


DENON

Ver. 4

Please refer to the
MODIFICATION NOTICE.

SERVICE MANUAL

MODEL	JP	E3	E2	EK	KA	E1	E1K	E1C
AVR-3311CI		✓						
AVR-3311 			✓					✓

AV SURROUND 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.

SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Before returning the unit to the customer, make sure you make 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 unit is defective.

Be sure to test for leakage current with the AC plug in both polarities, in addition, in each power ON, OFF and STANDBY mode, if applicable.

CAUTION Please heed the points listed below during servicing and inspection.

◎ **Heed the cautions!**

Spots requiring particular attention when servicing, such as the cabinet, parts, chassis, etc., have cautions indicated on labels. Be sure to heed these cautions and the cautions indicated in the handling instructions.

◎ **Caution concerning electric shock!**

(1) An AC voltage is impressed on this set, so touching internal metal parts when the set is energized could cause electric shock. Take care to avoid electric shock, by for example using an isolating transformer and gloves when servicing while the set is energized, unplugging the power cord when replacing parts, etc.

(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 manufacturing parts from sheet metal, there may in some rare cases be burrs on the edges of parts which could cause injury if fingers are moved across them. Use gloves to protect your hands.

◎ **Only use designated parts!**

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

◎ **Be sure to mount parts and arrange the wires as they were originally!**

For safety reasons, some parts use tape, 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 and clamps are used to keep wires away from heating and high voltage parts, so be sure to set everything back as it was originally.

◎ **Inspect for safety after servicing!**

Check that all screws, parts and wires removed or disconnected for servicing have been put back in their original positions, inspect that no parts around the area that has been serviced have been negatively affected, conduct 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 turn the power switch on. Using a 500V insulation resistance tester, check that the inplug and the externally exposed metal parts (antenna terminal, headphones terminal, input terminal, etc.) is 1M Ω or greater. If it is less, the set must be inspected and repaired.

CAUTION Concerning important safety parts

Many of the electric and structural parts used in the set have special safety properties. In most cases these properties are difficult to distinguish by sight, and using 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 parts lists in this service manual. Be sure to replace them with parts with the designated part number.

(1) Schematic diagrams Indicated by the \triangle mark.

(2) Parts lists Indicated by the \triangle mark.

Using parts other than the designated parts could result in electric shock, fires or other dangerous situations.

NOTE FOR SCHEMATIC DIAGRAM

WARNING:

Parts marked with this symbol \triangle have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

CAUTION:

Before returning the unit to the customer, make sure you make 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 unit is defective.

WARNING:

DO NOT return the unit to the customer until the problem is located and corrected.

NOTICE:

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

ALL CAPACITANCE VALUES IN MICRO FARAD. P=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

- Parts for which "nsp" is indicated on this table cannot be supplied.
- When ordering of part, clearly indicate "1" and "I" (i) to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "★" is not illustrated in the exploded view.
- Not including General-purpose Carbon Film Resistor in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)
- Not including General-purpose Carbon Chip Resistor in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)

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

● Resistors

Ex.:

RN	14K	2E	182	G	FR
Type	Shape and performance	Power	Resistance	Allowable error	Others

RD: Carbon	2B: 1/8 W	F: $\pm 1\%$	P: Pulse-resistant type
RC: Composition	2E: 1/4 W	G: $\pm 2\%$	NL: Low noise type
RS: Metal oxide film	2H: 1/2 W	J: $\pm 5\%$	NB: Non-burning type
RW: winding	3A: 1 W	K: $\pm 10\%$	FR: Fuse-resistor
RN: Metal film	3D: 2 W	M: $\pm 20\%$	F: Lead wire forming
RK: Metal mixture	3F: 3 W		
	3H: 5 W		

* Resistance

$\frac{1}{\uparrow} \frac{8}{\uparrow} \frac{2}{\uparrow} \Rightarrow 1800\text{ohm}=1.8\text{kohm}$
 Indicates number of zeros after effective number.
 2-digit effective number.

$\frac{1}{\uparrow} \frac{R}{\uparrow} \frac{2}{\uparrow} \Rightarrow 1.2\text{ohm}$
 1-digit effective number.
 2-digit effective number, decimal point indicated by R.
 : Units: ohm

● Capacitors

Ex.:

CE	04W	1H	3R2	M	BP
Type	Shape and performance	Dielectric strength	Capacity	Allowable error	Others

CE: Aluminum foil electrolytic	0J: 6.3 V	F: $\pm 1\%$	HS: High stability type
CA: Aluminium solid electrolytic	1A: 10 V	G: $\pm 2\%$	BP: Non-polar type
CS: Tantalum electrolytic	1C: 16 V	J: $\pm 5\%$	HR: Ripple-resistant type
CQ: Film	1E: 25 V	K: $\pm 10\%$	DL: For charge and discharge
CK: Ceramic	1V: 35 V	M: $\pm 20\%$	HF: For assuring high frequency
CC: Ceramic	1H: 50 V	Z: $\pm 80\%$	U: UL part
CP: Oil	2A: 100 V	-: -20%	C: CSA part
CM: Mica	2B: 125 V	P: +100%	W: UL-CSA part
CF: Metallized	2C: 160 V	C: $\pm 0.25\text{pF}$	F: Lead wire forming
CH: Metallized	2D: 200 V	D: $\pm 0.5\text{pF}$	
	2E: 250 V	=: Others	
	2H: 500 V		
	2J: 630 V		

* Capacity (electrolyte only)

$\frac{2}{\uparrow} \frac{2}{\uparrow} \frac{2}{\uparrow} \Rightarrow 2200 \mu\text{F}$
 Indicates number of zeros after effective number.
 2-digit effective number.
 · Units: μF .

$\frac{2}{\uparrow} \frac{R}{\uparrow} \frac{2}{\uparrow} \Rightarrow 2.2 \mu\text{F}$
 1-digit effective number.
 2-digit effective number, decimal point indicated by R
 · Units: μF .

* Capacity (except electrolyte)

$\frac{2}{\uparrow} \frac{2}{\uparrow} \frac{2}{\uparrow} \Rightarrow 2200\text{pF}=0.0022 \mu\text{F}$
 Indicates number of zeros after effective number. (More than 2)
 2-digit effective number.
 · Units:pF

$\frac{2}{\uparrow} \frac{2}{\uparrow} \frac{1}{\uparrow} \Rightarrow 220\text{pF}$
 Indicates number of zeros after effective number. (0 or 1)
 2-digit effective number.
 · Units:pF

· When the dielectric strength is indicated in AC,"AC" is included after the dielectric strength value.

TECHNICAL SPECIFICATIONS

□ Audio Section

• Power amplifier

Rated output :

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

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

Output connectors : 6 – 16 Ω

• Analog

Input sensitivity/Input impedance : 200 mV/47 kΩ

Frequency response: 10 Hz – 100 kHz — +1, -3 dB (DIRECT mode)

S/N: 102 dB (IHF-A weighted, DIRECT mode)

Distortion: 0.005 % (20 Hz ~ 20 kHz) (DIRECT mode)

Rated output: 1.2 V

• Digital

D/A output: Rated output — 2 V (at 0 dB playback)

Total harmonic distortion — 0.008 % (1 kHz, at 0 dB)

S/N ratio — 102 dB

Dynamic range — 100 dB

Digital input: Format — Digital audio interface

• Phono equalizer (PHONO input — REC OUT)

Input sensitivity: 2.5 mV

RIAA deviation: ±1 dB (20 Hz to 20 kHz)

S/N: 74 dB (A weighting, with 5 mV input)

Rated output: 150 mV

Distortion factor: 0.03 % (1 kHz, 3 V)

□ Video Section

• Standard video connectors

Input/output level and impedance : 1 Vp-p, 75 Ω

Frequency response : 5 Hz – 10 MHz — +1, -3 dB

• Color component video connector

Input/output level and impedance :

Y (brightness) signal — 1 Vp-p, 75 Ω

P_B / C_B signal — 0.7 Vp-p, 75 Ω

P_R / C_R signal — 0.7 Vp-p, 75 Ω

Frequency response : 5 Hz – 60 MHz — +0, -3 dB (when "Video Convert" set to "OFF")

□ HD Radio section (for E3)

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

Receiving Range :

[FM] 87.5 MHz – 107.9 MHz [AM] 530 kHz – 1710 kHz

Usable Sensitivity :

[FM] 1.5 μV (14.8 dBf) [AM] 20 μV

S/N (IHF-A) :

[FM] MONO 78 dB [AM]

STEREO 68 dB

HD 85 dB 85 dB

Total harmonic Distortion (at 1 kHz) :

[FM] MONO 0.1 % [AM]

STEREO 0.2 %

HD 0.02 % 0.02 %

□ Tuner section (for E2, E1C)

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

Receiving Range :

[FM] 87.5 MHz – 108.0 MHz [AM] 522 kHz – 1611 kHz

Usable Sensitivity :

[FM] 1.2 μV (12.8 dBf) [AM] 18 μV

50 dB Quieting Sensitivity :

[FM] MONO 2.0 μV (17.3 dBf)

STEREO 42 μV (34.5 dBf)

S/N (IHF-A) :

[FM] MONO 72 dB

STEREO 67 dB

Total harmonic Distortion (at 1 kHz) :

[FM] MONO 0.3 %

STEREO 0.7 %

□ General

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

AC 230 V, 50 Hz (for E2)

AC 220 V, 50 Hz (for E1C)

Power consumption :

670 W

0.1 W (Standby)

2.2 W (CEC standby)

Maximum external dimensions :

434 (W) x 171 (H) x 381 (D) mm (17-3/32" x 6-47/64" x 15")

Weight : 12.2 kg (26 lbs 14.3 oz)

□ Remote Control Unit (RC-1146)

Batteries : R6/AA Type (two batteries)

Maximum external dimensions :

53 (W) x 224 (H) x 28 (D) mm (2-3/32" x 8-13/16" x 1-7/64")

Weight : 160 g (5.6 oz, including batteries)

□ Remote Control Unit (RC-1148)

Batteries : R03/AAA Type (two batteries)

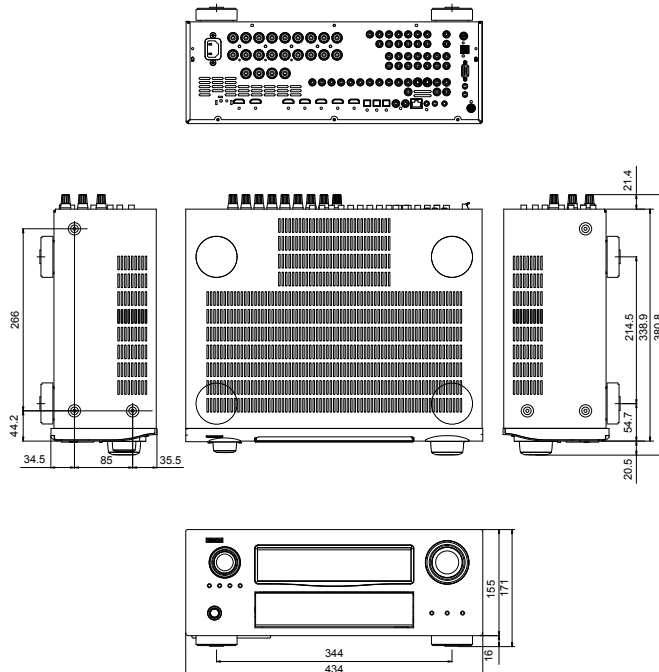
Maximum external dimensions :

49 (W) x 220 (H) x 24.5 (D) mm (1-59/64" x 8-21/32" x 31/32")

Maximum external dimensions :

114 g (Approx 4 oz, including batteries)

DIMENSION



CAUTION IN SERVICING

Before the Digital P.W.B. are replaced

If you cannot specify the cause of the digital PWB defect, carry out "Initializing" → "Update to latest firmware".
The defect may be cleared.

- See the following for the method of initializing the μ com.

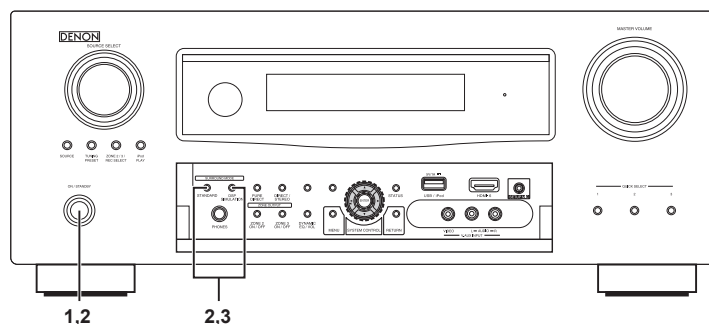
Initializing AV SURROUND RECEIVER

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

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

Note:

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



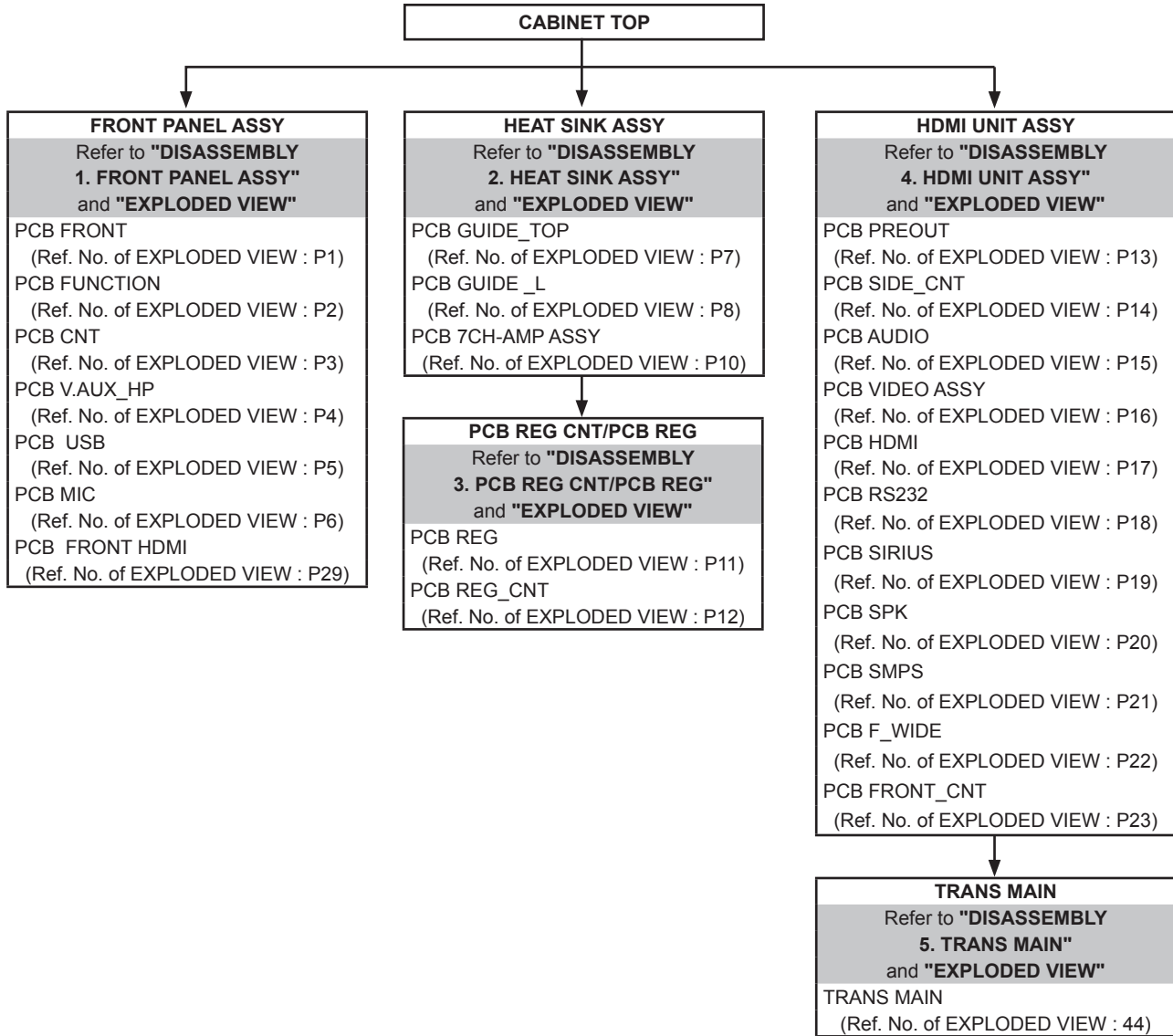
Service Jigs

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

8U-110084S : EXTENSION UNIT KIT : 1 Set
(Refer to 21 page)

DISASSEMBLY

- Disassemble in order of the arrow of the figure of following flow.
- In the case of the re-assembling, assemble it in order of the reverse of the following flow.
- In the case of the re-assembling, observe "attention of assembling" it.
- If wire bundles are untied or moved to perform adjustment or parts replacement 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.

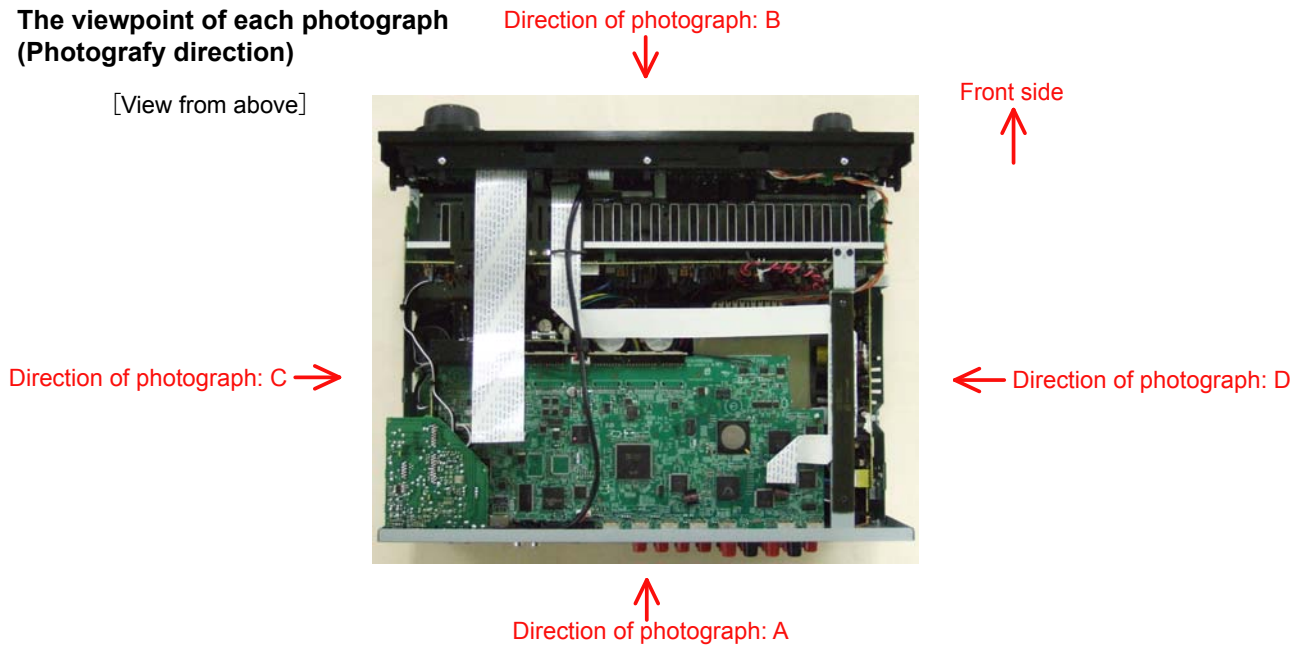


About the photos used for descriptions in the "DISASSEMBLY" section.

- The direction from which the photographs used herein were photographed is indicated at "Direction of photograph: ****" at the left of the respective photographs.
- Refer to the table below for a description of the direction in which the photos were taken.
- Photographs for which no direction is indicated were taken from above the product.

The viewpoint of each photograph (Photography direction)

[View from above]

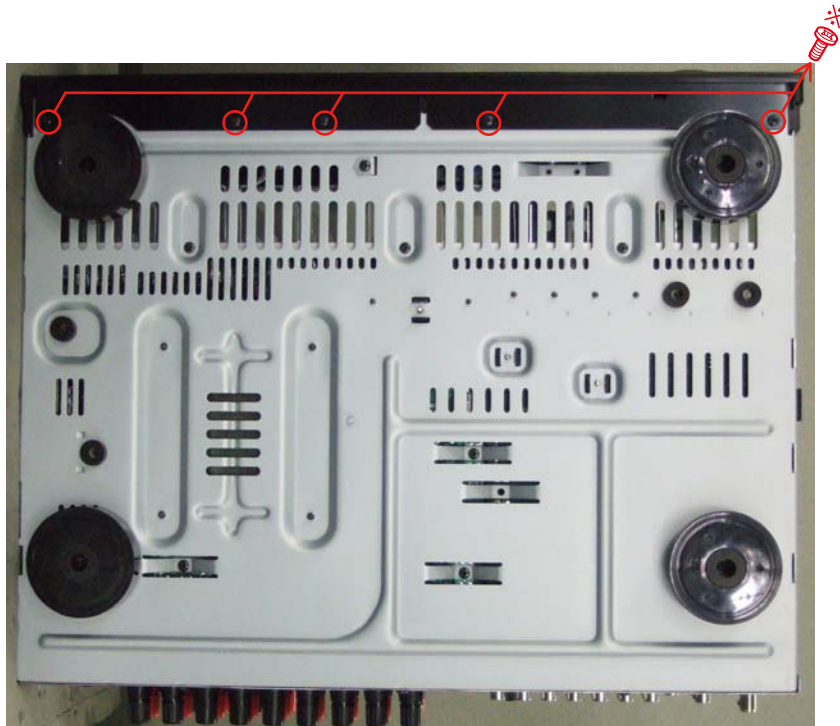


1. FRONT PANEL ASSY

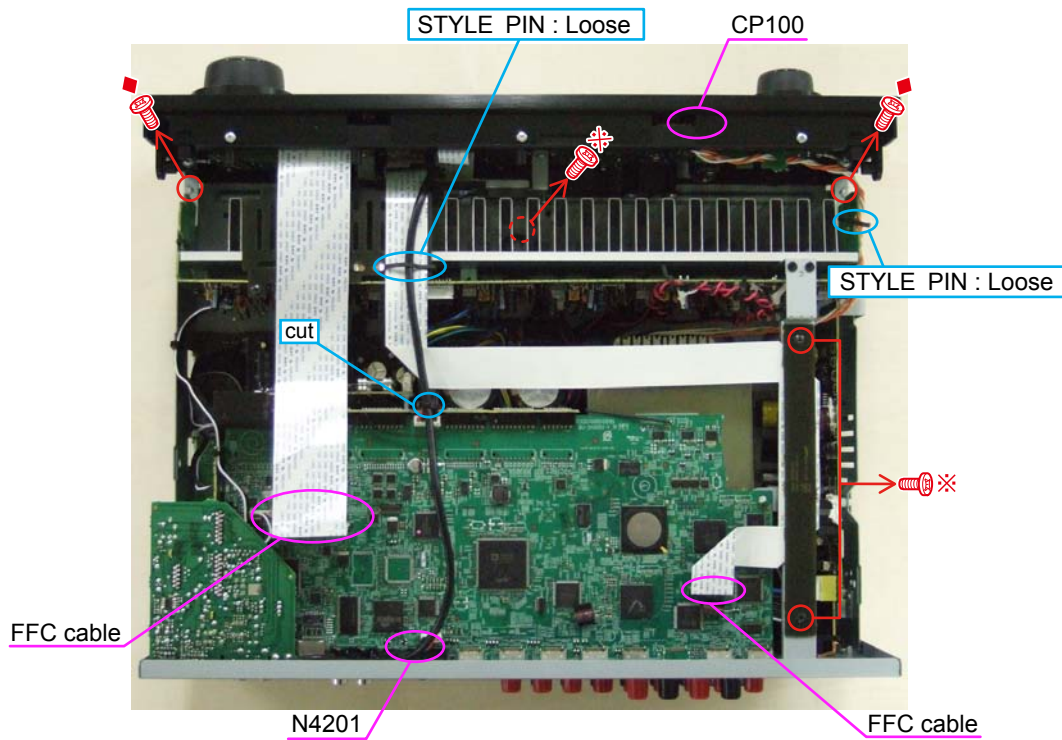
Proceeding : CABINET TOP → FRONT PANEL ASSY

(1) Remove the screws.

View from bottom



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



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

2. HEAT SINK ASSY

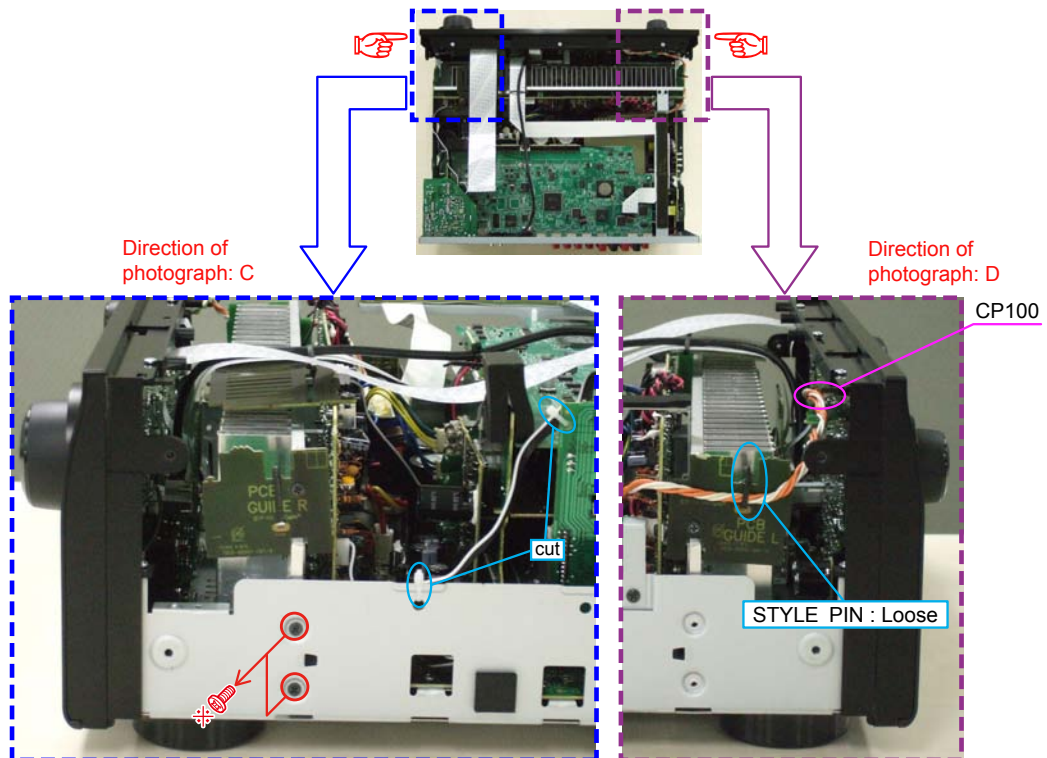
Proceeding : **CABINET TOP** → **HEAT SINK ASSY**

(1) Remove the screws.

View from bottom



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

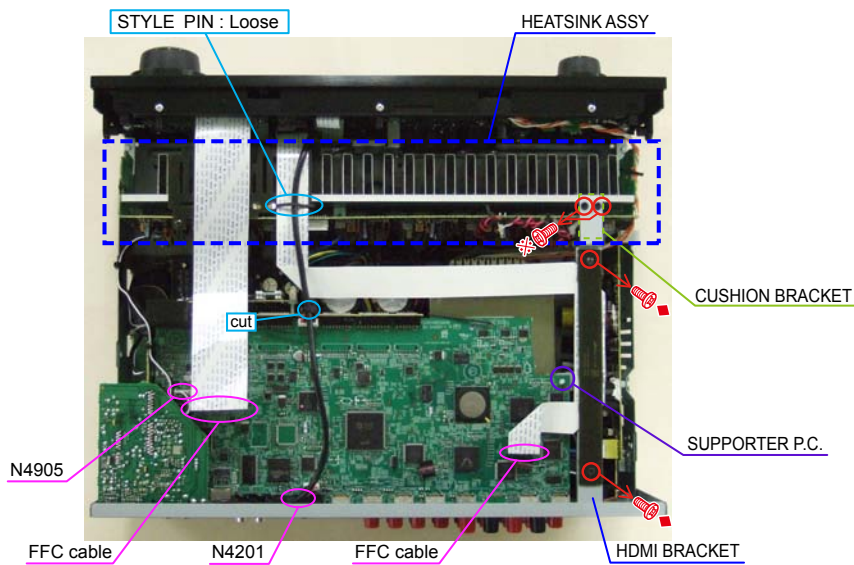


(3) Remove the screws.

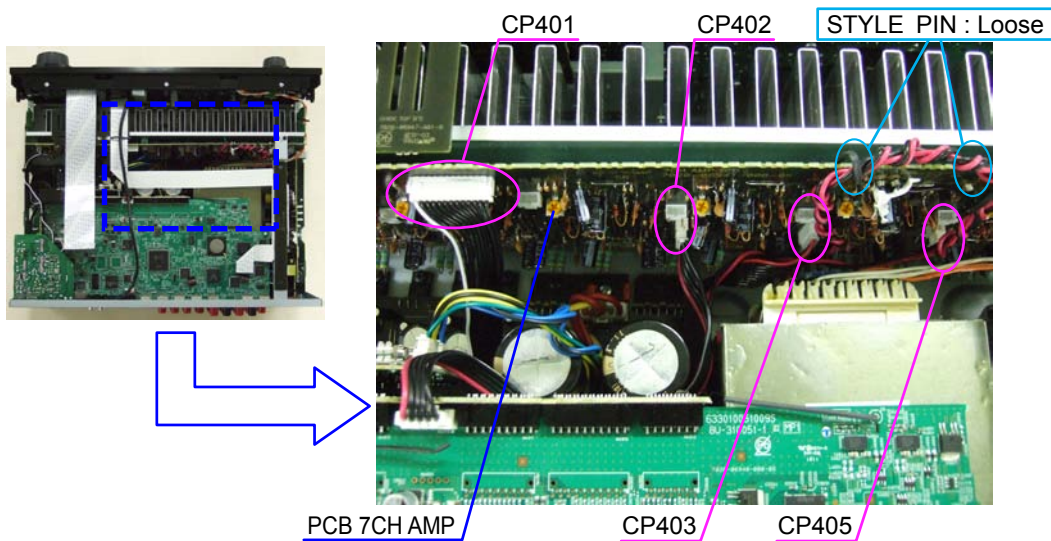
Direction of photograph: A



(4) Cut the wire clamp bands, then disconnect the connector wires and FFC cable. Remove the screws, SUPPORTER P.C. and the HDMI BRACKET.



(5) Disconnect the connector wires.

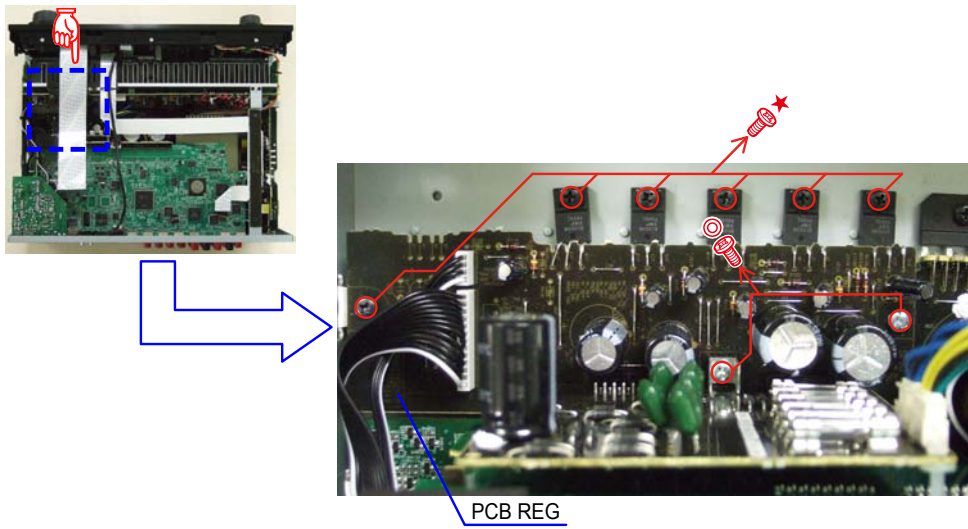


Please refer to "EXPLODED VIEW" for the disassembly method of each P.W.B included in HEAT SINK ASSY.

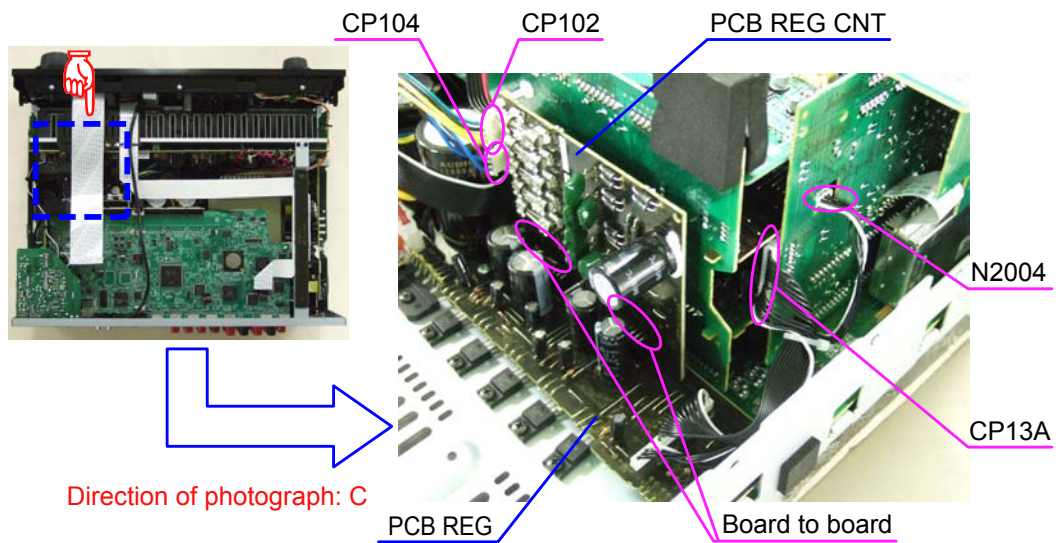
3. PCB REG CNT/PCB REG

Proceeding : **CABINET TOP** → **HEAT SINK ASSY** → **PCB REG CNT/PCB REG**

(1) Remove the screws.



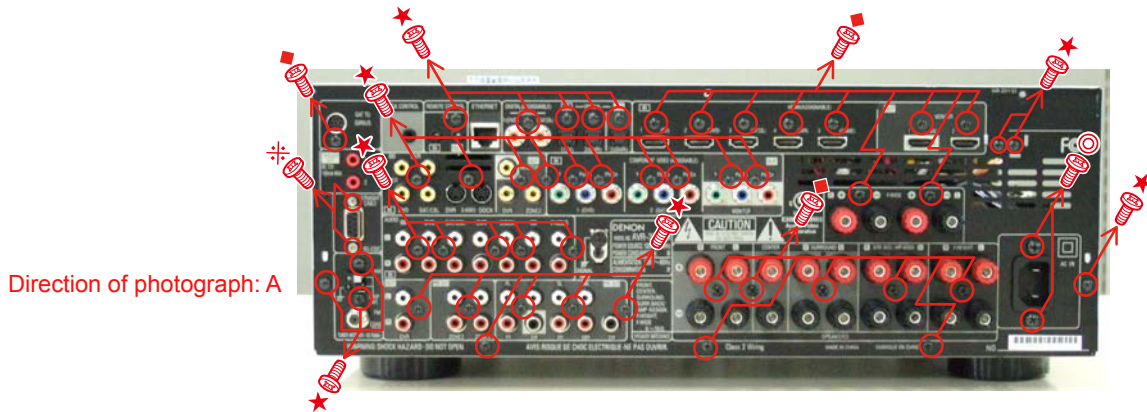
(2) Disconnect the connector wires and connector board.



4. HDMI UNIT ASSY

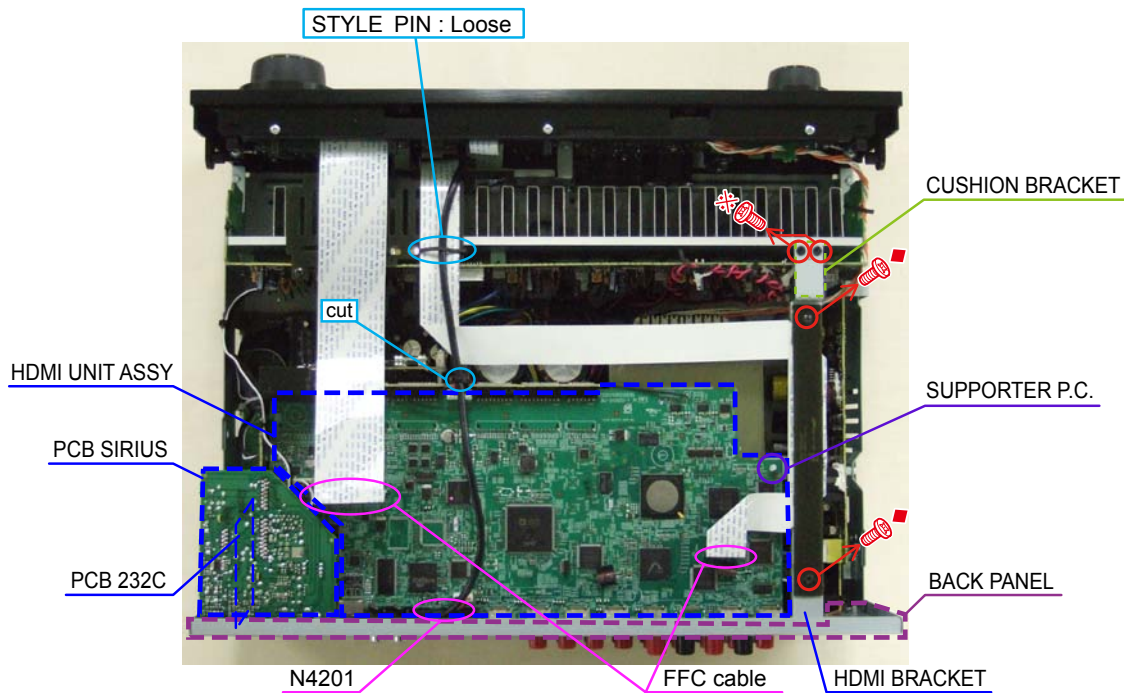
Proceeding : **CABINET TOP** → **HDMI UNIT ASSY**

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

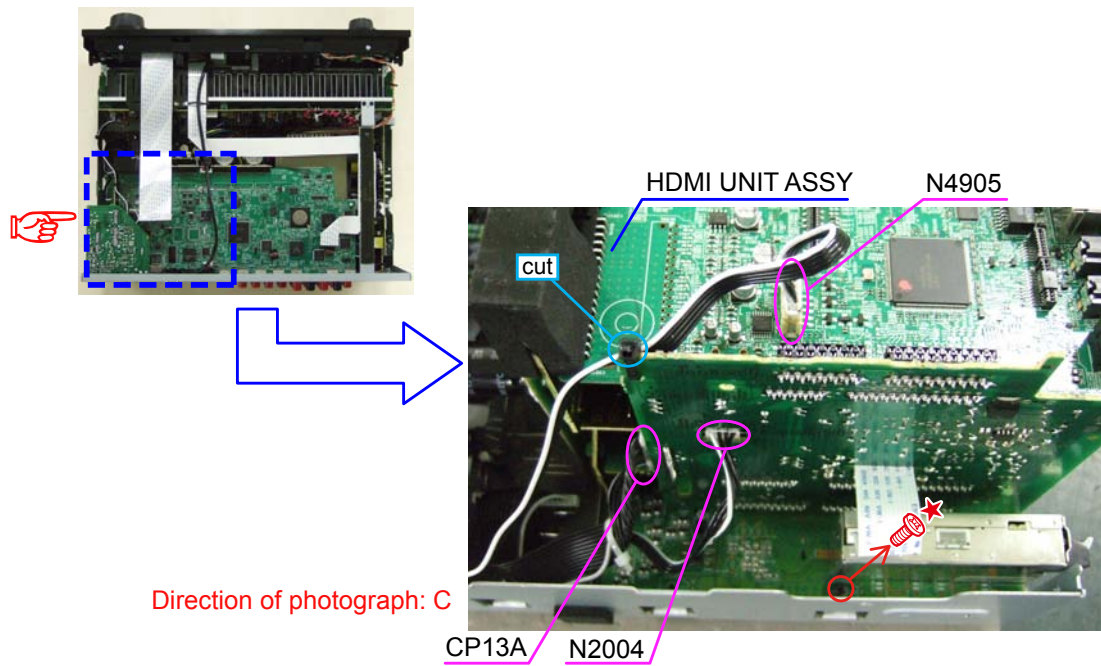


(2) Cut wire clamp band, then disconnect the connector wires and the FFC cables. Remove the screws and the SUPPORTER P.C..

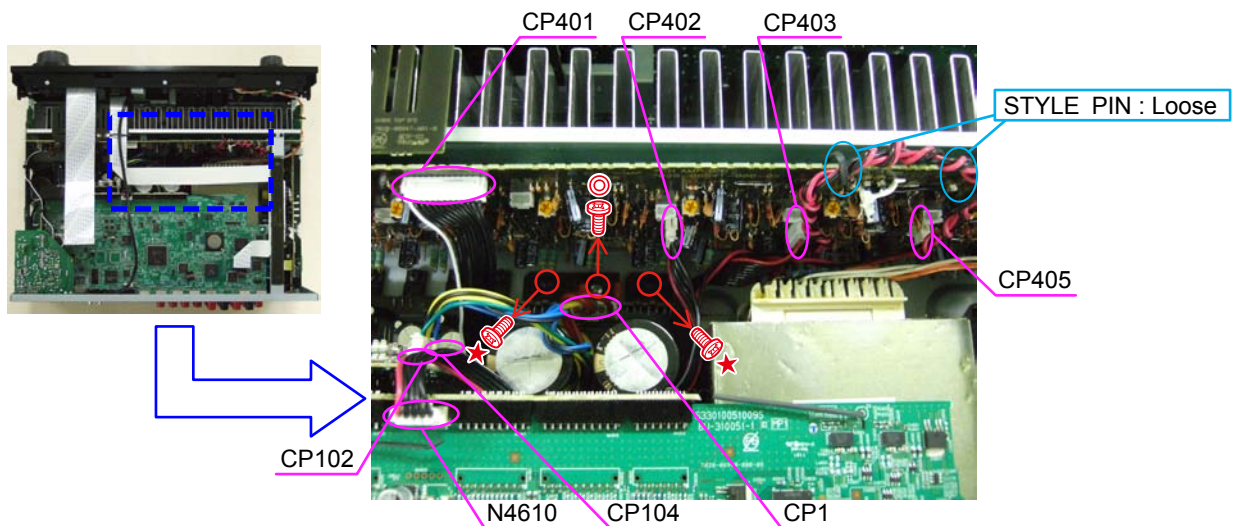
Remove the PCB SIRIUS and the PCB RS232 from the PCB SIDE CNT(Board to board).



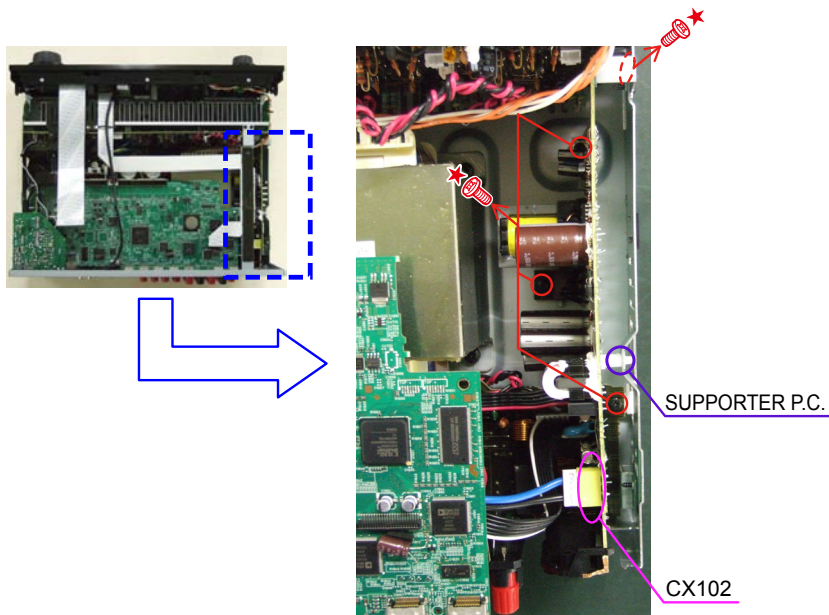
(3) Cut the wire clamp band, then disconnect the connector wires. Remove the screw.



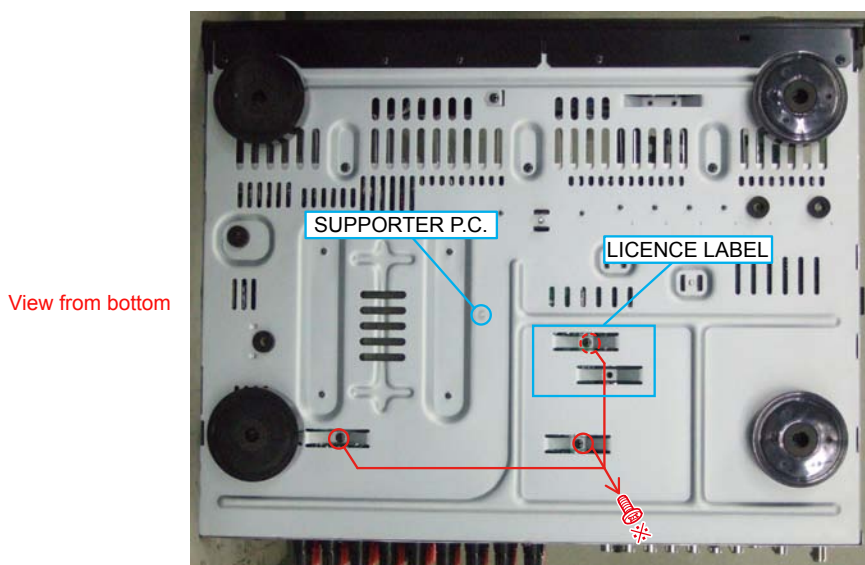
(4) Remove the screws and disconnect the connector.



(5) Disconnect the connector wire, then remove the screws and the SUPPORTER P.C..



(6) Remove the LICENCE LABEL, then remove the screws and SUPPORTER P.C..
Remove the HDMI UNIT ASSY from the main unit.



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

5. TRANS MAIN

Proceeding : **CABINET TOP** → **HDMI UNIT ASSY** → **TRANS MAIN**

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

SPECIAL MODE

Special mode setting button

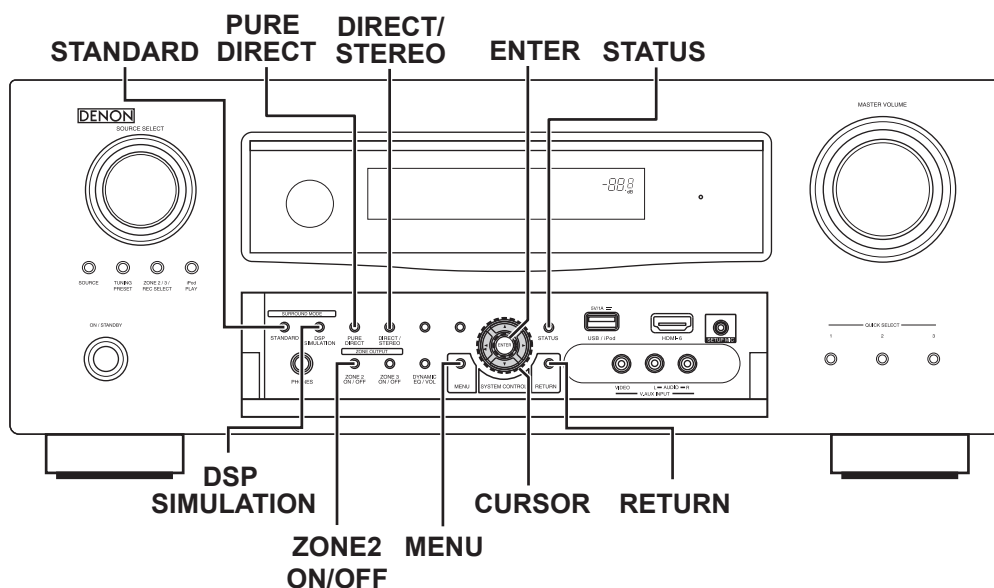
※ Press the ON/STANDBY button to turn on while pressing both buttons A and B at the same time.

Mode	Button A	Button B	Contents
Version display (µcom/DSP Error Display)	STATUS	RETURN	Serial No. and firmware versions such as Main, Sub, DSP are displayed in the FL manager. Errors are displayed when they occur. (Refer to 16 page)
Displaying the protection history mode	STATUS	MENU	Displaying the protection history (Refer to 19 page)
Initialization mode (Remove settings for Installer Setup.)	STANDARD	DSP SIMULATION	Backup data initialization is carried out. (Remove settings for Installer Setup)
Initialization mode (Includes settings for Installer Setup)	CURSOR UP	CURSOR DOWN	Backup data initialization is carried out. (Includes settings for Installer Setup)
Mode for switching tuner frequency step	STANDARD	DIRECT/STEREO	---E2 model only--- Change tuner frequency step to FM:200kHz/AM:10kHzSTEP
Mode for preventing remote control acceptance	STATUS	ENTER	Operations using remote control are rejected. (Mode cancellation: Turn off power and execute the same button operations as when performing setup.)
Panel lock mode	DSP SIMULATION	DIRECT/STEREO	Operations using main unit panel buttons or master volume are rejected.
Panel lock mode (Remove Master volume)	DIRECT/STEREO	PURE DIRECT	Operations using main unit panel buttons are rejected.
Cancellation of panel lock mode	DIRECT/STEREO	ENTER	Panel lock mode is cancelled.
Installer Setup mode	MENU	CURSOR LEFT	Access Remote Maintenance mode via the internet. Installer Setup is displayed on GUI/Option Menu. ※ Refer to AVR_RemoteMaintenance_.pdf of SDI.
Diagnostic mode	CURSOR LEFT	ENTER	This mode is used for confirming the Video and Audio (signal) paths. (Troubleshooting) Confirming the operation of unit can be easily done after repair.

NOTE:

If " S " is displayed on the fluorescent display, the unit is set to the special developer's mode and RS-232C communications are not possible.

Press and hold in the "STATUS" and "▽" buttons for over 3 seconds with the power turned on to turn the " S " display off. RS-232C communications are now enabled.



1. μ com/DSP Version display mode

1.1. Operation specifications

μ com/DSP version display mode:

When started up, the version information is displayed.

Starting up:

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

1.2. Display Order

Error information(Refer to 1.3. Error display) → ①Model destination information → ②Firmware Package Version → ③Main μ -com/ROM version → ④Main 1st Boot Loader → ⑤Sub μ -com/Sub FBL → ⑥DSP version → ⑦Audio PLD → ⑧OSD FPGA Config → ⑨OSD Program → ⑩OSD font data → ⑪Ethernet(DM860) 1st Boot Loader, Hardware ID → ⑫Ethernet(DM860) 2nd Boot Loader, Rhapsody Flag → ⑬Ethernet(DM860) IMAGE → ⑭Ethernet(DM860)MAC ADDRESS information → ⑮HD RADIO SDK/HD RADIO BBP → ⑯iPod Version → ⑰MultEQ Pro APP(Displayed when Audyssey Pro is complete) → ⑱MultEQ Pro ICL(Displayed when Audyssey Pro is complete)

①Model destination information :

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

②Firmware Package Version :

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

③Main μ -com & ROM version :

Upper		M	a	i	n				:	*	*	.	*	*		
Lower		M	a	i	n		R	O	M		:	*	*	.	*	*

④Main 1st Boot Loader :

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

⑤Sub μ -com & Sub FBL :

Upper		S	U	B					:	*	*	.	*	*	
Lower		S	U	B		F	B	L		:	*	*	.	*	*

⑥DSP ROM :

Upper		D	S	P					:	*	*	.	*	*
Lower														

⑦Audio PLD :

Upper	A	U	D	I	O		P	L	D		:	*	*	.	*	*
Lower																

⑧OSD FPGA Config :

Upper	O	S	D		C	O	N	F	I	G	:					
Lower	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

⑨OSD Program :

Upper	O	S	D		P	R	G	:								
Lower	*	*	*	*	*	*	*	*	*	*	*	*				

⑩OSD font data :

Upper	O	S	D		D	A	T	:								
Lower	*	*	*	*	*	*	*	*	*	*	*	*				

⑪Ethernet(DM860) 1st Boot Loader, Hardware ID :

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

⑫Ethernet(DM860) 2nd Boot Loader, Rhapsody Flag :

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

⑬Ethernet(DM860) IMAGE :

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

⑭Ethernet(DM860) MAC ADDRESS information :

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

⑮HD RADIO SDK/HD RADIO BBP (AVR-3311CIE3 only) :

Upper	*	H	D	S	D	K	:				*	*	.	*	*	
Lower	*	H	D	B	B	P	:	C	0	0	0	2	.	0	0	0

⑯iPod Version :

Upper		i	P	o	d		D	o	c	k	:	*	*	.	*	*
Lower																

⑰MultEQ Pro APP(Displayed when Audyssey Pro is complete) :

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

⑱MultEQ Pro ICL(Displayed when Audyssey Pro is complete) :

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

1.3. Error display

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

Display order is ①,②,③,④,⑤.

Condition	State	State
① Sub-μcom NG	No response from Sub-μcom	SUB ERROR 01
② DIR NG	No response from DIR	DIR ERROR 01
③ DSP NG	When DSP boot, executing DSP reset makes no change to DSP1 FLAG0 port "H".	DSP ERROR 01
	No change to DSP FLAG0 port "H" before issuing DSP command.	DSP ERROR 02
	When DSP data read, executing WRITE="L" makes no change to ACK="H".	DSP ERROR 03
	When DSP data read, executing REQ="L" makes no change to ACK="L".	DSP ERROR 04
	When DSP data write, executing WRITE="H" makes no change to ACK="H".	DSP ERROR 05
	When DSP data write, executing REQ="L" makes no change to ACK="L".	DSP ERROR 06
	When DSP special code boot, executing DSP reset makes no change to DSP FLAG0 port "H".	DSP ERROR 11
	No change to DSP FLAG0 port "H" before issuing DSP special read command.	DSP ERROR 12
No change to DSP FLAG0 port "H" before DSP version read.	DSP ERROR 13	
④ EEPROM NG	Error appeared in EEPROM checksum.(*** is a block address number.)	E2PROM ERR***
⑤ Both SUB/DSP /EEPROM OK		(No error display, version display only)

2. Errors checking mode (Displaying the protection history)

2.1. Operation specifications

Error mode (Displaying the protection history):

When started up, the error information is displayed.

Starting up:

●All model commonness

With the "STATUS" and "MENU" buttons pressed, press the "ON/STANDBY" button to turn the power on. 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, a history like the one shown below is displayed, depending on the conditions.

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

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

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

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

Cause: The line between speaker terminals is shorted, or use speakers having impedance less than that specified.

Supplementary information: As the excess current is detected after operation of the speaker relay, the shorted speaker terminal and the connected speaker can be identified.

Turning on the power without correcting the abnormality will cause the protection function to work about 5 seconds later and the power supply will be shut off.

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

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

Cause: DC output of the power amplifier is abnormal.

Turning on the power without correcting the abnormality will cause the protection function to work about 5 seconds later and the power supply will be shut off.

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

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

Cause: The temperature of the heat sink is excessive.

Turning on the power without correcting the abnormality will cause the protection function to work about 5 seconds later and the power supply will be shut off.

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

When the "STATUS" button is pressed again after the above protection history 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 error (protection display) mode, display the error, then press and hold in the "ENTER" button for 3 seconds.

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



Press and hold in the "ENTER" button for 3 seconds.

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



The above is displayed and the protection history is cleared.

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

- (2) Initialize. (Refer to "Initializing AV SURROUND RECEIVER" 5 page.)

※ If you want to save a backup, use 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 in cycles of 0.5 seconds (0.25 seconds lit, 0.25 seconds off)
- (2) THERMAL PROTECTION : Flashes in cycles of 2 seconds (1 second lit, 1 second off)

Confirmation item	Setting and display	Details of how to operate remote controller *a)	Output sequence of remote control codes ※ It is useful to form a macro program. *b)	Contents of confirmation	Remarks
4 fig.4	Analog or HDMI to HDMI (signal) Path Video Convert(IP Scaler) : ON, All Sources IP Scaler : Analog & HDMI , All Sources Resolution : "AUTO", All Sources Display: U 0 2 DVD	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF] 4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF] 6.Press [ZONE SELECT], Select "MAIN" 7.Press [2/ABC] 8.Press [DVD]	①ZONE2 POWER OFF ②ZONE3 POWER OFF ③KEY 2/ABC (Main Zone) Initialization & Video Convert All ON & IP Scaler "Analog & HDMI" ④DVD (Main Zone)	·Input CVBS / Through : IP Scaler / Output : HDMI ·Input S-VIDEO / Through : IP Scaler / Output : HDMI ·Input Component / Through : IP Scaler / Output : HDMI ·Input HDMI / Through : IP Scaler / Output : HDMI (※ As the input source, you can switch from DVD to other ones.)	Confirm the input pass one by one. Because it becomes only the input of the highest input becomes Convert/IP Scaler (signal) Path if it inputs it at the same time. (HDMI input > Component input > S-VIDEO input > CVBS input)
5 fig.5	OSD FUNCTION Video Convert(IP Scaler) : ON, All Sources IP Scaler : Analog & HDMI , All Sources Resolution : "AUTO", All Sources Menu : ON All ZONE :ON Display: U 0 2 DVD	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF] 4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF] 6.Press [ZONE SELECT], Select "MAIN" 7.Press [2/ABC] 8.Press [ZONE SELECT], Select "ZONE2" 9.Press [ZONE ON] 10.Press [ZONE SELECT], Select "ZONE3" 11.Press [ZONE ON] 12.Press [ZONE SELECT], Select "MAIN" 13.Press [DVD] 14.Press [AMP] 15.Press [MENU] 16.Press [ZONE SELECT], Select "ZONE2" 17.Press [MENU]	①ZONE2 POWER OFF ②ZONE3 POWER OFF ③KEY 2/ABC (Main Zone) Initialization & Video Convert All ON & IP Scaler "Analog & HDMI" ④ZONE2 POWER ON ⑤ZONE3 POWER ON ⑥DVD (Main Zone) ⑦GUI MENU (Main Zone) ⑧ZONE2 MENU	·OSD Display / Output : CVBS ·OSD Display / Output : CVBS ZONE2 ·OSD Display / Output : Component ·OSD Display / Output : HDMI (※ As the input source, you can switch from DVD to other ones.)	Connect HDMI Monitor OUT / Output : OSD from HDMI No connect HDMI Monitor OUT / Output : OSD from Component No output other terminal. ※ AVR2311/3311 are nothing ZONE2 OSD
6 fig.6	CEC FUNCTION (Control Monitor : HDMI Monitor1) HDMI Control : ON Control Monitor Monitor1 (When checking the HDMI Monitor Out1) Display: U 0 3 DVD	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF] 4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF] 6.Press [ZONE SELECT], Select "MAIN" 7.Press [3/DEF] 8.Press [DVD]	①ZONE2 POWER OFF ②ZONE3 POWER OFF ③KEY 3/DEF (Main Zone) Initialization & CEC Control ON & Select Control Monitor 1 ④DVD (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.)	
8 fig.8	HDMI Audio (signal) Path (Audio : AMP) Audio : AMP(When checking the audio output from AMP) Display: U 0 5 DVD	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF] 4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF] 6.Press [ZONE SELECT], Select "MAIN" 7.Press [5/JKL] 8.Press [DVD]	①ZONE2 POWER OFF ②ZONE3 POWER OFF ③KEY 5/JKL (Main Zone) Initialization & Select Audio AMP ④DVD (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.)	
9 fig.9	HDMI Audio (signal) Path (Audio : TV) Audio : TV(When checking the audio output from TV) Display: U 0 6 DVD	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF] 4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF] 6.Press [ZONE SELECT], Select "MAIN" 7.Press [6/MNO] 8.Press [DVD]	①ZONE2 POWER OFF ②ZONE3 POWER OFF ③KEY 6/MNO (Main Zone) Initialization & Audio Select TV ④DVD (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.)	

3.5. Audio system confirmation items

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

Confirmation item	Setting and display	Details of how to operate remote controller	Output sequence of remote control codes ※ It is useful to form a macro program.	Contents of confirmation	Remarks
1 Analog (signal) Path fig.10	Input Mode : Fixed ANALOG SURROUND mode : DIRECT Amp assign : NORMAL Display: A 0 1 DVD	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF] 4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF] 6.Press [ZONE SELECT], Select "MAIN" 7.Press [7/PQRS]	①ZONE2 POWER OFF ②ZONE3 POWER OFF ③KEY 7/PQRS (Main Zone) Initialization & Amp assign NORMAL& Input Mode Fixed ANALOG & SURROUND mode DIRECT ④DVD (Main Zone)	·Input : Analog / Output : Speakers (Front L/R) ·Input : Analog / Output : Pre OUT(Front L/R) (※ As the input source, you can switch from DVD to other ones.)	
2 DIGITAL (signal) Path (MAIN) fig.11	Input Mode : Fixed DIGITAL Amp assign : NORMAL Display: A 0 2 DVD	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF] 4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF] 6.Press [ZONE SELECT], Select "MAIN" 7.Press [8/TUV]	①ZONE2 POWER OFF ②ZONE3 POWER OFF ③KEY 8/TUV (Main Zone) Initialization & Amp assign NORMAL& Input Mode Fixed DIGITAL ④DVD (Main Zone)	·Input : Digital / Output : Speakers (Front L/R) ·Input : Digital / Output : Pre OUT(Front L/R) (※ As the input source, you can switch from DVD to other ones.)	
3 DIGITAL (signal) Path (ZONE2) fig.12	Input Mode : Fixed DIGITAL Amp assign : ZONE2 ZONE2 Function : Source Display: A 0 3 DVD	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF] 4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF] 6.Press [ZONE SELECT], Select "MAIN" 7.Press [9/WXYZ]	①ZONE2 POWER OFF ②ZONE3 POWER OFF ③KEY9/WXYZ (Main Zone) Initialization & Amp assign ZONE2 & Input Mode Fixed DIGITAL ④ZONE2 POWER ON ⑤DVD (Main Zone)	·Input : Digital / Output : Speakers (SURR BACK L/R) ·Input : Digital / Output : Pre OUT(ZONE2 L/R) (※ As the input source, you can switch from DVD to other ones.)	only AV3311/991
4 DIGITAL (signal) Path (ZONE3) fig.13	Input Mode : Fixed DIGITAL Amp assign : ZONE3 ZONE3 Function : Source Display: A 0 4 DVD	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF] 4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF] 6.Press [ZONE SELECT], Select "MAIN" 7.Press [0/_*]	①ZONE2 POWER OFF ②ZONE3 POWER OFF ③KEY 0/CODE2 (Main Zone) Initialization & Amp assign ZONE3 & Input Mode Fixed DIGITAL ④ZONE3 POWER ON ⑤DVD (Main Zone)	·Input : Digital / Output : Speakers (SURR BACK L/R) ·Input : Digital / Output : Pre OUT(ZONE3 L/R) (※ As the input source, you can switch from DVD to other ones.)	only AVR3311
5 HDMI (signal) Path fig.14	Input Mode : Fixed HDMI Amp assign : NORMAL Display: A 0 5 DVD	1.Press [AMP] 2.Press [ZONE SELECT] , Select "ZONE2" 3.Press [ZONE OFF] 4.Press [ZONE SELECT], Select "ZONE3" 5.Press [ZONE OFF] 6.Press [ZONE SELECT], Select "MAIN" 7.Press [MULTEQ]	①ZONE2 POWER OFF ②ZONE3 POWER OFF ③MULTEQ Select Initialization & Amp assign NORMAL & Input Mode Fixed HDMI ④DVD (Main Zone)	·Input : HDMI / Output : Speakers (Front L/R) ·Input : HDMI / Output : Pre OUT(Front L/R) (※ As the input source, you can switch from DVD to other ones.)	

BLOCK DIAGRAM 

fig.1

VIDEO BLOCK DIAGRAM

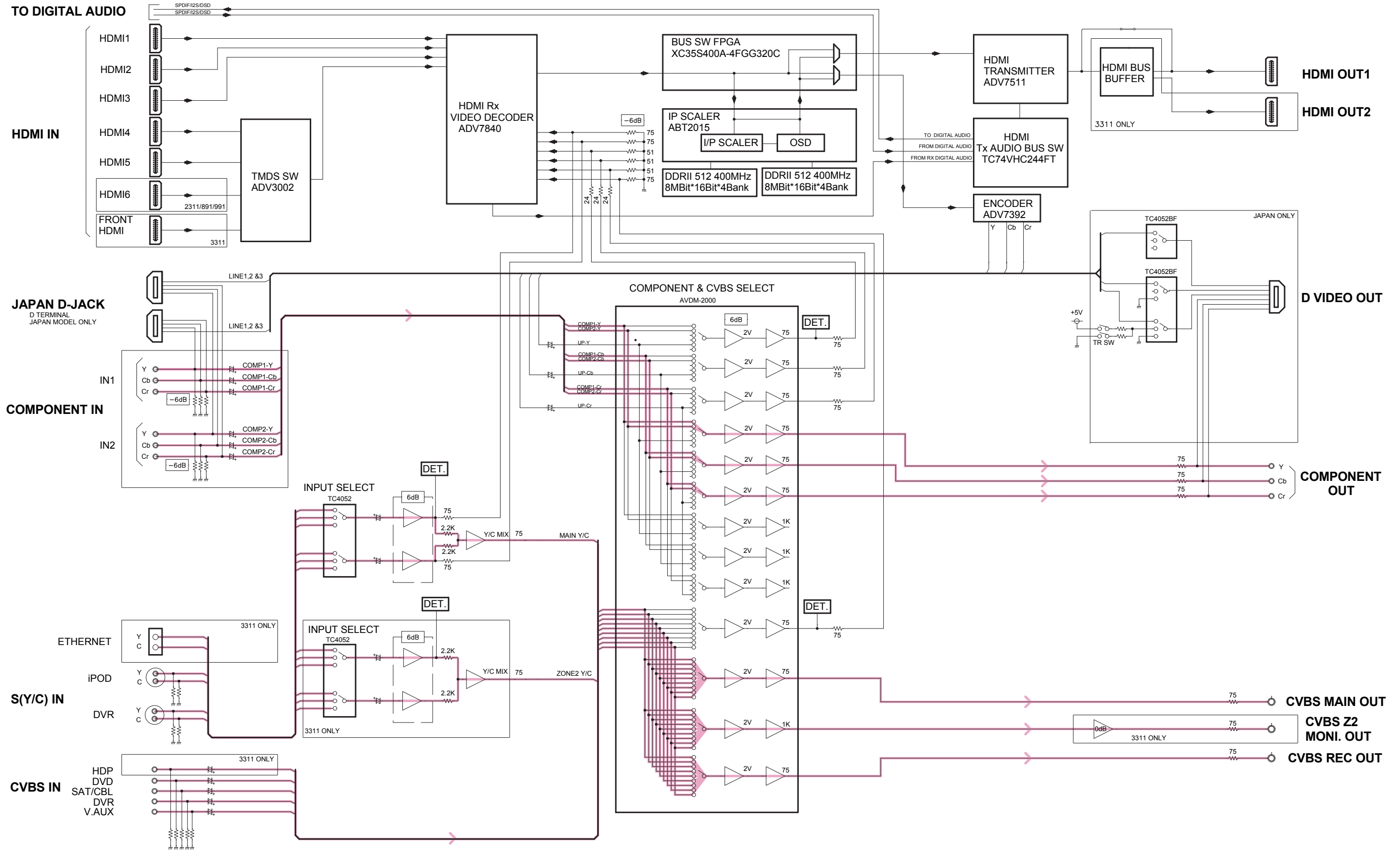


fig.2

VIDEO BLOCK DIAGRAM

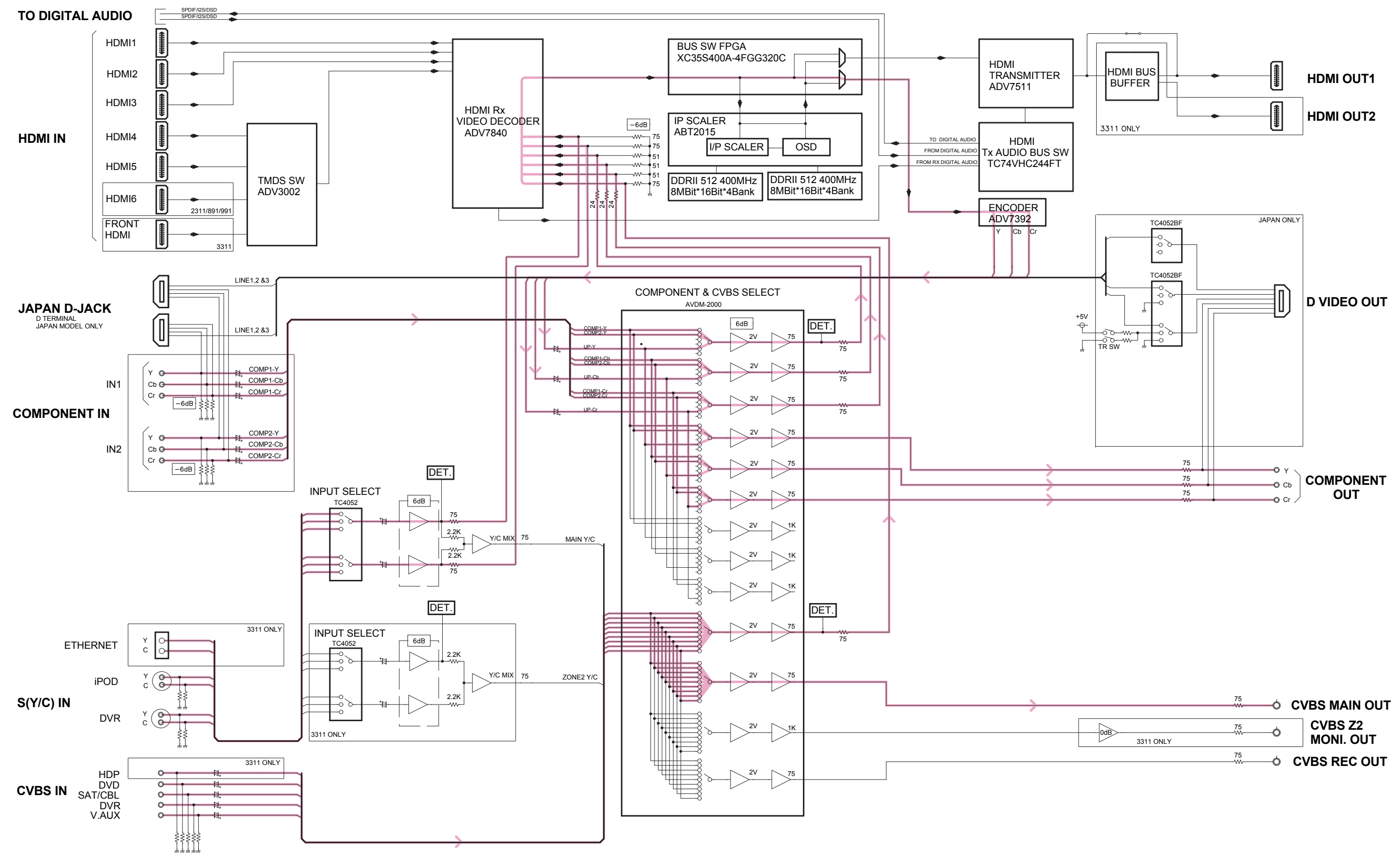


fig.3

VIDEO BLOCK DIAGRAM

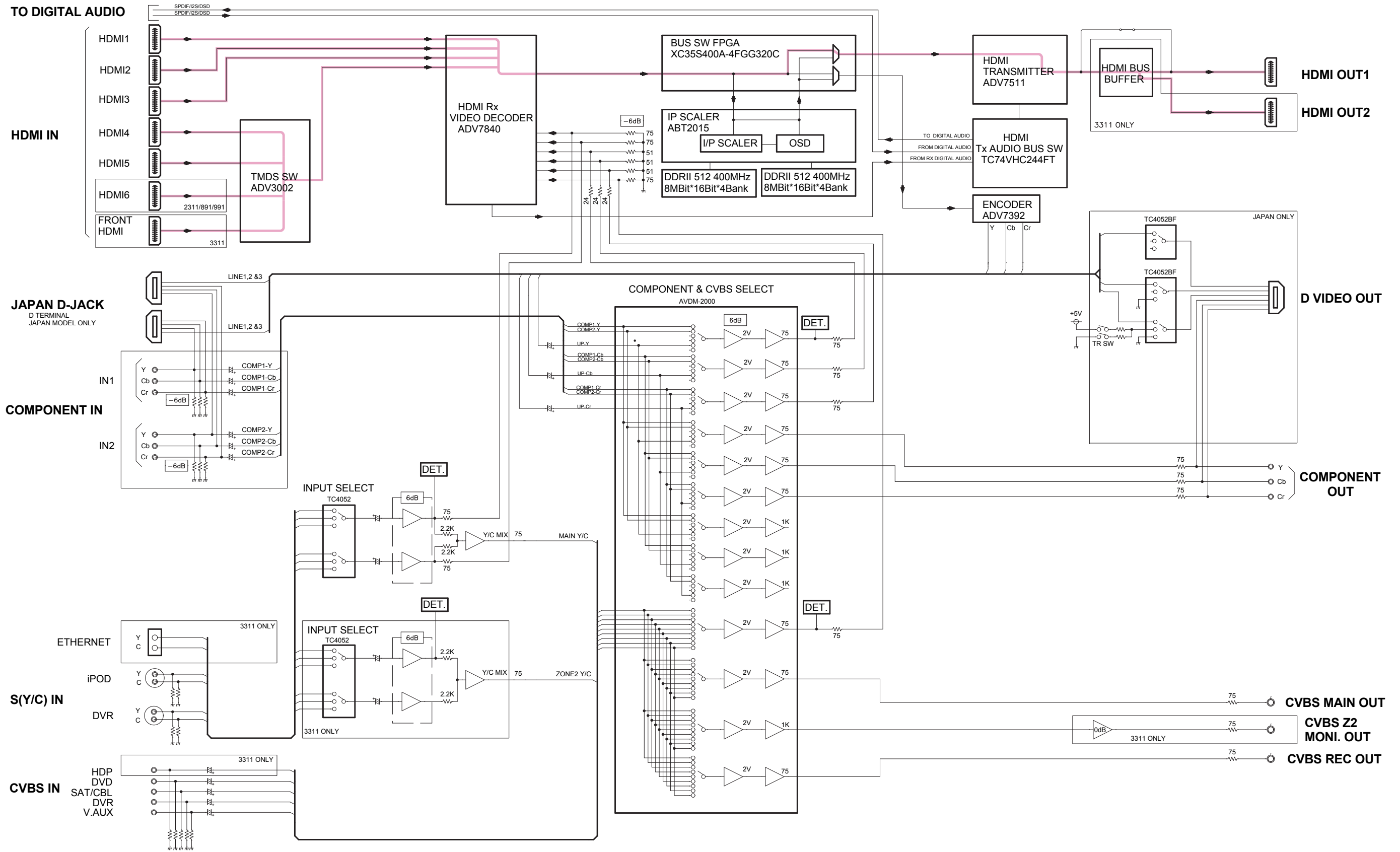


fig.4

VIDEO BLOCK DIAGRAM

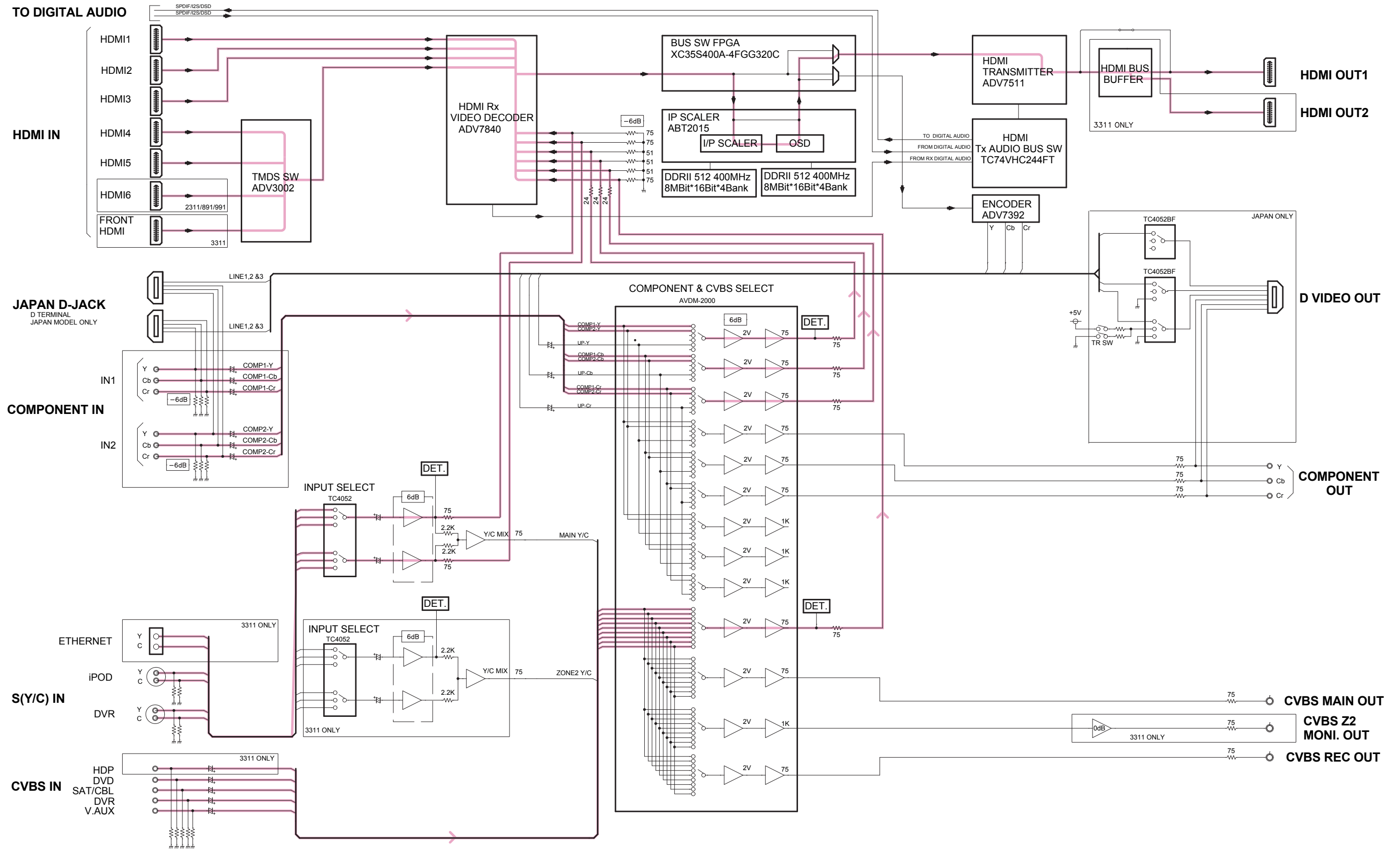


fig.5

VIDEO BLOCK DIAGRAM

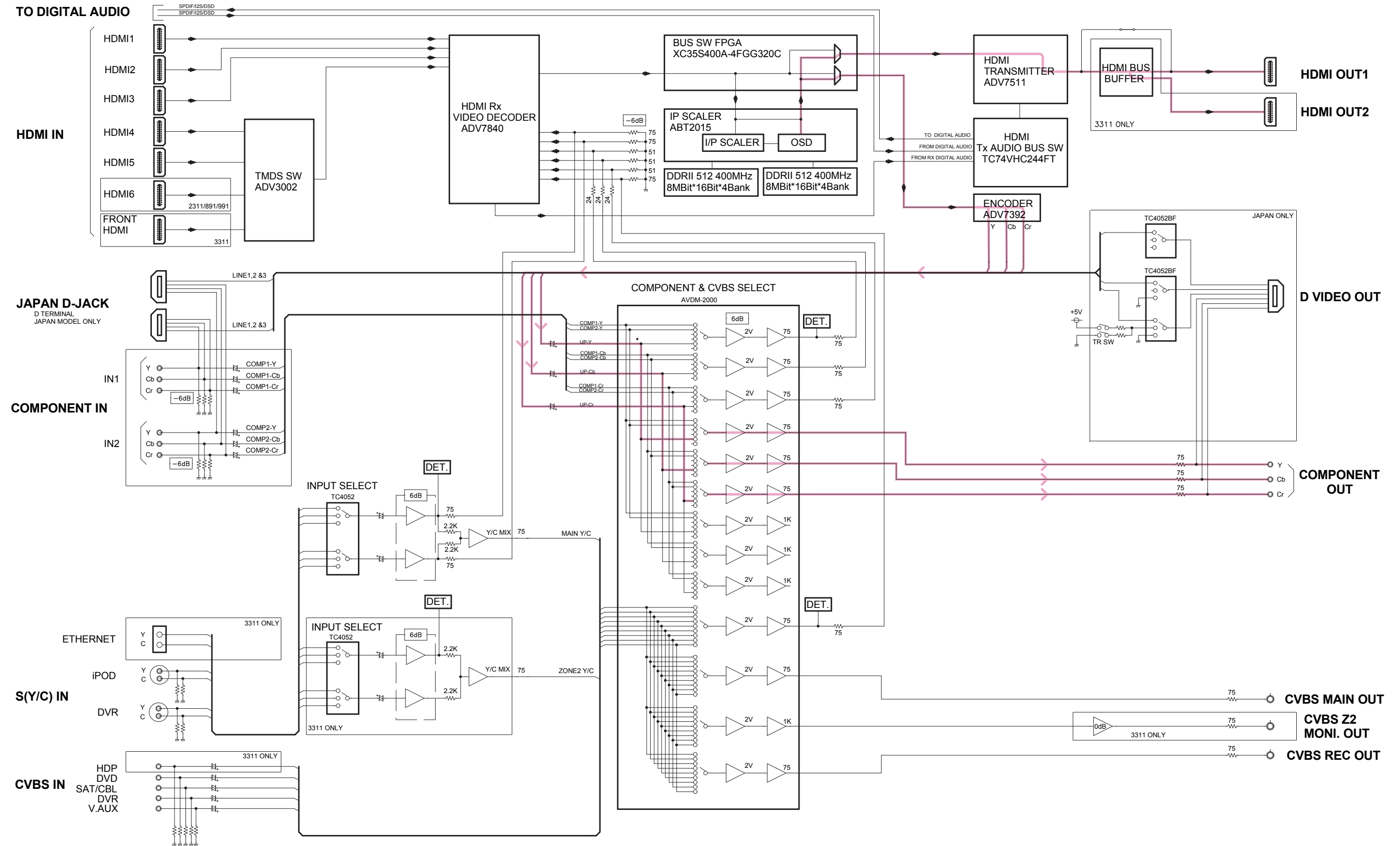


fig.6

VIDEO BLOCK DIAGRAM

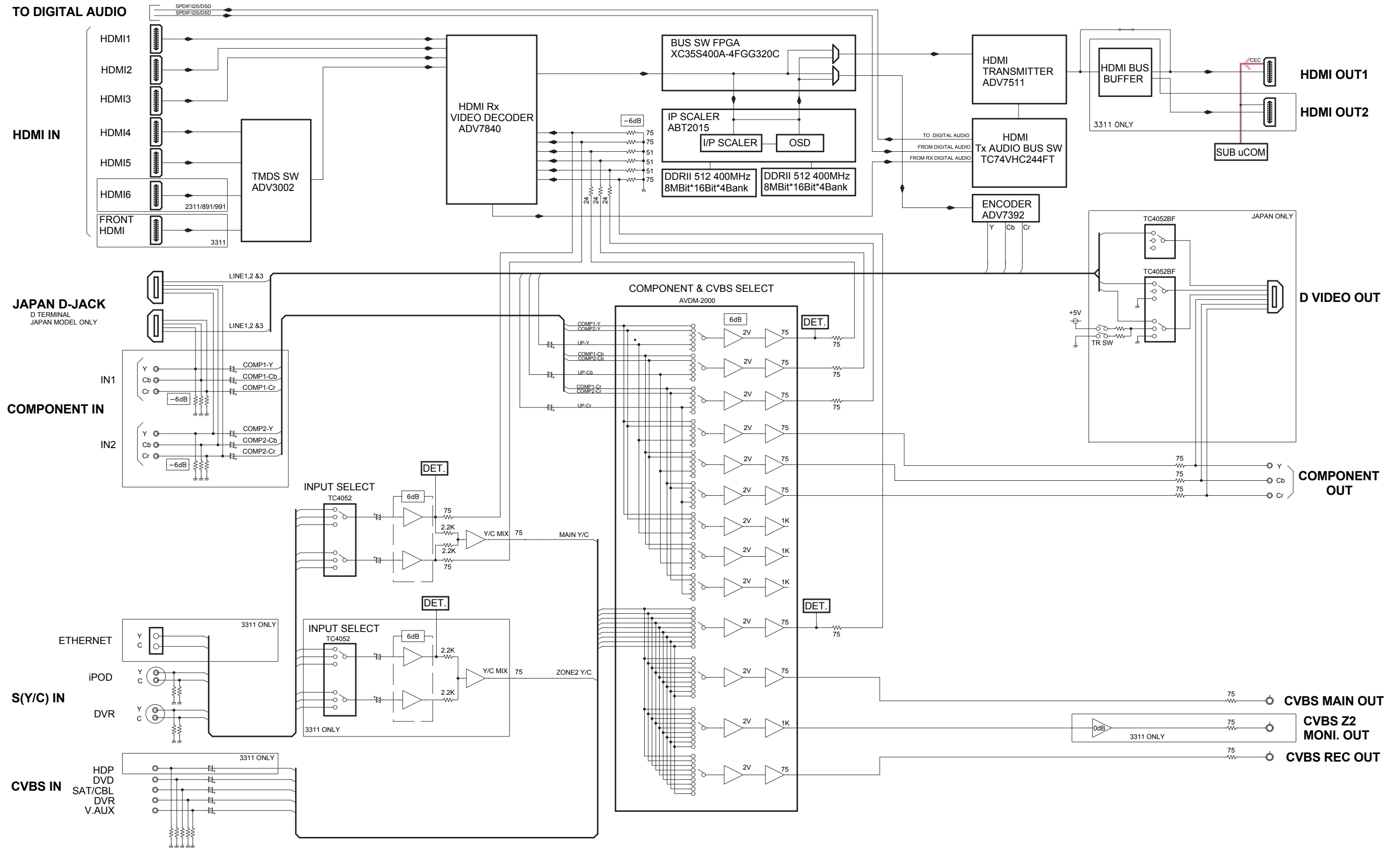


fig.8

AUDIO BLOCK DIAGRAM

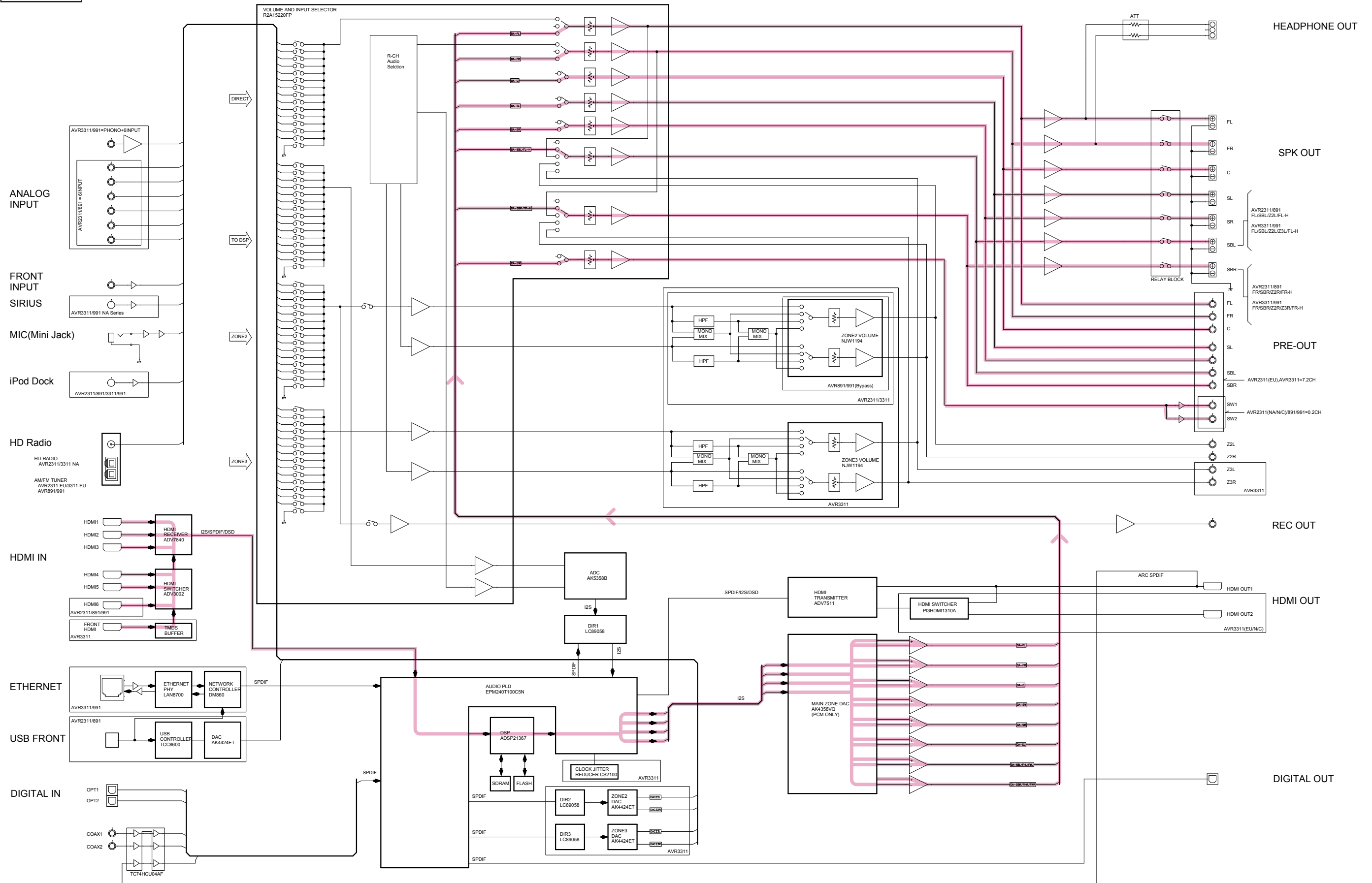


fig.9

AUDIO BLOCK DIAGRAM

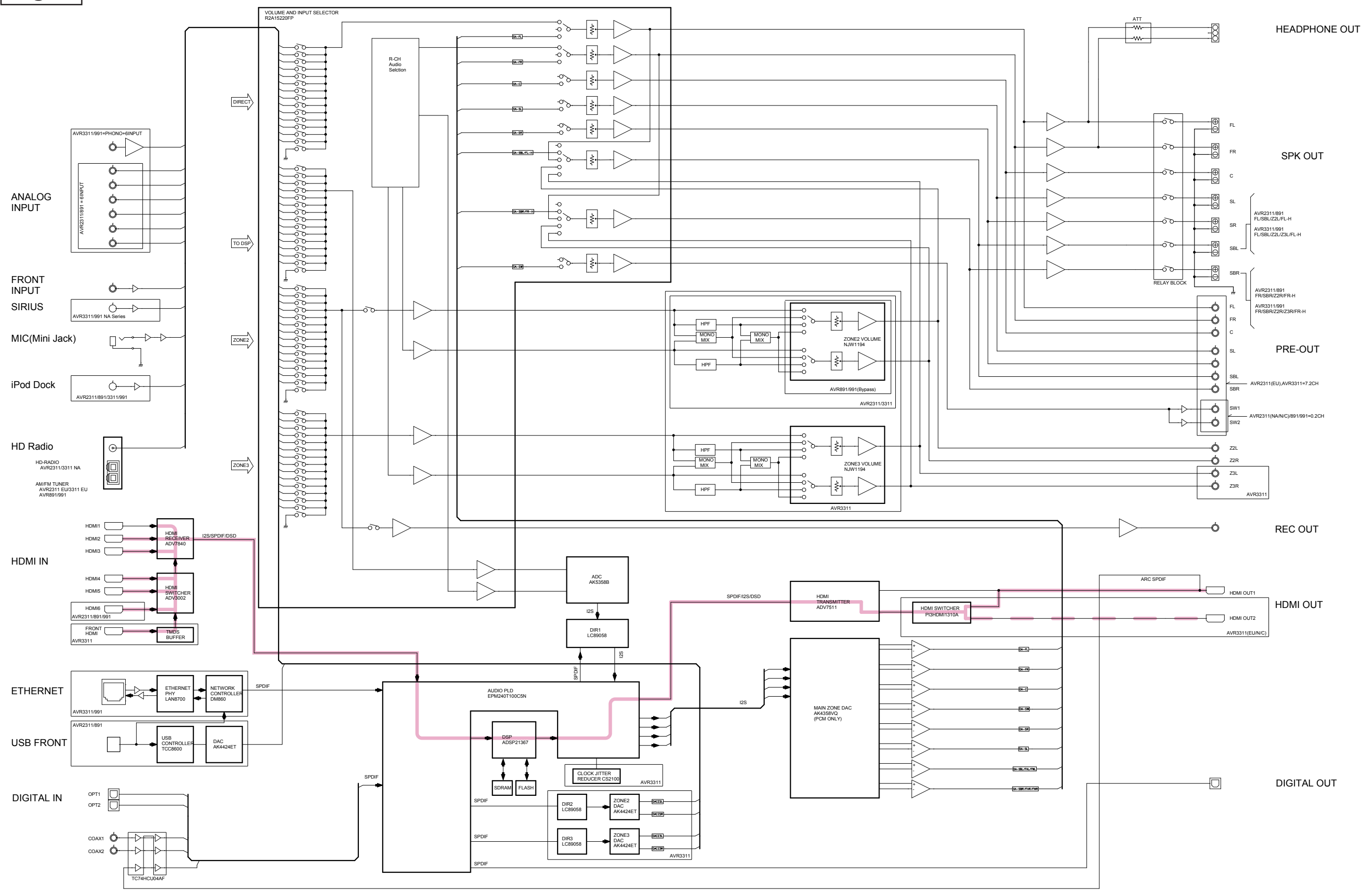


fig.10

AUDIO BLOCK DIAGRAM

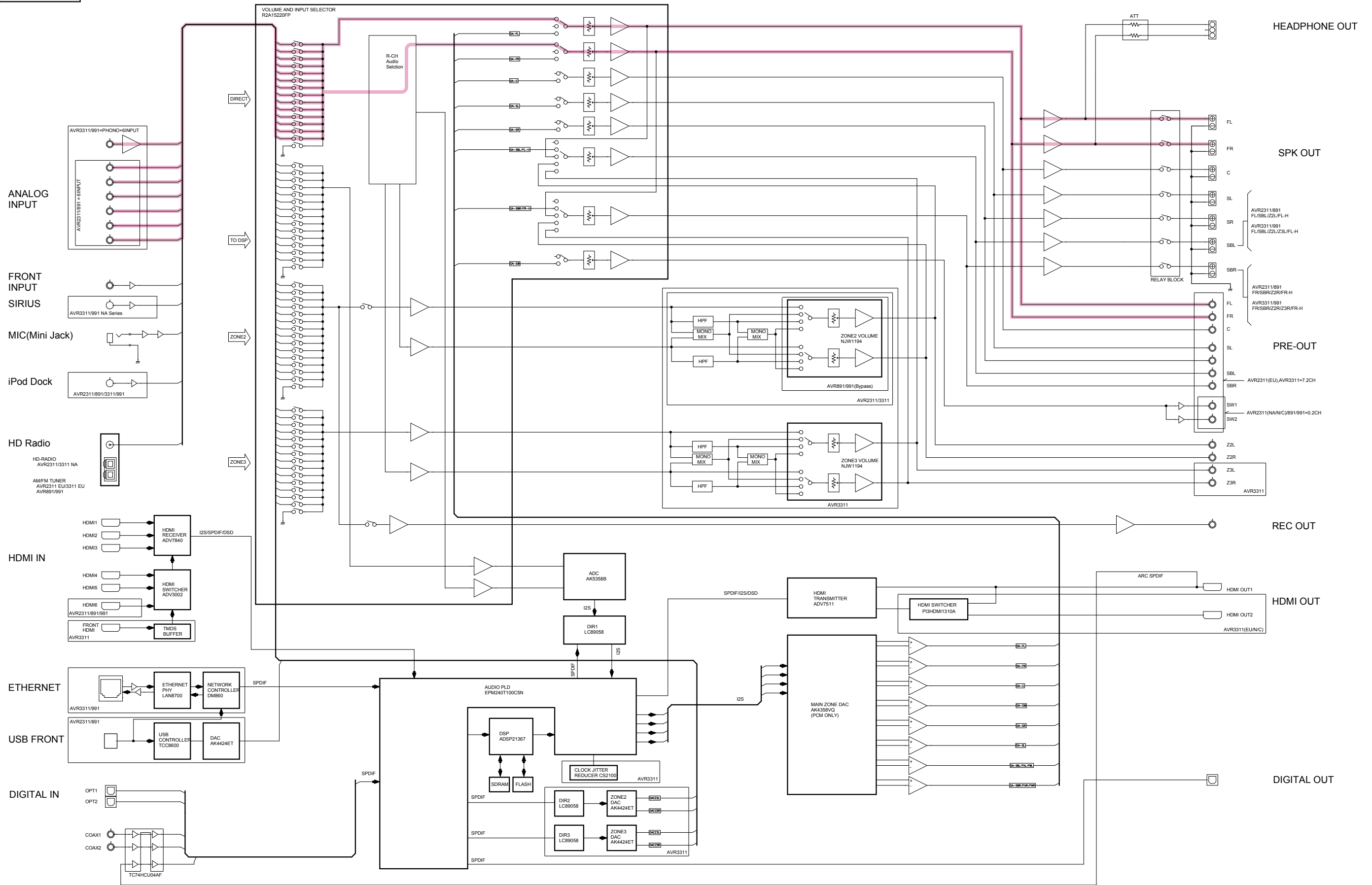


fig.11

AUDIO BLOCK DIAGRAM

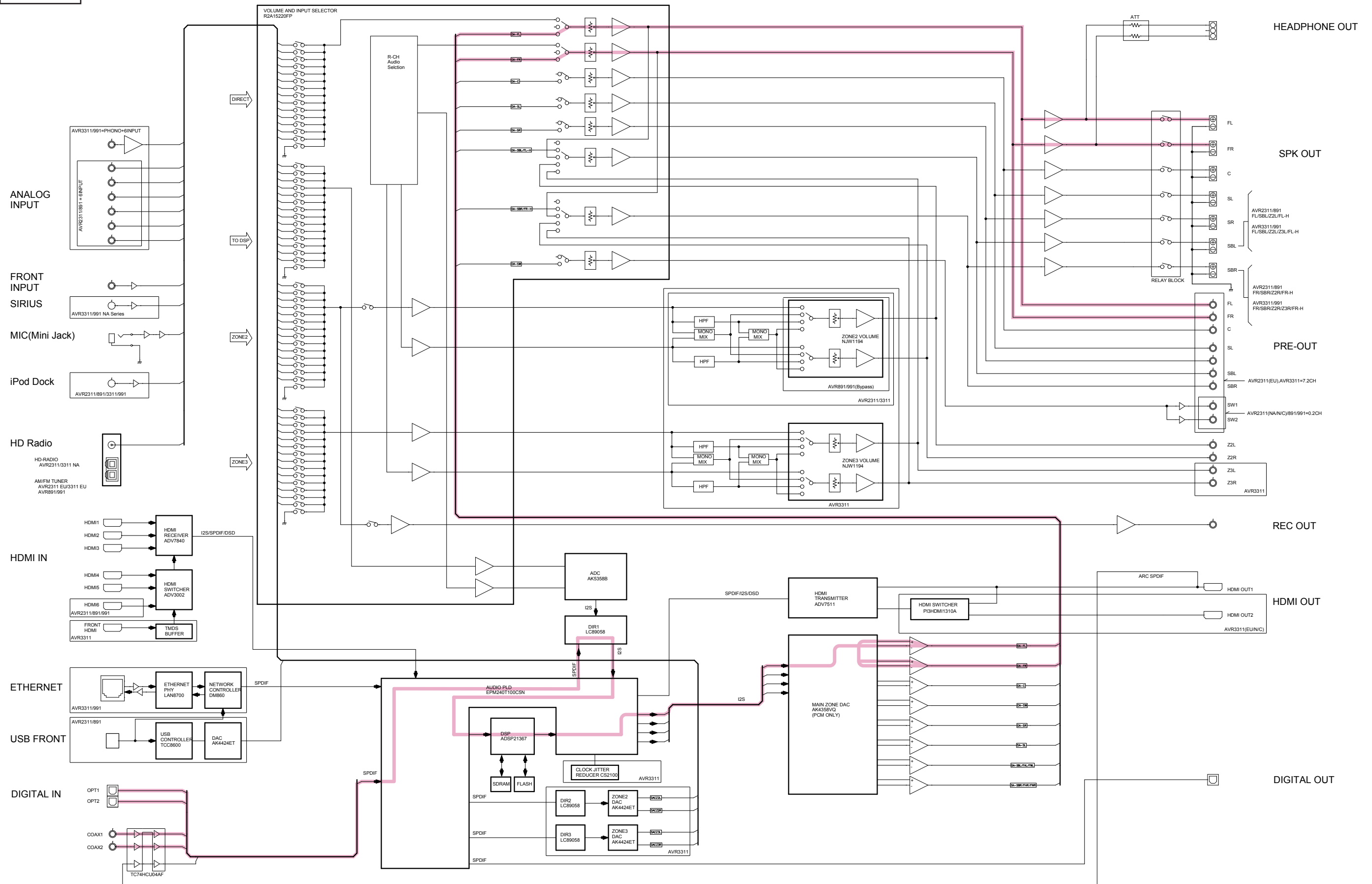


fig.12

AUDIO BLOCK DIAGRAM

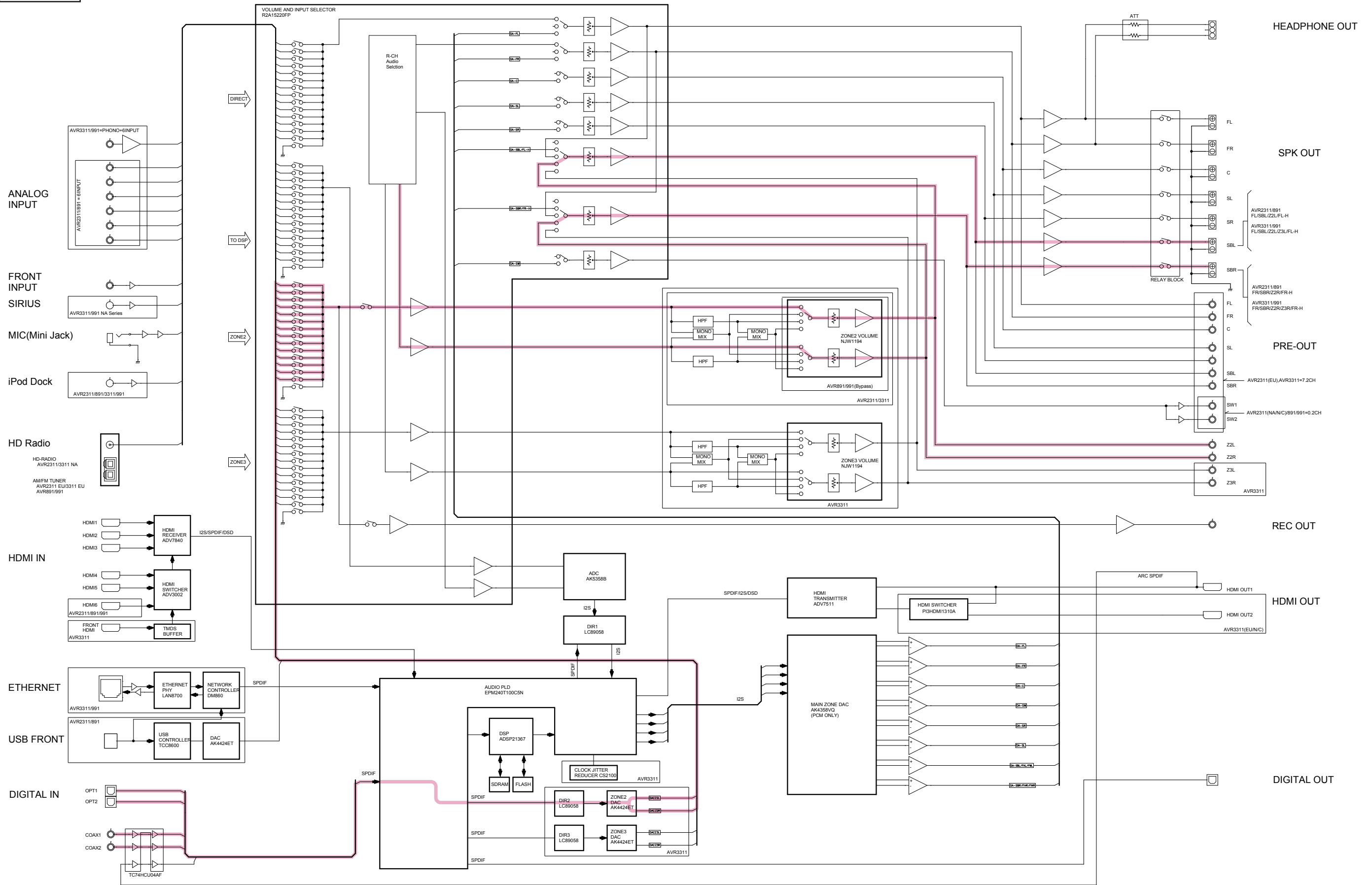


fig.13

AUDIO BLOCK DIAGRAM

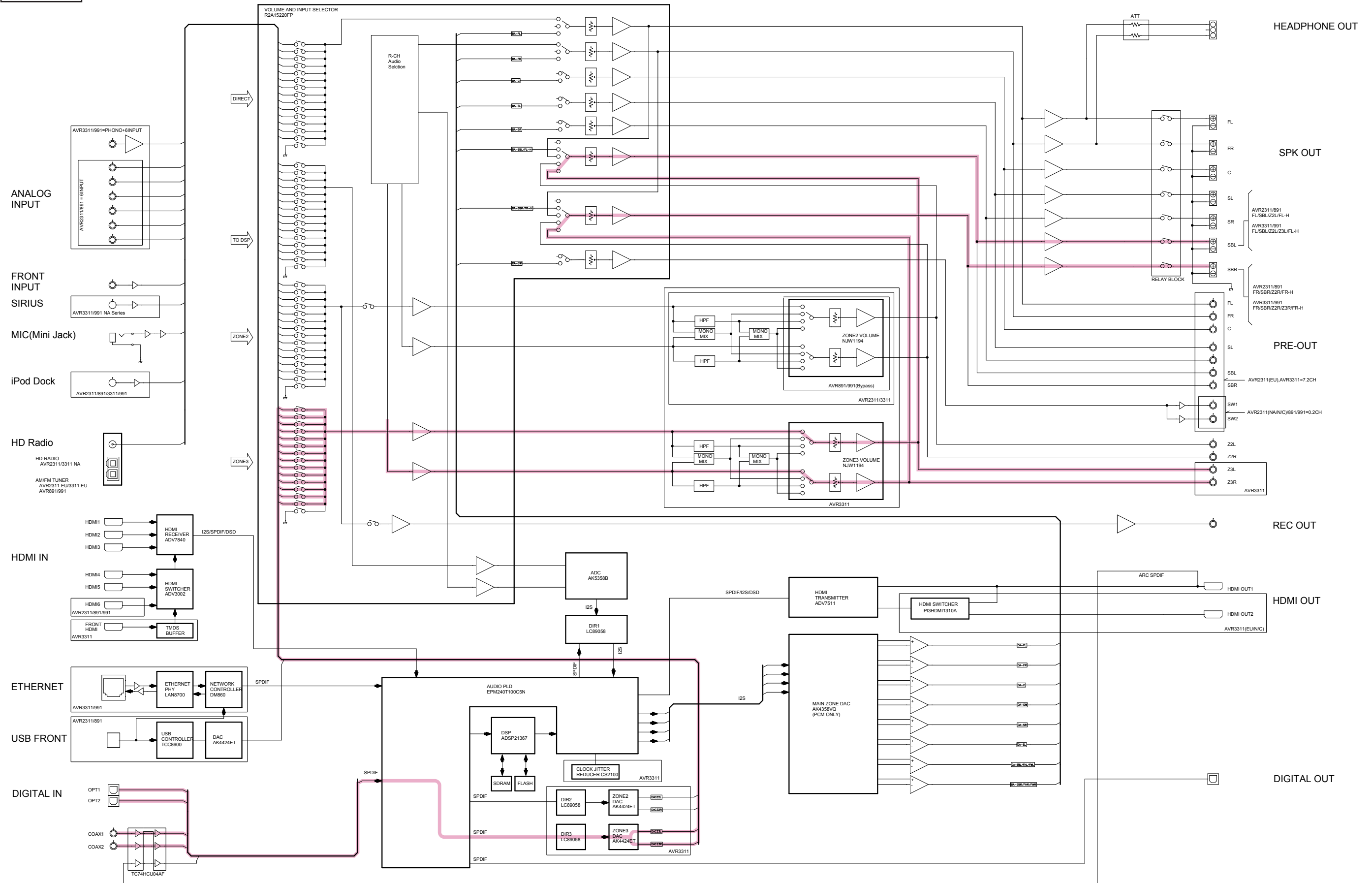


fig.14

AUDIO BLOCK DIAGRAM

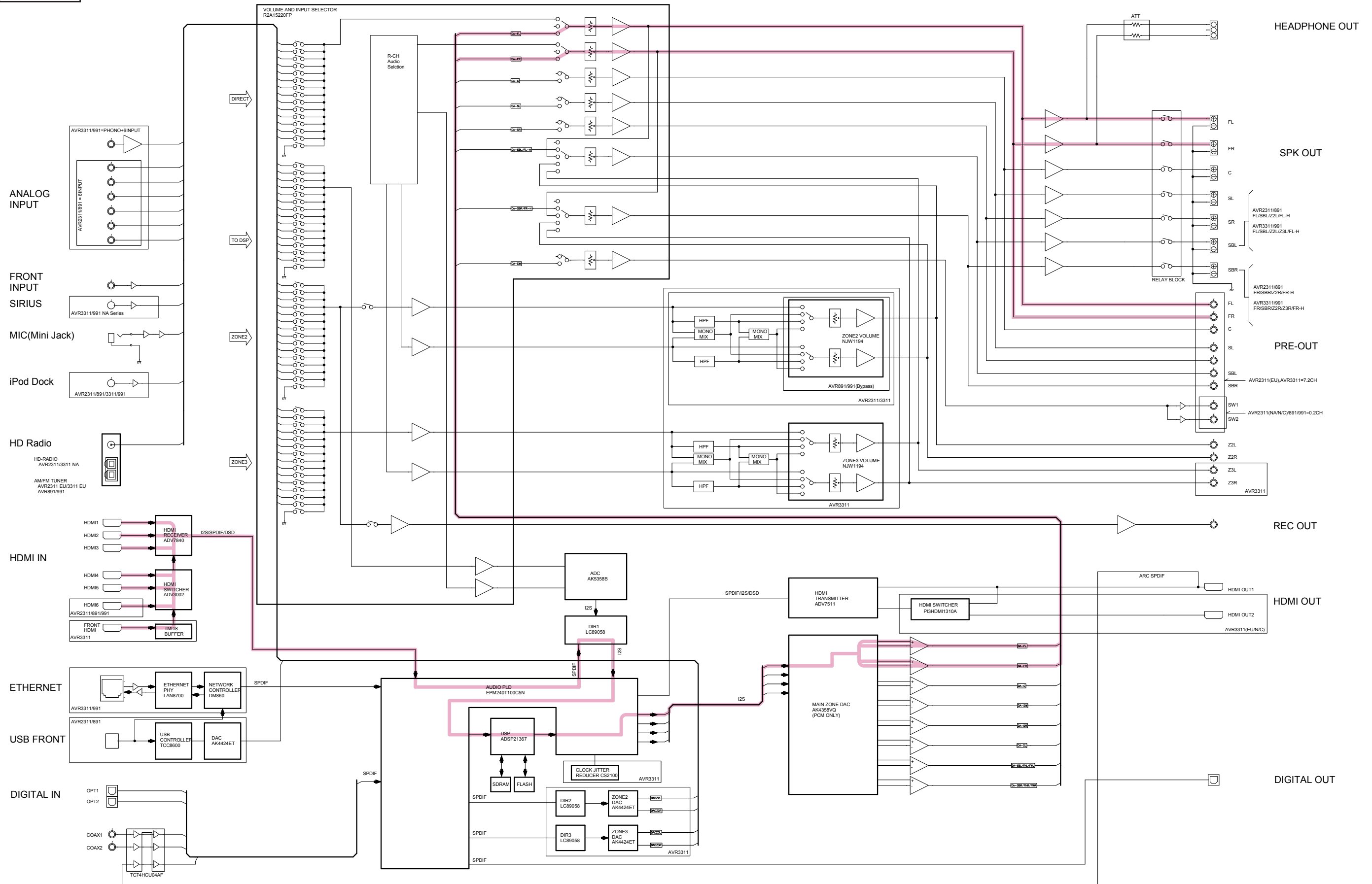


fig.15

AUDIO BLOCK DIAGRAM

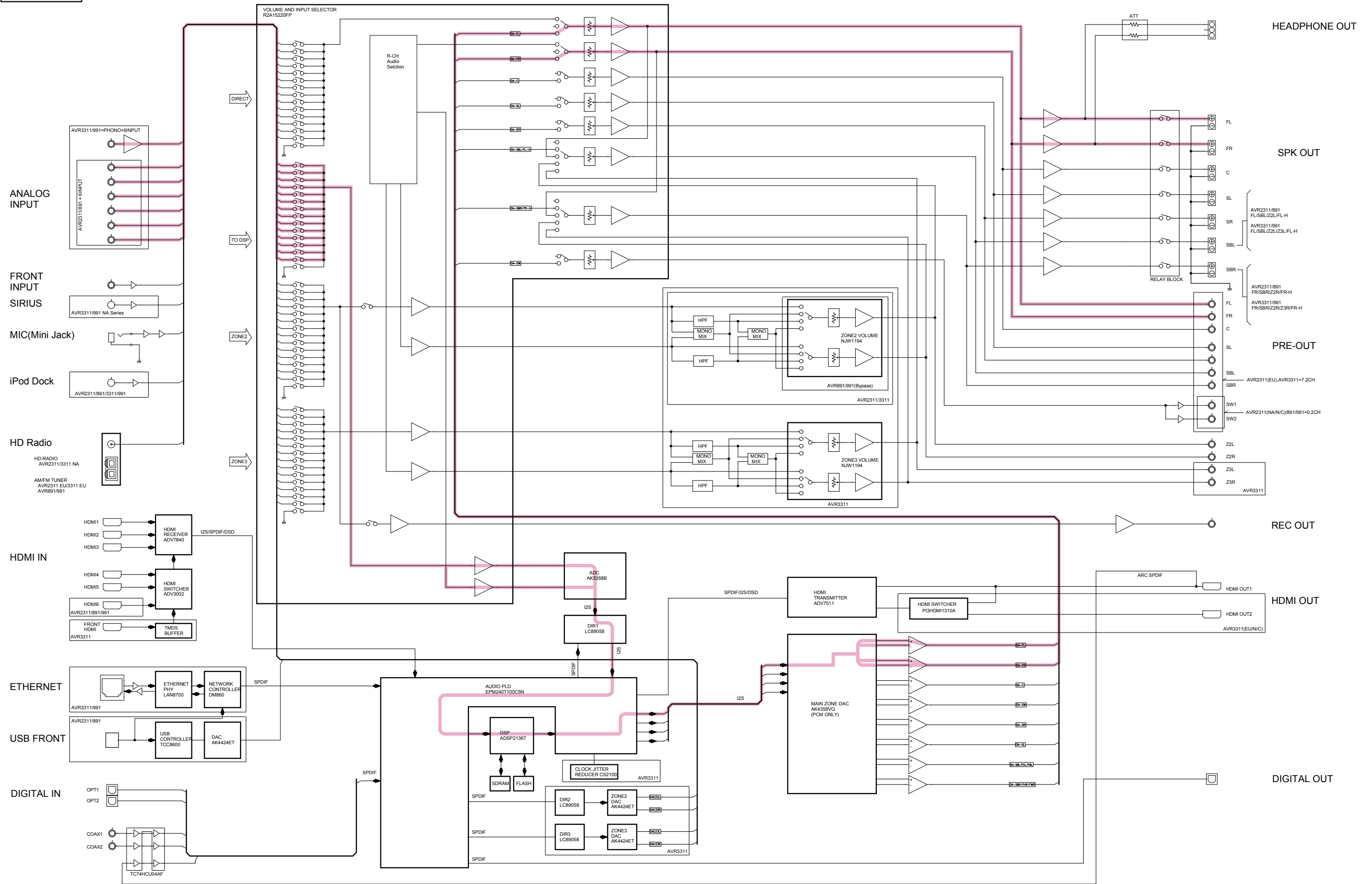


fig.16

AUDIO BLOCK DIAGRAM

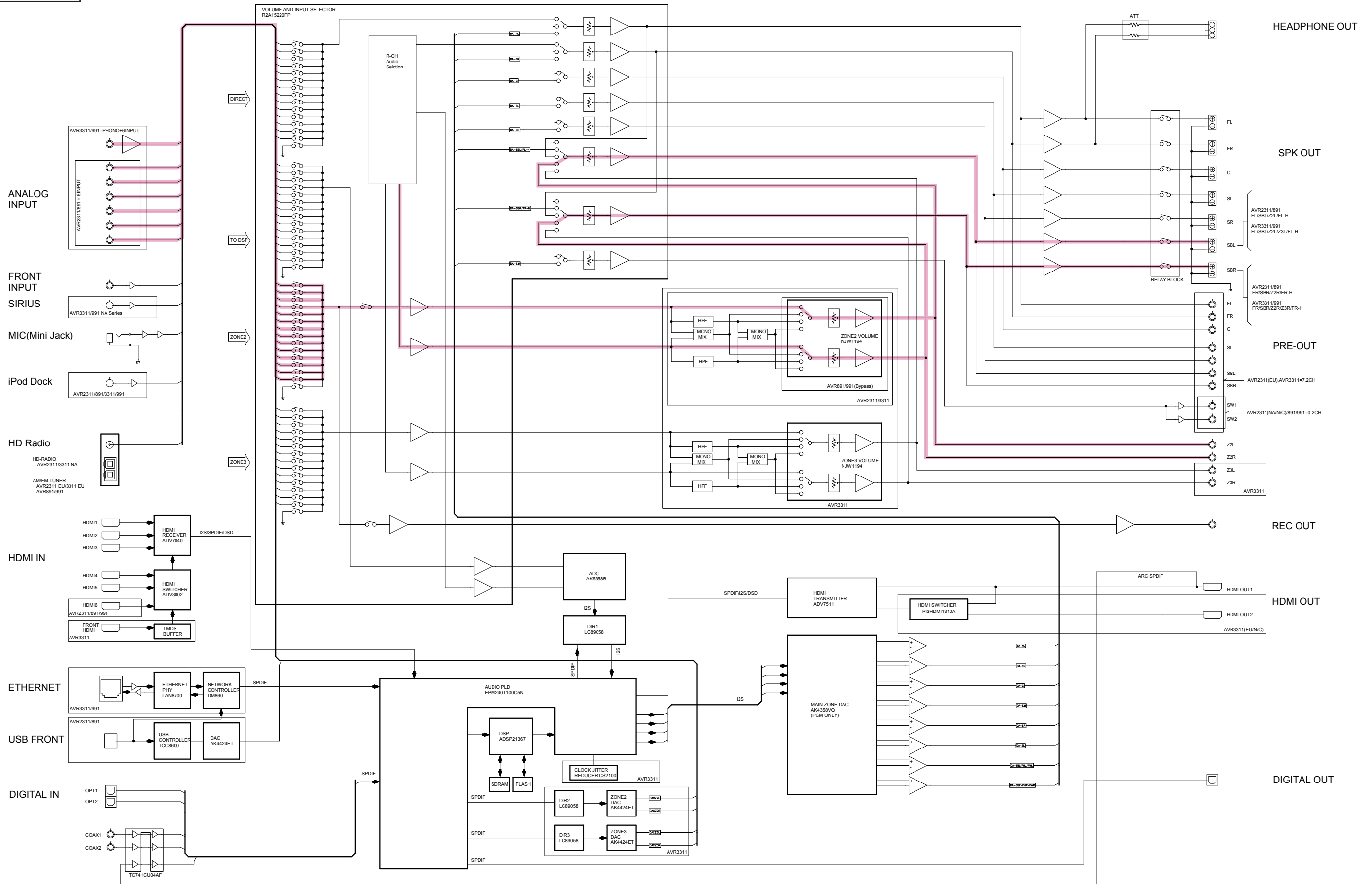


fig.17

AUDIO BLOCK DIAGRAM

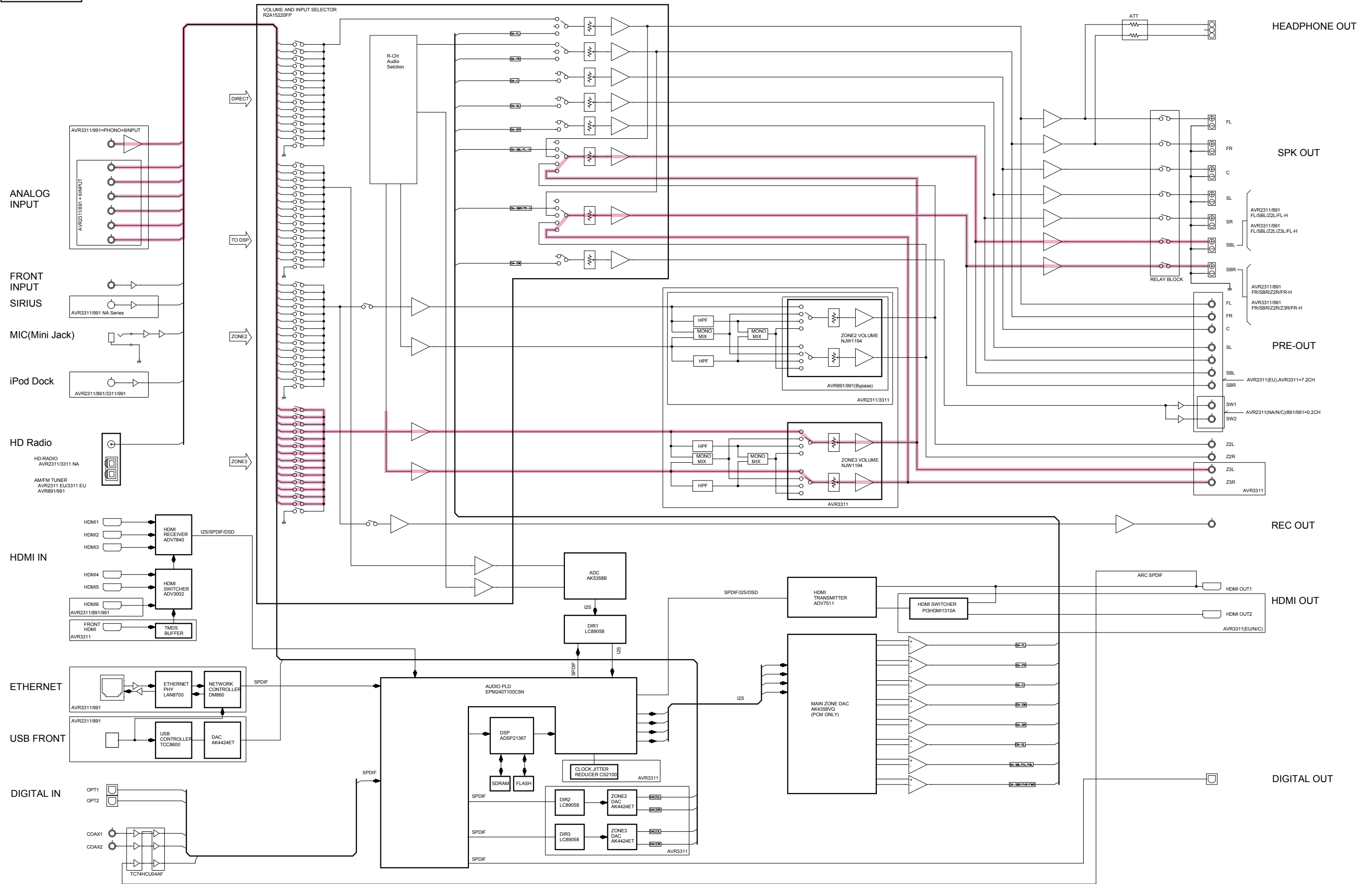


fig.18

AUDIO BLOCK DIAGRAM

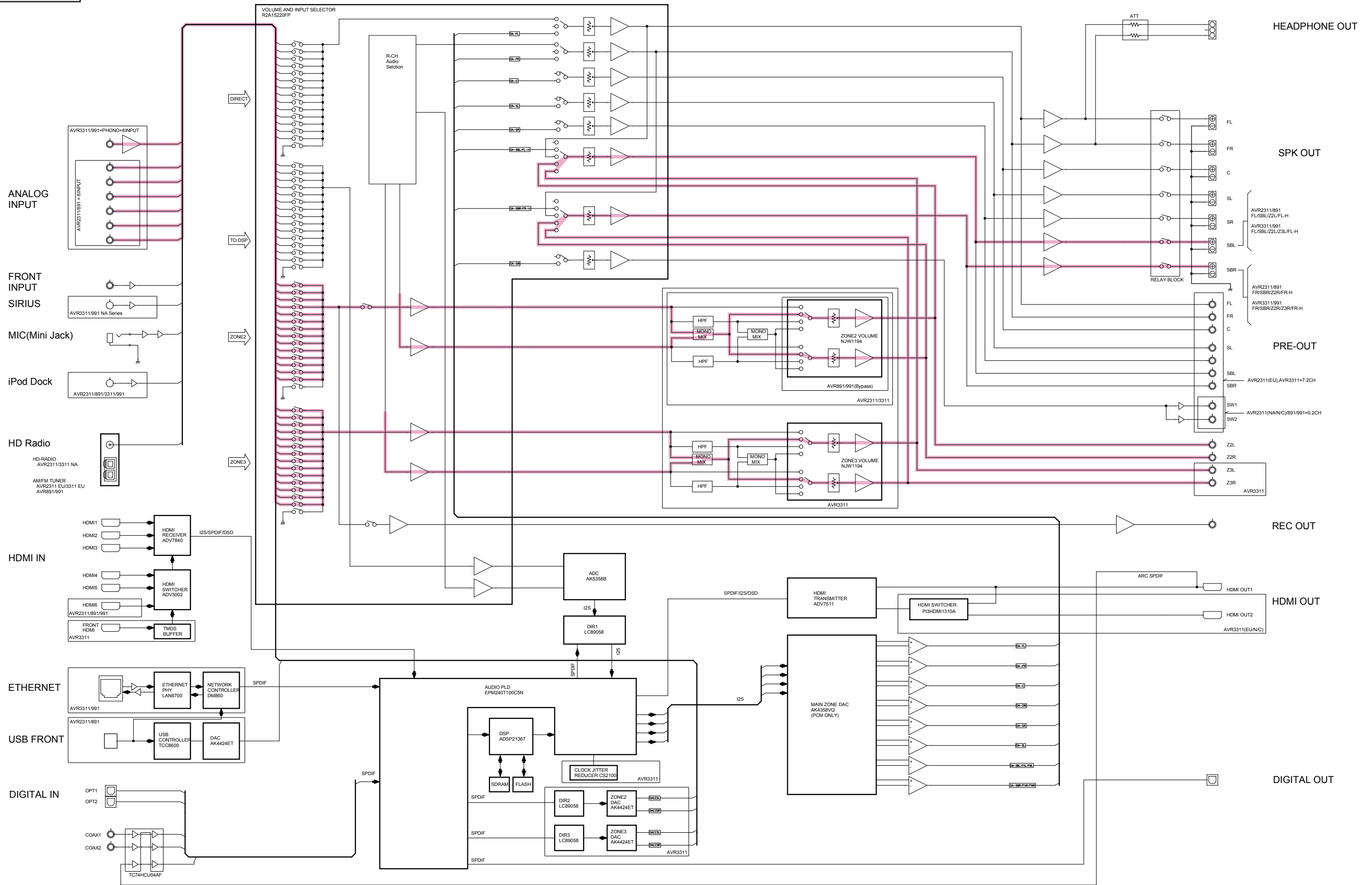


fig.19,20,21

AUDIO BLOCK DIAGRAM

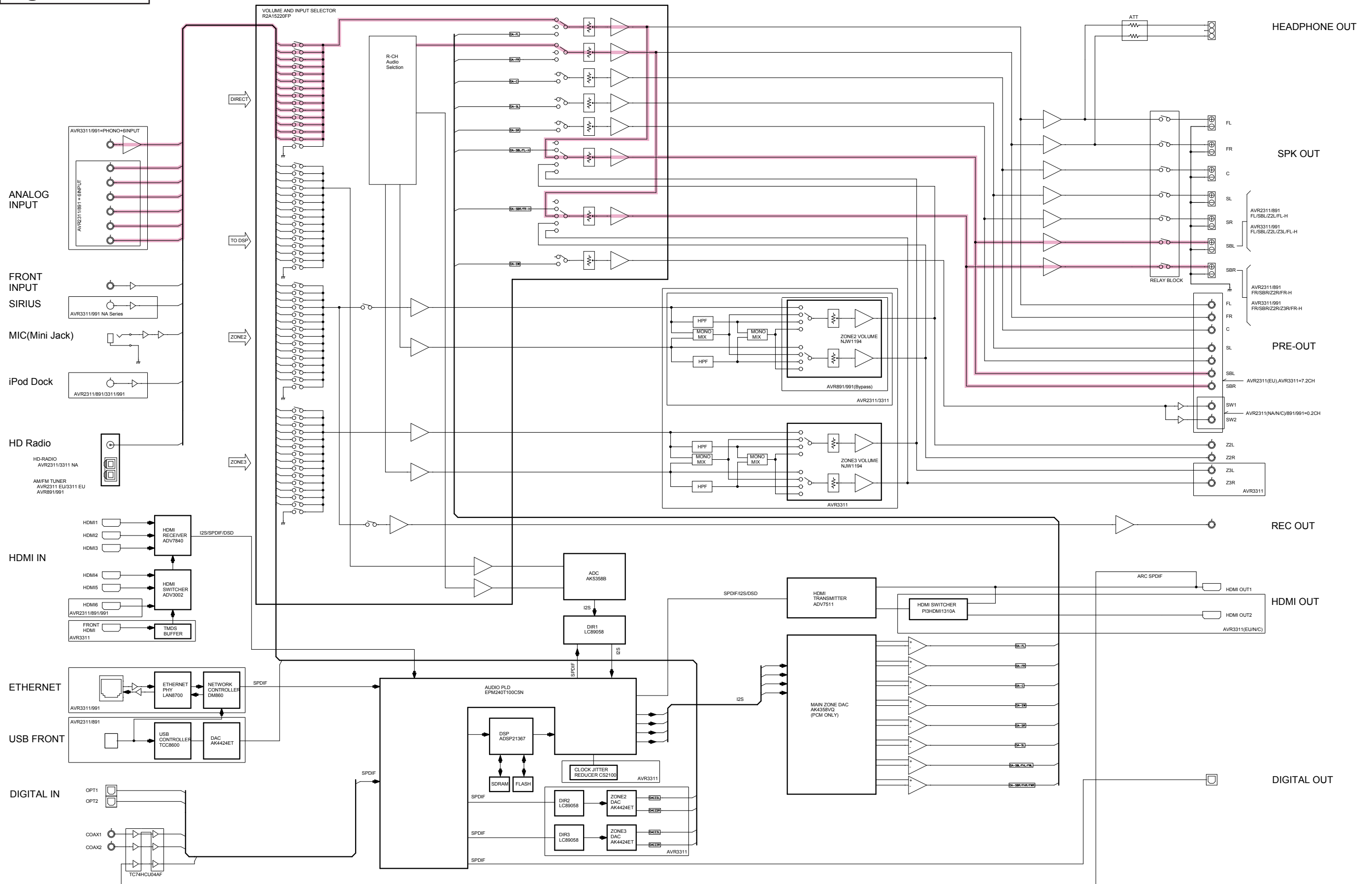
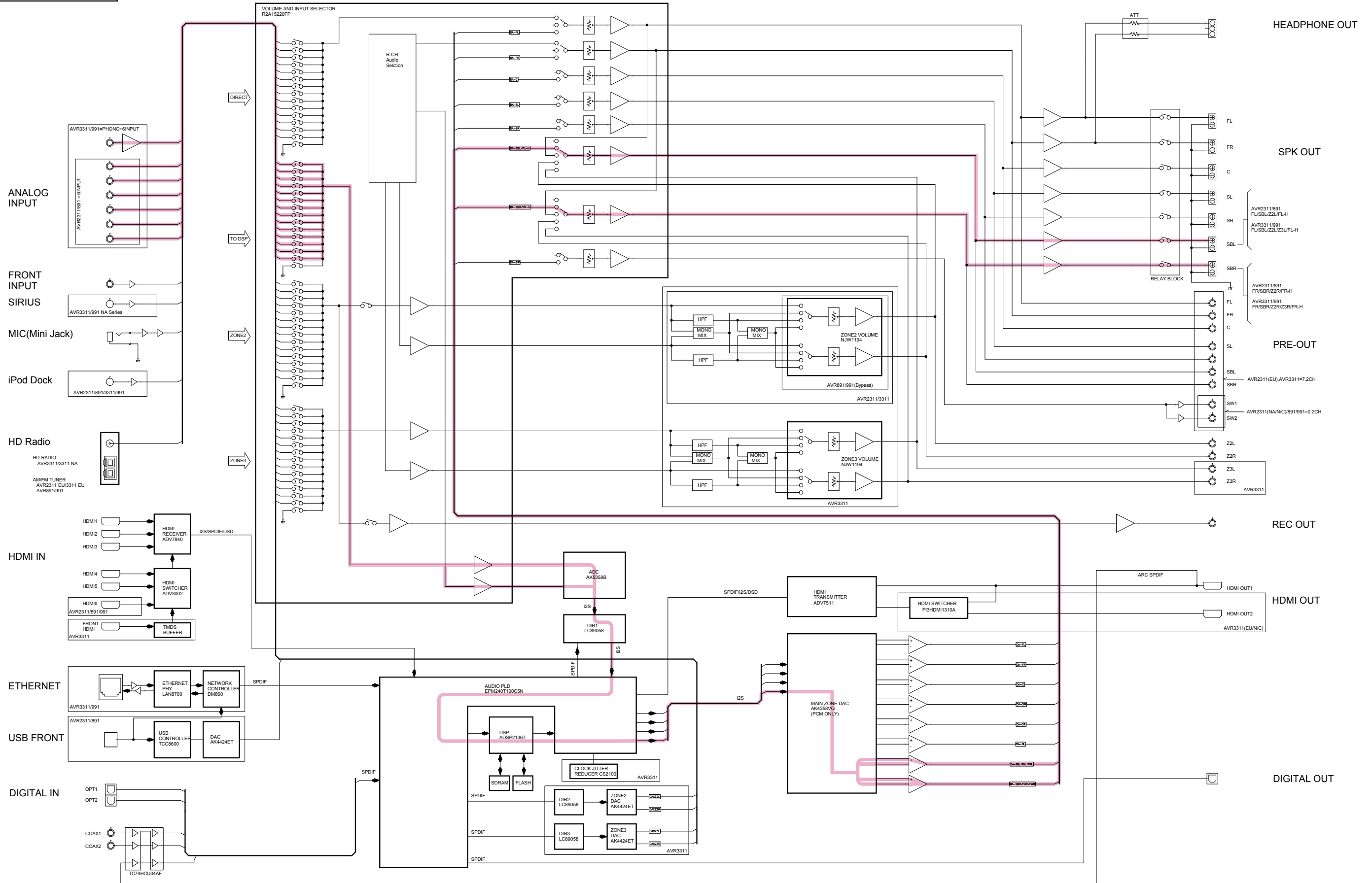
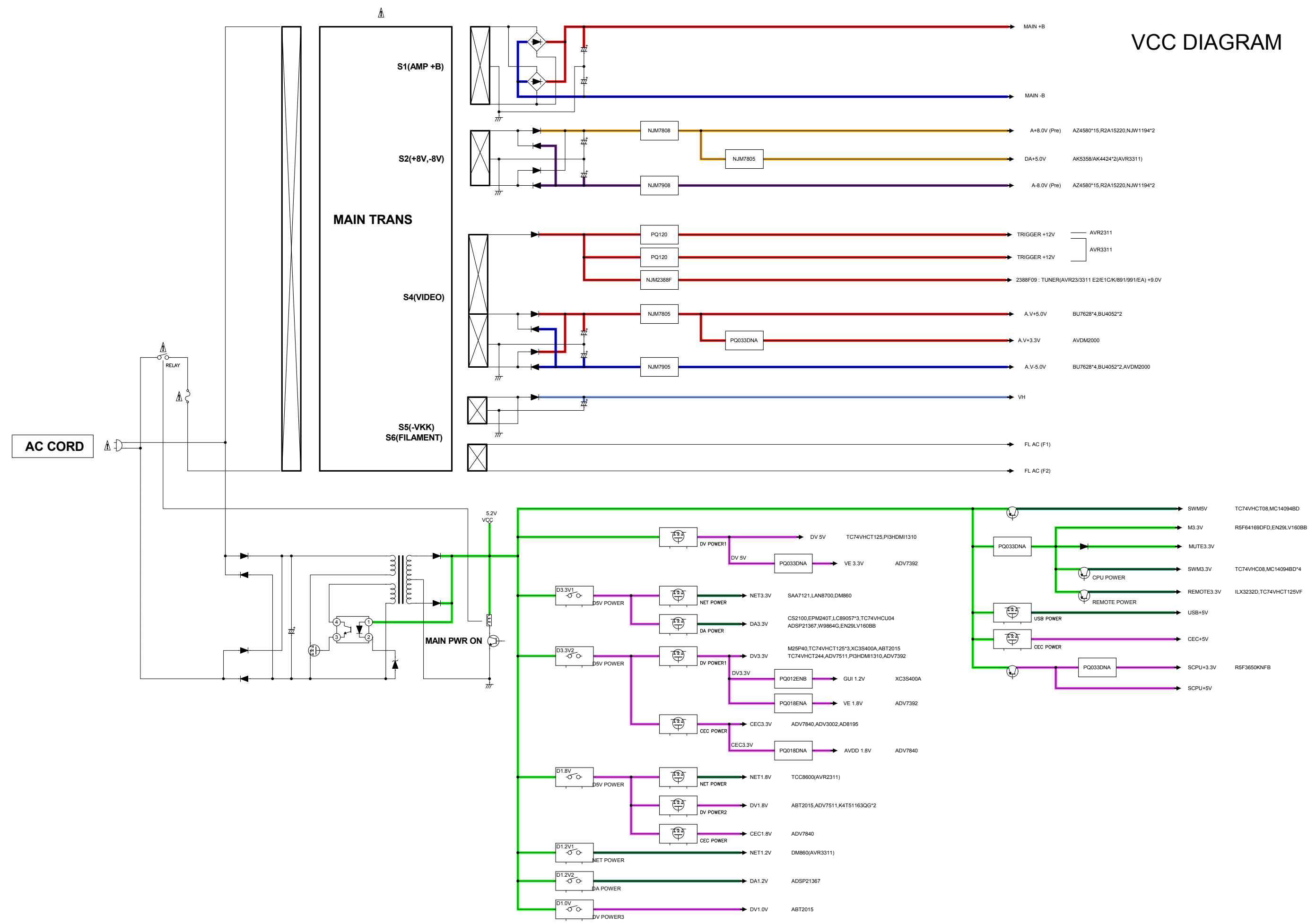


fig.23,24

AUDIO BLOCK DIAGRAM



VCC DIAGRAM



JIG FOR SERVICING

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

Note: When the connection which is wrong in the JIG (EXTENSION UNIT KIT) is done it becomes cause of damage.

8U-110084S : EXTENSION UNIT KIT

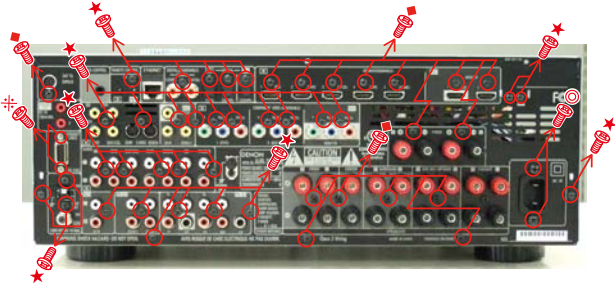
• Connection of PCB HDMI JIG

-Preparation-

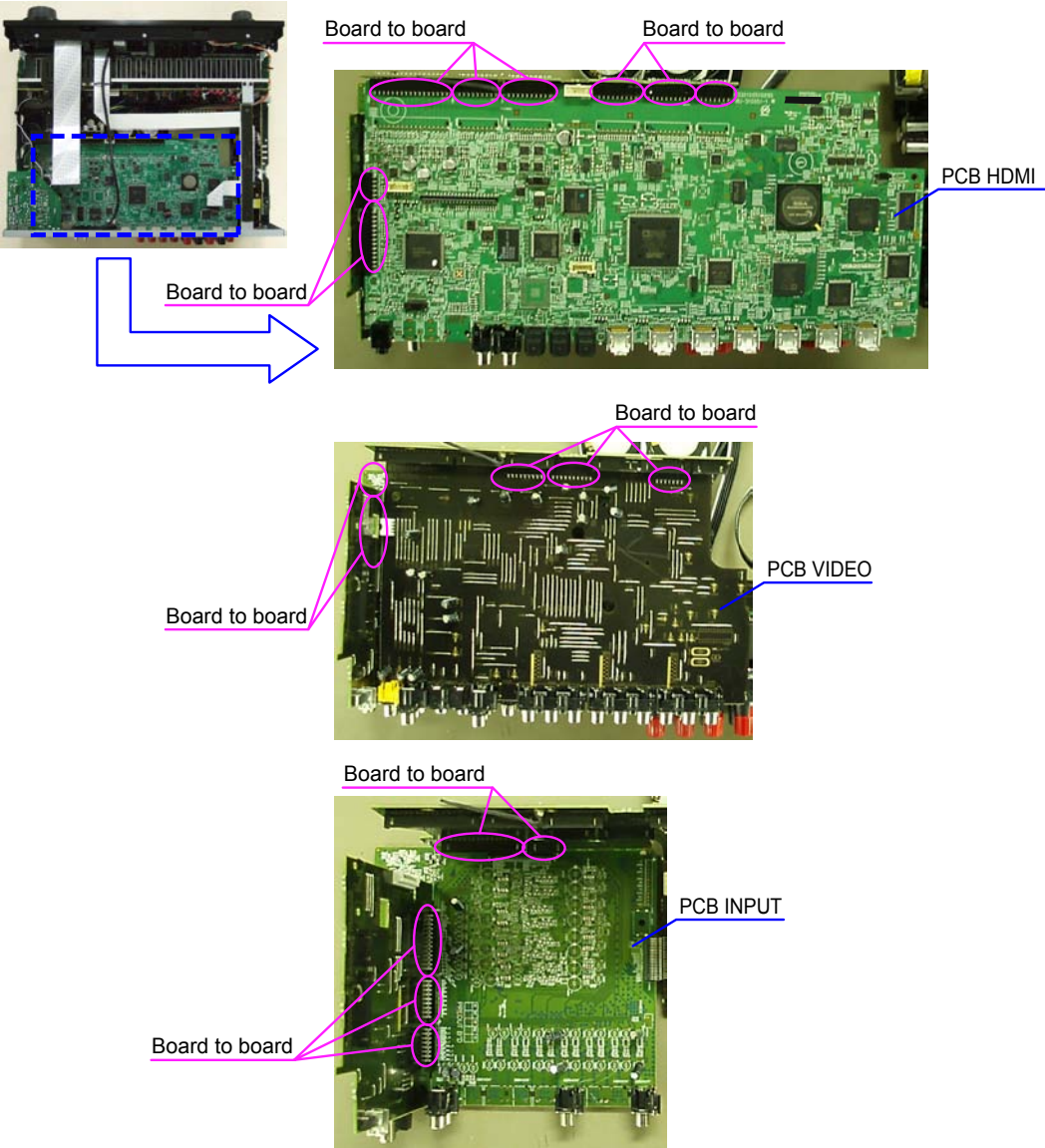
- 8U-110084S : EXTENSION UNIT KIT : 1 Set
- Insulation sheet (Do not supply it) : 3 sheet
- Ground lead (Do not supply it) : 3 pcs

-Procedures-

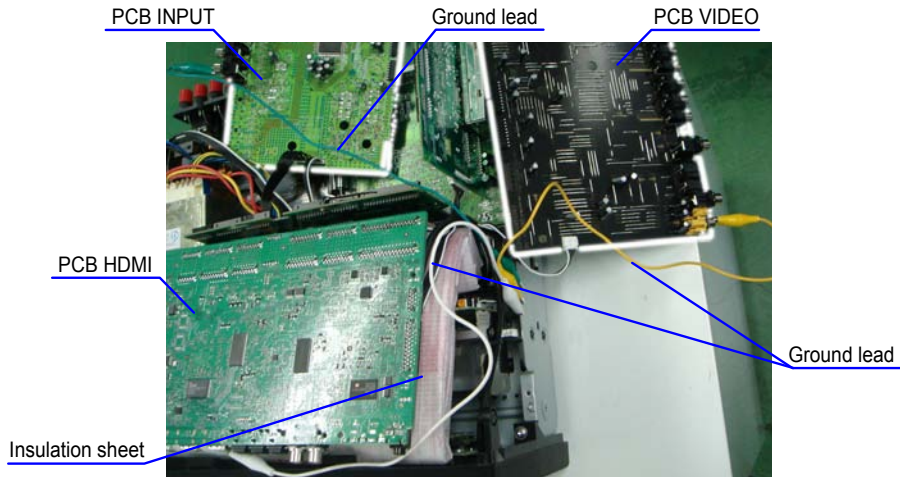
(1) Remove the screws.



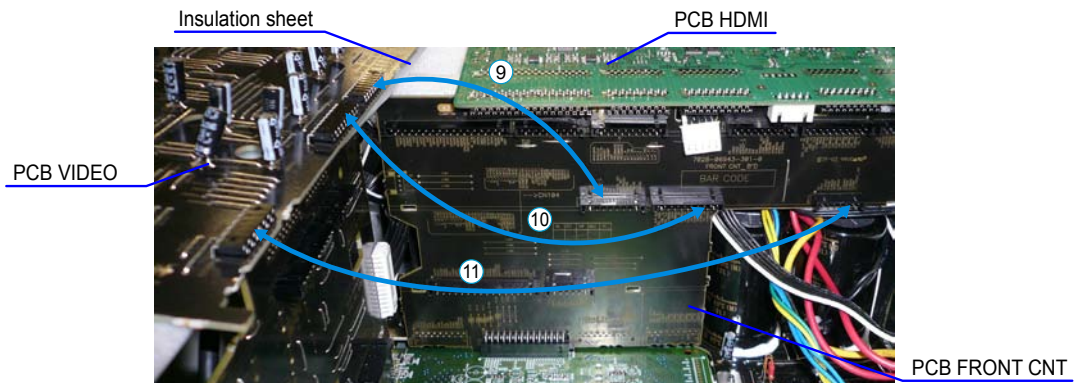
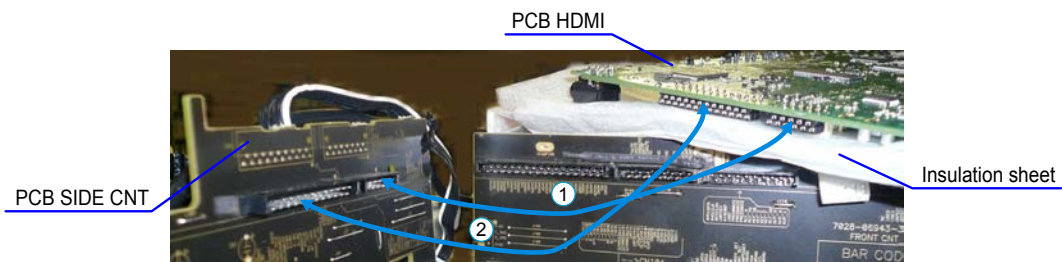
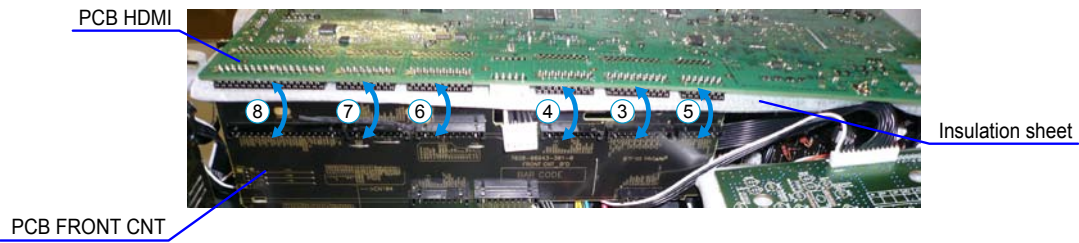
(2) Disconnect the connector board.

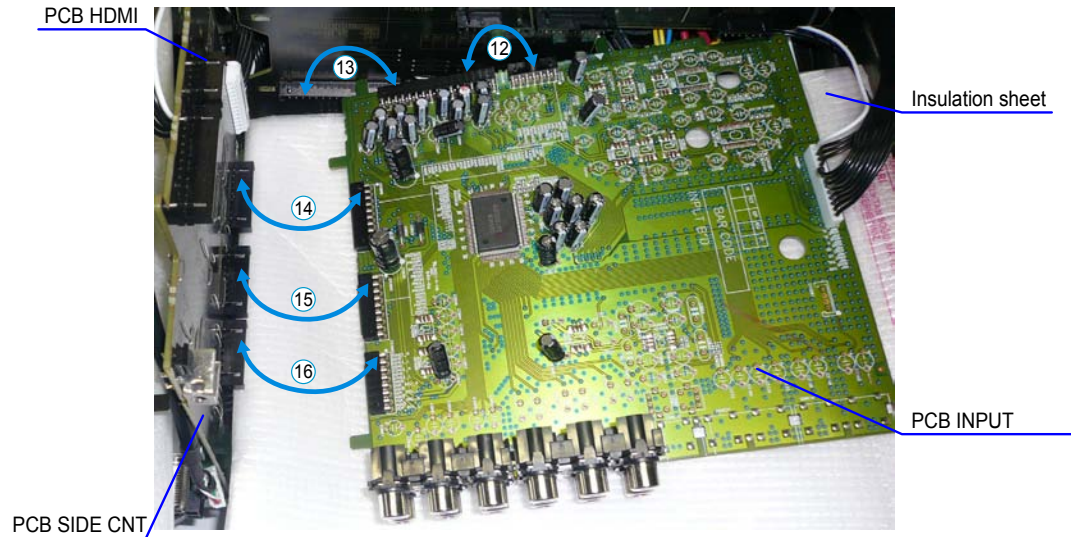


- (3) PCB HDMI is detached from the chassis, and it puts it into the state turned inside out.
 Please pave an insulation sheet that is larger than PCB HDMI under PCB.
 ※ Connect the ground point of PCB to the chassis with a ground lead or the like.



- (4) Connect the four extension jig cables.






Connection table of Board to Board

No.	Pin	Ref. No.	PCB		Ref. No.	PCB
①	11 pin	CP3	SIDE CNT	↔	N4908	HDMI
②	25 pin	CP4	SIDE CNT	↔	N4907	HDMI
③	19 pin	CP105	FRONT CNT	↔	N4910	HDMI
④	17 pin	CP106	FRONT CNT	↔	N4911	HDMI
⑤	13 pin	CP107	FRONT CNT	↔	N4912	HDMI
⑥	19 pin	CP108	FRONT CNT	↔	N4913	HDMI
⑦	17 pin	CP109	FRONT CNT	↔	N4914	HDMI
⑧	33 pin	CP110	FRONT CNT	↔	N4916	HDMI
⑨	19 pin	CP111	FRONT CNT	↔	N2001	VIDEO
⑩	17 pin	CP112	FRONT CNT	↔	N2002	VIDEO
⑪	13 pin	CP113	FRONT CNT	↔	N2003	VIDEO
⑫	13 pin	CP114	FRONT CNT	↔	CX3001	INPUT
⑬	33 pin	CP115	FRONT CNT	↔	CN3000	INPUT
⑭	19 pin	CP6	SIDE CNT	↔	CX3000	INPUT
⑮	17 pin	CP7	SIDE CNT	↔	CX3002	INPUT
⑯	15 pin	CP8	SIDE CNT	↔	CX3003	INPUT

ABOUT REPLACE THE MICROPROCESSOR WITH A NEW ONE

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

PWB Name	Ref. No.	Description	After replaced	Remark
HDMI	U5301	R5F64169DFD	B	SOFTWARE: Main
HDMI	U5101	W19B160BBT7H	B	SOFTWARE: Main ROM
HDMI	U5500	R5F3650KNFB	B	SOFTWARE: Sub
HDMI	U3202	EN29LV160BB-70TIP	B	SOFTWARE: DSP ROM
HDMI	U3000	EPM240T100C5N	B	SOFTWARE: Audio PLD
HDMI	U1603	M25P40-VMN6PB	B	SOFTWARE: Video Config ROM

After replaced

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

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

C : Empty Flash ROM (Without software). You should be write-in of the software to the microprocessor or flash ROM.

Refer to "Update procedure" or "writing procedure", when you should be write-in the software.

VERSION UPGRADE PROCEDURE OF FIRMWARE

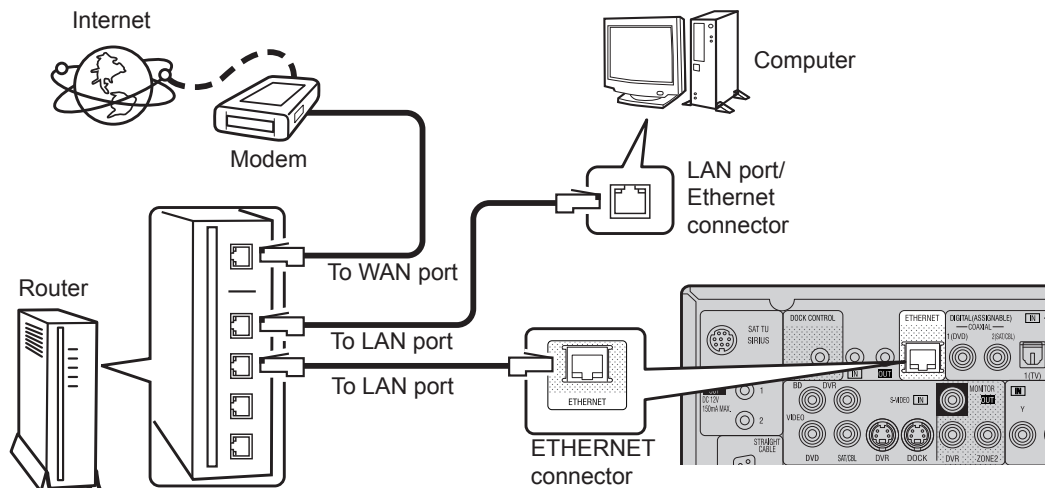
You can update by downloading the latest firmware from the Internet.

1. Connecting to the Network

(1) System Requirement

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

(2) Setting



2. Check for Update and Update

Check if the latest firmware exists. You can also check approximately how long it will take to complete an update.

- (1) Press the MENU button on the remote control to display the GUI menu.
- (2) Use the cursor buttons to select "Manual Setup" → "Option Setup" → "Firmware Update" → "Update Check".
- (3) Press the ENTER button.
 - The latest version of the firmware uploaded to the web is displayed.
 - If the latest firmware version is on the web, proceed to (4).
 - If the latest firmware is already installed, press the MENU button to close the menu.
- (4) Use the cursor buttons to select "Update", then press the ENTER button.
 - During update, the power indicator lights red and the GUI screen is shut down. And a rough remaining time is indicated on the display.
 - When updating is complete the power indicator lights green and normal status is resumed.
- (5) Press the MENU button to close the menu.

--- Cautions on Firmware Update ---

- In order to use these functions, 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 about 1 hour is required for the updating procedure to be completed.
Once updating starts, normal operations on the AVR-3311 cannot be performed until updating is completed. Also, setting items of the GUI menu of AVR-3311 or setting items of the image adjustment may be initialized.
Make a note of the settings before updating, and set them again after updating.

3. About the error code

See the chart below for error codes, details of faults, and coping strategies when firmware updates are performed through DPMS (Denon Product Management Server).

Error Code	Details of Error code	Display	Coping strategies
01	Log-in to DPMS has failed.	<pre> Login failed </pre>	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.	<pre> Server is busy </pre>	Carry out the update in an environment that has little network load.
03	Connection to DPMS failed.	<pre> Connection fail </pre>	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.	<pre> Connection fail </pre>	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.	<pre> Connection fail </pre>	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.	<pre> Connection fail </pre>	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.	<pre> Connection fail </pre>	Check the network connection. Carry out the update in an environment that has little network load.
08	Main CPU firmware file data was requested but error message was received.	<pre> Connection fail </pre>	Check the network connection. Carry out the update in an environment that has little network load.
09	Main CPU firmware file data was requested but it timed out.	<pre> Connection fail </pre>	Check the network connection. Carry out the update in an environment that has little network load.
0A	Error (NG) message received when downloading Main CPU firmware.	<pre> Downloaded fail </pre>	Check the network connection. Carry out the update in an environment that has little network load.
0B	Error (line congestion) message received when downloading Main CPU firmware.	<pre> Downloaded fail </pre>	Check the network connection. Carry out the update in an environment that has little network load.
0C	Error (connection failure) message received when downloading Main CPU firmware.	<pre> Downloaded fail </pre>	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
0D	Data acquisition failed (timed out) when downloading Main CPU firmware. Received Package Version is wrong.	Connection failed 0D	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 DM860 (when timed out).	Main CPU Updating failed 10	Turn the power off then back on. Updating starts automatically.
11	Main CPU failed to receive firmware for rewriting sent from DM860 (when an error)	Main CPU Updating failed 11	Turn the power off then back on. Updating starts automatically.
12	There was invalid data in the firmware for rewriting sent from DM860 to Main CPU (when a Check Sum error).	Main CPU Updating failed 12	Turn the power off then back on. Updating starts automatically.
13	The deletion of block data failed before rewriting Main CPU.	Main CPU Erase failed 13	Turn the power off then back on. Updating starts automatically.
14	The rewriting of block data failed when rewriting Main CPU.	Main CPU Updating failed 14	Turn the power off then back on. Updating starts automatically.
15	The data verification was invalid after rewriting Main CPU.	Main CPU Update Check NG 15	Turn the power off then back on. Updating starts automatically.
36	Log-in to DPMS has failed when rewriting firmware such as Sub CPU, DSP, FPGA, and PLD.	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 rewriting firmware such as Sub CPU, DSP, FPGA, and PLD.	Server is busy 37	Carry out the update in an environment that has little network load.
38	Connection to DPMS failed when rewriting firmware such as Sub CPU, DSP, FPGA, and PLD.	Connection failed 38	Check the network connection. Carry out the update in an environment that has little network load.
39	Connection to DPMS timed out when rewriting firmware such as Sub CPU, DSP, FPGA, and PLD.	Connection failed 39	Check the network connection. Carry out the update in an environment that has little network load.
3A	Error (NG) message received when downloading firmware when rewriting Main CPU.	Downloaded failed 3A	Turn the power off then back on. 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 rewriting Main CPU.	Downloaded failed 3B	Turn the power off then back on. 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 rewriting Main CPU.	Downloaded failed 3C	Turn the power off then back on. Updating starts automatically. Carry out the update in an environment that has little network load.
50	Log-in to DPMS has failed when rewriting firmware such as Sub CPU, DSP, FPGA, and PLD.	Sub CPU Login failed 50	Carry out the update in an environment that has little network load.
51	Line, etc., is busy when logging into DPMS when rewriting firmware such as Sub CPU, DSP, FPGA, and PLD.	Sub CPU Server is busy 51	Carry out the update in an environment that has little network load.

Error Code	Details of Error code	Display	Coping strategies
52	Connection to DPMS failed when rewriting firmware such as Sub CPU, DSP, FPGA, and PLD.	SUB ***** ConnectionFail152	Check the network connection. Carry out the update in an environment that has little network load.
54	Error message received regarding firmware data after logging in to DPMS when rewriting firmware such as Sub CPU, DSP, FPGA, and PLD.	SUB ***** Updating fail154	Turn the power off then back on. Updating starts automatically. Carry out the update in an environment that has little network load.
55	When rewriting firmware such as Sub CPU, DSP, FPGA, and PLD, request was made for firmware data after logging in to DPMS, but it timed out.	SUB ***** Updating fail155	Turn the power off then back on. Updating starts automatically. Carry out the update in an environment that has little network load.
56	Failure to download firmware after logging in to DPMS when rewriting firmware such as Sub CPU, DSP, FPGA, and PLD.	SUB ***** Downloaded fail156	Turn the power off then back on. Updating starts automatically. Carry out the update in an environment that has little network load.
57	Firmware download error received (line congestion) after logging in to DPMS when rewriting firmware such as Sub CPU, DSP, FPGA, and PLD.	SUB ***** Server is busy157	Turn the power off then back on. Updating starts automatically. Carry out the update in an environment that has little network load.
58	Firmware download error received (connection failure) after logging in to DPMS when rewriting firmware such as Sub CPU, DSP, FPGA, and PLD.	SUB ***** ConnectionFail158	Turn the power off then back on. Updating starts automatically. Carry out the update in an environment that has little network load.
5A	NACK received when "C" command sent to Sub CPU, DSP, FPGA, PLD etc.	SUB ***** ConnectionFail15A	Turn the power off then back on. Updating starts automatically.
5B	NACK received when "L" command sent to Sub CPU, DSP, FPGA, PLD etc.	SUB ***** Updating fail15B	Turn the power off then back on. Updating starts automatically.
5C	Sub CPU, DSP, FPGA, PLD etc. failed to receive firmware for rewriting sent from DM860 (when timed out).	SUB ***** Updating fail15C	Turn the power off then back on. Updating starts automatically.
5D	Sub CPU, DSP, FPGA, PLD etc. failed to receive firmware for rewriting sent from DM860 (when an error).	SUB ***** Updating fail15D	Turn the power off then back on. Updating starts automatically.
5E	Invalid data in firmware such as Sub CPU, DSP, FPGA, and PLD for rewriting sent from DM860 (when a Check Sum error).	SUB ***** Updating fail15E	Turn the power off then back on. Updating starts automatically.
5F	Invalid data in firmware such as Sub CPU, DSP, FPGA, and PLD for rewriting sent from DM860 (invalid data received).	SUB ***** Updating fail15F	Turn the power off then back on. Updating starts automatically.
60	NACK received when "P" command sent to Sub CPU, DSP, FPGA, PLD etc.	SUB ***** Updating fail60	Turn the power off then back on. Updating starts automatically.
61	NACK received when "I" command sent to Sub CPU, DSP, FPGA, PLD etc.	SUB ***** UpdateCheckNG61	Turn the power off then back on. Updating starts automatically.
62	Start failure of Sub μ -com.	SUB ***** Updating fail62	Turn the power off then back on. Updating starts automatically. (AVR-4810 deal with this matter from the first and AVR-4310 deal with this matter by the update.)
80	Failure to acquire serial flash data and before deleting serial flash.	OSD ***** Updating fail80	Turn the power off then back on. Updating starts automatically.

Error Code	Details of Error code	Display	Coping strategies
81	Failure to delete data before rewriting serial flash.	OSD Updating fail 81	Turn the power off then back on. Updating starts automatically.
82	Failure to receive firmware for serial flash rewriting sent by DM860 (when timed out).	OSD Updating fail 82	Turn the power off then back on. Updating starts automatically.
83	Failure to receive firmware for serial flash rewriting sent by DM860 (when an error).	OSD Updating fail 83	Turn the power off then back on. Updating starts automatically.
84	Failure to receive firmware for serial flash rewriting sent by DM860 (when a Check Sum error).	OSD Updating fail 84	Turn the power off then back on. Updating starts automatically.
85	Failure to receive firmware for serial flash rewriting sent by DM860 (when invalid data received).	OSD Updating fail 85	Turn the power off then back on. Updating starts automatically.
86	Failure to rewrite when writing data in serial flash.	OSD Updating fail 86	Turn the power off then back on. Updating starts automatically.
A0	Failure to acquire (Application Mode) IP address before rewriting DM860 (AutoIP).	Ether IMG ***min ConnectionFailIA0	Check the network connection. Carry out the update in an environment that has little network load.
A1	Failure to acquire (Application Mode) IP address before rewriting DM860 (when timed out).	Ether IMG ***min ConnectionFailIA1	Check the network connection. Carry out the update in an environment that has little network load.
A2	Notification of invalid login via DPMS access when rewriting DM860 related firmware (Application Mode).	Ether IMG ***min Login failed A2	Check the network connection. Carry out the update in an environment that has little network load.
A3	Notification of line congestion via DPMS access when rewriting DM860 related firmware (Application Mode).	Ether IMG ***min Server is busy A3	Check the network connection. Carry out the update in an environment that has little network load.
A4	Notification of connection failure via DPMS access when rewriting DM860 related firmware (Application Mode).	Ether IMG ***min ConnectionFailIA4	Check the network connection. Carry out the update in an environment that has little network load.
A6	Firmware data error message received after DPMS login when rewriting DM860 related firmware (Application Mode).	Ether IMG ***min Updating fail A6	Turn the power off then back on. Updating starts automatically. Carry out the update in an environment that has little network load.
A7	When rewriting DM860 related firmware (Application Mode), request was made for firmware data after DPMS login but it timed out.	Ether IMG ***min Updating fail A7	Turn the power off then back on. Updating starts automatically. Carry out the update in an environment that has little network load.
A8	Failure to acquire (Boot Loader Mode) IP address before rewriting DM860 (AutoIP).	Ether IMG ***min ConnectionFailIA8	Check the network connection. Carry out the update in an environment that has little network load.
A9	Failure to acquire (Boot Loader Mode) IP address before rewriting DM860 (when timed out).	Ether IMG ***min ConnectionFailIA9	Check the network connection. Carry out the update in an environment that has little network load.
AA	Notification of invalid login via DPMS access when rewriting DM860 related firmware (Boot Loader Mode).	Ether IMG ***min Login failed AA	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
AB	Notification of line congestion via DPMS access when rewriting DM860 related firmware (Boot Loader Mode).	Ether IMG ***n in Server is busy AB	Check the network connection. Carry out the update in an environment that has little network load.
AC	Notification of connection failure via DPMS access when rewriting DM860 related firmware (Boot Loader Mode).	Ether IMG ***n in Connection Fail AC	Check the network connection. Carry out the update in an environment that has little network load.
AE	Firmware download error message received (when download fails) when rewriting DM860 related firmware (Boot Loader Mode).	Ether IMG ***n in Download fail AE	Turn the power off then back on. Updating starts automatically. Carry out the update in an environment that has little network load.
AF	Firmware download error message received (line congestion) when rewriting DM860 related firmware (Boot Loader Mode).	Ether IMG ***n in Server is busy AF	Turn the power off then back on. Updating starts automatically. Carry out the update in an environment that has little network load.
B0	Firmware download error message received (connection failure) when rewriting DM860 related firmware (Boot Loader Mode).	Ether IMG ***n in Connection Fail B0	Turn the power off then back on. Updating starts automatically. Carry out the update in an environment that has little network load.
B2	Error message received when rewriting DM860 related firmware.	Ether IMG ***n in Updating fail B2	Turn the power off then back on. Updating starts automatically. Carry out the update in an environment that has little network load.

Device display when firmware updated

Target of device when firmware updated.

Target of device	Display	Error cpde																																
Main	<table border="1"> <tr><td>M</td><td>a</td><td>i</td><td>n</td><td></td><td></td><td></td><td></td><td>*</td><td>*</td><td>*</td><td>m</td><td>i</td><td>n</td></tr> <tr><td>U</td><td>p</td><td>d</td><td>a</td><td>t</td><td>i</td><td>n</td><td>g</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>	M	a	i	n					*	*	*	m	i	n	U	p	d	a	t	i	n	g							10~15 36~3C				
M	a	i	n					*	*	*	m	i	n																					
U	p	d	a	t	i	n	g																											
Sub	<table border="1"> <tr><td>S</td><td>u</td><td>b</td><td></td><td></td><td></td><td></td><td></td><td>*</td><td>*</td><td>*</td><td>m</td><td>i</td><td>n</td></tr> <tr><td>U</td><td>p</td><td>d</td><td>a</td><td>t</td><td>i</td><td>n</td><td>g</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>	S	u	b						*	*	*	m	i	n	U	p	d	a	t	i	n	g							50~52 54~58 5A~62				
S	u	b						*	*	*	m	i	n																					
U	p	d	a	t	i	n	g																											
Audio PLD	<table border="1"> <tr><td>A</td><td>P</td><td>L</td><td>D</td><td></td><td></td><td></td><td></td><td>*</td><td>*</td><td>*</td><td>m</td><td>i</td><td>n</td></tr> <tr><td>U</td><td>p</td><td>d</td><td>a</td><td>t</td><td>i</td><td>n</td><td>g</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>	A	P	L	D					*	*	*	m	i	n	U	p	d	a	t	i	n	g							50~52 54~58 5A~62				
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DSP	<table border="1"> <tr><td>D</td><td>S</td><td>P</td><td></td><td></td><td></td><td></td><td></td><td>*</td><td>*</td><td>*</td><td>m</td><td>i</td><td>n</td></tr> <tr><td>U</td><td>p</td><td>d</td><td>a</td><td>t</td><td>i</td><td>n</td><td>g</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>	D	S	P						*	*	*	m	i	n	U	p	d	a	t	i	n	g							50~52 54~58 5A~62				
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U	p	d	a	t	i	n	g																											
OSD (FPGA/Program/Font Data)	<table border="1"> <tr><td>O</td><td>S</td><td>D</td><td></td><td></td><td></td><td></td><td></td><td>*</td><td>*</td><td>*</td><td>m</td><td>i</td><td>n</td></tr> <tr><td>U</td><td>p</td><td>d</td><td>a</td><td>t</td><td>i</td><td>n</td><td>g</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>	O	S	D						*	*	*	m	i	n	U	p	d	a	t	i	n	g							50~52 54~58 5A 62 80~86				
O	S	D						*	*	*	m	i	n																					
U	p	d	a	t	i	n	g																											
DM860 Boot Loader	<table border="1"> <tr><td>E</td><td>t</td><td>h</td><td>e</td><td>r</td><td></td><td>S</td><td>B</td><td>L</td><td></td><td>*</td><td>*</td><td>*</td><td>m</td><td>i</td><td>n</td></tr> <tr><td>U</td><td>p</td><td>d</td><td>a</td><td>t</td><td>i</td><td>n</td><td>g</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>	E	t	h	e	r		S	B	L		*	*	*	m	i	n	U	p	d	a	t	i	n	g									A0~A4 A6~AC AE~B0 B2
E	t	h	e	r		S	B	L		*	*	*	m	i	n																			
U	p	d	a	t	i	n	g																											
DM860 Image	<table border="1"> <tr><td>E</td><td>t</td><td>h</td><td>e</td><td>r</td><td></td><td>I</td><td>M</td><td>G</td><td></td><td>*</td><td>*</td><td>*</td><td>m</td><td>i</td><td>n</td></tr> <tr><td>U</td><td>p</td><td>d</td><td>a</td><td>t</td><td>i</td><td>n</td><td>g</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>	E	t	h	e	r		I	M	G		*	*	*	m	i	n	U	p	d	a	t	i	n	g									A0~A4 A6~AC AE~B0 B2
E	t	h	e	r		I	M	G		*	*	*	m	i	n																			
U	p	d	a	t	i	n	g																											

SURROUND MODES AND PARAMETERS

Symbols in the table

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

Surround mode	Channel output					Surround Parameter					Room Size			
	Front L/R	Center	Surround L/R	Surround back L/R	Front height L/R	Front-wide L/R	Subwoofer	Mode	Cinema ED. *5	DRC *9		D. Comp *10	LFE *11	Delay Time
PURE DIRECT	○						⊙ *3					○		
DIRECT (2channel)	○						⊙ *3					○		
DIRECT (Multi-channel)	○	⊙	⊙	⊙ *1	⊙ *1	⊙ *1						○		
STEREO	○						⊙					○		
MULTI CH IN	○	⊙	⊙	⊙	⊙ *2		⊙	○ *4				○		
DOLBY PRO LOGIC IIz	○	⊙	⊙	⊙	⊙		⊙					○		
DOLBY PRO LOGIC IIx	○	⊙	⊙	⊙			⊙		○ *6			○		
DOLBY PRO LOGIC II	○	⊙	⊙	⊙			⊙		○ *7			○		
DOLBY PRO LOGIC	○	⊙	⊙	⊙	⊙ *12	⊙ *13	⊙		○ *7			○		
DOLBY PRO LOGIC II A-DSX	○	⊙	⊙	⊙	⊙ *12	⊙ *13	⊙		○ *7			○		
DOLBY PRO LOGIC A-DSX	○	⊙	⊙	⊙	⊙		⊙		○ *6			○		
DTS NEO6	○	⊙	⊙	⊙			⊙		○ *6			○		
DTS NEO6 A-DSX	○	⊙	⊙	⊙	⊙ *12	⊙ *13	⊙		○ *6			○		
Audyssey/DSX	○	⊙	⊙	⊙	⊙ *12	⊙ *13	⊙		○ *8			○		
DOLBY DIGITAL	○	⊙	⊙	⊙	⊙ *2		⊙		○ *8			○		
DOLBY DIGITAL Plus	○	⊙	⊙	⊙	⊙ *2		⊙		○ *8			○		
DOLBY TrueHD	○	⊙	⊙	⊙	⊙ *2		⊙		○ *8			○		
DTS SURROUND	○	⊙	⊙	⊙	⊙ *2		⊙		○ *8			○		
DTS 96/24	○	⊙	⊙	⊙	⊙ *2		⊙		○ *8			○		
DTS-HD	○	⊙	⊙	⊙	⊙ *2		⊙		○ *8			○		
DTS Express	○	⊙	⊙	⊙	⊙ *2		⊙		○ *8			○		
MULTI CH STEREO	○	⊙	⊙	⊙ *14	⊙ *15	⊙ *16	⊙		○ *8			○		
ROCK ARENA	○	⊙	⊙	⊙ *14	⊙ *15	⊙ *16	⊙		○ *8			○		
JAZZ CLUB	○	⊙	⊙	⊙ *14	⊙ *15	⊙ *16	⊙		○ *8			○		
MONO MOVIE	○	⊙	⊙	⊙ *14	⊙ *15	⊙ *16	⊙		○ *8			○		
VIDEO GAME	○	⊙	⊙	⊙ *14	⊙ *15	⊙ *16	⊙		○ *8			○		
MATRIX	○	⊙	⊙	⊙ *14	⊙ *15	⊙ *16	⊙		○ *8			○		
VIRTUAL	○	⊙	⊙	⊙ *14	⊙ *15	⊙ *16	⊙	⊙ *3				○		

- *1 A signal for each channel contained in an input signal is output as audio.
- *2 If "Surround Parameter" – "F Height" is set to "ON", sound is output from the front height speakers.
- *3 Only when "Subwoofer Mode" is set to "LFE+Main", sound is output from the subwoofer.
- *4 If this surround mode is selected, only the "Height" mode setting is available for "Surround Parameter" – "Mode".
- *5 For HD Audio whose sampling frequency of an input signal is more than 96 kHz, this sound parameter cannot be set.
- *6 This item can be selected when "Surround Parameter" – "Mode" is set to "Cinema".
- *7 This item can be selected when "Surround Parameter" – "Mode" is set to "Cinema" or "Pro Logic".
- *8 This item cannot be set when "Surround Parameter" – "S.Back" is set to "PLIIx Music".
- *9 This item can be selected when a Dolby TrueHD signal is played.
- *10 This item can be selected when a Dolby Digital or DTS signal is played.
- *11 This item can be selected when a Dolby Digital or DTS signal or DVD-Audio is played.
- *12 If "Audyssey DSX" is set to "ON-Height", sound is output from the front height speakers.
- *13 If "Audyssey DSX" is set to "ON-Wide", sound is output from the front wide speakers.
- *14 If "Surround Parameter" – "Speaker" – "S.Back" is set to "ON", sound is output from the surround back speakers.
- *15 If "Surround Parameter" – "Speaker" – "F.Height" is set to "ON", sound is output from the front height speakers.
- *16 If "Surround Parameter" – "Speaker" – "F.Wide" is set to "ON", sound is output from the front wide speakers.

Surround mode	Surround Parameter										Tone * 19	Audyssey Settings * 24			Audyssey DSX™ * 24 * 25	RESTORE * 23	
	AFDM * 11	S.Back	F.Height * 17	Height Gain * 18	Speaker	Subwoofer	PRO LOGIC II/Ix Music mode only			NEO6 Music mode only		MultEQ® XT	Dynamic EQ® * 21	Dynamic Volume™ * 22			
							Panorama	Dimension	C.Width	C.Width							C.Image
PURE DIRECT						<input type="radio"/> *3											
DIRECT (2 channel)						<input type="radio"/> *3											
DIRECT (Multi-channel)																	
STEREO																	
MULTI CH IN	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>								<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		<input type="radio"/>	
DOLBY PRO LOGIC IIz			<input type="radio"/>	<input type="radio"/>													<input type="radio"/>
DOLBY PRO LOGIC IIx		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				<input type="radio"/>	<input type="radio"/>								<input type="radio"/>
DOLBY PRO LOGIC II		<input type="radio"/>	<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"/>								<input type="radio"/>
DOLBY PRO LOGIC II A-DSX								<input type="radio"/>	<input type="radio"/>								<input type="radio"/>
DOLBY PRO LOGIC A-DSX								<input type="radio"/>	<input type="radio"/>								<input type="radio"/>
DTS NEO6											<input type="radio"/>						<input type="radio"/>
DTS NEO6 A-DSX											<input type="radio"/>						<input type="radio"/>
Audyssey DSX																	
DOLBY DIGITAL	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				<input type="radio"/>	<input type="radio"/>								<input type="radio"/>
DOLBY DIGITAL Plus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				<input type="radio"/>	<input type="radio"/>								<input type="radio"/>
DOLBY TrueHD	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				<input type="radio"/>	<input type="radio"/>								<input type="radio"/>
DTS SURROUND	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				<input type="radio"/>	<input type="radio"/>								<input type="radio"/>
DTS 96/24	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				<input type="radio"/>	<input type="radio"/>								<input type="radio"/>
DTS-HD	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				<input type="radio"/>	<input type="radio"/>								<input type="radio"/>
DTS Express	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				<input type="radio"/>	<input type="radio"/>								<input type="radio"/>
MULTI CH STEREO																	<input type="radio"/>
ROCK ARENA																	<input type="radio"/>
JAZZ CLUB																	<input type="radio"/>
MONO MOVIE																	<input type="radio"/>
VIDEO GAME																	<input type="radio"/>
IMATRIX																	<input type="radio"/>
VIRTUAL																	<input type="radio"/>

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

* 17 If "Speaker Config." – "F.Height" is set to "None", this item cannot be selected.

* 18 This item can be selected when "Surround Parameter" – "F.Height" is set to "ON".

* 19 This item cannot be set when "Dynamic EQ" is set to "ON".

* 20 In this surround mode, bass is +6 dB, and treble is +4 dB. (Default)

* 21 This item cannot be set when "MultEQ XT" is set to "OFF" or "Manual".

* 22 This item cannot be set when "Dynamic EQ" is set to "OFF".

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

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

* 25 This item can not be selected when "Surround Parameter" – "F.Height" is set to "ON".

Surround mode	NOTE	Input signal types and formats															
		ANALOG		PCM		DTS-HD		DTS				DOLBY		DOLBY DIGITAL			
		LINEAR PCM (multi ch)	LINEAR PCM (2ch)	DTS-HD Master Audio	DTS-HD High Resolution Audio	DTS EXPRESS	DTS ES DSCRT (With Flag)	DTS ES MTRX (With Flag)	DTS (5.1ch)	DTS 96/24	DOLBY TrueHD	DOLBY DIGITAL Plus	DOLBY DIGITAL EX (With no Flag)	DOLBY DIGITAL (5.1/5.4ch)	DOLBY DIGITAL (4/3ch)	DOLBY DIGITAL (2ch)	
DOLBY SURROUND																	
DOLBY PRO LOGIC II CINEMA A-DSX																	
DOLBY PRO LOGIC II MUSIC A-DSX																	
DOLBY PRO LOGIC II GAME A-DSX																	
DOLBY PRO LOGIC A-DSX Audyssey A-DSX																	
MULTI CH IN																	
MULTI CH IN	*5																
MULTI CH IN + PLIIx CINEMA	*2 *3																
MULTI CH IN + PLIIx MUSIC	*1 *3																
MULTI CH IN + PLIIz	*4																
MULTI CH IN + Dolby EX	*3																
MULTI CH IN 7.1	*3																
Audyssey A-DSX																	
DIRECT																	
DIRECT																	
PURE DIRECT																	
PURE DIRECT																	
DSP SIMULATION																	
MULTI CH STEREO																	
ROCK ARENA																	
JAZZ CLUB																	
MONO MOVIE																	
VIDEO GAME																	
MATRIX																	
VIRTUAL																	
STEREO																	
STEREO																	

- *1 If "Speaker Config." - "S.Back" is set to "None", this surround mode cannot be selected.
- *2 If "Speaker Config." - "S.Back" is set to "1spkr" or "None", this surround mode cannot be selected.
- *3 This surround mode can be selected when "Amp Assign" is set to "Normal".
- *4 If "Speaker Config." - "F.Height" is set to "None", this surround mode cannot be selected.
- *5 The same as when "Audyssey DSX™" setting is set to "ON".

ADJUSTMENT

Audio Section

Idling Current

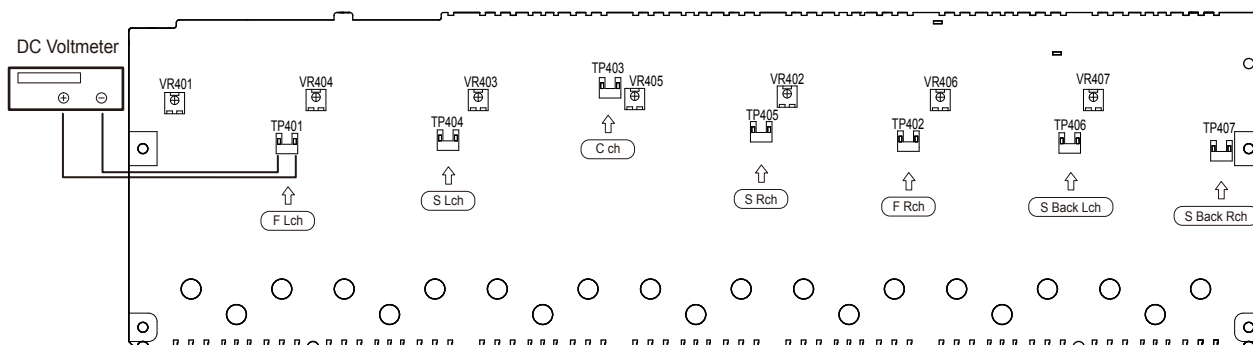
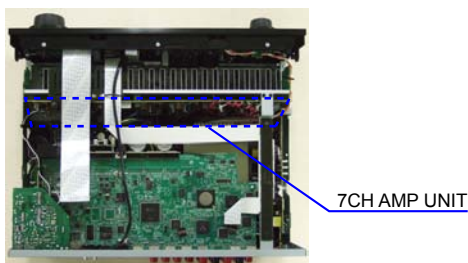
Required measurement equipment: DC Voltmeter

1. Preparation

- (1) Avoid direct blow from an air conditioner or an electric fan, and adjust the unit at normal room temperature 15 °C ~ 30 °C (59 °F ~ 86 °F).
- (2) Presetting
 - POWER (Power source switch) STANDBY
 - SPEAKER (Speaker terminal) No load
(Do not connect speaker, dummy resistor, etc.)

2. Adjustment

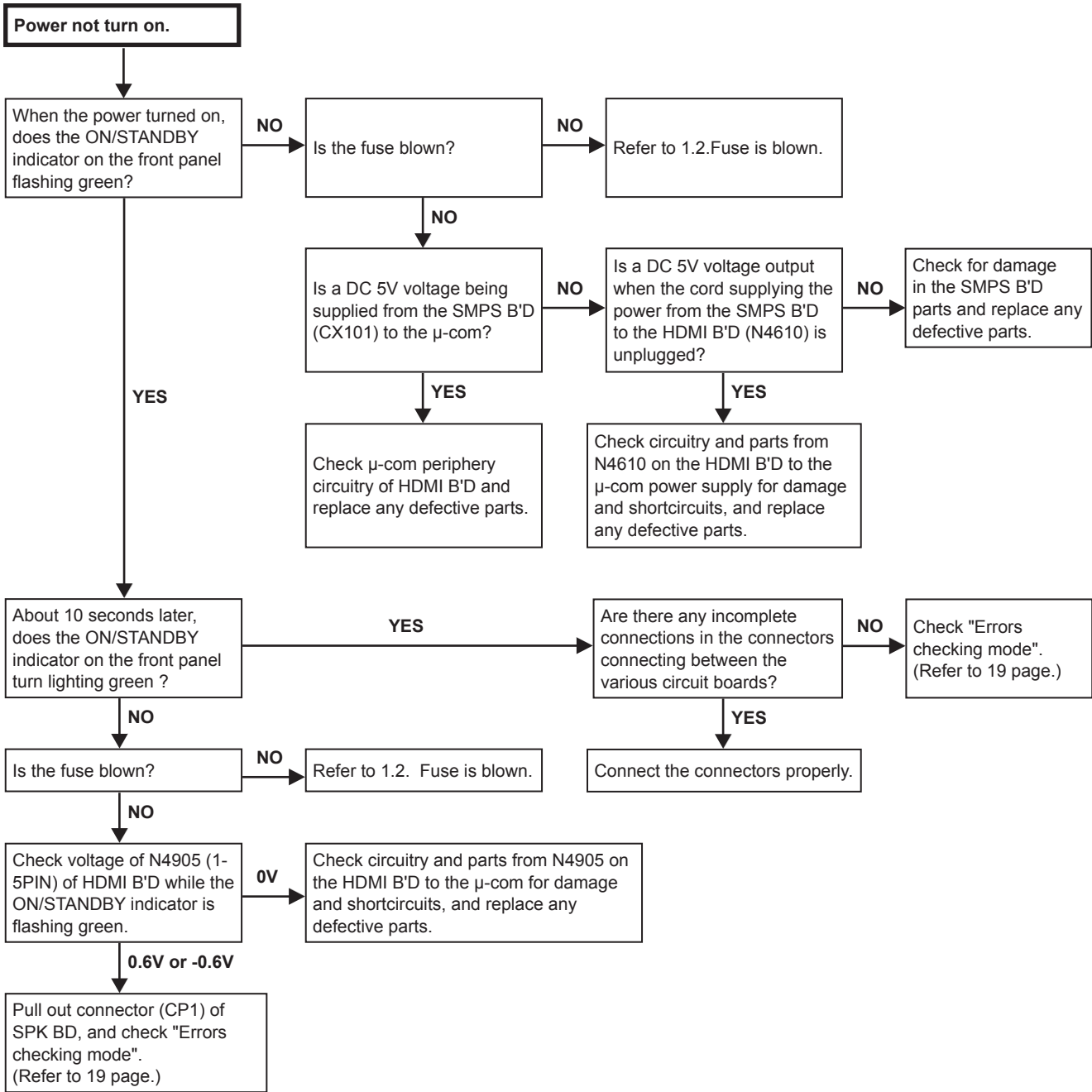
- (1) Remove top cover and set VR401, VR402, VR403, VR404, VR405, VR406, VR407 on 7CH AMP UNIT at fully counterclockwise (⊖) position.
- (2) Connect DC Voltmeter to test points (FRONT-Lch: TP401, FRONT-Rch: TP402, CENTER ch: TP403, SURROUND-Lch: TP404, SURROUND-Rch: TP405, SURROUND-BACK Lch: TP406, SURROUND-BACK Rch: TP407).
- (3) Connect power cord to AC Line, and turn power switch "ON".
- (4) Presetting.
 - MASTER VOLUME : "----" counterclockwise (⊖ min.)
 - SPEAKER (Speaker terminal) : No load
(Do not connect speaker, dummy resistor, etc.)
 - MODE : MCH STEREO
 - FUNCTION : DVD
- (5) Within 2 minutes after the power on, turn VR401 clockwise (⊕) to adjust the TEST POINT voltage to 8 mV ± 0.5 mV DC.
- (6) After 10 minutes from the preset above, turn VR401 to set the voltage to 8 mV ± 0.5 mV DC.
- (7) Adjust the Variable Resistors of other channels in the same way.



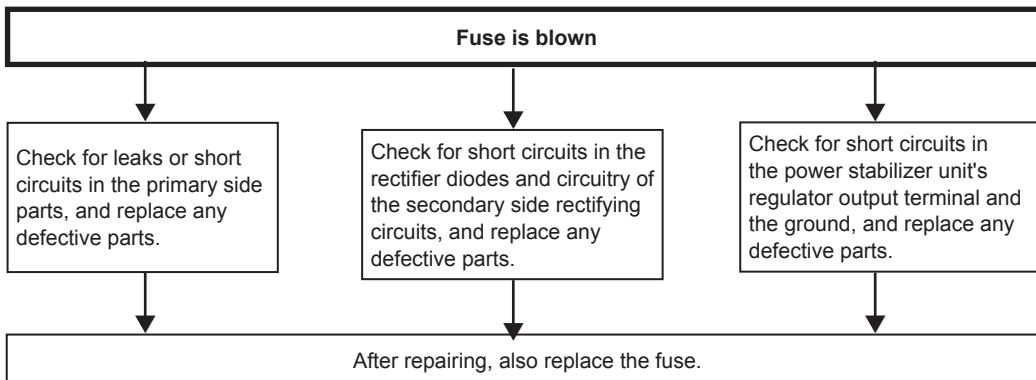
TROUBLE SHOOTING

1. POWER

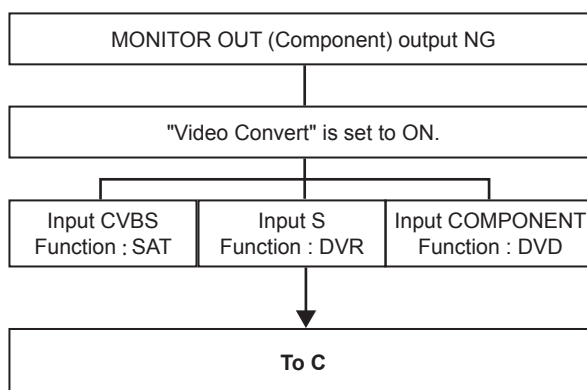
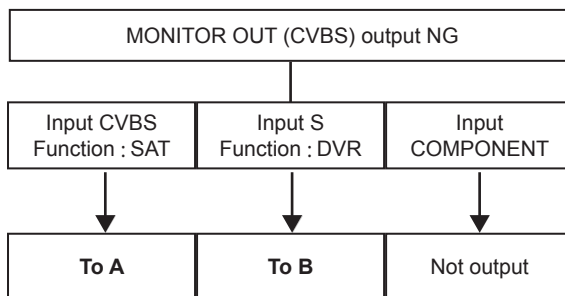
1.1. Power not turn on

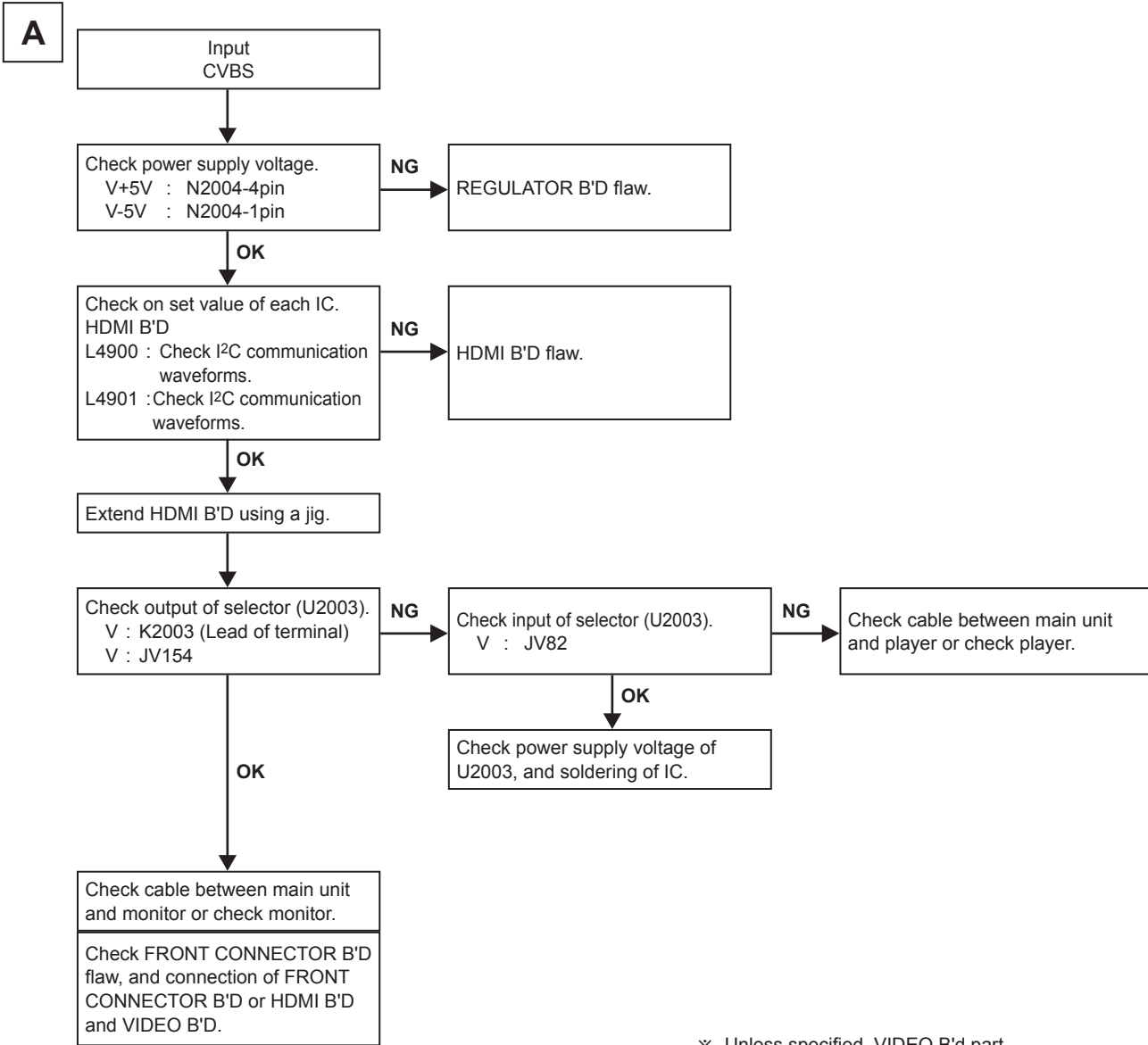


1.2. Fuse is blown

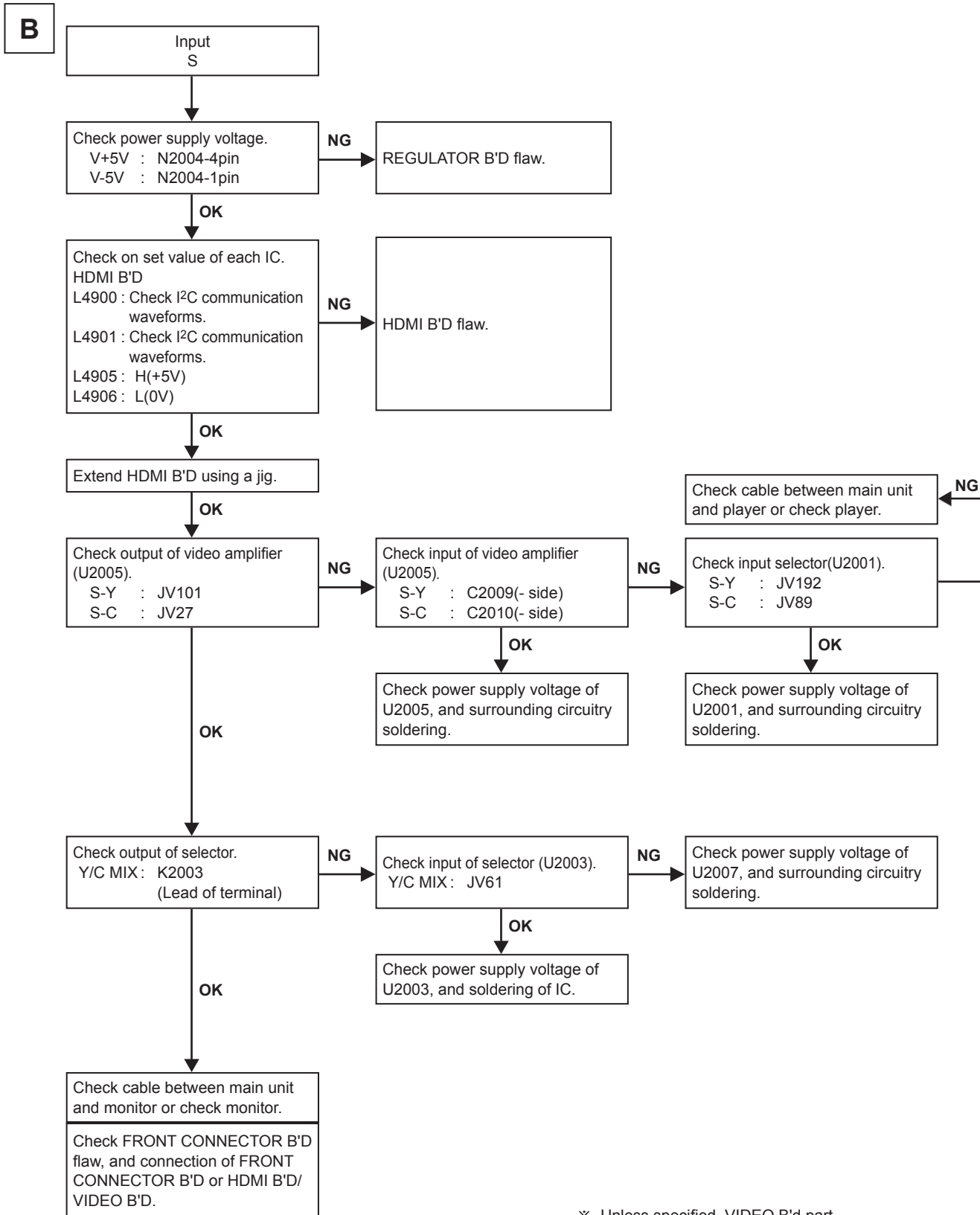


2. Analog video

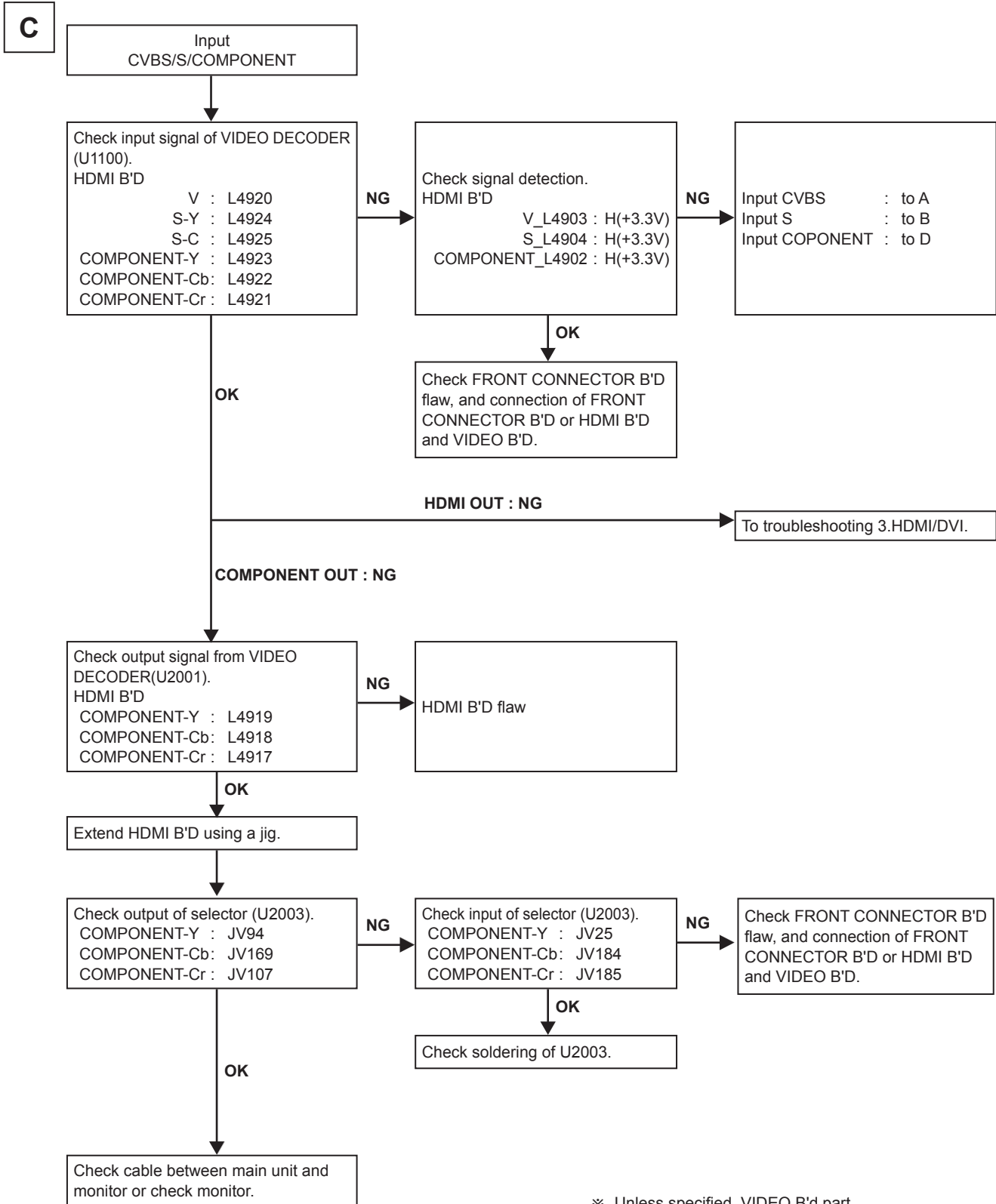




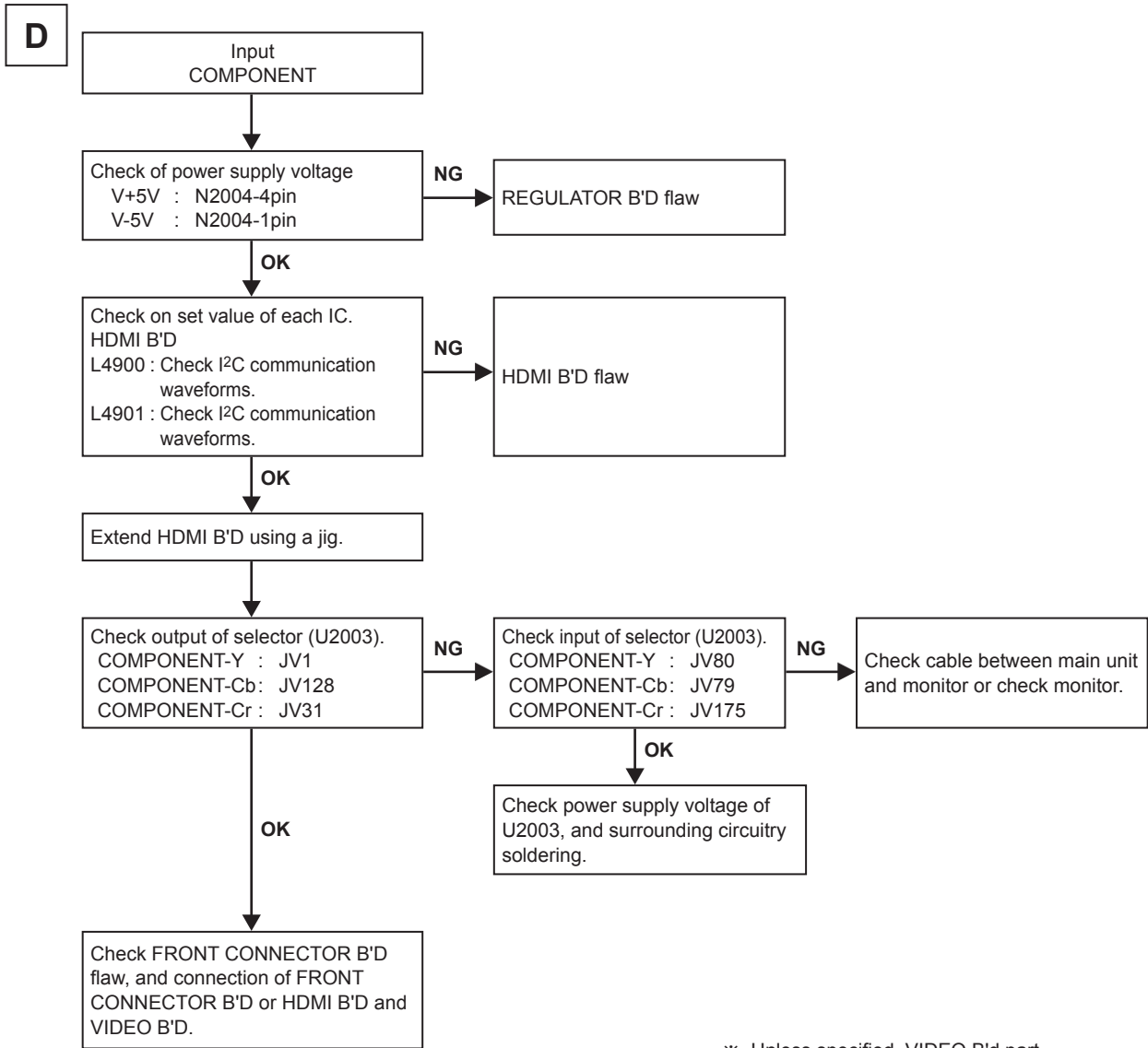
※ Unless specified, VIDEO B'd part.



※ Unless specified, VIDEO B'd part.

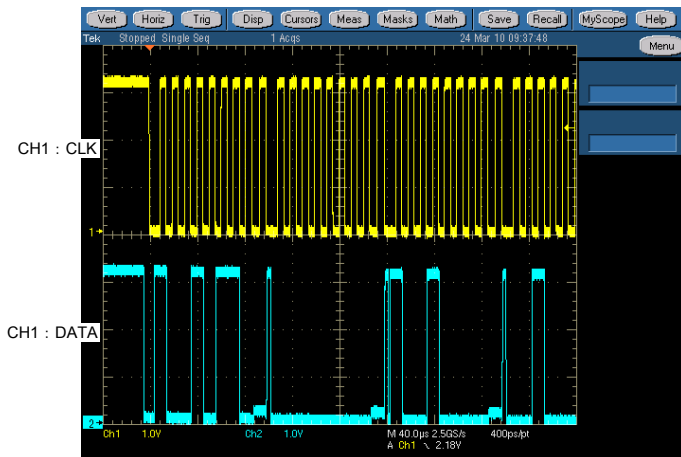


※ Unless specified, VIDEO B'd part.



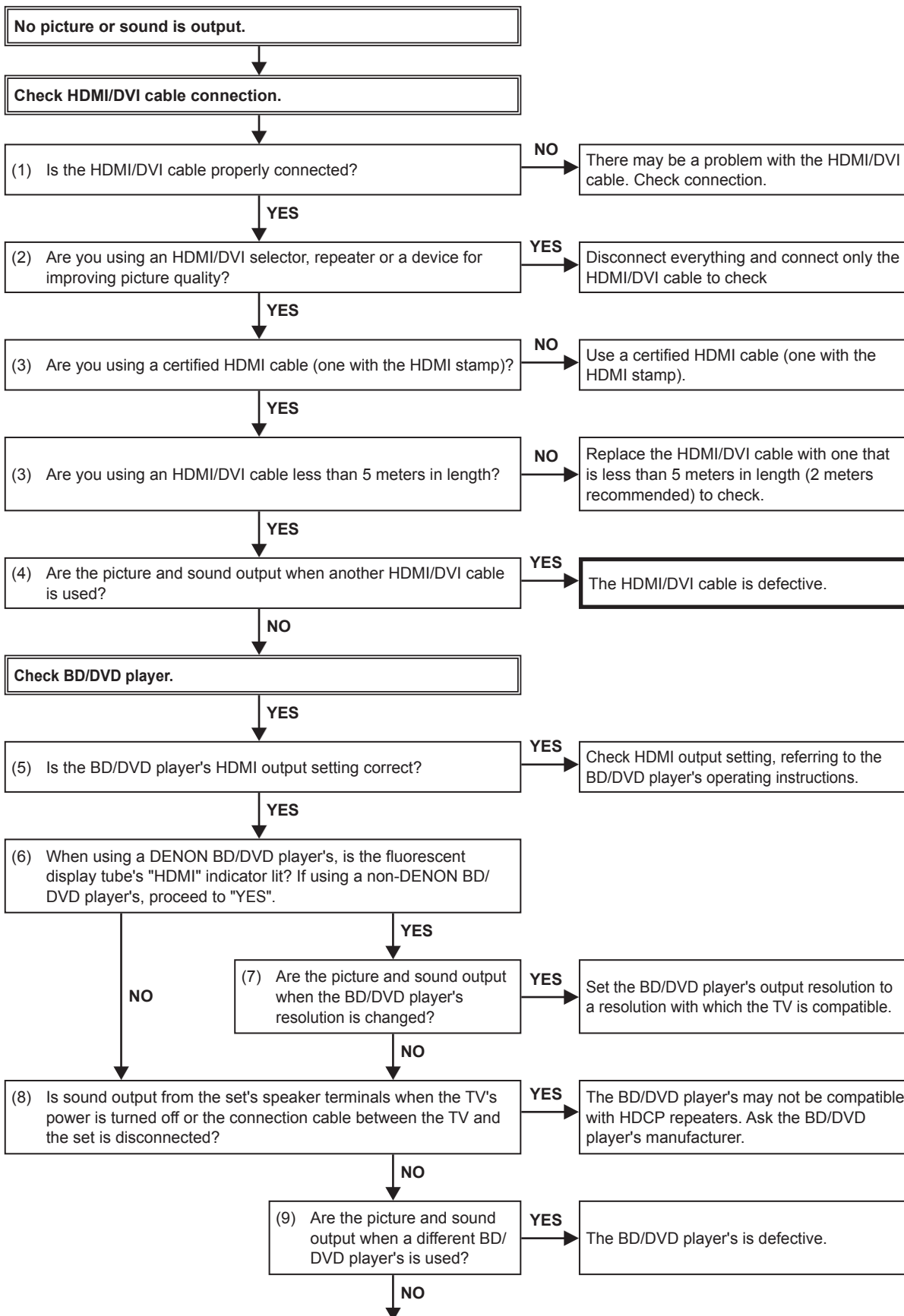
※ Unless specified, VIDEO B'd part.

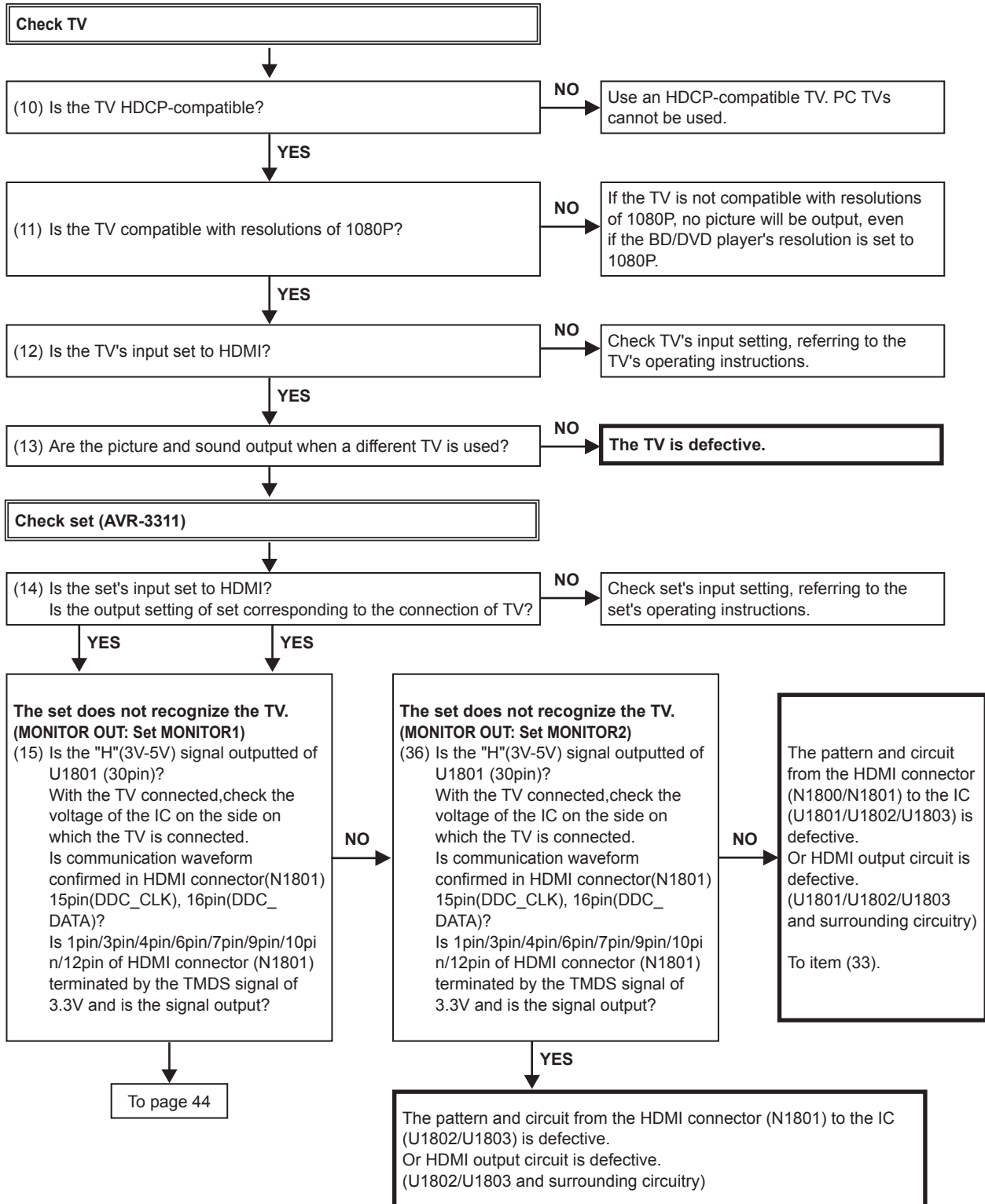
I2C communication waveforms

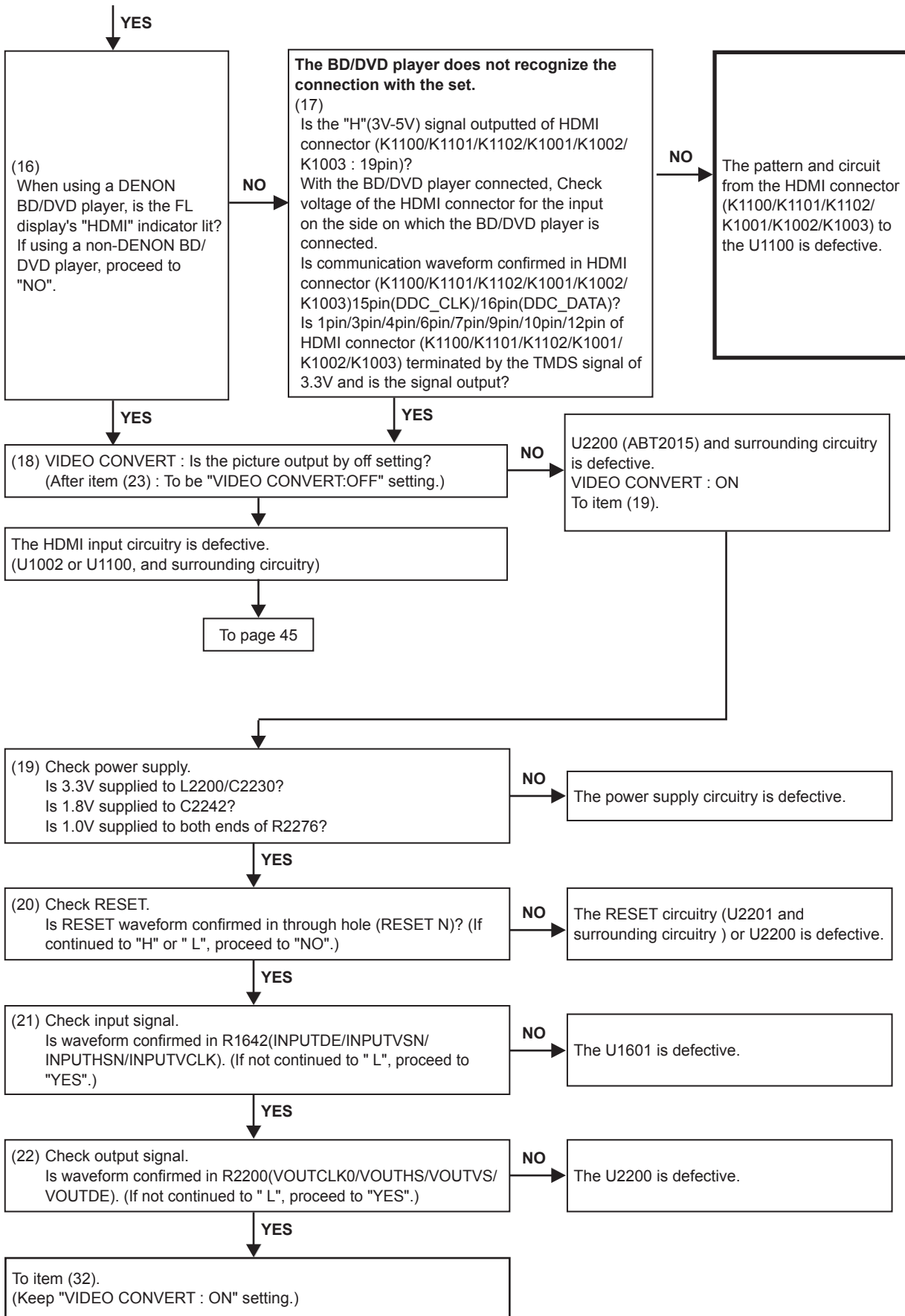


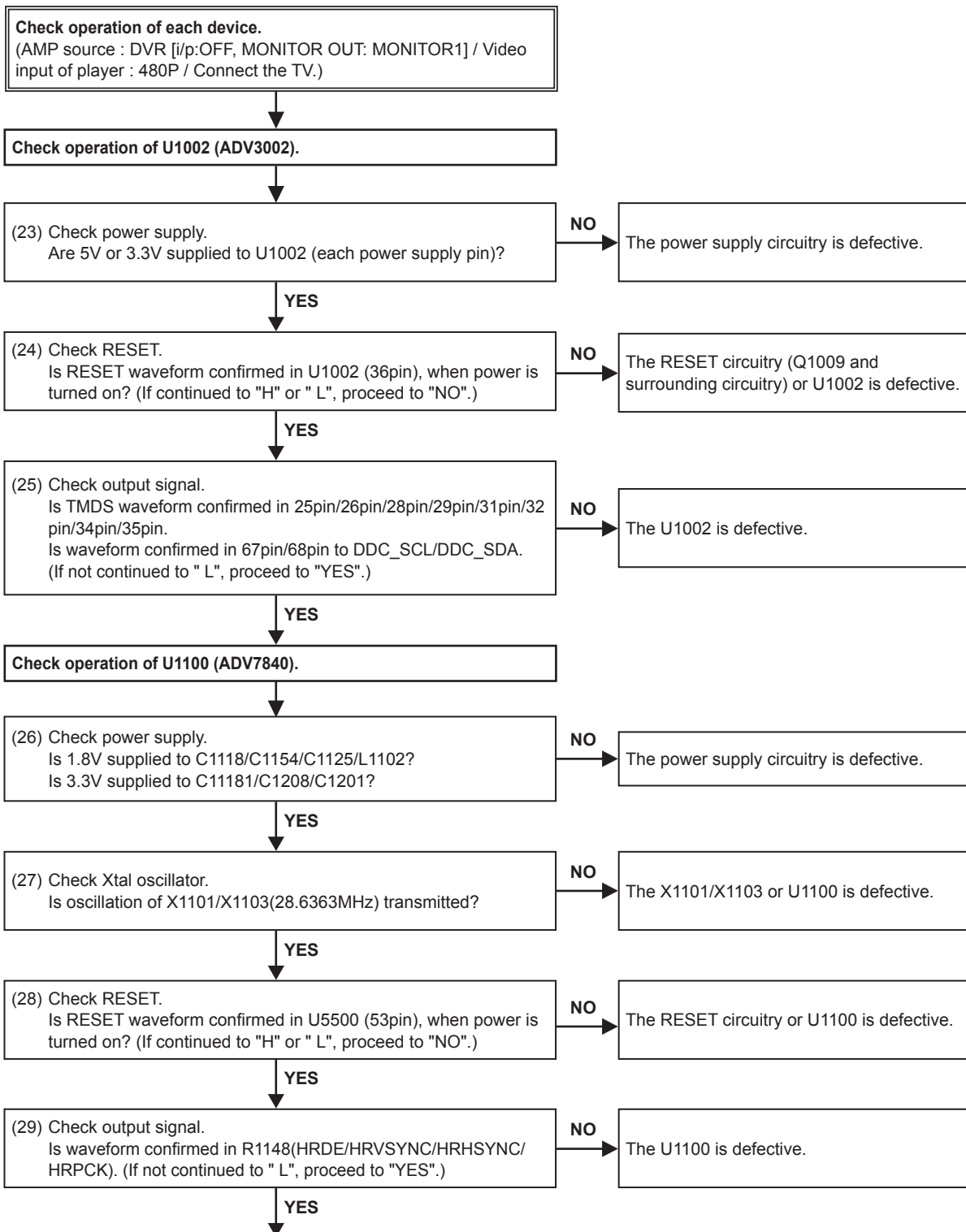
3. HDMI/DVI.

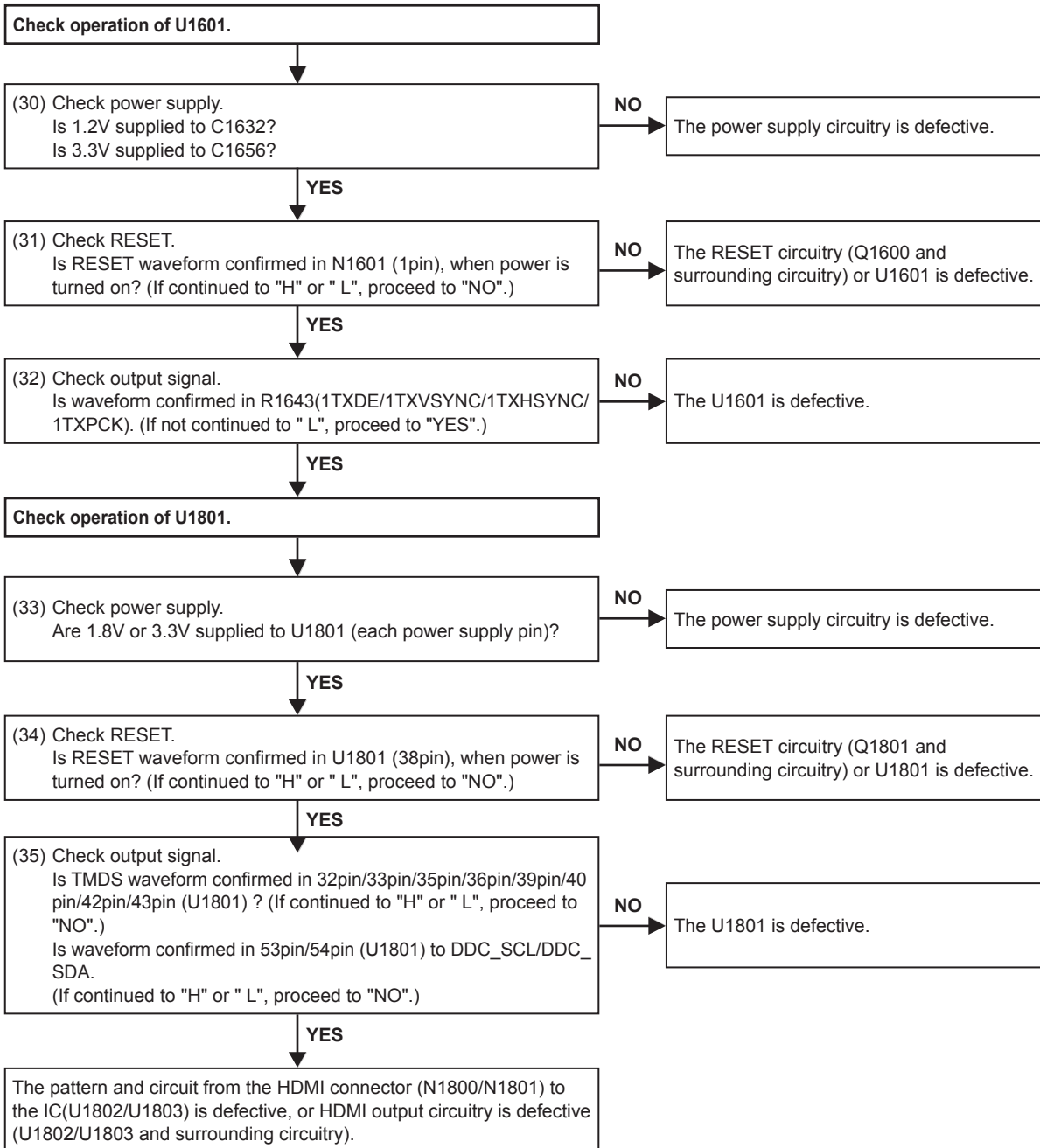
3.1. No picture or sound is output



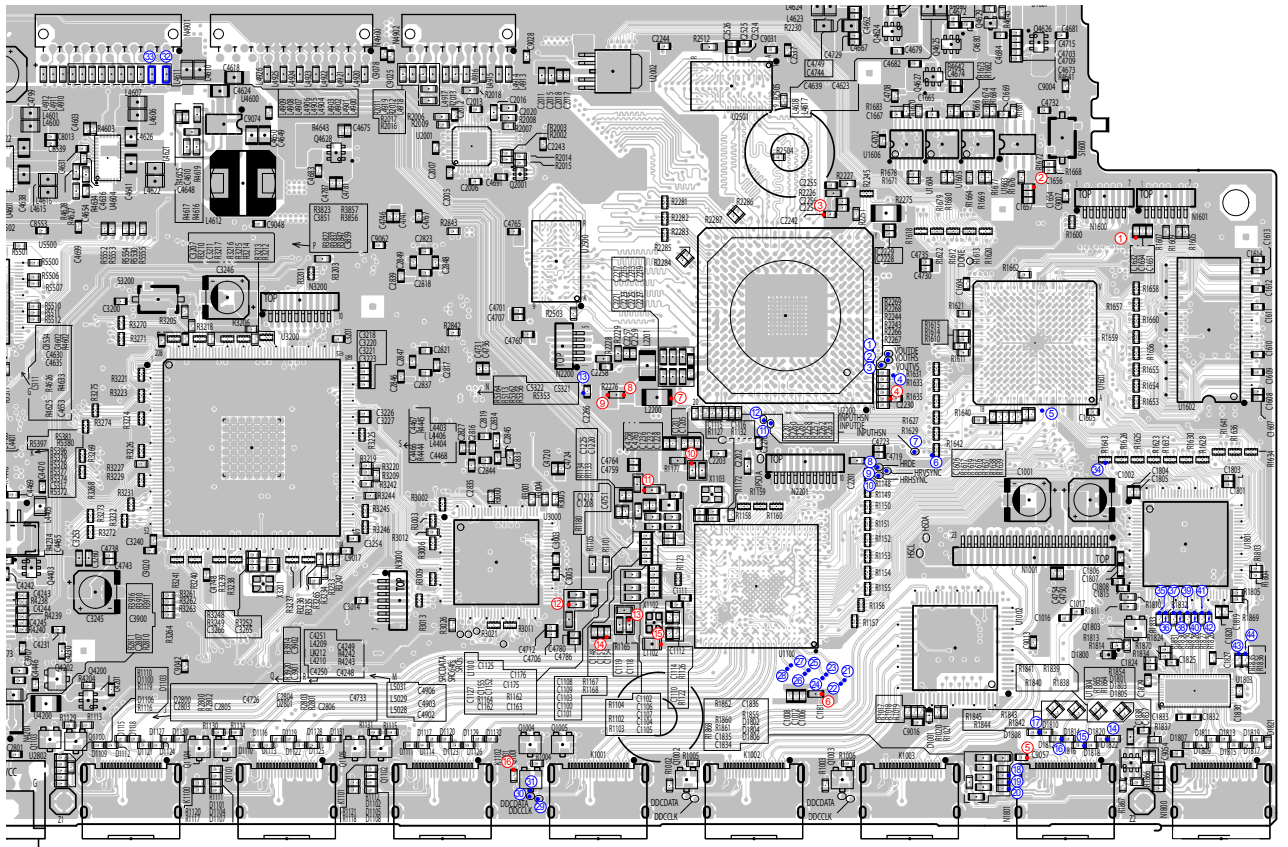
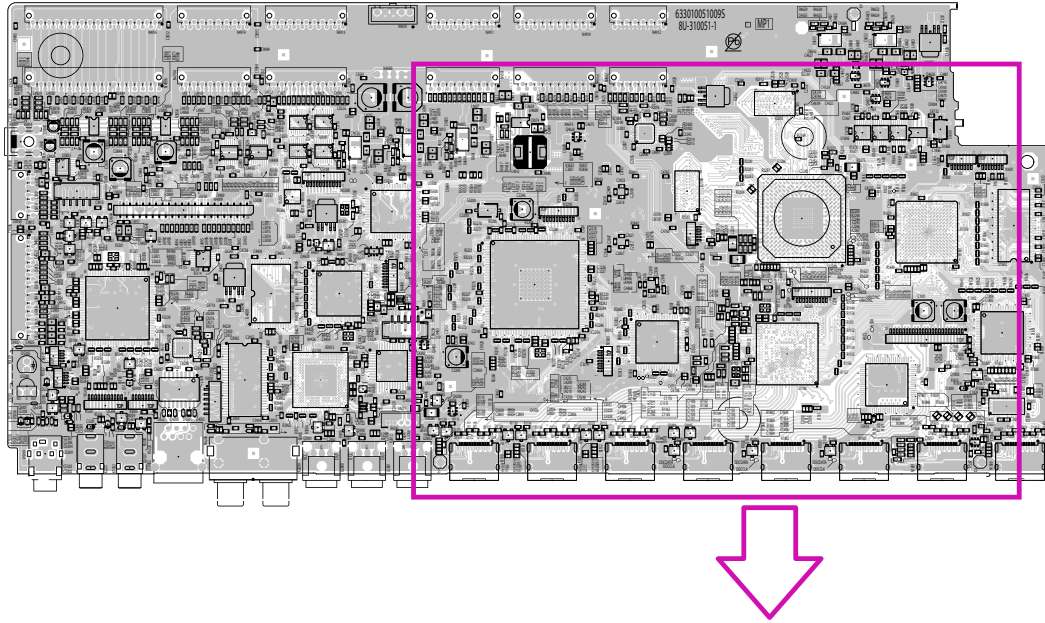








2.2. HDMI test point and waveforms



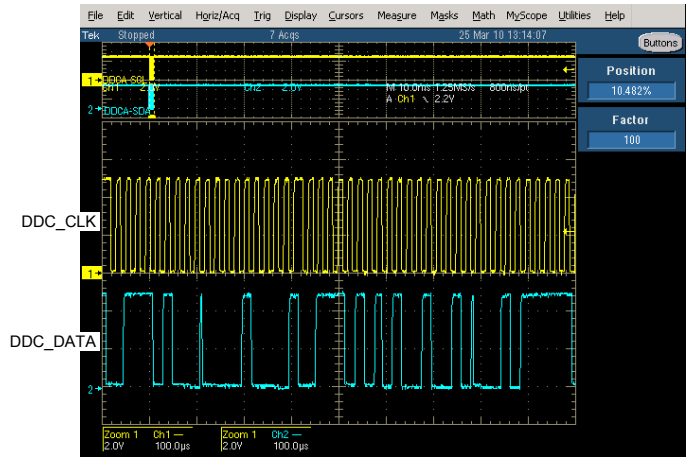
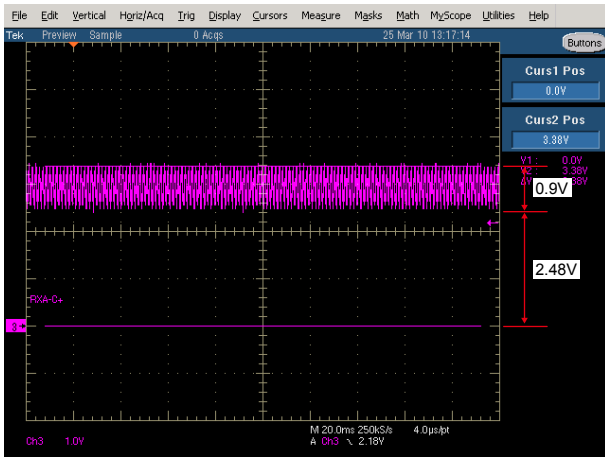
Check the voltage (Red)

No.	
1	1.2V
2	3.3V
3	1.8V
4	3.3V
5	+5V
6	3.3V
7	3.3V
8	1.0V
9	1.0V
10	3.3V
11	1.8V
12	3.3V
13	1.8V
14	1.8V
15	1.8V
16	+5V

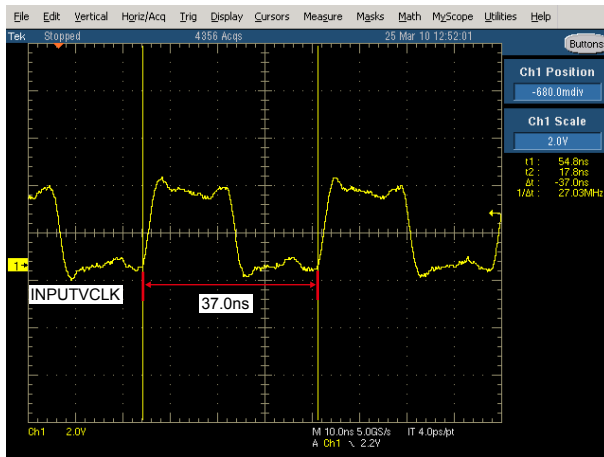
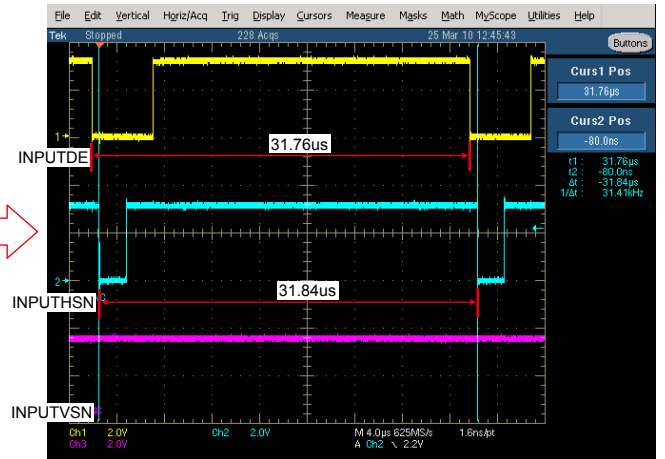
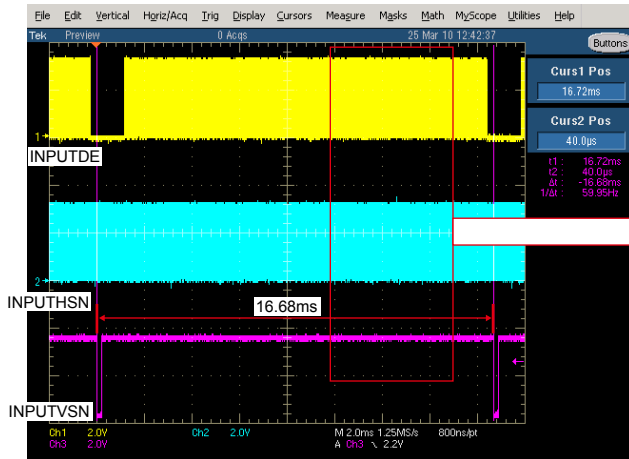
Check the wave form (Blue)

No.		No.	
1	VOUTDE	23	RXD_1+
2	VOUTH5	24	RXD_1-
3	VOUTV5	25	RXD_0+
4	VOUTCLK0	26	RXD_0-
5	HRPCK	27	RXD_C+
6	INPUTVCLK	28	RXD_C-
7	INPUTHSN	29	DDC CLK
8	HRDE	30	DDC DATA
9	HRVSYNC	31	HPD
10	HRHSYNC	32	I2C CLK
11	INPUTDE	33	I2C DATA
12	INPUTVSN	34	1TXPCK/1TXDE/ 1TXHSYNC/1TXVSYNC
13	RESETN.	35	TXC-
14	D2+/D2-	36	TXC+
15	D1+/D1-	37	TX0-
16	D0+/D0-	38	TX0+
17	CK+/CK-	39	TX1-
18	HPD	40	TX1+
19	DDC_SDA	41	TX2-
20	DDC_SCL	42	TX2+
21	RXD_2+	43	DDCSCL
22	RXD_2-	44	DDCSDA

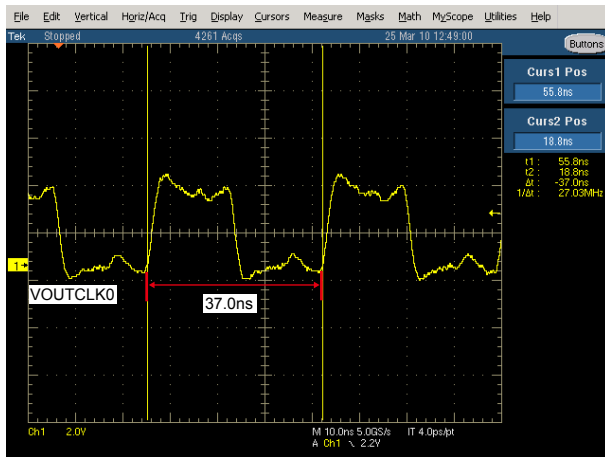
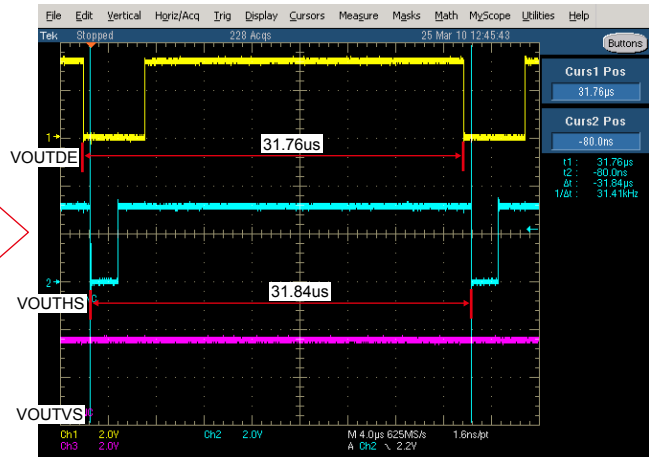
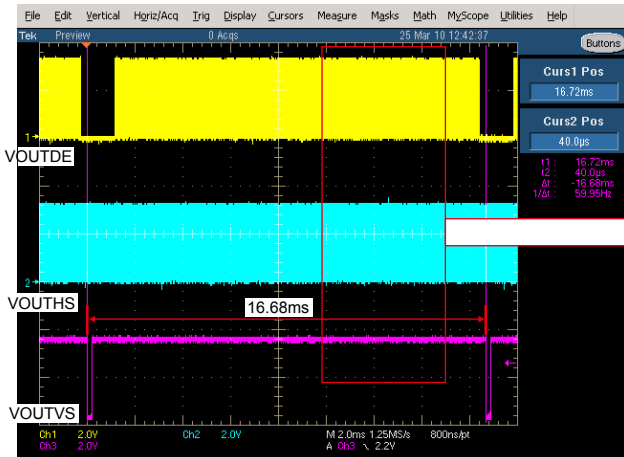
DDC_CLK/DDC_DATA/TMDS : Check item (15),(17),(25),(35),(36)



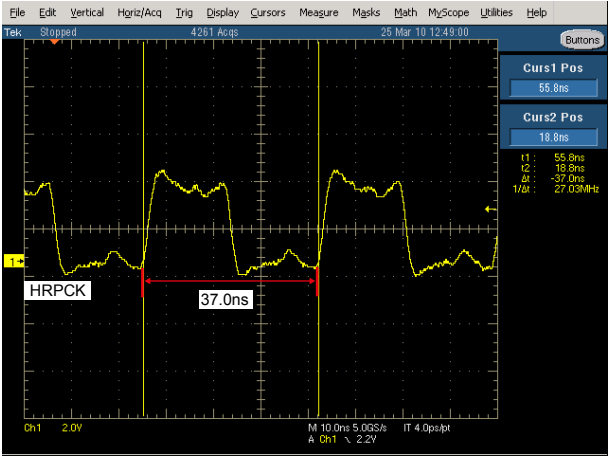
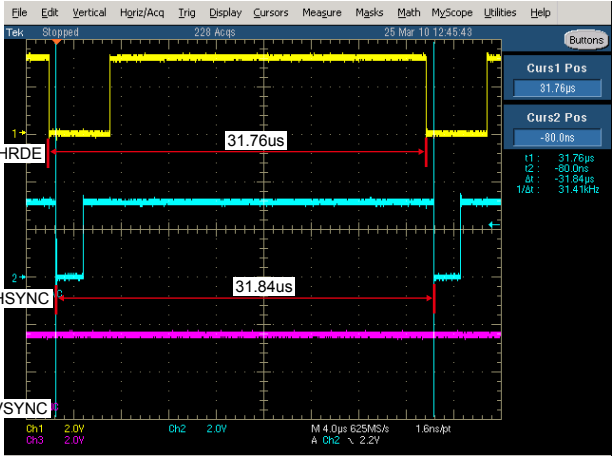
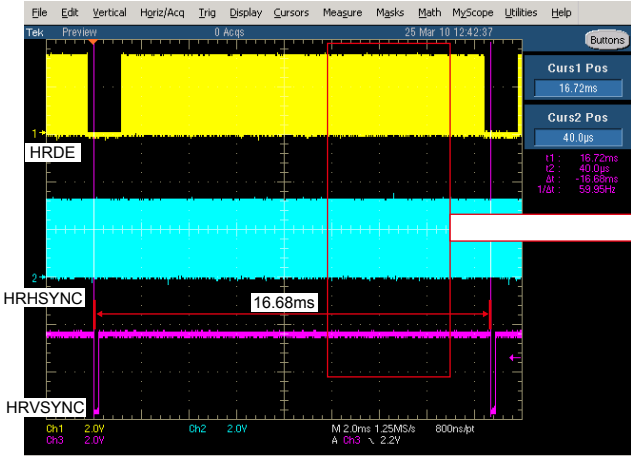
INPUTDE/INPUTVSN/INPUTHSN/INPUTVCLK : Check item (21)



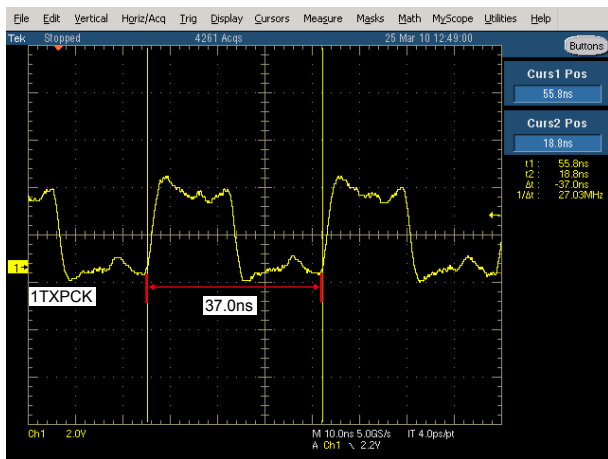
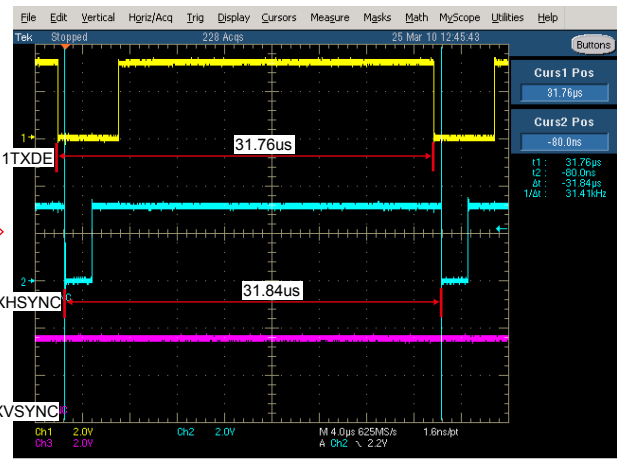
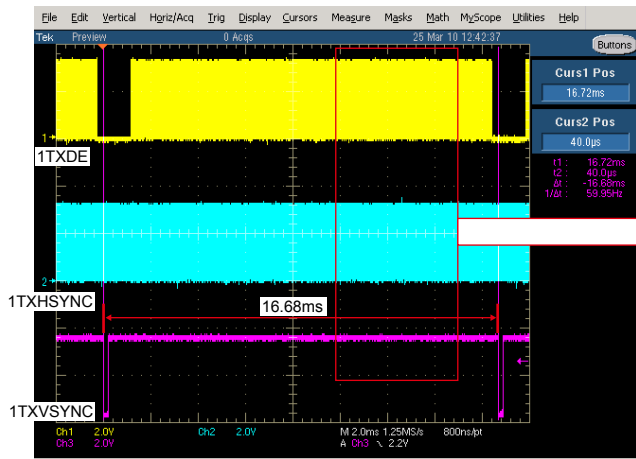
VOUTDE/VOUTVS/VOUTH0 : Check item (22)



HRDE/HRVSYNC/HRHSYNC/HRPCK : Check item (29)

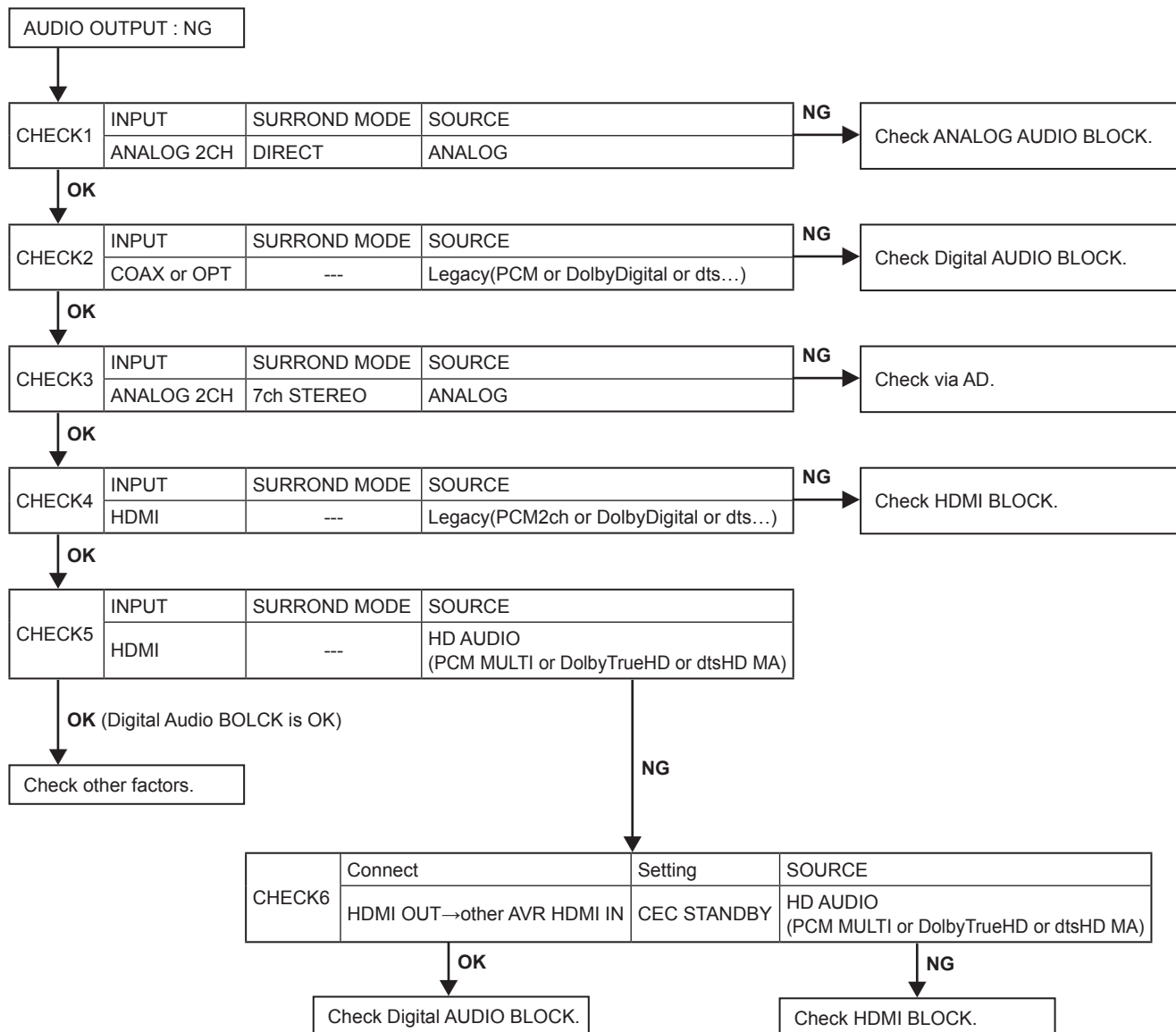


1TXDE/1TXVSYNC/1TXHSYNC/1TXPCK : Check item (32)

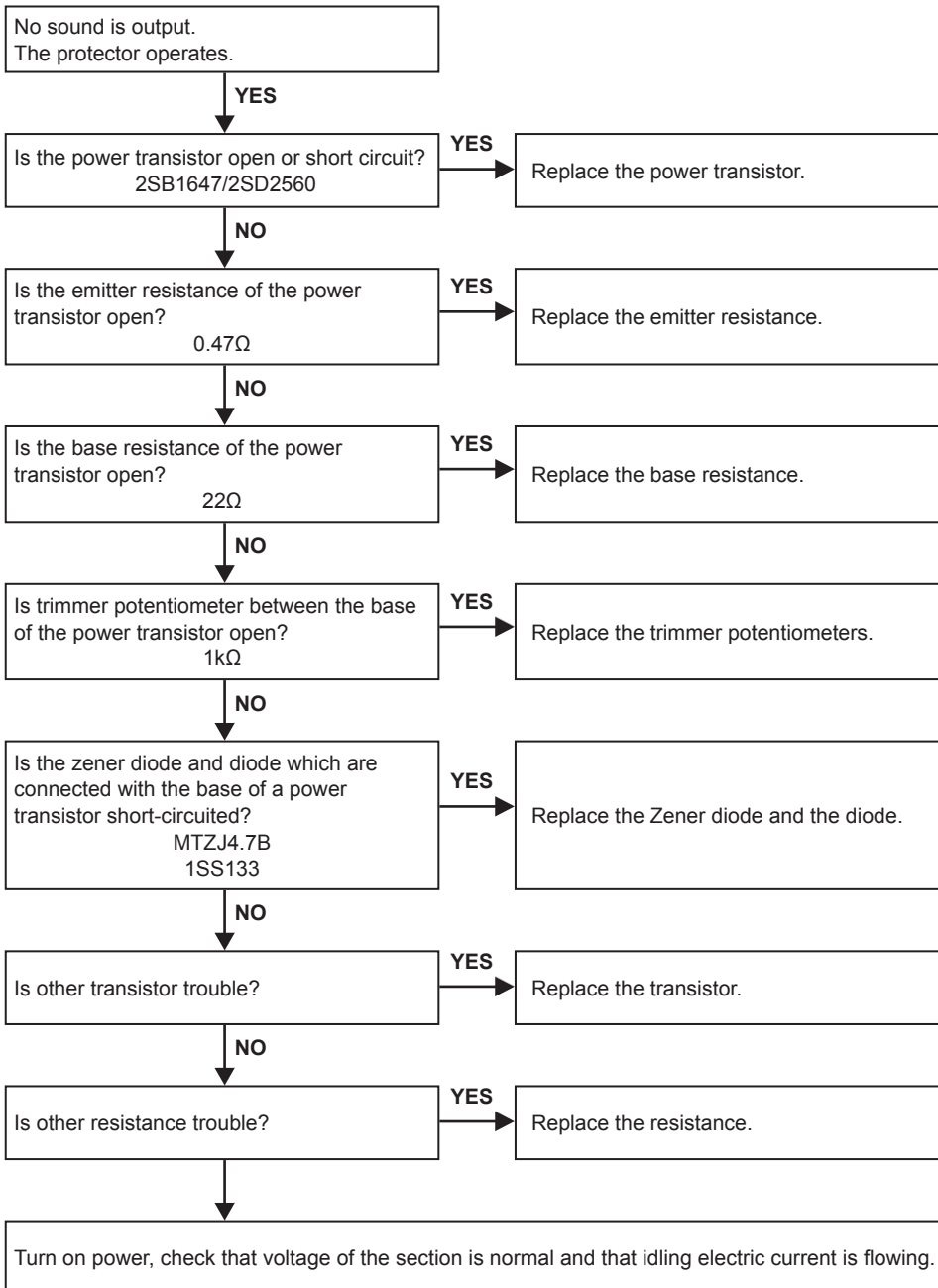


4. AUDIO

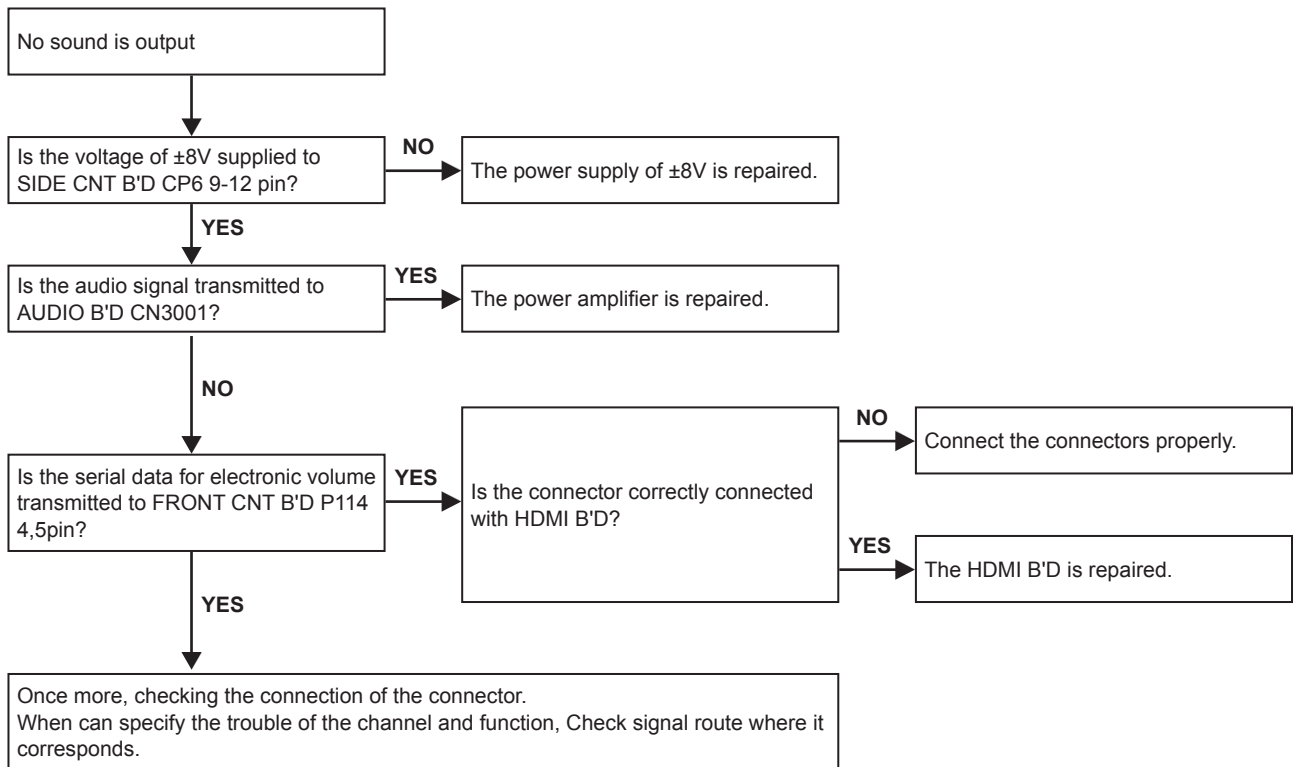
4.1. AUDIO CHECK



4.2. Power AMP (7CH AMP B'D)

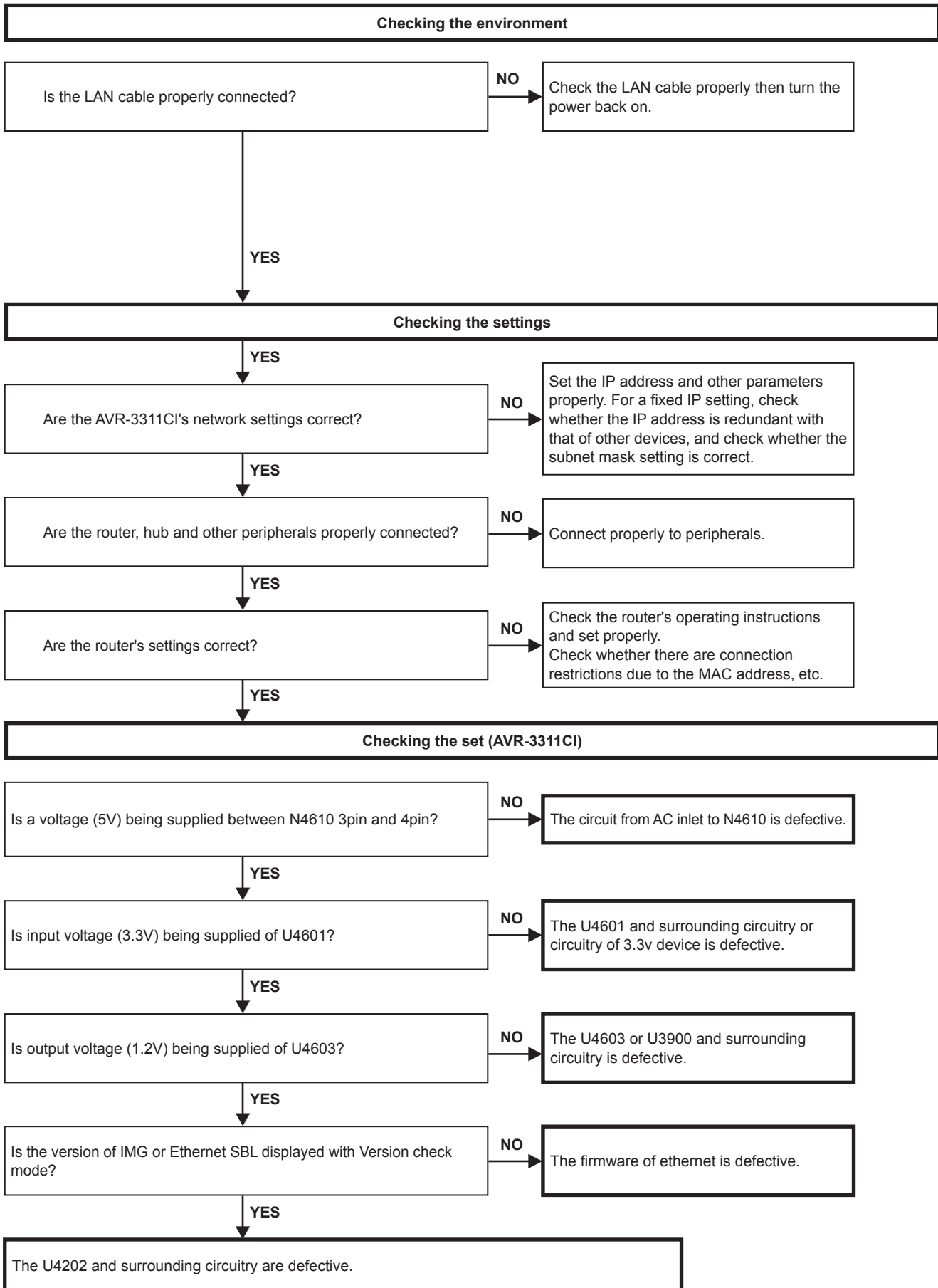


4.3. Analog audio

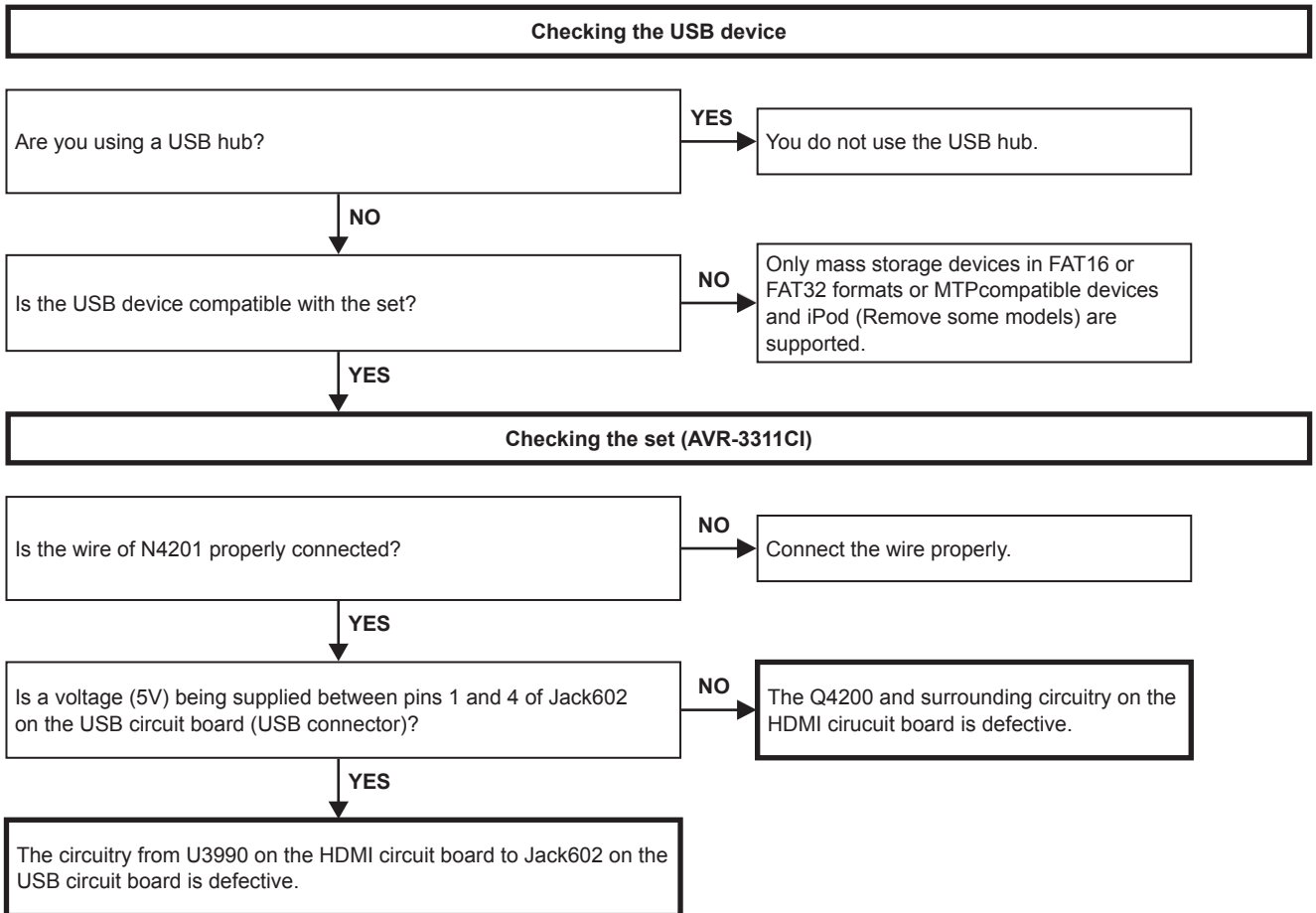


5. Network/USB

5.1. Cannot connect to network



5.2. USB device is not recognized



5.3. No picture or sound is output

Checking the set (AVR-3311CI):(If no picture is output)

Are video signals output from U4203 pin 27 (Y) and pin 24 (C)?

NO

You do not use the USB hub.

YES

Check the analog video circuit.

Checking the set (AVR-3311CI):(If no sound is output)

Are S/PDIF signals output to U3000 pin 21?

NO

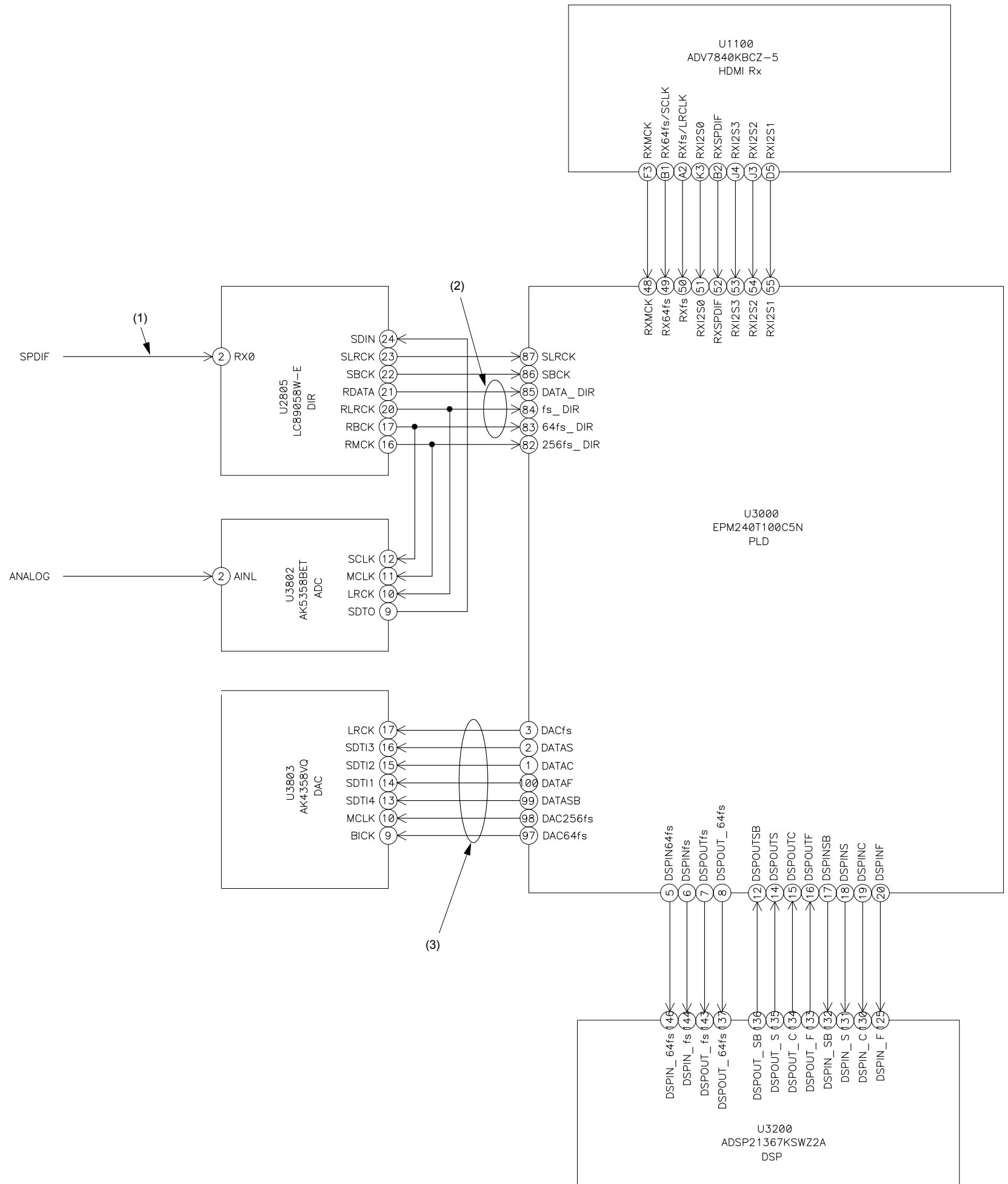
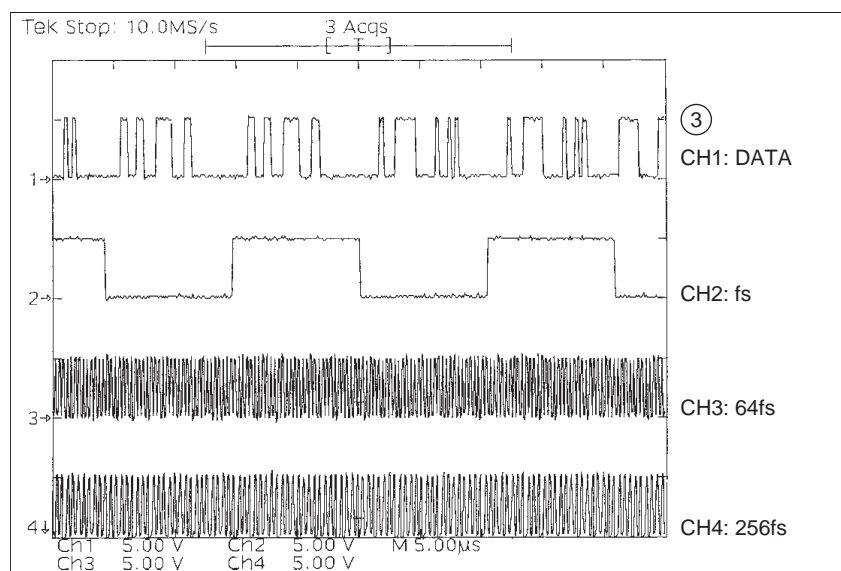
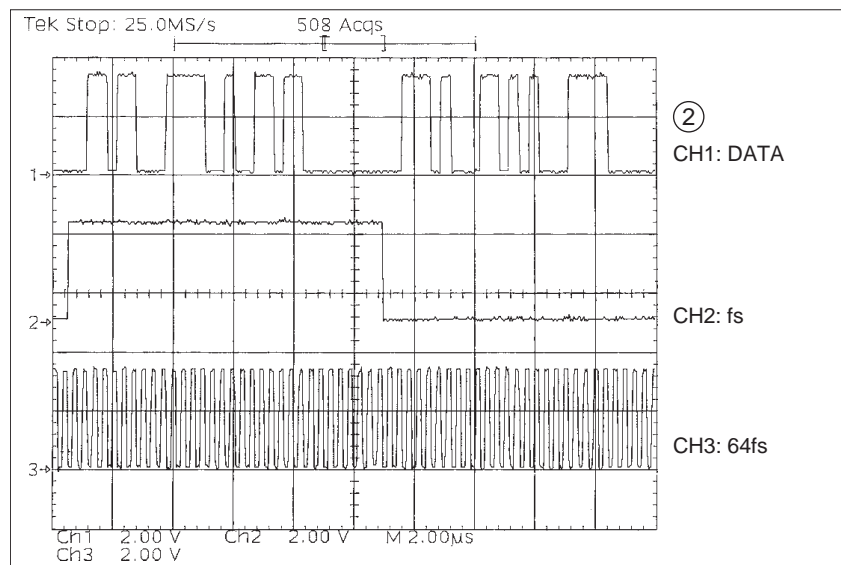
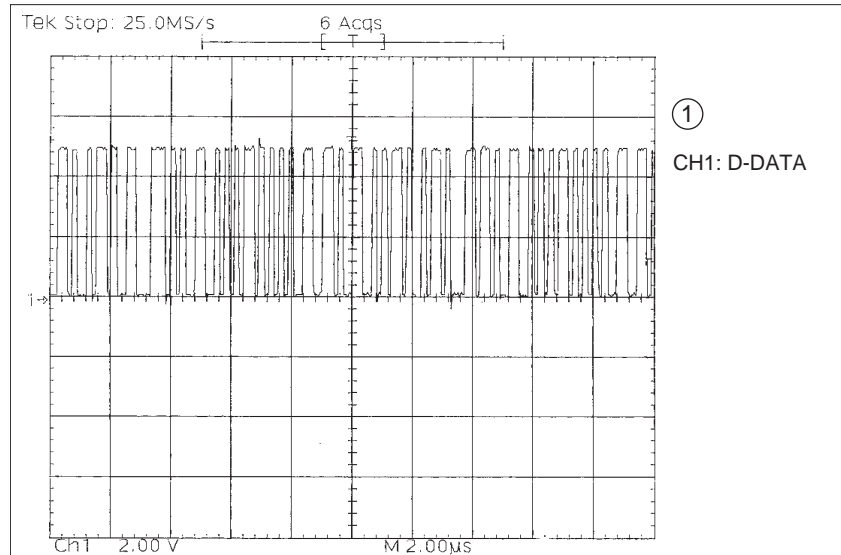
U3900 and surrounding circuitry is defective.

YES

Check the Digital audio circuit.

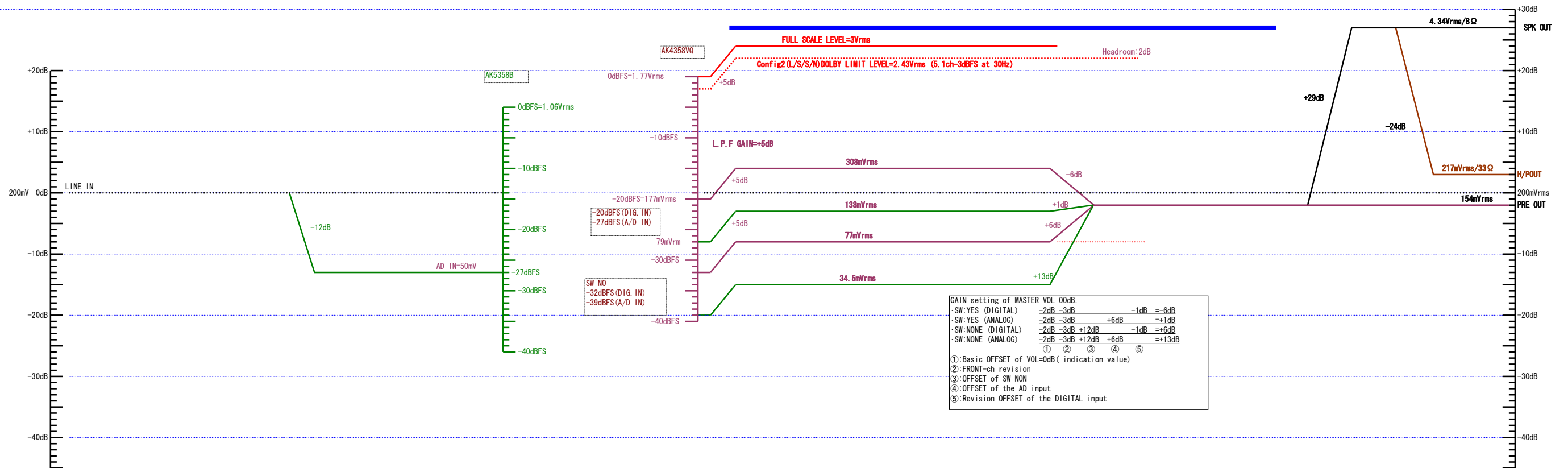
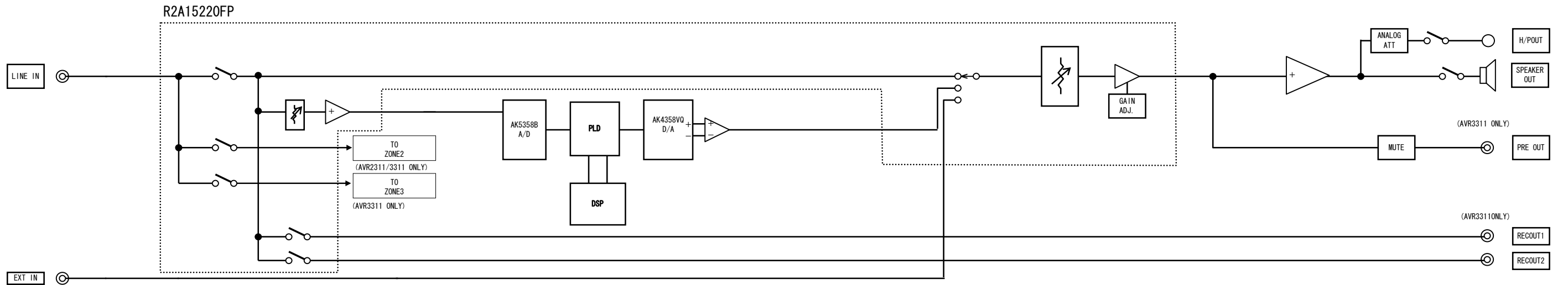
CLOCK FLOW & WAVE FORM IN DIGITAL BLOCK

Wave form

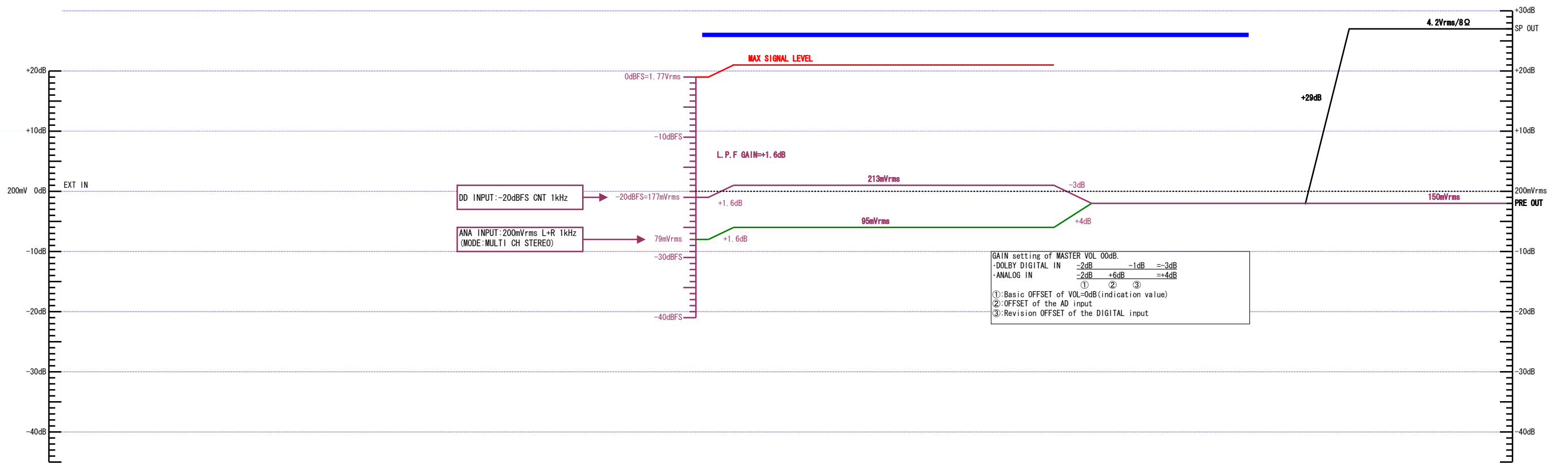
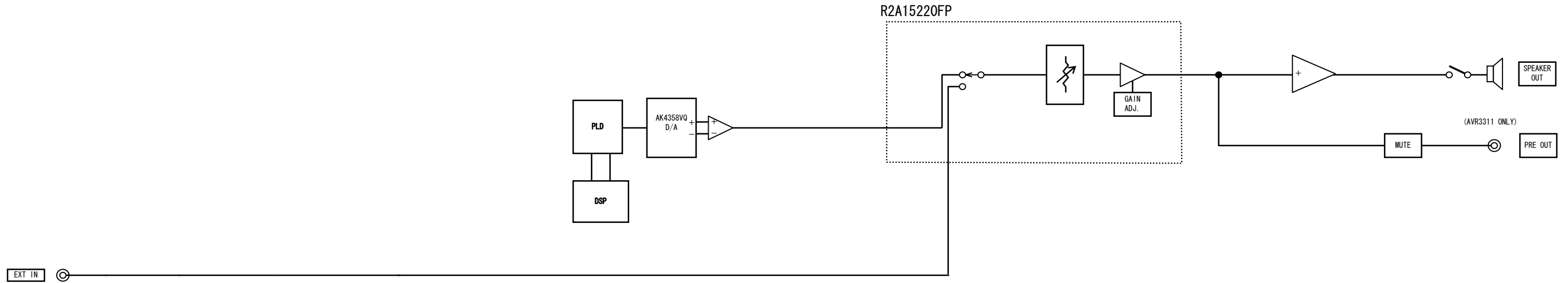


LA LEVEL DIAGRAM

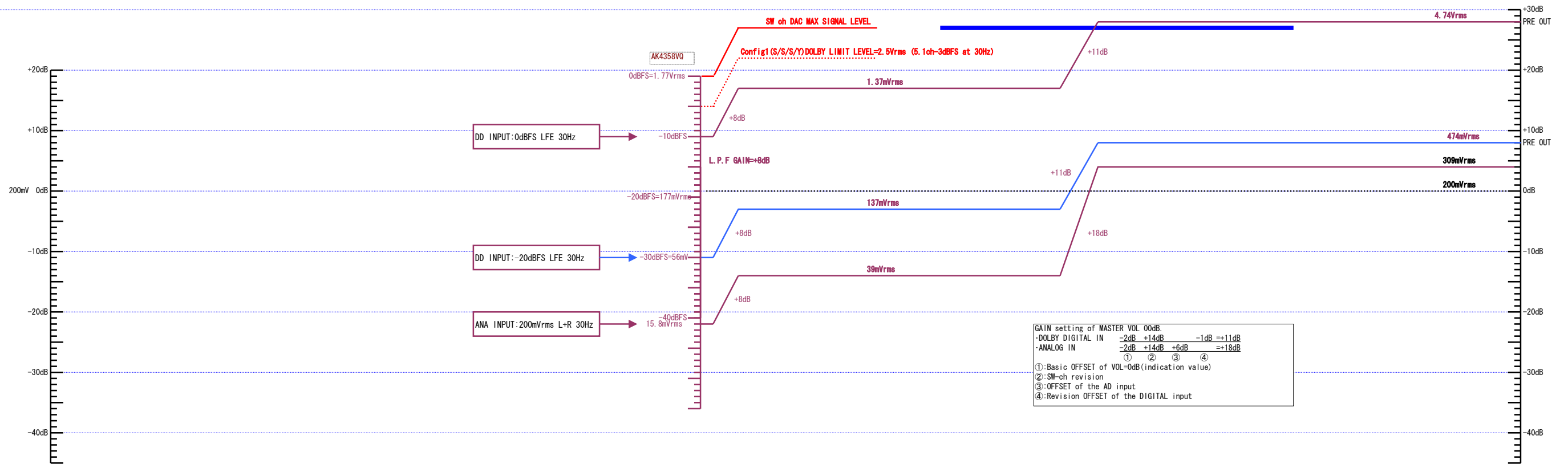
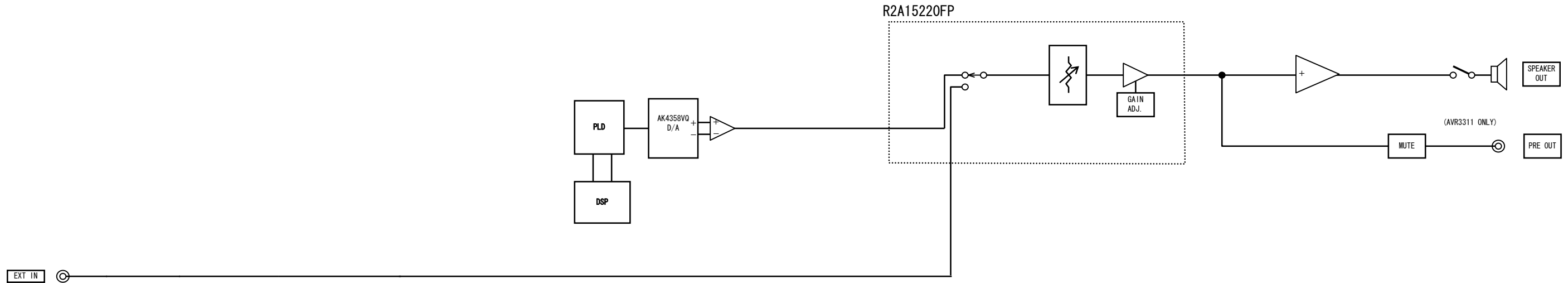
LEVEL DIAGRAM FRONT ch



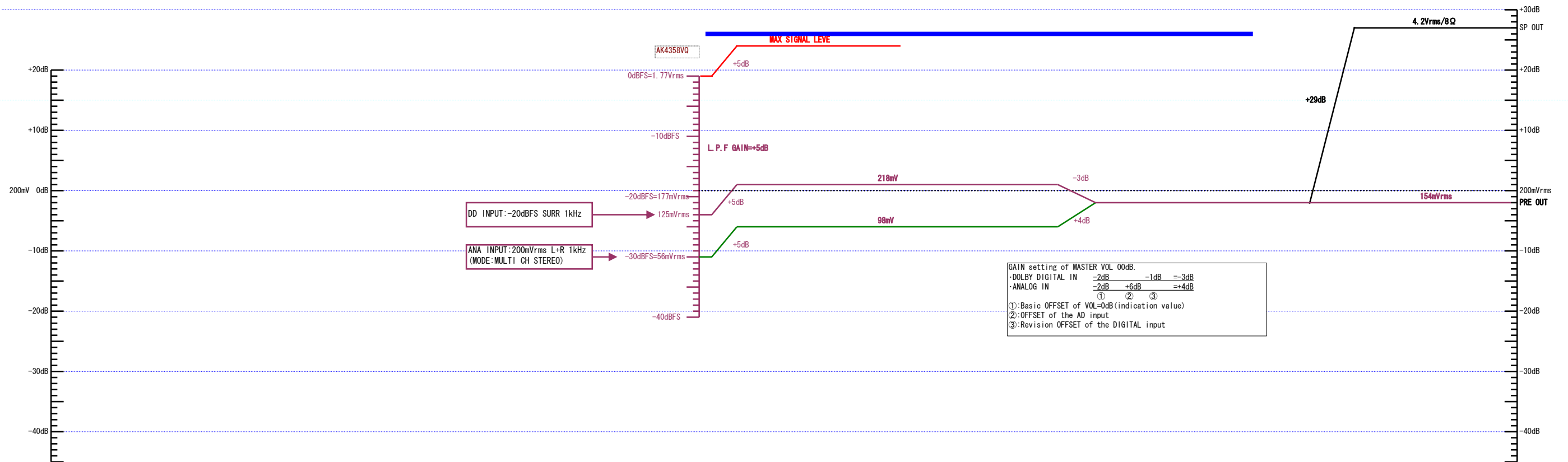
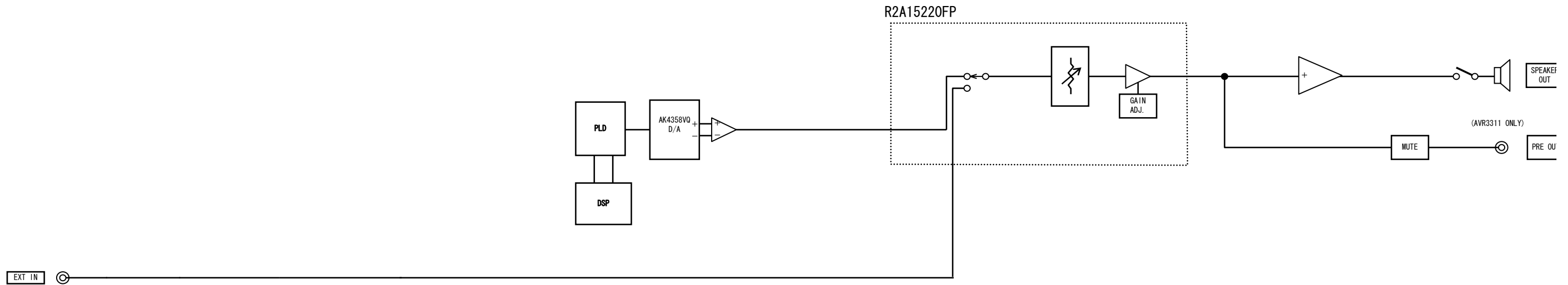
LEVEL DIAGRAM
CENTER ch



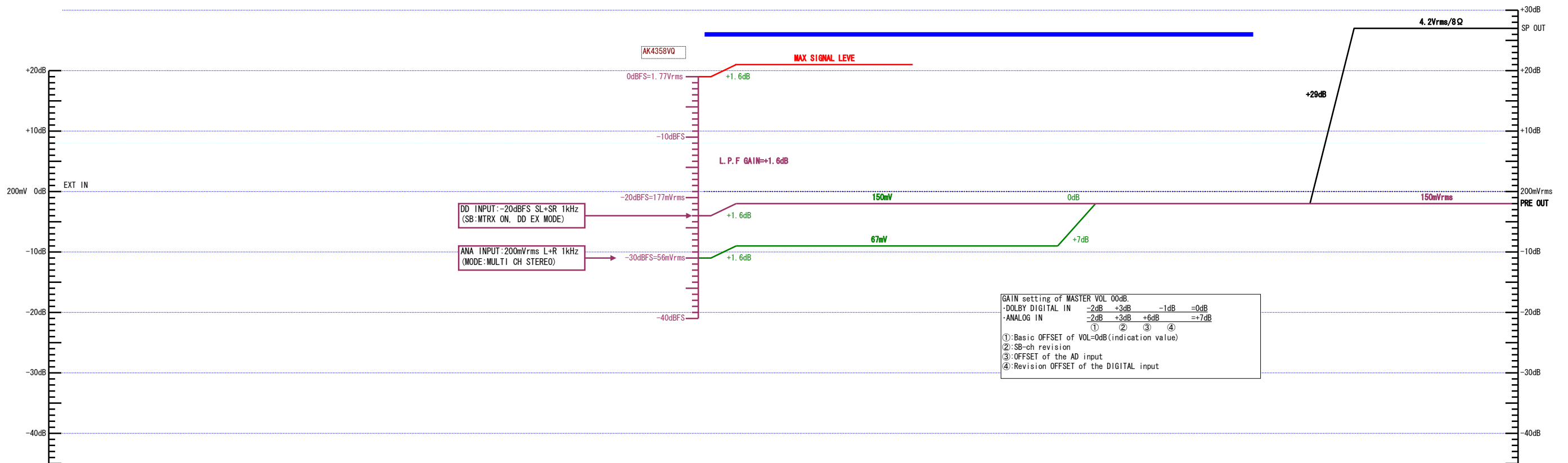
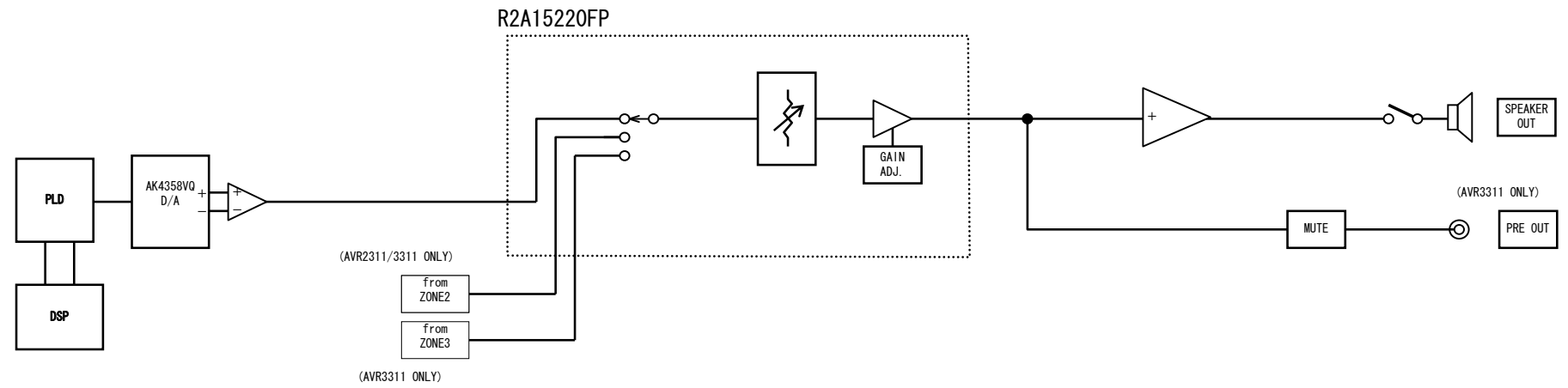
**LEVEL DIAGRAM
SUBWOOFER ch**

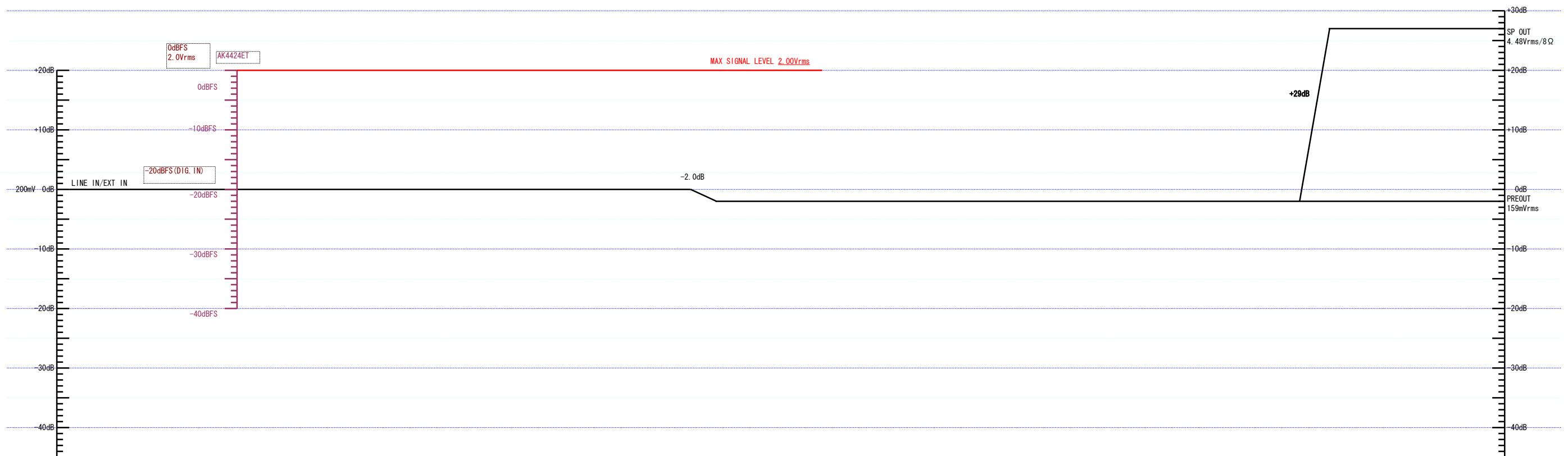
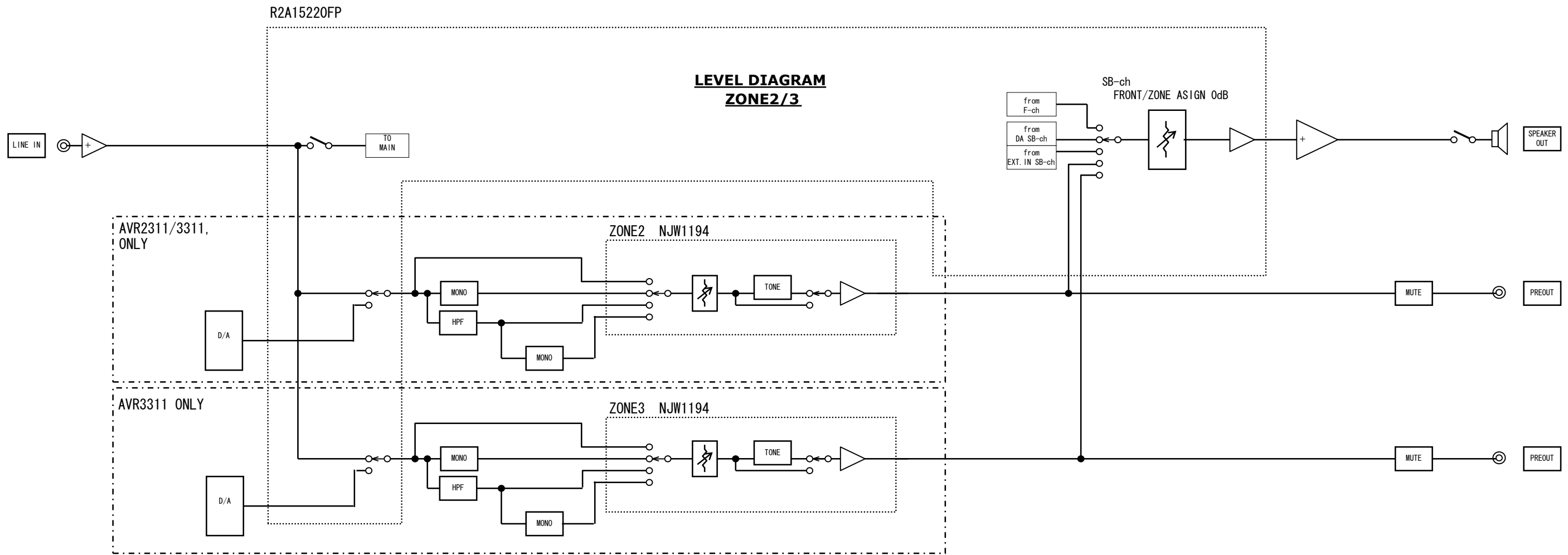


LEVEL DIAGRAM SURROUND ch



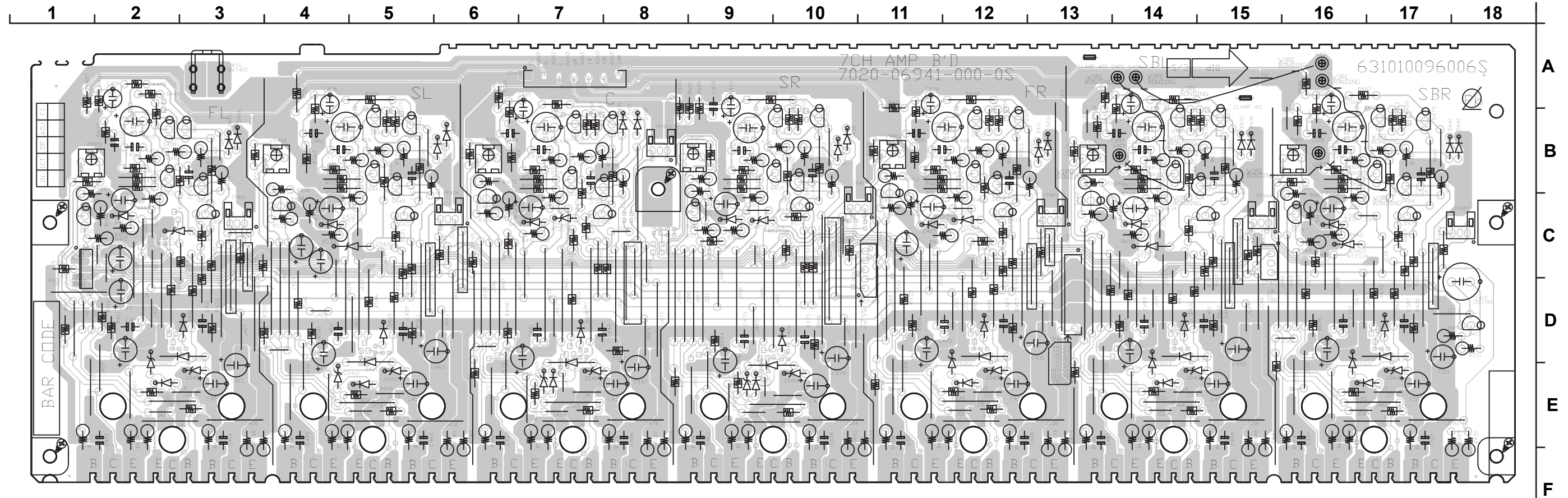
LEVEL DIAGRAM
SURR.BACK ch



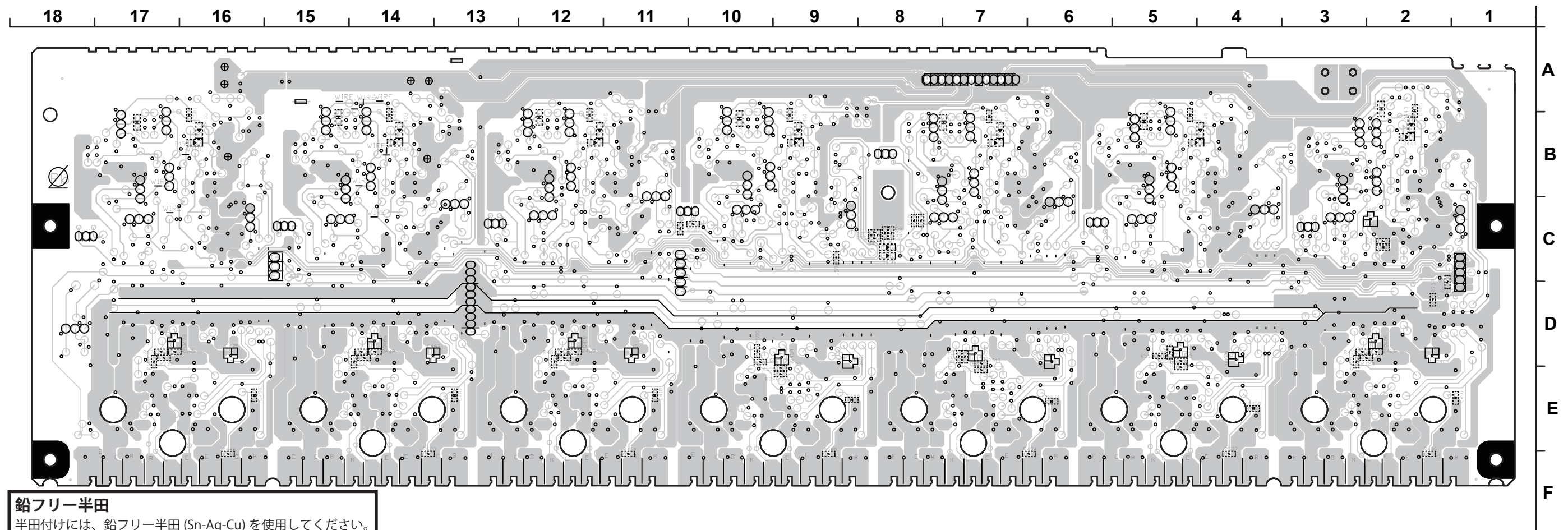


PRINTED WIRING BOARDS

7CH-AMP (COMPONENT SIDE)



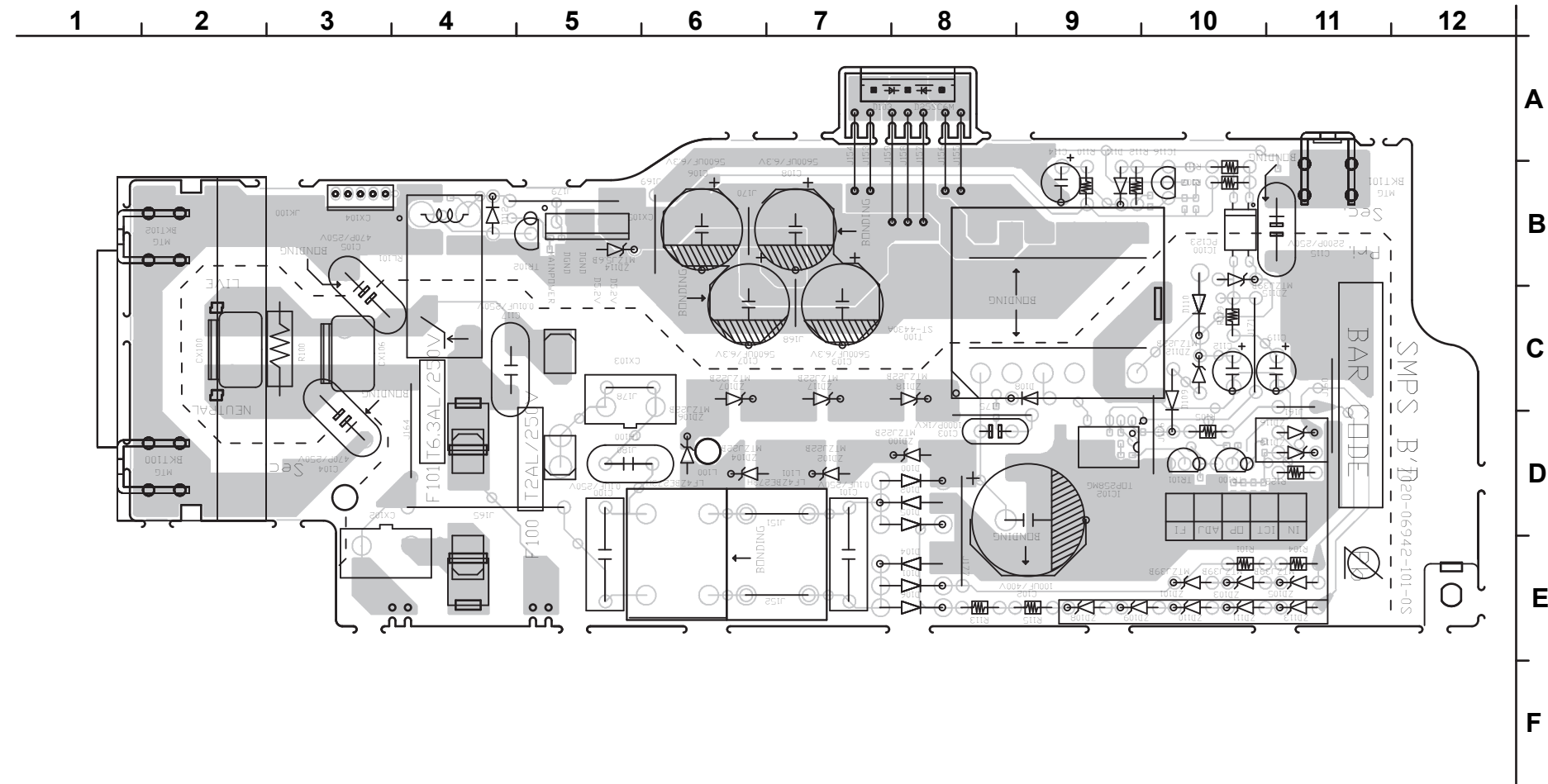
7CH-AMP (FOIL SIDE)



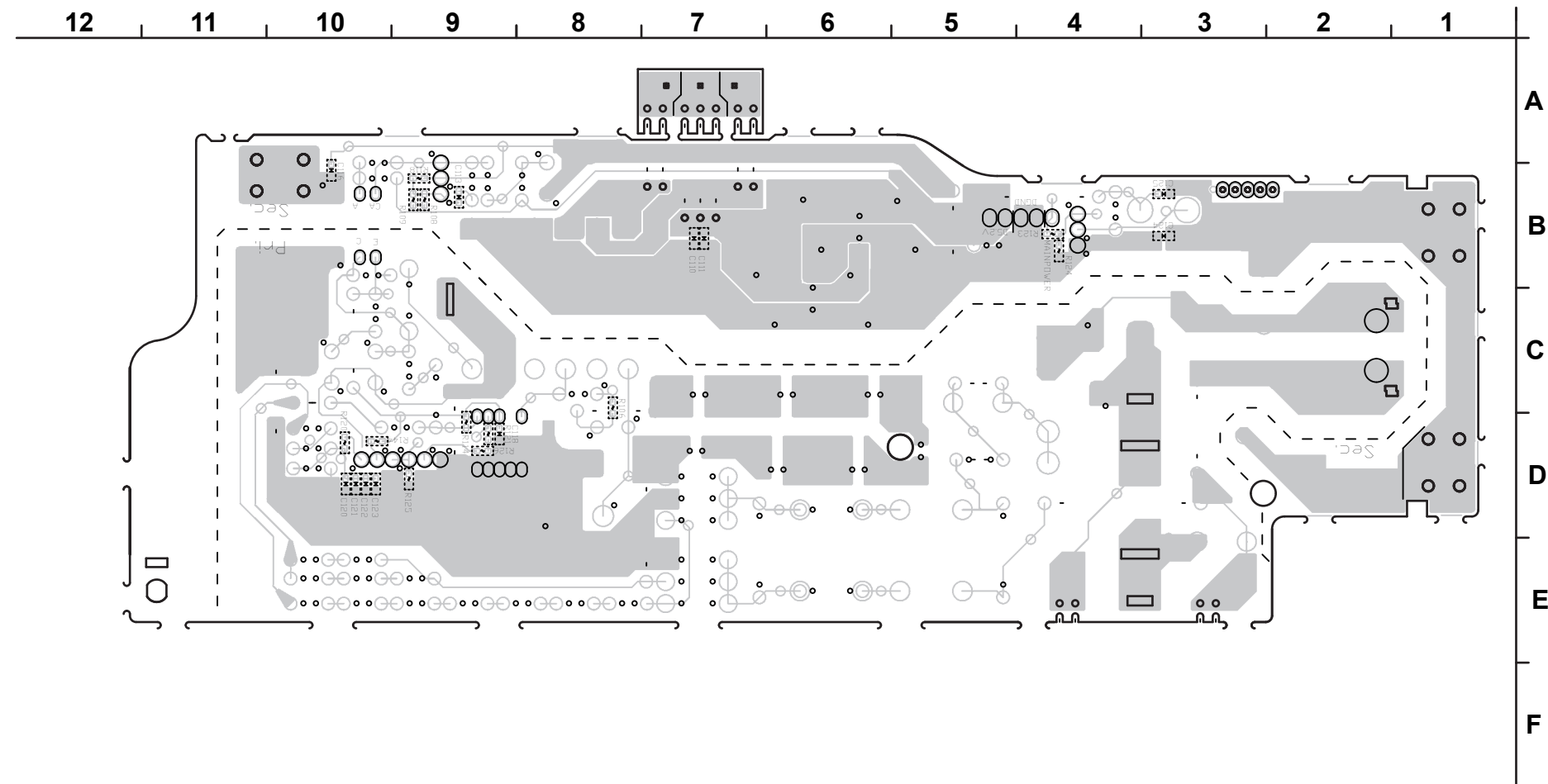
鉛フリー半田
半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。

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

SMPS (COMPONENT SIDE)

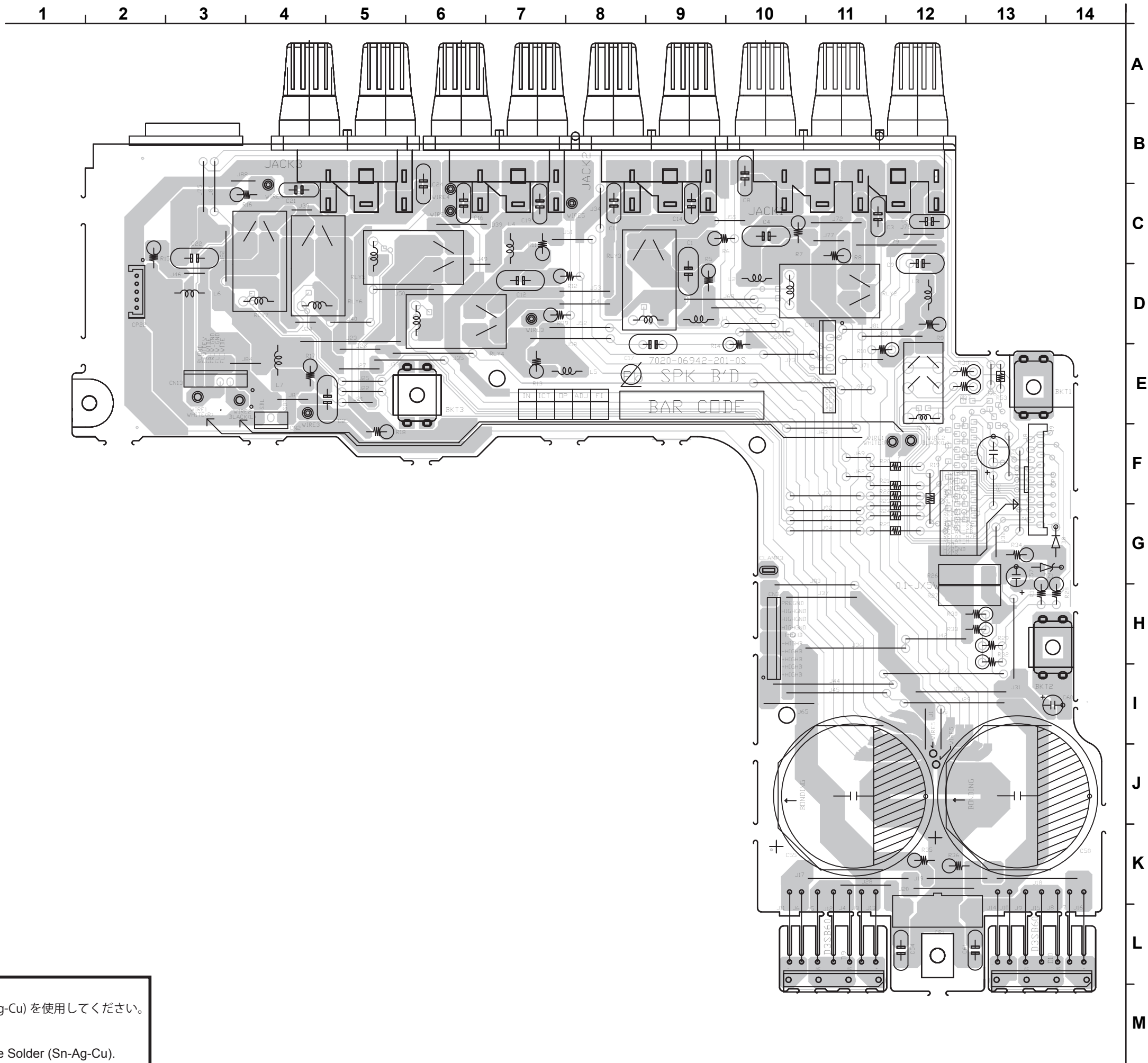


SMPS (FOIL SIDE)



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

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

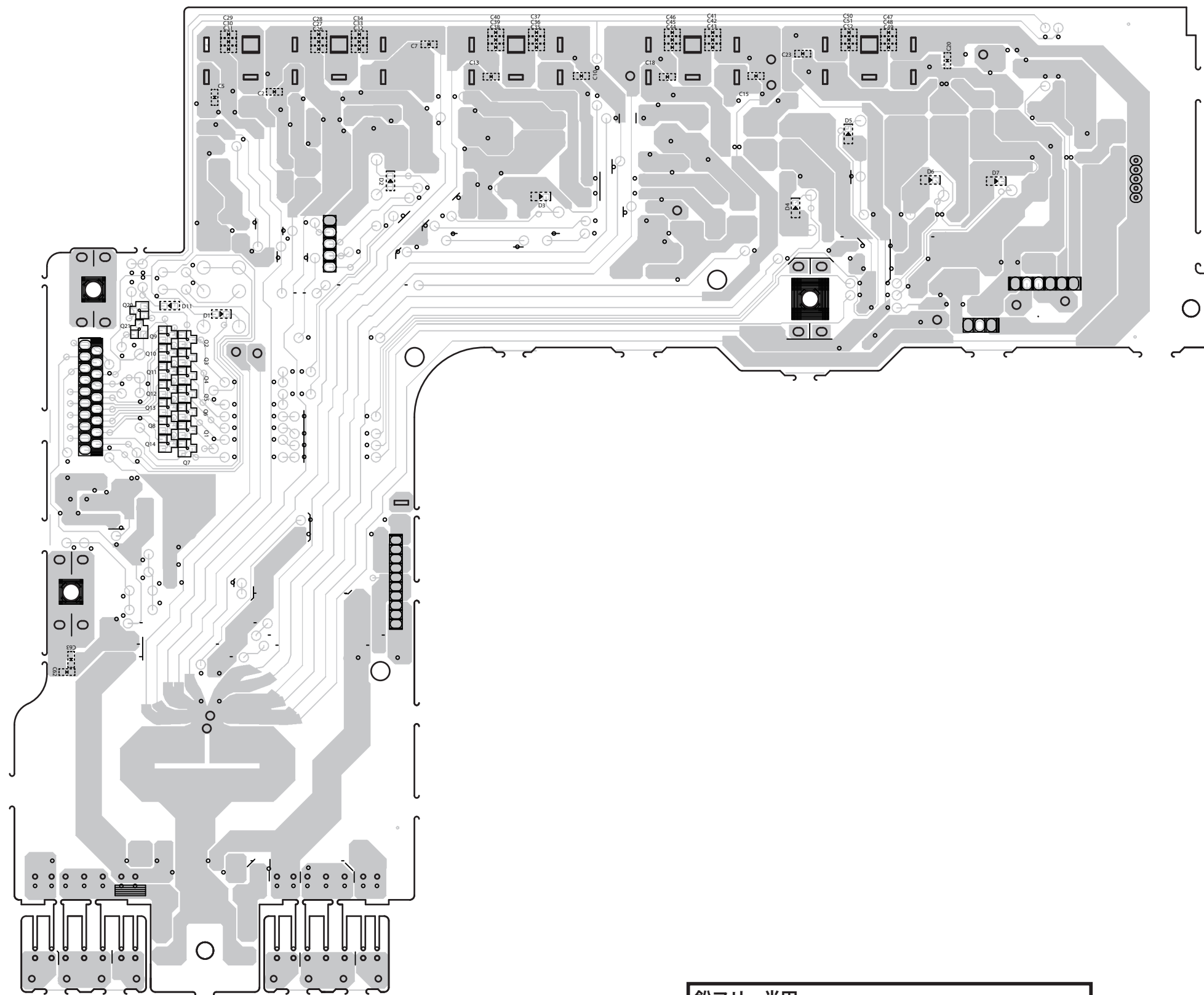


鉛フリー半田
 半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。

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

14 13 12 11 10 9 8 7 6 5 4 3 2 1

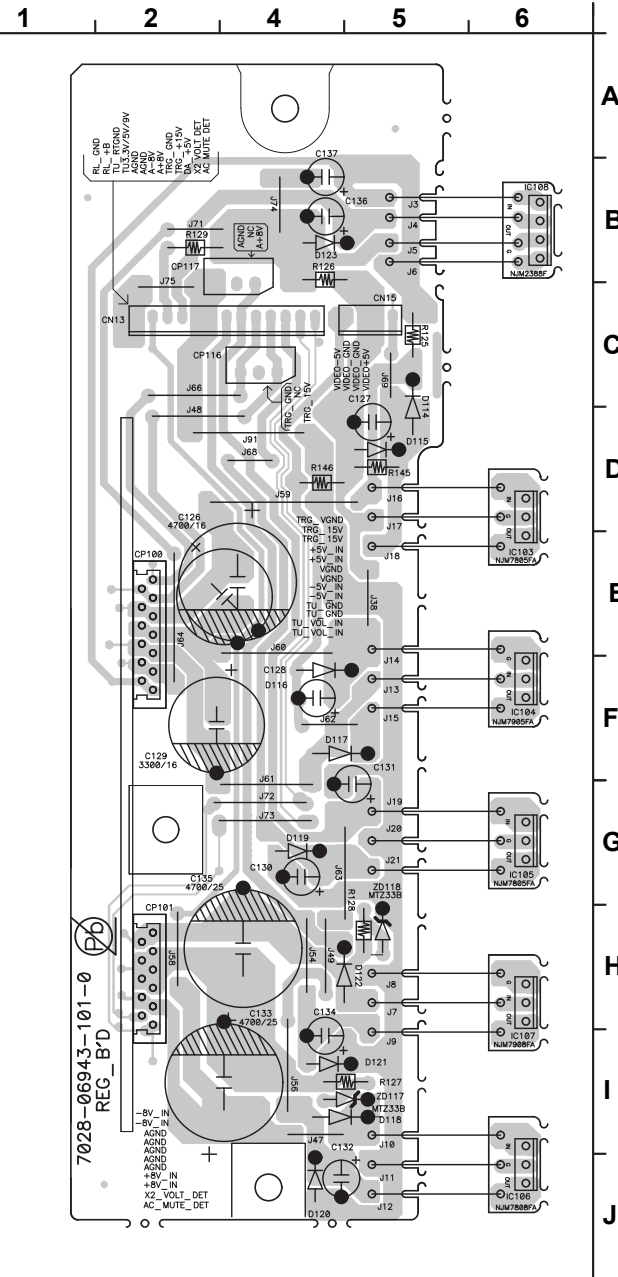
A
B
C
D
E
F
G
H
I
J
K
L
M



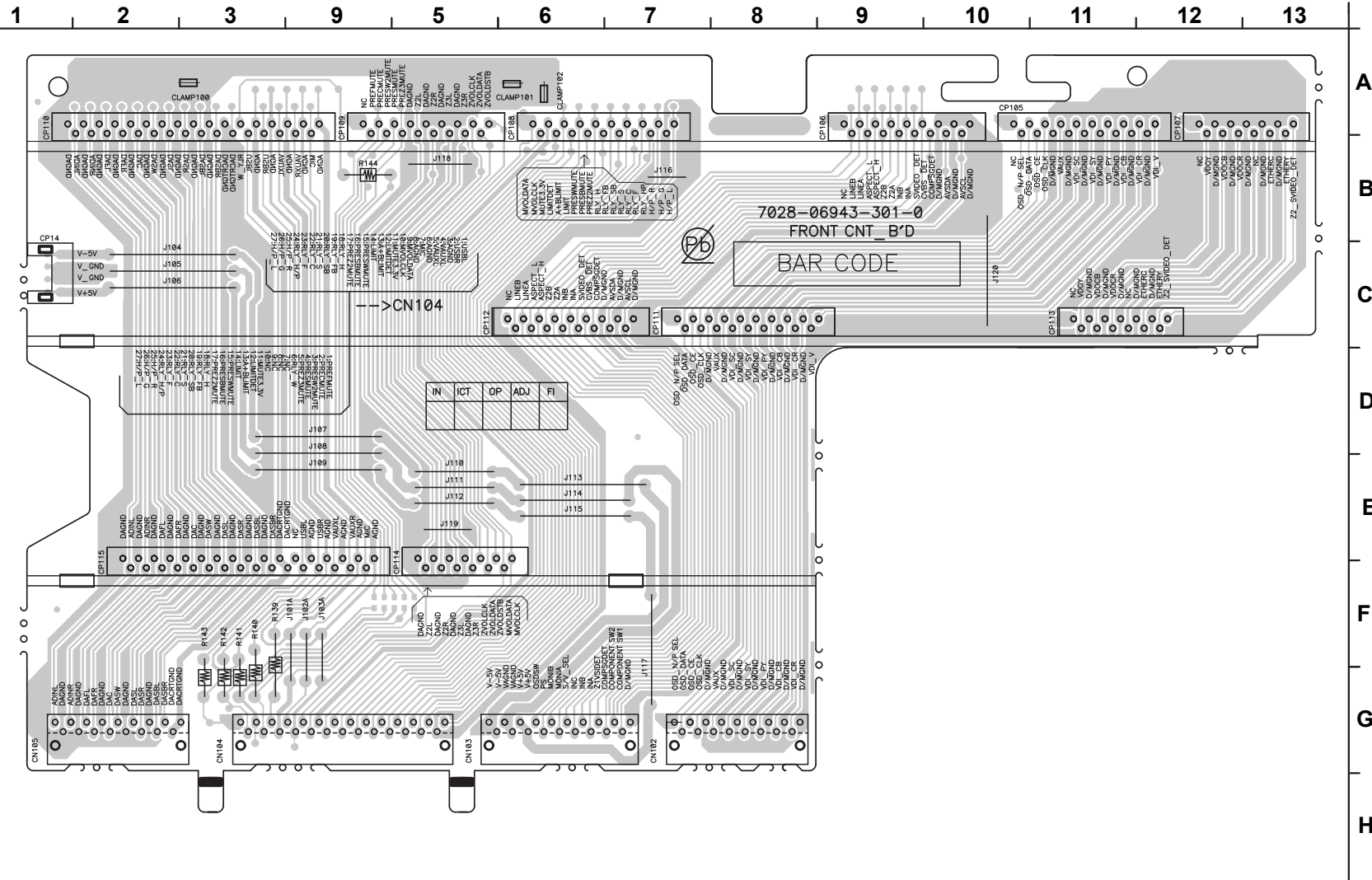
鉛フリー半田
半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。

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

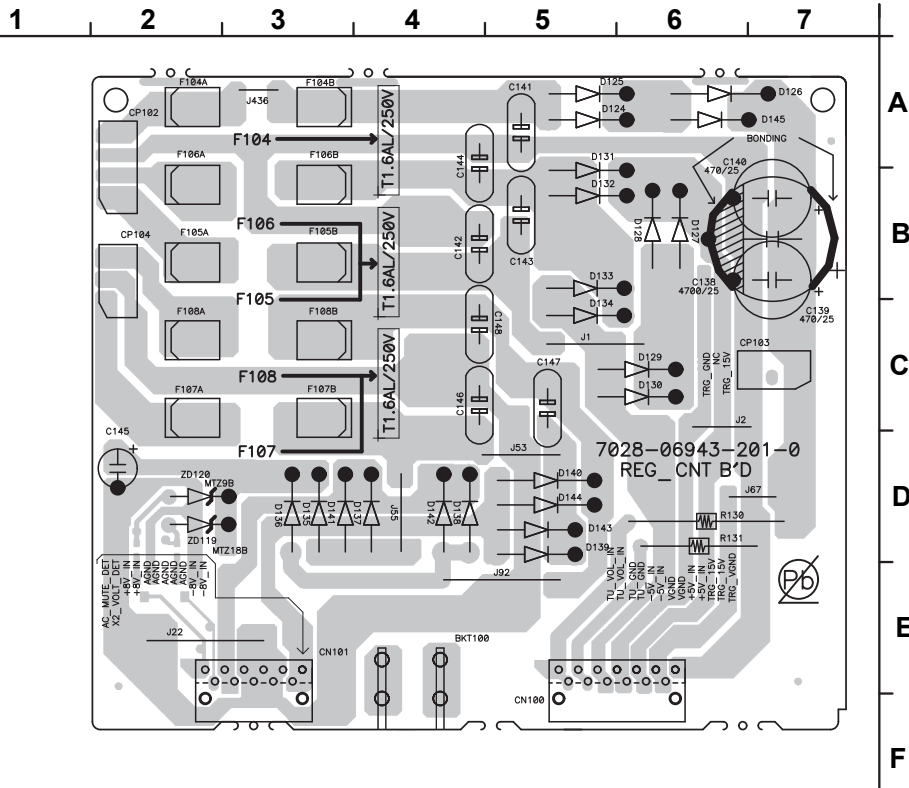
REG (COMPONENT SIDE)



FRONT_CNT (COMPONENT SIDE)



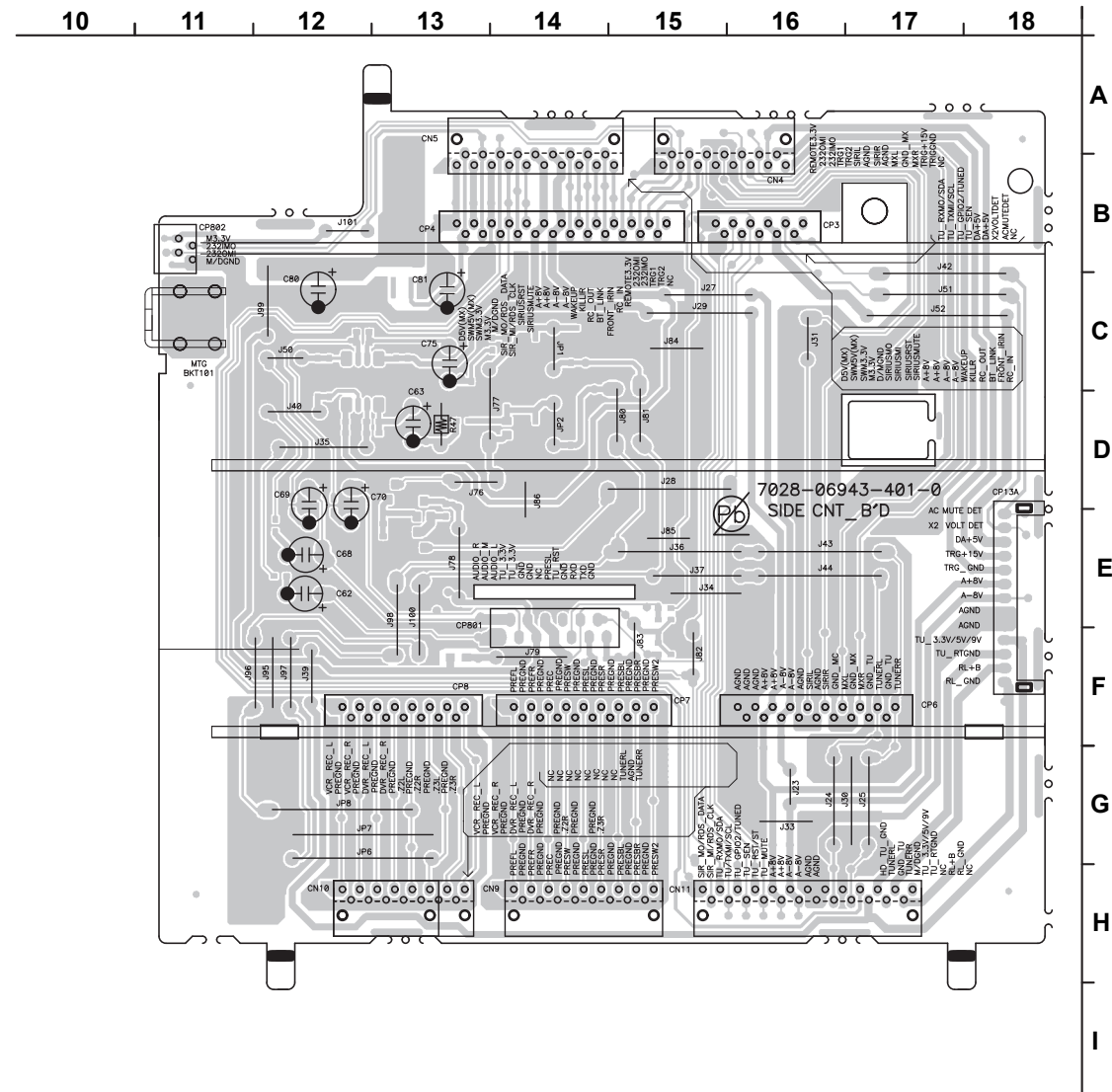
REG_CNT (COMPONENT SIDE)



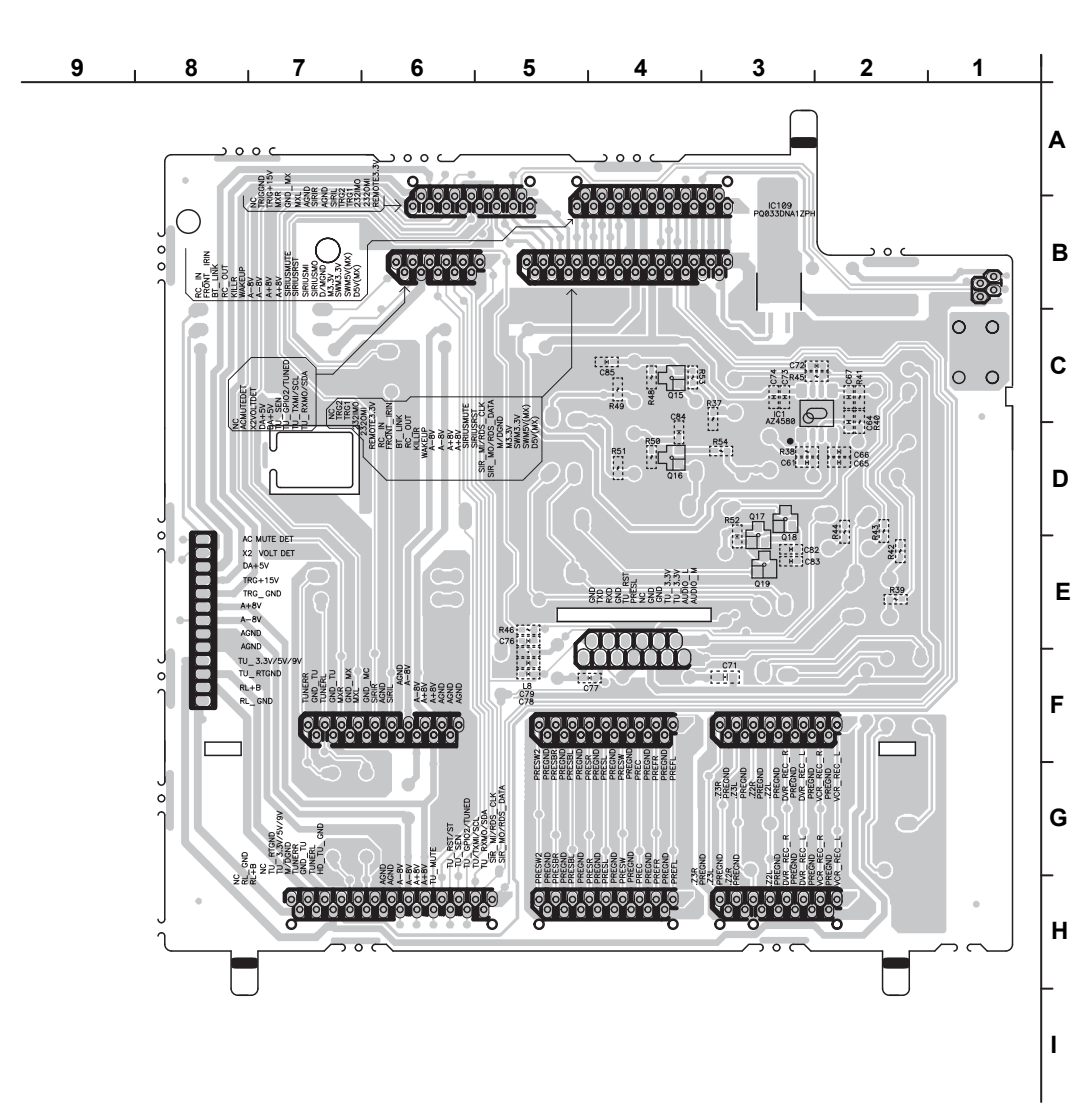
鉛フリー半田
半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。

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

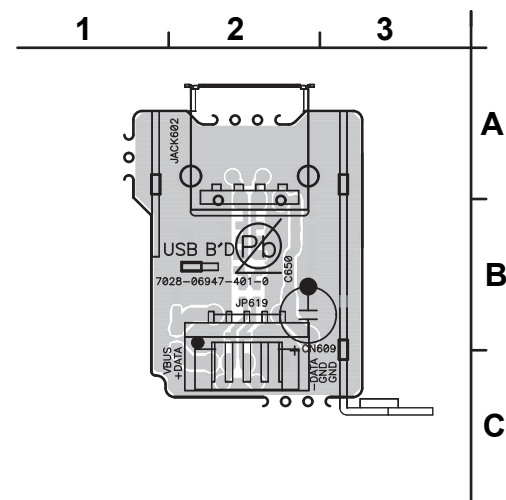
SIDE_CNT (COMPONENT SIDE)



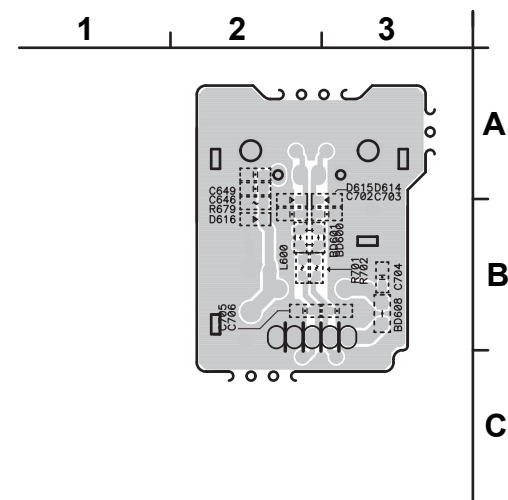
SIDE_CNT (FOIL SIDE)



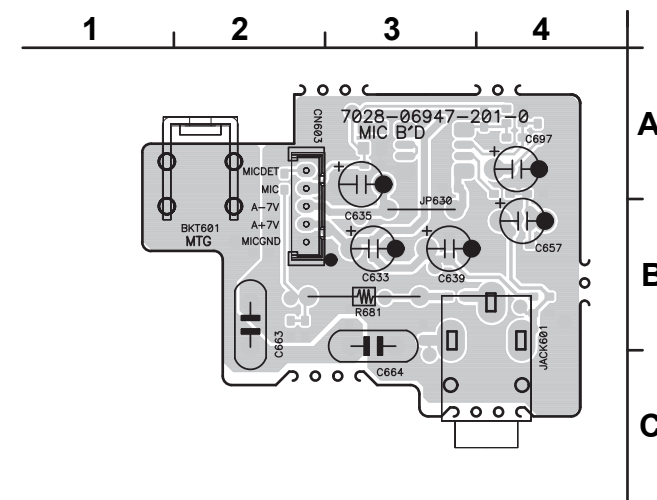
USB (COMPONENT SIDE)



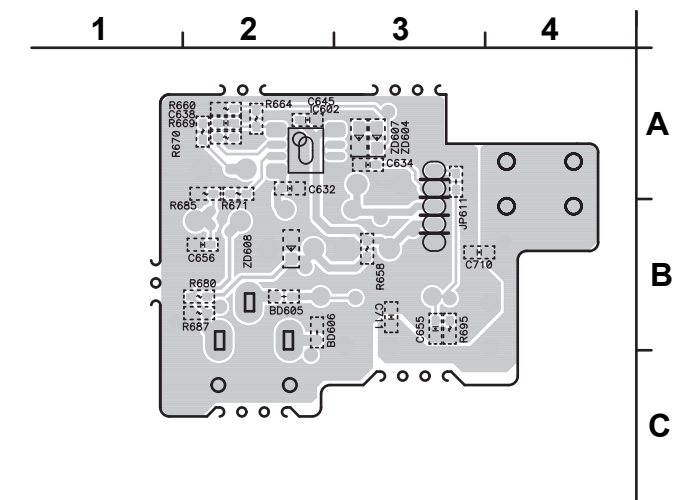
USB (FOIL SIDE)



MIC (COMPONENT SIDE)



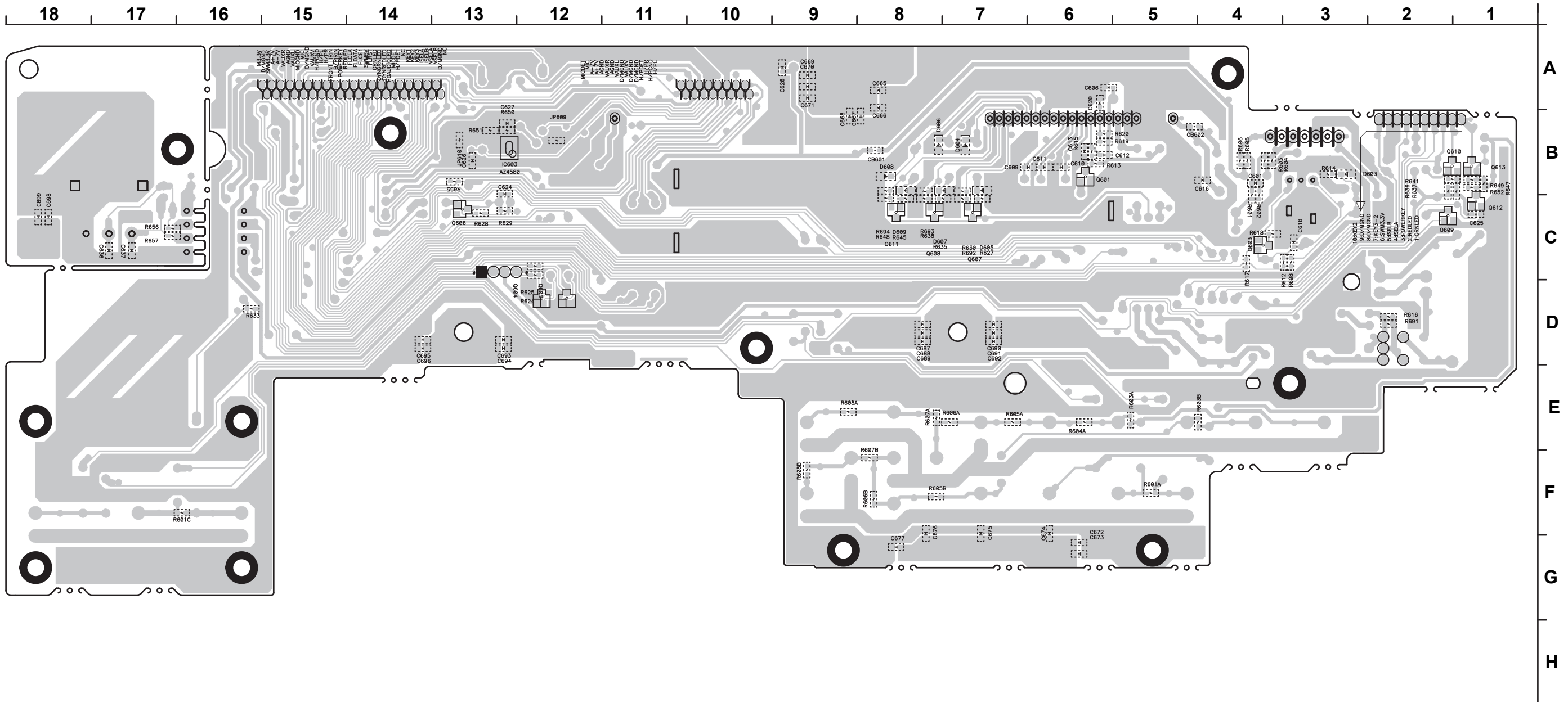
MIC (FOIL SIDE)



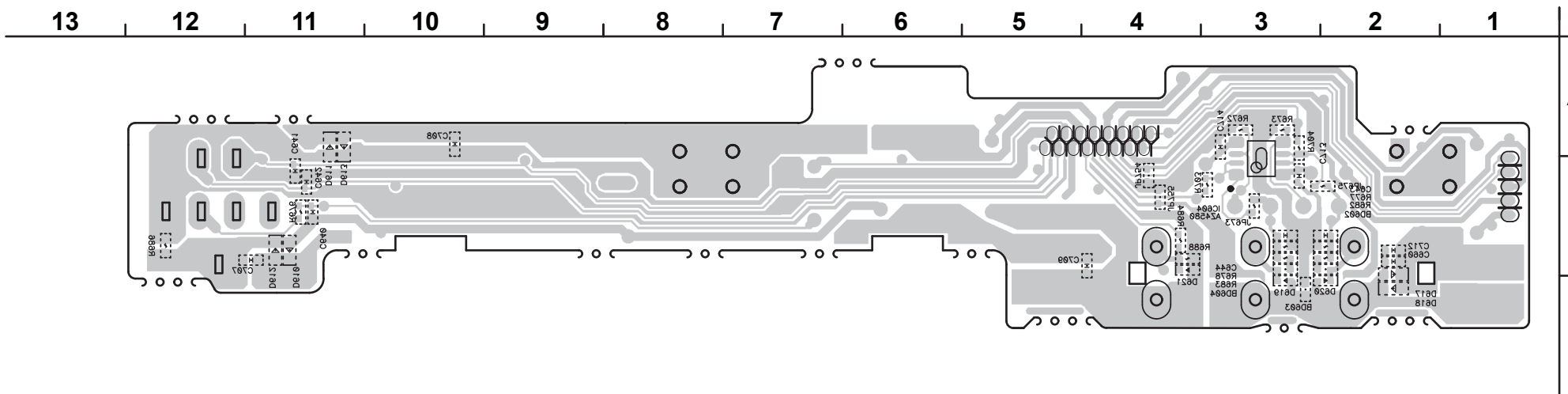
鉛フリー半田
半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。

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

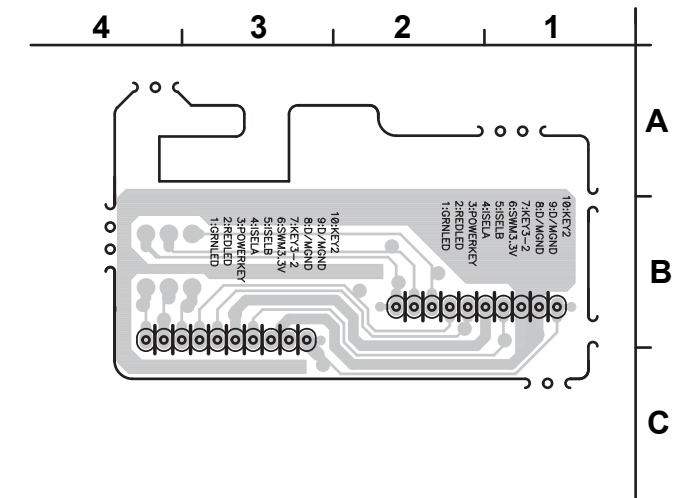
FRONT (FOIL SIDE)



V.AUX (FOIL SIDE)

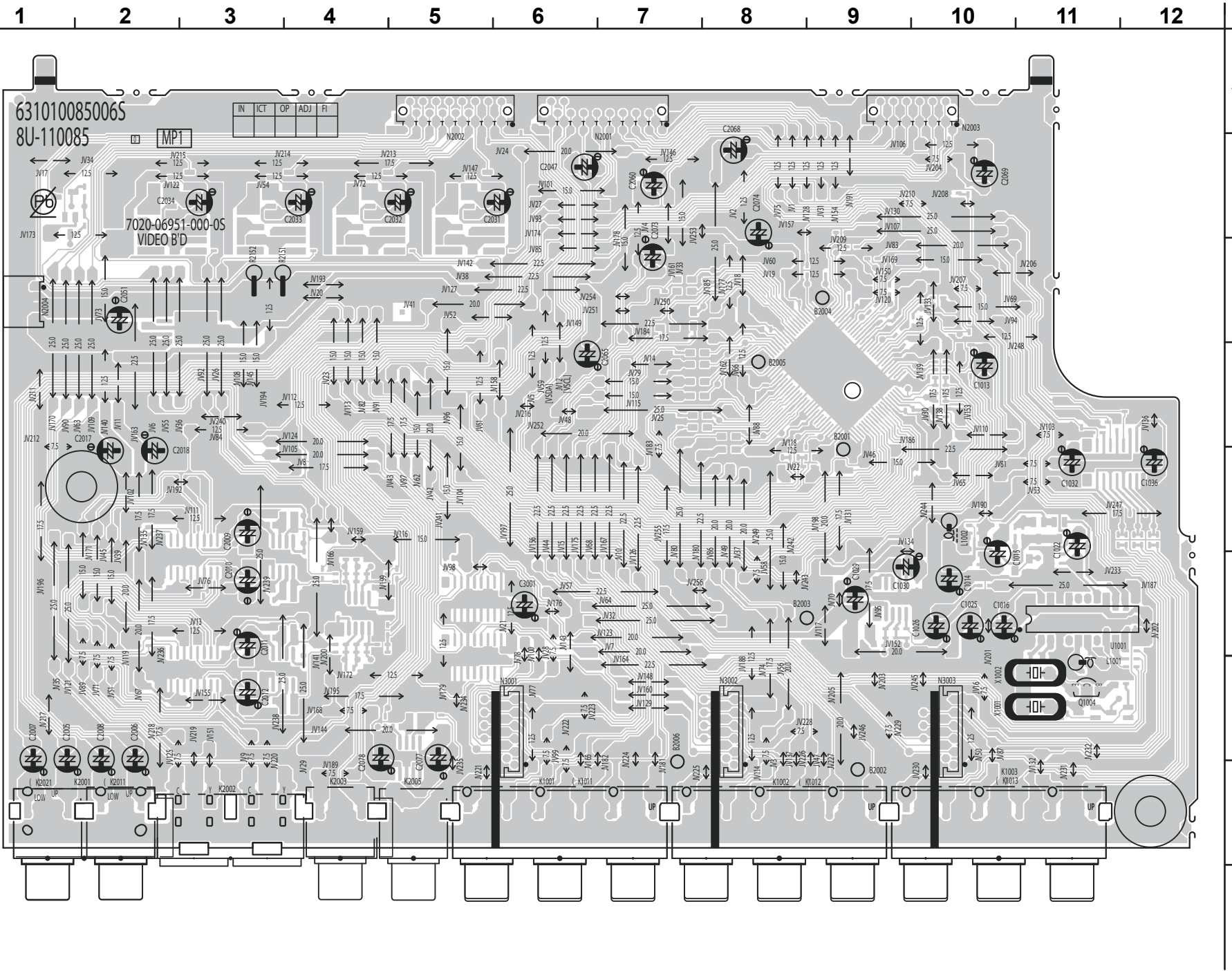


FUNCTION_CNT (FOIL SIDE)

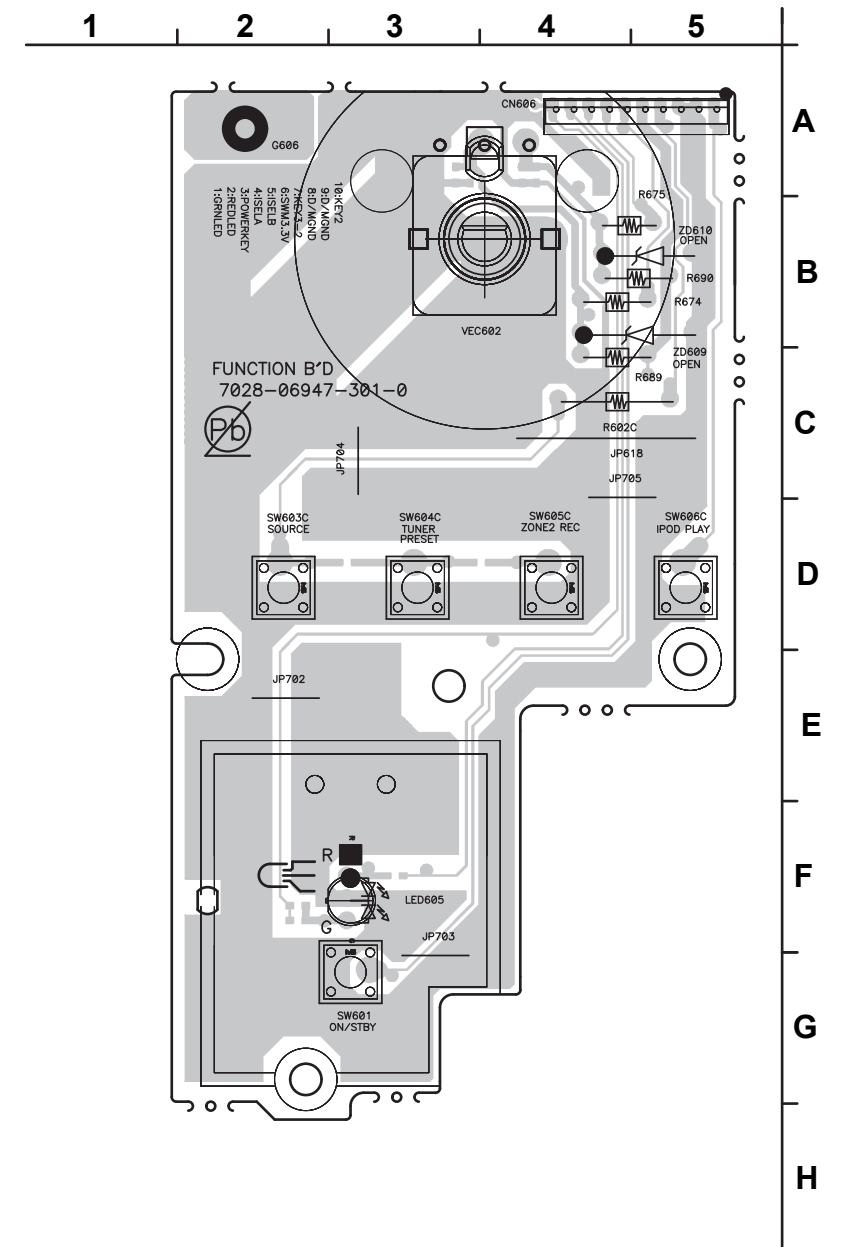


鉛フリー半田
半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。

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



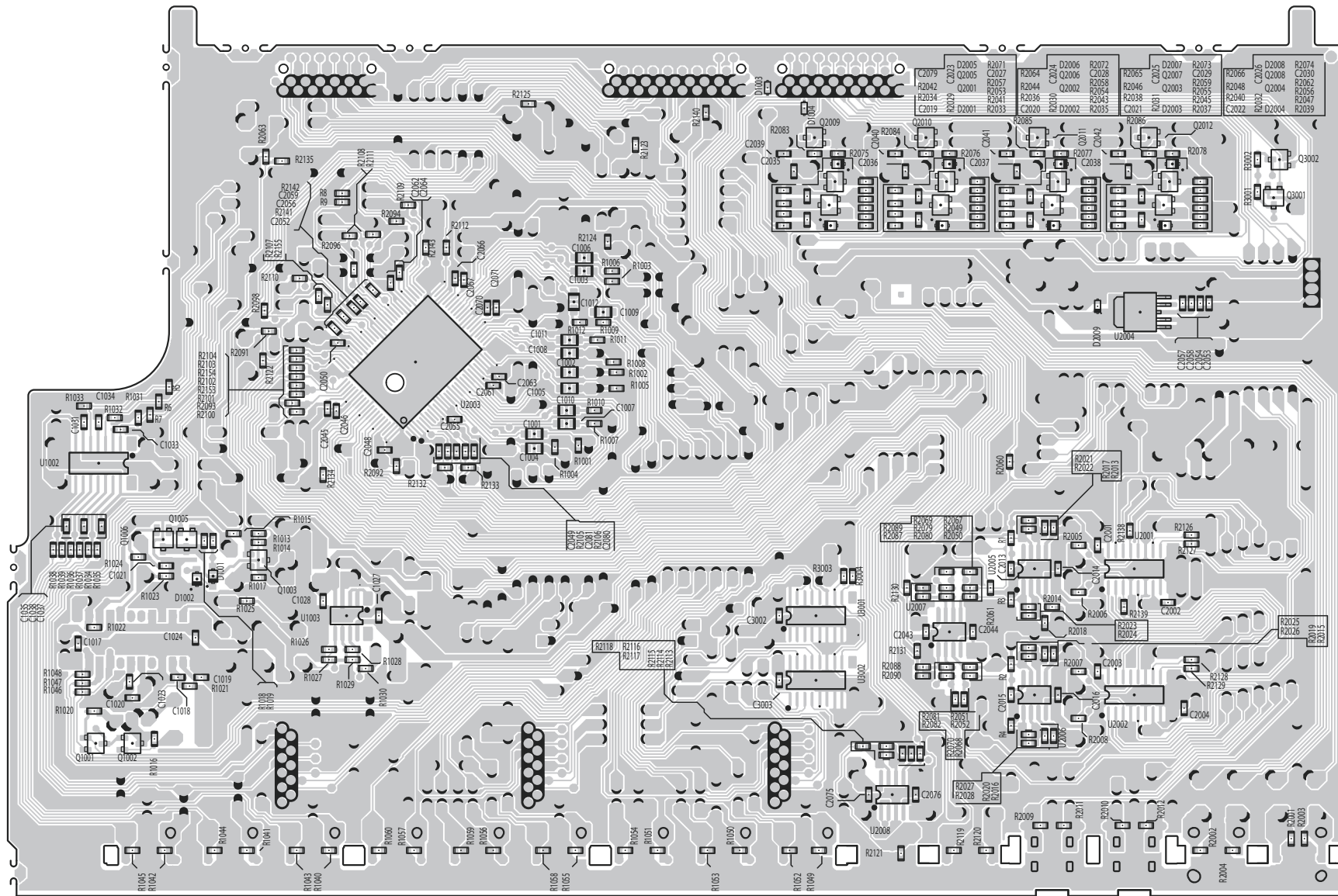
FUNCTION (COMPONENT SIDE)



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

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

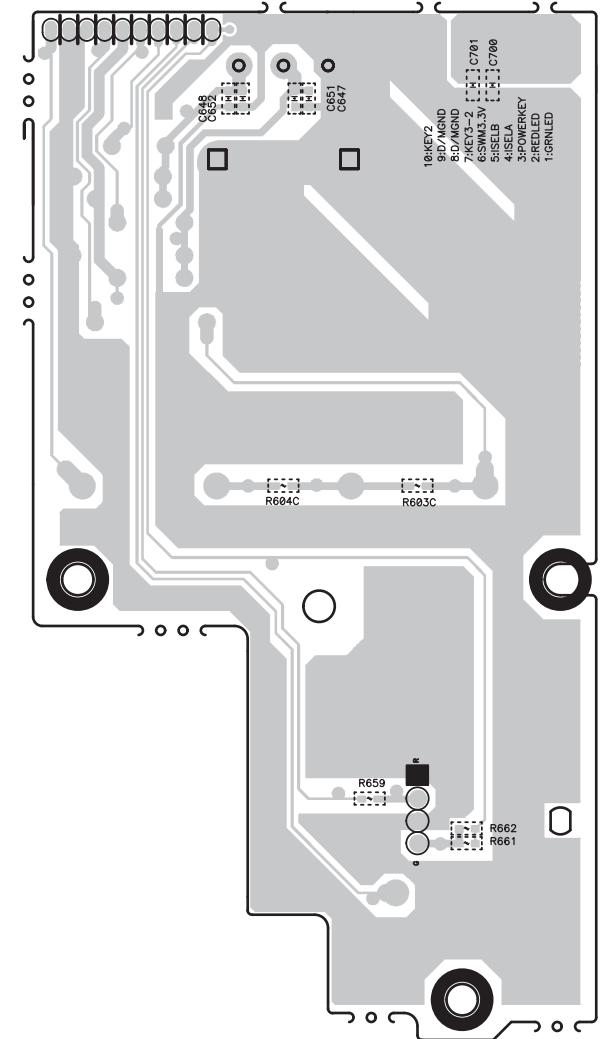
12 11 10 9 8 7 6 5 4 3 2 1



A
B
C
D
E
F
G
H
I

FUNCTION (FOIL SIDE)

5 4 3 2 1

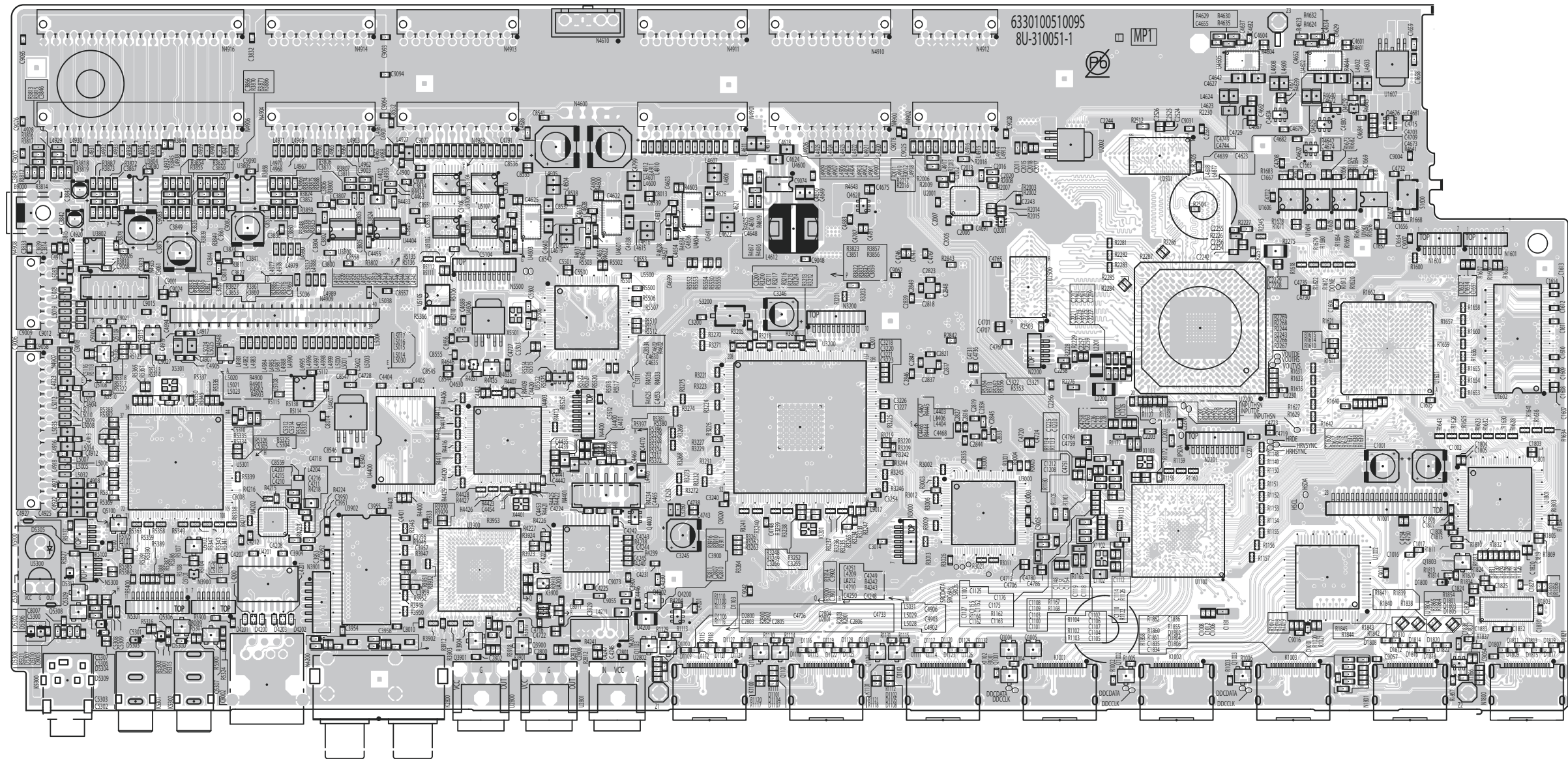


A
B
C
D
E
F
G
H

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

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

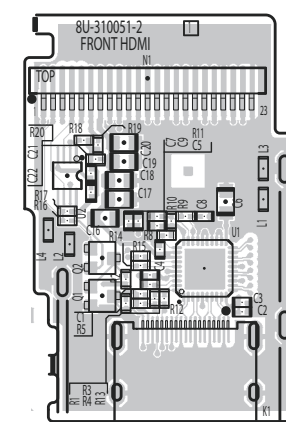
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18



A
B
C
D
E
F
G
H
I

FRONT HDMI (COMPONENT SIDE)

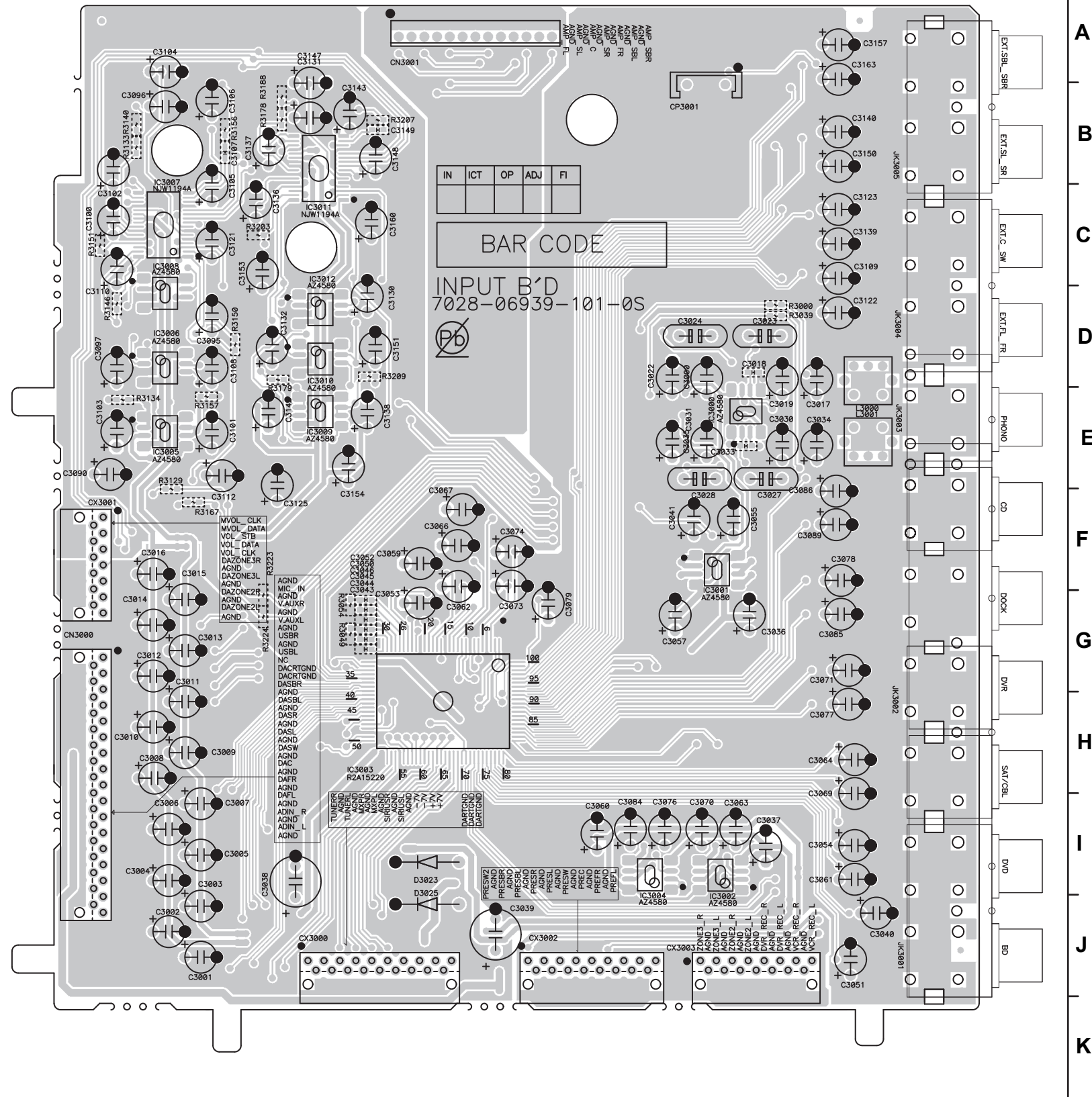
1 2 3



A
B
C
D

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

1 2 3 4 5 6 7 8 9 10 11

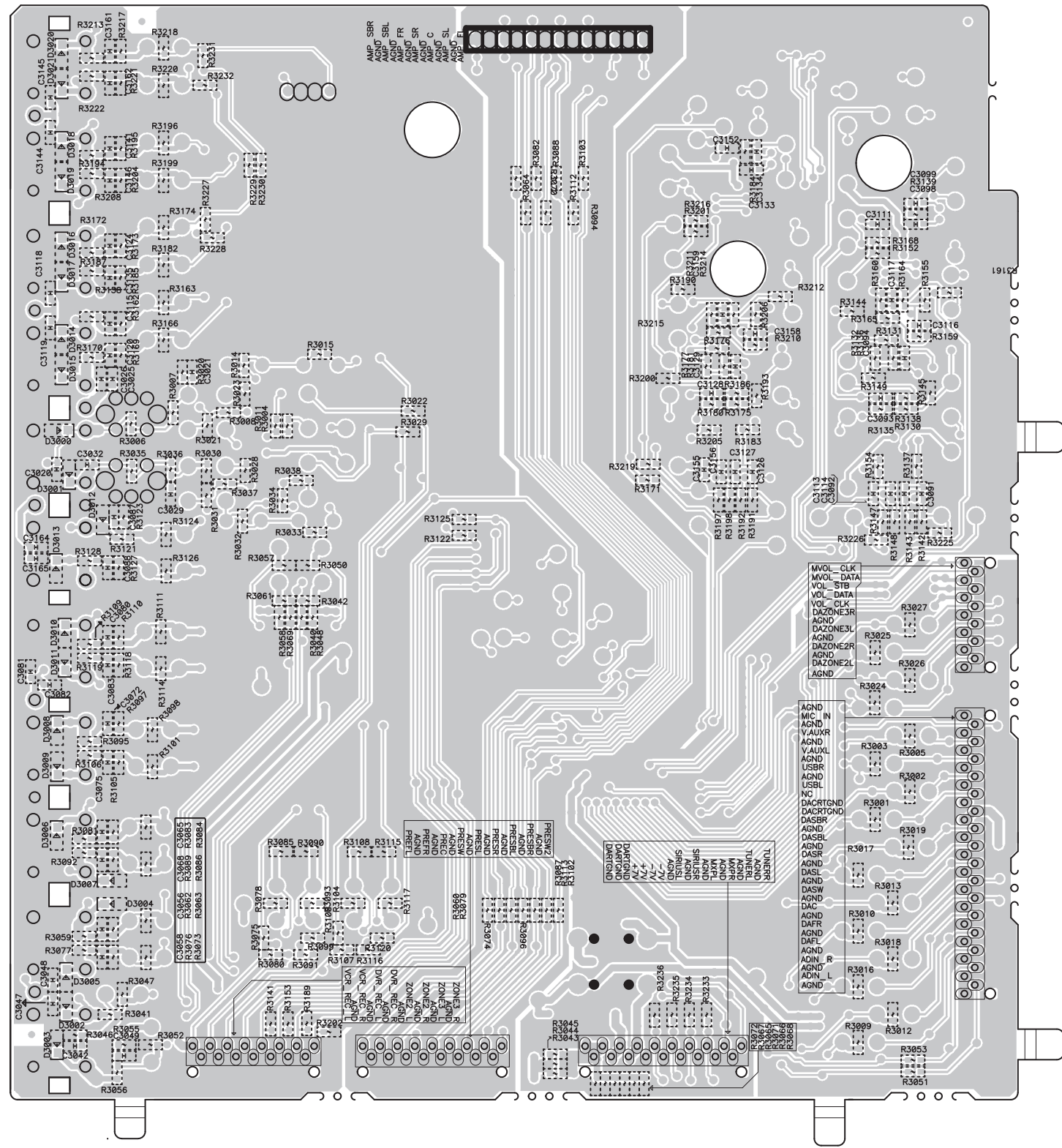


鉛フリー半田

半田付けには、鉛フリー半田 (Sn-Ag-Cu) を使用してください。

Lead-free Solder

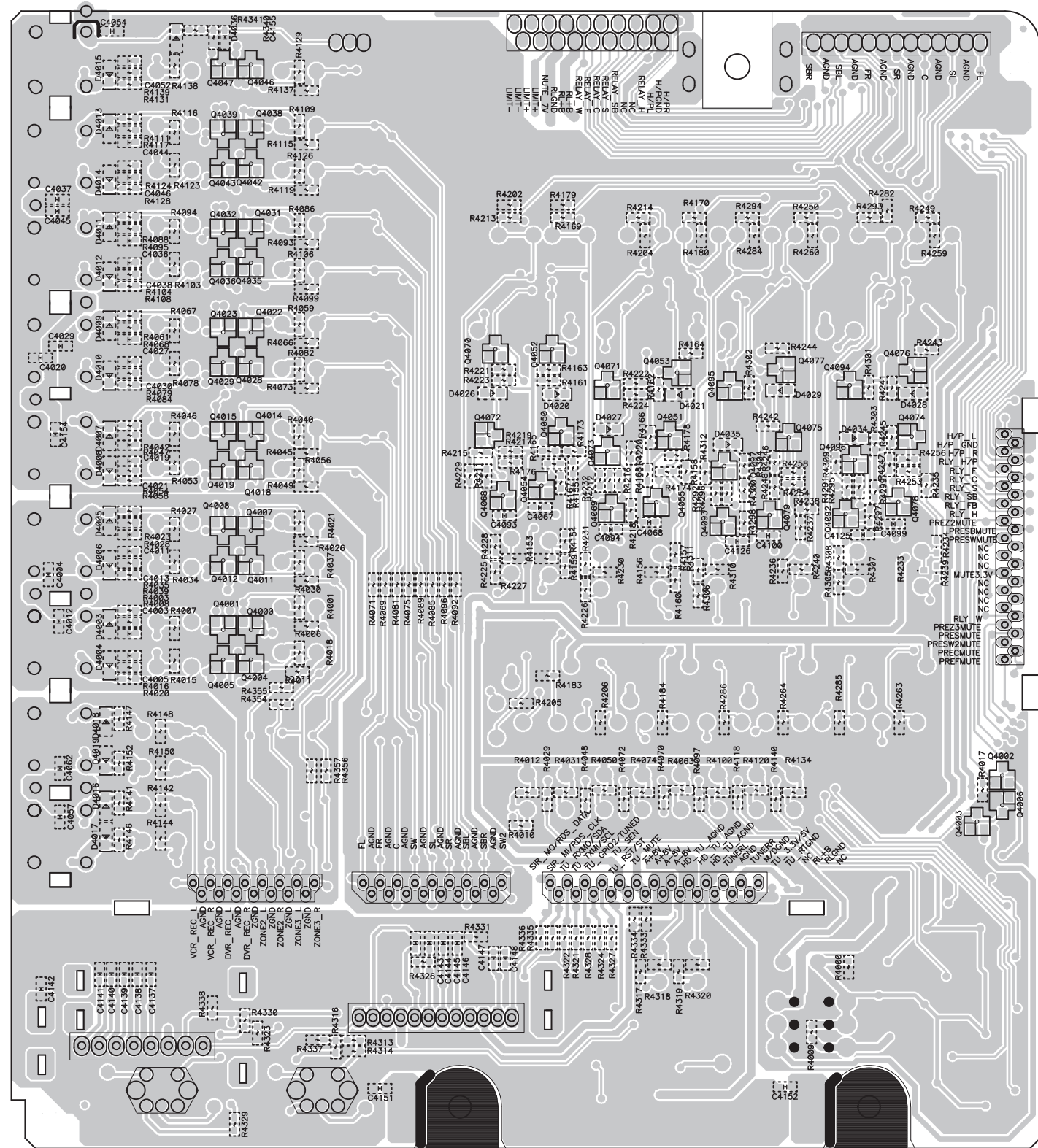
When soldering, use the Lead-free Solder (Sn-Ag-Cu).



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

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

11 10 9 8 7 6 5 4 3 2 1

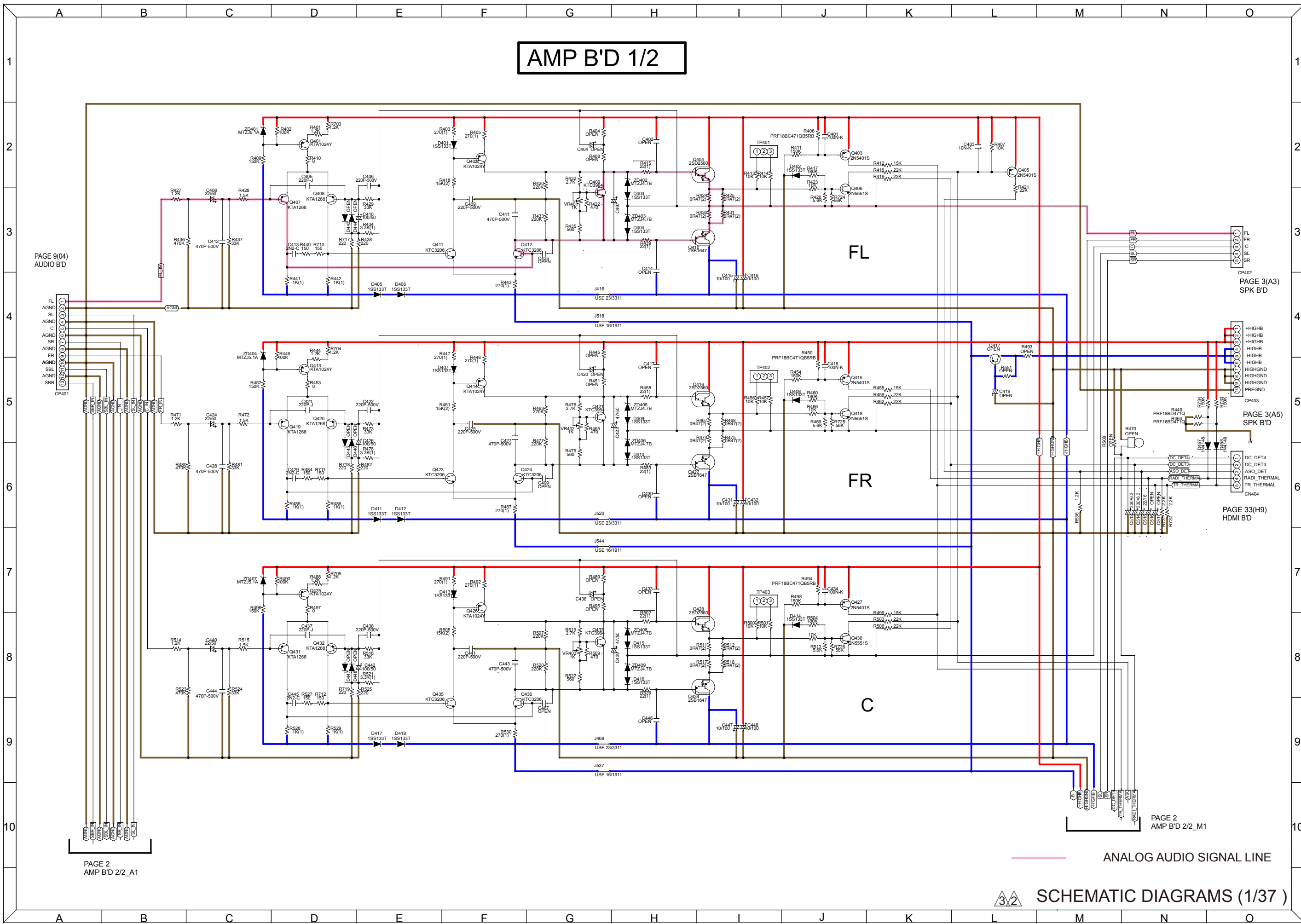


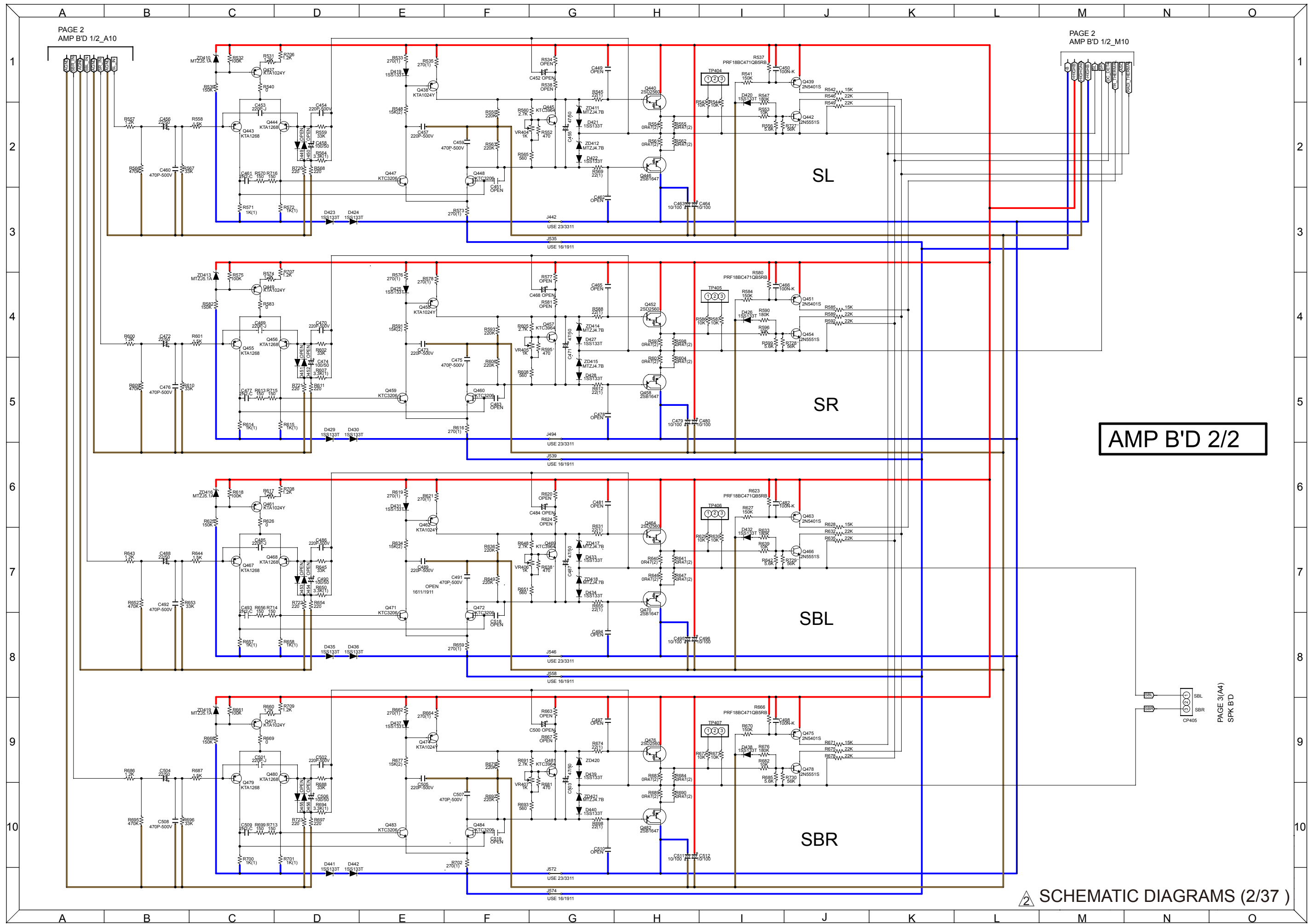
A
B
C
D
E
F
G
H
I
J
K

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).

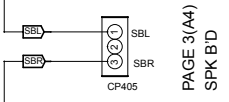
AMP B'D 1/2



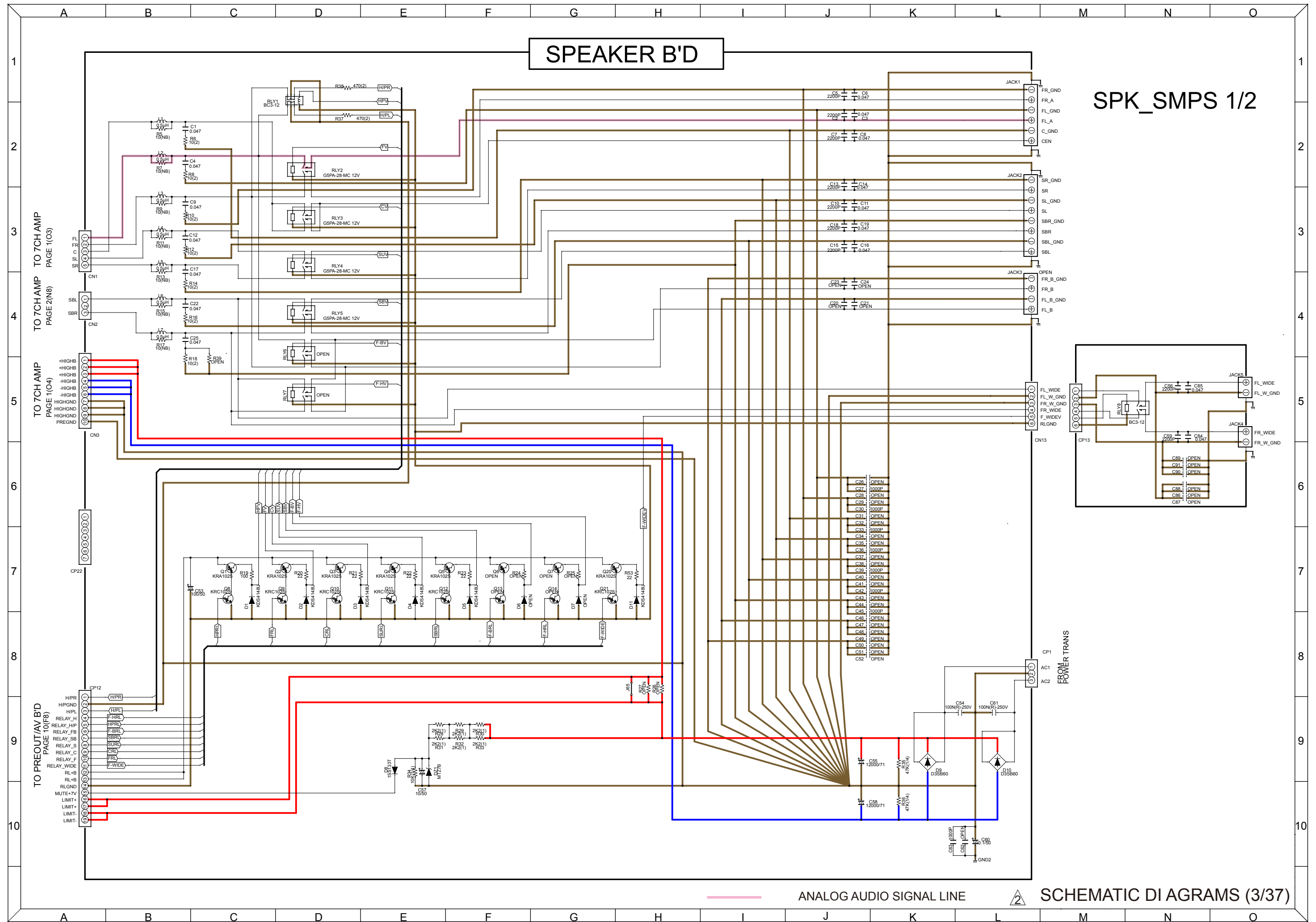


AMP B'D 2/2

SCHEMATIC DIAGRAMS (2/37)



PAGE 3(A4)
SPK B'D

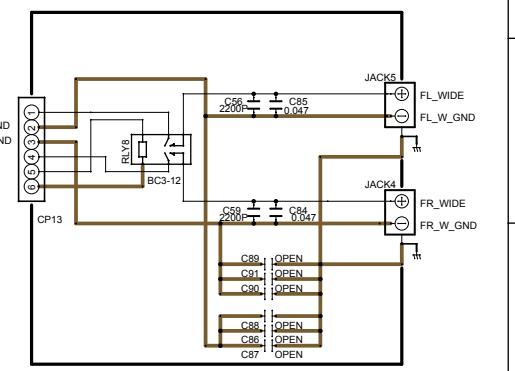


SPEAKER B'D

SPK_SMPS 1/2

TO 7CH AMP PAGE 1(O3)
 TO 7CH AMP PAGE 2(N8)
 TO 7CH AMP PAGE 1(O4)
 TO PREOUT/AV BD PAGE 10(F8)

- C26: OPEN
- C27: 1000P
- C28: OPEN
- C29: OPEN
- C30: 1000P
- C31: OPEN
- C32: OPEN
- C33: 1000P
- C34: OPEN
- C35: OPEN
- C36: 1000P
- C37: OPEN
- C38: OPEN
- C39: 1000P
- C40: OPEN
- C41: OPEN
- C42: 1000P
- C43: OPEN
- C44: OPEN
- C45: 1000P
- C46: OPEN
- C47: OPEN
- C48: OPEN
- C49: OPEN
- C50: OPEN
- C51: OPEN
- C52: OPEN

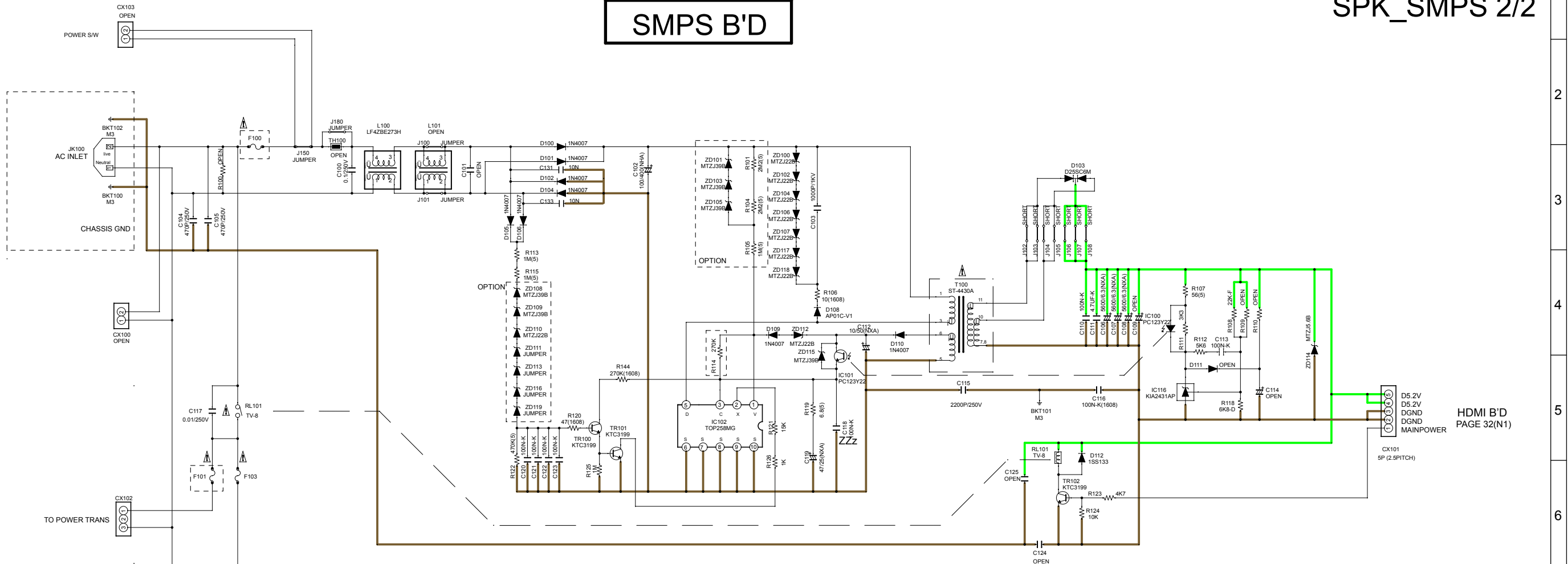


ANALOG AUDIO SIGNAL LINE

SCHEMATIC DIAGRAMS (3/37)

SMPS B'D

SPK_SMPS 2/2



OPTION TABLE

	ZD108	ZD109	ZD110	ZD111	ZD113	ZD116	ZD119	ZD101	ZD103	ZD105	R101	R104	R105	R114
E3	MTZJ398	MTZJ398	MTZJ22B	JUMPER	JUMPER	JUMPER	JUMPER	MTZJ398	MTZJ398	MTZJ398	2M(5)	2M(5)	1M(5)	270K
E2, E1C, EA	1M(5)	1M(5)	MTZJ398	MTZJ398	MTZJ398	MTZJ398	MTZJ398	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	56K
JPN	MTZJ398	MTZJ398	JUMPER	JUMPER	JUMPER	JUMPER	JUMPER	MTZJ398	MTZJ398	MTZJ398	2M(5)	2M(5)	1M(5)	270K

	F100				F101			
	1611	1911	2311	3311	1611	1911	2311	3311
E3	2A/250V	2A/250V	2A/250V	2A/250V	5A/250V	6.3A/250V	6.3A/250V	6.3A/250V
E2, E1C, EA	1.6A/250V	1.6A/250V	1.6A/250V	1.6A/250V	3.15A/250V	3.15A/250V	3.15A/250V	3.15A/250V
JPN	2A/250V	2A/250V	-	2A/250V	5A/250V	6.3A/250V	-	8A/250V

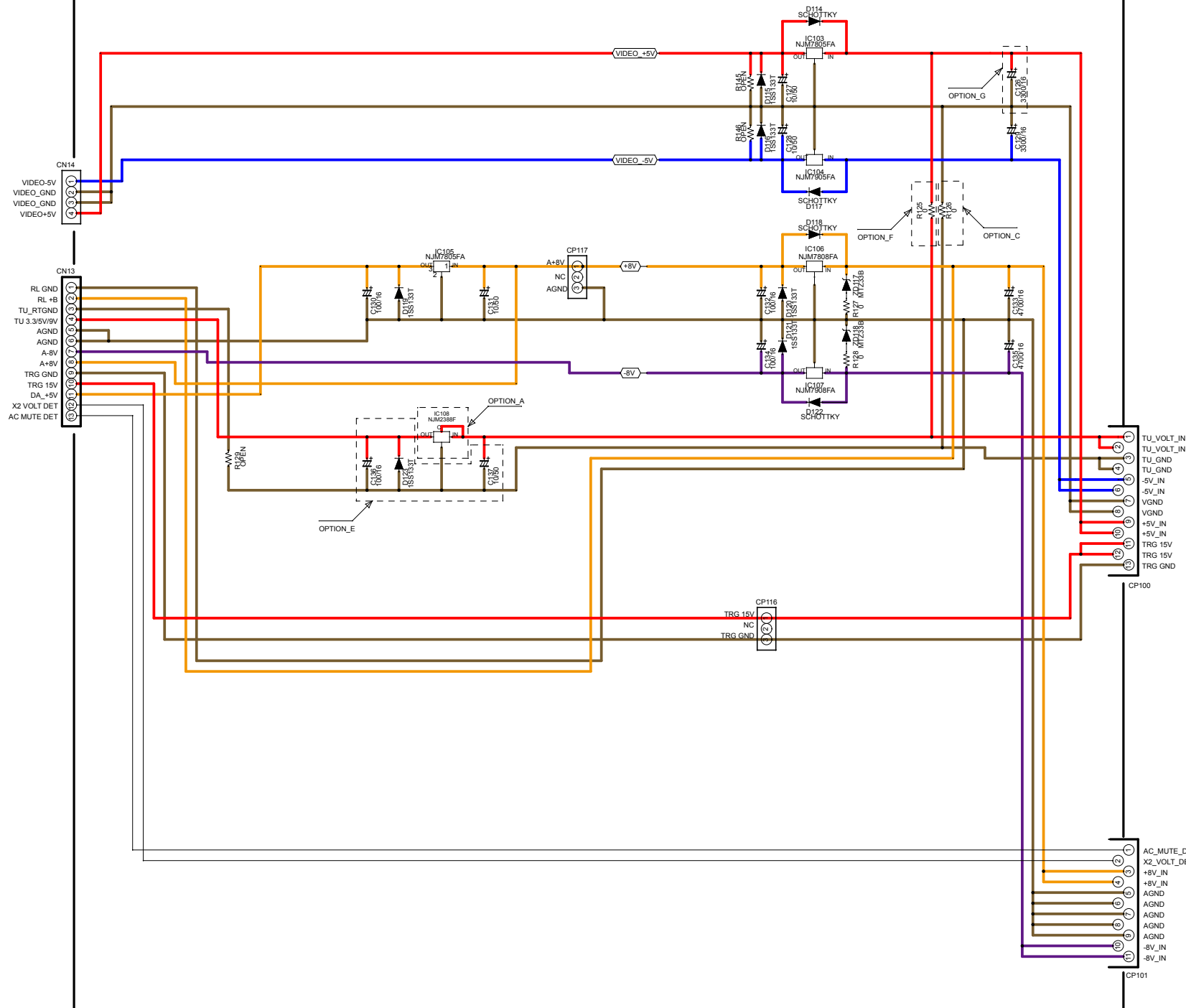
HDMI B'D
PAGE 32(N1)

REGULATOR B'D

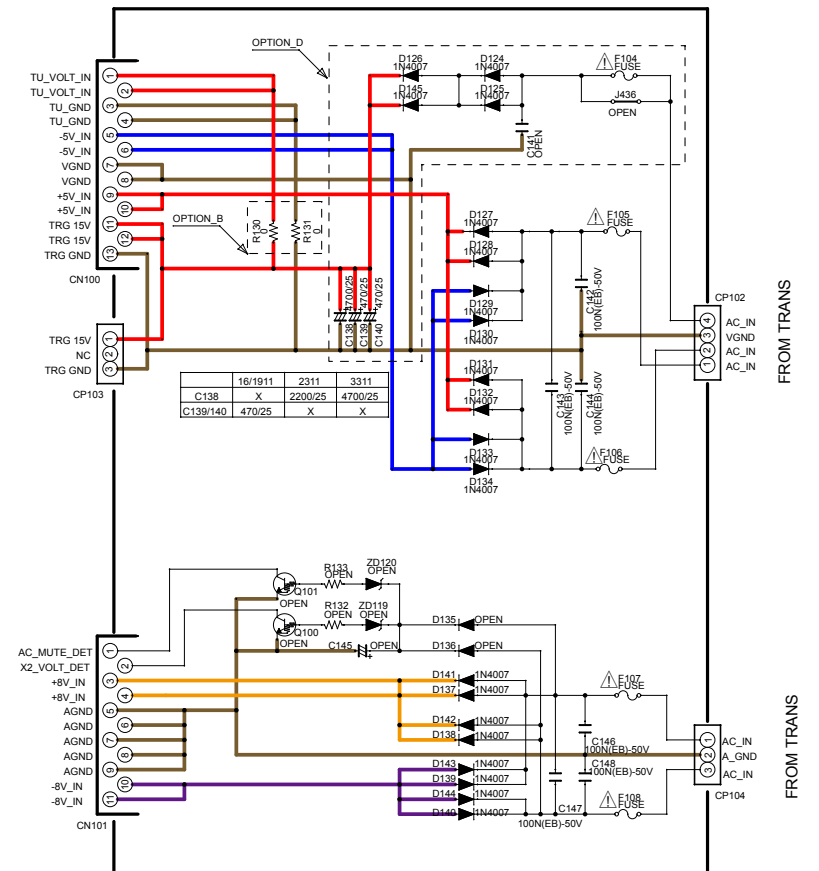
REG_SIRIUS_COMMON CNT 1/4

PAGE 13(A13)

REG_SIRIUS_COMMON_CNT
PAGE 6(B9)



FUSE	F104,F105,F106,F107,F108
AVR1611/1911	T1.6AL/250V
AVR2311/3311	T3.15AL/250V



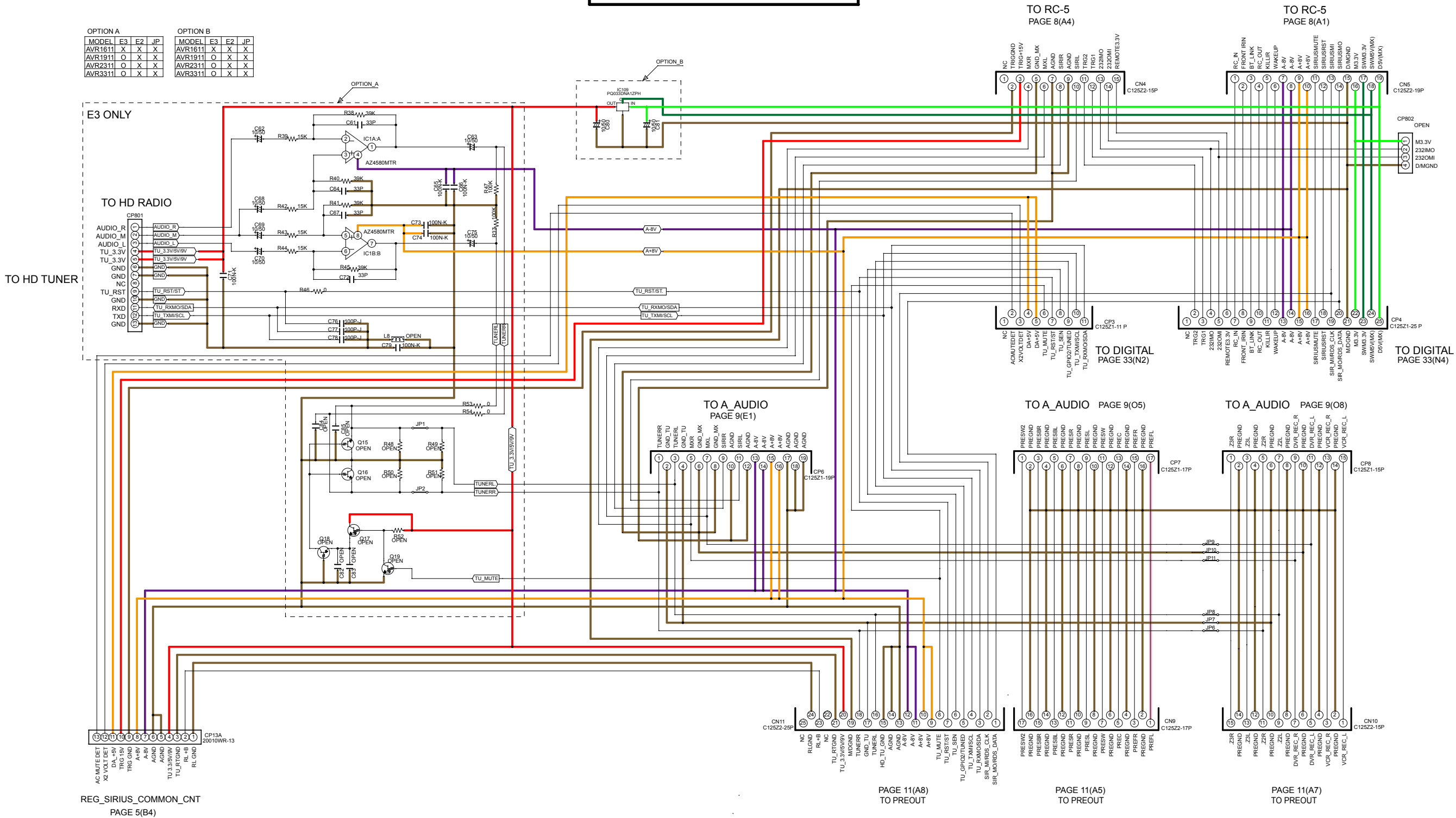
*OPTION TABLE

MODEL	AVR1611/1621		AVR1911		AVR591/791		AVR2311/3311		AVR891/991
AREA	E3	E1C/E2/JP	E3	E1C/E2/JP	E3	EA	E3	E1C/E2/JP	E3/EA
OPTION_A	NJM2388F05	NJM2388F09	OPEN	NJM2388F09	NJM2388F05	NJM2388F09	OPEN	NJM2388F09	NJM2388F09
OPTION_B	NOT USE	USE	NOT USE	USE	NOT USE	USE	NOT USE	USE	USE
OPTION_C	USE	USE	NOT USE	USE	USE	USE	NOT USE	USE	USE
OPTION_D	NOT USE	USE	NOT USE	USE	NOT USE	USE	USE	USE	USE
OPTION_E	USE	USE	NOT USE	USE	USE	USE	NOT USE	USE	USE
OPTION_F	USE	NOT USE	NOT USE	NOT USE	USE	NOT USE	NOT USE	NOT USE	NOT USE
OPTION_G	4700/16	3300/16	3300/16	3300/16	4700/16	3300/16	3300/16	3300/16	3300/16

SIDE CONNECTOR

REG_SIRIUS_COMMON_CNT 2/4

OPTION A				OPTION B			
MODEL	E3	E2	JP	MODEL	E3	E2	JP
AVR1611	X	X	X	AVR1611	X	X	X
AVR1911	O	X	X	AVR1911	O	X	X
AVR2311	O	X	X	AVR2311	O	X	X
AVR3311	O	X	X	AVR3311	O	X	X



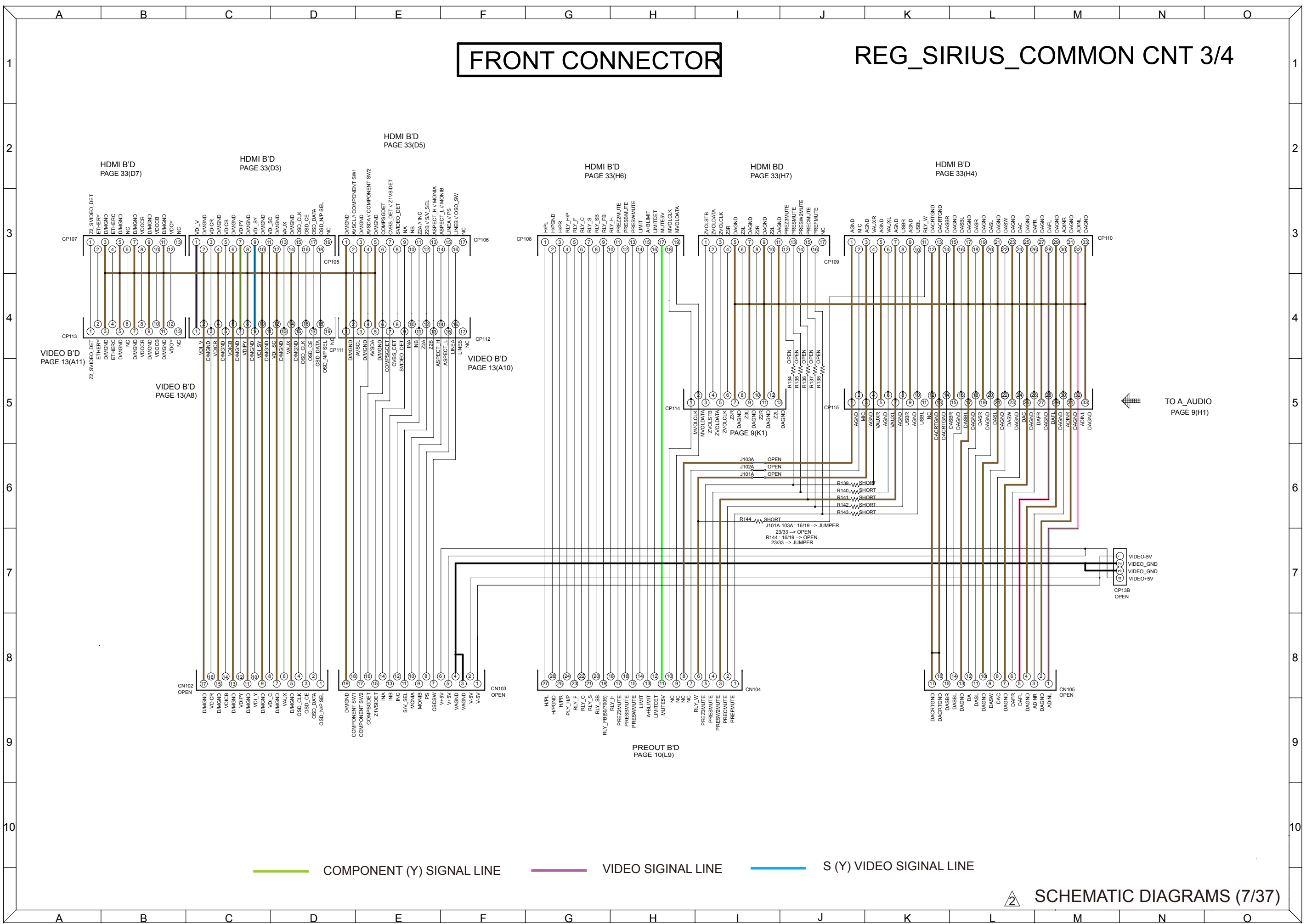
ANALOG AUDIO SIGNAL LINE



SCHEMATIC DIAGRAMS (6/37)

FRONT CONNECTOR

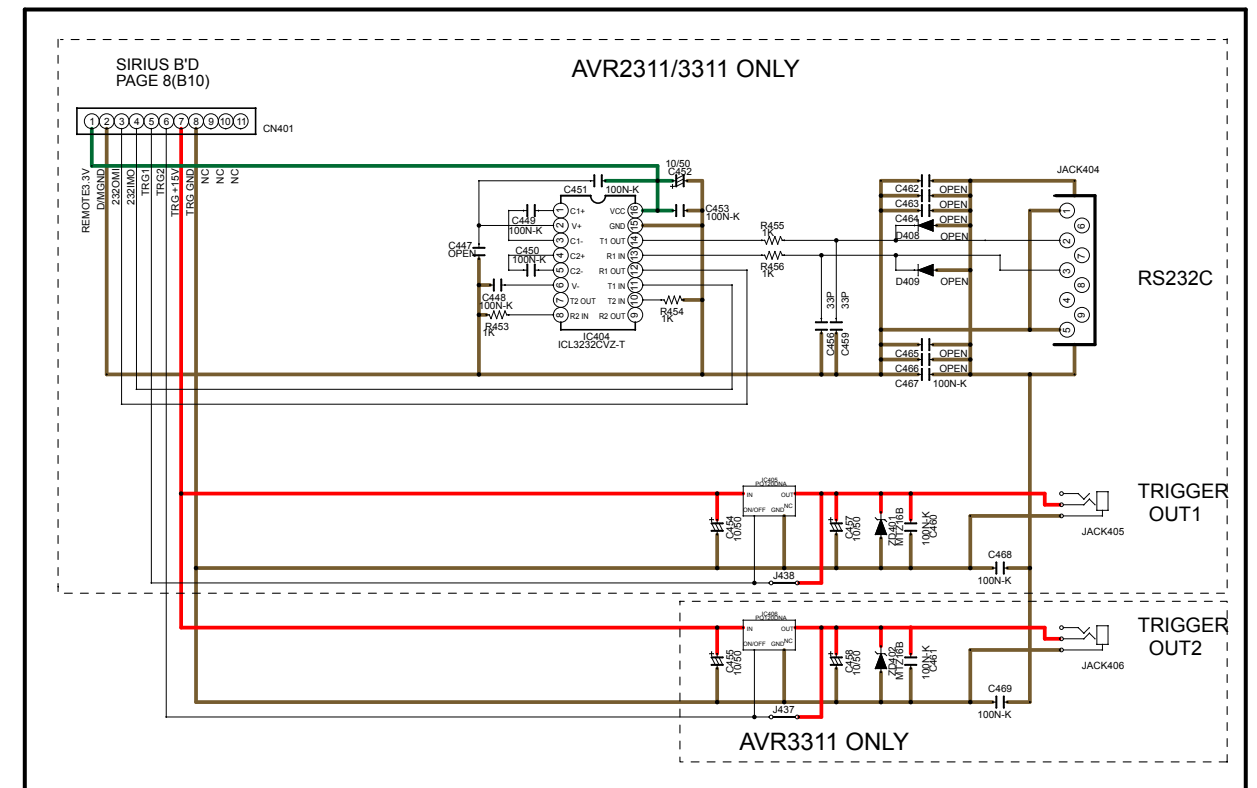
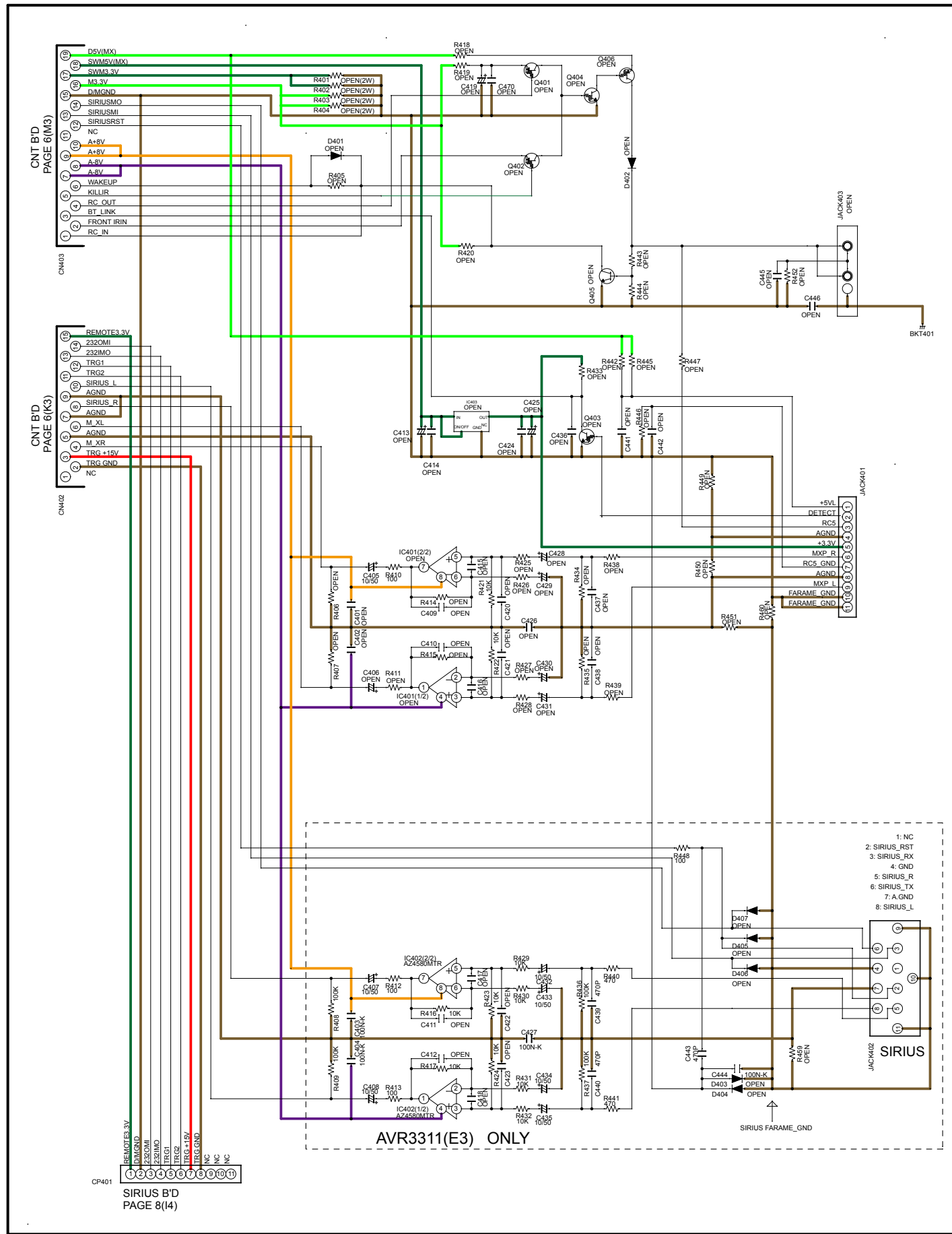
REG_SIRIUS_COMMON CNT 3/4

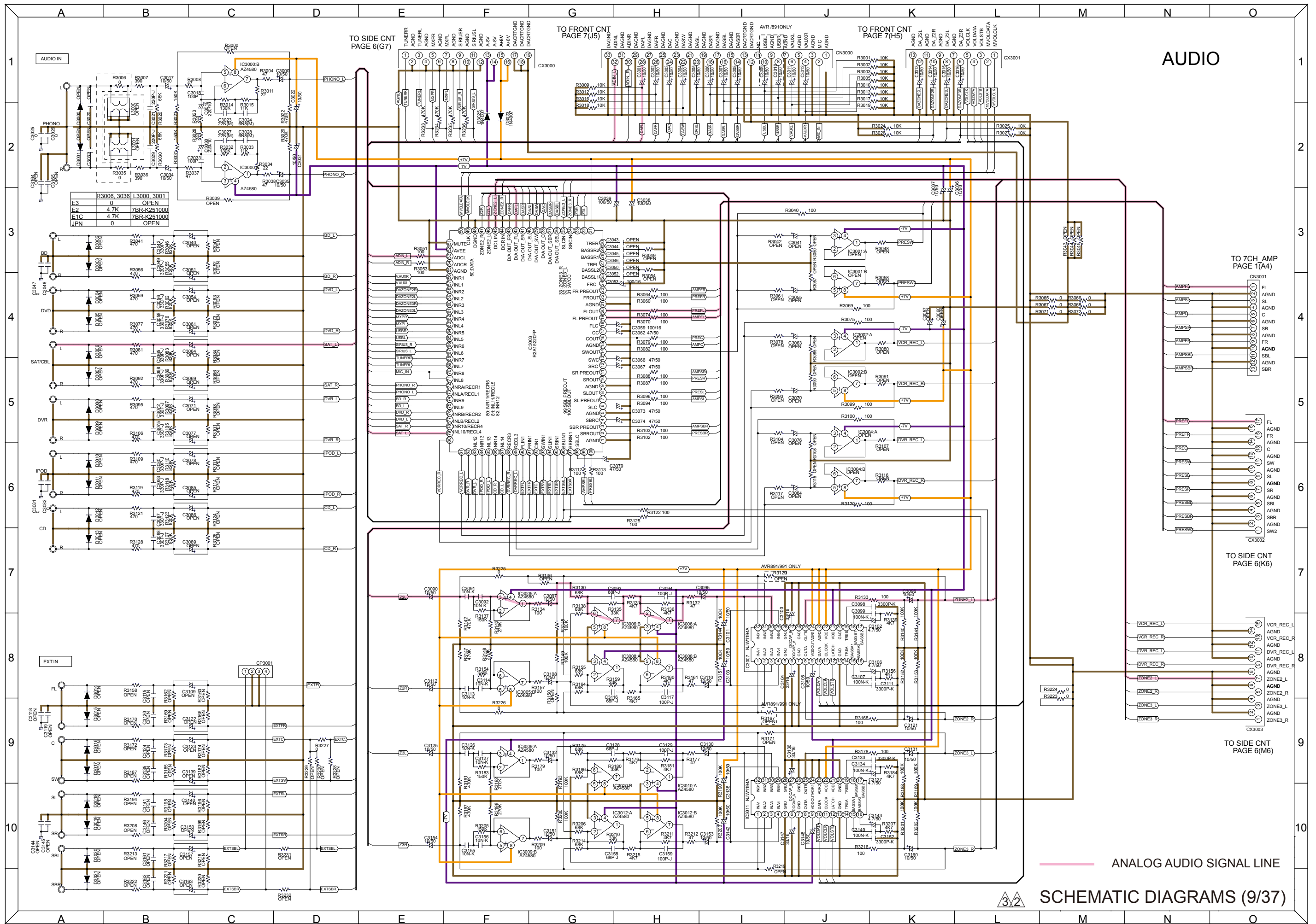


— COMPONENT (Y) SIGNAL LINE
 — VIDEO SIGNAL LINE
 — S (Y) VIDEO SIGNAL LINE

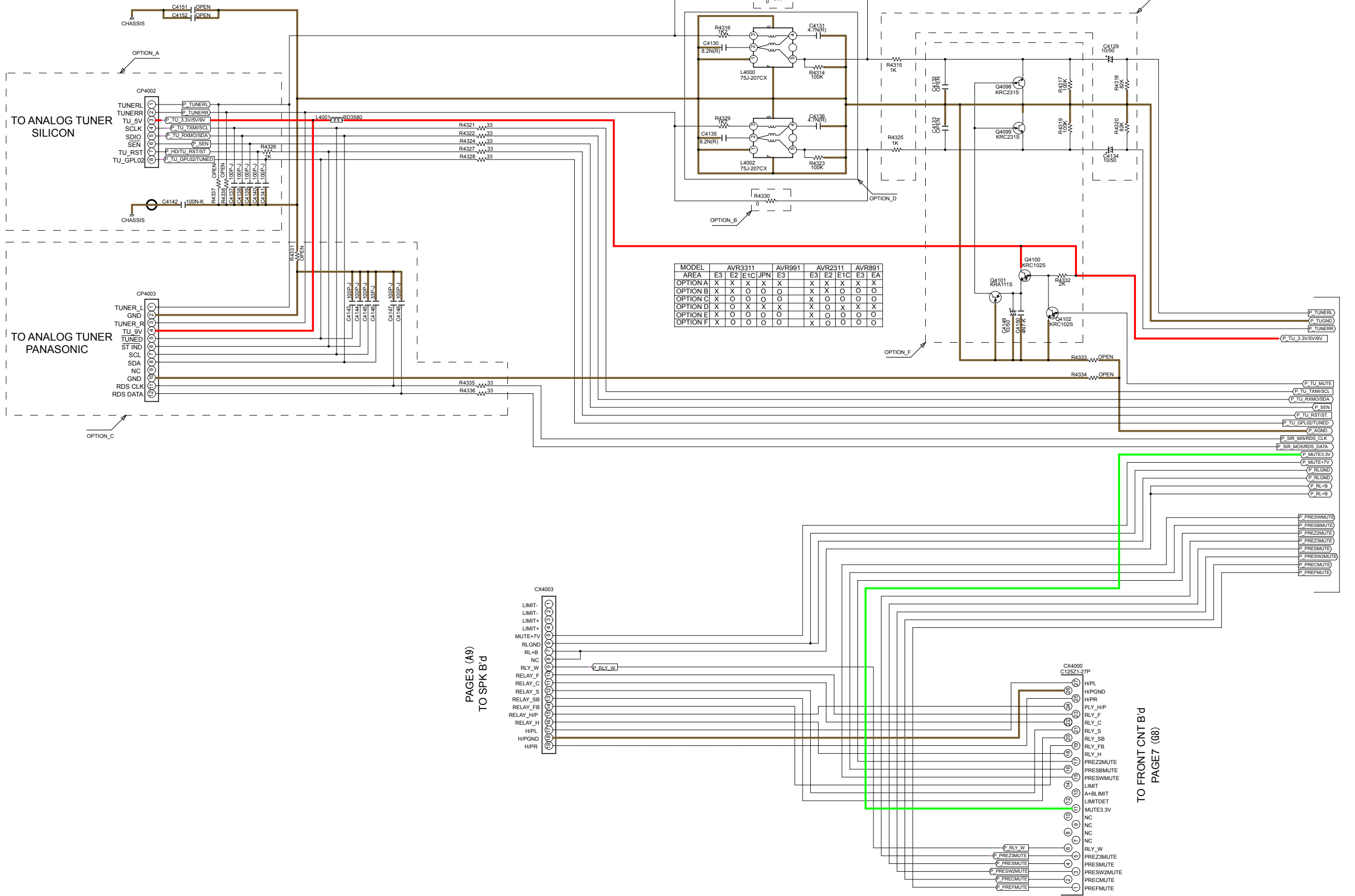
REG_SIRIUS_COMMON CNT 4/4

SIRIUS/RS232C/TRIGGER



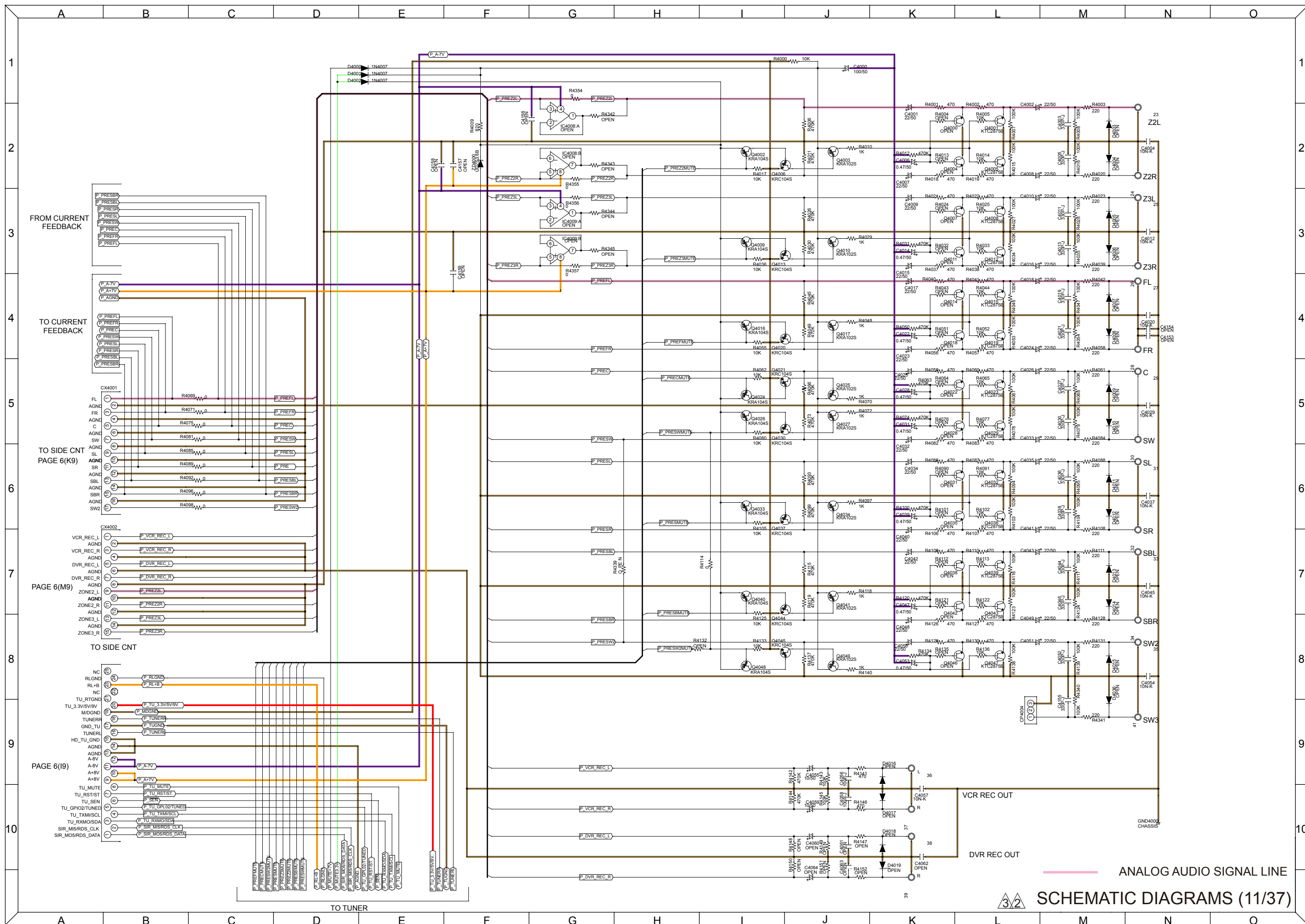


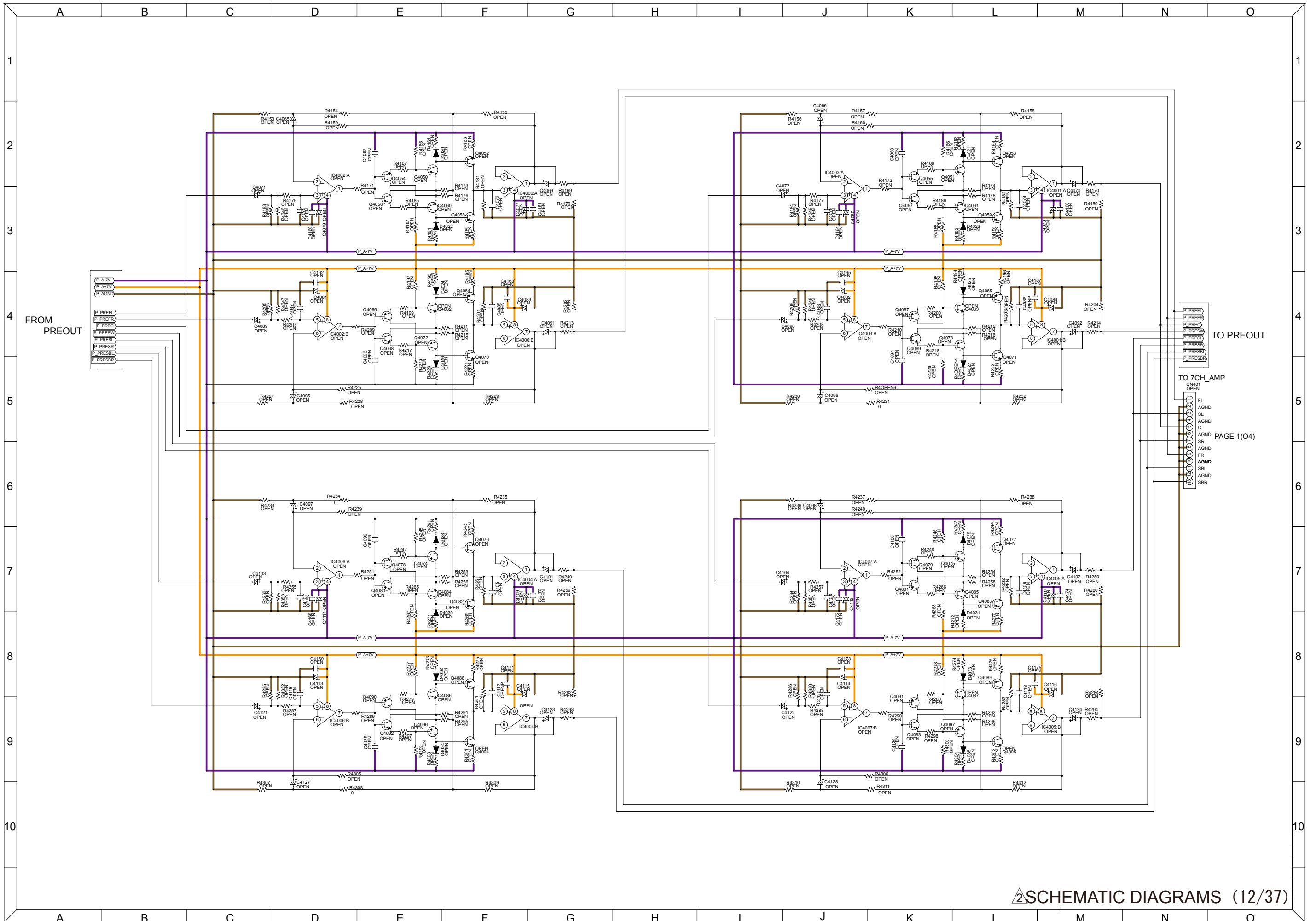
3x2 SCHEMATIC DIAGRAMS (9/37)

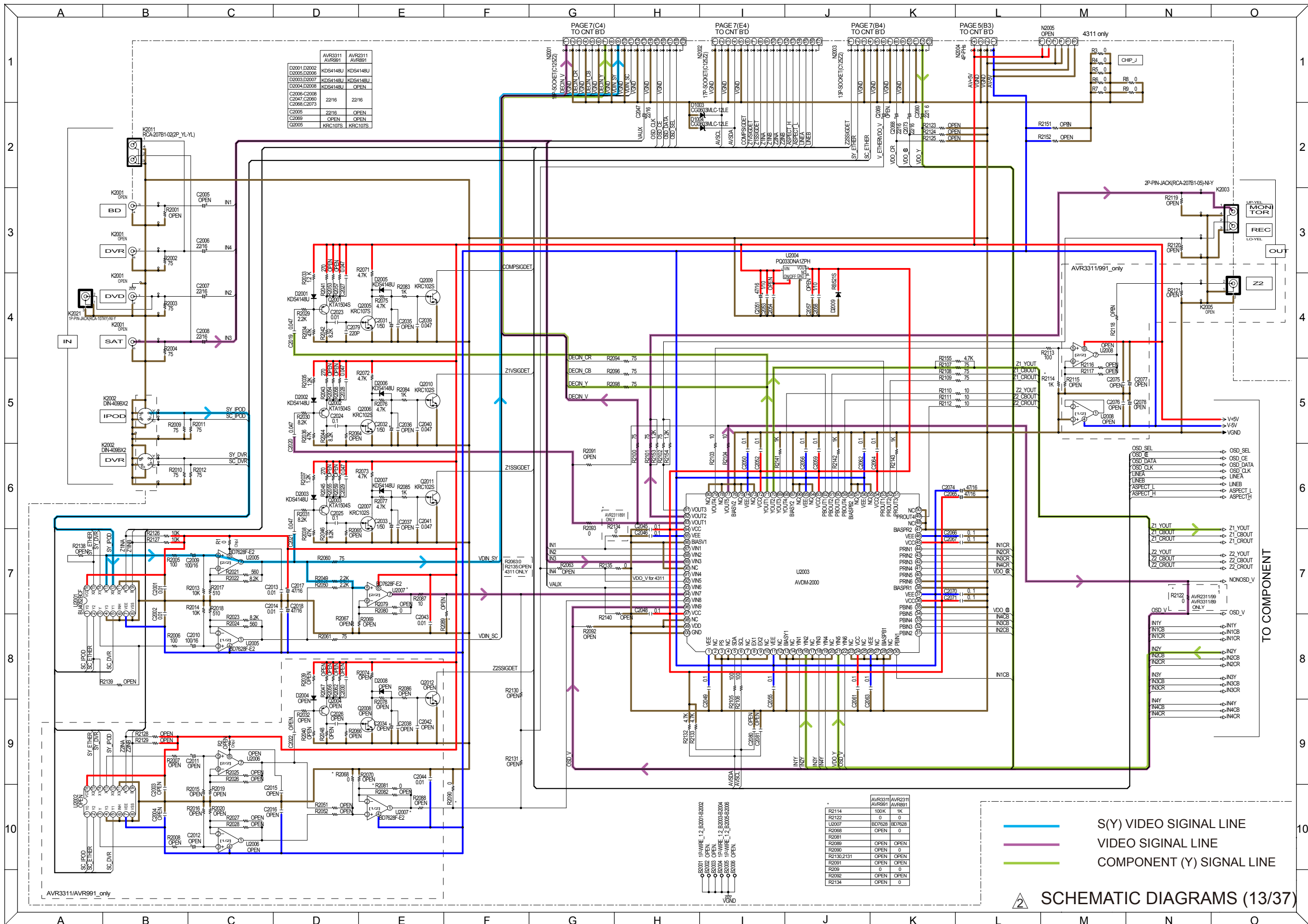


PAGE3 (A9)
TO SPK B'd

TO FRONT CNT B'd
PAGE7 (G8)





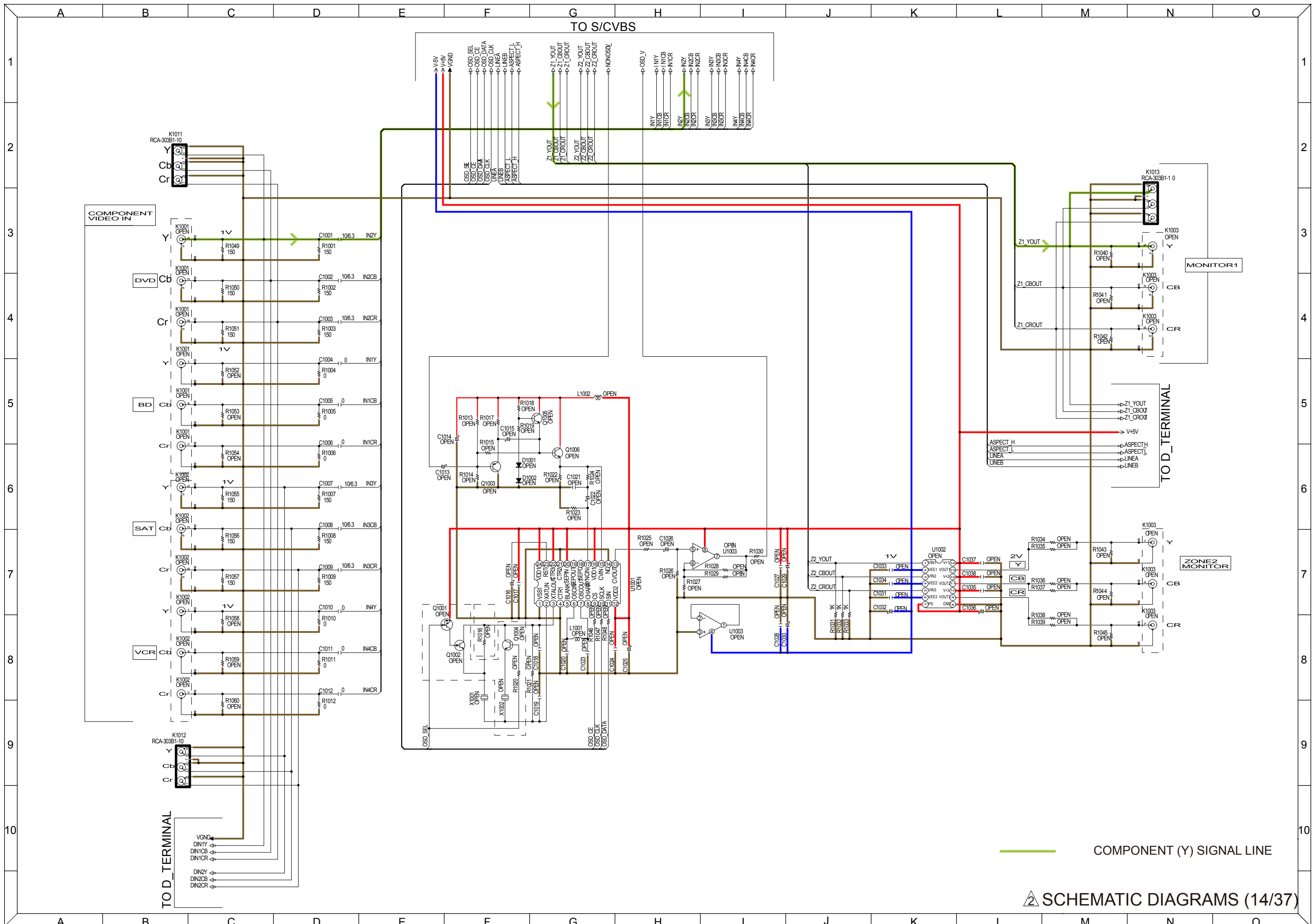


D2001, D2002	AVR3311 AVR991	AVR2311 AVR891
D2005, D2006	KDS4148U	KDS4148U
D2003, D2007	KDS4148U	KDS4148U
D2004, D2008	KDS4148U	OPEN
C2006, C2008	2216	2216
C2047, C2060	OPEN	OPEN
C2068, C2073	OPEN	OPEN
C2005	2216	OPEN
C2069	OPEN	OPEN
Q2005	KRC107S	KRC107S

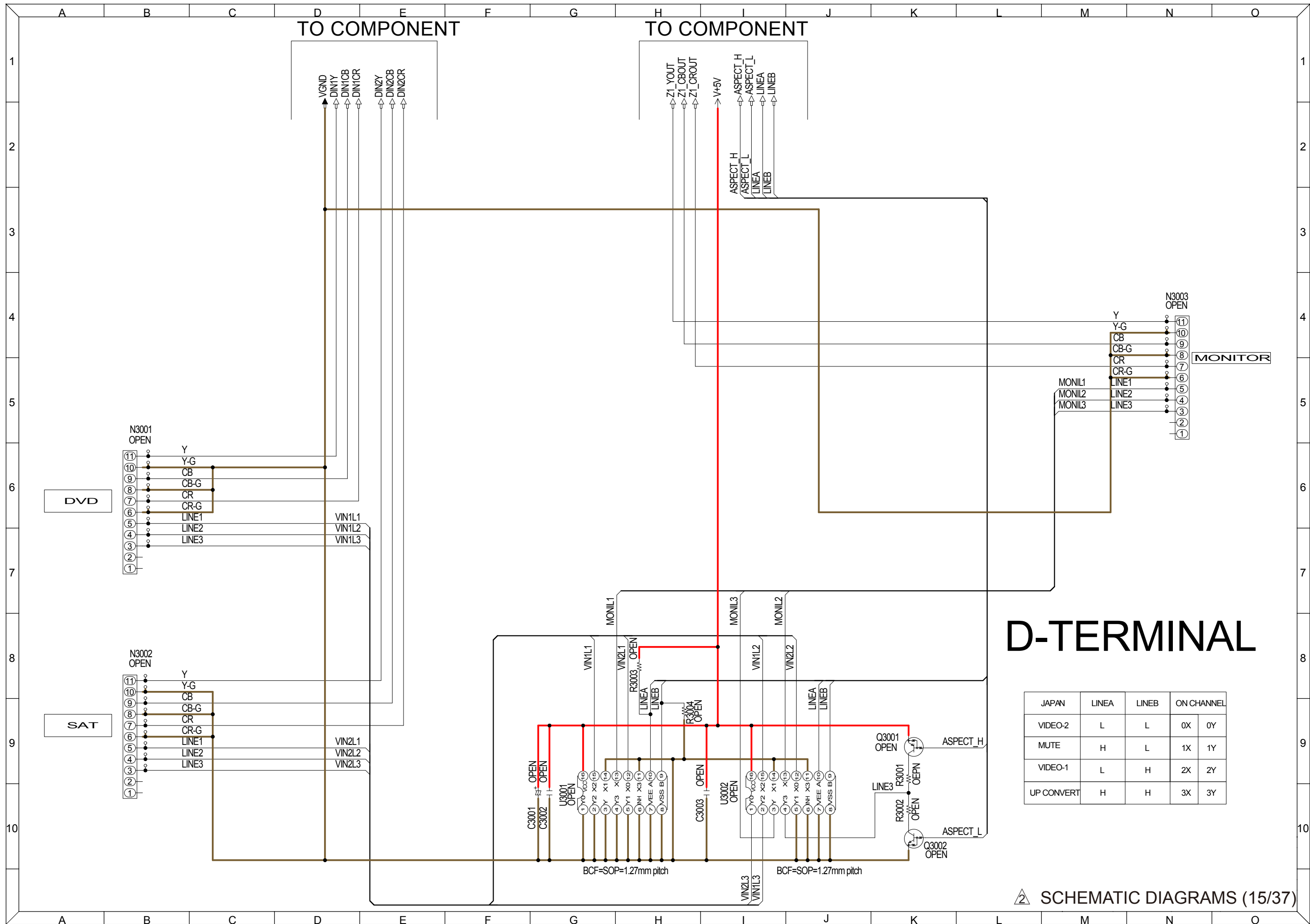
R2114	AVR3311 AVR991	AVR2311 AVR891
R2122	100K	1K
U2007	BD7628	BD7628
R2068	OPEN	0
R2081	OPEN	OPEN
R2089	OPEN	OPEN
R2090	OPEN	OPEN
R2130, 2131	OPEN	OPEN
R2091	OPEN	OPEN
R209	0	0
R2002	OPEN	OPEN
R2134	OPEN	0

— S(Y) VIDEO SIGNAL LINE
— VIDEO SIGNAL LINE
— COMPONENT (Y) SIGNAL LINE

SCHEMATIC DIAGRAMS (13/37)

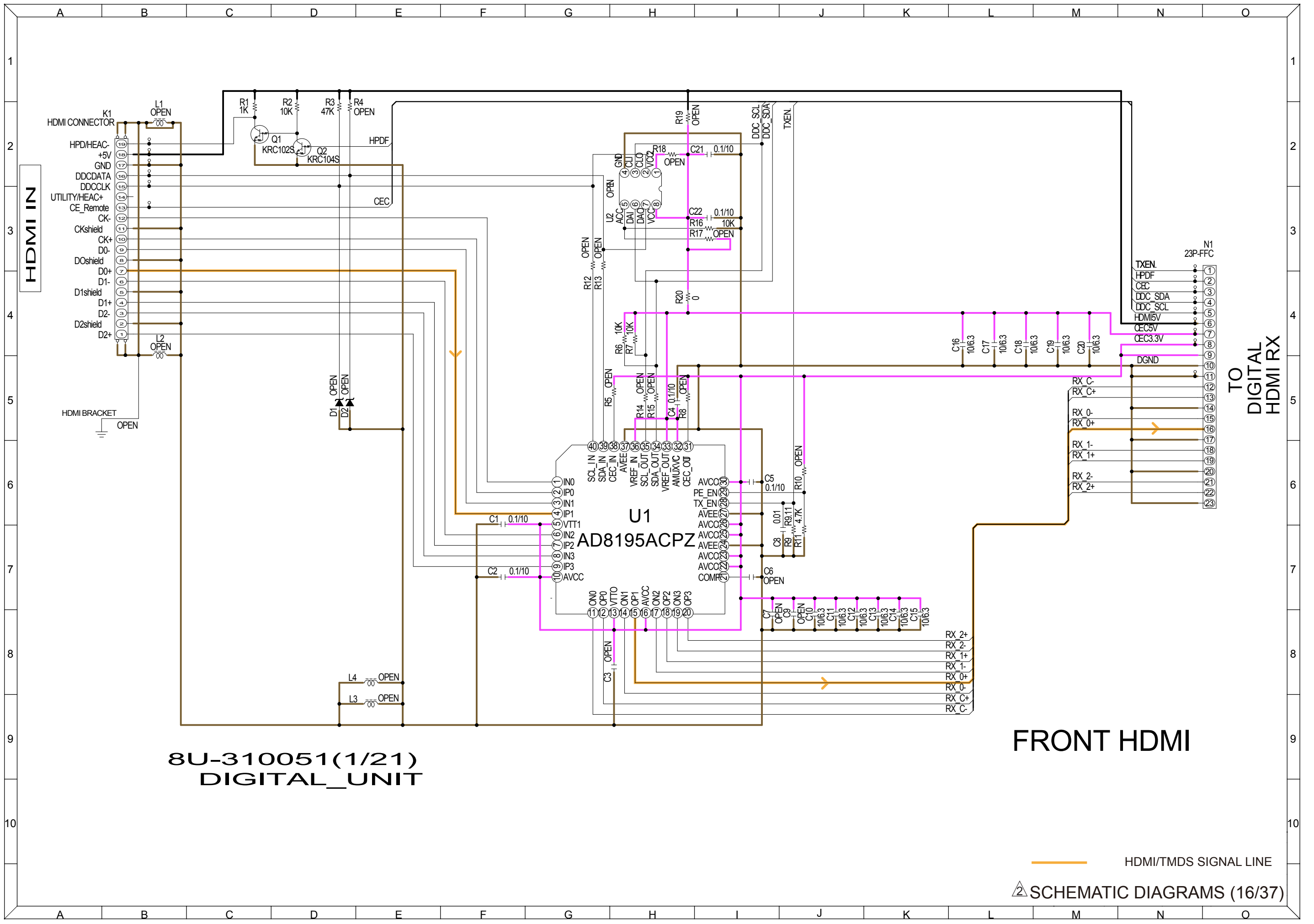


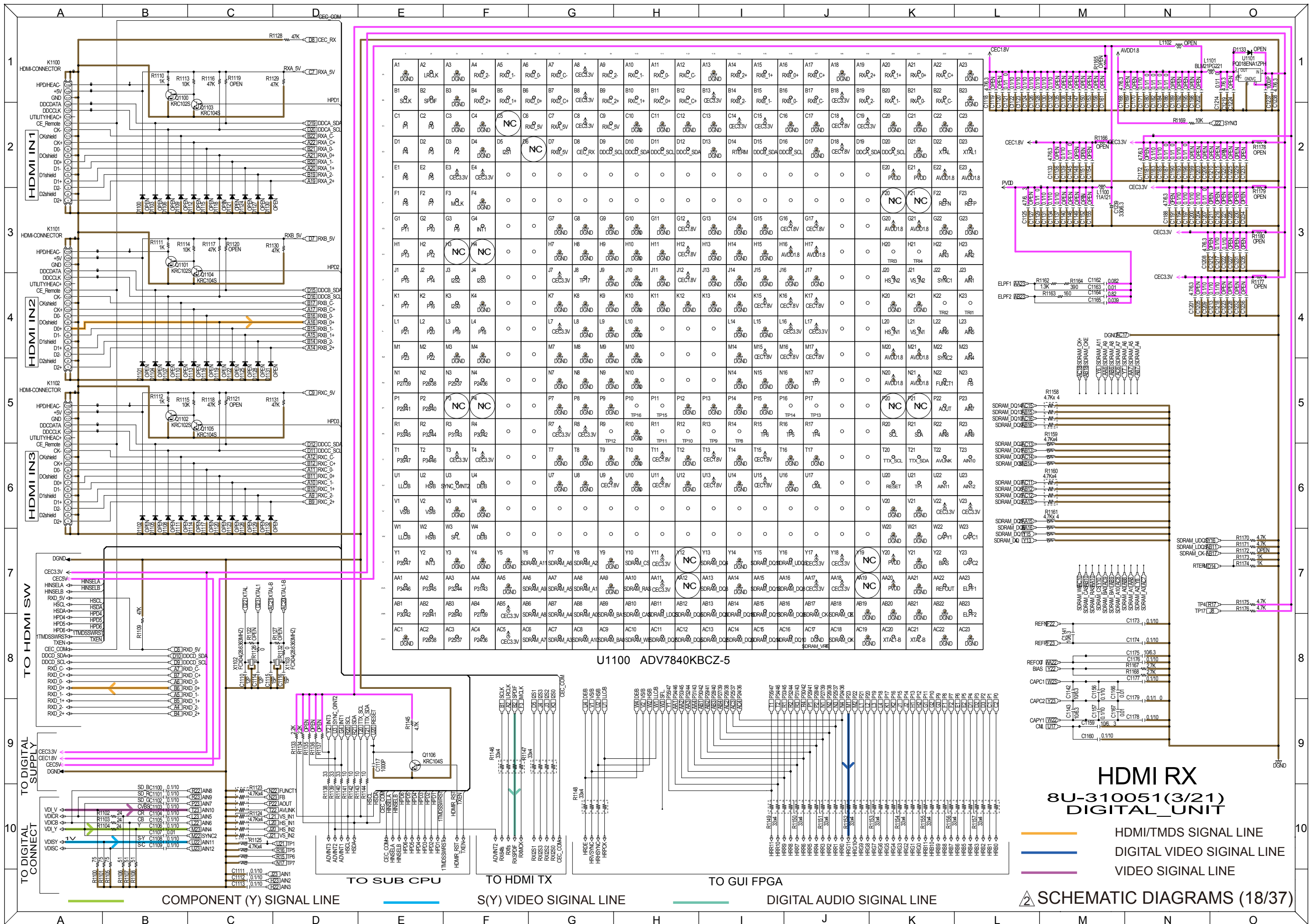
— COMPONENT (Y) SIGNAL LINE

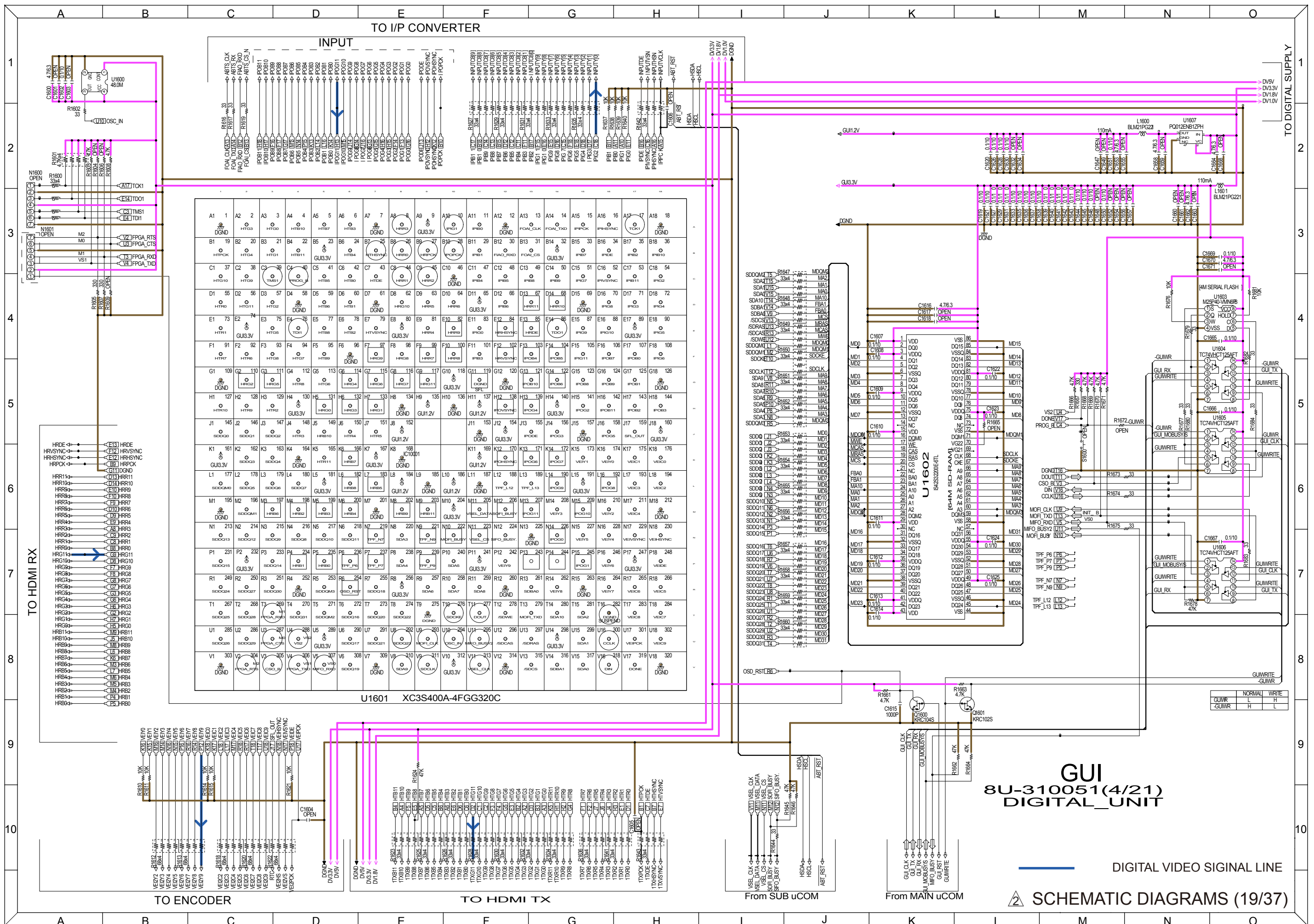


D-TERMINAL

JAPAN	LINEA	LINEB	ON CHANNEL	
VIDEO-2	L	L	0X	0Y
MUTE	H	L	1X	1Y
VIDEO-1	L	H	2X	2Y
UP CONVERT	H	H	3X	3Y



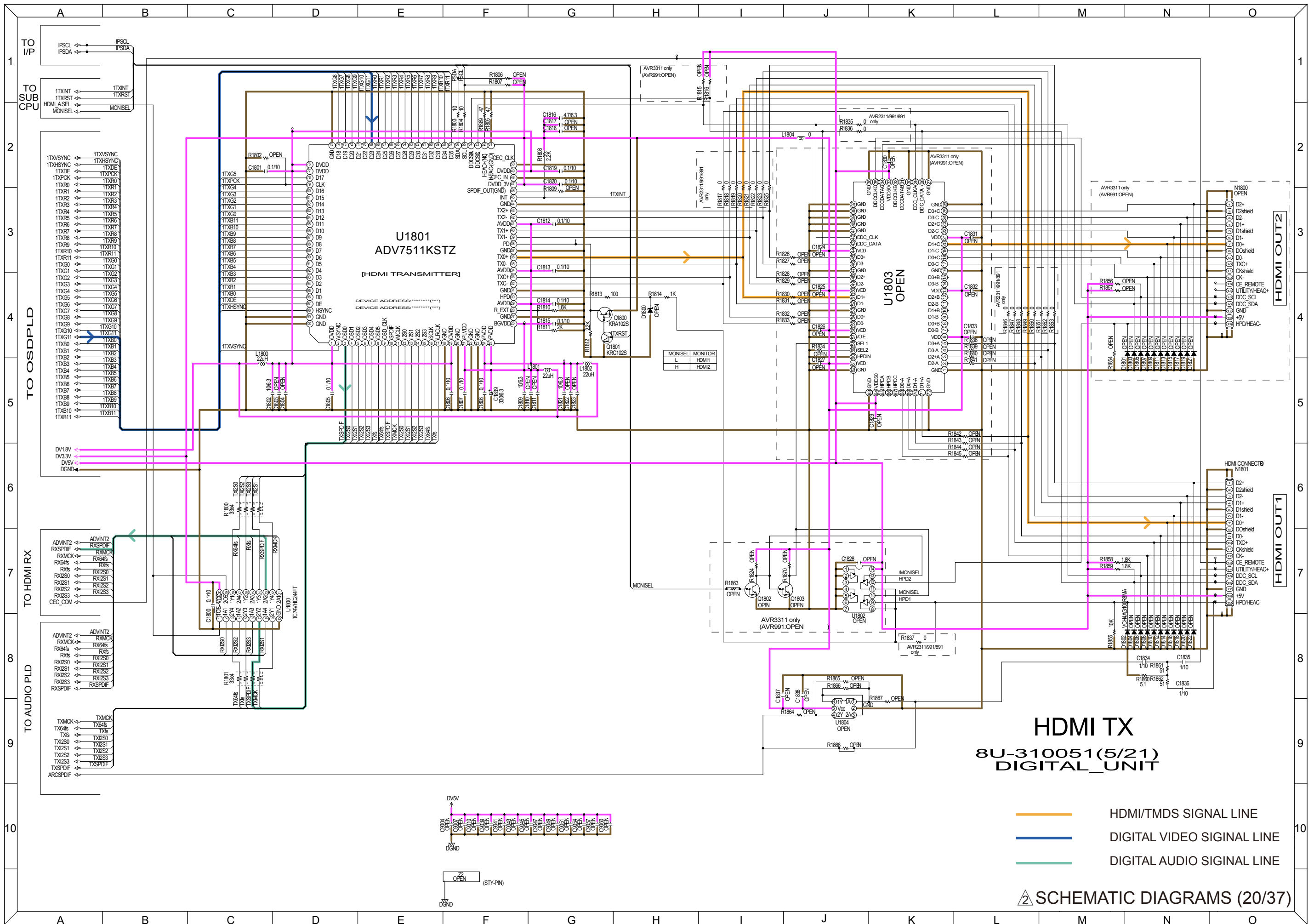


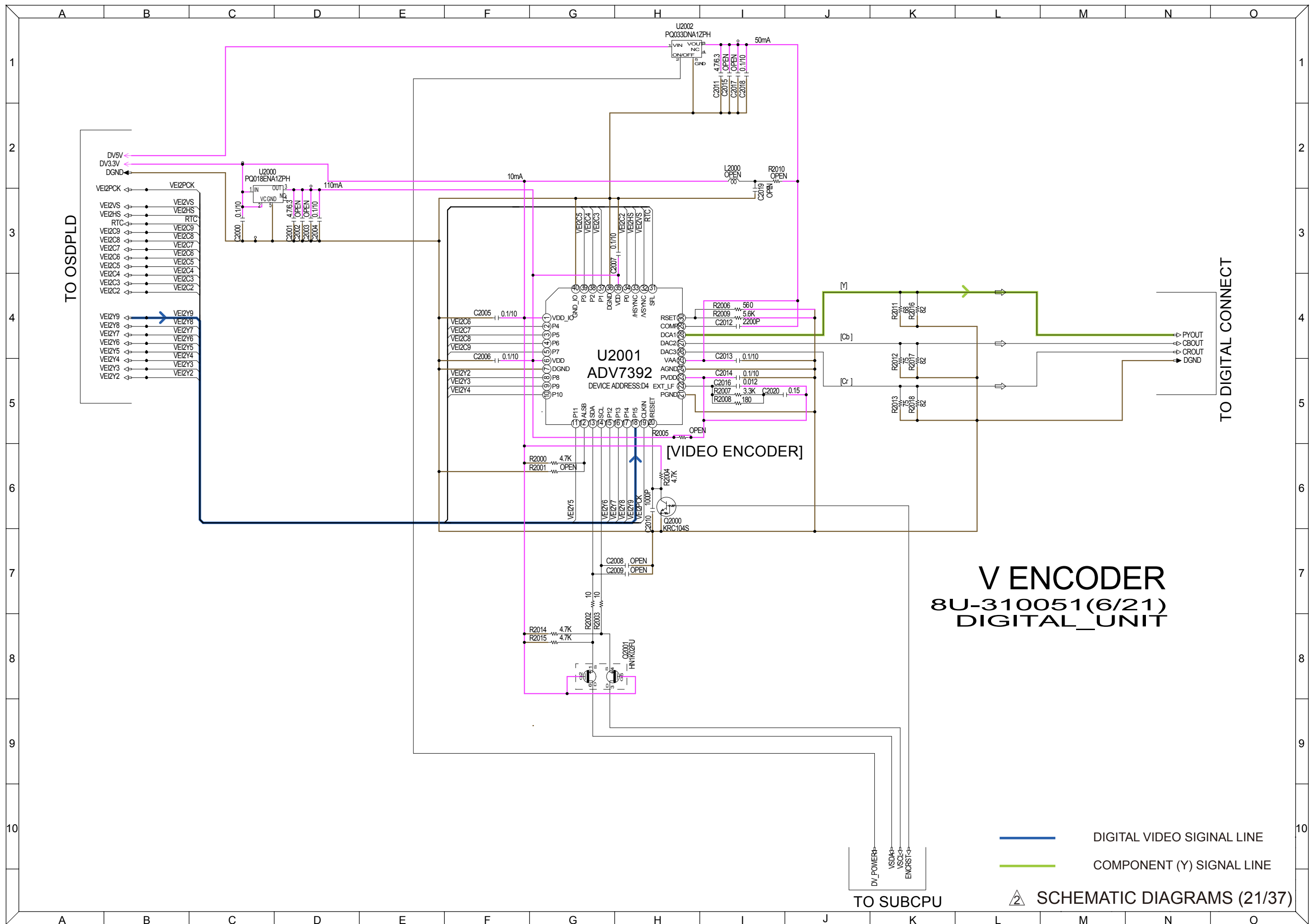


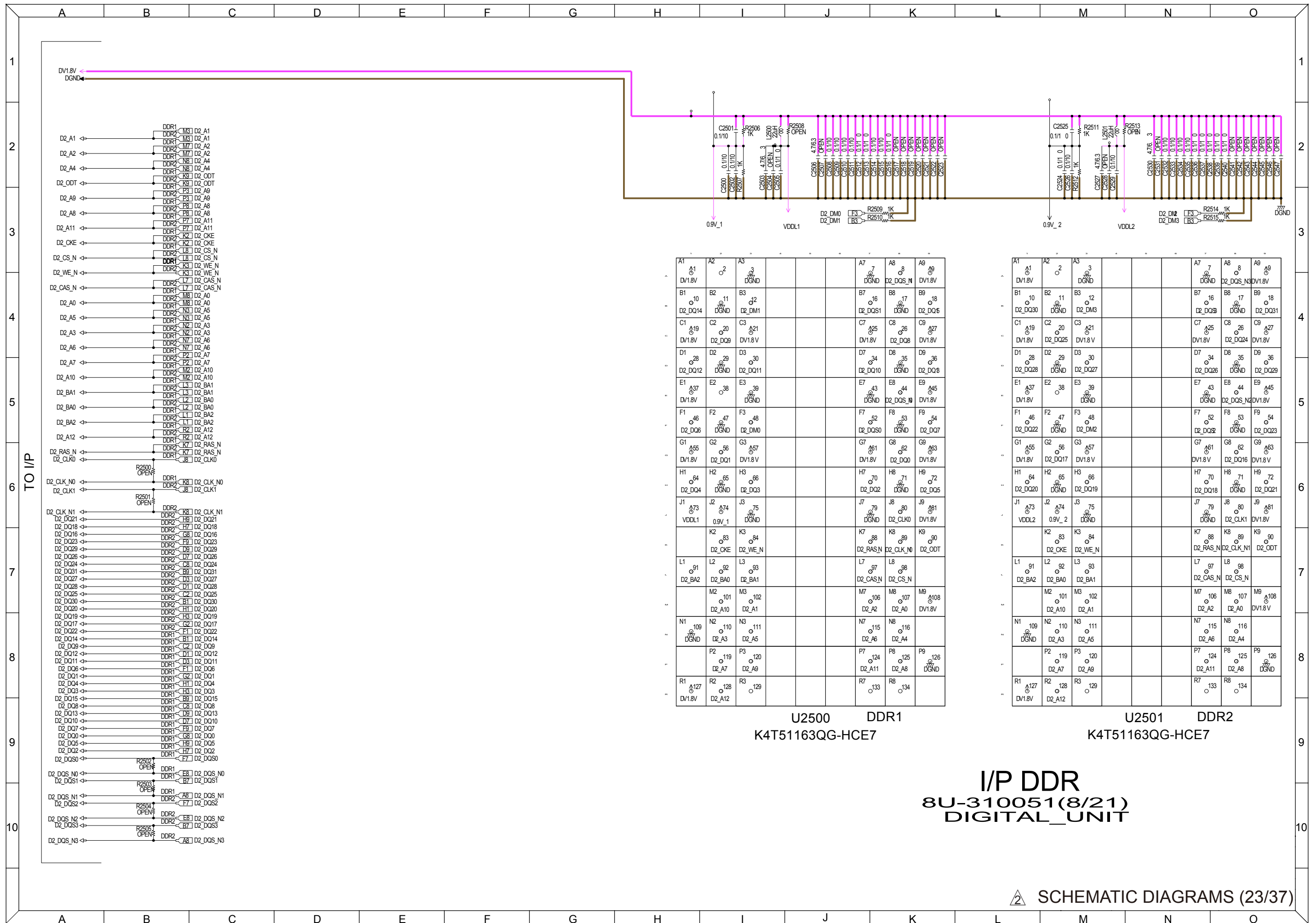
GUI
8U-310051(4/21)
DIGITAL_UNIT

DIGITAL VIDEO SIGNAL LINE

SCHEMATIC DIAGRAMS (19/37)







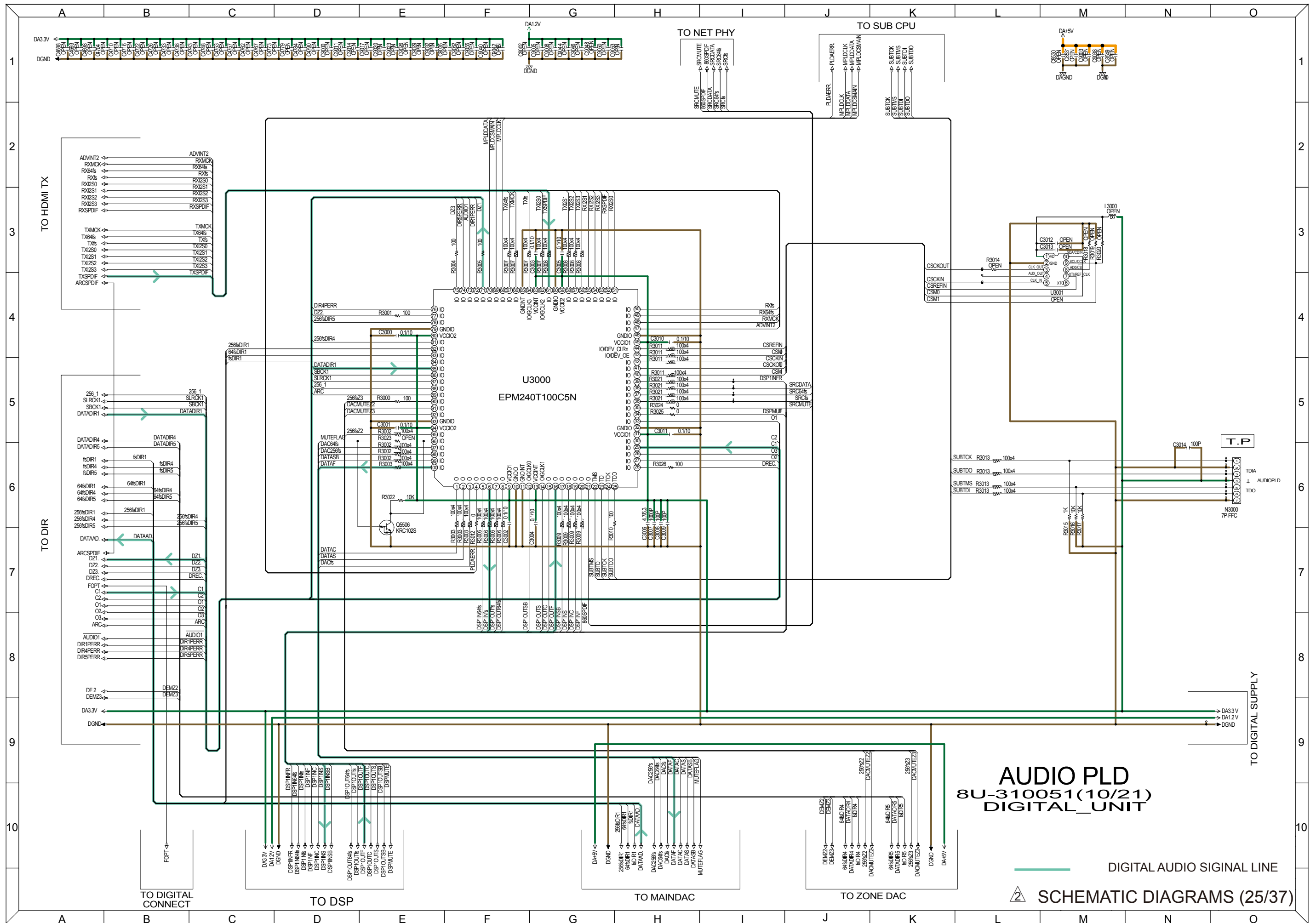
A1	A2	A3				A7	A8	A9
1	2	3				7	8	9
DV1.8V	DGND	DGND				DGND	D2_DQS_N	DV1.8V
B1	B2	B3				B7	B8	B9
10	11	12				16	17	18
D2_DQ14	DGND	D2_DM1				D2_DQS1	DGND	D2_DQ6
C1	C2	C3				C7	C8	C9
19	20	21				25	26	27
DV1.8V	D2_DQ9	DV1.8V				DV1.8V	D2_DQ8	DV1.8V
D1	D2	D3				D7	D8	D9
28	29	30				34	35	36
D2_DQ12	DGND	D2_DQ11				D2_DQ10	DGND	D2_DQ8
E1	E2	E3				E7	E8	E9
37	38	39				43	44	45
DV1.8V	DGND	DGND				DGND	D2_DQS_N	DV1.8V
F1	F2	F3				F7	F8	F9
46	47	48				52	53	54
D2_DQ6	DGND	D2_DM0				D2_DQS0	DGND	D2_DQ7
G1	G2	G3				G7	G8	G9
55	56	57				61	62	63
DV1.8V	D2_DQ1	DV1.8V				DV1.8V	D2_DQ0	DV1.8V
H1	H2	H3				H7	H8	H9
64	65	66				70	71	72
D2_DQ4	DGND	D2_DQ3				D2_DQ2	DGND	D2_DQ5
J1	J2	J3				J7	J8	J9
73	74	75				79	80	81
VDDL1	0.9V_1	DGND				DGND	D2_CLK0	DV1.8V
K2	K3	K4				K7	K8	K9
83	84	85				88	89	90
D2_CKE	D2_WE_N					D2_RAS_N	D2_CLK_N	D2_ODT
L1	L2	L3				L7	L8	
91	92	93				97	98	
D2_BA2	D2_BA0	D2_BA1				D2_CAS_N	D2_CS_N	
M2	M3	M4				M7	M8	M9
101	102	103				106	107	108
D2_A10	D2_A1					D2_A2	D2_A0	DV1.8V
N1	N2	N3				N7	N8	
109	110	111				115	116	
DGND	D2_A3	D2_A5				D2_A6	D2_A4	
P2	P3	P4				P7	P8	P9
119	120	121				124	125	126
D2_A7	D2_A9					D2_A11	D2_A8	DGND
R1	R2	R3				R7	R8	
127	128	129				133	134	
DV1.8V	D2_A12							

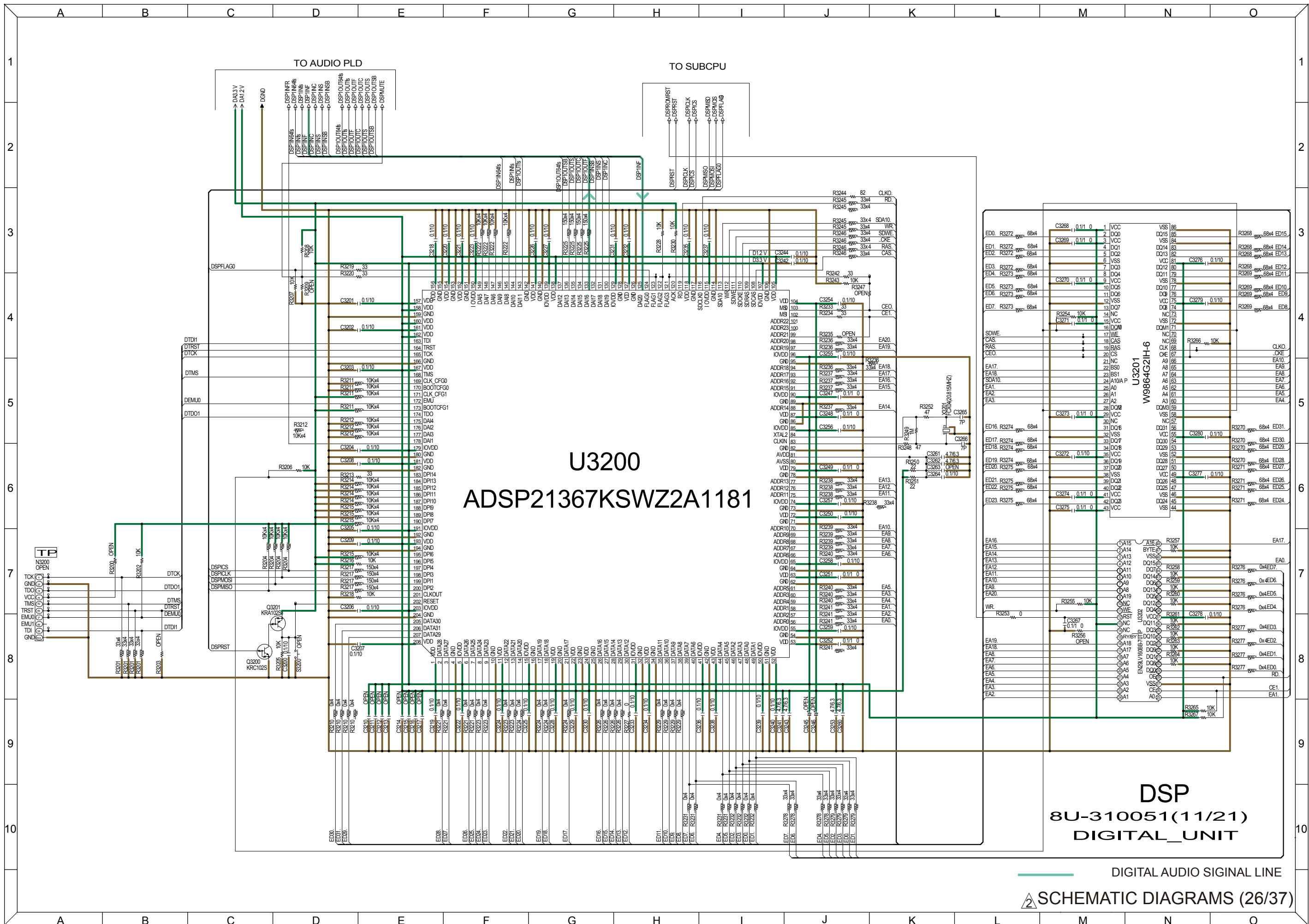
A1	A2	A3				A7	A8	A9
1	2	3				7	8	9
DV1.8V	DGND	DGND				DGND	D2_DQS_N3	DV1.8V
B1	B2	B3				B7	B8	B9
10	11	12				16	17	18
D2_DQ30	DGND	D2_DM3				D2_DQS	DGND	D2_DQ31
C1	C2	C3				C7	C8	C9
19	20	21				25	26	27
DV1.8V	D2_DQ25	DV1.8V				DV1.8V	D2_DQ24	DV1.8V
D1	D2	D3				D7	D8	D9
28	29	30				34	35	36
D2_DQ28	DGND	D2_DQ27				D2_DQ26	DGND	D2_DQ29
E1	E2	E3				E7	E8	E9
37	38	39				43	44	45
DV1.8V	DGND	DGND				DGND	D2_DQS_N2	DV1.8V
F1	F2	F3				F7	F8	F9
46	47	48				52	53	54
D2_DQ22	DGND	D2_DM2				D2_DQS	DGND	D2_DQ23
G1	G2	G3				G7	G8	G9
55	56	57				61	62	63
DV1.8V	D2_DQ17	DV1.8V				DV1.8V	D2_DQ16	DV1.8V
H1	H2	H3				H7	H8	H9
64	65	66				70	71	72
D2_DQ20	DGND	D2_DQ19				D2_DQ18	DGND	D2_DQ21
J1	J2	J3				J7	J8	J9
73	74	75				79	80	81
VDDL2	0.9V_2	DGND				DGND	D2_CLK1	DV1.8V
K2	K3	K4				K7	K8	K9
83	84	85				88	89	90
D2_CKE	D2_WE_N					D2_RAS_N	D2_CLK_N1	D2_ODT
L1	L2	L3				L7	L8	
91	92	93				97	98	
D2_BA2	D2_BA0	D2_BA1				D2_CAS_N	D2_CS_N	
M2	M3	M4				M7	M8	M9
101	102	103				106	107	108
D2_A10	D2_A1					D2_A2	D2_A0	DV1.8V
N1	N2	N3				N7	N8	
109	110	111				115	116	
DGND	D2_A3	D2_A5				D2_A6	D2_A4	
P2	P3	P4				P7	P8	P9
119	120	121				124	125	126
D2_A7	D2_A9					D2_A11	D2_A8	DGND
R1	R2	R3				R7	R8	
127	128	129				133	134	
DV1.8V	D2_A12							

U2500 DDR1
K4T51163QG-HCE7

U2501 DDR2
K4T51163QG-HCE7

I/P DDR
8U-310051(8/21)
DIGITAL_UNIT

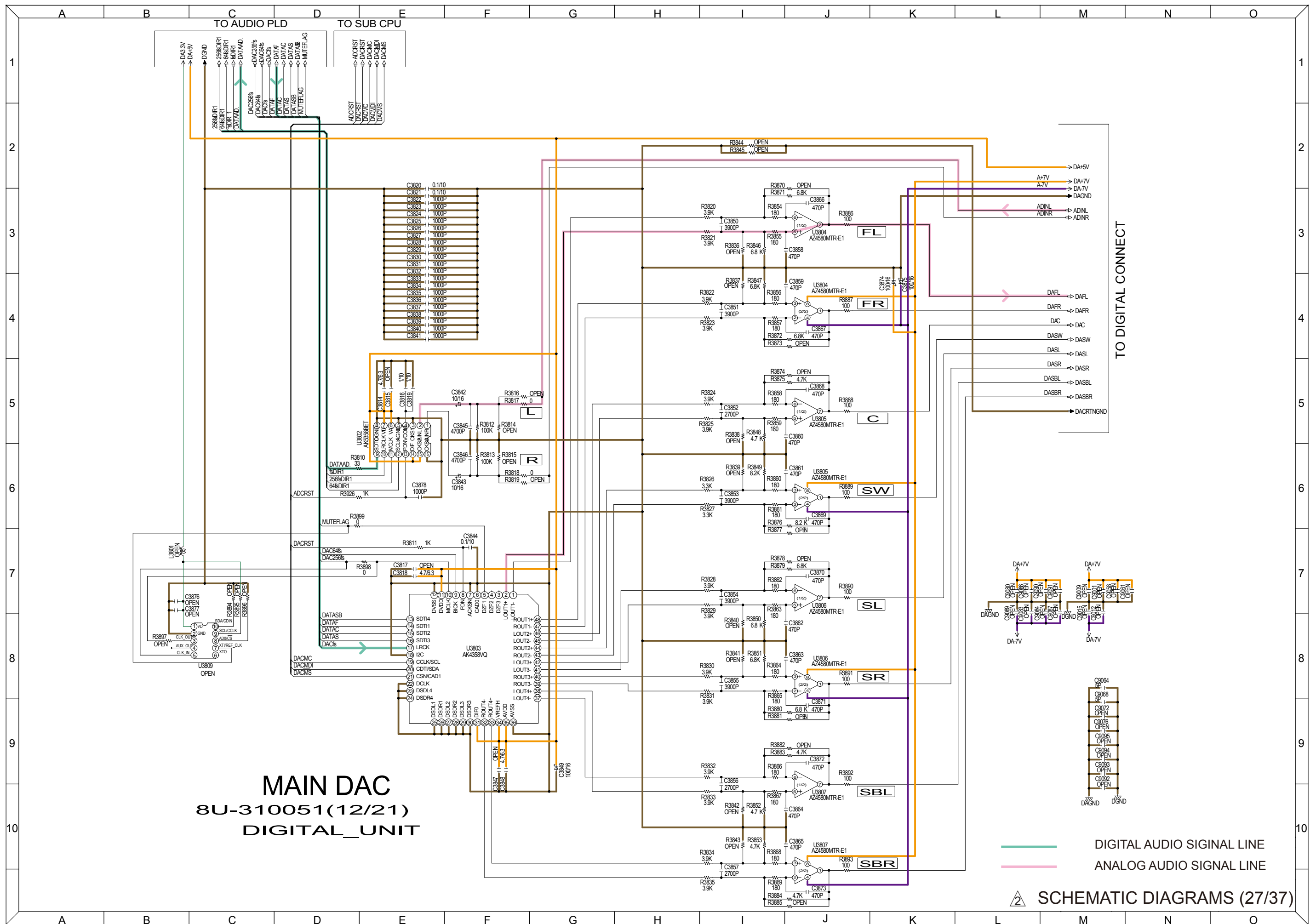


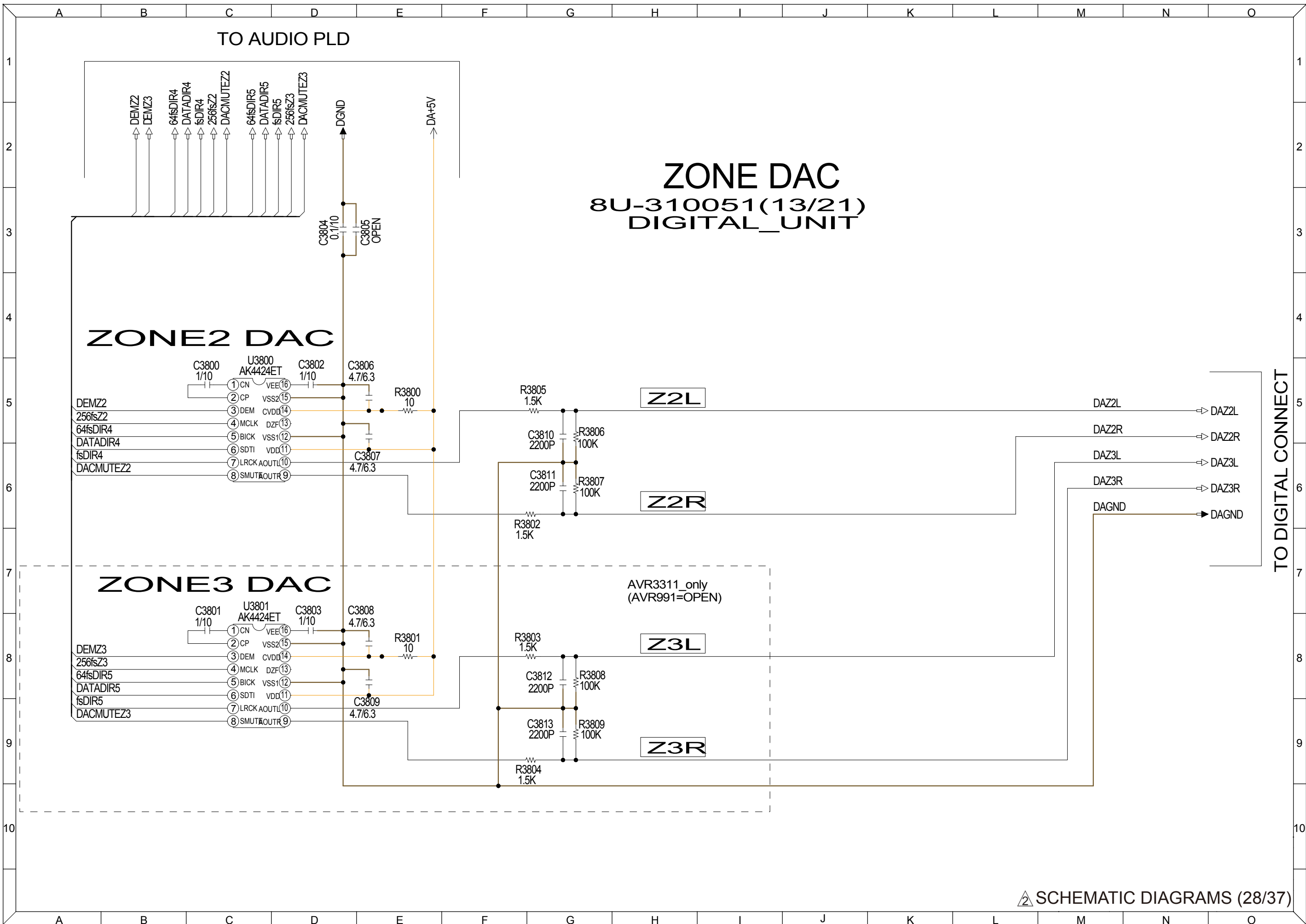


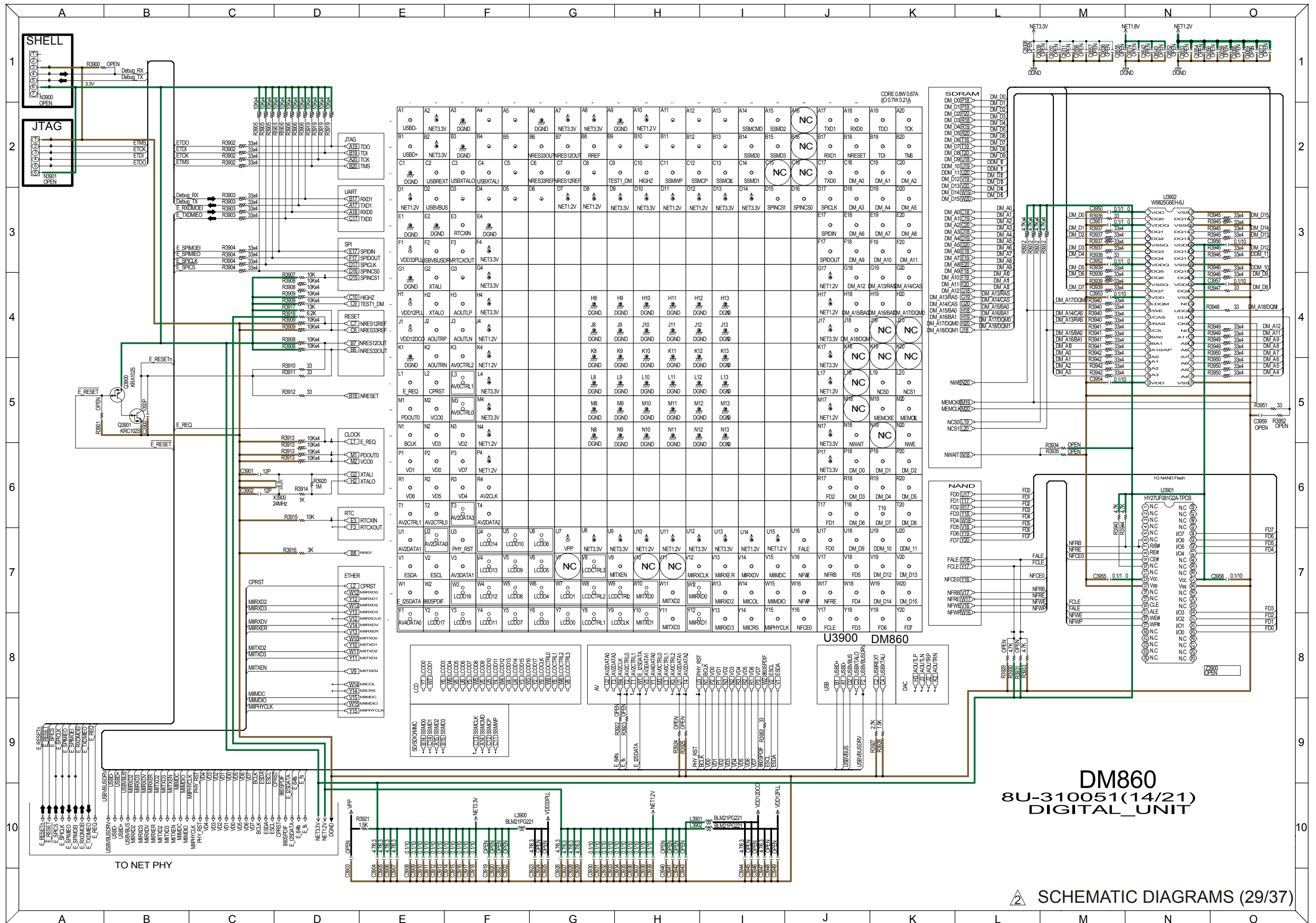
U3200
ADSP21367KSWZ2A1181

DSP
8U-310051(11/21)
DIGITAL_UNIT

— DIGITAL AUDIO SIGNAL LINE
SCHEMATIC DIAGRAMS (26/37)



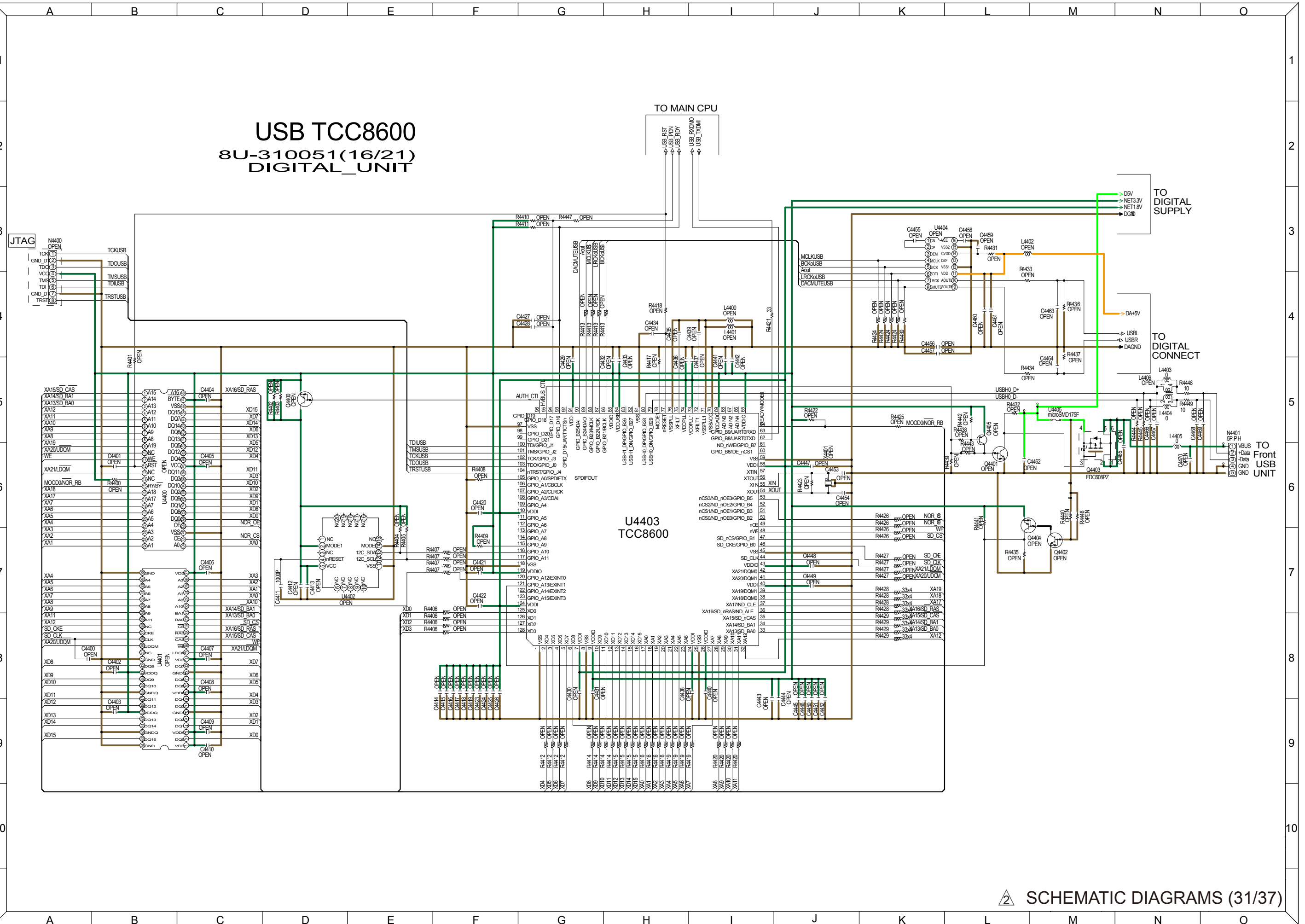


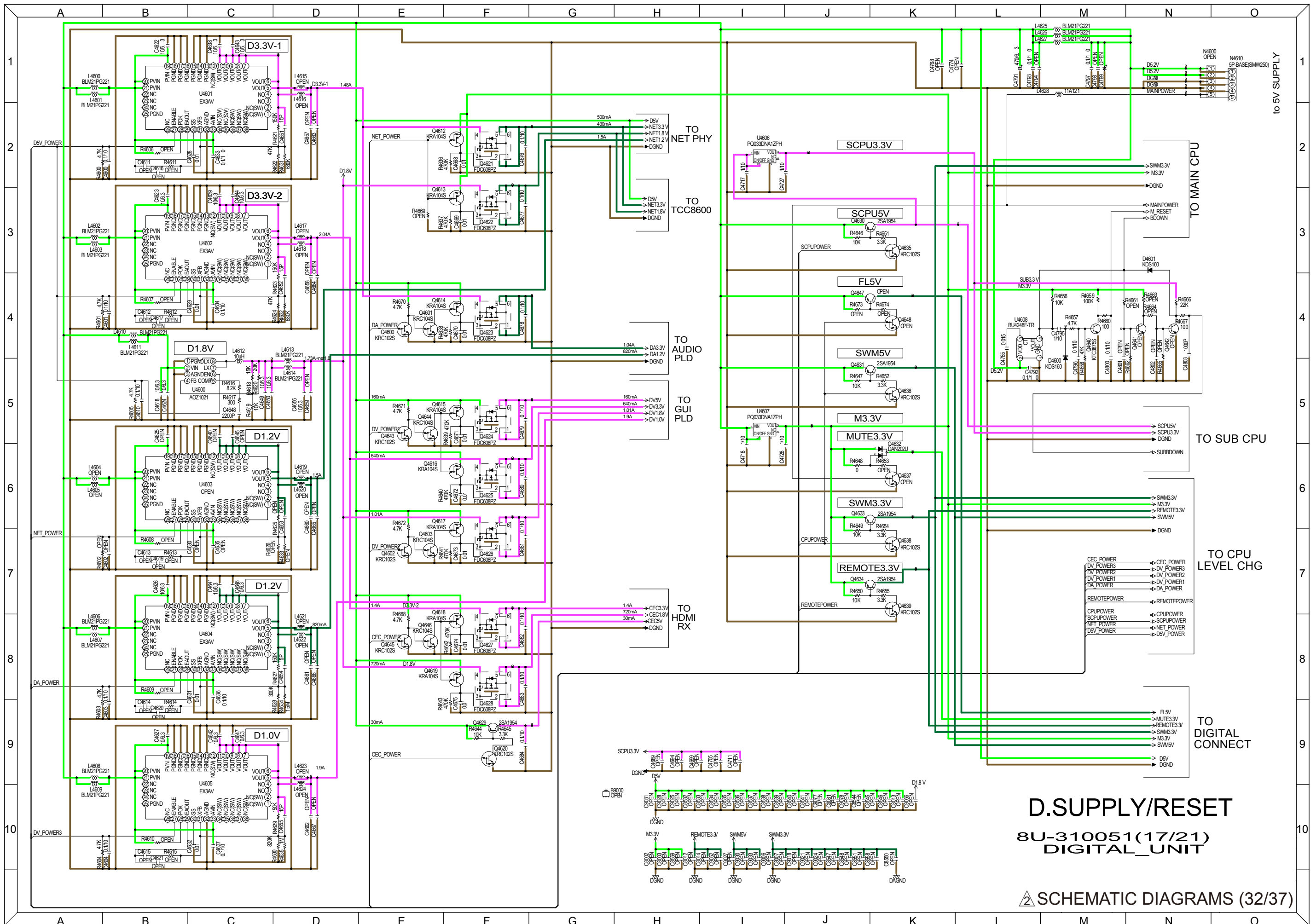


USB TCC8600

8U-310051(16/21)

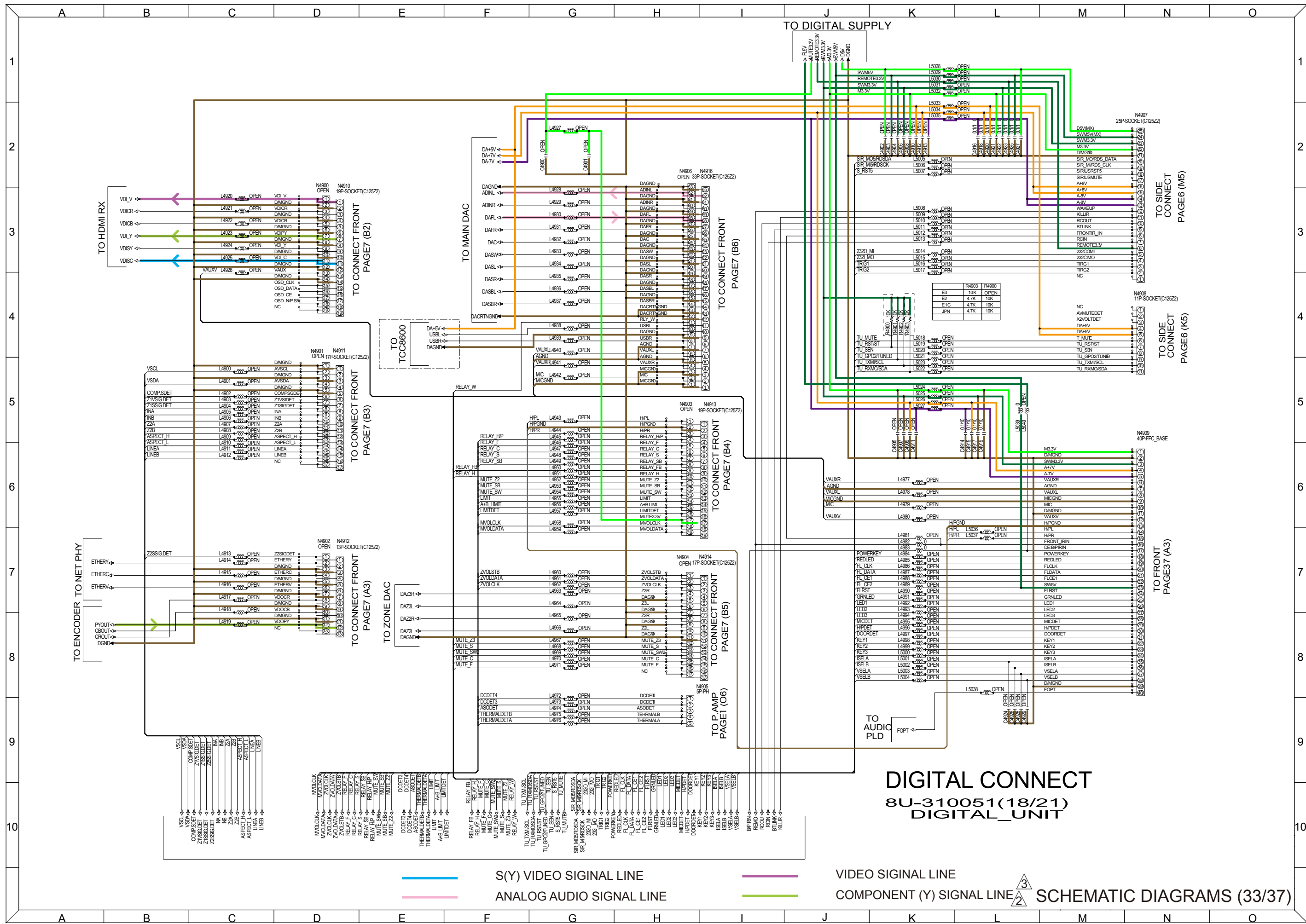
DIGITAL_UNIT

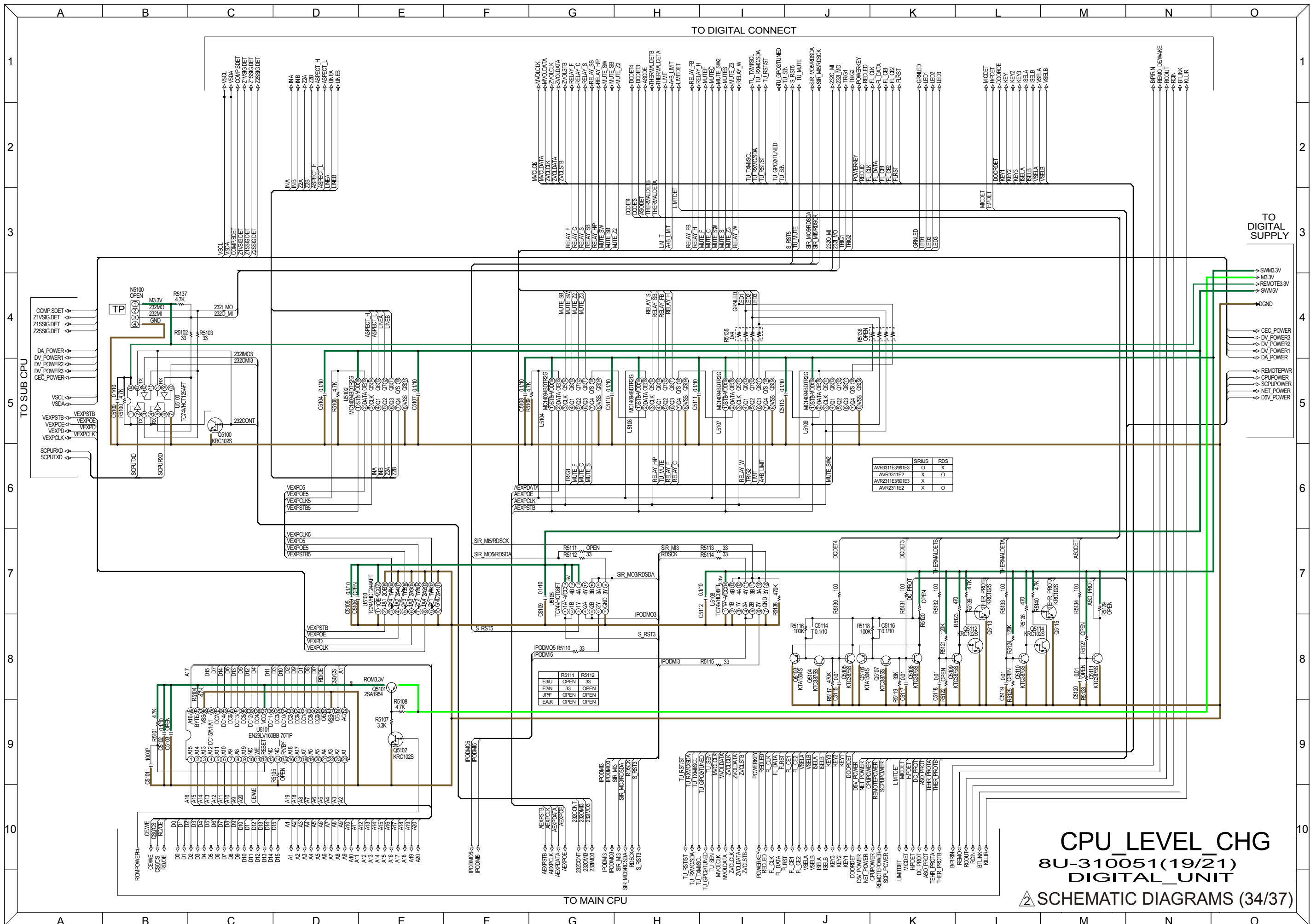




D.SUPPLY/RESET
8U-310051(17/21)
DIGITAL_UNIT

SCHEMATIC DIAGRAMS (32/37)

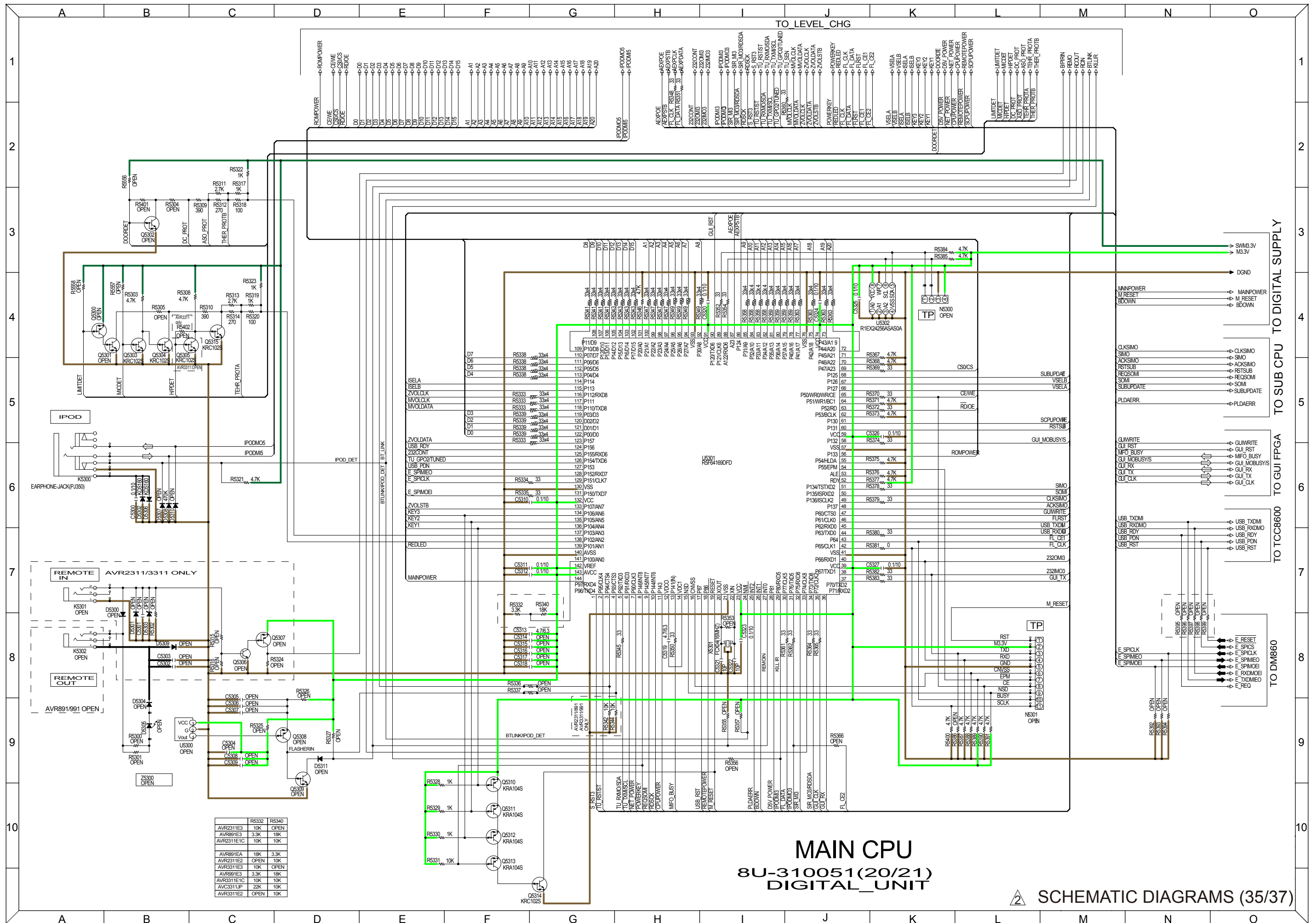


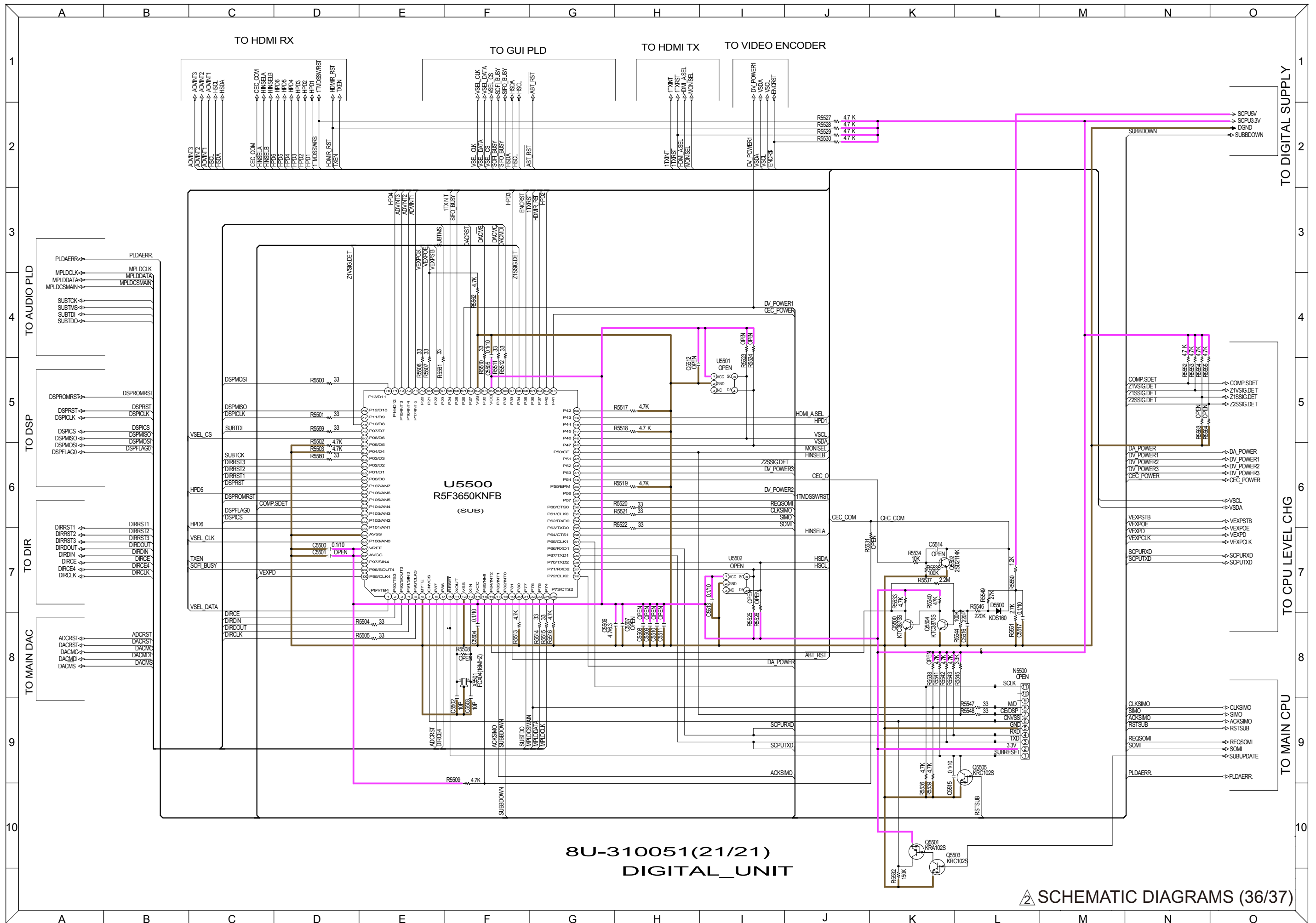


	SIR15	RDS
AVR3311E3991E3	O	X
AVR3311E2	X	O
AVR2311E3991E3	X	X
AVR2311E2	X	O

	R511	R512
E3U	OPEN	33
E2N	OPEN	OPEN
JPF	OPEN	OPEN
EAK	OPEN	OPEN

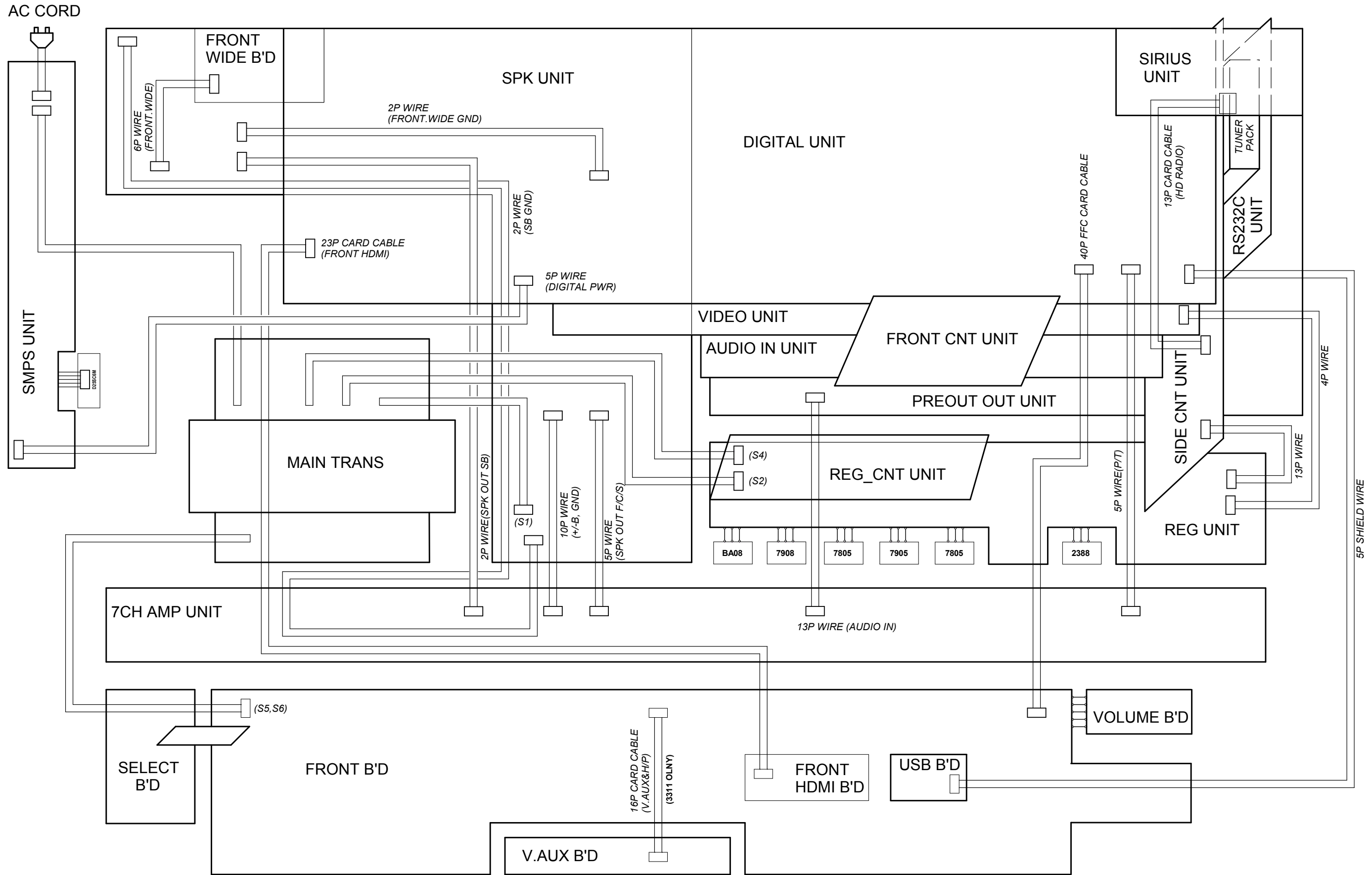
CPU_LEVEL_CHG
8U-310051(19/21)
DIGITAL_UNIT
 SCHEMATIC DIAGRAMS (34/37)






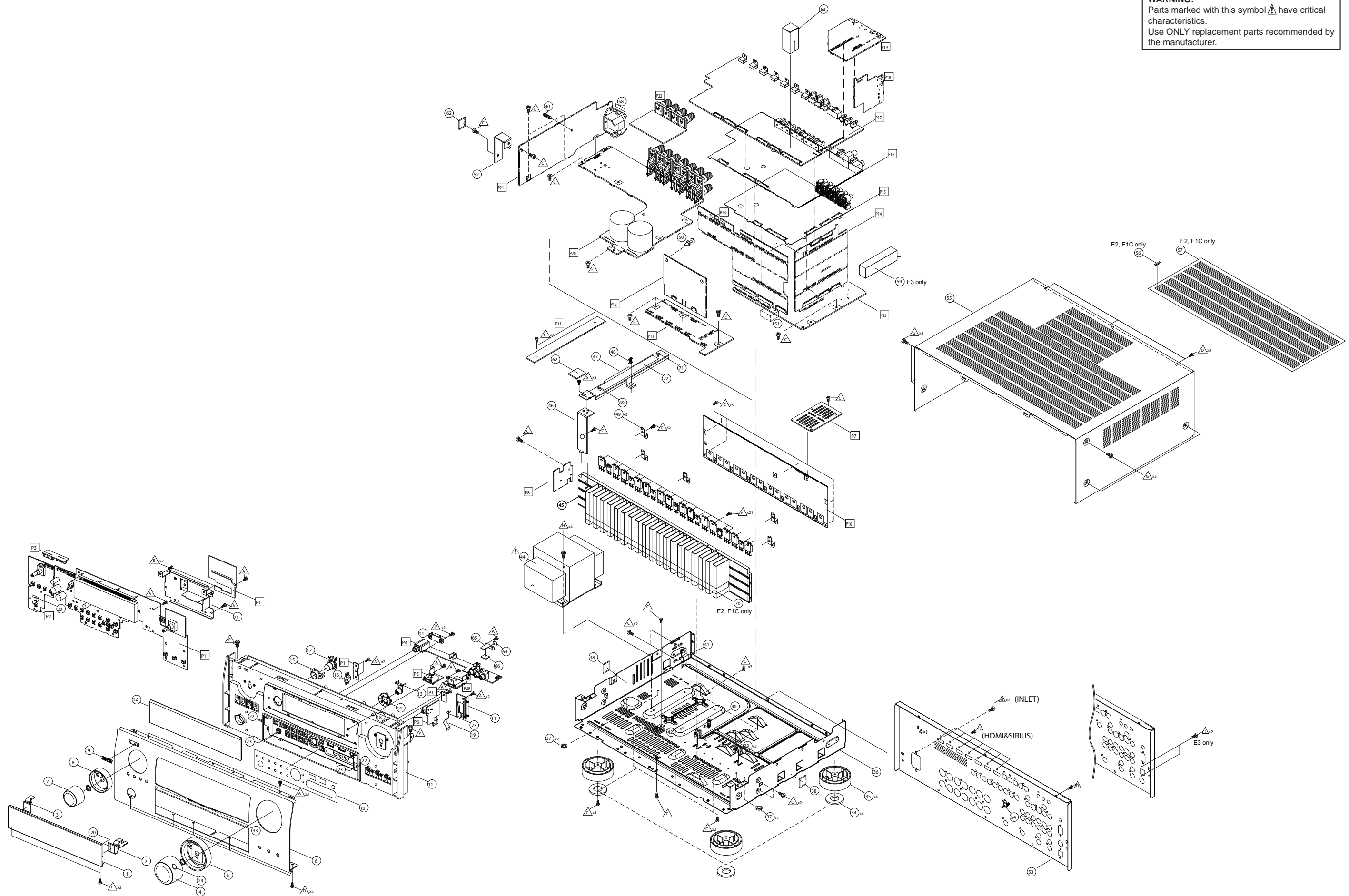
8U-310051(21/21)
DIGITAL_UNIT

WIRING DIAGRAM 



EXPLODED VIEW 

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



PARTS LIST OF EXPLODED VIEW

- * Parts for which "nsp" is indicated on this table cannot be supplied.
- * P.W.B. ASS'Y for which "nsp" is indicated on this table cannot be supplied. When repairing the P.W.B. ASS'Y, check the board parts table and order replacement parts.
- * Part indicated with the mark "★" is not illustrated in the exploded view.
- * The parts listed below are for maintenance only, might differ from the parts used in the unit in appearances or dimensions.

Note: The symbols in the column "Remarks" indicate the following destinations.
 E3 : U.S.A. & 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
P10	nsp	PCB 7CH_AMP	E3	7025HK0920010	1 *
P10	nsp	PCB 7CH_AMP	BKE2	7025HK0920050	1 *
P10	nsp	PCB 7CH_AMP	SPE2	7025HK0920030	1 *
P10	nsp	PCB 7CH_AMP	E1C	7025HK0920040	1 *
P20A	nsp	PCB SPK ASSY	E3	7025HK0920011	1 *
P20A	nsp	PCB SPK ASSY	BKE2	7025HK0920051	1 *
P20A	nsp	PCB SPK ASSY	SPE2	7025HK0920031	1 *
P20A	nsp	PCB SPK ASSY	E1C	7025HK0920041	1 *
P20	-	PCB SPK			
P21	-	PCB SMPS			
P22	-	PCB F_WIDE			
P11A	nsp	PCB REG_CNT ASSY	E3	7025HK0920012	1 *
P11A	nsp	PCB REG_CNT ASSY	BKE2	7025HK0920052	1 *
P11A	nsp	PCB REG_CNT ASSY	SPE2	7025HK0920032	1 *
P11A	nsp	PCB REG_CNT ASSY	E1C	7025HK0920042	1 *
P11	-	PCB REG			
P12	-	PCB REG_CNT			
P14	-	PCB SIDE_CNT			
P18	-	PCB RS232			
P19	-	PCB SIRIUS			
P23	-	PCB FRONT_CNT			
P1A	nsp	PCB FRONT ASSY	E3	7025HK0920013	1 *
P1A	nsp	PCB FRONT ASSY	BKE2	7025HK0920053	1 *
P1A	nsp	PCB FRONT ASSY	SPE2	7025HK0920033	1 *
P1A	nsp	PCB FRONT ASSY	E1C	7025HK0920043	1 *
P1	-	PCB FRONT			
P2	-	PCB FUNCTION			
P3	-	PCB CNT			
P4	-	PCB V.AUX_HP			
P5	-	PCB USB			
P6	-	PCB MIC			
P7	-	PCB GUIDE_TOP			
P8	-	PCB GUDE_L1			
P16	nsp	PCB VIDEO ASSY	E3	7025HK0920014	1 *
P16	nsp	PCB VIDEO ASSY	BKE2	7025HK0920054	1 *
P16	nsp	PCB VIDEO ASSY	SPE2	7025HK0920034	1 *
P16	nsp	PCB VIDEO ASSY	E1C	7025HK0920044	1 *
P13A	nsp	PCB AUDIO ASSY	E3	7025HK0920015	1 *
P13A	nsp	PCB AUDIO ASSY	BKE2	7025HK0920055	1 *
P13A	nsp	PCB AUDIO ASSY	SPE2	7025HK0920035	1 *
P13A	nsp	PCB AUDIO ASSY	E1C	7025HK0920045	1 *
P13	-	PCB PREOUT			
P15	-	PCB AUDIO			

Ref.No.	Part No.	Part Name	Remarks	Q'ty	New
P17A	8U6331006100S	PCB HDMI ASSY	E3	7025HK0920016	1 *
P17A	nsp	PCB HDMI ASSY	BKE2	7025HK0920056	1 *
P17A	nsp	PCB HDMI ASSY	SPE2	7025HK0920036	1 *
P17A	nsp	PCB HDMI ASSY	E1C	7025HK0920046	1 *
P17	-	PCB HDMI			
P29	-	PCB FRONT HDMI			
1	963415009650D	FRONT DOOR	E3	5047210558060S	1 *
1	963415009660D	FRONT DOOR	BKE2	5047210558070S	1 *
1	963415009670D	FRONT DOOR	SPE2	5047210558080S	1 *
1	963415009680D	FRONT DOOR	SPE1C	5047210558090S	1 *
2	963417011080D	HINGE DOOR R	BK	4090210071000S	1 *
2	963417011870D	HINGE DOOR R	SP	4097210071100S	1
3	963417011070D	HINGE DOOR L	BK	4090210061000S	1 *
3	963417011880D	HINGE DOOR L	SP	4097210061100S	1
4	963412006620D	KNOB MAIN(KD)	BK	5088212068100SZ	1
4	963412006630D	KNOB MAIN(KD)	SP	5088212068110SZ	1
5	424510006002D	KNOB RING M	BK	5087212191000S	1
5	424510006019D	KNOB RING M	SP	5087212191100S	1
6	963402009580D	PANEL FRONT	BKE3	3067214538200S	1 *
6	963402009600D	PANEL FRONT	BKE2	3067214538210S	1 *
6	963402009610D	PANEL FRONT	SPE2	3067214538220S	1 *
6	963402009620D	PANEL FRONT	SPE1C	3067214538230S	1 *
7	963412006590D	KNOB FUNCTION	BK	5088212078000SZ	1
7	963412006600D	KNOB FUNCTION	SP	5088212078010SZ	1
8	00D1140203009	KNOB RING F	BK	5087212201000S	1
8	00D1140203025	KNOB RING F	SP	5087212201100S	1
9	00D1310169038	BADGE DENON	BK	5630210028300S	1
9	00D1310169041	BADGE DENON	SP	5630210028400S	1
10	963419011090D	SHEET DOOR	BK	1217211202000S	1 *
10	963419011810D	SHEET DOOR	SP	1217211202010S	1
11	963443011110D	PANEL INNER	BK	3067214551500S	1 *
11	963443011840D	PANEL INNER	SP	3067214551600S	1
12	963416011060D	WINDOW DISPLAY		5077213003000S	1 *
13	963411011050D	BUTTON ENTER	BK	5097214381000S	1 *
13	963411011770D	BUTTON ENTER	SP	5097214381100S	1
14	963411011040D	BUTTON CURSOR	BK	5090214371000S	1 *
14	963411011890S	BUTTON CURSOR	SP	5097214371100S	1
15	00D1431255009	LENS STANDBY		3710210863000S	1
16	00D4210763010	DAMPER GEAR		3660210033000S	1
17	00D1131992109	BUTTON STANDBY(KD)	BK	5098214028000SZ	1
17	00D1131992138	BUTTON STANDBY(KD)	SP	5098214028010SZ	1
18	963423011100S	LENS LED		3710211053000S	1 *
19	446410045008D	PLATE DOOR		4470211866000S	1 *
20	nsp	TAPE ACETATE	6*15	1220210789000S	2
21	nsp	BRACKET FRONT		4010214486000S	1
22	nsp	SHEET PANEL T		1210210935000S	2
23	nsp	SHEET PANEL B		1210210945000S	2
24	nsp	SHEET KNOB		1210211042000S	1
33	nsp	TAPE		A710000510000S	-
34	00D4610385001	RUBBER PAD		4050211295000S	4
35	963407003330D	FOOT		4000210261000S	4
36	nsp	CHASSIS MAIN		3200213506100S	1 *
37	nsp	CUSHION SCREW		4050213025000S	4
38	nsp	CUSHION SIDE		4050213095000S	2
39	nsp	SUPPORTER PCB		4070001601010S	3
40	nsp	SUPPORTER P.C.		4070210192000S	2
41	nsp	BRACKET SIDE		4010210686000S	1

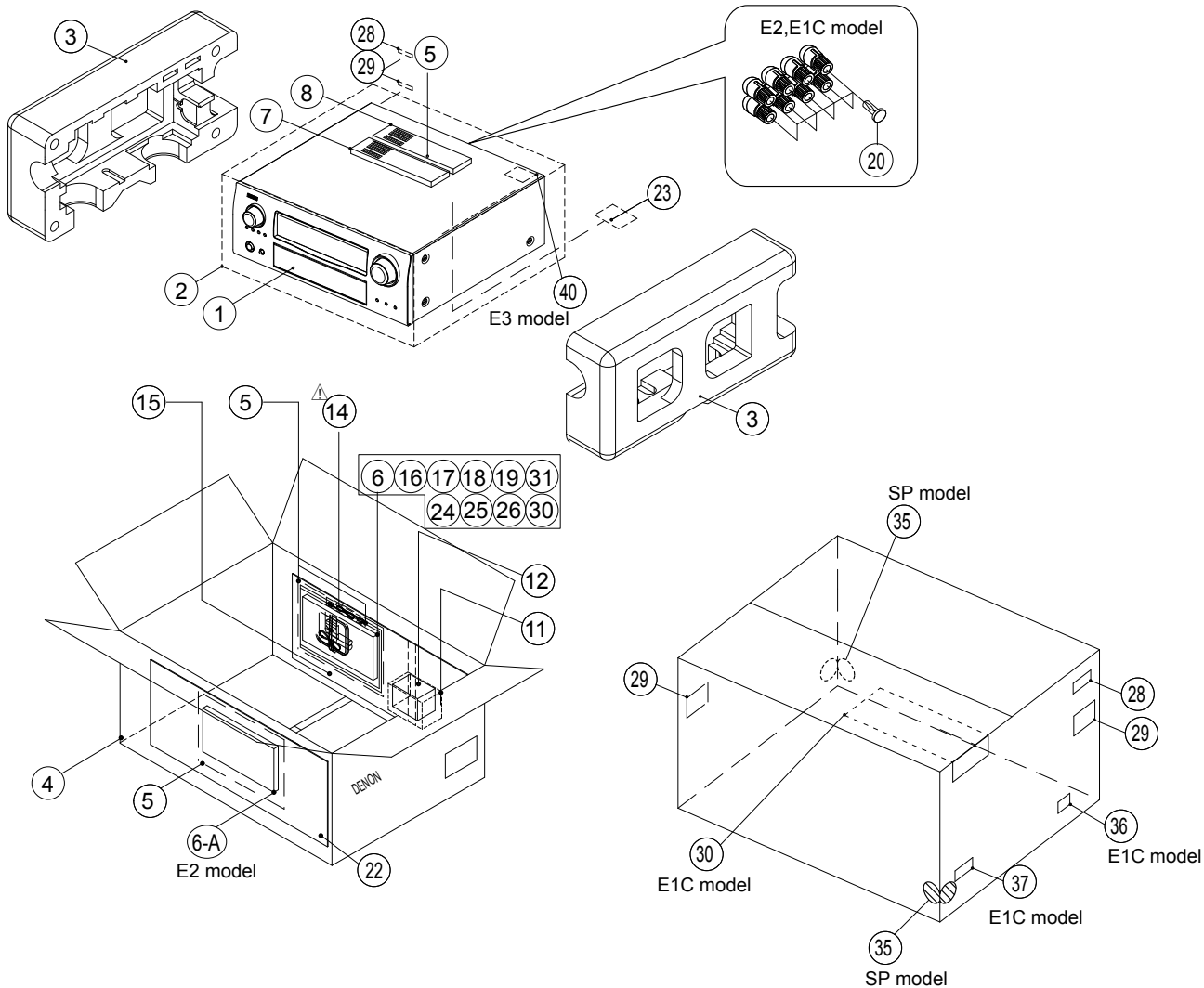
NOTE :
 Please change the destination-resistors when changing 3311CIBKE3 (8U6331006100S) to other destination.
 Please refer to destination-resistors 000, 000 page.
 (SCHEMATIC DIAGRAMS : 34/38, 35/38)

	R5111(34/37)	R5112(34/37)	R5332(35/37)	R5340(35/37)
E2	33	OPEN	OPEN	10K
E1C	OPEN	OPEN	10K	10K

Ref.No.	Part No.	Part Name	Remarks		Q'ty	New
	42	nsp	BRACKET SUPPORTER		4010210206000S	1
⚠	44	963101009540S	POWER TRANS	E3	8200960750240S	1 *
⚠	44	963101009550S	POWER TRANS	E2	8200960750210S	1 *
⚠	44	963101009560S	POWER TRANS	SPE1C	8200960750220S	1 *
	45	nsp	HEAT SINK MAIN		2120211798000S	1 *
	46	nsp	BRACKET HEATSINK MAIN		4010214906000S	1
	47	nsp	BRACKET HDMI		4010214896000S	1
	48	nsp	SUPPORTER PCB		4070211653000S	1
	49	nsp	BRACKET H SINK		4010056906010S	5
	50	nsp	SPACER CARD		4300210062000S	1
	51	nsp	CUSHION BD		4050211845000S	1
	52	nsp	BRACKET SMPS		4010214886000S	1
	53	nsp	CHASSIS BACK	E3	3207213516400S	1 *
	53	nsp	CHASSIS BACK	E2	3207213516600S	1 *
	53	nsp	CHASSIS BACK	SPE1C	3207213516700S	1 *
	54	00D2051116006	TERMINAL		3790000090000S	1
	55	963403011030D	CABINET TOP	BK	3000211736200S	1 *
	55	963403011750D	CABINET TOP	SP	3000211736300S	1
	56	963454001800D	COVER HOLDER	BKE2	4310213701000S	
	56	963454001810D	COVER HOLDER	SPE2,SPE1C	4310213701100S	
	57	963419011370D	COVER SAFETY	BKE2	4310215202100S	
	57	963419011360D	COVER SAFETY	SPE2,SPE1C	4310215202000S	
	58	nsp	TAPE INLET		1220210759000S	1
	59	963183011000S	HD-RADIO MODULE	E3	E908071010000S	1 *
	62	nsp	CUSHION BRACKET		4050213165000S	2
	63	nsp	CUSHION TOP		4050213155000S	1
	64	nsp	GASKET EARTH		4400210599000S	1
	65	nsp	BRACKET EARTH		4010215046000S	1
	66	nsp	GASKET EARTH		4400210609000S	1
	★ 67	00D2740213003	TR 2SD2560Y	Q404,Q416,Q428,Q440 Q452,Q464,Q476	J5032560Y0170S	7
	★ 68	00D2720174007	TR 2SB1647Y	Q410,Q422,Q434,Q446 Q458,Q470,Q482	J5011647Y0170S	7
	★ 69	214050011705S	TR KTC3964	Q409,Q421,Q433,Q445 Q457,Q469,Q481	J502396400010S	7
	70	nsp	TAPE HEATSINK(ACETATE CLOTH)	E2,E1C	1220210899000S	1
	71	nsp	WASHER		1530210292000S	2
	72	nsp	ACETATE TAPE	for BRACKET HDMI	1220210909000S	1
	73	nsp	ACETATE CLOTH	6*9	1220210789010S	1
SCREWS						
	A	nsp	SCREW(+2S 3*8 B-TYPE ZNW/BH)		B020030081B10S	33
	B	nsp	SCREW(+2S 3*15 B-TYPE ZNW/BH)		B020030151B10S	2
	C	nsp	SCREW(+2S 3*8(ROUND) BK/BH)		B020230083B10S	46
	D	nsp	SCREW(+2S 3*10 B-TYPE(DOT) BK/BH)	E3	B020030103B11S	48
	D	nsp	SCREW(+2S 3*10 B-TYPE(DOT) BK/BH)	E2,E1C	B020030103B11S	50
	E	nsp	SCREW(+2S 3*14 P(Φ6)+S-WASHER ZNY/HH)		B018230141H11S	21
	F	nsp	SCREW(+2S 3*17 B-TYPE ZNW/BH)		B020030171B10S	3
	G	00D9630048307	SCREW(+2S 4*8 B-TYPE(DOT) BK/BH)	for INLET	1500040083B10S	2
	G	00D9630048307	SCREW(+2S 4*8 B-TYPE(DOT) BK/BH)	BK : for CABINET TOP	1500040083B10S	6
	G	00D9639004012	SCREW(+2S 4*8 B-TYPE(DOT) NI/BH)	SP : for CABINET TOP	1500040084B10S	6
	H	nsp	SCREW(+3S 4*10 P+S-WASHER(ROUND)BK/BH)		B028940101B11S	4
	I	nsp	SCREW(+2S 3*8 B-TYPE BK/FH)		B020030083F10S	2
	P	nsp	SCREW(+2S 3*8 PI9.5 B-TYPE ZNW)		1500001206010S	4
	Q	nsp	SCREW(+M 3*6 BK/BH)	E3	B000030063B10S	8
	Q	nsp	SCREW(+M 3*6 BK/BH)	E2,E1C	B000030063B10S	7
	S	nsp	SCREW(+2S 3*10 B-TYPE BK/FH)		B020030103F10S	2
	T	nsp	SCREW(+2S 3*6 B-TYPE(DOT) BK/BH)	E3	B020930063B10S	2
WIRES						
	★ 101	nsp	CLAMP CABLE TIE DACT-100A		4330040343010S	7
	★ 102	963606011190S	CABLE,FLAT CARD 1.0MM 105C	1.0*16*160	N711161622490S	1
	★ 104	963606010490S	CABLE,FLAT CARD 1.0MM	1.0*40*290	N711402912480S	1
	★ 105	963606011210S	CABLE,FLAT CARD 1.25MM	E3 : 1.25*13*80	N712130824480S	1
	★ 106	963606011900S	CABLE,FLAT CARD 1.0MM 105C	1.0*23*610	N711236112490S	1

Personal notes:

PACKING VIEW 



PARTS LIST OF PACKING & ACCESSORIES

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

* Part indicated with the mark "★" is not illustrated in the exploded view.

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

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

E3 : U.S.A. & 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	-	SET		-	1	
2	nsp	PE,SHEET		632704005900S	1	
3	963533010090D	CUSHION SNOW		6230212814000S	1	
4	963531011120D	BOX GIFT	E3	6007211730050S	1	*
4	963531011910D	BOX GIFT	E2	6007211730060S	1	*
4	963531011920D	BOX GIFT	E1C	6007211730070S	1	*
5	nsp	POLY BAG	E3, E1C	6330000240000S	2	
5	nsp	POLY BAG	E2	6330000240000S	3	
6	541110428006D	INSTRUCTION MANUAL	E3	5707000003900S	1	*
6	541110533007D	INSTRUCTION MANUAL	E2	5707000004400S	1	*
6	541110431002D	INSTRUCTION MANUAL	E1C	5707000003930S	1	*
6-A	541110430009D	INSTRUCTION MANUAL-2	E2	5707000003910S	1	*
7	307010069004D	REMOCON RC-1146		8300114600010S	1	
8	307010071007D	REMOCON RC-1148		8300114800010S	1	*
11	nsp	POLY BAG ACCESSORY		6330210222000S	1	
12	324010001003D	AUTO SETUP MIC		M040000310040S	1	
	14	90M-ZC000470R	CORD ASSY	E3	L068125130010S	1
	14	90M-ZC000600R	CORD ASSY	E2	L068250160020S	1
	14	963611004880S	CORD ASSY	E1C	L068250100050S	1
	15	nsp	PAD BOX BACK		6240210730000S	1
	16	nsp	BATTERY DRY AA		G670001R50190S	2
	17	nsp	BATTERY DRY AAA		G670001R50210S	2
	18	00D9630158006	ANTENNA WIRE (FM)		E605010070001S	1
	19	00D2310089007	ANTENNA AM LOOP	E3	E601016400010S	1
	19	90M-ZA000260R	ANTENNA LOOP WIRE 9.5UH	E2, E1C	E601016000010S	1
	20	nsp	BUSHING TERMINAL	E2, E1C	2410040353010S	
	22	nsp	PAD MANUAL	E2	6240210780000S	1
	23	nsp	LABEL LICENSE	E3	5507000002950S	1
	23	nsp	LABEL LICENSE	E2, E1C	5507000004580S	1
	24	nsp	SHEET Sirius	E3	5227000000810S	1
	25	nsp	SHEET RHAPSODY	E3	5227000000990S	1
	26	nsp	SHEET NAPSTER	E3, E2	5227000001380S	1
	28	nsp	LABEL MAC ADDRESS		5507000002920S	1
	29	nsp	LABEL CONTROL		5507000007000S	1
	30	nsp	WARRANTY CARD	3311CIE3	5727000003010S	1
	30	nsp	WARRANTY CARD	E1C	5777001670010S	1
	31	nsp	CARD S.S LIST		577700162001GS	1
	35	nsp	LABEL COLOR	SP	5507020170680S	2
	36	nsp	LABEL CRoHS DATE	E1C	5507000000850S	1
	37	nsp	LABEL BOX	E1C	5507100500970S	1
	40	nsp	LABEL HOT-SURFACE	E3	5507000003730S	1
	★ 41	nsp	LABEL STICKER		5507000005300S	1

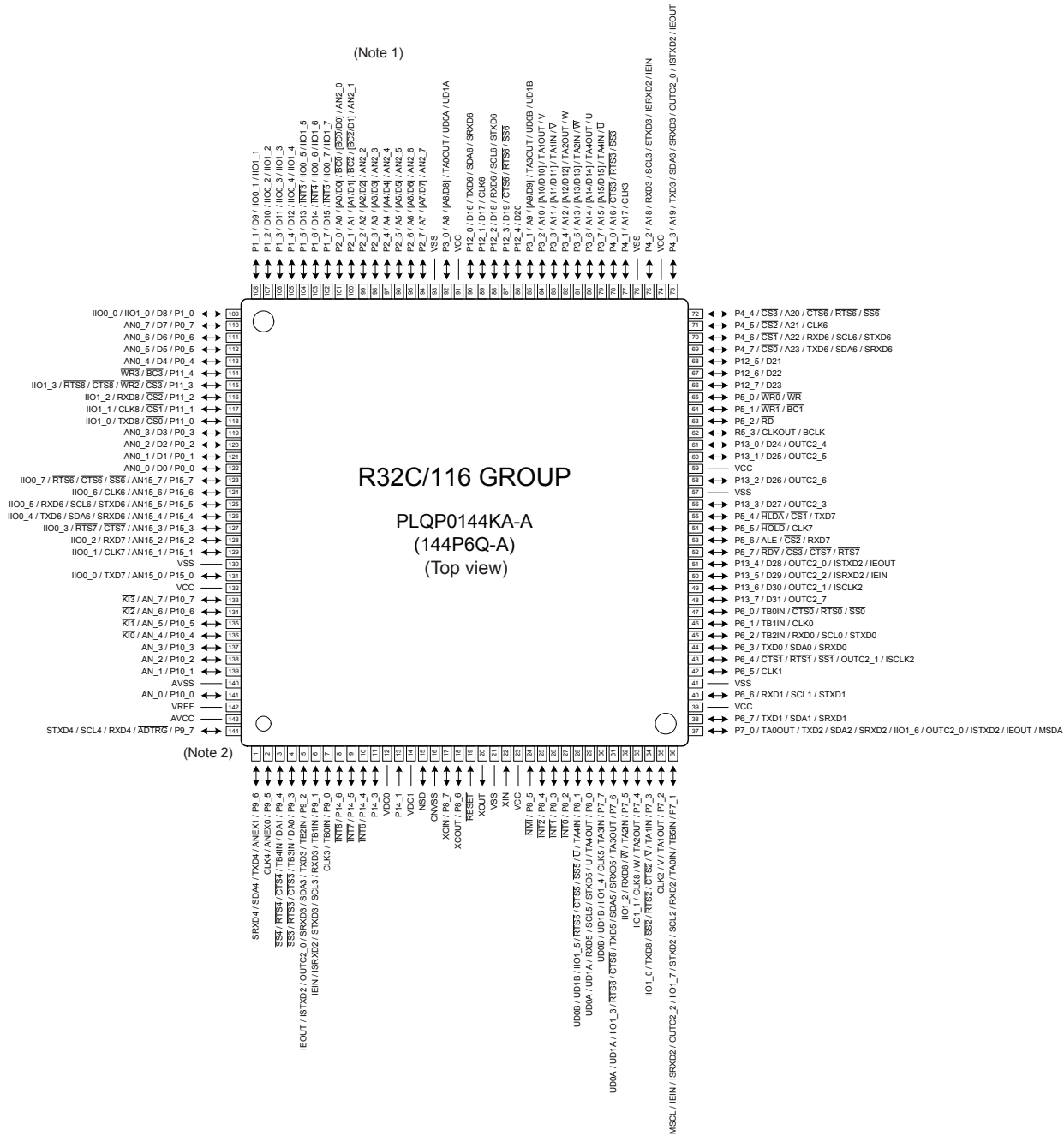


SEMICONDUCTORS

Only major semiconductors are shown, general semiconductors etc. are omitted to list.
The semiconductor which described a detailed drawing in a schematic diagram are omitted to list.

1. IC's

R5F64169DFD (HDMI : U5301)



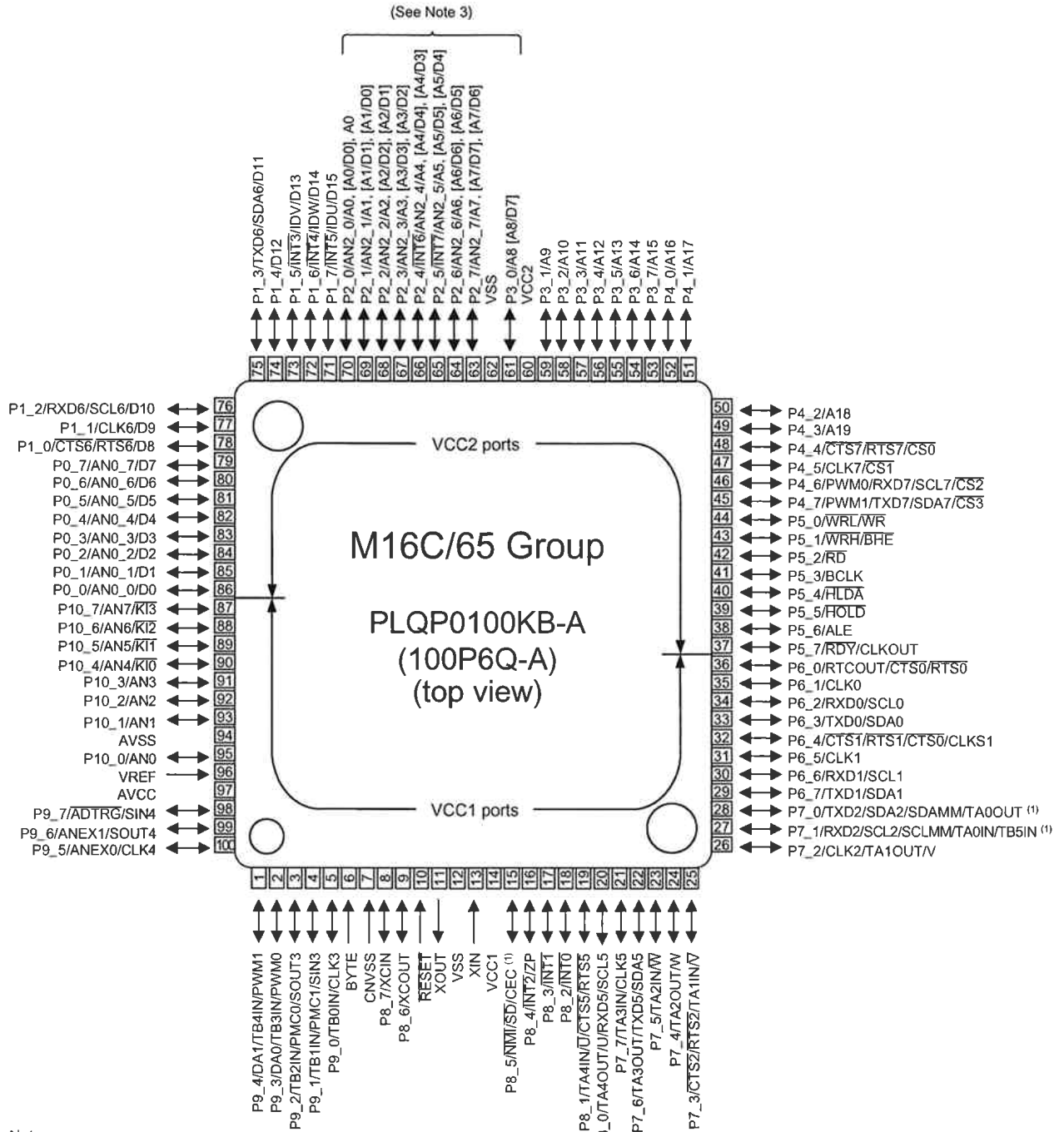
R5F64169DFD Terminal Functions

Pin	Pin Name	Synbol	I/O	Type	Pullup	Lv Cnv	STBY	stop	Function
1	P96/(TXD4)	SIRIUS RST	O	C	-	3/5	O/L	O/L	NC
2	P95/(CLK4)	HD RADIO RST/ST IND	O/O/I	C/C/-	-	-	O/L	O/L	HD RADIO control pin /ANALOG TUNER control
3	P94/(CTS4)/TB4IN	NC	O/I	C/-	-	-	O/L	O/L	NC
4	P93/(CTS3)/TB3IN	NC	O/I	C/-	-	-	O/L	O/L	NC
5	P92/TXD3/SDA3	HDRADIO MOHI/TU SDA	O/I_O	C	-	-	O/L	O/L	HD RADIO control/ANALOG TUNER control
6	P91/RXD3/SCL3	HDRADIO MIHO/TU SCL	I/O	-/C	-	-	O/L	O/L	HD RADIO control/ANALOG TUNER control
7	P90/(CLK3)	E POWER	O	C	-	-	O/L	O/L	ETHERNET POWER control pin
8	P146/INT8	POWER KEY	I	-	3VPu	-	I	I	POWER KEY (WAIT MODE cancel, interrupt port)
9	P145/INT7	REQ SOMI	I	-	-	-	I	O/L	MAIN-SUB u-com communication control output pin
10	P144/INT6	RDS CLK(3311E2 model)	I	-	-	3/5	I	I	RDS control(3311E2 model)(Interrupt detection)
11	P143	CPU POWER	O	C	-	-	O/L	O/L	MAIN CPU POWER control pin (POWER ON: H) (ETHER=ON or CEC ON = STANDBY: H)
12	VDC0	VDC0	-	-	-	-	-	-	Smoothing capacitor connection pin
13	P141 IN ONLY	DOSD MIFO_BUSY	I	-	-	-	I	O/L	D.OSD CPU control pin
14	VDC1	VDC1	-	-	-	-	-	-	Smoothing capacitor connection pin
15	NSD	NSD	-	-	M3VPu	-	-	-	Emulator communication pin
16	CNVss	CNVSS	-	-	Pd	-	-	-	Single-chip / Micro-processor mode switching (Normal single-chip : L, Rewrite boot program start : H input set)
17	P87/(XCIN)	E RESET	O	C	-	-	O/L	O/L	ETHERNET RESET control pin
18	P86/(XCOUT)	232C POWER(REMOTE PWR)	O	C	-	-	O/L	O/L	232C POWER control pin(ON: H)/
19	RESET	RESET	-	-	M3VPu	-	-	-	Reset input (reset: L)
20	XOUT	X2	-	-	-	-	-	-	Clock output
21	VSS	VSS	-	-	-	-	-	-	GND
22	XIN	X1	-	-	-	-	-	-	Clock input
23	VCC	VCC1	-	-	-	-	-	-	+3V
24	P85/(NMI) IN ONLY	iPod DET	I	-	SW3	-	O/L	O/L	MINI JACK connection detection pin for DOCK connection(Connection:H)
25	P84/INT2	PLDAERR	I	-	-	-	O/L	O/L	PLD ERROR detection
26	P83/INT1	B.DOWN	I	-	-	-	I	I	Power failure detect(Power failure:L)
27	P82/INT0	REMOCON	I	-	3Vin/Pd	-	I	I	Remote control signal input
28	P81	D5V POWER	O	C	-	-	O/L	O/L	Digital 5V power control pin
29	P80/RXD5	iPod RXD	I	-	(3Vin)/	5/3	O/L	O/L	iPod communication control pin
30	P77/(CLK5)	EXP & FL DATA	O	C	-	-	O/L	O/L	EXP control pin & FL control pin
31	P76/TXD5	iPod TXD	O	C	-	3/5	O/L	O/L	iPod communication control pin
32	P75/RXD8	NC	I	-	(3Vin)	5/3	O/L	O/L	NC
33	P74/(CLK8)/TA2OUT	NC	O	C	-	-	O/L	O/L	NC
34	P73/TXD8	SIRIUS MO(3311E3 model)	O/I	C/N	-	3/5	O/L	O/L	SIRIUS control pin (3311E3 model)
35	P72/CLK2	DOSD CPU CLK	O	C	-	-	O/L	O/L	D.OSD CPU control pin
36	P71/RXD2	DOSD CPU RX	I	-	-	-	O/L	O/L	D.OSD CPU control pin
37	P70/TXD2	DOSD CPU TX	O	C	-	-	O/L	O/L	D.OSD CPU control pin
38	P67/TXD1	TXD MO232I	O	C	-	-	O/L	O/L	Data transfer to external pin(AMX)/MITSUBISHI writer rewrite
39	VCC	VCC1	-	-	-	-	-	-	+3V
40	P66/RXD1	RXD MI232O	I	-	-	-	I	O/L	Data received from the external pin(AMX) /MITSUBISHI writer rewrite
41	VSS	VSS	-	-	-	-	-	-	GND
42	P65/(CLK1)/SCLK(L)	EXP & FL CLK	O	C	Pd	-	O/L	O/L	EXP control pin & FL control pin
43	P64/(BUSY)	FL CE1	O	C	-	-	O/L	O/L	FL control order pin
44	P63/TXD0	E_TXDMOEI	O	C	-	-	O/L	O/L	ETHERNET communication control pin
45	P62/RXD0	E_RXDMIEO	I	-	-	-	I	O/L	ETHERNET communication control pin
46	P61/(CLK0)	FL RST	O	C	-	-	O/L	O/L	FL control pin
47	P60/(CTS0)	DOSD WRITE	O	C	-	-	O/L	O/L	D. OSD rewrite control pin
48	P137	ACK SIMO	O	C	-	-	O/L	O/L	MAIN-SUB u-com communication control output pin
49	P136/ISCLK2	CLK MO	O	C	-	-	O/L	O/L	MAIN-SUB u-com communication control output pin
50	P135/ISRXD2	SOMI	I	-	-	-	I	O/L	MAIN-SUB u-com communication control output pin
51	P134/ISTXD2	MOSI	O	C	-	-	O/L	O/L	MAIN-SUB u-com communication control output pin
52	P57/RDY	RDY	I	C	M3VPu	-	I	I	External memory access pin(NC,Pup)
53	P56/ALE	ALE	O	C	-	-	O/L	O/L	External memory access pin(NC)
54	P55/HOLD/EPM	HOLD/FRASH EPM	I	C	M3VPu	-	I	I	External memory access pin(NC,Pup) /Rewrite boot program start : L input set
55	P54/HLDÄ	HLDÄ	O	C	-	-	O/L	O/L	External memory access pin(NC)
56	P133	ROM POWER	O	C	-	-	O/L	O/L	3.3V control pin for enhancing ROM
57	VSS	VSS	-	-	-	-	-	-	GND
58	P132	D.OSD MOFI_BUSY	O	C	-	-	O/L	O/L	D.OSD CPU control pin

Pin	Pin Name	Symbol	I/O	Type	Pullup	Lv Cnv	STBY	stop	Function
59	VCC	VCC2	-	-	-	-	-	-	+3V
60	P131	RST SUB	O	C	-	-	O/L	O/L	Output for reset of sub-μcom
61	P130	SCPU POWER	O	C	-	-	O/L	O/L	SUB CPU POWER ON/OFF switch(H:ON)
62	P53/BCLK	BCLK	O	C	-	-	O/L	O/L	External memory access pin(NC)
63	P52/RD	RD	O	C	-	-	O/L	O/L	External memory access pin(Connection:OE#)
64	P51/(WR1)/BC1	BC1	O	C	-	-	O/L	O/L	External memory access pin(NC)
65	P50/(WR0)/WR/CE	WR/FRASH CE	O	C	Pd	-	O/L	O/L	External memory access pin(Connection:WE#) /Rewrite boot program start : H input set
66	P127	VSEL A	I	-	SW3VPu	-	I	I	Master Volume rotation detect input (Rotary encoder)
67	P126	VSEL B	I	-	SW3VPu	-	I	I	Master Volume rotation detect input (Rotary encoder)
68	P125	SUB UPDATE	O	C	-	-	O/L	O/L	SUB UPDATE mode control (DPMS/DENON WRITTER). Normal:L. SUB rewriting mode:H(SUB reset)
69	P47/(CS0)/(A23)	CS0	O	C	-	-	O/L	O/L	External memory access pin(Connection:CS#)
70	P46/(CS1)/A22	A22	O	C	-	-	O/L	O/L	External memory access pin(NC)
71	P45/(CS2)/A21	A21	O	C	-	-	O/L	O/L	External memory access pin(NC)
72	P44/(CS3)/A20	A20	O	C	-	-	O/L	O/L	External memory access pin(Connection:A19)
73	P43/A19	A19	O	C	-	-	O/L	O/L	External memory access pin(Connection:A18)
74	VCC	VCC	-	-	-	-	-	-	+3V
75	P42/A18	A18	O	C	-	-	O/L	O/L	External memory access pin(Connection:A17)
76	VSS	VSS	-	-	-	-	-	-	GND
77	P41/A17	A17	O	C	-	-	O/L	O/L	External memory access pin(Connection:A16)
78	P40/A16	A16	O	C	-	-	O/L	O/L	External memory access pin(Connection:A15)
79	P37/A15	A15	O	C	-	-	O/L	O/L	External memory access pin(Connection:A14)
80	P36/A14	A14	O	C	-	-	O/L	O/L	External memory access pin(Connection:A13)
81	P35/A13	A13	O	C	-	-	O/L	O/L	External memory access pin(Connection:A12)
82	P34/A12	A12	O	C	-	-	O/L	O/L	External memory access pin(Connection:A11)
83	P33/A11	A11	O	C	-	-	O/L	O/L	External memory access pin(Connection:A10)
84	P32/A10	A10	O	C	-	-	O/L	O/L	External memory access pin(Connection:A9)
85	P31/A9	A9	O	C	-	-	O/L	O/L	External memory access pin(Connection:A8)
86	P124	EXP STB	O	C	-	-	O/L	O/L	Expansion EXP control pin
87	P123	EXP OE	O	C	Pd	-	O/L	O/L	Expansion EXP control pin
88	P122/(RXD6)	EEPROM SCL/(I_O EXP)	I/O	C	-	-	O/L	I	EEPROM control pin/(Spare I / O EXP Control)
89	P121/(CLK6)	EEPROM SDA/(I_O EXP)	I/O	C	-	-	O/L	I	EEPROM control pin/(Spare I / O EXP Control)
90	P120/(TXD6)	D.OSD CPU RST	O	C	-	-	O/L	O/L	D.OSD CPU control pin
91	VCC	VCC	-	-	-	-	-	-	+3V
92	P30/A8	A8	O	C	-	-	O/L	O/L	External memory access pin(Connection:A7)
93	VSS	VSS	-	-	-	-	-	-	GND
94	P27/A7	A7	O	C	-	-	O/L	O/L	External memory access pin(Connection:A6)
95	P26/A6	A6	O	C	-	-	O/L	O/L	External memory access pin(Connection:A5)
96	P25/A5	A5	O	C	-	-	O/L	O/L	External memory access pin(Connection:A4)
97	P24/A4	A4	O	C	-	-	O/L	O/L	External memory access pin(Connection:A3)
98	P23/A3	A3	O	C	-	-	O/L	O/L	External memory access pin(Connection:A2)
99	P22/A2	A2	O	C	-	-	O/L	O/L	External memory access pin(Connection:A1)
100	P21/A1	A1	O	C	-	-	O/L	O/L	External memory access pin(Connection:A0)
101	P20/A0	A0	O	C	-	-	O/L	O/L	External memory access pin(NC)
102	P17/D15	D15	I/O	C	-	-	O/L	O/L	External memory access pin(Connection:D15)
103	P16/D14	D14	I/O	C	-	-	O/L	O/L	External memory access pin(Connection:D14)
104	P15/D13	D13	I/O	C	-	-	O/L	O/L	External memory access pin(Connection:D13)
105	P14/D12	D12	I/O	C	-	-	O/L	O/L	External memory access pin(Connection:D12)
106	P13/D11	D11	I/O	C	-	-	O/L	O/L	External memory access pin(Connection:D11)
107	P12/D10	D10	I/O	C	-	-	O/L	O/L	External memory access pin(Connection:D10)
108	P11/D9	D9	I/O	C	-	-	O/L	O/L	External memory access pin(Connection:D9)
109	P10/D8	D8	I/O	C	-	-	O/L	O/L	External memory access pin(Connection:D8)
110	P07/D7	D7	I/O	C	-	-	O/L	O/L	External memory access pin(Connection:D7)
111	P06/D6	D6	I/O	C	-	-	O/L	O/L	External memory access pin(Connection:D6)
112	P05/D5	D5	I/O	C	-	-	O/L	O/L	External memory access pin(Connection:D5)
113	P04/D4	D4	I/O	C	-	-	O/L	O/L	External memory access pin(Connection:D4)
114	P114	ISEL A	I	-	SW3VPu	-	I	I	Input Selector rotation detect input (Rotary encoder)
115	P113	ISEL B	I	-	SW3VPu	-	I	I	Input Selector rotation detect input (Rotary encoder)
116	P112/(RXD8)	ZVOL CLK	O	C	-	-	O/L	O/L	ZONE VOL(NJW1194) control
117	P111	VOL CLK	O	C	-	-	O/L	O/L	FUNCTION/VOLUME control(R2A15220)
118	P110/(TXD8)	VOL DATA	O	C	-	-	O/L	O/L	FUNCTION/VOLUME control(R2A15220)
119	P03/D3	D3	I/O	C	-	-	O/L	O/L	External memory access pin(Connection:D3)
120	P02/D2	D2	I/O	C	-	-	O/L	O/L	External memory access pin(Connection:D2)
121	P01/D1	D1	I/O	C	-	-	O/L	O/L	External memory access pin(Connection:D1)
122	P00/D0	D0	I/O	C	-	-	O/L	O/L	External memory access pin(Connection:D0)

Pin	Pin Name	Symbol	I/O	Type	Pullup	Lv Cnv	STBY	stop	Function
123	P157	ZVOL DATA	O	C	-	-	O/L	O/L	ZONE VOL(NJW1194) control
124	P156	E SPI REQ	I	-	Pd	-	O/L	O/L	ETHERNET communication control pin
125	P155/(RXD6)	232C CONTROL (SUB LOG MODE)	O	C	-	-	O/L	O/L	SUB LOG MODE : For 232C course switch control
126	P154/(TXD6)	TUNED	I	-	SW3VPu	-	O/L	O/L	ANALOG TUNER control (Except 3311E3 model)
127	P153	E SPI CS	O	C	-	-	O/L	O/L	ETHERNET communication control pin
128	P152/(RXD7)	E SPI MIEO	I	-	Pd	-	O/L	O/L	ETHERNET communication control pin
129	P151/(CLK7)	E SPI CLK	O	C	Pd	-	O/L	O/L	ETHERNET communication control pin
130	VSS	VSS	-	-	-	-	-	-	GND
131	P150/(TXD7)	E SPI MOEI	O	C	Pd	-	O/L	O/L	ETHERNET communication control pin
132	VCC	VCC	-	-	-	-	-	-	+3V
133	P107/(AN7)/(K13)	ZVOL STB	O	C	-	-	O/L	O/L	ZONE VOL(NJW1194) control
134	P106/AN6/K12	KEY3	I	-	M3VPu	-	I	I	Button input 3
135	P105/AN5/K11	KEY2	I	-	M3VPu	-	I	I	Button input 2
136	P104/AN4/K10	KEY1	I	-	M3VPu	-	I	I	Button input 1
137	P103/AN3	ASO/DC/TH_B	I	-	SW3VPu	-	O/L	O/L	ASO PROTECT/DC PROTECT/Temperature detection B input
138	P102/AN2	MIC/H_P/LIMIT/TH_A	I	-	SW3VPu	-	O/L	O/L	MIC detection/Headphone detection/LIMIT decision detection/ Temperature detection B input (A/D detection)
139	P101/AN1	REDLED	O	C	-	-	O/L	O/L	POWER/STANDBY LED control pin(ON : H)
140	AVSS	AVSS	-	-	-	-	-	-	Analog GND
141	P100/AN0	MODE	I	-	M3VPu	-	I	I	Destination switch input
142	VREF	VREF	-	-	-	-	-	-	Standard power input +3V
143	AVCC	AVCC	-	-	-	-	-	-	Analog power +3V
144	P97/(RXD4)	MAIN POWER	O	C	-	-	O/L	O/L	MAIN POWER control pin

R5F3650KNFB (HDMI : U5500)



Notes:

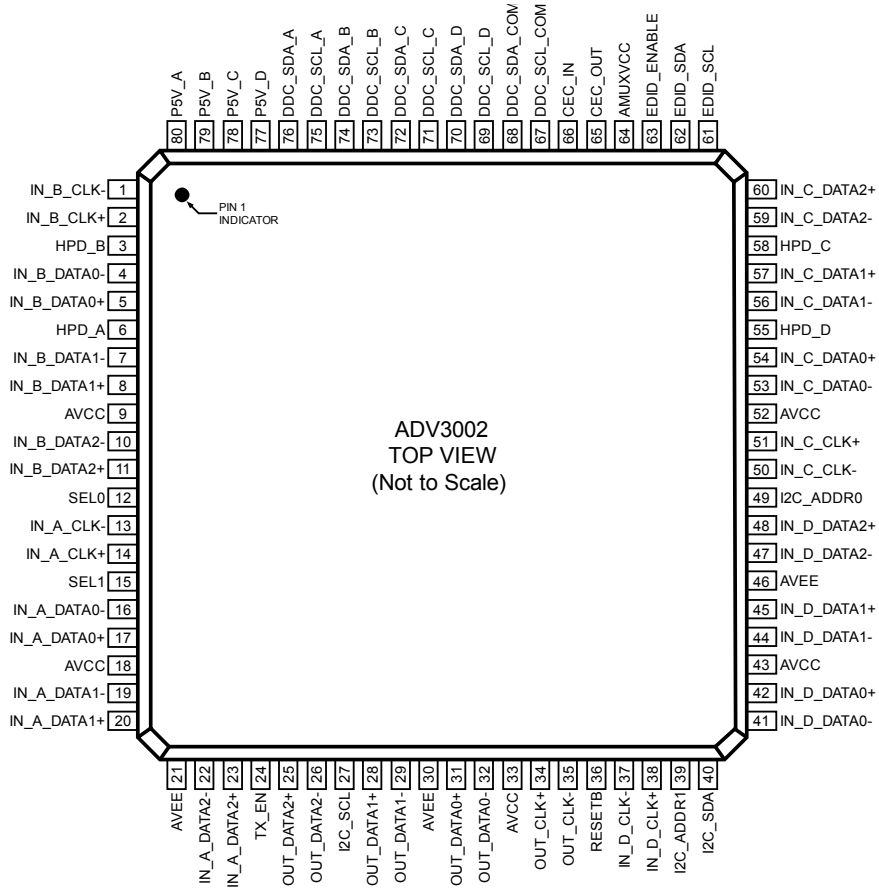
1. N-channel open drain output.
2. Check the position of Pin 1 by referring to appendix 1, Package Dimensions.
3. Pin names in brackets [] represent a single functional signal. They should not be considered as two separate functional signals.

R5F3650KNFB Terminal Functions

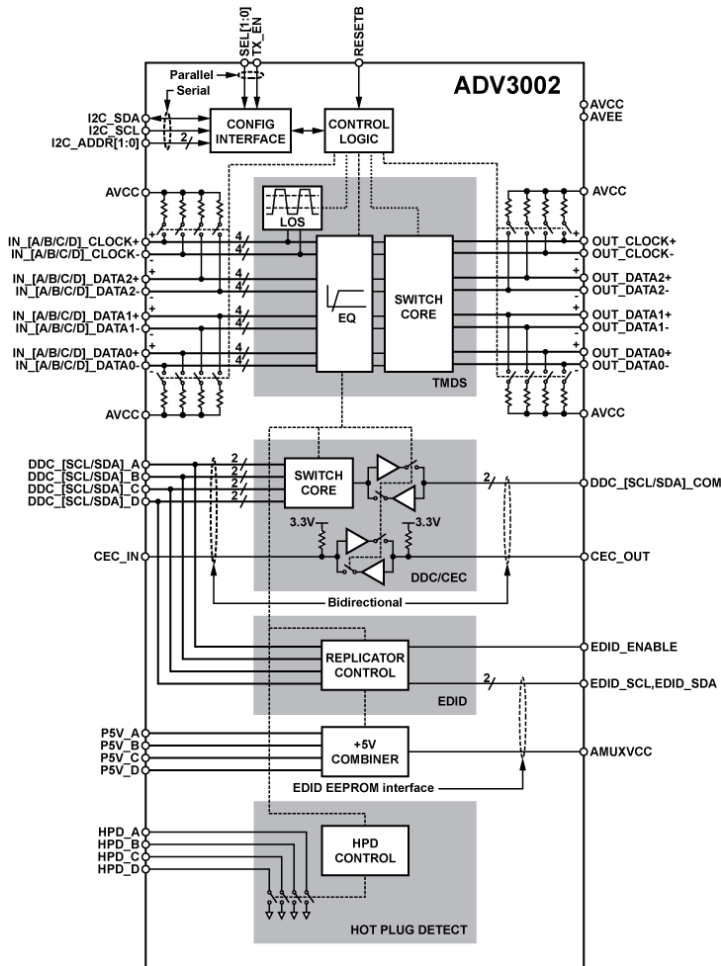
Pin	Pin Name	Symbol	I/O	Type	Det	Op (Int.)	Pu/Pd (Ext.)	Res	PURE D	CEC STBY	P.OFF	Function
1	P94	VSEL DATA	O	C	-	-	-	Z	-	O/L	Z	VIDEO PLD control pin
2	P93	DIR CE	O	C	-	-	-	Z	-	O/L	Z	DIR control pin (LC89058W-VF4A)
3	P92/SOUT3	DIR DIN	O	C	-	-	-	Z	-	O/L	Z	DIR control pin (LC89058W-VF4A)
4	P91/SIN3	DIR DOUT	I	-	Lv	-	DA3.3Pu	Z	-	-	Z	DIR control pin (LC89058W-VF4A)
5	P90/CLK3	DIR CLK	O	C	-	-	-	Z	-	O/L	Z	DIR control pin (LC89058W-VF4A)
6	BYTE	BYTE	-	-	-	-	-	-	-	-	-	GND(Ext. data bus bit width switching, 16bit : L)
7	CNVCS	CNVSS	-	-	-	-	Pd	-	-	-	-	Single-chip/Micro-processor mode switching (Normal single-chip : L, Rewrite boot program start : H input set)
8	P87	ADC RST	O	C	-	-	-	Z	-	O/L	Z	AD(*****) control pin
9	P86	DIR CE4	O	C	-	-	-	Z	-	O/L	Z	DIR control pin (LC89058W-VF4A)
10	RESET	SUBRESET	I	-	Lv	-	SCPU3VPu	L	-	-	Z	Reset input
11	XOUT	X1	O	-	-	-	-	-	-	-	-	Oscillator connection
12	VSS	VSS	-	-	-	-	-	-	-	-	-	GND
13	XIN	X2	I	-	-	-	-	-	-	-	-	Oscillator connection
14	VCC	VCC	-	-	-	-	-	-	-	-	-	+3.3V
15	P85(N)/(NMI)/(CEC)	(CEC_IN)	I	-	-	-	Pd	-	-	-	-	NC ("H" fixed / Reserve (16pin CEC-D signal input for TEST))
16	P84/INT2	CEC_IN	I	-	E↓&L	-	SCPU3VPu	Z	-	-	Z	CEC-D signal input pin
17	P83/INT1	ACK SIMO	I	-	E↓&L	-	-	Z	-	-	Z	MAIN-SUB ucom communication control input pin (MAIN ucom Hack from the main "L" Return)
18	P82/INT0	SUB BDOWN	I	-	E↓&L	-	-	Z	-	-	Z	Power failure detect(Power failure:L)
19	P81	ABT RST	O	C	-	-	-	Z	-	O/H	Z	IP CONV(ABT2015) Reset
20	P80/(RXD5)	NC	I	-	-	-	Pd	Z	-	-	Z	NC
21	P77/(CLK5)	SUB TDO	I	-	-	-	-	Z	-	O/L	Z	PLD rewriting control (JTAG)
22	P76/(TXD5)	A PLD CS "/D/M"	O	C	-	-	-	Z	-	-	O/L	A PLD control pin/ DENON WRITTER / MITSUBISHI rewritten for determining (DW :L)
23	P75	A PLD DATA	O	C	-	-	-	Z	-	O/L	Z	A PLD control pin
24	P74	A PLD CLK	O	C	-	-	-	Z	-	O/L	Z	A PLD control pin
25	P73/CTS2	NC	I	-	-	-	Pd	Z	-	-	Z	NC
26	P72/CLK2	DA POWER	O	C	-	-	-	Z	O/H	-	Z	DIGITAL power (DA3.3V,DA1.2V) ON/OFF control (H: ON)
27	P71(N)/RXD2/ SCLMM	HSCL(400k)	I/O	N	-	-	CEC3VPu	Z	-	O/L	O/L	VIDEO I ² C- IP CONV(ABT2015)/HDMI_R(ADV7840)/ HDMI T(ADV7511)/SWITCHER(ADV3002)
28	P70(N)/TXD2/ SDAMM	HSDA(400k)	I/O	N	-	-	CEC3VPu	Z	-	O/L	O/L	VIDEO I ² C- IP CONV(ABT1030)/HDMI_R(ADV7840)/ HDMI T(ADV7511)/SWITCHER(ADV3002)
29	P67/TXD1	TXD	O	C	-	-	SCPU3VPu	Z	-	-	Z	Data transmission output to external
30	P66/RXD1	RXD	I	-	Lv	-	SCPU3VPu	Z	-	-	Z	Data reception input from the external
31	P65/CLK1/SCLK	SCLK	I	-	-	-	Pd	Z	-	-	Z	Emulator communication pin
32	P64/CTS1	HIN SELA	O	C	-	-	-	Z	-	O/L	Z	For HDMI 4/5/6/F selection(TC4052)
33	P63/TXD0	SOMI	O	C	-	-	-	Z	-	-	Z	MAIN-SUB ucom communication control pin
34	P62/RXD0	SIMO	I	-	-	-	-	Z	-	-	Z	MAIN-SUB ucom communication control pin
35	P61/CLK0	CLK SIMO	I	-	-	-	-	Z	-	-	Z	MAIN-SUB ucom communication control pin
36	P60/CTS0	REQ SOMI	O	C	-	-	-	Z	-	-	Z	MAIN-SUB ucom communication control pin
37	P57	1TMS SW RST	O	C	-	-	SCPU3VPu	Z	-	-	Z	HDMI SWITCHER ADV3002 Reset pin
38	P56	DV POWER2	O	C	-	-	-	Z	O/H	-	Z	DIGITAL.VIDEO power control pin (DV1.8V)
39	P55/EPM	EPM	I	-	-	-	Pd	Z	-	-	Z	Rewrite boot program start : L input set
40	P54	CEC_OUT	O	C	-	-	-	Z	-	-	Z	CEC-D signal input pin
41	P53	DV POWER3	O	C	-	-	-	Z	O/H	O/L	Z	DIGITAL.VIDEO power control pin (DV1.0V)
42	P52	Z2SSIG.DET	I	-	Lv	-	SCPU3VPu	Z	-	I	Z	ZONE2 S signal presence detection input (Connected: H)
43	P51	HIN SELB	O	C	-	-	-	Z	-	O/L	Z	For HDMI 4/5/6/F selection(TC4052)
44	P50/CE	MONI SEL/CE/ DSP BOOT	O/I	C	-	-	SCPU3VPu	Z	-	-	Z	MONI SEL(for Dual Moni)(MAX4886) /Rewrite boot program start : H input set
45	P47/(TXD7)/SDA7	VSDA	I/O	C	-	-	DV3VPu	Z	-	-	O/L	ENCODER ADV7392 I ² C/VIDEO SELECT IC(NJW1327)
46	P46/(RXD7)/SCL7	VSCL	I/O	C	-	-	DV3VPu	Z	-	-	O/L	ENCODER ADV7392 I ² C/VIDEO SELECT IC(NJW1327)
47	P45/(CLK7)	NC	I	-	-	-	Pd	Z	-	I	Z	NC
48	P44	HPD1	O	C	-	-	-	Z	-	O/L	Z	HP DET control pin
49	P43	HDMI A.SEL	O	C	-	-	-	Z	-	O/L	Z	HDMI AUDIO switch (H : DSP course, L : HDMI Rx→Tx through)(TC74VHC244)
50	P42	NC	I	-	-	-	Pd	Z	-	I	Z	NC
51	P41	CEC POWER	O	C	-	-	-	Z	O/H	O/H	Z	Power ON (CEC5V,CEC3.3V,CEC1.8V) for CEC STANDBY
52	P40	HPD2	O	C	-	-	-	Z	-	O/L	Z	HP DET control pin
53	P37	HDMIR_RST	O	C	-	-	SCPU3VPu	Z	-	-	Z	Reset for HDMI RECEIVER(ADV7840)
54	P36	1TX RST	O	C	-	-	SCPU3VPu	Z	-	-	Z	Reset for HDMI TRANSMITTER (ADV7511)
55	P35	ENC RST	O	C	-	-	SCPU3VPu	Z	-	O/L	Z	Reset for VIDEO ENCODER (ADV7392)
56	P34	Z1 SSI GDET	I	-	Lv	-	SCPU3VPu	Z	-	-	Z	S signal presence detection input (Connected: H)
57	P33	HPD3	O	C	-	-	-	Z	-	O/L	Z	HP DET control pin

Pin	Pin Name	Symbol	I/O	Type	Det	Op (Int.)	Pu/Pd (Ext.)	Res	PURE D	CEC STBY	P.OFF	Function
58	P32	DAC MDI	O	C	-	-	-	Z	-	O/L	Z	DAC control pin (ASK4358)
59	P31	DAC MC	O	C	-	-	-	Z	-	O/L	Z	DAC control pin (ASK4358)
60	VCC	VCC	-	-	-	-	-	-	-	-	-	+3.3V
61	P30	DAC MS	O	C	-	-	-	Z	-	O/L	Z	DAC control pin (ASK4358)
62	VSS	VSS	-	-	-	-	-	-	-	-	-	GND
63	P27	DAC RST	O	C	-	-	-	Z	-	O/L	Z	DAC control pin (ASK4358)
64	P26	DV POWER	O	C	-	-	-	Z	O/H	MODE1=O/H MODE2=O/L	Z	DIGITAL VIDEO power control pin (DV5V,DV3.3V)
65	P25/INT7	OSD CPU BUSY SIFO	I	-	Lv	-	Pd	Z	-	-	Z	OSD CPU control pin
66	P24/INT6	1TX INT	I	-	Lv	-	-	Z	-	-	Z	HDMI OUT1 signal presence detection input (HDMI TRANS1 ADV7511)
67	P23	SUB TMS	O	C	-	-	DA3.3Pu	Z	-	-	Z	PLD rewriting control (JTAG)
68	P22	VEXP STB	O	C	-	-	-	Z	-	O/L	Z	Terminal output for VIDEO expander pin (BU4094BCFV)
69	P21	VEXP OE	O	C	-	-	-	Z	-	O/L	Z	Terminal output for VIDEO expander pin (BU4094BCFV)
70	P20	VEXP CLK	O	C	-	-	-	Z	-	O/L	Z	CLK output for VIDEO expander control(BU4094BCFV)
71	P17/INT5	ADVINT1	I	-	E _L &L	-	-	Z	-	-	Z	HDMI RECEIVER(ADV7840)INT1 output
72	P16/INT4	ADVINT2	I	-	E _L &L	-	-	Z	-	-	Z	HDMI RECEIVER(ADV7840)INT2 output
73	P15/INT3	ADVINT3	I	-	E _L &L	-	-	Z	-	-	Z	HDMI RECEIVER(ADV7840)INT3 output
74	P14	HPD4	O	C	-	-	-	Z	-	O/L	Z	HP DET control pin
75	P13/TXD6	DSP MOSI	O	C	-	-	DA3VPu	Z	-	O/L	Z	DSP control pin(ADSP-21367-333)
76	P12/RXD6	DSP MISO	I	-	Lv	-	DA3VPu	Z	-	-	Z	DSP control pin(ADSP-21367-333)
77	P11/CLK6	DSPICLK	O	C	-	-	DA3VPu	Z	-	O/L	Z	DSP control pin(ADSP-21367-333)
78	P10	Z1VSIG.DET	I	-	Lv	-	SCPU3VPu	Z	-	-	Z	VIDEO IN signal presence detection input(Signal input:H)
79	P07	SUB TDI	O	C	-	-	DA3.3Pu	Z	-	O/L	Z	PLD rewriting control (JTAG)
80	P06	VSEL CS	O	C	-	-	-	Z	-	MODE1=O/H MODE2=O/L	Z	VIDEO PLD control pin
81	P05	NC	I	-	-	-	Pd	Z	-	-	Z	NC
82	P04	NC	I	-	-	-	Pd	Z	-	-	Z	NC
83	P03	SUB TCK	O	C	-	-	Pd	Z	-	-	Z	PLD rewriting control (JTAG)
84	P02	DIR RST3	O	C	-	-	-	Z	-	O/L	O/L	DIR control pin (LC89058W-VF4A)
85	P01	DIR RST2	O	C	-	-	-	Z	-	O/L	O/L	DIR control pin (LC89058W-VF4A)
86	P00	DIR RST1	O	C	-	-	-	Z	-	O/L	O/L	DIR control pin (LC89058W-VF4A)
87	P107/(AN7)	DSP RST	O	C	-	-	-	Z	-	O/L	Z	DSP(ADSP-21367-333) reset output pin(Reset : L)
88	P106/(AN6)	HPD5	O	C	-	-	-	Z	-	O/L	Z	HP DET control pin
89	P105/(AN5)	DSP ROMRST	O	C	-	-	-	Z	-	O/L	Z	Memory reset for DSP (Reset : L)
90	P104/(AN4)	COMPS DET	I	-	Lv	-	SCPU3VPu	Z	-	-	Z	COMPONENT IN signal presence detection input
91	P103/(AN3)	DSP FLAG0	I	-	Lv	-	Pd	Z	-	-	Z	DSP control pin(ADSP-21367-333)
92	P102/(AN2)	DSPICS	O	C	-	-	DA3VPu	Z	-	O/L	Z	DSP control pin(ADSP-21367-333)
93	P101/(AN1)	HPD6	O	C	-	-	-	Z	-	O/L	Z	HP DET control pin
94	AVSS	AVSS	-	-	-	-	-	-	-	-	-	AD GND
95	P100/(AN0)	VSEL CLK	O	C	-	-	-	Z	-	O/L	Z	VIDEO PLD control pin
96	VREF	VREF	-	-	-	-	-	-	-	-	-	AD standard +3.3V
97	AVCC	AVCC	-	-	-	-	-	-	-	-	-	AD +3.3V
98	P97/(SIN4)	Tx EN	O	C	-	-	-	Z	-	-	Z	AD8195 ENABLE pin for Front HDMI control
99	P96/(SOUT4)	OSD CPU BUSY SOFI	O	C	-	-	Pd	Z	-	-	Z	OSD CPU control pin
100	P95/(CLK4)	VEXP DIN	O	C	-	-	-	Z	-	O/L	Z	DATA output for VIDEO expander control (BU4094BCFV)

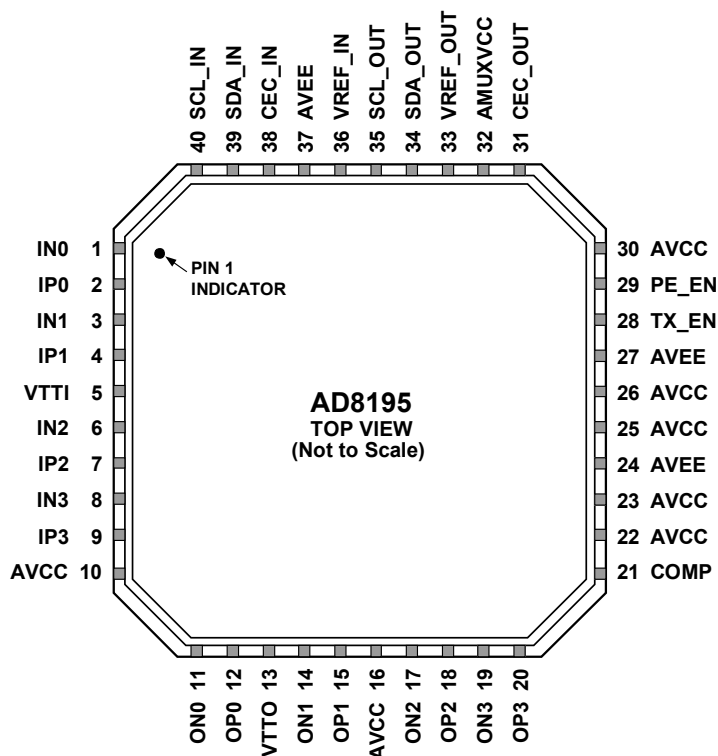
ADV3002BSTZ (HDMI : U1002)



ADV3002BSTZ Block diagram



AD8195ACPZ (HDMI : U1)



NOTES

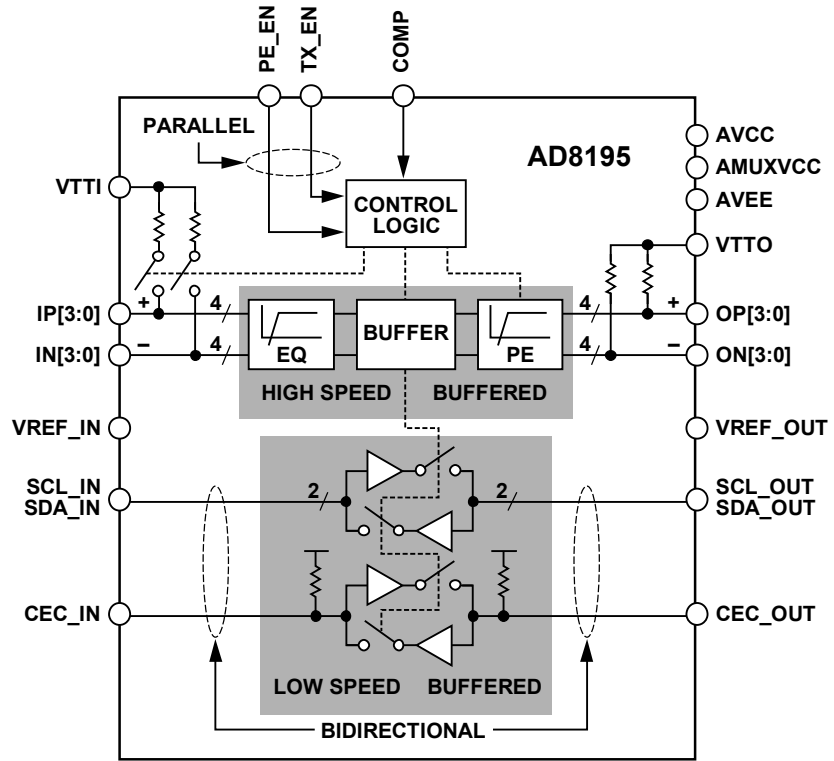
1. THE AD8195 LFCSP HAS AN EXPOSED PAD ON THE UNDERSIDE OF THE PACKAGE THAT AIDS IN HEAT DISSIPATION. THE PAD MUST BE ELECTRICALLY CONNECTED TO THE AVEE SUPPLY PLANE IN ORDER TO MEET THERMAL SPECIFICATIONS.

07049-003

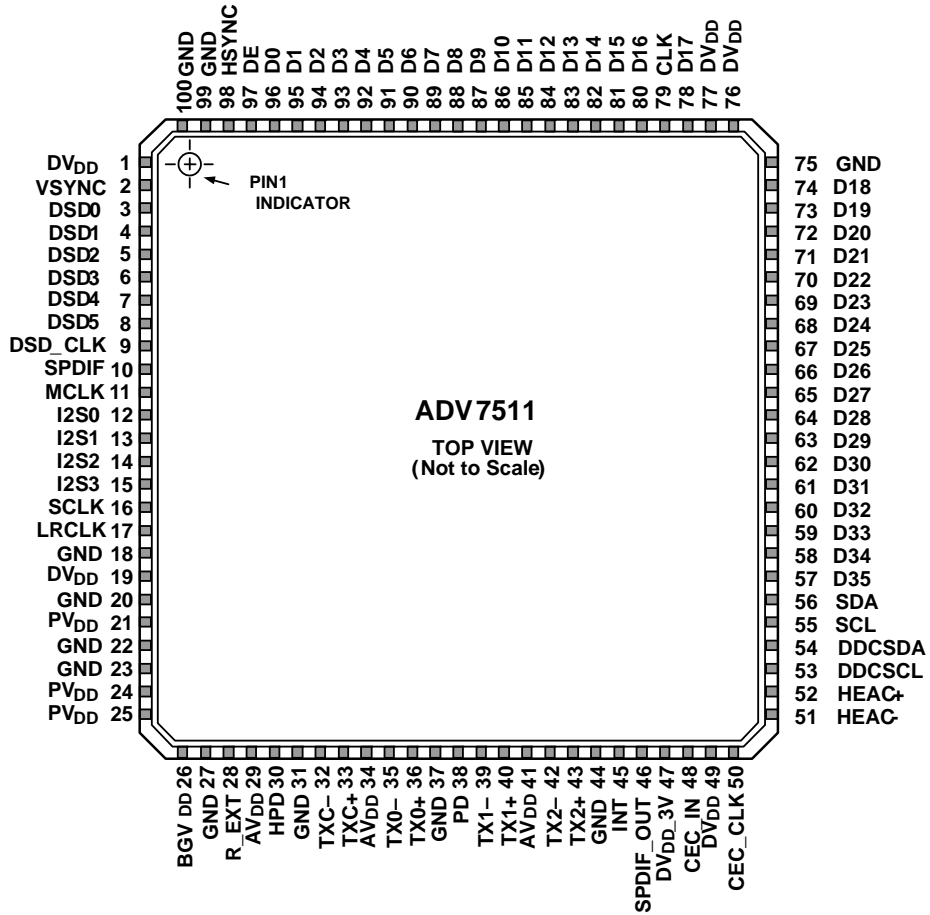
AD8195ACPZ Terminal Function

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

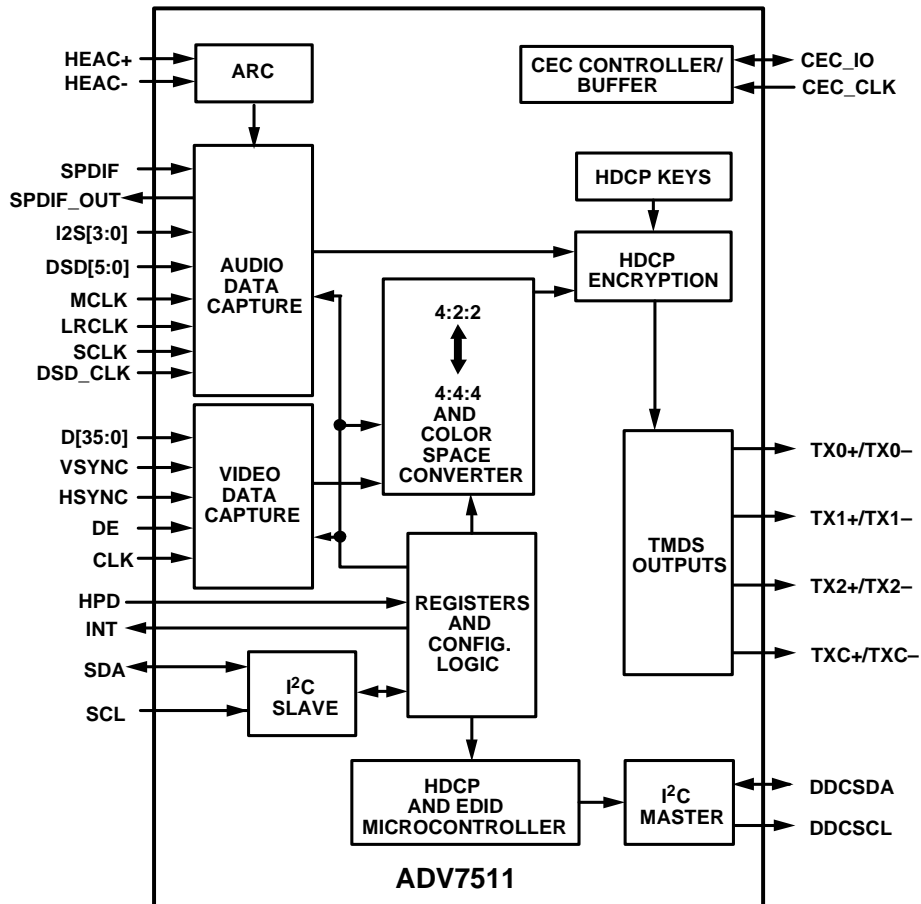
AD8195ACPZ Block diagram



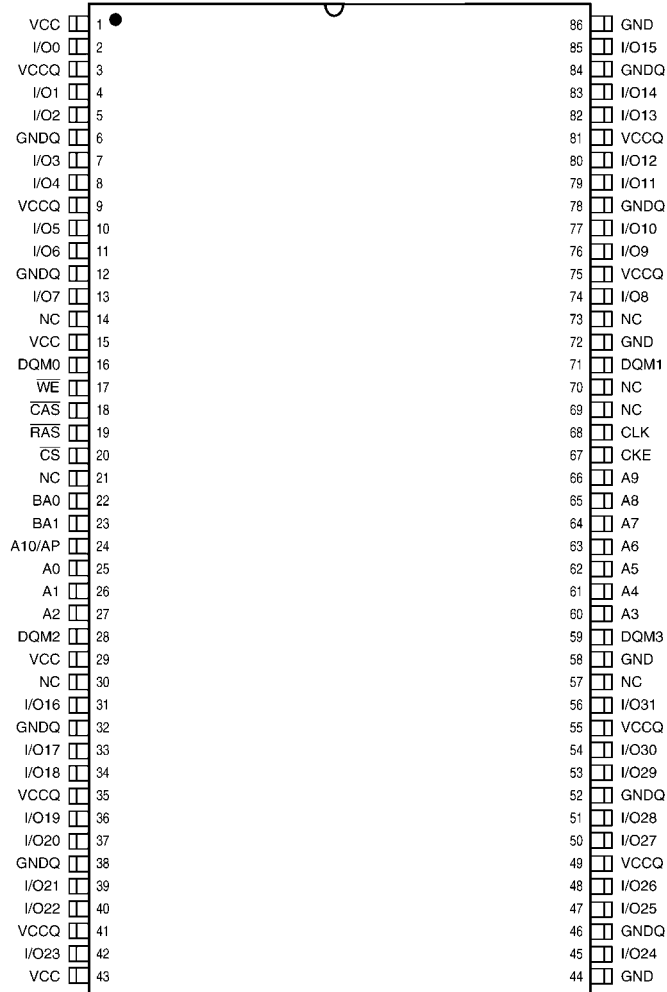
ADV7511BSTZ (HDMI : U1801)



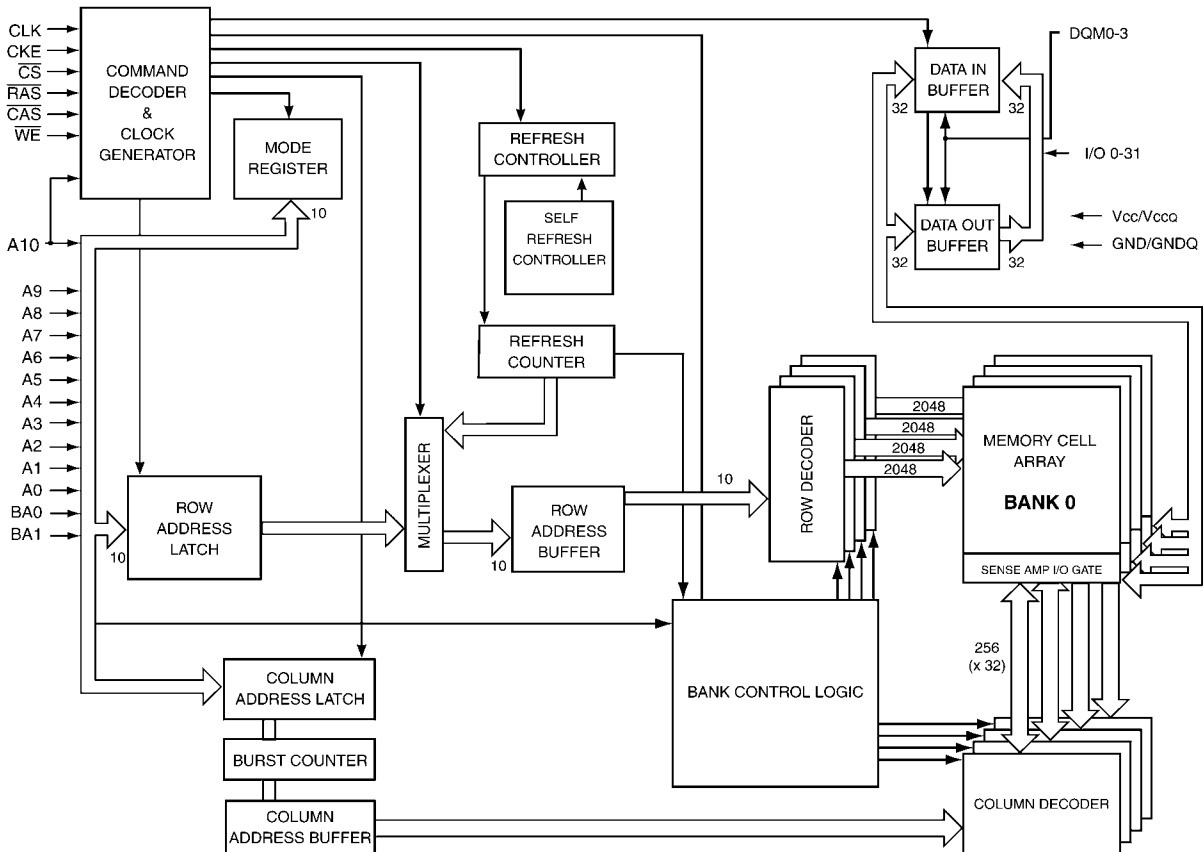
ADV7511BSTZ Block diagram



IS42S32200E6TL (HDMI : U1602)



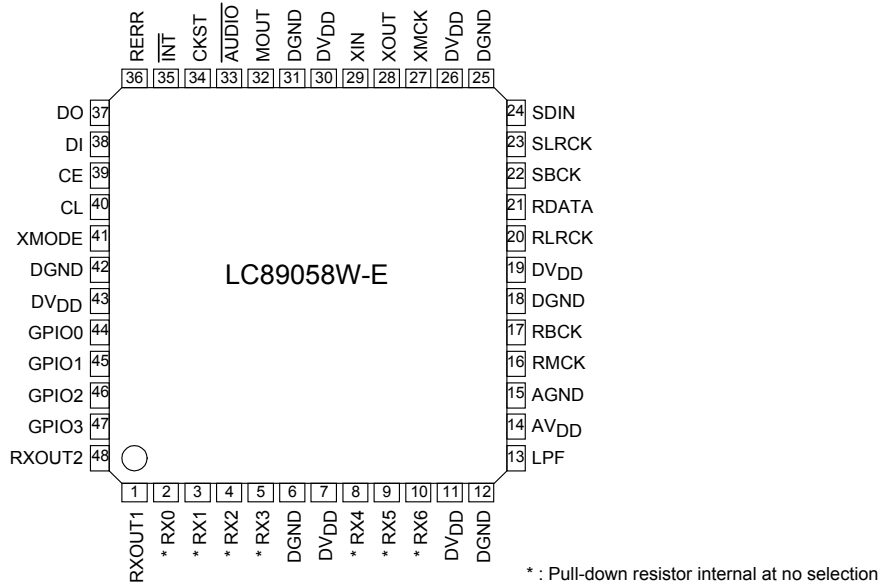
IS42S32200E6TL Block diagram



IS42S32200E6TL Termini Function

Pin No.	Signal	Pin No.	Signal	Pin No.	Signal	Pin No.	Signal
1	VDD	53	VDD	105	VDD	157	VDD
2	DATA28	54	GND	106	GND	158	VDD
3	DATA27	55	IOVDD	107	IOVDD	159	GND
4	GND	56	ADDR0	108	$\overline{\text{SDCAS}}$	160	VDD
5	IOVDD	57	ADDR2	109	$\overline{\text{SDRAS}}$	161	VDD
6	DATA26	58	ADDR1	110	SDCKE	162	VDD
7	DATA25	59	ADDR4	111	$\overline{\text{SDWE}}$	163	TDI
8	DATA24	60	ADDR3	112	$\overline{\text{WR}}$	164	$\overline{\text{TRST}}$
9	DATA23	61	ADDR5	113	SDA10	165	TCK
10	GND	62	GND	114	GND	166	GND
11	VDD	63	VDD	115	IOVDD	167	VDD
12	DATA22	64	GND	116	SDCLK0	168	TMS
13	DATA21	65	IOVDD	117	GND	169	CLK_CFG0
14	DATA20	66	ADDR6	118	VDD	170	BOOTCFG0
15	IOVDD	67	ADDR7	119	$\overline{\text{RD}}$	171	CLK_CFG1
16	GND	68	ADDR8	120	ACK	172	$\overline{\text{EMU}}$
17	DATA19	69	ADDR9	121	FLAG3	173	BOOTCFG1
18	DATA18	70	ADDR10	122	FLAG2	174	TDO
19	VDD	71	GND	123	FLAG1	175	DAI4
20	GND	72	VDD	124	FLAG0	176	DAI2
21	DATA17	73	GND	125	DAI20	177	DAI3
22	VDD	74	IOVDD	126	GND	178	DAI1
23	GND	75	ADDR11	127	VDD	179	IOVDD
24	VDD	76	ADDR12	128	GND	180	GND
25	GND	77	ADDR13	129	IOVDD	181	VDD
26	DATA16	78	GND	130	DAI19	182	GND
27	DATA15	79	VDD	131	DAI18	183	DPI14
28	DATA14	80	AVSS	132	DAI17	184	DPI13
29	DATA13	81	AVDD	133	DAI16	185	DPI12
30	DATA12	82	GND	134	DAI15	186	DPI11
31	IOVDD	83	CLKIN	135	DAI14	187	DPI10
32	GND	84	XTAL2	136	DAI13	188	DPI9
33	VDD	85	IOVDD	137	DAI12	189	DPI8
34	GND	86	GND	138	VDD	190	DPI7
35	DATA11	87	VDD	139	IOVDD	191	IOVDD
36	DATA10	88	ADDR14	140	GND	192	GND
37	DATA9	89	GND	141	VDD	193	VDD
38	DATA8	90	IOVDD	142	GND	194	GND
39	DATA7	91	ADDR15	143	DAI11	195	DPI6
40	DATA6	92	ADDR16	144	DAI10	196	DPI5
41	IOVDD	93	ADDR17	145	DAI8	197	DPI4
42	GND	94	ADDR18	146	DAI9	198	DPI3
43	VDD	95	GND	147	DAI6	199	DPI1
44	DATA4	96	IOVDD	148	DAI7	200	DPI2
45	DATA5	97	ADDR19	149	DAI5	201	CLKOUT
46	DATA2	98	ADDR20	150	IOVDD	202	$\overline{\text{RESET}}$
47	DATA3	99	ADDR21	151	GND	203	IOVDD
48	DATA0	100	ADDR23	152	VDD	204	GND
49	DATA1	101	ADDR22	153	GND	205	DATA30
50	IOVDD	102	$\overline{\text{MST}}$	154	VDD	206	DATA31
51	GND	103	$\overline{\text{MS0}}$	155	GND	207	DATA29
52	VDD	104	VDD	156	VDD	208	VDD

LC89058W-E (HDMI : U2805,U2806,U2807)



Pin Functions

Pin No.	Name	I/O	Function
1	RXOUT1	O	RX0-6 input S/PDIF through output pin 1
2	RX0	I _s (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 _s (pd)	5V withstand voltage TTL input level compatible S/PDIF input pin (connected to GND when RX1 is set)
5	RX3	I _s (pd)	5V withstand voltage TTL input level compatible S/PDIF input pin
6	DGND		Digital GND
7	DV _{DD}		Digital power supply (3.3V)
8	RX4	I _s (pd)	5V tolerable TTL input level compatible S/PDIF input pin
9	RX5	I _s (pd)	5V tolerable TTL input level compatible S/PDIF input pin
10	RX6	I _s (pd)	5V tolerable TTL input level compatible S/PDIF input pin
11	DV _{DD}		Digital power supply (3.3V)
12	DGND		Digital GND
13	LPF	O	PLL loop filter connection pin
14	AV _{DD}		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 _{DD}		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 _s	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 _s	CCB microcontroller I/F, write data input pin
39	CE	I _s	CCB microcontroller I/F, chip enable input pin
40	CL	I _s	CCB microcontroller I/F, clock input pin
41	XMODE	I _s	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_s = -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.

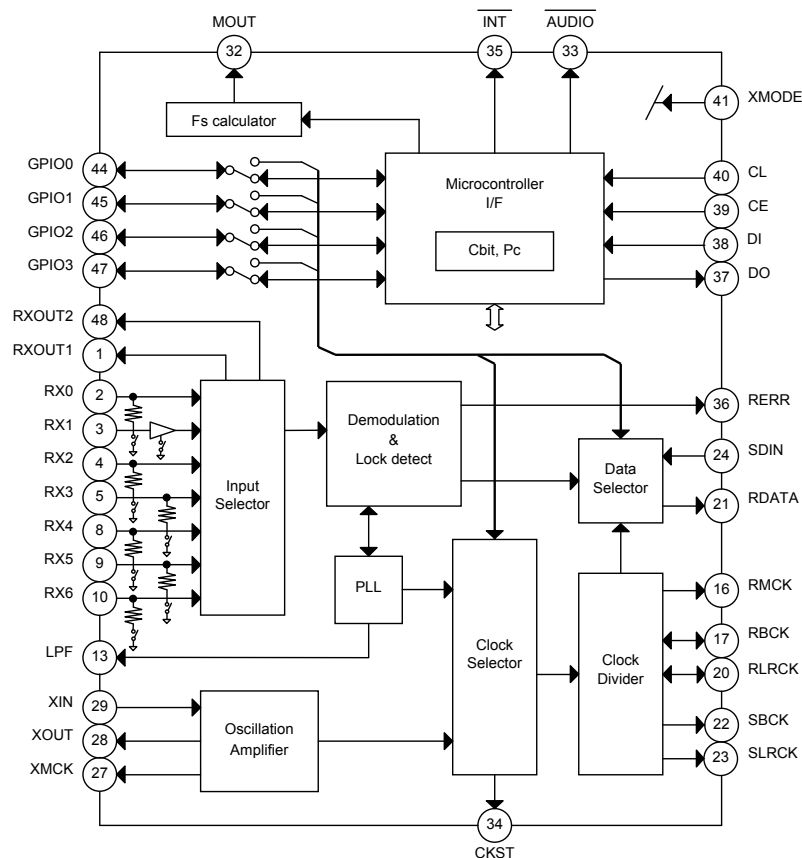
* Pins 32 and 33 are input pins for chip address setting when pin 41 is held at the low level.

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

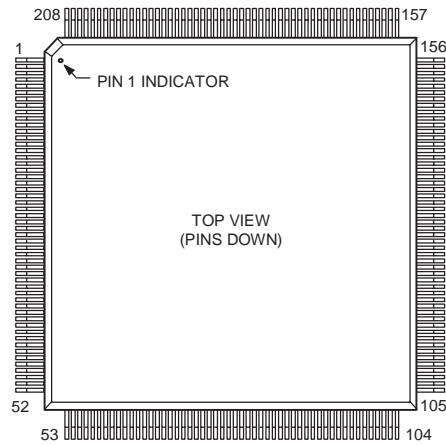
* Pin 35 serves as the input pin for configuring the I/O of pins 44 to 47 when pin 41 is held at the low level.

* 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



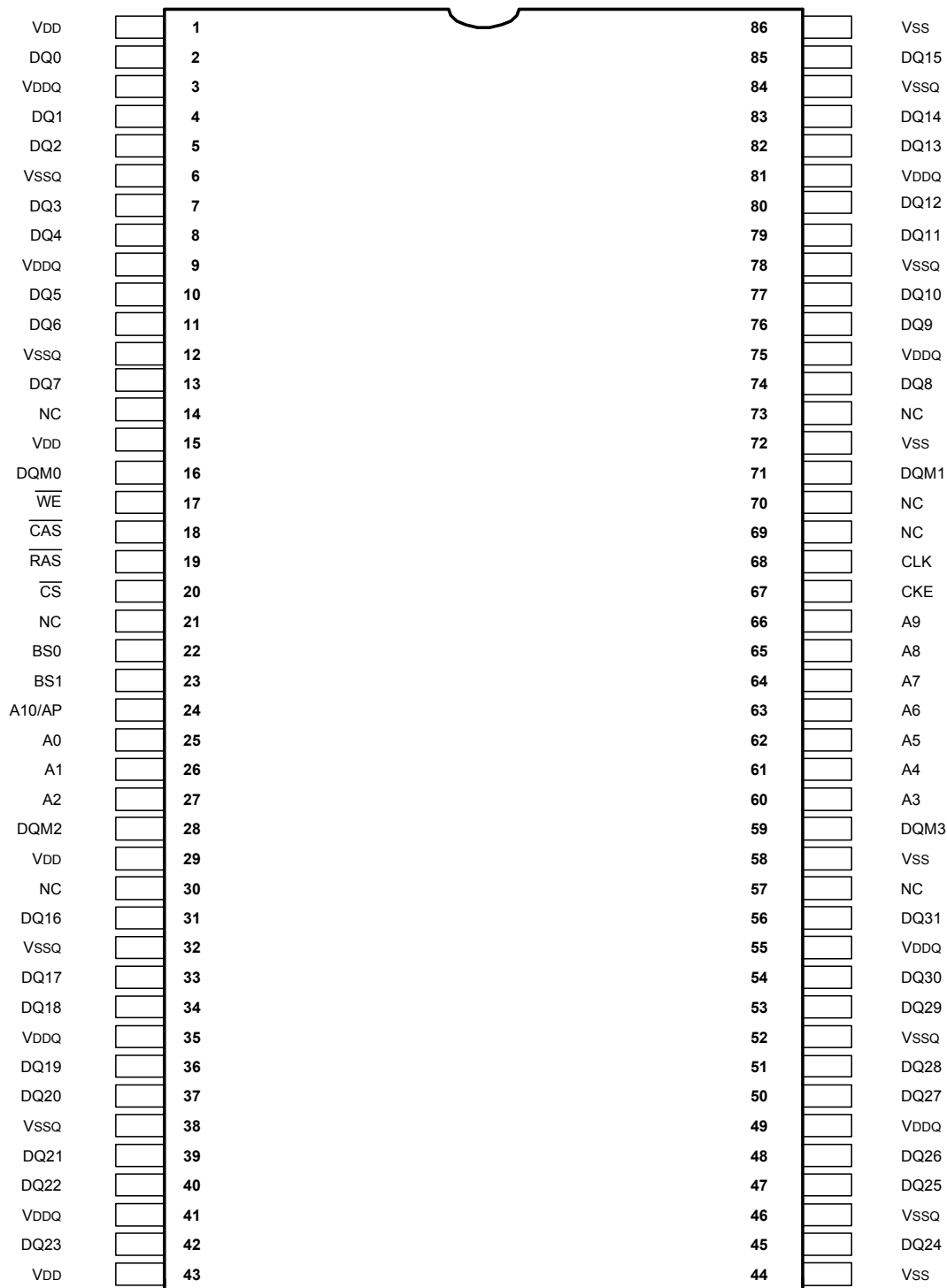
ADSP21367KSWZ2A (HDMI : U3200)



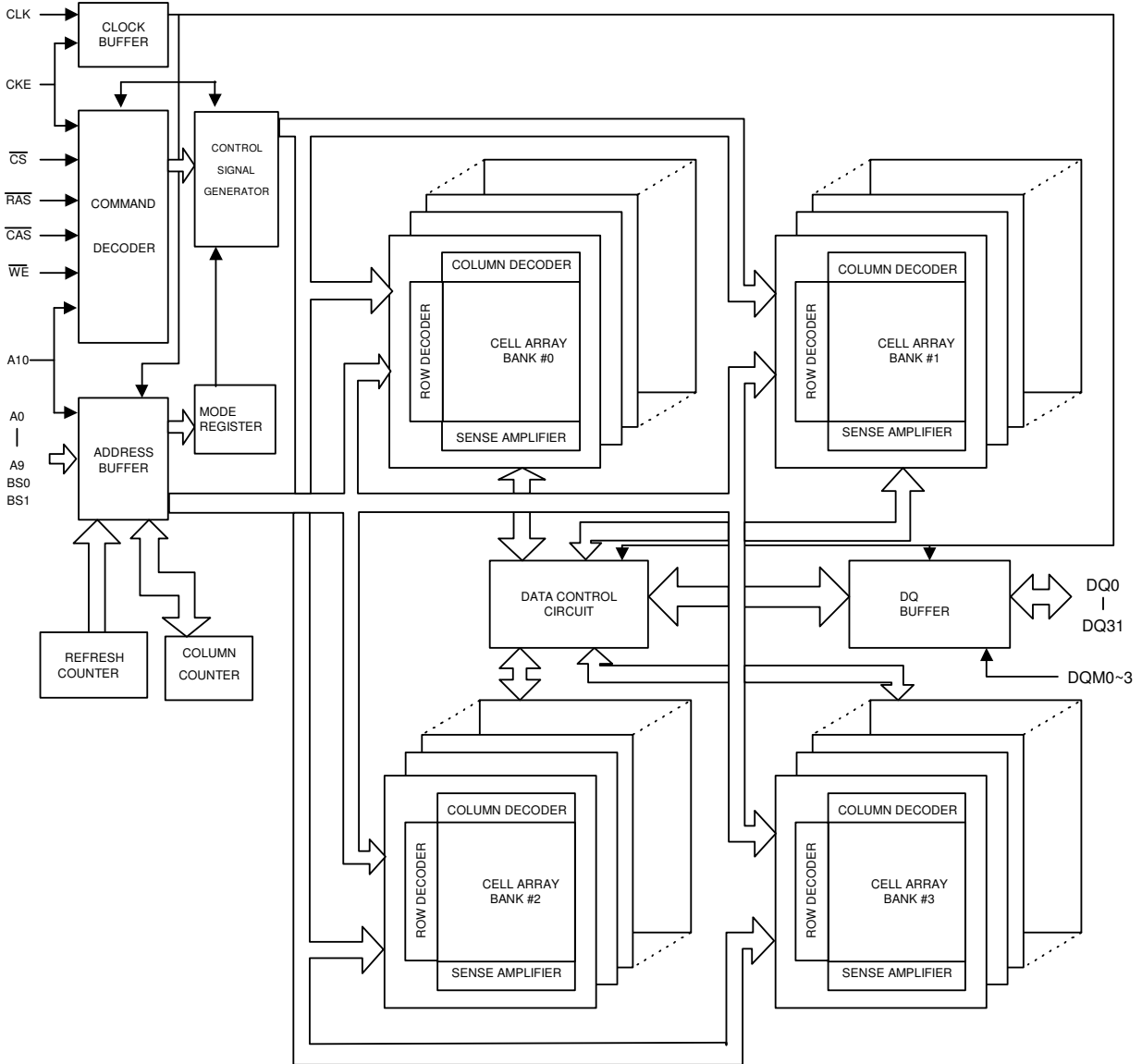
ADSP21367KSWZ2A Terminal Function

Pin No.	Signal	Pin No.	Signal	Pin No.	Signal	Pin No.	Signal
1	VDD	53	VDD	105	VDD	157	VDD
2	DATA28	54	GND	106	GND	158	VDD
3	DATA27	55	IOVDD	107	IOVDD	159	GND
4	GND	56	ADDR0	108	$\overline{SDCA5}$	160	VDD
5	IOVDD	57	ADDR2	109	\overline{SDRAS}	161	VDD
6	DATA26	58	ADDR1	110	SDCKE	162	VDD
7	DATA25	59	ADDR4	111	\overline{SDWE}	163	TDI
8	DATA24	60	ADDR3	112	\overline{WR}	164	\overline{TRST}
9	DATA23	61	ADDR5	113	SDA10	165	TCK
10	GND	62	GND	114	GND	166	GND
11	VDD	63	VDD	115	IOVDD	167	VDD
12	DATA22	64	GND	116	SDCLK0	168	TMS
13	DATA21	65	IOVDD	117	GND	169	CLK_CFG0
14	DATA20	66	ADDR6	118	VDD	170	BOOTCFG0
15	IOVDD	67	ADDR7	119	\overline{RD}	171	CLK_CFG1
16	GND	68	ADDR8	120	ACK	172	\overline{EMU}
17	DATA19	69	ADDR9	121	FLAG3	173	BOOTCFG1
18	DATA18	70	ADDR10	122	FLAG2	174	TDO
19	VDD	71	GND	123	FLAG1	175	DAI4
20	GND	72	VDD	124	FLAG0	176	DAI2
21	DATA17	73	GND	125	DAI20	177	DAI3
22	VDD	74	IOVDD	126	GND	178	DAI1
23	GND	75	ADDR11	127	VDD	179	IOVDD
24	VDD	76	ADDR12	128	GND	180	GND
25	GND	77	ADDR13	129	IOVDD	181	VDD
26	DATA16	78	GND	130	DAI19	182	GND
27	DATA15	79	VDD	131	DAI18	183	DPI14
28	DATA14	80	AVSS	132	DAI17	184	DPI13
29	DATA13	81	AVDD	133	DAI16	185	DPI12
30	DATA12	82	GND	134	DAI15	186	DPI11
31	IOVDD	83	CLKIN	135	DAI14	187	DPI10
32	GND	84	XTAL2	136	DAI13	188	DPI9
33	VDD	85	IOVDD	137	DAI12	189	DPI8
34	GND	86	GND	138	VDD	190	DPI7
35	DATA11	87	VDD	139	IOVDD	191	IOVDD
36	DATA10	88	ADDR14	140	GND	192	GND
37	DATA9	89	GND	141	VDD	193	VDD
38	DATA8	90	IOVDD	142	GND	194	GND
39	DATA7	91	ADDR15	143	DAI11	195	DPI6
40	DATA6	92	ADDR16	144	DAI10	196	DPI5
41	IOVDD	93	ADDR17	145	DAI8	197	DPI4
42	GND	94	ADDR18	146	DAI9	198	DPI3
43	VDD	95	GND	147	DAI6	199	DPI1
44	DATA4	96	IOVDD	148	DAI7	200	DPI2
45	DATA5	97	ADDR19	149	DAI5	201	CLKOUT
46	DATA2	98	ADDR20	150	IOVDD	202	\overline{RESET}
47	DATA3	99	ADDR21	151	GND	203	IOVDD
48	DATA0	100	ADDR23	152	VDD	204	GND
49	DATA1	101	ADDR22	153	GND	205	DATA30
50	IOVDD	102	\overline{MST}	154	VDD	206	DATA31
51	GND	103	$\overline{MS0}$	155	GND	207	DATA29
52	VDD	104	VDD	156	VDD	208	VDD

W9864G2IH-6 (HDMI : U3201)



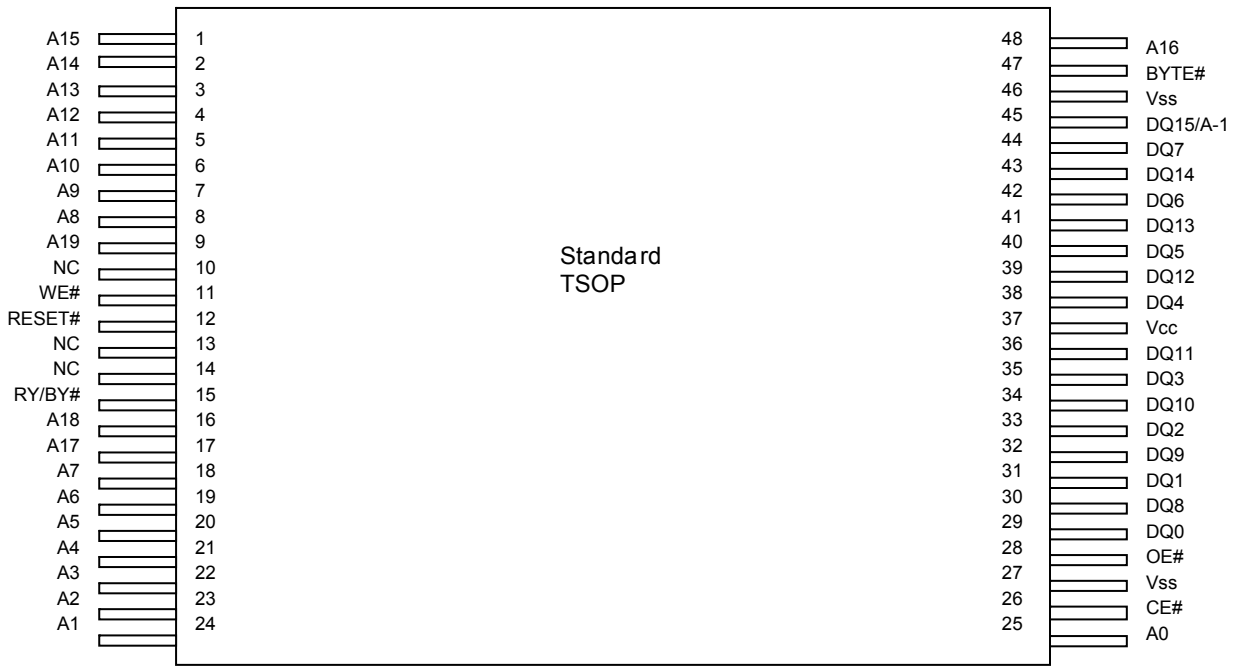
W9864G2IH-6 Block diagram



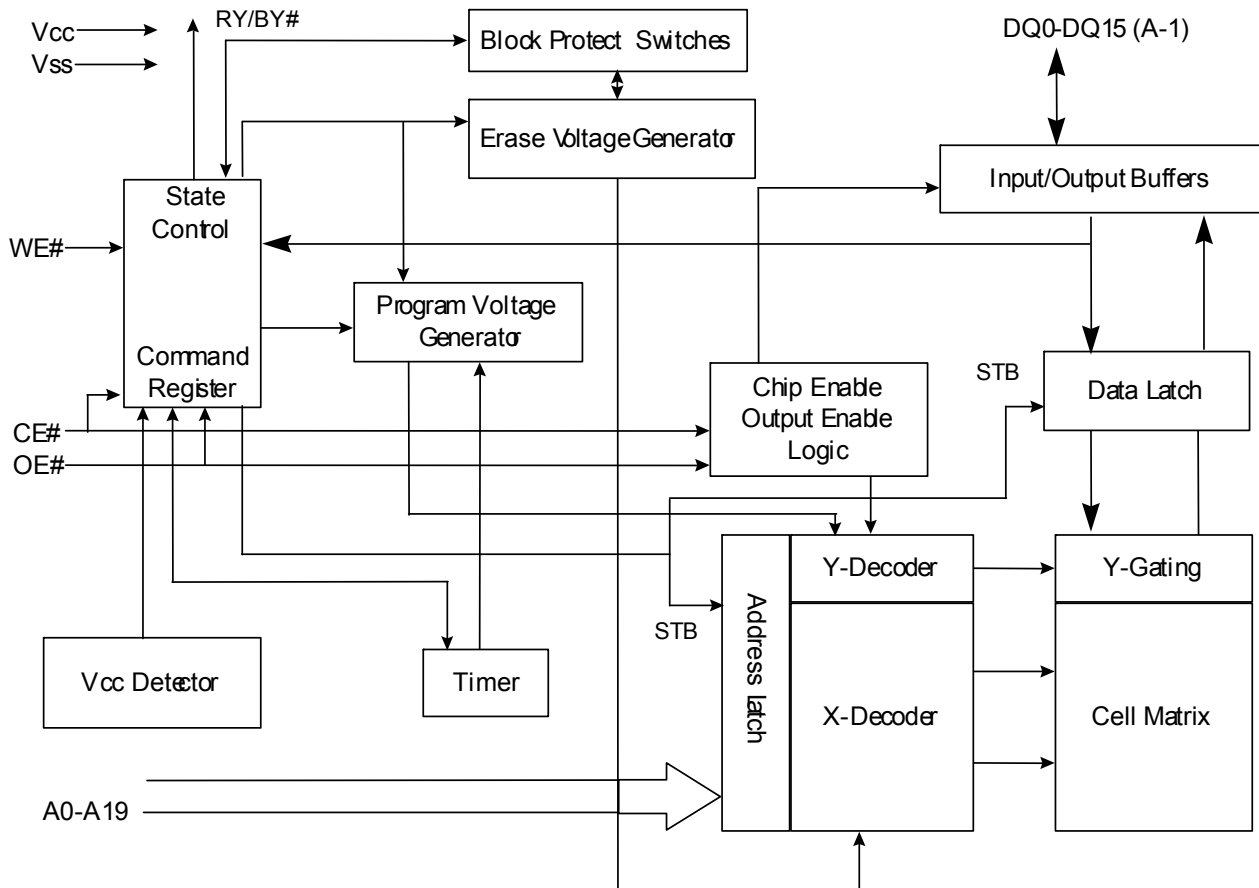
W9864G2IH-6 Pin description

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.

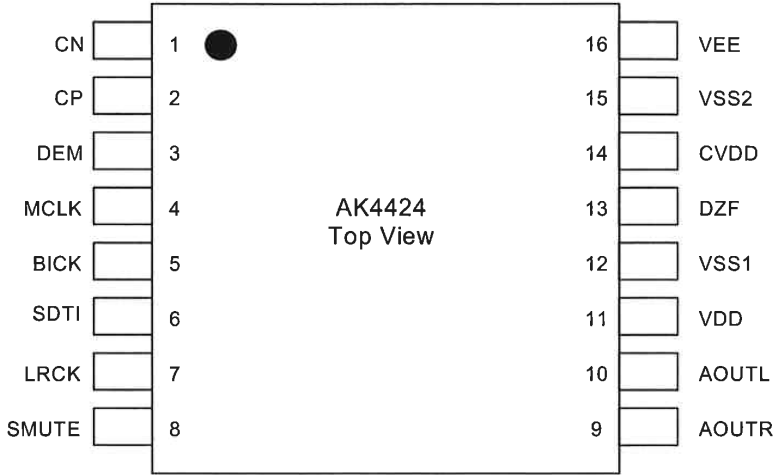
EN29LV160BB (HDMI : U3202,U5101)



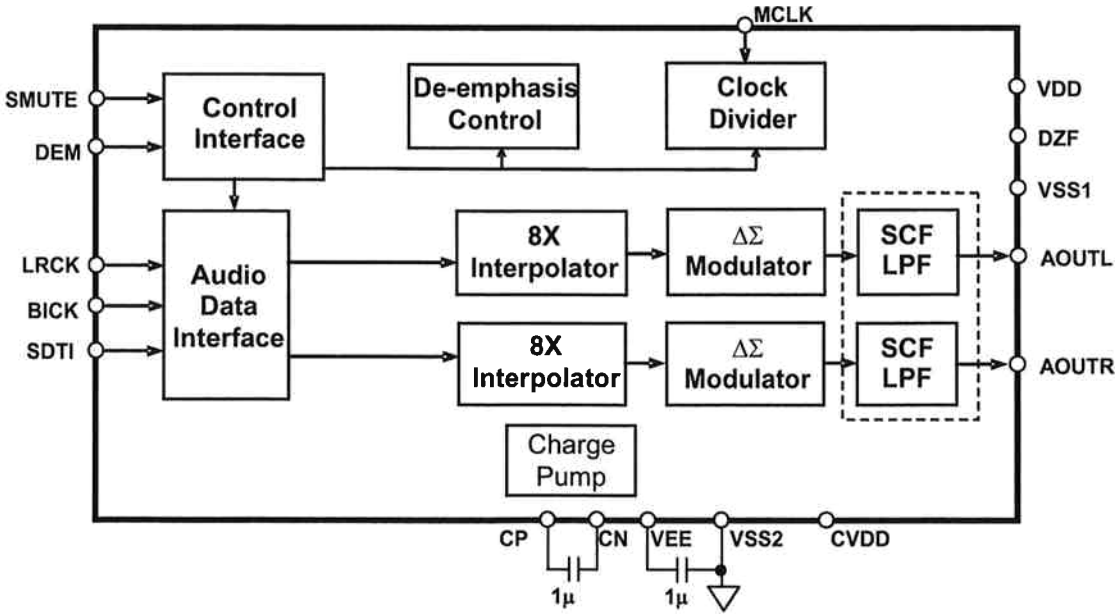
EN29LV160BB Block Diagram



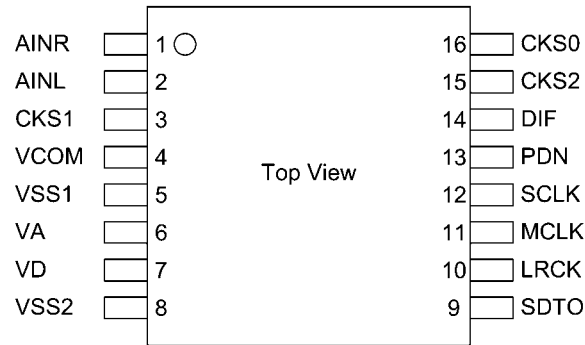
AK4424ET (HDMI : U3800,U3801)



AK4424ET Block Diagram



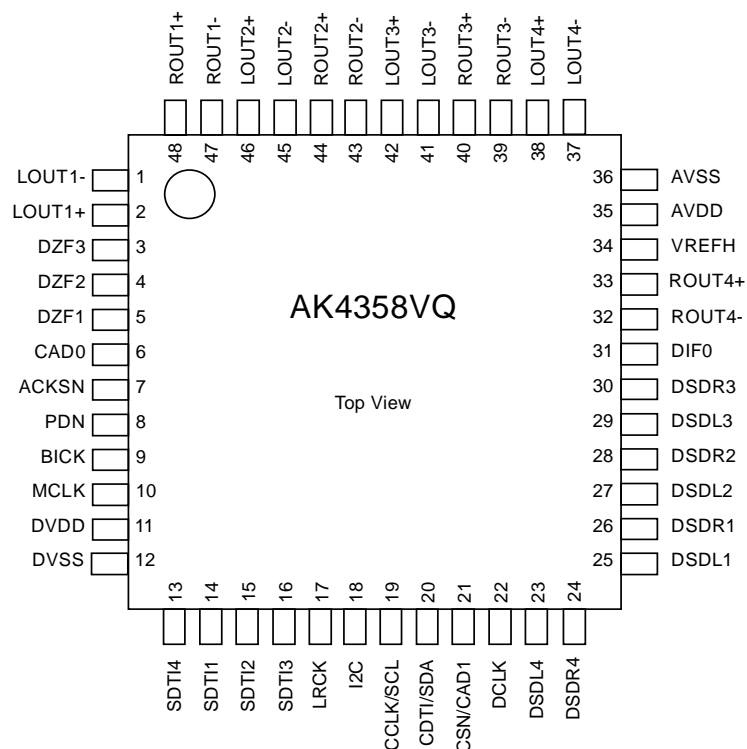
AK5358BET (HDMI : U3802)



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

AK4358VQ (HDMI : U3803)



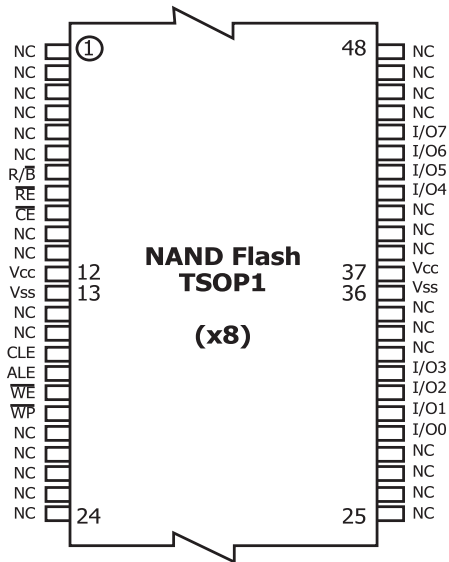
AK4358VQ Pin Function

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

HY27UF081G2A-TPCB (HDMI : 3901)



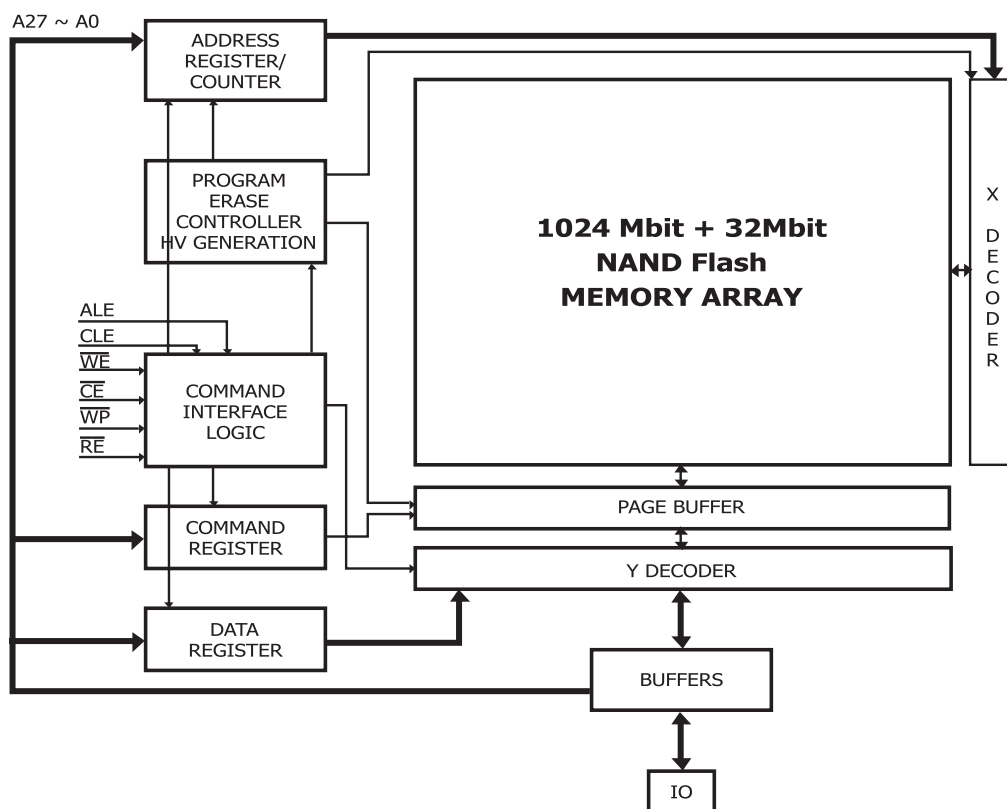
HY27UF081G2A-TPCB Pin Function

Pin Name	Description
I00-I07 I08-I015(1)	DATA INPUTS/OUTPUTS The IO pins allow to input command, address and data and to output data during read / program operations. The inputs are latched on the rising edge of Write Enable (WE). The I/O buffer float to High-Z when the device is deselected or the outputs are disabled.
CLE	COMMAND LATCH ENABLE This input activates the latching of the IO inputs inside the Command Register on the Rising edge of Write Enable (WE).
ALE	ADDRESS LATCH ENABLE This input activates the latching of the IO inputs inside the Address Register on the Rising edge of Write Enable (WE).
\overline{CE}	CHIP ENABLE This input controls the selection of the device. When the device is busy \overline{CE} low does not deselect the memory.
\overline{WE}	WRITE ENABLE This input acts as clock to latch Command, Address and Data. The IO inputs are latched on the rise edge of WE.
\overline{RE}	READ ENABLE 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}	WRITE PROTECT The WP pin, when Low, provides an Hardware protection against undesired modify (program / erase) operations.
R/B	READY BUSY The Ready/Busy output is an Open Drain pin that signals the state of the memory.
VCC	SUPPLY VOLTAGE The VCC supplies the power for all the operations (Read, Write, Erase).
VSS	GROUND
NC	NO CONNECTION

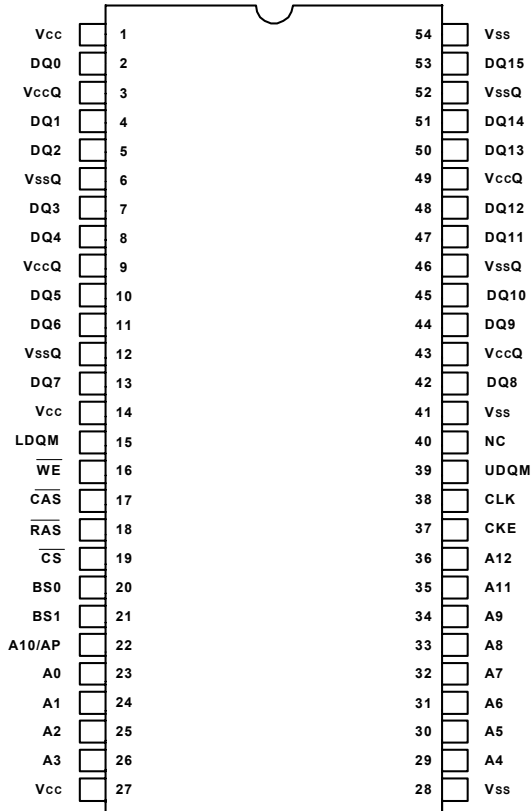
NOTE:

1. A 0.1uF capacitor should be connected between the Vcc Supply Voltage pin and the Vss Ground pin to decouple the current surges from the power supply. The PCB track widths must be sufficient to carry the currents required during program and erase operations.

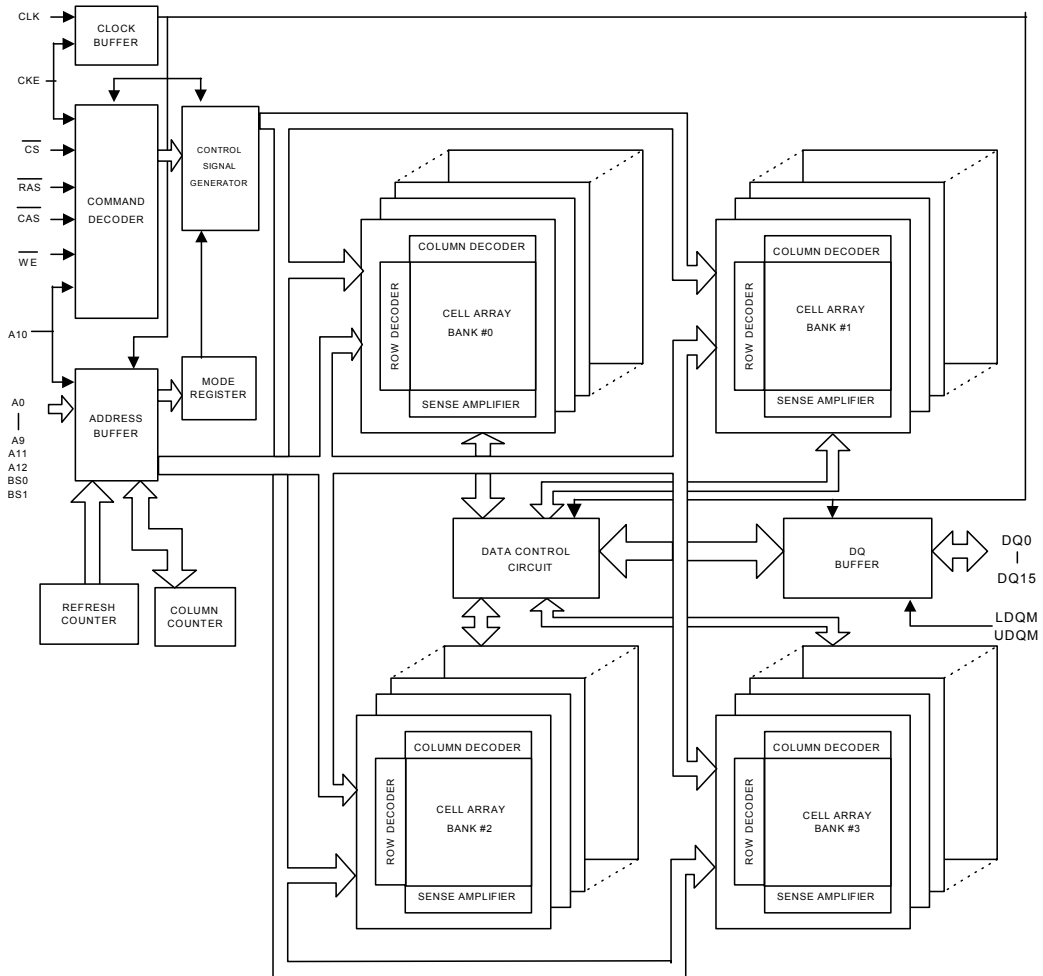
HY27UF081G2A-TPCB Block Diagram



W9825G6EH-6J (HDMI : U3902)



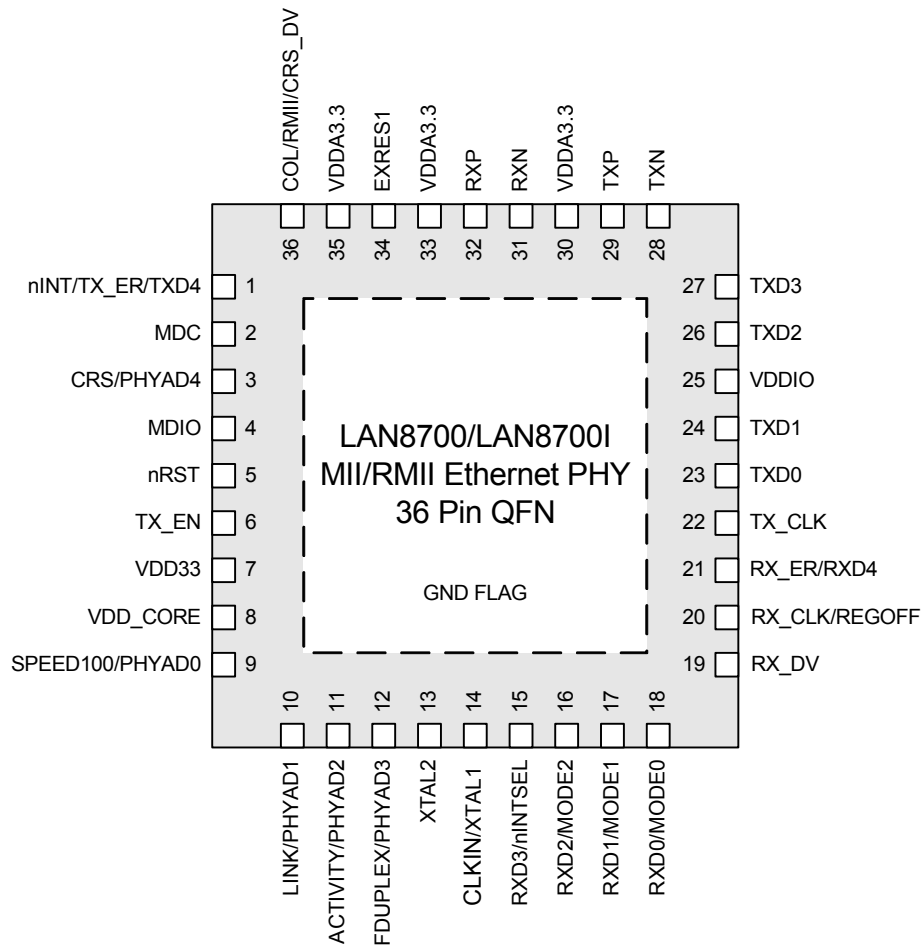
W9825G6EH-6J Block Diagram



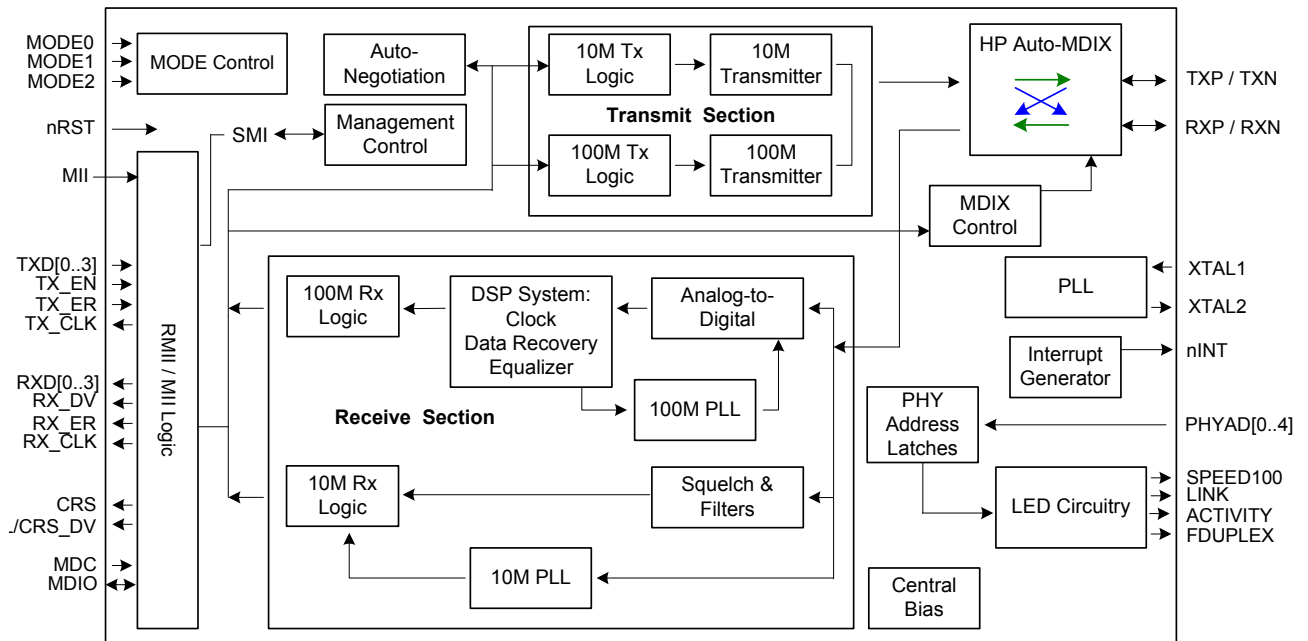
W9825G6EH-6J Pin Description

PIN NUMBER	PIN NAME	FUNCTION	DESCRIPTION
23–26, 22, 29–36	A0–A12	Address	Multiplexed pins for row and column address. Row address: A0–A12. Column address: A0–A8.
20, 21	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, 42, 44, 45, 47, 48, 50, 51, 53	DQ0–DQ15	Data Input/Output	Multiplexed pins for data output and input.
19	$\overline{\text{CS}}$	Chip Select	Disable or enable the command decoder. When command decoder is disabled, new command is ignored and previous operation continues.
18	$\overline{\text{RAS}}$	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.
17	$\overline{\text{CAS}}$	Column Address Strobe	Referred to $\overline{\text{RAS}}$
16	$\overline{\text{WE}}$	Write Enable	Referred to $\overline{\text{RAS}}$
15, 39	LDQM, UDQM	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.
38	CLK	Clock Inputs	System clock used to sample inputs on the rising edge of clock.
37	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, 14, 27	VCC	Power (+3.3V)	Power for input buffers and logic circuit inside DRAM.
28, 41, 54	VSS	Ground	Ground for input buffers and logic circuit inside DRAM.
3, 9, 43, 49	VCCQ	Power (+3.3V) for I/O Buffer	Separated power from VCC, to improve DQ noise immunity.
6, 12, 46, 52	VSSQ	Ground for I/O Buffer	Separated ground from VSS, to improve DQ noise immunity.
40	NC	No Connection	No connection. (NC pin should be connected to GND or floating)

LAN8700 (HDMI : U4202)



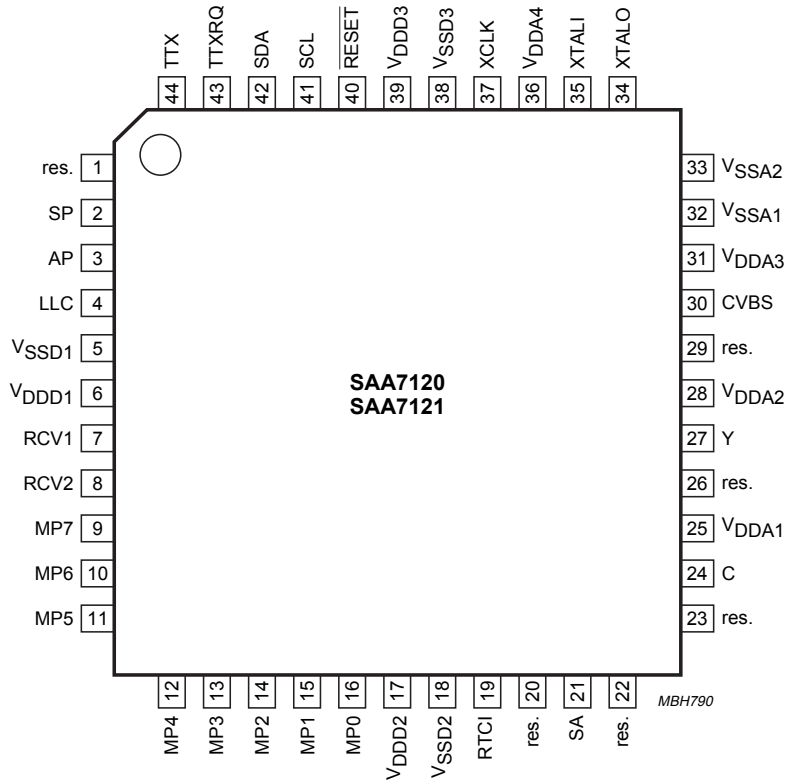
LAN8700 Block Diagram



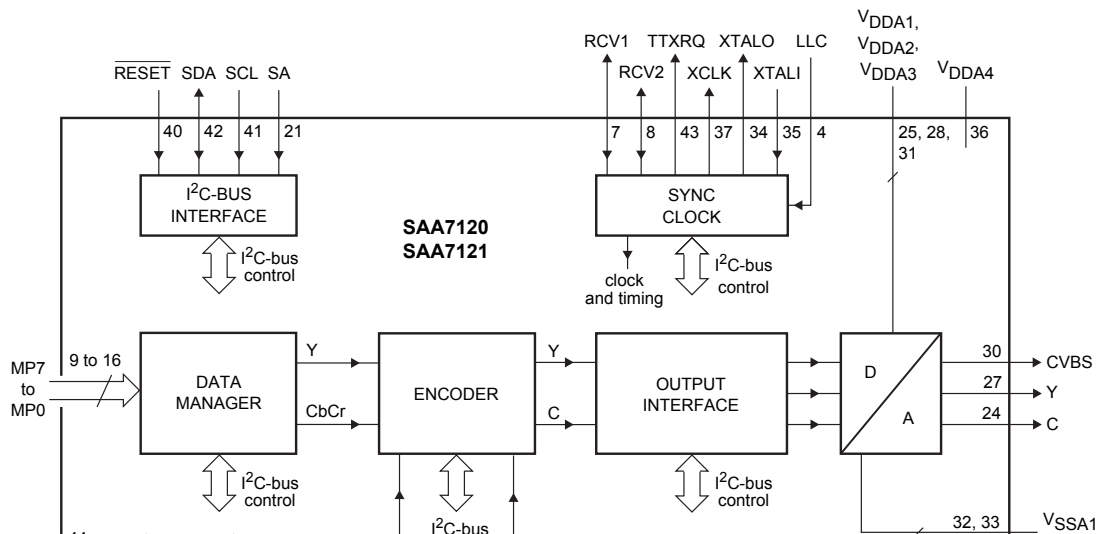
LAN8700 Pin Description

PIN NO.	PIN NAME	PIN NO.	PIN NAME
1	nINT/TX_ER/TXD4	19	RX_DV
2	MDC	20	RX_CLK/REGOFF
3	CRS/PHYAD4	21	RX_ER/RXD4
4	MDIO	22	TXCLK
5	nRST	23	TXD0
6	TX_EN	24	TXD1
7	VDD33	25	VDDIO
8	VDD_CORE	26	TXD2
9	SPEED100/PHYAD0	27	TXD3
10	LINK/PHYAD1	28	TXN
11	ACTIVITY/PHYAD2	29	TXP
12	FDUPLEX/PHYAD3	30	VDDA3.3
13	XTAL2	31	RXN
14	CLKIN/XTAL1	32	RXP
15	RXD3/nINTSEL	33	VDDA3.3
16	RXD2/MODE2	34	EXRES1
17	RXD1/MODE1	35	VDDA3.3
18	RXD0/MODE0	36	COL/RMII/CRS_DV

SA7121 (HDMI : U4203)



SA7121 Block Diagram

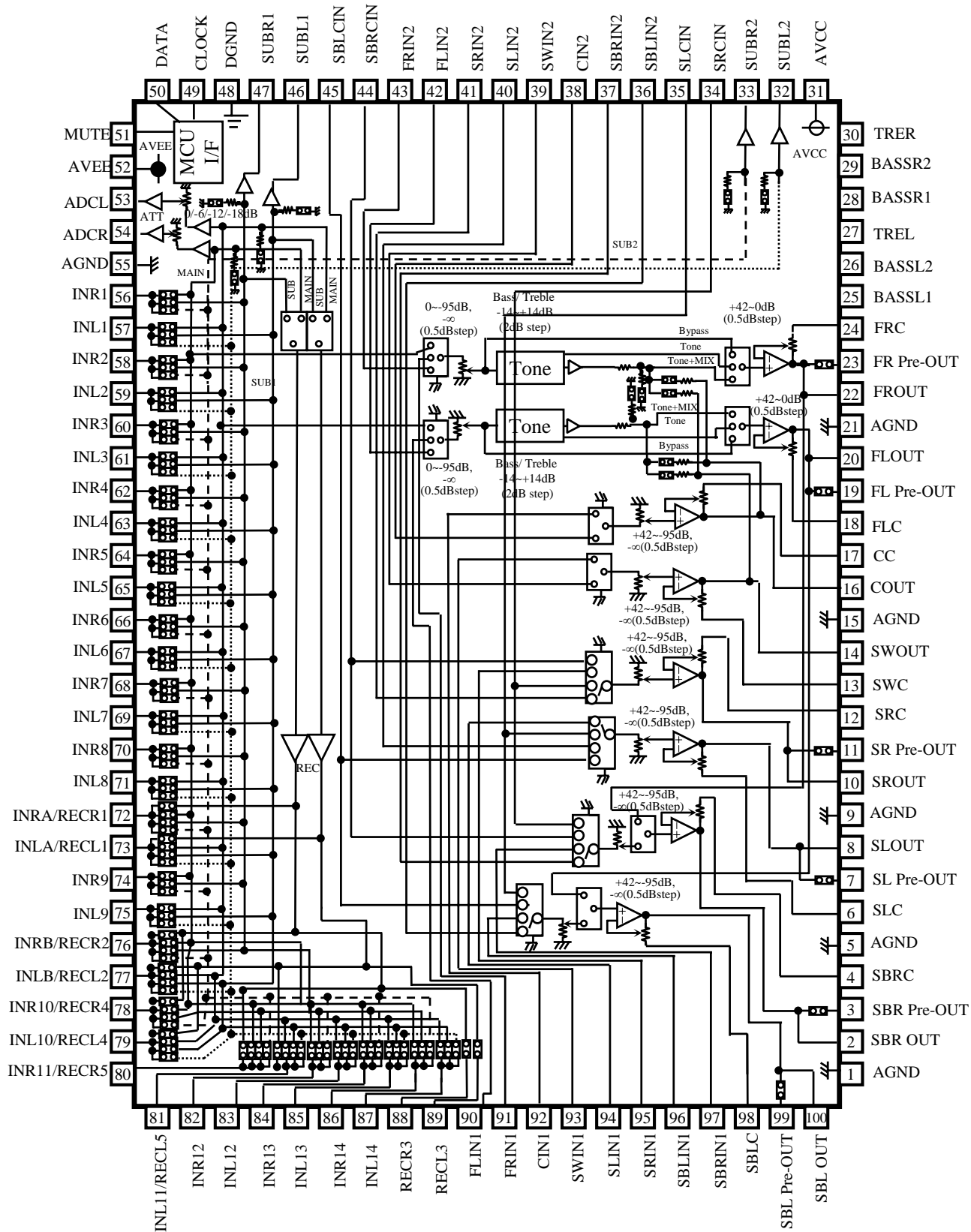


VSSD3	38	I	digital ground 3
VDD3	39	I	digital supply voltage 3
RESET	40	I	reset input, active LOW; after reset is applied, all digital I/Os are in input mode; the I²C-bus receiver waits for the START condition
SCL	41	I	I²C-bus serial clock input
SDA	42	I/O	I²C-bus serial data input/output
TTXRQ	43	O	teletext request output, indicating when bit stream is valid
TTX	44	I	teletext bit stream input

SA7121 Pin Description

SYMBOL	PIN	I/O	DESCRIPTION
res.	1	–	reserved
SP	2	I	test pin; connected to digital ground for normal operation
AP	3	I	test pin; connected to digital ground for normal operation
LLC	4	I	line-locked clock; this is the 27 MHz master clock for the encoder
V _{SSD1}	5	I	digital ground 1
V _{DD1}	6	I	digital supply voltage 1
RCV1	7	I/O	raster control 1 for video port; this pin receives/provides a VS/FS/FSEQ signal
RCV2	8	I/O	raster control 2 for video port; this pin provides an HS pulse of programmable length or receives an HS pulse
MP7	9	I	MPEG port; it is an input for "CCIR 656" style multiplexed Cb Y, Cr data
MP6	10	I	
MP5	11	I	
MP4	12	I	
MP3	13	I	
MP2	14	I	
MP1	15	I	
MP0	16	I	
V _{DD2}	17	I	digital supply voltage 2
V _{SS2}	18	I	digital ground 2
RTCI	19	I	Real Time Control input; if the LLC clock is provided by an SAA7111 or SAA7151B, RTCI should be connected to pin RTCO of the decoder to improve the signal quality
res.	20	–	reserved
SA	21	I	the I ² C-bus slave address select input pin; LOW: slave address = 88H, HIGH = 8CH
res.	22	–	reserved
res.	23	–	reserved
C	24	O	analog output of the chrominance signal
V _{DDA1}	25	I	analog supply voltage 1 for the C DAC
res.	26	–	reserved
Y	27	O	analog output of VBS signal
V _{DDA2}	28	I	analog supply voltage 2 for the Y DAC
res.	29	–	reserved
CVBS	30	O	analog output of the CVBS signal
V _{DDA3}	31	I	analog supply voltage 3 for the CVBS DAC
V _{SSA1}	32	I	analog ground 1 for the DACs
V _{SSA2}	33	I	analog ground 2 for the oscillator and reference voltage
XTALO	34	O	crystal oscillator output (to crystal)
XTALI	35	I	crystal oscillator input (from crystal); if the oscillator is not used, this pin should be connected to ground
V _{DDA4}	36	I	analog supply voltage 4 for the oscillator and reference voltage
XCLK	37	O	clock output of the crystal oscillator

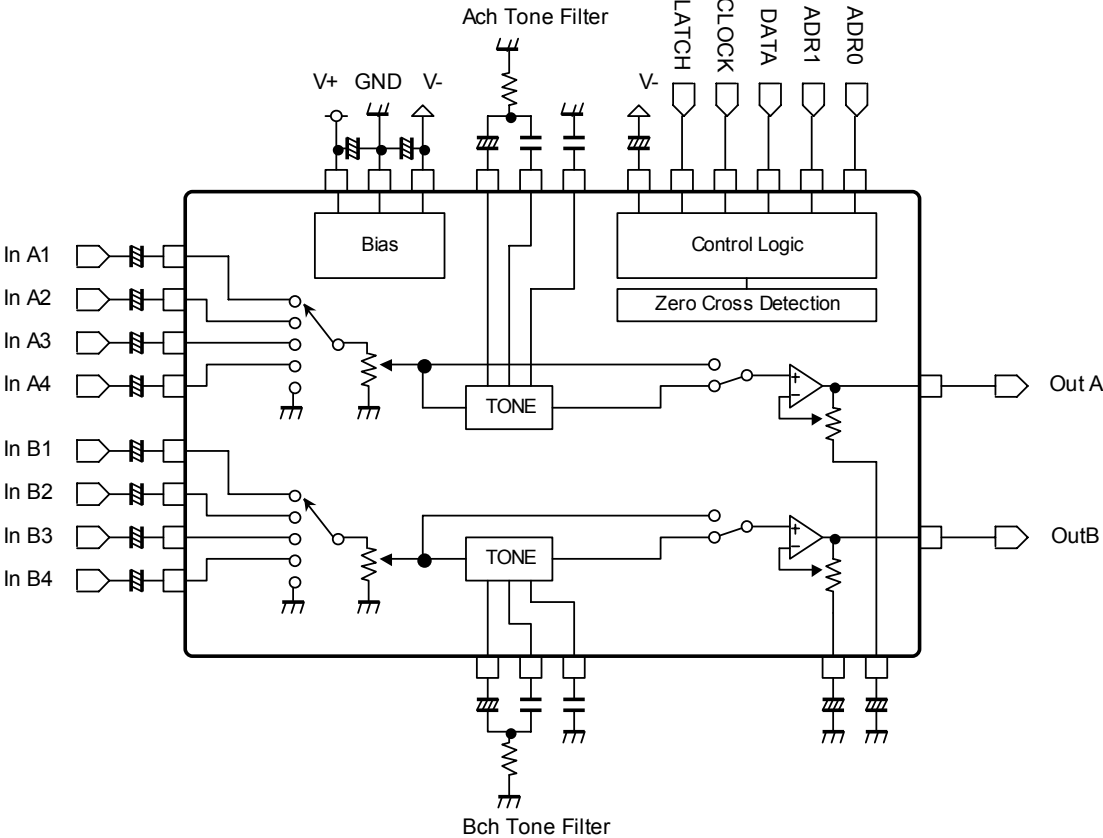
R2A15220FP (AUDIO : IC3003)



R2A15220FP Pin Function

PIN No.	Name	Function
22,20, 16,14, 10, 8, 2, 100	FROUT,FLOUT, COUT,SWOUT, SROUT, SLOUT, SBROUT,SBLOUT	Output pin of FL/FR/C/SW/SL/SR/SBL/SBR channel
23,19, 11, 7, 3, 99	FR Pre-out,FL Pre-out, SR Pre-out, SL Pre-out, SBR Pre-out,SBL Pre-out	Pre-output pin of FL/FR/SL/SR/SBL/SBR channel
24,18, 17,13, 12, 6, 4, 98	FRC,FLC, CC,SWC, SRC,SLC, SBRC,SBLC	Connects capacitor for reducing click noise of L/R/C/SW/SL/SR/SBL/SBR channel volume
1,5,9,15, 21,55,98	AGND	Analog ground of internal circuit
27,30	TREL, TRER	Frequency characteristic setting pin of L/R channel tone control (Treble)
25,26, 28,29	BASSL1,BASSL2 BASSR1,BASSR2	Frequency characteristic setting pin of L/R channel tone control (Bass)
31	AVCC	Positive power supply to internal circuit
43,42, 41,40, 39,38, 37,36	FRIN2, FLIN2, SRN2,SLIN2, SWIN2,CIN2, SBRIN2,SBLIN2	Multi Input pin of L/R/C/SW/SL/SR/SBL/SBR channel (Multi IN 1/2)
90,91, 92,93, 94,95, 96,97	FLIN1, FRIN1, CIN1,SWIN1, SLIN1,SRIN1, SBLIN1,SBRIN1	
48	DGND	Digital ground of internal circuit
49	DATA	Input pin of control data
50	CLOCK	Input pin of control clock
52	AVEE	Negative power supply to internal circuit
57,59,61,63, 65,67,69,71, 75,83,85,87	INL1,INL2, INL3,INL4, INL5,INL6,INL7,INL8, INL9,INL12,INL13,INL14	Input pin of L/R channel (Input Selector)
56,58,60,62, 64,66,68,70, 74,82,84,86	INR1,INR2, INR3,INR4, INR5,INR6,INR7,INR8, INR9,INR12,INR13,INR14	
51	MUTE	Outside Mute Control PIN
44,45 34,35	SBRCIN,SBLCIN SRCIN,SLCIN	3 rd Multi Input pin for SBL/SBR/SL/SR channel Volume that is able to swap SBR/SBL with SR/SL
46,47 33,32	SUBL1,SUBR1 SUBL2,SUBR2	Output pin for L/R channel SUB1/SUB2 Output
53,54	ADCL, ADCR	Output pin for L/R channel ADC
88,89	RECR3,RECL3	Output pin for L/R channel REC Output
72,73, 76,77, 78,79 80,81	INRA/RECR1,INLA/RECL1, INRB/RECR2,INLB/RECL2, INR10/RECR4,INL10/RECL4, INR11/RECR5,INL11/RECL5	Input pin of L/R channel (Input Selector)/ Output pin for L/R channel REC Output

NJW1194A (AUDIO : IC3007,IC3011)



ANODE CONNECTION

	1G~16G	17G	18G	19G
D0A	1-1A	-	-	-
D1A	2-1A	-	-	-
D2A	3-1A	-	-	-
D3A	4-1A	-	-	-
D4A	5-1A	-	-	-
D5A	1-2A	-	-	-
D6A	2-2A	-	-	-
D7A	3-2A	-	-	-
D8A	4-2A	-	-	-
D9A	5-2A	-	-	-
D10A	1-3A	-	-	-
D11A	2-3A	-	-	dB
D12A	3-3A	-	-	Dp
D13A	4-3A	-	-	3d
D14A	5-3A	-	-	3e
D15A	1-4A	-	-	3c
D16A	2-4A	-	-	3g
D17A	3-4A	-	-	3f
D18A	4-4A	-	-	3b
D19A	5-4A	-	-	3a
D20A	1-5A	-	-	2d
D21A	2-5A	-	-	2e
D22A	3-5A	-	-	2c
D23A	4-5A	-	-	2g
D24A	5-5A	-	-	2f
D25A	1-6A	-	-	2b
D26A	2-6A	-	-	2a
D27A	3-6A	-	-	1d
D28A	4-6A	Z	-	1e
D29A	5-6A	X	-	1c
D30A	1-7A	II	-	1g
D31A	2-7A	PL	-	1f
D32A	3-7A	+	-	1b
D33A	4-7A	ES	-	1a
D34A	5-7A	HD	-	S2

	1G~16G	17G	18G	19G
D0B	1-1B	REC	-	-
D1B	2-1B	RDS	-	-
D2B	3-1B	AUTO	-	-
D3B	4-1B	TUNED	-	-
D4B	5-1B	DCI	-	-
D5B	1-2B	DCID	-	-
D6B	2-2B	DCI TrueHD	-	-
D7B	3-2B	96/24	-	-
D8B	4-2B	Express	-	-
D9B	5-2B	Nec:6	-	-
D10B	1-3B	STEREO	-	-
D11B	2-3B	MASTER	-	-
D12B	3-3B	-HD	-	MUTE
D13B	4-3B	dts	ATTENDEE	[S]
D14B	5-3B	TAG	ORGANIZER	[Q3]
D15B	1-4B	[MP3]	[PARTY]	[Q2]
D16B	2-4B	[WMA]	EQ	[Q1]
D17B	3-4B	[AAC]	VOL	[W]
D18B	4-4B	[PCM]	DYN	2
D19B	5-4B	[DSD]	XT	1
D20B	1-5B	[ANA]	MULTIEQ	M
D21B	2-5B	[DIG.]	AUDYSSEY	[H]
D22B	3-5B	[RCC]	S1	[SW3]
D23B	4-5B	[EXT2]	[SLEEP]	[SW2]
D24B	5-5B	[EXT1]	[RSTR]	[SW]
D25B	1-6B	[LFE]	[ANA.]	[FR]
D26B	2-6B	[FR]	[DIG.]	[C]
D27B	3-6B	[C]	[HDMI]	[FL]
D28B	4-6B	[FL]	[AUTO]	[SR]
D29B	5-6B	[SR]	[Z4]	B
D30B	1-7B	[S]	[Z3]	A
D31B	2-7B	[SL]	[Z2]	[SL]
D32B	3-7B	[SBR]	[AL24]	[SBR]
D33B	4-7B	[SB]	[D.LINK]	[SB]
D34B	5-7B	[SBL]	[HDMI]	[SBL]

PARTS LIST OF P.C.B. UNIT

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

* Part indicated with the mark "★" is not illustrated in the exploded view.

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

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

E3 : U.S.A. & Canada model

E2 : Europe model

E1C : China model

PCB 7CH_AMP ASS'Y

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
SEMICONDUCTORS GROUP					
Q401,402	00D2710314903	TR 2SA KTA1024Y		J5001024Y0050S	
Q403	00D2710318909	TR 2SA 2N5401S		J520254010010S	
Q405	00D2710318909	TR 2SA 2N5401S		J520254010010S	
Q406	00D2730479909	TR 2SC 2N5551S		J522255510010S	
Q407,408	00D9600196302	TR KTA1268BL		J5001268B0050S	
Q411,412	00D2730471907	TR 2SC KTC3206Y		J5023206Y0050S	
Q413,414	00D2710314903	TR 2SA KTA1024Y		J5001024Y0050S	
Q415	00D2710318909	TR 2SA 2N5401S		J520254010010S	
Q418	00D2730479909	TR 2SC 2N5551S		J522255510010S	
Q419,420	00D9600196302	TR KTA1268BL		J5001268B0050S	
Q423,424	00D2730471907	TR 2SC KTC3206Y		J5023206Y0050S	
Q425,426	00D2710314903	TR 2SA KTA1024Y		J5001024Y0050S	
Q427	00D2710318909	TR 2SA 2N5401S		J520254010010S	
Q430	00D2730479909	TR 2SC 2N5551S		J522255510010S	
Q431,432	00D9600196302	TR KTA1268BL		J5001268B0050S	
Q435,436	00D2730471907	TR 2SC KTC3206Y		J5023206Y0050S	
Q437,438	00D2710314903	TR 2SA KTA1024Y		J5001024Y0050S	
Q439	00D2710318909	TR 2SA 2N5401S		J520254010010S	
Q442	00D2730479909	TR 2SC 2N5551S		J522255510010S	
Q443,444	00D9600196302	TR KTA1268BL		J5001268B0050S	
Q447,448	00D2730471907	TR 2SC KTC3206Y		J5023206Y0050S	
Q449,450	00D2710314903	TR 2SA KTA1024Y		J5001024Y0050S	
Q451	00D2710318909	TR 2SA 2N5401S		J520254010010S	
Q454	00D2730479909	TR 2SC 2N5551S		J522255510010S	
Q455,456	00D9600196302	TR KTA1268BL		J5001268B0050S	
Q459,460	00D2730471907	TR 2SC KTC3206Y		J5023206Y0050S	
Q461,462	00D2710314903	TR 2SA KTA1024Y		J5001024Y0050S	
Q463	00D2710318909	TR 2SA 2N5401S		J520254010010S	
Q466	00D2730479909	TR 2SC 2N5551S		J522255510010S	
Q467,468	00D9600196302	TR KTA1268BL		J5001268B0050S	
Q471,472	00D2730471907	TR 2SC KTC3206Y		J5023206Y0050S	
Q473,474	00D2710314903	TR 2SA KTA1024Y		J5001024Y0050S	
Q475	00D2710318909	TR 2SA 2N5401S		J520254010010S	
Q478	00D2730479909	TR 2SC 2N5551S		J522255510010S	
Q479,480	00D9600196302	TR KTA1268BL		J5001268B0050S	
Q483,484	00D2730471907	TR 2SC KTC3206Y		J5023206Y0050S	
D401-442	00D2760401905	D,SWITCHING 1SS133T		K000013300520S	
D457,458	00D9630355401	D,SWITCHING KDS4148U		K005041480030S	
ZD401	00D2760643983	D,ZENER MTZJ5.1A		K06005R134520S	
ZD402,403	00D2760760934	D,ZENER MTZJ4.7B		K06004R744520S	
ZD404	00D2760643983	D,ZENER MTZJ5.1A		K06005R134520S	
ZD405,406	00D2760760934	D,ZENER MTZJ4.7B		K06004R744520S	
ZD407	00D2760643983	D,ZENER MTZJ5.1A		K06005R134520S	
ZD408,409	00D2760760934	D,ZENER MTZJ4.7B		K06004R744520S	
ZD410	00D2760643983	D,ZENER MTZJ5.1A		K06005R134520S	
ZD411,412	00D2760760934	D,ZENER MTZJ4.7B		K06004R744520S	
ZD413	00D2760643983	D,ZENER MTZJ5.1A		K06005R134520S	
ZD414,415	00D2760760934	D,ZENER MTZJ4.7B		K06004R744520S	
ZD416	00D2760643983	D,ZENER MTZJ5.1A		K06005R134520S	
ZD417,418	00D2760760934	D,ZENER MTZJ4.7B		K06004R744520S	
ZD419	00D2760643983	D,ZENER MTZJ5.1A		K06005R134520S	
ZD420,421	00D2760760934	D,ZENER MTZJ4.7B		K06004R744520S	



Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
RESISTORS GROUP					
R403	nsp	R,METAL FILM 270-J,1W		C060027165060S	
R405	nsp	R,METAL FILM 270-J,1W		C060027165060S	
R406	252310006506S	POSISTOR PRF18BB471QB5RB		F320184710051S	
R415	nsp	R,METAL FILM 22-J,1W		C060022065050S	
R418	963125010690S	R,METAL FILM 15K-J,2W		C060015366050S	
R424,425	nsp	R,FIXED 2WJ-0.47		N113136647820S	
R430,431	nsp	R,FIXED 2WJ-0.47		N113136647820S	
R434	nsp	R,METAL FILM 3.3K-J,1W		C060033265050S	
R439	90M-GA000220R	R,METAL FILM 22-J,1W		C060022065050S	
R441,442	nsp	R,METAL FILM 1K-J,1W		C060010265050S	
R443	nsp	R,METAL FILM 270-J,1W		C060027165060S	
R447,448	nsp	R,METAL FILM 270-J,1W		C060027165060S	
R449	252310006520S	POSISTOR PRF18BD471QB5RB		F320184710150S	
R450	252310006506S	POSISTOR PRF18BB471QB5RB		F320184710051S	
R458	nsp	R,METAL FILM 22-J,1W		C060022065050S	
R461	963125010690S	R,METAL FILM 15K-J,2W		C060015366050S	
R464	252310006520S	POSISTOR PRF18BD471QB5RB		F320184710150S	
R467,468	nsp	R,FIXED 2WJ-0.47		N113136647820S	
R474,475	nsp	R,FIXED 2WJ-0.47		N113136647820S	
R478	nsp	R,METAL FILM 3.3K-J,1W		C060033265050S	
R483	nsp	R,METAL FILM 22-J,1W		C060022065050S	
R485,486	nsp	R,METAL FILM 1K-J,1W		C060010265050S	
R487	nsp	R,METAL FILM 270-J,1W		C060027165060S	
R491,492	nsp	R,METAL FILM 270-J,1W		C060027165060S	
R494	252310006506S	POSISTOR PRF18BB471QB5RB		F320184710051S	
R502	nsp	R,METAL FILM 22-J,1W		C060022065050S	
R505	963125010690S	R,METAL FILM 15K-J,2W		C060015366050S	
R511,512	nsp	R,FIXED 2WJ-0.47		N113136647820S	
R517,518	nsp	R,FIXED 2WJ-0.47		N113136647820S	
R521	nsp	R,METAL FILM 3.3K-J,1W		C060033265050S	
R526	nsp	R,METAL FILM 22-J,1W		C060022065050S	
R528,529	nsp	R,METAL FILM 1K-J,1W		C060010265050S	
R530	nsp	R,METAL FILM 270-J,1W		C060027165060S	
R533	nsp	R,METAL FILM 270-J,1W		C060027165060S	
R535	nsp	R,METAL FILM 270-J,1W		C060027165060S	
R537	252310006506S	POSISTOR PRF18BB471QB5RB		F320184710051S	
R545	nsp	R,METAL FILM 22-J,1W		C060022065050S	
R548	963125010690S	R,METAL FILM 15K-J,2W		C060015366050S	
R548,555	nsp	R,FIXED 2WJ-0.47		N113136647820S	
R561,562	nsp	R,FIXED 2WJ-0.47		N113136647820S	
R564	nsp	R,METAL FILM 3.3K-J,1W		C060033265050S	
R569	nsp	R,METAL FILM 22-J,1W		C060022065050S	
R571,572	nsp	R,METAL FILM 1K-J,1W		C060010265050S	
R573	nsp	R,METAL FILM 270-J,1W		C060027165060S	
R576	nsp	R,METAL FILM 270-J,1W		C060027165060S	
R578	nsp	R,METAL FILM 270-J,1W		C060027165060S	
R580	252310006506S	POSISTOR PRF18BB471QB5RB		F320184710051S	
R588	nsp	R,METAL FILM 22-J,1W		C060022065050S	
R591	963125010690S	R,METAL FILM 15K-J,2W		C060015366050S	
R597,598	nsp	R,FIXED 2WJ-0.47		N113136647820S	
R603,604	nsp	R,FIXED 2WJ-0.47		N113136647820S	
R607	nsp	R,METAL FILM 3.3K-J,1W		C060033265050S	
R612	nsp	R,METAL FILM 22-J,1W		C060022065050S	
R614,615	nsp	R,METAL FILM 1K-J,1W		C060010265050S	
R616	nsp	R,METAL FILM 270-J,1W		C060027165060S	
R619	nsp	R,METAL FILM 270-J,1W		C060027165060S	
R621	nsp	R,METAL FILM 270-J,1W		C060027165060S	
R623	252310006506S	POSISTOR PRF18BB471QB5RB		F320184710051S	
R631	nsp	R,METAL FILM 22-J,1W		C060022065050S	
R634	963125010690S	R,METAL FILM 15K-J,2W		C060015366050S	
R640,641	nsp	R,FIXED 2WJ-0.47		N113136647820S	
R646,647	nsp	R,FIXED 2WJ-0.47		N113136647820S	
R650	nsp	R,METAL FILM 3.3K-J,1W		C060033265050S	
R655	nsp	R,METAL FILM 22-J,1W		C060022065050S	
R657,658	nsp	R,METAL FILM 1K-J,1W		C060010265050S	
R659	nsp	R,METAL FILM 270-J,1W		C060027165060S	

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
R662	nsp	R,METAL FILM 270-J,1W		C060027165060S	
R664	nsp	R,METAL FILM 270-J,1W		C060027165060S	
R666	252310006506S	POSISTOR PRF18BB471QB5RB		F320184710051S	
R674	nsp	R,METAL FILM 22-J,1W		C060022065050S	
R677	963125010690S	R,METAL FILM 15K-J,2W		C060015366050S	
R683,684	nsp	R,FIXED 2WJ-0.47		N113136647820S	
R689,690	nsp	R,FIXED 2WJ-0.47		N113136647820S	
R694	nsp	R,METAL FILM 3.3K-J,1W		C060033265050S	
R698	nsp	R,METAL FILM 22-J,1W		C060022065050S	
R700,701	nsp	R,METAL FILM 1K-J,1W		C060010265050S	
R702	nsp	R,METAL FILM 270-J,1W		C060027165060S	
VR401-407	nsp	VR,SEMI CARBON EVN-DCAA03B 1KB		C541102315000S	
CAPACITORS GROUP					
C401	nsp	C,CERAMIC 0.1UF-K/50V		D011104577160S	
C403	nsp	C,CERAMIC 0.01UF-K/50V		D010103777160S	
C405	nsp	C,CERAMIC 220PF-J/50V		D010221167160S	
C406	nsp	C,CERAMIC SL220PF-J/500V		D00022106D051S	
C407	00D9630234506	C,ELECT 47UF-M/50V (Pb Free)		D040470087070S	
C408	00D9630224503	C,ELECT 22UF-M/50V		D040220087060S	
C409	nsp	C,CERAMIC SL220PF-J/500V		D00022106D051S	
C410	00D9609009937	C,ELECT 100UF-M/50V		D040101087060S	
C411,412	nsp	C,CERAMIC 470PF-K/500V		D00447127D050S	
C413	nsp	C,CERAMIC X7R2200PF-K/50V		D011222777200S	
C415,416	00D9630234302	C,ELECT 10UF-M/100V		D04010008C050S	
C418	nsp	C,CERAMIC 0.1UF-K/50V		D011104577160S	
C421	nsp	C,CERAMIC 220PF-J/50V		D010221167160S	
C422	nsp	C,CERAMIC SL220PF-J/500V		D00022106D051S	
C423	00D9630234506	C,ELECT 47UF-M/50V (Pb Free)		D040470087070S	
C424	00D9630224503	C,ELECT 22UF-M/50V		D040220087060S	
C425	nsp	C,CERAMIC SL220PF-J/500V		D00022106D051S	
C426	00D9609009937	C,ELECT 100UF-M/50V		D040101087060S	
C427,428	nsp	C,CERAMIC 470PF-K/500V		D00447127D050S	
C429	nsp	C,CERAMIC X7R2200PF-K/50V		D011222777200S	
C431,432	00D9630234302	C,ELECT 10UF-M/100V	E3, E1C	D04010008C050S	
C434	nsp	C,CERAMIC 0.1UF-K/50V		D011104577160S	
C437	nsp	C,CERAMIC 220PF-J/50V		D010221167160S	
C438	nsp	C,CERAMIC SL220PF-J/500V		D00022106D051S	
C439	00D9630234506	C,ELECT 47UF-M/50V (Pb Free)		D040470087070S	
C440	00D9630224503	C,ELECT 22UF-M/50V		D040220087060S	
C441	nsp	C,CERAMIC SL220PF-J/500V		D00022106D051S	
C442	00D9609009937	C,ELECT 100UF-M/50V		D040101087060S	
C443,444	nsp	C,CERAMIC 470PF-K/500V		D00447127D050S	
C445	nsp	C,CERAMIC X7R2200PF-K/50V		D011222777200S	
C447,448	00D9630234302	C,ELECT 10UF-M/100V	E3, E1C	D04010008C050S	
C450	nsp	C,CERAMIC 0.1UF-K/50V		D011104577160S	
C453	nsp	C,CERAMIC 220PF-J/50V		D010221167160S	
C454	nsp	C,CERAMIC SL220PF-J/500V		D00022106D051S	
C455	00D9630234506	C,ELECT 47UF-M/50V (Pb Free)		D040470087070S	
C456	00D9630224503	C,ELECT 22UF-M/50V		D040220087060S	
C457	nsp	C,CERAMIC SL220PF-J/500V		D00022106D051S	
C458	00D9609009937	C,ELECT 100UF-M/50V		D040101087060S	
C459,460	nsp	C,CERAMIC 470PF-K/500V		D00447127D050S	
C461	nsp	C,CERAMIC X7R2200PF-K/50V		D011222777200S	
C463,464	00D9630234302	C,ELECT 10UF-M/100V	E3, E1C	D04010008C050S	
C466	nsp	C,CERAMIC 0.1UF-K/50V		D011104577160S	
C469	nsp	C,CERAMIC 220PF-J/50V		D010221167160S	
C470	nsp	C,CERAMIC SL220PF-J/500V		D00022106D051S	
C471	00D9630234506	C,ELECT 47UF-M/50V (Pb Free)		D040470087070S	
C472	00D9630224503	C,ELECT 22UF-M/50V		D040220087060S	
C473	nsp	C,CERAMIC SL220PF-J/500V		D00022106D051S	
C474	00D9609009937	C,ELECT 100UF-M/50V		D040101087060S	
C475,476	nsp	C,CERAMIC 470PF-K/500V		D00447127D050S	
C477	nsp	C,CERAMIC X7R2200PF-K/50V		D011222777200S	
C479,480	00D9630234302	C,ELECT 10UF-M/100V		D04010008C050S	

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
C482	nsp	C,CERAMIC 0.1UF-K/50V		D011104577160S	
C485	nsp	C,CERAMIC 220PF-J/50V		D010221167160S	
C486	nsp	C,CERAMIC SL220PF-J/500V		D00022106D051S	
C487	00D9630234506	C,ELECT 47UF-M/50V (Pb Free)		D040470087070S	
C488	00D9630224503	C,ELECT 22UF-M/50V		D040220087060S	
C489	nsp	C,CERAMIC SL220PF-J/500V		D00022106D051S	
C490	00D9609009937	C,ELECT 100UF-M/50V		D040101087060S	
C491,492	nsp	C,CERAMIC 470PF-K/500V		D00447127D050S	
C493	nsp	C,CERAMIC X7R2200PF-K/50V		D011222777200S	
C495,496	00D9630234302	C,ELECT 10UF-M/100V	E3, E1C	D04010008C050S	
C498	nsp	C,CERAMIC 0.01UF-K/50V		D011104577160S	
C501	nsp	C,CERAMIC 220PF-J/50V		D010221167160S	
C502	nsp	C,CERAMIC SL220PF-J/500V		D00022106D051S	
C503	00D9630234506	C,ELECT 47UF-M/50V (Pb Free)		D040470087070S	
C504	00D9630224503	C,ELECT 22UF-M/50V		D040220087060S	
C505	nsp	C,CERAMIC SL220PF-J/500V		D00022106D051S	
C506	00D9609009937	C,ELECT 100UF-M/50V		D040101087060S	
C507,508	nsp	C,CERAMIC 470PF-K/500V		D00447127D050S	
C509	nsp	C,CERAMIC X7R2200PF-K/50V		D011222777200S	
C511,512	00D9630234302	C,ELECT 10UF-M/100V		D04010008C050S	
C513,514	00D9630338402	C,ELECT 330UF-M/6.3V		D040331081050S	
C515	00D9630324607	C,ELECT 47UF-M/10V		D040470082060S	
OTHERS PARTS GROUP					
BKT400	nsp	BRACKET 0.8t/SCREW		4010210196100S	
CLAMP400,401	nsp	CLAMP WIRE(SOLDER)		4330000120000S	
CN404	nsp	CN.WIRE 5P		L002251052620S	*
CP401	nsp	CN.WAFER 13P 20010WS		L101200101310S	
CP402	nsp	CN.WAFER 5P 5267		L102526700500S	
CP403	nsp	CN.WAFER 10P 20010WS		L101200101010S	
CP405	nsp	CN.WAFER 3P 5267		L102526700300S	
G400-402	nsp	CN,WIRE 1P		L000600010050S	*
TP401-407	nsp	CN.WAFER 3P 20010WR		L101200100320S	

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PCB SPK ASS'Y 

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
SEMICONDUCTORS GROUP					
	IC100	963239010480S	IC PC123X2YFZ (DIP4P SHARP)		
	IC102	231010091708S	IC TOP258MG		*
	IC116	212050010508S	IC KIA2431AP		
	Q1-5	00D9630120704	TR KRA102S(PB)		
	Q7	00D9630120704	TR KRA102S(PB)		
	Q8-12	00D9630120801	TR 2SC KRC102S (NB)		
	Q14	00D9630120801	TR 2SC KRC102S (NB)		
	Q20	00D9630120704	TR KRA102S(PB)		
	Q21	00D9630120801	TR 2SC KRC102S (NB)		
	D1-5	00D9630355401	D,SWITCHING KDS4148U		
	D7	00D9630355401	D,SWITCHING KDS4148U		
	D8	00D2760401905	D,SWITCHING 1SS133T		
	D9,10	963209011740S	D,RECTIFIER BRIDGE D3SB60-5000		
	D11	00D9630355401	D,SWITCHING KDS4148U		
	D100-102	00D9630328409	D,SWITCHING 1N4007		
	D103	203050018706S	D,SCHOTTKY D25SC6M 60V 25A		
	D104-106	00D9630328409	D,SWITCHING 1N4007		
	D108	963209010430S	D,FAST RECOVERY AP01C-V1 52RE-AX		
	D109,110	00D9630328409	D,SWITCHING 1N4007		
	D112	00D2760401905	D,SWITCHING 1SS133T		
	ZD100	963202010440S	D,ZENER MTZJ22B		
	ZD101	00D2760762958	D,ZENER MTZJ39B	E3	
	ZD102	963202010440S	D,ZENER MTZJ22B		
	ZD103	00D2760762958	D,ZENER MTZJ39B	E3	
	ZD104	963202010440S	D,ZENER MTZJ22B		
	ZD105	00D2760762958	D,ZENER MTZJ39B	E3	
	ZD106,107	963202010440S	D,ZENER MTZJ22B		
	ZD108,109	00D2760762958	D,ZENER MTZJ39B	E3	
	ZD110	963202010440S	D,ZENER MTZJ22B	E3	
	ZD110	00D2760762958	D,ZENER MTZJ39B	E2, E1C	
	ZD111	00D2760762958	D,ZENER MTZJ39B	E2, E1C	
	ZD112	963202010440S	D,ZENER MTZJ22B		
	ZD113	00D2760762958	D,ZENER MTZJ39B	E2, E1C	
	ZD114	00D9600095607	D,ZENER MTZJ5.6B		
	ZD115	00D2760762958	D,ZENER MTZJ39B		
	ZD116	00D2760762958	D,ZENER MTZJ39B	E2, E1C	
	ZD117,118	963202010440S	D,ZENER MTZJ22B		
	ZD119	00D2760762958	D,ZENER MTZJ39B	E2, E1C	
RESISTORS GROUP					
	R5-18	963125010100S	R,METAL FILM 10-J 2W		
	R28-33	00D9630310404	R,METAL FILM 2.2K-J,1W		
	R34	nsp	R,METAL FILM 10K-J,1/4W		
	R35,36	nsp	R,METAL FILM 47K-J,1/4W	E3, E1C	
	R35,36	nsp	R,METAL FILM 470K-J,1/4W	E2	
	R37,38	963125010110S	R,METAL FILM 470-J,2W		
CAPACITORS GROUP					
	C1	nsp	C,FILM MI-0.047UF-J/50V		
	C2	nsp	C,CERAMIC 2200PF-K/50V		
	C3,4	nsp	C,FILM MI-0.047UF-J/50V		
	C5	nsp	C,CERAMIC 2200PF-K/50V		
	C6	nsp	C,FILM MI-0.047UF-J/50V		
	C7	nsp	C,CERAMIC 2200PF-K/50V		
	C8,9	nsp	C,FILM MI-0.047UF-J/50V		
	C10	nsp	C,CERAMIC 2200PF-K/50V		
	C11,12	nsp	C,FILM MI-0.047UF-J/50V		
	C13	nsp	C,CERAMIC 2200PF-K/50V		
	C14	nsp	C,FILM MI-0.047UF-J/50V		

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
C15	nsp	C,CERAMIC 2200PF-K/50V		D011222777160S	
C16,17	nsp	C,FILM MI-0.047UF-J/50V		D020473167050S	
C18	nsp	C,CERAMIC 2200PF-K/50V		D011222777160S	
C19	nsp	C,FILM MI-0.047UF-J/50V		D020473167050S	
C20	nsp	C,CERAMIC 2200PF-K/50V		D011222777160S	
C21,22	nsp	C,FILM MI-0.047UF-J/50V		D020473167050S	
C23	nsp	C,CERAMIC 2200PF-K/50V		D011222777160S	
C24,25	nsp	C,FILM MI-0.047UF-J/50V		D020473167050S	
C27	nsp	C,CERAMIC 1000PF-K/50V		D011102777160S	
C30	nsp	C,CERAMIC 1000PF-K/50V		D011102777160S	
C33	nsp	C,CERAMIC 1000PF-K/50V		D011102777160S	
C36	nsp	C,CERAMIC 1000PF-K/50V		D011102777160S	
C39	nsp	C,CERAMIC 1000PF-K/50V		D011102777160S	
C42	nsp	C,CERAMIC 1000PF-K/50V		D011102777160S	
C45	nsp	C,CERAMIC 1000PF-K/50V		D011102777160S	
C48	nsp	C,CERAMIC 1000PF-K/50V		D011102777160S	
C51	nsp	C,CERAMIC 1000PF-K/50V		D011102777160S	
C53	00D9609009937	C,ELECT 100UF-M/50V		D040101087060S	
C54	nsp	C,FILM 0.1UF-K/250V		D02010407H080S	
C55	963134010180S	C,ELECT 12000UF-M/71V		D040123089550S	
C56	nsp	C,CERAMIC 2200PF-K/50V		D011222777160S	
C57	00D9630234205	C,ELECT 10UF-M/50V		D040100087070S	
C58	963134010180S	C,ELECT 12000UF-M/71V		D040123089550S	
C59	nsp	C,CERAMIC 2200PF-K/50V		D011222777160S	
C60	00D9630244606	C,ELECT 0.1UF-M/50V (Pb Free)		D040R10087080S	
C61	nsp	C,FILM 0.1UF-K/250V		D02010407H080S	
C63	nsp	C,CERAMIC 1000PF-K/50V		D011102777160S	
C84,85	nsp	C,FILM MI-0.047UF-J/50V		D020473167050S	
C87	nsp	C,CERAMIC 1000PF-K/50V		D011102777160S	
C90	nsp	C,CERAMIC 1000PF-K/50V		D011102777160S	
△ C100	963132010140S	C,CERAMIC ECQU2A104ML 0.1UF		D00810408H000S	
C102	963134010200S	C,ELECT 100UF-M/400V		D04110108K000S	
C103	963132010120S	C,CERAMIC DEHR33A102KB2B		D00810207Q010S	
△ C104,105	963134011730S	C,CERAMIC DE1B3KX471KB4BL01		D00847127H010S	
C106-108	963134010220S	C,ELECT5600UF-M/6.3V		D041562081001S	
C110	nsp	C,CERAMIC 0.1UF-K/25V		D011104774161S	
C111	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C112	963134010190S	C,ELECT 10UF-M/50V		D041100087050S	
C113	nsp	C,CERAMIC 0.1UF-K/25V		D011104774161S	
C115	963132011930S	C,CERAMIC DE1E3KX222MB4BL01		D00822248H010S	
C116	nsp	C,CERAMIC 0.1UF-K/25V		D011104774161S	
C117	963132011940S	C,CERAMIC DE2F3KY103MB3BM02		D008103589010S	
C118	nsp	C,CERAMIC 0.1UF-K/25V		D011104774161S	
C119	963134010210S	C,ELECT 47UF-M/25V		D041470084050S	
C120-123	nsp	C,CERAMIC 0.1UF-K/25V		D011104774161S	
C131,133	963132011940S	C,CERAMIC DE2F3KY103MB3BM02		D008103589010S	
OTHERS PARTS GROUP					
BKT1-3	nsp	BRACKET t1.0+Sn plating /PCB MTG		4010214876000S	
BKT101	nsp	BRACKET SCREW		4010210196000S	
CLAMP3	nsp	CLAMP WIRE(SOLDER)		4330000120000S	
CN1	nsp	CN,WIRE 230MM/5P		L000231050050S	
CN2	nsp	CN,WIRE 670MM/2P		L000671020050S	
CN3	nsp	CN,WIRE 2MM 170MM/10P		L002171100050S	
CN13	nsp	CN,WIRE 130MM/6P		L000131062050S	
CP1	nsp	CN.WAFER 3CKT		L108353280360S	
CP12	nsp	CN.FPC 1.25MM 19P		L131019100010S	
CP13	nsp	CN.WAFER 6P 5267		L102526700600S	
CP22	nsp	CN.WAFER 5P TUC-P P		L101100040510S	
CX102	nsp	CN.WAFER 7.92MM		L108353280290S	
CX104	nsp	CN.WAFER 5P TUC-P X		L101100030510S	
CX105	nsp	CN,WIRE 370MM/5P		L000371050050S	

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
DZ1	00D9600095801	D,ZENER MTZJ6.8B		K06006R844520S	
RLY1	00D9630218409	RELAY BC3-12 24V 2A		G680240202030S	
RLY2-5	963682002440S	RELAY 12V 5A SPK		G680120502050S	
RLY7,8	963682002440S	RELAY 12V 5A SPK		G680120502050S	
⚠ F100	963652010510S	FUSE T2A/250V	E3	N751502001160S	
⚠ F100	963652010500S	FUSE T1.6A/250V	E2, E1C	N751501601160S	
⚠ F101	963652010520S	FUSE T6.3A/250V	E3	N751506301160S	
⚠ F101	963652010910S	FUSE T3.15A/250V	E2, E1C	N751503151160S	
JACK1	963643010360S	TER,BOARD SCREW 6P JB-602A-02		G613602A0200YS	
JACK2	963646001690S	TER,BOARD SCREW 8P MST-108V1-01		G614108V1010MS	
JACK3	00D9630257208	TER,BOARD SCREW 8P JB-405E(V0)-02		G612405E0200YS	
JACK4,5	963643011140S	TER,BOARD SCREW 2P MST-103V1-03		G611103V1030MS	
⚠ JK100	00D2033958004	SOCKET,POWER AC INLET		G4300152P0001S	
L1-7	nsp	COIL INDUCTOR 0.5UH		D330R50000000S	
⚠ L100	963111010230S	COIL LINE FILTER LF-4ZB-E273H 27mH		D320402730020S	
⚠ RL101	963682010370S	RELAY HL31-1AT-5H 5V 1A		G680050102020S	
⚠ T100	963102010240S	TRANS,SWITCHING ST-4430A		E060044300010S	*
TR100	00D9630255802	TR 2SC KTC3199Y		J5023199Y0010S	
TR101	00D9630255802	TR 2SC KTC3199Y		J5023199Y0010S	
TR102	00D9630255802	TR 2SC KTC3199Y		J5023199Y0010S	
WIRE1	nsp	CN,WIRE 200MM/2P		L000201020150S	*
WIRE5	nsp	CN,WIRE 900MM/2P		L000901020050S	*
	nsp	HOLDER,FUSE CLIP	F100_1	G645000050010S	
	nsp	HOLDER,FUSE CLIP	F100_2	G645000050010S	
	nsp	HOLDER,FUSE CLIP	F101_1	G645000050010S	
	nsp	HOLDER,FUSE CLIP	E2, E1C, F101_2	G645000050010S	
	nsp	LABEL FUSE		5507000006790S	
	nsp	LABEL FUSE	E2, E1C, F101	5507000006800S	

PCB REG_CNT ASS'Y

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
SEMICONDUCTORS GROUP					
IC1	00D2631289900	IC AZ4580M-TRE1-SOIC8P	E3	J121458000020S	
IC103	00D2630809006	IC NJM7805FA		J126780500130S	
IC104	00D2630554005	IC NJM7905FA		J126790500020S	
IC105	00D2630809006	IC NJM7805FA		J126780500130S	
IC106	00D2630810008	IC NJM7808FA		J126780800030S	
IC107	00D2630503001	IC NJM7908FA		J126790800020S	
IC108	963239010770S	IC NJM2388F09	E2, E1C	J126238800090S	
IC109	nsp	IC PQ033DNA1ZPH	E3	J126033010010S	
IC402	00D2631289900	IC AZ4580M-TRE1-SOIC8P	E3	J121458000020S	
IC404	963239008800S	IC ILX3232D		J046323200020S	
IC405,406	nsp	IC PQ120DNA1ZPH		J126120010010S	
D114	00D9630236504	D, SHOTTKY RB721Q		K120072140010S	
D115,116	00D2760401905	D,SWITCHING 1SS133T		K000013300520S	
D117,118	00D9630236504	D, SHOTTKY RB721Q		K120072140010S	
D119-121	00D2760401905	D,SWITCHING 1SS133T		K000013300520S	
D122	00D9630236504	D, SHOTTKY RB721Q		K120072140010S	
D123	00D2760401905	D,SWITCHING 1SS133T	E2, E1C	K000013300520S	
D124-134	00D9630328409	D,SWITCHING 1N4007		K000400700010S	
D137-145	00D9630328409	D,SWITCHING 1N4007		K000400700010S	
ZD117,118	00D9600096004	D,ZENER MTZJ33B		K06033R044520S	
ZD401,402	00D2760665903	D,ZENER MTZJ16B		K06016R044520S	
CAPACITORS GROUP					
C61	nsp	C, CERAMIC 33PF-J/50V	E3	D010330167160S	
C62,63	00D9630234205	C,ELECT 10UF-M/50V	E3	D040100087070S	
C64	nsp	C, CERAMIC 33PF-J/50V	E3	D010330167160S	
C65	nsp	C, CERAMIC 0.1UF-K/50V	E3	D011104577160S	
C66	nsp	C, CERAMIC 1UF-K/16V	E3	D011105173161S	
C67	nsp	C, CERAMIC 33PF-J/50V	E3	D010330167160S	
C68-70	00D9630234205	C,ELECT 10UF-M/50V	E3	D040100087070S	
C71	nsp	C, CERAMIC 0.1UF-K/50V	E3	D011104777200S	
C72	nsp	C, CERAMIC 33PF-J/50V	E3	D010330167160S	
C73	nsp	C, CERAMIC 1UF-K/16V	E3	D011105173161S	
C74	nsp	C, CERAMIC 0.1UF-K/50V	E3	D011104577160S	
C75	00D9630234205	C,ELECT 10UF-M/50V	E3	D040100087070S	
C76-78	nsp	C, CERAMIC 100PF-J/50V	E3	D010101167160S	
C79	nsp	C, CERAMIC 0.1UF-K/50V	E3	D011104577160S	
C80,81	00D9630234205	C,ELECT 10UF-M/50V	E3	D040100087070S	
C126	00D9630217002	C,ELECT 3300UF-M/16V		D040332083010S	
C127,128	00D9630234205	C,ELECT 10UF-M/50V		D040100087070S	
C129	00D9630217002	C,ELECT 3300UF-M/16V		D040332083010S	
C130	00D9630333203	C,ELECT 100UF-M/16V		D040101083090S	
C131	00D9630234205	C,ELECT 10UF-M/50V		D040100087070S	
C132	00D9630333203	C,ELECT 100UF-M/16V		D040101083090S	
C133	90M-OA000500R	C,ELECT 4700UF-M/25V(MHA)		D040472084240S	
C134	00D9630333203	C,ELECT 100UF-M/16V		D040101083090S	
C135	90M-OA000500R	C,ELECT 4700UF-M/25V(MHA)		D040472084240S	
C136	00D9630333203	C,ELECT 100UF-M/16V	E2, E1C	D040101083090S	
C137	00D9630234205	C,ELECT 10UF-M/50V	E2, E1C	D040100087070S	
C138	90M-OA000500R	C,ELECT 4700UF-M/25V(MHA)		D040472084240S	
C142-144	nsp	C,FILM 0.1UF-J/50V		D020104167050S	
C146-148	nsp	C,FILM 0.1UF-J/50V		D020104167050S	
C403, 404	nsp	C, CERAMIC 0.1UF-K/50V	E3	D011104577160S	
C407,408	963134010940S	C,ELECT 10UF-M/16V	E3	D040100083090S	
C427	nsp	C, CERAMIC 0.1UF-K/50V	E3	D011104577160S	
C432-435	00D9630234205	C,ELECT 10UF-M/50V	E3	D040100087070S	
C439, 440	nsp	C, CERAMIC 470PF-K/50V	E3	D011471767160S	
C443	nsp	C, CERAMIC 470PF-K/50V	E3	D011471767160S	
C444	nsp	C, CERAMIC 0.1UF-K/50V	E3	D011104577160S	
C448-451	nsp	C, CERAMIC 0.1UF-K/50V		D011104577160S	
C452	00D9630234205	C,ELECT 10UF-M/50V		D040100087070S	

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
C453	nsp	C, CERAMIC 0.1UF-K/50V		D011104577160S	
C454,455	00D9630234205	C,ELECT 10UF-M/50V		D040100087070S	
C456	nsp	C, CERAMIC 33PF-J/50V		D010330167160S	
C457,458	00D9630234205	C,ELECT 10UF-M/50V		D040100087070S	
C459	nsp	C, CERAMIC 33PF-J/50V		D010330167160S	
C460, 461	nsp	C, CERAMIC 0.1UF-K/50V		D011104577160S	
C467-469	nsp	C, CERAMIC 0.1UF-K/50V		D011104577160S	
OTHERS PARTS GROUP					
BKT100	nsp	BRACKET SCREW		4010210196000S	
BKT401	nsp	BRACKET 0.8t/SCREW		4010210196100S	
CLAMP100	nsp	CLAMP WIRE(SOLDER)		4330000120000S	
CLAMP102	nsp	CLAMP WIRE(SOLDER)		4330000120000S	
CN4	nsp	CN,WAFER 15P C125Z2		L109012521510S	*
CN5	nsp	CN,WAFER 19P C125Z2		L109012521910S	*
CN9	nsp	CN,WAFER 17P C125Z2		L109012521710S	*
CN10	nsp	CN,WAFER 15P C125Z2		L109012521510S	*
CN11	nsp	CN,WAFER 25P C125Z2		L109012522510S	*
CN13	nsp	CN,WIRE 2MM 120MM/13P		L002121130010S	*
CN15	nsp	CN.WAFER 4P 20010HS		L002161040091S	
CN100	nsp	CN,WAFER 13P C125Z2		L109012521310S	*
CN101	nsp	CN,WAFER 11P C125Z2		L109012521110S	*
CN104	nsp	CN,WAFER 27P C125Z2		L109012522710S	*
CN401	nsp	CN,WAFER 11P C125Z2		L109012521110S	*
CN402	nsp	CN,WAFER 15P C125Z1		L109012511510S	*
CN403	nsp	CN,WAFER 19P C125Z1		L109012511910S	*
CP3	nsp	CN,WAFER 11P C125Z1		L109012511110S	*
CP4	nsp	CN,WAFER 25P C125Z1		L109012512510S	*
CP6	nsp	CN,WAFER 19P C125Z1		L109012511910S	*
CP7	nsp	CN,WAFER 17P C125Z1		L109012511710S	*
CP8	nsp	CN,WAFER 15P C125Z1		L109012511510S	*
CP13A	nsp	CN.WAFER 13P 20010WR		L101200101320S	
CP100	nsp	CN,WAFER 13P C125Z1		L109012511310S	*
CP101	nsp	CN,WAFER 11P C125Z1		L109012511110S	*
CP102	nsp	CN.WAFER 4P 5267		L102526700400S	
CP104	nsp	CN.WAFER 3P 5267		L102526700300S	
CP105	nsp	CN,WAFER 19P C125Z1		L109012511910S	*
CP106	nsp	CN,WAFER 17P C125Z1		L109012511710S	*
CP107	nsp	CN,WAFER 13P C125Z1		L109012511310S	*
CP108	nsp	CN,WAFER 19P C125Z1		L109012511910S	*
CP109	nsp	CN,WAFER 17P C125Z1		L109012511710S	*
CP110	nsp	CN.WAFER 33P C125Z1		L109012513310S	*
CP111	nsp	CN,WAFER 19P C125Z1		L109012511910S	*
CP112	nsp	CN,WAFER 17P C125Z1		L109012511710S	*
CP113,114	nsp	CN,WAFER 13P C125Z1		L109012511310S	*
CP115	nsp	CN,WAFER 33P C125Z1		L109012513310S	*
CP401	nsp	CN,WAFER 11P C125Z1		L109012511110S	*
CP801	nsp	CN.FPC 1.25MM 1.25-2-13P 13P ST DIP	E3	L131125021310S	
⚠ F104-108	963652010910S	FUSE T3.15A/250V		N751503151160S	*
JACK402	00D9630333601	JACK,DIN 8P YKF51-5397N	E3	G403515397000S	
JACK404	963643011150S	CN.WAFER 9P FEMALE D-SUB DS03		L103090090030S	
JACK405,406	00D9630325606	JACK,D3.5 PJ-308-02		G40130802001YS	
	nsp	HOLDER,FUSE CLIP PI5.2-REEL	F104A-108A	G645000050010S	
	nsp	HOLDER,FUSE CLIP PI5.2-REEL	F104B-108B	G645000050010S	
	nsp	LABEL FUSE		5507000005090S	

PCB FRONT ASS'Y

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
SEMICONDUCTORS GROUP					
△ IC601	00D9600195808	IC ICP-N15		J120001500030S	
IC602,604	00D2631289900	IC AZ4580M		J121458000020S	
Q601	00D9600285006	TR KRC104S (ND)		J522104S00210S	
Q602	00D9630226705	TR 2SC KTC1027Y		J5021027Y0020S	
Q603	00D9630121402	TR KRA104S		J520010400210S	
Q606	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S	
Q607,608	00D9630328302	TR 2SC KTC3875G(ALG)		J5223875G0210S	
Q609	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S	
Q610	00D2710305909	SEMI KTA1504S		J520015040150S	
Q611	00D9630328302	TR 2SC KTC3875G(ALG)		J5223875G0210S	
Q612	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S	
Q613	00D2710305909	SEMI KTA1504S		J520015040150S	
D601,602	00D9630328409	D,SWITCHING 1N4007		K000400700010S	
D604	00D9630355401	D,SWITCHING KDS4148U		K005041480030S	
D606	00D9630355401	D,SWITCHING KDS4148U		K005041480030S	
D608	00D9630355401	D,SWITCHING KDS4148U		K005041480030S	
D610-613	00D9630355401	D,SWITCHING KDS4148U		K005041480030S	
D614-616	963209003510S	D,ESD CDS3C05HDMI1		K067030500010S	
ZD601	00D9600095801	D,ZENER MTZJ6.8B		K06006R844520S	
ZD602	00D9630046202	D,ZENER MTZJ18B		K06018R044520S	
ZD603	00D2760762903	D,ZENER MTZJ24B		K06024R044520S	
ZD604	00D2760683930	D,ZENER 0.2W 5.1V		K06605R14P400S	
ZD607,608	00D2760683930	D,ZENER 0.2W 5.1V		K06605R14P400S	
LED602	963262010460S	LED SIR-341ST3F 3PI		K505341300010S	
LED604	963263011010S	LED BZ-BB43V4V-2-TBS22A 5PI		K500056000100S	
LED605	00D9630366108	LED BL-BEG204-L 5PI		K500052004010S	
FL601	172010006108D	DISPLAY,FLT 19-ST-02GINK GREEN		K530190020010S	
RESISTORS GROUP					
R607	00D9630215907	4.7-J,1W-R.REEL		C0604R7065050S	
CAPACITORS GROUP					
C601	nsp	C,CERAMIC 0.1UF-K/50V		D011104577160S	
C602	00D9630311209	C,ELECT 10UF-M/50V		D040100087060S	
C603,604	nsp	C,FILM 0.1UF-K/250V		D02010407H080S	
C606	nsp	C,CERAMIC 0.1UF-K/50V		D011104577160S	
C607	00D9630311209	C,ELECT 10UF-M/50V		D040100087060S	
C608	00D9630157900	C,ELECT 470UF-M/63V		D040471088010S	
C609-611	nsp	C,CERAMIC 100PF-J/50V		D010101167160S	
C612	nsp	C,CERAMIC 0.047UF-Z/50V		D011473597160S	
C613	nsp	C,CERAMIC 0.01UF-K/50V		D011103777160S	
C614,615	00D9630293602	C,ELECT 1UF-M/50V (Pb Free)		D040010087150S	
C618	nsp	C,CERAMIC 0.047UF-Z/50V		D011473597160S	
C619	963134010980S	C,ELECT 47UF-M/16V		D040470083060S	
C620	nsp	C,CERAMIC 30PF-J/50V		D010300167160S	
C622	nsp	C,FILM 0.1UF-J/100V		D02010406C060S	
C624	nsp	C,CERAMIC 0.01UF-K/50V		D011103777160S	
C625	nsp	C,CERAMIC 0.047UF-Z/50V		D011473597160S	
C632	nsp	C,CERAMIC 0.047UF-Z/50V		D011473597160S	
C633	00D9630310909	C,ELECT 1UF-M/50V		D040010087070S	
C635	00D9630310909	C,ELECT 1UF-M/50V		D040010087070S	
C636,637	nsp	C,CERAMIC 0.01UF-K/50V		D011103777160S	
C638	nsp	C,CERAMIC COG82PF-J/50V		D010820167160S	
C639	00D9630311209	C,ELECT 10UF-M/50V		D040100087060S	
C640	nsp	C,CERAMIC 0.1UF-K/50V		D011104577160S	
C641,642	nsp	C,CERAMIC 1000PF-K/50V		D011102777160S	
C643,644	nsp	C,CERAMIC 330PF-J/50V		D010331167160S	

Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
SW601	00D9630095305	SW,TACT SKHV10910D01		G180040500010S		
SW601A-609A	00D9630095305	SW,TACT SKHV10910D01		G180040500010S		
SW601B-609B	00D9630095305	SW,TACT SKHV10910D01		G180040500010S		
SW601C-606C	00D9630095305	SW,TACT SKHV10910D01		G180040500010S		
VEC601,602	00D9630387408	SW,ENCODER EC16B24SO		G121162400070S		
JP611	nsp	R,THICK 0-J,1/16W		C20000006M160S		
JP754,755	nsp	R,THICK 0-J,1/16W	E2, E1C	C20000006M160S		
	nsp	HOLDER FLT		4320211026000S		
	nsp	BRACKET		4010214796000S		

PCB VIDEO ASS'Y

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
SEMICONDUCTORS GROUP					
U2001	00D2622012908	IC,BU4052BCF-E2		J040405200060S	
U2002	00D2622012908	IC,BU4052BCF-E2		J040405200060S	
U2003	235810046603S	IC,AVDM2000(NJW1327)		J171132700010S	*
U2004	nsp	IC,PQ033DNA1ZPH		J126033010010S	
U2005	232810005504S	IC BD7628F-E2		J127762800010S	
U2006	232810005504S	IC BD7628F-E2		J127762800010S	
U2007	232810005504S	IC BD7628F-E2		J127762800010S	
U2008	232810005504S	IC BD7628F-E2		J127762800010S	
Q2001-2004	963219010750S	TR 2SA KTA1504G		J5201504G0210S	
Q2005	00D9630121606	TR KRC107S (NH)		J522107S00210S	
Q2006-2012	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S	
D1003,1004	963209003510S	D,ESD CDS3C05HDMI1		K067030500010S	
D2001-2008	00D9630355401	D,SWITCHING KDS4148U		K005041480030S	
D2009	00D9630328603	D,SCHOTTKY RB521S-30		K125521300010S	
CAPACITORS GROUP					
C1001-1003	963132006970M	C,CERAMIC 10UF-K/16V		D011106573200S	
C1007-1009	963132006970M	C,CERAMIC 10UF-K/16V		D011106573200S	
C2001-2004	nsp	C,CERAMIC 0.01UF-K/50V		D010103777160S	
C2005-2008	00D9639006531	C,ELECT 22UF-M/16V		D040220083070S	
C2009-2012	00D9630333203	C,ELECT 100UF-M/16V		D040101083090S	
C2013-2016	nsp	C,CERAMIC0.01UF-K/50V		D010103777160S	
C2017,2018	00D9639005862	C,ELECT 47UF-M/16V		D040470083080S	
C2019-2022	nsp	C,CERAMIC 0.047UF-K/16V		D011473773160S	
C2023	nsp	C,CERAMIC 0.01UF-K/50V		D010103777160S	
C2024-2026	nsp	C,CERAMIC 0.1UF-K/50V		D011104577160S	
C2027-2030	nsp	C,CERAMIC 0.047UF-K/16V		D011473773160S	
C2031-2034	00D9630293602	C,ELECT 1UF-M/50V (Pb Free)		D040010087150S	
C2039-2042	nsp	C,CERAMIC 0.047UF-K/16V		D011473773160S	
C2043,2044	nsp	C,CERAMIC 0.01UF-K/50V		D010103777160S	
C2045,2046	nsp	C,CERAMIC 0.1UF-K/50V		D011104577160S	
C2047	00D9639006531	C,ELECT 22UF-M/16V		D040220083070S	
C2048-2050	nsp	C,CERAMIC 0.1UF-K/50V		D011104577160S	
C2051	00D9639005862	C,ELECT 47UF-M/16V		D040470083080S	
C2052	nsp	C,CERAMIC 0.1UF-K/50V		D011104577160S	
C2053	nsp	C,CERAMIC1UF-K/16V		D011105173161S	
C2055,2056	nsp	C,CERAMIC 0.1UF-K/50V		D011104577160S	
C2058	nsp	C,CERAMIC1UF-K/16V		D011105173161S	
C2059	nsp	C,CERAMIC 0.1UF-K/50V		D011104577160S	
C2060	00D9639006531	C,ELECT 22UF-M/16V		D040220083070S	
C2061-2064	nsp	C,CERAMIC 0.1UF-K/50V		D011104577160S	
C2065	00D9639005862	C,ELECT 47UF-M/16V		D040470083080S	
C2066,2067	nsp	C,CERAMIC 0.1UF-K/50V		D011104577160S	
C2068	00D9639006531	C,ELECT 22UF-M/16V		D040220083070S	
C2070,2071	nsp	C,CERAMIC 0.1UF-K/50V		D011104577160S	
C2073	00D9639006531	C,ELECT 22UF-M/16V		D040220083070S	
C2074	00D9639005862	C,ELECT 47UF-M/16V		D040470083080S	
C2075,2076	nsp	C,CERAMIC 0.01UF-K/50V		D010103777160S	
C2077,2078	00D9639005862	C,ELECT 47UF-M/16V		D040470083080S	
C2079	nsp	C,CERAMIC 220PF-J/50V		D010221167160S	
OTHERS PARTS GROUP					
B2001	nsp	CN,WIRE 1P		L000800010110S	*
B2003	nsp	CN,WIRE 1P		L000800010110S	*
B2005	nsp	CN,WIRE 1P		L000900010110S	*
K1011	963643010900S	TER,RCA 3PIN RCA-303A(2)		G606303A0800YS	
K1012	963643010900S	TER,RCA 3PIN RCA-303A(2)		G606303A0800YS	
K1013	963643010900S	TER,RCA 3PIN RCA-303A(2)		G606303A0800YS	
K2001	963643003460S	TER,RCA 4PIN RCA-405BE		G602405BE310YS	

Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
K2002	963643010870S	JACK, 2P DIN-409BX2		G403040020010S		
K2003	963643010880S	TER,RCA 2PIN RCA-207B1		G601207B1050YS		
K2005	00D9630146005	TER,RCA 1PIN RCA-107AY		G600107AY000YS		
N2001	nsp	CN,WAFER 19P C125Z2		L109012521910S		*
N2002	nsp	CN,WAFER 17P C125Z2		L109012521710S		*
N2003	nsp	CN,WAFER 13P C125Z2		L109012521310S		*
N2004	nsp	CN.WAFER 4P 20010WR		L101200100420S		

PCB AUDIO ASS'Y

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
SEMICONDUCTORS GROUP					
IC3000	00D2631289900	IC AZ4580M		J121458000020S	
IC3003	235810045600S	IC R2A15220FP		J084152200010S	*
IC3005,3006	00D2631289900	IC AZ4580M		J121458000020S	
IC3007	00D2623727904	IC NJW1194A		J084119400010S	
IC3008-3010	00D2631289900	IC AZ4580M		J121458000020S	
IC3011	00D2623727904	IC NJW1194A		J084119400010S	
IC3012	00D2631289900	IC AZ4580M		J121458000020S	
Q4001	00D9630044301	TR KTC2875B(MB)		J5222875B0010S	
Q4002,4003	00D9630120704	TR KRA102S(PB)		J520010200210S	
Q4005	00D9630044301	TR KTC2875B(MB)		J5222875B0010S	
Q4006	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S	
Q4008	00D9630044301	TR KTC2875B(MB)		J5222875B0010S	
Q4009,4010	00D9630120704	TR KRA102S(PB)		J520010200210S	
Q4012	00D9630044301	TR KTC2875B(MB)		J5222875B0010S	
Q4013	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S	
Q4015	00D9630044301	TR KTC2875B(MB)		J5222875B0010S	
Q4016,4017	00D9630120704	TR KRA102S(PB)		J520010200210S	
Q4019	00D9630044301	TR KTC2875B(MB)		J5222875B0010S	
Q4020,4021	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S	
Q4023	00D9630044301	TR KTC2875B(MB)		J5222875B0010S	
Q4024-4027	00D9630120704	TR KRA102S(PB)		J520010200210S	
Q4029	00D9630044301	TR KTC2875B(MB)		J5222875B0010S	
Q4030	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S	
Q4032	00D9630044301	TR KTC2875B(MB)		J5222875B0010S	
Q4033,4034	00D9630120704	TR KRA102S(PB)		J520010200210S	
Q4036	00D9630044301	TR KTC2875B(MB)		J5222875B0010S	
Q4037	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S	
Q4039	00D9630044301	TR KTC2875B(MB)		J5222875B0010S	
Q4040,4041	00D9630120704	TR KRA102S(PB)		J520010200210S	
Q4043	00D9630044301	TR KTC2875B(MB)		J5222875B0010S	
Q4044,4045	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S	
Q4047	00D9630044301	TR KTC2875B(MB)		J5222875B0010S	
Q4048,4049	00D9630120704	TR KRA102S(PB)		J520010200210S	
Q4098,4099	963219010760S	TR KRC231(NW)	E2, E1C	J5220231M0010S	
Q4100	00D9630120801	TR 2SC KRC102S (NB)	E2, E1C	J522010200210S	
Q4101	963219010740S	TR KRA111S	E2, E1C	J520011100210S	
Q4102	00D9630120801	TR 2SC KRC102S (NB)	E2, E1C	J522010200210S	
D3023	00D9630328409	D,SWITCHING 1N4007		K000400700010S	
D3025	00D9630328409	D,SWITCHING 1N4007		K000400700010S	
D4000-4002	00D9630328409	D,SWITCHING 1N4007		K000400700010S	
ZD4000	00D2760693962	D,ZENER 0.2W 3.6V UDZ		K06603R64P400S	
CAPACITORS GROUP					
C3000	00D9630234205	C,ELECT 10UF-M/50V		D040100087070S	
C3001,3002	00D9630234205	C,ELECT 10UF-M/50V	E3,E1C	D040100087070S	
C3001,3002	00D2544583900	C,ELECT 10UF-M/50V (ROB)	E2	D040100087140S	
C3003-3008	00D9630234205	C,ELECT 10UF-M/50V		D040100087070S	
C3011-3017	00D9630234205	C,ELECT 10UF-M/50V		D040100087070S	
C3018	nsp	C,CERAMIC 100PF-J/50V		D010101167160S	
C3019	963134010960S	C,ELECT 220UF-M/10V		D040221082080S	
C3021	nsp	C,CERAMIC 220PF-J/50V		D010221167160S	
C3022	00D9630234205	C,ELECT 10UF-M/50V		D040100087070S	
C3023	nsp	C,FILM 0.022UF-J/100V		D02022306C060S	
C3024	nsp	C,FILM 0.0068UF-J/100V		D02068206C060S	
C3027	nsp	C,FILM 0.022UF-J/100V		D02022306C060S	
C3028	nsp	C,FILM 0.0068UF-J/100V		D02068206C060S	
C3029	nsp	C,CERAMIC 220PF-J/50V		D010221167160S	
C3030	963134010960S	C,ELECT 220UF-M/10V		D040221082080S	
C3031	00D9630234205	C,ELECT 10UF-M/50V		D040100087070S	
C3033	nsp	C,CERAMIC 100PF-J/50V		D010101167160S	

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
C3034,3035	00D9630234205	C,ELECT 10UF-M/50V			
C3036,3037	00D9630234205	C,ELECT 10UF-M/50V	E3, E1C		
C3036,3037	00D2544583900	C,ELECT 10UF-M/50V (ROB)	E2		
C3038,3039	00D9609009937	C,ELECT 100UF-M/50V	E3, E1C		
C3038,3039	00D2544765906	C,ELECT 100UF-M/25V (ROB)	E2		
C3042	nsp	C,CERAMIC 330PF-J/50V			
C3049	nsp	C,CERAMIC 330PF-J/50V			
C3053	00D9630333203	C,ELECT 100UF-M/16V			
C3056	nsp	C,CERAMIC 330PF-J/50V			
C3058	nsp	C,CERAMIC 330PF-J/50V			
C3059	00D9630333203	C,ELECT 100UF-M/16V			
C3062	963134010710S	C,ELECT 47UF-M/35V			
C3065	nsp	C,CERAMIC 330PF-J/50V			
C3066,3067	963134010710S	C,ELECT 47UF-M/35V			
C3068	nsp	C,CERAMIC 330PF-J/50V			
C3072	nsp	C,CERAMIC 330PF-J/50V			
C3073,3074	963134010710S	C,ELECT 47UF-M/35V			
C3075	nsp	C,CERAMIC 330PF-J/50V			
C3079	963134010710S	C,ELECT 47UF-M/35V			
C3080	nsp	C,CERAMIC 330PF-J/50V			
C3083	nsp	C,CERAMIC 330PF-J/50V			
C3087,3088	nsp	C,CERAMIC 330PF-J/50V			
C3090	00D9630234205	C,ELECT 10UF-M/50V			
C3091,3092	nsp	C,CERAMIC 0.01UF-K/50V			
C3093	nsp	C,CERAMIC 68PF-J/50V			
C3094	nsp	C,CERAMIC 100PF-J/50V			
C3095-3097	00D9630234205	C,ELECT 10UF-M/50V			
C3098	nsp	C,CERAMIC 3300PF-K/50V			
C3099	nsp	C,CERAMIC 0.1UF-K/50V			
C3100	963134010970S	C,ELECT 33UF-M/16V			
C3101	00D9630234205	C,ELECT 10UF-M/50V			
C3102	00D9639006476	C,ELECT 4.7UF-M/50V			
C3103	00D9630234205	C,ELECT 10UF-M/50V			
C3104	963134010970S	C,ELECT 33UF-M/16V			
C3105	00D9630234205	C,ELECT 10UF-M/50V			
C3106	00D9639006476	C,ELECT 4.7UF-M/50V			
C3107	nsp	C,CERAMIC 0.1UF-K/50V			
C3108	00D9630234205	C,ELECT 10UF-M/50V			
C3110	00D9630234205	C,ELECT 10UF-M/50V			
C3111	nsp	C,CERAMIC 3300PF-K/50V			
C3112	00D9630234205	C,ELECT 10UF-M/50V			
C3113,3114	nsp	C,CERAMIC 0.01UF-K/50V			
C3116	nsp	C,CERAMIC 68PF-J/50V			
C3117	nsp	C,CERAMIC 100PF-J/50V			
C3121	00D9630234205	C,ELECT 10UF-M/50V			
C3125	00D9630234205	C,ELECT 10UF-M/50V			
C3126,3127	nsp	C,CERAMIC 0.01UF-K/50V			
C3128	nsp	C,CERAMIC 68PF-J/50V			
C3129	nsp	C,CERAMIC 100PF-J/50V			
C3130-3132	00D9630234205	C,ELECT 10UF-M/50V			
C3133	nsp	C,CERAMIC 3300PF-K/50V			
C3134	nsp	C,CERAMIC 0.1UF-K/50V			
C3136	963134010970S	C,ELECT 33UF-M/16V			
C3137	00D9639006476	C,ELECT 4.7UF-M/50V			
C3138	00D9630234205	C,ELECT 10UF-M/50V			
C3142	00D9630234205	C,ELECT 10UF-M/50V			
C3143	00D9639006476	C,ELECT 4.7UF-M/50V			
C3147	963134010970S	C,ELECT 33UF-M/16V			
C3148	00D9630234205	C,ELECT 10UF-M/50V			
C3149	nsp	C,CERAMIC 0.1UF-K/50V			
C3151	00D9630234205	C,ELECT 10UF-M/50V			
C3152	nsp	C,CERAMIC 3300PF-K/50V			
C3153,3154	00D9630234205	C,ELECT 10UF-M/50V			
C3155,3156	nsp	C,CERAMIC 0.01UF-K/50V			
C3158	nsp	C,CERAMIC 68PF-J/50V			
C3159	nsp	C,CERAMIC 100PF-J/50V			
C3160	00D9630234205	C,ELECT 10UF-M/50V			

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
C4000	00D9630234205	C,ELECT 10UF-M/50V		D040100087070S	
C4001,4002	00D9630224503	C,ELECT 22UF-M/50V		D040220087060S	
C4003	nsp	C,CERAMIC 330PF-J/50V		D010331167160S	
C4004	nsp	C,CERAMIC 0.01UF-K/50V		D010103777160S	
C4005	nsp	C,CERAMIC 330PF-J/50V		D010331167160S	
C4006	00D9609010023	C,ELECT 0.47UF-M/50V		D040R47087050S	
C4007-4010	00D9630224503	C,ELECT 22UF-M/50V		D040220087060S	
C4011	nsp	C,CERAMIC 330PF-J/50V		D010331167160S	
C4012	nsp	C,CERAMIC 0.01UF-K/50V		D010103777160S	
C4013	nsp	C,CERAMIC 330PF-J/50V		D010331167160S	
C4014	00D9609010023	C,ELECT 0.47UF-M/50V		D040R47087050S	
C4015-4018	00D9630224503	C,ELECT 22UF-M/50V		D040220087060S	
C4019	nsp	C,CERAMIC 330PF-J/50V		D010331167160S	
C4020	nsp	C,CERAMIC 0.01UF-K/50V		D010103777160S	
C4021	nsp	C,CERAMIC 330PF-J/50V		D010331167160S	
C4022	00D9609010023	C,ELECT 0.47UF-M/50V		D040R47087050S	
C4023-4026	00D9630224503	C,ELECT 22UF-M/50V		D040220087060S	
C4027	nsp	C,CERAMIC 330PF-J/50V		D010331167160S	
C4028	00D9609010023	C,ELECT 0.47UF-M/50V		D040R47087050S	
C4029	nsp	C,CERAMIC 0.01UF-K/50V		D010103777160S	
C4030	nsp	C,CERAMIC 330PF-J/50V		D010331167160S	
C4031	00D9609010023	C,ELECT 0.47UF-M/50V		D040R47087050S	
C4032-4035	00D9630224503	C,ELECT 22UF-M/50V		D040220087060S	
C4036	nsp	C,CERAMIC 330PF-J/50V		D010331167160S	
C4037	nsp	C,CERAMIC 0.01UF-K/50V		D010103777160S	
C4038	nsp	C,CERAMIC 330PF-J/50V		D010331167160S	
C4039	00D9609010023	C,ELECT 0.47UF-M/50V		D040R47087050S	
C4040-4043	00D9630224503	C,ELECT 22UF-M/50V		D040220087060S	
C4044	nsp	C,CERAMIC 330PF-J/50V		D010331167160S	
C4045	nsp	C,CERAMIC 0.01UF-K/50V		D010103777160S	
C4046	nsp	C,CERAMIC 330PF-J/50V		D010331167160S	
C4047	00D9609010023	C,ELECT 0.47UF-M/50V		D040R47087050S	
C4048-4051	00D9630224503	C,ELECT 22UF-M/50V		D040220087060S	
C4052	nsp	C,CERAMIC 330PF-J/50V		D010331167160S	
C4053	00D9609010023	C,ELECT 0.47UF-M/50V		D040R47087050S	
C4054	nsp	C,CERAMIC 0.01UF-K/50V		D010103777160S	
C4055	00D9630234205	C,ELECT 10UF-M/50V		D040100087070S	
C4056	nsp	C,CERAMIC 100PF-J/50V		D010101167160S	
C4057	nsp	C,CERAMIC 0.01UF-K/50V		D010103777160S	
C4058	nsp	C,CERAMIC 100PF-J/50V		D010101167160S	
C4059	00D9630234205	C,ELECT 10UF-M/50V		D040100087070S	
C4129	00D9630234205	C,ELECT 10UF-M/50V	E2, E1C	D040100087070S	
C4130	nsp	C,FILM 0.0082UF	E2	D02082206C060S	
C4131	nsp	C,FILM 0.0047UF	E2	D02047206C060S	
C4134	00D9630234205	C,ELECT 10UF-M/50V	E2, E1C	D040100087070S	
C4135	nsp	C,FILM 0.0082UF	E2	D02082206C060S	
C4136	nsp	C,FILM 0.0047UF	E2	D02047206C060S	
C4143-4145	nsp	C, CERAMIC 100PF-J/50V	E2, E1C	D010101167160S	
C4146	nsp	C, CERAMIC 33PF-J/50V	E2, E1C	D010330167160S	
C4147,4148	nsp	C, CERAMIC 100PF-J/50V	E2, E1C	D010101167160S	
C4149	00D9630234205	C,ELECT 10UF-M/50V	E2, E1C	D040100087070S	
C4150	nsp	C,CERAMIC 4700PF-K/50V	E2, E1C	D011472777160S	
OTHERS PARTS GROUP					
CN3000	nsp	CN.WAFER 33P		L109012523310S	
CN3001	nsp	CN,WIRE 13P		L002221132620S	
CP4000	nsp	CN,WAFER 25P		L109012512510S	
CP4003	963183011320S	TUNER,FM/AM KST-MT104MV1-2	E2	E903104100110S	
CP4003	963183011300S	TUNER,FM/AM KST-MT004MV1-2	E1C	E903004100110S	
JACK4001	90M-YT004640R	TER,RCA 2PIN		G601207AE020YS	
JACK4002	00D9630132103	TER,RCA 4PIN		G602405B0400YS	
JACK4003	00D9630387505	TER,RCA 4PIN		G602405B5500YS	
JACK4004	00D9630132103	TER,RCA 4PIN		G602405B0400YS	
JACK4005	00D9630146005	TER,RCA 1PIN		G600107A0000YS	

Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
JK3001,3002	963643010890S	TER,RCA 6PIN		G603603B05000S		
JK3003	90M-YT004640R	TER,RCA 2PIN		G601207AE020YS		
L3000,3001	nsp	COIL,CHOKE 7BR-K251000BSP-KR (FTZ)	E2, E1C	D300700000040S		
L4000	nsp	FILTER,LC MPX	E2	E401010020020S		
L4001	90M-FN000270R	COIL,BEAD CBW160808U121T		D340160811210S		
L4002	nsp	FILTER,LC MPX	E2	E401010020020S		
CX3000	nsp	CN,WAFER 19P C125Z2		L109012521910S		*
CX3001	nsp	CN,WAFER 13P C125Z2		L109012521310S		*
CX3002	nsp	CN,WAFER 17P C125Z2		L109012521710S		*
CX3003	nsp	CN,WAFER 15P C125Z2		L109012521510S		*
CX4000	nsp	CN,WAFER 27P C125Z1		L109012512710S		*
CX4001	nsp	CN,WAFER 17P C125Z1		L109012511710S		*
CX4002	nsp	CN,WAFER 15P C125Z1		L109012511510S		*
CX4003	nsp	CN.FPC 19P TWG-P		L131019000010S		

PCB HDMI ASS'Y

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
SEMICONDUCTORS GROUP					
U1	nsp	IC,LOGIC AD8195		J040819505510S	
U2	00D2623425905	IC,LOGIC LTC4300/MSOP8P		J040430005500S	
U1001	234810018506S	IC,LOGIC TC74VHC4052AFT		J040744052080S	*
U1002	236810057606S	IC,LOGIC ADV3002BSTZ		J040300205510S	
U1100	nsp	IC ADV7840		J040784005510S	
U1101	nsp	IC PQ018ENA1ZPH		J126018010030S	
U1600	963142010720S	CERAMIC CHIP 48MHz SMD2520		E85548R000020S	*
U1601	nsp	IC,LOGIC XC3S400A-4FGG320C		J040340043230S	
U1602	246810010604D	IC IS42S32200E-6TL		J001423220040S	
U1603	963243011510S	IC MEMORY FLASH (M25P40-VMN6TPB)		8952331100070	*
U1604	00MHC007805KZ	IC TC74VHCT125AFT		J040741255580S	
U1605	00MHC007805KZ	IC TC74VHCT125AFT		J040741255580S	
U1606	00MHC007805KZ	IC TC74VHCT125AFT		J040741255580S	
U1607	nsp	IC PQ012ENB1ZPH		J126012010040S	
U1800	00D2623436907	IC,LOGIC TC74VHC244FT		J040742445530S	
U1801	963239010410S	IC ADV7511BSTZ-225		J040751100010S	*
U1802	00MHC007805KZ	IC TC74VHCT125AFT		J040741255580S	
U1803	nsp	IC,LOGIC PI3HDMI1310_A		J046131000020S	*
U2000	nsp	IC PQ018ENA1ZPH		J126018010030S	
U2001	nsp	IC,LOGIC ADV7392		J045739200010S	*
U2002	nsp	IC PQ033DNA1ZPH		J126033010010S	
U2200	nsp	IC ABT2015		J080201500020S	*
U2201	00D9630244907	IC SN74LV14APWR		J040741400180S	
U2500	nsp	IC K4T51163QI-HCE7		J001451163270S	
U2501	nsp	IC K4T51163QI-HCE7		J001451163270S	
U2800	00D9630237503	MODULE JSR1165-C		E100116500040S	
U2801	00D9630237503	MODULE JSR1165-C		E100116500040S	
U2802	00D9630113009	MODULE JST1165		E100116500030S	
U2803	00D2623077900	IC TC74VHCU04FT		J040740405580S	
U2805	236810062608S	IC LC89058W-E		J046890580020S	
U2806	236810062608S	IC LC89058W-E		J046890580020S	
U2807	236810062608S	IC LC89058W-E		J046890580020S	
U3000	963243011520S	IC PAL/PLD (EPM240T100C5N)		8952331100060	*
U3001	236810083506S	IC CS2100-10-CZZR		J120210005510S	*
U3200	nsp	IC ADSP21367KSWZ2A1182		J080213675530S	
U3201	963239010680S	IC W9864G2IH-6		J001986460060S	*
U3202	963243011530S	IC MEMORY FLASH (EN29LV160BB-70TIP)		8952331100050	*
U3800	236810070500S	IC AK4424ET-E2 TSSOP16		J042442405520S	
U3801	236810070500S	IC AK4424ET-E2 TSSOP16		J042442405520S	
U3802	236810086505S	IC AK5358BET-E2		J043535805520S	*
U3803	236810073509S	IC AK4358VQ-L		J042435800010S	
U3804	00D2631289900	IC AZ4580M		J121458000020S	
U3805	00D2631289900	IC AZ4580M		J121458000020S	
U3806	00D2631289900	IC AZ4580M		J121458000020S	
U3807	00D2631289900	IC AZ4580M		J121458000020S	
U3900	nsp	IC,ANALOG DM860		J080860000010S	*
U3901	nsp	IC MEMORY FLASH (HY27UF081G2A-TPCB)		8952331100040	*
U3902	246810031601S	IC W9825G6EH-6J		J001982560010S	*
U4200	00D2790055907	SW,POLY MICROSMD175F		G300017500010S	
U4201	103810002508S	PULSE TRANS		D900100015510S	*
U4202	nsp	IC LAN8700-AEZG-TR		J127870010010S	*
U4203	00D2623711004	IC,LOGIC SAA7121H		J045712100010S	
U4204	nsp	IC MFI341S2164		J044341216410S	
U4600	231810069505S	IC AOZ1021AI		J048102100010S	
U4601	nsp	IC EX3AV		J048030030010S	*
U4602	nsp	IC EX3AV		J048030030010S	*
U4603	nsp	IC EX3AV		J048030030010S	*
U4604	nsp	IC EX3AV		J048030030010S	*
U4605	nsp	IC EX3AV		J048030030010S	*

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Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
U4606	nsp	IC PQ033DNA1ZPH		J126033010010S	
U4607	nsp	IC PQ033DNA1ZPH		J126033010010S	
U4608	234810015507S	IC BU4248F		J126424800010S	
U5100	00MHC007805KZ	IC TC74VHCT125AFT		J040741255580S	
U5101	963243011550S	IC MEMORY FLASH (EN29LV160BB-70TIP)		8952331100030	*
U5102	234810014504S	IC MC14094BDTR2G		J040140940020S	
U5103	00D2623437906	IC TC74VHCT244AFT		J040742445540S	
U5104	234810014504S	IC MC14094BDTR2G		J040140940020S	
U5105	00D2623410907	IC TC74VHCT08AFT		J040740800090S	
U5106	234810014504S	IC MC14094BDTR2G		J040140940020S	
U5107	234810014504S	IC MC14094BDTR2G		J040140940020S	
U5108	00D2623444902	IC TC74VHC08FT		J040740800280S	
U5109	234810014504S	IC MC14094BDTR2G		J040140940020S	
U5301	963243011560S	IC CPU MICRO PROCESS (R5F64169DFD)		8952331100010	*
U5302	246810026500S	IC R1EX24256ASAS0A		J000242565550S	
U5500	963243011570S	IC CPU MICRO PROCESS (R5F3650KNFB)		8952331100020	*
Q1	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S	
Q2	00D9600285006	TR KRC104S (ND)		J522104S00210S	
Q1001,1002	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S	
Q1004,1005	00D9600285006	TR KRC104S (ND)		J522104S00210S	
Q1007-1009	00D9600285006	TR KRC104S (ND)		J522104S00210S	
Q1100-1102	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S	
Q1103-1106	00D9600285006	TR KRC104S (ND)		J522104S00210S	
Q1600	00D9600285006	TR KRC104S (ND)		J522104S00210S	
Q1601	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S	
Q1800	00D9630120704	TR KRA102S(PB)		J520010200210S	
Q1801	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S	
Q1802,1803	00D9600285006	TR KRC104S (ND)		J522104S00210S	
Q2000	00D9600285006	TR KRC104S (ND)		J522104S00210S	
Q2001	00D2750110905	SEMI HN1K02FU		J543102000020S	
Q2200	00D2750110905	SEMI HN1K02FU		J543102000020S	
Q2201	00D9600285006	TR KRC104S (ND)		J522104S00210S	
Q3200	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S	
Q3201	00D9630120704	TR KRA102S(PB)		J520010200210S	
Q3900	00D9630120704	TR KRA102S(PB)		J520010200210S	
Q3901	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S	
Q4200	963219004200S	CHIP FDC608PZ P-CH		J543608000010S	
Q4201	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S	
Q4600	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S	
Q4601	00D9600285006	TR KRC104S (ND)		J522104S00210S	
Q4602	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S	
Q4603	00D9600285006	TR KRC104S (ND)		J522104S00210S	
Q4612	00D9630121402	TR KRA104S		J520010400210S	
Q4614-4619	00D9630121402	TR KRA104S		J520010400210S	
Q4620	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S	
Q4621	963219004200S	CHIP FDC608PZ P-CH		J543608000010S	
Q4623-4628	963219004200S	CHIP FDC608PZ P-CH		J543608000010S	
Q4629-4631	00D2710326904	TR 2SA 2SA1954		J520195405510S	
Q4632	00MHZ2000921Y	CHIP DAN202U 1.2V		K005020200200S	
Q4633,4634	00D2710326904	TR 2SA 2SA1954		J520195405510S	
Q4635,4636	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S	
Q4638,4639	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S	
Q4640	00D9630328302	TR 2SC KTC3875G(ALG)		J5223875G0210S	
Q4643	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S	
Q4644	00D9600285006	TR KRC104S (ND)		J522104S00210S	
Q4645	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S	
Q4646	00D9600285006	TR KRC104S (ND)		J522104S00210S	
Q5100	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S	
Q5101	00D2710326904	TR 2SA 2SA1954		J520195405510S	
Q5102	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S	
Q5103	00D2710312905	SEMI KTA1504G		J5201504G0210S	
Q5104,5105	00D9630328302	TR 2SC KTC3875G(ALG)		J5223875G0210S	

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Ref. No.	Part No.	Part Name	Remarks		Q'ty	New
Q5106	00D2710312905	SEMI KTA1504G		J5201504G0210S		
Q5107-5111	00D9630328302	TR 2SC KTC3875G(ALG)		J5223875G0210S		
Q5112-5115	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S		
Q5303,5304	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S		
Q5306	00D9630328302	TR 2SC KTC3875G(ALG)		J5223875G0210S		
Q5307	00D9630120704	TR KRA102S(PB)		J520010200210S		
Q5310-5313	00D9630121402	TR KRA104S		J520010400210S		
Q5314,5315	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S		
Q5500	00D9630328302	TR 2SC KTC3875G(ALG)		J5223875G0210S		
Q5501	00D9630120704	TR KRA102S(PB)		J520010200210S		
Q5502	963219002180S	TR 2SD2114KT146W		J5232114K0010S		
Q5503	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S		
Q5504	00D9630328302	TR 2SC KTC3875G(ALG)		J5223875G0210S		
Q5505,5506	00D9630120801	TR 2SC KRC102S (NB)		J522010200210S		
D1001	00D9630328603	D,SCHOTTKY RB521S-30		K125521300010S		
D1801	963209010450S	D,ESD VCH4AG100R8MAT		K067040100080S		*
D1802	963209010450S	D,ESD VCH4AG100R8MAT	E2, E1C	K067040100080S		
D4600,4601	00D9630355401	D,SWITCHING KDS4148U		K005041480030S		
D5300	00D9630328603	D,SCHOTTKY RB521S-30		K125521300010S		
D5301,5302	00D9630355401	D,SWITCHING KDS4148U		K005041480030S		
D5306	00D9630355401	D,SWITCHING KDS4148U		K005041480030S		
D5309	00D9630328603	D,SCHOTTKY RB521S-30		K125521300010S		
D5500	00D9630355401	D,SWITCHING KDS4148U		K005041480030S		
RESISTORS GROUP						
R4903	nsp	R,CHIP 10K-J,1/16W	E3	C20001036M111S		
R4903	nsp	R,CHIP 4.7K-J,1/16W	E2, E1C	C20004726M111S		
R5111	nsp	R,CHIP 33-J, 1/16W	E2	C20003306M101S		
R5112	nsp	R,CHIP 33-J, 1/16W	E3	C20003306M101S		
R5332	nsp	R,CHIP 10K-J,1/16W	E3, E1C	C20001036M160S		
R5340	nsp	R,CHIP 10K-J,1/16W	E2, E1C	C20001036M160S		
CAPACITORS GROUP						
C1-5	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S		
C6	nsp	C,CERAMIC 10UF-K/16V		D011106573200S		
C7	nsp	C,CERAMIC 1000PF-K/50V		D011102177101S		
C8	nsp	C,CERAMIC 0.01UF-K/16V		D011103177101S		
C9	nsp	C,CERAMIC 1000PF-K/50V		D011102177101S		
C10-20	nsp	C,CERAMIC 10UF-K/16V		D011106573200S		
C21,22	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S		
C1001,1002	00D9630325004	C,ELECT 100UF-MVG/6.3V		D050101081650S		
C1003-1008	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S		
C1009	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S		
C1015	nsp	C,CERAMIC 1000PF-K/50V		D011102177101S		
C1016,1017	nsp	C,CERAMIC 22PF-J/50V		D011220167101S		
C1100-1106	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S		
C1107	nsp	C,CERAMIC 0.01UF-K/16V		D011103177101S		
C1108,1109	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S		
C1110	nsp	C,CERAMIC 12PF-J/50V		D011120167101S		
C1111-1113	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S		
C1114	nsp	C,CERAMIC 12PF-J/50V		D011120167101S		
C1115,1116	nsp	C,CERAMIC 15PF-J/50V		D011150167101S		
C1117	nsp	C,CERAMIC 1000PF-K/50V		D011102177101S		
C1118	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S		
C1121-1124	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S		
C1125	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S		
C1126	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S		
C1128-1132	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S		
C1133	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S		
C1134	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S		
C1137	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S		
C1139	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S		
C1141-1143	nsp	C,CERAMIC 10UF-K/16V		D011106573200S		
C1145	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S		

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
C1156,1157	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1159	nsp	C,CERAMIC 10UF-K/16V		D011106573200S	
C1160	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1162	nsp	C,CERAMIC0.082UF-Z/50V		D011823597160S	
C1163	nsp	C,CERAMIC 0.01UF-K/50V		D011103777160S	
C1164	nsp	C,CERAMIC 0.82UF-K/10V		D011824772162S	
C1165	nsp	C,CERAMIC X7R0.039UF-K/50V		D011393707160S	
C1166,1167	nsp	C,CERAMIC 0.01UF-K/16V		D011103177101S	
C1168	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C1171	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1172	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C1173,1174	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1175	nsp	C,CERAMIC 10UF-K/16V		D011106573200S	
C1176-1180	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1182-1187	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1188	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C1190	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1193,1194	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1196,1197	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1200	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1201	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C1204	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1207	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1208	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C1209	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1213,1214	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1217,1218	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1219	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C1222	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1237	nsp	C,CERAMIC 1000PF-K/50V		D011102177101S	
C1238	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C1239	963134011230S	C, ELECT 330UF-M/6.3V		D041331081020S	
C1600	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C1602	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1607-1614	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1615	nsp	C,CERAMIC 1000PF-K/50V		D011102177101S	
C1616	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C1619-1631	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1633	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1635-1646	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1650,1651	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1653	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C1658	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C1662	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C1664	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C1665-1667	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1669	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1670	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C1800,1801	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1802	nsp	C,CERAMIC 10UF-K/16V		D011106573200S	
C1805-1808	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1809	nsp	C,CERAMIC 10UF-K/16V		D011106573200S	
C1812-1815	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1816	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C1819,1820	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1821	nsp	C,CERAMIC 10UF-K/16V		D011106573200S	
C1824-1833	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C1834-1836	nsp	C,CERAMIC 1UF-K/10V		D011105772161S	
C1839	963134011230S	C, ELECT 330UF-M/6.3V		D041331081020S	
C2000	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2001	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C2004-2007	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2010	nsp	C,CERAMIC 1000PF-K/50V		D011102177101S	
C2011	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C2012	nsp	C,CERAMIC 2200PF-K/50V		D011222177101S	
C2013,2014	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2016	nsp	C,CERAMIC 0.012UF-K/50V		D011123177161S	

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
C2018	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2020	nsp	C,CERAMIC 0.15uF-K/10V		D011154172160S	
C2200	nsp	C,CERAMIC 5PF-C/50V		D011050107101S	
C2201	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C2204	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2206	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2208	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2210	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2212	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2214	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2216	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2218	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2220	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2221	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C2222	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2224	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2227	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2237	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C2241-2247	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2254-2259	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2260	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C2263	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2265-2270	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2279	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2280	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C2282	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2283	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C2285	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2286	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C2287,2288	nsp	C,CERAMIC 8PF-D/50V		D011080117101S	
C2290	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2500-2502	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2503	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C2505	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2506	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C2508-2516	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2524-2526	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2527	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C2529	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2530	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C2532-2540	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2800-2802	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2805-2809	nsp	C,CERAMIC 0.01UF-K/16V		D011103177101S	
C2810	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C2811-2824	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2825,2826	nsp	C,CERAMIC 10PF-D/50V		D011100117101S	
C2827-2832	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2833	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C2835	nsp	C,CERAMIC 1000PF-K/50V		D011102177101S	
C2836	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2837	nsp	C,CERAMIC 1000PF-K/50V		D011102177101S	
C2838	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2839	nsp	C,CERAMIC 1000PF-K/50V		D011102177101S	
C2840	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C2841-2843	nsp	C,CERAMIC 0.022UF-Z/50V		D011223597160S	
C2844-2849	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C3000-3005	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C3006	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C3007	nsp	C,CERAMIC 1000PF-K/50V		D011102177101S	
C3008,3009	nsp	C,CERAMIC 100PF-J/50V		D011101167101S	
C3010,3011	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C3012	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C3013	nsp	C,CERAMIC 1000PF-K/50V		D011102177101S	
C3014	nsp	C,CERAMIC 100PF-J/50V		D011101167101S	
C3200-3209	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C3218-3240	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C3241	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
C3242	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C3243	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C3244	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C3247-3252	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C3253	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C3254-3259	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C3260-3262	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C3264	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C3265,3266	nsp	C,CERAMIC 7PF-C/50V		D011070117101S	
C3267-3280	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C3800-3803	nsp	C,CERAMIC 1UF-K/10V		D011105772161S	
C3804	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C3806-3809	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C3810-3813	nsp	C,CERAMIC 2200PF-K/50V		D011222777160S	
C3814	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C3816	nsp	C,CERAMIC 1UF-K/10V		D011105772161S	
C3818	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C3819	nsp	C,CERAMIC 1UF-K/10V		D011105772161S	
C3820,3821	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C3822-3841	nsp	C,CERAMIC 1000PF-K/50V		D011102177101S	
C3842,3843	00D9630338606	C,ELECT 10UF-MVG/16V		D050100083470S	
C3844	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C3845,3846	nsp	C,CERAMIC 4700PF-K/50V		D011472777160S	
C3848	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C3849	963134000450S	C,ELECT 100UF-MVG/16V		D050101083660S	
C3850,3851	nsp	C,CERAMIC X7R3900PF-K/50V		D011392777160S	
C3852	nsp	C,CERAMIC X7R2700PF-K/50V		D011272777160S	
C3853-3855	nsp	C,CERAMIC X7R3900PF-K/50V		D011392777160S	
C3856,3857	nsp	C,CERAMIC X7R2700PF-K/50V		D011272777160S	
C3858-3873	nsp	C,CERAMIC 470PF-J/50V		D010471167160S	
C3874,3875	963134000450S	C,ELECT 100UF-MVG/16V		D050101083660S	
C3878	nsp	C,CERAMIC 1000PF-K/50V		D011102177101S	
C3900	nsp	C,CERAMIC 1000PF-K/50V		D011102177101S	
C3901,3902	nsp	C,CERAMIC 12PF-J/50V		D011120167101S	
C3904-3907	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C3908-3918	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C3923	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C3926-3929	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C3930-3939	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C3944	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C3947	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C3950-3958	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C4200	nsp	C,CERAMIC 1000PF-K/50V		D011102177101S	
C4201	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C4202	nsp	C,CERAMIC 0.022UF-Z/50V		D011223597160S	
C4203	nsp	C,CERAMIC 1000PF-K/50V		D011102177101S	
C4204	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C4205	nsp	C,CERAMIC 1000PF-K/50V		D011102177101S	
C4206	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C4207,4208	nsp	C,CERAMIC 15PF-J/50V		D011150167101S	
C4209	nsp	C,CERAMIC 1000PF-K/50V		D011102177101S	
C4210,4211	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C4213	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C4215,4216	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C4218	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C4219-4222	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C4223	nsp	C,CERAMIC 1000PF-K/50V		D011102177101S	
C4224,4225	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C4226	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C4228,4229	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C4234	nsp	C,CERAMIC 4.7UF-K/6.3V		D011475571160S	
C4243-4247	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C4248,4249	nsp	C,CERAMIC 1PF-C/50V		D011010107100S	
C4600-4604	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C4610	nsp	C,CERAMIC 0.1UF-K/50V		D011104177101S	
C4618	nsp	C,CERAMIC 10UF-K/16V		D011106573200S	
C4622-4627	nsp	C,CERAMIC 10UF-K/16V		D011106573200S	

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
L4211	nsp	R THICK 0-J,1/10W		C200000060200S	
L4212	nsp	COIL,CHIP DLW21SN181SQ2L		D311201211810S	
L4600-4611	nsp	COIL,BEAD BLM21PG221SN1		D340201212210S	
L4612	nsp	COIL,INDUCTOR B82464Z4103M		D310824641030S	
L4613,4614	nsp	COIL,BEAD BLM21PG221SN1		D340201212210S	
L4619,4620	nsp	R,CHIP THICK 0-J,1/10W		C200000060200S	
L4625-4627	nsp	COIL,BEAD BLM21PG221SN1		D340201212210S	
L4628	nsp	COIL,BEAD CBW160808U121T		D340160811210S	
L4982,4983	nsp	R,THICK 0-J,1/16W		C20000006M160S	
L5039	nsp	R,CHIP THICK 0-J,1/10W		C200000060200S	
X1102,1103	141810044504S	CRYSTAL CHIP FCX-04(28.63636MHz)		E80528R636380S	*
X2201	141810045507S	CRYSTAL CHIP FCX-04(27MHz)		E80527R000080S	*
X2801	141810046500S	CRYSTAL CHIP FCX-04(24.576MHz)		E80524R576080S	*
X3201	141810047503S	CRYSTAL CHIP FCX-04(20.815MHz)		E80520R815080S	*
X3900	963141010990S	CRYSTAL CHIP FCX-04(24MHz)		E80524R000080S	*
X5301	141810048506S	CRYSTAL CHIP FCX-04(16MHz)		E80516R000080S	*
X5501	141810048506S	CRYSTAL CHIP FCX-04(16MHz)		E80516R000080S	*
K1	nsp	CN.WAFER 19P YKF45-7074N HDMI		L109100190450S	*
K1001	nsp	CN.WAFER 19P YKF45-7074N HDMI		L109100190450S	*
K1002	nsp	CN.WAFER 19P YKF45-7074N HDMI		L109100190450S	*
K1100	nsp	CN.WAFER 19P YKF45-7074N HDMI		L109100190450S	*
K1101	nsp	CN.WAFER 19P YKF45-7074N HDMI		L109100190450S	*
K1102	nsp	CN.WAFER 19P YKF45-7074N HDMI		L109100190450S	*
K2800	00D9630217905	TER,RCA 2PIN		G601206A0200YS	
K5300	00D9630294601	JACK,D3.5 EARPHONE		G40100350000YS	
K5301	643010086002S	JACK,D3.5 EARPHONE		G40130802000YS	
K5302	643010086002S	JACK,D3.5 EARPHONE		G40130802000YS	
N1	nsp	CN.FPC 23P		L130100162330S	
N1001	nsp	CN.FPC 23P		L130100162330S	
N1800	nsp	CN.WAFER 19P YKF45-7074N HDMI		L109100190450S	
N1801	nsp	CN.WAFER 19P YKF45-7074N HDMI		L109100190450S	
N3000	nsp	CN.FPC 7P		L130100160730S	
N3900	nsp	CN.FPC 7P	E3	L130100160730S	
N4200	nsp	JACK YKS11-0088N		G4060RJ450110S	
N4201	nsp	CN.WAFER 5P 20010WS		L101200100510S	
N4610	nsp	CN.WAFER 5P SMW250		L102050010040S	
N4905	nsp	CN.WAFER 5P 20022WS		L101200220510S	
N4907	nsp	CN,WAFER 25P C125Z2		L109012522510S	
N4908	nsp	CN,WAFER 11P C125Z2		L109012521110S	
N4909	nsp	CN.FPC 40P 1022HS		L130100220400S	
N4910	nsp	CN,WAFER 19P C125Z2		L109012521910S	
N4911	nsp	CN,WAFER 17P C125Z2		L109012521710S	
N4912	nsp	CN,WAFER 13P C125Z2		L109012521310S	
N4913	nsp	CN,WAFER 19P C125Z2		L109012521910S	
N4914	nsp	CN,WAFER 17P C125Z2		L109012521710S	
N4916	nsp	CN.WAFER 33P C125Z2		L109012523310S	
N5301	nsp	CN.FPC 11P	E3	L130100161130S	
N5500	nsp	CN.FPC 11P	E3	L130100161130S	
Z3	nsp	CLAMP STYLE PIN 1P	E3	4330210162000S	
	nsp	BRACKET		4010214786000S	

