DENON

Ver. 1

SERVICE MANUAL

MODEL	JP	E3	E2	E1	EA	E1C	E1K	E3B
AVR-E200		✓						✓
AVR-X500			✓	✓		✓		

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.

S0573-0V01DM/DG1302

CONTENTS

ABOUT THIS MANUAL

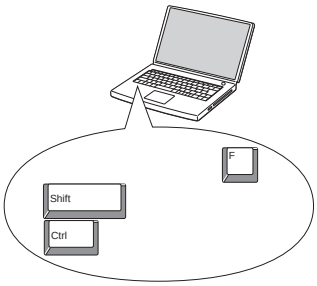
Read the following information before using the service manual.

What you can do with this manual

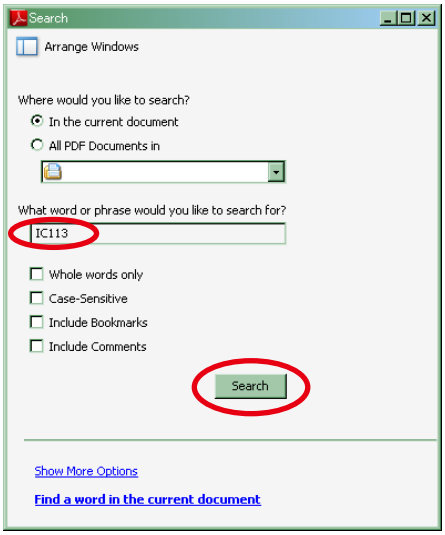
Search for a Ref. No. (phrase) (Ctrl+Shift+F)

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

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



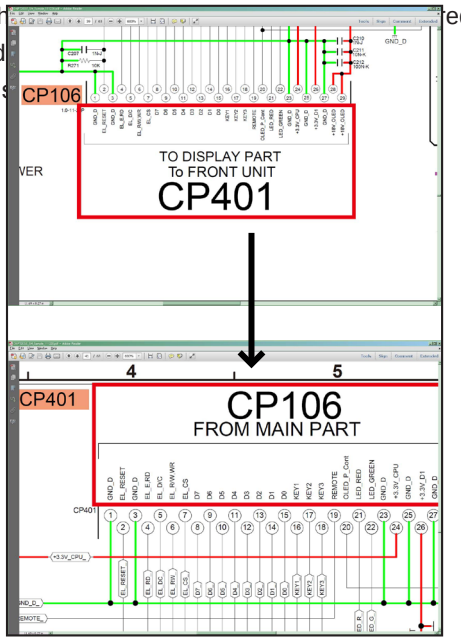
2.Enter the Ref. No. you want to search for in the Search window, and then click the **Search** button.
- A list of search results appears.



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

Jump to the target of a schematic diagram connector

Click th ed box around
- The s



- Page magnification stays the same as before the jump.

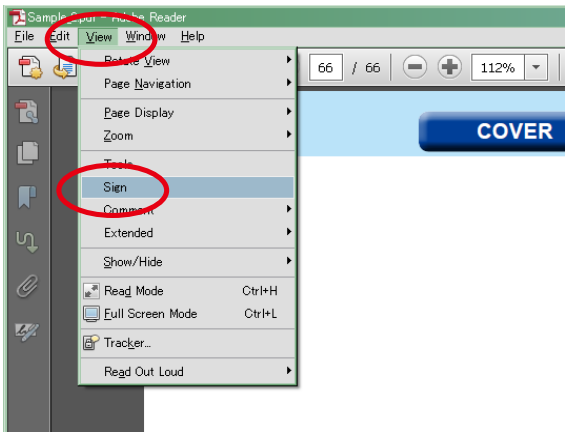
Using Adobe Reader (Windows version)

Add notes to this data (Sign)

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

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

- The Sign pane appears.

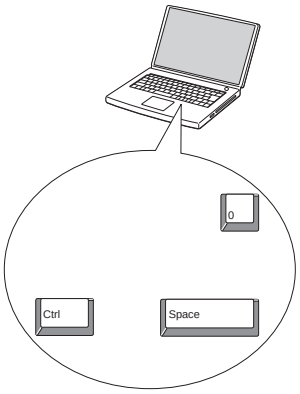


[Example using Adobe Reader 9]
On the "**Document**" menu, click "**Sign**".

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

Press **Ctrl**+**Space** on the keyboard and drag the mouse to select the area you want to view.

- The selected area is magnified.

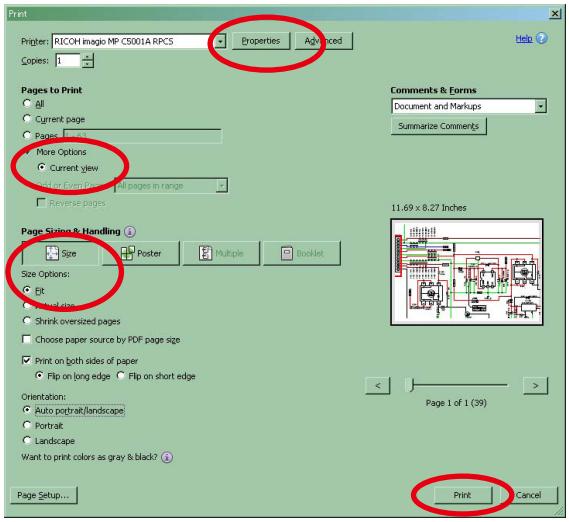


- When you want to move the area shown, hold down **Space** and drag the mouse.
- When you want to show a full page view, press **Ctrl**+**0** on the keyboard.

Print a magnified part of the manual

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

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



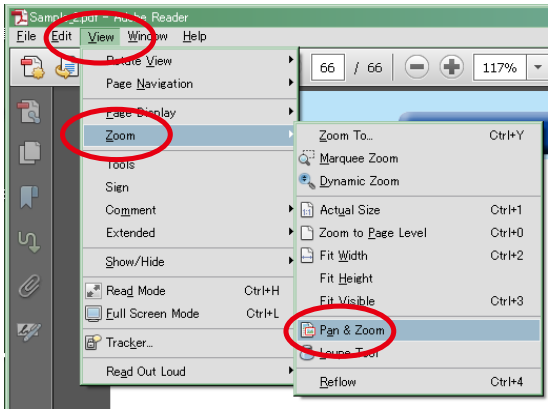
- **Properties**
  Click this button and check that the printer is set to a suitable paper size.
- **Page to print**
  Select the following checkbox.
  "**More Options**" : "**Current View**"
- **Page Sizing & Handling**
  Select the following checkbox.
  "**Size**" / "**Size Options**" : "**Fit**"

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

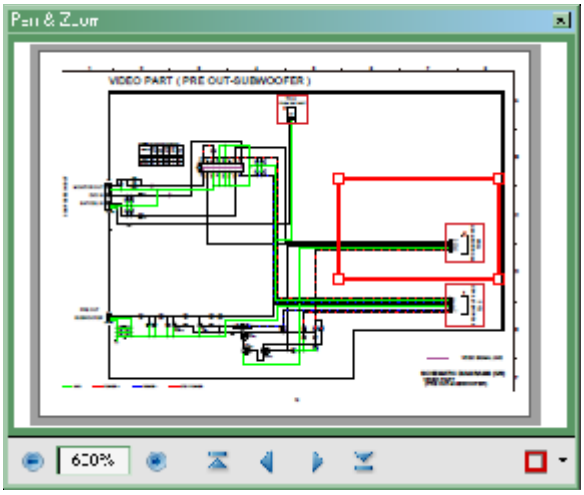
Magnify schematic / printed wiring board diagrams - 2
(Pan & Zoom function)

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

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



- The Pan & Zoom window appears on the screen.

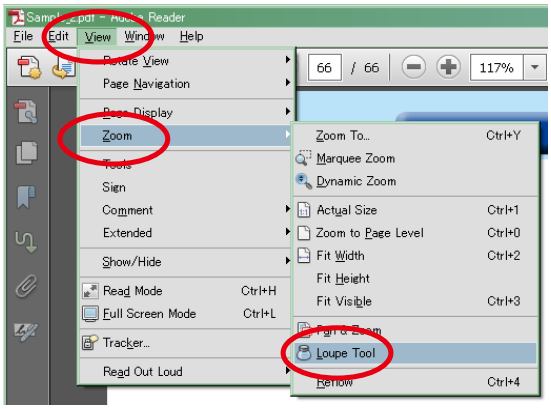


[Example using Adobe Reader 9]
On the "**Tools**" menu, point to "**Select & Zoom**", and then click "**Pan & Zoom Window**".

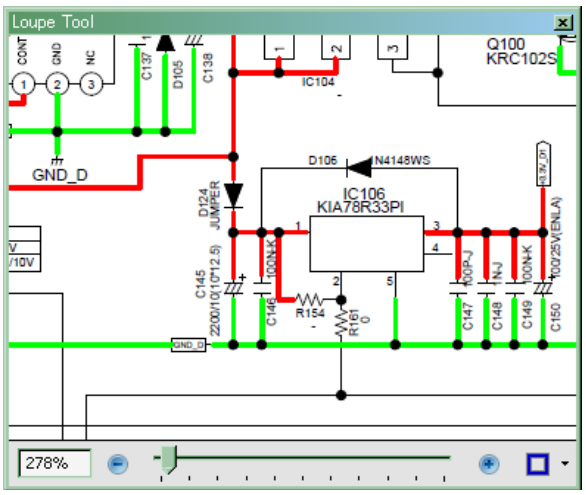
Magnify schematic / printed wiring board diagrams - 3
(Loupe Tool function)

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

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



- The Loupe Tool window appears on the screen.



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

SAFETY PRECAUTIONS

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

LEAKAGE CURRENT CHECK

Before returning the set to the customer, be sure to carry out either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the set is defective.
Be sure to test for leakage current with the AC plug in both polarities, in addition, when the set's power is in each state (on, off and standby mode), if applicable.

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

◎ Heed the cautions!

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

◎ Cautions concerning electric shock!

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

◎ Caution concerning disassembly and assembly!

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

◎ Use only designated parts!

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

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

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

◎ Make a safety check after servicing!

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

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

CAUTION Concerning important safety parts

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

(1) Schematic diagrams.....Indicated by the ⚠ mark.
(2) Parts lists.....Indicated by the ⚠ mark.
The use of parts other than the designated parts could cause electric shocks, fires or other dangerous situations.

NOTE FOR SCHEMATIC DIAGRAM

WARNING:

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

CAUTION:

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

WARNING:

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

NOTICE:

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

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

NOTE FOR PARTS LIST

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

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

TECHNICAL SPECIFICATIONS

❑ Audio Section

- **Power amplifier**

Rated output :

Front :
75 W + 75 W (8 Ω, 20 Hz – 20 kHz with 0.08 % T.H.D.)
110 W + 110 W (6 Ω, 1 kHz with 0.7 % T.H.D.)
130W+130W(6Ω, JEITA)

Center :
75 W (8 Ω, 20 Hz – 20 kHz with 0.08 % T.H.D.)
110 W (6 Ω, 1 kHz with 0.7 % T.H.D.)
130W(6Ω, JEITA)

Surround :
75 W + 75 W (8 Ω, 20 Hz – 20 kHz with 0.08 % T.H.D.)
110 W + 110 W (6 Ω, 1 kHz with 0.7 % T.H.D.)
130W+130W(6Ω, JEITA)

Output connectors : 6 – 16 Ω

- **Analog**

Input sensitivity/Input impedance : 200 mV/47 kΩ
Frequency response: 10 Hz – 100 kHz — +1, –3 dB (DIRECT mode)
S/N : 98 dB (IHF–A weighted, DIRECT mode)

❑ Video section

- **Standard video connectors**

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

❑ Tuner section

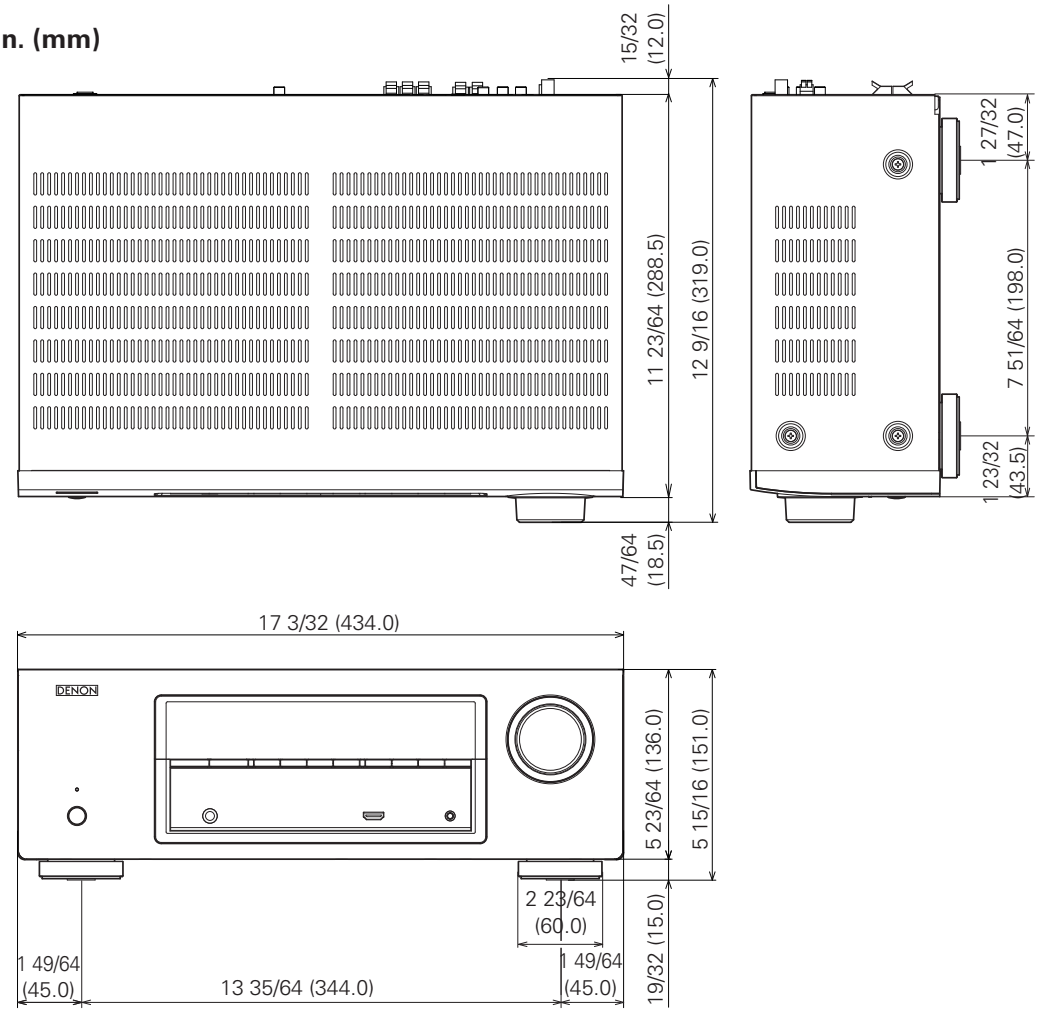
[FM](Note: µV at 75 Ω, 0 dBf = 1 x 10^{-15} W)
Receiving Range (for E3/E3B) **:**
[FM] 87.5 MHz – 107.9 MHz **[AM]**520 kHz – 1710 kHz
Receiving Range (for E2, E1C) **:**
[FM] 87.5 MHz – 108.0 MHz **[AM]**522 kHz – 1611 kHz
Usable Sensitivity :
[FM]1.2 µV (12.8 dBf) **[AM]**18 µV
50 dB Quieting Sensitivity :
[FM]MONO 2.8 µV (20.2 dBf)
S/N (IHF-A) :
[FM]MONO 70 dB (IHF–A weighted, DIRECT mode)
STEREO 67 dB (IHF–A weighted, DIRECT mode)
Total harmonic Distortion (at 1 kHz) :
[FM]MONO 0.7 %
STEREO 1.0 %

❑ General

Power supply : (for E3/E3B) **:** AC 120 V, 60 Hz
(for E2/E1) **:** AC 230 V, 50 Hz / 60Hz
(for E1C) **:** AC 220 V, 50 Hz
Power consumption : 330 W
0.3 W (Standby)

DIMENSION

Unit : in. (mm)



Weight : 17 lbs 7 oz (7.9 kg)

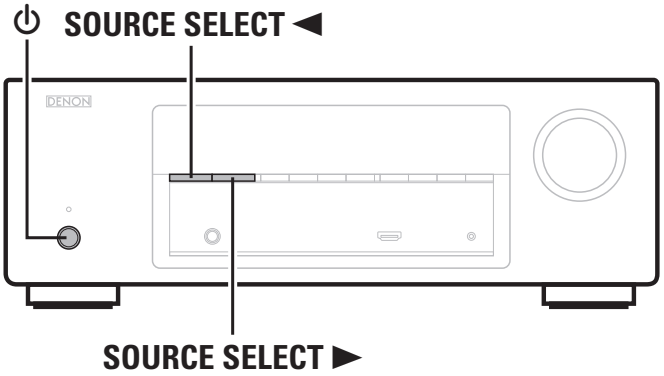
CAUTION IN SERVICING

Initializing AV SURROUND RECEIVER

AV SURROUND RECEIVER initialization should be performed when the µcom, peripheral parts of µcom, and Digital PCB were replaced.

1. Turn off the power pressing ⏻ button.
2. Press ⏻ button while simultaneously while pressing SOURCE SELECT ◄ and SOURCE SELECT ► buttons.
3. Check that the entire display is flashing at intervals of about 1 second, and then release the 2 buttons.
   The microprocessor will be initialized.

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



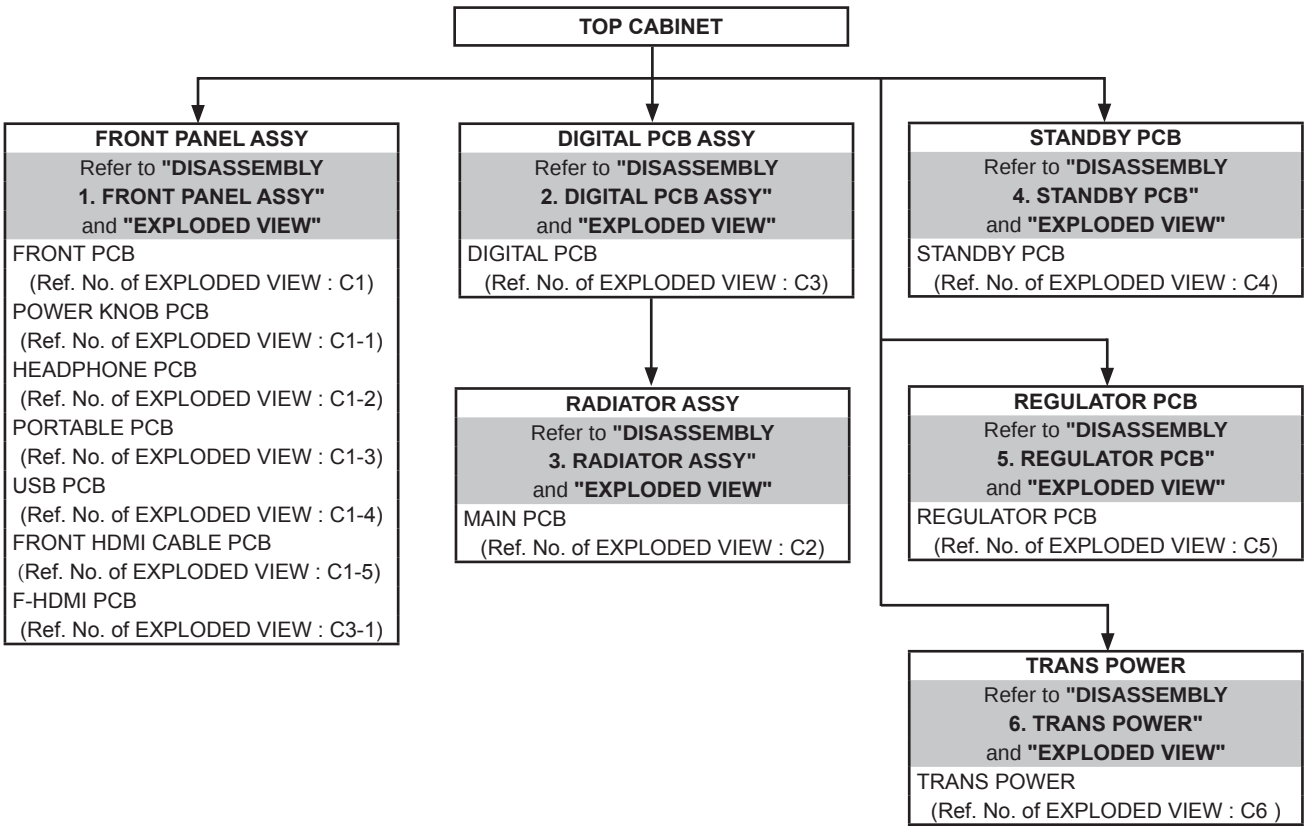
Service Jig

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

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

DISASSEMBLY

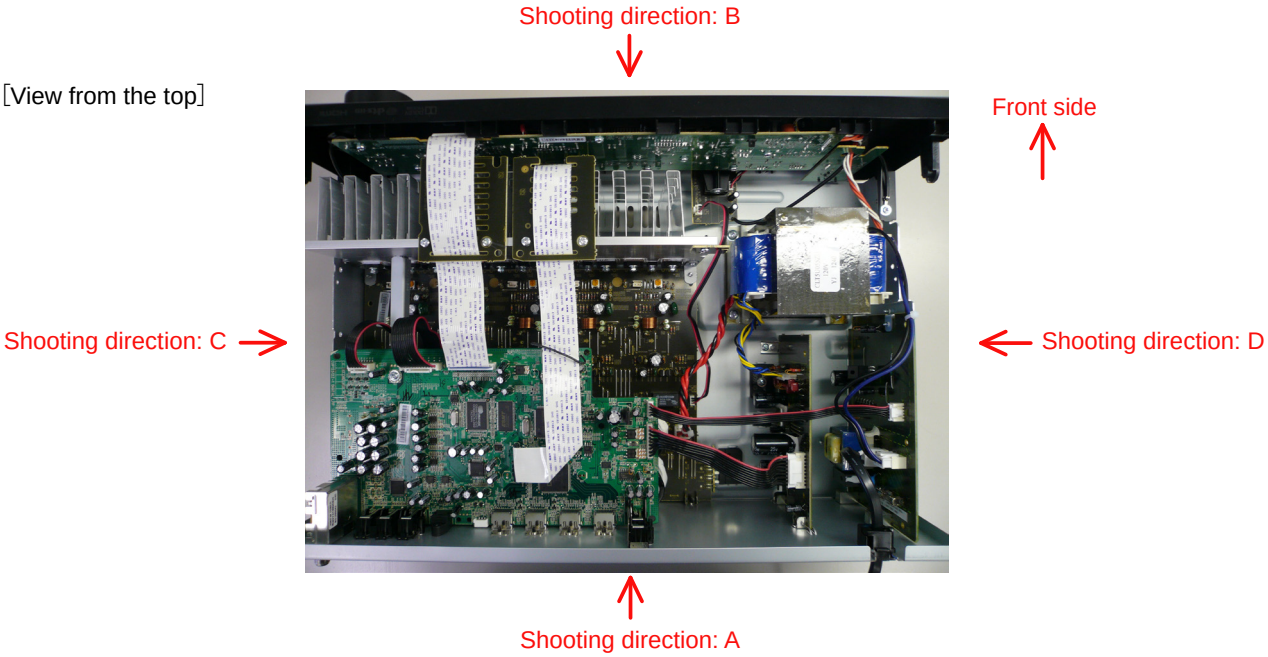
- Disassemble in order of the arrow in the following figure.
- In the case of the re-assembling, assemble it in order of the reverse of the following flow.
- In the case of the reassembling, observe "Caution concerning disassembly and assembly!".
- If wire bundles are untied or moved to perform adjustment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



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

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

The viewpoint of each photograph (Shooting direction)



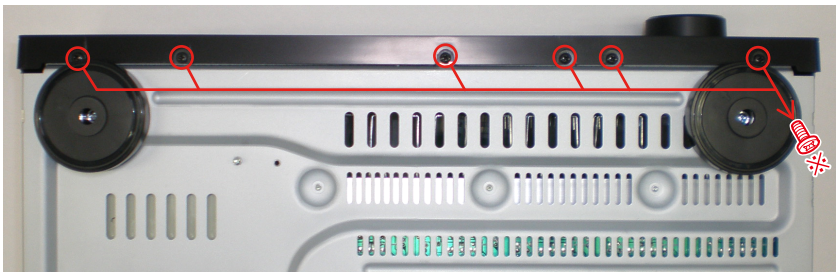
Note: • Before disassembling this unit, be sure to discharge the power line (the colored line in the schematic diagram).
• FFC cables with one end disconnected should be insulated by using tapes, etc.

1. FRONT PANEL ASSY

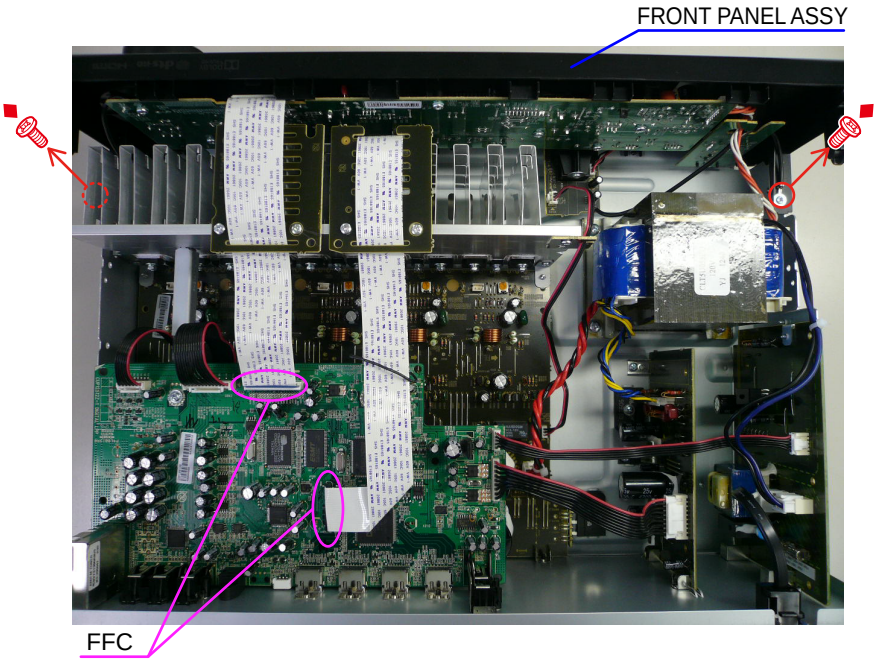
Proceeding : CABINET TOP → FRONT PANEL ASSY

(1) Remove the screws.

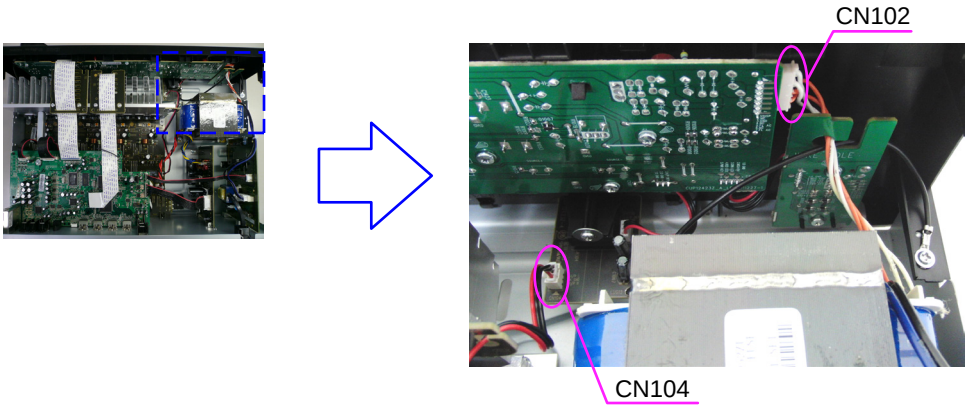
View from the bottom



(2) Remove the screws and disconnect the FFC.



(3) Disconnect the connector wires.



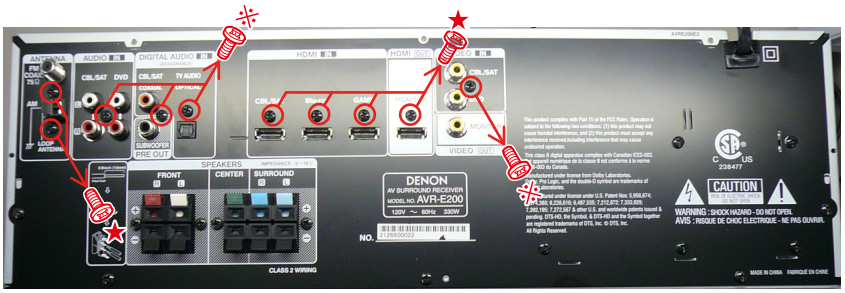
Please refer to "EXPLODED VIEW" for the disassembly method of each PCB included in FRONT PANEL ASSY.

2. DIGITAL PCB ASSY

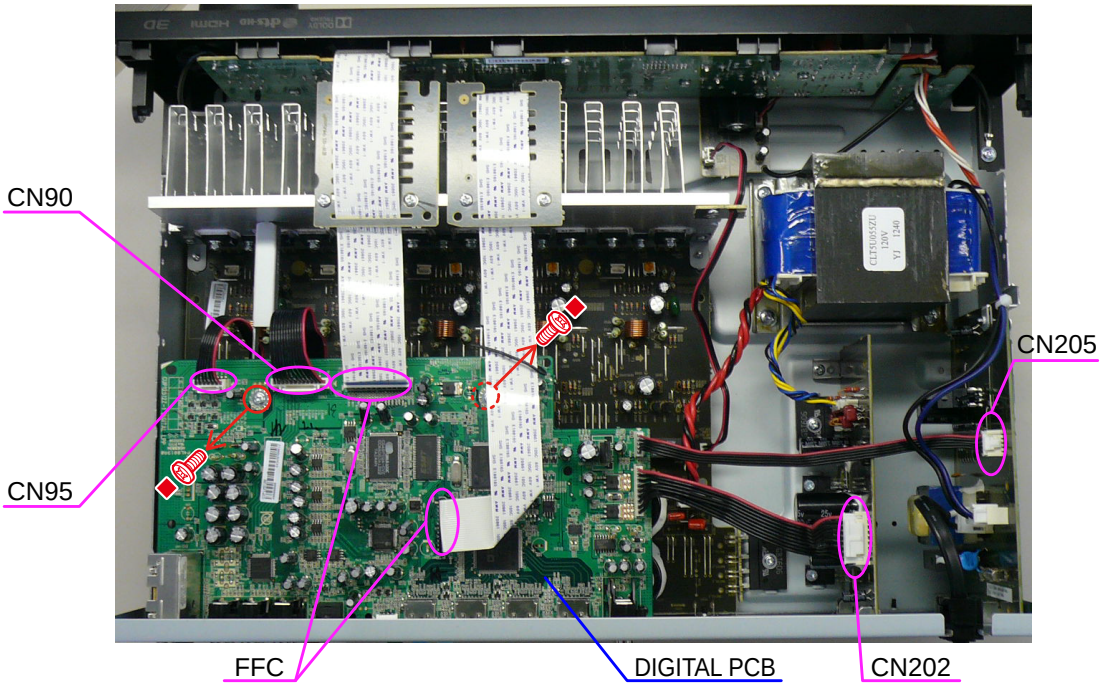
Proceeding : CABINET TOP → DIGITAL PCB ASSY

(1) Remove the screws.

Shooting direction: A



(2) Remove the screws.
Disconnect the connector wires and FFC.



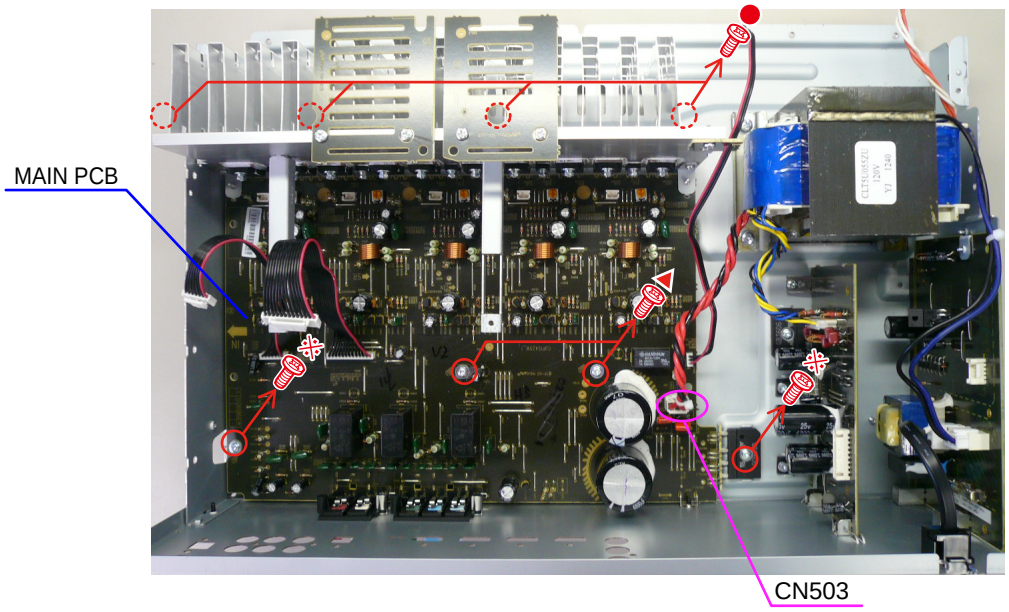
3. RADIATOR ASSY

Proceeding : TOP COVER → DIGITAL PCB ASSY → RADIATOR ASSY

(1) Remove the screws.

Shooting direction: A

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



4. STANDBY PCB

Proceeding : CABINET TOP → **STANDBY PCB**

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

5. REGULATOR PCB

Proceeding : CABINET TOP → **REGULATOR PCB**

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

6. TRANS POWER

Proceeding : CABINET TOP → **TRANS POWER**

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

SPECIAL MODE

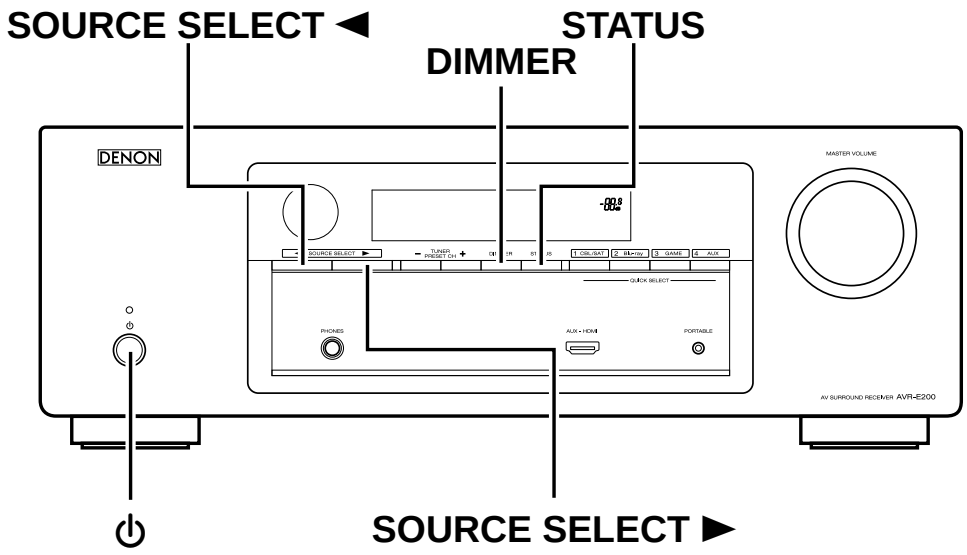
Special mode setting button

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

Mode	Button A	Button B	Contents
µcom/DSP/OSD Version display mode	STATUS	DIMMER	Firmware versions such as Main, DSP or OSD are displayed in the FL display. Errors are displayed or when they occur. (Refer to 17 pagepage.)
Initialization mode	SOURCE SELECT ◄	SOURCE SELECT ►	Backup data initialization is carried out. (Refer to 9 pagepage.)
Mode for switching tuner frequency step	DIMMER	SOURCE SELECT ►	---E2 model only--- Change tuner frequency step to AM9k/FM50kHz STEP or AM:10k/FM:200kHz.

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

Mode	Button A	Button B	Contents
Select the video signal format	STATUS	SOURCE SELECT ◄	Select with the "SOURCE SELECT ◄", "SOURCE SELECT ►" and "STATUS" button change video format NTSC or PAL.
Mode for preventing remote control acceptance	STATUS	DIMMER	Operations using the remote control are rejected. "REMOTE LOCK:ON" is displayed in FL display. (Mode the cancellation: Execute the same button operations as when performing setup.)
Displaying the protection history mode	PRESET+	STATUS	The protection history is displayed. (Refer to 18 page)



1. µcom/DSP/OSD Version display mode

1.1. Operation specifications

µcom/DSP/OSD version display mode:
When the set is started up in this mode, the version information is displayed.

Starting up:

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

1.2. Display Order

① Model destination information → ② Main-µcom version → ③ DSP version → ④ OSD version

Display		State
① Model destination information		
	AVR-E200 E3, E3B model	AVR-E200 E3
	AVR-X500 E2, E1 model	AVR-X500 E2
	AVR-X500 E1C model	AVR-X500 E1C
② Main-µcom version		Main :**.**
③ DSP version		DSP.*.*.*
④ OSD version		OSD :**.**

Cleared of mode:

Press the ⏻ button to turn the power off.

1.3. Error display

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

Condition	-	State
DSP NG	When DSP boot, executing DSP reset makes to becomes error.	DSP ERROR 01
DSP 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 the set is started up in this mode, the error information is displayed.

Starting up:

When power is turned on, presssing both buttons [PRESET+] and [STATUS] at the same time for 3 seconds or more. Protection history mode is set. In this mode, information shown in the following sections is displayed.

2.2. About the display on the FL display

Information about the last Protection operation is displayed.

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

FLD	NO PROTECT													

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

FLD	PRT:ASO													

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

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

FLD	PRT:DC													

Cause: DC output of the power amplifier is abnormal.

If the power is turned on without correcting the abnormality, the protection function will work about 6 seconds later and the power supply will be shut off.

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

FLD	PRT:THERMAL A													

FLD	PRT:THERMAL B													

Cause: The temperature of the heat sink is excessive.

If the power is turned on without correcting the abnormality, the protection function will work about 4 minutes later and the power supply will be shut off.

(5) For Power(when the last protection incident was Power protection)

FLD	PRT:Power													

Cause: The Power Supply(±12V) is abnormal.

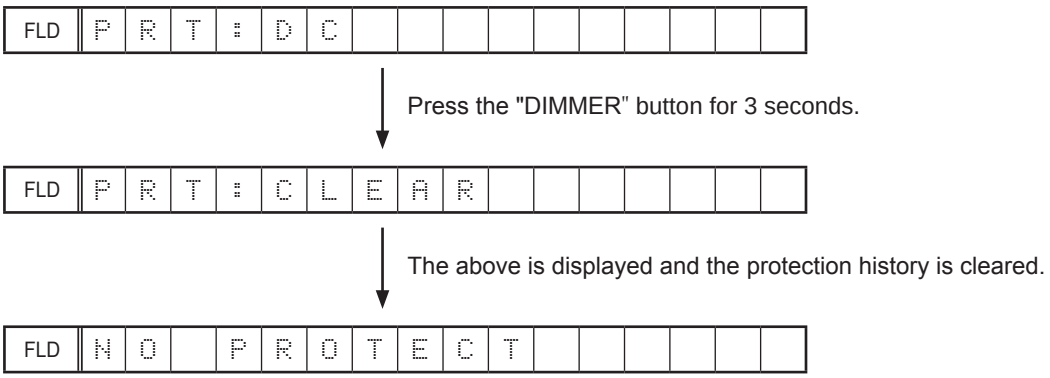
※ Additional causes of protection can be due to loose connections, associated components, Microprocessor, etc.

When the "STATUS" button is pressed again after the above protection history as shown above is displayed, the normal display reappears.

2.3. Clearing the protection history

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

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



(2) Initialize. (9 page.)

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

Warning indication by the POWER LED

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

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

WHEN THE MICROPROCESSOR IS REPLACED WITH A NEW ONE

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

PWB Name	Ref. No.	Description	After replaced	Remark
DIGITAL	IC91	STM32F101ZE	**B**	SOFTWARE: Main
DIGITAL	IC82	MX25L8006EM2I-12G	**B**	SOFTWARE: DSP ROM
DIGITAL	IC14	MX25L8006EM2I-12G	**B**	SOFTWARE: OSD ROM

After replacing

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

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

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

PROCEDURE FOR UPGRADING THE VERSION OF THE FIRMWARE

1. Preparations

1.1. Before starting the operation

(1) Personal Computer

(2) RS-232 cable (9P (Male), Straight).

(3) 8U-210100S WRITING KIT.

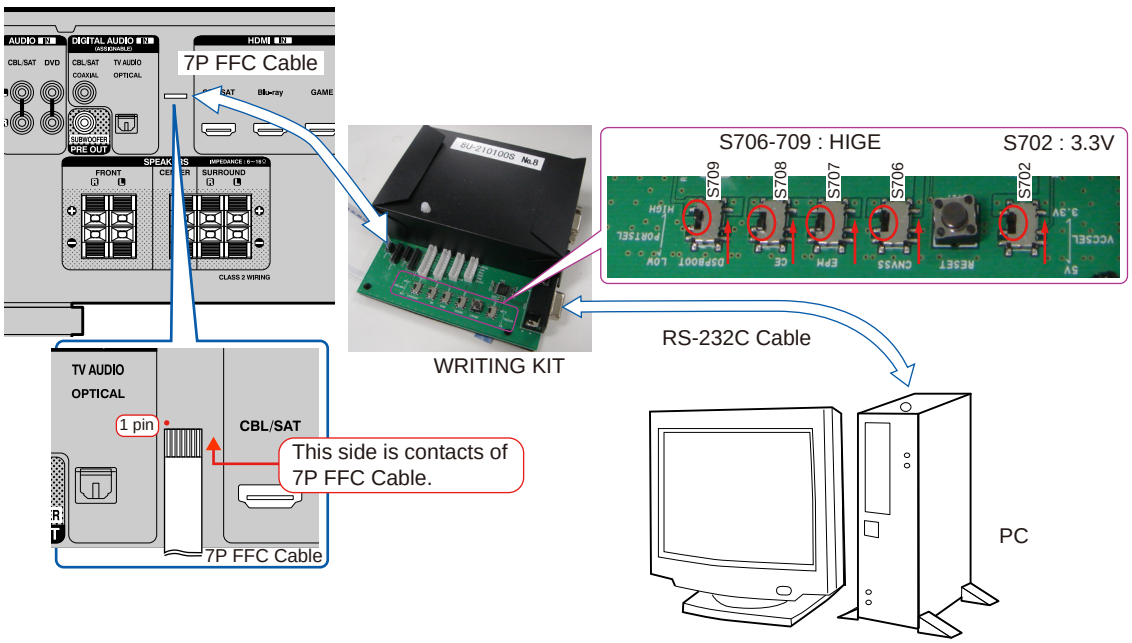
(4) 606050028012P / 7P FFC(1.0) L=240.

1.2. Connection of the AV receiver

(1) Confirm the power on/off switch of the AV receiver is turning off.

(2) Connect the update terminal of AV receiver with the "WRITING KIT". (Refer to figure below for the connection of the 7P FFC cable.)

(3) Connect the RS-232C cable from PC with the "WRITING KIT".



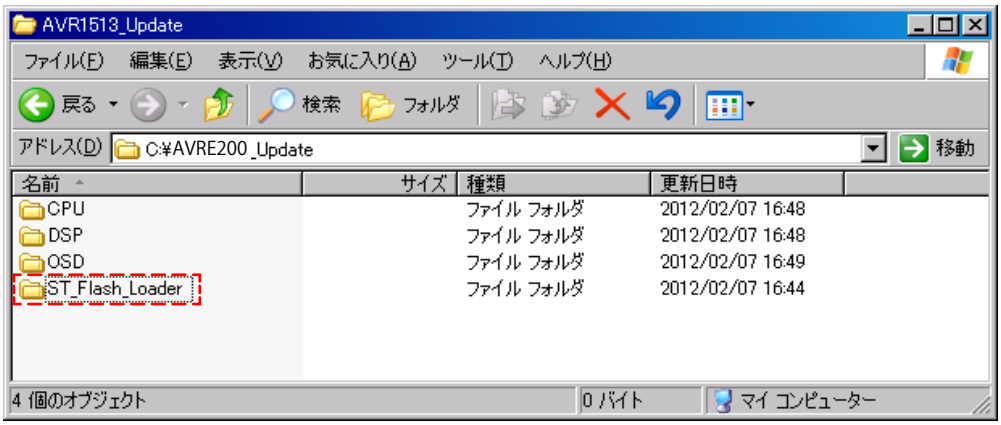
1.2. Connection of the AV receiver

(1) Confirm the power on/off switch of the AV receiver is turning off.

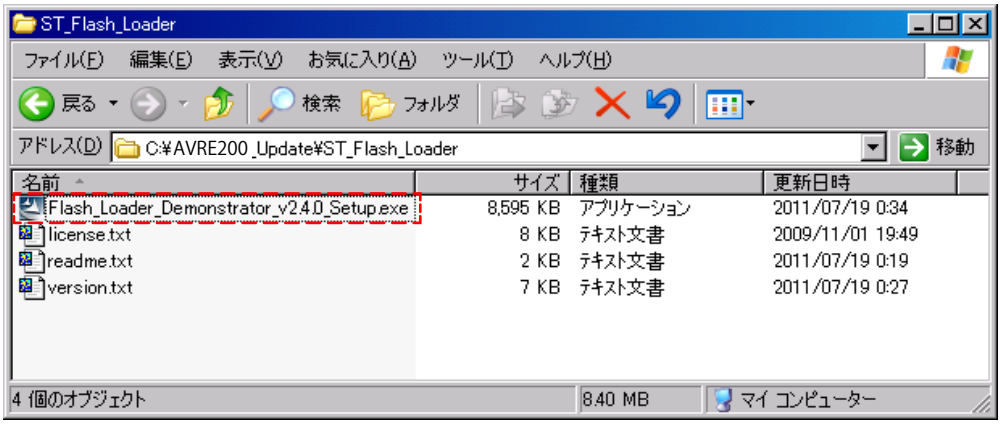
(2) Connect the update terminal of AV receiver with the "WRITING KIT". (Refer to figure below for the connection of the 7P FFC cable.)

1.3. INSTALL UPDATE TOOL

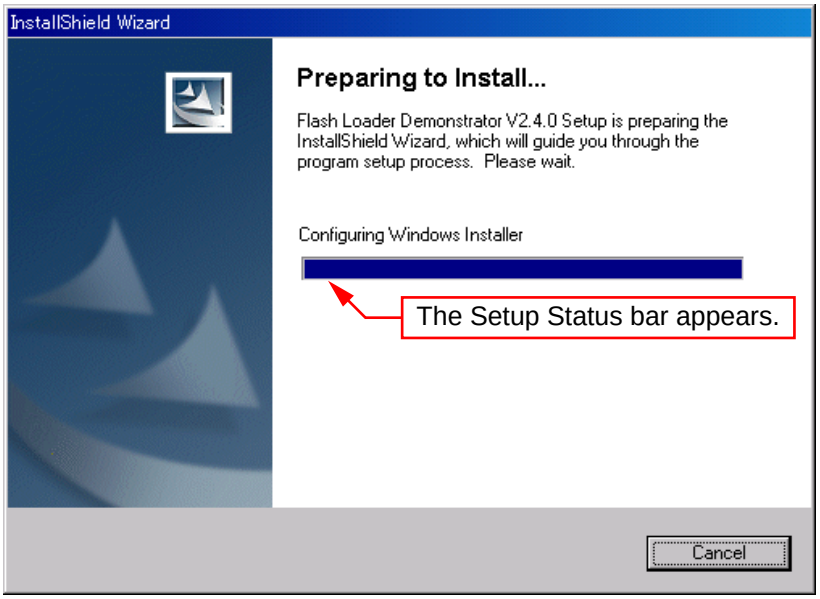
(1) Click the "ST_Flash_Loder" folder.



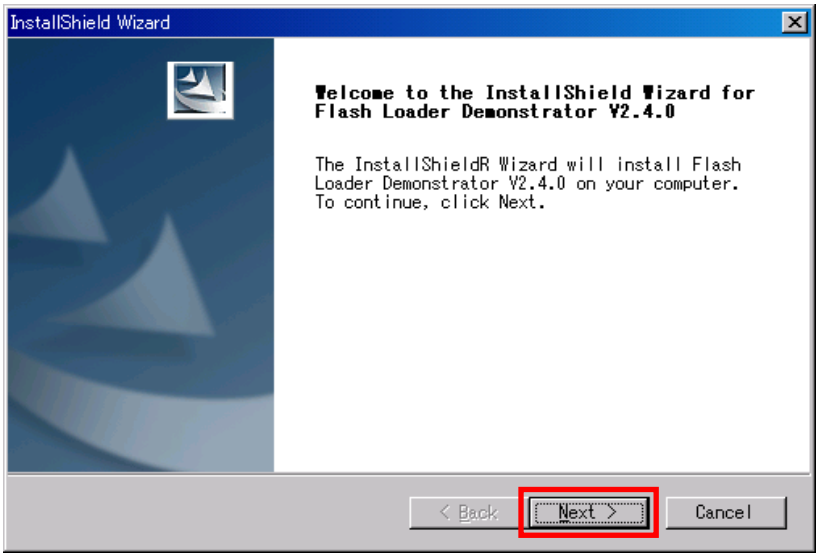
(2) Run the "Flash_Loader_Demonstrator_v2.4.0_Setup.exe" on program file.



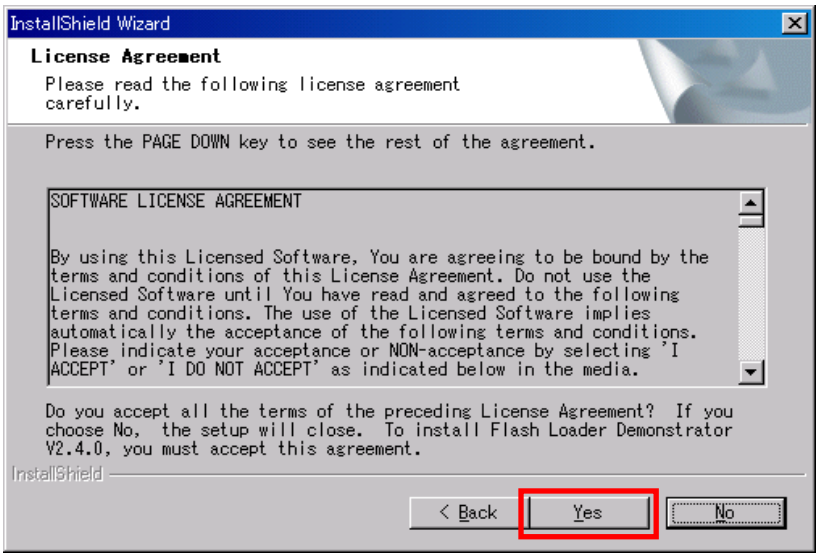
The following screen will be displayed.



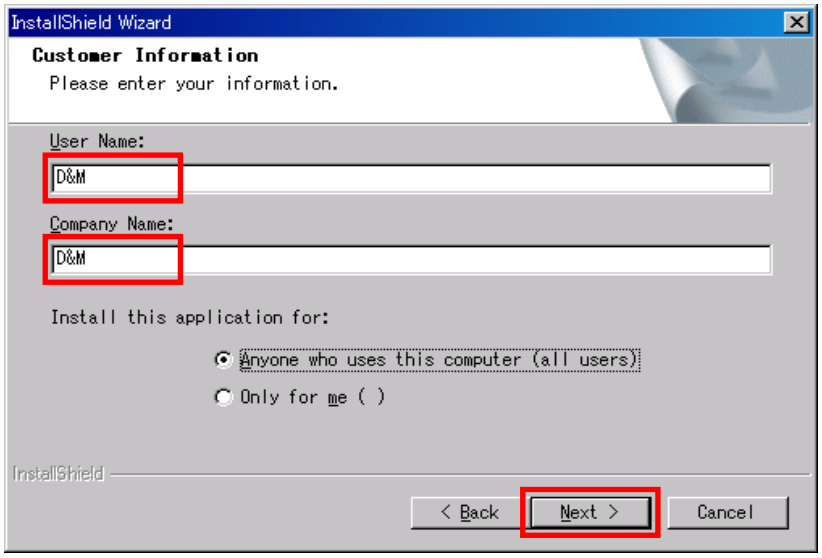
(3) Click the "Next" button.



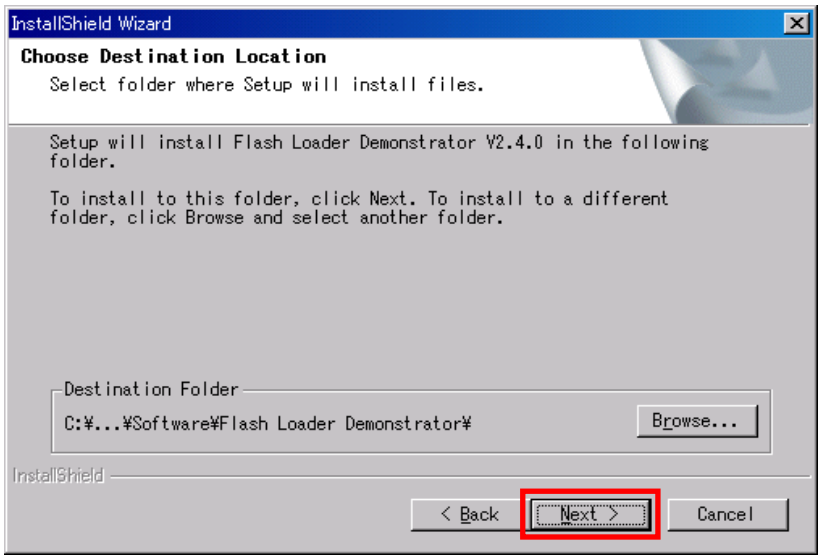
(4) Click the "Yes" button.



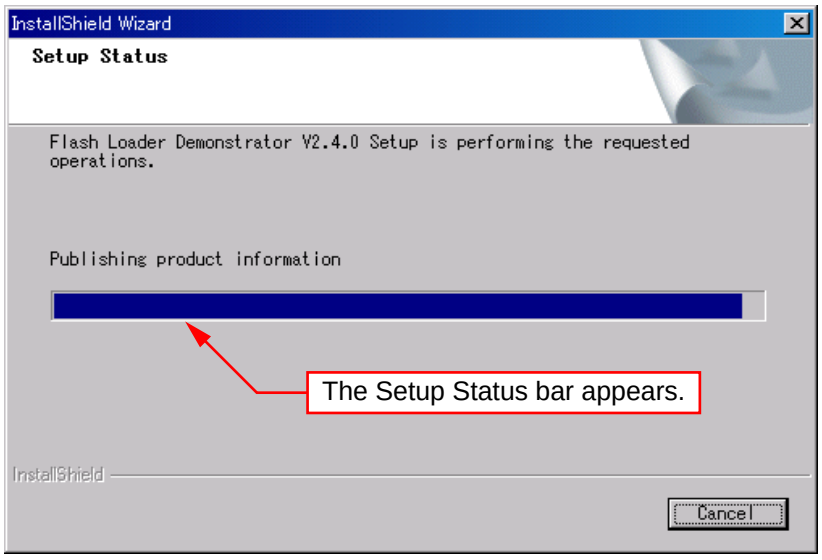
(5) Click the "Next" button after inputting "User Name" and "Company Name".



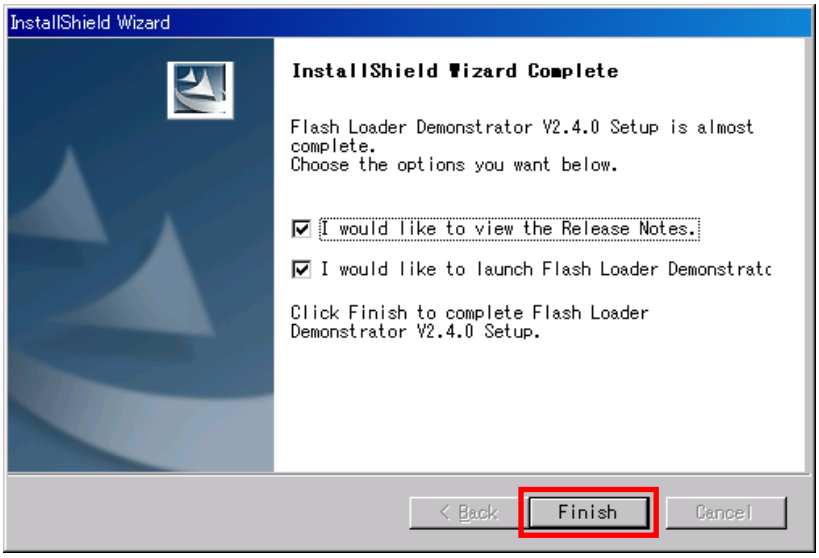
(6) Click the "Next" button.



The following screen will be displayed.



(7) Click the "Finish" button.



2. UPDATE FIRMWARE

(1) Connect the update terminal of AV receiver with the "WRITING KIT".

(2) Set the switch of "WRITING KIT". (Refer to the table below.)

DSPBOOT	CE	EPM	CNVSS
H	H	L	H

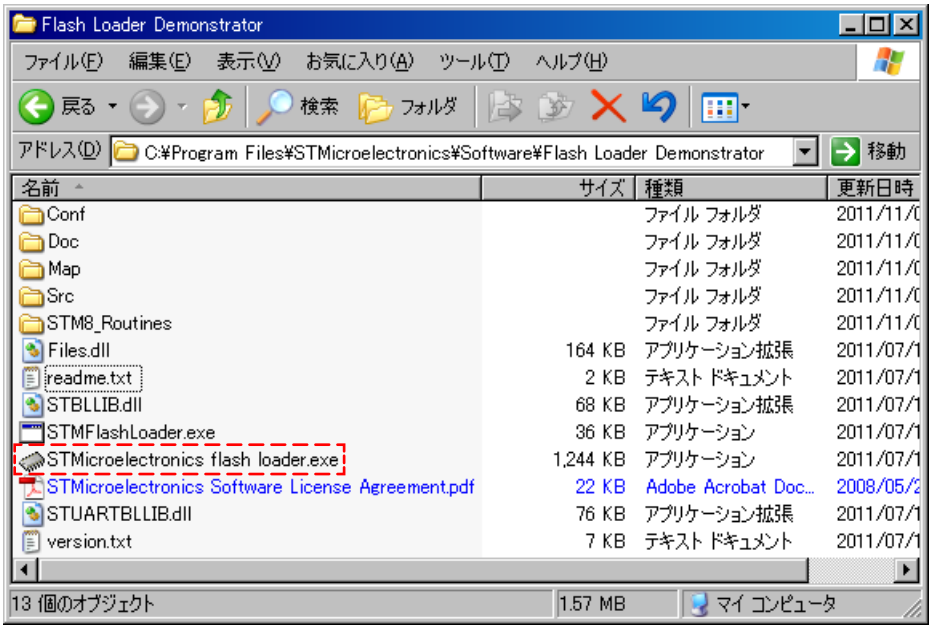
(3) Press the ⏻ button to turn the power on of AV receiver.

(4) Set the switch of "WRITING KIT". (Refer to the table below.)

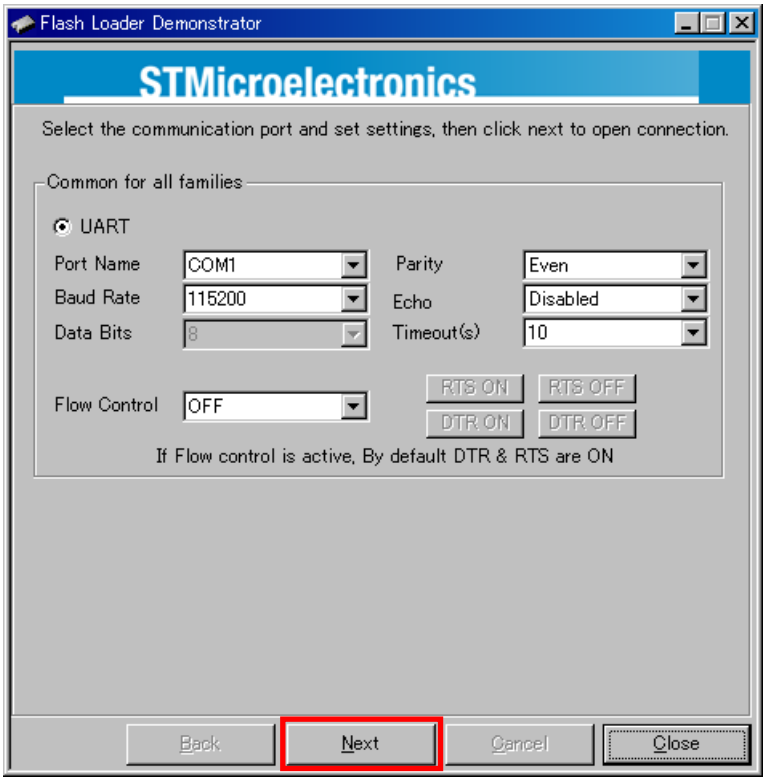
DSPBOOT	CE	EPM	CNVSS
H	H	H	H

(5) Press the "RESET" switch of "WRITING KIT".

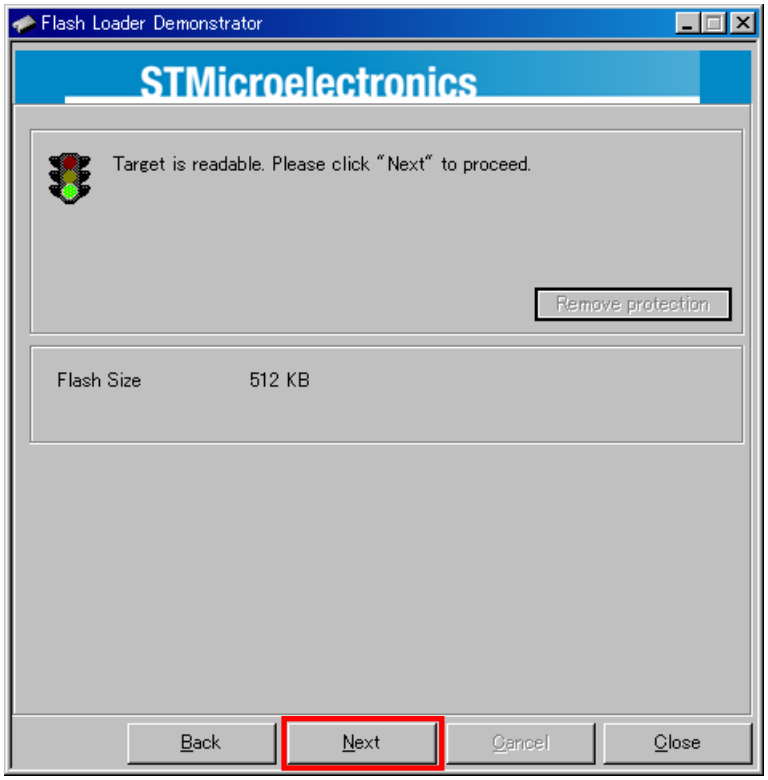
(6) Run the "STMicroelectronics flash loader.exe" on program file.



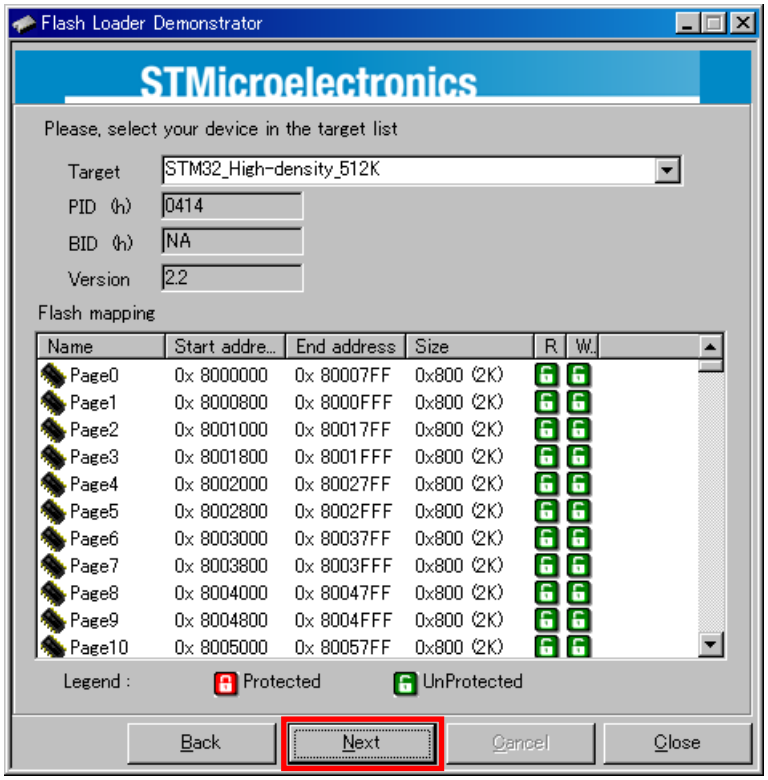
(7) Click the “Next” button 3 times.
Click the “Next” button for 1st time.



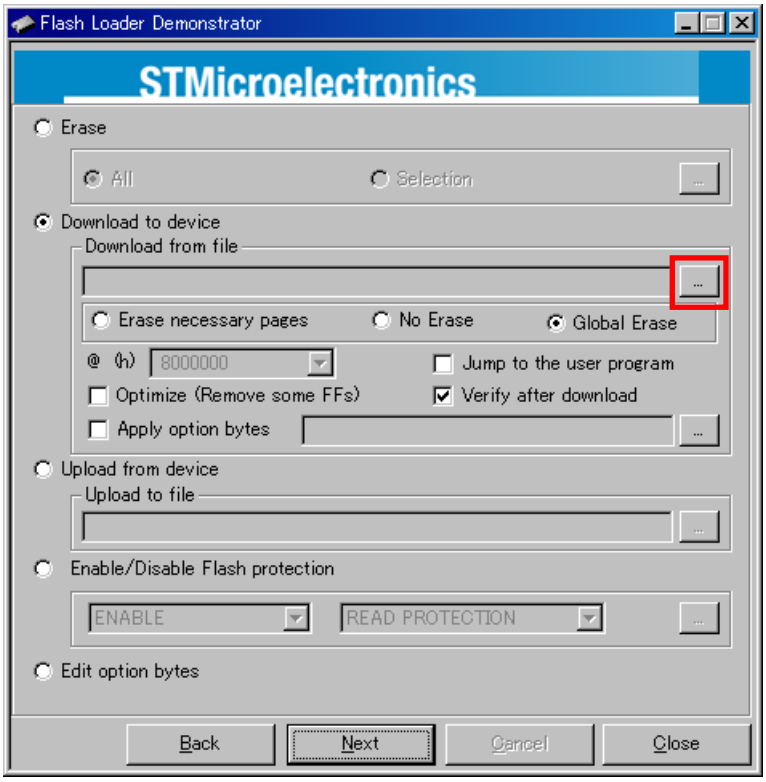
Click the “Next” button for 2nd time.



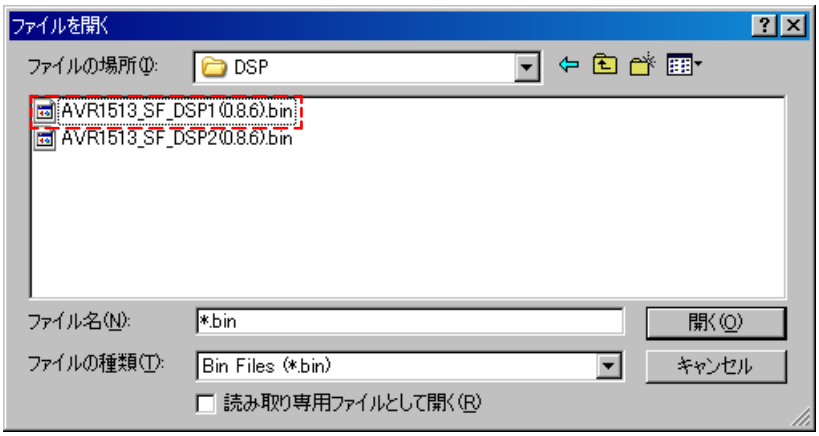
Click the “Next” button for 3rd time.



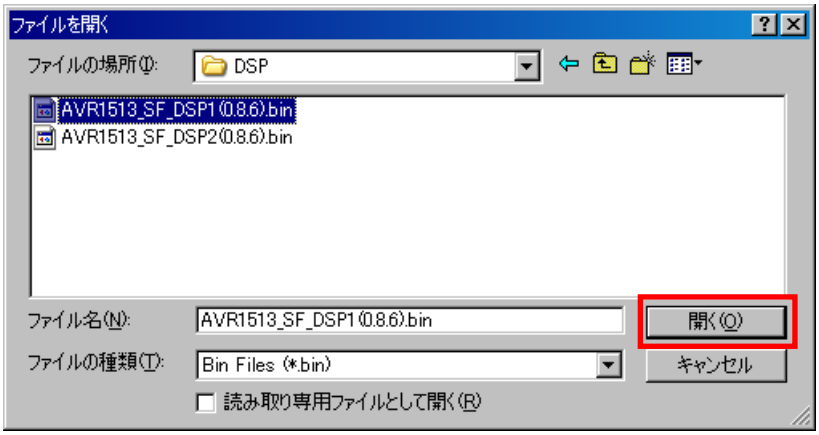
(8) Choose Flash File(DSP1).
Click the following button.



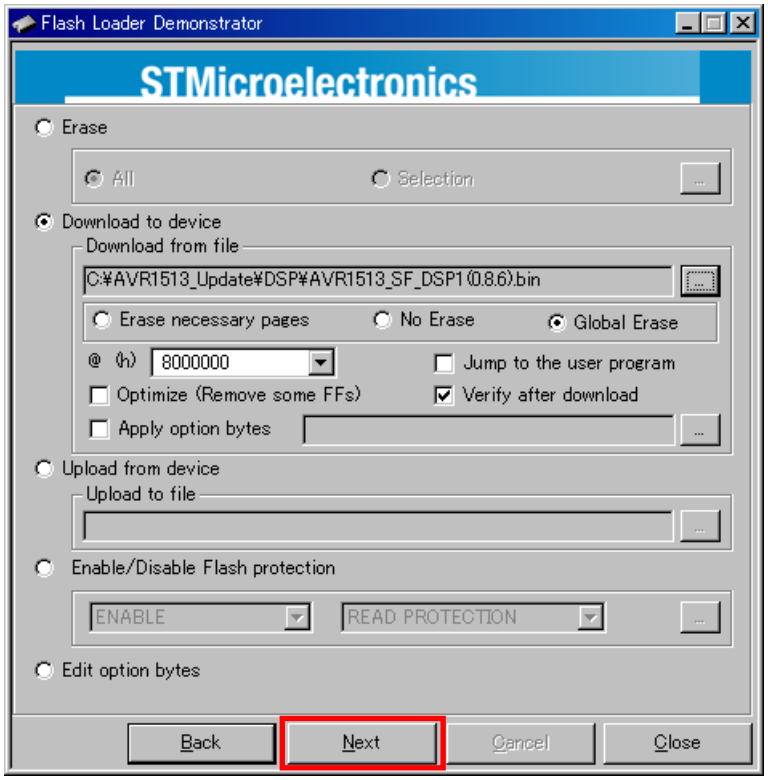
From the file browser windows select file of "AVR1513_SF_DSP1(x.x.x).bin".



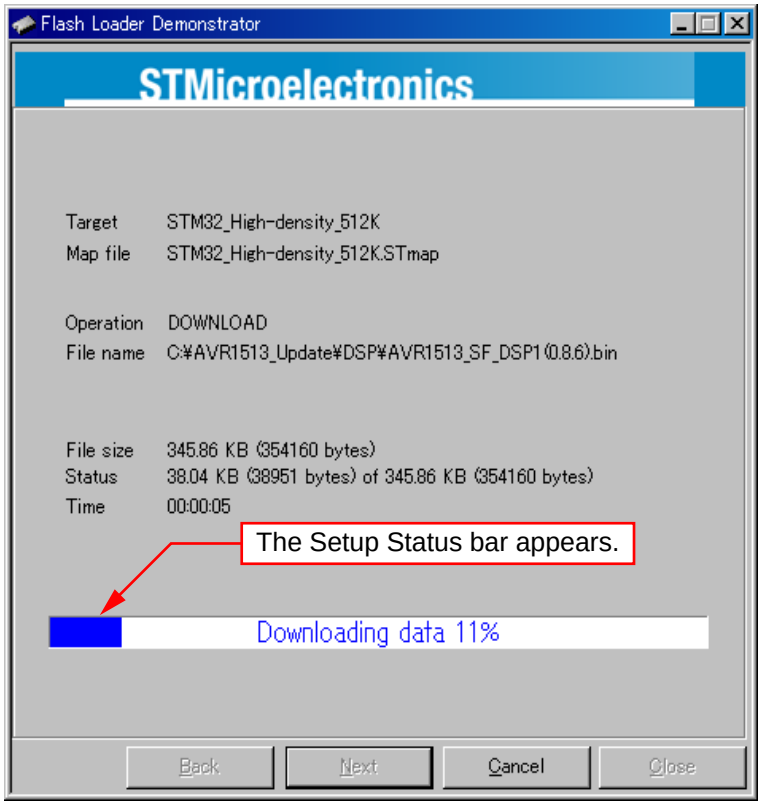
Click the "Open" button.



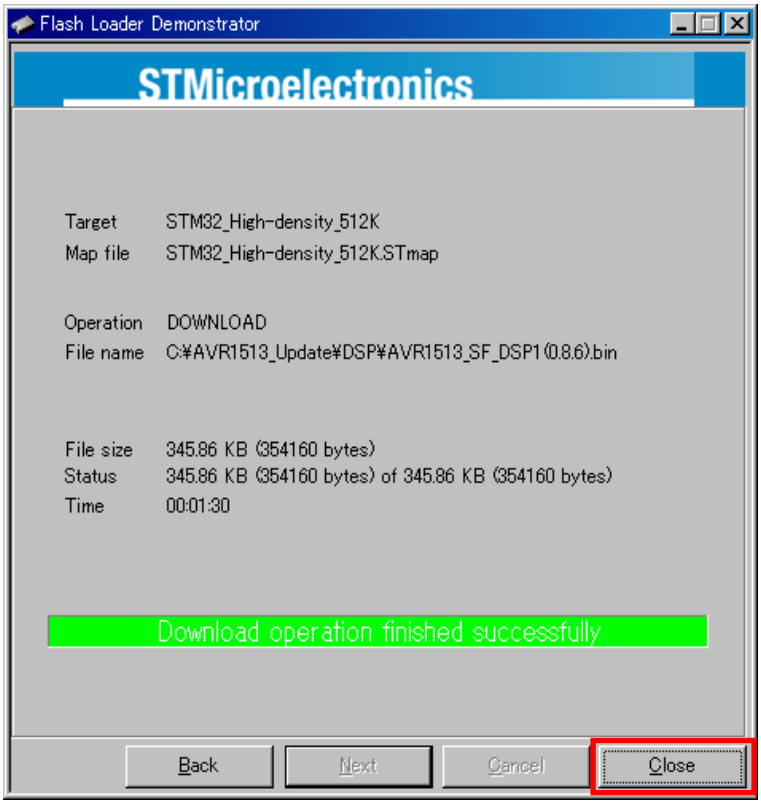
Click the “Next” button.



The following screen will be displayed.



The following screen will be displayed and click the "Close" button.



(9) Set the switch of "WRITING KIT". (Refer to the table below.)

DSPBOOT	CE	EPM	CNVSS
H	H	L	H

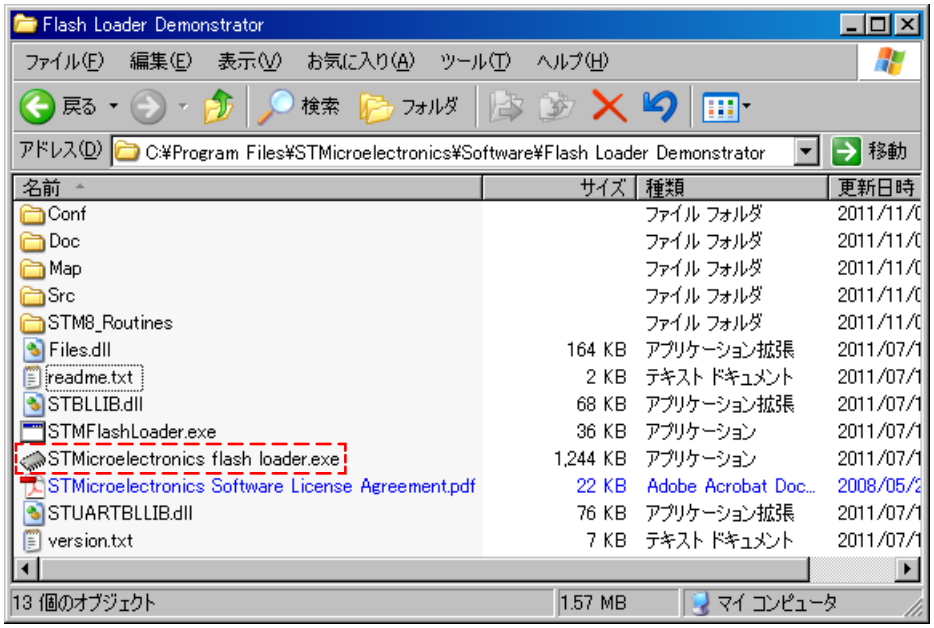
(10) Press the "RESET" switch of "WRITING KIT".
Wait for about 130 seconds until "Write Complete." is displayed on VFD.

(11) Set the switch of "WRITING KIT". (Refer to the table below.)

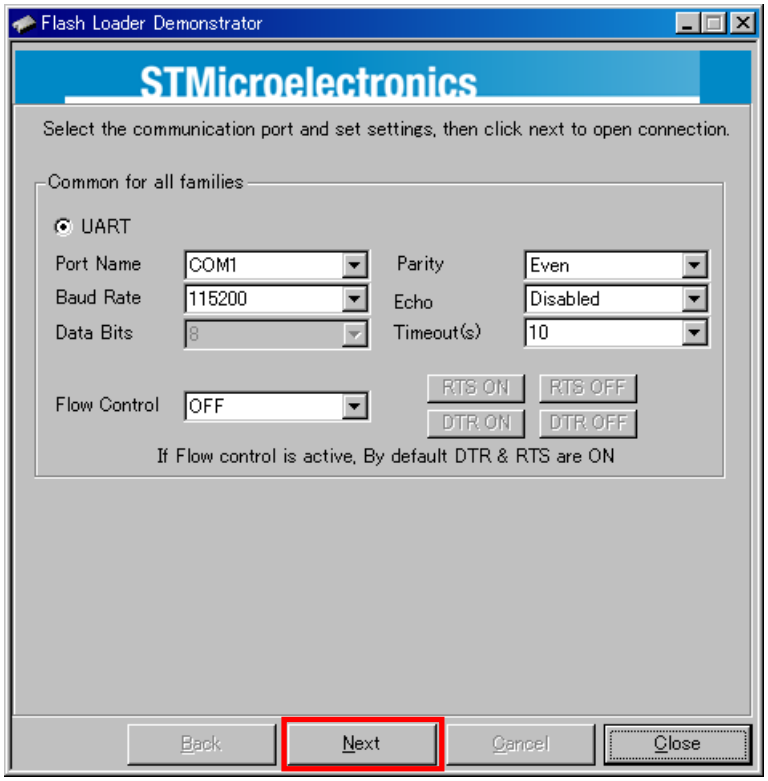
DSPBOOT	CE	EPM	CNVSS
H	H	H	H

(12) Press the "RESET" switch of "WRITING KIT".

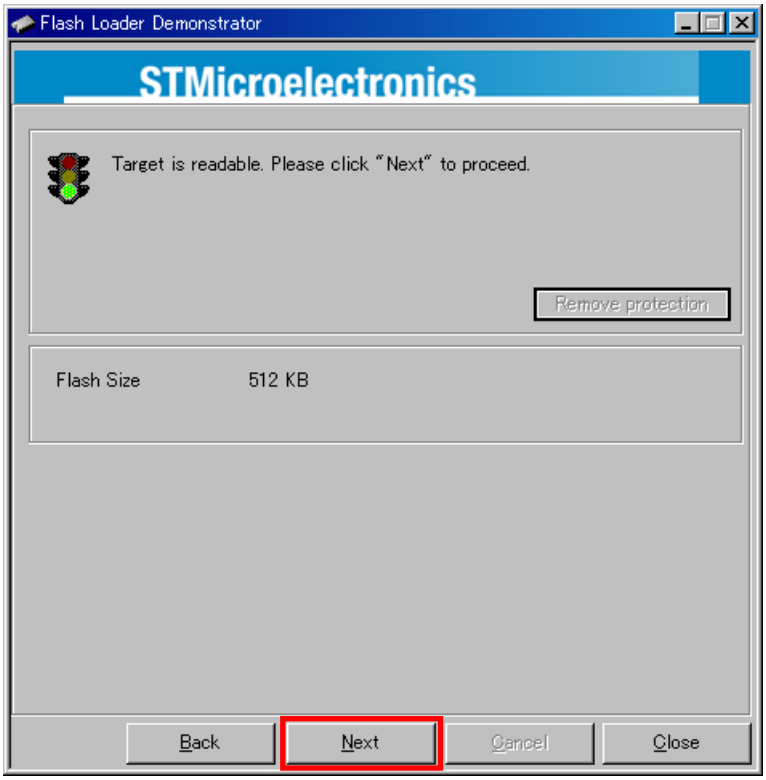
(13) Re-run the "STMicroelectronics flash loader.exe" on program file.



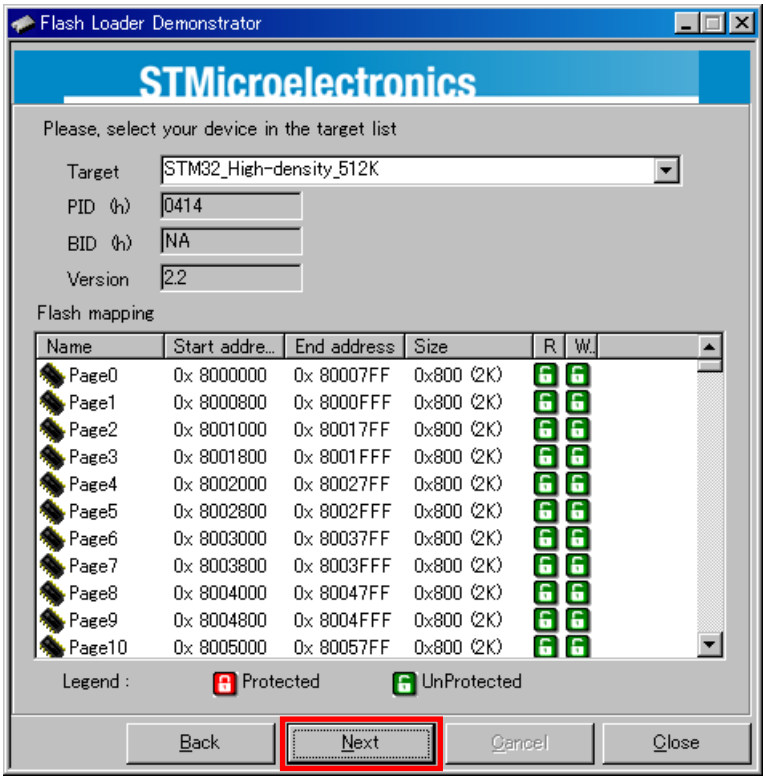
(14) Click the “Next” button 3 times.
Click the “Next” button for 1st time.



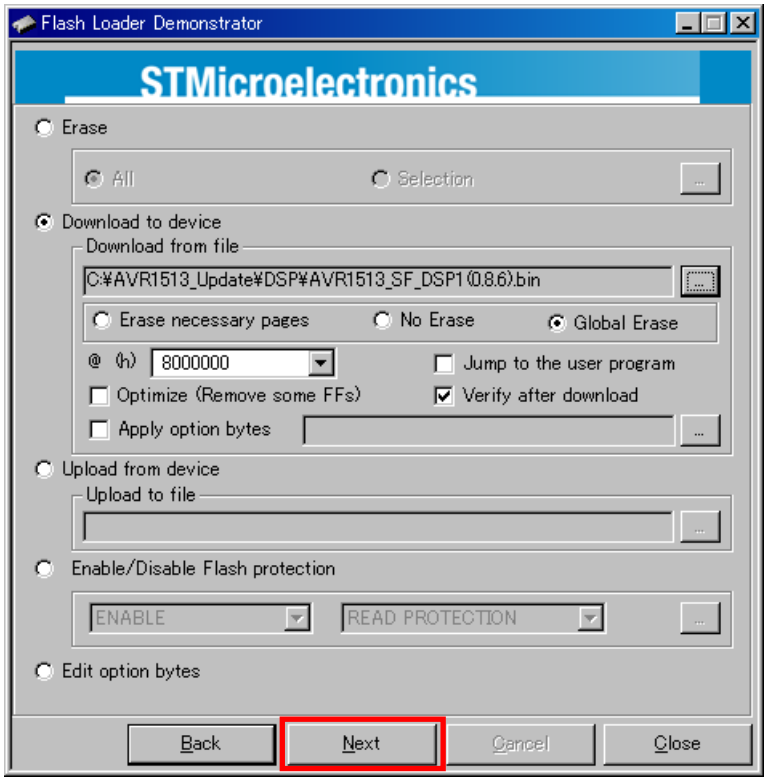
Click the “Next” button for 2nd time.



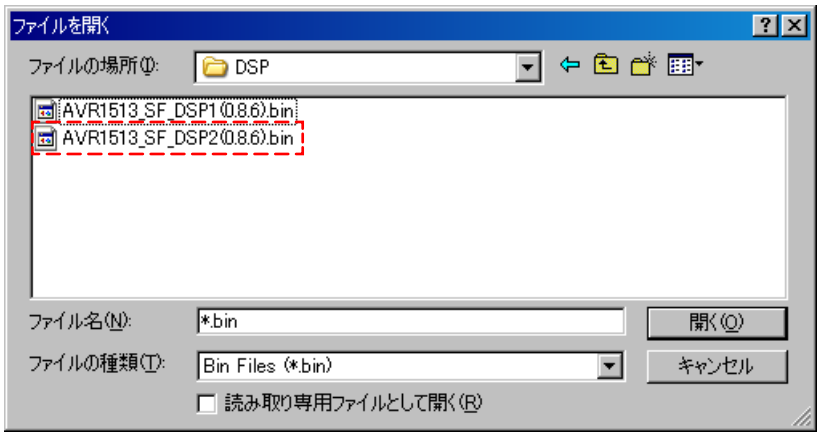
Click the “Next” button for 3rd time.



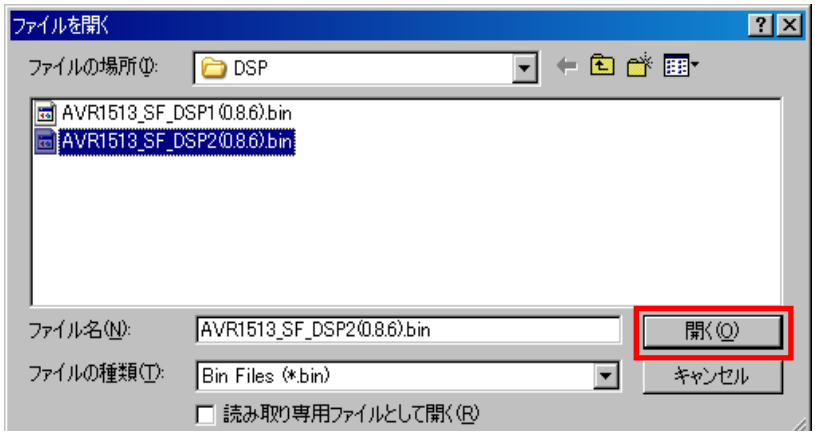
(15) Choose Flash File(DSP2).
Click the following button.



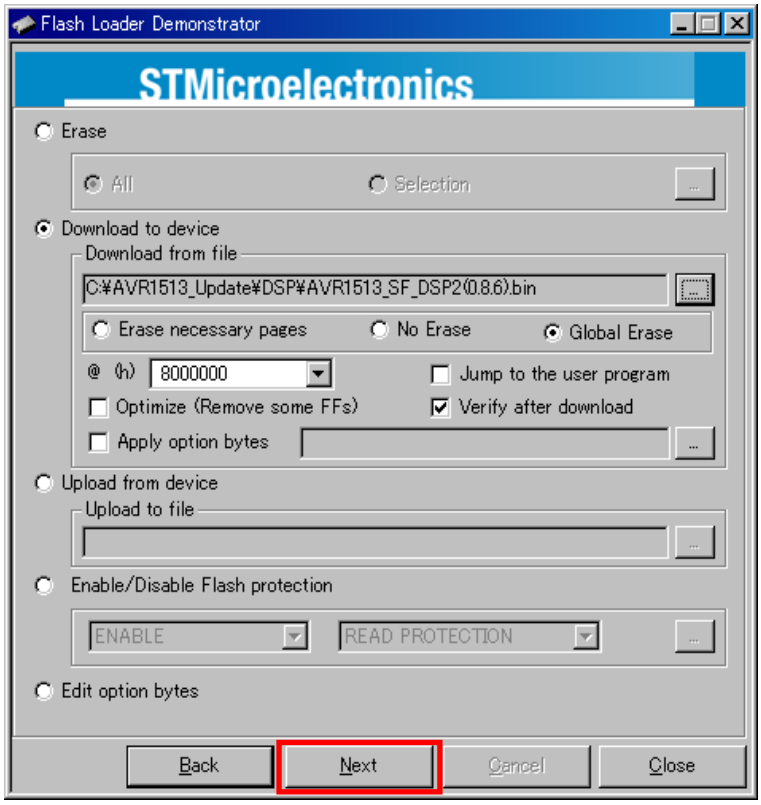
From the file browser windows select file of "AVRE1513_SF_DSP2(x.x.x).bin".



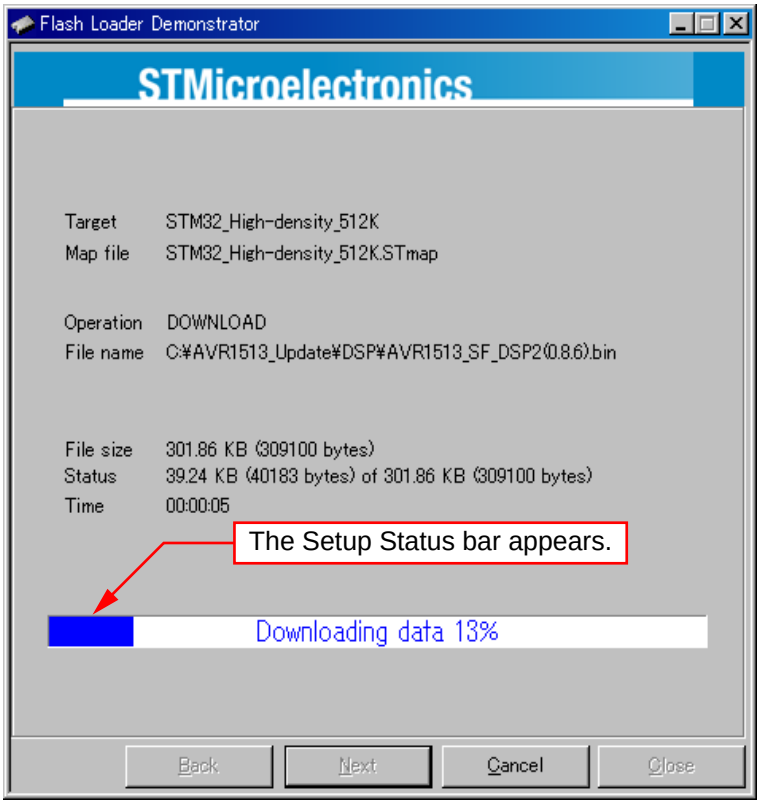
Click the "Open" button.



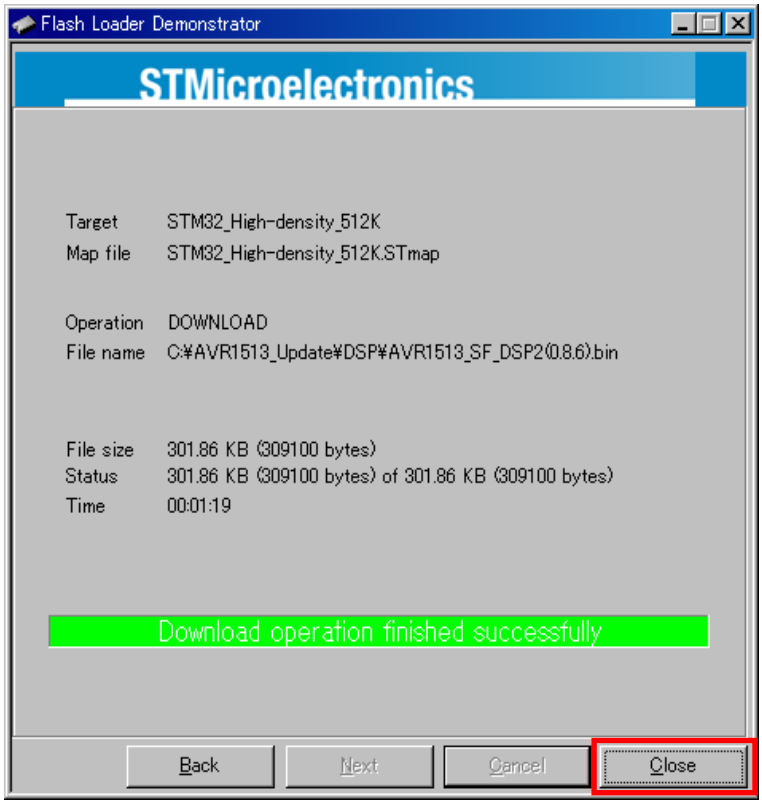
Click the “Next” button.



The following screen will be displayed.



The following screen will be displayed and click the "Close" button.



(16) Set the switch of "WRITING KIT". (Refer to the table below.)

DSPBOOT	CE	EPM	CNVSS
H	H	L	H

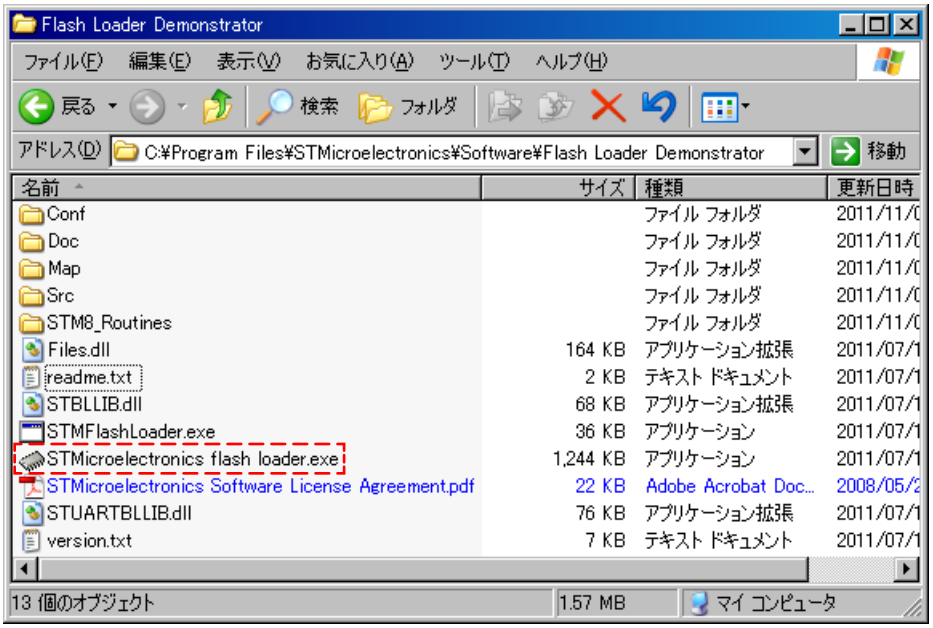
(17) Press the "RESET" switch of "WRITING KIT".
Wait for about 100 seconds until "Write Complete." is displayed on VFD.

(18) Set the switch of "WRITING KIT" (Refer to the table below).

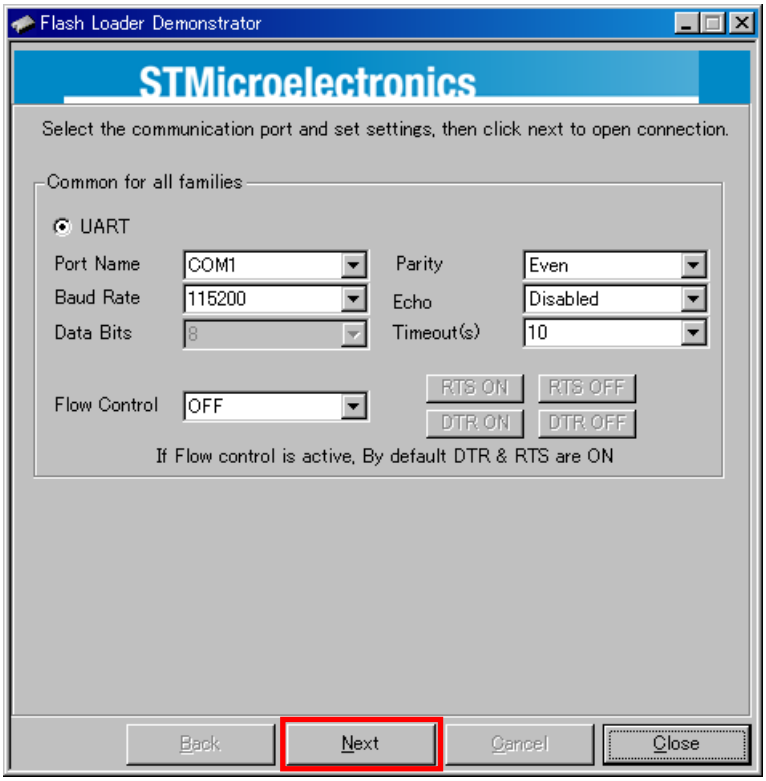
DSPBOOT	CE	EPM	CNVSS
H	H	H	H

(19) Press the "RESET" switch of "WRITING KIT".

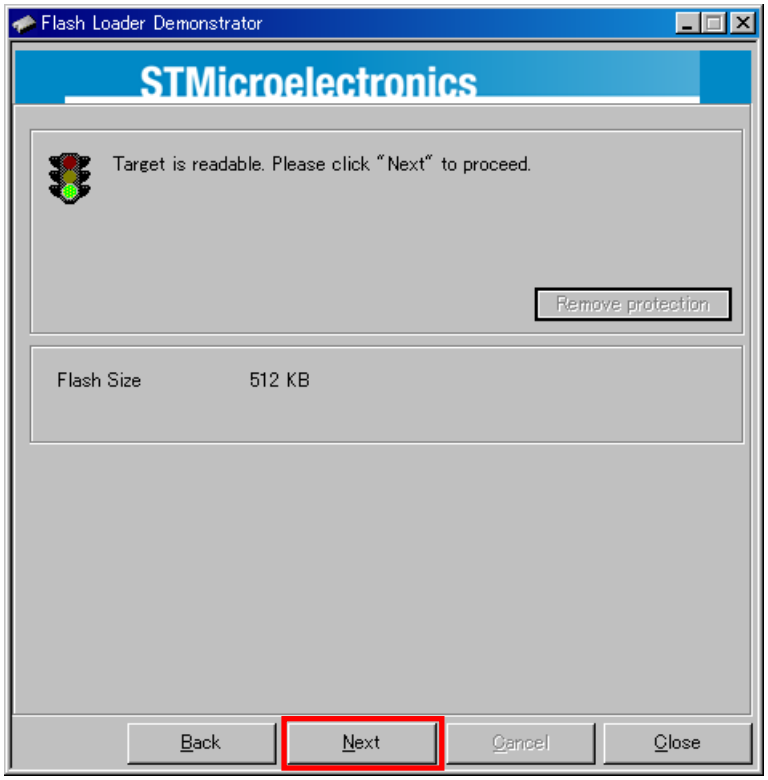
(20) Re-run the "STMicroelectronics flash loader.exe" on program file.



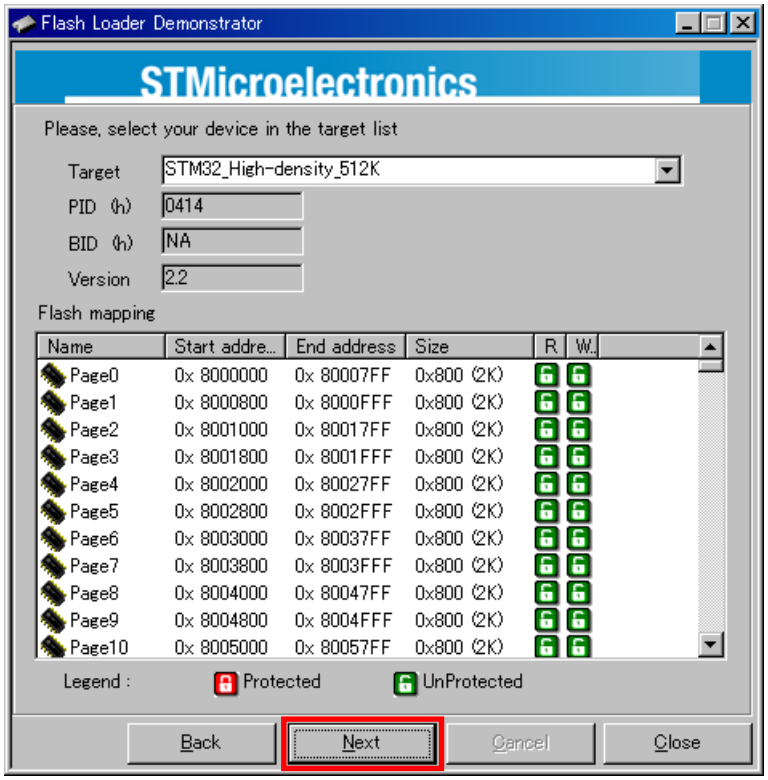
(21) Click the “Next” button 3 times.
Click the “Next” button for 1st time.



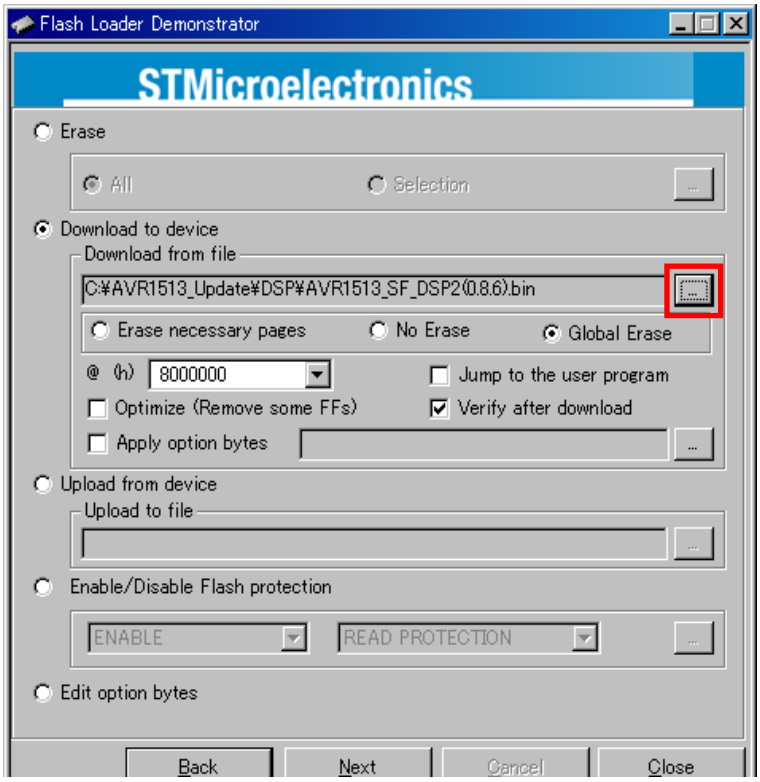
Click the “Next” button for 2nd time.



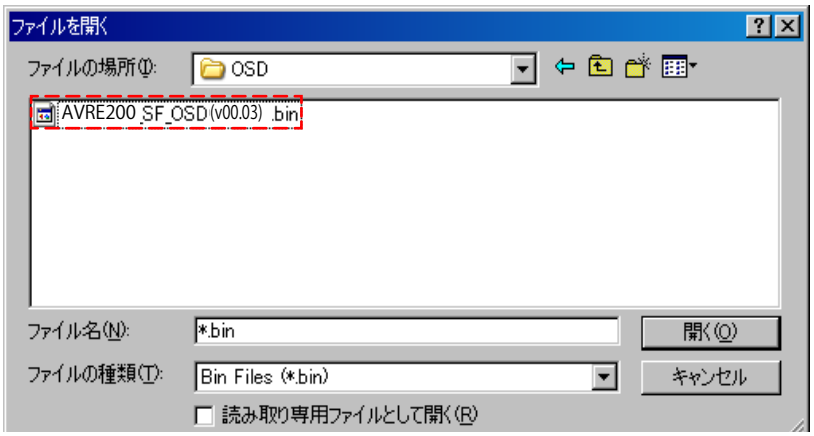
Click the “Next” at 3rd time.



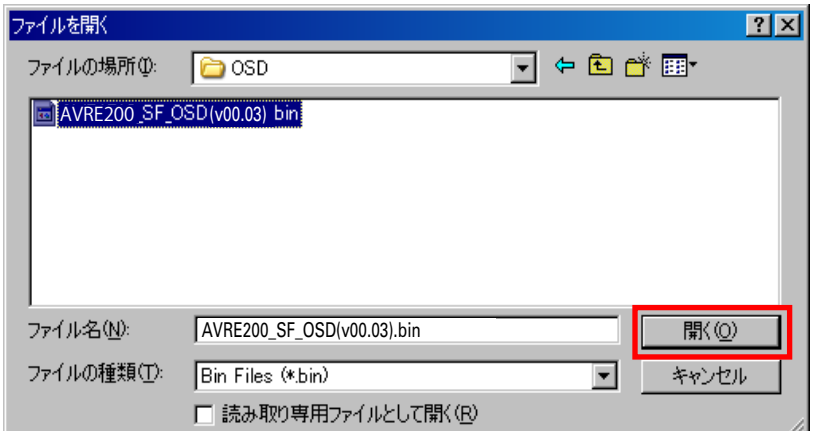
(22) Choose Flash File(OSD).
Click the following button.



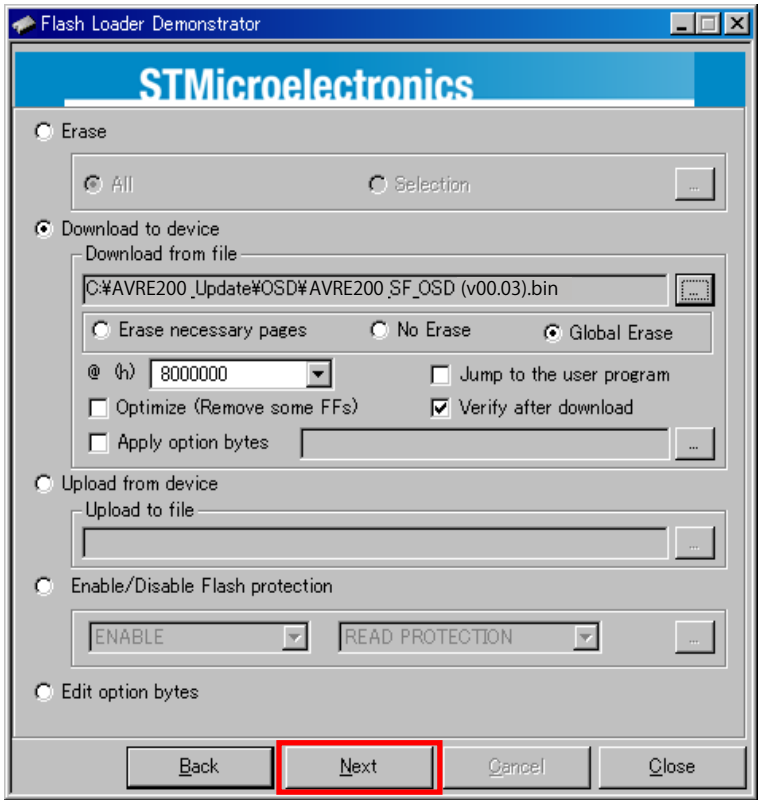
From the file browser windows select file of "AVRE200_SF_OSD(vxx.x.x).bin".



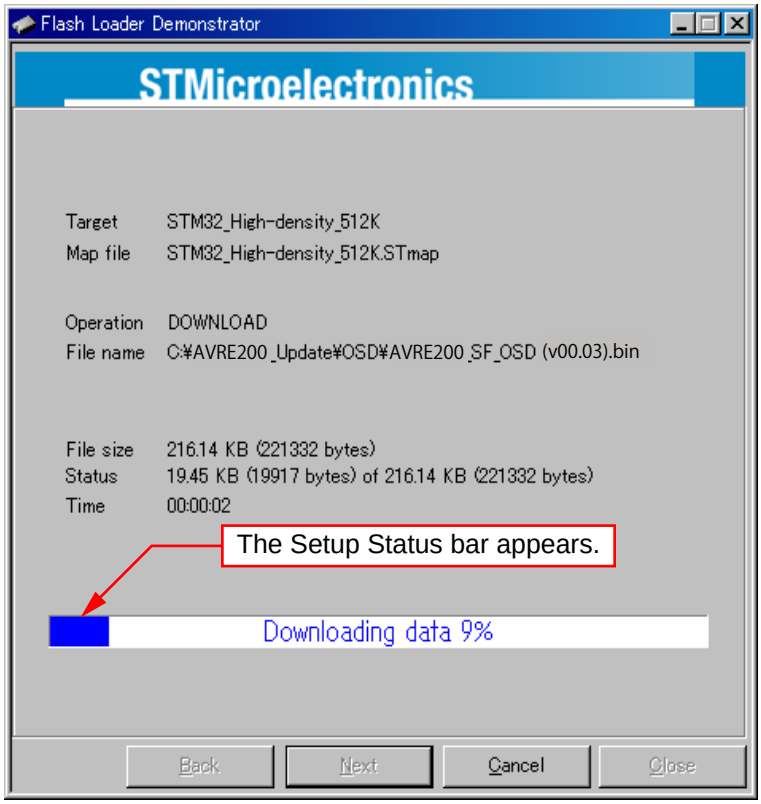
Click the "Open" button.



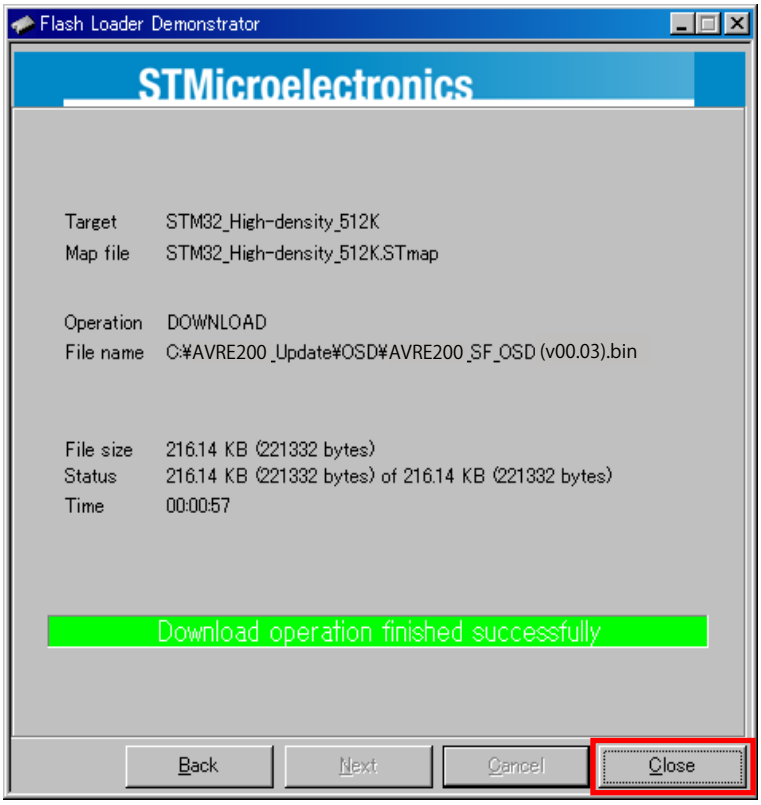
Click the “Next” button.



The following screen will be displayed.



The following screen will be displayed and click the "Close" button.



(23) Set the switch of "WRITING KIT". (Refer to the table below.)

DSPBOOT	CE	EPM	CNVSS
H	H	L	H

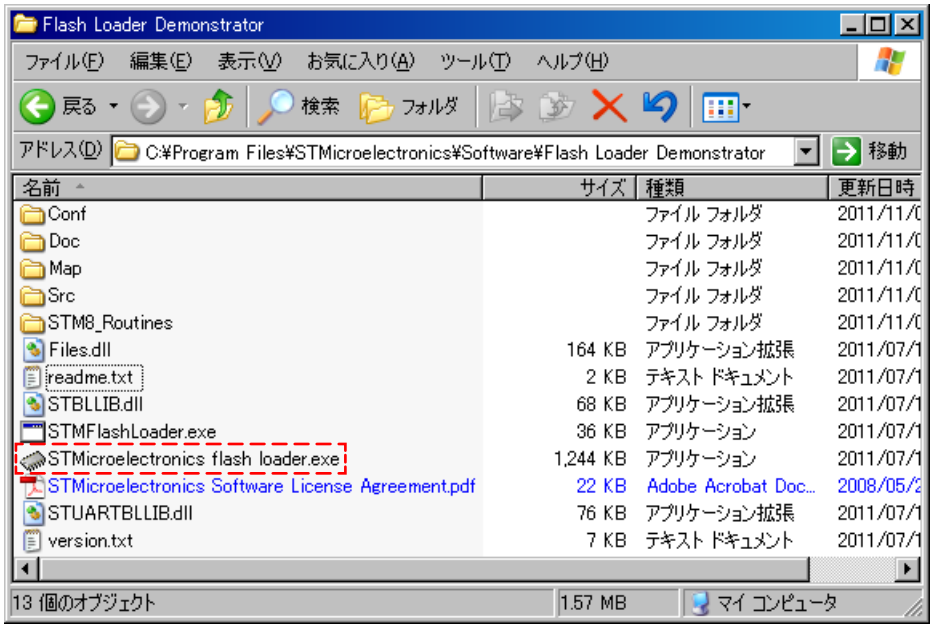
(24) Press the "RESET" switch of "WRITING KIT".
Wait for about 30 seconds until "Write Complete." is displayed on VFD.

(25) Set the switch of "WRITING KIT". (Refer to the table below.)

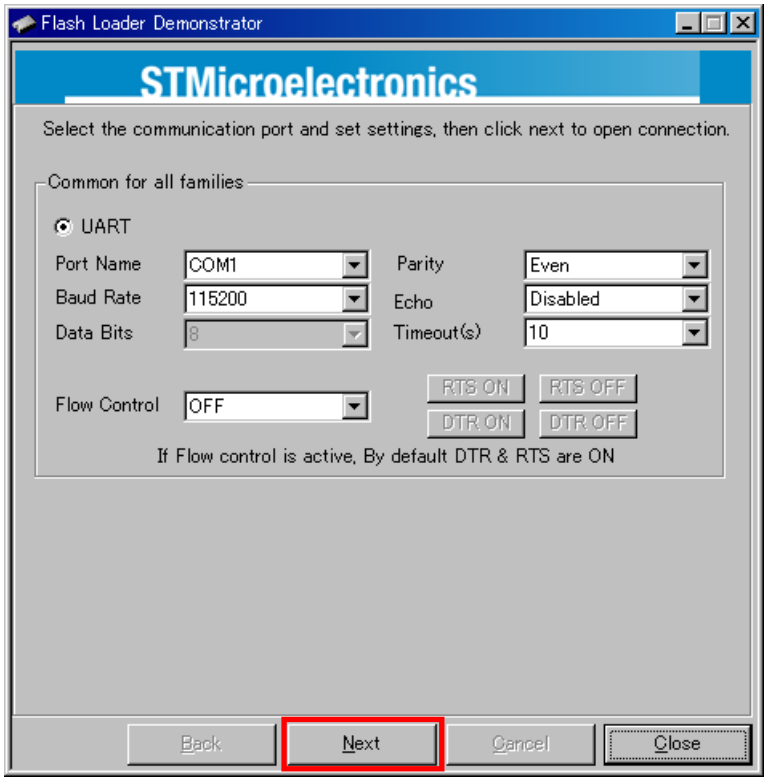
DSPBOOT	CE	EPM	CNVSS
H	H	H	H

(26) Press the "RESET" switch of "WRITING KIT".

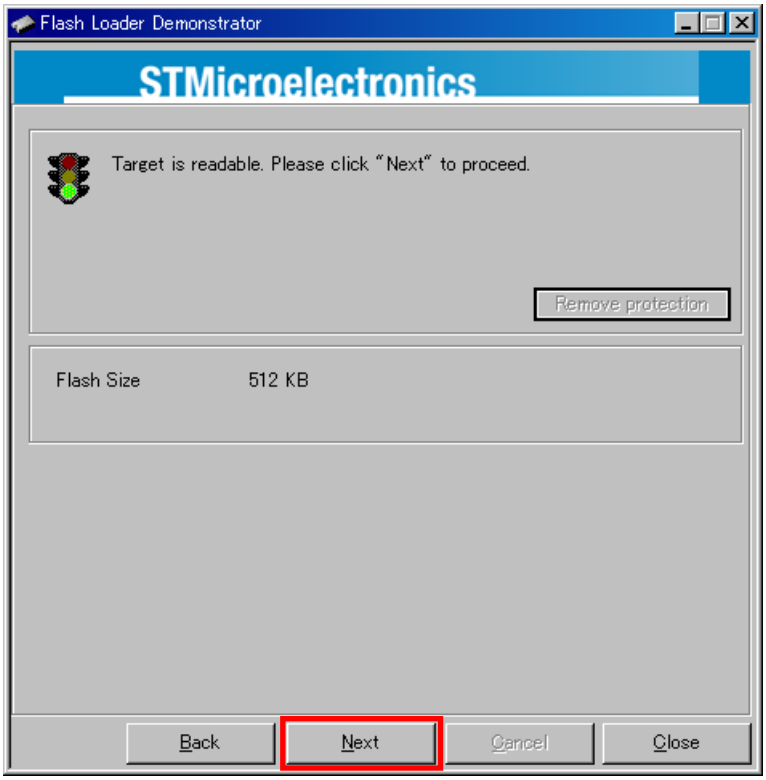
(27) Run the "STMicroelectronics flash loader.exe" on program file.



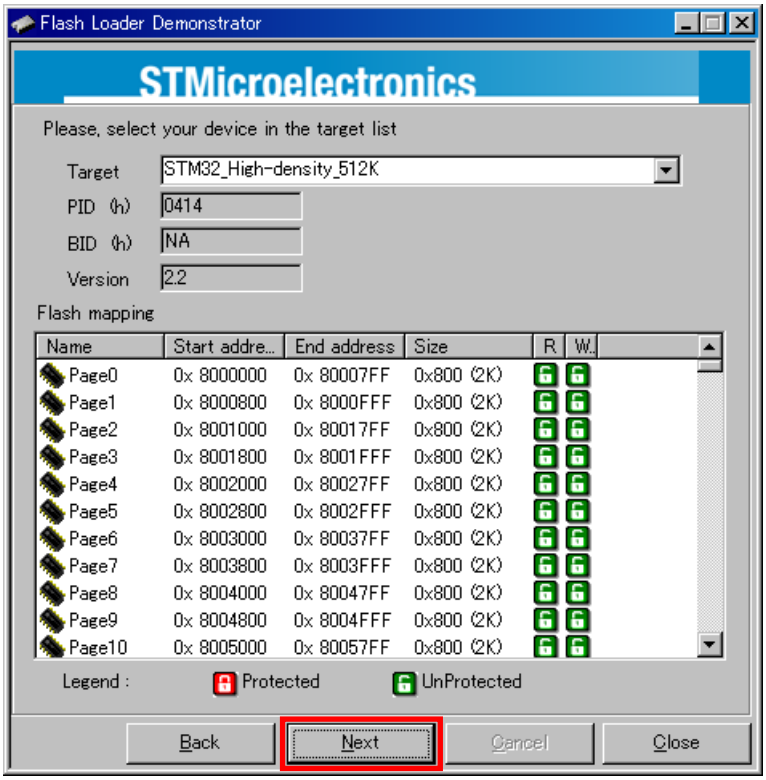
(28) Click the “Next” button 3 times.
Click the “Next” button for 1st time.



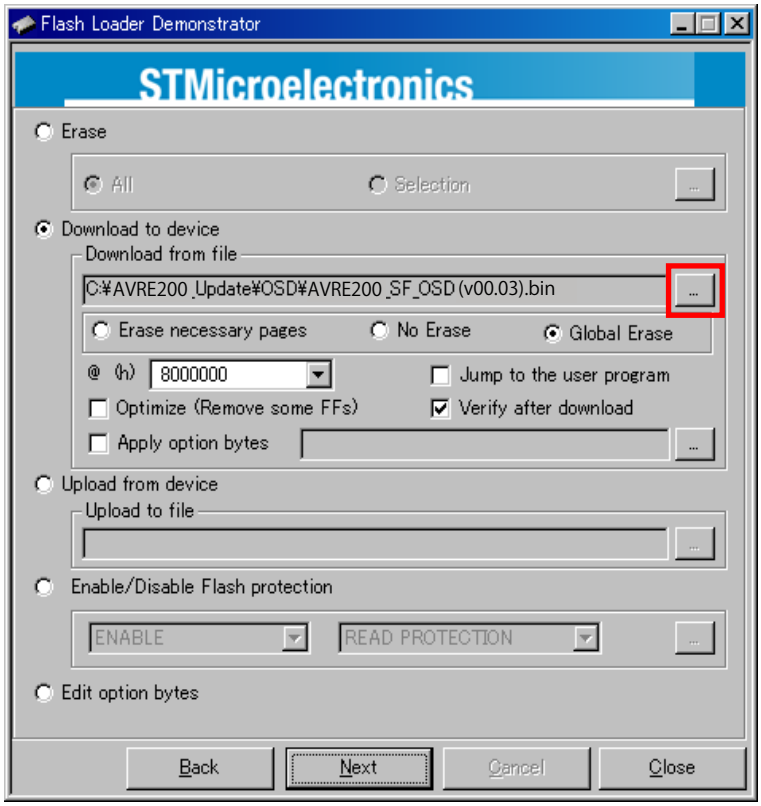
Click the “Next” button for 2nd time.



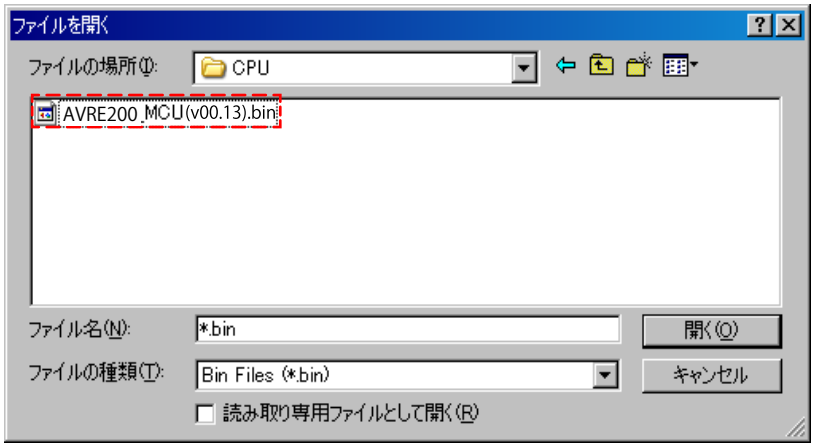
Click the “Next” button for 3rd time.



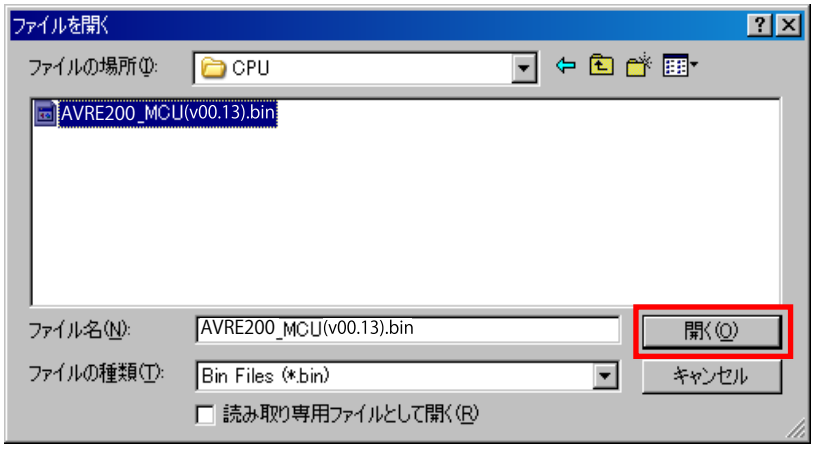
(29) Choose Flash File(MAIN).
Click the following button.



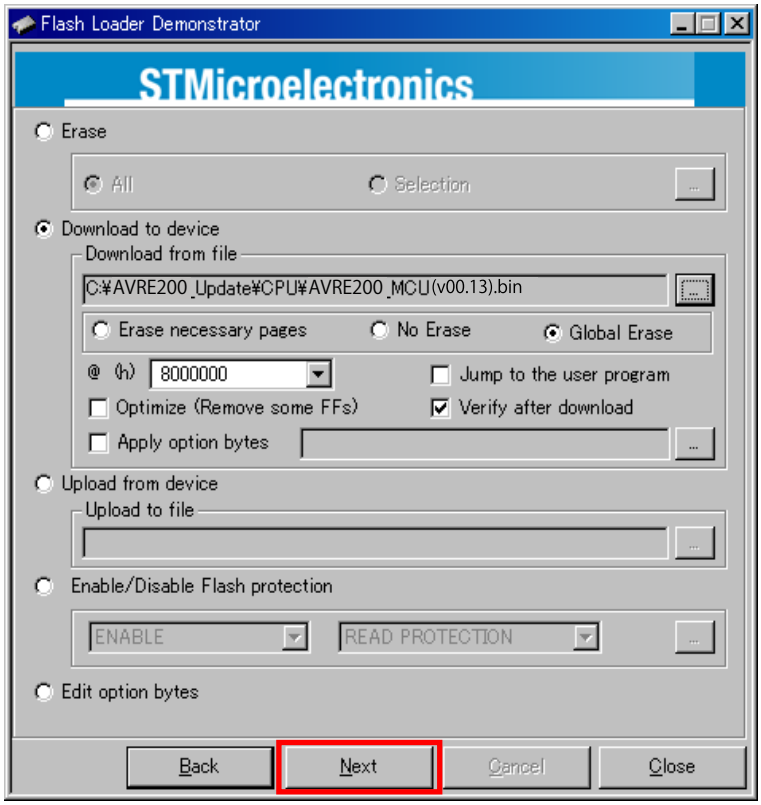
From the file browser windows select file of "AVRE200_MCU(vxx.x.x).bin".



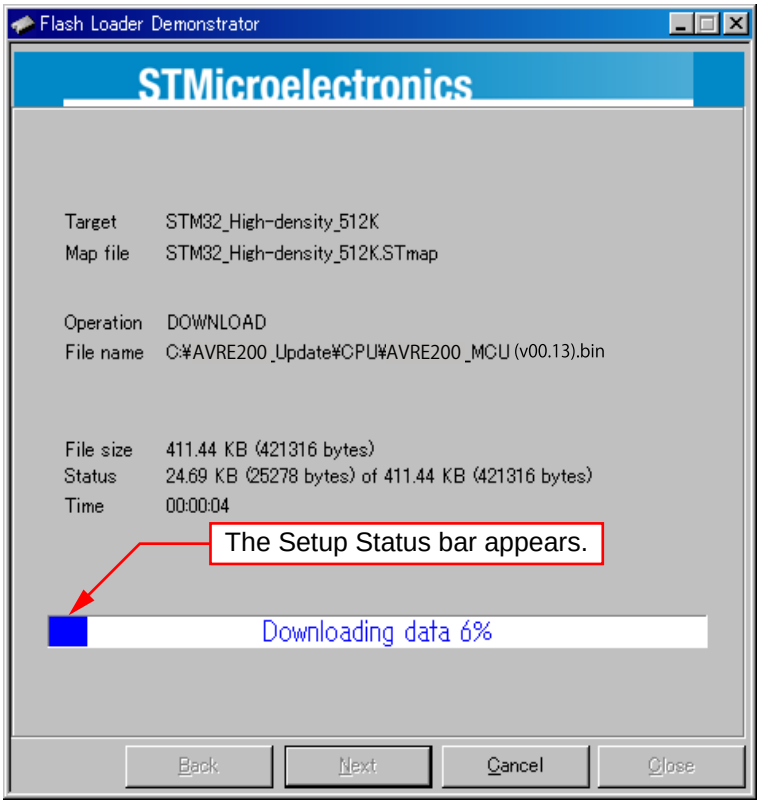
Click the "Open" button.



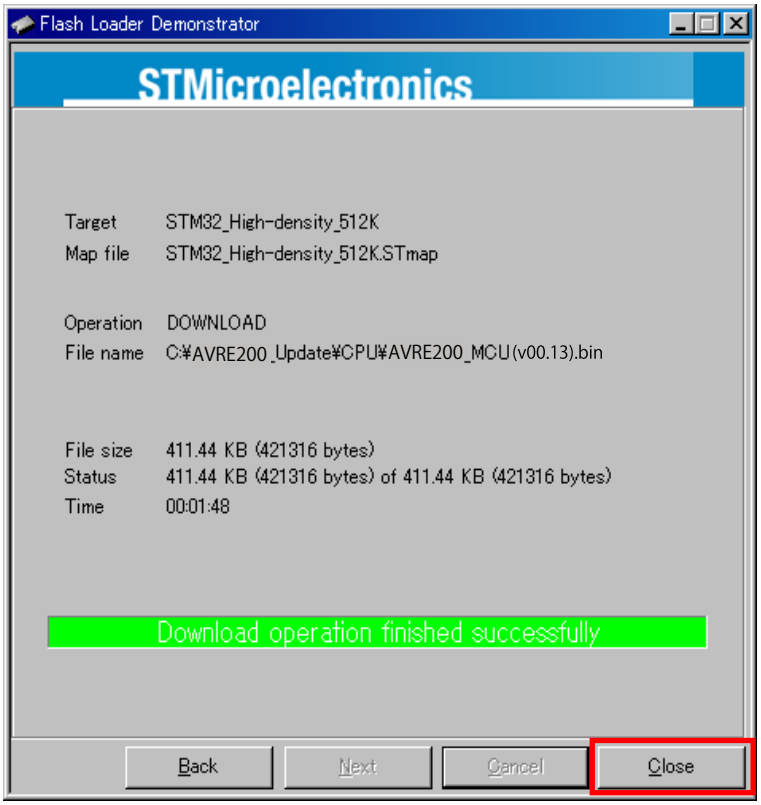
Click the “Next” button.



The following screen will be displayed.



The following screen will be displayed and click the "Close" button.



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

DSPBOOT	CE	EPM	CNVSS
H	H	L	H

(31) Press the "RESET" switch of “Writing Kit".

(32) Initializing.

1. Turn off the power using ⏻ button.
2. Press the ⏻ button while simultaneously pressing the SOURCE ◄ and SOURCE ► buttons.
3. Check that the entire display is flashing with an interval of about 1 second, and release your fingers from the 2 buttons and the microprocessor will be initialized.

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

3. Notice:

Please keep the following notice for firmware update.

(a) Keep the PC environment

(b) Avoid the communication cable from the electrical noise source. (e.g. telephone cable, AC line, a fluorescent light)

(c) Don’t remove cable during update.

(d) Don’t turn off the power during update.

(e) Don’t run other PC application during update.

(f) Stop the resident program on PC (Virus checker and System check utility, etc)

(g) Stop the screen saver on PC.

(h) Stop the power save ability on PC.

(i) In case of laptop PC, Use the AC adaptor.

Confirming the firmware’s number after upgraded

After updating the firmware, check the version. Refer to "1. µcom/DSP Version display mode" (Refer to 17 page).

ADJUSTMENT

Audio Section

Adjusting Idling Current

Required measurement equipment: DC Voltmeter

1. Preparation

(1) Avoid direct blow from an air conditioner or an electric fan and humidity should be moderate, and place the set at normal usage environment.
Temperature should be at 15 °C ~ 30 °C (59 °F ~ 86 °F).

(2) Presetting

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

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

2. Adjustment

(1) Remove the top cover and set VR510(FL), VR550(FR), VR530(C), VR520(SL), VR540(SR), on MAIN PCB at fully counterclockwise (↺) position.

(2) Connect DC Voltmeter to test points (FRONT-Lch: CN510, FRONT-Rch: CN550, CENTER ch: CN530, SURROUND-Lch: CN520, SURROUND-Rch: CN540).

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

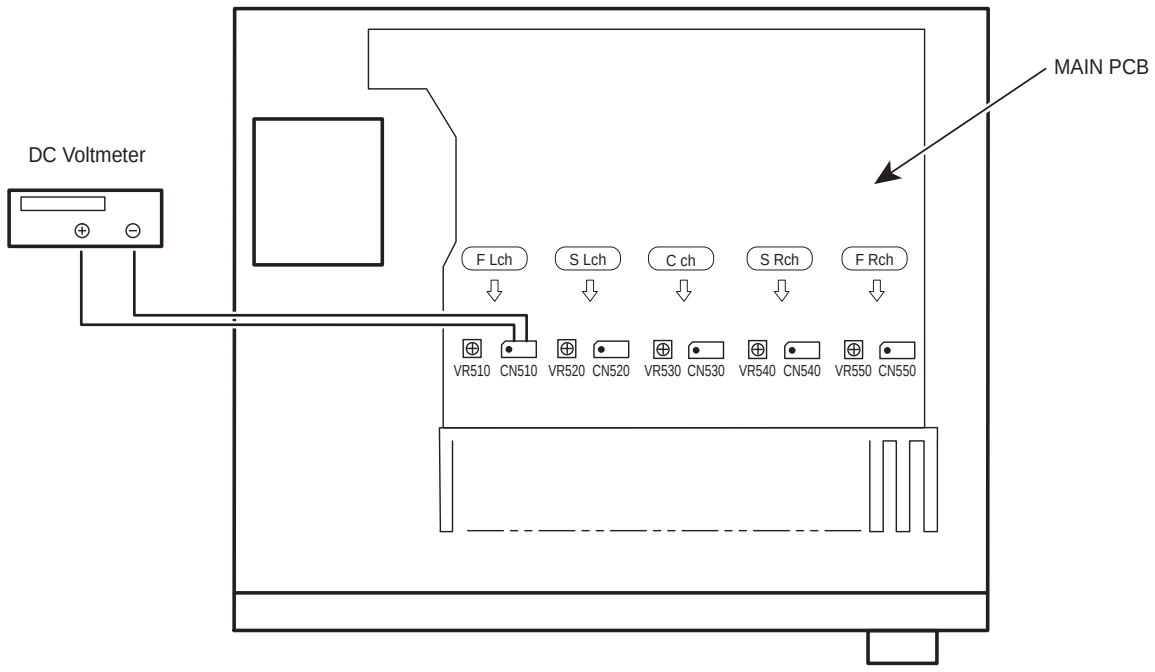
(4) Presetting.

MASTER VOLUME : ↺ minimum
SPEAKER (Speaker terminal) : No load
(Do not connect speaker, dummy resistor, etc.)
MODE : MCH STEREO
FUNCTION : CBL/SAT

(5) Within 2 minutes after the power on, turn VR510 clockwise (↻) to adjust the TEST POINT voltage at 1.5mV ± 0.5mV DC.

(6) After 10 minutes from the preset above, turn VR510 to set the voltage to 2.0mV ± 0.5mV DC.

(7) Adjust the Variable Resistors of each channel(VR520-VR550) in the same way.



Surround

This unit is equipped with a sophisticated digital signal processing circuit that lets you play your favorite movie and music sources and listen to them with a wide range of surround sound mode choices.

SURROUND MODES AND SURROUND PARAMETERS

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

Symbols in the table

◯ This indicates the audio output channels or surround parameters that can be set.
◎ This indicates the audio output channels. The output channels depend on the settings of "Speaker Config." (☞page 46).

Surround mode (☞page 46)	Channel output				Audio Adjust (☞page 46)									Tone ()	RESTORER *5 (☞page 46)
	Front L/R	Center	Surround L/R	Subwoofer	Mode (☞page 46)	LFE *2 (☞page 46)	D. Comp *3 (☞page 46)	DRC *4 (☞page 46)	Subwoofer (☞page 46)	PRO LOGIC II Music mode only			NEO:6 Music mode only		
										Panorama (☞page 46)	Dimension (☞page 46)	Center Width (☞page 46)	Center Image (☞page 46)		
DIRECT (2-channel)	◯			◎*1			◯	◯	◯*1						
DIRECT (Multi-channel)	◯	◎	◎	◎		◯	◯	◯							
STEREO	◯			◎		◯	◯	◯						◯	◯
MULTI CH IN	◯	◎	◎	◎		◯								◯	
DOLBY PRO LOGIC II	◯	◎	◎	◎	◯		◯	◯		◯	◯	◯		◯	◯
DTS NEO:6	◯	◎	◎	◎	◯		◯	◯					◯	◯	◯
DOLBY DIGITAL	◯	◎	◎	◎		◯	◯							◯	
DOLBY DIGITAL Plus	◯	◎	◎	◎		◯	◯							◯	
DOLBY TrueHD	◯	◎	◎	◎		◯									
DTS SURROUND	◯	◎	◎	◎		◯	◯							◯	
DTS 96/24	◯	◎	◎	◎		◯	◯							◯	
DTS-HD	◯	◎	◎	◎		◯	◯								
DTS Express	◯	◎	◎	◎		◯	◯							◯	
MULTI CH STEREO	◯	◎	◎	◎		◯	◯							◯	◯
VIRTUAL	◯			◎*1		◯	◯							◯	◯

*1 Only when "SW Mode" is set to "LFE+Main" (☞page 46), sound is output from the subwoofer.
*2 This item can be selected when a Dolby Digital or DTS signal or DVD-Audio is played.
*3 This item can be selected when a Dolby Digital or DTS signal is played.
*4 This item can be selected when a Dolby TrueHD signal is played.
*5 This item can be set when the input signal is analog, PCM 48 kHz or 44.1 kHz.

❑ Types of input signals, and corresponding surround modes

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

Symbols in the table

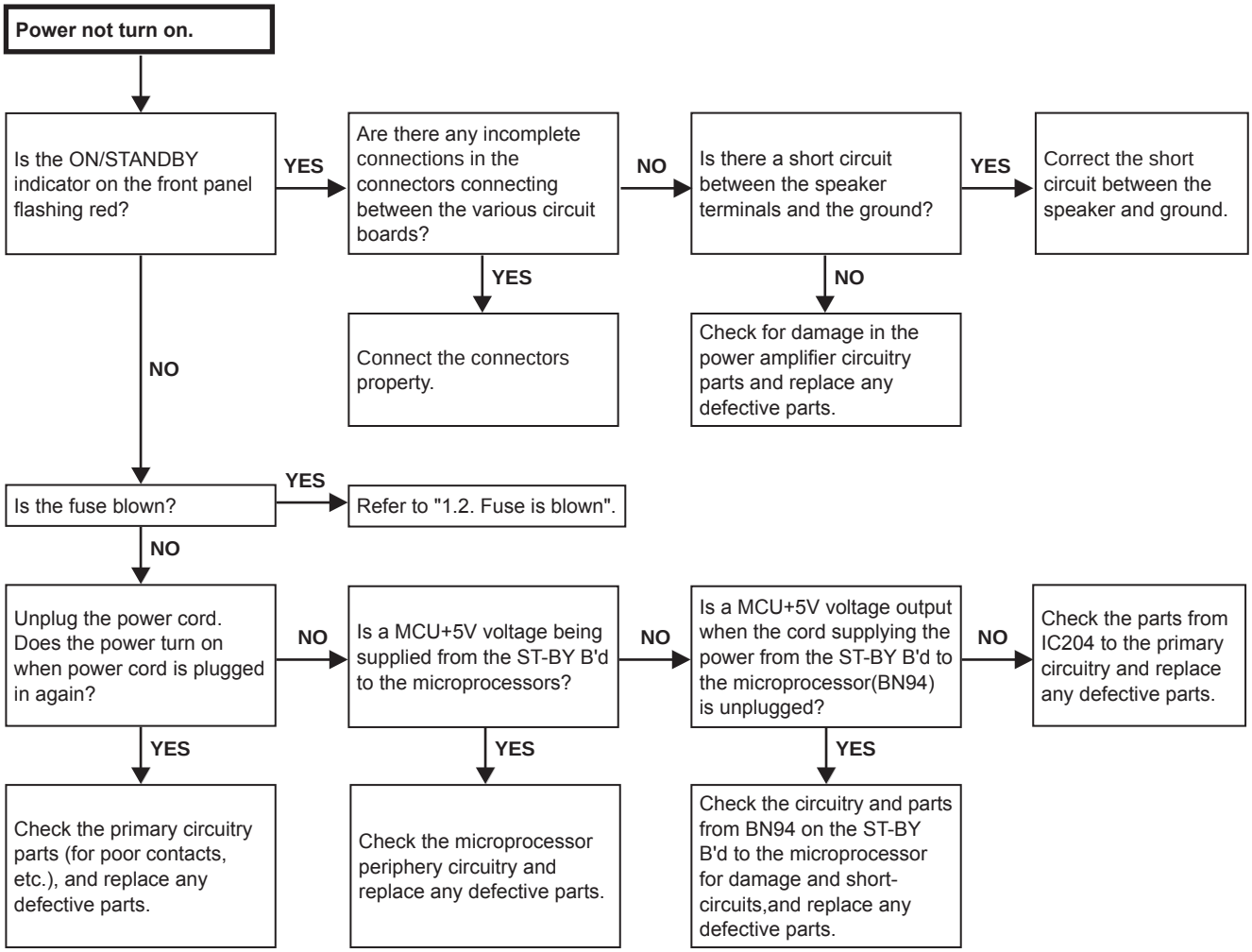
● This indicates the default surround mode.
○ This indicates the selectable surround mode.

Surround mode (☞ page 47)	Input signal types and formats											
	ANALOG	PCM		DTS-HD		DTS			DOLBY		DOLBY DIGITAL	
		PCM (Multi-channel)	PCM (2-channel)	DTS-HD Master Audio	DTS-HD High Resolution Audio	DTS EXPRESS	DTS (5.1-channel)	DTS 96/24	DOLBY TrueHD	DOLBY DIGITAL Plus	DOLBY DIGITAL (5.1-channel)	DOLBY DIGITAL (2-channel)
DTS SURROUND												
DTS-HD MSTR				●								
DTS-HD HI RES					●							
DTS SURROUND							●					
DTS 96/24								●				
DTS EXPRESS						●						
DTS NEO:6 CINEMA	○		○									○
DTS NEO:6 MUSIC	○		○									○
DOLBY SURROUND												
DOLBY TrueHD									●			
DOLBY DIGITAL+										●		
DOLBY DIGITAL											●	
DOLBY PRO LOGIC II CINEMA	○		○									○
DOLBY PRO LOGIC II MUSIC	○		○									○
DOLBY PRO LOGIC II GAME	○		○									○
DOLBY PRO LOGIC	○		○									○
MULTI CH IN												
MULTI CH IN		●										
DIRECT												
DIRECT	○	○	○	○	○	○	○	○	○	○	○	○
DSP SIMULATION												
MULTI CH STEREO	○	○	○				○	○			○	○
VIRTUAL	○	○	○				○	○			○	○
STEREO												
STEREO	●	○	●	○	○	○	○	○	○	○	○	○

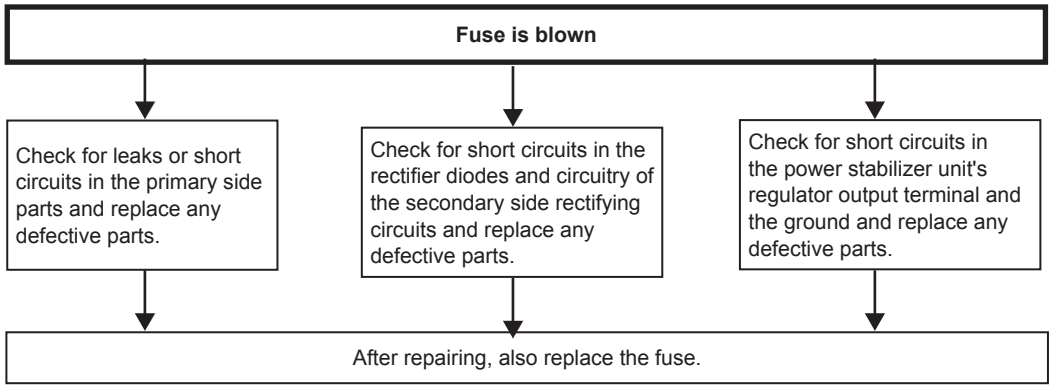
TROUBLE SHOOTING

1. POWER

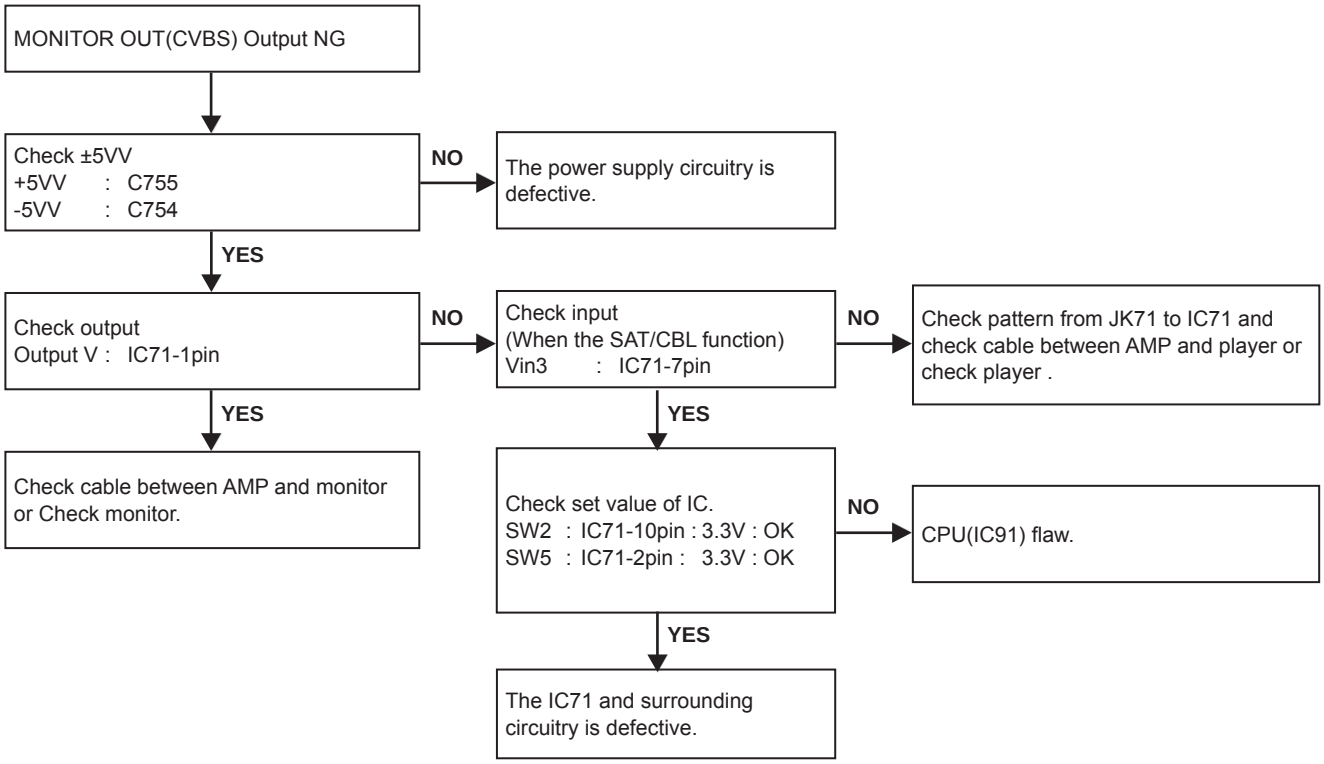
1.1. Power not turn on



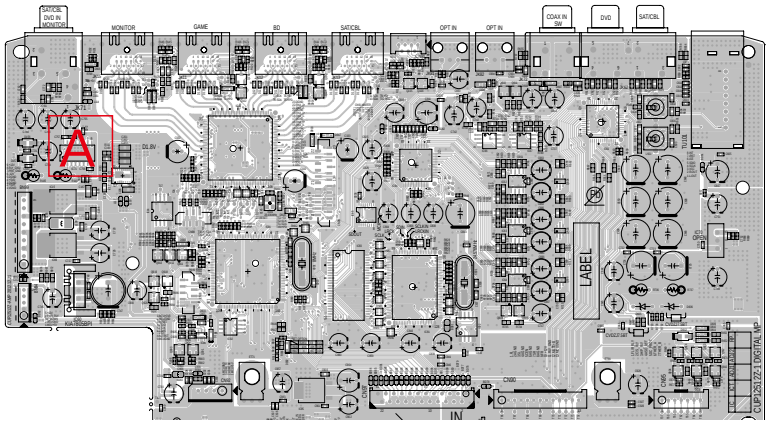
1.2. Fuse is blown



2. Analog video

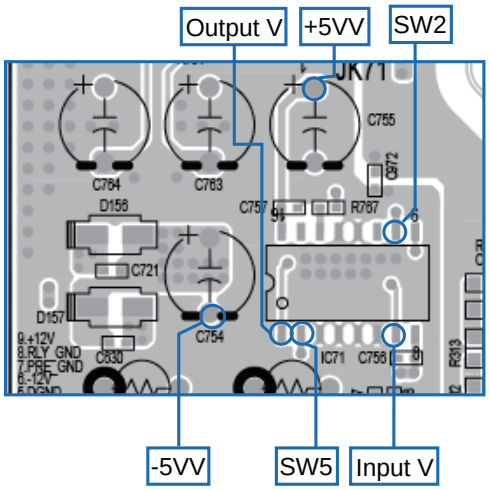


VIDEO test point



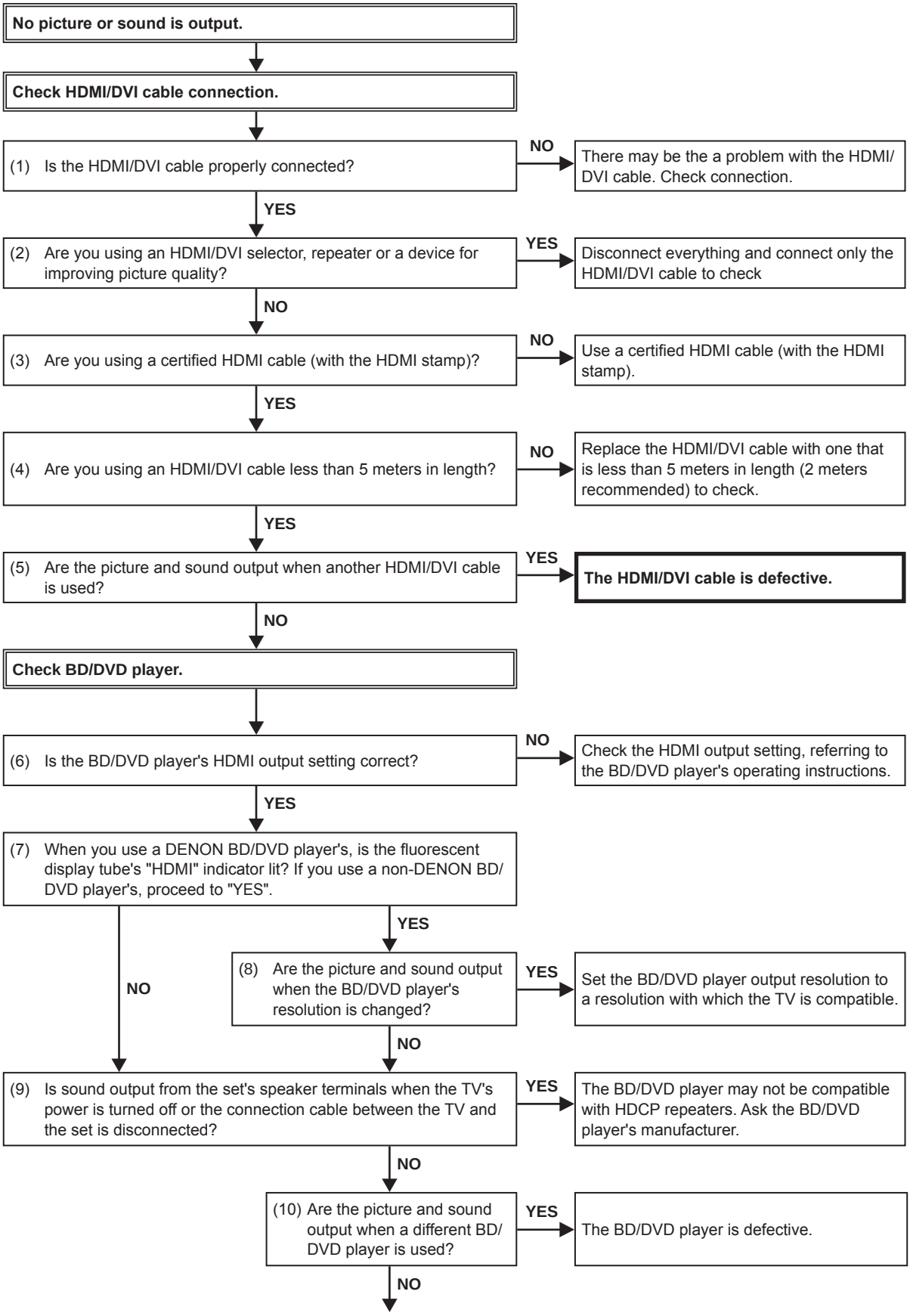
DIGITAL (COMPONENT SIDE)

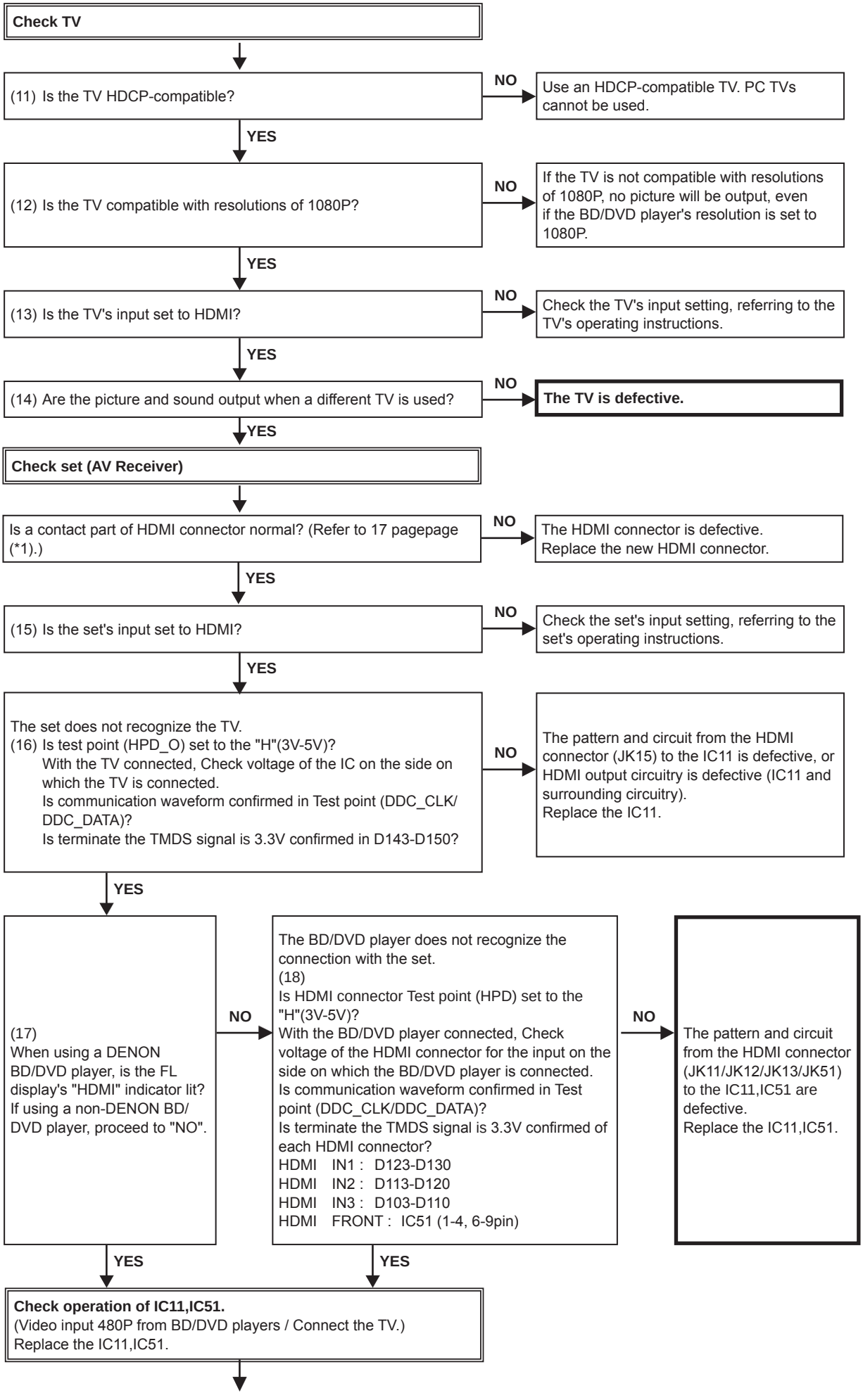
Detail A



3. HDMI/DVI

3.1. No picture or sound is output




Check TV
(11) Is the TV HDCP-compatible?
NO
Use an HDCP-compatible TV. PC TVs cannot be used.
YES
(12) Is the TV compatible with resolutions of 1080P?
NO
If the TV is not compatible with resolutions of 1080P, no picture will be output, even if the BD/DVD player's resolution is set to 1080P.
YES
(13) Is the TV's input set to HDMI?
NO
Check the TV's input setting, referring to the TV's operating instructions.
YES
(14) Are the picture and sound output when a different TV is used?
NO
The TV is defective.
YES
Check set (AV Receiver)
Is a contact part of HDMI connector normal? (Refer to 17 pagepage (*1).)
NO
The HDMI connector is defective.
Replace the new HDMI connector.
YES
(15) Is the set's input set to HDMI?
NO
Check the set's input setting, referring to the set's operating instructions.
YES
The set does not recognize the TV.
(16) Is test point (HPD_O) set to the "H"(3V-5V)?
With the TV connected, Check voltage of the IC on the side on which the TV is connected.
Is communication waveform confirmed in Test point (DDC_CLK/DDC_DATA)?
Is terminate the TMDS signal is 3.3V confirmed in D143-D150?
NO
The pattern and circuit from the HDMI connector (JK15) to the IC11 is defective, or HDMI output circuitry is defective (IC11 and surrounding circuitry).
Replace the IC11.
YES
(17)
When using a DENON BD/DVD player, is the FL display's "HDMI" indicator lit?
If using a non-DENON BD/DVD player, proceed to "NO".
NO
The BD/DVD player does not recognize the connection with the set.
(18)
Is HDMI connector Test point (HPD) set to the "H"(3V-5V)?
With the BD/DVD player connected, Check voltage of the HDMI connector for the input on the side on which the BD/DVD player is connected.
Is communication waveform confirmed in Test point (DDC_CLK/DDC_DATA)?
Is terminate the TMDS signal is 3.3V confirmed of each HDMI connector?
HDMI IN1 : D123-D130
HDMI IN2 : D113-D120
HDMI IN3 : D103-D110
HDMI FRONT : IC51 (1-4, 6-9pin)
NO
The pattern and circuit from the HDMI connector (JK11/JK12/JK13/JK51) to the IC11,IC51 are defective.
Replace the IC11,IC51.
YES
YES
Check operation of IC11,IC51.
(Video input 480P from BD/DVD players / Connect the TV.)
Replace the IC11,IC51.

(19) Check power supply.
Are 1.8V or 3.3V supplied to IC11 (each power supply pin)?

NO → The power supply circuitry is defective.

YES

(20) Check xtal oscillator.
Is there 28.6363MHz oscillation of X101?

NO → The X101 or IC11 is defective.
Replace the new parts.

YES

(21) Check RESET.
Is RESET waveform confirmed at IC11 (97pin)? (If reference waveform, proceed to "YES".)

NO → The RESET pattern or IC11 is defective.
Replace the new parts.

YES

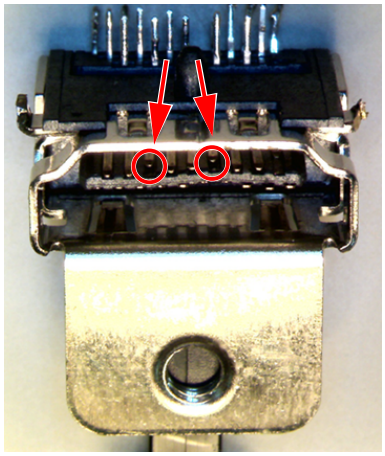
(22) Check control signal(I2C).
Is waveform confirmed at Test point (SDA/SCL). (If not continued to " L", proceed to "YES".)

NO → The SDATA/SCL line pattern is defective.

YES

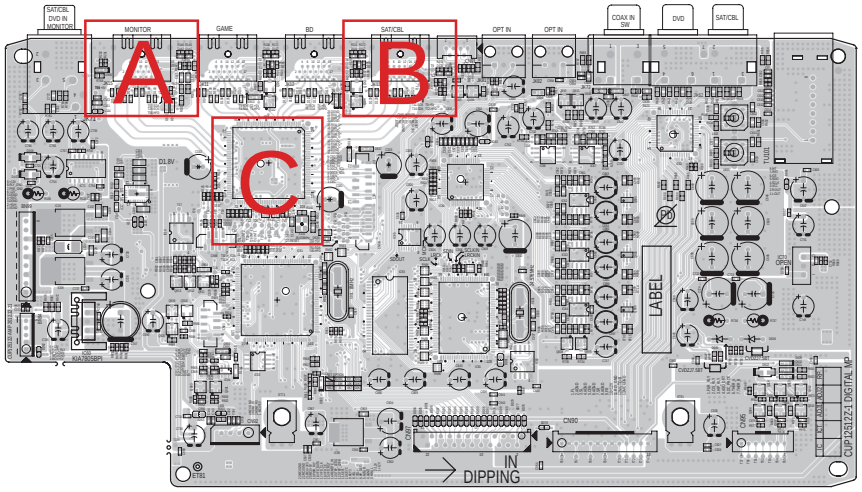
HDMI output circuitry is defective (IC11 and surrounding circuitry).
Replace the IC11.

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



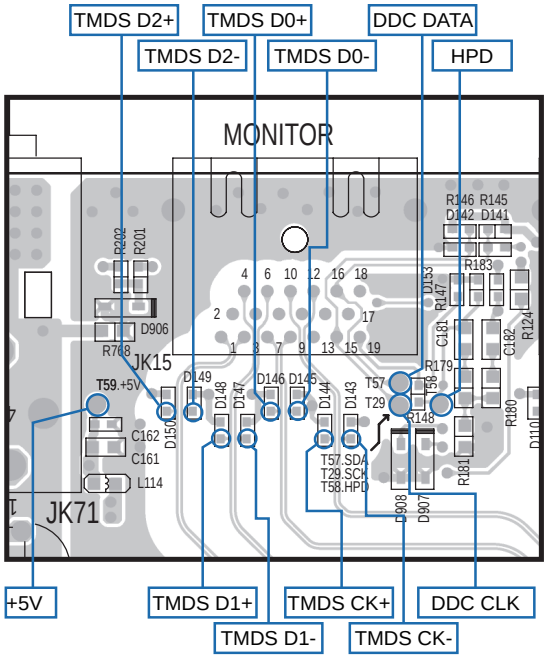
3.2. HDMI test point and waveforms

HDMI test point and waveforms

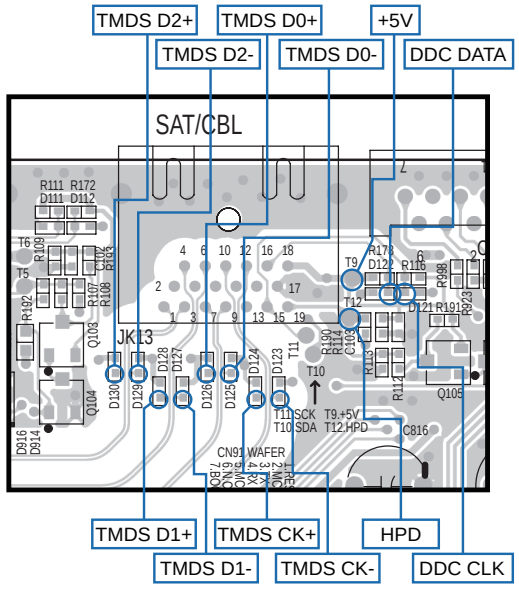


DIGITAL (COMPONENT SIDE)

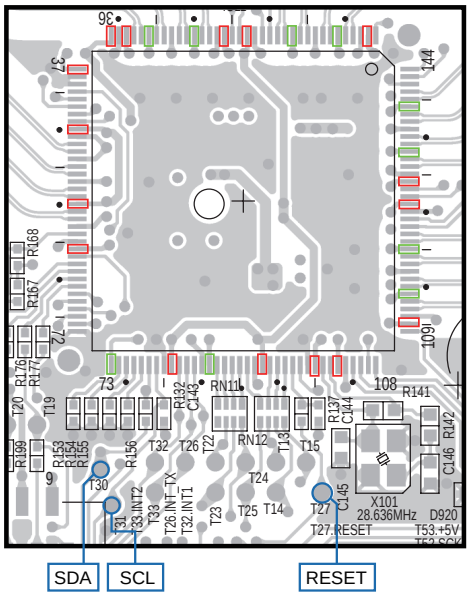
Detail A



Detail B



Detail C

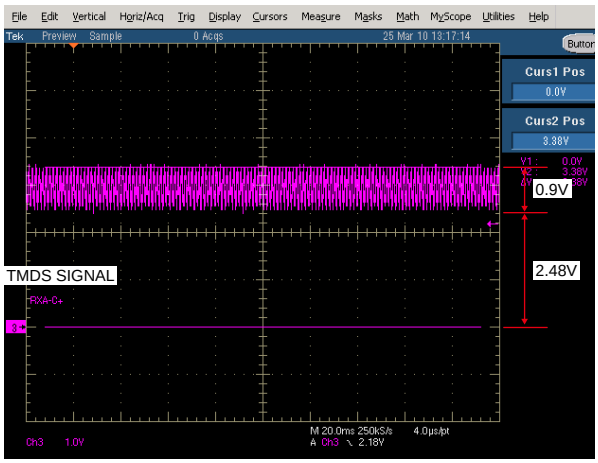


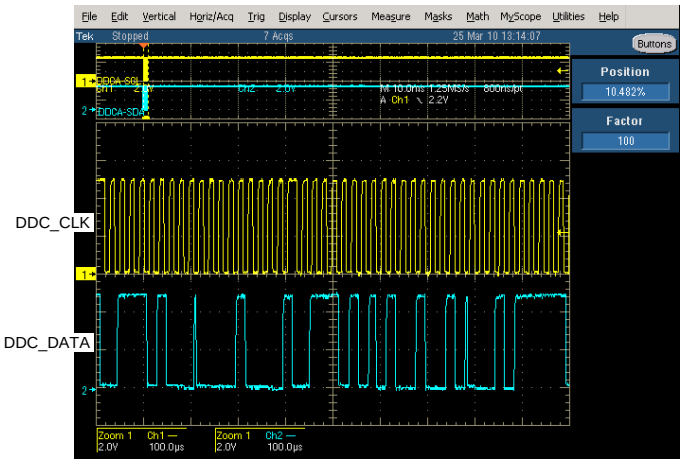
▯:B

▯:A

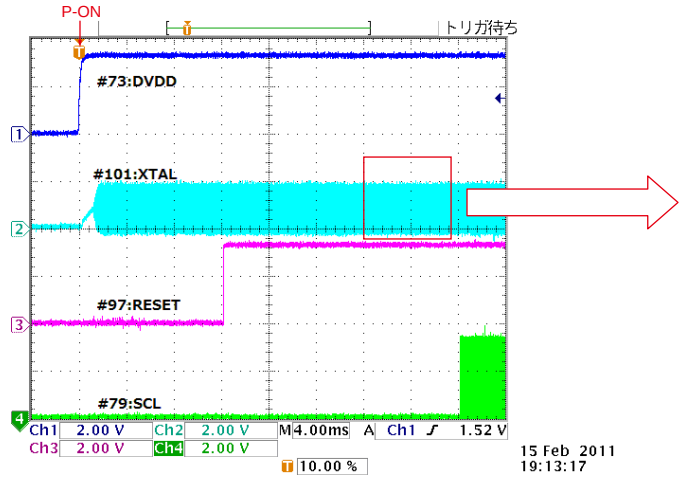
A: 1.8V	2,18,21,34,36,37,45,55,61,81,93,100,103,110,126,129 pin
B: 3.3V	6,12,25,31,73,86,114,120,133,139 pin

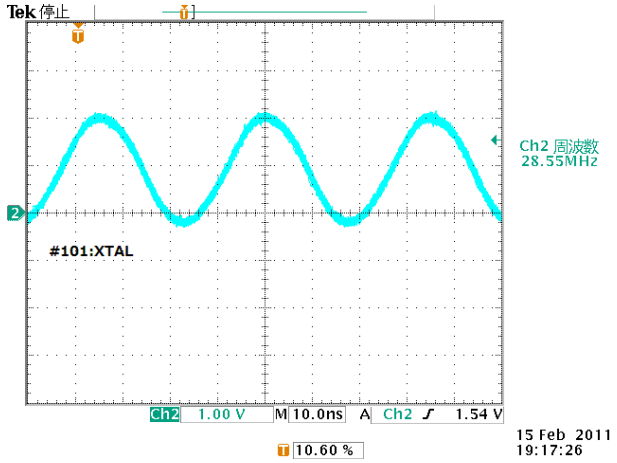
DDC_CLK/DDC_DATA/TMDS : Check items (16),(18)



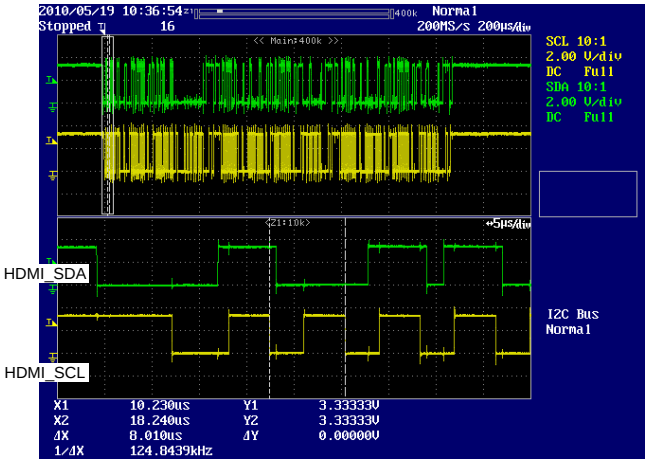


DVDD/XTAL/RESET/SCL : Check items (19),(20),(21)





HDMI_SDA/SCL(I2C) : Check item (22)



4. AUDIO

4.1. AUDIO CHECK

AUDIO OUTPUT : NG

CHECK1	INPUT	SURROND MODE	SOURCE	NG → Check ANALOG AUDIO BLOCK.
	ANALOG 2CH	DIRECT	ANALOG	

OK

CHECK2	INPUT	SURROND MODE	SOURCE	NG → Check Digital AUDIO BLOCK.
	COAX or OPT	---	Legacy(PCM or DolbyDigital or dts…)	

OK

CHECK3	INPUT	SURROND MODE	SOURCE	NG → Check via AD.
	ANALOG 2CH	MULTI CH STEREO	ANALOG	

OK

CHECK4	INPUT	SURROND MODE	SOURCE	NG → Check HDMI BLOCK.
	HDMI	---	Legacy(PCM2ch or DolbyDigital or dts…)	

OK

CHECK5	INPUT	SURROND MODE	SOURCE
	HDMI	---	HD AUDIO (PCM MULTI or DolbyTrueHD or dtsHD MA)

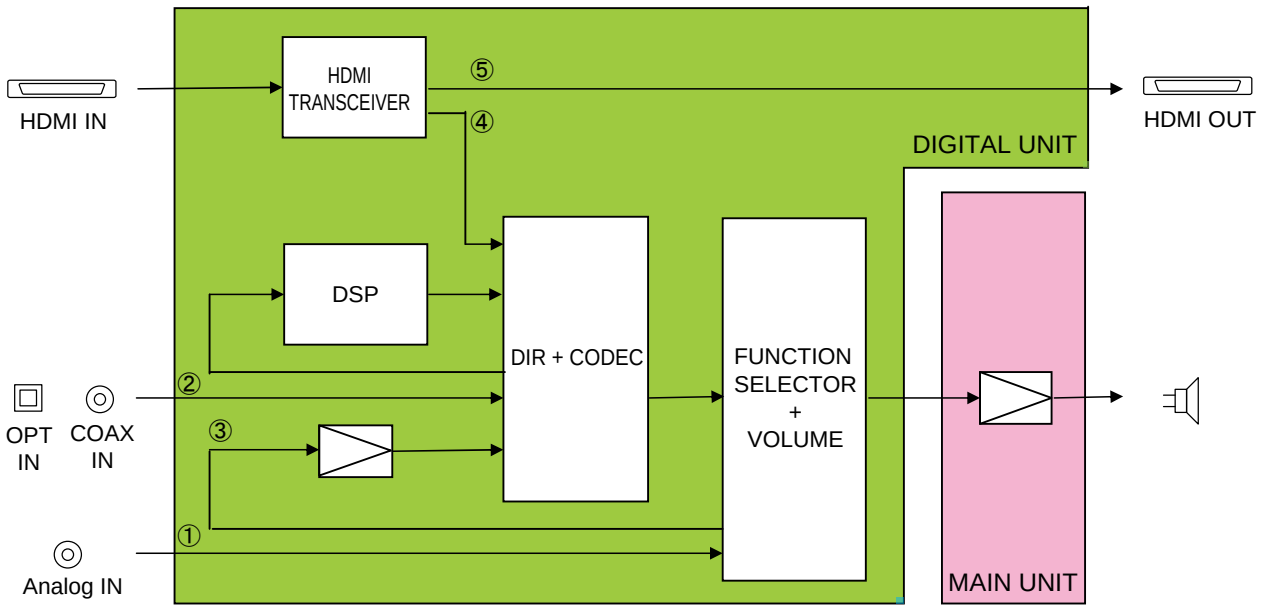
OK (Digital Audio BOLCK is OK) → Check other factors.

NG

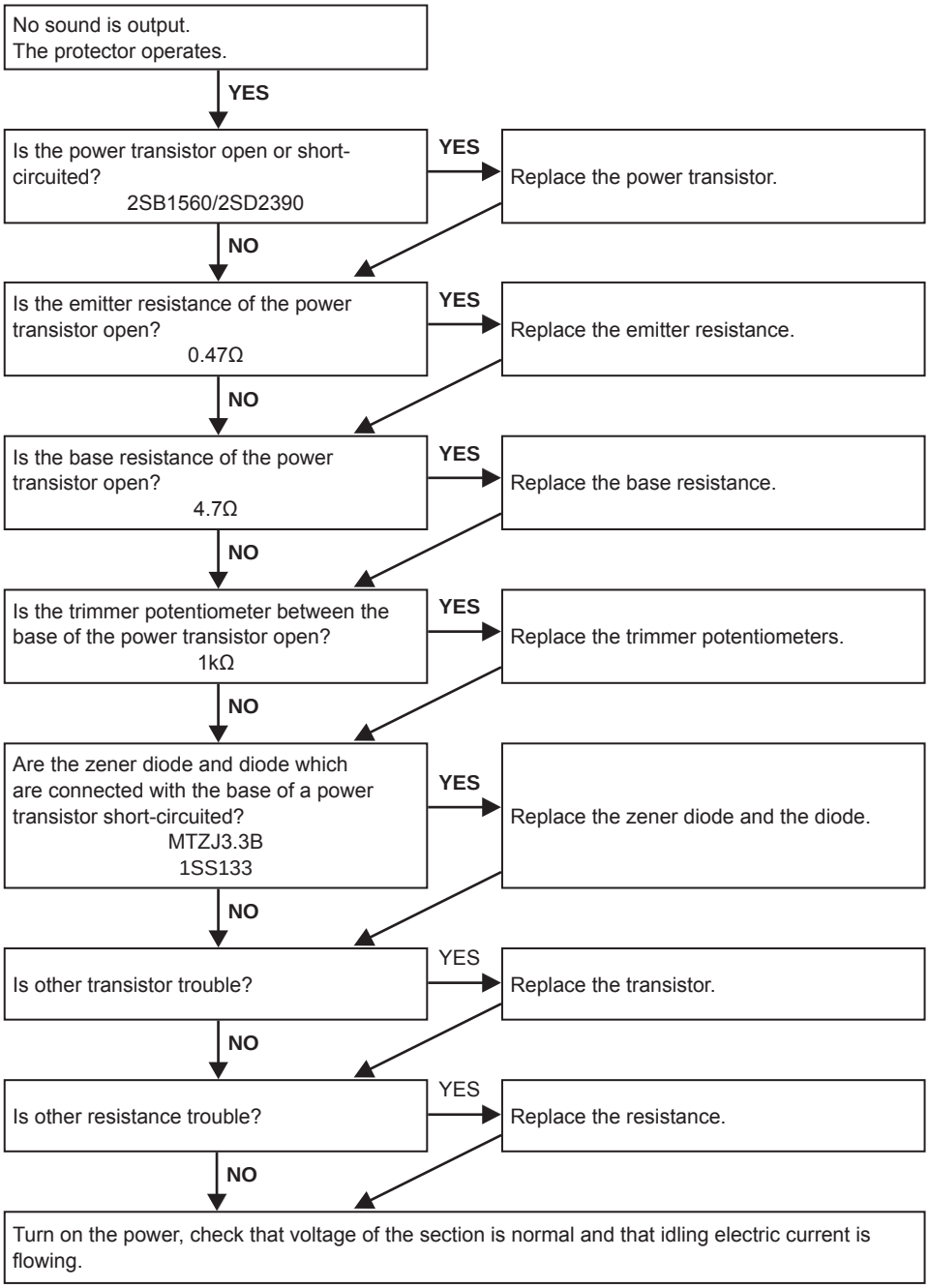
CHECK6	Connect	Setting	SOURCE
	HDMI OUT→other AVR HDMI IN	TV MODE	HD AUDIO (PCM MULTI or DolbyTrueHD or dtsHD MA)

OK → Check Digital AUDIO BLOCK.

NG → Check HDMI BLOCK.



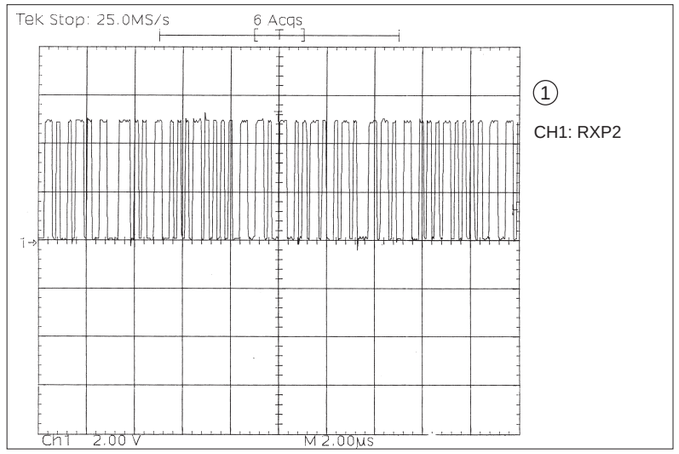
4.2. Power AMP (MAIN UNIT)



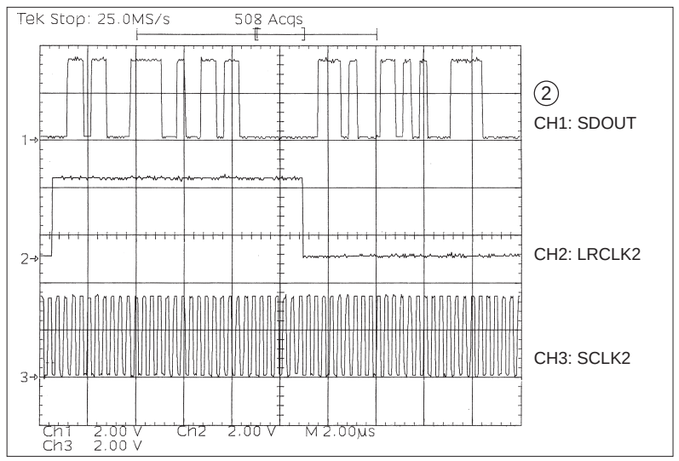
Personal notes:

CLOCK FLOW & WAVE FORM IN DIGITAL BLOCK

Wave form



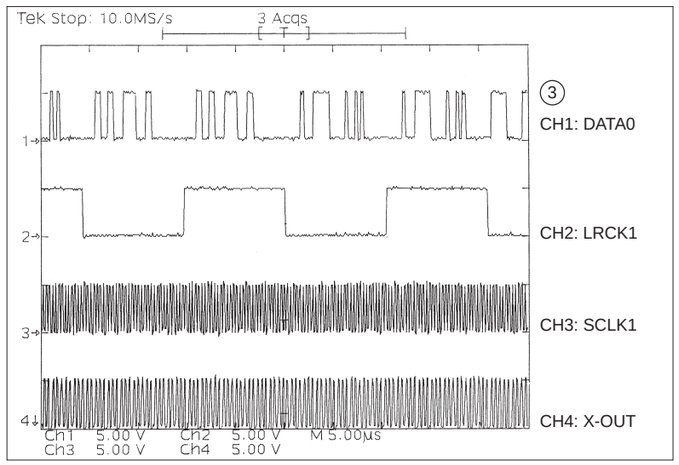
① CH1: RXP2



② CH1: SDOUT

CH2: LRCLK2

CH3: SCLK2

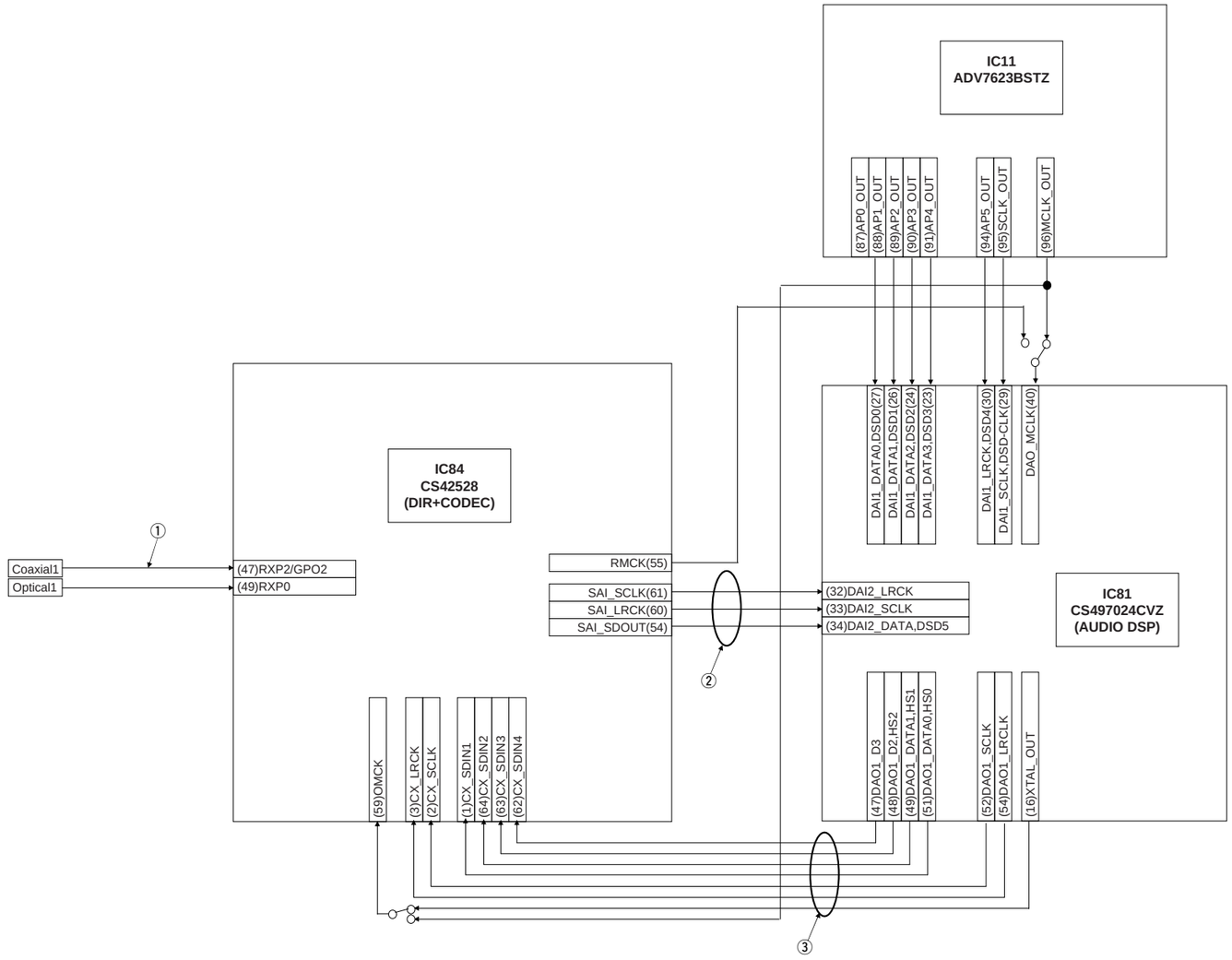


③ CH1: DATA0

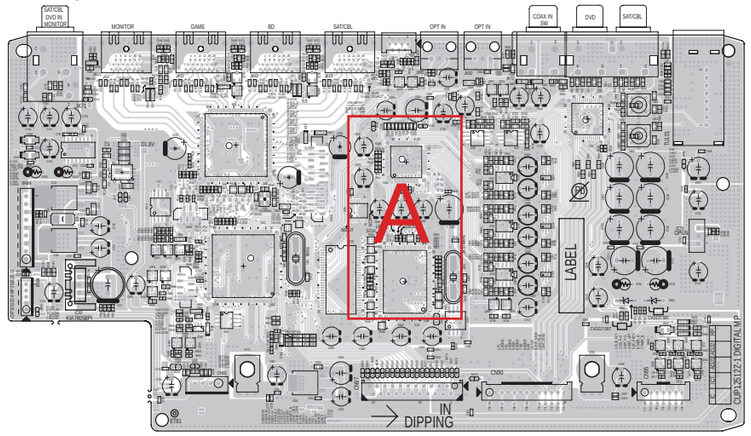
CH2: LRCK1

CH3: SCLK1

CH4: X-OUT

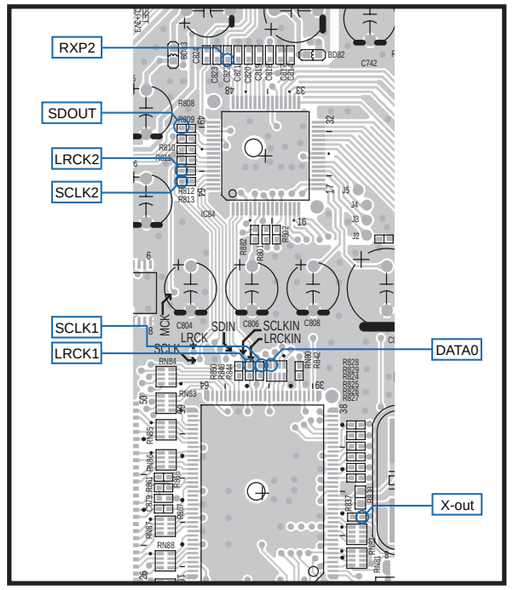


Test point

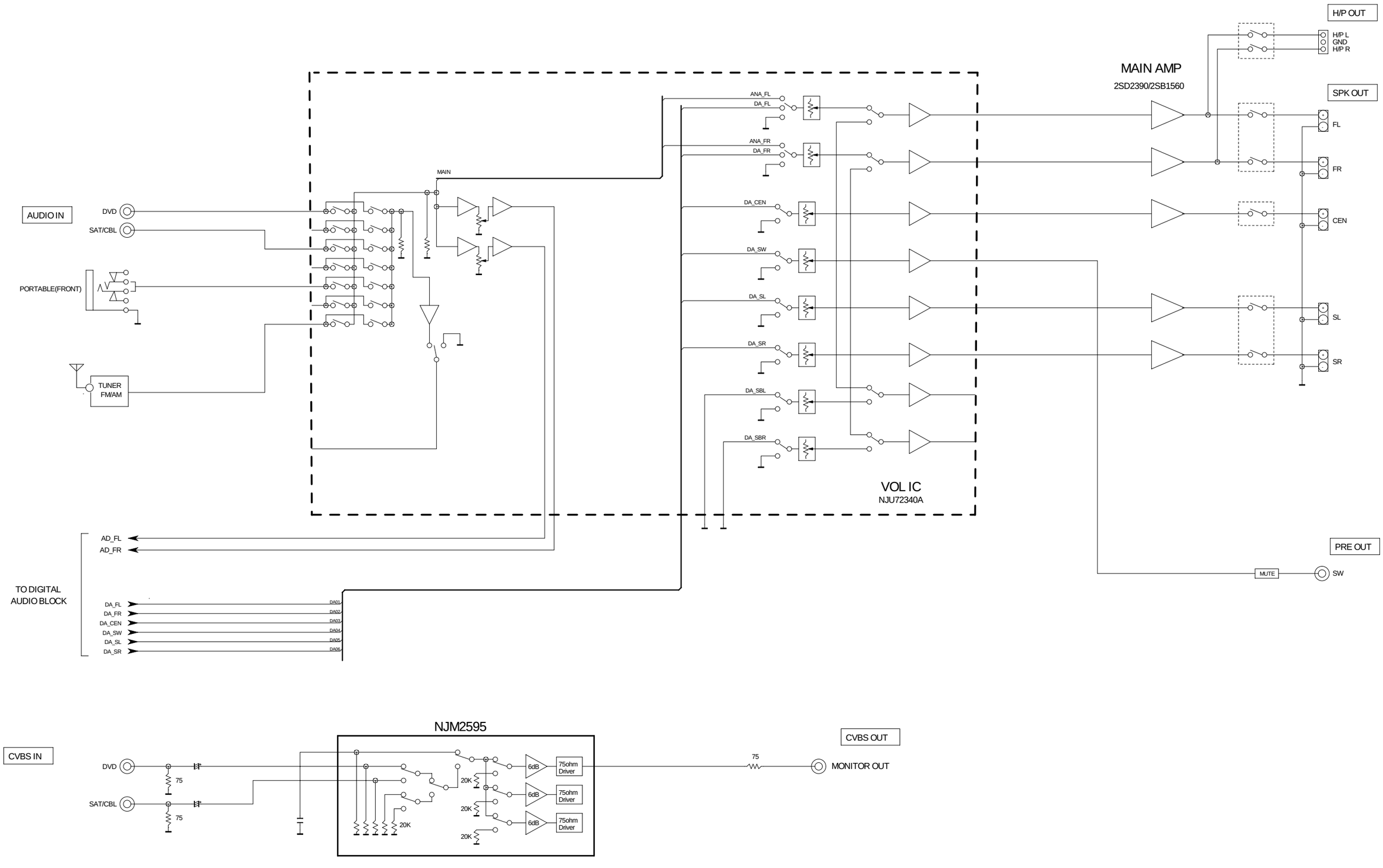


DIGITAL (COMPONENT SIDE)

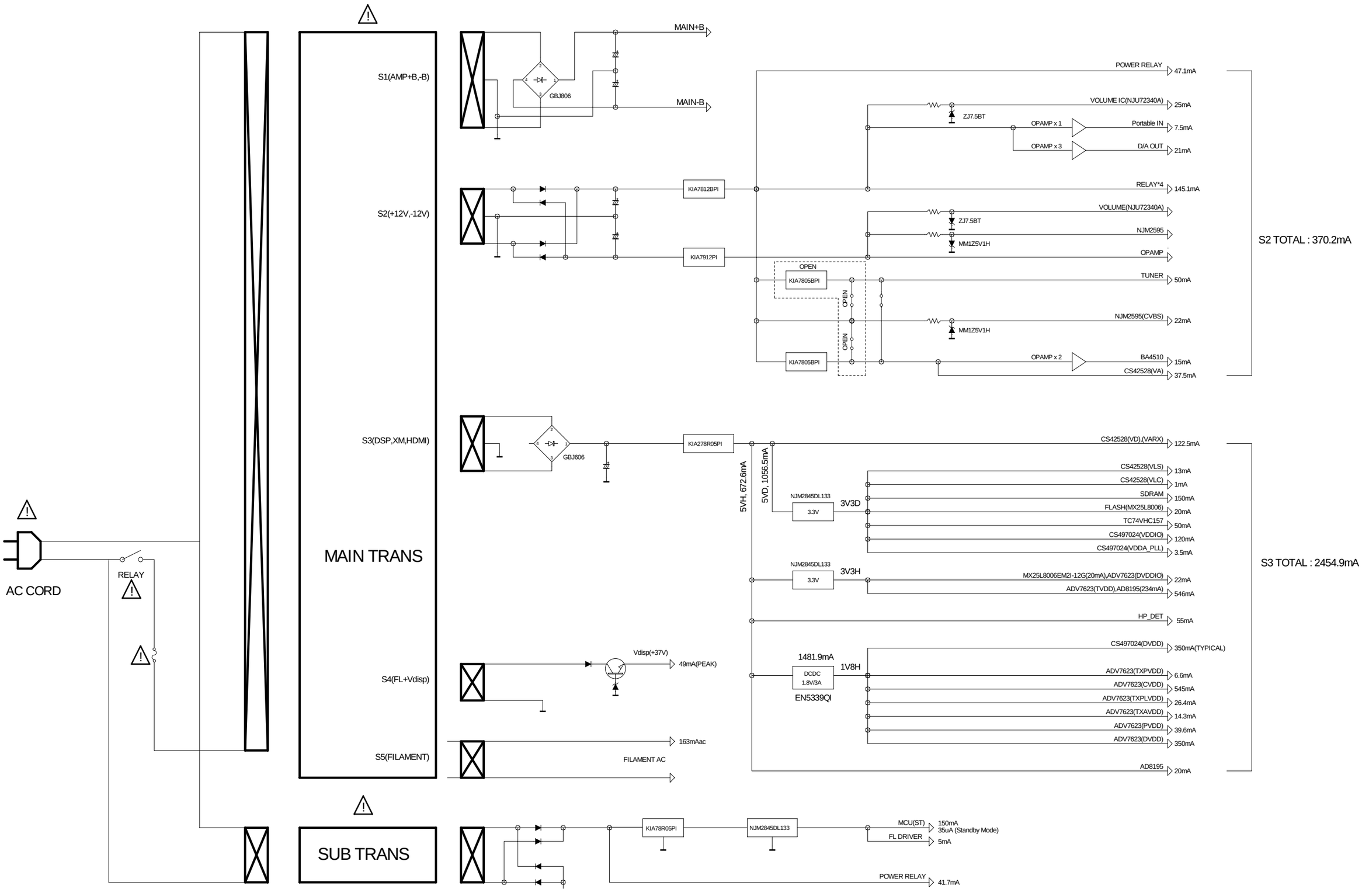
Detail A



AVRE200/X500 ANALOG AUDIO/VIDEO BLOCK

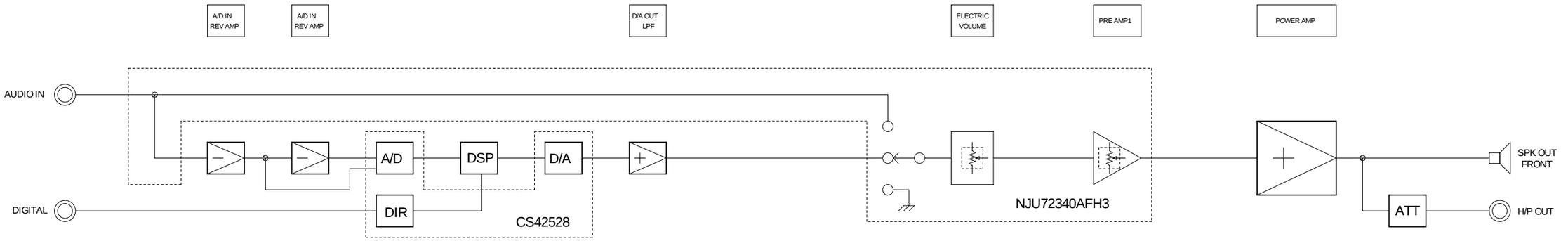


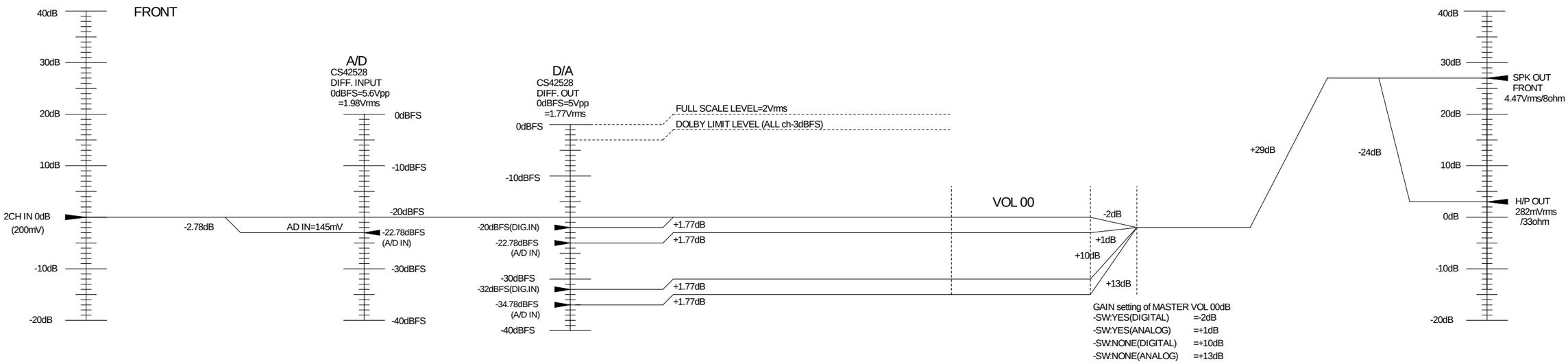
AVRE200/X500 POWER BLOCK DIAGRAM



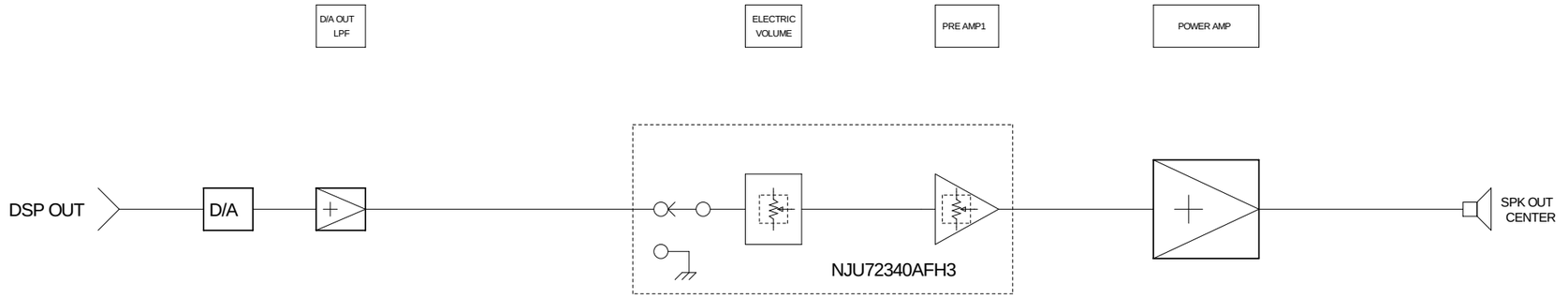
LEVEL DIAGRAM

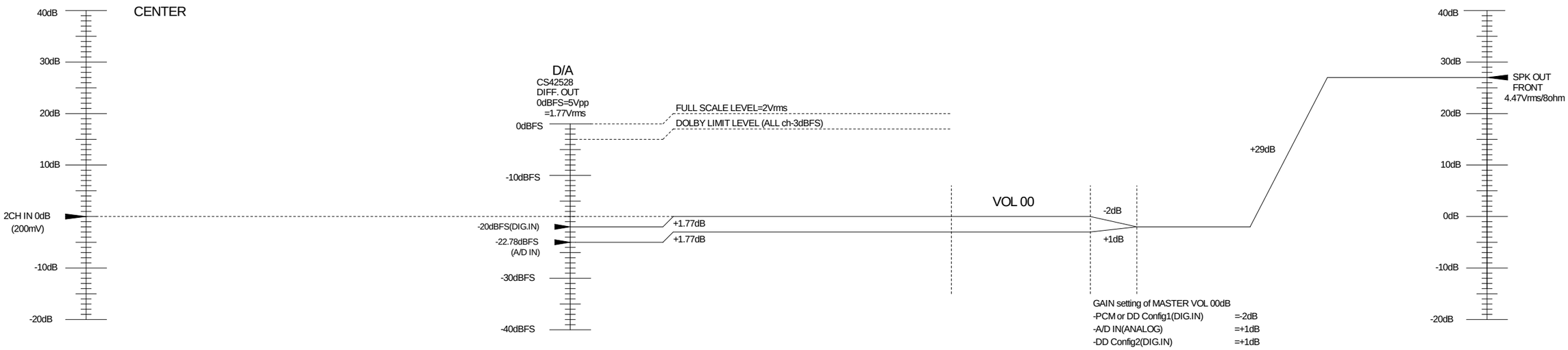
FRONT ch



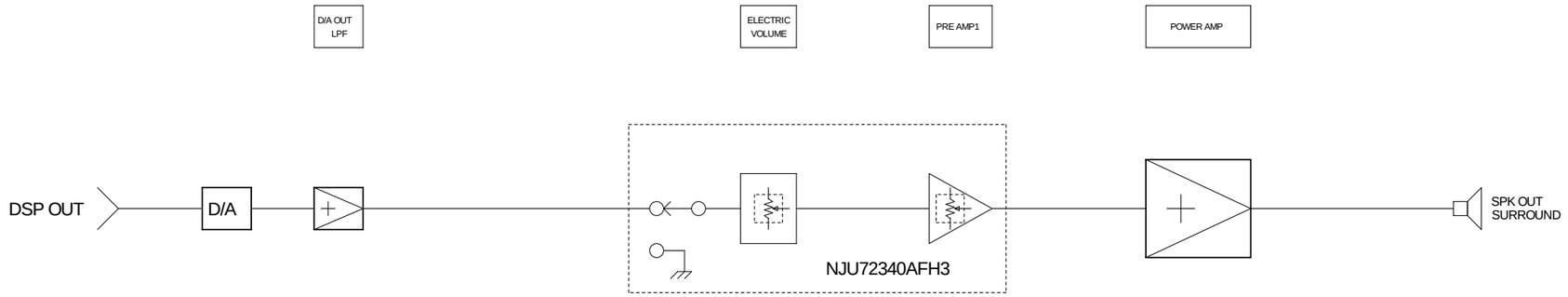


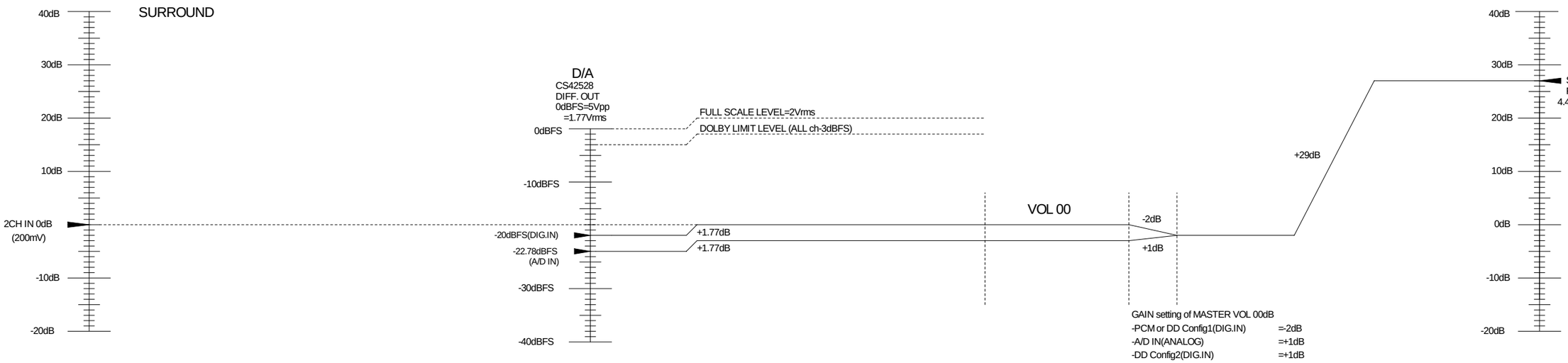
CENTER ch


D/A OUT
LPF
ELECTRIC
VOLUME
PRE AMP1
POWER AMP
DSP OUT
D/A
NJU72340AFH3
SPK OUT
CENTER

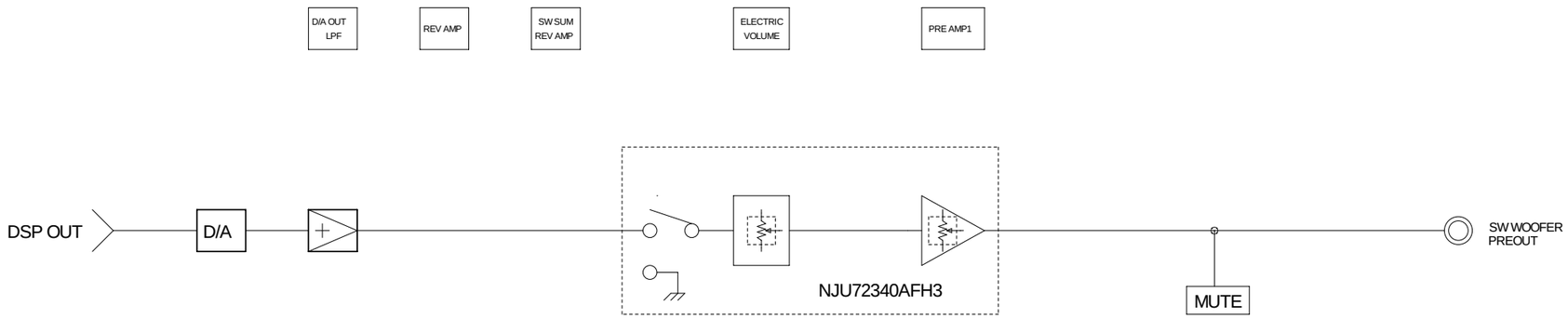

CENTER
40dB
30dB
20dB
10dB
2CH IN 0dB
(200mV)
-10dB
-20dB
D/A
CS42528
DIFF. OUT
0dBFS=5Vpp
=1.77Vrms
0dBFS
-10dBFS
-20dBFS(DIG.IN)
-22.78dBFS
(A/D IN)
-30dBFS
-40dBFS
FULL SCALE LEVEL=2Vrms
DOLBY LIMIT LEVEL (ALL ch-3dBFS)
+1.77dB
+1.77dB
VOL 00
-2dB
+1dB
+29dB
GAIN setting of MASTER VOL 00dB
-PCM or DD Config1(DIG.IN) =-2dB
-A/D IN(ANALOG) =+1dB
-DD Config2(DIG.IN) =+1dB
40dB
30dB
20dB
10dB
0dB
-10dB
-20dB
SPK OUT
FRONT
4.47Vrms/8ohm

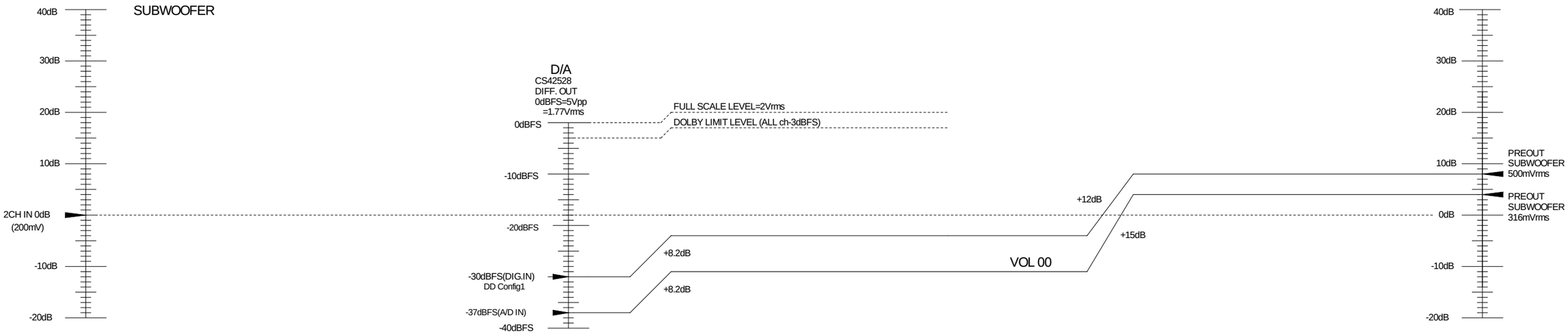
SURROUND ch


D/A OUT
LPF
ELECTRIC
VOLUME
PRE AMP1
POWER AMP
DSP OUT
D/A
NJU72340AFH3
SPK OUT
SURROUND

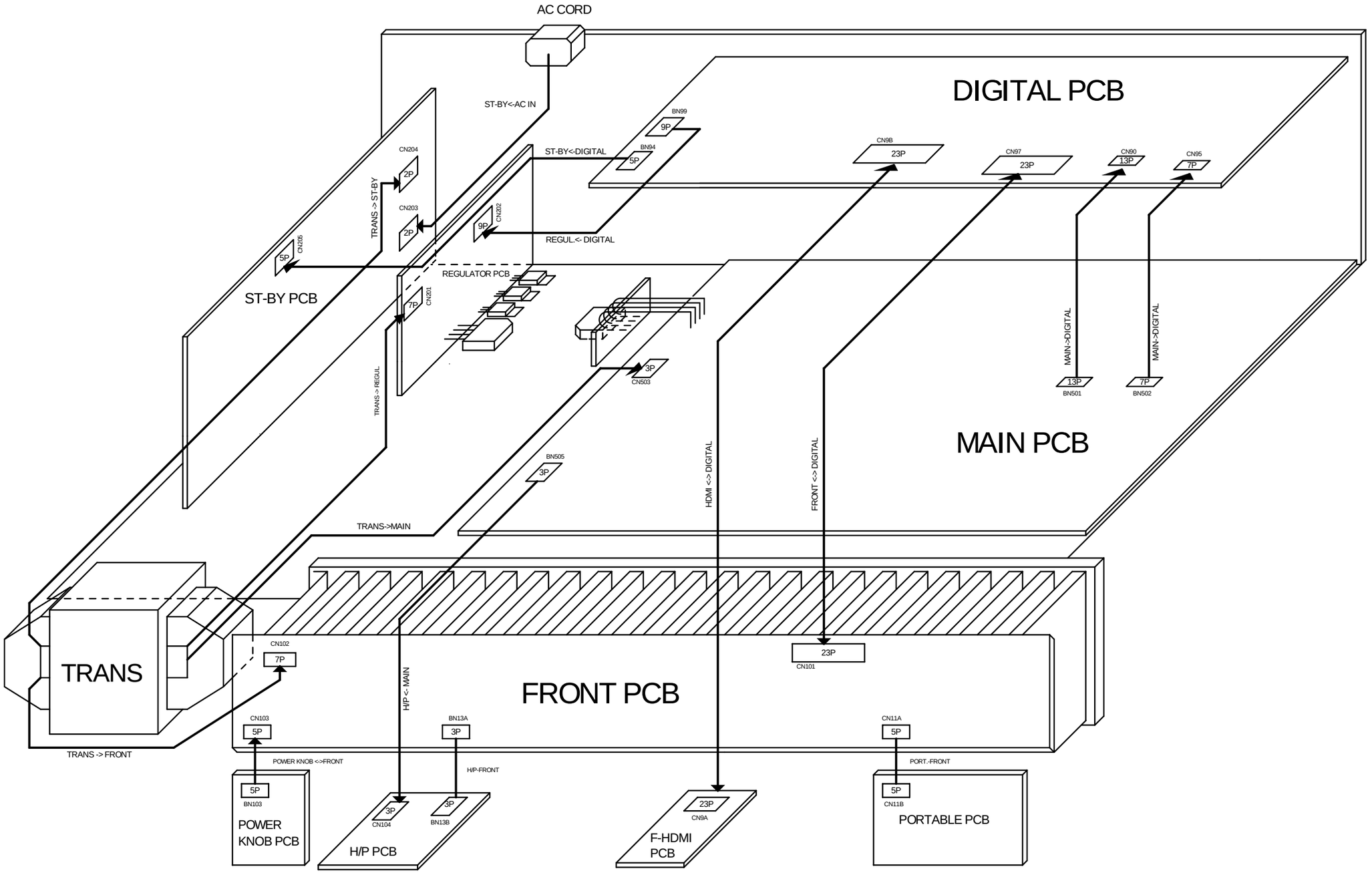

SURROUND
40dB
30dB
20dB
10dB
2CH IN 0dB
(200mV)
-10dB
-20dB
D/A
CS42528
DIFF. OUT
0dBFS=5Vpp
=1.77Vrms
0dBFS
FULL SCALE LEVEL=2Vrms
DOLBY LIMIT LEVEL (ALL ch-3dBFS)
-10dBFS
-20dBFS(DIG.IN)
-22.78dBFS
(A/D IN)
-30dBFS
-40dBFS
+1.77dB
+1.77dB
VOL 00
-2dB
+1dB
+29dB
GAIN setting of MASTER VOL 00dB
-PCM or DD Config1(DIG.IN) =-2dB
-A/D IN(ANALOG) =+1dB
-DD Config2(DIG.IN) =+1dB
40dB
30dB
SPK OUT
FRONT
4.47Vrms/8ohm
20dB
10dB
0dB
-10dB
-20dB

SUBWOOFER ch

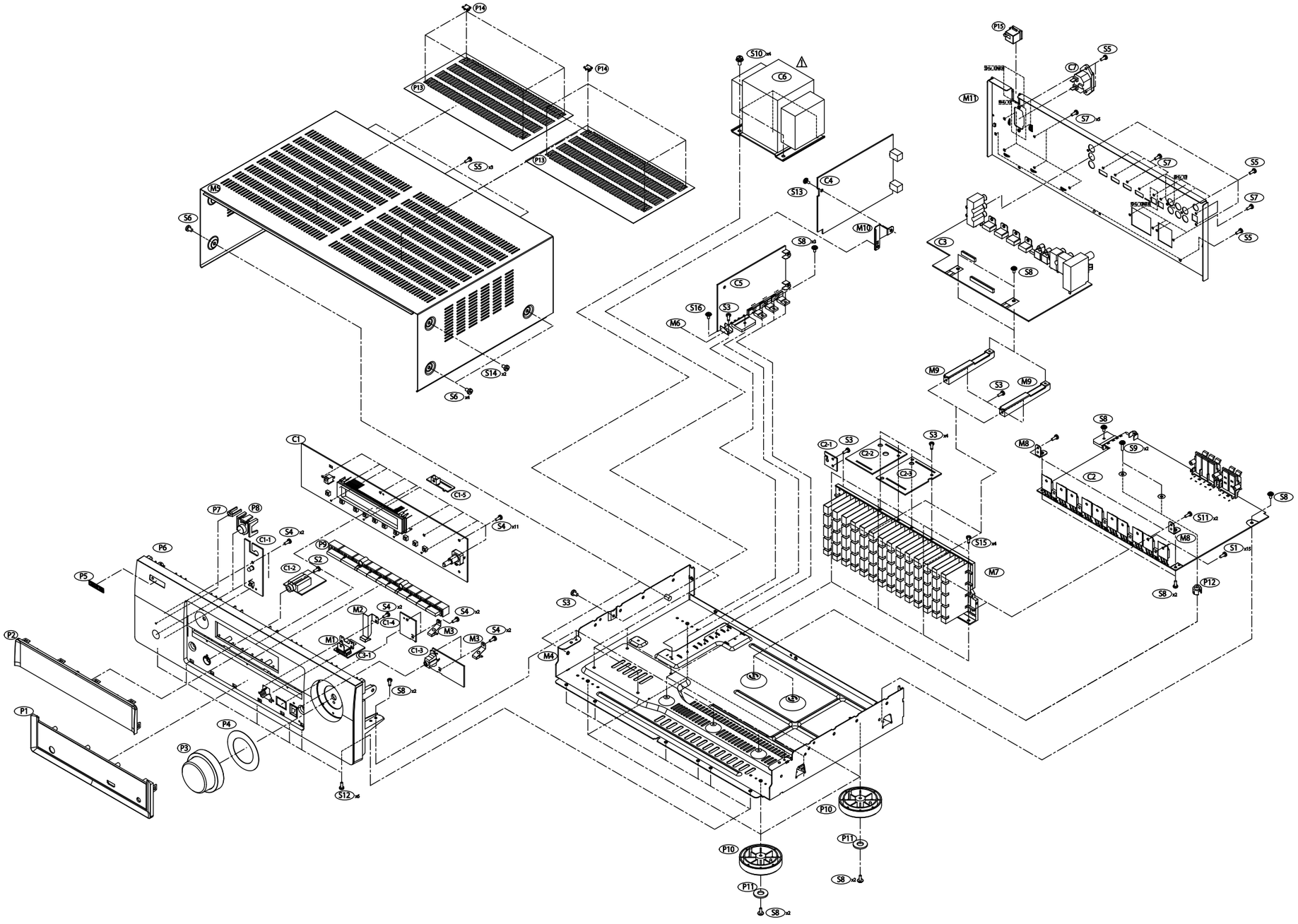




AVRE200/X500 WIRING DIAGRAM



EXPLODED VIEW



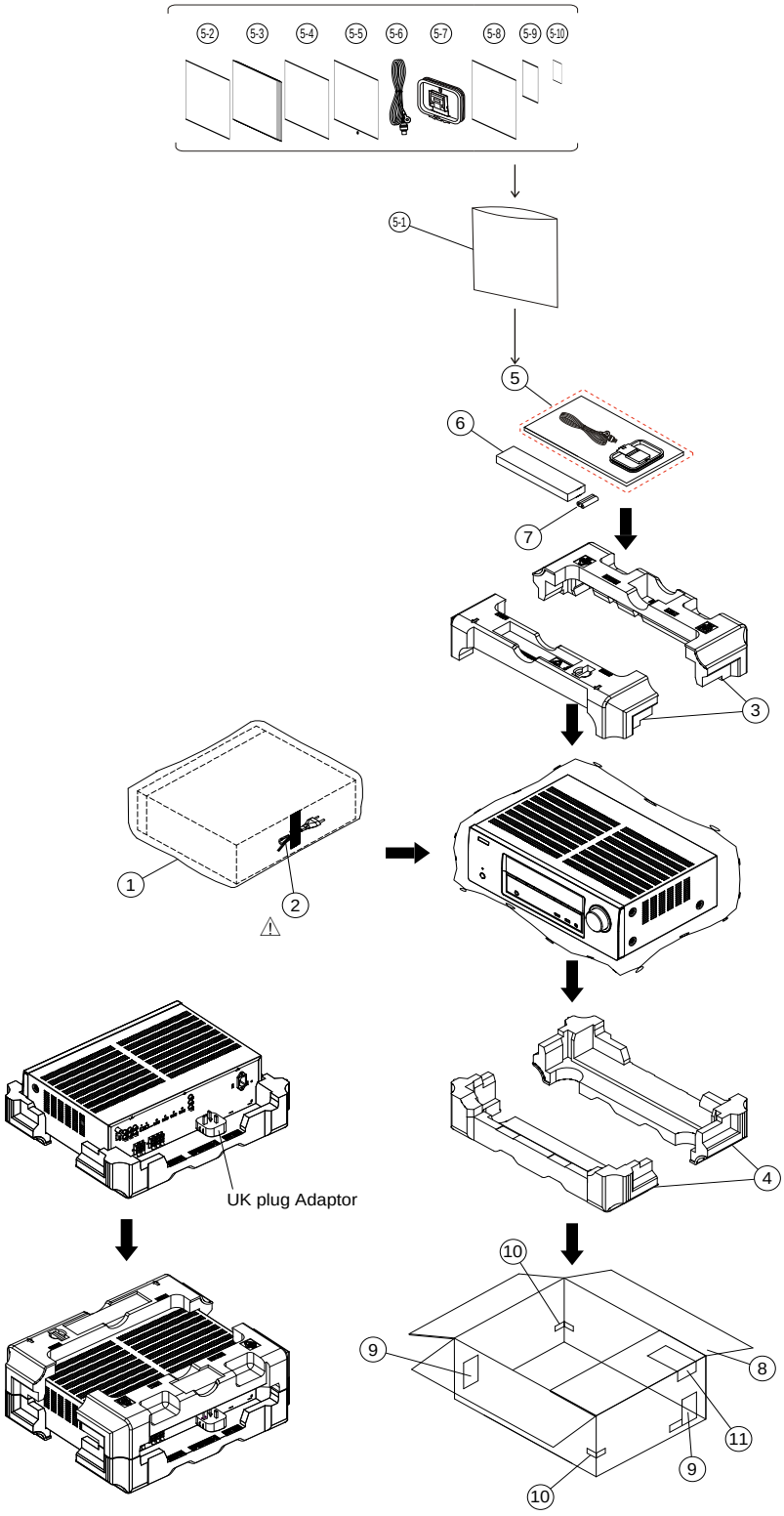
WARNING:
Parts marked with this symbol ⚠ have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

PARTS LIST OF EXPLODED VIEW

Please refer to the last chapter.
⁎Parts indicated by "nsp" on this table cannot be supplied.
⁎P.W.B. ASS'Y indicated by "nsp" on this table cannot be supplied. When repairing the P.W.B. ASS'Y, check the board parts list and order replacement parts.
⁎Parts indicated by the " ★ " mark are not illustrated in the exploded view.
⁎The parts listed below are only for maintenance. Therefore they might differ from the parts used in the unit in appearances or dimensions.

Personal notes:

PACKING VIEW



PARTS LIST OF PACKING & ACCESSORIES

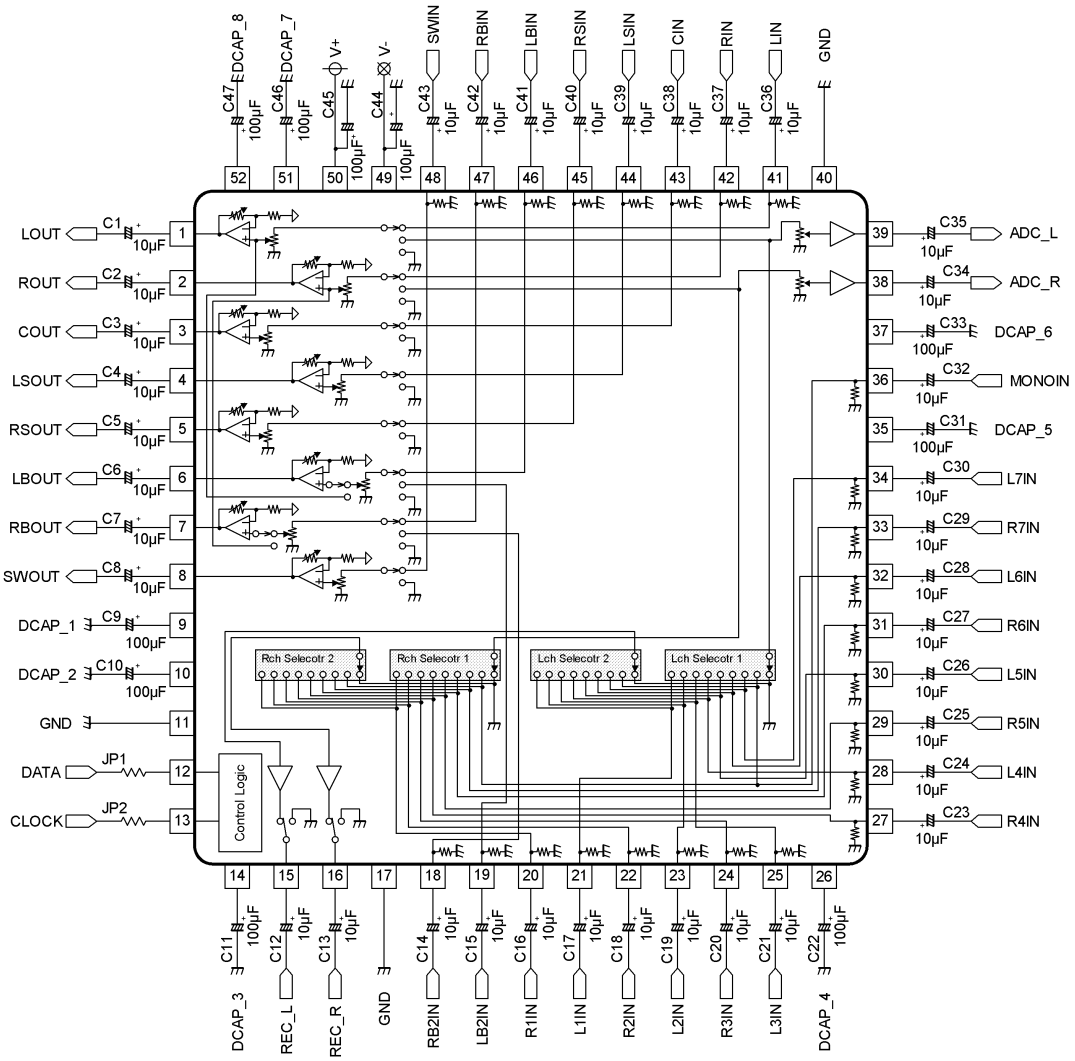
Please refer to the last chapter.
∗Parts indicated by "nsp" on this table cannot be supplied.
∗Parts indicated by the " ★ " mark are not illustrated in the exploded view.
∗The parts listed below are only for maintenance. Therefore they might differ from the parts used in the unit in appearances or dimensions.

SEMICONDUCTORS

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

1. IC's

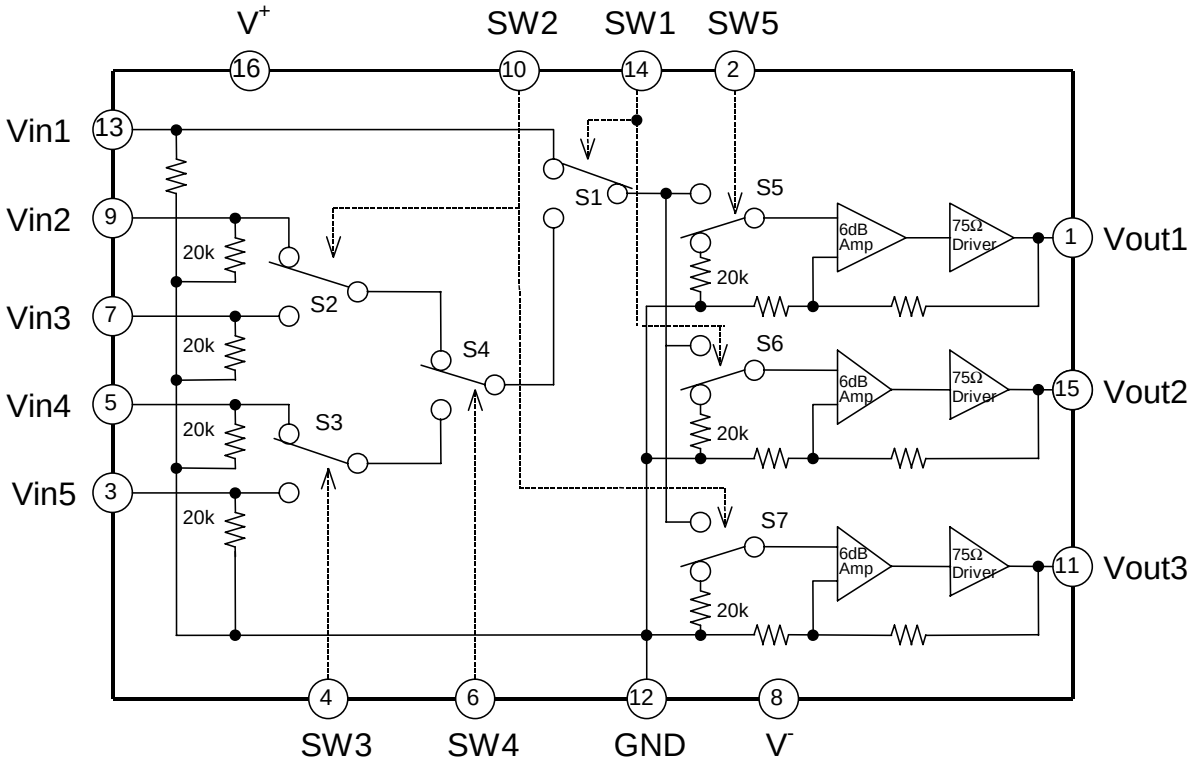
NJU72340A (DIGITAL :IC61)



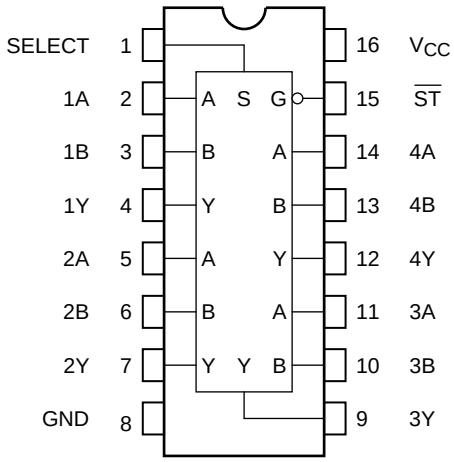
NJU72340A Terminal Functions

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

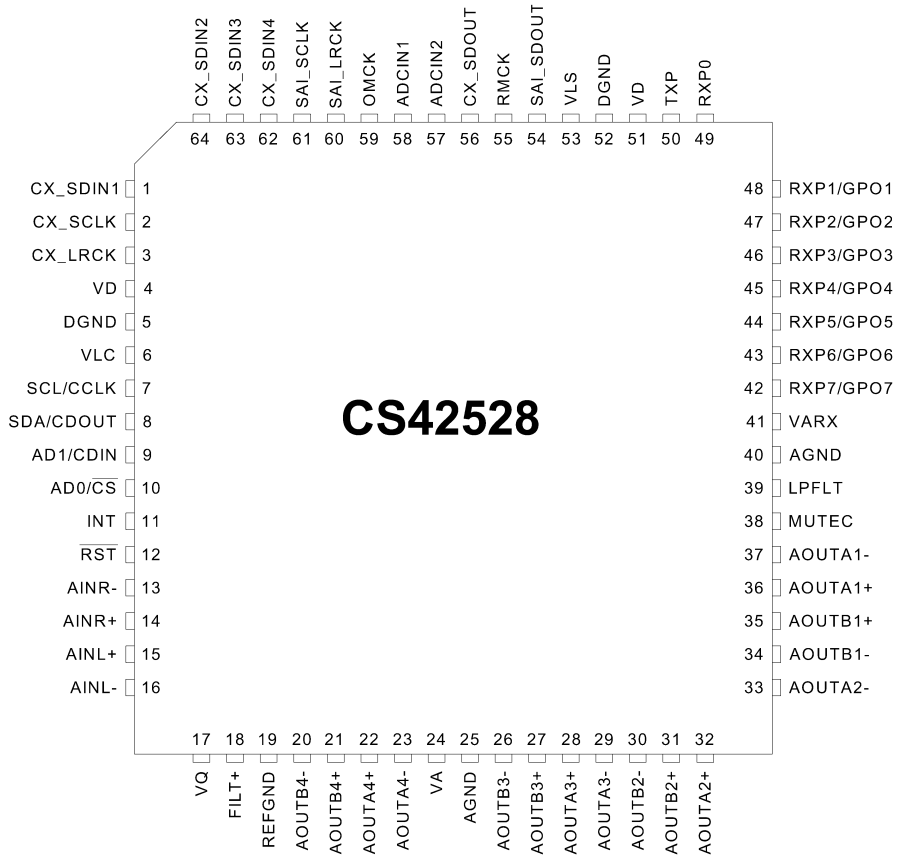
NJM2595M (DIGITAL : IC71)



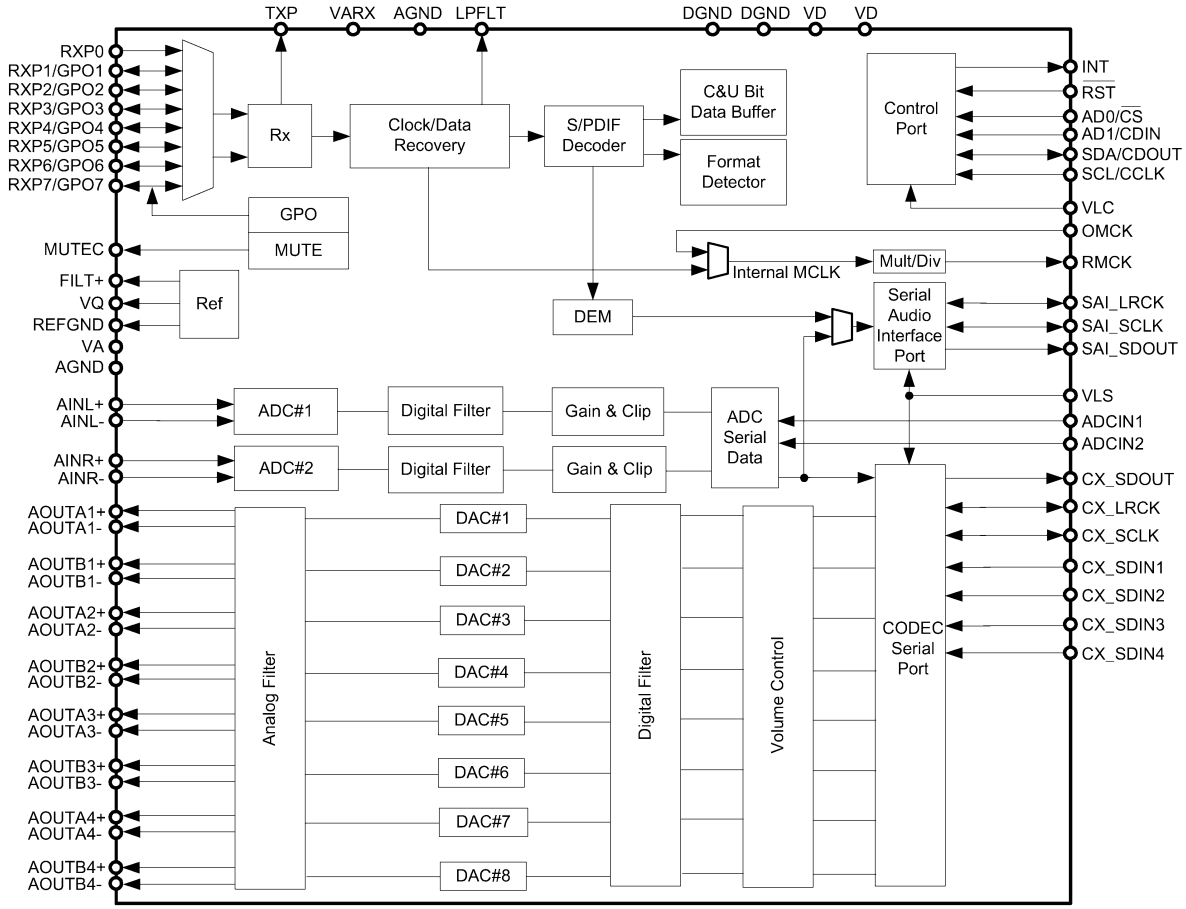
TC74VHC157FT (DIGITAL : IC85)



CS42528 (DIGITAL : IC84)



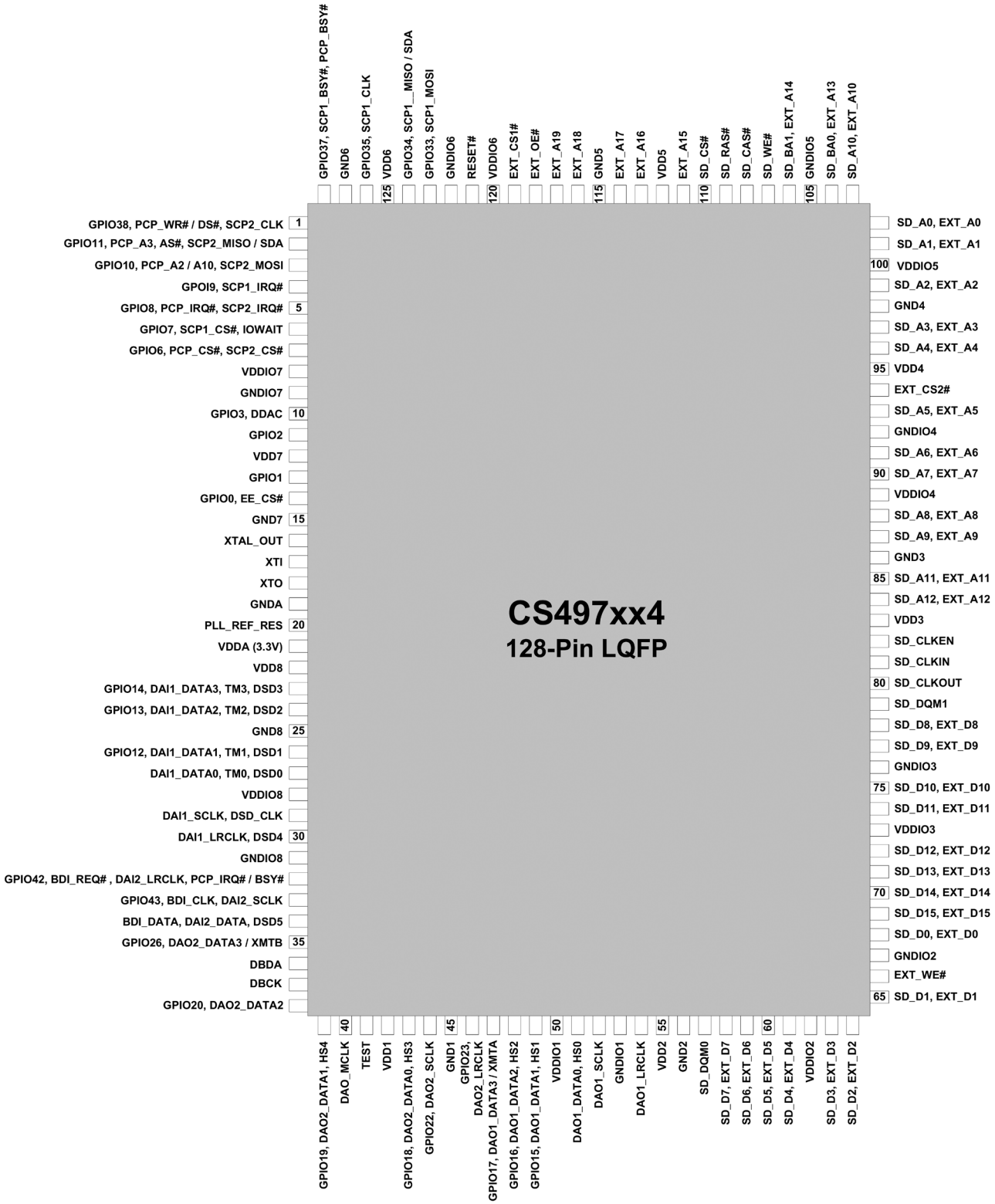
CS42528 Block diagram



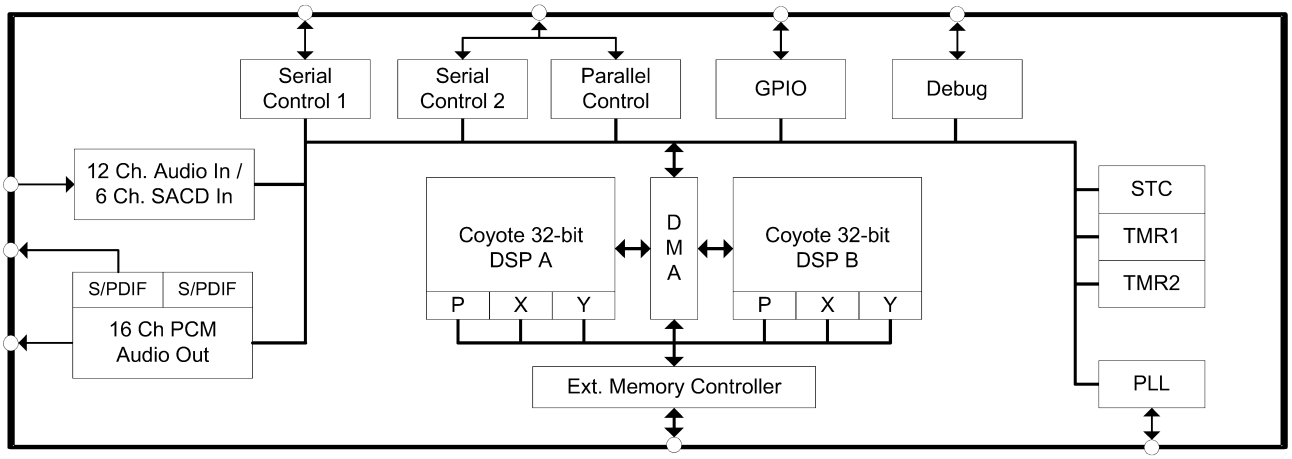
CS42528 Terminal Functions

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

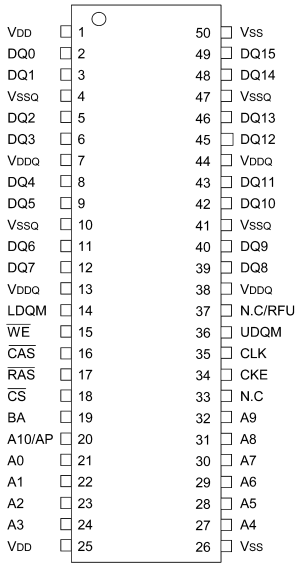
CS497024CVZ (DIGITAL : IC81)

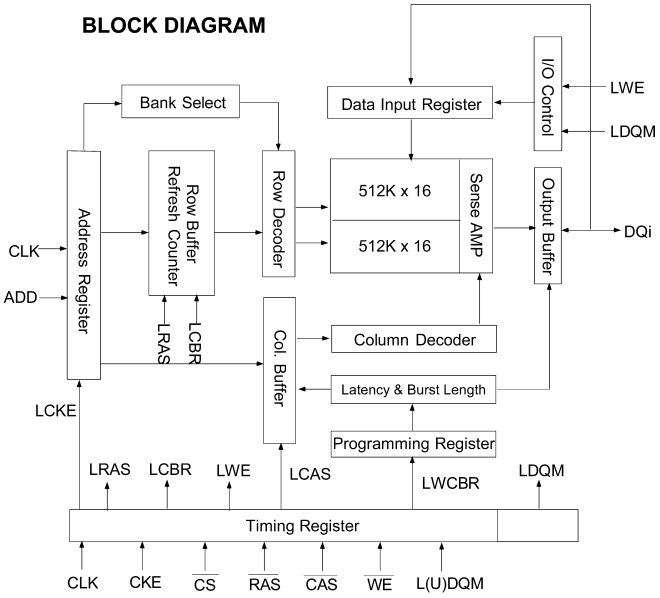


CS497024CVZ Block diagram



M12L16161A5TG (DIGITAL : IC83)

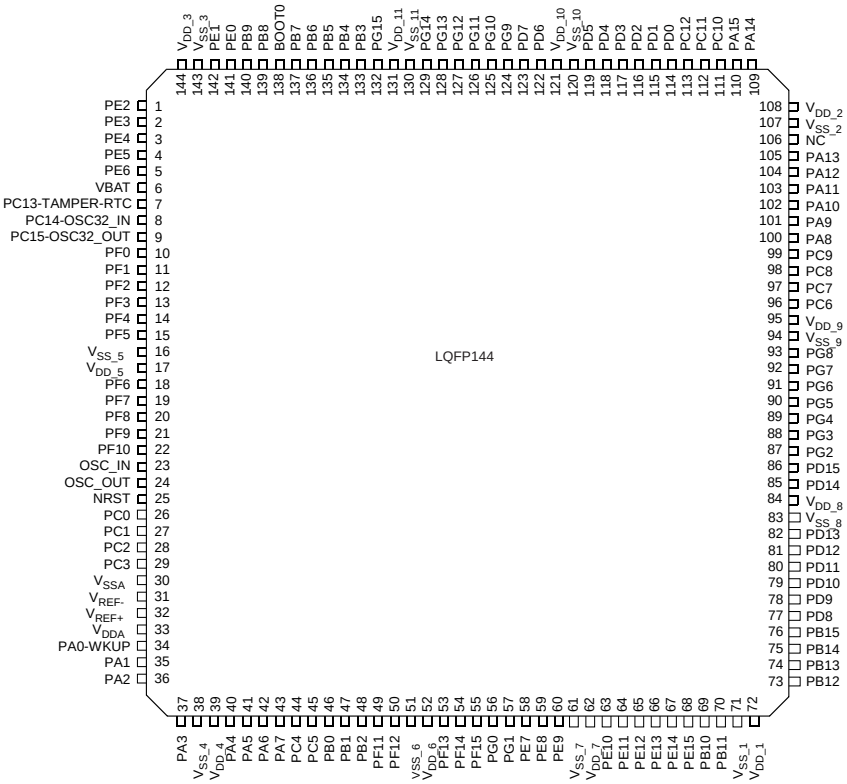




M12L16161A5TG Terminal Functions

Pin	Name	Input Function
CLK	System Clock	Active on the positive going edge to sample all inputs.
$\overline{CS}$	Chip Select	Disables or enables device operation by masking or enabling all inputs except CLK, CKE and L(U)DQM.
CKE	Clock Enable	Masks system clock to freeze operation from the next clock cycle. CKE should be enabled at least one cycle prior to new command. Disable input buffers for power down in standby.
A0 ~ A10/AP	Address	Row / column addresses are multiplexed on the same pins. Row address : RA0 ~ RA10, column address : CA0 ~ CA7
BA	Bank Select Address	Selects bank to be activated during row address latch time. Selects bank for read/write during column address latch time.
$\overline{RAS}$	Row Address Strobe	Latches row addresses on the positive going edge of the CLK with $\overline{RAS}$ low. Enables row access & precharge.
$\overline{CAS}$	Column Address Strobe	Latches column addresses on the positive going edge of the CLK with $\overline{CAS}$ low. Enables column access.
$\overline{WE}$	Write Enable	Enables write operation and row precharge. Latches data in starting from $\overline{CAS}$, $\overline{WE}$ active.
L(U)DQM	Data Input / Output Mask	Makes data output Hi-Z, t_{SHZ} after the clock and masks the output. Blocks data input when L(U)DQM active.
DQ0~15	Data Input / Output	Data inputs/outputs are multiplexed on the same pins.
VDD/VSS	Power Supply/Ground	Power and ground for the input buffers and the core logic.
VDDQ/VSSQ	Data Output Power/Ground	Isolated power supply and ground for the output buffers to provide improved noise immunity.
N.C/RFU	No Connection/ Reserved for Future Use	This pin is recommended to be left No Connection on the device.

STM32F101ZE (DIGITAL : IC91)



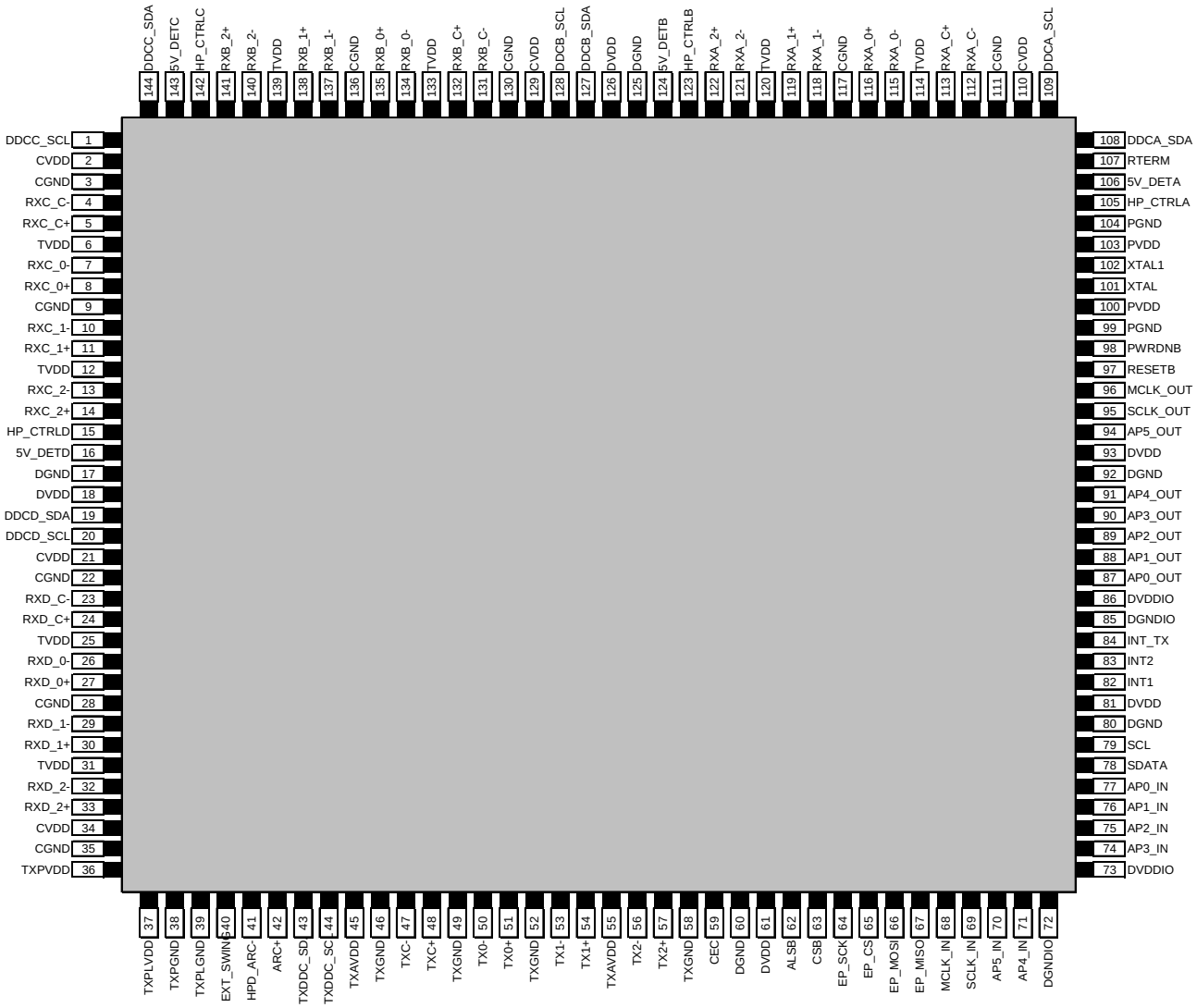
STM32F101ZE Terminal Functions

Pin	Pin Name	Symbol	I/O	Pullup	STBY	stop	Function
1	PE2	DC_PROTECT	I	M3VPu	I	I	DC Protection Detect
2	PE3	NC	O(L)	-	-	-	NC
3	PE4	POWER_DOWN	I	M3VPu	I	I	Power Down Detect
4	PE5	FRONT_RLY(SPK_RLY_ON)	O	-	O/L	O/L	Front SPK RLY Control
5	PE6	C/S_RLY	O	-	O/L	O/L	Center/Surround SPK RLY Control
6	VBAT	VBAT	-	-	-	-	3.3V
7	PC13	NC	O(L)	-	-	-	NC
8	PC14 / OSC32_IN	OSC32_IN	-	-	-	-	
9	PC15 / OSC32_OUT	OSC32_OUT	-	-	-	-	
10	PF0	NC	O(L)	-	-	-	NC
11	PF1	NC	O(L)	-	-	-	NC
12	PF2	NC	O(L)	-	-	-	NC
13	PF3	CVBS_SW2	O	-	O/L	O/L	CVBS(NJM2595)SW2 Control
14	PF4	CVBS_SW5	O	-	O/L	O/L	CVBS(NJM2595)SW5 Control
15	PF5	NC	O(L)	-	-	-	NC
16	VSS_5		-	-	-	-	GND
17	VDD_5		-	-	-	-	3.3V
18	PF6	NC	O(L)	-	-	-	NC
19	PF7	NC	O(L)	-	-	-	NC
20	PF8	NC	O(L)	-	-	-	NC
21	PF9	MAIN_VOL_DATA	O	-	O/L	O/L	Volume Data
22	PF10	MAIN_VOL_CLK	O	-	O/L	O/L	Volume CLK
23	PH0 / OSC_IN	XTAL_IN	I	-	-	-	8MHz Xtal
24	PH1 / OSD_OUT	XTAL_OUT	O	-	-	-	8MHz Xtal
25	NRST	RESET	I	-	-	-	RESET
26	PC0	KEY1	I	M3VPu	I	I	KEY1 input A/D port
27	PC1	KEY2	I	M3VPu	I	I	KEY2 input A/D port
28	PC2	KEY3	I	M3VPu	I	I	KEY3 input A/D port
29	PC3	OPTION	I	M3VPu	I	I	MODEL OPTION
30	VSSA		-	-	-	-	GND
31	VREF-		-	-	-	-	GND
32	VREF+		-	-	-	-	3.3V
33	VDDA		-	-	-	-	3.3V
34	PA0 / WKUP	NC	O(L)	-	-	-	NC
35	PA1	NC	O(L)	-	-	-	NC

Pin	Pin Name	Symbol	I/O	Pullup	STBY	stop	Function
36	PA2	NC	O(L)	-	-	-	NC
37	PA3	NC	O(L)	-	-	-	NC
38	VSS_4		-	-	-	-	GND
39	VDD_4		-	-	-	-	3.3V
40	PA4	DSP_CS	O	-	O/L	O/L	DSP Chip Select
41	PA5	DSP_CLK	O	D3VPu	O/L	O/L	DSP_CLK
42	PA6	DSP_MISO	I	D3VPu	O/L	O/L	DSP MISO
43	PA7	DSP_MOSI	O	-	O/L	O/L	DSP MOSI
44	PC4	NC	O(L)	-	-	-	NC
45	PC5	NC	O(L)	-	-	-	NC
46	PB0	DIR_MISO	I	-	O/L	O/L	DIR_MISO
47	PB1	DIR_CLK	O	D3VPu	O/L	O/L	DIR_CLK
48	PB2 / BOOT1	BOOT1	I	-	-	-	GND
49	PF11	DIR_MOSI	O	-	O/L	O/L	DIR MOSI
50	PF12	DSP_RST	O	-	O/L	O/L	DSP Reset
51	VSS_6		-	-	-	-	GND
52	VDD_6		-	-	-	-	3.3V
53	PF13	DSP_MODE_SEL	I/O	PullDown	O/L	O/L	DSP_MODE_SEL
54	PF14	CODEC_MUTE	I(FT)	-	O/L	O/L	CODEC Mute Detect (*FT = 5V tolerant)
55	PF15	DIR_RST	O	-	O/L	O/L	DIR Reset
56	PG0	DIR_CE	O	-	O/L	O/L	DIR Chip Select
57	PG1	DSP_SPC1_IRQ	I	D3VPu	O/L	O/L	DSP INTERRRUPTQ
58	PE7	DSP_PCP_BSY	I	D3VPu	O/L	O/L	DSP BSY
59	PE8	NC	O(L)	-	-	-	NC
60	PE9	HDMI_SW	O	-	O/L	O/L	HDMI Audio Data MCLK Select SW
61	VSS_7		-	-	-	-	GND
62	VDD_7		-	-	-	-	3.3V
63	PE10	NC	O(L)	-	-	-	NC
64	PE11	HDMI_SPI_MISO	I	-	I	O/L	HDMI OSD DATA input
65	PE12	HDMI_SPI_MOSI	O	-	O/L	O/L	HDMI OSD DATA output
66	PE13	HDMI_SPI_CS	O	+3VHPu	O/L	O/L	HDMI OSD Chip Select
67	PE14	HDMI_SPI_CLK	O	-	O/L	O/L	HDMI OSD Clock
68	PE15	HDMI_SPI_HOLD	O	-	O/L	O/L	HDMI OSD HOLD Control
69	PB10	HDMI_RST	O	-	O/L	O/L	HDMI Reset
70	PB11	NC	O(L)	-	-	-	NC
71	VSS_1		-	-	-	-	GND
72	VDD_1		-	-	-	-	3.3V
73	PB12	RESERVED	O(L)	-	-	-	RESERVED
74	PB13	RESERVED	O(L)	-	-	-	RESERVED
75	PB14	HDMI_INT_TX_7623	I	+3VHPu	I	O/L	HDMI INT TX interrupt
76	PB15	RESERVED	O(L)	-	-	-	RESERVED
77	PD8	HDMI_TXEN	O	-	O/L	O/L	FRONT HDMI BUFFER(AD8195) Output Enable
78	PD9	NC	O(L)	-	-	-	NC
79	PD10	NC	O	-	O/L	O/L	Option(STANDBY CEC MODE Control)
80	$\overline{\text{PD11}}$	HDMI_INT	I	+3VHPu	I	O/L	HDMI INT interrupt
81	PD12	HDMI_INT2	I	+3VHPu	I	O/L	HDMI INT2 intreeupt
82	$\overline{\text{PD13}}$	$\overline{\text{HDMI\_SDA}}$	I/O	+3VHPu	O/L	O/L	HDMI SDATA
83	VSS_8		-	-	-	-	GND
84	VDD_8		-	-	-	-	3.3V
85	PD14	HDMI_SCL	O	-	O/L	O/L	HDMI SCL
86	PD15	PWR_FAIL_PROTECT	I	M3VPu	O/L	O/L	+12V/-12V CHECK PROTECTION
87	PG2	THERMALDET_B	I	M3VPu	O/L	O/L	TEMPERATURE PROTECTION
88	PG3	THERMALDET_A	I	M3VPu	O/L	O/L	TEMPERATURE PROTECTION
89	PG4	ASO_DET	I	M3VPu	O/L	O/L	ASO_DETECT
90	PG5	POWER_ON	O	-	O/L	O/L	POWER RELAY Control
91	PG6	NC	I	-	I	O/L	Option(CEC MODE Interrupt)
92	PG7	VOL+	I	-	O/L	O/L	VOLUME UP
93	PG8	VOL-	I	-	O/L	O/L	VOLUME DOWN
94	VSS_9		-	-	-	-	GND
95	VDD_9		-	-	-	-	3.3V
96	PC6	RESERVED	O(L)	-	-	-	RESERVED
97	PC7	VFD_CE	O	-	O/L	O/L	VFD_CE
98	PC8	VFD_CLK	O	-	O/L	O/L	VFD_CLK
99	PC9	RESERVED	O(L)	-	-	-	RESERVED
100	PA8	VFD_DATA	O	-	O/L	O/L	VFD_DATA
101	PA9	UPDATE_TX	O	-	O/L	O/L	UPDATE TX

Pin	Pin Name	Symbol	I/O	Pullup	STBY	stop	Function
102	PA10	UPDATE_RX	I	-	I	O/L	UPDATE RX
103	PA11	RESERVED	O(L)	-	-	-	RESERVED
104	PA12	RESERVED	O(L)	-	-	-	RESERVED
105	PA13	DEBUG	I	-	-	-	JTMS / SWDIO
106	PCAP_2		-	-	-	-	Not Connected
107	VSS_2		-	-	-	-	GND
108	VDD_2		-	-	-	-	3.3V
109	PA14	DEBUG	I	-	-	-	JTCK / SWCLK
110	PA15	DEBUG	I	-	-	-	JTDI
111	PC10	NC	O(L)	-	-	-	NC
112	PC11	NC	O(L)	-	-	-	NC
113	PC12	HDMI_DEBUG_TX	O	-	O/L	O/L	HDMI DEBUG TX
114	PD0	VFD_RST	O	-	O/L	O/L	VFD_RESET(Low Active)
115	PD1	HP_RLY	O	-	O/L	O/L	H/P RLY Control
116	PD2	HDMI_DEBUG_RX	I	-	I	O/L	HDMI DEBUG RX
117	PD3	WAKE_UP	I	M3VPu	I	I	WAKE UP(Not use)
118	PD4	HP_DET	I	M3VPu	O/L	O/L	H/P DETECT
119	PD5	GRN_LED	O	-	O/L	O/L	2COLOR LED GREEN
120	VSS_10		-	-	-	-	GND
121	VDD_10		-	-	-	-	3.3V
122	PD6	NC	O(L)	-	-	-	NC
123	PD7	REMOTE_IN	I	-	I	O/L	REMOTE input
124	PG9	NC	O(L)	-	-	-	NC
125	PG10	EEPROM_SDA	I/O	M3VPu	I	O/L	EEPROM SDA
126	PG11	EEPROM_SCL	O	M3VPu	O/L	O/L	EEPROM SCL
127	PG12	DAC_MUTE	O	-	O/L	O/L	DAC Mute Control
128	PG13	TUNER_SCLK	O	-	O/L	O/L	TUNER SCLK
129	PG14	TUNER_SDIO	I/O	-	O/L	O/L	TUNER SDIO
130	VSS_11		-	-	-	-	GND
131	VDD_11		-	-	-	-	3.3V
132	PG15	NC	O(L)	-	-	-	NC
133	PB3	DEBUG	O	-	-	-	JTDO / TRACESWO
134	PB4	DEBUG	I	-	-	-	NJTRST
135	PB5	SUB MUTE	O	-	O/L	O/L	Sub Woofer MUTE Control
136	PB6	NC	O(L)	-	-	-	NC
137	PB7	NC	O(L)	-	-	-	NC
138	BOOT0	BOOT0	I	PullDown	I	I	UPDATE BOOT(HIGH:UPDATE / LOW:NORMAL MODE)
139	PB8	TUNER_CE	O	-	O/L	O/L	TUNER CE
140	PB9	TUNER_INT	I	-	I	O/L	TUNER INTERRUPT
141	PE0	TUNER_RST	O	-	O/L	O/L	TUNER Reset
142	PE1	RED_LED	O	-	O/L	O/L	2COLOR LED RED
143	VSS_3		-	-	-	-	GND
144	VDD_3		-	-	-	-	3.3V

ADV7623 (DIGITAL : IC11)



ADV7623 Terminal Functions

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

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

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

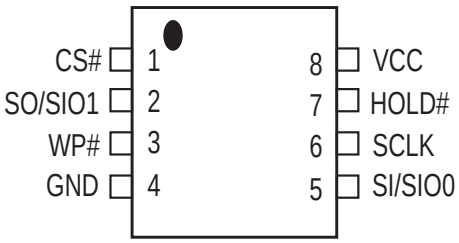
Location	Mnemonic	Type	Description
68	MCLK_IN	Digital Input	Audio Reference Clock. 128 × N × fs with N = 1, 2, 3, or 4. Set to 128 × sampling frequency (fs), 256 × fs, 384 × fs, or 512 × fs. Supports 1.8 V to 3.3 V CMOS logic levels.
69	SCLK_IN	Digital Input	I2S Audio Clock. Supports CMOS logic levels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

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

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

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

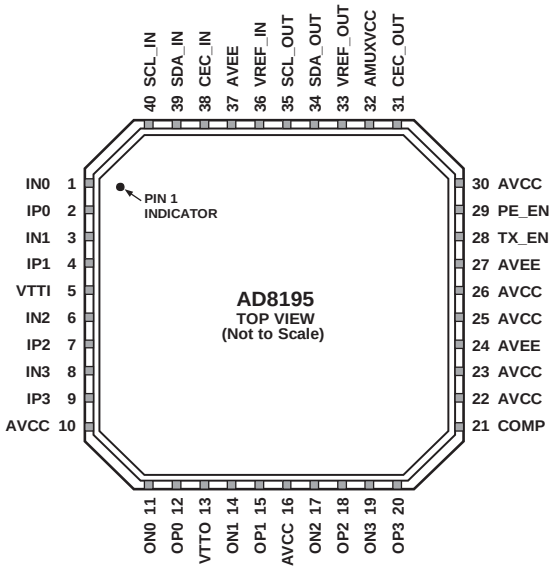
MX25L8006EM2I-12G (DIGITAL : IC14, IC82)



PIN DESCRIPTION

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

AD8195 (F-HDMI : IC51)



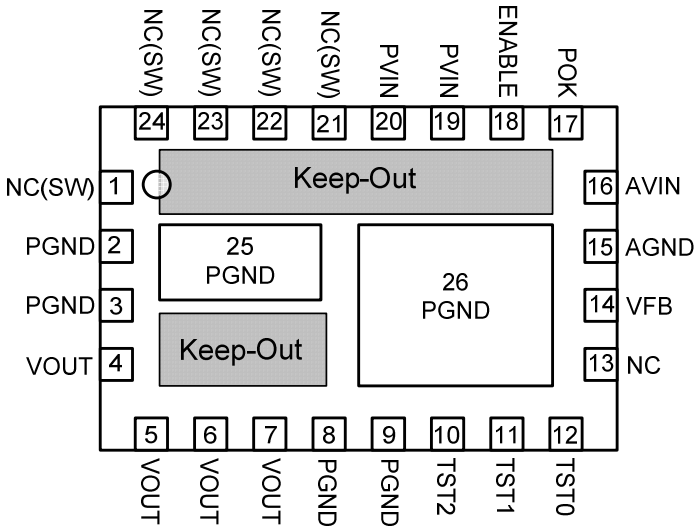
NOTES
1. THE AD8195 LFCSP HAS AN EXPOSED PAD ON THE UNDERSIDE OF THE PACKAGE THAT AIDS IN HEAT DISSIPATION. THE PAD MUST BE ELECTRICALLY CONNECTED TO THE AVEE SUPPLY PLANE IN ORDER TO MEET THERMAL SPECIFICATIONS.

AD8195 Terminal Functions

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

[1] HS = high speed, LS = low speed, I = input, and O = output.

EN5339QI (DIGITAL : IC17)



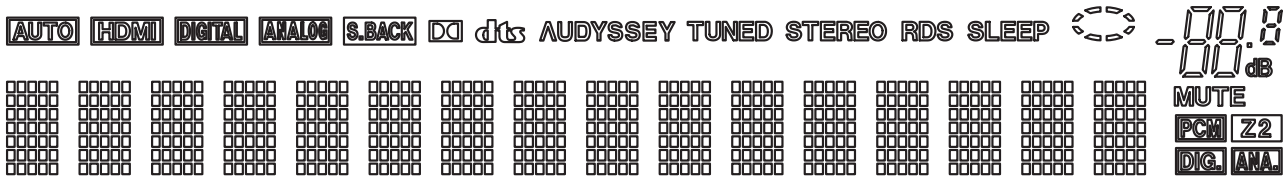
EX3AV Terminal Functions

Pin Description

PIN	NAME	FUNCTION
1, 21-24	NC(SW)	NO CONNECT: These pins are internally connected to the common switching node of the internal MOSFETs. They must be soldered to PCB but not be electrically connected to any external signal, ground, or voltage. Failure to follow this guideline may result in device damage.
2-3, 8-9	PGND	Input and output power ground. Connect these pins to the ground electrode of the input and output filter capacitors. See VOUT, PVIN descriptions and Layout Recommendation for more details.
4-7	VOUT	Regulated converter output. Connect to the load and place output filter capacitor(s) between these pins and PGND pins 7 and 8. See layout recommendation for details
10	TST2	Test Pin. For Enpirion internal use only. Connect to AVIN at all times.
11	TST1	Test Pin. For Enpirion internal use only. Connect to AVIN at all times.
12	TST0	Test Pin. For Enpirion internal use only. Connect to AVIN at all times.
13	NC	NO CONNECT: This pin must be soldered to PCB but not electrically connected to any other pin or to any external signal, voltage, or ground. This pin may be connected internally. Failure to follow this guideline may result in device damage.
14	VFB	This is the external feedback input pin. A resistor divider connects from the output to AGND. The mid-point of the resistor divider is connected to VFB. A feed-forward capacitor is required parallel to the upper feedback resistor (R_A). The output voltage regulation is based on the VFB node voltage equal to 0.600V.
15	AGND	The quiet ground for the control circuits. Connect to the ground plane with a via right next to the pin.
16	AVIN	Analog input voltage for the control circuits. Connect this pin to the input power supply (PVIN) at a quiet point. Decouple with a 1uF capacitor to AGND.
17	POK	POK is an open drain output. Refer to Power OK section for details. Leave POK open if unused.
18	ENABLE	Output Enable. A logic high level on this pin enables the output and initiates a soft-start. A logic low signal disables the output and discharges the output to GND. This pin must not be left floating.
19-20	PVIN	Input power supply. Connect to input power supply and place input filter capacitor(s) between these pins and PGND pins 2 to 3.
25,26	PGND	Not a perimeter pin. Device thermal pad to be connected to the system GND plane for heat-sinking purposes. See Layout Recommendation section.

2. FL DISPLAY

FLD (018BT021GINK) (FRONT : FL101)



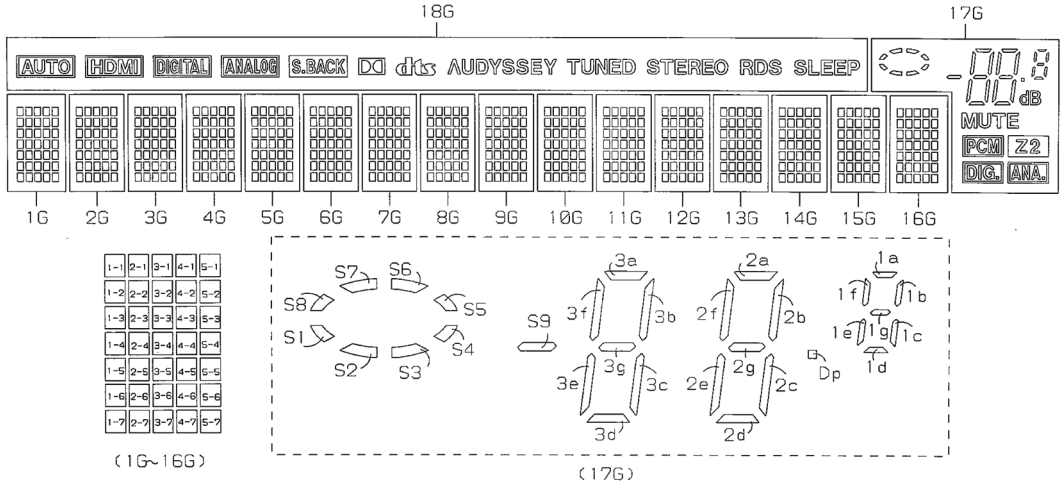
PIN CONNECTION

PIN NO.	57	56	55	54	53	52	51
CONNECTION	F2	NP	NP	NP	LGND	PGND	VH

PIN NO.	50	49	48	47	46	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
CONNECTION	VDD	OSC	RESET	CS	CDA	DA	TSA	TSB	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	NX	18G	17G	Q18G	Q17G	NP	NP	NP	F1

NOTE 1) F1,F2 --- Filament
2) NP ------ No pin
3) DL ------ Datum Line
4) NX ------ No extend pin
5) LGND -----Logic GND pin
6) PGND -----Power GND pin
7) VH ------ High Voltage Supply pin
8) VDD ----- Logic Voltage Supply pin
9) CP ------ Shift Register Clock
10) DA ------ Serial Data Input
11) TSA,B --- Test pin
12) CS ------ Chip Select Input pin
13) RESET --- Reset Input
14) OSC ----- Pin for self-oscillation
15) Solder composition is Sn-3Ag-0.5Cu.
16) 17G,18G ----- Grid
17) Q17G,Q18G ----- Driver Output Port.
18) Field of vision is a minimum of 21.8° from the lower side.

GRID ASSIGNMENT



ANODE CONNECTION

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

FRONT PCB ASS'Y

FRONT

	REF No.	Part No.	Part Name	Remarks		Q'ty	New
SEMICONDUCTORS GROUP							
	D1001,1002	00D9630328409	DIODE,RECTIFIER,AXIAL		CVD1N4007ST	2	
	D1003	90M-HD302360R	DIODE,ZENER,1/2W,6.8V ZJ6.8BT(26MMT/B)		CVDZJ6.8BT	1	
	D1004	00D9430087209	DIODE,ZENER,1/2W,24V ZJ24BT(26MMT/B)		CVDZJ24BT	1	
	D1005	90M-HD302450R	DIODE,ZENER,1/2W,13V ZJ13BT(26MMT/B)		CVDZJ13BT	1	
	D1012	943176010090S	L.E.D,(GREEN/RED5PI)		CVDBLBJEGJ204L	1	
	IC102	943239005300M	I.C,OPAMP BA4560RF-E2		HVIBA4560RF	1	
	Q1001	943219006820S	T.R KTC1027Y		CVTKTC1027YT	1	
	Q1003,1004	943214500020S	T.R,2SC3052 2SC3052		CVT2SC3052	2	
	Q1005	00MHT600141B1	T.R KTA1271-Y-AT/P		HVTKTA1271YT	1	
	Q1006	943216500020S	T.R,RT1N141C(10K-10K) RT1N141C		CVTRT1N141C	1	
	Q1008	943215500020S	T.R,RT1P141C(10K-10K) RT1P141C-T112-1		CVTRT1P141C	1	
	Q1009	943216500020S	T.R,RT1N141C(10K-10K) RT1N141C		CVTRT1N141C	1	
	Q1011	943215500020S	T.R,RT1P141C(10K-10K) RT1P141C-T112-1		CVTRT1P141C	1	
	Q1012	943216500020S	T.R,RT1N141C(10K-10K) RT1N141C		CVTRT1N141C	1	
	RC101	943262100140S	SENSOR,REMOTE(37.9KHz) HM238RT-12		CRVHM238RT12	1	
RESISTOR GROUP							
	R1001	nsp	RES,CARBON(1/5W,1.8ohm,J) 1.8OHM1/5WJ		CRD20TJ1R8T	1	
	R1004	nsp	RES,CARBON(1/5W,1.8ohm,J) 1.8OHM1/5WJ		CRD20TJ1R8T	1	
	R1005,1006	nsp	RES,CHIP(1608/5%/220ohm) 00200-0101		CRJ10DJ221T	2	
	R1007	nsp	RES,CARBON(1/5W,10Kohm,J)		CRD20TJ103T	1	
	R1008,1009	nsp	RES,CHIP(1608/5%/220ohm) 00200-0101		CRJ10DJ221T	2	
	R1010	nsp	RES,CHIP(1608/5%/39Kohm)		CRJ10DJ393T	1	
	R1012-1015	nsp	RES,CHIP(1608/5%/100ohm) 00200-0100		CRJ10DJ101T	4	
	R1016,1017	nsp	RES,CHIP(1608/5%/100Kohm) 00200-0097		CRJ10DJ104T	2	
	R1018,1019	nsp	RES,CHIP(1608/5%/100ohm) 00200-0100		CRJ10DJ101T	2	
	R1020	nsp	RES,CHIP(1608/5%/3.3Kohm) 00200-0105		CRJ10DJ332T	1	
	R1021	nsp	RES,CHIP(1608/5%/1Kohm) 00200-0094		CRJ10DJ102T	1	
	R1024	nsp	RES,CHIP(1608/5%/10Kohm) 00200-0096		CRJ10DJ103T	1	
	R1025,1026	nsp	RES,CHIP(1608/5%/39Kohm)		CRJ10DJ393T	2	
	R1030	nsp	RES,CHIP(1608/5%/10ohm) 1608SIZE		CRJ10DJ100T	1	
	R1041,1042	nsp	RES,CHIP(1608/5%/1.2Kohm) 00200-0092		CRJ10DJ122T	2	
	R1043	nsp	RES,CHIP(1608/5%/4.7Kohm) 00200-0087		CRJ10DJ472T	1	
	R1045,1046	nsp	RES,CHIP(1608/5%/100Kohm) 00200-0097		CRJ10DJ104T	2	
	R1047,1048	nsp	RES,CHIP(1608/5%/470ohm) 00200-0088		CRJ10DJ471T	2	
	R1049-1052	nsp	RES,CHIP(1608/5%/100Kohm) 00200-0097		CRJ10DJ104T	4	
	R1053	nsp	RES,CHIP(1608/5%/10ohm) 1608SIZE		CRJ10DJ100T	1	
	R1055,1056	nsp	RES,CHIP(1608/5%/47ohm) 00200-0098		CRJ10DJ470T	2	
	R1057	nsp	RES,CHIP(1608/5%/470ohm) 00200-0088		CRJ10DJ471T	1	
	R1058,1059	nsp	RES,CHIP(1608/5%/1Kohm) 00200-0094		CRJ10DJ102T	2	
	R1060,1061	nsp	RES,CHIP(1608/5%/10Kohm) 00200-0096		CRJ10DJ103T	2	
	R1066	nsp	RES,M-OXIDEFILM(1W/4.7ohm)		CRG1SANJ4R7RT	1	
	R1067	nsp	RES,CHIP(1608/5%/10ohm) 1608SIZE		CRJ10DJ100T	1	
	R1068	nsp	RES,CHIP(1608/5%/0ohm) 00200-0090		CRJ10DJ0R0T	1	
	R1069	nsp	RES,CHIP(1608/5%/1Kohm) 00200-0094		CRJ10DJ102T	1	
	R1071	nsp	RES,CHIP(1608/5%/1Kohm) 00200-0094		CRJ10DJ102T	1	
	R1072	nsp	RES,CHIP(1608/5%/1.5Kohm) 00200-0119		CRJ10DJ152T	1	
	R1073	nsp	RES,CHIP(1608/5%/1Kohm) 00200-0094		CRJ10DJ102T	1	
	R1074	nsp	RES,CHIP(1608/5%/1.5Kohm) 00200-0119		CRJ10DJ152T	1	
	R1075	nsp	RES,CHIP(1608/5%/2.7Kohm)		CRJ10DJ272T	1	
	R1076	nsp	RES,CHIP(1608/5%/1Kohm) 00200-0094		CRJ10DJ102T	1	
	R1077	nsp	RES,CHIP(1608/5%/1.5Kohm) 00200-0119		CRJ10DJ152T	1	
	R1078	nsp	RES,CHIP(1608/5%/2.7Kohm)		CRJ10DJ272T	1	
	VR101	943671010330S	ENCODER(16MM,24PULSES),W/CLICK		CSR2A055Z	1	
CAPACIITORS GROUP							
	C1002	nsp	CAP,MYLAR(50V/0.1uF/J) HPE104J2AP050T		HCQI1H104JZT	1	
	C1003	nsp	CAP,ELECT(50V/10uF)-S UF1050VKS		CCEA1HKS100T	1	
	C1004	nsp	CAP,ELECT(50V/1uF) 00107-1015		CCEA1HH1R0T	1	
	C1005	nsp	CAP,ELECT(63V/220uF)		CCEA1JH221E	1	
	C1006	nsp	CAP,ELECT(50V/1uF) 00107-1015		CCEA1HH1R0T	1	
	C1007	nsp	CAP,METAL-FILM(100V/0.047uF) HMFS473J2AP050T		CCME2A473JXT	1	
	C1009	nsp	CAP,CHIP(2012,50V/0.1uF)		CCUC1H104KC	1	
	C1010	nsp	CAP,ELECT(16V/10uF)-S		CCEA1CKS100T	1	
	C1011	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
	C1013,1014	nsp	CAP,CHIP(1608,50V/100pF)		CCUS1H101JA	2	
	C1015	nsp	CAP,CHIP(1608,50V/330pF) 1608SIZE		CCUS1H331JA	1	
	C1016	nsp	CAP,CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
	C1017	nsp	CAP,METAL-FILM(100V/0.047uF) HMFS473J2AP050T		CCME2A473JXT	1	
	C1019	nsp	CAP,ELECT(50V/10uF) 00107-1045		CCEA1HH100T	1	
	C1020	nsp	CAP,CHIP(1608,50V/0.01uF) 1608SIZE		CCUS1H103KC	1	
	C1038	nsp	CAP,ELECT(16V/47uF)-S 00107-1051		CCEA1CKS470T	1	
	C1039	nsp	CAP,CHIP(1608,50V/100pF)		CCUS1H101JA	1	
	C1042	nsp	CAP,ELECT(50V/10uF)-S UF1050VKS		CCEA1HKS100T	1	
	C1043,1044	nsp	CAP,CHIP(1608,50V/220pF)		CCUS1H221JA	2	
	C1046,1047	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	2	
	C1054,1055	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	2	
	C1058-1060	nsp	CAP,ELECT(50V/10uF)-S UF1050VKS		CCEA1HKS100T	3	
	C1061,1062	nsp	CAP,CHIP(1608,50V/330pF) 1608SIZE		CCUS1H331JA	2	
	C1063,1064	nsp	CAP,CHIP(1608,25V/1uF) 1608SIZE		CCUS1E105ZF	2	
	C1065	nsp	CAP,ELECT(50V/1uF) 00107-1015		CCEA1HH1R0T	1	
	C1066	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
	C1067	nsp	CAP,ELECT(50V/1uF) 00107-1015		CCEA1HH1R0T	1	
	C1068	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
	C1071,1072	nsp	CAP,CHIP(1608,50V/680pF)		CCUS1H681JA	2	
	C1073	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
	C1076,1077	nsp	CAP,CHIP(1608,50V/0.01uF) 1608SIZE		CCUS1H103KC	2	
	C1081	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
	C1410,1411	nsp	CAP,ELECT(50V/1uF) 00107-1015		CCEA1HH1R0T	2	
	C1424	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
OTHER PARTS GROUP							
	BK101,102	nsp	BRACKET,FIP		CMD1A572-V1	2	*
	BK103	nsp	BRACKET,PCB		CMD1A629	1	
	BN103	nsp	WIREASS'YLocking(YH)(5P,2MM,50MM,#26)		CWB1B005050HC	1	
	BN11A	nsp	WIREASS'YB'DtoB'D(CKM)(5P,2MM,80MM,#26)		CWB1B005080CC	1	
	BN13A	nsp	WIREASS'YB'DtoB'D(CKM)(3P,2MM,80MM,26#)		CWB1B003080CC	1	
	CN101	nsp	WAFER,FPC1.25mm,angle		CJP23GB286ZN	1	
	CN102	nsp	WAFER/ANGLE/2.5mm/07P		CJP07GB03ZY	1	
	CN103	nsp	LOCK-WAFER/ANGLE/2MMPITCH/5PIN		CJP05GJ288ZY	1	
	CN104	nsp	LOCK-WAFER/STRAIGHT/2MMPITCH/3PIN		CJP03GI288ZY	1	
!	F1001	943652000620S	FUSE(372Series/100mA/TR5)		CBA2D0100A3EYT	1	
	FL101	943172100150S	V.F.D(FUTABA,18-BT-02GINK) 18BT021GINK		CFL18BT021GINK	1	
	JK102	00D9430105204	JACK,HEADPHONE(SILVER) HTJ-035-18ABP		HJJ2D003Y	1	
	JK104	90M-YT004500R	JACK,PHONES(6.35mm,SILVER) PJ-612A-51		CJJ2E026Z	1	
	L1001	nsp	FERRITECHIPBEAD(1608/60R) HCB1608KF-600T30		CLZ9R005Z	1	
	L6007	nsp	FERRITECHIPBEAD(1608/60R) HCB1608KF-600T30		CLZ9R005Z	1	
	L6008	nsp	RES,CHIP(1608/5%/0ohm) 00200-0090		CRJ10DJ0R0T	1	
	LUG11	nsp	WIREASS'Y		CWE8102100RV	1	
	LUG13	nsp	WIREASS'Y SR7500/8500		CWE8102180RV	1	
	SW101-111	00D9430004402	SW,TACT 00802-0005		CST1A012ZT	11	

MAIN PCB ASS'Y

REF No.	Part No.	Part Name	Remarks		Q'ty	New
SEMICONDUCTORS GROUP						
D5102	90M-HD302390R	DIODE,ZENER,1/2W,3.3V ZJ3.3BT(26MMT/B)		CVDZJ3.3BT	1	
D5103	00D9430182609	DIODE,SWITCHING ISS133(T/B)		CVD1SS133MT	1	
D5104	90M-HD302390R	DIODE,ZENER,1/2W,3.3V ZJ3.3BT(26MMT/B)		CVDZJ3.3BT	1	
D5105,5106	00D9430182609	DIODE,SWITCHING ISS133(T/B)		CVD1SS133MT	2	
D5202	90M-HD302390R	DIODE,ZENER,1/2W,3.3V ZJ3.3BT(26MMT/B)		CVDZJ3.3BT	1	
D5203	00D9430182609	DIODE,SWITCHING ISS133(T/B)		CVD1SS133MT	1	
D5204	90M-HD302390R	DIODE,ZENER,1/2W,3.3V ZJ3.3BT(26MMT/B)		CVDZJ3.3BT	1	
D5205,5206	00D9430182609	DIODE,SWITCHING ISS133(T/B)		CVD1SS133MT	2	
D5302	90M-HD302390R	DIODE,ZENER,1/2W,3.3V ZJ3.3BT(26MMT/B)		CVDZJ3.3BT	1	
D5303	00D9430182609	DIODE,SWITCHING ISS133(T/B)		CVD1SS133MT	1	
D5304	90M-HD302390R	DIODE,ZENER,1/2W,3.3V ZJ3.3BT(26MMT/B)		CVDZJ3.3BT	1	
D5305,5306	00D9430182609	DIODE,SWITCHING ISS133(T/B)		CVD1SS133MT	2	
D5402	90M-HD302390R	DIODE,ZENER,1/2W,3.3V ZJ3.3BT(26MMT/B)		CVDZJ3.3BT	1	
D5403	00D9430182609	DIODE,SWITCHING ISS133(T/B)		CVD1SS133MT	1	
D5404	90M-HD302390R	DIODE,ZENER,1/2W,3.3V ZJ3.3BT(26MMT/B)		CVDZJ3.3BT	1	
D5405,5406	00D9430182609	DIODE,SWITCHING ISS133(T/B)		CVD1SS133MT	2	
D5502	90M-HD302390R	DIODE,ZENER,1/2W,3.3V ZJ3.3BT(26MMT/B)		CVDZJ3.3BT	1	
D5503	00D9430182609	DIODE,SWITCHING ISS133(T/B)		CVD1SS133MT	1	
D5504	90M-HD302390R	DIODE,ZENER,1/2W,3.3V ZJ3.3BT(26MMT/B)		CVDZJ3.3BT	1	
D5505,5506	00D9430182609	DIODE,SWITCHING ISS133(T/B)		CVD1SS133MT	2	
D5601-5604	00D9430182609	DIODE,SWITCHING ISS133(T/B)		CVD1SS133MT	4	
D5701	943203003170S	DIODE,BRIDGE GBJ6066A,600V		HVDGBJ606	1	
D5703	90M-HD302360R	DIODE,ZENER,1/2W,6.8V ZJ6.8BT(26MMT/B)		CVDZJ6.8BT	1	
D5704	00D9430182609	DIODE,SWITCHING ISS133(T/B)		CVD1SS133MT	1	
Q5101,5102	943211500150S	PNP,TO-92,LOWNOISE,HFE:300-600,FAILCHILD		CVTKSA992FTA	2	
Q5103	943213500150S	NPN,TO-92,LOWNOISE,HFE:300-600,FAILCHILD KSC1845FTA		CVTKSC1845FTA	1	
Q5104	90M-HT800120R	T.R,BIAS KTC3114-A-U/PH		HVTKTC3114A	1	
Q5105	90M-HT400490R	T.R,POWER 2SD2390P		HVT2SD2390	1	
Q5106	90M-HT200440R	T.R,POWER 2SB1560		HVT2SB1560	1	
Q5107	943212500020S	HighVoltagePNPTransistors(SOT-23)		CVTMMBT5401	1	
Q5108	943214500040S	HighVoltageNPNTransistors(SOT-23)		CVTMMBT5551	1	
Q5201,5202	943211500150S	PNP,TO-92,LOWNOISE,HFE:300-600,FAILCHILD		CVTKSA992FTA	2	
Q5203	943213500150S	NPN,TO-92,LOWNOISE,HFE:300-600,FAILCHILD KSC1845FTA		CVTKSC1845FTA	1	
Q5204	90M-HT800120R	T.R,BIAS KTC3114-A-U/PH		HVTKTC3114A	1	
Q5205	90M-HT400490R	T.R,POWER 2SD2390P		HVT2SD2390	1	
Q5206	90M-HT200440R	T.R,POWER 2SB1560		HVT2SB1560	1	
Q5207	943212500020S	HighVoltagePNPTransistors(SOT-23)		CVTMMBT5401	1	
Q5208	943214500040S	HighVoltageNPNTransistors(SOT-23)		CVTMMBT5551	1	
Q5301,5302	943211500150S	PNP,TO-92,LOWNOISE,HFE:300-600,FAILCHILD		CVTKSA992FTA	2	
Q5303	943213500150S	NPN,TO-92,LOWNOISE,HFE:300-600,FAILCHILD KSC1845FTA		CVTKSC1845FTA	1	
Q5304	90M-HT800120R	T.R,BIAS KTC3114-A-U/PH		HVTKTC3114A	1	
Q5305	90M-HT400490R	T.R,POWER 2SD2390P		HVT2SD2390	1	
Q5306	90M-HT200440R	T.R,POWER 2SB1560		HVT2SB1560	1	
Q5307	943212500020S	HighVoltagePNPTransistors(SOT-23)		CVTMMBT5401	1	
Q5308	943214500040S	HighVoltageNPNTransistors(SOT-23)		CVTMMBT5551	1	
Q5401,5402	943211500150S	PNP,TO-92,LOWNOISE,HFE:300-600,FAILCHILD		CVTKSA992FTA	2	
Q5403	943213500150S	NPN,TO-92,LOWNOISE,HFE:300-600,FAILCHILD KSC1845FTA		CVTKSC1845FTA	1	
Q5404	90M-HT800120R	T.R,BIAS KTC3114-A-U/PH		HVTKTC3114A	1	
Q5405	90M-HT400490R	T.R,POWER 2SD2390P		HVT2SD2390	1	
Q5406	90M-HT200440R	T.R,POWER 2SB1560		HVT2SB1560	1	
Q5407	943212500020S	HighVoltagePNPTransistors(SOT-23)		CVTMMBT5401	1	
Q5408	943214500040S	HighVoltageNPNTransistors(SOT-23)		CVTMMBT5551	1	
Q5501,5502	943211500150S	PNP,TO-92,LOWNOISE,HFE:300-600,FAILCHILD		CVTKSA992FTA	2	
Q5503	943213500150S	NPN,TO-92,LOWNOISE,HFE:300-600,FAILCHILD KSC1845FTA		CVTKSC1845FTA	1	
Q5504	90M-HT800120R	T.R,BIAS KTC3114-A-U/PH		HVTKTC3114A	1	
Q5505	90M-HT400490R	T.R,POWER 2SD2390P		HVT2SD2390	1	
Q5506	90M-HT200440R	T.R,POWER 2SB1560		HVT2SB1560	1	
Q5507	943212500020S	HighVoltagePNPTransistors(SOT-23)		CVTMMBT5401	1	
Q5508	943214500040S	HighVoltageNPNTransistors(SOT-23)		CVTMMBT5551	1	
Q5601-5604	943213500160S	T.R,RT1N237C(2.2K-47K) RT1N237C-T112-1		CVTRT1N237C	4	
Q5701	943212500020S	HighVoltagePNPTransistors(SOT-23)		CVTMMBT5401	1	
Q5702	943211500150S	PNP,TO-92,LOWNOISE,HFE:300-600,FAILCHILD		CVTKSA992FTA	1	
Q5703	943214500020S	T.R,2SC3052 2SC3052		CVT2SC3052	1	
Q5704	963212500030S	T.R,ISA1530AC1 ISA1530AC1		CVTISA1530AC1	1	
Q5705,5706	943214500020S	T.R,2SC3052 2SC3052		CVT2SC3052	2	
Q5707	963212500030S	T.R,ISA1530AC1 ISA1530AC1		CVTISA1530AC1	1	
Q5708	943214500020S	T.R,2SC3052 2SC3052		CVT2SC3052	1	
RESISTOR GROUP						
R5101	00MGD05104160	RES,CARBON(1/5W,100Kohm,J)		CRD20TJ104T	1	
R5102	00MGD05681160	RES,CARBON(1/5W,680ohm,J)		CRD20TJ681T	1	
R5103	nsp	RES,CARBON(1/5W,10Kohm,J)		CRD20TJ103T	1	
R5104	nsp	RES,CARBON(1/5W,18Kohm,J)		CRD20TJ183T	1	
R5105	00MGD05122160	RES,CARBON(1/5W,1.2Kohm,J)		CRD20TJ122T	1	
R5106	nsp	RES,M-OXIDEFILM(1W/1.2Kohm)		CRG1SANJ122RT	1	
R5107	nsp	RES,CARBON(1/5W,220ohm,J)		CRD20TJ221T	1	
R5108	00MGD05474160	RES,CARBON(1/5W,470Kohm,J)		CRD20TJ474T	1	
R5109	00MGD05333160	RES,CARBON(1/5W,33Kohm,J)		CRD20TJ333T	1	
R5110	nsp	RES,M-OXIDEFILM(1W/47ohm)		CRG1SANJ470RT	1	
R5113	00MGD05272160	RES,CARBON(1/5W,2.7Kohm,J)		CRD20TJ272T	1	
R5114	00MGD05561160	RES,CARBON(1/5W,560ohm,J)		CRD20TJ561T	1	
R5115,5116	nsp	RES,M-OXIDEFILM(1W/5.6Kohm)		CRG1SANJ562RT	2	
R5117,5118	nsp	RES,M-OXIDEFILM(1W/4.7ohm)		CRG1SANJ4R7RT	2	
R5119-5122	943124500050S	RES,M-OXIDEFILM(2W/0.47ohm)		CRG2SANJR47RT	4	
R5123	nsp	RES,CARBON(1/5W,470Kohm,J)	E3, E3B	CRD20TJ474T	1	
R5123	nsp	RES,CARBON(1/5W,390Kohm,J)	E2, E1C, E1	CRD20TJ394T	1	
R5124	00MGD05274160	RES,CARBON(1/5W,270Kohm,J)		CRD20TJ274T	1	
R5125	nsp	RES,CARBON(1/5W,10Kohm,J)		CRD20TJ103T	1	
! R5126	963252004160S	PTCTHEMISTORS,CHIP(105'C) PRF18BC471QB5RB		CRTPRF18BC471QE	1	
R5127	00MGD05562160	RES,CARBON(1/5W,5.6Kohm,J)		CRD20TJ562T	1	
R5129	nsp	RES,CARBON(1/5W,15Kohm,J)		CRD20TJ153T	1	
R5130,5131	nsp	RES,CARBON(1/5W,22Kohm,J)		CRD20TJ223T	2	
R5132	nsp	RES,M-OXIDEFILM(1W/10ohm)		CRG1SANJ100RT	1	
R5201	00MGD05104160	RES,CARBON(1/5W,100Kohm,J)		CRD20TJ104T	1	
R5202	00MGD05681160	RES,CARBON(1/5W,680ohm,J)		CRD20TJ681T	1	
R5203	nsp	RES,CARBON(1/5W,10Kohm,J)		CRD20TJ103T	1	
R5204	nsp	RES,CARBON(1/5W,18Kohm,J)		CRD20TJ183T	1	
R5205	00MGD05122160	RES,CARBON(1/5W,1.2Kohm,J)		CRD20TJ122T	1	
R5206	nsp	RES,M-OXIDEFILM(1W/1.2Kohm)		CRG1SANJ122RT	1	
R5207	nsp	RES,CARBON(1/5W,220ohm,J)		CRD20TJ221T	1	
R5208	00MGD05474160	RES,CARBON(1/5W,470Kohm,J)		CRD20TJ474T	1	
R5209	00MGD05333160	RES,CARBON(1/5W,33Kohm,J)		CRD20TJ333T	1	
R5210	nsp	RES,M-OXIDEFILM(1W/47ohm)		CRG1SANJ470RT	1	
R5213	00MGD05272160	RES,CARBON(1/5W,2.7Kohm,J)		CRD20TJ272T	1	
R5214	00MGD05561160	RES,CARBON(1/5W,560ohm,J)		CRD20TJ561T	1	
R5215,5216	nsp	RES,M-OXIDEFILM(1W/5.6Kohm)		CRG1SANJ562RT	2	
R5217,5218	nsp	RES,M-OXIDEFILM(1W/4.7ohm)		CRG1SANJ4R7RT	2	
R5219-5222	943124500050S	RES,M-OXIDEFILM(2W/0.47ohm)		CRG2SANJR47RT	4	
R5223	nsp	RES,CARBON(1/5W,470Kohm,J)	E3, E3B	CRD20TJ474T	1	
R5223	nsp	RES,CARBON(1/5W,390Kohm,J)	E2, E1C, E1	CRD20TJ394T	1	
R5224	00MGD05274160	RES,CARBON(1/5W,270Kohm,J)		CRD20TJ274T	1	

	REF No.	Part No.	Part Name	Remarks		Q'ty	New
	R5225	nsp	RES,CARBON(1/5W,10Kohm,J)		CRD20TJ103T	1	MAIN
!	R5226	963252004160S	PTCTHEMISTORS,CHIP(105'C) PRF18BC471QB5RB		CRTPRF18BC471QE	1	
	R5227	00MGD05562160	RES,CARBON(1/5W,5.6Kohm,J)		CRD20TJ562T	1	
	R5229	nsp	RES,CARBON(1/5W,15Kohm,J)		CRD20TJ153T	1	
	R5230,5231	nsp	RES,CARBON(1/5W,22Kohm,J)		CRD20TJ223T	2	
	R5232	nsp	RES,M-OXIDEFILM(1W/10ohm)		CRG1SANJ100RT	1	
	R5301	00MGD05104160	RES,CARBON(1/5W,100Kohm,J)		CRD20TJ104T	1	
	R5302	00MGD05681160	RES,CARBON(1/5W,680ohm,J)		CRD20TJ681T	1	
	R5303	nsp	RES,CARBON(1/5W,10Kohm,J)		CRD20TJ103T	1	
	R5304	nsp	RES,CARBON(1/5W,18Kohm,J)		CRD20TJ183T	1	
	R5305	00MGD05122160	RES,CARBON(1/5W,1.2Kohm,J)		CRD20TJ122T	1	
	R5306	nsp	RES,M-OXIDEFILM(1W/1.2Kohm)		CRG1SANJ122RT	1	
	R5307	nsp	RES,CARBON(1/5W,220ohm,J)		CRD20TJ221T	1	
	R5308	00MGD05474160	RES,CARBON(1/5W,470Kohm,J)		CRD20TJ474T	1	
	R5309	00MGD05333160	RES,CARBON(1/5W,33Kohm,J)		CRD20TJ333T	1	
	R5310	nsp	RES,M-OXIDEFILM(1W/47ohm)		CRG1SANJ470RT	1	
	R5313	00MGD05272160	RES,CARBON(1/5W,2.7Kohm,J)		CRD20TJ272T	1	
	R5314	00MGD05561160	RES,CARBON(1/5W,560ohm,J)		CRD20TJ561T	1	
	R5315,5316	nsp	RES,M-OXIDEFILM(1W/5.6Kohm)		CRG1SANJ562RT	2	
	R5317,5318	nsp	RES,M-OXIDEFILM(1W/4.7ohm)		CRG1SANJ4R7RT	2	
	R5319-5322	943124500050S	RES,M-OXIDEFILM(2W/0.47ohm)		CRG2SANJR47RT	4	
	R5323	nsp	RES,CARBON(1/5W,470Kohm,J)	E3, E3B	CRD20TJ474T	1	
	R5323	nsp	RES,CARBON(1/5W,390Kohm,J)	E2, E1C, E1	CRD20TJ394T	1	
	R5324	00MGD05274160	RES,CARBON(1/5W,270Kohm,J)		CRD20TJ274T	1	
	R5325	nsp	RES,CARBON(1/5W,10Kohm,J)		CRD20TJ103T	1	
!	R5326	963252004160S	PTCTHEMISTORS,CHIP(105'C) PRF18BC471QB5RB		CRTPRF18BC471QE	1	
	R5327	00MGD05562160	RES,CARBON(1/5W,5.6Kohm,J)		CRD20TJ562T	1	
	R5329	nsp	RES,CARBON(1/5W,15Kohm,J)		CRD20TJ153T	1	
	R5330,5331	nsp	RES,CARBON(1/5W,22Kohm,J)		CRD20TJ223T	2	
	R5332	nsp	RES,M-OXIDEFILM(1W/10ohm)		CRG1SANJ100RT	1	
	R5401	00MGD05104160	RES,CARBON(1/5W,100Kohm,J)		CRD20TJ104T	1	
	R5402	00MGD05681160	RES,CARBON(1/5W,680ohm,J)		CRD20TJ681T	1	
	R5403	nsp	RES,CARBON(1/5W,10Kohm,J)		CRD20TJ103T	1	
	R5404	nsp	RES,CARBON(1/5W,18Kohm,J)		CRD20TJ183T	1	
	R5405	00MGD05122160	RES,CARBON(1/5W,1.2Kohm,J)		CRD20TJ122T	1	
	R5406	nsp	RES,M-OXIDEFILM(1W/1.2Kohm)		CRG1SANJ122RT	1	
	R5407	nsp	RES,CARBON(1/5W,220ohm,J)		CRD20TJ221T	1	
	R5408	00MGD05474160	RES,CARBON(1/5W,470Kohm,J)		CRD20TJ474T	1	
	R5409	00MGD05333160	RES,CARBON(1/5W,33Kohm,J)		CRD20TJ333T	1	
	R5410	nsp	RES,M-OXIDEFILM(1W/47ohm)		CRG1SANJ470RT	1	
	R5413	00MGD05272160	RES,CARBON(1/5W,2.7Kohm,J)		CRD20TJ272T	1	
	R5414	00MGD05561160	RES,CARBON(1/5W,560ohm,J)		CRD20TJ561T	1	
	R5415,5416	nsp	RES,M-OXIDEFILM(1W/5.6Kohm)		CRG1SANJ562RT	2	
	R5417,5418	nsp	RES,M-OXIDEFILM(1W/4.7ohm)		CRG1SANJ4R7RT	2	
	R5419-5422	943124500050S	RES,M-OXIDEFILM(2W/0.47ohm)		CRG2SANJR47RT	4	
	R5423	nsp	RES,CARBON(1/5W,470Kohm,J)	E3, E3B	CRD20TJ474T	1	
	R5423	nsp	RES,CARBON(1/5W,390Kohm,J)	E2, E1C, E1	CRD20TJ394T	1	
	R5424	00MGD05274160	RES,CARBON(1/5W,270Kohm,J)		CRD20TJ274T	1	
	R5425	nsp	RES,CARBON(1/5W,10Kohm,J)		CRD20TJ103T	1	
!	R5426	963252004160S	PTCTHEMISTORS,CHIP(105'C) PRF18BC471QB5RB		CRTPRF18BC471QE	1	
	R5427	00MGD05562160	RES,CARBON(1/5W,5.6Kohm,J)		CRD20TJ562T	1	
	R5429	nsp	RES,CARBON(1/5W,15Kohm,J)		CRD20TJ153T	1	
	R5430,5431	nsp	RES,CARBON(1/5W,22Kohm,J)		CRD20TJ223T	2	
	R5432	nsp	RES,M-OXIDEFILM(1W/10ohm)		CRG1SANJ100RT	1	
	R5501	00MGD05104160	RES,CARBON(1/5W,100Kohm,J)		CRD20TJ104T	1	
	R5502	00MGD05681160	RES,CARBON(1/5W,680ohm,J)		CRD20TJ681T	1	
	R5503	nsp	RES,CARBON(1/5W,10Kohm,J)		CRD20TJ103T	1	
	R5504	nsp	RES,CARBON(1/5W,18Kohm,J)		CRD20TJ183T	1	
	R5505	00MGD05122160	RES,CARBON(1/5W,1.2Kohm,J)		CRD20TJ122T	1	
	R5506	nsp	RES,M-OXIDEFILM(1W/1.2Kohm)		CRG1SANJ122RT	1	
	R5507	nsp	RES,CARBON(1/5W,220ohm,J)		CRD20TJ221T	1	
	R5508	00MGD05474160	RES,CARBON(1/5W,470Kohm,J)		CRD20TJ474T	1	
	R5509	00MGD05333160	RES,CARBON(1/5W,33Kohm,J)		CRD20TJ333T	1	
	R5510	nsp	RES,M-OXIDEFILM(1W/47ohm)		CRG1SANJ470RT	1	
	R5513	00MGD05272160	RES,CARBON(1/5W,2.7Kohm,J)		CRD20TJ272T	1	
	R5514	00MGD05561160	RES,CARBON(1/5W,560ohm,J)		CRD20TJ561T	1	
	R5515,5516	nsp	RES,M-OXIDEFILM(1W/5.6Kohm)		CRG1SANJ562RT	2	
	R5517,5518	nsp	RES,M-OXIDEFILM(1W/4.7ohm)		CRG1SANJ4R7RT	2	
	R5519-5522	943124500050S	RES,M-OXIDEFILM(2W/0.47ohm)		CRG2SANJR47RT	4	
	R5523	nsp	RES,CARBON(1/5W,470Kohm,J)	E3, E3B	CRD20TJ474T	1	
	R5523	nsp	RES,CARBON(1/5W,390Kohm,J)	E2, E1C, E1	CRD20TJ394T	1	
	R5524	00MGD05274160	RES,CARBON(1/5W,270Kohm,J)		CRD20TJ274T	1	
	R5525	nsp	RES,CARBON(1/5W,10Kohm,J)		CRD20TJ103T	1	
!	R5526	963252004160S	PTCTHEMISTORS,CHIP(105'C) PRF18BC471QB5RB		CRTPRF18BC471QE	1	
	R5527	00MGD05562160	RES,CARBON(1/5W,5.6Kohm,J)		CRD20TJ562T	1	
	R5529	nsp	RES,CARBON(1/5W,15Kohm,J)		CRD20TJ153T	1	
	R5530,5531	nsp	RES,CARBON(1/5W,22Kohm,J)		CRD20TJ223T	2	
	R5532	nsp	RES,M-OXIDEFILM(1W/10ohm)		CRG1SANJ100RT	1	
	R5701	nsp	RES,CARBON(1/5W,10Kohm,J)		CRD20TJ103T	1	
	R5702	nsp	RES,CARBON(1/5W,22Kohm,J)		CRD20TJ223T	1	
	R5703	943124500240S	RES,M-OXIDEFILM(1W/22ohm)		CRG1SANJ220RT	1	
	R5704	nsp	RES,M-OXIDEFILM(1W/100ohm)		CRG1SANJ101RT	1	
	R5705	00MGD05104160	RES,CARBON(1/5W,100Kohm,J)		CRD20TJ104T	1	
	R5706	nsp	RES,CARBON(1/5W,10Kohm,J)		CRD20TJ103T	1	
	R5707	00MGD05104160	RES,CARBON(1/5W,100Kohm,J)		CRD20TJ104T	1	
	R5708	nsp	RES,CARBON(1/5W,15Kohm,J)		CRD20TJ153T	1	
	R5711	00MGD05122160	RES,CARBON(1/5W,1.2Kohm,J)		CRD20TJ122T	1	
	R5712,5713	nsp	RES,CARBON(1/5W,2.2Kohm,J)		CRD20TJ222T	2	
	R5715-5717	nsp	RES,M-OXIDEFILM(1W/2.2Kohm)		CRG1SANJ222RT	3	
	R5721-5725	nsp	RES,M-OXIDEFILM(2W/10ohm)		CRG2SANJ100RT	5	
	R5726,5727	nsp	RES,M-OXIDEFILM(2W/470ohm)		CRG2SANJ471RT	2	
	VR510	963161012400S	RES,SEMIFIXED(1K,BCURVE) EVNDJAA03B13		CVN1RA102B03T	1	
	VR520	963161012400S	RES,SEMIFIXED(1K,BCURVE) EVNDJAA03B13		CVN1RA102B03T	1	
	VR530	963161012400S	RES,SEMIFIXED(1K,BCURVE) EVNDJAA03B13		CVN1RA102B03T	1	
	VR540	963161012400S	RES,SEMIFIXED(1K,BCURVE) EVNDJAA03B13		CVN1RA102B03T	1	
	VR550	963161012400S	RES,SEMIFIXED(1K,BCURVE) EVNDJAA03B13		CVN1RA102B03T	1	
	CAPACIITORS GROUP						
	C5101	943134500070S	CAP,ELECT(100V/10uF)		CCEA2AH100T	1	
	C5102	nsp	CAP,MYLAR(100V/470pF/J) HPE471J2AP050T		HCQI2A471JZT	1	
	C5103	nsp	CAP,CERAMIC(50V/82pF/J) 82PF50VJ		CCCT1H820JC	1	
	C5104	nsp	CAP,MYLAR(50V/2200pF/J) HPE222J2AP050T		HCQI1H222JZT	1	
	C5105	943134501770S	CAP,ELECT(50V/220uF)		CCEA1HH221T	1	
	C5106	nsp	CAP,CERAMIC(50V/33pF/J) CCC1H330J05FK5		CCCT1H330JC	1	
	C5107	943134500070S	CAP,ELECT(100V/10uF)		CCEA2AH100T	1	
	C5108	13405014940AS	CAP,ELECT(63V/100uF)		CCEA1JH101T	1	
	C5109	nsp	CAP,MYLAR(50V/0.1uF/J) HPE104J2AP050T		HCQI1H104JZT	1	
	C5201	943134500070S	CAP,ELECT(100V/10uF)		CCEA2AH100T	1	
	C5202	nsp	CAP,MYLAR(100V/470pF/J) HPE471J2AP050T		HCQI2A471JZT	1	
	C5203	nsp	CAP,CERAMIC(50V/82pF/J) 82PF50VJ		CCCT1H820JC	1	
	C5204	nsp	CAP,MYLAR(50V/2200pF/J) HPE222J2AP050T		HCQI1H222JZT	1	
	C5205	943134501770S	CAP,ELECT(50V/220uF)		CCEA1HH221T	1	
	C5206	nsp	CAP,CERAMIC(50V/33pF/J) CCC1H330J05FK5		CCCT1H330JC	1	
	C5207	943134500070S	CAP,ELECT(100V/10uF)		CCEA2AH100T	1	
	C5208	13405014940AS	CAP,ELECT(63V/100uF)		CCEA1JH101T	1	

REF No.	Part No.	Part Name	Remarks		Q'ty	New
C5209	nsp	CAP,MYLAR(50V/0.1uF/J) HPE104J2AP050T		HCQI1H104JZT	1	MAIN
C5301	943134500070S	CAP,ELECT(100V/10uF)		CCEA2AH100T	1	
C5302	nsp	CAP,MYLAR(100V/470pF/J) HPE471J2AP050T		HCQI2A471JZT	1	
C5303	nsp	CAP,CERAMIC(50V/82pF/J) 82PF50VJ		CCCT1H820JC	1	
C5304	nsp	CAP,MYLAR(50V/2200pF/J) HPE222J2AP050T		HCQI1H222JZT	1	
C5305	943134501770S	CAP,ELECT(50V/220uF)		CCEA1HH221T	1	
C5306	nsp	CAP,CERAMIC(50V/33pF/J) CCC1H330J05FK5		CCCT1H330JC	1	
C5307	943134500070S	CAP,ELECT(100V/10uF)		CCEA2AH100T	1	
C5308	13405014940AS	CAP,ELECT(63V/100uF)		CCEA1JH101T	1	
C5309	nsp	CAP,MYLAR(50V/0.1uF/J) HPE104J2AP050T		HCQI1H104JZT	1	
C5401	943134500070S	CAP,ELECT(100V/10uF)		CCEA2AH100T	1	
C5402	nsp	CAP,MYLAR(100V/470pF/J) HPE471J2AP050T		HCQI2A471JZT	1	
C5403	nsp	CAP,CERAMIC(50V/82pF/J) 82PF50VJ		CCCT1H820JC	1	
C5404	nsp	CAP,MYLAR(50V/2200pF/J) HPE222J2AP050T		HCQI1H222JZT	1	
C5405	943134501770S	CAP,ELECT(50V/220uF)		CCEA1HH221T	1	
C5406	nsp	CAP,CERAMIC(50V/33pF/J) CCC1H330J05FK5		CCCT1H330JC	1	
C5407	943134500070S	CAP,ELECT(100V/10uF)		CCEA2AH100T	1	
C5408	13405014940AS	CAP,ELECT(63V/100uF)		CCEA1JH101T	1	
C5409	nsp	CAP,MYLAR(50V/0.1uF/J) HPE104J2AP050T		HCQI1H104JZT	1	
C5501	943134500070S	CAP,ELECT(100V/10uF)		CCEA2AH100T	1	
C5502	nsp	CAP,MYLAR(100V/470pF/J) HPE471J2AP050T		HCQI2A471JZT	1	
C5503	nsp	CAP,CERAMIC(50V/82pF/J) 82PF50VJ		CCCT1H820JC	1	
C5504	nsp	CAP,MYLAR(50V/2200pF/J) HPE222J2AP050T		HCQI1H222JZT	1	
C5505	943134501770S	CAP,ELECT(50V/220uF)		CCEA1HH221T	1	
C5506	nsp	CAP,CERAMIC(50V/33pF/J) CCC1H330J05FK5		CCCT1H330JC	1	
C5507	943134500070S	CAP,ELECT(100V/10uF)		CCEA2AH100T	1	
C5508	13405014940AS	CAP,ELECT(63V/100uF)		CCEA1JH101T	1	
C5509	nsp	CAP,MYLAR(50V/0.1uF/J) HPE104J2AP050T		HCQI1H104JZT	1	
C5605,5606	nsp	CAP,MYLAR(50V/0.018pF/J) HPE183J2AP050T		HCQI1H183JZT	2	
C5607,5608	nsp	CAP,MYLAR(50V/1500pF/J) HPE152J2AP050T		HCQI1H152JZT	2	
C5609-5611	nsp	CAP,MYLAR(50V/0.018pF/J) HPE183J2AP050T		HCQI1H183JZT	3	
C5612-5614	nsp	CAP,MYLAR(50V/1500pF/J) HPE152J2AP050T		HCQI1H152JZT	3	
C5701	nsp	CAP,MYLAR(50V/0.01uF/J) HPE103J2AP050T		HCQI1H103JZT	1	
C5702,5703	90M-OF100490R	CAP,METALPEFILM(250V/0.1uF) 0.1UF250V		KCME2E104JP04T	2	
C5704	943134010460S	CAP,ELECT(30X35)WITHOUTPLATEONTHETOP		CCET63VKL5682NK.	1	
C5706	943134010460S	CAP,ELECT(30X35)WITHOUTPLATEONTHETOP		CCET63VKL5682NK.	1	
C5707	nsp	CAP,ELECT(50V/0.1uF)		CCEA1HH0R1T	1	
C5708	943134010480S	CAP,ELECT(100V/100uF)		CCEA2AH101E	1	
C5710	nsp	CAP, MYLAR(50V/0.1uF/J)		HCQI1H104JZT	1	
C5711	943134010660S	CAP,ELECT(6.3V/470uF)		CCEA0JH471T	1	
C5712	nsp	CAP, MYLAR(50V/0.1uF/J)		HCQI1H104JZT	1	
C5713	943134010660S	CAP,ELECT(6.3V/470uF)		CCEA0JH471T	1	
C5716	nsp	CAP,ELECT(16V/47uF) 00107-1007		CCEA1CH470T	1	
C5717	nsp	CAP,ELECT(50V/10uF) 00107-1045		CCEA1HH100T	1	
C5718-5722	nsp	CAP,MYLAR(50V/0.047uF/J) HPE473J2AP050T		HCQI1H473JZT	5	
C5723	nsp	CAP,ELECT(50V/10uF) 00107-1045		CCEA1HH100T	1	
OTHER PARTS GROUP						
BK501	nsp	BRACKET,PCB		CMD1A569-V1	1	
BN501	nsp	WIREASS'YLocking(YH)(13P,2MM,150MM,#26)		CWB1B013150HC	1	
BN502	nsp	WIREASS'YLocking(YH)(7P,2MM,150MM,#26)		CWB1B007150HC	1	
BN505	nsp	WIREASS'YLocking(YH)(3P,2MM,250MM,#26,105)		CWB4B003250HC	1	
CN503	nsp	WAFER(3.96MM)		CJP03GA148ZW	1	
CN510	nsp	WAFER/STRAIGHT/2.5mm/2P YMW025-02R		CJP02GA01ZY	1	
CN520	nsp	WAFER/STRAIGHT/2.5mm/2P YMW025-02R		CJP02GA01ZY	1	
CN530	nsp	WAFER/STRAIGHT/2.5mm/2P YMW025-02R		CJP02GA01ZY	1	
CN540	nsp	WAFER/STRAIGHT/2.5mm/2P YMW025-02R		CJP02GA01ZY	1	
CN550	nsp	WAFER/STRAIGHT/2.5mm/2P YMW025-02R		CJP02GA01ZY	1	
ET501	nsp	PLATE,EARTH(TRONICELECTRONICS)		CJT1A026	1	*
JK503	943643102350S	4PPUSHSPK(RW/BB,NOSPCC,94V-0)		CJJ5P038Z	1	*
JK504	943643102360S	6PPUSHSPK(GBB/BBB,NOSPCC,94V-0)		CJJ5R021Z	1	*
L5101	943115100310S	COIL,SPEAKER(0.5UH)		CLEY0R5KAD	1	
L5201	943115100310S	COIL,SPEAKER(0.5UH)		CLEY0R5KAD	1	
L5301	943115100310S	COIL,SPEAKER(0.5UH)		CLEY0R5KAD	1	
L5401	943115100310S	COIL,SPEAKER(0.5UH)		CLEY0R5KAD	1	
L5501	943115100310S	COIL,SPEAKER(0.5UH)		CLEY0R5KAD	1	
RY560	943682000810S	RELAY,BC3-12H,DC12V,2C2P BC3-12H		CSL4A016ZU	1	
RY562-564	943682100270S	RELAY,981-2A-12DS,DC12V,2C1P		CSL3A022ZU	3	
-	nsp	HEATSINKASS'Y		CMY2A381ZA	1	*
-	nsp	SCREW,SPECIAL		CHD1A012ZR	15	
-	nsp	BRACKET,PCB		CMD1A774	2	
-	nsp	BRACKET,H/SPCB		CMD1A802	2	
-	nsp	HEATSINK		CMY2A381	1	*
-	nsp	SCREW		CTB3+6JFZR	6	
-	nsp	SCREW		CTB3+6JR	4	
-	nsp	SCREW		CTW3+8JR	2	

DIGITAL PCB ASS'Y

DIGITAL

REF No.	Part No.	Part Name	Remarks	Q'ty	New
SEMICONDUCTORS GROUP					
D131	943209001080S	DIODE,CHIP,SWITCHING 1SS355(T/B)	CVD1SS355T	1	
D155	963209003510S	DIODE,RELIABLEESDPROTECTION	CVDCDS3C05HDMI1	1	
D156,157	943202500730S	DIODE,ZENER(5.1V/0.5W,SOD-123)	CVDMM1Z5V1H	2	*
D605,606	00D9430196306	DIODE,ZENER,1/2W,7.5V ZJ7.5BT(26MMT/B)	CVDZJ7.5BT	2	
D609-611	943209001080S	DIODE,CHIP,SWITCHING 1SS355(T/B)	CVD1SS355T	3	
D612	943202500720S	DIODE,ZENER(3.6V/0.5W,SOD-123)	CVDMM1Z3V6H	1	*
D903	943209001080S	DIODE,CHIP,SWITCHING 1SS355(T/B)	CVD1SS355T	1	
IC11	943236012460S	I.C,HDMITransceiver(LQFP-144P)	CVIADV7623BSTZ_A	1	
IC14	943248101650S	I.C,OSDSerialFlash(AVRE200_X500) I.C,SERIALFLASH(8M) CVIMX25L8006EM2I-12G	CVIANAM1756AV	1	*
IC15	943239010400S	I.C,REGULATOR(3.3V/TO-252) NJM2845DL1-33-TE1(PB-F)	CVINJM2845DL133	1	
IC17	943239101070S	I.C,DC-DCCONVERTER(3A,QFNT&R-24P) EN5339QI	CVIEN5339QI	1	*
IC51	963236101380P	I.C,HDMIBUFFER	CVIAD8195ACPZ	1	
IC60	943231010390S	I.C,REGULATOR(+5V,T0220IS) KIA7805BPI	CVIKIA7805BPI	1	
IC61	943235100520S	I.C,INPUTWITH8CHVOLUME(52PLQFP)	CVINJU72340AFH3	1	
IC62-64	00D2631289900	I.C,OPAMP(DUAL/LOWNOISE)_Copper AZ4580MTR-E1	CVIAZ4580MTR-E1-CU	3	
IC66,67	00MHC10172090	IC,OPAMP NJM2115M	HVINJM2115MDTE1	2	
IC69	943239010400S	I.C,REGULATOR(3.3V/TO-252) NJM2845DL1-33-TE1(PB-F)	CVINJM2845DL133	1	
IC71	90M-HC109700R	I.C,VIDEOS/W(JRC) NJM2595M-TE1(PB-F)	CVINJM2595MTE1	1	
IC81	943245010410S	EOLitemI.C,DSP(CIRRUSLOGIC) CS497024-CVZ	CVICS497024CVZ	1	
IC82	943248101660S	I.C,DSPSerialFlash(AVRE200_X500) I.C,SERIALFLASH(8M) CVIMX25L8006EM2I-12G	CVIANAM1755AV	1	*
IC83	943236101210S	I.C,16MBSDRAM(TSOP-50P) M12L16161A5TG2Q	CVIM12L16161A5TG2Q	1	
IC84	90M-HC110090R	I.C,CODEC+DIR(CIRRUSLOGIC) CS42528-CQZ	HVICS42528-CQ	1	
IC85	00D2623198902	I.C,QUAD2-CHANNELMUX(TSSOP-16) TC74VHC157FT(EL,M)	HVITC74VHC157FT	1	
IC91	943243101470S	I.C,MAINMCU(AVRE200_X500) I.C,FLASHMCU(512KB,LQFP144) CVISTM32F101ZE	CVIANAM1754AV	1	*
IC92	943246010440S	I.C,EEPROM(32Kbit)ST M24C32WMN6TP	CVIM24C32WMN6TP	1	
IC95	943239010400S	I.C,REGULATOR(3.3V/TO-252) NJM2845DL1-33-TE1(PB-F)	CVINJM2845DL133	1	
IC96	943182100150S	I.C,SYSTEMRESET(2.5V,SOT-25A) PST8425NR	CVIPST8425NR	1	
Q101	943215500020S	T.R,RT1P141C(10K-10K) RT1P141C-T112-1	CVTRT1P141C	1	
Q102	943216500040S	T.R,RT1N241C(22K-22K) RT1N241C-T112-1	CVTRT1N241C	1	
Q103	943215500020S	T.R,RT1P141C(10K-10K) RT1P141C-T112-1	CVTRT1P141C	1	
Q104	943216500040S	T.R,RT1N241C(22K-22K) RT1N241C-T112-1	CVTRT1N241C	1	
Q105	943215500020S	T.R,RT1P141C(10K-10K) RT1P141C-T112-1	CVTRT1P141C	1	
Q106	943216500040S	T.R,RT1N241C(22K-22K) RT1N241C-T112-1	CVTRT1N241C	1	
Q500	943215500020S	T.R,RT1P141C(10K-10K) RT1P141C-T112-1	CVTRT1P141C	1	
Q501	943216500040S	T.R,RT1N241C(22K-22K) RT1N241C-T112-1	CVTRT1N241C	1	
Q610	943214500030S	T.R,MUTE INC2001AC1	CVTINC2001AC1	1	
Q612	943215500030S	T.R,RT1P441C(47K-47K) RT1P441C-T112-1	CVTRT1P441C	1	
Q613	943216500050S	T.R,RT1N441C(47K-47K) RT1N141C-T112-1	CVTRT1N441C	1	
Q614	943215500030S	T.R,RT1P441C(47K-47K) RT1P441C-T112-1	CVTRT1P441C	1	
Q901	943214500020S	T.R,2SC3052 2SC3052	CVT2SC3052	1	
Q903,904	943214500020S	T.R,2SC3052 2SC3052	CVT2SC3052	2	
Q907	943214500020S	T.R,2SC3052 2SC3052	CVT2SC3052	1	
Q910	943214500020S	T.R,2SC3052 2SC3052	CVT2SC3052	1	
Q918	943214500020S	T.R,2SC3052 2SC3052	CVT2SC3052	1	
Q919	963212500030S	T.R,ISA1530AC1 ISA1530AC1	CVTISA1530AC1	1	
Q920	943214500020S	T.R,2SC3052 2SC3052	CVT2SC3052	1	
RESISTOR GROUP					
R101	nsp	RES,CHIP(1005/5%/1Kohm) RM04JC1K	CRJ06IJ102T	1	
R102	nsp	RES,CHIP(1005/5%/22Kohm) RM04JC22K	CRJ06IJ223T	1	
R104	nsp	RES,CHIP(1005/5%/47Kohm) RM04JC47K	CRJ06IJ473T	1	
R105	nsp	RES,M-OXIDEFILM(1W/270ohm)	CRG1SANJ271RT	1	
R106	nsp	RES,CHIP(1005/5%/47Kohm) RM04JC47K	CRJ06IJ473T	1	
R107	nsp	RES,CHIP(1005/5%/1Kohm) RM04JC1K	CRJ06IJ102T	1	
R108	nsp	RES,CHIP(1005/5%/22Kohm) RM04JC22K	CRJ06IJ223T	1	
R109	nsp	RES,CHIP(1005/5%/47Kohm) RM04JC47K	CRJ06IJ473T	1	
R110	nsp	RES,M-OXIDEFILM(1W/270ohm)	CRG1SANJ271RT	1	
R111	nsp	RES,CHIP(1005/5%/47Kohm) RM04JC47K	CRJ06IJ473T	1	
R112	nsp	RES,CHIP(1005/5%/1Kohm) RM04JC1K	CRJ06IJ102T	1	
R113	nsp	RES,CHIP(1005/5%/22Kohm) RM04JC22K	CRJ06IJ223T	1	
R114	nsp	RES,CHIP(1005/5%/47Kohm) RM04JC47K	CRJ06IJ473T	1	
R116	nsp	RES,CHIP(1005/5%/47Kohm) RM04JC47K	CRJ06IJ473T	1	
R122	nsp	RES,CHIP(1608/1%/1.6Kohm)	CRJ10DF1601T	1	
R123	nsp	RES,CHIP(1608/1%/2Kohm)	CRJ10DF2001T	1	
R125	nsp	RES,CHIP(1005/5%/47Kohm) RM04JC47K	CRJ06IJ473T	1	
R127	nsp	RES,CHIP(1005/5%/47Kohm) RM04JC47K	CRJ06IJ473T	1	
R129-131	nsp	RES,CHIP(1005/5%/4.7Kohm) RM04JC4K7	CRJ06IJ472T	3	
R132	nsp	RES,CHIP(1005/5%/100ohm) RM04JC100R	CRJ06IJ101T	1	
R137	nsp	RES,CHIP(1005/5%/1Kohm) RM04JC1K	CRJ06IJ102T	1	
R140	nsp	RES,CHIP(1005/5%/10Kohm) RM04JC10K	CRJ06IJ103T	1	
R141	nsp	RES,CHIP(1608/5%/390Kohm)	CRJ10DJ394T	1	
R142	nsp	RES,CHIP(1608/5%/0ohm) 00200-0090	CRJ10DJ0R0T	1	
R143,144	nsp	RES,CHIP(1005/1%/1Kohm)	CRJ06IF1001T	2	
R145,146	nsp	RES,CHIP(1005/5%/1.8Kohm) RM04JC1K8	CRJ06IJ182T	2	
R147	nsp	RES,CHIP(1005/5%/47Kohm) RM04JC47K	CRJ06IJ473T	1	
R148	nsp	RES,CHIP(1005/5%/100ohm) RM04JC100R	CRJ06IJ101T	1	
R149-156	nsp	RES,CHIP(1005/5%/10Kohm) RM04JC10K	CRJ06IJ103T	8	
R158-161	nsp	RES,CHIP(1608/5%/0ohm) 00200-0090	CRJ10DJ0R0T	4	
R163	nsp	RES,CHIP(1005/5%/10Kohm) RM04JC10K	CRJ06IJ103T	1	
R165	nsp	RES,CHIP(1005/5%/10Kohm) RM04JC10K	CRJ06IJ103T	1	
R175-178	nsp	RES,CHIP(1005/5%/33ohm) RM04JC33R	CRJ06IJ330T	4	
R183	nsp	RES,CHIP(1005/5%/0ohm) RM04JC0R	CRJ06IJ0R0T	1	
R185-187	nsp	RES,CHIP(1608/5%/4.7Kohm) 00200-0087	CRJ10DJ472T	3	
R196	nsp	RES,CHIP(1005/5%/100ohm) RM04JC100R	CRJ06IJ101T	1	
R197	nsp	RES,CHIP(1005/5%/4.7Kohm) RM04JC4K7	CRJ06IJ472T	1	
R198-200	nsp	RES,CHIP(1005/5%/100ohm) RM04JC100R	CRJ06IJ101T	3	
R201-228	nsp	RES,CHIP(1005/5%/0ohm) RM04JC0R	CRJ06IJ0R0T	28	
R301	nsp	RES,CHIP(1608/5%/0ohm) 00200-0090	CRJ10DJ0R0T	1	
R309	nsp	RES,CHIP(1005/5%/4.7Kohm) RM04JC4K7	CRJ06IJ472T	1	
R310	nsp	RES,CHIP(1608/5%/100Kohm) 00200-0097	CRJ10DJ104T	1	
R311	nsp	RES,CHIP(1608/1%/348Kohm)	CRJ10DF3483T	1	*
R312	nsp	RES,CHIP(1608/5%/0ohm) 00200-0090	CRJ10DJ0R0T	1	
R313	nsp	RES,CHIP(1608/1%/174Kohm)	CRJ10DF1743T	1	*
R314	nsp	RES,CHIP(1005/5%/0ohm) RM04JC0R	CRJ06IJ0R0T	1	
R500	nsp	RES,CHIP(1005/5%/1Kohm) RM04JC1K	CRJ06IJ102T	1	
R501	nsp	RES,CHIP(1005/5%/22Kohm) RM04JC22K	CRJ06IJ223T	1	
R502	nsp	RES,CHIP(1005/5%/47Kohm) RM04JC47K	CRJ06IJ473T	1	
R504	nsp	RES,CHIP(1005/5%/47Kohm) RM04JC47K	CRJ06IJ473T	1	
R509,510	nsp	RES,CHIP(1005/5%/2Kohm) RM04JC2K	CRJ06IJ202T	2	
R512,513	nsp	RES,CHIP(1005/5%/0ohm) RM04JC0R	CRJ06IJ0R0T	2	
R515,516	nsp	RES,CHIP(1005/5%/0ohm) RM04JC0R	CRJ06IJ0R0T	2	
R519	nsp	RES,CHIP(1005/5%/4.7Kohm) RM04JC4K7	CRJ06IJ472T	1	
R521	nsp	RES,CHIP(1005/5%/0ohm) RM04JC0R	CRJ06IJ0R0T	1	
R523	nsp	RES,CHIP(1608/5%/0ohm) 00200-0090	CRJ10DJ0R0T	1	
R524	nsp	RES,CHIP(1005/5%/2Kohm) RM04JC2K	CRJ06IJ202T	1	
R525,526	nsp	RES,CHIP(1005/5%/0ohm) RM04JC0R	CRJ06IJ0R0T	2	
R601,602	nsp	RES,CHIP(1608/5%/270ohm) 1608SIZE	CRJ10DJ271T	2	

REF No.	Part No.	Part Name	Remarks		Q'ty	New
R603,604	nsp	RES,CHIP(1608/5%/27Kohm)		CRJ10DJ273T	2	
R605,606	nsp	RES,CHIP(1608/5%/0ohm) 00200-0090		CRJ10DJ0R0T	2	
R609-613	nsp	RES,CHIP(1005/5%/33ohm) RM04JC33R		CRJ06IJ330T	5	
R614	nsp	RES,CHIP(1608/5%/220ohm) 00200-0101		CRJ10DJ221T	1	
R615,616	nsp	RES,CHIP(1608/5%/100ohm) 00200-0100		CRJ10DJ101T	2	
R617,618	nsp	RES,CHIP(1608/5%/1Mohm) 00200-0095		CRJ10DJ105T	2	
R619,620	nsp	RES,CHIP(1608/5%/100ohm) 00200-0100		CRJ10DJ101T	2	
R621,622	nsp	RES,CHIP(1608/5%/1Mohm) 00200-0095		CRJ10DJ105T	2	
R623,624	nsp	RES,CHIP(1608/5%/100Kohm) 00200-0097		CRJ10DJ104T	2	
R625	nsp	RES,CHIP(1608/5%/470ohm) 00200-0088		CRJ10DJ471T	1	
R626	nsp	RES,CHIP(1608/5%/10Kohm) 00200-0096		CRJ10DJ103T	1	
R627	nsp	RES,CHIP(1608/5%/0ohm) 00200-0090		CRJ10DJ0R0T	1	
R637	nsp	RES,CHIP(1005/5%/100ohm) RM04JC100R		CRJ06IJ101T	1	
R638	nsp	RES,CHIP(1608/5%/470ohm) 00200-0088		CRJ10DJ471T	1	
R639,640	nsp	RES,CHIP(1005/5%/100ohm) RM04JC100R		CRJ06IJ101T	2	
R645,646	nsp	RES,CHIP(1608/5%/0ohm) 00200-0090		CRJ10DJ0R0T	2	
R647	nsp	RES,CHIP(1608/5%/470Kohm)		CRJ10DJ474T	1	
R648	nsp	RES,CHIP(1608/5%/1Kohm) 00200-0094		CRJ10DJ102T	1	
R649	nsp	RES,CHIP(1005/5%/10Kohm) RM04JC10K		CRJ06IJ103T	1	
R650	nsp	RES,CHIP(1608/5%/10Kohm) 00200-0096		CRJ10DJ103T	1	
R651	nsp	RES,CHIP(1005/5%/100ohm) RM04JC100R		CRJ06IJ101T	1	
R652	nsp	RES,CHIP(1608/5%/820ohm) 00200-0102		CRJ10DJ821T	1	
R653	nsp	RES,CHIP(1005/5%/100ohm) RM04JC100R		CRJ06IJ101T	1	
R654,655	nsp	RES,CHIP(1608/5%/0ohm) 00200-0090		CRJ10DJ0R0T	2	
R656,657	nsp	RES,CHIP(1005/5%/100ohm) RM04JC100R		CRJ06IJ101T	2	
R660,661	nsp	RES,CHIP(1005/5%/0ohm) RM04JC0R		CRJ06IJ0R0T	2	
R664-668	nsp	RES,CHIP(1608/5%/470ohm) 00200-0088		CRJ10DJ471T	5	
R670-673	nsp	RES,CHIP(1608/0.5%/2.4Kohm) CHIP RESISTOR		CRJ06DD242TP	4	*
R674,675	nsp	RES,CHIP(1608/0.5%/3Kohm) CHIP RESISTOR		CRJ06DD302TP	2	*
R676,677	nsp	RES,CHIP(1608/5%/2Kohm) 00200-0148		CRJ10DJ202T	2	
R678	nsp	RES,CHIP(1608/0.5%/3Kohm) CHIP RESISTOR		CRJ06DD302TP	1	*
R679	nsp	RES,CHIP(1608/5%/2Kohm) 00200-0148		CRJ10DJ202T	1	
R680	nsp	RES,CHIP(1608/0.5%/3Kohm) CHIP RESISTOR		CRJ06DD302TP	1	*
R681	nsp	RES,CHIP(1608/5%/2Kohm) 00200-0148		CRJ10DJ202T	1	
R682,683	nsp	RES,CHIP(1608/5%/100Kohm) 00200-0097		CRJ10DJ104T	2	
R686-689	nsp	RES,CHIP(1608/0.5%/2.4Kohm) CHIP RESISTOR		CRJ06DD242TP	4	*
R690	nsp	RES,CHIP(1608/0.5%/3Kohm) CHIP RESISTOR		CRJ06DD302TP	1	*
R691	nsp	RES,CHIP(1608/0.5%/8.2Kohm) CHIP RESISTOR		CRJ06DD822TP	1	*
R692,693	nsp	RES,CHIP(1608/5%/2Kohm) 00200-0148		CRJ10DJ202T	2	
R694	nsp	RES,CHIP(1608/0.5%/3Kohm) CHIP RESISTOR		CRJ06DD302TP	1	*
R695	nsp	RES,CHIP(1608/5%/2Kohm) 00200-0148		CRJ10DJ202T	1	
R696	nsp	RES,CHIP(1608/0.5%/8.2Kohm) CHIP RESISTOR		CRJ06DD822TP	1	*
R697	nsp	RES,CHIP(1608/5%/2Kohm) 00200-0148		CRJ10DJ202T	1	
R698,699	nsp	RES,CHIP(1608/5%/100Kohm) 00200-0097		CRJ10DJ104T	2	
R702-705	nsp	RES,CHIP(1608/0.5%/2.4Kohm) CHIP RESISTOR		CRJ06DD242TP	4	*
R706,707	nsp	RES,CHIP(1608/0.5%/3Kohm) CHIP RESISTOR		CRJ06DD302TP	2	*
R708,709	nsp	RES,CHIP(1608/5%/2Kohm) 00200-0148		CRJ10DJ202T	2	
R710	nsp	RES,CHIP(1608/0.5%/3Kohm) CHIP RESISTOR		CRJ06DD302TP	1	*
R711	nsp	RES,CHIP(1608/5%/2Kohm) 00200-0148		CRJ10DJ202T	1	
R712	nsp	RES,CHIP(1608/0.5%/3Kohm) CHIP RESISTOR		CRJ06DD302TP	1	*
R713	nsp	RES,CHIP(1608/5%/2Kohm) 00200-0148		CRJ10DJ202T	1	
R714,715	nsp	RES,CHIP(1608/5%/100Kohm) 00200-0097		CRJ10DJ104T	2	
R736,737	943125500060S	RES,M-OXIDEFILM(1W/150ohm)		CRG1SANJ151RT	2	
R738	nsp	RES,CHIP(1005/5%/0ohm) RM04JC0R		CRJ06IJ0R0T	1	
R741	nsp	RES,CHIP(1608/5%/0ohm) 00200-0090		CRJ10DJ0R0T	1	
R742	nsp	RES,CHIP(1608/5%/15Kohm)		CRJ10DJ153T	1	
R744	nsp	RES,CHIP(1608/5%/4.7Kohm) 00200-0087		CRJ10DJ472T	1	
R745	nsp	RES,CHIP(1608/5%/100ohm) 00200-0100		CRJ10DJ101T	1	
R746,747	nsp	RES,CHIP(1608/5%/4.7Kohm) 00200-0087		CRJ10DJ472T	2	
R748	nsp	RES,CHIP(1608/5%/100ohm) 00200-0100		CRJ10DJ101T	1	
R749	nsp	RES,CHIP(1608/5%/0ohm) 00200-0090		CRJ10DJ0R0T	1	
R751	nsp	RES,CHIP(1608/5%/15Kohm)		CRJ10DJ153T	1	
R752	nsp	RES,CHIP(1608/5%/4.7Kohm) 00200-0087		CRJ10DJ472T	1	
R753	nsp	RES,CHIP(1608/5%/100ohm) 00200-0100		CRJ10DJ101T	1	
R754,755	nsp	RES,CHIP(1608/5%/4.7Kohm) 00200-0087		CRJ10DJ472T	2	
R756	nsp	RES,CHIP(1608/5%/100ohm) 00200-0100		CRJ10DJ101T	1	
R757	nsp	RES,CHIP(1608/5%/12Kohm) 1608SIZE		CRJ10DJ123T	1	
R758	nsp	RES,CHIP(1608/5%/10Kohm) 00200-0096		CRJ10DJ103T	1	
R760	nsp	RES,CHIP(1608/5%/1.8Kohm) 00200-0200		CRJ10DJ182T	1	
R761,762	nsp	RES,CHIP(1608/1%/75ohm)		CRJ10DF75R0T	2	
R766	nsp	RES,CHIP(1608/1%/82ohm)		CRJ10DF82R0T	1	
R767	nsp	RES,CHIP(1005/5%/10Kohm) RM04JC10K		CRJ06IJ103T	1	
R768	nsp	RES,CHIP(1608/5%/0ohm) 00200-0090		CRJ10DJ0R0T	1	
R786,787	nsp	RES,CHIP(1608/5%/0ohm) 00200-0090		CRJ10DJ0R0T	2	
R788,789	nsp	RES,CHIP(1608/5%/150Kohm)		CRJ10DJ154T	2	
R792,793	nsp	RES,CHIP(1005/5%/0ohm) RM04JC0R		CRJ06IJ0R0T	2	
R794-799	nsp	RES,CHIP(1608/5%/100ohm) 00200-0100		CRJ10DJ101T	6	
R801,802	nsp	RES,CHIP(1005/5%/100ohm) RM04JC100R		CRJ06IJ101T	2	
R805	nsp	RES,CHIP(1608/1%/1.37Kohm)		CRJ10DF1371T	1	
R808	nsp	RES,CHIP(1005/5%/33ohm) RM04JC33R		CRJ06IJ330T	1	
R809	nsp	RES,CHIP(1005/5%/220ohm) RM04JC220R		CRJ06IJ221T	1	
R810,811	nsp	RES,CHIP(1005/5%/1Kohm) RM04JC1K		CRJ06IJ102T	2	
R812	nsp	RES,CHIP(1005/5%/33ohm) RM04JC33R		CRJ06IJ330T	1	
R813	nsp	RES,CHIP(1005/5%/100ohm) RM04JC100R		CRJ06IJ101T	1	
R814	nsp	RES,CHIP(1005/5%/75ohm) RM04JC75R	E3, E3B	CRJ06IJ750T	1	
R818	nsp	CAP,CHIP(1005,16V/0.1uF)	E3, E3B	CCUI1C104KC	1	
R819,820	nsp	RES,CHIP(1005/5%/100ohm) RM04JC100R		CRJ06IJ101T	2	
R824-830	nsp	RES,CHIP(1005/5%/68ohm) RM04JC68R		CRJ06IJ680T	7	
R831	nsp	RES,CHIP(1005/5%/3.3Kohm) RM04JC3K3		CRJ06IJ332T	1	
R832,833	nsp	RES,CHIP(1005/5%/10Kohm) RM04JC10K		CRJ06IJ103T	2	
R834	nsp	RES,CHIP(1005/5%/3.3Kohm) RM04JC3K3		CRJ06IJ332T	1	
R835	nsp	RES,CHIP(1005/5%/10Kohm) RM04JC10K		CRJ06IJ103T	1	
R837	nsp	RES,CHIP(1005/5%/330ohm) RM04JC330R		CRJ06IJ331T	1	
R838	nsp	RES,CHIP(1608/5%/1Mohm) 00200-0095		CRJ10DJ105T	1	
R839	nsp	RES,CHIP(1608/1%/5.1Kohm)		CRJ10DF5101T	1	
R840,841	nsp	RES,CHIP(1005/5%/3.3Kohm) RM04JC3K3		CRJ06IJ332T	2	
R842,843	nsp	RES,CHIP(1005/5%/10Kohm) RM04JC10K		CRJ06IJ103T	2	
R844	nsp	RES,CHIP(1005/5%/100ohm) RM04JC100R		CRJ06IJ101T	1	
R845	nsp	RES,CHIP(1005/5%/10Kohm) RM04JC10K		CRJ06IJ103T	1	
R846	nsp	RES,CHIP(1005/5%/33ohm) RM04JC33R		CRJ06IJ330T	1	
R847	nsp	RES,CHIP(1005/5%/10Kohm) RM04JC10K		CRJ06IJ103T	1	
R850	nsp	RES,CHIP(1005/5%/33ohm) RM04JC33R		CRJ06IJ330T	1	
R856	nsp	RES,CHIP(1005/5%/100ohm) RM04JC100R		CRJ06IJ101T	1	
R857,858	nsp	RES,CHIP(1005/5%/3.3Kohm) RM04JC3K3		CRJ06IJ332T	2	
R859,860	nsp	RES,CHIP(1005/5%/10Kohm) RM04JC10K		CRJ06IJ103T	2	
R861	nsp	RES,CHIP(1005/5%/75ohm) RM04JC75R		CRJ06IJ750T	1	
R866,867	nsp	RES,CHIP(1005/5%/33ohm) RM04JC33R		CRJ06IJ330T	2	
R872,873	nsp	RES,CHIP(1005/5%/0ohm) RM04JC0R		CRJ06IJ0R0T	2	
R877,878	nsp	RES,CHIP(1005/5%/0ohm) RM04JC0R		CRJ06IJ0R0T	2	
R901	nsp	RES,CHIP(1608/5%/1Kohm) 00200-0094		CRJ10DJ102T	1	
R902	nsp	RES,CHIP(1005/5%/1Kohm) RM04JC1K		CRJ06IJ102T	1	
R903	nsp	RES,CHIP(1005/5%/100Kohm) RM04JC100K		CRJ06IJ104T	1	
R904	nsp	RES,CHIP(1005/5%/10Kohm) RM04JC10K		CRJ06IJ103T	1	
R905,906	nsp	RES,CHIP(1005/5%/1Kohm) RM04JC1K		CRJ06IJ102T	2	
R907	nsp	RES,CHIP(1005/5%/0ohm) RM04JC0R		CRJ06IJ0R0T	1	

REF No.	Part No.	Part Name	Remarks		Q'ty	New
R908	nsp	RES,CHIP(1005/5%/4.7Kohm) RM04JC4K7		CRJ06IJ472T	1	
R910	nsp	RES,CHIP(1005/5%/100Kohm) RM04JC100K		CRJ06IJ104T	1	
R911	nsp	RES,CHIP(1005/5%/47Kohm) RM04JC47K		CRJ06IJ473T	1	
R912	nsp	RES,CHIP(1608/5%/1Mohm) 00200-0095		CRJ10DJ105T	1	
R913	nsp	RES,CHIP(1005/5%/470Kohm)		CRJ06IJ474T	1	
R914,915	nsp	RES,CHIP(1005/5%/1Kohm) RM04JC1K		CRJ06IJ102T	2	
R916	nsp	RES,CHIP(1608/5%/10Kohm) 00200-0096		CRJ10DJ103T	1	
R917	nsp	RES,CHIP(1608/5%/4.7Kohm) 00200-0087	E3, E3B	CRJ10DJ472T	1	
R917	nsp	RES,CHIP(1608/5%/10Kohm) 00200-0096	E1C	CRJ10DJ103T	1	
R918	nsp	RES,CHIP(1005/5%/10Kohm) RM04JC10K		CRJ06IJ103T	1	
R921	nsp	RES,CHIP(1005/5%/10Kohm) RM04JC10K		CRJ06IJ103T	1	
R922,923	nsp	RES,CHIP(1005/5%/47Kohm) RM04JC47K		CRJ06IJ473T	2	
R926,927	nsp	RES,CHIP(1005/5%/2.7Kohm) RM04JC2K7		CRJ06IJ272T	2	
R928	nsp	RES,CHIP(1005/5%/47Kohm) RM04JC47K		CRJ06IJ473T	1	
R945	nsp	RES,CHIP(1005/5%/0ohm) RM04JC0R		CRJ06IJ0R0T	1	
R946	nsp	RES,CHIP(1005/5%/100ohm) RM04JC100R		CRJ06IJ101T	1	
R953	nsp	RES,CHIP(1005/5%/47Kohm) RM04JC47K		CRJ06IJ473T	1	
R954	nsp	RES,CHIP(1005/5%/100ohm) RM04JC100R		CRJ06IJ101T	1	
R960-962	nsp	RES,CHIP(1005/5%/47Kohm) RM04JC47K		CRJ06IJ473T	3	
R968	nsp	RES,CHIP(1608/5%/120Kohm) 1608		CRJ10DJ124T	1	
R969	nsp	RES,CHIP(1005/5%/47Kohm) RM04JC47K		CRJ06IJ473T	1	
R972	nsp	RES,CHIP(1608/5%/22Kohm) 00200-0093		CRJ10DJ223T	1	
R973	nsp	RES,CHIP(1608/5%/120Kohm) 1608		CRJ10DJ124T	1	
R974	nsp	RES,CHIP(1608/5%/22Kohm) 00200-0093		CRJ10DJ223T	1	
R975-977	nsp	RES,CHIP(1005/5%/100ohm) RM04JC100R		CRJ06IJ101T	3	
R978-980	nsp	RES,CHIP(1005/5%/10Kohm) RM04JC10K		CRJ06IJ103T	3	
R983	nsp	RES,CHIP(1608/5%/0ohm) 00200-0090		CRJ10DJ0R0T	1	
R984	nsp	RES,CHIP(1005/5%/100Kohm) RM04JC100K		CRJ06IJ104T	1	
R985	nsp	RES,CHIP(1608/5%/2.2Kohm) 00200-0142		CRJ10DJ222T	1	
R986	nsp	RES,CHIP(1608/5%/33Kohm) 1608SIZE		CRJ10DJ333T	1	
R987	nsp	RES,CHIP(1608/5%/22Kohm) 00200-0093		CRJ10DJ223T	1	
R998	nsp	RES,CHIP(1005/5%/100ohm) RM04JC100R		CRJ06IJ101T	1	
R999	nsp	RES,CHIP(1005/5%/33ohm) RM04JC33R		CRJ06IJ330T	1	
RN11,12	nsp	RES,CHIP(1005/5%/33ohm*4) 0402*45%33OHM		CRJ064IJ330T	2	
RN80	nsp	RES,CHIP(1005/5%/33ohm*4) 0402*45%33OHM		CRJ064IJ330T	1	
RN81,82	nsp	RES,CHIP(1005/5%/10Kohm*4)		CRJ064IJ103T	2	
RN83-90	nsp	RES,CHIP(1005/5%/33ohm*4) 0402*45%33OHM		CRJ064IJ330T	8	
RN91,92	nsp	RES,CHIP(1005/5%/100ohm*4)		CRJ064IJ101T	2	
CAPACIITORS GROUP						
C105-129	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	25	
C130	nsp	CAP,CHIP(2012,6.3V/10uF,X7R) LAO-63V103MS56PW#		CCUC0J106KC	1	
C131	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C132	nsp	CAP,CHIP(2012,6.3V/10uF,X7R) LAO-63V103MS56PW#		CCUC0J106KC	1	
C133	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C134	nsp	CAP,CHIP(2012,6.3V/10uF,X7R) LAO-63V103MS56PW#		CCUC0J106KC	1	
C135	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C136	nsp	CAP,CHIP(1608,10V/1uF)		CCUS1A105KC	1	
C138	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C139	nsp	CAP,CHIP(2012,6.3V/10uF,X7R) LAO-63V103MS56PW#		CCUC0J106KC	1	
C140	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C141	nsp	CAP,CHIP(2012,6.3V/10uF,X7R) LAO-63V103MS56PW#		CCUC0J106KC	1	
C144	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C145,146	nsp	CAP,CHIP(1608,50V/15pF)		CCUS1H150JA	2	
C147	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C148	nsp	CAP,CHIP(2012,6.3V/10uF,X7R) LAO-63V103MS56PW#		CCUC0J106KC	1	
C149	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C150	nsp	CAP,CHIP(2012,6.3V/10uF,X7R) LAO-63V103MS56PW#		CCUC0J106KC	1	
C161	nsp	CAP,CHIP(1608,10V/1uF)		CCUS1A105KC	1	
C162,163	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	2	
C164	nsp	CAP,CHIP(2012,6.3V/10uF,X7R) LAO-63V103MS56PW#		CCUC0J106KC	1	
C165	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C166	nsp	CAP,CHIP(1608,16V/0.22uF) 00106-0064		CCUS1C224KC	1	
C167	nsp	CAP,CHIP(2012,6.3V/10uF,X7R) LAO-63V103MS56PW#		CCUC0J106KC	1	
C180	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C186	nsp	CAP,CHIP(1005,50V/1000pF) 0402B102K500HI		CCUI1H102KC	1	
C189-196	nsp	CAP,CHIP(1005,50V/1000pF) 0402B102K500HI		CCUI1H102KC	8	
C197	nsp	CAP,CHIP(1608,10V/1uF)		CCUS1A105KC	1	
C198	nsp	CAP,CHIP(2012,6.3V/10uF,X7R) LAO-63V103MS56PW#		CCUC0J106KC	1	
C199	nsp	CAP,CHIP(1608,50V/5pF)		CCUS1H050CA	1	
C200	nsp	CAP,CHIP(2012,6.3V/22uF,X7R)		CCUC0J226KC	1	*
C201	nsp	CAP,CHIP(2012,6.3V/10uF,X7R) LAO-63V103MS56PW#		CCUC0J106KC	1	
C203	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C502-510	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	9	
C511	nsp	CAP,CHIP(2012,6.3V/10uF,X7R) LAO-63V103MS56PW#		CCUC0J106KC	1	
C512	nsp	CAP,CHIP(1005,25V/0.01uF) 0402B103K250HI		CCUI1E103KC	1	
C513	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C514,515	nsp	CAP,CHIP(2012,6.3V/10uF,X7R) LAO-63V103MS56PW#		CCUC0J106KC	2	
C519	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C520,521	nsp	CAP,CHIP(2012,6.3V/10uF,X7R) LAO-63V103MS56PW#		CCUC0J106KC	2	
C526-528	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	3	
C530,531	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	2	
C535,536	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	2	
C605	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C607	nsp	CAP,ELECT(10V/470uF) 00107-1001		CCEA1AH471T	1	
C608,609	13405014440AS	CAP,ELECT(50V/100uF) 50V100UF8*11.5		CCEA1HH101T	2	
C610,611	nsp	CAP,CHIP(1005,50V/100pF) 0402N101J500HI		CCUI1H101JA	2	
C612	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C613,614	nsp	CAP,CHIP(1005,50V/100pF) 0402N101J500HI		CCUI1H101JA	2	
C619,620	nsp	CAP,CHIP(1608,50V/220pF)		CCUS1H221JA	2	
C623,624	nsp	CAP,CHIP(1608,50V/220pF)		CCUS1H221JA	2	
C636	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C638	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C639	nsp	CAP,CHIP(1608,50V/330pF) 1608SIZE		CCUS1H331JA	1	
C640	nsp	CAP,CHIP(1608,50V/0.1uF)		CCUS1H104KC	1	
C642,643	nsp	CAP,ELECT(50V/22uF) 00107-1033		CCEA1HH220T	2	
C644	nsp	CAP,ELECT(50V/0.1uF)		CCEA1HH0R1T	1	
C645	nsp	CAP,ELECT(50V/10uF) 00107-1045		CCEA1HH100T	1	
C646	13405014440AS	CAP,ELECT(50V/100uF) 50V100UF8*11.5		CCEA1HH101T	1	
C647	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C648-650	13405014440AS	CAP,ELECT(50V/100uF) 50V100UF8*11.5		CCEA1HH101T	3	
C651	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C652-655	nsp	CAP,CHIP(1608,50V/1500pF)		CCUS1H152KC	4	
C656,657	nsp	CAP,CHIP(1608,50V/330pF) 1608SIZE		CCUS1H331JA	2	
C658,659	nsp	CAP,CHIP(1608,50V/1500pF)		CCUS1H152KC	2	
C660	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C661,662	nsp	CAP,CHIP(1608,50V/330pF) 1608SIZE		CCUS1H331JA	2	
C663,664	943134500070S	CAP,ELECT(KR3,10uF/100V,6.3X11)		CCEA2AH100T	2	
C665	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C668-670	nsp	CAP,CHIP(1608,50V/1500pF)		CCUS1H152KC	3	
C671	nsp	CAP,CHIP(1608,50V/4700pF)		CCUS1H472KC	1	
C672	nsp	CAP,CHIP(1608,50V/330pF) 1608SIZE		CCUS1H331JA	1	
C673	nsp	CAP,CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C674	nsp	CAP,CHIP(1608,50V/1500pF)		CCUS1H152KC	1	
C675	nsp	CAP,CHIP(1608,50V/4700pF)		CCUS1H472KC	1	

REF No.	Part No.	Part Name	Remarks		Q'ty	New
C676	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C678	nsp	CAP,CHIP(1608,50V/330pF) 1608SIZE		CCUS1H331JA	1	
C679	nsp	CAP,CHIP(1608,50V/1000pF)		CCUS1H102KC	1	
C680,681	943134500070S	CAP,ELECT(KR3,10uF/100V,6.3X11)		CCEA2AH100T	2	
C682	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C685-688	nsp	CAP,CHIP(1608,50V/1500pF)		CCUS1H152KC	4	
C689,690	nsp	CAP,CHIP(1608,50V/330pF) 1608SIZE		CCUS1H331JA	2	
C691,692	nsp	CAP,CHIP(1608,50V/1500pF)		CCUS1H152KC	2	
C693	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C694,695	nsp	CAP,CHIP(1608,50V/330pF) 1608SIZE		CCUS1H331JA	2	
C696,697	943134500070S	CAP,ELECT(KR3,10uF/100V,6.3X11)		CCEA2AH100T	2	
C698	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C724,725	13405014440AS	CAP,ELECT(50V/100uF) 50V100UF8*11.5		CCEA1HH101T	2	
C726	13405012940AS	CAP,ELECT(16V/100uF) 00107-1003		CCEA1CH101T	1	
C727	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C728	13405012940AS	CAP,ELECT(16V/100uF) 00107-1003		CCEA1CH101T	1	
C729	nsp	CAP,CHIP(1608,16V/0.22uF) 00106-0064		CCUS1C224KC	1	
C730	13405012940AS	CAP,ELECT(16V/100uF) 00107-1003		CCEA1CH101T	1	
C731	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C732	nsp	CAP,ELECT(50V/22uF) 00107-1033		CCEA1HH220T	1	
C733	nsp	CAP,CHIP(1608,50V/220pF)		CCUS1H221JA	1	
C735	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C736	nsp	CAP,CHIP(1608,50V/2700pF)		CCUS1H272KC	1	
C737	nsp	CAP,ELECT(50V/22uF) 00107-1033		CCEA1HH220T	1	
C738	nsp	CAP,CHIP(1608,50V/220pF)		CCUS1H221JA	1	
C740	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C741	nsp	CAP,CHIP(1608,50V/2700pF)		CCUS1H272KC	1	
C742	13405012940AS	CAP,ELECT(16V/100uF) 00107-1003		CCEA1CH101T	1	
C743	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C745	13405012940AS	CAP,ELECT(16V/100uF) 00107-1003		CCEA1CH101T	1	
C747	943134502350S	CAP,ELECT(50V/470uF) 470UF/50V		CCEA1HH471E	1	*
C752	nsp	RES,CHIP(1005/5%/0ohm) RM04JC0R		CRJ06lJ0R0T	1	
C754,755	nsp	CAP,ELECT(50V/10uF) 00107-1045		CCEA1HH100T	2	
C756,757	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	2	
C763,764	nsp	CAP,ELECT(50V/10uF) 00107-1045		CCEA1HH100T	2	
C772	nsp	CAP,CHIP(1608,50V/22pF)		CCUS1H220JA	1	
C801	nsp	CAP,CHIP(1005,50V/100pF) 0402N101J500HI		CCUI1H101JA	1	
C802,803	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	2	
C804	13405012840AS	CAP,ELECT(10V/100uF) 10V100UF5*11		CCEA1AH101T	1	
C805	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C806	13405012840AS	CAP,ELECT(10V/100uF) 10V100UF5*11		CCEA1AH101T	1	
C807	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C808	nsp	CAP,ELECT(KR3,4.7uF/100V,5X11)		CCEA2AH4R7T	1	
C809	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C810	13405014440AS	CAP,ELECT(50V/100uF) 50V100UF8*11.5		CCEA1HH101T	1	
C811	nsp	CAP,ELECT(10V/470uF) 00107-1001		CCEA1AH471T	1	
C812	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C813	nsp	CAP,CHIP(1005,50V/1000pF) 0402B102K500HI		CCUI1H102KC	1	
C814	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C815	nsp	CAP,CHIP(1005,25V/0.022uF)		CCUI1E223KC	1	
C816	13405012840AS	CAP,ELECT(10V/100uF) 10V100UF5*11		CCEA1AH101T	1	
C817	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C818	nsp	CAP,CHIP(1005,25V/0.01uF) 0402B103K250HI		CCUI1E103KC	1	
C819-821	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	3	
C822	nsp	CAP,CHIP(1005,25V/0.01uF) 0402B103K250HI		CCUI1E103KC	1	
C823	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C824	nsp	CAP,CHIP(1005,25V/0.01uF) 0402B103K250HI		CCUI1E103KC	1	
C825,826	13405012840AS	CAP,ELECT(10V/100uF) 10V100UF5*11		CCEA1AH101T	2	
C827	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C828	nsp	CAP,CHIP(1005,50V/100pF) 0402N101J500HI	E3, E3B	CCUI1H101JA	1	
C828	nsp	CAP,CHIP(1005,16V/0.1uF)	E2, E1, E1C	CCUI1C104KC	1	
C829	nsp	CAP,CHIP(1005,16V/0.1uF)	E2, E1, E1C	CCUI1C104KC	1	
C830	nsp	CAP,ELECT(10V/47uF)		CCEA1AH470T	1	
C833	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C835,836	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	2	
C837,838	nsp	CAP,CHIP(1608,50V/12pF)		CCUS1H120JA	2	
C839	nsp	CAP,ELECT(10V/220uF) 220UF/10V		CCEA1AH221T	1	
C840	nsp	CAP,CHIP(1608,10V/1uF)		CCUS1A105KC	1	
C841	nsp	CAP,CHIP(1005,25V/0.01uF) 0402B103K250HI		CCUI1E103KC	1	
C842	nsp	CAP,CHIP(1005,50V/100pF) 0402N101J500HI		CCUI1H101JA	1	
C843	13405012840AS	CAP,ELECT(10V/100uF) 10V100UF5*11		CCEA1AH101T	1	
C844-851	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	8	
C859,860	13405012840AS	CAP,ELECT(10V/100uF) 10V100UF5*11		CCEA1AH101T	2	
C861-868	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	8	
C875-878	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	4	
C879	nsp	CAP,CHIP(1005,50V/15pF) 0402N150J500HI		CCUI1H150JA	1	
C880-882	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	3	
C901	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C902	13405012940AS	CAP,ELECT(16V/100uF) 00107-1003		CCEA1CH101T	1	
C903	nsp	CAP,CHIP(1608,16V/0.22uF) 00106-0064		CCUS1C224KC	1	
C904	943134010570S	CAP,ELECT(16V/220uF) 16V220UF6.3*11		CCEA1CH221T	1	
C905-909	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	5	
C911	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C913	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C914,915	nsp	CAP,CHIP(1608,50V/18pF)		CCUS1H180JA	2	
C916-918	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	3	
C926	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C928	nsp	CAP,ELECT(50V/0.1uF)		CCEA1HH0R1T	1	
C934	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C935,936	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	2	
C941	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C946,947	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	2	
C954	nsp	CAP,CHIP(1005,25V/0.015uF)		CCUI1E153KC	1	
C955	nsp	CAP,CHIP(1608,10V/1uF)		CCUS1A105KC	1	
C956	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C963	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C965	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C969	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C974	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
C976-978	nsp	CAP,CHIP(1005,25V/0.01uF) 0402B103K250HI		CCUI1E103KC	3	
C982-989	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	8	
C990	13405012840AS	CAP,ELECT(10V/100uF) 10V100UF5*11		CCEA1AH101T	1	
C994	nsp	CAP,CHIP(1005,16V/0.1uF)		CCUI1C104KC	1	
OTHER PARTS GROUP						
BD61,62	nsp	FERRITECHIPBEAD(1608/60R) HCB1608KF-600T30		CLZ9R005Z	2	
BD63	nsp	FERRITE,CHIPBEAD(60ohm,2012) HCB2012KF-600T40		CLZ9R001Z	1	
BD78,79	nsp	FERRITECHIPBEAD(1608/60R) HCB1608KF-600T30		CLZ9R005Z	2	
BD81	nsp	FERRITE,CHIPBEAD(60ohm,2012) HCB2012KF-600T40		CLZ9R001Z	1	
BD83	nsp	CHIPBEAD(600R,1808,0.5A) FCM1608KF-601T05		HLZ9Z008Z	1	
BK11	nsp	EARTH,HDMI		CMC1A422	1	
BN94	nsp	WIREASS'YLocking(YH)(5P,2MM,180MM,#26)		CWB1B005180HC	1	
BN99	nsp	WIREASS'YLocking(9P,2.5MM,120MM,#22)		CWB1D0091203D	1	
CN90	nsp	LOCK-WAFER/STRAIGHT/2MMPITCH/13PIN		CJP13GI288ZY	1	
CN91	nsp	WAFER,FFC(5P-1mm,ANGLE)		CJP07GB113ZY	1	

REF No.	Part No.	Part Name	Remarks		Q'ty	New
					0	
CN95	nsp	LOCK-WAFER/STRAIGHT/2MMPITCH/7PIN		CJP07GI288ZY	1	
CN97	nsp	WAFER,FFC(23P-1.25mm,STRAIGHT)		CJP23GA115ZY	1	
					0	
CN9A	nsp	WAFER,FFC,SMD(23P-1mm,STRAIGHT)		CJP23GA193ZY	1	
CN9B	nsp	WAFER,FFC,SMD(23P-1mm,STRAIGHT)		CJP23GA193ZY	1	
ET81	nsp	WIREASS'Y(1P,80MM,BLK,#22)		CWE5202080A	1	
JK11-13	943643100040S	JACK,HDMI(KSI-TWI,W/FLANGE)		CJJ9H016Z	3	
JK15	943643100040S	JACK,HDMI(KSI-TWI,W/FLANGE)		CJJ9H016Z	1	
JK51	943643100040S	JACK,HDMI(KSI-TWI,W/FLANGE)		CJJ9H016Z	1	
JK62	943643101570S	JACK,4P(W/R,W/R),SEPA-GND		CJJ4P048U	1	
JK71	943643102370S	JACK,RCA3P(Y/Y/Y),SILVER		CJJ4S052Z	1	*
JK72	943643102380S	JACK,RCA2P(BK/OR),SILVER	E3, E3B	CJJ4N105Z	1	*
JK72	943643102390S	JACK,RCA1P(BLACK),SILVER	E2, E1, E1C	CJJ4M078Z	1	*
JK81	943262100150S	MODULE,OPTICAL(RX16MHz)	E2, E1, E1C	CJSJSR1124	1	
JK82	943262100150S	MODULE,OPTICAL(RX16MHz)		CJSJSR1124	1	
L101-108	nsp	FERRITECHIPBEAD(1608/60R) HCB1608KF-600T30		CLZ9R005Z	8	
L109	nsp	FERRITECHIPBEAD(4516/60R) HCB4516KF-600T60		CLZ9Z014Z	1	
L114	nsp	FERRITECHIPBEAD(1608/60R) HCB1608KF-600T30		CLZ9R005Z	1	
L117,118	nsp	RES,CHIP(1608/5%/0ohm) 00200-0090		CRJ10DJ0R0T	2	
L500,501	nsp	RES,CHIP(1608/5%/0ohm) 00200-0090		CRJ10DJ0R0T	2	
TU101	943183100230S	TUNER,FM(SCREW:FTYPE),AM,SI4730-D60	E3, E3B	CNVYST990-A9U0	1	
TU101	943183100320S	TUNER,RDS,FM(PALTYPE),AM,SI4731-D60	E2, E1	CNVYST990-D8E0	1	*
TU101	943183100250S	TUNER,NORDS,FM(PALTYPE),AM,SI4730-D60	E1C	CNVYST990-A2J0	1	
X101	943141100600S	X-TAL,SMD3.2X2.5,28.636MHz,12PF 7V28600001		COX28636I120ST	1	
X801	943141100900S	X-TAL,HC-49/SSMD,24.576MHz,12PF		COX24576E120ST	1	*
X901	943141100890S	X-TAL,HC-49/SSMD,8.0000MHz,16PF		COX08000E160ST	1	*

POWER PCB ASS'Y

POWER

	REF No.	Part No.	Part Name	Remarks		Q'ty	New
SEMICONDUCTORS GROUP							
	D2001-2004	00D9630328409	DIODE,RECTIFIER,AXIAL		CVD1N4007ST	4	
	D2006	00D9430182609	DIODE,SWITCHING ISS133(T/B)		CVD1SS133MT	1	
	D2008	00D9430182609	DIODE,SWITCHING ISS133(T/B)		CVD1SS133MT	1	
	D2009	943203003170S	DIODE,BRIDGE GBJ6066A,600V		HVDGBJ606	1	
	D2031	00D9430182609	DIODE,SWITCHING ISS133(T/B)		CVD1SS133MT	1	
	D2032-2037	00D9630328409	DIODE,RECTIFIER,AXIAL		CVD1N4007ST	6	
	D2038	00D9430182609	DIODE,SWITCHING ISS133(T/B)		CVD1SS133MT	1	
	IC201	943232100370S	I.C,REGULATOR(+12V,TO220) KIA7812BPI		CVIKIA7812BPI	1	*
	IC202	00D9430183909	I.C,REGULATOR KIA7912PI-U/PF		HVIKIA7912PI	1	
	IC203	231010031706S	REGULATOR(5VOUTPUTLOWDROP) KIA278R05PI-U/P		HVIKIA278R05PI	1	
	IC204	00D2631162014	REGULATOR(5VOUTPUTLOWDROP) KIA78R05PI-U/P		HVIKIA78R05PI	1	
	Q2001	943214500020S	T.R,2SC3052 2SC3052		CVT2SC3052	1	
	Q2002	963216500060S	T.R,RT1N144C(10K-47K) RT1N144C	E3, E3B	CVTRT1N144C	1	
	Q2003	943214500020S	T.R,2SC3052 2SC3052		CVT2SC3052	1	
	ZD201	90M-HD302440R	DIODE,ZENER,1/2W,4.7V ZJ4.7BT(26MMT/B)		CVDZJ4.7BT	1	
	ZD202	943202008160S	DIODE,ZENER,1/2W,12V ZJ12BT(26MMT/B)	E3, E3B	CVDZJ12BT	1	
RESISTOR GROUP							
	R2031	nsp	RES,M-OXIDEFILM(1W/120ohm)		CRG1SANJ121RT	1	
	R2032	nsp	RES,CHIP(1608/5%/4.7Kohm) 00200-0087		CRJ10DJ472T	1	
	R2033	nsp	RES,CHIP(1608/5%/10Kohm) 00200-0096		CRJ10DJ103T	1	
	R2034	nsp	RES,CHIP(1608/5%/20Kohm) 1608		CRJ10DJ203T	1	
	R2035	nsp	RES,CHIP(1608/5%/4.7Kohm) 00200-0087		CRJ10DJ472T	1	
	R2036	nsp	RES,CARBON(1/4W,22ohm,J)		CRD25TJ220T	1	
	R2037	nsp	RES,CHIP(1608/5%/47Kohm) 00200-0185		CRJ10DJ473T	1	
!	R2001-2004	943125500050S	RES,METALFILM1W5%(SMALL,PILKOR)	E3, E3B	CRG1SANJR47RTP	4	
!	R2001-2004	943125500090S	RES,METALFILM1W5%(SMALL,PILKOR)	E2, E1, E1C	CRG1SANJR75RTP	4	*
!	R2005-2008	943125500020S	RES,METALFILM1W5%		CRG1SANJR22RTP	4	
CAPACIITORS GROUP							
	C2002	nsp	CAP,ELECT(50V/0.1uF)		CCEA1HH0R1T	1	
	C2003-2008	nsp	CAP,METAL-FILM(100V/0.047uF) HMFS473J2AP050T		CCME2A473JXT	6	
	C2009	943134010620S	CAP,ELECT(25V/4700uF)		CCEA1EH472E	1	
	C2013	943134502350S	CAP,ELECT(50V/470uF) 470UF/50V		CCEA1HH471E	1	*
	C2014	13405013120AS	CAP,ELECT(25V/2200uF) 2200UF25V		CCEA1EH222E	1	
	C2017	943134502350S	CAP,ELECT(50V/470uF) 470UF/50V		CCEA1HH471E	1	*
	C2018	943134010600S	CAP,ELECT(16V/3300uF) 16V3300UF12.5*25		CCEA1CH332E	1	
	C2021	13405012940AS	CAP,ELECT(16V/100uF) 00107-1003		CCEA1CH101T	1	
	C2031	nsp	CAP,CHIP(1608,50V/0.01uF) 1608SIZE		CCUS1H103KC	1	
	C2032	13405012940AS	CAP,ELECT(16V/100uF) 00107-1003		CCEA1CH101T	1	
	C2033	nsp	CAP,CHIP(1608,50V/0.01uF) 1608SIZE		CCUS1H103KC	1	
	C2034	943134010600S	CAP,ELECT(16V/3300uF) 16V3300UF12.5*25		CCEA1CH332E	1	
	C2035	nsp	CAP,ELECT(50V/0.1uF)		CCEA1HH0R1T	1	
	C2036	nsp	CAP,ELECT(50V/1uF) 00107-1015		CCEA1HH1R0T	1	
	C2037	nsp	CAP,CERAMIC		CCFT1H223ZF	1	
!	C2039	943132500020S	CAP,CERAMIC(400VY-CAP) SDE1222M10FF7		CCKDHS222ME	1	
OTHER PARTS GROUP							
	BK201,202	nsp	BRACKET,PCB(A)		CMD2A188-V1	2	
	BK204,205	nsp	BRACKET,PCB		CMD1A569-V1	2	
	BK206	nsp	BRACKET,PCB		CMD1A387-V1	1	
	CN201	nsp	WAFER/STRAIGHT/2.5mm/7P 00906-0017		CJP07GA01ZY	1	
	CN202	nsp	LOCK-WAFER/STRAIGHT/2.5MMPITCH/9PIN		CJP09GI289ZY	1	
	CN203	nsp	WAFER,2P,3.96mm		CJP02KA060ZY	1	
	CN204	nsp	WAFER,2P,7.92mm		CJP02GA89ZY	1	
	CN205	nsp	LOCK-WAFER/STRAIGHT/2MMPITCH/5PIN		CJP05GI288ZY	1	
	ET201	nsp	PLATE,EARTH(TRONICELECTRONICS)		CJT1A026	1	*
	F2001	nsp	HOLDER,FUSE		KJCFC5S	2	
!	F2001	90M-FS001090R	FUSE(218Series,250V/5A) 5A/250V(EUR)	E3, E3B	KBA2C5000TLEY	1	
!	F2001	00D9430199109	FUSE(218Series,250V/2.5A)	E2, E1, E1C	KBA2C2500TLEY	1	
!	RY201	00D9430194900	RELAY,G5PA-1,DC6V,1C1P G5PA-1DC6V		CSL1E002ZE	1	
!	T2001	943101101210S	TRANS,SUB(6.9V,65mA)	E3, E3B	CLT5I022YU	1	
!	T2001	943101101220S	TRANS,SUB(6.9V,65mA)	E2, E1, E1C	CLT5I022YE	1	
!	T2001	943101101200S	TRANS,SUB(6.9V,65mA)	E1C	CLT5I022YH	1	

EXPRODED PARTS LIST

	REF No.	Part No.	Part Name	Remarks		Q'ty	New
	C1	nsp	FRONT PCB ASS`Y		COP12423J-1	1	
	C1-1	-	POWER KNOB PCB ASS`Y		COP12423J-6	1	
	C1-2	-	HEADPHONE PCB ASS`Y		COP12423J-4	1	
	C1-3	-	PORTABLE PCB ASS'Y		COP12423J-3	1	
	C1-4	-	USB PCB ASS'Y		COP12423J-5	1	
	C1-5	-	FRONT HDMI CABLE PCB ASS'Y		COP12423J-7	1	
	C2	nsp	MAIN PCB ASS`Y		COP12425J-1	1	
	C2-1	-	CABLE PCB ASS`Y		COP12425J-2	1	
	C2-2	-	HDMI CABLE PCB ASS`Y		COP12425J-3	1	
	C2-3	-	CARD CABLE FIX PCB ASS`Y		COP12425J-4	1	
	C3	943639100730D	DIGITAL PCB ASS`Y AVRE200 E3	E3/E3B	COP12512B	1	*
	C3	943639100740D	DIGITAL PCB ASS`Y AVRX500 E2	E2/E1	COP12512C	1	*
	C3	943639100750D	DIGITAL PCB ASS`Y AVRX500 E1C	E1C	COP12512D	1	*
	C3-1	-	F-HDMI PCB		-	1	
	C4	nsp	STANDBY PCB ASS`Y		COP12513B-1	1	*
	C5	nsp	REGULATOR PCB ASS`Y		COP12513B-2	1	*
!	C6	943101101930D	TRANS, POWER AVR-E300(E3)	E3/E3B	CLT5U055ZU	1	*
!	C6	943101101940D	TRANS, POWER AVR-X500(E2)	E2/E1	CLT5U055ZE	1	*
!	C6	943101101940D	TRANS, POWER AVR-X500(E1C)	E1C	CLT5U055ZH	1	*
	C7	nsp	ACSOCKET ASS'Y	E2/E1	CWZPM5003TW91A	1	
	P1	943419100530D	PANEL, SUB		CGR1A533Y	1	*
	P2	943416100960D	WINDOW, FL		CGU1A462U	1	*
	P3	943412100710D	KNOB, VOLUME	BK	CBN1A263	1	
	P3	943412100720D	KNOB, VOLUME	SP	CBN1A263C73	1	
	P4	943446100590D	PLATE, VOLUM KNOB		CGX1A469	1	
	P5	42141002400AD	BADGE, DENON	BK	CGB1A254Z-V1	1	
	P5	42141002401AD	BADGE, DENON	SP	CGB1A254Z-Y-V1	1	
	P6	943402103360D	PANEL, FRONT	E3/E3B	CGW3A519RHWB63	1	*
	P6	943402103370D	PANEL, FRONT	E2/E1	CGW3A519RHWB63VB63	1	*
	P6	943402103380D	PANEL, FRONT	BKE1C	CGW3A519RHWB63UB63	1	*
	P6	943402103390D	PANEL, FRONT	SPE1C	CGW3A519RHWB63RGYG	1	*
	P7	943423100310D	INDICATOR, POWER		CGL1A299	1	
	P8	943411101750D	BUTTON, STANDBY	BK	CBT1A1167	1	
	P8	943411101760D	BUTTON, STANDBY	SP	CBT1A1167C73	1	
	P9	943411101770D	BUTTON, 10KEY		CBT2A1164	1	
	P10	943407100020D	FOOT		CKL1A190	4	
	P11	nsp	CUSHION, FOOT		CHG2A289	4	
	P12	nsp	HOLDER, PCB		CHE170	2	
	P13	943419100250D	SHEET, TOP	BK	CGX1A492Z	2	
	P13	943419100260D	SHEET, TOP	SP	CGX1A492Y	2	
	P14	45451000500AM	STOPPER, SHEET	BK	CMH1A306Z	8	
	P14	45451000501AM	STOPPER, SHEET	SP	CMH1A306Y	8	
	P15	nsp	BUSHING	E3/E3B,E1C	CHR1A028	1	
	M1	nsp	EARTH PLATE, HDMI		CMC1A422	1	
	M2	nsp	EARTH PLATE, HDMI		CMC1A431	1	
	M3	nsp	EARTH PLATE, USB		CMC1A430	2	
	M4	nsp	CHASSIS, BOTTOM		CUA2A335	1	
	M5	943403100570D	CABINET, TOP	BK	CKC1A215K117	1	
	M5	943403100580D	CABINET, TOP	SP	CKC1A215D11	1	
	M6	nsp	BRACKET, PCB		CMD1A387	1	
	M7	nsp	HEAT SINK		CMY2A381	1	
	M8	nsp	BRACKET, H/S PCB		CMD1A802	2	
	M9	nsp	BRACKET, PCB		CMD1A774	2	
	M10	nsp	SMPS BRACKET		CMD1A790	1	
	M11	nsp	PANEL, REAR	E3	CKF1A465Z	1	*
	M11	nsp	PANEL, REAR	E2/E1	CKF2A465Z	1	*
	M11	nsp	PANEL, REAR	E1C	CKF3A465Z	1	*
	M11	nsp	PANEL, REAR	E3B	CKF1A465Y	1	*
SCREWS							
	S1	nsp	SCREW		CHD1A012ZR	15	
	S2	nsp	SCREW		CTWS3+10GR	1	
	S3	nsp	SCREW		CTB3+6JR	11	
	S4	nsp	SCREW		CTB3+10JR	19	
	S5	nsp	SCREW	E2/E1	CTBD3+8JFZR	15	
	S5	nsp	SCREW	E3/E3B,E1C	CTBD3+8JFZR	13	
	S6	nsp	SCREW	BK	CTBD4+6FFZR	4	
	S6	nsp	SCREW	SP	CTBD4+6JFN	4	
	S7	nsp	SCREW		CTBD3+6FFZR	11	
	S8	nsp	SCREW		CTW3+8JR	9	
	S9	nsp	SCREW		CTW3+12JR	2	
	S10	nsp	SCREW		CHDR1A023R	4	
	S11	nsp	SCREW		CTB3+8JR	2	
	S12	nsp	SCREW	BK	CTB3+8JFZR	6	
	S12	nsp	SCREW	SP	CTB3+8JFN	6	
	S13	nsp	SCREW		CTW3+6JR	2	
	S14	nsp	SCREW	BK	CTBD4+8JFZR	2	
	S14	nsp	SCREW	SP	CTBD4+8JFN	2	
	S15	nsp	SCREW		CTB3+6FR	4	
	S16	nsp	SCREW		CHD4A012R	4	
WIRES							
	-	943606501530S	CARD,CABLE	23P, L=180mm	CWC5C4A23B180B10	1	
	-	943606501540S	CARD,CABLE	23P, L=330mm	CWC5F4A23A330B08	1	
	-	nsp	WIRE,ASS'Y		CWE8102050RR	1	

PARTS LIST OF PACKING & ACCESSORIES

	Ref. No.	Part No.	Part Name	Remarks	PACKING	Q'ty	New
	1	nsp	BAG,POLY		CPP1A081X	1	
!	2	90M-YC000780R	CORD,POWER	E3	CJA523FBWA	1	
!		90M-ZC000320R	CORD,POWER	E2/E1	CJA2B054Y	1	
!		90M-YC000850R	CORD,POWER	E1C	CJA2N047WA	1	
!		943611011130D	CORD,POWER	E3B	CJA2F118Y	1	
	3	943533101680D	PAD,SNOW(TOP)		CPS1A932	1	*
	4	943533101690D	PAD,SNOW(BOTTOM)		CPS1A933	1	*
	5	nsp	INSTRUCTIONMANUALASS'Y			1	*
	5-1	nsp	BAG,POLY(MANUAL)		CPB1A197Z	1	
	5-2	35201020500AD	CDMANUALASS'Y	E3	CFT1A078ZA	1	*
		Not Fixed	CDMANUALASS'Y	E3B	-	1	*
		35201020600AD	CDMANUALASS'Y	E2/E1	CFT1A079ZA	1	*
	5-3	35201020700AD	CDMANUALASS'Y	E1C	CFT1A080ZA	1	*
		54111100400AD	MANUAL,GUIDE	E3	CQX1A1715Z	1	*
		Not Fixed	MANUAL,GUIDE	E3B	CQX1A1715Y	1	*
		54111100500AD	MANUAL,GUIDE	E2/E1	CQX1A1716Z	1	*
	5-4	54111100600AD	MANUAL,GUIDE	E1C	CQX1A1717Z	1	*
	5-5	943543102630D	LABEL,SPEAKER CABLE		CQB1A1123Z	1	*
		54311024900AD	SHEET,SAFTY	E3	CQE1A574Z	1	*
		54311026400AD	SHEET,SAFTY	E2/E1	CQE1A575Z	1	*
	5-6	Not Fixed	SHEET,SAFTY	E1C	CQE1A576Z	1	
	5-7	943116100170D	FM1POLEANT(ULTYPE)		CSA1A044Z	1	*
	5-8	963116100070S	ANT,AMLOOP(9.5uH/5T)		CSA1A039Y	1	
	5-9	nsp	CARD,WARRANTY	E3	CQE1A224P	1	
	5-10	nsp	SHEET , INSERTION	E3	CQE1A559Z	1	
	6	nsp	CARD FOR CHINA INDENTIFICATION	E1C	CQE1A450Z	1	
	7	30701014100AD	REMOCONASS'Y(RC-1180)		CARTAVRE200	1	*
	8	nsp	BATTERY,AAA2PCSINPACK		CABR03PPB	2	
		943531103330D	BOX,OUTCARTON	E3/E3B	CPG1A963V	1	*
		943531103340D	BOX,OUTCARTON	E2	CPG1A962Q	1	*
		943531103350D	BOX,OUTCARTON	E1	CPG1A963R	1	*
	9	943531103360D	BOX,OUTCARTON	E1C	CPG1A962P	1	*
	10	nsp	CONTROL,LABEL		CQB1A993Z	1	
	11	nsp	LABEL,WHITEM1SG	SPE1C	CQB1A908Z	1	
		nsp	WARRANTY CARD CHINA	E1C	CQE1A473Y	1	
	★	nsp	China Tuner Isolator, SGLBF-6B	E1C	CLR9Z001Z	1	*