

Service
Service
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Service Manual

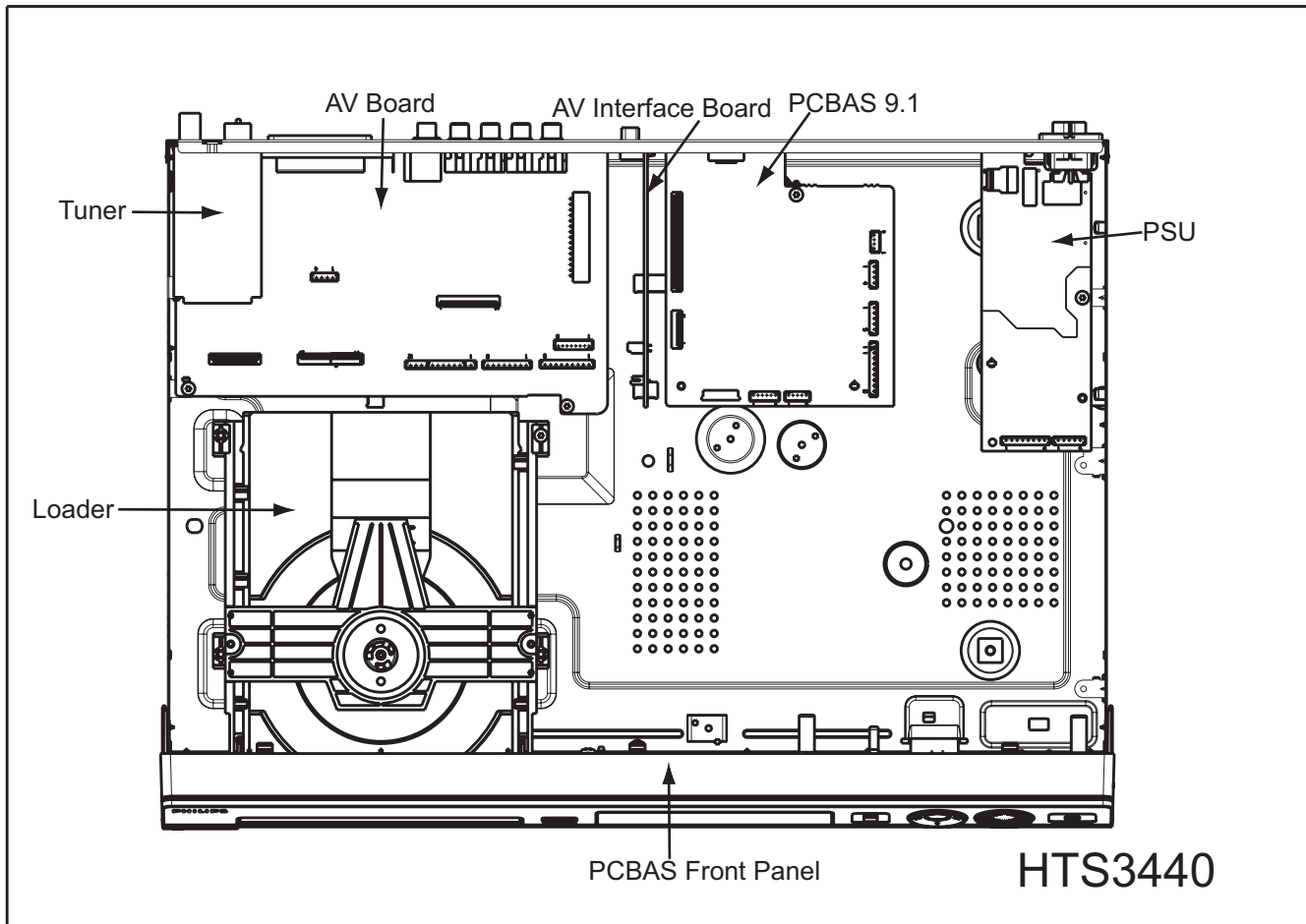


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LOCATION OF PC BOARDS



VERSION VARIATIONS:

Features &	Type /Versions:	HTS3440
Progressive Scan		x
Digital-In (Coax)		x
TV-In		x
Aux-In		x
Y/Pb/Pr (YUV) Component Video Output		x
Coax		
CVBS		x
S-Video Output		x
SCART		
VGA		x

1. Specifications

1.1 General:

Mains voltage	: 120V/230V
Mains frequency	: 50/60Hz
Power consumption	: 70W < 1W Eco standby power < 70W at 1/8 P _{rated} (For main unit)
Dimension main unit	: 435 x 55 x 324mm

1.2 Tuner FM

Tuning range	: 87.5-108MHz
Grid	: 100kHz
IF frequency	: 10.7MHz ± 25kHz
Aerial input	: 75Ω coaxial
Sensitivity at 26dB S/N	: < 7μV
Selectivity at 600kHz bandwidth	: > 25dB
IF rejection	: > 60dB
Image rejection	: > 25dB
Distortion at RF=1mV, dev. 75kHz	: < 3%
-3dB Limiting point	: 8μV
Crosstalk at RF=1mV, dev. 67.5kHz	: > 28dB
Crosstalk at RF=1mV, dev. 40kHz	: > 18dB

MW

Tuning range	: 531-1602kHz 530-1700kHz
Grid	: 9kHz 10kHz
IF frequency	: 450kHz ± 1kHz
Aerial input	: Frame aerial
Sensitivity at 26dB S/N	: < 4.0mV/M
Selectivity at 18kHz bandwidth	: > 20dB
IF rejection	: > 45dB
Image rejection	: > 28dB
Distortion at RF=50mV, m=80%	: < 5%

1.3 AMPLIFIER:

Output power	
Front	: 125W RMS / channel
Rear	: 125W RMS / channel
Center	: 250W RMS
Subwoofer	: 250W RMS
Frequency response ±0.5dB	: 20Hz-20kHz
Hum (Volume Minimum)	: 200nW
Residual noise (Volume Minimum)	: 40nW

Input sensitivity	
Aux In	: 1V ± 3dB at 22kΩ
Scart In	: 0.5V ± 3dB at 22kΩ
Output sensitivity	
Line Out (Left/Right)	: 1V ± 2dB at 10kΩ
Scart Out (Left/Right)	: 1V ± 2dB at 10kΩ

1.4 COMPACT DISC/VCD/DVD:

Video Decoding	: MPEG-1/MPEG-2/ DivX 3/4/5/6, Ultra
Video DAC	: 12 Bits
Signal System	: PAL / NTSC
Video Format	: 4:3 / 16:9

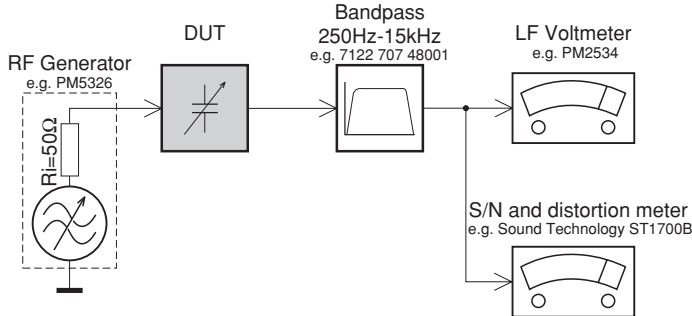
CVBS Out ¹⁾	
CVBS level	: 1.0 ± 0.1V _{p-p}
Luminance S/N	: >= 55dB
S-Video Out ¹⁾	
Y level	: 1.0 ± 0.1V _{p-p}
Y S/N	: >= 55dB
C level (burst)	: 286mV _{pp} +1/-4 dB (NTSC)
RGB/YUV Out ¹⁾	
Amplitude	: 0.7 ± 0.1V _{p-p}
S/N	: >= 60dB

¹⁾ Output terminals to be terminated with 75Ω

2. Measurements Setup, Service Aid & Lead Free Requirements

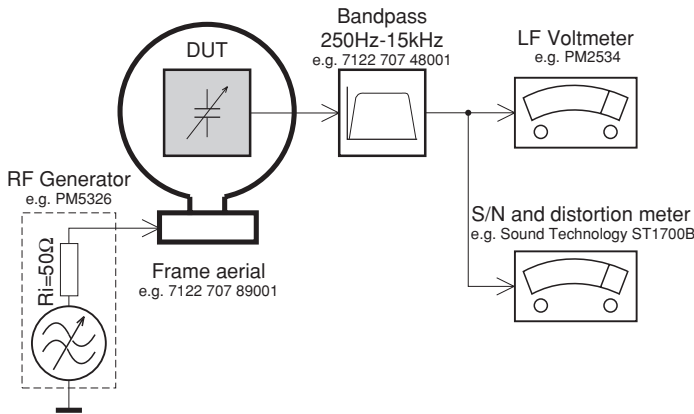
MEASUREMENT SETUP

Tuner FM



Use a bandpass filter to eliminate hum (50Hz, 100Hz) and disturbance from the pilotone (19kHz, 38kHz).

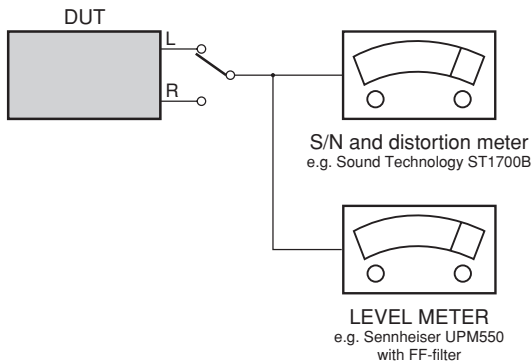
Tuner AM (MW,LW)



To avoid atmospheric interference all AM-measurements have to be carried out in a Faraday's cage. Use a bandpass filter (or at least a high pass filter with 250Hz) to eliminate hum (50Hz, 100Hz).

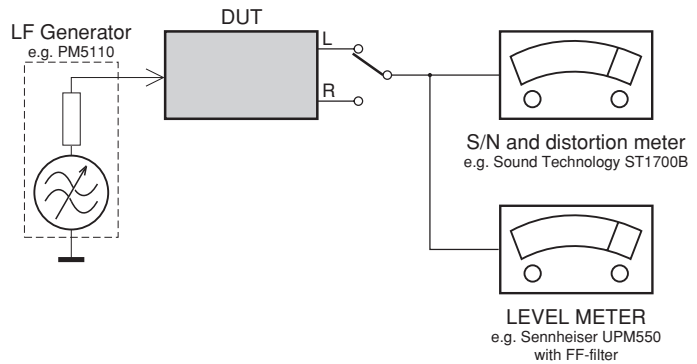
CD

Use Audio Signal Disc SBC429 4822 397 30184 (replaces test disc 3)



Recorder

Use Universal Test Cassette **CrO2** SBC419 4822 397 30069 or Universal Test Cassette **Fe** SBC420 4822 397 30071



SERVICE AIDS

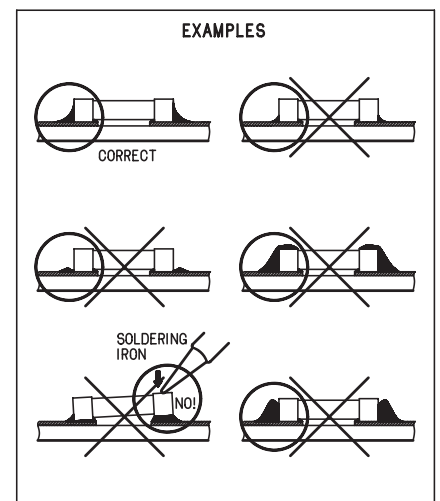
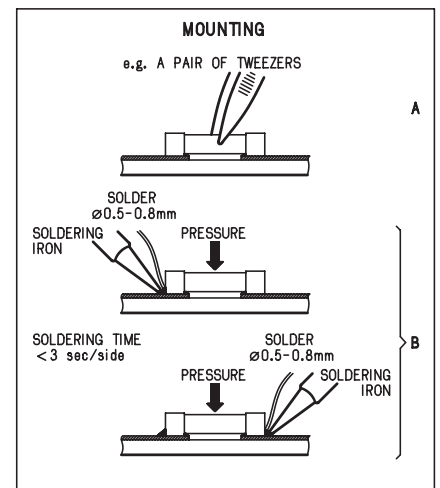
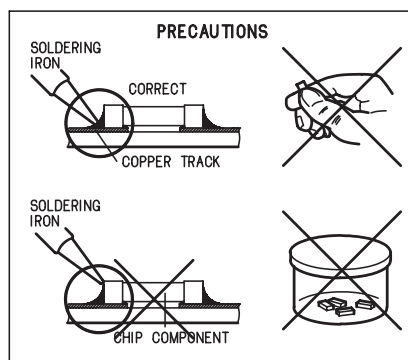
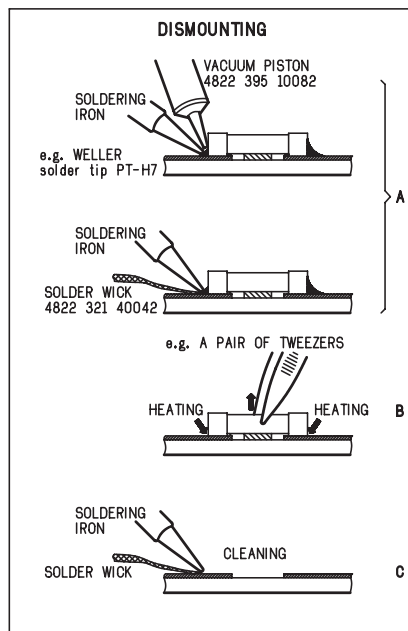
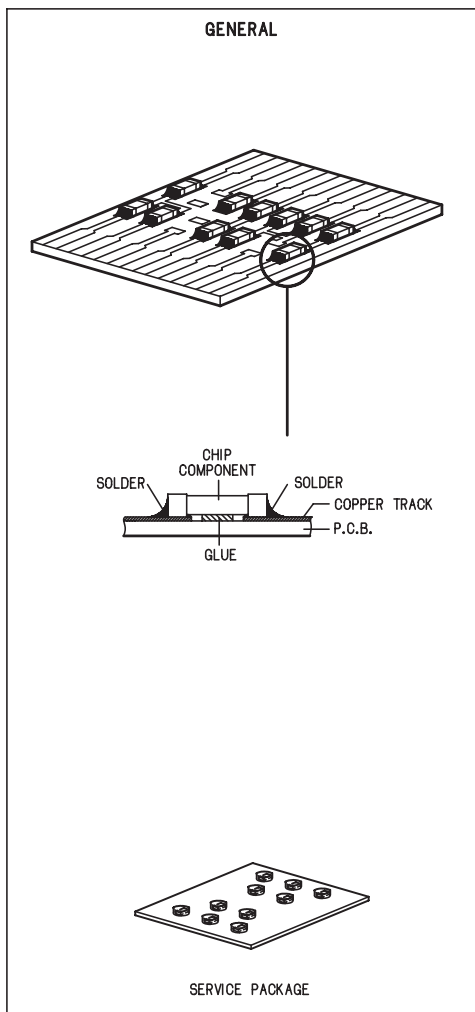
Service Tools:

Universal Torx driver holder	4822 395 91019
Torx bit T10 150mm	4822 395 50456
Torx driver set T6 - T20	4822 395 50145
Torx driver T10 extended	4822 395 50423

Compact Disc:

SBC426/426A Test disc 5 + 5A	4822 397 30096
SBC442 Audio Burn-in Test disc 1kHz	4822 397 30155
SBC429 Audio Signals disc	4822 397 30184
Dolby Pro-logic Test Disc	4822 395 10216

HANDLING CHIP COMPONENTS



(GB) WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.

When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.

ESD**(NL) WAARSCHUWING**

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD). Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen.

Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.

Houd componenten en hulpmiddelen ook op hetzelfde potentiaal.

(F) ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD).

Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation.

Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfiler le bracelet serti d'une résistance de sécurité.

Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

(D) WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD).

Unvorsichtige Behandlung im Reparaturfall kann die Lebensdauer drastisch reduzieren.

Veranlassen Sie, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand verbunden sind mit dem gleichen Potential wie die Masse des Gerätes.

Bauteile und Hilfsmittel auch auf dieses gleiche Potential halten.

(I) AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).

La loro longevità potrebbe essere fortemente ridotta in caso di non osservazione della più grande cauzione alla loro manipolazione.

Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza.

Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

(GB) ESD PROTECTION EQUIPMENT:

Complete Kit ESD3 (small tablemat, wristband, connection box, extension cable and earth cable) 4822 310 10671
Wristband tester 4822 344 13999

(GB)

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified, be used

Safety components are marked by the symbol \triangle .

(NL)

Veiligheidsbepalingen vereisen, dat het apparaat bij reparatie in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast.

De Veiligheidsonderdelen zijn aangeduid met het symbool \triangle .

(F)

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

Less composants de sécurité sont marqués \triangle .

(D)

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden; für Reparaturen sind Original-Ersatzteile zu verwenden.

Sicherheitsbauteile sind durch das Symbol \triangle markiert.

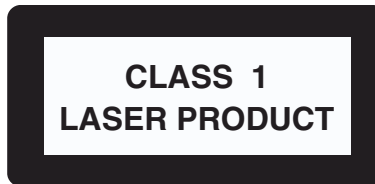
(I)

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambio identici a quelli specificati.

Componenti di sicurezza sono marcati con \triangle .

(GB)

After servicing and before returning set to customer perform a leakage current measurement test from all exposed metal parts to earth ground to assure no shock hazard exist. The leakage current must not exceed 0.5mA.

**(GB) Warning !**

Invisible laser radiation when open.
Avoid direct exposure to beam.

(S) Varning !

Osynlig laserstrålning när apparaten är öppnad och spårren är urkopplad. Betrakta ej strålen.

(SF) Varoitus !

Avatussa laitteessa ja suojalukituksen ohitettaessa olet alltiina näkymättömälle laserisäteilylle. Älä katso säteeseen!

(DK) Advarse !

Usynlig laserstrålning ved åbning når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for strålning.

(F)

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne".

2.1 Lead Free Requirements

Pb(Lead) Free Solder

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

IDENTIFICATION:



Regardless of special logo (not always indicated)

one must treat all sets from **1 Jan 2005** onwards, according next rules:

Important note: In fact also products of year 2004 must be treated in this way as long as you avoid mixing solder-alloys (lead-ed/ lead-free). So best to always use SAC305 and the higher temperatures belong to this.

Due to lead-free technology some rules have to be respected by the workshop during a repair:

- Use only lead-free solder alloy Philips SAC305 with order code 0622 149 00106. If lead-free solder-paste is required, please contact the manufacturer of your solder-equipment. In general use of solder-paste within workshops should be avoided because paste is not easy to store and to handle.
 - Use only adequate solder tools applicable for lead-free solder alloy. The solder tool must be able
 - o To reach at least a solder-temperature of 400°C,
 - o To stabilize the adjusted temperature at the solder-tip
 - o To exchange solder-tips for different applications.
 - Adjust your solder tool so that a temperature around 360°C – 380°C is reached and stabilized at the solder joint. Heating-time of the solder-joint should not exceed ~ 4 sec. Avoid temperatures above 400°C otherwise wear-out of tips will rise drastically and flux-fluid will be destroyed. To avoid wear-out of tips switch off un-used equipment, or reduce heat.
 - Mix of lead-free solder alloy / parts with lead-ed solder alloy / parts is possible but PHILIPS recommends strongly to avoid mixed solder alloy types (lead-ed and lead-free). If one cannot avoid or does not know whether product is lead-free, clean carefully the solder-joint from old solder alloy and re-solder with new solder alloy (SAC305).
 - Use only original spare-parts listed in the Service-Manuals. Not listed standard-material (commodities) has to be purchased at external companies.
 - Special information for BGA-ICs:
 - always use the 12nc-recognizable soldering temperature profile of the specific BGA (for de-soldering always use the lead-free temperature profile, in case of doubt)
 - lead free BGA-ICs will be delivered in so-called 'dry-packaging' (sealed pack including a silica gel pack) to protect the IC against moisture. After opening, dependent of MSL-level seen on indicator-label in the bag, the BGA-IC possibly still has to be baked dry. (MSL=Moisture Sensitivity Level). This will be communicated via AYS-website.
- Do not re-use BGAs at all.

- For sets produced before 1.1.2005 (except products of 2004), containing lead-ed solder-alloy and components, all needed spare-parts will be available till the end of the service-period. For repair of such sets nothing changes.

- On our website www.atyourservice.ce.Philips.com you find more information to:

- BGA-de-/soldering (+ baking instructions)
- Heating-profiles of BGAs and other ICs used in Philips-sets

You will find this and more technical information within the "magazine", chapter "workshop news".

For additional questions please contact your local repair-helpdesk.

2.2 Service Hints

CAUTION

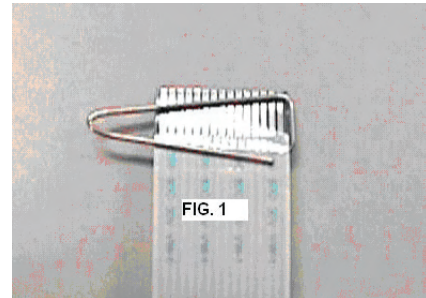
CHARGED CAPACITORS ON THE SERVO BOARD MAY DAMAGE THE DRIVE ELECTRONICS WHEN CONNECTING A NEW DRIVE. THAT'S WHY, BESIDES THE SAFETY MEASURES LIKE

- SWITCH OFF POWER SUPPLY
- ESD PROTECTION

ADDITIONAL ACTIONS MUST BE TAKEN BY THE REPAIR TECHNICIAN.

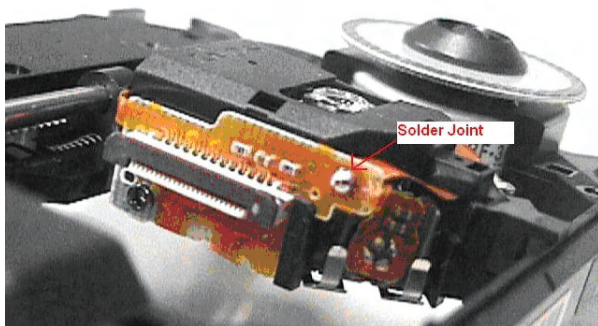
The following steps have to be done when replacing the defective loader :

1. Dismantling of the loader to access the ESD protection point if necessary.
2. **Solder the ESD protection point***.
3. Disconnect flexfoil cable from the defective loader.
4. Put a paper clip on the flexfoil to short-circuit the contacts (fig.1)
5. Replace the defective loader with a new loader.
6. Remove paperclip from the flexfoil and connect it to the new loader.
7. Remove solder joint on the ESD protection point.



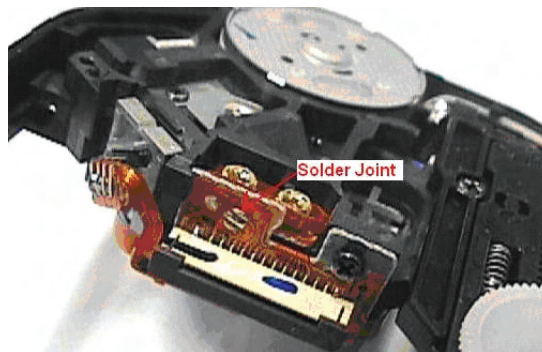
ATTENTION: The laser diode of this loader is protected against ESD by a solder joint which shortcircuits the laserdiode to ground. For proper functionality of the loader this solder joint must be remove **after** connection loader to the set.

Type 1



(ESD protection point is accessible from top of loader)

Type 2



(ESD protection point is accessible from bottom of the loader)

***Only applicable for defective loader needed to be sent back to supplier for failure analysis and to support backcharging evidence.**

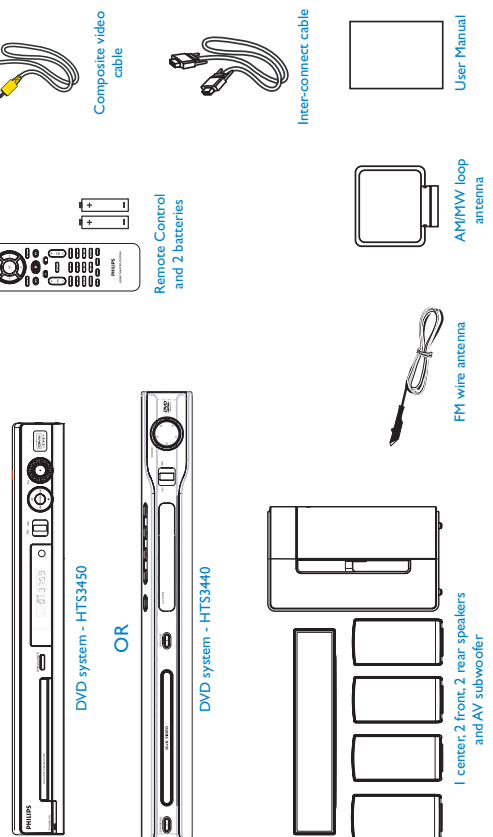
This is also applicable for all partnership workshops.

Quick Start Guide



- 1** Connect
- 2** Set up
- 3** Enjoy

What's in the box?



I Connect

A Placement
Proper speakers system placement is important to ensure optimum sound performance.

- 1** Place the center speaker above or close to the TV.
- 2** Place the subwoofer on the floor, at least one metre away from the TV.
- 3** Place the front speakers at equal distances from the TV.
- 4** Place the rear speakers at normal listening ear level.

B Connect the radio antennas
Keep the antennas away from the electronic devices to prevent unwanted interference.

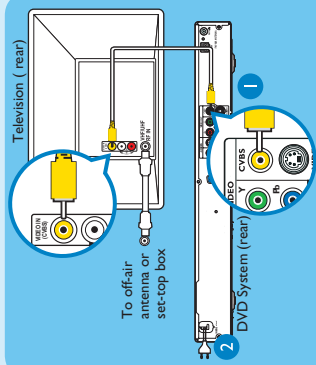
- 1** Connect the FM antenna to the FM jack. Extend the wire and fix its end to the wall.
- 2** Unfold the AM/MW loop antenna and fix the claw into the slot.
- 3** Push the tabs and insert the wires into the AM/MW jacks.

C Connect the speakers to AV subwoofer
Connect the various colored plugs from the speakers to the same colored jacks at the rear of the AV subwoofer.

OR

D Connect the AV subwoofer to DVD system
Use the supplied inter-connect cable to connect TO AV SUBWOOFER jack and TO DVD SYSTEM jack. Tighten the screws at the sides to secure the connection.

E Connect the DVD system to TV



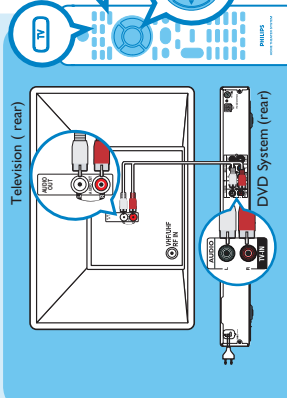
1 Use the supplied composite video cable to connect the VIDEO IN jack on this DVD system to the VIDEO IN jack on your TV.

2 Plug in the power cables from the DVD system, AV subwoofer and TV to the AC power outlets.

Note It is important to connect the DVD system directly to your TV.

F Connect the audio from TV to DVD system (optional)

To hear the TV audio through this home theater system, use the red and white audio cables (not supplied) to connect the TV IN (R/L) jacks on this DVD system to the AUDIO output jacks on your TV.



Note Press TV on the remote control to get the sound output from the speakers system when watching the TV program.

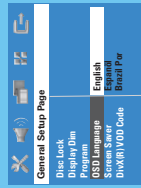
A Finding the viewing channel

- 1 Press **STANDBY ON** on the DVD system.
- 2 Press **SOURCE** on the DVD system until "DISC" appears on the display panel.
- 3 Turn on the TV. Use the TV's remote control to select the correct viewing channel for the DVD system. You should see the blue DVD background on the TV.

Note To search for the correct viewing channel, press the Channel Down button on the TV's remote control repeatedly (or AV, SELECT, **OK** button) until you see the blue DVD background. If you are using a RF modulator, set the TV to channel 3 or 4.

B Select the display language on the screen

- 1 Press **SETUP**. The { General Setup Page } appears.



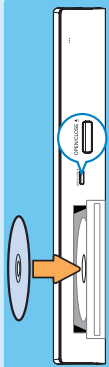
- 2 Press **▼** to select { OSD Language } and press **▶**.
- 3 Use **▼▲** keys to select a language in the menu and press **OK** to confirm.
- 4 Press **SETUP** to exit.

Note The language set here is only for the menus that are shown on the TV while operating this DVD system, not for the DVD disc menu.

There are various setup options (Audio Setup, Video Setup, Preference Setup) available on this DVD system. Refer to the user manual for more information.

Start disc playback

- 1 Press **OPEN CLOSE** to open the disc tray. Load a disc, and close the disc tray.



- 2 Playback will start automatically.
- 3 If the disc menu appears, use **▼▲** keys to select an option in the menu and press **PLAY ▶** to start playback.
- 4 Press **STOP ■** to stop playback.

Note When you press **PLAY** button again, the playback will resume from where it last stopped. To start playback from the beginning, you have to press **STOP** button two times to cancel the resume mode, then press **PLAY** button.

Playback from the USB

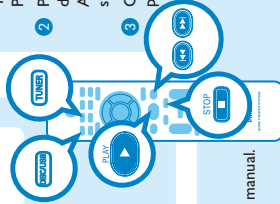
- 1 Insert your USB device into the USB port and wait for the message to appear on the screen.



- 2 Press **DISC/USB** to access the contents on your USB device.
- 3 Press **OK** to start playback.
- 4 To stop playback, press **DISC/USB** again to switch to 'DISC' mode. You can unplug your USB device now.

Listen to radio

- 1 Press **TUNER**. The display panel will show "AUTO INSTALL PRESS PLAY."
- 2 Press **PLAY ▶** until "START ..." appears on the display panel. All the available radio stations with strong reception signal will be stored automatically.
- 3 Once complete, use **◀▶** keys to select a preset radio station.



Troubleshooting

For more troubleshooting tips, see the user manual.

No picture.

- Press **DISC/USB** button on the remote control.
- Check the connection to the TV and ensure the plugs are firmly in place.

No sound.

- Check the speaker connections and settings.
- Check the audio connections and press **SOURCE** button to select the correct input source.
- The center and rear speakers operate only in multi-channel surround mode. Press **SURR** button to select multi-channel surround output.

The DVD system does not work.

- Disconnect the power cord from the power outlet for a few minutes. Reconnect the power cord and try again.

Need help?

See the user manual that comes with your Philips DVD System

Online
Go to www.usasupport.philips.com

Hotline
Call 1-888-PHILIPS (1-888-744-5477) for our operators.



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4. Dismantling Instructions

4.1 Dismantling of the DVD Loader Tray Cover

- 1) Insert a minus screwdriver and push the lever in the direction as shown in Figure 4-1 to unlock the tray before sliding it out.



Figure 4-1

- 2) Remove the Tray Cover as shown in Figure 4-2

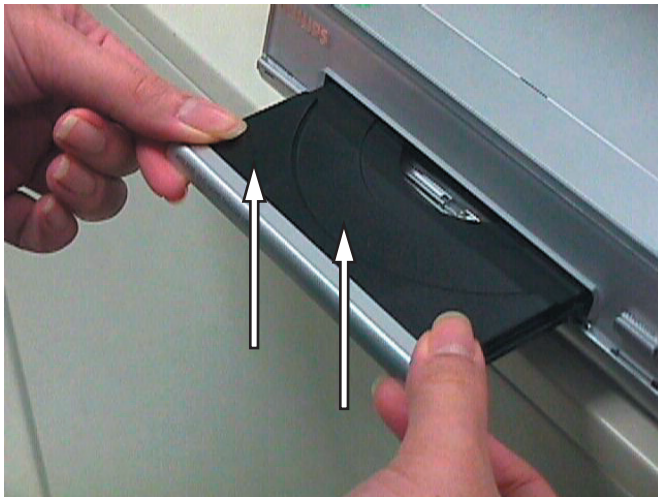


Figure 4-2

4.2 Dismantling of the Front Board, PSU Module & DVD Loader.

- 1) Release 4 snap hooks to remove the Front Board.
 - 1 snap hook each on the left & right side
 - 2 snap hooks on the bottom side
- 2) Loosen 2 screws (See Figure 4-3) to remove the PSU Module.

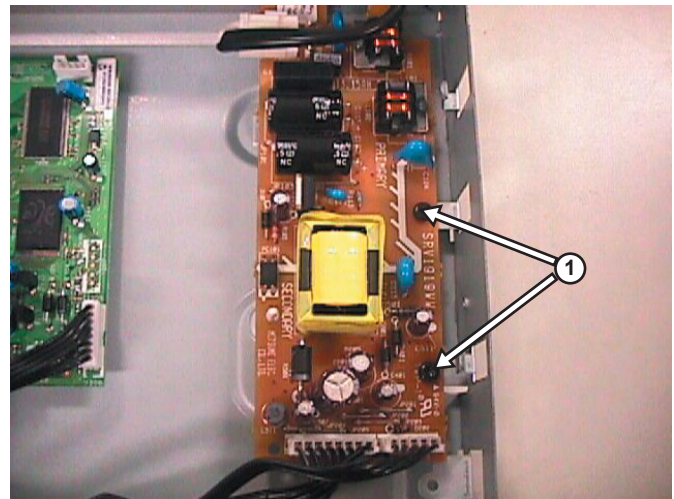


Figure 4-3

- 3) Loosen 4 screws (See Figure 4-4) to remove the DVD Loader.

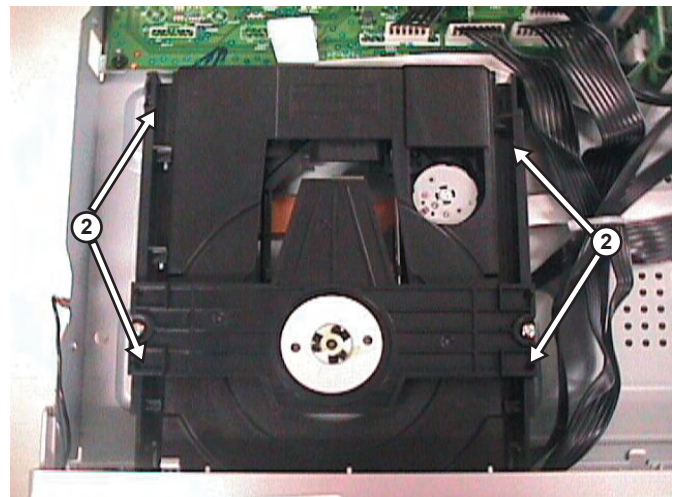


Figure 4-4

4.3 Dismantling of the Tuner Module & AV Board.

- 1) Loosen 1 screw (See Figure 4-5) to remove the Tuner Module.

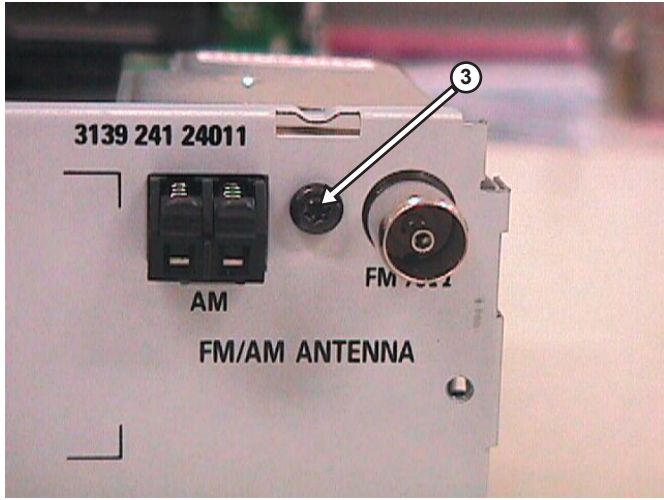


Figure 4-5

- 2) Loosen 2 screws (See Figure 4-6 & Figure 4-7) to remove the AV Board.

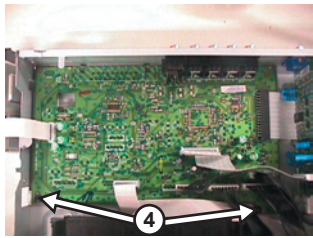


Figure 4-6

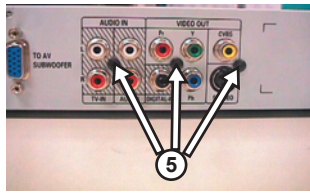


Figure 4-7

4.4 Dismantling of the AV Interface Board & PCBAS 9.1 Board

- 1) Loosen 2 screws (See Figure 4-8) & 2 screws (Figure 4-9) to remove AV Interface Board & PCBAS 9.1 Board.

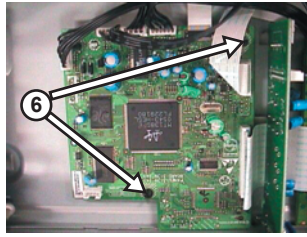


Figure 4-8



Figure 4-9

4.5 Dismantling of the Amp-module Board (Subwoofer)

- 1) Loosen 10 screws (See Figure 4-10) to remove Amp-Module Board & PSU module for Subwoofer.

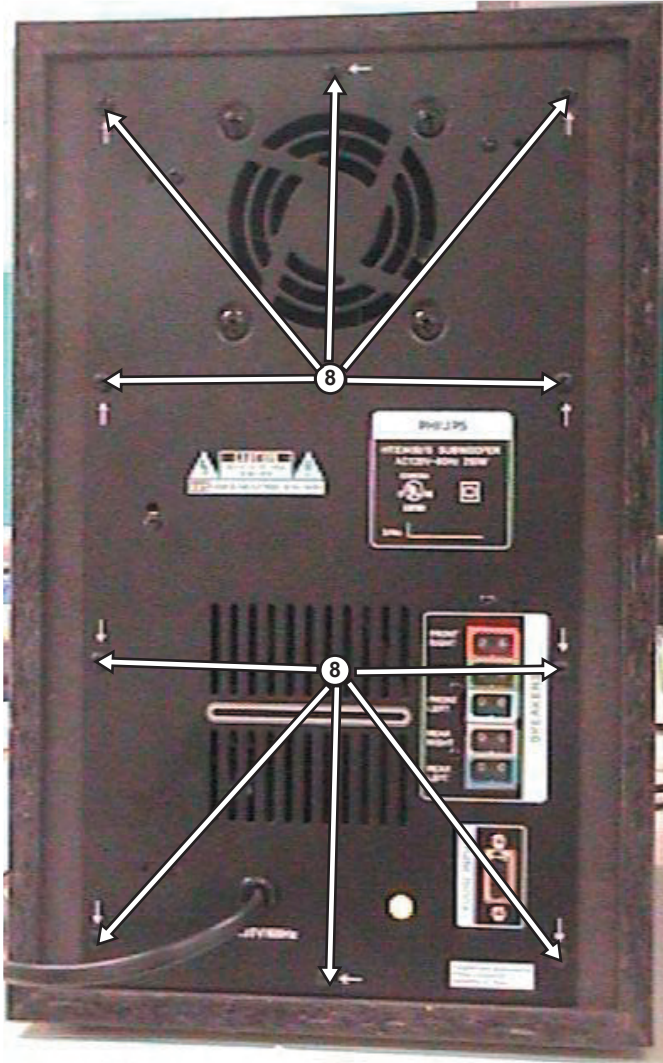
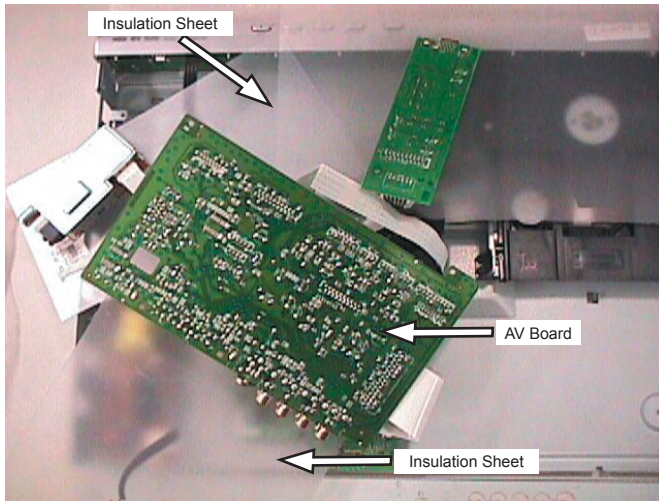
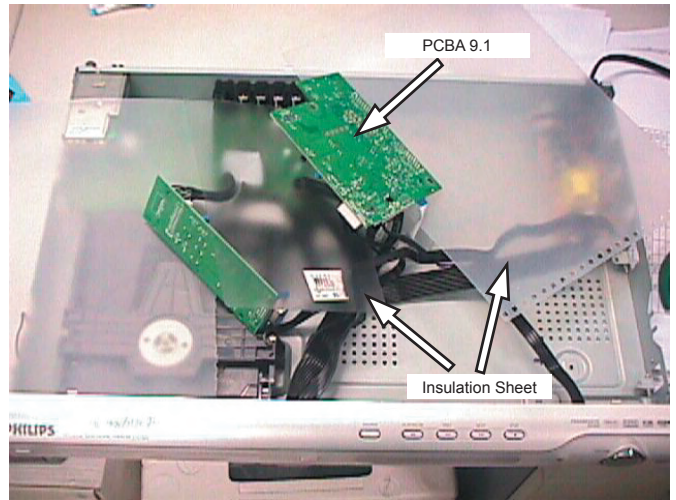


Figure 4-10

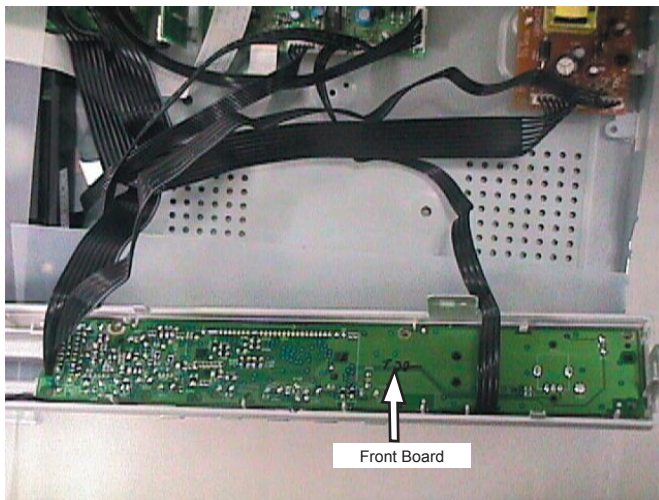
4.6 Service Positions



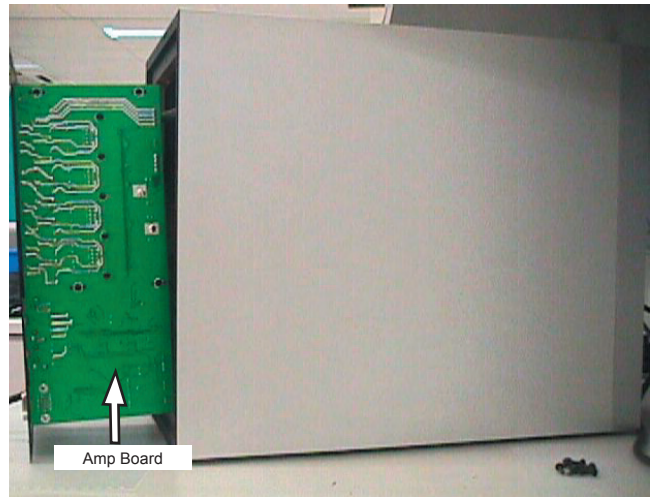
Service Position - AV Board



Service Position - PCBA 9.1



Service Position - Front Board



Service Position - Amp Board

5. Service Test Program

To start service test program open the tray with remote control or front panel key, while plugging in the mains cord press 2, 5 8 on remote control, the tray will close by itself and the set will display shown "S-Vxx-yy"

Display shows "SERVICE" followed by ROM version "S-Vxx-yy"

Main Menu

Display Test

key "DisplayTest" triggered?

y

n

y

Activate and display "Pattern1"

key "DisplayTest" triggered?

y

n

y

Activate and display "Pattern2"

key "■" triggered?

y

n

- S refers to Service Mode
- V refers to Version
- xx refers to Software version number of BEA (counting up from 01 to 99)
- yy refers to Software version number of Front uP (counting up from 01 to 99)

4.1 Display Test

Purpose:

This test is used to check the driving circuits, the display and whether there are any short-circuits, open-circuits or any other defects.

Player:

Following display patterns are used to test the display and its connections to μP.

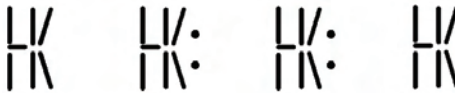
Pattern 1: *Default: All display control pins are ON*

- to check the open-circuits



Pattern 2: *Alternate display control pins are on (Test Pattern: 0x55)*

- to check the short-circuits on Data port



Receiver:

Following display patterns are used to test the display and its connections to μP.

Pattern 1: *Default: All display control pins are ON*

- to check the open-circuits



PROSCAN

Pattern 2: *Alternate display control pins are on (Test Pattern: 0x55)*

- to check the short-circuits on Data port



5.1.1 Reprogramming of DVD version Matrix

After repair, the customer setting and region code may be lost. Reprogramming will put the set back in the state in which it has left the factory, ie. with the default setting and the allowed region code.

Model	Region	Region Code	TV Type
HTS 3440/37	Nafta	1	NTSC

To reprogram do as follows:

- 1) Power up the set and select DISC source.
- 2) Open tray by press "OPEN/CLOSE" button on the set or press and hold "STOP" button on the RC.
- 3) Press the following buttons on the Remote Control:
 <9> <9> <9> <9> <Subtitle> <0>for HTS 3440/37

- 4) The display shows 'YYYY-ZZ' and the tray will close.
 YYYY = model number (eg. 8300, 8500, etc.)
 ZZ = slash stroke version (eg. 01, 69, etc.)

5.1.2 Procedure for check Software version

- 1) Power up the set and select DISC source.
- 2) Open tray by press "OPEN/CLOSE" button on the set or press and hold "STOP" button on the RC.
- 3) Press "DISPLAY" button on the Remote control.
- 4) The TV screen will shows:

**PPPP-Vxx YYYYY-ZZ
 SERVO: GGGGGGGG REG:DD**

PPPP = HTS 3300MKII
 xx = version number
 YYYYY = model # - 3300D
 ZZ = stroke version (12, 51, 05, 98, 55, 51K)
 GGGGGGGG = version for servo code

5.1.3 Burning of firmware

1. Unzip the zip-archive attached with this service information.
2. Start the CD burning software and create a new CD Project (Data disc) with the following settings:
 - a. File System: ISO9660
 - b. Format: MODE 2/XA
 - c. Recording format: Single Session (Track at once), Finalized CD
3. Place the content of the zip-archive into the root directory of the new CD project.
4. Burn the data onto a blank CDR or CDRW.

Note: ISO9660 is mandatory, UDF discs are not supported!
 The final CDROM must not contain any other data except the file from the zip-archive.

5.1.4 Procedure to upgrade the firmware

1. Power up the set and open tray.
2. Insert the prepared Upgrade CDROM and close the tray.
3. The set will display:
 1. "LOAD"
 2. Display software version number for 2 sec on the FTD display.
 3. "ERASE"
 4. "WRITE"
 5. "ERROR" (if unsuccessful)
 6. "UPG END" (if successful)
 7. "DISC -> CLOSE -> LOAD". (Meanwhile tray will be pulled in)

Note: Do not press any button or interrupt the main supply upgrading process, Otherwise the set may become defective.

4. When the upgrade is completed, the tray will close automatic.
5. The tray will close and the set will go to Standby mode automatically when the upgrade process is completed.

5.1.5 Procedure to check the firmware version to confirm upgrading

1. Power up the set and open tray.
2. Press the <Menu Display> button on the Remote Control.
3. The firmware version will be displayed on the top left hand corner of the OSD.

5.1.6 Trade Mode

Trade mode is a feature that will block all set keys when enabled. It is for dealers to prevent customers from removing disc, changing source etc using the set keys. Rotary and Remote Control (RC) keys are still allowed in Trade mode.

To activate Trade Mode:

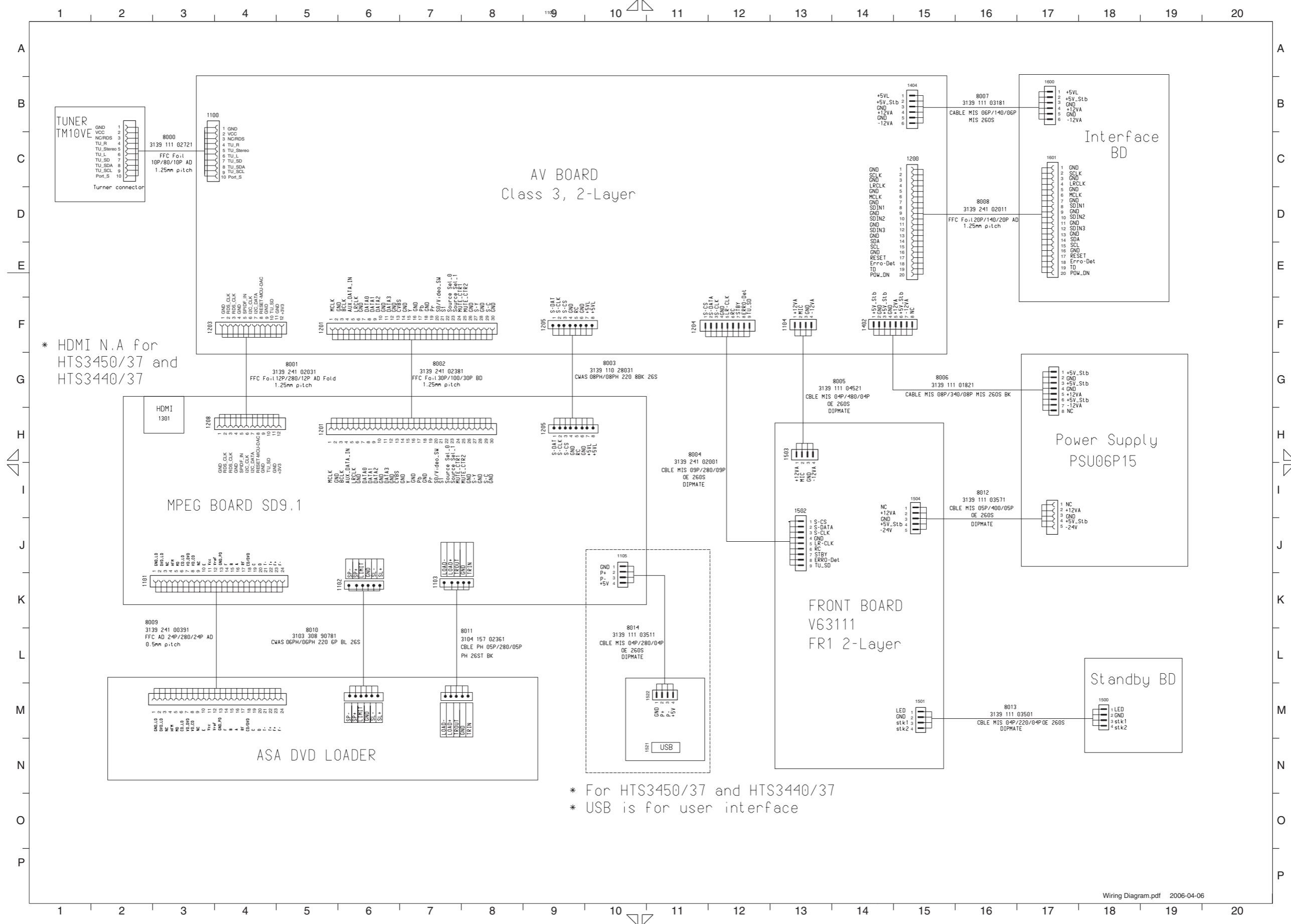
- 1) Power up the set and select DISC source.
- 2) Open tray by press "OPEN/CLOSE" button on the set or press and hold "STOP" button on the RC.
- 3) Then press buttons <2> <5> <9> on the RC.
- 4) The display shows 'TRA ON' and the tray will close. Trade Mode is now enabled.

To deactivate Trade Mode:

- 1) Power up the set and select DISC source.
- 2) Open tray by press and hold "STOP" button on the RC.
- 3) Then press buttons <2> <5> <9> on the RC.
- 4) The display shows 'TRA OFF' and the tray will close. Trade Mode is now disabled.

Notes:

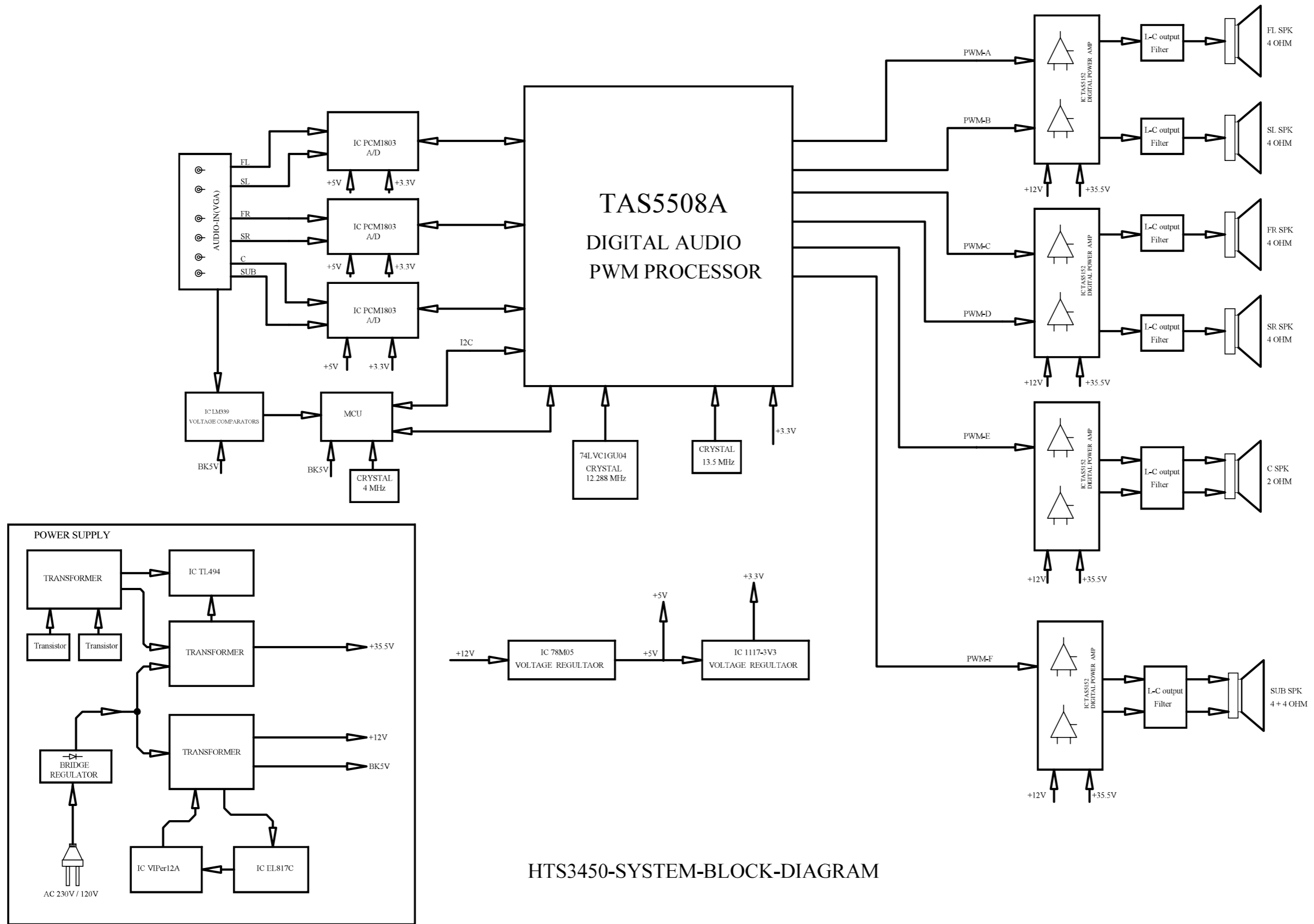
Wiring Diagram



* HDMI N.A for HTS3450/37 and HTS3440/37

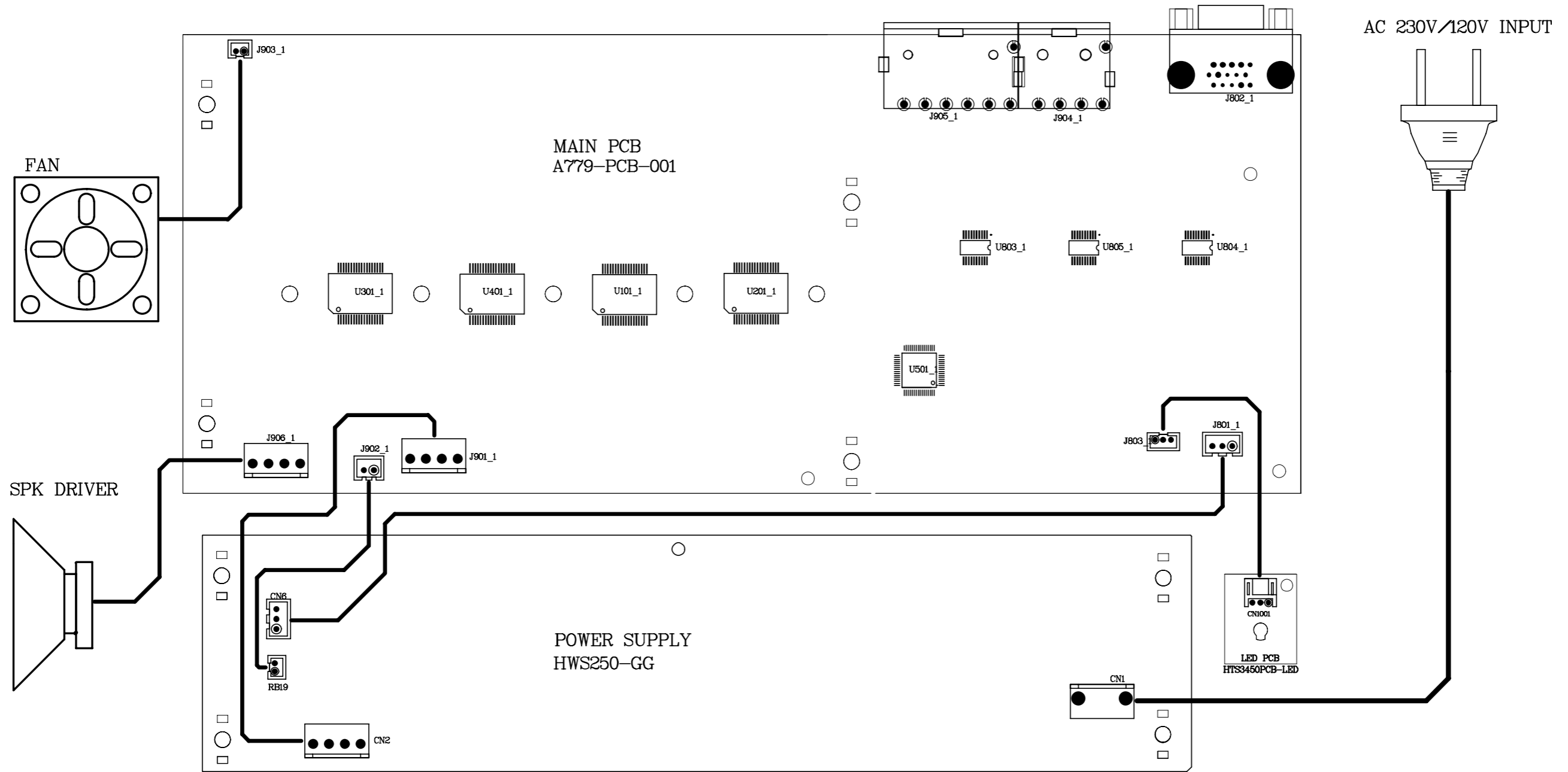
* For HTS3450/37 and HTS3440/37
 * USB is for user interface

Block Diagram: Subwoofer

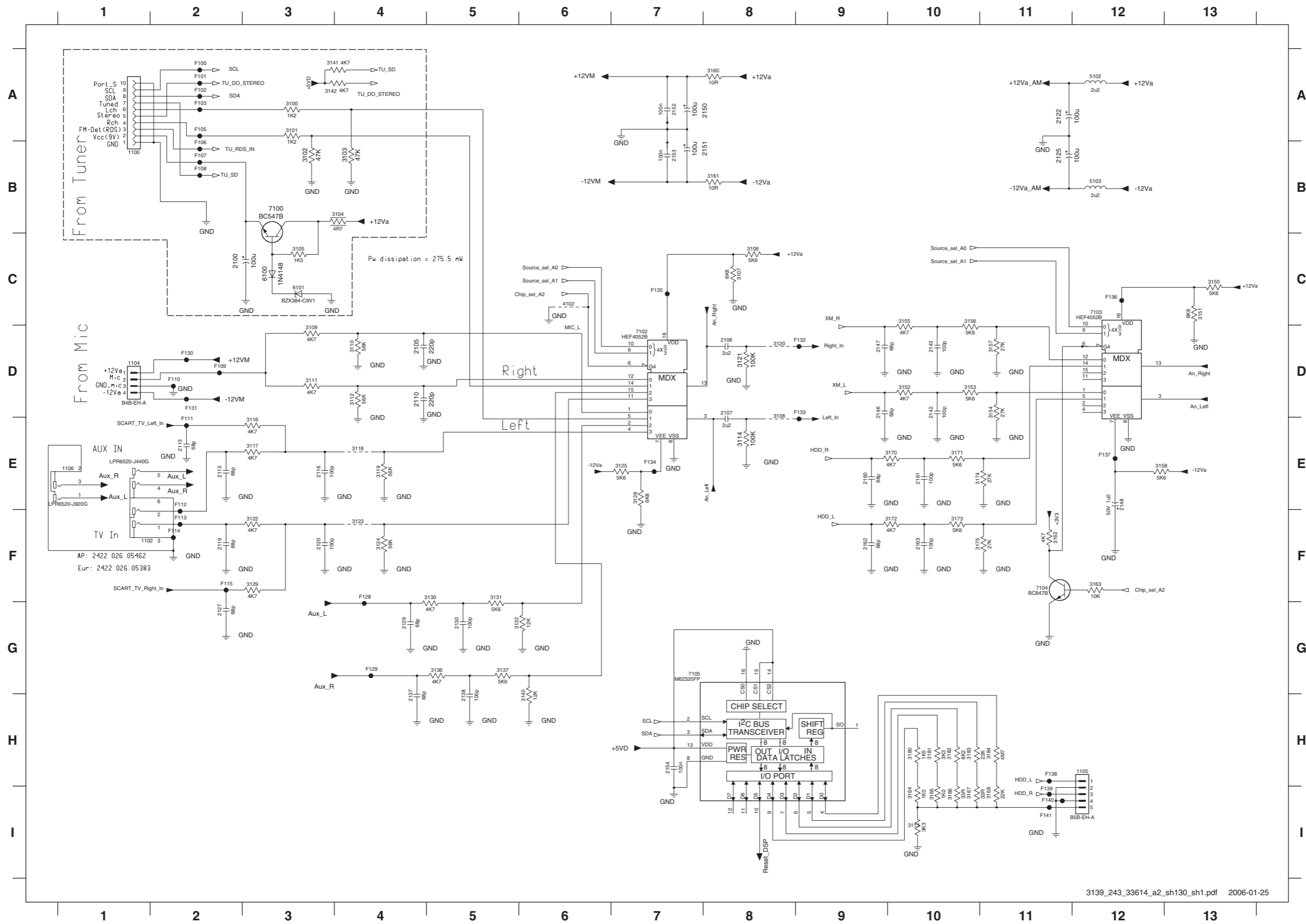


HTS3450-SYSTEM-BLOCK-DIAGRAM

Wiring Diagram: Subwoofer

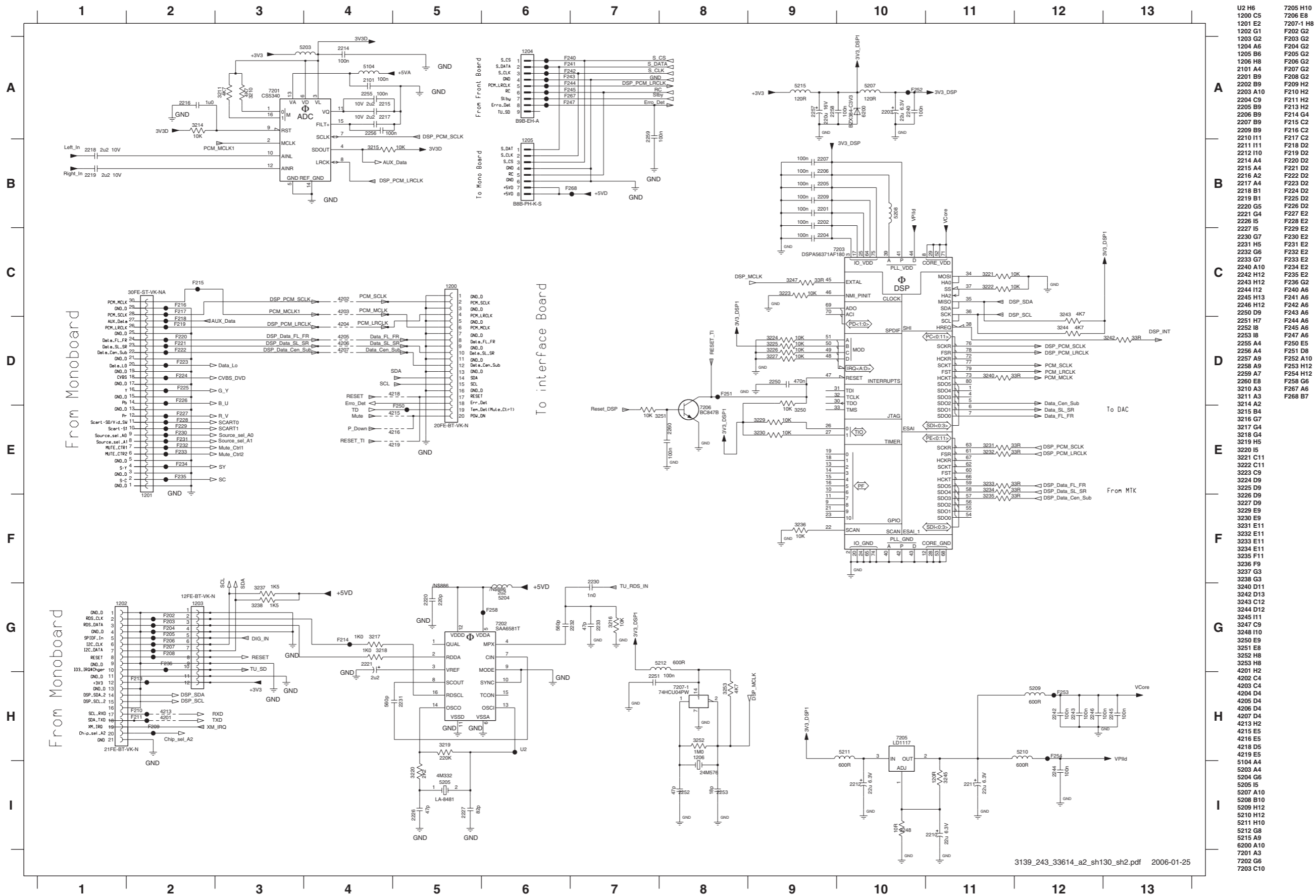


7. AV Board: Circuit Diagram (Part 1)



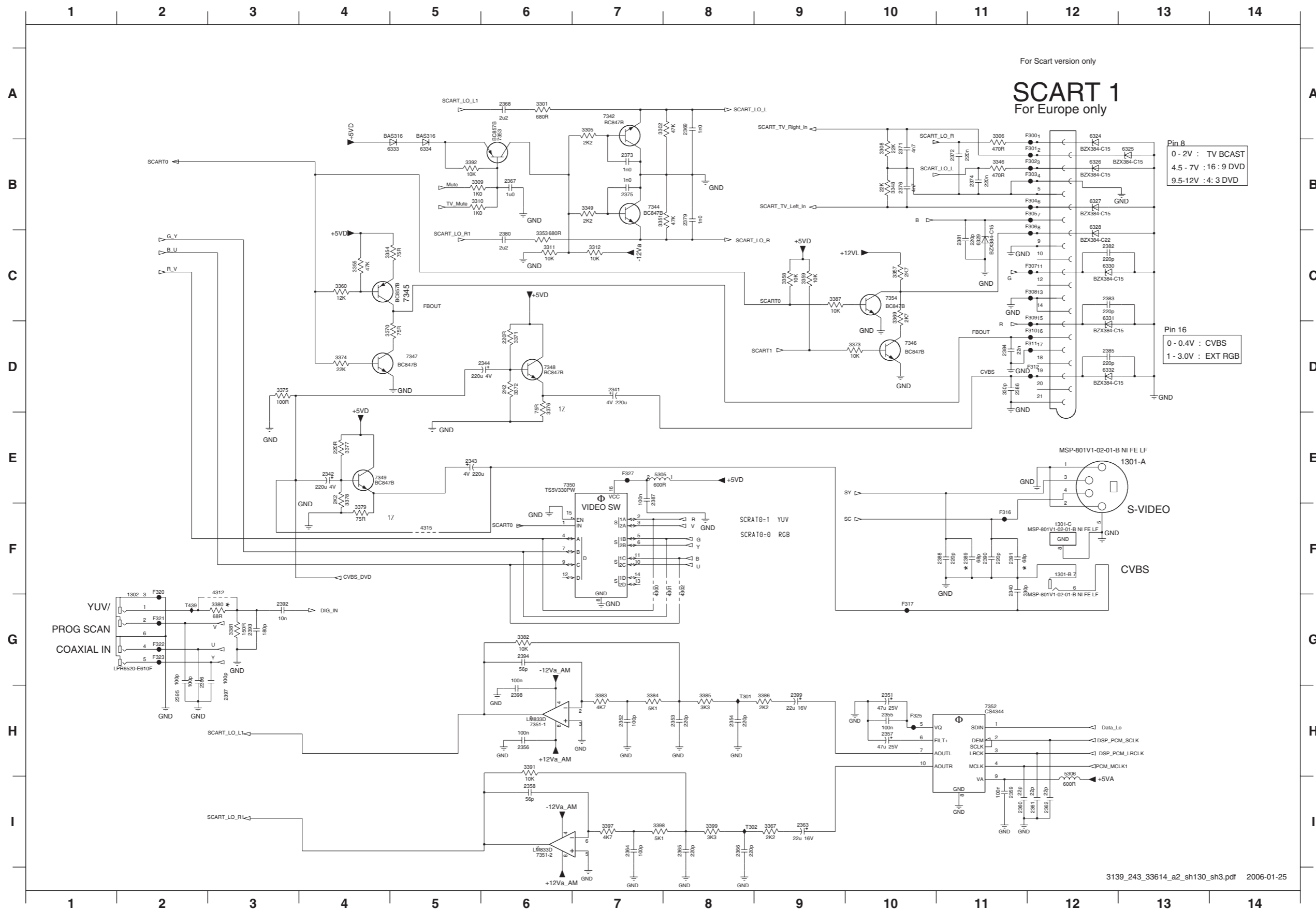
- 1100 B1 F103 A2
- 1102 F1 F105 A2
- 1104 D1 F106 B2
- 1105 H12 F107 B2
- 1106 E1 F108 B2
- 2100 C2 F109 D2
- 2105 D4 F110 D2
- 2106 D8 F111 E2
- 2107 D8 F112 E2
- 2110 D4 F113 F2
- 2113 E2 F114 F2
- 2115 E2 F115 F2
- 2116 E3 F128 F4
- 2119 F2 F129 G4
- 2120 F3 F130 D2
- 2122 A11 F131 D2
- 2125 B11 F132 D9
- 2127 G2 F133 D9
- 2129 G4 F134 E7
- 2130 G5 F135 C7
- 2137 H4 F136 C12
- 2138 H5 F137 E12
- 2142 D10 F138 H11
- 2143 D10 F139 I11
- 2146 D9 F140 I11
- 2147 D9 F141 I11
- 2148 E12
- 2150 A8
- 2151 B8
- 2152 A7
- 2153 B7
- 2154 H7
- 2160 E9
- 2161 E10
- 2162 F9
- 2163 F10
- 3100 A3
- 3101 A3
- 3102 B3
- 3103 B4
- 3104 B4
- 3105 C3
- 3106 C8
- 3107 C8
- 3108 E8
- 3109 D3
- 3110 D4
- 3111 D3
- 3112 D4
- 3113 H10
- 3114 E8
- 3116 E3
- 3117 E3
- 3118 E4
- 3119 E4
- 3120 D8
- 3121 D8
- 3122 F3
- 3123 F4
- 3124 F4
- 3125 E7
- 3126 E7
- 3129 F3
- 3130 F5
- 3131 F5
- 3132 G5
- 3136 G5
- 3137 G5
- 3140 H6
- 3141 A3
- 3142 A3
- 3150 C13
- 3151 C13
- 3152 D10
- 3153 D10
- 3154 D11
- 3155 C10
- 3156 C10
- 3157 D11
- 3158 E12
- 3160 A8
- 3161 B8
- 3162 F11
- 3163 F12
- 3164 H10
- 3165 H10
- 3166 H10
- 3167 H10
- 3168 I11
- 3170 E10
- 3171 E10
- 3172 F10
- 3173 F10
- 3174 E10
- 3175 F10
- 3180 H10
- 3181 H10
- 3182 H10
- 3183 H10
- 3184 H11
- 4102 C6
- 5102 A12
- 5103 B12
- 6100 C3
- 6101 C3
- 7100 B3
- 7102 D7
- 7103 C12
- 7104 F11
- 7105 G7
- F100 A2
- F101 A2
- F102 A2

AV Board: Circuit Diagram (Part 2)



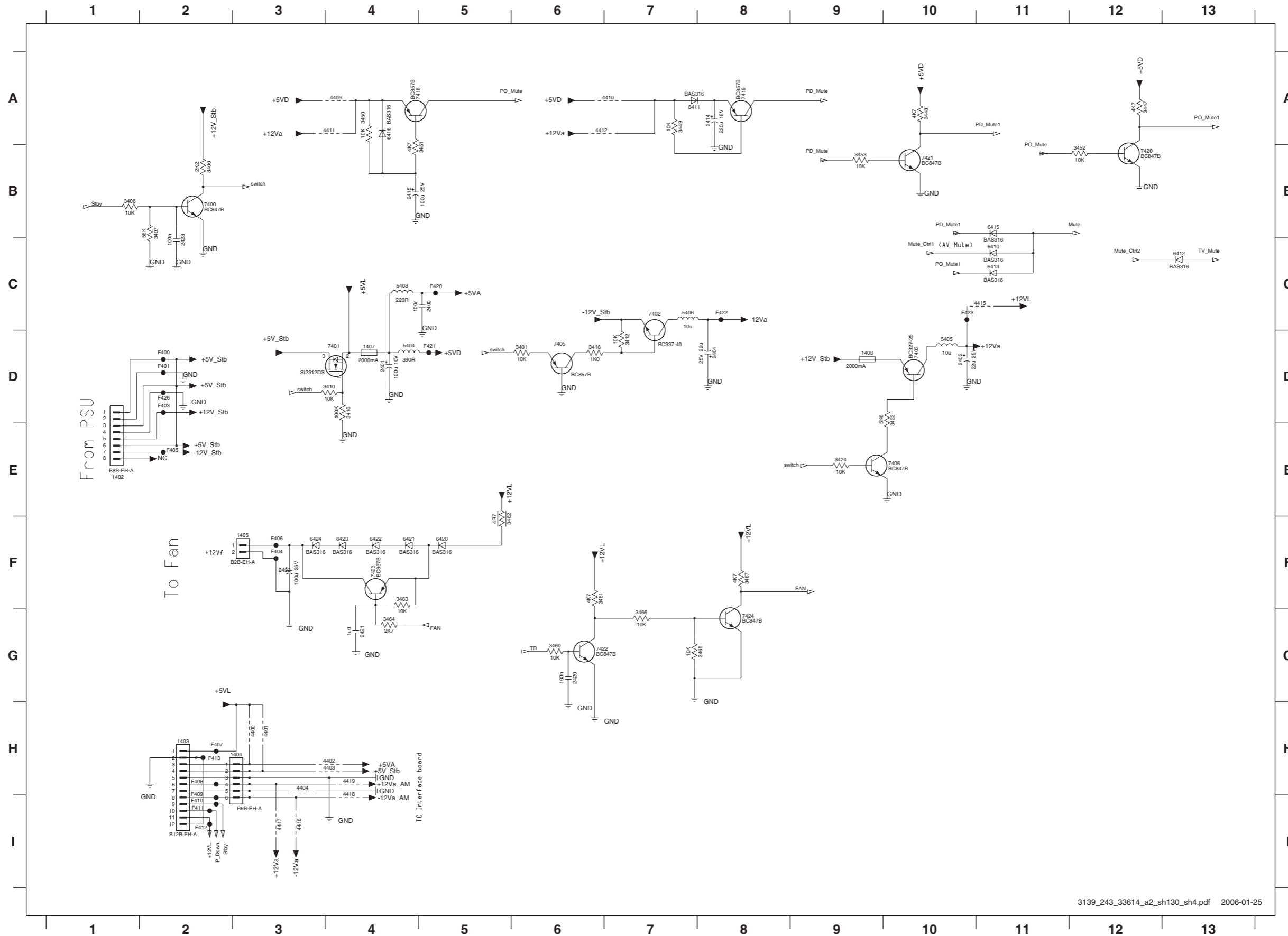
- U2 H6
- 1200 C5
- 1201 E2
- 1202 G1
- 1203 G2
- 1204 A6
- 1205 B6
- 1206 H8
- 1207 A4
- 1208 B9
- 1209 B9
- 1210 A10
- 1211 H2
- 1212 H2
- 1213 H2
- 1214 A4
- 1215 A4
- 1216 A2
- 1217 A4
- 1218 B1
- 1219 B1
- 1220 G5
- 1221 G4
- 1222 I5
- 1223 I5
- 1224 D2
- 1225 D2
- 1226 D2
- 1227 E2
- 1228 E2
- 1229 E2
- 1230 G7
- 1231 H5
- 1232 G6
- 1233 G7
- 1234 A10
- 1235 H12
- 1236 H12
- 1237 A6
- 1238 A6
- 1239 H13
- 1240 H12
- 1241 A6
- 1242 A6
- 1243 A6
- 1244 A6
- 1245 A6
- 1246 A6
- 1247 A6
- 1248 A6
- 1249 A6
- 1250 A4
- 1251 D8
- 1252 A10
- 1253 H12
- 1254 H12
- 1255 H6
- 1256 G6
- 1257 A6
- 1258 B7
- 7205 H10
- 7206 E8
- 7207-1 H8
- F202 G2
- F203 G2
- F204 G2
- F205 G2
- F206 G2
- F207 G2
- F208 G2
- F209 H2
- F210 H2
- F211 H2
- F212 H2
- F213 H2
- F214 G4
- F215 C2
- F216 C2
- F217 C2
- F218 D2
- F219 D2
- F220 D2
- F221 D2
- F222 D2
- F223 D2
- F224 D2
- F225 D2
- F226 D2
- F227 E2
- F228 E2
- F229 E2
- F230 E2
- F231 E2
- F232 E2
- F233 E2
- F234 E2
- F235 E2
- F236 G2
- F237 A6
- F238 G2
- F239 A6
- F240 A6
- F241 A6
- F242 A6
- F243 A6
- F244 A6
- F245 A6
- F246 A6
- F247 A6
- F248 A6
- F249 A6
- F250 E5
- F251 D8
- F252 A10
- F253 H12
- F254 H12
- F255 H6
- F256 G6
- F257 A6
- F258 B7
- F259 H10
- F260 E8
- F261 A6
- F262 A6
- F263 A6
- F264 A6
- F265 A6
- F266 A6
- F267 A6
- F268 B7
- F269 H10
- F270 H10
- F271 H10
- F272 H10
- F273 H10
- F274 H10
- F275 H10
- F276 H10
- F277 H10
- F278 H10
- F279 H10
- F280 H10
- F281 H10
- F282 H10
- F283 H10
- F284 H10
- F285 H10
- F286 H10
- F287 H10
- F288 H10
- F289 H10
- F290 H10
- F291 H10
- F292 H10
- F293 H10
- F294 H10
- F295 H10
- F296 H10
- F297 H10
- F298 H10
- F299 H10
- F300 H10

AV Board: Circuit Diagram (Part 3)



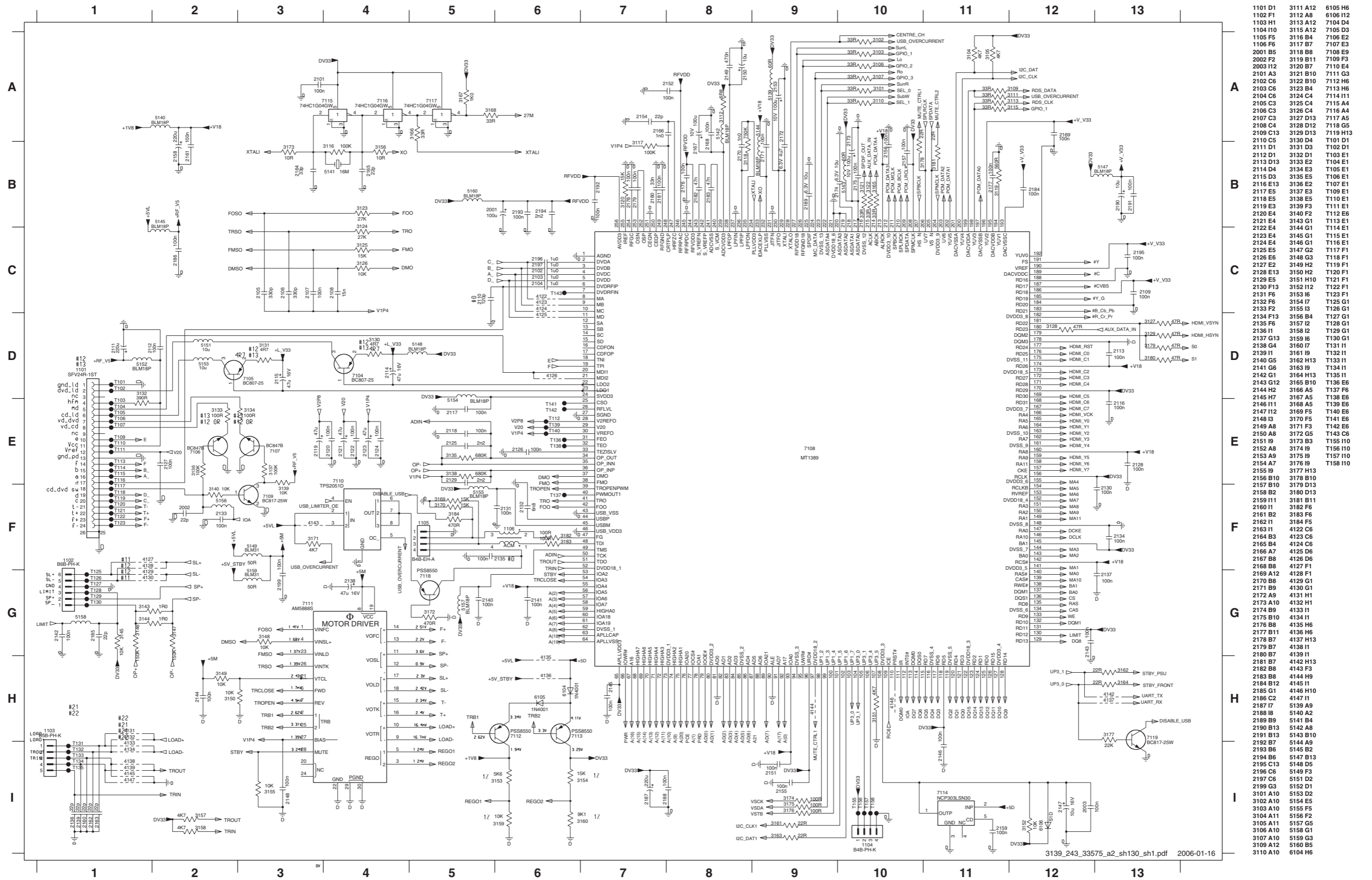
1301-A E13	6330 C12
1301-B F12	6331 C12
1301-C D12	6332 D12
1302 G2	6333 B5
2340 F11	6334 B5
2341 D7	7342 A7
2342 E4	7344 B7
2343 E5	7345 C5
2344 D6	7346 D10
2351 H10	7347 D5
2352 H7	7348 D6
2353 H8	7349 E4
2354 H8	7350 E7
2355 H10	7351-1 H6
2356 H6	7351-2 I6
2357 H10	7352 H11
2358 I6	7353 B6
2359 I11	7354 C10
2360 I11	F300 A12
2361 I12	F301 B12
2362 I12	F302 B12
2363 I9	F303 B12
2364 I7	F304 B12
2365 I8	F305 B12
2366 I8	F306 B12
2367 B6	F307 C12
2368 A6	F308 C12
2369 A8	F309 C12
2371 B10	F310 D12
2372 B11	F311 D12
2373 B7	F312 D12
2374 B11	F316 F11
2375 B7	F317 G10
2376 B10	F320 F2
2379 B8	F321 G2
2380 C6	F322 G2
2381 C11	F323 G2
2382 C12	F325 H10
2383 C12	F327 E7
2384 D11	T301 H8
2385 D12	T302 I8
2386 D11	T439 G2
2387 E7	
2388 F11	
2389 F11	
2390 F11	
2391 F11	
2392 G3	
2393 G3	
2394 G6	
2395 H2	
2396 G2	
2397 H3	
2398 H6	
2399 H9	
3301 A6	
3302 A7	
3305 A7	
3306 A11	
3308 B10	
3309 B5	
3310 B5	
3311 C6	
3312 C7	
3346 B11	
3348 B10	
3349 B7	
3351 B7	
3353 C6	
3354 C4	
3355 C4	
3357 C10	
3358 C9	
3359 C9	
3360 C4	
3367 I9	
3369 C10	
3370 D4	
3371 D6	
3372 D6	
3373 D10	
3374 D4	
3375 D3	
3376 D6	
3377 E4	
3378 E4	
3379 F4	
3380 G3	
3381 G3	
3382 G6	
3383 H7	
3384 H7	
3385 H8	
3386 H9	
3387 C9	
3391 H6	
3392 B5	
3397 I7	
3398 I7	
3399 I8	
4300 F7	
4301 F8	
4302 F8	
4312 F3	
4315 F5	
5305 E7	
5306 H12	
6324 A12	
6325 B13	
6326 B12	
6327 B12	
6328 B12	
6329 C11	

AV Board: Circuit Diagram (Part 4)



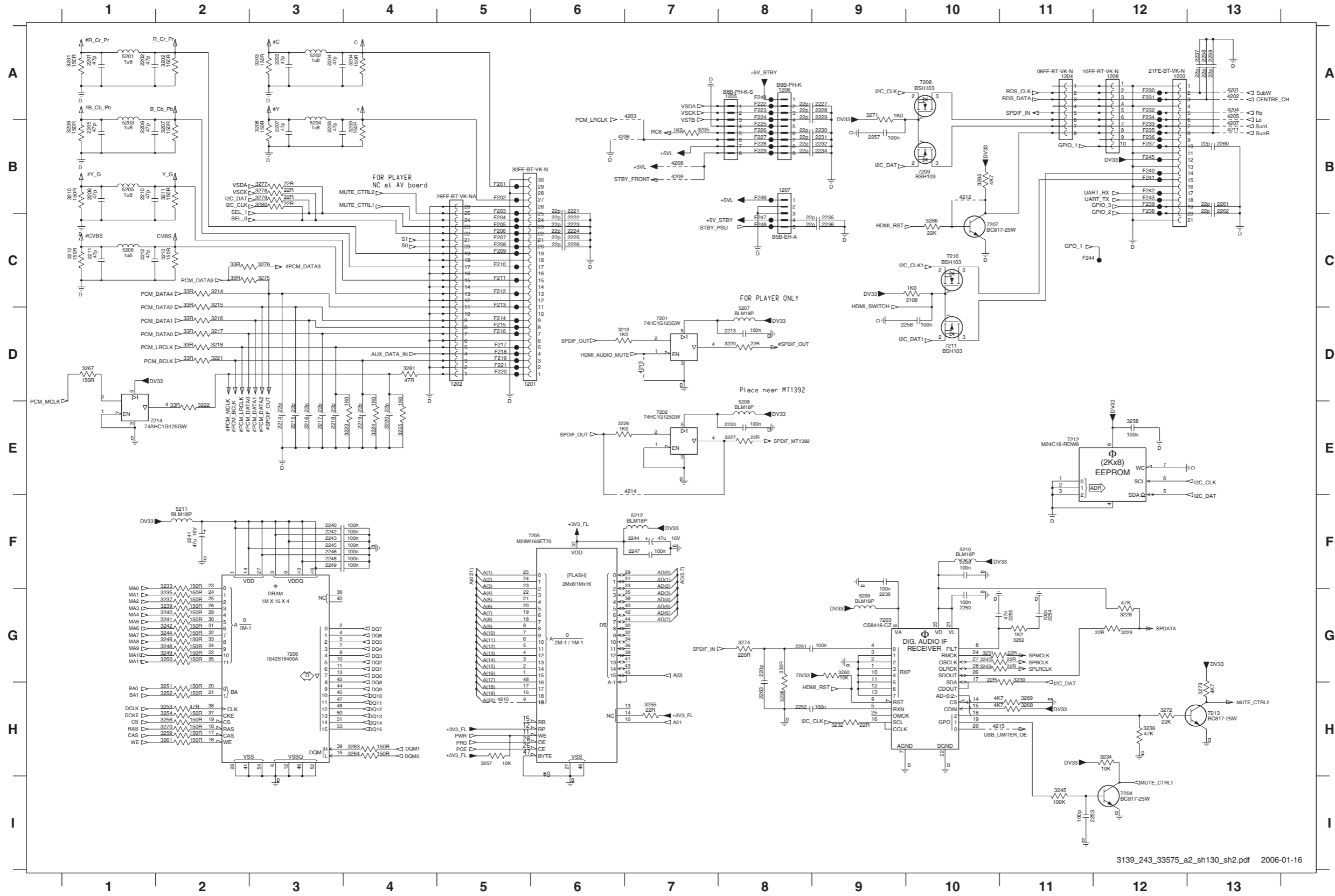
- 1402 E1
- 1403 H2
- 1404 H3
- 1405 F3
- 1407 D4
- 1408 D9
- 2400 C5
- 2401 D4
- 2402 D10
- 2404 D8
- 2414 A8
- 2415 B4
- 2420 G6
- 2421 G4
- 2422 F3
- 2423 C2
- 3400 B2
- 3401 D6
- 3405 B1
- 3407 B2
- 3410 D4
- 3412 D7
- 3416 D6
- 3418 D4
- 3422 D10
- 3424 E9
- 3447 A12
- 3448 A10
- 3449 A7
- 3450 A4
- 3451 B5
- 3452 B12
- 3453 B9
- 3460 G6
- 3461 F6
- 3462 F5
- 3463 F4
- 3464 G4
- 3465 G8
- 3466 G7
- 3467 F8
- 4400 H3
- 4401 H3
- 4402 H4
- 4403 H4
- 4404 H3
- 4405 A4
- 4410 A7
- 4411 A4
- 4412 A6
- 4415 C11
- 4416 I3
- 4417 I3
- 4418 I4
- 4419 H4
- 5403 C4
- 5404 D4
- 5405 D10
- 5406 C7
- 6410 C11
- 6411 A7
- 6412 C13
- 6413 C11
- 6415 B11
- 6416 A4
- 6420 F5
- 6421 F4
- 6422 F4
- 6423 F4
- 6424 F3
- 7400 B2
- 7401 D4
- 7402 C7
- 7403 D10
- 7405 D6
- 7406 E10
- 7418 A4
- 7419 A8
- 7420 B12
- 7421 B10
- 7422 G6
- 7423 F4
- 7424 G8
- F400 D2
- F401 D2
- F403 D2
- F404 F3
- F405 E2
- F406 F3
- F407 H2
- F408 H2
- F409 I2
- F410 I2
- F411 I2
- F412 I2
- F413 H2
- F420 C5
- F421 D5
- F422 C8
- F423 C10
- F425 D2

PCBA 9.1 Board: Circuit Diagram (Part 1)



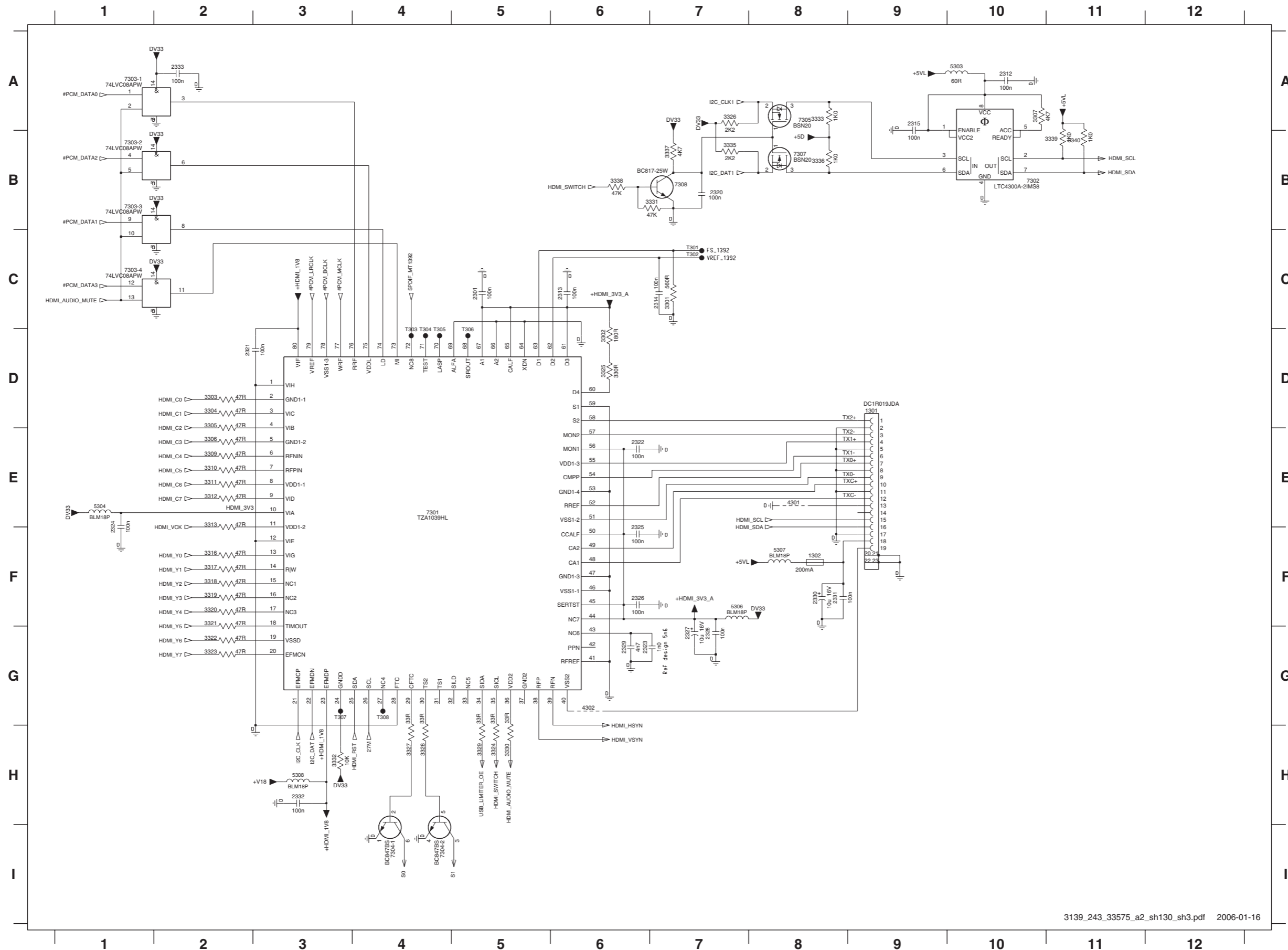
1101 D1	3111 A12	6105 H6
1102 F1	3112 A8	6106 H2
1103 H1	3113 A12	7104 D4
1104 H10	3115 A12	7105 D3
1105 F5	3116 B4	7106 E2
1106 F6	3117 B7	7107 E3
2001 B5	3118 B8	7108 E9
2002 F2	3119 B11	7109 F3
2003 H2	3120 B7	7110 E4
2101 A3	3121 B10	7111 G3
2102 C6	3122 B10	7112 H6
2103 C6	3123 B4	7113 H6
2104 C6	3124 C4	7114 H1
2105 C3	3125 C4	7115 A4
2106 C3	3126 C4	7116 A4
2107 C3	3127 D13	7117 A5
2108 C4	3128 D12	7118 G5
2109 C13	3129 D13	7119 H13
2110 C5	3130 D4	7101 D1
2111 D1	3131 D3	7102 D1
2112 D1	3132 D1	7103 E1
2113 D13	3133 E2	7104 E1
2114 D4	3134 E3	7105 E1
2115 D3	3135 E5	7106 E1
2116 E13	3136 E2	7107 G5
2117 E5	3137 E2	7109 E1
2118 E5	3138 E5	7110 E1
2119 E3	3139 F3	7111 E1
2120 E4	3140 F2	7112 E6
2121 E4	3141 G1	7113 E1
2122 E4	3142 G1	7114 E1
2123 E4	3143 G1	7115 E1
2124 E4	3144 G1	7116 G5
2125 E5	3145 G2	7117 F1
2126 E6	3146 G3	7118 F1
2127 E2	3147 H2	7119 F1
2128 E13	3150 H2	7120 F1
2129 E5	3151 H10	7121 F1
2130 F13	3152 H12	7122 F1
2131 F6	3153 I6	7123 F1
2132 F6	3154 I7	7125 G1
2133 F2	3155 I3	7126 G1
2134 F13	3156 B4	7127 G1
2135 F6	3157 I2	7128 G1
2136 I1	3158 I2	7129 G1
2137 G13	3159 I6	7130 G1
2138 G4	3160 I7	7131 I1
2139 I1	3161 I9	7132 I1
2140 G5	3162 H13	7133 I1
2141 G6	3163 I9	7134 I1
2142 G1	3164 H13	7135 I1
2143 G12	3165 B10	7136 E6
2144 H2	3166 A5	7137 F6
2145 H7	3167 A5	7138 E6
2146 H1	3168 A5	7139 E6
2147 I12	3169 F5	7140 E6
2148 I9	3170 F5	7141 E6
2149 A8	3171 F3	7142 E6
2150 A8	3172 G5	7143 C6
2151 I9	3173 B3	7145 H10
2152 A8	3174 I9	7156 H10
2153 A9	3175 I9	7157 H10
2154 A7	3176 I9	7158 H10
2155 I9	3177 H13	
2156 B10	3178 B10	
2157 B10	3179 D13	
2158 B2	3180 D13	
2159 I11	3181 H1	
2160 I1	3182 F6	
2161 B2	3183 F6	
2162 I1	3184 F5	
2163 I1	4122 C6	
2164 B3	4123 C6	
2165 B4	4124 C6	
2166 A7	4125 D6	
2167 B8	4126 D6	
2168 B8	4127 F1	
2169 A12	4128 F1	
2170 B8	4129 G1	
2171 B9	4130 G1	
2172 A9	4131 H1	
2173 A10	4132 H1	
2174 B9	4133 I1	
2175 B10	4134 I1	
2176 B8	4135 H6	
2177 B11	4136 H6	
2178 B7	4137 H13	
2179 B7	4138 I1	
2180 B7	4139 I1	
2181 B7	4142 H13	
2182 B8	4143 F3	
2183 B8	4144 H9	
2184 B12	4145 I1	
2185 G1	4146 H10	
2186 C2	4147 I1	
2187 I7	5139 A9	
2188 I8	5140 A2	
2189 B9	5141 B4	
2190 B13	5142 A8	
2191 B13	5143 B10	
2192 B7	5144 A9	
2193 B6	5145 B2	
2194 B6	5147 B13	
2195 C13	5148 D5	
2196 C6	5149 F3	
2197 C6	5151 D2	
2199 G3	5152 D1	
3101 A10	5153 D2	
3102 A10	5154 E5	
3103 A10	5155 F5	
3104 A11	5156 F2	
3105 A11	5157 G5	
3106 A10	5158 G1	
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PCBA 9.1 Board: Circuit Diagram (Part 2)



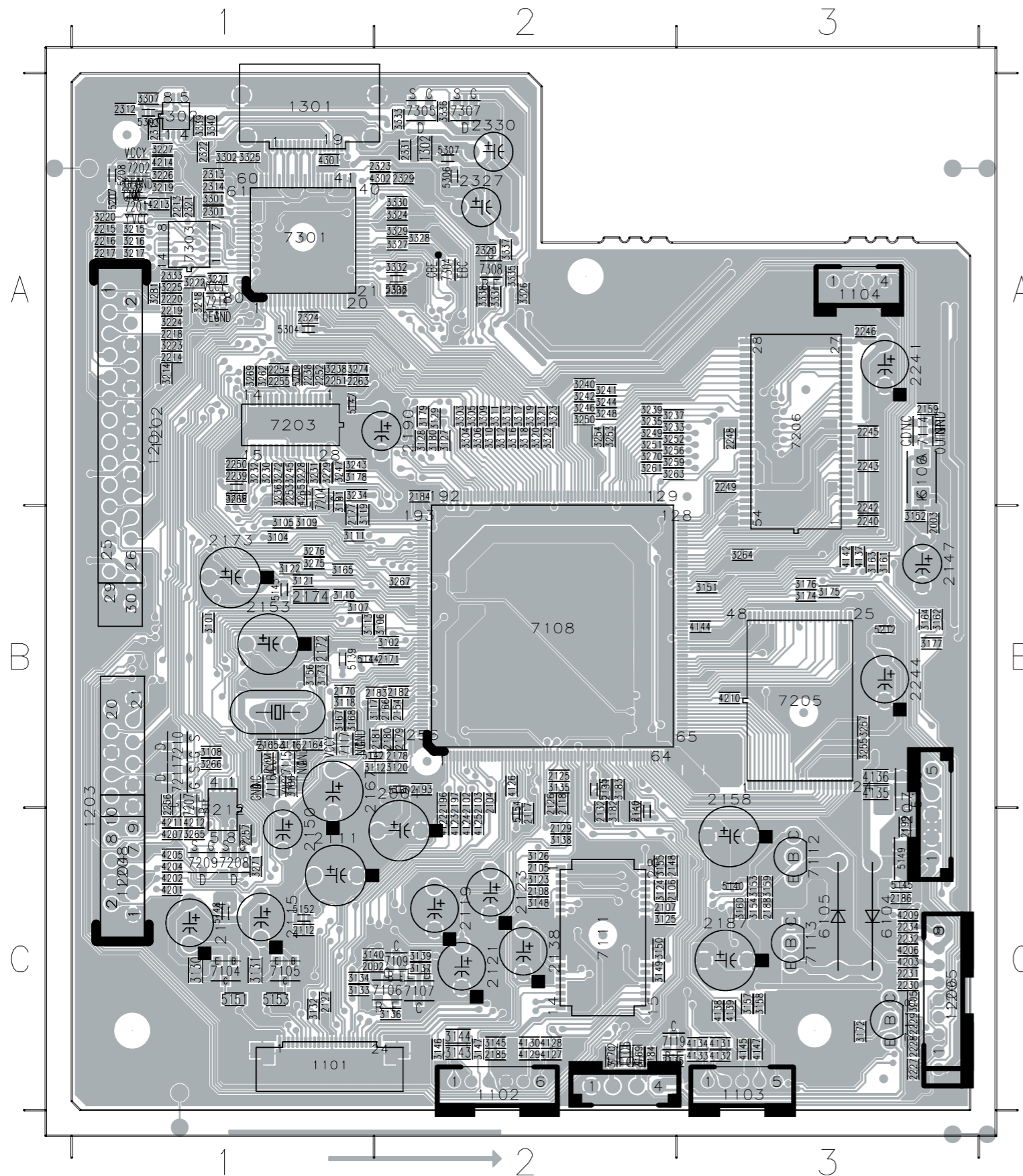
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1202 D5	3238 H8	F224 A8
1203 A12	3239 G2	F225 B8
1204 A11	3240 G2	F226 B8
1205 A8	3241 G2	F227 B8
1206 A8	3242 G2	F228 B8
1207 B8	3243 G10	F229 B8
1208 A12	3244 G2	F230 A12
2201 A1	3245 I11	F231 A12
2202 A1	3246 G2	F232 A12
2203 A3	3247 G10	F233 B12
2204 A3	3248 G2	F234 A12
2205 B1	3249 G2	F235 B12
2206 B1	3250 G2	F236 B12
2207 B3	3251 H2	F237 B12
2208 B3	3252 H2	F238 B12
2209 B1	3253 H2	F239 B12
2210 B1	3254 H2	F240 B12
2211 C1	3255 H7	F241 B12
2212 C1	3256 H2	F242 B12
2213 D8	3257 H5	F243 B12
2214 E3	3258 E12	F244 C11
2215 E3	3259 H2	F245 B12
2216 E3	3260 G9	F246 B8
2217 E3	3261 H2	F247 C8
2218 E3	3262 G11	F248 C8
2219 E4	3263 H4	F249 A8
2220 E4	3264 H4	
2221 B6	3265 B10	
2222 C6	3266 C10	
2223 C6	3267 D1	
2224 C6	3268 H11	
2225 C6	3269 H11	
2226 C6	3270 H2	
2227 A9	3271 A9	
2228 A9	3272 H12	
2229 A9	3273 H13	
2230 B9	3274 G8	
2231 B9	3275 C3	
2232 B9	3276 C3	
2233 B8	3277 B3	
2234 B9	3278 B3	
2235 C9	3279 B3	
2236 C9	3280 B3	
2237 A13	3281 D4	
2238 G9	4201 A13	
2239 F10	4202 A13	
2240 F3	4203 A7	
2241 F2	4204 A13	
2242 F3	4205 A13	
2243 F3	4206 B6	
2244 F7	4207 B13	
2245 F3	4208 B7	
2246 F3	4209 B7	
2247 F7	4210 H5	
2248 F3	4211 B13	
2249 F3	4212 B10	
2250 G10	4213 D7	
2251 G8	4214 E7	
2252 H8	4215 H10	
2253 H11	5201 A1	
2254 G11	5202 A3	
2255 G11	5203 B1	
2256 D10	5204 B3	
2257 B9	5205 B1	
2258 A13	5206 C1	
2259 A13	5207 D8	
2260 B13	5208 E8	
2261 B13	5209 G8	
2262 B13	5210 F10	
2263 H8	5211 F2	
3108 C10	5212 F7	
3201 A1	7201 D7	
3202 A2	7202 E7	
3203 A3	7203 G9	
3204 A4	7204 H12	
3205 B7	7205 F5	
3206 B1	7206 G3	
3207 B2	7207 C10	
3208 B3	7208 A10	
3209 B4	7209 B10	
3210 B1	7210 C10	
3211 B2	7211 D10	
3212 C1	7212 E11	
3213 C2	7213 H13	
3214 C2	7214 E2	
3215 C2	F201 B5	
3216 D2	F202 B5	
3217 D2	F203 B5	
3218 D2	F204 C5	
3219 D6	F205 C5	
3220 D8	F206 C5	
3221 D2	F207 C5	
3222 E2	F208 C5	
3223 E4	F209 C5	
3224 E4	F210 C5	
3225 E4	F211 C5	
3226 E6	F212 C5	
3227 E8	F213 C5	
3228 G12	F214 D5	
3229 G12	F215 D5	
3230 G11	F216 D5	
3231 G10	F217 D5	
3232 H9	F218 D5	
3233 F2	F219 D5	
3234 H12	F220 D5	
3235 G2	F221 D5	
3236 H12	F222 A8	

PCBA 9.1 Board: Circuit Diagram (Part 3)



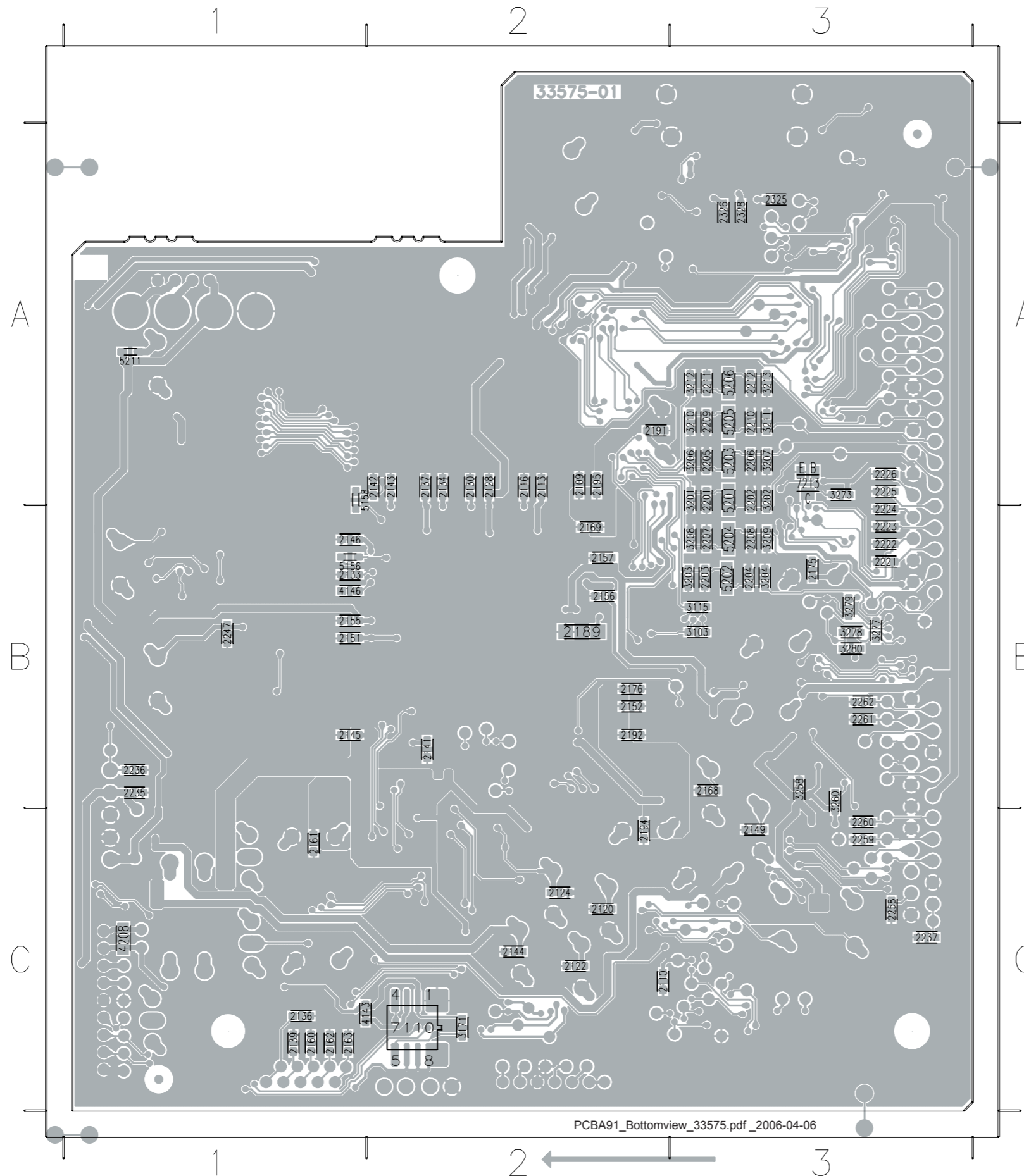
- 1301 D9
- 1302 F8
- 2301 C5
- 2312 A10
- 2313 C6
- 2314 C7
- 2315 A9
- 2320 B7
- 2321 D2
- 2322 E6
- 2323 G6
- 2324 E1
- 2325 F6
- 2326 F6
- 2327 G7
- 2328 G7
- 2329 G6
- 2330 F8
- 2331 F8
- 2332 H3
- 2333 A2
- 3301 C7
- 3302 D6
- 3303 D2
- 3304 D2
- 3305 D2
- 3306 E2
- 3307 A10
- 3309 E2
- 3310 E2
- 3311 E2
- 3312 E2
- 3313 E2
- 3316 F2
- 3317 F2
- 3318 F2
- 3319 F2
- 3320 F2
- 3321 F2
- 3322 G2
- 3323 G2
- 3324 H5
- 3325 D6
- 3326 A7
- 3327 H4
- 3328 H4
- 3329 H5
- 3330 H5
- 3331 B7
- 3332 H3
- 3333 A8
- 3335 B7
- 3336 B8
- 3337 B7
- 3338 B6
- 3339 B11
- 3340 B11
- 4301 E8
- 4302 G6
- 5303 A10
- 5304 E1
- 5306 F7
- 5307 F8
- 5308 H3
- 7301 E4
- 7302 B10
- 7303-1 A1
- 7303-2 B1
- 7303-3 B1
- 7303-4 C1
- 7304-1 I4
- 7304-2 I4
- 7305 A8
- 7307 B8
- 7308 B7
- T301 C7
- T302 C7
- T303 D4
- T304 D4
- T305 D4
- T306 D5
- T307 G3
- T308 G4

Layout: PCBA 9.1 Board (Top view)



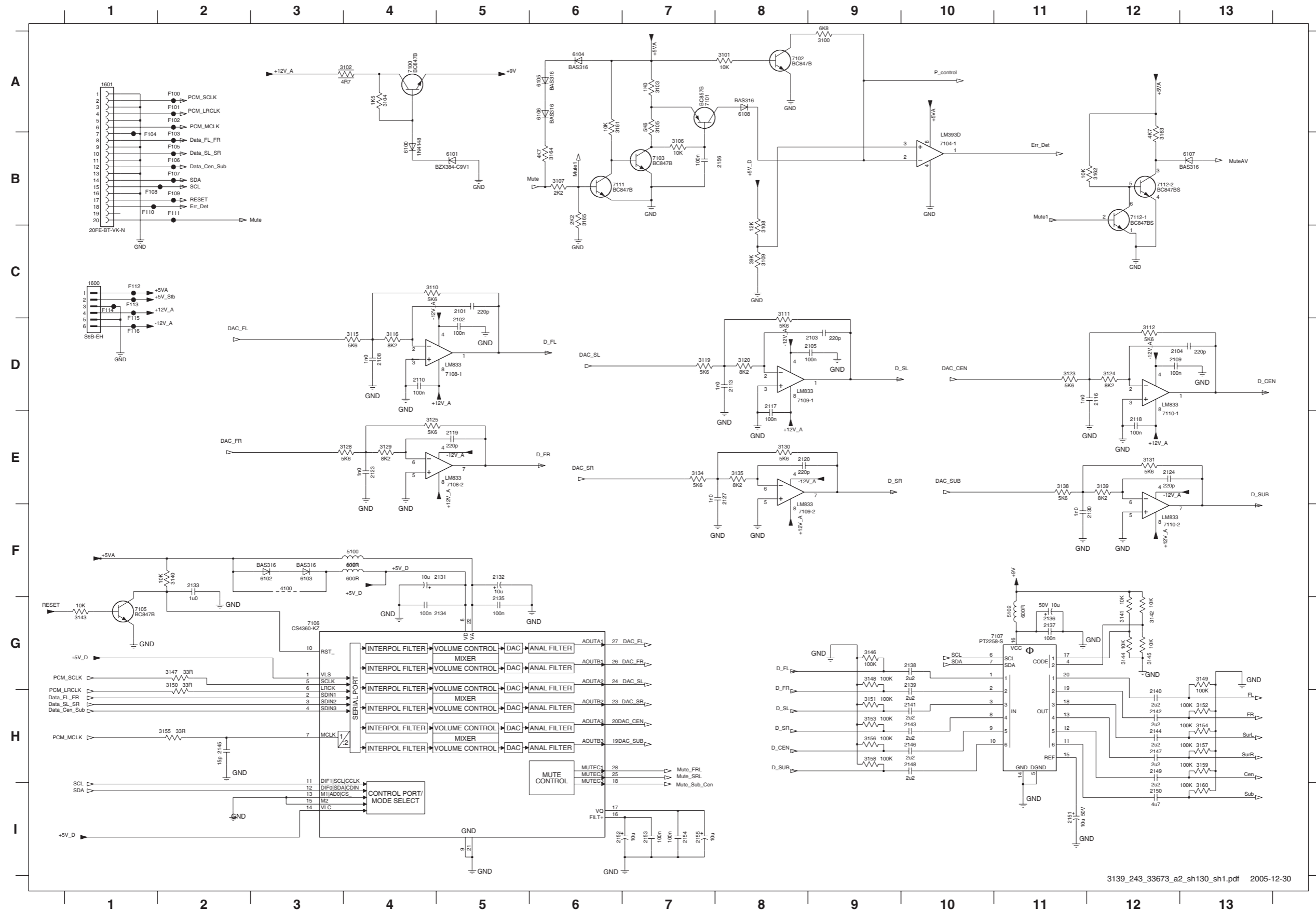
1101	C1	2178	B2	2327	A2	3162	B3	3253	A2	4126	B2	6104	C3
1102	C2	2179	B2	2329	A2	3163	B3	3254	A2	4127	C2	6105	C3
1103	C3	2180	B2	2330	A2	3164	B3	3255	B3	4128	C2	6106	A3
1104	A3	2181	B2	2331	A2	3165	B1	3256	A2	4129	C2	7104	C1
1105	C2	2182	B2	2332	A2	3166	B1	3257	B3	4130	C2	7105	C1
1106	C2	2183	B2	2333	A1	3167	B1	3259	A2	4131	C3	7106	C2
1201	A1	2184	A2	3101	B1	3168	B1	3261	A2	4132	C3	7107	C2
1202	A1	2185	C2	3102	B2	3169	C2	3262	A1	4133	C3	7108	B2
1203	B1	2186	C3	3104	B1	3170	C2	3263	A2	4134	C3	7109	C2
1204	C1	2187	C3	3105	B1	3172	C3	3264	B3	4135	B3	7111	C2
1205	C3	2188	C3	3106	B2	3173	B1	3265	C1	4136	B3	7112	C3
1206	C3	2190	A2	3107	B1	3174	B3	3266	B1	4137	B3	7113	C3
1207	C3	2193	B2	3108	B1	3175	B3	3267	B2	4138	C3	7114	A3
1208	C1	2196	B2	3109	B1	3176	B3	3268	A1	4139	C3	7115	B1
1301	A1	2197	B2	3110	B1	3177	B3	3269	A1	4142	B3	7116	B1
1302	A2	2199	C3	3111	B1	3178	A1	3270	A2	4144	B3	7117	B1
2001	B2	2213	A1	3112	B2	3179	A2	3271	C1	4145	C3	7118	C3
2002	C1	2214	A1	3113	B1	3180	A2	3272	A1	4147	C3	7119	C2
2003	B3	2215	A1	3116	B1	3181	A1	3274	A1	4201	C1	7201	A1
2101	B1	2216	A1	3117	B1	3182	C2	3275	B1	4202	C1	7202	A1
2102	B2	2217	A1	3118	B1	3183	B2	3276	B1	4203	C3	7203	A1
2103	B2	2218	A1	3119	B1	3184	C2	3281	A1	4204	C1	7204	A1
2104	B2	2219	A1	3120	B2	3205	C3	3301	A1	4205	C1	7205	B3
2105	C2	2220	A1	3121	B1	3214	A1	3302	A1	4206	C3	7206	A3
2106	C2	2227	C3	3122	B1	3215	A1	3303	A2	4207	C1	7207	B1
2107	C2	2228	C3	3123	C2	3216	A1	3304	A2	4209	C3	7208	C1
2108	C2	2229	C3	3124	C2	3217	A1	3305	A2	4210	B3	7209	C1
2111	C1	2230	C3	3125	C2	3218	A1	3306	A2	4211	C1	7210	B1
2112	C1	2231	C3	3126	C2	3219	A1	3307	A1	4212	C1	7211	B1
2114	C1	2232	C3	3127	A2	3220	A1	3309	A2	4213	A1	7212	C1
2115	C1	2233	A1	3128	A2	3221	A1	3310	A2	4214	A1	7214	A1
2117	C2	2234	C3	3129	A2	3222	A1	3311	A2	4215	A1	7301	A1
2118	B2	2238	A1	3130	C1	3223	A1	3312	A2	4301	A1	7302	A1
2119	C2	2239	A1	3131	C1	3224	A1	3313	A2	4302	A2	7303	A1
2121	C2	2240	B3	3132	C1	3225	A1	3316	A2	5139	B1	7304	A2
2123	C2	2241	A3	3133	C1	3226	A1	3317	A2	5140	C3	7305	A2
2125	B2	2242	B3	3134	C1	3227	A1	3318	A2	5141	B1	7307	A2
2126	B2	2243	A3	3135	B2	3228	A1	3319	A2	5142	B1	7308	A2
2127	C1	2244	B3	3136	C2	3229	A1	3320	A2	5143	B1		
2129	C2	2245	A3	3137	C2	3230	A1	3321	A2	5144	B1		
2131	B2	2246	A3	3138	C2	3231	A1	3322	A2	5145	C3		
2132	C2	2248	A3	3139	C2	3232	A1	3323	A2	5147	A1		
2135	C2	2249	A3	3140	C1	3233	A2	3324	A2	5148	C1		
2138	C2	2250	A1	3143	C2	3234	A1	3325	A1	5149	C3		
2140	C2	2251	A1	3144	C2	3235	A2	3326	A2	5151	C1		
2147	B3	2252	A1	3145	C2	3236	A1	3327	A2	5152	C1		
2148	C2	2253	A1	3146	C2	3237	A2	3328	A2	5153	C1		
2150	C1	2254	A1	3147	C2	3238	A1	3329	A2	5154	C2		
2153	B1	2255	A1	3148	C2	3239	A2	3330	A2	5155	B2		
2154	B2	2256	B1	3149	C2	3240	A2	3331	A2	5157	C2		
2158	B3	2257	C1	3150	C2	3241	A2	3332	A2	5159	B3		
2159	A3	2263	A1	3151	B3	3242	A2	3333	A2	5160	B2		
2164	B1	2301	A1	3152	B3	3243	A1	3335	A2	5207	A1		
2165	B1	2312	A1	3153	C3	3244	A2	3336	A2	5208	A1		
2166	B2	2313	A1	3154	C3	3245	A1	3337	A2	5209	A1		
2167	B1	2314	A1	3155	C2	3246	A2	3338	A2	5210	A1		
2170	B1	2315	A1	3156	B1	3247	A1	3339	A1	5212	B3		
2171	B2	2320	A2	3157	C3	3248	A2	3340	A1	5303	A1		
2172	B1	2321	A1	3158	C3	3249	A2	3340	A1	4122	C2	5304	A1
2173	B1	2322	A1	3159	C3	3250	A2	4123	C2	5306	A2		
2174	B1	2323	A2	3160	C3	3251	A2	4124	C2	5307	A2		
2177	B1	2324	A1	3161	B3	3252	A2	4125	C2	5308	A2		

Layout: PCBA 9.1 Board (Bottom view)



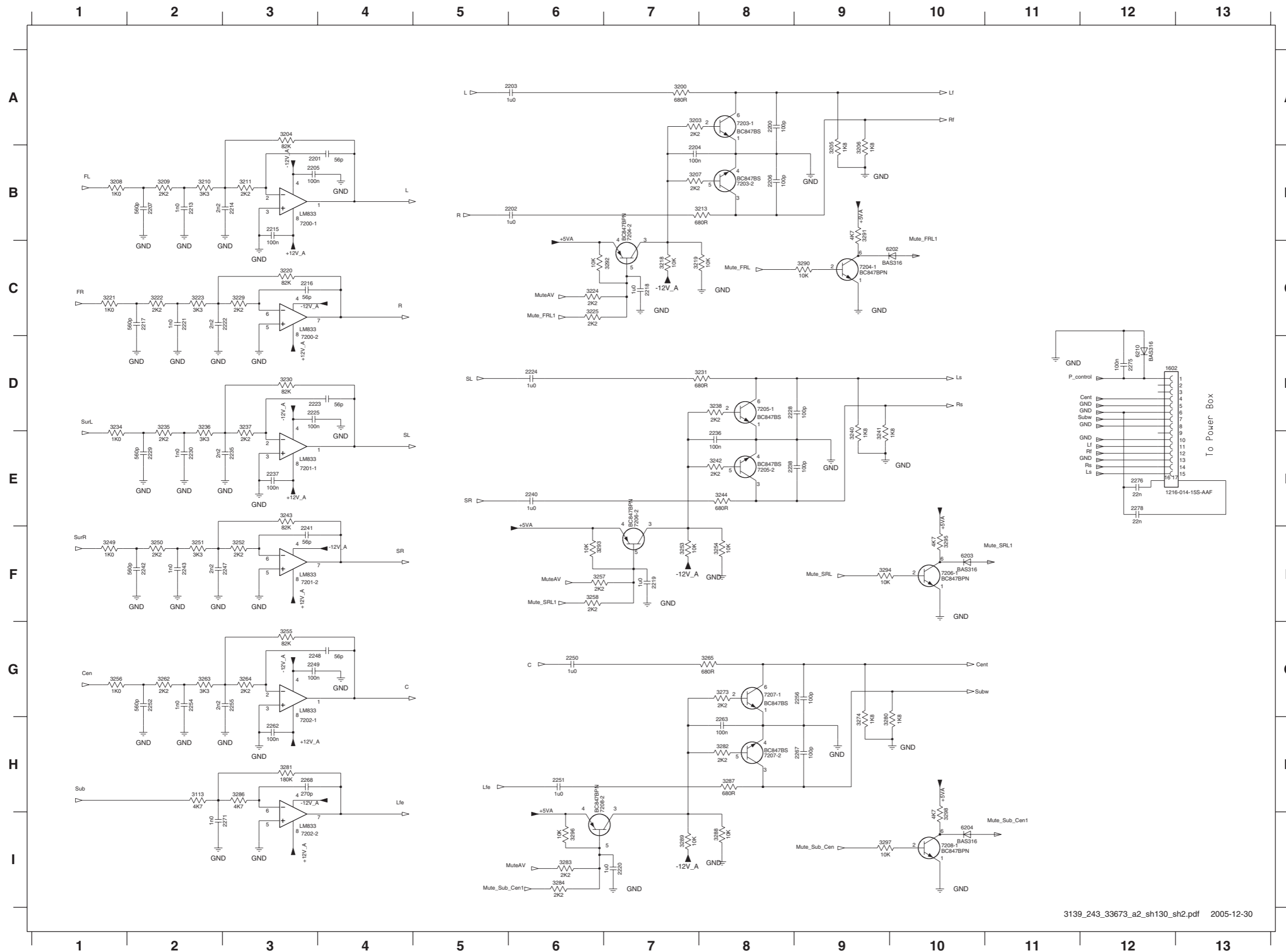
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2113	A2	2261	B3
2116	A2	2262	B3
2120	C2	2325	A3
2122	C2	2326	A3
2124	C2	2328	A3
2128	A2	3103	B3
2130	A2	3115	B3
2133	B1	3171	C2
2134	A2	3201	A3
2136	C1	3202	A3
2137	A2	3203	B3
2139	C1	3204	B3
2141	B2	3206	A3
2142	A2	3207	A3
2143	A2	3208	B3
2144	C2	3209	B3
2145	B1	3210	A3
2146	B1	3211	A3
2149	C3	3212	A3
2151	B1	3213	A3
2152	B2	3258	B3
2155	B1	3260	B3
2156	B2	3273	A3
2157	B2	3277	B3
2160	C1	3278	B3
2161	C1	3279	B3
2162	C1	3280	B3
2163	C1	4143	C1
2168	B3	4146	B1
2169	B2	4208	C1
2175	B3	5156	B1
2176	B2	5158	A1
2189	B2	5201	A3
2191	A2	5202	B3
2192	B2	5203	A3
2194	C2	5204	B3
2195	A2	5205	A3
2201	A3	5206	A3
2202	A3	5211	A1
2203	B3	7110	C2
2204	B3	7213	A3
2205	A3		
2206	A3		
2207	B3		
2208	B3		
2209	A3		
2210	A3		
2211	A3		
2212	A3		
2221	B3		
2222	B3		
2223	B3		
2224	B3		
2225	A3		
2226	A3		
2235	B1		
2236	B1		
2237	C3		
2247	B1		
2258	C3		

Interface Board: Circuit Diagram (Part 1)



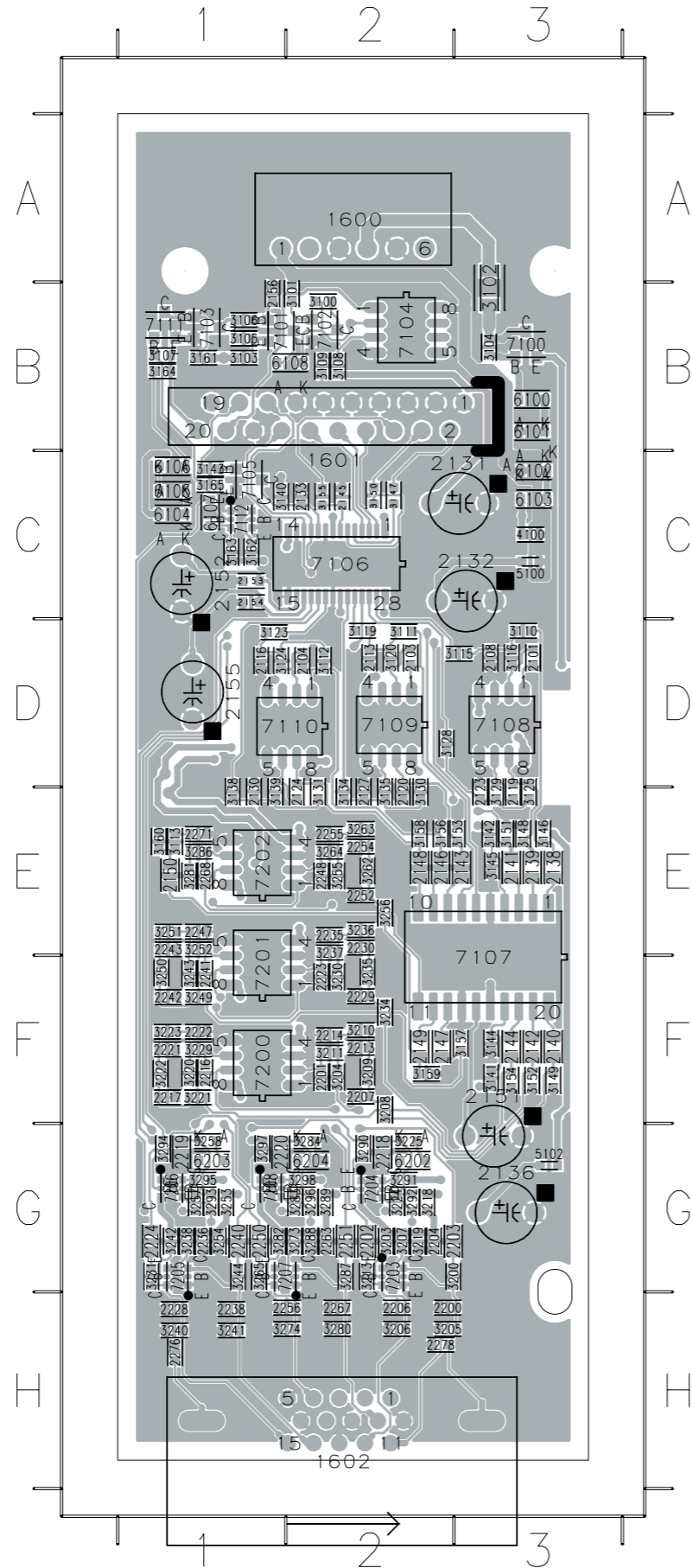
- 1600 C1
- 1601 A1
- 2101 C5
- 2102 D5
- 2103 D9
- 2104 D12
- 2105 D9
- 2108 D4
- 2109 D12
- 2110 D4
- 2113 D8
- 2116 D12
- 2117 D8
- 2118 E12
- 2119 E5
- 2120 E8
- 2123 E4
- 2124 E12
- 2127 E8
- 2130 F12
- 2131 F5
- 2132 F5
- 2133 G2
- 2134 G5
- 2135 G5
- 2136 G11
- 2137 G11
- 2138 G10
- 2139 G10
- 2140 H12
- 2141 H10
- 2142 H12
- 2143 H10
- 2144 H12
- 2145 H2
- 2146 H10
- 2147 H12
- 2148 H10
- 2149 H12
- 2150 I12
- 2151 I11
- 2152 I6
- 2153 I7
- 2154 I7
- 2155 I7
- 2156 B8
- 3100 A9
- 3101 A8
- 3102 A4
- 3103 A7
- 3104 A4
- 3105 A7
- 3106 B7
- 3107 B6
- 3108 C8
- 3109 C8
- 3110 C4
- 3111 C8
- 3112 D12
- 3115 D4
- 3116 D4
- 3119 D7
- 3120 D8
- 3123 D11
- 3124 D12
- 3125 E4
- 3128 E4
- 3129 E4
- 3130 E8
- 3131 E12
- 3134 E7
- 3135 E8
- 3138 E11
- 3139 E12
- 3140 F2
- 3141 G12
- 3142 G12
- 3143 G1
- 3144 G12
- 3145 G12
- 3146 G9
- 3147 G2
- 3148 G9
- 3149 G13
- 3150 G2
- 3151 H9
- 3152 H13
- 3153 H9
- 3154 H13
- 3155 H2
- 3156 H9
- 3157 H13
- 3158 H9
- 3159 H13
- 3160 I13
- 3161 A6
- 3162 B12
- 3163 B12
- 3164 B6
- 3165 B6
- 4100 F3
- 5100 F4
- 5101 F4
- 5102 G11
- 6100 B4
- 6101 B5
- 6102 F3
- 6103 F3
- 6104 A6
- 6105 A6
- 6106 A6
- 6107 B13
- 6108 A8
- 6109 A4
- 6101 A7
- 6102 A8
- 6103 B7
- 6104-1 B10
- 6105 G1
- 6106 G3
- 6107 G11
- 6108-1 D5
- 6108-2 E5
- 6109-1 D8
- 6109-2 F8
- 6110-1 E12
- 6110-2 F12
- 6111 B6
- 6112-1 B12
- 6112-2 B12
- 6100 A2
- F101 A2
- F102 A2
- F103 B2
- F104 B1
- F105 B2
- F106 B2
- F107 B2
- F108 B1
- F109 B2
- F110 B2
- F111 B2
- F112 C1
- F113 C1
- F114 C1
- F115 D1
- F116 D1

Interface Board: Circuit Diagram (Part 2)

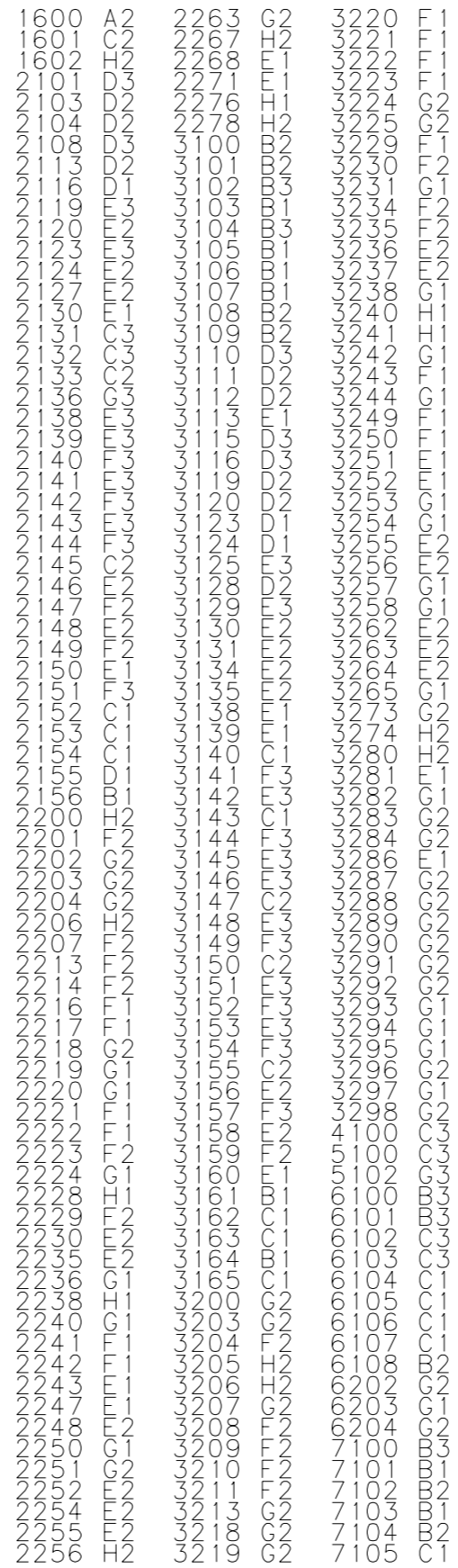


- 1602 D12
- 2200 A8
- 2201 B3
- 2202 B6
- 2203 A6
- 2204 B7
- 2205 B3
- 2206 B8
- 2207 B2
- 2213 B2
- 2214 B3
- 2215 B3
- 2216 C3
- 2217 C2
- 2218 C7
- 2219 F7
- 2220 I7
- 2221 C2
- 2222 C3
- 2223 D3
- 2224 D6
- 2225 D3
- 2228 D8
- 2229 E2
- 2230 E2
- 2235 E3
- 2236 E8
- 2237 E3
- 2238 E8
- 2240 E6
- 2241 F3
- 2242 F2
- 2243 F2
- 2247 F3
- 2249 G3
- 2250 G6
- 2251 H6
- 2252 G2
- 2254 G2
- 2255 G3
- 2256 G9
- 2262 H3
- 2263 H8
- 2267 H9
- 2268 H3
- 2271 I3
- 2275 D12
- 2276 E12
- 2278 E12
- 3113 H2
- 3200 A7
- 3203 A7
- 3204 A3
- 3205 B9
- 3206 B9
- 3207 B7
- 3208 B1
- 3209 B2
- 3210 B2
- 3211 B3
- 3213 B8
- 3218 C7
- 3219 C7
- 3220 C3
- 3221 C1
- 3222 C2
- 3223 C2
- 3224 C6
- 3225 C6
- 3229 C3
- 3230 D3
- 3231 D8
- 3234 D1
- 3235 D2
- 3236 D2
- 3237 D3
- 3238 D8
- 3240 E9
- 3241 E9
- 3242 E8
- 3243 E3
- 3244 E8
- 3249 F1
- 3250 F2
- 3251 F2
- 3252 F3
- 3253 F7
- 3254 F8
- 3255 G3
- 3256 G1
- 3257 F6
- 3258 F6
- 3262 G2
- 3263 G2
- 3264 G3
- 3265 G8
- 3273 G8
- 3274 H9
- 3280 H9
- 3281 H3
- 3282 H8
- 3283 I6
- 3284 I6
- 3286 H3
- 3287 H8
- 3288 I8
- 3289 I7
- 3290 C9
- 3291 B9
- 3292 C7
- 3293 F6
- 3294 F9
- 3295 F10
- 3297 I9
- 3298 I10
- 6202 C10
- 6203 F10
- 6204 I10
- 6210 D12
- 7200-1 B3
- 7200-2 C3
- 7201-1 E3
- 7201-2 F3
- 7202-1 H3
- 7202-2 I3
- 7203-1 A8
- 7203-2 B8
- 7204-1 C9
- 7204-2 C7
- 7205-1 D8
- 7205-2 E8
- 7206-1 F10
- 7206-2 F7
- 7207-1 G8
- 7207-2 H8
- 7208-1 I10
- 7208-2 I6

Layout: Interface Board (Top view)

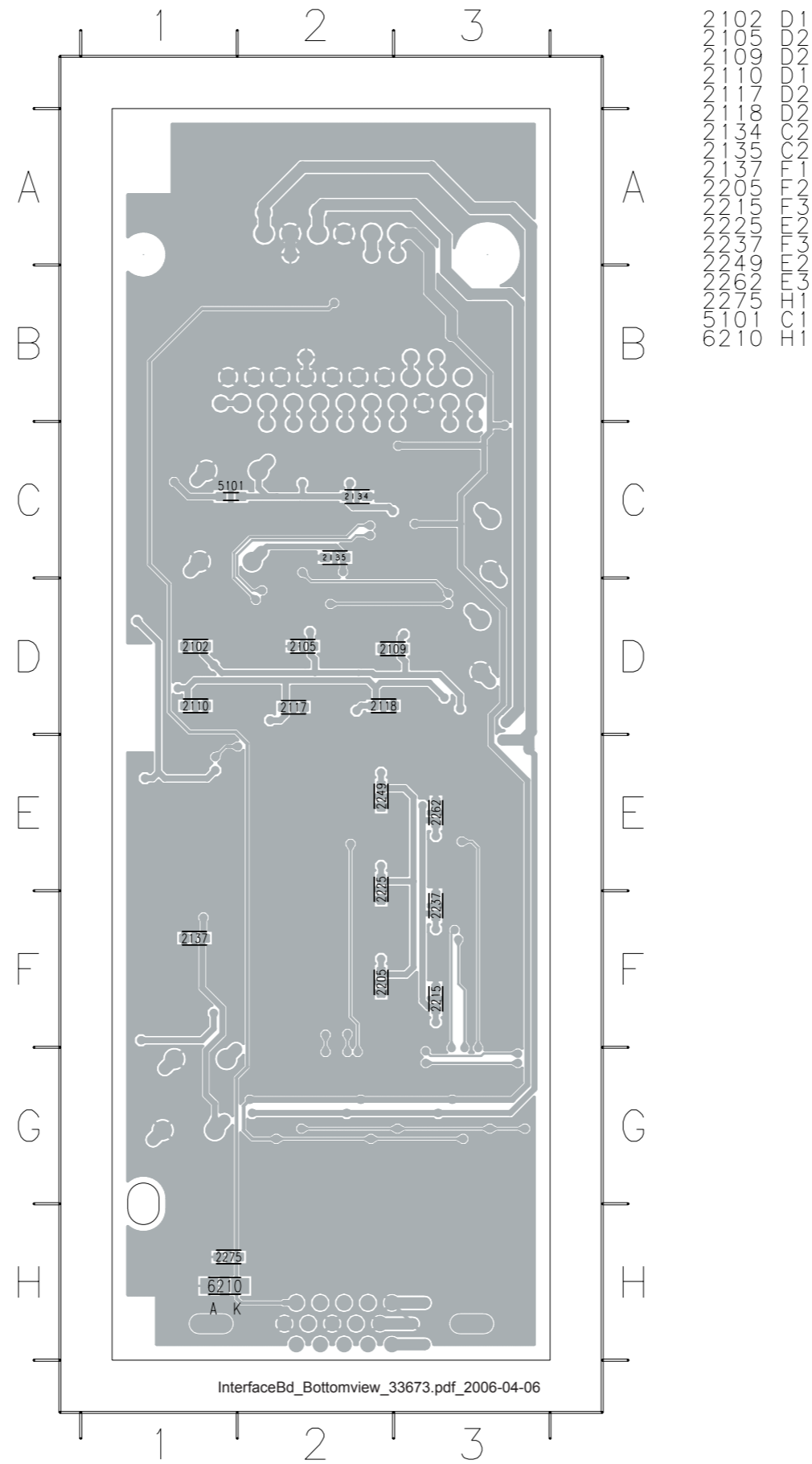


InterfaceBd_Topview_33673.pdf_2006-04-06

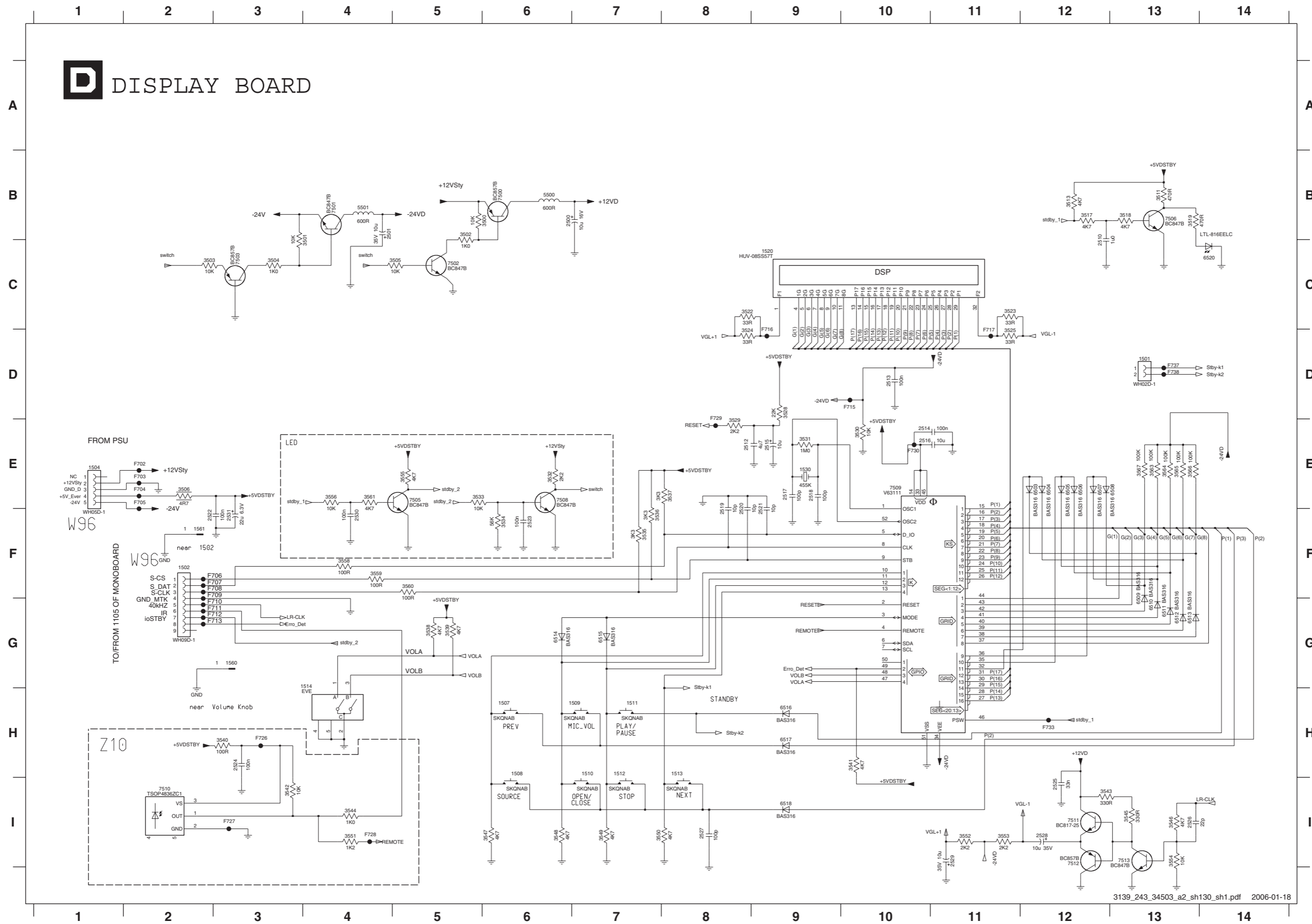


1	1600	1	0	0	6
2	7104	4	5	8	
3	7106	1	5	4	2
4	7109	4	7	0	8
5	7108	4	7	0	8
6	7201	4	7	0	1
7	7200	4	7	0	0
8	7107	4	7	0	7
9	1602	5	6	2	0

Layout: Interface Board (Bottom view)

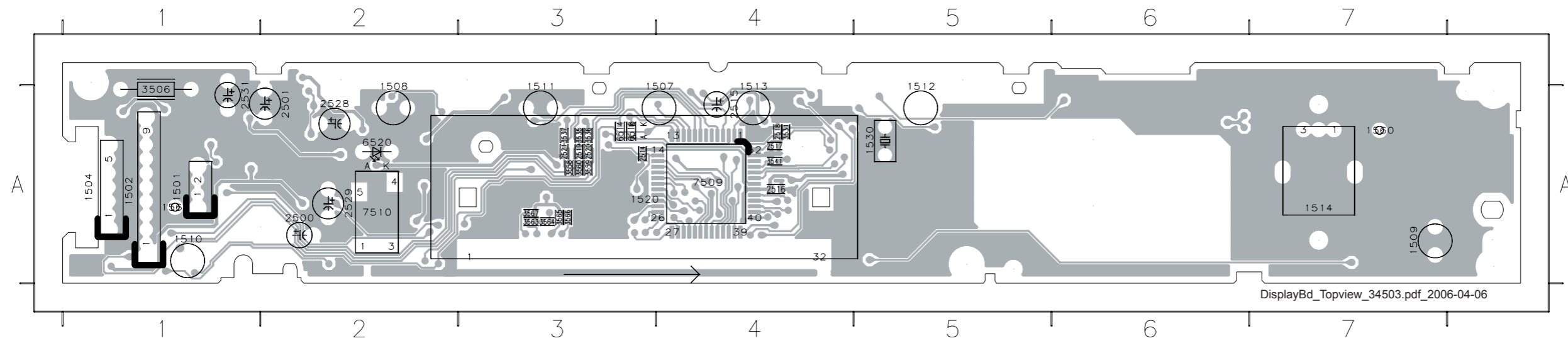


Front: Display Board



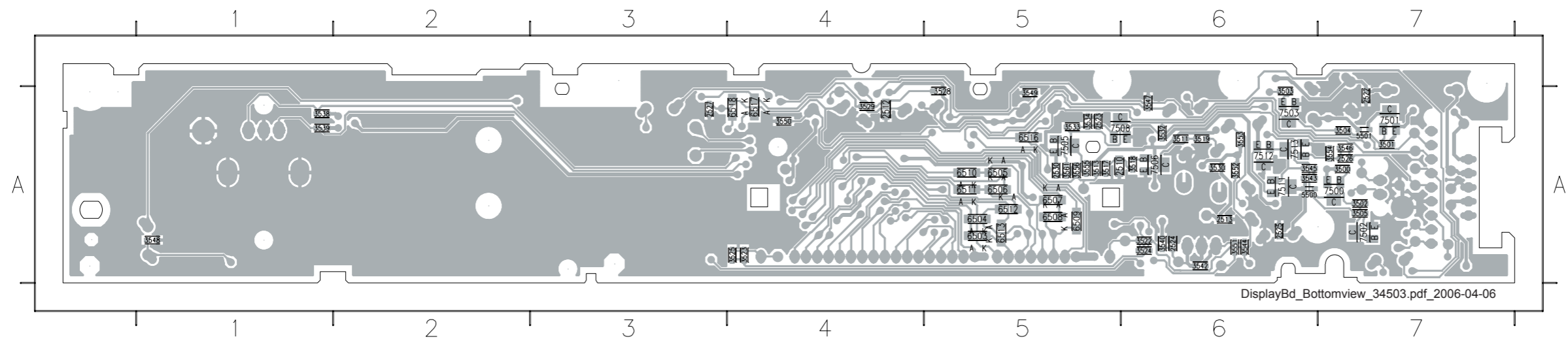
1501 D13	7508 E6
1502 F2	7509 E10
1504 E1	7510 I2
1507 H6	7511 I2
1508 H6	7512 I12
1509 H7	7513 I13
1510 H7	F702 E2
1511 H7	F703 E2
1512 H7	F704 E2
1513 H8	F705 E2
1514 H4	F706 F3
1520 C9	F707 F3
1530 E9	F708 F3
1560 G3	F709 F3
1561 F2	F710 G3
2500 B6	F711 G3
2501 B4	F712 G3
2510 C12	F713 G3
2512 E8	F715 D10
2513 D10	F716 D9
2514 E10	F717 D11
2515 E9	F726 H3
2516 E10	F727 I3
2517 E9	F728 I4
2518 E9	F729 E8
2519 F8	F730 E10
2520 F8	F733 H12
2521 F9	F737 D13
2522 F2	F738 D13
2523 F6	
2524 H3	
2525 I12	
2526 I13	
2527 I8	
2528 I12	
2529 I11	
2530 F4	
2531 F3	
3500 B6	
3501 C4	
3502 B5	
3503 C2	
3504 C3	
3505 C5	
3506 E2	
3511 B13	
3513 B12	
3517 B12	
3518 B13	
3519 B13	
3522 C8	
3523 C11	
3524 D8	
3525 D11	
3528 D9	
3529 E8	
3530 E10	
3531 E9	
3532 E6	
3533 E5	
3534 F6	
3535 F7	
3536 F7	
3537 E8	
3538 G5	
3539 G5	
3540 H3	
3541 H10	
3542 I3	
3543 I12	
3544 I4	
3545 I13	
3546 I13	
3547 I6	
3548 I6	
3549 I7	
3550 I7	
3551 I4	
3552 H11	
3553 H11	
3554 I13	
3555 E5	
3556 E4	
3558 F4	
3559 F4	
3560 F5	
3561 E4	
3563 E13	
3564 E13	
3565 E13	
3566 E13	
3567 E13	
5000 B6	
5001 B4	
6003 E12	
6004 E12	
6005 E12	
6006 E12	
6007 E12	
6008 E13	
6009 G13	
6010 G13	
6011 G13	
6012 G13	
6013 G13	
6014 G6	
6015 G7	
6016 H9	
6017 H9	
6018 I9	
6020 C14	
7000 B6	
7001 B4	
7002 C5	
7003 C3	
7005 E5	
7006 B13	

Layout: Front- Display Board (Top view)



1501	A1	3506	A4
1502	A1	2501	A3
1503	A1	2528	A3
1504	A1	1511	A3
1505	A1	1507	A3
1506	A1	1513	A3
1507	A1	1512	A3
1508	A1	1530	A3
1509	A1	1514	A3
1510	A1	1509	A3
1511	A1	1514	A3
1512	A1	1514	A3
1513	A1	1514	A3
1514	A1	1514	A3
1515	A1	1514	A3
1516	A1	1514	A3
1517	A1	1514	A3
1518	A1	1514	A3
1519	A1	1514	A3
1520	A1	1514	A3
1521	A1	1514	A3
1522	A1	1514	A3
1523	A1	1514	A3
1524	A1	1514	A3
1525	A1	1514	A3
1526	A1	1514	A3
1527	A1	1514	A3
1528	A1	1514	A3
1529	A1	1514	A3
1530	A1	1514	A3
1531	A1	1514	A3
1532	A1	1514	A3
1533	A1	1514	A3
1534	A1	1514	A3
1535	A1	1514	A3
1536	A1	1514	A3
1537	A1	1514	A3
1538	A1	1514	A3
1539	A1	1514	A3
1540	A1	1514	A3
1541	A1	1514	A3
1542	A1	1514	A3
1543	A1	1514	A3
1544	A1	1514	A3
1545	A1	1514	A3
1546	A1	1514	A3
1547	A1	1514	A3
1548	A1	1514	A3
1549	A1	1514	A3
1550	A1	1514	A3
1551	A1	1514	A3
1552	A1	1514	A3
1553	A1	1514	A3
1554	A1	1514	A3
1555	A1	1514	A3
1556	A1	1514	A3
1557	A1	1514	A3
1558	A1	1514	A3
1559	A1	1514	A3
1560	A1	1514	A3
1561	A1	1514	A3
1562	A1	1514	A3
1563	A1	1514	A3
1564	A1	1514	A3
1565	A1	1514	A3
1566	A1	1514	A3
1567	A1	1514	A3
1568	A1	1514	A3
1569	A1	1514	A3
1570	A1	1514	A3
1571	A1	1514	A3
1572	A1	1514	A3
1573	A1	1514	A3
1574	A1	1514	A3
1575	A1	1514	A3
1576	A1	1514	A3
1577	A1	1514	A3
1578	A1	1514	A3
1579	A1	1514	A3
1580	A1	1514	A3
1581	A1	1514	A3
1582	A1	1514	A3
1583	A1	1514	A3
1584	A1	1514	A3
1585	A1	1514	A3
1586	A1	1514	A3
1587	A1	1514	A3
1588	A1	1514	A3
1589	A1	1514	A3
1590	A1	1514	A3
1591	A1	1514	A3
1592	A1	1514	A3
1593	A1	1514	A3
1594	A1	1514	A3
1595	A1	1514	A3
1596	A1	1514	A3
1597	A1	1514	A3
1598	A1	1514	A3
1599	A1	1514	A3
1600	A1	1514	A3

Layout: Front- Display Board (Bottom view)

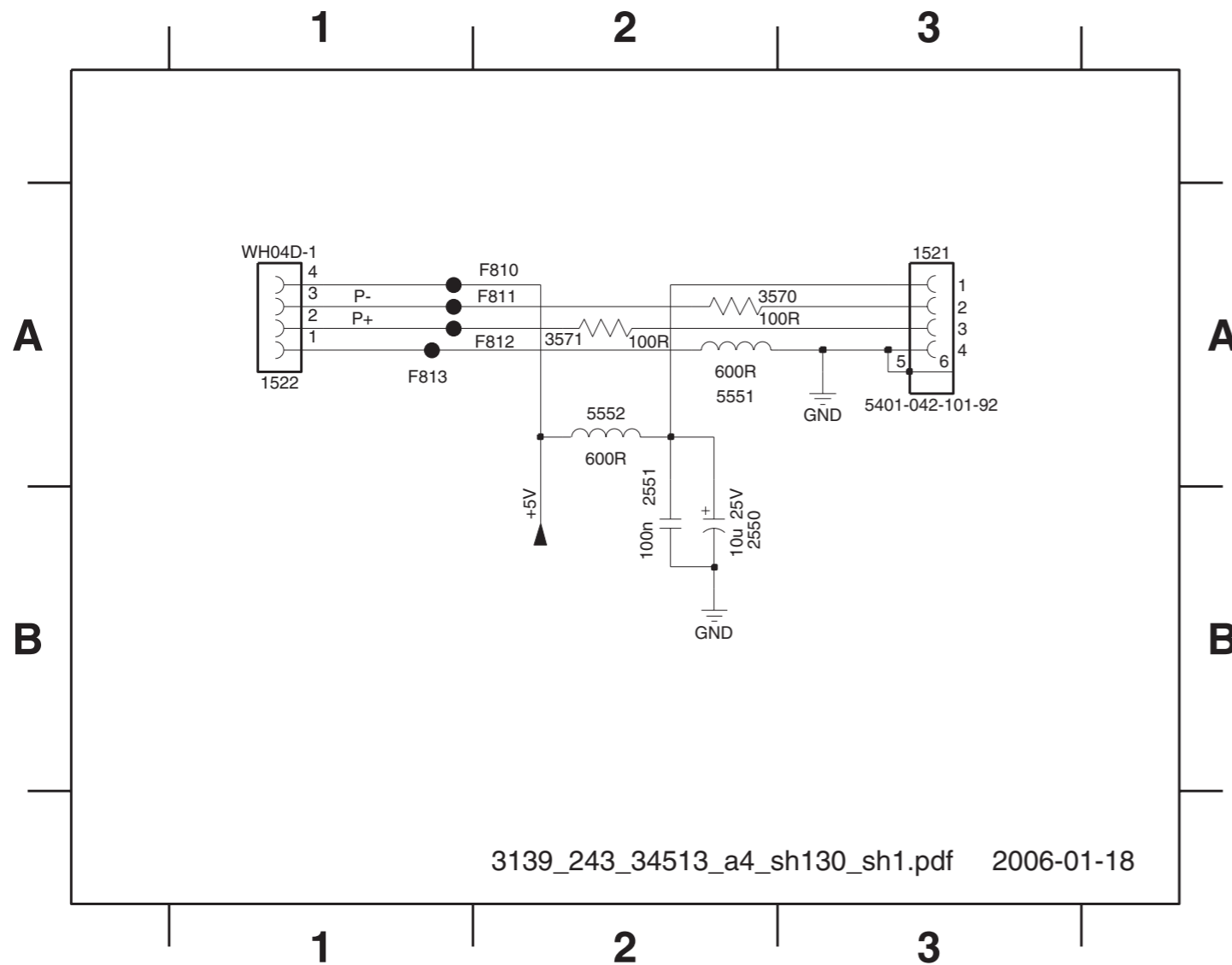


2501	A5	3506	A5
2502	A5	2501	A5
2503	A5	2528	A5
2504	A5	1511	A5
2505	A5	1507	A5
2506	A5	1513	A5
2507	A5	1512	A5
2508	A5	1530	A5
2509	A5	1514	A5
2510	A5	1509	A5
2511	A5	1514	A5
2512	A5	1514	A5
2513	A5	1514	A5
2514	A5	1514	A5
2515	A5	1514	A5
2516	A5	1514	A5
2517	A5	1514	A5
2518	A5	1514	A5
2519	A5	1514	A5
2520	A5	1514	A5
2521	A5	1514	A5
2522	A5	1514	A5
2523	A5	1514	A5
2524	A5	1514	A5
2525	A5	1514	A5
2526	A5	1514	A5
2527	A5	1514	A5
2528	A5	1514	A5
2529	A5	1514	A5
2530	A5	1514	A5
2531	A5	1514	A5
2532	A5	1514	A5
2533	A5	1514	A5
2534	A5	1514	A5
2535	A5	1514	A5
2536	A5	1514	A5
2537	A5	1514	A5
2538	A5	1514	A5
2539	A5	1514	A5
2540	A5	1514	A5
2541	A5	1514	A5
2542	A5	1514	A5
2543	A5	1514	A5
2544	A5	1514	A5
2545	A5	1514	A5
2546	A5	1514	A5
2547	A5	1514	A5
2548	A5	1514	A5
2549	A5	1514	A5
2550	A5	1514	A5
2551	A5	1514	A5
2552	A5	1514	A5
2553	A5	1514	A5
2554	A5	1514	A5
2555	A5	1514	A5
2556	A5	1514	A5
2557	A5	1514	A5
2558	A5	1514	A5
2559	A5	1514	A5
2560	A5	1514	A5
2561	A5	1514	A5
2562	A5	1514	A5
2563	A5	1514	A5
2564	A5	1514	A5
2565	A5	1514	A5
2566	A5	1514	A5
2567	A5	1514	A5
2568	A5	1514	A5
2569	A5	1514	A5
2570	A5	1514	A5
2571	A5	1514	A5
2572	A5	1514	A5
2573	A5	1514	A5
2574	A5	1514	A5
2575	A5	1514	A5
2576	A5	1514	A5
2577	A5	1514	A5
2578	A5	1514	A5
2579	A5	1514	A5
2580	A5	1514	A5
2581	A5	1514	A5
2582	A5	1514	A5
2583	A5	1514	A5
2584	A5	1514	A5
2585	A5	1514	A5
2586	A5	1514	A5
2587	A5	1514	A5
2588	A5	1514	A5
2589	A5	1514	A5
2590	A5	1514	A5
2591	A5	1514	A5
2592	A5	1514	A5
2593	A5	1514	A5
2594	A5	1514	A5
2595	A5	1514	A5
2596	A5	1514	A5
2597	A5	1514	A5
2598	A5	1514	A5
2599	A5	1514	A5
2600	A5	1514	A5

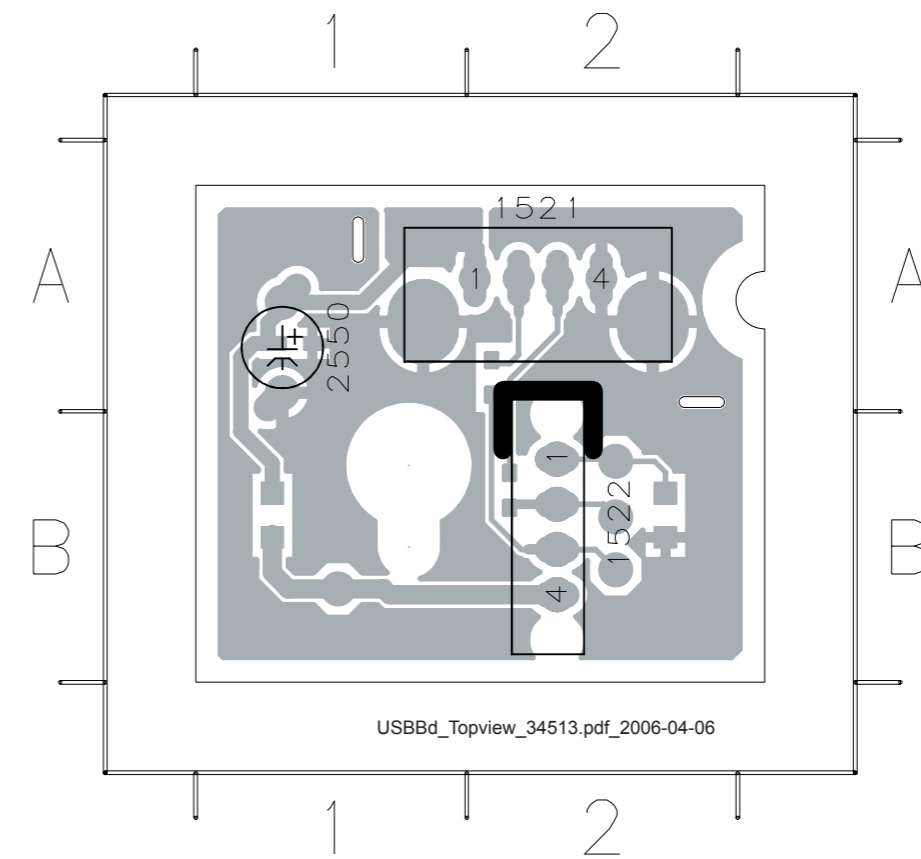
Front: USB Board

Layout: Front- USB Board (Top view)

1521 A3 2550 B2 3570 A2 5551 A2 F810 A2 F812 A2
 1522 A1 2551 A2 3571 A2 5552 A2 F811 A2 F813 A1

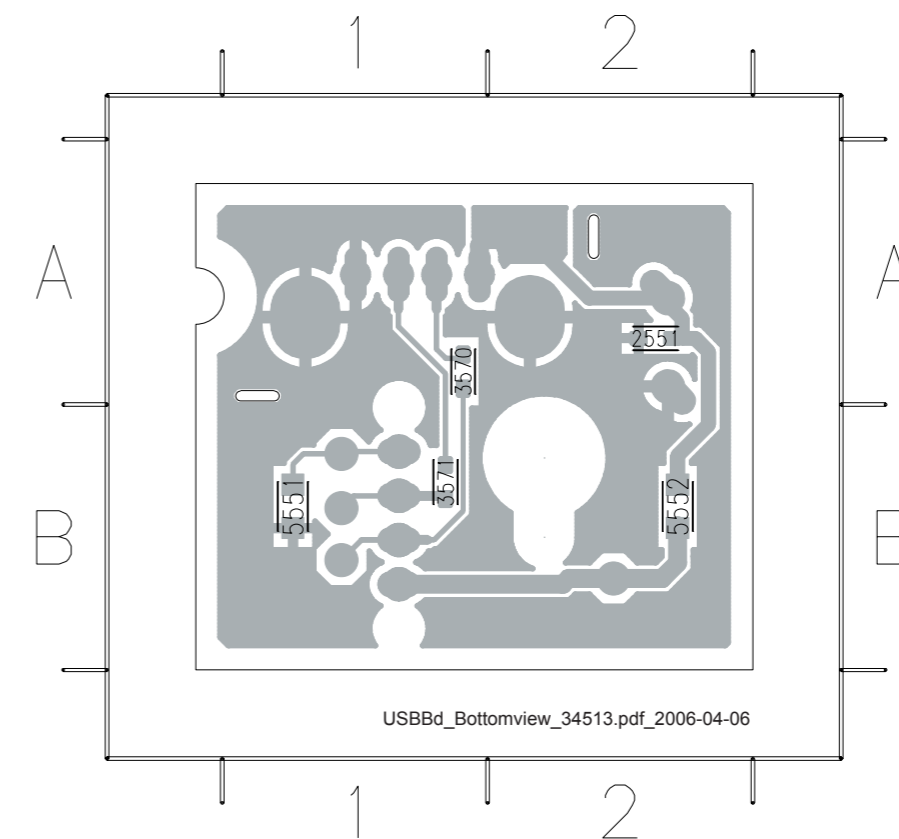


1521 A2
 1522 B2
 2550 A1

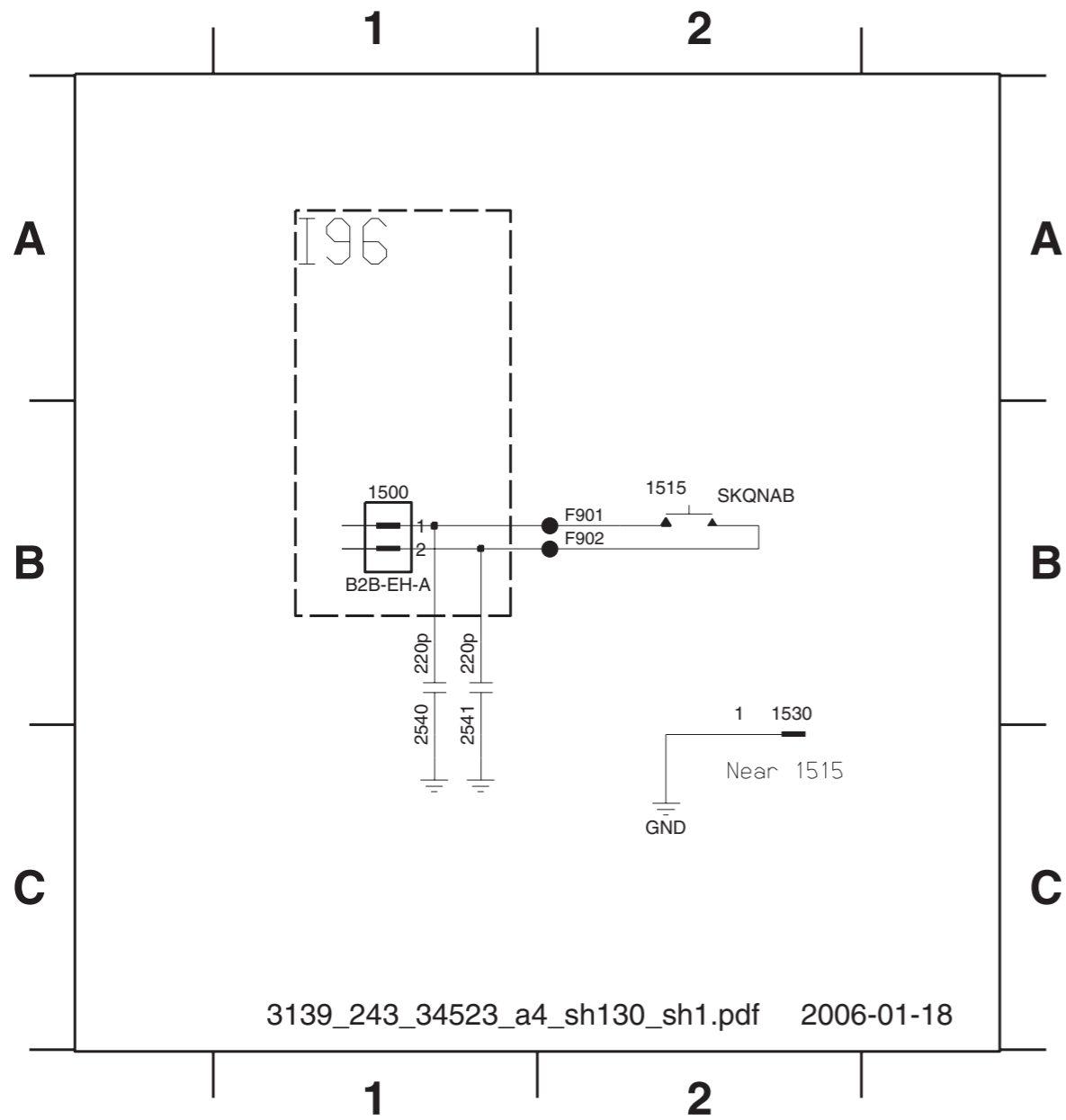


Layout: Front- USB Board (Bottom view)

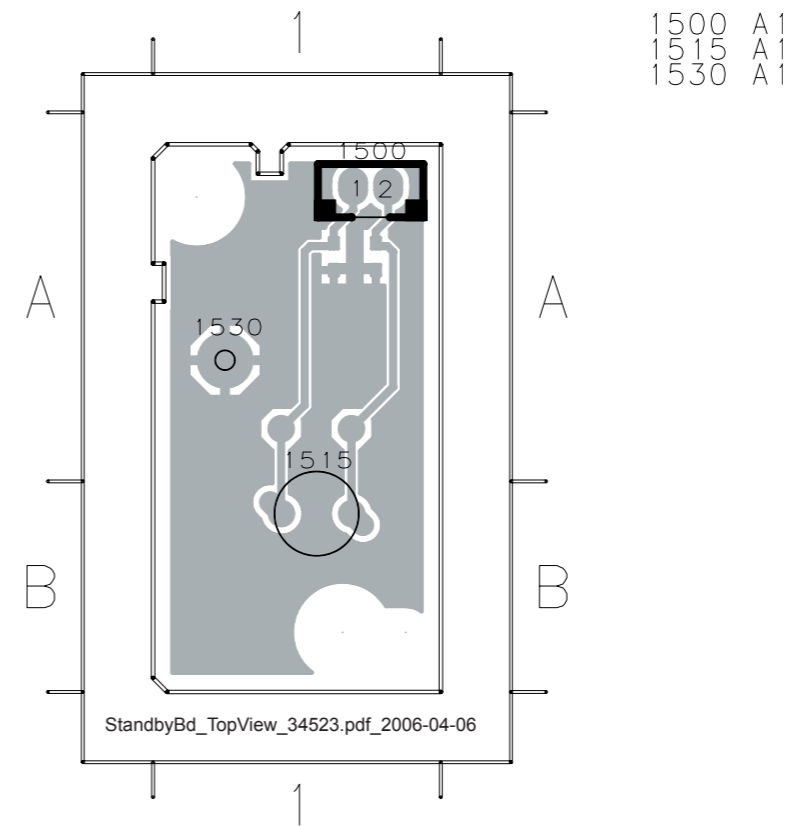
2551 A2
 3570 A1
 3571 B1
 5551 B1
 5552 B2



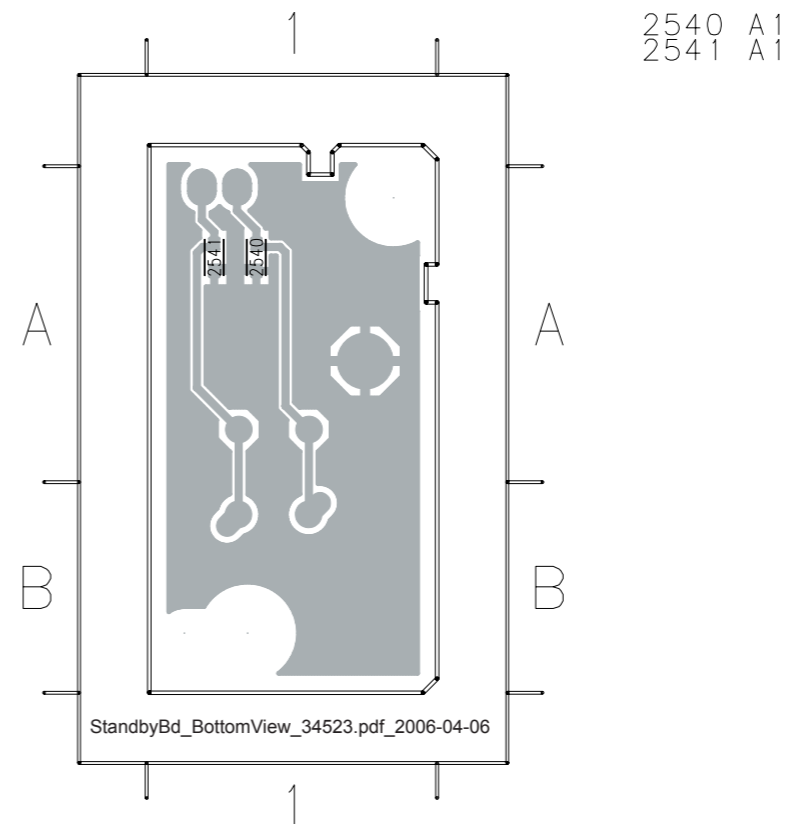
Front: Standby Board



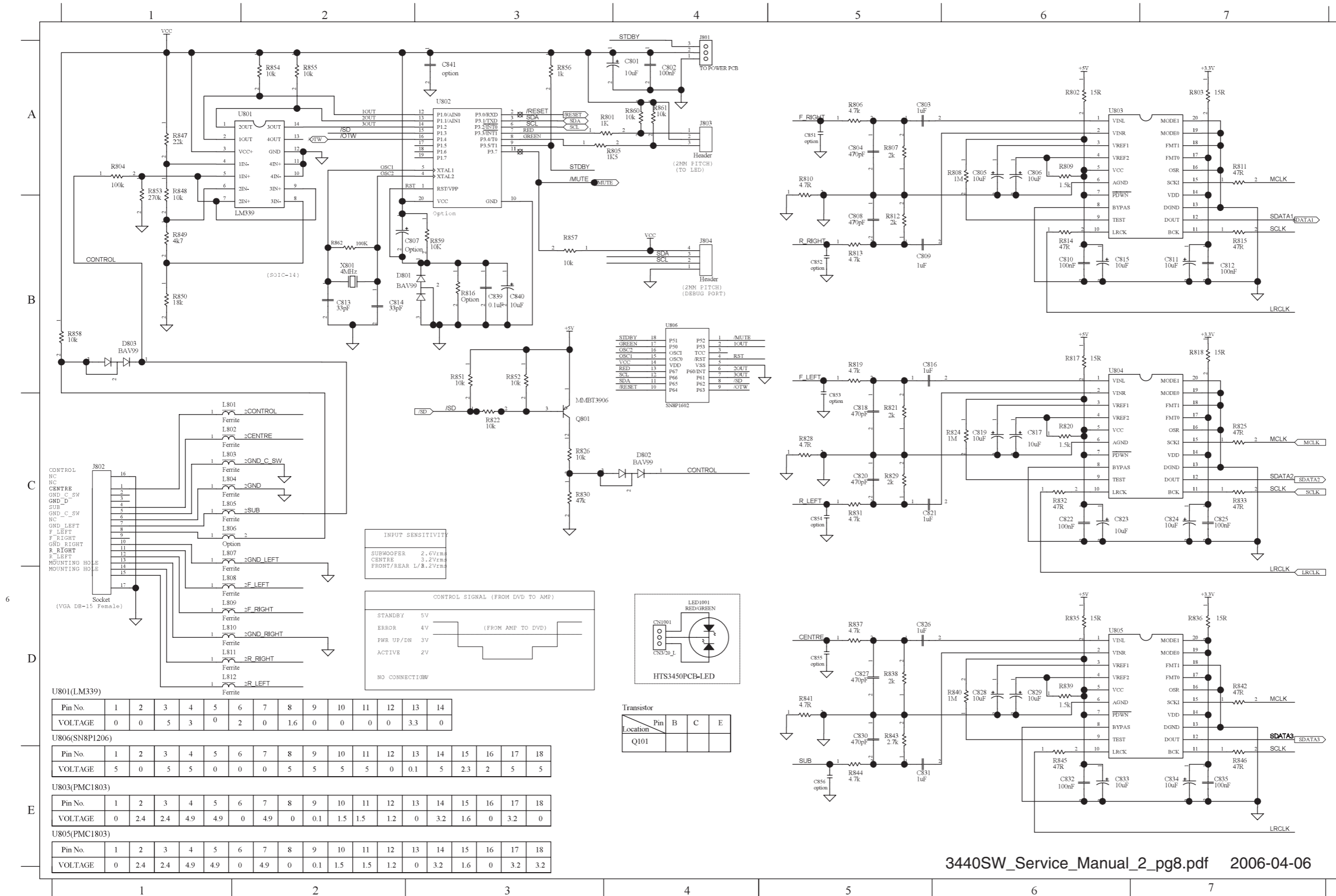
Layout: Front- Standby Board (Top view)



Layout: Front- Standby Board (Bottom view)

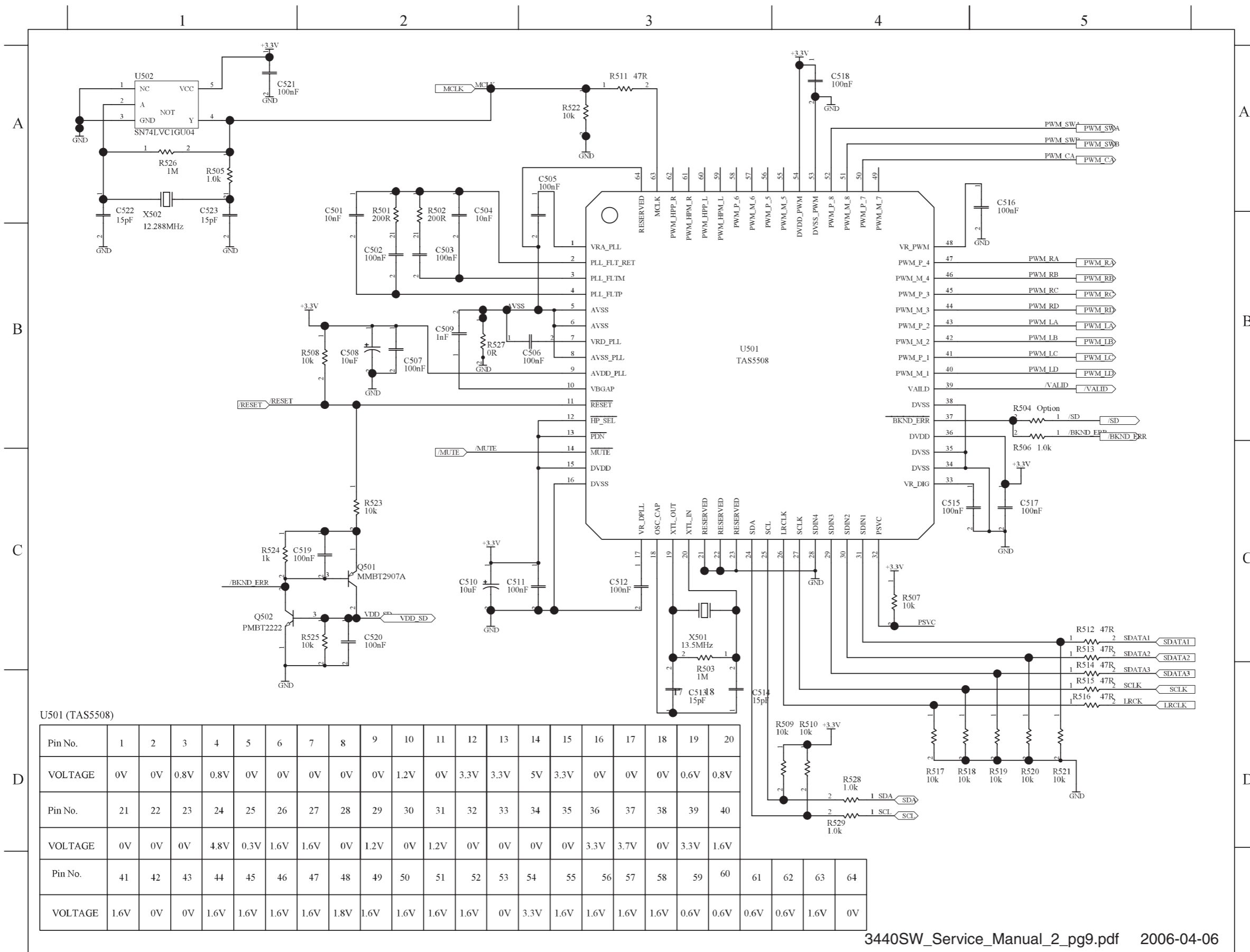


Amplifier Board (Subwoofer): Circuit Diagram (Part 1)



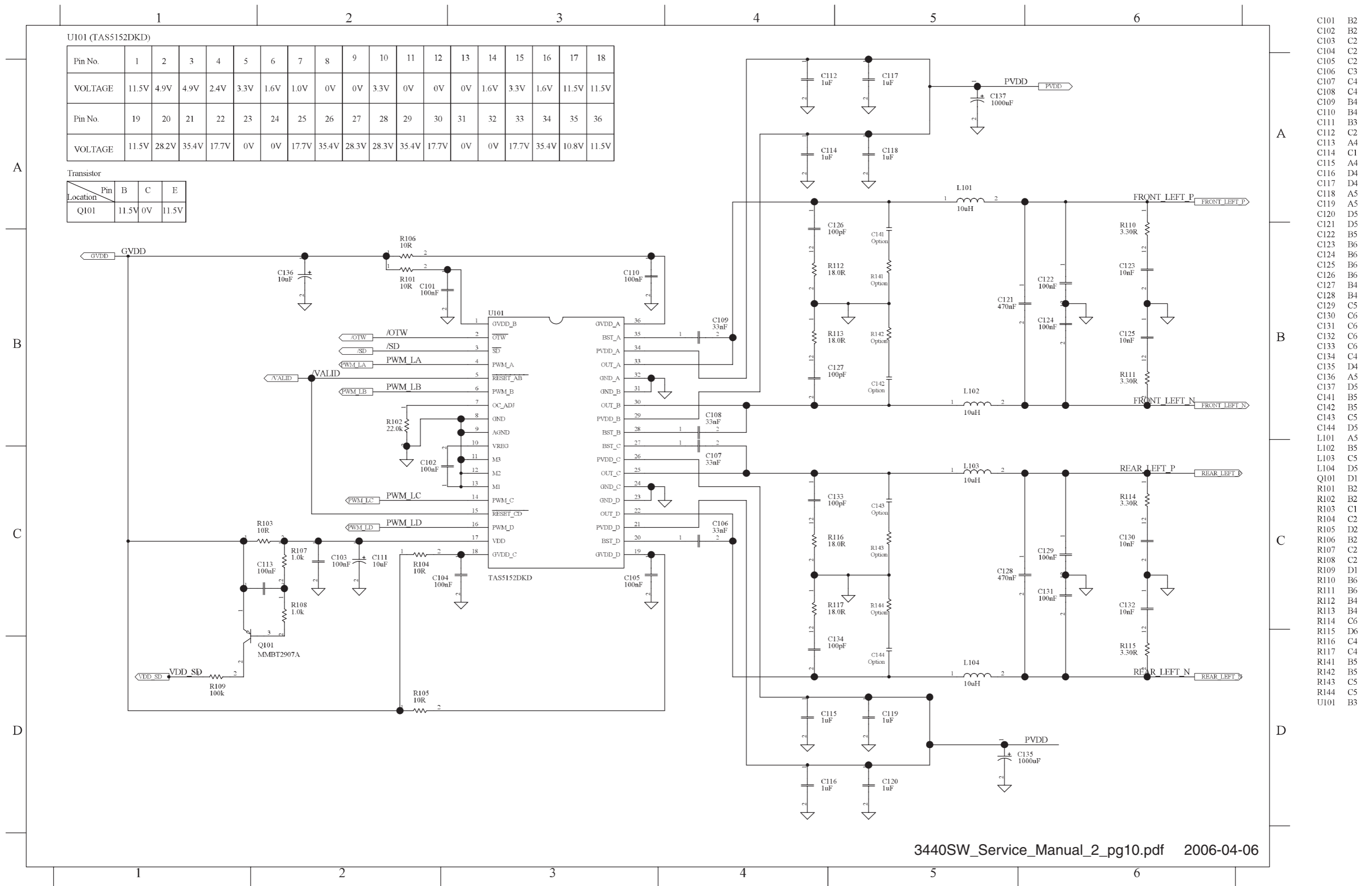
- C801 A4 Q801 C3
- C802 A4 R801 A3
- C803 A5 R802 A6
- C804 A5 R803 A7
- C805 A6 R804 A1
- C806 A6 R805 A3
- C807 B2 R806 A5
- C808 B5 R807 A5
- C809 B5 R808 A6
- C810 B6 R809 A6
- C811 B7 R810 B5
- C812 B7 R811 A7
- C813 B2 R812 B5
- C814 B2 R813 B5
- C815 B6 R814 B6
- C816 B5 R815 B7
- C817 C6 R816 B3
- C818 C5 R817 B6
- C819 C6 R818 B7
- C820 C5 R819 B5
- C821 C5 R820 C6
- C822 C6 R821 C5
- C823 C6 R822 C3
- C824 C7 R824 C6
- C825 C7 R825 C7
- C826 D5 R826 C3
- C827 D5 R828 B5
- C828 D6 R829 C5
- C829 D6 R830 C3
- C830 D5 R831 C5
- C831 E5 R832 C6
- C832 E6 R833 C7
- C833 E6 R835 D6
- C834 E7 R836 D7
- C835 E7 R837 D5
- C839 B3 R838 D5
- C840 B3 R839 D6
- C841 A3 R840 D6
- C851 A5 R841 D5
- C852 B5 R842 D7
- C853 C5 R843 D5
- C854 C5 R844 E5
- C855 D5 R845 E6
- C856 E5 R846 E7
- CN1001 D4 R847 A1
- D801 B3 R848 B1
- D802 C4 R849 B1
- D803 B1 R850 B1
- J801 A4 R851 B1
- J802 C1 R852 B3
- J803 A4 R853 A1
- J804 B4 R854 A2
- L801 C1 R855 A2
- L802 C1 R856 A3
- L803 C1 R857 B3
- L804 C1 R858 B1
- L805 C1 R859 B3
- L806 C1 R860 A4
- L807 C1 R861 A4
- L808 D1 R862 B2
- L809 D1 U801 A1
- L810 D1 U802 A3
- L811 D1 U803 A6
- L812 D1 U804 B6
- LED1001 D4 U805 D6
- U806 B4

Amplifier Board (Subwoofer): Circuit Diagram (Part 2)

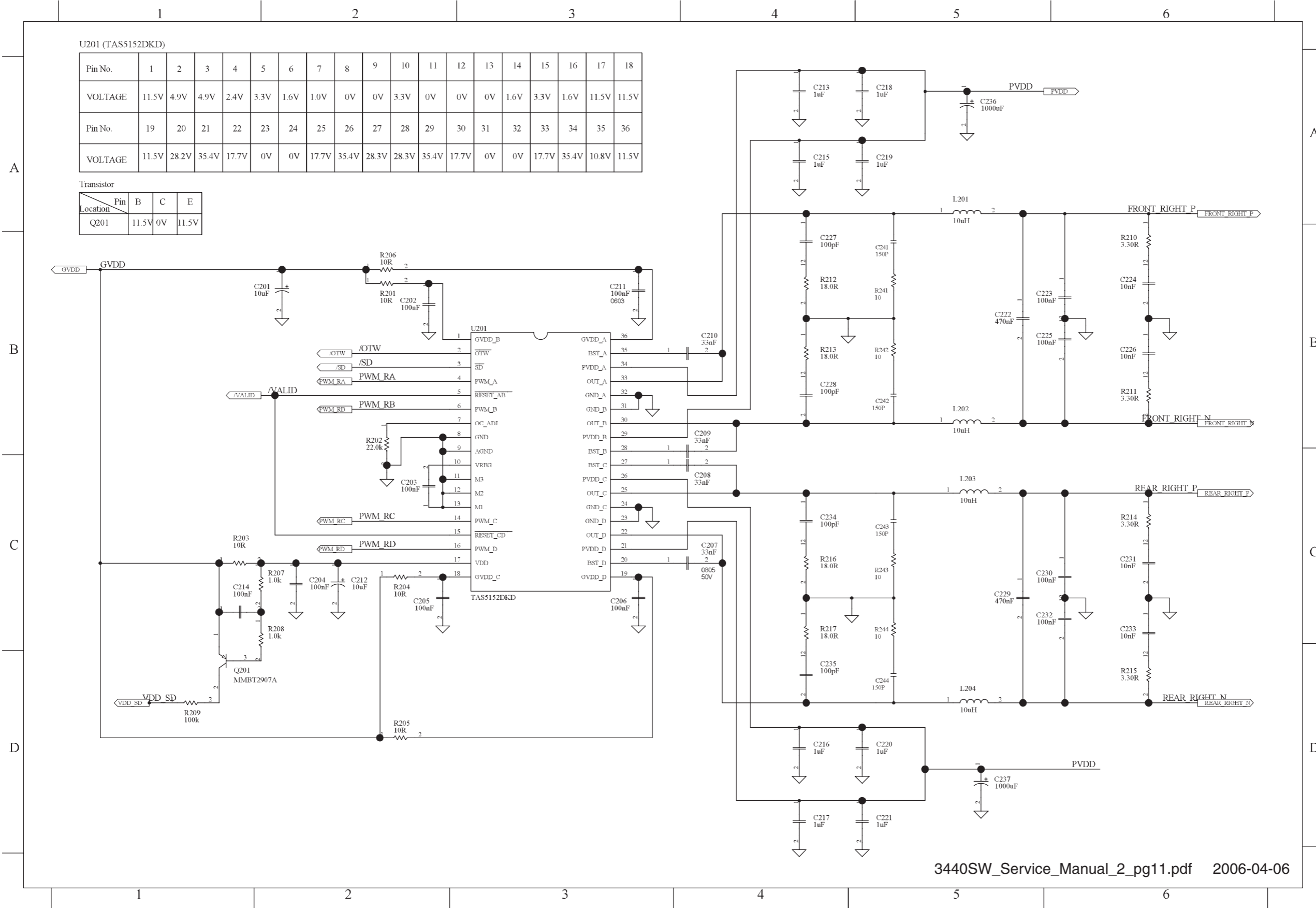


- C501 B2
- C502 B2
- C503 B2
- C504 B2
- C505 B3
- C506 A3
- C507 B2
- C508 B2
- C509 B2
- C510 C2
- C511 C3
- C512 C3
- C513 D3
- C514 D3
- C515 C5
- C516 A4
- C517 C5
- C518 A4
- C519 C2
- C520 C2
- C521 A1
- C522 A1
- C523 A1
- R501 A2
- R502 D3
- R503 B5
- R504 B5
- R505 A1
- R506 B5
- R507 C4
- R508 B2
- R509 D4
- R510 D4
- R511 A3
- R512 C5
- R513 C5
- R514 D5
- R515 D5
- R516 D5
- R517 D4
- R518 D5
- R519 D5
- R520 D5
- R521 D5
- R522 A3
- R523 C2
- R524 C1
- R525 C2
- R526 A1
- R527 B2
- R528 D4
- R529 D4
- Q501 C2
- Q502 C1
- U501 B3
- U502 A1
- X501 D3
- X502 A1

Amplifier Board (Subwoofer): Circuit Diagram (Part 3)



Amplifier Board (Subwoofer): Circuit Diagram (Part 4)



U201 (TAS5152DKD)

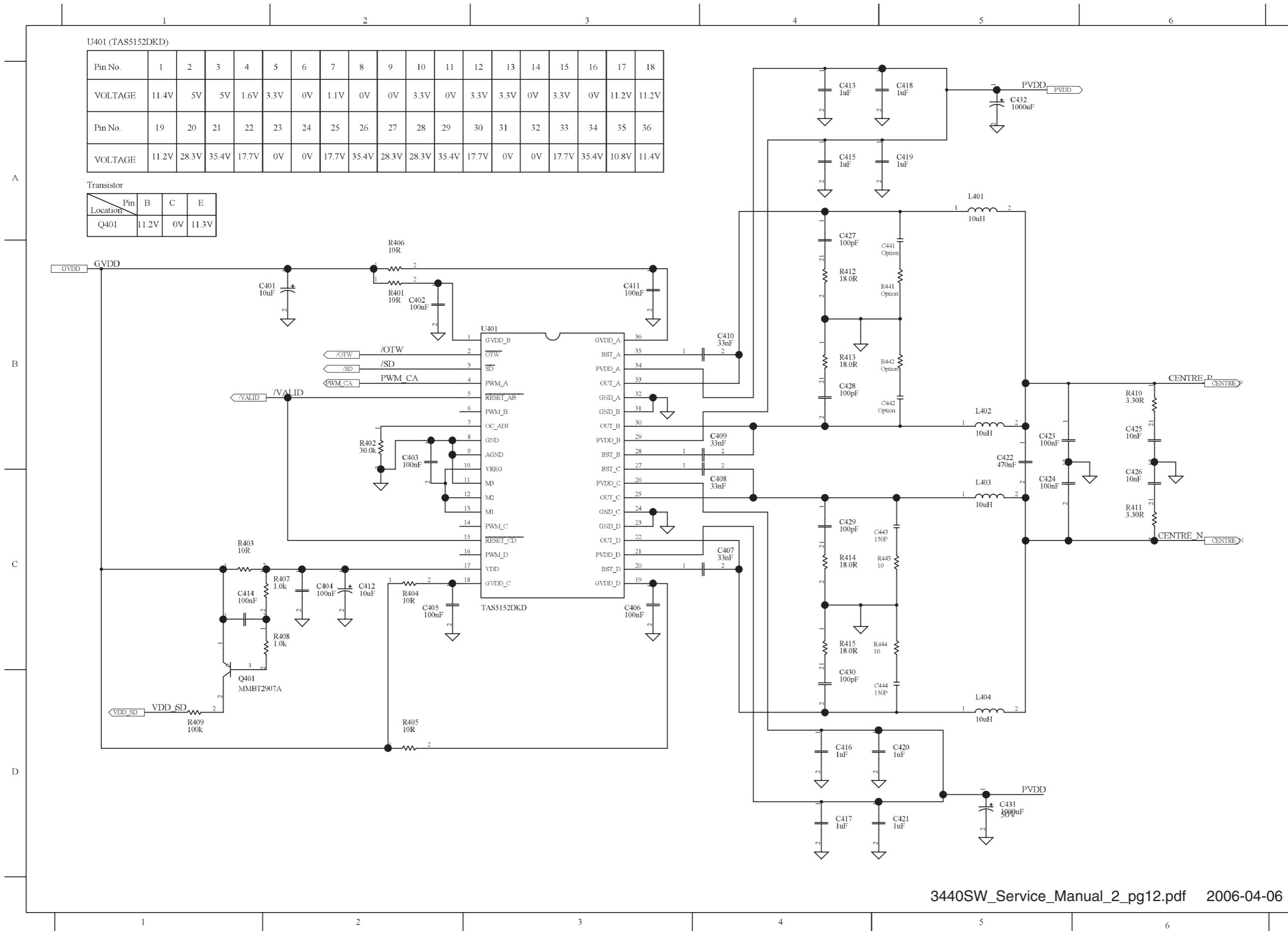
Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
VOLTAGE	11.5V	4.9V	4.9V	2.4V	3.3V	1.6V	1.0V	0V	0V	3.3V	0V	0V	0V	1.6V	3.3V	1.6V	11.5V	11.5V
Pin No.	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
VOLTAGE	11.5V	28.2V	35.4V	17.7V	0V	0V	17.7V	35.4V	28.3V	28.3V	35.4V	17.7V	0V	0V	17.7V	35.4V	10.8V	11.5V

Transistor

Location	Pin	B	C	E
Q201		11.5V	0V	11.5V

- C201 B2
- C202 B2
- C203 C2
- C204 C2
- C205 C2
- C206 C3
- C207 C4
- C208 C4
- C209 B4
- C210 B4
- C211 B3
- C212 C2
- C213 A4
- C214 C1
- C215 A4
- C216 D4
- C217 D4
- C218 A5
- C219 A5
- C220 D5
- C221 D5
- C222 B5
- C223 B6
- C224 B6
- C225 B6
- C226 B6
- C227 B4
- C228 B4
- C229 C5
- C230 C6
- C231 C6
- C232 C6
- C233 C6
- C234 C4
- C235 D4
- C236 A5
- C237 D5
- C241 B5
- C242 B5
- C243 C5
- C244 D5
- L201 A5
- L202 B5
- L203 C5
- L204 D5
- Q201 D1
- R201 B2
- R202 B2
- R203 C1
- R204 C2
- R205 D2
- R206 B2
- R207 C2
- R208 C2
- R209 D1
- R210 B6
- R211 B6
- R212 B4
- R213 B4
- R214 C6
- R215 D6
- R216 C4
- R217 C4
- R241 B5
- R242 B5
- R243 C5
- R244 C5
- R245 C5
- U201 B3

Amplifier Board (Subwoofer): Circuit Diagram (Part 5)



U401 (TASS152DKD)

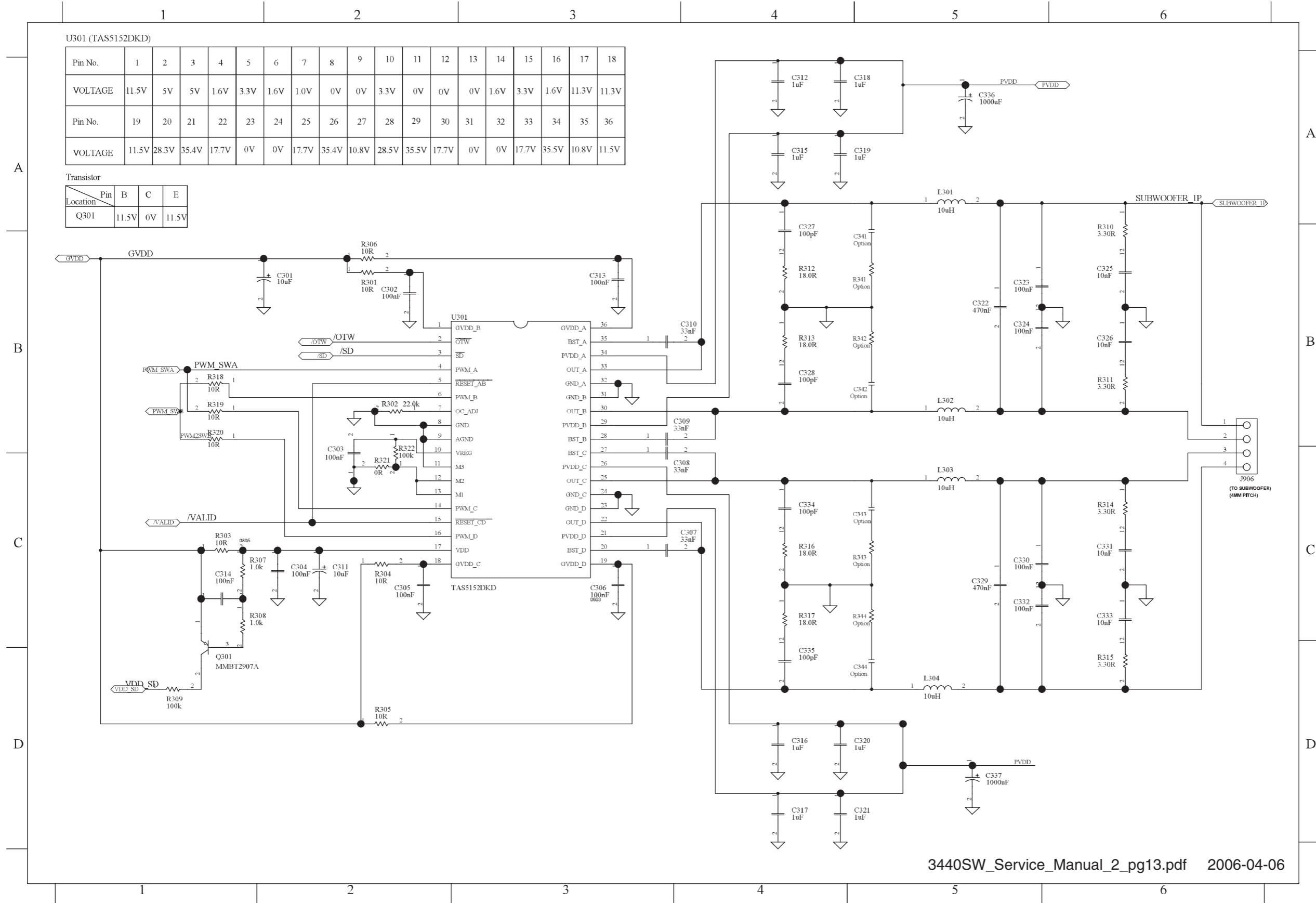
Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
VOLTAGE	11.4V	5V	5V	1.6V	3.3V	0V	1.1V	0V	0V	3.3V	0V	3.3V	3.3V	0V	3.3V	0V	11.2V	11.2V
Pin No.	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
VOLTAGE	11.2V	28.3V	35.4V	17.7V	0V	0V	17.7V	35.4V	28.3V	28.3V	35.4V	17.7V	0V	0V	17.7V	35.4V	10.8V	11.4V

Transistor

Pin Location	Pin	B	C	E
Q401	11.2V	0V	11.3V	

- C401 B2
- C402 B2
- C403 B2
- C404 C2
- C405 C2
- C406 C3
- C407 C4
- C408 B4
- C409 B4
- C410 B4
- C411 B3
- C412 C2
- C413 A4
- C414 C1
- C415 A4
- C416 D4
- C417 D4
- C418 A5
- C419 A5
- C420 D5
- C421 D5
- C422 D5
- C423 D5
- C424 D5
- C425 B6
- C426 B6
- C427 B4
- C428 B4
- C429 C4
- C430 D4
- C431 D5
- C432 A5
- C441 B5
- C442 B5
- C443 C5
- C444 D5
- L401 A5
- L402 B5
- L403 C5
- L404 D5
- Q401 D1
- R401 B2
- R402 B2
- R403 C1
- R404 C2
- R405 D2
- R406 B2
- R407 C2
- R408 C1
- R409 D1
- R410 B6
- R411 C6
- R412 B4
- R413 B4
- R414 C4
- R415 C4
- R441 B4
- R442 B4
- R443 C5
- R444 C5
- U401 B3

Amplifier Board (Subwoofer): Circuit Diagram (Part 6)



U301 (TAS5152DKD)

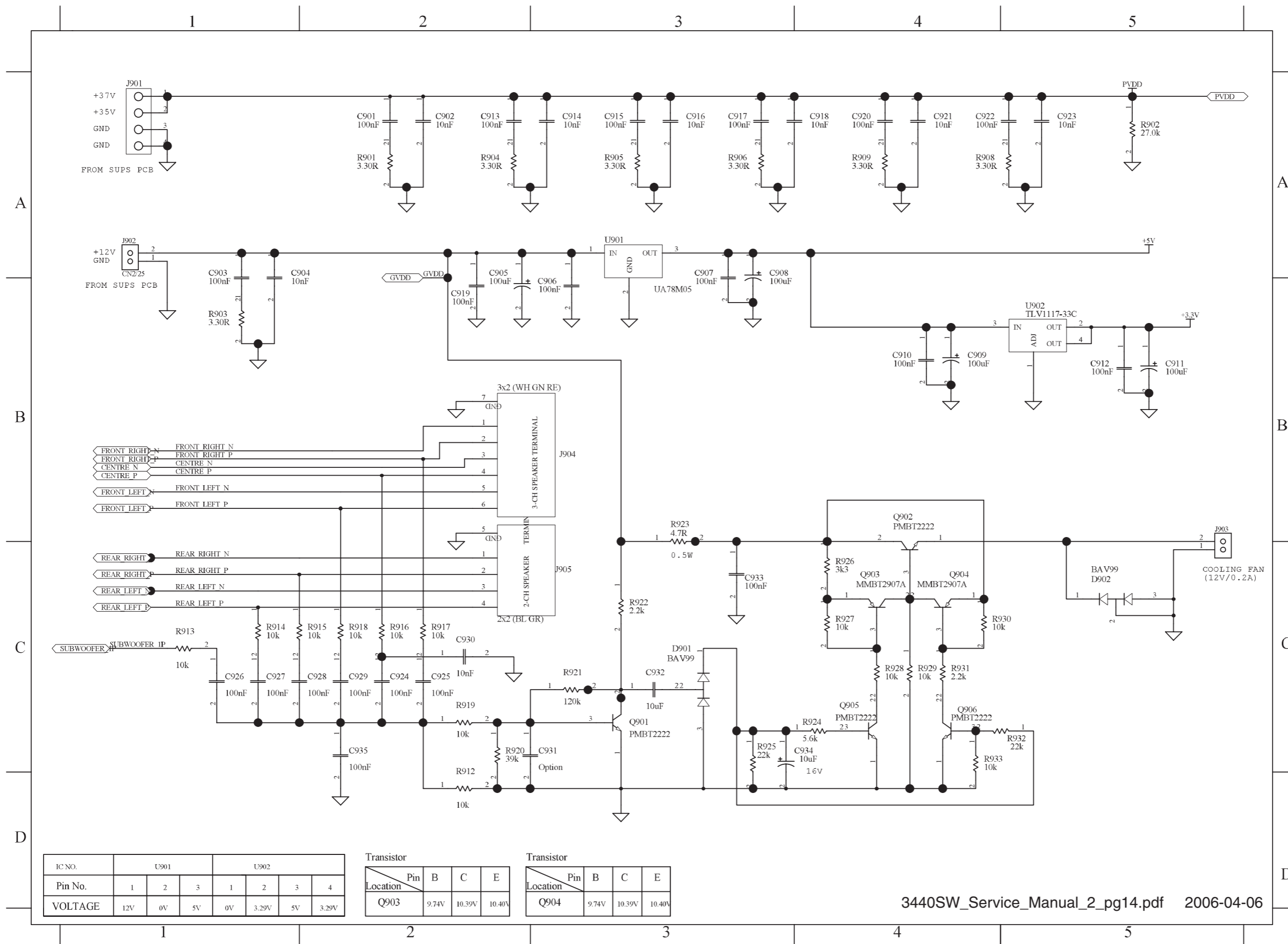
Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
VOLTAGE	11.5V	5V	5V	1.6V	3.3V	1.6V	1.0V	0V	0V	3.3V	0V	0V	0V	1.6V	3.3V	1.6V	11.3V	11.3V
Pin No.	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
VOLTAGE	11.5V	28.3V	35.4V	17.7V	0V	0V	17.7V	35.4V	10.8V	28.5V	35.5V	17.7V	0V	0V	17.7V	35.5V	10.8V	11.5V

Transistor

Location	Pin	B	C	E
Q301	11.5V	0V	11.5V	

- C301 C2
- C302 C2
- C303 C2
- C304 C2
- C305 C2
- C306 C3
- C307 C3
- C308 B3
- C309 B3
- C310 B3
- C311 C2
- C312 A4
- C313 B3
- C314 C1
- C315 A4
- C316 D4
- C317 D4
- C318 A4
- C319 A4
- C320 D4
- C321 D4
- C322 B5
- C323 B6
- C324 B6
- C325 B6
- C326 B6
- C327 A4
- C328 B4
- C329 C5
- C330 C6
- C331 C6
- C332 C6
- C333 C6
- C334 C4
- C335 D4
- C336 A6
- C337 D5
- C341 A5
- C342 B5
- C343 C4
- C344 D
- J906 C7
- L301 A5
- L302 B4
- L303 C4
- L304 D4
- Q301 D1
- R301 B2
- R302 B2
- R303 C1
- R304 C2
- R305 D2
- R306 B2
- R307 C1
- R308 C1
- R309 D1
- R310 B6
- R311 B6
- R312 B4
- R313 B4
- R314 C6
- R315 D6
- R316 C4
- R317 C4
- R318 B1
- R319 B1
- R320 B1
- R321 C2
- R322 C2
- R341 B5
- R342 B5
- R343 C5
- R344 C5
- U301 B3

Amplifier Board (Subwoofer): Circuit Diagram (Part 7)



- J903 C5
- R922 C3
- R931 C4
- J904 C3
- R905 A3
- R901 A2
- R909 A4
- R903 B1
- R904 A2
- R908 A4
- R906 A3
- R926 C4
- J905 C3
- R923 B3
- R924 C4
- R930 C4
- R933 C3
- R916 C2
- R917 C2
- R929 C4
- R918 C2
- R913 C1
- R927 C4
- R915 C1
- R912 D2
- R928 C4
- R919 C2
- C930 C2
- C921 A4
- C918 A4
- C902 A2
- C914 A3
- C904 A1
- C923 A5
- C916 A3
- C932 C3
- C934 C4
- R932 C5
- R925 C3
- R902 A5
- R920 C2
- C927 C1
- C910 B4
- C935 C2
- C929 C2
- C912 B5
- C907 B3
- C924 C2
- C926 C1
- C928 C1
- C933 C3
- C903 B2
- C913 A2
- C920 A4
- C901 A2
- C906 B3
- C917 A3
- C915 A3
- C922 A4
- C919 B2
- C905 B2
- C911 B5
- C908 C3
- C909 B4
- R921 C3
- D901 C3
- D902 C5
- J902 A1
- J901 A1
- Q903 A1
- Q904 A1
- C931 C3
- Q902 B4
- Q906 C4
- Q901 C3
- Q905 C4
- U902 B5
- U901 A3

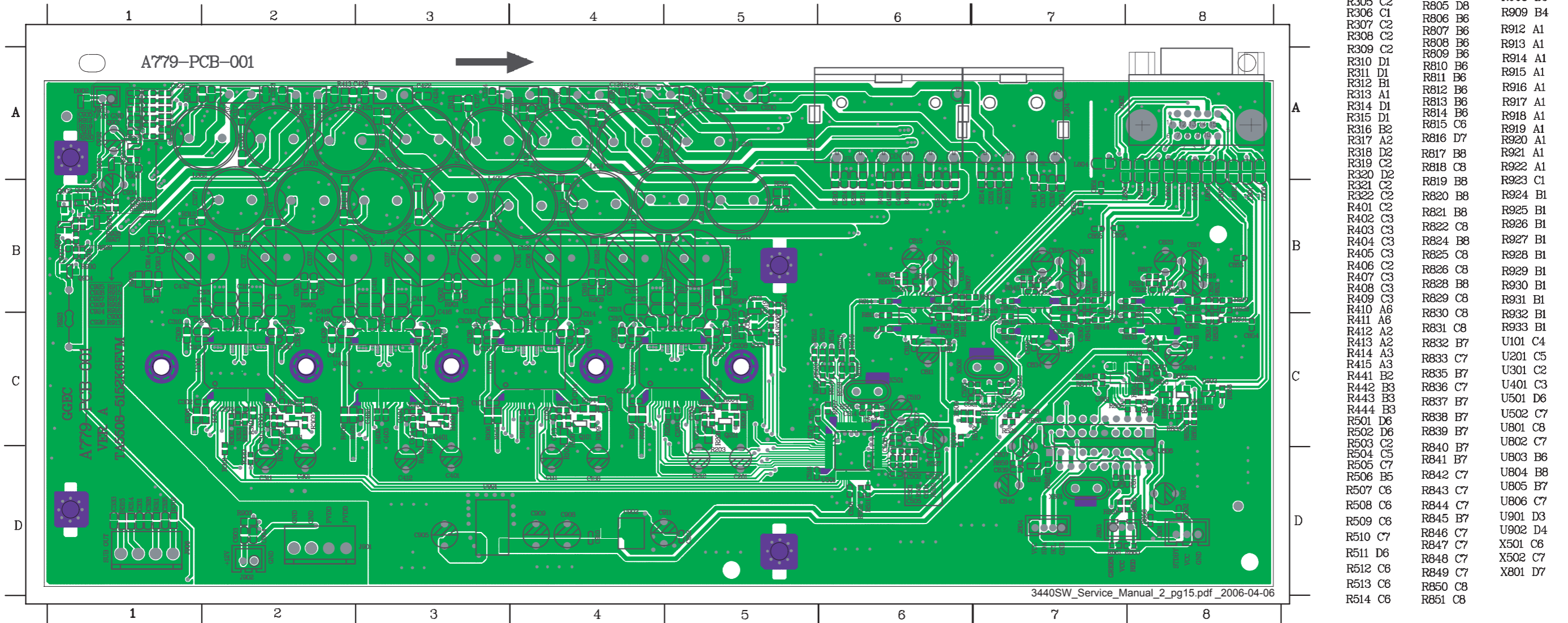
IC NO.	U901			U902			
Pin No.	1	2	3	1	2	3	4
VOLTAGE	12V	0V	5V	0V	3.29V	5V	3.29V

Transistor				
Location	Pin	B	C	E
Q903	9.74V	10.39V	10.40V	

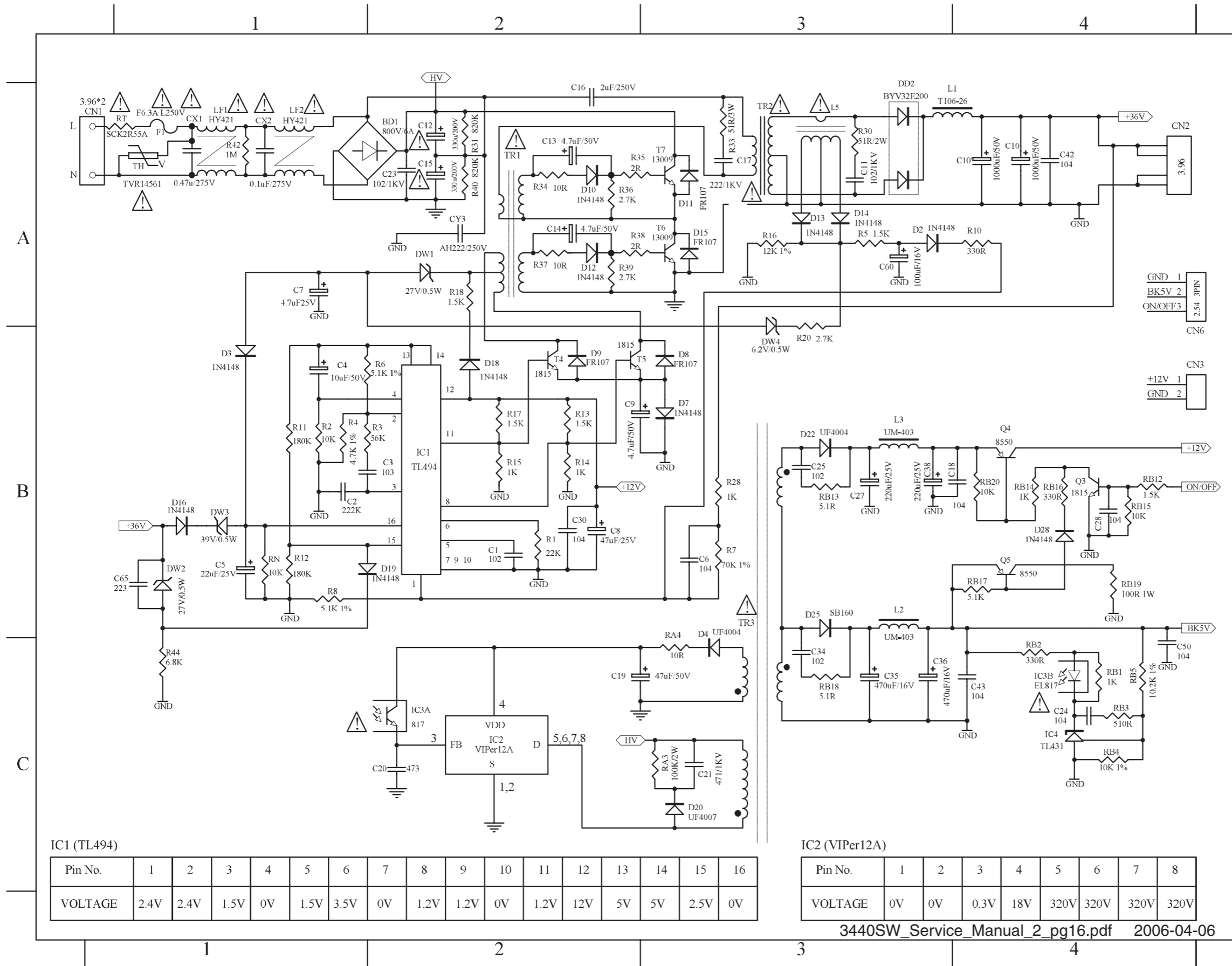
Transistor				
Location	Pin	B	C	E
Q904	9.74V	10.39V	10.40V	

Layout: Amplifier Board (Subwoofer) (Top view)

C101	C3	C120	B3	C202	C4	C221	B5	C305	C2	C324	A2	C407	C3	C426	A6	C514	C6	C810	B6	C829	B7	C904	D2	C923	B5	J802	A8	L303	B2	Q201	C5	R108	C4	R207	C5	R515	C6	R852	C8
C102	C4	C121	A4	C203	C5	C222	A5	C306	C2	C325	D1	C408	C3	C427	B2	C515	C5	C811	C6	C830	B7	C905	D3	C924	A1	J803	D8	L304	A2	Q301	C2	R109	C4	R208	C5	R516	C6	R853	C8
C103	C4	C122	A4	C204	C5	C223	A5	C307	C2	C326	D1	C409	C2	C428	A2	C516	D5	C812	C6	C831	B7	C906	A1	C925	A1	J804	D7	L401	B3	Q401	C3	R110	A6	R209	C5	R517	C6	R854	C8
C104	C4	C123	A6	C205	C5	C224	A6	C308	C2	C327	B1	C410	C2	C429	B3	C517	C5	C813	D7	C832	B7	C907	C8	C926	A1	J901	D2	L402	A2	Q501	B5	R111	A6	R210	A6	R518	C6	R855	C8
C105	C4	C124	A3	C206	C5	C225	A4	C309	C1	C328	A2	C411	C2	C430	A3	C518	D6	C814	D8	C833	B7	C908	D4	C927	A1	J902	D2	L403	B3	Q502	B5	R112	B3	R211	A6	R519	C6	R856	D8
C106	C4	C125	A6	C207	C5	C226	A6	C310	C1	C329	A2	C412	D3	C431	B3	C519	B5	C815	B6	C834	C7	C909	D4	C928	A1	J903	A1	L404	A3	Q801	C8	R113	A3	R212	B4	R520	C6	R857	C8
C107	C4	C126	B3	C208	C5	C228	A4	C311	D2	C330	A2	C413	C3	C432	B1	C520	B5	C816	B8	C835	C7	C910	D4	C929	A1	J904	A7	L801	A8	Q901	A1	R114	A7	R213	A4	R521	C6	R858	C8
C108	C3	C127	A3	C209	C4	C229	A5	C312	B1	C331	D1	C414	C3	C501	D6	C521	C6	C817	B8	C836	D7	C911	D4	C930	A1	J905	A6	L802	A8	Q902	B1	R115	A7	R214	A7	R522	D6	R859	D7
C109	C3	C128	A4	C210	C4	C230	A5	C313	C1	C332	A2	C415	B3	C502	D6	C522	C7	C818	B8	C840	D7	C912	D5	C931	A1	J906	D1	L803	A8	Q903	B1	R116	A4	R215	A7	R523	C7	R860	D8
C110	C3	C129	A4	C211	C4	C231	A7	C314	C2	C333	D1	C416	B3	C503	D6	C523	C6	C819	B8	C841	C7	C913	B1	C932	A1	L101	B4	L804	A7	Q904	B1	R117	A4	R216	A5	R524	B5	R861	D7
C111	D4	C130	A7	C212	D5	C232	A5	C315	B2	C334	B2	C417	B3	C504	D6	C524	C6	C820	B8	C851	A7	C914	B1	C933	B1	L102	A3	L805	A6	Q905	B1	R141	B3	R217	A4	R525	C5	R862	D7
C112	B3	C131	A4	C213	B4	C233	A7	C316	B2	C335	A2	C418	B3	C505	D6	C525	C6	C821	B8	C852	A7	C915	B2	C934	B1	L103	B4	L806	A8	Q906	B1	R142	B4	R218	A4	R526	C7	R901	B3
C113	C4	C132	A7	C214	C5	C234	B5	C317	B2	C336	B5	C419	B2	C506	D6	C526	C6	C822	B8	C853	B8	C916	B3	C935	A1	L104	A4	L807	A8	Q907	B1	R143	B4	R219	B4	R527	D6	R902	B1
C114	B4	C133	A4	C215	B5	C235	A5	C318	B2	C337	B2	C420	C3	C507	C6	C527	C6	C823	B8	C854	C8	C917	B1	D801	D7	L201	B4	L808	A8	Q908	B1	R144	B4	R220	C5	R528	C7	R903	D2
C115	B4	C134	A4	C216	C5	C236	B4	C319	C2	C338	B2	C421	B3	C508	C6	C528	C6	C824	C8	C855	B7	C918	B1	D802	C8	L202	A4	L809	A8	R101	C3	R201	C4	R529	C7	R904	B1		
C116	C4	C135	B4	C217	B5	C237	B3	C320	C2	C339	C2	C422	A3	C509	C6	C529	C6	C825	C8	C856	B7	C919	D3	D803	C8	L203	B5	L810	A8	R102	C4	R202	C5	R530	C7	R905	B2		
C117	B3	C136	D4	C218	B4	C301	D2	C321	B2	C403	C3	C423	A3	C510	C6	C530	C6	C826	B7	C857	B7	C920	B4	D901	A1	L204	A5	L811	A8	R103	C4	R203	C5	R531	C1	R906	B1		
C118	B4	C137	B2	C219	B4	C302	C1	C322	A2	C404	C3	C424	A3	C511	C6	C531	C6	C827	B7	C858	B7	C921	B2	D902	A1	L301	B2	L812	A8	R104	C4	R204	C5	R532	C2	R907	B1		
C119	C4	C201	D5	C220	B4	C303	C2	C323	A2	C405	C3	C425	A6	C512	C6	C532	C6	C828	B7	C859	B6	C922	B5	J801	D8	L302	A2	Q101	C4	R105	C4	R205	C5	R533	C2	R908	B5		



For Information Only: PSU module (Subwoofer)



- R1 B2
- R2 B1
- R3 B1
- R4 B1
- R5 A3
- R6 B1
- R7 B3
- R8 B1
- R10 A4
- R11 B1
- R12 B1
- R13 B3
- R14 B2
- R15 B2
- R16 A3
- R17 B2
- R18 A2
- R20 B3
- R28 B3
- R30 A3
- R31 A2
- R33 A3
- R34 A2
- R35 A2
- R37 A2
- R38 A2
- R39 A2
- R40 A2
- R42 A1
- R44 C1
- RA3 C3
- RA4 C3
- RB1 C4
- RB2 C4
- RB3 C4
- RB4 C4
- RB5 C4
- RB12B4
- RB13B3
- RB14B4
- RB15B4
- RB16B4
- RB17B4
- RB18C3
- RB19B4
- RB20B4
- RN B1
- C1 B2
- C2 B1
- C3 B1
- C4 B1
- C5 B1
- C6 B3
- C7 A1
- C8 B2
- C9 B2
- C10 A4
- C10' A4
- C11 A3
- C12 A2
- C13 A2
- C14 A2
- C15 A2
- C16 A2
- C17 A3
- C18 B4
- C19 C2
- C20 C1
- C21 C3
- C23 A2
- C24 C4
- C25 B3
- C27 B3
- C28 B4
- C30 B2
- C34 C3
- C35 C3
- C36 C3
- C38 B3
- C42 A4
- C43 C4
- C50 C4
- C65 B1
- CX1 A1
- CX2 A1
- CY3 A2
- CY4 A3
- D2 C3
- D3 B1
- D4 B3
- D7 B3
- D8 B3
- D9 B3
- D10 A2
- D11 C3
- D12 A2
- D13 C3
- D14 C3
- D15 C3
- D16 B1
- D18 B2
- D19 B1
- D20 C3
- D22 B3
- D25 B3
- D28 B4
- DD2 A3
- DW1 A2
- DW2 B1
- DW3 B1
- L1 A3
- L2 B3
- L3 B3
- LF1 A1
- LF2 A1
- IC3 C1
- IC4 C4
- Q3 B4
- Q4 B4
- Q5 B4
- T4 B2
- T5 B2
- T6 A3
- T7 A3
- TH A1
- BD1 A1
- RT A1
- F1 A1

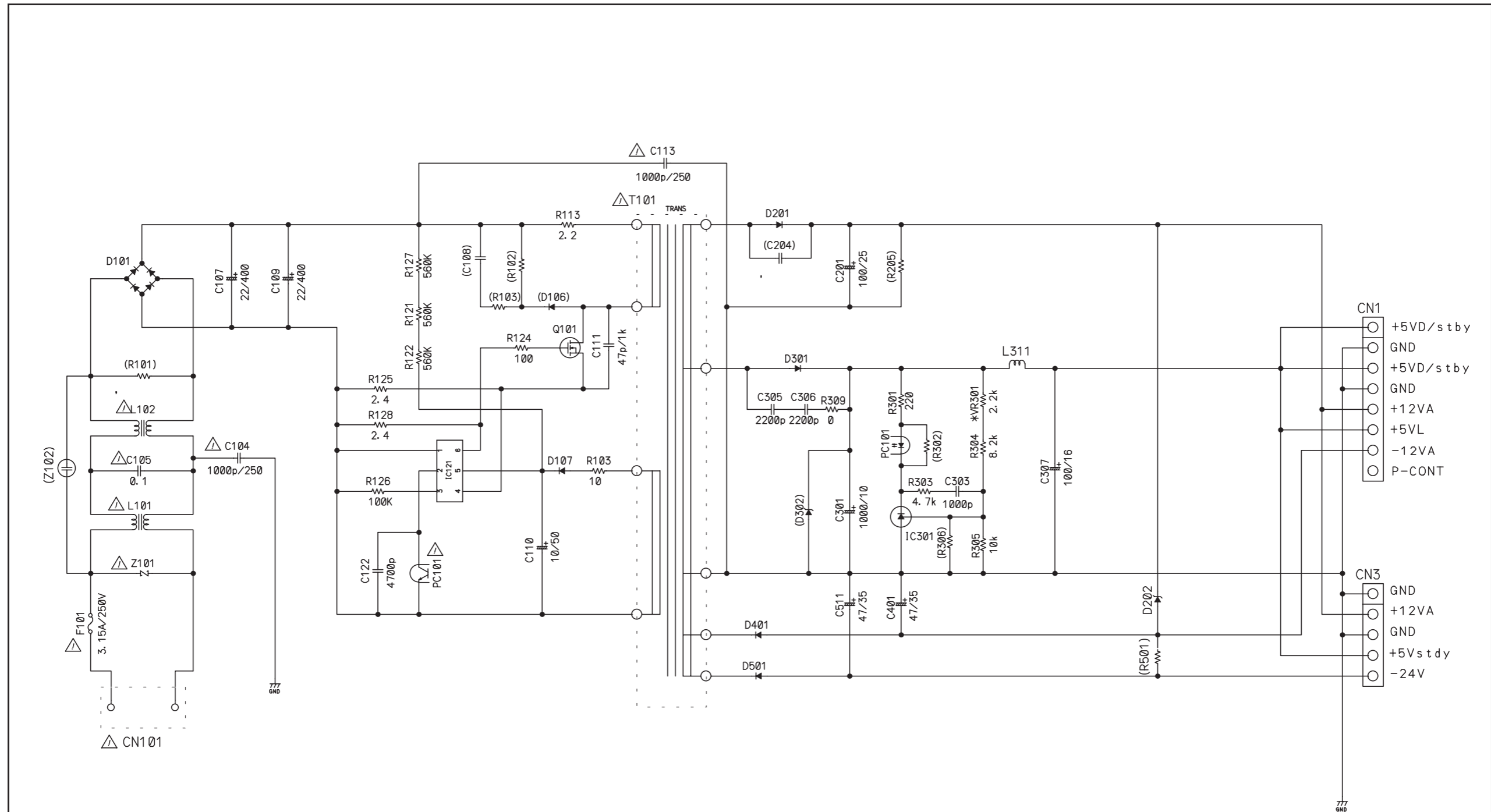
IC1 (TL494)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
VOLTAGE	2.4V	2.4V	1.5V	0V	1.5V	3.5V	0V	1.2V	1.2V	0V	1.2V	12V	5V	5V	2.5V	0V

IC2 (VIPer12A)

Pin No.	1	2	3	4	5	6	7	8
VOLTAGE	0V	0V	0.3V	18V	320V	320V	320V	320V

For Information Only: PSU module (Main Unit)



D101	D1UBA80	D201, D401	PR1003, R1103
D107	PR1003, RGP10D	D202	MTZ30, MA4300
IC121	SG6848	D301	SB560,
Q101	FQI2N80	D501	PR1005, RL105
PC101	LTV-817M, PC123, PS2561	IC301	TL431, MM1431A

8. Exploded View of the Set

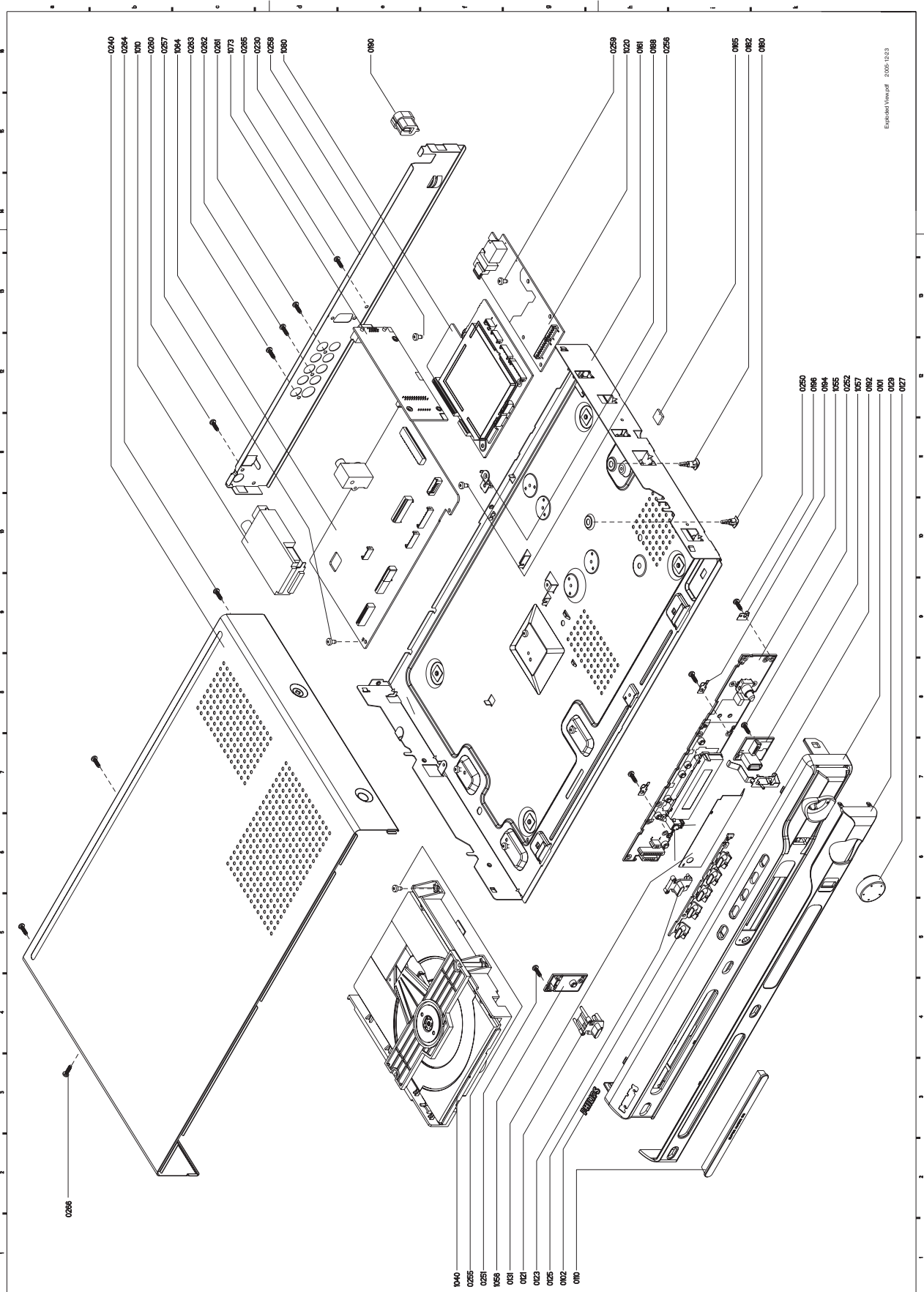
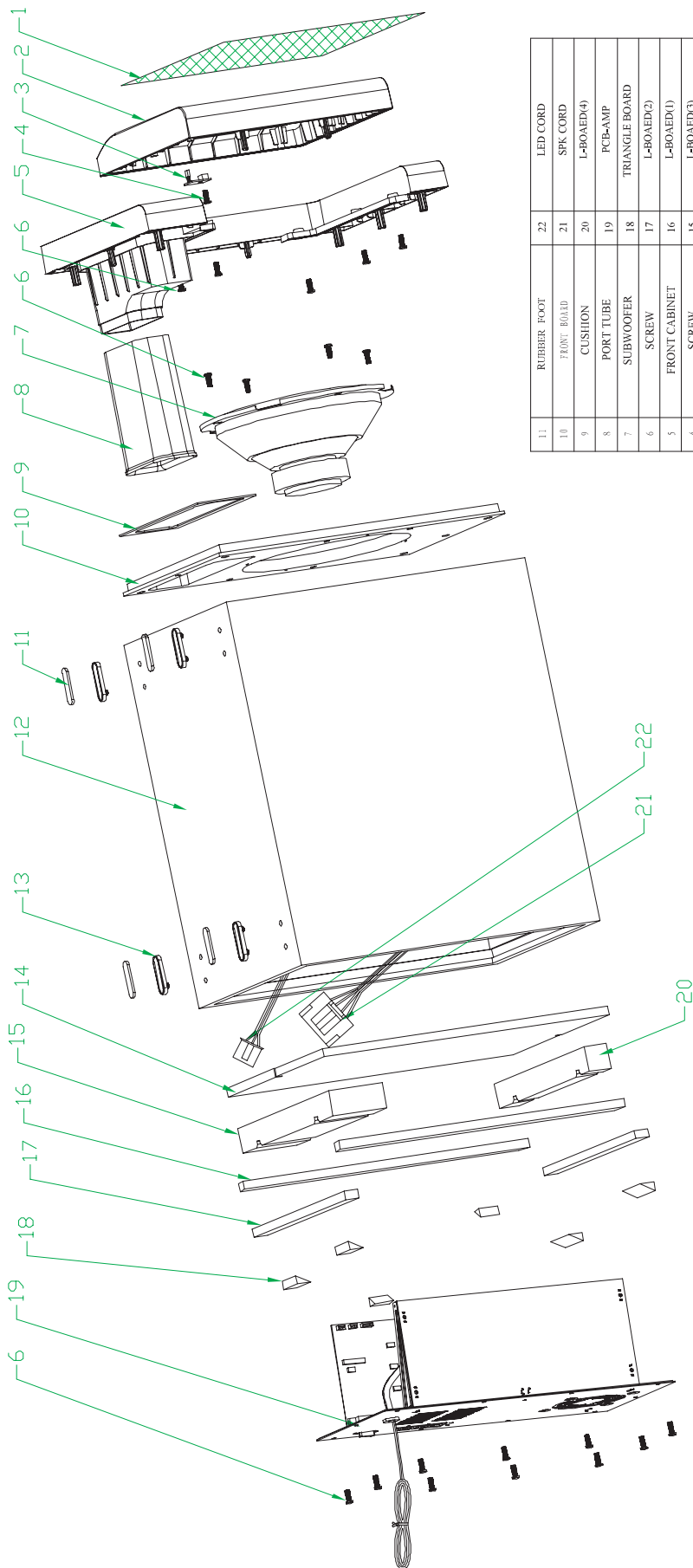


Figure 8-1

Exploded View: Subwoofer



11	RUBBER FOOT	22	LED CORD
10	FRONT BOARD	21	SPK CORD
9	CUSHION	20	L-BOARD(4)
8	PORT TUBE	19	PCB-AMP
7	SUBWOOFER	18	TRIANGLE BOARD
6	SCREW	17	L-BOARD(2)
5	FRONT CABINET	16	L-BOARD(1)
4	SCREW	15	L-BOARD(3)
3	PCB-LED	14	MIDDLE BOARD
2	CLOTH FRAME	13	PLASTIC FOOT ENCLOSURE BOARD
1	CLOTH	12	
NO.	PART NAME	NO.	PART NAME

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Figure 8-2

HTS3440/37**MISCELLANEOUS**

0110	3139 254 01521	COVER CD TRAY CHROME
0127	3139 244 06011	KNOB VOLUME CHROME
0337	2422 076 00546	FM AERIAL 24AWG BK B
0338	2422 549 45386	ANT AM LOOP LAN-011 B
0341	2422 549 00934	REMOTE CONTR HTS3440/3450 B
0345	2422 070 98235 △	MAINSCORD UL 6A 1M8 VH BK B
0347	4822 321 61579	VIDEO-CABLE
0348	2422 076 00654	CBLE HD-SUB15P 3M HD-SUB 15P B
1010	2422 542 00032	TUN A F ENG06806QRF USA B
1020	3139 247 12551 △	PSU 06P15 WR SRV1919WW MIT
1040	3139 248 00311	LOADER ASSY 8829-SONY HTS3455
1050	3139 248 88471	PCBAS PANEL FRONT HTS3440
1060	3139 248 88501	PCBAS AV BOARD NAF HTS3455
1070	3139 248 87351	PCBAS AV-INTERFACE BD HTS4550
1080	3139 248 88541	PCBAS 9.1 HTS3450/37
8000	3139 111 02721	FFC FOIL 10P/080/10P AD
8001	3139 241 02031	FFC FOIL 12P/280/12P AD FOLD
8002	3139 241 02381	FFC FOIL 30P/100/30P BD
8008	3139 241 02011	FFC FOIL 20P/140/20P AD
P001	3141 079 36071	FRAME ASSY HTS3450
P002	3141 079 36221	FRONT CAB. ASSY HTS344

SUBWOOF ASSY HTS3440 P (US)

9965 000 36108	SW3440 SUBWOOFER BOX
9965 000 34997	RUBBER FOOT SW

BOX SPK ASSY CS3440 P

9965 000 36103	SPEAKER BOX CENTER
9965 000 34994	CABLE A'SSY 5.2M GREEN SMK S
9965 000 34995	RUBBER FOOT 39.5LX5.5WX2T
9965 000 36104	SPEAKER BOX FRONT-L
9965 000 36105	SPEAKER BOX FRONT-R
9965 000 36106	SPEAKER BOX REAR-L
9965 000 36107	SPEAKER BOX REAR-R
9965 000 34987	CABLE A'SSY 5.2M WHITE SMK
9965 000 34988	CABLE A'SSY 5.2M RED SMK
9965 000 34989	CABLE A'SSY 5.2M BLUE SMK
9965 000 34990	CABLE A'SSY 5.2M GREY SMK
9965 000 34992	RUBBER FOOT 24LX6WX1T (L)