PHILIPS
SERVICE MANUAL

BLU-RAY DISC HOME THEATER
HTS3251B/F7

Blu-ray Disc™   BONUS VIEW™   DVD VIDEO   DVD RW   DVD R   DOLBY TRUE HD DIGITAL PLUS   DOLBY PRO LOGIC II

dts-HD Advanced Digital Out   BD LIVE™   HDMI HIGH-DEFINITION MULTIMEDIA INTERFACE   DIVX HD   instant streaming ready   NETFLIX   Java

COMPACT disc DIGITAL AUDIO   COMPACT disc DIGITAL AUDIO ReWritable   COMPACT disc ReWritable   COMPACT disc DIGITAL AUDIO Recordable   COMPACT disc Recordable   Kodak Picture CD COMPATIBLE   Plays Windows Media™   vTuner   Java POWERED

ENERGY STAR

HTS3051B/F7

Blu-ray Disc™   BONUS VIEW™   DVD VIDEO   DVD RW   DVD R   DOLBY DIGITAL

dts-HD Advanced Digital Out   BD LIVE™   HDMI HIGH-DEFINITION MULTIMEDIA INTERFACE   DOLBY PRO LOGIC II   Java POWERED

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ENERGY STAR

IMPORTANT SAFETY NOTICE

Proper service and repair is important to the safe, reliable operation of all P&F Equipment. The service procedures recommended by P&F and described in this service manual are effective methods of performing service operations. Some of these service special tools should be used when and as recommended.

It is important to note that this service manual contains various CAUTIONS and NOTICES which should be carefully read in order to minimize the risk of personal injury to service personnel. The possibility exists that improper service methods may damage the equipment. It also is important to understand that these CAUTIONS and NOTICES ARE NOT EXHAUSTIVE. P&F could not possibly know, evaluate and advice the service trade of all conceivable ways in which service might be done or of the possible hazardous consequences of each way. Consequently, P&F has not undertaken any such broad evaluation. Accordingly, a servicer who uses a service procedure or tool which is not recommended by P&F must first use all precautions thoroughly so that neither his safety nor the safe operation of the equipment will be jeopardized by the service method selected.

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SPECIFICATIONS

HTS3251B/F7

General	
Signal system	NTSC Color
Power requirements	120 V AC, 60 Hz
Power consumption	70 W (standby: 0.6 W)
Total output power (Amplifier)	Home theater mode: 1000 W FTC* output power : 700 W *(Main Ch @ 1 kHz within 10% THD, Sub Ch 60 Hz within 2.5% THD)
Dimensions (width x height x depth)	17.2 x 2.4 x 11.7 inches (435 x 59 x 297 mm)
Weight	Total weight: 28.66 lbs. (13 kg) Main unit: 8.16 lbs. (3.7 kg)
Operating temperature	41°F (5°C) to 104°F (40°C)
Operating humidity	Less than 80 % (no condensation)

| Terminals		
Front	**SD card slot** slot x 1	
	MP3 LINK jack mini jack x 1	500 mVp-p (75Ω)
Rear	**Analog audio output (SPEAKERS (4Ω))** Front speakers	System: Full range satellite Impedance: 4Ω Frequency response: 160 Hz ~ 20 kHz Dimensions: 3.7 x 6.3 x 3.4 inches (95 x 160.9 x 87 mm) Weight: 1.23 lbs. (0.56 kg)
	Rear speakers	System: Full range satellite Impedance: 4Ω Frequency response: 180 Hz ~ 20 kHz Dimensions: 3.7 x 6.3 x 3.4 inches (95 x 160.9 x 87 mm) Weight: 1.19 lbs. (0.54 kg)
	Center speaker	System: Full range satellite Impedance: 4Ω Frequency response: 160 Hz ~ 20 kHz Dimensions: 6.3 x 3.7 x 3.6 inches (160.9 x 95 x 92 mm) Weight: 1.68 lbs. (0.76 kg)
	Subwoofer	Impedance: 4Ω Speaker drivers: 6.5 inches (160 mm) woofer Frequency response: 50 Hz ~ 150 Hz Dimensions: 4.8 x 12.2 x 14.5 inches (122.6 x 309.5 x 369 mm) Weight: 8.2 lbs. (3.72 kg)
	Video output RCA jack x 1	1 Vp-p (75Ω)
	Component video output RCA jack x 3	Y: 1 Vp-p (75Ω) P_B: 700 mVp-p (75Ω) P_R: 700 mVp-p (75Ω)
	Analog audio input (AUX1 / AUX2) RCA jacks(L / R) x 2	L/R: 2 Vrms (47kΩ)
	Digital audio input (COAXIAL) RCA jack x 1	500 mVp-p (75Ω)
	HDMI output HDMI jack x 1	Video: 480p, 720p, 1080i, 1080p, 1080p24/Audio
	LAN terminal	10BASE-T / 100BASE-TX
	RADIO FM ANT 75Ω jack × 1	Tuning range: FM 87.5 - 108 MHz (100kHz) Antenna terminal: 75Ω (unbalanced)

Note
• The specifications and design of this product are subject to change without notice.

HTS3051B/F7

General	
Signal system	NTSC Color
Power requirements	120 V AC, 60 Hz
Power consumption	70 W (standby: 0.6 W)
Total output power (Amplifier)	Home theater mode: 1000 W FTC* output power : 700 W *(Main Ch @ 1 kHz within 10% THD, Sub Ch 60 Hz within 2.5% THD)
Dimensions (width x height x depth)	17.2 x 2.4 x 11.7 inches (435 x 59 x 297 mm)
Weight	Total weight: 27.56 lbs. (12.5 kg) Main unit: 8.16 lbs. (3.7 kg)
Operating temperature	41°F (5°C) to 104°F (40°C)
Operating humidity	Less than 80 % (no condensation)

Terminals		
Front	**SD card slot** slot x 1	
	MP3 LINK jack mini jack x 1	500 mVp-p (75Ω)
Rear	**Analog audio output (SPEAKERS (4Ω))** Front and rear speakers	System: Full range satellite Impedance: 4Ω Frequency response: 180 Hz ~ 20 kHz Dimensions: 3.9 x 5.1 x 4 inches (100 x 130 x 100.5 mm) Weight: front - 1.19 lbs. (0.54 kg) rear - 1.13 lbs. (0.51 kg)
	Center speaker	System: Full range satellite Impedance: 4Ω Frequency response: 180 Hz ~ 20 kHz Dimensions: 3.9 x 5.1 x 4 inches (100 x 130 x 100.5 mm) Weight: 1.61 lbs. (0.73 kg)
	Subwoofer	Impedance: 4Ω Speaker drivers: 6.5 inches (160 mm) woofer Frequency response: 60 Hz ~ 150 Hz Dimensions: 5.9 x 12.2 x 12.1 inches (149.5 x 310.5 x 308 mm) Weight: 8.29 lbs. (3.76 kg)
	Video output RCA jack x 1	1 Vp-p (75Ω)
	Component video output RCA jack x 3	Y: 1 Vp-p (75Ω) P_B: 700 mVp-p (75Ω) P_R: 700 mVp-p (75Ω)
	Analog audio input (AUX1 / AUX2) RCA jacks(L / R) x 2	L/R: 2 Vrms (47kΩ)
	Digital audio input (COAXIAL) RCA jack x 1	500 mVp-p (75Ω)
	HDMI output HDMI jack x 1	Video: 480p, 720p, 1080i, 1080p, 1080p24/Audio
	LAN terminal	10BASE-T / 100BASE-TX
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> ### Note
> • The specifications and design of this product are subject to change without notice.

LASER BEAM SAFETY PRECAUTIONS

This BD player uses a pickup that emits a laser beam.
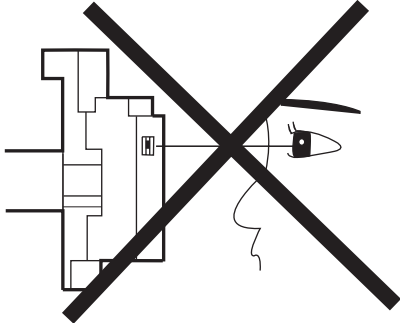
Do not look directly at the laser beam coming from the pickup or allow it to strike against your skin.

The laser beam is emitted from the location shown in the figure. When checking the laser diode, be sure to keep your eyes at least 30 cm away from the pickup lens when the diode is turned on. Do not look directly at the laser beam.

CAUTION: Use of controls and adjustments, or doing procedures other than those specified herein, may result in hazardous radiation exposure.

Drive Mechanism Assembly

Laser Beam Radiation

Laser Pickup

Turntable
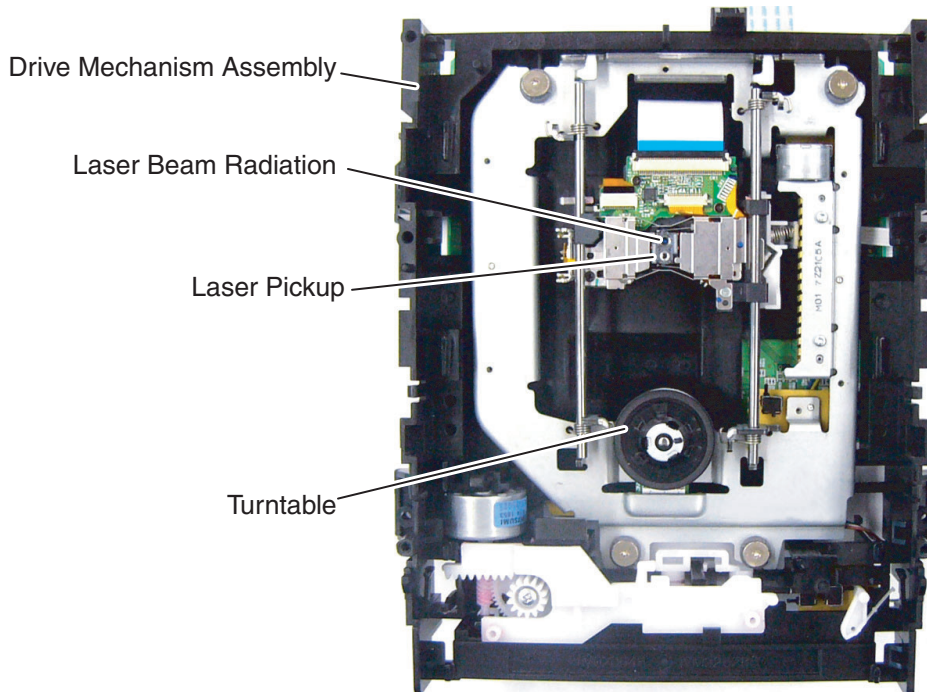
CAUTION	-	LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM. (FDA 21CFR/Class II)
CAUTION	-	CLASS 2 LASER RADIATION WHEN OPEN DO NOT STARE INTO THE BEAM (IEC60825-1/Class 2)
ATTENTION	-	RAYONNEMENT LASER DE CLASSE 2 EN CAS D'OUVERTURE NE PAS REGARDER DANS LE FAISCEAU
注意	-	ここを開くとクラス2のレーザー放射が出る ビームをのぞき込まないこと

Location: Inside Top of BD mechanism.

IMPORTANT SAFETY PRECAUTIONS

Product Safety Notice

Some electrical and mechanical parts have special safety-related characteristics which are often not evident from visual inspection, nor can the protection they give necessarily be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified by a ⚠ on schematics and in parts lists. Use of a substitute replacement that does not have the same safety characteristics as the recommended replacement part might create shock, fire, and/or other hazards. The Product's Safety is under review continuously and new instructions are issued whenever appropriate. Prior to shipment from the factory, our products are carefully inspected to confirm with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

Precautions during Servicing

A. Parts identified by the ⚠ symbol are critical for safety. Replace only with part number specified.

B. In addition to safety, other parts and assemblies are specified for conformance with regulations applying to spurious radiation. These must also be replaced only with specified replacements. Examples: RF converters, RF cables, noise blocking capacitors, and noise blocking filters, etc.

C. Use specified internal wiring. Note especially:

   1) Wires covered with PVC tubing

   2) Double insulated wires

   3) High voltage leads

D. Use specified insulating materials for hazardous live parts. Note especially:

   1) Insulation tape

   2) PVC tubing

   3) Spacers

   4) Insulators for transistors

E. When replacing AC primary side components (transformers, power cord, etc.), wrap ends of wires securely about the terminals before soldering.

F. Observe that the wires do not contact heat producing parts (heat sinks, oxide metal film resistors, fusible resistors, etc.).

G. Check that replaced wires do not contact sharp edges or pointed parts.

H. When a power cord has been replaced, check that 5 - 6 kg of force in any direction will not loosen it.

I. Also check areas surrounding repaired locations.

J. Be careful that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

K. When connecting or disconnecting the internal connectors, first, disconnect the AC plug from the AC outlet.

Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts, and wires have been returned to their original positions. Afterwards, do the following tests and confirm the specified values to verify compliance with safety standards.

1. Clearance Distance

When replacing primary circuit components, confirm specified clearance distance (d) and (d') between soldered terminals, and between terminals and surrounding metallic parts. (See Fig. 1)

Table 1: Ratings for selected area

AC Line Voltage	Clearance Distance (d), (d')
120 V	$\geq$ 3mm(d) $\geq$ 4mm(d')

Note: This table is unofficial and for reference only. Be sure to confirm the precise values.

Chassis or Secondary Conductor
Primary Circuit
d'   d
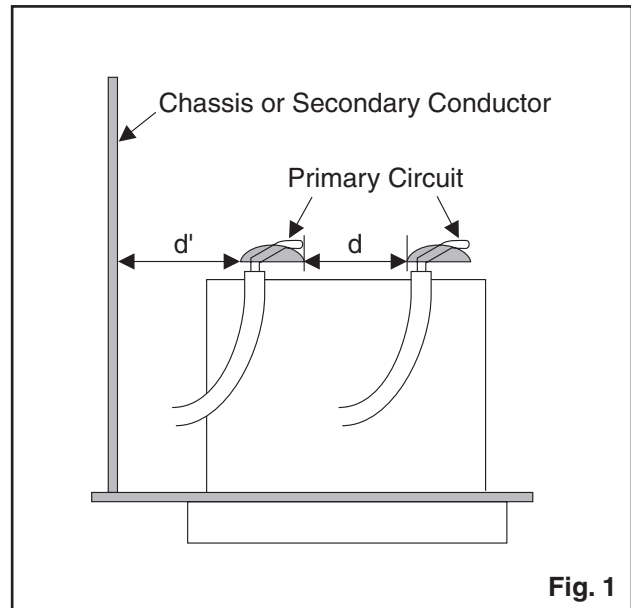
Fig. 1

2. Leakage Current Test

Confirm the specified (or lower) leakage current between B (earth ground, power cord plug prongs) and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.) is lower than or equal to the specified value in the table below.

Measuring Method (Power ON):

Insert load Z between B (earth ground, power cord plug prongs) and exposed accessible parts. Use an AC voltmeter to measure across the terminals of load Z. See Fig. 2 and the following table.

Exposed Accessible Part
Z
AC Voltmeter (High Impedance)
B   One side of Power Cord Plug Prongs
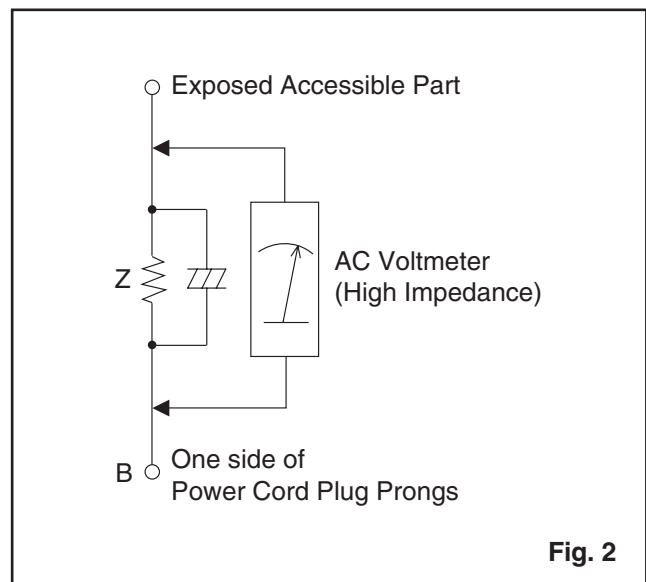
Fig. 2

Table 2: Leakage current ratings for selected areas

AC Line Voltage	Load Z	Leakage Current (i)	One side of power cord plug prongs (B) to:
120 V	2kΩ RES. Connected in parallel	i$\leq$0.7mA AC Peak i$\leq$2mA DC	RF or Antenna terminals
	50kΩ RES. Connected in parallel	i$\leq$0.7mA AC Peak i$\leq$2mA DC	A/V Input, Output

Note: This table is unofficial and for reference only. Be sure to confirm the precise values.

STANDARD NOTES FOR SERVICING
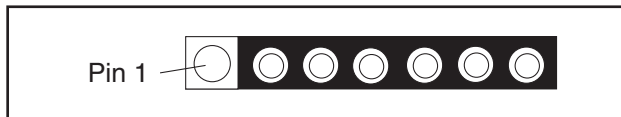
Circuit Board Indications

1. The output pin of the 3 pin Regulator ICs is indicated as shown.

Top View   Bottom View

Out   In   Input
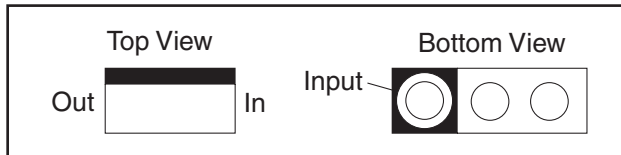
2. For other ICs, pin 1 and every fifth pin are indicated as shown.

Pin 1   5

10
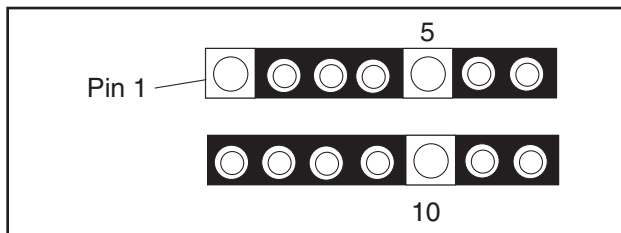
3. The 1st pin of every male connector is indicated as shown.

Pin 1

Instructions for Connectors

1. When you connect or disconnect the FFC (Flexible Foil Connector) cable, be sure to first disconnect the AC cord.

2. FFC (Flexible Foil Connector) cable should be inserted parallel into the connector, not at an angle.

FFC Cable

Connector

CBA

* Be careful to avoid a short circuit.
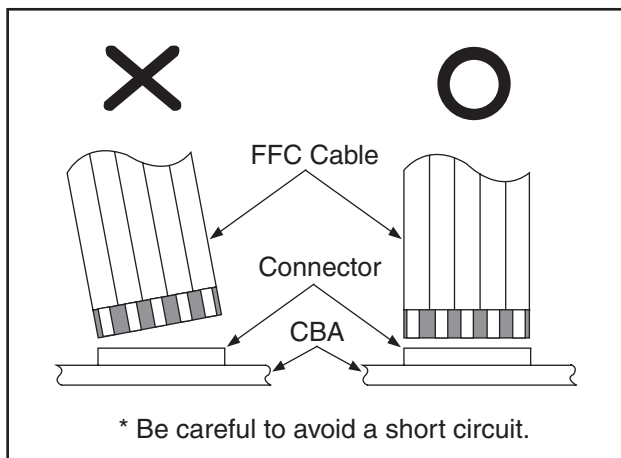
Pb (Lead) Free Solder

When soldering, be sure to use the Pb free solder.

How to Remove / Install Flat Pack-IC

1. Removal

With Hot-Air Flat Pack-IC Desoldering Machine:

1. Prepare the hot-air flat pack-IC desoldering machine, then apply hot air to the Flat Pack-IC (about 5 to 6 seconds). (Fig. S-1-1)

Fig. S-1-1
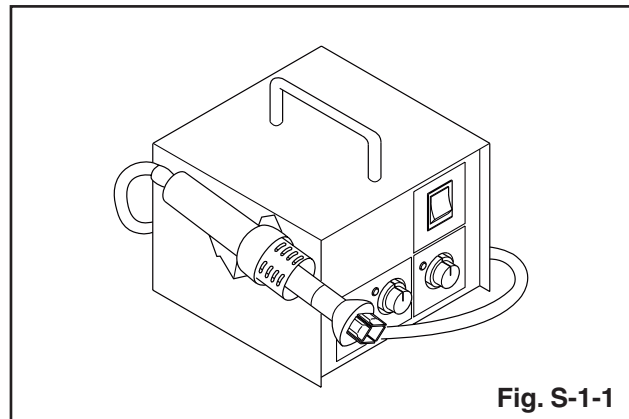
2. Remove the flat pack-IC with tweezers while applying the hot air.

3. Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)

4. Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

CAUTION:

1. The Flat Pack-IC shape may differ by models. Use an appropriate hot-air flat pack-IC desoldering machine, whose shape matches that of the Flat Pack-IC.

2. Do not supply hot air to the chip parts around the flat pack-IC for over 6 seconds because damage to the chip parts may occur. Put masking tape around the flat pack-IC to protect other parts from damage. (Fig. S-1-2)

3. The flat pack-IC on the CBA is affixed with glue, so be careful not to break or damage the foil of each pin or the solder lands under the IC when removing it.
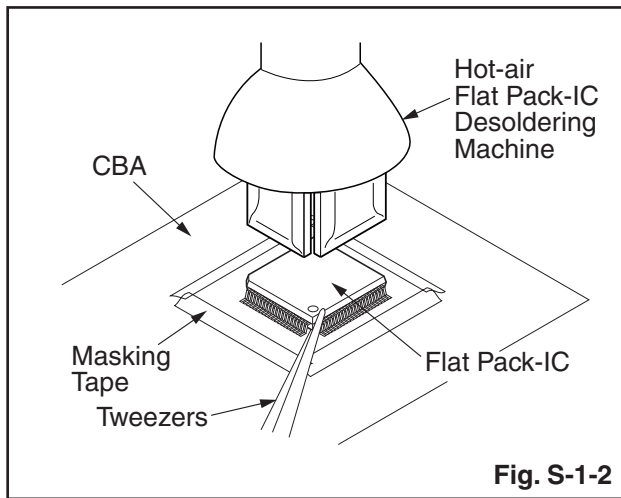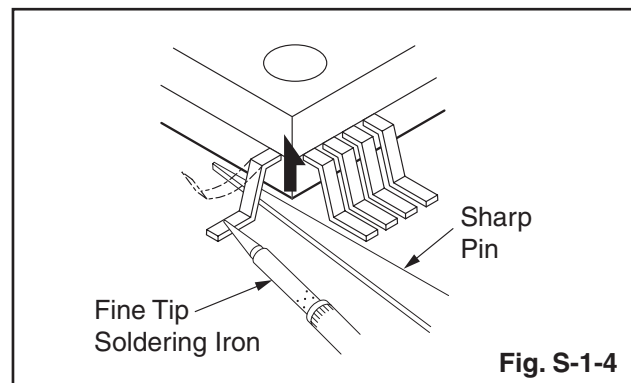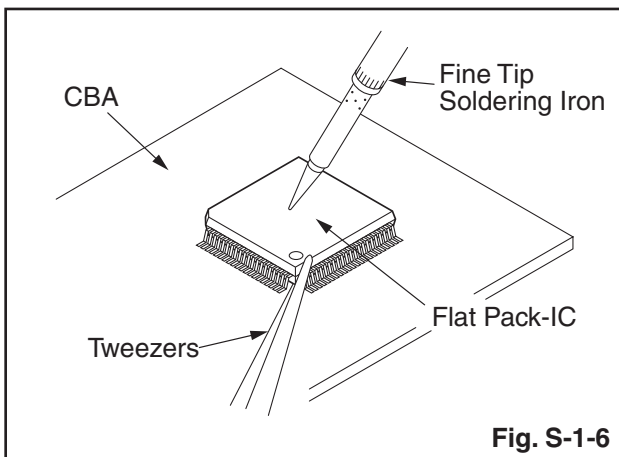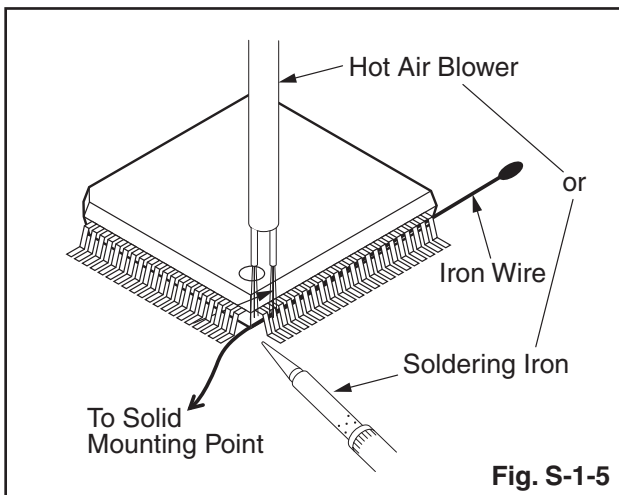

**Fig. S-1-2**

With Soldering Iron:

1. Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig. S-1-3)
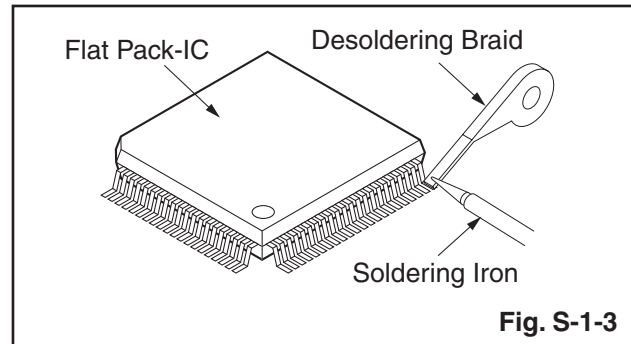
Fig. S-1-3

2. Lift each lead of the flat pack-IC upward one by one, using a sharp pin or wire to which solder will not adhere (iron wire). When heating the pins, use a fine tip soldering iron or a hot air desoldering machine. (Fig. S-1-4)

Fig. S-1-4

3. Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)

4. Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

With Iron Wire:

1. Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig. S-1-3)

2. Affix the wire to a workbench or solid mounting point, as shown in Fig. S-1-5.

3. While heating the pins using a fine tip soldering iron or hot air blower, pull up the wire as the solder melts so as to lift the IC leads from the CBA contact pads as shown in Fig. S-1-5.

4. Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)

5. Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

Note: When using a soldering iron, care must be taken to ensure that the flat pack-IC is not being held by glue. When the flat pack-IC is removed from the CBA, handle it gently because it may be damaged if force is applied.

Fig. S-1-5

Fig. S-1-6

2. Installation

1. Using desoldering braid, remove the solder from the foil of each pin of the flat pack-IC on the CBA so you can install a replacement flat pack-IC more easily.

2. The " ● " mark on the flat pack-IC indicates pin 1. (See Fig. S-1-7.) Be sure this mark matches the pin 1 on the PCB when positioning for installation. Then presolder the four corners of the flat pack-IC. (See Fig. S-1-8.)

3. Solder all pins of the flat pack-IC. Be sure that none of the pins have solder bridges.

Example :

Pin 1 of the Flat Pack-IC
is indicated by a " ● " mark.

Fig. S-1-7

Presolder

Flat Pack-IC

CBA

Fig. S-1-8
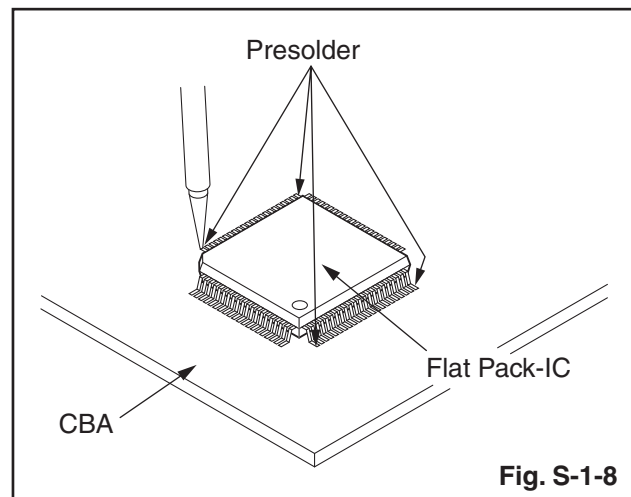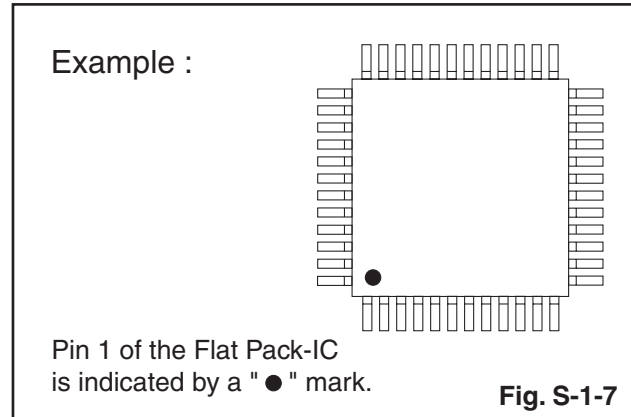
Instructions for Handling Semi-conductors

Electrostatic breakdown of the semi-conductors may occur due to a potential difference caused by electrostatic charge during unpacking or repair work.

1. Ground for Human Body

Be sure to wear a grounding band (1 MΩ) that is properly grounded to remove any static electricity that may be charged on the body.
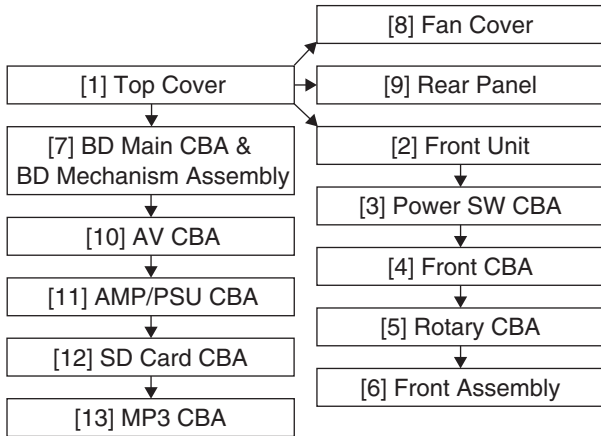
2. Ground for Workbench

Be sure to place a conductive sheet or copper plate with proper grounding (1 MΩ) on the workbench or other surface, where the semi-conductors are to be placed. Because the static electricity charge on clothing will not escape through the body grounding band, be careful to avoid contacting semi-conductors with your clothing.

<Incorrect>

CBA

<Correct>

Grounding Band

1MΩ

CBA

1MΩ

Conductive Sheet or Copper Plate
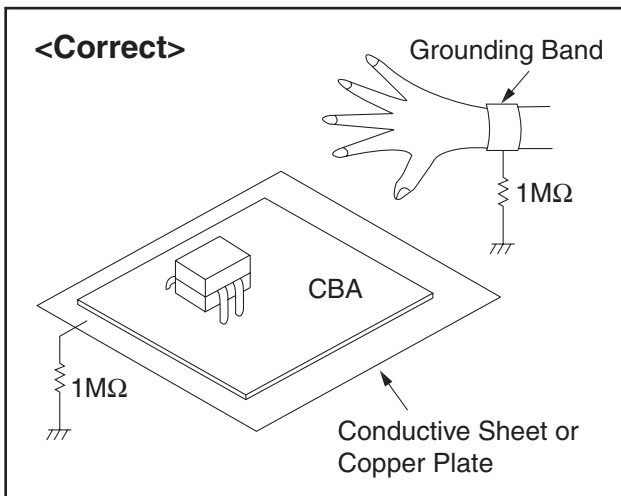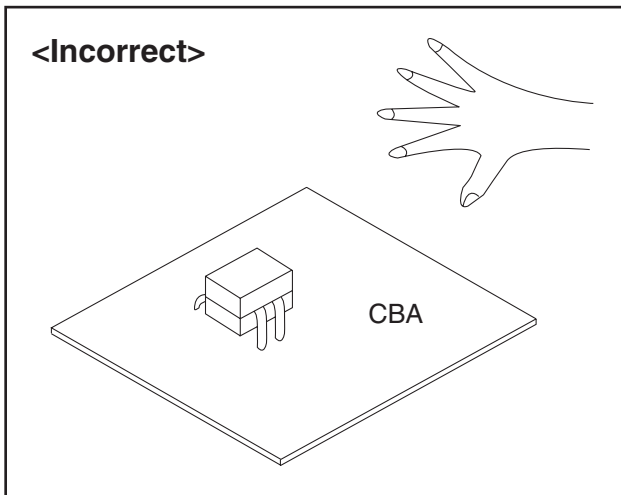
CABINET DISASSEMBLY INSTRUCTIONS

1. Disassembly Flowchart

This flowchart indicates the disassembly steps to gain access to item(s) to be serviced. When reassembling, follow the steps in reverse order. Bend, route, and dress the cables as they were originally.

```
                                    [8] Fan Cover
  [1] Top Cover  ────────────┬───→  [9] Rear Panel
        ↓                    │
  [7] BD Main CBA &          └───→  [2] Front Unit
  BD Mechanism Assembly                  ↓
        ↓                          [3] Power SW CBA
  [10] AV CBA                            ↓
        ↓                          [4] Front CBA
  [11] AMP/PSU CBA                       ↓
        ↓                          [5] Rotary CBA
  [12] SD Card CBA                       ↓
        ↓                          [6] Front Assembly
  [13] MP3 CBA
```

2. Disassembly Method

ID/ Loc. No.	Part	Fig. No.	Remove/*Unhook/ Unlock/Release/ Unplug/Desolder	Note
			Removal	
[1]	Top Cover	D1	8(S-1)	---
[2]	Front Unit	D2	*5(L-1), *3(L-2), *CN804	1
[3]	Power SW CBA	D3	2(S-2), 4(S-3), *CN803, *CN805	---
[4]	Front CBA	D3	----------------	---
[5]	Rotary CBA	D4	Volume Knob, Nut, Washer	---
[6]	Front Assembly	D4	----------------	---
[7]	BD Main CBA & BD Mechanism Assembly	D5	(S-4), 4(S-5), 2(S-6), *CN404, *CN6101, *CN7001, M-PCB Plate Earth, Locking Card Spacer	2
[8]	Fan Cover	D6	(S-7), *CN5001, Fan Earth Plate	---
[9]	Rear Panel	D6	3(S-8), 2(S-9), (S-10), 2(S-11)	---
[10]	AV CBA	D7	2(S-12), *CN402, *CN403	---
[11]	AMP/PSU CBA	D7	5(S-13), *CN9002, PCB Bracket Front	---

ID/ Loc. No.	Part	Fig. No.	Remove/*Unhook/ Unlock/Release/ Unplug/Desolder	Note
			Removal	
[12]	SD Card CBA	D8	2(S-14)	---
[13]	MP3 CBA	D8	(S-15)	---

↓ (1) ↓ (2) ↓ (3) ↓ (4) ↓ (5)

Note:

(1) Identification (location) No. of parts in the figures

(2) Name of the part

(3) Figure Number for reference

(4) Identification of parts to be removed, unhooked, unlocked, released, unplugged, unclamped, or desoldered.
P = Spring, L = Locking Tab, S = Screw, CN = Connector
* = Unhook, Unlock, Release, Unplug, or Desolder
e.g. 2(S-2) = two Screws (S-2),
         2(L-2) = two Locking Tabs (L-2)

(5) Refer to "Reference Notes."

Reference Notes

1. **CAUTION 1:** Locking Tabs (L-1) and (L-2) are fragile. Be careful not to break them.

2. **The BD Main CBA & BD Mechanism Assembly is adjusted as a unit at factory. Therefore, do not disassemble it. Replace the BD Main CBA & BD Mechanism Assembly as a unit.**
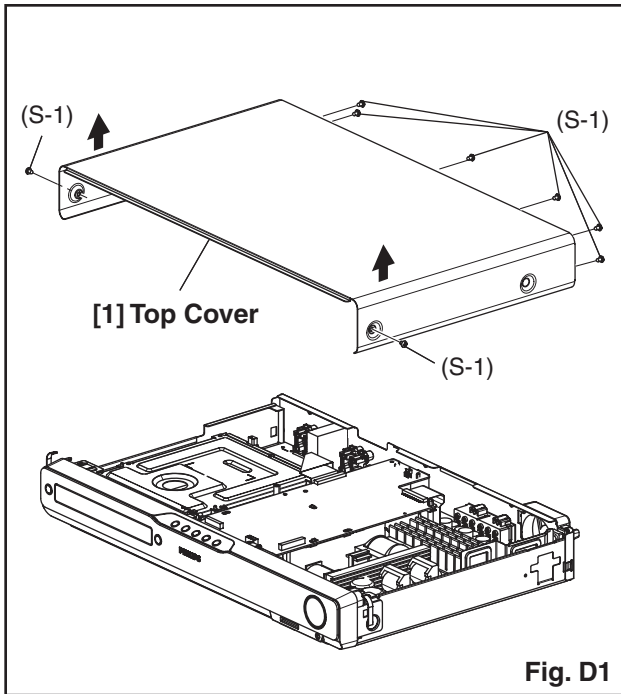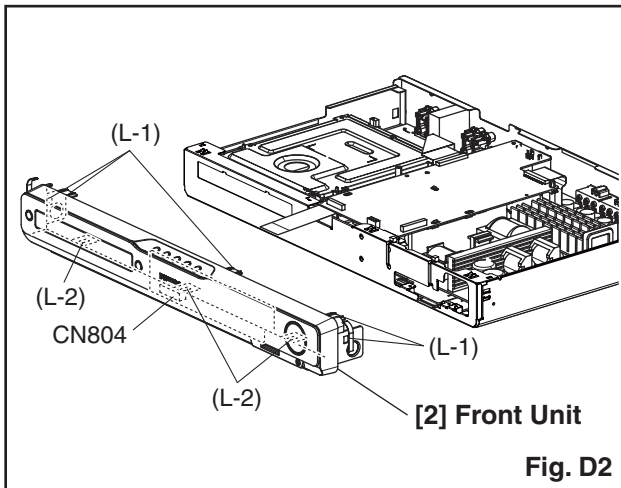
[1] Top Cover
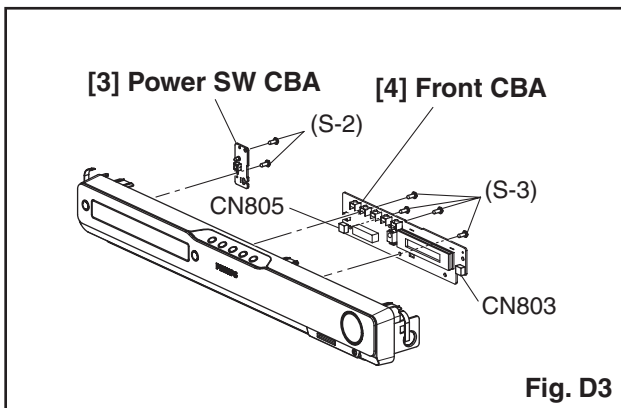
(S-1)

(S-1)

(S-1)

Fig. D1

[2] Front Unit

(L-1)

(L-2)

CN804

(L-2)

(L-1)

Fig. D2

[3] Power SW CBA   **[4] Front CBA**

(S-2)

CN805

(S-3)

CN803

Fig. D3

From behind the front panel, push the two holes with a driver or hexagonal wrench to remove the volume knob.

[6] Front Assembly

[5] Rotary CBA

Nut

Washer

Volume Knob

Fig. D4

[7] BD Main CBA & BD Mechanism Assembly

(S-5)

(S-5)

CN6101

CN7001

M-PCB Plate Earth

(S-6)

CN404

(S-4)

Locking Card Spacer

Fig. D5

[9] Rear Panel

[8] Fan Cover

Fan Earth Plate

(S-8)

(S-9)

(S-8)

(S-10)

(S-11)

(S-7)

CN5001

Fig. D6

[12] SD Card CBA

(S-14)

(S-15)

[13] MP3 CBA

Fig. D8

(S-12)

[10] AV CBA

CN402

(S-13)

(S-13)

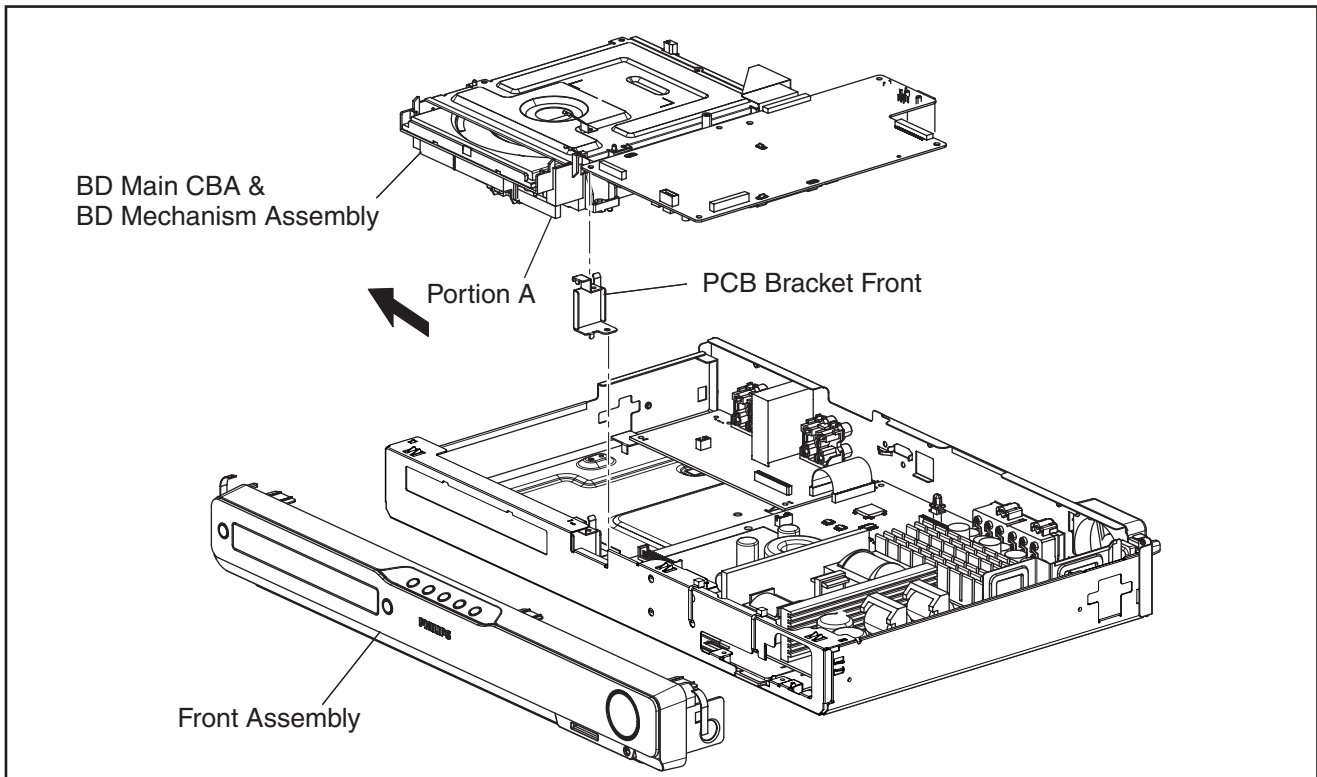PCB Bracket
Front

CN9002

CN403

**[11] AMP/PSU
CBA**

Fig. D7

3. How to Eject Manually

1. Remove the Top Cover, Front Assembly, BD Main CBA & BD Mechanism Assembly and PCB Bracket Front.
2. Slide the portion A in the direction of the arrow.
3. Pull the tray out manually and remove a disc.

BD Main CBA &
BD Mechanism Assembly

Portion A

PCB Bracket Front

Front Assembly

HOW TO INITIALIZE THE BLU-RAY DISC HOME THEATER

[HTS3251B/F7]

To put the program back at the factory-default, initialize the BD player as the following procedure.

Note: By initializing, network is reset to disconnected state and "Network Service Disclaimer" appears on the screen.

1. Turn the power on.
2. Remove the disc on the tray and close the tray.
3. Press [1], [2], [3], [4], and [INFO] buttons on the remote control unit in that order.
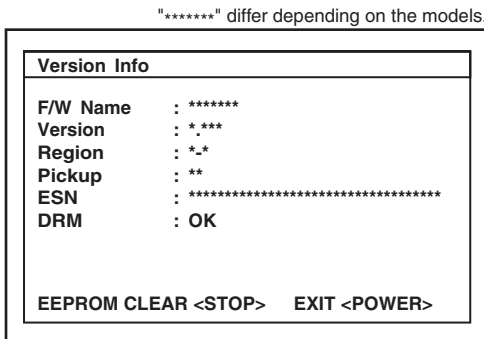   Fig. a appears on the screen. All VFD lights.

"******" differ depending on the models.

```
Version Info

F/W Name     : *******
Version      : *.***
Region       : *-*
Pickup       : **
ESN          : **********************************
DRM          : OK


EEPROM CLEAR <STOP>    EXIT <POWER>
```

Fig. a

4. Press [■] button on the remote control unit.
   Fig. b appears on the screen and Fig. c appears on the VFD.

"******" differ depending on the models.

```
Version Info

F/W Name     : *******
Version      : *.***
Region       : *-*
Pickup       : **
ESN          : **********************************
DRM          : OK


EEPROM CLEAR : OK
EEPROM CLEAR <STOP>    EXIT <POWER>
```
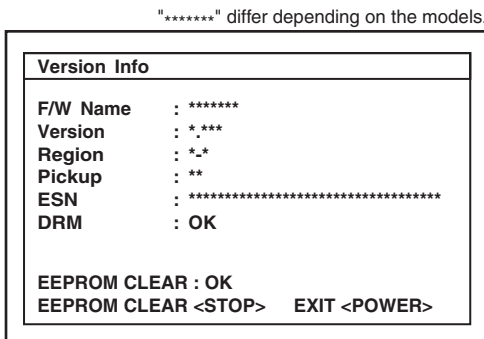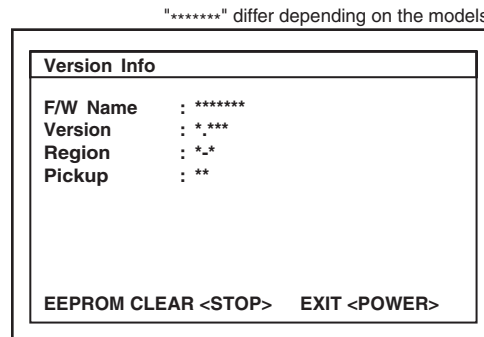
Fig. b

```
CLEAR
```

Fig. c

5. To exit this mode, press [⏻] button.

[HTS3051B/F7]

To put the program back at the factory-default, initialize the BD player as the following procedure.

1. Turn the power on.
2. Remove the disc on the tray and close the tray.
3. Press [1], [2], [3], [4], and [INFO] buttons on the remote control unit in that order.
   Fig. a appears on the screen. All VFD lights.

"******" differ depending on the models.

```
Version Info

F/W Name     : *******
Version      : *.***
Region       : *-*
Pickup       : **



EEPROM CLEAR <STOP>    EXIT <POWER>
```

Fig. a

4. Press [■] button on the remote control unit.
   Fig. b appears on the screen and Fig. c appears on the VFD.

"******" differ depending on the models.

```
Version Info

F/W Name     : *******
Version      : *.***
Region       : *-*
Pickup       : **



EEPROM CLEAR : OK
EEPROM CLEAR <STOP>    EXIT <POWER>
```
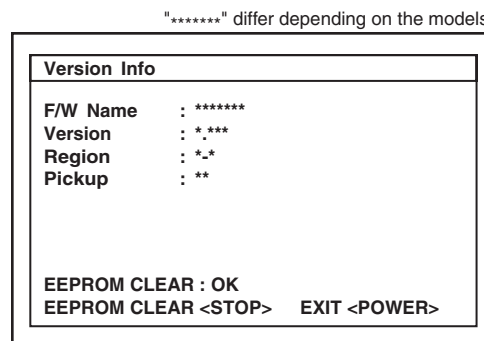
Fig. b

```
CLEAR
```

Fig. c

5. To exit this mode, press [⏻] button.

FIRMWARE RENEWAL MODE

Note: The file extension of the available firmware is "b30".

1. Turn the power on and remove the disc on the tray and close the tray.

2. To put the BD player into version up mode, press [9], [8], [7], [6], and [DISC MENU/POP-UP MENU] buttons on the remote control unit in that order. The tray will open automatically.
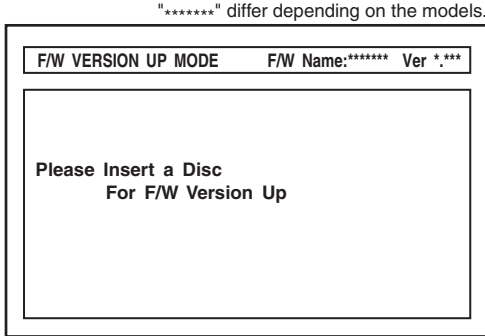   Fig. a appears on the screen and Fig. b appears on the VFD.

"******" differ depending on the models.

```
┌─────────────────────────────────────────────┐
│ F/W VERSION UP MODE    F/W Name:******  Ver *.*** │
│  ┌─────────────────────────────────────────┐  │
│  │                                         │  │
│  │  Please Insert a Disc                   │  │
│  │        For F/W Version Up               │  │
│  │                                         │  │
│  │                                         │  │
│  └─────────────────────────────────────────┘  │
└─────────────────────────────────────────────┘
```

Fig. a Version Up Mode Screen

F/W-UP

Fig. b VFD in Version Up Mode

3. Load the disc for version up.

4. The BD player enters the F/W version up mode automatically. Fig. c appears on the screen and Fig. d appears on the VFD. Make sure to insert the proper F/W for the state of this model.

"******" differ depending on the models.

```
┌─────────────────────────────────────────────┐
│ F/W VERSION UP MODE    F/W Name:******  Ver *.*** │
│  ┌─────────────────────────────────────────┐  │
│  │                                         │  │
│  │                                         │  │
│(*1)│    ┌─────────────┐                     │  │
│  │    │Now Loading...│                     │  │
│  │    └─────────────┘                     │  │
│  │                                         │  │
│  │                        EXIT : POWER     │  │
│  └─────────────────────────────────────────┘  │
└─────────────────────────────────────────────┘
```
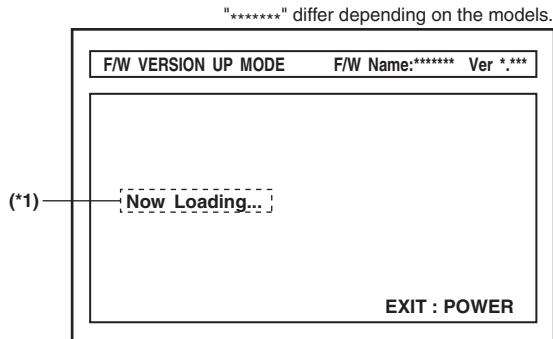
Fig. c Programming Mode Screen (Example)

VER 1000

Fig. d VFD in Programming Mode (Example)

The appearance shown in (*1) of Fig. c is described as follows:

No.	Appearance	State
1	Now Loading...	Loading the disc
2	Reading...	Sending files into the memory.
3	See FL Display.	Writing new version data, the progress will be displayed as shown in Fig. f.

"******" differ depending on the models.

```
┌─────────────────────────────────────────────┐
│ F/W VERSION UP MODE    F/W Name:******  Ver *.*** │
│  ┌─────────────────────────────────────────┐  │
│  │ 1. ALL                                  │  │
│  │    Version : *.***      ***********.b30 │  │
│  │    CHECKSUM : ****                      │  │
│  │                                         │  │
│  │    See FL Display.                      │  │
│  │                                         │  │
│  │                        EXIT : POWER     │  │
│  └─────────────────────────────────────────┘  │
└─────────────────────────────────────────────┘
```
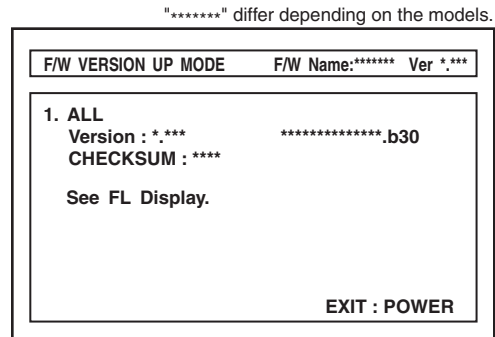
Fig. e Version Up Mode

26/100

Fig. f VFD in Version Up Mode

5. After programming is finished, the checksum on the VFD (Fig. g).

F3AB

Fig. g VFD upon Finishing the Programming Mode (Example)

Checksum appears on the VFD then the tray will open automatically. Remove the disc on the tray.

At this time, no button is available.

6. Unplug the AC cord from the AC outlet. Then plug it again.

7. Turn the power on.

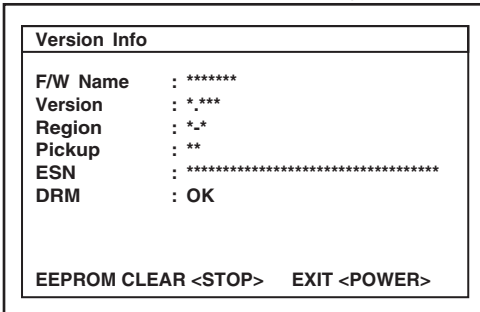**Note:** All the settings will be put back to factory-default.

How to Verify the Firmware Version

1. Turn the power on.
2. Remove the disc on the tray and close the tray.
3. Press [1], [2], [3], [4], and [INFO] buttons on the remote control unit in that order.
   Fig. h appears on the screen.

   [HTS3251B/F7]

   "*******" differ depending on the models.

   ```
   Version  Info

   F/W  Name      : *******
   Version        : *.***
   Region         : *-*
   Pickup         : **
   ESN            : ***********************************
   DRM            : OK



   EEPROM CLEAR <STOP>     EXIT <POWER>
   ```

   [HTS3051B/F7]

   "*******" differ depending on the models.

   ```
   Version  Info

   F/W  Name      : *******
   Version        : *.***
   Region         : *-*
   Pickup         : **



   EEPROM CLEAR <STOP>     EXIT <POWER>
   ```
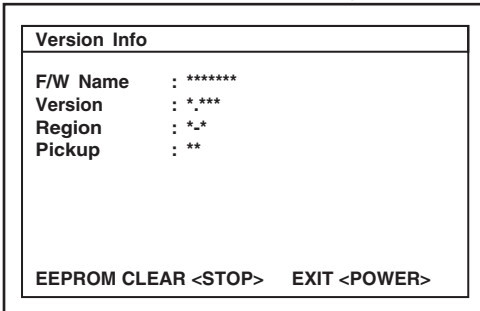
   Fig. h

4. To exit this mode, press [⏻] button.

FIRMWARE RENEWAL MODE (for User)

1. Press [⌂] button to display Setup menu.

2. Select Settings - Advanced Setup - Others - Software Upgrade - Disc Upgrade.

3. The screen appears in Fig. a when "Yes" is chosen and the tray opens. Insert the disc and press [⏏] button.
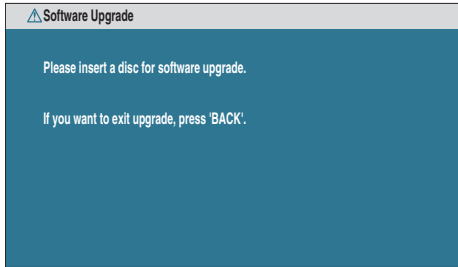
Fig. a

4. Disc loading starts. Fig. b will appear on the screen and Fig. c appears on the VFD.
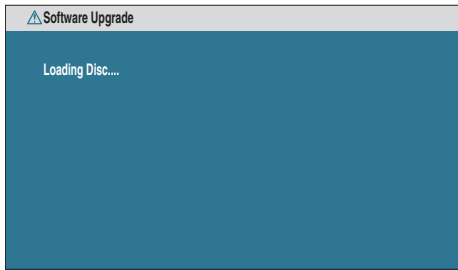
Fig. b

Fig. c VFD in Update Mode

5. Fig. d will appear on the screen, then select "Yes". Fig. e will appears on the VFD.
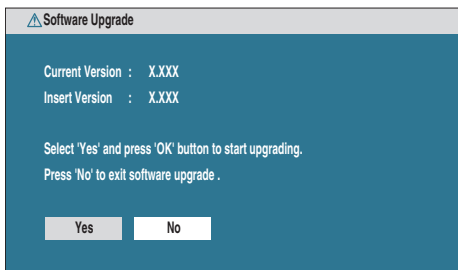
Fig. d

Fig. e VFD in Update Mode

6. Firmware loading starts. Fig. f will appear on the screen and Fig. g appears on the VFD.
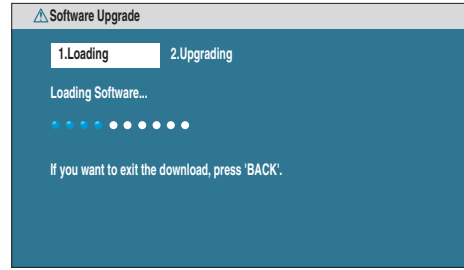
Fig. f

Fig. g VFD in Update Mode

7. Updating starts automatically. Fig. h will appear on the screen and update progress will be displayed as shown in Fig. i on the VFD.
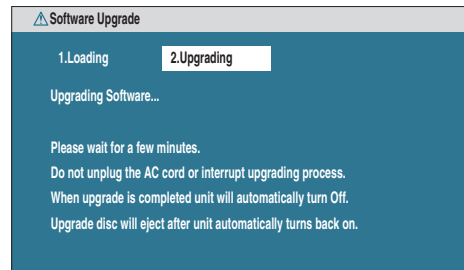
Fig. h
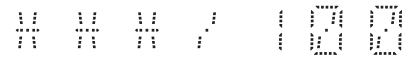
Fig. i VFD in Update Mode

8. "GOODBYE" on the VFD and power turns off automatically when it finishes.

9. The power turns on and the tray will open automatically. Remove the disc on the tray.

Note: The setup setting configured before the update will be kept.
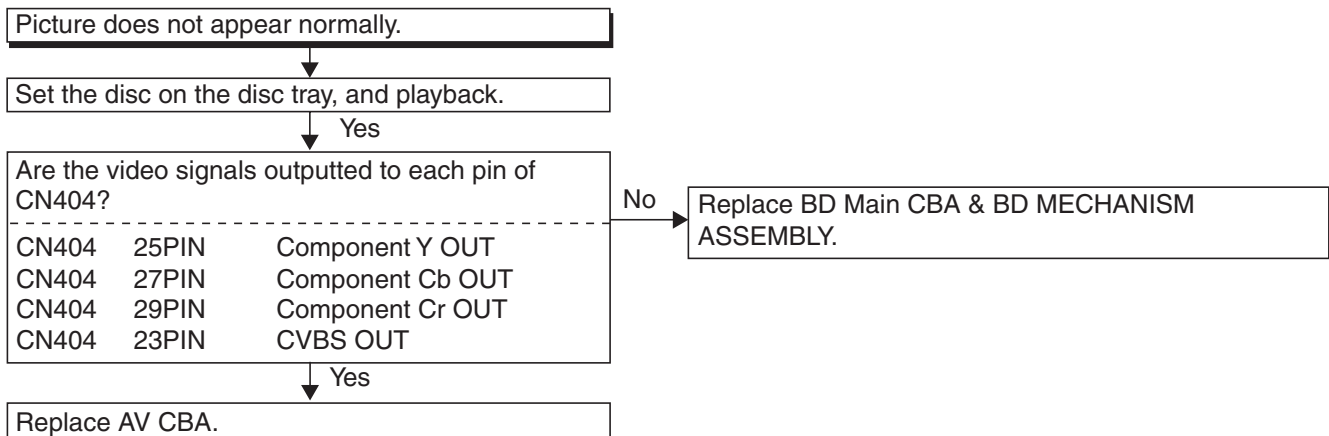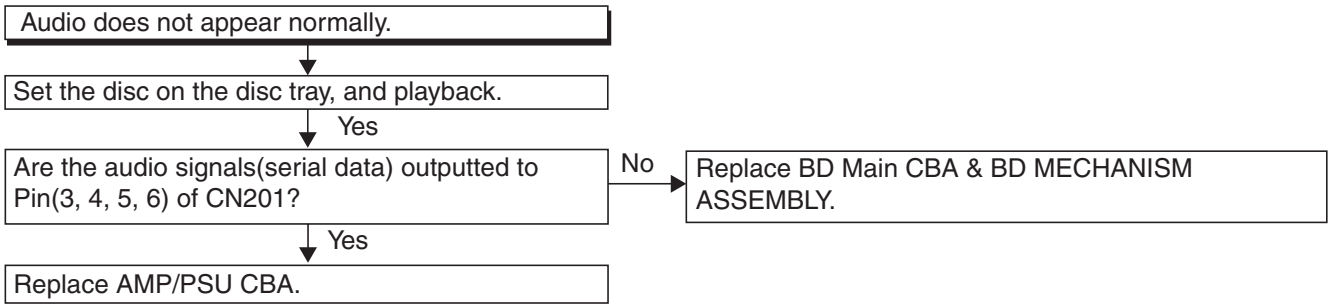
TROUBLESHOOTING

FLOW CHART NO.1

The power cannot be turned on.

Is the fuse normal? — No → See FLOW CHART No.2 <The fuse blows out.>

↓ Yes

Is normal state restored when once unplugged power cord is plugged again after several seconds. — No →

↓ Yes

Is 5.4V voltage outputted to the cathode of D9024? — No →

Check for lead or short-circuiting of primary circuit component and replace AMP/PSU CBA if defective. (Q9000, T9000, BD9000)

↓ Yes

Are the voltage of each pin of CN9001 become as shown below?

CN9001	1-3PIN	+1.8V	1V8
CN9001	4,6PIN	+5V	5V-1, U5V
CN9001	9,13PIN	+1.2V	1V2
CN9001	10PIN	+10.5V	10V5
CN9001	19,20PIN	+3.3V	3V3
CN9001	22PIN	+5V	5V-2

— No → Replace AMP/PSU CBA.

↓ Yes

Check each rectifying circuit of secondary circuit and replace BD Main CBA & BD MECHANISM ASSEMBLY if defective.

FLOW CHART NO.2

The fuse blows out.

Check the presence that the primary component is leaking or shorted and replace AMP/PSU CBA if defective.

Check the presence that the rectifying diode or circuit is shorted in each rectifying circuit of secondary side and replace AMP/PSU CBA if defective.

↓

After servicing, replace the fuse (F9000).

FLOW CHART NO.3

Picture does not appear normally.

Set the disc on the disc tray, and playback.

↓ Yes

Are the video signals outputted to each pin of CN404?

CN404	25PIN	Component Y OUT
CN404	27PIN	Component Cb OUT
CN404	29PIN	Component Cr OUT
CN404	23PIN	CVBS OUT

— No → Replace BD Main CBA & BD MECHANISM ASSEMBLY.

↓ Yes

Replace AV CBA.

FLOW CHART NO.4

Audio does not appear normally.

↓

Set the disc on the disc tray, and playback.

↓ Yes

Are the audio signals(serial data) outputted to Pin(3, 4, 5, 6) of CN201? —— No → Replace BD Main CBA & BD MECHANISM ASSEMBLY.

↓ Yes

Replace AMP/PSU CBA.

INTERNET RADIO (vTuner) ERROR CODE

[HTS3251B/F7]

Error Code appears in the error screen when the unit detects an error, as shown below. The code is used to specifically determine the cause of error.

```
┌─────────────────────────────────────────┐
│ ⚠ Network Error                          │
│                                          │
│ ┌ ─ ─ ─ ─ ─ ─ ─ ┐                        │
│   Connection Error                        │
│ └ ─ ─ ─ ─ ─ ─ ─ ┘                        │
│                                          │
│   ┌──────────┐        ┌ ─ ─ ─ ─ ─ ─ ─ ┐  │
│   │   OK     │          NE[00103404]     │
│   └──────────┘        └ ─ ─ ─ ─ ─ ─ ─ ┘  │
└─────────────────────────────────────────┘
   Error message          Error Code
```
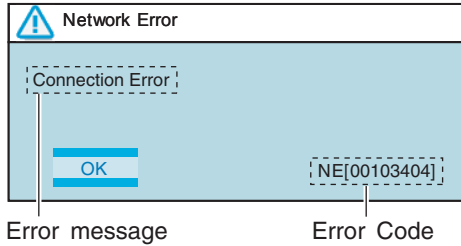
Fig. 1: Error Code (Example)

Error Code are displayed with "NE[********]" ("*" is error code) as shown above.

Error Code Form

In the Internet Radio(vTuner), Error Code are used as follows.

001XXXXX
— Detailed Error Code
— Summary Error Code

Fig. 2

"Summary Error Code" are shown in the list below.

Summary Error Code	Error message
01	LAN feature is invalid.
02	Playback Error
03	Connection Error

- The Detailed Error Code shows the three-digit code used in the HTTP Status Code or used internally in the Application.

- The HTTP Status Codes (200 to 500 series) are defined in the RFC2616.

- Depending on the specification of the station or the server, error codes not listed in the table may appear.

Detailed Error Code table (vTuner – HTTP Status Code)

Status Code	Description
201 Created	A new resource was created by this unit's request.
202 Accepted	This unit's request was accepted but its processing is not completed.
204 No Content	Though the server processed the request, there was no content.
304 Not Modified	This unit caches latest resource and the requested resource is not modified. (exception protocol error)
400 Bad Request	The server cannot understand this unit's request.
401 Unauthorized	The resource this unit has requested needs to be authorized.
403 Forbidden	The server has received the requests from this unit but refused to process them.
404 Not Found	The URI this unit has requested is not found.
500 Internal Server Error	Internal server error occurred.
501 Not Implemented	The server does not support functionalities required to process the request from this unit.
502 Bad Gateway	The proxy server between this unit and the server received an invalid reply from another proxy or the original server.
503 Service Unavailable	Because of overloading or maintenance, the server is temporarily unavailable.

Detailed Error Code table (vTuner – Application Status Code)

Status Code	Description
001 Nothing List	As a result of list creation process, there is no item to be displayed from the received data.
002 LAN Disconnect	This unit's LAN is disconnected.
005 Favorite Error	The URL needed to register or delete favorite data is not sent from the server.
601 Stream Stop	Because the streaming stopped, decoding has stopped. (This error message is displayed if decoding is disabled for 20 seconds.)
602 Unsupported(Info)	The stream information of the broadcast is unsupported.
603 Decode Timeout	The unit tried to playback the received stream data, but the data was not played correctly even after three minutes elapsed.
604 Unsupported(Stream)	As a result of analyzing the received stream data, the data is unsupported.
605 Decode Failed	The received stream data cannot be decoded.
606 Multi Stream	Because this unit received multiple streaming data, the data cannot be decoded.

Status Code	Description
701 Protocol Error	An exception error occurred during communication between the server or the broadcast.
702 Start Up Error	The application of this unit failed to start.
703 URL Error	The URL which this unit specified is in invalid form.
705 Connect Failed	Connection with the proxy which exists between this unit and the server or the broadcast has failed. (IP conversion error)
706 Connect Failed	Connection with the server or the broadcast has failed. (IP conversion error)
707 Connect Failed	Connection with the server or the broadcast has failed.
723 Analyze Error	The received protocol data cannot be analyzed.
727 System Error(Memory)	A system error occurred in the unit. (memory shortage, internal cURL processing error)
728 Response Timeout	A response timeout occurred to unit's connection request.
743 System Error(Program)	A system error occurred in the unit. (program error, internal cURL processing error)
745 System Error(LAN Port)	A system error occurred in the unit. (LAN unusable, internal cURL processing error)
752 Response Timeout	A response timeout occurred to unit's connection request.
755 Disconnect Error(Send)	Because the connection between this unit and the server or the broadcast was disconnected, it has failed to send the protocol data.
756 Disconnect Error(Receive)	Because the connection between this unit and the server or the broadcast was disconnected, it has failed to receive the protocol data.
761 Analyze Error	The received protocol data cannot be analyzed.
790 List Not Found	The list information which was sent from the server is invalid or not found.
791 Stream Timeout	The stream data is not sent from the broadcast.

* Server: vTuner broadcast list server

* Broadcast: Server of internet radio broadcast

BLOCK DIAGRAMS

OVERALL BLOCK Diagram

E1S00BLOA
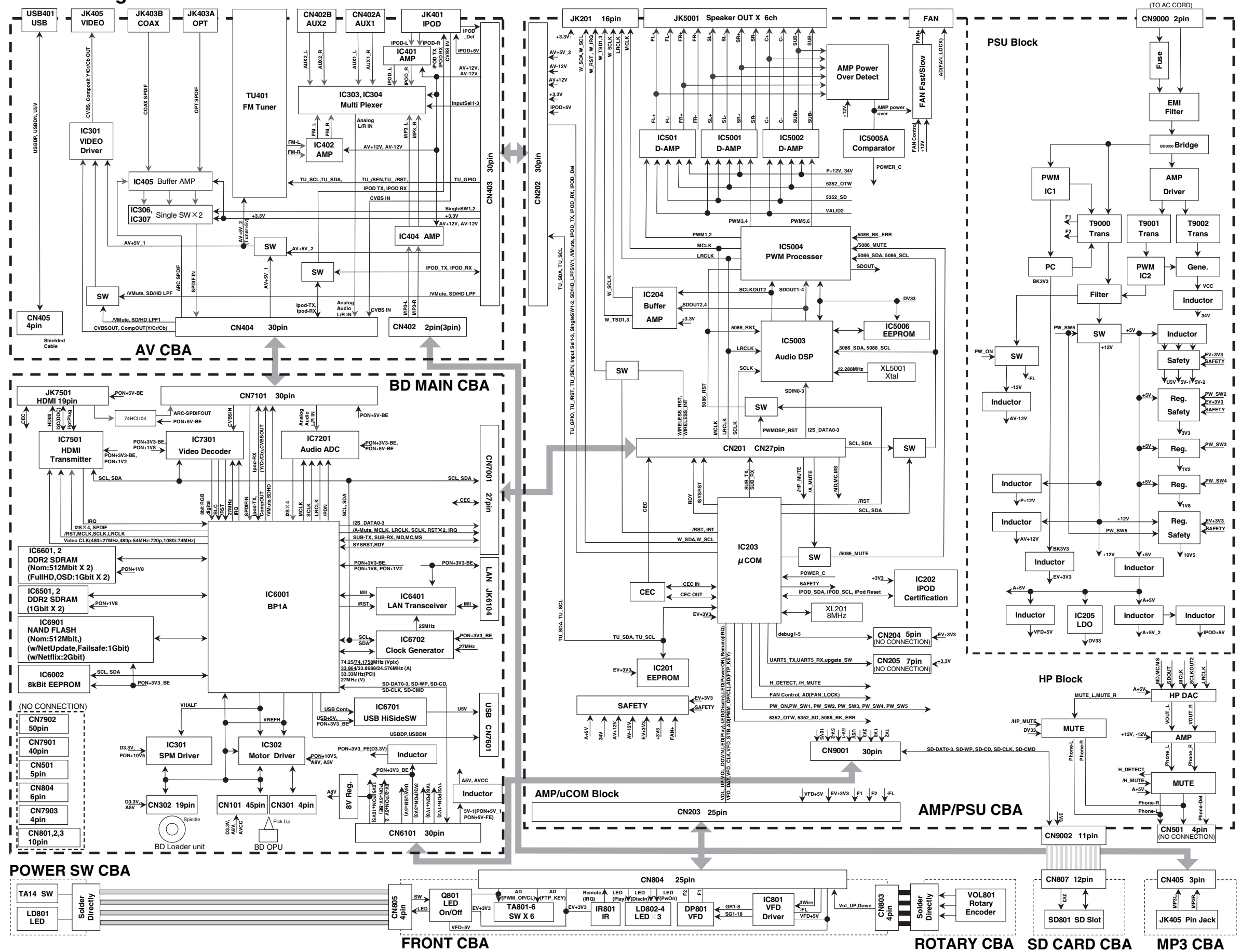
SCHEMATIC DIAGRAMS AND CBA

Standard Notes

WARNING

Many electrical and mechanical parts in this chassis have special characteristics. These characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the mark "⚠" in the schematic diagram and the parts list. Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

Notes:

1. Do not use the part number shown on these drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since these drawings were prepared.

2. All resistance values are indicated in ohms ($K = 10^3$, $M = 10^6$).

3. Resistor wattages are 1/4W or 1/6W unless otherwise specified.

4. All capacitance values are indicated in μF ($P = 10^{-6}\ \mu F$).

5. All voltages are DC voltages unless otherwise specified.

6. Electrical parts such as capacitors, connectors, diodes, IC's, transistors, resistors, switches, and fuses are identified by four digits. The first two digits are not shown for each component. In each block of the diagram, there is a note such as shown below to indicate these abbreviated two digits.

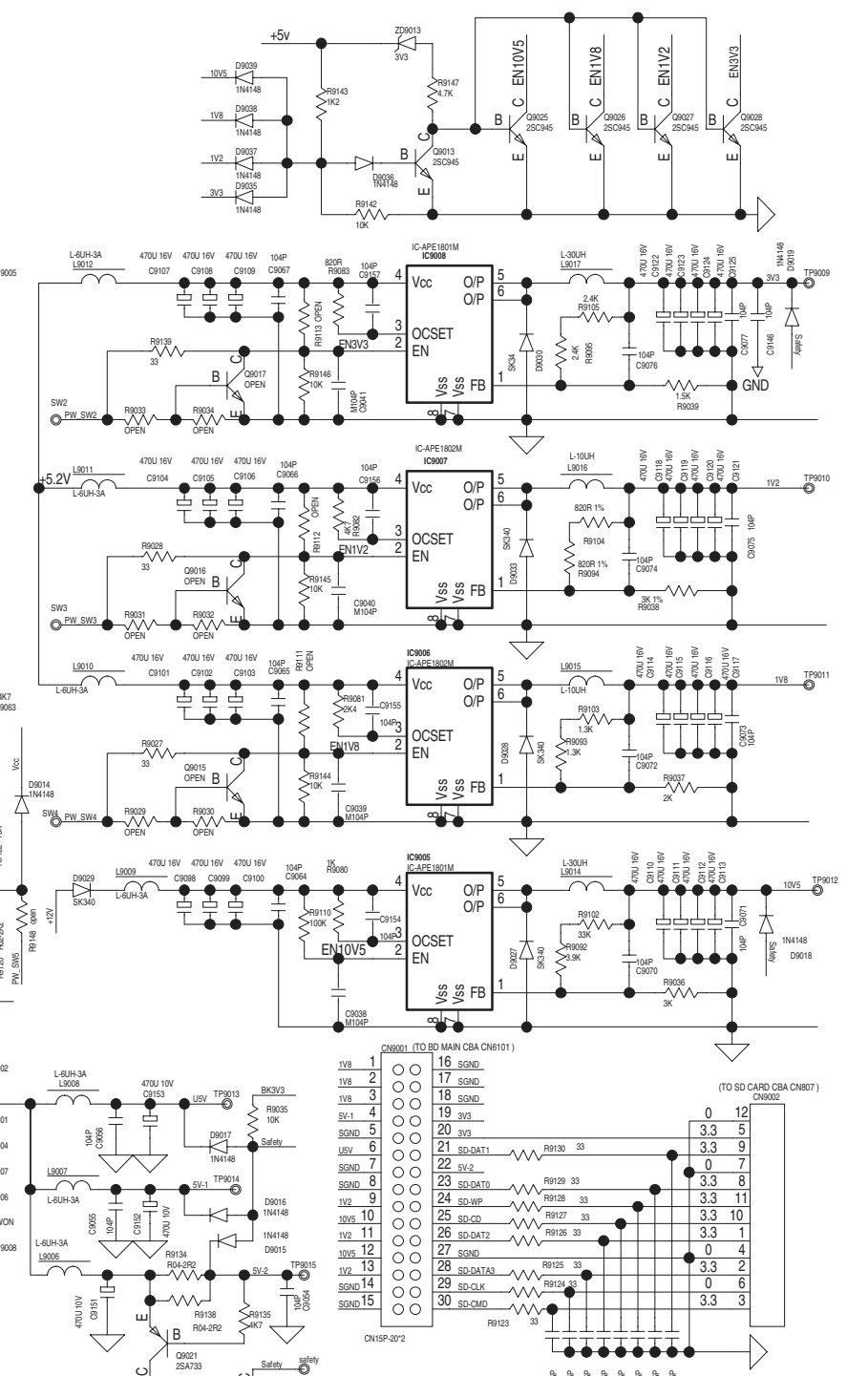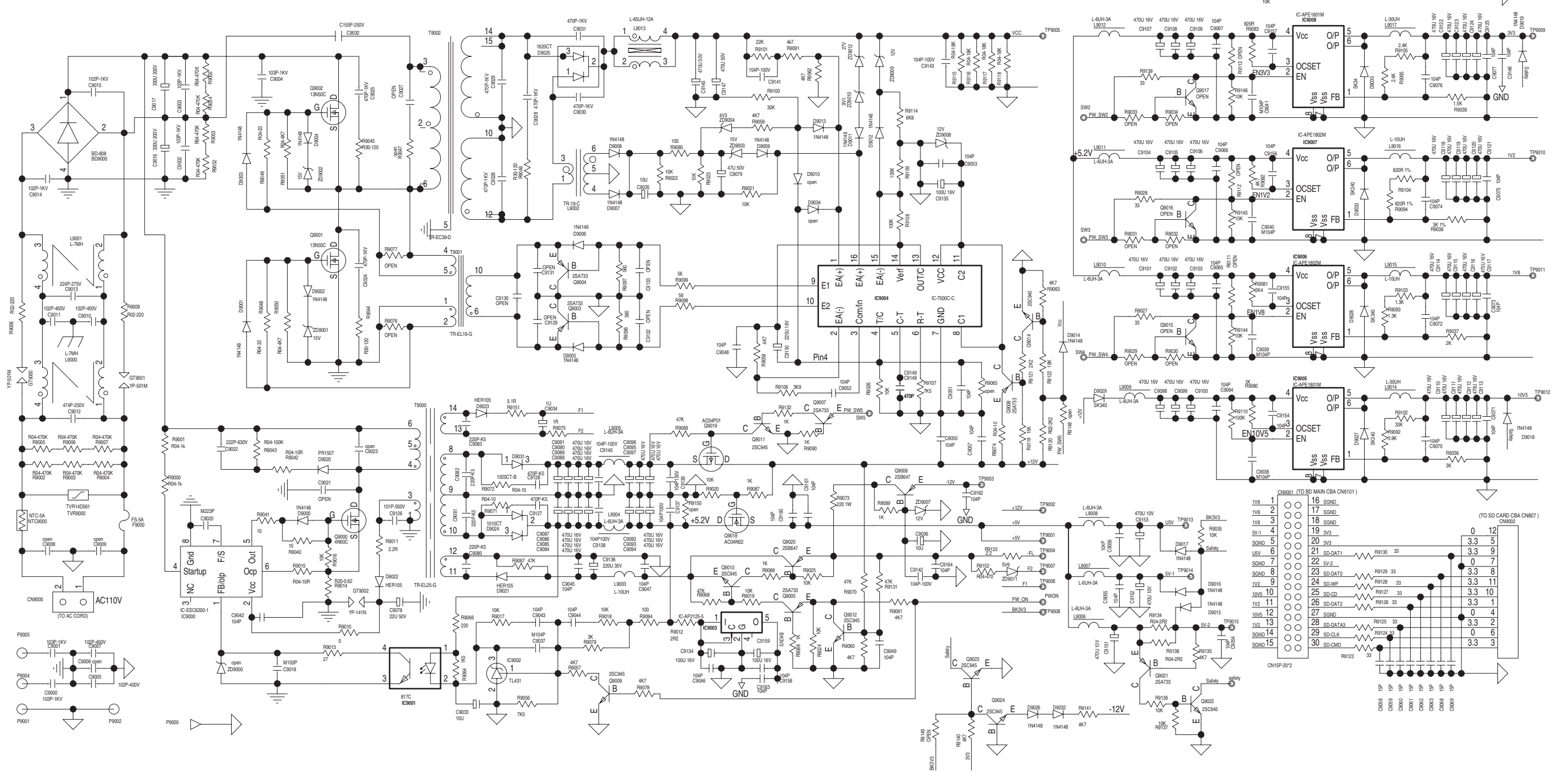## LIST OF CAUTION, NOTES, AND SYMBOLS USED IN THE SCHEMATIC DIAGRAMS ON THE FOLLOWING PAGES:

1. CAUTION:
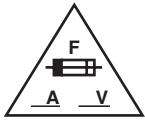
FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQES D'INCELE N'UTILISER QUE DES FUSIBLE DE MÊME TYPE.
RISK OF FIRE-REPLACE FUSE AS MARKED.

This symbol means fast operating fuse.
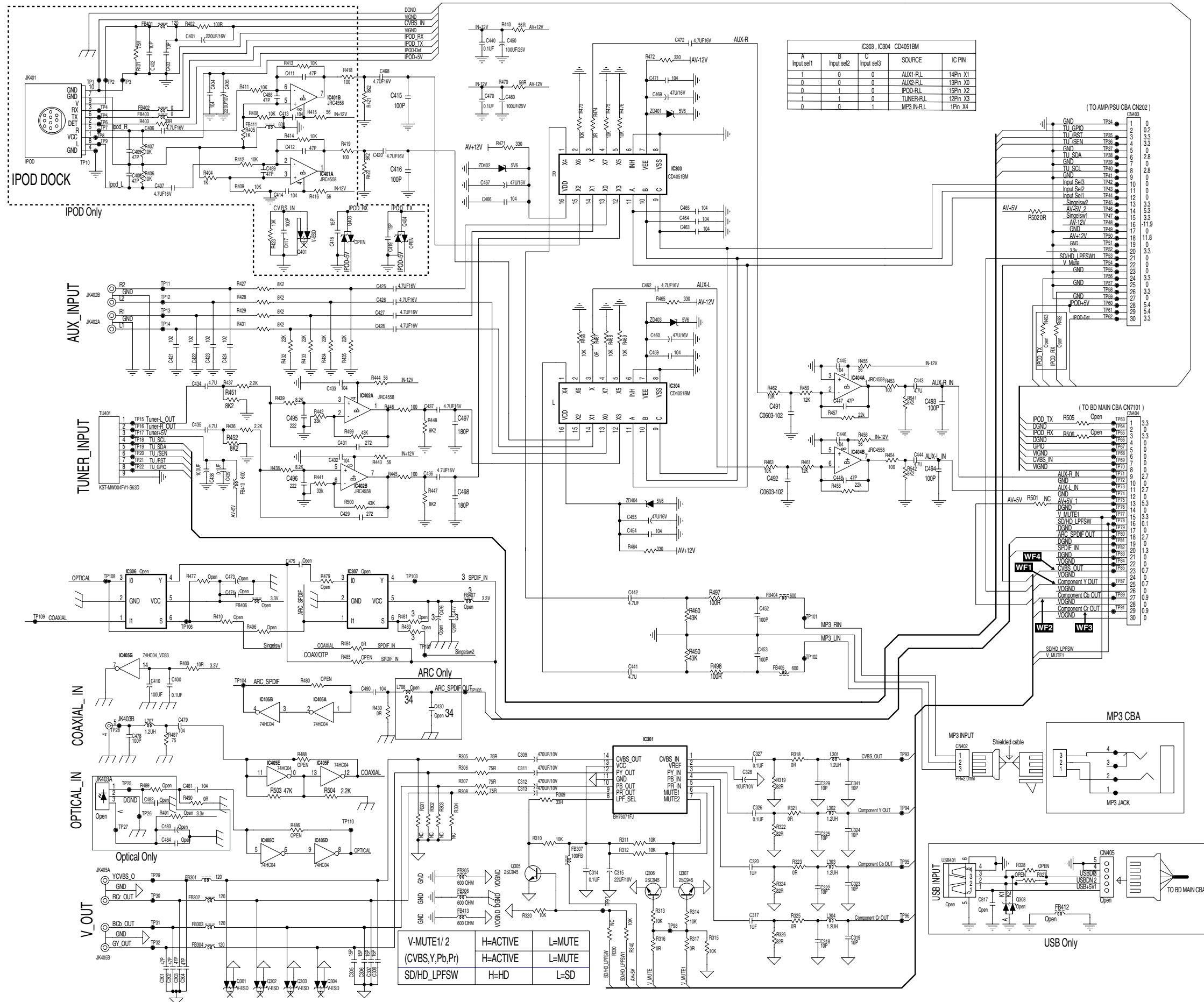Ce symbole reprèsente un fusible à fusion rapide.

2. CAUTION:

Fixed Voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F9000) is blown, first check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the power supply circuit to fail.

3. Note:

1. Do not use the part number shown on the drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since the drawings were prepared.

2. To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list section of the service manual.

4. Voltage indications for PLAY and STOP mode on the schematics are as shown below:

(Unit: Volt)   ①—②—③

5.0 ∼ 5.0 ←—— PLAY mode
(2.5) ←—— STOP mode

The same voltage for both PLAY & STOP modes

Indicates that the voltage is not consistent here.
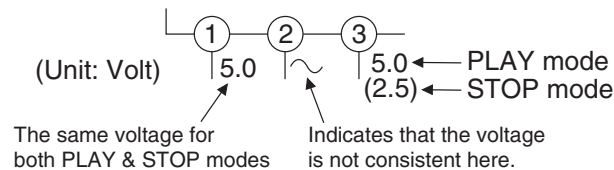
AMP/PSU 1 Schematic Diagram
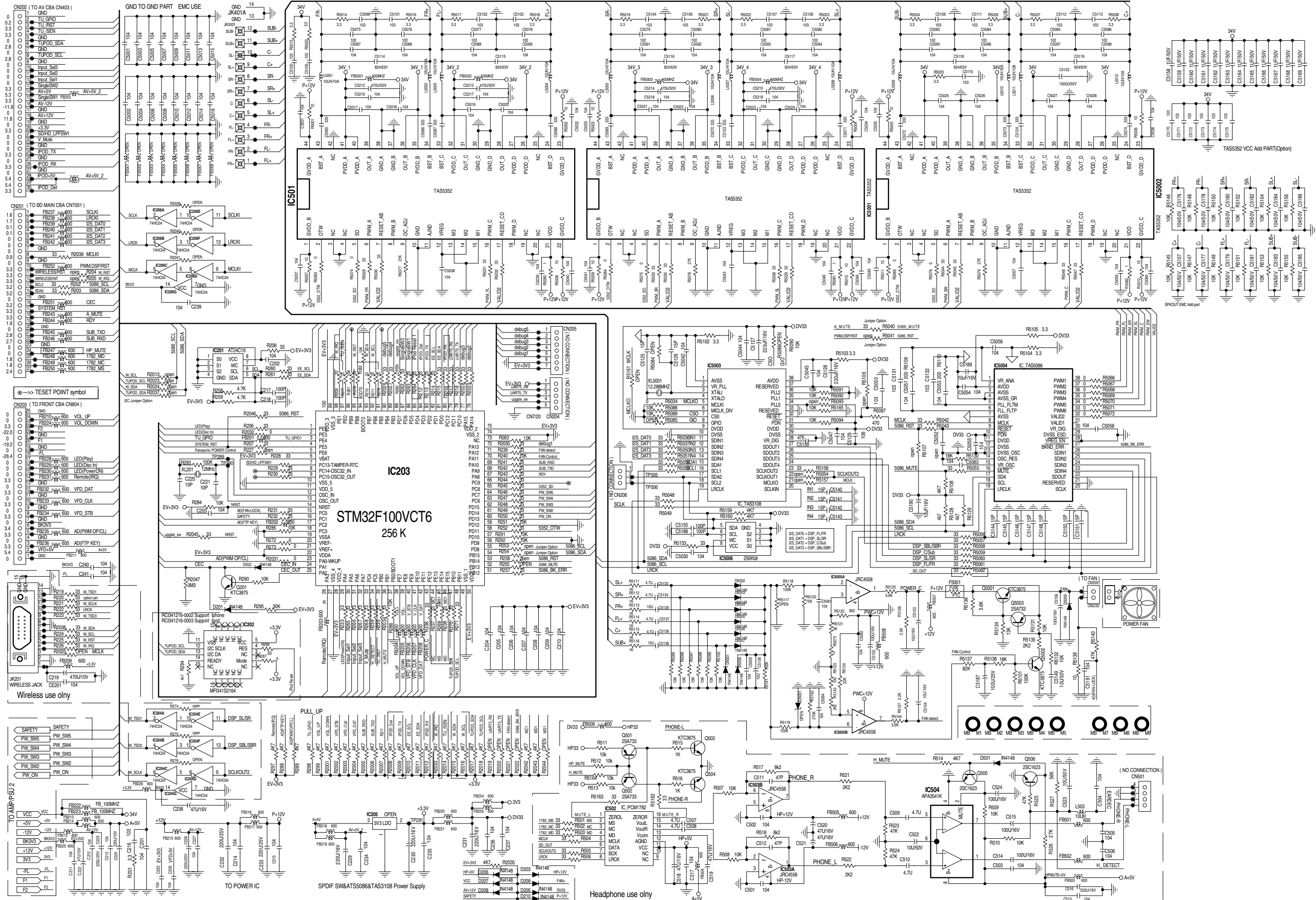
AMP/PSU 2 Schematic Diagram

E1S00SCAP2

AV & MP3 Schematic Diagram

IPOD DOCK

IPOD Only

AUX_INPUT

TUNER_INPUT

COAXIAL_IN

OPTICAL_IN

Optical Only

V_OUT

ARC Only

	IC303 , IC304 CD4051BM				
A	B	C			
Input sel1	Input sel2	Input sel3	SOURCE	IC PIN	
1	0	0	AUX1-R.L	14Pin X1	
0	0	0	AUX2-R.L	13Pin X0	
1	0	1	IPOD-R.L	15Pin X2	
1	1	0	TUNER-R.L	12Pin X3	
0	0	1	MP3 IN-R.LL	1Pin X4	

(TO AMP/PSU CBA CN202)

(TO BD MAIN CBA CN7101)

MP3 CBA

MP3 JACK

MP3 INPUT

USB INPUT

USB Only

TO BD MAIN CBA

V-MUTE1/ 2	H=ACTIVE	L=MUTE
(CVBS,Y,Pb,Pr)	H=ACTIVE	L=MUTE
SD/HD_LPFSW	H=HD	L=SD

1-11-5

E1S00SCA

Front, Rotary, Power SW & SD Card Schematic Diagram

BD Main 1 Schematic Diagram

DDR2 CH0 1Gbit X 2

DDR2 CH1 512Mbit X 2
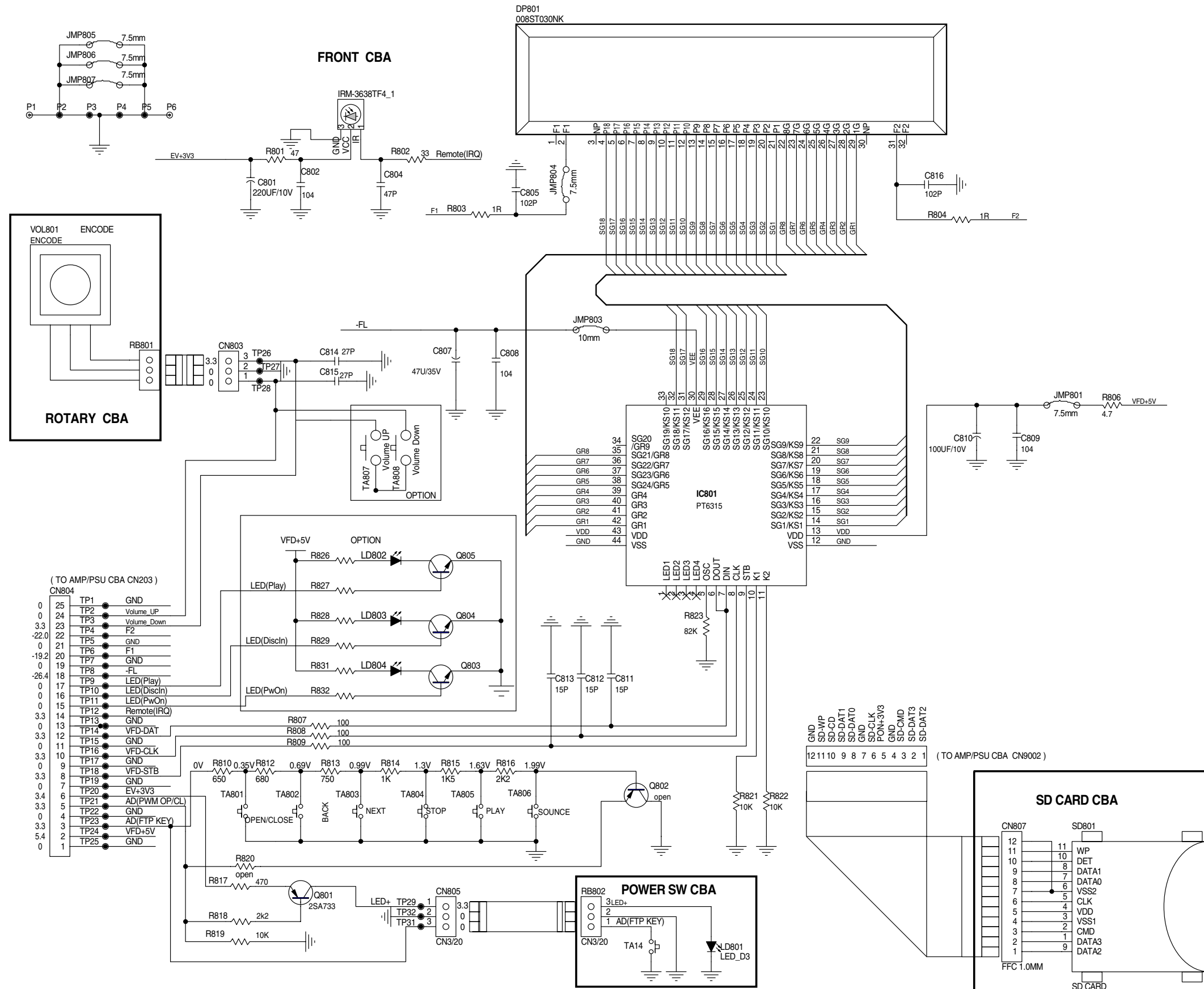
BD Main 2 Schematic Diagram

E1S00SCB2
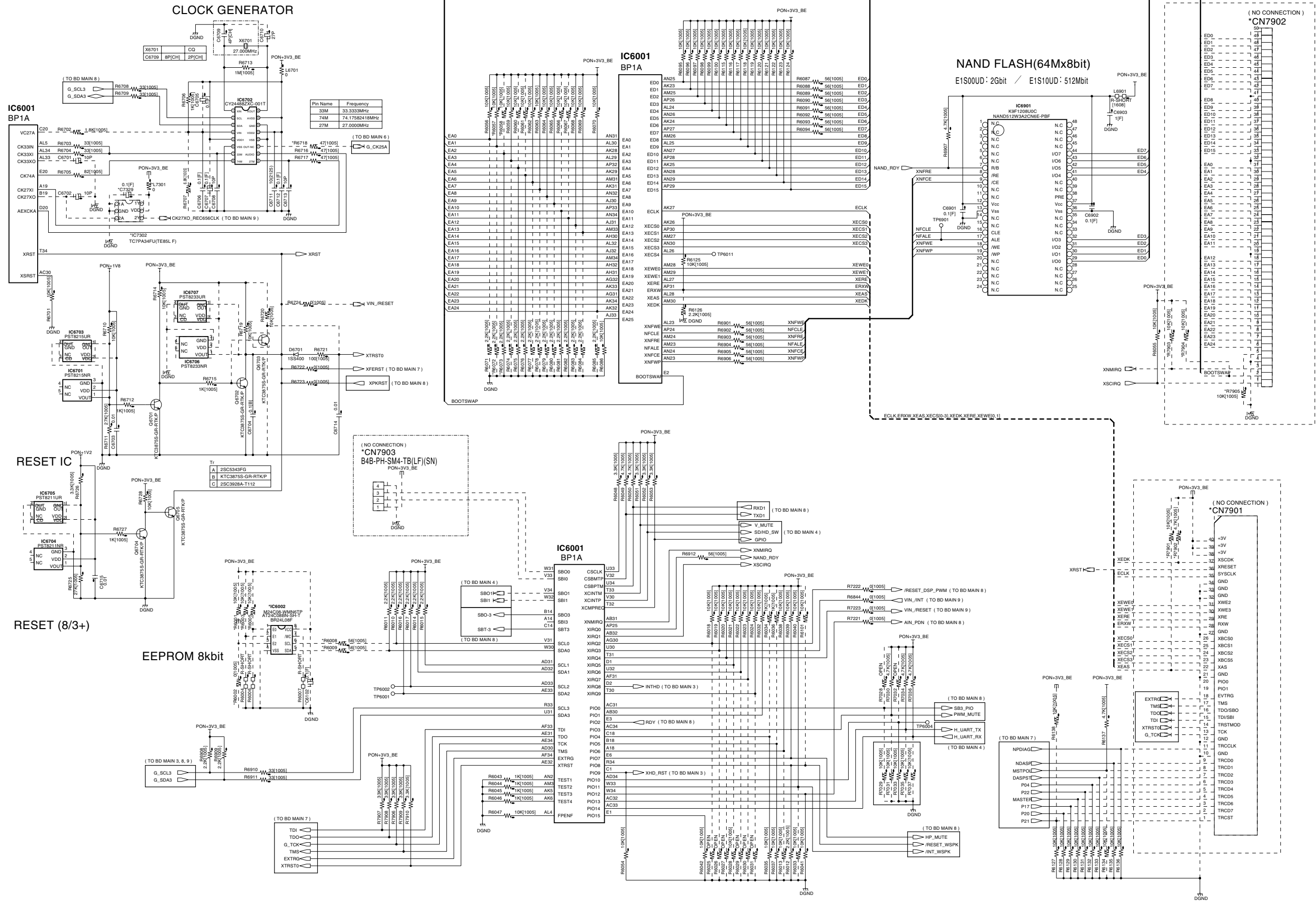
BD Main 3 Schematic Diagram

IC6001
BP1A

IC7501
MN864707

IC7502
ICS574
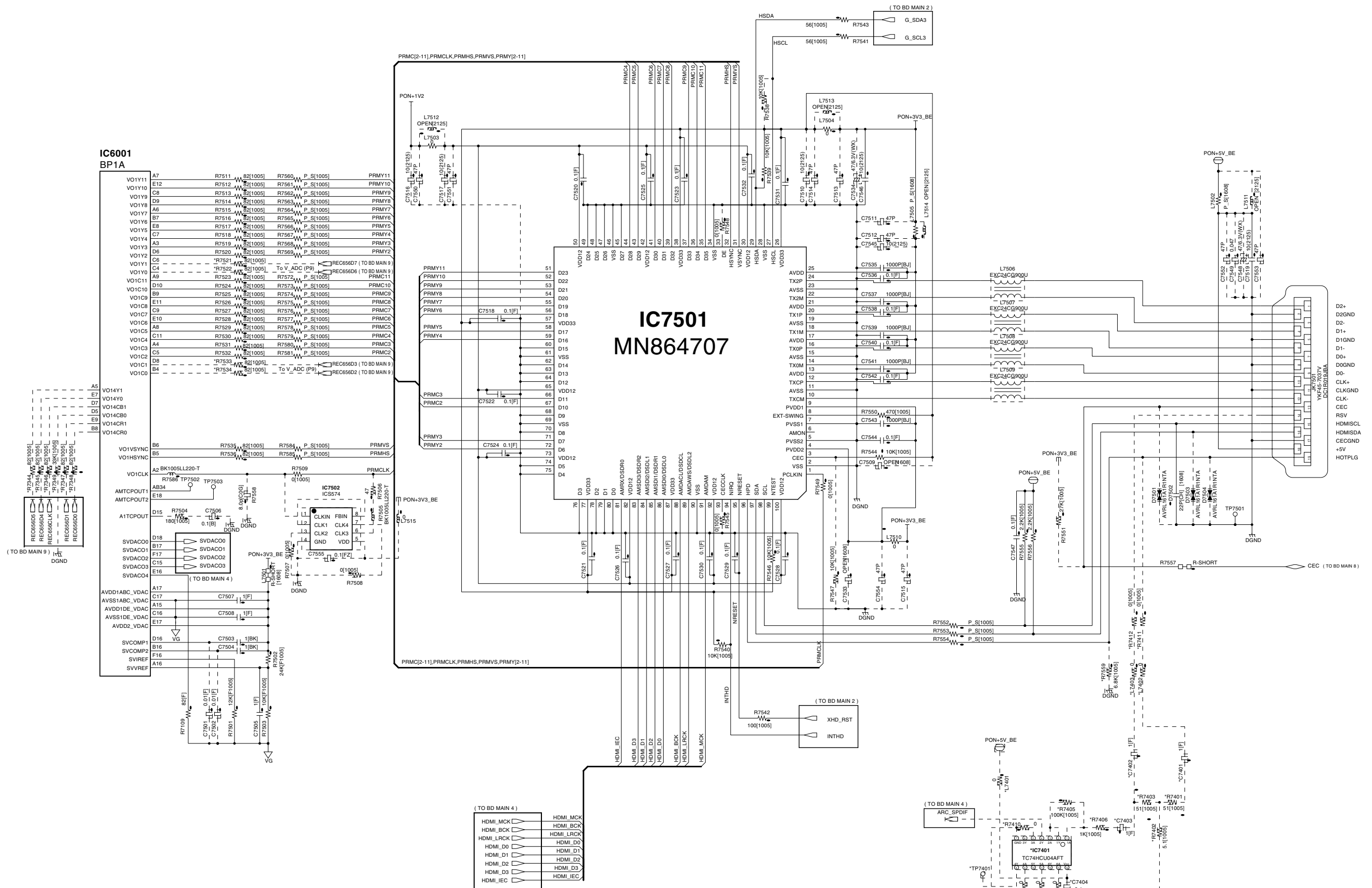
BD Main 4 Schematic Diagram
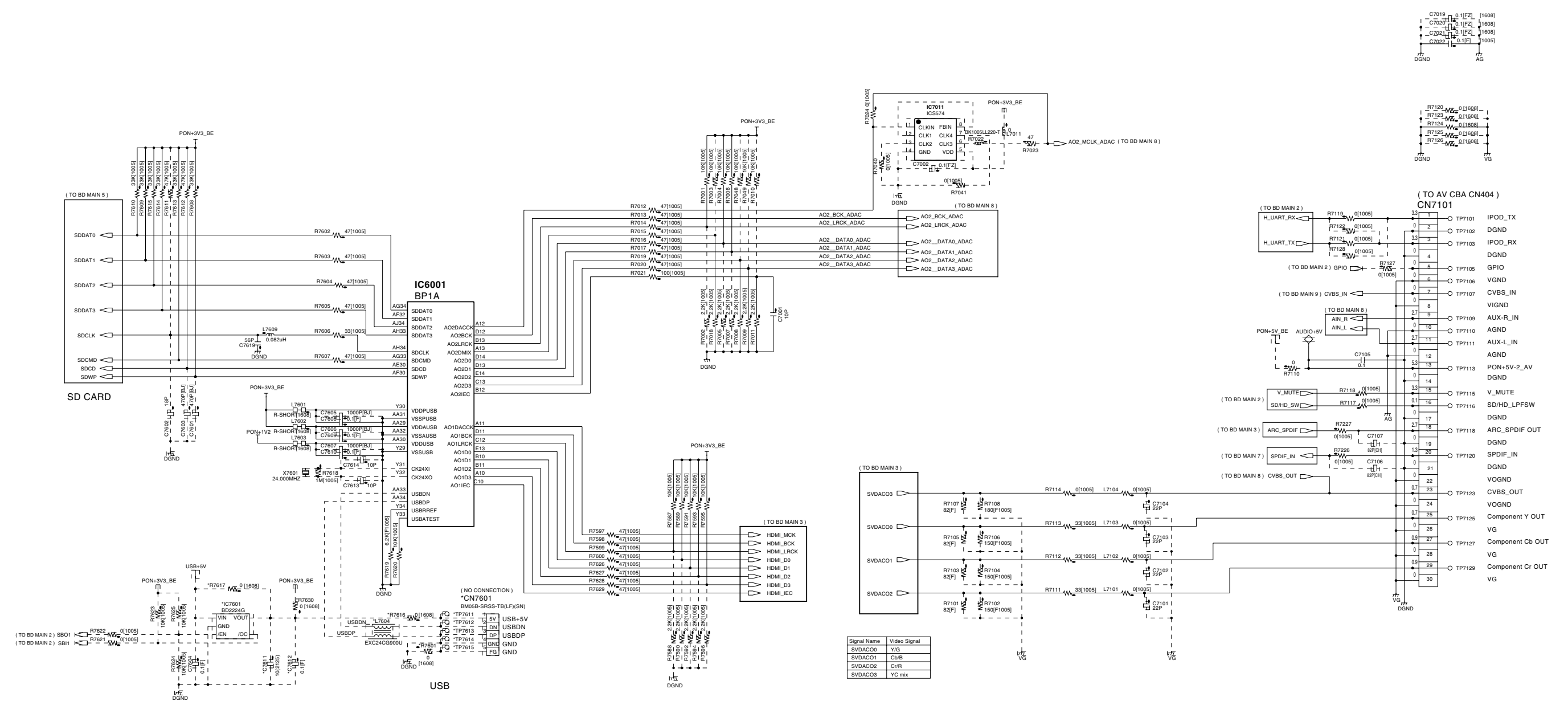
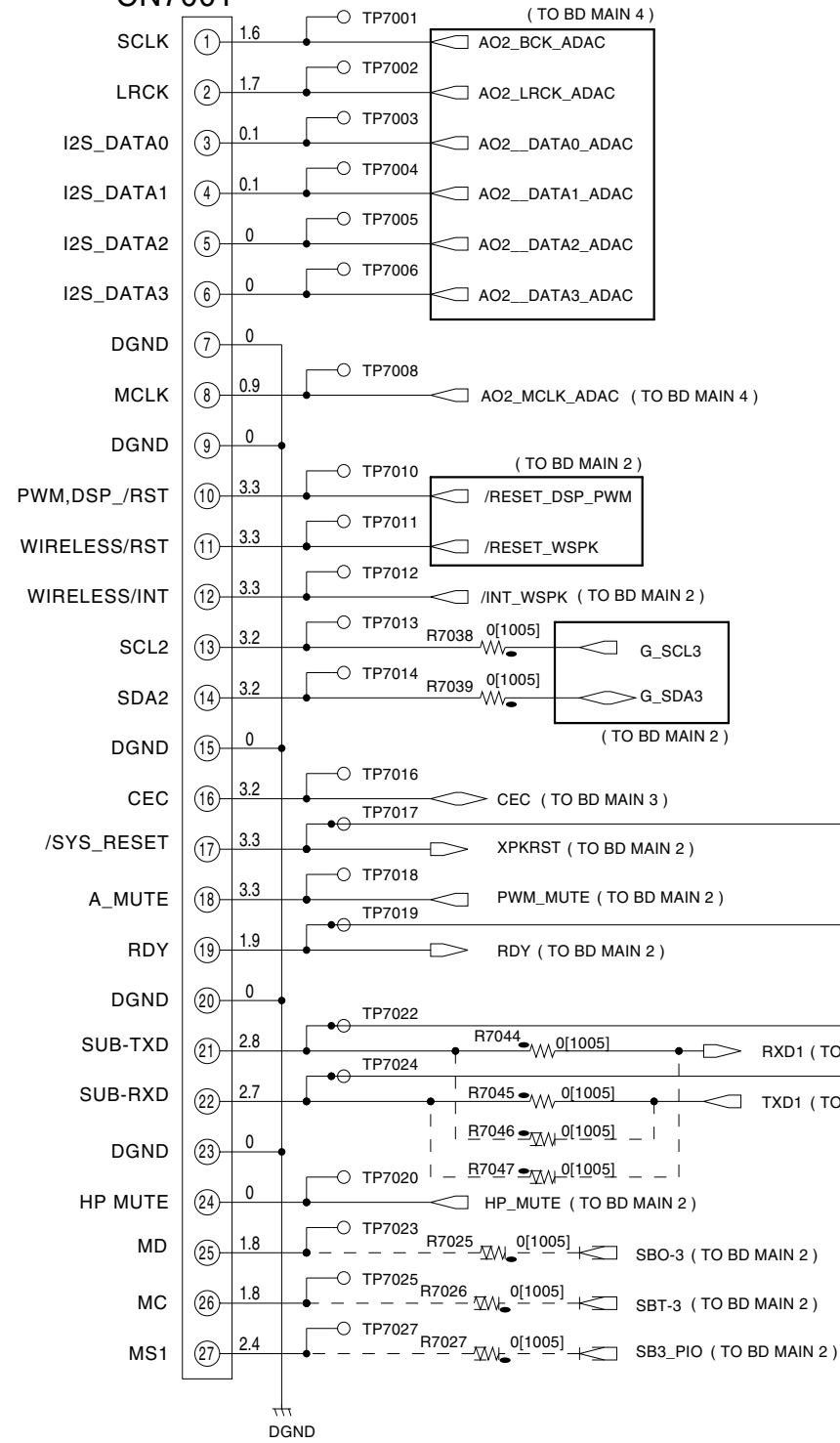# BD Main 5 Schematic Diagram
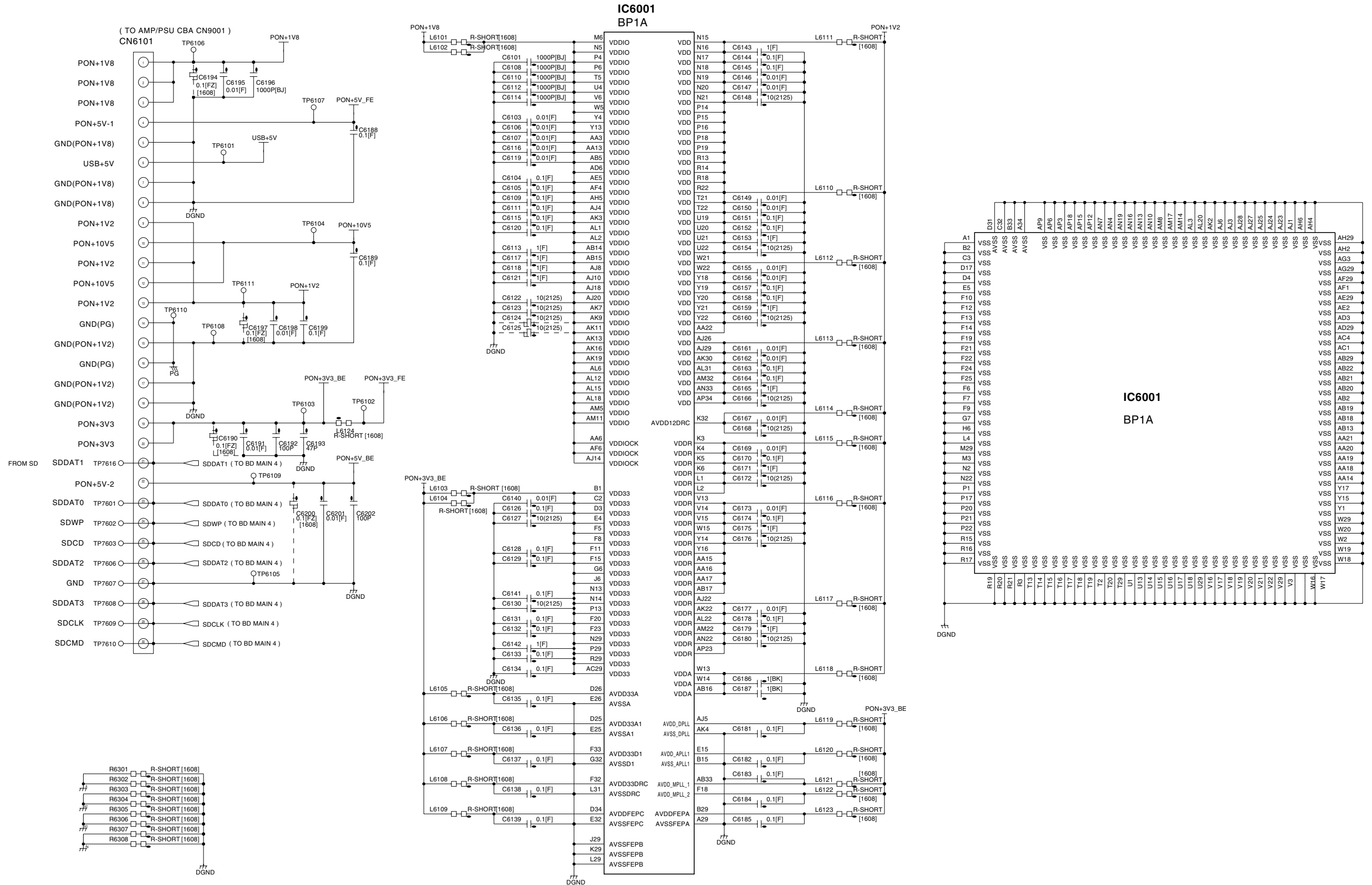
BD Main 6 Schematic Diagram
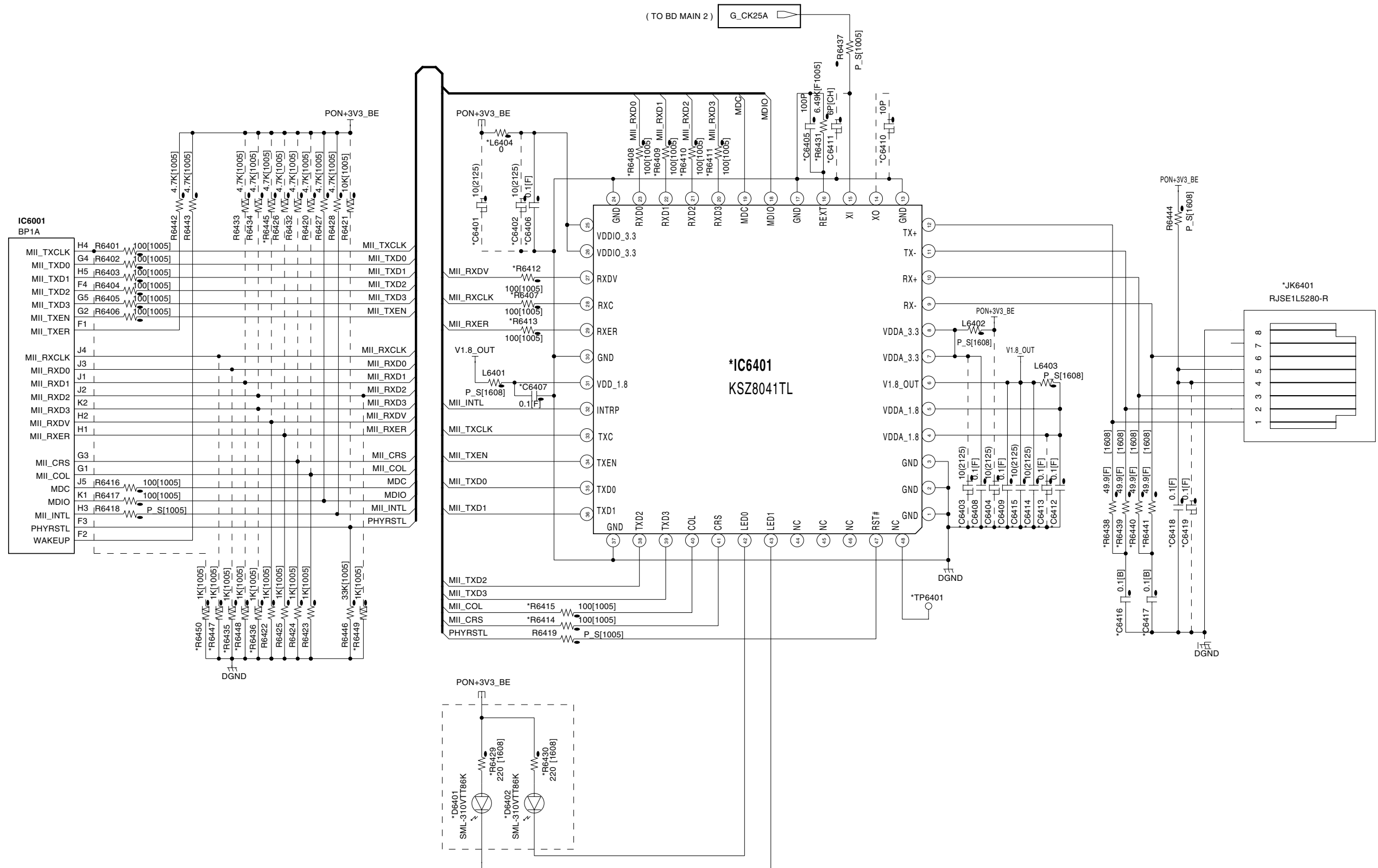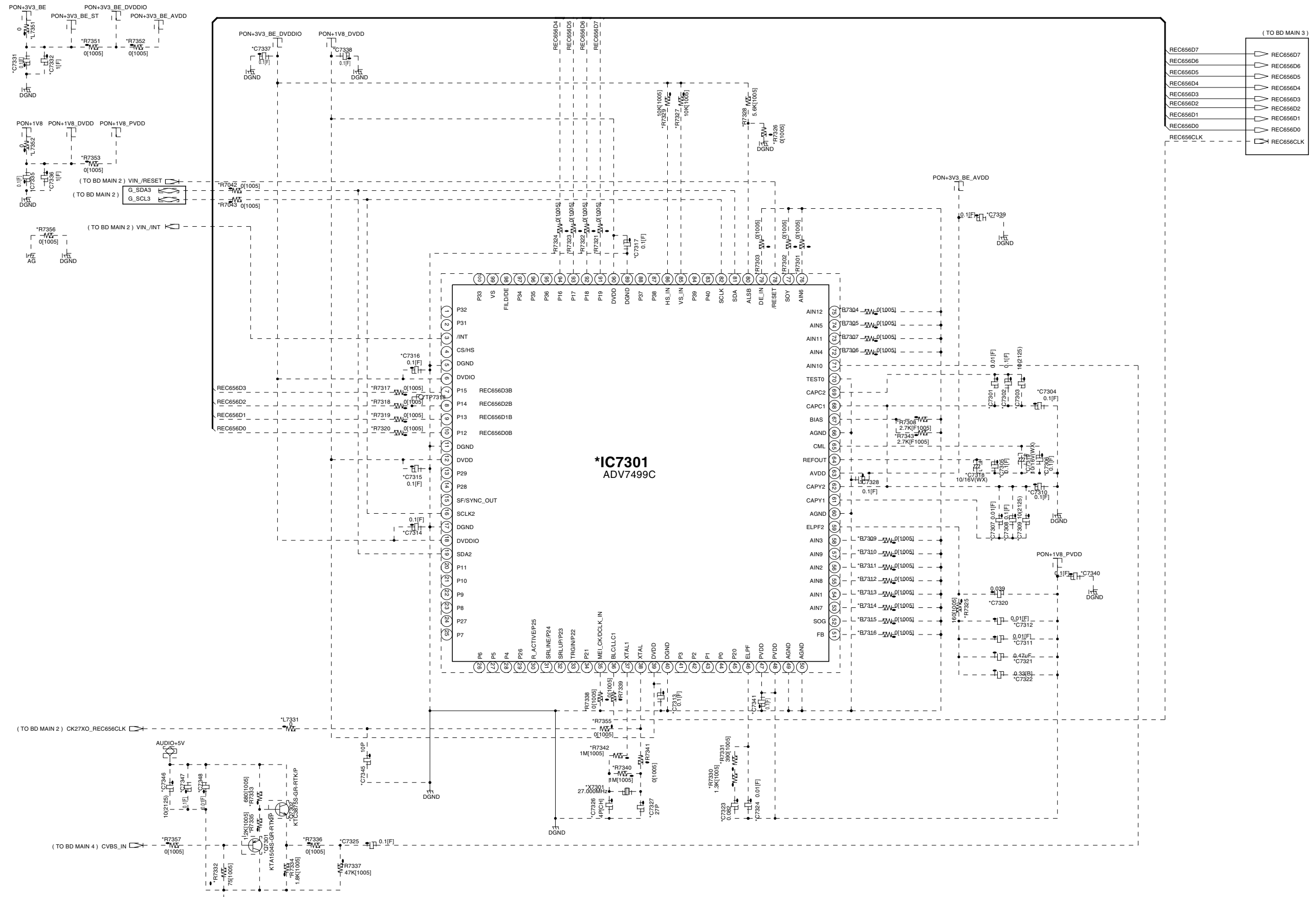
BD Main 7 Schematic Diagram

E1S00SCB7
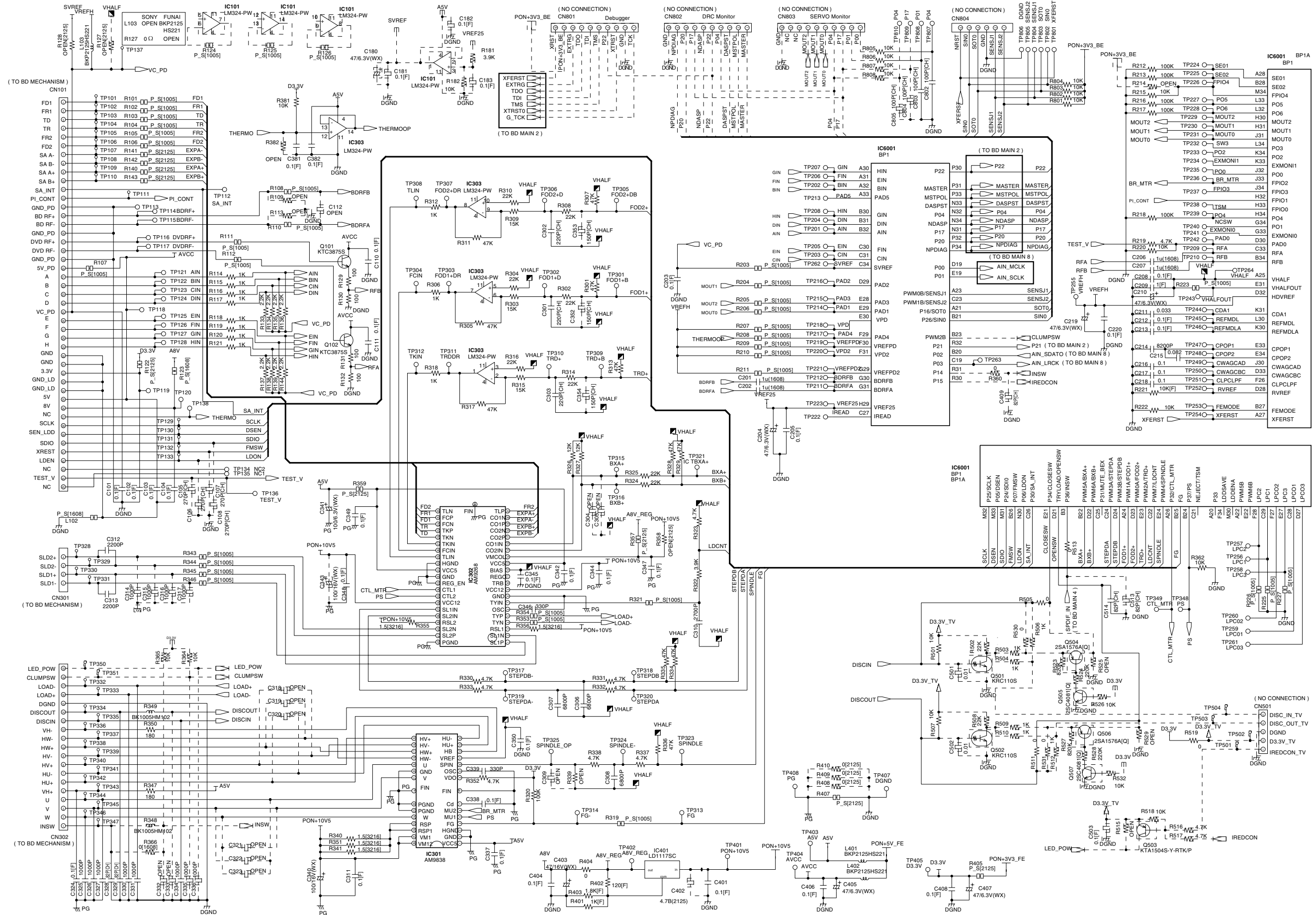
BD Main 8 Schematic Diagram
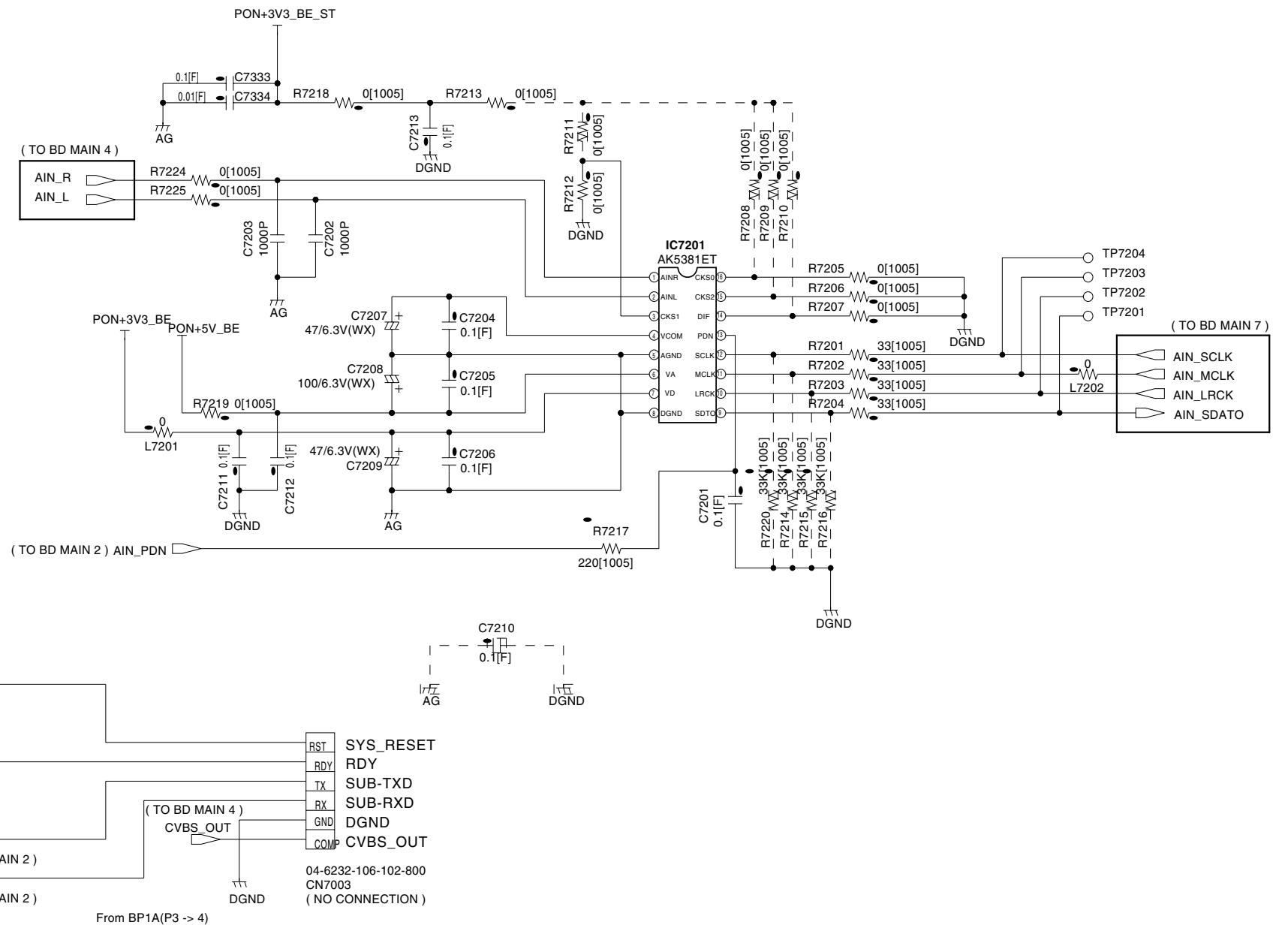
BD Main 9 Schematic Diagram

*IC7301
ADV7499C

AMP/PSU CBA Top View
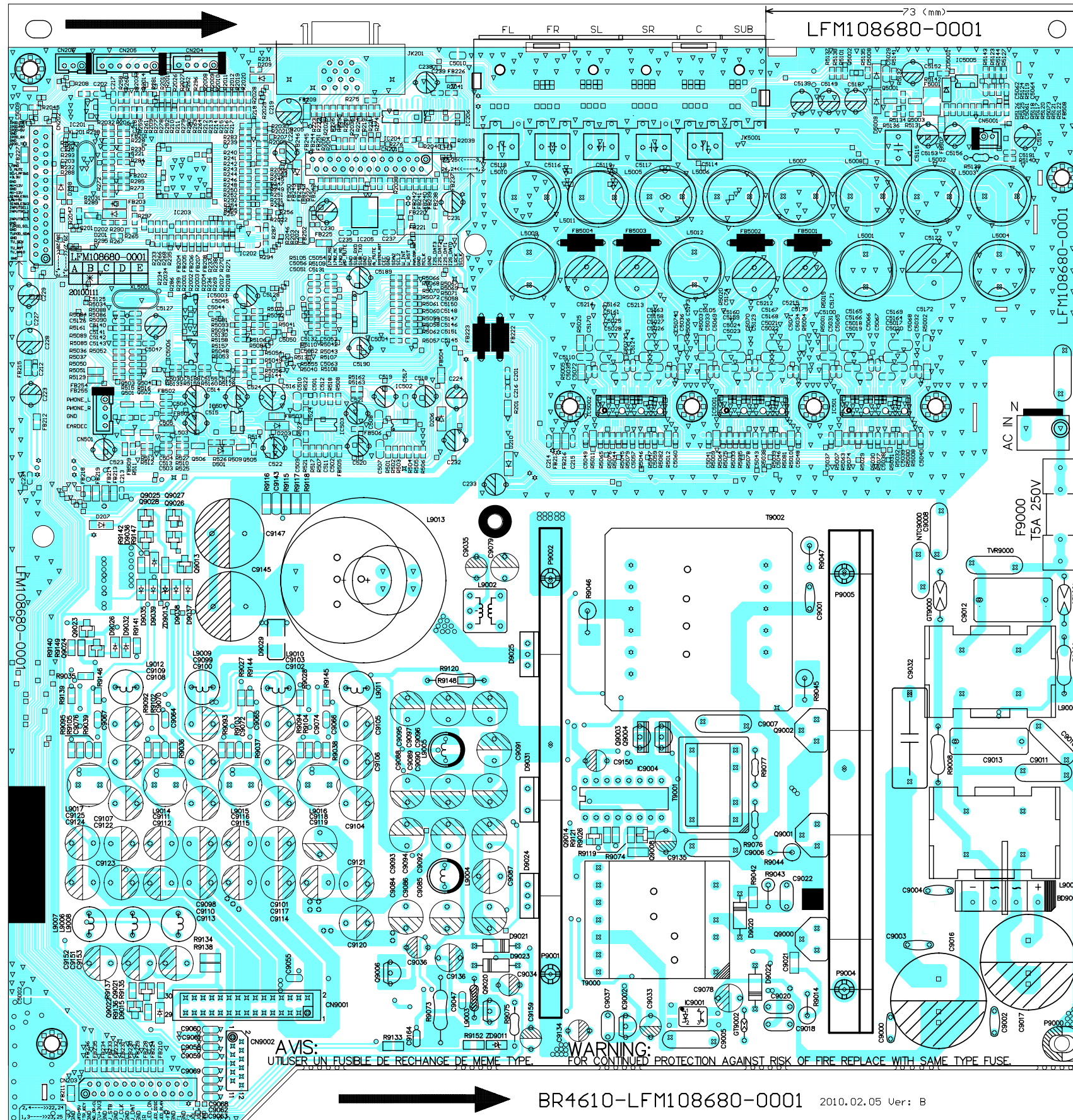
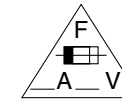LFM108680-0001

BR4610-LFM108680-0001   2010.02.05 Ver: B

CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F9000) is blown , check to see that all components in the power supply
circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.

NOTE:
The voltage for parts in hot circuit is measured using
hot GND as a common terminal.
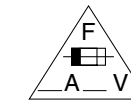
CAUTION !
For continued protection against fire hazard,
replace only with the same type fuse.
ATTENTION : Pour une protection continue les risqes
d'Incele n'utiliser que des fusible de même type.
Risk of fire-replace fuse as marked.
"This symbol means fast operating fuse."
"Ce symbole reprèsente un fusible à fusion rapide."

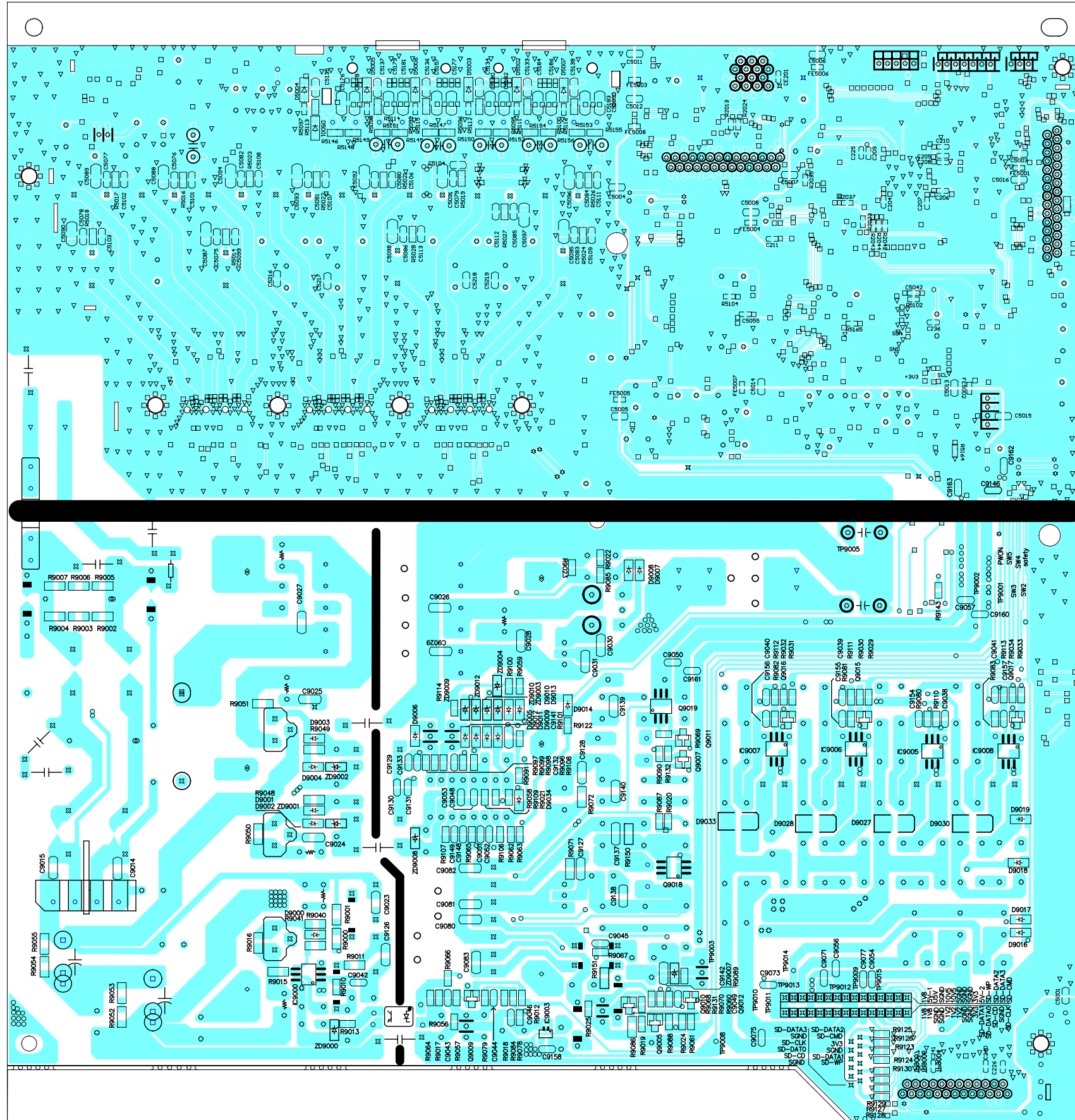WARNING : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE REPLACE WITH SAME TYPE FUSE.

AVIS: UTILISER UN FUSIBLE DE RECHANGE DE MEME TYPE.

F9000
T5A 250V

AMP/PSU CBA Bottom View
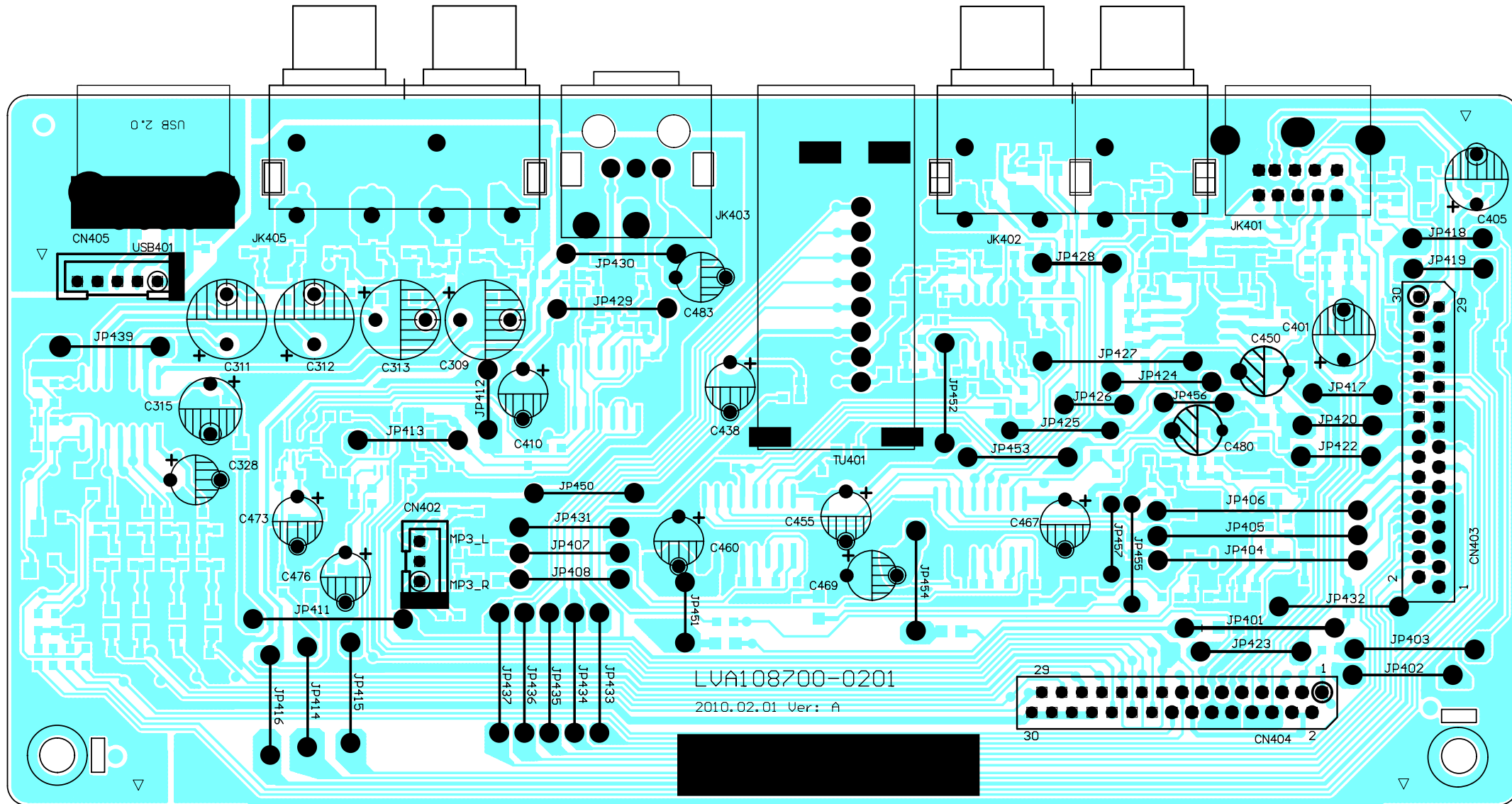
AV CBA Top View

AV CBA Bottom View
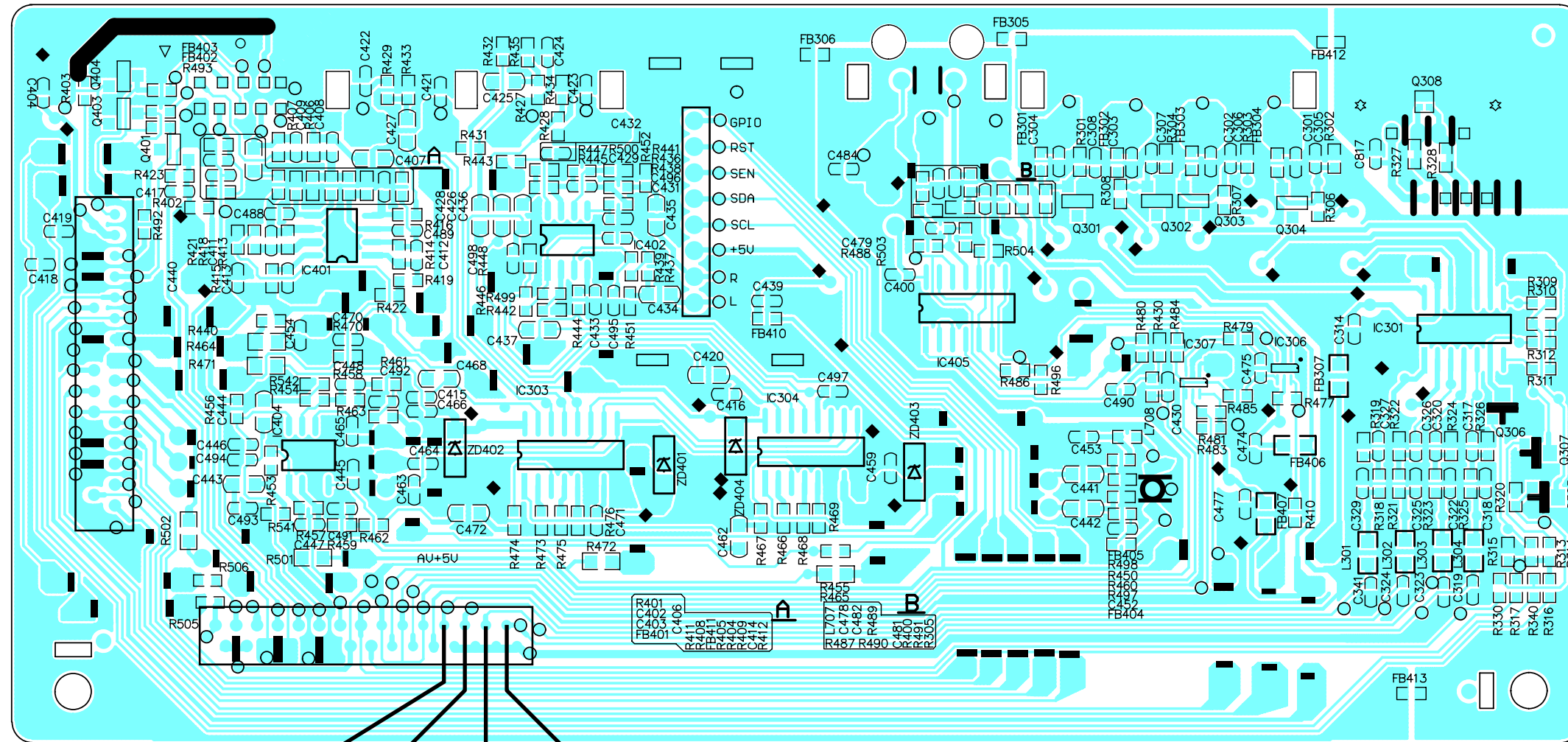
WF4
PIN 23 OF
CN404

WF1
PIN 25 OF
CN404

WF2
PIN 27 OF
CN404

WF3
PIN 29 OF
CN404

Front CBA Top View
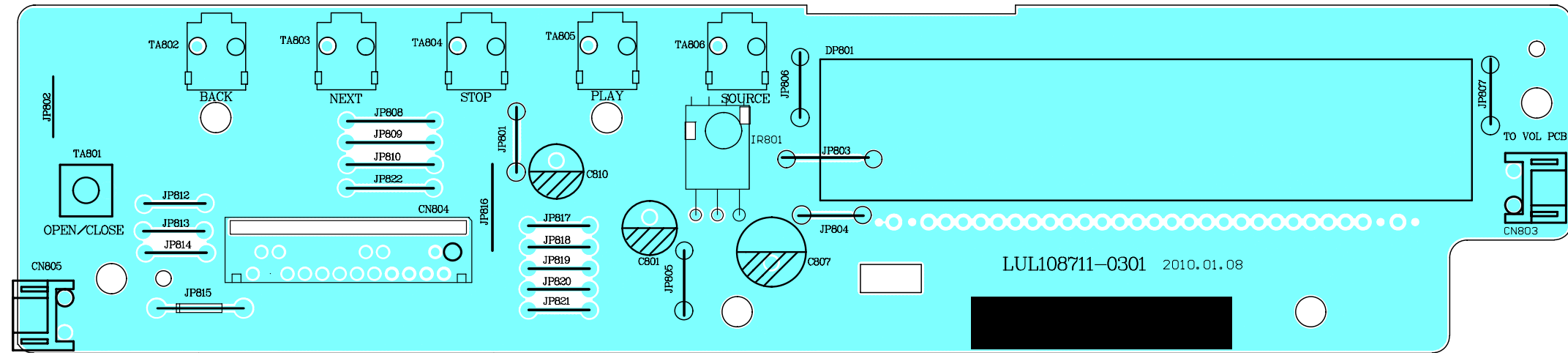
Front CBA Bottom View

Power SW CBA Top View

CN802
TA14
JP811
STANDBY
LD801
LUL108920-1601
2010.01.08
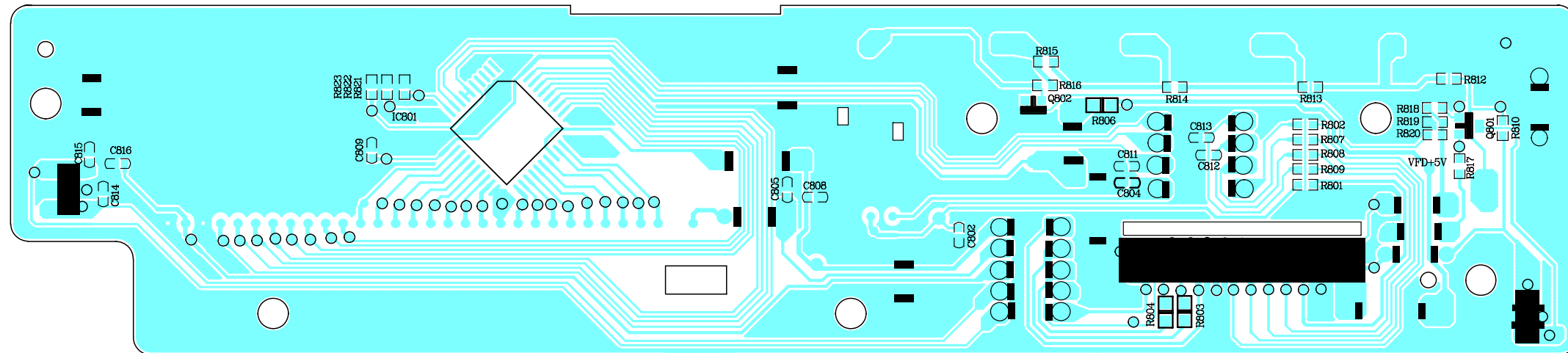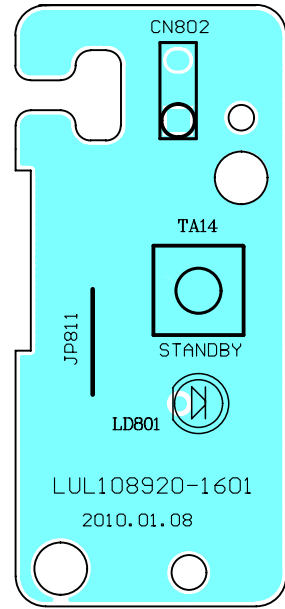
Power SW CBA Bottom View

MP3 CBA Top View

JK406
LFA108910-1601
2010.01.08

MP3 CBA Bottom View

GND
L   R
CN406

Rotary CBA Top View

VOL801
R8801
2010.01.08   LVA108750-2801
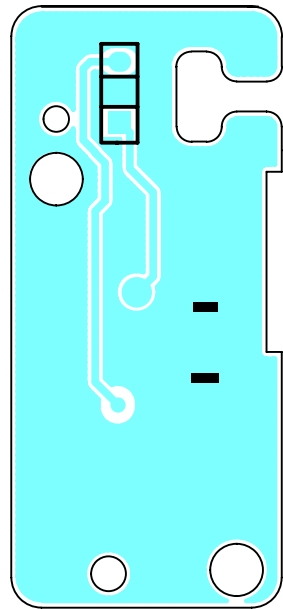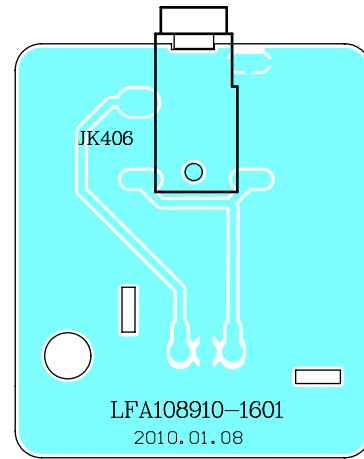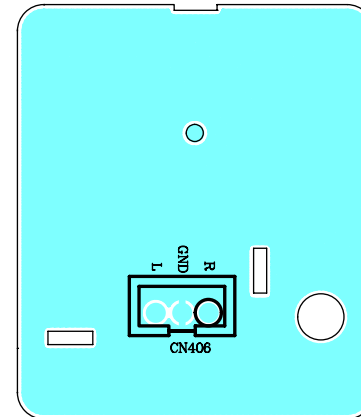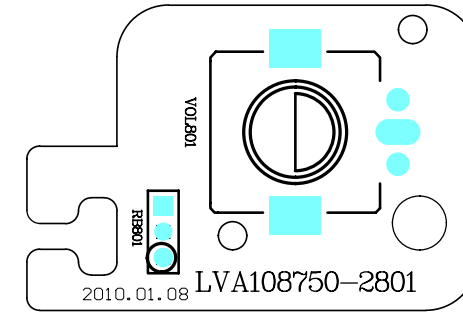
Rotary CBA Bottom View

SD Card CBA Top View

PH=1.0mm
LFA-108732-0801
2010.01.08
SD801
WP
DATA1
VSS2
VDD
CMD
DATA2
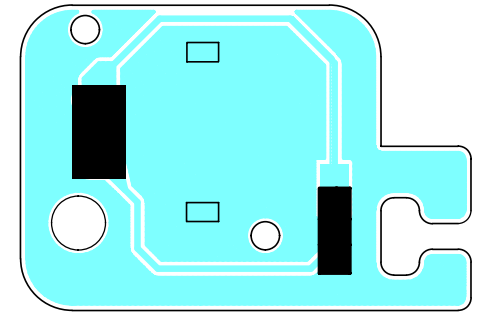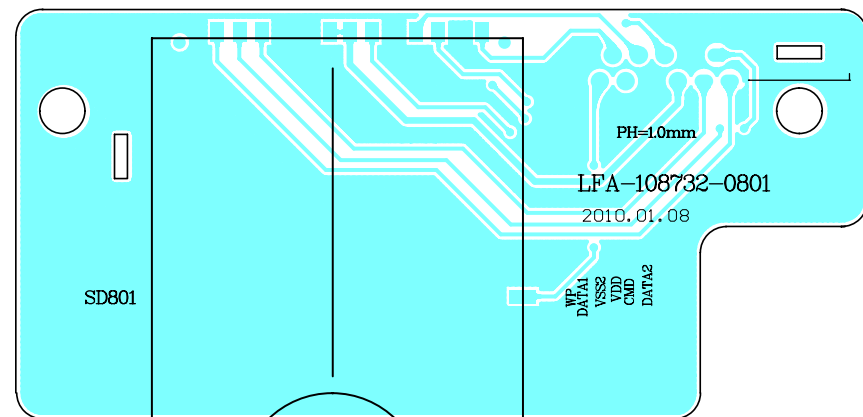
SD Card CBA Bottom View

4 GND
2 DATA3
6 CK
CN807
12 GND
10 DET
8 DATA0
1 DATA2
3 CMD
5 VDD
7 GND
9 DATA1
11 WP
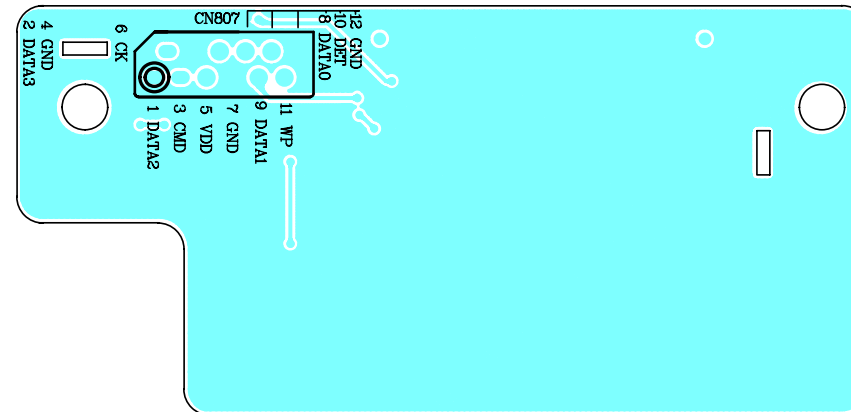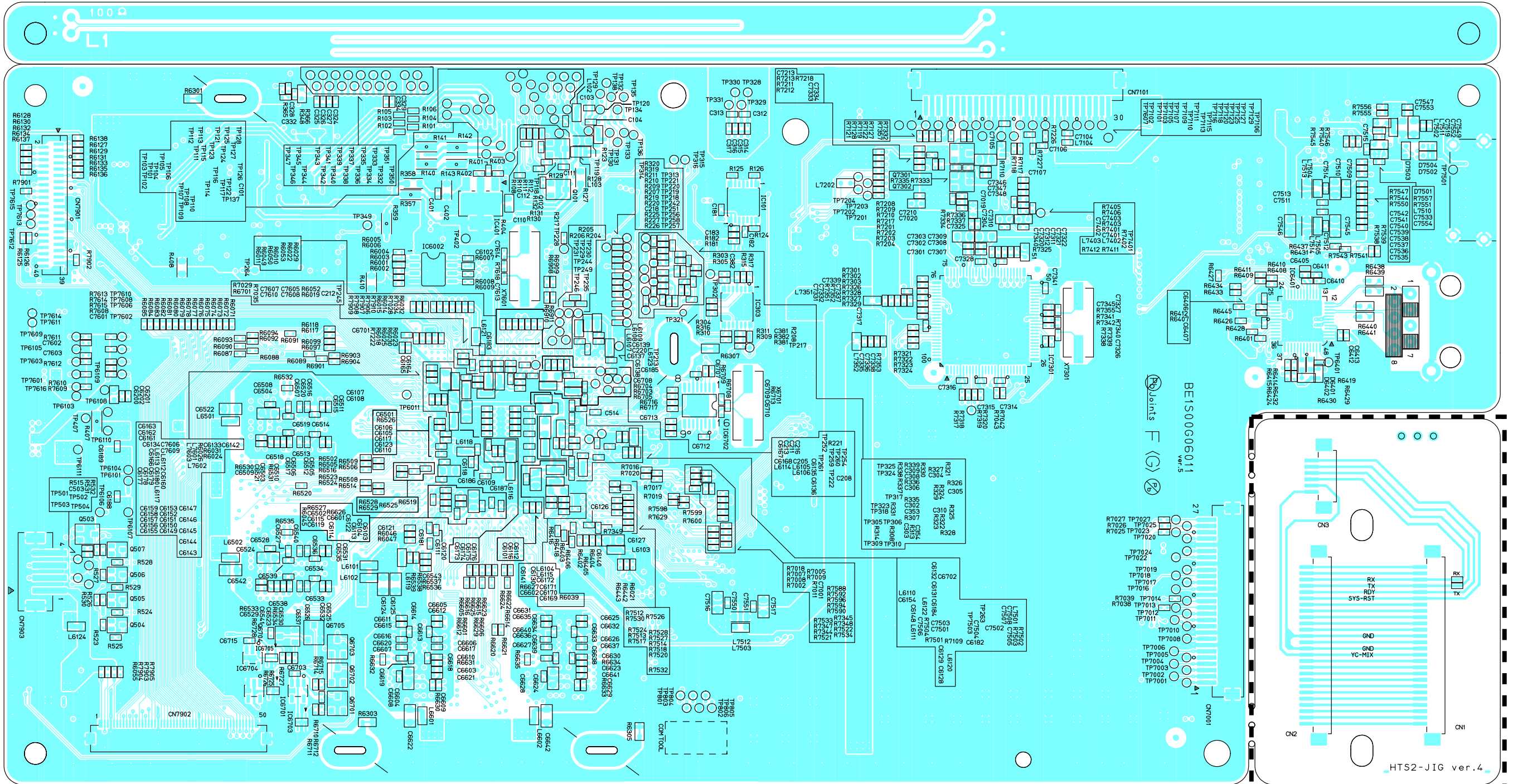
Not Used

BD Main CBA Bottom View
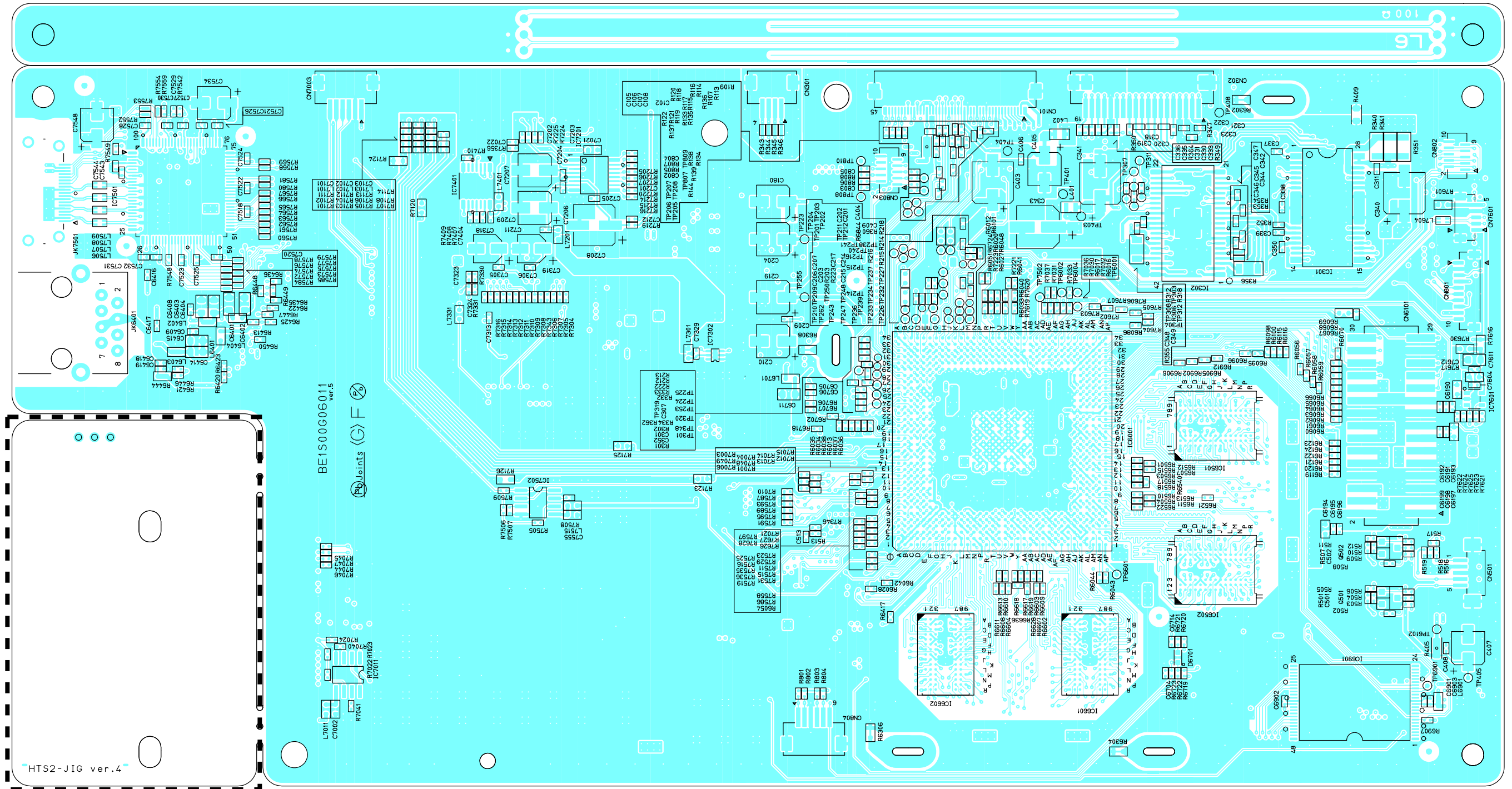
Not Used

WAVEFORMS

WF1 Pin 25 of CN404

Component Y   0.2V   20μsec

NOTE:
Input: COLOR BAR SIGNAL
(WITH 1KHz AUDIO SIGNAL)

WF2 Pin 27 of CN404

Component Cb   0.2V   20μsec

WF3 Pin 29 of CN404

Component Cr   0.2V   20μsec

WF4 Pin 23 of CN404

CVBS   0.5V   20μsec

WIRING DIAGRAM

HDMI-CONNECTOR

CN6101

CN9001

1	PON+1V8	1
2	PON+1V8	2
3	PON+1V8	3
4	PON+5V-1	4
5	SGND	5
6	USB+5V	6
7	GND	7
8	GND	8
9	PON+1V2	9
10	PON+10V5	10
11	PON+1V2	11
12	PON+10V5	12
13	PON+1V2	13
14	GND	14
15	GND	15
16	GND	16
17	GND	17
18	GND	18
19	PON+3V3	19
20	PON+3V3	20
21	SD-DATA1	21
22	PON+5V-2	22
23	SD-DATA0	23
24	SD-WP	24
25	SD-CD	25
26	SD-DATA2	26
27	GND	27
28	SD-DATA3	28
29	SD-CLK	29
30	SD-CMD	30

AC CORD

SD CARD SLOT

SD CARD CBA — CN807 / CN9002

1	SD-DATA2	1
2	SD-DATA3	2
3	SD-CMD	3
4	GND	4
5	PON+3V3	5
6	SD-CLK	6
7	GND	7
8	SD-DATA0	8
9	SD-DATA1	9
10	SD-CD	10
11	SD-WP	11
12	GND	12

AMP/PSU CBA — CN201 / CN7001

1	SCLK	1
2	LRCK	2
3	I2S-DATA0	3
4	I2S-DATA1	4
5	I2S-DATA2	5
6	I2S-DATA3	6
7	GND	7
8	MCLK	8
9	GND	9
10	PWM.DSP/RST	10
11	WIRELESS/RST	11
12	WIRELESS/INT	12
13	SCL2	13
14	SDA2	14
15	GND	15
16	CEC	16
17	SYS-RESET	17
18	A-MUTE	18
19	RDY	19
20	GND	20
21	SUB-TXD	21
22	SUB-RXD	22
23	GND	23
24	HP-MUTE	24
25	MD	25
26	MC	26
27	MS	27

WIRELESS JACK

POWER SW CBA — RB802 / CN805

3	LED(+)	1
2	GND	2
1	AD(FTP KEY)	3

FRONT CBA — CN804 / CN203

1	GND	1
2	VFD+5V	2
3	AD(FTP KEY)	3
4	GND	4
5	AD(PWM OP/CL)	5
6	EV+3V3	6
7	GND	7
8	VFD-STB	8
9	GND	9
10	VFD-CLK	10
11	GND	11
12	VFD-DAT	12
13	GND	13
14	REMOTE(IRQ)	14
15	LED(PowerON)	15
16	LED(Disc In)	16
17	LED(Play)	17
18	-FL	18
19	GND	19
20	F1	20
21	GND	21
22	F2	22
23	VOLUME-DOWN	23
24	VOLUME-UP	24
25	GND	25

ROTARY CBA — RB801 / CN803

3	VOLUME-DOWN	3
2	GND	2
1	VOLUME-UP	1

AV CBA — CN202 / CN403

1	GND	1
2	TU-GPIO	2
3	TU-/RST	3
4	TU-/SEN	4
5	GND	5
6	TUPOD-SDA	6
7	GND	7
8	TUPOD-SCL	8
9	GND	9
10	Input-Sel3	10
11	Input-Sel2	11
12	Input-Sel1	12
13	SingleSW2	13
14	AV+5V-2	14
15	SingleSW1	15
16	AV-12V	16
17	GND	17
18	AV+12V	18
19	GND	19
20	+3.3V	20
21	SD/HD-LPFSW1	21
22	V-MUTE	22
23	GND	23
24	IPOD-TX	24
25	GND	25
26	IPOD-RX	26
27	GND	27
28	IPOD+5V	28
29	IPOD+5V	29
30	IPOD-DET	30

IPOD DOCK

DIGITAL AUDIO OUT (COAXIAL)

AUDIO(R) OUT / AUDIO(L) OUT

VIDEO-G/Y OUT / VIDEO-B/Cb OUT / VIDEO-R/Cr OUT

VIDEO -OUT

AV CBA — CN404 / CN7101

1	IPOD-TX	1
2	DGND	2
3	IPOD-RX	3
4	DGND	4
5	GPIO	5
6	VIGND	6
7	CVBS-IN	7
8	VIGND	8
9	AUX-R-IN	9
10	GND	10
11	AUX-L-IN	11
12	GND	12
13	AV+5V-1	13
14	DGND	14
15	V-MUTE1	15
16	SD/HD-LPFSW	16
17	DGND	17
18	ARC-SPDIF OUT	18
19	DGND	19
20	SPDIF-IN	20
21	DGND	21
22	VOGND	22
23	CVBS-OUT	23
24	VOGND	24
25	Component Y OUT	25
26	VOGND	26
27	Component Cb OUT	27
28	VOGND	28
29	Component Cr OUT	29
30	VOGND	30

POWER FAN — CN5001

| 1 | FAN+ | 1 |
| 2 | FAN-GND | 2 |

MP3 CBA — CN402

3	MP3-RIN	3
2	GND	2
1	MP3-LIN	1

MP3 JACK

BD MAIN CBA — CN101

FD1	1
FR1	2
TD	3
TR	4
FR2	5
FD2	6
SA A(-)	7
SA B(-)	8
SA A(+)	9
SA B(+)	10
SA-INT	11
PI-CONT	12
GND	13
BD RF(+)	14
BD RF(-)	15
GND	16
DVD RF(+)	17
DVD RF(-)	18
GND	19
+5V-PD	20
A	21
B	22
C	23
D	24
VC-PD	25
E	26
F	27
G	28
H	29
GND	30
GND	31
+3.3V	32
GND	33
GND	34
+5V	35
+8V	36
NU	37
SCLK	38
SEN-LDD	39
SDIO	40
XRESET	41
LDEN	42
NU	43
TEST-V	44
NU	45

PICKUP — LENS DRIVE / CD/DVD-OEIC / BD-OEIC / LASER DIODE DRIVE

BD-LD / CD-LD / PD-LD / DVD-LD

CN301

SLD1(-)	1
SLD1(+)	2
SLD2(-)	3
SLD2(+)	4

SLED MOTOR

CN302

W	2
V	3
U	4
VH(+)	5
HU(+)	6
HU(-)	7
HV(+)	8
HV(-)	9
HW(+)	10
HW(-)	11
VH(-)	12
DISC-IN	13
DISC-OUT	14
GND	15
LOAD(+)	16
LOAD(-)	17

SPINDLE MOTOR

RELAY CBA

TRAY -OUT / TRAY -IN

LOADING MOTOR

BD MAIN CBA & BD MECHANISM ASSEMBLY

EXPLODED VIEWS

Cabinet

2L040

2L020

2L001

2L001

A3

2L001

B11

BD Main CBA & BD Mechanism Assembly

2L021

2L022

B1

2L022

AV CBA

B10

2L008

2L006

2L008

2L005

2L002

A5

2L007

B13

AMP/PSU CBA

B20

SD Card CBA

2L023

2L024

A4

2L004

Power SW CBA

B21

2L031

2L030

Front CBA

A6

2L030

B21

B12

MP3 CBA

A6

A2

A1X

B21

A7

A6

B12

A21

A6

Rotary CBA

A20

2L050

2L051

A22

See Electrical Parts List
for parts with this mark.

Packing

[HTS3251B/F7]

Upper Side ⟶ Lower Side

⚠ X20   X21   X22   X2   X7   X5

OWNERS MANUAL   QUICK GUIDE

A21   A21

A23

A21

X3

S1-A

A30

S3

X1

S1-B

S4

X10

S10

S2

A21

Some Ref. Numbers
are not in sequence.

[HTS3051B/F7]

X21   ⚠ X20

QUICK GUIDE

OWNERS MANUAL

A21

A21

X7   X5   X2

A23

A21

X6

X3

S1-A

A30

X1

S3

S1-B

A31

X10

A21

S2

Some Ref. Numbers
are not in sequence.

MECHANICAL PARTS LIST

PRODUCT SAFETY NOTE: Products marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully the product safety notice in this service manual. Don't degrade the safety of the product through improper servicing.

NOTE: Parts that are not assigned part numbers (---------) are not available.

Comparison Chart of Models and Marks

Model	Mark
HTS3251B/F7	A
HTS3051B/F7	B

Ref. No.	Mark	Description	Part No.
A1X		FRONT ASSEMBLY E1S00UD	1VM124299
A2		CHASSIS E1S00UD	1VM124240
A3	A	TOP COVER E1S00UD	1VM124241
A3	B	TOP COVER E1S02UD	1VM333404
A4	A	REAR PANEL E1S00UD	1VM228902
A4	B	REAR PANEL E1S02UD	1VM333402
A5		FAN COVER E1S00UD	1VM332438
A6		FOOT E5730JD	0VM415425
A7		VOLUME KNOB E1S00UD	1VM332231
A20	A	MODEL NO LABEL E1S00UD	----------
A20	B	MODEL NO LABEL E1S02UD	---------
A21	A	BAR CODE LABEL E1S00UD	----------
A21	B	BARCODE LABEL E1S02UD	----------
A22		LICENSE LABEL E1S00UD	----------
A23		REGISTRATION CARD(PHILIPS) A01F2UH	1EMN25799B
A30	A	TOPPER POP E1S00UD	----------
A30	B	TOPPER POP E1S02UD	----------
A31	B	LABEL EAS L0951UB	----------
2L001		SCREW TAP TIGHT M3X5 BIND HEAD+BLK NI	GBHC3050
2L002		SCREW TAP TIGHT M3X5 BIND HEAD+BLK NI	GBHC3050
2L004		SCREW TAP TIGHT M3X5 BIND HEAD+BLK NI	GBHC3050
2L005		SCREW TAP TIGHT M3X5 BIND HEAD+BLK NI	GBHC3050
2L006		SCREW TAP TIGHT M3X5 BIND HEAD+BLK NI	GBHC3050
2L007		SCREW B-TIGHT M3X8 BIND HEAD+	GBHB3080
2L008		SCREW B-TIGHT M3X8 BIND HEAD+	GBHB3080
2L020		SCREW C-TIGHT M3X6 E5610UD	0VM412937A
2L021		SCREW C-TIGHT M3X6 E5610UD	0VM412937A
2L022		SCREW C-TIGHT M3X6 E5610UD	0VM412937A
2L023		SCREW C-TIGHT M3X6 E5610UD	0VM412937A
2L024		SCREW C-TIGHT M3X6 E5610UD	0VM412937A
2L030		SCREW P-TIGHT M3X8 BIND HEAD+	GBJP3080
2L031		SCREW P-TIGHT M3X8 BIND HEAD+	GBJP3080
2L040		SCREW S-TIGHT M3X10 E5610UD	0VM412936A
2L050		WASHER E1S00UD	1VM435260
2L051		NUT E1S00UD	1VM435259
B1		PCB BRACKET FRONT E1S00UD	1VM332224
B10		LOCKING CARD SPACER KGLS-16S	XP00300WD001
B11		M-PCB PLATE EARTH E7A00UD	1VM423358
B12		LEAD CLAMPER 100MM	1790356

Ref. No.	Mark	Description	Part No.
B13		FAN EARTH PLATE E1S00UD	1VM333557
B20		RUBBER E1S00UD	1VM434380
B21		HIMELON TAPE(30*5) E7C40UD	1VM425436
PACKING			
S1-A	A	SIDE PAD L E1S00UD	1VM124759
S1-A	B	SIDE PAD L E1S10UD	1VM021772
S1-B	A	SIDE PAD R E1S00UD	1VM124760
S1-B	B	SIDE PAD R E1S10UD	1VM021773
S2	A	GIFT BOX CARTON E1S00UD	1VM333237
S2	B	GIFT BOX CARTON E1S02UD	1VM333401
S3		SET BAG E1S00UD	1VM435780
S4	A	SPEAKER TOP PAD E1S00UD	1VM124779
S10	A	SIDE CARTON E1S00UD	1VM435519
ACCESSORIES			
X1		REMOTE CONTROL UNIT NB545UD	NB545UD
X2		BATTERY GR03M	XB0M371GLP01
X3		ACCESSORY BAG E5795ED	0VM416059
X5	A	AV CORD WPZ1520TM001	WPZ1520TM001
X5	B	AV CORD WPZ1520TM002	WPZ1520TM002
X6	B	BAG REMOCON STD REMOCON	0VM406766
X7		FM ANTENNA CABLE	WX1E9000-081
X10	A	5.1CH SPEAKER UNIT AND503251-BW01	USPSPKHYE001
X10	B	5.1CH SPEAKER UNIT AND50410B-FA01	USPSPKHYE002
X20 ⚠	A	OWNERS MANUAL E1S00UD	1VMN29313
X20 ⚠	B	OWNERS MANUAL E1S02UD	1VMN29413
X21	A	QUICK GUIDE E1S00UD	1VMN29314
X21	B	QUICK GUIDE E1S02UD	1VMN29414
X22	A	NETFLIX GUIDE E5PG0UD	1VMN28453A

ELECTRICAL PARTS LIST

PRODUCT SAFETY NOTE: Products marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully the product safety notice in this service manual. Don't degrade the safety of the product through improper servicing.

NOTES:

1. Parts that are not assigned part numbers (---------) are not available.

2. Tolerance of Capacitors and Resistors are noted with the following symbols.

   C.....±0.25%   D.....±0.5%   F.....±1%

   G.....±2%   J......±5%   K.....±10%

   M.....±20%   N.....±30%   Z.....+80/-20%

Comparison Chart of Models and Marks

Model	Mark
HTS3251B/F7	A
HTS3051B/F7	B

BD MAIN CBA & BD MECHANISM ASSEMBLY

Ref. No.	Mark	Description	Part No.
	A	BD MAIN CBA & BD MECHANISM ASSEMBLY	N77P5CUN
	B	BD MAIN CBA & BD MECHANISM ASSEMBLY	N77P7CUN

AV CBA

Ref. No.	Description	Part No.
	AV CBA	UPB000ESC001

AMP/PSU CBA

Ref. No.	Description	Part No.
	AMP/PSU CBA	UPBAMPESC001

FRONT CBA

Ref. No.	Description	Part No.
	FRONT CBA	UPB000ESC002

SD CARD CBA

Ref. No.	Description	Part No.
	SD CARD CBA	UPB000ESC003

MP3 CBA

Ref. No.	Description	Part No.
	MP3 CBA	UPB000ESC004

POWER SW CBA

Ref. No.	Description	Part No.
	POWER SW CBA	UPB000ESC006

ROTARY CBA

Ref. No.	Description	Part No.
	ROTARY CBA	UPB000ESC005

PHILIPS

SERVICE MANUAL

This Service Manual shows only the differences between the HTS3051BV/F7 model and the original model HTS3051B/F7. All other information is described in the service manual of the original model HTS3051B/F7.

BLU-RAY DISC HOME THEATER
HTS3051BV/F7

Different parts from the original model HTS3051B/F7

Ref. No.	Description	Parts No.
MECHANICAL PARTS		
A1X	FRONT ASSEMBLY E1S00UD	1VM124299F
A3	TOP COVER E1S07UD	1VM335219
A20	MODEL NO LABEL E1S07UD	----------
A21	BARCODE LABEL E1S07UD	----------
A30	TOPPER POP E1S07UD	----------
S2	GIFT BOX CARTON E1S07UD	1VM334878
X20⚠	OWNERS MANUAL E1S07UD	1VMN29994
X21	QUICK GUIDE E1S07UD	1VMN29995
X32	VUDU SHEET E5S20UD	1VMN30133
ELECTRICAL PARTS		
	BD MAIN CBA & BD MECHANISM ASSEMBLY	N77PCCUN
	AV CBA	UPB000ESC011
	AMP/PSU CBA	UPBAMPESC011