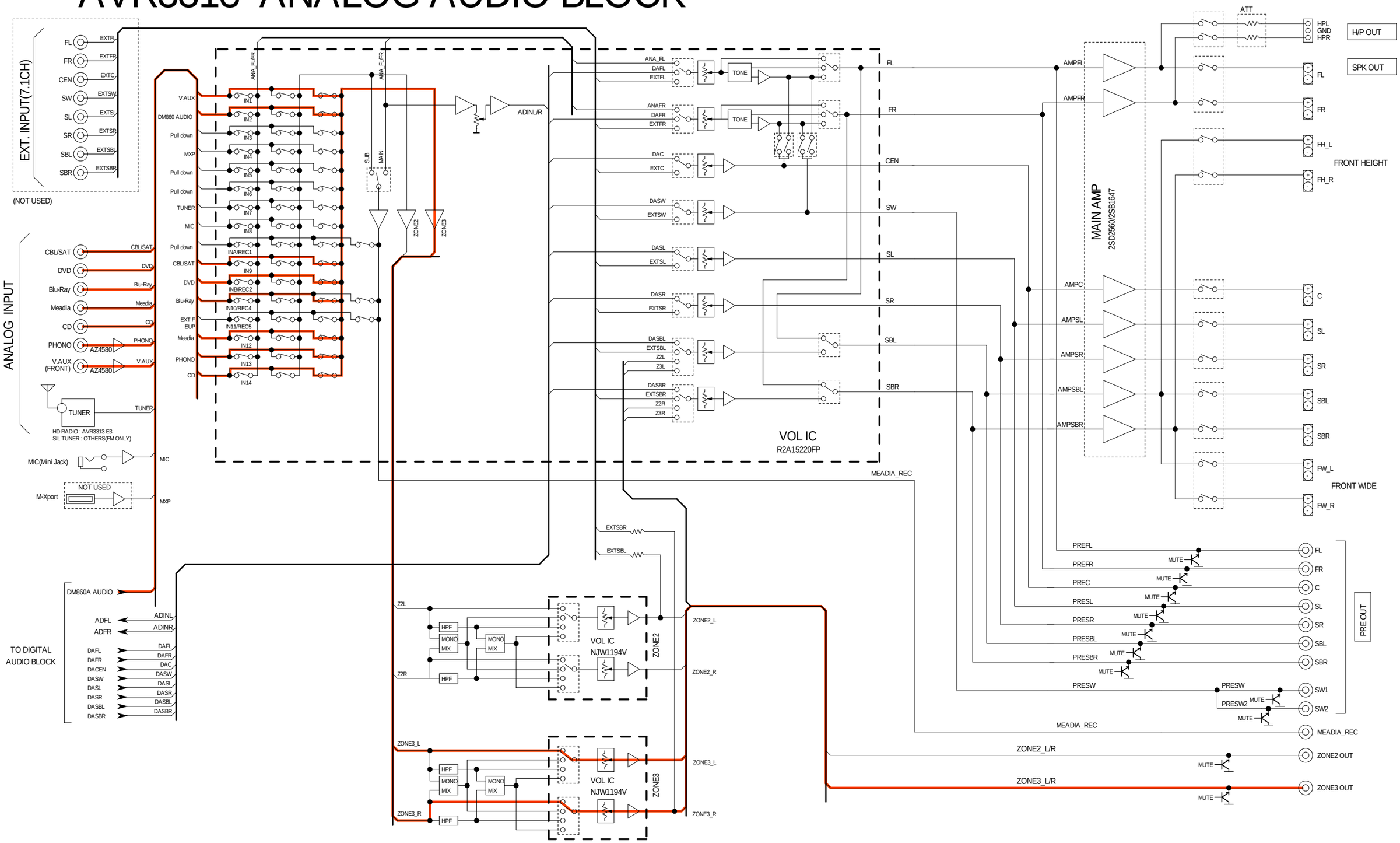


fig.15b

AVR3313 DIGITAL AUDIO BLOCK

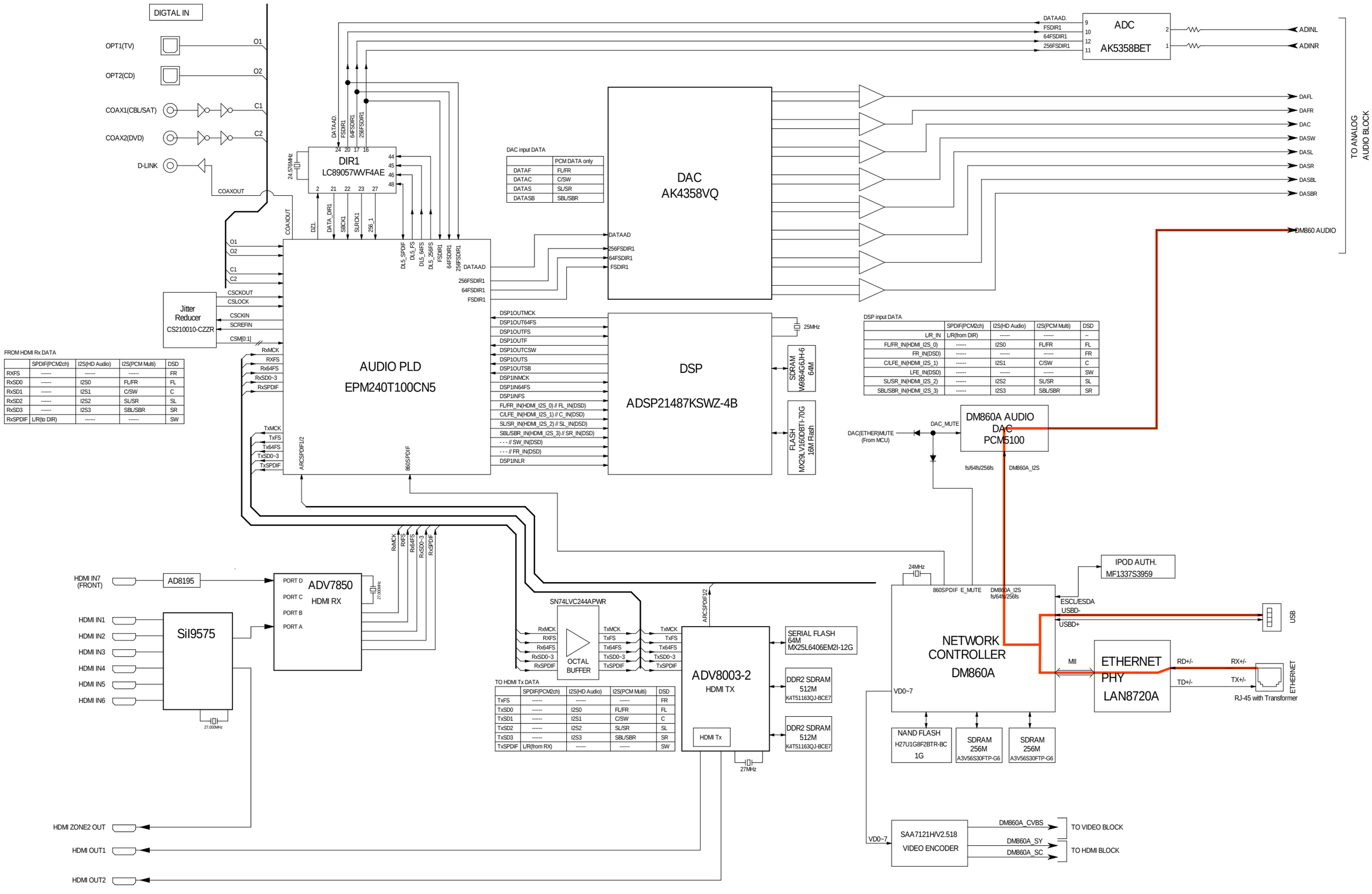


fig.16

AVR3313 ANALOG AUDIO BLOCK

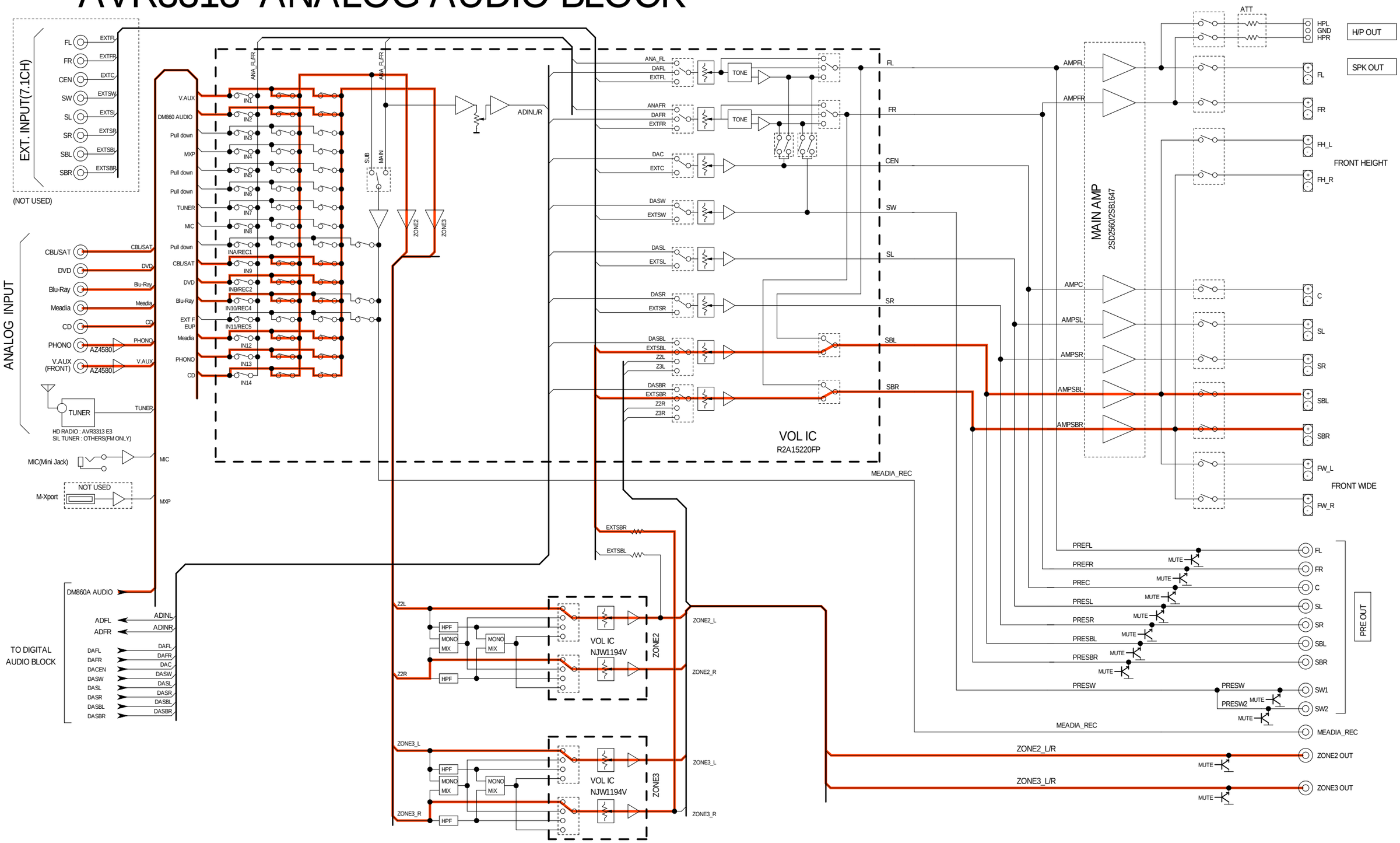


fig.17,18

AVR3313 ANALOG AUDIO BLOCK

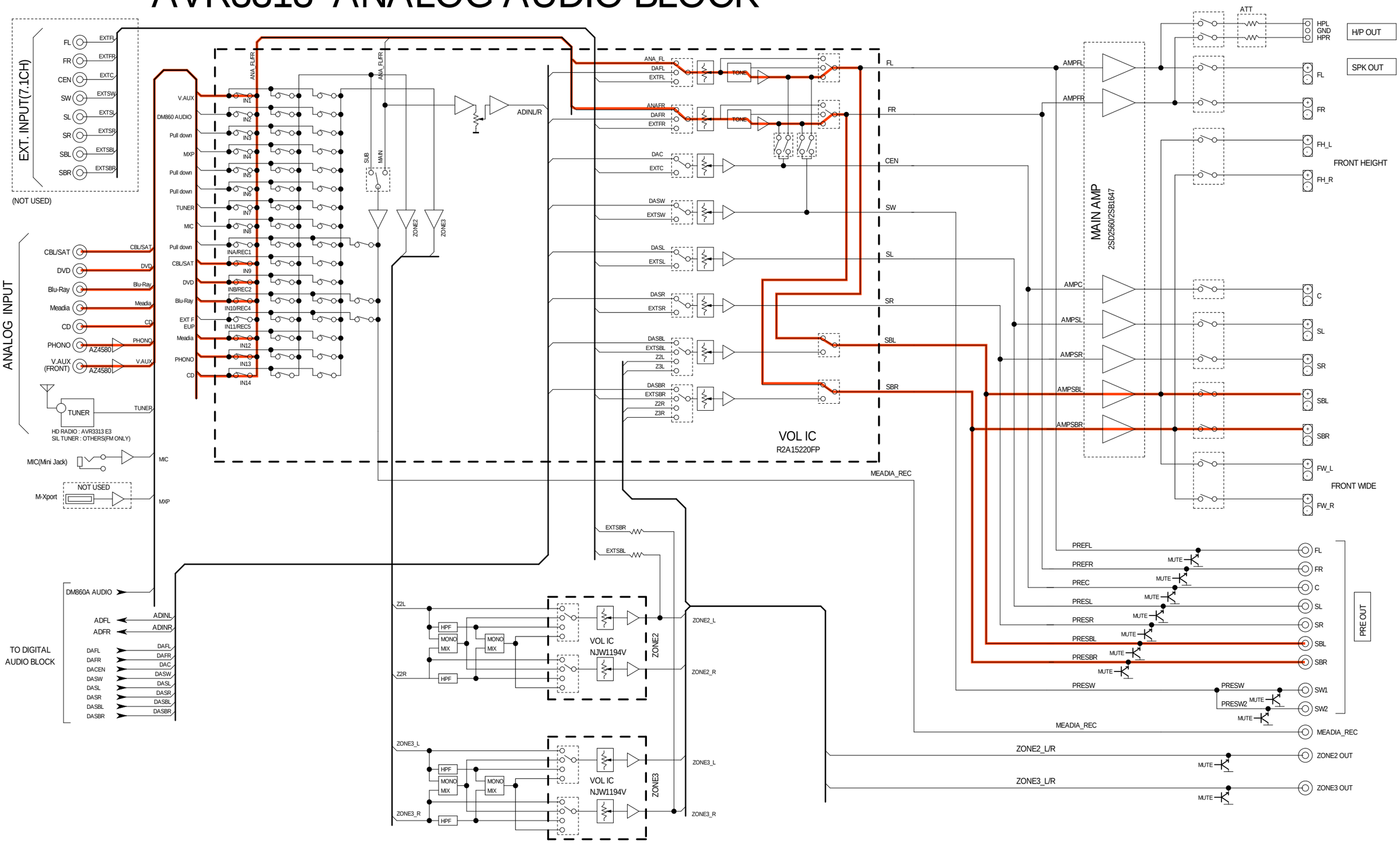


fig.19a

AVR3313 ANALOG AUDIO BLOCK

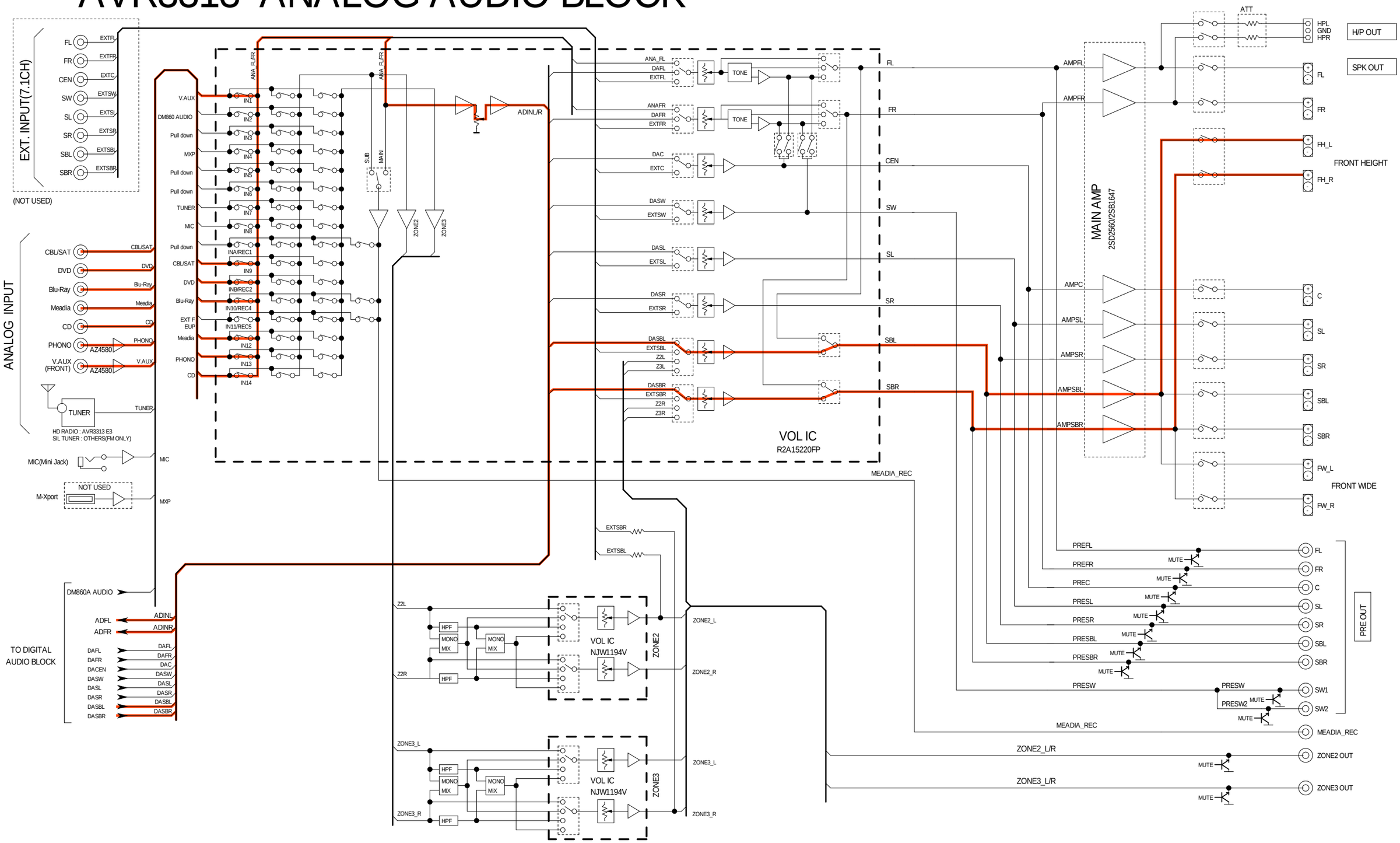


fig.19b

AVR3313 DIGITAL AUDIO BLOCK

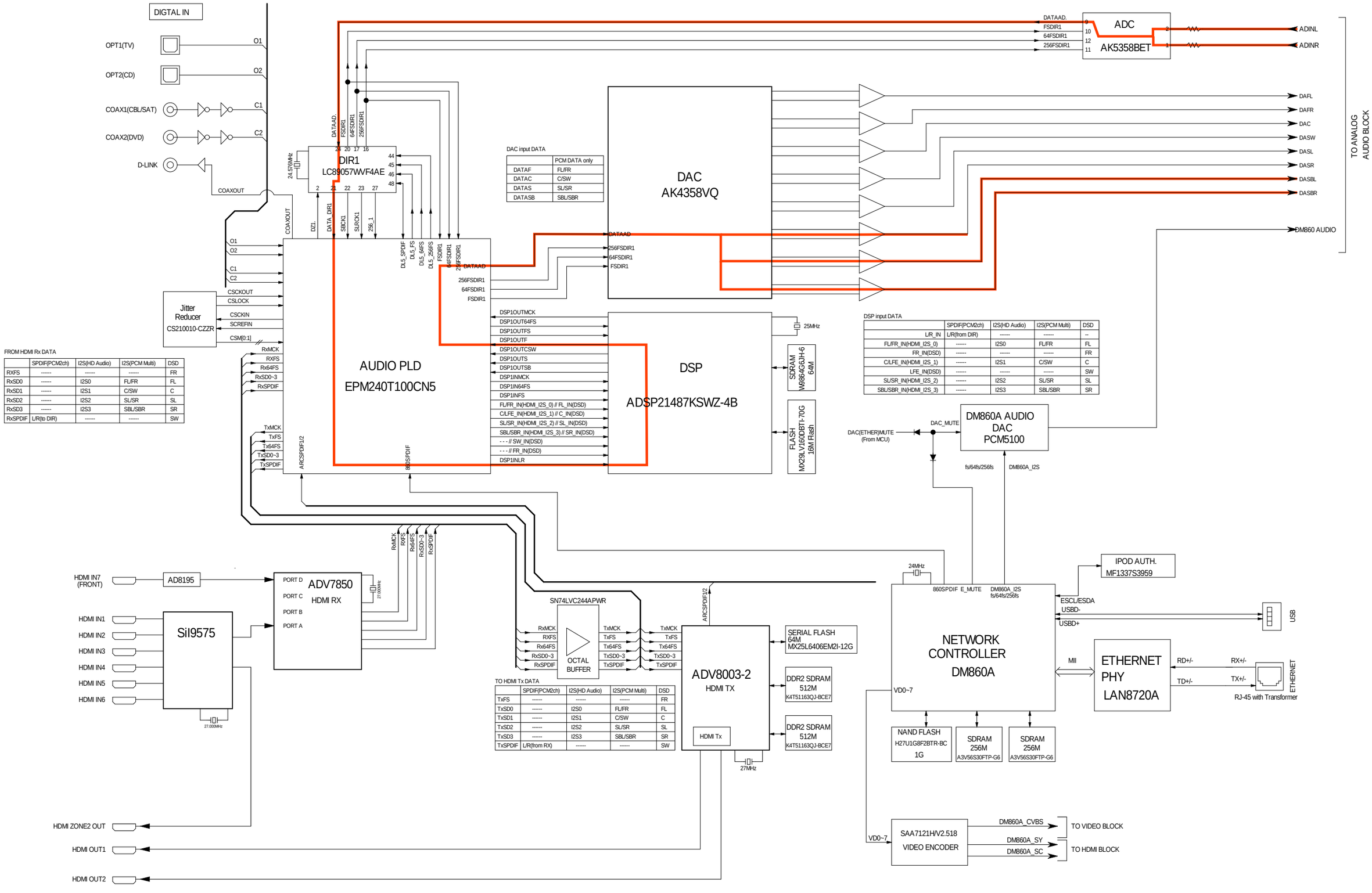


fig.20a

AVR3313 ANALOG AUDIO BLOCK

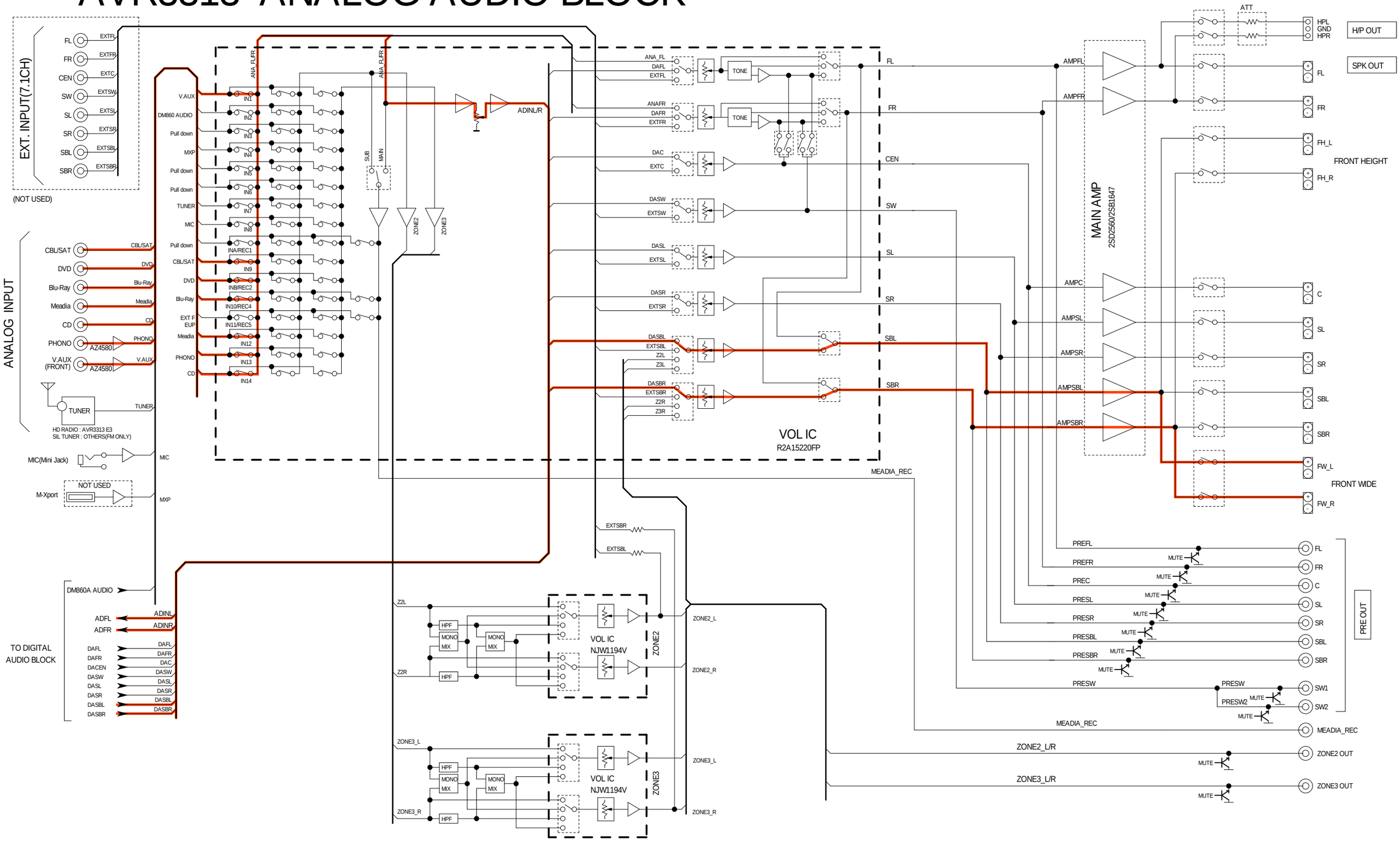
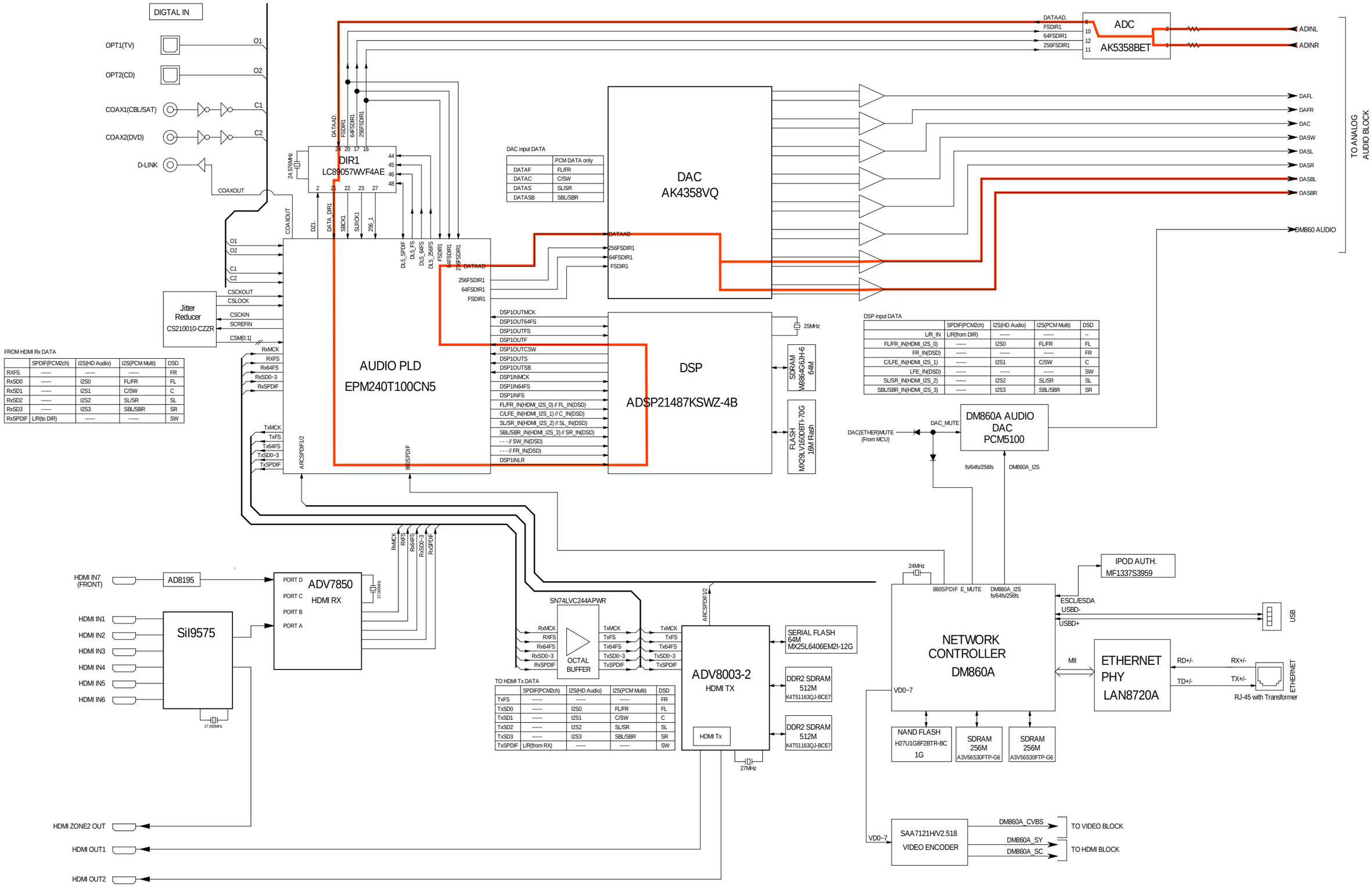
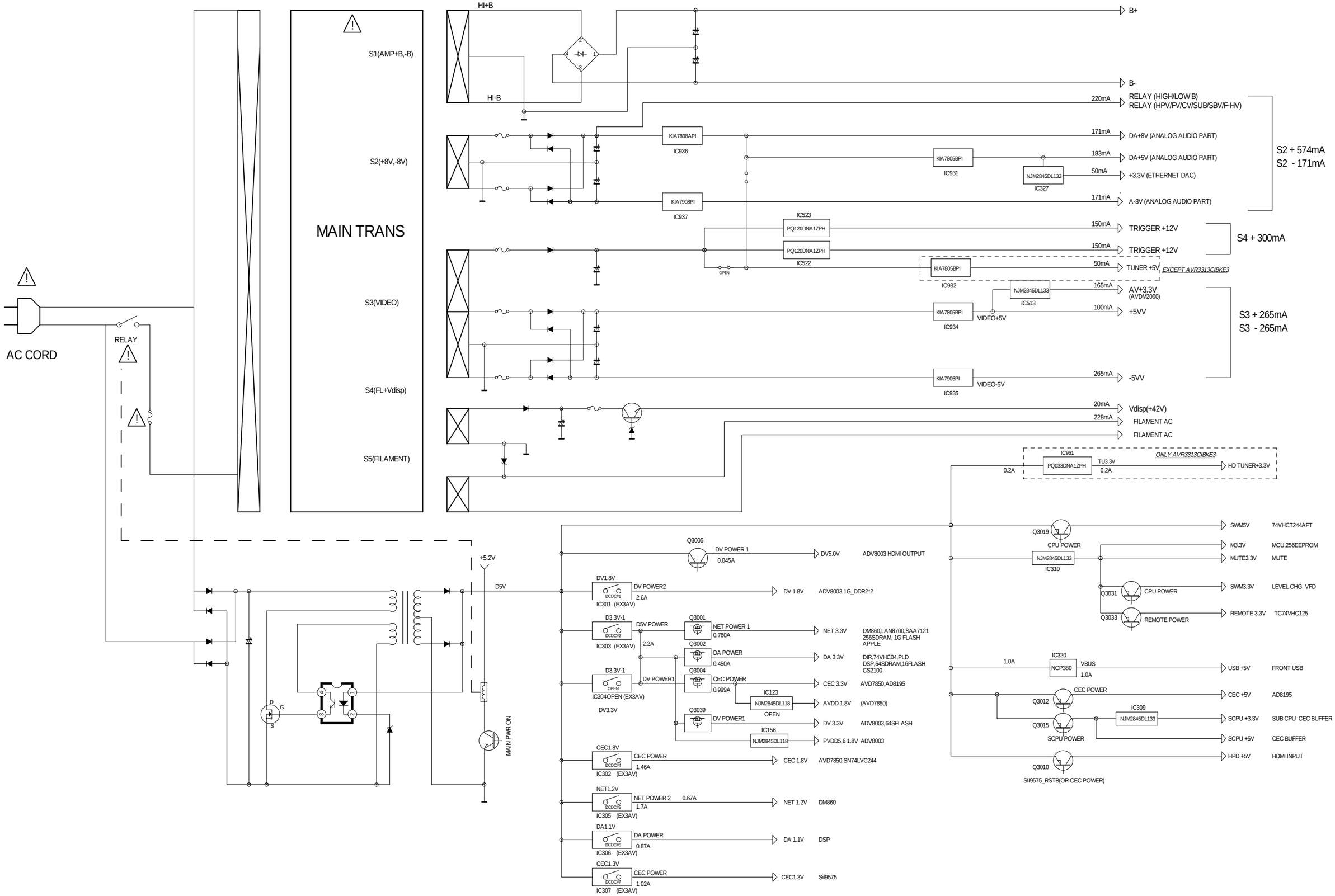


fig.20b

AVR3313 DIGITAL AUDIO BLOCK



AVR3313 POWER BLOCK DIAGRAM



Personal notes:

Personal notes:

3.6. Errors checking mode (Displaying the protection history)

3.6.1. Operation specifications

Error mode (Displaying the protection history):

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

3.6.2. About the display on the FL display

When the "STATUS" button is pressed after setting the error (protection history display) mode is set, a history like the one shown below is displayed, depending on the conditions.

(1) Normal (when there has been no protection incident)

Upper	P	R	O	T	E	C	T		H	I	S	T	O	R	Y	
Lower	:	N	O		P	R	O	T	E	C	T					

(2) For ASO (when the last protection incident was ASO protection)

Upper	P	R	O	T	E	C	T		H	I	S	T	O	R	Y	
Lower	:	A	S	O												

Cause: The line between speaker terminals is shorted, or speakers with impedance of less than the rated value.
Supplementary information: As the excess current is detected after operation of the speaker relay, a short on the speaker terminal and the connected speaker can be identified.

If the power is turned on without correcting the abnormality, the protection function will work about 5 seconds later and the power supply will be shut off.

(3) For DC (when the last protection incident was DC protection)

Upper	P	R	O	T	E	C	T		H	I	S	T	O	R	Y	
Lower	:	D	C													

Cause: DC output of the power amplifier is abnormal.

If the power is turned on without correcting the abnormality, the protection function will work about 5 seconds later and the power supply will be shut off.

(4) For THERMAL (when the last protection incident was THERMAL protection)

Upper	P	R	O	T	E	C	T		H	I	S	T	O	R	Y	
Lower	:	T	H	E	R	M	A	L		*						

*: A~D
Cause: The temperature of the heat sink is excessive.

If the power is turned on without correcting the abnormality, the protection function will work about 5 seconds later and the power supply will be shut off.

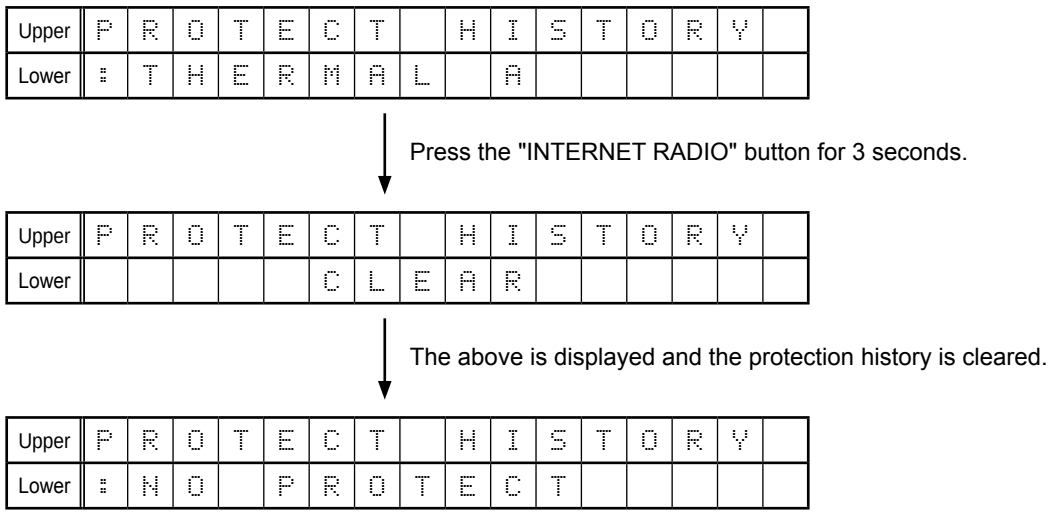
※ Additional causes of protection can be due to loose connections, associated components, Microprocessor, etc.

When the "STATUS" button is pressed again after the above protection history as shown above is displayed, the normal display reappears.(Refer to "PROTECTION DIAGRAM" 27 page.)

3.6.3. Clearing the protection history

There are two ways to clear the protection history, as described below.

(1) Start up the set in error (protection display) mode and display the error, then press and hold down the "ENTER" button for 3 seconds.



(2) Initialize. (Refer to "Initializing INTEGRATED NETWORK AV RECEIVER" 9 page.)

※ If you want to save a backup, perform the method in 2.3.(1) above.

Warning indication by the POWER LED

If the power is turned off when a protection incident has been detected, the POWER LED (red) flashes as a warning according to the conditions in which the protection incident occurred.

(1) ASO/DC PROTECTION : Flashes at intervals of 0.5 seconds (0.25 seconds lit, 0.25 seconds off)
(2) THERMAL (A/B/C/D) PROTECTION : Flashes at intervals of 2 seconds (1 second lit, 1 second off)

4. Remote ID Setup mode

4.1. Specifications

When using multiple DENON AV receivers in the same room, make this setting so that only the desired AV receiver operates.

4.2. Setting the AV receivers ⚠6

Starting up:

Turn on the power, then press and hold down the "STATUS" and "DIMMER" buttons for over 3 seconds.

(1) When Remote ID Setup mode is started, the following is displayed.

FLD				R	E	M	O	T	E		I	D		?		

(2) Press the "QUICK SELECT 1 - 4" button that corresponds to the number you want to set.

Button	FL Display
QUICK SELECT 1	R E M O T E I D 1
QUICK SELECT 2	R E M O T E I D 2
QUICK SELECT 3	R E M O T E I D 3
QUICK SELECT 4	R E M O T E I D 4

(3) Turn off the power using "Power operation (⏻)" button.
(4) Turn on the power using "Power operation (⏻)" button.

※ When Remote ID Setup mode is running, operations other than the "QUICK SELECT 1 - 4" buttons or "Power operation (⏻)" buttons on the main unit are not received.

4.3. Setting the Remote control unit ⚠6

(1) Press and hold both "DEVICE MENU" button for at least 3 second. The DEV./TV/AVR mode indicator flashes.
(2) Press the "AVR" button. The DEV./TV/AVR mode indicator flashes.
(3) Press the "1, 2, 3 or 4" button. The DEV./TV/AVR mode indicator flashes.

NOTE:

If the IDs do not match, "AVAMP∗" (∗ is the main unit's remote control ID) appears on the display when the remote control unit is operated.

JIG FOR SERVICING

When you repair the printing board, you can use the following JIG (Extension cable kit).
Please order it from DENON Official Service. Distributor in your region if necessary.

NOTE: The incorrect connection with in the JIG (EXTENSION UNIT KIT) may cause damage.

8U-110084S : EXTENSION UNIT KIT : 2 Set

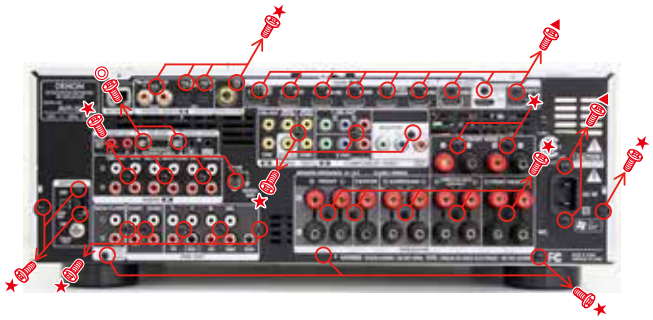
• Connection of PCB HDMI JIG

-Preparation-

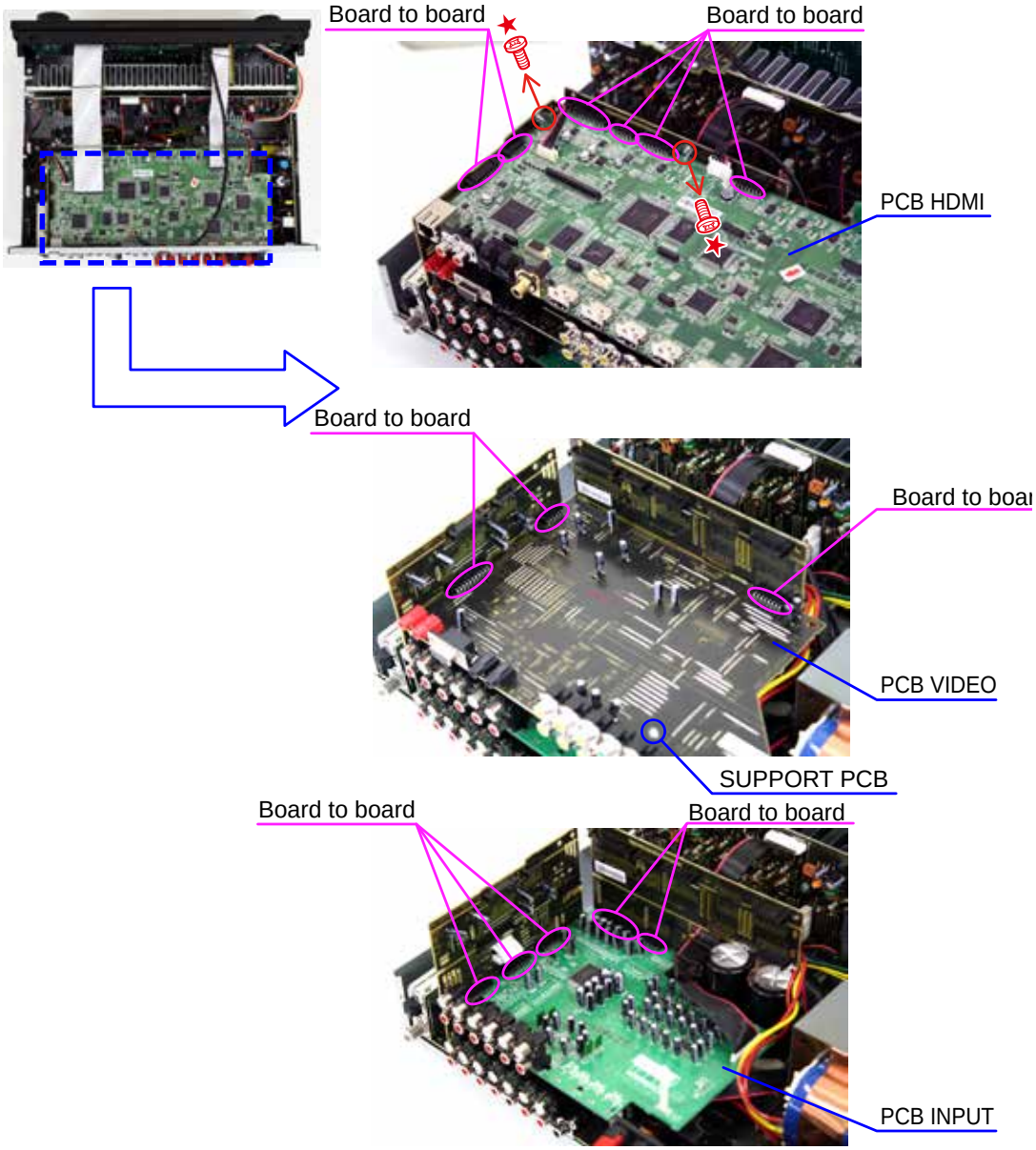
8U-110084S : EXTENSION UNIT KIT : 1 Set
Insulation sheet (Do not supply it) : 3 sheets
Ground lead (Do not supply it) : 3 pcs

-Procedures-

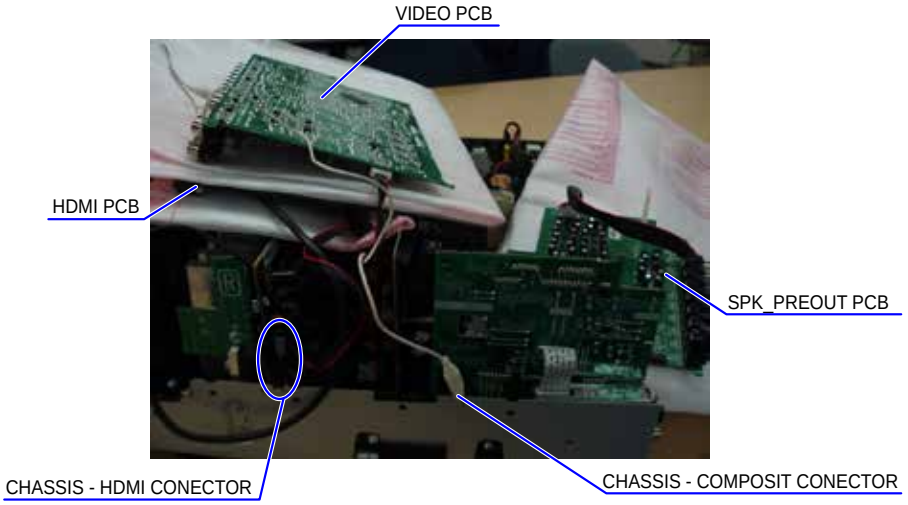
(1) Remove the screws.



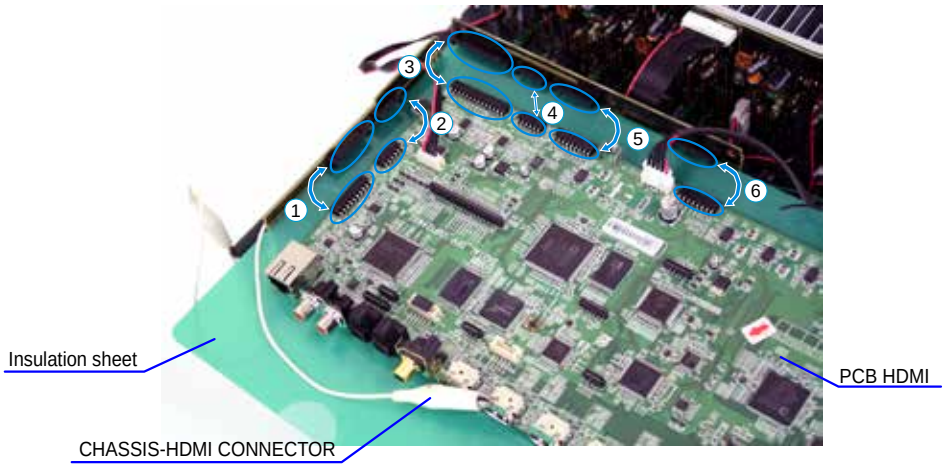
(2) Disconnect the connector board.

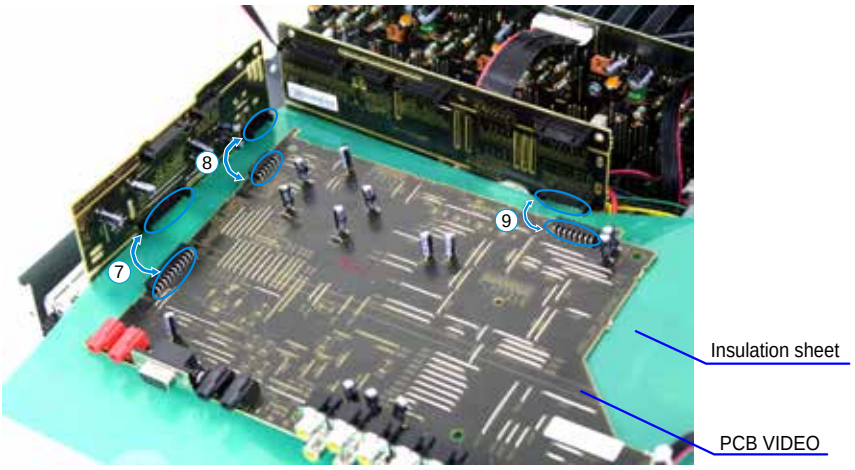


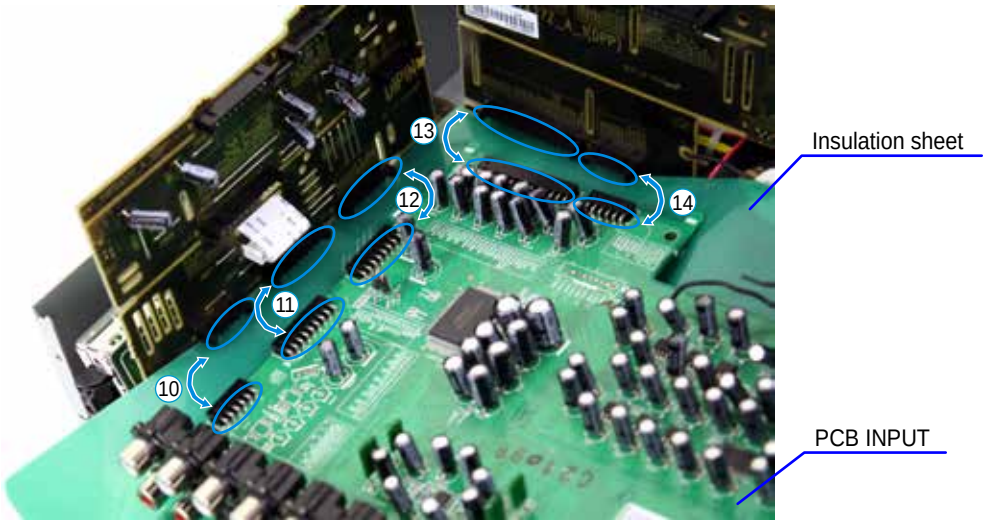
(3) Detach PCB HDMI from the chassis, and turn it over.
Please put an insulation sheet that is larger than PCB HDMI under PCB.
※ Connect the ground point of PCB to the chassis with a ground lead or the like.



(4) Connect the six extension jig cables.







Connection table of Board to Board

No.	Pin	Ref. No.	PCB		Ref. No.	PCB
①	19pin	CN27A	SIDE CNT	⟷	CN27B	HDMI
②	11pin	CN28A	SIDE CNT	⟷	CN28B	HDMI
③	27pin	CN24A	FRONT CNT	⟷	CN24B	HDMI
④	11pin	CN26A	FRONT CNT	⟷	CN26B	HDMI
⑤	17pin	CN25A	FRONT CNT	⟷	CN25B	HDMI
⑥	15pin	CN21A	FRONT CNT	⟷	CN21B	HDMI
⑦	21pin	CN53A	SIDE CNT	⟷	CN53B	VIDEO
⑧	11pin	CN52A	SIDE CNT	⟷	CN52B	VIDEO
⑨	15pin	CN51A	FRONT CNT	⟷	CN51B	VIDEO
⑩	11pin	CN45A	SIDE CNT	⟷	CN45B	INPUT
⑪	17pin	CN44A	SIDE CNT	⟷	CN44B	INPUT
⑫	15pin	CN41A	SIDE CNT	⟷	CN41B	INPUT
⑬	27pin	CN42A	FRONT CNT	⟷	CN42B	INPUT
⑭	11pin	CN43A	FRONT CNT	⟷	CN43B	INPUT

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
HDMI	IC201	R5F56108VNFP	**B**	SOFTWARE: Main
HDMI	IC231	R5F3650KNFB	**B**	SOFTWARE: Sub
HDMI	IC410	MX29LV160DBTI-70G	**B**	SOFTWARE: DSP ROM
HDMI	IC406	EPM240T100C5N	**B**	SOFTWARE: Audio PLD
HDMI	IC155	MX25L6406EM2I-12G	**B**	SOFTWARE: Video OSD 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

You can update the firmware by downloading the latest version from the Internet.

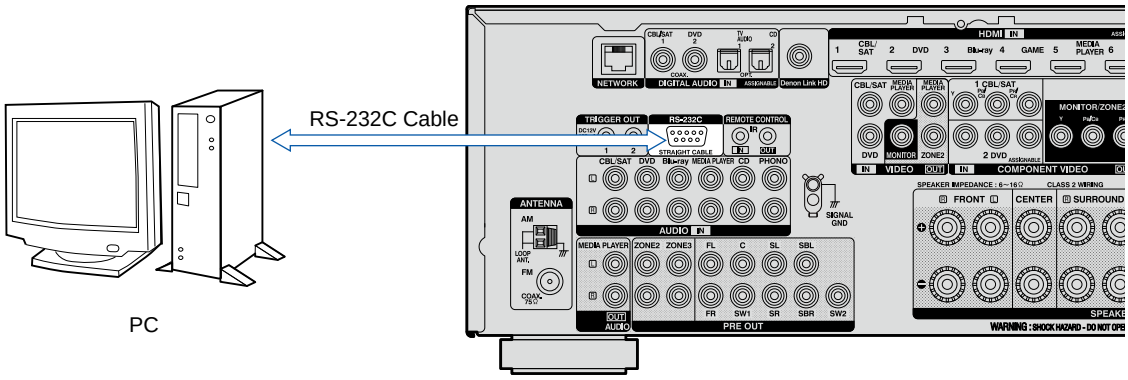
1. How to update by DFW

1.1. Preparations before starting the operation

(1) Personal Computer (Installed "DFW_0060_AVR3313_(Rev.X.X.X).exe".
(2) RS-232C cable (9P (Male), Straight).

1.2. Connection of AV receiver

(1) Confirm the power on/off switch of the AV receiver is turning off.
(2) Connect the RS-232C cable from PC with the "RS232C Terminal of AV receiver".



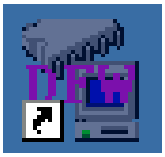
1.3. Turn on the AV receiver

Operate the following. Turn on the AV receiver.

(1) Connect the power cable to the AC outlet while simultaneously pushing the "ZONE2 SOURCE SELECT" and "ZONE3 SOURCE SELECT" button of the front panel.
(2) Confirm the power indicator is red.

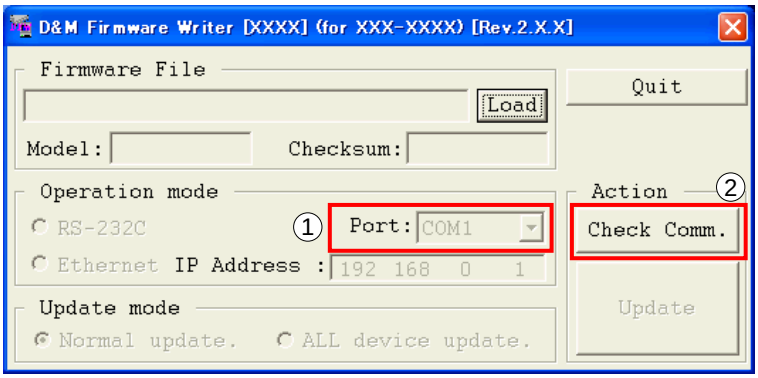
1.4. Run the DFW

Run the "DFW_0060_AVR3313_(Rev.X.X.X).exe" on desktop of PC.



1.5. Communication check

(1) Select the serial port number of RS-232C in PC.
(2) Click the "Check Comm." button.



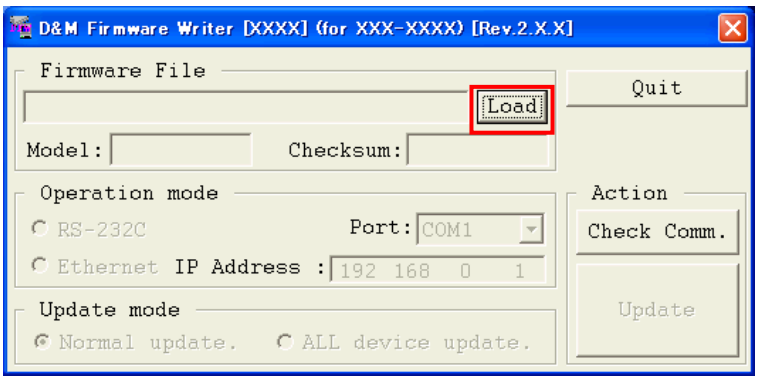
(3) When connection is good, then you can see the "Communication check OK." message.

(4) If connection is not good, then you can see the "Communication check NG" message.

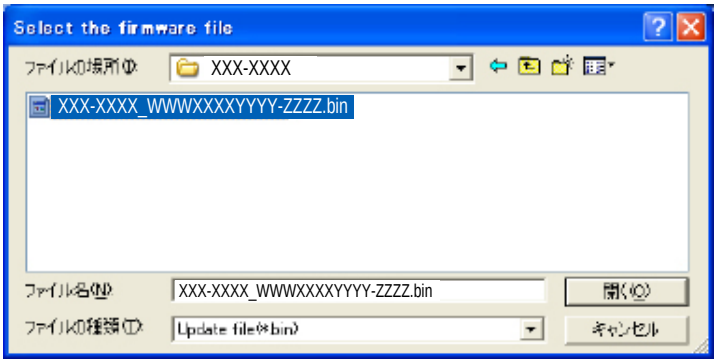
Please confirm the following
(a) Check the connection of the AV receiver and PC. (refer to "**1.2. Connection of the AV receiver**")
(b) Check the operation mode of the AV receiver. (refer to "**1.3.Turn on the AV receiver**")
(c) Check the selection of the RS-232C port number of PC.

1.6. Download the firmware

(1) Click the "Load" button.

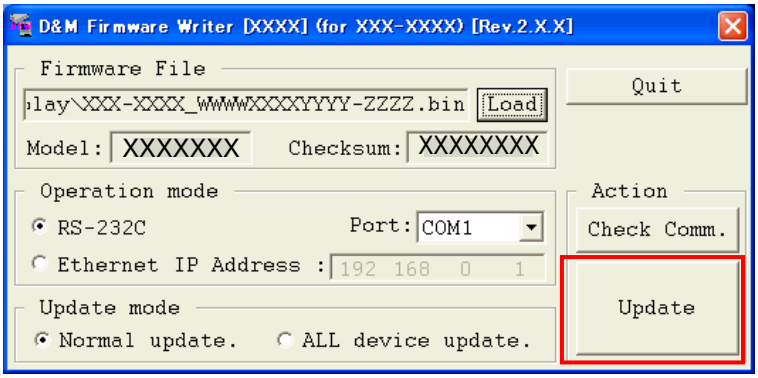


(2) Download the firmware from the specified download source to PC.

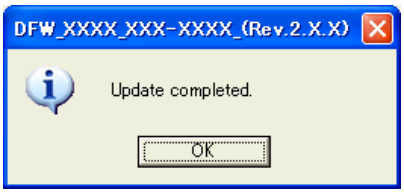


1.7. Complete the firmware updating

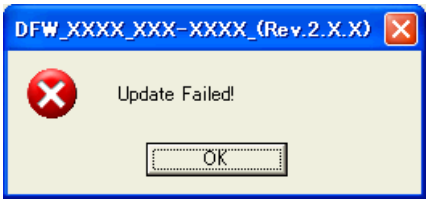
(1) Click the "Update" button.



(2) When writing of the firmware is completed, the power of AV receiver turns on automatically and you can see the "Update completed" message.



(3) If you can't complete the firmware update, please retry the firmware update from "1.3. Turn on the AV receiver".



1.8. 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 updating the firmware, check the version. Refer to "**1. µcom/DSP Version display mode**" (21 page).

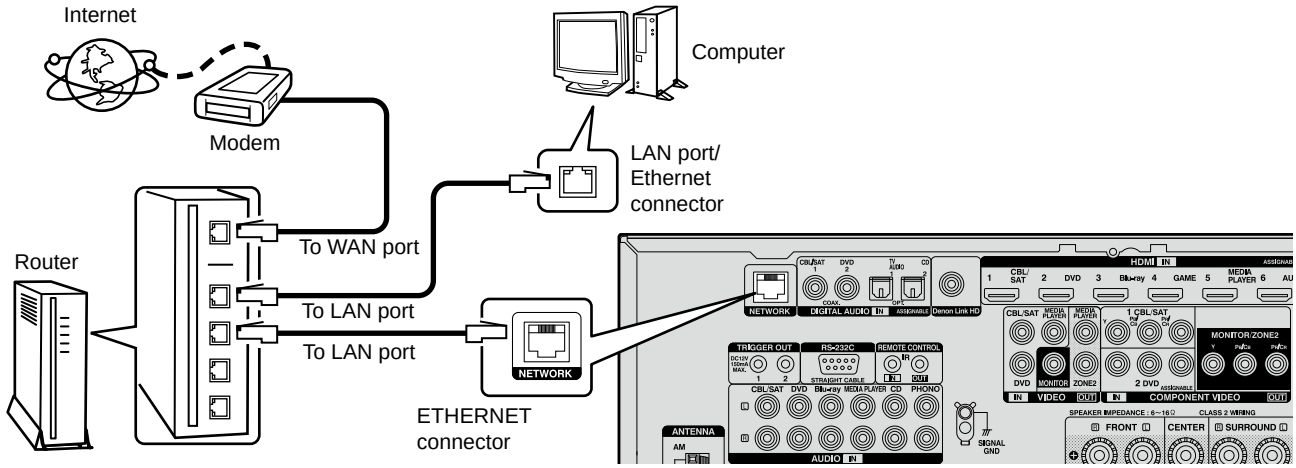
2. How to update by DPMS

You can update the firmware by downloading the latest version from the Internet.

2.1. Connecting to the Network

(1) System requirements
- Internet Connection by Broadband Circuit
- Modem
- Router
- Ethernet cable (CAT-5 or greater recommended)

(2) Setting



2.2. Checking and updating the firmware

Check if the latest firmware exists. You can also check approximately time required to complete an update.

(1) Press the "SETUP" button on the remote control to display the GUI menu.
(2) Use the cursor buttons to select "GENERAL" → "FIRMWARE" → "Update" → "Check For Update".
(3) Press the "ENTER" button.
- The latest version of the firmware on the website is displayed.
- If the firmware on the website is latest, proceed to (4).
- If the latest firmware has been already installed, press the "MENU" button to close the menu.

(4) Use the cursor buttons to select "START", then press the "ENTER" button.
- During update, the power indicator lights in red and the GUI screen disappears. And an approximately remaining time is indicated on the display.
- When updating is complete the power indicator lights in green and normal status is resumed.

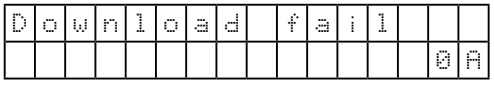
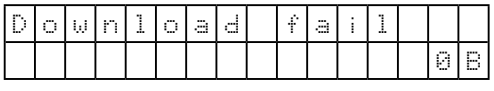
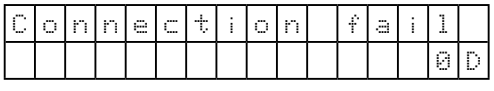
(5) Press the "MENU" button to close the menu.

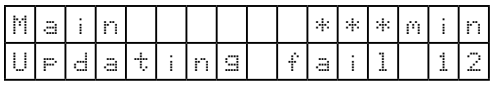
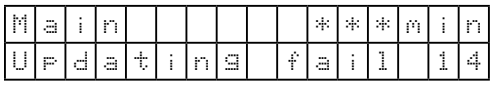
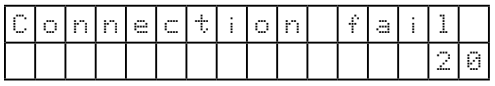
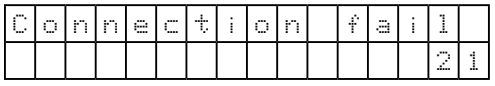
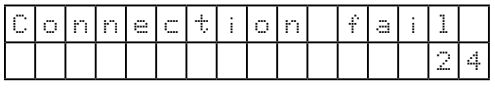
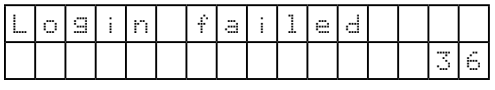
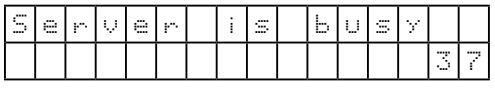
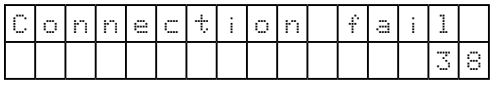
--- Cautions on Firmware Update ---

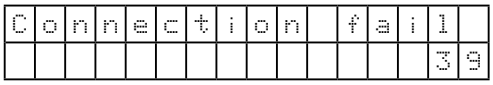
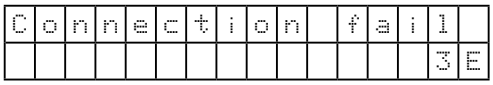
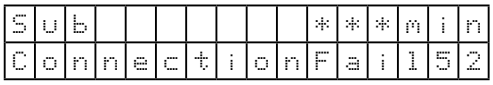
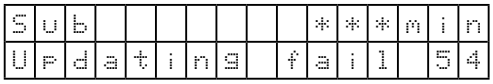
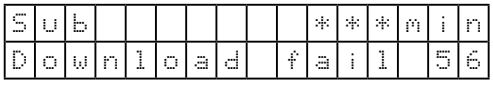
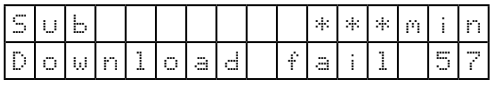
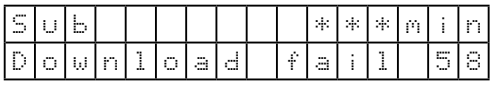
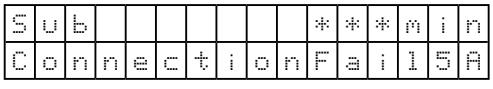
- In order to update the firmware, you must have the correct system requirements and settings for a broadband Internet connection.
- Do not turn off the power until updating is completed.
  Even with a broadband connection to the Internet, approximately 1 hour is required for the updating procedure to be completed.
  Once updating starts, normal operations on the AVR-3313 cannot be performed until updating is completed. Also, setting items of the GUI menu of AVR-3313 or setting items of the image adjustment may be initialized.
  Note down the settings before updating, and set them again after updating.

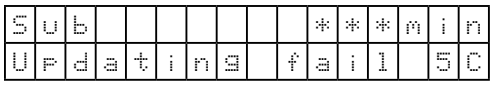
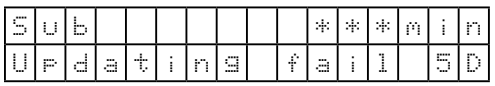
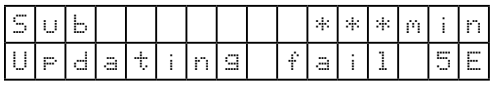
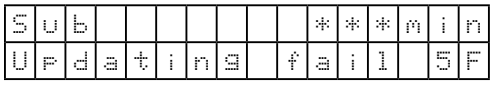
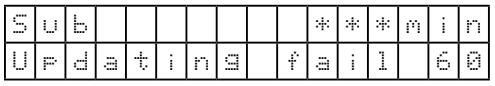
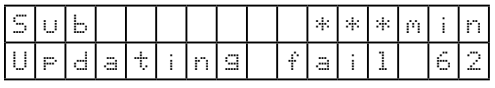
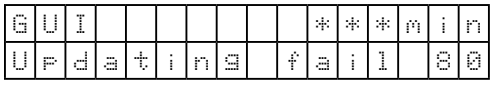
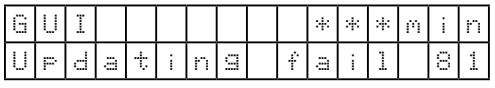
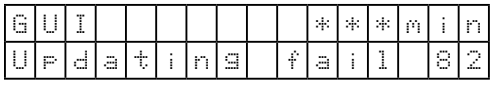
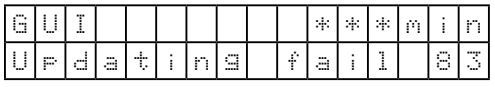
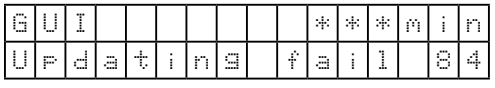
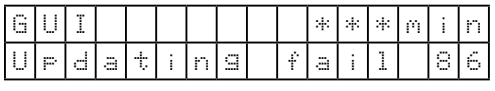
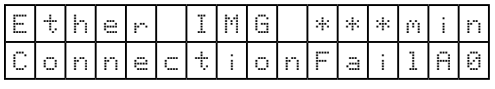
2.3. About the error code

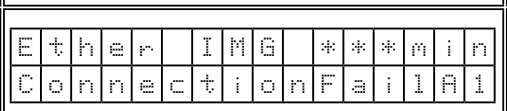
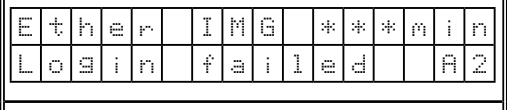
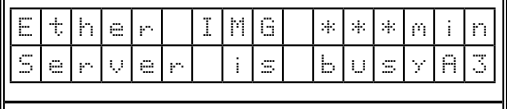
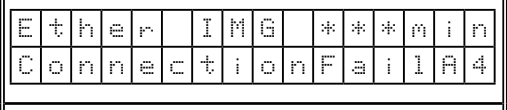
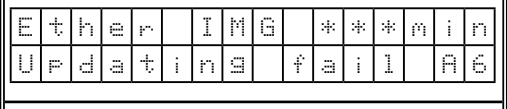
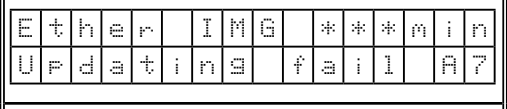
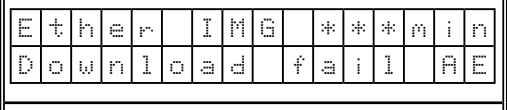
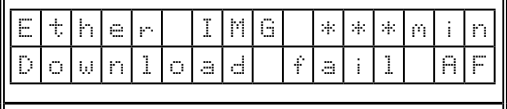
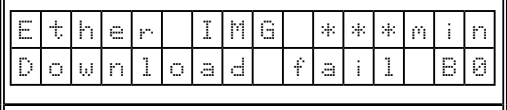
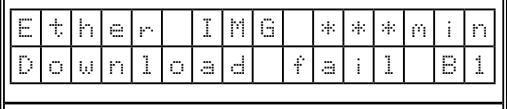
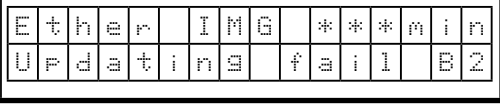
See the table below for error codes, details of faults, and coping strategies when the firmware is updated through DPMS (Denon Product Management Server).

Error Code	Details of Error code	Display	Coping strategies
01	Log-in to DPMS has failed.		Reset and update again. Carry out the update in an environment that has little network load.
02	Line, etc., is busy when logging into DPMS.		Carry out the update in an environment that has little network load.
03	Connection to DPMS failed.		Check the network connection. Carry out the update in an environment that has little network load.
04	Firmware file data was requested but error message was received.		Check the network connection. Carry out the update in an environment that has little network load.
05	Firmware file data was requested but it timed out.		Check the network connection. Carry out the update in an environment that has little network load.
06	Firmware file data was requested but error message was received.		Check the network connection. Carry out the update in an environment that has little network load.
07	All firmware file data was requested but it timed out.		Check the network connection. Carry out the update in an environment that has little network load.
08	Firmware file data of Main CPU was requested but error message was received.		Check the network connection. Carry out the update in an environment that has little network load.
09	Firmware file data of Main CPU was requested but it timed out.		Check the network connection. Carry out the update in an environment that has little network load.
0A	Error (NG) message was received when firmware of Main CPU was downloaded.		Check the network connection. Carry out the update in an environment that has little network load.
0B	Error (line congestion) message was received when firmware of Main CPU was downloaded.		Check the network connection. Carry out the update in an environment that has little network load.
0C	Error (connection failure) message was received when firmware of Main CPU was downloaded.		Check the network connection. Carry out the update in an environment that has little network load.
0D	Received Package Version is wrong.		Check the network connection. Carry out the update in an environment that has little network load.
0E	Connection to DPMS failed. (can not get NTP)		Check the network connection. Carry out the update in an environment that has little network load.
10	Main CPU failed to receive firmware for rewriting sent from DM860A (when timed out).		Turn off and on the power. Updating starts automatically.

Error Code	Details of Error code	Display	Coping strategies
11	Main CPU failed to receive firmware for rewriting sent from DM860A (when an error occurred)		Turn off and on the power. Updating starts automatically.
12	There was invalid data in the firmware for rewriting sent from DM860A to Main CPU (when a Check Sum error occurred).		Turn off and on the power. Updating starts automatically.
13	The deletion of block data failed before Main CPU was rewritten.		Turn off and on the power. Updating starts automatically.
14	The rewriting of block data failed when Main CPU was rewritten.		Turn off and on the power. Updating starts automatically.
15	The data verification was invalid after Main CPU was rewritten.		Turn off and on the power. Updating starts automatically.
20	Failure to acquire (Boot Loader Mode) IP address before rewriting DM860A (AutoIP).		Check the network connection. Carry out the update in an environment that has little network load.
21	Failure to acquire (Boot Loader Mode) IP address before rewriting DM860A (when timed out).		Check the network connection. Carry out the update in an environment that has little network load.
22	Log-in to DPMS failed.		Reset and update again. Carry out the update in an environment that has little network load.
23	Line, etc., is busy when logging into DPMS.		Carry out the update in an environment that has little network load.
24	Connection to DPMS failed.		Check the network connection. Carry out the update in an environment that has little network load.
25	Mode change failure of DM860A.		Reset and update again.
26	Data acquisition failed (timed out) when firmware of Main CPU was downloaded. Received Package Version is wrong.		Check the network connection. Carry out the update in an environment that has little network load.
27	Mode change failure of DM860A.		Reset and update again.
36	Log-in to DPMS ailed when firmware such as Sub CPU, DSP, FPGA, and PLD was rewritten.		Carry out the update in an environment that has little network load.
37	Line, etc., is busy when logging into DPMS when firmware such as Sub CPU, DSP, FPGA, and PLD was rewritten.		Carry out the update in an environment that has little network load.
38	Connection to DPMS failed when firmware such as Sub CPU, DSP, FPGA, and PLD was rewritten..		Check the network connection. Carry out the update in an environment that has little network load.

Error Code	Details of Error code	Display	Coping strategies
39	Connection to DPMS timed out when firmware such as Sub CPU, DSP, FPGA, and PLD was rewritten.		Check the network connection. Carry out the update in an environment that has little network load.
3A	Error (NG) message was received when firmware was downloaded or Main CPU was rewritten.		Turn off and on the power. Updating starts automatically. Carry out the update in an environment that has little network load.
3B	Error (line congestion) message received when firmware was downloaded or Main CPU was rewritten.		Turn off and on the power. Updating starts automatically. Carry out the update in an environment that has little network load.
3C	Error (connection failure) message received when firmware was downloaded or Main CPU was rewritten.		Turn off and on the power. Updating starts automatically. Carry out the update in an environment that has little network load.
3D	Failure to acquire (Boot Loader Mode) IP address before rewriting DM860A (AutoIP).		Check the network connection. Carry out the update in an environment that has little network load.
3E	Failure to acquire (Boot Loader Mode) IP address before rewriting DM860A (when timed out).		Check the network connection. Carry out the update in an environment that has little network load
3F	Mode change failure of DM860A.		Reset and update again.
50	Log-in to DPMS failed when firmware such as Sub CPU, DSP and PLD was rewritten.		Carry out the update in an environment that has little network load.
51	Line, etc., is busy when log-in into DPMS when firmware such as Sub CPU, DSP and PLD was rewritten.		Carry out the update in an environment that has little network load.
52	Connection to DPMS failed when firmware such as Sub CPU, DSP and PLD was rewritten.		Check the network connection. Carry out the update in an environment that has little network load.
54	Error message received regarding firmware data after the log-in to DPMS when firmware such as Sub CPU, DSP and PLD was rewritten.		Turn off and on the power. Updating starts automatically. Carry out the update in an environment that has little network load.
55	When firmware such as Sub CPU, DSP and PLD, request was made for firmware data after the log-in to DPMS, but it timed out was rewritten.		Turn off and on the power. Updating starts automatically. Carry out the update in an environment that has little network load.
56	Downloading firmware failed after the log-in to DPMS when firmware such as Sub CPU, DSP and PLD was rewritten.		Turn off and on the power. Updating starts automatically. Carry out the update in an environment that has little network load.
57	Firmware download error received (line congestion) after the log-in to DPMS when rewriting firmware such as Sub CPU, DSP and PLD was rewritten.		Turn off and on the power. Updating starts automatically. Carry out the update in an environment that has little network load.
58	Firmware download error was received (connection failure) after the log-in to DPMS when firmware such as Sub CPU, DSP and PLD was rewritten.		Turn off and on the power. Updating starts automatically. Carry out the update in an environment that has little network load.
5A	NACK was received when "C" command sent to Sub CPU, DSP PLD etc.		Turn off and on the power. Updating starts automatically.

Error Code	Details of Error code	Display	Coping strategies
5B	NACK was received when "L" command sent to Sub CPU, DSP, PLD etc.		Turn off and on the power. Updating starts automatically.
5C	Sub CPU, DSP, PLD etc. failed to receive firmware for rewriting sent from DM860A (when timed out).		Turn off and on the power. Updating starts automatically.
5D	Sub CPU, DSP, PLD etc. failed to receive firmware for rewriting sent from DM860A (when an error occurred).		Turn off and on the power. Updating starts automatically.
5E	Data in firmware such as Sub CPU, DSP and PLD for rewriting sent from DM860A was invalid (when a Check Sum error occurred).		Turn off and on the power. Updating starts automatically.
5F	Invalid data in firmware such as Sub CPU, DSP and PLD for rewriting sent from DM860A was invalid (invalid data was received).		Turn off and on the power. Updating starts automatically.
60	NACK was received when "P" command sent to Sub CPU, DSP, PLD etc.		Turn off and on the power. Updating starts automatically.
61	NACK was received when "I" command sent to Sub CPU, DSP, PLD etc.		Turn off and on the power. Updating starts automatically.
62	Start of Sub μ-com fail.		Turn off and on the power. Updating starts automatically.
80	Acquisition of serial flash data failed before serial flash was deleted.		Turn off and on the power. Updating starts automatically.
81	Deleting data failed before serial flash was rewritten.		Turn off and on the power. Updating starts automatically.
82	Receiving firmware for rewriting serial flash sent by DM860A failed (when timed out).		Turn off and on the power. Updating starts automatically.
83	Receiving firmwarefor rewriting serial flash sent by DM860A failed (when an error).		Turn off and on the power. Updating starts automatically.
84	Receiving firmwarefor rewriting serial flash sent by DM860A failed (when a Check Sum error).		Turn off and on the power. Updating starts automatically.
85	Receiving firmwarefor rewriting serial flash sent by DM860A failed (when invalid data was received).		Turn off and on the power. Updating starts automatically.
86	The data verification was invalid after serial flash was rewritten.		Turn off and on the power. Updating starts automatically.
A0	Acquisition of (Application Mode) IP address failed before rewriting DM860A was rewritten (AutoIP).		Check the network connection. Carry out the update in an environment that has little network load.

Error Code	Details of Error code	Display	Coping strategies
A1	Acquisition of (Application Mode) IP address failed before rewriting DM860A was rewritten (when timed out).		Check the network connection. Carry out the update in an environment that has little network load.
A2	Invalid login via DPMS access was notified DM860A related firmware was rewritten (Application Mode).		Check the network connection. Carry out the update in an environment that has little network load.
A3	Line congestion via DPMS access was notified DM860A related firmware was rewritten (Application Mode).		Check the network connection. Carry out the update in an environment that has little network load.
A4	Connection failure via DPMS access was notified DM860A related firmware was rewritten (Application Mode).		Check the network connection. Carry out the update in an environment that has little network load.
A6	Firmware data error message was received after DPMS login when DM860A related firmware was rewritten (Application Mode).		Turn off and on the power. Updating starts automatically. Carry out the update in an environment that has little network load.
A7	When DM860A related firmware was rewritten (Application Mode), request was made for firmware data after DPMS login but it timed out.		Turn off and on the power. Updating starts automatically. Carry out the update in an environment that has little network load.
AE	Firmware download error message received (when download fails) when DM860A related firmware was rewritten (Boot Loader Mode).		Turn off and on the power. Updating starts automatically. Carry out the update in an environment that has little network load.
AF	Firmware download error message received (line congestion) when DM860A related firmware was rewritten (Boot Loader Mode).		Turn off and on the power. Updating starts automatically. Carry out the update in an environment that has little network load.
B0	Firmware download error message received (connection failure) when DM860A related firmware was rewritten (Boot Loader Mode).		Turn off and on the power. Updating starts automatically. Carry out the update in an environment that has little network load.
B1	Firmware download error (timed out) when DM860A related firmware was rewritten.		Turn off and on the power. Updating starts automatically. Carry out the update in an environment that has little network load.
B2	Error message received when DM860A related firmware was rewritten		Turn off and on the power. Updating starts automatically. Carry out the update in an environment that has little network load.

Device display during firmware update

Target of device when firmware updated.

Target of device	Display	Error cpde
Main	Main ***min Updating **%	08~0C 10~15 22~24 36~3E
Sub	Sub ***min Updating **%	50~52 54~58 5A~62
Audio PLD	APLD ***min Updating **%	50~52 54~58 5A~62
DSP	DSP ***min Updating **%	50~52 54~58 5A~62
GUI Serial Flash	GUI ***min Updating **%	50~52 54~58 5A~62 80~86
DM860A Boot Loader	Ether SBL ***min Updating ***	A0~A4 A6~A7 AE~B5
DM860A Image	Ether IMG ***min Updating ***	A0~A4 A6~A7 AE~B5

3. How to update by USB Memory

You can update the firmware by downloading the latest version with USB Memory.

3.1. Connecting to the Network

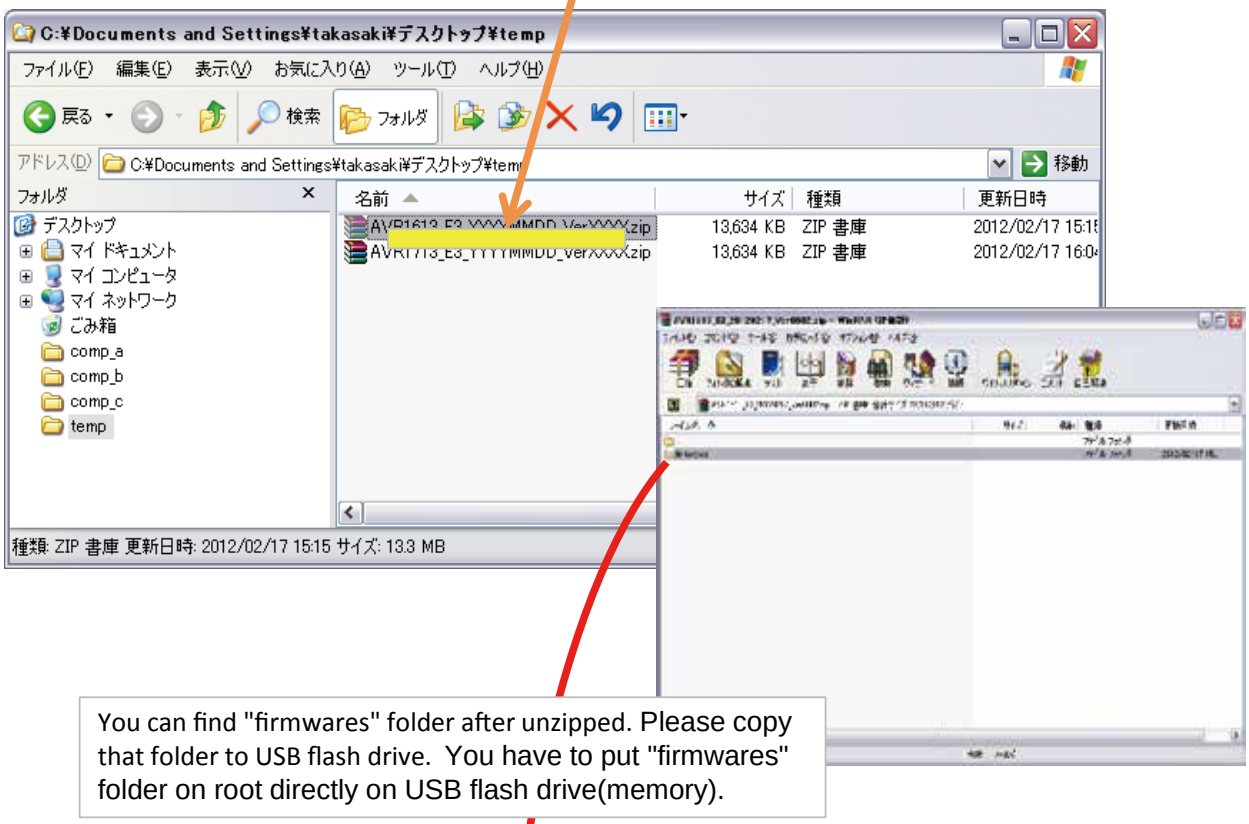
(1) Requirements

- USB Memory capacity : FAT16 : 2 GB, FAT32 : 2 TB
- USB memory devices will not work via a USB hub.
- It is not possible to use this unit by connecting the unit's USB port to a PC via a USB cable.
- Do not use an extension cable when connecting a USB memory device.
  This may cause radio interference.

3.2. Unzip Download File

Pleases unzip the downloaded file on PC.

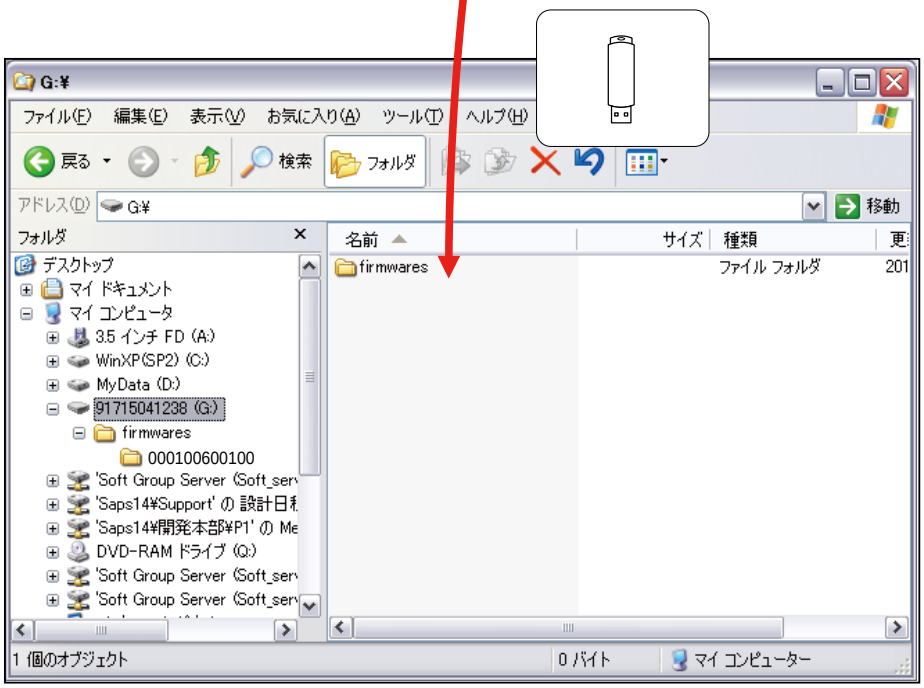
AVR3313 E3	USB_AVR-3313E3_000100600100-0001.zip



You can find "firmwares" folder after unzipped. Please copy that folder to USB flash drive. You have to put "firmwares" folder on root directly on USB flash drive(memory).

copy to USBflash drive

3.3. Copy for USB flash drive

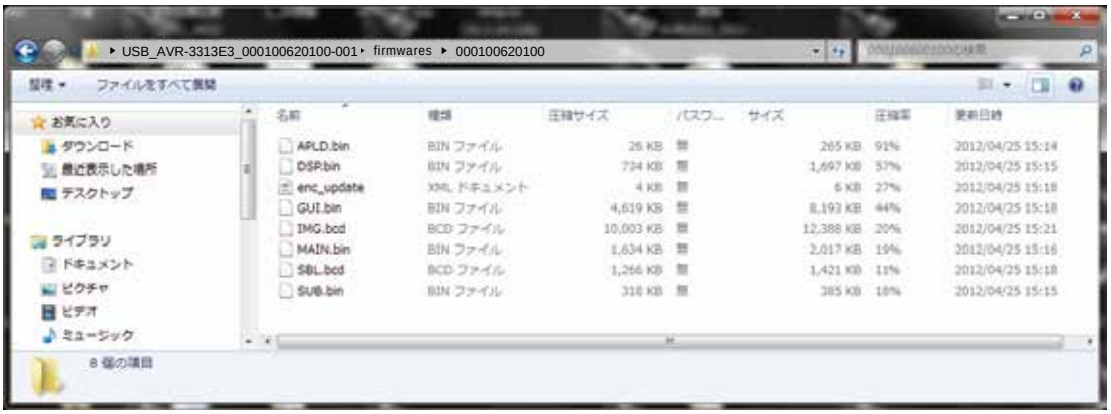


USB location is below

USB memory root

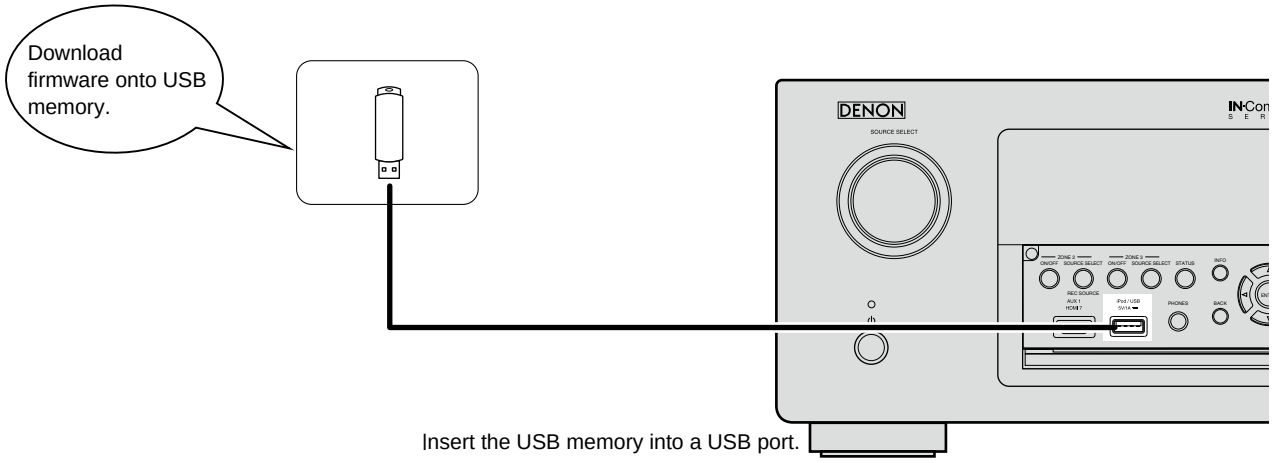
Model Name	Model Area	Product ID
AVR3313	North America (E3)	000100620100
	Europe (E2)	000100620200
	China (E1C)	000100620500

+ firmwares
  + 000100620100
    + APLD.bin
    + DSP.bin
    + enc_update.xml
    + GUI.bin
    + IMG.bcd
    + MAIN.bin
    + SBL.bcd
    + SUB.bin



3.4. Insert the USB memory into a USB port

NOTE: Please UNPLUG LAN cable from the unit during update.



Insert the USB memory into a USB port.

3.5. Start update

Turn on the power of this unit in the "STATUS" + "OPTION" button.

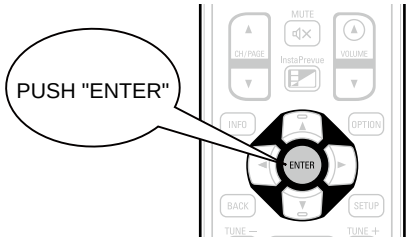
3.6. "USB Update Start" on FL Display

After arround half minutes, FL display shows the following message.

FL Display

Upper	*	F	I	R	M	W	A	R	E		U	P	D	A	T	E
Lower	U	S	B		U	p	d	a	t	e		S	t	a	r	t

3.7. Push "ENTER" key on RC or Main unit



Then start Firmware Update.

FL Display

Upper	P	l	e	a	s	e		w	a	i	t	.	.	.		
Lower	U	p	d	a	t	e	F	i	l	e	C	h	e	c	k	

3.8. Finish firmware update

FL display shows the following message.

FL Display

Upper	F	i	r	m		U	p	d	a	t	e					
Lower	U	p	d	a	t	i	n	g	C	o	m	p	l	e	t	e

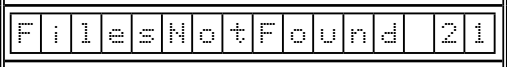
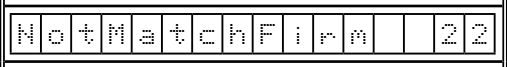
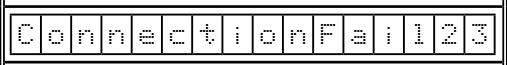
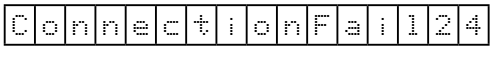
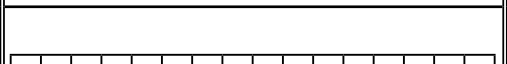
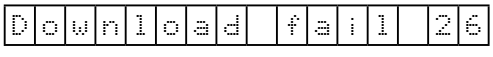
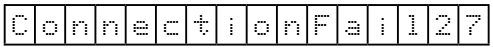
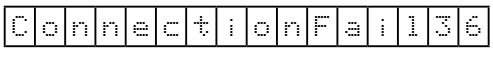
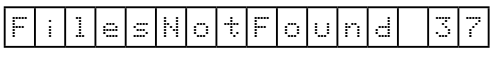
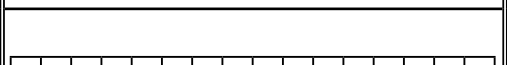
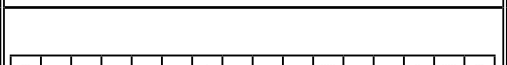
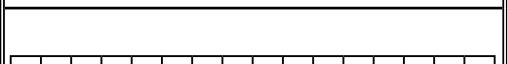
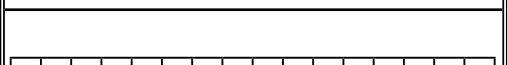
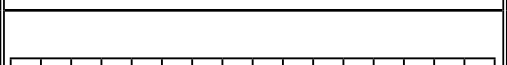
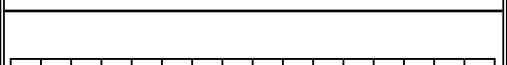
--- Cautions on Firmware Update ---

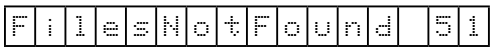
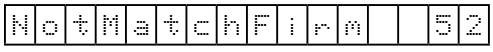
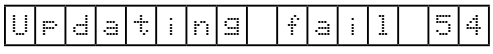
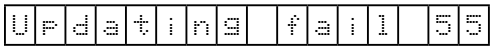
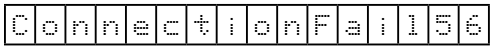
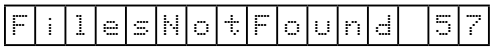
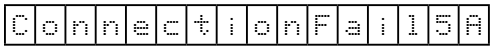
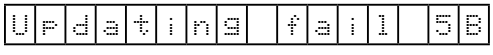
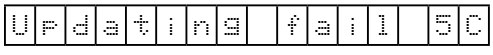
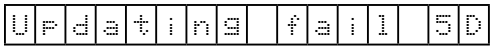
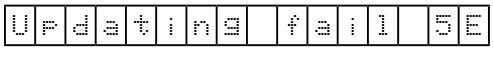
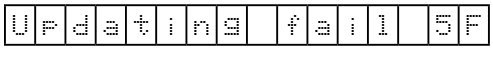
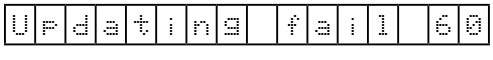
- Do not remove a USB memory until updating is completed.
- Do not turn off the power until updating is completed.
  Approximately 1 hour is required for the updating procedure to be completed.
  Once updating starts, normal operations on the this unit cannot be performed until updating is completed. Also, setting items of the GUI menu of this unit or setting items of the image adjustment may be initialized.
  Note down the settings before updating, and set them again after updating.

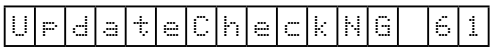
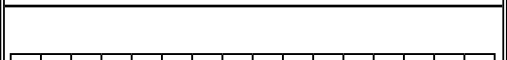
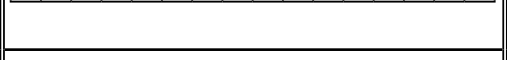
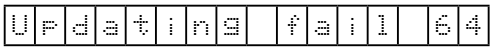
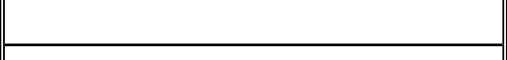
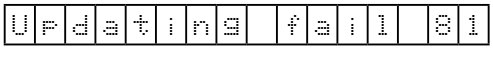
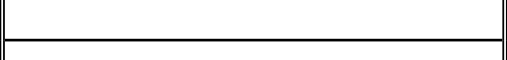
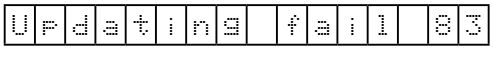
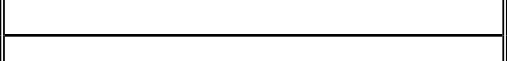
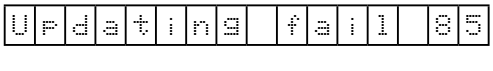
3.3. About the error code

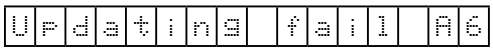
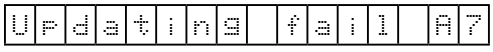
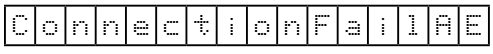
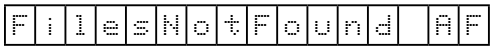
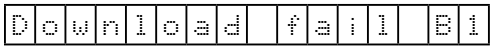
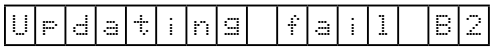
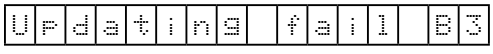
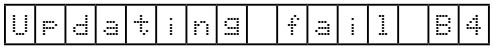
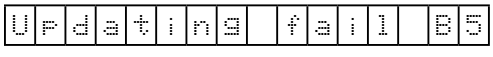
See the table below for error codes and details of faults when the firmware is updated through USB memory.

Error Code	Details of Error code	Display	Coping strategies
01	Unable to detect USB.	ConnectionFai101	Disconnect and connect the USB memory.
02	No FirmwareFile in USB.	FilesNotFound 02	Make sure that the FirmwareFile is in the USB memory.
03	FirmwareFile in USB for unsupported Model name/area	NotMatchFirm 03	Check the supported Model name/area for the FirmwareFile.
04	Failed to obtain entire Firmware information.	ConnectionFai104	Start the USB Update again.
05	TimeOut while obtaining entire Firmware information	ConnectionFai105	Start the USB Update again.
06	Failed to obtain individual Firmware information.	ConnectionFai106	Start the USB Update again.
07	TimeOut while obtaining individual Firmware information	ConnectionFai107	Start the USB Update again.
08	Error notification received while requesting FirmwareInfo.	ConnectionFai108	This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
09	TimeOut while obtaining Firmware information	ConnectionFai109	This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
0A	Unable to detect USB for FirmwareDownload.	ConnectionFai10A	Disconnect and connect the USB memory.
0B	No FirmwareFile for FirmwareDownload.	FilesNotFound 0B	Disconnect and connect the USB memory.
0C	Received value with invalid PackageVersion.	ConnectionFai10C	This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
10	No UpdatePacket received from DM860A (TimeOut).	Updating fail 10	This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
11	Abnormal data in UpdatePacket received from DM860A (FormatError).	Updating fail 11	This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
12	Abnormal data in UpdatePacket received from DM860A (CheckSumError).	Updating fail 12	This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
13	BlockErase failed before rewriting Main.	Erase fail 13	This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
14	BlockWrite failed while rewriting Main.	Updating fail 14	This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
15	Error in Verify after rewriting Main (CheckSumError).	UpdateCheckNG 15	This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
20	Unable to detect USB after SBLMode.	ConnectionFai120	Disconnect and connect the USB memory.

Error Code	Details of Error code	Display	Coping strategies
21	No FirmwareFile in USB after SBLMode.		Disconnect and connect the USB memory.
22	FirmwareFile in USB after SBLMode for unsupported Model name/area		Check the supported Model name/area for the FirmwareFile.
23	Failed to obtain entire Firmware information after SBLMode.		Disconnect and connect the USB memory.
24	TimeOut while obtaining entire Firmware information after SBLMode		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
25	Failed to transit to SBLMode.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
26	TimeOut in Download (writing to SDRAM) for FirmwareDownload		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
27	Failed to write to EEPROM after SBLMode.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
36	Unable to detect USB.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the POWER button for five seconds.
37	No FirmwareFile in USB.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
38	FirmwareFile in USB for unsupported Model name/area		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
39	TimeOut in USBCheck		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
3A	Unable to detect USB for FirmwareDownload.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
3B	No FirmwareFile for FirmwareDownload.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
3F	Failed to transit to SBLMode.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
50	Unable to detect USB.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.

Error Code	Details of Error code	Display	Coping strategies
51	No FirmwareFile in USB.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
52	FirmwareFile in USB for unsupported Model name/area		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
54	Error notification received while requesting FirmwareInfo.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
55	TimeOut while obtaining Firmware		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
56	Unable to detect USB for FirmwareDownload.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
57	No FirmwareFile for FirmwareDownload.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
5A	Invalid DeviceID in response or no response from Sub for C command.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
5B	NACK received in response or no response from Sub for L command.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
5C	No UpdatePacket received from DM860A (TimeOut).		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
5D	Abnormal data in UpdatePacket received from DM860A (FormatError).		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
5E	Abnormal data in UpdatePacket received from DM860A (CheckSumError).		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
5F	Abnormal data in UpdatePacket received from DM860A (DataLength/ DataNo).		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
60	NACK received in response or no response from Sub for P command.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.

Error Code	Details of Error code	Display	Coping strategies
61	Mismatched CheckSum in response or no response from Sub for I command.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
63	Failed to transit to ApplicationMode.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
64	Failed to transit to BootLoaderMode.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
80	WriteEnableLatchBit not set in Read after issuing WREN command.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
81	BlockErase failed in Read after issuing BE command.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
82	No UpdatePacket received from DM860A (TimeOut).		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
83	Abnormal data in UpdatePacket received from DM860A (FormatError).		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
84	Abnormal data in UpdatePacket received from DM860A (CheckSumError).		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
85	Abnormal data in UpdatePacket received from DM860A (DataLength/ DataNo).		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
86	Mismatched CheckSum in CheckSum comparison after rewriting.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
A2	Unable to detect USB.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
A3	No FirmwareFile in USB.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
A4	FirmwareFile in USB for unsupported Model name/area		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.

Error Code	Details of Error code	Display	Coping strategies
A6	Error notification received while requesting FirmwareInfo.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
A7	TimeOut while obtaining Firmware		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
AE	Unable to detect USB for FirmwareDownload.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
AF	No FirmwareFile for FirmwareDownload.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
B1	TimeOut in Download (writing to SDRAM) for FirmwareDownload		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
B2	Error notification received after rewriting DM860A Firm.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
B3	Error in FirmwareUpdate (TimeOut).		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
B4	Failed to transit to BootLoaderMode.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.
B5	Failed to transit to ApplicationMode.		This unit automatically retries several times. Wait until the FL display stops. If the FL display stops at the Error display, press and hold the "Power operation (⏻)" button for five seconds.

--- Cautions on Firmware Update ---

When an error code as shown above appears in the DISPLAY, check the following:

- Check whether the Firmware downloaded to the USB memory is correct (whether the MODEL name and area of the downloaded Firmware match those for the product, and whether the USB Memory contains data other than the latest Firmware).
- Update after resetting the product.
- Use a different USB memory.

3.4. Device display during firmware update

Display of target device during firmware update.

Target of device	Display	Error cpde
Main	Main ***min Updating ***%	08~0C 10~15 22~24 36~3E
Sub	Sub ***min Updating ***%	50~52 54~58 5A~62
Audio PLD	APLD ***min Updating ***%	50~52 54~58 5A~62
DSP	DSP ***min Updating ***%	50~52 54~58 5A~62
GUI Serial Flash	GUI ***min Updating ***%	50~52 54~58 5A~62 80~86
DM860A Boot Loader	Ether SBL ***min Updating *****	A0~A4 A6~A7 AE~B5
DM860A Image	Ether IMG ***min Updating *****	A0~A4 A6~A7 AE~B5

Confirming the firmware's number after upgraded

After updating the firmware, check the version. Refer to "**1. µcom/DSP Version display mode**" (21 page).

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 adjust the unit at normal room temperature 15 °C ~ 30 °C (59 °F ~ 86 °F).

(2) Presetting

- POWER (Power source switch) STANDBY
- SPEAKER (Speaker terminal) No load

(Do not connect speaker, dummy resistor, etc.)

2. Adjustment

(1) Remove top cover and set VR714,VR724,VR734,VR744,VR754,VR764,VR774 on 7CH AMP UNIT at fully counterclockwise (c) position.

(2) Connect DC Voltmeter to test points (FRONT-Lch: CN715, FRONT-Rch: CN725, CENTER ch: CN735, SURROUND-Lch: CN745, SURROUND-Rch: CN755, SURROUND-BACK Lch: CN765, SURROUND-BACK Rch: CN775.

(3) Connect power cord to AC Line, and turn power switch "ON".

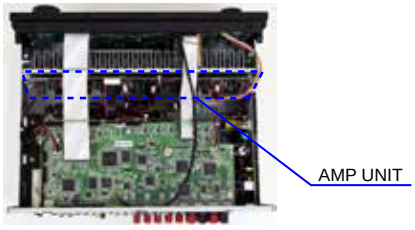
(4) Presetting.

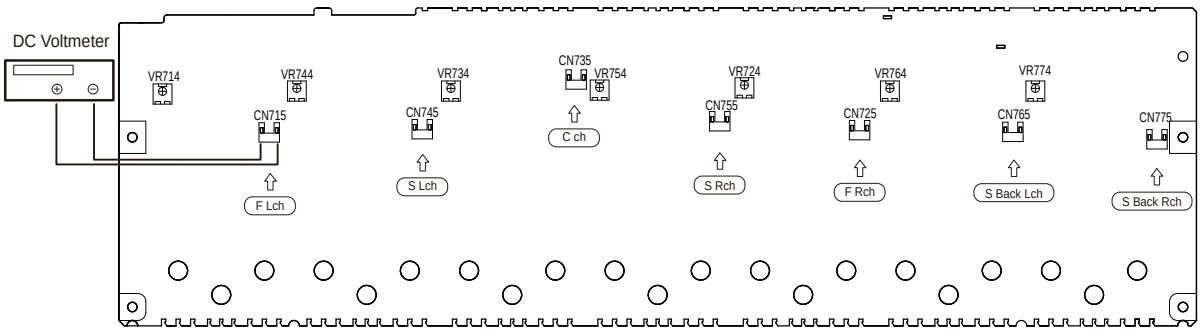
MASTER VOLUME : "---" counterclockwise (↺ min.)
SPEAKER (Speaker terminal) : No load
(Do not connect speaker, dummy resistor, etc.)
MODE : MCH STEREO
FUNCTION : DVD

(5) Within 2 minutes after the power on, turn VR714 clockwise (x) to adjust the TEST POINT voltage to 6.5mV ± 0.5mV DC.

(6) After 10 minutes from the preset above, turn VR714 to set the voltage to 8mV ± 0.5mV DC.

(7) Adjust the Variable Resistors of other channels in the same way.





Surround

This unit is equipped with a digital signal processing circuit that lets you play program sources in the sound mode to achieve the same sense of presence as in a movie theater.

Sound modes and surround parameters

This table shows the speakers that can be used in each sound mode and the surround parameters adjustable in each sound mode.

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.".

Sound Mode	Channel output							Surround Parameter	
	Front L/R	Center	Surround L/R	Surround back L/R	Front height L/R	Front wide L/R	Subwoofer	Cinema EQ *2	Loudness Management *3
DIRECT/PURE DIRECT (2channel)*1	○						◎*4		○
DIRECT/PURE DIRECT (Multi-channel)*1	○	◎	◎	◎*5	◎*5	◎*5	◎		○
DSD DIRECT (2 channel)*1	○						◎*4		○
DSD DIRECT (Multi-channel)*1	○	◎	◎	◎*5	◎*5	◎*5	◎		○
STEREO	○						◎		○
MULTI CH IN	○	◎	◎	◎	◎*6		◎	○*7	
DOLBY PRO LOGIC IIz	○	◎	◎		◎		◎	○	○
DOLBY PRO LOGIC IIx	○	◎	◎	◎			◎	○*8	○
DOLBY PRO LOGIC II	○	◎	◎				◎	○*9	○
DOLBY PRO LOGIC	○	◎	◎				◎	○*9	○
DOLBY PRO LOGIC II A-DSX	○	◎	◎		◎*10	◎*11	◎	○*9	○
DOLBY PRO LOGIC A-DSX	○	◎	◎		◎*10	◎*11	◎	○*9	○
DTS NEO:6	○	◎	◎	◎			◎	○*8	○
DTS NEO:6 A-DSX	○	◎	◎		◎*10	◎*11	◎	○*8	○
Audyssey DSX®	○	◎	◎		◎*10	◎*11	◎	○	○
DOLBY DIGITAL	○	◎	◎	◎	◎*6		◎	○*7	
DOLBY DIGITAL Plus	○	◎	◎	◎	◎*6		◎	○*7	
DOLBY TrueHD	○	◎	◎	◎	◎*6		◎	○*7	○
DTS SURROUND	○	◎	◎	◎	◎*6		◎	○*7	
DTS 96/24	○	◎	◎	◎	◎*6		◎	○*7	
DTS-HD	○	◎	◎	◎	◎*6		◎	○*7	
DTS Express	○	◎	◎	◎	◎*6		◎	○*7	
MULTI CH STEREO	○	◎	◎	◎*12	◎*13	◎*14	◎		○
ROCK ARENA	○	◎	◎	◎*12	◎*13	◎*14	◎		○
JAZZ CLUB	○	◎	◎	◎*12	◎*13	◎*14	◎		○
MONO MOVIE	○	◎	◎	◎*12	◎*13	◎*14	◎		○
VIDEO GAME	○	◎	◎	◎*12	◎*13	◎*14	◎		○
MATRIX	○	◎	◎	◎*12	◎*13	◎*14	◎		○
VIRTUAL	○						◎		○

*1 During playback in PURE DIRECT mode, the surround parameters are the same as in DIRECT mode.
*2 This item cannot be selected during DSD (SA-CD) signal playback.
*3 This item can be selected when a Dolby TrueHD signal is played.
*4 Only when "Subwoofer Mode" is set to "LFE+Main", sound is output from the subwoofer.
*5 A signal for each channel contained in an input signal is output as audio.
*6 Audio is output from the front height speaker when the set sound mode name contains "+PLIIz". For information on how to check the sound mode, see.
*7 This setting is unavailable when the set sound mode name contains "+PLIIx Music". For information on how to check the sound mode, see.
*8 This setting is possible when the sound mode is "PLIIx Cinema" or "DTS NEO:6 Cinema".
*9 This setting is possible when the sound mode is "PLII Cinema" or "Pro Logic".
*10 Audio is output from the front height speaker when "Assign Mode" in the menu is set to "Main Only" and "Audyssey DSX®" is set to "On".
*11 Audio is output from the front wide speaker when "Assign Mode" in the menu is set to "Main Only" and "Audyssey DSX®" is set to "On".
*12 Audio is output from the surround back speaker when "Assign Mode" in the menu is set to "Main Only" and "Speaker Select" is set to "S. Back".
*13 Audio is output from the front height speaker when "Assign Mode" in the menu is set to "Main Only" and "Speaker Select" is set to "F. Height".
*14 Audio is output from the front wide speaker when "Assign Mode" in the menu is set to "Main Only" and "Speaker Select" is set to "F. Wide".

Sound Mode	Surround Parameter									
	Dynamic Compression *15	Low Frequency Effects *16	Delay Time	Effect Level	Room Size	Height Gain *17	Speaker Select *18	PRO LOGIC II/IIx Music mode only		
								Panorama	Dimension	Center Width
DIRECT/PURE DIRECT (2channel)*1	○									
DIRECT/PURE DIRECT (Multi-channel)*1	○	○								
DSD DIRECT (2 channel)*1	○									
DSD DIRECT (Multi-channel)*1	○	○								
STEREO	○	○								
MULTI CH IN		○				○				
DOLBY PRO LOGIC IIz	○					○				
DOLBY PRO LOGIC IIx	○							○	○	○
DOLBY PRO LOGIC II	○							○	○	○
DOLBY PRO LOGIC	○									
DOLBY PRO LOGIC II A-DSX	○							○	○	○
DOLBY PRO LOGIC A-DSX	○							○	○	○
DTS NEO:6	○									
DTS NEO:6 A-DSX	○									
Audyssey DSX®	○	○								
DOLBY DIGITAL	○	○				○				
DOLBY DIGITAL Plus	○	○				○				
DOLBY TrueHD	○	○				○				
DTS SURROUND	○	○				○				
DTS 96/24		○				○				
DTS-HD		○				○				
DTS Express		○				○				
MULTI CH STEREO	○	○					○			
ROCK ARENA	○	○		○	○		○			
JAZZ CLUB	○	○		○	○		○			
MONO MOVIE	○	○		○	○		○			
VIDEO GAME	○	○		○	○		○			
MATRIX	○	○	○							
VIRTUAL	○	○								

*1 During playback in PURE DIRECT mode, the surround parameters are the same as in DIRECT mode.
*15 This item can be selected when a Dolby Digital or DTS signal is played.
*16 This item can be selected when a Dolby Digital or DTS signal or DVD-Audio is played.
*17 This setting is available when the set sound mode name contains "+PLIIz". For information on how to check the sound mode, see.
*18 This item can be selected when "Assign Mode" is set to "Main Only".

Sound Mode	Surround Parameter	Subwoofer	Tone ∗19	Audyssey				Restorer ∗22
	NEO:6 Music mode only							
	Center Image			MultEQ® XT ∗20	Dynamic EQ ∗21	Dynamic Volume ∗21	Audyssey DSX® ∗20	
DIRECT/PURE DIRECT (2channel)∗1		○∗5						
DIRECT/PURE DIRECT (Multi-channel)∗1								
DSD DIRECT (2 channel)∗1		○∗5						
DSD DIRECT (Multi-channel)∗1								
STEREO			○	○	○	○		○
MULTI CH IN		○	○	○	○	○	○	
DOLBY PRO LOGIC IIz		○	○	○	○	○		○
DOLBY PRO LOGIC IIx		○	○	○	○	○	○	○
DOLBY PRO LOGIC II		○	○	○	○	○	○	○
DOLBY PRO LOGIC		○	○	○	○	○	○	○
DOLBY PRO LOGIC II A-DSX		○	○	○	○	○	○	○
DOLBY PRO LOGIC A-DSX		○	○	○	○	○	○	○
DTS NEO:6	○	○	○	○	○	○	○	○
DTS NEO:6 A-DSX	○	○	○	○	○	○	○	○
Audyssey DSX®		○	○	○	○	○	○	
DOLBY DIGITAL		○	○	○	○	○	○	
DOLBY DIGITAL Plus		○	○	○	○	○	○	
DOLBY TrueHD		○	○	○	○	○	○	
DTS SURROUND		○	○	○	○	○	○	
DTS 96/24		○	○	○	○	○	○	
DTS-HD		○	○	○	○	○	○	
DTS Express		○	○	○	○	○	○	
MULTI CH STEREO		○	○	○	○	○		○
ROCK ARENA		○	○∗23	○	○	○		○
JAZZ CLUB		○	○	○	○	○		○
MONO MOVIE		○	○	○	○	○		○
VIDEO GAME		○	○	○	○	○		○
MATRIX		○	○	○	○	○		○
VIRTUAL		○	○	○	○	○		○

∗1 During playback in PURE DIRECT mode, the surround parameters are the same as in DIRECT mode.
∗5 Only when "Subwoofer Mode" is set to "LFE+Main", sound is output from the subwoofer.
∗19 This item cannot be set when "Dynamic EQ" is set to "On".
∗20 This item cannot be set for HD audio exceeding a frequency of 96 kHz or during DSD (SA-CD) signal playback.
∗21 This item cannot be set when "MultEQ® XT" is set to "Off" or "Graphic EQ".
∗22 This item can be set when the input signal is analog, PCM 48 kHz or 44.1 kHz.
∗23 In this sound mode, bass is +6 dB, and treble is +4 dB (Default).

❑Types of input signals, and corresponding sound modes

This table shows the input signal that can be played in each sound mode. Check the audio signal of the input source then select the sound mode.

Symbols in the table

● This indicates the default sound mode.
○ This indicates the selectable sound mode.

Sound Mode	NOTE	Input signal types and formats																		
		ANALOG	PCM		DTS-HD		DTS					DOLBY		DOLBY DIGITAL				Super Audio CD	
			PCM (multi ch)	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 DIGITAL EX (With no Flag)	DOLBY DIGITAL (5.1ch)	DOLBY DIGITAL (2ch)	DSD (multi ch)	DSD (2ch)
DTS SURROUND																				
DTS-HD MSTR	∗1				●															
DTS-HD HI RES	∗1					●														
DTS ES DSCRT6.1	∗2∗3							●												
DTS ES MTRX6.1	∗2∗3								●											
DTS SURROUND	∗1							○	○	●										
DTS 96/24	∗1										●									
DTS (–HD) + PLIIx CINEMA	∗2∗4				○	○	○			○	○									
DTS (–HD) + PLIIx MUSIC	∗2∗3				○	○	○			○	○									
DTS (–HD) + PLIIz	∗2∗5				○	○	○	○	○	○	○									
DTS EXPRESS	∗1						●													
DTS (–HD) + NEO:6	∗2∗3				○	○	○			○	○									
DTS NEO:6 CINEMA	∗1	○		○													○		○	
DTS NEO:6 MUSIC	∗1	○		○													○		○	
DTS NEO:6 CINEMA A-DSX		○		○													○			
DTS NEO:6 MUSIC A-DSX		○		○													○			
Audyssey DSX®					○	○	○	○	○	○	○									

∗1 If “Audyssey DSX®” is set to “On”, the Audyssey DSX® effect is added to the sound mode marked with ∗1.
∗2 This sound mode can be selected when “Assign Mode” is set to “Main Only”.
∗3 If “Speaker Config.” – “Surr. Back” is set to “None”, this sound mode cannot be selected.
∗4 If “Speaker Config.” – “Surr. Back” is set to “1spkr” or “None”, this sound mode cannot be selected.
∗5 If “Speaker Config.” – “Front Height” is set to “None”, this sound mode cannot be selected.

Sound Mode	NOTE	Input signal types and formats																	
		ANALOG	PCM		DTS-HD		DTS					DOLBY		DOLBY DIGITAL				Super Audio CD	
			PCM (multi ch)	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 DIGITAL EX (With no Flag)	DOLBY DIGITAL (5.1ch)	DOLBY DIGITAL (2ch)	DSD (multi ch)	DSD (2ch)
DOLBY SURROUND																			
DOLBY TrueHD	∗1											●							
DOLBY DIGITAL+	∗1												●						
DOLBY DIGITAL EX	∗2∗3													○	○	○			
DOLBY (D+) (HD) +EX	∗2∗3											○	○						
DOLBY DIGITAL	∗1													●	●	●			
DOLBY (D) (D+) (HD) +PLIIx CINEMA	∗2∗4											○	○	○	○	○			
DOLBY (D) (D+) (HD) +PLIIx MUSIC	∗2∗3											○	○	○	○	○			
DOLBY (D) (D+) (HD) +PLIIz	∗5											○	○	○	○	○			
DOLBY PRO LOGIC IIx CINEMA	∗2∗3	○		○													○		○
DOLBY PRO LOGIC IIx MUSIC	∗2∗3	○		○													○		○
DOLBY PRO LOGIC IIx GAME	∗2∗3	○		○													○		○
DOLBY PRO LOGIC IIz	∗2∗5	○		○													○		○
DOLBY PRO LOGIC II CINEMA	∗1	○		○													○		○
DOLBY PRO LOGIC II MUSIC	∗1	○		○													○		○
DOLBY PRO LOGIC II GAME	∗1	○		○													○		○
DOLBY PRO LOGIC	∗1	○		○													○		○
DOLBY PRO LOGIC II CINEMA A-DSX		○		○													○		
DOLBY PRO LOGIC II MUSIC A-DSX		○		○													○		
DOLBY PRO LOGIC II GAME A-DSX		○		○													○		
DOLBY PRO LOGIC A-DSX		○		○													○		
Audyssey DSX®												○	○	○	○	○			

∗1 If “Audyssey DSX®” is set to “On”, the Audyssey DSX® effect is added to the sound mode marked with ∗1.
∗2 This sound mode can be selected when “Assign Mode” is set to “Main Only”.
∗3 If “Speaker Config.” – “Surr. Back” is set to “None”, this sound mode cannot be selected.
∗4 If “Speaker Config.” – “Surr. Back” is set to “1spkr” or “None”, this sound mode cannot be selected.
∗5 If “Speaker Config.” – “Front Height” is set to “None”, this sound mode cannot be selected.

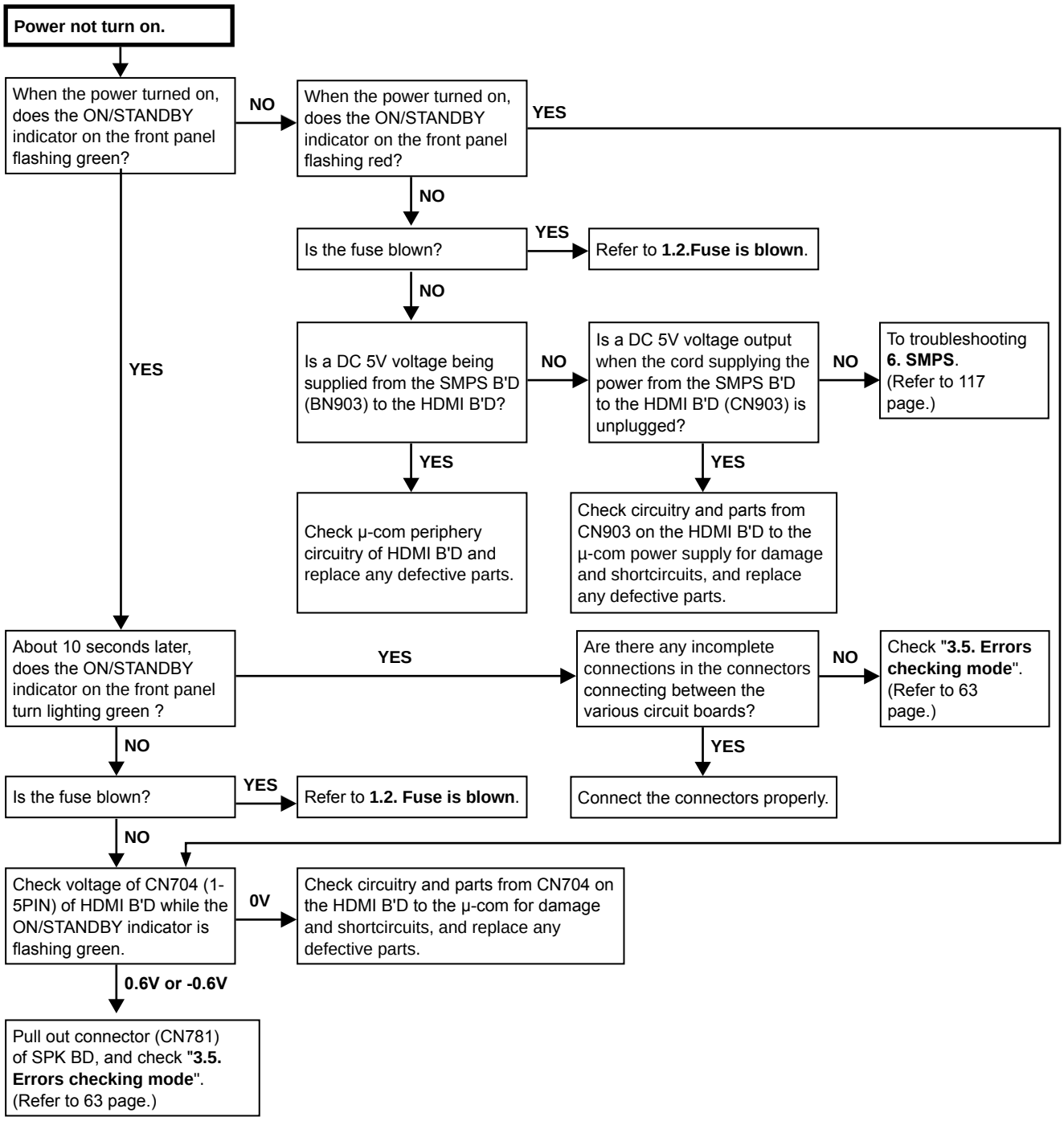
Sound Mode	NOTE	Input signal types and formats																		
		ANALOG	PCM		DTS-HD		DTS					DOLBY		DOLBY DIGITAL				Super Audio CD	
			PCM (multi ch)	PCM (2ch)	DTS-HD Master Audio	DTS-HD High Resolution Audio	DTS EXPRESS	DTS ES DSCRT (With Flag)	DTS ES MTRX (With Flag)	DTS (5.1ch)	DTS 96/24	DOLBY TrueHD	DOLBY DIGITAL Plus	DOLBY DIGITAL EX (With Flag)	DOLBY DIGITAL EX (With no Flag)	DOLBY DIGITAL (5.1ch)	DOLBY DIGITAL (2ch)	DSD (multi ch)	DSD (2ch)
MULTI CH IN																				
MULTI CH IN	∗1		●															○		
MULTI CH IN + PLⅡx CINEMA	∗2∗4		○															○		
MULTI CH IN + PLⅡx MUSIC	∗2∗3		○															○		
MULTI CH IN + PLⅡz	∗2∗5		○															○		
MULTI CH IN + Dolby EX	∗2∗3		○															○		
MULTI CH IN 7.1	∗2∗3		● (7.1)																	
Audyssey DSX®			○																	
DIRECT																				
DIRECT		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
PURE DIRECT																				
PURE DIRECT		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
DSP SIMULATION																				
MULTI CH STEREO		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○			
ROCK ARENA		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○			
JAZZ CLUB		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○			
MONO MOVIE		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○			
VIDEO GAME		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○			
MATRIX		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○			
VIRTUAL		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○			
STEREO																				
STEREO		●	○	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	

∗1 If “Audyssey DSX®” is set to “On”, the Audyssey DSX® effect is added to the sound mode marked with ∗1.
∗2 This sound mode can be selected when “Assign Mode” is set to “Main Only”.
∗3 If “Speaker Config.” – “Surr. Back” is set to “None”, this sound mode cannot be selected.
∗4 If “Speaker Config.” – “Surr. Back” is set to “1spkr” or “None”, this sound mode cannot be selected.
∗5 If “Speaker Config.” – “Front Height” is set to “None”, this sound mode cannot be selected.

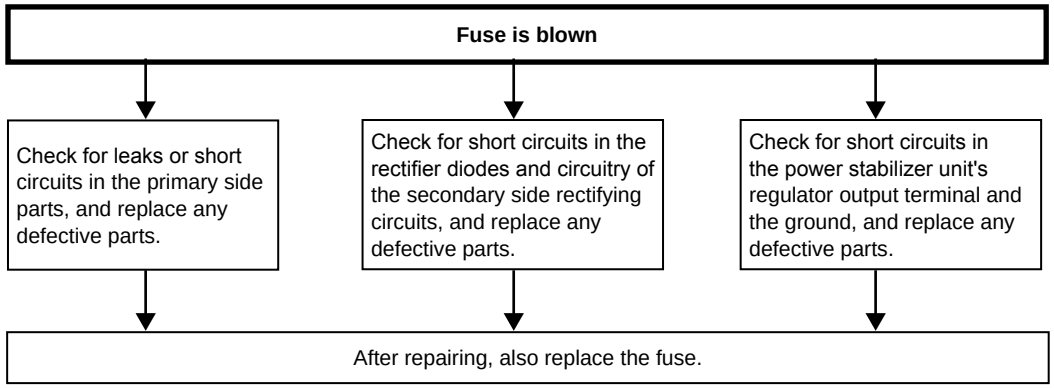
TROUBLE SHOOTING

1. POWER

1.1. Power not turn on



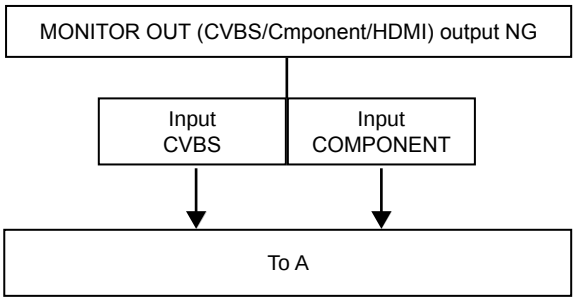
1.2. Fuse is blown

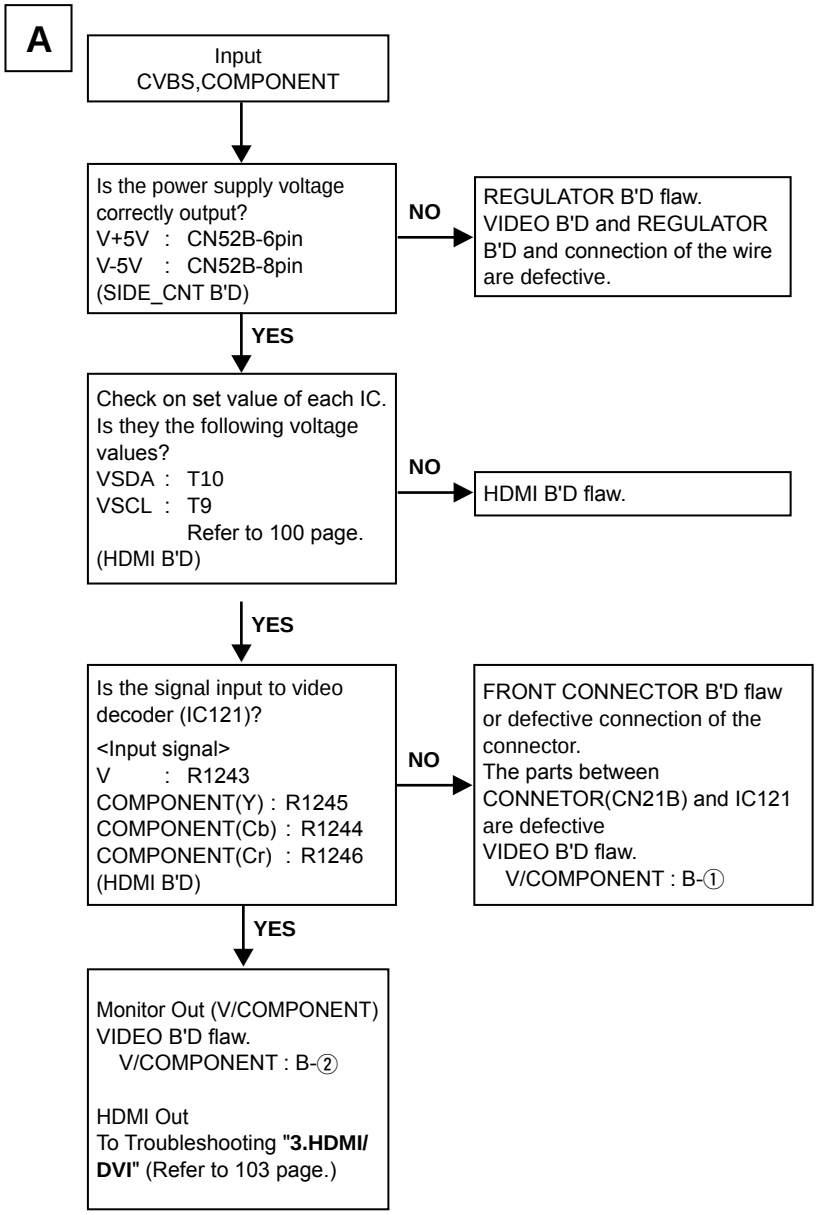


2. Analog video

Perform the operation below beforehand.

※ Check that the connection cable and the Monitor are normal.
※ Set VIDEO CONVERT ON.
※ Set COMPONENT signal to 480i.
※ Set Function to the following.
V : SAT
COMPONENT : SAT




A
Input
CVBS,COMPONENT
Is the power supply voltage correctly output?
V+5V : CN52B-6pin
V-5V : CN52B-8pin
(SIDE_CNT B'D)
NO
REGULATOR B'D flaw.
VIDEO B'D and REGULATOR B'D and connection of the wire are defective.
YES
Check on set value of each IC. Is they the following voltage values?
VSDA : T10
VSCL : T9
Refer to 100 page.
(HDMI B'D)
NO
HDMI B'D flaw.
YES
Is the signal input to video decoder (IC121)?
<Input signal>
V : R1243
COMPONENT(Y) : R1245
COMPONENT(Cb) : R1244
COMPONENT(Cr) : R1246
(HDMI B'D)
NO
FRONT CONNECTOR B'D flaw or defective connection of the connector.
The parts between CONNETOR(CN21B) and IC121 are defective
VIDEO B'D flaw.
V/COMPONENT : B-①
YES
Monitor Out (V/COMPONENT)
VIDEO B'D flaw.
V/COMPONENT : B-②
HDMI Out
To Troubleshooting "3.HDMI/ DVI" (Refer to 103 page.)

B

VIDEO B'D flaw.

↓

Extend HDMI B'D using a jig.

↓

① Is the signal input to IC511(AVDM-2000)?
V : J5004
COMPONENT(Y) : J5010
COMPONENT(Cb) : J5007
COMPONENT(Cr) : J5040
(VIDEO B'D)

NO → The parts between IC511 is defective.

YES ↓

② Is the signal output from IC511(AVDM-2000)?

	To Moitor	To HDMI out
V :	J5003	CN51B 11pin
COMPONENT(Y) :	J5024	CN51B 9pin
COMPONENT(Cb) :	J5028	CN51B 7pin
COMPONENT(Cr) :	J5029	CN51B 5pin

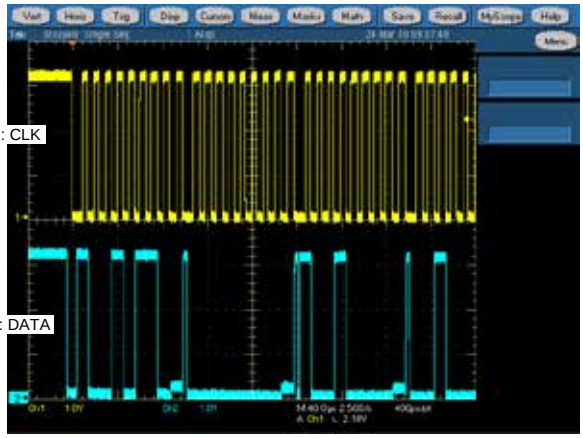
NO → The soldering (IC511) is defective.

YES ↓

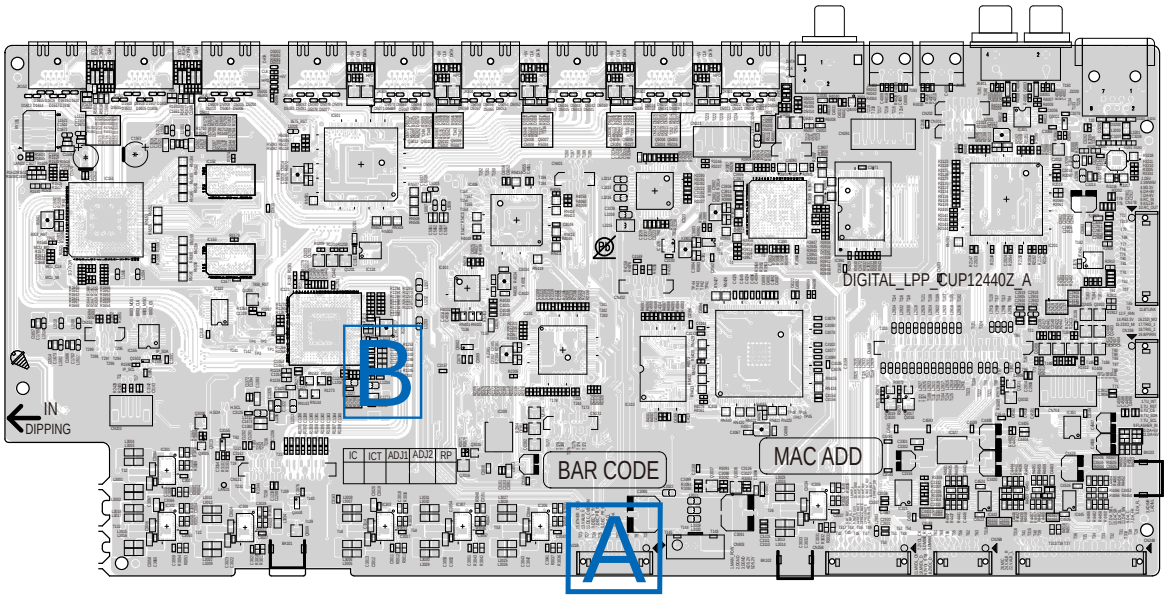
Monitor Out (V/Component)
The pattern between IC511 and JK511 or JK513 are defective.

HDMI Out
Connection of VIDEO B'D and FRONT CNT B'D, or connection of HDMI B'D and FRONT CNT B'D is defective.

I2C communication wave form

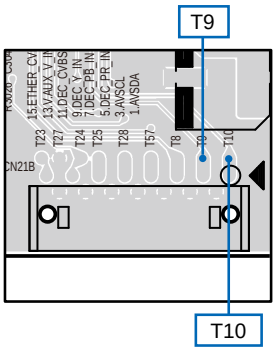


HDMI test point

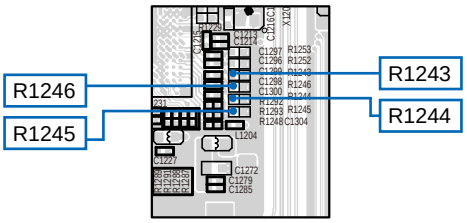


(COMPONENT SIDE)

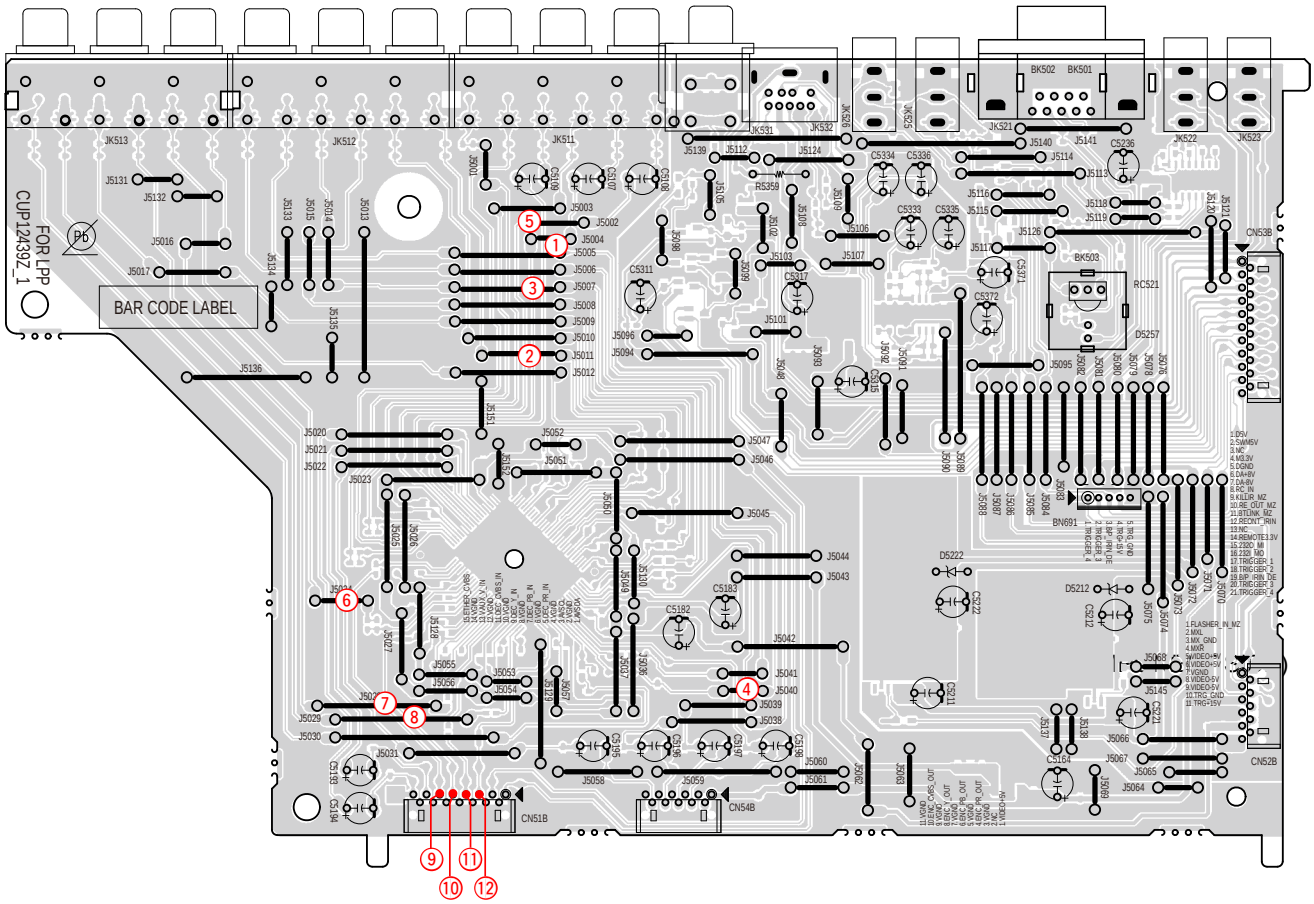
Detail A



Detail B



VIDEO test point

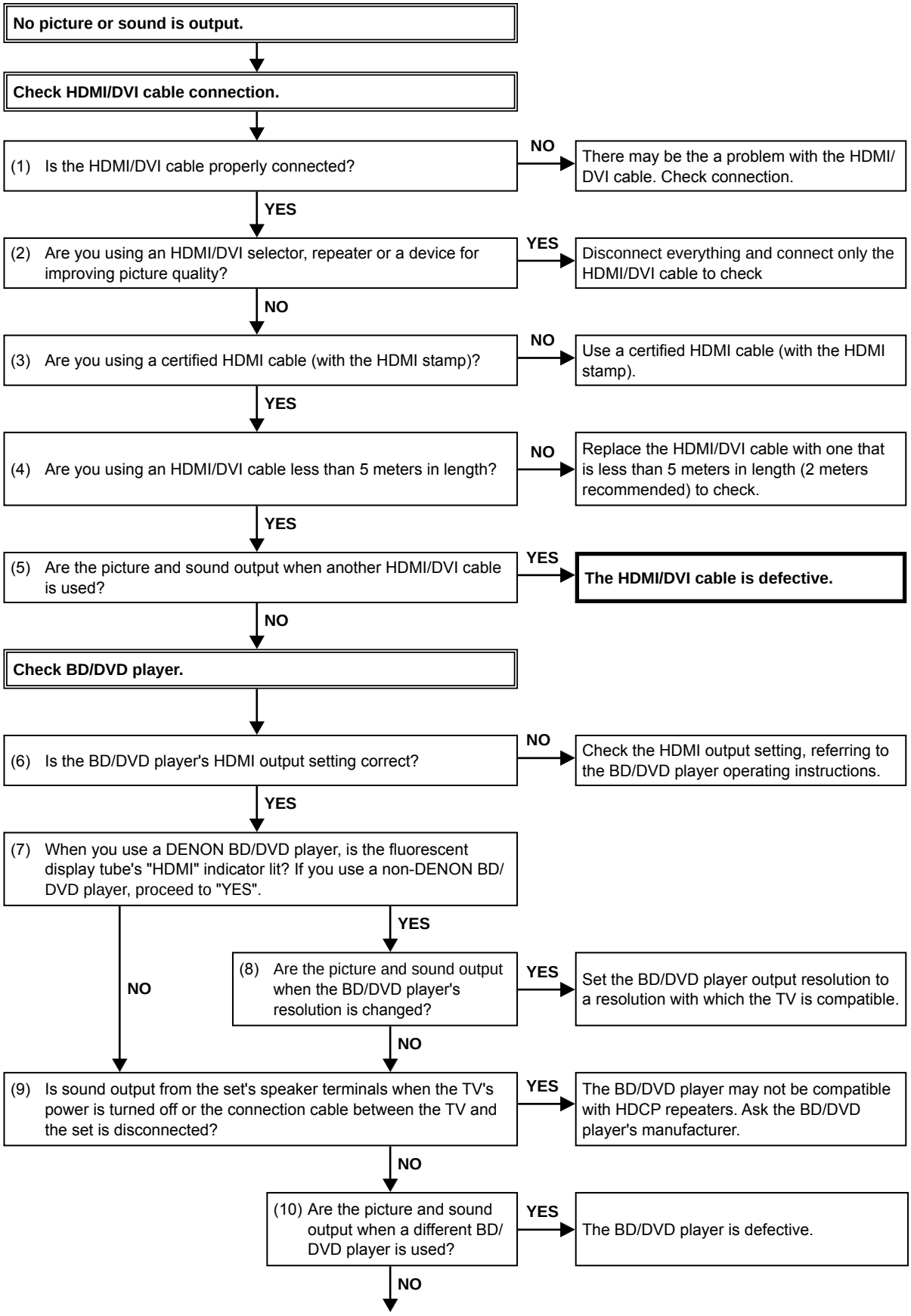


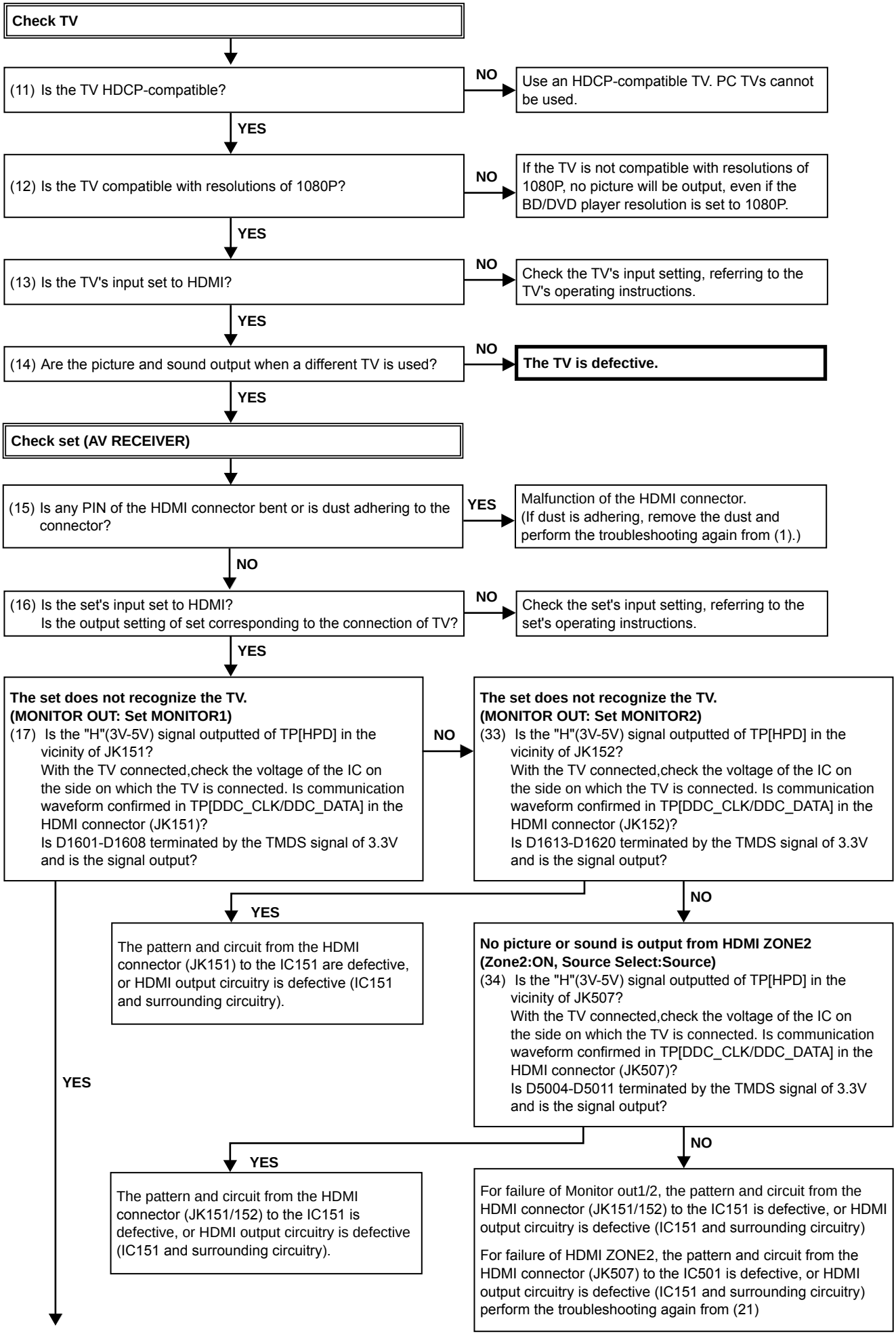
(COMPONENT SIDE)

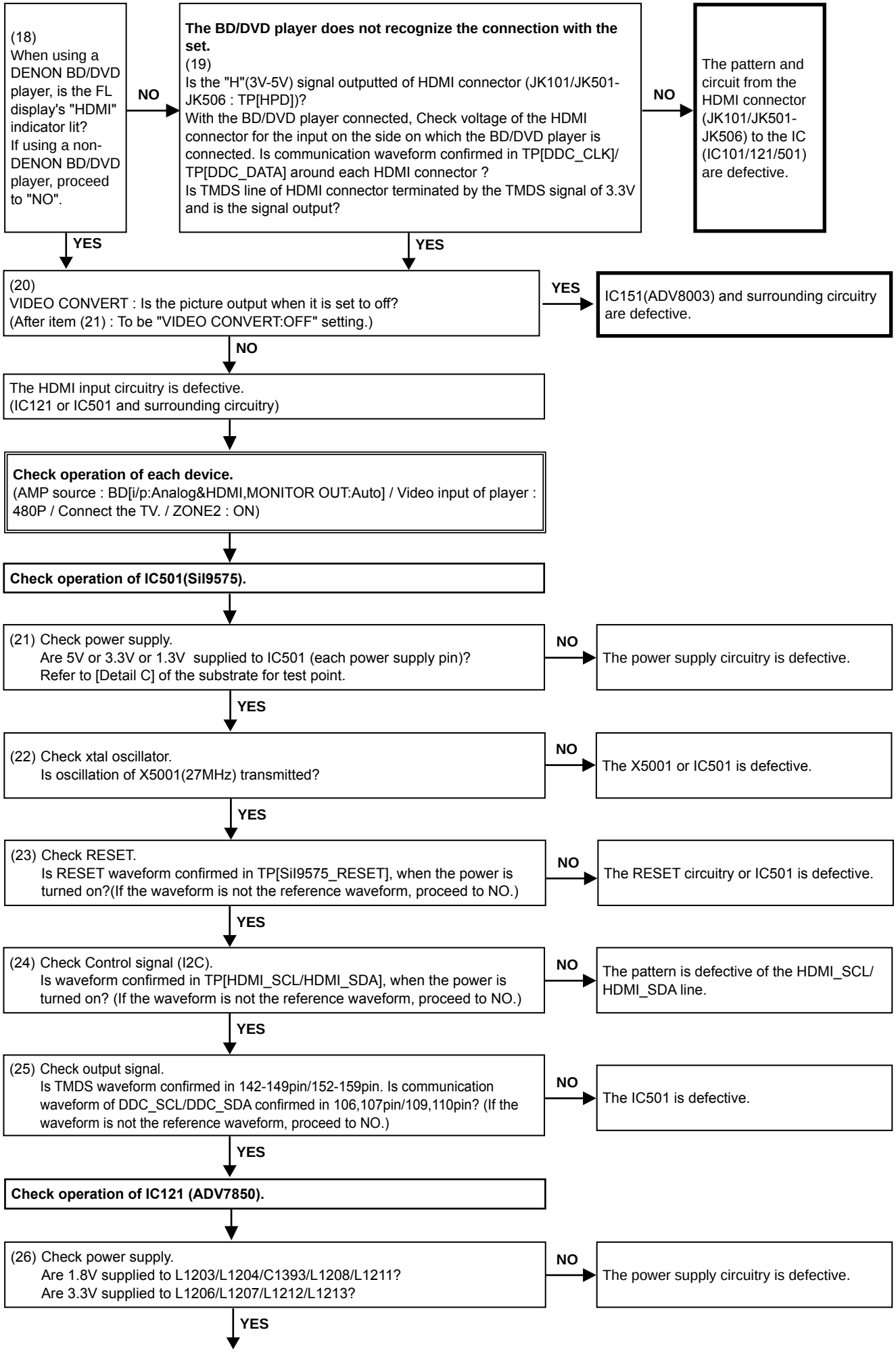
No.	Ref. No.
1	J5004
2	J5010
3	J5007
4	J5040
5	J5003
6	J5024
7	J5028
8	J5029
9	CN51B 11pin
10	CN51B 9pin
11	CN51B 7pin
12	CN51B 5pin

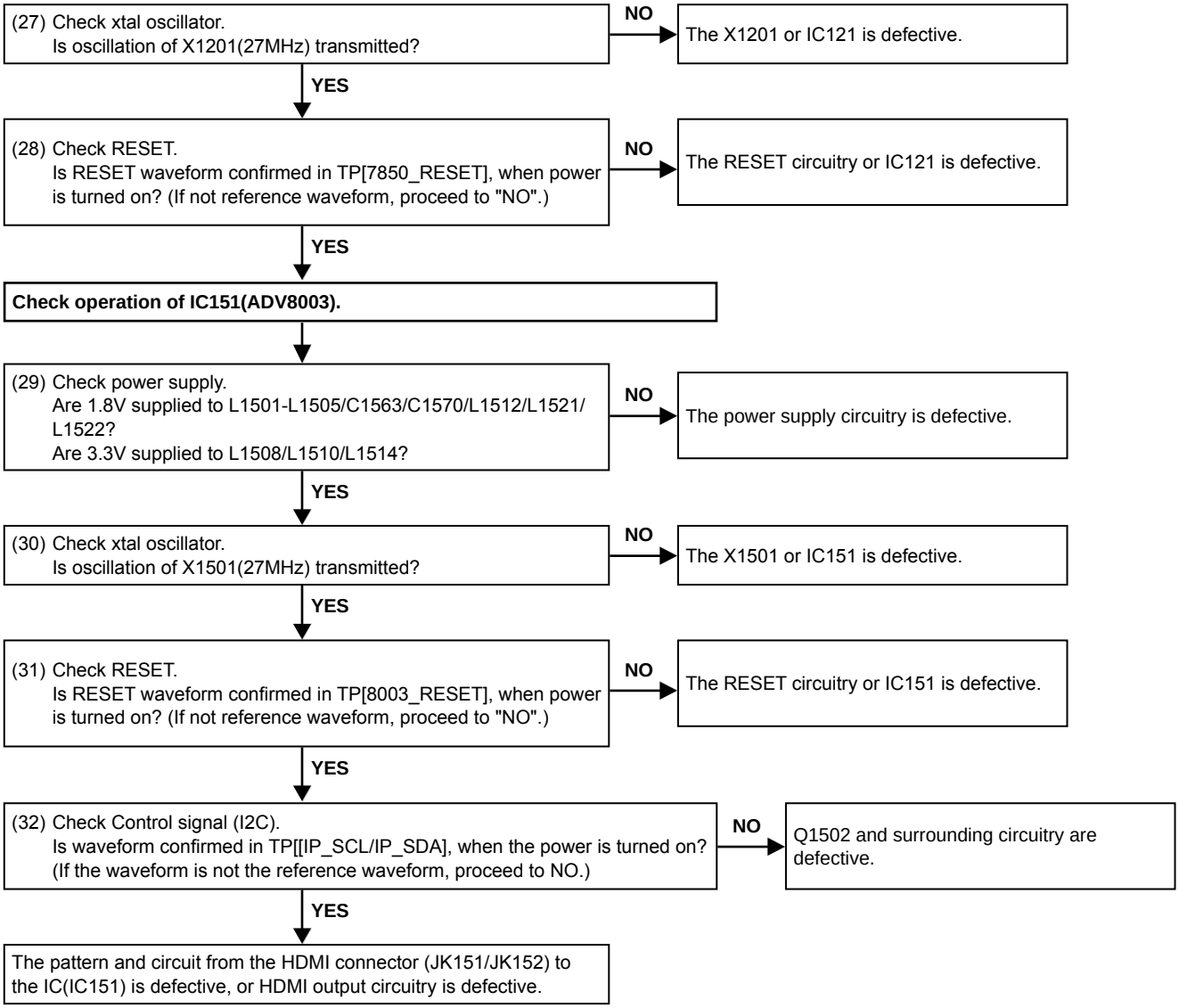
3. HDMI/DVI

3.1. No picture or sound is output (HDMI to HDMI)

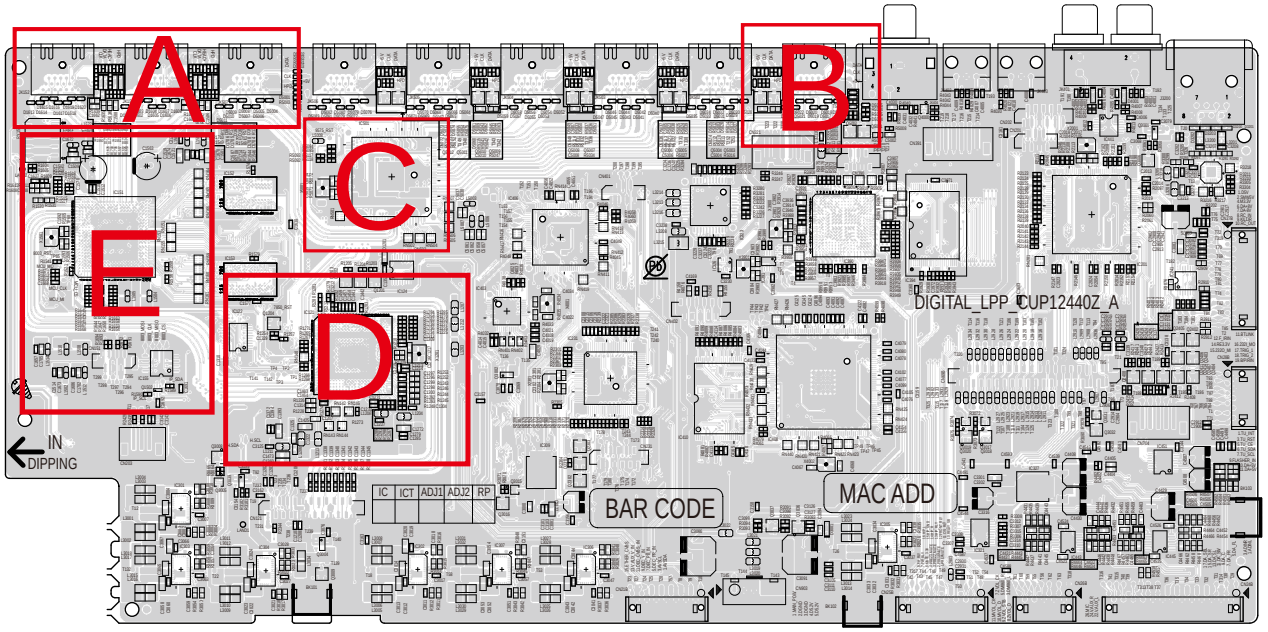



Check TV
(11) Is the TV HDCP-compatible?
NO
Use an HDCP-compatible TV. PC TVs cannot be used.
YES
(12) Is the TV compatible with resolutions of 1080P?
NO
If the TV is not compatible with resolutions of 1080P, no picture will be output, even if the BD/DVD player resolution is set to 1080P.
YES
(13) Is the TV's input set to HDMI?
NO
Check the TV's input setting, referring to the TV's operating instructions.
YES
(14) Are the picture and sound output when a different TV is used?
NO
The TV is defective.
YES
Check set (AV RECEIVER)
(15) Is any PIN of the HDMI connector bent or is dust adhering to the connector?
YES
Malfunction of the HDMI connector.
(If dust is adhering, remove the dust and perform the troubleshooting again from (1).)
NO
(16) Is the set's input set to HDMI?
Is the output setting of set corresponding to the connection of TV?
NO
Check the set's input setting, referring to the set's operating instructions.
YES
The set does not recognize the TV.
(MONITOR OUT: Set MONITOR1)
(17) Is the "H"(3V-5V) signal outputted of TP[HPD] in the vicinity of JK151?
With the TV connected,check the voltage of the IC on the side on which the TV is connected. Is communication waveform confirmed in TP[DDC_CLK/DDC_DATA] in the HDMI connector (JK151)?
Is D1601-D1608 terminated by the TMDS signal of 3.3V and is the signal output?
NO
The set does not recognize the TV.
(MONITOR OUT: Set MONITOR2)
(33) Is the "H"(3V-5V) signal outputted of TP[HPD] in the vicinity of JK152?
With the TV connected,check the voltage of the IC on the side on which the TV is connected. Is communication waveform confirmed in TP[DDC_CLK/DDC_DATA] in the HDMI connector (JK152)?
Is D1613-D1620 terminated by the TMDS signal of 3.3V and is the signal output?
YES
The pattern and circuit from the HDMI connector (JK151) to the IC151 are defective, or HDMI output circuitry is defective (IC151 and surrounding circuitry).
NO
No picture or sound is output from HDMI ZONE2
(Zone2:ON, Source Select:Source)
(34) Is the "H"(3V-5V) signal outputted of TP[HPD] in the vicinity of JK507?
With the TV connected,check the voltage of the IC on the side on which the TV is connected. Is communication waveform confirmed in TP[DDC_CLK/DDC_DATA] in the HDMI connector (JK507)?
Is D5004-D5011 terminated by the TMDS signal of 3.3V and is the signal output?
YES
The pattern and circuit from the HDMI connector (JK151/152) to the IC151 is defective, or HDMI output circuitry is defective (IC151 and surrounding circuitry).
NO
For failure of Monitor out1/2, the pattern and circuit from the HDMI connector (JK151/152) to the IC151 is defective, or HDMI output circuitry is defective (IC151 and surrounding circuitry)
For failure of HDMI ZONE2, the pattern and circuit from the HDMI connector (JK507) to the IC501 is defective, or HDMI output circuitry is defective (IC151 and surrounding circuitry) perform the troubleshooting again from (21)
YES


(18)
When using a DENON BD/DVD player, is the FL display's "HDMI" indicator lit?
If using a non-DENON BD/DVD player, proceed to "NO".
NO
The BD/DVD player does not recognize the connection with the set.
(19)
Is the "H"(3V-5V) signal outputted of HDMI connector (JK101/JK501-JK506 : TP[HPD])?
With the BD/DVD player connected, Check voltage of the HDMI connector for the input on the side on which the BD/DVD player is connected. Is communication waveform confirmed in TP[DDC_CLK]/ TP[DDC_DATA] around each HDMI connector ?
Is TMDS line of HDMI connector terminated by the TMDS signal of 3.3V and is the signal output?
NO
The pattern and circuit from the HDMI connector (JK101/JK501-JK506) to the IC (IC101/121/501) are defective.
YES
YES
(20)
VIDEO CONVERT : Is the picture output when it is set to off?
(After item (21) : To be "VIDEO CONVERT:OFF" setting.)
YES
IC151(ADV8003) and surrounding circuitry are defective.
NO
The HDMI input circuitry is defective.
(IC121 or IC501 and surrounding circuitry)
Check operation of each device.
(AMP source : BD[i/p:Analog&HDMI,MONITOR OUT:Auto] / Video input of player : 480P / Connect the TV. / ZONE2 : ON)
Check operation of IC501(Sil9575).
(21) Check power supply.
Are 5V or 3.3V or 1.3V supplied to IC501 (each power supply pin)?
Refer to [Detail C] of the substrate for test point.
NO
The power supply circuitry is defective.
YES
(22) Check xtal oscillator.
Is oscillation of X5001(27MHz) transmitted?
NO
The X5001 or IC501 is defective.
YES
(23) Check RESET.
Is RESET waveform confirmed in TP[Sil9575_RESET], when the power is turned on?(If the waveform is not the reference waveform, proceed to NO.)
NO
The RESET circuitry or IC501 is defective.
YES
(24) Check Control signal (I2C).
Is waveform confirmed in TP[HDMI_SCL/HDMI_SDA], when the power is turned on? (If the waveform is not the reference waveform, proceed to NO.)
NO
The pattern is defective of the HDMI_SCL/ HDMI_SDA line.
YES
(25) Check output signal.
Is TMDS waveform confirmed in 142-149pin/152-159pin. Is communication waveform of DDC_SCL/DDC_SDA confirmed in 106,107pin/109,110pin? (If the waveform is not the reference waveform, proceed to NO.)
NO
The IC501 is defective.
YES
Check operation of IC121 (ADV7850).
(26) Check power supply.
Are 1.8V supplied to L1203/L1204/C1393/L1208/L1211?
Are 3.3V supplied to L1206/L1207/L1212/L1213?
NO
The power supply circuitry is defective.
YES

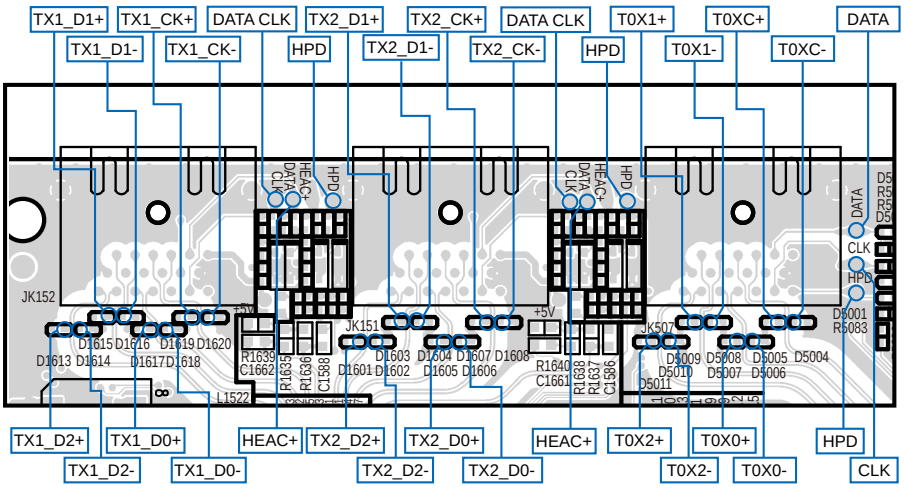

(27) Check xtal oscillator.
Is oscillation of X1201(27MHz) transmitted?
NO
The X1201 or IC121 is defective.
YES
(28) Check RESET.
Is RESET waveform confirmed in TP[7850_RESET], when power is turned on? (If not reference waveform, proceed to "NO".)
NO
The RESET circuitry or IC121 is defective.
YES
Check operation of IC151(ADV8003).
(29) Check power supply.
Are 1.8V supplied to L1501-L1505/C1563/C1570/L1512/L1521/ L1522?
Are 3.3V supplied to L1508/L1510/L1514?
NO
The power supply circuitry is defective.
YES
(30) Check xtal oscillator.
Is oscillation of X1501(27MHz) transmitted?
NO
The X1501 or IC151 is defective.
YES
(31) Check RESET.
Is RESET waveform confirmed in TP[8003_RESET], when power is turned on? (If not reference waveform, proceed to "NO".)
NO
The RESET circuitry or IC151 is defective.
YES
(32) Check Control signal (I2C).
Is waveform confirmed in TP[[IP_SCL/IP_SDA], when the power is turned on? (If the waveform is not the reference waveform, proceed to NO.)
NO
Q1502 and surrounding circuitry are defective.
YES
The pattern and circuit from the HDMI connector (JK151/JK152) to the IC(IC151) is defective, or HDMI output circuitry is defective.

3.2. HDMI test point and waveforms

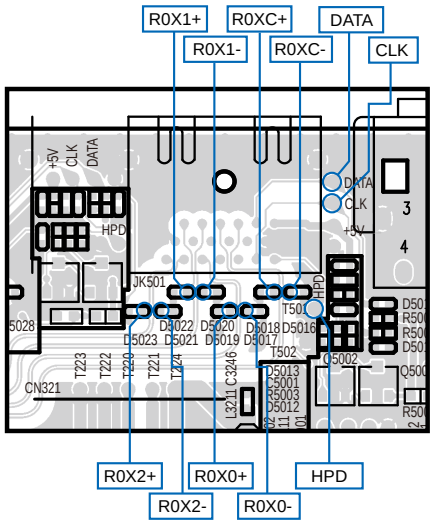


DIGITAL (COMPONENT SIDE)

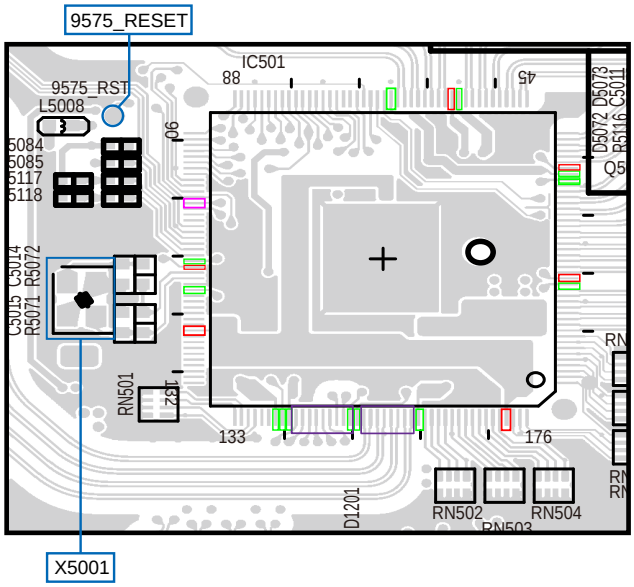
Detail A



Detail B



Detail C



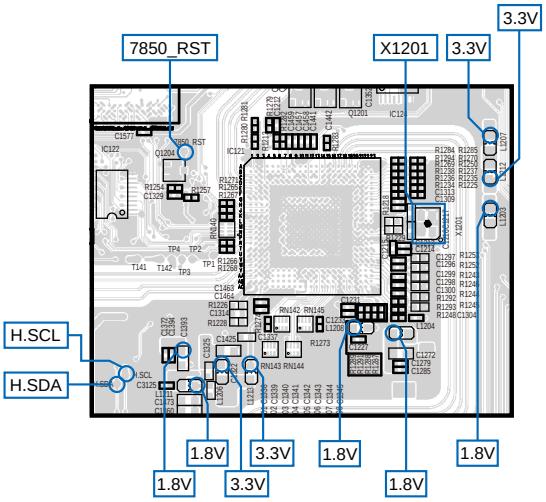
:A
:B
:C

A: 5V	101 pin
B: 3.3V	19,38,56,112,123,173 pin
C: 1.3V	18,36,37,55,65,111,116,139,140,141,150,151,160 pin

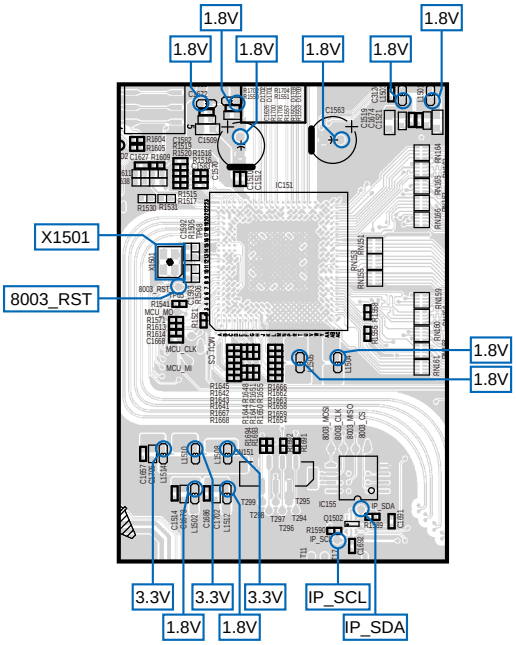
:TMDS_OUTPUT

TMDS_OUTPUT	142,143,144,145,146,147,148,149,152,153, 154,155,156,157,158,159 pin

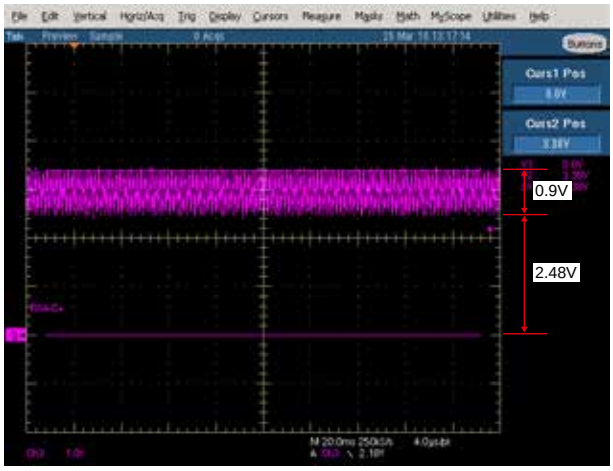
Detail D

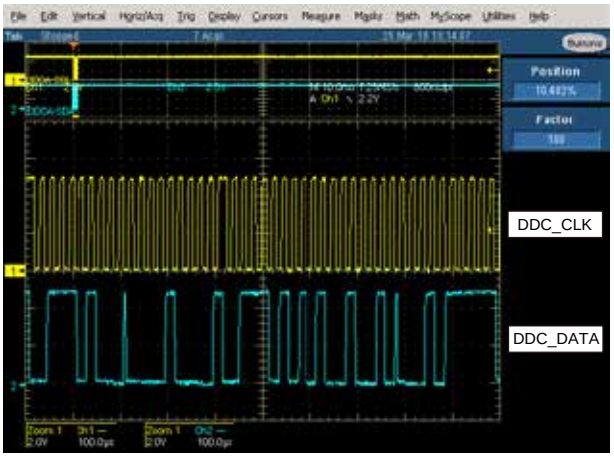


Detail E

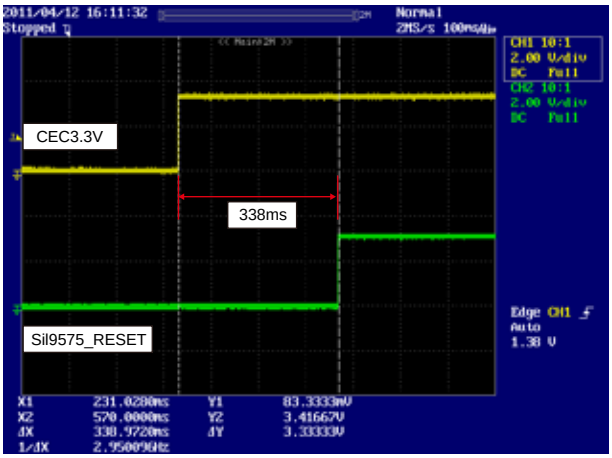


DDC_CLK/DDC_DATA/TMDS : Check items HDMI to HDMI (17)/(19)/(25)/(33)/(34)

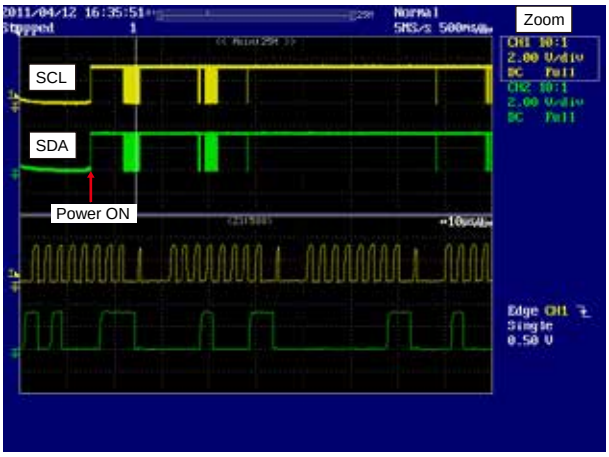




Timing waveform illustration from the start of CEC3.3V to when reset is released : Check items (23)

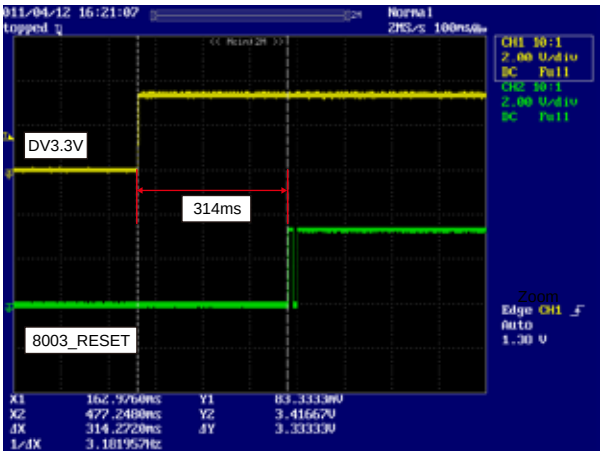


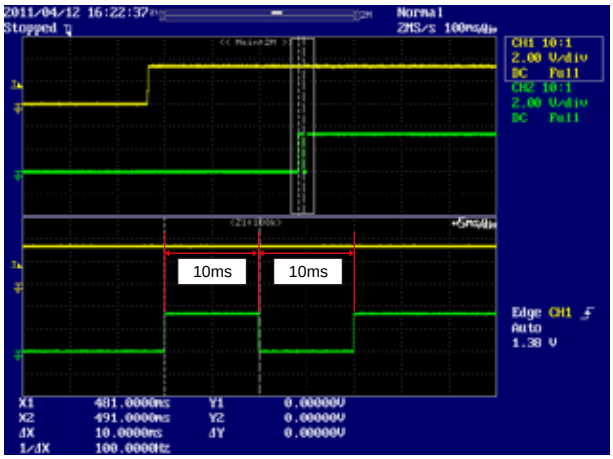
Controlled waveform (I2C), when power is turned on : Check items (24)/(32)



Timing waveform illustration from the start of CEC3.3V to when reset is released : Check items (28)

Timing waveform illustration from the start of CEC3.3V to when reset is released : Check items (31)





4. AUDIO

4.1. AUDIO CHECK

Audio output NG. Refer to "**Audio Check PATH**" (117 page).

CHECK1	INPUT	SURROND MODE	SOURCE
Audio output OK?	ANALOG 2CH	DIRECT	ANALOG

NO → Check ANALOG audio BLOCK.

YES

CHECK2	INPUT	SURROND MODE	SOURCE
Audio output OK?	COAX or OPT	Don't care	Legacy (PCM or DolbyDigital or dts…)

NO → Check Digital audio BLOCK.

YES

CHECK3	INPUT	SURROND MODE	SOURCE
Audio output OK?	ANALOG 2CH	MULTICH STEREO	ANALOG

NO → Check ADC BLOCK

YES

CHECK4	INPUT	SURROND MODE	SOURCE
Audio output OK?	HDMI	Don't care	Legacy (PCM2ch or DolbyDigital or dts…)

NO → Check HDMI BLOCK.

YES

CHECK5	INPUT	SURROND MODE	SOURCE
Audio output OK?	HDMI	Don't care	HBR audio (DolbyTrueHD or dtsHD MA)

YES (Digital audio Block is OK) → Check other factors.

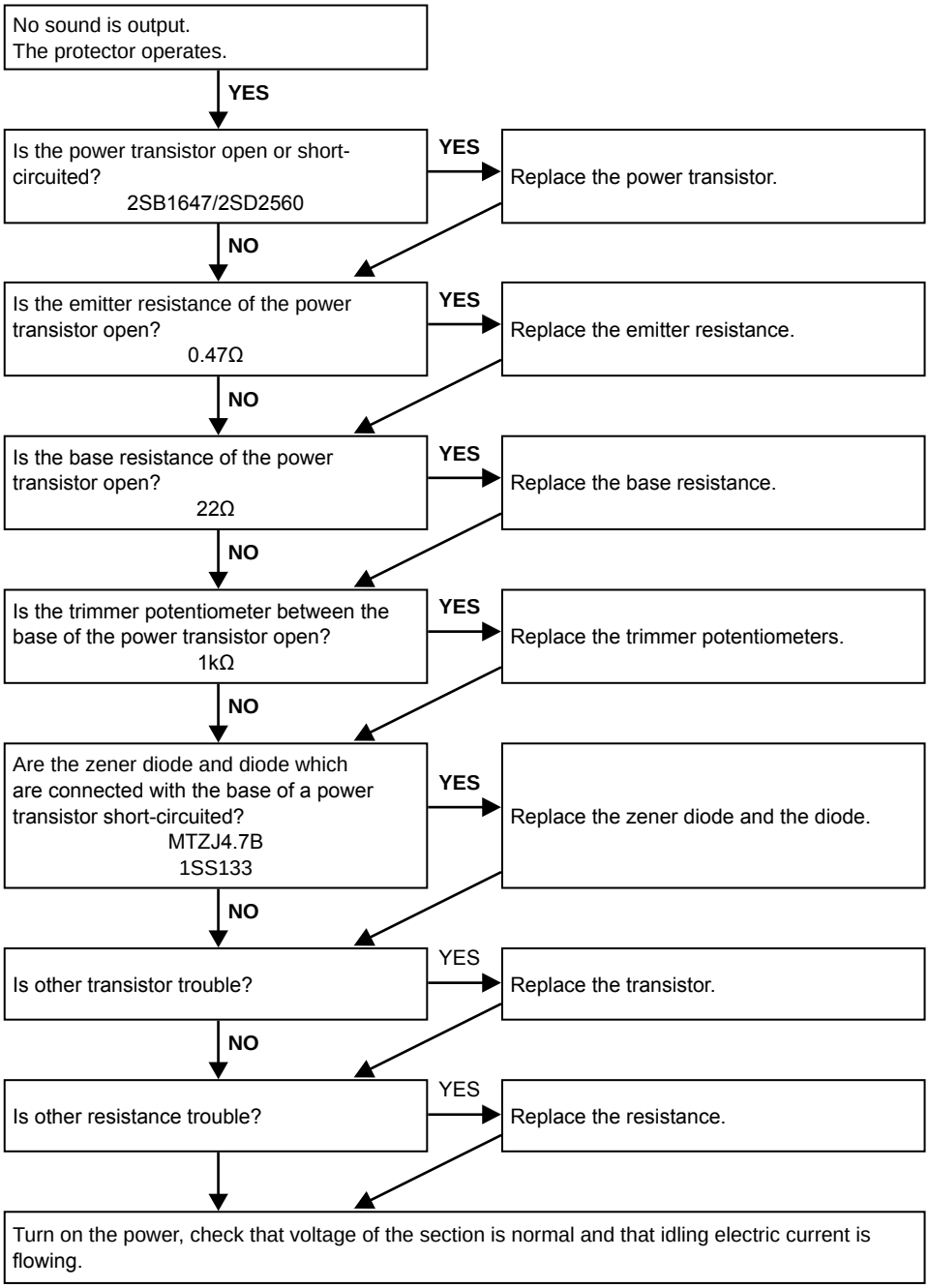
NO

CHECK6	INPUT	Connect	
AVR's (connected in HDMI) audio output OK?	HDMI	This unit's HDMI OUT → Other AVR's HDMI IN	
	Setting	SURROND MODE	SOURCE
	CEC STANDBY	Don't care	HBR audio(DolbyTrueHD or dtsHD MA)

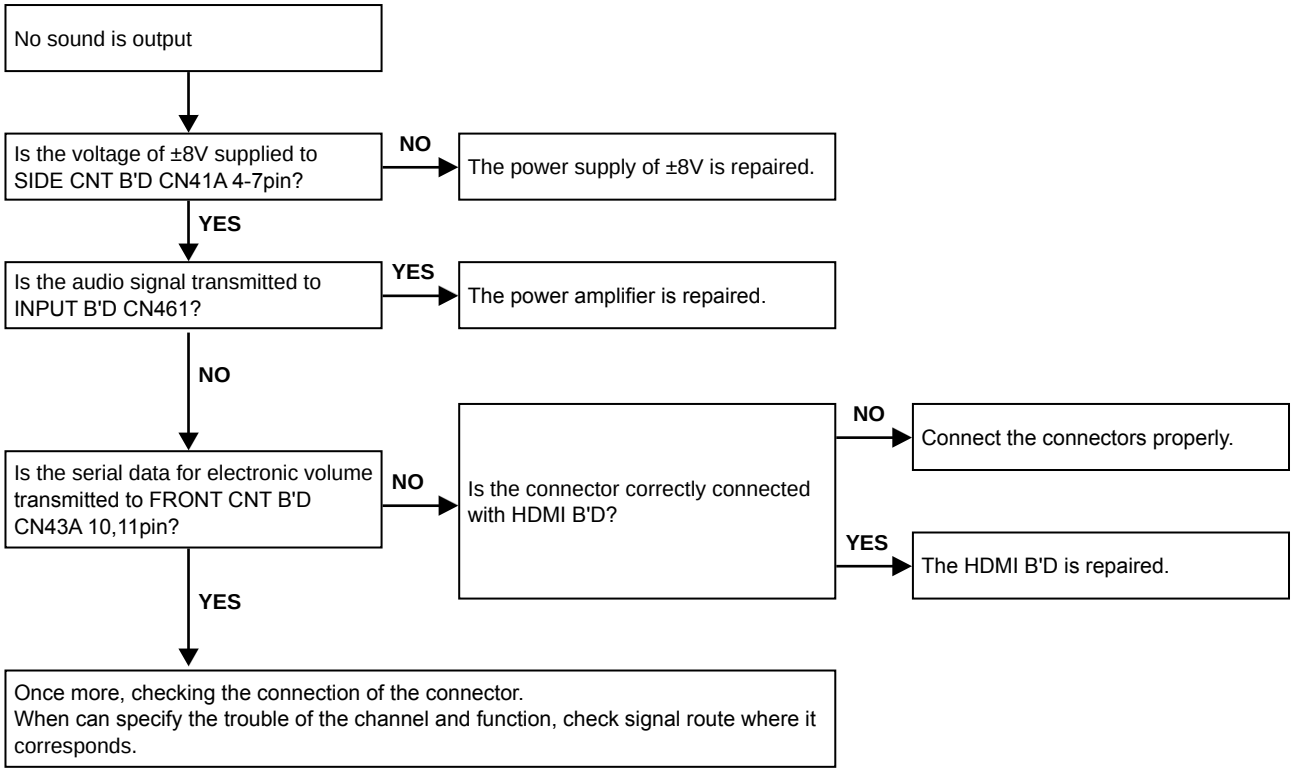
YES → Check Digital audio BLOCK

NO → Check HDMI BLOCK.

4.2. Power AMP (MAIN UNIT)

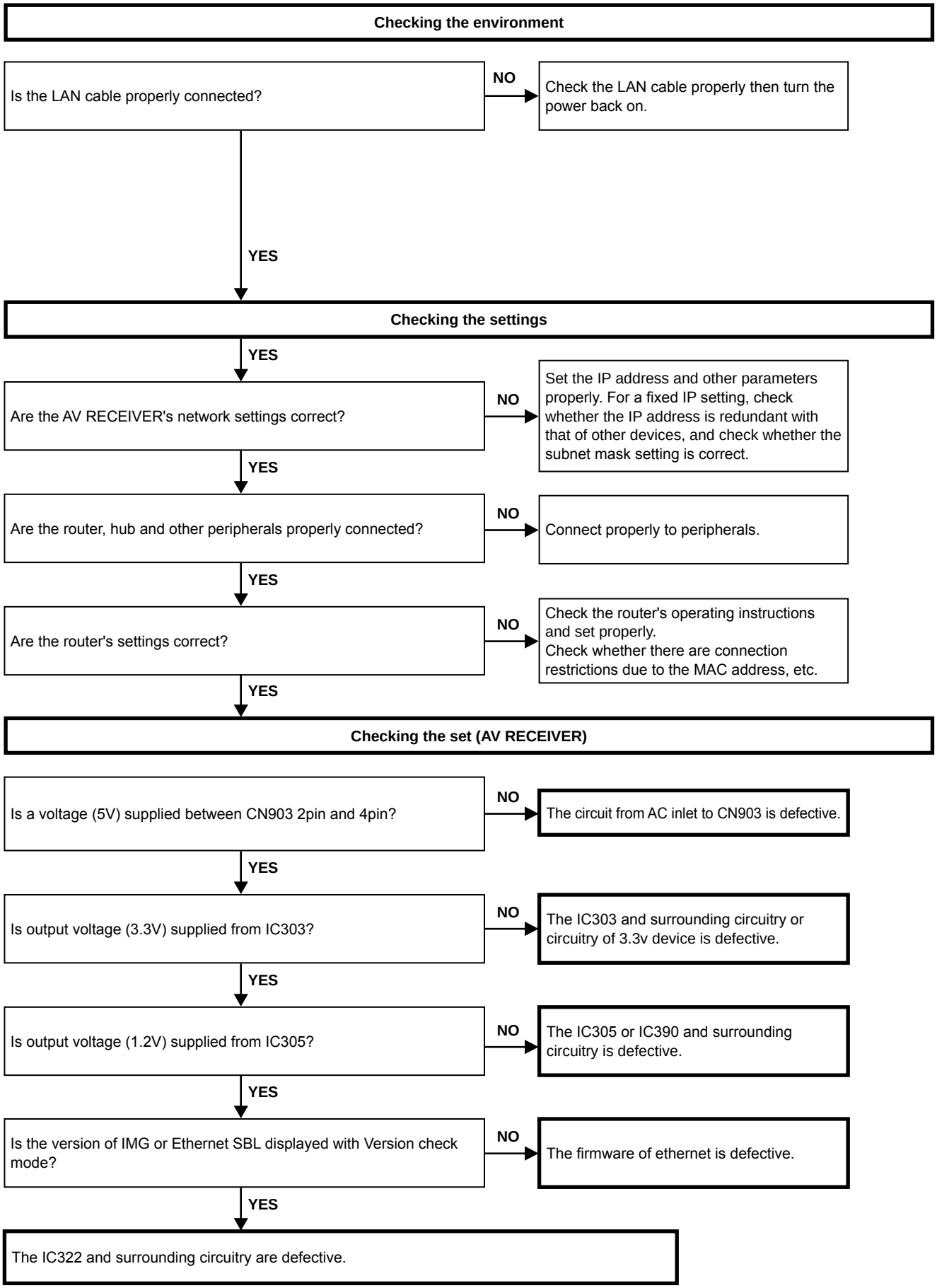


4.3. Analog audio

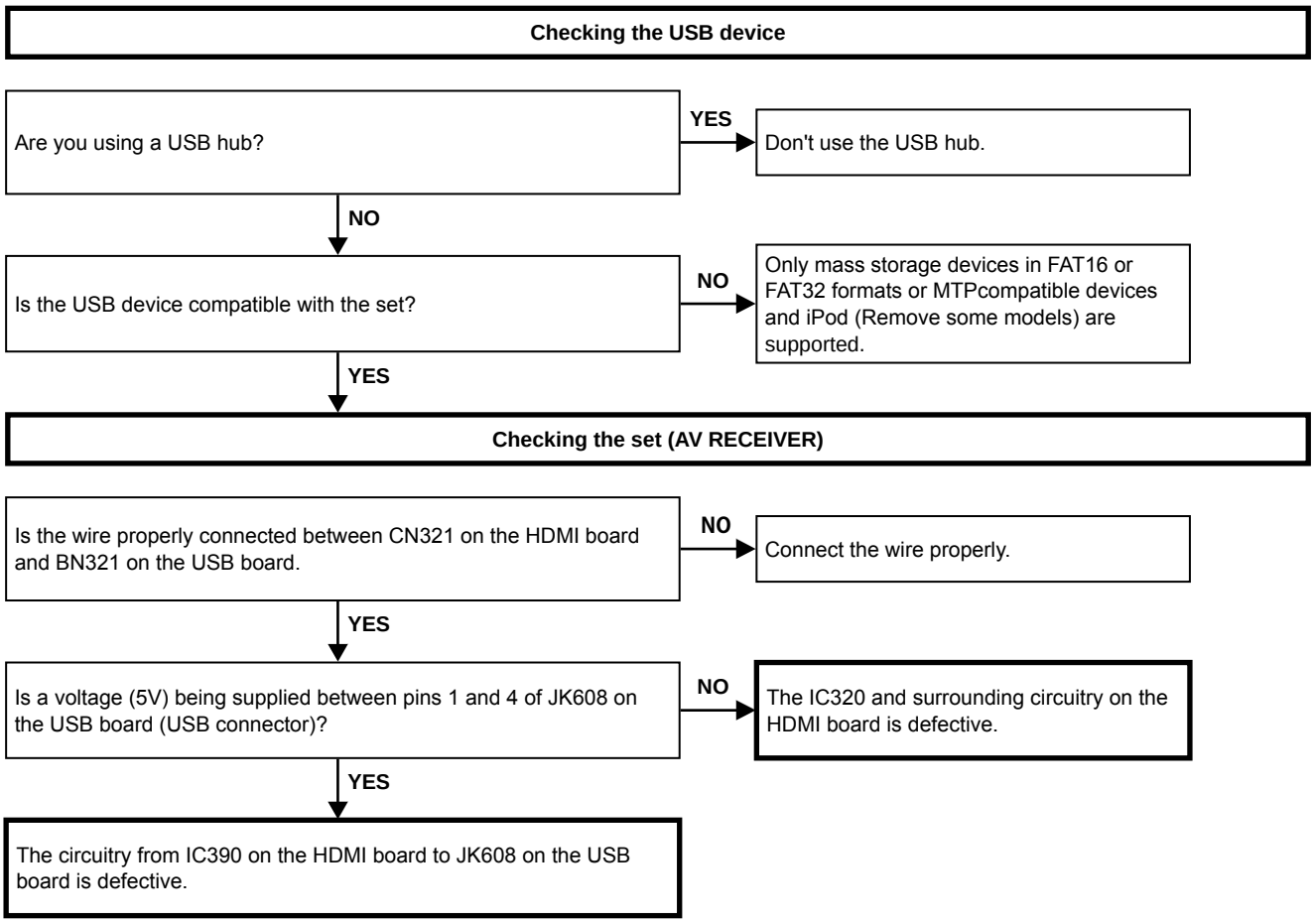


5. Network/USB

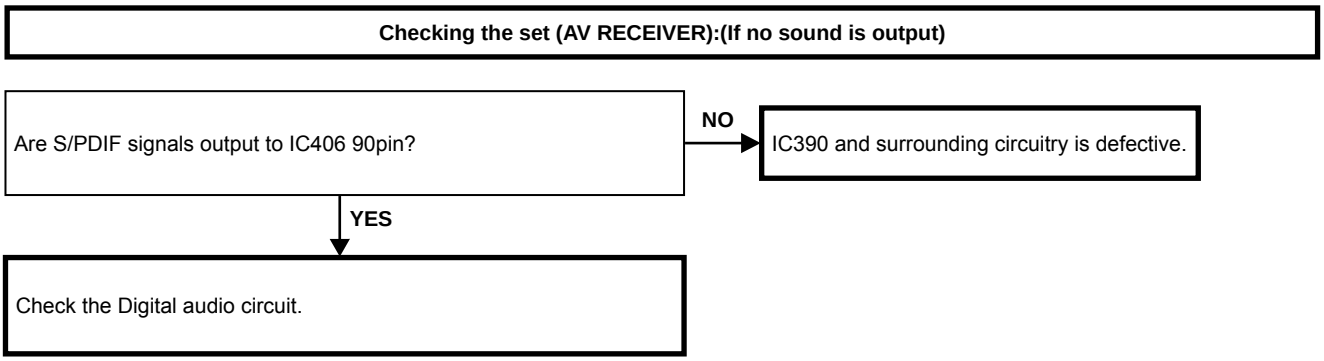
5.1. Cannot connect to network



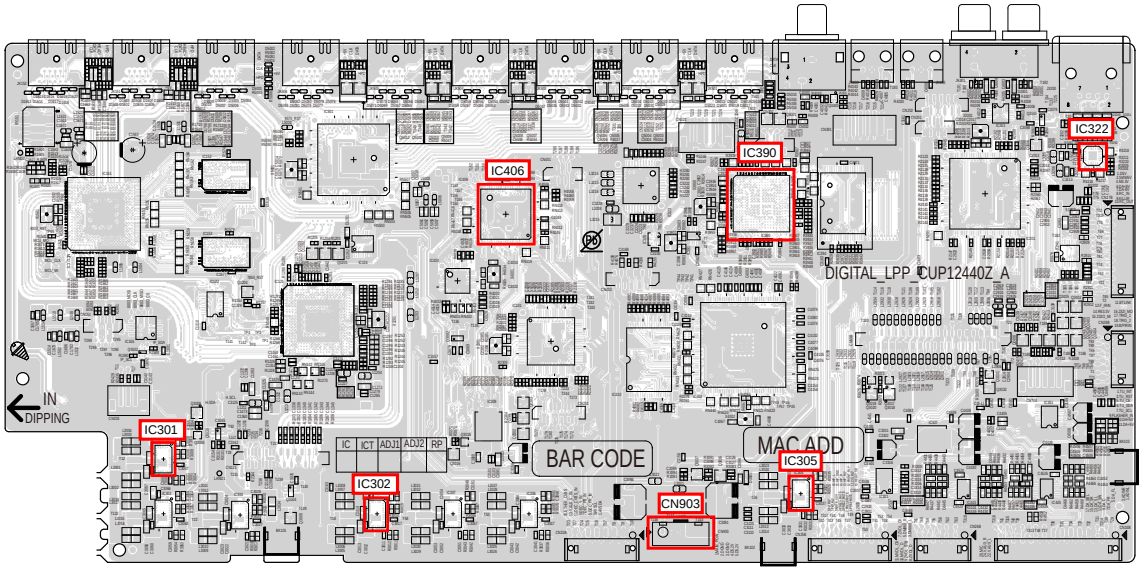
5.2. USB device is not recognized



5.3. No picture or sound is output

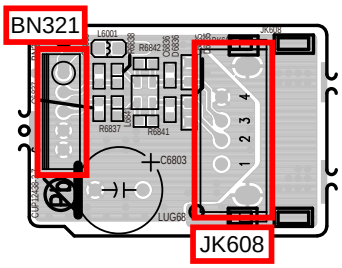


HDMI test point



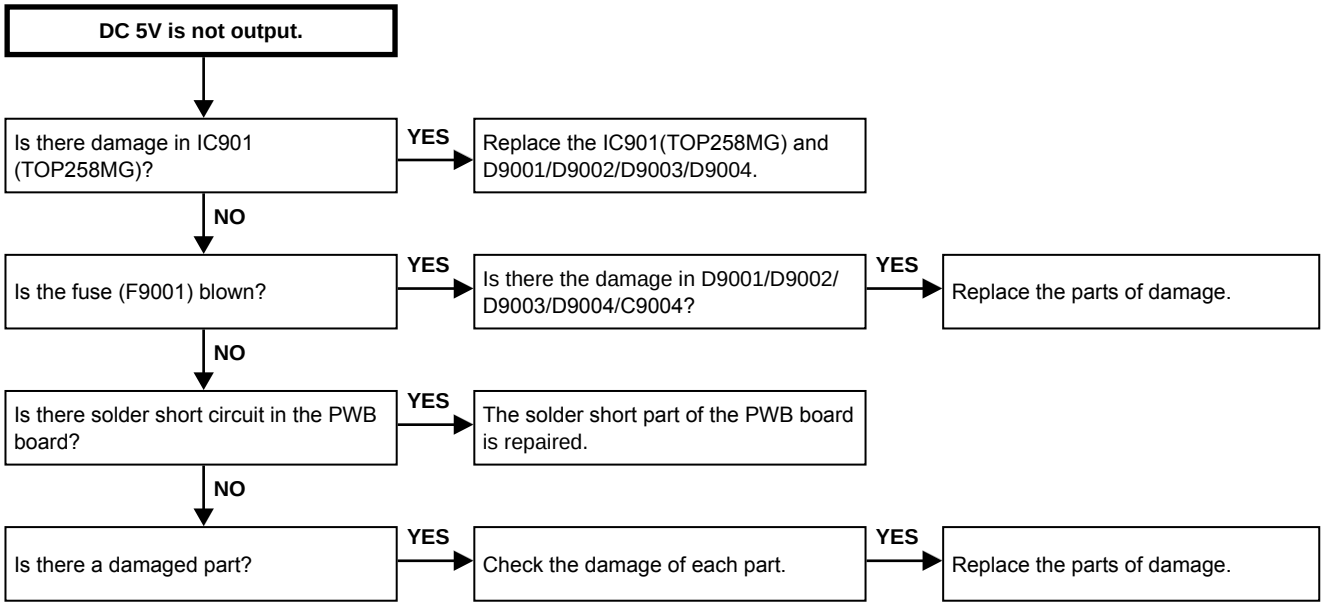
(COMPONENT SIDE)

USB test point

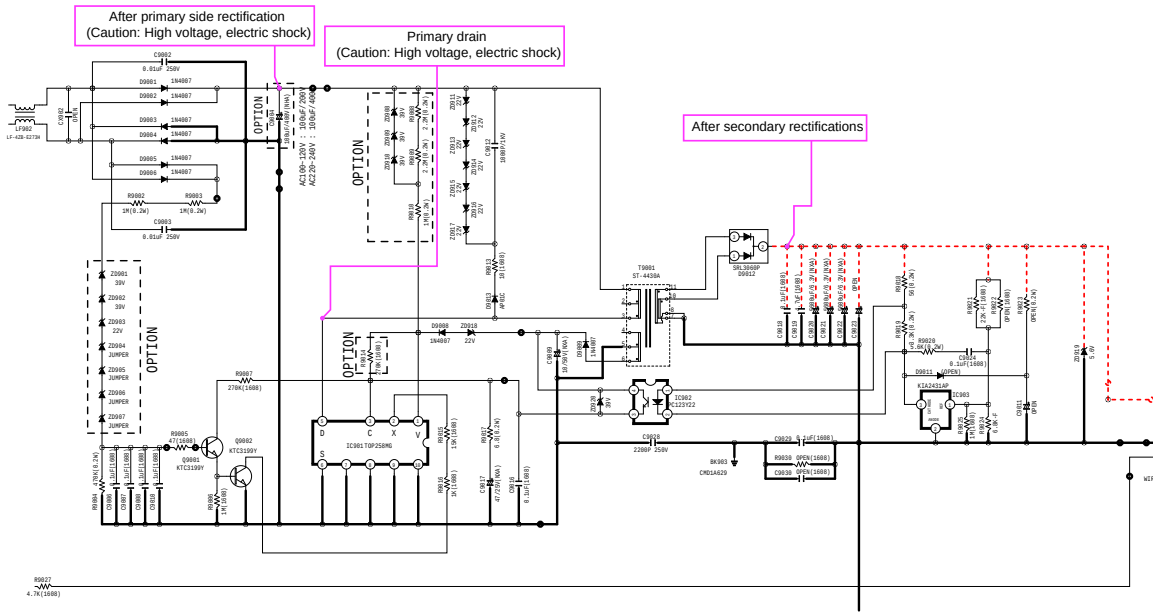


(COMPONENT SIDE)

6. SMPS


DC 5V is not output.
Is there damage in IC901 (TOP258MG)?
YES
Replace the IC901(TOP258MG) and D9001/D9002/D9003/D9004.
NO
Is the fuse (F9001) blown?
YES
Is there the damage in D9001/D9002/ D9003/D9004/C9004?
YES
Replace the parts of damage.
NO
Is there solder short circuit in the PWB board?
YES
The solder short part of the PWB board is repaired.
NO
Is there a damaged part?
YES
Check the damage of each part.
YES
Replace the parts of damage.

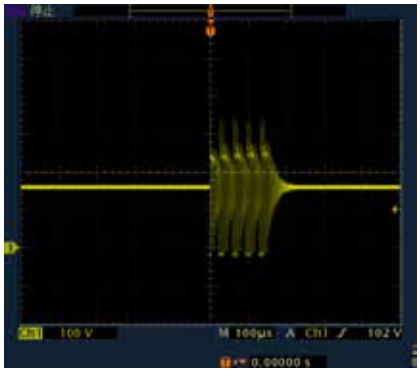
Operation waveform for each part



SMPS unit
(Unloaded)

A

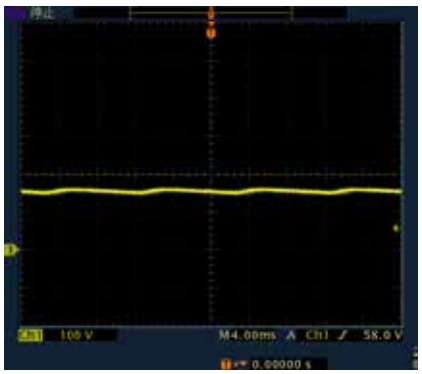
B



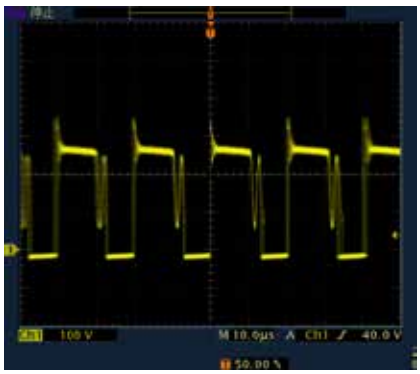
C

Set

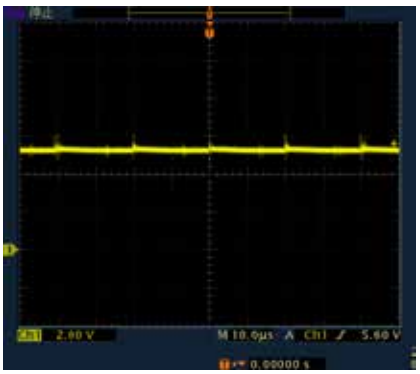
A



B

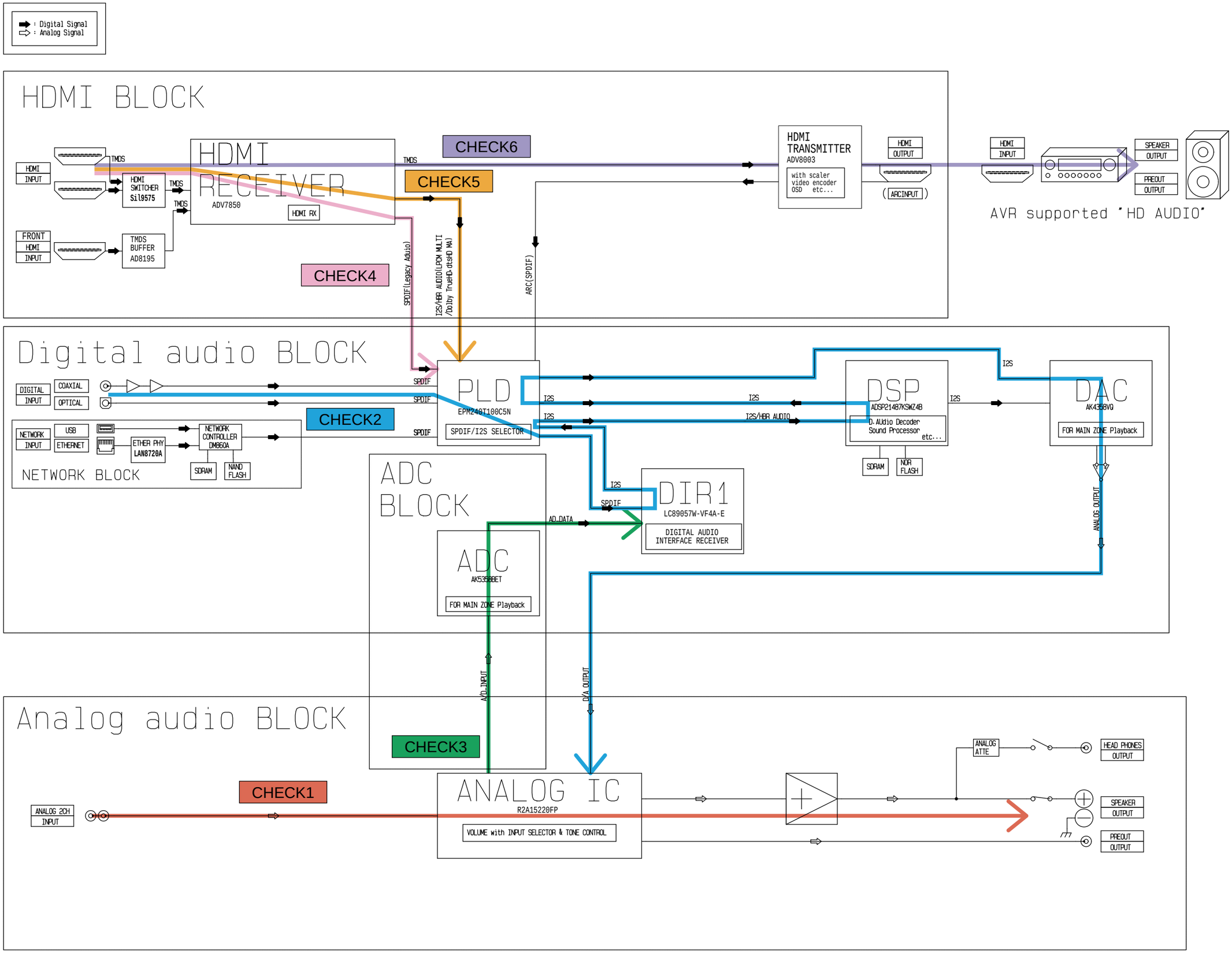


C



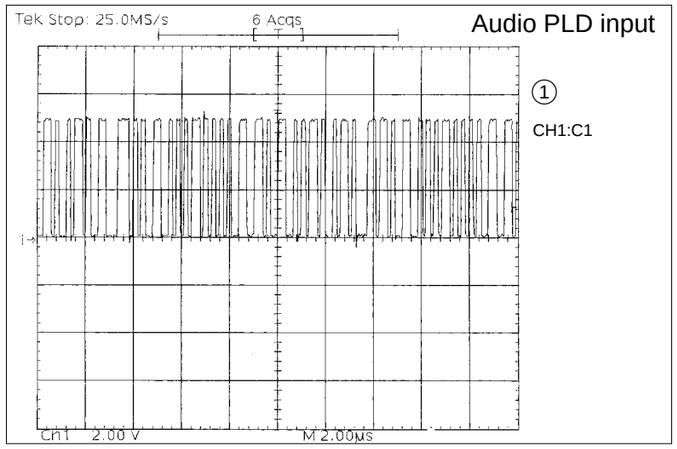
Audio Check PASS

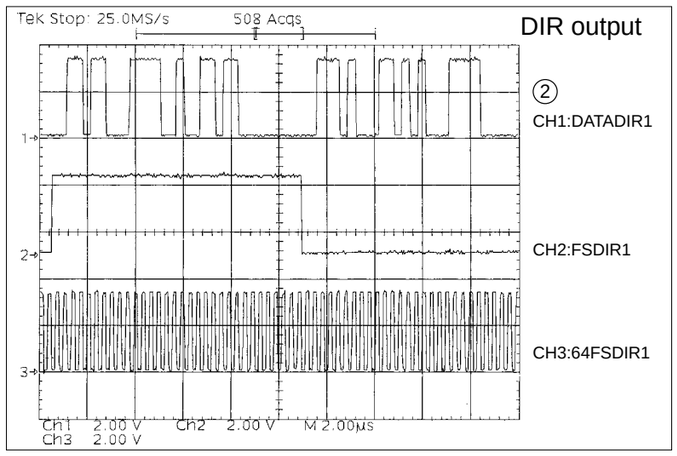
Refer to troubleshooting "**4.1. AUDIO CHECK**"(00 page).

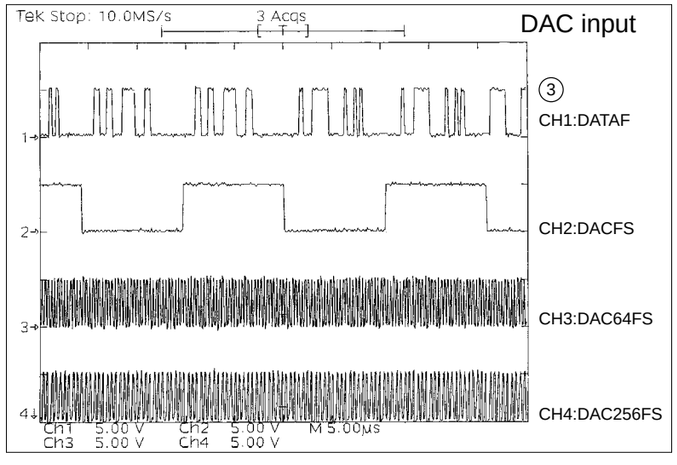


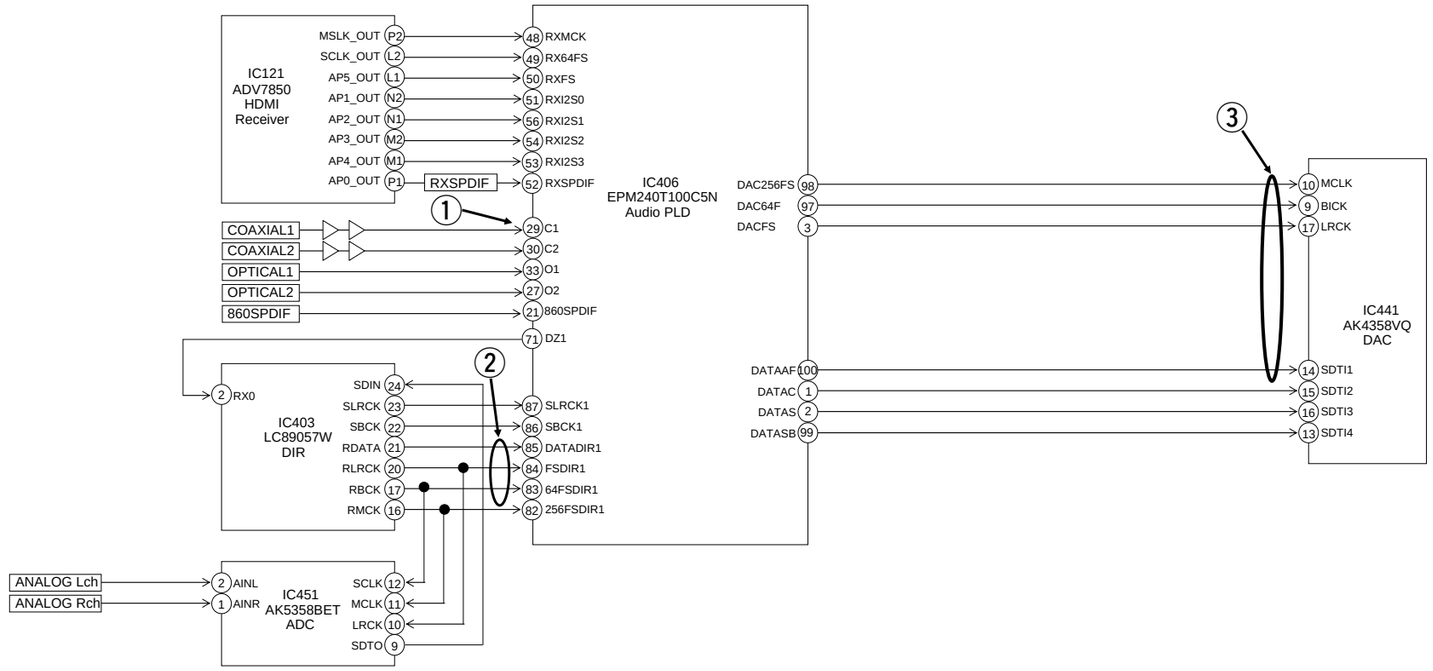
CLOCK FLOW & WAVE FORM IN DIGITAL BLOCK

WAVE FORM

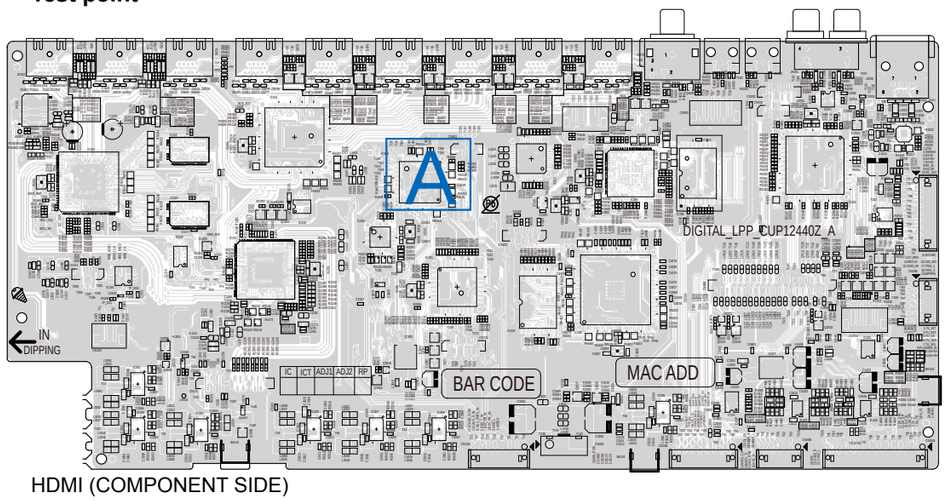






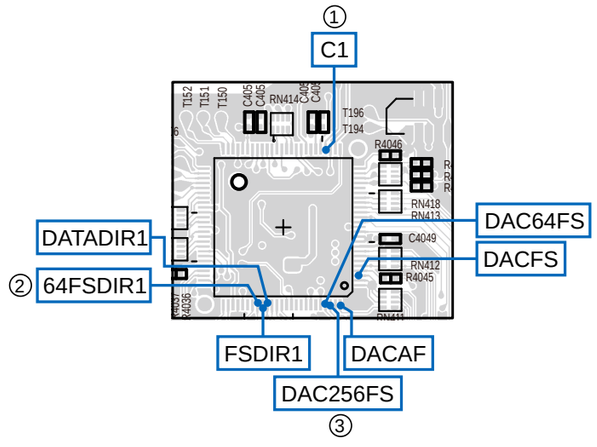


Test point



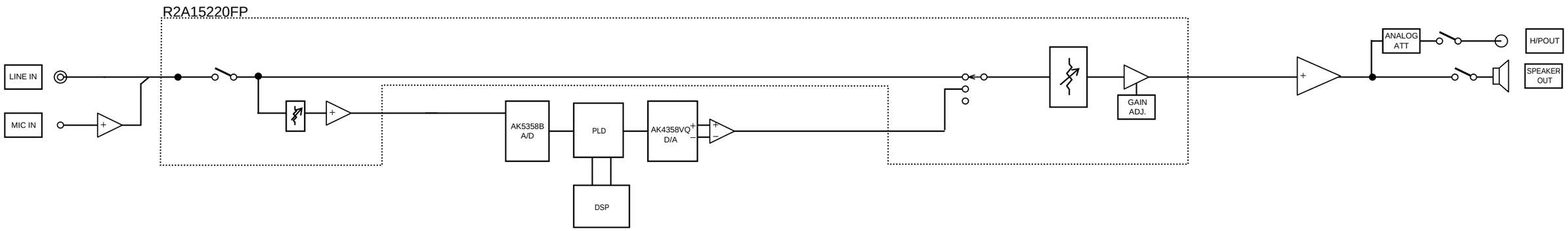
HDMI (COMPONENT SIDE)

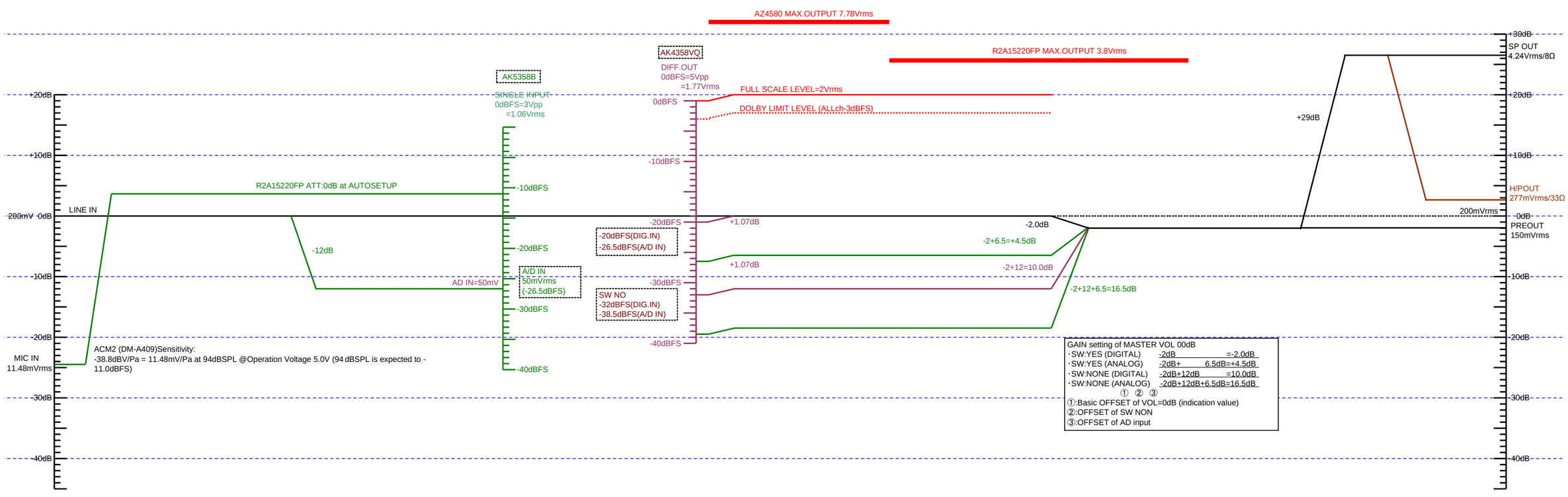
Detail A



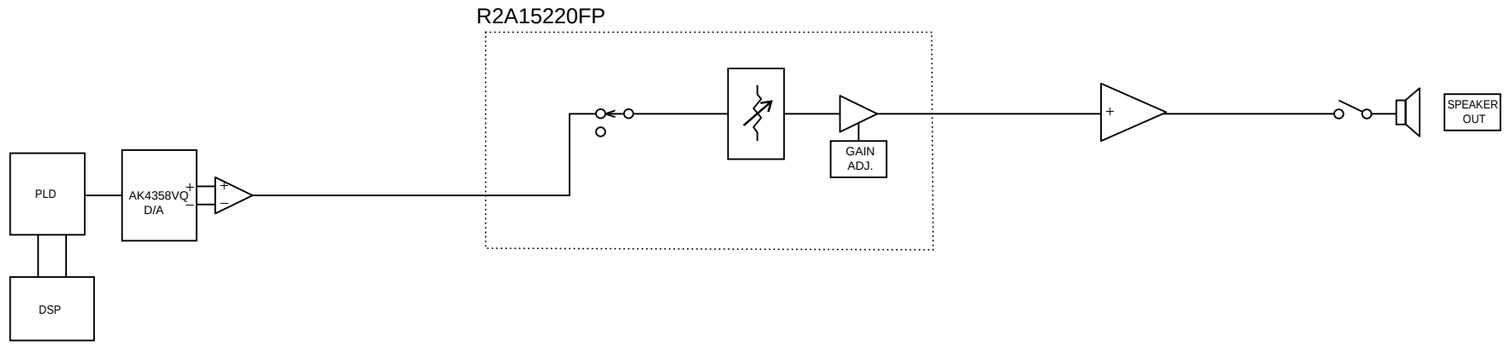
LEVEL DIAGRAM

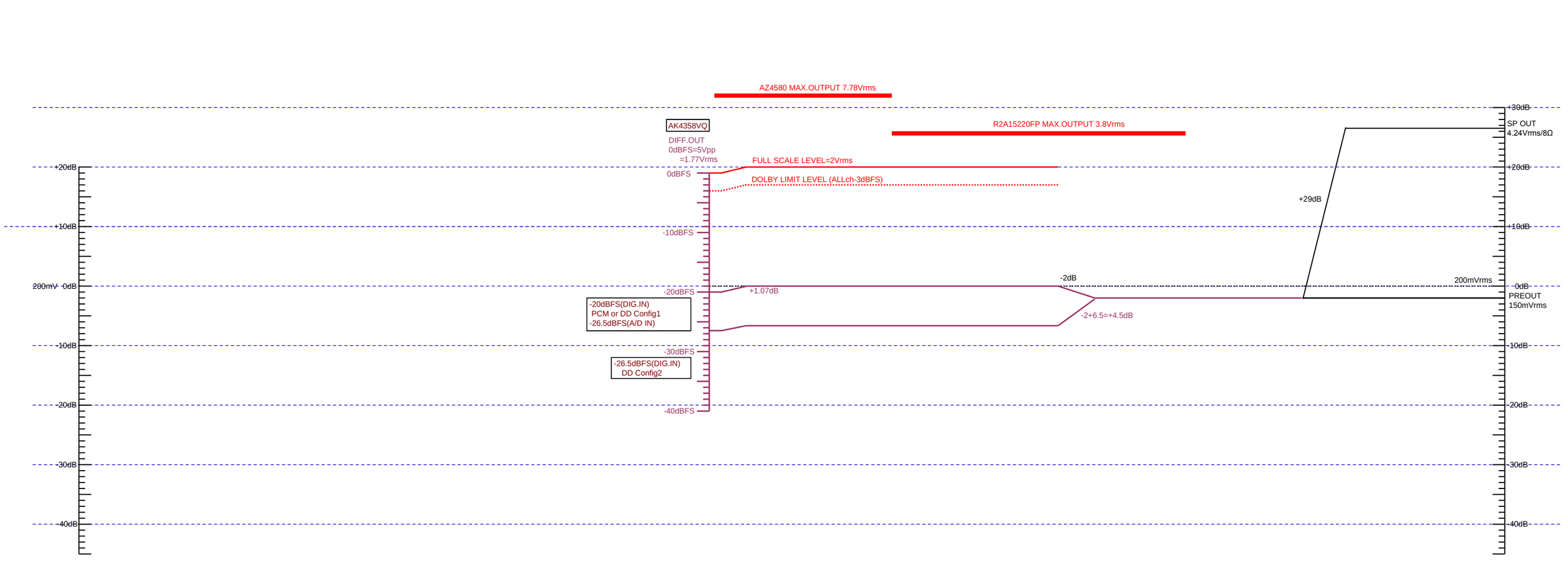
LEVEL DIAGRAM
FRONT ch



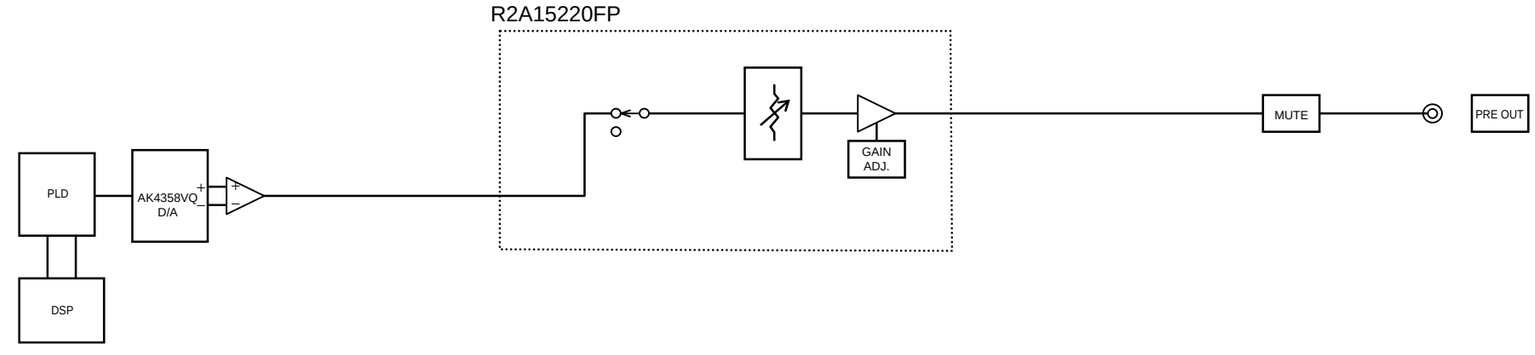


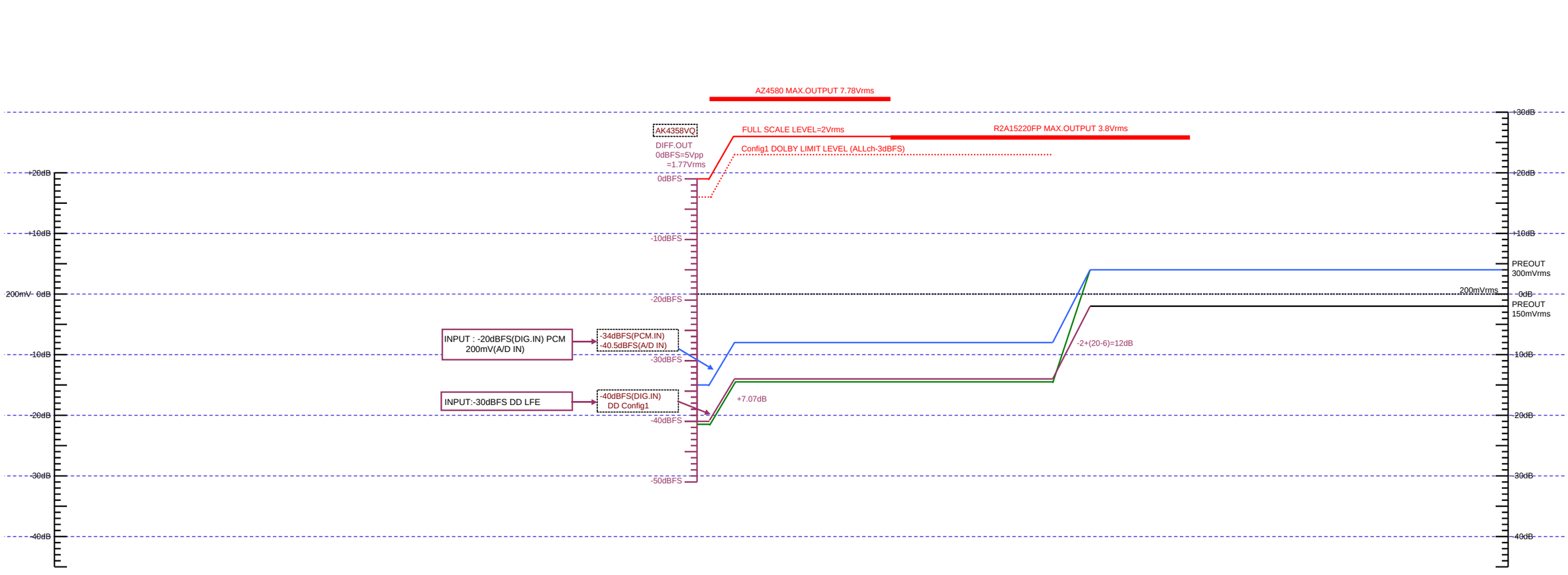
LEVEL DIAGRAM
CENTER ch



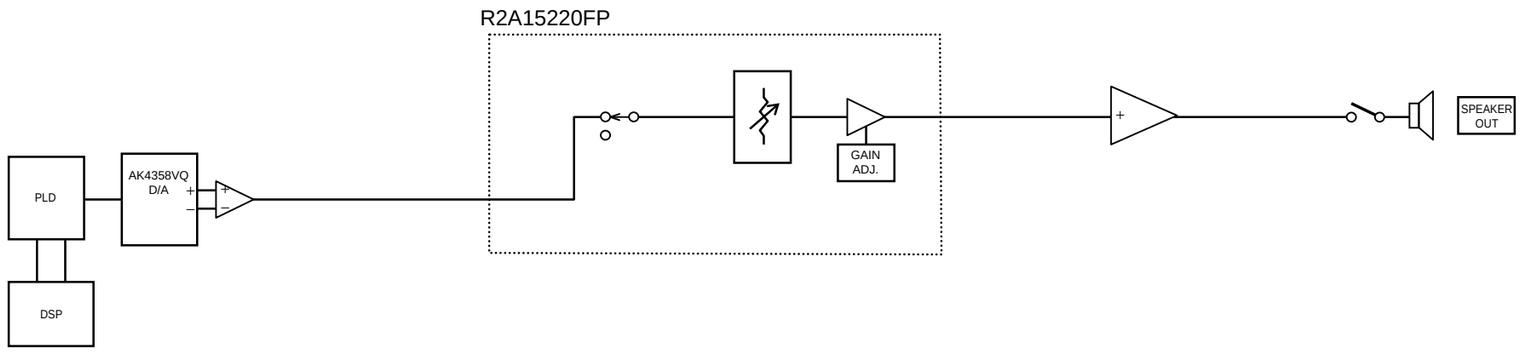


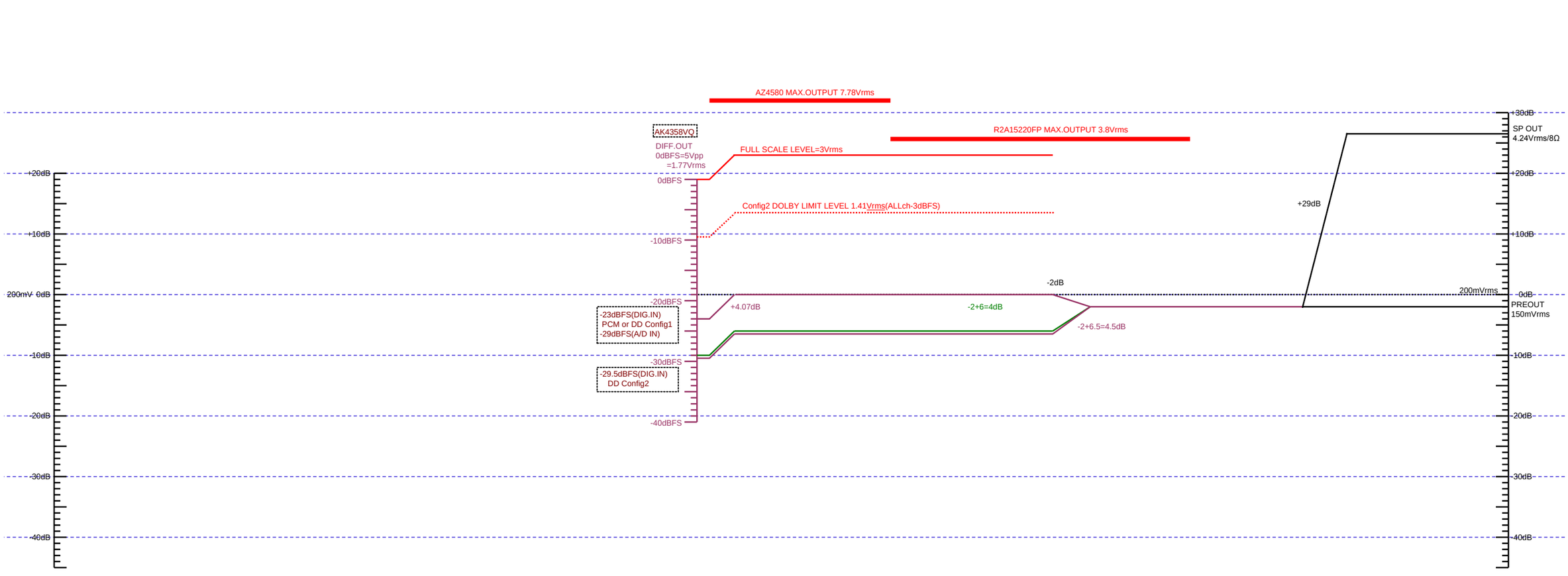
LEVEL DIAGRAM
SUBWOOFER ch



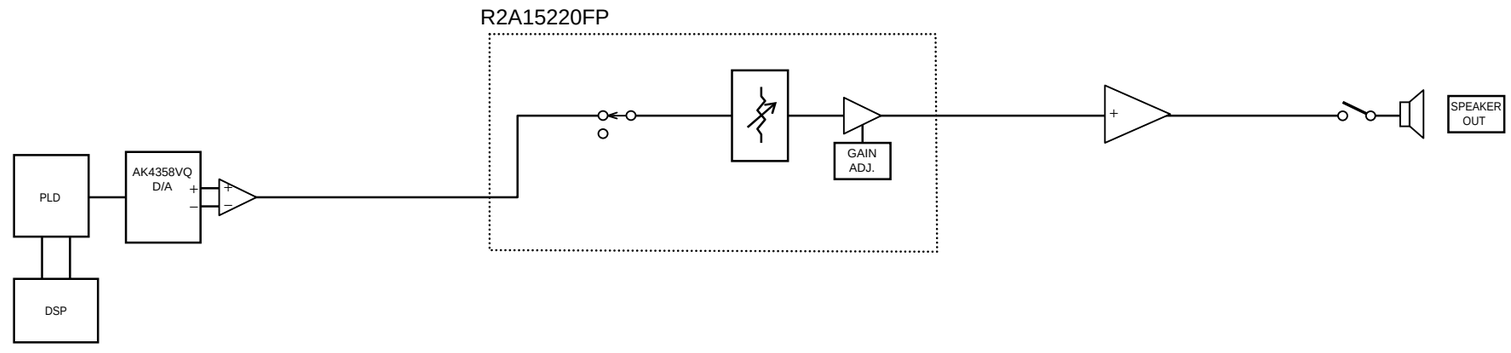


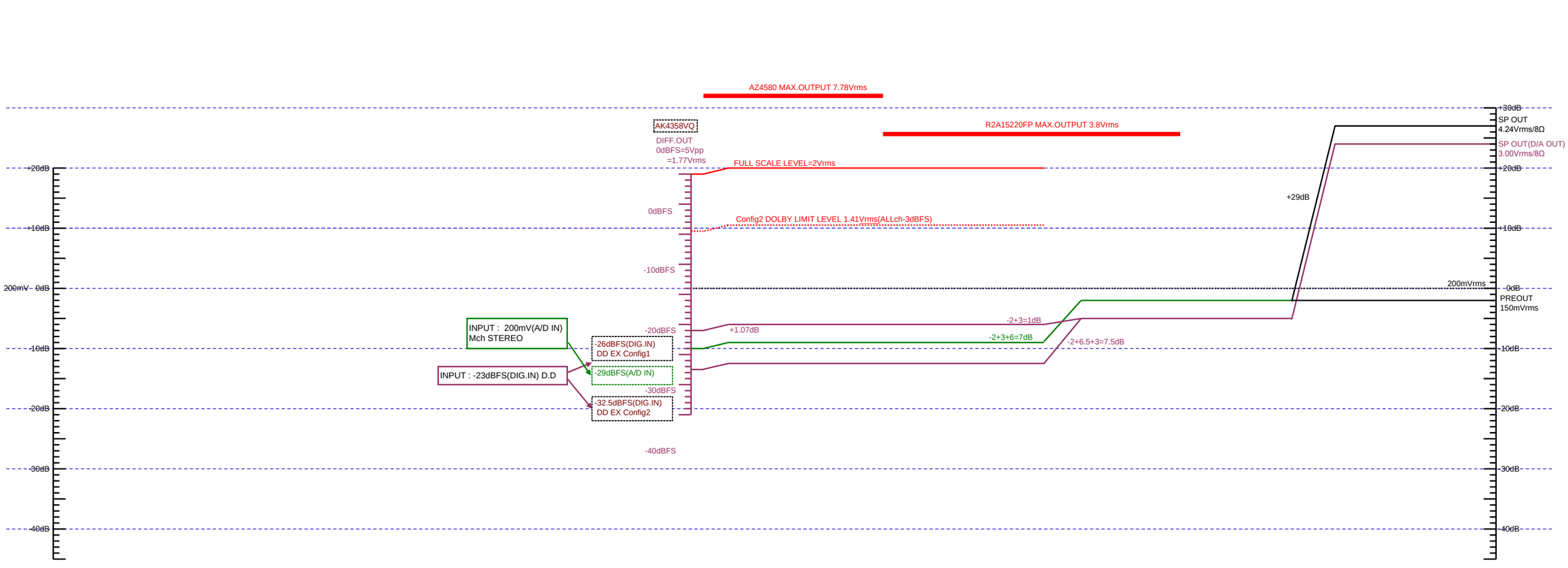
LEVEL DIAGRAM
SURROUND ch



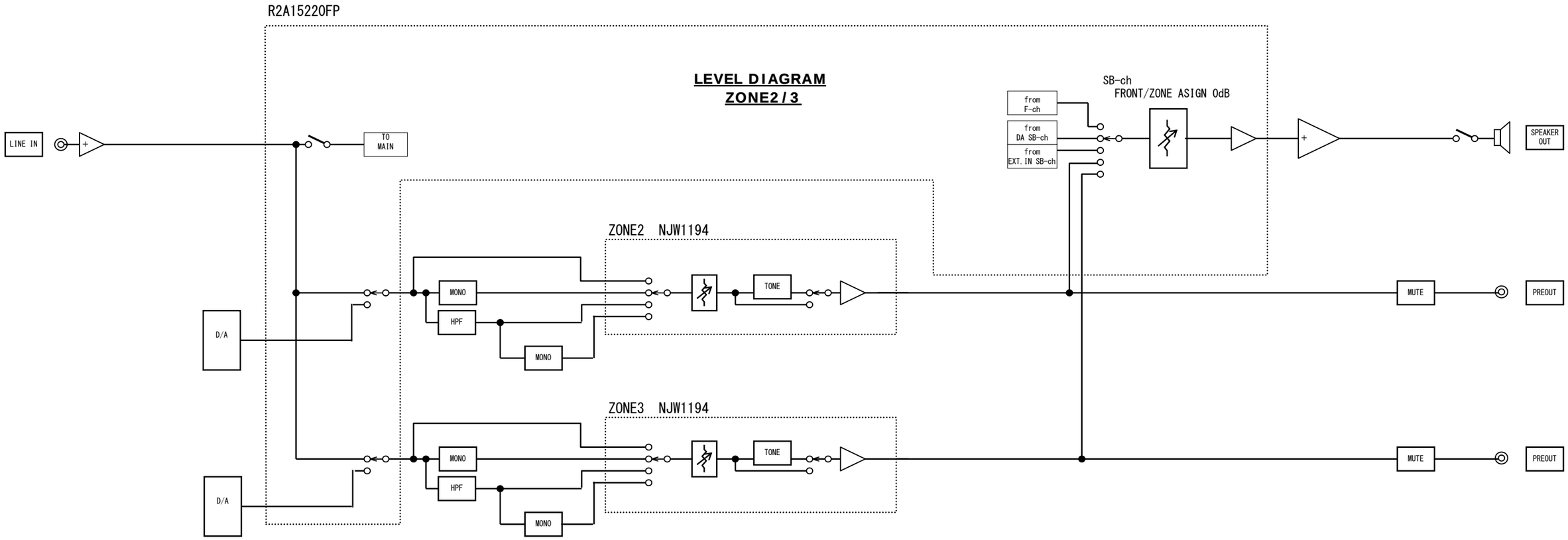


LEVEL DIAGRAM
SURR.BACK ch



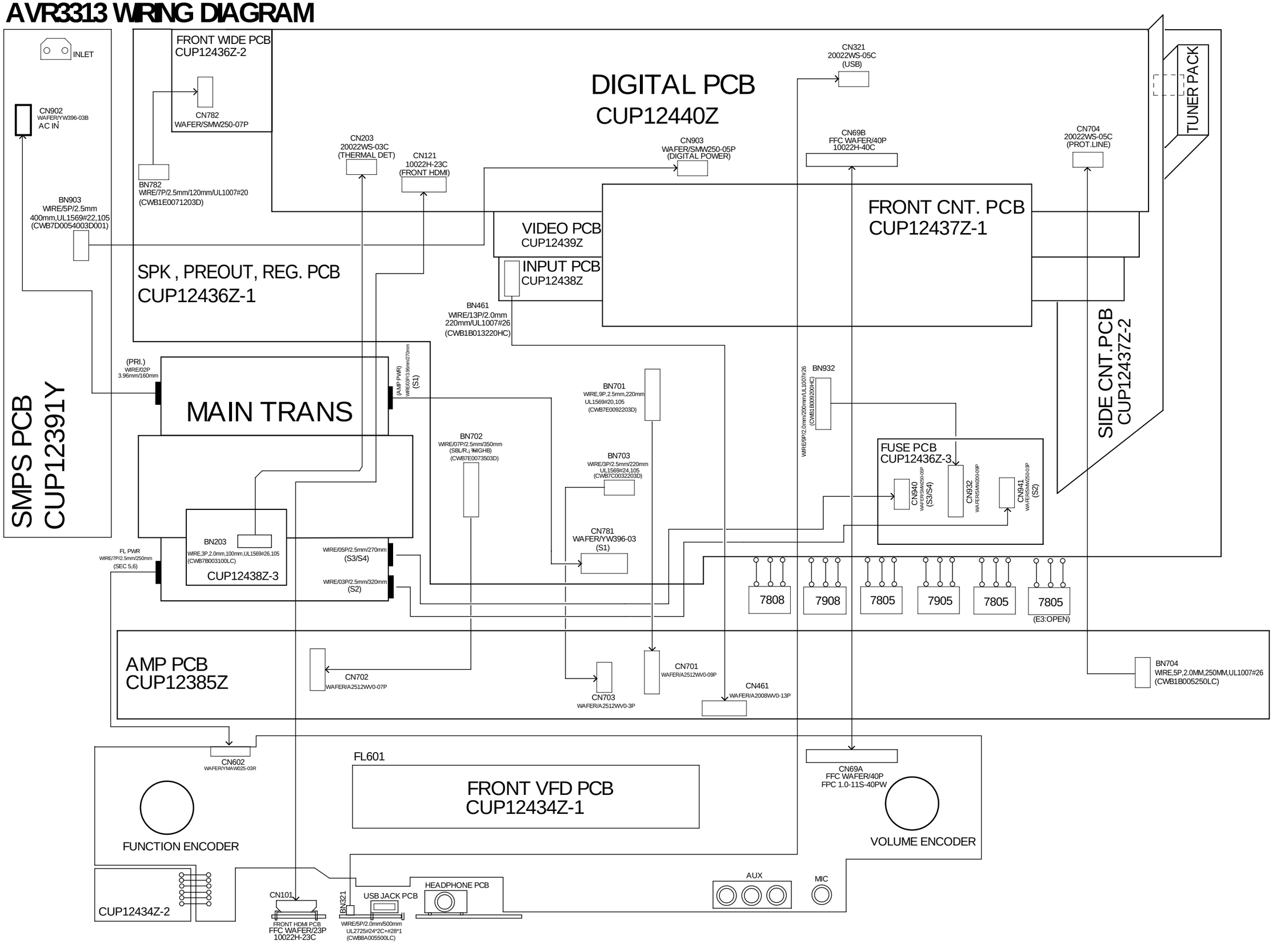


LEVEL DIAGRAM
ZONE2/3



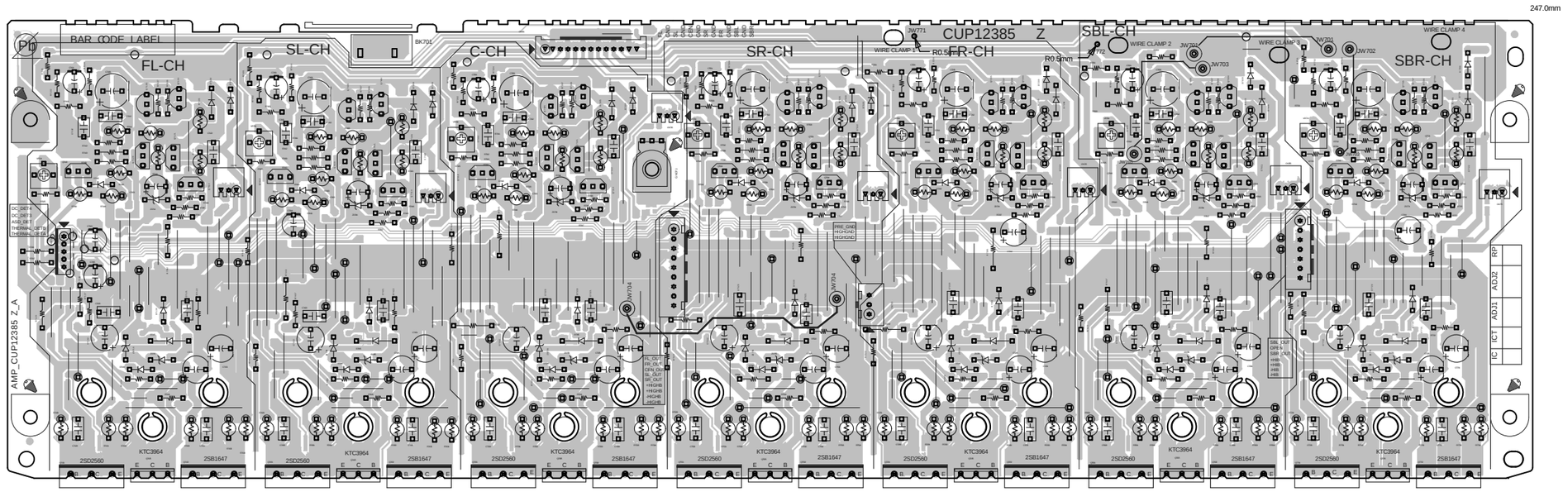
WIRING DIAGRAM

AVR3313 WIRING DIAGRAM

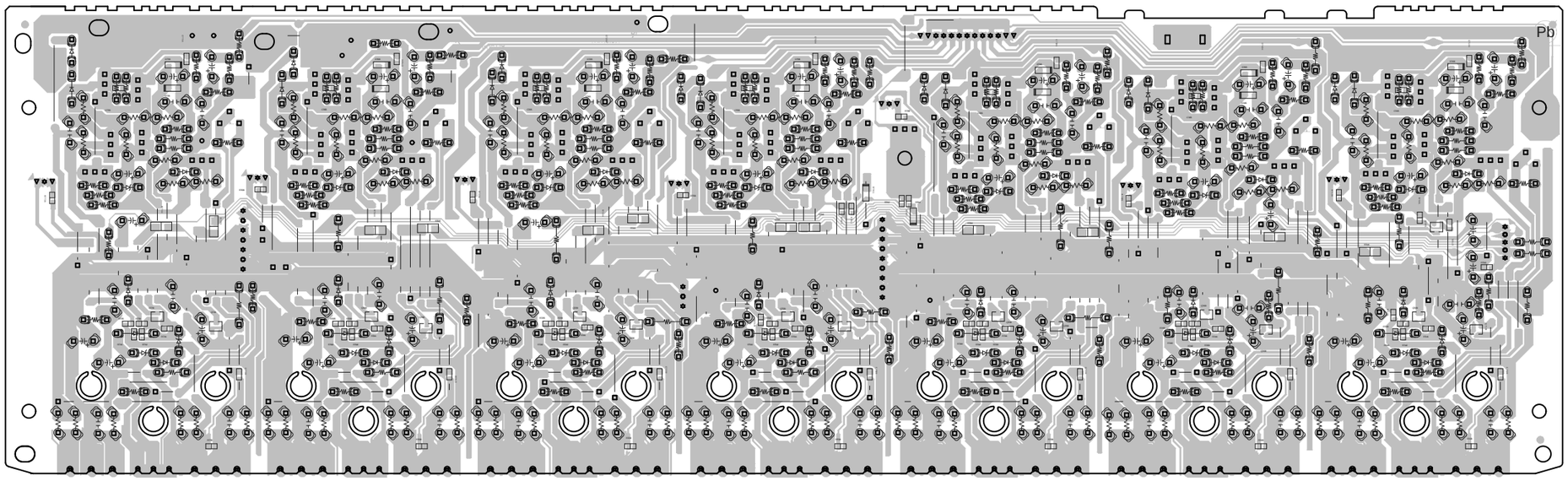


PRINTED WIRING BOARDS

7CH AMP (COMPONENT SIDE)



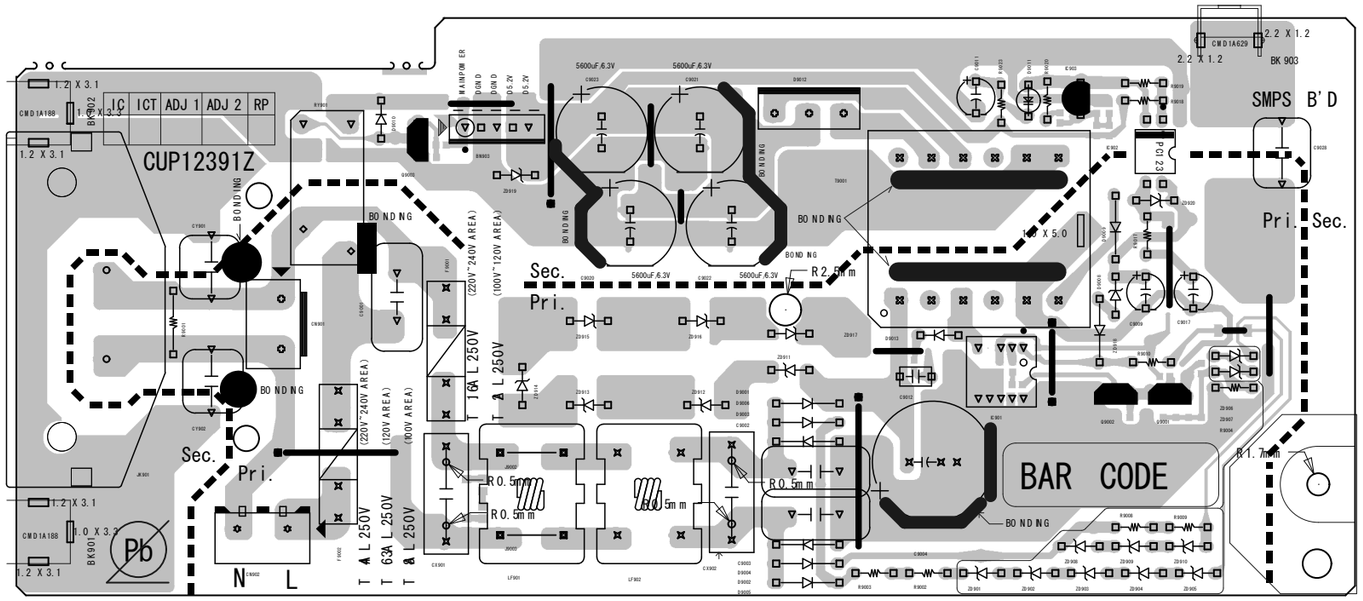
7CH AMP (FOIL SIDE)



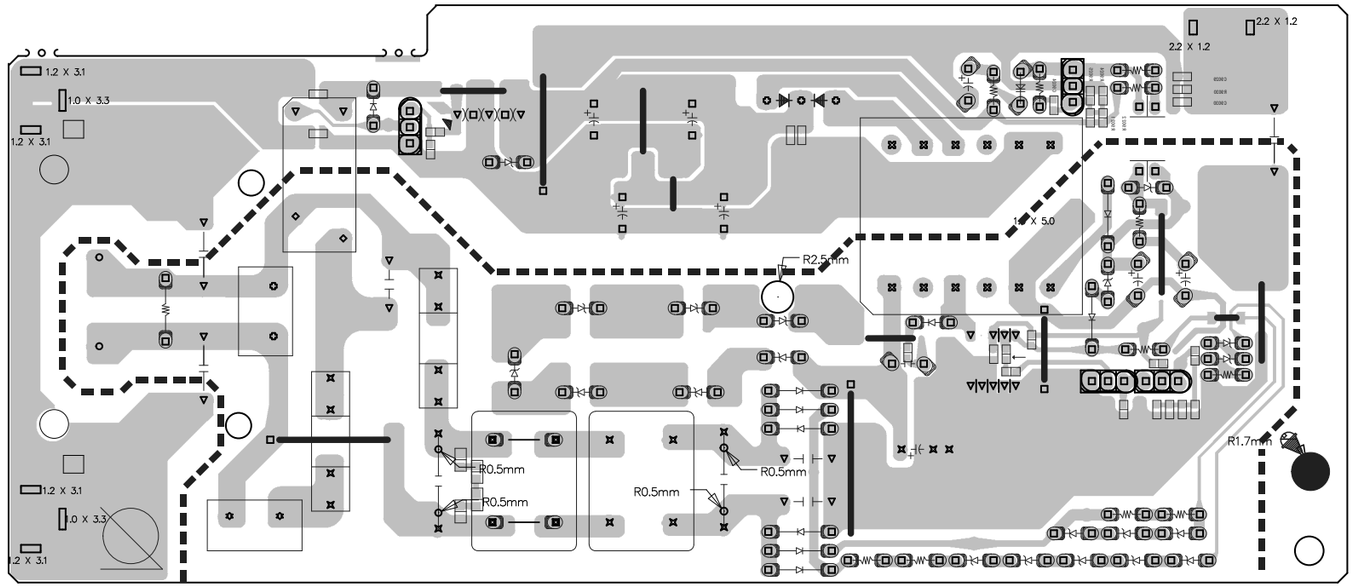
鉛フリー半田
半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。

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

SMPS (COMPONENT SIDE)



SMPS (FOIL SIDE)



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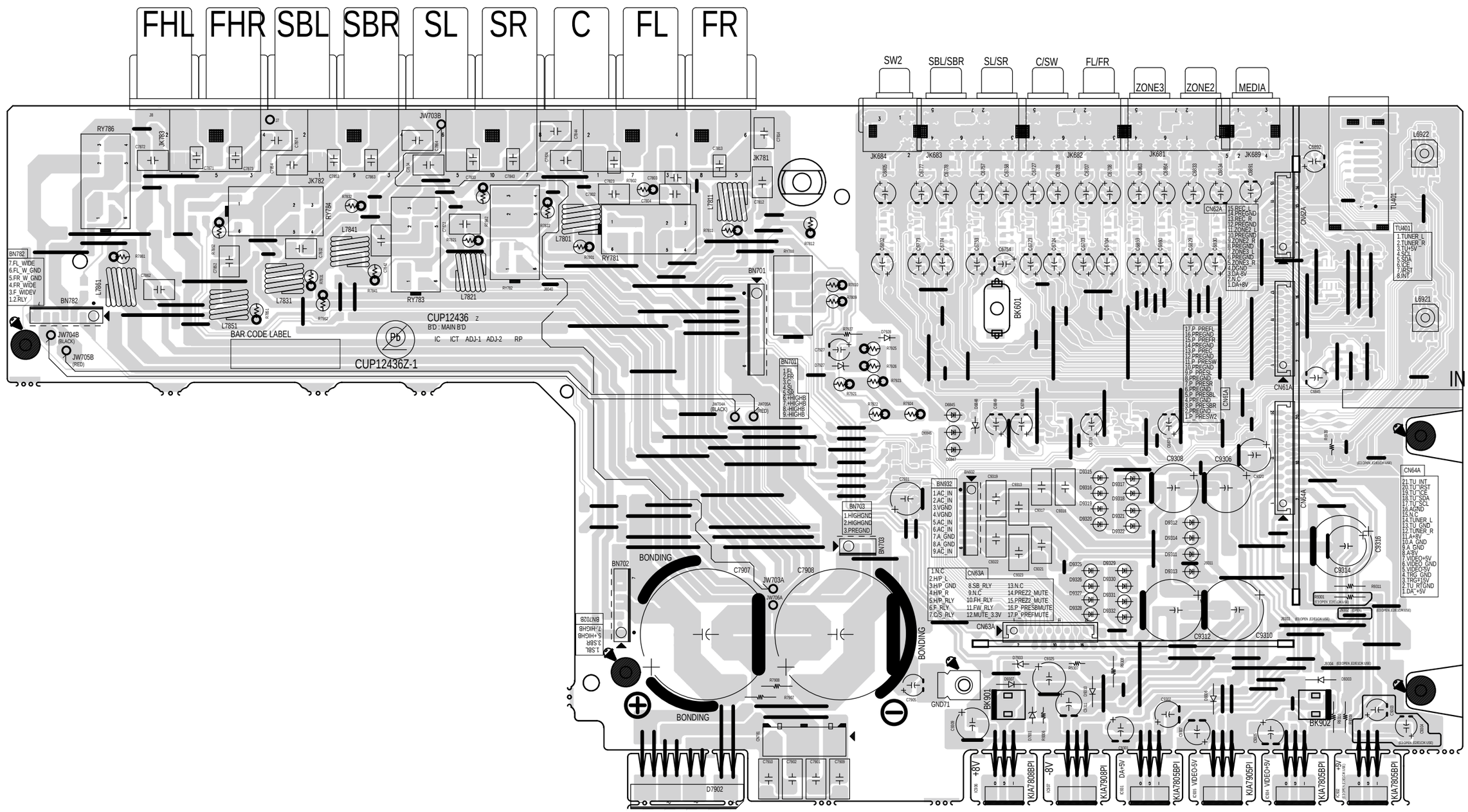
SPK_PREOUT (COMPONENT SIDE)



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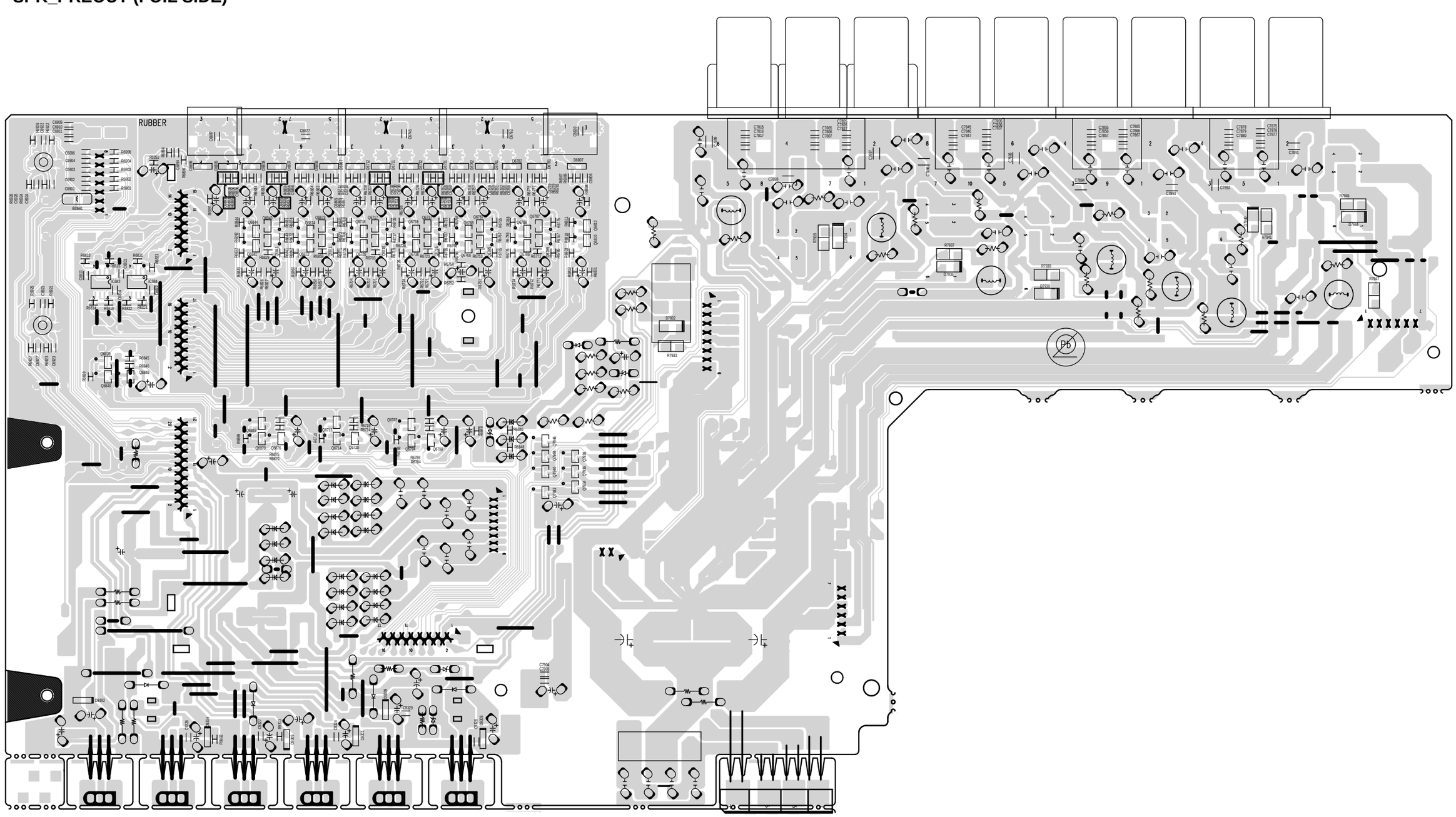
SPK_PREOUT (FOIL SIDE)



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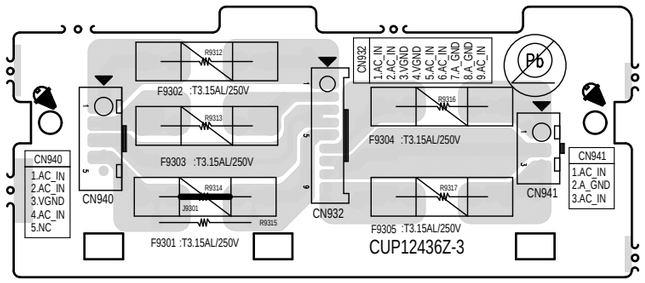
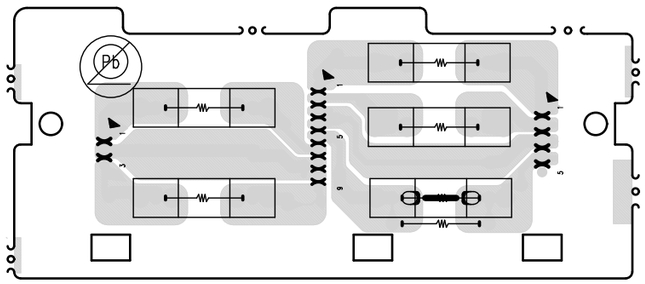
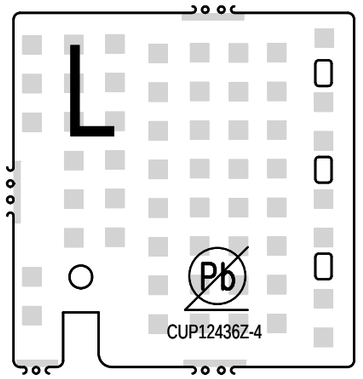
FUSE (COMPONENT SIDE)



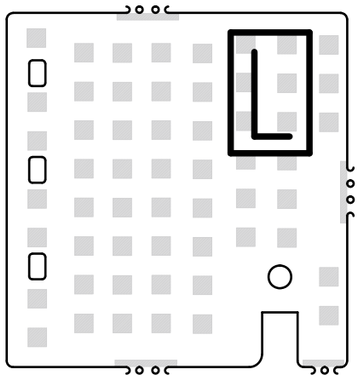
FUSE (FOIL SIDE)



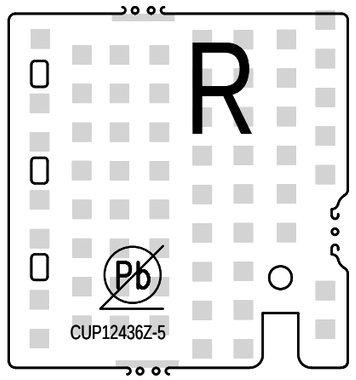
GUIDE L (COMPONENT SIDE)



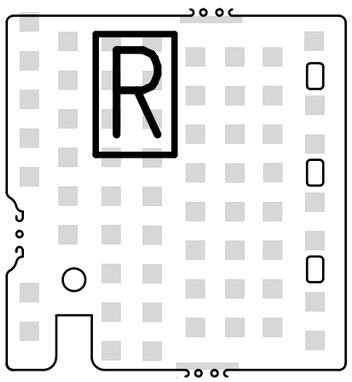
GUIDE L (FOIL SIDE)



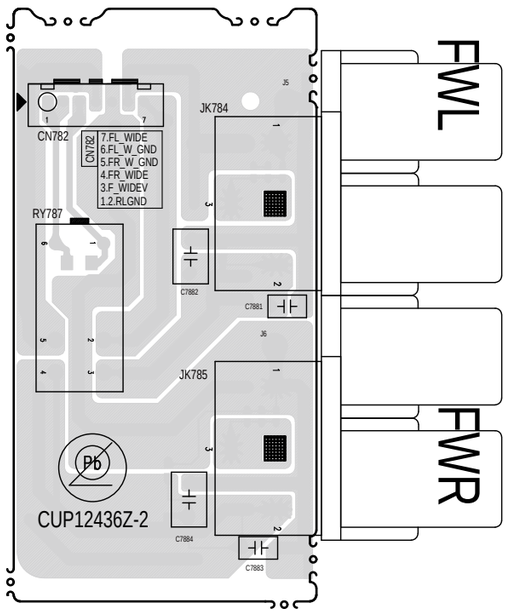
GUIDE R (COMPONENT SIDE)



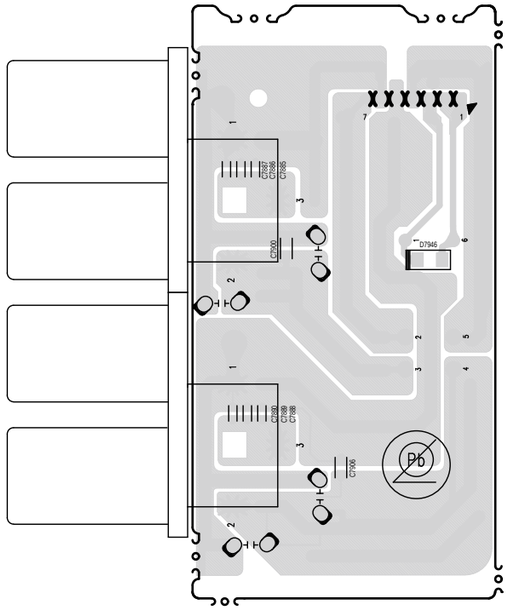
GUIDE R (FOIL SIDE)



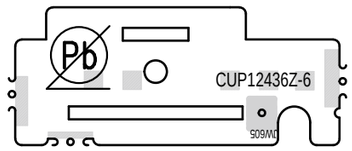
F_WIDE (COMPONENT SIDE)



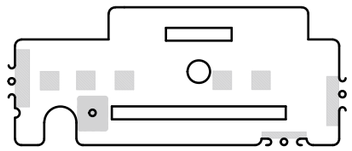
F_WIDE (FOIL SIDE)



GUIDE (COMPONENT SIDE)



GUIDE (FOIL SIDE)



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Lead-free Solder
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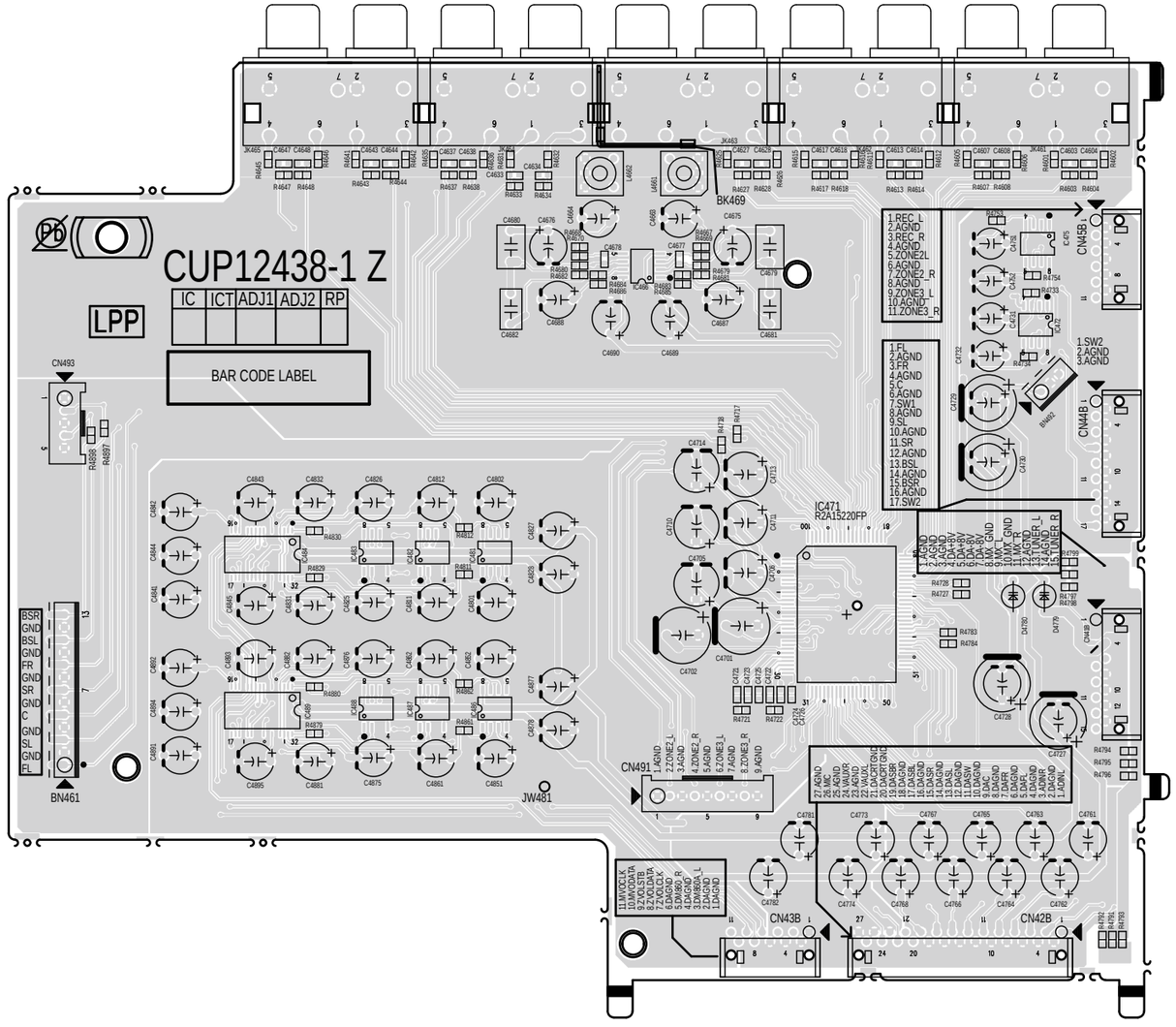
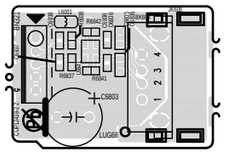
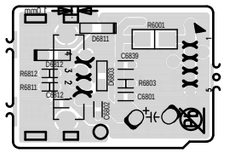
INPUT (COMPONENT SIDE)



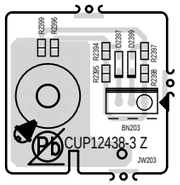
USB (COMPONENT SIDE)



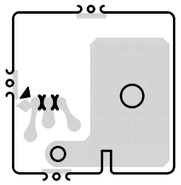
USB (FOIL SIDE)



POSISTOR (COMPONENT SIDE)



POSISTOR (FOIL SIDE)



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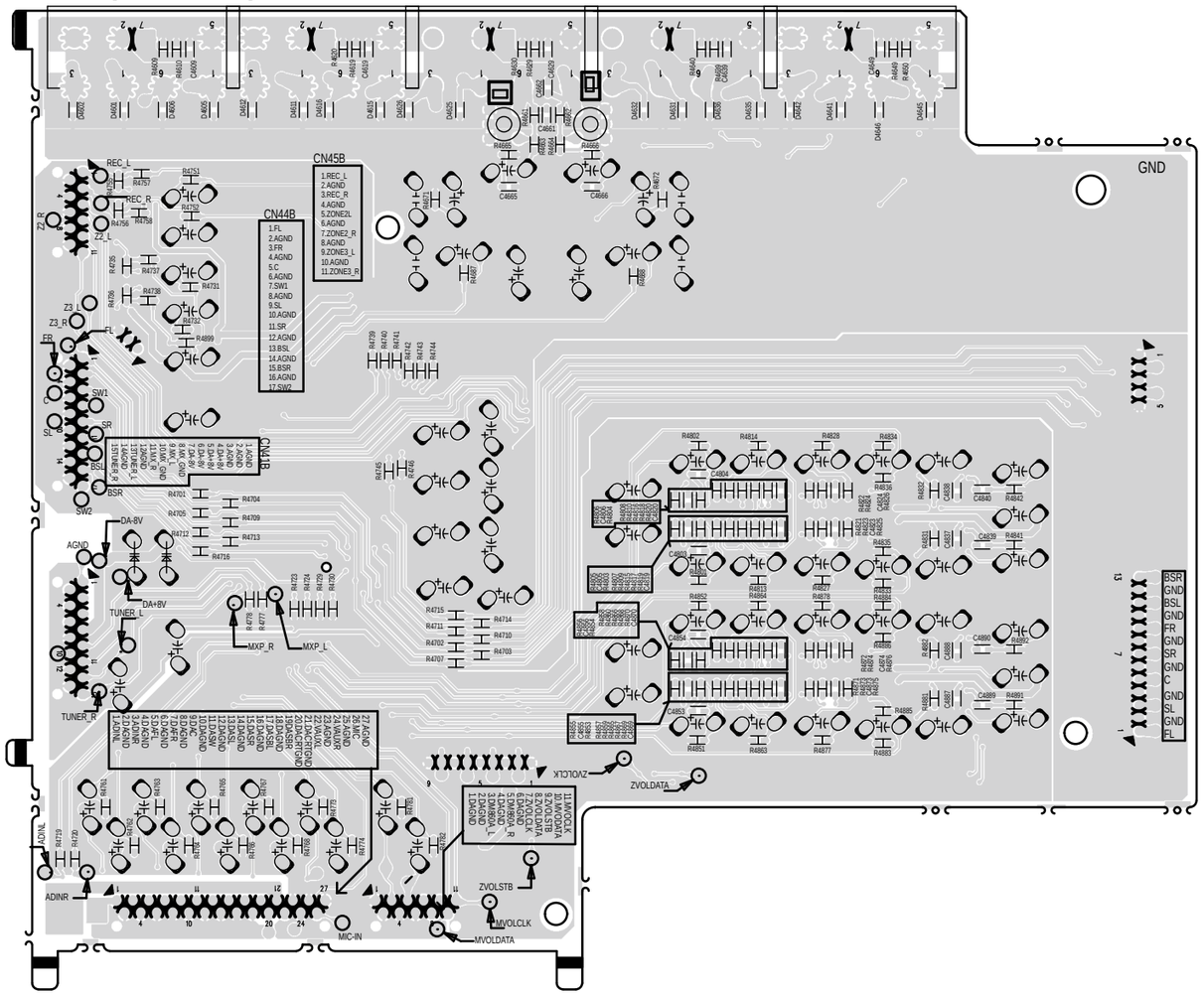
When soldering, use the Lead-free Solder (Sn-Ag-Cu).

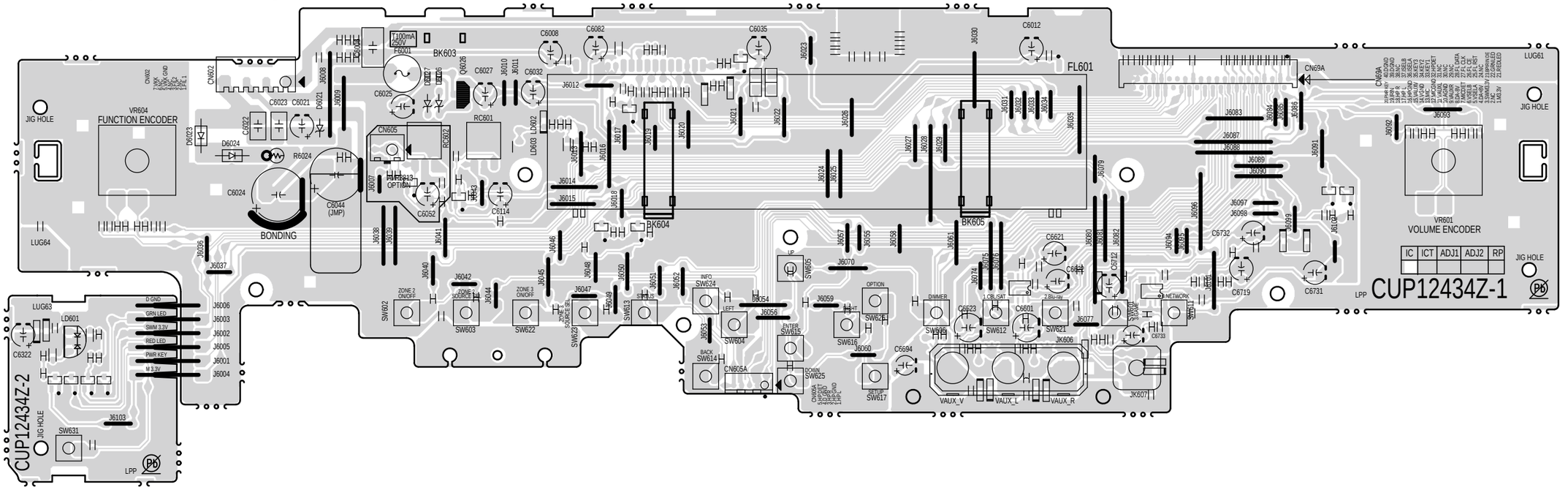
INPUT (FOIL SIDE)



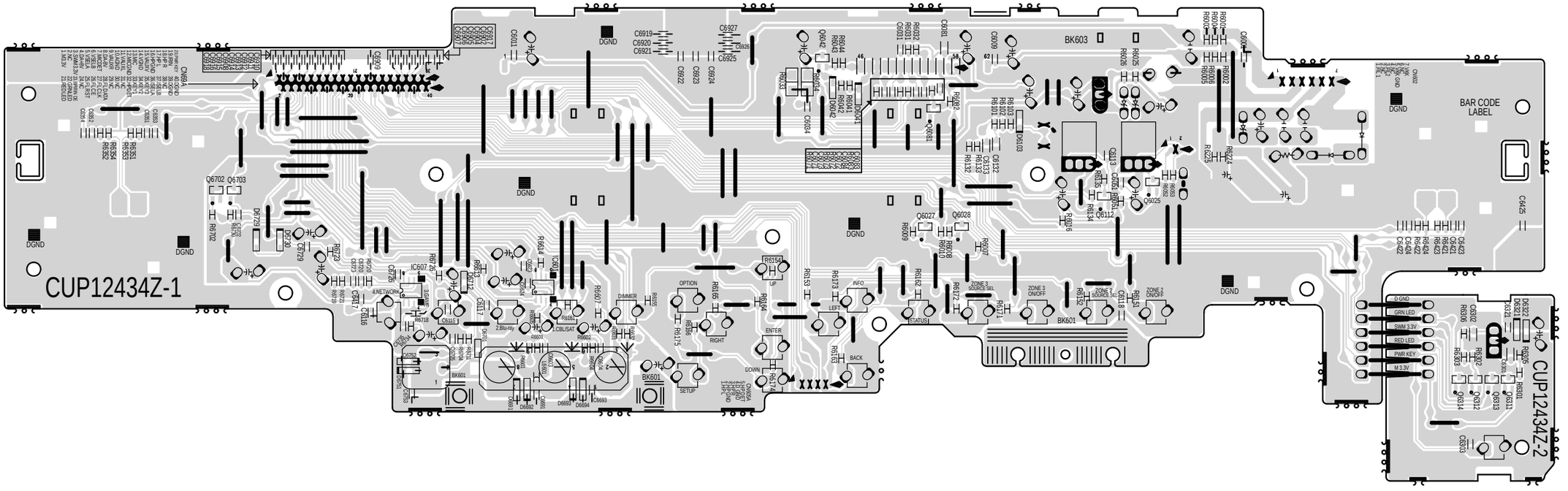
鉛フリー半田
半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。

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

FRONT (COMPONENT SIDE)



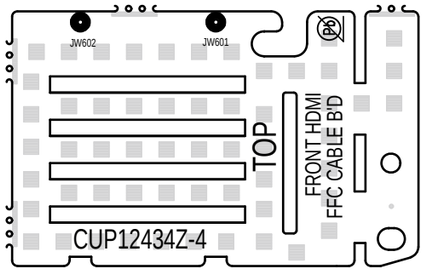
FRONT (FOIL SIDE)



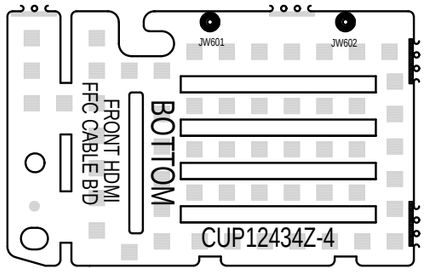
鉛フリー半田
半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。

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

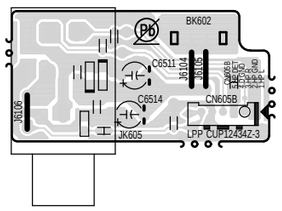
FRONT HDMI FFC CABLE (COMPONENT SIDE)



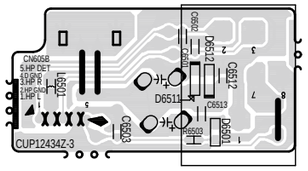
FRONT HDMI FFC CABLE (FOIL SIDE)



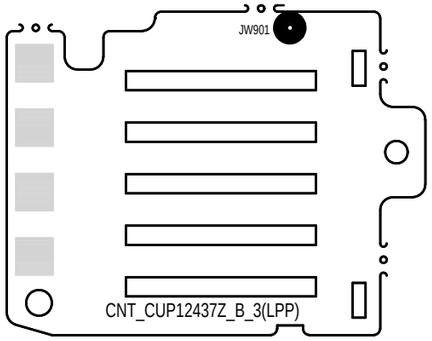
HP (COMPONENT SIDE)



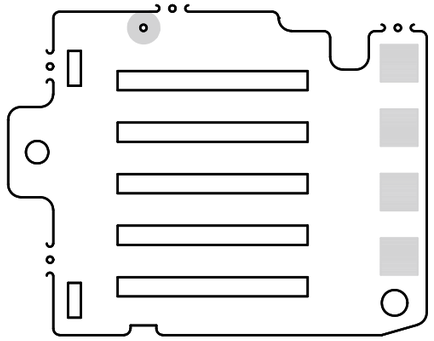
HP (FOIL SIDE)



GUIDE_CNT (COMPONENT SIDE)



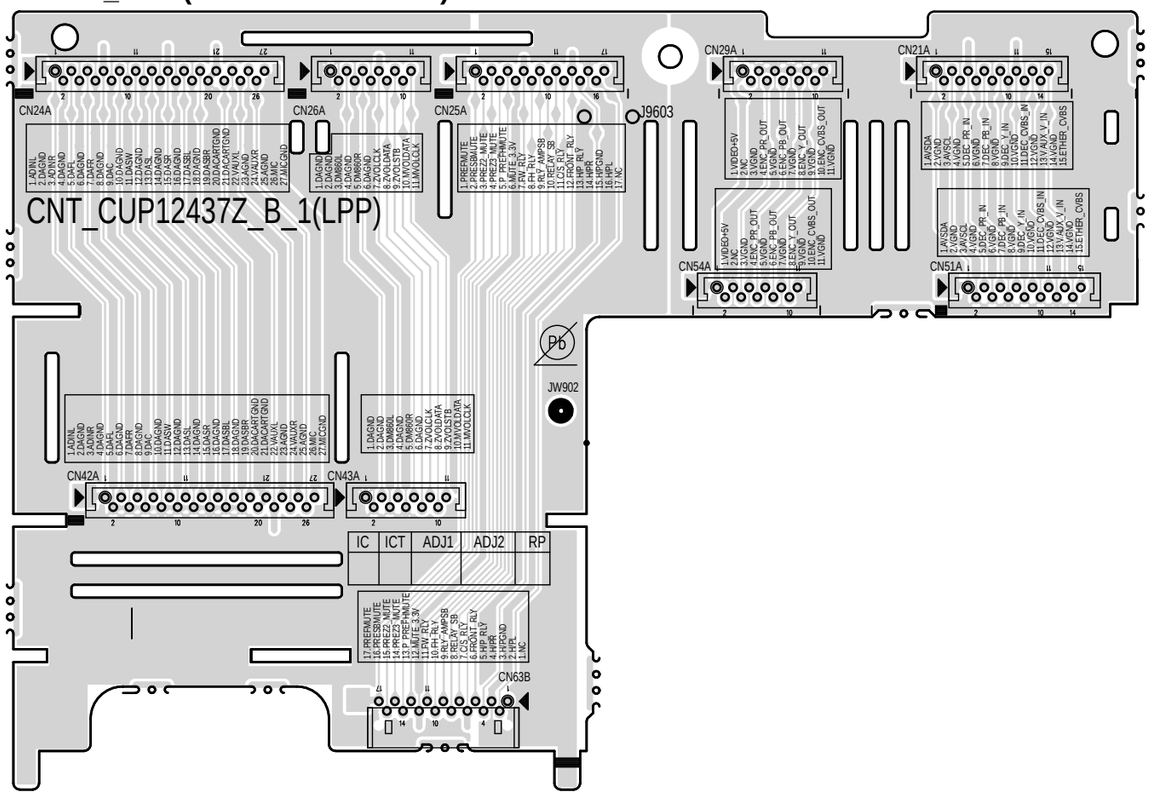
GUIDE_CNT (FOIL SIDE)



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).

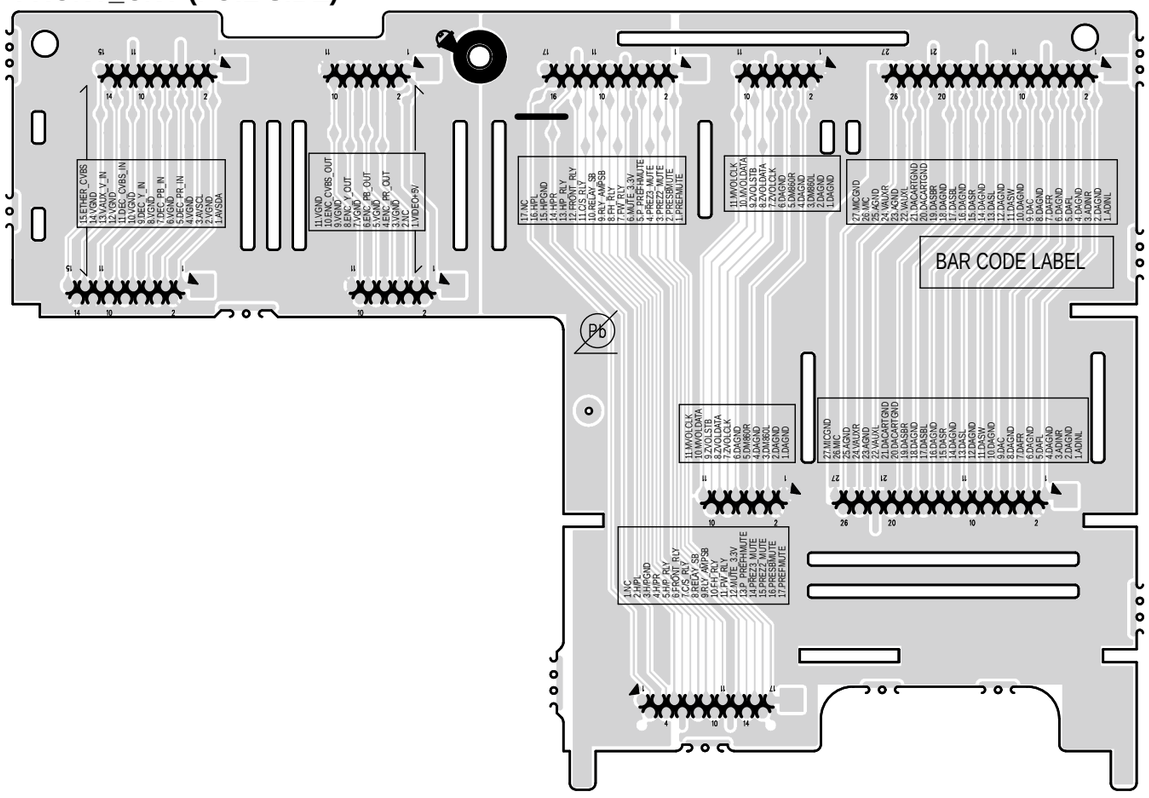
FRONT_CNT (COMPONENT SIDE)



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).

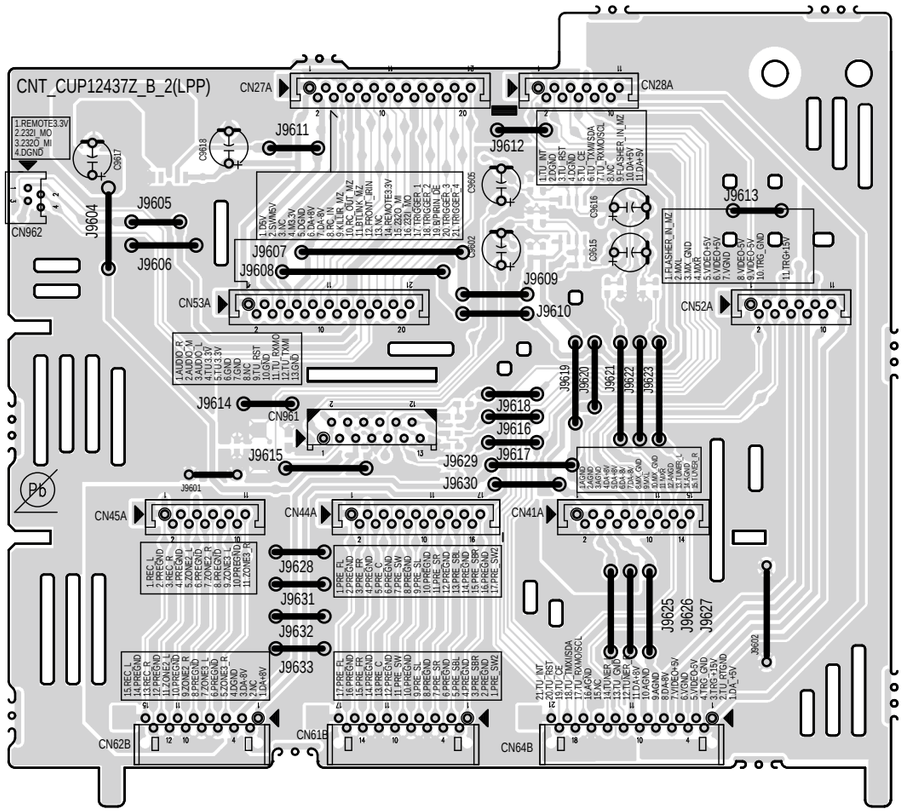
FRONT_CNT (FOIL SIDE)



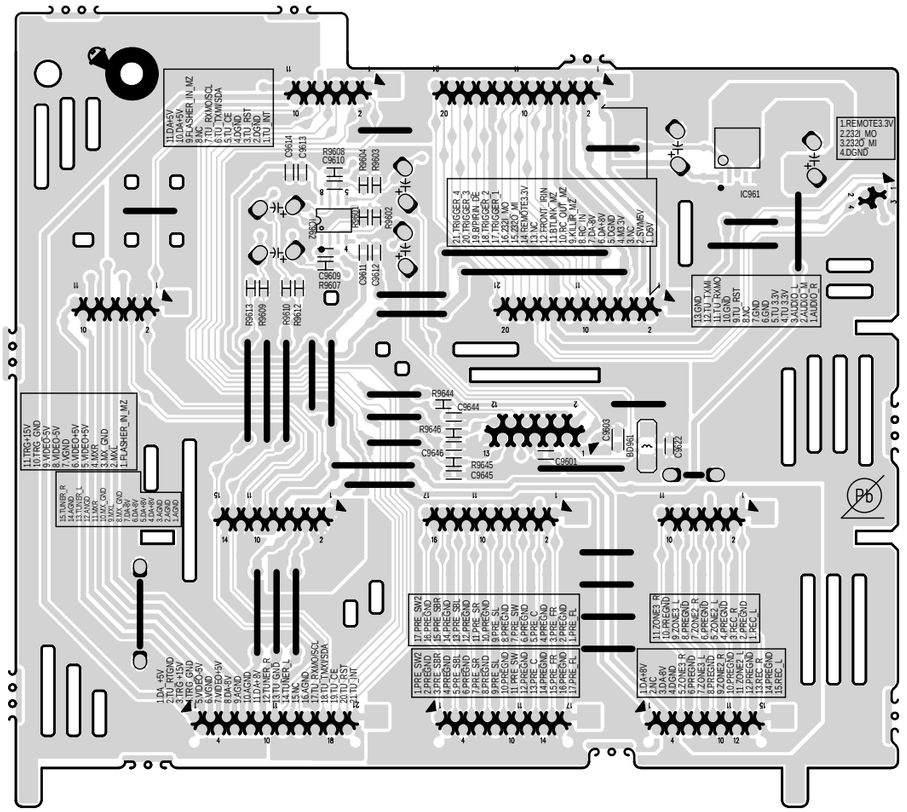
鉛フリー半田
半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。

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

SIDE_CNT (COMPONENT SIDE)



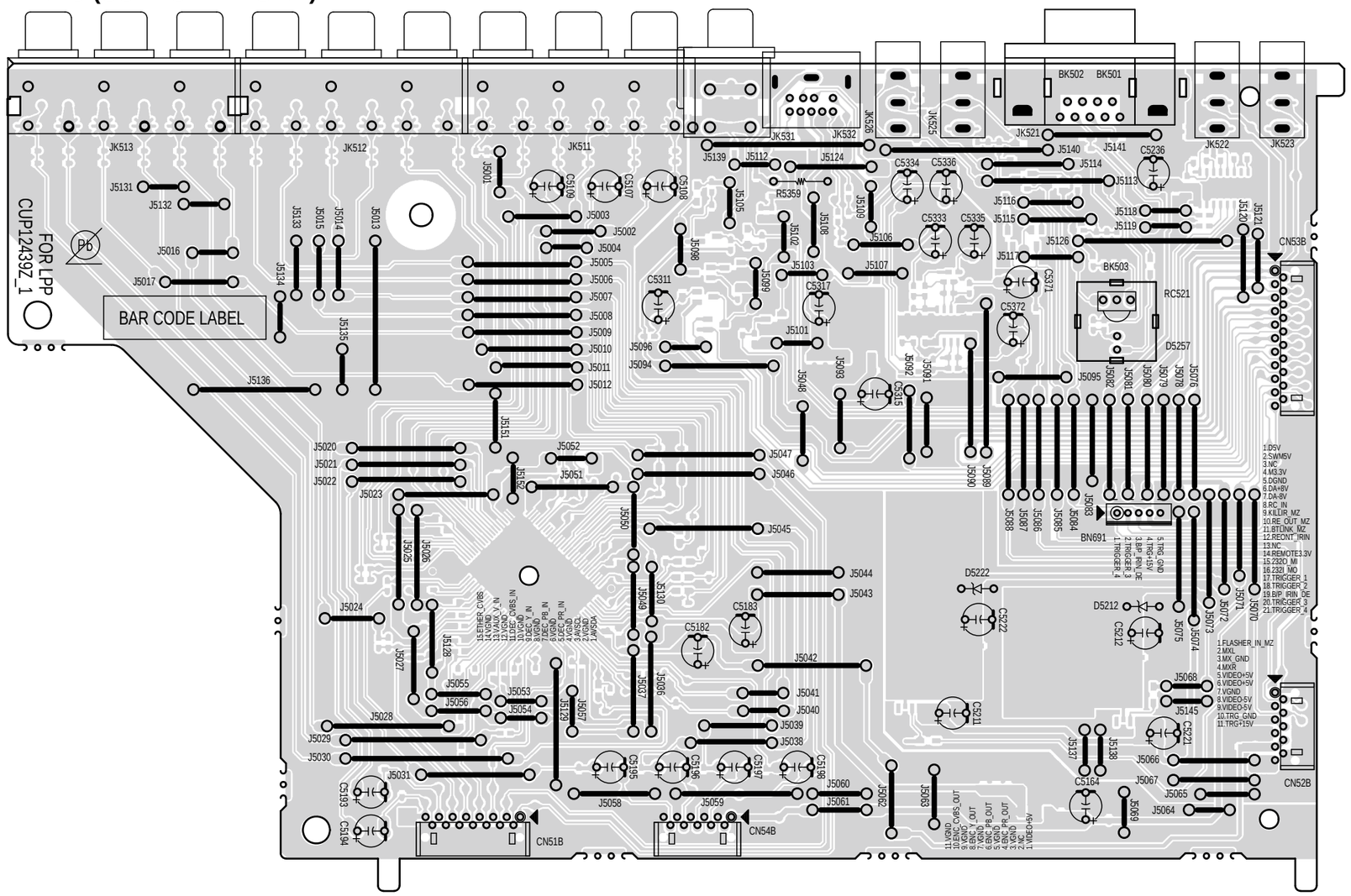
SIDE_CNT (FOIL SIDE)



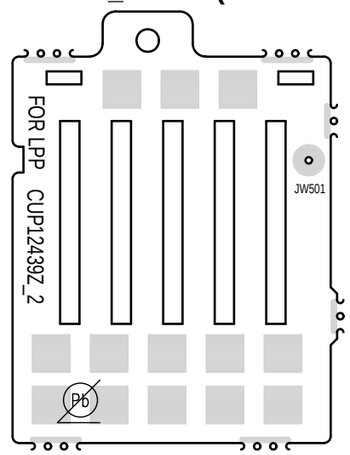
鉛フリー半田
半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。

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

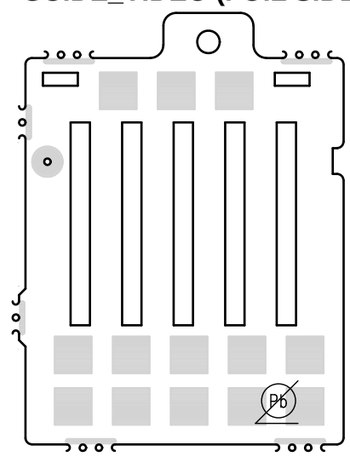
VIDEO (COMPONENT SIDE)



GUIDE_VIDEO (COMPONENT SIDE)



GUIDE_VIDEO (FOIL SIDE)



鉛フリー半田
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Lead-free Solder
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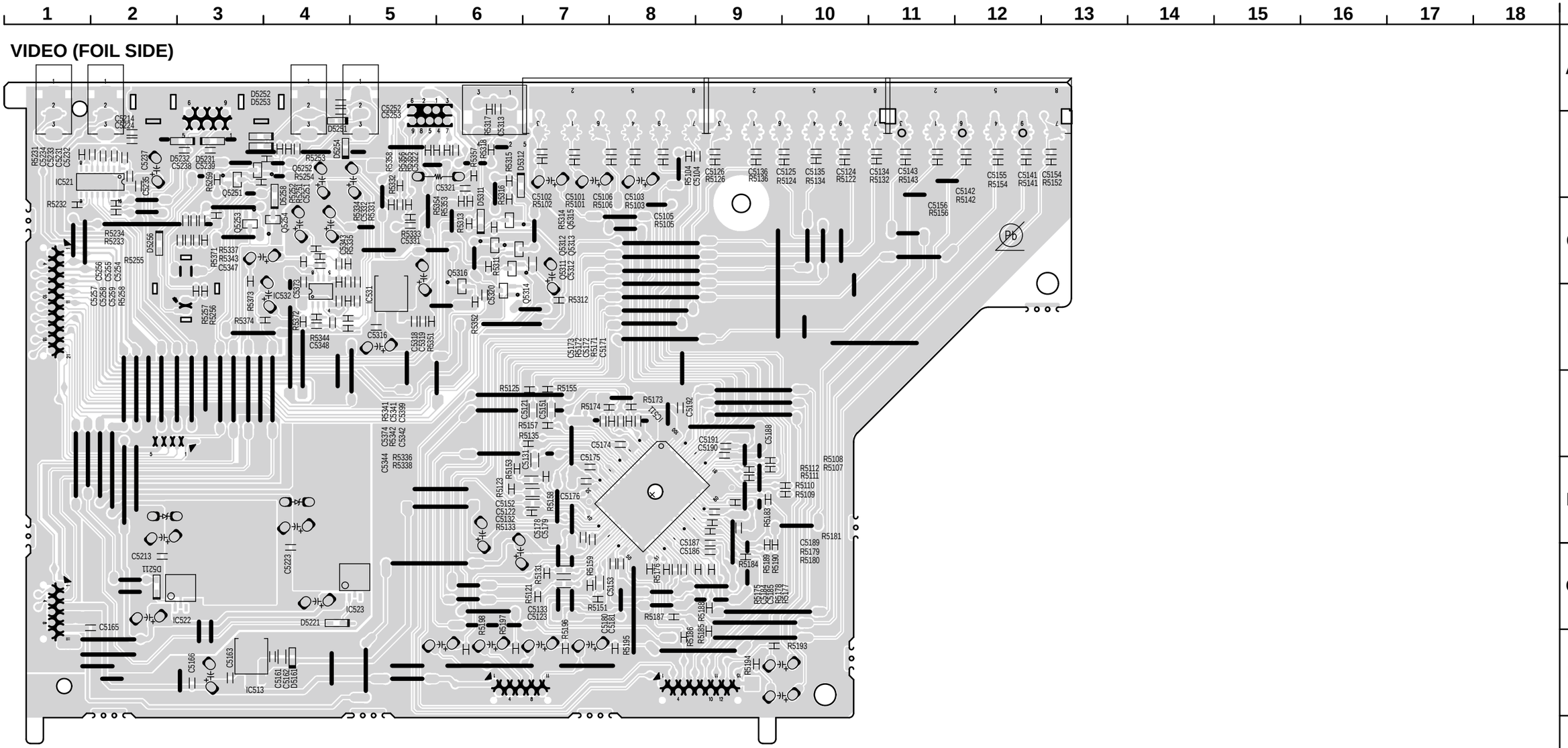
VIDEO (FOIL SIDE)



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Lead-free Solder
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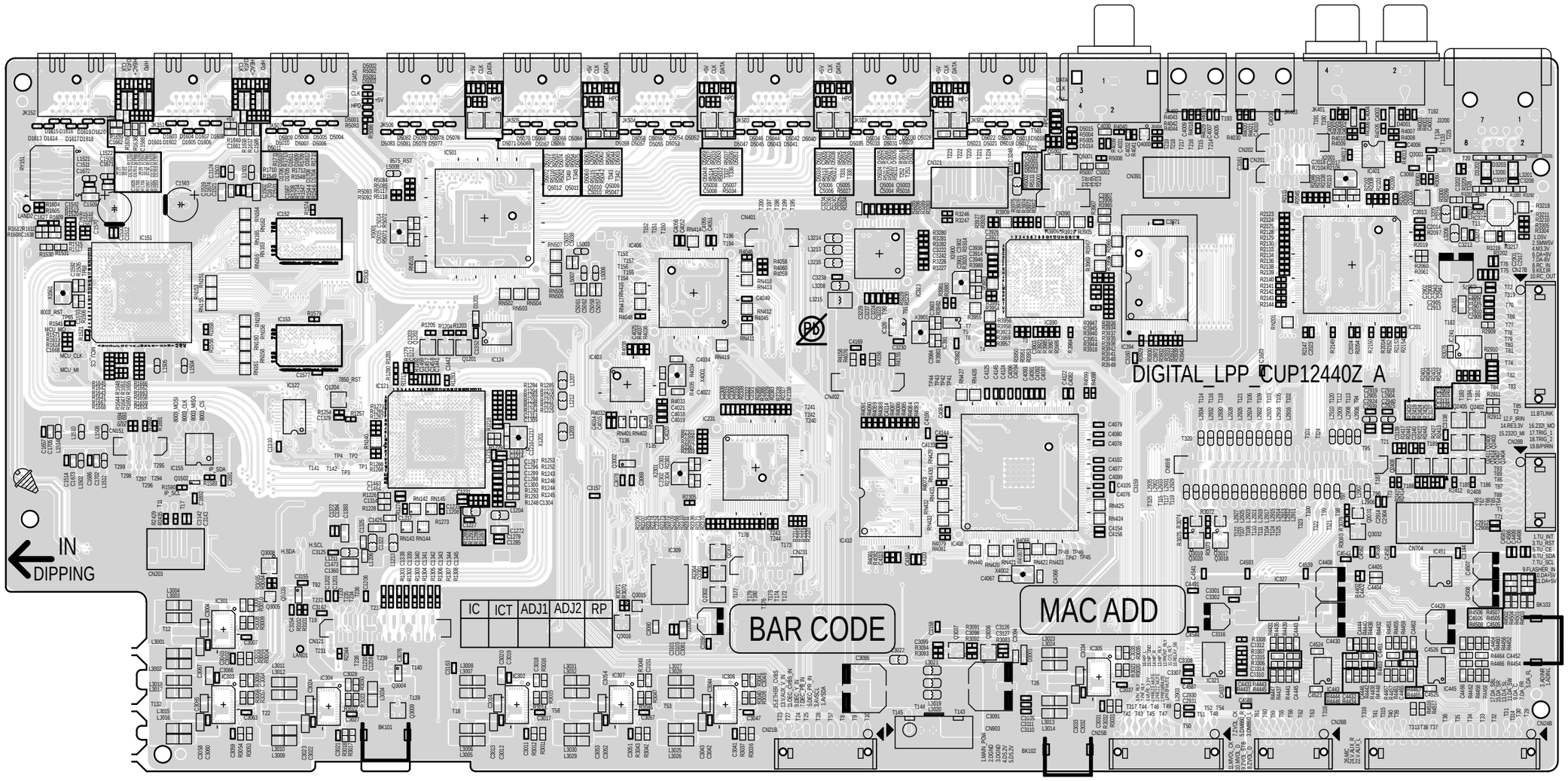
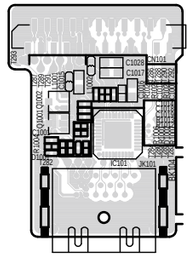
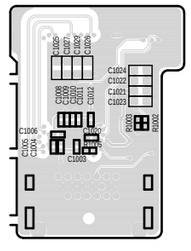
HDMI (COMPONENT SIDE)



FRONT HDMI (COMPONENT SIDE)



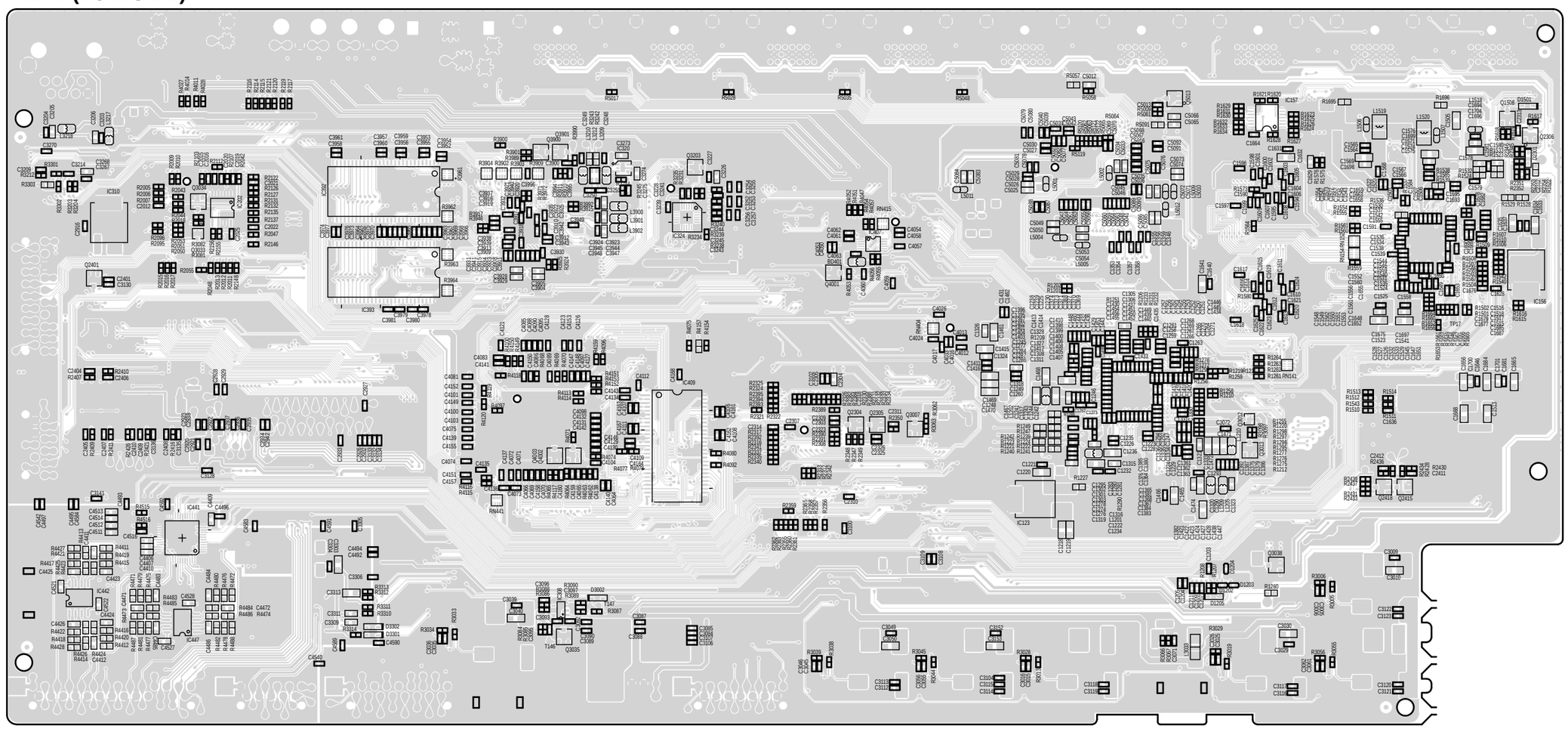
FRONT HDMI (FOIL SIDE)



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 (FOIL SIDE)



鉛フリー半田
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Lead-free Solder
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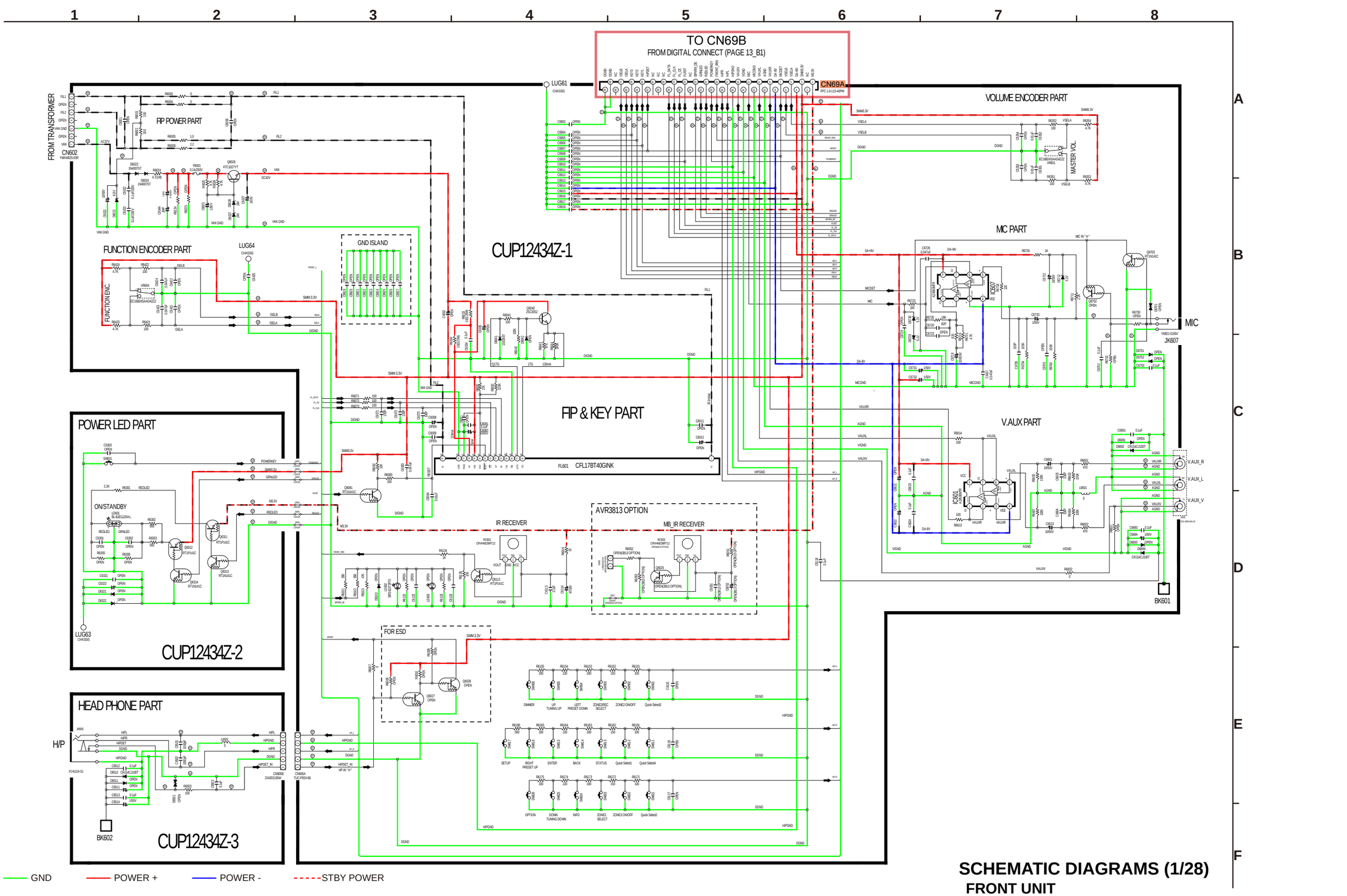
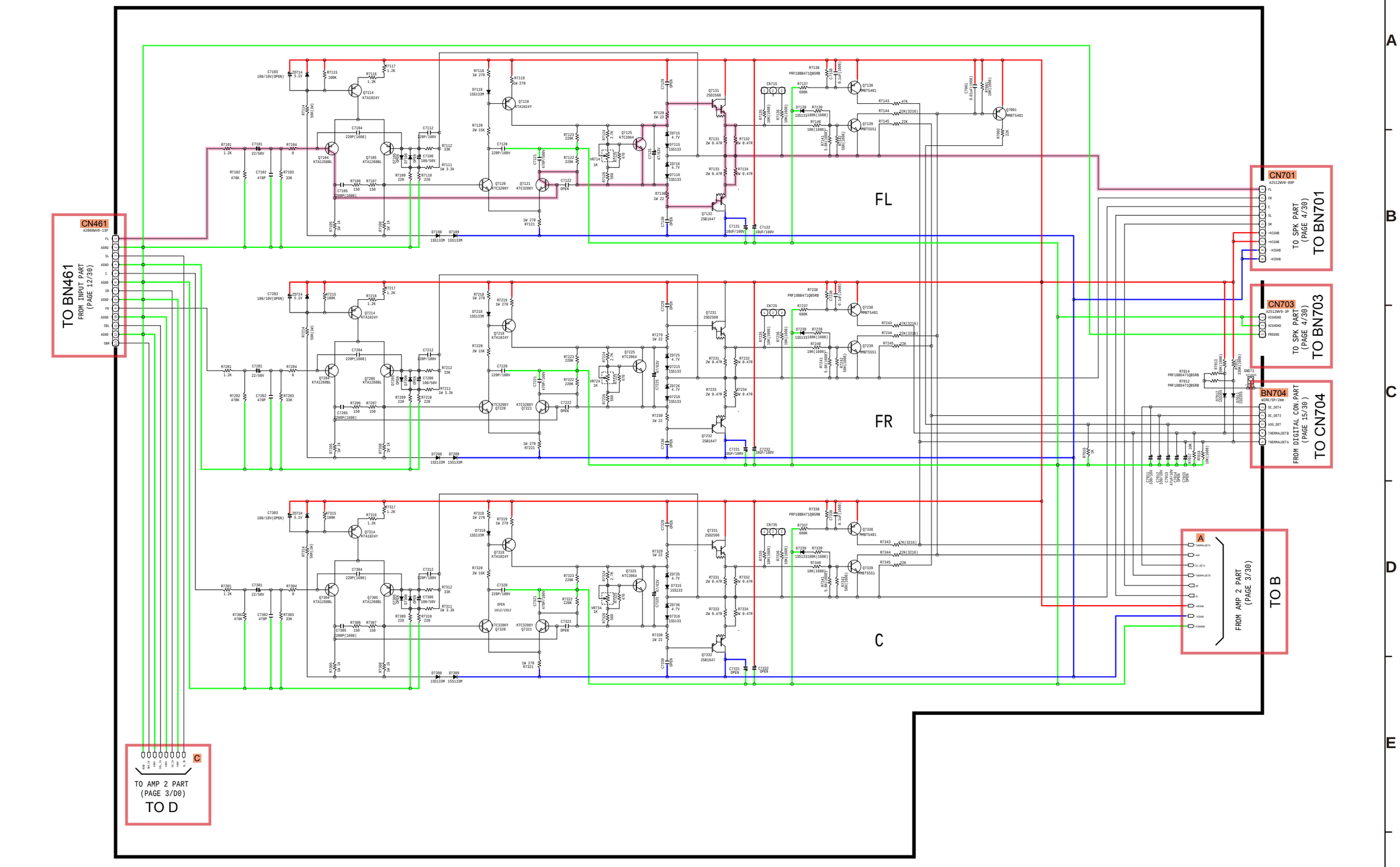


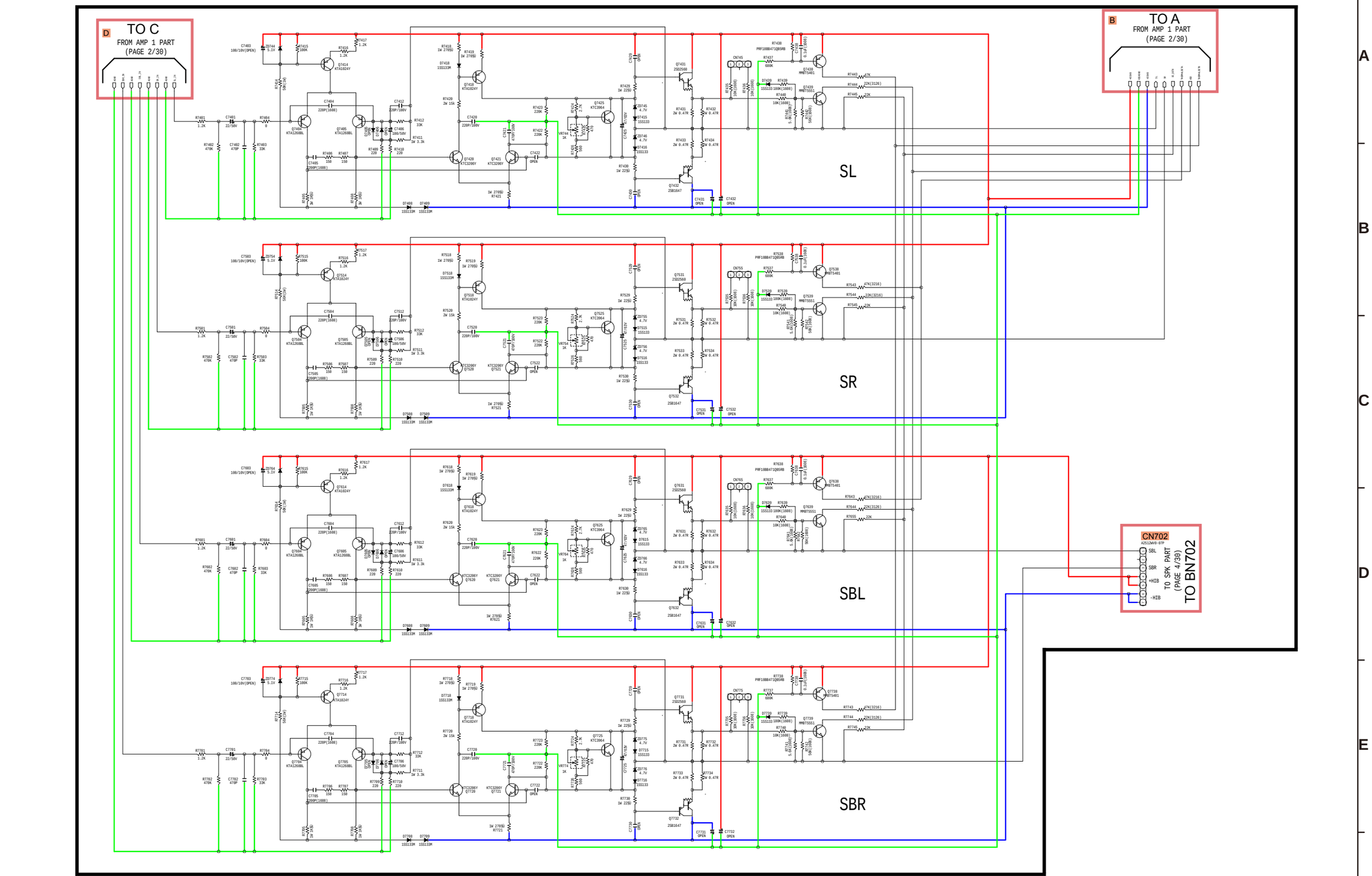
SCHEMATIC DIAGRAMS (1/28)

FRONT UNIT



GND POWER + POWER - STBY POWER ANALOG AUDIO SIGNAL LINE

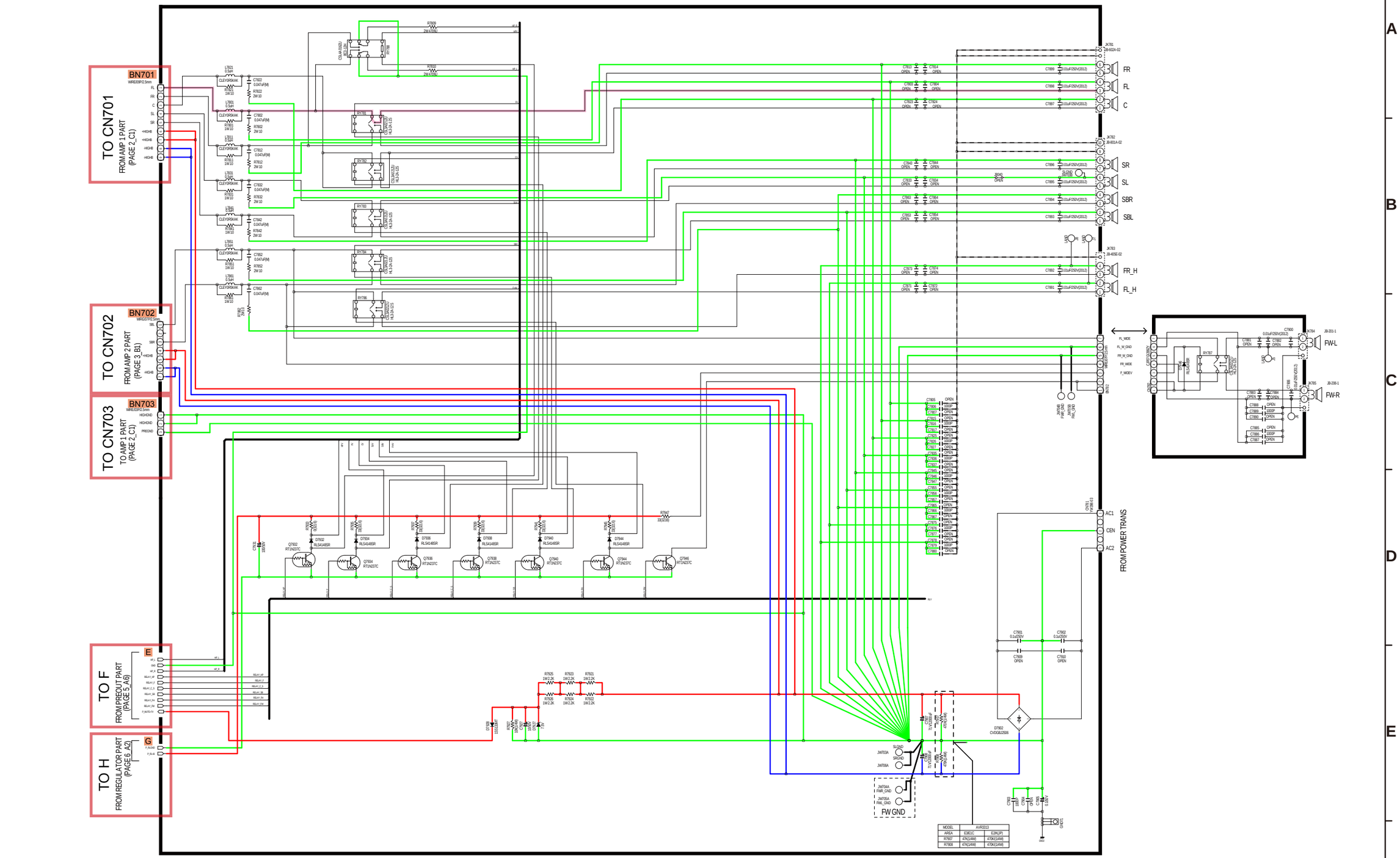
SCHEMATIC DIAGRAMS (2/28)
AMP UNIT (1/2)



GND POWER + POWER - STBY POWER

SCHEMATIC DIAGRAMS (3/28)

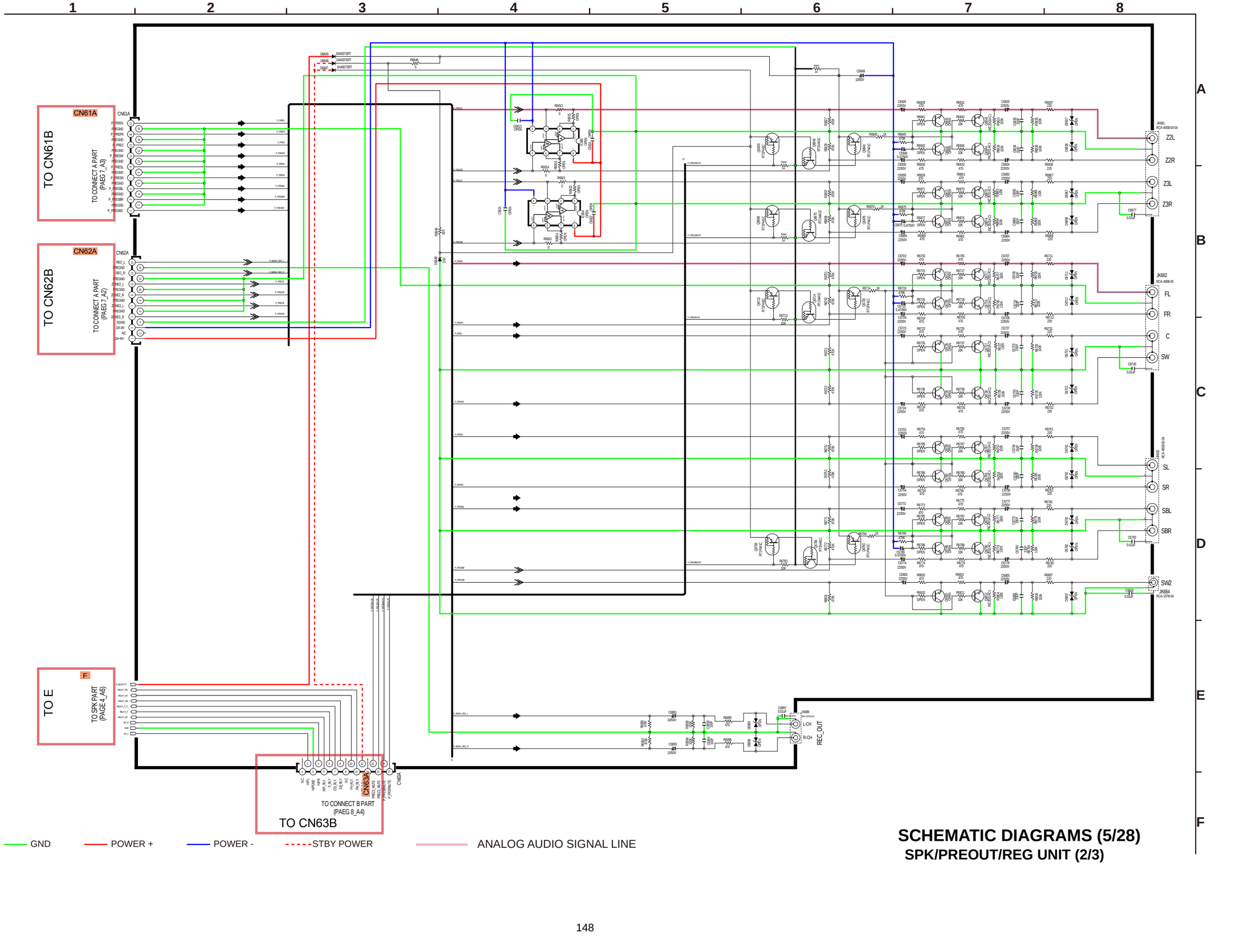
AMP UNIT (2/2)



GND POWER + POWER - STBY POWER ANALOG AUDIO SIGNAL LINE

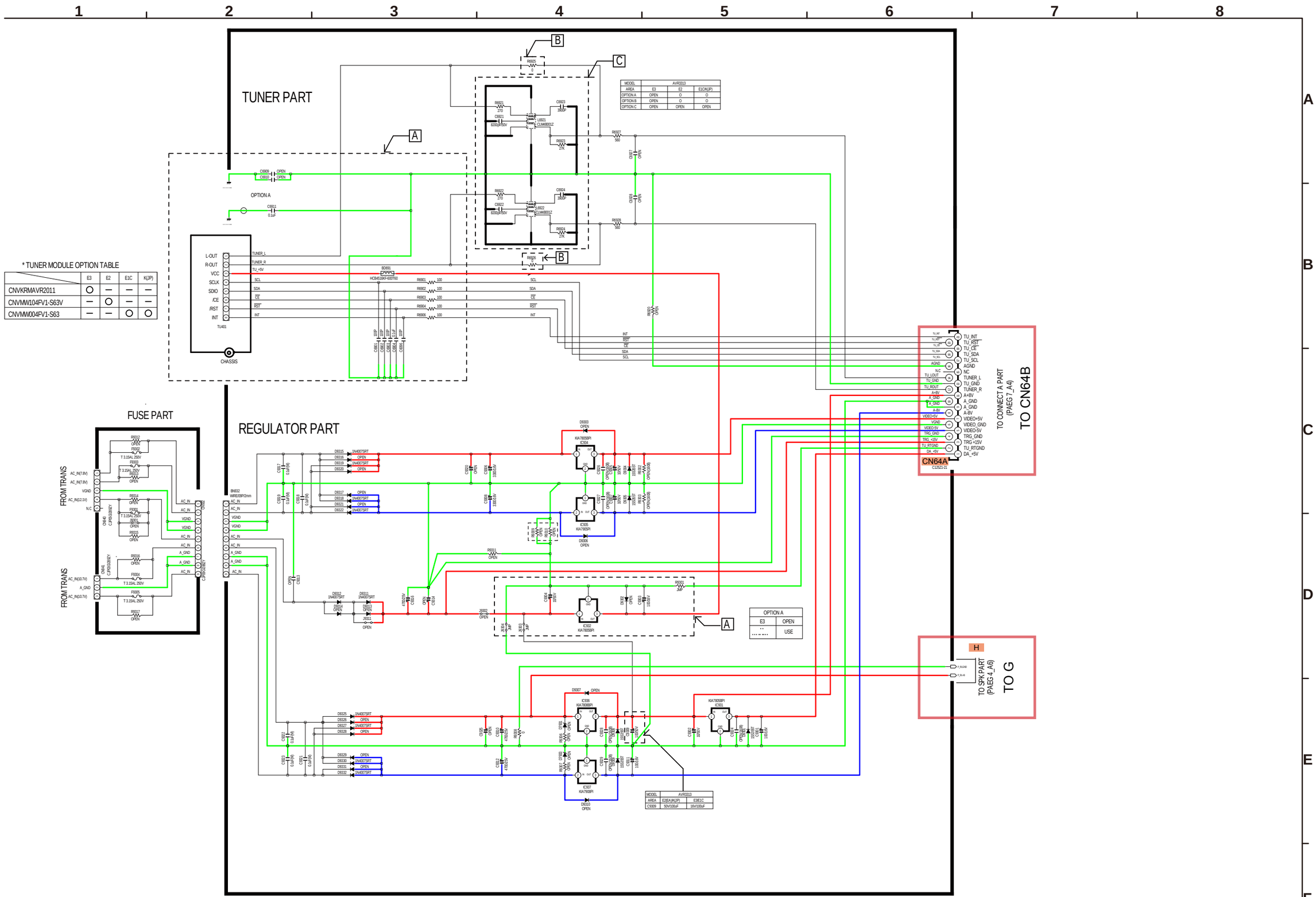
SCHEMATIC DIAGRAMS (4/28)

SPK/PREOUT/REG UNIT (1/3)



SCHEMATIC DIAGRAMS (5/28)

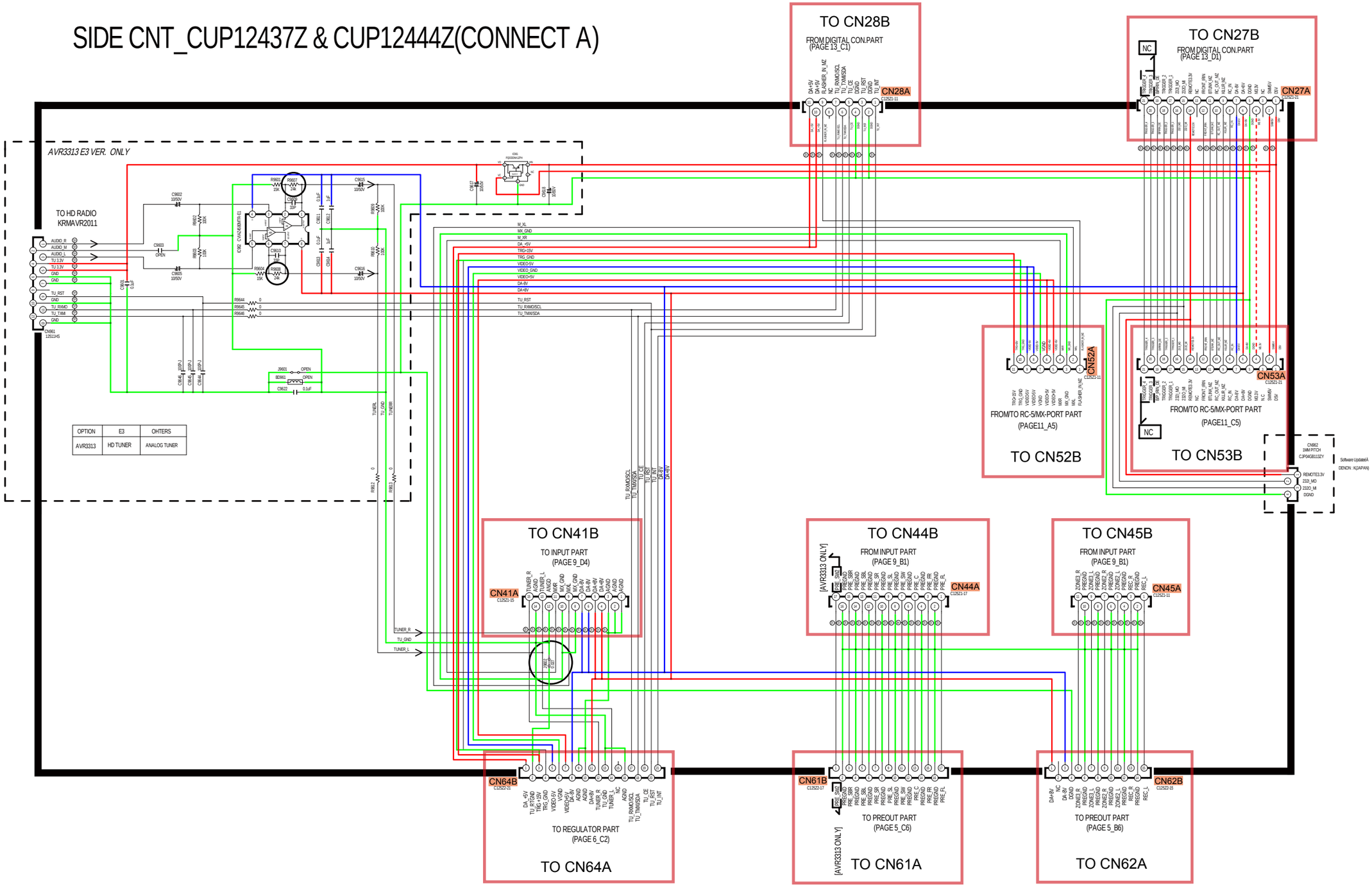
SPK/PREOUT/REG UNIT (2/3)



SCHEMATIC DIAGRAMS (6/28)

SPK/PREOUT/REG UNIT (3/3)

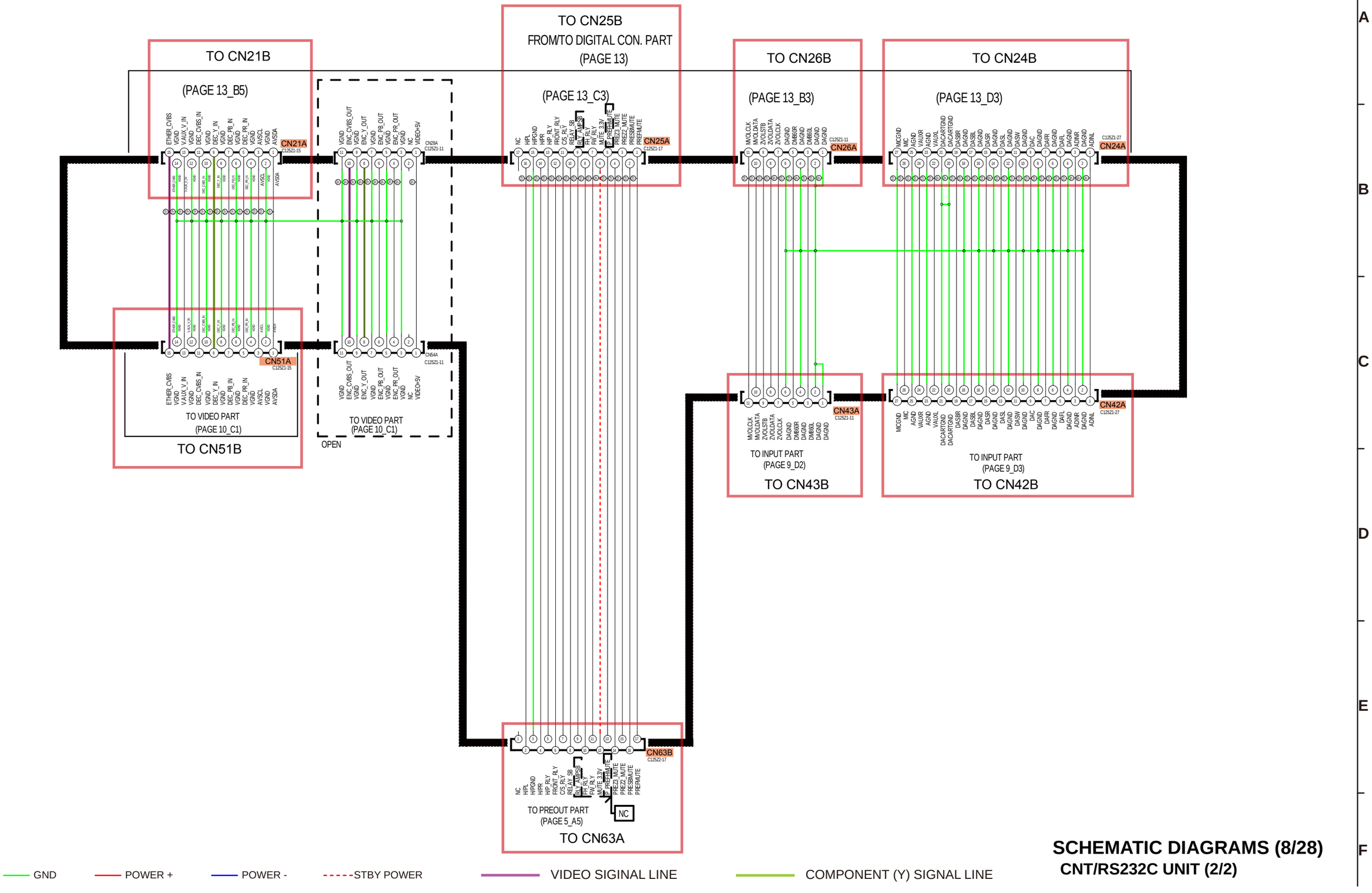
SIDE CNT_CUP12437Z & CUP12444Z(CONNECT A)



SCHEMATIC DIAGRAMS (7/28)

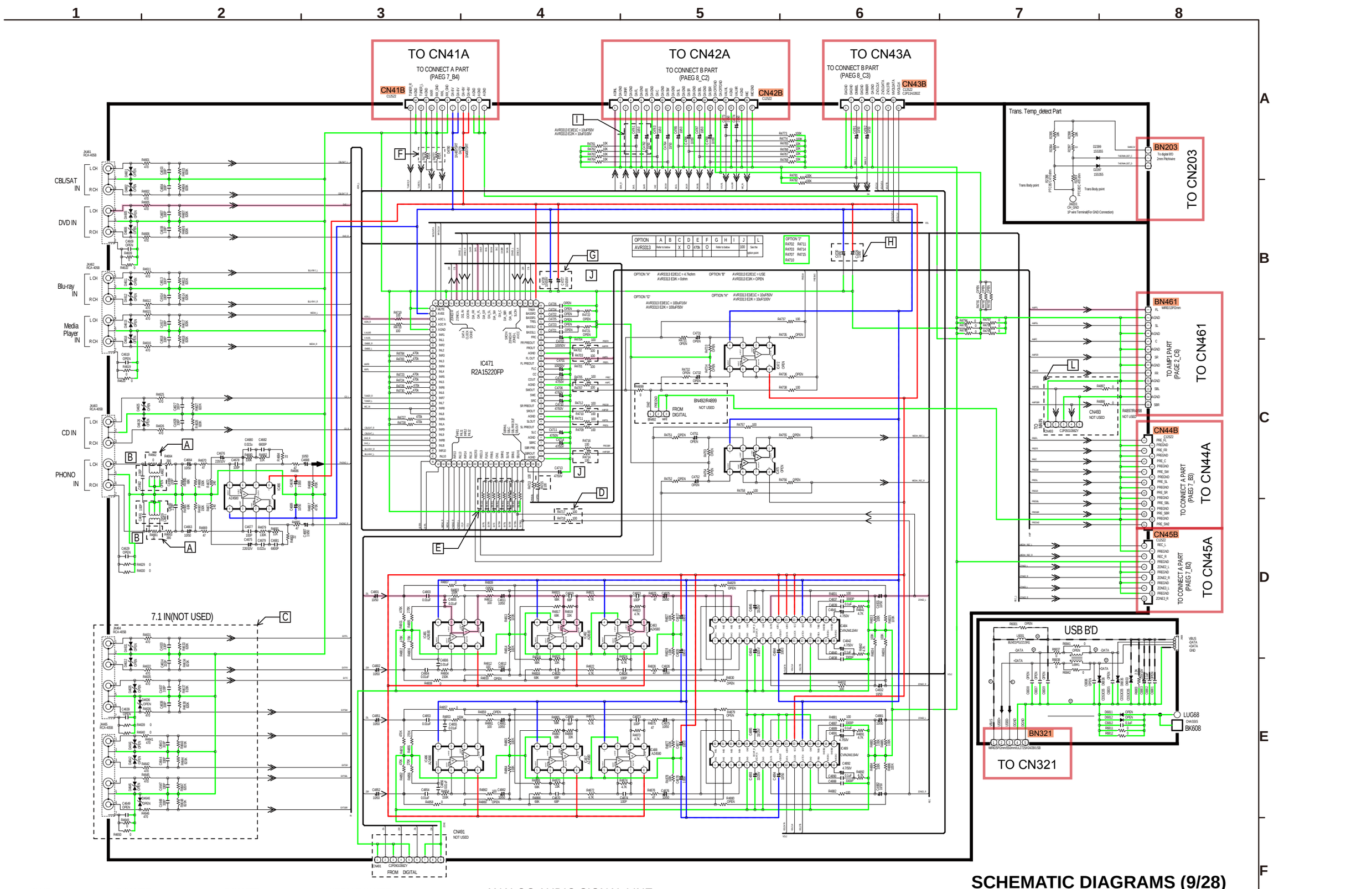
CNT/RS232C UNIT (1/2)

FRT CNT_CUP12437Z & CUP12444Z(CONNECT B)



GND — POWER + — POWER - — STBY POWER — VIDEO SIGINAL LINE — COMPONENT (Y) SIGNAL LINE

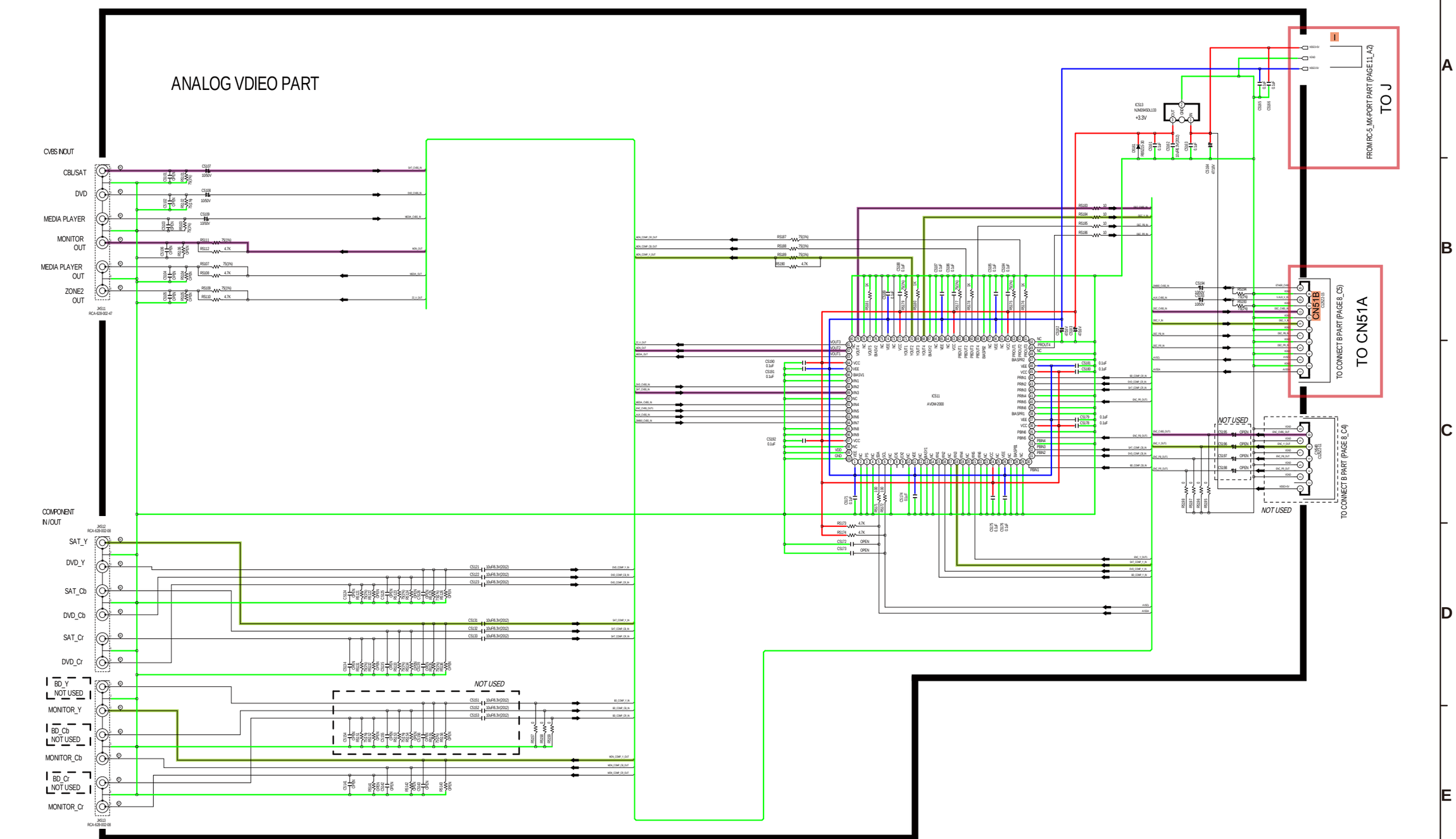
SCHEMATIC DIAGRAMS (8/28)
CNT/RS232C UNIT (2/2)



SCHEMATIC DIAGRAMS (9/28)

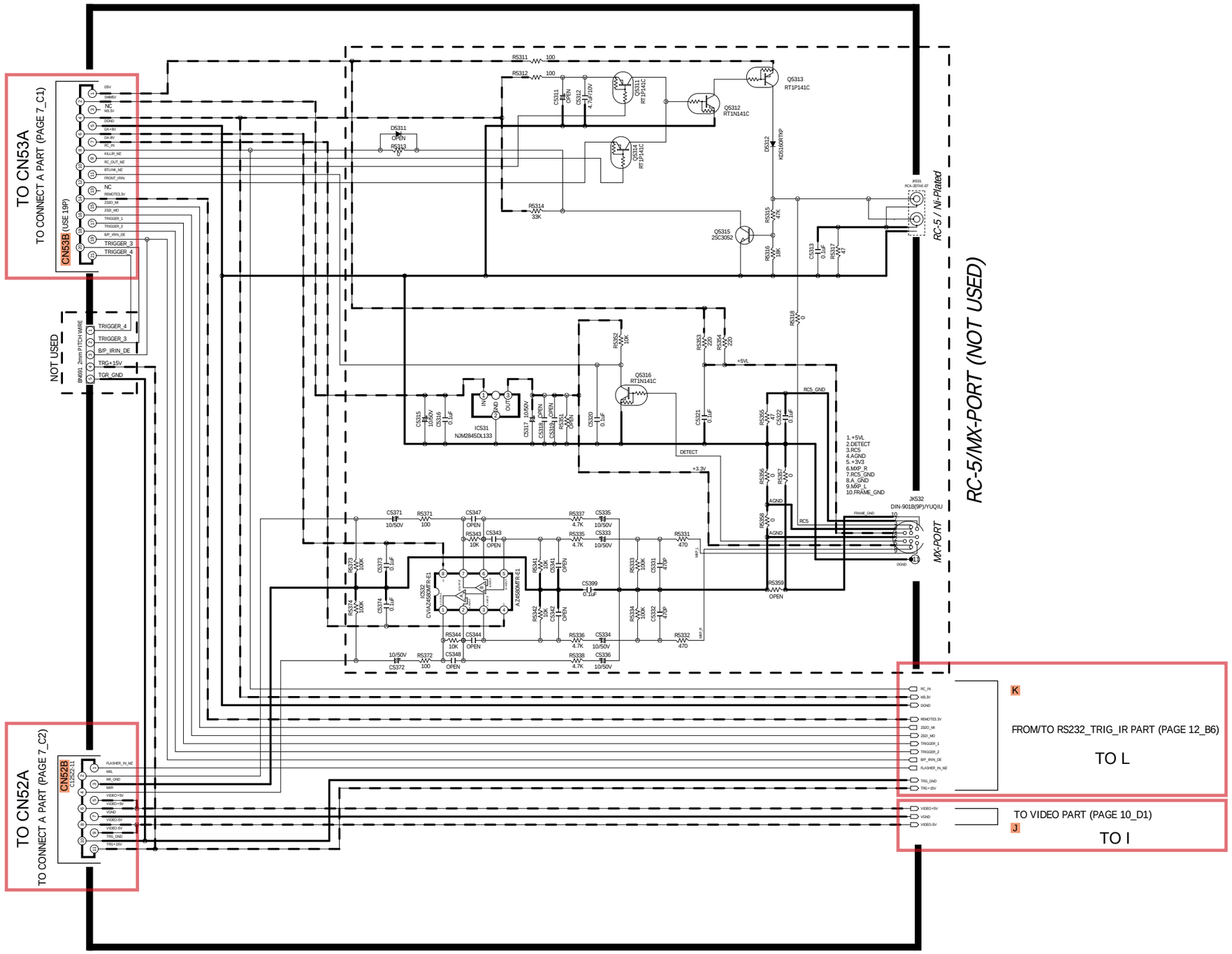
INPUT UNIT

USB UNIT



SCHEMATIC DIAGRAMS (10/28)
VIDEO UNIT (1/3)

RC-5 / MX-PORT



GND POWER + POWER - STBY POWER

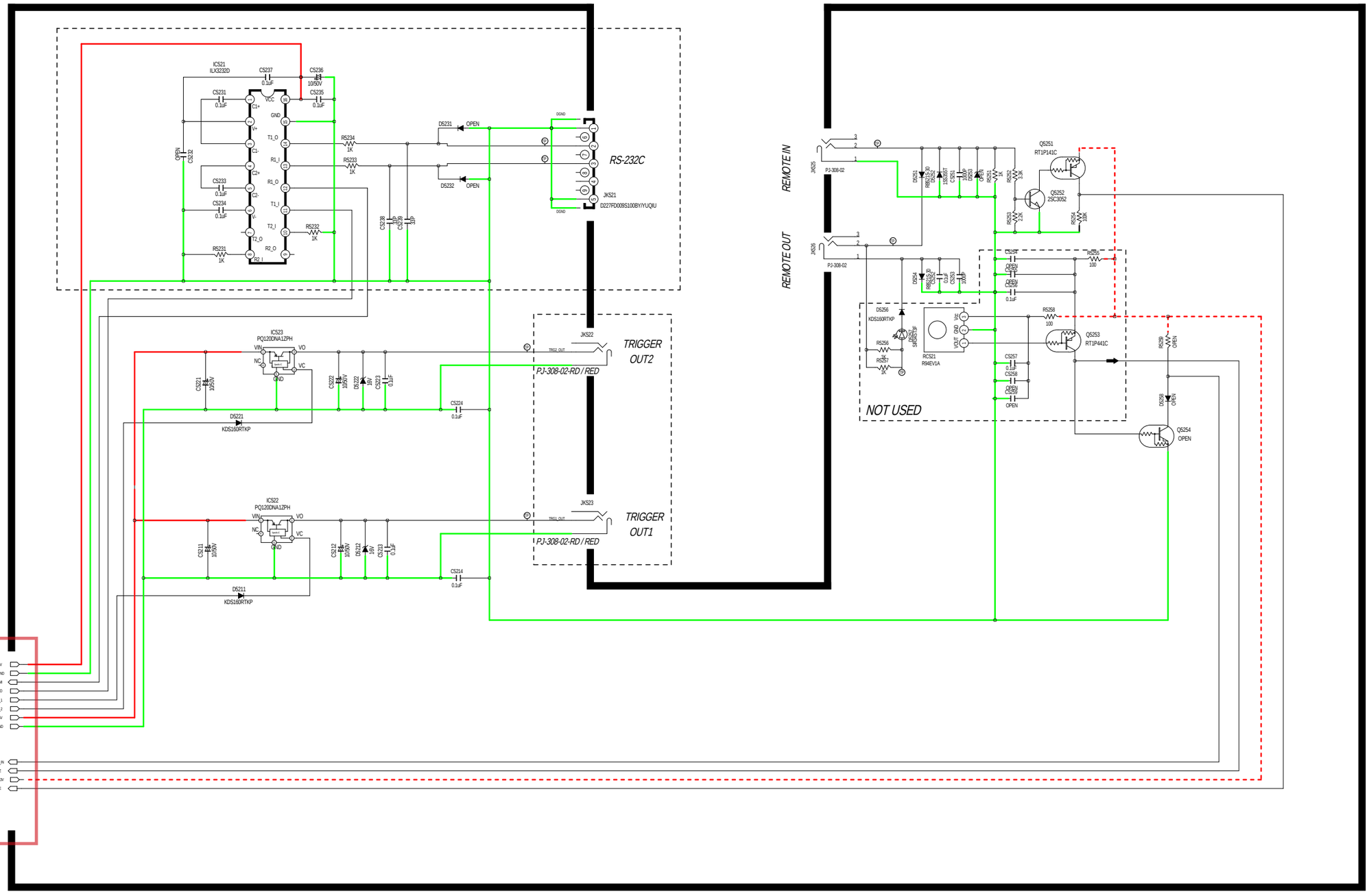
SCHEMATIC DIAGRAMS (11/28)
VIDEO UNIT (2/3)

 # RS-232C Local Options

	AVR3313
E3 (USA)	MOUNT
E2 (EUR)	MOUNT
E1C (CHN)	MOUNT
K (JPN)	*OPEN*

 # In this case, FFC Wafer (4pin/1.0mm) will be mounted on the SIDE-CNT (CN962)

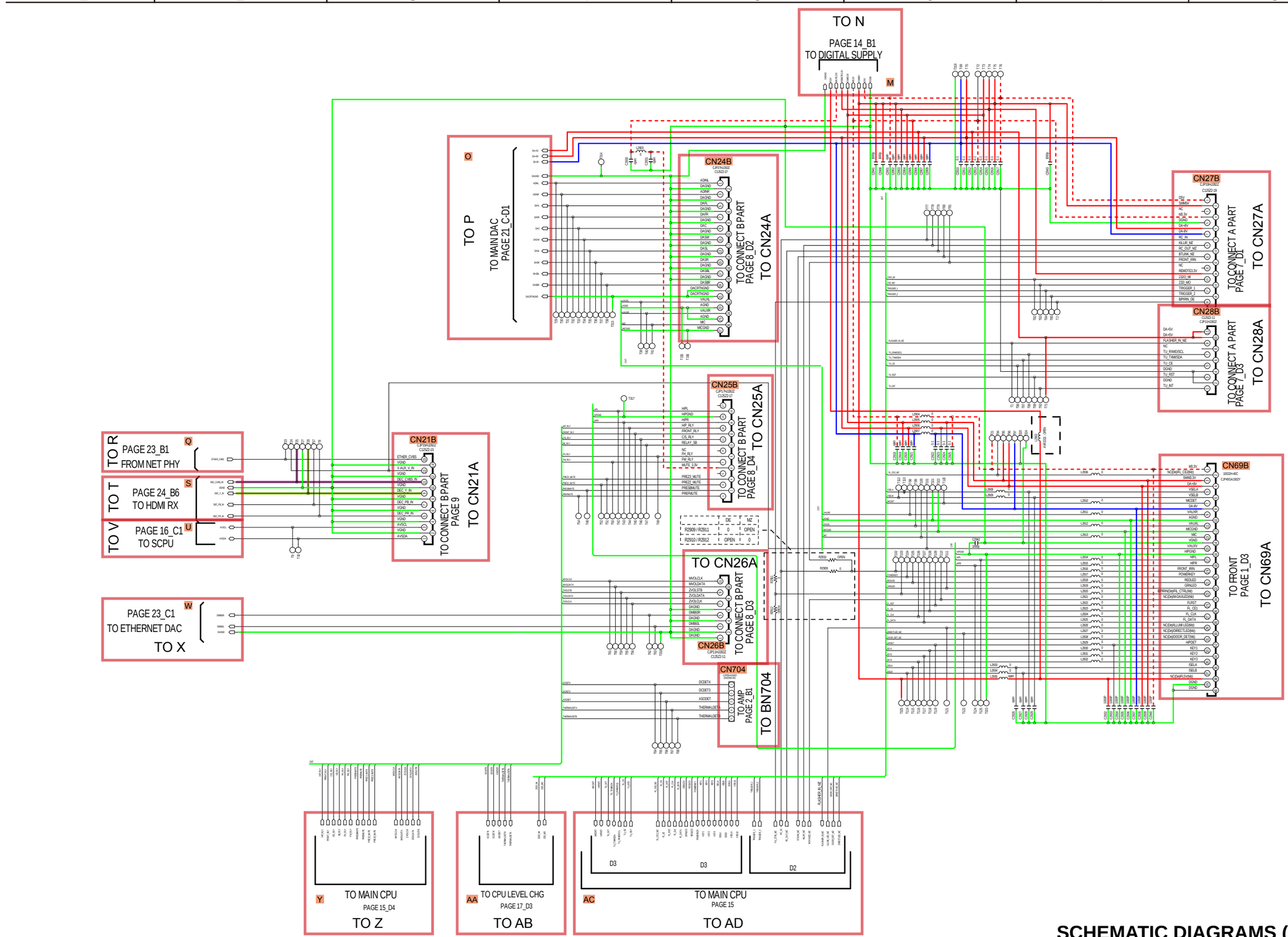
RS232C/TRIGGER



IR / FLASHER

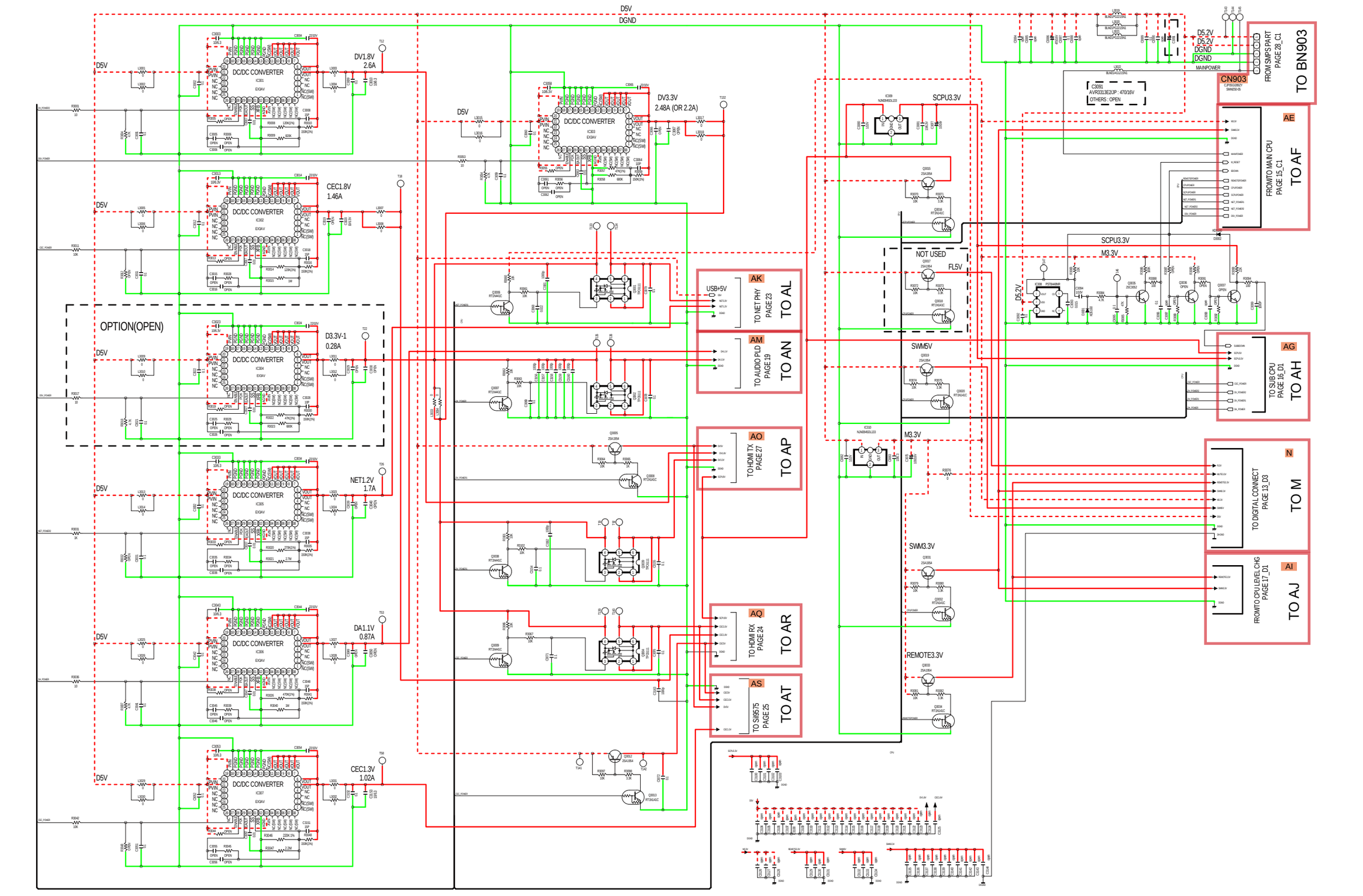
GND — POWER + — POWER - — STBY POWER

SCHEMATIC DIAGRAMS (12/28)
VIDEO UNIT (3/3)



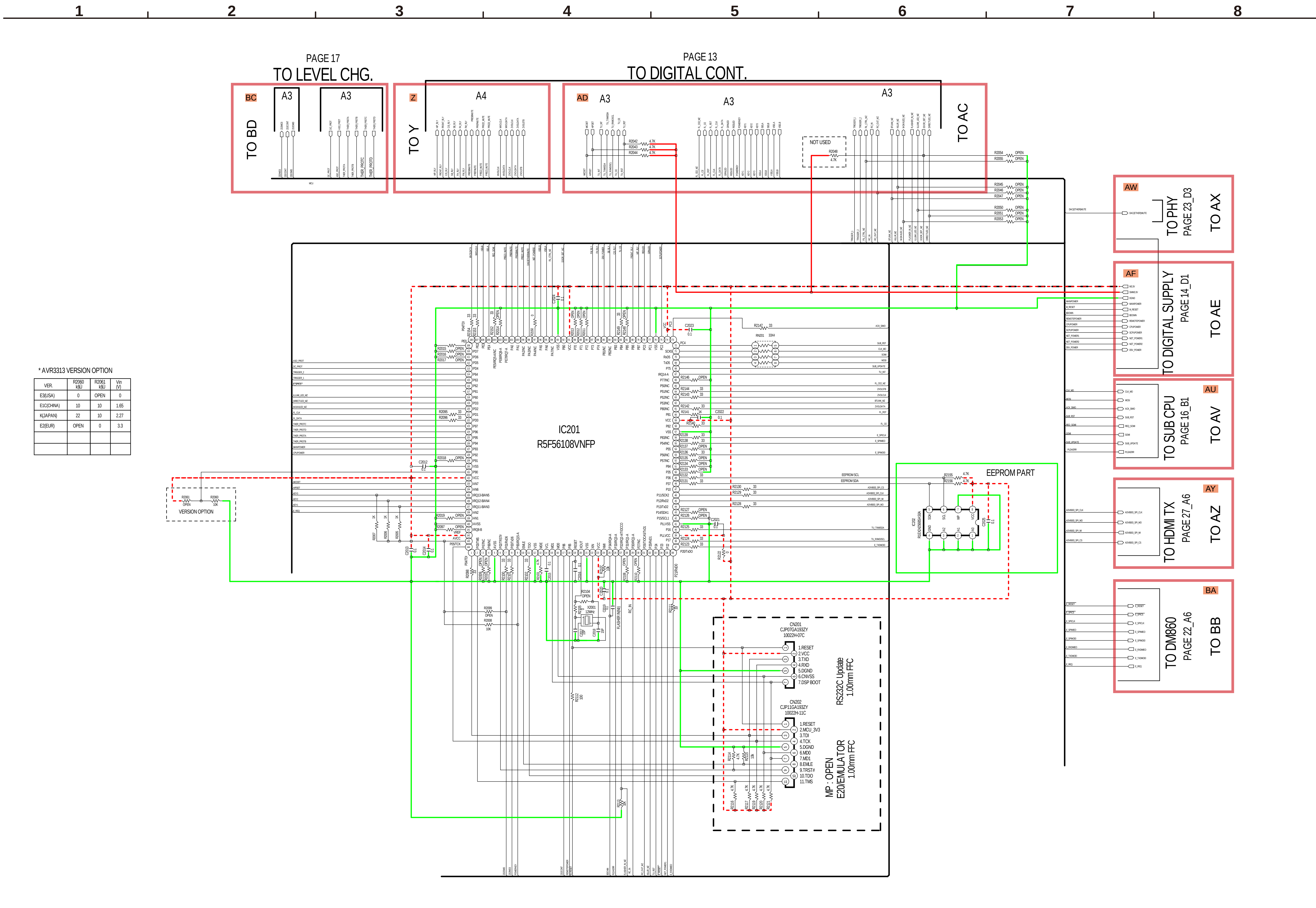
GND POWER + POWER - STBY POWER VIDEO SIGINAL LINE COMPONENT (Y) SIGNAL LINE

SCHEMATIC DIAGRAMS (13/28)
DIGITAL UNIT (1/15)



SCHEMATIC DIAGRAMS (14/28)

DIGITAL UNIT (2/15)

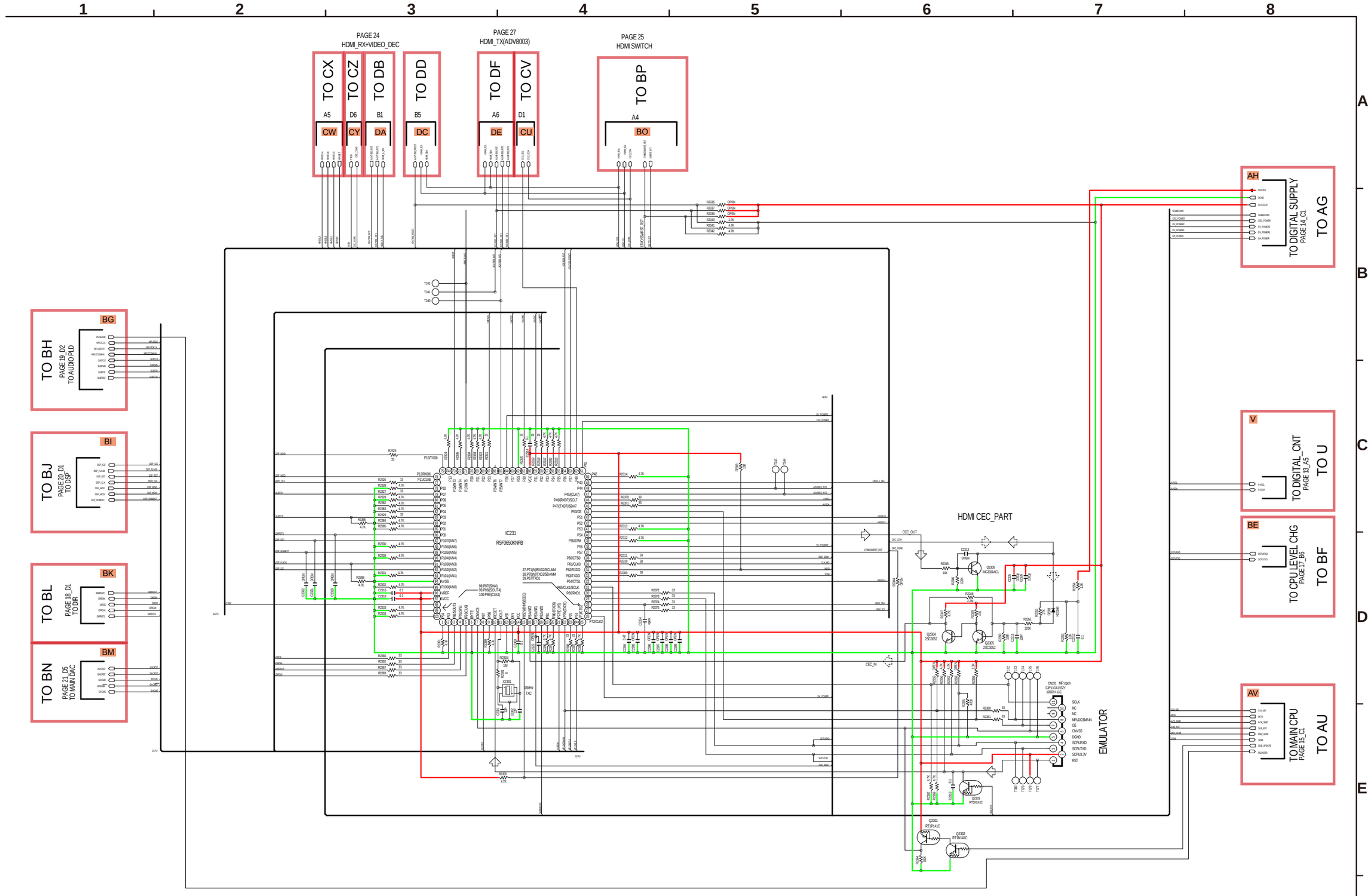


* AVR3313 VERSION OPTION

VER.	R2060 k§Ù	R2061 k§Ù	Vin (V)
E3(USA)	0	OPEN	0
E1C(CHINA)	10	10	1.65
K(JAPAN)	22	10	2.27
E2(EUR)	OPEN	0	3.3

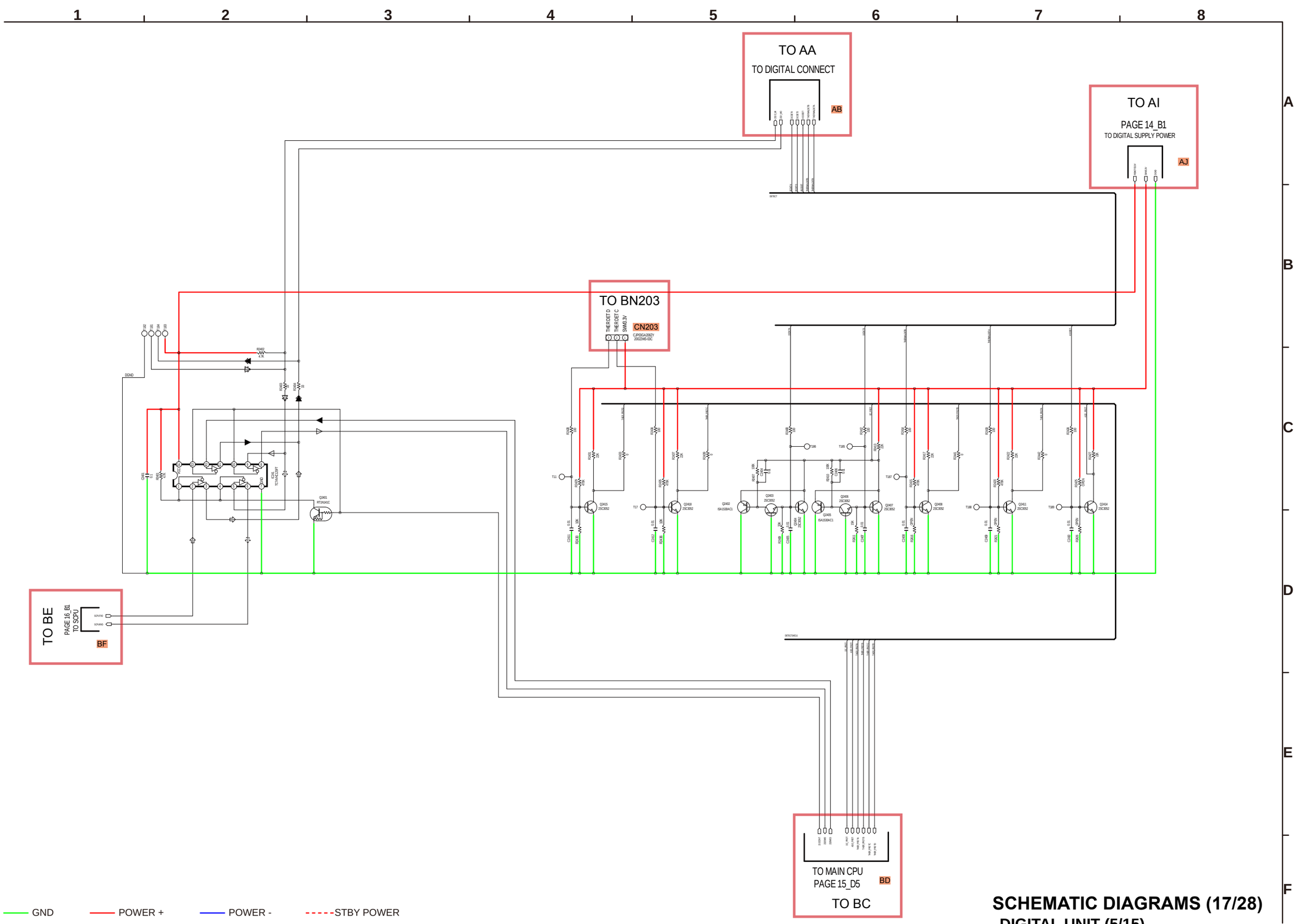
GND POWER + POWER - STBY POWER

SCHEMATIC DIAGRAMS (15/28)
DIGITAL UNIT (3/15)

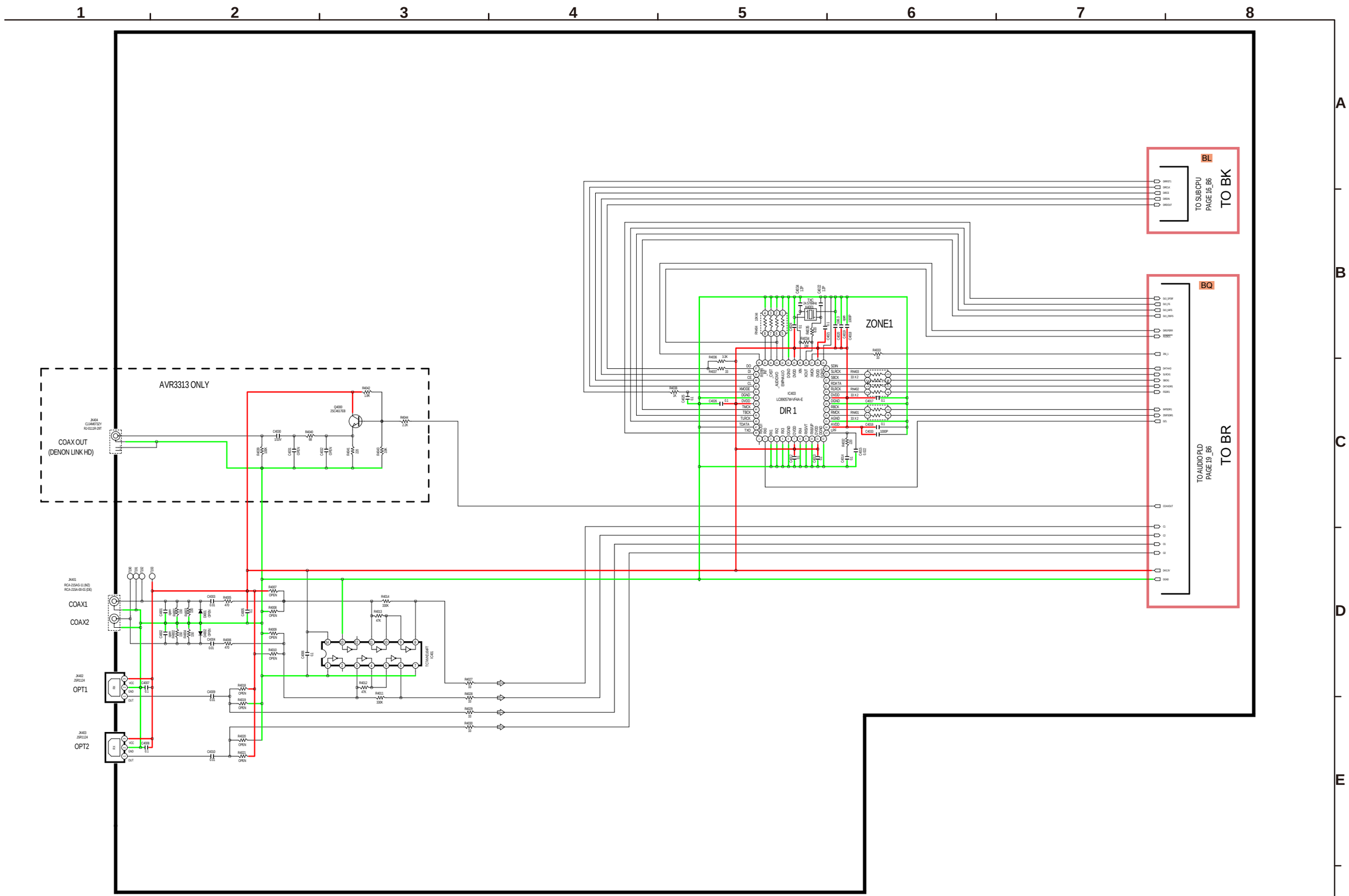


SCHEMATIC DIAGRAMS (16/28)

DIGITAL UNIT (4/15)

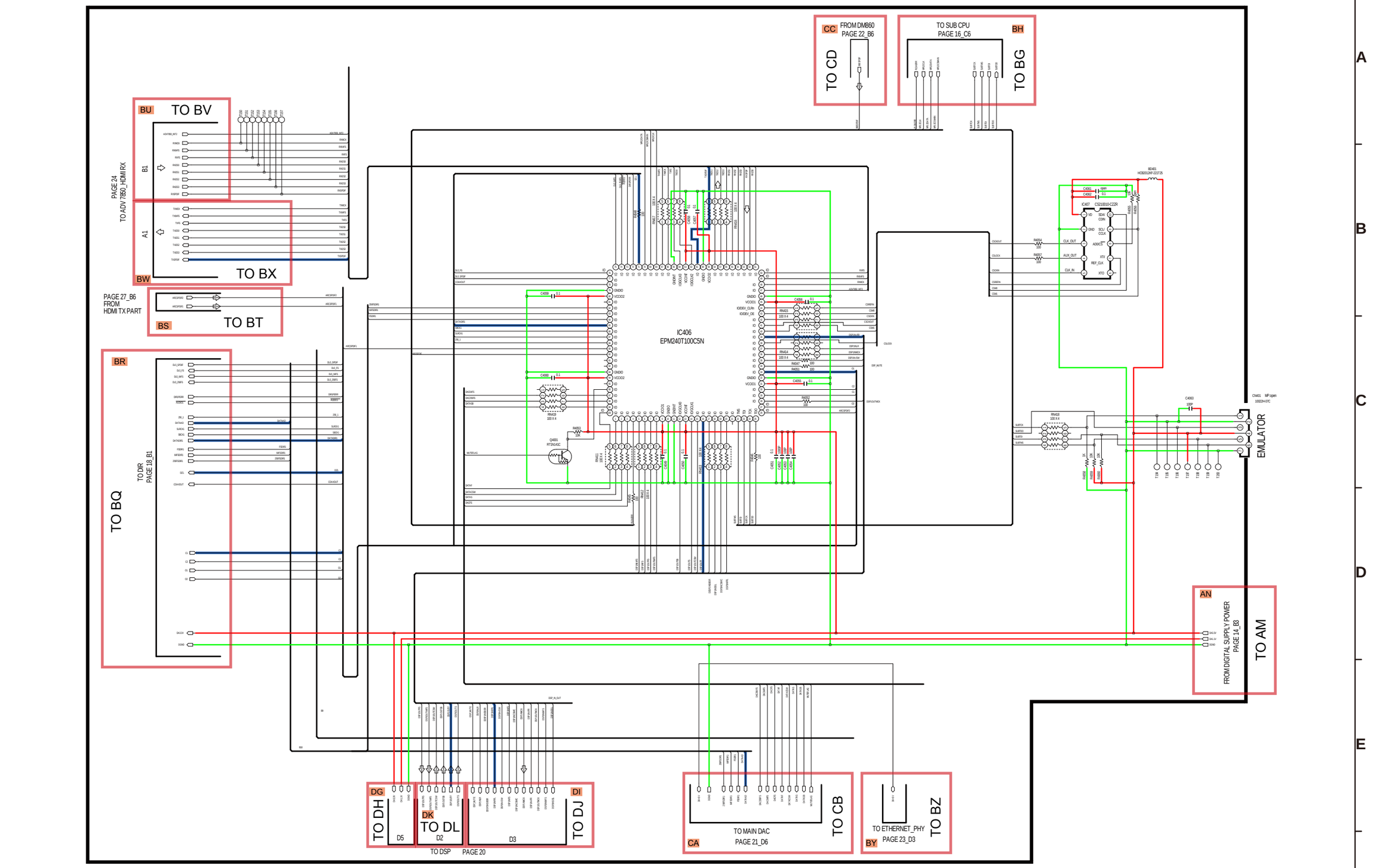


SCHEMATIC DIAGRAMS (17/28)
DIGITAL UNIT (5/15)



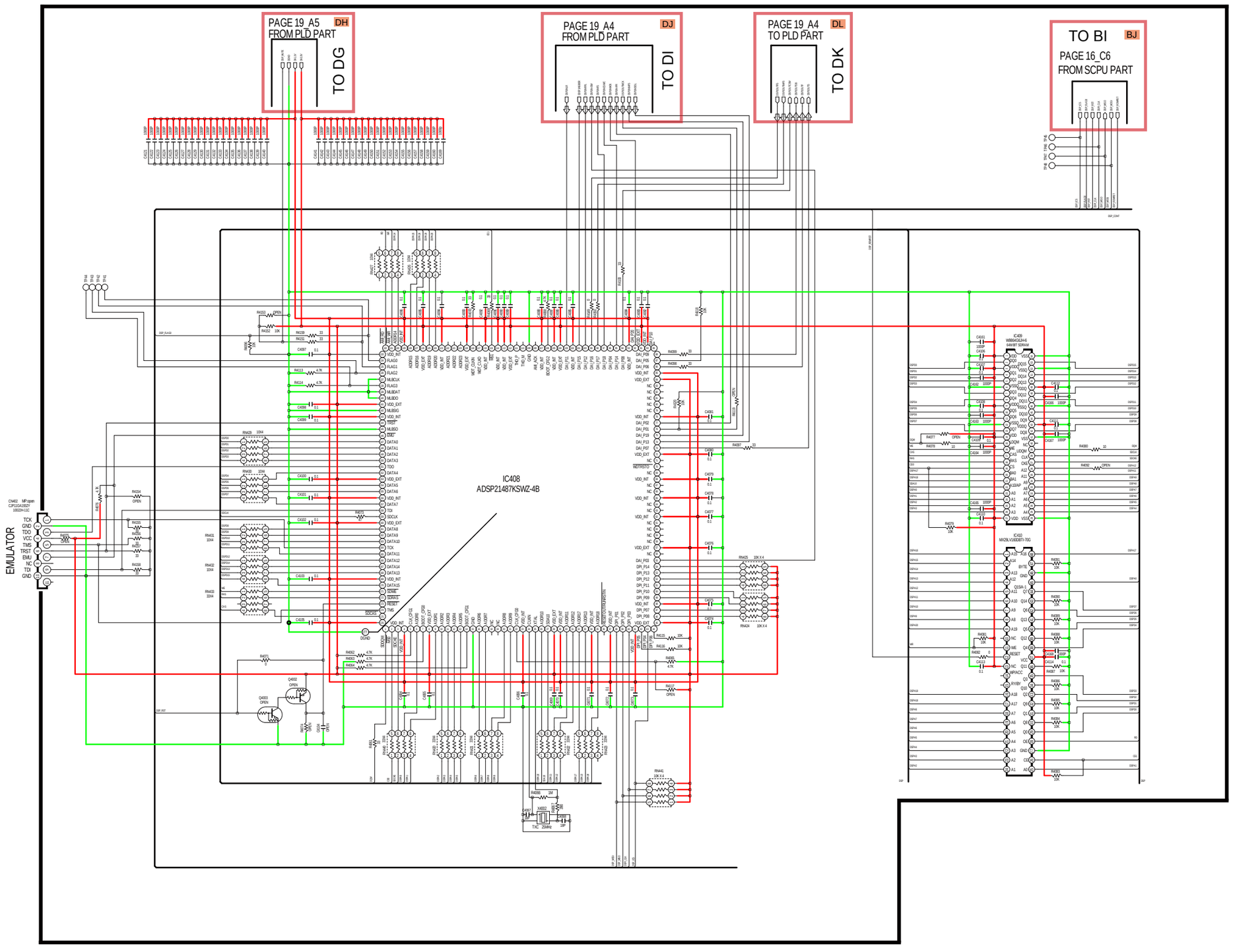
SCHEMATIC DIAGRAMS (18/28)

DIGITAL UNIT (6/15)



GND — POWER + — POWER - — STBY POWER — DIGITAL AUDIO SIGNAL LINE

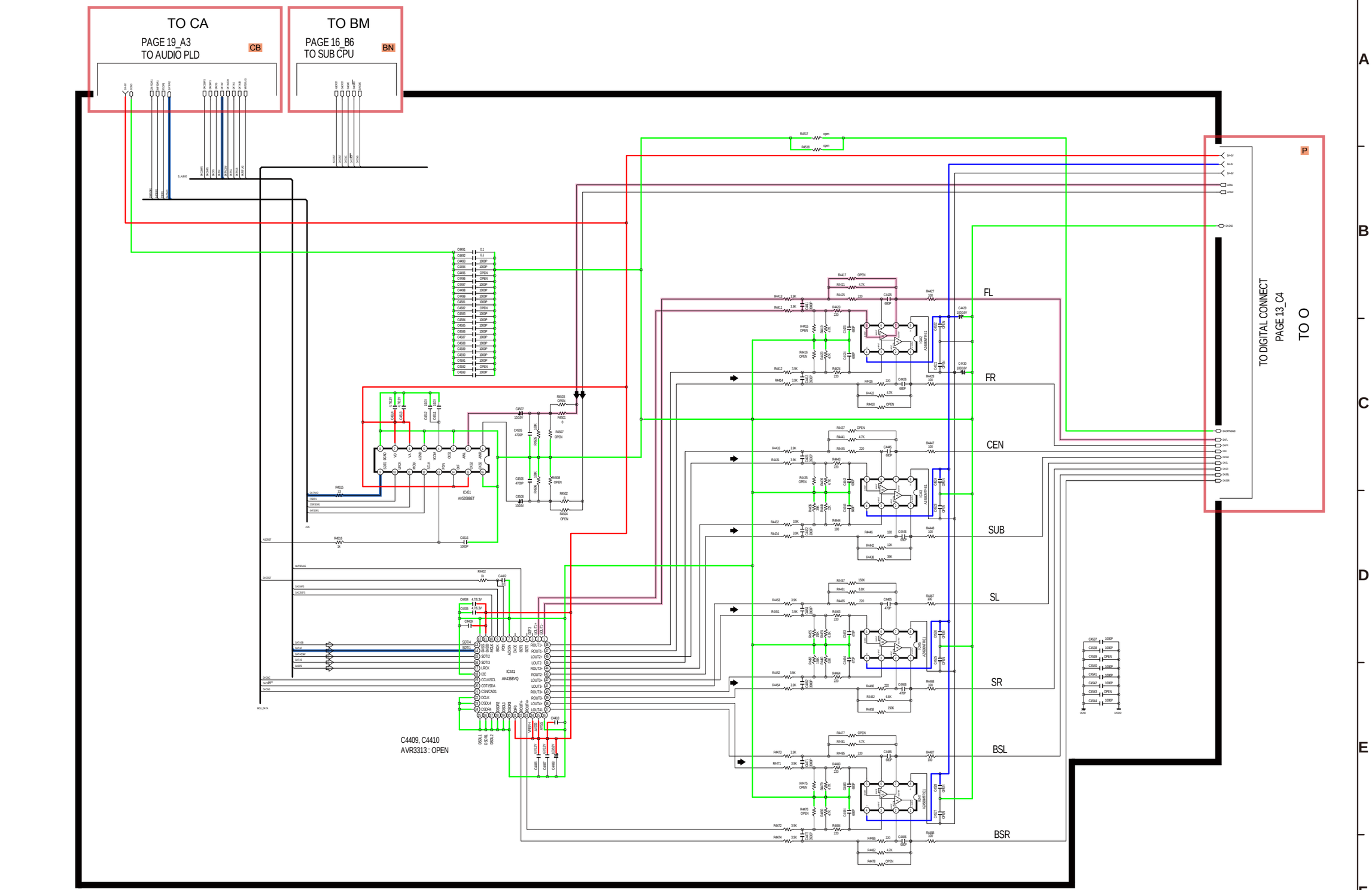
SCHEMATIC DIAGRAMS (19/28)
DIGITAL UNIT (7/15)



GND — POWER + — POWER - — STBY POWER

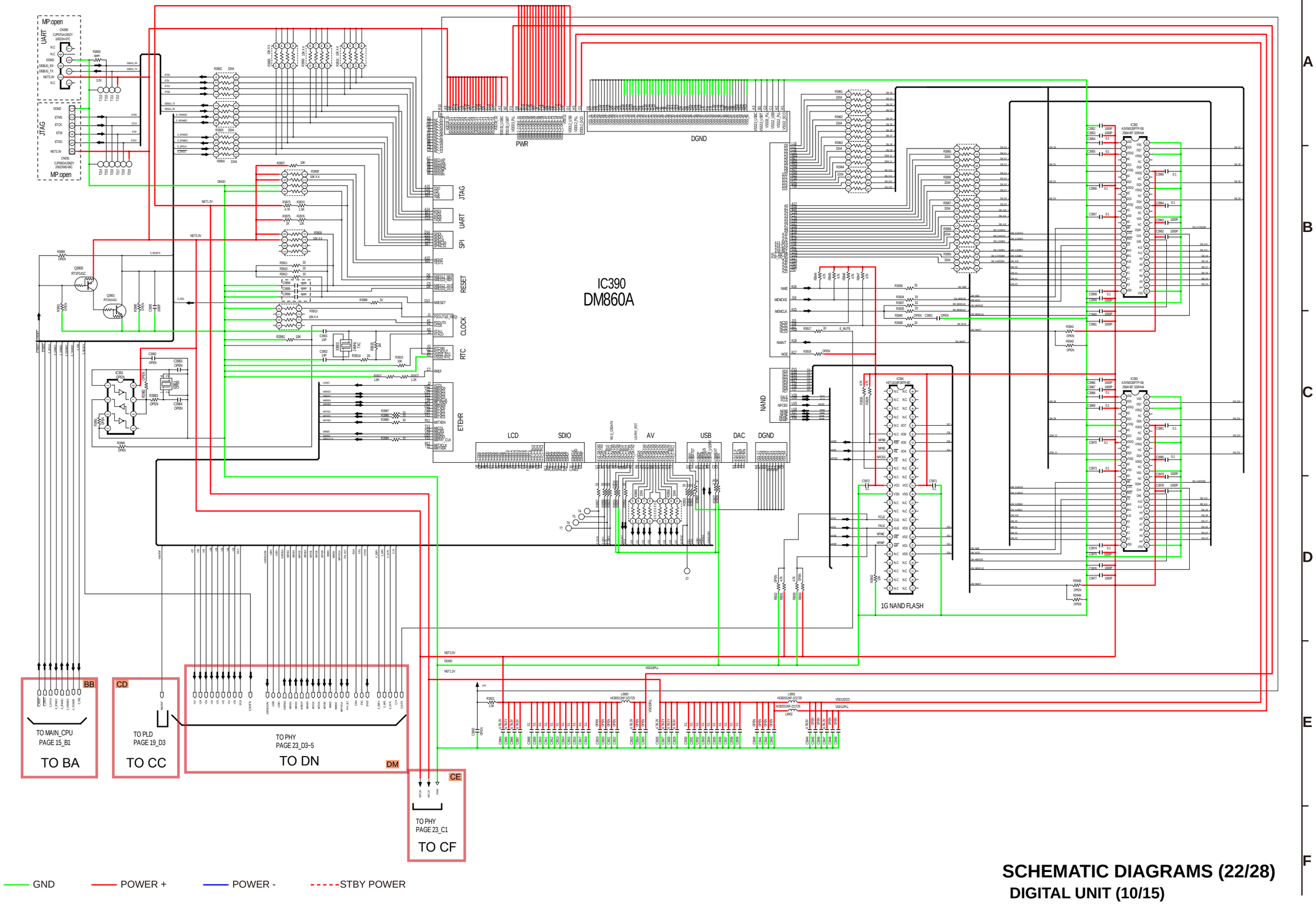
SCHEMATIC DIAGRAMS (20/28)

DIGITAL UNIT (8/15)



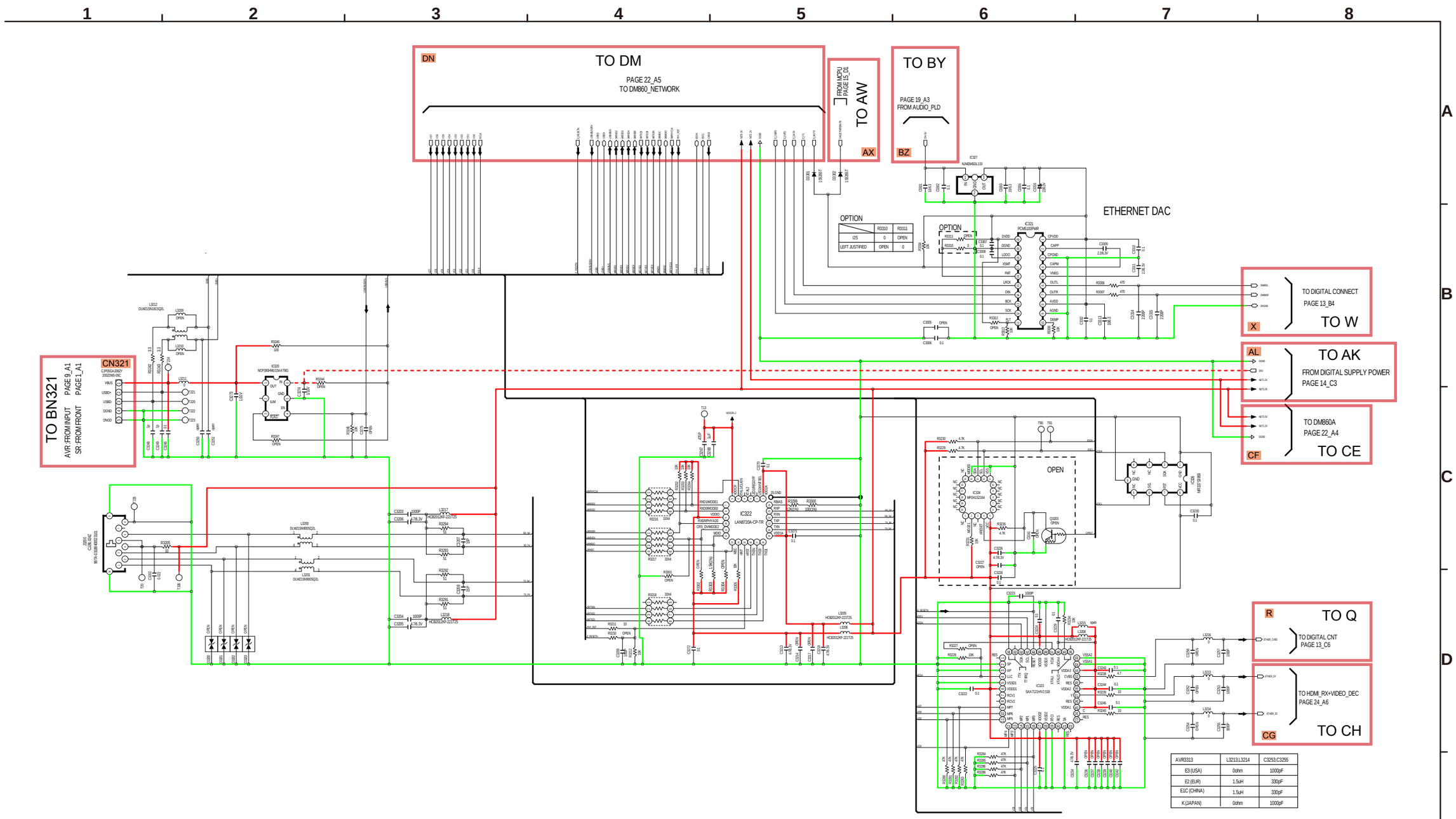
GND — POWER + — POWER - — STBY POWER — DIGITAL AUDIO SIGNAL LINE — ANALOG AUDIO SIGNAL LINE

SCHEMATIC DIAGRAMS (21/28)
DIGITAL UNIT (9/15)



SCHEMATIC DIAGRAMS (22/28)

DIGITAL UNIT (10/15)

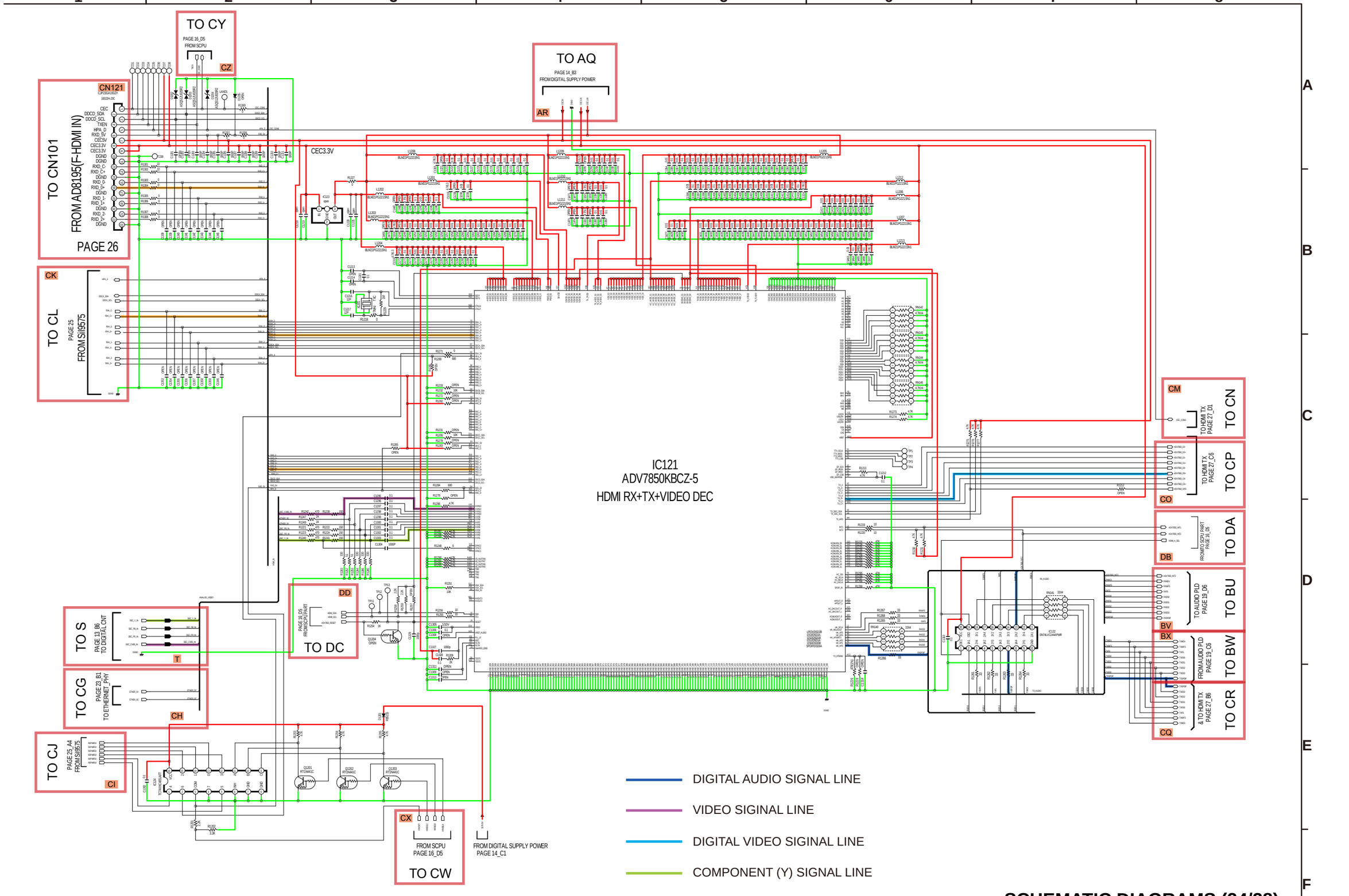


AVR3313	L3213,L3214	C3253,C3255
E3 (USA)	0ohm	1000pF
E2 (EUR)	1.5uH	330pF
E1C (CHINA)	1.5uH	330pF
K (JAPAN)	0ohm	1000pF

GND POWER + POWER - STBY POWER

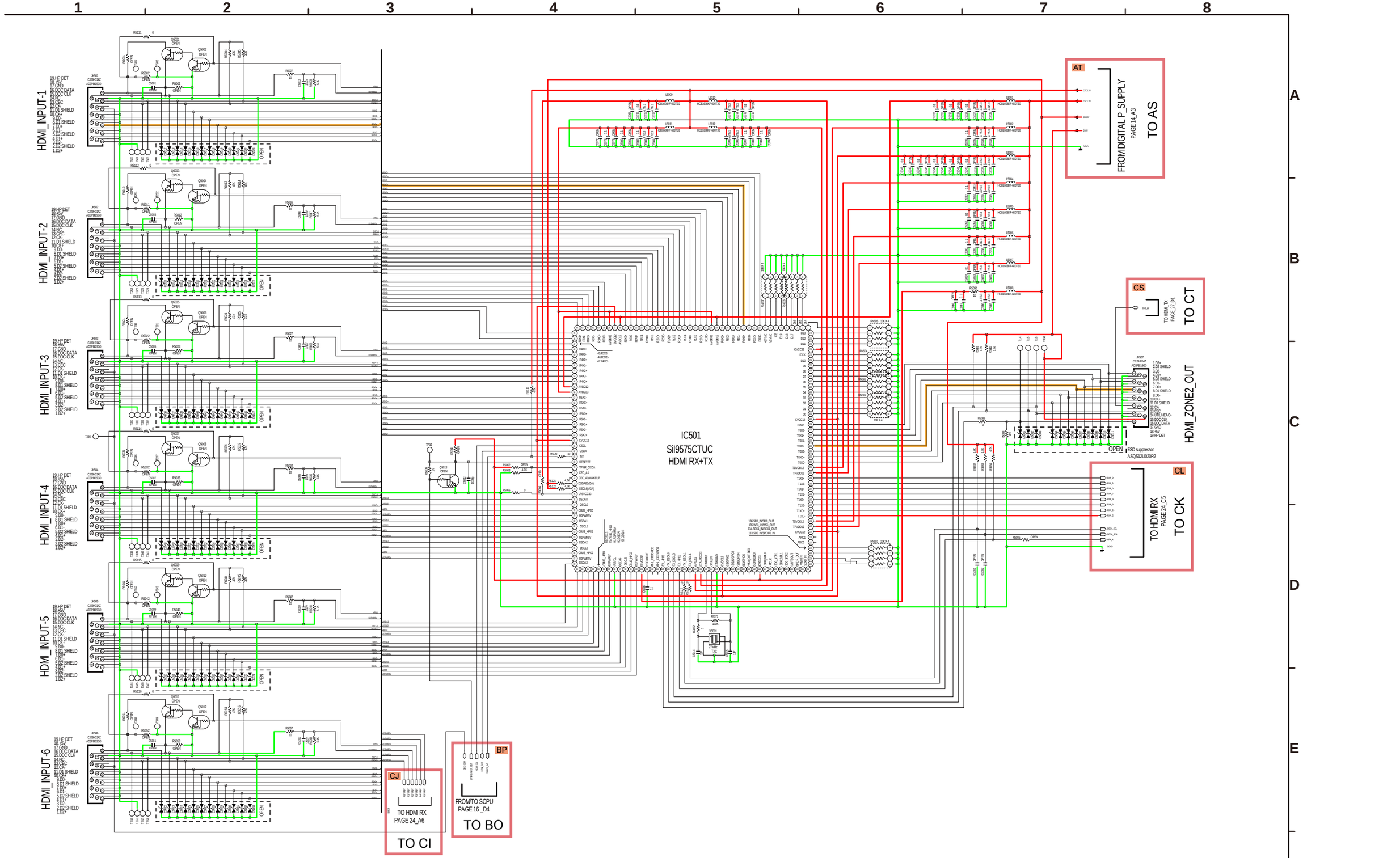
SCHEMATIC DIAGRAMS (23/28)

DIGITAL UNIT (11/15)



SCHEMATIC DIAGRAMS (24/28)

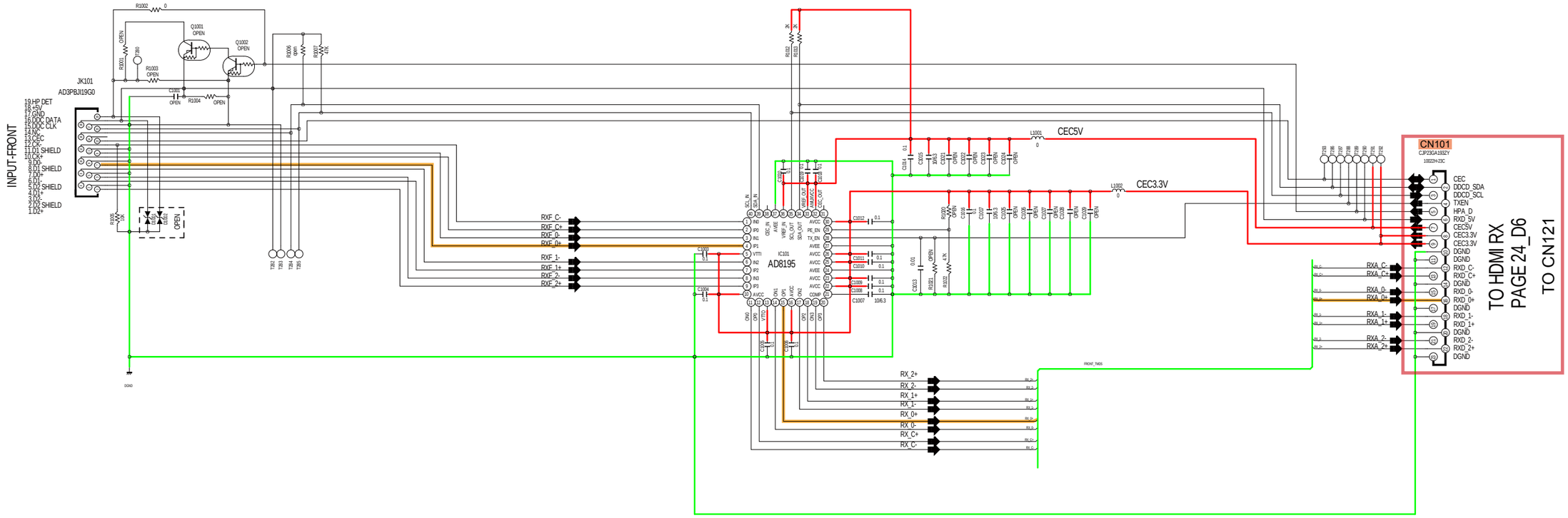
DIGITAL UNIT (12/15)



GND POWER + POWER - STBY POWER HDMI/TMDS SIGNAL LINE

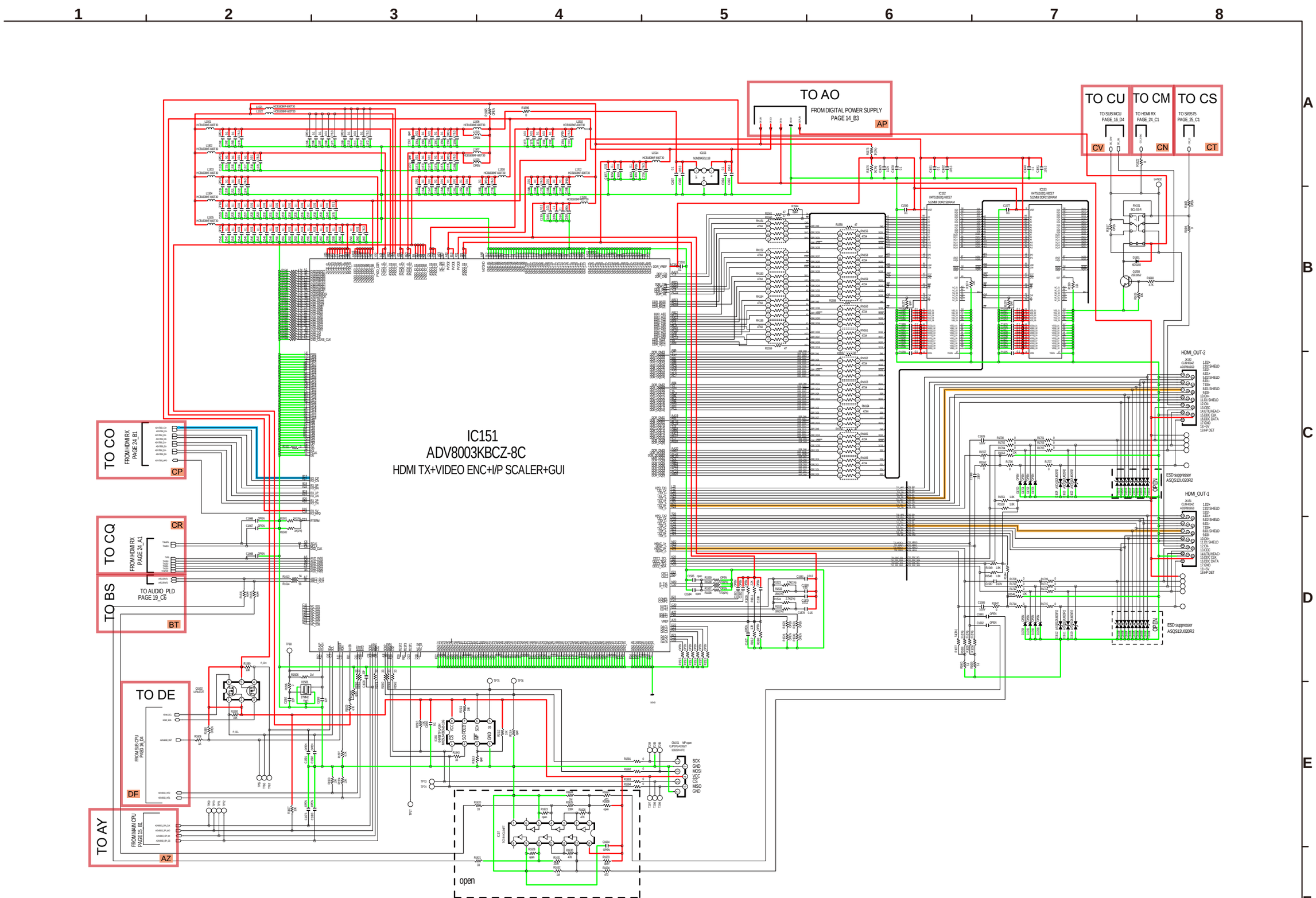
SCHEMATIC DIAGRAMS (25/28)

DIGITAL UNIT (13/15)



GND POWER + POWER - STBY POWER HDMI/TMDS SIGNAL LINE

SCHEMATIC DIAGRAMS (26/28)
DIGITAL UNIT (14/15)

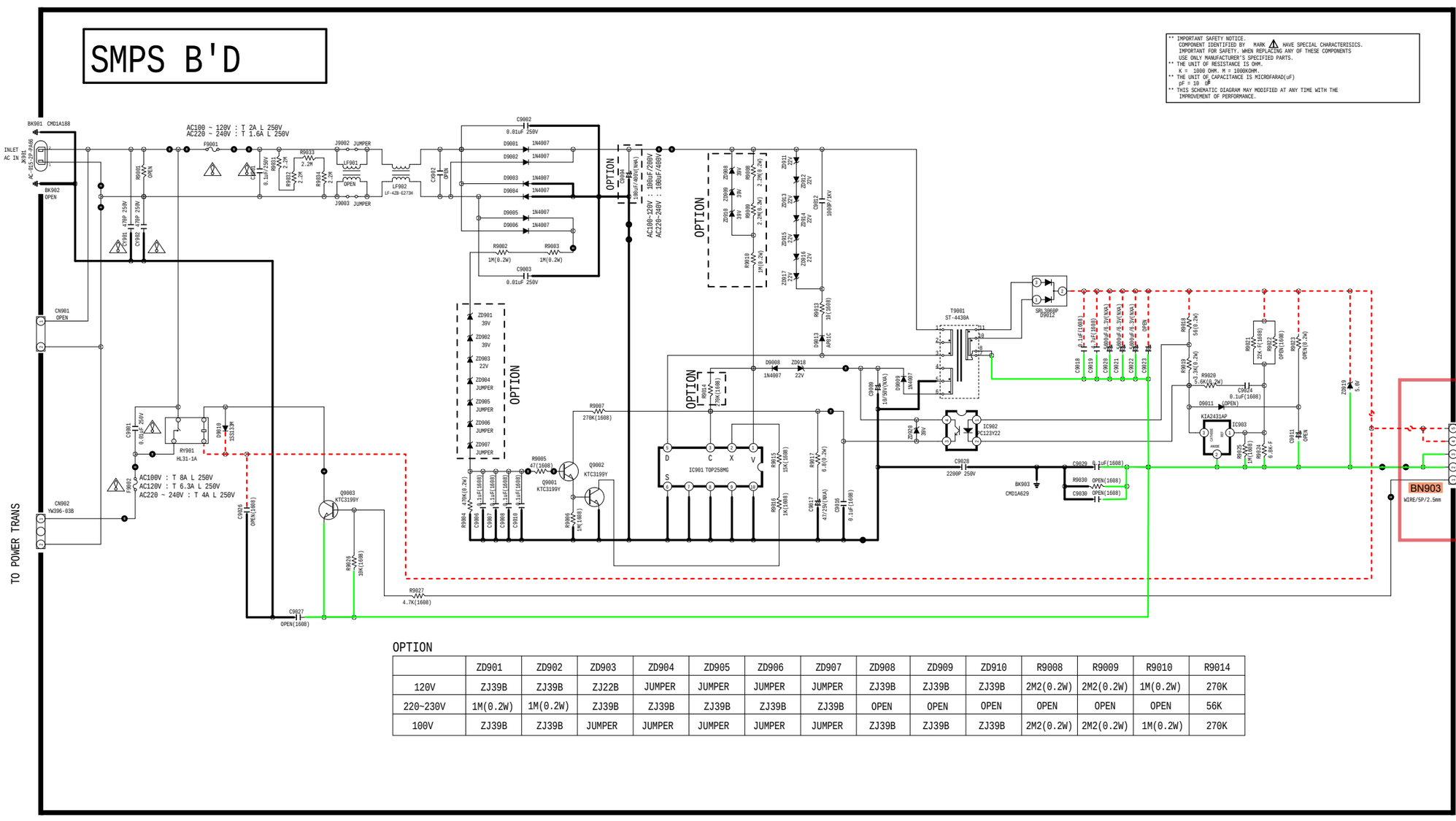


GND — POWER + — POWER - — STBY POWER — DIGITAL VIDEO SIGINAL LINE — HDMI/TMDS SIGNAL LINE

SCHEMATIC DIAGRAMS (27/28)

DIGITAL UNIT (15/15)

SMPS B'D



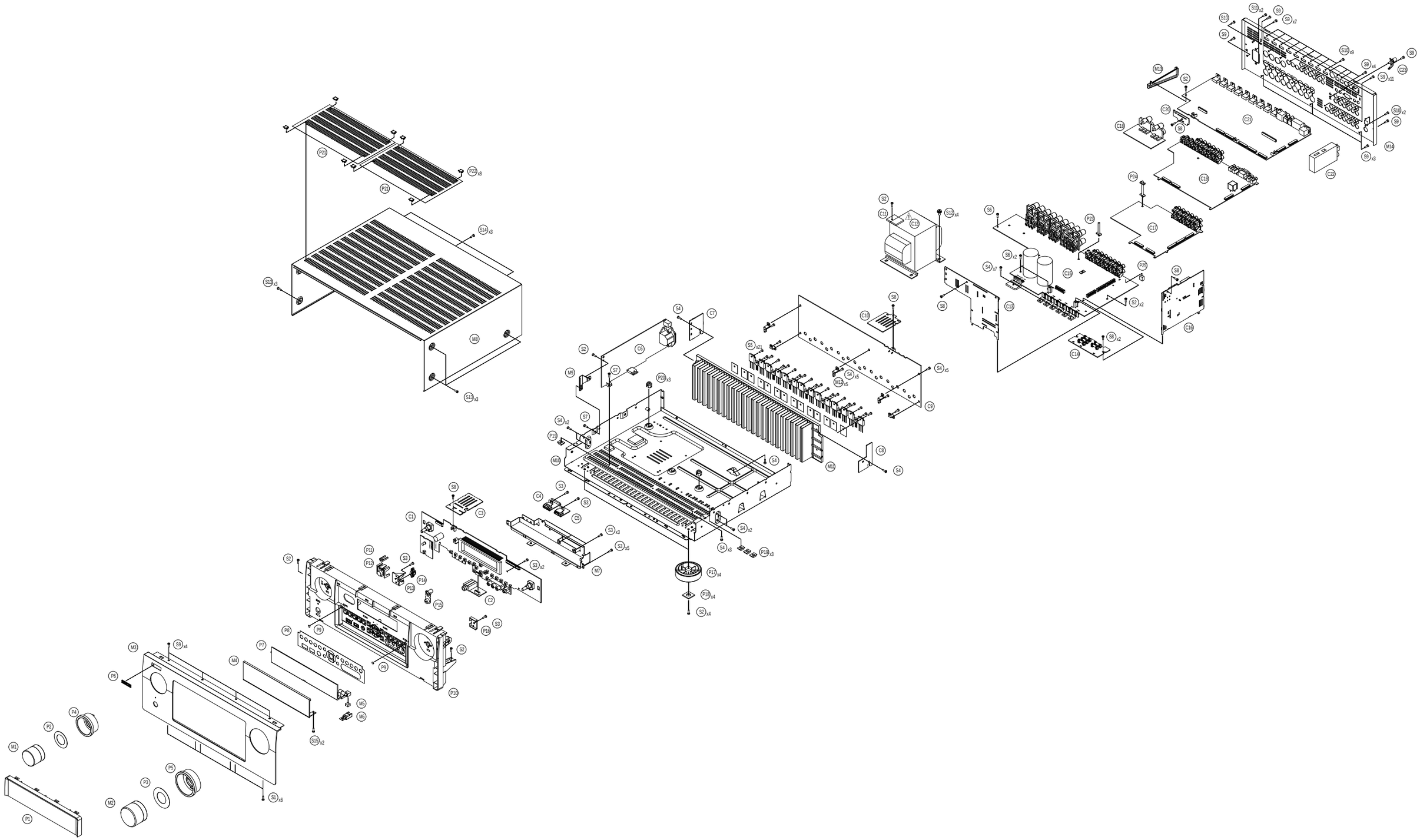
OPTION

	ZD901	ZD902	ZD903	ZD904	ZD905	ZD906	ZD907	ZD908	ZD909	ZD910	R9008	R9009	R9010	R9014
120V	ZJ39B	ZJ39B	ZJ22B	JUMPER	JUMPER	JUMPER	JUMPER	ZJ39B	ZJ39B	ZJ39B	2M2(0.2W)	2M2(0.2W)	1M(0.2W)	270K
220~230V	1M(0.2W)	1M(0.2W)	ZJ39B	ZJ39B	ZJ39B	ZJ39B	ZJ39B	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	56K
100V	ZJ39B	ZJ39B	JUMPER	JUMPER	JUMPER	JUMPER	JUMPER	ZJ39B	ZJ39B	ZJ39B	2M2(0.2W)	2M2(0.2W)	1M(0.2W)	270K

GND POWER + POWER - STBY POWER

SCHEMATIC DIAGRAMS (28/28)
SMPS UNIT

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
BK : Black model SP : Premium Silver model

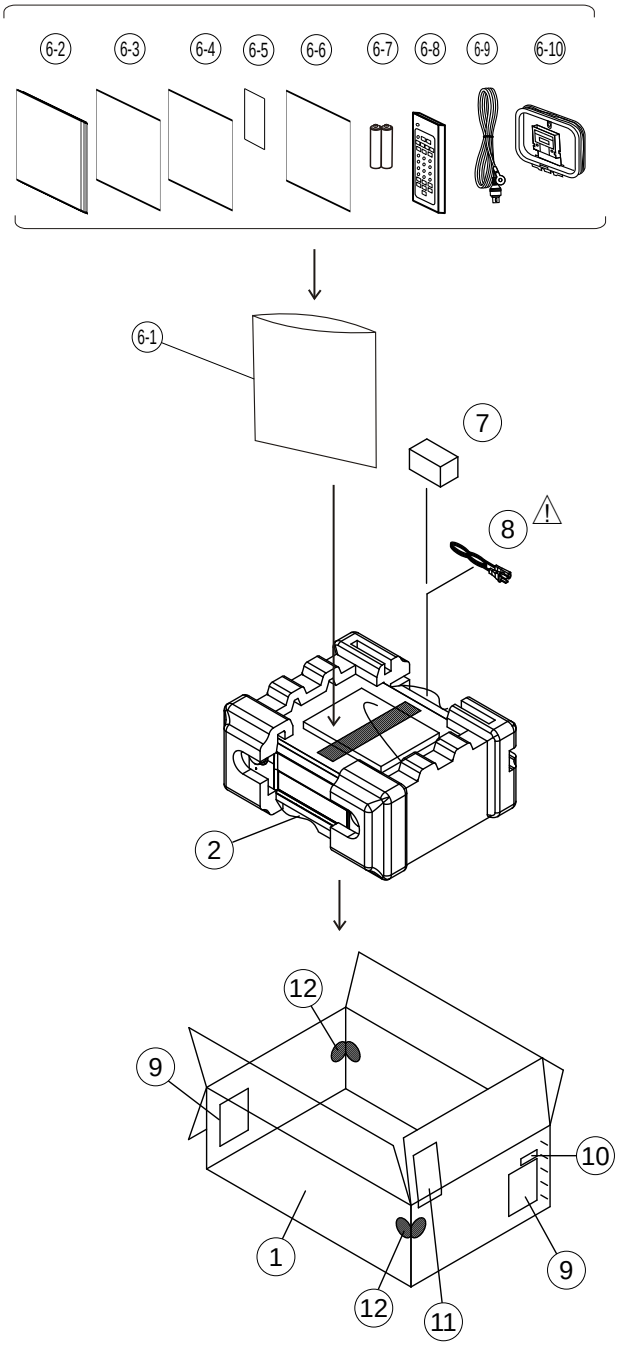
	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New	
	1	nsp	FRONT PCB ASS'Y	E3,E2	COP12434B	1		
	1	nsp	FRONT PCB ASS'Y	E1C	COP12434D	1		
	C1	-	PCB FRONT					
	C2	-	PCB HP					
	C3	-	PCB FRONT HDMI FFC CABLE					
	C9	nsp	7CH AMP PCB ASSY	E3	COP12385P	1		
	C9	nsp	7CH AMP PCB ASSY	E2	COP12385Q	1		
	C9	nsp	7CH AMP PCB ASSY	E1C	COP12385R	1		
	C6	nsp	SMPS PCB ASS'Y	E3	COP12391F	1		
	C6	nsp	SMPS PCB ASSY	E2	COP12391G	1		
	C6	nsp	SMPS PCB ASS'Y	E1C	COP12391H	1		
	4	nsp	MAIN PCB ASS'Y	E3	COP12436B	1		
	4	nsp	MAIN PCB ASS'Y	E2	COP12436C	1		
	4	nsp	MAIN PCB ASS'Y	E1C	COP12436D	1		
	C7	-	PCB GUIDE L					
	C8	-	PCB GUIDE R					
	C14	-	PCB FUSE					
	C15	-	PCB SPK_PREOUT					
	C18	-	PCB F_WIDE					
	C20	-	PCB GUIDE					
	5	nsp	CNT PCB ASS'Y	E3	COP12437B	1		
	5	nsp	CNT PCB ASS'Y	E2	COP12437C	1		
	5	nsp	CNT PCB ASS'Y	E1C	COP12437D	1		
	C13	-	PCB FRONT_CNT					
	C16	-	PCB SIDE_CNT					
	6	nsp	INPUT PCB ASS'Y	E3	COP12438B	1		
	6	nsp	INPUT PCB ASS'Y	E2	COP12438C	1		
	6	nsp	INPUT PCB ASS'Y	E1C	COP12438D	1		
	C5	-	PCB USB					
	C11	-	PCB POSISTOR					
	C17	-	PCB INPUT					
	7	nsp	VIDEO PCB ASS'Y	E3,E2	COP12439B	1		
	7	nsp	VIDEO PCB ASS'Y	E1C	COP12439D	1		
	C10	-	PCB GUIDE_VIDEO					
	C19	-	PCB VIDEO					
	8	8U6391002000D	DIGITAL PCB ASS'Y	E3	COP12440B	1		⚠2
	8	8U6391002100D	DIGITAL PCB ASS'Y	E2	COP12440C	1		⚠2

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New	
	8	8U6391006100S	DIGITAL PCB ASS'Y	E1C	COP12440D	1		⚠2
	C4	-	PCB FRONT HDMI					
	C21	-	PCB HDMI					
⚠	C12	943101012430S	TRANS , POWER(EI96 X 75)	E3	CLT5V060ZU	1		
⚠	C12	943101012440S	TRANS , POWER(EI96 X 75)	E2	CLT5V060ZE	1		
⚠	C12	943101100200S	TRANS , POWER(EI96 X 75)	E1C	CLT5V060ZH	1		
	C22	nsp	TERMINAL , GROUND		CMA1A006	1		
	M1	41201007600AD	KNOB (F) ASSY	BK	CGK1A166ZA	1	*	⚠3
	M1	41201007601AD	KNOB (F) ASSY	SP	CGK1A166YA	1	*	⚠3
	M2	41201007500AD	KNOB (M) ASSY	BK	CGK1A167ZA	1	*	⚠3
	M2	41201007501AD	KNOB (M) ASSY	SP	CGK1A167YA	1	*	⚠3
	M3	943402102410D	PANEL , AL FRONT	E3	CKM1A244ZC45	1	*	
	M3	943402102460D	PANEL , AL FRONT	BKE2	CKM1A244YC45	1	*	
	M3	943402102430D	PANEL , AL FRONT	SPE2	CKM1A244XC62	1	*	
	M3	943402102440D	PANEL , AL FRONT	E1C	CKM1A244VC62	1	*	
	M4	943415100330D	DOOR , AL	BK	CKM1A245C45	1	*	
	M4	943415100340D	DOOR , AL	SP	CKM1A245C62	1	*	
	M5	00M10BW305010	MAGNET,BASE		CJC1A008	1		
	M6	nsp	EARTH , DOOR		CMC1A433	1	*	
	M7	nsp	BRACKET , FRONT		CMD1A804	1	*	
	M8	00M07BW257010	CABINET,TOP	BK	CKC2A155K117	1		
	M8	943403002040M	CABINET,TOP	SP	CKC2A155D11	1		
	M9	nsp	SMPS BRACKET		CMD1A790	1		
	M10	nsp	CHASSIS , BOTTOM		CUA2A330	1	*	
	M11	nsp	HEATSINK		CMY2A376	1	*	
	M12	nsp	BRACKET , AMP PCB		CMD1A796	5		
	M13	nsp	PCB BRACKET(HDMI)		CMD1A791	1		
	M14	nsp	PANEL , REAR	E3	CKF1A456Z	1	*	
	M14	nsp	PANEL , REAR	E2	CKF2A456Z	1	*	
	M14	nsp	PANEL , REAR	E1C	CKF2A456Y	1	*	
	P1	943416100770D	WINDOW , VFD		CGU1A463Z	1	*	
	P2	943451101210D	SHEET , SELECT KNOB		CGX1A474	1	*	
	P3	943451101230D	SHEET , VOLUME KNOB		CGX1A473	1	*	
	P4	42451003000AD	RING , SELECT	BK	CGR1A536	1	*	
	P4	42451003001AD	RING , SELECT	SP	CGR1A536C73	1	*	
	P5	42451002900AD	RING , VOLUME	BK	CGR1A535	1	*	
	P5	42451002901AD	RING , VOLUME	SP	CGR1A535C73	1	*	
	P6	42141002300AD	BADGE , DENON	BK	-	1	*	
	P6	42141002301AD	BADGE , DENON	SP	-	1	*	
	P7	943415100350D	HOLDER , DOOR	BK	CKG1A056	1	*	
	P7	943415100360D	HOLDER , DOOR	SP	CKG1A056G45	1	*	
	P8	943422100440D	SHEET , ORNAMENT	BK	CGX1A470Z	1	*	
	P8	943422100450D	SHEET , ORNAMENT	SP	CGX1A470Y	1	*	
	P9	00M446T056010	CUSHION,DOOR		CHG1A296Y	2		
	P10	943443100600D	PANEL , INNER	BK	CGW1A521	1	*	
	P10	943443100610D	PANEL , INNER	SP	CGW1A521G45	1	*	
	P11	943423100310D	INDICATOR , POWER		CGL1A299	1		
	P12	943411101750D	BUTTON , POWER	BK	CBT1A1167	1		
	P12	943411101760D	BUTTON , POWER	SP	CBT1A1167C73	1		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	P13	nsp	COVER , DOOR A		CMH1A329	1	*
	P14	943474004230M	GEAR , DAMPER SR6003		CDG1A027W	1	
	P15	943411101870D	BUTTON , ENTER	BK	CBT1A1165	1	*
	P15	943411101880D	BUTTON , ENTER	SP	CBT1A1165G45	1	*
	P16	nsp	COVER , DOOR B		CMH1A330	1	*
	P17	943416009700D	FOOT		CKL2A093	4	
	P18	00D9430202902	CUSHION , FOOT		CHG2A289	4	
	P19	nsp	RUBBER		CHG1A113	4	
	P20	nsp	HOLDER , PCB		CHE170	3	
	P21	943419100250D	SHEET , TOP	BK	CGX1A492Z	2	
	P21	943419100260D	SHEET , TOP	SP	CGX1A492Y	2	
	P22	45451000500AM	STOPPER , SHEET	BK	CMH1A306Z	8	
	P22	45451000501AM	STOPPER , SHEET	SP	CMH1A306Y	8	
	P23	nsp	SUPPORT, PCB		CRE1A102	1	
	P24	nsp	SUPPORT , PCB 31		CRE1A073	1	
	★ P25	nsp	CLAMPER		CHR301	20	
	★ P26	nsp	CUSHION , SUPPORT		CHG1A305	2	
	★ P27	nsp	LOCKER	E2,E1C	CRE1A037	22	
	★ P28	nsp	SUPPORT , RUBBER		CHG1A535	1	
	★ P29	nsp	LABEL , HOT	E2,E1C	CQB1A906Z	1	
	★ P30	nsp	LABEL , LICENSE	E3	CQB1A1107Z	1	
	★ P30	nsp	LABEL , LICENSE	E2,E1C	CQB1A1108Z	1	
	★ P31	nsp	LABEL , POP	E3	CQB1A1103Z	1	
	★ P31	nsp	LABEL , POP	E2	CQB1A1103Y	1	
	★ P31	nsp	LABEL , POP	E1C	CQB1A1103X	1	
	★ P32	nsp	TAPE , HEMELON		CHS1A032	6	
	★ P33	nsp	TAPE , HIMELON		CHS1A216	3	
	★ P34	nsp	TAPE , HIMELON		CHS1A215	1	
SCREWS							
	S1	nsp	SCREW	BK	CTBD3+10JFZR	6	
	S1	nsp	SCREW	SP	CTB3+10JFN	6	
	S2	nsp	SCREW	BK	CTW3+8JR	16	
	S2	nsp	SCREW	SP	CTW3+8JR	16	
	S3	nsp	SCREW		CTB3+10JR	22	
	S4	nsp	SCREW		CTB3+8JR	21	
	S5	nsp	SCREW , SPECIAL		CHD3A012R	21	
	S6	nsp	SCREW		CTW3+12JR	5	
	S7	nsp	SCREW		CTB3+6JR	1	
	S8	nsp	SCREW		CTB3+6FR	7	
	S9	nsp	SCREW	BK	CTBD3+8JFZR	35	
	S9	nsp	SCREW	SP	CTBD3+8JFZR	29	
	S10	nsp	SCREW		CTBD3+6FFZR	12	
	S11	nsp	SCREW		CTBD4+8JFZR	2	
	S12	nsp	SCREW , TRANS		CHDR1A023R	4	
	S13	nsp	SCREW	BK	CTBD4+8JFZR	6	
	S13	nsp	SCREW	SP	CTBD4+8JFN	6	
	S14	nsp	SCREW	BK	CTBD3+8JFZR	3	
	S14	nsp	DOT SCREW	SP	CTBD3+8JFN	3	
	★ S15	nsp	SCREW		CTWS3+10GR	2	

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
WIRES							
	★ 101	943606501260S	CARD CABLE(1.25mm/13P/80mm/B)	E3	CWC4F2A13B080B10	1	
	★ 102	943606501600S	CARD CABLE(1mm/23P/300mm/B)		CWC4F2A23A300B10	1	
	★ 103	943606501240S	CARD CABLE(1mm/40P/250mm/B)		CWC4F2A40A250B08	1	

PACKING VIEW



PARTS LIST OF PACKING & ACCESSORIES

∗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
E1C : China model
BK : Black model SP : Premium Silver model

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	1	943531102480D	BOX , OUT CARTON	E3	CPG1A964Z	1	*
	1	943531102490D	BOX , OUT CARTON	E2	CPG1A964Y	1	*
	1	943531102500D	BOX , OUT CARTON	E1C	CPG1A964W	1	*
	2	nsp	BAG , POLY		CPP1A081X	1	
	3	943533101160D	SNOW PAD (L)		CPS2A905	1	*

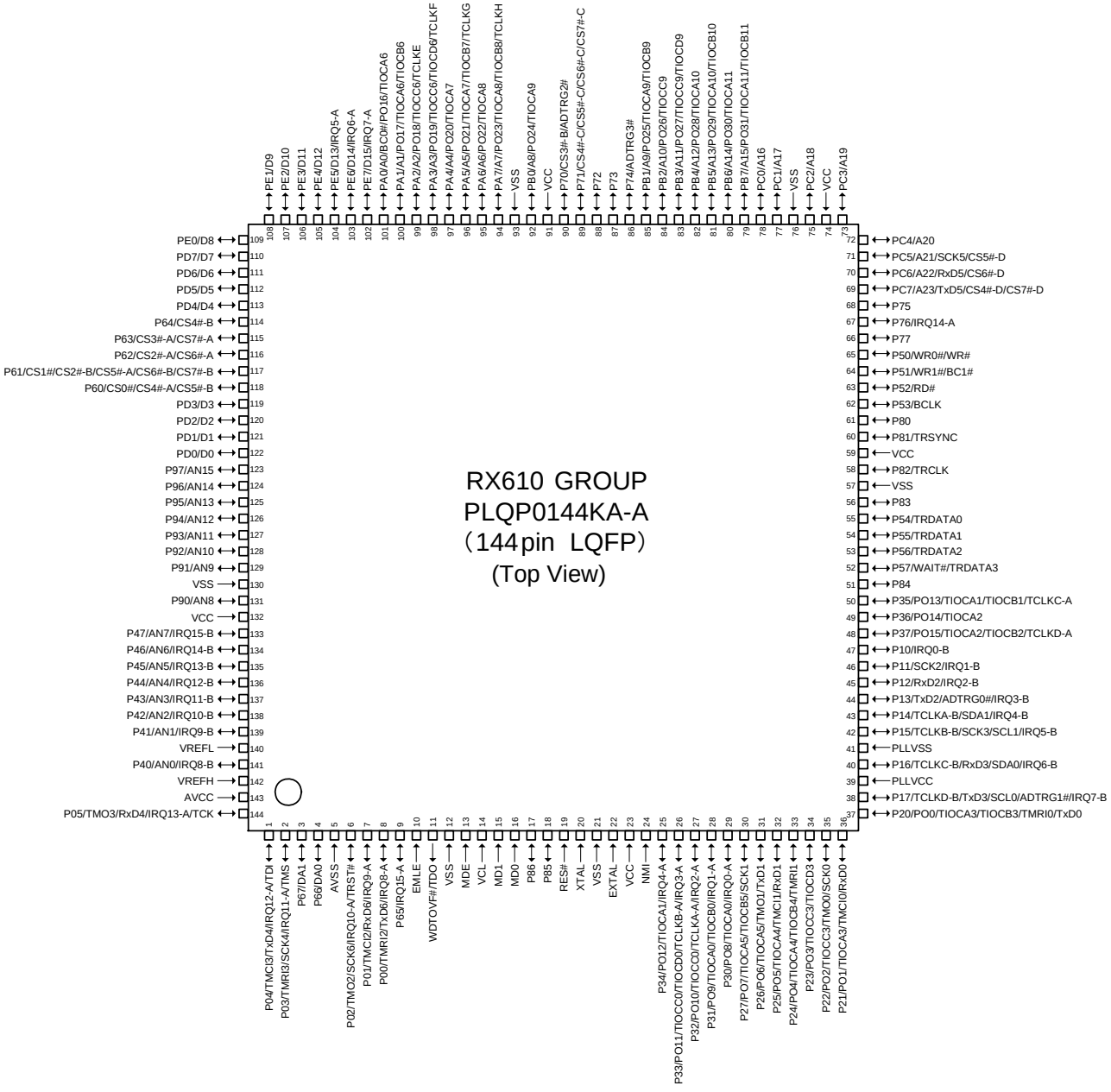
	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	4	943533101170D	SNOW PAD (R)		CPS2A906	1	*
	6	-	INSTRUCTION MANUAL ASS'Y		-	1	
	6-1	nsp	BAG , POLY(MANUAL)		CPB1A197Z	1	
	6-2	54111077700AD	MANUAL , GUIDE	E3	CQX1A1664Z	1	*
	6-2	54111077800AD	MANUAL , GUIDE	E2	CQX1A1665Z	1	*
	6-2	54111078000AD	MANUAL , GUIDE	E1C	CQX1A1667Z	1	*
	6-3	nsp	CARD, WARRANTY	E3	CQE1A224Q	1	
	6-4	nsp	LIST , S.S		CQE1A226P	1	
	6-5	nsp	CARD FOR CHINA INDENTIFICATION	E1C	CQE1A450Z	1	
	6-6	35201008400AD	CD MANUAL ASS'Y	E3	CFT1A058ZA	1	*
	6-6	35201008500AD	CD MANUAL ASS'Y	E2	CFT1A059ZA	1	*
	6-6	35201008700AD	CD MANUAL ASS'Y	E1C	CFT1A061ZA	1	*
	6-7	nsp	BATTERY , AA 2 PCS IN PACK		CABR6PPB	2	
	6-8	30701010500AD	REMOCON ASS'Y(RC-1166)		CARTAVR3313	1	*
	6-9	90M-ZA000230R	FM 1 POLE ANT(UL)	E3	CSA1A019Z	1	
	6-9	00D9430113403	FM 1 POLE ANT	E2, E1C	CSA1A018Z	1	
	6-10	943116100090S	ANT, AM LOOP(HD RADIO, 105uH/18T)	E3	CSA1A040Z	1	*
	7	32401000800AD	MIC , AUDYSSEY		CJXACM1HB	1	
⚠	8	90M-ZC000310R	CORD , POWER(PLUG+SOCKET)UL	E3	CJA2A070Z	1	
⚠	8	90M-ZC000320R	CORD , POWER(DETACHABLE/EUR)	E2	CJA2B054Z	1	
⚠	8	90M-ZC000650R	CORD , POWER	E1C	CJA2N075Z	1	
	9	nsp	LABEL , CONTROL		CQB2A993Z	1	
	10	nsp	LABEL , SERIAL NO		CQB1A995	3	
	11	nsp	WARRANTY CARD, CHINA	E1C	CQE1A473Y	1	
	12	nsp	LABEL , COLOR LABEL(WHITE)	SP	CQB1A676	2	

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

R5F56108VNFP (HDMI : IC201)



R5F56108VNFP Terminal Functions

Pin	Pin Name	Symbol	I/O	Pull up/ down	LvCnv	STBY	STOP	CEC STBY	Function
1	P04/IRQ12-A/TMCI3/ TxD4/TDI	TDI/TXD MITSUBISHI/ NC(NORMRAL)	I/O/I	M3VPu		-/-/I	-/-/I	I	E20 Emulator control signal/Mitsubishi Programer/Nomal:Input
2	P03/IRQ11-A/TMRI3/ SCK4/TMS	TMS/ NC(NORMRAL)	I/I	M3VPu		-/I	-/I	I	E20 Emulator control signal/ Nomal:Input
3	P67/DA1	NC	O			L	L	L	NC
4	P66/DA0	NC	O			L	L	L	NC
5	AVSS	AVSS	-			-	-	-	GND
6	P02/IRQ10-A/TMO2/ SCK6/TRST#	TRST#/ NC(NORMRAL)	I/I	Pd		I/I	I/I	I	E20 Emulator control signal/ Nomal:Input

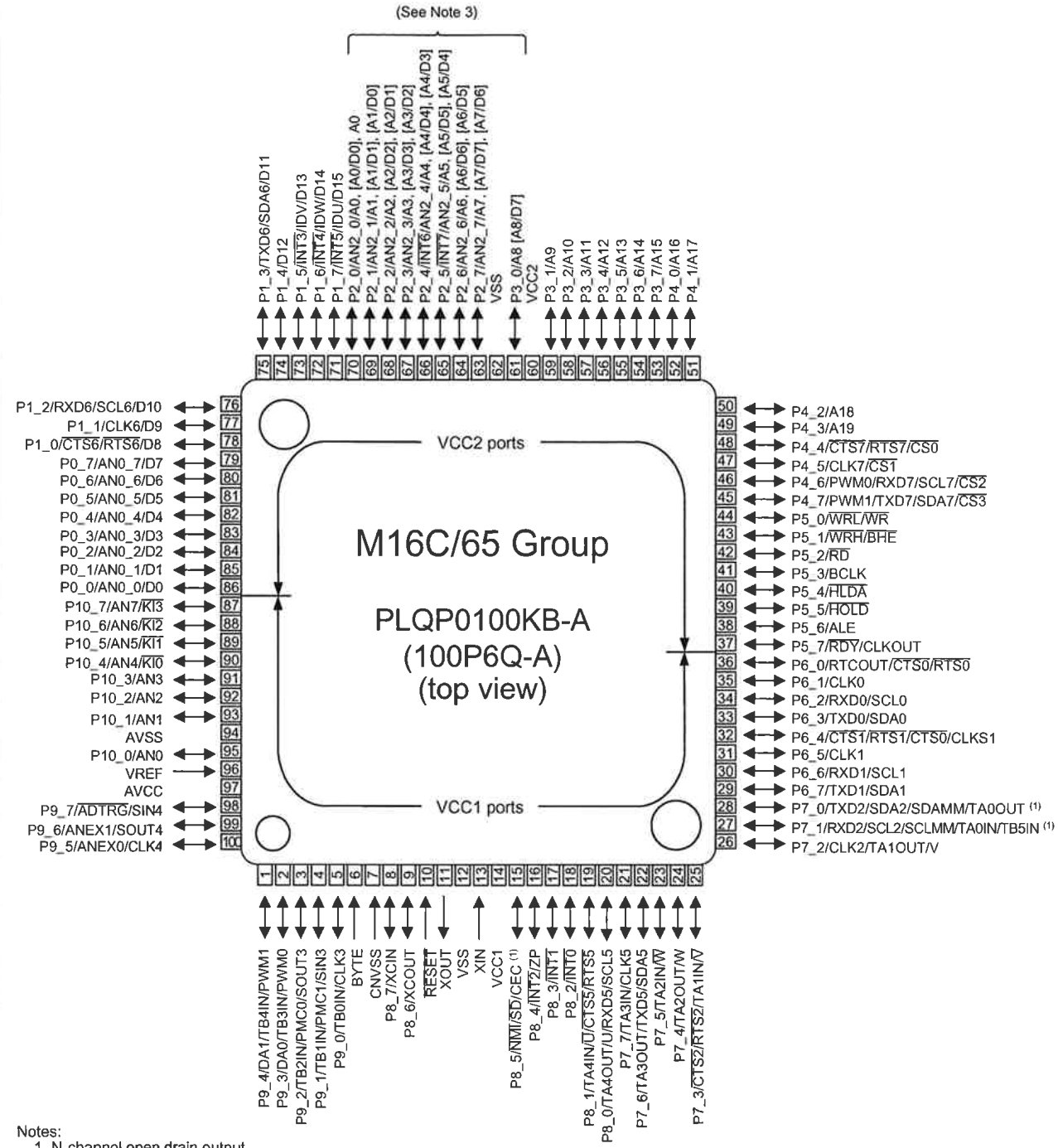
Pin	Pin Name	Symbol	I/O	Pull up/ down	LvCnv	STBY	STOP	CEC STBY	Function
7	P01/IRQ9-A/TMCI2/ RxD6	RXD MI232O	I	M3VPu		I	I	I	Data received from the external pin(AMX)/Use for firmware upgrading by DFW.:FFC Connect
8	P00/IRQ8-A/TMRI2/ TxD6	TXD MO232I	O			L	L	L	Data transfer to external pin(AMX)/Use for firmware upgrading by DFW.:FFC Connect
9	P65/IRQ15-A	POWER KEY	I	M3VPu		I	I	I	POWER KEY (Waiting Mode cancel, interrupt port)
10	EMLE	EMLE	I	Pd		-	-	-	E20Emulator control signal"H":No OP,"L"OP(When CPU-One chip OP., Need to pull down)
11	WDTOVF#/TDO	TDO/WDTOVF#	O/O			-	-	-	E20Emulator control signal
12	VSS	VSS	I			-	-	-	GND
13	MDE	MDE	I	Pd		-	-	-	Endian select(L:LittleEndian)
14	VCL	VCL	I			-	-	-	VSS need to 0.1µF
15	MD1	MD1	I	M3VPu		-	-	-	Select BootMode,UserBootMode(SingleChipMode:SingleChipMode:MD0=1, MD1=1)/ E20Emulato rcontrol signal
16	MD0	MD0	I	M3VPu		-	-	-	
17	P86	CEC POWER2	O			L	L	L	Reserve (CEC POWER2 control)
18	P85	REMOTE POWER(232C)	O			L	L	L	232C POWER SUPPLY (REMOTE 3.3V) control pin.(ON: H)
19	RES#	RESET	I			-	-	-	Reset input (reset: L)
20	XTAL	XTAL	I			-	-	-	Clock input(12MHz(Tentative))
21	VSS	VSS	-			-	-	-	GND
22	EXTAL	EXTAL	-			-	-	-	Clock output(12MHz(Tentative))
23	VCC	VCC	-			-	-	-	+3.3V
24	NMI	NMI	I	M3VPu		-	-	-	NC (PullUp)
25	P34/IRQ4-A/PO12/ TIOCA1	BDOWN	I			I	I	I	Power failure detection pin(Power failure:L)
26	P33/IRQ3-A/PO11/ TIOCC0/TIOCD0/ TCLKB-A	PLDAERR	I			L	L	L	PLD ERROR detection pin
27	P32/IRQ2-A/PO10/ TIOCC0/TCLKA-A	NC	O/I			L/I	L/I	L/I	NC
28	P31/IRQ1-A/PO9/ TIOCA0/TIOCB0	ADV8003 INT1	O			L	L	L	HDMI transmitter / OSD (ADV8003) INT1 output pin
29	P30/IRQ0-A/PO8/ TIOCA0	RC IN	I			I	I	I	Remote control signal input pin
30	P27/PO7/TIOCA5/ TIOCB5/SCK1	HDMI A SEL	O			L	L	L	Remote control signal input pin
31	P26/PO6/TIOCA5/ TMO1/TxD1	NC	O			L/H	L/L	L/H	Unused
32	P25/PO5/TIOCA4/ TMCI1/RxD1	NC	O			L	L	L	Unused
33	P24/PO4/TIOCA4/ TIOCB4/TMRI1	TU RST/HDRADIO RESET	O	SW3VPu		L	L	L	TUNER RESET pin (E3 model)
34	P23/PO3/TIOCC3/ TIOCD3	E RESET	O (ODR)	N3VPu		L	L	L	ETHERNET RESET control pin (DM860)
35	P22/PO2/TIOCC3/ TMO0/SCK0	E POWER	O			L	L	L	ETHERNET POWER SUPPLY (NET3.3V) control pin.(ON:H)
36	P21/PO1/TIOCA3/ TMCI0/RxD0	E_RXDMIEO	I			I	I	I	ETHERNET communication control pin (DM860)
37	P20/PO0/TIOCA3/ TIOCB3/TMRI0/TxD0	E_TXDMOEI	O			L	L	L	ETHERNET communication control pin (DM860)
38	P17/IRQ7-B/ TCLKD-B/TxD3/ SCL0/ADTRG1#	TU SCLK	O/I_O			L	L	L	TUNER control pin
39	PLLVCC	PLLVCC	-			-	-	-	PLL Power
40	P16/IRQ6-B/ TCLKC-B/RxD3/ SDA0	TU SDIO	I/I_O			L	L	L	TUNER control pin
41	PLLVSS	PLLVSS	-			-	-	-	GND
42	P15/IRQ5-B/ TCLKB-B/SCK3/ SCL1	NC	O			L	L	L	NC
43	P14/IRQ4-B/ TCLKA-B/SDA1	NC	O			L	L	L	NC
44	P13/IRQ3-B/TxD2/ ADTRG0#	ADV8003 SPI MO	O			L	L	L	OSD control pin (ADV8003)
45	P12/IRQ2-B/RxD2	ADV8003 SPI MI	I			L	L	L	OSD control pin (ADV8003)

Pin	Pin Name	Symbol	I/O	Pull up/ down	LvCnv	STBY	STOP	CEC STBY	Function
46	P11/IRQ1-B/SCK2	ADV8003 SPI CLK	O			L	L	L	OSD control pin (ADV8003)
47	P10/IRQ0-B	ADV8003 SPI CS	O			L	L	L	OSD control pin (ADV8003)
48	P37/PO15/TIOCA2/ TIOCB2/TCLKD-A	EEPROM SDA	I_O	M3VPu		I	I	I	EEPROM control pin
49	P36/PO14/TIOCA2	EEPROM SCL	O	M3VPu		I	I	I	EEPROM control pin
50	P35/PO13/TIOCA1/ TIOCB1/TCLKC-A	NC	O			L	L	L	NC
51	P84	NC	O			L	L	-	NC
52	P57/WAIT#/ TRDATA3	NC	O			L	L	L	NC
53	P56/TRDATA2	E SPI MOEI	O	N3VPu		L	L	L	ETHERNET communication control pin (DM860)
54	P55/TRDATA1	NC	O			L	L	L	NC
55	P54/TRDATA0	E SPI MIEO	I	N3VPu		I	L	I	ETHERNET communication control pin (DM860)
56	P83	E SPI CLK	O	N3VPu		L	L	L	ETHERNET communication control pin (DM860)
57	VSS	VSS	-			-	-	-	GND
58	P82/TRCLK	FL CE	O			L	L	L	VFD control pin
59	VCC	VCC	-			-	-	-	+3.3V
60	P81/TRSYNC	FL RST	O			L	L	L	VFD control pin
61	P80	ZVOL DATA	O			L	L	L	ZONE VOL(NJW1194) Control
62	BCLK/P53 (Input only)	NC	I/I			I/I	I/I	I/I	NC
63	P52/RD#	ZVOL CLK	O			L	L	L	ZONE VOL(NJW1194) Control
64	P51/WR1#/BC1#	ZVOLSTB	O			L	L	L	ZONE VOL(NJW1194) Control
65	P50/WR0#/WR#	NC	O			L	L	L	NC
66	P77	NC	O			L	L	L	NC
67	P76/IRQ14-A	TU GPO2_INT	I			L	L	L	TUNER GPIO2 input pin
68	P75	SUB UPDATE	O			L	L	L	SUB UPDATEmode control(DPMS/ DENON WRITTER)."L". SUB Program mode "H",then SUB RST.
69	PC7/A23/CS4#-D/ CS7#-D/TxD5	MOSI	O			L	L	L	MAIN-SUB CPU Communication control output
70	PC6/A22/CS6#-D/ RxD5	SOMI	I			I	L	I	MAIN-SUB CPU Communication control output
71	PC5/A21/CS5#-D/ SCK5	CLK MO	O			L	L	L	MAIN-SUB CPU Communication control output
72	PC4/A20	RST SUB	O			L	L	L	MAIN-SUB CPU Communication control output
73	PC3/A19	ACK SIMO	O			L	L	L	MAIN-SUB CPU Communication control output
74	VCC	VCC	-			-	-	-	+3.3V
75	PC2/A18	SUB CPU POWER	O			L	L	L	SUB CPU POWER (H:ON)
76	VSS	VSS	-			-	-	-	GND
77	PC1/A17	GRN LED	O			L	L	L	POWER LED control pin(ON:H)
78	PC0/A16	RED LED	O			L/H	L	H	POWER/STANDBY LED control pin (ON:H)
79	PB7/A15/PO31/ TIOCA11/TIOCB11	H/P RL	O			L	L	L	HEADPHONE RLY control pin
80	PB6/A14/PO30/ TIOCA11	FRONT RL	O			L	L	L	FRONT Ch RELAY control pin
81	PB5/A13/PO29/ TIOCA10/TIOCB10	NC	O			L	L	L	NC
82	PB4/A12/PO28/ TIOCA10	TU_SEN	O			L	L	L	TUNER control pin
83	PB3/A11/PO27/ TIOCC9/TIOCD9	C/S RL	O			L	L	L	CENTER/SURROUND Ch RELAY control pin
84	PB2/A10/PO26/ TIOCC9	SB RL	O			L	L	L	SURROUND-BACK Ch RELAY control pin
85	PB1/A9/PO25/ TIOCA9/TIOCB9	D5V POWER	O			L	L	H	DIGITAL POWER SUPPLY (D3.3V) control pin (ON:H)
86	P74/ADTRG3#	FH RL	O			L	L	L	RELAY control
87	P73	FW RL	O			L	L	L	RELAY control
88	P72	NC	O			L	L	L	NC
89	P71/CS4#-C/ CS5#-C/CS6#-C/ CS7#-C	NC	O			L	L	L	NC

Pin	Pin Name	Symbol	I/O	Pull up/ down	LvCnv	STBY	STOP	CEC STBY	Function
90	P70/CS3#-B/ ADTRG2#	NC	O			L	L	L	NC
91	VCC	VCC	-			-	-	-	+3.3V
92	PB0/A8/PO24/ TIOCA9	NC	O/I			L	L	L	NC
93	VSS	VSS	-			-	-	-	GND
94	PA7/A7/PO23/ TIOCA8/TIOCB8/ TCLKH	NC	O			L	L	L	NC
95	PA6/A6/PO22/ TIOCA8	VSEL A	I			I	I	I	Master Volume rotation detection pin(Rotary encoder)
96	PA5/A5/PO21/ TIOCA7/TIOCB7/ TCLKG	VSEL B	I			I	I	I	Master Volume rotation detection pin(Rotary encoder)
97	PA4/A4/PO20/ TIOCA7	E POWER 2 (Reserve)	O			L	L	L	Unused
98	PA3/A3/PO19/ TIOCC6/TIOCD6/ TCLKF	DAC(ETHER) MUTE	O			L	L	L	DAC (ETHER) MUTE control pin (PCM5100 for DM860)
99	PA2/A2/PO18/ TIOCC6/TCLKE	PRE Z2 MUTE	O			L	L	L	Z2 PRE OUT MUTE control pin
100	PA1/A1/PO17/ TIOCA6/TIOCB6	SB MUTE	O			L	L	L	SB PRE OUT MUTE Control
101	PA0/A0/BC0#/PO16/ TIOCA6	PRE MUTE	O			L	L	L	Sub Woofer PRE OUT MUTE control pin
102	PE7/IRQ7-A/D15	PRE Z3 MUTE	O			L	L	L	PRE OUT MUTE Control
103	PE6/IRQ6-A/D14	NC	O			L	L	L	NC
104	PE5/IRQ5-A/D13	REQ SOMI	I			I	L	I	MAIN-SUB CPU Communication control output
105	PE4/D12	ISEL A	I			I	I	I	Input Selector rotation detection pin(Rotary encoder)
106	PE3/D11	ISEL B	I			I	I	I	Input Selector rotation detection pin(Rotary encoder)
107	PE2/D10	VOL CLK	O			L	L	L	FUNCTION / VOLUME control pin (R2A15218)
108	PE1/D9	VOL DATA	O			L	L	L	FUNCTION / VOLUME control pin (R2A15218)
109	PE0/D8	NC	O			L	L	L	NC
110	PD7/D7	NC	O			L	L	L	NC
111	PD6/D6	NC	O			L	L	L	NC
112	PD5/D5	ASO DET	I			I	I	I	PROTECTION (ASO)
113	PD4/D4	DC DET	I			I	I	I	PROTECTION (DC DET)
114	P64/CS4#-B	TRIGGER OUT 2	O			L	L	L	TRIGGER OUT Control
115	P63/CS3#-A/CS7#-A	TRIGGER OUT 1	O			L	L	L	TRIGGER OUT Control
116	P62/CS2#-A/CS6#-A	E SPI CS	O	N3VPu		L	L	L	ETHERNET communication control pin(DM860)
117	P61/CS1#/CS2#-B/ CS5#-A/CS6#-B/ CS7#-B	Reserved(Hi-B RL)	O			L	L	L	Reserved(HIGH B RELAY Control)
118	P60/CS0#/CS4#-A/ CS5#-B	NC	O			L	L	L	NC
119	PD3/D3	NC	O			L	L	L	NC
120	PD2/D2	NC	O			L	L	L	NC
121	PD1/D1	FL CLK	O			L	L	L	VFD control pin
122	PD0/D0	FL DATA	O			L	L	L	VFD control pin
123	P97/AN15	THERMAL C	I			I	L	I	PROTECTION Detect(Heat Sink)
124	P96/AN14	THERMAL D	I			I	L	I	PROTECTION Detect(Heat Sink)
125	P95/AN13	THERMAL A	I			I	L	I	PROTECTION Detect(P.TR)
126	P94/AN12	THERMAL B	I			I	L	I	PROTECTION Detect(P.TR)
127	P93/AN11	MAIN POWER	O			L	L	L	MAIN POWER control pin
128	P92/AN10	CPU POWER	O			L	L	L	CPU INTERFACE POWER SUPPLY (SWM3.3V & SWM5V) control pin (POWER ON:H,CEC ON STANDBY:H)
129	P91/AN9	NC	O			L	L	L	NC
130	VSS	VSS	-			-	-	-	GND
131	P90/AN8	MODE	I			I	I	I	Destination detection pin
132	VCC	VCC	-			-	-	-	+3.3V
133	P47/IRQ15-B/AN7	MIC DET	I			I	I	I	MIC Detec(Active:H)
134	P46/IRQ14-B/AN6	H/P DET	I			I	I	I	Headphone Detect(Active:H)

Pin	Pin Name	Symbol	I/O	Pull up/ down	LvCnv	STBY	STOP	CEC STBY	Function
135	P45/IRQ13-B/AN5	KEY3	I	SW3VPu		I	I	I	Button input 3
136	P44/IRQ12-B/AN4	KEY2	I	SW3VPu		I	I	I	Button input 2
137	P43/IRQ11-B/AN3	KEY1	I	SW3VPu		I	I	I	Button input 1
138	P42/IRQ10-B/AN2	E SPI REQ	I	Pd		I	L	I	ETHERNET communication control pin(DM860)
139	P41/IRQ9-B/AN1	NC	O			L	L	L	NC
140	AVSS	AVSS	-			-	-	-	GND
141	P40/IRQ8-B/AN0	NC	O			L	L	L	NC
142	VREF	VREF	-			-	-	-	Reference voltage (+3.3V) input pin for A/D port
143	AVCC	AVCC	-			-	-	-	+3.3V
144	P05/IRQ13-A/TMO3/ RxD4/TCK	TCK/RXD MITSUBISHI/ NC(NORMRAL)	I/I/I	M3VPu		-/-/I	-/-/I	I	E20 Emulator control signal/ Mitsubishi Programer/Nomal OP.:Input

R5F3650KNFB (HDMI : IC231)



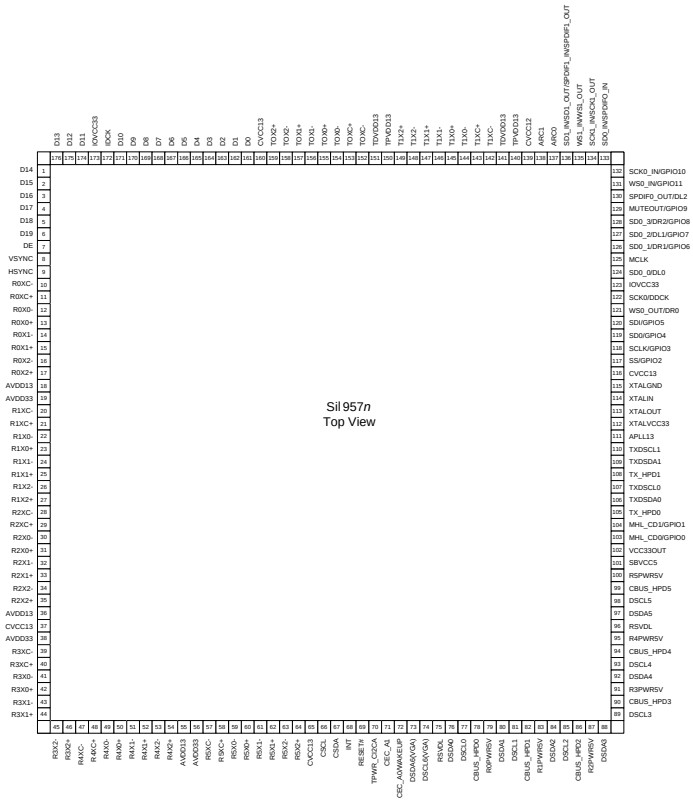
Notes:
1. N-channel open drain output.
2. Check the position of Pin 1 by referring to appendix 1, Package Dimensions.
3. Pin names in brackets [ ] represent a single functional signal. They should not be considered as two separate functional signals.

R5F3650KNFB Terminal Functions

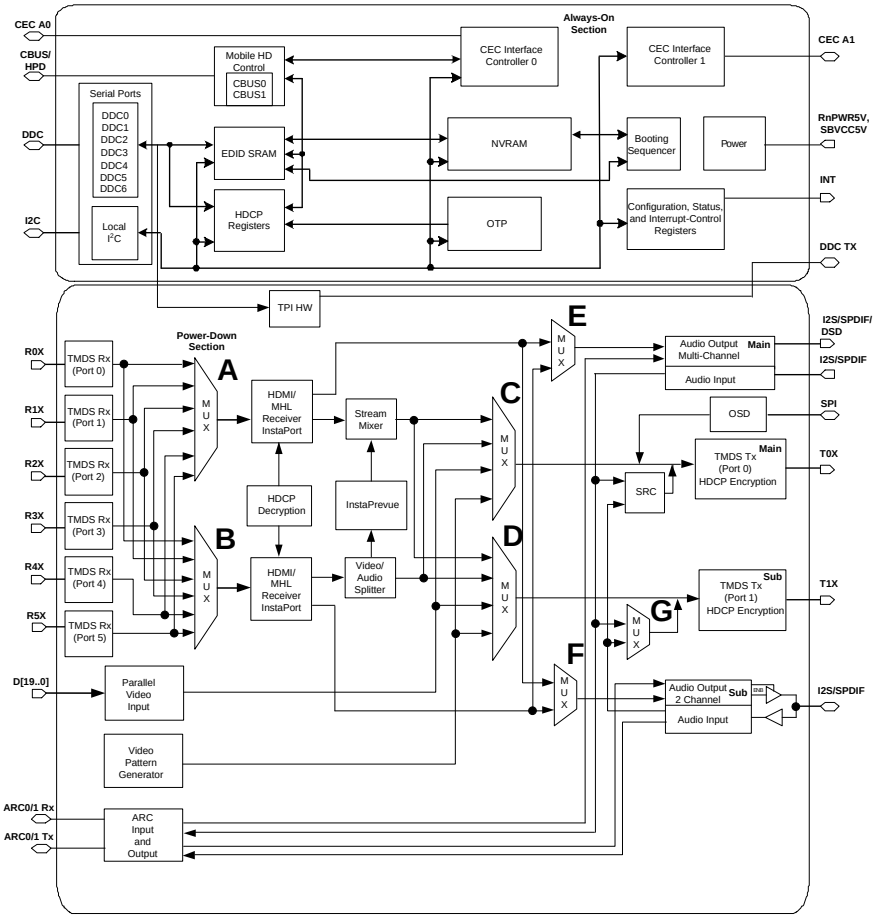
Pin	Pin Name	Synbol	I/O	Type	Pu/Pd (Ext.)	CEC STBY	P.OFF	Function
1	P94	NC	I	-	Pd	-	Z	NC
2	P93	DIR CE	O	C	-	O/L	Z	DIR control pin
3	P92/SOUT3	DIR DIN	O	C	-	O/L	Z	DIR control pin
4	P91/SIN3	DIR DOUT	I	-	DA3.3Pu	-	Z	DIR control pin
5	P90/CLK3	DIR CLK	O	C	-	O/L	Z	DIR control pin
6	BYTE	BYTE	-	-	-	-	-	GND(Ext. data bus bit width switching, 16bit : L)
7	CNVCS	CNVSS	-	-	Pd	-	-	Single-chip/Micro-processor mode switching (Normal single-chip : L, Rewrite boot program start : H input set)
8	P87	ADC RST	O	C	-	O/L	Z	AD control pin
9	P86	NC	O	C	-	O/L	Z	NC
10	RESET	$\overline{\text{SUBRESET}}$	I	-	SCPU3VPu	-	Z	Reset input
11	XOUT	X1	O	-	-	-	-	Oscillator connection
12	VSS	VSS	-	-	-	-	-	GND
13	XIN	X2	I	-	-	-	-	Oscillator connection
14	VCC	VCC	-	-	-	-	-	+3.3V
15	P85(N)/(NMI)/(CEC)	NC	I	-	Pd	-	-	NC
16	P84/INT2	CEC_IN	I	-	SCPU3VPu	-	Z	CEC-D signal input pin
17	P83/INT1	ACK SIMO	I	-	-	-	Z	MAIN-SUB ucom communication control input pin MAIN ucom Hack from the main "L" Return)
18	P82/INT0	$\overline{\text{SUB BDOWN}}$	I	-	-	-	Z	Power failure detect(Power failure:L)
19	P81	NC	O	C	-	-	Z	NC
20	P80/(RXD5)	NC	O	C	-	-	Z	NC
21	P77/(CLK5)	SUB TDO	I	-	-	O/L	Z	PLD rewriting control (JTAG)
22	P76/(TXD5)	A PLD CS /"D/M"	O	C	-	-	O/L	A PLD control pin/ DENON WRITTER/ MITSUBISHI rewritten for determining (DW :L)
23	P75	A PLD DATA	O	C	-	O/L	Z	A PLD control pin
24	P74	A PLD CLK	O	C	-	O/L	Z	A PLD control pin
25	P73/CTS2	NC	I	-	Pd	-	Z	NC
26	P72/CLK2	DA POWER	O	C	-	-	Z	DIGITAL power (DA3.3V,DA1.1V) ON/OFF control (H: ON)
27	P71(N)/RXD2/SCLMM	HSCL(400k)	I/O	N	CEC3VPu	O/L	O/L	VIDEO I2C- ADV8003/ADV7850/SiI9575
28	P70(N)/TXD2/SDAMM	HSDA(400k)	I/O	N	CEC3VPu	O/L	O/L	VIDEO I2C- ADV8003/ADV7850/SiI9575
29	P67/TXD1	TXD	O	C	SCPU3VPu	-	Z	Data transmission output to external
30	P66/RXD1	RXD	I	-	SCPU3VPu	-	Z	Data reception input from the external
31	P65/CLK1/SCLK	SCLK	I	-	Pd	-	Z	Emulator communication pin
32	P64/CTS1	HIN SELA	O	C	-	O/L	Z	For HDMI +5V selection(TC4051)
33	P63/TXD0	SOMI	O	C	-	-	Z	MAIN-SUB ucom communication control pin
34	P62/RXD0	SIMO	I	-	-	-	Z	MAIN-SUB ucom communication control pin
35	P61/CLK0	CLK SIMO	I	-	-	-	Z	MAIN-SUB ucom communication control pin
36	P60/CTS0	REQ SOMI	O	C	-	-	Z	MAIN-SUB ucom communication control pin
37	P57	TMDS SW RST RST	O	C	SCPU3VPu	-	Z	HDMI SWITCHER TMDS SW RST RST Reset pin
38	P56	DV POWER2	O	C	-	-	Z	DIGITAL.VIDEO power control pin (DV1.8V)
39	P55/EPM	EPM	I	-	Pd	-	Z	Rewite boot program start:L input set
40	P54	CEC_OUT	O	C	-	-	Z	CEC-D signal output pin
41	P53	NC	I	-	Pd	I	Z	NC
42	P52	HIN SELC	I	-	SCPU3VPu	I	Z	For HDMI +5V selection(TC4051)
43	P51	HIN SELB	O	C	-	O/L	Z	For HDMI +5V selection(TC4051)
44	P50/CE	CE	O/I	C	SCPU3VPu	-	Z	Rewite boot program start:H input set
45	P47/(TXD7)/SDA7	VSDA	I/O	C	DV3VPu	-	O/L	VIDEO SELECT IC(ADVM2000)
46	P46/(RXD7)/SCL7	VSCL	I/O	C	DV3VPu	-	O/L	VIDEO SELECT IC(ADVM2000)
47	P45/(CLK7)	ADV8003 INT1	I	-	-	-	Z	HDMI ADV8003 INT output
48	P44	ADV8003 INT2	I	-	-	-	Z	HDMI ADV8003 INT output
49	P43	HDMI A.SEL	O	C	-	O/L	Z	HDMI AUDIO switch (H : DSP course, L : HDMI Rx→Tx through) (TC74VHC244)
50	P42	NC	I	-	Pd	I	Z	NC
51	P41	CEC POWER	O	C	-	O/H	Z	Power ON (CEC5V,CEC3.3V,CEC1.8V) for CEC STANDBY
52	P40	CEC SEL(33)	I	-	Pd	-	Z	CEC output LINE switching
53	P37	ADV7850 RST	O	C	SCPU3VPu	-	Z	Reset for HDMI(ADV7850)
54	P36	ADV8003 RST	O	C	SCPU3VPu	-	Z	Reset for HDMI(ADV8003)
55	P35	NC	O	C	-	-	Z	NC
56	P34	NC	O	C	-	-	Z	S signal presence detection input (Connected: H)
57	P33	NC	O	C	-	-	Z	NC
58	P32	DAC MDI	O	C	-	O/L	Z	DAC control pin(ASK4358)
59	P31	DAC MC	O	C	-	O/L	Z	DAC control pin(ASK4358)

Pin	Pin Name	Synbol	I/O	Type	Pu/Pd (Ext.)	CEC STBY	P.OFF	Function
60	VCC	VCC	-	-	-	-	-	+3.3V
61	P30	DAC MS	O	C	-	O/L	Z	DAC control pin(ASK4358)
62	VSS	VSS	-	-	-	-	-	GND
63	P27	DAC RST	O	C	-	O/L	Z	DAC control pin(ASK4358)
64	P26	DV POWER	O	C	-	MODE1=O/H MODE2=O/L	Z	DIGITAL VIDEO power control pin (DV5V,DV3.3V)
65	P25/INT7	ADV7850 INT1	I	-	-	-	Z	HDMI RECEIVER(ADV7850)INT output
66	P24/INT6	ADV7850 INT2	I	-	-	-	Z	HDMI RECEIVER(ADV7850)INT output
67	P23	SUB TMS	O	C	DA3.3Pu	-	Z	PLD rewriting control (JTAG)
68	P22	NC	I	-	Pd	-	Z	NC
69	P21	NC	O	C	-	-	Z	NC
70	P20	NC	O	C	-	-	Z	NC
71	P17/INT5	SII INT	I	-	-	-	Z	HDMI Sil9575 INT output
72	P16/INT4	NC	O	-	-	-	Z	NC
73	P15/INT3	H5V DET	I	-	-	-	Z	HDMI IN 5V DET
74	P14	NC	I	-	Pd	-	Z	NC
75	P13/TXD6	DSP MOSI	O	C	DA3VPu	O/L	Z	DSP control pin
76	P12/RXD6	DSP MISO	I	-	DA3VPu	-	Z	DSP control pin
77	P11/CLK6	DSPICLK	O	C	DA3VPu	O/L	Z	DSP control pin
78	P10	NC	O	C	-	-	Z	VIDEO IN signal presence detection input(Signal input:H)
79	P07	SUB TDI	O	C	DA3.3Pu	O/L	Z	PLD rewriting control (JTAG)
80	P06	NC	O	C	-	-	Z	NC
81	P05	NC	O	C	-	O/L	Z	ZONE2 image input switch (INPUT select)
82	P04	NC	O	C	-	O/L	Z	ZONE2 image input switch (INPUT select)
83	P03	SUB TCK	O	C	Pd	-	Z	PLD rewriting control (JTAG)
84	P02	NC	O	C	-	O/L	O/L	NC
85	P01	NC	O	C	-	O/L	O/L	NC
86	P00	DIR RST1	O	C	-	O/L	O/L	DIR control pin (LC89058W-VF4A)
87	P107/(AN7)	DSP RST	O	C	-	O/L	Z	DSP reset output pin (Reset:L)
88	P106/(AN6)	NC	I	-	Pd	-	Z	NC
89	P105/(AN5)	DSP ROMRST	O	C	-	O/L	Z	Memory reset for DSP(Reset:L)
90	P104/(AN4)	NC	O	-	-	-	Z	NC
91	P103/(AN3)	DSP FLAG0	I	-	Pd	-	Z	DSP control pin
92	P102/(AN2)	DSPICS	O	C	DA3VPu	O/L	Z	DSP control pin
93	P101/(AN1)	NC	I	-	Pd	-	Z	NC
94	AVSS	AVSS	-	-	-	-	-	AD GND
95	P100/(AN0)	NC	I	-	Pd	-	Z	NC
96	VREF	VREF	-	-	-	-	-	AD standard +3.3V
97	AVCC	AVCC	-	-	-	-	-	AD +3.3V
98	P97/(SIN4)	Tx EN	O	C	-	-	Z	AD8195 ENABLE pin for Front HDMI control
99	P96/(SOUT4)	NC	I	-	Pd	-	Z	NC
100	P95/(CLK4)	NC	I	-	Pd	-	Z	NC

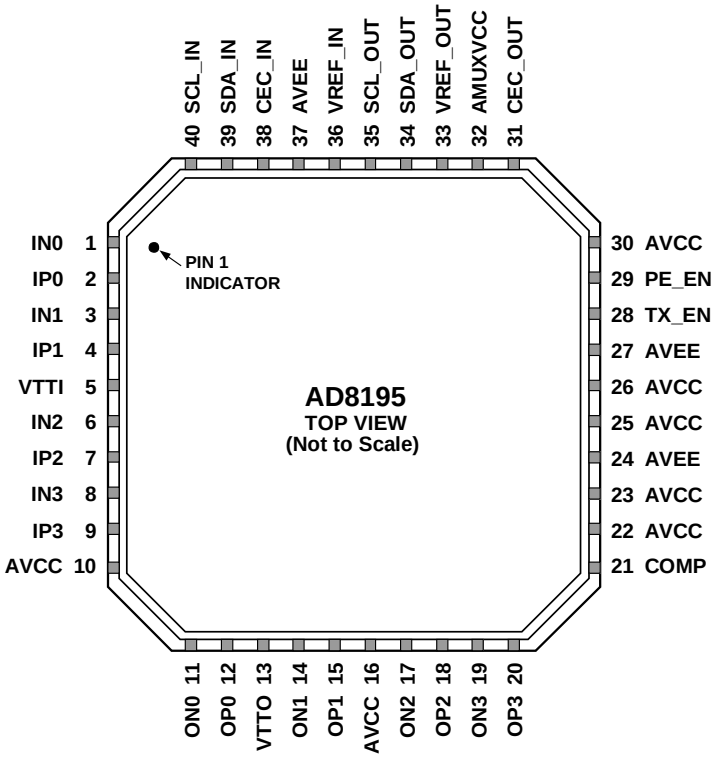
Sil9575 (HDMI : IC501)



Sil9575 Block diagram



AD8195ACPZ (HDMI : IC101)



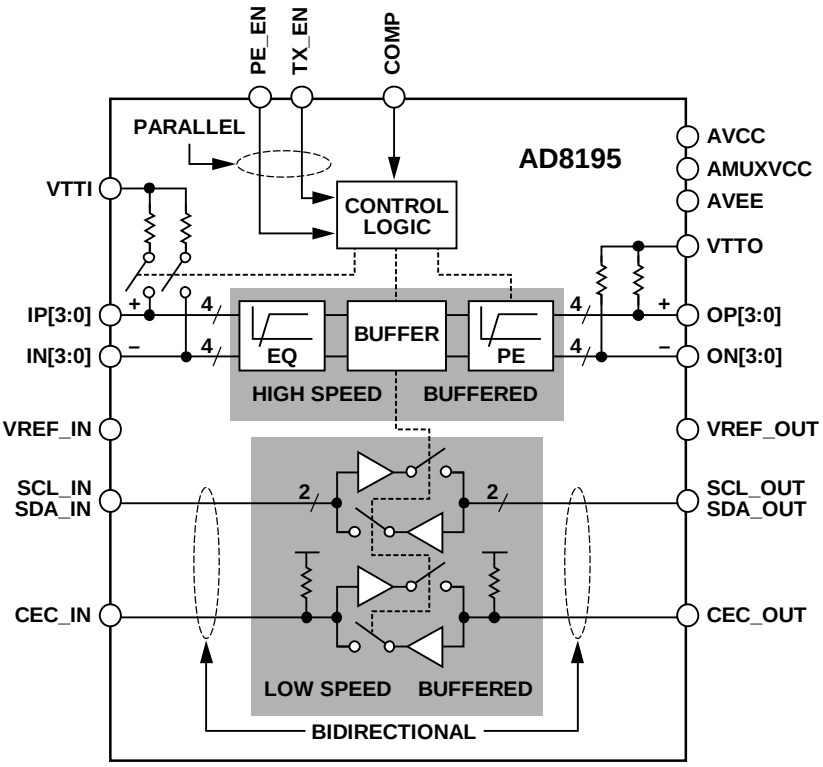
NOTES
1. THE AD8195 LFCSP HAS AN EXPOSED PAD ON THE UNDERSIDE OF THE PACKAGE THAT AIDS IN HEAT DISSIPATION. THE PAD MUST BE ELECTRICALLY CONNECTED TO THE AVEE SUPPLY PLANE IN ORDER TO MEET THERMAL SPECIFICATIONS.

07049-003

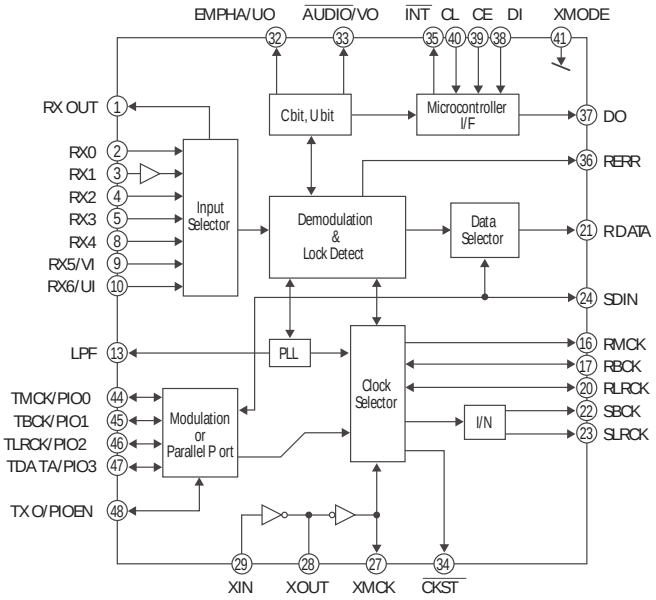
AD8195ACPZ Terminl Function

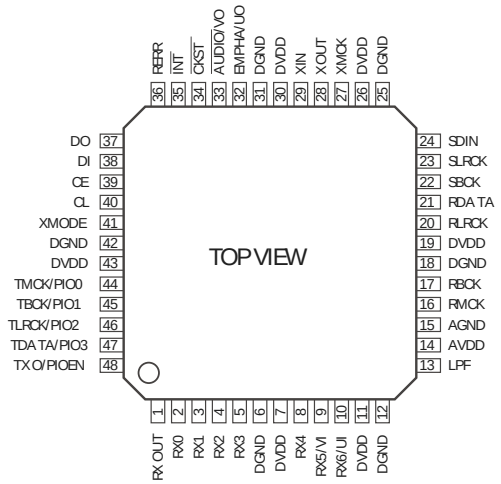
Pin No.	Mnemonic	Type[1]	Description
1	IN0	HS I	High Speed Input Complement.
2	IP0	HS I	High Speed Input.
3	IN1	HS I	High Speed Input Complement.
4	IP1	HS I	High Speed Input.
5	VTTI	Power	Input Termination Supply. Nominally connected to AVCC.
6	IN2	HS I	High Speed Input Complement.
7	IP2	HS I	High Speed Input.
8	IN3	HS I	High Speed Input Complement.
9	IP3	HS I	High Speed Input.
10, 16, 22, 23, 25, 26, 30	AVCC	Power	Positive Analog Supply. 3.3 V nominal.
11	ON0	HS O	High Speed Output Complement.
12	OP0	HS O	High Speed Output.
13	VTTO	Power	Output Termination Supply. Nominally connected to AVCC.
14	ON1	HS O	High Speed Output Complement.
15	OP1	HS O	High Speed Output.
17	ON2	HS O	High Speed Output Complement.
18	OP2	HS O	High Speed Output.
19	ON3	HS O	High Speed Output Complement.
20	OP3	HS O	High Speed Output.
21	COMP	Control	Power-On Compensation Pin. Bypass to ground through a 10 µF capacitor.
24, 27, 37, Exposed Pad	AVEE	Power	Negative Analog Supply. 0 V nominal.
28	TX_EN	Control	High Speed Output Enable Parallel Interface.
29	PE_EN	Control	High Speed Preemphasis Enable Parallel Interface.
31	CEC_OUT	LS I/O	CEC Output Side.
32	AMUXVCC	Power	Positive Auxiliary Buffer Supply. 5 V nominal.

AD8195ACPZ Block diagram



LC89057W-VF4A (HDMI : IC403)





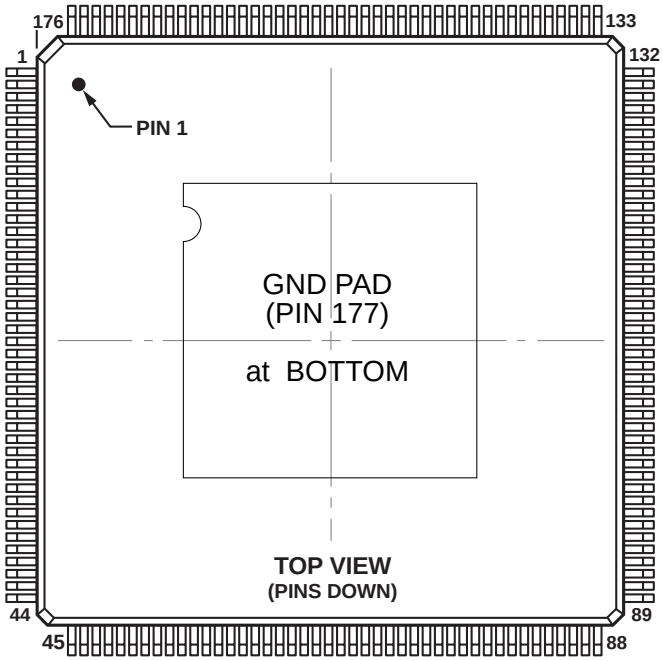
LC89057W-VF4A Terminl Function

Pin No.	Pin Name	I/O	Function
1	RXOUT	O	Input bi-phase select data output ter minal
2	RX0	I	TTL compatib le digital data input ter minal
3	RX1	I	Coaxial compatib le amp b uilt-in digital data input ter minal
4	RX2	I	TTL compatib le digital data input ter minal
5	RX3	I	TTL compatib le digital data input ter minal
6	DGND	-	Digital GND
7	DVDD	-	Digital power
8	RX4	I	TTL compatib le digital data input ter minal
9	RX5/VI	I	TTL compatib le digital data/V alidity □ag input ter minal for modulation
10	RX6/UI	I	TTL compatib le digital data/User data input ter minal for modulation
11	DVDD	-	Digital power for PLL
12	DGND	-	Digital GND f or PLL
13	LPF	O	PLL loop □lter connecting ter minal
14	AVDD	-	Analog po wer for PLL
15	AGND	-	Analog GND f or PLL
16	RMCK	O	RMCK cloc k output ter minal (256fs , 512fs , XIN, VCO)
17	RBCK	O/I	RBCK cloc k in/output terminal (64fs)
18	DGND	-	Digital GND
19	DVDD	-	Digital power
20	RLRCK	O/I	RLRCK cloc k in/output terminal (fs)
21	RD ATA	O	Ser ial audio data output ter minal
22	SBCK	O	SBCK cloc k output ter minal (32fs , 64fs , 128fs)
23	SLRCK	O	SLRCK cloc k output ter minal (fs/2, fs , 2fs)
24	SDIN	I	Ser ial audio data input ter minal
25	DGND	-	Digital GND
26	DVDD	-	Digital power
27	XMCK	O	Osc. amp output ter minal

Pin No.	Pin Name	I/O	Function
28	XOUT	O	X tal osc. connecting output ter minal
29	XIN	I	X tal osc. connection, e xternal cloc k input ter minal (24.576MHz or 12.288MHz)
30	DVDD	-	Digital po wer
31	DGND	-	Digital GND
32	EMPHA/UO	I/O	Emphasis inf ormation/U-data output/Chip address setting ter minal
33	AUDIO/V O	I/O	Non-PCM detect/V -□ag output/ Chip address setting ter minal
34	CKST	I/O	Cloc k s witch transition per iod output/Demodulation master or sla ve function s witching ter minal
35	INT	I/O	Interr upt output for ∝com (Interr upt factor selectab le)/Modulation or gener al I/O s witching ter minal
36	RERR	O	PLL loc k error , data error □ag output
37	DO	O	∝com I/F, read out data output ter minal (3-state)
38	DI	I	∝com I/F, wr ite data input ter minal
39	CE	I	∝com I/F, chip enab le input ter minal
40	CL	I	∝com I/F, cloc k input ter minal
41	XMODE	I	System reset input ter minal
42	DGND	-	Digital GND
43	DVDD	-	Digital po wer
44	TMCK/PIO0	I/O	256fs system cloc k input for modulation/Gener al I/O in/output ter minal
45	TBCK/PIO1	I/O	64fs bit cloc k input for modulation/Gener al I/O in/output ter minal
46	TLRCK/PIO2	I/O	fs cloc k input for modulation/Gener al I/O in/output ter minal
47	TD ATA/PIO3	I/O	Ser ial audio data input f or modulation/Gener al I/O in/output ter minal
48	TXO/PIOEN	O/I	Modulation data output/ Gener al I/O enab le input ter minal

* For latch-up countermeasure, perform each power supply ON/OFF in the same timing.

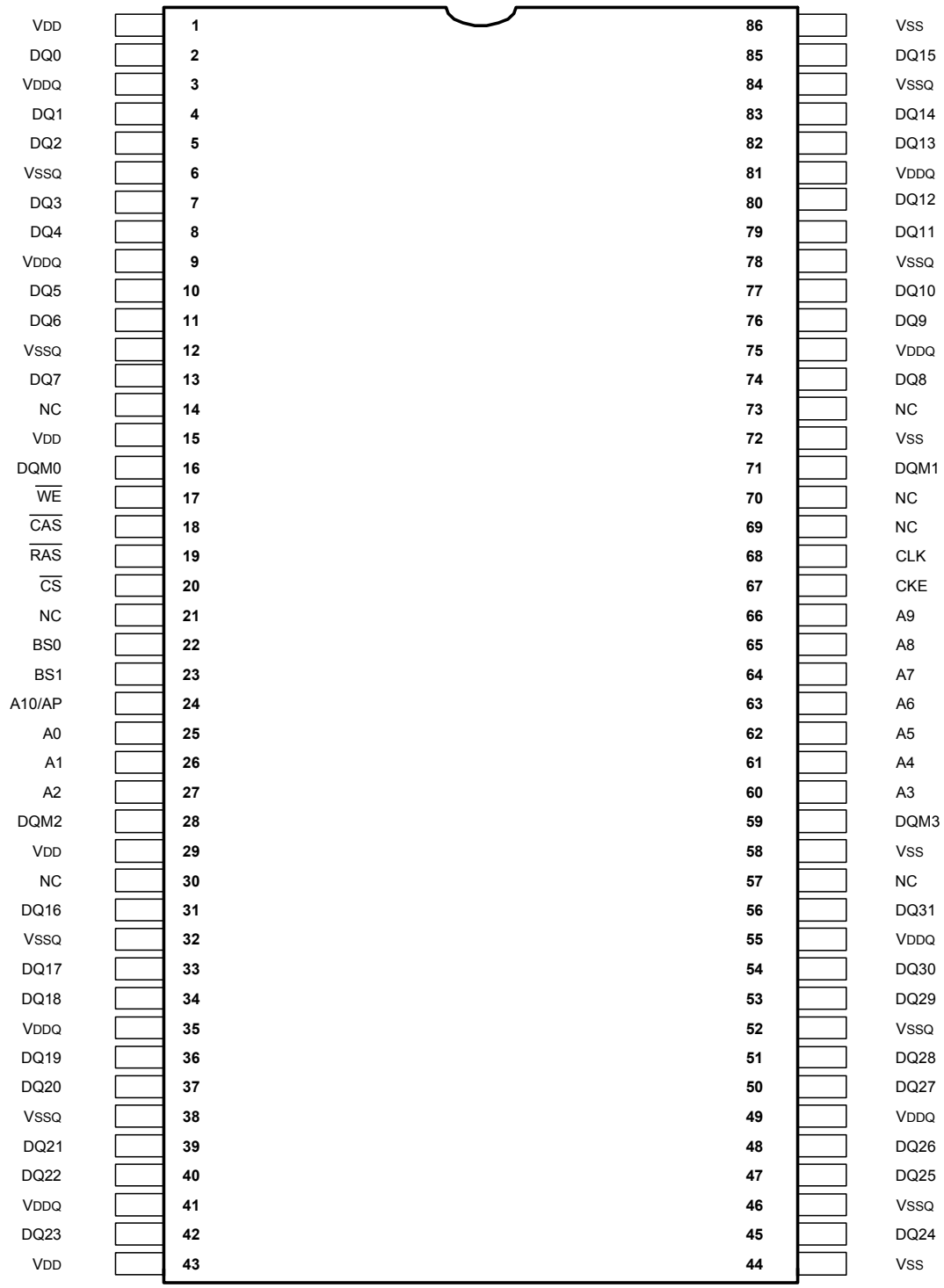
ADSP21487KSWZ-4B (HDMI : IC408)



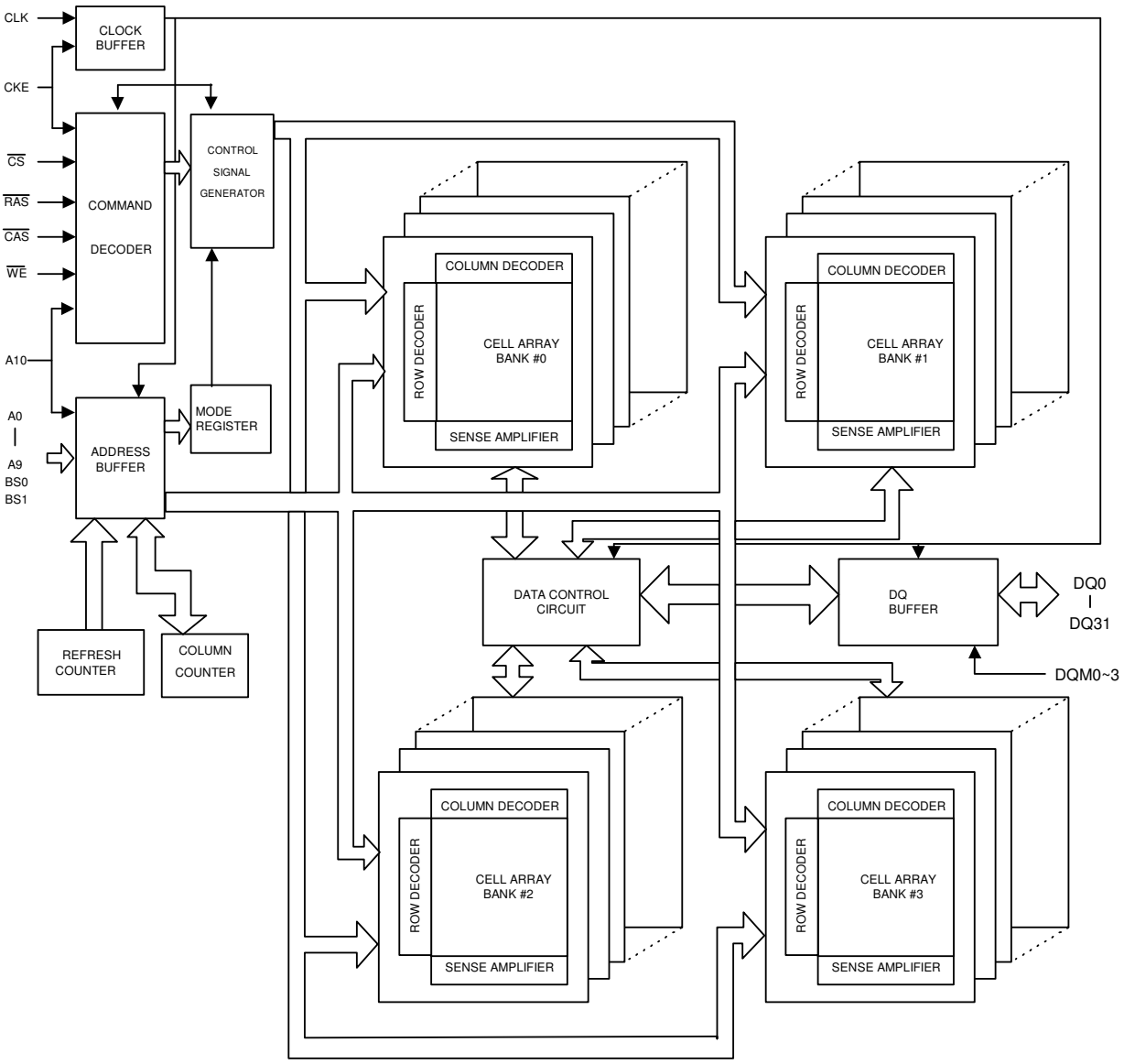
ADSP21487KSWZ Terminal Function

Pin Name	Pin No.	Pin Name	Pin No.	Pin Name	Pin No.	Pin Name	Pin No.
SDDQM	1	V_{DD_EXT}	45	DAI_P10	89	V_{DD_INT}	133
$\overline{MS0}$	2	DPI_P08	46	V_{DD_INT}	90	FLAG0	134
SDCKE	3	DPI_P07	47	V_{DD_EXT}	91	FLAG1	135
V_{DD_INT}	4	V_{DD_INT}	48	DAI_P20	92	FLAG2	136
CLK_CFG1	5	DPI_P09	49	V_{DD_INT}	93	NC	137
ADDR0	6	DPI_P10	50	DAI_P08	94	FLAG3	138
BOOT_CFG0	7	DPI_P11	51	DAI_P14	95	NC	139
V_{DD_EXT}	8	DPI_P12	52	DAI_P04	96	NC	140
ADDR1	9	DPI_P13	53	DAI_P18	97	V_{DD_EXT}	141
ADDR2	10	DPI_P14	54	DAI_P17	98	NC	142
ADDR3	11	DAI_P03	55	DAI_P16	99	V_{DD_INT}	143
ADDR4	12	NC	56	DAI_P12	100	$\overline{TRST}$	144
ADDR5	13	V_{DD_EXT}	57	DAI_P15	101	NC	145
BOOT_CFG1	14	NC	58	V_{DD_INT}	102	$\overline{EMU}$	146
GND	15	NC	59	DAI_P11	103	DATA0	147
ADDR6	16	NC	60	V_{DD_EXT}	104	DATA1	148
ADDR7	17	NC	61	V_{DD_INT}	105	DATA2	149
NC	18	V_{DD_INT}	62	BOOT_CFG2	106	DATA3	150
NC	19	NC	63	V_{DD_INT}	107	TDO	151
ADDR8	20	NC	64	AMI_ACK	108	DATA4	152
ADDR9	21	V_{DD_INT}	65	GND	109	V_{DD_EXT}	153
CLK_CFG0	22	NC	66	THD_M	110	DATA5	154
V_{DD_INT}	23	NC	67	THD_P	111	DATA6	155
CLKIN	24	V_{DD_INT}	68	V_{DD_THD}	112	V_{DD_INT}	156
XTAL	25	NC	69	V_{DD_INT}	113	DATA7	157
ADDR10	26	$\overline{WDTRSTO}$	70	V_{DD_INT}	114	TDI	158
SDA10	27	NC	71	$\overline{MS1}$	115	SDCLK	159
V_{DD_EXT}	28	V_{DD_EXT}	72	V_{DD_INT}	116	V_{DD_EXT}	160
V_{DD_INT}	29	DAI_P07	73	WDT_CLKO	117	DATA8	161
ADDR11	30	DAI_P13	74	WDT_CLKIN	118	DATA9	162
ADDR12	31	DAI_P19	75	V_{DD_EXT}	119	DATA10	163
ADDR17	32	DAI_P01	76	ADDR23	120	TCK	164
ADDR13	33	DAI_P02	77	ADDR22	121	DATA11	165
V_{DD_INT}	34	V_{DD_INT}	78	ADDR21	122	DATA12	166
ADDR18	35	NC	79	V_{DD_INT}	123	DATA14	167
$\overline{RESETOUT}$/$\overline{RUNRSTIN}$	36	NC	80	ADDR20	124	DATA13	168
V_{DD_INT}	37	NC	81	ADDR19	125	V_{DD_INT}	169
DPI_P01	38	NC	82	V_{DD_EXT}	126	DATA15	170
DPI_P02	39	NC	83	ADDR16	127	$\overline{SDWE}$	171
DPI_P03	40	V_{DD_EXT}	84	ADDR15	128	$\overline{SDRAS}$	172
V_{DD_INT}	41	V_{DD_INT}	85	V_{DD_INT}	129	$\overline{RESET}$	173
DPI_P05	42	DAI_P06	86	ADDR14	130	TMS	174
DPI_P04	43	DAI_P05	87	$\overline{AMI\_WR}$	131	$\overline{SDCAS}$	175
DPI_P06	44	DAI_P09	88	$\overline{AMI\_RD}$	132	V_{DD_INT}	176
						GND	177*

W9864G6JH-6 (HDMI : IC409)



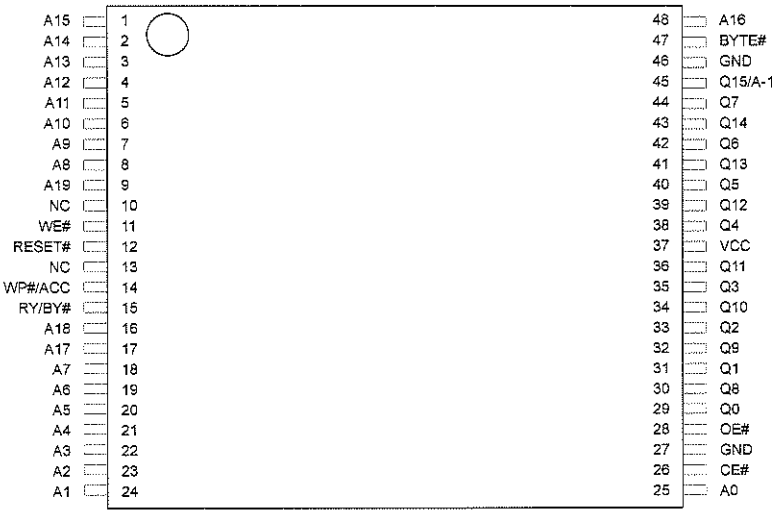
W9864G6JH-6 Block diagram



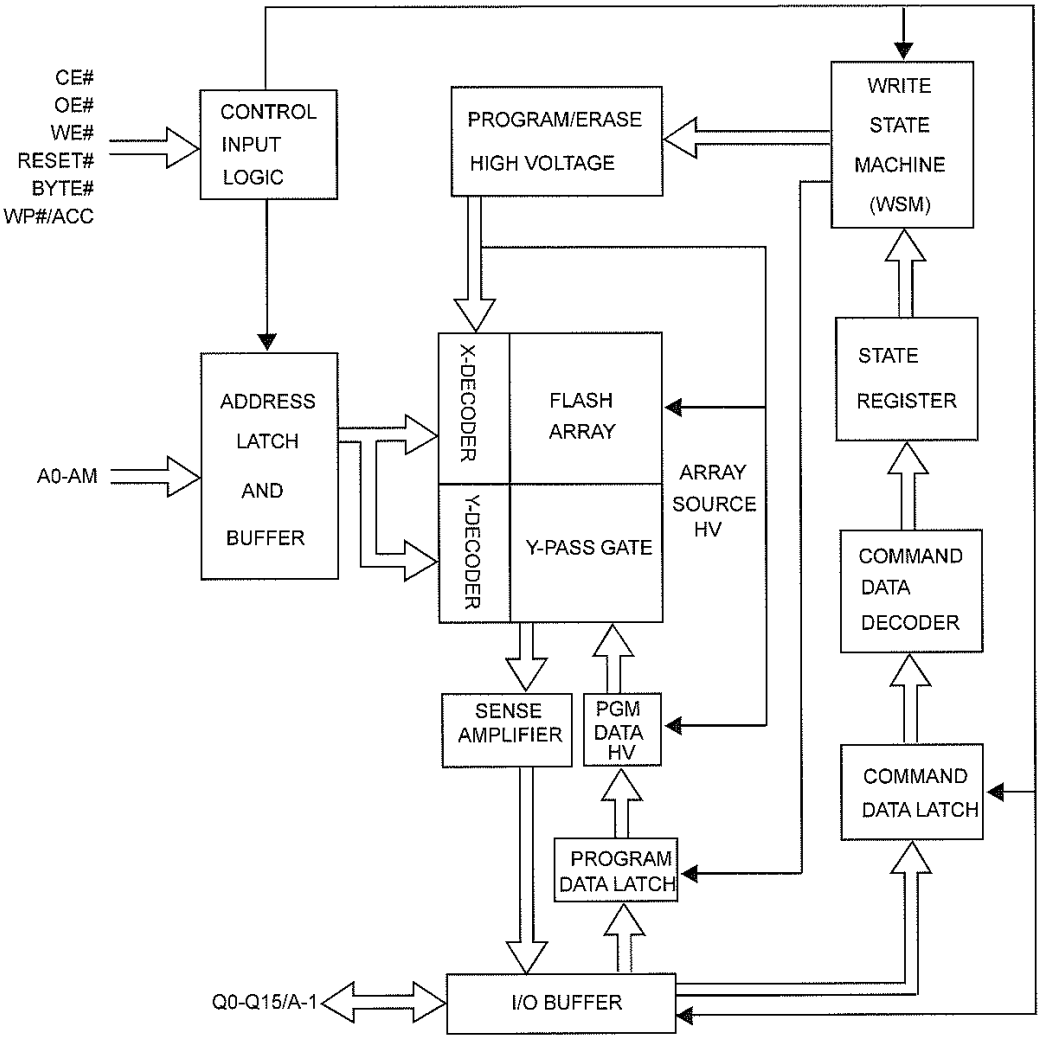
W9864G6JH-6 Pin description

PIN NUMBER	PIN NAME	FUNCTION	DESCRIPTION
24, 25, 26, 27, 60, 61, 62, 63, 64, 65, 66	A0−A10	Address	Multiplexed pins for row and column address. Row address: A0−A10. Column address: A0−A7. A10 is sampled during a precharge command to determine if all banks are to be precharged or bank selected by BS0, BS1.
22, 23	BS0, BS1	Bank Select	Select bank to activate during row address latch time, or bank to read/write during address latch time.
2, 4, 5, 7, 8, 10, 11, 13, 31, 33, 34, 36, 37, 39, 40, 42, 45, 47, 48, 50, 51, 53, 54, 56, 74, 76, 77, 79, 80, 82, 83, 85	DQ0−DQ31	Data Input/ Output	Multiplexed pins for data output and input.
20	$\overline{CS}$	Chip Select	Disable or enable the command decoder. When command decoder is disabled, new command is ignored and previous operation continues.
19	$\overline{RAS}$	Row Address Strobe	Command input. When sampled at the rising edge of the clock $\overline{RAS}$, $\overline{CAS}$ and $\overline{WE}$ define the operation to be executed.
18	$\overline{CAS}$	Column Address Strobe	Referred to $\overline{RAS}$
17	$\overline{WE}$	Write Enable	Referred to $\overline{RAS}$
16, 28, 59, 71	DQM0−DQM3	Input/Output Mask	The output buffer is placed at Hi-Z (with latency of 2) when DQM is sampled high in read cycle. In write cycle, sampling DQM high will block the write operation with zero latency.
68	CLK	Clock Inputs	System clock used to sample inputs on the rising edge of clock.
67	CKE	Clock Enable	CKE controls the clock activation and deactivation. When CKE is low, Power Down mode, Suspend mode, or Self Refresh mode is entered.
1, 15, 29, 43	V_{DD}	Power	Power for input buffers and logic circuit inside DRAM.
44, 58, 72, 86	V_{SS}	Ground	Ground for input buffers and logic circuit inside DRAM.
3, 9, 35, 41, 49, 55, 75, 81	V_{DDQ}	Power for I/O Buffer	Separated power from VDD, to improve DQ noise immunity.
6, 12, 32, 38, 46, 52, 78, 84	V_{SSQ}	Ground for I/O Buffer	Separated ground from VSS, to improve DQ noise immunity.
14, 21, 30, 57, 69, 70, 73	NC	No Connection	No connection.

MX29LV160DBTI-70G (HDMI : IC410)



MX29LV160DBTI-70G Block Diagram



PCM5100 (HDMI:IC321)

PCM510X (top view)

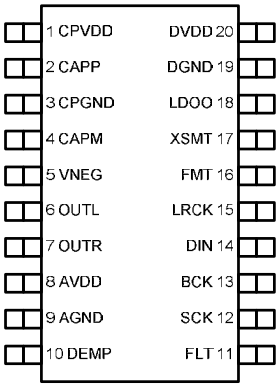


Table 2. TERMINAL FUNCTIONS, PCM510x

TERMINAL		I/O	DESCRIPTION
NAME	NO.		
CPVDD	1	-	Charge pump power supply, 3.3V
CAPP	2	O	Charge pump flying capacitor terminal for positive rail
CPGND	3	-	Charge pump ground
CAPM	4	O	Charge pump flying capacitor terminal for negative rail
VNEG	5	O	Negative charge pump rail terminal for decoupling, -3.3V
OUTL	6	O	Analog output from DAC left channel
OUTR	7	O	Analog output from DAC right channel
AVDD	8	-	Analog power supply, 3.3V
AGND	9	-	Analog ground
DEMP	10	I	De-emphasis control for 44.1kHz sampling rate(1): Off (Low) / On (High)
FLT	11	I	Filter select : Normal latency (Low) / Low latency (High)
SCK	12	I	System clock input
BCK	13	I	Audio data bit clock input
DIN	14	I	Audio data input
LRCK	15	I	Audio data word clock input
FMT	16	I	Audio format selection : I^2S (Low) / Left justified (High)
XSMT	17	I	Soft mute control : Soft mute (Low) / soft un-mute (High)
LDOO	18	-	Internal logic supply rail terminal for decoupling
DGND	19	-	Digital ground
DVDD	20	-	Digital power supply, 3.3V

(1) Failsafe LVCMOS Schmitt trigger input

PCM5100 Block Diagram

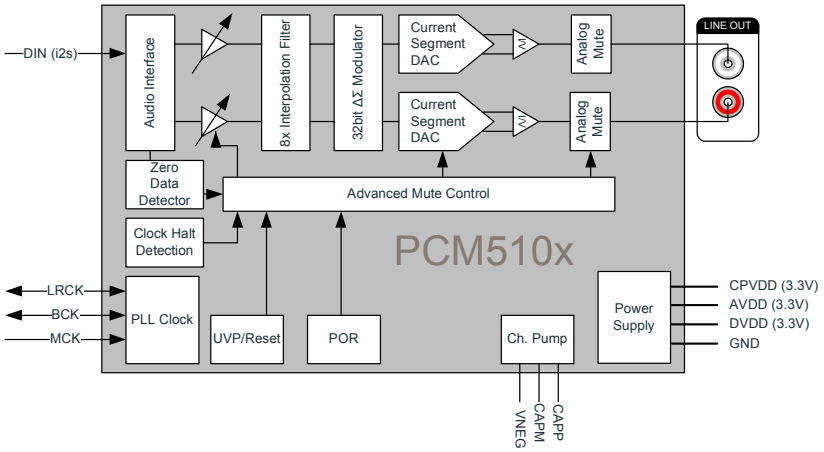
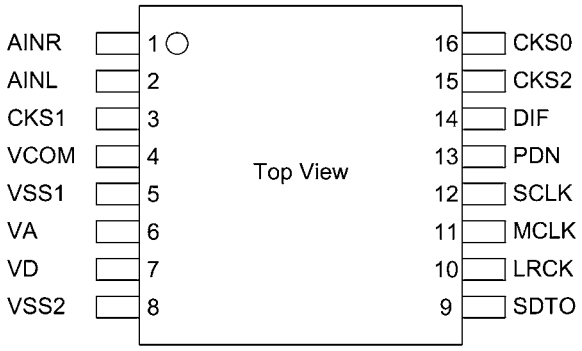


Figure 1. PCM510x Functional Block Diagram

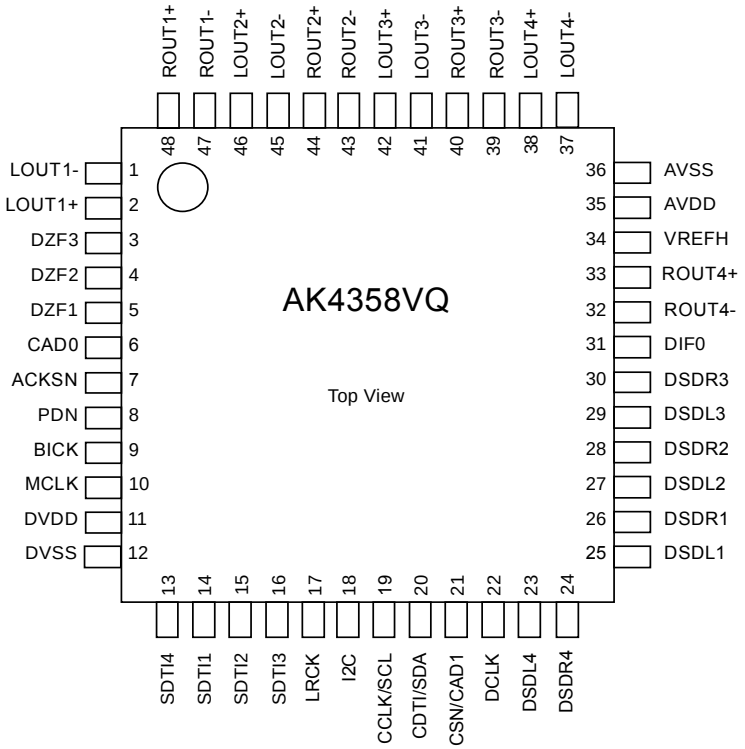
AK5358BET (HDMI : IC451)



AK5358BET Pin Function

No.	Pin Name	I/O	Function
1	AINR	I	Rch Analog Input Pin
2	AINL	I	Lch Analog Input Pin
3	CKS1	I	Mode Select 1 Pin
4	VCOM	O	Common Voltage Output Pin, VA/2 Bias voltage of ADC input.
5	VSS1	-	Ground Pin
6	VA	-	Analog Power Supply Pin, 4.5 ~ 5.5V
7	VD	-	Digital Power Supply Pin, 2.7 ~ 5.5V
8	VSS2	-	Ground Pin
9	SDTO	O	Audio Serial Data Output Pin "L" Output at Power-down mode.
10	LRCK	I/O	Output Channel Clock Pin "L" Output in Master Mode at Power-down mode.
11	MCLK	I	Master Clock Input Pin
12	SCLK	I/O	Audio Serial Data Clock Pin "L" Output in Master Mode at Power-down mode.
13	PDN	I	Power Down Mode & Reset Pin "H": Power up, "L": Power down & Reset
14	DIF	I	Audio Interface Format Pin "H": 24bit I^2S Compatible, "L": 24bit MSB justified
15	CKS2	I	Mode Select 2 Pin
16	CKS0	I	Mode Select 0 Pin

AK4358VQ (HDMI : IC441)



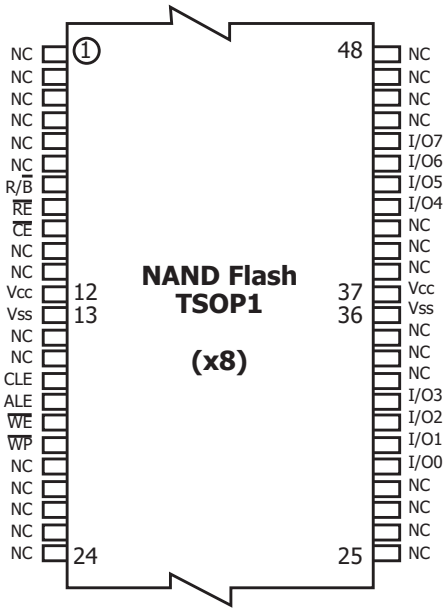
AK4358VQ Pin Function

No.	Pin Name	I/O	Function
1	LOUT1-	O	DAC1 Lch Negative Analog Output Pin
2	LOUT1+	O	DAC1 Lch Positive Analog Output Pin
3	DZF3	O	Zero Input Detect 3 Pin
4	DZF2	O	Zero Input Detect 2 Pin
5	DZF1	O	Zero Input Detect 1 Pin
6	CAD0	I	Chip Address 0 Pin
7	ACKSN	I	Auto Setting Mode Disable Pin (Pull-down Pin) "L": Auto Setting Mode, "H": Manual Setting Mode
8	PDN	I	Power-Down Mode Pin When at "L", the AK4358 is in the power-down mode and is held in reset. The AK4358 should always be reset upon power-up.
9	BICK	I	Audio Serial Data Clock Pin
10	MCLK	I	Master Clock Input Pin An external TTL clock should be input on this pin.
11	DVDD	-	Digital Power Supply Pin, +4.75~+5.25V
12	DVSS	-	Digital Ground Pin
13	SDTI4	I	DAC4 Audio Serial Data Input Pin
14	SDTI1	I	DAC1 Audio Serial Data Input Pin
15	SDTI2	I	DAC2 Audio Serial Data Input Pin
16	SDTI3	I	DAC3 Audio Serial Data Input Pin
17	LRCK	I	L/R Clock Pin
18	I2C	I	Control Mode Select Pin "L": 3-wire Serial, "H": I^2C Bus
19	CCLK/SCL	I	Control Data Clock Pin I2C = "L": CCLK (3-wire Serial), I2C = "H": SCL (I^2C Bus)
20	CDTI/SDA	I/O	Control Data Input Pin I2C = "L": CDTI (3-wire Serial), I2C = "H": SDA (I^2C Bus)
21	CSN/CAD1	I	Chip Select Pin I2C = "L": CSN (3-wire Serial), I2C = "H": CAD1 (I^2C Bus)
22	DCLK	I	DSD Clock Pin
23	DSDL4	I	DAC4 DSD Lch Data Input Pin
24	DSDR4	I	DAC4 DSD Rch Data Input Pin
25	DSDL1	I	DAC1 DSD Lch Data Input Pin
26	DSDR1	I	DAC1 DSD Rch Data Input Pin
27	DSDL2	I	DAC2DSD Lch Data Input Pin
28	DSDR2	I	DAC2 DSD Rch Data Input Pin

29	DSDL3	I	DAC3 DSD Lch Data Input Pin
30	DSDR3	I	DAC3 DSD Rch Data Input Pin
31	DIF0	I	Audio Data Interface Format 0 Pin
32	ROUT4-	O	DAC4 Rch Negative Analog Output Pin
33	ROUT4+	O	DAC4 Rch Positive Analog Output Pin
34	VREFH	I	Positive Voltage Reference Input Pin
35	AVDD	-	Analog Power Supply Pin, +4.75~+5.25V
36	AVSS	-	Analog Ground Pin
37	LOUT4-	O	DAC4 Lch Negative Analog Output Pin
38	LOUT4+	O	DAC4 Lch Positive Analog Output Pin
39	ROUT3-	O	DAC3 Rch Negative Analog Output Pin
40	ROUT3+	O	DAC3 Rch Positive Analog Output Pin
41	LOUT3-	O	DAC3 Lch Negative Analog Output Pin
42	LOUT3+	O	DAC3 Lch Positive Analog Output Pin
43	ROUT2-	O	DAC2 Rch Negative Analog Output Pin
44	ROUT2+	O	DAC2 Rch Positive Analog Output Pin
45	LOUT2-	O	DAC2 Lch Negative Analog Output Pin
46	LOUT2+	O	DAC2 Lch Positive Analog Output Pin
47	ROUT1-	O	DAC1 Rch Negative Analog Output Pin
48	ROUT1+	O	DAC1 Rch Positive Analog Output Pin

Note: All input pins except pull-down pin should not be left floating.

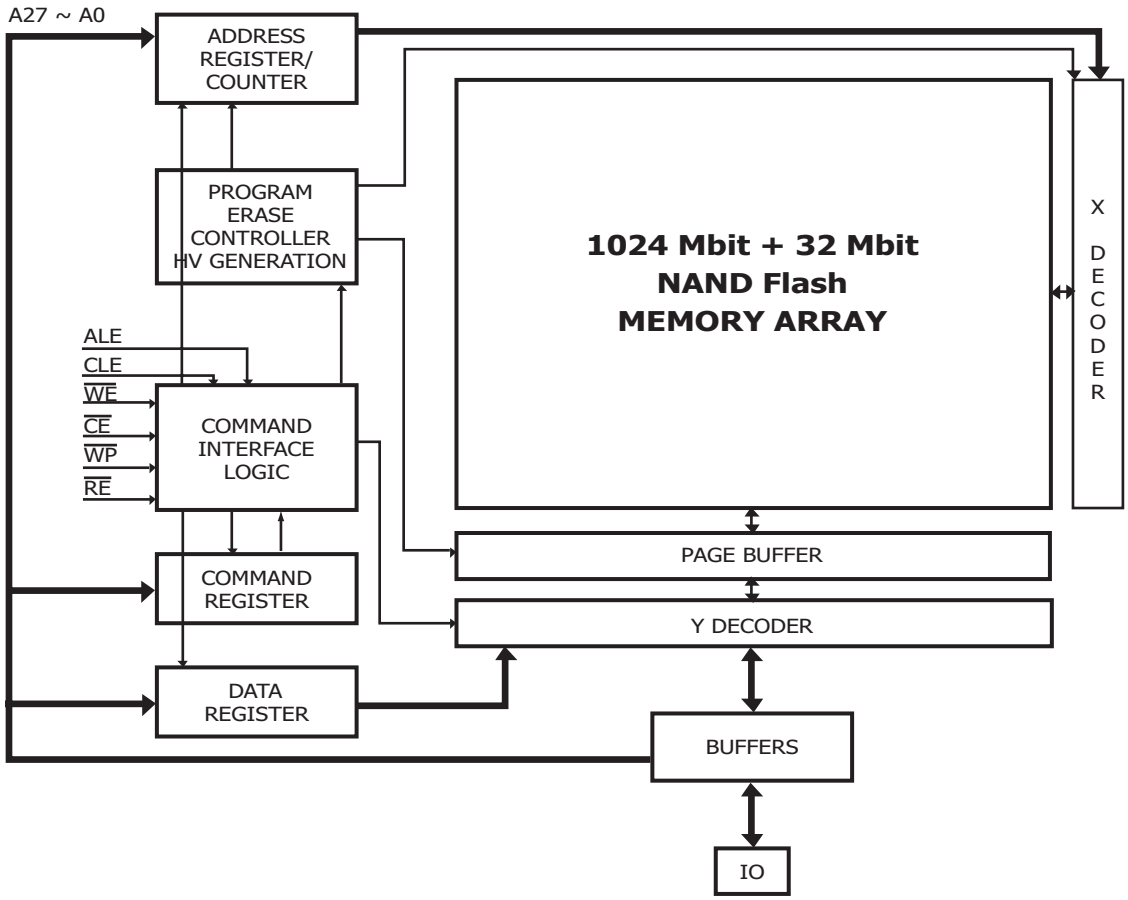
H27U1G8F2BTR-BC (HDMI : IC394)



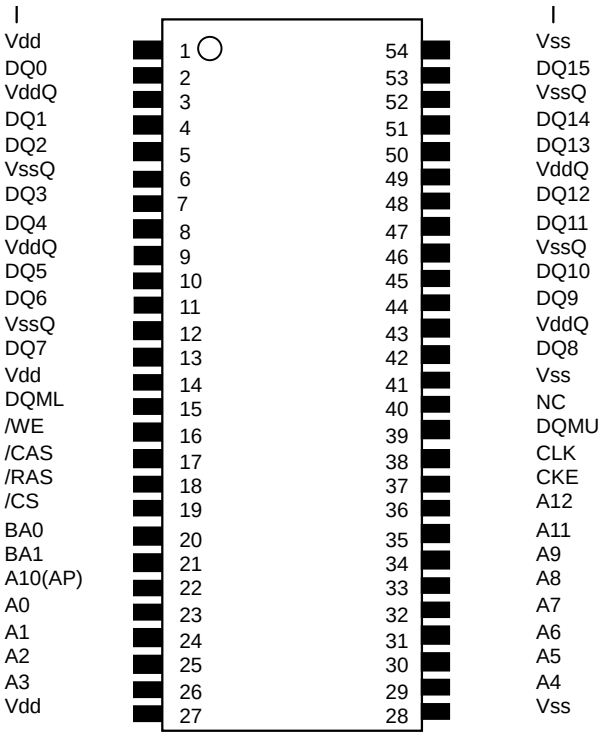
H27U1G8F2BTR-BC Pin Function

Pin Name	Description
IO0 ~ IO7	**DATA INPUTS/OUTPUTS** The IO pins allow to input command, address and data and to output data during read / program operations. The inputs are latched on the rising edge of Write Enable ($\overline{WE}$). The I/O buffer float to High-Z when the device is deselected or the outputs are disabled.
CLE	**COMMAND LATCH ENABLE** This input activates the latching of the IO inputs inside the Command Register on the Rising edge of Write Enable ($\overline{WE}$).
ALE	**ADDRESS LATCH ENABLE** This input activates the latching of the IO inputs inside the Address Register on the Rising edge of Write Enable ($\overline{WE}$).
$\overline{CE}$	**CHIP ENABLE** This input controls the selection of the device.
$\overline{WE}$	**WRITE ENABLE** This input acts as clock to latch Command, Address and Data. The IO inputs are latched on the rise edge of $\overline{WE}$.
$\overline{RE}$	**READ ENABLE** The $\overline{RE}$ input is the serial data-out control, and when active drives the data onto the I/O bus. Data is valid tREA after the falling edge of $\overline{RE}$ which also increments the internal column address counter by one.
$\overline{WP}$	**WRITE PROTECT** The $\overline{WP}$ pin, when Low, provides an Hardware protection against undesired modify (program / erase) operations.
R/$\overline{B}$	**READY BUSY** The Ready/Busy output is an Open Drain pin that signals the state of the memory.
Vcc	**SUPPLY VOLTAGE** The Vcc supplies the power for all the operations (Read, Write, Erase).
Vss	GROUND
NC	NO CONNECTION

H27U1G8F2BTR-BC Block Diagram



A3V56S30FTP-G6 (HDMI:IC392,393)

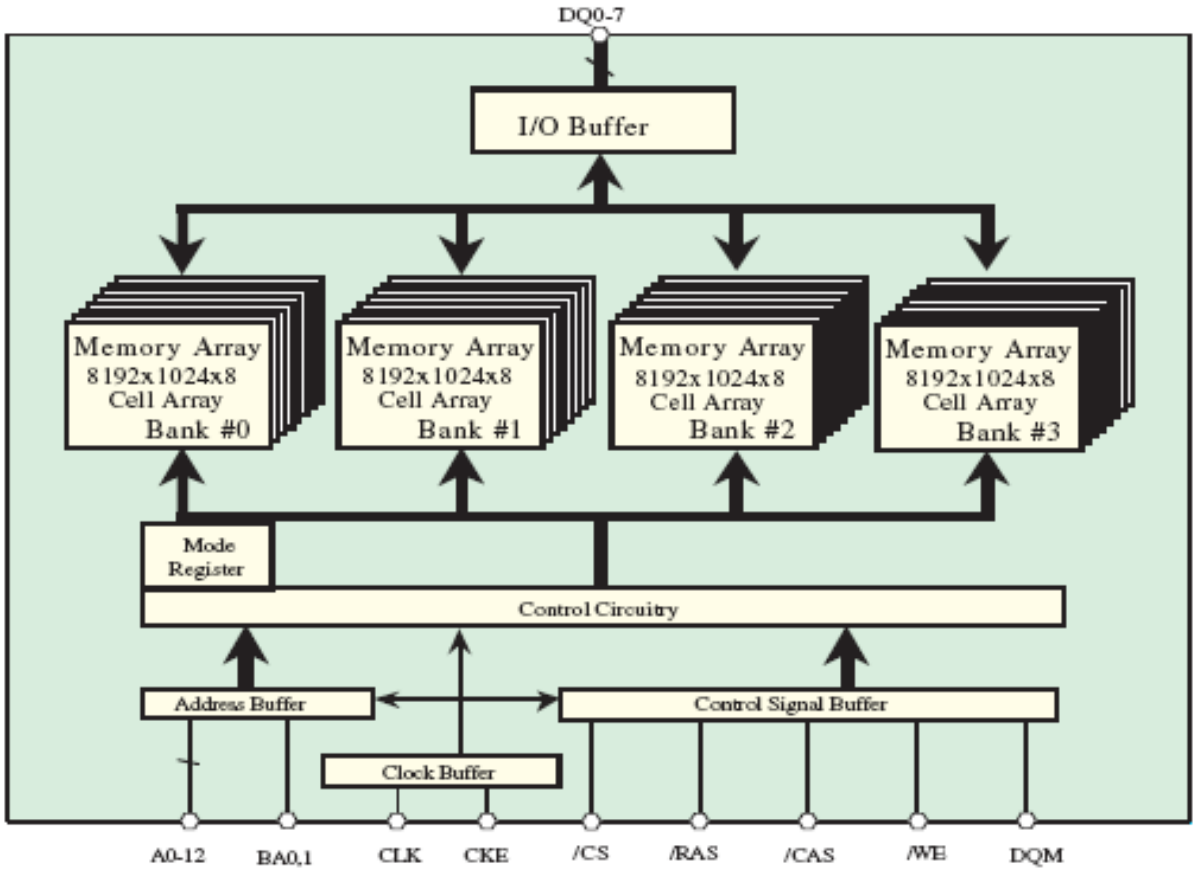


A3V56S30FTP-G6 Pin Function

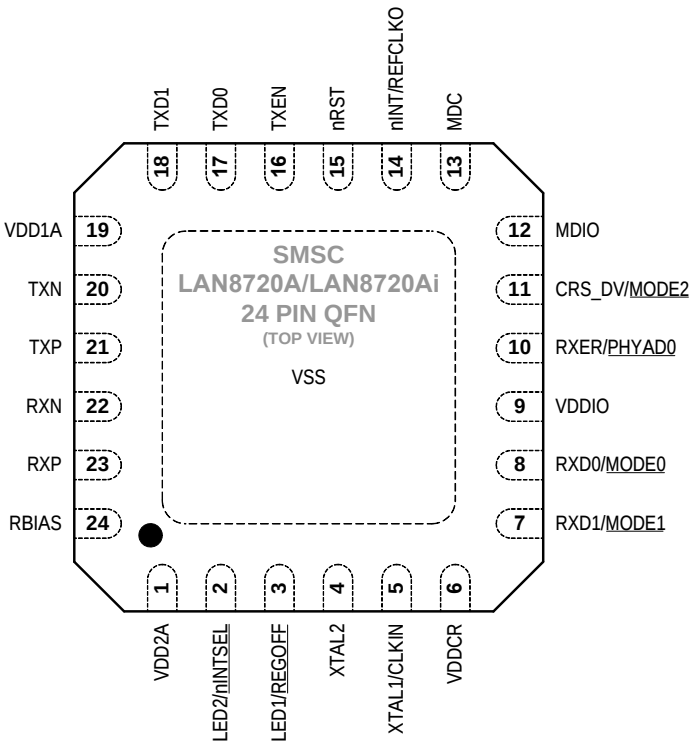
Pin Descriptions

SYMBOL	TYPE	DESCRIPTION
CLK	Input	Clock: CLK is driven by the system clock. All SDRAM input signals are sampled on the positive edge of CLK. CLK also increments the internal burst counter and controls the output registers.
CKE	Input	Clock Enable: CKE activates (HIGH) and deactivates (LOW) the CLK signal. Deactivating the clock provides PRECHARGE POWER-DOWN and SELF REFRESH operation (all banks idle), ACTIVE POWER-DOWN (row active in any bank), or CLOCK SUSPEND operation (burst / access in progress). CKE is synchronous except after the device enters self refresh mode, where CKE becomes asynchronous until after exiting the same mode. The input buffers, including CLK, are disabled during self refresh mode, providing low standby power. CKE may be tied HIGH.
/CS	Input	Chip Select: /CS enables (registered LOW) and disables (registered HIGH) the command decoder. All commands are masked when /CS is registered HIGH. /CS provides for external bank selection on systems with multiple banks. /CS is considered part of the command code.
/CAS, /RAS, /WE	Input	Command Inputs: /CAS, /RAS, and /WE (along with /CS) define the command being entered.
DQM, DQML, DQMU,	Input	Input / Output Mask: DQM is sampled HIGH and is an input mask signal for write accesses and an output disable signal for read accesses. Input data is masked during a WRITE cycle. The output buffers are placed in a High-Z state (two-clock latency) when during a READ cycle. DQM corresponds to DQ0–DQ7 (A3V56S30FTP). DQML corresponds to DQ0–DQ7, DQMU corresponds to DQ8–DQ15 (A3V56S40FTP).
BA0, BA1	Input	Bank Address Input(s): BA0 and BA1 define to which bank the ACTIVE, READ, WRITE or PRECHARGE command is being applied.
A0–A12	Input	A0-12 specify the Row / Column Address in conjunction with BA0,1. The Row Address is specified by A0-12. The Column Address is specified by A0-9(x8) and A0-8(x16). A10 is also used to indicate precharge option. When A10 is high at a read / write command, an auto precharge is performed. When A10 is high at a precharge command, all banks are precharged.
DQ0–DQ15	I/O	Data Input / Output: Data bus.
NC	–	Internally Not Connected: These could be left unconnected, but it is recommended they be connected or VSS.
VddQ	Supply	Data Output Power: Provide isolated power to output buffers for improved noise immunity.
VssQ	Supply	Data Output Ground: Provide isolated ground to output buffers for improved noise immunity.
Vdd	Supply	Power for the input buffers and core logic.
Vss	Supply	Ground for the input buffers and core logic.

A3V56S30FTP-G6 Block Diagram



LAN8720A (HDMI:IC322)



LAN8720A Pin Function

Table 2.8 24-QFN Package Pin Assignments

PIN NUM	PIN NAME	PIN NUM	PIN NAME
1	VDD2A	13	MDC
2	LED2/nINTSEL	14	nINT/REFCLKO
3	LED1/REGOFF	15	nRST
4	XTAL2	16	TXEN
5	XTAL1/CLKIN	17	TXD0
6	VDDCR	18	TXD1
7	RXD1/MODE1	19	VDD1A
8	RXD0/MODE0	20	TXN
9	VDDIO	21	TXP
10	RXER/PHYAD0	22	RXN
11	CRS_DV/MODE2	23	RXP
12	MDIO	24	RBIAS

LAN8720A Block Diagram

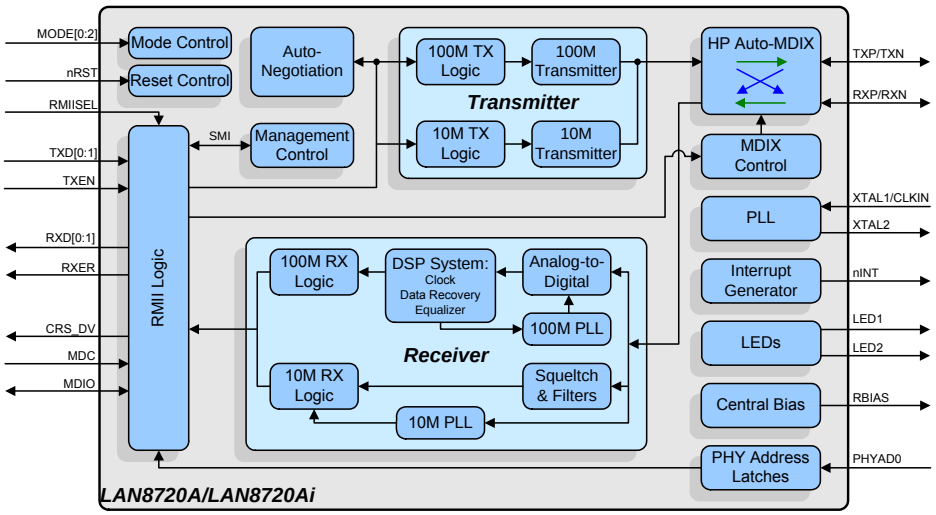
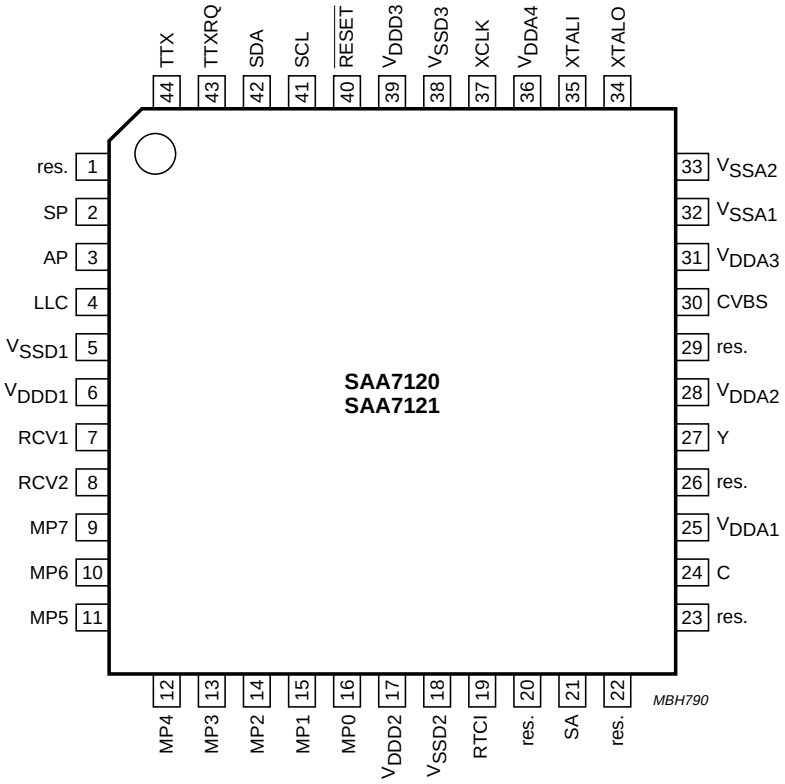
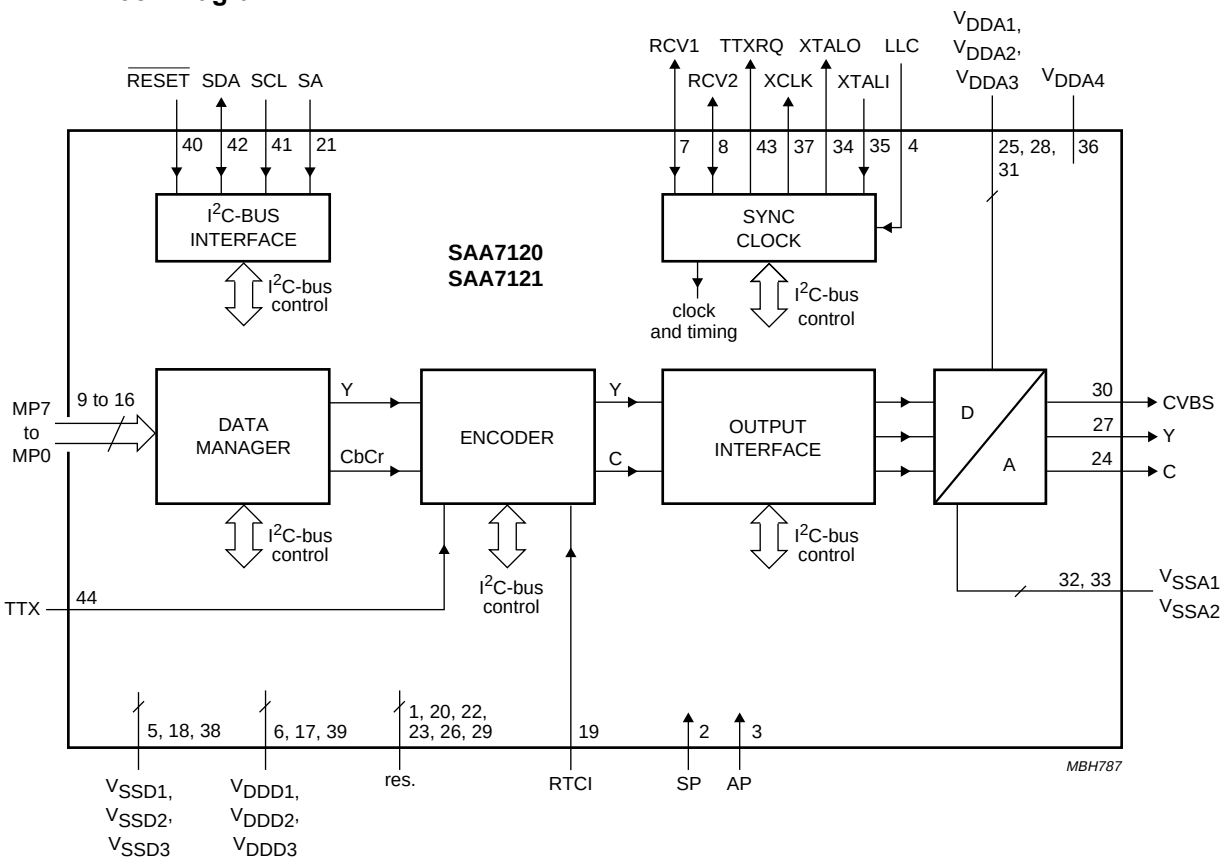


Figure 1.2 Architectural Overview

SAA7121 (HDMI : IC323)



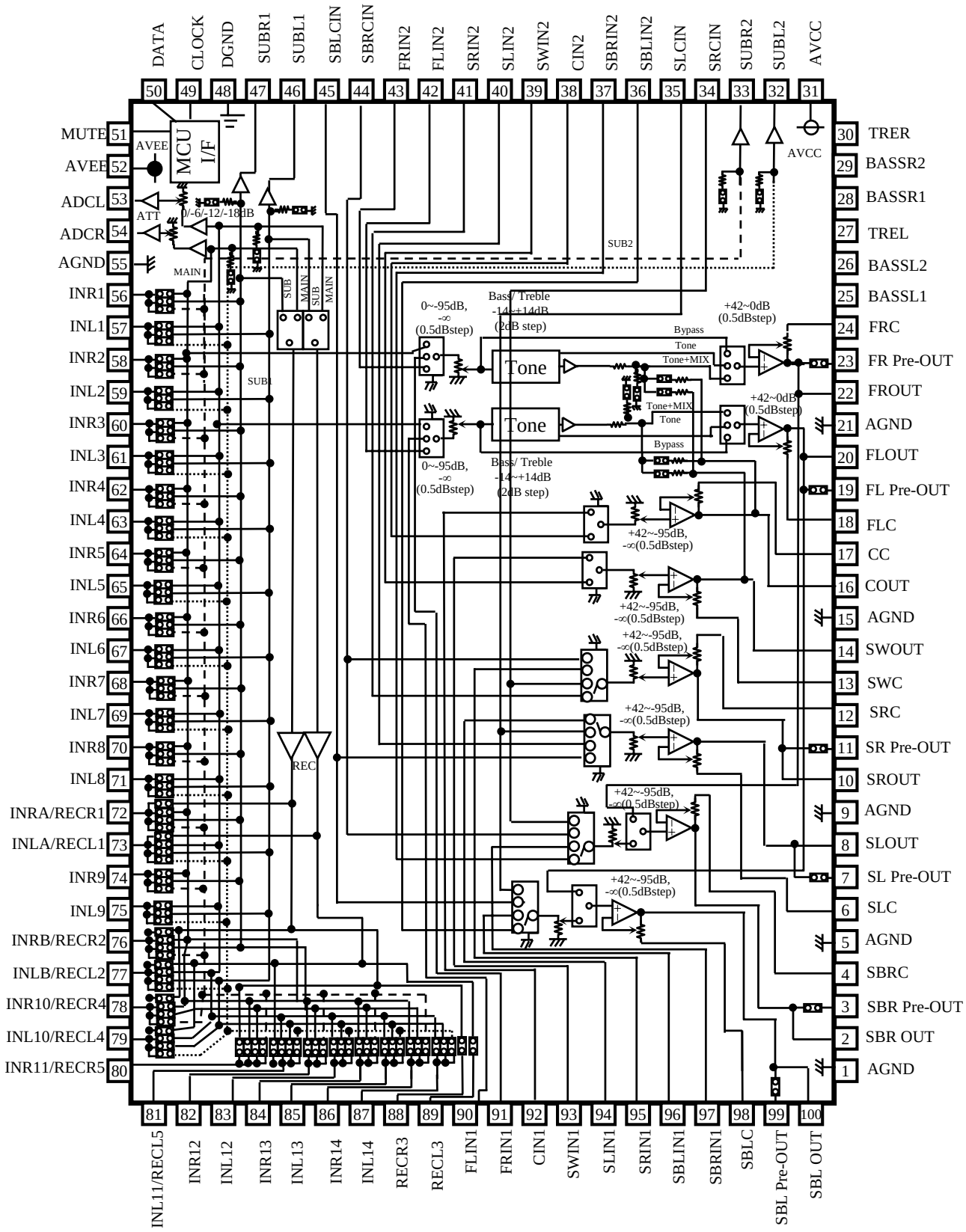
SAA7121 Block Diagram



SAA7121 Pin Description

SYMBOL	PIN	I/O	DESCRIPTION
res.	1	–	reserved
SP	2	I	test pin; connected to digital ground for normal operation
AP	3	I	test pin; connected to digital ground for normal operation
LLC	4	I	line-locked clock; this is the 27 MHz master clock for the encoder
V_{SSD1}	5	I	digital ground 1
V_{DDD1}	6	I	digital supply voltage 1
RCV1	7	I/O	raster control 1 for video port; this pin receives/provides a VS/FS/FSEQ signal
RCV2	8	I/O	raster control 2 for video port; this pin provides an HS pulse of programmable length or receives an HS pulse
MP7	9	I	MPEG port; it is an input for *"CCIR 656"* style multiplexed Cb Y, Cr data
MP6	10	I	
MP5	11	I	
MP4	12	I	
MP3	13	I	
MP2	14	I	
MP1	15	I	
MP0	16	I	
V_{DDD2}	17	I	digital supply voltage 2
V_{SSD2}	18	I	digital ground 2
RTCI	19	I	Real Time Control input; if the LLC clock is provided by an SAA7111 or SAA7151B, RTCI should be connected to pin RTCO of the decoder to improve the signal quality
res.	20	–	reserved
SA	21	I	the I^2C-bus slave address select input pin; LOW: slave address = 88H, HIGH = 8CH
res.	22	–	reserved
res.	23	–	reserved
C	24	O	analog output of the chrominance signal
V_{DDA1}	25	I	analog supply voltage 1 for the C DAC
res.	26	–	reserved
Y	27	O	analog output of VBS signal
V_{DDA2}	28	I	analog supply voltage 2 for the Y DAC
res.	29	–	reserved
CVBS	30	O	analog output of the CVBS signal
V_{DDA3}	31	I	analog supply voltage 3 for the CVBS DAC
V_{SSA1}	32	I	analog ground 1 for the DACs
V_{SSA2}	33	I	analog ground 2 for the oscillator and reference voltage
XTALO	34	O	crystal oscillator output (to crystal)
XTALI	35	I	crystal oscillator input (from crystal); if the oscillator is not used, this pin should be connected to ground
V_{DDA4}	36	I	analog supply voltage 4 for the oscillator and reference voltage
XCLK	37	O	clock output of the crystal oscillator

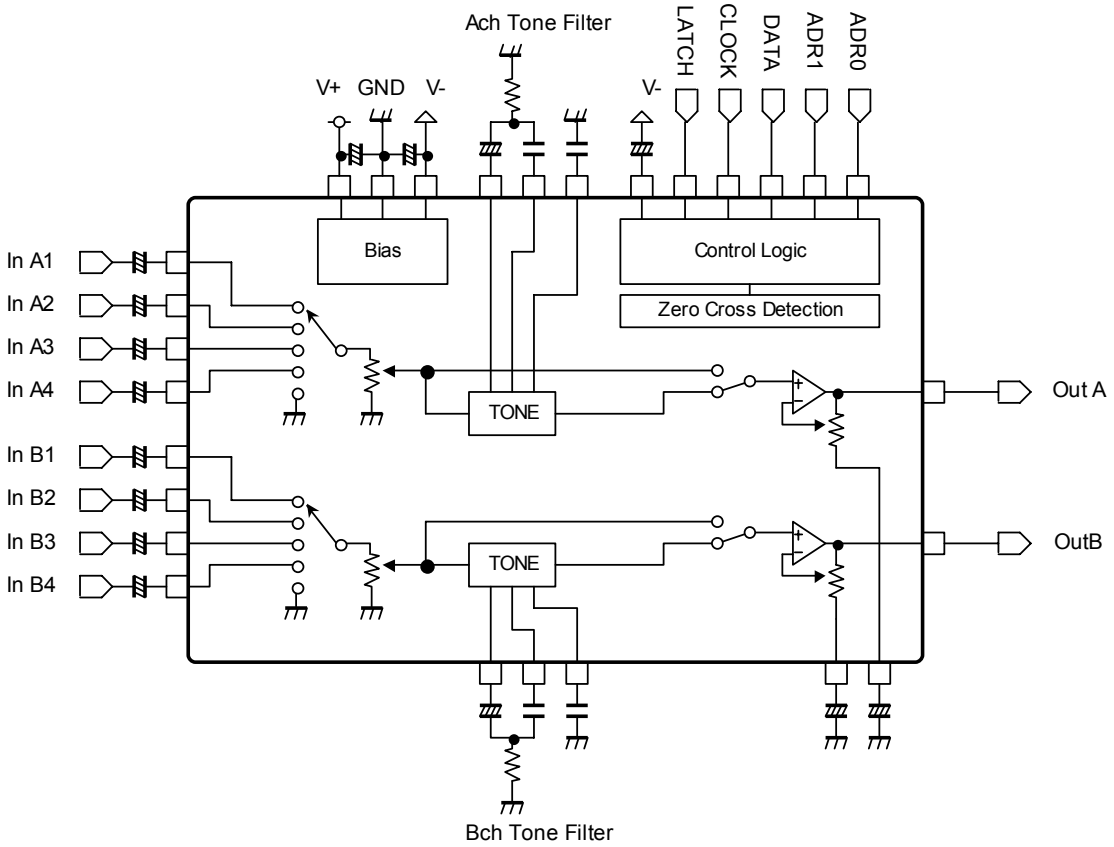
R2A15220FP (AUDIO : IC471)



R2A15220FP Pin Function

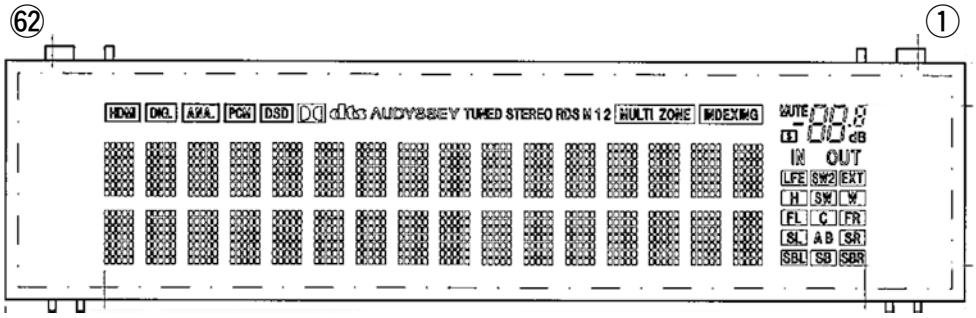
PIN No.	Name	Function
22,20, 16,14, 10, 8, 2, 100	FROUT,FLOUT, COUT,SWOUT, SROUT, SLOUT, SBROUT,SBLOUT	Output pin of FL/FR/C/SW/SL/SR/SBL/SBR channel
23,19, 11, 7, 3, 99	FR Pre-out,FL Pre-out, SR Pre-out, SL Pre-out, SBR Pre-out,SBL Pre-out	Pre-output pin of FL/FR/SL/SR/SBL/SBR channel
24,18, 17,13, 12, 6, 4, 98	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
1,5,9,15, 21,55,98	AGND	Analog ground of internal circuit
27,30	TREL, TRER	Frequency characteristic setting pin of L/R channel tone control (Treble)
25,26, 28,29	BASSL1,BASSL2 BASSR1,BASSR2	Frequency characteristic setting pin of L/R channel tone control (Bass)
31	AVCC	Positive power supply to internal circuit
43,42, 41,40, 39,38, 37,36	FRIN2, FLIN2, SRN2,SLIN2, SWIN2,CIN2, SBRIN2,SBLIN2	Multi Input pin of L/R/C/SW/SL/SR/SBL/SBR channel (Multi IN 1/2)
90,91, 92,93, 94,95, 96,97	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
57,59,61,63, 65,67,69,71, 75,83,85,87	INL1,INL2, INL3,INL4, INL5,INL6,INL7,INL8, INL9,INL12,INL13,INL14	Input pin of L/R channel (Input Selector)
56,58,60,62, 64,6668,70, 74,82,84,86	INR1,INR2, INR3,INR4, INR5,INR6,INR7,INR8, INR9,INR12,INR13,INR14	
51	MUTE	Outside Mute Control PIN
44,45 34,35	SBRCIN,SBLCIN SRCIN,SLCIN	3rd Multi Input pin for SBL/SBR/SL/SR channel Volume that is able to swap SBR/SBL with SR/SL
46,47 33,32	SUBL1,SUBR1 SUBL2,SUBR2	Output pin for L/R channel SUB1/SUB2 Output
53,54	ADCL, ADCR	Output pin for L/R channel ADC
88,89	RECR3,RECL3	Output pin for L/R channel REC Output
72,73, 76,77, 78,79 80,81	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

NJW1194A (AUDIO : IC484,IC489)



2. FL DISPLAY

FLD (17-BT-40GINK) (FRONT : FL601)



PIN CONNECTION

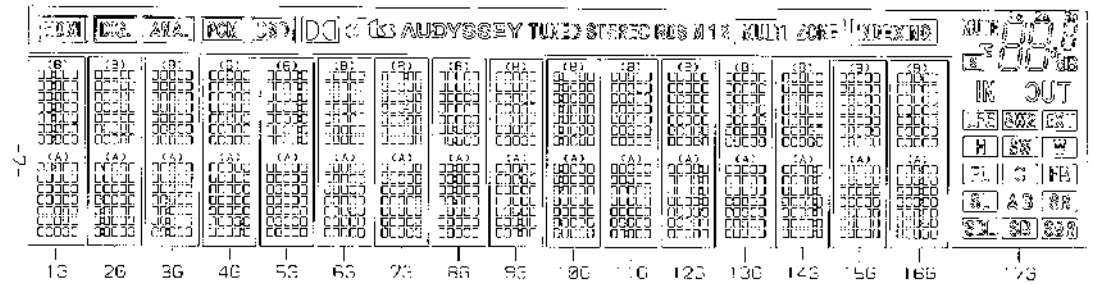
PIN CONNECTION

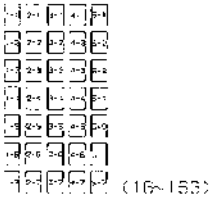
PIN NO.	62	61	60	59	58	57	56	55	54	53	52	51
CONNECTION	F2	NX	NP	NP	LGND	PGND	VH	VDD	OSC	-RESET	-CS	CP

PIN NO.	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
CONNECTION	DA	TSA	TSB	Q17G	17G	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NP	NP	NX	F1

NOTE
1) F1,F2 --- Filament
2) NP ------ No pin
3) DL ------ Datum Line
4) NX ------ No extend pin
5) 17G ----- Grid
6) Q17G ---- Driver Output Port
7) LGND ---- Logic GND pin
8) PGND ---- Power GND pin
9) VH ------ High Voltage Supply pin
10) VDD ----- Logic Voltage Supply pin
11) OSC ----- Pin for self-oscillation
12) $\overline{\text{RESET}}$ --- Reset Input
13) $\overline{\text{CS}}$ ------ Chip Select Input pin
14) CP ------ Shift Register Clock
15) DA ------ Serial Data Input
16) TSA,B --- Test pin
17) Solder composition is Sn-3Ag-0.5Cu.
18) Field of vision is a minimum of 17.6° from the lower side.

GRID ASSIGNMENT





ANODE CONNECTION

	1G~16G	17G
D0A	1-1A	-
D1A	2-1A	-
D2A	3-1A	-
D3A	4-1A	-
D4A	5-1A	-
D5A	1-2A	-
D6A	2-2A	-
D7A	3-2A	-
D8A	4-2A	-
D9A	5-2A	-
D10A	1-3A	dB
D11A	2-3A	Dp
D12A	3-3A	3d
D13A	4-3A	3e
D14A	5-3A	3c
D15A	1-4A	3g
D16A	2-4A	3f
D17A	3-4A	3b
D18A	4-4A	3a
D19A	5-4A	2d
D20A	1-5A	2e
D21A	2-5A	2c
D22A	3-5A	2g
D23A	4-5A	2f
D24A	5-5A	2b
D25A	1-6A	2a
D26A	2-6A	1d
D27A	3-6A	1e
D28A	4-6A	1c
D29A	5-6A	1g
D30A	1-7A	1f
D31A	2-7A	1b
D32A	3-7A	1a
D33A	4-7A	S1
D34A	5-7A	S

	1G~16G	17G
D0B	1-1B	HDMI
D1B	2-1B	DIG.
D2B	3-1B	ANA.
D3B	4-1B	PCM
D4B	5-1B	DSD
D5B	1-2B	DD
D6B	2-2B	dts
D7B	3-2B	AUDYSSEY
D8B	4-2B	TUNED
D9B	5-2B	STEREO
D10B	1-3B	RDS
D11B	2-3B	M
D12B	3-3B	1
D13B	4-3B	2
D14B	5-3B	MULTI ZONE
D15B	1-4B	INDEXING
D16B	2-4B	MUTE
D17B	3-4B	IN
D18B	4-4B	OUT
D19B	5-4B	LFE
D20B	1-5B	SW2
D21B	2-5B	EXT
D22B	3-5B	H
D23B	4-5B	SW
D24B	5-5B	W
D25B	1-6B	FL
D26B	2-6B	C
D27B	3-6B	FR
D28B	4-6B	SL
D29B	5-6B	A
D30B	1-7B	B
D31B	2-7B	SR
D32B	3-7B	SBL
D33B	4-7B	SB
D34B	5-7B	SBR

PARTS LIST OF P.C.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 modelE1C : China model E1C : China model

FRONT PCB ASS'Y

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
SEMICONDUCTORS GROUP							
	IC601	00D2631289900	I.C , OPAMP(DUAL/LOW NOISE)		CVIAZ4580MTR-E1		
	IC607	00D2631289900	I.C , OPAMP(DUAL/LOW NOISE)		CVIAZ4580MTR-E1		
	Q6026	943219006820S	TR KTC1027Y		CVTKTC1027YT		
	Q6042	943214500020S	T.R,2SC3052		CVT2SC3052		
	Q6081	943216500020S	T.R,RT1N141C(10K-10K)		CVTRT1N141C		
	Q6112	943215500020S	T.R,RT1P141C(10K-10K)		CVTRT1P141C		
	Q6311,6312	943215500020S	T.R,RT1P141C(10K-10K)		CVTRT1P141C		
	Q6313,6314	943216500020S	T.R,RT1N141C(10K-10K)		CVTRT1N141C		
	Q6703	943216500020S	T.R,RT1N141C(10K-10K)		CVTRT1N141C		
	Q7125	963219003340S	T.R , BIAS KTC3964		CVTKTC3964		
	Q7131	00D9630235301	T.R Power, 2SD2560		HVT2SD2560		
	Q7132	00D9630235204	T.R Power, 2SB1647		HVT2SB1647		
	Q7225	963219003340S	T.R , BIAS KTC3964		CVTKTC3964		
	Q7231	00D9630235301	T.R Power, 2SD2560		HVT2SD2560		
	Q7232	00D9630235204	T.R Power, 2SB1647		HVT2SB1647		
	Q7325	963219003340S	T.R , BIAS KTC3964		CVTKTC3964		
	Q7331	00D9630235301	T.R Power, 2SD2560		HVT2SD2560		
	Q7332	00D9630235204	T.R Power, 2SB1647		HVT2SB1647		
	Q7425	963219003340S	T.R , BIAS KTC3964		CVTKTC3964		
	Q7431	00D9630235301	T.R Power, 2SD2560		HVT2SD2560		
	Q7432	00D9630235204	T.R Power, 2SB1647		HVT2SB1647		
	Q7525	963219003340S	T.R , BIAS KTC3964		CVTKTC3964		
	Q7531	00D9630235301	T.R Power, 2SD2560		HVT2SD2560		
	Q7532	00D9630235204	T.R Power, 2SB1647		HVT2SB1647		
	Q7625	963219003340S	T.R , BIAS KTC3964		CVTKTC3964		
	Q7631	00D9630235301	T.R Power, 2SD2560		HVT2SD2560		
	Q7632	00D9630235204	T.R Power, 2SB1647		HVT2SB1647		
	Q7725	963219003340S	T.R , BIAS KTC3964		CVTKTC3964		
	Q7731	00D9630235301	T.R Power, 2SD2560		HVT2SD2560		
	Q7732	00D9630235204	T.R Power, 2SB1647		HVT2SB1647		
	D6021	90M-HD302360R	DIODE , ZENER ,1/2W, 6.8V		CVDZJ6.8BT		
	D6023,6024	00D9630328409	DIODE , RECTIFIERS		CVD1N4007ST		
	D6026	943202007690S	DIODE , ZENER ,1/2W, 18V		CVDZJ18BT		
	D6027	00D9430087209	DIODE , ZENER ,1/2W, 24V		CVDZJ24BT		
	D6041	943209001080S	DIODE , CHIP , SWITCHING		CVD1SS355T		
	D6512	90M-RI000230R	RES, CHIP(3216/5%/10ohm)		CRJ14CJ100T		
	D6692	90M-RI000230R	RES, CHIP(3216/5%/10ohm)		CRJ14CJ100T		
	D6694	90M-RI000230R	RES, CHIP(3216/5%/10ohm)		CRJ14CJ100T		
	D6712	00D2760694903	DIODE , ZENER (CHIP,5.1V)		HVDUDZS5.1BSR		
	D6729,6730	00D2760694903	DIODE , ZENER (CHIP,5.1V)		HVDUDZS5.1BSR		
CAPACITORS GROUP							
	C6021	00D9430175108	CAP, ELECT(50V/10uF)		CCEA1HH100T		
	C6022,6023	00MOF15104040	CAP,METAL-FILM(100V/0.1uF)		CCME2A104JXT		
	C6024	nsp	CAP, ELECT(63V/470uF)		CCEA1JH471E		
	C6025	943134010530S	CAP, ELECT(50V/1uF)		CCEA1HH1R0T		
	C6027	943134010530S	CAP, ELECT(50V/1uF)		CCEA1HH1R0T		
	C6034	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C6044	nsp	WIRE , COPPER		C3A206		
	C6071-6073	nsp	CAP, CHIP(1608, 50V/100pF)		CCUS1H101JA		
	C6081	nsp	CAP, CHIP(2012, 50V/0.1uF)		CCUC1H104KC		
	C6082	00D9430175108	CAP, ELECT(50V/10uF)		CCEA1HH100T		
	C6083	nsp	CAP, CHIP(1608, 50V/0.047uF)		CCUS1H473KC		
	C6084	nsp	CAP, CHIP(1608, 50V/0.01uF)		CCUS1H103KC		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	C6113	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C6114	963134010980S	CAP, ELECT(16V/47uF)		CCEA1CH470T		
	C6118	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C6351,6352	nsp	CAP, CHIP(1608, 50V/0.01uF)		CCUS1H103KC		
	C6417	nsp	CAP, CHIP(1608, 50V/0.047uF)		CCUS1H473KC		
	C6423,6424	nsp	CAP, CHIP(1608, 50V/0.047uF)		CCUS1H473KC		
	C6501,6502	nsp	CAP, CHIP(1608, 50V/1000pF)		CCUS1H102KC		
	C6503	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C6512,6513	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C6514	nsp	CAP, ELECT(50V/1uF)-S		CCEA1HKS1R0T		
	C6523	nsp	CAP, ELECT(50V/10uF)-S		CCEA1HKS100T		
	C6601	nsp	CAP, ELECT(50V/10uF)-S		CCEA1HKS100T		
	C6603,6604	nsp	CAP, CHIP(1608, 50V/330pF)		CCUS1H331JA		
	C6623,6624	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C6691	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C6693	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C6694	nsp	CAP, ELECT(50V/1uF)-S		CCEA1HKS1R0T		
	C6702	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C6712	00D9430175108	CAP, ELECT(50V/10uF)		CCEA1HH100T		
	C6719	00D9430062101	CAP, ELECT(16V/100uF)		CCEA1CH101T		
	C6720	nsp	CAP, CHIP(1608, 50V/82pF)		CCUS1H820JA		
	C6726	nsp	CAP, CHIP(1608, 50V/0.047uF)		CCUS1H473KC		
	C6731,6732	943134010530S	CAP, ELECT(50V/1uF)		CCEA1HH1R0T		
	C6733	nsp	CAP, ELECT(50V/1uF)-S		CCEA1HKS1R0T		
	C6735	nsp	CAP, CHIP(1608, 50V/100pF)		CCUS1H101JA		
	C6753	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
RESISTORS GROUP							
	R6001,6002	00MNN05201610	RES, CHIP(1608/5%/200ohm)		CRJ10DJ201T		
	R6003,6004	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R6005	00MNN05010610	RES, CHIP(1608/5%/1ohm)		CRJ10DJ1R0T		
	R6006	nsp	RES, CHIP(1608/5%/2.2ohm)		CRJ10DJ2R2T		
	R6007	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R6016	00MNN05100610	RES, CHIP(1608/5%/10ohm)		CRJ10DJ100T		
	R6024	943124500040S	RES, M-OXIDE FILM(1W/4.7ohm)		CRG1SANJ4R7RT		
	R6025,6026	nsp	RES, CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T		
	R6031	00MNN05273610	RES,CHIP(1608/5%/27Kohm)		CRJ10DJ273T		
	R6032	00MNN05224610	RES, CHIP(1608/5%/220Kohm)		CRJ10DJ224T		
	R6033,6034	90M-RI000230R	RES, CHIP(3216/5%/10ohm)		CRJ14CJ100T		
	R6041	00MNN05101610	RES, CHIP(1608/5%/100ohm)		CRJ10DJ101T		
	R6042	00MNN05104610	RES, CHIP(1608/5%/100Kohm)		CRJ10DJ104T		
	R6043	00MNN05473610	RES, CHIP(1608/5%/47Kohm)		CRJ10DJ473T		
	R6044	nsp	RES, CHIP(1608/5%/390Kohm)		CRJ10DJ394T		
	R6071-6073	00MNN05101610	RES, CHIP(1608/5%/100ohm)		CRJ10DJ101T		
	R6082	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R6083	00MNN05101610	RES, CHIP(1608/5%/100ohm)		CRJ10DJ101T		
	R6101,6102	00MNN05391610	RES, CHIP(1608/5%/390ohm)		CRJ10DJ391T		
	R6103	00MNN05473610	RES, CHIP(1608/5%/47Kohm)		CRJ10DJ473T		
	R6134	00MNN05102610	RES, CHIP(1608/5%/1Kohm)		CRJ10DJ102T		
	R6135	00MNN05473610	RES, CHIP(1608/5%/47Kohm)		CRJ10DJ473T		
	R6151	00MNN05101610	RES, CHIP(1608/5%/100ohm)		CRJ10DJ101T		
	R6152	00MNN05151610	RES, CHIP(1608/5%/150ohm)		CRJ10DJ151T		
	R6153	00MNN05181610	RES, CHIP(1608/5%/180ohm)		CRJ10DJ181T		
	R6154	00MNN05221610	RES, CHIP(1608/5%/220ohm)		CRJ10DJ221T		
	R6155	00MNN05331610	RES, CHIP(1608/5%/330ohm)		CRJ10DJ331T		
	R6161	00MNN05101610	RES, CHIP(1608/5%/100ohm)		CRJ10DJ101T		
	R6162	00MNN05151610	RES, CHIP(1608/5%/150ohm)		CRJ10DJ151T		
	R6163	00MNN05181610	RES, CHIP(1608/5%/180ohm)		CRJ10DJ181T		
	R6164	00MNN05221610	RES, CHIP(1608/5%/220ohm)		CRJ10DJ221T		
	R6165	00MNN05331610	RES, CHIP(1608/5%/330ohm)		CRJ10DJ331T		
	R6166	00MNN05561610	RES, CHIP(1608/5%/560ohm)		CRJ10DJ561T		
	R6171	00MNN05101610	RES, CHIP(1608/5%/100ohm)		CRJ10DJ101T		
	R6172	00MNN05151610	RES, CHIP(1608/5%/150ohm)		CRJ10DJ151T		
	R6173	00MNN05181610	RES, CHIP(1608/5%/180ohm)		CRJ10DJ181T		
	R6174	00MNN05221610	RES, CHIP(1608/5%/220ohm)		CRJ10DJ221T		
	R6175	00MNN05331610	RES, CHIP(1608/5%/330ohm)		CRJ10DJ331T		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	R6301	00MNN05222610	RES, CHIP(1608/5%/2.2Kohm)		CRJ10DJ222T		
	R6302,6303	00MNN05561610	RES, CHIP(1608/5%/560ohm)		CRJ10DJ561T		
	R6351,6352	00MNN05101610	RES, CHIP(1608/5%/100ohm)		CRJ10DJ101T		
	R6353,6354	nsp	RES, CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T		
	R6421,6422	00MNN05101610	RES, CHIP(1608/5%/100ohm)		CRJ10DJ101T		
	R6423,6424	nsp	RES, CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T		
	R6503	00MNN05101610	RES, CHIP(1608/5%/100ohm)		CRJ10DJ101T		
	R6601,6602	00MNN05471610	RES, CHIP(1608/5%/470ohm)		CRJ10DJ471T		
	R6603-6605	00MNN05104610	RES, CHIP(1608/5%/100Kohm)		CRJ10DJ104T		
	R6607	00MNN05104610	RES, CHIP(1608/5%/100Kohm)		CRJ10DJ104T		
	R6613,6614	00MNN05101610	RES, CHIP(1608/5%/100ohm)		CRJ10DJ101T		
	R6632	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R6704	00MNN05104610	RES, CHIP(1608/5%/100Kohm)		CRJ10DJ104T		
	R6711	00MNN05222610	RES, CHIP(1608/5%/2.2Kohm)		CRJ10DJ222T		
	R6718	00MNN05101610	RES, CHIP(1608/5%/100ohm)		CRJ10DJ101T		
	R6719	00MNN05821610	RES, CHIP(1608/5%/820ohm)		CRJ10DJ821T		
	R6720	nsp	RES, CHIP(1608/5%/18Kohm)		CRJ10DJ183T		
	R6721	nsp	RES, CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T		
	R6723	00MNN05101610	RES, CHIP(1608/5%/100ohm)		CRJ10DJ101T		
	R6726	00MNN05102610	RES, CHIP(1608/5%/1Kohm)		CRJ10DJ102T		
	R6734	00MNN05104610	RES, CHIP(1608/5%/100Kohm)		CRJ10DJ104T		
OTHERS PARTS GROUP							
	BK602,603	nsp	BRACKET , PCB		CMD1A569		
	BK604,605	nsp	BRACKET , FIP		CMD1A572		
	CN602	nsp	WAFER/ANGLE/2.5mm/07P		CJP07GB03ZY		
	CN605A	nsp	WAFER , BD TO BD 2.0MM(SOKET)		CJP05GB280ZK		
	CN605B	nsp	WAFER , BD TO BD 2.0MM(PLUG)		CJP05GA279ZK		
	CN69A	nsp	WAFER, FFC, 40P, 1mm, ANGLE(DIP)		CJP40GB284ZN		
⚠	F6001	943652000620S	FUSE(372 Series/100mA/TR5)		CBA2D0100A3EYT		
	FL601	17201001300AS	VFD , FUTABA , 17-BT-040GINK , CIG-TYPE		CFL17BT040GINK		
	JK605	90M-YT004500R	JACK, PHONES(6.35mm,SILVER)		CJJ2E026Z		
	JK606	nsp	JACK, 3P(B/B/B)with S/W, SILVER, VERTICAL		CJJ4S051Z		
	JK607	943643100160S	JACK, MONO, 3.5mm		CJJ1D001Z		
	JW601	nsp	WIRE ASS'Y (1P, 80MM,BLK,#22)		CWE5202080A		
	L6501	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	L6601	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	LD601	943176010090S	L.E.D,(GREEN/RED 5PI)		CVDBLBJEGJ204L		
	LD602	963262010460S	LED SIR-341ST3F		CVDSIR341ST3FT0		
	RC601	943262100140S	SENSOR, REMOTE(37.9KHz)		CRVHM238RT12		
	SW601-606	90M-SP001400R	SW , TACT		CST1A023ZT		
	SW611-617	90M-SP001400R	SW , TACT		CST1A023ZT		
	SW621-626	90M-SP001400R	SW , TACT		CST1A023ZT		
	SW631	90M-SP001400R	SW , TACT		CST1A023ZT		
	VR601	943671010330S	ENCODER(16MM, 24PULSES),W/CLICK		CSR2A055Z		
	VR604	943671010330S	ENCODER(16MM, 24PULSES),W/CLICK		CSR2A055Z		
		18301001910AS	MODULE , HD RADIO	E3	CNVKRMAVR2011		

7CH AMP PCB ASS'Y

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
SEMICONDUCTORS GROUP							
	Q7001	943212500020S	High Voltage PNP Transistors(SOT-23)		CVTMMBT5401		
	Q7104,7105	943211500150S	PNP, TO-92, LOW NOISE, HFE:300-600, FAILCHILD		CVTKSA992FTA		
	Q7114	00D2710314903	T.R , KTA1024Y		HVTKTA1024YT		
	Q7118	00D2710314903	T.R , KTA1024Y		HVTKTA1024YT		
	Q7120,7121	00D2730471907	T.R , KTC3206Y		HVTKTC3206YAT		
	Q7138	943212500020S	High Voltage PNP Transistors(SOT-23)		CVTMMBT5401		
	Q7139	943214500040S	High Voltage NPN Transistors(SOT-23)		CVTMMBT5551		
	Q7204,7205	943211500150S	PNP, TO-92, LOW NOISE, HFE:300-600, FAILCHILD		CVTKSA992FTA		
	Q7214	00D2710314903	T.R , KTA1024Y		HVTKTA1024YT		
	Q7218	00D2710314903	T.R , KTA1024Y		HVTKTA1024YT		
	Q7220,7221	00D2730471907	T.R , KTC3206Y		HVTKTC3206YAT		
	Q7238	943212500020S	High Voltage PNP Transistors(SOT-23)		CVTMMBT5401		
	Q7239	943214500040S	High Voltage NPN Transistors(SOT-23)		CVTMMBT5551		
	Q7304,7305	943211500150S	PNP, TO-92, LOW NOISE, HFE:300-600, FAILCHILD		CVTKSA992FTA		
	Q7314	00D2710314903	T.R , KTA1024Y		HVTKTA1024YT		
	Q7318	00D2710314903	T.R , KTA1024Y		HVTKTA1024YT		
	Q7320,7321	00D2730471907	T.R , KTC3206Y		HVTKTC3206YAT		
	Q7338	943212500020S	High Voltage PNP Transistors(SOT-23)		CVTMMBT5401		
	Q7339	943214500040S	High Voltage NPN Transistors(SOT-23)		CVTMMBT5551		
	Q7404,7405	943211500150S	PNP, TO-92, LOW NOISE, HFE:300-600, FAILCHILD		CVTKSA992FTA		
	Q7414	00D2710314903	T.R , KTA1024Y		HVTKTA1024YT		
	Q7418	00D2710314903	T.R , KTA1024Y		HVTKTA1024YT		
	Q7420,7421	00D2730471907	T.R , KTC3206Y		HVTKTC3206YAT		
	Q7438	943212500020S	High Voltage PNP Transistors(SOT-23)		CVTMMBT5401		
	Q7439	943214500040S	High Voltage NPN Transistors(SOT-23)		CVTMMBT5551		
	Q7504,7505	943211500150S	PNP, TO-92, LOW NOISE, HFE:300-600, FAILCHILD		CVTKSA992FTA		
	Q7514	00D2710314903	T.R , KTA1024Y		HVTKTA1024YT		
	Q7518	00D2710314903	T.R , KTA1024Y		HVTKTA1024YT		
	Q7520,7521	00D2730471907	T.R , KTC3206Y		HVTKTC3206YAT		
	Q7538	943212500020S	High Voltage PNP Transistors(SOT-23)		CVTMMBT5401		
	Q7539	943214500040S	High Voltage NPN Transistors(SOT-23)		CVTMMBT5551		
	Q7604,7605	943211500150S	PNP, TO-92, LOW NOISE, HFE:300-600, FAILCHILD		CVTKSA992FTA		
	Q7614	00D2710314903	T.R , KTA1024Y		HVTKTA1024YT		
	Q7618	00D2710314903	T.R , KTA1024Y		HVTKTA1024YT		
	Q7620,7621	00D2730471907	T.R , KTC3206Y		HVTKTC3206YAT		
	Q7638	943212500020S	High Voltage PNP Transistors(SOT-23)		CVTMMBT5401		
	Q7639	943214500040S	High Voltage NPN Transistors(SOT-23)		CVTMMBT5551		
	Q7704,7705	943211500150S	PNP, TO-92, LOW NOISE, HFE:300-600, FAILCHILD		CVTKSA992FTA		
	Q7714	00D2710314903	T.R , KTA1024Y		HVTKTA1024YT		
	Q7718	00D2710314903	T.R , KTA1024Y		HVTKTA1024YT		
	Q7720,7721	00D2730471907	T.R , KTC3206Y		HVTKTC3206YAT		
	Q7738	943212500020S	High Voltage PNP Transistors(SOT-23)		CVTMMBT5401		
	Q7739	943214500040S	High Voltage NPN Transistors(SOT-23)		CVTMMBT5551		
	D7011,7012	943209001080S	DIODE , CHIP , SWITCHING		CVD1SS355T		
	D7108,7109	00D9430182609	DIODE , SWITCHING		CVD1SS133MT		
	D7115,7116	00D9430182609	DIODE , SWITCHING	E3,E1C	CVD1SS133MT		
	D7118	00D9430182609	DIODE , SWITCHING		CVD1SS133MT		
	D7139	00D9430182609	DIODE , SWITCHING		CVD1SS133MT		
	D7208,7209	00D9430182609	DIODE , SWITCHING		CVD1SS133MT		
	D7215,7216	00D9430182609	DIODE , SWITCHING	E3,E1C	CVD1SS133MT		
	D7218	00D9430182609	DIODE , SWITCHING		CVD1SS133MT		
	D7239	00D9430182609	DIODE , SWITCHING		CVD1SS133MT		
	D7308,7309	00D9430182609	DIODE , SWITCHING		CVD1SS133MT		
	D7315,7316	00D9430182609	DIODE , SWITCHING	E3,E1C	CVD1SS133MT		
	D7318	00D9430182609	DIODE , SWITCHING		CVD1SS133MT		
	D7339	00D9430182609	DIODE , SWITCHING		CVD1SS133MT		
	D7408,7409	00D9430182609	DIODE , SWITCHING		CVD1SS133MT		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	D7415,7416	00D9430182609	DIODE , SWITCHING	E3,E1C	CVD1SS133MT		
	D7418	00D9430182609	DIODE , SWITCHING		CVD1SS133MT		
	D7439	00D9430182609	DIODE , SWITCHING		CVD1SS133MT		
	D7508,7509	00D9430182609	DIODE , SWITCHING		CVD1SS133MT		
	D7515,7516	00D9430182609	DIODE , SWITCHING	E3,E1C	CVD1SS133MT		
	D7518	00D9430182609	DIODE , SWITCHING		CVD1SS133MT		
	D7539	00D9430182609	DIODE , SWITCHING		CVD1SS133MT		
	D7608,7609	00D9430182609	DIODE , SWITCHING		CVD1SS133MT		
	D7615,7616	00D9430182609	DIODE , SWITCHING	E3,E1C	CVD1SS133MT		
	D7618	00D9430182609	DIODE , SWITCHING		CVD1SS133MT		
	D7639	00D9430182609	DIODE , SWITCHING		CVD1SS133MT		
	D7708,7709	00D9430182609	DIODE , SWITCHING		CVD1SS133MT		
	D7715,7716	00D9430182609	DIODE , SWITCHING	E3,E1C	CVD1SS133MT		
	D7718	00D9430182609	DIODE , SWITCHING		CVD1SS133MT		
	D7739	00D9430182609	DIODE , SWITCHING		CVD1SS133MT		
CAPACITORS GROUP							
	C7001	nsp	CAP, CHIP(1608, 50V/0.01uF)		CCUS1H103KC		
	C7011,7012	943134501570S	CAP, ELECT(10V/330uF)		CCEA1AH331T		
	C7013	nsp	CAP, ELECT(10V/47uF)	E3,E1C	CCEA1AH470T		
	C7013	nsp	CAP, ELECT(10V/22uF)	E2	CCEA1AH220T		
	C7101	943134010590S	CAP, ELECT(50V/22uF)	E3,E1C	CCEA1HH220T		
	C7101	943134500080S	CAP, ELECT(63V/47uF)	E2	CCEA1JH470T		
	C7102	nsp	CAP, CERAMIC(50V/470pF/K)	E3,E1C	CCKT1H471KB		
	C7102	nsp	CAP, PE-FILM(100V/470pF/J)	E2	CCME2A471JR11T		
	C7104	nsp	CAP, CHIP(1608, 50V/220pF)		CCUS1H221JA		
	C7105	nsp	CAP, CHIP(1608, 50V/2200pF)		CCUS1H222KC		
	C7106	00MOA10705020	CAP, ELECT(50V/100uF)	E3,E1C	CCEA1HH101T		
	C7106	943134501770S	CAP, ELECT(50V/220uF)	E2	CCEA1HH221T		
	C7112	nsp	CAP, PE-FILM(100V/220pF/J)		CCME2A221JR11T		
	C7120	nsp	CAP, PE-FILM(100V/220pF/J)		CCME2A221JR11T		
	C7121	nsp	CAP, PE-FILM(100V/470pF/J)		CCME2A471JR11T		
	C7125	00D9430148708	CAP, ELECT(50V/47uF)	E3,E1C	CCEA1HH470T		
	C7125	00MOA10705020	CAP, ELECT(50V/100uF)	E2	CCEA1HH101T		
	C7131,7132	943134500070S	CAP, ELECT(100V/10uF)	E3,E1C	CCEA2AH100T		
	C7138	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C7201	943134010590S	CAP, ELECT(50V/22uF)	E3,E1C	CCEA1HH220T		
	C7201	943134500080S	CAP, ELECT(63V/47uF)	E2	CCEA1JH470T		
	C7202	nsp	CAP, CERAMIC(50V/470pF/K)	E3,E1C	CCKT1H471KB		
	C7202	nsp	CAP, PE-FILM(100V/470pF/J)	E2	CCME2A471JR11T		
	C7204	nsp	CAP, CHIP(1608, 50V/220pF)		CCUS1H221JA		
	C7205	nsp	CAP, CHIP(1608, 50V/2200pF)		CCUS1H222KC		
	C7206	00MOA10705020	CAP, ELECT(50V/100uF)	E3,E1C	CCEA1HH101T		
	C7206	943134501770S	CAP, ELECT(50V/220uF)	E2	CCEA1HH221T		
	C7212	nsp	CAP, PE-FILM(100V/220pF/J)		CCME2A221JR11T		
	C7220	nsp	CAP, PE-FILM(100V/220pF/J)		CCME2A221JR11T		
	C7221	nsp	CAP, PE-FILM(100V/470pF/J)		CCME2A471JR11T		
	C7225	00D9430148708	CAP, ELECT(50V/47uF)	E3,E1C	CCEA1HH470T		
	C7225	00MOA10705020	CAP, ELECT(50V/100uF)	E2	CCEA1HH101T		
	C7231,7232	943134500070S	CAP, ELECT(100V/10uF)	E3,E1C	CCEA2AH100T		
	C7238	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C7301	943134010590S	CAP, ELECT(50V/22uF)	E3,E1C	CCEA1HH220T		
	C7301	943134500080S	CAP, ELECT(63V/47uF)	E2	CCEA1JH470T		
	C7302	nsp	CAP, CERAMIC(50V/470pF/K)	E3,E1C	CCKT1H471KB		
	C7302	nsp	CAP, PE-FILM(100V/470pF/J)	E2	CCME2A471JR11T		
	C7304	nsp	CAP, CHIP(1608, 50V/220pF)		CCUS1H221JA		
	C7305	nsp	CAP, CHIP(1608, 50V/2200pF)		CCUS1H222KC		
	C7306	00MOA10705020	CAP, ELECT(50V/100uF)	E3,E1C	CCEA1HH101T		
	C7306	943134501770S	CAP, ELECT(50V/220uF)	E2	CCEA1HH221T		
	C7312	nsp	CAP, PE-FILM(100V/220pF/J)		CCME2A221JR11T		
	C7320	nsp	CAP, PE-FILM(100V/220pF/J)		CCME2A221JR11T		
	C7321	nsp	CAP, PE-FILM(100V/470pF/J)		CCME2A471JR11T		
	C7325	00D9430148708	CAP, ELECT(50V/47uF)	E3,E1C	CCEA1HH470T		
	C7325	00MOA10705020	CAP, ELECT(50V/100uF)	E2	CCEA1HH101T		
	C7331,7332	943134500070S	CAP, ELECT(100V/10uF)	E3,E1C	CCEA2AH100T		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	C7338	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C7401	943134010590S	CAP, ELECT(50V/22uF)	E3,E1C	CCEA1HH220T		
	C7401	943134500080S	CAP, ELECT(63V/47uF)	E2	CCEA1JH470T		
	C7402	nsp	CAP, CERAMIC(50V/470pF/K)	E3,E1C	CCKT1H471KB		
	C7402	nsp	CAP, PE-FILM(100V/470pF/J)	E2	CCME2A471JR11T		
	C7404	nsp	CAP, CHIP(1608, 50V/220pF)		CCUS1H221JA		
	C7405	nsp	CAP, CHIP(1608, 50V/2200pF)		CCUS1H222KC		
	C7406	00MOA10705020	CAP, ELECT(50V/100uF)	E3,E1C	CCEA1HH101T		
	C7406	943134501770S	CAP, ELECT(50V/220uF)	E2	CCEA1HH221T		
	C7412	nsp	CAP, PE-FILM(100V/220pF/J)		CCME2A221JR11T		
	C7420	nsp	CAP, PE-FILM(100V/220pF/J)		CCME2A221JR11T		
	C7421	nsp	CAP, PE-FILM(100V/470pF/J)		CCME2A471JR11T		
	C7425	00D9430148708	CAP, ELECT(50V/47uF)	E3,E1C	CCEA1HH470T		
	C7425	00MOA10705020	CAP, ELECT(50V/100uF)	E2	CCEA1HH101T		
	C7431,7432	943134500070S	CAP, ELECT(100V/10uF)	E3,E1C	CCEA2AH100T		
	C7438	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C7501	943134010590S	CAP, ELECT(50V/22uF)	E3,E1C	CCEA1HH220T		
	C7501	943134500080S	CAP, ELECT(63V/47uF)	E2	CCEA1JH470T		
	C7502	nsp	CAP, CERAMIC(50V/470pF/K)	E3,E1C	CCKT1H471KB		
	C7502	nsp	CAP, PE-FILM(100V/470pF/J)	E2	CCME2A471JR11T		
	C7504	nsp	CAP, CHIP(1608, 50V/220pF)		CCUS1H221JA		
	C7505	nsp	CAP, CHIP(1608, 50V/2200pF)		CCUS1H222KC		
	C7506	00MOA10705020	CAP, ELECT(50V/100uF)	E3,E1C	CCEA1HH101T		
	C7506	943134501770S	CAP, ELECT(50V/220uF)	E2	CCEA1HH221T		
	C7512	nsp	CAP, PE-FILM(100V/220pF/J)		CCME2A221JR11T		
	C7520	nsp	CAP, PE-FILM(100V/220pF/J)		CCME2A221JR11T		
	C7521	nsp	CAP, PE-FILM(100V/470pF/J)		CCME2A471JR11T		
	C7525	00D9430148708	CAP, ELECT(50V/47uF)	E3,E1C	CCEA1HH470T		
	C7525	00MOA10705020	CAP, ELECT(50V/100uF)	E2	CCEA1HH101T		
	C7531,7532	943134500070S	CAP, ELECT(100V/10uF)		CCEA2AH100T		
	C7538	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C7601	943134010590S	CAP, ELECT(50V/22uF)	E3,E1C	CCEA1HH220T		
	C7601	943134500080S	CAP, ELECT(63V/47uF)	E2	CCEA1JH470T		
	C7602	nsp	CAP, CERAMIC(50V/470pF/K)	E3,E1C	CCKT1H471KB		
	C7602	nsp	CAP, PE-FILM(100V/470pF/J)	E2	CCME2A471JR11T		
	C7604	nsp	CAP, CHIP(1608, 50V/220pF)		CCUS1H221JA		
	C7605	nsp	CAP, CHIP(1608, 50V/2200pF)		CCUS1H222KC		
	C7606	00MOA10705020	CAP, ELECT(50V/100uF)	E3,E1C	CCEA1HH101T		
	C7606	943134501770S	CAP, ELECT(50V/220uF)	E2	CCEA1HH221T		
	C7612	nsp	CAP, PE-FILM(100V/220pF/J)		CCME2A221JR11T		
	C7620	nsp	CAP, PE-FILM(100V/220pF/J)		CCME2A221JR11T		
	C7621	nsp	CAP, PE-FILM(100V/470pF/J)		CCME2A471JR11T		
	C7625	00D9430148708	CAP, ELECT(50V/47uF)	E3,E1C	CCEA1HH470T		
	C7625	00MOA10705020	CAP, ELECT(50V/100uF)	E2	CCEA1HH101T		
	C7631,7632	943134500070S	CAP, ELECT(100V/10uF)	E3,E1C	CCEA2AH100T		
	C7638	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C7701	943134010590S	CAP, ELECT(50V/22uF)	E3,E1C	CCEA1HH220T		
	C7701	943134500080S	CAP, ELECT(63V/47uF)	E2	CCEA1JH470T		
	C7702	nsp	CAP, CERAMIC(50V/470pF/K)	E3,E1C	CCKT1H471KB		
	C7702	nsp	CAP, PE-FILM(100V/470pF/J)	E2	CCME2A471JR11T		
	C7704	nsp	CAP, CHIP(1608, 50V/220pF)		CCUS1H221JA		
	C7705	nsp	CAP, CHIP(1608, 50V/2200pF)		CCUS1H222KC		
	C7706	00MOA10705020	CAP, ELECT(50V/100uF)	E3,E1C	CCEA1HH101T		
	C7706	943134501770S	CAP, ELECT(50V/220uF)	E2	CCEA1HH221T		
	C7712	nsp	CAP, PE-FILM(100V/220pF/J)		CCME2A221JR11T		
	C7720	nsp	CAP, PE-FILM(100V/220pF/J)		CCME2A221JR11T		
	C7721	nsp	CAP, PE-FILM(100V/470pF/J)		CCME2A471JR11T		
	C7725	00D9430148708	CAP, ELECT(50V/47uF)	E3,E1C	CCEA1HH470T		
	C7725	00MOA10705020	CAP, ELECT(50V/100uF)	E2	CCEA1HH101T		
	C7731,7732	943134500070S	CAP, ELECT(100V/10uF)		CCEA2AH100T		
	C7738	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
RESISTORS GROUP							
	R7001	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R7002	00MGD05223160	RES, CARBON(1/5W,22Kohm,J)		CRD20TJ223T		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	R7011	00MNN05334610	RES, CHIP(1608/5%/330Kohm)		CRJ10DJ334T		
⚠	R7012	252310006520S	PTC THEMISTORS, CHIP(95'C)		CRTPRF18BD471QB5RB		
	R7013	00MNN05334610	RES, CHIP(1608/5%/330Kohm)		CRJ10DJ334T		
⚠	R7014	252310006520S	PTC THEMISTORS, CHIP(95'C)		CRTPRF18BD471QB5RB		
	R7016	00MGD05102160	RES, CARBON(1/5W,1Kohm,J)		CRD20TJ102T		
	R7017	00MGD05103160	RES, CARBON(1/5W,10Kohm,J)		CRD20TJ103T		
	R7018	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R7101	00MGD05122160	RES, CARBON(1/5W,1.2Kohm,J)		CRD20TJ122T		
	R7102	00MGD05474160	RES, CARBON(1/5W,470Kohm,J)		CRD20TJ474T		
	R7103	00MGD05333160	RES, CARBON(1/5W,33Kohm,J)		CRD20TJ333T		
	R7104	nsp	WIRE , COPPER		C3A206		
	R7105	nsp	RES, M-OXIDE FILM(1W/1Kohm)		CRG1SANJ102RT		
	R7106,7107	00MGD05151160	RES, CARBON(1/5W,150ohm,J)		CRD20TJ151T		
	R7108	nsp	RES, M-OXIDE FILM(1W/1Kohm)		CRG1SANJ102RT		
	R7109,7110	00MGD05221160	RES, CARBON(1/5W,220ohm,J)		CRD20TJ221T		
	R7111	nsp	RES, M-OXIDE FILM(1W/3.3Kohm)		CRG1SANJ332RT		
	R7112	00MGD05333160	RES, CARBON(1/5W,33Kohm,J)		CRD20TJ333T		
	R7114	nsp	RES, M-OXIDE FILM(1W/56Kohm)		CRG1SANJ563RT		
	R7116,7117	00MGD05122160	RES, CARBON(1/5W,1.2Kohm,J)		CRD20TJ122T		
	R7118,7119	nsp	RES, M-OXIDE FILM(1W/270ohm)		CRG1SANJ271RT		
	R7120	nsp	RES, M-OXIDE FILM(2W/15Kohm)		CRG2SANJ153RT		
	R7121	nsp	RES, M-OXIDE FILM(1W/270ohm)		CRG1SANJ271RT		
	R7122	00MGD05224160	RES, CARBON(1/5W,220Kohm,J)	E3,E1C	CRD20TJ224T		
	R7122	00MGD05154160	RES, CARBON(1/5W,150Kohm,J)	E2	CRD20TJ154T		
	R7123	00MGD05224160	RES, CARBON(1/5W,220Kohm,J)	E3,E1C	CRD20TJ224T		
	R7123	00MGD05154160	RES, CARBON(1/5W,150Kohm,J)	E2	CRD20TJ154T		
	R7124	00MGD05272160	RES, CARBON(1/5W,2.7Kohm,J)		CRD20TJ272T		
	R7125	00MGD05471160	RES, CARBON(1/5W,470ohm,J)		CRD20TJ471T		
	R7126	00MGD05561160	RES, CARBON(1/5W,560ohm,J)		CRD20TJ561T		
	R7129,7130	943124500240S	RES, M-OXIDE FILM(1W/22ohm)		CRG1SANJ220RT		
	R7131-7134	943124500050S	RES, M-OXIDE FILM(2W/0.47ohm)		CRG2SANJR47RT		
	R7135,7136	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R7137	nsp	RES, CARBON(1/5W,680Kohm,J)		CRD20TJ684T		
⚠	R7138	252310006506S	PTC THEMISTORS, CHIP(115'C)		CRTPRF18BB471QB5RB		
	R7139	nsp	RES, CHIP(1608/5%/180Kohm)	E3,E1C	CRJ10DJ184T		
	R7139	00MNN05154610	RES, CHIP(1608/5%/150Kohm)	E2	CRJ10DJ154T		
	R7140	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R7141	00MNN05562610	RES, CHIP(1608/5%/5.6Kohm)		CRJ10DJ562T		
	R7142	00MNN05563610	RES, CHIP(1608/5%/56Kohm)		CRJ10DJ563T		
	R7143	00MGD05473160	RES, CARBON(1/5W,47Kohm,J)		CRD20TJ473T		
	R7144	nsp	RES, CHIP(3216/5%/22Kohm)		CRJ14CJ223T		
	R7145	00MGD05223160	RES, CARBON(1/5W,22Kohm,J)		CRD20TJ223T		
	R7201	00MGD05122160	RES, CARBON(1/5W,1.2Kohm,J)		CRD20TJ122T		
	R7202	00MGD05474160	RES, CARBON(1/5W,470Kohm,J)		CRD20TJ474T		
	R7203	00MGD05333160	RES, CARBON(1/5W,33Kohm,J)		CRD20TJ333T		
	R7204	nsp	WIRE , COPPER		C3A206		
	R7205	nsp	RES, M-OXIDE FILM(1W/1Kohm)		CRG1SANJ102RT		
	R7206,7207	00MGD05151160	RES, CARBON(1/5W,150ohm,J)		CRD20TJ151T		
	R7208	nsp	RES, M-OXIDE FILM(1W/1Kohm)		CRG1SANJ102RT		
	R7209,7210	00MGD05221160	RES, CARBON(1/5W,220ohm,J)		CRD20TJ221T		
	R7211	nsp	RES, M-OXIDE FILM(1W/3.3Kohm)		CRG1SANJ332RT		
	R7212	00MGD05333160	RES, CARBON(1/5W,33Kohm,J)		CRD20TJ333T		
	R7214	nsp	RES, M-OXIDE FILM(1W/56Kohm)		CRG1SANJ563RT		
	R7216,7217	00MGD05122160	RES, CARBON(1/5W,1.2Kohm,J)		CRD20TJ122T		
	R7218,7219	nsp	RES, M-OXIDE FILM(1W/270ohm)		CRG1SANJ271RT		
	R7220	nsp	RES, M-OXIDE FILM(2W/15Kohm)		CRG2SANJ153RT		
	R7221	nsp	RES, M-OXIDE FILM(1W/270ohm)		CRG1SANJ271RT		
	R7222	00MGD05224160	RES, CARBON(1/5W,220Kohm,J)	E3,E1C	CRD20TJ224T		
	R7222	00MGD05154160	RES, CARBON(1/5W,150Kohm,J)	E2	CRD20TJ154T		
	R7223	00MGD05224160	RES, CARBON(1/5W,220Kohm,J)	E3,E1C	CRD20TJ224T		
	R7223	00MGD05154160	RES, CARBON(1/5W,150Kohm,J)	E2	CRD20TJ154T		
	R7224	00MGD05272160	RES, CARBON(1/5W,2.7Kohm,J)		CRD20TJ272T		
	R7225	00MGD05471160	RES, CARBON(1/5W,470ohm,J)		CRD20TJ471T		
	R7226	00MGD05561160	RES, CARBON(1/5W,560ohm,J)		CRD20TJ561T		
	R7230	943124500240S	RES, M-OXIDE FILM(1W/22ohm)		CRG1SANJ220RT		
	R7231-7234	943124500050S	RES, M-OXIDE FILM(2W/0.47ohm)		CRG2SANJR47RT		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	R7235,7236	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R7237	nsp	RES, CARBON(1/5W,680Kohm,J)		CRD20TJ684T		
⚠	R7238	252310006506S	PTC THEMISTORS, CHIP(115'C)		CRTPRF18BB471QB5RB		
	R7239	nsp	RES, CHIP(1608/5%/180Kohm)	E3,E1C	CRJ10DJ184T		
	R7239	00MNN05154610	RES, CHIP(1608/5%/150Kohm)	E2	CRJ10DJ154T		
	R7240	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R7241	00MNN05562610	RES, CHIP(1608/5%/5.6Kohm)		CRJ10DJ562T		
	R7242	00MNN05563610	RES, CHIP(1608/5%/56Kohm)		CRJ10DJ563T		
	R7243	nsp	RES, CHIP(3216/5%/47Kohm)		CRJ14CJ473T		
	R7244	nsp	RES, CHIP(3216/5%/22Kohm)		CRJ14CJ223T		
	R7245	00MGD05223160	RES, CARBON(1/5W,22Kohm,J)		CRD20TJ223T		
	R7279	943124500240S	RES, M-OXIDE FILM(1W/22ohm)		CRG1SANJ220RT		
	R7301	00MGD05122160	RES, CARBON(1/5W,1.2Kohm,J)		CRD20TJ122T		
	R7302	00MGD05474160	RES, CARBON(1/5W,470Kohm,J)		CRD20TJ474T		
	R7303	00MGD05333160	RES, CARBON(1/5W,33Kohm,J)		CRD20TJ333T		
	R7304	nsp	WIRE , COPPER		C3A206		
	R7305	nsp	RES, M-OXIDE FILM(1W/1Kohm)		CRG1SANJ102RT		
	R7306,7307	00MGD05151160	RES, CARBON(1/5W,150ohm,J)		CRD20TJ151T		
	R7308	nsp	RES, M-OXIDE FILM(1W/1Kohm)		CRG1SANJ102RT		
	R7309,7310	00MGD05221160	RES, CARBON(1/5W,220ohm,J)		CRD20TJ221T		
	R7311	nsp	RES, M-OXIDE FILM(1W/3.3Kohm)		CRG1SANJ332RT		
	R7312	00MGD05333160	RES, CARBON(1/5W,33Kohm,J)		CRD20TJ333T		
	R7314	nsp	RES, M-OXIDE FILM(1W/56Kohm)		CRG1SANJ563RT		
	R7316,7317	00MGD05122160	RES, CARBON(1/5W,1.2Kohm,J)		CRD20TJ122T		
	R7318,7319	nsp	RES, M-OXIDE FILM(1W/270ohm)		CRG1SANJ271RT		
	R7320	nsp	RES, M-OXIDE FILM(2W/15Kohm)		CRG2SANJ153RT		
	R7321	nsp	RES, M-OXIDE FILM(1W/270ohm)		CRG1SANJ271RT		
	R7322	00MGD05224160	RES, CARBON(1/5W,220Kohm,J)	E3,E1C	CRD20TJ224T		
	R7322	00MGD05154160	RES, CARBON(1/5W,150Kohm,J)	E2	CRD20TJ154T		
	R7323	00MGD05224160	RES, CARBON(1/5W,220Kohm,J)	E3,E1C	CRD20TJ224T		
	R7323	00MGD05154160	RES, CARBON(1/5W,150Kohm,J)	E2	CRD20TJ154T		
	R7324	00MGD05272160	RES, CARBON(1/5W,2.7Kohm,J)		CRD20TJ272T		
	R7325	00MGD05471160	RES, CARBON(1/5W,470ohm,J)		CRD20TJ471T		
	R7326	00MGD05561160	RES, CARBON(1/5W,560ohm,J)		CRD20TJ561T		
	R7329,7330	943124500240S	RES, M-OXIDE FILM(1W/22ohm)		CRG1SANJ220RT		
	R7331-7334	943124500050S	RES, M-OXIDE FILM(2W/0.47ohm)		CRG2SANJR47RT		
	R7335,7336	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R7337	nsp	RES, CARBON(1/5W,680Kohm,J)		CRD20TJ684T		
⚠	R7338	252310006506S	PTC THEMISTORS, CHIP(115'C)		CRTPRF18BB471QB5RB		
	R7339	nsp	RES, CHIP(1608/5%/180Kohm)	E3,E1C	CRJ10DJ184T		
	R7339	00MNN05154610	RES, CHIP(1608/5%/150Kohm)	E2	CRJ10DJ154T		
	R7340	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R7341	00MNN05562610	RES, CHIP(1608/5%/5.6Kohm)		CRJ10DJ562T		
	R7342	00MNN05563610	RES, CHIP(1608/5%/56Kohm)		CRJ10DJ563T		
	R7343	nsp	RES, CHIP(3216/5%/47Kohm)		CRJ14CJ473T		
	R7344	nsp	RES, CHIP(3216/5%/22Kohm)		CRJ14CJ223T		
	R7345	00MGD05223160	RES, CARBON(1/5W,22Kohm,J)		CRD20TJ223T		
	R7401	00MGD05122160	RES, CARBON(1/5W,1.2Kohm,J)		CRD20TJ122T		
	R7402	00MGD05474160	RES, CARBON(1/5W,470Kohm,J)		CRD20TJ474T		
	R7403	00MGD05333160	RES, CARBON(1/5W,33Kohm,J)		CRD20TJ333T		
	R7404	nsp	WIRE , COPPER		C3A206		
	R7405	nsp	RES, M-OXIDE FILM(1W/1Kohm)		CRG1SANJ102RT		
	R7406,7407	00MGD05151160	RES, CARBON(1/5W,150ohm,J)		CRD20TJ151T		
	R7408	nsp	RES, M-OXIDE FILM(1W/1Kohm)		CRG1SANJ102RT		
	R7409,7410	00MGD05221160	RES, CARBON(1/5W,220ohm,J)		CRD20TJ221T		
	R7411	nsp	RES, M-OXIDE FILM(1W/3.3Kohm)		CRG1SANJ332RT		
	R7412	00MGD05333160	RES, CARBON(1/5W,33Kohm,J)		CRD20TJ333T		
	R7414	nsp	RES, M-OXIDE FILM(1W/56Kohm)		CRG1SANJ563RT		
	R7416,7417	00MGD05122160	RES, CARBON(1/5W,1.2Kohm,J)		CRD20TJ122T		
	R7418,7419	nsp	RES, M-OXIDE FILM(1W/270ohm)		CRG1SANJ271RT		
	R7420	nsp	RES, M-OXIDE FILM(2W/15Kohm)		CRG2SANJ153RT		
	R7421	nsp	RES, M-OXIDE FILM(1W/270ohm)		CRG1SANJ271RT		
	R7422	00MGD05224160	RES, CARBON(1/5W,220Kohm,J)	E3,E1C	CRD20TJ224T		
	R7422	00MGD05154160	RES, CARBON(1/5W,150Kohm,J)	E2	CRD20TJ154T		
	R7423	00MGD05224160	RES, CARBON(1/5W,220Kohm,J)	E3,E1C	CRD20TJ224T		
	R7423	00MGD05154160	RES, CARBON(1/5W,150Kohm,J)	E2	CRD20TJ154T		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	R7424	00MGD05272160	RES, CARBON(1/5W,2.7Kohm,J)		CRD20TJ272T		
	R7425	00MGD05471160	RES, CARBON(1/5W,470ohm,J)		CRD20TJ471T		
	R7426	00MGD05561160	RES, CARBON(1/5W,560ohm,J)		CRD20TJ561T		
	R7429,7430	943124500240S	RES, M-OXIDE FILM(1W/22ohm)		CRG1SANJ220RT		
	R7431-7434	943124500050S	RES, M-OXIDE FILM(2W/0.47ohm)		CRG2SANJR47RT		
	R7435,7436	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R7437	nsp	RES, CARBON(1/5W,680Kohm,J)		CRD20TJ684T		
⚠	R7438	252310006506S	PTC THEMISTORS, CHIP(115'C)		CRTPRF18BB471QB5RB		
	R7439	nsp	RES, CHIP(1608/5%/180Kohm)	E3,E1C	CRJ10DJ184T		
	R7439	00MNN05154610	RES, CHIP(1608/5%/150Kohm)	E2	CRJ10DJ154T		
	R7440	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R7441	00MNN05562610	RES, CHIP(1608/5%/5.6Kohm)		CRJ10DJ562T		
	R7442	00MNN05563610	RES, CHIP(1608/5%/56Kohm)		CRJ10DJ563T		
	R7443	00MGD05473160	RES, CARBON(1/5W,47Kohm,J)		CRD20TJ473T		
	R7444	nsp	RES, CHIP(3216/5%/22Kohm)		CRJ14CJ223T		
	R7445	00MGD05223160	RES, CARBON(1/5W,22Kohm,J)		CRD20TJ223T		
	R7501	00MGD05122160	RES, CARBON(1/5W,1.2Kohm,J)		CRD20TJ122T		
	R7502	00MGD05474160	RES, CARBON(1/5W,470Kohm,J)		CRD20TJ474T		
	R7503	00MGD05333160	RES, CARBON(1/5W,33Kohm,J)		CRD20TJ333T		
	R7504	nsp	WIRE , COPPER		C3A206		
	R7505	nsp	RES, M-OXIDE FILM(1W/1Kohm)		CRG1SANJ102RT		
	R7506,7507	00MGD05151160	RES, CARBON(1/5W,150ohm,J)		CRD20TJ151T		
	R7508	nsp	RES, M-OXIDE FILM(1W/1Kohm)		CRG1SANJ102RT		
	R7509,7510	00MGD05221160	RES, CARBON(1/5W,220ohm,J)		CRD20TJ221T		
	R7511	nsp	RES, M-OXIDE FILM(1W/3.3Kohm)		CRG1SANJ332RT		
	R7512	00MGD05333160	RES, CARBON(1/5W,33Kohm,J)		CRD20TJ333T		
	R7514	nsp	RES, M-OXIDE FILM(1W/56Kohm)		CRG1SANJ563RT		
	R7516,7517	00MGD05122160	RES, CARBON(1/5W,1.2Kohm,J)		CRD20TJ122T		
	R7518,7519	nsp	RES, M-OXIDE FILM(1W/270ohm)		CRG1SANJ271RT		
	R7520	nsp	RES, M-OXIDE FILM(2W/15Kohm)		CRG2SANJ153RT		
	R7521	nsp	RES, M-OXIDE FILM(1W/270ohm)		CRG1SANJ271RT		
	R7522	00MGD05224160	RES, CARBON(1/5W,220Kohm,J)	E3,E1C	CRD20TJ224T		
	R7522	00MGD05154160	RES, CARBON(1/5W,150Kohm,J)	E2	CRD20TJ154T		
	R7523	00MGD05224160	RES, CARBON(1/5W,220Kohm,J)	E3,E1C	CRD20TJ224T		
	R7523	00MGD05154160	RES, CARBON(1/5W,150Kohm,J)	E2	CRD20TJ154T		
	R7524	00MGD05272160	RES, CARBON(1/5W,2.7Kohm,J)		CRD20TJ272T		
	R7525	00MGD05471160	RES, CARBON(1/5W,470ohm,J)		CRD20TJ471T		
	R7526	00MGD05561160	RES, CARBON(1/5W,560ohm,J)		CRD20TJ561T		
	R7529,7530	943124500240S	RES, M-OXIDE FILM(1W/22ohm)		CRG1SANJ220RT		
	R7531-7534	943124500050S	RES, M-OXIDE FILM(2W/0.47ohm)		CRG2SANJR47RT		
	R7535,7536	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R7537	nsp	RES, CARBON(1/5W,680Kohm,J)		CRD20TJ684T		
⚠	R7538	252310006506S	PTC THEMISTORS, CHIP(115'C)		CRTPRF18BB471QB5RB		
	R7539	nsp	RES, CHIP(1608/5%/180Kohm)	E3,E1C	CRJ10DJ184T		
	R7539	00MNN05154610	RES, CHIP(1608/5%/150Kohm)	E2	CRJ10DJ154T		
	R7540	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R7541	00MNN05562610	RES, CHIP(1608/5%/5.6Kohm)		CRJ10DJ562T		
	R7542	00MNN05563610	RES, CHIP(1608/5%/56Kohm)		CRJ10DJ563T		
	R7543	nsp	RES, CHIP(3216/5%/47Kohm)		CRJ14CJ473T		
	R7544	nsp	RES, CHIP(3216/5%/22Kohm)		CRJ14CJ223T		
	R7545	00MGD05223160	RES, CARBON(1/5W,22Kohm,J)		CRD20TJ223T		
	R7601	00MGD05122160	RES, CARBON(1/5W,1.2Kohm,J)		CRD20TJ122T		
	R7602	00MGD05474160	RES, CARBON(1/5W,470Kohm,J)		CRD20TJ474T		
	R7603	00MGD05333160	RES, CARBON(1/5W,33Kohm,J)		CRD20TJ333T		
	R7604	nsp	WIRE , COPPER		C3A206		
	R7605	nsp	RES, M-OXIDE FILM(1W/1Kohm)		CRG1SANJ102RT		
	R7606,7607	00MGD05151160	RES, CARBON(1/5W,150ohm,J)		CRD20TJ151T		
	R7608	nsp	RES, M-OXIDE FILM(1W/1Kohm)		CRG1SANJ102RT		
	R7609,7610	00MGD05221160	RES, CARBON(1/5W,220ohm,J)		CRD20TJ221T		
	R7611	nsp	RES, M-OXIDE FILM(1W/3.3Kohm)		CRG1SANJ332RT		
	R7612	00MGD05333160	RES, CARBON(1/5W,33Kohm,J)		CRD20TJ333T		
	R7614	nsp	RES, M-OXIDE FILM(1W/56Kohm)		CRG1SANJ563RT		
	R7616,7617	00MGD05122160	RES, CARBON(1/5W,1.2Kohm,J)		CRD20TJ122T		
	R7618,7619	nsp	RES, M-OXIDE FILM(1W/270ohm)		CRG1SANJ271RT		
	R7620	nsp	RES, M-OXIDE FILM(2W/15Kohm)		CRG2SANJ153RT		
	R7621	nsp	RES, M-OXIDE FILM(1W/270ohm)		CRG1SANJ271RT		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	R7622	00MGD05224160	RES, CARBON(1/5W,220Kohm,J)	E3,E1C	CRD20TJ224T		
	R7622	00MGD05154160	RES, CARBON(1/5W,150Kohm,J)	E2	CRD20TJ154T		
	R7623	00MGD05224160	RES, CARBON(1/5W,220Kohm,J)	E3,E1C	CRD20TJ224T		
	R7623	00MGD05154160	RES, CARBON(1/5W,150Kohm,J)	E2	CRD20TJ154T		
	R7624	00MGD05272160	RES, CARBON(1/5W,2.7Kohm,J)		CRD20TJ272T		
	R7625	00MGD05471160	RES, CARBON(1/5W,470ohm,J)		CRD20TJ471T		
	R7626	00MGD05561160	RES, CARBON(1/5W,560ohm,J)		CRD20TJ561T		
	R7629,7630	943124500240S	RES, M-OXIDE FILM(1W/22ohm)		CRG1SANJ220RT		
	R7631-7634	943124500050S	RES, M-OXIDE FILM(2W/0.47ohm)		CRG2SANJR47RT		
	R7635,7636	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R7637	nsp	RES, CARBON(1/5W,680Kohm,J)		CRD20TJ684T		
⚠	R7638	252310006506S	PTC THEMISTORS, CHIP(115'C)		CRTPRF18BB471QB5RB		
	R7639	nsp	RES, CHIP(1608/5%/180Kohm)	E3,E1C	CRJ10DJ184T		
	R7639	00MNN05154610	RES, CHIP(1608/5%/150Kohm)	E2	CRJ10DJ154T		
	R7640	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R7641	00MNN05562610	RES, CHIP(1608/5%/5.6Kohm)		CRJ10DJ562T		
	R7642	00MNN05563610	RES, CHIP(1608/5%/56Kohm)		CRJ10DJ563T		
	R7643	nsp	RES, CHIP(3216/5%/47Kohm)		CRJ14CJ473T		
	R7644	nsp	RES, CHIP(3216/5%/22Kohm)		CRJ14CJ223T		
	R7655	00MGD05223160	RES, CARBON(1/5W,22Kohm,J)		CRD20TJ223T		
	R7701	00MGD05122160	RES, CARBON(1/5W,1.2Kohm,J)		CRD20TJ122T		
	R7702	00MGD05474160	RES, CARBON(1/5W,470Kohm,J)		CRD20TJ474T		
	R7703	00MGD05333160	RES, CARBON(1/5W,33Kohm,J)		CRD20TJ333T		
	R7704	nsp	WIRE , COPPER		C3A206		
	R7705	nsp	RES, M-OXIDE FILM(1W/1Kohm)		CRG1SANJ102RT		
	R7706,7707	00MGD05151160	RES, CARBON(1/5W,150ohm,J)		CRD20TJ151T		
	R7708	nsp	RES, M-OXIDE FILM(1W/1Kohm)		CRG1SANJ102RT		
	R7709,7710	00MGD05221160	RES, CARBON(1/5W,220ohm,J)		CRD20TJ221T		
	R7711	nsp	RES, M-OXIDE FILM(1W/3.3Kohm)		CRG1SANJ332RT		
	R7712	00MGD05333160	RES, CARBON(1/5W,33Kohm,J)		CRD20TJ333T		
	R7714	nsp	RES, M-OXIDE FILM(1W/56Kohm)		CRG1SANJ563RT		
	R7716,7717	00MGD05122160	RES, CARBON(1/5W,1.2Kohm,J)		CRD20TJ122T		
	R7718,7719	nsp	RES, M-OXIDE FILM(1W/270ohm)		CRG1SANJ271RT		
	R7720	nsp	RES, M-OXIDE FILM(2W/15Kohm)		CRG2SANJ153RT		
	R7721	nsp	RES, M-OXIDE FILM(1W/270ohm)		CRG1SANJ271RT		
	R7722,7723	00MGD05224160	RES, CARBON(1/5W,220Kohm,J)	E3,E1C	CRD20TJ224T		
	R7722	00MGD05154160	RES, CARBON(1/5W,150Kohm,J)	E2	CRD20TJ154T		
	R7723	00MGD05154160	RES, CARBON(1/5W,150Kohm,J)	E2	CRD20TJ154T		
	R7724	00MGD05272160	RES, CARBON(1/5W,2.7Kohm,J)		CRD20TJ272T		
	R7725	00MGD05471160	RES, CARBON(1/5W,470ohm,J)		CRD20TJ471T		
	R7726	00MGD05561160	RES, CARBON(1/5W,560ohm,J)		CRD20TJ561T		
	R7729,7730	943124500240S	RES, M-OXIDE FILM(1W/22ohm)		CRG1SANJ220RT		
	R7731-7734	943124500050S	RES, M-OXIDE FILM(2W/0.47ohm)		CRG2SANJR47RT		
	R7735,7736	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R7737	nsp	RES, CARBON(1/5W,680Kohm,J)		CRD20TJ684T		
⚠	R7738	252310006506S	PTC THEMISTORS, CHIP(115'C)		CRTPRF18BB471QB5RB		
	R7739	nsp	RES, CHIP(1608/5%/180Kohm)	E3,E1C	CRJ10DJ184T		
	R7739	00MNN05154610	RES, CHIP(1608/5%/150Kohm)	E2	CRJ10DJ154T		
	R7740	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R7741	00MNN05562610	RES, CHIP(1608/5%/5.6Kohm)		CRJ10DJ562T		
	R7742	00MNN05563610	RES, CHIP(1608/5%/56Kohm)		CRJ10DJ563T		
	R7743	nsp	RES, CHIP(3216/5%/47Kohm)		CRJ14CJ473T		
	R7744	nsp	RES, CHIP(3216/5%/22Kohm)		CRJ14CJ223T		
	R7745	00MGD05223160	RES, CARBON(1/5W,22Kohm,J)		CRD20TJ223T		
	VR714	963161012400S	RES ,SEMI FIXED(1K/B-CURVE) ANGLE		CVN1RE102B01T		
	VR724	963161012400S	RES ,SEMI FIXED(1K/B-CURVE) ANGLE		CVN1RE102B01T		
	VR734	963161012400S	RES ,SEMI FIXED(1K/B-CURVE) ANGLE		CVN1RE102B01T		
	VR744	963161012400S	RES ,SEMI FIXED(1K/B-CURVE) ANGLE		CVN1RE102B01T		
	VR754	963161012400S	RES ,SEMI FIXED(1K/B-CURVE) ANGLE		CVN1RE102B01T		
	VR764	963161012400S	RES ,SEMI FIXED(1K/B-CURVE) ANGLE		CVN1RE102B01T		
	VR774	963161012400S	RES ,SEMI FIXED(1K/B-CURVE) ANGLE		CVN1RE102B01T		
OTHERS PARTS GROUP							
	BK701	nsp	BRACKET , PCB		CMD1A569		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	BN704	nsp	WIRE ASS'Y (5P,2.0MM,250MM,UL1007#26)		CWB1B005250LC		
	CN461	nsp	LOCK-WAFER/STRAIGHT/2MM PITCH/13PIN		CJP13GI288ZY		
	CN701	nsp	LOCK-WAFER/STRAIGHT/2.5MM PITCH/9PIN		CJP09GI289ZY		
	CN702	nsp	LOCK-WAFER/STRAIGHT/2.5MM PITCH/7PIN		CJP07GI289ZY		
	CN703	nsp	LOCK-WAFER/STRAIGHT/2.5MM PITCH/3PIN		CJP03GI289ZY		
	CN715	nsp	WAFER (3PIN, AN, 2MM, JWT)		CJP03GB48ZW		
	CN725	nsp	WAFER (3PIN, AN, 2MM, JWT)		CJP03GB48ZW		
	CN735	nsp	WAFER (3PIN, AN, 2MM, JWT)		CJP03GB48ZW		
	CN745	nsp	WAFER (3PIN, AN, 2MM, JWT)		CJP03GB48ZW		
	CN755	nsp	WAFER (3PIN, AN, 2MM, JWT)		CJP03GB48ZW		
	CN765	nsp	WAFER (3PIN, AN, 2MM, JWT)		CJP03GB48ZW		
	CN775	nsp	WAFER (3PIN, AN, 2MM, JWT)		CJP03GB48ZW		
	GND71	nsp	PALTE , EARTH		HJT1A025		
	ZD714	943202010080S	DIODE , ZENER ,1/2W, 5.1V		CVDZJ5.1BT		
	ZD715,716	90M-HD302440R	DIODE , ZENER ,1/2W, 4.7V	E3,E1C	CVDZJ4.7BT		
	ZD724	943202010080S	DIODE , ZENER ,1/2W, 5.1V		CVDZJ5.1BT		
	ZD725,726	90M-HD302440R	DIODE , ZENER ,1/2W, 4.7V	E3,E1C	CVDZJ4.7BT		
	ZD734	943202010080S	DIODE , ZENER ,1/2W, 5.1V		CVDZJ5.1BT		
	ZD735,736	90M-HD302440R	DIODE , ZENER ,1/2W, 4.7V	E3,E1C	CVDZJ4.7BT		
	ZD744	943202010080S	DIODE , ZENER ,1/2W, 5.1V		CVDZJ5.1BT		
	ZD745,746	90M-HD302440R	DIODE , ZENER ,1/2W, 4.7V	E3,E1C	CVDZJ4.7BT		
	ZD754	943202010080S	DIODE , ZENER ,1/2W, 5.1V		CVDZJ5.1BT		
	ZD755,756	90M-HD302440R	DIODE , ZENER ,1/2W, 4.7V	E3,E1C	CVDZJ4.7BT		
	ZD764	943202010080S	DIODE , ZENER ,1/2W, 5.1V		CVDZJ5.1BT		
	ZD765,766	90M-HD302440R	DIODE , ZENER ,1/2W, 4.7V	E3,E1C	CVDZJ4.7BT		
	ZD774	943202010080S	DIODE , ZENER ,1/2W, 5.1V		CVDZJ5.1BT		
	ZD775,776	90M-HD302440R	DIODE , ZENER ,1/2W, 4.7V	E3,E1C	CVDZJ4.7BT		

MAIN PCB ASS'Y

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
SEMICONDUCTORS GROUP							
	IC931,932	943231010390S	I.C,REGULATOR(+5V,T0220IS)		CVIKIA7805BPI		
	IC934	943231010390S	I.C,REGULATOR(+5V,T0220IS)		CVIKIA7805BPI		
	IC935	00D2631099006	I.C,REGULATOR(-5V,T0220IS)		CVIKIA7905PI		
	IC936	00D2631100050	I.C,REGULATOR (+8V, 1A, TO-220IS)		CVIKIA7808BPI		
	IC937	00D2631251006	I.C,REGULATOR(-8V,T0220IS)		CVIKIA7908PI		
	Q6713	943215500030S	T.R,RT1P441C(47K-47K)		CVTRT1P441C		
	Q6714	943216500050S	T.R,RT1N441C(47K-47K)		CVTRT1N441C		
	Q6717,6718	943214500030S	T.R , MUTE		CVTINC2001AC1		
	Q6720	943215500030S	T.R,RT1P441C(47K-47K)		CVTRT1P441C		
	Q6737,6738	943214500030S	T.R , MUTE		CVTINC2001AC1		
	Q6767,6768	943214500030S	T.R , MUTE		CVTINC2001AC1		
	Q6783	943215500030S	T.R,RT1P441C(47K-47K)		CVTRT1P441C		
	Q6784	943216500050S	T.R,RT1N441C(47K-47K)		CVTRT1N441C		
	Q6787,6788	943214500030S	T.R , MUTE		CVTINC2001AC1		
	Q6790	943215500030S	T.R,RT1P441C(47K-47K)		CVTRT1P441C		
	Q6812	943214500030S	T.R , MUTE		CVTINC2001AC1		
	Q6839	943215500030S	T.R,RT1P441C(47K-47K)		CVTRT1P441C		
	Q6840	943216500050S	T.R,RT1N441C(47K-47K)		CVTRT1N441C		
	Q6843,6844	943214500030S	T.R , MUTE		CVTINC2001AC1		
	Q6846	943215500030S	T.R,RT1P441C(47K-47K)		CVTRT1P441C		
	Q6869	943215500030S	T.R,RT1P441C(47K-47K)		CVTRT1P441C		
	Q6870	943216500050S	T.R,RT1N441C(47K-47K)		CVTRT1N441C		
	Q6873,6874	943214500030S	T.R , MUTE		CVTINC2001AC1		
	Q6876	943215500030S	T.R,RT1P441C(47K-47K)		CVTRT1P441C		
	Q7932	943213500160S	T.R,RT1N237C(2.2K-47K)		CVTRT1N237C		
	Q7934	943213500160S	T.R,RT1N237C(2.2K-47K)		CVTRT1N237C		
	Q7936	943213500160S	T.R,RT1N237C(2.2K-47K)		CVTRT1N237C		
	Q7938	943213500160S	T.R,RT1N237C(2.2K-47K)		CVTRT1N237C		
	Q7940	943213500160S	T.R,RT1N237C(2.2K-47K)		CVTRT1N237C		
	Q7944	943213500160S	T.R,RT1N237C(2.2K-47K)		CVTRT1N237C		
	Q7946	943213500160S	T.R,RT1N237C(2.2K-47K)		CVTRT1N237C		
	D6845-6847	943203003150S	DIODE , RECTIFIER, RADIAL		CVD1N4007SRT		
	D6848	90M-HD302380R	DIODE , ZENER ,1/2W, 3.6V		CVDZJ3.6BT		
	D7902	943203500500M	DIODE, BRIDGE.(600V/25A)		CVDGBJ2506		⚠5
	D7927	00D9430196306	DIODE , ZENER ,1/2W, 7.5V		CVDZJ7.5BT		
	D7928	00D9430182609	DIODE , SWITCHING		CVD1SS133MT		
	D7932	90M-HZ200190R	DIODE, SWITCHING, SMD TYPE		HVDRLS4148SR		
	D7934	90M-HZ200190R	DIODE, SWITCHING, SMD TYPE		HVDRLS4148SR		
	D7936	90M-HZ200190R	DIODE, SWITCHING, SMD TYPE		HVDRLS4148SR		
	D7938	90M-HZ200190R	DIODE, SWITCHING, SMD TYPE		HVDRLS4148SR		
	D7940	90M-HZ200190R	DIODE, SWITCHING, SMD TYPE		HVDRLS4148SR		
	D7944	90M-HZ200190R	DIODE, SWITCHING, SMD TYPE		HVDRLS4148SR		
	D7946	90M-HZ200190R	DIODE, SWITCHING, SMD TYPE		HVDRLS4148SR		
	D9301	943209001080S	DIODE , CHIP , SWITCHING		CVD1SS355T		
	D9304,9305	943209001080S	DIODE , CHIP , SWITCHING		CVD1SS355T		
	D9308,9309	943209001080S	DIODE , CHIP , SWITCHING		CVD1SS355T		
	D9311,9312	943203003150S	DIODE , RECTIFIER, RADIAL		CVD1N4007SRT		
	D9315	943203003150S	DIODE , RECTIFIER, RADIAL		CVD1N4007SRT		
	D9318,9319	943203003150S	DIODE , RECTIFIER, RADIAL		CVD1N4007SRT		
	D9322	943203003150S	DIODE , RECTIFIER, RADIAL		CVD1N4007SRT		
	D9325	943203003150S	DIODE , RECTIFIER, RADIAL		CVD1N4007SRT		
	D9327	943203003150S	DIODE , RECTIFIER, RADIAL		CVD1N4007SRT		
	D9330	943203003150S	DIODE , RECTIFIER, RADIAL		CVD1N4007SRT		
	D9332	943203003150S	DIODE , RECTIFIER, RADIAL		CVD1N4007SRT		
CAPACITORS GROUP							
	C6096	nsp	CAP, CHIP(1608, 50V/100pF)	E2	CCUS1H101JA		
	C6703,6704	943134010590S	CAP, ELECT(50V/22uF)		CCEA1HH220T		
	C6707,6708	943134010590S	CAP, ELECT(50V/22uF)		CCEA1HH220T		
	C6709,6710	nsp	CAP, CHIP(1608, 50V/330pF)		CCUS1H331JA		
	C6719	00D9609010023	CAP, ELECT(50V/0.47uF)		CCEA1HHR47T		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	C6723,6724	943134010590S	CAP, ELECT(50V/22uF)		CCEA1HH220T		
	C6727,6728	943134010590S	CAP, ELECT(50V/22uF)		CCEA1HH220T		
	C6729,6730	nsp	CAP, CHIP(1608, 50V/330pF)		CCUS1H331JA		
	C6745	nsp	CAP, CHIP(1608, 50V/0.01uF)		CCUS1H103KC		
	C6753,6754	943134010590S	CAP, ELECT(50V/22uF)		CCEA1HH220T		
	C6757,6758	943134010590S	CAP, ELECT(50V/22uF)		CCEA1HH220T		
	C6759,6760	nsp	CAP, CHIP(1608, 50V/330pF)		CCUS1H331JA		
	C6773,6774	943134010590S	CAP, ELECT(50V/22uF)		CCEA1HH220T		
	C6777,6778	943134010590S	CAP, ELECT(50V/22uF)		CCEA1HH220T		
	C6779,6780	nsp	CAP, CHIP(1608, 50V/330pF)		CCUS1H331JA		
	C6782	nsp	CAP, CHIP(1608, 50V/0.01uF)		CCUS1H103KC		
	C6789	00D9609010023	CAP, ELECT(50V/0.47uF)		CCEA1HHR47T		
	C6802	943134010590S	CAP, ELECT(50V/22uF)		CCEA1HH220T		
	C6805	943134010590S	CAP, ELECT(50V/22uF)		CCEA1HH220T		
	C6806	nsp	CAP, CHIP(1608, 50V/330pF)		CCUS1H331JA		
	C6820	nsp	CAP, CHIP(1608, 50V/0.01uF)		CCUS1H103KC		
	C6829,6830	943134010590S	CAP, ELECT(50V/22uF)		CCEA1HH220T		
	C6833,6834	943134010590S	CAP, ELECT(50V/22uF)		CCEA1HH220T		
	C6835,6836	nsp	CAP, CHIP(1608, 50V/330pF)		CCUS1H331JA		
	C6845	00D9609010023	CAP, ELECT(50V/0.47uF)		CCEA1HHR47T		
	C6849	00D9430175108	CAP, ELECT(50V/10uF)		CCEA1HH100T		
	C6859,6860	943134010590S	CAP, ELECT(50V/22uF)		CCEA1HH220T		
	C6863,6864	943134010590S	CAP, ELECT(50V/22uF)		CCEA1HH220T		
	C6865,6866	nsp	CAP, CHIP(1608, 50V/330pF)		CCUS1H331JA		
	C6875	00D9609010023	CAP, ELECT(50V/0.47uF)		CCEA1HHR47T		
	C6877	nsp	CAP, CHIP(1608, 50V/0.01uF)		CCUS1H103KC		
	C6891,6892	00D9430175108	CAP, ELECT(50V/10uF)		CCEA1HH100T		
	C6893,6894	nsp	CAP, CHIP(1608, 50V/100pF)		CCUS1H101JA		
	C6897	nsp	CAP, CHIP(1608, 50V/0.01uF)		CCUS1H103KC		
	C6901-6903	nsp	CAP, CHIP(1608, 50V/100pF)	E2,E1C	CCUS1H101JA		
	C6904	nsp	CAP, CHIP(1608, 50V/0.1uF)	E2,E1C	CCUS1H104KC		
	C6911	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C7802	nsp	CAP, MYLAR(50V/0.047uF/J)		HCQI1H473JZT		
	C7806	nsp	CAP, CHIP(1608, 50V/1000pF)		CCUS1H102KC		
	C7812	nsp	CAP, MYLAR(50V/0.047uF/J)		HCQI1H473JZT		
	C7816	nsp	CAP, CHIP(1608, 50V/1000pF)		CCUS1H102KC		
	C7822	nsp	CAP, MYLAR(50V/0.047uF/J)		HCQI1H473JZT		
	C7826	nsp	CAP, CHIP(1608, 50V/1000pF)	E2,E1C	CCUS1H102KC		
	C7832	nsp	CAP, MYLAR(50V/0.047uF/J)		HCQI1H473JZT		
	C7836	nsp	CAP, CHIP(1608, 50V/1000pF)	E2,E1C	CCUS1H102KC		
	C7842	nsp	CAP, MYLAR(50V/0.047uF/J)		HCQI1H473JZT		
	C7846	nsp	CAP, CHIP(1608, 50V/1000pF)	E2,E1C	CCUS1H102KC		
	C7852	nsp	CAP, MYLAR(50V/0.047uF/J)		HCQI1H473JZT		
	C7856	nsp	CAP, CHIP(1608, 50V/1000pF)	E2,E1C	CCUS1H102KC		
	C7862	nsp	CAP, MYLAR(50V/0.047uF/J)		HCQI1H473JZT		
	C7866	nsp	CAP, CHIP(1608, 50V/1000pF)	E2,E1C	CCUS1H102KC		
	C7876	nsp	CAP, CHIP(1608, 50V/1000pF)		CCUS1H102KC		
	C7879	nsp	CAP, CHIP(1608, 50V/1000pF)		CCUS1H102KC		
	C7886	nsp	CAP, CHIP(1608, 50V/1000pF)		CCUS1H102KC		
	C7889	nsp	CAP, CHIP(1608, 50V/1000pF)		CCUS1H102KC		
	C7891-7900	nsp	CAP, CHIP(2012, 250V/0.01uF)		CCUC2E103KC		
	C7901,7902	nsp	CAP, METAL PE FILM(250V/0.1uF)		KCME2E104JP04T		
	C7903	nsp	CAP, CHIP(1608, 50V/1000pF)		CCUS1H102KC		
	C7905	943134010470S	CAP, ELECT(50V/0.1uF)		CCEA1HH0R1T		
	C7906	nsp	CAP, CHIP(2012, 250V/0.01uF)		CCUC2E103KC		
	C7907,7908	963134010180S	CAP , ELECT(71V/12000uF)		CCET71VLKS123N		
	C7927	00D9430175108	CAP, ELECT(50V/10uF)		CCEA1HH100T		
	C7931	00MOA10705020	CAP, ELECT(50V/100uF)		CCEA1HH101T		
	C9301	nsp	CAP, ELECT(16V/100uF)-S		CCEA1CKS101T		
	C9302	nsp	CAP, ELECT(50V/10uF)-S		CCEA1HKS100T		
	C9303	00D9430062101	CAP, ELECT(16V/100uF)	E2,E1C	CCEA1CH101T		
	C9304	00D9430175108	CAP, ELECT(50V/10uF)	E2,E1C	CCEA1HH100T		
	C9305	nsp	CAP, ELECT(50V/10uF)-S		CCEA1HKS100T		
	C9306	943134010600S	CAP, ELECT(16V/3300uF)		CCEA1CH332E		
	C9307	nsp	CAP, ELECT(50V/10uF)-S		CCEA1HKS100T		
	C9308	943134010600S	CAP, ELECT(16V/3300uF)		CCEA1CH332E		
	C9309	00D9430062101	CAP, ELECT(16V/100uF)	E3,E1C	CCEA1CH101T		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	C9309	00MOA10705020	CAP, ELECT(50V/100uF)	E2	CCEA1HH101T		
	C9310	943134010620S	CAP, ELECT(25V/4700uF)		CCEA1EH472E		
	C9311	nsp	CAP, ELECT(16V/100uF)-S		CCEA1CKS101T		
	C9312	943134010620S	CAP, ELECT(25V/4700uF)		CCEA1EH472E		
	C9316	943134010620S	CAP, ELECT(25V/4700uF)		CCEA1EH472E		
	C9317-9319	nsp	CAP, MYLAR(50V/0.1uF/J)		HCQI1H104JZT		
	C9321-9323	nsp	CAP, MYLAR(50V/0.1uF/J)		HCQI1H104JZT		
RESISTORS GROUP							
	R6701,6702	00MNN05474610	RES, CHIP(1608/5%/470Kohm)		CRJ10DJ474T		
	R6703-6706	00MNN05471610	RES, CHIP(1608/5%/470ohm)		CRJ10DJ471T		
	R6707-6710	00MNN05104610	RES, CHIP(1608/5%/100Kohm)		CRJ10DJ104T		
	R6711,6712	00MNN05221610	RES, CHIP(1608/5%/220ohm)		CRJ10DJ221T		
	R6713	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R6714	00MNN05102610	RES, CHIP(1608/5%/1Kohm)		CRJ10DJ102T		
	R6717,6718	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R6719	00MNN05474610	RES, CHIP(1608/5%/470Kohm)		CRJ10DJ474T		
	R6721,6722	00MNN05474610	RES, CHIP(1608/5%/470Kohm)		CRJ10DJ474T		
	R6723-6726	00MNN05471610	RES, CHIP(1608/5%/470ohm)		CRJ10DJ471T		
	R6727-6730	00MNN05104610	RES, CHIP(1608/5%/100Kohm)		CRJ10DJ104T		
	R6731,6732	00MNN05221610	RES, CHIP(1608/5%/220ohm)		CRJ10DJ221T		
	R6737,6738	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R6751,6752	00MNN05474610	RES, CHIP(1608/5%/470Kohm)		CRJ10DJ474T		
	R6753-6756	00MNN05471610	RES, CHIP(1608/5%/470ohm)		CRJ10DJ471T		
	R6757-6760	00MNN05104610	RES, CHIP(1608/5%/100Kohm)		CRJ10DJ104T		
	R6761,6762	00MNN05221610	RES, CHIP(1608/5%/220ohm)		CRJ10DJ221T		
	R6767,6768	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R6771,6772	00MNN05474610	RES, CHIP(1608/5%/470Kohm)		CRJ10DJ474T		
	R6773-6776	00MNN05471610	RES, CHIP(1608/5%/470ohm)		CRJ10DJ471T		
	R6777-6780	00MNN05104610	RES, CHIP(1608/5%/100Kohm)		CRJ10DJ104T		
	R6781,6782	00MNN05221610	RES, CHIP(1608/5%/220ohm)		CRJ10DJ221T		
	R6783	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R6784	00MNN05102610	RES, CHIP(1608/5%/1Kohm)		CRJ10DJ102T		
	R6787,6788	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R6789	00MNN05474610	RES, CHIP(1608/5%/470Kohm)		CRJ10DJ474T		
	R6801	00MNN05474610	RES, CHIP(1608/5%/470Kohm)		CRJ10DJ474T		
	R6802,6803	00MNN05471610	RES, CHIP(1608/5%/470ohm)		CRJ10DJ471T		
	R6804	00MNN05104610	RES, CHIP(1608/5%/100Kohm)		CRJ10DJ104T		
	R6806	00MNN05104610	RES, CHIP(1608/5%/100Kohm)		CRJ10DJ104T		
	R6807	00MNN05221610	RES, CHIP(1608/5%/220ohm)		CRJ10DJ221T		
	R6811	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R6813,6814	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R6821,6822	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R6827,6828	00MNN05474610	RES, CHIP(1608/5%/470Kohm)		CRJ10DJ474T		
	R6829-6832	00MNN05471610	RES, CHIP(1608/5%/470ohm)		CRJ10DJ471T		
	R6833-6836	00MNN05104610	RES, CHIP(1608/5%/100Kohm)		CRJ10DJ104T		
	R6837,6838	00MNN05221610	RES, CHIP(1608/5%/220ohm)		CRJ10DJ221T		
	R6839	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R6840	00MNN05102610	RES, CHIP(1608/5%/1Kohm)		CRJ10DJ102T		
	R6843,6844	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R6845	00MNN05474610	RES, CHIP(1608/5%/470Kohm)		CRJ10DJ474T		
	R6846	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R6848	00MNN05821610	RES, CHIP(1608/5%/820ohm)		CRJ10DJ821T		
	R6849	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R6857,6858	00MNN05474610	RES, CHIP(1608/5%/470Kohm)		CRJ10DJ474T		
	R6859-6862	00MNN05471610	RES, CHIP(1608/5%/470ohm)		CRJ10DJ471T		
	R6863-6866	00MNN05104610	RES, CHIP(1608/5%/100Kohm)		CRJ10DJ104T		
	R6867,6868	00MNN05221610	RES, CHIP(1608/5%/220ohm)		CRJ10DJ221T		
	R6869	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R6870	00MNN05102610	RES, CHIP(1608/5%/1Kohm)		CRJ10DJ102T		
	R6873,6874	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R6875	00MNN05474610	RES, CHIP(1608/5%/470Kohm)		CRJ10DJ474T		
	R6891,6892	00MNN05474610	RES, CHIP(1608/5%/470Kohm)		CRJ10DJ474T		
	R6893,6894	00MNN05104610	RES, CHIP(1608/5%/100Kohm)		CRJ10DJ104T		
	R6895,6896	00MNN05471610	RES, CHIP(1608/5%/470ohm)		CRJ10DJ471T		
	R6901-6904	00MNN05101610	RES, CHIP(1608/5%/100ohm)	E2,E1C	CRJ10DJ101T		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	R6906	00MNN05101610	RES, CHIP(1608/5%/100ohm)	E2,E1C	CRJ10DJ101T		
	R6925,6926	nsp	RES, CHIP(1608/5%/0ohm)	E2,E1C	CRJ10DJ0R0T		
	R6927,6928	00MNN05561610	RES, CHIP(1608/5%/560ohm)		CRJ10DJ561T		
	R7801	nsp	RES, M-OXIDE FILM(1W/10ohm)	E3,E1C	CRG1SANJ100RT		
	R7801	00MGD05100160	RES, CARBON(1/5W,10ohm,J)	E2	CRD20TJ100T		
	R7802	nsp	RES, M-OXIDE FILM(2W/10ohm)		CRG2SANJ100RT		
	R7809,7810	nsp	RES, M-OXIDE FILM(2W/470ohm)		CRG2SANJ471RT		
	R7811	nsp	RES, M-OXIDE FILM(1W/10ohm)	E3,E1C	CRG1SANJ100RT		
	R7811	00MGD05100160	RES, CARBON(1/5W,10ohm,J)	E2	CRD20TJ100T		
	R7812	nsp	RES, M-OXIDE FILM(2W/10ohm)		CRG2SANJ100RT		
	R7821	nsp	RES, M-OXIDE FILM(1W/10ohm)	E3,E1C	CRG1SANJ100RT		
	R7821	00MGD05100160	RES, CARBON(1/5W,10ohm,J)	E2	CRD20TJ100T		
	R7822	nsp	RES, M-OXIDE FILM(2W/10ohm)		CRG2SANJ100RT		
	R7831	nsp	RES, M-OXIDE FILM(1W/10ohm)	E3,E1C	CRG1SANJ100RT		
	R7831	00MGD05100160	RES, CARBON(1/5W,10ohm,J)	E2	CRD20TJ100T		
	R7832	nsp	RES, M-OXIDE FILM(2W/10ohm)		CRG2SANJ100RT		
	R7841	nsp	RES, M-OXIDE FILM(1W/10ohm)	E3,E1C	CRG1SANJ100RT		
	R7841	00MGD05100160	RES, CARBON(1/5W,10ohm,J)	E2	CRD20TJ100T		
	R7842	nsp	RES, M-OXIDE FILM(2W/10ohm)		CRG2SANJ100RT		
	R7851	nsp	RES, M-OXIDE FILM(1W/10ohm)	E3,E1C	CRG1SANJ100RT		
	R7851	00MGD05100160	RES, CARBON(1/5W,10ohm,J)	E2	CRD20TJ100T		
	R7852	nsp	RES, M-OXIDE FILM(2W/10ohm)		CRG2SANJ100RT		
	R7861	nsp	RES, M-OXIDE FILM(1W/10ohm)	E3,E1C	CRG1SANJ100RT		
	R7861	00MGD05100160	RES, CARBON(1/5W,10ohm,J)	E2	CRD20TJ100T		
	R7862	nsp	RES, M-OXIDE FILM(2W/10ohm)		CRG2SANJ100RT		
	R7907	nsp	RES, CARBON(1/4W,47Kohm,J)	E3,E1C	CRD25TJ473T		
	R7907	NSP	RES, CARBON(1/4W,470Kohm,J)	E2	CRD25TJ474T		
	R7908	nsp	RES, CARBON(1/4W,47Kohm,J)	E3,E1C	CRD25TJ473T		
	R7908	NSP	RES, CARBON(1/4W,470Kohm,J)	E2	CRD25TJ474T		
	R7921-7926	nsp	RES, M-OXIDE FILM(1W/2.2Kohm)		CRG1SANJ222RT		
	R7927	NSP	RES, CARBON(1/4W,10Kohm,J)		CRD25TJ103T		
	R7933	nsp	RES, CHIP(3216/5%/0ohm)		CRJ14CJ0R0T		
	R7935	90M-RI000290R	RES, CHIP(3216/5%/33ohm)		CRJ14CJ330T		
	R7937	90M-RI000290R	RES, CHIP(3216/5%/33ohm)		CRJ14CJ330T		
	R7939	90M-RI000290R	RES, CHIP(3216/5%/33ohm)		CRJ14CJ330T		
	R7941	90M-RI000290R	RES, CHIP(3216/5%/33ohm)		CRJ14CJ330T		
	R7945	90M-RI000290R	RES, CHIP(3216/5%/33ohm)		CRJ14CJ330T		
	R7947	90M-RI000290R	RES, CHIP(3216/5%/33ohm)		CRJ14CJ330T		
	R9301	nsp	WIRE , COPPER	E2,E1C	C3A206		
	R9308	nsp	WIRE , COPPER		C3A206		
OTHERS PARTS GROUP							
	BD691	nsp	FERRITE , CHIP BEAD(4516/60R)	E2	CLZ9Z014Z		
	BK601	nsp	PLATE, MAIN PCB		CMC2A424		
	BK901,902	nsp	BRACKET, PCB(FUSE)		CMD1A730		
	BN701	nsp	WIRE ASS'Y LOCKING (9P,2.5MM,220MM,UL1569#20,105)		CWB7E0092203D		
	BN702	nsp	WIRE ASS'Y LOCKING (7P,2.5MM,350MM,UL1569#20,105)		CWB7E0073503D		
	BN703	nsp	WIRE ASS'Y LOCKING (3P,2.5MM,220MM,UL1569#24,105)		CWB7C0032203D		
	BN782	nsp	WIRE ASS'Y LOCKING (7P,2.5MM,120MM,UL1007#20)		CWB1E0071203D		
	BN932	nsp	WIRE ASS'Y LOCKING (9P,2.0MM,200MM,UL1007#26)		CWB1B009200HC		
	CN61A	nsp	PIN HEADER (17P,1.25mm,STRAIGHT,B-TO-B)		CJP17GI281Z		
	CN62A	nsp	PIN HEADER (15P,1.25mm,STRAIGHT,B-TO-B)		CJP15GI281Z		
	CN63A	nsp	PIN HEADER (17P,1.25mm,STRAIGHT,B-TO-B)		CJP17GI281Z		
	CN64A	nsp	PIN HEADER (21P,1.25mm,STRAIGHT,B-TO-B)		CJP21GI281Z		
	CN781	nsp	WAFER,YW396-03AB(7.92mm)		CJP03GA89ZY		
	CN782	nsp	LOCK-WAFER/STRAIGHT/2.5MM PITCH/7PIN		CJP07GI289ZY		
	CN932	nsp	LOCK-WAFER/STRAIGHT/2MM PITCH/9PIN		CJP09GI288ZY		
	CN940	nsp	LOCK-WAFER/STRAIGHT/2.5MM PITCH/5PIN		CJP05GI289ZY		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	CN941	nsp	LOCK-WAFER/STRAIGHT/2.5MM PITCH/3PIN		CJP03GI289ZY		
	F9301-9305	nsp	HOLDER , FUSE		KJCFC5S		
	GND71	nsp	PALTE , EARTH		HJT1A025		
	JK681	943643101570S	JACK, 4P(W/R,W/R),SEPA-GND		CJJ4P048U		
	JK682	643010079004S	JACK, 4P(W/R,W/B),SEPA-GND, SILVER		CJJ4P077Z		
	JK683	943643101570S	JACK, 4P(W/R,W/R),SEPA-GND		CJJ4P048U		
	JK684	943643010160S	JACK, 1P(BK),SEPA-GND, SILVER		CJJ4M046U		
	JK689	943643010150S	JACK, 2P(W/R),SEPA-GND, SILVER		CJJ4N034U		
	JK781	943646010240S	JACK, SPK(6P RRR/BBB, SCREW		CJJ5R008U		
	JK782	943643101050S	JACK, SPK(8P RRRR/BBBB, SCREW)		CJJ5Q007U		
	JK783	943646010250S	JACK, SPK(4P RR/BB, SCREW)		CJJ5P011U		
	JK784,785	943643101060S	JACK, SPK(2P R/B, SCREW)		CJJ5N018Z		
	JW605	nsp	WIRE ASS'Y (1P, 80MM,BLK,#22)		CWE5202080A		
	JW703A	nsp	WIRE ASS'Y (1P,200MM,BLK,UL1015#20,CKM-T)		CWE7102200TT		
	JW704A	nsp	WIRE ASS'Y (1P,220MM,BLK,UL1015#20,CKM-T)		CWE7102220TT		
	JW705A	nsp	WIRE ASS'Y (1P,220MM,RED,UL1015#20,CKM-T)		CWE7112220TT		
	L7801	943115010260S	COIL , SPEAKER(0.5uH)		CLEY0R5KAK		
	L7811	943115010260S	COIL , SPEAKER(0.5uH)		CLEY0R5KAK		
	L7821	943115010260S	COIL , SPEAKER(0.5uH)		CLEY0R5KAK		
	L7831	943115010260S	COIL , SPEAKER(0.5uH)		CLEY0R5KAK		
	L7841	943115010260S	COIL , SPEAKER(0.5uH)		CLEY0R5KAK		
	L7851	943115010260S	COIL , SPEAKER(0.5uH)		CLEY0R5KAK		
	L7861	943115010260S	COIL , SPEAKER(0.5uH)		CLEY0R5KAK		
	RY781-784	682010023006S	RELAY,HL3-2A-12S,DC12V,2C1P		CSL3A021ZU		
	RY786,787	682010023006S	RELAY,HL3-2A-12S,DC12V,2C1P		CSL3A021ZU		
	RY788	943682000810S	RELAY,BC3-12H,DC12V,2C2P		CSL4A016ZU		
	TU401	943183100210S	TUNER , RDS , FM(PAL TYPE) , SI4705- B20	E2	CNVMW104FV1-S63V		
	TU401	943183100220S	TUNER , NO RDS , FM(PAL TYPE) , SI4704- B20	E1C	CNVMW004FV1-S63		

DIGITAL PCB ASS'Y

Note : When you exchange IC121, IC151, and IC501, refer to the following file stored in SDI. ⚠2
[AVR3313_HDMI Rx-TxFailure Detection Procedure Manual ver.1.00.pdf]

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New	
SEMICONDUCTORS GROUP								
	IC101	nsp	I.C, HDMI BUFFER		CVIAD8195ACPZ			
	IC121	963236101220D	I.C , HDMI RX		CVIADV7850KBCZ-5			
	IC122	963239002150S	I.C , OCTAL BUFFER/DRIVER		CVISN74LVC244APWR			
	IC124	943239100760S	I.C , DE/MUX (8CH ANALOG,TSSOP-16P)		CVITC74VHC4051AFT			
	IC151	963236101310S	I.C ADV8003KBCZ-8C (WITH HDMI TX)		CVIADV8003KBCZ8C_K			
	IC152,153	nsp	I.C , DDR2 SDRAM(512M,FBGA-84P)		CVIK4T51163QJ-BCE7			⚠2
	IC155	943248101230S	I.C OSD SERIAL FLASH (E3/E2/JP,MX25L6406EM2I-12G)	E3,E2	CVIANAM1700AV		*	
	IC155	943248101240S	I.C OSD SERIAL FLASH (E1C,MX25L6406EM2I-12G)	E1C	CVIANAM1703AV		*	
	IC156	943239010400S	I.C, REGULATOR(1.8V/TO-252)		CVINJM2845DL118			
	IC201	943243101050S	I.C MAIN CPU(AVR3313E3/E2,R5F56108VNFP)	E3,E2	CVIANAM1693AV		*	
	IC201	943243101070S	I.C MAIN CPU(AVR3313E1C,R5F56108VNFP)	E1C	CVIANAM1696AV		*	
	IC202	943239100720S	I.C , EEPROM(256KBIT,SOP-8P)		CVIR1EX24256BSAS0A			
	IC231	943243101080S	I.C SUB CPU(AVR3313 ALL,R5F3650KNFB)		CVIANAM1697AV		*	
	IC241	00D2623448908	I.C , 3STATE QUAD BUFFER		CVITC74VHC125FT			
	IC301-303	nsp	I.C , DC-DC CONVERTER (3A, QFN T&R-38P)		CVIEX3AV			
	IC305-307	nsp	I.C , DC-DC CONVERTER (3A, QFN T&R-38P)		CVIEX3AV			
	IC308	943239100730S	I.C , SYSTEM RESET(4.8V , SOT-25A)		CVIPST8448NR			
	IC309,310	943239010400S	I.C, REGULATOR(3.3V/TO-252)		CVINJM2845DL133			
	IC320	943239100710S	I.C , CURRENT LIMITE(1.5A,UDFN-6P)		CVINCP380HMU15AATBG			
	IC321	943239100690S	I.C , 2CH DAC(32BIT,384KHZ,TSSOP-20P)		CVIPCM5100PWR			
	IC322	943239100700S	I.C , Ethernet Transceiver(QFN-24P)		CVILAN8720ACPTR			
	IC323	00D2623711004	I.C, VIDEO ENCODER		CVISAA7121H/V2.518			
	IC326	23671011050AS	I.C , IPOD AUTHENTICATION FROM D&M		CVI23671011050AS_DM			
	IC327	943239010400S	I.C, REGULATOR(3.3V/TO-252)		CVINJM2845DL133			
	IC390	nsp	I.C , Network Media processor(LFBGA-320P)		CVIDM860A			⚠2
	IC392,393	963246100740D	I.C , SDRAM(256M,8BIT,TSOP-54P)		CVIA3V56S30FTP-G6			
	IC394	nsp	I.C, 1G NAND FLASH(48P-TSOP1)		CVIH27U1G8F2BTR-BC			
	IC401	00D2623077900	IC , HEX INVERTER		HVITC74VHCU04FT			
	IC403	00MHC10418030	I.C , DIR		CVILC89057WVF4AE			
	IC406	943243101090S	I.C AUDIO PLD (AVR3313 ALL,EPM240T100C5N)		CVIANAM1710AV		*	
	IC407	236810083506S	I.C , CLOCK JITTER		CVICS210010-CZZR			
	IC408	nsp	I.C , DSP(LQFP-176P/400M)		CVIADSP21487KSWZ-4B			
	IC409	943246012690S	I.C , 64M SDRAM		CVIW9864G6JH-6			
	IC410	943248101220S	I.C DSP FLASH(AVR3313 ALL,MX29LV160DBTI-70G)		CVIANAM1698AV		*	
	IC441	236810073509S	I.C, DAC(8CH 192kHz 24-Bit)		CVIAK4358VQ			
	IC442,443	00D2631289900	I.C , OPAMP(DUAL/LOW NOISE)		CVIAZ4580MTR-E1			
	IC445	00D2631289900	I.C , OPAMP(DUAL/LOW NOISE)		CVIAZ4580MTR-E1			
	IC447	00D2631289900	I.C , OPAMP(DUAL/LOW NOISE)		CVIAZ4580MTR-E1			
	IC451	236810086505S	I.C , ADC(96kHz 24-Bit)		CVIAK5358BET			
	IC501	23681012860AS	I.C , HDMI PORT PROCESSOR		CVISII9575CTUC		*	⚠2
	Q1201-1203	943216500050S	T.R,RT1N441C(47K-47K)		CVTRT1N441C			
	Q1502	90M-HY200050R	F.E.T (NEC)		CVTUPA672T			
	Q1508	943214500020S	T.R,2SC3052		CVT2SC3052			
	Q2301	943215500020S	T.R,RT1P141C(10K-10K)		CVTRT1P141C			
	Q2302,2303	943216500020S	T.R,RT1N141C(10K-10K)		CVTRT1N141C			
	Q2304,2305	943214500020S	T.R,2SC3052		CVT2SC3052			
	Q2306	943214500030S	T.R , MUTE		CVTINC2001AC1			
	Q2401	943216500020S	T.R,RT1N141C(10K-10K)		CVTRT1N141C			
	Q2402	963212500030S	T.R, ISA1530AC1		CVTISA1530AC1			
	Q2403,2404	943214500020S	T.R,2SC3052		CVT2SC3052			
	Q2405	963212500030S	T.R, ISA1530AC1		CVTISA1530AC1			
	Q2406-2408	943214500020S	T.R,2SC3052		CVT2SC3052			
	Q2411	943214500020S	T.R,2SC3052		CVT2SC3052			
	Q2414,2415	943214500020S	T.R,2SC3052		CVT2SC3052			
	Q2418	943214500020S	T.R,2SC3052		CVT2SC3052			
	Q3001,3002	943229500020S	MOSFET,TPC6111(P-CH,U-MOSV)		CVTTPC6111			
	Q3004	943229500020S	MOSFET,TPC6111(P-CH,U-MOSV)		CVTTPC6111			
	Q3005	00D2710326904	T.R,2SA1954		CVT2SA1954			
	Q3006,3007	943216500050S	T.R,RT1N441C(47K-47K)		CVTRT1N441C			
	Q3008	943216500020S	T.R,RT1N141C(10K-10K)		CVTRT1N141C			

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
	Q3009	943216500050S	T.R,RT1N441C(47K-47K)		CVTRT1N441C		
	Q3012	00D2710326904	T.R,2SA1954		CVT2SA1954		
	Q3013	943216500020S	T.R,RT1N141C(10K-10K)		CVTRT1N141C		
	Q3015	00D2710326904	T.R,2SA1954		CVT2SA1954		
	Q3016	943216500020S	T.R,RT1N141C(10K-10K)		CVTRT1N141C		
	Q3019	00D2710326904	T.R,2SA1954		CVT2SA1954		
	Q3020	943216500020S	T.R,RT1N141C(10K-10K)		CVTRT1N141C		
	Q3031	00D2710326904	T.R,2SA1954		CVT2SA1954		
	Q3032	943216500020S	T.R,RT1N141C(10K-10K)		CVTRT1N141C		
	Q3033	00D2710326904	T.R,2SA1954		CVT2SA1954		
	Q3034	943216500020S	T.R,RT1N141C(10K-10K)		CVTRT1N141C		
	Q3035	943214500020S	T.R,2SC3052		CVT2SC3052		
	Q3038	943216500050S	T.R,RT1N441C(47K-47K)		CVTRT1N441C		
	Q3039	943229500020S	MOSFET,TPC6111(P-CH,U-MOSV)		CVTTPC6111		
	Q3900	943215500020S	T.R,RT1P141C(10K-10K)		CVTRT1P141C		
	Q3901	943216500020S	T.R,RT1N141C(10K-10K)		CVTRT1N141C		
	Q4000	213850009503S	T.R , 2SC4617EBTLR(NPN,SOT-416, SMALL SIGNAL, ROHM		CVT2SC4617EBTLR		
	Q4001	943216500020S	T.R,RT1N141C(10K-10K)		CVTRT1N141C		
	D1201	00D2760718902	DIODE, SCHOTTKY, 30V		CVDRB521S-30		
	D1501	201310001503S	DIODE, ULTRA-HIGH SPEED		CVDKDS160RTKP		
	D2301	201310001503S	DIODE, ULTRA-HIGH SPEED		CVDKDS160RTKP		
	D3001,3002	201310001503S	DIODE, ULTRA-HIGH SPEED		CVDKDS160RTKP		
	D3301,3302	943209001080S	DIODE , CHIP , SWITCHING		CVD1SS355T		
CAPACITORS GROUP							
	C1003-1006	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1007	nsp	CAP, CHIP(2012, 6.3V/10uF, X5R)		CCUC0J106KC		
	C1008-1012	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1013	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1014	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1015	nsp	CAP, CHIP(2012, 6.3V/10uF, X5R)		CCUC0J106KC		
	C1016	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1017	nsp	CAP, CHIP(2012, 6.3V/10uF, X5R)		CCUC0J106KC		
	C1018-1020	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1203-1211	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C1212	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1215	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1216,1217	nsp	CAP, CHIP(1608, 50V/12pF)		CCUS1H120JA		
	C1223	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1224	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1225	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1226	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1227	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1228	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1229	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1230	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1231	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1232	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1233	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1234	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1235	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1238	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1239	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1242	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1243	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1244	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1245	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1246,1247	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1249	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1250	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1251	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1252	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1253	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1254	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1255	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	C1256	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1257	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1258	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1259	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1260	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1261	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1262	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1263	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1264	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1265	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1266	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1267	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1268	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1269	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1270	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1271	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1273	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1274	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1276	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1277	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1278	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1279	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1280	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1281	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1282	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1283	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1284	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1285	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1286	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1287	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1292	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1293	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1294	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1295-1303	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1304	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C1305	nsp	CAP, CHIP(1608, 10V/1uF)		CCUS1A105KC		
	C1306	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1310	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1315-1326	nsp	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)		CCUS0J475KC		
	C1327	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C1328	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1329	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C1330	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1331	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1334	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1335	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1336	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1337	nsp	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)		CCUS0J475KC		
	C1352	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1361	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1362	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1363	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1364	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1365	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1367	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1368	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1369	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1370	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1371	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1372	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1373	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1374	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1375	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1376	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1377	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1379	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1380	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	C1381	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1382	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1383	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1384	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1385	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1386	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1387	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1388	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1392	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1394	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1395	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1396	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1397	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1398	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1399	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1400	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1401	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1402	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1403	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1404	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1405	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1406	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1407	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1408	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1409	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1410	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1411	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1412	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1413	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1414	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1416	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1417	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1418	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1419	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1420	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1421	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1422	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1423	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1424	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1427	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1428	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1429	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1430	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1431	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1432	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1433	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1434	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1435	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1436	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1437	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1438	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1439	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1440	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1441	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1442	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1443	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1444	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1445	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1446	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1447	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1448	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1449	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1450	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1451	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1452	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1453	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1454	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	C1455	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1456	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1457	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1458	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1459	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1460	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1462	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1463	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1464	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1466	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1502,1503	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1506,1507	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1508	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1510	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1511	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1512	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1514,1515	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1516	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1517	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1518	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1520,1521	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1522	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1524,1525	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1526	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1527	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1528	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1529	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1530	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1531	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1532	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1533	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1534	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1535	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1536	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1537	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1538	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1539	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1540	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1542,1543	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1544	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1545	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1546	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1547	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1548	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1549	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1550	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1551	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1552	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1553	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1554	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1555	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1556	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1557	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1558	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1559	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1560	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1561	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1562	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1564	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1565	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1566	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1567,1568	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1571	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1572	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1573	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1574,1575	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1577	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	C1578	nsp	CAP, CHIP(1608, 16V/0.15uF)		CCUS1C154KC		
	C1579	nsp	CAP, CHIP(1005, 25V/0.012uF)		CCUI1E123KC		
	C1580	nsp	CAP, CHIP(1608, 16V/0.15uF)		CCUS1C154KC		
	C1581	nsp	CAP, CHIP(1005, 25V/0.012uF)		CCUI1E123KC		
	C1586-1588	nsp	CAP, CHIP(1608, 10V/1uF)		CCUS1A105KC		
	C1590,1591	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1592,1593	nsp	CAP, CHIP(1608, 50V/12pF)		CCUS1H120JA		
	C1594-1625	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1626	nsp	CAP, CHIP(1608, 10V/1uF)		CCUS1A105KC		
	C1628	nsp	CAP, CHIP(1005, 50V/33pF)		CCUI1H330JA		
	C1629	nsp	CAP, CHIP(1608, 10V/1uF)		CCUS1A105KC		
	C1630,1631	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1632,1633	nsp	CAP, CHIP(2012, 6.3V/10uF, X5R)		CCUC0J106KC		
	C1634	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1635	nsp	CAP, CHIP(2012, 6.3V/10uF, X5R)		CCUC0J106KC		
	C1636,1637	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1640	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1641	nsp	CAP, CHIP(2012, 6.3V/10uF, X5R)		CCUC0J106KC		
	C1645	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1646	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1647	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1648	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1649	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1650	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1651	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1652	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1653	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1655	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1657	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1658	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1659	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1663	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1670-1675	nsp	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)		CCUS0J475KC		
	C1677	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1678	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1679	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1681	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1682	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1685	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1686,1687	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1689	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1690	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1693	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C1694,1695	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C1697-1702	nsp	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)		CCUS0J475KC		
	C1704,1705	nsp	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)		CCUS0J475KC		
	C2012-2016	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C2017,2018	nsp	CAP, CHIP(1608, 50V/15pF)		CCUS1H150JA		
	C2019-2025	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C2301,2302	nsp	CAP, CHIP(1608, 50V/12pF)		CCUS1H120JA		
	C2303	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C2304	nsp	CAP, CHIP(1608, 10V/0.47uF)		CCUS1A474KC		
	C2310	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C2311	nsp	CAP, CHIP(1005, 50V/220pF)		CCUI1H221JA		
	C2312	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C2314-2316	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C2325,2326	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C2401	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C2404-2412	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C2908	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C2910-2917	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C2922-2925	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C2932-2943	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C3001,3002	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3003	nsp	CAP, CHIP(2012, 6.3V/10uF, X5R)		CCUC0J106KC		
	C3004	nsp	CAP, CHIP(2012, 10V/22uF)		CCUC1A226KC		
	C3007	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	C3008	nsp	CAP, CHIP(1608, 50V/15pF)		CCUS1H150JA		
	C3009	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3010	nsp	CAP, CHIP(2012, 6.3V/10uF, X5R)		CCUC0J106KC		
	C3011,3012	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3013	nsp	CAP, CHIP(2012, 6.3V/10uF, X5R)		CCUC0J106KC		
	C3014	nsp	CAP, CHIP(2012, 10V/22uF)		CCUC1A226KC		
	C3017	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C3018	nsp	CAP, CHIP(1608, 50V/15pF)		CCUS1H150JA		
	C3020	nsp	CAP, CHIP(2012, 6.3V/10uF, X5R)		CCUC0J106KC		
	C3031,3032	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3033	nsp	CAP, CHIP(2012, 6.3V/10uF, X5R)		CCUC0J106KC		
	C3034	nsp	CAP, CHIP(2012, 10V/22uF)		CCUC1A226KC		
	C3037	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C3038	nsp	CAP, CHIP(1608, 50V/15pF)		CCUS1H150JA		
	C3041,3042	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3043	nsp	CAP, CHIP(2012, 6.3V/10uF, X5R)		CCUC0J106KC		
	C3044	nsp	CAP, CHIP(2012, 10V/22uF)		CCUC1A226KC		
	C3047	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C3048	nsp	CAP, CHIP(1608, 50V/15pF)		CCUS1H150JA		
	C3051,3052	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3053	nsp	CAP, CHIP(2012, 6.3V/10uF, X5R)		CCUC0J106KC		
	C3054	nsp	CAP, CHIP(2012, 10V/22uF)		CCUC1A226KC		
	C3057	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C3058	nsp	CAP, CHIP(2012, 6.3V/10uF, X5R)		CCUC0J106KC		
	C3059,3060	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3063	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C3064	nsp	CAP, CHIP(1608, 50V/10pF)		CCUS1H100JA		
	C3065	nsp	CAP, CHIP(2012, 10V/22uF)		CCUC1A226KC		
	C3068	nsp	CAP, CHIP(1005, 25V/0.022uF)		CCUI1E223KC		
	C3069	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3071,3072	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3075	943134500040S	CAP, CHIP ELECT(16V/100uF)		HCEC1CRV2101T		
	C3076	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3077	943134500050S	CAP, CHIP ELECT(16V/10uF)		HCEC1CRV2100T		
	C3078,3079	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3080	nsp	CAP, CHIP(1608, 10V/1uF)		CCUS1A105KC		
	C3081	nsp	CAP, CHIP(2012, 6.3V/10uF, X5R)		CCUC0J106KC		
	C3082	nsp	CAP, CHIP(1608, 10V/1uF)		CCUS1A105KC		
	C3083	nsp	CAP, CHIP(2012, 6.3V/10uF, X5R)		CCUC0J106KC		
	C3086	943134500030S	CAP, SMD ELECT(16V/470uF)		CCEC1CRV471T		
	C3087	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3089	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3091	943134500030S	CAP, SMD ELECT(16V/470uF)	E2	CCEC1CRV471T		
	C3092	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3093	nsp	CAP, CHIP(1005, 25V/0.015uF)		CCUI1E153KC		
	C3094	nsp	CAP, CHIP(1608, 10V/1uF)		CCUS1A105KC		
	C3095,3096	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3099	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C3151	nsp	CAP, CHIP(1608, 50V/15pF)		CCUS1H150JA		
	C3152	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3153	nsp	CAP, CHIP(2012, 6.3V/10uF, X5R)		CCUC0J106KC		
	C3154,3155	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3156-3163	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C3202	nsp	CAP, CHIP(1005, 25V/0.022uF)		CCUI1E223KC		
	C3203,3204	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C3205,3206	nsp	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)		CCUS0J475KC		
	C3207,3208	nsp	CAP, CHIP(1005, 50V/15pF)		CCUI1H150JA		
	C3209	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C3213	nsp	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)		CCUS0J475KC		
	C3218	nsp	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)		CCUS0J475KC		
	C3222	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3223	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C3224,3225	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3229,3230	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3234	nsp	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)		CCUS0J475KC		
	C3243-3246	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3248,3249	nsp	CAP, CHIP(1005, 50V/1pF)		CCUI1H1R0CA		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	C3253	nsp	CAP, CHIP(1005, 50V/1000pF)	E3	CCUI1H102KC		
	C3253	nsp	CAP, CHIP(1005, 50V/330pF)	E2,E1C	CCUI1H331JA		
	C3255	nsp	CAP, CHIP(1005, 50V/1000pF)	E3	CCUI1H102KC		
	C3255	nsp	CAP, CHIP(1005, 50V/330pF)	E2,E1C	CCUI1H331JA		
	C3257	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C3267	nsp	CAP, CHIP(1005, 50V/470pF)		CCUI1H471JA		
	C3268	nsp	CAP, CHIP(1608, 10V/1uF)		CCUS1A105KC		
	C3270-3272	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3273,3274	nsp	CAP, CHIP(1608, 10V/1uF)		CCUS1A105KC		
	C3301	nsp	CAP, CHIP(2012, 6.3V/10uF, X5R)		CCUC0J106KC		
	C3302	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3303	nsp	CAP, CHIP(2012, 6.3V/10uF, X5R)		CCUC0J106KC		
	C3304	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3306-3308	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3309	nsp	CAP, CHIP(1608, 6.3V/2.2uF)		CCUS0J225KC		
	C3310	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3311	nsp	CAP, CHIP(1608, 6.3V/2.2uF)		CCUS0J225KC		
	C3312	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3313	nsp	CAP, CHIP(2012, 6.3V/10uF, X5R)		CCUC0J106KC		
	C3314,3315	nsp	CAP, CHIP(1005, 50V/2200pF)		CCUI1H222KC		
	C3316	943134005160M	CAP, CHIP ELECT(6.3V/22uF)		HCEC0JRV2220T		
	C3900	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C3901,3902	nsp	CAP, CHIP(1608, 50V/10pF)		CCUS1H100JA		
	C3904-3907	nsp	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)		CCUS0J475KC		
	C3908-3918	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3923	nsp	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)		CCUS0J475KC		
	C3926-3929	nsp	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)		CCUS0J475KC		
	C3930-3939	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3944	nsp	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)		CCUS0J475KC		
	C3947	nsp	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)		CCUS0J475KC		
	C3952,3953	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C3954-3958	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3959-3963	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C3964,3965	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3966,3967	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C3968-3974	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C3975-3979	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C3980,3981	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C4003,4004	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C4005-4008	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C4009,4010	nsp	CAP, CHIP(1005, 25V/0.01uF)		CCUI1E103KC		
	C4012-4014	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C4015	nsp	CAP, CHIP(1005, 25V/0.022uF)		CCUI1E223KC		
	C4016,4017	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C4018	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C4020	nsp	CAP, CHIP(2012, 6.3V/10uF, X5R)		CCUC0J106KC		
	C4021	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C4022	nsp	CAP, CHIP(1608, 50V/12pF)		CCUS1H120JA		
	C4024-4026	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C4030	nsp	CAP, CHIP(1608, 10V/1uF)		CCUS1A105KC		
	C4033	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C4034	nsp	CAP, CHIP(1608, 50V/12pF)		CCUS1H120JA		
	C4049-4051	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C4052	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C4053,4054	nsp	CAP, CHIP(1005, 50V/100pF)		CCUI1H101JA		
	C4055-4060	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C4062	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C4063	nsp	CAP, CHIP(1005, 50V/100pF)		CCUI1H101JA		
	C4064-4066	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C4067,4068	nsp	CAP, CHIP(1608, 50V/18pF)		CCUS1H180JA		
	C4069-4103	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C4105-4114	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C4121-4169	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C4402	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C4404-4407	nsp	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)		CCUS0J475KC		
	C4408	943134500040S	CAP, CHIP ELECT(16V/100uF)		HCEC1CRV2101T		
	C4411,4412	nsp	CAP, CHIP(1608, 50V/3900pF)		CCUS1H392KC		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	C4423-4426	nsp	CAP, CHIP(1608, 50V/680pF)		CCUS1H681JA		
	C4429,4430	943134500040S	CAP, CHIP ELECT(16V/100uF)		HCEC1CRV2101T		
	C4431,4432	nsp	CAP, CHIP(1608, 50V/3900pF)		CCUS1H392KC		
	C4443-4446	nsp	CAP, CHIP(1608, 50V/680pF)		CCUS1H681JA		
	C4451,4452	nsp	CAP, CHIP(1608, 50V/3900pF)		CCUS1H392KC		
	C4463-4466	nsp	CAP, CHIP(1608, 50V/470pF)		CCUS1H471JA		
	C4471,4472	nsp	CAP, CHIP(1608, 50V/3900pF)		CCUS1H392KC		
	C4483-4486	nsp	CAP, CHIP(1608, 50V/680pF)		CCUS1H681JA		
	C4491,4492	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C4493,4494	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C4497-4499	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C4505,4506	nsp	CAP, CHIP(1608, 50V/4700pF)		CCUS1H472KC		
	C4507,4508	943134500050S	CAP, CHIP ELECT(16V/10uF)		HCEC1CRV2100T		
	C4511,4512	nsp	CAP, CHIP(1608, 10V/1uF)		CCUS1A105KC		
	C4513,4514	nsp	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)		CCUS0J475KC		
	C4516	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C4537,4538	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C4540-4542	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C4544	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C4581	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C4583-4591	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C4593	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C5002	nsp	CAP, CHIP(1608, 10V/1uF)		CCUS1A105KC		
	C5004	nsp	CAP, CHIP(1608, 10V/1uF)		CCUS1A105KC		
	C5006	nsp	CAP, CHIP(1608, 10V/1uF)		CCUS1A105KC		
	C5008	nsp	CAP, CHIP(1608, 10V/1uF)		CCUS1A105KC		
	C5010	nsp	CAP, CHIP(1608, 10V/1uF)		CCUS1A105KC		
	C5012	nsp	CAP, CHIP(1608, 10V/1uF)		CCUS1A105KC		
	C5013	nsp	CAP, CHIP(1005, 50V/1000pF)		CCUI1H102KC		
	C5014,5015	nsp	CAP, CHIP(1608, 50V/12pF)		CCUS1H120JA		
	C5016	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C5025,5026	nsp	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)		CCUS0J475KC		
	C5028	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C5030	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C5032	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C5033,5034	nsp	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)		CCUS0J475KC		
	C5036	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C5037,5038	nsp	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)		CCUS0J475KC		
	C5040	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C5042	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C5044	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C5046	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C5048	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C5049,5050	nsp	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)		CCUS0J475KC		
	C5052	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C5053,5054	nsp	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)		CCUS0J475KC		
	C5056	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C5057,5058	nsp	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)		CCUS0J475KC		
	C5060	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C5061,5062	nsp	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)		CCUS0J475KC		
	C5064	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C5065,5066	nsp	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)		CCUS0J475KC		
	C5067	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C5070	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C5071-5074	nsp	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)		CCUS0J475KC		
	C5075	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C5078	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C5080	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C5082	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C5083-5086	nsp	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)		CCUS0J475KC		
	C5087	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
	C5089	nsp	CAP, CHIP(1005, 16V/0.1uF)		CCUI1C104KC		
RESISTORS GROUP							
	R1002	nsp	RES, CHIP(1005/5%/0ohm)		CRJ06IJ0R0T		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	R1005	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R1007	nsp	RES, CHIP(1005/5%/47Kohm)		CRJ06IJ473T		
	R1012,1013	nsp	RES, CHIP(1005/5%/2Kohm)		CRJ06IJ202T		
	R1022	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R1201	nsp	RES, CHIP(1005/5%/2.2Kohm)		CRJ06IJ222T		
	R1202	nsp	RES, CHIP(1005/5%/3.3Kohm)		CRJ06IJ332T		
	R1203-1205	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R1206	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R1207,1208	nsp	RES, CHIP(1005/5%/0ohm)		CRJ06IJ0R0T		
	R1209	nsp	RES, CHIP(1005/5%/2Kohm)		CRJ06IJ202T		
	R1210,1211	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R1213	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R1218	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R1219,1220	nsp	RES, CHIP(1005/5%/10ohm)		CRJ06IJ100T		
	R1221	00MNN05471610	RES, CHIP(1608/5%/470ohm)		CRJ10DJ471T		
	R1222	00MNN05151610	RES, CHIP(1608/5%/150ohm)		CRJ10DJ151T		
	R1223	00MNN05471610	RES, CHIP(1608/5%/470ohm)		CRJ10DJ471T		
	R1224	00MNN05151610	RES, CHIP(1608/5%/150ohm)		CRJ10DJ151T		
	R1225	nsp	RES, CHIP(1005/5%/47Kohm)		CRJ06IJ473T		
	R1226	943124001530S	RES, CHIP(1608/1%/470ohm)		CRJ10DF4700T		
	R1227	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R1229	00MNN05105610	RES, CHIP(1608/5%/1Mohm)		CRJ10DJ105T		
	R1232	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R1234-1238	nsp	RES, CHIP(1005/5%/47Kohm)		CRJ06IJ473T		
	R1239	00MNN05151610	RES, CHIP(1608/5%/150ohm)		CRJ10DJ151T		
	R1240	00MNN05471610	RES, CHIP(1608/5%/470ohm)		CRJ10DJ471T		
	R1241	00MNN05151610	RES, CHIP(1608/5%/150ohm)		CRJ10DJ151T		
	R1242	00MNN05471610	RES, CHIP(1608/5%/470ohm)		CRJ10DJ471T		
	R1243-1246	00MNN05331610	RES, CHIP(1608/5%/330ohm)		CRJ10DJ331T		
	R1247	943129007280M	RES, CHIP(1608/5%/24ohm)		CRJ10DJ240T		
	R1248	nsp	RES, CHIP(1005/5%/0ohm)		CRJ06IJ0R0T		
	R1249	943129007280M	RES, CHIP(1608/5%/24ohm)		CRJ10DJ240T		
	R1250	nsp	RES, CHIP(1005/5%/47Kohm)		CRJ06IJ473T		
	R1251	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R1252,1253	nsp	RES, CHIP(1608/5%/51ohm)		CRJ10DJ510T		
	R1254	nsp	RES, CHIP(1005/5%/1Kohm)		CRJ06IJ102T		
	R1255,1256	nsp	RES, CHIP(1005/5%/10ohm)		CRJ06IJ100T		
	R1258,1259	nsp	RES, CHIP(1005/5%/2.2Kohm)		CRJ06IJ222T		
	R1260	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R1261-1268	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R1269,1270	nsp	RES, CHIP(1005/5%/47Kohm)		CRJ06IJ473T		
	R1271	nsp	RES, CHIP(1005/5%/0ohm)		CRJ06IJ0R0T		
	R1273-1277	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R1280	nsp	RES, CHIP(1005/5%/680ohm)		CRJ06IJ681T		
	R1284	nsp	RES, CHIP(1005/5%/680ohm)		CRJ06IJ681T		
	R1286-1293	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R1294-1299	nsp	RES, CHIP(1005/5%/47Kohm)		CRJ06IJ473T		
	R1301,1302	90M-NP000010R	RES, CHIP(1005/5%/22ohm)		CRJ06IJ220T		
	R1303-1308	nsp	RES, CHIP(1005/5%/0ohm)		CRJ06IJ0R0T		
	R1501,1502	nsp	RES, CHIP(1005/1%/1Kohm)		CRJ06IF1001T		
	R1503,1504	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R1505	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R1506	00MNN05105610	RES, CHIP(1608/5%/1Mohm)		CRJ10DJ105T		
	R1507	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R1509	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R1510-1512	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R1521	nsp	RES, CHIP(1005/5%/0ohm)		CRJ06IJ0R0T		
	R1523,1524	nsp	RES, CHIP(1608/1%/2.7Kohm)		CRJ10DF2701T		
	R1532,1533	nsp	RES, CHIP(1608/1%/180ohm)		CRJ10DF1800T		
	R1536	943124001530S	RES, CHIP(1608/1%/470ohm)		CRJ10DF4700T		
	R1538	943124001530S	RES, CHIP(1608/1%/470ohm)		CRJ10DF4700T		
	R1540-1543	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R1544	nsp	RES, CHIP(1005/5%/0ohm)		CRJ06IJ0R0T		
	R1546	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R1547	nsp	RES, CHIP(1005/5%/0ohm)		CRJ06IJ0R0T		
	R1548-1551	nsp	RES, CHIP(1005/5%/1.8Kohm)		CRJ06IJ182T		
	R1552	nsp	RES, CHIP(1005/5%/0ohm)		CRJ06IJ0R0T		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	R1553	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R1554-1556	nsp	RES, CHIP(1005/5%/47ohm)		CRJ06IJ470T		
	R1557	nsp	RES, CHIP(1005/5%/0ohm)		CRJ06IJ0R0T		
	R1558-1561	nsp	RES, CHIP(1005/5%/47ohm)		CRJ06IJ470T		
	R1566,1567	nsp	RES, CHIP(1005/5%/10ohm)		CRJ06IJ100T		
	R1571	nsp	RES, CHIP(1005/5%/39ohm)		CRJ06IJ390T		
	R1574	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R1575,1576	nsp	RES, CHIP(1005/1%/1Kohm)		CRJ06IF1001T		
	R1580	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R1589,1590	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R1604	nsp	RES, CHIP(1005/5%/0ohm)		CRJ06IJ0R0T		
	R1606	nsp	RES, CHIP(1005/5%/1Kohm)		CRJ06IJ102T		
	R1607	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R1611	00MNN05222610	RES, CHIP(1608/5%/2.2Kohm)		CRJ10DJ222T		
	R1612	nsp	RES, CHIP(1608/5%/1.3Kohm)		CRJ10DJ132T		
	R1613,1614	nsp	RES, CHIP(1005/5%/56ohm)		CRJ06IJ560T		
	R1618	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R1619	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R1622	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R1635-1638	nsp	RES, CHIP(1608/1%/51ohm)		CRJ10DF51R0T		
	R1639,1640	nsp	RES, CHIP(1608/5%/5.1ohm)		CRJ10DJ5R1T		
	R1641-1668	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R1691-1694	nsp	RES, CHIP(1005/5%/0ohm)		CRJ06IJ0R0T		
	R1696	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R1700-1715	nsp	RES, CHIP(1005/5%/0ohm)		CRJ06IJ0R0T		
	R2005-2007	nsp	RES, CHIP(1005/5%/1Kohm)		CRJ06IJ102T		
	R2008	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R2042-2044	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R2060	nsp	RES, CHIP(1608/5%/0ohm)	E3	CRJ10DJ0R0T		
	R2060	nsp	RES, CHIP(1608/5%/10Kohm)	E1C	CRJ10DJ103T		
	R2061	nsp	RES, CHIP(1608/5%/0ohm)	E2	CRJ10DJ0R0T		
	R2061	nsp	RES, CHIP(1608/5%/10Kohm)	E1C	CRJ10DJ103T		
	R2095,2096	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R2098	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R2100-2102	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R2103	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R2105	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R2107	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R2111	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R2112	nsp	RES, CHIP(1005/5%/100ohm)		CRJ06IJ101T		
	R2113	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R2114	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R2115	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R2116,2117	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R2119-2121	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R2122	nsp	RES, CHIP(1005/5%/0ohm)		CRJ06IJ0R0T		
	R2123-2125	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R2128-2132	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R2136	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R2138-2140	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R2141	nsp	RES, CHIP(1005/5%/1Kohm)		CRJ06IJ102T		
	R2142-2144	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R2147	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R2149	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R2150	nsp	RES, CHIP(1005/5%/0ohm)		CRJ06IJ0R0T		
	R2152-2154	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R2155,2156	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R2301	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R2302,2303	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R2304	00MNN05105610	RES, CHIP(1608/5%/1Mohm)		CRJ10DJ105T		
	R2305	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R2306,2307	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R2308	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R2309-2311	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R2312-2314	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R2316,2317	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R2318-2321	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	R2322	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R2324	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R2325-2327	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R2328	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R2329	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R2330-2334	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R2338-2342	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R2345	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R2346	nsp	RES, CHIP(1005/5%/100Kohm)		CRJ06IJ104T		
	R2347	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R2348	nsp	RES, CHIP(1005/5%/2.2Mohm)		CRJ06IJ225T		
	R2349	nsp	RES, CHIP(1005/5%/47Kohm)		CRJ06IJ473T		
	R2350	nsp	RES, CHIP(1005/5%/100Kohm)		CRJ06IJ104T		
	R2351	nsp	RES, CHIP(1005/5%/220Kohm)		CRJ06IJ224T		
	R2352	nsp	RES, CHIP(1005/5%/27Kohm)		CRJ06IJ273T		
	R2353	nsp	RES, CHIP(1005/5%/3.3Kohm)		CRJ06IJ332T		
	R2354	nsp	RES, CHIP(1005/5%/1.2Kohm)		CRJ06IJ122T		
	R2356,2357	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R2359	nsp	RES, CHIP(1005/5%/3.3Kohm)		CRJ06IJ332T		
	R2360,2361	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R2362,2363	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R2364	nsp	RES, CHIP(1005/5%/150Kohm)		CRJ06IJ154T		
	R2365	nsp	RES, CHIP(1005/5%/470Kohm)		CRJ06IJ474T		
	R2366,2367	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R2368	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R2370-2375	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R2381	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R2382-2386	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R2388-2395	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R2401,2402	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R2403,2404	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R2407	nsp	RES, CHIP(1005/5%/100Kohm)		CRJ06IJ104T		
	R2408	nsp	RES, CHIP(1005/5%/100ohm)		CRJ06IJ101T		
	R2409	nsp	RES, CHIP(1005/5%/33Kohm)		CRJ06IJ333T		
	R2410	nsp	RES, CHIP(1005/5%/100Kohm)		CRJ06IJ104T		
	R2411	nsp	RES, CHIP(1005/5%/15Kohm)		CRJ06IJ153T		
	R2412	nsp	RES, CHIP(1005/5%/100ohm)		CRJ06IJ101T		
	R2413	nsp	RES, CHIP(1005/5%/22Kohm)		CRJ06IJ223T		
	R2414	nsp	RES, CHIP(1005/5%/100ohm)		CRJ06IJ101T		
	R2415	nsp	RES, CHIP(1005/5%/470Kohm)		CRJ06IJ474T		
	R2417	nsp	RES, CHIP(1005/5%/22Kohm)		CRJ06IJ223T		
	R2419	nsp	RES, CHIP(1005/5%/100ohm)		CRJ06IJ101T		
	R2420	nsp	RES, CHIP(1005/5%/470Kohm)		CRJ06IJ474T		
	R2422	nsp	RES, CHIP(1005/5%/22Kohm)		CRJ06IJ223T		
	R2424	nsp	RES, CHIP(1005/5%/100ohm)		CRJ06IJ101T		
	R2427	nsp	RES, CHIP(1005/5%/22Kohm)		CRJ06IJ223T		
	R2428	nsp	RES, CHIP(1005/5%/100ohm)		CRJ06IJ101T		
	R2429	nsp	RES, CHIP(1005/5%/470Kohm)		CRJ06IJ474T		
	R2430	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R2431	nsp	RES, CHIP(1005/5%/22Kohm)		CRJ06IJ223T		
	R2433	nsp	RES, CHIP(1005/5%/0ohm)		CRJ06IJ0R0T		
	R2434	nsp	RES, CHIP(1005/5%/100ohm)		CRJ06IJ101T		
	R2435	nsp	RES, CHIP(1005/5%/470Kohm)		CRJ06IJ474T		
	R2436	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R2437	nsp	RES, CHIP(1005/5%/22Kohm)		CRJ06IJ223T		
	R2439	nsp	RES, CHIP(1005/5%/0ohm)		CRJ06IJ0R0T		
	R2441,2442	nsp	RES, CHIP(1005/5%/0ohm)		CRJ06IJ0R0T		
	R2909	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R2911	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R3001	00MNN05100610	RES, CHIP(1608/5%/10ohm)		CRJ10DJ100T		
	R3004	nsp	RES, CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T		
	R3008	nsp	RES, CHIP(1608/1%/120Kohm)		CRJ10DF1203T		
	R3009	nsp	RES, CHIP(1608/5%/820Kohm)		CRJ10DJ824T		
	R3010	nsp	RES, CHIP(1608/1%/150Kohm)		CRJ10DF1503T		
	R3011	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R3014	nsp	RES, CHIP(1608/1%/120Kohm)		CRJ10DF1203T		
	R3015	00MNN05105610	RES, CHIP(1608/5%/1Mohm)		CRJ10DJ105T		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	R3016	nsp	RES, CHIP(1608/1%/150Kohm)		CRJ10DF1503T		
	R3020	90M-NN000670R	RES, CHIP(1608/1%/270Kohm)		CRJ10DF2703T		
	R3021	nsp	RES, CHIP(1608/5%/2.7Mohm)		CRJ10DJ275T		
	R3026	nsp	RES, CHIP(1608/1%/470Kohm)		CRJ10DF4703T		
	R3031	00MNN05102610	RES, CHIP(1608/5%/1Kohm)		CRJ10DJ102T		
	R3035	nsp	RES, CHIP(1608/1%/150Kohm)		CRJ10DF1503T		
	R3036	00MNN05100610	RES, CHIP(1608/5%/10ohm)		CRJ10DJ100T		
	R3037	nsp	RES, CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T		
	R3040	00MNN05105610	RES, CHIP(1608/5%/1Mohm)		CRJ10DJ105T		
	R3041	nsp	RES, CHIP(1608/1%/150Kohm)		CRJ10DF1503T		
	R3042	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R3046	nsp	RES, CHIP(1608/1%/220Kohm)		CRJ10DF2203T		
	R3047	nsp	RES, CHIP(1608/5%/2.2Mohm)		CRJ10DJ225T		
	R3048	nsp	RES, CHIP(1608/1%/150Kohm)		CRJ10DF1503T		
	R3053	00MNN05100610	RES, CHIP(1608/5%/10ohm)		CRJ10DJ100T		
	R3054	nsp	RES, CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T		
	R3057	nsp	RES, CHIP(1608/1%/47Kohm)		CRJ10DF4702T		
	R3058	nsp	RES, CHIP(1608/5%/680Kohm)		CRJ10DJ684T		
	R3059	nsp	RES, CHIP(1608/1%/150Kohm)		CRJ10DF1503T		
	R3060-3064	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R3065	nsp	RES, CHIP(1005/5%/1Kohm)		CRJ06IJ102T		
	R3066,3067	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R3070	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R3071	nsp	RES, CHIP(1005/5%/3.3Kohm)		CRJ06IJ332T		
	R3074	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R3075	nsp	RES, CHIP(1005/5%/3.3Kohm)		CRJ06IJ332T		
	R3076	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R3079	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R3080	nsp	RES, CHIP(1005/5%/3.3Kohm)		CRJ06IJ332T		
	R3081	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R3082	nsp	RES, CHIP(1005/5%/3.3Kohm)		CRJ06IJ332T		
	R3083	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R3084	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R3085	nsp	RES, CHIP(1005/5%/47Kohm)		CRJ06IJ473T		
	R3086	nsp	RES, CHIP(1005/5%/100Kohm)		CRJ06IJ104T		
	R3088	nsp	RES, CHIP(1005/5%/100ohm)		CRJ06IJ101T		
	R3093	nsp	RES, CHIP(1005/5%/22Kohm)		CRJ06IJ223T		
	R3094	nsp	RES, CHIP(1005/5%/100ohm)		CRJ06IJ101T		
	R3097	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R3098	nsp	RES, CHIP(1005/5%/3.3Kohm)		CRJ06IJ332T		
	R3101,3102	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R3202-3204	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R3205	nsp	RES, CHIP(1005/5%/10ohm)		CRJ06IJ100T		
	R3211	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R3212	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R3216-3218	nsp	RES, CHIP(1005/5%/33ohm*4)		CRJ064IJ330T		
	R3226	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R3229,3230	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R3234	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R3238	nsp	RES, CHIP(1005/5%/4.7ohm)		CRJ06IJ4R7T		
	R3239,3240	nsp	RES, CHIP(1005/5%/10ohm)		CRJ06IJ100T		
	R3242,3243	00MNN05033610	RES, CHIP(1608/5%/3.3ohm)		CRJ10DJ3R3T		
	R3245	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R3246	nsp	RES, CHIP(1005/5%/100ohm)		CRJ06IJ101T		
	R3280-3286	nsp	RES, CHIP(1005/5%/47Kohm)		CRJ06IJ473T		
	R3289	nsp	RES, CHIP(1005/5%/47Kohm)		CRJ06IJ473T		
	R3291-3294	nsp	RES, CHIP(1608/5%/51ohm)		CRJ10DJ510T		
	R3299	943124003370S	RES, CHIP(1608/1%/12Kohm)		CRJ10DF1202T		
	R3300	nsp	RES, CHIP(1608/1%/100ohm)		CRJ10DF1000T		
	R3303	90M-NN000600R	RES, CHIP(1608/1%/1.5Kohm)		CRJ10DF1501T		
	R3305	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R3306,3307	nsp	RES, CHIP(1005/5%/470ohm)		CRJ06IJ471T		
	R3308	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R3310	nsp	RES, CHIP(1005/5%/0ohm)		CRJ06IJ0R0T		
	R3313,3314	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R3902-3904	nsp	RES, CHIP(1005/5%/33ohm*4)		CRJ064IJ330T		
	R3905,3906	nsp	RES, CHIP(1005/5%/10Kohm*4)		CRJ064IJ103T		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	R3907	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R3908,3909	nsp	RES, CHIP(1005/5%/10Kohm*4)		CRJ064IJ103T		
	R3910-3912	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R3913	nsp	RES, CHIP(1005/5%/10Kohm*4)		CRJ064IJ103T		
	R3914	00MNN05102610	RES, CHIP(1608/5%/1Kohm)		CRJ10DJ102T		
	R3915	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R3917	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R3919	nsp	RES, CHIP(1005/5%/10Kohm*4)		CRJ064IJ103T		
	R3920	00MNN05105610	RES, CHIP(1608/5%/1Mohm)		CRJ10DJ105T		
	R3921	nsp	RES, CHIP(1005/5%/1.5Kohm)		CRJ06IJ152T		
	R3923	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R3927	nsp	RES, CHIP(1005/5%/2.7Kohm)		CRJ06IJ272T		
	R3928	nsp	RES, CHIP(1005/5%/1.5Kohm)		CRJ06IJ152T		
	R3929-3931	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R3934-3938	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R3939	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R3943	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R3944-3947	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R3950,3951	nsp	RES, CHIP(1005/5%/10ohm)		CRJ06IJ100T		
	R3953,3954	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R3955,3956	nsp	RES, CHIP(1005/5%/33ohm*4)		CRJ064IJ330T		
	R3957-3959	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R3961-3969	nsp	RES, CHIP(1005/5%/33ohm*4)		CRJ064IJ330T		
	R3971	nsp	RES, CHIP(1005/5%/1.8Kohm)		CRJ06IJ182T		
	R3972	nsp	RES, CHIP(1005/5%/1.2Kohm)		CRJ06IJ122T		
	R3973	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R3974	nsp	RES, CHIP(1005/5%/1.5Kohm)		CRJ06IJ152T		
	R3975	nsp	RES, CHIP(1005/5%/1Kohm)		CRJ06IJ102T		
	R3976	nsp	RES, CHIP(1005/5%/12Kohm)		CRJ06IJ123T		
	R3984-3988	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R3991	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R3992	nsp	RES, CHIP(1005/5%/0ohm)		CRJ06IJ0R0T		
	R4001-4004	nsp	RES, CHIP(1005/5%/150ohm)		CRJ06IJ151T		
	R4005,4006	nsp	RES, CHIP(1005/5%/470ohm)		CRJ06IJ471T		
	R4011	nsp	RES, CHIP(1005/5%/330Kohm)		CRJ06IJ334T		
	R4012,4013	nsp	RES, CHIP(1005/5%/47Kohm)		CRJ06IJ473T		
	R4014	nsp	RES, CHIP(1005/5%/330Kohm)		CRJ06IJ334T		
	R4027-4030	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R4032	nsp	RES, CHIP(1005/5%/220ohm)		CRJ06IJ221T		
	R4033	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R4034	00MNN05105610	RES, CHIP(1608/5%/1Mohm)		CRJ10DJ105T		
	R4035	00MNN05821610	RES, CHIP(1608/5%/820ohm)		CRJ10DJ821T		
	R4036	nsp	RES, CHIP(1005/5%/3.3Kohm)		CRJ06IJ332T		
	R4037	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R4038	nsp	RES, CHIP(1005/5%/1Kohm)		CRJ06IJ102T		
	R4039	nsp	RES, CHIP(1005/5%/100Kohm)		CRJ06IJ104T		
	R4040	nsp	RES, CHIP(1005/5%/68ohm)		CRJ06IJ680T		
	R4041	nsp	RES, CHIP(1005/5%/220ohm)		CRJ06IJ221T		
	R4042	nsp	RES, CHIP(1005/5%/1.8Kohm)		CRJ06IJ182T		
	R4043	nsp	RES, CHIP(1005/5%/3.9Kohm)		CRJ06IJ392T		
	R4044	nsp	RES, CHIP(1005/5%/2.2Kohm)		CRJ06IJ222T		
	R4045-4048	nsp	RES, CHIP(1005/5%/100ohm)		CRJ06IJ101T		
	R4051,4052	nsp	RES, CHIP(1005/5%/100ohm)		CRJ06IJ101T		
	R4053	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R4054	nsp	RES, CHIP(1005/5%/100ohm)		CRJ06IJ101T		
	R4055	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R4057	nsp	RES, CHIP(1005/5%/100ohm)		CRJ06IJ101T		
	R4058	nsp	RES, CHIP(1005/5%/1Kohm)		CRJ06IJ102T		
	R4059,4060	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R4061	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R4062-4065	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R4066	00MNN05105610	RES, CHIP(1608/5%/1Mohm)		CRJ10DJ105T		
	R4067	00MNN05391610	RES, CHIP(1608/5%/390ohm)		CRJ10DJ391T		
	R4068	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R4069,4070	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R4071	nsp	RES, CHIP(1005/5%/0ohm)		CRJ06IJ0R0T		
	R4073	nsp	RES, CHIP(1005/5%/47ohm)		CRJ06IJ470T		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	R4076	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R4078	nsp	RES, CHIP(1005/5%/10ohm)		CRJ06IJ100T		
	R4079	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R4080	nsp	RES, CHIP(1005/5%/10ohm)		CRJ06IJ100T		
	R4081	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R4082	nsp	RES, CHIP(1005/5%/0ohm)		CRJ06IJ0R0T		
	R4083-4091	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R4096	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R4097-4100	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R4113,4114	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R4115,4116	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R4118	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R4120	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R4149,4150	nsp	RES, CHIP(1005/5%/0ohm)		CRJ06IJ0R0T		
	R4151	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R4152	nsp	RES, CHIP(1005/5%/10Kohm)		CRJ06IJ103T		
	R4155-4158	00MNN05330610	RES, CHIP(1608/5%/33ohm)		CRJ10DJ330T		
	R4159	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R4402	nsp	RES, CHIP(1005/5%/1Kohm)		CRJ06IJ102T		
	R4411-4414	00MNN05392610	RES, CHIP(1608/5%/3.9Kohm)		CRJ10DJ392T		
	R4419-4422	nsp	RES, CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T		
	R4423-4426	00MNN05221610	RES, CHIP(1608/5%/220ohm)		CRJ10DJ221T		
	R4427,4428	00MNN05101610	RES, CHIP(1608/5%/100ohm)		CRJ10DJ101T		
	R4431-4434	00MNN05392610	RES, CHIP(1608/5%/3.9Kohm)		CRJ10DJ392T		
	R4436	00MNN05393610	RES, CHIP(1608/5%/39Kohm)		CRJ10DJ393T		
	R4438	00MNN05393610	RES, CHIP(1608/5%/39Kohm)		CRJ10DJ393T		
	R4439	nsp	RES, CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T		
	R4440	00MNN05123610	RES, CHIP(1608/5%/12Kohm)		CRJ10DJ123T		
	R4441	nsp	RES, CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T		
	R4442	00MNN05123610	RES, CHIP(1608/5%/12Kohm)		CRJ10DJ123T		
	R4443	00MNN05221610	RES, CHIP(1608/5%/220ohm)		CRJ10DJ221T		
	R4444	00MNN05181610	RES, CHIP(1608/5%/180ohm)		CRJ10DJ181T		
	R4445	00MNN05221610	RES, CHIP(1608/5%/220ohm)		CRJ10DJ221T		
	R4446	00MNN05181610	RES, CHIP(1608/5%/180ohm)		CRJ10DJ181T		
	R4447,4448	00MNN05101610	RES, CHIP(1608/5%/100ohm)		CRJ10DJ101T		
	R4451-4454	00MNN05392610	RES, CHIP(1608/5%/3.9Kohm)		CRJ10DJ392T		
	R4455-4458	00MNN05154610	RES, CHIP(1608/5%/150Kohm)		CRJ10DJ154T		
	R4459-4462	00MNN05682610	RES, CHIP(1608/5%/6.8Kohm)		CRJ10DJ682T		
	R4463-4466	00MNN05221610	RES, CHIP(1608/5%/220ohm)		CRJ10DJ221T		
	R4467,4468	00MNN05101610	RES, CHIP(1608/5%/100ohm)		CRJ10DJ101T		
	R4471-4474	00MNN05392610	RES, CHIP(1608/5%/3.9Kohm)		CRJ10DJ392T		
	R4479-4482	nsp	RES, CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T		
	R4483-4486	00MNN05221610	RES, CHIP(1608/5%/220ohm)		CRJ10DJ221T		
	R4487,4488	00MNN05101610	RES, CHIP(1608/5%/100ohm)		CRJ10DJ101T		
	R4501,4502	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R4505,4506	00MNN05104610	RES, CHIP(1608/5%/100Kohm)		CRJ10DJ104T		
	R4515	nsp	RES, CHIP(1005/5%/33ohm)		CRJ06IJ330T		
	R4516	nsp	RES, CHIP(1005/5%/1Kohm)		CRJ06IJ102T		
	R5004,5005	nsp	RES, CHIP(1005/5%/47Kohm)		CRJ06IJ473T		
	R5007	00MNN05100610	RES, CHIP(1608/5%/10ohm)		CRJ10DJ100T		
	R5008	nsp	RES, CHIP(1005/5%/5.1Kohm)		CRJ06IJ512T		
	R5009	nsp	RES, CHIP(1005/5%/1Kohm)		CRJ06IJ102T		
	R5013,5014	nsp	RES, CHIP(1005/5%/47Kohm)		CRJ06IJ473T		
	R5016	00MNN05100610	RES, CHIP(1608/5%/10ohm)		CRJ10DJ100T		
	R5017	nsp	RES, CHIP(1005/5%/5.1Kohm)		CRJ06IJ512T		
	R5024,5025	nsp	RES, CHIP(1005/5%/47Kohm)		CRJ06IJ473T		
	R5027	00MNN05100610	RES, CHIP(1608/5%/10ohm)		CRJ10DJ100T		
	R5028	nsp	RES, CHIP(1005/5%/5.1Kohm)		CRJ06IJ512T		
	R5034	00MNN05100610	RES, CHIP(1608/5%/10ohm)		CRJ10DJ100T		
	R5035	nsp	RES, CHIP(1005/5%/5.1Kohm)		CRJ06IJ512T		
	R5036,5037	nsp	RES, CHIP(1005/5%/47Kohm)		CRJ06IJ473T		
	R5044,5045	nsp	RES, CHIP(1005/5%/47Kohm)		CRJ06IJ473T		
	R5047	00MNN05100610	RES, CHIP(1608/5%/10ohm)		CRJ10DJ100T		
	R5048	nsp	RES, CHIP(1005/5%/5.1Kohm)		CRJ06IJ512T		
	R5054,5055	nsp	RES, CHIP(1005/5%/47Kohm)		CRJ06IJ473T		
	R5057	00MNN05100610	RES, CHIP(1608/5%/10ohm)		CRJ10DJ100T		
	R5058	nsp	RES, CHIP(1005/5%/5.1Kohm)		CRJ06IJ512T		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	R5063	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R5065	nsp	RES, CHIP(1005/5%/0ohm)		CRJ06IJ0R0T		
	R5071	nsp	RES, CHIP(1608/5%/130Kohm)		CRJ10DJ134T		
	R5072	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R5081,5082	nsp	RES, CHIP(1005/5%/1.8Kohm)		CRJ06IJ182T		
	R5083	nsp	RES, CHIP(1005/5%/47Kohm)		CRJ06IJ473T		
	R5084	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R5086	nsp	RES, CHIP(1005/5%/0ohm)		CRJ06IJ0R0T		
	R5091	00MNN05100610	RES, CHIP(1608/5%/10ohm)		CRJ10DJ100T		
	R5092,5093	nsp	RES, CHIP(1005/5%/1.8Kohm)		CRJ06IJ182T		
	R5111-5116	nsp	RES, CHIP(1005/5%/0ohm)		CRJ06IJ0R0T		
	R5117,5118	nsp	RES, CHIP(1005/5%/10ohm)		CRJ06IJ100T		
	R5119	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
	R5120	nsp	RES, CHIP(1005/5%/10ohm)		CRJ06IJ100T		
	R5121,5122	nsp	RES, CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T		
OTHERS PARTS GROUP							
	BD401	nsp	FERRITE CHIP BEAD(2012/220R)		CLZ9R006Z		
	BK101-103	nsp	BRACKET , PCB		CMD1A569		
	BK104	nsp	EARTH , HDMI		CMC2A432		
	CN101	nsp	WAFER, FFC, SMD(23P-1mm, STRAIGHT)		CJP23GA193ZY		
	CN121	nsp	WAFER, FFC, SMD(23P-1mm, STRAIGHT)		CJP23GA193ZY		
	CN151	nsp	WAFER, FFC, SMD(07P-1mm, STRAIGHT)		CJP07GA193ZY		
	CN201	nsp	WAFER, FFC, SMD(07P-1mm, STRAIGHT)		CJP07GA193ZY		
	CN202	nsp	WAFER, FFC, SMD(11P-1mm, STRAIGHT)		CJP11GA193ZY		
	CN203	nsp	WAFER , SMD (2MM PITCH)-3P		CJP03GA208ZY		
	CN21B	nsp	PIN SOCKET (15P,1.25mm,ANGLE,B-TO-B)		CJP15HJ282Z		
	CN231	nsp	WAFER, FFC, SMD(11P-1mm, STRAIGHT)		CJP11GA193ZY		
	CN24B	nsp	PIN SOCKET (27P,1.25mm,ANGLE,B-TO-B)		CJP27HJ282Z		
	CN25B	nsp	PIN SOCKET (17P,1.25mm,ANGLE,B-TO-B)		CJP17HJ282Z		
	CN26B	nsp	PIN SOCKET (11P,1.25mm,ANGLE,B-TO-B)		CJP11HJ282Z		
	CN27B	nsp	PIN SOCKET (19P,1.25mm,ANGLE, B-TO-B)		CJP19HJ282Z		
	CN28B	nsp	PIN SOCKET (11P,1.25mm,ANGLE,B-TO-B)		CJP11HJ282Z		
	CN321	nsp	WAFER , SMD (2MM PITCH)		CJP05GA208ZY		
	CN390	nsp	WAFER, FFC, SMD(07P-1mm, STRAIGHT)		CJP07GA193ZY		
	CN391	nsp	WAFER , SMD (2MM PITCH)		CJP06GA208ZY		
	CN401	nsp	WAFER, FFC, SMD(07P-1mm, STRAIGHT)		CJP07GA193ZY		
	CN402	nsp	WAFER, FFC, SMD(11P-1mm, STRAIGHT)		CJP11GA193ZY		
	CN69B	nsp	WAFER, FFC, SMD(40P-1mm, STRAIGHT)		CJP40GA193ZY		
	CN704	nsp	WAFER , SMD (2MM PITCH)		CJP05GA208ZY		
	CN903	nsp	LOCK-WAFER/STRAIGHT/2.5MM PITCH/5PIN		CJP05GI289ZY		
	J3200	963643100130S	JACK, RJ-45 W/TRANSFORMER / 99TA-03188400023101		CJJ9L024Z		⚠4
	JK101	943643101930S	JACK, HDMI(KSI-TWI, W/O FLANGE)		CJJ9H015Z		*
	JK151,152	943643100040S	JACK, HDMI(KSI-TWI, W/ FLANGE)		CJJ9H014Z		
	JK401	943643101110S	JACK, 2P(ORG),SILVER		CJJ4N068Y		
	JK402,403	943262100150S	MODULE , OPTICAL(RX 16MHz)		CJSJSR1124		
	JK404	943643101920S	JACK , RCA (1P, BK, GOLD PLATE)		CJJ4M073ZY		*
	JK501-507	943643100040S	JACK, HDMI(KSI-TWI, W/ FLANGE)		CJJ9H014Z		
	L1001,1002	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	L1201-1213	nsp	FERRITE CHIP BEAD(2012/220R)		CLZBLM21PG221SN1		
	L1501-1508	nsp	FERRITE CHIP BEAD(1608/60R)		CLZ9R005Z		
	L1510	nsp	FERRITE CHIP BEAD(1608/60R)		CLZ9R005Z		
	L1512	nsp	FERRITE CHIP BEAD(1608/60R)		CLZ9R005Z		
	L1514	nsp	FERRITE CHIP BEAD(1608/60R)		CLZ9R005Z		
	L1518	nsp	FERRITE CHIP BEAD(1608/60R)		CLZ9R005Z		
	L1521,1522	nsp	FERRITE CHIP BEAD(1608/60R)		CLZ9R005Z		
	L2903-2934	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	L2936	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	L3001-3008	nsp	RES, CHIP(3216/5%/0ohm)		CRJ14CJ0R0T		
	L3013-3018	nsp	RES, CHIP(3216/5%/0ohm)		CRJ14CJ0R0T		
	L3019-3021	nsp	FERRITE CHIP BEAD(2012/220R)		CLZBLM21PG221SN1		
	L3022	nsp	FERRITE CHIP BEAD(2012/120R)		CLZBLM21AG121SN1		
	L3023-3034	nsp	RES, CHIP(3216/5%/0ohm)		CRJ14CJ0R0T		
	L3200,3201	nsp	COIL, CHOKE CHIP(2012/90R)		CLZ9Z128Z		
	L3205,3206	nsp	FERRITE CHIP BEAD(2012/220R)		CLZ9R006Z		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	L3208	nsp	FERRITE CHIP BEAD(2012/220R)		CLZ9R006Z		
	L3211	nsp	RES, CHIP(2012/5%/0ohm)		CRJ18AJ0R0T		
	L3212	nsp	COIL, CHOKE CHIP(2012/180R)		CLZ9Z127Z		
	L3213	nsp	RES, CHIP(2012/5%/0ohm)	E3	CRJ18AJ0R0T		
	L3213	943117003880S	INDUCTOR , FERRITE CHIP(1.5UH, 2012)	E2,E1C	CLQ08E1R5KRZ		
	L3214	nsp	RES, CHIP(2012/5%/0ohm)	E3	CRJ18AJ0R0T		
	L3214	943117003880S	INDUCTOR , FERRITE CHIP(1.5UH, 2012)	E2,E1C	CLQ08E1R5KRZ		
	L3216	nsp	RES, CHIP(2012/5%/0ohm)		CRJ18AJ0R0T		
	L3217,3218	nsp	FERRITE CHIP BEAD(2012/220R)		CLZ9R006Z		
	L3900-3902	nsp	FERRITE CHIP BEAD(2012/220R)		CLZ9R006Z		
	L5001-5012	nsp	FERRITE CHIP BEAD(1608/60R)		CLZ9R005Z		
	RN140,141	nsp	RES, CHIP(1005/5%/33ohm*4)		CRJ064IJ330T		
	RN142-145	nsp	RES, CHIP(1005/5%/4.7Kohm*4)		CRJ064IJ472T		
	RN151-156	nsp	RES, CHIP(1005/5%/47ohm*4)		CRJ064IJ470T		
	RN158-166	nsp	RES, CHIP(1005/5%/47ohm*4)		CRJ064IJ470T		
	RN201	nsp	RES, CHIP(1005/5%/33ohm*4)		CRJ064IJ330T		
	RN401-403	nsp	RES, CHIP(1005/5%/33ohm*2)		CRJ062IJ330T		
	RN404	nsp	RES, CHIP(1005/5%/10Kohm*4)		CRJ064IJ103T		
	RN411-419	nsp	RES, CHIP(1005/5%/100ohm*4)		CRJ064IJ101T		
	RN420-423	nsp	RES, CHIP(1005/5%/33ohm*4)		CRJ064IJ330T		
	RN424,425	nsp	RES, CHIP(1005/5%/10Kohm*4)		CRJ064IJ103T		
	RN426,427	nsp	RES, CHIP(1005/5%/10ohm*4)		CRJ064IJ100T		
	RN429-432	nsp	RES, CHIP(1005/5%/10ohm*4)		CRJ064IJ100T		
	RN433	nsp	RES, CHIP(1005/5%/33ohm*4)		CRJ064IJ330T		
	RN440	nsp	RES, CHIP(1005/5%/33ohm*4)		CRJ064IJ330T		
	RN441	nsp	RES, CHIP(1005/5%/10Kohm*4)		CRJ064IJ103T		
	RN501-507	nsp	RES, CHIP(1005/5%/10Kohm*4)		CRJ064IJ103T		
	RY151	943682100250S	RELAY,BC1-5S-R,DC5V,2C2P,SMD		CSL4C012ZE		
	X1201	943141100720S	X-TAL, SMD 3.2X2.5, 27.000MHz, 10PF		COX27000I100ST		*
	X1501	943141100720S	X-TAL, SMD 3.2X2.5, 27.000MHz, 10PF		COX27000I100ST		*
	X2001	943141100610S	X-TAL, SMD 3.2X2.5, 12.000MHz, 10PF		COX12000I100ST		
	X2301	943141100730S	X-TAL, SMD 3.2X2.5, 16.000MHz, 9PF		COX16000I090ST		*
	X3900	943141100640S	X-TAL, SMD 3.2X2.5, 24.000MHz, 8PF		COX24000I080ST		
	X4001	943141100620S	X-TAL, SMD 3.2X2.5, 24.576MHz, 12PF		COX24576I120ST		
	X4002	943141100740S	X-TAL, SMD 3.2X2.5, 25.000MHz, 12PF		COX25000I120ST		*
	X5001	943141100720S	X-TAL, SMD 3.2X2.5, 27.000MHz, 10PF		COX27000I100ST		*

SMPS PCB ASS'Y

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
SEMICONDUCTORS GROUP							
⚠	IC901	231010091708S	I.C , OFF-LINE POWER SWITCH		CVITOP258MG		
⚠	IC902	963239010480S	I.C , PHOTOCOUPLER		CVIPC123Y22FZ0F		
	IC903	212050010508S	I.C , SHUNT REGULATOR(TO-92)		CVIKIA2431AP		
	Q9001-9003	00D9430154404	TR KTC3198Y		HVTKTC3198YT		
	D9001-9006	00D9630328409	DIODE , RECTIFIERS		CVD1N4007ST		
	D9008,9009	00D9630328409	DIODE , RECTIFIERS		CVD1N4007ST		
	D9010	00D9430182609	DIODE , SWITCHING		CVD1SS133MT		
	D9012	943209500030S	DIODE, LOW FORWARD SCHOTTKY RECTIFIER		CVDSRL3060P		
	D9013	963209010430S	DIODE, RECTIFIER (1000V)		CVDAP01CT		
CAPACITORS GROUP							
⚠	C9001-9003	963132011940S	CAP, CERAMIC(X1/Y2,0.01uF,AC250V)		CCKDKY103MFM		
	C9004	943134501590S	CAP, ELECT(200V/100uF),105'C	E3	CCET200NHA101ES		
	C9004	963134010200S	CAP , ELECT (400V/100UF, 18X40, NHA)	E2,E1C	CCET400NHA101ES		
	C9006-9008	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C9009	00D9430175108	CAP, ELECT(50V/10uF),105'C		CCEA1HNXA100TS		
	C9010	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C9012	963132010120S	CAP, CERAMIC(DC1KV/1000pF)		CCKDDEH102KCM		
	C9016	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C9017	00MOA47602520	CAP, ELECT(25V/47uF),105'C		CCEA1ENXA470TS		
	C9018	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C9019	nsp	CAP, CHIP(1608, 6.3V/4.7uF, MURATA GRM18)		CCUS0J475KC		
	C9020-9022	963134010220S	CAP, ELECT(6.3V/5600uF)		CCEA0JNXA562ES		
	C9024	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
⚠	C9028	963132011930S	CAP, CERAMIC(X1/Y1,2200P,AC250V)		CCKDKX222MEM		
	C9029	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
RESISTORS GROUP							
	R9002,9003	00MGD05105160	RES, CARBON(1/5W,1Mohm,J)		CRD20TJ105T		
	R9004	00MGD05474160	RES, CARBON(1/5W,470Kohm,J)		CRD20TJ474T		
	R9005	00MNN05470610	RES, CHIP(1608/5%/47ohm)		CRJ10DJ470T		
	R9006	00MNN05105610	RES, CHIP(1608/5%/1Mohm)		CRJ10DJ105T		
	R9007	00MNN05274610	RES, CHIP(1608/5%/270Kohm)		CRJ10DJ274T		
	R9008,9009	00MGD05225160	RES, CARBON(1/5W,2.2Mohm,J)	E3	CRD20TJ225T		
	R9010	00MGD05105160	RES, CARBON(1/5W,1Mohm,J)	E3	CRD20TJ105T		
	R9013	00MNN05100610	RES, CHIP(1608/5%/10ohm)		CRJ10DJ100T		
	R9014	00MNN05274610	RES, CHIP(1608/5%/270Kohm)	E3	CRJ10DJ274T		
	R9014	00MNN05563610	RES, CHIP(1608/5%/56Kohm)	E2,E1C	CRJ10DJ563T		
	R9015	00MNN05153610	RES, CHIP(1608/5%/15Kohm)		CRJ10DJ153T		
	R9016	00MNN05102610	RES, CHIP(1608/5%/1Kohm)		CRJ10DJ102T		
	R9017	nsp	RES, CARBON(1/5W,6.8ohm,J)		CRD20TJ6R8T		
	R9018	00MGD05560160	RES, CARBON(1/5W,56ohm,J)		CRD20TJ560T		
	R9019	00MGD05332160	RES, CARBON(1/5W,3.3Kohm,J)		CRD20TJ332T		
	R9020	00MGD05562160	RES, CARBON(1/5W,5.6Kohm,J)		CRD20TJ562T		
	R9021	nsp	RES, CHIP(1608/1%/22Kohm)		CRJ10DF2202T		
	R9024	nsp	RES, CHIP(1608/1%/6.8Kohm)		CRJ10DF6801T		
	R9025	00MNN05105610	RES, CHIP(1608/5%/1Mohm)		CRJ10DJ105T		
	R9026	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		
	R9027	nsp	RES, CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T		
⚠	R9031-9034	943121500030S	RES, CHIP(2012/5%/2.2Mohm)		CRJ18AJ225T		
OTHERS PARTS GROUP							
	BK901	nsp	BRACKET , PCB(A)		CMD2A188		
	BK903	nsp	BRACKET , PCB		CMD1A629		
	BN903	nsp	WIRE ASS'Y LOCKING (5P,2.5MM,400MM,UL1569#22,105)		CWB7D0054003D001		
	CN902	nsp	WAFER, 2P, 7.92mm		CJP02GA89ZY		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
⚠	CX901	943139500020S	CAP , POLYPROPYLENE FILM (0.1uF/275VAC)		CCQF2E104KZE-T		
⚠	CY901,902	963134011730S	CAP, CERAMIC(X1/Y1,470P,AC250V)		CCKDKX471KBM		
	F9001,9002	nsp	HOLDER , FUSE		KJCFC5S		
⚠	JK901	963641011240S	RECEPTACLE, (10A/AC250V)		CJJ8A015ZM		
⚠	LF902	963111010230S	LINE FILTER, 27uH	E3	CLZ9Z126Z		
⚠	LF902	943111100410S	LINE FILTER, 50uH	E2,E1C	CLZ9Z133Z		
⚠	RY901	963682010370S	RELAY,HL31-1AT-5H,DC5V,1C1P		CSL1C006ZE		
⚠	T9001	963102010240S	TRANS, SWITCHING(ST-4430A)		CLT9Z067ZE		
	ZD901	00D2760762958	DIODE , ZENER ,1/2W, 39V	E3	CVDZJ39BT		
	ZD901	00MGD05105160	RES, CARBON(1/5W,1Mohm,J)	E2,E1C	CRD20TJ105T		
	ZD902	00D2760762958	DIODE , ZENER ,1/2W, 39V	E3	CVDZJ39BT		
	ZD902	00MGD05105160	RES, CARBON(1/5W,1Mohm,J)	E2,E1C	CRD20TJ105T		
	ZD903	963202010440S	DIODE , ZENER ,1/2W, 22V	E3	CVDZJ22BT		
	ZD903	00D2760762958	DIODE , ZENER ,1/2W, 39V	E2,E1C	CVDZJ39BT		
	ZD904	nsp	WIRE , COPPER	E3	C3A206		
	ZD904	00D2760762958	DIODE , ZENER ,1/2W, 39V	E2,E1C	CVDZJ39BT		
	ZD905	nsp	WIRE , COPPER	E3	C3A206		
	ZD905	00D2760762958	DIODE , ZENER ,1/2W, 39V	E2,E1C	CVDZJ39BT		
	ZD906	nsp	WIRE , COPPER	E3	C3A206		
	ZD906	00D2760762958	DIODE , ZENER ,1/2W, 39V	E2,E1C	CVDZJ39BT		
	ZD907	nsp	WIRE , COPPER	E3	C3A206		
	ZD907-910	00D2760762958	DIODE , ZENER ,1/2W, 39V	E2	CVDZJ39BT		
	ZD911-918	963202010440S	DIODE , ZENER ,1/2W, 22V		CVDZJ22BT		
	ZD919	00D9600095607	DIODE , ZENER ,1/2W, 5.6V		CVDZJ5.6BT		
	ZD920	00D2760762958	DIODE , ZENER ,1/2W, 39V		CVDZJ39BT		

CNT PCB ASS'Y

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
SEMICONDUCTORS GROUP							
	IC961	231310009508S	I.C , REGULATOR (3.3V)	E3	CVIPQ033DNA1ZPH		
	IC962	00D2631289900	I.C , OPAMP(DUAL/LOW NOISE)	E3	CVIAZ4580MTR-E1		
CAPACITORS GROUP							
	C9601	nsp	CAP, CHIP(1608, 50V/0.1uF)	E3	CCUS1H104KC		
	C9602	00D9430175108	CAP, ELECT(50V/10uF)	E3	CCEA1HH100T		
	C9605	00D9430175108	CAP, ELECT(50V/10uF)	E3	CCEA1HH100T		
	C9609,9610	00MDD95330300	CAP, CHIP(1608, 50V/33pF)	E3	CCUS1H330JA		
	C9611	nsp	CAP, CHIP(1608, 50V/0.1uF)	E3	CCUS1H104KC		
	C9612	nsp	CAP, CHIP(1608, 10V/1uF)	E3	CCUS1A105KC		
	C9613	nsp	CAP, CHIP(1608, 50V/0.1uF)	E3	CCUS1H104KC		
	C9614	nsp	CAP, CHIP(1608, 10V/1uF)	E3	CCUS1A105KC		
	C9615-9618	00D9430175108	CAP, ELECT(50V/10uF)	E3	CCEA1HH100T		
	C9622	nsp	CAP, CHIP(1608, 50V/0.1uF)	E3	CCUS1H104KC		
	C9644-9646	nsp	CAP, CHIP(1608, 50V/100pF)	E3	CCUS1H101JA		
RESISTORS GROUP							
	R9601	00MNN05153610	RES, CHIP(1608/5%/15Kohm)	E3	CRJ10DJ153T		
	R9602,9603	00MNN05104610	RES, CHIP(1608/5%/100Kohm)	E3	CRJ10DJ104T		
	R9604	00MNN05153610	RES, CHIP(1608/5%/15Kohm)	E3	CRJ10DJ153T		
	R9607,9608	00MNN05243610	RES, CHIP(1608/5%/24Kohm)	E3	CRJ10DJ243T		
	R9609,9610	00MNN05104610	RES, CHIP(1608/5%/100Kohm)	E3	CRJ10DJ104T		
	R9612,9613	nsp	RES, CHIP(1608/5%/0ohm)	E3	CRJ10DJ0R0T		
	R9644-9646	nsp	RES, CHIP(1608/5%/0ohm)	E3	CRJ10DJ0R0T		
OTHERS PARTS GROUP							
	CN21A	nsp	PIN HEADER (15P,1.25mm,STRAIGHT,B-TO-B)		CJP15GI281Z		
	CN24A	nsp	PIN HEADER (27P,1.25mm,STRAIGHT,B-TO-B)		CJP27GI281Z		
	CN25A	nsp	PIN HEADER (17P,1.25mm,STRAIGHT,B-TO-B)		CJP17GI281Z		
	CN26A	nsp	PIN HEADER (11P,1.25mm,STRAIGHT,B-TO-B)		CJP11GI281Z		
	CN27A	nsp	PIN HEADER (19P,1.25mm,STRAIGHT,B-TO-B)		CJP19GI281Z		
	CN28A	nsp	PIN HEADER (11P,1.25mm,STRAIGHT,B-TO-B)		CJP11GI281Z		
	CN41A	nsp	PIN HEADER (15P,1.25mm,STRAIGHT,B-TO-B)		CJP15GI281Z		
	CN42A	nsp	PIN HEADER (27P,1.25mm,STRAIGHT,B-TO-B)		CJP27GI281Z		
	CN43A	nsp	PIN HEADER (11P,1.25mm,STRAIGHT,B-TO-B)		CJP11GI281Z		
	CN44A	nsp	PIN HEADER (17P,1.25mm,STRAIGHT,B-TO-B)		CJP17GI281Z		
	CN45A	nsp	PIN HEADER (11P,1.25mm,STRAIGHT,B-TO-B)		CJP11GI281Z		
	CN51A	nsp	PIN HEADER (15P,1.25mm,STRAIGHT,B-TO-B)		CJP15GI281Z		
	CN52A	nsp	PIN HEADER (11P,1.25mm,STRAIGHT,B-TO-B)		CJP11GI281Z		
	CN53A	nsp	PIN HEADER (21P,1.25mm,STRAIGHT,B-TO-B)		CJP21GI281Z		
	CN61B	nsp	PIN SOCKET (17P,1.25mm,ANGLE,B-TO-B)		CJP17HJ282Z		
	CN62B	nsp	PIN SOCKET (15P,1.25mm,ANGLE,B-TO-B)		CJP15HJ282Z		
	CN63B	nsp	PIN SOCKET (17P,1.25mm,ANGLE,B-TO-B)		CJP17HJ282Z		
	CN64B	nsp	PIN SOCKET (21P,1.25mm,ANGLE, B-TO-B)		CJP21HJ282Z		
	CN961	nsp	WAFER, FFC(13P-1.25mm, STRAIGHT)	E3	CJP13GA115ZY		
	JW902	nsp	WIRE ASS'Y (1P, 80MM,BLK,#22)		CWE5202080A		

INPUT PCB ASS'Y

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
SEMICONDUCTORS GROUP							
	IC466	00D2631289900	I.C , OPAMP(DUAL/LOW NOISE)		CVIAZ4580MTR-E1		
	IC471	235810045600S	I.C , 8CH VOLUME		CVIR2A15220FP		
	IC481-483	00D2631289900	I.C , OPAMP(DUAL/LOW NOISE)		CVIAZ4580MTR-E1		
	IC484	00D2623727904	I.C , 2CH VOLUME		CVINJW1194V		
	IC486-488	00D2631289900	I.C , OPAMP(DUAL/LOW NOISE)		CVIAZ4580MTR-E1		
	IC489	00D2623727904	I.C , 2CH VOLUME		CVINJW1194V		
	D2397	943209001080S	DIODE , CHIP , SWITCHING		CVD1SS355T		
	D2399	943209001080S	DIODE , CHIP , SWITCHING		CVD1SS355T		
	D4779,4780	943203003150S	DIODE , RECTIFIER, RADIAL		CVD1N4007SRT		
	D6803	963209003510S	DIODE , RELIABLE ESD PROTECTION		CVDCDS3C05HDMI1		
	D6835,6836	963209003510S	DIODE , RELIABLE ESD PROTECTION		CVDCDS3C05HDMI1		
CAPACITORS GROUP							
	C4603,4604	nsp	CAP, CHIP(1608, 50V/330pF)		CCUS1H331JA		
	C4607,4608	nsp	CAP, CHIP(1608, 50V/330pF)		CCUS1H331JA		
	C4613,4614	nsp	CAP, CHIP(1608, 50V/330pF)		CCUS1H331JA		
	C4617,4618	nsp	CAP, CHIP(1608, 50V/330pF)		CCUS1H331JA		
	C4627,4628	nsp	CAP, CHIP(1608, 50V/330pF)		CCUS1H331JA		
	C4661,4662	nsp	CAP, CHIP(1608, 50V/100pF)	E2,E1C	CCUS1H101JA		
	C4663,4664	00D9430175108	CAP, ELECT(50V/10uF)		CCEA1HH100T		
	C4665,4666	nsp	CAP, CHIP(1608, 50V/220pF)		CCUS1H221JA		
	C4675,4676	00D9430173003	CAP, ELECT(10V/220uF)		CCEA1AH221T		
	C4677,4678	nsp	CAP, CHIP(1608, 50V/100pF)		CCUS1H101JA		
	C4679,4680	nsp	CAP, MYLAR(50V/0.022uF/J)		HCQI1H223JZT		
	C4681,4682	nsp	CAP, MYLAR(50V/6800pF/J)		HCQI1H682JZT		
	C4687-4690	00D9430175108	CAP, ELECT(50V/10uF)		CCEA1HH100T		
	C4701,4702	00MOA10705020	CAP, ELECT(50V/100uF)		CCEA1HH101T		
	C4705,4706	00D9430148708	CAP, ELECT(50V/47uF)		CCEA1HH470T		
	C4710,4711	00D9430148708	CAP, ELECT(50V/47uF)		CCEA1HH470T		
	C4713,4714	00D9430148708	CAP, ELECT(50V/47uF)		CCEA1HH470T		
	C4727	00D9430062101	CAP, ELECT(16V/100uF)	E3,E1C	CCEA1CH101T		
	C4727	00MOA10705020	CAP, ELECT(50V/100uF)	E2	CCEA1HH101T		
	C4728	00D9430062101	CAP, ELECT(16V/100uF)	E3,E1C	CCEA1CH101T		
	C4728	00MOA10705020	CAP, ELECT(50V/100uF)	E2	CCEA1HH101T		
	C4729	00D9430175108	CAP, ELECT(50V/10uF)	E3,E1C	CCEA1HH100T		
	C4729	943134500070S	CAP, ELECT(100V/10uF)	E2	CCEA2AH100T		
	C4730	00D9430175108	CAP, ELECT(50V/10uF)	E3,E1C	CCEA1HH100T		
	C4730	943134500070S	CAP, ELECT(100V/10uF)	E2	CCEA2AH100T		
	C4761	00D9430175108	CAP, ELECT(50V/10uF)	E3,E1C	CCEA1HH100T		
	C4761	943134500070S	CAP, ELECT(100V/10uF)	E2	CCEA2AH100T		
	C4762	00D9430175108	CAP, ELECT(50V/10uF)	E3,E1C	CCEA1HH100T		
	C4762	943134500070S	CAP, ELECT(100V/10uF)	E2	CCEA2AH100T		
	C4763	00D9430175108	CAP, ELECT(50V/10uF)	E3,E1C	CCEA1HH100T		
	C4763	943134500070S	CAP, ELECT(100V/10uF)	E2	CCEA2AH100T		
	C4764	00D9430175108	CAP, ELECT(50V/10uF)	E3,E1C	CCEA1HH100T		
	C4764	943134500070S	CAP, ELECT(100V/10uF)	E2	CCEA2AH100T		
	C4765	00D9430175108	CAP, ELECT(50V/10uF)	E3,E1C	CCEA1HH100T		
	C4765	943134500070S	CAP, ELECT(100V/10uF)	E2	CCEA2AH100T		
	C4766	00D9430175108	CAP, ELECT(50V/10uF)	E3,E1C	CCEA1HH100T		
	C4766	943134500070S	CAP, ELECT(100V/10uF)	E2	CCEA2AH100T		
	C4767	00D9430175108	CAP, ELECT(50V/10uF)	E3,E1C	CCEA1HH100T		
	C4767	943134500070S	CAP, ELECT(100V/10uF)	E2	CCEA2AH100T		
	C4768	00D9430175108	CAP, ELECT(50V/10uF)	E3,E1C	CCEA1HH100T		
	C4768	943134500070S	CAP, ELECT(100V/10uF)	E2	CCEA2AH100T		
	C4773,4774	00D9430175108	CAP, ELECT(50V/10uF)		CCEA1HH100T		
	C4781,4782	00D9430175108	CAP, ELECT(50V/10uF)		CCEA1HH100T		
	C4801,4802	00D9430175108	CAP, ELECT(50V/10uF)		CCEA1HH100T		
	C4803-4806	nsp	CAP, CHIP(1608, 50V/0.01uF)		CCUS1H103KC		
	C4811,4812	00D9430175108	CAP, ELECT(50V/10uF)		CCEA1HH100T		
	C4819,4820	nsp	CAP, CHIP(1608, 50V/68pF)		CCUS1H680JA		
	C4823,4824	nsp	CAP, CHIP(1608, 50V/100pF)		CCUS1H101JA		
	C4825-4828	00D9430175108	CAP, ELECT(50V/10uF)		CCEA1HH100T		
	C4831,4832	00D9430175108	CAP, ELECT(50V/10uF)		CCEA1HH100T		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	C4837,4838	nsp	CAP, CHIP(1608, 50V/3300pF)		CCUS1H332KC		
	C4839,4840	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C4841,4842	943134010610S	CAP, ELECT(50V/4.7uF)		CCEA1HH4R7T		
	C4843	943134501580S	CAP, ELECT(25V/33uF)		CCEA1EH330T		
	C4844	00D9430175108	CAP, ELECT(50V/10uF)		CCEA1HH100T		
	C4845	943134501580S	CAP, ELECT(25V/33uF)		CCEA1EH330T		
	C4851,4852	00D9430175108	CAP, ELECT(50V/10uF)		CCEA1HH100T		
	C4853-4856	nsp	CAP, CHIP(1608, 50V/0.01uF)		CCUS1H103KC		
	C4861,4862	00D9430175108	CAP, ELECT(50V/10uF)		CCEA1HH100T		
	C4869,4870	nsp	CAP, CHIP(1608, 50V/68pF)		CCUS1H680JA		
	C4873,4874	nsp	CAP, CHIP(1608, 50V/100pF)		CCUS1H101JA		
	C4875-4878	00D9430175108	CAP, ELECT(50V/10uF)		CCEA1HH100T		
	C4881,4882	00D9430175108	CAP, ELECT(50V/10uF)		CCEA1HH100T		
	C4887,4888	nsp	CAP, CHIP(1608, 50V/3300pF)		CCUS1H332KC		
	C4889,4890	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C4891,4892	943134010610S	CAP, ELECT(50V/4.7uF)		CCEA1HH4R7T		
	C4893	943134501580S	CAP, ELECT(25V/33uF)		CCEA1EH330T		
	C4894	00D9430175108	CAP, ELECT(50V/10uF)		CCEA1HH100T		
	C4895	943134501580S	CAP, ELECT(25V/33uF)		CCEA1EH330T		
	C6802	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C6803	00D9430173003	CAP, ELECT(10V/220uF)-S		CCEA1AKS221T		
	C6812	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
RESISTORS GROUP							
	R2394	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R2395	nsp	RES, CHIP(1608/5%/18Kohm)		CRJ10DJ183T		
!	R2396	252310006537S	PTC THEMISTORS, CHIP(85'C)		CRTPRF18BE471QB5RB		
	R2397	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R2398	nsp	RES, CHIP(1608/5%/18Kohm)		CRJ10DJ183T		
!	R2399	252310006537S	PTC THEMISTORS, CHIP(85'C)		CRTPRF18BE471QB5RB		
	R4601,4602	00MNN05471610	RES, CHIP(1608/5%/470ohm)		CRJ10DJ471T		
	R4603,4604	nsp	RES, CHIP(1608/5%/820Kohm)		CRJ10DJ824T		
	R4605,4606	00MNN05471610	RES, CHIP(1608/5%/470ohm)		CRJ10DJ471T		
	R4607,4608	nsp	RES, CHIP(1608/5%/820Kohm)		CRJ10DJ824T		
	R4609,4610	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R4611,4612	00MNN05471610	RES, CHIP(1608/5%/470ohm)		CRJ10DJ471T		
	R4613,4614	nsp	RES, CHIP(1608/5%/820Kohm)		CRJ10DJ824T		
	R4615,4616	00MNN05471610	RES, CHIP(1608/5%/470ohm)		CRJ10DJ471T		
	R4617,4618	nsp	RES, CHIP(1608/5%/820Kohm)		CRJ10DJ824T		
	R4619,4620	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R4625,4626	00MNN05471610	RES, CHIP(1608/5%/470ohm)		CRJ10DJ471T		
	R4627,4628	nsp	RES, CHIP(1608/5%/820Kohm)		CRJ10DJ824T		
	R4629,4630	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R4661	nsp	RES, CHIP(1608/5%/0ohm)	E3	CRJ10DJ0R0T		
	R4661	nsp	RES, CHIP(1608/5%/4.7Kohm)	E2,E1C	CRJ10DJ472T		
	R4662	nsp	RES, CHIP(1608/5%/0ohm)	E3	CRJ10DJ0R0T		
	R4662	nsp	RES, CHIP(1608/5%/4.7Kohm)	E2,E1C	CRJ10DJ472T		
	R4663,4664	00MNN05391610	RES, CHIP(1608/5%/390ohm)		CRJ10DJ391T		
	R4665,4666	00MNN05683610	RES, CHIP(1608/5%/68Kohm)		CRJ10DJ683T		
	R4667,4668	00MNN05154610	RES, CHIP(1608/5%/150Kohm)		CRJ10DJ154T		
	R4669,4670	00MNN05470610	RES, CHIP(1608/5%/47ohm)		CRJ10DJ470T		
	R4671,4672	90M-NN000630R	RES, CHIP(1608/5%/240ohm)		CRJ10DJ241T		
	R4679,4680	nsp	RES, CHIP(1608/5%/130Kohm)		CRJ10DJ134T		
	R4681,4682	00MNN05113610	RES, CHIP(1608/5%/11Kohm)		CRJ10DJ113T		
	R4683,4684	00MNN05220610	RES, CHIP(1608/5%/22ohm)		CRJ10DJ220T		
	R4685,4686	00MNN05470610	RES, CHIP(1608/5%/47ohm)		CRJ10DJ470T		
	R4687,4688	00MNN05474610	RES, CHIP(1608/5%/470Kohm)		CRJ10DJ474T		
	R4701-4705	00MNN05101610	RES, CHIP(1608/5%/100ohm)		CRJ10DJ101T		
	R4707	00MNN05101610	RES, CHIP(1608/5%/100ohm)		CRJ10DJ101T		
	R4709-4720	00MNN05101610	RES, CHIP(1608/5%/100ohm)		CRJ10DJ101T		
	R4723,4724	00MNN05474610	RES, CHIP(1608/5%/470Kohm)		CRJ10DJ474T		
	R4727-4730	00MNN05474610	RES, CHIP(1608/5%/470Kohm)		CRJ10DJ474T		
	R4737,4738	00MNN05101610	RES, CHIP(1608/5%/100ohm)		CRJ10DJ101T		
	R4739-4744	00MNN05474610	RES, CHIP(1608/5%/470Kohm)		CRJ10DJ474T		
	R4757,4758	00MNN05101610	RES, CHIP(1608/5%/100ohm)		CRJ10DJ101T		
	R4761-4768	nsp	RES, CHIP(1608/5%/10Kohm)		CRJ10DJ103T		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	R4773,4774	00MNN05104610	RES, CHIP(1608/5%/100Kohm)		CRJ10DJ104T		
	R4777,4778	00MNN05474610	RES, CHIP(1608/5%/470Kohm)		CRJ10DJ474T		
	R4781,4782	00MNN05104610	RES, CHIP(1608/5%/100Kohm)		CRJ10DJ104T		
	R4783,4784	00MNN05474610	RES, CHIP(1608/5%/470Kohm)		CRJ10DJ474T		
	R4794-4799	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R4801,4802	00MNN05474610	RES, CHIP(1608/5%/470Kohm)		CRJ10DJ474T		
	R4803,4804	00MNN05154610	RES, CHIP(1608/5%/150Kohm)		CRJ10DJ154T		
	R4805,4806	00MNN05274610	RES, CHIP(1608/5%/270Kohm)		CRJ10DJ274T		
	R4807,4808	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R4811,4812	00MNN05101610	RES, CHIP(1608/5%/100ohm)		CRJ10DJ101T		
	R4813,4814	00MNN05104610	RES, CHIP(1608/5%/100Kohm)		CRJ10DJ104T		
	R4815-4818	00MNN05683610	RES, CHIP(1608/5%/68Kohm)		CRJ10DJ683T		
	R4819,4820	00MNN05333610	RES, CHIP(1608/5%/33Kohm)		CRJ10DJ333T		
	R4821-4824	nsp	RES, CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T		
	R4825,4826	00MNN05470610	RES, CHIP(1608/5%/47ohm)		CRJ10DJ470T		
	R4827,4828	00MNN05104610	RES, CHIP(1608/5%/100Kohm)		CRJ10DJ104T		
	R4831,4832	00MNN05101610	RES, CHIP(1608/5%/100ohm)		CRJ10DJ101T		
	R4833-4836	00MNN05104610	RES, CHIP(1608/5%/100Kohm)		CRJ10DJ104T		
	R4841,4842	nsp	RES, CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T		
	R4851,4852	00MNN05474610	RES, CHIP(1608/5%/470Kohm)		CRJ10DJ474T		
	R4853,4854	00MNN05154610	RES, CHIP(1608/5%/150Kohm)		CRJ10DJ154T		
	R4855,4856	00MNN05274610	RES, CHIP(1608/5%/270Kohm)		CRJ10DJ274T		
	R4857,4858	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R4861,4862	00MNN05101610	RES, CHIP(1608/5%/100ohm)		CRJ10DJ101T		
	R4863,4864	00MNN05104610	RES, CHIP(1608/5%/100Kohm)		CRJ10DJ104T		
	R4865-4868	00MNN05683610	RES, CHIP(1608/5%/68Kohm)		CRJ10DJ683T		
	R4869,4870	00MNN05333610	RES, CHIP(1608/5%/33Kohm)		CRJ10DJ333T		
	R4871-4874	nsp	RES, CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T		
	R4875,4876	00MNN05470610	RES, CHIP(1608/5%/47ohm)		CRJ10DJ470T		
	R4877,4878	00MNN05104610	RES, CHIP(1608/5%/100Kohm)		CRJ10DJ104T		
	R4881,4882	00MNN05101610	RES, CHIP(1608/5%/100ohm)		CRJ10DJ101T		
	R4883-4886	00MNN05104610	RES, CHIP(1608/5%/100Kohm)		CRJ10DJ104T		
	R4891,4892	nsp	RES, CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T		
	R4897-4899	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R6803	00MNN05222610	RES, CHIP(1608/5%/2.2Kohm)		CRJ10DJ222T		
	R6837,6838	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R6841,6842	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
OTHERS PARTS GROUP							
	BK469	nsp	EARTH , INPUT		CMC1A440		
	BK608	nsp	EARTH , USB		CMC1A432		
	BN203	nsp	WIRE ASS'Y (3P,2.0MM,100MM,UL1569#26,105)		CWB7B003100LC		
	BN321	nsp	WIRE ASS'Y ,(5P, 500mm, 2mm PITCH, UL2725, #24/28)		CWB8A005500LC		
	BN461	nsp	WIRE ASS'Y LOCKING (13P,2.0MM,220MM,UL1007#26)		CWB1B013220HC		
	CN41B	nsp	PIN SOCKET (15P,1.25mm,ANGLE,B-TO-B)		CJP15HJ282Z		
	CN42B	nsp	PIN SOCKET (27P,1.25mm,ANGLE,B-TO-B)		CJP27HJ282Z		
	CN43B	nsp	PIN SOCKET (11P,1.25mm,ANGLE,B-TO-B)		CJP11HJ282Z		
	CN44B	nsp	PIN SOCKET (17P,1.25mm,ANGLE,B-TO-B)		CJP17HJ282Z		
	CN45B	nsp	PIN SOCKET (11P,1.25mm,ANGLE,B-TO-B)		CJP11HJ282Z		
	JK461-463	943643101570S	JACK, 4P(W/R,W/R),SEPA-GND		CJJ4P048U		
	JK608	943643101940S	JACK, USB, ANGLE TYPE		CJJ9X009Z		*
	JW203	nsp	WIRE ASS'Y RING (1P,150MM,BLK,UL1569#20,CKM-T)		CWE7702150ST		
	L4661,4662	00D9430193601	COIL, TOROIDAL	E2,E1C	CLU9S004Z		
	L6001	nsp	FERRITE CHIP BEAD(2012/220R)		CLZBLM21PG221SN1		

VIDEO PCB ASS'Y

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
SEMICONDUCTORS GROUP							
	IC511	2358100466O3S	IC , MULTI INPUT VIDEO		CVIAVDM2000		
	IC513	943239010400S	I.C, REGULATOR(3.3V/TO-252)		CVINJM2845DL133		
	IC521	963239008800S	I.C, RS232 (3.3V)		CVIILX3232DT		
	IC522,523	00D2631286903	I.C , REGULATOR (12V)		CVIPQ120DNA1ZPH		
	Q5251	943215500020S	T.R,RT1P141C(10K-10K)		CVTRT1P141C		
	Q5252	943214500020S	T.R,2SC3052		CVT2SC3052		
	D5161	00D2760718902	DIODE, SCHOTTKY, 30V		CVDRB521S-30		
	D5211	201310001503S	DIODE, ULTRA-HIGH SPEED		CVDKDS160RTKP		
	D5212	943202000940S	DIODE , ZENER ,1/2W, 16V		CVDZJ16BT		
	D5221	201310001503S	DIODE, ULTRA-HIGH SPEED		CVDKDS160RTKP		
	D5222	943202000940S	DIODE , ZENER ,1/2W, 16V		CVDZJ16BT		
	D5251	00D2760718902	DIODE, SCHOTTKY, 30V		CVDRB521S-30		
	D5252	943209001080S	DIODE , CHIP , SWITCHING		CVD1SS355T		
	D5254	00D2760718902	DIODE, SCHOTTKY, 30V		CVDRB521S-30		
CAPACITORS GROUP							
	C5107-5109	00D9430175108	CAP, ELECT(50V/10uF)		CCEA1HH100T		
	C5121-5123	nsp	CAP, CHIP(2012, 6.3V/10uF, X5R)		CCUC0J106KC		
	C5131-5133	nsp	CAP, CHIP(2012, 6.3V/10uF, X5R)		CCUC0J106KC		
	C5161	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C5162	nsp	CAP, CHIP(2012, 6.3V/10uF, X5R)		CCUC0J106KC		
	C5163	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C5164	963134010980S	CAP, ELECT(16V/47uF)		CCEA1CH470T		
	C5165,5166	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C5171	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C5174-5176	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C5178-5181	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C5182,5183	963134010980S	CAP, ELECT(16V/47uF)		CCEA1CH470T		
	C5184-5192	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C5193,5194	00D9430175108	CAP, ELECT(50V/10uF)		CCEA1HH100T		
	C5211,5212	00D9430175108	CAP, ELECT(50V/10uF)		CCEA1HH100T		
	C5213,5214	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C5221,5222	00D9430175108	CAP, ELECT(50V/10uF)		CCEA1HH100T		
	C5223,5224	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C5231	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C5233-5235	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C5236	00D9430175108	CAP, ELECT(50V/10uF)		CCEA1HH100T		
	C5237	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C5238,5239	00MDD95330300	CAP, CHIP(1608, 50V/33pF)		CCUS1H330JA		
	C5251	nsp	CAP, CHIP(1608, 50V/1000pF)		CCUS1H102KC		
	C5252	nsp	CAP, CHIP(1608, 50V/0.1uF)		CCUS1H104KC		
	C5253	nsp	CAP, CHIP(1608, 50V/1000pF)		CCUS1H102KC		
RESISTORS GROUP							
	R5101-5103	nsp	RES, CHIP(1608/1%/75ohm)		CRJ10DF75R0T		
	R5107	nsp	RES, CHIP(1608/1%/75ohm)		CRJ10DF75R0T		
	R5108	nsp	RES, CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T		
	R5109	nsp	RES, CHIP(1608/1%/75ohm)		CRJ10DF75R0T		
	R5110	nsp	RES, CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T		
	R5111	nsp	RES, CHIP(1608/1%/75ohm)		CRJ10DF75R0T		
	R5112	nsp	RES, CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T		
	R5121	nsp	RES, CHIP(1608/1%/75ohm)		CRJ10DF75R0T		
	R5123	nsp	RES, CHIP(1608/1%/75ohm)		CRJ10DF75R0T		
	R5125	nsp	RES, CHIP(1608/1%/75ohm)		CRJ10DF75R0T		
	R5131	nsp	RES, CHIP(1608/1%/75ohm)		CRJ10DF75R0T		
	R5133	nsp	RES, CHIP(1608/1%/75ohm)		CRJ10DF75R0T		
	R5135	nsp	RES, CHIP(1608/1%/75ohm)		CRJ10DF75R0T		
	R5157-5159	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R5171,5172	00MNN05101610	RES, CHIP(1608/5%/100ohm)		CRJ10DJ101T		
	R5173,5174	nsp	RES, CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T		

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
	R5175	nsp	RES, CHIP(1608/1%/75ohm)		CRJ10DF75R0T		
	R5176	00MNN05102610	RES, CHIP(1608/5%/1Kohm)		CRJ10DJ102T		
	R5177	nsp	RES, CHIP(1608/1%/75ohm)		CRJ10DF75R0T		
	R5178	00MNN05102610	RES, CHIP(1608/5%/1Kohm)		CRJ10DJ102T		
	R5179	nsp	RES, CHIP(1608/1%/75ohm)		CRJ10DF75R0T		
	R5180,5181	00MNN05102610	RES, CHIP(1608/5%/1Kohm)		CRJ10DJ102T		
	R5183-5186	00MNN05100610	RES, CHIP(1608/5%/10ohm)		CRJ10DJ100T		
	R5187-5189	nsp	RES, CHIP(1608/1%/75ohm)		CRJ10DF75R0T		
	R5190	nsp	RES, CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T		
	R5193,5194	nsp	RES, CHIP(1608/1%/75ohm)		CRJ10DF75R0T		
	R5195-5198	nsp	RES, CHIP(1608/5%/0ohm)		CRJ10DJ0R0T		
	R5231-5234	00MNN05102610	RES, CHIP(1608/5%/1Kohm)		CRJ10DJ102T		
	R5251	00MNN05102610	RES, CHIP(1608/5%/1Kohm)		CRJ10DJ102T		
	R5252	00MNN05332610	RES, CHIP(1608/5%/3.3Kohm)		CRJ10DJ332T		
	R5253	00MNN05222610	RES, CHIP(1608/5%/2.2Kohm)		CRJ10DJ222T		
	R5254	00MNN05104610	RES, CHIP(1608/5%/100Kohm)		CRJ10DJ104T		
OTHERS PARTS GROUP							
	CN51B	nsp	PIN SOCKET (15P,1.25mm,ANGLE,B-TO-B)		CJP15HJ282Z		
	CN52B	nsp	PIN SOCKET (11P,1.25mm,ANGLE,B-TO-B)		CJP11HJ282Z		
	CN53B	nsp	PIN SOCKET (21P,1.25mm,ANGLE, B-TO-B)		CJP21HJ282Z		
	JK511	943643101870S	JACK, 6P(Y/Y,Y/Y,Y/Y), SILVER		CJJ4R056Z		*
	JK512	943643101910S	JACK, 6P(G/G,B/B,R/R), SILVER		CJJ4R054Z		*
	JK513	943643101100S	JACK, 3P(G/B/R), SILVER		CJJ4S050Z		
	JK521	943646100420S	JACK , 9P D-SUB FEMALE(RS-232C)		CJJ9W001Z		
	JK522,523	643010086019S	JACK, STEREO (RED MOLD)		CJJ2D019Z		
	JK525,526	643010086002S	JACK, STEREO (BLK MOLD)		CJJ2D008Z		
	JW501	nsp	WIRE ASS'Y (1P, 80MM,BLK,#22)		CWE5202080A		