

## SERVICE MANUAL

MODEL	JP	E3	E2	EK	EA	E1C	E1K	CI
AVR-1613		✓						
AVR-1713		✓	✓			✓		
AVR-1723						✓		

### 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.

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# ABOUT THIS MANUAL

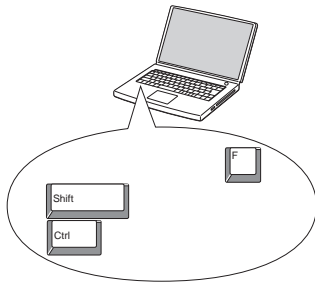
Read the following information before using the service manual.

## What you can do with this manual

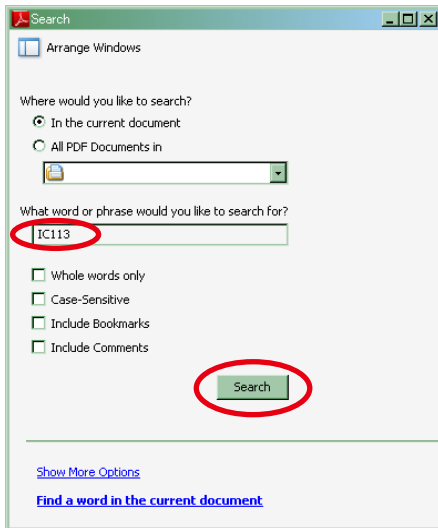
### Search for a Ref. No. (phrase) (Ctrl+Shift+F)

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.

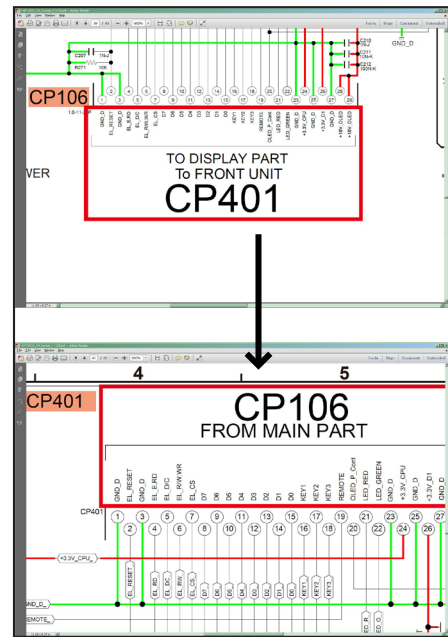


3. Click an item on the list.
  - The screen jumps to the page for that item, and the search phrase is displayed.

### 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)

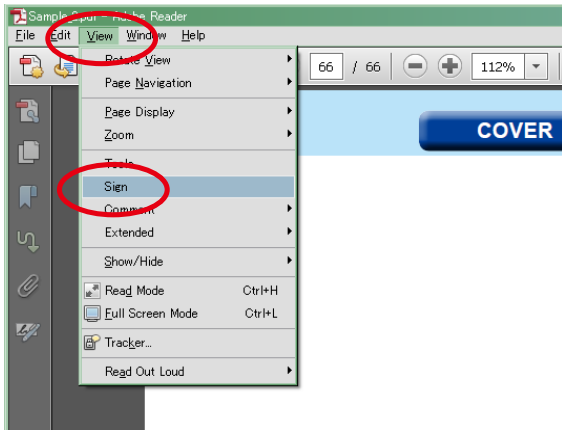
### Add notes to this data (Sign)

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.



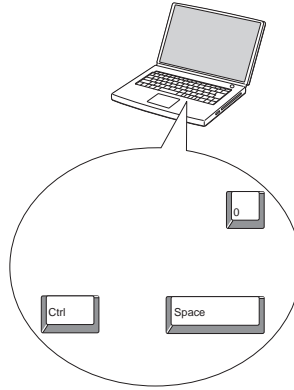
### [Example using Adobe Reader 9]

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.



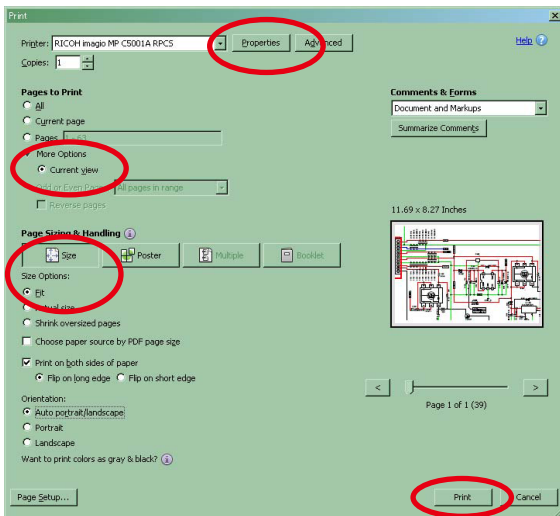
- When you want to move the area shown, hold down **Space** and drag the mouse.

- 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.

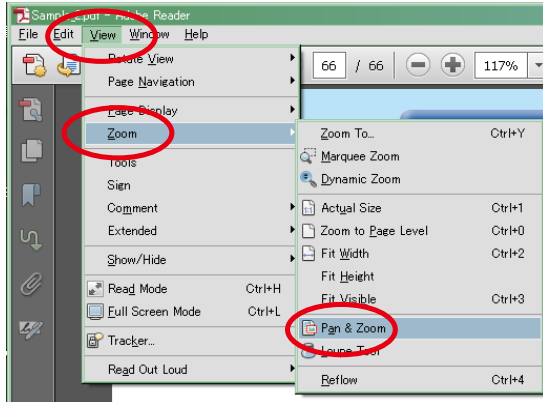
## Magnify schematic / printed wiring board diagrams - 2

### (Pan & Zoom function)

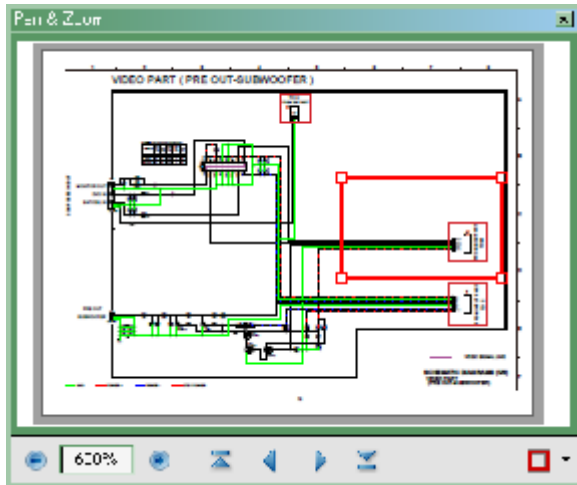
The Pan & Zoom function lets you see which part of a magnified diagram is being shown in a separate window.

#### [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".

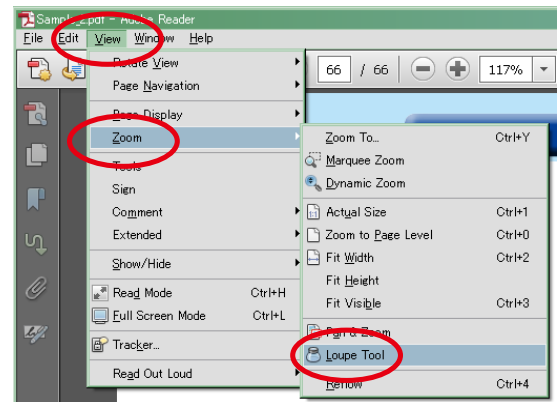
## Magnify schematic / printed wiring board diagrams - 3

### (Loupe Tool function)

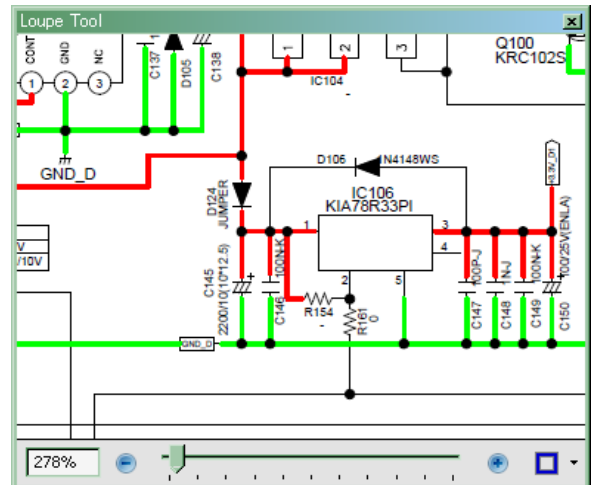
The Loupe Tool function lets you magnify a specific part of a diagram in a separate window.

#### [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  $\triangle$  mark on schematic diagrams and parts lists, be sure to use the designated parts.

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

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

#### ⊙ Make a safety check after servicing!

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

(Insulation check procedure)

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

### **CAUTION** Concerning important safety parts

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

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

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

## NOTE FOR SCHEMATIC DIAGRAM

**WARNING:**

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

**CAUTION:**

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

**WARNING:**

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

**NOTICE:**

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

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

## NOTE FOR PARTS LIST

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

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

# TECHNICAL SPECIFICATIONS

## □ Audio Section

### • Power amplifier

#### Rated output :

Front : (for AVR-1613)

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

120 W + 120 W (6 Ω, 1 kHz with 0.7 % T.H.D.)

Front : (for AVR-1713/1723)

80 W + 80 W (8 Ω, 20 Hz – 20 kHz with 0.08 % T.H.D.)

120 W + 120 W (6 Ω, 1 kHz with 0.7 % T.H.D.)

135 W + 135 W (6Ω, JEITA)

Center : (for AVR-1613)

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

120 W (6 Ω, 1 kHz with 0.7 % T.H.D.)

Center : (for AVR-1713/1723)

80 W (8 Ω, 20 Hz – 20 kHz with 0.08 % T.H.D.)

120 W (6 Ω, 1 kHz with 0.7 % T.H.D.)

135 W (6Ω, JEITA)

Surround : (for AVR-1613)

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

120 W + 120 W (6 Ω, 1 kHz with 0.7 % T.H.D.)

Surround : (for AVR-1713/1723)

80 W + 80 W (8 Ω, 20 Hz – 20 kHz with 0.08 % T.H.D.)

120 W + 120 W (6 Ω, 1 kHz with 0.7 % T.H.D.)

135 W + 135 W (6Ω, JEITA)

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 : 98 dB (IHF–A weighted, DIRECT mode)

## □ Video section

### • Standard video connectors

Input/output level and impedance : 1 V<sub>p-p</sub>, 75 Ω

Frequency response: 5 Hz – 10 MHz — 0, –3 dB

## □ Tuner section

[FM](Note: μV at 75 Ω, 0 dBf = 1 x 10<sup>-15</sup> W)

Receiving Range (for E3) :

[FM] 87.5 MHz – 107.9 MHz

Receiving Range (for E2/E1C) :

[FM] 87.5 MHz – 108.0 MHz

Usable Sensitivity :

[FM] 1.2 μV (12.8 dBf)

50 dB Quieting Sensitivity :

[FM] MONO 2.8 μV (20.2 dBf)

S/N (IHF–A) :

[FM] MONO 70 dB (IHF–A weighted, DIRECT mode)

STEREO 67 dB (IHF–A weighted, DIRECT mode)

Total harmonic Distortion (at 1 kHz) :

[FM] MONO 0.7 %

STEREO 1.0 %

## □ General

Power supply : (for E3) : AC 120 V, 60 Hz

(for E2) : AC 230 V, 50 Hz / 60Hz

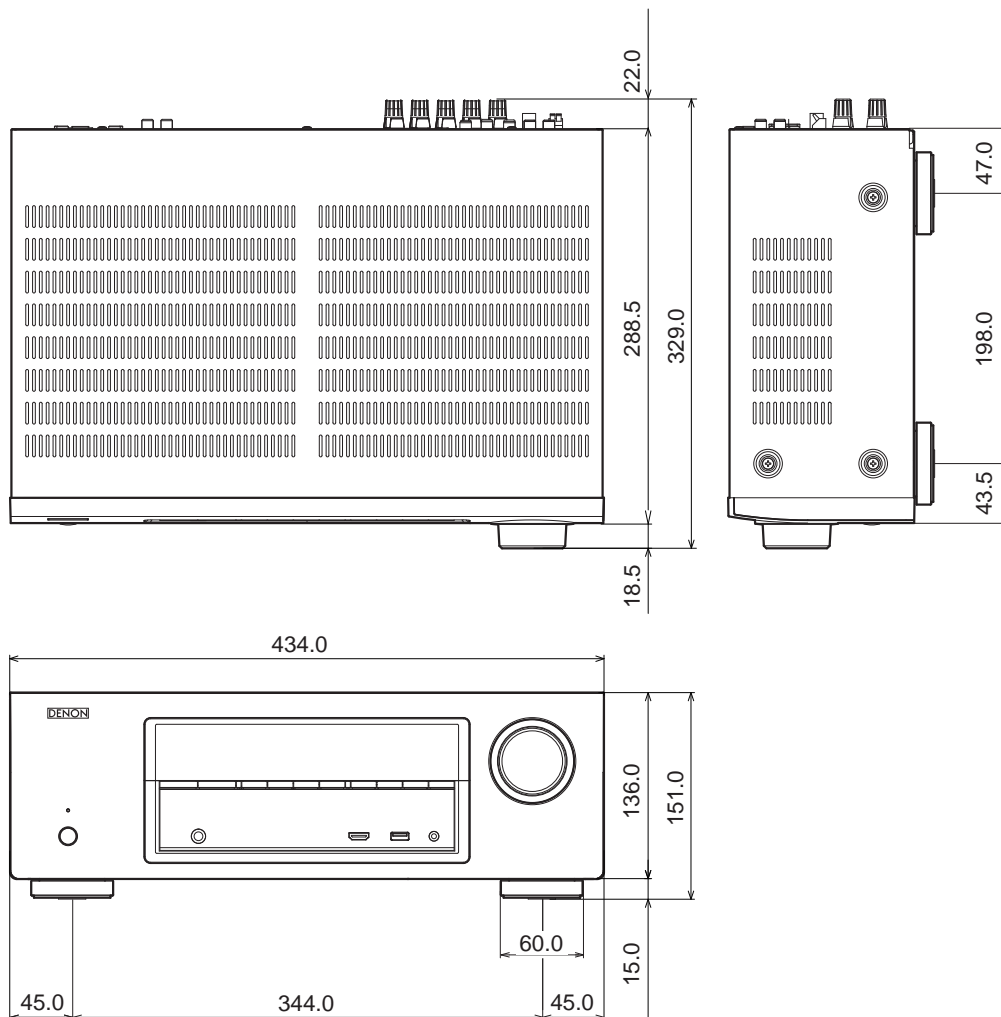
(for E1C) : AC 220 V, 50 Hz

Power consumption : 360 W (for AVR-1613)

390 W (for AVR-1713/1723)

0.1 W (Standby)

# DIMENSION



Weight : 8.2kg (AVR-1613)  
8.3kg (AVR-1713/1723)



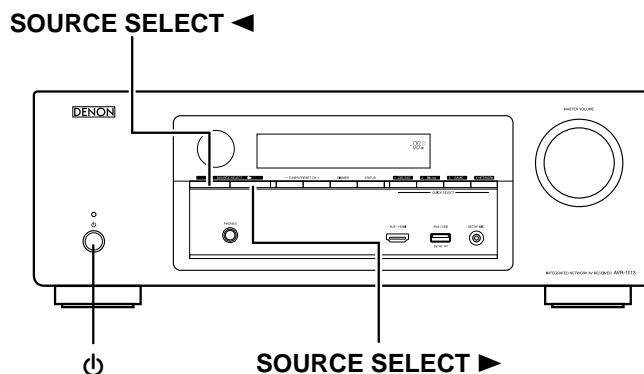
# CAUTION IN SERVICING

## Initializing INTEGRATED NETWORK AV RECEIVER

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

1. Turn off the power pressing  $\text{\textcircled{P}}$  button.
2. Press  $\text{\textcircled{P}}$  button while simultaneously while pressing "SOURCE SELECT  $\blacktriangleleft$ " and "SOURCE SELECT  $\blacktriangleright$ " 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.

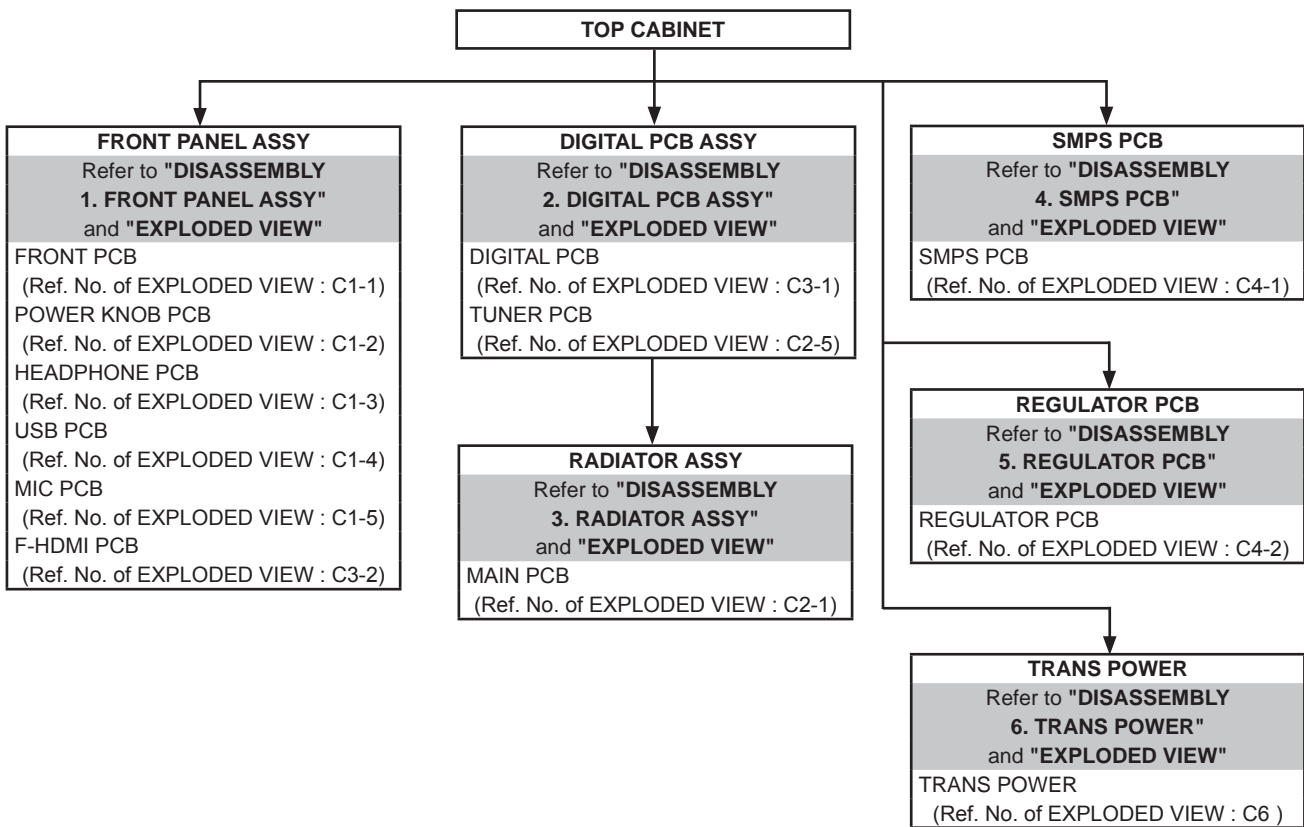
8U-110084S : EXTENSION UNIT KIT : 1 Set

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 39 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.

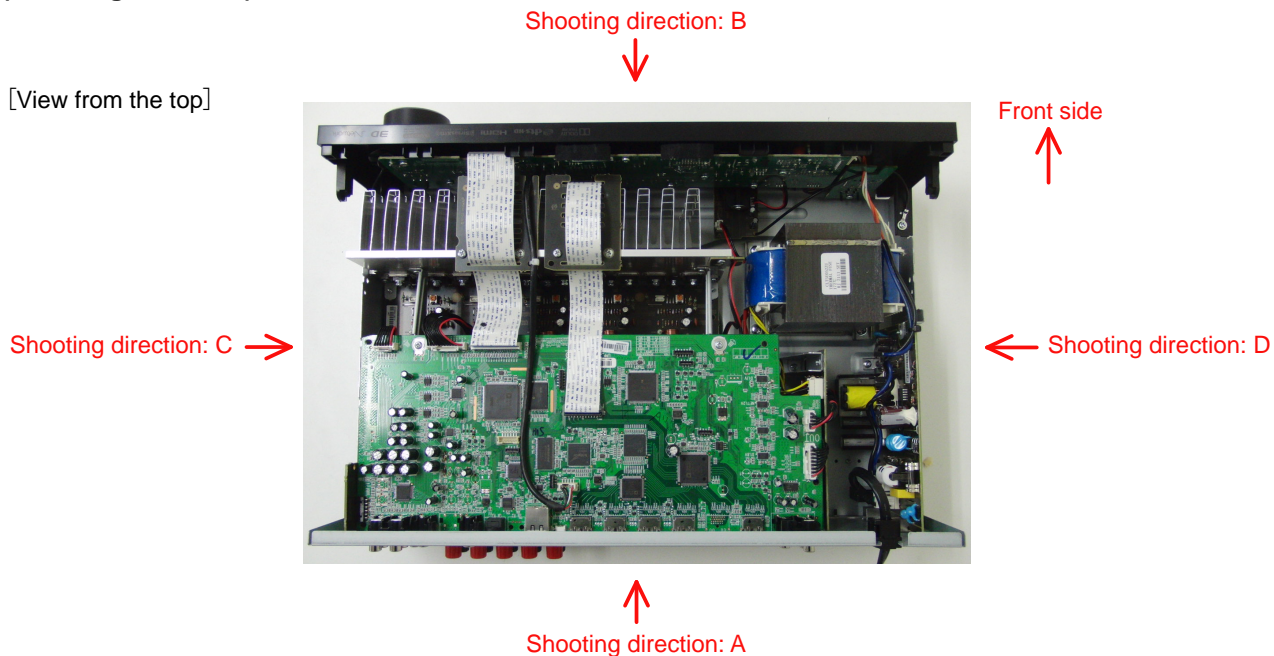


## about the photos used for "descriptions of the DISASSEMBLY" section

- The shooting direction of each photograph used herein is indicated on the left side of the respective photograph as "Shooting direction: \*\*\*". (\*\*\*) : A,B,C,D)
- 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-1613E3 model.

### The viewpoint of each photograph (Shooting direction)

[View from the top]



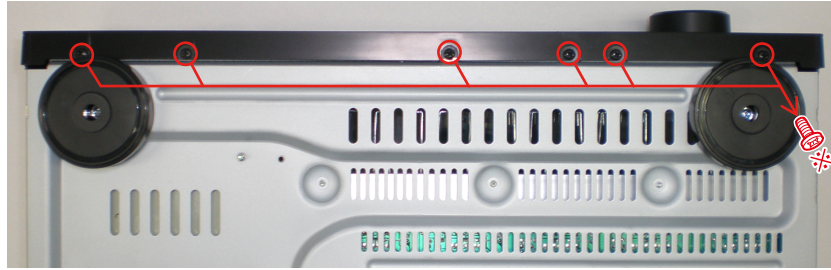
- Note:**
- Before disassembling this unit, be sure to discharge the power line (the colored line in the schematic diagram).
  - FFC cables with one end disconnected should be insulated by using tapes, etc.

# 1. FRONT PANEL ASSY

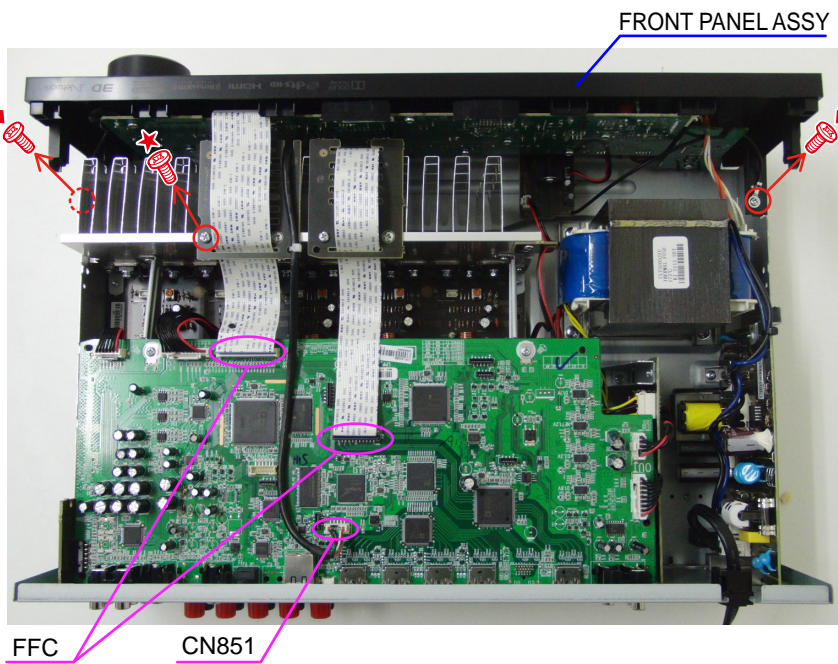
Proceeding : CABINET TOP → FRONT PANEL ASSY

(1) Remove the screws.

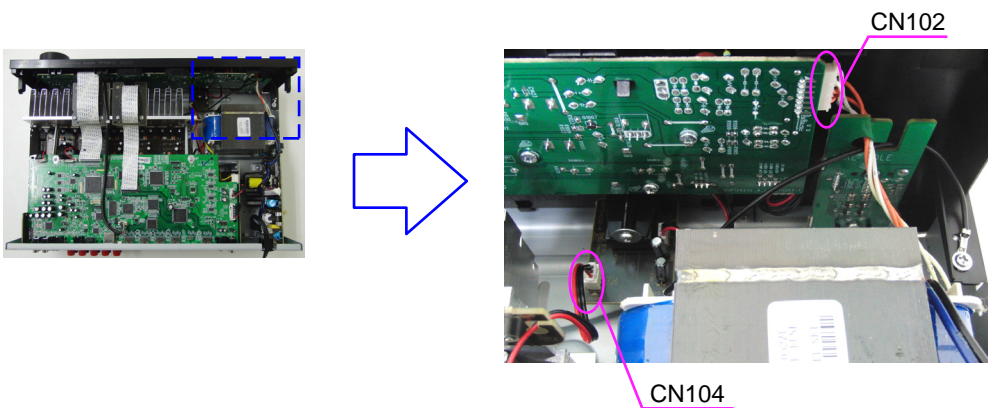
View from the bottom



(2) Remove the screws and disconnect the FFC.



(3) Disconnect the connector wires.



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

## 2. DIGITAL PCB ASSY

Proceeding : **CABINET TOP** → **DIGITAL PCB ASSY**

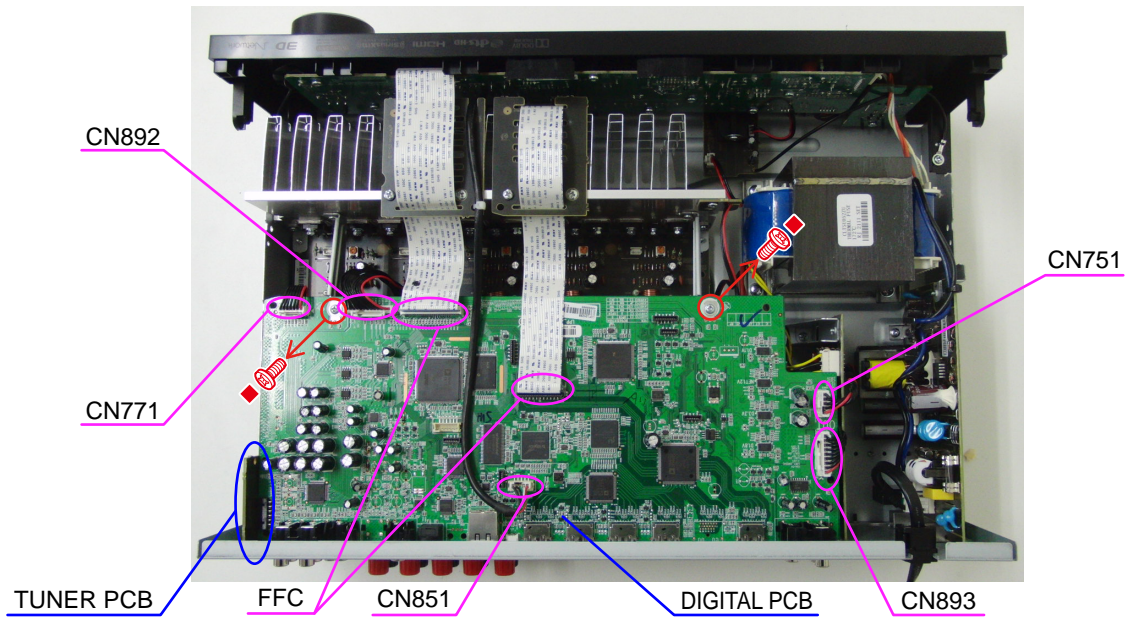
(1) Remove the screws.

Shooting direction: A



(2) Remove the screws.

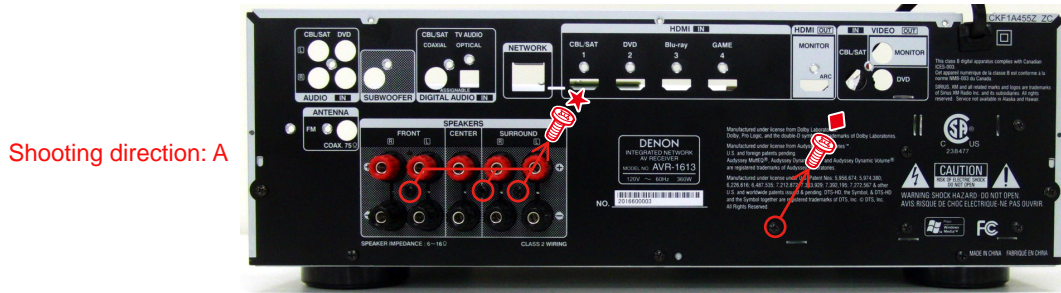
Disconnect the connector wires and FFC then disconnect the TUNER PCB.



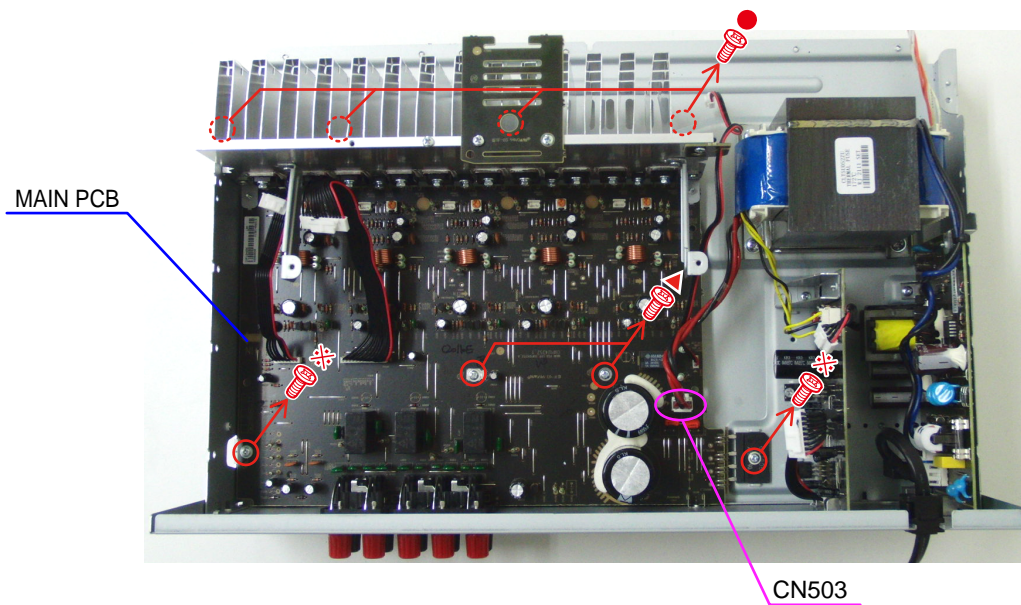
### 3. RADIATOR ASSY

Proceeding : **CABINET TOP** → **DIGITAL PCB ASSY** → **RADIATOR ASSY**

(1) Remove the screws.



(2) Remove the screws then disconnect the connector wire.  
Remove the RADIATOR ASSY from the CHASSIS BOTTOM.



#### 4. SMPS PCB

Proceeding : **CABINET TOP** → **SMPS PCB**

Please refer to "EXPLODED VIEW" for the disassembly method of SMPS PCB.

#### 5. REGULATOR PCB

Proceeding : **CABINET TOP** → **REGULATOR PCB**

Please refer to "EXPLODED VIEW" for the disassembly method of REGULATOR PCB.


#### 6. TRANS POWER

Proceeding : **CABINET TOP** → **TRANS POWER**

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

# SPECIAL MODE

## Special mode setting button

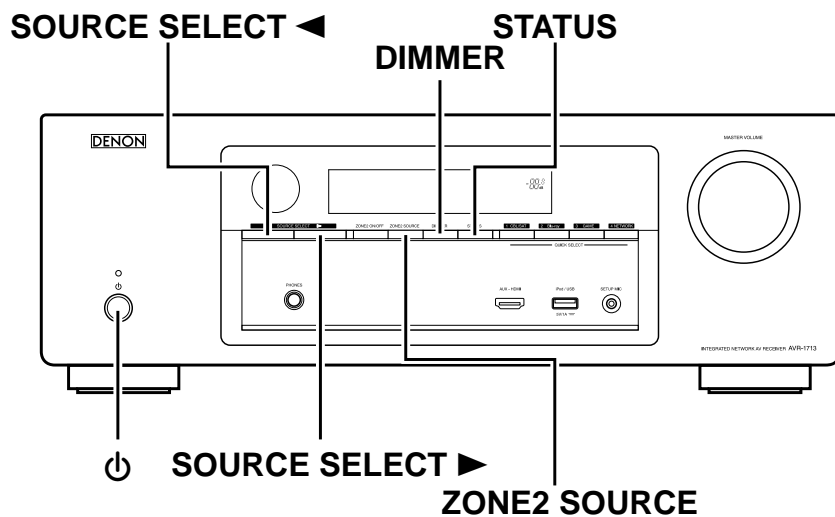
※ No.1 - 9 : Press the  button to turn on the power while pressing both the button A,B and the button C at the same time.

※ No.10 : Turn on the power, then press and hold down A and B buttons for over 3 second.

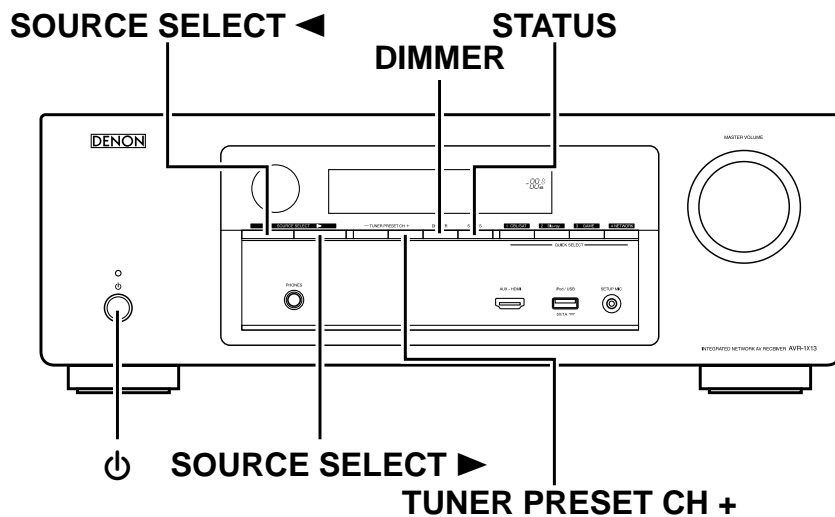
No.	Mode	Button A	Button B	Button C	Contents
1	Version display (µcom/DSP Error Display)	DIMMER	STATUS	-	Firmware versions such as Main or DSP are displayed in the FL manager. Errors are displayed when they occur. (Refer to 18 page)
2	Displaying the protection history mode	DIMMER	STATUS	ZONE2 SOURCE (AVR-1713E3) TUNER PRESET CH + (Other model)	The protection history is displayed. (Refer to 21 page)
3	User Initialization mode (Installer Setup settings are not initialized.)	SOURCE SELECT ◀	SOURCE SELECT ▶	-	Backup data initialization is carried out. (Installer Setup settings are not initialized.)
4	Mode for switching tuner frequency step (E2 model Only)	DIMMER	SOURCE SELECT ▶	-	Change tuner frequency step to FM:200kHz/50kHz STEP. Press the SOURCE SELECT ◀▶ to select "Mode for switching tuner frequency step", then press the "STATUS" button to set. Turn the power off in this state and turn the power on again to make the setting take effect.
5	Mode for preventing remote control acceptance	ZONE2 SOURCE (AVR-1713E3) TUNER PRESET CH + (Other model)	SOURCE SELECT ▶	-	Operations using the remote control are rejected. Press the SOURCE SELECT ◀▶ to select "RC LOCK On", then press the "STATUS" button to set. (Mode cancellation: Execute the same button operations as when performing setup and select "RC LOCK Off".)
6	Panel lock mode	ZONE2 SOURCE (AVR-1713E3) TUNER PRESET CH + (Other model)	SOURCE SELECT ▶	-	Operations using the main unit panel buttons or the master volume knob are rejected. Press the SOURCE SELECT ◀▶ to select "FP/VOL LOCK On", then press the "STATUS" button to set.
7	Panel lock mode (Master volume is not locked.)	ZONE2 SOURCE (AVR-1713E3) TUNER PRESET CH + (Other model)	SOURCE SELECT ▶	-	Operations using the main unit panel buttons are rejected. Press the SOURCE SELECT ◀▶ to select "FP LOCK On", then press the "STATUS" button to set.
8	Cancellation of panel lock mode	ZONE2 SOURCE (AVR-1713E3) TUNER PRESET CH + (Other model)	SOURCE SELECT ▶	-	Panel lock mode is cancelled. (Mode cancellation: Execute the same button operations as when performing setup and select "FP LOCK Off", then press the "STATUS" button to set.)
9	Diagnostic mode	DIMMER	STATUS	ZONE2 SOURCE (AVR-1713E3) TUNER PRESET CH + (Other model)	This mode is used for confirming the Video and Audio signal paths. (Troubleshooting) The signal paths of the set can be easily confirmed after repair. (Refer to 27 page)
10	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 23 page)



AVR-1713E3



Other model



# 1. $\mu$ com/DSP Version display mode

## 1.1. Operation specifications

### $\mu$ com/DSP version display mode:

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

### Starting up:

Press the  $\odot$  button to turn on the power while pressing the "STATUS" and "DIMMER" 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 GUI.

## 1.2. Display Order

Error information(Refer to 1.3. Error display) → ① Model destination information → ② Firmware Package Version

→ ③ Main  $\mu$ -com → ④ Main 1st Boot Loader → ⑤ DSP ROM → ⑥ Audio PLD → ⑦ GUI SFLASH

→ \*⑧ Ethernet(DM860) 1st Boot Loader, Hardware ID → \*⑨ Ethernet(DM860) 2nd Boot Loader, Rhapsody Flag

→ \*⑩ Ethernet(DM860) IMAGE → \*⑪ Ethernet(DM860)MAC ADDRESS information

① Model destination information :

Model	FLD
AVR-1613 E3 model	A V R 1 6 1 3 E 3
AVR-1713 E3 model	A V R 1 7 1 3 E 3
AVR-1713 E2 model	A V R 1 7 1 3 E 2
AVR-1713 E1C model	A V R 1 7 1 3 E 1 C
AVR-1723 E1C model	A V R 1 7 2 3 E 1 C

② Firmware Package Version :

FLD	P a c k a g e	:	* * * *
-----	---------------	---	---------

③ Main  $\mu$ -com :

FLD	M a i n	:	* * * *	# # # #
-----	---------	---	---------	---------

(\*: Main version, #: Sub version)

④ Main 1st Boot Loader :

FLD	M a i n	F B L	:	* * . * *
-----	---------	-------	---	-----------

⑤ DSP ROM :

FLD	D S P	:	* * . * *
-----	-------	---	-----------

⑥ Audio PLD :

FLD	A u d i o	P L D	:	* * . * *
-----	-----------	-------	---	-----------

⑦ GUI SFLASH :

Model	FLD
AVR-1613 E3 model	G U I : 5 7 1 3 * * * *
AVR-1713 E3 model	G U I : 5 7 1 1 * * * *
AVR-1713 E2 model	G U I : 5 7 1 2 * * * *
AVR-1713 E1C model	G U I : 5 7 1 5 * * * *
AVR-1723 E1C model	G U I : 5 7 1 6 * * * *

⑧ Ethernet(DM860) 1st Boot Loader, Hardware ID :

FLD		E	t	h	e	r	n	e	t		F	B	L				
-----	--	---	---	---	---	---	---	---	---	--	---	---	---	--	--	--	--

↓  
Press the "STATUS" button.

FLD	*	*	*	*	*	*	-	b	d								
-----	---	---	---	---	---	---	---	---	---	--	--	--	--	--	--	--	--

⑨ Ethernet(DM860) 2nd Boot Loader, Rhapsody Flag :

FLD		E	t	h	e	r	n	e	t		S	B	L				
-----	--	---	---	---	---	---	---	---	---	--	---	---	---	--	--	--	--

↓  
Press the "STATUS" button.

FLD	E	*	*	*	*	*	*	*	*	*	*	*	*	*	*	-	0	A
-----	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

⑩ Ethernet(DM860) IMAGE :

FLD		E	t	h	e	r	n	e	t		I	M	G				
-----	--	---	---	---	---	---	---	---	---	--	---	---	---	--	--	--	--

↓  
Press the "STATUS" button.

FLD	I	*	*	*	*	*	*	*	*	*	*	*	*				
-----	---	---	---	---	---	---	---	---	---	---	---	---	---	--	--	--	--

⑪ Ethernet(DM860)MAC ADDRESS information :

FLD	*	E	t	h	e	r	n	e	t		M	A	C				
-----	---	---	---	---	---	---	---	---	---	--	---	---	---	--	--	--	--

↓  
Press the "STATUS" button.

FLD		*	*	*	*	*	*	-	*	*	*	*	*	*	*		
-----	--	---	---	---	---	---	---	---	---	---	---	---	---	---	---	--	--

### 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.

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. (※)	F I R M E R R O R	<ul style="list-style-type: none"> <li>• Please check the destination-resistors (R7663/R7664, DIGITAL PCB).</li> <li>• Please write the firmware of correct destination.</li> </ul>
② DIR NG	No response from DIR	D I R E R R O R 0 1	<ul style="list-style-type: none"> <li>• Please check DIR (IC782, DIGITAL PCB) and around circuits.</li> </ul>
③ DSP NG	When DSP code boot is performed, the DSP FLAG0 port does not change to "H" even if DSP reset is executed.	D S P E R R O R 0 1	<ul style="list-style-type: none"> <li>• Please check DSP (IC791, DIGITAL PCB) and around circuits.</li> </ul>
	Before DSP command is issued, the DSP FLAG0 port does not change to "H".	D S P E R R O R 0 2	
	When DSP data read is performed, executing WRITE="L" does not result in ACK="H".	D S P E R R O R 0 3	
	When DSP data read is performed, executing REQ="L" does not result in ACK="L".	D S P E R R O R 0 4	
	When DSP data writing is performed, executing WRITE="H" does not result in ACK="H".	D S P E R R O R 0 5	
	When DSP data writing is performed, executing REQ="L" does not result in ACK="L".	D S P E R R O R 0 6	
④ EEPROM NG	Error occurs in EEPROM checksum.(*** is a block address number.)	E 2 P R O M E R R * * *	
⑤ Both DSP / EEPROM OK		(No error display, version display only)	

Status	FL Display
※ When the firmware version is displayed, ▲ is displayed at the start of the firmware.	▲ M a i n : * * * * * * * * *
	▲ D S P : * * * . * * *
	▲ A u d i o P L D : * * * . * * *
	▲ G U I : * * * * * * * * *

## 2. Errors checking mode (Displaying the protection history)

### 2.1. Operation specifications

#### Error mode (Displaying the protection history):

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

#### Starting up:

##### • Common in all the models

Press the  $\odot$  button to turn on the power while pressing the "DIMMER", "STATUS" buttons and "ZONE2 SELECT"(only AVR-1713E3)/ "TUNER PRESET CH +"(expect AVR-1713E3) button.

Press the SOURCE SELECT  $\blacktriangleleft/\blacktriangleright$  to select "2.PROTECTION", then press the "STATUS" button to set.

The error (protection history display) mode is set.

Now, press the "STATUS" button to turn on the FL display.

### 2.2. 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)

FLD	N	O		P	R	O	T	E	C	T									
-----	---	---	--	---	---	---	---	---	---	---	--	--	--	--	--	--	--	--	--

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

FLD	P	R	T	:	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 6 seconds later and the power supply will be shut off.

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

FLD	P	R	T	:	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 6 seconds later and the power supply will be shut off.

(4) For THERMAL (when the last protection incident was THERMAL(A) or THERMAL(B) protection)

FLD	P	R	T	:	T	H	E	R	M	A	L		A						
-----	---	---	---	---	---	---	---	---	---	---	---	--	---	--	--	--	--	--	--

FLD	P	R	T	:	T	H	E	R	M	A	L		B						
-----	---	---	---	---	---	---	---	---	---	---	---	--	---	--	--	--	--	--	--

**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 2 minutes 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.

### 2.3. 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 "DIMMER" button for 3 seconds.

FLD	F	R	T	:	D	C													
-----	---	---	---	---	---	---	--	--	--	--	--	--	--	--	--	--	--	--	--

Press the "DIMMER" button for 3 seconds.

FLD	F	R	T	:	C	L	E	A	R										
-----	---	---	---	---	---	---	---	---	---	--	--	--	--	--	--	--	--	--	--

The above is displayed and the protection history is cleared.

FLD	N	O		P	R	O	T	E	C	T									
-----	---	---	--	---	---	---	---	---	---	---	--	--	--	--	--	--	--	--	--

- (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) PROTECTION : Flashes at intervals of 2 seconds (1 second lit, 1 second off)

### 3. Remote ID Setup mode

#### 3.1. Specifications

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

#### 3.2. Setting the AV receivers

##### Starting up:

Press and hold both "STATUS" and "DIMMER" buttons for over 3 second with the power turned on.

(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	<table border="1"><tr><td></td><td></td><td></td><td>R</td><td>E</td><td>M</td><td>O</td><td>T</td><td>E</td><td></td><td>I</td><td>D</td><td></td><td>1</td><td></td><td></td></tr></table>				R	E	M	O	T	E		I	D		1		
			R	E	M	O	T	E		I	D		1				
QUICK SELECT 2	<table border="1"><tr><td></td><td></td><td></td><td>R</td><td>E</td><td>M</td><td>O</td><td>T</td><td>E</td><td></td><td>I</td><td>D</td><td></td><td>2</td><td></td><td></td></tr></table>				R	E	M	O	T	E		I	D		2		
			R	E	M	O	T	E		I	D		2				
QUICK SELECT 3	<table border="1"><tr><td></td><td></td><td></td><td>R</td><td>E</td><td>M</td><td>O</td><td>T</td><td>E</td><td></td><td>I</td><td>D</td><td></td><td>3</td><td></td><td></td></tr></table>				R	E	M	O	T	E		I	D		3		
			R	E	M	O	T	E		I	D		3				
QUICK SELECT 4	<table border="1"><tr><td></td><td></td><td></td><td>R</td><td>E</td><td>M</td><td>O</td><td>T</td><td>E</td><td></td><td>I</td><td>D</td><td></td><td>4</td><td></td><td></td></tr></table>				R	E	M	O	T	E		I	D		4		
			R	E	M	O	T	E		I	D		4				

(3) Turn off the power using  $\phi$  button.

(4) Turn on the power using  $\phi$  button.

- ※ When Remote ID Setup mode is running, operations other than the QUICK SELECT 1 - 4 buttons or  $\phi$  buttons on the main unit are not received.
- ※ For the remote control that is supplied with this unit, you cannot change the REMOTE ID.

##### 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.






#### 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.

##### 4.1. Starting diagnostic mode

Press the  button to turn on the power while pressing the "DIMMER", "STATUS" and "ZONE2 SELECT"(only AVR-1713E3)/ "TUNER PRESET CH +"(expect AVR-1713E3).

Press the SOURCE SELECT  to select "1.SERVICE CHECK", then press the "STATUS" button to set.

TUNED, STEREO and RDS are lit in FL display.

##### 4.2. Canceling diagnostic mode

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






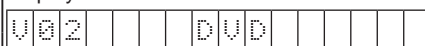







##### 4.3. Operation

When you perform remote operation in accordance with the instructions in "Details of how to operate remote controller" \*a) in the table below using the remote control unit (RC-1156).

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 \*b) in the table below.

##### 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 	Display: 	1.Press [AMP] 2.Press [ZONE SELECT], Select "MAIN" 3.Press [1/.] 4.Press [DVD]	①KEY 1/CODE1 (Main Zone) Initialization ②DVD (Main Zone)	·Input : CVBS / Output : CVBS	
2 HDMI (signal) Path 	Display: 	1.Press [AMP] 2.Press [ZONE SELECT], Select "MAIN" 3.Press [1/.] 4.Press [DVD]	①KEY 1/CODE1 (Main Zone) Initialization ②DVD (Main Zone)	·Input HDMI / Output : HDMI (※ As the input source, you can switch from DVD to other ones.)	
3 OSD FUNCTION 	Menu : ON Display: 	1.Press [AMP] 2.Press [ZONE SELECT], Select "MAIN" 3.Press [2/ABC] 4.Press [DVD] 5.Press [AMP] 6.Press [MENU]	①KEY 2/ABC (Main Zone) Initialization ②DVD (Main Zone) ③GUI MENU (Main Zone)	·OSD Display / Output : HDMI (※ As the input source, you can switch from DVD to other ones.)	
4 CEC FUNCTION (Control Monitor : HDMI Monitor) 	HDMI Control : ON Display: 	1.Press [AMP] 2.Press [ZONE SELECT], Select "MAIN" 3.Press [3/DEF] 4.Press [DVD]	①KEY 3/DEF (Main Zone) Initialization & CEC Control ON ②DVD (Main Zone)	·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.)	
5 HDMI Audio (signal) Path (Audio : AMP)  	Audio : AMP(When checking the audio output from AMP) Display: 	1.Press [AMP] 2.Press [ZONE SELECT], Select "MAIN" 3.Press [5/JKL] 4.Press [DVD]	①KEY 5/JKL (Main Zone) Initialization & Select Audio AMP ②DVD (Main Zone)	·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.)	
6 HDMI Audio (signal) Path (Audio : TV) 	Audio : TV(When checking the audio output from TV) Display: 	1.Press [AMP] 2.Press [ZONE SELECT], Select "MAIN" 3.Press [6/MNO] 4.Press [DVD]	①KEY 6/MNO (Main Zone) Initialization & Audio Select TV ②DVD (Main Zone)	·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.)	

#### 4.5. 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  <b>fig.6</b>	Input Mode : Fixed ANALOG SURROUND mode : DIRECT Amp assign : NORMAL Display: A01         DVD	1.Press [AMP] 2.Press [ZONE SELECT], Select "MAIN" 3.Press [7/PQRS] 4.Press [DVD]	①KEY 7/PQRS (Main Zone) Initialization & Amp assign NORMAL& Input Mode Fixed ANALOG & SURROUND mode DIRECT ②DVD (Main Zone)	·Input : Analog / Output : Speakers (Front L/R) (※ As the input source, you can switch from DVD to other ones.)	
2 DIGITAL (signal) Path (MAIN)  <b>fig.7</b>	Input Mode : Fixed DIGITAL Amp assign : NORMAL Display: A02         DVD	1.Press [AMP] 2.Press [ZONE SELECT], Select "MAIN" 3.Press [8/TUV] 4.Press [DVD]	①KEY 8/TUV (Main Zone) Initialization & Amp assign NORMAL& Input Mode Fixed DIGITAL ②DVD (Main Zone)	·Input : Digital / Output : Speakers (Front L/R) (※ As the input source, you can switch from DVD to other ones.)	
3 HDMI (signal) Path  <b>fig.8</b>	Input Mode : Fixed HDMI Amp assign : NORMAL Display: A05         DVD	1.Press [AMP] 2.Press [ZONE SELECT], Select "MAIN" 3.Press [MOVIE] 4.Press [DVD]	①MOVIE Select Initialization & Amp assign NORMAL & Input Mode Fixed HDMI ②DVD (Main Zone)	·Input : HDMI / Output : Speakers (Front L/R) (※ As the input source, you can switch from DVD to other ones.)	
4 A/D (signal) Path (Main Zone)  <b>fig.9a</b> <b>fig.9b</b>	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 "MAIN" 3.Press [MUSIC] 4.Press [DVD]	①MUSIC Initialization & Amp assign NORMAL & SURROUND mode : Multi ch STEREO & Volume -20dB ②DVD (Main Zone)	·Input : Analog / Output : Speakers (Front L/R) ·Input : Analog / Output : SW(20Hz) (※ As the input source, you can switch from DVD to other ones.)	

**BLOCK DIAGRAM**

**fig.1**

**ANALOG AUDIO/VIDEO BLOCK**

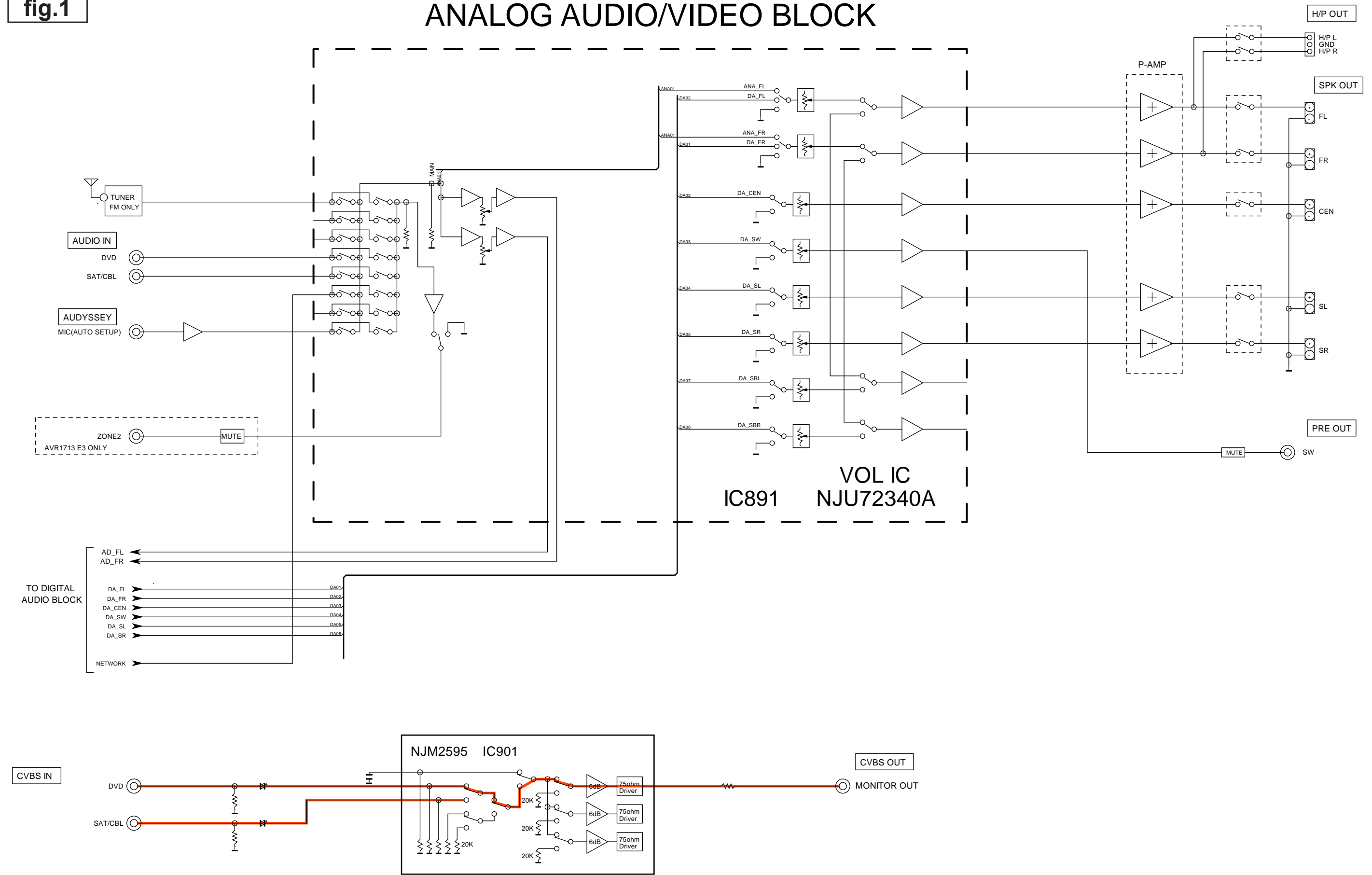


fig.2

# DIGITAL AUDIO/HDMI BLOCK

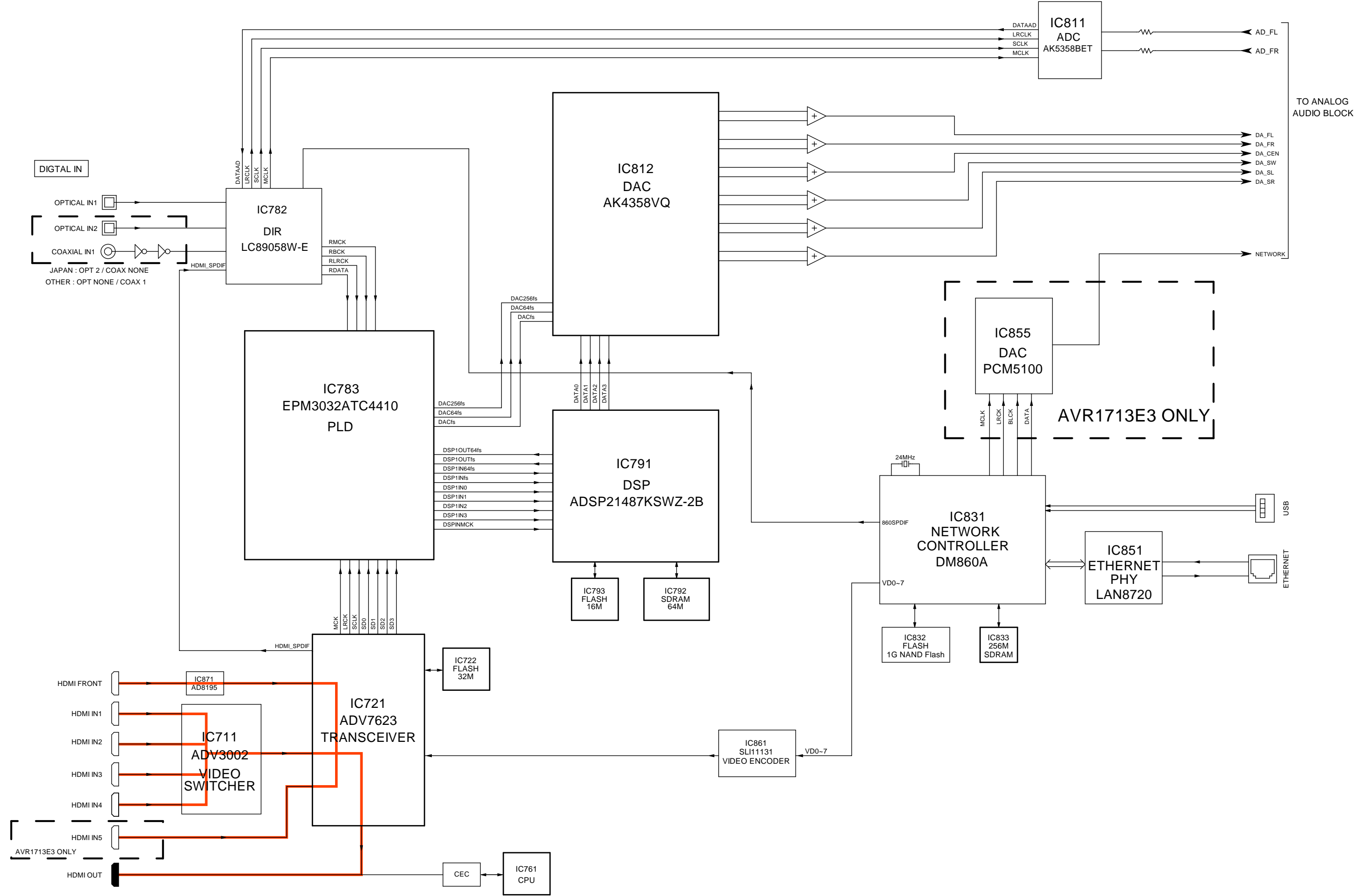


fig.3

# DIGITAL AUDIO/HDMI BLOCK

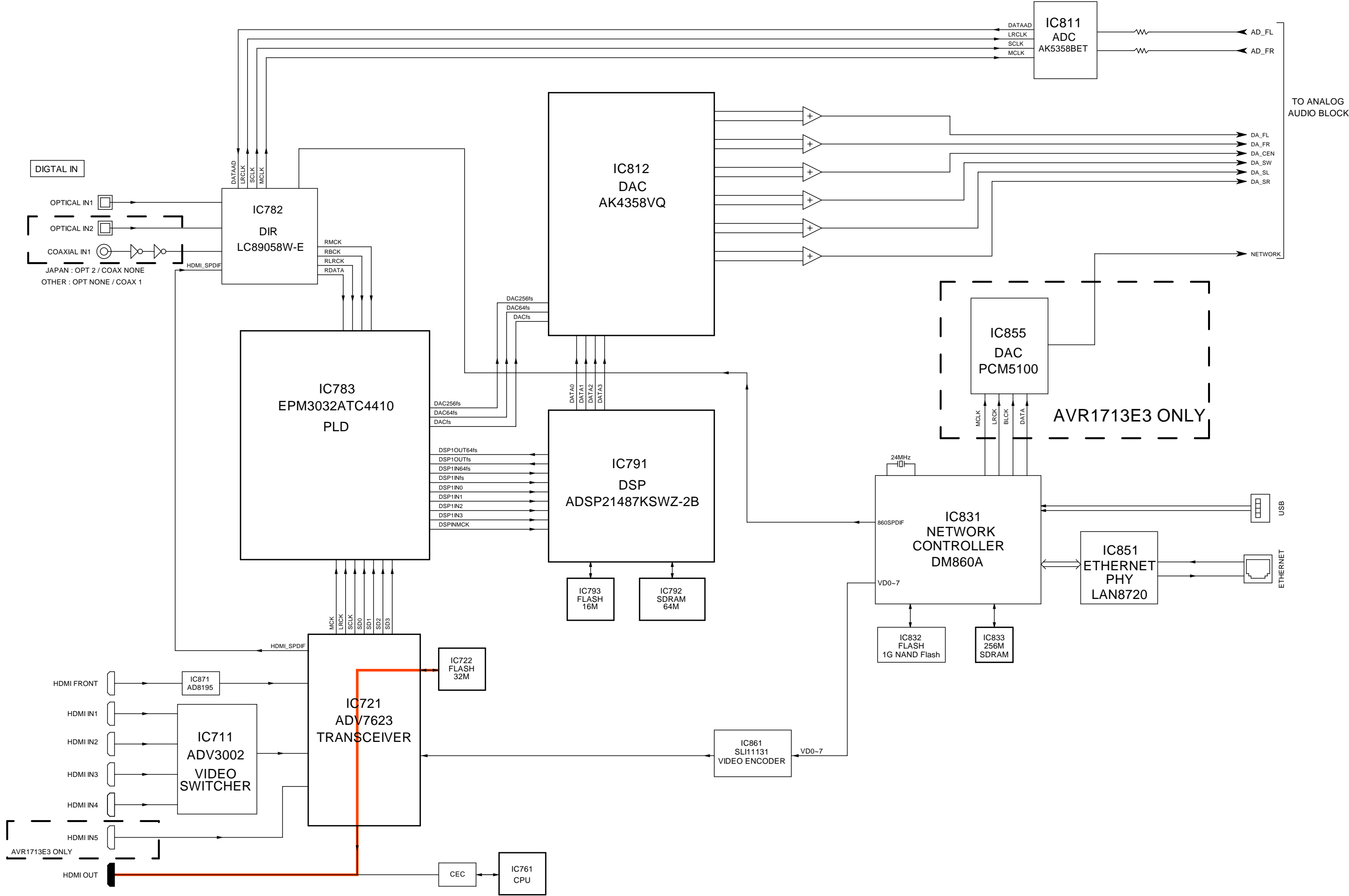


fig.4

# DIGITAL AUDIO/HDMI BLOCK

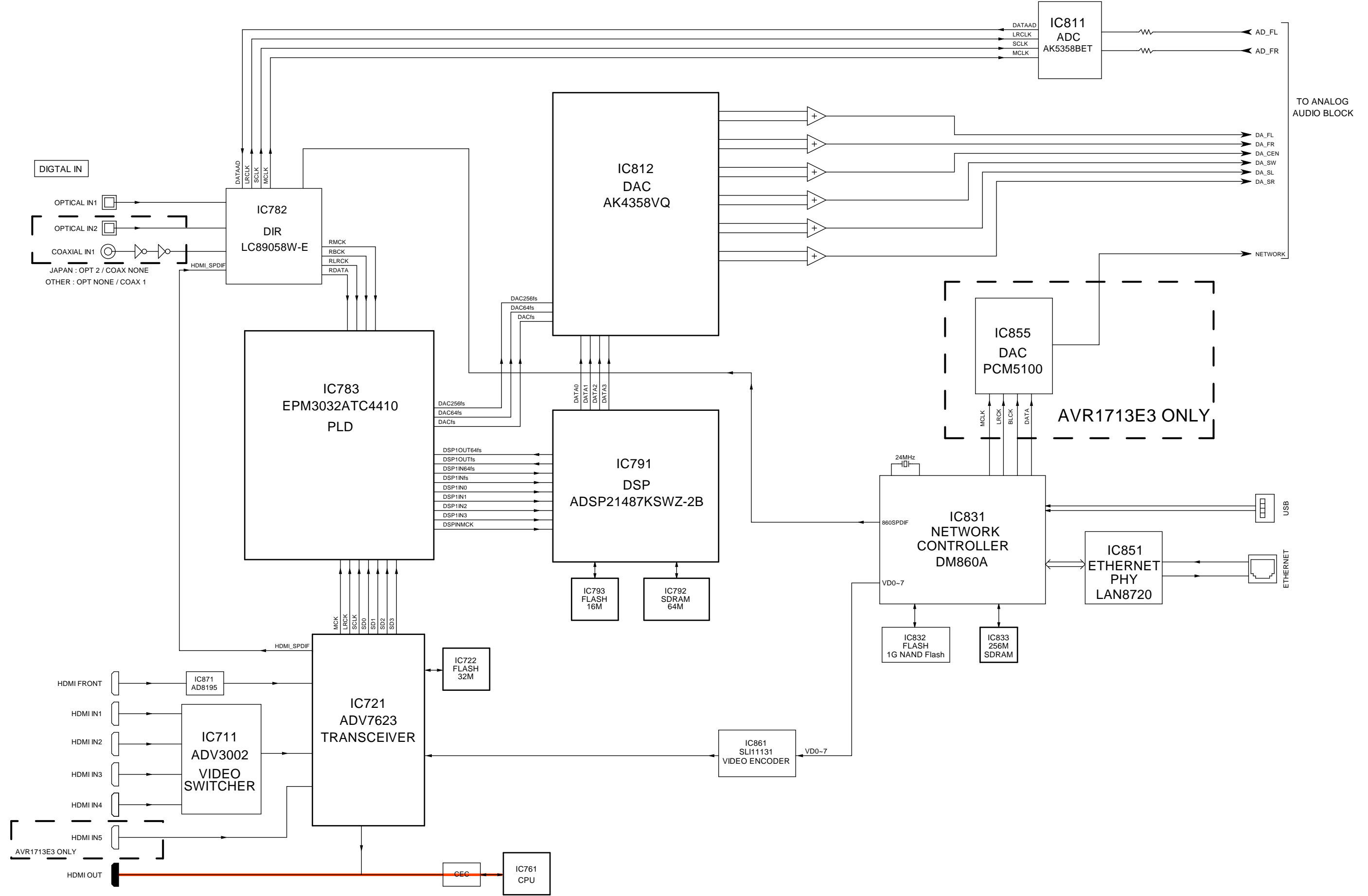


fig.5a

# DIGITAL AUDIO/HDMI BLOCK

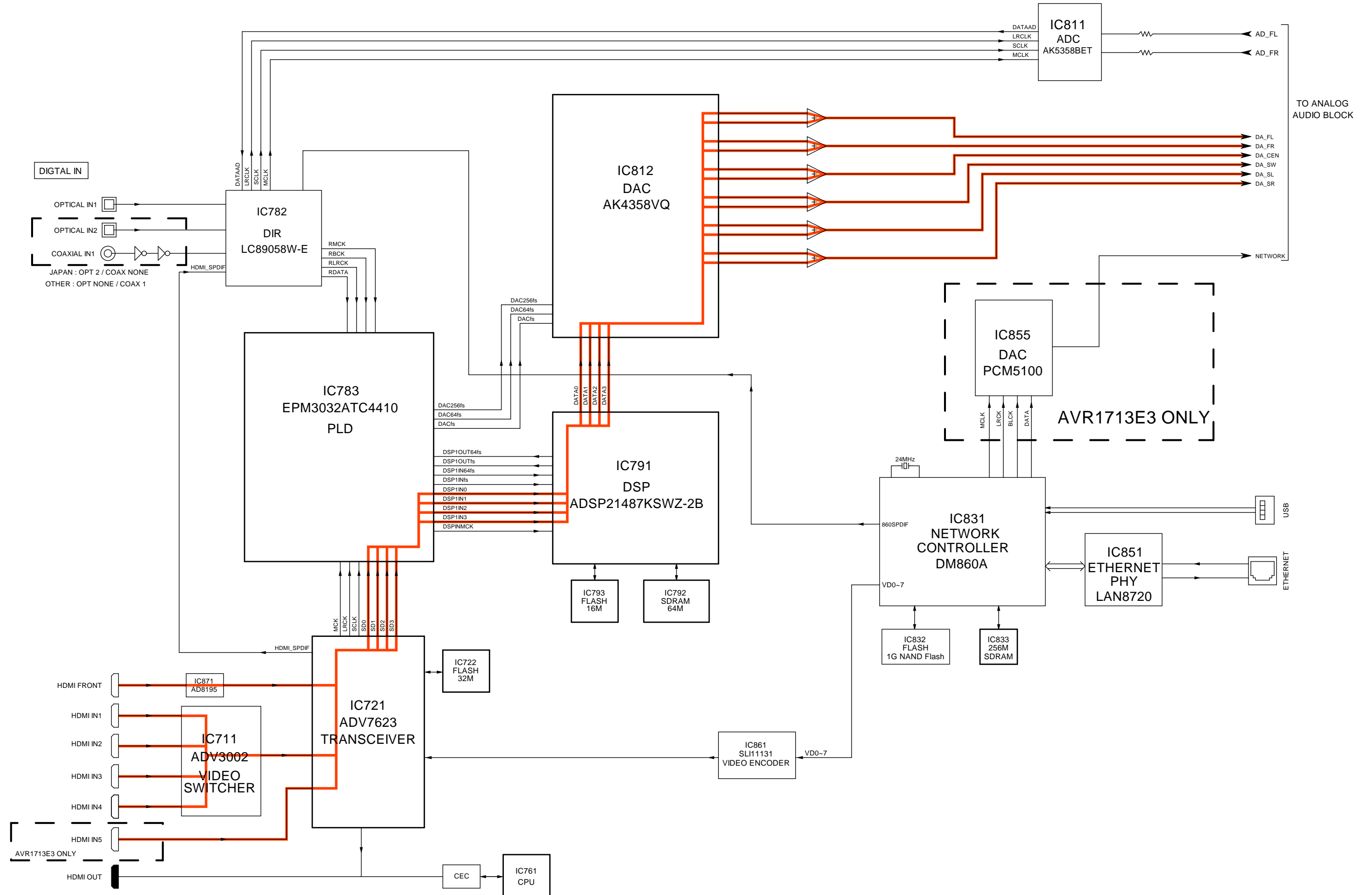


fig.5b

# ANALOG AUDIO/VIDEO BLOCK

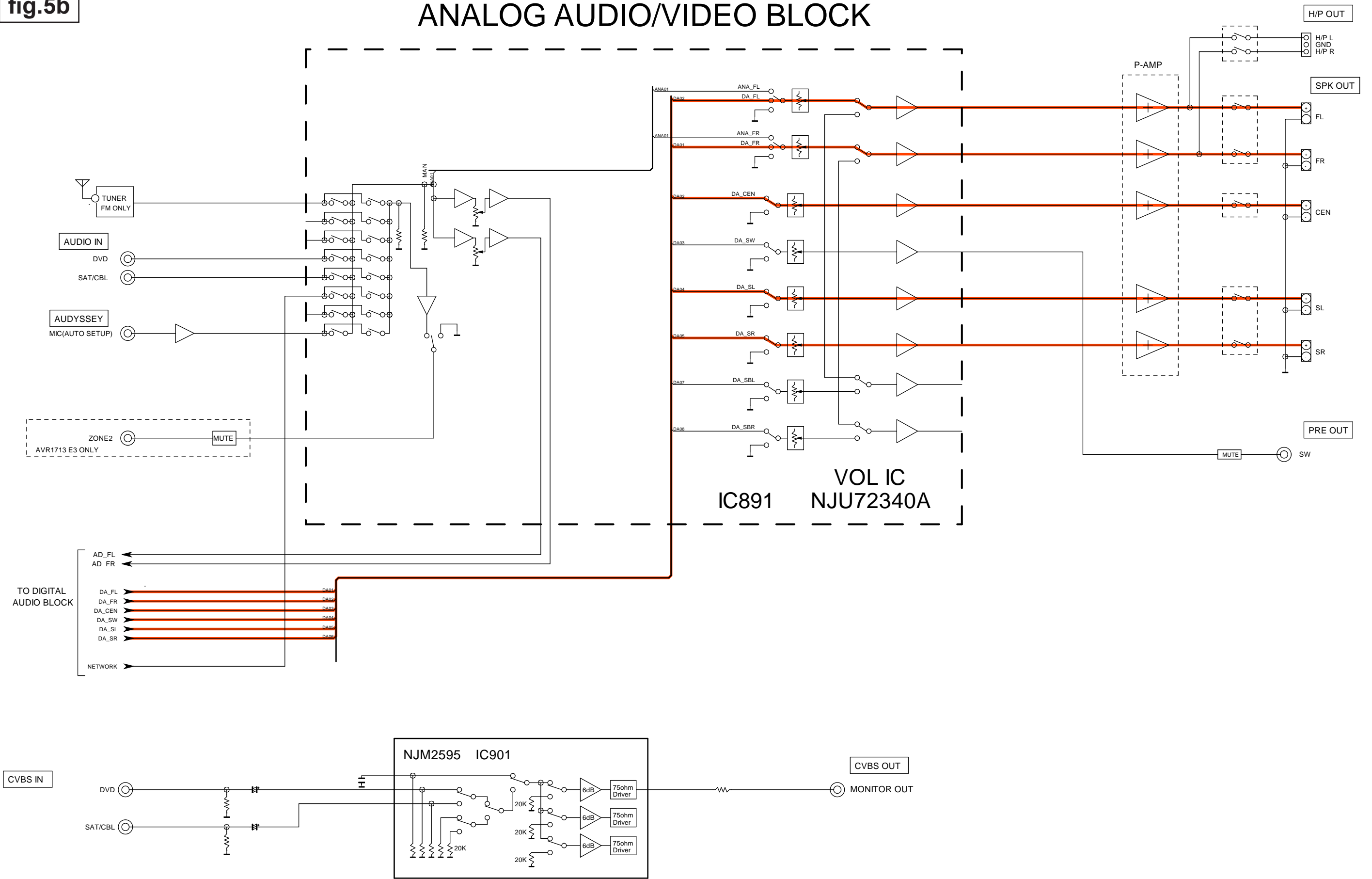




fig.6

# ANALOG AUDIO/VIDEO BLOCK

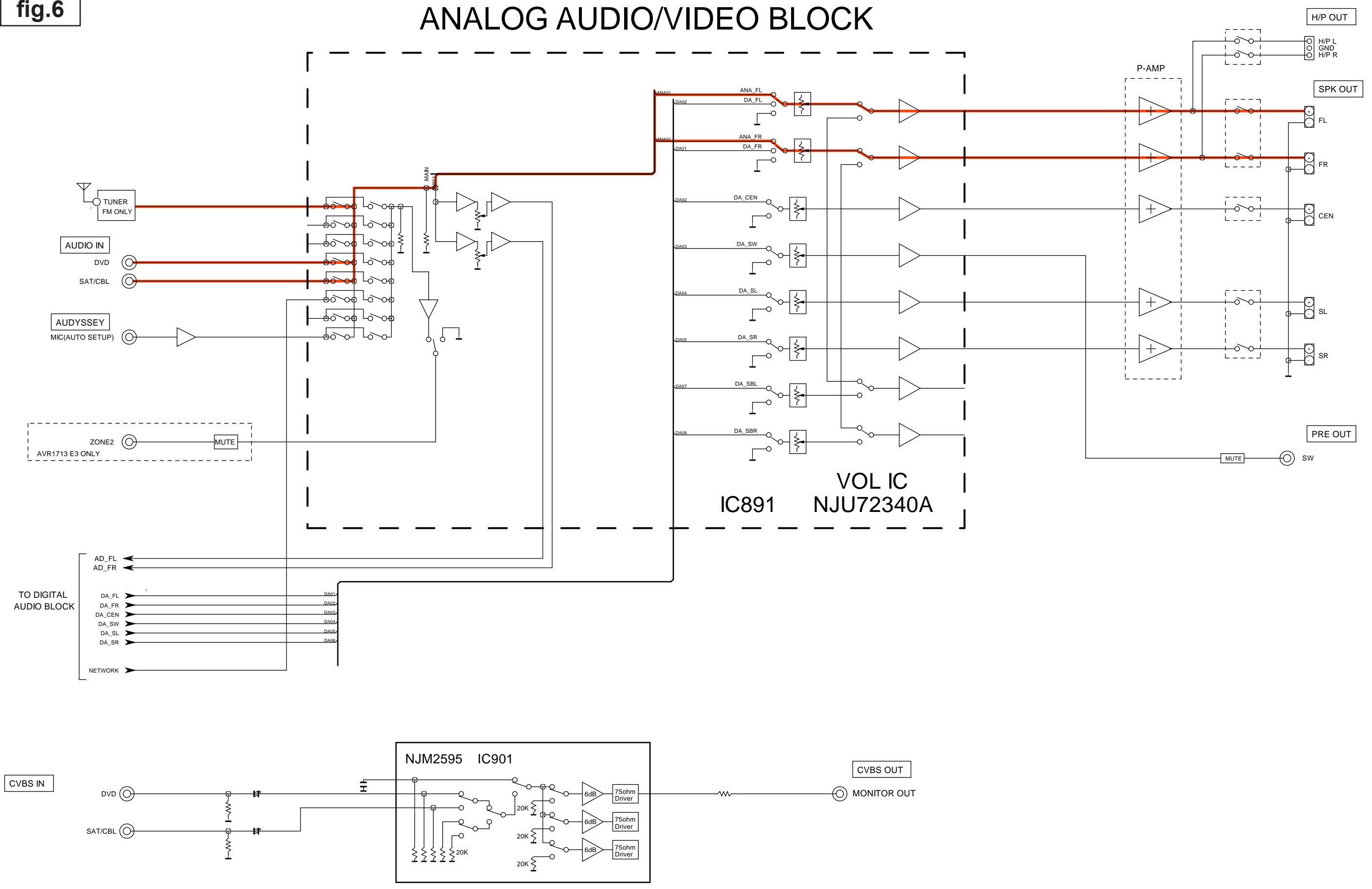


fig.7

# DIGITAL AUDIO/HDMI BLOCK

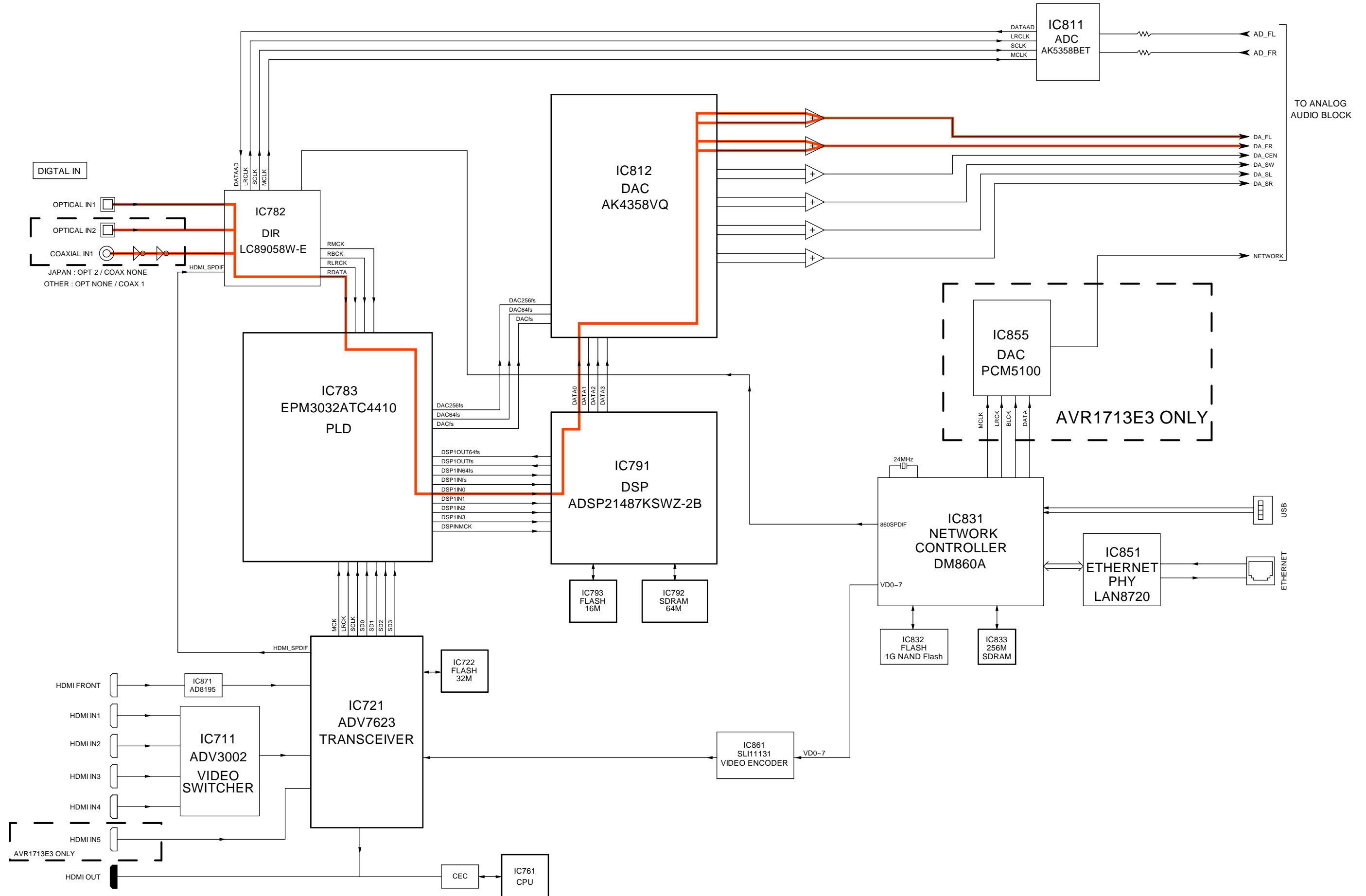


fig.8

# DIGITAL AUDIO/HDMI BLOCK

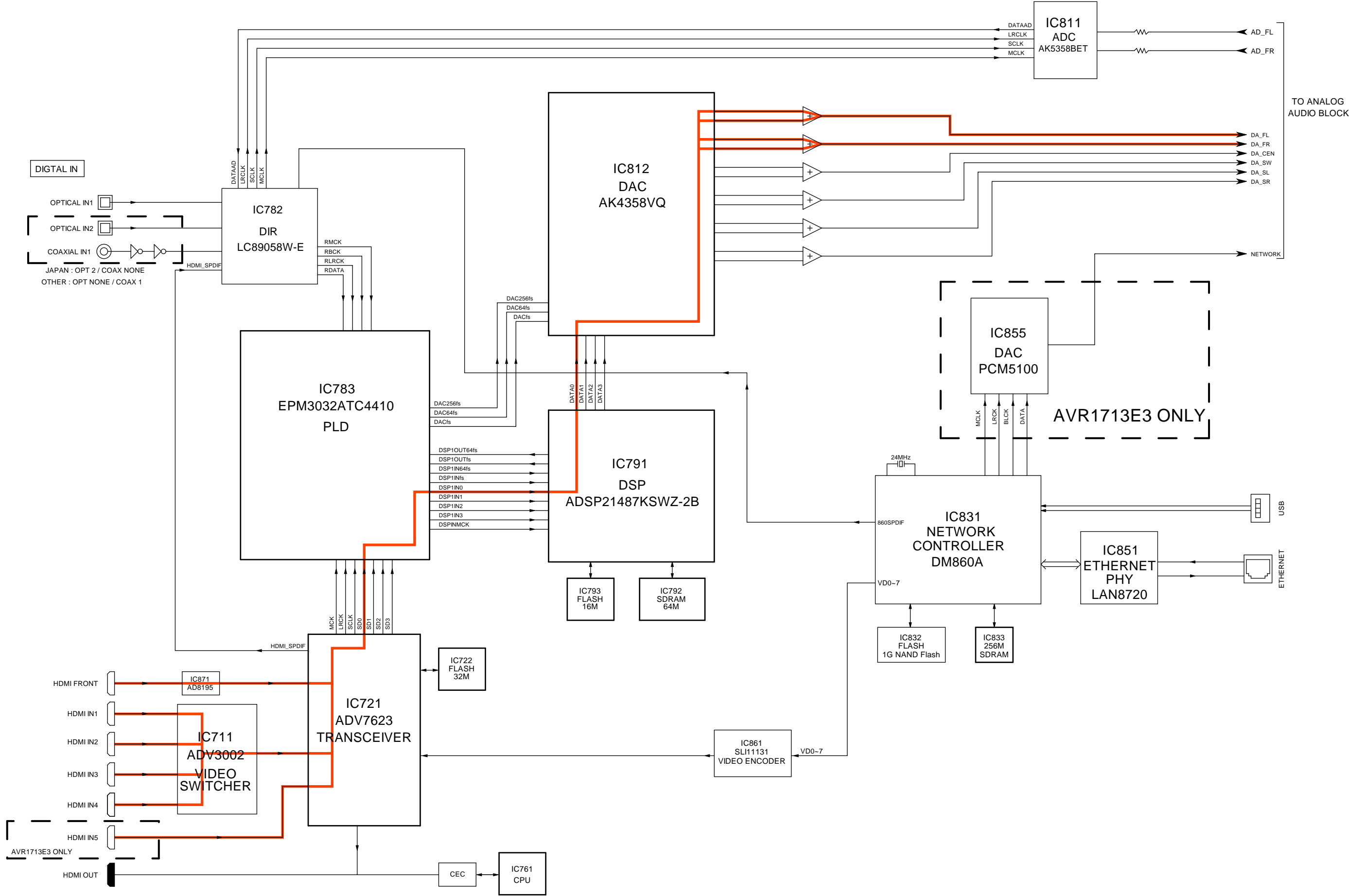


fig.9a

# ANALOG AUDIO/VIDEO BLOCK

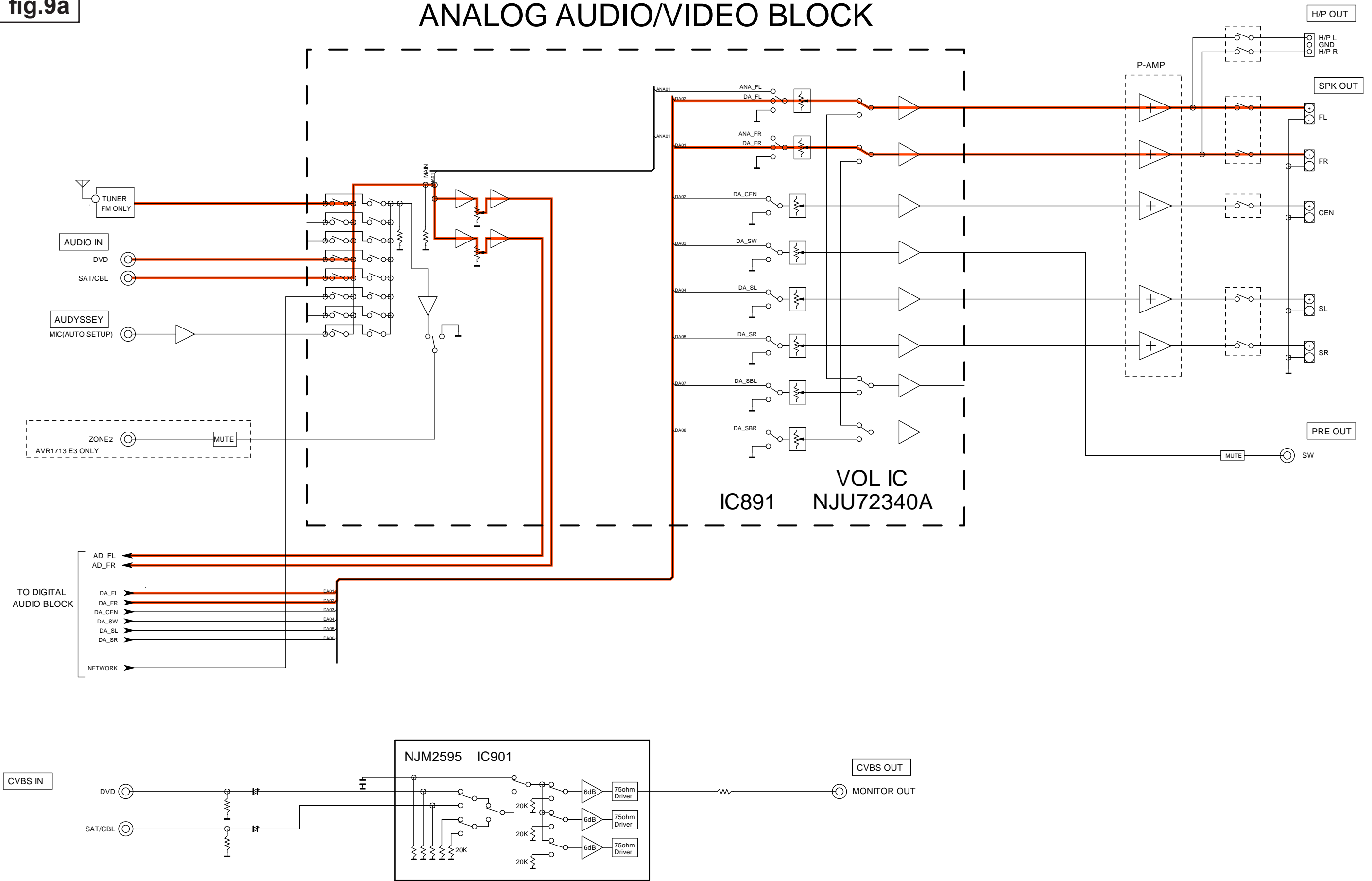
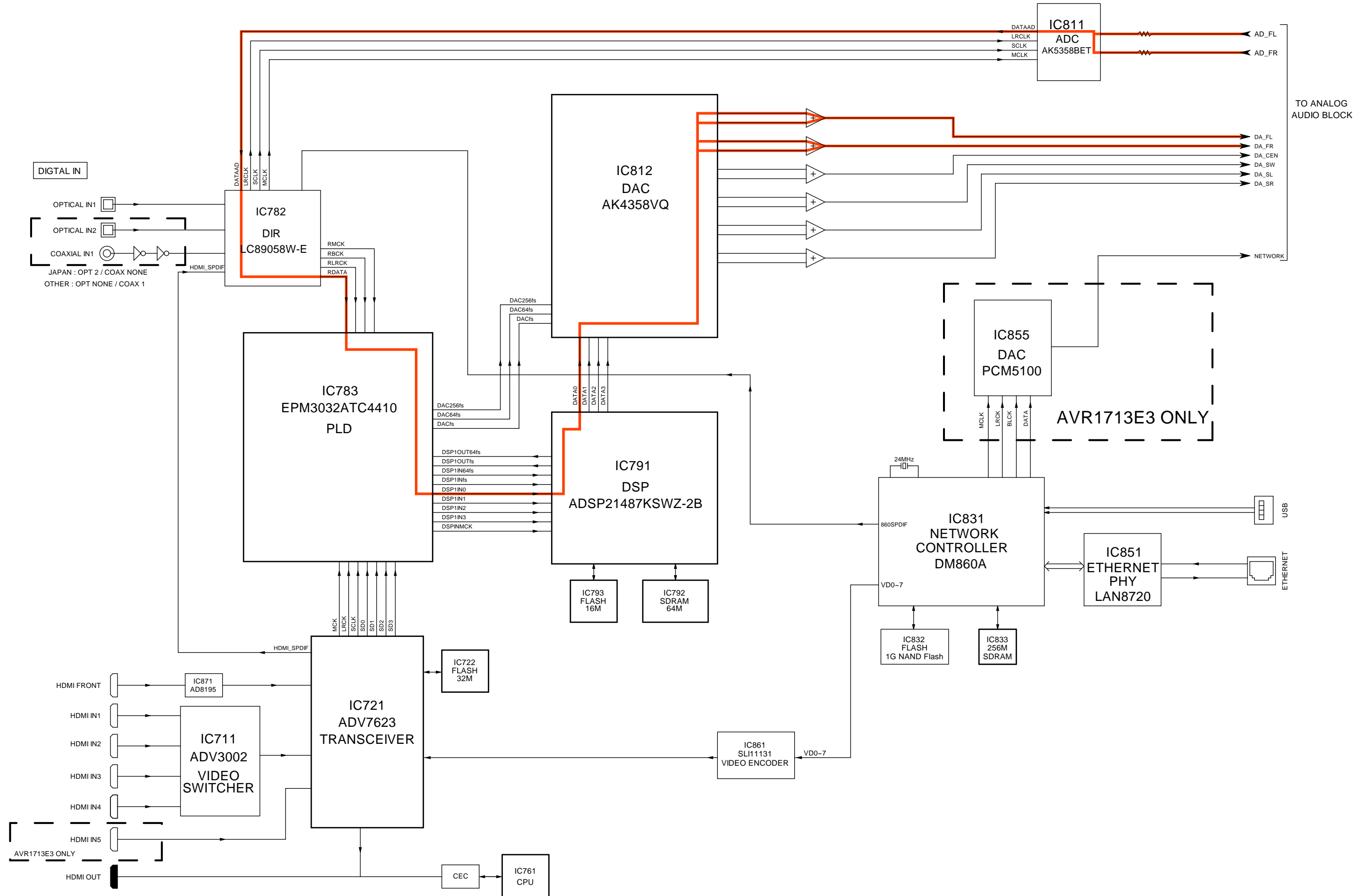
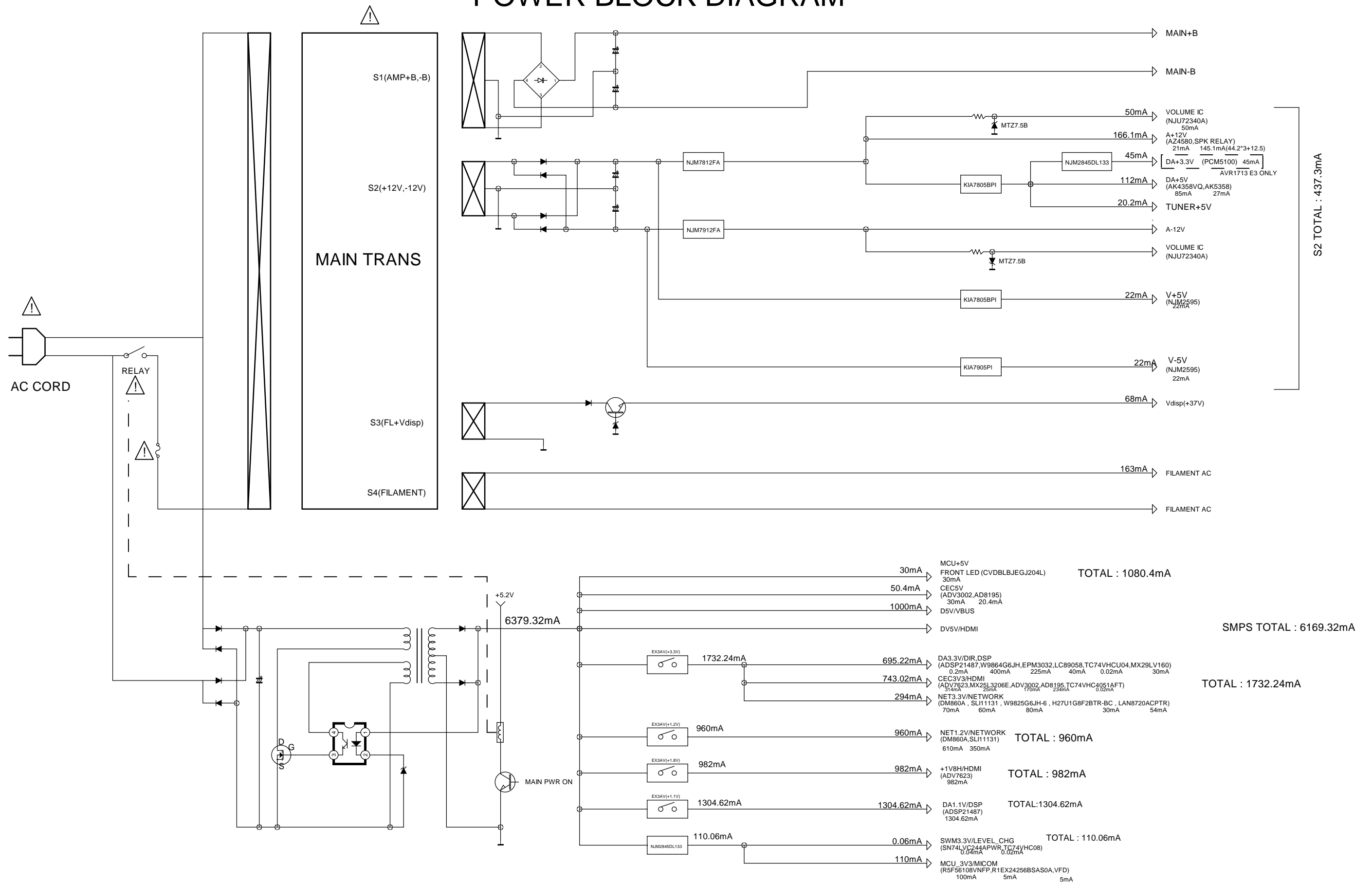


fig.9b

# DIGITAL AUDIO/HDMI BLOCK



# POWER BLOCK DIAGRAM



# 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
DIGITAL	IC761	R5F56108VNFP	<b>B</b>	SOFTWARE: Main
DIGITAL	IC793	MX29LV160DBTI-70G	<b>B</b>	SOFTWARE: DSP ROM
DIGITAL	IC783	EPM3032A-TC4410	<b>B</b>	SOFTWARE: AUDIO PLD
DIGITAL	IC722	MX25L3206EM2I-12G	<b>B</b>	SOFTWARE: 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

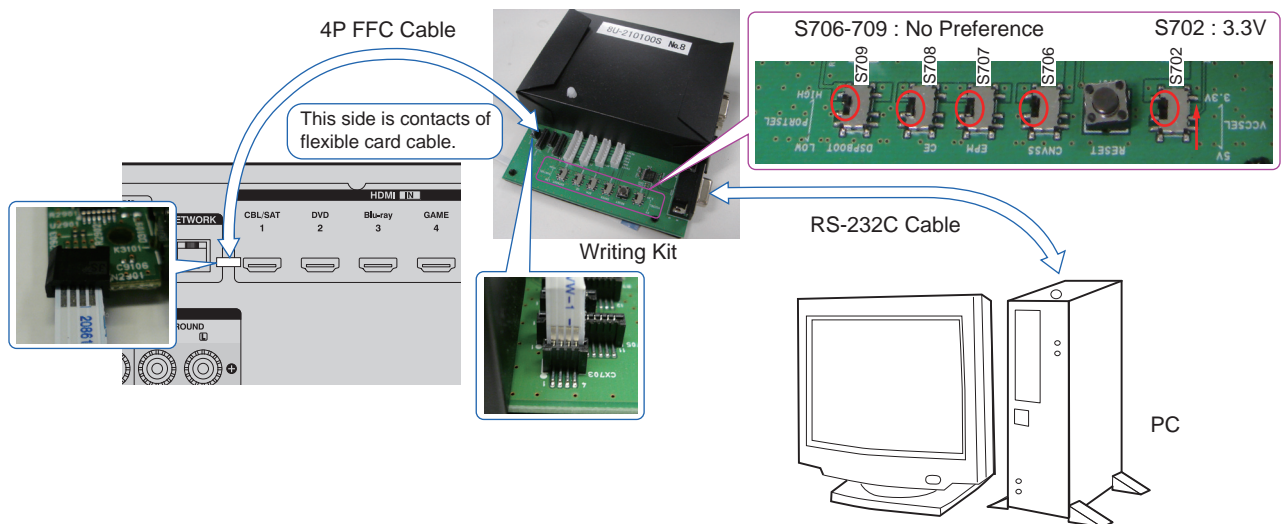
### 1. How to update by DFW

#### 1.1. Preparations before starting the operation

- (1) Personal Computer (Installed "DFW\_0057\_AVR1713\_1723\_1613(Rev.2.1.5).exe").
- (2) RS-232 cable (9P (Male ), Straight).
- (3) 8U-210100 Writing Kit.

#### 1.2. Connection of AV receiver

- (1) Confirm the power on/off switch of the AV receiver is turning off.
- (2) Connect the update terminal of AV receiver with the "Writing Kit".
- (3) Connect the RS-232C cable from PC with the "Writing Kit".



### 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 "SOURCE SELECT ◀", "SOURCE SELECT ▶" and the "ZONE2 SELECT"(only AVR-1713E3)/ "TUNER PRESET CH +"(expect AVR-1713E3) button of the front panel.
- (2) Confirm the power indicator is green and "WRITTING" is displayed in the front panel.

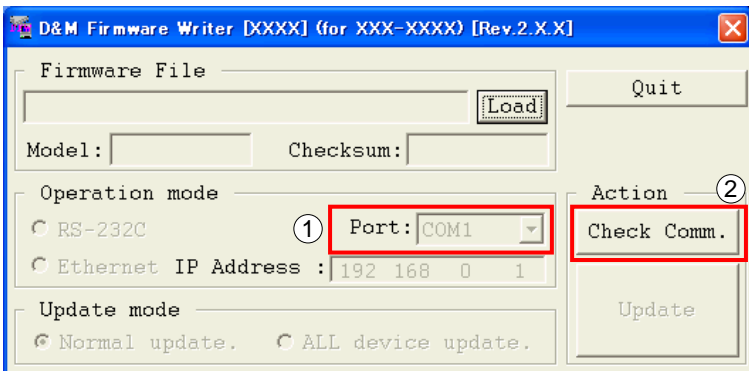
### 1.4. Run the DFW

Run the "DFW\_0057\_AVR1713\_1723\_1613(Rev.2.1.5).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.



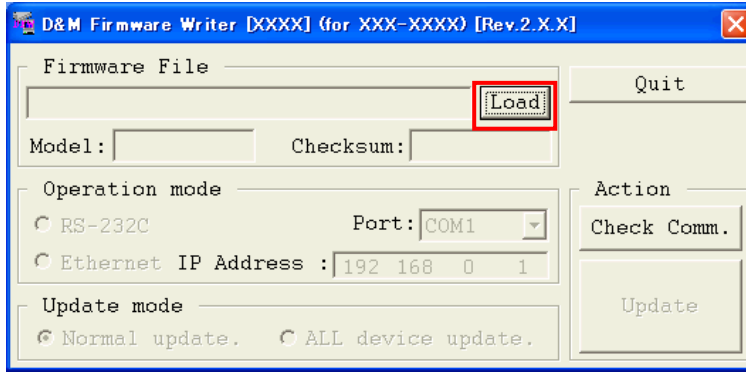
Please confirm the following

- (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.

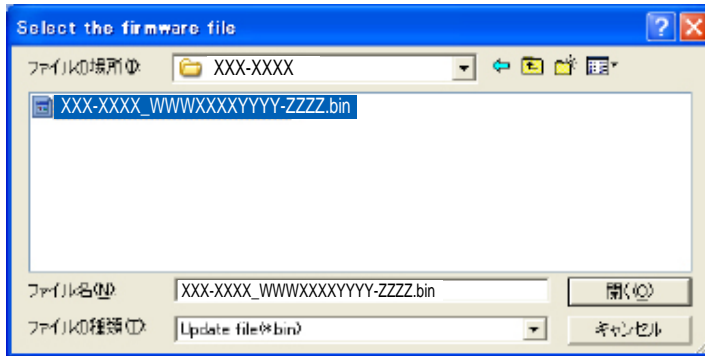


## 1.6. Download the firmware

- (1) Click the "Load" button.

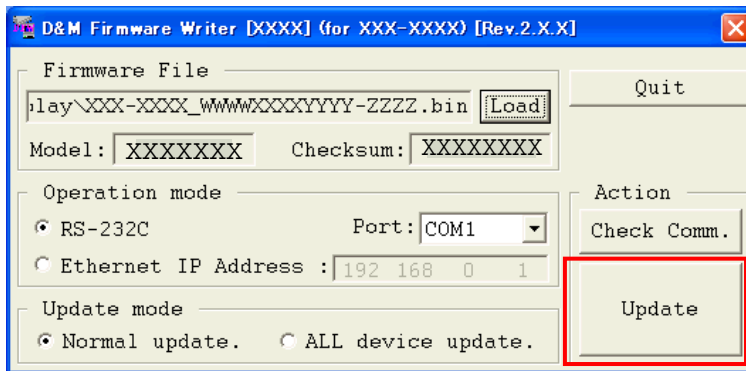


- (2) Download the firmware from the specified download source to PC.

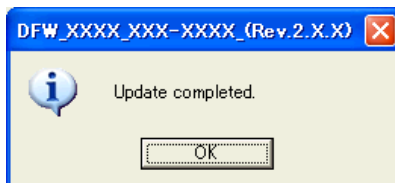


## 1.7. Complete the firmware updating

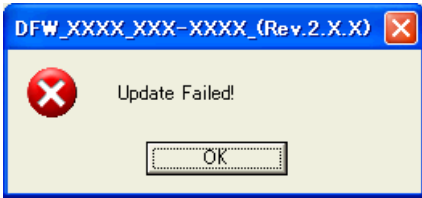
- (1) Click the "Update" button.



- (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.  $\mu$ com/DSP Version display mode" (18 page).

## 2. How to update by DPMS

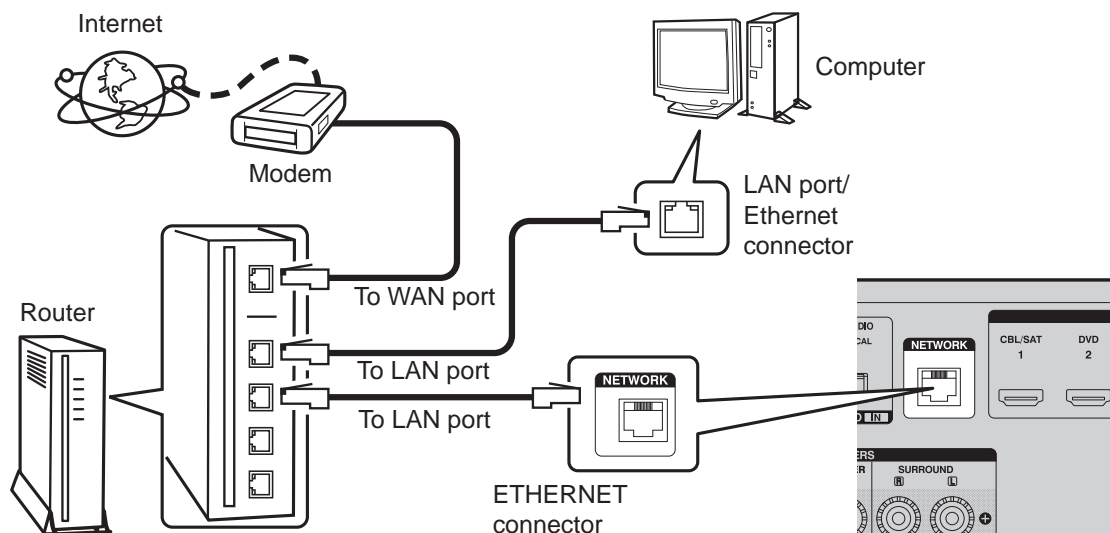
You can update the firmware by downloading the latest version from the Internet.

### 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 SETUP 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.

#### --- 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 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.

### 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 failed.	Login failed 01	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.	Server is busy 02	Carry out the update in an environment that has little network load.
03	Connection to DPMS failed.	ConnectionFailed 03	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.	ConnectionFailed 04	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.	ConnectionFailed 05	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.	ConnectionFailed 06	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.	ConnectionFailed 07	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.	ConnectionFailed 08	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.	ConnectionFailed 09	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.	Download failed 0A	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.	Download failed 0B	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.	Download failed 0C	Check the network connection. Carry out the update in an environment that has little network load.
0D	Received Package Version is wrong.	Download failed 0D	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)	ConnectionFailed 0E	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).	Updating failed 10	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).	Updating failed 11	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).	Updating failed 12	Turn off and on the power. Updating starts automatically.
13	The deletion of block data failed before Main CPU was rewritten.	Erase failed 13	Turn off and on the power. Updating starts automatically.
14	The rewriting of block data failed when Main CPU was rewritten.	Updating failed 14	Turn off and on the power. Updating starts automatically.
15	The data verification was invalid after Main CPU was rewritten.	UpdateCheckNG 15	Turn off and on the power. Updating starts automatically.
20	Failure to acquire (Boot Loader Mode) IP address before rewriting DM860A (AutoIP).	ConnectionFailed 20	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).	ConnectionFailed 21	Check the network connection. Carry out the update in an environment that has little network load.
22	Log-in to DPMS failed.	Login failed 22	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.	Server is busy 23	Carry out the update in an environment that has little network load.
24	Connection to DPMS failed.	ConnectionFailed 24	Check the network connection. Carry out the update in an environment that has little network load.
25	Mode change failure of DM860A.	ConnectionFailed 25	Reset and update again.
26	Data acquisition failed (timed out) when firmware of Main CPU was downloaded. Received Package Version is wrong.	Downloaded failed 26	Check the network connection. Carry out the update in an environment that has little network load.
27	Mode change failure of DM860A.	Downloaded failed 27	Reset and update again.
36	Log-in to DPMS failed when Main CPU was rewritten.	Login failed 36	Carry out the update in an environment that has little network load.
37	Line, etc., is busy when logging into DPMS when Main CPU was rewritten.	Server is busy 37	Carry out the update in an environment that has little network load.
38	Connection to DPMS failed when Main CPU was rewritten.	ConnectionFailed 38	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 Main CPU was rewritten.	ConnectionFail139	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.	Download fail 13A	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 downloading firmware when Main CPU was rewritten.	Download fail 13B	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 downloading firmware when Main CPU was rewritten.	Download fail 13C	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).	ConnectionFail13D	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).	ConnectionFail13E	Check the network connection. Carry out the update in an environment that has little network load.
50	Log-in to DPMS failed when firmware such as DSP and PLD was rewritten.	Login failed 50	Carry out the update in an environment that has little network load.
51	Line, etc., is busy when the log-in to DPMS when firmware such as DSP and PLD was rewritten.	Server is busy 51	Carry out the update in an environment that has little network load.
52	Connection to DPMS failed when firmware such as DSP and PLD was rewritten.	ConnectionFail52	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 DSP and PLD was rewritten.	Updating fail 54	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 DSP and PLD was rewritten, request was made for firmware data after the log-in to DPMS, but it timed out.	Updating fail 55	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 DSP and PLD was rewritten.	Download fail 56	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 firmware such as DSP and PLD was rewritten.	Download fail 57	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 received (connection failure) after the log-in to DPMS when firmware such as DSP and PLD was rewritten.	Download fail 58	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 DSP, PLD etc.	ConnectionFail5A	Turn off and on the power. Updating starts automatically.
5B	NACK was received when "L" command sent to DSP, PLD etc.	Updating fail 5B	Turn off and on the power. Updating starts automatically.

Error Code	Details of Error code	Display	Coping strategies
5C	DSP, PLD etc. failed to receive firmware for rewriting sent from DM860A (when timed out).	Updating failed 5C	Turn off and on the power. Updating starts automatically.
5D	DSP, PLD etc. failed to receive firmware for rewriting sent from DM860A (when an error occurred).	Updating failed 5D	Turn off and on the power. Updating starts automatically.
5E	Data in firmware such as DSP and PLD for rewriting sent from DM860A was invalid (when a Check Sum error occurred).	Updating failed 5E	Turn off and on the power. Updating starts automatically.
5F	Invalid data in firmware such as DSP and PLD for rewriting sent from DM860A was invalid (invalid data was received).	Updating failed 5F	Turn off and on the power. Updating starts automatically.
60	NACK was received when "P" command sent to DSP, PLD etc.	Updating failed 60	Turn off and on the power. Updating starts automatically.
61	NACK was received when "I" command sent to DSP, PLD etc.	Update checkNG 61	Turn off and on the power. Updating starts automatically.
80	Acquisition of serial flash data failed before serial flash was deleted.	Updating failed 80	Turn off and on the power. Updating starts automatically.
81	Deleting data failed before serial flash was rewritten.	Updating failed 81	Turn off and on the power. Updating starts automatically.
82	Receiving firmware for rewriting serial flash sent by DM860A failed (when timed out).	Updating failed 82	Turn off and on the power. Updating starts automatically.
83	Receiving firmware for rewriting serial flash sent by DM860A failed (when an error).	Updating failed 83	Turn off and on the power. Updating starts automatically.
84	Receiving firmware for rewriting serial flash sent by DM860A failed (when a Check Sum error).	Updating failed 84	Turn off and on the power. Updating starts automatically.
85	Receiving firmware for rewriting serial flash sent by DM860A failed (when invalid data was received).	Updating failed 85	Turn off and on the power. Updating starts automatically.
86	The data verification was invalid after serial flash was rewritten.	Updating failed 86	Turn off and on the power. Updating starts automatically.
A0	Acquisition of (Application Mode) IP address failed before DM860A was rewritten (AutoIP).	ConnectionFailed 00	Check the network connection. Carry out the update in an environment that has little network load.
A1	Acquisition of (Application Mode) IP address failed before DM860A was rewritten (when timed out).	ConnectionFailed 01	Check the network connection. Carry out the update in an environment that has little network load.
A2	Invalid login via DPMS access was notified when DM860A related firmware was rewritten (Application Mode).	Login failed 02	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
A3	Line congestion via DPMS access was notified when DM860A related firmware was rewritten (Application Mode).	S E R V E R I S B U S Y A 3	Check the network connection. Carry out the update in an environment that has little network load.
A4	Connection failure via DPMS access was notified when DM860A related firmware was rewritten (Application Mode).	C O N N E C T I O N F A I L A 4	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).	U P D A T I N G F A I L A 6	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.	U P D A T I N G F A I L A 7	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).	D O W N L O A D F A I L A E	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).	D O W N L O A D F A I L A F	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).	D O W N L O A D F A I L B 0	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 message. (Timeout failure)	D O W N L O A D F A I L B 1	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.	D O W N L O A D F A I L B 2	Turn off and on the power. Updating starts automatically. Carry out the update in an environment that has little network load.
B3	Firmware writing error message. (Timeout failure)	U P D A T I N G F A I L B 3	Turn off and on the power. Updating starts automatically. Carry out the update in an environment that has little network load.
B4	Mode change failure of DM860A. (Boot Loader Mode)	U P D A T I N G F A I L B 4	Reset and update again.
B5	Mode change failure of DM860A. (Application Mode)	U P D A T I N G F A I L B 5	Reset and update again.



## Device display during firmware update

Display of target device during firmware update.

Target device	Display	Error code when an error occurs
Main	Ma i n # * * %     * * * n i n	08 - 0C 10 - 15 22 - 24 36 - 3E
Audio PLD	APLD # * * %     * * * n i n	50 - 52 54 - 58 5A - 61
DSP	DSP # * * %     * * * n i n	50 - 52 54 - 58 5A - 61
GUI Serial Flash	GUI # * * %     * * * n i n	50 - 52 54 - 58 5A - 61 80 - 86
DM860A Boot Loader	ESBL # * * %     * * * n i n	A0 - A4 A6 - A7 AE - B5
DM860A Image	EIMG # * * %     * * * n i n	A0 - A4 A6 - A7 AE - B5
DM860A Image (EmergencyMode)	Update retry	-

## Confirming the firmware's number after upgraded

After updating the firmware, check the version. Refer to "1.  $\mu$ com/DSP Version display mode" (18 page).

### 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

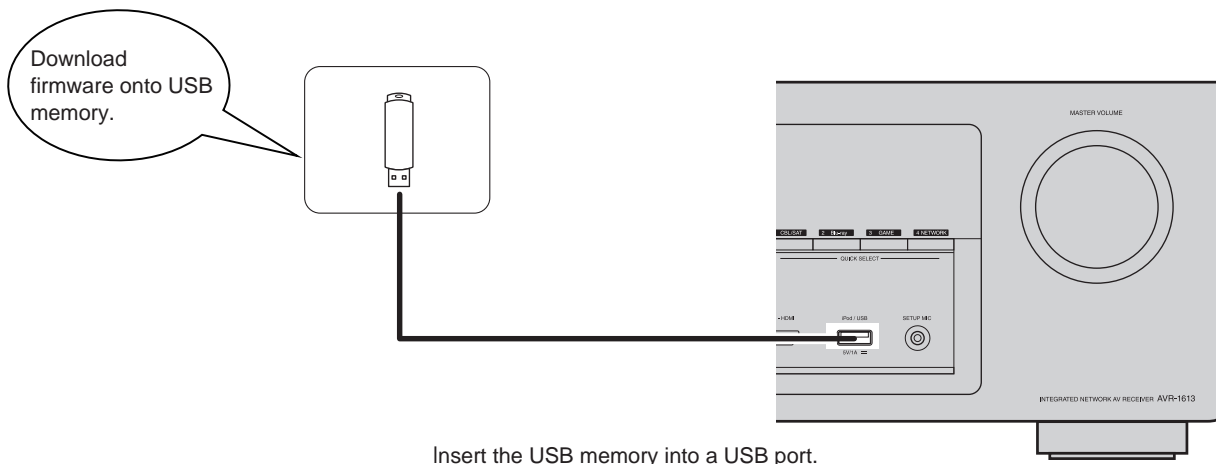
##### (1) Requirements

- 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.

Place the USB update file in an appropriate folder. The folder name should be the Product ID based on the Model name/area.

Model Name	Model Area	Product ID
AVR1613	North America (E3)	000100570700
AVR1713	North America (E3)	000100570100
	Europe (E2)	000100570200
	China (E1C)	000100570500
AVR1723	China (E1C)	000100570800

##### (2) Setting



Insert the USB memory into a USB port.

#### 3.2. Download the firmware

- (1) While pressing the "STATUS" button and the "SOURCE SELECT ◀" button at the same time, power on this unit.
- (2) "USB Update Start" appears in the FL display.
- (3) Press the "ENTER" button with a remote controller. "UpdateFileCheck" appears in the FL display and the firmware update starts.
- (4) During the update, the power indicator lights in red and the GUI disappears.  
The remaining update time appears FL display on the main unit.  
When the update is completed, this unit returns to the normal state.

#### --- 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.	ConnectionFailed01	Disconnect and connect the USB memory.
02	No FirmwareFile in USB.	FilesNotFound02	Make sure that the FirmwareFile is in the USB memory.
03	FirmwareFile in USB for unsupported Model name/area	NotMatchFirm03	Check the supported Model name/area for the FirmwareFile.
04	Failed to obtain individual Firmware information.	ConnectionFailed06	Start the USB Update again.
05	TimeOut while obtaining individual Firmware information	ConnectionFailed07	Start the USB Update again.
06	Failed to obtain entire Firmware information.	ConnectionFailed04	Start the USB Update again.
07	TimeOut while obtaining entire Firmware information	ConnectionFailed05	Start the USB Update again.
08	Error notification received while requesting FirmwareInfo.	ConnectionFailed08	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 ⏻ button for five seconds.
09	TimeOut while obtaining Firmware information	ConnectionFailed09	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 ⏻ button for five seconds.
0A	Unable to detect USB for FirmwareDownload.	ConnectionFailed0A	Disconnect and connect the USB memory.
0B	No FirmwareFile for FirmwareDownload.	FilesNotFound0B	Disconnect and connect the USB memory.
0D	Received value with invalid PackageVersion.	ConnectionFailed0D	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 ⏻ button for five seconds.
10	No UpdatePacket received from DM860A (TimeOut).	Updating fail110	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 ⏻ button for five seconds.
11	Abnormal data in UpdatePacket received from DM860A (FormatError).	Updating fail111	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 ⏻ button for five seconds.
12	Abnormal data in UpdatePacket received from DM860A (ChecksumError).	Updating fail112	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 ⏻ button for five seconds.
13	BlockErase failed before rewriting Main.	Erase fail113	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 ⏻ button for five seconds.
14	BlockWrite failed while rewriting Main.	Updating fail114	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 ⏻ button for five seconds.
15	Error in Verify after rewriting Main (ChecksumError).	UpdatecheckNG115	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 ⏻ button for five seconds.
20	Unable to detect USB after SBLMode.	ConnectionFailed20	Disconnect and connect the USB memory.

Error Code	Details of Error code	Display	Coping strategies
21	No FirmwareFile in USB after SBLMode.	FilesNotFound 21	Disconnect and connect the USB memory.
22	FirmwareFile in USB after SBLMode for unsupported Model name/area	NotMatchFirm 22	Check the supported Model name/area for the FirmwareFile.
23	Failed to obtain entire Firmware information after SBLMode.	ConnectionFail123	Disconnect and connect the USB memory.
24	TimeOut while obtaining entire Firmware information after SBLMode	ConnectionFail124	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 Ⓟ button for five seconds.
25	Failed to transit to SBLMode.	ConnectionFail125	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 Ⓟ button for five seconds.
26	TimeOut in Download (writing to SDRAM) for FirmwareDownload	Download fail 26	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 Ⓟ button for five seconds.
27	Failed to write to EEPROM after SBLMode.	ConnectionFail127	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 Ⓟ button for five seconds.
36	Unable to detect USB.	ConnectionFail136	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 Ⓟ button for five seconds.
37	No FirmwareFile in USB.	FilesNotFound 37	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 Ⓟ button for five seconds.
38	FirmwareFile in USB for unsupported Model name/area	NotMatchFirm 38	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 Ⓟ button for five seconds.
39	TimeOut in USBCheck	ConnectionFail139	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 Ⓟ button for five seconds.
3A	Unable to detect USB for FirmwareDownload.	ConnectionFail13A	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 Ⓟ button for five seconds.
3B	No FirmwareFile for FirmwareDownload.	FilesNotFound 3B	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 Ⓟ button for five seconds.
3F	Failed to transit to SBLMode.	ConnectionFail13F	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 Ⓟ button for five seconds.
50	Unable to detect USB.	ConnectionFail150	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 Ⓟ button for five seconds.

Error Code	Details of Error code	Display	Coping strategies
51	No FirmwareFile in USB.	FirmwareNotFound 51	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 ⏻ button for five seconds.
52	FirmwareFile in USB for unsupported Model name/area	NotMatchFirm 52	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 ⏻ button for five seconds.
54	Error notification received while requesting FirmwareInfo.	Updating fail 54	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 ⏻ button for five seconds.
55	TimeOut while obtaining Firmware	Updating fail 55	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 ⏻ button for five seconds.
56	Unable to detect USB for FirmwareDownload.	ConnectionFail 56	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 ⏻ button for five seconds.
57	No FirmwareFile for FirmwareDownload.	FirmwareNotFound 57	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 ⏻ button for five seconds.
5A	Invalid DeviceID in response or no response from Sub for C command.	ConnectionFail 5A	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 ⏻ button for five seconds.
5B	NACK received in response or no response from Sub for L command.	Updating fail 5B	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 ⏻ button for five seconds.
5C	No UpdatePacket received from DM860A (TimeOut).	Updating fail 5C	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 ⏻ button for five seconds.
5D	Abnormal data in UpdatePacket received from DM860A (FormatError).	Updating fail 5D	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 ⏻ button for five seconds.
5E	Abnormal data in UpdatePacket received from DM860A (ChecksumError).	Updating fail 5E	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 ⏻ button for five seconds.
5F	Abnormal data in UpdatePacket received from DM860A (DataLength/DataNo).	Updating fail 5F	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 ⏻ button for five seconds.
60	NACK received in response or no response from Sub for P command.	Updating fail 60	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 ⏻ 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.	U p d a t e C h e c k S u m E r r 6 1	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 ⏻ button for five seconds.
62	Failed to start up Sub in PowerOn sequence during Update.	U p d a t e m s g f a i l 6 2	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 ⏻ button for five seconds.
63	Failed to transit to ApplicationMode.	U p d a t e m s g f a i l 6 3	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 ⏻ button for five seconds.
64	Failed to transit to BootLoaderMode.	U p d a t e m s g f a i l 6 4	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 ⏻ button for five seconds.
80	WriteEnableLatchBit not set in Read after issuing WREN command.	U p d a t e m s g f a i l 8 0	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 ⏻ button for five seconds.
81	BlockErase failed in Read after issuing BE command.	U p d a t e m s g f a i l 8 1	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 ⏻ button for five seconds.
82	No UpdatePacket received from DM860A (TimeOut).	U p d a t e m s g f a i l 8 2	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 ⏻ button for five seconds.
83	Abnormal data in UpdatePacket received from DM860A (FormatError).	U p d a t e m s g f a i l 8 3	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 ⏻ button for five seconds.
84	Abnormal data in UpdatePacket received from DM860A (CheckSumError).	U p d a t e m s g f a i l 8 4	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 ⏻ button for five seconds.
85	Abnormal data in UpdatePacket received from DM860A (DataLength/ DataNo).	U p d a t e m s g f a i l 8 5	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 ⏻ button for five seconds.
86	Mismatched CheckSum in CheckSum comparison after rewriting.	U p d a t e m s g f a i l 8 6	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 ⏻ button for five seconds.
A2	Unable to detect USB.	C o n n e c t i o n F a i l A 2	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 ⏻ button for five seconds.
A3	No FirmwareFile in USB.	F i l e n o t F o u n d A 3	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 ⏻ button for five seconds.

Error Code	Details of Error code	Display	Coping strategies
A4	FirmwareFile in USB for unsupported Model name/area	ModelMatchFirm A4	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 ⏻ button for five seconds.
A6	Error notification received while requesting FirmwareInfo.	Updating fail A6	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 ⏻ button for five seconds.
A7	TimeOut while obtaining Firmware	Updating fail A7	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 ⏻ button for five seconds.
AE	Unable to detect USB for FirmwareDownload.	ConnectionFail AE	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 ⏻ button for five seconds.
AF	No FirmwareFile for FirmwareDownload.	FilesNotFound AF	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 ⏻ button for five seconds.
B1	TimeOut in Download (writing to SDRAM) for FirmwareDownload	Downloaded fail B1	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 ⏻ button for five seconds.
B2	Error notification received after rewriting DM860A Firm.	Updating fail B2	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 ⏻ button for five seconds.
B3	Error in FirmwareUpdate (TimeOut).	Updating fail B3	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 ⏻ button for five seconds.
B4	Failed to transit to BootLoaderMode.	Updating fail B4	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 ⏻ button for five seconds.
B5	Failed to transit to ApplicationMode.	Updating fail B5	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 ⏻ 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 device	Display	Error code when an error occurs
Main CPU	Main:***%    ***min	08 - 0B 10 - 15 20 - 27 36 - 3B 3F
Audio PLD	APLD:***%    ***min	50 - 52 54 - 58 5A - 64
DSP	DSP:***%    ***min	50 - 52 54 - 58 5A - 64
GUI Serial Flash	GUI:***%    ***min	50 - 52 54 - 58 5A 62 - 64 80 - 86
DM860A Boot Loader	ESBL:***%    ***min	A0 - A4 A6 - A7 AE - B5
DM860A Image	EIMG:***%    ***min	A0 - A4 A6 - A7 AE - B5
DM860A Image (EmergencyMode)	Update retry	-

### Confirming the firmware's number after upgraded

After updating the firmware, check the version. Refer to "1.  $\mu$ com/DSP Version display mode" (18 page).





# ADJUSTMENT

## Audio Section

### Adjusting Idling Current

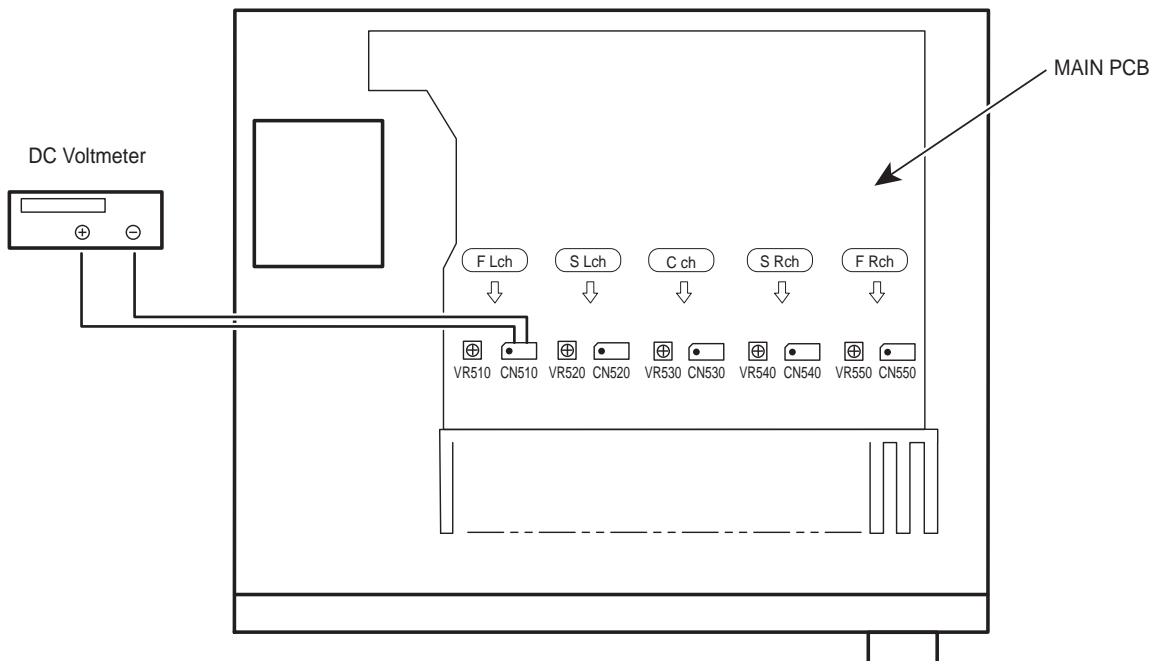
Required measurement equipment: DC Voltmeter

#### 1. Preparation

- (1) Avoid direct blow from an air conditioner or an electric fan and humidity should be moderate, and place the set at normal usage environment.  
Temperature should be at 15 °C ~ 30 °C (59 °F ~ 86 °F).
- (2) Presetting
  - POWER (Power source switch) OFF
  - SPEAKER (Speaker terminal) No load  
(Do not connect speaker, dummy resistor, etc.)

#### 2. Adjustment

- (1) Remove the top cover and set VR510(FL), VR550(FR), VR530(C), VR520(SL), VR540(SR), on MAIN PCB at fully counterclockwise (⊖) position.
- (2) Connect DC Voltmeter to test points (FRONT-Lch: CN510, FRONT-Rch: CN550, CENTER ch: CN530, SURROUND-Lch: CN520, SURROUND-Rch: CN540).
- (3) Connect the power cord to AC Line, and set the power switch to "ON".
- (4) Presetting.  
MASTER VOLUME : ⊖ minimum  
SPEAKER (Speaker terminal) : No load  
(Do not connect speaker, dummy resistor, etc.)  
MODE : MCH STEREO  
FUNCTION : CBL/SAT
- (5) Within 2 minutes after the power on, turn VR510 clockwise (⊕) to adjust the TEST POINT voltage at 1.5mV ± 0.5mV DC.
- (6) After 10 minutes from the preset above, turn VR510 to set the voltage to 2.0mV ± 0.5mV DC.
- (7) Adjust the Variable Resistors of each channel(VR520-VR550) in the same way.



# SURROUND MODES AND PARAMETERS

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				Surr. Parameter						
	Front L/R	Center	Surround L/R	Subwoofer	Cinema EQ	Loudness Mhgmt #2	Dynamic Comp. #3	Low Frequency #4	Delay Time	Effect Level	Room Size
DIRECT/PURE DIRECT (2channel)*1	○	◎	◎	◎*5		○	○	○			
DIRECT/PURE DIRECT (Multi-channel)*1	○	◎	◎	◎		○	○	○			
STEREO	○	◎	◎	◎		○	○	○			
MULTI CH IN	○	◎	◎	◎		○	○	○			
DOLBY PRO LOGIC II	○	◎	◎	◎	○*6	○	○	○			
DOLBY PRO LOGIC	○	◎	◎	◎	○	○	○	○			
DOLBY DIGITAL	○	◎	◎	◎		○	○	○			
DOLBY DIGITAL Plus	○	◎	◎	◎		○	○	○			
DOLBY TrueHD	○	◎	◎	◎	○*7	○	○	○			
DTS NEO:6	○	◎	◎	◎		○	○	○			
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.

\*2 This item can be selected when a Dolby TrueHD signal is played.

\*3 This item can be selected when a Dolby Digital or DTS signal is played.

\*4 This item can be selected when a Dolby Digital or DTS signal or DVD-Audio is played.

\*5 Only when "Subwoofer Mode" is set to "LFE+Main", sound is output from the subwoofer.

\*6 This setting is possible when the sound mode is "PLII Cinema".

\*7 This setting is possible when the sound mode is "DTS NEO:6 Cinema".

Sound Mode	Surr Parameter				Tone *8	Audyssey *9			Restorer *11
	PRO LOGIC II Music mode only			NEO:6 Music mode only		MultEQ® XT	Dynamic EQ® *10	Dynamic Volume® *10	
	Panorama	Dimension	Center Width						
DIRECT/PURE DIRECT (2channel)*1									
DIRECT/PURE DIRECT (Multi-channel)*1									
STEREO									<input type="radio"/>
MULTI CH IN					<input type="radio"/>				<input type="radio"/>
DOLBY PRO LOGIC II	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>				<input type="radio"/>
DOLBY PRO LOGIC	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>				<input type="radio"/>
DOLBY DIGITAL					<input type="radio"/>				<input type="radio"/>
DOLBY DIGITAL Plus					<input type="radio"/>				<input type="radio"/>
DOLBY TrueHD					<input type="radio"/>				<input type="radio"/>
DTS NEO:6				<input type="radio"/>	<input type="radio"/>				<input type="radio"/>
DTS SURROUND					<input type="radio"/>				<input type="radio"/>
DTS 96/24					<input type="radio"/>				<input type="radio"/>
DTS-HD					<input type="radio"/>				<input type="radio"/>
DTS Express					<input type="radio"/>				<input type="radio"/>
MULTI CH STEREO					<input type="radio"/>				<input type="radio"/>
ROCK ARENA					<input type="radio"/>				<input type="radio"/>
JAZZ CLUB					<input type="radio"/>				<input type="radio"/>
MONO MOVIE					<input type="radio"/>				<input type="radio"/>
VIDEO GAME					<input type="radio"/>				<input type="radio"/>
MATRIX					<input type="radio"/>				<input type="radio"/>
VIRTUAL					<input type="radio"/>				<input type="radio"/>

\*1 During playback in PURE DIRECT mode, the surround parameters are the same as in DIRECT mode.

\*8 This item cannot be set when "Dynamic EQ®" is set to "On".

\*9 For HD Audio whose sampling frequency of an input signal is more than 96 kHz, this sound parameter cannot be set.

\*10 This item cannot be set when "MultEQ® XT" is set to "Off" or "Manual EQ".

\*11 This item can be set when the input signal is analog, PCM 48 kHz or 44.1 kHz.

\*12 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

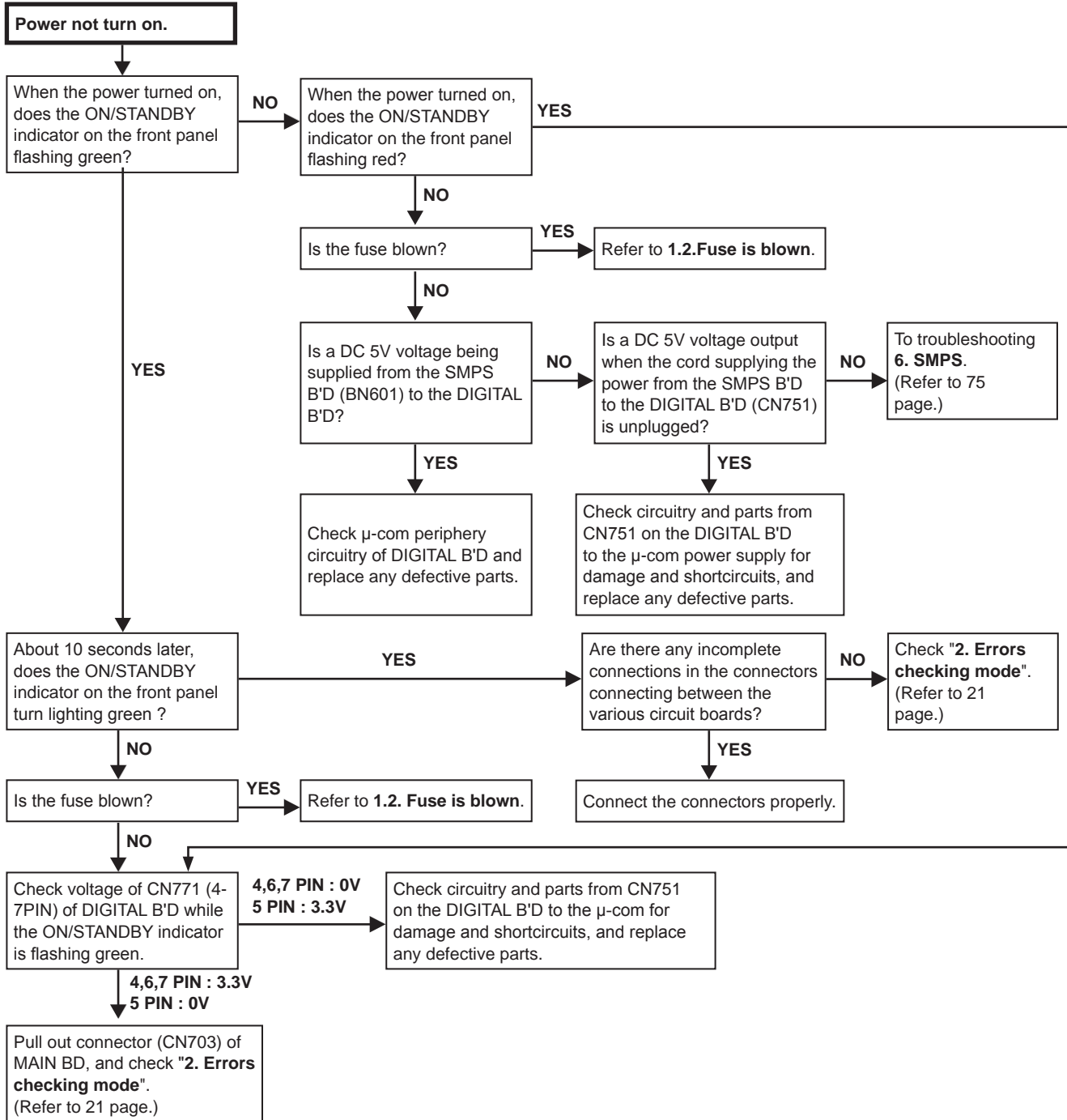
- This indicates the default sound mode.
- This indicates the selectable sound mode.

Sound Mode	NOTE	Input signal types and formats														
		ANALOG		PCM		DTS-HD		DTS			DOLBY		DOLBY DIGITAL			
		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)
DTS SURROUND																
DTS-HD MSTR				●												
DTS-HD HI RES					●											
DTS SURROUND						○			●							
DTS 96/24										●						
DTS EXPRESS						●										
DTS NEO:6 CINEMA			○													○
DTS NEO:6 MUSIC			○													○
DOLBY SURROUND																
DOLBY TrueHD											●					
DOLBY DIGITAL+												●				
DOLBY DIGITAL													○	●		
DOLBY PRO LOGIC II CINEMA			○													○
DOLBY PRO LOGIC II MUSIC			○													○
DOLBY PRO LOGIC II GAME			○													○
DOLBY PRO LOGIC			○													○
MULTI CH IN			●													
DIRECT																
DIRECT			○													○
PURE DIRECT			○													○
PURE DIRECT			○													○
DSP SIMULATION																
MULTI CH STEREO			○													○
ROCK ARENA			○													○
JAZZ CLUB			○													○
MONO MOVIE			○													○
VIDEO GAME			○													○
MATRIX			○													○
VIRTUAL			○													○
STEREO			○													○
STEREO		●														○

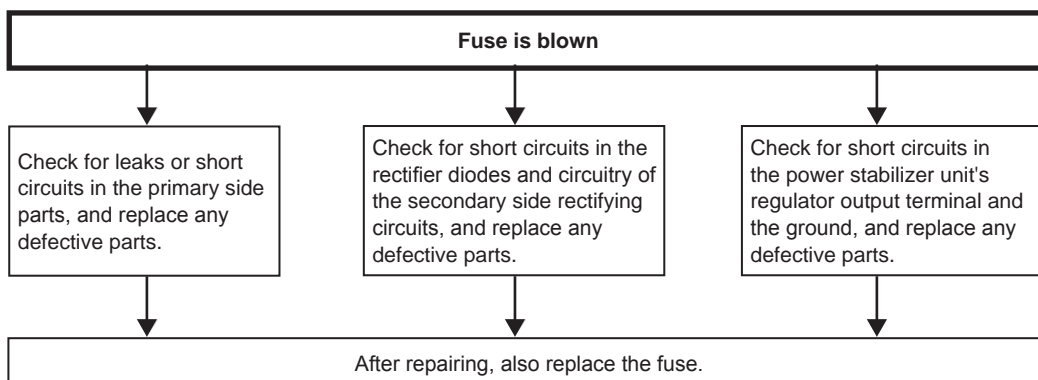
# TROUBLE SHOOTING

## 1. POWER

### 1.1. Power not turn on



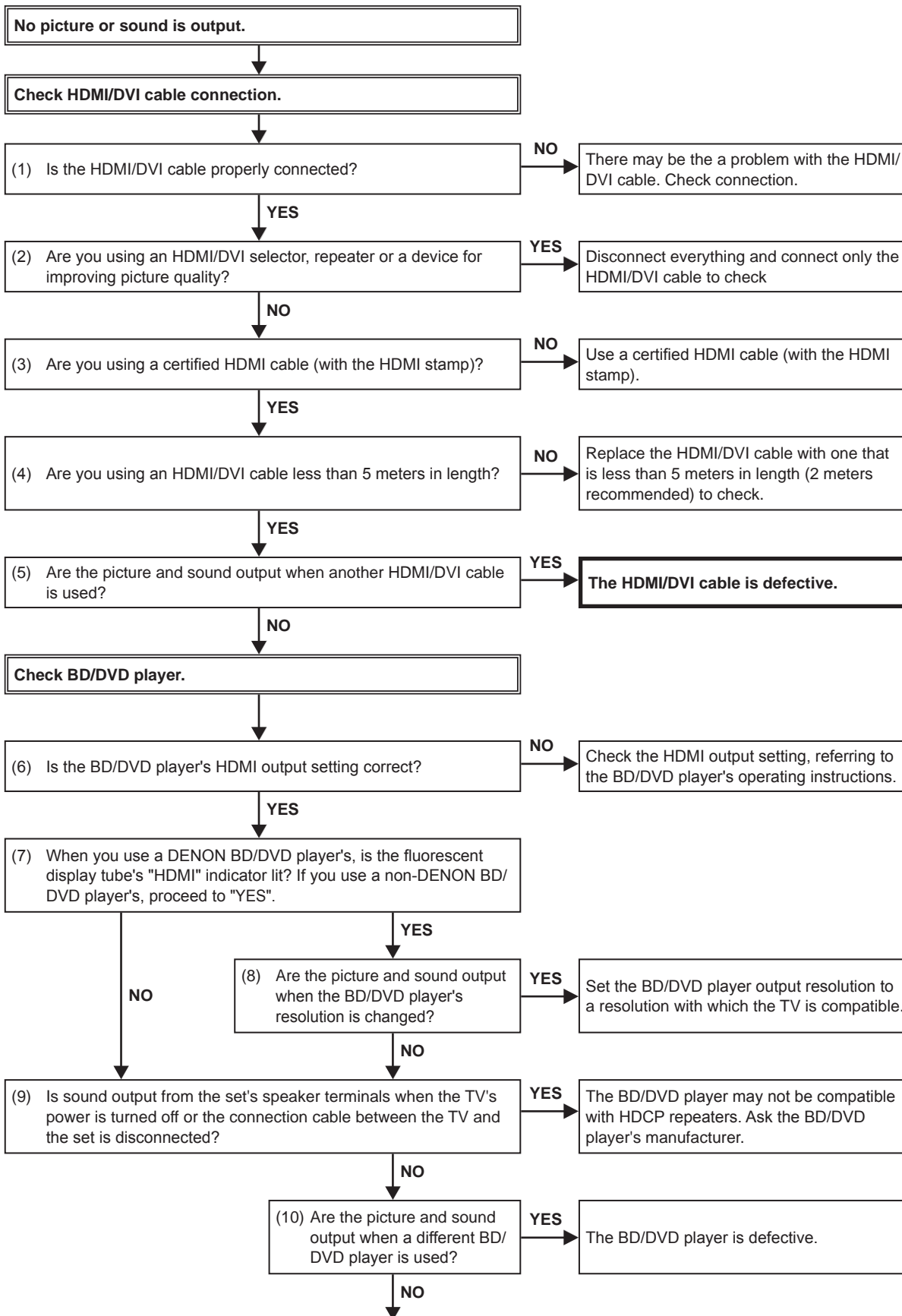
### 1.2. Fuse is blown



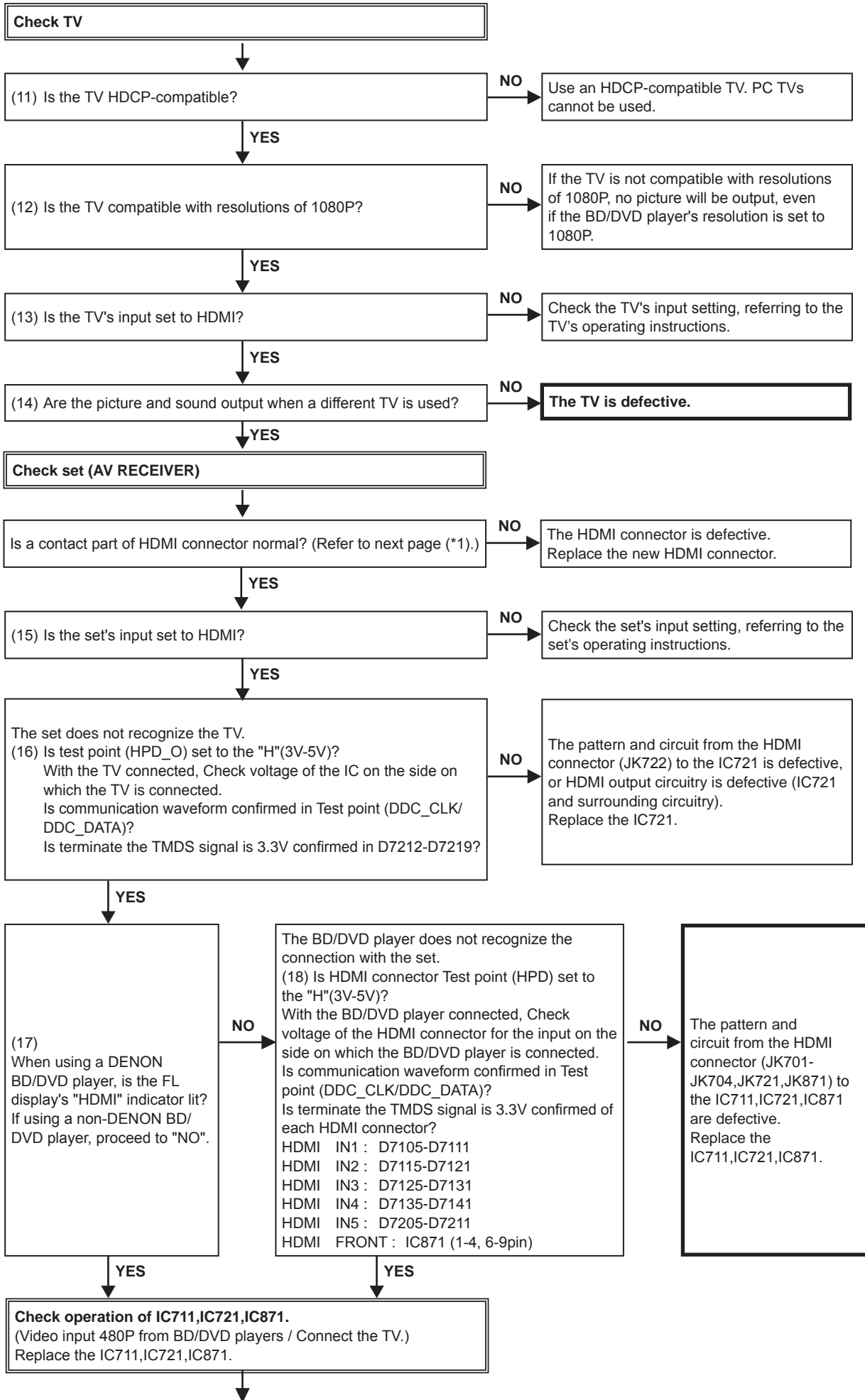


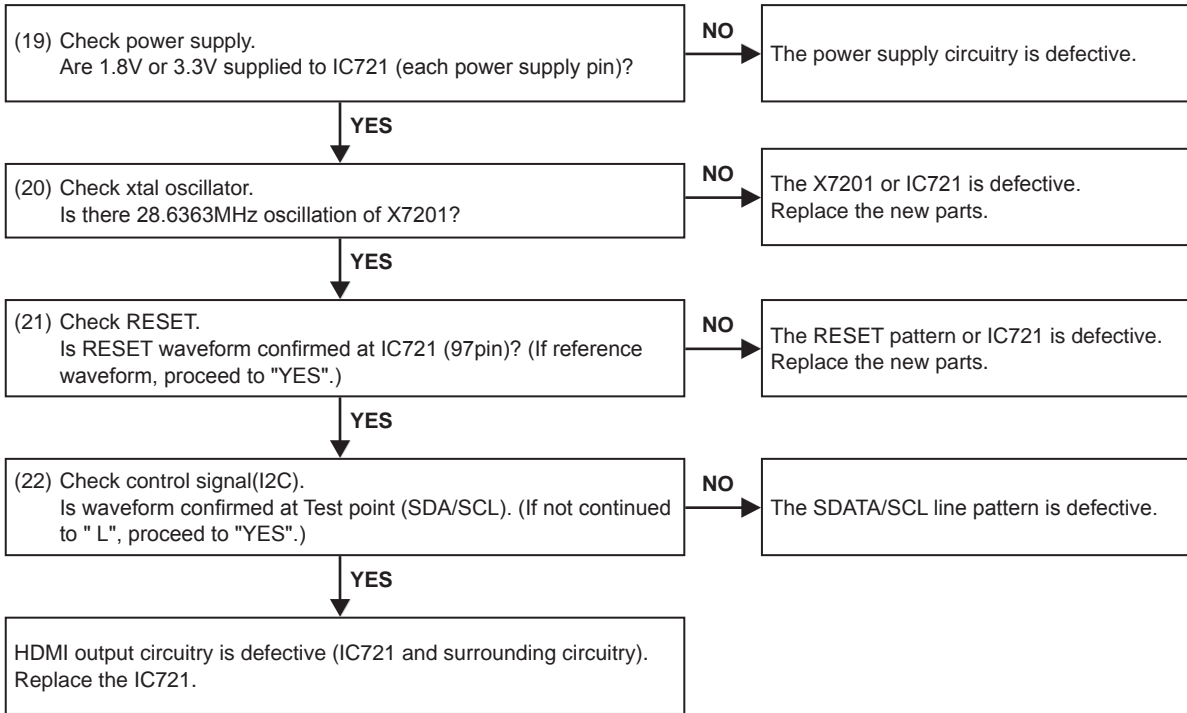
### 3. HDMI/DVI

#### 3.1. No picture or sound is output

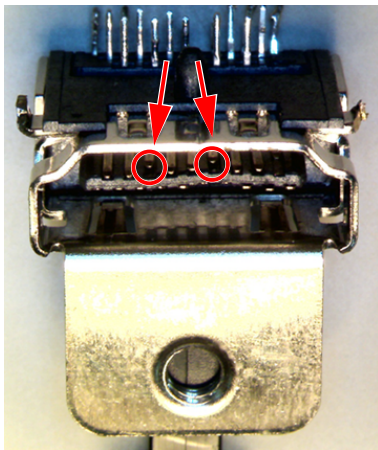






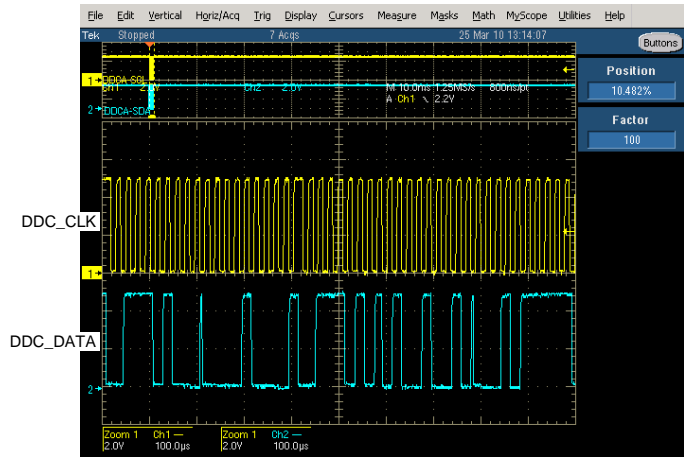
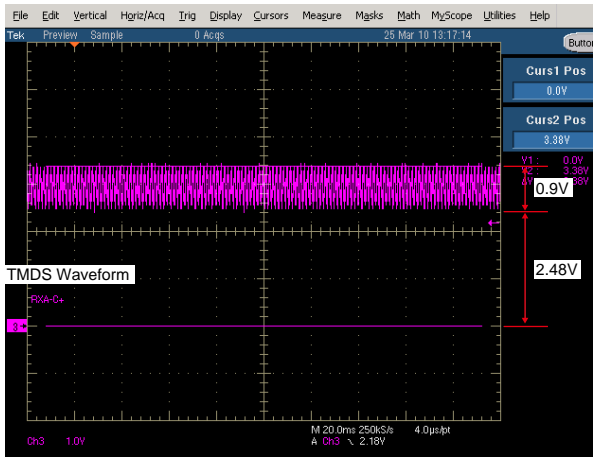


(\*1) Abnormal sample of HDMI connector : The internal terminal has bent.



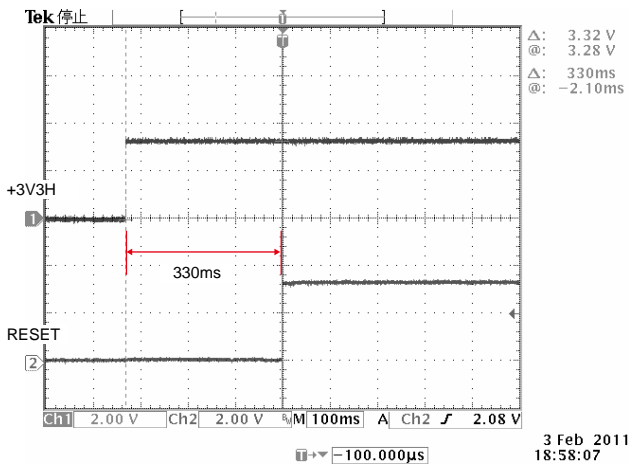


DDC\_CLK/DDC\_DATA/TMDS : Check items (16)/(18)

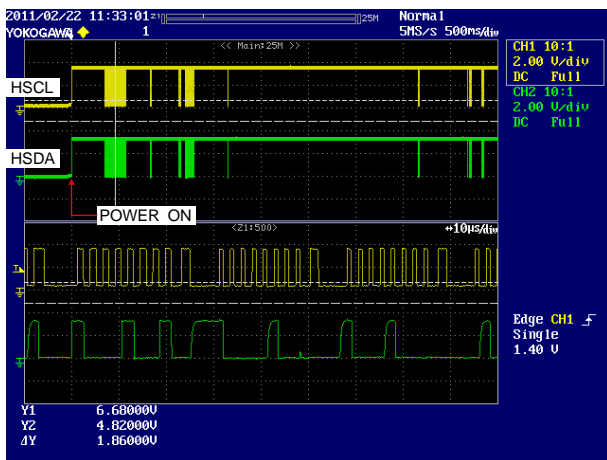


Timing waveform illustration from the start of +3V3H to when reset is released :

Check items (21)

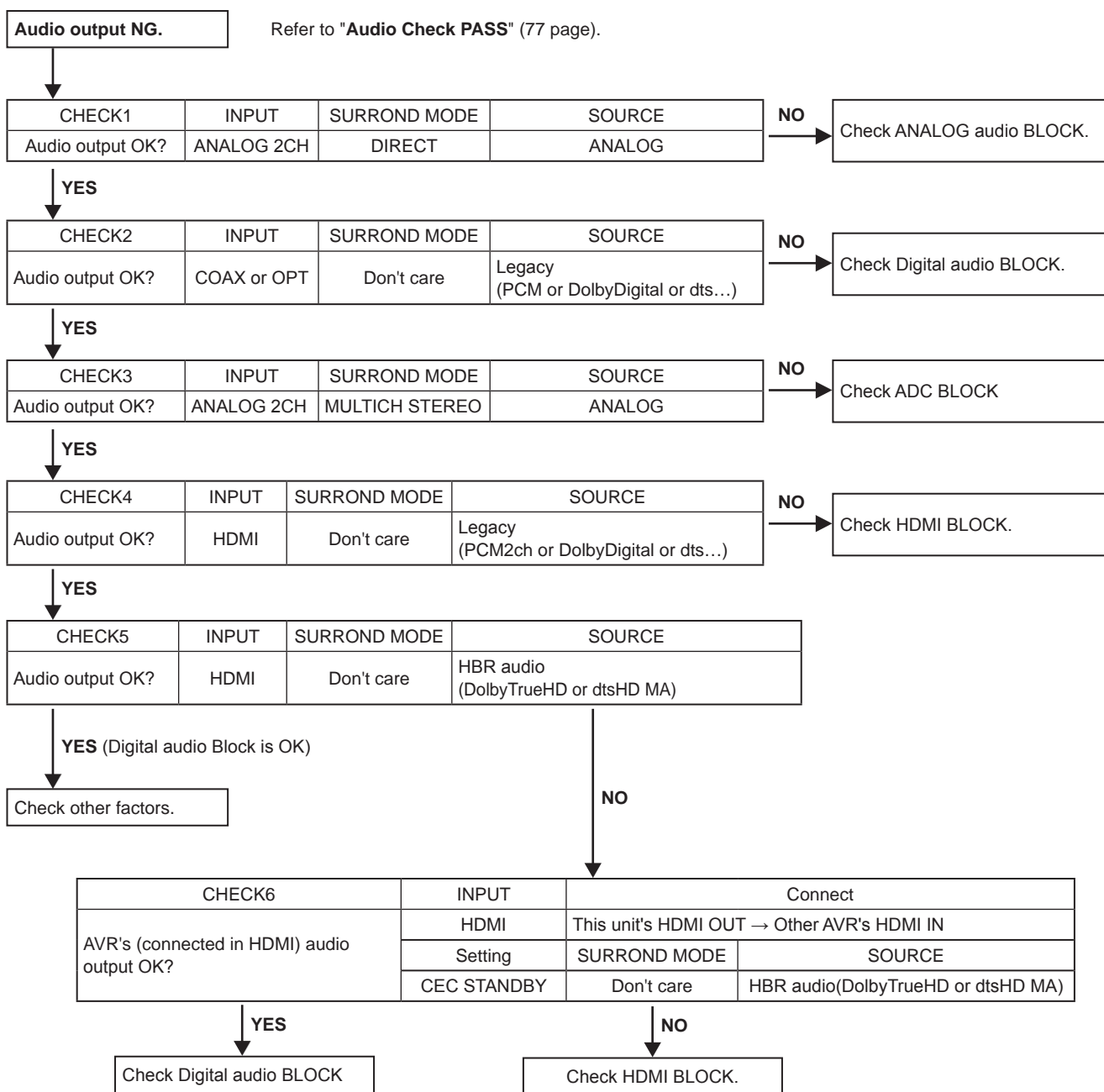


Controlled waveform(I2C), when power is turned on : Check items (22)

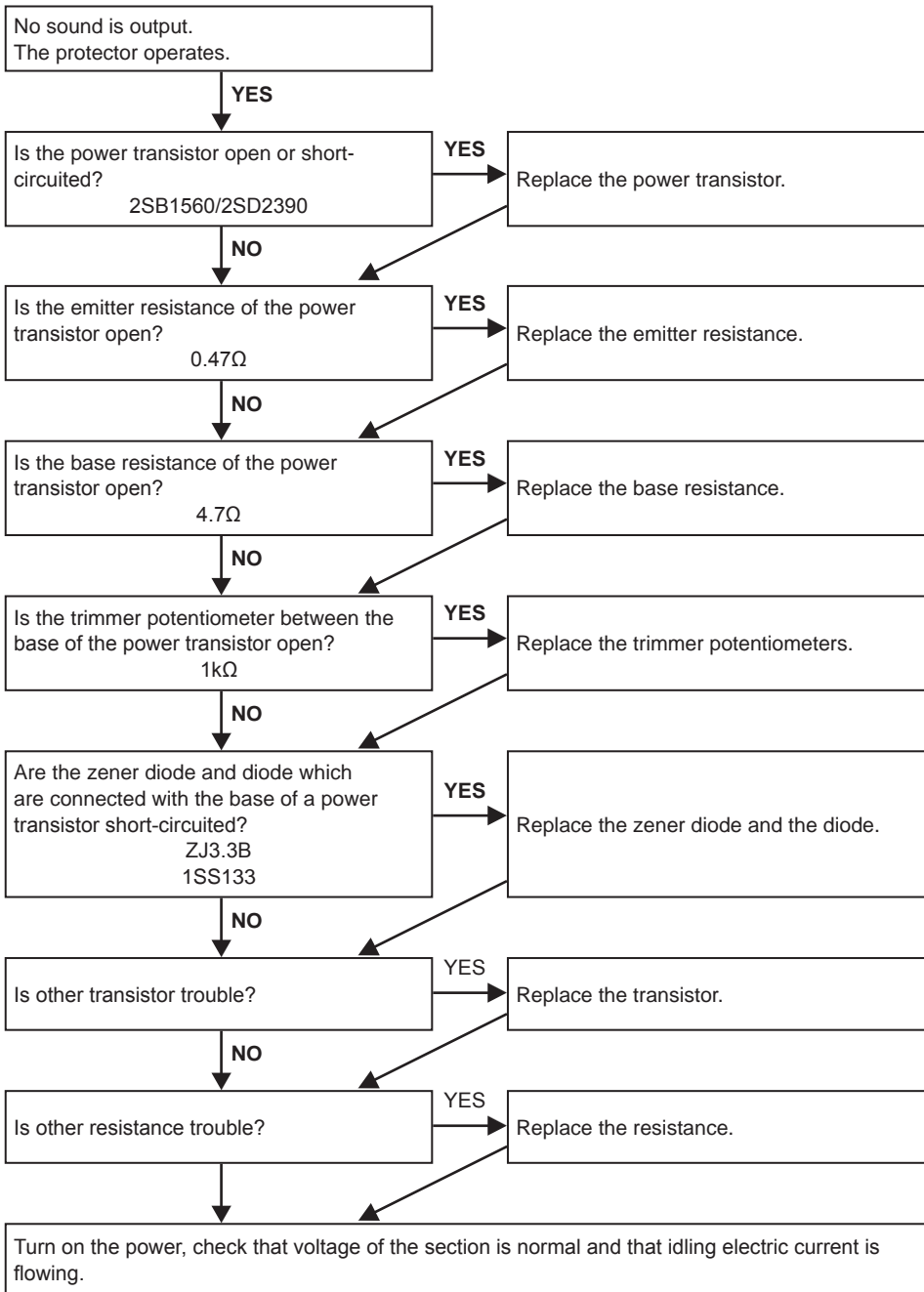


## 4. AUDIO

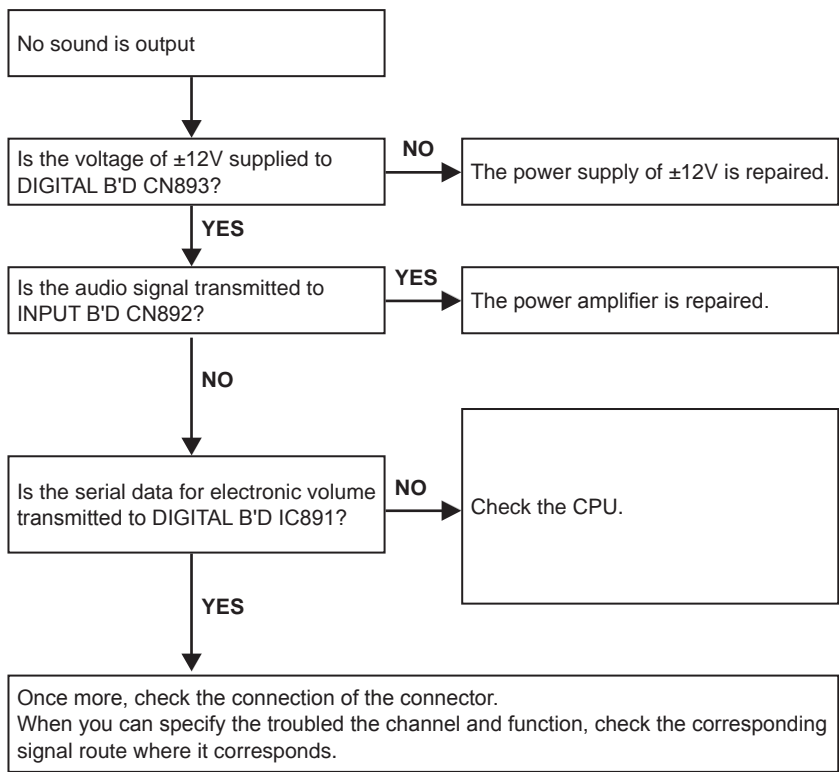
### 4.1. AUDIO CHECK



## 4.2. Power AMP (MAIN UNIT)

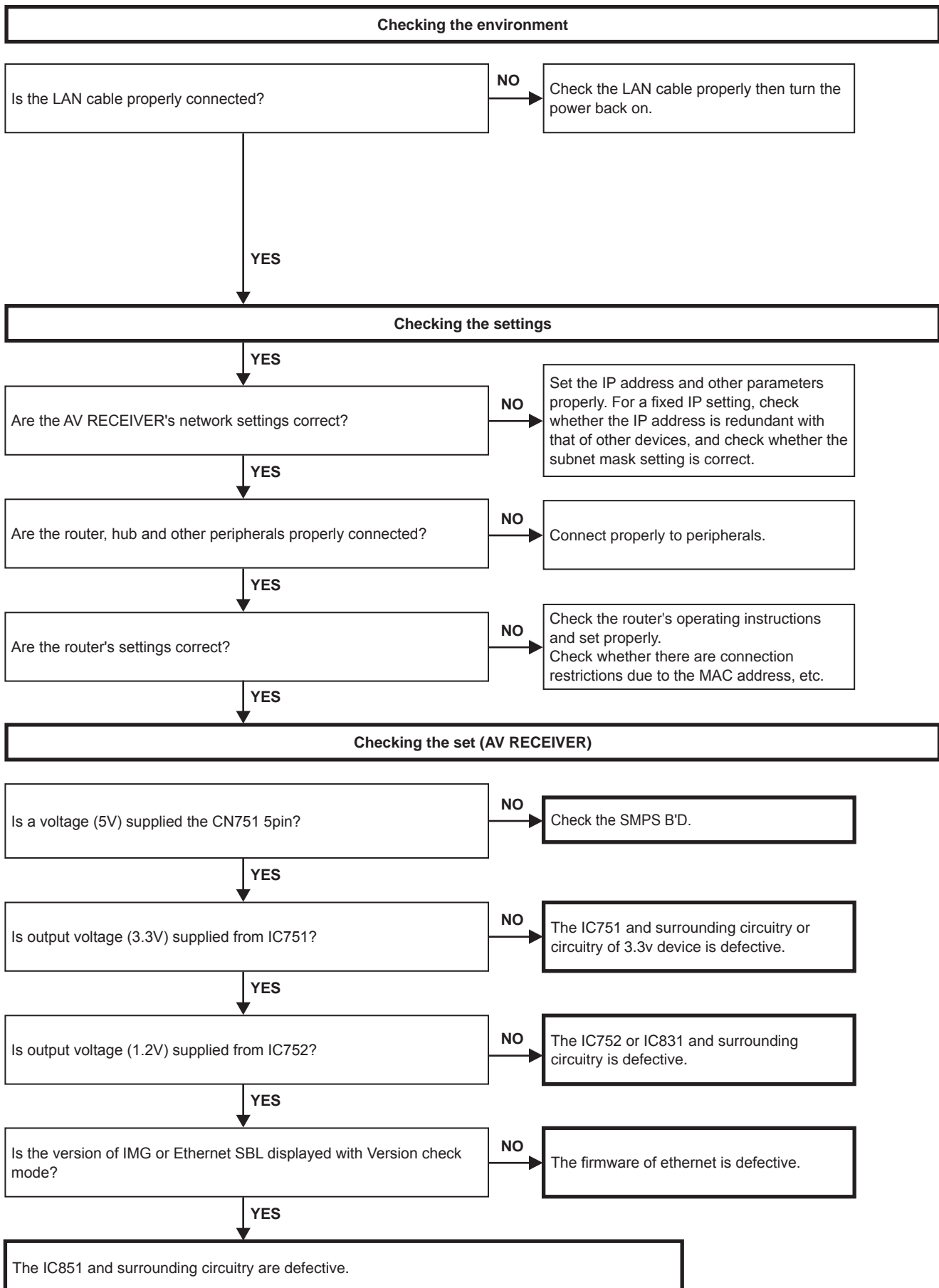


### 4.3. Analog audio



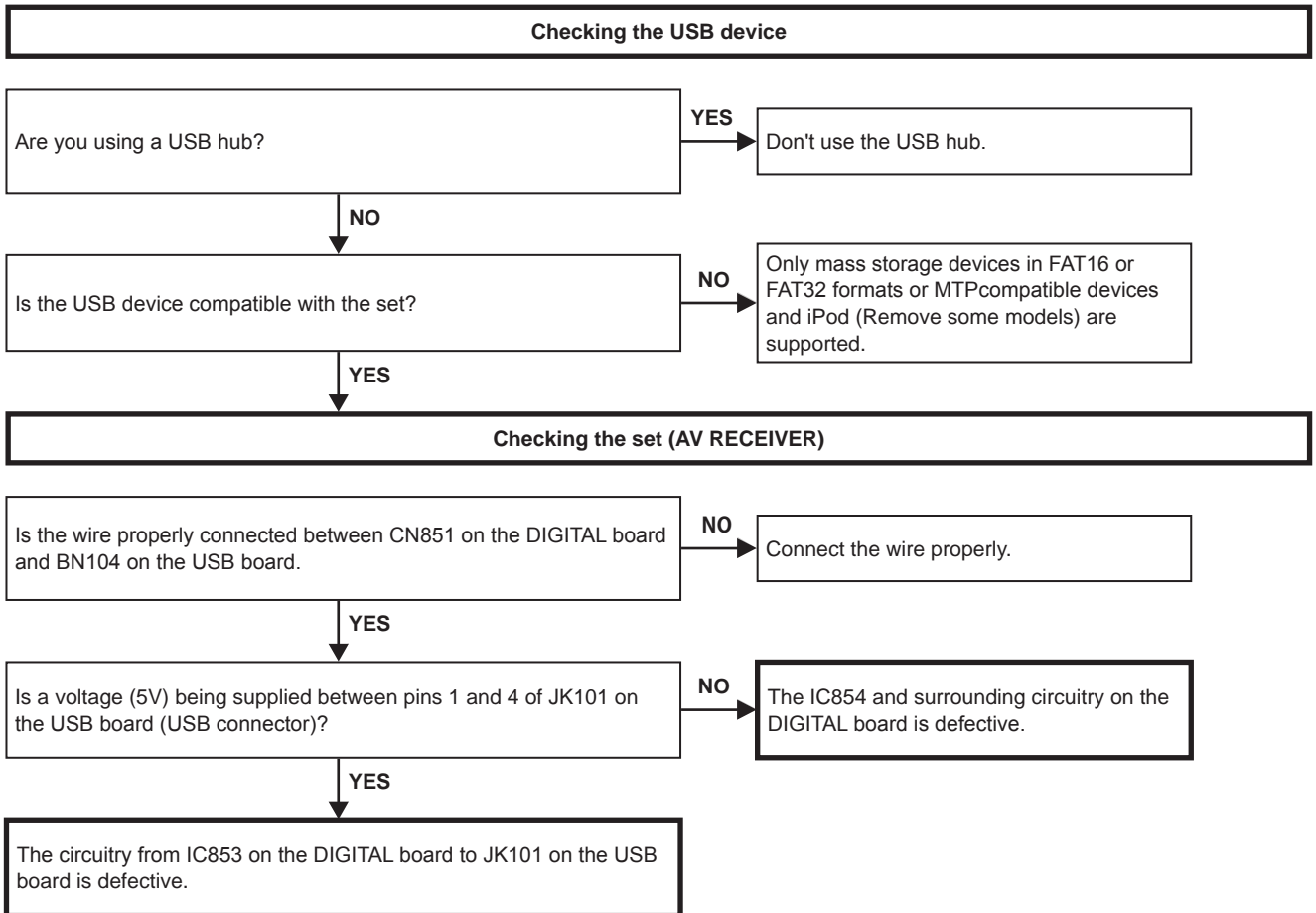
## 5. Network/USB

### 5.1. Cannot connect to network

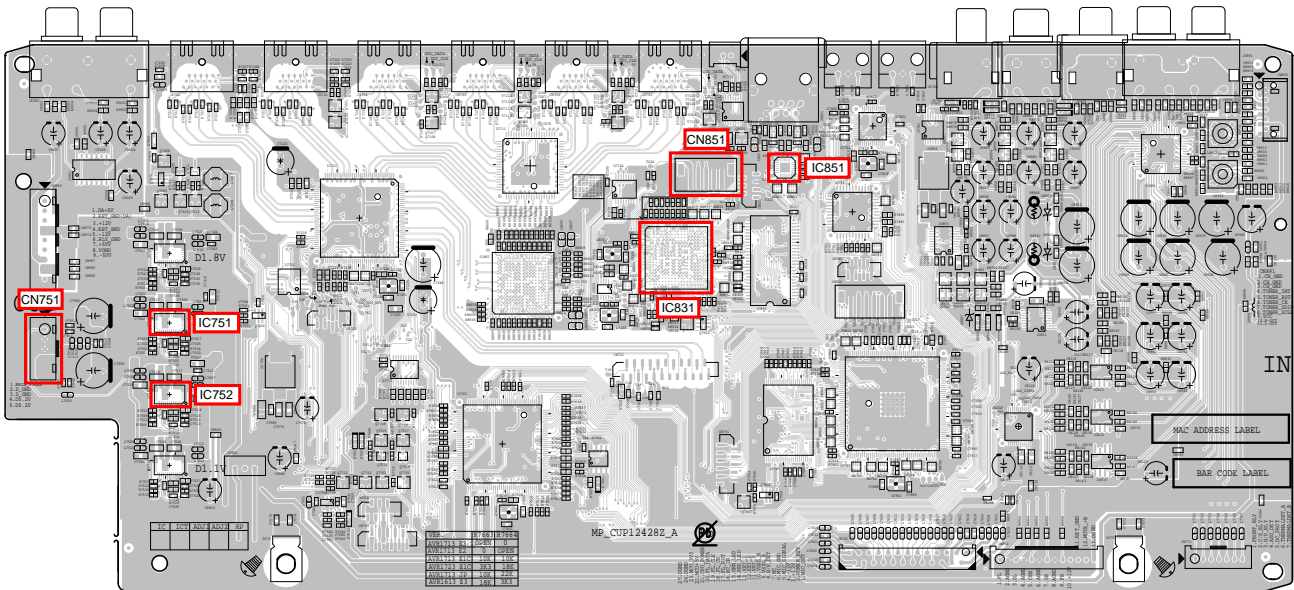




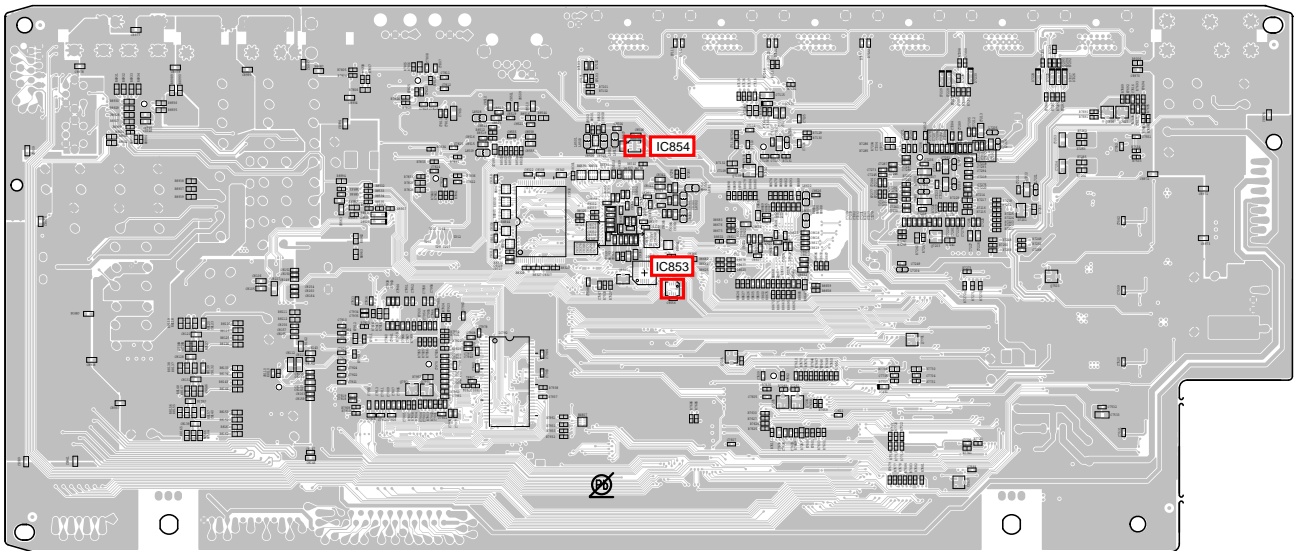
## 5.2. USB device is not recognized



### HDMI test point

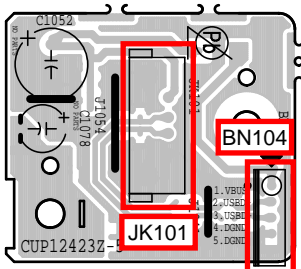


(COMPONENT SIDE)



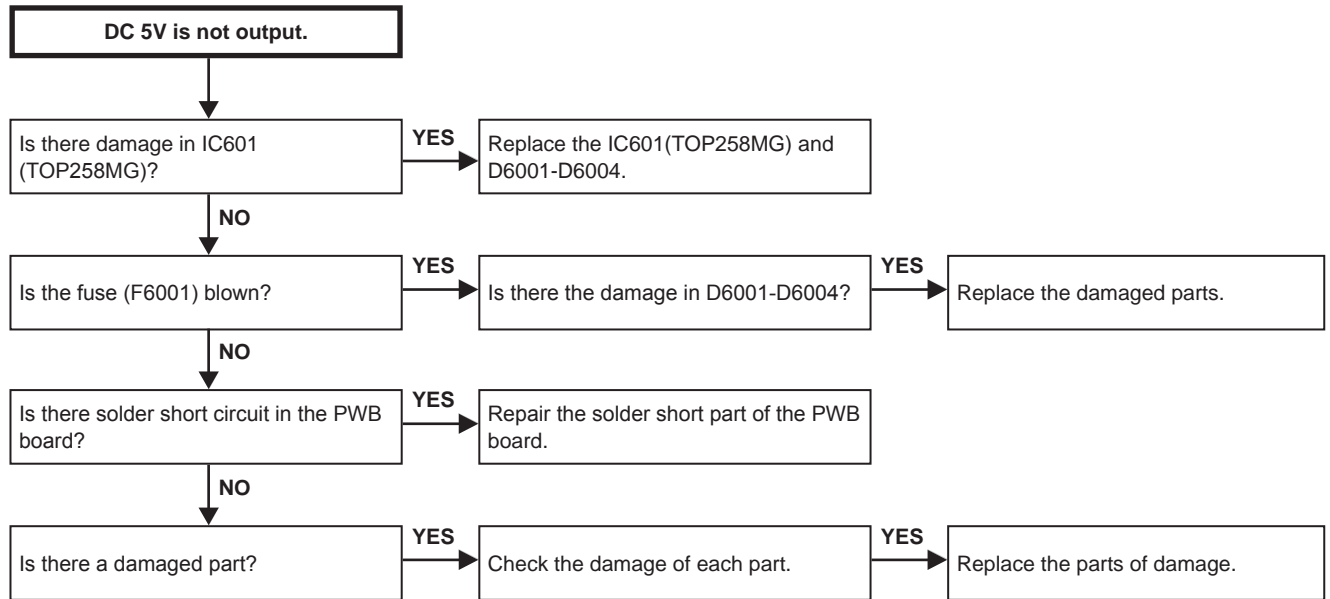
(FOIL SIDE)

### USB test point

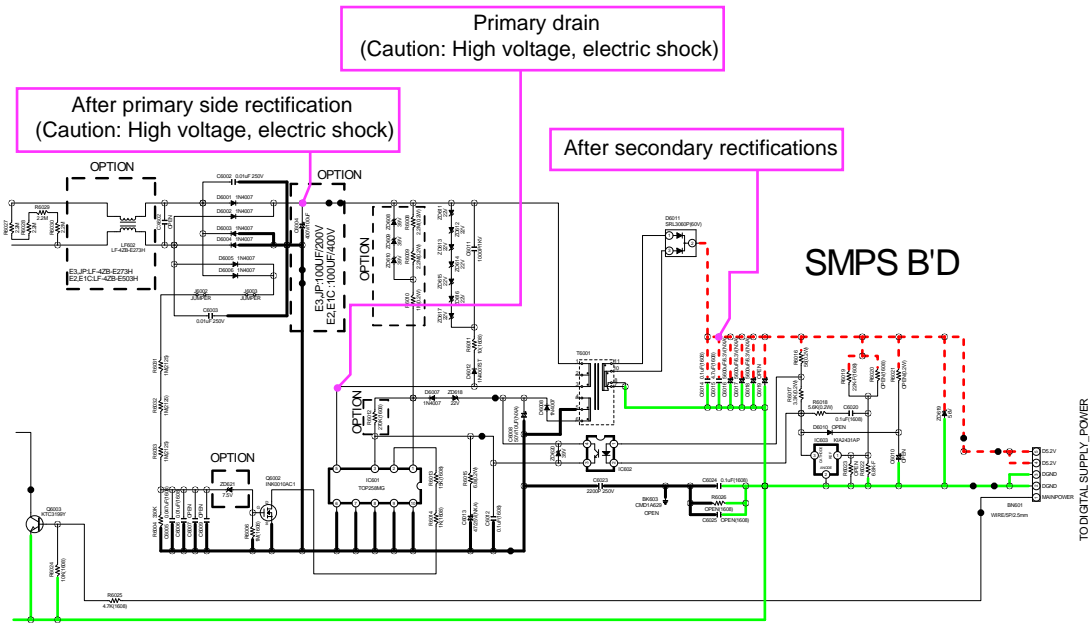


(COMPONENT SIDE)

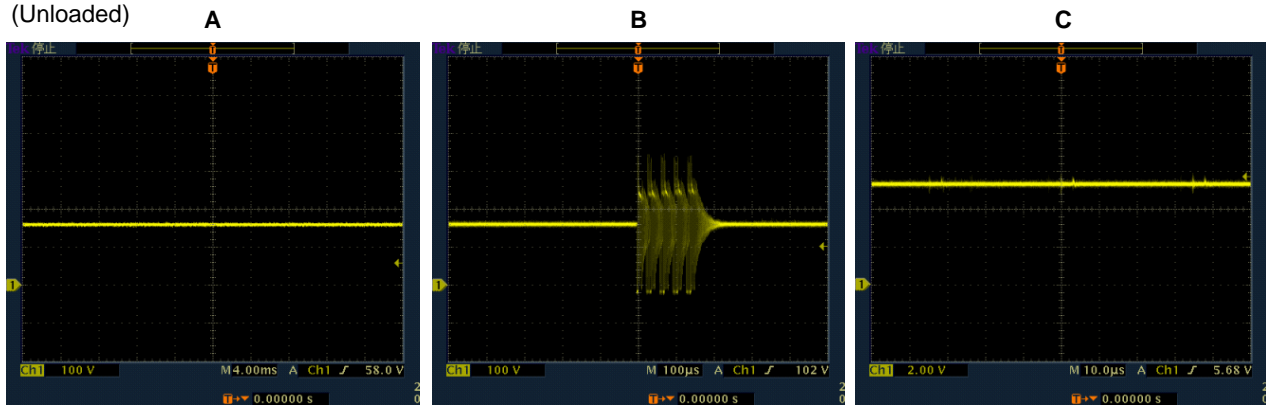
## 6. SMPS



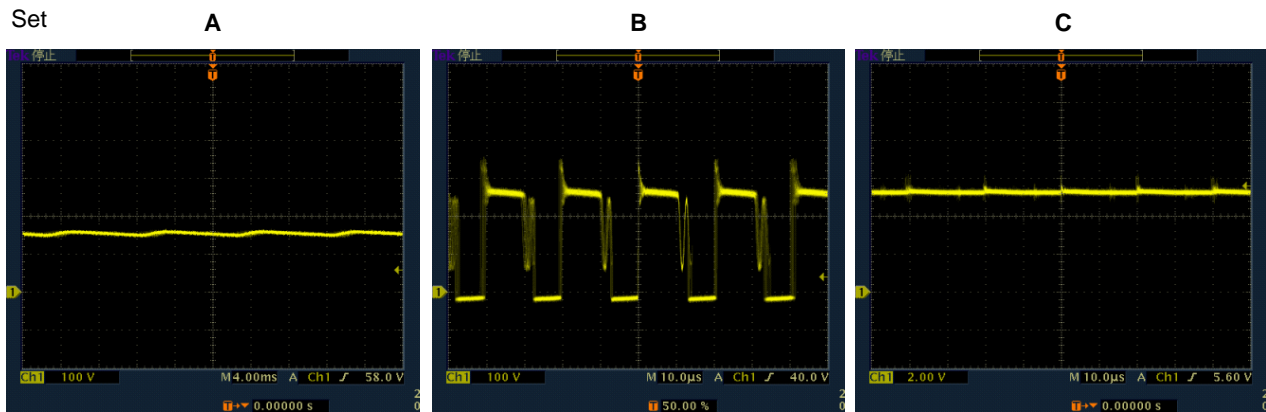
# Operation waveform for each part



SMPS unit  
(Unloaded)

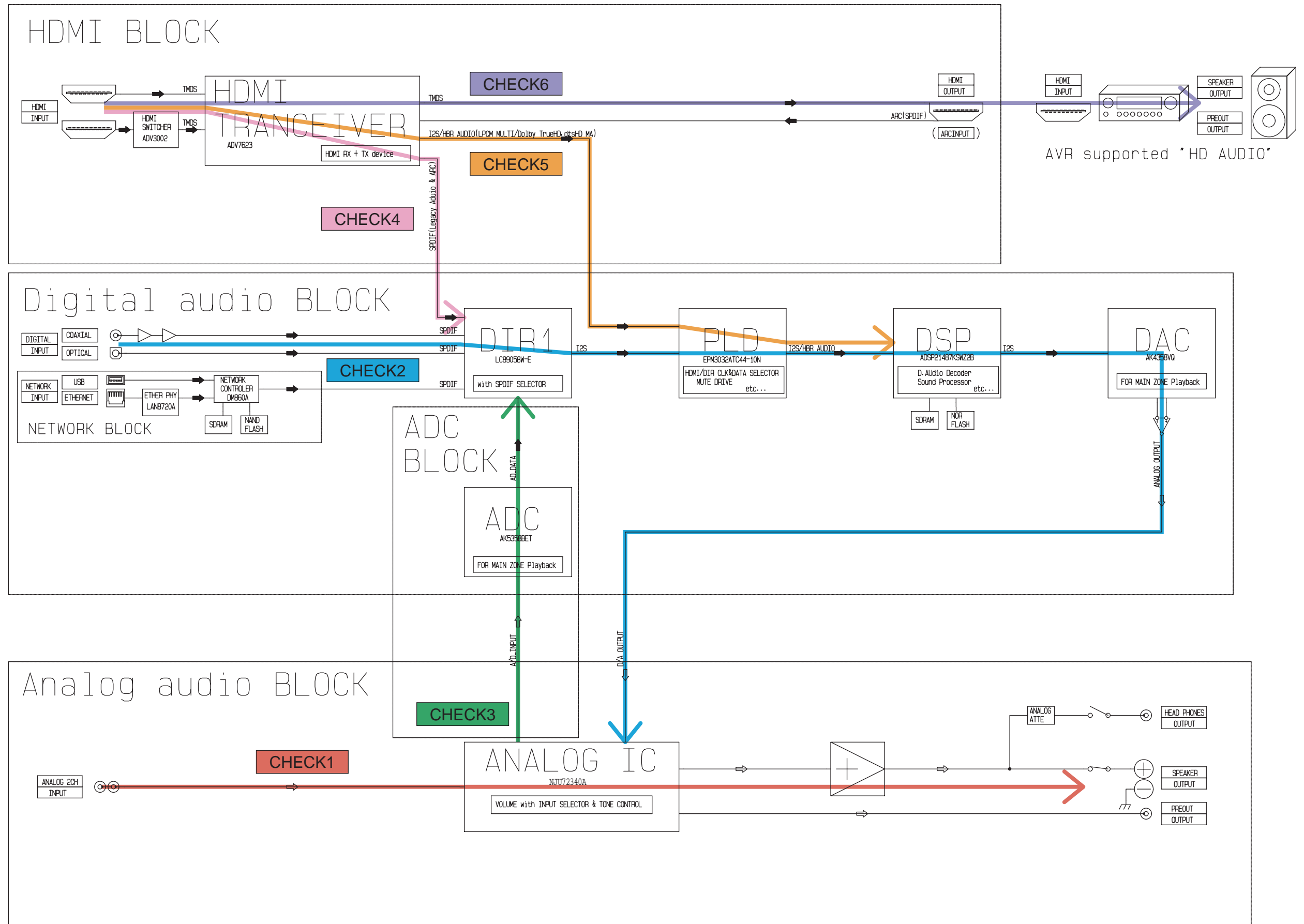
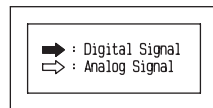


Set



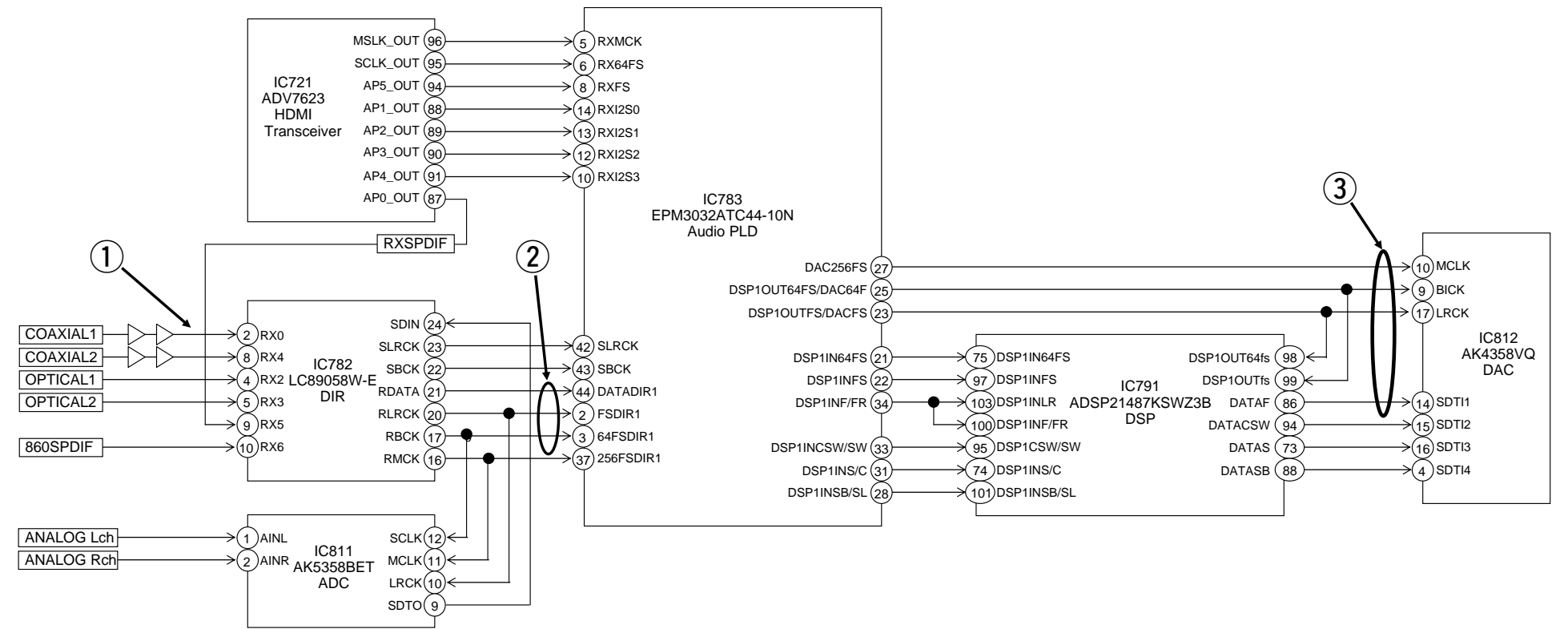
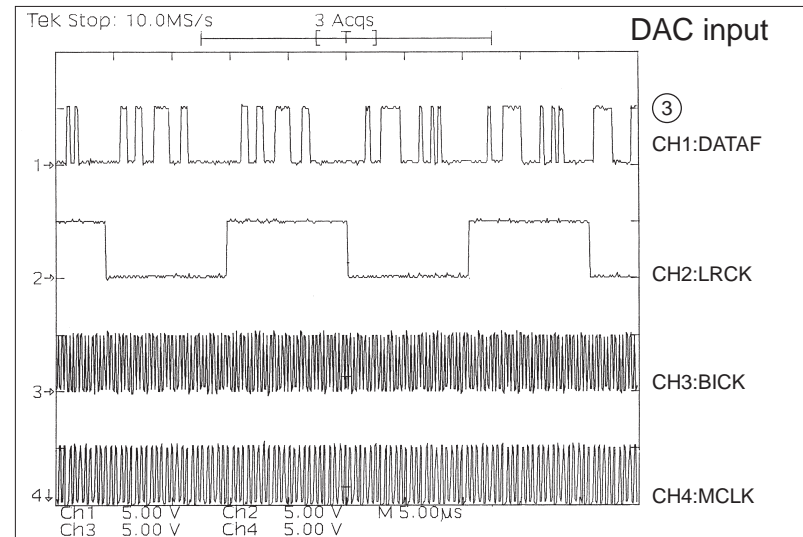
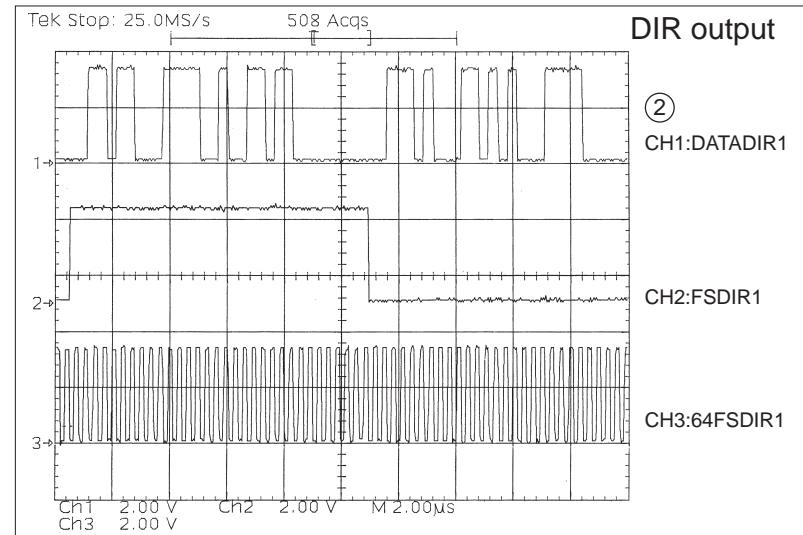
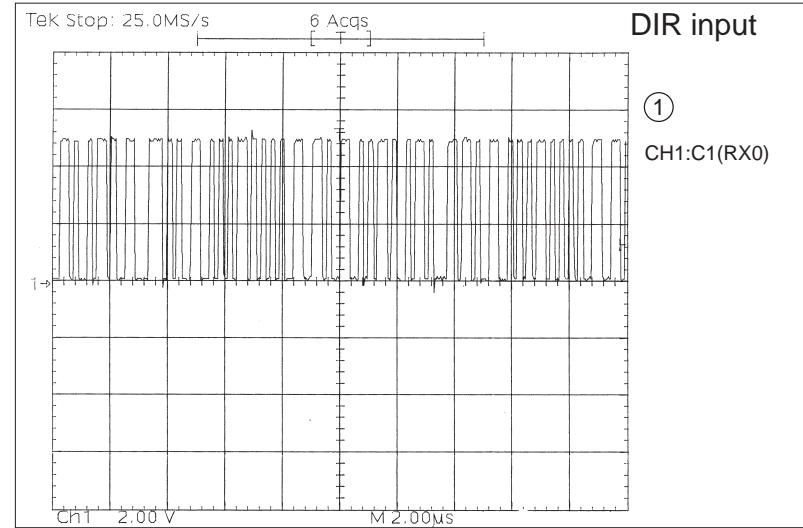
**Audio Check PASS**

Refer to troubleshooting "4.1. AUDIO CHECK"(69 page).

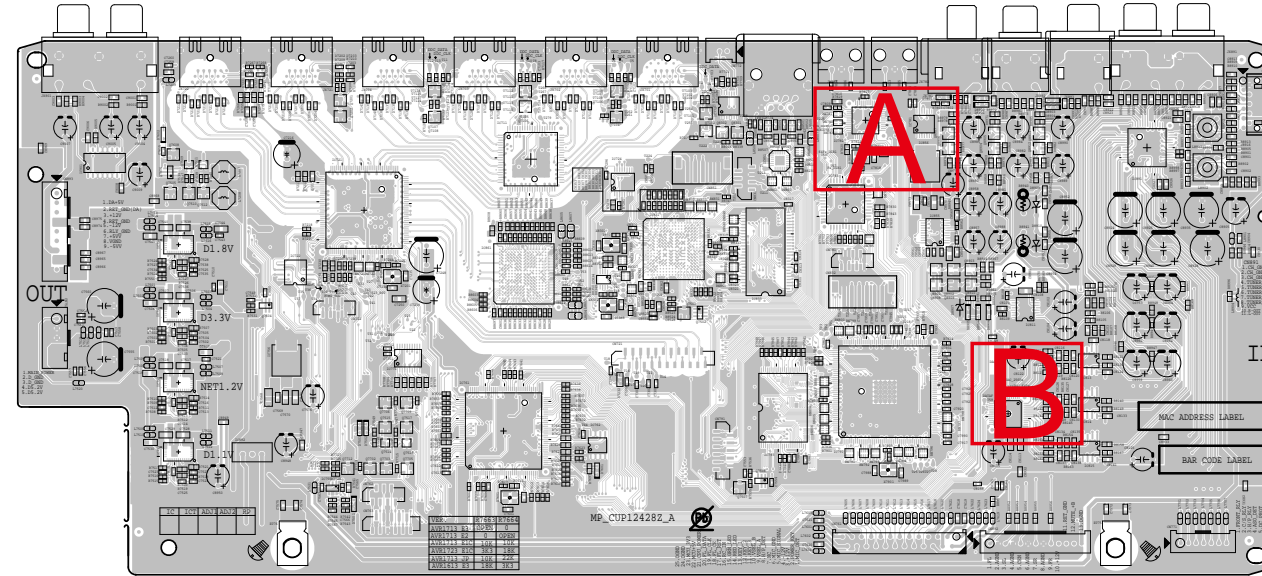


# CLOCK FLOW & WAVE FORM IN DIGITAL BLOCK

## WAVE FORM

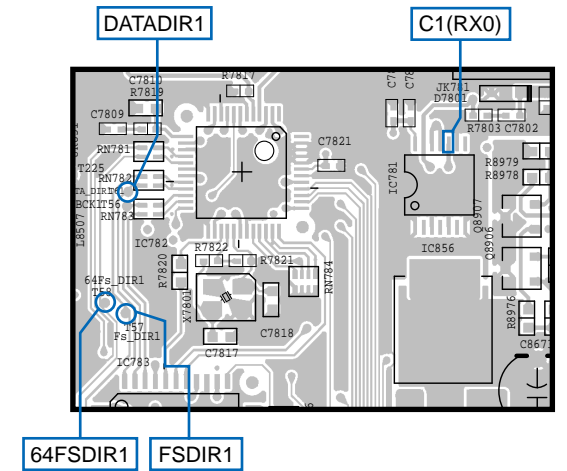


## Test point

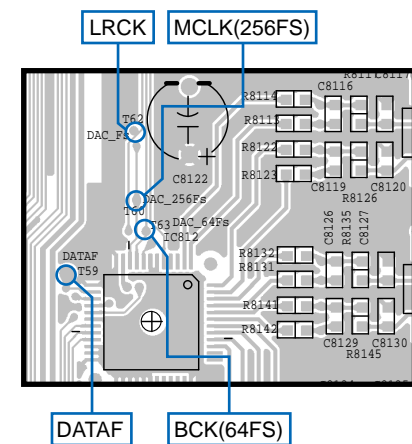


DIGITAL (COMPONENT SIDE)

## Detail A

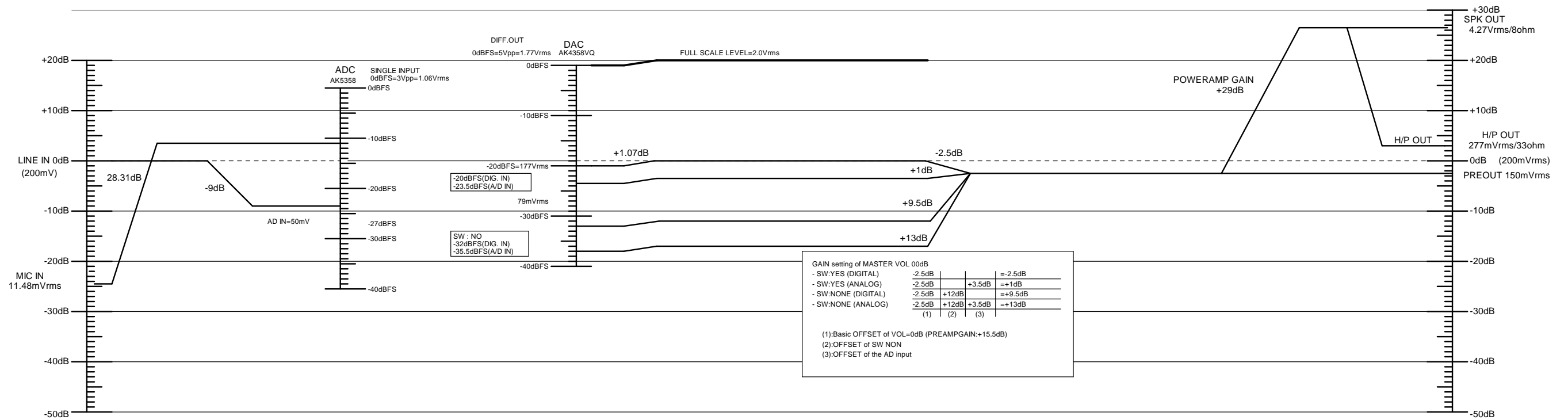
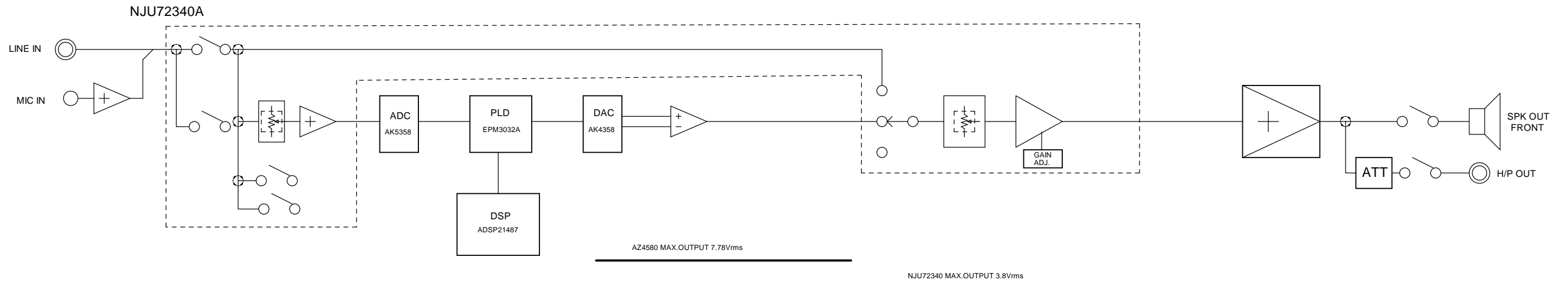


## Detail B

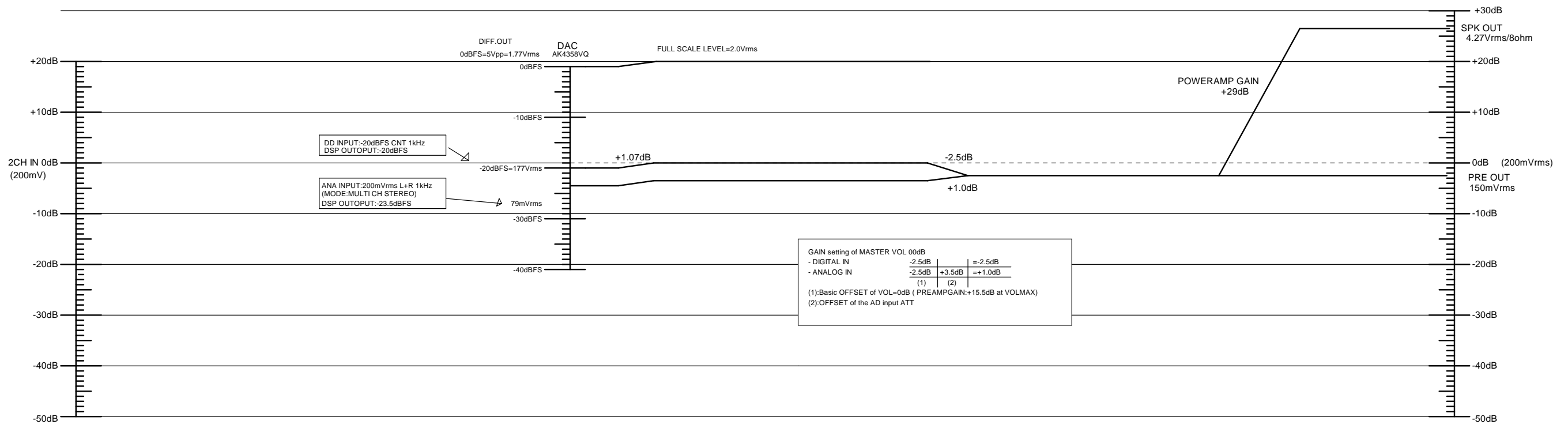
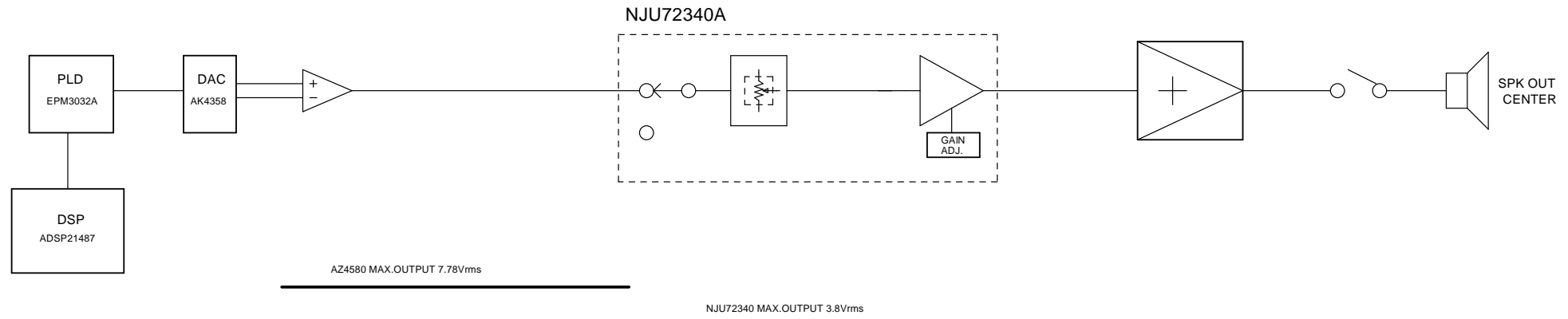


# LEVEL DIAGRAM

## FRONT CHANNEL

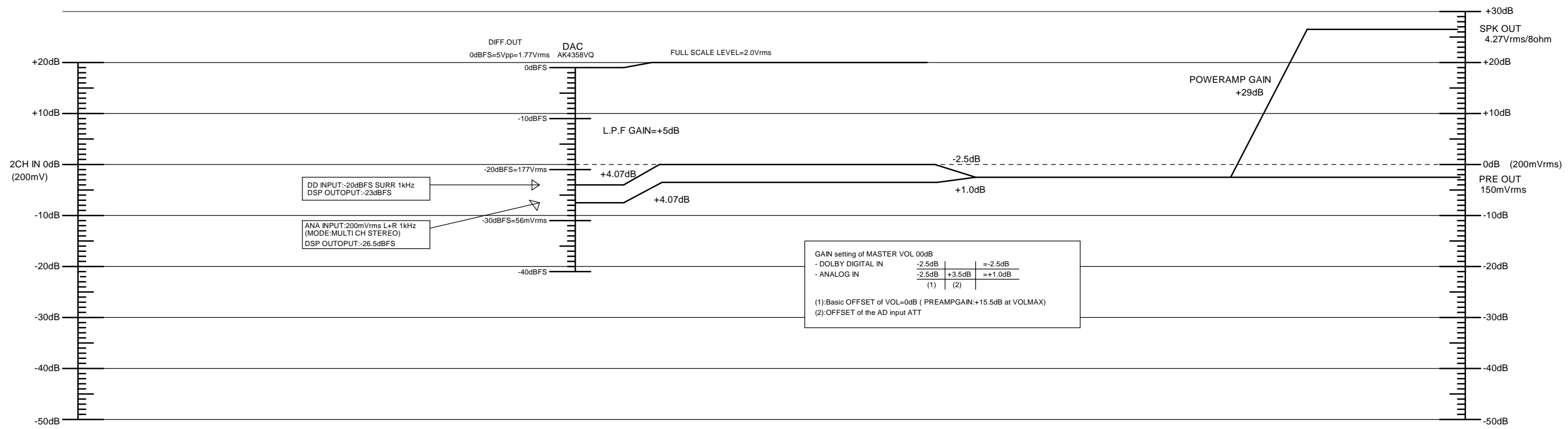
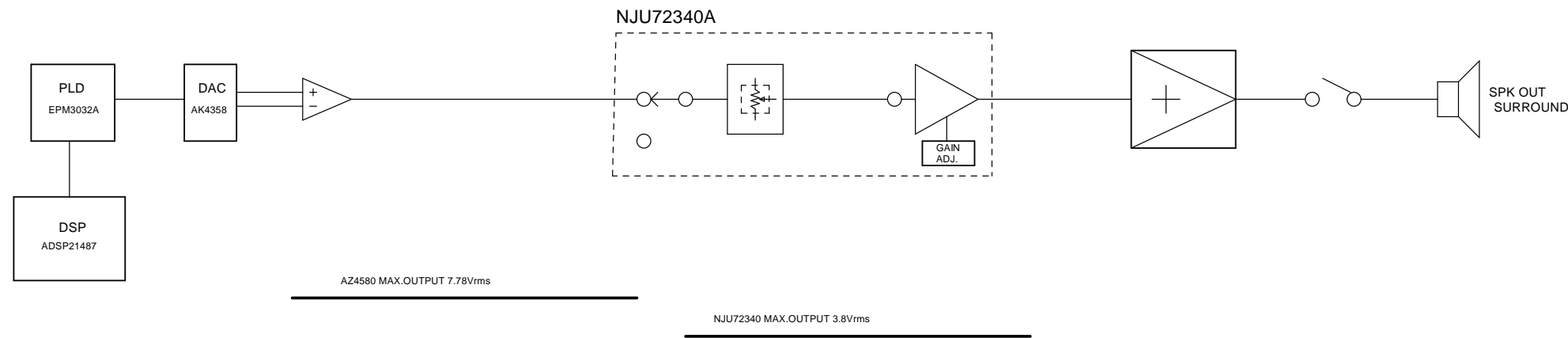


# CENTER CHANNEL

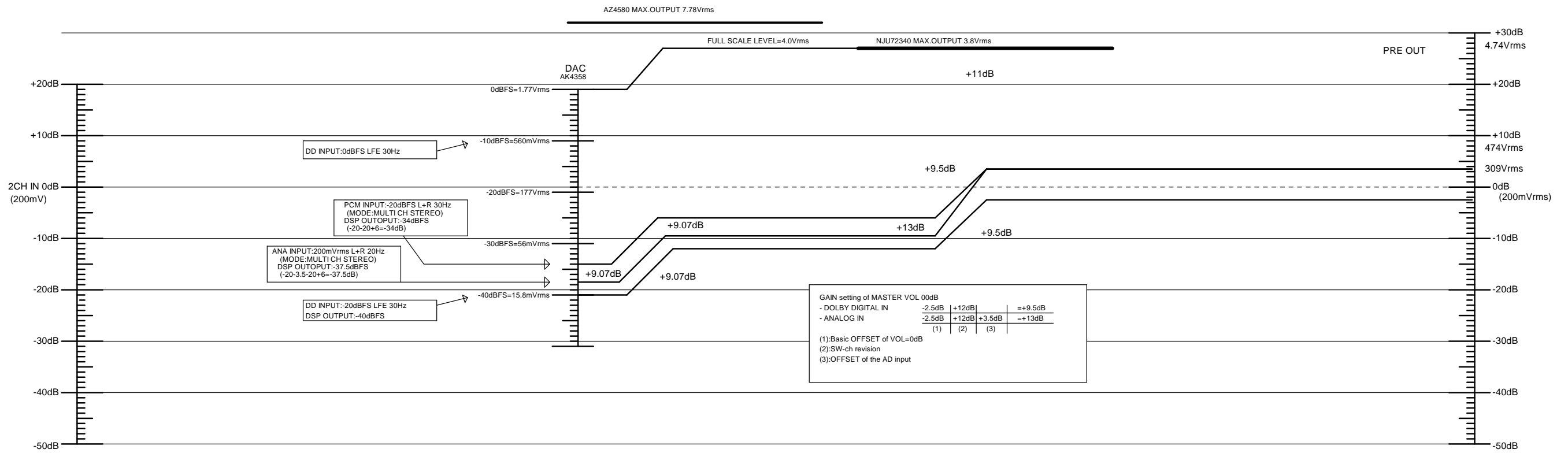
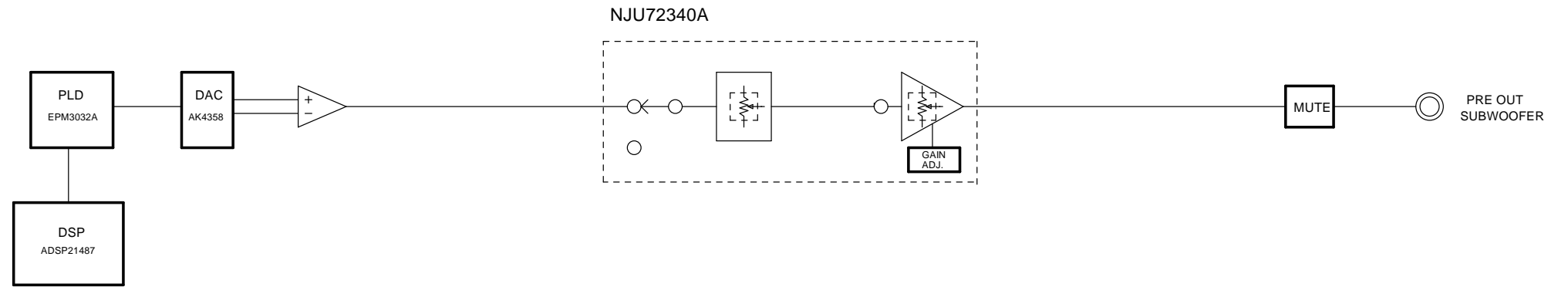




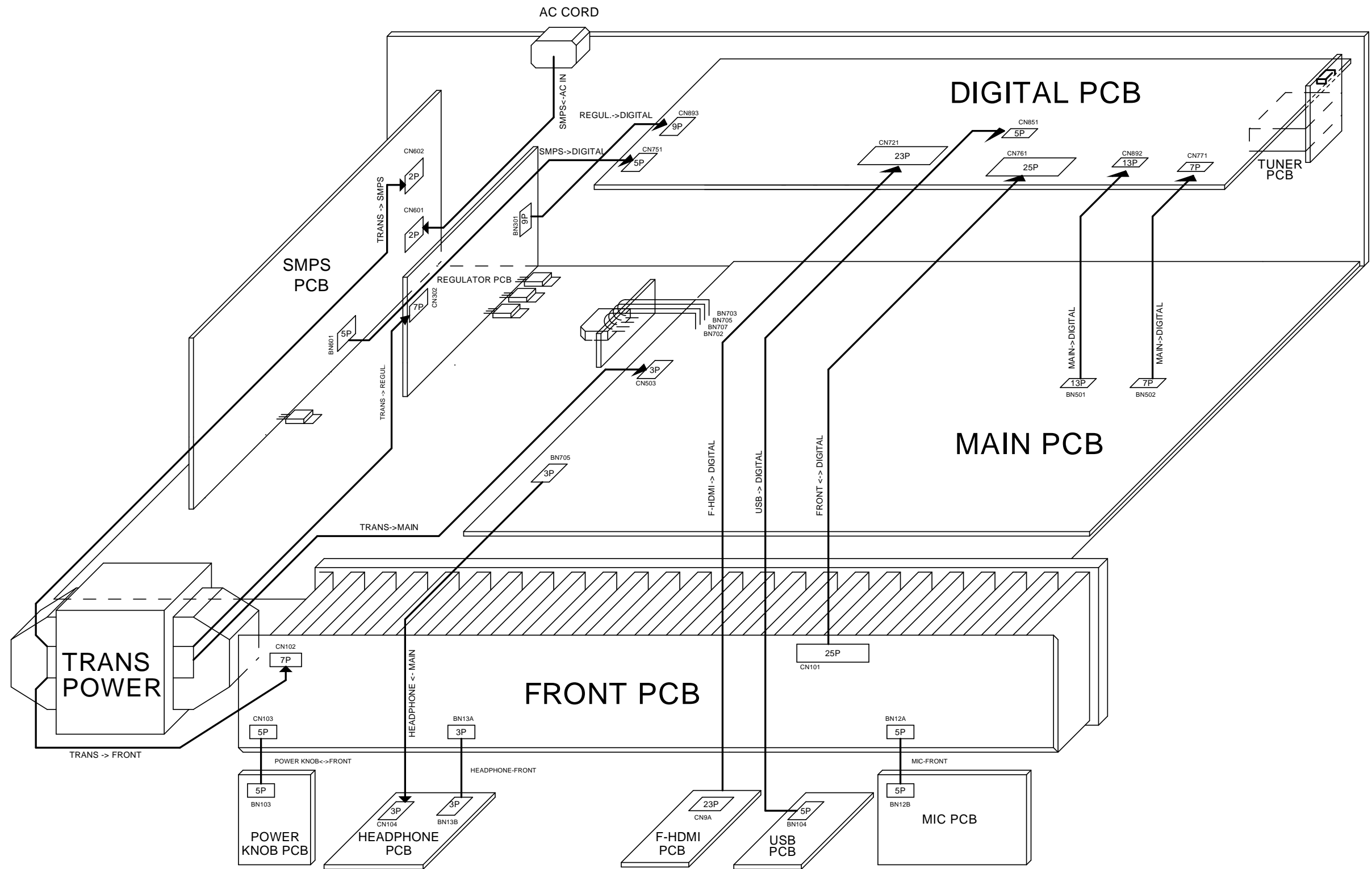
# SURROUND CHANNEL



# SUBWOOFER CHANNEL



# WIRING DIAGRAM

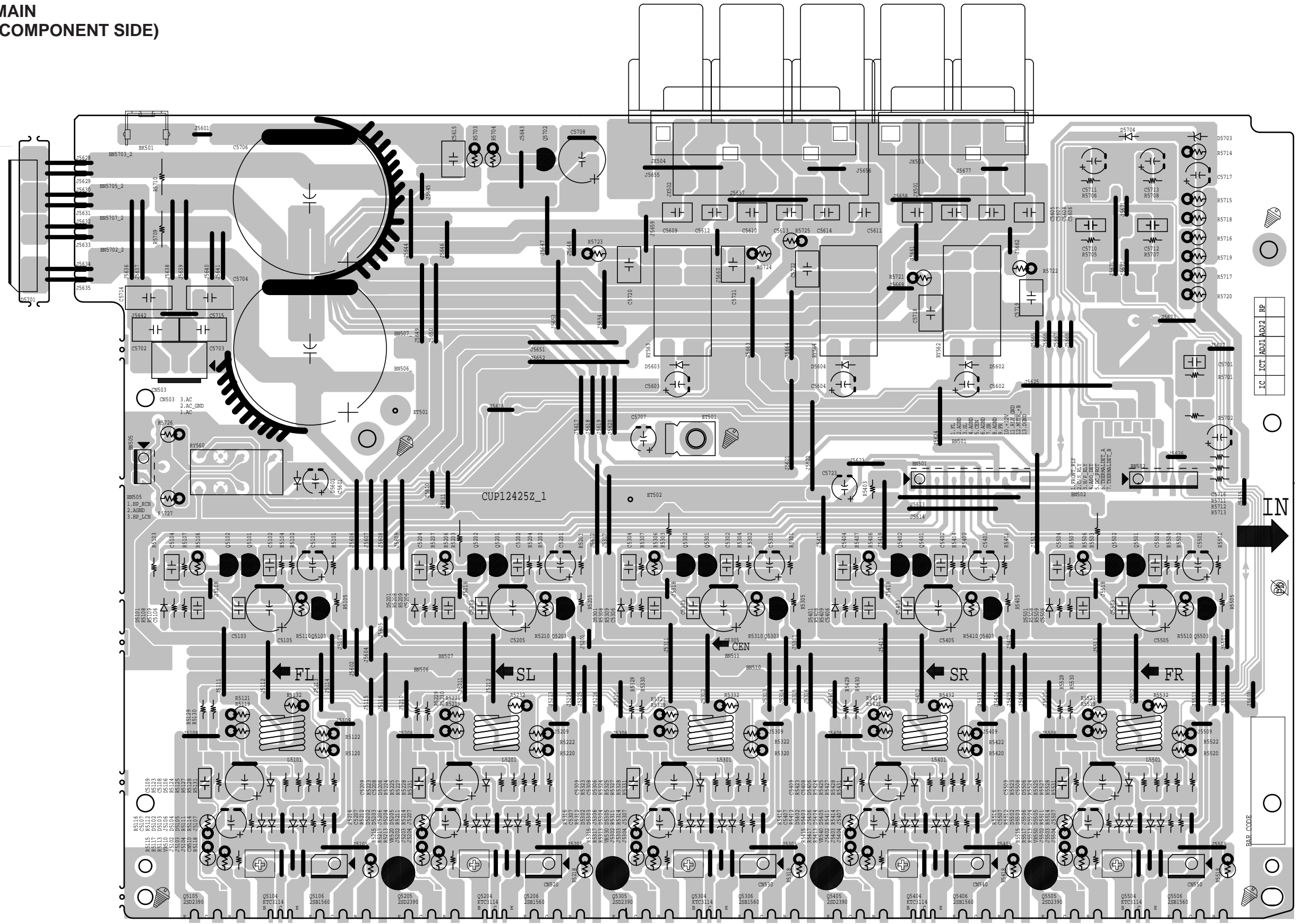


# PRINTED WIRING BOARDS

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

**MAIN  
(COMPONENT SIDE)**

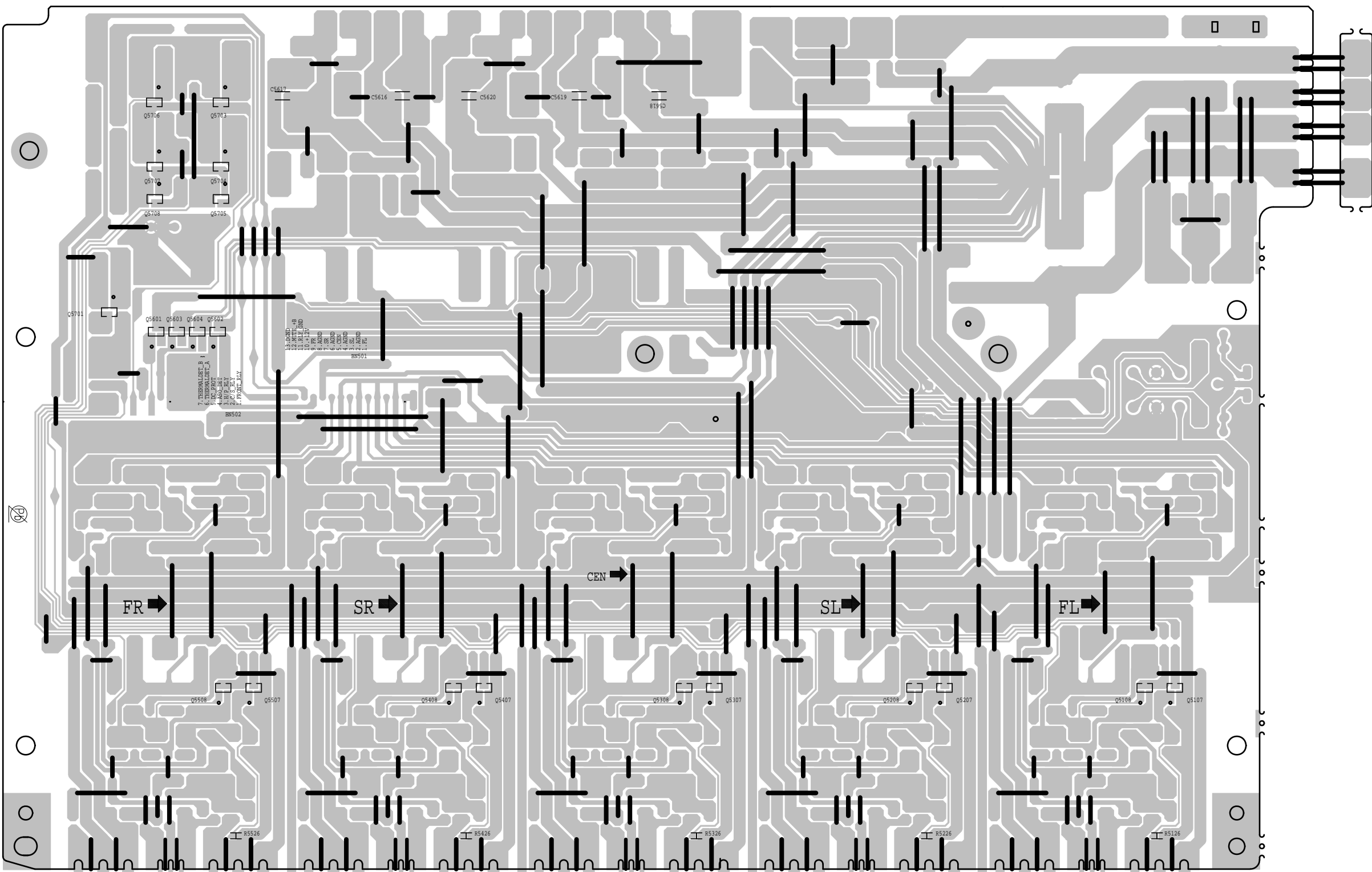
A  
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**鉛フリー半田**  
半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。

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

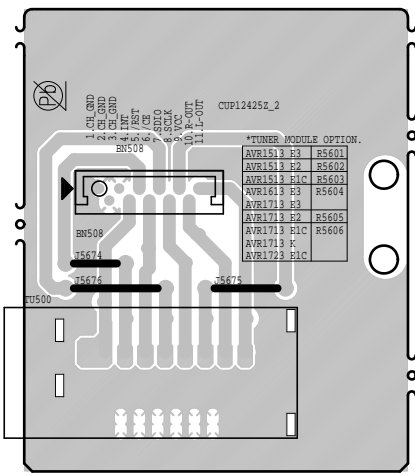
**MAIN  
(FOIL SIDE)**



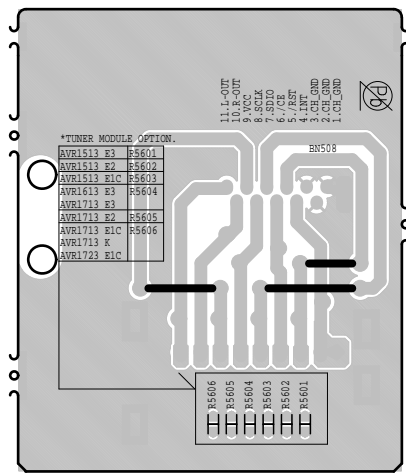
**鉛フリー半田**  
半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。

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

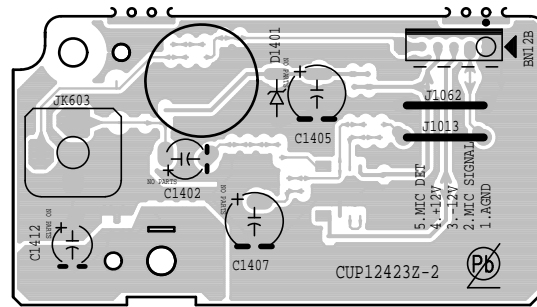
**TUNER  
(COMPONENT SIDE)**



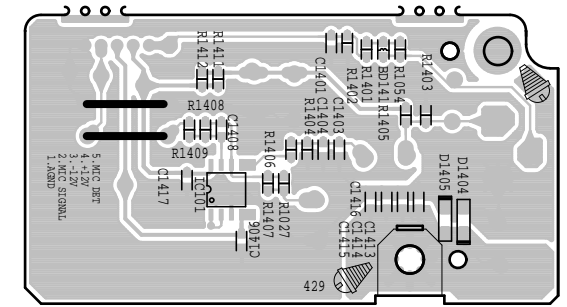
**TUNER  
(FOIL SIDE)**



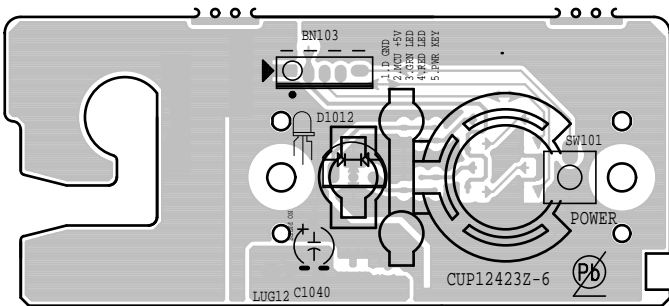
**MIC  
(COMPONENT SIDE)**



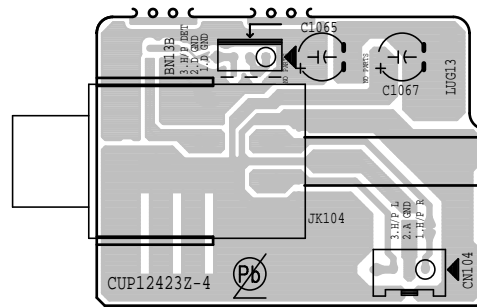
**MIC  
(FOIL SIDE)**



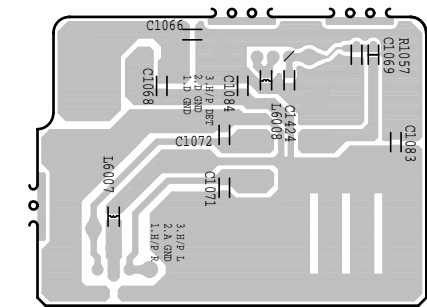
**POWER KNOB  
(COMPONENT SIDE)**



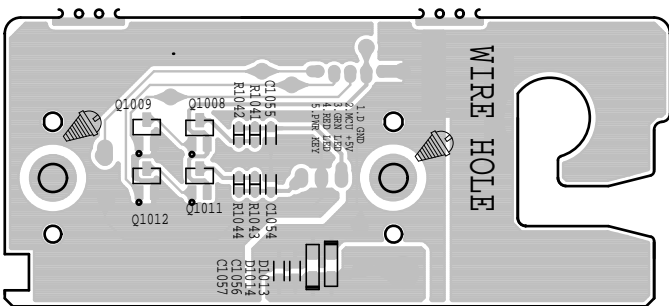
**HEADPHONE  
(COMPONENT SIDE)**



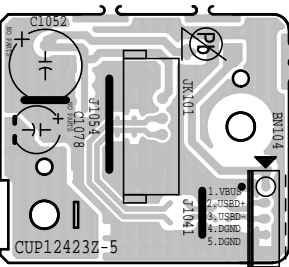
**HEADPHONE  
(FOIL SIDE)**



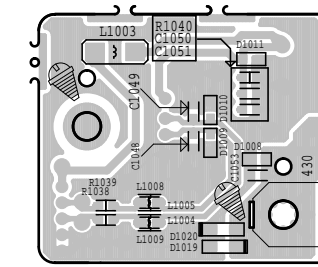
**POWER KNOB  
(FOIL SIDE)**



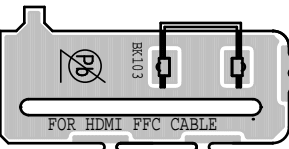
**USB  
(COMPONENT SIDE)**



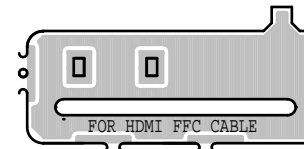
**USB  
(FOIL SIDE)**



**FOR HDMI FFC CABLE  
(COMPONENT SIDE)**



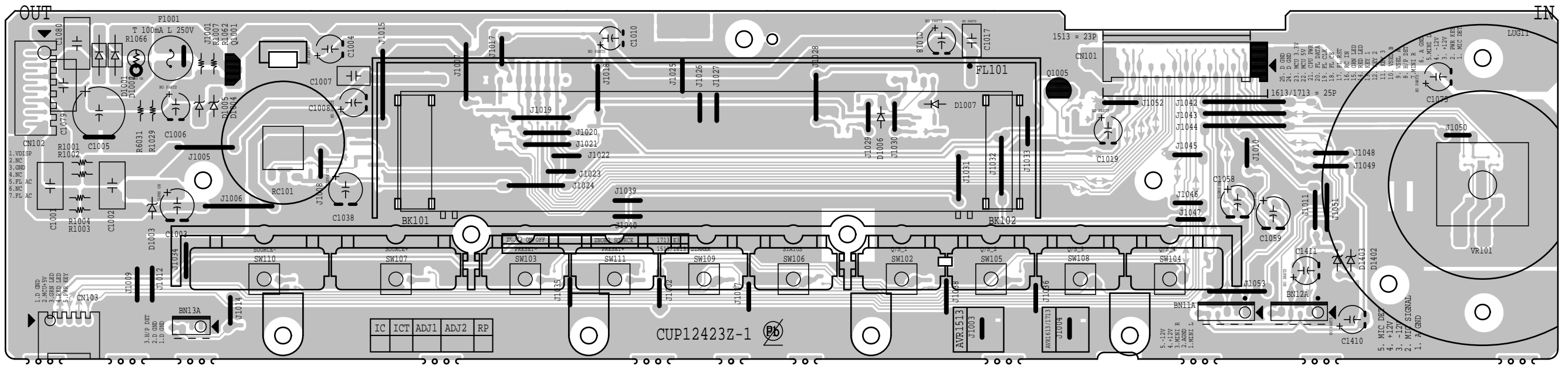
**FOR HDMI FFC CABLE  
(FOIL SIDE)**



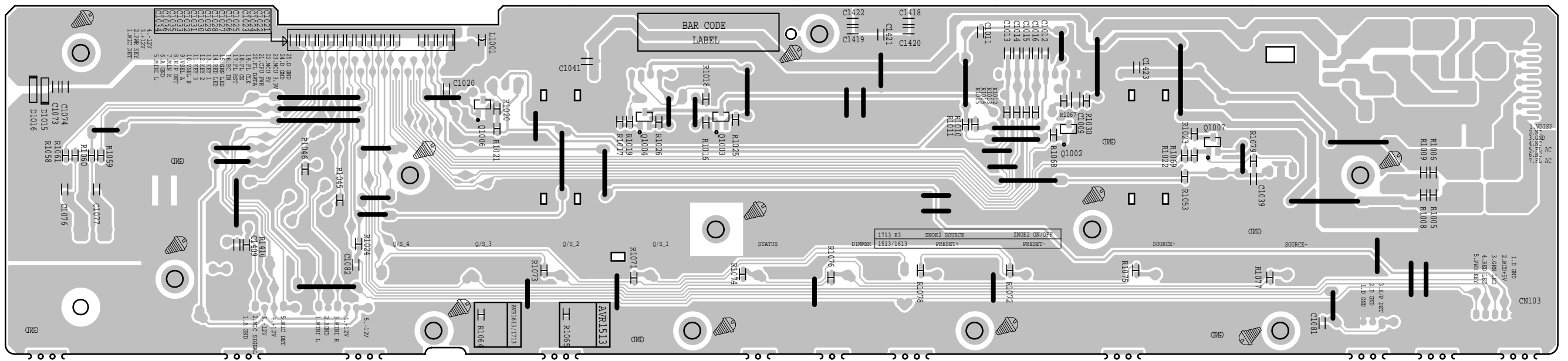
**鉛フリー半田**  
半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。  
**Lead-free Solder**  
When soldering, use the Lead-free Solder (Sn-Ag-Cu).

A  
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**FRONT  
(COMPONENT SIDE)**



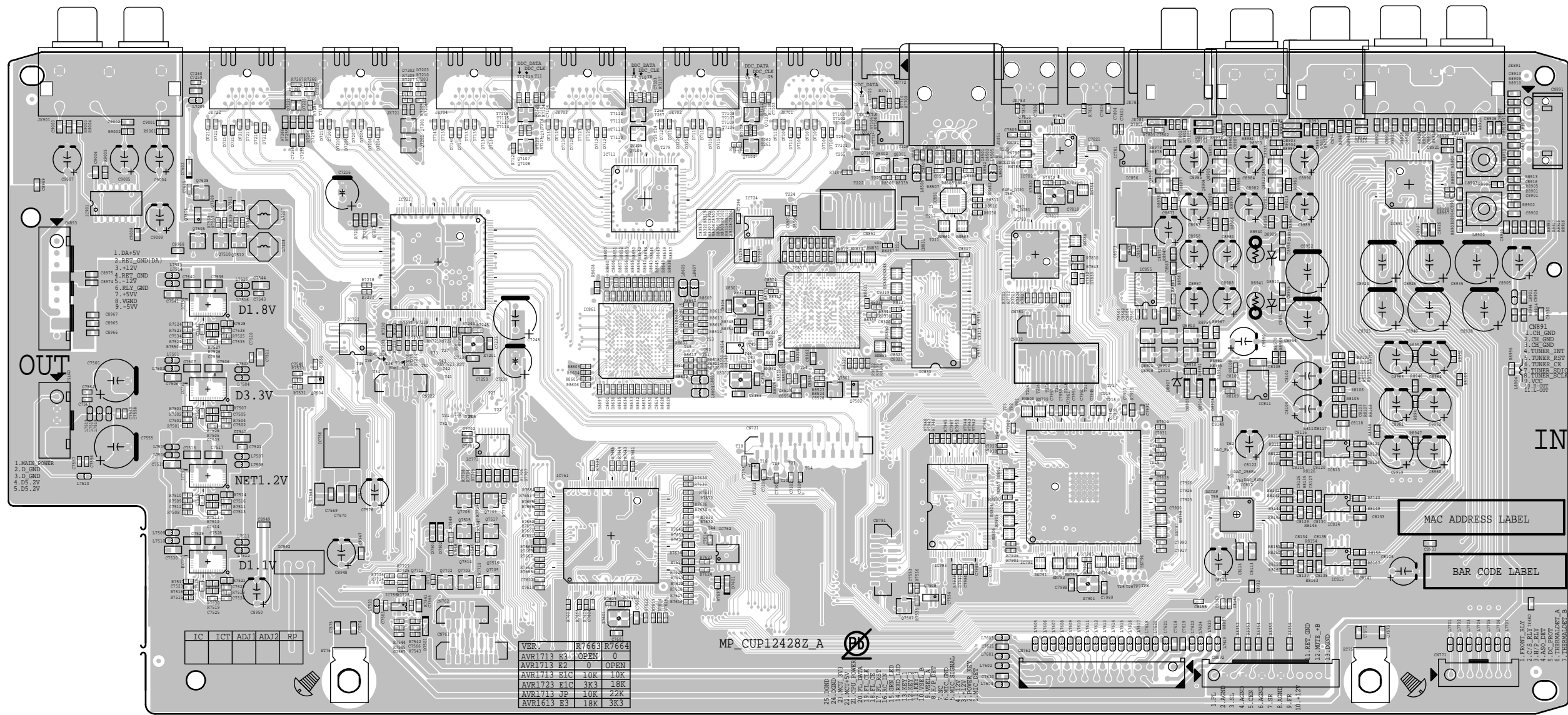
**FRONT  
(FOIL SIDE)**



**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).

**DIGITAL  
(COMPONENT SIDE)**



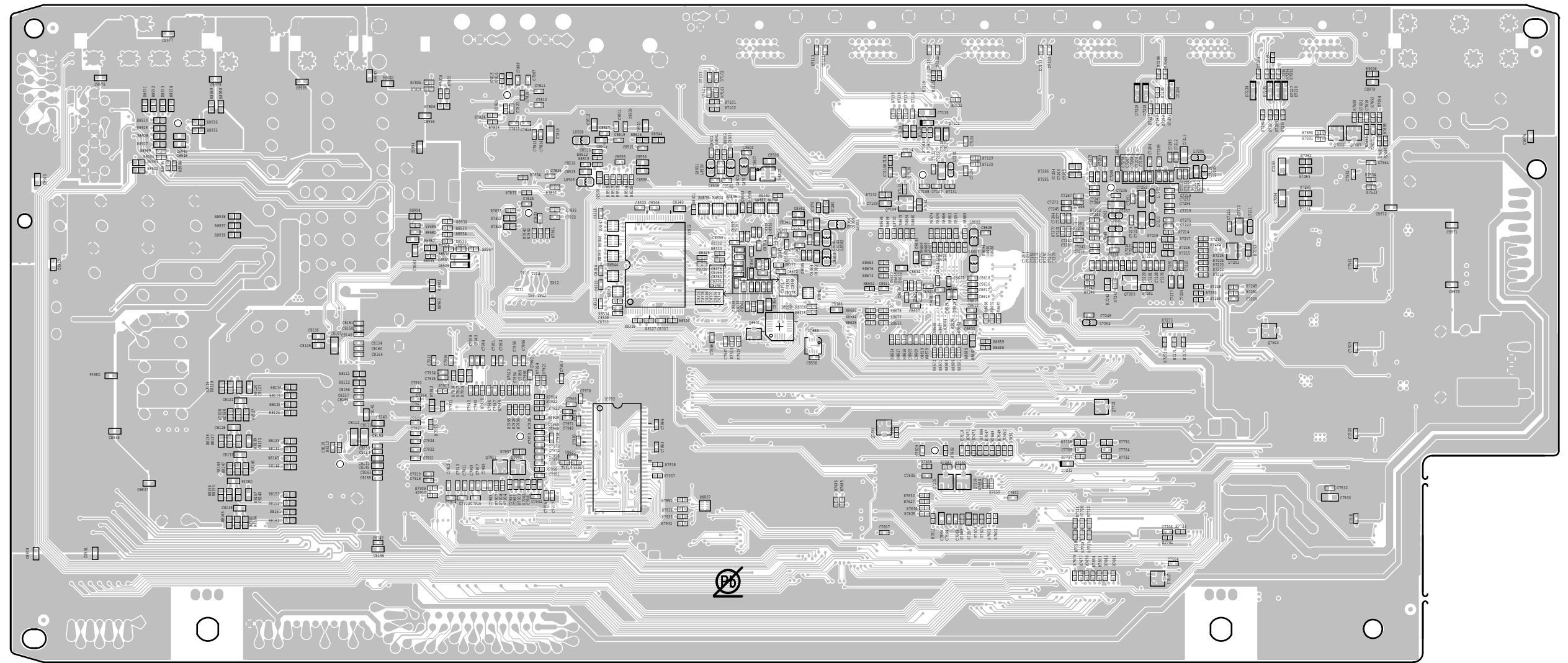
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**鉛フリー半田**  
半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。

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



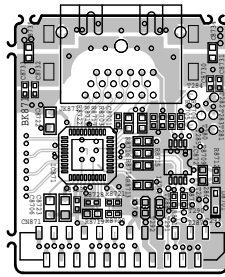
**DIGITAL  
(FOIL SIDE)**



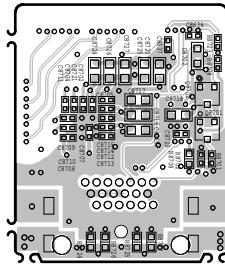
**鉛フリー半田**  
半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。

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

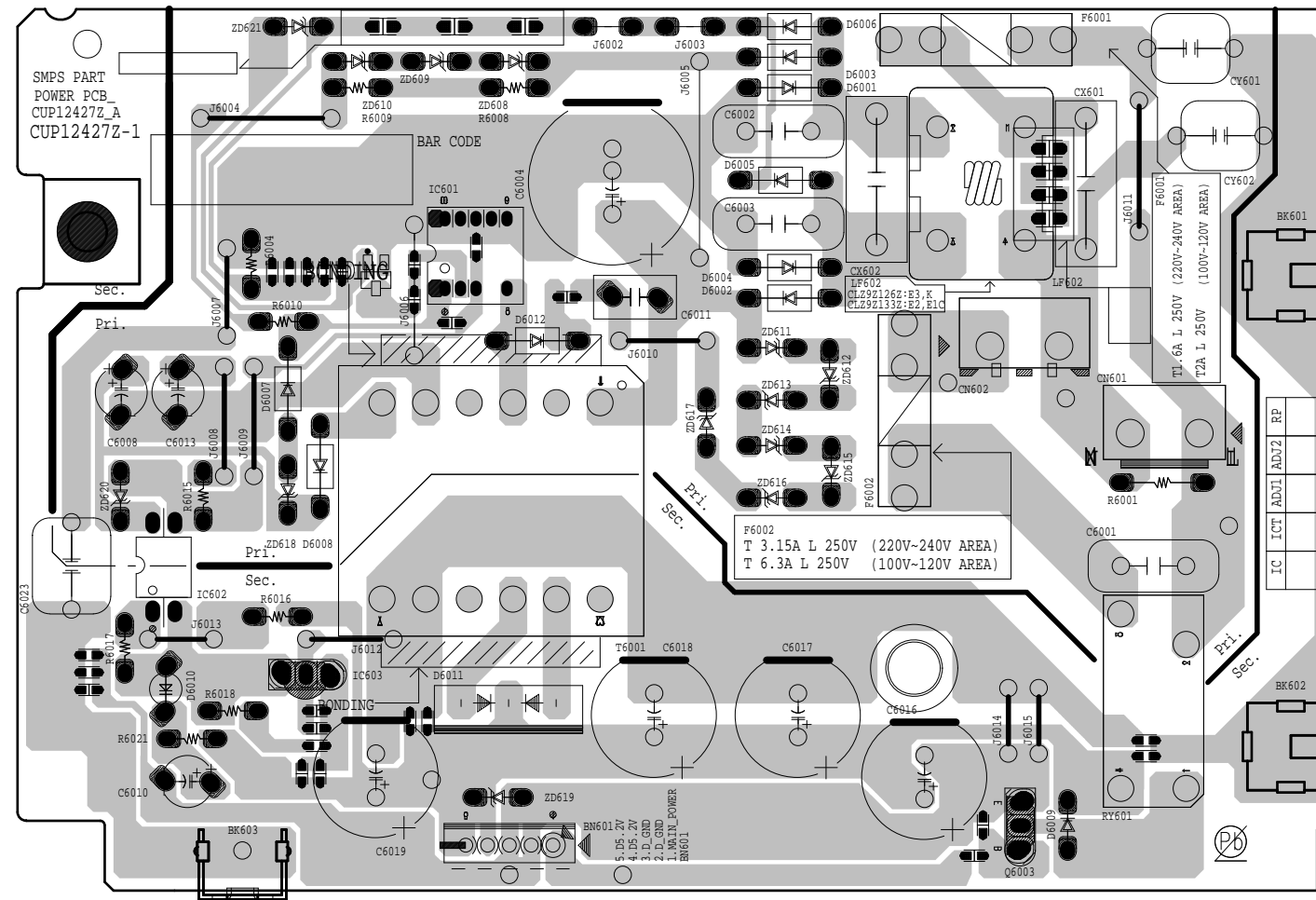
**F-HDMI  
(COMPONENT SIDE)**



**F-HDMI  
(FOIL SIDE)**



**SMPS  
(COMPONENT SIDE)**

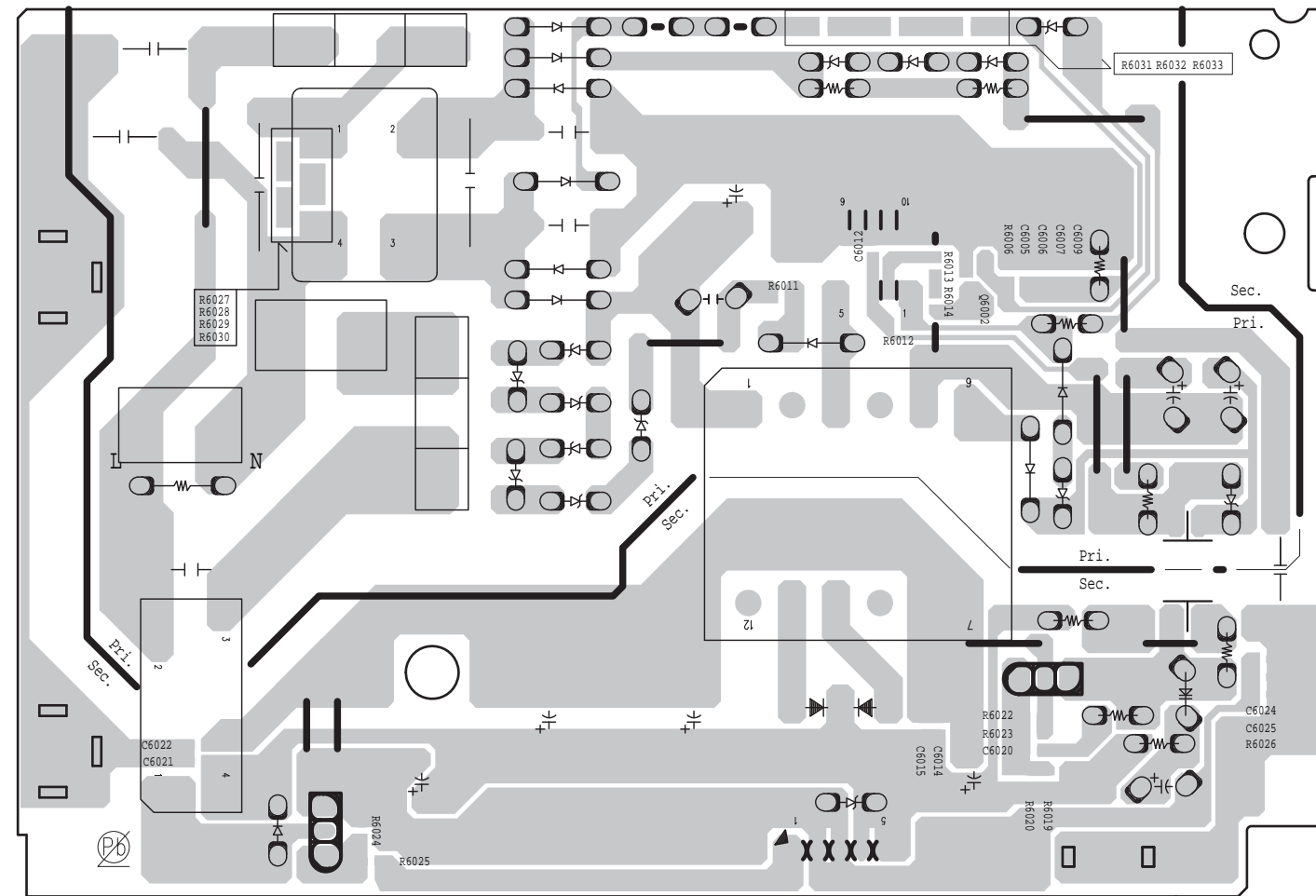


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**鉛フリー半田**  
半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。

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

SMPS  
(FOIL SIDE)



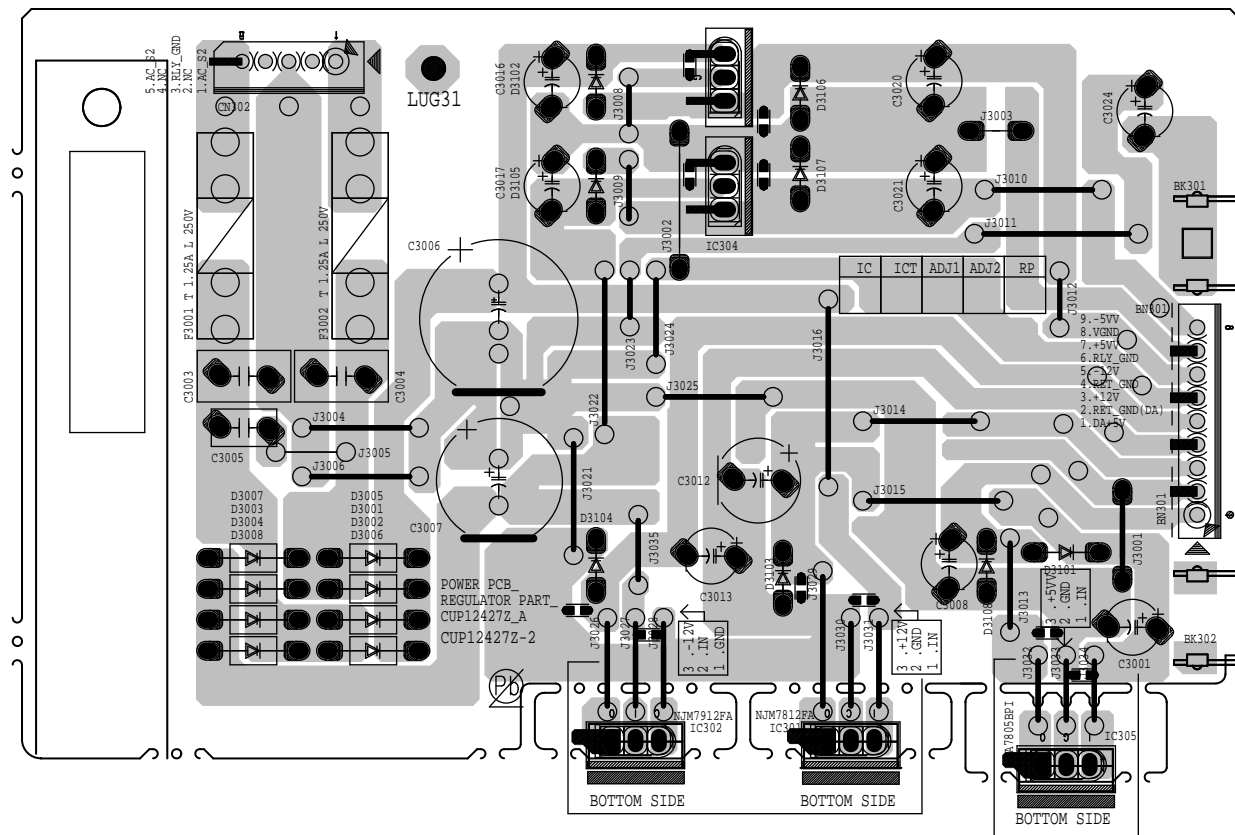
**鉛フリー半田**

半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。

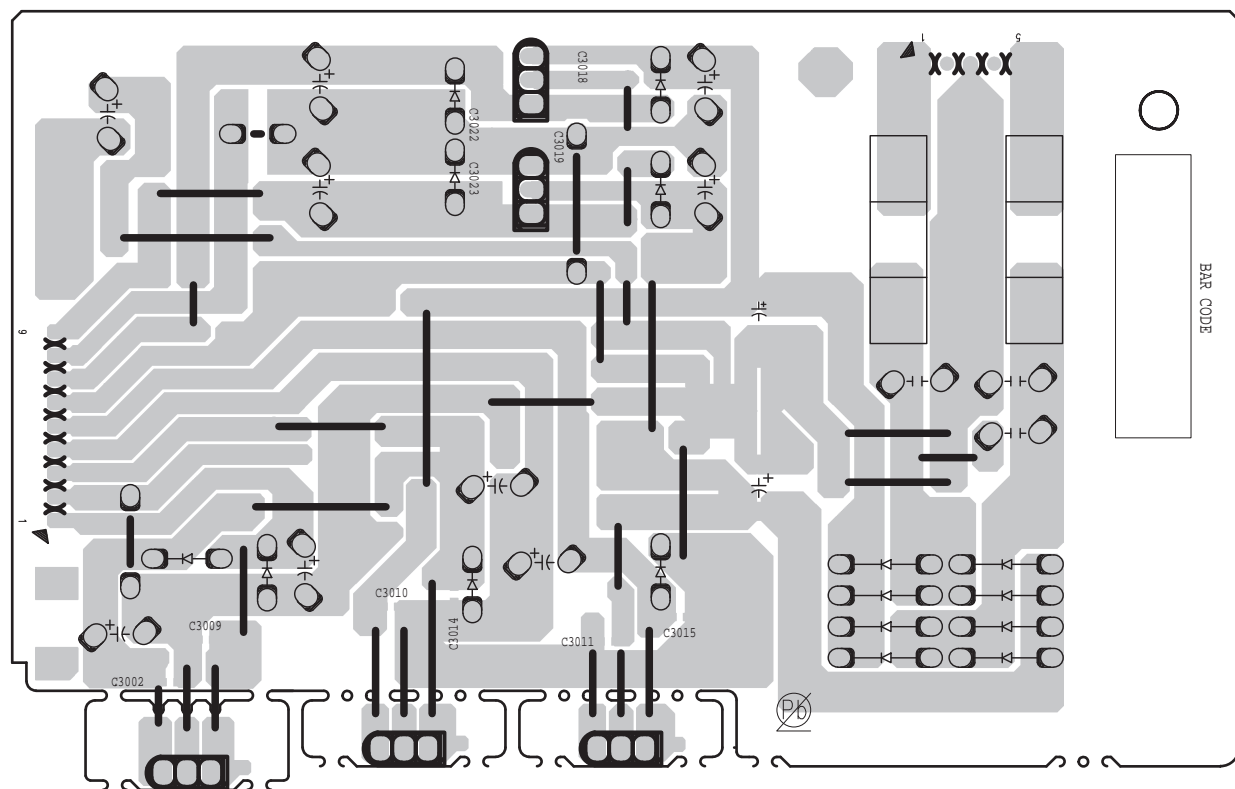
**Lead-free Solder**

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

**REGULATOR  
(COMPONENT SIDE)**



**REGULATOR  
(FOIL SIDE)**

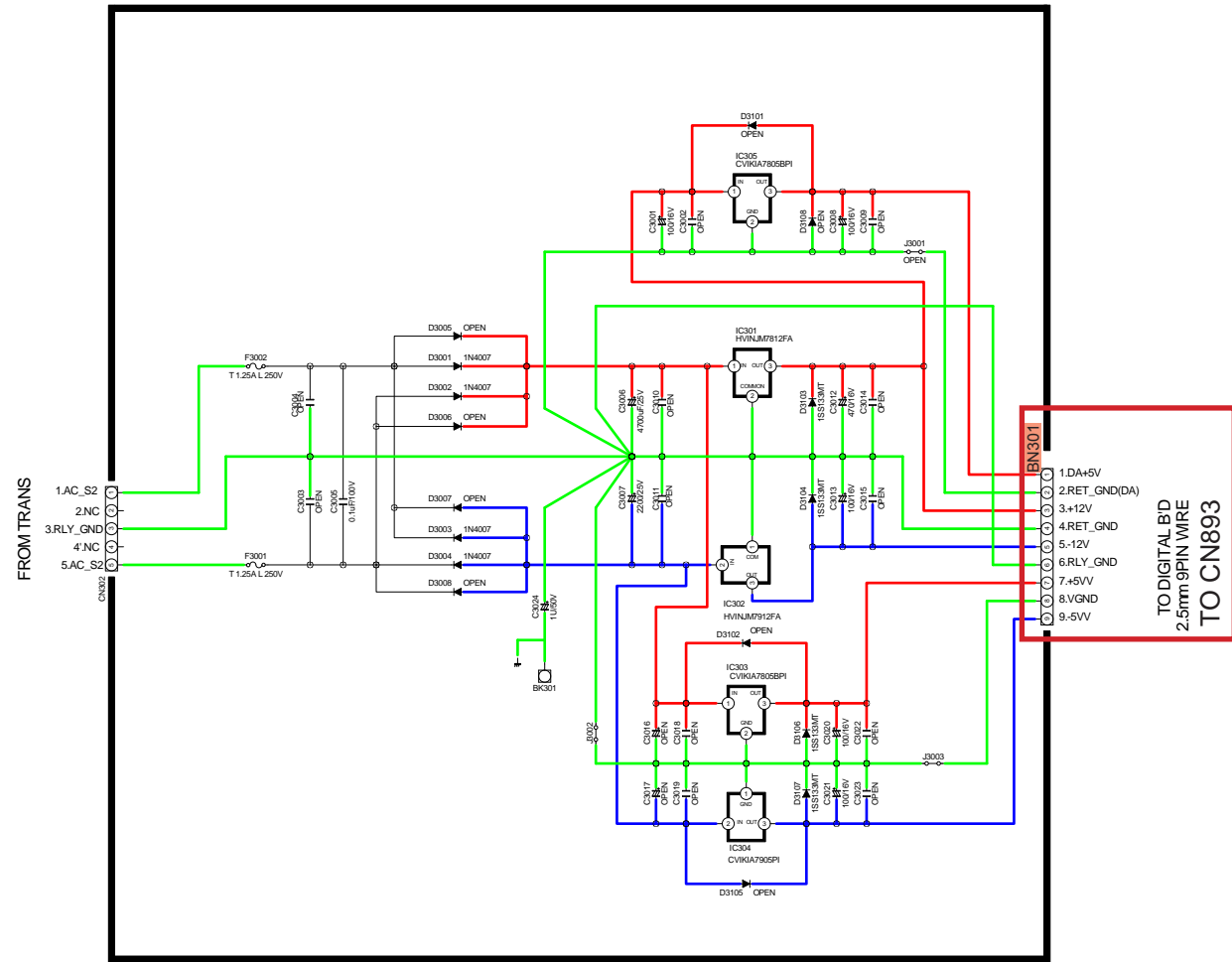


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**鉛フリー半田**  
半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。  
**Lead-free Solder**  
When soldering, use the Lead-free Solder (Sn-Ag-Cu).

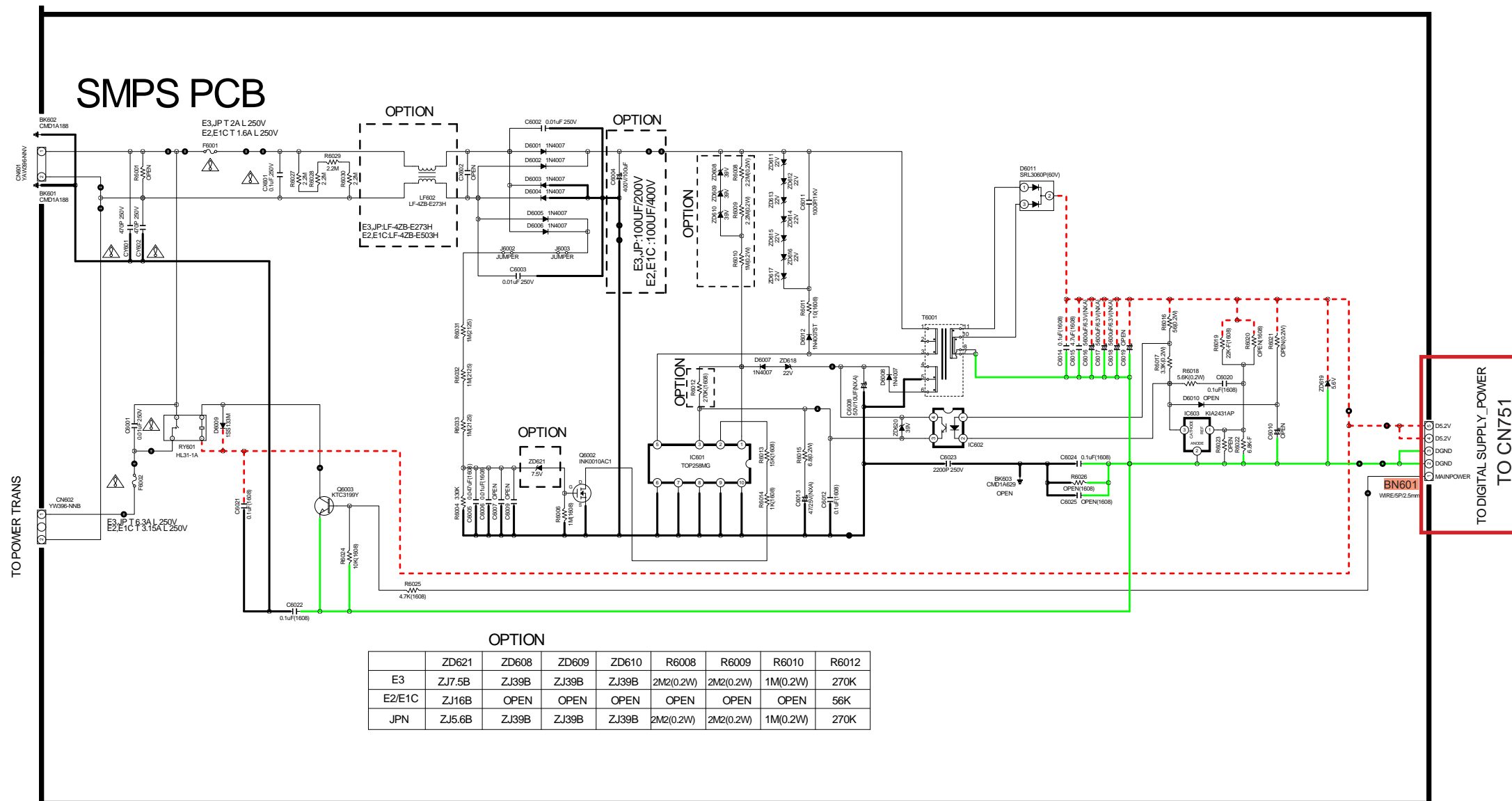


# REGULATOR PART



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

**SCHEMATIC DIAGRAMS (2/17)**  
**REGULATOR PART**

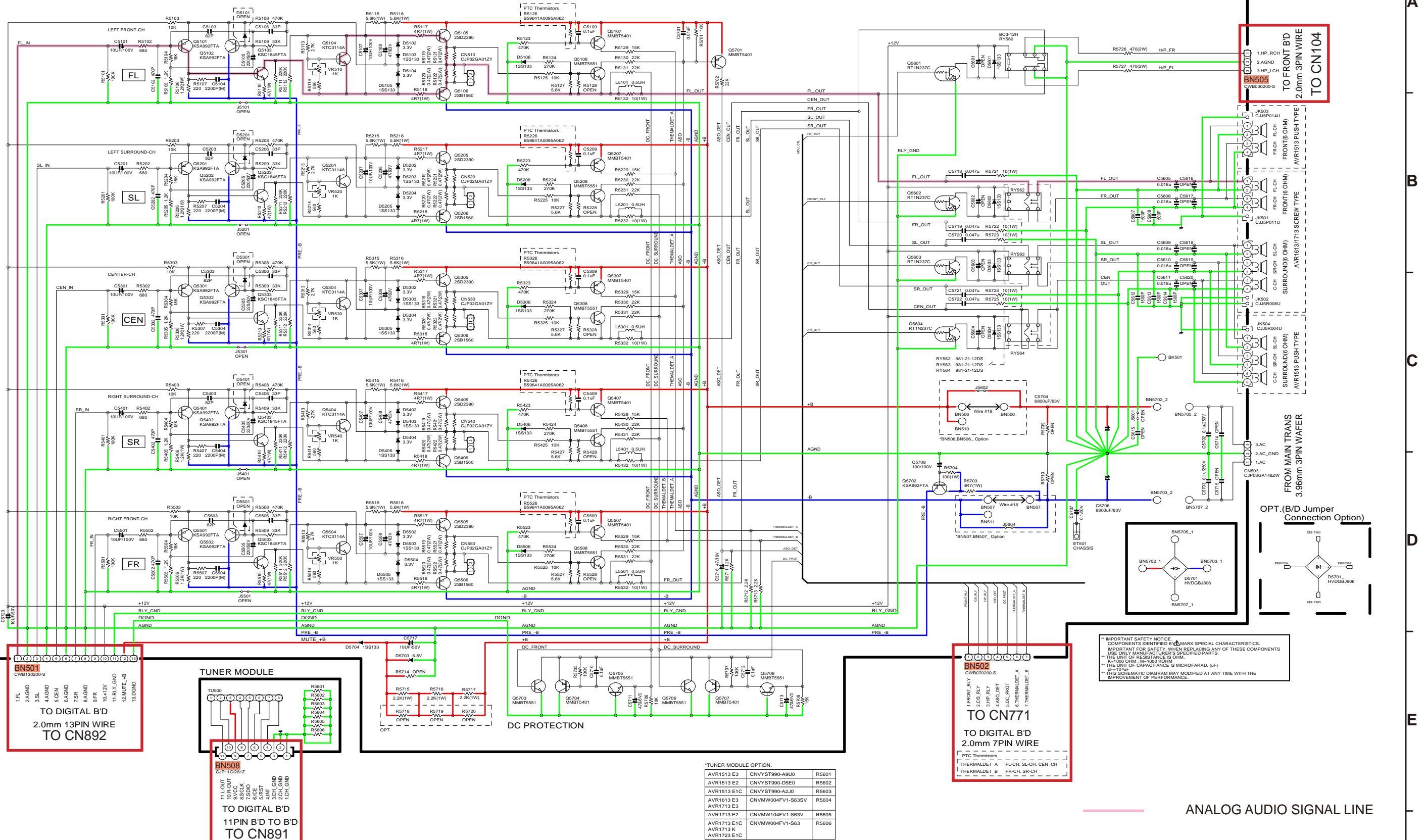


\*\*\*IMPORTANT SAFETY NOTICE:  
 COMPONENT IDENTIFIED BY MARK HAVE SPECIAL CHARACTERISTICS.  
 IMPORTANT FOR SAFETY, WHEN REPLACING ANY OF THESE COMPONENTS,  
 USE ONLY MANUFACTURERS SPECIFIED PARTS.  
 \*\* THE UNIT OF RESISTANCE IS OHM.  
 K = 100 OHM M = 1000 OHM  
 \*\* THE UNIT OF CAPACITANCE IS MICROFARAD(UF)  
 pF = 10<sup>-6</sup>  
 \*\*\* THIS SCHEMATIC DIAGRAM MAY MODIFIED AT ANY TIME WITH THE  
 IMPROVEMENT OF PERFORMANCE.

## SCHEMATIC DIAGRAMS (3/17) SMPS UNIT

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

# AVR1513/AVR1613/1713 MAIN PART



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

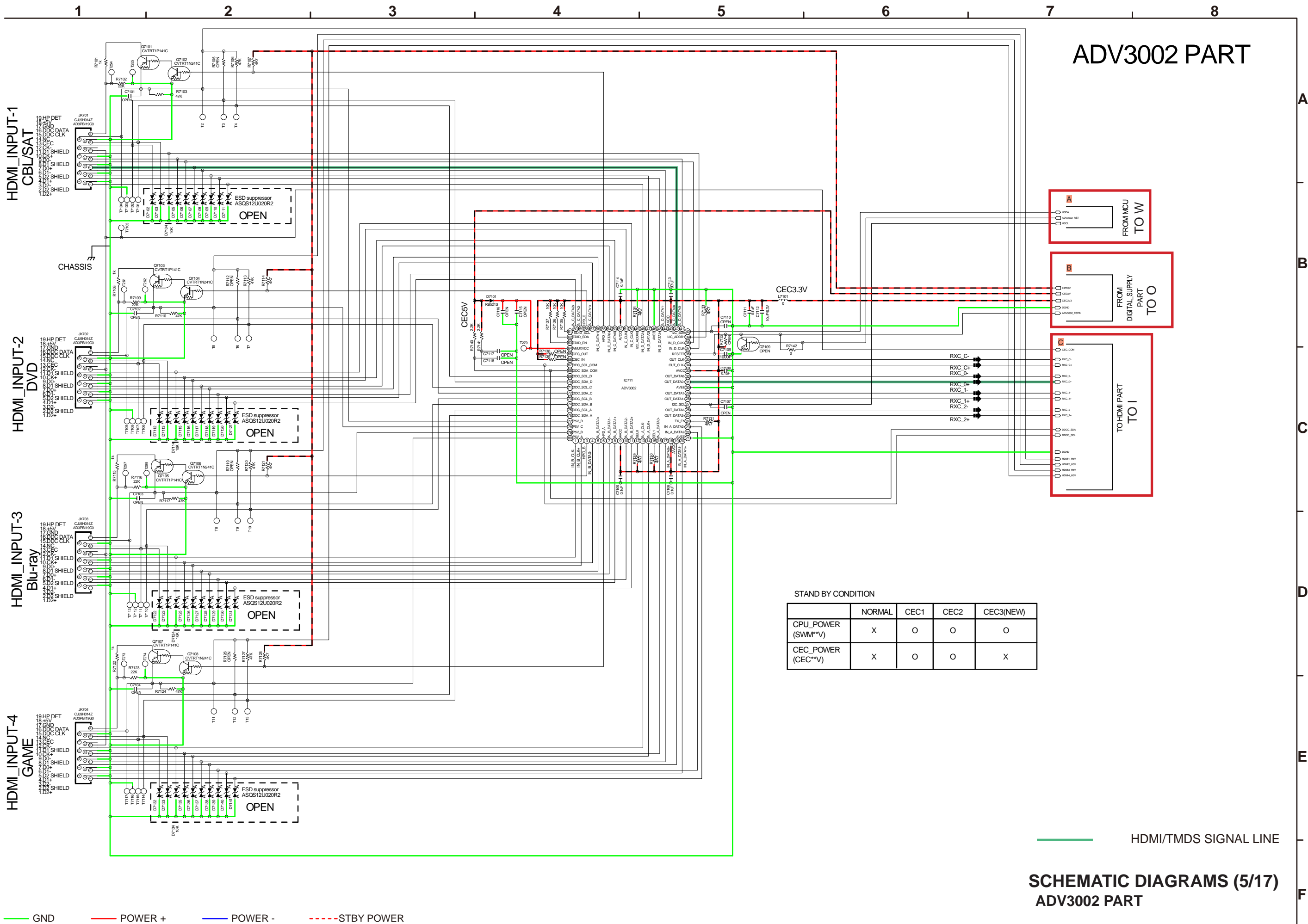
\*TUNER MODULE OPTION.

AVR1513 E3	CNVYST990-A9U0	R5601
AVR1513 E2	CNVYST990-D5E0	R5602
AVR1513 E1C	CNVYST990-A2J0	R5603
AVR1613 E3	CNVMMW004FV1-S635V	R5604
AVR1713 E2	CNVMMW104FV1-S63V	R5605
AVR1713 E1C	CNVMMW004FV1-S63	R5606

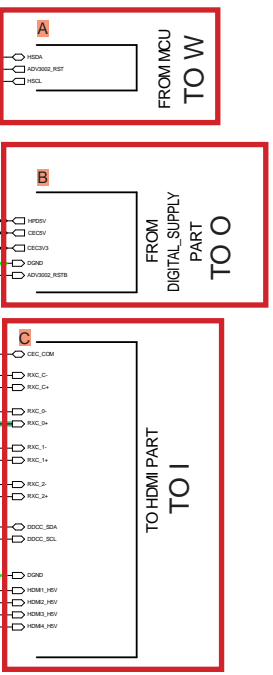
**SCHEMATIC DIAGRAMS (4/17)**  
**MAIN PART**

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





# ADV3002 PART



STAND BY CONDITION

	NORMAL	CEC1	CEC2	CEC3(NEW)
CPU_POWER (SWM**V)	X	O	O	O
CEC_POWER (CEC**V)	X	O	O	X

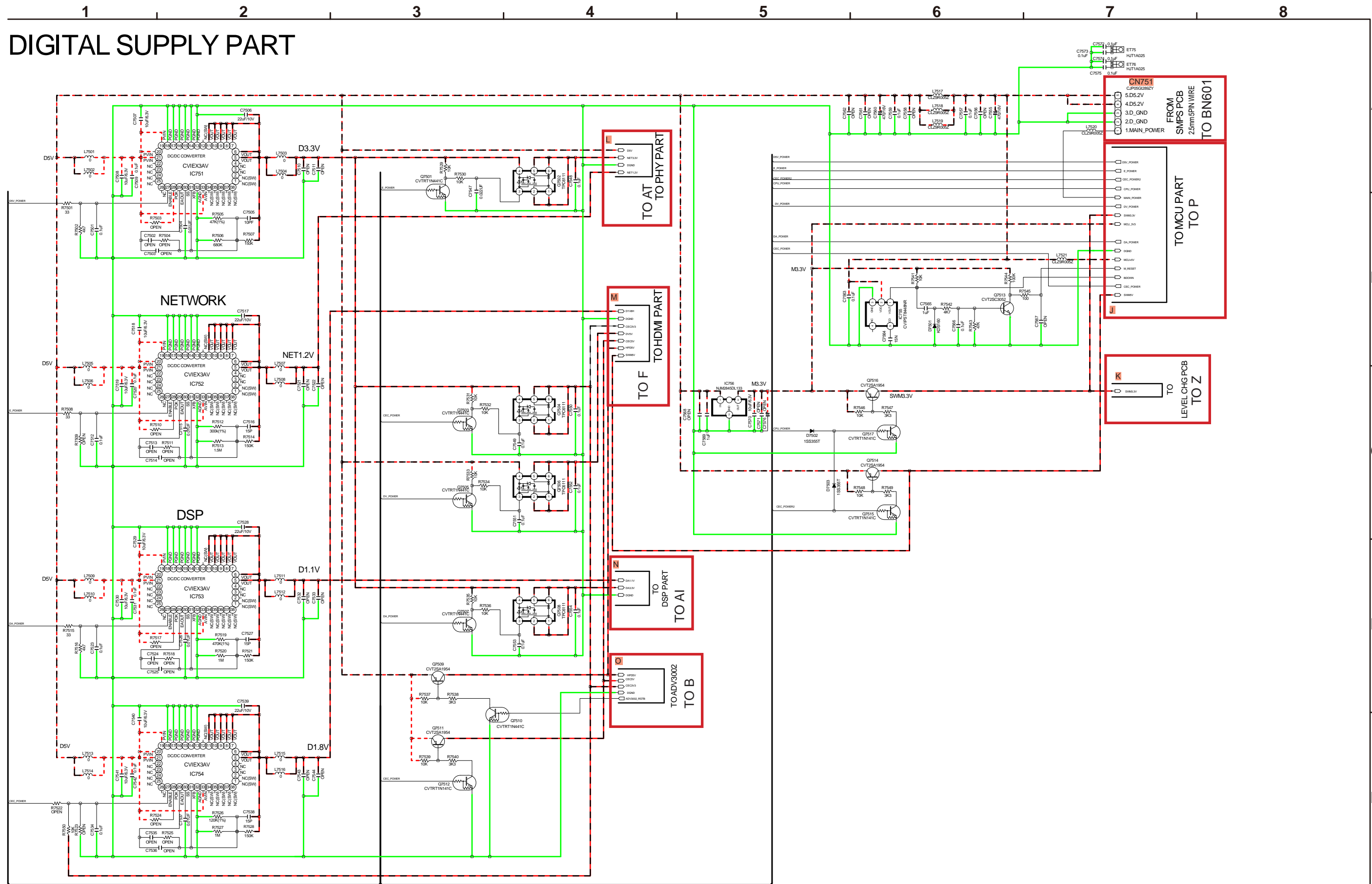
— HDMI/TMDS SIGNAL LINE

**SCHEMATIC DIAGRAMS (5/17)**  
ADV3002 PART

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

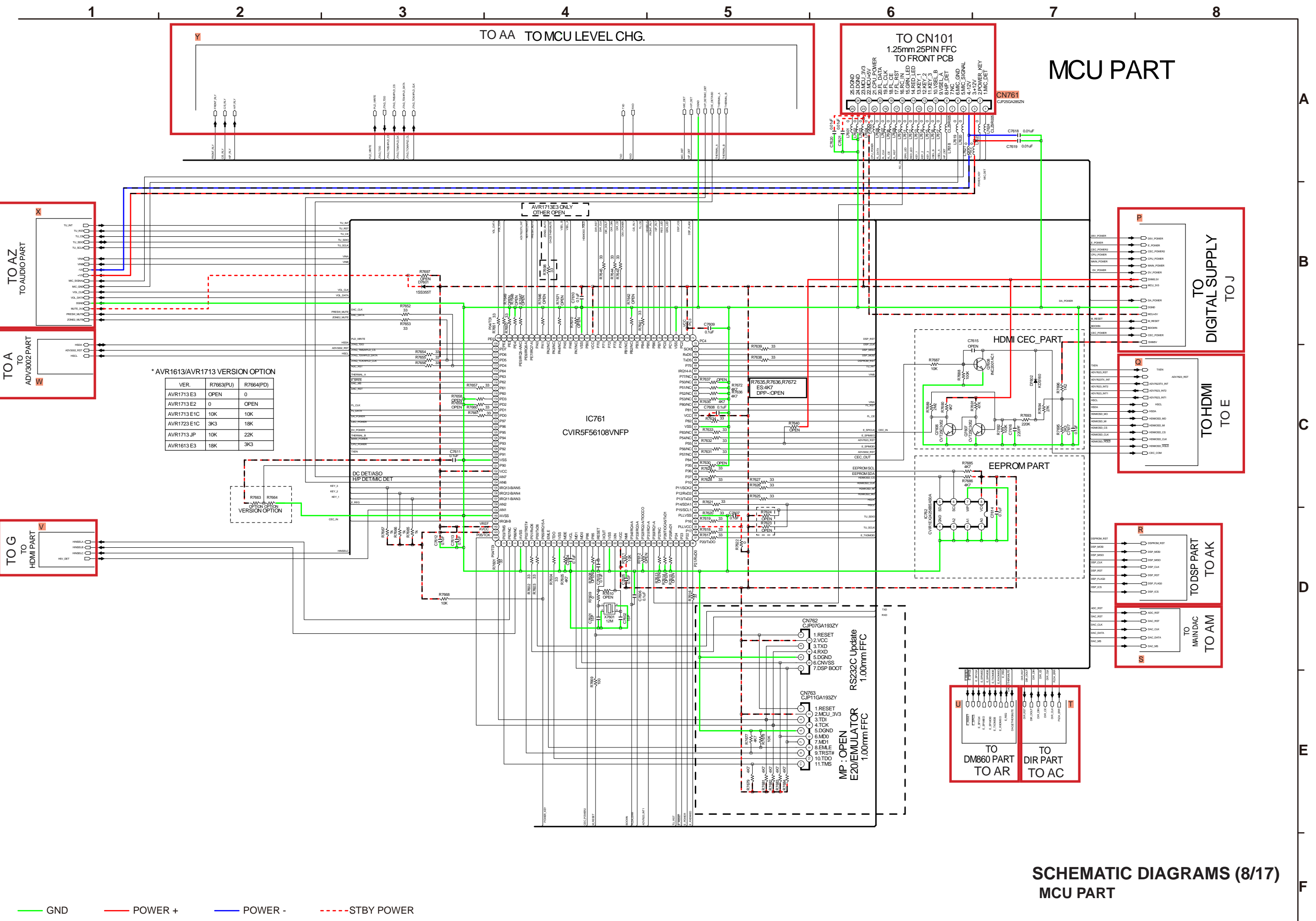


# DIGITAL SUPPLY PART



**SCHEMATIC DIAGRAMS (7/17)**  
**DIGITAL SUPPLY PART**

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



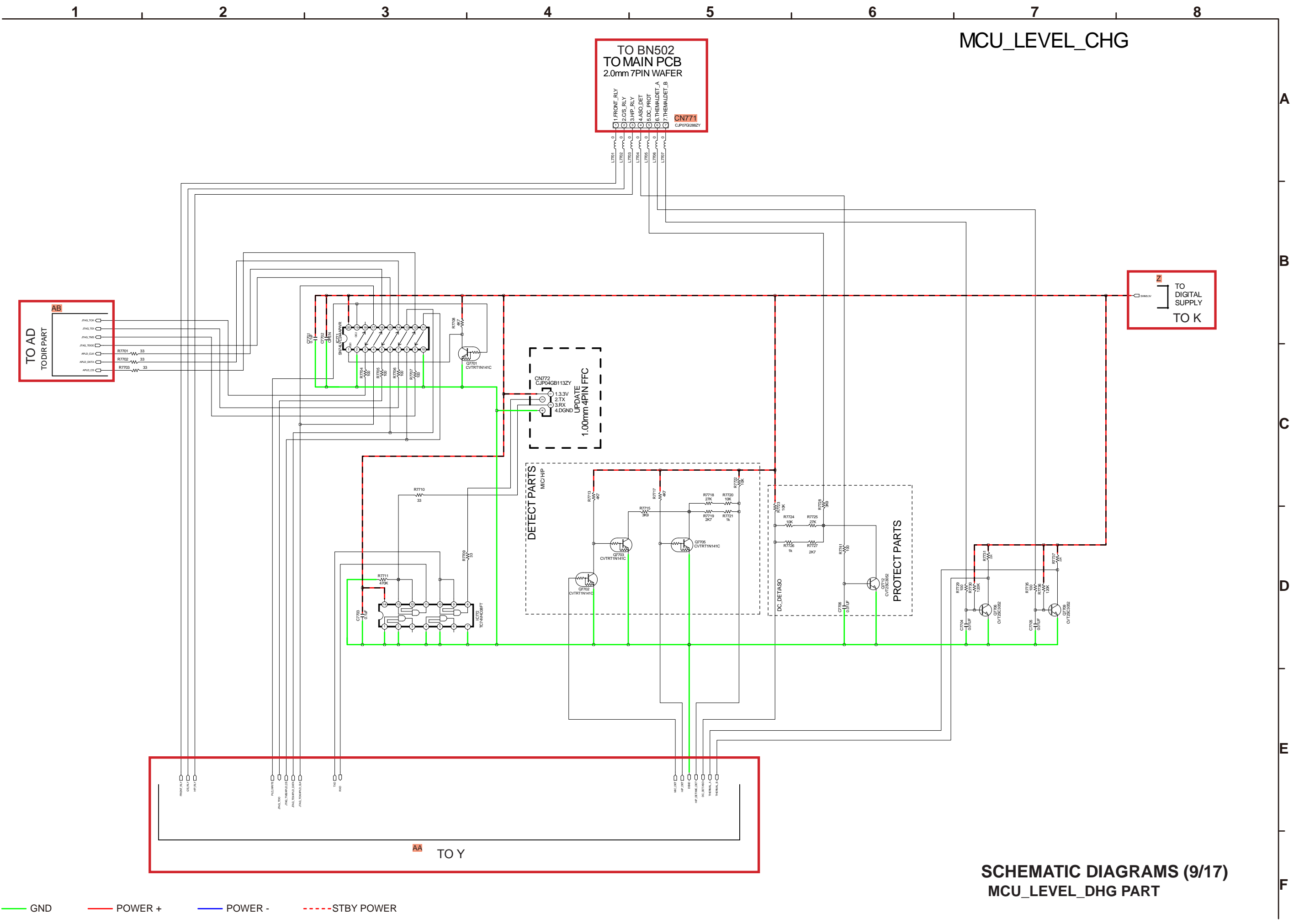
\* AVR1613/AVR1713 VERSION OPTION

VER.	R7663(PU)	R7664(PD)
AVR1713 E3	OPEN	0
AVR1713 E2	0	OPEN
AVR1713 E1C	10K	10K
AVR1723 E1C	3K3	18K
AVR1713 JP	10K	22K
AVR1613 E3	18K	3K3

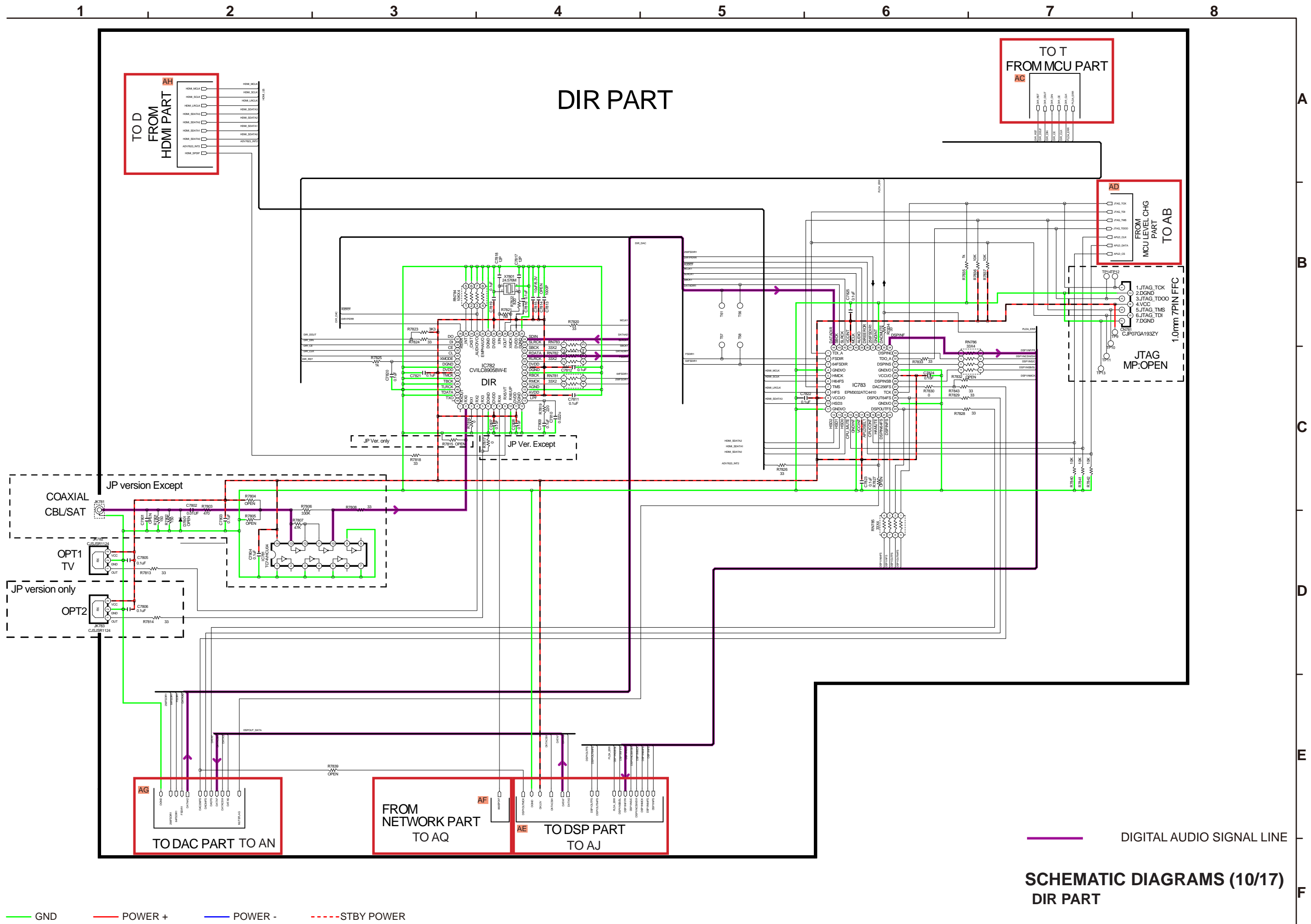
R7663 R7664  
VERSION OPTION

SCHEMATIC DIAGRAMS (8/17)  
MCU PART

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

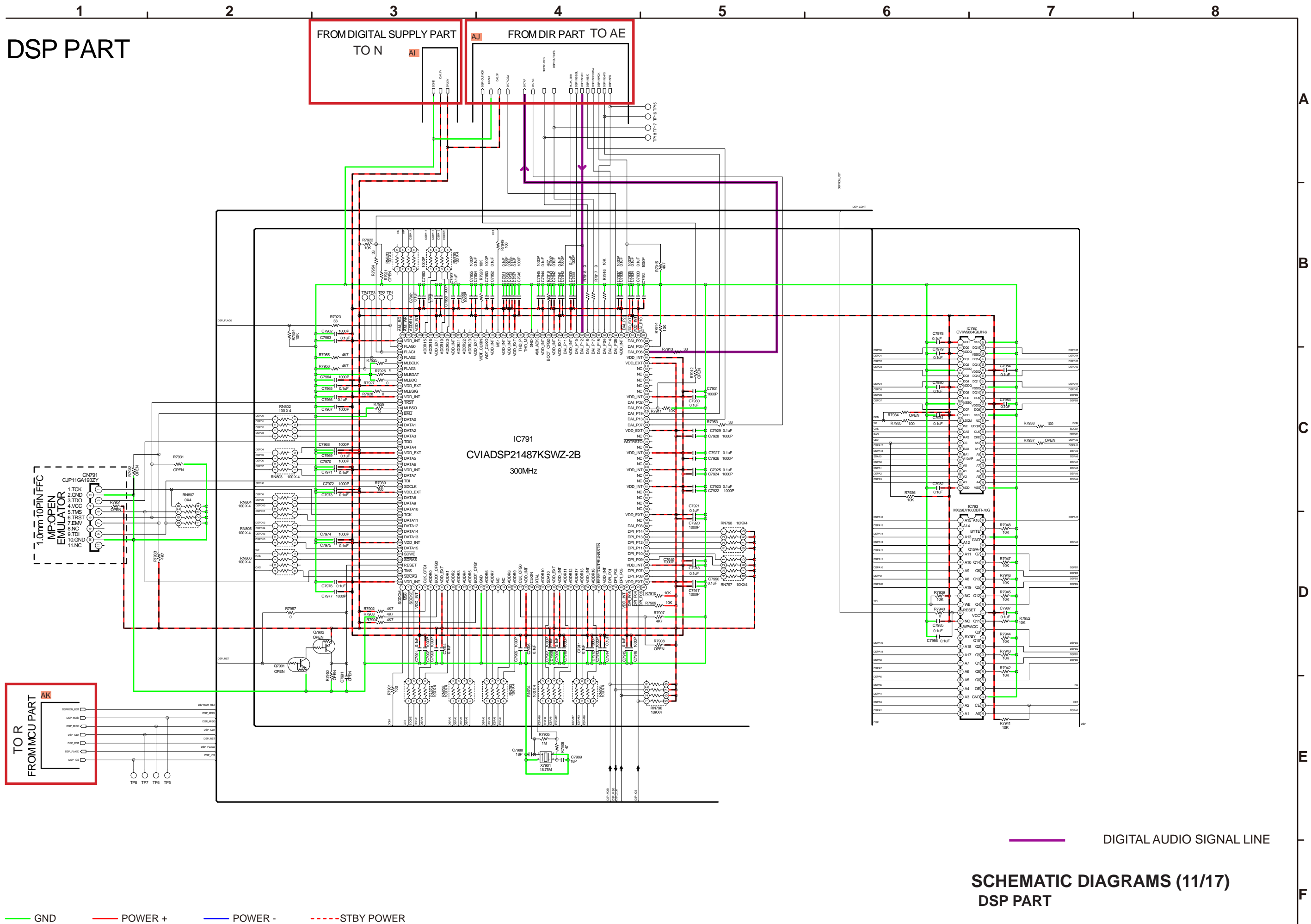


**SCHEMATIC DIAGRAMS (9/17)**  
**MCU\_LEVEL\_DHG PART**

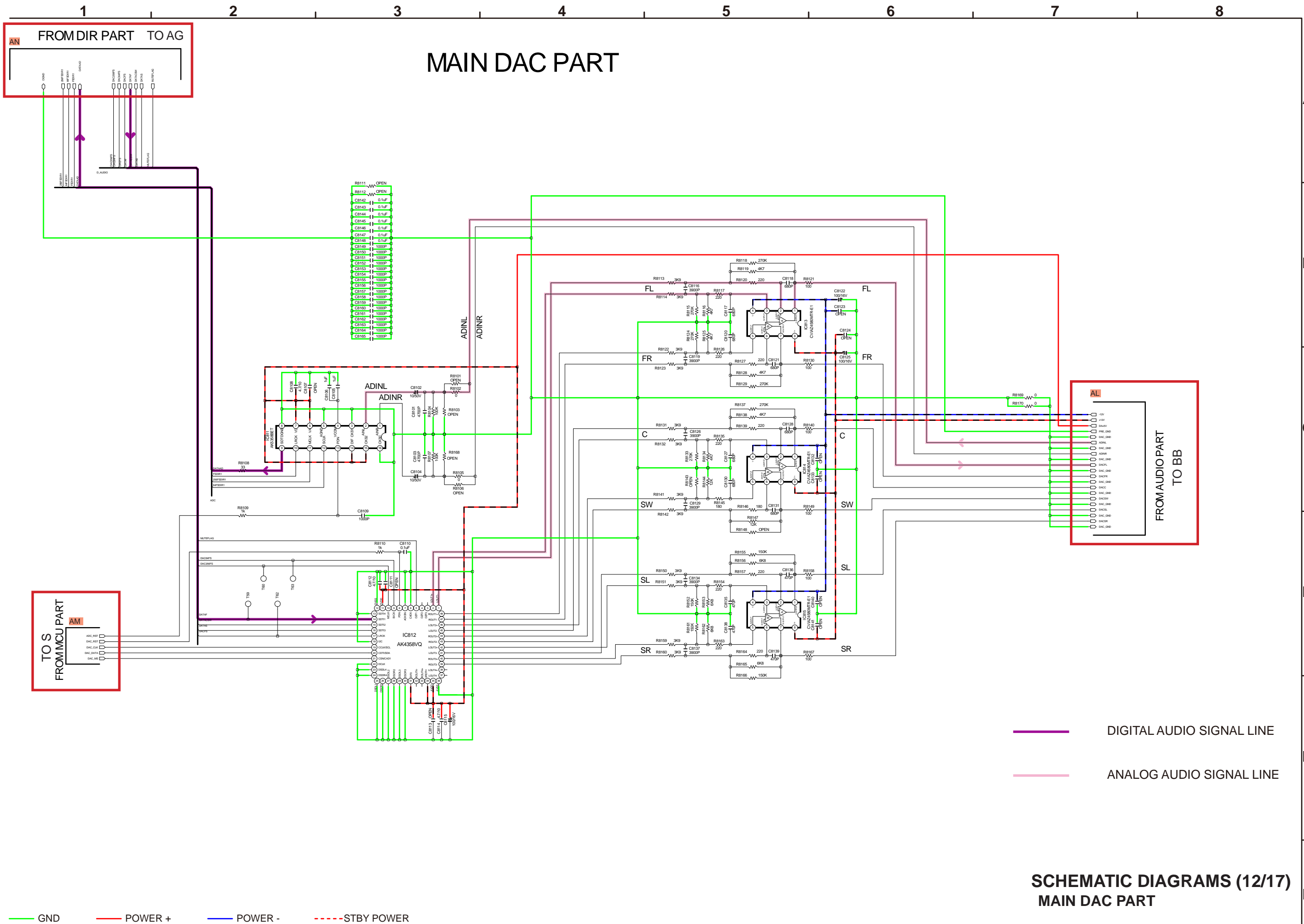


**SCHEMATIC DIAGRAMS (10/17)**  
**DIR PART**

# DSP PART

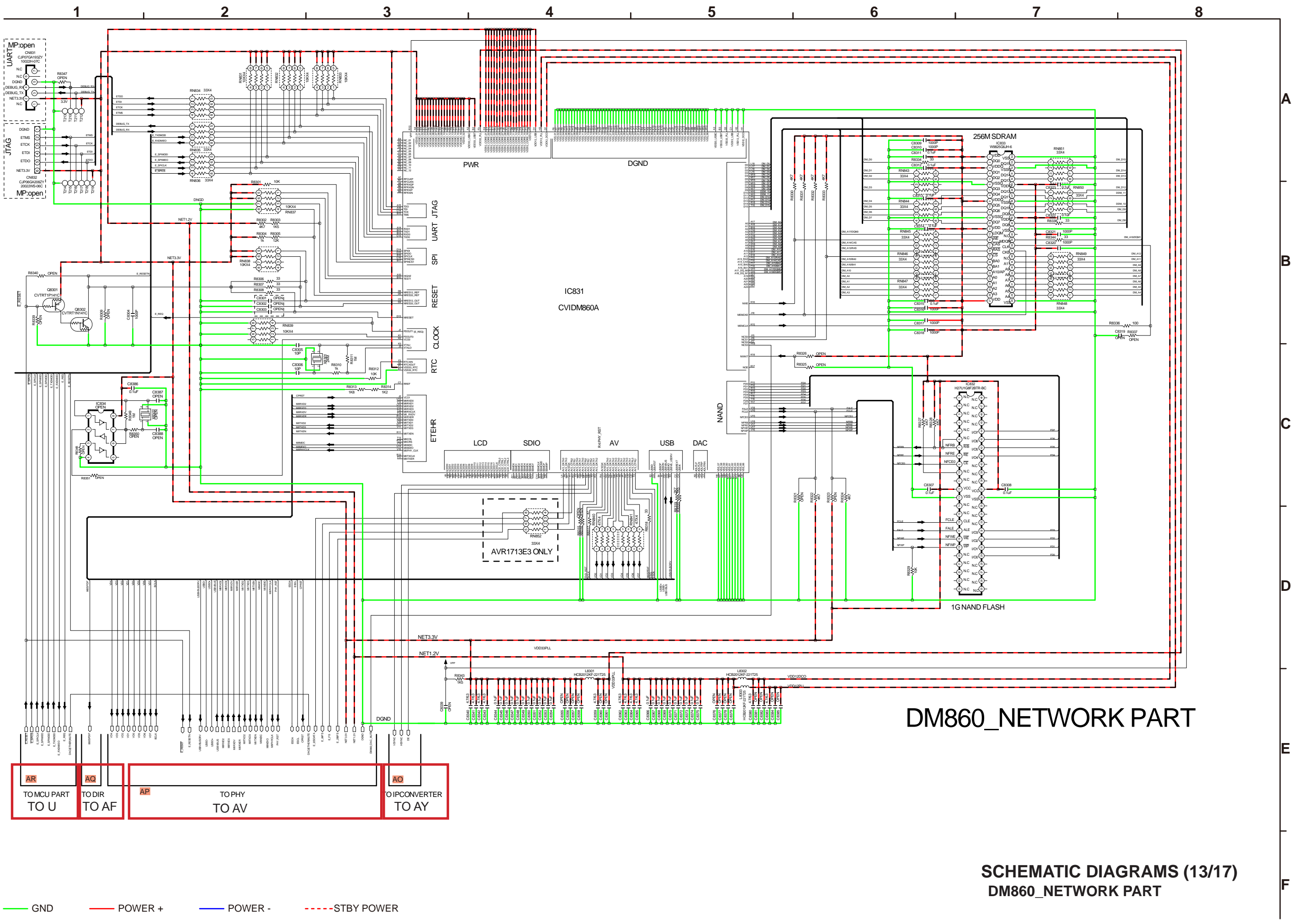


**SCHEMATIC DIAGRAMS (11/17)  
DSP PART**



**SCHEMATIC DIAGRAMS (12/17)**  
**MAIN DAC PART**

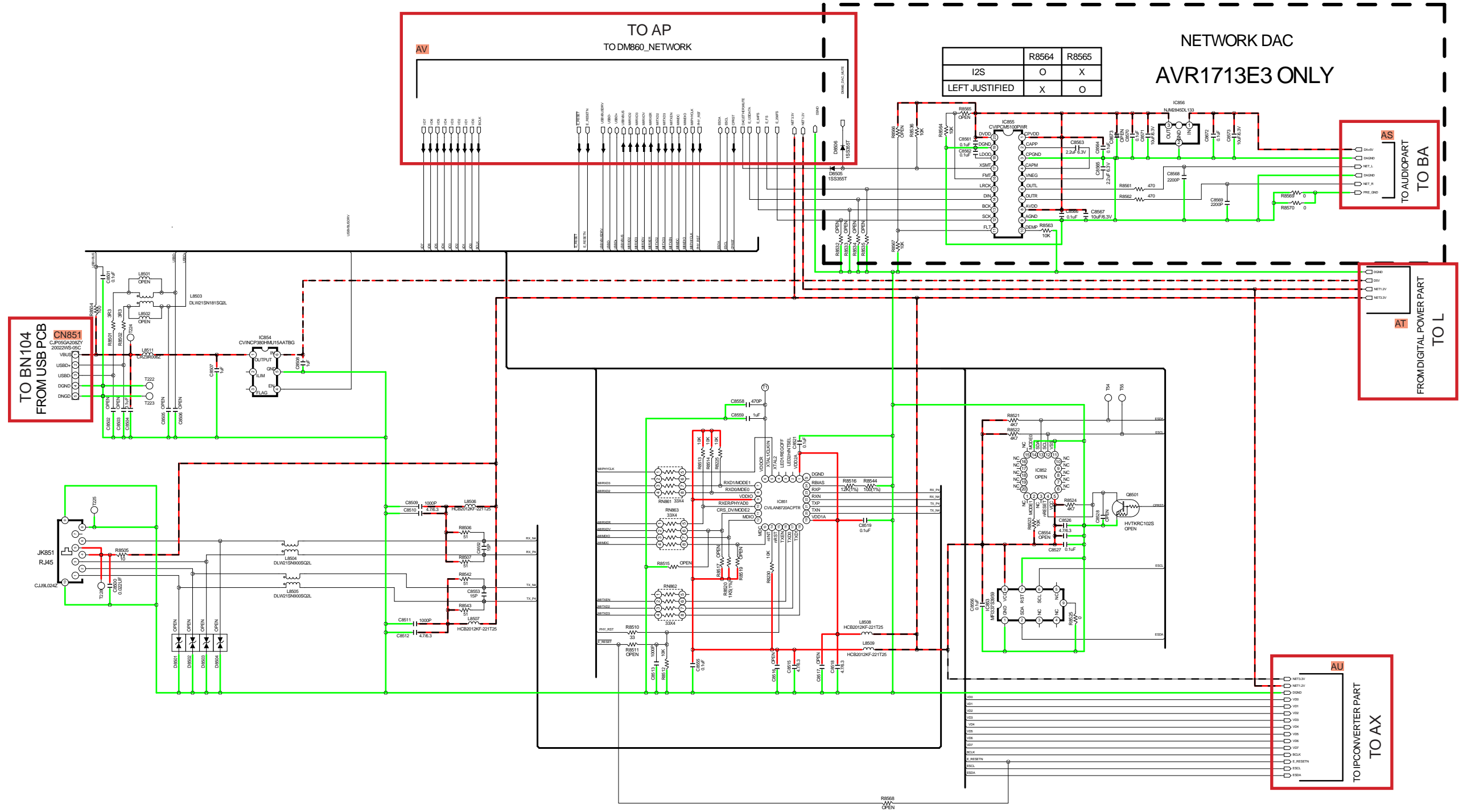




DM860\_NETWORK PART

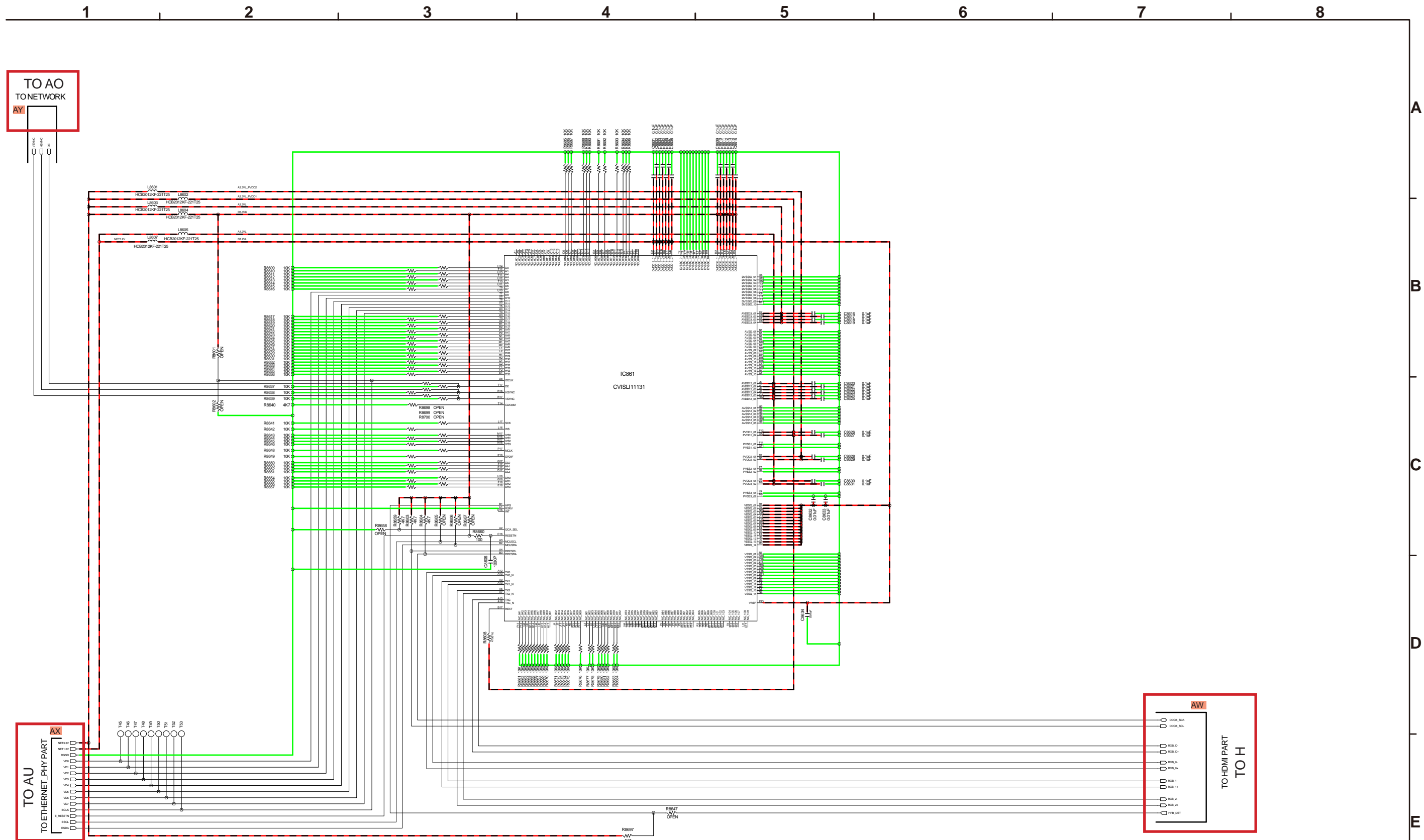
SCHEMATIC DIAGRAMS (13/17)  
DM860\_NETWORK PART

— GND   
 — POWER +   
 — POWER -   
 — STBY POWER



**SCHEMATIC DIAGRAMS (14/17)**  
**ETHERNET\_PHY PART(1/2)**

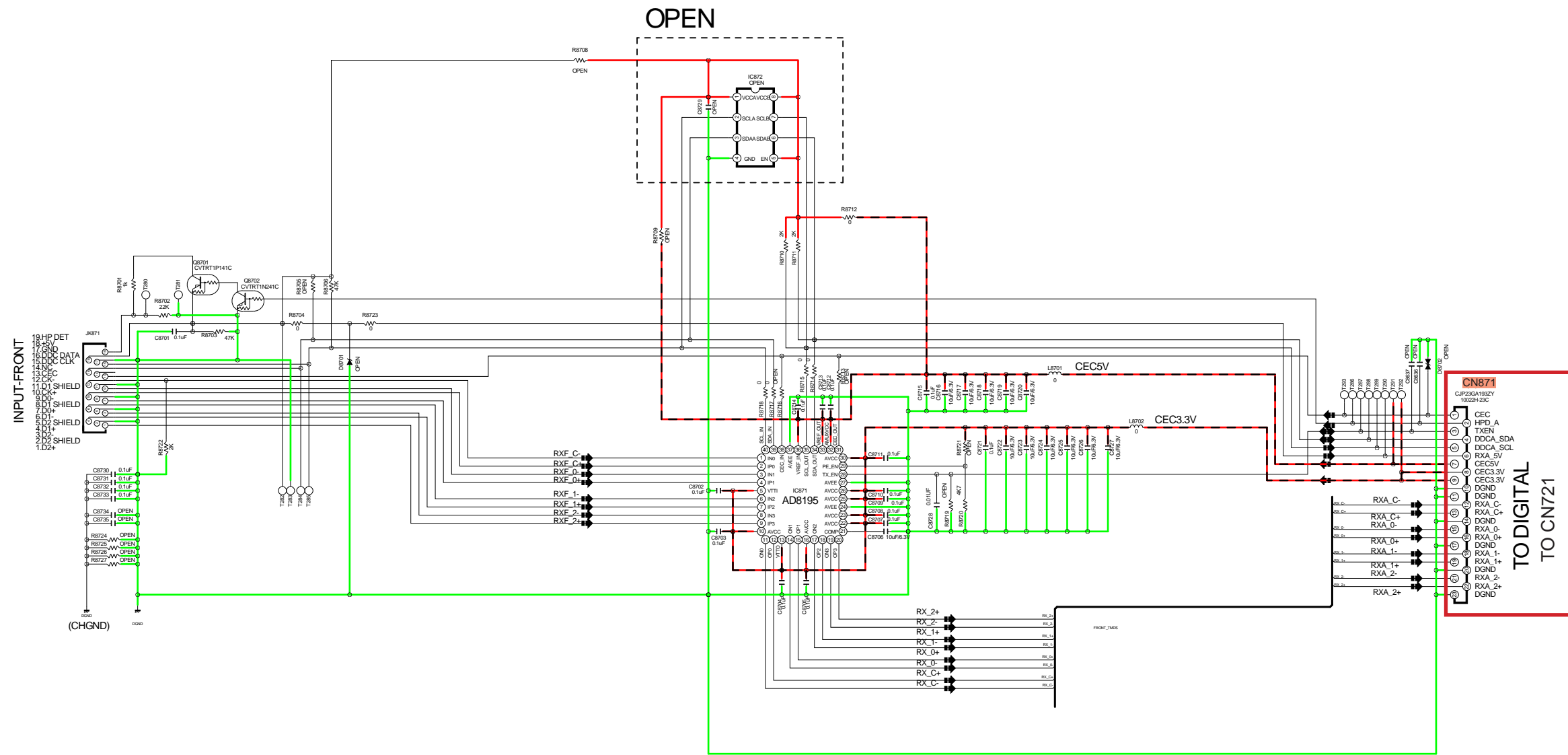
— GND  
— POWER +  
— POWER -  
— STBY POWER



**SCHEMATIC DIAGRAMS (15/17)**  
**ETHERNET\_PHY PART(2/2)**

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

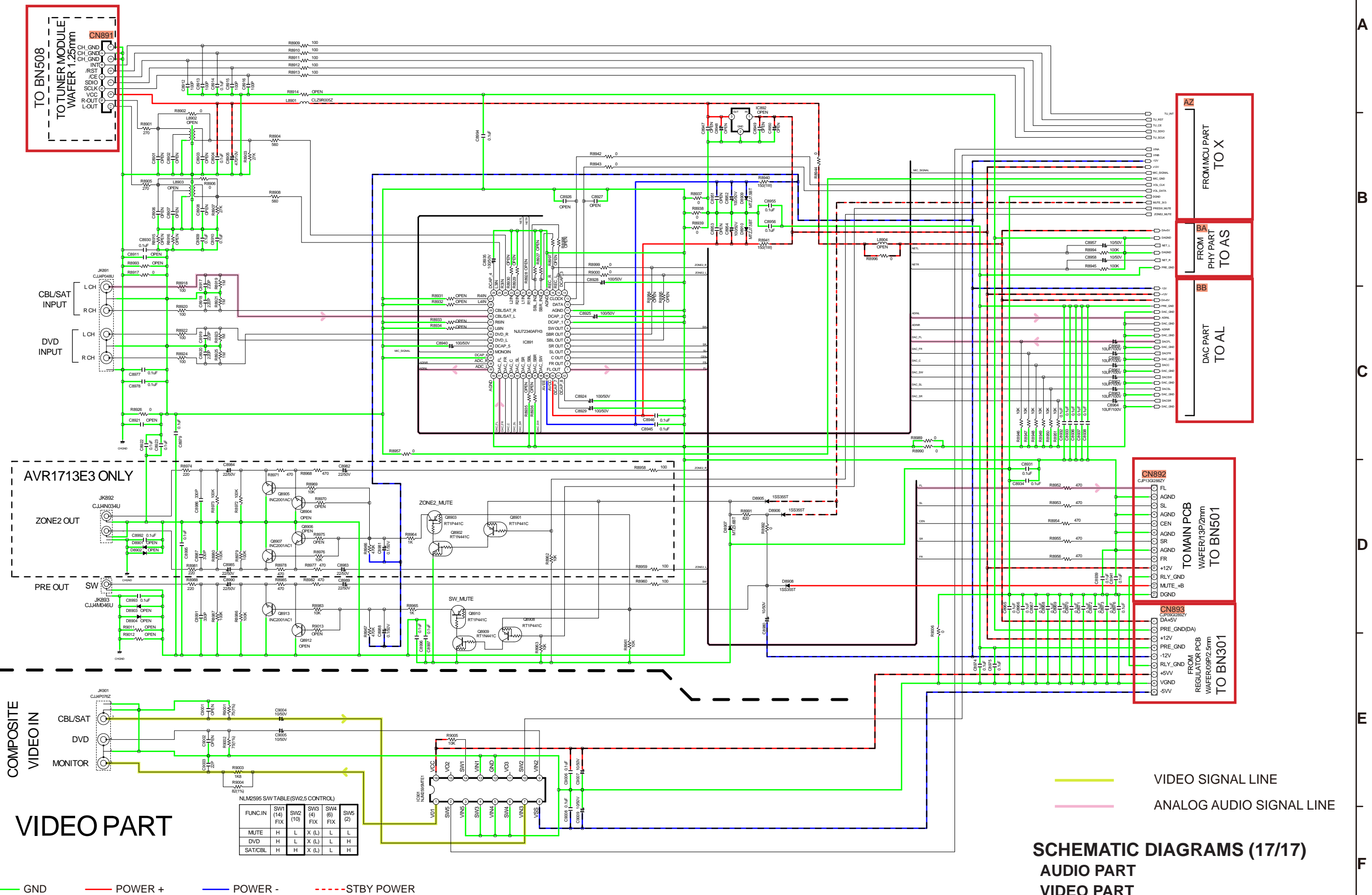
# FRONT\_HDMI PART



**SCHEMATIC DIAGRAMS (16/17)**  
**FRONT HDMI PART**

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

# AUDIO PART



TO TUNER MODULE  
TO TUNER MODULE  
WAFER 1.25mm  
CN8911

FROM MCU PART  
TO X

FROM PHY PART  
TO AS

DAC PART  
TO AL

TO MAIN PCB  
WAFER 1/3P/2mm  
TO BN501

FROM  
REGULATOR PCB  
WAFER 09P/2.5mm  
TO BN301

AVR1713E3 ONLY

ZONE2 OUT

PRE OUT

COMPOSITE  
VIDEO IN

CBL/SAT

DVD

MONITOR

# VIDEO PART

NLM2595 SW TABLE(SW2.5 CONTROL)

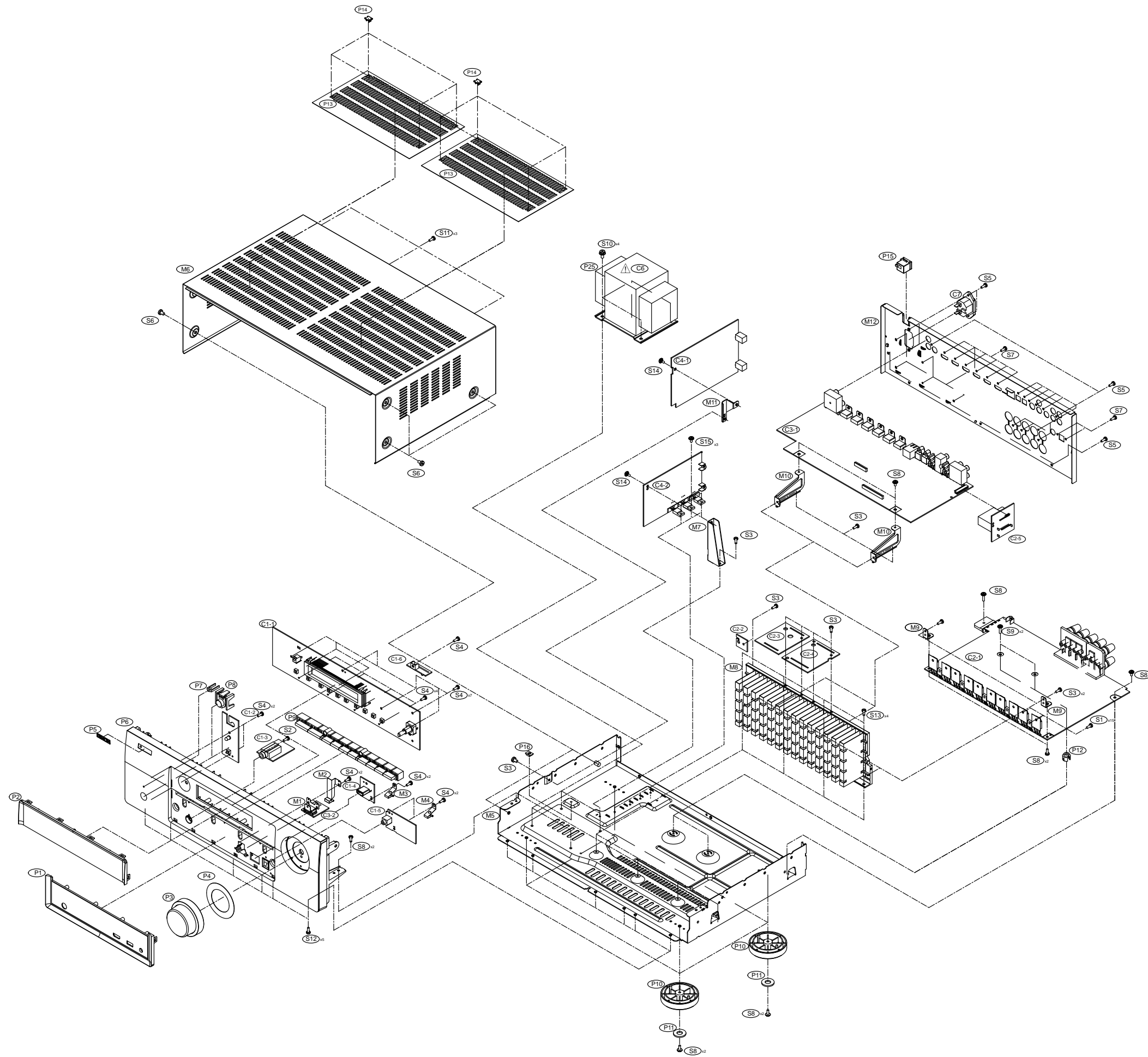
FUNC.IN	SW1 (14) FIX	SW2 (10) FIX	SW3 (4) FIX	SW4 (8) FIX	SW5 (2) FIX
MUTE	H	L	X (L)	L	L
DVD	H	L	X (L)	L	H
SAT/CBL	H	H	X (L)	L	H

VIDEO SIGNAL LINE  
ANALOG AUDIO SIGNAL LINE

**SCHEMATIC DIAGRAMS (17/17)**  
**AUDIO PART**  
**VIDEO PART**

GND POWER + POWER - STBY POWER

# 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

SP : Premium Silver model

BK : Black model

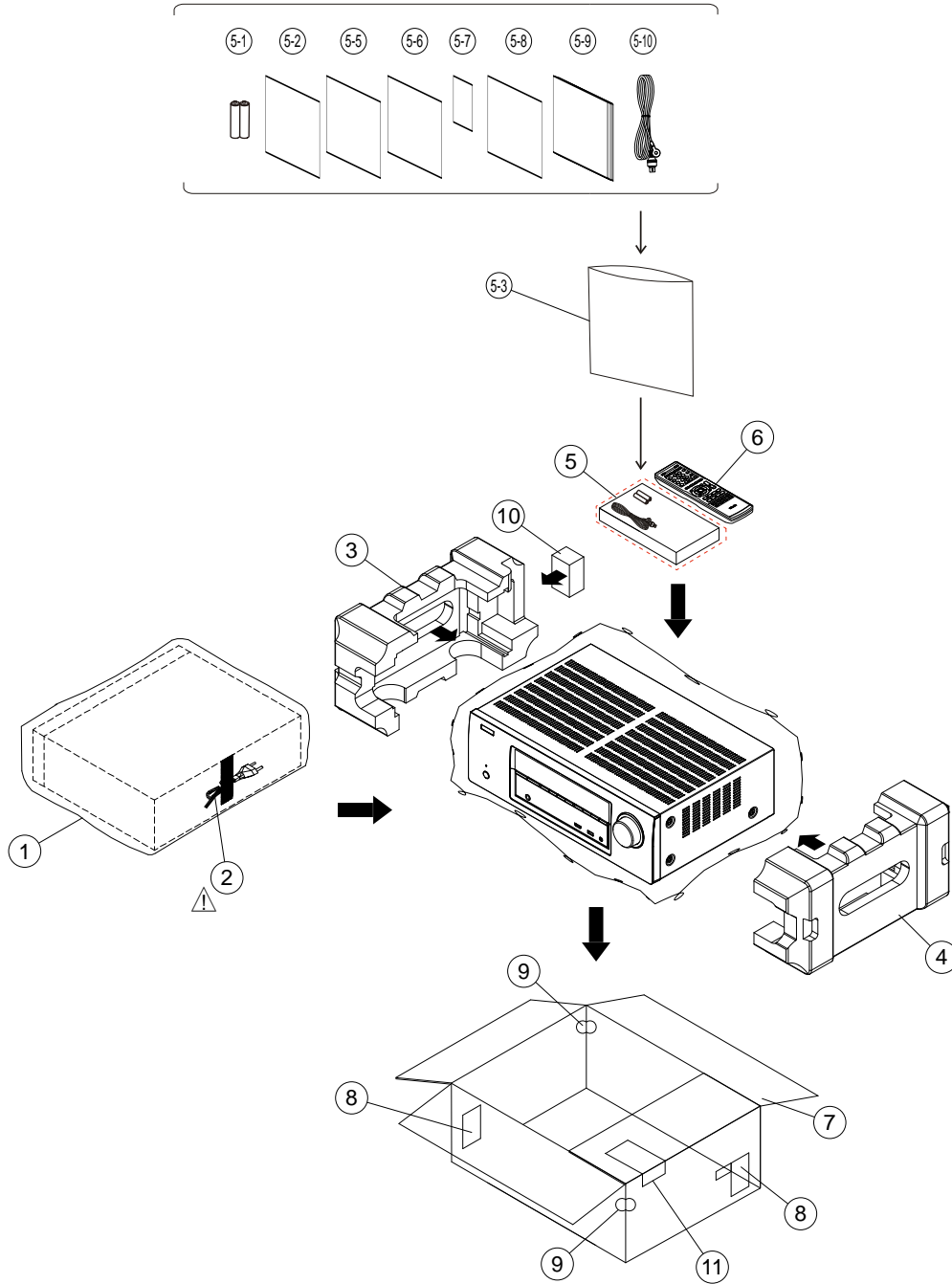
Ref. No.	Part No.	Part Name	Remarks	Q'ty	New	
C1	nsp	FRONT PCB ASS'Y	1613E3, 1713E3	COP12423D	1 *	
C1	nsp	FRONT PCB ASS'Y	1713E2	COP12423G	1 *	
C1	nsp	FRONT PCB ASS'Y	1713E1C, 1723E1C	COP12423E	1 *	
C1-1	-	FRONT PCB				
C1-2	-	POWER KNOB PCB				
C1-3	-	HEADPHONE PCB				
C1-4	-	USB PCB				
C1-5	-	MIC PCB				
C1-6	-	FOR HDMI FFC CABLE PCB				
C2	nsp	MAIN PCB ASS'Y	1613E3, 1713E3	COP12425E	1 *	
C2	nsp	MAIN PCB ASS'Y	1713E2	COP12425F	1 *	
C2	nsp	MAIN PCB ASS'Y	1713E1C, 1723E1C	COP12425G	1 *	
C2-1	-	MAIN PCB				
C2-2	-	CABLE PCB				
C2-3	-	HDMI CABLE PCB				
C2-4	-	CARD CABLE FIX PCB				
C2-5	-	TUNER PCB				
C3	8U6391000600D	DIGITAL PCB ASS'Y	1613E3	COP12428B	1 *	
C3	8U6391000610D	DIGITAL PCB ASS'Y	1713E3	COP12428C	1 *	
C3	8U6391000620D	DIGITAL PCB ASS'Y	1713E2	COP12428D	1 *	
C3	8U6391000630D	DIGITAL PCB ASS'Y	1713E1C	COP12428E	1 *	
C3	8U6391000640D	DIGITAL PCB ASS'Y	1723E1C	COP12428G	1 *	
C3-1	-	DIGITAL PCB				
C3-2	-	F-HDMI PCB				
C4	nsp	POWER PCB ASS'Y	1613E3, 1713E3	COP12427B	1 *	
C4	nsp	POWER PCB ASS'Y	1713E2	COP12427C	1 *	
C4	nsp	POWER PCB ASS'Y	1713E1C, 1723E1C	COP12427D	1 *	
C4-1	-	SMPS PCB				
C4-2	-	REGULATOR PCB				
△	C6	943101101320D	TRANS,POWER AVR1613/1713/E3,(85.8X63)	1613E3, 1713E3	CLT5U052ZU	1 *
△	C6	943101101330D	TRANS,POWER AVR1713/E2,(85.8X63)	1713E2	CLT5U052ZE	1 *
△	C6	943101101340D	TRANS,POWER AVR1713/1723/E1C,(85.8X63)	1713E1C, 1723E1C	CLT5U052ZH	1 *
C7	nsp	ACSOCKET ASS'Y	1713E2	CWZPM5003TW91A	1	
P1	943419100460D	PANEL, SUB		CGR1A534Z	1 *	
P2	943416100700D	WINDOW, FL	1713E3	CGU1A462X	1 *	
P2	943416100710D	WINDOW FL	1613E3, 1713E2, 1713E1C, 1723E1C	CGU1A462Y	1 *	
P3	943412100710D	KNOB, VOLUME	BK	CBN1A263	1	

Ref. No.	Part No.	Part Name	Remarks		Q'ty	New	
	P3	943412100720D	KNOB, VOLUME	SP	CBN1A263C73	1	
	P4	943446100590D	PLATE, VOLUME KNOB		CGX1A469	1	
	P5	42151002100AD	DENON BADGE	BK	CGB1A247H67	1	
	P5	42151002101AD	DENON BADGE	SP	-	1	
	P6	943402102090D	PANEL, FRONT	1613BKE3	CGW1A520RHZB63	1	*
	P6	943402102100D	PANEL, FRONT	1713BKE3	CGW1A520RHYB63	1	*
	P6	943402102110D	PANEL, FRONT	1713BKE2	CGW1A520RHXB63	1	*
	P6	943402102120D	PANEL, FRONT	1713BKE1C	CGW1A520RHWB63	1	*
	P6	943402102130D	PANEL, FRONT	1713SPE1C	CGW1A520RGZG45	1	*
	P6	943402102140D	PANEL, FRONT	1723SPE1C	CGW1A520RGYG45	1	*
	P7	943423100310D	INDICATOR, POWER		CGL1A299	1	
	P8	943411101750D	BUTTON, POWER	BK	CBT1A1167	1	
	P8	943411101760D	BUTTON, POWER	SP	CBT1A1167C73	1	
	P9	943411101770D	BUTTON, 10KEY		CBT1A1164	1	
	P10	943407100020D	FOOT		CKL1A190	4	
	P11	00D9430202902	CUSHION, FOOT		CHG2A289	4	
	P12	nsp	HOLDER, PCB		CHE170	2	
	P13	943419100250D	SHEET, TOP	BK	CGX1A492Z	2	
	P13	943419100250D	SHEET, TOP	SP	CGX1A492Y	2	
	P14	45451000500AM	STOPPER, SHEET	BK	CMH1A306Z	8	
	P14	45451000501AM	STOPPER, SHEET	SP	CMH1A306Y	8	
	P15	nsp	BUSHING ,ACCORD	1613E3, 1713E3, 1713E1C, 1723E1C	CHR1A028	1	
	P16	nsp	RUBBER		CHG1A113	1	
	★ P17	nsp	CLAMPER		CHR301	5	
	★ P18	nsp	LOCKER		CRE1A037	10	
	★ P19	nsp	LABEL, HOT		CQB1A906Z	1	
	★ P20	nsp	LABEL, POP	1613BKE3	CQB1A1096Z	1	*
	★ P20	nsp	LABEL, POP	1713BKE3	CQB1A1097Z	1	*
	★ P20	nsp	LABEL, POP	1713BKE2	CQB1A1098Z	1	*
	★ P20	nsp	LABEL, POP	1713BKE1C, 1713SPE1C	CQB1A1100Z	1	*
	★ P20	nsp	LABEL, POP	1723SPE1C	CQB1A1102Z	1	*
	★ P21	nsp	TAPE, HEMELON		CHS1A032	3	
	M1	nsp	EARTH, HDMI		CMC1A422	1	
	M2	nsp	EARTHPLATE, HDMI		CMC1A431	1	
	M3	nsp	EARTHPLATE, USB		CMC1A430	1	
	M4	nsp	EARTHPLATE, MIC		CMC1A429	1	*
	M5	nsp	CHASSIS, BOTTOM		CUA1A335	1	
	M6	943403100570D	CABINET, TOP	BK	CKC1A215K117	1	
	M6	943403100580D	CABINET, TOP	SP	CKC1A215D11	1	
	M7	nsp	BRACKET, PCB		CMD1A398	1	
	M8	nsp	HEATSINK		CMY6A381	1	
	M9	nsp	BRACKET, H/S PCB		CMD1A802	2	
	M10	nsp	BRACKET, PCB		CMD1A803	2	
	M11	nsp	SMPS, BRACKET		CMD1A790	1	
	M12	nsp	PANEL, REAR	1613BKE3	CKF1A455Z	1	*
	M12	nsp	PANEL, REAR	1713BKE3	CKF2A455Z	1	*
	M12	nsp	PANEL, REAR	1713BKE2	CKF3A455Z	1	*
	M12	nsp	PANEL, REAR	1713BKE1C, 1713SPE1C	CKF1A455Y	1	*
	M12	nsp	PANEL, REAR	1723SPE1C	CKF1A455X	1	*



Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
<b>SCREWS</b>						
	S1	nsp	SCREW, SPECIAL		CHD1A012ZR	15
	S2	nsp	SCREW		CTWS3+10GR	1
	S3	nsp	SCREW		CTB3+6JR	13
	S4	nsp	SCREW		CTB3+10JR	19
	S5	nsp	SCREW		CTBD3+8JFZR	15
	S6	nsp	SCREW	BK	CTBD4+8JFZR	6
	S6	nsp	SCREW	SP	CTBD4+8JFN	6
	S7	nsp	SCREW		CTBD3+6FFZR	12
	S8	nsp	SCREW		CTW3+8JR	14
	S9	nsp	SCREW		CTW3+12JR	2
	S10	nsp	SCREW,TRANS		CHDR1A023R	4
	S11	nsp	SCREW	BK	CTB3+8JFZR	3
	S11	nsp	SCREW	SP	CTB3+8JFN	3
	S12	nsp	SCREW	BK	CTBD3+8JFZR	6
	S12	nsp	SCREW	SP	CTBD3+8JFN	6
	S13	nsp	SCREW		CTB3+6FR	4
	S14	nsp	SCREW		CTW3+6JR	2
	S15	nsp	SCREW,SPECIAL		CHD4A012R	3
<b>WIRES</b>						
	H1	943606501550S	CARD,CABLE		CWC5C4A25B180B10	1
	H2	943606501560S	CARD,CABLE		CWC5F4A23A270B08	1
	H3	nsp	WIRE,ASS'Y		CWE8102050RR	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	nsp	BAG,POLY	CPP1A081X	1	
⚠	2	90M-YC000780R	CORD,POWER(U/L)/KENIC	1613E3, 1713E3	CJA523FBYA	1
⚠	2	90M-ZC000320R	CORD,POWER(DETACHABLE/EUR)	1713E2	CJA2B054Z	1
⚠	2	90M-YC000850R	CORD,POWER	1713E1C, 1723E1C	CJA2N047ZA	1
	3	943533101120D	PAD,SNOW(L)	CPS1A916	1	

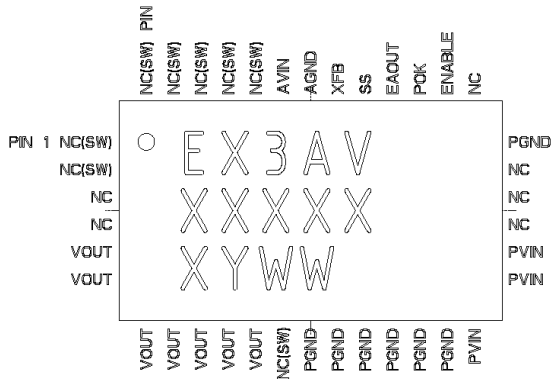
Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
4	943533101130D	PAD,SNOW(R)		CPS1A917	1	
5	-	INSTRUCTIONMANUALASS'Y		-	1	
5-1	nsp	BATTERY,AAA2PCSINPACK		CABR03PPB	2	
5-2	35201006600AD	CDMANUALASS'Y	1613E3	CFT1A052ZA	1	*
5-2	35201006500AD	CDMANUALASS'Y	1713E3	CFT1A053ZA	1	*
5-2	35201006700AD	CDMANUALASS'Y	1713E2	CFT1A054ZA	1	*
5-2	35201006800AD	CDMANUALASS'Y	1713E1C, 1723E1C	CFT1A055ZA	1	*
5-2	35201006900AD	CDMANUALASS'Y	1723E1C	CFT1A057ZA	1	*
5-3	nsp	BAG,POLY(MANUAL)		CPB1A197Z	1	
★ 5-4	nsp	LABEL,BARCODE(MANUAL)		CQB1A971	1	
5-5	nsp	LIST,S.S		CQE1A226P	1	
5-6	nsp	CARD,WARRANTY	1613BKE3, 1713BKE3	CQE1A224Q	1	
5-7	nsp	CARD FOR CHINA INDENTIFICATION	1713E1C, 1723E1C	CQE1A450Z	1	
5-8	54111092900AD	SAFETY INSTRUCTIONS(E3)	1613E3, 1713E3	CQE1A548Z	1	*
5-8	54111093000AD	SAFETY INSTRUCTIONS (E2)	1713E2	CQE1A549Z	1	
5-8	54111093100AD	SAFETY INSTRUCTIONS (E1C)	1713E1C, 1723E1C	CQE1A550Z	1	
5-9	54111076000AD	MANUAL,GUIDE	1613E3	CQX1A1648Z	1	*
5-9	54111075900AD	MANUAL,GUIDE	1713E3	CQX1A1649Z	1	*
5-9	54111076100AD	MANUAL,GUIDE	1713E2	CQX1A1650Z	1	*
5-9	54111076200AD	MANUAL,GUIDE	1713E1C	CQX1A1651Z	1	*
5-9	54111076300AD	MANUAL,GUIDE	1723E1C	CQX1A1653Z	1	*
5-10	90M-ZA000230R	FM1POLEANT(UL)	1613E3, 1713E3, 1713E1C, 1723E1C	CSA1A019Z	1	
5-10	00D9430113403	FM1POLEANT	1713E2	CSA1A018Z	1	
6	30701010300AD	REMOCONASS'Y(RC-1168)	1713E3	RC-1168CF1	1	*
6	30701010200AD	REMOCONASS'Y(RC-1169)	1613E3, 1713E2, 1713E1C, 1723E1C	RC-1169CF1	1	*
7	943531102270D	BOX,OUTCARTON	1613E3	CPG1A963Y	1	*
7	943531102280D	BOX,OUTCARTON	1713E3	CPG1A963X	1	*
7	943531102290D	BOX,OUTCARTON	1713E2	CPG1A962U	1	*
7	943531102300D	BOX,OUTCARTON	1713E1C	CPG1A962T	1	*
7	943531102310D	BOX,OUTCARTON	1723E1C	CPG1A962R	1	*
8	nsp	CONTROL,LABEL		CQB1A993Z	1	
9	nsp	LABEL ,COLORLABEL(WHITE)	1713SPE1C, 1723SPE1C	CQB1A676	2	
10	32401000800AD	MIC AUDYSSEY ACM1HB		CJXACM1HB	1	
11	nsp	WARRANTYCARD CHINA	1713E1C, 1723E1C	CQE1A473Y	1	
★ 12	nsp	LABEL,BARCODE(SET)		CQB1A978	1	

# SEMICONDUCTORS

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

## 1. IC's

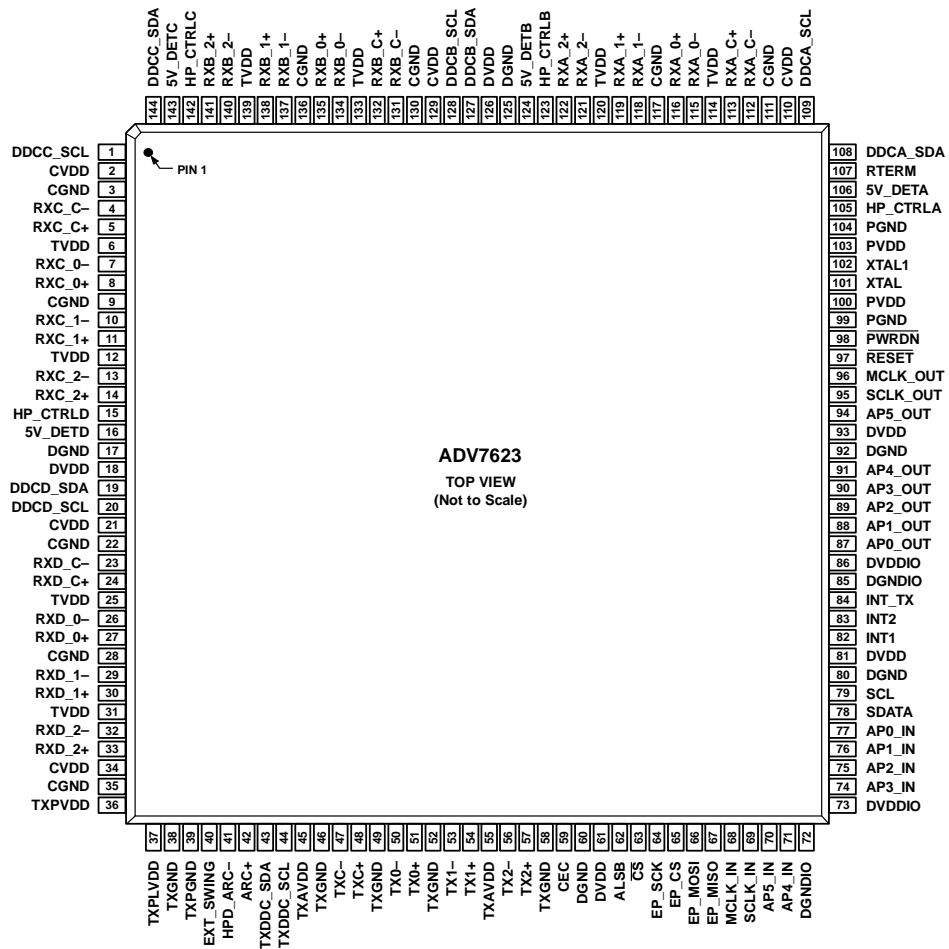
### EX3AV (DIGITAL : IC751~154)



### EX3AV Terminal Functions

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

# ADV7623 (DIGITAL : IC721)



## Pin Function Descriptions

Pin No.	Mnemonic	Type	Description
1	DDCC_SCL	Digital input	HDCP Slave Serial Clock Port C. DDCC_SCL is a 3.3 V input that is 5 V tolerant.
2	CVDD	Power	Receiver Comparator Supply Voltage (1.8 V).
3	CGND	Ground	TVDD and CVDD Ground.
4	RXC_C-	HDMI input	Digital Input Clock Complement of Port C in the HDMI Interface.
5	RXC_C+	HDMI input	Digital Input Clock True of Port C in the HDMI Interface.
6	TVDD	Power	Receiver Terminator Supply Voltage (3.3 V).
7	RXC_0-	HDMI input	Digital Input Channel 0 Complement of Port C in the HDMI Interface.
8	RXC_0+	HDMI input	Digital Input Channel 0 True of Port C in the HDMI Interface.
9	CGND	Ground	TVDD and CVDD Ground.
10	RXC_1-	HDMI input	Digital Input Channel 1 Complement of Port C in the HDMI Interface.
11	RXC_1+	HDMI input	Digital Input Channel 1 True of Port C in the HDMI Interface.
12	TVDD	Power	Receiver Terminator Supply Voltage (3.3 V).

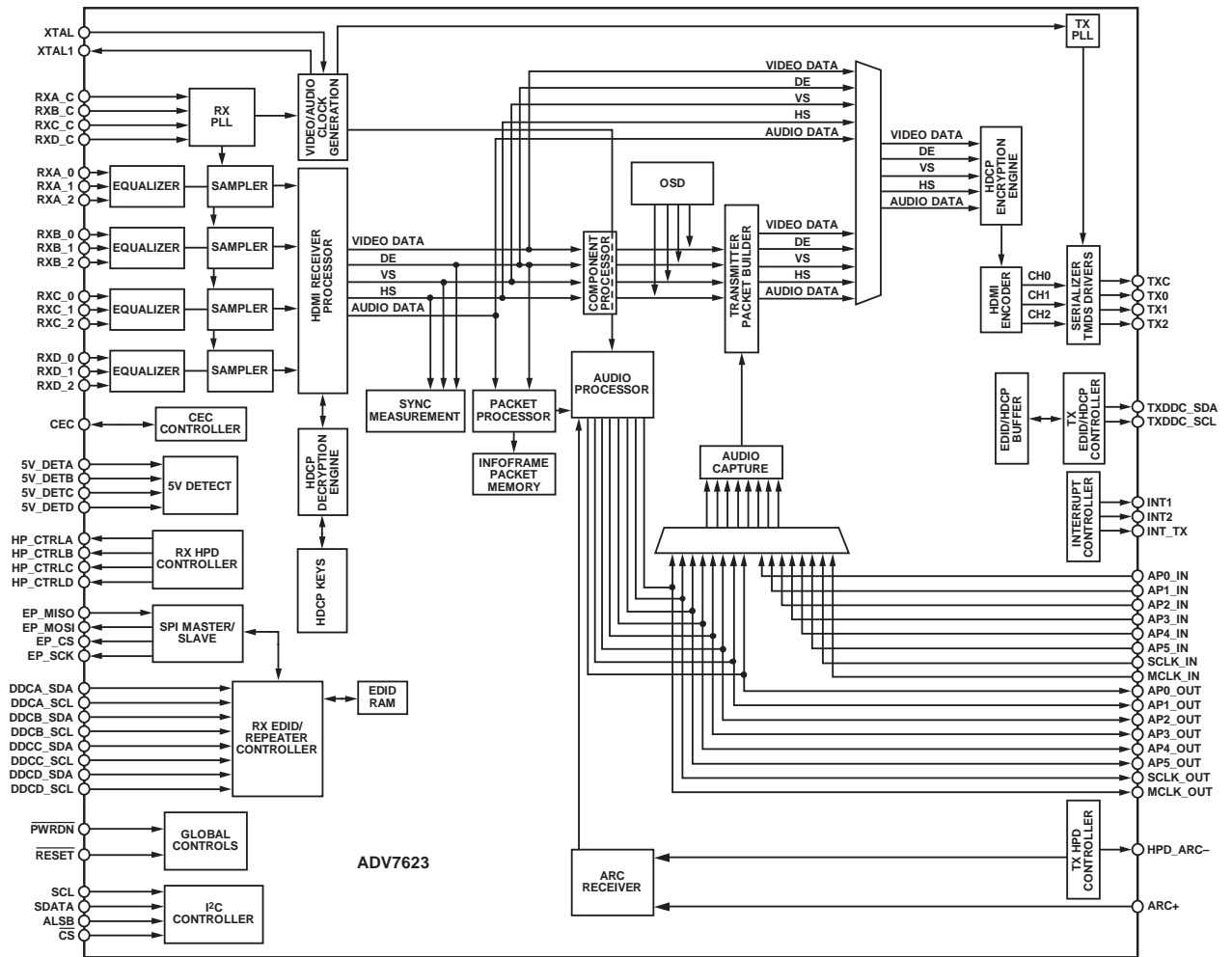
Pin No.	Mnemonic	Type	Description
13	RXC_2-	HDMI input	Digital Input Channel 2 Complement of Port C in the HDMI Interface.
14	RXC_2+	HDMI input	Digital Input Channel 2 True of Port C in the HDMI Interface.
15	HP_CTRLD	Digital output	Hot Plug Detect for Port D.
16	5V_DETD	Digital input	5 V Detect Pin for Port D in the HDMI Interface.
17	DGND	Ground	DVDD Ground.
18	DVDD	Power	Digital Supply Voltage (1.8 V).
19	DDCD_SDA	Digital I/O	HDCP Slave Serial Data Port D. DDCD_SDA is a 3.3 V input/output that is 5 V tolerant.
20	DDCD_SCL	Digital input	HDCP Slave Serial Clock Port D. DDCD_SCL is a 3.3 V input that is 5 V tolerant.
21	CVDD	Power	Receiver Comparator Supply Voltage (1.8 V).
22	CGND	Ground	TVDD and CVDD Ground.
23	RXD_C-	HDMI input	Digital Input Clock Complement of Port D in the HDMI Interface.
24	RXD_C+	HDMI input	Digital Input Clock True of Port D in the HDMI Interface.
25	TVDD	Power	Receiver Terminator Supply Voltage (3.3 V).
26	RXD_0-	HDMI input	Digital Input Channel 0 Complement of Port D in the HDMI Interface.
27	RXD_0+	HDMI input	Digital Input Channel 0 True of Port D in the HDMI Interface.
28	CGND	Ground	TVDD and CVDD Ground.
29	RXD_1-	HDMI input	Digital Input Channel 1 Complement of Port D in the HDMI Interface.
30	RXD_1+	HDMI input	Digital Input Channel 1 True of Port D in the HDMI Interface.
31	TVDD	Power	Receiver Terminator Supply Voltage (3.3 V).
32	RXD_2-	HDMI input	Digital Input Channel 2 Complement of Port D in the HDMI Interface.
33	RXD_2+	HDMI input	Digital Input Channel 2 True of Port D in the HDMI Interface.
34	CVDD	Power	Receiver Comparator Supply Voltage (1.8 V).
35	CGND	Ground	TVDD and CVDD Ground.
36	TXPVDD	Power	1.8 V Power Supply for Digital and I/O Power Supply. This pin supplies power to the digital logic and I/Os. It should be filtered and as quiet as possible.
37	TXPLVDD	Power	1.8 V Power Supply.
38	TXGND	Ground	TXPVDD Ground.
39	TXPGND	Ground	TXPLVDD Ground.
40	EXT_SWING	Analog input	This pin sets the internal reference currents. Place an 887 $\Omega$ resistor (1% tolerance) between this pin and ground.
41	HPD_ARC-	Analog input	Hot Plug Detect Signal. This pin indicates to the interface whether the receiver is connected. It supports 1.8 V to 5 V CMOS logic levels.
42	ARC+	Analog input	Audio Return Channel Input (5 V Tolerant).
43	TXDDC_SDA	Digital I/O	Serial Port Data I/O to Receiver. This pin serves as the master to the DDC bus. It supports a 5 V CMOS logic level.
44	TXDDC_SCL	Digital output	Serial Port Data Clock to Receiver. This pin serves as the master clock for the DDC bus. It supports a 5 V CMOS logic level.
45	TXAVDD	Power	1.8 V Power Supply for TMDS Outputs.
46	TXGND	Ground	TXAVDD Ground.
47	TXC-	HDMI output	Differential Clock Output. Differential clock output at the TMDS clock rate; supports TMDS logic level.
48	TXC+	HDMI output	Differential Clock Output. Differential clock output at the TMDS clock rate; supports TMDS logic level.
49	TXGND	Ground	TXAVDD Ground.
50	TX0-	HDMI output	Differential Output Channel 0 Complement. Differential output of the red data at 10x the pixel clock rate; supports TMDS logic level.
51	TX0+	HDMI output	Differential Output Channel 0 True. Differential output of the red data at 10x the pixel clock rate; supports TMDS logic level.
52	TXGND	Ground	TXAVDD Ground.
53	TX1-	HDMI output	Differential Output Channel 1 Complement. Differential output of the red data at 10x the pixel clock rate; supports TMDS logic level.
54	TX1+	HDMI output	Differential Output Channel 1 True. Differential output of the red data at 10x the pixel clock rate; supports TMDS logic level.
55	TXAVDD	Power	1.8 V Power Supply for TMDS Outputs.

Pin No.	Mnemonic	Type	Description
13	RXC_2-	HDMI input	Digital Input Channel 2 Complement of Port C in the HDMI Interface.
14	RXC_2+	HDMI input	Digital Input Channel 2 True of Port C in the HDMI Interface.
15	HP_CTRLD	Digital output	Hot Plug Detect for Port D.
16	5V_DETD	Digital input	5 V Detect Pin for Port D in the HDMI Interface.
17	DGND	Ground	DVDD Ground.
18	DVDD	Power	Digital Supply Voltage (1.8 V).
19	DDCD_SDA	Digital I/O	HDCP Slave Serial Data Port D. DDCD_SDA is a 3.3 V input/output that is 5 V tolerant.
20	DDCD_SCL	Digital input	HDCP Slave Serial Clock Port D. DDCD_SCL is a 3.3 V input that is 5 V tolerant.
21	CVDD	Power	Receiver Comparator Supply Voltage (1.8 V).
22	CGND	Ground	TVDD and CVDD Ground.
23	RXD_C-	HDMI input	Digital Input Clock Complement of Port D in the HDMI Interface.
24	RXD_C+	HDMI input	Digital Input Clock True of Port D in the HDMI Interface.
25	TVDD	Power	Receiver Terminator Supply Voltage (3.3 V).
26	RXD_0-	HDMI input	Digital Input Channel 0 Complement of Port D in the HDMI Interface.
27	RXD_0+	HDMI input	Digital Input Channel 0 True of Port D in the HDMI Interface.
28	CGND	Ground	TVDD and CVDD Ground.
29	RXD_1-	HDMI input	Digital Input Channel 1 Complement of Port D in the HDMI Interface.
30	RXD_1+	HDMI input	Digital Input Channel 1 True of Port D in the HDMI Interface.
31	TVDD	Power	Receiver Terminator Supply Voltage (3.3 V).
32	RXD_2-	HDMI input	Digital Input Channel 2 Complement of Port D in the HDMI Interface.
33	RXD_2+	HDMI input	Digital Input Channel 2 True of Port D in the HDMI Interface.
34	CVDD	Power	Receiver Comparator Supply Voltage (1.8 V).
35	CGND	Ground	TVDD and CVDD Ground.
36	TXPVDD	Power	1.8 V Power Supply for Digital and I/O Power Supply. This pin supplies power to the digital logic and I/Os. It should be filtered and as quiet as possible.
37	TXPLVDD	Power	1.8 V Power Supply.
38	TXGND	Ground	TXPVDD Ground.
39	TXPGND	Ground	TXPLVDD Ground.
40	EXT_SWING	Analog input	This pin sets the internal reference currents. Place an 887 $\Omega$ resistor (1% tolerance) between this pin and ground.
41	HPD_ARC-	Analog input	Hot Plug Detect Signal. This pin indicates to the interface whether the receiver is connected. It supports 1.8 V to 5 V CMOS logic levels.
42	ARC+	Analog input	Audio Return Channel Input (5 V Tolerant).
43	TXDDC_SDA	Digital I/O	Serial Port Data I/O to Receiver. This pin serves as the master to the DDC bus. It supports a 5 V CMOS logic level.
44	TXDDC_SCL	Digital output	Serial Port Data Clock to Receiver. This pin serves as the master clock for the DDC bus. It supports a 5 V CMOS logic level.
45	TXAVDD	Power	1.8 V Power Supply for TMDS Outputs.
46	TXGND	Ground	TXAVDD Ground.
47	TXC-	HDMI output	Differential Clock Output. Differential clock output at the TMDS clock rate; supports TMDS logic level.
48	TXC+	HDMI output	Differential Clock Output. Differential clock output at the TMDS clock rate; supports TMDS logic level.
49	TXGND	Ground	TXAVDD Ground.
50	TX0-	HDMI output	Differential Output Channel 0 Complement. Differential output of the red data at 10 $\times$ the pixel clock rate; supports TMDS logic level.
51	TX0+	HDMI output	Differential Output Channel 0 True. Differential output of the red data at 10 $\times$ the pixel clock rate; supports TMDS logic level.
52	TXGND	Ground	TXAVDD Ground.
53	TX1-	HDMI output	Differential Output Channel 1 Complement. Differential output of the red data at 10 $\times$ the pixel clock rate; supports TMDS logic level.
54	TX1+	HDMI output	Differential Output Channel 1 True. Differential output of the red data at 10 $\times$ the pixel clock rate; supports TMDS logic level.
55	TXAVDD	Power	1.8 V Power Supply for TMDS Outputs.

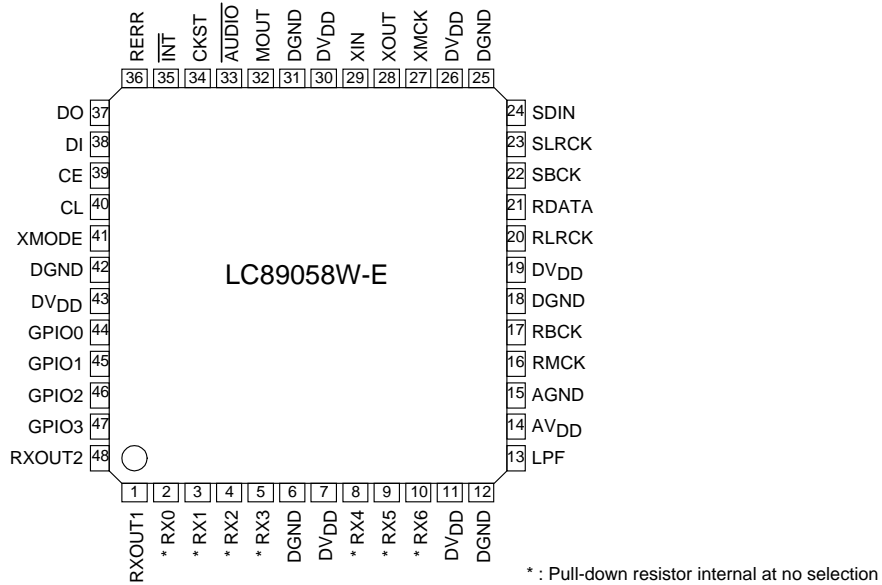
Pin No.	Mnemonic	Type	Description
99	PGND	Ground	PVDD Ground.
100	PVDD	Power	PLL Supply Voltage (1.8 V).
101	XTAL	Miscellaneous analog	Input pin for 28.63636 MHz crystal or an external 1.8 V 28.63636 MHz clock oscillator source to clock the ADV7623.
102	XTAL1	Miscellaneous analog	Crystal Output Pin. This pin should be left floating if a clock oscillator is used.
103	PVDD	Power	PLL Supply Voltage (1.8 V).
104	PGND	Ground	PVDD Ground.
105	HP_CTRLA	Digital output	Hot Plug Detect for Port A.
106	5V_DETA	Digital input	5 V Detect Pin for Port A in the HDMI Interface.
107	RTERM	Miscellaneous analog	This pin sets the internal termination resistance. A 500 $\Omega$ resistor between this pin and ground should be used.
108	DDCA_SDA	Digital I/O	HDCP Slave Serial Data Port A. DDCA_SDA is a 3.3 V input/output that is 5 V tolerant.
109	DDCA_SCL	Digital input	HDCP Slave Serial Clock Port A. DDCA_SCL is a 3.3 V input that is 5 V tolerant.
110	CVDD	Power	Receiver Comparator Supply Voltage (1.8 V).
111	CGND	Ground	TVDD and CVDD Ground.
112	RXA_C-	HDMI input	Digital Input Clock Complement of Port A in the HDMI Interface.
113	RXA_C+	HDMI input	Digital Input Clock True of Port A in the HDMI Interface.
114	TVDD	Power	Receiver Terminator Supply Voltage (3.3 V).
115	RXA_0-	HDMI input	Digital Input Channel 0 Complement of Port A in the HDMI Interface.
116	RXA_0+	HDMI input	Digital Input Channel 0 True of Port A in the HDMI Interface.
117	CGND	Ground	TVDD and CVDD Ground.
118	RXA_1-	HDMI input	Digital Input Channel 1 Complement of Port A in the HDMI Interface.
119	RXA_1+	HDMI input	Digital Input Channel 1 True of Port A in the HDMI Interface.
120	TVDD	Power	Receiver Terminator Supply Voltage (3.3 V).
121	RXA_2-	HDMI input	Digital Input Channel 2 Complement of Port A in the HDMI Interface.
122	RXA_2+	HDMI input	Digital Input Channel 2 True of Port A in the HDMI Interface.
123	HP_CTRLB	Digital output	Hot Plug Detect for Port B.
124	5V_DETB	Digital input	5 V Detect Pin for Port B in the HDMI Interface.
125	DGND	Ground	DVDD Ground.
126	DVDD	Power	Digital Supply Voltage (1.8 V).
127	DDCB_SDA	Digital I/O	HDCP Slave Serial Data Port B. DDCB_SDA is a 3.3 V input/output that is 5 V tolerant.
128	DDCB_SCL	Digital input	HDCP Slave Serial Clock Port B. DDCB_SCL is a 3.3 V input that is 5 V tolerant.
129	CVDD	Power	Receiver Comparator Supply Voltage (1.8 V).
130	CGND	Ground	TVDD and CVDD Ground.
131	RXB_C-	HDMI input	Digital Input Clock Complement of Port B in the HDMI Interface.
132	RXB_C+	HDMI input	Digital Input Clock True of Port B in the HDMI Interface.
133	TVDD	Power	Receiver Terminator Supply Voltage (3.3 V).
134	RXB_0-	HDMI input	Digital Input Channel 0 Complement of Port B in the HDMI Interface.
135	RXB_0+	HDMI input	Digital Input Channel 0 True of Port B in the HDMI Interface.
136	CGND	Ground	TVDD and CVDD Ground.
137	RXB_1-	HDMI input	Digital Input Channel 1 Complement of Port B in the HDMI Interface.
138	RXB_1+	HDMI input	Digital Input Channel 1 True of Port B in the HDMI Interface.
139	TVDD	Power	Receiver Terminator Supply Voltage (3.3 V).
140	RXB_2-	HDMI input	Digital Input Channel 2 Complement of Port B in the HDMI Interface.
141	RXB_2+	HDMI input	Digital Input Channel 2 True of Port B in the HDMI Interface.
142	HP_CTRLC	Digital output	Hot Plug Detect for Port C.
143	5V_DETC	Digital input	5 V Detect Pin for Port C in the HDMI Interface.
144	DDCC_SDA	Digital I/O	HDCP Slave Serial Data Port C. DDCC_SDA is a 3.3 V input/output that is 5 V tolerant.



# ADV7623 Block diagram



## LC89058W-E (DIGITAL : IC782)



### Pin Functions

Pin No.	Name	I/O	Function
1	RXOUT1	O	RX0-6 input S/PDIF through output pin 1
2	RX0	I <sub>s</sub> (pd)	5V withstand voltage TTL input level compatible S/PDIF input pin (connected to GND when RX1 is set)
3	RX1	I(pd)	Co-axial compatible S/PDIF input pin (supported demodulation sampling frequency of up to 96kHz)
4	RX2	I <sub>s</sub> (pd)	5V withstand voltage TTL input level compatible S/PDIF input pin (connected to GND when RX1 is set)
5	RX3	I <sub>s</sub> (pd)	5V withstand voltage TTL input level compatible S/PDIF input pin
6	DGND		Digital GND
7	DV <sub>DD</sub>		Digital power supply (3.3V)
8	RX4	I <sub>s</sub> (pd)	5V tolerable TTL input level compatible S/PDIF input pin
9	RX5	I <sub>s</sub> (pd)	5V tolerable TTL input level compatible S/PDIF input pin
10	RX6	I <sub>s</sub> (pd)	5V tolerable TTL input level compatible S/PDIF input pin
11	DV <sub>DD</sub>		Digital power supply (3.3V)
12	DGND		Digital GND
13	LPF	O	PLL loop filter connection pin
14	AV <sub>DD</sub>		Analog power supply (3.3V)
15	AGND		Analog GND
16	RMCK	O	R system clock output pin (VCO, 512fs, XIN)
17	RBCK	O/I	R system bit clock I/O pin (64fs)
18	DGND		Digital GND
19	DV <sub>DD</sub>		Digital power supply (3.3V)
20	RLRCK	O/I	R system LR clock I/O pin (fs)
21	RDATA	O	Serial audio data output pin
22	SBCK	O	S system bit clock output pin (16fs, 32fs, 64fs, 128fs)
23	SLRCK	O	S system LR clock output pin (fs/4, fs/2, fs, 2fs)
24	SDIN	I <sub>s</sub>	External serial audio data input pin

Pin No.	Name	I/O	Function
25	DGND		Digital GND
26	DVDD		Digital power supply (3.3V)
27	XMCK	O	Oscillation amplifier clock output pin
28	XOUT	O	Output pin connected to the resonator
29	XIN	I	External clock input pin, connected to the resonator (12.288MHz/24.576MHz)
30	DVDD		Digital power supply
31	DGND		Digital GND
32	MOUT	I/O	Emphasis information    Input fs monitor output    Chip address setting input pin
33	AUDIO	I/O	Channel status bit 1 output    Chip address setting input pin
34	CKST	I/O	Clock switching transition period signal output    Master/slave setting input pin
35	INT	I/O	Microcontroller interrupt signal output    Pins44-48 I/O setting input pin
36	RERR	O	PLL lock error, data error flag output pin
37	DO	O	CCB microcontroller I/F, read data output pin (3-state)
38	DI	I <sub>s</sub>	CCB microcontroller I/F, write data input pin
39	CE	I <sub>s</sub>	CCB microcontroller I/F, chip enable input pin
40	CL	I <sub>s</sub>	CCB microcontroller I/F, clock input pin
41	XMODE	I <sub>s</sub>	System reset input pin
42	DGND		Digital GND
43	DVDD		Digital power supply (3.3V)
44	GPIO0	O/I	General-purpose I/O pin    Selector input pin (output referred to RDATA pin)
45	GPIO1	O/I	General-purpose I/O pin    Selector input pin (output referred to RLRCK pin)
46	GPIO2	O/I	General-purpose I/O pin    Selector input pin (output referred to RBCK pin)
47	GPIO3	O/I	General-purpose I/O pin    Selector input pin (output referred to RMCK pin)
48	RXOUT2	O	RX0-6 input S/PDIF through output pin 2

\* Input voltage: I= -0.3 to 3.6V, I<sub>s</sub> = -0.3 to 5.5V

\* Output voltage: O= -0.3 to 3.6V

\* Pins 2, 4, 5, 8, 9, 10, 24, 38, 39, 40, and 41 have an internal pull-down resistor (pd).

Their level is fixed when they are unselected.

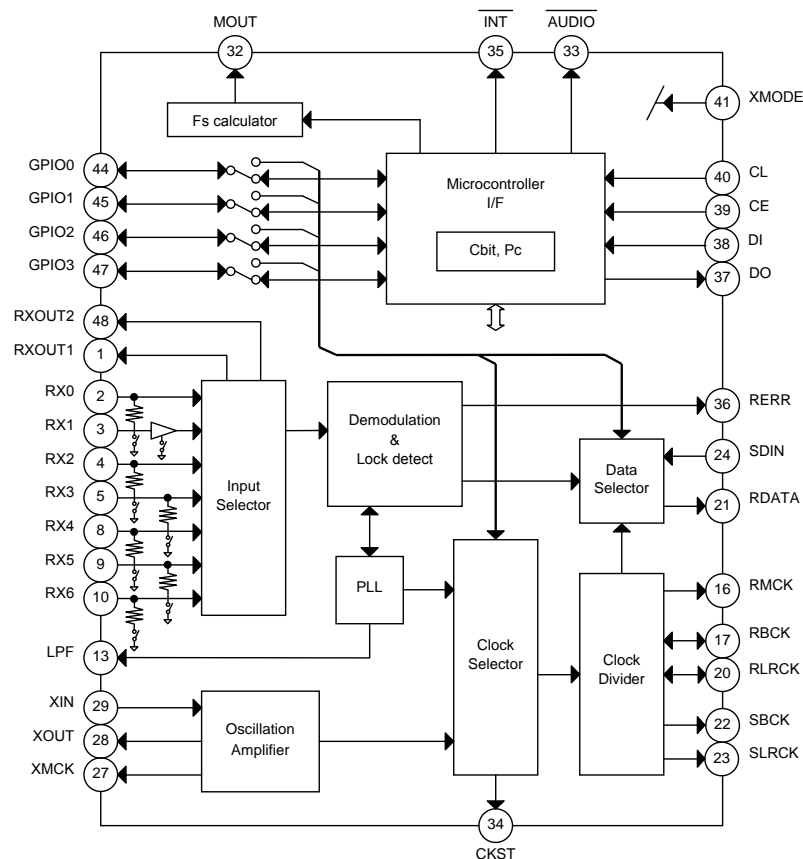
\* Pins 32 and 33 are input pins for chip address setting when pin 41 is held at the low level.

\* Pin 34 serves as the input pin for designating as the master or slave when pin 41 is held at the low level.

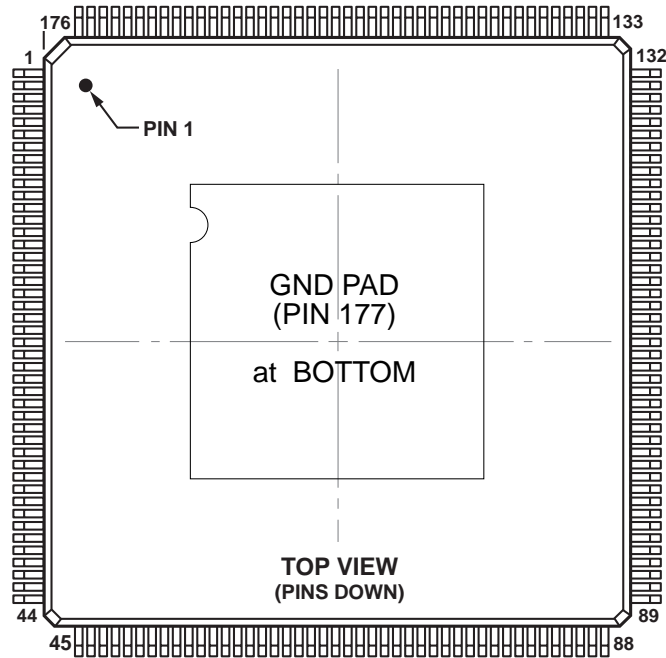
\* Pin 35 serves as the input pin for configuring the I/O of pins 44 to 47 when pin 41 is held at the low level.

\* The DVDD and AVDD pins must be held at the same level and turned on and off at the same timing to preclude Latch-up conditions.

### LC89058W-E Block diagram



# ADSP21487KSWZ-2B (DIGITAL : IC791)

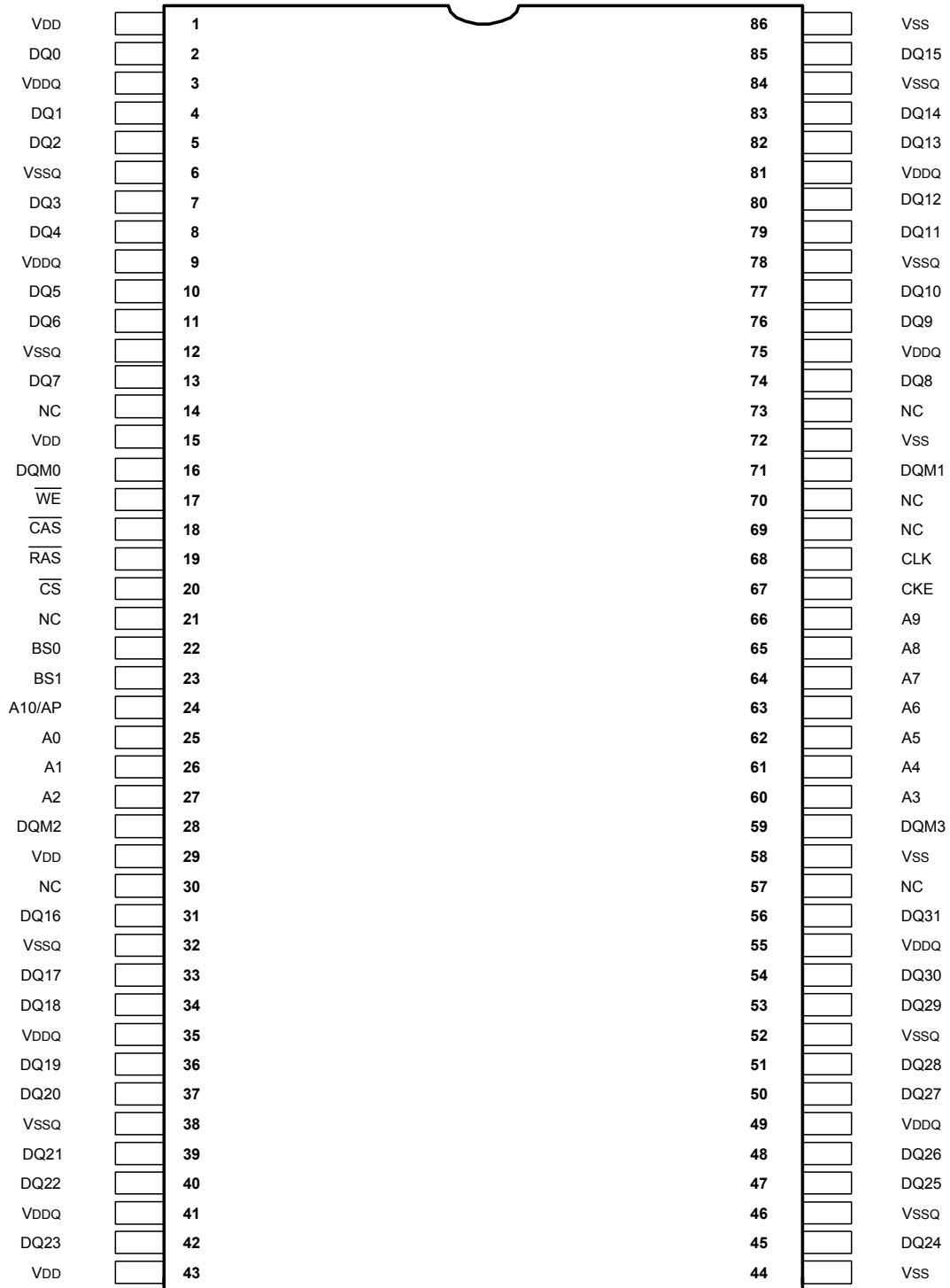


## ADSP21487KSWZ-2B Terminal Function

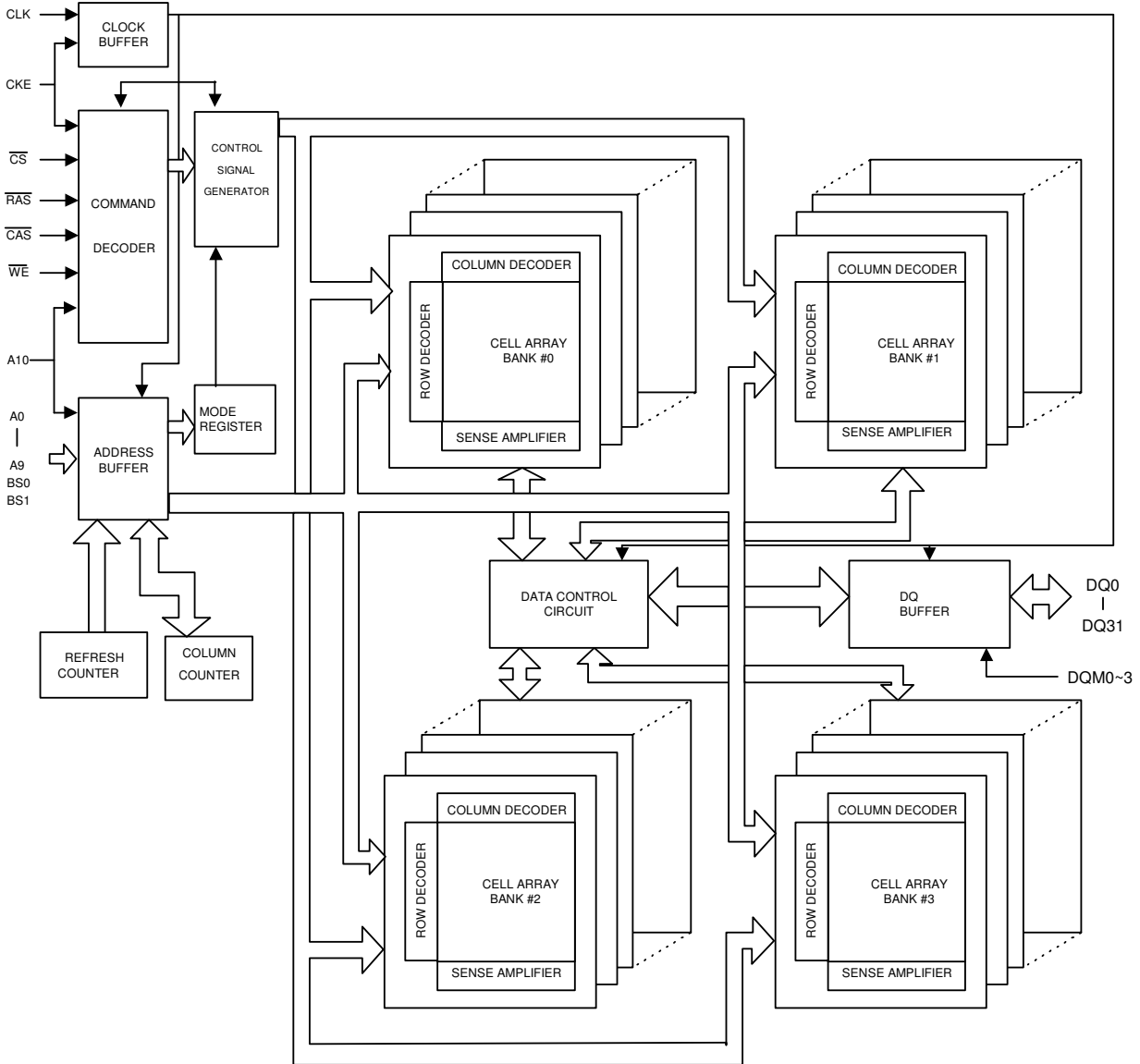
Pin Name	Pin No.	Pin Name	Pin No.	Pin Name	Pin No.	Pin Name	Pin No.
SDDQM	1	V <sub>DD_EXT</sub>	45	DAI_P10	89	V <sub>DD_INT</sub>	133
MS0	2	DPI_P08	46	V <sub>DD_INT</sub>	90	FLAG0	134
SDCKE	3	DPI_P07	47	V <sub>DD_EXT</sub>	91	FLAG1	135
V <sub>DD_INT</sub>	4	V <sub>DD_INT</sub>	48	DAI_P20	92	FLAG2	136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

\* at BOTTOM

# W9864G6JH-6 (DIGITAL : IC792)



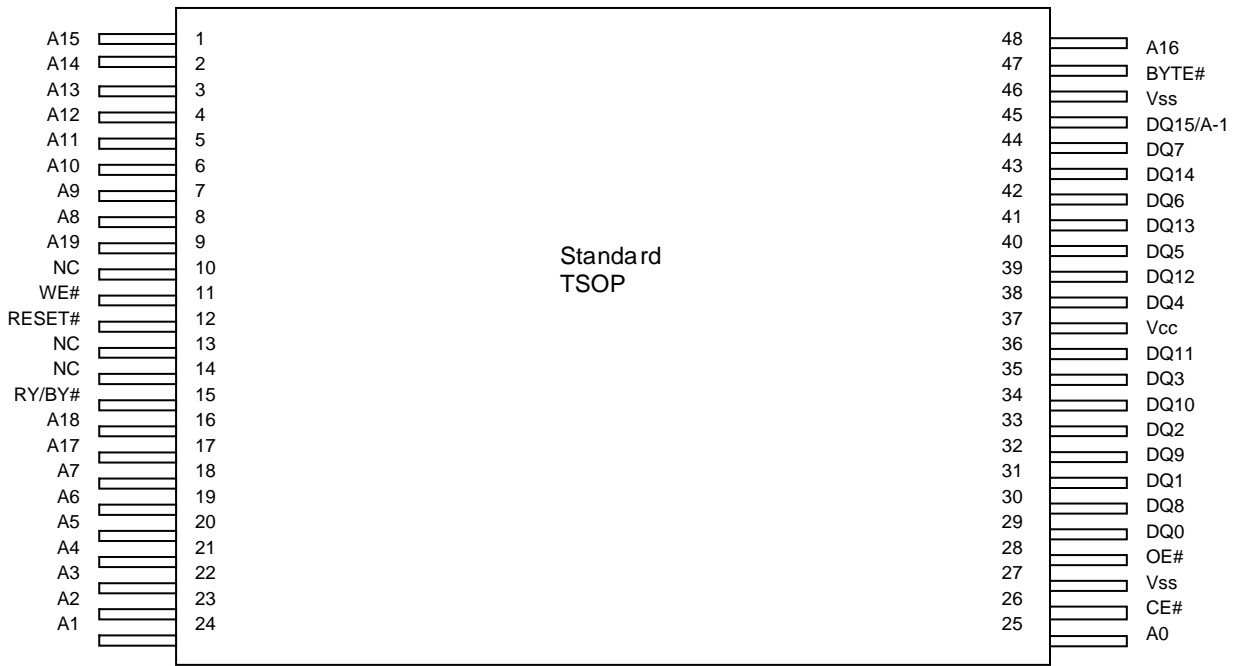
# W9864G6JH-6 Block diagram



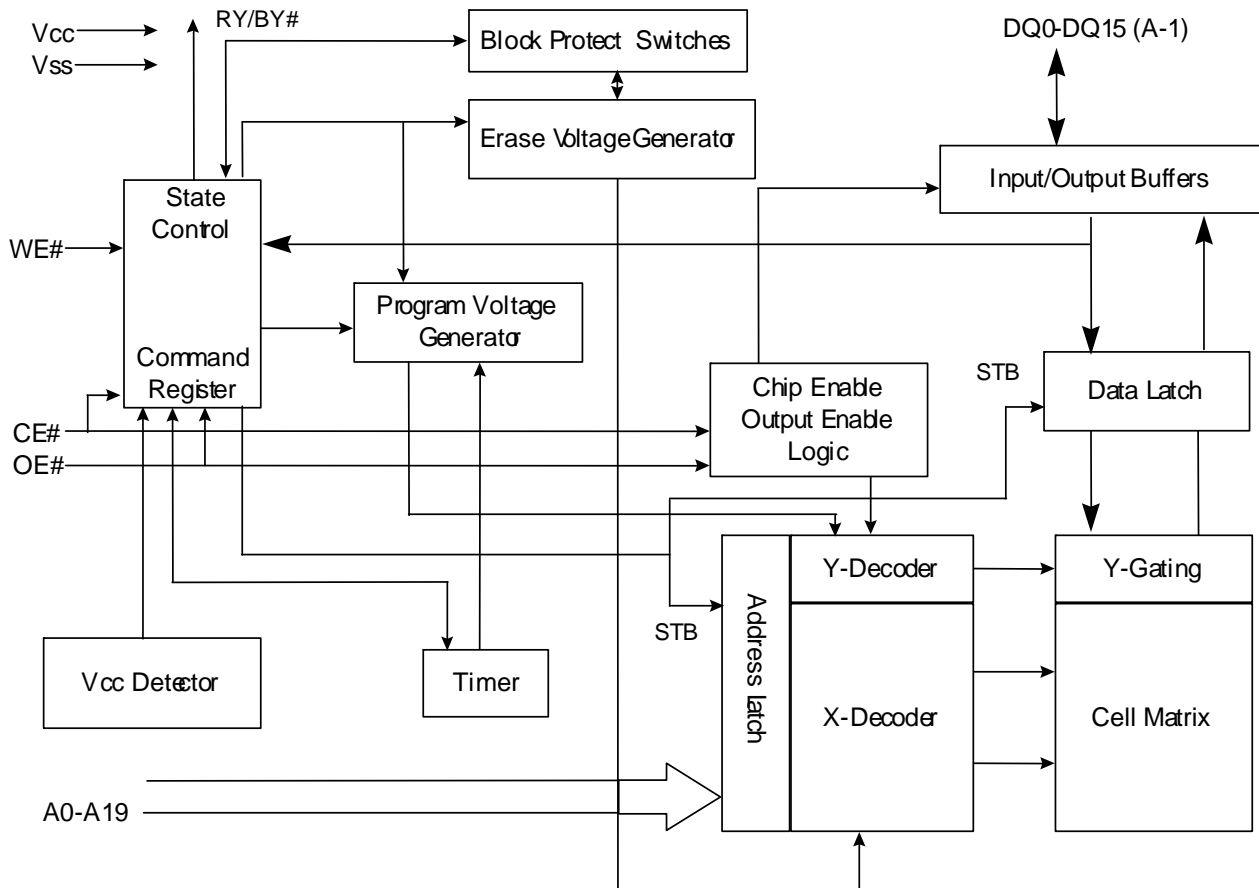
## W9864G6JH-6 Pin description

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	$\overline{\text{CS}}$	Chip Select	Disable or enable the command decoder. When command decoder is disabled, new command is ignored and previous operation continues.
19	$\overline{\text{RAS}}$	Row Address Strobe	Command input. When sampled at the rising edge of the clock $\overline{\text{RAS}}$ , $\overline{\text{CAS}}$ and $\overline{\text{WE}}$ define the operation to be executed.
18	$\overline{\text{CAS}}$	Column Address Strobe	Referred to $\overline{\text{RAS}}$
17	$\overline{\text{WE}}$	Write Enable	Referred to $\overline{\text{RAS}}$
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	VDD	Power	Power for input buffers and logic circuit inside DRAM.
44, 58, 72, 86	VSS	Ground	Ground for input buffers and logic circuit inside DRAM.
3, 9, 35, 41, 49, 55, 75, 81	VDDQ	Power for I/O Buffer	Separated power from VDD, to improve DQ noise immunity.
6, 12, 32, 38, 46, 52, 78, 84	VSSQ	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 (DIGITAL : IC793)

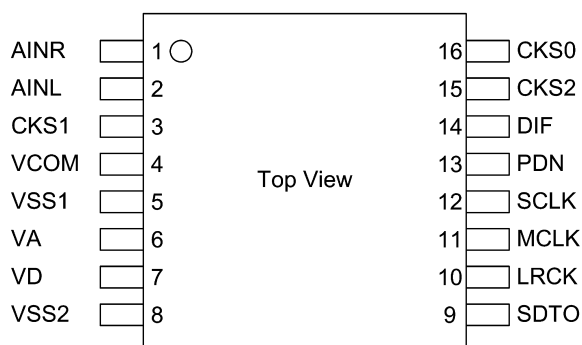


## MX29LV160DBTI-70G Block Diagram





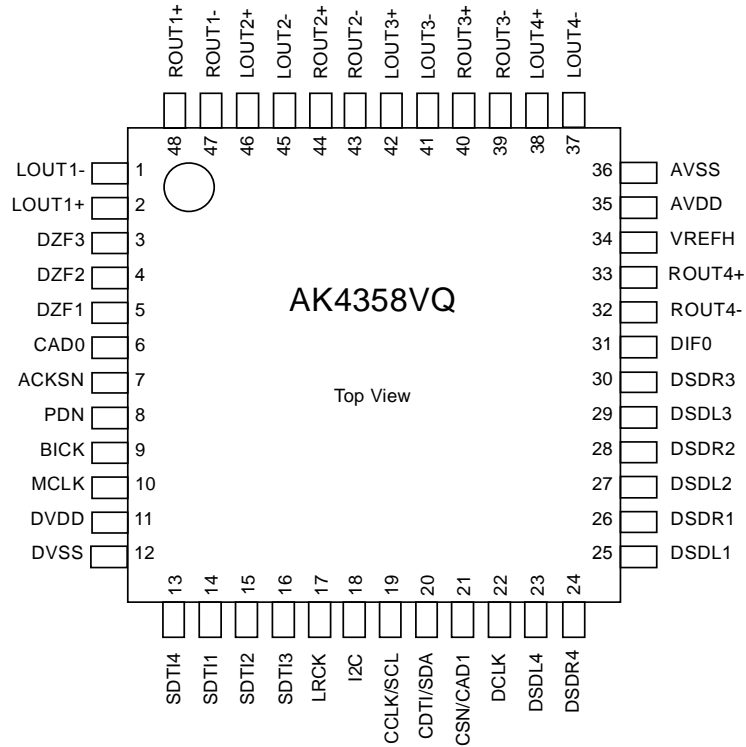
## AK5358BET (DIGITAL : IC811)



### 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 <sup>2</sup> S Compatible, “L”: 24bit MSB justified
15	CKS2	I	Mode Select 2 Pin
16	CKS0	I	Mode Select 0 Pin

## AK4358VQ (DIGITAL : IC812)



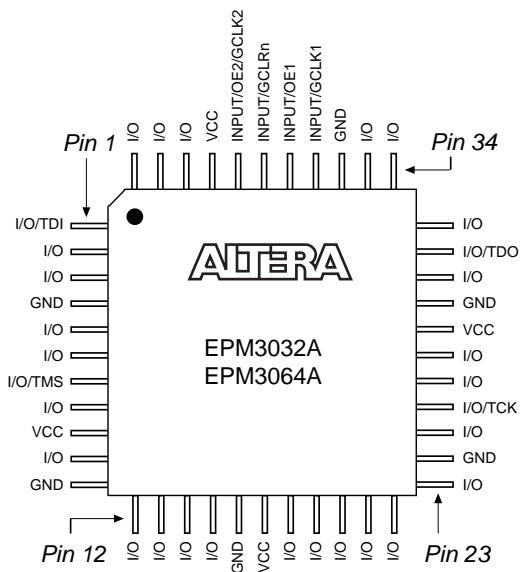
### AK4358VQ Pin Function

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 <sup>2</sup> C Bus
19	CCLK/SCL	I	Control Data Clock Pin I2C = “L”: CCLK (3-wire Serial), I2C = “H”: SCL (I <sup>2</sup> C Bus)
20	CDTI/SDA	I/O	Control Data Input Pin I2C = “L”: CDTI (3-wire Serial), I2C = “H”: SDA (I <sup>2</sup> C Bus)
21	CSN/CAD1	I	Chip Select Pin I2C = “L”: CSN (3-wire Serial), I2C = “H”: CAD1 (I <sup>2</sup> C 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

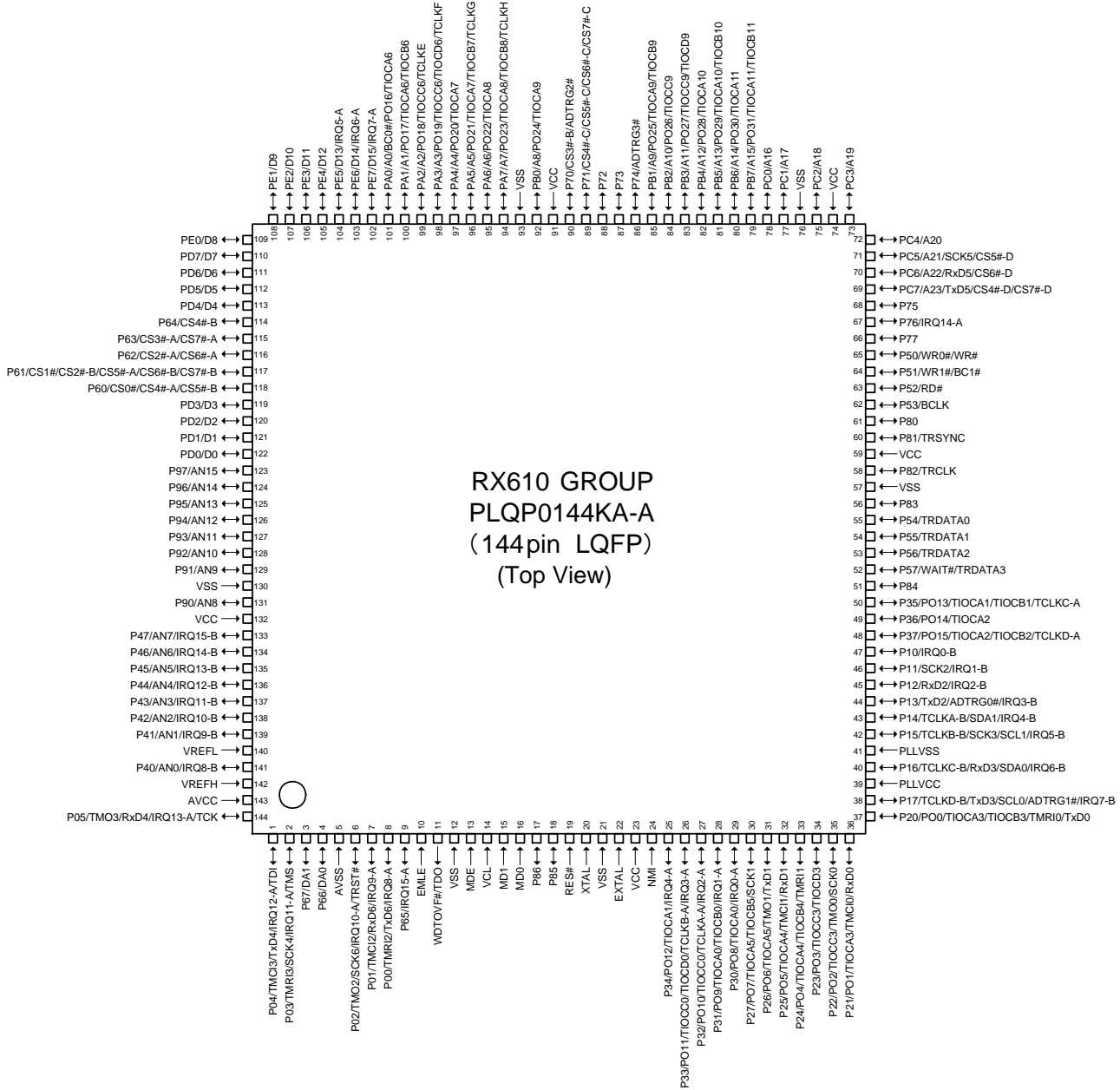
29	DSDL3	I	DAC3 DSD Lch Data Input Pin
30	DSDR3	I	DAC3 DSD Rch Data Input Pin
31	DIF0	I	Audio Data Interface Format 0 Pin
32	ROUT4-	O	DAC4 Rch Negative Analog Output Pin
33	ROUT4+	O	DAC4 Rch Positive Analog Output Pin
34	VREFH	I	Positive Voltage Reference Input Pin
35	AVDD	-	Analog Power Supply Pin, +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.

### EPM3032A (DIGITAL : IC783)



# R5F56108VNFP (DIGITAL : IC761)



## R5F56108VNFP Terminal Functions

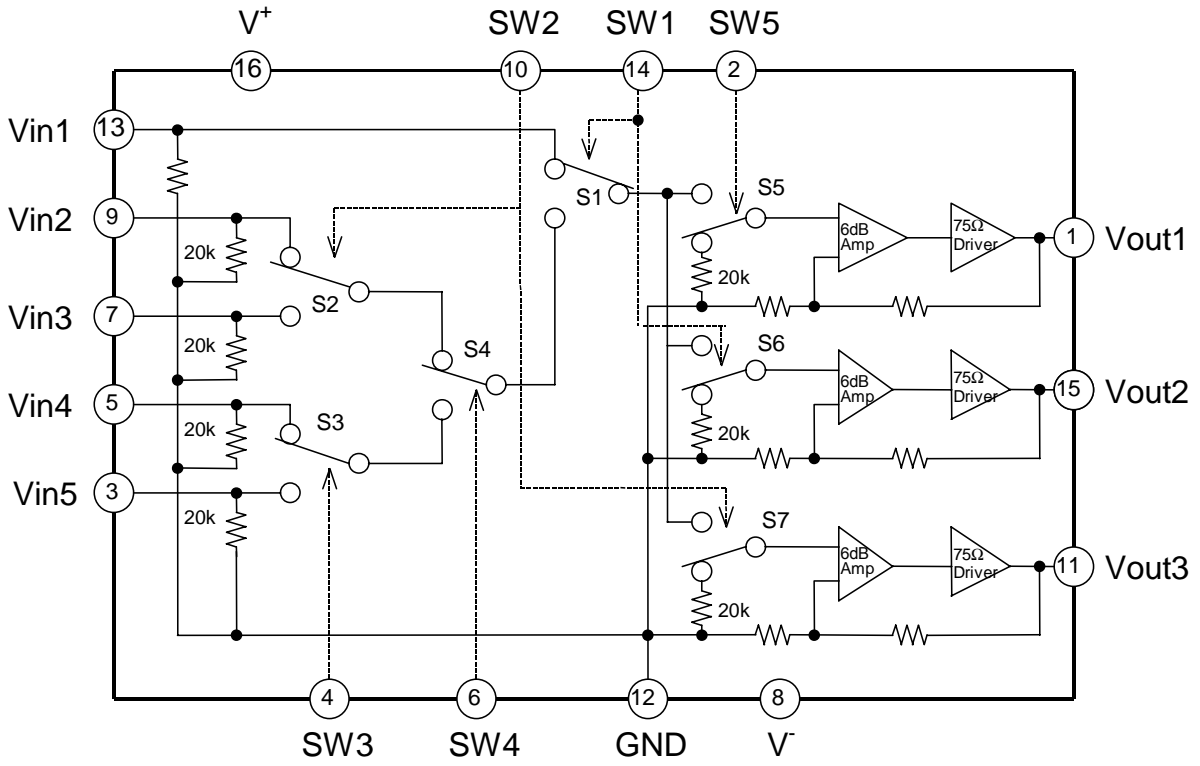
Pin	Pin Name	Symbol	I/O	Pu/Pd	LvCnv	STBY	STOP	CEC STBY	Function
1	P04/IRQ12-A/TMC13/TxD4/TDI	NC	I/O/I	M3VPu	-	-/I	-/I	I	NC
2	P03/TMR3/SCK4/IRQ11-A/TMS	NC	I/I	M3VPu	-	-/I	-/I	I	NC
3	P67/DA1	HIN SELA	O	-	-	L	L	L	TC4051 Control(for CEC Standby HDMI detect)
4	P66/DA0	HIN SELB	O	-	-	L	L	L	TC4051 Control(for CEC Standby HDMI detect)
5	AVSS	AVSS	-	-	-	-	-	-	GND
6	P02/IRQ10-A/TMO2/SCK6/TRST#	NC	I/I	Pd	-	I/I	I/I	I	NC
7	P01/IRQ9-A/TMC12/RxD6	RXD MI2320	I	-	-	I	I	I	Data received from the external pin(AMX)/MITSUBISHI writer rewrite
8	P00/IRQ8-A/TMRI2/TxD6	TXD MO2321	O	-	-	L	L	L	Data transfer to external pin(AMX)/MITSUBISHI writer rewrite
9	P65/IRQ15-A	POWER KEY	I	M3VPu	-	I	I	I	POWER KEY (WAIT MODE cancel, interrupt port)
10	EMLE	EMLE	I	Pd	-	-	-	-	Emulator communication pin
11	WDTOVF#/TDO	TDO/WDTOVF#	O/O	-	-	-	-	-	Emulator communication pin
12	VSS	VSS	I	-	-	-	-	-	GND
13	MDE	MDE	I	Pd	-	-	-	-	NC

Pin	Pin Name	Symbol	I/O	Pu/Pd	LvCnv	STBY	STOP	CEC STBY	Function
14	VCL	VCL	I	-	-	-	-	-	Smoothing capacitor connection pin
15	MD1	MD1	I	M3VPu	-	-	-	-	NC
16	MD0	MD0	I	M3VPu	-	-	-	-	NC
17	P86	CEC POWER2	O	-	-	L	L	H	CEC Standby Mode=3 Control)
18	P85	NC	O	-	-	L	L	L	NC
19	RES#	RESET	I	-	-	-	-	-	Reset input pin (reset:L)
20	XTAL	XTAL	I	-	-	-	-	-	Clock input
21	VSS	VSS	-	-	-	-	-	-	GND
22	EXTAL	EXTAL	-	-	-	-	-	-	Clock output
23	VCC	VCC	-	-	-	-	-	-	+3.3V
24	NMI	NMI	I	M3VPu	-	-	-	-	NC
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	-	-	L	L	L	NC
28	P31/IRQ1-A/PO9/TIOCA0/TIOCB0	ADV7623 INT1	I	-	-	I	I	I	HDMI transmitter /receiver / OSD (ADV7623) INT1 output pin
29	P30/IRQ0-A/PO8/TIOCA0	RC IN	I	-	-	I	I	I	Remote Control Input
30	P27/PO7/TIOCA5/TIOCB5/SCK1	NC	O	-	-	L	L	L	NC
31	P26/PO6/TIOCA5/TMO1/TxD1	NC	O	-	-	L	L	L	NC
32	P25/PO5/TIOCA4/TMC11/RxD1	NC	O	-	-	L	L	L	NC
33	P24/PO4/TIOCA4/TIOCB4/TMR1	TU RST	O	SW3VPu	-	L	L	L	TUNER Reset
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/TMC10/RxD0	E_RXDMIEO	I	-	-	I	I	I	ETHERNET communication control pin (DM860)
37	P20/PO0/TIOCA3/TIOCB3/TMR10/TxD0	E_TXDMOEI	O	-	-	L	L	L	ETHERNET communication control pin (DM860)
38	P17/IRQ7-B/TCLKD-B/TxD3/SCL0/ADTRG1#	TU SCLK	O	-	-	L	L	L	TUNER control pin
39	PLLVCC	PLLVCC	-	-	-	-	-	-	+3.3V
40	P16/IRQ6-B/TCLKC-B/RxD3/SDA0	TU SDIO	I_O	-	-	L	L	L	TUNER control pin
41	PLLVSS	PLLVSS	-	-	-	-	-	-	GND
42	P15/IRQ5-B/TCLKB-B/SCK3/SCL1	HSCL (400k)	O	CEC3VPu	-	L	L	L	I2C-SCL(ADV7623/ADV3002)
43	P14/IRQ4-B/TCLKA-B/SDA1	HSDA (400k)	I_O	CEC3VPu	-	L	L	L	I2C-SDA(ADV7623/ADV3002)
44	P13/IRQ3-B/TxD2/ADTRG0#	ADV7623 SPI MO	O	-	-	L	L	L	OSD control pin (ADV7623)
45	P12/IRQ2-B/RxD2	ADV7623 SPI MI	I	-	-	L	L	L	OSD control pin (ADV7623)
46	P11/IRQ1-B/SCK2	ADV7623 SPI CLK	O	-	-	L	L	L	OSD control pin (ADV7623)
47	P10/IRQ0-B	ADV7623 SPI CS	O	-	-	L	L	L	OSD control pin (ADV7623)
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	CEC_OUT	O	-	-	L	L	-	CEC-D signal input pin
52	P57/WAIT#/TRDATA3	ADV3002 RST	O	SW3VPu	-	L	L	L	RESET control pin (ADV3002)
53	P56/TRDATA2	E SPI MOEI	O	N3VPu	-	L	L	L	ETHERNET communication control pin (DM860)
54	P55/TRDATA1	ADV7623 RST	O	SW3VPu	-	L	L	L	HDMI Tx/Rx/OSD RESET control pin (ADV7623)
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	FL Chip Enable Control
59	VCC	VCC	-	-	-	-	-	-	+3.3V
60	P81/TRSYNC	FL RST	O	-	-	L	L	L	FL Reset Control
61	P80	VIN A	O	-	3->5	L	L	L	CVBS Select(NJM2595)

Pin	Pin Name	Symbol	I/O	Pu/Pd	LvCnv	STBY	STOP	CEC STBY	Function
62	BCLK/P53(Input only)	NC	I	-	-	-	-	-	NC
63	P52/RD#	NC	O	-	-	L	L	L	NC
64	P51/WR1#/BC1#	NC	O	-	-	L	L	L	NC
65	P50/WR0#/WR#	NC	O	-	-	L	L	L	NC
66	P77	VIN B	O	-	3->5	L	L	L	CVBS Select(NJM2595)
67	P76/IRQ14-A	TU GPO2_INT	I	-	-	L	L	L	TUNER GPIO2 input pin
68	P75	DSP ROMRST	O	-	-	I	I	I	Memory reset for DSP (Reset : L)
69	PC7/A23/CS4#-D/CS7#-D/ TxD5	DSP MOSI	O	DA3VPu	-	L	L	L	DSP control pin (ADSP21487KSWZ-2B)
70	PC6/A22/CS6#-D/RxD5	DSP MISO	I	DA3VPu	-	L	L	L	DSP control pin (ADSP21487KSWZ-2B)
71	PC5/A21/CS5#-D/SCK5	DSPI CLK	O	DA3VPu	-	L	L	L	DSP control pin (ADSP21487KSWZ-2B)
72	PC4/A20	DSP RST	O	-	-	L	L	L	DSP(ADSP21487KSWZ-2B) reset output pin (Reset : L)
73	PC3/A19	DSP FLAG0	I	Pd	-	L	L	L	DSP control pin (ADSP21487KSWZ-2B)
74	VCC	VCC	-	-	-	-	-	-	+3.3V
75	PC2/A18	DSP ICS	O	DA3VPu	-	L	L	L	DSP control pin (ADSP21487KSWZ-2B)
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 RELAY Control
80	PB6/A14/PO30/TIOCA11	FRONT RL	O	-	-	L	L	L	SPEAKER FRONT RELAY Control
81	PB5/A13/PO29/TIOCA10/ TIOCB10	HIN SELC	O	-	-	L	L	L	TC4051 Control(for CEC Standby HDMI detect)
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	SPEAKER CEN/SURR RELAY Control
84	PB2/A10/PO26/TIOCC9	NC	O	-	-	L	L	L	NC
85	PB1/A9/PO25/TIOCA9/ TIOCB9	D5V POWER	O	-	-	L	L	H	Digital 5V power supply control pin(5→3.3V,1.8V)
86	P74/ADTRG3#	DIR CE	O	-	-	L	L	L	DIR control pin (LC89058W-E)
87	P73	DIR DIN	O	-	-	L	L	L	DIR control pin (LC89058W-E)
88	P72	DIR DOUT	I	DA3VPu	-	I	I	I	DIR control pin (LC89058W-E)
89	P71/CS4#-C/CS5#-C/ CS6#-C/CS7#-C	DIR CLK	O	-	-	L	L	L	DIR control pin (LC89058W-E)
90	P70/CS3#-B/ADTRG2#	DIR RST	O	-	-	L	L	L	DIR control pin (LC89058W-E)
91	VCC	VCC	-	-	-	-	-	-	+3.3V
92	PB0/A8/PO24/TIOCA9	7623 ROM HOLD	O	-	-	L	L	L	SPI FLASH ROM HOLD control pin (ADV7623)
93	VSS	VSS	-	-	-	-	-	-	GND
94	PA7/A7/PO23/TIOCA8/ TIOCB8/TCLKH	NC	O	-	-	L	L	L	NC
95	PA6/A6/PO22/TIOCA8	VSELA	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	NC	O	-	-	L	L	L	NC
98	PA3/A3/PO19/TIOCC6/ TIOCD6/TCLKF	DAC(ETHER) MUTE	O	-	-	L	L	L	DAC (ETHER) MUTE control pin (PCM5100)MUTE ON="L"
99	PA2/A2/PO18/TIOCC6/ TCLKE	PRE Z2 MUTE(1713E3)/ NC(Except 1713E3)	O/O	-	-	L	L	L	ZONE2 PRE OUT MUTE control pin
100	PA1/A1/PO17/TIOCA6/ TIOCB6	NC	O	-	-	L	L	L	NC
101	PA0/A0/BC0#/PO16/ TIOCA6	PRE MUTE	O	-	-	L	L	L	PRE SW OUT MUTE control pin
102	PE7/IRQ7-A/D15	ADV7623 INT2	I	-	-	I	I	I	HDMI RECEIVER INT2 output pin (ADV7623)
103	PE6/IRQ6-A/D14	ADV7623 Tx INT	I	-	-	I	I	I	HDMI signal detection pin (ADV7623)
104	PE5/IRQ5-A/D13	NC	O	-	-	L	L	L	NC
105	PE4/D12	NC	O	-	-	L	L	L	NC
106	PE3/D11	NC	O	-	-	L	L	L	NC
107	PE2/D10	VOL CLK	O	-	-	L	L	L	FUNCTION/VOLUME control pin(NJU72340A)
108	PE1/D9	VOL DATA	O	-	-	L	L	L	FUNCTION/VOLUME control pin(NJU72340A)
109	PE0/D8	PLD WRITE	O	-	-	L	L	L	A.PLD /JTAG switching control pin
110	PD7/D7	JTAG TDO	I	-	-	L	L	L	A.PLD rewriting control pin(JTAG)
111	PD6/D6	JTAG TMS/APLD CS	O/O	-	-	L	L	L	A.PLD rewriting & control pin
112	PD5/D5	JTAG TDI/APLD DATA/ DAC DATA	O/O	-	-	L	L	L	A.PLD rewriting & control /DAC control pin
113	PD4/D4	JTAG TCK/APLD CLK/ DAC CLK	O/O	-	-	L	L	L	A.PLD rewriting & control /DAC control pin
114	P64/CS4#-B	ADC RST	O	-	-	L	L	L	A/D converter control pin(AK5358B)

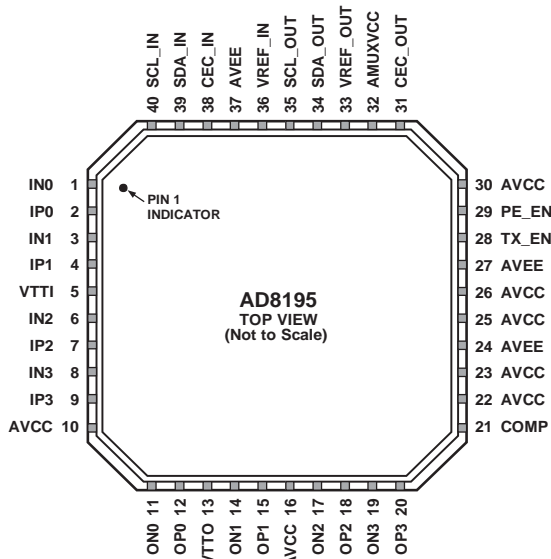
Pin	Pin Name	Symbol	I/O	Pu/Pd	LvCnv	STBY	STOP	CEC STBY	Function
115	P63/CS3#-A/CS7#-A	THERMAL A	I	-	-	L	L	L	PROTECTION Detect(THERMAL A)
116	P62/CS2#-A/CS6#-A	E SPI CS	O	N3VPu	-	L	L	L	ETHERNET communication control pin(DM860)
117	P61/CS1#-B/CS5#-A/CS6#-B/CS7#-B	DAC MS	O	-	-	L	L	L	D/A converter control pin(AK4358VQ)
118	P60/CS0#-A/CS4#-A/CS5#-B	DAC RST	O	-	-	L	L	L	D/A converter control pin(AK4358VQ)
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	FL Control Pin
122	PD0/D0	FL DATA	O	-	-	L	L	L	FL Control Pin
123	P97/AN15	DA POWER	O	-	-	L	L	L	Digital power supply (DA3.3V & DA1.2V) control pin (ON:H)
124	P96/AN14	CEC POWER	O	-	-	L	L	H	CEC power supply (CEC5V & CEC3.3V & CEC1.8V) control pin for CEC STANDBY.
125	P95/AN13	DV POWER1	O	-	-	L	L	*	Digital (VIDEO) power supply (DV5V & DV3.3V) control pin. *CEC STANDBY:MODE1=H, MODE2=L
126	P94/AN12	THERMAL B	I	-	-	L	L	L	PROTECTION Detect(THERMAL B)
127	P93/AN11	MAIN POWER	O	-	-	L	L	L	MAIN POWER control pin
128	P92/AN10	CPU POWER	O	-	-	L	L	L	MAIN CPU POWER pin (POWER ON: H CEC ON = STANDBY: H)
129	P91/AN9	Tx EN	O	-	-	L	L	L	Front HDMI(AD8195) Chip Enable
130	VSS	VSS	-	-	-	-	-	-	GND
131	P90/AN8	MODE	I	-	-	I	I	I	MODEL switch input pin (No assign)
132	VCC	VCC	-	-	-	-	-	-	+3.3V
133	P47/IRQ15-B/AN7	DC DET/ASO	I	-	-	I	I	I	PROTECTION Detect(DC DET)/(ASO)
134	P46/IRQ14-B/AN6	H/P DET / MIC DET	I	-	-	I	I	I	Headphone Detect/MIC Detect
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	H5V DET	I	-	-	I	I	I	HDMI INPUT 5V (for EDID / HOT PLUG) detection pin
140	AVSS	AVSS	-	-	-	-	-	-	GND
141	P40/IRQ8-B/AN0	CEC_IN	I	SW3VPu	-	I	I	I	CEC-D signal input pin
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	M3VPu	-	-/I	-/I	I	NC

NJM2595M (DIGITAL : IC901)





# AD8195 (F-HDMI : IC871)



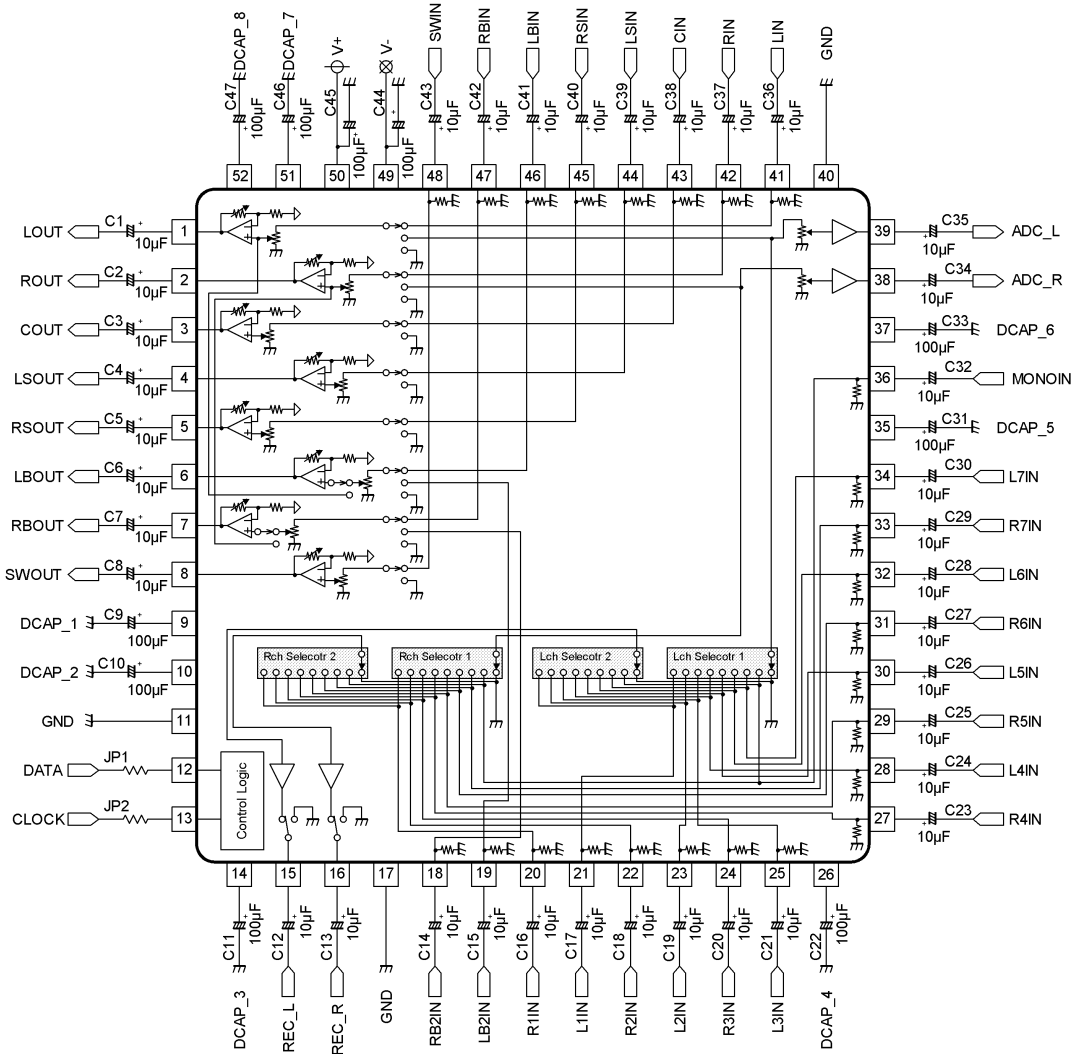
**NOTES**  
 1. THE AD8195 LFCSP HAS AN EXPOSED PAD ON THE UNDERSIDE OF THE PACKAGE THAT AIDS IN HEAT DISSIPATION. THE PAD MUST BE ELECTRICALLY CONNECTED TO THE AVEE SUPPLY PLANE IN ORDER TO MEET THERMAL SPECIFICATIONS.

## AD8195 Terminal Functions

Pin No.	Mnemonic	Type <sup>1</sup>	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.
33	VREF_OUT	Reference	DDC Output Side Pull-Up Reference Voltage.
34	SDA_OUT	LS I/O	DDC Output Side Data Line Input/Output.
35	SCL_OUT	LS I/O	DDC Output Side Clock Line Input/Output.
36	VREF_IN	Reference	DDC Input Side Pull-Up Reference Voltage.
38	CEC_IN	LS I/O	CEC Input Side.
39	SDA_IN	LS I/O	DDC Input Side Data Line.
40	SCL_IN	LS I/O	DDC Input Side Clock Line

<sup>1</sup> HS = high speed, LS = low speed, I = input, and O = output.

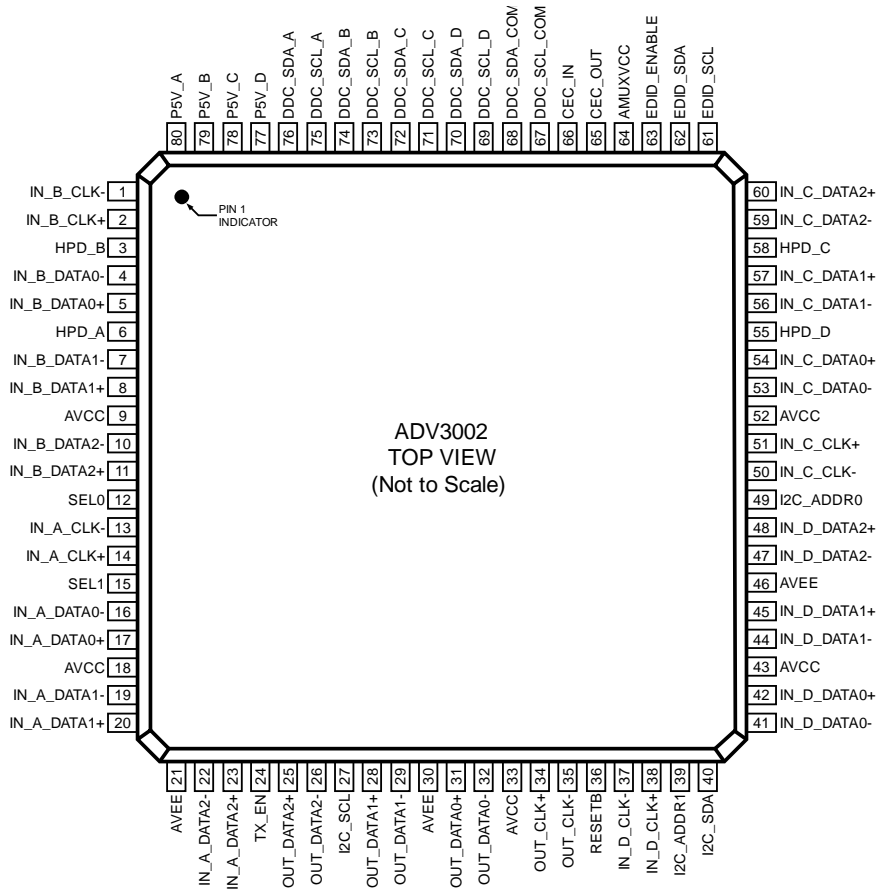
# NJU72340A (DIGITAL :IC891)



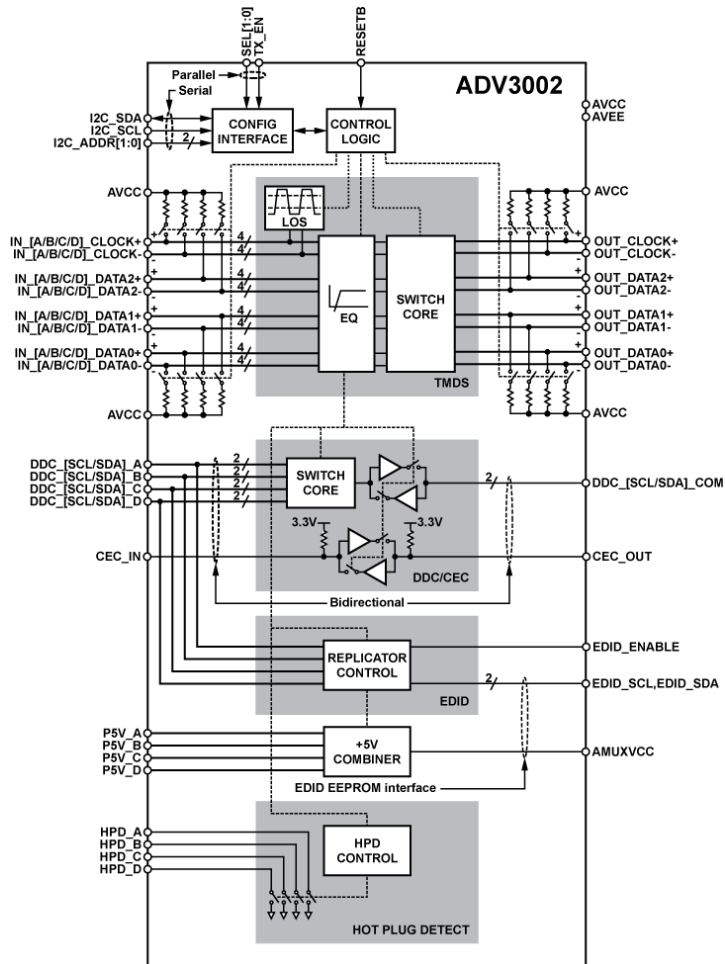
## NJU72340A Terminal Functions

Pin No.	SYMBOL	Pin No.	SYMBOL	Pin No.	SYMBOL	Pin No.	SYMBOL
1	LOUT	14	DCAP_3	27	R4IN	40	GND
2	ROUT	15	REC_R	28	L4IN	41	LIN
3	COOUT	16	REG_L	29	R5IN	42	RIN
4	LSOUT	17	GND	30	L5IN	43	CIN
5	RSOUT	18	RB2IN	31	R6IN	44	LSIN
6	LBOUT	19	LB2IN	32	L6IN	45	RSIN
7	RBOUT	20	R1IN	33	R7IN	46	LBIN
8	SWOUT	21	L1IN	34	L7IN	47	RBIN
9	DCAP_1	22	R2IN	35	DCAP_5	48	SWIN
10	DCAP_2	23	L2IN	36	MONOIN	49	V-
11	GND	24	R3IN	37	DCAP_6	50	V+
12	DATA	25	L3IN	38	ADC_R	51	DCAP_7
13	CLOCK	26	DCAP_4	39	ADC_L	52	DCAP_8

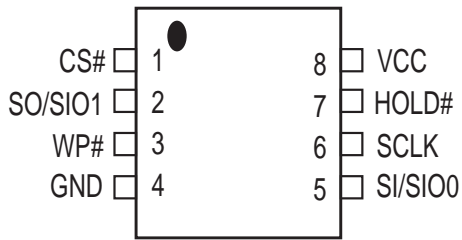
# ADV3002BSTZ (DIGITAL : IC711)



## ADV3002BSTZ Block diagram



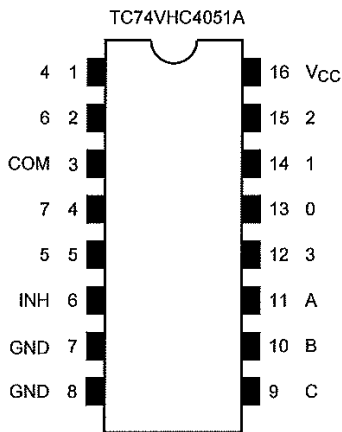
### MX25L3206EM2I-12G (DIGITAL : IC722)



#### PIN DESCRIPTION

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

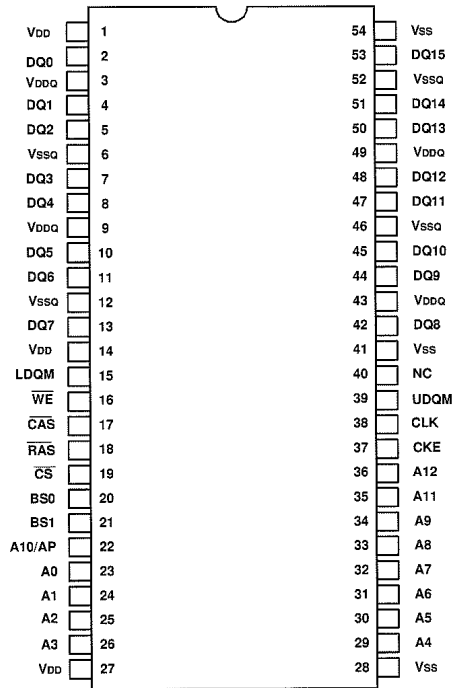
### 74VHC4051A (DIGITAL : IC724)



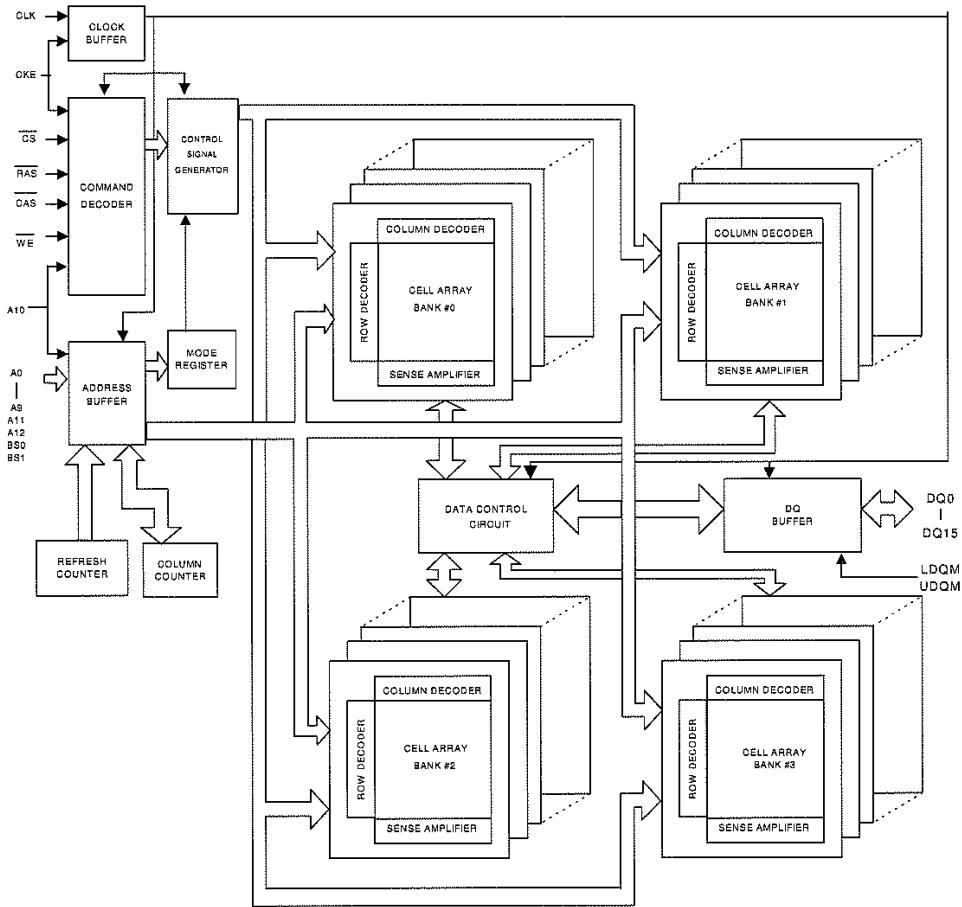
Inhibit	Control Inputs			"ON" Channel
	C	B	A	TC74VHC4051A
L	L	L	L	0
L	L	L	H	1
L	L	H	L	2
L	L	H	H	3
L	H	L	L	4
L	H	L	H	5
L	H	H	L	6
L	H	H	H	7
H	X	X	X	None

X: Don't care,

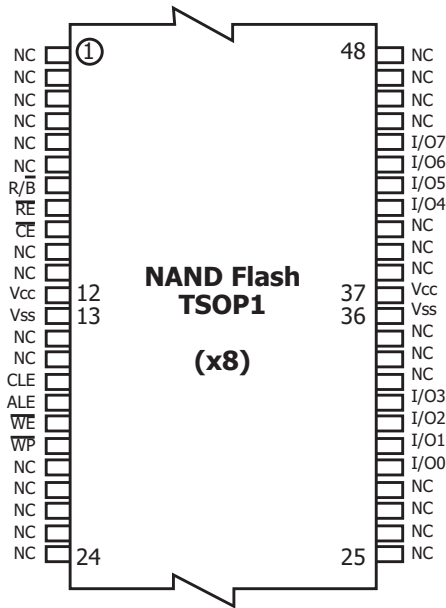
# W9825G6JH-6 (DIGITAL : IC833)



## W9825G6JH-6 Pin Function



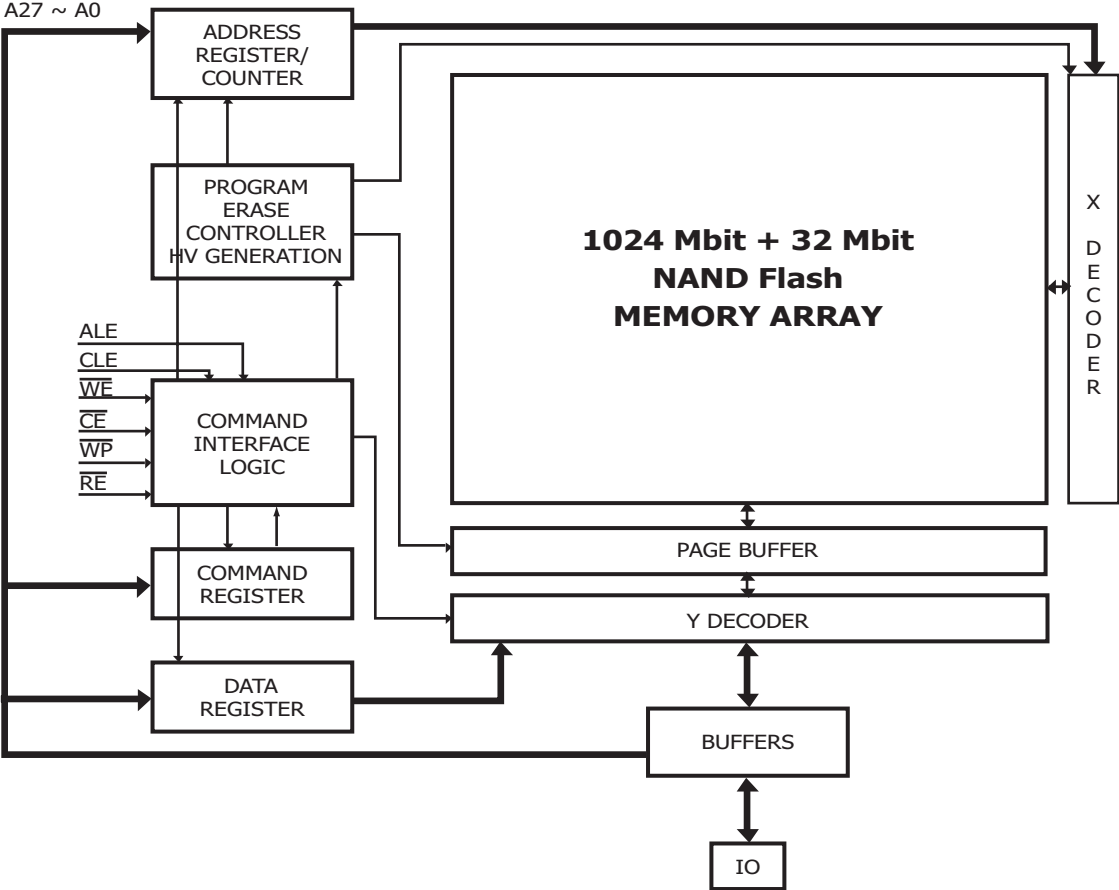
## H27U1G8F2BTR-BC (DIGITAL : IC 832)



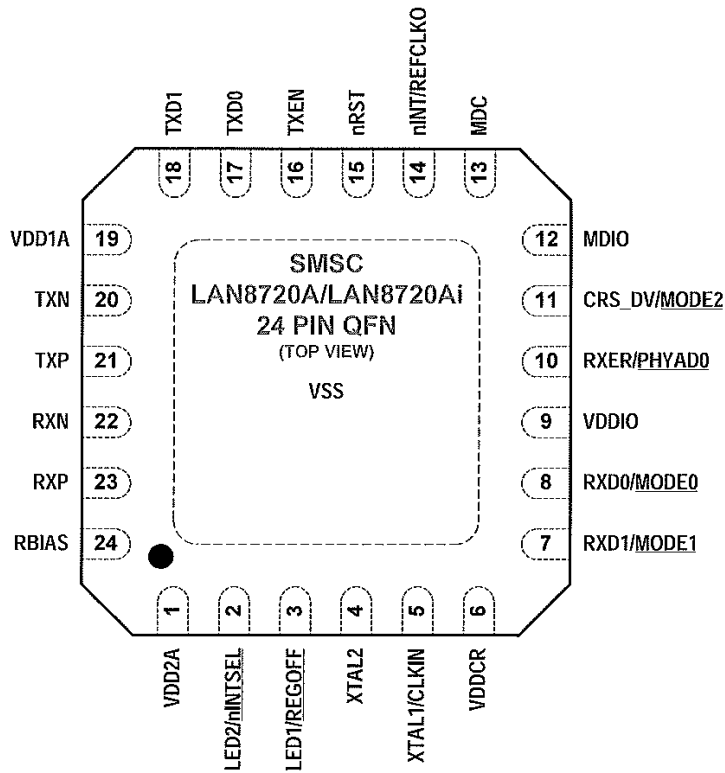
### H27U1G8F2BTR-BC Pin Function

Pin Name	Description
I00 ~ I07	<b>DATA INPUTS/OUTPUTS</b> 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 (WE). The I/O buffer float to High-Z when the device is deselected or the outputs are disabled.
CLE	<b>COMMAND LATCH ENABLE</b> This input activates the latching of the IO inputs inside the Command Register on the Rising edge of Write Enable (WE).
ALE	<b>ADDRESS LATCH ENABLE</b> This input activates the latching of the IO inputs inside the Address Register on the Rising edge of Write Enable (WE).
$\overline{CE}$	<b>CHIP ENABLE</b> This input controls the selection of the device.
$\overline{WE}$	<b>WRITE ENABLE</b> This input acts as clock to latch Command, Address and Data. The IO inputs are latched on the rise edge of WE.
$\overline{RE}$	<b>READ ENABLE</b> The 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 RE which also increments the internal column address counter by one.
$\overline{WP}$	<b>WRITE PROTECT</b> The WP pin, when Low, provides an Hardware protection against undesired modify (program / erase) operations.
R/B	<b>READY BUSY</b> The Ready/Busy output is an Open Drain pin that signals the state of the memory.
Vcc	<b>SUPPLY VOLTAGE</b> The Vcc supplies the power for all the operations (Read, Write, Erase).
Vss	GROUND
NC	NO CONNECTION

**H27U1G8F2BTR-BC Block Diagram**



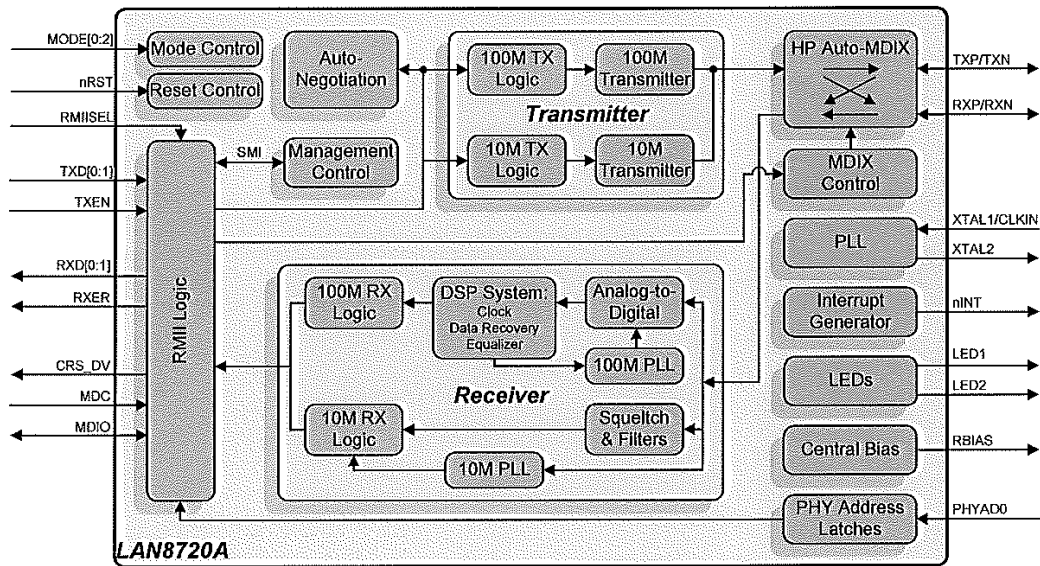
## LAN8720A (DIGITAL : IC851)



### LAN8720A Terminal Functions

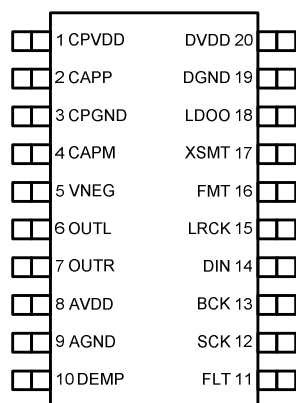
PIN NUM	PIN NAME	PIN NUM	PIN NAME
1	VDD2A	13	MDC
2	LED2/nINTSEL	14	nINT/REFCLKO
3	LED1/REGOFF	15	nRST
4	XTAL2	16	TXEN
5	XTAL1/CLKIN	17	TXD0
6	VDDCR	18	TXD1
7	RXD1/MODE1	19	VDD1A
8	RXD0/MODE0	20	TXN
9	VDDIO	21	TXP
10	RXER/PHYAD0	22	RXN
11	CRS_DV/MODE2	23	RXP
12	MDIO	24	RBIAS





## PCM5100 (DIGITAL : IC855(AVR-1713E3 only))

### PCM510X (top view)

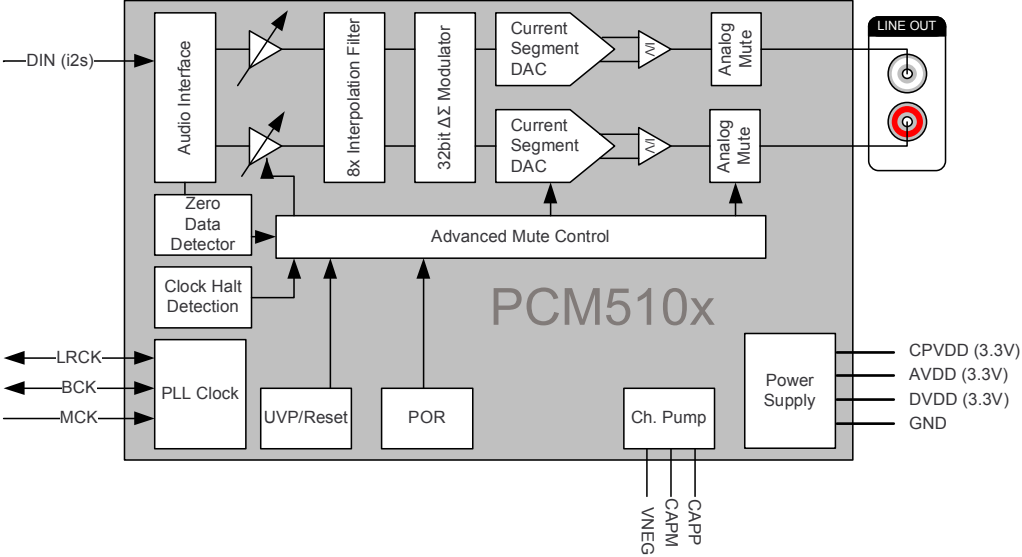


**Table 2. TERMINAL FUNCTIONS, PCM510x**

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 <sup>(1)</sup> : 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 <sup>2</sup> S (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**





# ANODE CONNECTION

	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	12G	13G	14G	15G	16G	17G (AD3)	18G (AD4)
D0	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	1-1	S9	-
D1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	2-1	3d	-
D2	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	3-1	2d	-
D3	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	4-1	3e	-
D4	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	5-1	2e	-
D5	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	1-2	3c	-
D6	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2c	-
D7	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3-2	3g	-
D8	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	4-2	2g	-
D9	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	5-2	3f	-
D10	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	1-3	2f	-
D11	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	2-3	3b	-
D12	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	3-3	2b	-
D13	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	4-3	3a	-
D14	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	5-3	2a	-
D15	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	1-4	Dp	-
D16	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	2-4	dB	-
D17	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	3-4	1d	-
D18	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	4-4	1e	-
D19	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	5-4	1c	-
D20	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1-5	1g	-
D21	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	2-5	1f	-
D22	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	3-5	1b	-
D23	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	1a	AUTO
D24	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	S1	MDM
D25	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	1-6	S2	DOTAL
D26	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	2-6	S3	ALAB
D27	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	3-6	S4	SBACK
D28	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	S5	DC
D29	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	5-6	S6	dkts
D30	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	1-7	S7	AUDYBBY
D31	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	2-7	S8	TUNED
D32	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	3-7	MUTE	STEREO
D33	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	4-7	PCM	RDS
D34	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	5-7	Z2	SLEEP
AD1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	DIG	-
AD2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ANA	-

# 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 model  
 E1C : China model                      E1C : China model

## FRONT PCB UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
<b>SEMICONDUCTORS GROUP</b>					
IC101	943239005300M	I.C,OPAMP		HVIBA4560RF	
Q1001	943219006820S	TR KTC1027Y		CVTKTC1027YT	
Q1002	943216500020S	T.R,RT1N141C(10K-10K)		CVTRT1N141C	
Q1003	943214500020S	T.R,2SC3052		CVT2SC3052	
Q1004	943214500020S	T.R,2SC3052		CVT2SC3052	
Q1005	00MHT600141B1	TR KTA1271Y		HVTKTA1271YT	
Q1006	943216500020S	T.R,RT1N141C(10K-10K)		CVTRT1N141C	
Q1007	943215500020S	T.R,RT1P141C(10K-10K)		CVTRT1P141C	
Q1008	943215500020S	T.R,RT1P141C(10K-10K)		CVTRT1P141C	
Q1009	943216500020S	T.R,RT1N141C(10K-10K)		CVTRT1N141C	
Q1011	943215500020S	T.R,RT1P141C(10K-10K)		CVTRT1P141C	
Q1012	943216500020S	T.R,RT1N141C(10K-10K)		CVTRT1N141C	
D1001	00D9630328409	DIODE,RECTIFIERS		CVD1N4007ST	
D1002	00D9630328409	DIODE,RECTIFIERS		CVD1N4007ST	
D1003	90M-HD302360R	DIODE,ZENER,1/2W,6.8V		CVDZJ6.8BT	
D1004	00D9430087209	DIODE,ZENER,1/2W,24V		CVDZJ24BT	
D1005	90M-HD302450R	DIODE,ZENER,1/2W,13V		CVDZJ13BT	
D1008	963209003510S	DIODE,RELIABLEESDPROTECTION		CVDCDS3C05HDMI1	
D1009	963209003510S	DIODE,RELIABLEESDPROTECTION		CVDCDS3C05HDMI1	
D1010	963209003510S	DIODE,RELIABLEESDPROTECTION		CVDCDS3C05HDMI1	
D1011	963209003510S	DIODE,RELIABLEESDPROTECTION		CVDCDS3C05HDMI1	
D1012	943176010090S	L.E.D,(GREEN/RED5PI)		CVDLBLJEGJ204L	
D1019	943209001080S	DIODE,CHIP,SWITCHING		CVD1SS355T	
D1020	943209001080S	DIODE,CHIP,SWITCHING		CVD1SS355T	
D1401	943202010080S	DIODE,ZENER,1/2W,5.1V		CVDZJ5.1BT	
D1402	943202010080S	DIODE,ZENER,1/2W,5.1V		CVDZJ5.1BT	
D1403	943202010080S	DIODE,ZENER,1/2W,5.1V		CVDZJ5.1BT	
D1404	943209001080S	DIODE,CHIP,SWITCHING		CVD1SS355T	
D1405	943209001080S	DIODE,CHIP,SWITCHING		CVD1SS355T	
<b>RESISTORS GROUP</b>					
R1001	nsp	RES,CARBON(1/5W,1.8ohm,J)		CRD20TJ1R8T	
R1004	nsp	RES,CARBON(1/5W,1.8ohm,J)		CRD20TJ1R8T	
R1005	00MNN05221610	RES,CHIP(1608/5%/220ohm)		CRJ10DJ221T	
R1006	00MNN05221610	RES,CHIP(1608/5%/220ohm)		CRJ10DJ221T	
R1007	00MGD05103160	RES,CARBON(1/5W,10Kohm,J)		CRD20TJ103T	
R1008	00MNN05221610	RES,CHIP(1608/5%/220ohm)		CRJ10DJ221T	
R1009	00MNN05221610	RES,CHIP(1608/5%/220ohm)		CRJ10DJ221T	
R1010	00MNN05393610	RES,CHIP(1608/5%/39Kohm)		CRJ10DJ393T	
R1011	nsp	RES,CHIP(1608/5%/10Kohm)		CRJ10DJ103T	
R1012	00MNN05101610	RES,CHIP(1608/5%/100ohm)		CRJ10DJ101T	
R1013	00MNN05101610	RES,CHIP(1608/5%/100ohm)		CRJ10DJ101T	
R1014	00MNN05101610	RES,CHIP(1608/5%/100ohm)		CRJ10DJ101T	
R1015	00MNN05101610	RES,CHIP(1608/5%/100ohm)		CRJ10DJ101T	
R1016	00MNN05104610	RES,CHIP(1608/5%/100Kohm)		CRJ10DJ104T	
R1017	00MNN05104610	RES,CHIP(1608/5%/100Kohm)		CRJ10DJ104T	
R1018	00MNN05101610	RES,CHIP(1608/5%/100ohm)		CRJ10DJ101T	
R1019	00MNN05101610	RES,CHIP(1608/5%/100ohm)		CRJ10DJ101T	
R1020	00MNN05332610	RES,CHIP(1608/5%/3.3Kohm)		CRJ10DJ332T	
R1021	00MNN05102610	RES,CHIP(1608/5%/1Kohm)		CRJ10DJ102T	
R1022	00MNN05102610	RES,CHIP(1608/5%/1Kohm)		CRJ10DJ102T	
R1023	00MNN05473610	RES,CHIP(1608/5%/47Kohm)		CRJ10DJ473T	







Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
SW109	90M-SP001400R	SW,TACT		CST1A023ZT	
SW110	90M-SP001400R	SW,TACT		CST1A023ZT	
SW111	90M-SP001400R	SW,TACT		CST1A023ZT	
VR101	943671010330S	ENCODER(16MM,24PULSES),W/CLICK		CSR2A055Z	

# POWER PCB UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
<b>SEMICONDUCTORS GROUP</b>					
IC301	00D2630801004	I.C,REGULATOR		HVINJM7812FA	
IC302	00D2630641002	I.C,REGULATOR		HVINJM7912FA	
IC303	943231010390S	I.C,REGULATOR(+5V,T0220IS)		CVIKIA7805BPI	
IC304	00D2631099006	I.C,REGULATOR(-5V,T0220IS)		CVIKIA7905PI	
IC305	943231010390S	I.C,REGULATOR(+5V,T0220IS)		CVIKIA7805BPI	
△ IC601	231010091708S	I.C,OFF-LINEPOWERSWITCH		CVITOP258MG	
△ IC602	963239010480S	I.C,PHOTOCOUPLER		CVIPC123Y22FZ0F	
IC603	212050010508S	I.C,SHUNTREGULATOR(TO-92)		CVIKIA2431AP	
Q6002	943229500110S	F.E.T,INK0010AC1 (N-CH,SC-59,MOSFET,ISAHAYA)		CVTINK0010AC1	*
Q6003	00MHT30001000	T.R		HVTKTC3199YT	
D3001	00D9630328409	DIODE,RECTIFIERS		CVD1N4007ST	
D3002	00D9630328409	DIODE,RECTIFIERS		CVD1N4007ST	
D3003	00D9630328409	DIODE,RECTIFIERS		CVD1N4007ST	
D3004	00D9630328409	DIODE,RECTIFIERS		CVD1N4007ST	
D3103	00D9430182609	DIODE,SWITCHING		CVD1SS133MT	
D3104	00D9430182609	DIODE,SWITCHING		CVD1SS133MT	
D3106	00D9430182609	DIODE,SWITCHING		CVD1SS133MT	
D3107	00D9430182609	DIODE,SWITCHING		CVD1SS133MT	
D6001	00D9630328409	DIODE,RECTIFIERS		CVD1N4007ST	
D6002	00D9630328409	DIODE,RECTIFIERS		CVD1N4007ST	
D6003	00D9630328409	DIODE,RECTIFIERS		CVD1N4007ST	
D6004	00D9630328409	DIODE,RECTIFIERS		CVD1N4007ST	
D6005	00D9630328409	DIODE,RECTIFIERS		CVD1N4007ST	
D6006	00D9630328409	DIODE,RECTIFIERS		CVD1N4007ST	
D6007	00D9630328409	DIODE,RECTIFIERS		CVD1N4007ST	
D6008	00D9630328409	DIODE,RECTIFIERS		CVD1N4007ST	
D6009	00D9430182609	DIODE,SWITCHING		CVD1SS133MT	
D6011	943209500030S	DIODE,LOWFORWARDSCHOTTKYRECTIFIER		CVDSRL3060P	
D6012	00D9630328409	DIODE,RECTIFIERS		CVD1N4007ST	
<b>RESISTORS GROUP</b>					
R6004	00MGD05334160	RES,CARBON(1/5W,330Kohm,J)		CRD20TJ334T	
R6006	00MNN05105610	RES,CHIP(1608/5%/1Mohm)		CRJ10DJ105T	
R6008	00MGD05225160	RES,CARBON(1/5W,2.2Mohm,J)	1613E3, 1713E3	CRD20TJ225T	
R6009	00MGD05225160	RES,CARBON(1/5W,2.2Mohm,J)	1613E3, 1713E3	CRD20TJ225T	
R6010	00MGD05105160	RES,CARBON(1/5W,1Mohm,J)	1613E3, 1713E3	CRD20TJ105T	
R6011	00MNN05100610	RES,CHIP(1608/5%/10ohm)		CRJ10DJ100T	
R6012	00MNN05274610	RES,CHIP(1608/5%/270Kohm)	1613E3, 1713E3	CRJ10DJ274T	
R6012	00MNN05563610	RES,CHIP(1608/5%/56Kohm)	1713E2, 1713E1C, 1723E1C	CRJ10DJ563T	
R6013	00MNN05153610	RES,CHIP(1608/5%/15Kohm)		CRJ10DJ153T	
R6014	00MNN05102610	RES,CHIP(1608/5%/1Kohm)		CRJ10DJ102T	
R6019	nsp	RES,CHIP(1608/1%/22Kohm)		CRJ10DF2202T	
R6015	nsp	RES,CARBON(1/5W,6.8ohm,J)		CRD20TJ6R8T	
R6016	00MGD05560160	RES,CARBON(1/5W,56ohm,J)		CRD20TJ560T	
R6017	00MGD05332160	RES,CARBON(1/5W,3.3Kohm,J)		CRD20TJ332T	
R6018	00MGD05562160	RES,CARBON(1/5W,5.6Kohm,J)		CRD20TJ562T	
R6022	nsp	RES,CHIP(1608/1%/6.8Kohm)		CRJ10DF6801T	
R6024	nsp	RES,CHIP(1608/5%/10Kohm)		CRJ10DJ103T	
R6025	nsp	RES,CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T	
△ R6027	943121500030S	RES,CHIP(2012/5%/2.2Mohm)		CRJ18AJ225T	
△ R6028	943121500030S	RES,CHIP(2012/5%/2.2Mohm)		CRJ18AJ225T	
△ R6029	943121500030S	RES,CHIP(2012/5%/2.2Mohm)		CRJ18AJ225T	
△ R6030	943121500030S	RES,CHIP(2012/5%/2.2Mohm)		CRJ18AJ225T	
R6031	nsp	RES,CHIP(2012/5%/1Mohm)		CRJ18AJ105T	
R6032	nsp	RES,CHIP(2012/5%/1Mohm)		CRJ18AJ105T	

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
R6033	nsp	RES,CHIP(2012/5%/1Mohm)		CRJ18AJ105T	
<b>CAPACITORS GROUP</b>					
C3001	00D9430062101	CAP,ELECT(16V/100uF)		CCEA1CH101T	
C3005	00MOF15104040	CAP,METAL-FILM(100V/0.1uF)		CCME2A104JXT	
C3006	943134010620S	CAP,ELECT(25V/4700uF)		CCEA1EH472E	
C3007	943134001290S	CAP,ELECT(25V/2200uF)		CCEA1EH222E	
C3008	00D9430062101	CAP,ELECT(16V/100uF)		CCEA1CH101T	
C3012	00D943010390S	CAP,ELECT(16V/470uF)		CCEA1CH471T	
C3013	00D9430062101	CAP,ELECT(16V/100uF)		CCEA1CH101T	
C3020	00D9430062101	CAP,ELECT(16V/100uF)		CCEA1CH101T	
C3021	00D9430062101	CAP,ELECT(16V/100uF)		CCEA1CH101T	
C3024	943134010530S	CAP,ELECT(50V/1uF)		CCEA1HH1R0T	
△ C6001	963132011940S	CAP,CERAMIC(X1/Y2,0.01uF,AC250V)		CCKDKY103MFM	
△ C6002	963132011940S	CAP,CERAMIC(X1/Y2,0.01uF,AC250V)		CCKDKY103MFM	
△ C6003	963132011940S	CAP,CERAMIC(X1/Y2,0.01uF,AC250V)		CCKDKY103MFM	
C6004	943134501590S	CAP,ELECT(200V/100uF),105°C	1613E3, 1713E3	CCET200NHA101ES	
C6004	963134010200S	CAP,ELECT(400V/100UF,18X40,NHA)	1713E2, 1713E1C, 1723E1C	CCET400NHA101ES	
C6005	nsp	CAP,CHIP(1608,50V/0.047uF)		CCUS1H473KC	
C6006	nsp	CAP,CHIP(1608,50V/0.01uF)		CCUS1H103KC	
C6007	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C6008	00D9430175108	CAP,ELECT(50V/10uF),105°C		CCEA1HNXA100TS	
C6011	963132010120S	CAP,CERAMIC(DC1KV/1000pF)		CCKDDEH102KCM	
C6012	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C6013	00MOA47602520	CAP,ELECT(25V/47uF),105°C		CCEA1ENXA470TS	
C6014	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C6015	nsp	CAP,CHIP(1608,6.3V/4.7uF,MURATAGRM18)		CCUS0J475KC	
C6016	963134010220S	CAP,ELECT(6.3V/5600uF)		CCEA0JNXA562ES	
C6017	963134010220S	CAP,ELECT(6.3V/5600uF)		CCEA0JNXA562ES	
C6018	963134010220S	CAP,ELECT(6.3V/5600uF)		CCEA0JNXA562ES	
C6020	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C6021	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C6022	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
△ C6023	963132011930S	CAP,CERAMIC(X1/Y1,2200P,AC250V)		CCKDKX222MEM	
C6024	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
<b>OTHERS PARTS GROUP</b>					
BK301	nsp	BRACKET,PCB		CMD1A569	
BK302	nsp	BRACKET,PCB		CMD1A569	
BK601	nsp	BRACKET,PCB(A)		CMD2A188	
BK602	nsp	BRACKET,PCB(A)		CMD2A188	
BK603	nsp	BRACKET,PCB		CMD1A629	
BN301	nsp	WIRE,ASS'Y		CWB1C0091203D	*
BN601	nsp	WIRE,ASS'Y		CWB1D0051503D	*
CN302	nsp	WAFER/STRAIGHT/2.5mm/5P		CJP05GA01ZY	
CN601	nsp	WAFER,2P,3.96mm		CJP02KA060ZY	
CN602	nsp	WAFER,2P,7.92mm		CJP02GA89ZY	
△ CX601	943139500020S	CAP,POLYPROPYLENEFILM		HCQF2E104KZE	
△ CY601	963134011730S	CAP,CERAMIC(X1/Y1,470P,AC250V)		CCKDKX471KBM	
△ CY602	963134011730S	CAP,CERAMIC(X1/Y1,470P,AC250V)		CCKDKX471KBM	
△ F3001	00D2061096006	FUSE(218Series,250V/1.25A)		KBA2C1250TLEY	
△ F3002	00D2061096006	FUSE(218Series,250V/1.25A)		KBA2C1250TLEY	
△ F6001	963652010510S	FUSE(S506Series,250V,2A)	1613E3, 1713E3	CBA2C2000TLEC	
△ F6001	963652010500S	FUSE(S506Series,250V,1.6A)	1713E2, 1713E1C, 1723E1C	CBA2C1600TLEC	

	Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
△	F6002	90M-FS001430R	FUSE(218Series,250V/6.3A)	1613E3, 1713E3	KBA2C6300TLEY		
△	F6002	90M-FS001420R	FUSE(218Series,250V/3.15A)	1713E2, 1713E1C, 1723E1C	KBA2C3150TLEY		
△	LF602	963111010230S	LINEFILTER,27uH	1613E3, 1713E3	CLZ9Z126Z		
△	LF602	943111100410S	LINEFILTER,50uH	1713E2, 1713E1C, 1723E1C	CLZ9Z133Z		*
△	RY601	963682010370S	RELAY,HL31-1AT-5H,DC5V,1C1P		CSL1C006ZE		
△	T6001	963102010240S	TRANS,SWITCHING(ST-4430A)		CLT9Z067ZE		
	TW91	nsp	2PWIREASS'Y(100MM)	1713E2	CWZPM5003TW91		
	ZD608	00D2760762958	DIODE,ZENER,1/2W,39V	1613E3, 1713E3	CVDZJ39BT		
	ZD609	00D2760762958	DIODE,ZENER,1/2W,39V	1613E3, 1713E3	CVDZJ39BT		
	ZD610	00D2760762958	DIODE,ZENER,1/2W,39V	1613E3, 1713E3	CVDZJ39BT		
	ZD611	963202010440S	DIODE,ZENER,1/2W,22V		CVDZJ22BT		
	ZD612	963202010440S	DIODE,ZENER,1/2W,22V		CVDZJ22BT		
	ZD613	963202010440S	DIODE,ZENER,1/2W,22V		CVDZJ22BT		
	ZD614	963202010440S	DIODE,ZENER,1/2W,22V		CVDZJ22BT		
	ZD615	963202010440S	DIODE,ZENER,1/2W,22V		CVDZJ22BT		
	ZD616	963202010440S	DIODE,ZENER,1/2W,22V		CVDZJ22BT		
	ZD617	963202010440S	DIODE,ZENER,1/2W,22V		CVDZJ22BT		
	ZD618	963202010440S	DIODE,ZENER,1/2W,22V		CVDZJ22BT		
	ZD619	00D9600095607	DIODE,ZENER,1/2W,5.6V		CVDZJ5.6BT		
	ZD620	00D2760762958	DIODE,ZENER,1/2W,39V		CVDZJ39BT		
	ZD621	00D9430196306	DIODE,ZENER,1/2W,7.5V	1613E3, 1713E3	CVDZJ7.5BT		
	ZD621	943202000940S	DIODE,ZENER,1/2W,16V	1713E2, 1713E1C, 1723E1C	CVDZJ16BT		
		nsp	HOLDER,FUSE	F3001	KJCF5S		
		nsp	HOLDER,FUSE	F3002	KJCF5S		
		nsp	HOLDER,FUSE	F6001	KJCF5S		
		nsp	HOLDER,FUSE	F6002	KJCF5S		

## MAIN PCB UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
<b>SEMICONDUCTORS GROUP</b>					
Q5101	943211500150S	PNP,TO-92,LOWNOISE,HFE:300-600,FAILCHILD		CVTKSA992FTA	*
Q5102	943211500150S	PNP,TO-92,LOWNOISE,HFE:300-600,FAILCHILD		CVTKSA992FTA	*
Q5103	943213500150S	NPN,TO-92,LOWNOISE,HFE:300-600,FAILCHILD		CVTKSC1845FTA	*
Q5104	90M-HT800120R	T.R,BIAS		HVTKTC3114A	
Q5105	90M-HT400490R	T.R,POWER		HVT2SD2390	
Q5106	90M-HT200440R	T.R,POWER		HVT2SB1560	
Q5107	943212500020S	HighVoltagePNPTransistors(SOT-23)		CVTMMBT5401	
Q5108	943214500040S	HighVoltageNPNTTransistors(SOT-23)		CVTMMBT5551	
Q5201	943211500150S	PNP,TO-92,LOWNOISE,HFE:300-600,FAILCHILD		CVTKSA992FTA	*
Q5202	943211500150S	PNP,TO-92,LOWNOISE,HFE:300-600,FAILCHILD		CVTKSA992FTA	*
Q5203	943213500150S	NPN,TO-92,LOWNOISE,HFE:300-600,FAILCHILD		CVTKSC1845FTA	*
Q5204	90M-HT800120R	T.R,BIAS		HVTKTC3114A	
Q5205	90M-HT400490R	T.R,POWER		HVT2SD2390	
Q5206	90M-HT200440R	T.R,POWER		HVT2SB1560	
Q5207	943212500020S	HighVoltagePNPTransistors(SOT-23)		CVTMMBT5401	
Q5208	943214500040S	HighVoltageNPNTTransistors(SOT-23)		CVTMMBT5551	
Q5301	943211500150S	PNP,TO-92,LOWNOISE,HFE:300-600,FAILCHILD		CVTKSA992FTA	*
Q5302	943211500150S	PNP,TO-92,LOWNOISE,HFE:300-600,FAILCHILD		CVTKSA992FTA	*
Q5303	943213500150S	NPN,TO-92,LOWNOISE,HFE:300-600,FAILCHILD		CVTKSC1845FTA	*
Q5304	90M-HT800120R	T.R,BIAS		HVTKTC3114A	
Q5305	90M-HT400490R	T.R,POWER		HVT2SD2390	
Q5306	90M-HT200440R	T.R,POWER		HVT2SB1560	
Q5307	943212500020S	HighVoltagePNPTransistors(SOT-23)		CVTMMBT5401	
Q5308	943214500040S	HighVoltageNPNTTransistors(SOT-23)		CVTMMBT5551	
Q5401	943211500150S	PNP,TO-92,LOWNOISE,HFE:300-600,FAILCHILD		CVTKSA992FTA	*
Q5402	943211500150S	PNP,TO-92,LOWNOISE,HFE:300-600,FAILCHILD		CVTKSA992FTA	*
Q5403	943213500150S	NPN,TO-92,LOWNOISE,HFE:300-600,FAILCHILD		CVTKSC1845FTA	*
Q5404	90M-HT800120R	T.R,BIAS		HVTKTC3114A	
Q5405	90M-HT400490R	T.R,POWER		HVT2SD2390	
Q5406	90M-HT200440R	T.R,POWER		HVT2SB1560	
Q5407	943212500020S	HighVoltagePNPTransistors(SOT-23)		CVTMMBT5401	
Q5408	943214500040S	HighVoltageNPNTTransistors(SOT-23)		CVTMMBT5551	
Q5501	943211500150S	PNP,TO-92,LOWNOISE,HFE:300-600,FAILCHILD		CVTKSA992FTA	*
Q5502	943211500150S	PNP,TO-92,LOWNOISE,HFE:300-600,FAILCHILD		CVTKSA992FTA	*
Q5503	943213500150S	NPN,TO-92,LOWNOISE,HFE:300-600,FAILCHILD		CVTKSC1845FTA	*
Q5504	90M-HT800120R	T.R,BIAS		HVTKTC3114A	
Q5505	90M-HT400490R	T.R,POWER		HVT2SD2390	
Q5506	90M-HT200440R	T.R,POWER		HVT2SB1560	
Q5507	943212500020S	HighVoltagePNPTransistors(SOT-23)		CVTMMBT5401	
Q5508	943214500040S	HighVoltageNPNTTransistors(SOT-23)		CVTMMBT5551	
Q5601	943213500160S	T.R,RT1N237C(2.2K-47K)		CVTRT1N237C	*
Q5602	943213500160S	T.R,RT1N237C(2.2K-47K)		CVTRT1N237C	*
Q5603	943213500160S	T.R,RT1N237C(2.2K-47K)		CVTRT1N237C	*
Q5604	943213500160S	T.R,RT1N237C(2.2K-47K)		CVTRT1N237C	*
Q5701	943212500020S	HighVoltagePNPTransistors(SOT-23)		CVTMMBT5401	
Q5702	943211500150S	PNP,TO-92,LOWNOISE,HFE:300-600,FAILCHILD		CVTKSA992FTA	*
Q5703	943214500040S	HighVoltageNPNTTransistors(SOT-23)		CVTMMBT5551	
Q5704	943212500020S	HighVoltagePNPTransistors(SOT-23)		CVTMMBT5401	
Q5705	943214500040S	HighVoltageNPNTTransistors(SOT-23)		CVTMMBT5551	
Q5706	943214500040S	HighVoltageNPNTTransistors(SOT-23)		CVTMMBT5551	
Q5707	943212500020S	HighVoltagePNPTransistors(SOT-23)		CVTMMBT5401	
Q5708	943214500040S	HighVoltageNPNTTransistors(SOT-23)		CVTMMBT5551	
D5102	90M-HD302390R	DIODE,ZENER,1/2W,3.3V		CVDZJ3.3BT	
D5103	00D9430182609	DIODE,SWITCHING		CVD1SS133MT	
D5104	90M-HD302390R	DIODE,ZENER,1/2W,3.3V		CVDZJ3.3BT	
D5105	00D9430182609	DIODE,SWITCHING		CVD1SS133MT	
D5106	00D9430182609	DIODE,SWITCHING		CVD1SS133MT	
D5202	90M-HD302390R	DIODE,ZENER,1/2W,3.3V		CVDZJ3.3BT	
D5203	00D9430182609	DIODE,SWITCHING		CVD1SS133MT	
D5204	90M-HD302390R	DIODE,ZENER,1/2W,3.3V		CVDZJ3.3BT	
D5205	00D9430182609	DIODE,SWITCHING		CVD1SS133MT	
D5206	00D9430182609	DIODE,SWITCHING		CVD1SS133MT	
D5302	90M-HD302390R	DIODE,ZENER,1/2W,3.3V		CVDZJ3.3BT	



Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
R5213	00MGD05272160	RES,CARBON(1/5W,2.7Kohm,J)		CRD20TJ272T	
R5214	00MGD05561160	RES,CARBON(1/5W,560ohm,J)		CRD20TJ561T	
R5215	nsp	RES,M-OXIDEFILM(1W/5.6Kohm)		CRG1SANJ562RT	
R5216	nsp	RES,M-OXIDEFILM(1W/5.6Kohm)		CRG1SANJ562RT	
R5217	943124500040S	RES,M-OXIDEFILM(1W/4.7ohm)		CRG1SANJ4R7RT	
R5218	943124500040S	RES,M-OXIDEFILM(1W/4.7ohm)		CRG1SANJ4R7RT	
R5219	943124500050S	RES,M-OXIDEFILM(2W/0.47ohm)		CRG2SANJR47RT	
R5220	943124500050S	RES,M-OXIDEFILM(2W/0.47ohm)		CRG2SANJR47RT	
R5221	943124500050S	RES,M-OXIDEFILM(2W/0.47ohm)		CRG2SANJR47RT	
R5222	943124500050S	RES,M-OXIDEFILM(2W/0.47ohm)		CRG2SANJR47RT	
R5223		RES,CARBON(1/5W,820Kohm,J)		CRD20TJ824T	
R5224	00MGD05274160	RES,CARBON(1/5W,270Kohm,J)		CRD20TJ274T	
R5225	00MGD05103160	RES,CARBON(1/5W,10Kohm,J)		CRD20TJ103T	
△ R5226	943252100130S	PTCTHEMISTORS,CHIP(95C)		CRTB59641A0095	*
R5227	00MGD05562160	RES,CARBON(1/5W,5.6Kohm,J)		CRD20TJ562T	
R5229	00MGD05153160	RES,CARBON(1/5W,15Kohm,J)		CRD20TJ153T	
R5230	00MGD05223160	RES,CARBON(1/5W,22Kohm,J)		CRD20TJ223T	
R5231	00MGD05223160	RES,CARBON(1/5W,22Kohm,J)		CRD20TJ223T	
R5232	nsp	RES,M-OXIDEFILM(1W/10ohm)		CRG1SANJ100RT	
R5301	00MGD05104160	RES,CARBON(1/5W,100Kohm,J)		CRD20TJ104T	
R5302	00MGD05681160	RES,CARBON(1/5W,680ohm,J)		CRD20TJ681T	
R5303	00MGD05103160	RES,CARBON(1/5W,10Kohm,J)		CRD20TJ103T	
R5304	00MGD05183160	RES,CARBON(1/5W,18Kohm,J)		CRD20TJ183T	
R5305	00MGD05122160	RES,CARBON(1/5W,1.2Kohm,J)		CRD20TJ122T	
R5306	nsp	RES,M-OXIDEFILM(1W/1.2Kohm)		CRG1SANJ122RT	
R5307	00MGD05221160	RES,CARBON(1/5W,220ohm,J)		CRD20TJ221T	
R5308	00MGD05474160	RES,CARBON(1/5W,470Kohm,J)		CRD20TJ474T	
R5309	00MGD05333160	RES,CARBON(1/5W,33Kohm,J)		CRD20TJ333T	
R5310	nsp	RES,M-OXIDEFILM(1W/47ohm)		CRG1SANJ470RT	
R5311	00MGD05224160	RES,CARBON(1/5W,220Kohm,J)		CRD20TJ224T	
R5312	00MGD05224160	RES,CARBON(1/5W,220Kohm,J)		CRD20TJ224T	
R5313	00MGD05272160	RES,CARBON(1/5W,2.7Kohm,J)		CRD20TJ272T	
R5314	00MGD05561160	RES,CARBON(1/5W,560ohm,J)		CRD20TJ561T	
R5315	nsp	RES,M-OXIDEFILM(1W/5.6Kohm)		CRG1SANJ562RT	
R5316	nsp	RES,M-OXIDEFILM(1W/5.6Kohm)		CRG1SANJ562RT	
R5317	943124500040S	RES,M-OXIDEFILM(1W/4.7ohm)		CRG1SANJ4R7RT	
R5318	943124500040S	RES,M-OXIDEFILM(1W/4.7ohm)		CRG1SANJ4R7RT	
R5319	943124500050S	RES,M-OXIDEFILM(2W/0.47ohm)		CRG2SANJR47RT	
R5320	943124500050S	RES,M-OXIDEFILM(2W/0.47ohm)		CRG2SANJR47RT	
R5321	943124500050S	RES,M-OXIDEFILM(2W/0.47ohm)		CRG2SANJR47RT	
R5322	943124500050S	RES,M-OXIDEFILM(2W/0.47ohm)		CRG2SANJR47RT	
R5323		RES,CARBON(1/5W,820Kohm,J)		CRD20TJ824T	
R5324	00MGD05274160	RES,CARBON(1/5W,270Kohm,J)		CRD20TJ274T	
R5325	00MGD05103160	RES,CARBON(1/5W,10Kohm,J)		CRD20TJ103T	
△ R5326	943252100130S	PTCTHEMISTORS,CHIP(95C)		CRTB59641A0095	*
R5327	00MGD05562160	RES,CARBON(1/5W,5.6Kohm,J)		CRD20TJ562T	
R5329	00MGD05153160	RES,CARBON(1/5W,15Kohm,J)		CRD20TJ153T	
R5330	00MGD05223160	RES,CARBON(1/5W,22Kohm,J)		CRD20TJ223T	
R5331	00MGD05223160	RES,CARBON(1/5W,22Kohm,J)		CRD20TJ223T	
R5332	nsp	RES,M-OXIDEFILM(1W/10ohm)		CRG1SANJ100RT	
R5401	00MGD05104160	RES,CARBON(1/5W,100Kohm,J)		CRD20TJ104T	
R5402	00MGD05681160	RES,CARBON(1/5W,680ohm,J)		CRD20TJ681T	
R5403	00MGD05103160	RES,CARBON(1/5W,10Kohm,J)		CRD20TJ103T	
R5404	00MGD05183160	RES,CARBON(1/5W,18Kohm,J)		CRD20TJ183T	
R5405	00MGD05122160	RES,CARBON(1/5W,1.2Kohm,J)		CRD20TJ122T	
R5406	nsp	RES,M-OXIDEFILM(1W/1.2Kohm)		CRG1SANJ122RT	
R5407	00MGD05221160	RES,CARBON(1/5W,220ohm,J)		CRD20TJ221T	
R5408	00MGD05474160	RES,CARBON(1/5W,470Kohm,J)		CRD20TJ474T	
R5409	00MGD05333160	RES,CARBON(1/5W,33Kohm,J)		CRD20TJ333T	
R5410	nsp	RES,M-OXIDEFILM(1W/47ohm)		CRG1SANJ470RT	
R5411	00MGD05224160	RES,CARBON(1/5W,220Kohm,J)		CRD20TJ224T	
R5412	00MGD05224160	RES,CARBON(1/5W,220Kohm,J)		CRD20TJ224T	
R5413	00MGD05272160	RES,CARBON(1/5W,2.7Kohm,J)		CRD20TJ272T	
R5414	00MGD05561160	RES,CARBON(1/5W,560ohm,J)		CRD20TJ561T	
R5415	nsp	RES,M-OXIDEFILM(1W/5.6Kohm)		CRG1SANJ562RT	
R5416	nsp	RES,M-OXIDEFILM(1W/5.6Kohm)		CRG1SANJ562RT	
R5417	943124500040S	RES,M-OXIDEFILM(1W/4.7ohm)		CRG1SANJ4R7RT	

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
R5418	943124500040S	RES,M-OXIDEFILM(1W/4.7ohm)		CRG1SANJ4R7RT	
R5419	943124500050S	RES,M-OXIDEFILM(2W/0.47ohm)		CRG2SANJR47RT	
R5420	943124500050S	RES,M-OXIDEFILM(2W/0.47ohm)		CRG2SANJR47RT	
R5421	943124500050S	RES,M-OXIDEFILM(2W/0.47ohm)		CRG2SANJR47RT	
R5422	943124500050S	RES,M-OXIDEFILM(2W/0.47ohm)		CRG2SANJR47RT	
R5423		RES,CARBON(1/5W,820Kohm,J)		CRD20TJ824T	
R5424	00MGD05274160	RES,CARBON(1/5W,270Kohm,J)		CRD20TJ274T	
R5425	00MGD05103160	RES,CARBON(1/5W,10Kohm,J)		CRD20TJ103T	
△ R5426	943252100130S	PTCTHEMISTORS,CHIP(95C)		CRTB59641A0095	*
R5427	00MGD05562160	RES,CARBON(1/5W,5.6Kohm,J)		CRD20TJ562T	
R5429	00MGD05153160	RES,CARBON(1/5W,15Kohm,J)		CRD20TJ153T	
R5430	00MGD05223160	RES,CARBON(1/5W,22Kohm,J)		CRD20TJ223T	
R5431	00MGD05223160	RES,CARBON(1/5W,22Kohm,J)		CRD20TJ223T	
R5432	nsp	RES,M-OXIDEFILM(1W/10ohm)		CRG1SANJ100RT	
R5501	00MGD05104160	RES,CARBON(1/5W,100Kohm,J)		CRD20TJ104T	
R5502	00MGD05681160	RES,CARBON(1/5W,680ohm,J)		CRD20TJ681T	
R5503	00MGD05103160	RES,CARBON(1/5W,10Kohm,J)		CRD20TJ103T	
R5504	00MGD05183160	RES,CARBON(1/5W,18Kohm,J)		CRD20TJ183T	
R5505	00MGD05122160	RES,CARBON(1/5W,1.2Kohm,J)		CRD20TJ122T	
R5506	nsp	RES,M-OXIDEFILM(1W/1.2Kohm)		CRG1SANJ122RT	
R5507	00MGD05221160	RES,CARBON(1/5W,220ohm,J)		CRD20TJ221T	
R5508	00MGD05474160	RES,CARBON(1/5W,470Kohm,J)		CRD20TJ474T	
R5509	00MGD05333160	RES,CARBON(1/5W,33Kohm,J)		CRD20TJ333T	
R5510	nsp	RES,M-OXIDEFILM(1W/47ohm)		CRG1SANJ470RT	
R5511	00MGD05224160	RES,CARBON(1/5W,220Kohm,J)		CRD20TJ224T	
R5512	00MGD05224160	RES,CARBON(1/5W,220Kohm,J)		CRD20TJ224T	
R5513	00MGD05272160	RES,CARBON(1/5W,2.7Kohm,J)		CRD20TJ272T	
R5514	00MGD05561160	RES,CARBON(1/5W,560ohm,J)		CRD20TJ561T	
R5515	nsp	RES,M-OXIDEFILM(1W/5.6Kohm)		CRG1SANJ562RT	
R5516	nsp	RES,M-OXIDEFILM(1W/5.6Kohm)		CRG1SANJ562RT	
R5517	943124500040S	RES,M-OXIDEFILM(1W/4.7ohm)		CRG1SANJ4R7RT	
R5518	943124500040S	RES,M-OXIDEFILM(1W/4.7ohm)		CRG1SANJ4R7RT	
R5519	943124500050S	RES,M-OXIDEFILM(2W/0.47ohm)		CRG2SANJR47RT	
R5520	943124500050S	RES,M-OXIDEFILM(2W/0.47ohm)		CRG2SANJR47RT	
R5521	943124500050S	RES,M-OXIDEFILM(2W/0.47ohm)		CRG2SANJR47RT	
R5522	943124500050S	RES,M-OXIDEFILM(2W/0.47ohm)		CRG2SANJR47RT	
R5523		RES,CARBON(1/5W,820Kohm,J)		CRD20TJ824T	
R5524	00MGD05274160	RES,CARBON(1/5W,270Kohm,J)		CRD20TJ274T	
R5525	00MGD05103160	RES,CARBON(1/5W,10Kohm,J)		CRD20TJ103T	
△ R5526	943252100130S	PTCTHEMISTORS,CHIP(95C)		CRTB59641A0095	*
R5527	00MGD05562160	RES,CARBON(1/5W,5.6Kohm,J)		CRD20TJ562T	
R5529	00MGD05153160	RES,CARBON(1/5W,15Kohm,J)		CRD20TJ153T	
R5530	00MGD05223160	RES,CARBON(1/5W,22Kohm,J)		CRD20TJ223T	
R5531	00MGD05223160	RES,CARBON(1/5W,22Kohm,J)		CRD20TJ223T	
R5532	nsp	RES,M-OXIDEFILM(1W/10ohm)		CRG1SANJ100RT	
R5701	00MGD05103160	RES,CARBON(1/5W,10Kohm,J)		CRD20TJ103T	
R5702	00MGD05223160	RES,CARBON(1/5W,22Kohm,J)		CRD20TJ223T	
R5703	943124500040S	RES,M-OXIDEFILM(1W/4.7ohm)		CRG1SANJ4R7RT	
R5704	nsp	RES,M-OXIDEFILM(1W/100ohm)		CRG1SANJ101RT	
R5705	00MGD05104160	RES,CARBON(1/5W,100Kohm,J)		CRD20TJ104T	
R5706	00MGD05103160	RES,CARBON(1/5W,10Kohm,J)		CRD20TJ103T	
R5707	00MGD05104160	RES,CARBON(1/5W,100Kohm,J)		CRD20TJ104T	
R5708	00MGD05153160	RES,CARBON(1/5W,15Kohm,J)		CRD20TJ153T	
R5711	00MGD05122160	RES,CARBON(1/5W,1.2Kohm,J)		CRD20TJ122T	
R5712	00MGD05222160	RES,CARBON(1/5W,2.2Kohm,J)		CRD20TJ222T	
R5713	00MGD05222160	RES,CARBON(1/5W,2.2Kohm,J)		CRD20TJ222T	
R5715	nsp	RES,M-OXIDEFILM(1W/2.2Kohm)		CRG1SANJ222RT	
R5716	nsp	RES,M-OXIDEFILM(1W/2.2Kohm)		CRG1SANJ222RT	
R5717	nsp	RES,M-OXIDEFILM(1W/2.2Kohm)		CRG1SANJ222RT	
R5721	nsp	RES,M-OXIDEFILM(1W/10ohm)		CRG1SANJ100RT	
R5722	nsp	RES,M-OXIDEFILM(1W/10ohm)		CRG1SANJ100RT	
R5723	nsp	RES,M-OXIDEFILM(1W/10ohm)		CRG1SANJ100RT	
R5724	nsp	RES,M-OXIDEFILM(1W/10ohm)		CRG1SANJ100RT	
R5725	nsp	RES,M-OXIDEFILM(1W/10ohm)		CRG1SANJ100RT	
R5726	nsp	RES,M-OXIDEFILM(2W/470ohm)		CRG2SANJ471RT	
R5727	nsp	RES,M-OXIDEFILM(2W/470ohm)		CRG2SANJ471RT	



Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
VR510	963161012400S	RES,SEMIFIXED(1K,BCURVE)		CVN1RA102B03T	
VR520	963161012400S	RES,SEMIFIXED(1K,BCURVE)		CVN1RA102B03T	
VR530	963161012400S	RES,SEMIFIXED(1K,BCURVE)		CVN1RA102B03T	
VR540	963161012400S	RES,SEMIFIXED(1K,BCURVE)		CVN1RA102B03T	
VR550	963161012400S	RES,SEMIFIXED(1K,BCURVE)		CVN1RA102B03T	
<b>CAPACITORS GROUP</b>					
C5101	943134500070S	CAP,ELECT(100V/10uF)		CCEA2AH100T	
C5102	nsp	CAP,CERAMIC(50V/470pF/K)		CCKT1H471KB	
C5103	nsp	CAP,CERAMIC(50V/82pF/J)		CCCT1H820JC	
C5104	nsp	CAP,MYLAR(50V/2200pF/J)		HCQI1H222JZT	
C5105	943134501770S	CAP,ELECT(50V/220uF)		CCEA1HH221T	
C5106	nsp	CAP,CERAMIC(50V/33pF/J)		CCCT1H330JC	
C5107	943134500070S	CAP,ELECT(100V/10uF)		CCEA2AH100T	
C5108	943134501780S	CAP,ELECT(KR1,47uF/63V,8X11.5)		CCEA1JKR1470T	
C5109	nsp	CAP,SEMICONDUCTOR		CCFT1H104ZF	
C5201	943134500070S	CAP,ELECT(100V/10uF)		CCEA2AH100T	
C5202	nsp	CAP,CERAMIC(50V/470pF/K)		CCKT1H471KB	
C5203	nsp	CAP,CERAMIC(50V/82pF/J)		CCCT1H820JC	
C5204	nsp	CAP,MYLAR(50V/2200pF/J)		HCQI1H222JZT	
C5205	943134501770S	CAP,ELECT(50V/220uF)		CCEA1HH221T	
C5206	nsp	CAP,CERAMIC(50V/33pF/J)		CCCT1H330JC	
C5207	943134500070S	CAP,ELECT(100V/10uF)		CCEA2AH100T	
C5208	943134501780S	CAP,ELECT(KR1,47uF/63V,8X11.5)		CCEA1JKR1470T	
C5209	nsp	CAP,SEMICONDUCTOR		CCFT1H104ZF	
C5301	943134500070S	CAP,ELECT(100V/10uF)		CCEA2AH100T	
C5302	nsp	CAP,CERAMIC(50V/470pF/K)		CCKT1H471KB	
C5303	nsp	CAP,CERAMIC(50V/82pF/J)		CCCT1H820JC	
C5304	nsp	CAP,MYLAR(50V/2200pF/J)		HCQI1H222JZT	
C5305	943134501770S	CAP,ELECT(50V/220uF)		CCEA1HH221T	
C5306	nsp	CAP,CERAMIC(50V/33pF/J)		CCCT1H330JC	
C5307	943134500070S	CAP,ELECT(100V/10uF)		CCEA2AH100T	
C5308	943134501780S	CAP,ELECT(KR1,47uF/63V,8X11.5)		CCEA1JKR1470T	
C5309	nsp	CAP,SEMICONDUCTOR		CCFT1H104ZF	
C5401	943134500070S	CAP,ELECT(100V/10uF)		CCEA2AH100T	
C5402	nsp	CAP,CERAMIC(50V/470pF/K)		CCKT1H471KB	
C5403	nsp	CAP,CERAMIC(50V/82pF/J)		CCCT1H820JC	
C5404	nsp	CAP,MYLAR(50V/2200pF/J)		HCQI1H222JZT	
C5405	943134501770S	CAP,ELECT(50V/220uF)		CCEA1HH221T	
C5406	nsp	CAP,CERAMIC(50V/33pF/J)		CCCT1H330JC	
C5407	943134500070S	CAP,ELECT(100V/10uF)		CCEA2AH100T	
C5408	943134501780S	CAP,ELECT(KR1,47uF/63V,8X11.5)		CCEA1JKR1470T	
C5409	nsp	CAP,SEMICONDUCTOR		CCFT1H104ZF	
C5501	943134500070S	CAP,ELECT(100V/10uF)		CCEA2AH100T	
C5502	nsp	CAP,CERAMIC(50V/470pF/K)		CCKT1H471KB	
C5503	nsp	CAP,CERAMIC(50V/82pF/J)		CCCT1H820JC	
C5504	nsp	CAP,MYLAR(50V/2200pF/J)		HCQI1H222JZT	
C5505	943134501770S	CAP,ELECT(50V/220uF)		CCEA1HH221T	
C5506	nsp	CAP,CERAMIC(50V/33pF/J)		CCCT1H330JC	
C5507	943134500070S	CAP,ELECT(100V/10uF)		CCEA2AH100T	
C5508	943134501780S	CAP,ELECT(KR1,47uF/63V,8X11.5)		CCEA1JKR1470T	
C5509	nsp	CAP,SEMICONDUCTOR		CCFT1H104ZF	
C5605	nsp	CAP,MYLAR(50V/0.018pF/J)		HCQI1H183JZT	
C5606	nsp	CAP,MYLAR(50V/0.018pF/J)		HCQI1H183JZT	
C5607	nsp	CAP,MYLAR(50V/1500pF/J)		HCQI1H152JZT	
C5608	nsp	CAP,MYLAR(50V/1500pF/J)		HCQI1H152JZT	
C5609	nsp	CAP,MYLAR(50V/0.018pF/J)		HCQI1H183JZT	
C5610	nsp	CAP,MYLAR(50V/0.018pF/J)		HCQI1H183JZT	
C5611	nsp	CAP,MYLAR(50V/0.018pF/J)		HCQI1H183JZT	
C5612	nsp	CAP,MYLAR(50V/1500pF/J)		HCQI1H152JZT	
C5613	nsp	CAP,MYLAR(50V/1500pF/J)		HCQI1H152JZT	
C5614	nsp	CAP,MYLAR(50V/1500pF/J)		HCQI1H152JZT	
C5701	nsp	CAP,CERAMIC		CCFT1H103ZF	
C5702	nsp	CAP,METALPEFILM(250V/0.1uF)		KCME2E104JP04T	
C5703	nsp	CAP,METALPEFILM(250V/0.1uF)		KCME2E104JP04T	
C5704	943134010460S	CAP,ELECT(30X35)WITHOUTPLATEONTHE TOP		CCET63VKL5682NKZ	

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
C5706	943134010460S	CAP,ELECT(30X35)WITHOUTPLATEONTHE TOP		CCEA1HH0R1T	
C5707	943134010470S	CAP,ELECT(50V/0.1uF)		CCEA2AH101E	
C5708	943134010480S	CAP,ELECT(100V/100uF)		CCFT1H104ZF	
C5710	nsp	CAP,SEMICONDUCTOR		CCEA0JH471T	
C5711	943134010660S	CAP,ELECT(6.3V/470uF)		CCFT1H104ZF	
C5712	nsp	CAP,SEMICONDUCTOR		CCEA0JH471T	
C5713	943134010660S	CAP,ELECT(6.3V/470uF)		CCEA1CH470T	
C5716	963134010980S	CAP,ELECT(16V/47uF)		CCEA1HH100T	
C5717	00D9430175108	CAP,ELECT(50V/10uF)			
C5718	nsp	CAP,MYLAR(50V/0.047uF/J)		HCQ11H473JZT	
C5719	nsp	CAP,MYLAR(50V/0.047uF/J)		HCQ11H473JZT	
C5720	nsp	CAP,MYLAR(50V/0.047uF/J)		HCQ11H473JZT	
C5721	nsp	CAP,MYLAR(50V/0.047uF/J)		HCQ11H473JZT	
C5722	nsp	CAP,MYLAR(50V/0.047uF/J)		HCQ11H473JZT	
C5723	00D9430175108	CAP,ELECT(50V/10uF)		CCEA1HH100T	
<b>OTHERS PARTS GROUP</b>					
BK501	nsp	BRACKET,PCB		CMD1A569	
BN501	nsp	WIRE ASSY		CWB1B013150HC	*
BN502	nsp	WIRE ASSY		CWB1B007150HC	*
BN505	nsp	WIRE ASSY		CWB4B003250HC	*
BN508	nsp	PINHEADER(11P,1.25mm,STRAIGHT,B-TO-B)		CJP11GI281Z	
CN503	nsp	WAFER(3.96MM)		CJP03GA148ZW	
CN510	nsp	WAFER/STRAIGHT/2.5mm/2P		CJP02GA01ZY	
CN520	nsp	WAFER/STRAIGHT/2.5mm/2P		CJP02GA01ZY	
CN530	nsp	WAFER/STRAIGHT/2.5mm/2P		CJP02GA01ZY	
CN540	nsp	WAFER/STRAIGHT/2.5mm/2P		CJP02GA01ZY	
CN550	nsp	WAFER/STRAIGHT/2.5mm/2P		CJP02GA01ZY	
ET501	nsp	PALTE,EARTH		HJT1A025	
JK501	943646010250S	JACK,SPK(4PRR/BB,SCREW)		CJJ5P011U	
JK502	943646010240S	JACK,SPK(6PRR/BBB,SCREW)		CJJ5R008U	
L5101	943115100310S	COIL,SPEAKER(0.5UH)		CLEY0R5KAD	*
L5201	943115100310S	COIL,SPEAKER(0.5UH)		CLEY0R5KAD	*
L5301	943115100310S	COIL,SPEAKER(0.5UH)		CLEY0R5KAD	*
L5401	943115100310S	COIL,SPEAKER(0.5UH)		CLEY0R5KAD	*
L5501	943115100310S	COIL,SPEAKER(0.5UH)		CLEY0R5KAD	*
RY560	943682000810S	RELAY,BC3-12H,DC12V,2C2P		CSL4A016ZU	
RY562	943682100270S	RELAY,981-2A-12DS,DC12V,2C1P		CSL3A022ZU	*
RY563	943682100270S	RELAY,981-2A-12DS,DC12V,2C1P		CSL3A022ZU	*
RY564	943682100270S	RELAY,981-2A-12DS,DC12V,2C1P		CSL3A022ZU	*
TU500	943183100200S	TUNER,FM(SCREW:FTYPE),SI4704-B20	1713E3	CNVMW004FV1-S63SV	*
TU500	943183100210S	TUNER,RDS,FM(PALTYPE),SI4705-B20	1713E2	CNVMW104FV1-S63V	*
TU500	943183100220S	TUNER,NORDS,FM(PALTYPE),SI4704-B20	171KE1C, 1723E1C	CNVMW004FV1-S63	*

# DIGITAL PCB UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
<b>SEMICONDUCTORS GROUP</b>					
IC711	236810057606S	I.C,HDMIMUX			
IC721	943236012460S	I.C,HDMITransceiver(LQFP-144P)			
IC722	943248101050S	I.C , OSD Serial Flash (AVR1613E3)	1613 E3		*
IC722	943248101060S	I.C , OSD Serial Flash (AVR1713E3)	1713 E3		*
IC722	943248101070S	I.C , OSD Serial Flash (AVR1713E2)	1713 E2		*
IC722	943248101090S	I.C , OSD Serial Flash (AVR1713E1C)	1713 E1C		*
IC722	943248101100S	I.C , OSD Serial Flash (AVR1723E1C)	1723 E1C		*
IC724	943239100760S	I.C,DE/MUX(8CHANALOG,TSSOP-16P)			*
IC751	nsp	I.C,DC-DCCONVERTER(3A,QFNT&R-38P)			
IC752	nsp	I.C,DC-DCCONVERTER(3A,QFNT&R-38P)			
IC753	nsp	I.C,DC-DCCONVERTER(3A,QFNT&R-38P)			
IC754	nsp	I.C,DC-DCCONVERTER(3A,QFNT&R-38P)			
IC755	943239100730S	I.C,SYSTEMRESET(4.8V,SOT-25A)			*
IC756	943239010400S	I.C,REGULATOR(3.3V/TO-252)			
IC761	943243100860S	I.C , MAIN MCU(AVR1613E3)	1613 E3		*
IC761	943243100870S	I.C , MAIN MCU(AVR1713E3)	1713 E3		*
IC761	943243100880S	I.C , MAIN MCU(AVR1713E2)	1713 E2		*
IC761	943243100900S	I.C , MAIN MCU(AVR1713E1C)	1713 E1C		*
IC761	943243100910S	I.C , MAIN MCU(AVR1723E1C)	1723 E1C		*
IC762	943239100720S	I.C,EEPROM(256KBIT,SOP-8P)			*
IC771	963239002150S	I.C,OCTALBUFFER/DRIVER			
IC772	00D2623444902	I.C,QUAD2-INPUTANDGATE			
IC781	00D2623077900	IC,HEXINVERTER			
IC782	236810062608S	I.C,DIR			
IC783	943243100920S	I.C , PLD(AVR1613/1713)			*
IC791	943245100310S	I.C,DSPSHARC(LQFP-176P)			*
IC792	943246012690S	I.C,64MSDRAM			
IC793	943248101110S	I.C , DSP(AVR1613/1713)			*
IC811	236810086505S	I.C,ADC(96kHz24-Bit)			
IC812	236810073509S	I.C,DAC(8CH192kHz24-Bit)			
IC813	00D2631289900	EOLitemI.C,OPAMP(DUAL/LOWNOISE)			
IC814	00D2631289900	EOLitemI.C,OPAMP(DUAL/LOWNOISE)			
IC815	00D2631289900	EOLitemI.C,OPAMP(DUAL/LOWNOISE)			
IC831	23681011260AS	I.C,NetworkMediaprocessor(LFBGA-320P)			*
IC832	nsp	I.C,1GNANDFLASH(48P-TSOP1)			
IC833	246810063608S	I.C,256MSDRAM			
IC851	943239100700S	I.C,EthernetTransceiver(QFN-24P)			*
IC853	23671011050AS	I.C,IPODAUTHENTICATIONFROMD&M			
IC854	943239100710S	I.C,CURRENTLIMIT(1.5A,UDFN-6P)			*
IC855	943239100690S	I.C,2CHDAC(32BIT,384KHZ,TSSOP-20P)	1713E3		*
IC856	943239010400S	I.C,REGULATOR(3.3V/TO-252)	1713E3		
IC861	nsp	I.C,HDMItransmitterwith/PCConverter(FBGA-289			*
IC871	nsp	I.C,HDMIBUFFER			
IC891	943235100520S	I.C,INPUTWITH8CHVOLUME(52PLQFP)			*
IC901	90M-HC109700R	I.C,VIDEOS/W(JRC)			
Q7101	943215500020S	T.R,RT1P141C(10K-10K)			
Q7102	943216500040S	T.R,RT1N241C(22K-22K)			
Q7103	943215500020S	T.R,RT1P141C(10K-10K)			
Q7104	943216500040S	T.R,RT1N241C(22K-22K)			
Q7105	943215500020S	T.R,RT1P141C(10K-10K)			
Q7106	943216500040S	T.R,RT1N241C(22K-22K)			
Q7107	943215500020S	T.R,RT1P141C(10K-10K)			
Q7108	943216500040S	T.R,RT1N241C(22K-22K)			
Q7201	943215500020S	T.R,RT1P141C(10K-10K)	1713E3		
Q7202	943216500040S	T.R,RT1N241C(22K-22K)	1713E3		
Q7204	943216500050S	T.R,RT1N441C(47K-47K)			
Q7205	943216500050S	T.R,RT1N441C(47K-47K)			
Q7206	943216500050S	T.R,RT1N441C(47K-47K)			
Q7501	943216500050S	T.R,RT1N441C(47K-47K)			
Q7502	943229500020S	MOSFET,TPC6111(P-CH,U-MOSV)			
Q7503	943216500050S	T.R,RT1N441C(47K-47K)			

**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
Q7504	943229500020S	MOSFET,TPC6111(P-CH,U-MOSV)			
Q7505	943216500050S	T.R,RT1N441C(47K-47K)			
Q7506	943229500020S	MOSFET,TPC6111(P-CH,U-MOSV)			
Q7507	943216500050S	T.R,RT1N441C(47K-47K)			
Q7508	943229500020S	MOSFET,TPC6111(P-CH,U-MOSV)			
Q7509	00D2710326904	T.R,2SA1954			
Q7510	943216500050S	T.R,RT1N441C(47K-47K)			
Q7511	00D2710326904	T.R,2SA1954			
Q7512	943216500020S	T.R,RT1N141C(10K-10K)			
Q7513	943214500020S	T.R,2SC3052			
Q7514	00D2710326904	T.R,2SA1954			
Q7515	943216500020S	T.R,RT1N141C(10K-10K)			
Q7516	00D2710326904	T.R,2SA1954			
Q7517	943216500020S	T.R,RT1N141C(10K-10K)			
Q7606	943214500020S	T.R,2SC3052			
Q7607	943214500020S	T.R,2SC3052			
Q7608	943214500030S	T.R,MUTE			
Q7701	943216500020S	T.R,RT1N141C(10K-10K)			
Q7702	943216500020S	T.R,RT1N141C(10K-10K)			
Q7703	943216500020S	T.R,RT1N141C(10K-10K)			
Q7705	943216500020S	T.R,RT1N141C(10K-10K)			
Q7706	943214500020S	T.R,2SC3052			
Q7709	943214500020S	T.R,2SC3052			
Q7712	943214500020S	T.R,2SC3052			
Q8301	943215500020S	T.R,RT1P141C(10K-10K)			
Q8302	943216500020S	T.R,RT1N141C(10K-10K)			
Q8701	943215500020S	T.R,RT1P141C(10K-10K)			
Q8702	943216500040S	T.R,RT1N241C(22K-22K)			
Q8901	943215500030S	T.R,RT1P441C(47K-47K)	1713E3		
Q8902	943216500050S	T.R,RT1N441C(47K-47K)	1713E3		
Q8903	943215500030S	T.R,RT1P441C(47K-47K)	1713E3		
Q8905	943214500030S	T.R,MUTE	1713E3		
Q8907	943214500030S	T.R,MUTE	1713E3		
Q8908	943215500030S	T.R,RT1P441C(47K-47K)			
Q8909	943216500050S	T.R,RT1N441C(47K-47K)			
Q8910	943215500030S	T.R,RT1P441C(47K-47K)			
Q8913	943214500030S	T.R,MUTE			
D7101	00D2760718902	DIODE,SCHOTTKY,30V			
D7104	nsp	RES,CHIP(1005/5%/10Kohm)			
D7114	nsp	RES,CHIP(1005/5%/10Kohm)			
D7124	nsp	RES,CHIP(1005/5%/10Kohm)			
D7134	nsp	RES,CHIP(1005/5%/10Kohm)			
D7204	nsp	RES,CHIP(1005/5%/10Kohm)	1713E3		
D7231	00D2760718902	DIODE,SCHOTTKY,30V			
D7232	963209003510S	DIODE,RELIABLESDPROTECTION			
D7501	201310001503S	DIODE,ULTRA-HIGHSPEED			
D7502	943209001080S	DIODE,CHIP,SWITCHING			
D7503	943209001080S	DIODE,CHIP,SWITCHING			
D7601	943209001080S	DIODE,CHIP,SWITCHING			
D7602	201310001503S	DIODE,ULTRA-HIGHSPEED			
D8505	943209001080S	DIODE,CHIP,SWITCHING	1713E3		
D8506	943209001080S	DIODE,CHIP,SWITCHING	1713E3		
D8905	943209001080S	DIODE,CHIP,SWITCHING			
D8906	943209001080S	DIODE,CHIP,SWITCHING			
D8907	90M-HD302380R	DIODE,ZENER,1/2W,3.6V			
D8908	943209001080S	DIODE,CHIP,SWITCHING			
D8909	00D9430196306	DIODE,ZENER,1/2W,7.5V			
D8910	00D9430196306	DIODE,ZENER,1/2W,7.5V			
<b>RESISTORS GROUP</b>					
R7101	nsp	RES,CHIP(1005/5%/1Kohm)			
R7102	nsp	RES,CHIP(1005/5%/22Kohm)			
R7103	nsp	RES,CHIP(1005/5%/47Kohm)			
R7106	nsp	RES,CHIP(1005/5%/47Kohm)			
R7107	nsp	RES,CHIP(1005/5%/4.7Kohm)			

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
R7108	nsp	RES,CHIP(1005/5%/1Kohm)			
R7109	nsp	RES,CHIP(1005/5%/22Kohm)			
R7110	nsp	RES,CHIP(1005/5%/47Kohm)			
R7113	nsp	RES,CHIP(1005/5%/47Kohm)			
R7114	nsp	RES,CHIP(1005/5%/4.7Kohm)			
R7115	nsp	RES,CHIP(1005/5%/1Kohm)			
R7116	nsp	RES,CHIP(1005/5%/22Kohm)			
R7117	nsp	RES,CHIP(1005/5%/47Kohm)			
R7120	nsp	RES,CHIP(1005/5%/47Kohm)			
R7121	nsp	RES,CHIP(1005/5%/4.7Kohm)			
R7122	nsp	RES,CHIP(1005/5%/1Kohm)			
R7123	nsp	RES,CHIP(1005/5%/22Kohm)			
R7124	nsp	RES,CHIP(1005/5%/47Kohm)			
R7127	nsp	RES,CHIP(1005/5%/47Kohm)			
R7128	nsp	RES,CHIP(1005/5%/4.7Kohm)			
R7129	nsp	RES,CHIP(1005/5%/4.7Kohm)			
R7130	nsp	RES,CHIP(1005/5%/4.7Kohm)			
R7131	nsp	RES,CHIP(1005/5%/4.7Kohm)			
R7133	nsp	RES,CHIP(1005/5%/4.7Kohm)			
R7134	nsp	RES,CHIP(1005/5%/4.7Kohm)			
R7135	nsp	RES,CHIP(1005/5%/10Kohm)			
R7136	nsp	RES,CHIP(1005/5%/10Kohm)			
R7137	nsp	RES,CHIP(1005/5%/10Kohm)			
R7140	nsp	RES,CHIP(1005/5%/2.2Kohm)			
R7141	nsp	RES,CHIP(1005/5%/2.2Kohm)			
R7142	nsp	RES,CHIP(1608/5%/0ohm)			
R7201	nsp	RES,CHIP(1005/5%/4.7Kohm)			
R7203	nsp	RES,CHIP(1005/5%/75ohm)			
R7204	nsp	RES,CHIP(1005/5%/4.7Kohm)			
R7205	nsp	RES,CHIP(1005/5%/1Kohm)	1713E3		
R7206	nsp	RES,CHIP(1005/5%/22Kohm)	1713E3		
R7207	nsp	RES,CHIP(1005/5%/47Kohm)	1713E3		
R7210	nsp	RES,CHIP(1005/5%/47Kohm)	1713E3		
R7211	nsp	RES,CHIP(1005/5%/4.7Kohm)	1713E3		
R7212	nsp	RES,CHIP(1608/1%/1.6Kohm)			
R7213	nsp	RES,CHIP(1608/1%/2Kohm)			
R7214	nsp	RES,CHIP(1005/5%/47Kohm)			
R7216	nsp	RES,CHIP(1005/5%/47Kohm)			
R7218	nsp	RES,CHIP(1005/5%/33ohm)			
R7219	nsp	RES,CHIP(1005/5%/33ohm)			
R7220	nsp	RES,CHIP(1005/5%/33ohm)			
R7221	nsp	RES,CHIP(1005/5%/10Kohm)			
R7222	nsp	RES,CHIP(1005/5%/10Kohm)			
R7223	nsp	RES,CHIP(1005/5%/10Kohm)			
R7224	nsp	RES,CHIP(1005/5%/10Kohm)			
R7226	nsp	RES,CHIP(1005/5%/10Kohm)			
R7227	nsp	RES,CHIP(1005/5%/10Kohm)			
R7228	nsp	RES,CHIP(1005/5%/10Kohm)			
R7229	nsp	RES,CHIP(1005/5%/10Kohm)			
R7230	00MNN05101610	RES,CHIP(1608/5%/100ohm)			
R7231	00MNN05101610	RES,CHIP(1608/5%/100ohm)			
R7232	nsp	RES,CHIP(1005/5%/4.7Kohm)			
R7233	nsp	RES,CHIP(1005/5%/4.7Kohm)			
R7234	nsp	RES,CHIP(1005/5%/4.7Kohm)			
R7235	nsp	RES,CHIP(1005/5%/4.7Kohm)			
R7236	nsp	RES,CHIP(1005/5%/4.7Kohm)			
R7237	nsp	RES,CHIP(1005/5%/0ohm)			
R7238	nsp	RES,CHIP(1005/5%/0ohm)			
R7239	nsp	RES,CHIP(1005/5%/0ohm)			
R7241	00MNN05101610	RES,CHIP(1608/5%/100ohm)			
R7243	nsp	RES,CHIP(1005/5%/10Kohm)			
R7244	nsp	RES,CHIP(1608/5%/390Kohm)			
R7245	nsp	RES,CHIP(1005/5%/0ohm)			
R7246	nsp	RES,CHIP(1005/1%/1Kohm)			
R7247	nsp	RES,CHIP(1005/1%/1Kohm)			
R7250	nsp	RES,CHIP(1005/5%/10Kohm)			
R7252	nsp	RES,CHIP(1005/5%/33ohm)			

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
R7254	nsp	RES,CHIP(1608/5%/51ohm)		CRJ10DJ510T	
R7255	nsp	RES,CHIP(1608/5%/51ohm)		CRJ10DJ510T	
R7261	nsp	RES,CHIP(1005/5%/47Kohm)		CRJ06IJ473T	
R7262	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R7263	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R7264	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R7265	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R7266	nsp	RES,CHIP(1608/5%/5.1ohm)		CRJ10DJ5R1T	
R7267	nsp	RES,CHIP(1005/5%/1.8Kohm)		CRJ06IJ182T	
R7268	nsp	RES,CHIP(1005/5%/1.8Kohm)		CRJ06IJ182T	
R7269	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7270	nsp	RES,CHIP(1005/5%/100ohm)		CRJ06IJ101T	
R7271	nsp	RES,CHIP(1005/5%/100ohm)		CRJ06IJ101T	
R7272	nsp	RES,CHIP(1005/5%/100ohm)		CRJ06IJ101T	
R7273	nsp	RES,CHIP(1005/5%/100ohm)		CRJ06IJ101T	
R7274	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	
R7276	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7278	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R7280	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R7281	nsp	RES,CHIP(1005/5%/5.6Kohm)		CRJ06IJ562T	
R7282	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R7283	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R7284	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R7286	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R7288	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	
R7289	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	
R7290	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	
R7291	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	
R7292	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	
R7293	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	
R7294	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	
R7295	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	
R7296	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	
R7297	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	
R7298	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	
R7299	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	
R7300	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	
R7301	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	
R7501	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7502	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R7505	nsp	RES,CHIP(1608/1%/47Kohm)		CRJ10DF4702T	
R7506	nsp	RES,CHIP(1608/5%/680Kohm)		CRJ10DJ684T	
R7507	00MNN05154610	RES,CHIP(1608/5%/150Kohm)		CRJ10DJ154T	
R7508	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7512	90M-NN000680R	RES,CHIP(1608/1%/300Kohm)		CRJ10DF3003T	
R7513	nsp	RES,CHIP(1608/5%/1.5Mohm)		CRJ10DJ155T	
R7514	00MNN05154610	RES,CHIP(1608/5%/150Kohm)		CRJ10DJ154T	
R7515	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7516	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R7519	nsp	RES,CHIP(1608/1%/470Kohm)		CRJ10DF4703T	
R7520	00MNN05105610	RES,CHIP(1608/5%/1Mohm)		CRJ10DJ105T	
R7521	00MNN05154610	RES,CHIP(1608/5%/150Kohm)		CRJ10DJ154T	
R7526	nsp	RES,CHIP(1608/1%/120Kohm)		CRJ10DF1203T	
R7527	00MNN05105610	RES,CHIP(1608/5%/1Mohm)		CRJ10DJ105T	
R7528	00MNN05154610	RES,CHIP(1608/5%/150Kohm)		CRJ10DJ154T	
R7529	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7530	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7531	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7532	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7533	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7534	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7535	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7536	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7537	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7538	nsp	RES,CHIP(1005/5%/3.3Kohm)		CRJ06IJ332T	
R7539	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7540	nsp	RES,CHIP(1005/5%/3.3Kohm)		CRJ06IJ332T	

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
R7541	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7542	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R7543	nsp	RES,CHIP(1005/5%/47Kohm)		CRJ06IJ473T	
R7544	nsp	RES,CHIP(1005/5%/100Kohm)		CRJ06IJ104T	
R7545	nsp	RES,CHIP(1005/5%/100ohm)		CRJ06IJ101T	
R7546	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7547	nsp	RES,CHIP(1005/5%/3.3Kohm)		CRJ06IJ332T	
R7548	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7549	nsp	RES,CHIP(1005/5%/3.3Kohm)		CRJ06IJ332T	
R7550	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7601	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7602	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7603	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7604	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7605	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R7609	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	
R7611	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7616	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7617	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7618	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7619	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7620	00MNN05330610	RES,CHIP(1608/5%/33ohm)		CRJ10DJ330T	
R7621	00MNN05330610	RES,CHIP(1608/5%/33ohm)		CRJ10DJ330T	
R7622	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	
R7625	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7626	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7627	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7628	00MNN05330610	RES,CHIP(1608/5%/33ohm)		CRJ10DJ330T	
R7629	00MNN05330610	RES,CHIP(1608/5%/33ohm)		CRJ10DJ330T	
R7631	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7632	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7633	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7634	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7638	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7639	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7641	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7643	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7644	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7645	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7650	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7651	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7652	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7653	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7654	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7655	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7656	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7657	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7660	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7661	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7663	nsp	RES,CHIP(1608/5%/0ohm)	1713E3	CRJ10DJ0R0T	
R7663	nsp	RES,CHIP(1608/5%/10Kohm)	1713E1C	CRJ10DJ103T	
R7663	nsp	RES,CHIP(1608/5%/18Kohm)	1613E3	CRJ10DJ183T	
R7663	nsp	RES,CHIP(1608/5%/3.3Kohm)	1723E1C	CRJ10DJ332T	
R7664	nsp	RES,CHIP(1608/5%/0ohm)	1713E3	CRJ10DJ0R0T	
R7664	nsp	RES,CHIP(1608/5%/10Kohm)	1713E1C	CRJ10DJ103T	
R7664	nsp	RES,CHIP(1608/5%/18Kohm)	1723E1C	CRJ10DJ183T	
R7664	nsp	RES,CHIP(1608/5%/3.3Kohm)	1613E3	CRJ10DJ332T	
R7665	nsp	RES,CHIP(1005/5%/1Kohm)		CRJ06IJ102T	
R7666	nsp	RES,CHIP(1005/5%/1Kohm)		CRJ06IJ102T	
R7667	nsp	RES,CHIP(1005/5%/1Kohm)		CRJ06IJ102T	
R7668	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7669	nsp	RES,CHIP(1005/5%/100ohm)		CRJ06IJ101T	
R7677	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R7678	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7679	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R7681	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R7682	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
R7683	nsp	RES,CHIP(1005/5%/4.7Kohm)			
R7684	nsp	RES,CHIP(1005/5%/4.7Kohm)			
R7685	nsp	RES,CHIP(1005/5%/4.7Kohm)			
R7686	nsp	RES,CHIP(1005/5%/4.7Kohm)			
R7687	nsp	RES,CHIP(1005/5%/10Kohm)			
R7688	nsp	RES,CHIP(1005/5%/100Kohm)			
R7689	nsp	RES,CHIP(1005/5%/2.2Mohm)			
R7690	nsp	RES,CHIP(1005/5%/4.7Kohm)			
R7691	nsp	RES,CHIP(1005/5%/47Kohm)			
R7692	nsp	RES,CHIP(1005/5%/100Kohm)			
R7693	nsp	RES,CHIP(1005/5%/220Kohm)			
R7694	nsp	RES,CHIP(1005/5%/27Kohm)			
R7695	nsp	RES,CHIP(1005/5%/3.3Kohm)			
R7696	nsp	RES,CHIP(1005/5%/1.2Kohm)			
R7698	nsp	RES,CHIP(1005/5%/33ohm)	1713E3		
R7701	nsp	RES,CHIP(1005/5%/33ohm)			
R7702	nsp	RES,CHIP(1005/5%/33ohm)			
R7703	nsp	RES,CHIP(1005/5%/33ohm)			
R7704	00MNN05101610	RES,CHIP(1608/5%/100ohm)			
R7705	00MNN05101610	RES,CHIP(1608/5%/100ohm)			
R7706	00MNN05101610	RES,CHIP(1608/5%/100ohm)			
R7707	00MNN05101610	RES,CHIP(1608/5%/100ohm)			
R7708	nsp	RES,CHIP(1608/5%/4.7Kohm)			
R7709	nsp	RES,CHIP(1005/5%/33ohm)			
R7710	nsp	RES,CHIP(1005/5%/33ohm)			
R7711	00MNN05474610	RES,CHIP(1608/5%/470Kohm)			
R7713	nsp	RES,CHIP(1005/5%/4.7Kohm)			
R7715	nsp	RES,CHIP(1005/5%/3.9Kohm)			
R7717	nsp	RES,CHIP(1005/5%/4.7Kohm)			
R7718	nsp	RES,CHIP(1005/5%/27Kohm)			
R7719	nsp	RES,CHIP(1005/5%/2.7Kohm)			
R7720	nsp	RES,CHIP(1005/5%/10Kohm)			
R7721	nsp	RES,CHIP(1005/5%/1Kohm)			
R7722	nsp	RES,CHIP(1005/5%/10Kohm)			
R7723	nsp	RES,CHIP(1005/5%/10Kohm)			
R7724	nsp	RES,CHIP(1005/5%/10Kohm)			
R7725	nsp	RES,CHIP(1005/5%/27Kohm)			
R7726	nsp	RES,CHIP(1005/5%/1Kohm)			
R7727	nsp	RES,CHIP(1005/5%/2.7Kohm)			
R7728	nsp	RES,CHIP(1005/5%/3.9Kohm)			
R7729	nsp	RES,CHIP(1005/5%/100ohm)			
R7730	00MNN05124610	RES,CHIP(1608/5%/120Kohm)			
R7731	nsp	RES,CHIP(1005/5%/22Kohm)			
R7735	nsp	RES,CHIP(1005/5%/100ohm)			
R7736	00MNN05124610	RES,CHIP(1608/5%/120Kohm)			
R7737	nsp	RES,CHIP(1005/5%/22Kohm)			
R7741	nsp	RES,CHIP(1005/5%/100ohm)			
R7801	nsp	RES,CHIP(1005/5%/150ohm)			
R7802	nsp	RES,CHIP(1005/5%/150ohm)			
R7803	nsp	RES,CHIP(1005/5%/470ohm)			
R7806	00MNN05334610	RES,CHIP(1608/5%/330Kohm)			
R7807	nsp	RES,CHIP(1005/5%/47Kohm)			
R7808	nsp	RES,CHIP(1005/5%/33ohm)			
R7813	nsp	RES,CHIP(1005/5%/33ohm)			
R7816	nsp	RES,CHIP(1608/5%/0ohm)			
R7817	nsp	RES,CHIP(1005/5%/0ohm)			
R7818	nsp	RES,CHIP(1005/5%/33ohm)			
R7819	nsp	RES,CHIP(1005/5%/220ohm)			
R7820	00MNN05330610	RES,CHIP(1608/5%/33ohm)			
R7821	nsp	RES,CHIP(1005/5%/1Mohm)			
R7822	nsp	RES,CHIP(1005/5%/820ohm)			
R7823	nsp	RES,CHIP(1005/5%/3.3Kohm)			
R7824	nsp	RES,CHIP(1005/5%/33ohm)			
R7825	nsp	RES,CHIP(1005/5%/1Kohm)			
R7826	nsp	RES,CHIP(1005/5%/33ohm)			
R7828	00MNN05330610	RES,CHIP(1608/5%/33ohm)			
R7829	00MNN05330610	RES,CHIP(1608/5%/33ohm)			



Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
R7830	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R7833	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7834	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7835	nsp	RES,CHIP(1005/5%/1Kohm)		CRJ06IJ102T	
R7836	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7837	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7840	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7841	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7842	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7843	00MNN05330610	RES,CHIP(1608/5%/33ohm)		CRJ10DJ330T	
R7901	nsp	RES,CHIP(1005/5%/100ohm)		CRJ06IJ101T	
R7902	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R7903	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R7904	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R7905	nsp	RES,CHIP(1005/5%/1Mohm)		CRJ06IJ105T	
R7906	nsp	RES,CHIP(1005/5%/47ohm)		CRJ06IJ470T	
R7907	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R7909	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7910	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7911	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7913	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7914	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7915	nsp	RES,CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T	
R7916	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7917	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R7918	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R7919	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R7920	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7922	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7923	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7924	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7925	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	
R7926	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	
R7927	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	
R7928	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	
R7929	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	
R7930	nsp	RES,CHIP(1005/5%/100ohm)		CRJ06IJ101T	
R7933	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R7935	nsp	RES,CHIP(1005/5%/100ohm)		CRJ06IJ101T	
R7936	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7938	nsp	RES,CHIP(1005/5%/100ohm)		CRJ06IJ101T	
R7939	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7940	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	
R7941	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7942	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7943	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7944	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7945	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7946	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7947	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7948	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7949	nsp	RES,CHIP(1005/5%/100ohm)		CRJ06IJ101T	
R7952	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R7953	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7954	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R7955	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R7956	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R7957	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R8102	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R8104	00MNN05104610	RES,CHIP(1608/5%/100Kohm)		CRJ10DJ104T	
R8105	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R8107	00MNN05104610	RES,CHIP(1608/5%/100Kohm)		CRJ10DJ104T	
R8108	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R8109	nsp	RES,CHIP(1005/5%/1Kohm)		CRJ06IJ102T	
R8110	nsp	RES,CHIP(1005/5%/1Kohm)		CRJ06IJ102T	
R8113	nsp	RES,CHIP(1608/0.5%/3.9Kohm)		CRJ06DD392TP	
R8114	nsp	RES,CHIP(1608/0.5%/3.9Kohm)		CRJ06DD392TP	

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
R8115	nsp	RES,CHIP(1608/5%/270Kohm)		CRJ10DJ274T	
R8116	nsp	RES,CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T	
R8117	00MNN05221610	RES,CHIP(1608/5%/220ohm)		CRJ10DJ221T	
R8118	nsp	RES,CHIP(1608/5%/270Kohm)		CRJ10DJ274T	
R8119	nsp	RES,CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T	
R8120	00MNN05221610	RES,CHIP(1608/5%/220ohm)		CRJ10DJ221T	
R8121	00MNN05101610	RES,CHIP(1608/5%/100ohm)		CRJ10DJ101T	
R8122	nsp	RES,CHIP(1608/0.5%/3.9Kohm)		CRJ06DD392TP	
R8123	nsp	RES,CHIP(1608/0.5%/3.9Kohm)		CRJ06DD392TP	
R8124	nsp	RES,CHIP(1608/5%/270Kohm)		CRJ10DJ274T	
R8125	nsp	RES,CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T	
R8126	00MNN05221610	RES,CHIP(1608/5%/220ohm)		CRJ10DJ221T	
R8127	00MNN05221610	RES,CHIP(1608/5%/220ohm)		CRJ10DJ221T	
R8128	nsp	RES,CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T	
R8129	nsp	RES,CHIP(1608/5%/270Kohm)		CRJ10DJ274T	
R8130	00MNN05101610	RES,CHIP(1608/5%/100ohm)		CRJ10DJ101T	
R8131	nsp	RES,CHIP(1608/0.5%/3.9Kohm)		CRJ06DD392TP	
R8132	nsp	RES,CHIP(1608/0.5%/3.9Kohm)		CRJ06DD392TP	
R8133	nsp	RES,CHIP(1608/5%/270Kohm)		CRJ10DJ274T	
R8134	nsp	RES,CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T	
R8135	00MNN05221610	RES,CHIP(1608/5%/220ohm)		CRJ10DJ221T	
R8137	nsp	RES,CHIP(1608/5%/270Kohm)		CRJ10DJ274T	
R8138	nsp	RES,CHIP(1608/5%/4.7Kohm)		CRJ10DJ472T	
R8139	00MNN05221610	RES,CHIP(1608/5%/220ohm)		CRJ10DJ221T	
R8140	00MNN05101610	RES,CHIP(1608/5%/100ohm)		CRJ10DJ101T	
R8141	nsp	RES,CHIP(1608/0.5%/3.9Kohm)		CRJ06DD392TP	
R8142	nsp	RES,CHIP(1608/0.5%/3.9Kohm)		CRJ06DD392TP	
R8144	00MNN05123610	RES,CHIP(1608/5%/12Kohm)		CRJ10DJ123T	
R8145	00MNN05181610	RES,CHIP(1608/5%/180ohm)		CRJ10DJ181T	
R8146	00MNN05181610	RES,CHIP(1608/5%/180ohm)		CRJ10DJ181T	
R8147	00MNN05123610	RES,CHIP(1608/5%/12Kohm)		CRJ10DJ123T	
R8149	00MNN05101610	RES,CHIP(1608/5%/100ohm)		CRJ10DJ101T	
R8150	nsp	RES,CHIP(1608/0.5%/3.9Kohm)		CRJ06DD392TP	
R8151	nsp	RES,CHIP(1608/0.5%/3.9Kohm)		CRJ06DD392TP	
R8152	00MNN05154610	RES,CHIP(1608/5%/150Kohm)		CRJ10DJ154T	
R8153	00MNN05682610	RES,CHIP(1608/5%/6.8Kohm)		CRJ10DJ682T	
R8154	00MNN05221610	RES,CHIP(1608/5%/220ohm)		CRJ10DJ221T	
R8155	00MNN05154610	RES,CHIP(1608/5%/150Kohm)		CRJ10DJ154T	
R8156	00MNN05682610	RES,CHIP(1608/5%/6.8Kohm)		CRJ10DJ682T	
R8157	00MNN05221610	RES,CHIP(1608/5%/220ohm)		CRJ10DJ221T	
R8158	00MNN05101610	RES,CHIP(1608/5%/100ohm)		CRJ10DJ101T	
R8159	nsp	RES,CHIP(1608/0.5%/3.9Kohm)		CRJ06DD392TP	
R8160	nsp	RES,CHIP(1608/0.5%/3.9Kohm)		CRJ06DD392TP	
R8161	00MNN05154610	RES,CHIP(1608/5%/150Kohm)		CRJ10DJ154T	
R8162	00MNN05682610	RES,CHIP(1608/5%/6.8Kohm)		CRJ10DJ682T	
R8163	00MNN05221610	RES,CHIP(1608/5%/220ohm)		CRJ10DJ221T	
R8164	00MNN05221610	RES,CHIP(1608/5%/220ohm)		CRJ10DJ221T	
R8165	00MNN05682610	RES,CHIP(1608/5%/6.8Kohm)		CRJ10DJ682T	
R8166	00MNN05154610	RES,CHIP(1608/5%/150Kohm)		CRJ10DJ154T	
R8167	00MNN05101610	RES,CHIP(1608/5%/100ohm)		CRJ10DJ101T	
R8169	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R8170	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R8225	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R8230	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R8301	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R8302	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R8303	nsp	RES,CHIP(1005/5%/1.5Kohm)		CRJ06IJ152T	
R8304	nsp	RES,CHIP(1005/5%/1Kohm)		CRJ06IJ102T	
R8305	nsp	RES,CHIP(1005/5%/12Kohm)		CRJ06IJ123T	
R8306	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R8307	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R8308	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R8310	nsp	RES,CHIP(1005/5%/1Kohm)		CRJ06IJ102T	
R8311	nsp	RES,CHIP(1005/5%/1Mohm)		CRJ06IJ105T	
R8312	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R8313	nsp	RES,CHIP(1005/5%/1.8Kohm)		CRJ06IJ182T	
R8314	nsp	RES,CHIP(1005/5%/1.2Kohm)		CRJ06IJ122T	

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
R8317	nsp	RES,CHIP(1005/5%/47ohm)		CRJ06IJ470T	
R8318	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R8319	nsp	RES,CHIP(1005/5%/2.7Kohm)		CRJ06IJ272T	
R8320	nsp	RES,CHIP(1005/5%/1.5Kohm)		CRJ06IJ152T	
R8322	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R8324	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R8327	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R8328	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R8329	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R8330	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R8331	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R8332	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R8333	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R8334	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R8336	nsp	RES,CHIP(1005/5%/100ohm)		CRJ06IJ101T	
R8338	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R8343	nsp	RES,CHIP(1005/5%/1.5Kohm)		CRJ06IJ152T	
R8344	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R8349	nsp	RES,CHIP(1005/5%/1Mohm)		CRJ06IJ105T	
R8501	nsp	RES,CHIP(1005/5%/3.3ohm)		CRJ06IJ3R3T	
R8502	nsp	RES,CHIP(1005/5%/3.3ohm)		CRJ06IJ3R3T	
R8504	nsp	RES,CHIP(1005/5%/100ohm)		CRJ06IJ101T	
R8505	nsp	RES,CHIP(1005/5%/10ohm)		CRJ06IJ100T	
R8506	nsp	RES,CHIP(1608/5%/51ohm)		CRJ10DJ510T	
R8507	nsp	RES,CHIP(1608/5%/51ohm)		CRJ10DJ510T	
R8510	nsp	RES,CHIP(1005/5%/33ohm)		CRJ06IJ330T	
R8512	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R8513	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R8514	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R8516	943124003370S	RES,CHIP(1608/1%/12Kohm)		CRJ10DF1202T	
R8520	90M-NN000600R	RES,CHIP(1608/1%/1.5Kohm)		CRJ10DF1501T	
R8521	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R8522	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R8523	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R8524	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R8525	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R8536	nsp	RES,CHIP(1005/5%/10Kohm)	1713E3	CRJ06IJ103T	
R8542	nsp	RES,CHIP(1608/5%/51ohm)		CRJ10DJ510T	
R8543	nsp	RES,CHIP(1608/5%/51ohm)		CRJ10DJ510T	
R8544	nsp	RES,CHIP(1608/1%/100ohm)		CRJ10DF1000T	
R8561	nsp	RES,CHIP(1005/5%/470ohm)	1713E3	CRJ06IJ471T	
R8562	nsp	RES,CHIP(1005/5%/470ohm)	1713E3	CRJ06IJ471T	
R8563	nsp	RES,CHIP(1005/5%/10Kohm)	1713E3	CRJ06IJ103T	
R8564	nsp	RES,CHIP(1608/5%/10Kohm)	1713E3	CRJ10DJ103T	
R8567	nsp	RES,CHIP(1005/5%/10Kohm)	1713E3	CRJ06IJ103T	
R8569	nsp	RES,CHIP(1608/5%/0ohm)	1713E3	CRJ10DJ0R0T	
R8570	nsp	RES,CHIP(1608/5%/0ohm)	1713E3	CRJ10DJ0R0T	
R8603	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R8604	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R8608	943124001530S	RES,CHIP(1608/1%/470ohm)		CRJ10DF4700T	
R8609	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R8610	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R8611	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R8612	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R8613	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R8614	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R8615	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R8616	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R8617	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R8618	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R8619	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R8620	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R8621	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R8622	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R8623	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R8624	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R8625	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	



Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
R8695	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R8696	nsp	RES,CHIP(1005/5%/10Kohm)		CRJ06IJ103T	
R8697	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R8701	nsp	RES,CHIP(1005/5%/1Kohm)		CRJ06IJ102T	
R8702	nsp	RES,CHIP(1005/5%/22Kohm)		CRJ06IJ223T	
R8703	nsp	RES,CHIP(1005/5%/47Kohm)		CRJ06IJ473T	
R8704	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	
R8706	nsp	RES,CHIP(1005/5%/47Kohm)		CRJ06IJ473T	
R8710	nsp	RES,CHIP(1005/5%/2Kohm)		CRJ06IJ202T	
R8711	nsp	RES,CHIP(1005/5%/2Kohm)		CRJ06IJ202T	
R8712	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	
R8714	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R8715	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R8717	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R8718	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R8720	nsp	RES,CHIP(1005/5%/4.7Kohm)		CRJ06IJ472T	
R8722	nsp	RES,CHIP(1005/5%/2Kohm)		CRJ06IJ202T	
R8723	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	
R8901	00MNN05271610	RES,CHIP(1608/5%/270ohm)		CRJ10DJ271T	
R8902	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R8903	00MNN05273610	RES,CHIP(1608/5%/27Kohm)		CRJ10DJ273T	
R8904	00MNN05561610	RES,CHIP(1608/5%/560ohm)		CRJ10DJ561T	
R8905	00MNN05271610	RES,CHIP(1608/5%/270ohm)		CRJ10DJ271T	
R8906	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R8907	00MNN05273610	RES,CHIP(1608/5%/27Kohm)		CRJ10DJ273T	
R8908	00MNN05561610	RES,CHIP(1608/5%/560ohm)		CRJ10DJ561T	
R8909	00MNN05101610	RES,CHIP(1608/5%/100ohm)		CRJ10DJ101T	
R8910	00MNN05101610	RES,CHIP(1608/5%/100ohm)		CRJ10DJ101T	
R8911	00MNN05101610	RES,CHIP(1608/5%/100ohm)		CRJ10DJ101T	
R8912	00MNN05101610	RES,CHIP(1608/5%/100ohm)		CRJ10DJ101T	
R8913	00MNN05101610	RES,CHIP(1608/5%/100ohm)		CRJ10DJ101T	
R8917	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R8918	00MNN05101610	RES,CHIP(1608/5%/100ohm)		CRJ10DJ101T	
R8919	00MNN05105610	RES,CHIP(1608/5%/1Mohm)		CRJ10DJ105T	
R8920	00MNN05101610	RES,CHIP(1608/5%/100ohm)		CRJ10DJ101T	
R8921	00MNN05105610	RES,CHIP(1608/5%/1Mohm)		CRJ10DJ105T	
R8922	00MNN05101610	RES,CHIP(1608/5%/100ohm)		CRJ10DJ101T	
R8923	00MNN05105610	RES,CHIP(1608/5%/1Mohm)		CRJ10DJ105T	
R8924	00MNN05101610	RES,CHIP(1608/5%/100ohm)		CRJ10DJ101T	
R8925	00MNN05105610	RES,CHIP(1608/5%/1Mohm)		CRJ10DJ105T	
R8926	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R8937	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R8938	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R8939	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R8940	943125500060S	RES,M-OXIDEFILM(1W/150ohm)		CRG1SANJ151RT	
R8941	943125500060S	RES,M-OXIDEFILM(1W/150ohm)		CRG1SANJ151RT	
R8942	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R8943	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R8944	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R8945	00MNN05104610	RES,CHIP(1608/5%/100Kohm)		CRJ10DJ104T	
R8946	nsp	RES,CHIP(1608/5%/10Kohm)		CRJ10DJ103T	
R8947	nsp	RES,CHIP(1608/5%/10Kohm)		CRJ10DJ103T	
R8948	nsp	RES,CHIP(1608/5%/10Kohm)		CRJ10DJ103T	
R8949	nsp	RES,CHIP(1608/5%/10Kohm)		CRJ10DJ103T	
R8950	nsp	RES,CHIP(1608/5%/10Kohm)		CRJ10DJ103T	
R8951	nsp	RES,CHIP(1608/5%/10Kohm)		CRJ10DJ103T	
R8952	00MNN05471610	RES,CHIP(1608/5%/470ohm)		CRJ10DJ471T	
R8953	00MNN05471610	RES,CHIP(1608/5%/470ohm)		CRJ10DJ471T	
R8954	00MNN05471610	RES,CHIP(1608/5%/470ohm)		CRJ10DJ471T	
R8955	00MNN05471610	RES,CHIP(1608/5%/470ohm)		CRJ10DJ471T	
R8956	00MNN05471610	RES,CHIP(1608/5%/470ohm)		CRJ10DJ471T	
R8957	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R8958	00MNN05101610	RES,CHIP(1608/5%/100ohm)	1713E3	CRJ10DJ101T	
R8959	00MNN05101610	RES,CHIP(1608/5%/100ohm)	1713E3	CRJ10DJ101T	
R8960	00MNN05101610	RES,CHIP(1608/5%/100ohm)		CRJ10DJ101T	
R8961	nsp	RES,CHIP(1608/5%/10Kohm)		CRJ10DJ103T	
R8962	nsp	RES,CHIP(1608/5%/10Kohm)	1713E3	CRJ10DJ103T	

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
R8963	nsp	RES,CHIP(1608/5%/10Kohm)		CRJ10DJ103T	
R8964	00MNN05102610	RES,CHIP(1608/5%/1Kohm)	1713E3	CRJ10DJ102T	
R8965	00MNN05102610	RES,CHIP(1608/5%/1Kohm)		CRJ10DJ102T	
R8966	00MNN05474610	RES,CHIP(1608/5%/470Kohm)	1713E3	CRJ10DJ474T	
R8967	00MNN05474610	RES,CHIP(1608/5%/470Kohm)		CRJ10DJ474T	
R8968	00MNN05471610	RES,CHIP(1608/5%/470ohm)	1713E3	CRJ10DJ471T	
R8969	nsp	RES,CHIP(1608/5%/10Kohm)	1713E3	CRJ10DJ103T	
R8971	00MNN05471610	RES,CHIP(1608/5%/470ohm)	1713E3	CRJ10DJ471T	
R8972	00MNN05104610	RES,CHIP(1608/5%/100Kohm)	1713E3	CRJ10DJ104T	
R8973	00MNN05104610	RES,CHIP(1608/5%/100Kohm)	1713E3	CRJ10DJ104T	
R8974	00MNN05221610	RES,CHIP(1608/5%/220ohm)	1713E3	CRJ10DJ221T	
R8976	nsp	RES,CHIP(1608/5%/10Kohm)	1713E3	CRJ10DJ103T	
R8977	00MNN05471610	RES,CHIP(1608/5%/470ohm)	1713E3	CRJ10DJ471T	
R8978	00MNN05471610	RES,CHIP(1608/5%/470ohm)	1713E3	CRJ10DJ471T	
R8979	00MNN05104610	RES,CHIP(1608/5%/100Kohm)	1713E3	CRJ10DJ104T	
R8980	00MNN05104610	RES,CHIP(1608/5%/100Kohm)	1713E3	CRJ10DJ104T	
R8981	00MNN05221610	RES,CHIP(1608/5%/220ohm)	1713E3	CRJ10DJ221T	
R8982	00MNN05471610	RES,CHIP(1608/5%/470ohm)		CRJ10DJ471T	
R8983	nsp	RES,CHIP(1608/5%/10Kohm)		CRJ10DJ103T	
R8985	00MNN05471610	RES,CHIP(1608/5%/470ohm)		CRJ10DJ471T	
R8986	00MNN05104610	RES,CHIP(1608/5%/100Kohm)		CRJ10DJ104T	
R8987	00MNN05104610	RES,CHIP(1608/5%/100Kohm)		CRJ10DJ104T	
R8988	00MNN05221610	RES,CHIP(1608/5%/220ohm)		CRJ10DJ221T	
R8989	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R8990	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R8991	00MNN05821610	RES,CHIP(1608/5%/820ohm)		CRJ10DJ821T	
R8992	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R8994	00MNN05104610	RES,CHIP(1608/5%/100Kohm)		CRJ10DJ104T	
R8996	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
R8999	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	
R9000	nsp	RES,CHIP(1005/5%/0ohm)		CRJ06IJ0R0T	
R9001	nsp	RES,CHIP(1608/1%/75ohm)		CRJ10DF75R0T	
R9002	nsp	RES,CHIP(1608/1%/75ohm)		CRJ10DF75R0T	
R9003	00MNN05182610	RES,CHIP(1608/5%/1.8Kohm)		CRJ10DJ182T	
R9004	nsp	RES,CHIP(1608/1%/82ohm)		CRJ10DF82R0T	
R9005	nsp	RES,CHIP(1608/5%/10Kohm)		CRJ10DJ103T	
R9006	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
RN721	nsp	RES,CHIP(1005/5%/33ohm*4)		CRJ064IJ330T	
RN722	nsp	RES,CHIP(1005/5%/33ohm*4)		CRJ064IJ330T	
RN781	nsp	RES,CHIP(1005/5%/33ohm*2)		CRJ062IJ330T	
RN782	nsp	RES,CHIP(1005/5%/33ohm*2)		CRJ062IJ330T	
RN783	nsp	RES,CHIP(1005/5%/33ohm*2)		CRJ062IJ330T	
RN784	nsp	RES,CHIP(1005/5%/10Kohm*4)		CRJ064IJ103T	
RN785	nsp	RES,CHIP(1005/5%/33ohm*4)		CRJ064IJ330T	
RN786	nsp	RES,CHIP(1005/5%/33ohm*4)		CRJ064IJ330T	
RN791	nsp	RES,CHIP(1005/5%/100ohm*4)		CRJ064IJ101T	
RN792	nsp	RES,CHIP(1005/5%/100ohm*4)		CRJ064IJ101T	
RN793	nsp	RES,CHIP(1005/5%/100ohm*4)		CRJ064IJ101T	
RN794	nsp	RES,CHIP(1005/5%/100ohm*4)		CRJ064IJ101T	
RN795	nsp	RES,CHIP(1005/5%/100ohm*4)		CRJ064IJ101T	
RN796	nsp	RES,CHIP(1005/5%/10Kohm*4)		CRJ064IJ103T	
RN797	nsp	RES,CHIP(1005/5%/10Kohm*4)		CRJ064IJ103T	
RN798	nsp	RES,CHIP(1005/5%/10Kohm*4)		CRJ064IJ103T	
RN799	nsp	RES,CHIP(1005/5%/100ohm*4)		CRJ064IJ101T	
RN800	nsp	RES,CHIP(1005/5%/100ohm*4)		CRJ064IJ101T	
RN802	nsp	RES,CHIP(1005/5%/100ohm*4)		CRJ064IJ101T	
RN803	nsp	RES,CHIP(1005/5%/100ohm*4)		CRJ064IJ101T	
RN804	nsp	RES,CHIP(1005/5%/100ohm*4)		CRJ064IJ101T	
RN805	nsp	RES,CHIP(1005/5%/100ohm*4)		CRJ064IJ101T	
RN806	nsp	RES,CHIP(1005/5%/100ohm*4)		CRJ064IJ101T	
RN807	nsp	RES,CHIP(1005/5%/0ohm*4)		CRJ064IJ0R0T	
RN831	nsp	RES,CHIP(1005/5%/10Kohm*4)		CRJ064IJ103T	
RN832	nsp	RES,CHIP(1005/5%/10Kohm*4)		CRJ064IJ103T	
RN833	nsp	RES,CHIP(1005/5%/10Kohm*4)		CRJ064IJ103T	
RN834	nsp	RES,CHIP(1005/5%/33ohm*4)		CRJ064IJ330T	
RN835	nsp	RES,CHIP(1005/5%/33ohm*4)		CRJ064IJ330T	



Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
C7246	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7247	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7248	943134500060S	CAP,ELECT(50V/100uF)		CCEA1HH101T	
C7249	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7250	nsp	CAP,CHIP(2012,6.3V/10uF,X5R)		CCUC0J106KC	
C7251	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7252	nsp	CAP,CHIP(2012,6.3V/10uF,X5R)		CCUC0J106KC	
C7255	nsp	CAP,CHIP(1608,10V/1uF)		CCUS1A105KC	
C7256	nsp	CAP,CHIP(1608,10V/1uF)		CCUS1A105KC	
C7259	nsp	CAP,CHIP(1608,10V/1uF)		CCUS1A105KC	
C7260	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7269	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7296	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7298	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7299	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7300	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7301	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7302	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7501	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7504	nsp	CAP,CHIP(1005,25V/0.01uF)		CCU1E103KC	
C7505	nsp	CAP,CHIP(1005,50V/10pF)		CCU1H100JA	
C7506	nsp	CAP,CHIP(2012,10V/22uF)		CCUC1A226KC	
C7507	nsp	CAP,CHIP(2012,6.3V/10uF,X5R)		CCUC0J106KC	
C7508	nsp	CAP,CHIP(2012,6.3V/10uF,X5R)		CCUC0J106KC	
C7509	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7512	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7515	nsp	CAP,CHIP(1005,25V/0.01uF)		CCU1E103KC	
C7516	nsp	CAP,CHIP(1005,50V/15pF)		CCU1H150JA	
C7517	nsp	CAP,CHIP(2012,10V/22uF)		CCUC1A226KC	
C7518	nsp	CAP,CHIP(2012,6.3V/10uF,X5R)		CCUC0J106KC	
C7519	nsp	CAP,CHIP(2012,6.3V/10uF,X5R)		CCUC0J106KC	
C7520	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7523	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7526	nsp	CAP,CHIP(1005,25V/0.01uF)		CCU1E103KC	
C7527	nsp	CAP,CHIP(1005,50V/15pF)		CCU1H150JA	
C7528	nsp	CAP,CHIP(2012,10V/22uF)		CCUC1A226KC	
C7529	nsp	CAP,CHIP(2012,6.3V/10uF,X5R)		CCUC0J106KC	
C7530	nsp	CAP,CHIP(2012,6.3V/10uF,X5R)		CCUC0J106KC	
C7531	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7534	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7537	nsp	CAP,CHIP(1005,25V/0.01uF)		CCU1E103KC	
C7538	nsp	CAP,CHIP(1005,50V/15pF)		CCU1H150JA	
C7539	nsp	CAP,CHIP(2012,10V/22uF)		CCUC1A226KC	
C7540	nsp	CAP,CHIP(2012,6.3V/10uF,X5R)		CCUC0J106KC	
C7541	nsp	CAP,CHIP(2012,6.3V/10uF,X5R)		CCUC0J106KC	
C7542	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7547	nsp	CAP,CHIP(1005,25V/0.02uF)		CCU1E223KC	
C7548	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7549	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7550	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7551	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7552	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7553	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7554	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7555	00D9430103905	CAP,ELECT(16V/470uF)		CCEA1CH471T	
C7557	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7559	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7560	00D9430103905	CAP,ELECT(16V/470uF)		CCEA1CH471T	
C7563	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7564	nsp	CAP,CHIP(1005,25V/0.015uF)		CCU1E153KC	
C7565	nsp	CAP,CHIP(1608,10V/1uF)		CCUS1A105KC	
C7566	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C7569	nsp	CAP,CHIP(1608,10V/1uF)		CCUS1A105KC	
C7570	nsp	CAP,CHIP(2012,6.3V/10uF,X5R)		CCUC0J106KC	
C7572	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C7573	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C7574	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	



Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
C7575	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C7601	nsp	CAP,CHIP(1608,50V/15pF)		CCUS1H150JA	
C7602	nsp	CAP,CHIP(1608,50V/15pF)		CCUS1H150JA	
C7603	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7604	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7605	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7606	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C7607	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7608	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7609	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7610	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7611	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7612	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7613	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7614	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7616	nsp	CAP,CHIP(1005,50V/220pF)		CCUI1H221JA	
C7617	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7618	nsp	CAP,CHIP(1608,50V/0.01uF)		CCUS1H103KC	
C7619	nsp	CAP,CHIP(1608,50V/0.01uF)		CCUS1H103KC	
C7620	nsp	CAP,CHIP(1608,50V/0.01uF)		CCUS1H103KC	
C7621	nsp	CAP,CHIP(1608,50V/0.01uF)		CCUS1H103KC	
C7701	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7703	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7704	nsp	CAP,CHIP(1005,25V/0.01uF)		CCUI1E103KC	
C7705	nsp	CAP,CHIP(1005,25V/0.01uF)		CCUI1E103KC	
C7706	nsp	CAP,CHIP(1005,25V/0.01uF)		CCUI1E103KC	
C7802	nsp	CAP,CHIP(1005,25V/0.01uF)		CCUI1E103KC	
C7803	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7804	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7805	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7807	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7808	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7809	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7810	nsp	CAP,CHIP(1608,50V/0.022uF)		CCUS1H223KC	
C7811	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7812	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7813	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C7815	nsp	CAP,CHIP(2012,6.3V/10uF,X5R)		CCUC0J106KC	
C7816	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7817	nsp	CAP,CHIP(1608,50V/12pF)		CCUS1H120JA	
C7818	nsp	CAP,CHIP(1608,50V/12pF)		CCUS1H120JA	
C7819	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7820	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7821	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7822	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7823	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7824	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7825	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7901	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7902	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C7903	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C7904	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7905	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C7906	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7907	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C7908	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7909	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7910	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C7911	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7912	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C7913	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C7914	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7915	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7916	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C7917	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C7918	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7919	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
C7920	nsp	CAP,CHIP(1005,50V/1000pF)			
C7921	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7922	nsp	CAP,CHIP(1005,50V/1000pF)			
C7923	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7924	nsp	CAP,CHIP(1005,50V/1000pF)			
C7925	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7926	nsp	CAP,CHIP(1005,50V/1000pF)			
C7927	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7928	nsp	CAP,CHIP(1005,50V/1000pF)			
C7929	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7930	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7931	nsp	CAP,CHIP(1005,50V/1000pF)			
C7932	nsp	CAP,CHIP(1005,50V/1000pF)			
C7933	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7934	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7935	nsp	CAP,CHIP(1005,50V/1000pF)			
C7936	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7937	nsp	CAP,CHIP(1005,50V/1000pF)			
C7938	nsp	CAP,CHIP(1005,50V/1000pF)			
C7939	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7940	nsp	CAP,CHIP(1005,50V/1000pF)			
C7941	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7942	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7943	nsp	CAP,CHIP(1005,50V/1000pF)			
C7944	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7945	nsp	CAP,CHIP(1005,50V/1000pF)			
C7946	nsp	CAP,CHIP(1005,50V/1000pF)			
C7947	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7948	nsp	CAP,CHIP(1005,50V/1000pF)			
C7949	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7950	nsp	CAP,CHIP(1005,50V/1000pF)			
C7951	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7952	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7953	nsp	CAP,CHIP(1005,50V/1000pF)			
C7954	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7955	nsp	CAP,CHIP(1005,50V/1000pF)			
C7956	nsp	CAP,CHIP(1005,50V/1000pF)			
C7957	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7958	nsp	CAP,CHIP(1005,50V/1000pF)			
C7959	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7960	nsp	CAP,CHIP(1005,50V/1000pF)			
C7961	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7962	nsp	CAP,CHIP(1005,50V/1000pF)			
C7963	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7964	nsp	CAP,CHIP(1005,50V/1000pF)			
C7965	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7966	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7967	nsp	CAP,CHIP(1005,50V/1000pF)			
C7968	nsp	CAP,CHIP(1005,50V/1000pF)			
C7969	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7970	nsp	CAP,CHIP(1005,50V/1000pF)			
C7971	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7972	nsp	CAP,CHIP(1005,50V/1000pF)			
C7973	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7974	nsp	CAP,CHIP(1005,50V/1000pF)			
C7975	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7976	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7977	nsp	CAP,CHIP(1005,50V/1000pF)			
C7978	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7979	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7980	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7981	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7982	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7983	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7984	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7985	nsp	CAP,CHIP(1005,16V/0.1uF)			
C7986	nsp	CAP,CHIP(1005,16V/0.1uF)			

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
C7987	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C7988	nsp	CAP,CHIP(1608,50V/18pF)		CCUS1H180JA	
C7989	nsp	CAP,CHIP(1608,50V/18pF)		CCUS1H180JA	
C7990	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8101	nsp	CAP,CHIP(1608,50V/4700pF)		CCUS1H472KC	
C8102	00D9430175108	CAP,ELECT(50V/10uF)		CCEA1HH100T	
C8103	nsp	CAP,CHIP(1608,50V/4700pF)		CCUS1H472KC	
C8104	00D9430175108	CAP,ELECT(50V/10uF)		CCEA1HH100T	
C8105	nsp	CAP,CHIP(1608,10V/1uF)		CCUS1A105KC	
C8106	nsp	CAP,CHIP(1608,10V/1uF)		CCUS1A105KC	
C8108	nsp	CAP,CHIP(2012,10V/4.7uF)		CCUC1A475ZF	
C8109	nsp	CAP,CHIP(1608,50V/1000pF)		CCUS1H102KC	
C8110	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8112	nsp	CAP,CHIP(2012,10V/4.7uF)		CCUC1A475ZF	
C8114	nsp	CAP,CHIP(2012,10V/4.7uF)		CCUC1A475ZF	
C8115	00D9430062101	CAP,ELECT(16V/100uF)		CCEA1CH101T	
C8116	nsp	CAP,CHIP(1608,50V/3900pF)		CCUS1H392KC	
C8117	nsp	CAP,CHIP(1608,50V/680pF)		CCUS1H681JA	
C8118	nsp	CAP,CHIP(1608,50V/680pF)		CCUS1H681JA	
C8119	nsp	CAP,CHIP(1608,50V/3900pF)		CCUS1H392KC	
C8120	nsp	CAP,CHIP(1608,50V/680pF)		CCUS1H681JA	
C8121	nsp	CAP,CHIP(1608,50V/680pF)		CCUS1H681JA	
C8122	00D9430062101	CAP,ELECT(16V/100uF)		CCEA1CH101T	
C8125	00D9430062101	CAP,ELECT(16V/100uF)		CCEA1CH101T	
C8126	nsp	CAP,CHIP(1608,50V/3900pF)		CCUS1H392KC	
C8127	nsp	CAP,CHIP(1608,50V/680pF)		CCUS1H681JA	
C8128	nsp	CAP,CHIP(1608,50V/680pF)		CCUS1H681JA	
C8129	nsp	CAP,CHIP(1608,50V/3900pF)		CCUS1H392KC	
C8130	nsp	CAP,CHIP(1608,50V/680pF)		CCUS1H681JA	
C8131	nsp	CAP,CHIP(1608,50V/680pF)		CCUS1H681JA	
C8134	nsp	CAP,CHIP(1608,50V/3900pF)		CCUS1H392KC	
C8135	nsp	CAP,CHIP(1608,50V/470pF)		CCUS1H471JA	
C8136	nsp	CAP,CHIP(1608,50V/470pF)		CCUS1H471JA	
C8137	nsp	CAP,CHIP(1608,50V/3900pF)		CCUS1H392KC	
C8138	nsp	CAP,CHIP(1608,50V/470pF)		CCUS1H471JA	
C8139	nsp	CAP,CHIP(1608,50V/470pF)		CCUS1H471JA	
C8142	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8143	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8144	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8145	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8146	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8147	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8148	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8149	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C8150	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C8151	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C8152	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C8153	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C8154	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C8155	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C8156	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C8157	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C8158	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C8159	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C8160	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C8161	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C8162	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C8163	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C8164	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C8165	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C8304	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C8305	nsp	CAP,CHIP(1608,50V/10pF)		CCUS1H100JA	
C8306	nsp	CAP,CHIP(1608,50V/10pF)		CCUS1H100JA	
C8307	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8308	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8309	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C8310	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
C8311	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8312	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8313	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8314	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8315	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8316	nsp	CAP,CHIP(1005,50V/1000pF)		CCU1H102KC	
C8317	nsp	CAP,CHIP(1005,50V/1000pF)		CCU1H102KC	
C8318	nsp	CAP,CHIP(1005,50V/1000pF)		CCU1H102KC	
C8320	nsp	CAP,CHIP(1005,50V/1000pF)		CCU1H102KC	
C8321	nsp	CAP,CHIP(1005,50V/1000pF)		CCU1H102KC	
C8322	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8323	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8340	nsp	CAP,CHIP(1608,6.3V/4.7uF,MURATAGRM18)		CCUS0J475KC	
C8341	nsp	CAP,CHIP(1608,6.3V/4.7uF,MURATAGRM18)		CCUS0J475KC	
C8342	nsp	CAP,CHIP(1608,6.3V/4.7uF,MURATAGRM18)		CCUS0J475KC	
C8343	nsp	CAP,CHIP(1608,6.3V/4.7uF,MURATAGRM18)		CCUS0J475KC	
C8344	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8345	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8346	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8347	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8348	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8349	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8350	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8351	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8352	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8353	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8354	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8359	nsp	CAP,CHIP(1608,6.3V/4.7uF,MURATAGRM18)		CCUS0J475KC	
C8362	nsp	CAP,CHIP(1608,6.3V/4.7uF,MURATAGRM18)		CCUS0J475KC	
C8363	nsp	CAP,CHIP(1608,6.3V/4.7uF,MURATAGRM18)		CCUS0J475KC	
C8364	nsp	CAP,CHIP(1608,6.3V/4.7uF,MURATAGRM18)		CCUS0J475KC	
C8365	nsp	CAP,CHIP(1608,6.3V/4.7uF,MURATAGRM18)		CCUS0J475KC	
C8366	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8367	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8368	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8369	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8370	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8371	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8372	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8373	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8374	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8375	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8380	nsp	CAP,CHIP(1608,6.3V/4.7uF,MURATAGRM18)		CCUS0J475KC	
C8383	nsp	CAP,CHIP(1608,6.3V/4.7uF,MURATAGRM18)		CCUS0J475KC	
C8386	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8500	nsp	CAP,CHIP(1005,25V/0.022uF)		CCU1E223KC	
C8501	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8504	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8507	nsp	CAP,CHIP(1608,10V/1uF)		CCUS1A105KC	
C8508	nsp	CAP,CHIP(1608,10V/1uF)		CCUS1A105KC	
C8509	nsp	CAP,CHIP(1005,50V/1000pF)		CCU1H102KC	
C8510	nsp	CAP,CHIP(1608,6.3V/4.7uF,MURATAGRM18)		CCUS0J475KC	
C8511	nsp	CAP,CHIP(1005,50V/1000pF)		CCU1H102KC	
C8512	nsp	CAP,CHIP(1608,6.3V/4.7uF,MURATAGRM18)		CCUS0J475KC	
C8513	nsp	CAP,CHIP(1005,50V/1000pF)		CCU1H102KC	
C8515	nsp	CAP,CHIP(1608,6.3V/4.7uF,MURATAGRM18)		CCUS0J475KC	
C8518	nsp	CAP,CHIP(1608,6.3V/4.7uF,MURATAGRM18)		CCUS0J475KC	
C8519	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8521	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8526	nsp	CAP,CHIP(1608,6.3V/4.7uF,MURATAGRM18)		CCUS0J475KC	
C8527	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8552	nsp	CAP,CHIP(1005,50V/15pF)		CCU1H150JA	
C8553	nsp	CAP,CHIP(1005,50V/15pF)		CCU1H150JA	
C8555	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8556	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8558	nsp	CAP,CHIP(1608,50V/470pF)		CCUS1H471JA	
C8559	nsp	CAP,CHIP(1608,10V/1uF)		CCUS1A105KC	

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
C8561	nsp	CAP,CHIP(1005,16V/0.1uF)	1713E3	CCUI1C104KC	
C8562	nsp	CAP,CHIP(1005,16V/0.1uF)	1713E3	CCUI1C104KC	
C8563	nsp	CAP,CHIP(1608,6.3V/2.2uF)	1713E3	CCUS0J225KC	
C8564	nsp	CAP,CHIP(1005,16V/0.1uF)	1713E3	CCUI1C104KC	
C8565	nsp	CAP,CHIP(1608,6.3V/2.2uF)	1713E3	CCUS0J225KC	
C8566	nsp	CAP,CHIP(1005,16V/0.1uF)	1713E3	CCUI1C104KC	
C8567	nsp	CAP,CHIP(2012,6.3V/10uF,X5R)	1713E3	CCUC0J106KC	
C8568	nsp	CAP,CHIP(1608,50V/2200pF)	1713E3	CCUS1H222KC	
C8569	nsp	CAP,CHIP(1608,50V/2200pF)	1713E3	CCUS1H222KC	
C8570	nsp	CAP,CHIP(1005,16V/0.1uF)	1713E3	CCUI1C104KC	
C8571	nsp	CAP,CHIP(2012,6.3V/10uF,X5R)	1713E3	CCUC0J106KC	
C8573	nsp	CAP,CHIP(2012,6.3V/10uF,X5R)	1713E3	CCUC0J106KC	
C8601	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8602	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8603	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8604	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8605	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8606	nsp	CAP,CHIP(1005,50V/1000pF)		CCUI1H102KC	
C8607	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8608	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8609	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8610	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8611	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8612	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8613	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8614	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8615	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8616	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8617	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8618	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8619	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8620	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8621	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8622	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8623	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8624	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8625	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8626	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8627	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8628	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8629	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8630	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8631	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8632	nsp	CAP,CHIP(1608,50V/0.01uF)		CCUS1H103KC	
C8633	nsp	CAP,CHIP(1608,50V/0.01uF)		CCUS1H103KC	
C8634	nsp	CAP,CHIP(1608,50V/0.01uF)		CCUS1H103KC	
C8672	nsp	CAP,CHIP(1005,16V/0.1uF)	1713E3	CCUI1C104KC	
C8701	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8702	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8703	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8704	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8705	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8706	nsp	CAP,CHIP(2012,6.3V/10uF,X5R)		CCUC0J106KC	
C8707	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8708	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8709	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8710	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8711	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8712	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8713	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8714	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8715	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	
C8716	nsp	CAP,CHIP(2012,6.3V/10uF,X5R)		CCUC0J106KC	
C8717	nsp	CAP,CHIP(2012,6.3V/10uF,X5R)		CCUC0J106KC	
C8718	nsp	CAP,CHIP(2012,6.3V/10uF,X5R)		CCUC0J106KC	
C8719	nsp	CAP,CHIP(2012,6.3V/10uF,X5R)		CCUC0J106KC	
C8720	nsp	CAP,CHIP(2012,6.3V/10uF,X5R)		CCUC0J106KC	

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
C8721	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8722	nsp	CAP,CHIP(2012,6.3V/10uF,X5R)		CCUC0J106KC	
C8723	nsp	CAP,CHIP(2012,6.3V/10uF,X5R)		CCUC0J106KC	
C8724	nsp	CAP,CHIP(2012,6.3V/10uF,X5R)		CCUC0J106KC	
C8725	nsp	CAP,CHIP(2012,6.3V/10uF,X5R)		CCUC0J106KC	
C8726	nsp	CAP,CHIP(2012,6.3V/10uF,X5R)		CCUC0J106KC	
C8727	nsp	CAP,CHIP(2012,6.3V/10uF,X5R)		CCUC0J106KC	
C8728	nsp	CAP,CHIP(1005,25V/0.01uF)		CCU1E103KC	
C8730	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8731	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8732	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8733	nsp	CAP,CHIP(1005,16V/0.1uF)		CCU1C104KC	
C8904	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8905	00D9430103808	CAP,ELECT(10V/470uF)		CCEA1AH471T	
C8909	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8910	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8912	nsp	CAP,CHIP(1608,50V/100pF)		CCUS1H101JA	
C8913	nsp	CAP,CHIP(1608,50V/100pF)		CCUS1H101JA	
C8914	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8915	nsp	CAP,CHIP(1608,50V/100pF)		CCUS1H101JA	
C8916	nsp	CAP,CHIP(1608,50V/100pF)		CCUS1H101JA	
C8917	nsp	CAP,CHIP(1608,50V/220pF)		CCUS1H221JA	
C8918	nsp	CAP,CHIP(1608,50V/220pF)		CCUS1H221JA	
C8919	nsp	CAP,CHIP(1608,50V/220pF)		CCUS1H221JA	
C8920	nsp	CAP,CHIP(1608,50V/220pF)		CCUS1H221JA	
C8922	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8923	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8924	943134500060S	CAP,ELECT(50V/100uF)		CCEA1HH101T	
C8925	943134500060S	CAP,ELECT(50V/100uF)		CCEA1HH101T	
C8928	943134500060S	CAP,ELECT(50V/100uF)		CCEA1HH101T	
C8929	943134500060S	CAP,ELECT(50V/100uF)		CCEA1HH101T	
C8930	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8931	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8932	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8933	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8934	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8935	943134500060S	CAP,ELECT(50V/100uF)		CCEA1HH101T	
C8936	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8937	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8938	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8939	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8940	943134500060S	CAP,ELECT(50V/100uF)		CCEA1HH101T	
C8941	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8945	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8946	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8952	943134500060S	CAP,ELECT(50V/100uF)		CCEA1HH101T	
C8954	943134500060S	CAP,ELECT(50V/100uF)		CCEA1HH101T	
C8955	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8956	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8957	00D9430175108	CAP,ELECT(50V/10uF)		CCEA1HH100T	
C8958	00D9430175108	CAP,ELECT(50V/10uF)		CCEA1HH100T	
C8959	943134500070S	CAP,ELECT(100V/10uF)		CCEA2AH100T	
C8960	943134500070S	CAP,ELECT(100V/10uF)		CCEA2AH100T	
C8961	943134500070S	CAP,ELECT(100V/10uF)		CCEA2AH100T	
C8962	943134500070S	CAP,ELECT(100V/10uF)		CCEA2AH100T	
C8963	943134500070S	CAP,ELECT(100V/10uF)		CCEA2AH100T	
C8964	943134500070S	CAP,ELECT(100V/10uF)		CCEA2AH100T	
C8965	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8966	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8967	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8968	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8969	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8970	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8971	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8972	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8973	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	
C8974	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	



Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
JK892	943643010150S	JACK,2P(W/R),SEPA-GND,SILVER	1713E3		
JK893	943643010160S	JACK,1P(BK),SEPA-GND,SILVER			
JK901	943643101130S	JACK,3P(YL),SILVER			
L7101	nsp	RES,CHIP(1608/5%/0ohm)			
L7201	nsp	FERRITECHIPBEAD(1608/60R)			
L7202	nsp	FERRITECHIPBEAD(1608/60R)			
L7203	nsp	FERRITECHIPBEAD(1608/60R)			
L7204	nsp	FERRITECHIPBEAD(1608/60R)			
L7205	nsp	FERRITECHIPBEAD(1608/60R)			
L7206	nsp	FERRITECHIPBEAD(1608/60R)			
L7209	nsp	FERRITECHIPBEAD(1608/60R)			
L7210	nsp	FERRITECHIPBEAD(1608/60R)			
L7211	nsp	FERRITECHIPBEAD(1608/60R)			
L7501	nsp	RES,CHIP(1608/5%/0ohm)			
L7502	nsp	RES,CHIP(1608/5%/0ohm)			
L7503	nsp	RES,CHIP(1608/5%/0ohm)			
L7504	nsp	RES,CHIP(1608/5%/0ohm)			
L7505	nsp	RES,CHIP(1608/5%/0ohm)			
L7506	nsp	RES,CHIP(1608/5%/0ohm)			
L7507	nsp	RES,CHIP(1608/5%/0ohm)			
L7508	nsp	RES,CHIP(1608/5%/0ohm)			
L7509	nsp	RES,CHIP(1608/5%/0ohm)			
L7510	nsp	RES,CHIP(1608/5%/0ohm)			
L7511	nsp	RES,CHIP(1608/5%/0ohm)			
L7512	nsp	RES,CHIP(1608/5%/0ohm)			
L7513	nsp	RES,CHIP(1608/5%/0ohm)			
L7514	nsp	RES,CHIP(1608/5%/0ohm)			
L7515	nsp	RES,CHIP(1608/5%/0ohm)			
L7516	nsp	RES,CHIP(1608/5%/0ohm)			
L7517	nsp	FERRITECHIPBEAD(1608/60R)			
L7518	nsp	FERRITECHIPBEAD(1608/60R)			
L7519	nsp	FERRITECHIPBEAD(1608/60R)			
L7520	nsp	FERRITECHIPBEAD(1608/60R)			
L7521	nsp	FERRITECHIPBEAD(1608/60R)			
L7601	nsp	RES,CHIP(1608/5%/0ohm)			
L7602	nsp	RES,CHIP(1608/5%/0ohm)			
L7603	nsp	RES,CHIP(1608/5%/0ohm)			
L7604	nsp	RES,CHIP(1608/5%/0ohm)			
L7605	nsp	RES,CHIP(1608/5%/0ohm)			
L7606	nsp	RES,CHIP(1608/5%/0ohm)			
L7607	nsp	RES,CHIP(1608/5%/0ohm)			
L7608	nsp	RES,CHIP(1608/5%/0ohm)			
L7609	nsp	RES,CHIP(1608/5%/0ohm)			
L7610	nsp	RES,CHIP(1608/5%/0ohm)			
L7611	nsp	RES,CHIP(1608/5%/0ohm)			
L7612	nsp	RES,CHIP(1608/5%/0ohm)			
L7613	nsp	RES,CHIP(1608/5%/0ohm)			
L7614	nsp	RES,CHIP(1608/5%/0ohm)			
L7615	nsp	RES,CHIP(1608/5%/0ohm)			
L7616	nsp	RES,CHIP(1608/5%/0ohm)			
L7617	nsp	RES,CHIP(1608/5%/0ohm)			
L7618	nsp	FERRITECHIPBEAD(1608/60R)			
L7619	nsp	RES,CHIP(1608/5%/0ohm)			
L7620	nsp	RES,CHIP(1608/5%/0ohm)			
L7621	nsp	RES,CHIP(1608/5%/0ohm)			
L7622	nsp	RES,CHIP(1608/5%/0ohm)			
L7623	nsp	RES,CHIP(1608/5%/0ohm)			
L7624	nsp	FERRITECHIPBEAD(1608/60R)			
L7701	nsp	RES,CHIP(1608/5%/0ohm)			
L7702	nsp	RES,CHIP(1608/5%/0ohm)			
L7703	nsp	RES,CHIP(1608/5%/0ohm)			
L7704	nsp	RES,CHIP(1608/5%/0ohm)			
L7705	nsp	RES,CHIP(1608/5%/0ohm)			
L7706	nsp	RES,CHIP(1608/5%/0ohm)			
L7707	nsp	RES,CHIP(1608/5%/0ohm)			
L8301	nsp	FERRITECHIPBEAD(2012/220R)			



Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
L8302	nsp	FERRITECHIPBEAD(2012/220R)		CLZ9R006Z	
L8303	nsp	FERRITECHIPBEAD(2012/220R)		CLZ9R006Z	
L8503	nsp	COIL,CHOKECHIP(2012/180R)		CLZ9Z127Z	
L8504	nsp	COIL,CHOKECHIP(2012/90R)		CLZ9Z128Z	
L8505	nsp	COIL,CHOKECHIP(2012/90R)		CLZ9Z128Z	
L8506	nsp	FERRITECHIPBEAD(2012/220R)		CLZ9R006Z	
L8507	nsp	FERRITECHIPBEAD(2012/220R)		CLZ9R006Z	
L8508	nsp	FERRITECHIPBEAD(2012/220R)		CLZ9R006Z	
L8509	nsp	FERRITECHIPBEAD(2012/220R)		CLZ9R006Z	
L8511	nsp	FERRITECHIPBEAD(2012/220R)		CLZ9R006Z	
L8601	nsp	FERRITECHIPBEAD(2012/220R)		CLZ9R006Z	
L8602	nsp	FERRITECHIPBEAD(2012/220R)		CLZ9R006Z	
L8603	nsp	FERRITECHIPBEAD(2012/220R)		CLZ9R006Z	
L8604	nsp	FERRITECHIPBEAD(2012/220R)		CLZ9R006Z	
L8605	nsp	FERRITECHIPBEAD(2012/220R)		CLZ9R006Z	
L8607	nsp	FERRITECHIPBEAD(2012/220R)		CLZ9R006Z	
L8701	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
L8702	nsp	RES,CHIP(1608/5%/0ohm)		CRJ10DJ0R0T	
L8901	nsp	FERRITECHIPBEAD(1608/60R)		CLZ9R005Z	
X7201	943141100600S	X-TAL,SMD3.2X2.5,28.636MHz,12PF		COX28636I120ST	*
X7601	943141100610S	X-TAL,SMD3.2X2.5,12.000MHz,10PF		COX12000I100ST	*
X7801	943141100620S	X-TAL,SMD3.2X2.5,24.576MHz,12PF		COX24576I120ST	*
X7901	943141100630S	X-TAL,SMD3.2X2.5,18.750MHz,12PF		COX18750I120ST	*
X8301	943141100640S	X-TAL,SMD3.2X2.5,24.000MHz,8PF		COX24000I080ST	*

