DVD Receiver **HTS3450/37/55**

Service
Service
Service

Service Manual

CLASS 1 LASER PRODUCT

MP3-CD PLAYBACK MP3

DVD VIDEO

COMPACT disc DIGITAL VIDEO

COMPACT disc DIGITAL AUDIO

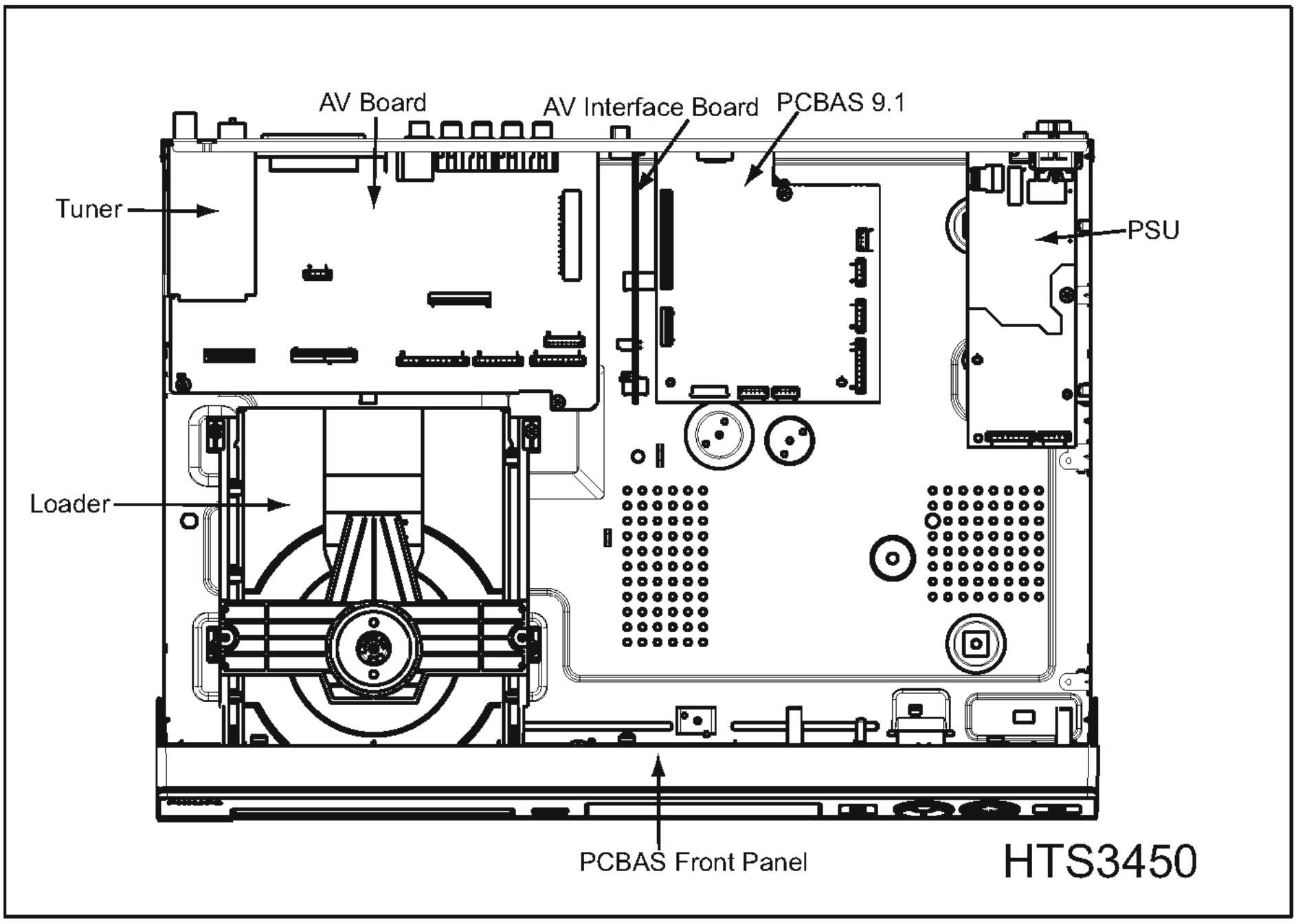
Contents

Published by KC-TE 0612 AV Systems Printed in he Netherlands Subject to modification EN 3139 785 31580

Version 1.0

PHILIPS

LOCATION OF PC BOARDS



VERSION VARIATIONS:

Features & Type /Versions:	HTS3450	
	/37	/55
Progressive Scan	x	x
Digital-In (Coax)	x	x
TV-In	x	x
Aux-In	x	x
Y/Pb/Pr (YUV) Component Video Output	x	x
Coax	-	-
CVBS	x	x
S-Video Output	x	x
SCART	-	-
VGA	x	x
HDMI	-	x
USB	x	-

1. Specifications

1.1 General:

Mains voltage	:	120V for /37 120V/230V for /55
Mains frequency	:	50/60Hz
Power consumption	:	12W < 0.5W Eco standby power < 210W at 1/8 P_{rated}
Dimension main unit	:	435 x 55 x 327mm

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:

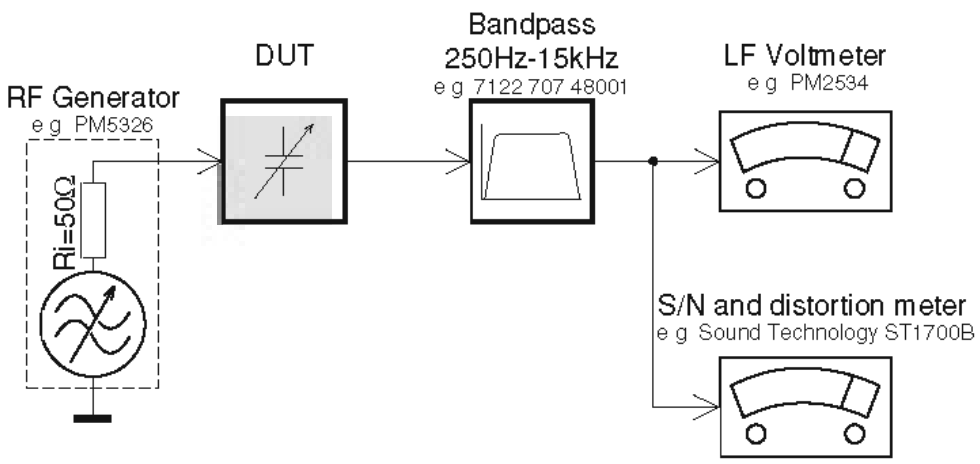
Video Decoding	:	MPEG-1/MPEG-2/ DivX 3/4/5/6, Ultra
Video DAC	:	12 Bits
Signal System	:	PAL / NTSC
Video Format	:	4:3 / 16:9
CVBS Out [1]		
CVBS level	:	1.0 ± 0.1V_{p-p}
Luminance S/N	:	>= 55dB
S-Video Out [1]		
Y level	:	1.0 ± 0.1V_{p-p}
Y S/N	:	>= 55dB
C level (burst)	:	286mV_{pp} +1/-4 dB (NTSC)
RGB/YUV 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

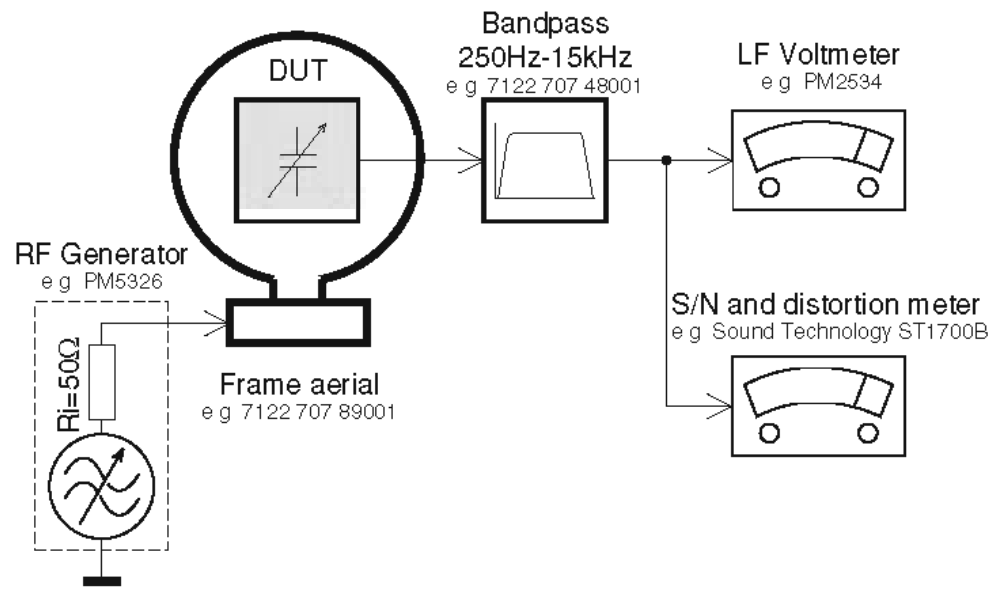
MEASUREMENT SETUP

Tuner FM



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

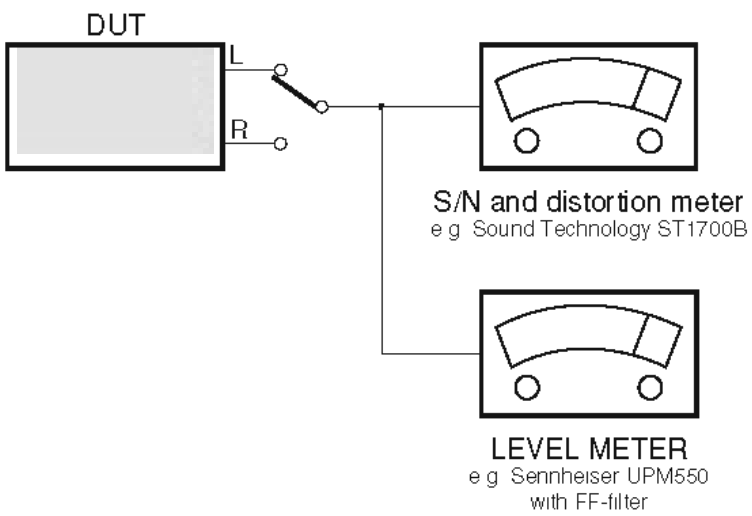
Tuner AM (MW,LW)



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).

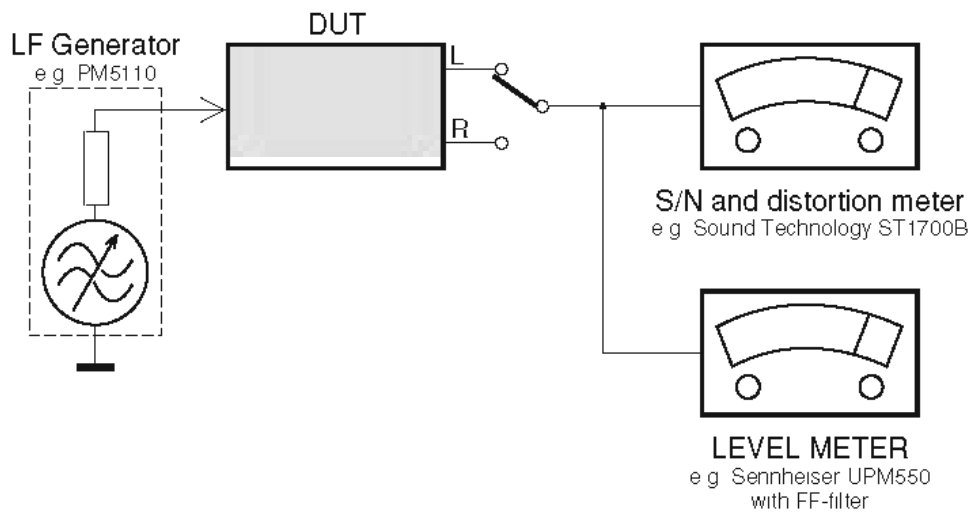
CD

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

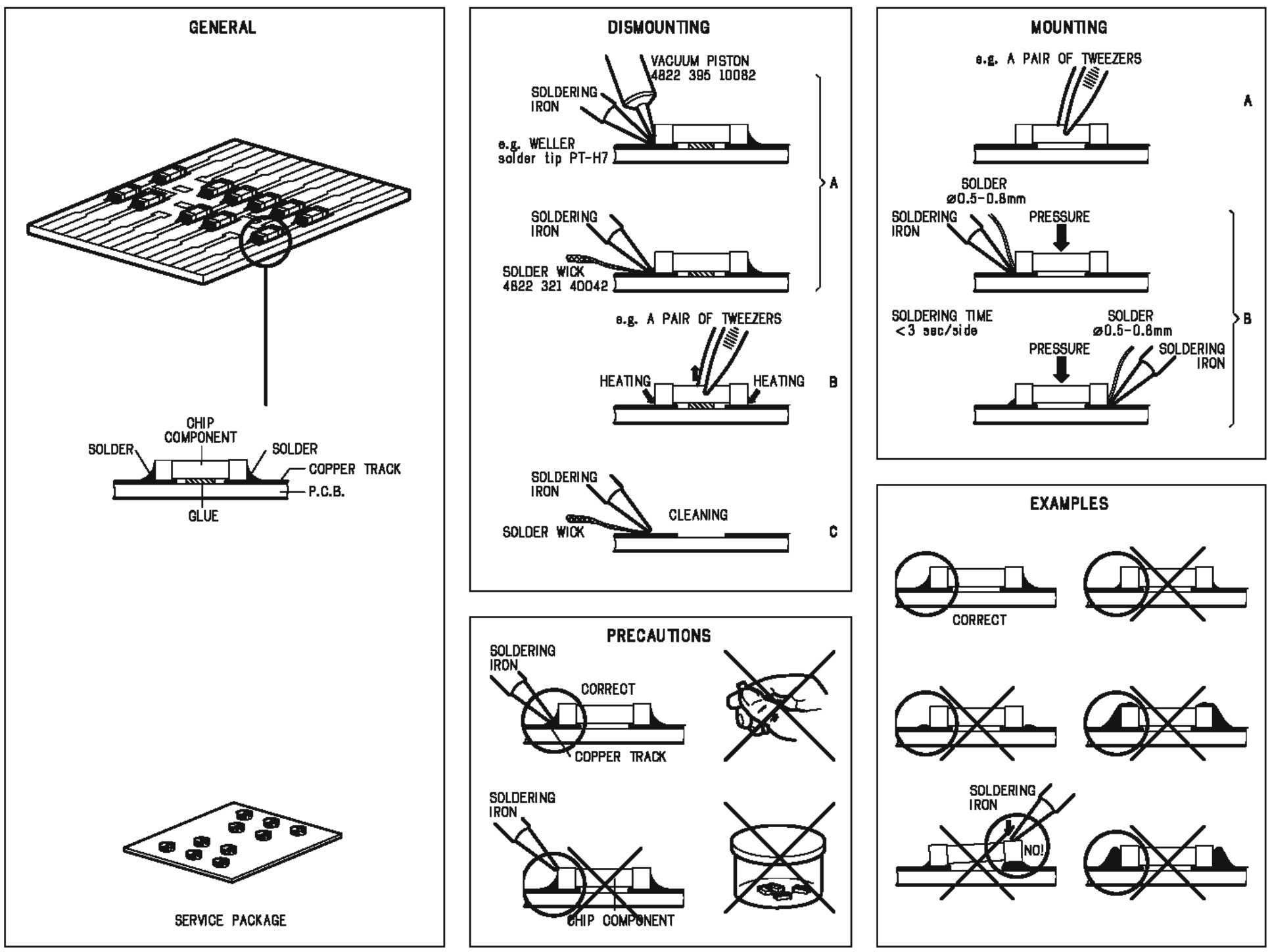
Service Tools:

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 ditzelfde 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).
Unsorgfältige Behandlung im Reparaturfall kan 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 ridatta 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, extention 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 ⚠.

(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 ⚠

(F)
Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utiliséés les piéces de rechange identiques à celles spécifiées.

Less composants de sécurité sont marqués ⚠

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

Sicherheitsbauteile sind durch das Symbol ⚠ 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.

Componenty di sicurezza sono marcati con ⚠

(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.

CLASS 1
LASER PRODUCT

(GB) Warning !

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

(S) Varning !

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

(SF) Varoitus !

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

(DK) Advarse !

Usynlig laserstråling ved åbning når sikkerhedsafbrydere er ude af funktion. Undgå udsaettelse for stråling.

(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.

INDENTIFICATION:

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 (leaded/ 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
  - To reach at least a solder-temperature of 400°C,
  - To stabilize the adjusted temperature at the solder-tip
  - 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 leaded solder alloy / parts is possible but PHILIPS recommends strongly to avoid mixed solder alloy types (leaded 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 leaded 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 access ble 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.

DVD HOME THEATER SYSTEM HTS3450

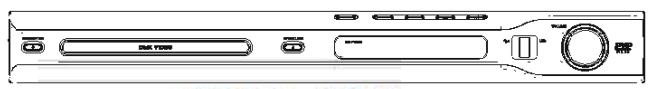
Quick Start Guide

1 Connect
2 Set up
3 Enjoy

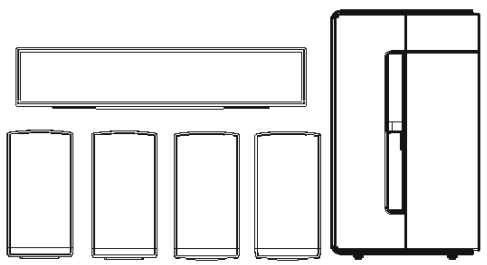
What's in the box?

DVD system - HTS3450

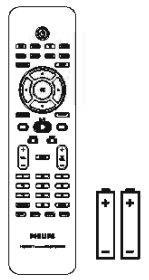
OR



DVD system - HTS3440



1 center, 2 front, 2 rear speakers and AV subwoofer

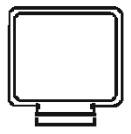


Remote Control and 2 batteries

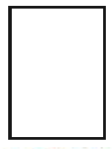
Composite video cable

Inter-connect cable

FM wire antenna



AM/MW loop antenna



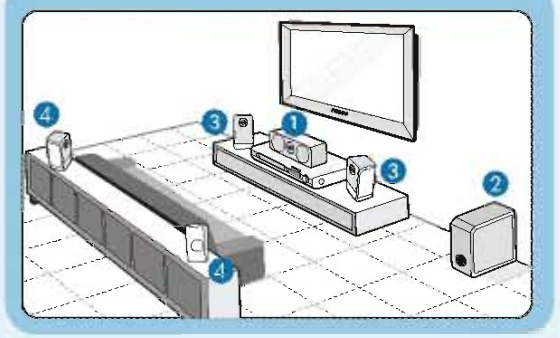
User Manual

PHILIPS

1 Connect

A Placement

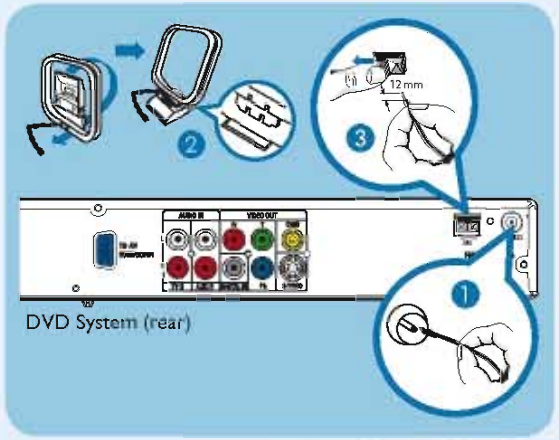
Proper speakers system placement is important to ensure optimum sound performance.



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 disctances from the TV.
4. Place the rear speakers at normal listening ear level.

B Connect the radio antennas

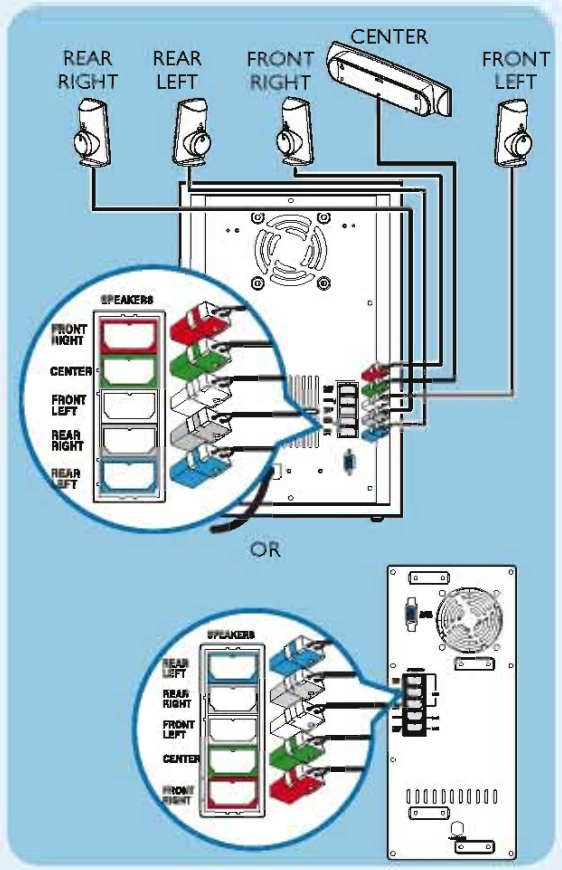
Keep the antennas away from the electronic devices to prevent unwanted interference.



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.

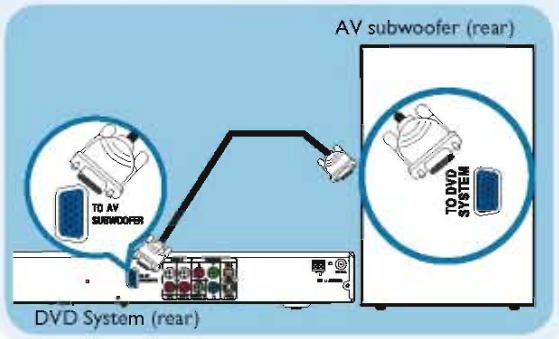
C Connect the speakers to AV subwoofer

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



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.

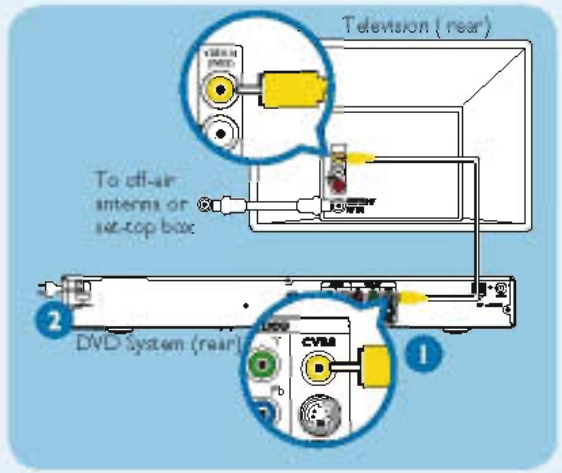


3. Directions For Use

The following except of the Quick Use Guide serves as an introduction to the set.
The Complete Direction for the Use can be downloaded in different languages from the internet site of Philips Customer care Center:
www.p4c.philips.com

2 Set up

E Connect the DVD system to TV

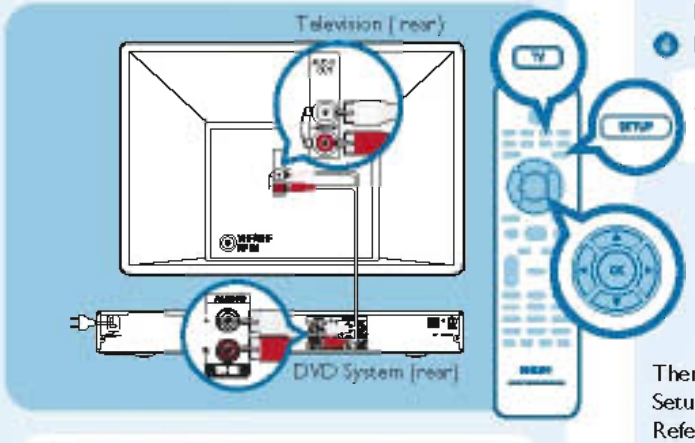


1. Use the supplied composite video cable to connect the CVBS jack on this DVD system to the VIDEO IN jack on your TV.
2. Plug in the power cables from the DVD system, AV subwoofer and TV to the AC power outlets.

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, ⊡ 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.

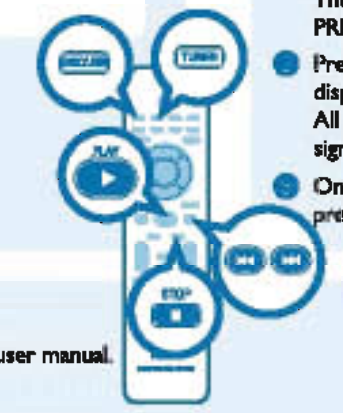
3 Enjoy

Start disc playback

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

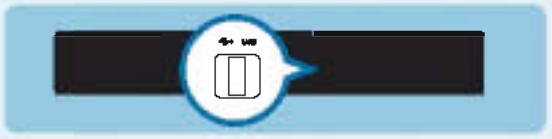
2. Playback will start automatically.
3. If the disc menu appears, use ▼▲ keys to select an option in the menu and press **PLAY** ▶ to start playback.
4. Press **STOP** ■ to stop playback.

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?

User Manual
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.

Be responsible
Respect copyrights

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12 NC 3139 246 19151

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

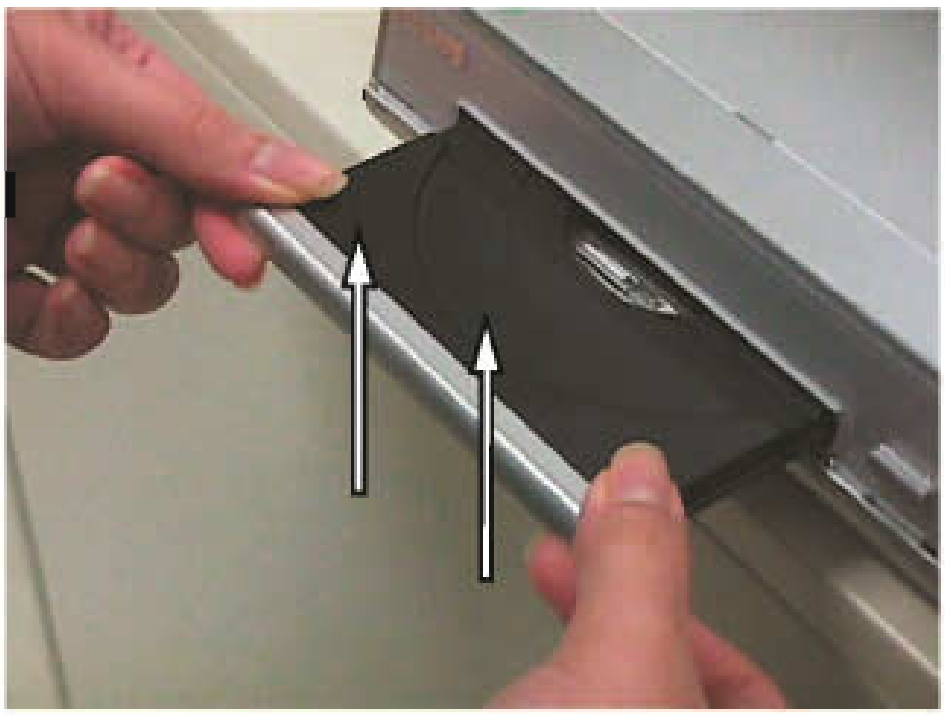


Figure 4-2

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.

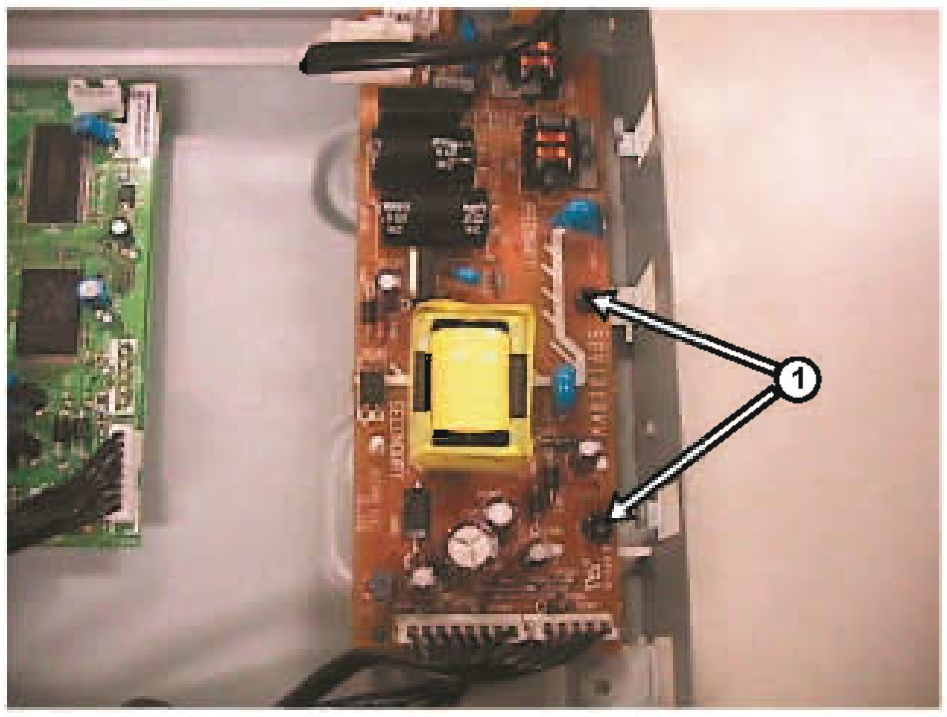


Figure 4-3

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

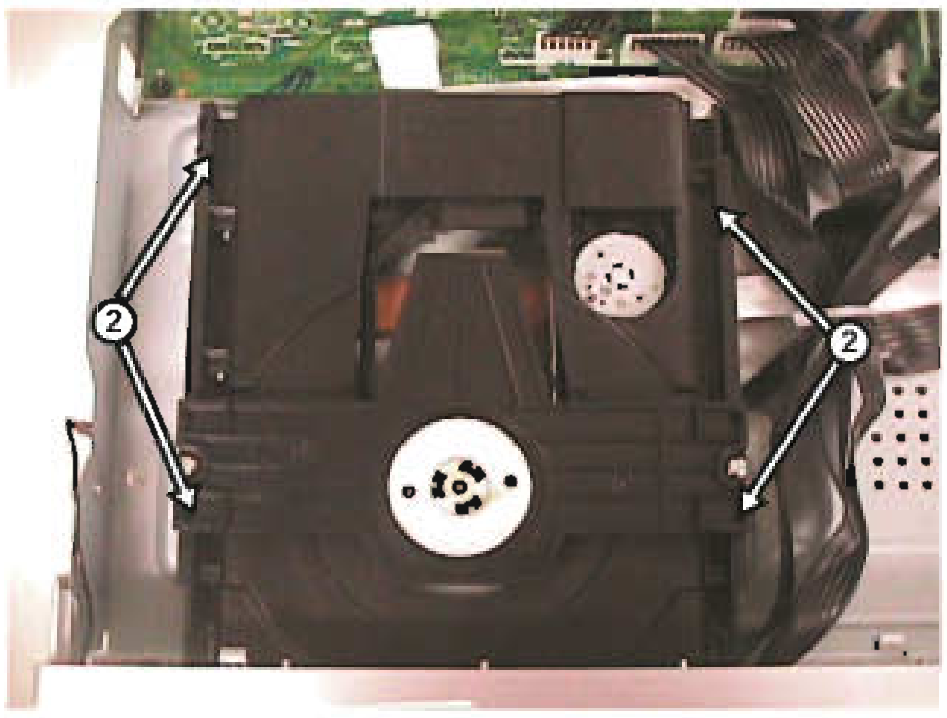


Figure 4-4

4.3 Dismantling of the Tuner Module & AV Board.

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

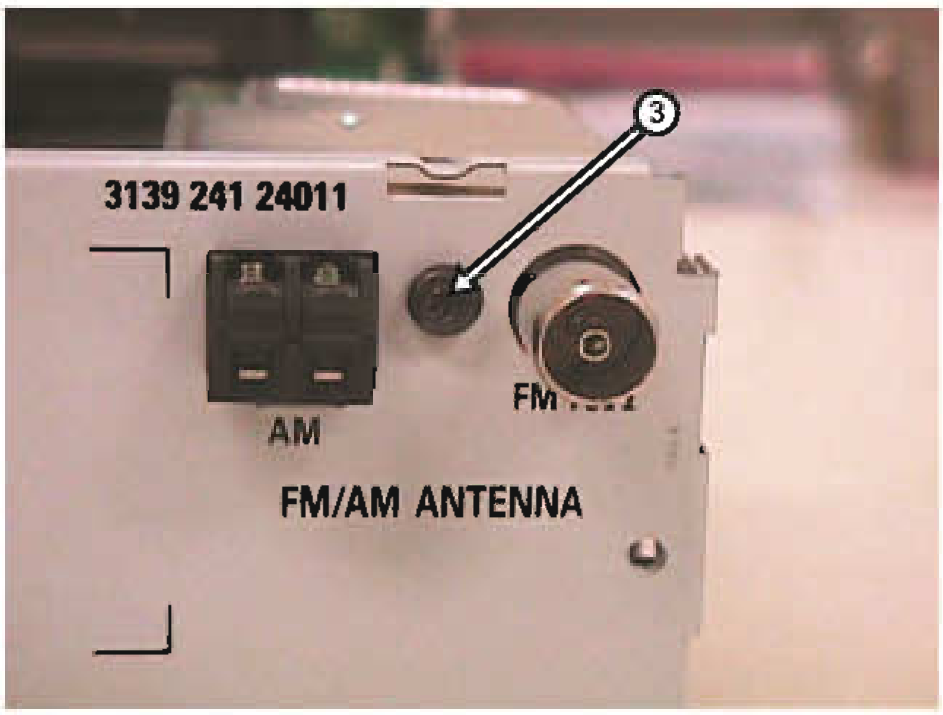


Figure 4-5

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

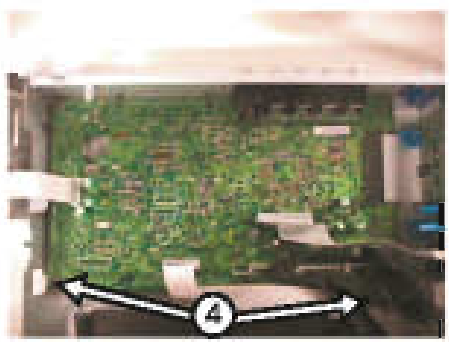


Figure 4-6

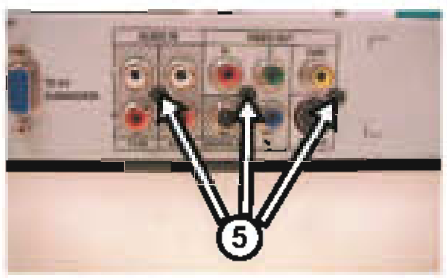


Figure 4-7

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 & PBCAS 9.1 Board.

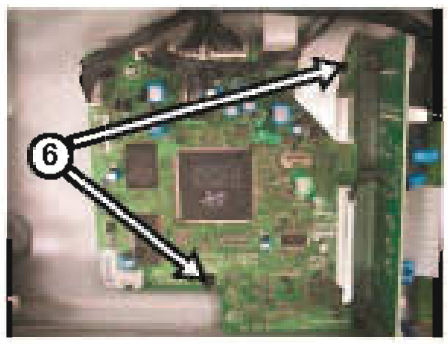


Figure 4-8

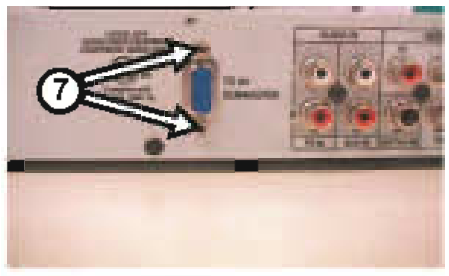
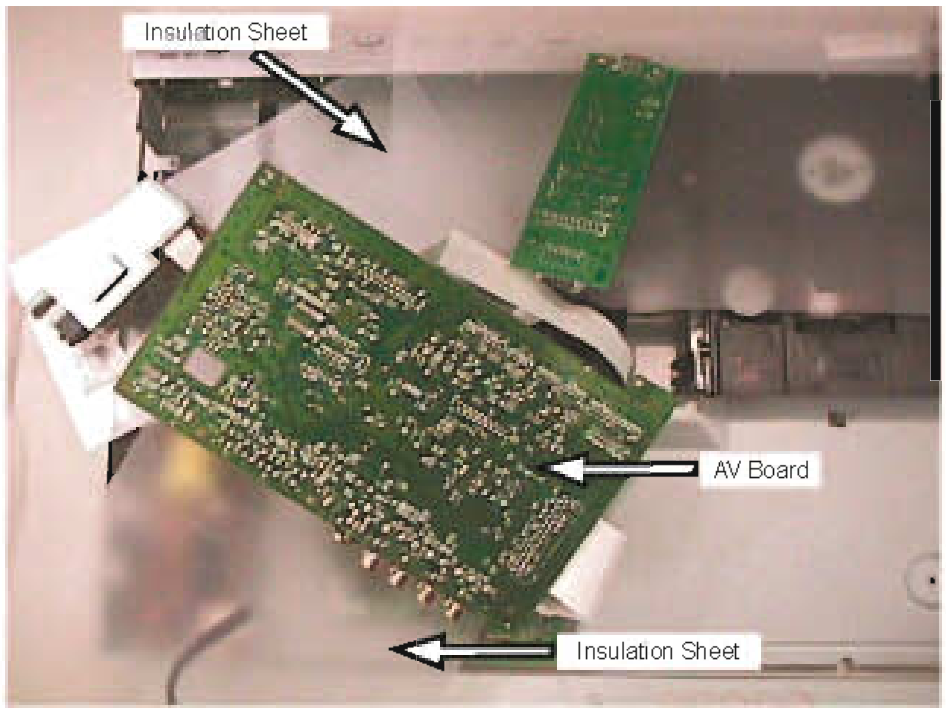
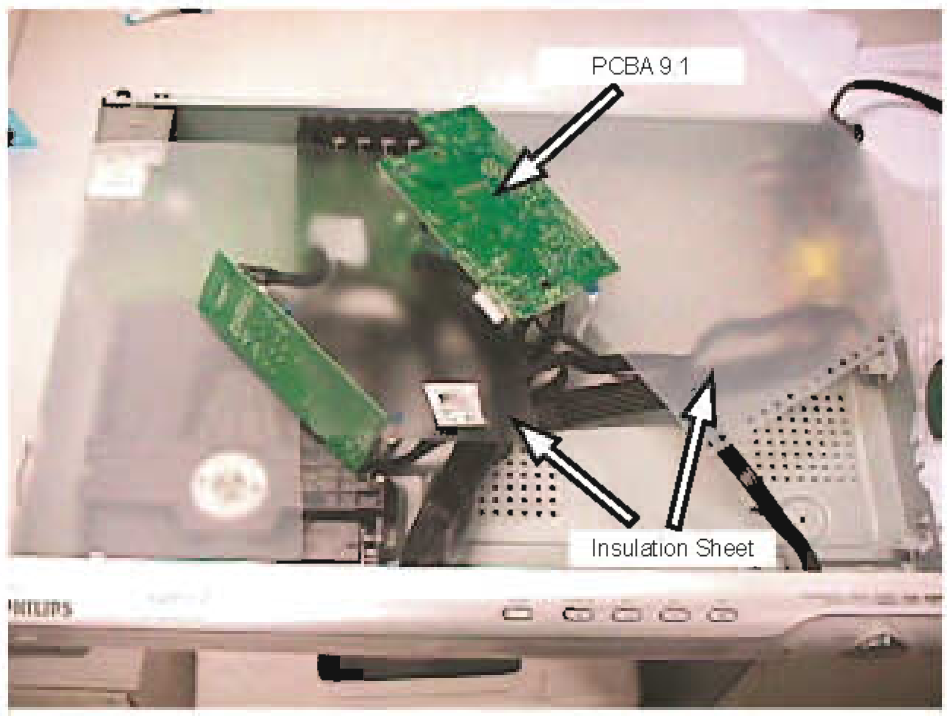


Figure 4-9

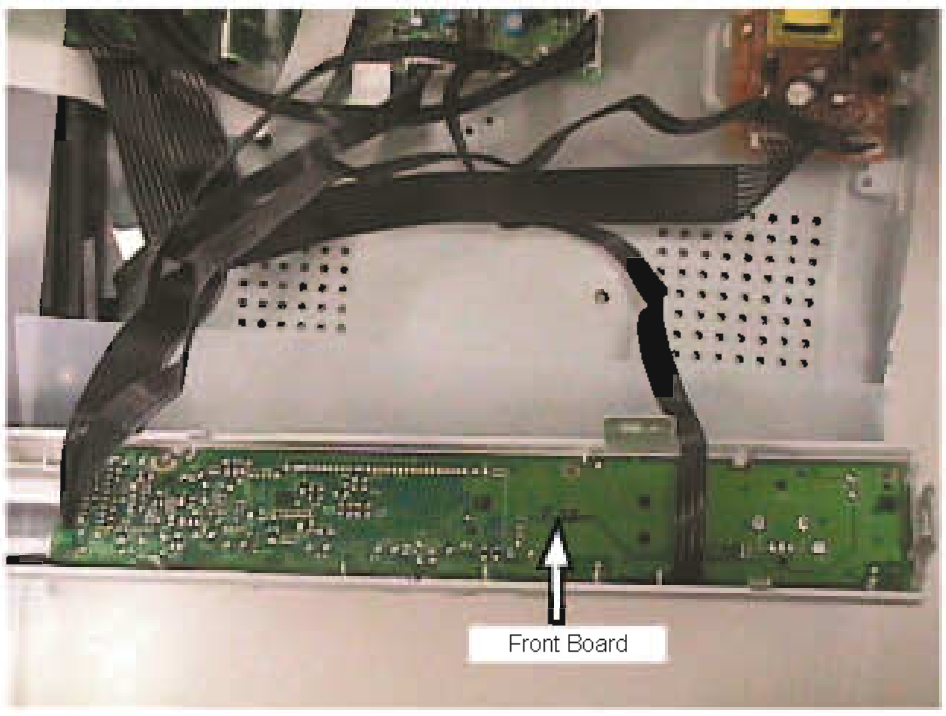
4.5 Service Positions



Service Position - AV Board

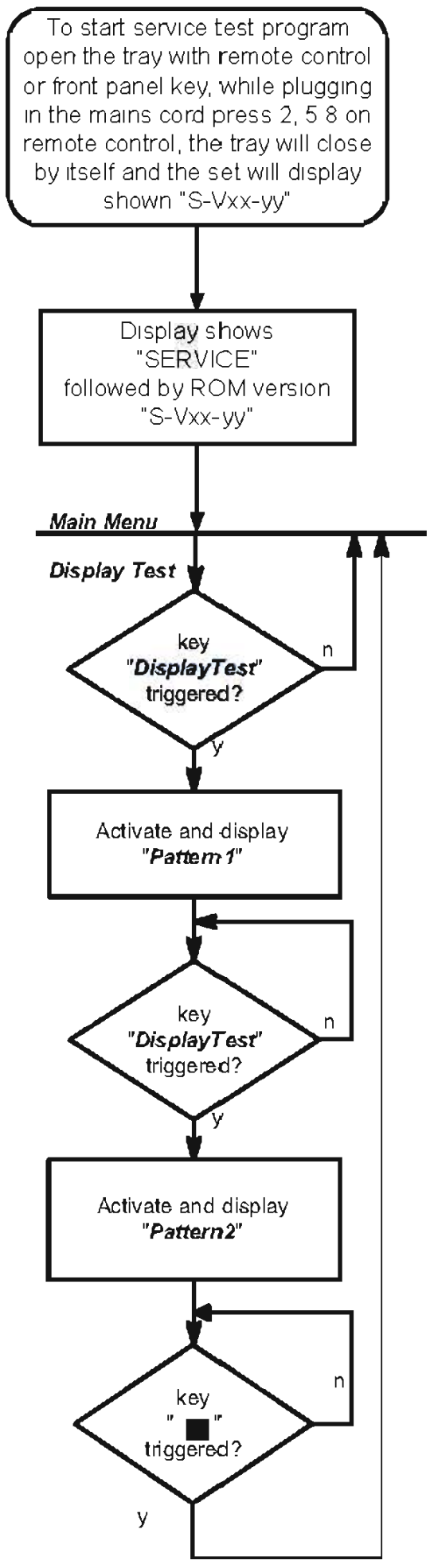


Service Position - PCBAS 9.1



Service Position - Front Board

5. Service Test Program



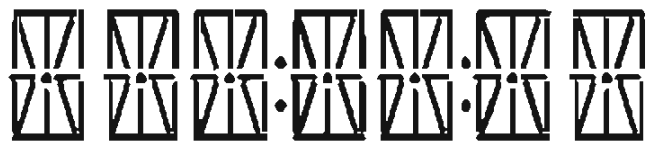
S refers to Service Mode
V refers to Version
xx refers to Software version number of BEA (counting up from 01 to 99)
yy refers to Software version number of Front uP (counting up from 01 to 99)

4.1 Display Test

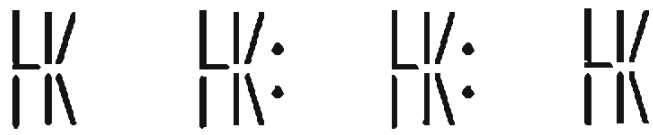
Purpose:
This test is used to check the driving circuits, the display and whether there are any short-circuits, open-circuits or any other defects.

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

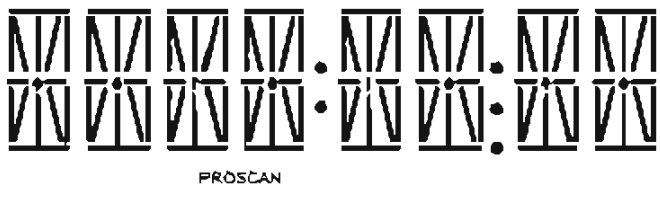


Pattern 2 *Alternate display control pins are on (Test Pattern 0x55)*
- to check the short-circuits on Data port

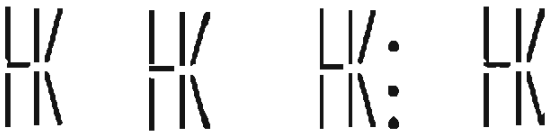


Receiver:

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



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 3450/37	Nafta	1	NTSC
HTS 3450/55	Latam	4	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> <1> .....for HTS 3450/37

   <9> <9> <9> <9> <Subtitle> <5> .....for HTS 3450/55

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 fromremoving disc, changing source etc using the set keys.Rotary and Remote Control (RC) keys are still allowed inTrade mode.

To activate Trade Mode:

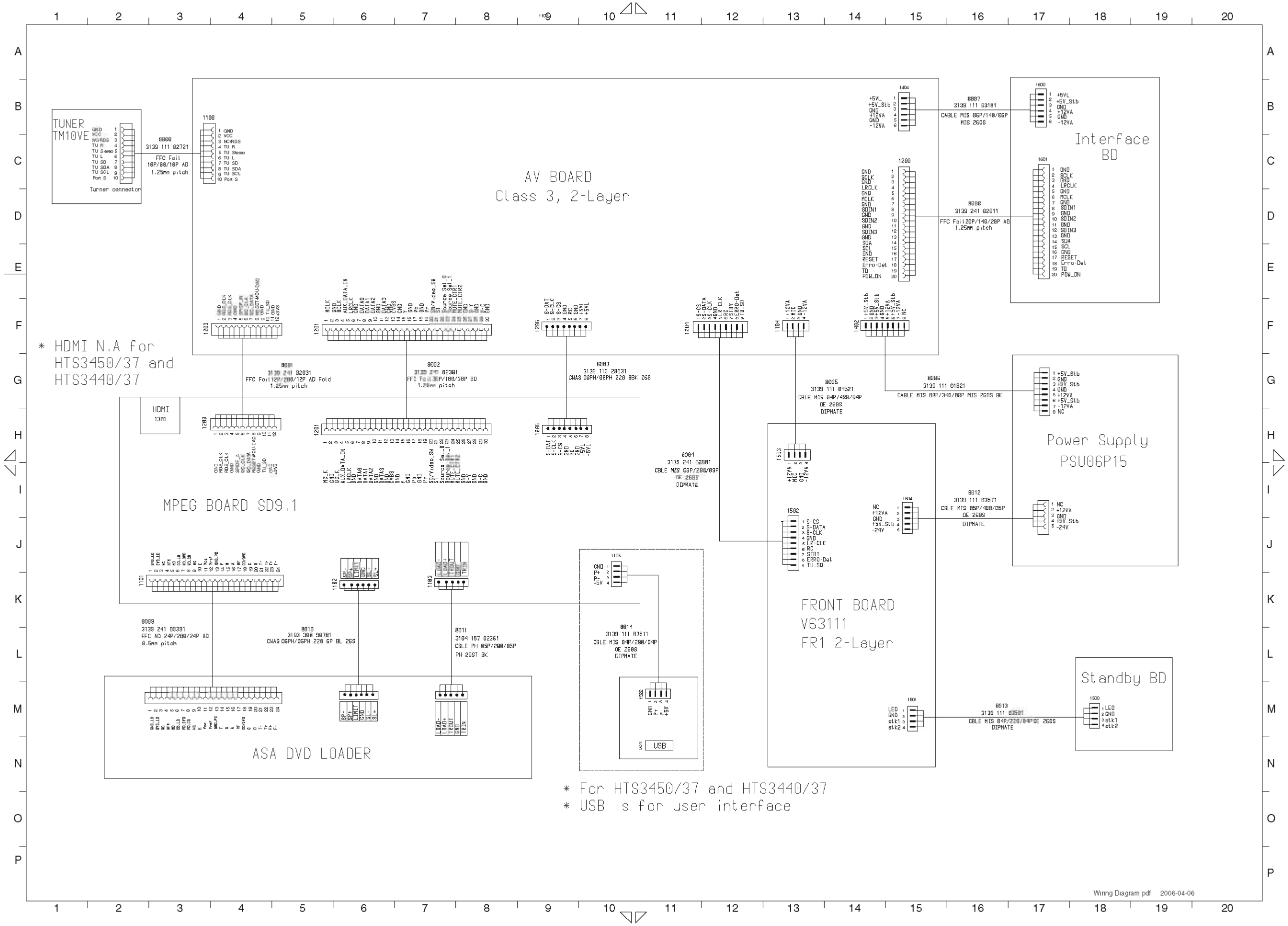
1) Power up the set and select DISC source.
2) Open tray by press “OPEN/CLOSE” button on the set or press and hold “STOP” button on the RC.
3) Then press buttons <2> <5> <9> on the RC.
4) The display shows **‘TRA ON’** and the tray will close.
Trade Mode is now enabled.

To deactivate Trade Mode:

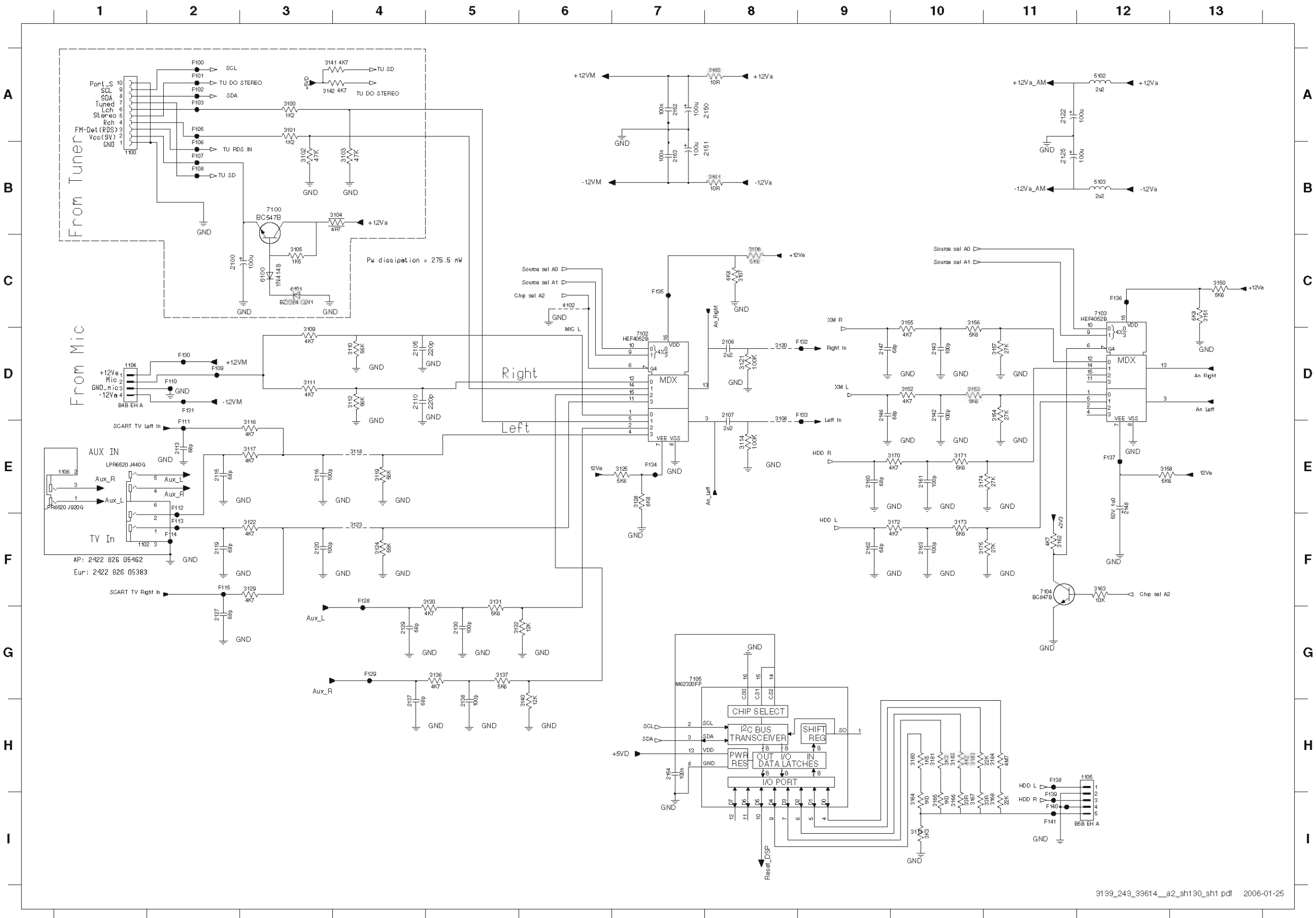
1) Power up the set and select DISC source.
2) Open tray by press and hold “STOP”button on the RC.
3) Then press buttons <2> <5> <9> on the RC.
4) The display shows **‘TRA OFF’** and the tray will close.
Trade Mode is now disabled.

Notes:

Wiring Diagram

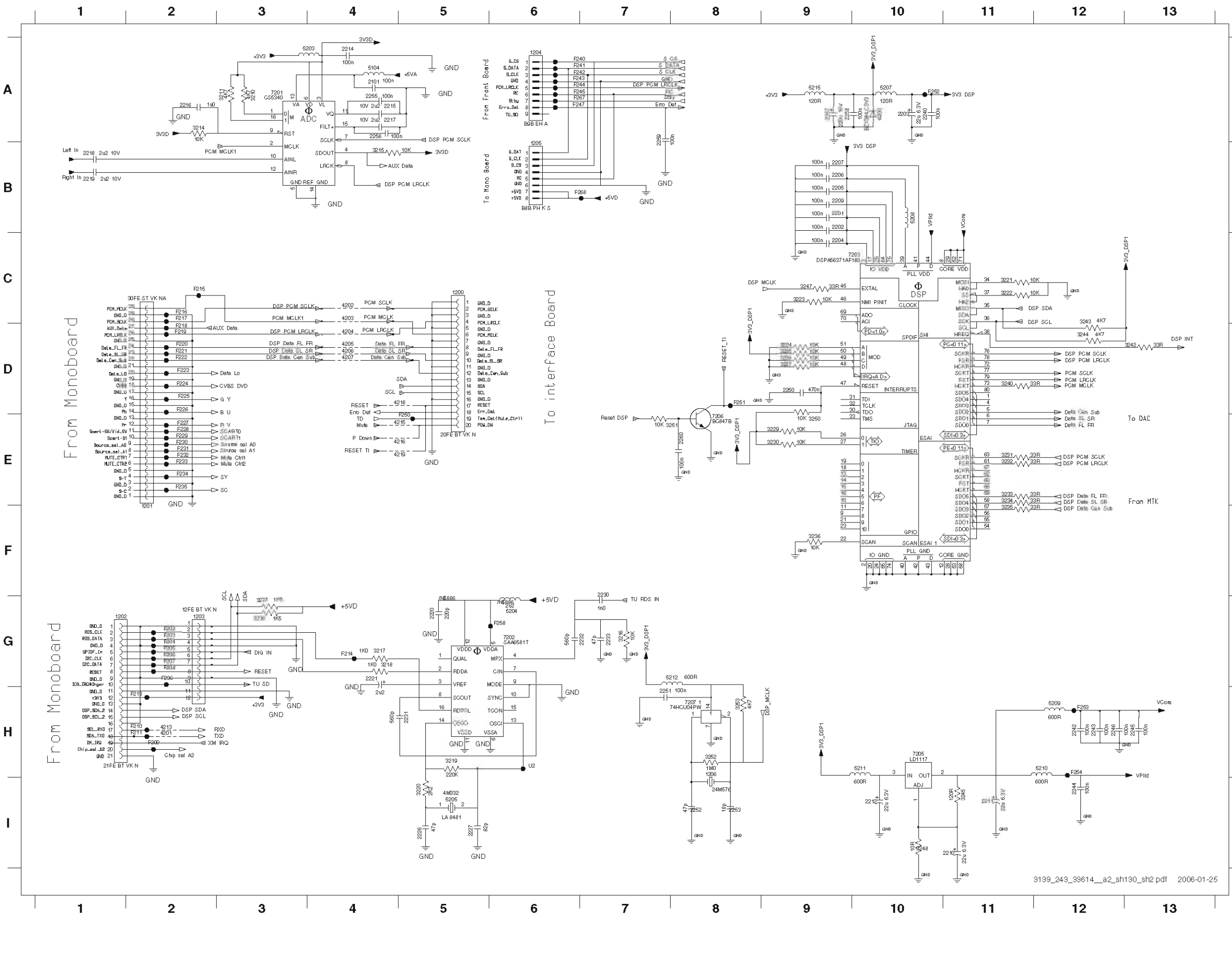


7. For HTS 3450/37 only
AV Board: Circuit Diagram (Part 1)



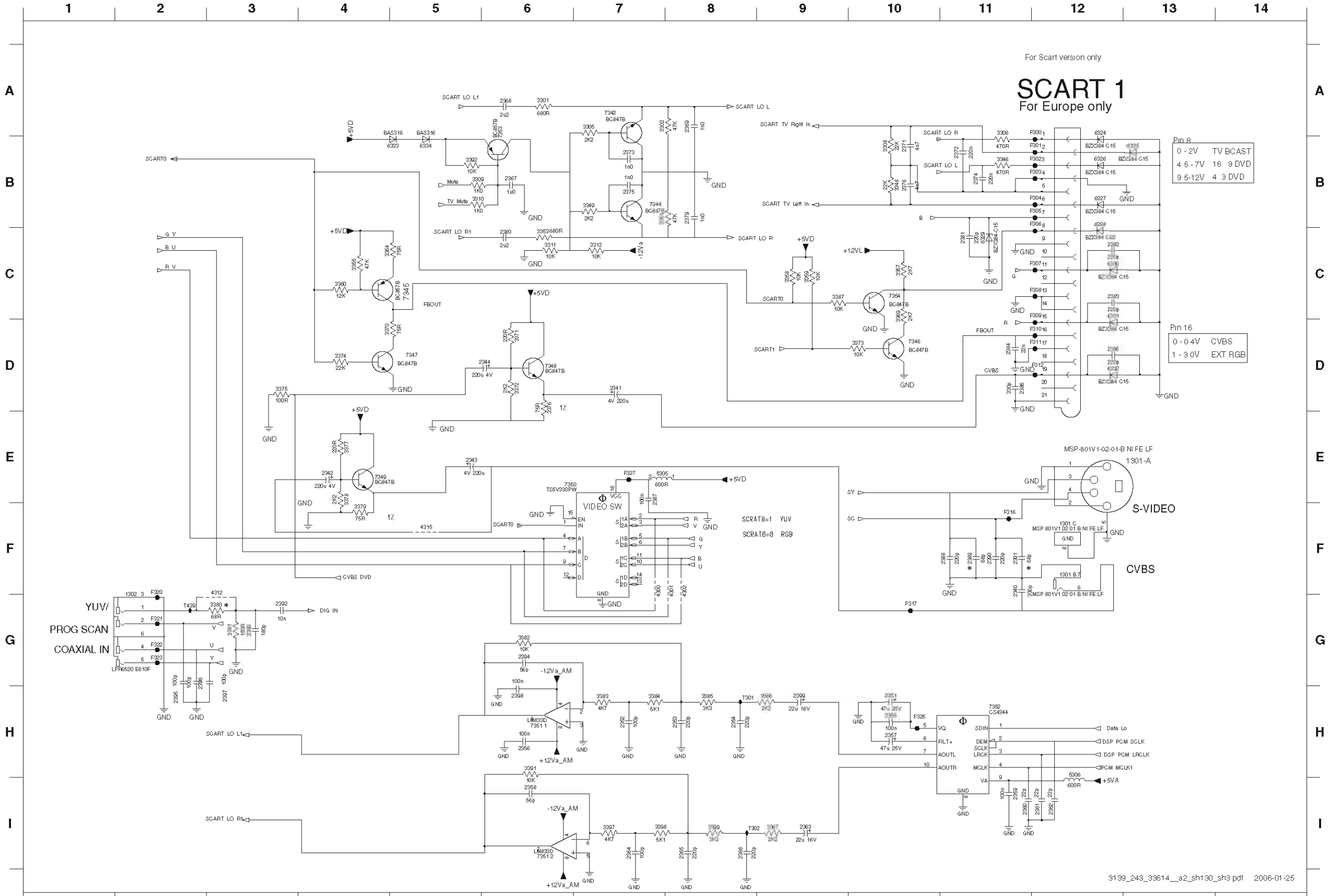
1100 B1 F103 A2
1102 F1 F105 A2
1104 D1 F106 B2
1105 H12 F107 B2
1106 E1 F108 B2
2100 C2 F109 D2
2105 D4 F110 D2
2106 D8 F111 E2
2107 D8 F112 E2
2110 D4 F113 F2
2113 E2 F114 F2
2115 E2 F115 F2
2116 E3 F128 F4
2119 F2 F129 G4
2120 F3 F130 D2
2122 A11 F131 D2
2125 B11 F132 D9
2127 G2 F133 D9
2129 G4 F134 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 I10
3114 E8
3116 E3
3117 E3
3118 E4
3119 E4
3120 D8
3121 D8
3122 F3
3123 F4
3124 F4
3125 E7
3128 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 I10
3165 I10
3166 I10
3167 I10
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

For HTS 3450/37 only
AV Board: Circuit Diagram (Part 2)



U2 H6
1200 C5
1201 E2
1202 G1
1203 G2
1204 A6
1205 B6
1206 H8
2101 A4
2201 B9
2202 B9
2203 A10
2204 C9
2205 B9
2206 B9
2207 B9
2209 B9
2210 I11
2211 I11
2212 I10
2214 A4
2215 A4
2216 A2
2217 A4
2218 B1
2219 B1
2220 G5
2221 G4
2226 I5
2227 I5
2230 G7
2231 H5
2232 G6
2233 G7
2240 A10
2242 H12
2243 H12
2244 I12
2245 H13
2246 H12
2250 D9
2251 H7
2252 I8
2253 I8
2255 A4
2256 A4
2257 A9
2258 A9
2259 A7
2260 E8
3210 A3
3211 A9
3214 A2
3215 B4
3216 G7
3217 G4
3218 G4
3219 H5
3220 I5
3221 C11
3222 C11
3223 C9
3224 D9
3225 D9
3226 D9
3227 D9
3229 E9
3230 E9
3231 E11
3232 E11
3233 E11
3234 E11
3235 F11
3236 F9
3237 G3
3238 G3
3240 D11
3242 D13
3243 C12
3244 D12
3245 I11
3247 C9
3248 I10
3250 E9
3251 E8
3252 H8
3253 H8
4201 H2
4202 C4
4203 C4
4204 D4
4205 D4
4206 D4
4207 D4
4213 H2
4215 E5
4216 E5
4218 D5
4219 E5
5104 A4
5203 A4
5204 G6
5205 I5
5207 A10
5208 B10
5209 H12
5210 H12
5211 H10
5212 G8
5215 A9
6200 A10
7201 A3
7202 G6
7203 C10
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
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
F240 A6
F241 A6
F242 A6
F243 A6
F244 A6
F245 A6
F246 A6
F247 A6
F250 E5
F251 D8
F252 A10
F253 H12
F254 H12
F258 G6
F267 A6
F268 B7

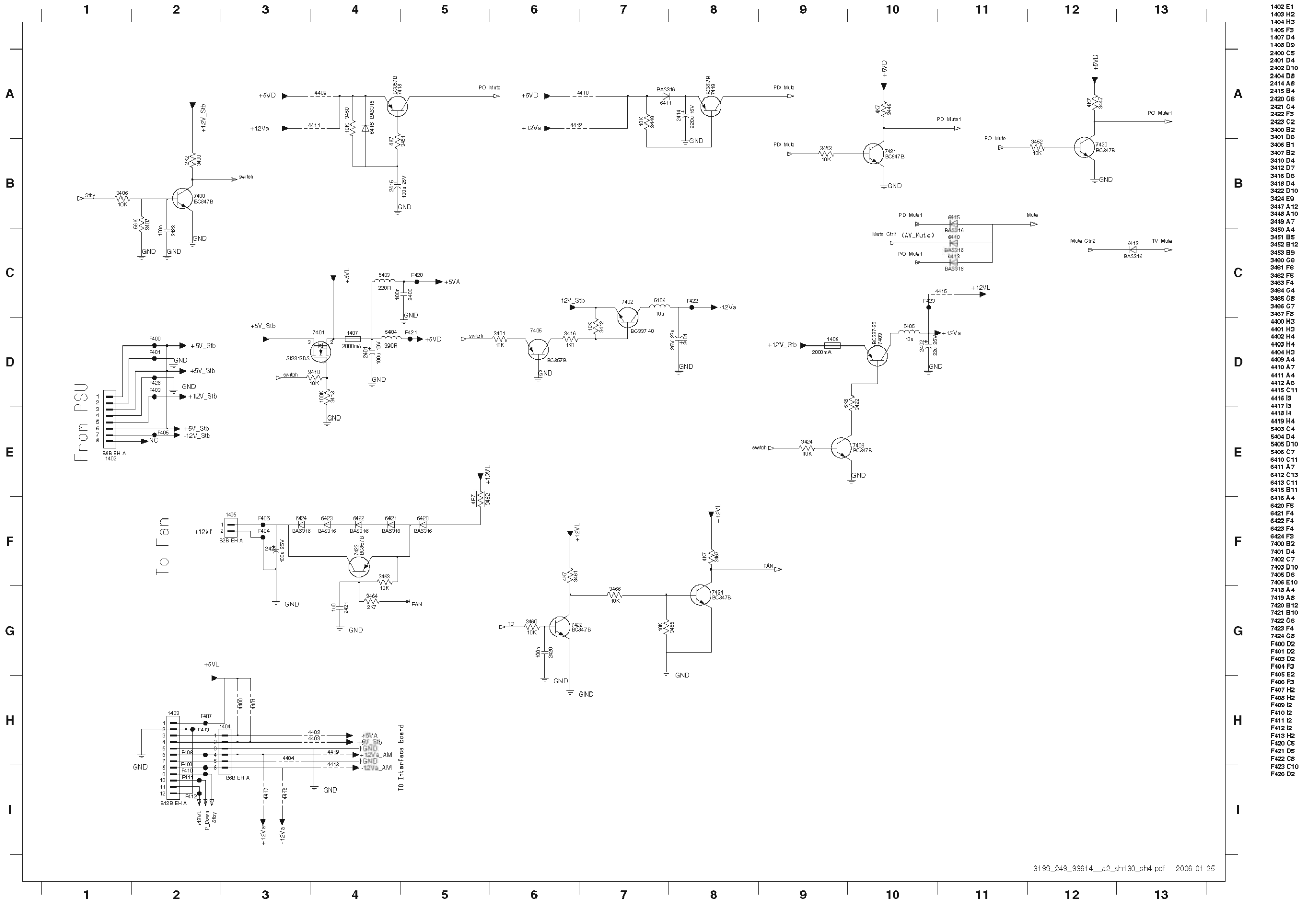
For HTS 3450/37 only
AV Board: Circuit Diagram (Part 3)



1301-A E13 1301-B F12 1301-C F12 1302 G2 2340 F11 2341 D7 2342 E4 2343 E5 2344 D6 2351 H10 2352 H7 2353 H8 2354 H8 2355 H10 2356 H6 2357 H10 2358 I6 2359 I11 2360 I11 2361 I12 2362 I12 2363 I9 2364 I7 2365 I8 2366 I8 2367 B6 2368 A6 2369 A8 2371 B10 2372 B11 2373 B7 2374 B11 2375 B7 2376 B10 2379 B8 2380 D6 2381 C11 2382 C12 2383 C12 2384 D11 2385 D12 2386 D11 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

6330 C12 6331 C12 6332 D12 6333 B5 6334 B5 7342 A7 7344 B7 7345 C5 7346 D10 7347 D5 7348 D6 7349 E4 7350 E7 7351-1 H6 7351-2 I6 7352 H11 7353 B6 7354 C10 F300 A12 F301 B12 F302 B12 F303 B12 F304 B12 F305 B12 F306 B12 F307 C12 F308 C12 F309 C12 F310 D12 F311 D12 F312 D12 F316 F11 F317 G10 F320 F2 F321 G2 F322 G2 F323 G2 F325 H10 F327 E7 T301 H8 T302 I8 T439 G2

For HTS 3450/37 only
AV Board: Circuit Diagram (Part 4)



3139_243_33614__a2_sh130_sh4.pdf 2006-01-25

For HTS 3450/37 only
Layout: AV Board (Top view)

1100	B5
1102	C1
1104	B4
1105	A4
1106	C2
1200	B2
1201	B1
1202	A4
1203	A4
1204	A1
1205	A1
1206	B2
1300	C4
1301	C3
1302	C2
1402	A2
1403	A3
1404	A3
1405	B4
2100	B5
2101	B1
2105	C4
2106	B4
2107	C4
2110	B4
2116	C4
2120	B5
2122	A6
2125	B5
2129	C4
2130	C4
2137	B4
2138	B4
2142	B5
2143	B5
2146	B5
2147	B5
2148	B5
2150	B4
2151	B4
2160	B5
2161	B5
2162	B5
2163	B5
2201	B2
2202	B2
2203	B3
2204	C2
2205	C2
2207	B3
2209	B3
2210	B2
2211	B2
2212	B2
2214	C1
2215	B2
2216	B2
2217	C1
2218	C2
2219	C2
2221	B6
2240	B3
2243	B2
2244	B2
2245	B3
2250	B2
2251	B2
2252	B2
2253	B2
2255	B2
2256	B1
2257	B3
2258	B2
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2342	C2
2343	C3
2344	C3
2351	B3
2352	B3
2353	B4
2354	B3
2356	B3
2357	B3
2358	B4
2359	B3
2363	B3
2364	B4
2365	A4
2366	B4
2367	C5
2382	C4
2383	C4
2385	C4
2387	B3
2394	B4
2398	B4
2399	B3
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2402	A3
2404	A2
2414	B1
2415	A1
2420	A4
2421	A4
2422	A4
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3107	B4
3108	C4
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3111	B4
3112	B4
3114	C4
3118	C4
3119	C4
3120	B4
3121	B4
3123	B4
3124	B5
3125	C4
3128	C4
3130	C4
3131	C4
3132	C4
3136	B4
3137	B4
3140	B4
3150	B5
3151	B5
3152	B5
3153	B5
3154	B5
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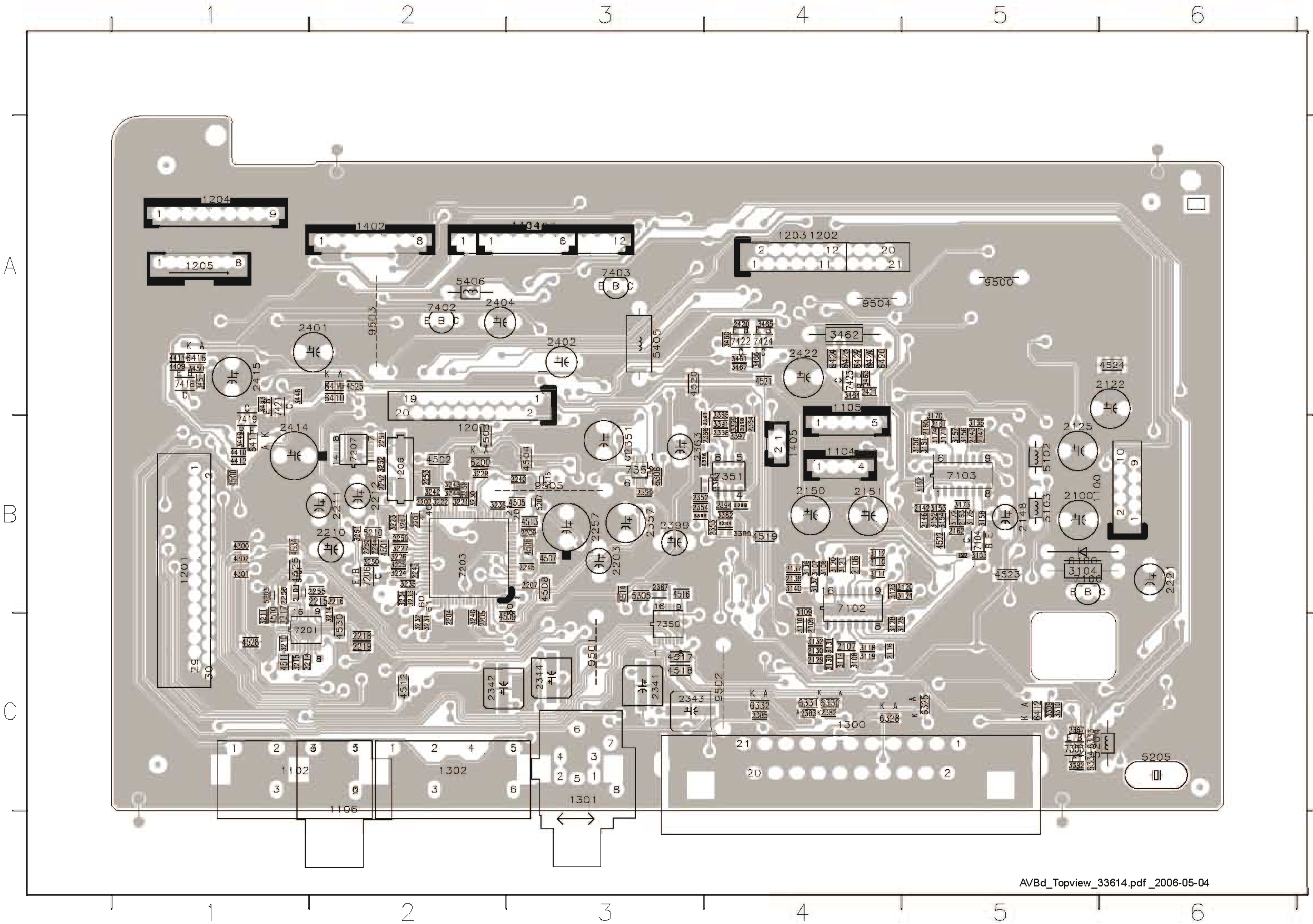
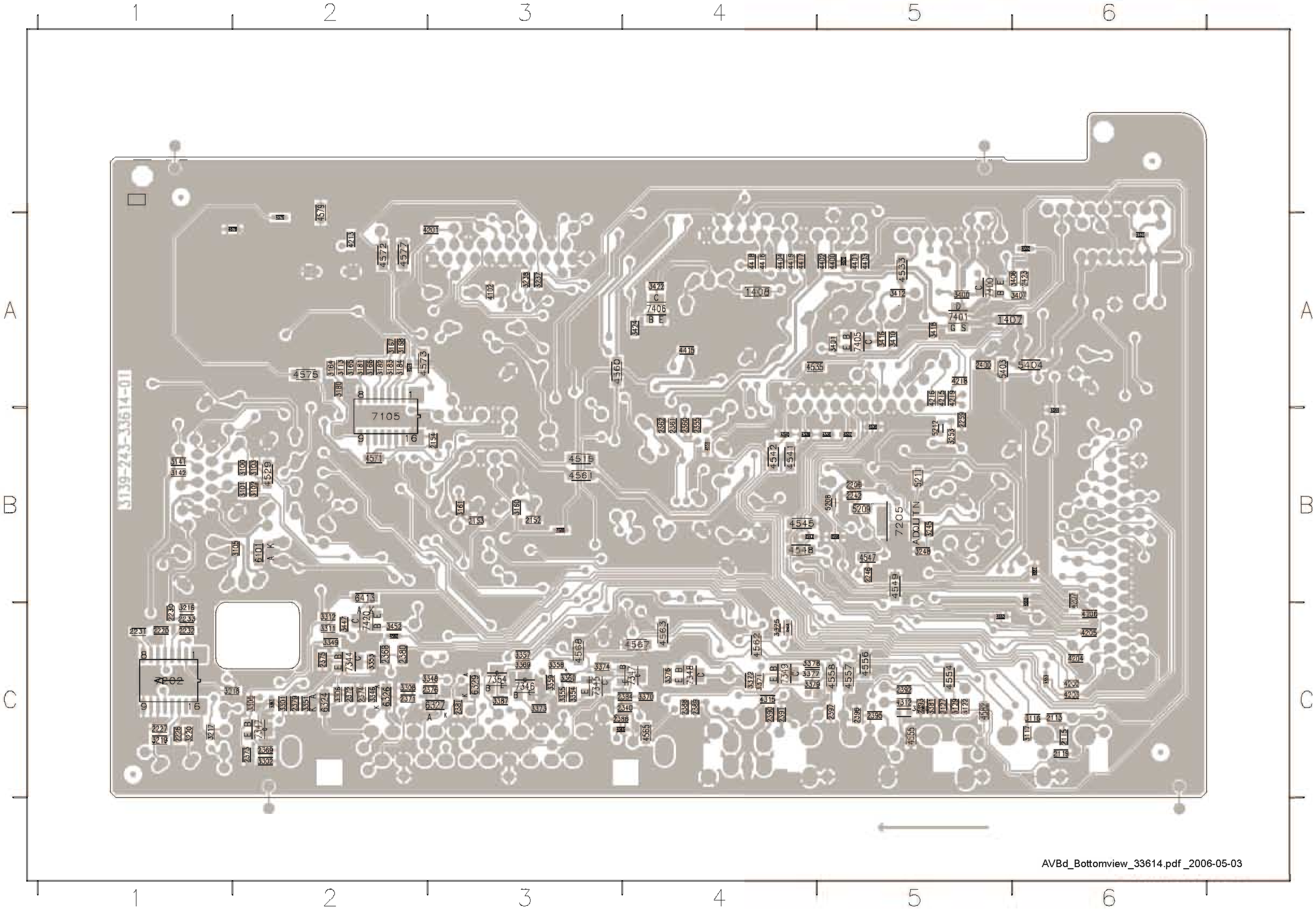
3157	B5
3158	B5
3162	B5
3163	B5
3170	B5
3171	B5
3172	B5
3173	B5
3174	B5
3175	B5
3210	C1
3211	C1
3214	C2
3215	C1
3221	B2
3222	B2
3223	B2
3224	B2
3225	B2
3226	B2
3227	B2
3229	B2
3230	B2
3231	C2
3232	C2
3233	B2
3234	B2
3235	B2
3236	B2
3240	C2
3242	B2
3243	B2
3244	B2
3247	B2
3250	B2
3251	B2
3252	B2
3309	C5
3310	C5
3367	B4
3382	B4
3383	B4
3384	B4
3385	B4
3386	B3
3391	B4
3392	C5
3397	B4
3398	B4
3399	B4
3448	A1
3449	B1
3450	A1
3451	A1
3453	A1
3460	A4
3461	A4
3462	A4
3463	A4
3464	A4
3465	A4
3466	A4
3467	A4
4300	B1
4301	B1
4302	B1
4409	A1
4410	B1
4411	A1
4412	B1
4500	B1
4501	B2
4502	B2
4503	B2
4504	B3
4505	B3
4506	B3
4507	B3
4508	B3
4509	C3
4510	C1
4511	C1
4512	C2
4513	B3
4514	B3
4516	B3
4517	C3
4518	C3
4519	B4
4520	A3
4521	A4
4522	B5
4523	B5
4524	A6
4525	A2
4526	B1
4527	B5
4528	C1
4530	C2
4534	B1
5102	B5
5103	B5
5104	B1
5203	B1
5204	C5
5205	C6
5207	B3
5210	B2
5215	B3
5305	B3
5306	B3
5405	A3
5406	A2
6100	B5
6200	B2
6325	C5
6328	C4
6330	C4
6331	C4
6332	C4
6333	C5
6334	C5
6410	A2
6411	B1
6412	C5
6415	A2
6416	A1
6420	A4
6421	A4
6422	A4
6423	A4
6424	A4
7100	B5
7102	B4
7103	B5
7104	B5
7201	C1
7203	B2
7206	B2
7207	B2
7350	C3
7351	B4
7352	B3
7353	C5
7402	A2
7403	A3
7418	A1
7419	B1
7421	A1
7422	A4
7423	A4
7424	A4
9500	A5
9501	C3
9502	C4
9503	A2
9504	A4
9505	B3



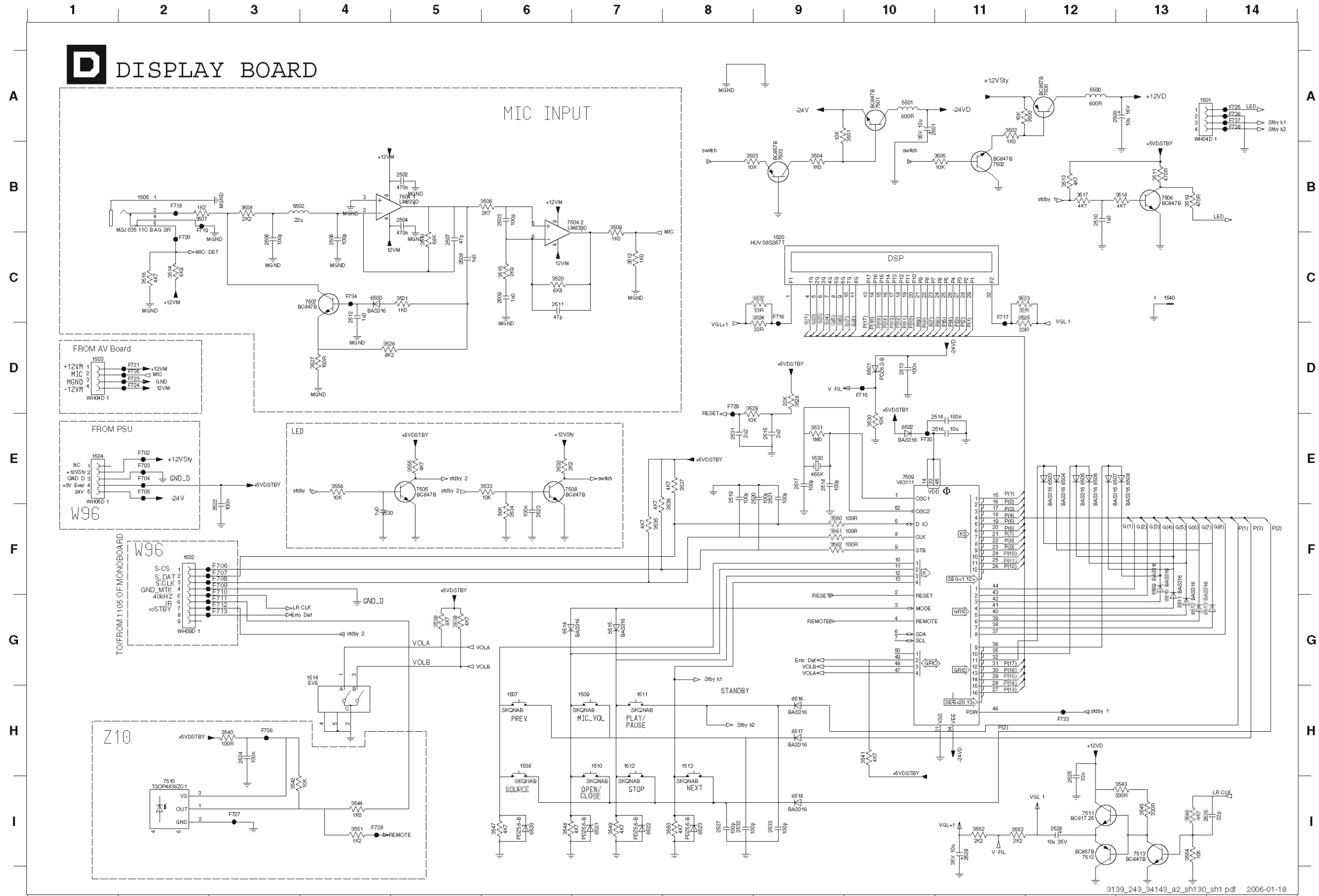
AVBd_Topview_33614.pdf _2006-05-04

For HTS 3450/37 only
Layout: AV Board (Bottom view)

1407	A5
1408	A4
2113	C6
2115	C6
2119	C6
2127	C5
2152	B3
2153	B3
2154	B3
2206	B5
2220	C1
2226	C1
2227	C1
2230	C1
2231	C1
2232	C1
2233	C1
2242	B5
2246	B5
2259	B5
2340	C4
2355	B4
2360	B4
2361	B4
2362	B4
2368	C2
2369	C2
2371	C2
2372	C2
2373	C2
2374	C2
2375	C2
2376	C3
2379	C2
2380	C2
2381	C3
2384	C4
2386	C3
2388	C4
2389	C4
2390	C4
2391	C4
2392	C5
2393	C5
2395	C5
2396	C5
2397	C5
2400	A5
2423	A6
3100	B2
3101	B2
3102	B2
3103	B2
3105	B2
3113	A2
3116	C6
3117	C6
3122	C5
3129	C5
3141	B1
3142	B1
3160	B3
3161	B3
3164	A2
3165	A2
3166	A2
3167	A2
3168	A2
3180	A2
3181	A2
3182	A2
3183	A2
3184	A2
3216	C1
3217	C1
3218	C1
3219	C1
3220	C1
3237	A3
3238	A3
3245	B5
3248	B5
3253	B5
3301	C2
3302	C2
3305	C2
3306	C2
3308	C2
3311	C2
3312	C2
3346	C2
3348	C3
3349	C2
3351	C2
3353	C2
3354	C3
3355	C3
3357	C3
3358	C3
3359	C3
3360	C3
3369	C3
3370	C4
3371	C4
3372	C4
3373	C3
3374	C3
3375	C4
3376	C4
3377	C4
3378	C4
3379	C4
3380	C5
3381	C5
3387	C3
3400	A5
3401	A5
3406	A6
3407	A6
3410	A5
3412	A5
3416	A5
3418	A5
3422	A4
3424	A4
3447	C2
3452	C2
4102	A3
4201	A3
4202	C6
4203	C6
4204	C6
4205	C6
4206	C6
4207	B6
4213	A2
4215	A5
4216	A5
4218	A5
4219	A5
4312	C5
4315	C4
4400	A5
4401	A5
4402	A5
4403	A5
4404	A4
4415	A4
4416	A4
4417	A4
4418	A4
4419	A4
4515	B3
4529	B2
4531	A6
4532	A6
4533	A5
4535	A4
4536	B5
4537	B5
4538	B5
4539	B4
4540	B4
4541	B4
4542	B4
4543	B4
4544	B6
4545	B4
4546	B5
4547	B5
4548	B4
4549	B5
4550	B6
4551	B6
4552	C5
4553	C6
4554	C5
4555	C5
4556	C5
4557	C5
4558	C5
4559	B4
4560	A3
4561	B3
4562	C4
4563	C4
4564	C4
4565	C4
4566	C3
4567	C4
4568	C3
4569	B3
4570	A5
4571	B2
4572	A2
4573	A2
4574	A2
4575	A2
4576	A2
4577	A2
4578	A1
4579	A2
4580	C2
4581	C2
4582	C5
5208	B5
5209	B5
5211	B5
5212	B5
5403	A5
5404	A6
6101	B2
6324	C2
6326	C2
6327	C3
6329	C3
6413	B2
7105	B2
7202	C1
7205	B5
7342	C2
7344	C2
7345	C3
7346	C3
7347	C4
7348	C4
7349	C4
7354	C3
7400	A5
7401	A5
7405	A5
7406	A4
7420	C2

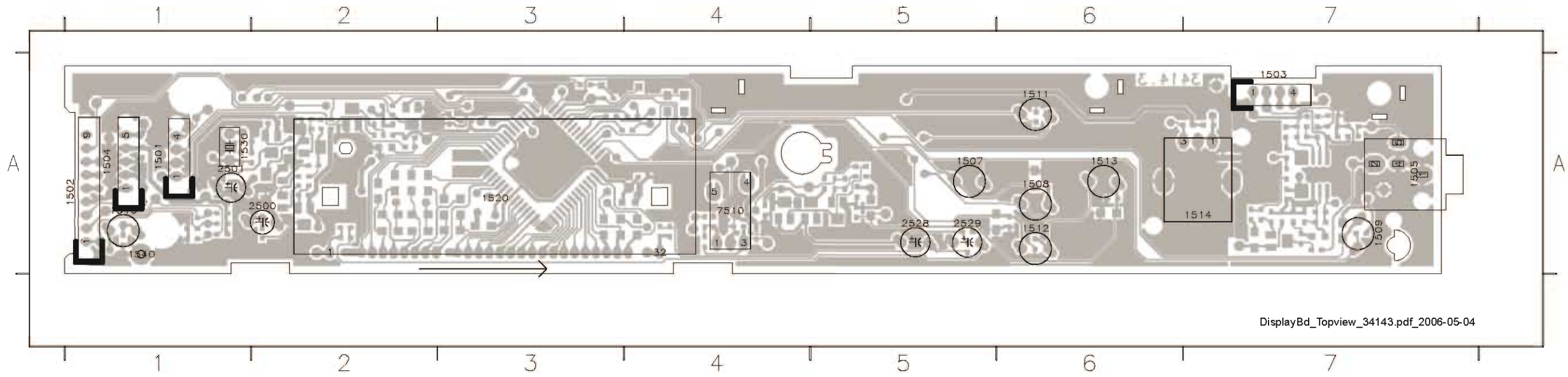


For HTS 3450/37 only
Display Board



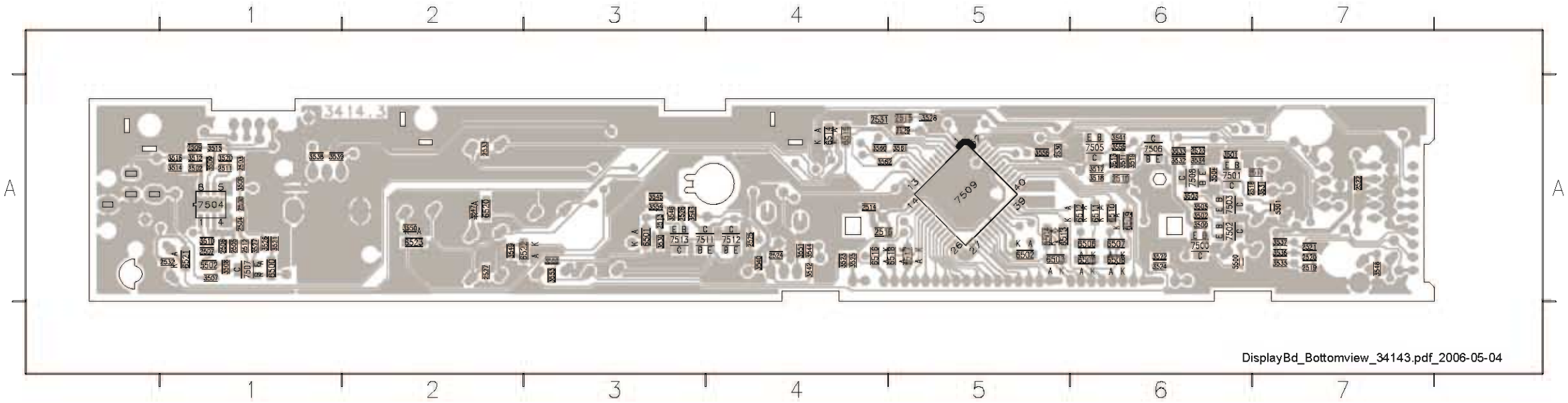
1501 A13	6501 D10
1502 F2	6502 E10
1503 D1	6503 E12
1504 E1	6504 E12
1505 B2	6505 E12
1507 H6	6506 E12
1508 H6	6507 E12
1509 H7	6508 E13
1510 H7	6509 F13
1511 H7	6510 G13
1512 H7	6511 G13
1513 H8	6512 G13
1514 G4	6513 G14
1520 C9	6514 G6
1530 E9	6515 G7
1540 C13	6516 H9
2500 A13	6517 H9
2501 A10	6518 I9
2502 B5	6520 I6
2503 B6	6521 I7
2504 B5	6522 I7
2505 C3	6523 I8
2506 C4	7500 A12
2507 C5	7501 A10
2508 C5	7502 B11
2509 C6	7503 B9
2510 B12	7504-1 B5
2511 C6	7504-2 B6
2512 C4	7505 E5
2513 D10	7506 B13
2514 E11	7507 C4
2515 E9	7508 E6
2516 E11	7509 E10
2517 E9	7510 I2
2518 E9	7511 I12
2519 E8	7512 I12
2520 E8	7513 I13
2521 E9	F702 E2
2522 F3	F703 E2
2523 F6	F704 E2
2524 H3	F705 E2
2525 I12	F706 F3
2526 I14	F707 F3
2527 I8	F708 F3
2528 I12	F709 F3
2529 I11	F710 F3
2530 F4	F711 G3
2531 E8	F712 G3
2532 I8	F713 G3
2533 I9	F715 D10
3500 A12	F716 C9
3501 A10	F717 C11
3502 A11	F718 B2
3503 B8	F719 C2
3504 B9	F720 C2
3505 B11	F721 D2
3506 B6	F723 D2
3507 B2	F724 D2
3508 B3	F725 A14
3509 B7	F726 H3
3510 C5	F727 I3
3511 B13	F728 I4
3512 C7	F729 D8
3513 B12	F730 E10
3514 C2	F733 H12
3515 C6	F734 C4
3516 C2	F735 D2
3517 B12	F736 A14
3518 B13	F737 A14
3519 B13	F738 A14
3520 C6	
3521 C5	
3522 C9	
3523 C11	
3524 C9	
3525 C11	
3526 D4	
3527 D4	
3528 D9	
3529 D8	
3530 E10	
3531 E9	
3532 E6	
3533 E6	
3534 F6	
3535 F7	
3536 F8	
3537 E8	
3538 G5	
3539 G5	
3540 H3	
3541 H10	
3542 I3	
3543 I13	
3544 I4	
3545 I13	
3546 I13	
3547 I6	
3548 I6	
3549 I7	
3550 I8	
3551 I4	
3552 I11	
3553 I11	
3554 I13	
3555 E5	
3556 E4	
3560 F9	
3561 F9	
3562 F9	
5500 A12	
5501 A10	
5502 B3	
6500 C4	

For HTS 3450/37 only
Layout: Front- Display Board (Top view)



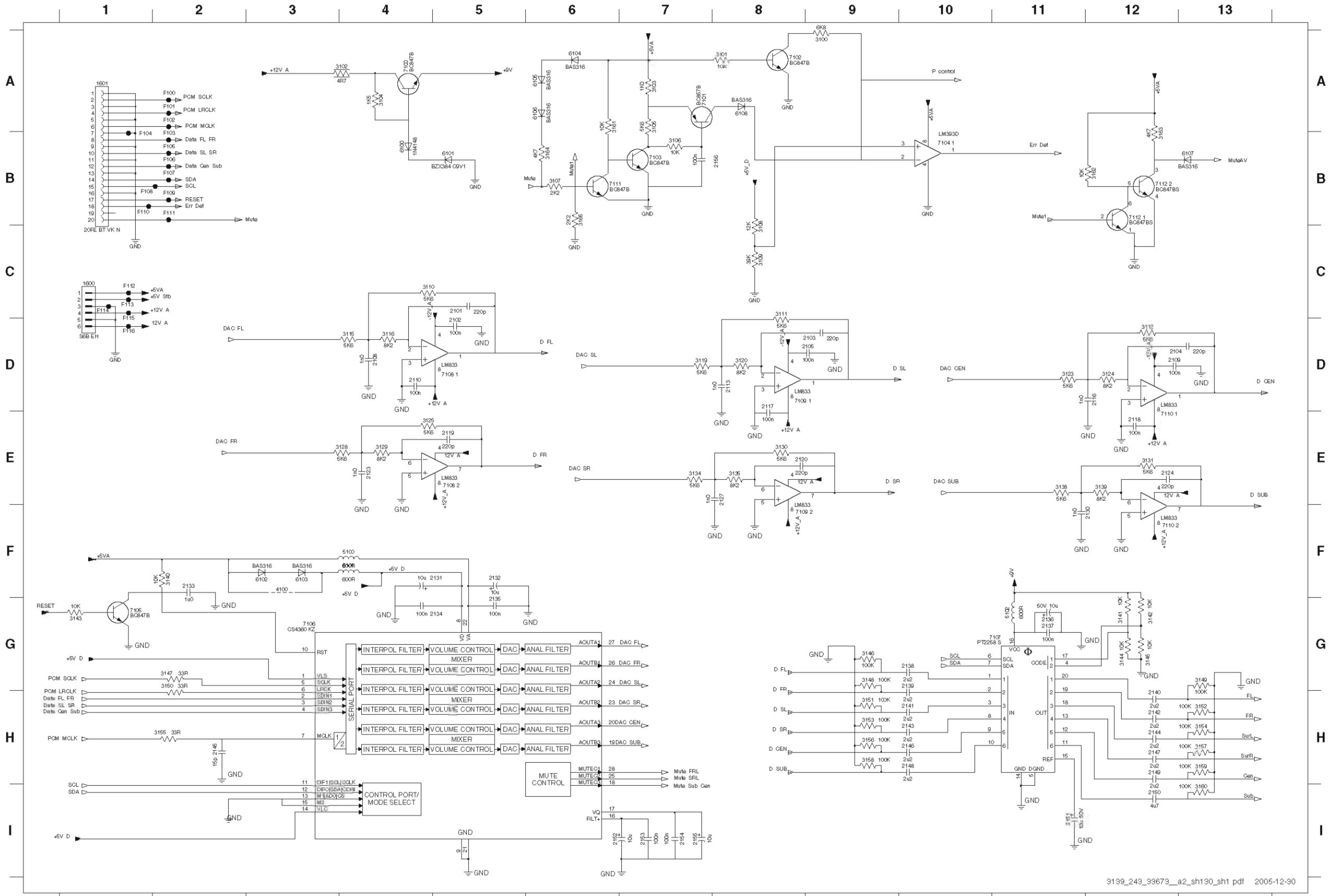
1501 A1
1502 A1
1503 A7
1504 A1
1505 A7
1507 A5
1508 A6
1509 A7
1510 A1
1511 A6
1512 A6
1513 A6
1514 A7
1520 A3
1530 A1
1540 A1
2500 A2
2501 A1
2528 A5
2529 A5
7510 A4

For HTS 3450/37 only
Layout: Front- Display Board (Bottom view)



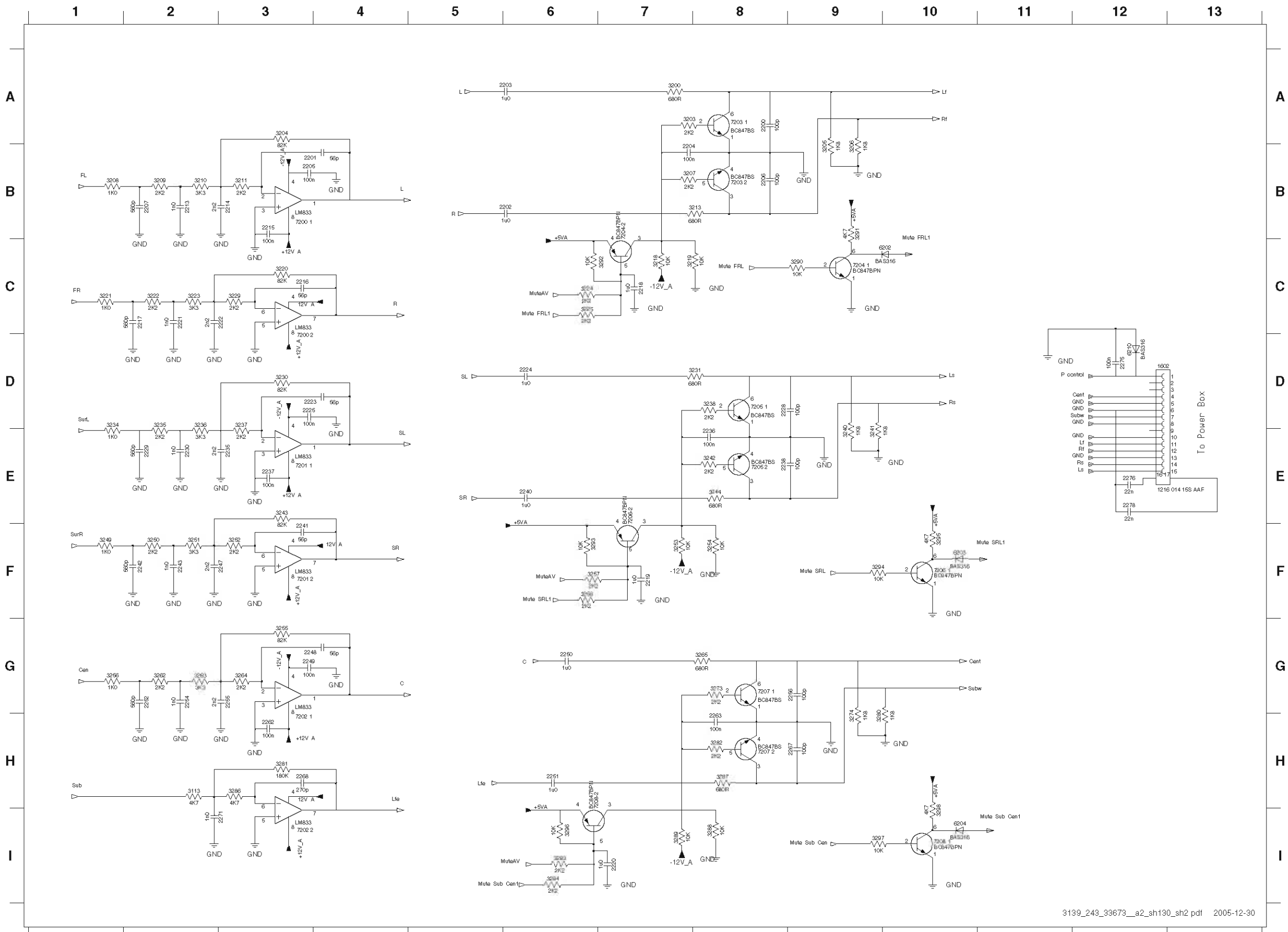
2502 A1
2503 A1
2504 A1
2505 A1
2506 A1
2507 A1
2508 A1
2509 A1
2510 A6
2511 A1
2512 A1
2513 A3
2514 A4
2515 A5
2516 A4
2517 A7
2518 A6
2519 A7
2520 A7
2521 A7
2522 A7
2523 A6
2524 A4
2525 A4
2526 A3
2527 A2
2550 A5
2551 A4
2552 A2
2553 A2
3500 A6
3501 A6
3502 A6
3503 A6
3504 A6
3505 A6
3506 A1
3507 A1
3508 A1
3509 A1
3510 A1
3511 A6
3512 A1
3513 A6
3514 A1
3515 A1
3516 A1
3517 A6
3518 A6
3519 A6
3520 A1
3521 A1
3522 A6
3523 A4
3524 A6
3525 A4
3526 A1
3527 A1
3528 A5
3529 A5
3530 A3
3531 A7
3532 A6
3533 A6
3534 A6
3535 A7
3536 A7
3537 A7
3538 A1
3539 A1
3540 A4
3541 A6
3542 A4
3543 A3
3544 A4
3545 A3
3546 A3
3547 A2
3548 A7
3549 A2
3550 A2
3551 A4
3552 A3
3553 A3
3554 A3
3555 A6
3556 A5
3560 A4
3561 A5
3562 A4
6500 A6
6501 A7
6502 A1
6503 A1
6504 A3
6505 A5
6506 A6
6507 A6
6508 A6
6509 A6
6510 A6
6511 A6
6512 A6
6513 A5
6514 A4
6515 A4
6516 A4
6517 A5
6518 A5
6520 A2
6521 A1
6522 A2
6523 A2
7500 A6
7501 A6
7502 A6
7503 A6
7504 A1
7505 A6
7506 A6
7507 A1
7508 A6
7509 A3
7511 A3
7512 A4
7513 A3

For HTS 3450/37 only
AV 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 F2
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 H2
2151 H1
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
7100 A4
7101 A7
7102 A8
7103 B7
7104-1 B10
7105 G1
7106 G3
7107 G11
7108-1 D5
7108-2 E5
7109-1 D8
7109-2 F8
7110-1 E12
7110-2 F12
7111 B6
7112-1 B12
7112-2 B12
F100 A2
F101 A2
F102 A2
F103 B2
F104 B1
F105 B2
F106 B2
F107 B2
F108 B1
F109 B2
F110 B1
F111 B2
F112 C1
F113 C1
F114 C1
F115 D1
F116 D1

For HTS 3450/37 only
AV Interface Board: Circuit Diagram (Part 2)



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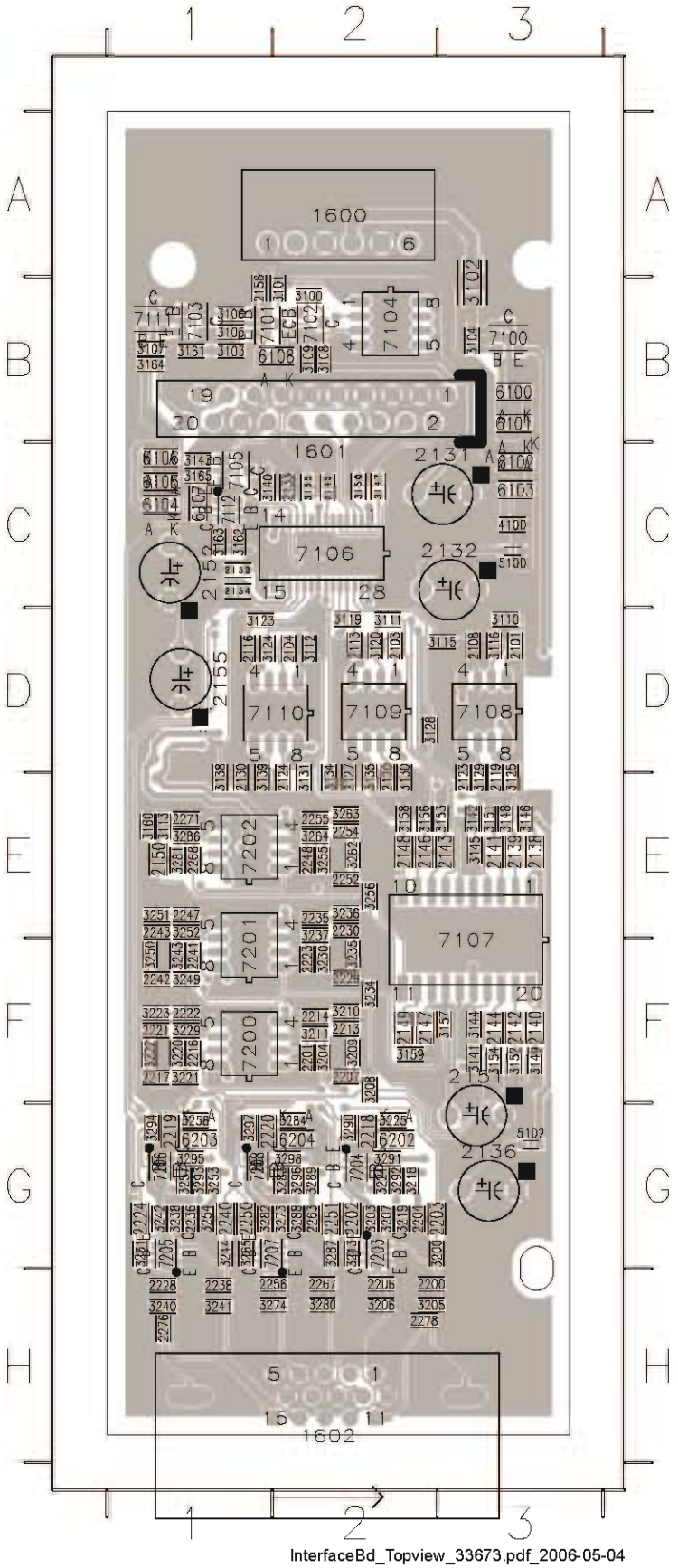
1602 D12
2200 A8
2201 B3
2202 B6
2203 A6
2204 B7
2205 B3
2206 B8
2207 B2
2213 B2
2214 B3
2215 B3
2216 C3
2217 C2
2218 C7
2219 F7
2220 I7
2221 C2
2222 C3
2223 D3
2224 D6
2225 D3
2228 D8
2229 E2
2230 E2
2235 E3
2236 E8
2237 E3
2238 E8
2240 E6
2241 F3
2242 F2
2243 F2
2247 F3
2248 G3
2249 G3
2250 G6
2251 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
3296 I6
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

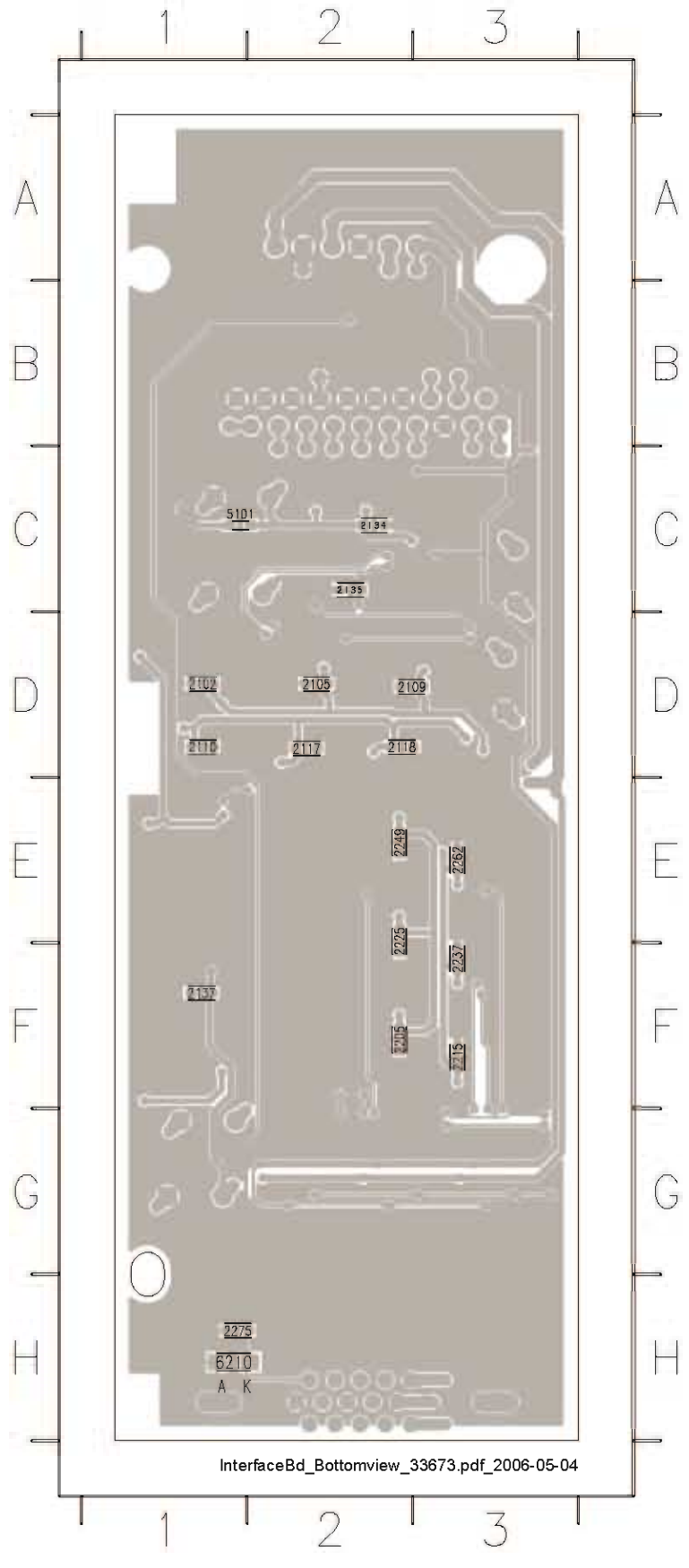
For HTS 3450/37 only
Layout: AV Interface Board (Top view)



1600	A2	2263	G2	3220	F1	7106	C2
1601	C2	2267	H2	3221	F1	7107	F3
1602	H2	2268	E1	3222	F1	7108	D3
2101	D3	2271	E1	3223	F1	7109	D2
2103	D2	2276	H1	3224	G2	7110	D2
2104	D2	2278	H2	3225	G2	7111	B1
2108	D3	3100	B2	3229	F1	7112	C1
2113	D2	3101	B2	3230	F2	7200	F1
2116	D1	3102	B3	3231	G1	7201	F1
2119	E3	3103	B1	3234	F2	7202	E1
2120	E2	3104	B3	3235	F2	7203	G2
2123	E3	3105	B1	3236	F2	7204	G2
2124	E2	3106	B1	3237	F2	7205	G1
2127	E2	3107	B1	3238	G1	7206	G1
2130	E1	3108	B2	3240	H1	7207	G1
2131	C3	3109	B2	3241	H1	7208	G1
2132	C3	3110	D3	3242	G1		
2133	C2	3111	D2	3243	F1		
2136	G3	3112	D2	3244	G1		
2138	E3	3113	E1	3249	F1		
2139	E3	3115	D3	3250	F1		
2140	F3	3116	D3	3251	E1		
2141	E3	3119	D2	3252	E1		
2142	F3	3120	D2	3253	G1		
2143	E3	3123	D1	3254	G1		
2144	F3	3124	D1	3255	F2		
2145	C3	3125	E3	3256	F2		
2146	E2	3128	D2	3257	G1		
2147	F2	3129	E3	3258	G1		
2148	E2	3130	E2	3262	F2		
2149	F2	3131	E2	3263	F2		
2150	E1	3134	E2	3264	F2		
2151	F3	3135	E2	3265	G1		
2152	C1	3138	E1	3273	G2		
2153	C1	3139	E1	3274	H2		
2154	C1	3140	C1	3280	H2		
2155	D1	3141	E3	3281	E1		
2156	B1	3142	E3	3282	G1		
2200	H2	3143	C1	3283	G2		
2201	E3	3144	E3	3284	G2		
2202	G2	3145	E3	3286	E1		
2203	G2	3146	E3	3287	G2		
2204	G3	3147	C2	3288	G2		
2206	H2	3148	E3	3289	G2		
2207	F2	3149	E3	3290	G2		
2213	F2	3150	C2	3291	G2		
2214	F2	3151	E3	3292	G2		
2216	F1	3152	E3	3293	G1		
2217	F1	3153	E3	3294	G1		
2218	G2	3154	E3	3295	G1		
2219	G1	3155	C3	3296	G2		
2220	G1	3156	E2	3297	G1		
2221	F1	3157	E3	3298	G2		
2222	F1	3158	E2	4100	C3		
2223	F2	3159	E2	5100	C3		
2224	G1	3160	E1	5102	G3		
2228	H1	3161	B1	6100	B3		
2229	E2	3162	C1	6101	B3		
2230	E2	3163	C1	6102	C3		
2235	E2	3164	B1	6103	C3		
2236	G1	3165	C1	6104	C1		
2238	H1	3200	G2	6105	C1		
2240	G1	3203	G2	6106	C1		
2241	F1	3204	F2	6107	C1		
2242	F1	3205	H2	6108	B2		
2243	E1	3206	H2	6202	G2		
2247	E1	3207	G2	6203	G1		
2248	E2	3208	F2	6204	G2		
2250	G1	3209	F2	7100	B3		
2251	G2	3210	F2	7101	B1		
2252	E2	3211	F2	7102	B2		
2254	F2	3213	G2	7103	B1		
2255	E2	3218	G2	7104	B2		
2256	H2	3219	G2	7105	C1		

InterfaceBd_Topview_33673.pdf_2006-05-04

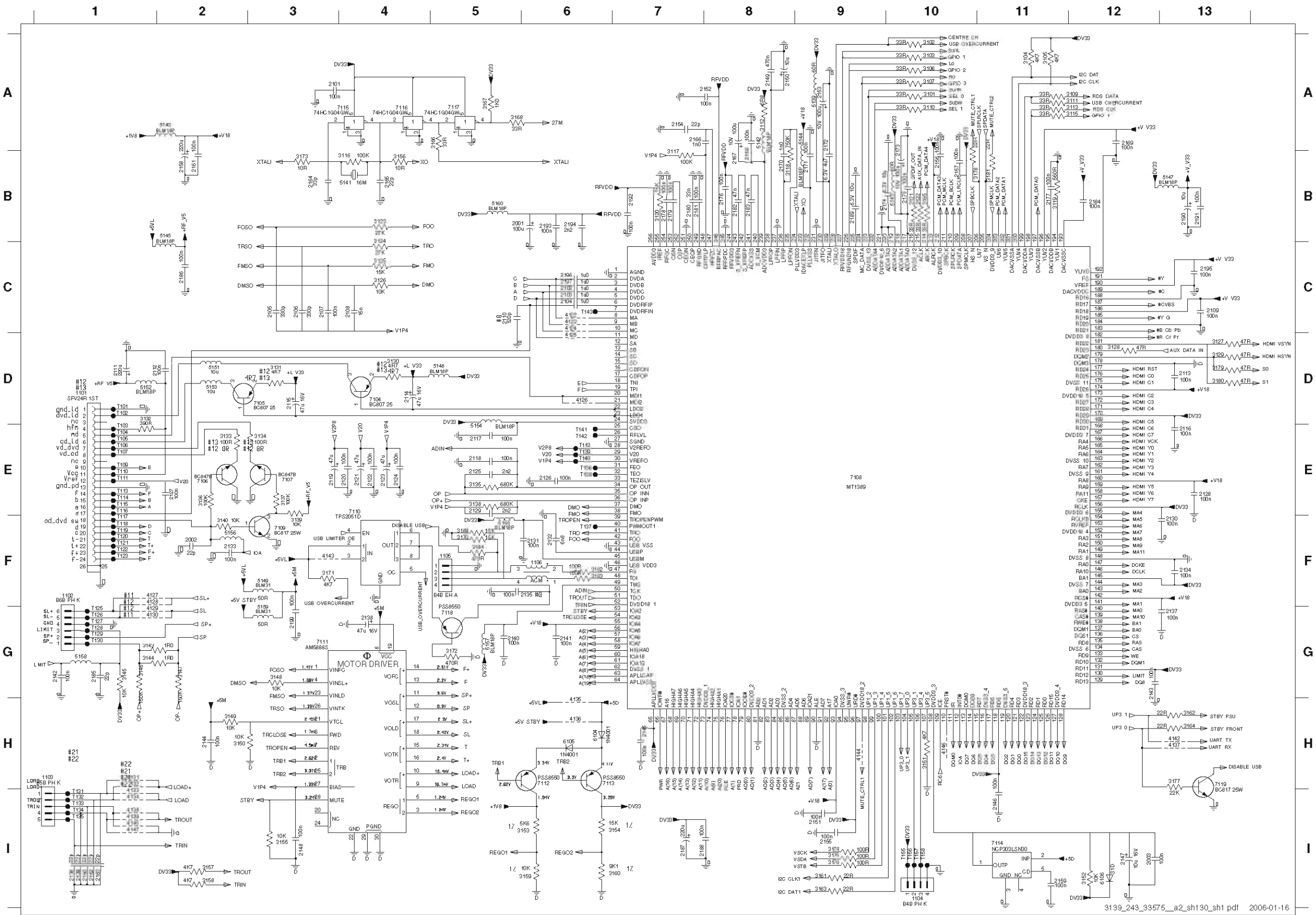
For HTS 3450/37 only
Layout: AV Interface Board (Bottom view)



2102	D1
2105	D2
2109	D2
2110	D1
2117	D2
2118	D2
2134	C3
2135	C2
2137	F1
2205	F2
2215	F3
2225	F2
2237	F3
2249	F3
2262	F3
2275	H1
5101	C1
6210	H1

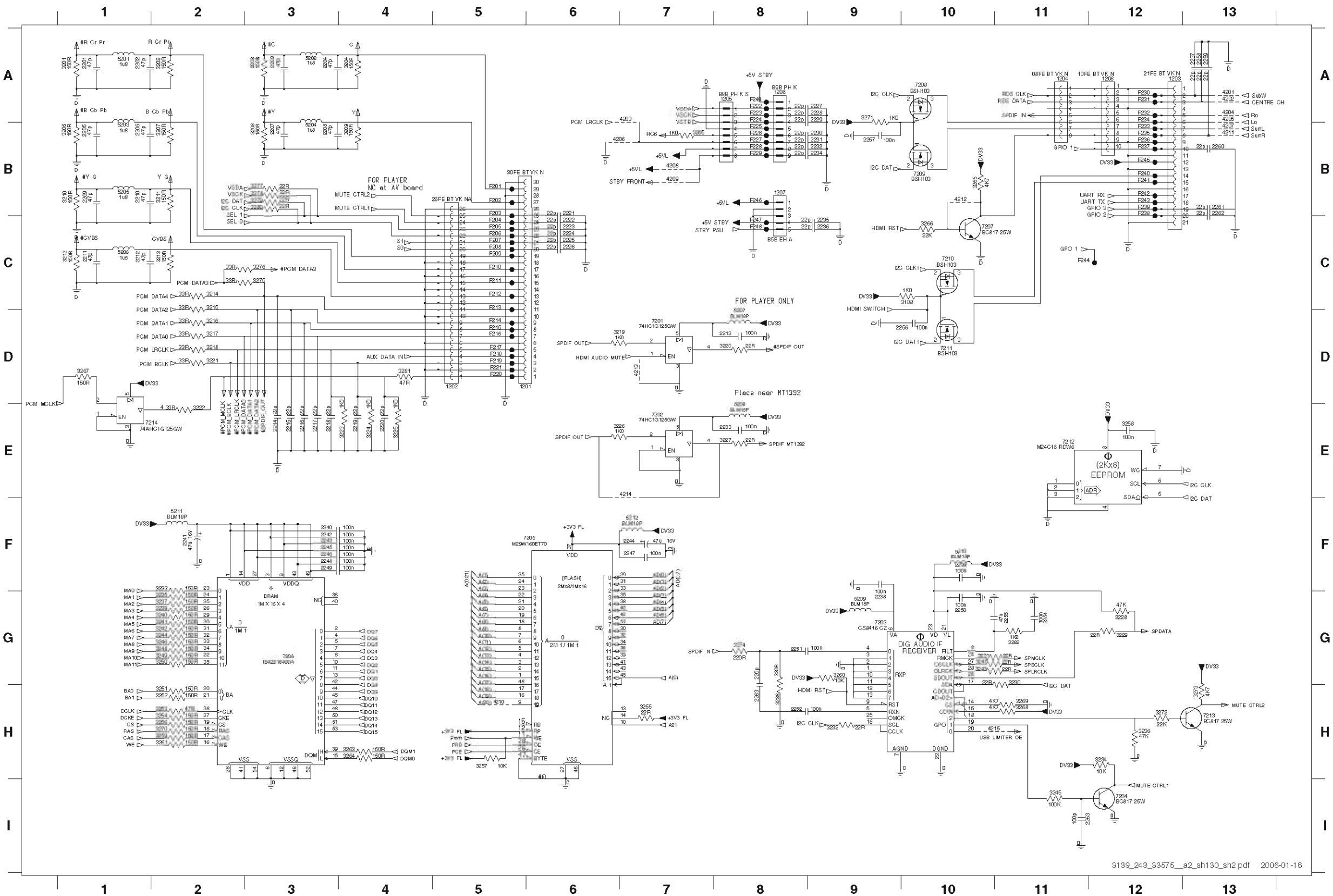
InterfaceBd_Bottomview_33673.pdf_2006-05-04

For HTS 3450/37 only
PCBA 9.1 Board: Circuit Diagram (Part 1)



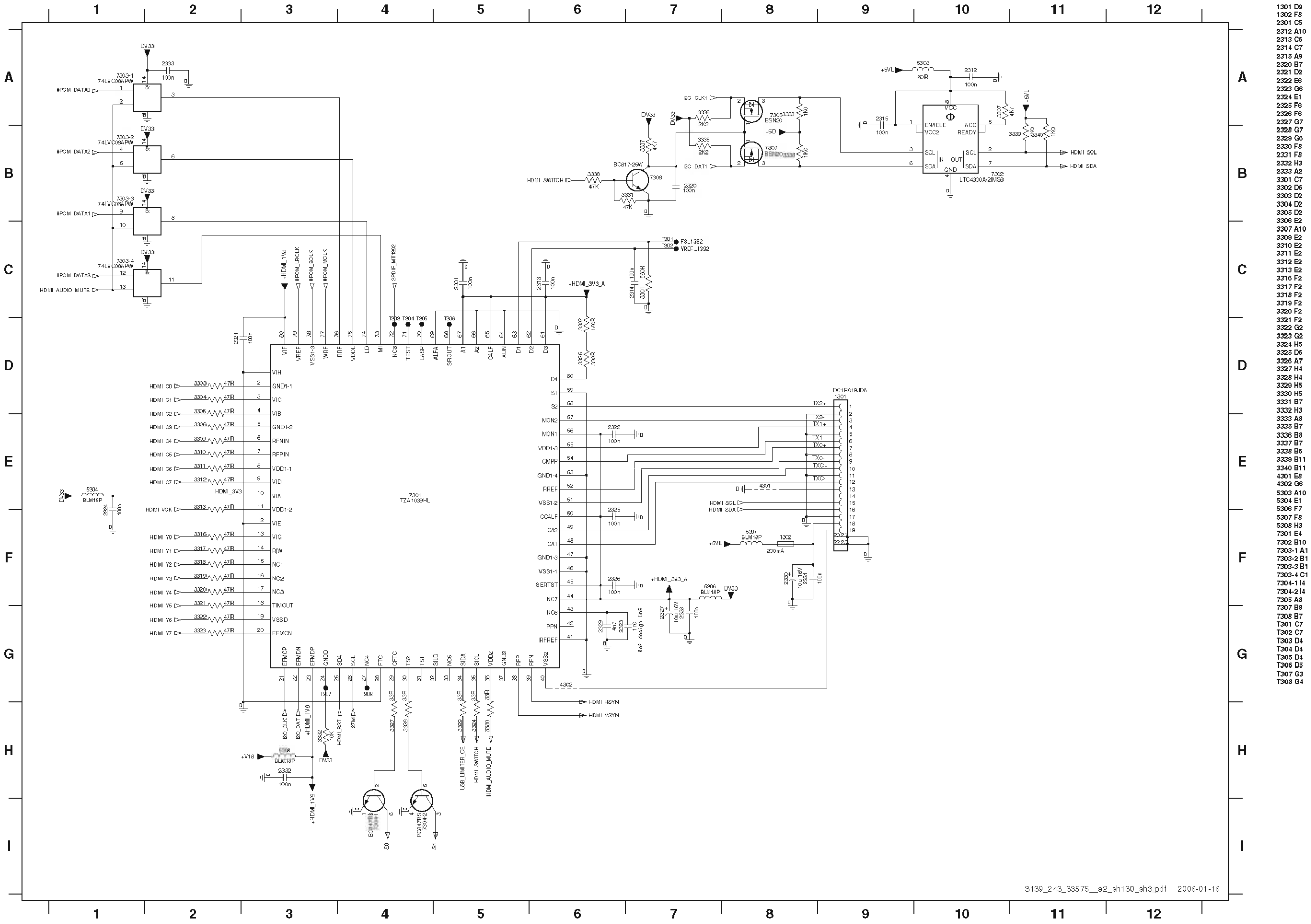
1101 D1	3111 A12	6105 H6
1102 F1	3112 A8	6106 I12
1103 H1	3113 A12	7104 D4
1104 I10	3115 A12	7105 D3
1105 F5	3116 B4	7106 E2
1106 F6	3117 B7	7107 E3
2001 B5	3118 B8	7108 E9
2002 F2	3119 B11	7109 F3
2003 I12	3120 B7	7110 E4
2101 A3	3121 B10	7111 G3
2102 C6	3122 B10	7112 H6
2103 C6	3123 B4	7113 H6
2104 C6	3124 C4	7114 I11
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	T101 D1
2111 D1	3131 D3	T102 D1
2112 D1	3132 D1	T103 E1
2113 D13	3133 E2	T104 E1
2114 D4	3134 E3	T105 E1
2115 D3	3135 E5	T106 E1
2116 E13	3136 E2	T107 E1
2117 E5	3137 E3	T109 E1
2118 E5	3138 E5	T110 E1
2119 E3	3139 F3	T111 E1
2120 E4	3140 F2	T112 E6
2121 E4	3143 G1	T113 E1
2122 E4	3144 G1	T114 E1
2123 E4	3145 G1	T115 E1
2124 E4	3146 G1	T116 E1
2125 E5	3147 G2	T117 F1
2126 E6	3148 G3	T118 F1
2127 E2	3149 H2	T119 F1
2128 E13	3150 H2	T120 F1
2129 E5	3151 H10	T121 F1
2130 F13	3152 I12	T122 F1
2131 F6	3153 I6	T123 F1
2132 F6	3154 I7	T125 G1
2133 F2	3155 I8	T126 G1
2134 F13	3156 B4	T127 G1
2135 F6	3157 I2	T128 G1
2136 I1	3158 I2	T129 G1
2137 G13	3159 I6	T130 G1
2138 G4	3160 I7	T131 I1
2139 I1	3161 I9	T132 I1
2140 G5	3162 H13	T133 I1
2141 G6	3163 I9	T134 I1
2142 G1	3164 H13	T135 I1
2143 G12	3165 B10	T136 E6
2144 H2	3166 A5	T137 F6
2145 H7	3167 A5	T138 E6
2146 I11	3168 A5	T139 E6
2147 I12	3169 F5	T140 E6
2148 I3	3170 F5	T141 E6
2149 A8	3171 F3	T142 E6
2150 A8	3172 G5	T143 C6
2151 I9	3173 B3	T155 I10
2152 A8	3174 I9	T156 I10
2153 A9	3175 I9	T157 I10
2154 A7	3176 I9	T158 I10
2155 I9	3177 H13	
2156 B10	3178 B10	
2157 B10	3179 D13	
2158 B2	3180 D13	
2159 I11	3181 B11	
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	
3107 A10	5159 G3	
3109 A12	5160 B5	
3110 A10	6104 H6	

For HTS 3450/37 only
PCBA 9.1 Board: Circuit Diagram (Part 2)



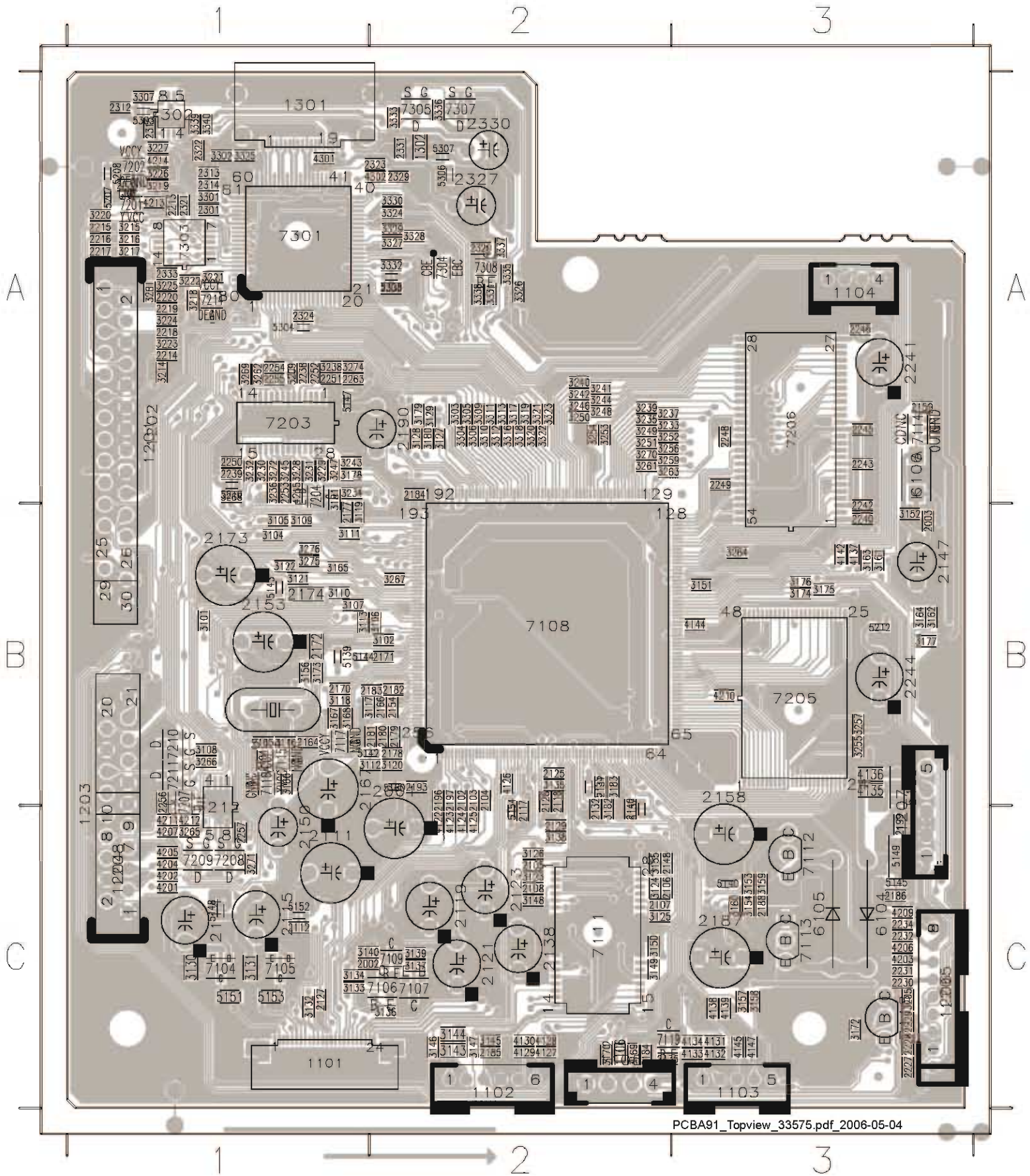
1201 D5	3237 G2	F223 A8
1202 D5	3238 H8	F224 A8
1203 A12	3239 G2	F225 B8
1204 A11	3240 G2	F226 B8
1205 A8	3241 G2	F227 B8
1206 A8	3242 G2	F228 B8
1207 B8	3243 G10	F229 B8
1208 A12	3244 G2	F230 A12
2201 A1	3245 I11	F231 A12
2202 A1	3246 G2	F232 A12
2203 A3	3247 G10	F233 B12
2204 A3	3248 G2	F234 A12
2205 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 E8	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 I11	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 G9	
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 I12	
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	

For HTS 3450/37 only
PCBA 9.1 Board: Circuit Diagram (Part 3)



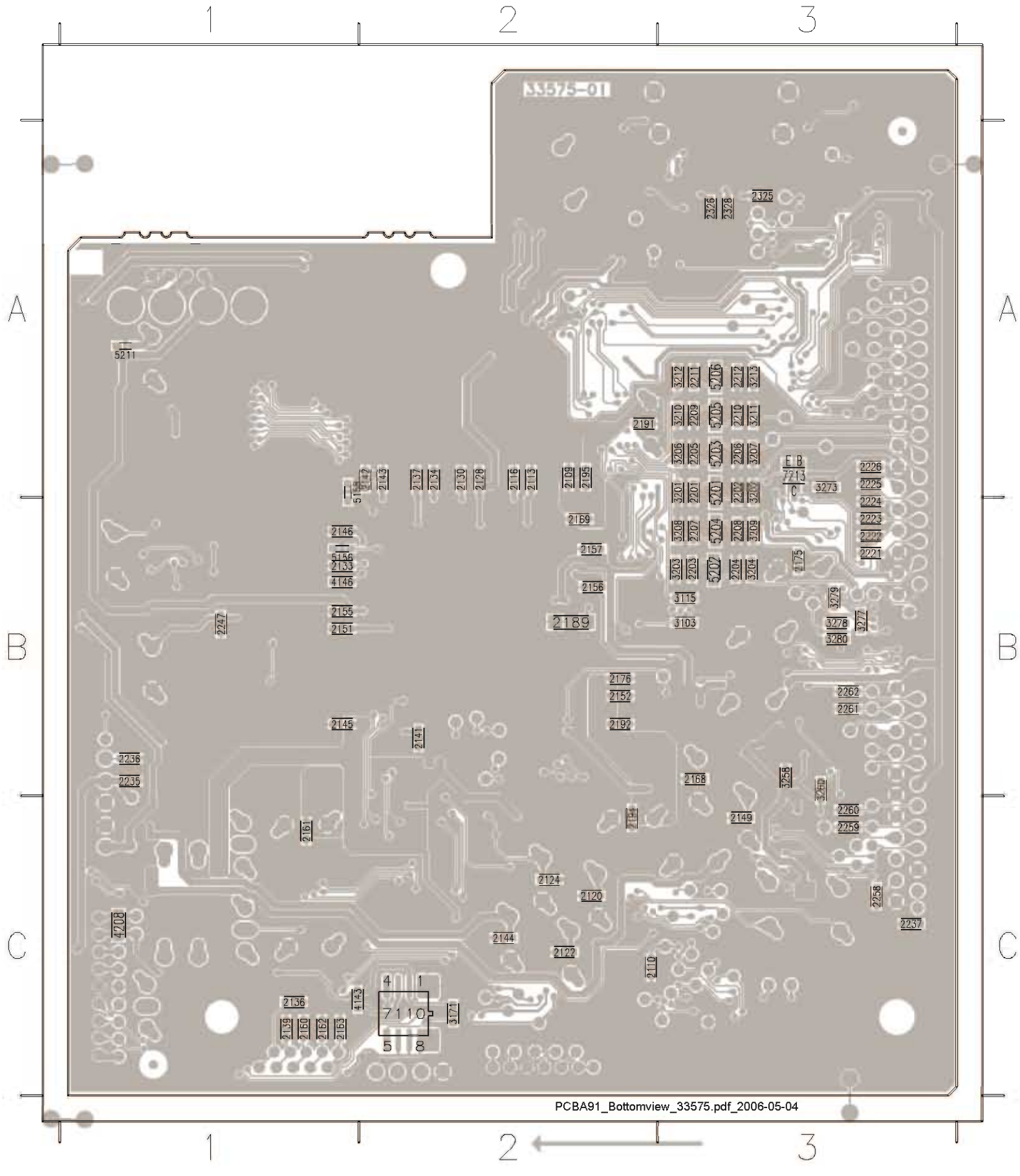
3139_243_33575__a2_sh130_sh3.pdf 2006-01-16

For HTS 3450/37 only
Layout: PCBA 9.1 Board (Top view)



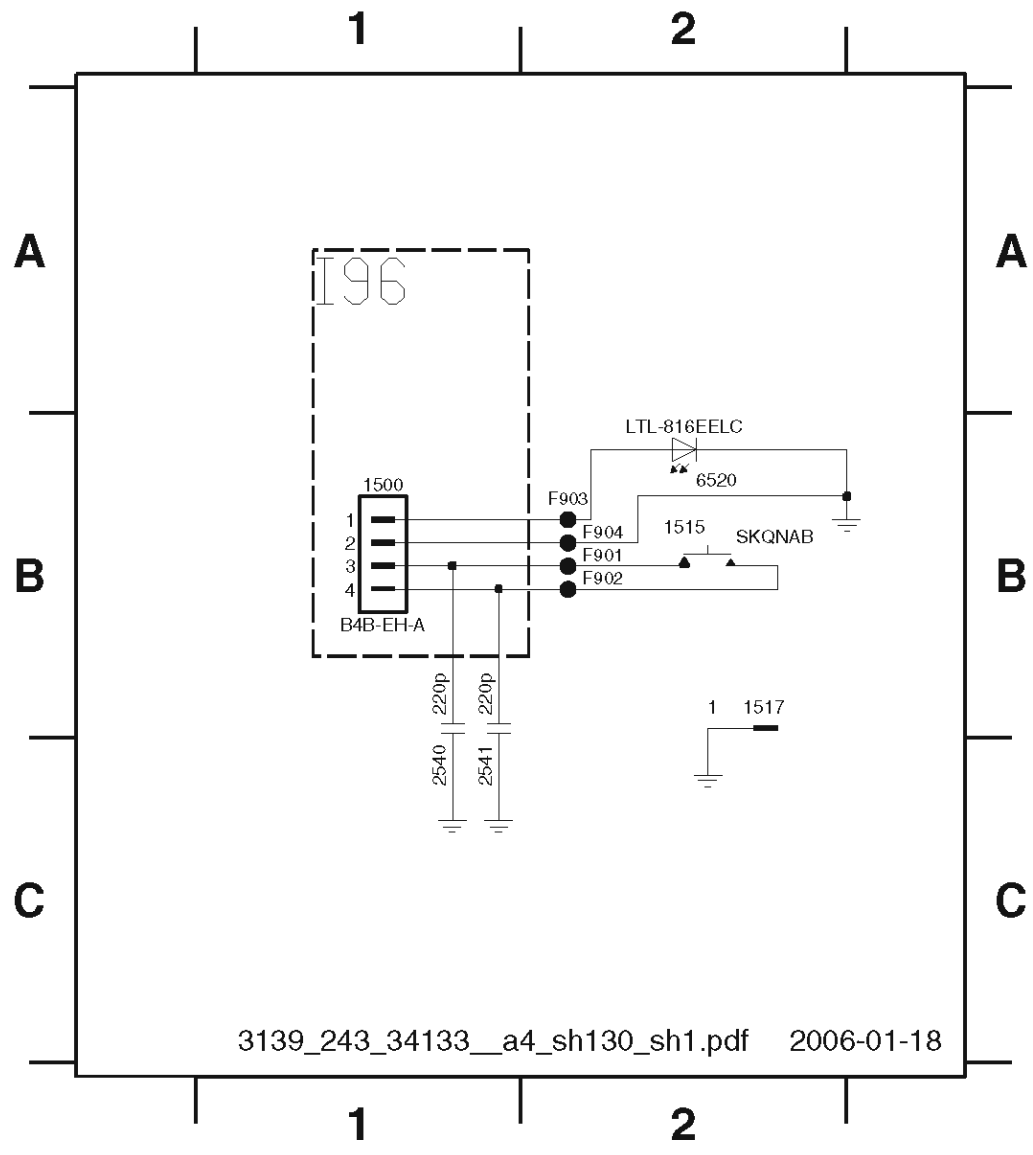
1101	C1	2178	B2	2327	A2	3162	B3	3253	A2	4126	B2	6104	C3		
1102	C2	2179	B2	2329	A2	3163	B3	3254	A2	4127	C2	6105	C3		
1103	C3	2180	B2	2330	A2	3164	B3	3255	B3	4128	C2	6106	A3		
1104	A3	2181	B2	2331	A2	3165	B1	3256	A2	4129	C2	7104	C1		
1105	C2	2182	B2	2332	A2	3166	B1	3257	B3	4130	C2	7105	C1		
1106	C2	2183	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	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				

For HTS 3450/37 only
Layout: PCBA 9.1 Board (Bottom view)



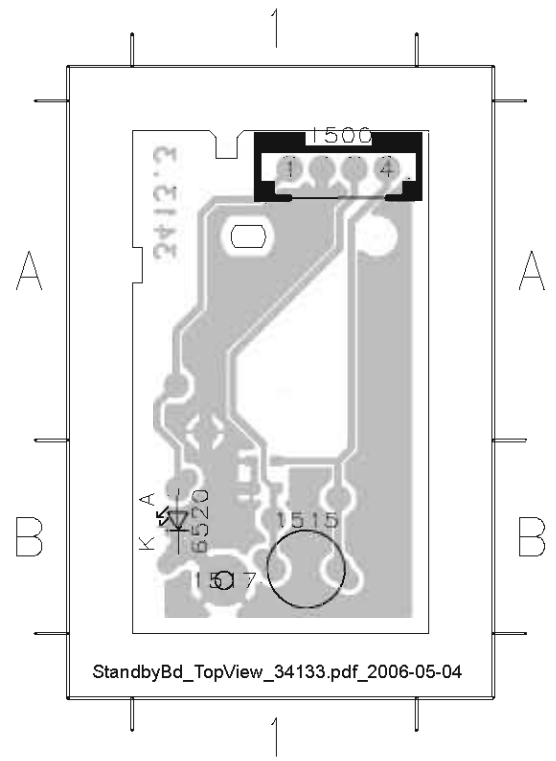
2109	A2	2259	C3
2110	C2	2260	C3
2113	A2	2261	B3
2116	A2	2262	B3
2120	C2	2325	A3
2122	C2	2326	A3
2124	C2	2328	A3
2128	A2	3103	B3
2130	A2	3115	B3
2133	B1	3171	C2
2134	A2	3201	A3
2136	C1	3202	A3
2137	A2	3203	B3
2139	C1	3204	B3
2141	B2	3206	A3
2142	A2	3207	A3
2143	A2	3208	B3
2144	C2	3209	B3
2145	B1	3210	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		

For HTS 3450/37 only
Standby Board



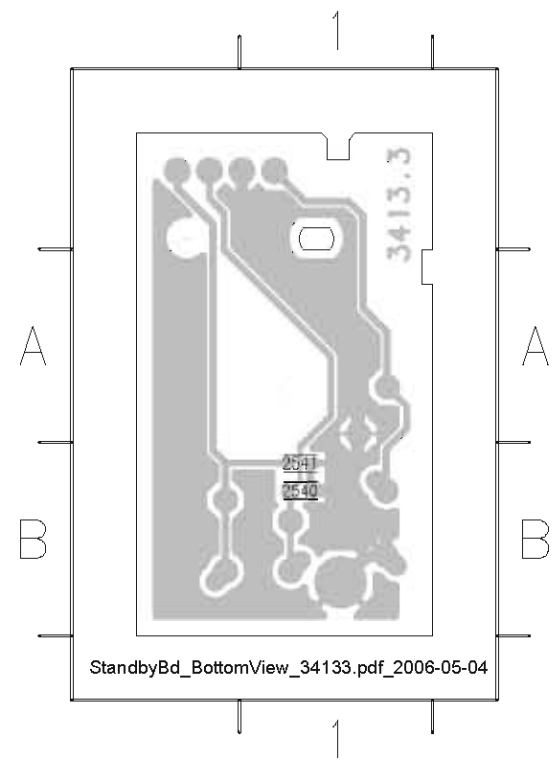
1500 B1
1515 B2
1517 B2
2540 C1
2541 C1
6520 B2
F901 B2
F902 B2
F903 B2
F904 B2

For HTS 3450/37 only
Layout: Standby Board (Top view)



1500 A1
1515 B1
1517 B1
6520 B1

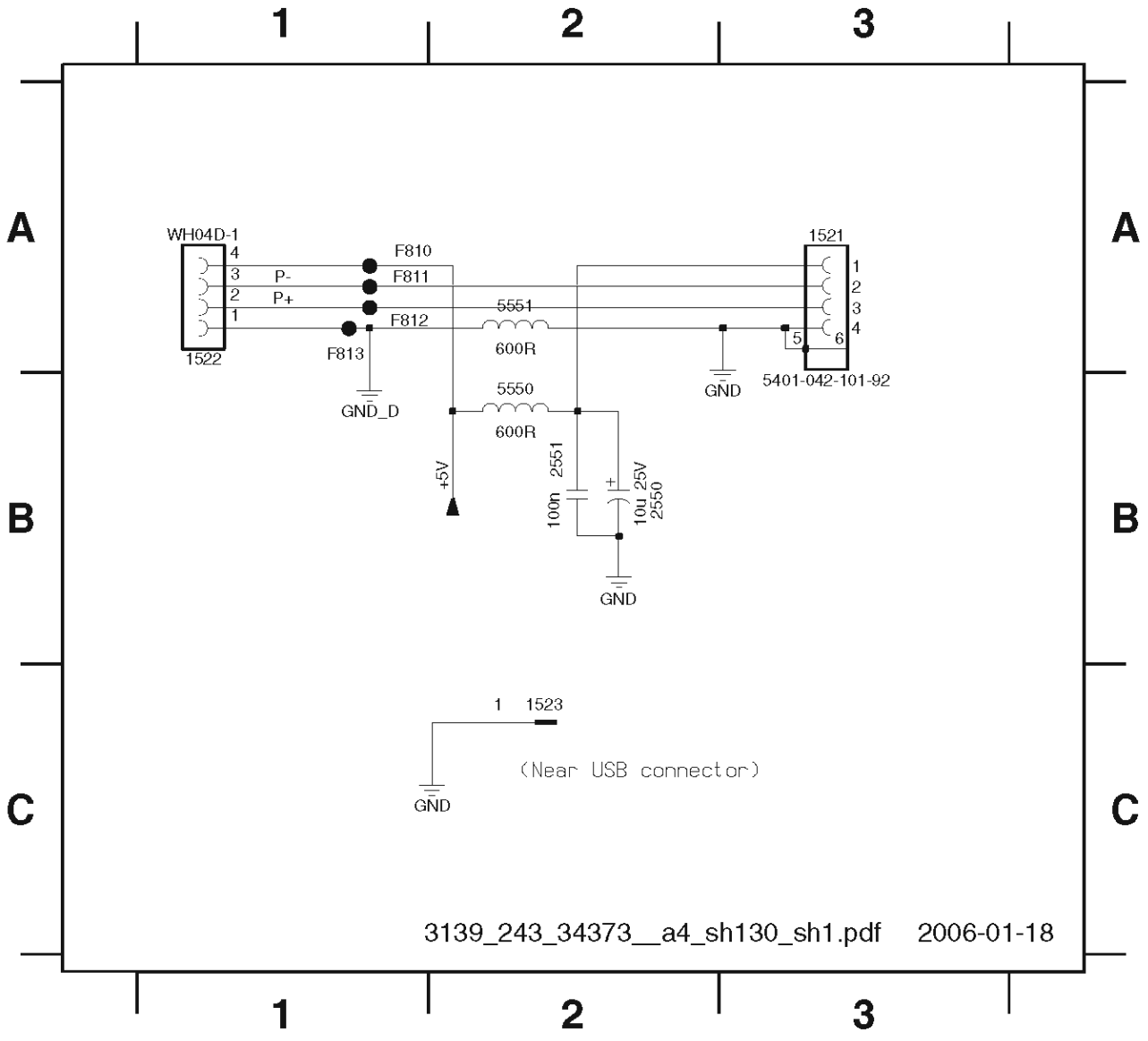
For HTS 3450/37 only
Layout: Standby Board (Bottom view)



2540 B1
2541 B1

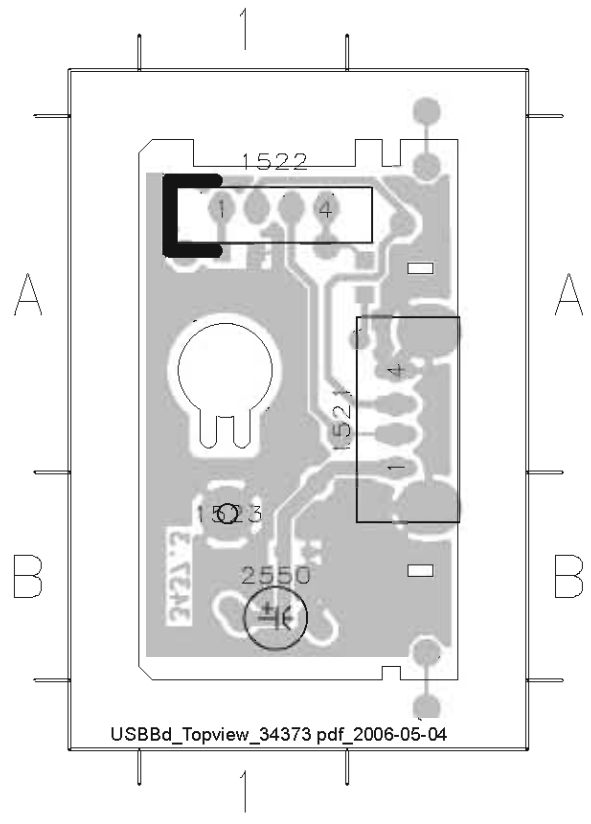
For HTS 3450/37 only
USB Board

1521 A3 1523 C2 2551 B2 5551 A2 F811 A1 F813 A1
1522 A1 2550 B2 5550 B2 F810 A1 F812 A1



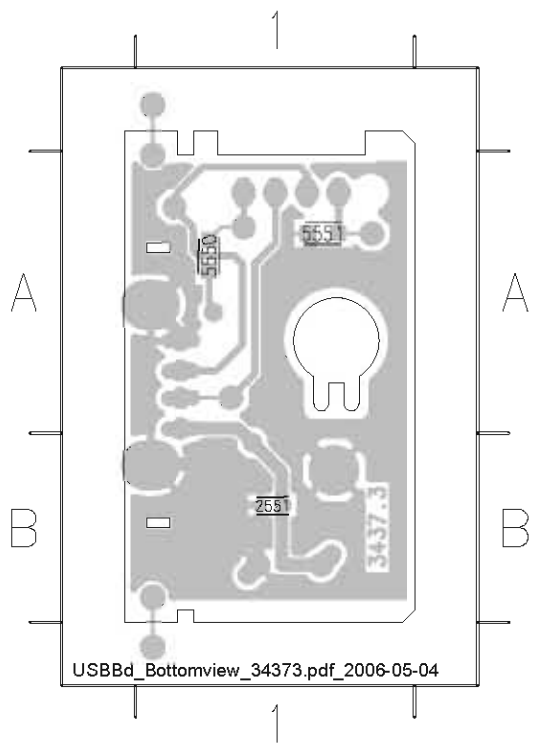
For HTS 3450/37 only
Layout: USB Board (Top view)

1521 A1
1522 A1
1523 B1
2550 B1

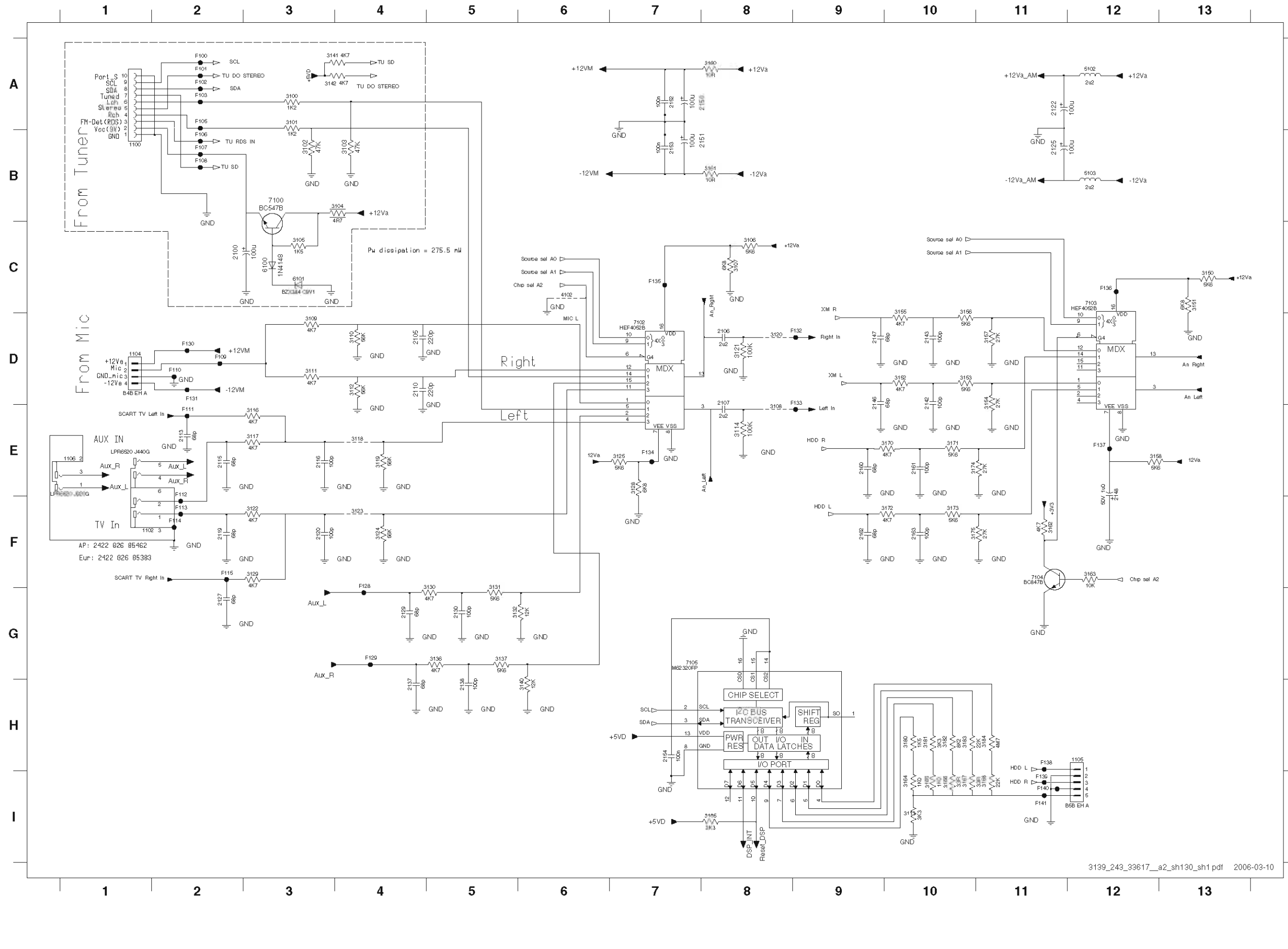


For HTS 3450/37 only
Layout: USB Board (Bottom view)

2551 B1
5550 A1
5551 A1

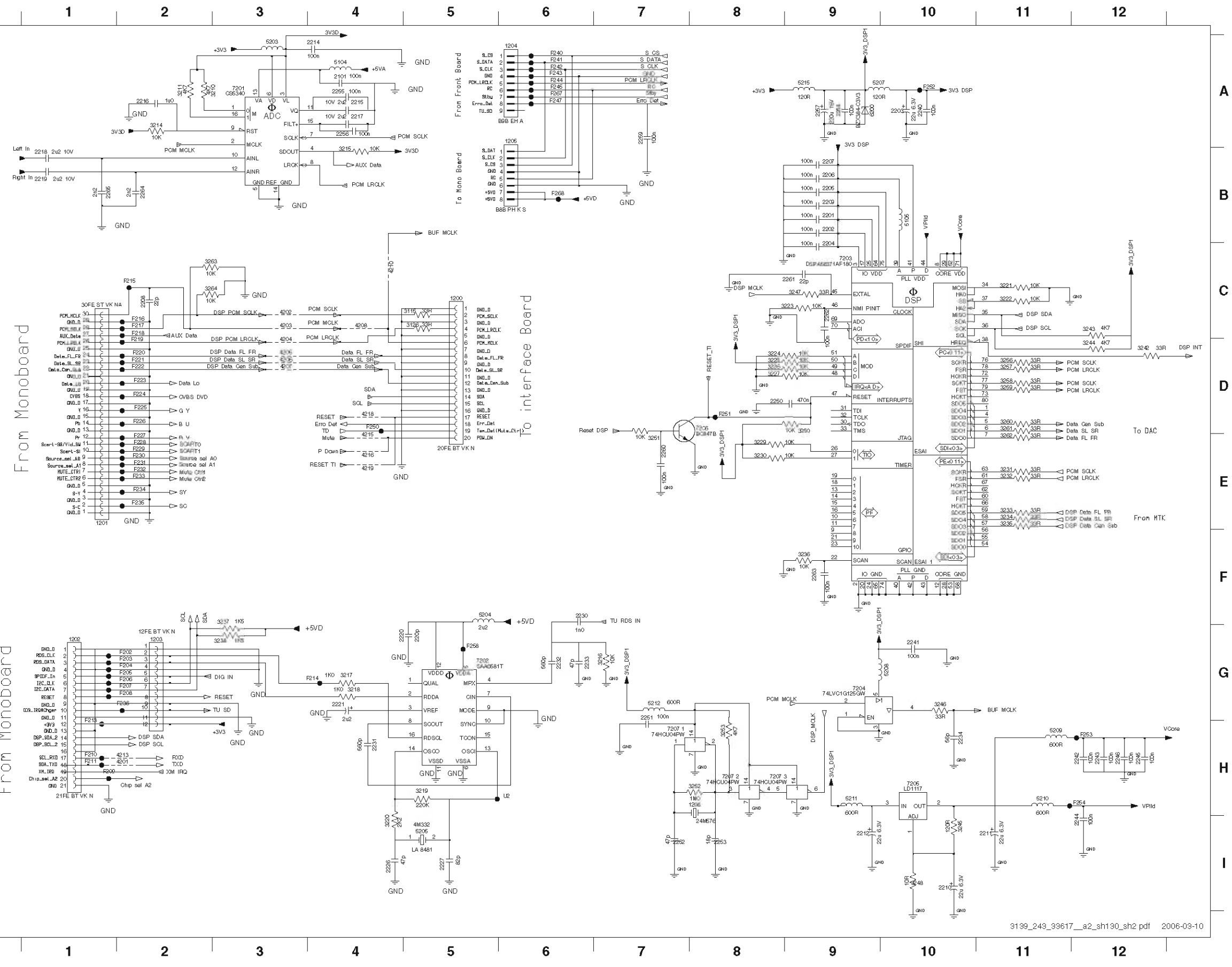


For HTS 3450/55 only
AV Board: Circuit Diagram (Part 1)

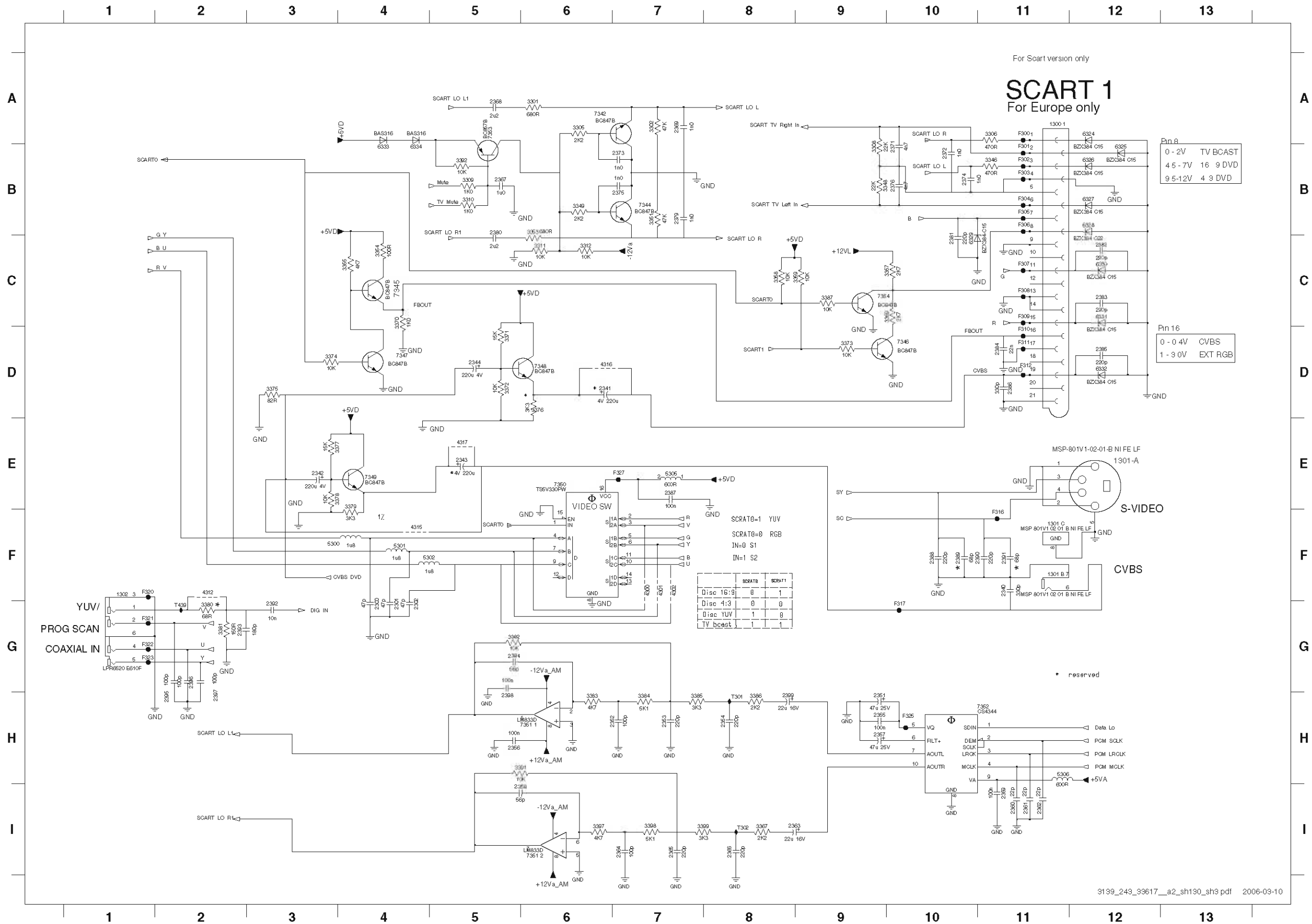


1100 B1 F100 A2
1102 F1 F101 A2
1104 D1 F102 A2
1105 H12 F103 A2
1106 E1 F105 A2
2100 C2 F106 B2
2105 D4 F107 B2
2106 D8 F108 B2
2107 E8 F109 D2
2110 D4 F110 D2
2113 E2 F111 E2
2115 E2 F112 E2
2116 E3 F113 F2
2119 F2 F114 F2
2120 F3 F115 F2
2122 A11 F128 F4
2125 B11 F129 G4
2127 C2 F130 D2
2129 G4 F131 D2
2130 G5 F132 D9
2137 H4 F133 D9
2138 H5 F134 E7
2142 D10 F135 C7
2143 D10 F136 C12
2146 D9 F137 E12
2147 D9 F138 H11
2148 E12 F139 I11
2150 A8 F140 I11
2151 B8 F141 I11
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
3128 E7
3129 F3
3130 G5
3131 G5
3132 G5
3136 G5
3137 G5
3140 H6
3141 A3
3142 A3
3150 C13
3151 C13
3152 D10
3153 D10
3154 D11
3155 D10
3156 D10
3157 D11
3158 E12
3160 A8
3161 B8
3162 F11
3163 F12
3164 I10
3165 I10
3166 I10
3167 I10
3168 I11
3170 E10
3171 E10
3172 F10
3173 F10
3174 E10
3175 F10
3180 H10
3181 H10
3182 H10
3183 H10
3184 H11
3185 I8
4102 C6
5102 A12
5103 B12
6100 C3
6101 C3
7100 B3
7102 D7
7103 C12
7104 F11
7105 G7

For HTS 3450/55 only
AV Board: Circuit Diagram (Part 2)

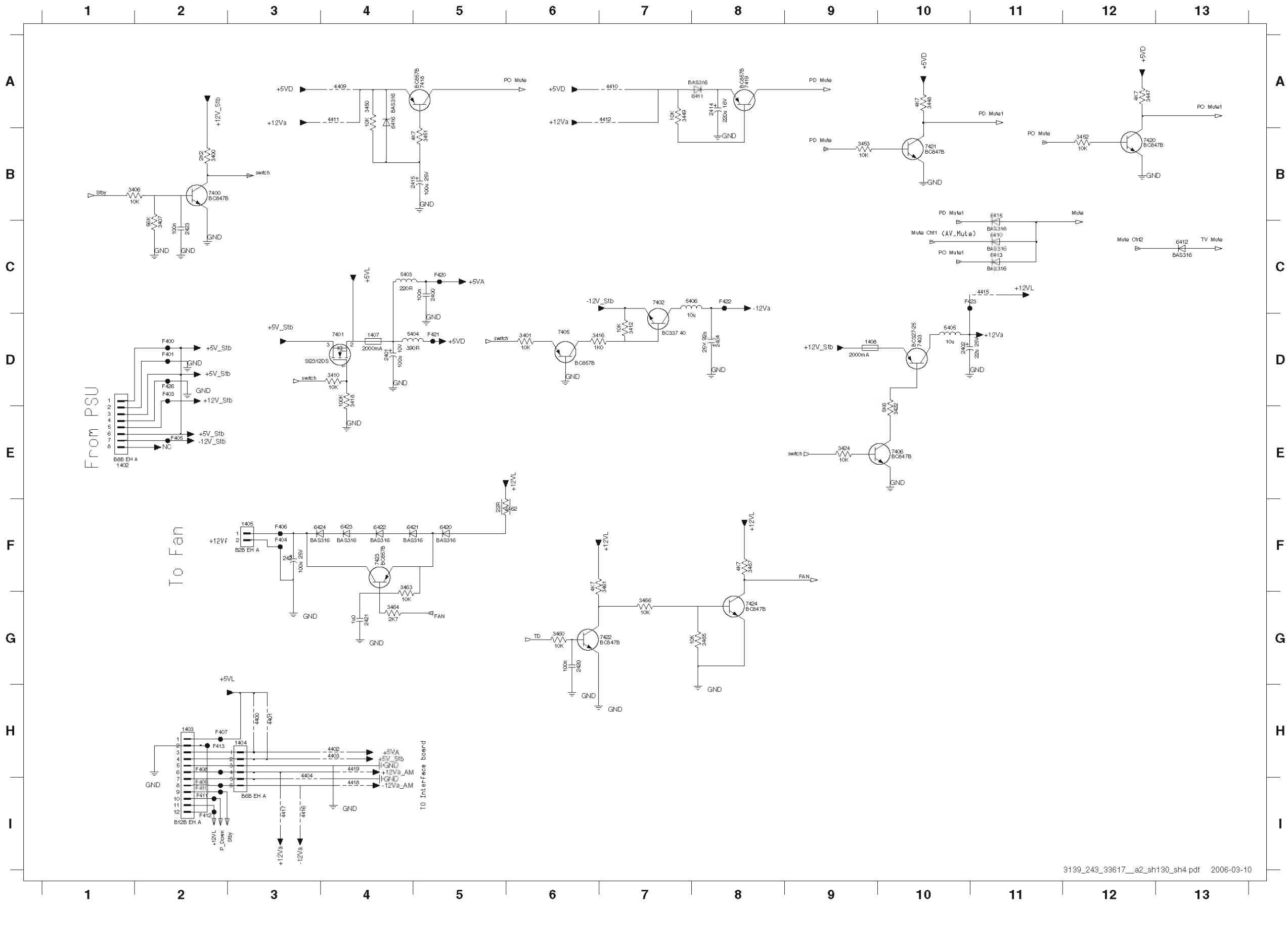


For HTS 3450/55 only
AV Board: Circuit Diagram (Part 3)



1300-1 A11
1301-A E12
1301-B F11
1301-C F11
1302 F1
2300 G4
2301 G4
2302 G4
2340 F11
2341 D6
2342 E3
2343 E5
2344 D5
2351 H9
2352 H7
2353 H7
2354 H8
2355 H9
2356 H5
2357 H9
2358 I5
2359 I11
2360 I11
2361 I11
2362 I11
2363 I8
2364 I7
2365 I7
2366 I8
2367 B5
2368 A5
2369 A7
2371 B10
2372 B10
2373 B7
2374 B10
2375 B7
2376 B10
2379 B7
2380 B5
2381 C10
2382 C12
2383 C12
2384 D11
2385 D12
2386 D11
2387 E7
2388 F10
2389 F10
2390 F11
2391 F11
2392 G3
2393 G2
2394 G5
2395 H2
2396 G2
2397 H2
2398 H5
2399 H8
3301 A6
3302 A7
3305 A6
3306 A11
3308 B9
3309 B5
3310 B5
3311 C6
3312 C6
3346 B11
3348 B9
3349 B6
3351 B7
3353 B6
3354 C4
3355 C4
3357 C10
3358 C8
3359 C9
3367 I8
3369 C10
3370 C4
3371 D5
3372 D5
3373 D9
3374 D3
3375 D3
3376 D6
3377 E3
3378 E3
3379 E4
3380 G2
3381 G2
3382 G5
3383 H6
3384 H7
3385 H7
3386 H8
3387 C9
3391 H5
3392 B5
3397 I6
3398 I7
3399 I7
4300 F7
4301 F7
4302 F7
4312 F2
4315 F4
4316 D6
4317 E5
5300 F3
5301 F4
5302 F4
5305 E7
5306 H11
6324 A12
6325 B12
6326 B12
6327 B12
6328 B12
6329 C10
6330 C12
6331 C12
6332 D12
6333 B4
6334 B4
7342 A6
7344 B7
7345 C4
7346 D10
7347 D4
7348 D6
7349 E4
7350 E6
7351-1 H6
7351-2 I6
7352 H10
7353 A5
7354 C9
F300 A11
F301 B11
F302 B11
F303 B11
F304 B11
F305 B11
F306 B11
F307 C11
F308 C11
F309 C11
F310 D11
F311 D11
F312 D11
F316 F11
F317 G10
F320 F1
F321 G1
F322 G1
F323 G1
F325 H10
F327 E7
T301 H8
T302 I8
T439 G2

For HTS 3450/55 only
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 B5
2420 G6
2421 G4
2422 F3
2423 C2
3400 B2
3401 D6
3406 B1
3407 C2
3410 D4
3412 D7
3416 D6
3418 D4
3422 E10
3424 E9
3447 A12
3448 A10
3449 A7
3450 A4
3451 B5
3452 B12
3453 B9
3460 G6
3461 F7
3462 F6
3463 F4
3464 G4
3465 G8
3466 G7
3467 F8
4400 H3
4401 H3
4402 H4
4403 H4
4404 3
4409 A4
4410 A7
4411 A4
4412 7
4415 C11
4416 3
4417 3
4418 4
4419 H4
5403 C4
5404 D4
5405 D10
5406 C7
6410 C11
6411 A8
6412 C13
6413 C11
6415 B11
6416 4
6420 F5
6421 F4
6422 F4
6423 F4
6424 F3
7400 B2
7401 D4
7402 C7
7403 D10
7405 D6
7406 E10
7418 5
7419 8
7420 B12
7421 B10
7422 G7
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 C11
F426 D2

For HTS 3450/55 only
Layout: AV Board (Top view)

1100	B5
1102	C1
1104	B4
1105	A4
1106	C2
1200	B2
1201	B1
1202	A4
1203	A4
1204	A1
1205	A1
1206	B2
1300	C4
1301	C3
1302	C2
1402	A2
1403	A3
1404	A3
1405	B4
2100	B5
2101	B1
2105	C4
2106	B4
2107	C4
2110	B4
2116	C4
2120	B5
2122	A6
2125	B5
2130	C4
2138	B4
2142	B5
2143	B5
2146	B5
2147	B5
2148	B5
2150	B4
2151	B4
2160	B5
2161	B5
2162	B5
2163	B5
2201	B2
2202	B2
2203	B3
2204	C2
2205	C2
2207	B3
2209	B3
2210	B2
2211	B2
2212	B2
2214	C1
2215	B2
2216	B2
2217	C1
2218	C2
2219	C2
2221	B6
2234	B3
2240	B3
2241	B3
2243	B2
2244	B2
2245	B3
2250	B2
2251	B2
2252	B2
2253	B2
2255	B2
2256	B1
2257	B3
2258	B2
2260	B2
2261	B2
2262	B2
2263	B3
2264	B1
2265	B2
2300	C2
2301	C2
2302	C2
2341	C3
2342	C2
2343	C3
2344	C3
2351	B3
2352	B3
2353	B4
2354	B3
2356	B3
2357	B3
2358	B4
2359	B3
2363	B3
2364	B4
2365	A4
2366	B4
2367	C5
2382	C4
2383	C4
2385	C4
2387	B3
2394	B4
2398	B4
2399	B3
2401	A2
2402	A3
2404	A2
2414	B1
2415	A1
2420	A4
2421	A4
2422	A4
3104	B5
3106	B4
3107	B4
3108	C4
3109	B4
3110	C4
3111	B4
3112	B4
3114	C4
3118	C4
3119	C4
3120	B4
3121	B4
3123	B4
3124	B5
3125	C4
3128	C4
3130	C4
3131	C4
3132	C4
3136	B4
3137	B4
3140	B4
3150	B5
3151	B5
3152	B5
3153	B5
3154	B5
3155	B5
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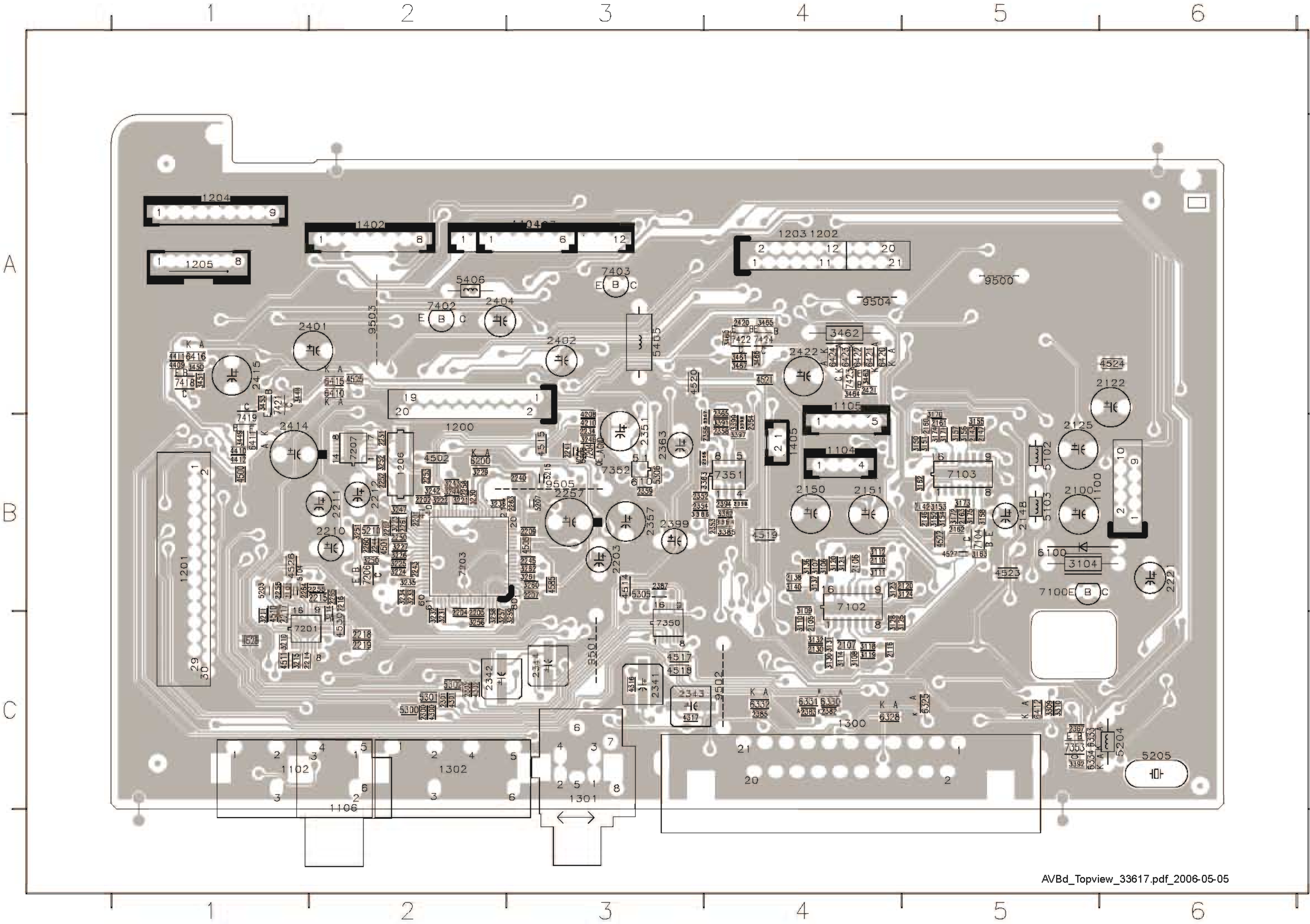
3157	B5
3158	B5
3162	B5
3163	B5
3170	B5
3171	B5
3172	B5
3173	B5
3174	B5
3175	B5
3210	C1
3211	C1
3214	C2
3215	C1
3221	B2
3222	B2
3223	B2
3224	B2
3225	B2
3226	B2
3227	B2
3229	B2
3230	B2
3231	C2
3232	C2
3233	B2
3234	B2
3235	B2
3236	B2
3242	B2
3243	B2
3244	B2
3246	B3
3247	B2
3250	B2
3251	B2
3252	B2
3256	C2
3257	C2
3258	C2
3259	C3
3260	B3
3261	B3
3262	B3
3309	C5
3310	C5
3367	B4
3382	B4
3383	B3
3384	B4
3385	B4
3386	B3
3391	B4
3392	C5
3397	B4
3398	B4
3399	B4
3448	A1
3449	B1
3450	A1
3451	A1
3453	A1
3460	A4
3461	A4
3462	A4
3463	A4
3464	A4
3465	A4
3466	A4
3467	A4
4208	B3
4210	B3
4300	C2
4301	C2
4302	C2
4316	C3
4317	C3
4409	A1
4410	B1
4411	A1
4412	B1
4500	B1
4501	B2
4502	B2
4506	B3
4510	C1
4511	C1
4514	B3
4515	B3
4517	C3
4518	C3
4519	B4
4520	A3
4521	A4
4522	B5
4523	B5
4524	A6
4525	A2
4526	B1
4527	B5
4528	C1
4530	C2
4585	B3
5102	B5
5103	B5
5104	B1
5203	B1
5204	C6
5205	C6
5207	B3
5208	B3
5210	B2
5215	B3
5300	C2
5301	C2
5302	C2
5305	B3
5306	B3
5405	A3
5406	A2
6100	B5
6200	B2
6325	C5
6328	C4
6330	C4
6331	C4
6332	C4
6333	C5
6334	C5
6410	A2
6411	B1
6412	C5
6415	A2
6416	A1
6420	A4
6421	A4
6422	A4
6423	A4
6424	A4
7100	B5
7102	B4
7103	B5
7104	B5
7201	C1
7203	B2
7204	B3
7206	B2
7207	B2
7350	C3
7351	B4
7352	B3
7353	C5
7402	A2
7403	A3
7418	A1
7419	B1
7421	A1
7422	A4
7423	A4
7424	A4
9500	A5
9501	C3
9502	C4
9503	A2
9504	A4
9505	B3



AVBd_Topview_33617.pdf_2006-05-05

For HTS 3450/55 only
Layout: AV Board (Bottom view)

1407 A5 2153 B3 2232 C1 2362 B4 2379 C2 2392 C5 3102 B2 3129 C5 3168 A2 3218 C1 3264 C6 3348 C3 3369 C3 3378 C4 3410 A5 4201 A3 4216 A5 4404 A4
1408 A4 2154 B3 2233 C1 2368 C2 2380 C2 2393 C5 3103 B2 3141 B1 3180 A2 3219 C1 3301 C2 3349 C2 3370 C4 3379 C4 3412 A5 4202 C6 4218 A5 4415 A4
2113 C3 2206 B5 2242 B5 2369 C2 2381 C3 2395 C5 3105 B2 3142 B1 3181 A2 3220 C1 3302 C2 3351 C2 3371 C4 3380 C5 3416 A5 4203 C6 4219 A5 4416 A4
2115 C6 2208 C6 2246 B5 2371 C2 2384 C4 2396 C5 3113 A2 3160 B3 3182 A2 3237 A3 3305 C2 3353 C2 3372 C4 3381 C5 3418 A5 4204 C6 4312 C5 4417 A4
2119 C6 2220 C1 2259 A6 2372 C2 2386 C3 2397 C5 3115 B4 3161 B3 3183 A2 3238 A3 3306 C2 3354 C3 3373 C3 3387 C3 3422 A4 4205 C6 4315 C4 4418 A4
2127 C2 2226 C1 2340 C4 2373 C2 2388 C4 2400 A5 3116 C6 3164 A2 3184 A2 3245 B5 3308 C2 3355 C3 3374 C3 3400 A5 3424 A4 4206 C6 4400 A5 4419 A4
2129 C5 2227 C1 2355 B4 2374 C2 2389 C4 2423 A6 3117 C6 3165 A2 3185 B2 3248 B5 3311 C2 3357 C3 3375 C4 3401 A5 3447 C2 4207 B6 4401 A5 4509 B3
2137 C5 2230 C1 2360 B4 2375 C2 2390 C4 3100 B2 3122 C5 3166 A2 3216 C1 3253 B5 3312 C2 3358 C3 3376 C4 3406 A6 3452 C2 4213 A2 4402 A5 4529 B2
2152 B3 2231 C1 2361 B4 2376 C3 2391 C4 3101 B2 3126 B4 3167 A2 3217 C1 3263 C6 3346 C2 3359 C3 3377 C4 3407 A6 4102 A3 4215 A5 4403 A5 4531 A6

4532 A6
4533 A5
4536 B5
4537 B5
4538 B5
4539 B4
4540 B4
4542 B3
4543 B4
4544 B6
4545 B4
4546 B5
4547 B5
4548 B4
4549 B4
4550 B6
4551 B6
4552 C5
4553 C5
4554 C5
4555 C5
4559 B2
4560 A5
4561 B3
4564 C4
4565 C4
4566 C3
4567 C4
4568 C3
4569 B3
4570 A5
4571 B2
4572 A2
4573 A2
4574 A2
4575 A2
4576 A2
4577 A2
4578 A1
4579 A2
4580 C3
4581 C3
4582 C3
5105 B5
5209 B5
5211 B5
5212 B5
5403 A5
5404 A5
6101 B2
6324 C2
6326 C2
6327 C3
6329 C3
6413 B2
7105 B2
7202 C1
7205 B5
7342 C3
7344 C3
7345 C3
7346 C3
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7348 C4
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7354 C4
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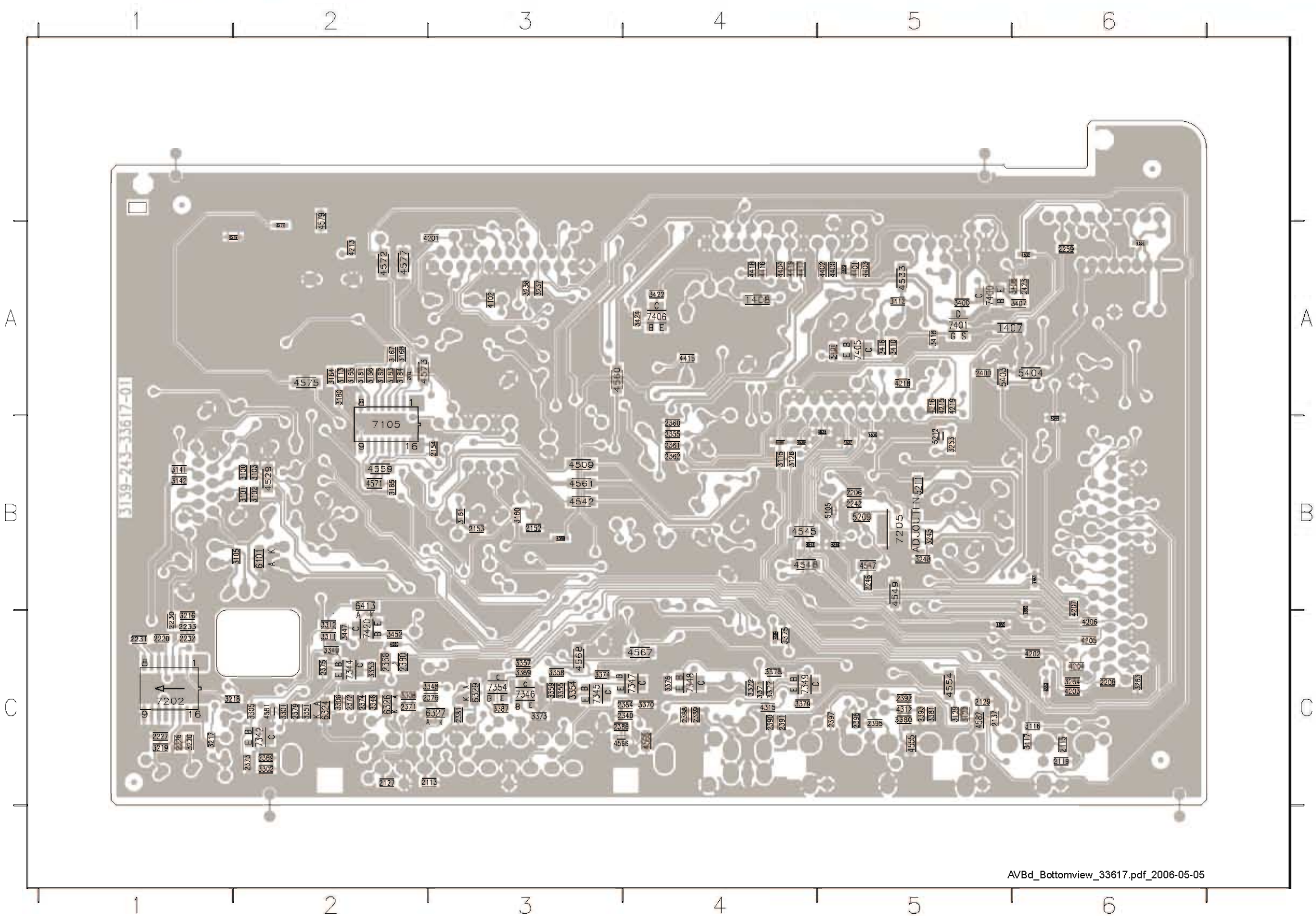
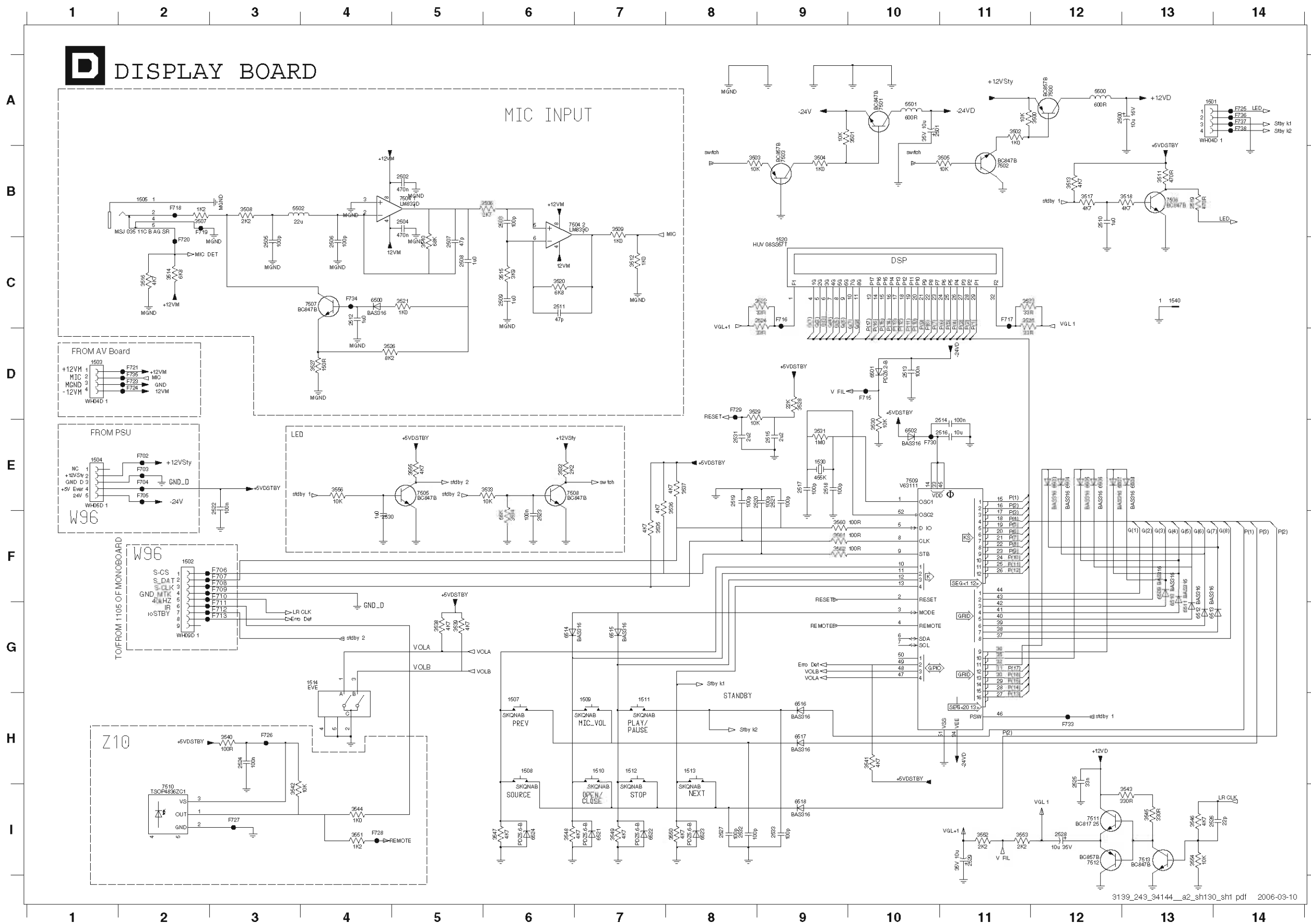
7401 A5
7405 A5
7406 A5
7420 C2



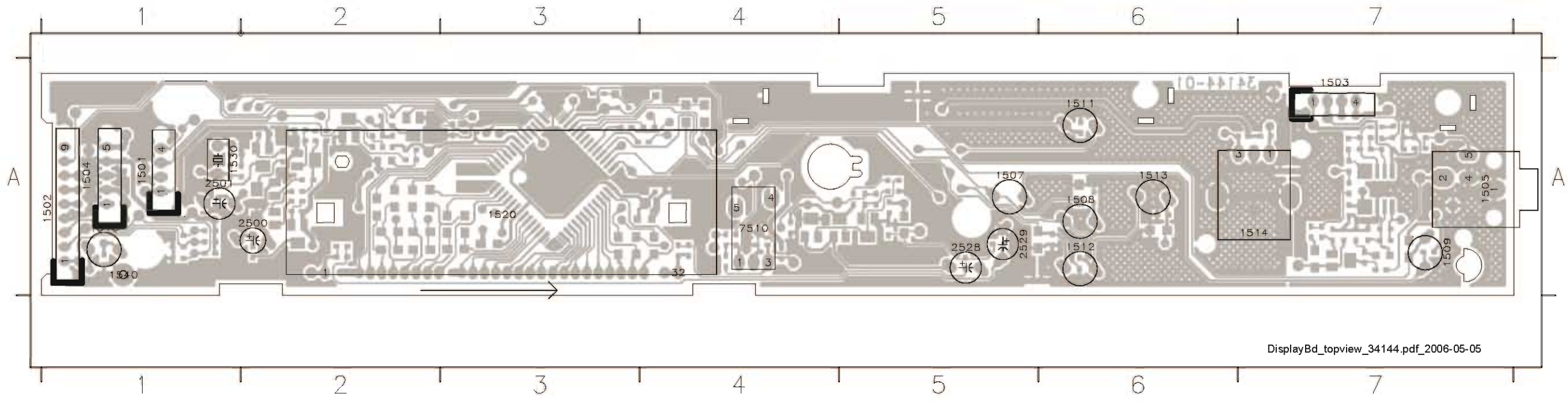
AVBd_Bottomview_33617.pdf_2006-05-05

For HTS 3450/55 only
Display Board



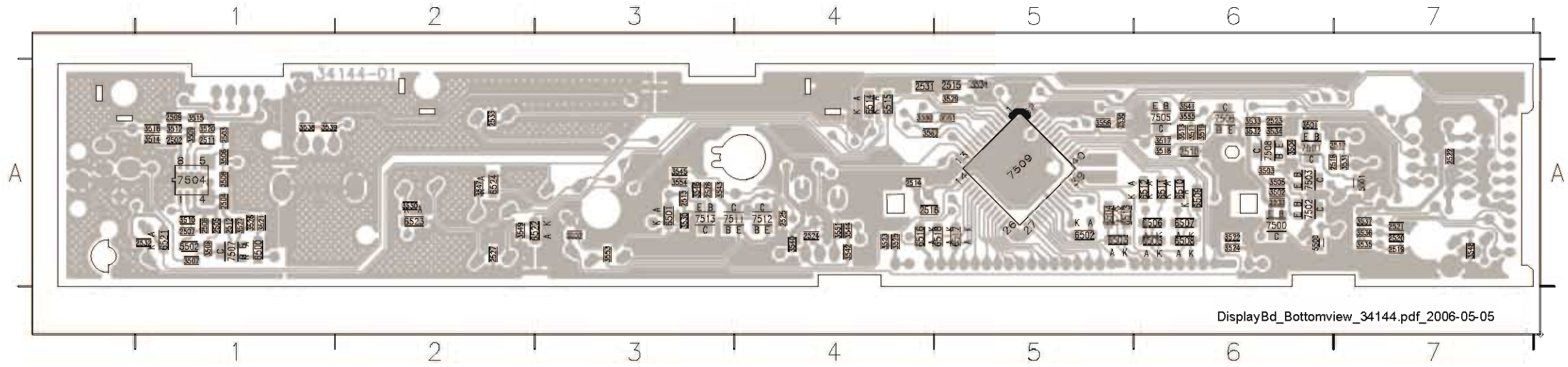
1501 A13	6502 E10
1502 F2	6503 E12
1503 D1	6504 E12
1504 E1	6505 E12
1505 B2	6506 E12
1507 H6	6507 E12
1508 H6	6508 E13
1509 H7	6509 F13
1510 H7	6510 F13
1511 H7	6511 G13
1512 H7	6512 G13
1513 H8	6513 G13
1514 G4	6514 G6
1520 C9	6515 G7
1530 E9	6516 H9
1540 C13	6517 H9
2500 A12	6518 I9
2501 A10	6521 I7
2502 B5	6522 I7
2503 B6	6523 I8
2504 B5	6524 I6
2505 C3	7500 A12
2506 C4	7501 A10
2507 C5	7502 B11
2508 C5	7503 B9
2509 C6	7504-1 B5
2510 B12	7504-2 B6
2511 C6	7505 E5
2512 C4	7506 B13
2513 D10	7507 C4
2514 E11	7508 E6
2515 E9	7509 E10
2516 E11	7510 I2
2517 E9	7511 H2
2518 E9	7512 H2
2519 E8	7513 I13
2520 E8	F702 E2
2521 E9	F703 E2
2522 E3	F704 E2
2523 F6	F705 E2
2524 H3	F706 F3
2525 H12	F707 F3
2526 I13	F708 F3
2527 I8	F709 F3
2528 I12	F710 F3
2529 I11	F711 G3
2530 F4	F712 G3
2531 E8	F713 G3
2532 I8	F715 D10
2533 I9	F716 C9
3500 A12	F717 C11
3501 A10	F718 B2
3502 A11	F719 B2
3503 B8	F720 C2
3504 B9	F721 D2
3505 B11	F723 D2
3506 B6	F724 D2
3507 B2	F725 A14
3508 B3	F726 H3
3509 B7	F727 I3
3510 C5	F728 I4
3511 B13	F729 D8
3512 C7	F730 E10
3513 B12	F733 H12
3514 C2	F734 C4
3515 C6	F735 D2
3516 C2	F736 A14
3517 B12	F737 A14
3518 B13	F738 A14
3519 B13	
3520 C6	
3521 C5	
3522 C9	
3523 C11	
3524 C9	
3525 C11	
3526 D4	
3527 D4	
3528 D9	
3529 D8	
3530 E10	
3531 E9	
3532 E6	
3533 E6	
3534 F6	
3535 F7	
3536 E8	
3537 E8	
3538 G5	
3539 G5	
3540 H3	
3541 H10	
3542 I3	
3543 I13	
3544 I4	
3545 I13	
3546 I13	
3547 I6	
3548 I6	
3549 I7	
3550 I8	
3551 I4	
3552 I11	
3553 I11	
3554 I13	
3555 E5	
3556 E4	
3560 F9	
3561 F9	
3562 F9	
5500 A12	
5501 A10	
5502 B3	
6500 C4	
6501 D10	

For HTS 3450/55 only
Layout: Display Board (Top view)



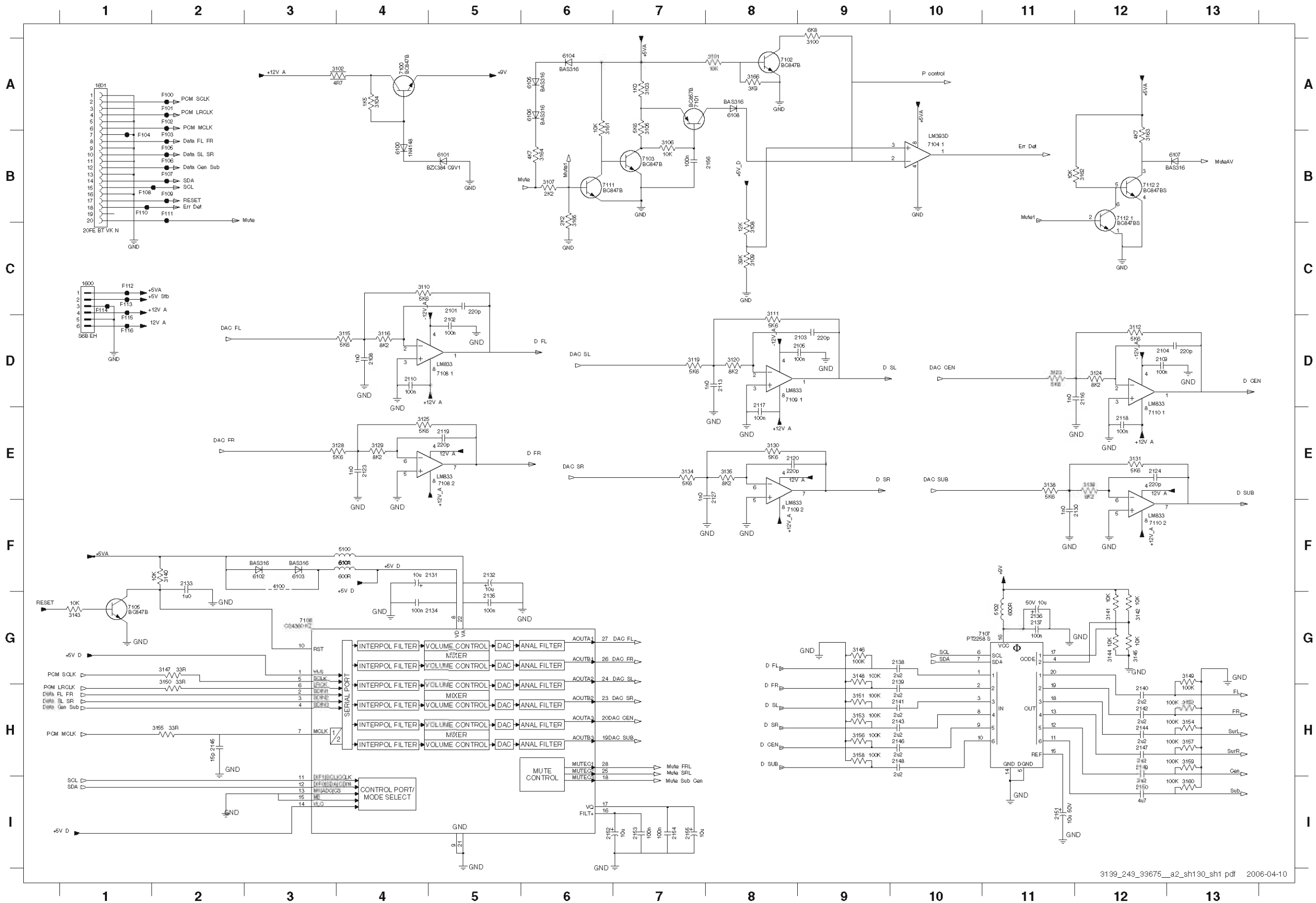
1501 A1
1502 A1
1503 A7
1504 A1
1505 A7
1507 A5
1508 A6
1509 A7
1510 A1
1511 A6
1512 A6
1513 A6
1514 A7
1520 A3
1530 A1
1540 A1
2500 A2
2501 A1
2528 A5
2529 A5
7510 A4

For HTS 3450/55 only
Layout: Display Board (Bottom view)



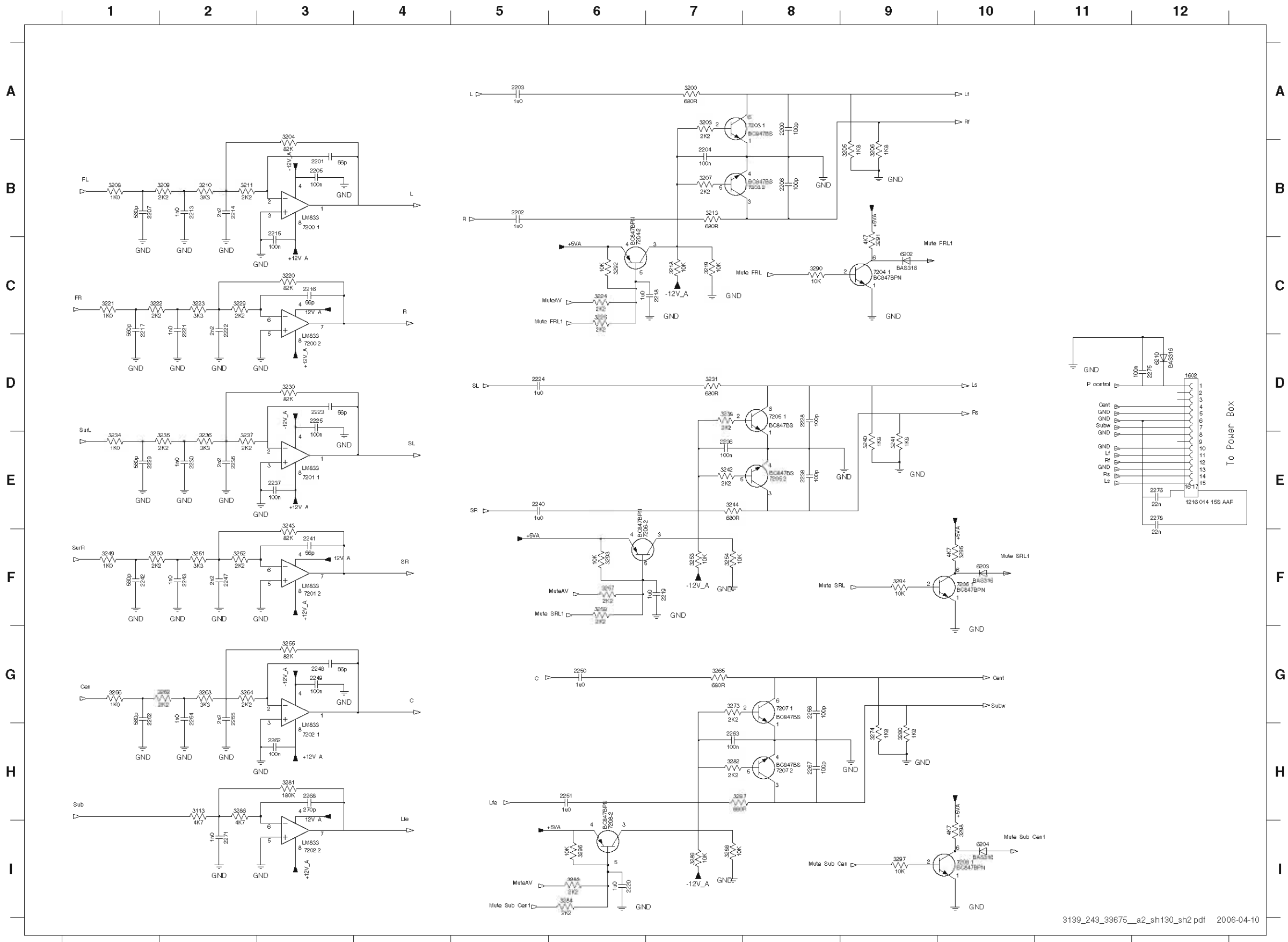
2502 A1
2503 A1
2504 A1
2506 A1
2508 A1
2507 A1
2508 A1
2509 A1
2510 A6
2511 A1
2512 A1
2513 A3
2514 A4
2515 A5
2516 A4
2517 A7
2518 A6
2519 A7
2520 A7
2521 A7
2522 A7
2523 A6
2524 A4
2525 A4
2526 A3
2527 A2
2530 A5
2531 A4
2532 A1
2533 A2
3500 A6
3501 A6
3502 A6
3503 A6
3504 A6
3505 A6
3506 A1
3507 A1
3508 A1
3509 A1
3510 A1
3511 A6
3512 A1
3513 A6
3514 A1
3515 A1
3516 A1
3517 A6
3518 A6
3519 A6
3520 A1
3521 A1
3522 A6
3523 A4
3524 A4
3525 A4
3526 A1
3527 A1
3528 A5
3529 A5
3530 A3
3531 A7
3532 A6
3533 A6
3534 A6
3535 A6
3536 A7
3537 A7
3538 A1
3539 A1
3540 A4
3541 A6
3542 A4
3543 A3
3544 A4
3545 A3
3546 A3
3547 A2
3548 A7
3549 A2
3550 A2
3551 A4
3552 A3
3553 A3
3554 A3
3555 A6
3556 A5
3560 A4
3561 A5
3562 A4
5500 A6
5501 A7
5502 A1
6500 A1
6501 A3
6502 A5
6503 A5
6504 A5
6505 A6
6506 A6
6507 A6
6508 A6
6509 A6
6510 A6
6511 A6
6512 A6
6513 A5
6514 A4
6515 A4
6516 A4
6517 A5
6518 A5
6521 A1
6522 A2
6523 A2
6524 A2
7500 A6
7501 A6
7502 A6
7503 A6
7504 A1
7505 A6
7506 A6
7507 A1
7508 A6
7509 A5
7511 A3
7512 A4
7513 A3

For HTS 3450/55 only
AV Interface Board: Circuit Diagram (Part 1)



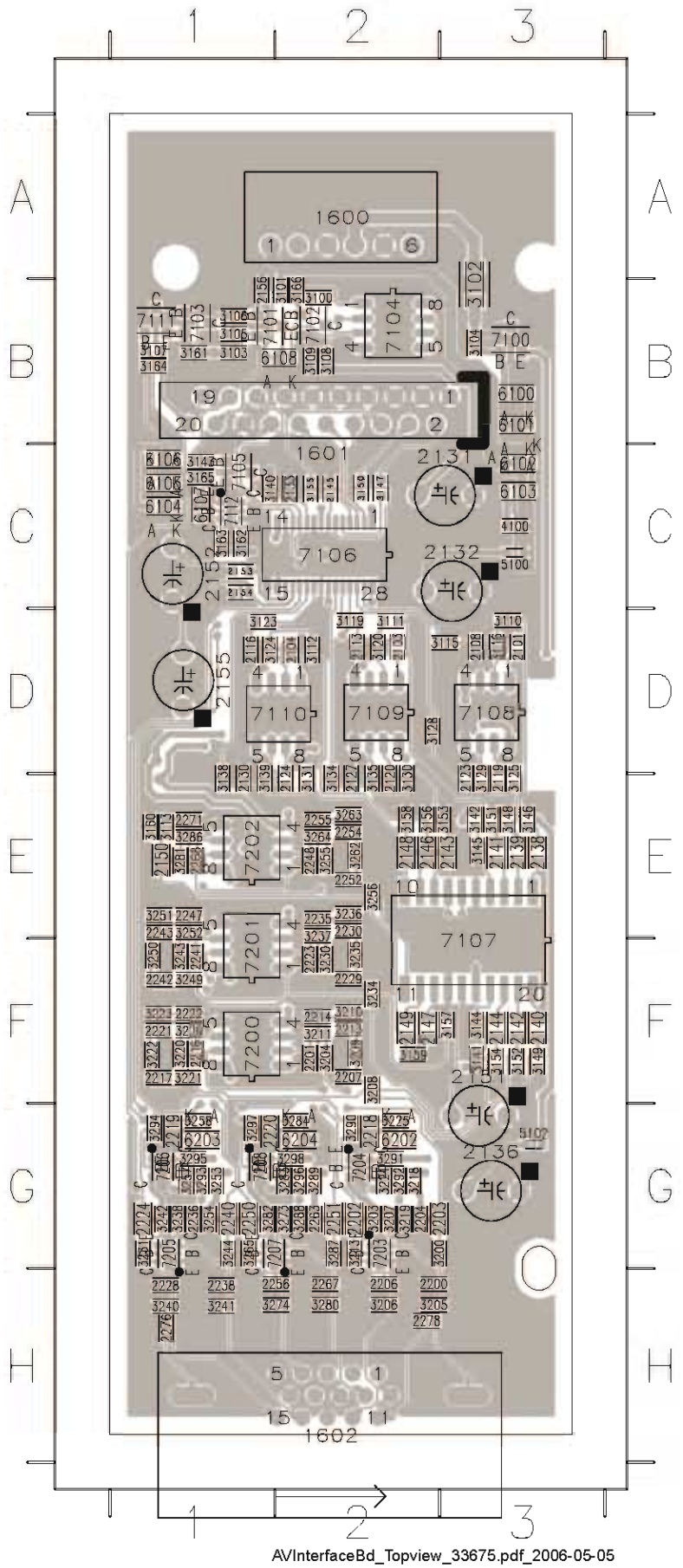
1600 C1
1601 A1
2101 C5
2102 D5
2103 D9
2104 D12
2105 D9
2108 D4
2109 D12
2110 D4
2113 D8
2116 D12
2117 D8
2118 E12
2119 E5
2120 E8
2123 E4
2124 E12
2127 E8
2130 F11
2131 F5
2132 F5
2133 F2
2134 G5
2135 G5
2136 G11
2137 G11
2138 G10
2139 G10
2140 H12
2141 H10
2142 H12
2143 H10
2144 H12
2145 H2
2146 H10
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 D8
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
3166 A8
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
7100 A4
7101 A7
7102 A8
7103 B7
7104-1 B10
7105 G1
7106 G3
7107 G11
7108-1 D5
7108-2 E5
7109-1 D8
7109-2 F8
7110-1 E12
7110-2 F12
7111 B6
7112-1 B12
7112-2 B12
F100 A2
F101 A2
F102 A2
F103 B2
F104 B1
F105 B2
F106 B2
F107 B2
F108 B1
F109 B2
F110 B1
F111 B2
F112 C1
F113 C1
F114 C1
F115 D1
F116 D1

For HTS 3450/55 only
AV Interface Board: Circuit Diagram (Part 2)



1602 D12	3293 F6
2200 A8	3294 F9
2201 B3	3295 F10
2202 B5	3296 I6
2203 A5	3297 I9
2204 B7	3298 I10
2205 B3	6202 C9
2206 B8	6203 F10
2207 B1	6204 I10
2213 B2	6210 D12
2214 B2	7200-1 B3
2215 B3	7200-2 D3
2216 C3	7201-1 E3
2217 C1	7201-2 F3
2218 C7	7202-1 H3
2219 F7	7202-2 I3
2220 I6	7203-1 A8
2221 C2	7203-2 B8
2222 C2	7204-1 C9
2223 D3	7204-2 C6
2224 D5	7205-1 D8
2225 D3	7205-2 E8
2228 D8	7206-1 F10
2229 E1	7206-2 F6
2230 E2	7207-1 G8
2235 E2	7207-2 H8
2236 E7	7208-1 I10
2237 E3	7208-2 I6
2238 E8	
2240 E5	
2241 F3	
2242 F1	
2243 F2	
2247 F2	
2248 G3	
2249 G3	
2250 G6	
2251 H6	
2252 G1	
2254 G2	
2255 G2	
2256 G8	
2262 H3	
2263 H7	
2267 H8	
2268 H3	
2271 I2	
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 B2	
3213 B7	
3218 C7	
3219 C7	
3220 C3	
3221 C1	
3222 C1	
3223 C2	
3224 C6	
3225 C6	
3229 C2	
3230 D3	
3231 D7	
3234 E1	
3235 E2	
3236 E2	
3237 E2	
3238 D7	
3240 E9	
3241 E9	
3242 E7	
3243 E3	
3244 E7	
3249 F1	
3250 F1	
3251 F2	
3252 F2	
3253 F7	
3254 F7	
3255 G3	
3256 G1	
3257 F6	
3258 F6	
3262 G2	
3263 G2	
3264 G2	
3265 G7	
3273 G7	
3274 H9	
3280 H9	
3281 H3	
3282 H7	
3283 I6	
3284 I6	
3286 H2	
3287 H7	
3288 I7	
3289 I7	
3290 C8	
3291 C9	
3292 C6	

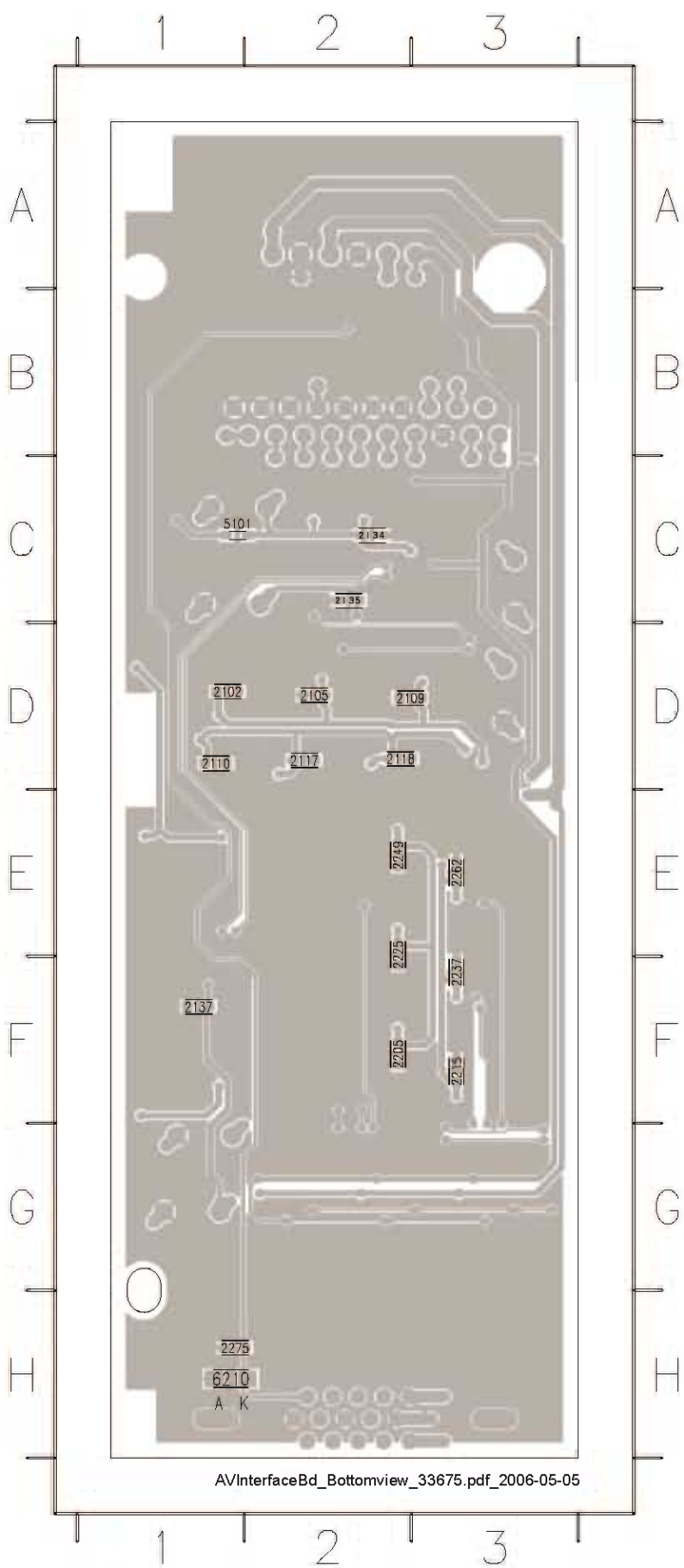
For HTS 3450/55 only
Layout: AV Interface Board (Top view)



AVInterfaceBd_Topview_33675.pdf_2006-05-05

1600	A2	2263	G2	3219	G2	7105	C1
1601	C2	2267	H2	3220	F1	7106	C2
1602	H2	2268	E1	3221	F1	7107	F3
2101	D3	2271	E1	3222	F1	7108	D3
2103	D2	2276	H1	3223	F1	7109	D2
2104	D2	2278	H2	3224	G2	7110	D2
2108	D3	3100	B2	3225	G2	7111	B1
2113	D2	3101	B2	3229	F1	7112	C1
2116	D1	3102	B3	3230	F2	7200	F1
2119	E3	3103	B1	3231	G1	7201	F1
2120	E2	3104	B3	3234	F2	7202	E1
2123	E3	3105	B1	3235	F2	7203	G2
2124	E2	3106	B1	3236	E2	7204	G2
2127	E2	3107	B1	3237	E2	7205	G1
2130	F1	3108	B2	3238	G1	7206	G1
2131	C3	3109	B2	3240	H1	7207	G1
2132	C3	3110	D3	3241	H1	7208	G1
2133	G3	3111	D2	3242	G1		
2136	G3	3112	D2	3243	F1		
2138	E3	3113	E1	3244	G1		
2139	E3	3115	D3	3249	F1		
2140	F3	3116	D3	3250	F1		
2141	E3	3119	D2	3251	F1		
2142	E3	3120	D2	3252	F1		
2143	E3	3123	D1	3253	G1		
2144	E3	3124	D1	3254	G1		
2145	C2	3125	E3	3255	E2		
2146	E2	3128	D2	3256	E2		
2147	E2	3129	E3	3257	G1		
2148	E2	3130	C2	3258	G1		
2149	F2	3131	E2	3262	E2		
2150	E1	3134	E2	3263	E2		
2151	E3	3135	E2	3264	E2		
2152	C1	3138	E1	3265	G1		
2153	C1	3139	E1	3273	G2		
2154	D1	3140	C1	3274	H2		
2155	D1	3141	F3	3280	H2		
2156	B1	3142	E3	3281	E1		
2200	H2	3143	C1	3282	G1		
2201	F2	3144	F3	3283	G2		
2202	G2	3145	E3	3284	G2		
2203	G2	3146	C2	3286	E1		
2204	G2	3147	C2	3287	G2		
2206	H2	3148	E3	3288	G2		
2207	F2	3149	F3	3289	G2		
2213	F2	3150	C2	3290	G2		
2214	F2	3151	E3	3291	G2		
2216	F1	3152	E3	3292	G2		
2217	F1	3153	F3	3293	G1		
2218	G2	3154	F3	3294	G1		
2219	G1	3155	C2	3295	G1		
2220	G1	3156	C2	3296	G2		
2221	F1	3157	F3	3297	G1		
2222	F1	3158	E2	3298	G2		
2223	F2	3159	F2	4100	C3		
2224	G1	3160	E1	5100	C3		
2228	H1	3161	B1	5102	G3		
2229	F2	3162	C1	6100	B3		
2230	E2	3163	C1	6101	B3		
2235	E2	3164	B1	6102	C3		
2236	G1	3165	C1	6103	C3		
2238	H1	3166	B2	6104	C1		
2240	G1	3200	G2	6105	C1		
2241	F1	3203	G2	6106	C1		
2242	F1	3204	F2	6107	C1		
2243	F1	3205	H2	6108	B2		
2247	F1	3206	H2	6202	G2		
2248	E2	3207	G2	6203	G1		
2250	G1	3208	F2	6204	G2		
2251	G2	3209	F2	7100	B3		
2252	E2	3210	F2	7101	B1		
2254	E2	3211	F2	7102	B2		
2255	E2	3213	G2	7103	B1		
2256	H2	3218	G2	7104	B2		

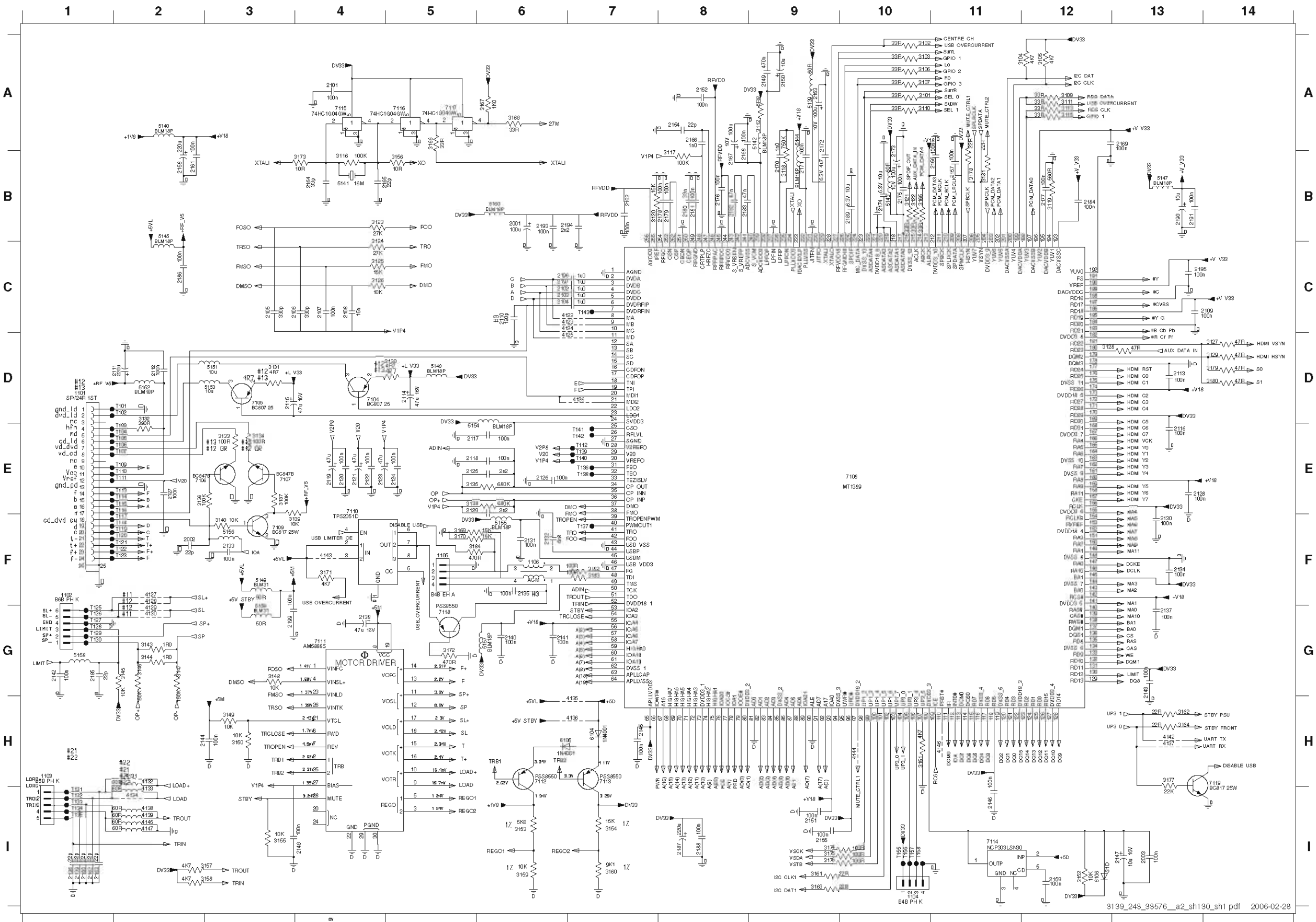
For HTS 3450/55 only
Layout: AV Interface Board (Bottom view)



AVInterfaceBd_Bottomview_33675.pdf_2006-05-05

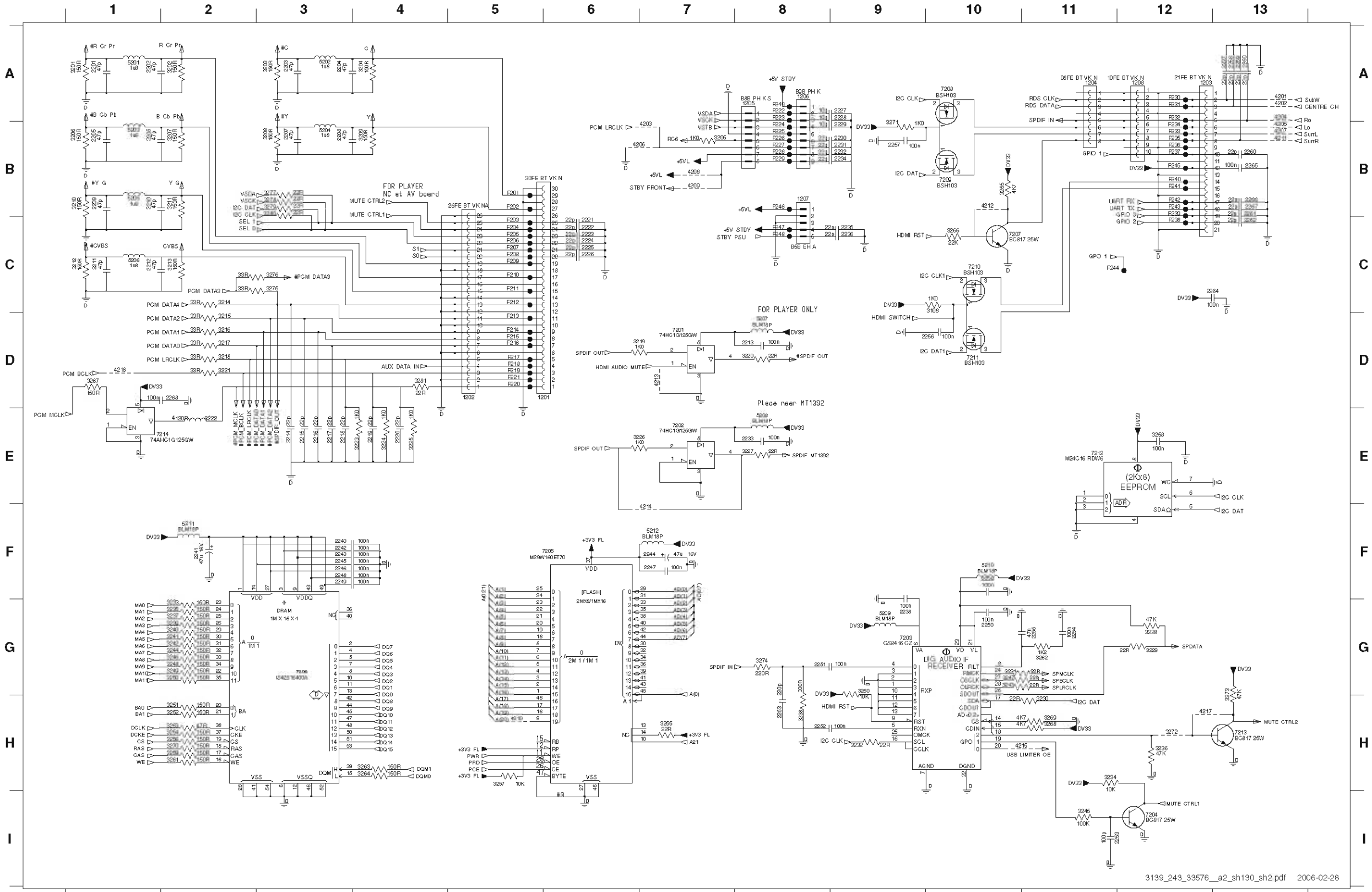
2102	D1
2105	D2
2109	D2
2110	D1
2117	D2
2118	D2
2134	C3
2135	C2
2137	F1
2205	F2
2215	F3
2225	E3
2237	F3
2249	E2
2262	E3
2275	H1
5101	C1
6210	H1

For HTS 3450/55 only
PCBA 9.1 Board: Circuit Diagram (Part 1)



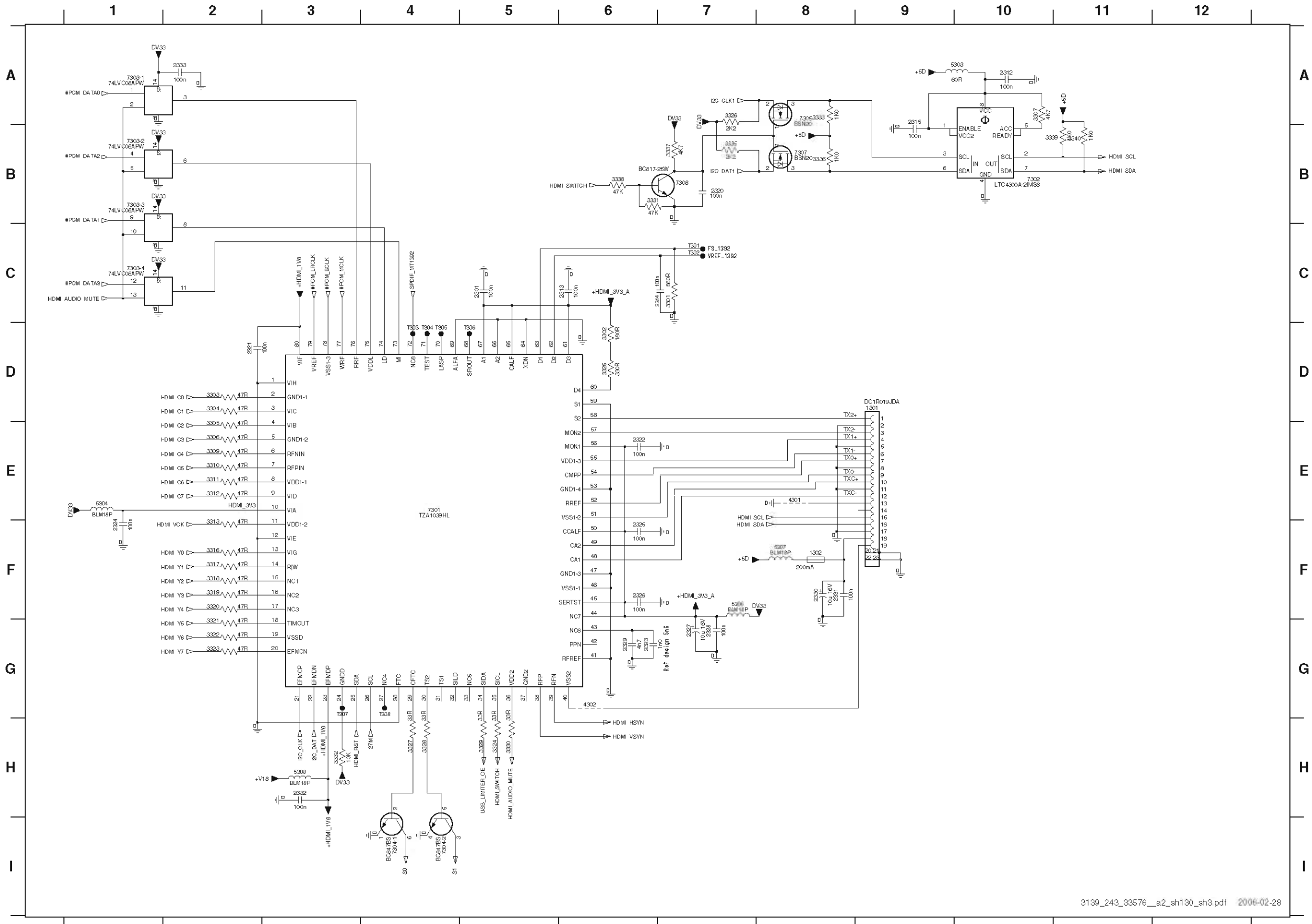
1101 D1	3111 A12	6105 H6
1102 F1	3112 A9	6106 I12
1103 H1	3113 A12	7104 D4
1104 I10	3115 A12	7105 D3
1105 F5	3116 B4	7106 E2
1106 F6	3117 B8	7107 E3
2001 B6	3118 B9	7108 E10
2002 F2	3119 B12	7109 F3
2003 I13	3120 B7	7110 E4
2101 A4	3121 B10	7111 G4
2102 C6	3122 B10	7112 H6
2103 C6	3123 B4	7113 H7
2104 C6	3124 C4	7114 I11
2105 C3	3125 C4	7115 A4
2106 C4	3126 C4	7116 A5
2107 C4	3127 D14	7117 A5
2108 C4	3128 D12	7118 G5
2109 C14	3129 D14	7119 H14
2110 C6	3130 D5	T101 D2
2111 D2	3131 D3	T102 D2
2112 D2	3132 D2	T103 E2
2113 D13	3133 E3	T104 E2
2114 D5	3134 E3	T105 E2
2115 D3	3135 E5	T106 E2
2116 E13	3136 E2	T107 E2
2117 E5	3137 E3	T109 E2
2118 E5	3138 E5	T110 E2
2119 E4	3139 F3	T111 E2
2120 E4	3140 F3	T112 E7
2121 E4	3143 G2	T113 E2
2122 E4	3144 G2	T114 E2
2123 E4	3145 G2	T115 E2
2124 E5	3146 G2	T116 E2
2125 E5	3147 G2	T117 F2
2126 E6	3148 G3	T118 F2
2127 E2	3149 H3	T119 F2
2128 E13	3150 H3	T120 F2
2129 E5	3151 H10	T121 F2
2130 F13	3152 I12	T122 F2
2131 F6	3153 I6	T123 F2
2132 F6	3154 I7	T125 G1
2133 F3	3155 I3	T126 G1
2134 F13	3156 B5	T127 G1
2135 F6	3157 I3	T128 G1
2136 I1	3158 I3	T129 G1
2137 G13	3159 I6	T130 G1
2138 G4	3160 I7	T131 I1
2139 I1	3161 I9	T132 I1
2140 G6	3162 H13	T133 I1
2141 G6	3163 I9	T134 I1
2142 G1	3164 H13	T135 I1
2143 G13	3165 B10	T136 E7
2144 H3	3166 A5	T137 F7
2145 H7	3167 A6	T138 E7
2146 I11	3168 A6	T139 E7
2147 I13	3169 F5	T140 E7
2148 I4	3170 F5	T141 E7
2149 A9	3171 F4	T142 E7
2150 A9	3172 G5	T143 C7
2151 I9	3173 B4	T155 I10
2152 A8	3174 I9	T156 I10
2153 A9	3175 I9	T157 I10
2154 A8	3176 I9	T158 I10
2155 I9	3177 H13	
2156 B10	3178 B11	
2157 B11	3179 D14	
2158 B2	3180 D14	
2159 I12	3181 B11	
2160 I1	3182 F7	
2161 B2	3183 F7	
2162 I1	3184 F5	
2163 I1	4122 C7	
2164 B4	4123 C7	
2165 B5	4124 C7	
2166 A8	4125 D7	
2167 B8	4126 D7	
2168 B8	4127 F2	
2169 A13	4128 F2	
2170 B9	4129 G2	
2171 B9	4130 G2	
2172 A9	4131 H2	
2173 B10	4132 H2	
2174 B10	4133 I2	
2175 B10	4134 I2	
2176 B8	4135 H7	
2177 B12	4136 H7	
2178 B8	4137 H13	
2179 B8	4138 I2	
2180 B8	4139 I2	
2181 B8	4142 H13	
2182 B8	4143 F4	
2183 B8	4144 H10	
2184 B12	4145 I2	
2185 G1	4146 H11	
2186 C2	4147 I2	
2187 I8	5139 A9	
2188 I8	5140 A2	
2189 B10	5141 B4	
2190 B13	5142 A9	
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 D3	
2199 G3	5152 D2	
3101 A10	5153 D3	
3102 A10	5154 E5	
3103 A10	5155 F6	
3104 A12	5156 F3	
3105 A12	5157 G6	
3106 A10	5158 G1	
3107 A10	5159 G3	
3109 A12	5160 B6	
3110 A10	6104 H7	

For HTS 3450/55 only
PCBA 9.1 Board: Circuit Diagram (Part 2)



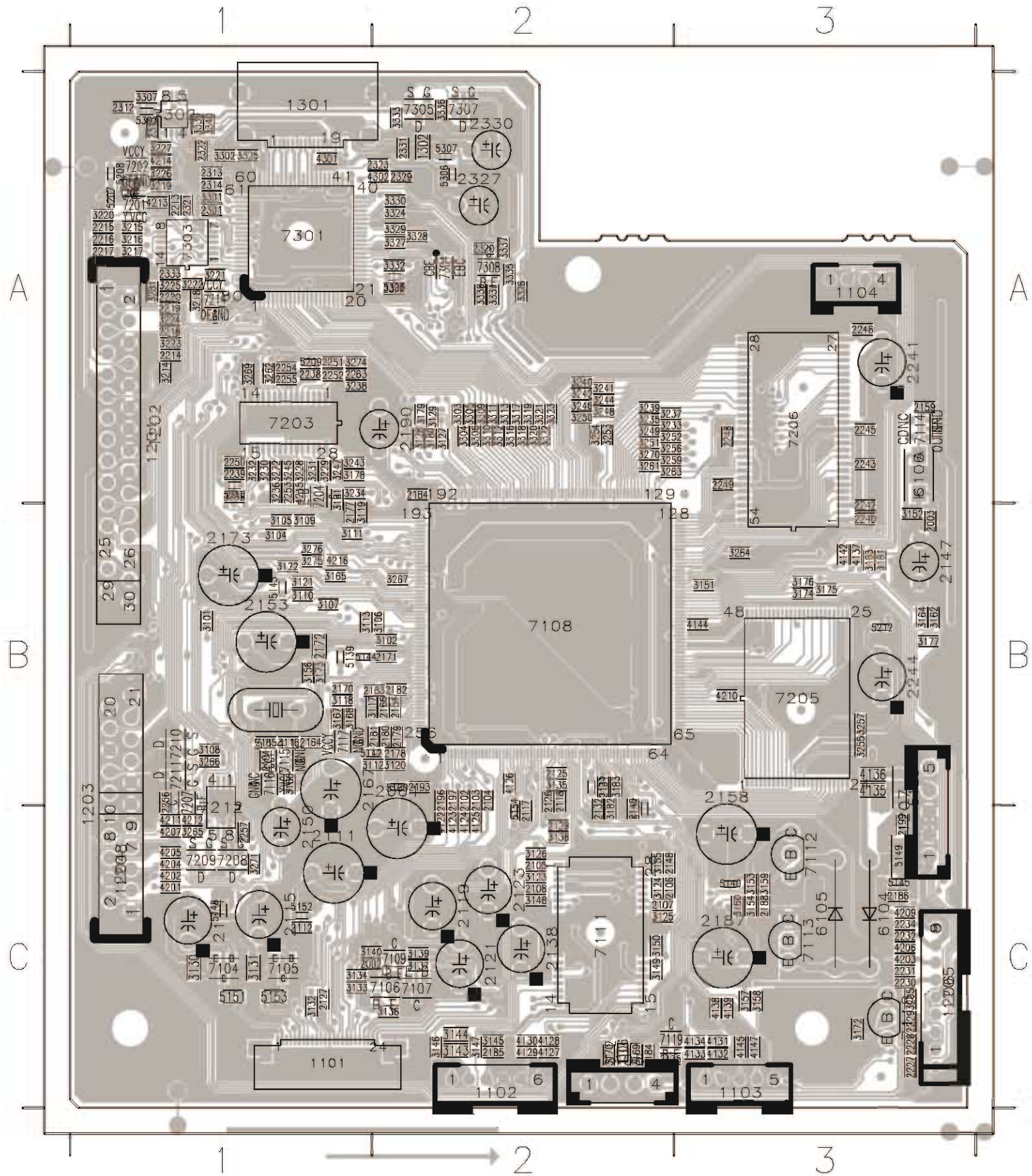
1201 D6	3231 G10	F215 D5
1202 D5	3232 H9	F216 D5
1203 A12	3233 G2	F217 D5
1204 A11	3234 H11	F218 D5
1205 A8	3235 G2	F219 D5
1206 A8	3236 H12	F220 D5
1207 B8	3237 G2	F221 D5
1208 A12	3238 H8	F222 A8
2201 A1	3239 G2	F223 A8
2202 A1	3240 G2	F224 B8
2203 A3	3241 G2	F225 B8
2204 A3	3242 G2	F226 B8
2205 B1	3243 G10	F227 B8
2206 B1	3244 G2	F228 B8
2207 B3	3245 I11	F229 B8
2208 B3	3246 G2	F230 A12
2209 B1	3247 G10	F231 A12
2210 B1	3248 G2	F232 A12
2211 C1	3249 G2	F233 B12
2212 C1	3250 G2	F234 B12
2213 D8	3251 H2	F235 B12
2214 E3	3252 H2	F236 B12
2215 E3	3253 H2	F237 B12
2216 E3	3254 H2	F238 C12
2217 E3	3255 H7	F239 B12
2218 E3	3256 H2	F240 B12
2219 E4	3257 H5	F241 B12
2220 E4	3258 E12	F242 B12
2221 C6	3259 H2	F243 B12
2222 C6	3260 G9	F244 C11
2223 C6	3261 H2	F245 B12
2224 C6	3262 G11	F246 B8
2225 C6	3263 H4	F247 C8
2226 C6	3264 H4	F248 C8
2227 A9	3265 B10	F249 A8
2228 A9	3266 C10	
2229 B9	3267 D1	
2230 B9	3268 H11	
2231 B9	3269 H11	
2232 B9	3270 H2	
2233 E8	3271 A9	
2234 B9	3272 H12	
2235 C9	3273 G13	
2236 C9	3274 G8	
2237 A13	3275 C3	
2238 G9	3276 C3	
2239 F10	3277 B3	
2240 F3	3278 B3	
2241 F2	3279 B3	
2242 F3	3280 B3	
2243 F3	3281 D4	
2244 F7	4201 A13	
2245 F3	4202 A13	
2246 F3	4203 B7	
2247 F7	4204 A13	
2248 F3	4205 B13	
2249 F3	4206 B7	
2250 G10	4207 B13	
2251 G8	4208 B7	
2252 H8	4209 B7	
2253 I11	4210 H5	
2254 G11	4211 B13	
2255 G11	4212 B10	
2256 D10	4213 D7	
2257 B9	4214 F7	
2258 A13	4215 H11	
2259 A13	4216 D1	
2260 B13	4217 H12	
2261 B13	5201 A1	
2262 C13	5202 A3	
2263 H8	5203 B1	
2264 C13	5204 B3	
2265 B13	5205 B1	
2266 B13	5206 C1	
2267 B13	5207 D8	
2268 D2	5208 E8	
2269 A13	5209 G9	
3108 C10	5210 F10	
3201 A1	5211 F2	
3202 A2	5212 F7	
3203 A3	7201 D7	
3204 A4	7202 E7	
3205 B7	7203 G9	
3206 B1	7204 I12	
3207 B2	7205 F5	
3208 B3	7206 G3	
3209 B4	7207 C10	
3210 B1	7208 A10	
3211 B2	7209 B10	
3212 C1	7210 C10	
3213 C2	7211 D10	
3214 C2	7212 E11	
3215 D2	7213 H13	
3216 D2	7214 E2	
3217 D2	F201 B5	
3218 D2	F202 B5	
3219 D7	F203 C5	
3220 D8	F204 C5	
3221 D2	F205 C5	
3222 E2	F206 C5	
3223 E4	F207 C5	
3224 E4	F208 C5	
3225 E4	F209 C5	
3226 E7	F210 C5	
3227 E8	F211 C5	
3228 G12	F212 C5	
3229 G12	F213 D5	
3230 H11	F214 D5	

For HTS 3450/55 only
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 F1
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 E2
3306 E2
3307 A10
3309 E2
3310 E2
3311 E2
3312 E2
3313 F2
3316 F2
3317 F2
3318 F2
3319 F2
3320 F2
3321 G2
3322 G2
3323 G2
3324 H5
3325 D6
3326 A7
3327 H4
3328 H4
3329 H5
3330 H5
3331 B6
3332 H3
3333 A8
3335 B7
3336 B8
3337 B7
3338 B6
3339 B10
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

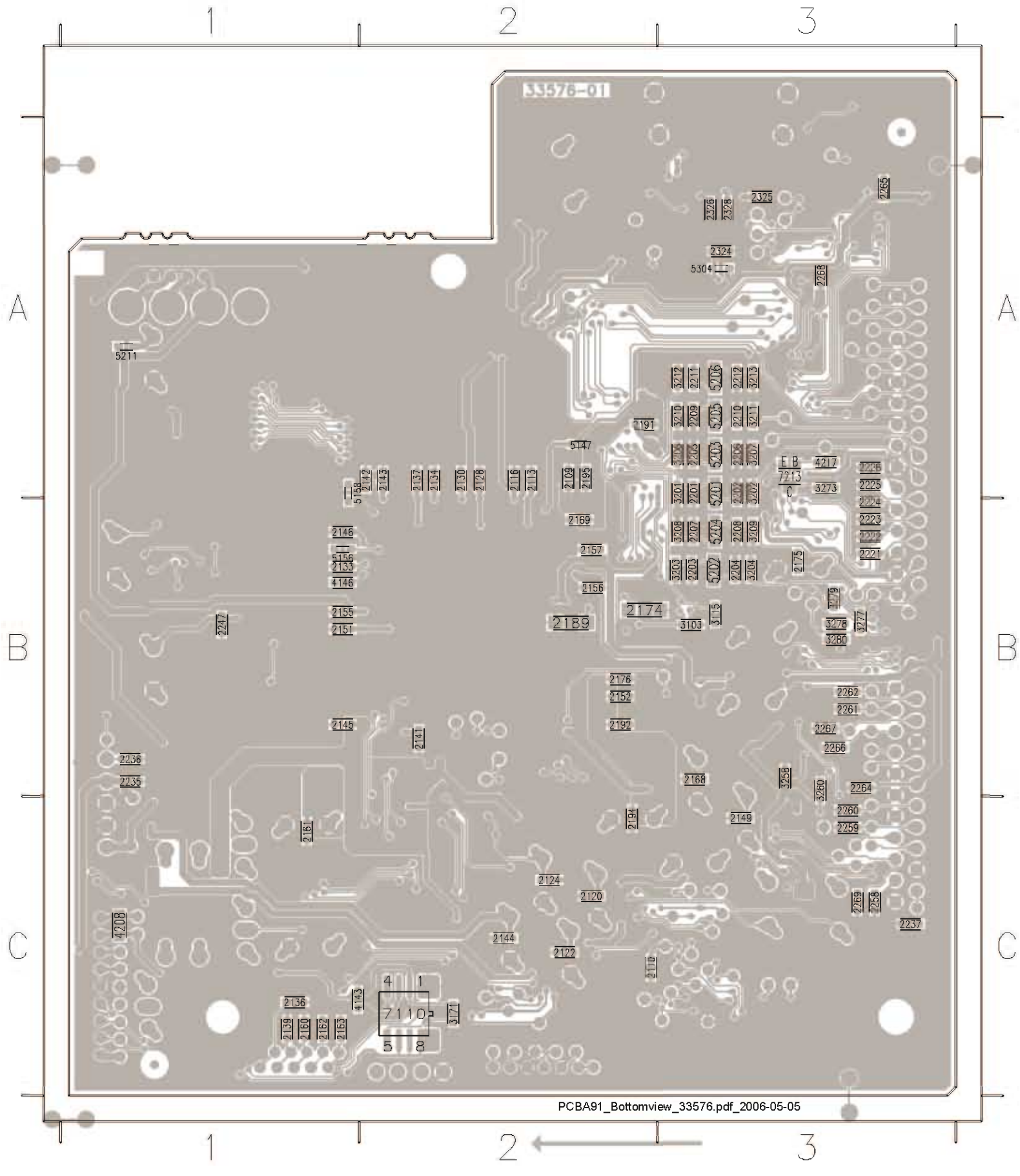
For HTS 3450/55 only
Layout: PCBA 9.1 Board (Top view)



PCBA91_Topview_33576.pdf_2006-05-05

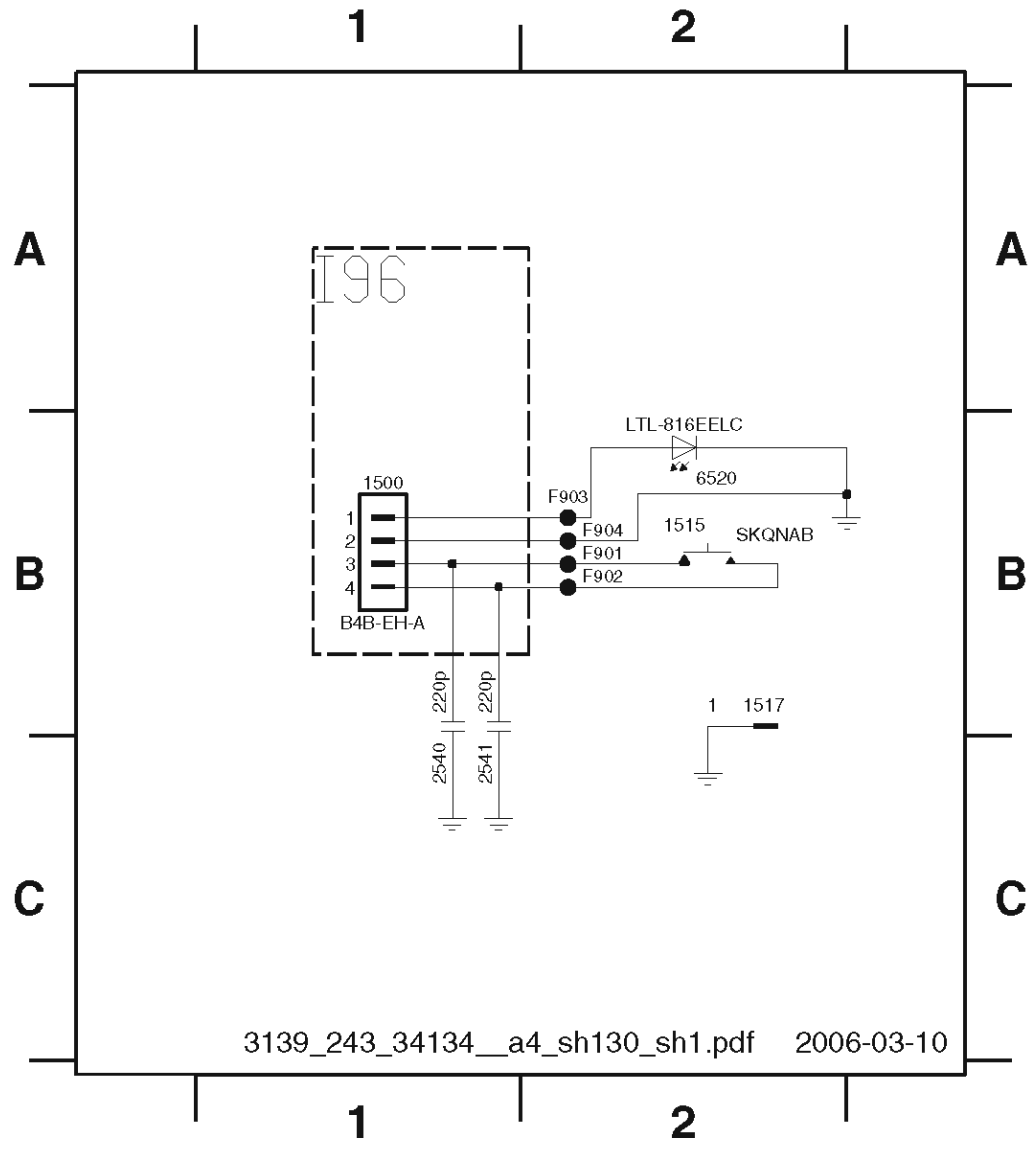
1101 C1	2179 B2	2330 A2	3164 B3	3255 B3	4128 C2	7104 C1	
1102 C2	2180 B2	2331 A2	3165 B1	3256 A2	4129 C2	7105 C1	
1103 C3	2181 B2	2332 A2	3166 B1	3257 B3	4130 C2	7106 C2	
1104 A3	2182 B2	2333 A1	3167 B1	3259 A2	4131 C3	7107 C2	
1105 C2	2183 B2	3101 B1	3168 B1	3261 A2	4132 C3	7108 B2	
1106 C2	2184 A2	3102 B2	3169 C2	3262 A1	4133 C3	7109 C2	
1201 A1	2185 C2	3104 B1	3170 C2	3263 A2	4134 C3	7111 C2	
1202 A1	2186 C3	3105 B1	3172 C3	3264 B3	4135 B3	7112 C3	
1203 B1	2187 C3	3106 B2	3173 B1	3265 C1	4136 B3	7113 C3	
1204 C1	2188 C3	3107 B1	3174 B3	3266 B1	4137 B3	7114 A3	
1205 C3	2190 A2	3108 B1	3175 B3	3267 B2	4138 C3	7115 B1	
1206 C3	2193 B2	3109 B1	3176 B3	3268 A1	4139 C3	7116 B1	
1207 C3	2196 B2	3110 B1	3177 B3	3269 A1	4142 B3	7117 B1	
1208 C1	2197 B2	3111 B1	3178 A1	3270 A2	4144 B3	7118 C3	
1301 A1	2199 C3	3112 B2	3179 A2	3271 C1	4145 C3	7119 C2	
1302 A2	2213 A1	3113 B1	3180 A2	3272 A1	4147 C3	7201 A1	
2001 B2	2214 A1	3116 B1	3181 A1	3274 A1	4201 C1	7202 A1	
2002 C1	2215 A1	3117 B1	3182 C2	3275 B1	4202 C1	7203 A1	
2003 B3	2216 A1	3118 B1	3183 B2	3276 B1	4203 C3	7204 A1	
2101 B1	2217 A1	3119 B1	3184 C2	3281 A1	4204 C1	7205 B3	
2102 B2	2218 A1	3120 B2	3205 C3	3301 A1	4205 C1	7206 A3	
2103 B2	2219 A1	3121 B1	3214 A1	3302 A1	4206 C3	7207 B1	
2104 B2	2220 A1	3122 B1	3215 A1	3303 A2	4207 C1	7208 C1	
2105 C2	2227 C3	3123 C2	3216 A1	3304 A2	4209 C3	7209 C1	
2106 C2	2228 C3	3124 C2	3217 A1	3305 A2	4210 B3	7210 B1	
2107 C2	2229 C3	3125 C2	3218 A1	3306 A2	4211 C1	7211 B1	
2108 C2	2230 C3	3126 C2	3219 A1	3307 A1	4212 C1	7212 C1	
2111 C1	2231 C3	3127 A2	3220 A1	3309 A2	4213 A1	7214 A1	
2112 C1	2232 C3	3128 A2	3221 A1	3310 A2	4214 A1	7301 A1	
2114 C1	2233 A1	3129 A2	3222 A1	3311 A2	4215 A1	7302 A1	
2115 C1	2234 C3	3130 C1	3223 A1	3312 A2	4216 B1	7303 A1	
2117 C2	2238 A1	3131 C1	3224 A1	3313 A2	4301 A1	7304 A2	
2118 B2	2239 A1	3132 C1	3225 A1	3316 A2	4302 A2	7305 A2	
2119 C2	2240 B3	3133 C1	3226 A1	3317 A2	5139 B1	7307 A2	
2121 C2	2241 A3	3134 C1	3227 A1	3318 A2	5140 C3	7308 A2	
2123 C2	2242 B3	3135 B2	3228 A1	3319 A2	5141 B1		
2125 B2	2243 A3	3136 C2	3229 A1	3320 A2	5142 B1		
2126 B2	2244 B3	3137 C2	3230 A1	3321 A2	5143 B1		
2127 C1	2245 A3	3138 C2	3231 A1	3322 A2	5144 B1		
2129 C2	2246 A3	3139 C2	3232 A1	3323 A2	5145 C3		
2131 B2	2248 A3	3140 C1	3233 A2	3324 A2	5148 C1		
2132 C2	2249 A3	3143 C2	3234 A1	3325 A1	5149 C3		
2135 C2	2250 A1	3144 C2	3235 A2	3326 A2	5151 C1		
2138 C2	2251 A1	3145 C2	3236 A1	3327 A2	5152 C1		
2140 C2	2252 A1	3146 C2	3237 A2	3328 A2	5153 C1		
2147 B3	2253 A1	3147 C2	3238 A1	3329 A2	5154 C2		
2148 C2	2254 A1	3148 C2	3239 A2	3330 A2	5155 B2		
2150 C1	2255 A1	3149 C2	3240 A2	3331 A2	5157 C2		
2153 B1	2256 B1	3150 C2	3241 A2	3332 A2	5159 B3		
2154 B2	2257 C1	3151 B3	3242 A2	3333 A2	5160 B2		
2158 B3	2263 A1	3152 B3	3243 A1	3335 A2	5207 A1		
2159 A3	2301 A1	3153 C3	3244 A2	3336 A2	5208 A1		
2164 B1	2312 A1	3154 C3	3245 A1	3337 A2	5209 A1		
2165 B1	2313 A1	3155 C2	3246 A2	3338 A2	5210 A1		
2166 B2	2314 A1	3156 B1	3247 A1	3339 A1	5212 B3		
2167 B1	2315 A1	3157 C3	3248 A2	3340 A1	5303 A1		
2170 B1	2320 A2	3158 C3	3249 A2	4122 C2	5306 A2		
2171 B2	2321 A1	3159 C3	3250 A2	4123 C2	5307 A2		
2172 B1	2322 A1	3160 C3	3251 A2	4124 C2	5308 A2		
2173 B1	2323 A2	3161 B3	3252 A2	4125 C2	6104 C3		
2177 B1	2327 A2	3162 B3	3253 A2	4126 B2	6105 C3		
2178 B2	2329 A2	3163 B3	3254 A2	4127 C2	6106 A3		

For HTS 3450/55 only
Layout: PCBA 9.1 Board (Bottom view)



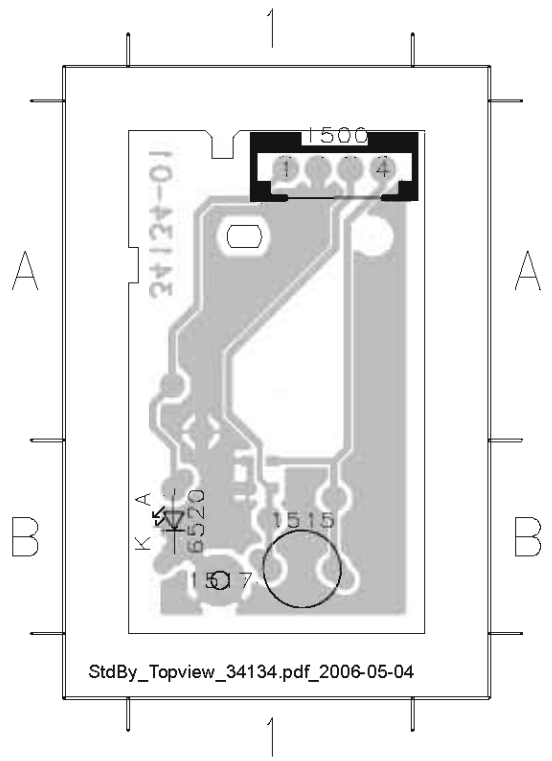
2109 A2
2110 C2
2113 A2
2116 A2
2120 C2
2122 C2
2124 C2
2128 A2
2130 A2
2133 B1
2134 A2
2136 C1
2137 A2
2139 C1
2141 B2
2142 A2
2143 A2
2144 C2
2145 B1
2146 B1
2149 C3
2151 B1
2152 B2
2155 B1
2156 B2
2157 B2
2160 C1
2161 C1
2162 C1
2163 C1
2168 B3
2169 B2
2174 B2
2175 B3
2176 B2
2189 B2
2191 A2
2192 B2
2194 C2
2195 A2
2201 A3
2202 A3
2203 B3
2204 B3
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
2259 C3
2260 C3
2261 B3
2262 B3
2264 B3
2265 A3
2266 B3
2267 B3
2268 A3
2269 C3
2324 A3
2325 A3
2326 A3
2328 A3
3103 B3
3115 B3
3171 C2
3201 A3
3202 A3
3203 B3
3204 B3
3206 A3
3207 A3
3208 B3
3209 B3
3210 A3
3211 A3
3212 A3
3213 A3
3258 B3
3260 B3
3273 A3
3277 B3
3278 B3
3279 B3
3280 B3
4143 C1
4146 B1
4208 C1
4217 A3
5147 A2
5156 B1
5158 A1
5201 A3
5202 B3
5203 A3
5204 B3
5205 A3
5206 A3
5211 A1
5304 A3
7110 C2
7213 A3

For HTS 3450/55 only
Standby Board



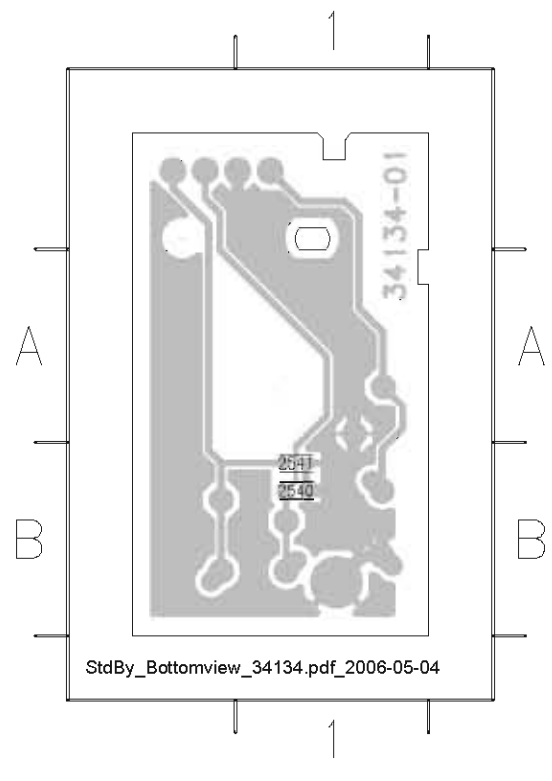
1500 B1
1515 B2
1517 B2
2540 C1
2541 C1
6520 B2
F901 B2
F902 B2
F903 B2
F904 B2

For HTS 3450/55 only
Layout: Standby Board (Top view)



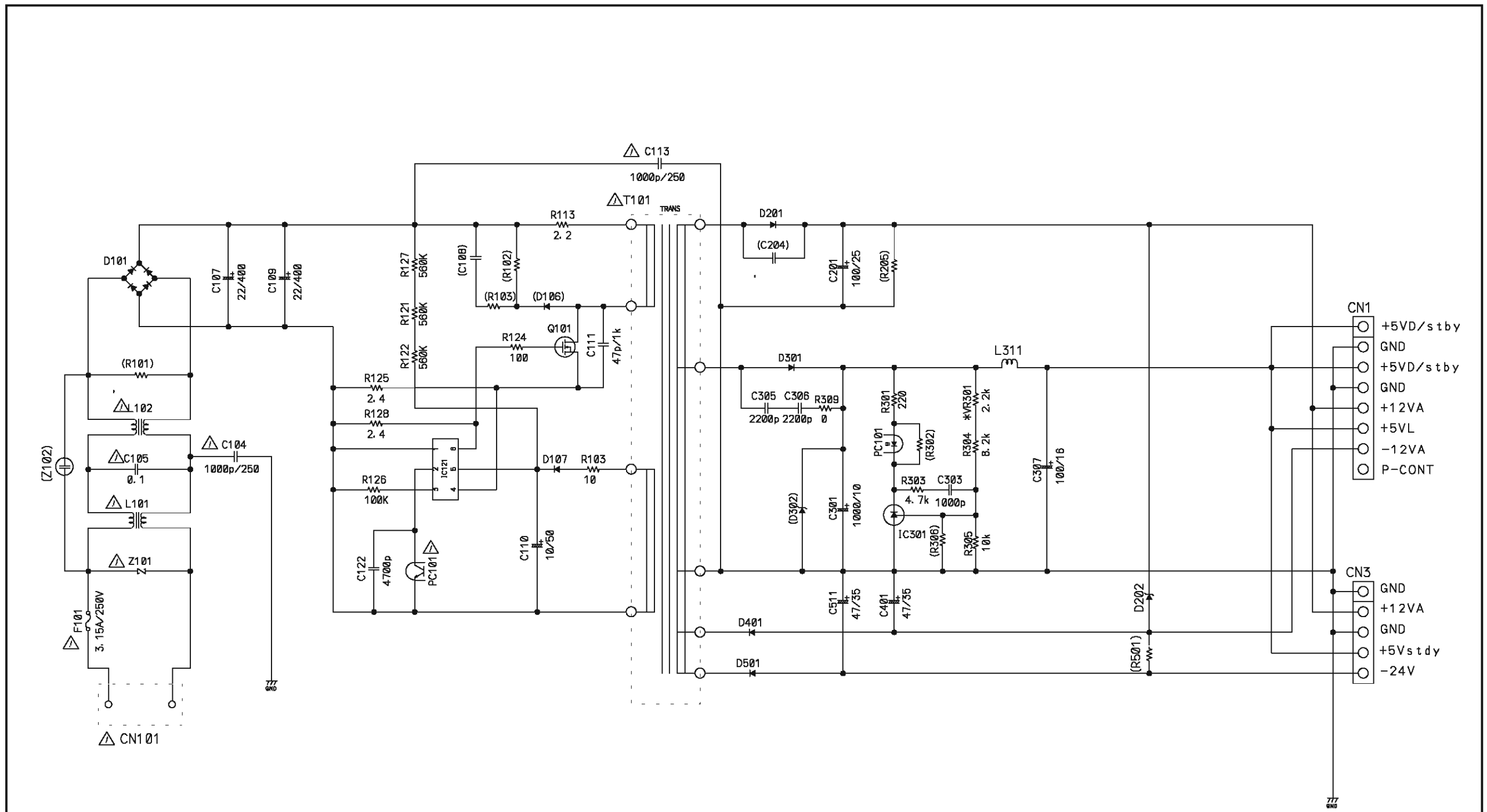
1500 A1
1515 B1
1517 B1
6520 B1

For HTS 3450/55 only
Layout: Standby Board (Bottom view)



2540 B1
2541 B1

For Information Only: PSU module (Main Unit)



D101	D1UBA80	D201, D401	PR1003, RI103
D107	PR1003, RGP10D	D202	MTZ30, MA4300
IC121	SG6848	D301	SB560,
Q101	FQI2N80	D501	PR1005, RL105
PC101	LTV-817M, PC123, PS2561	IC301	TL431, MM1431A

PSU06P15-srv1919ww-Circuit.pdf 2006-04-06

Notes:

8. Exploded View of the Set

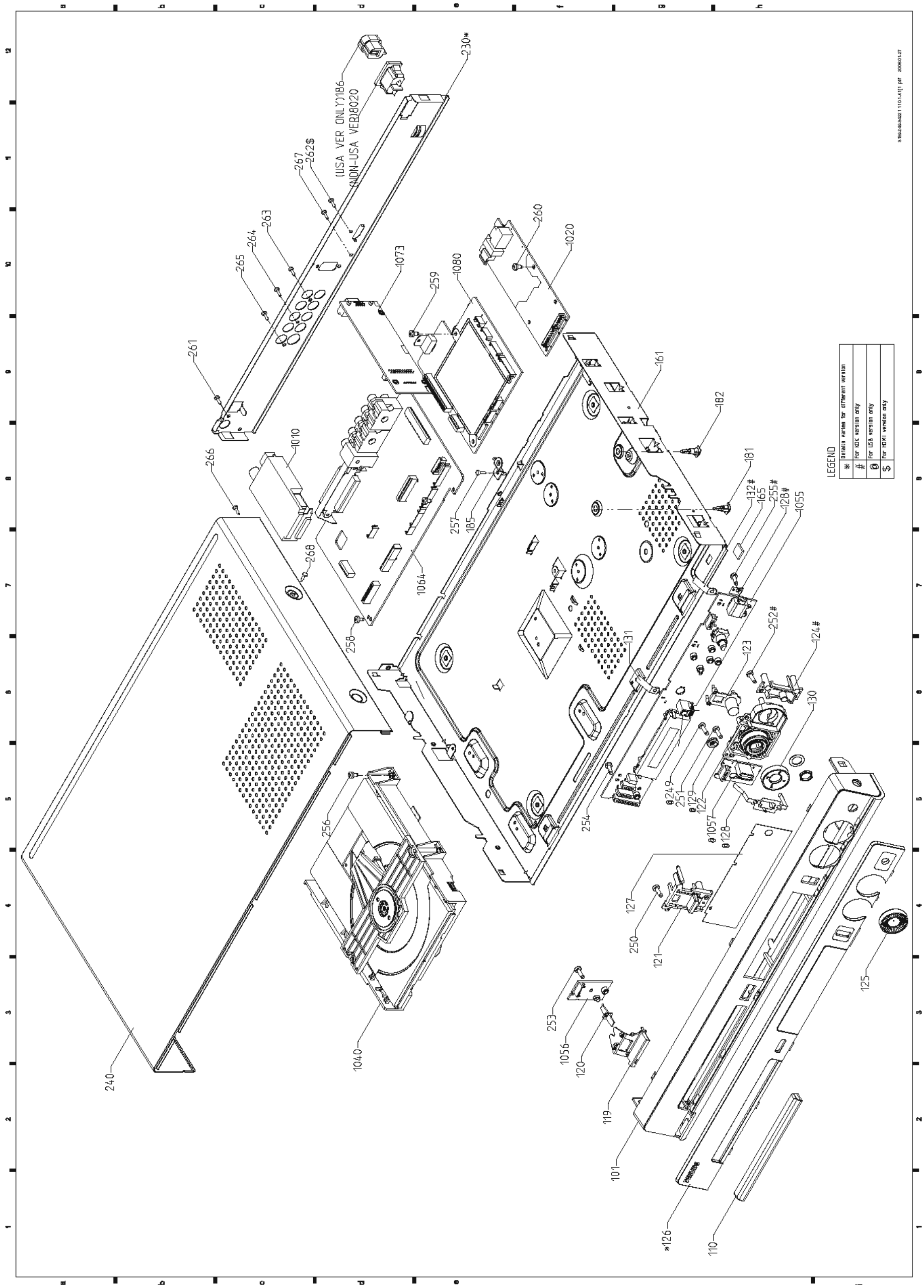
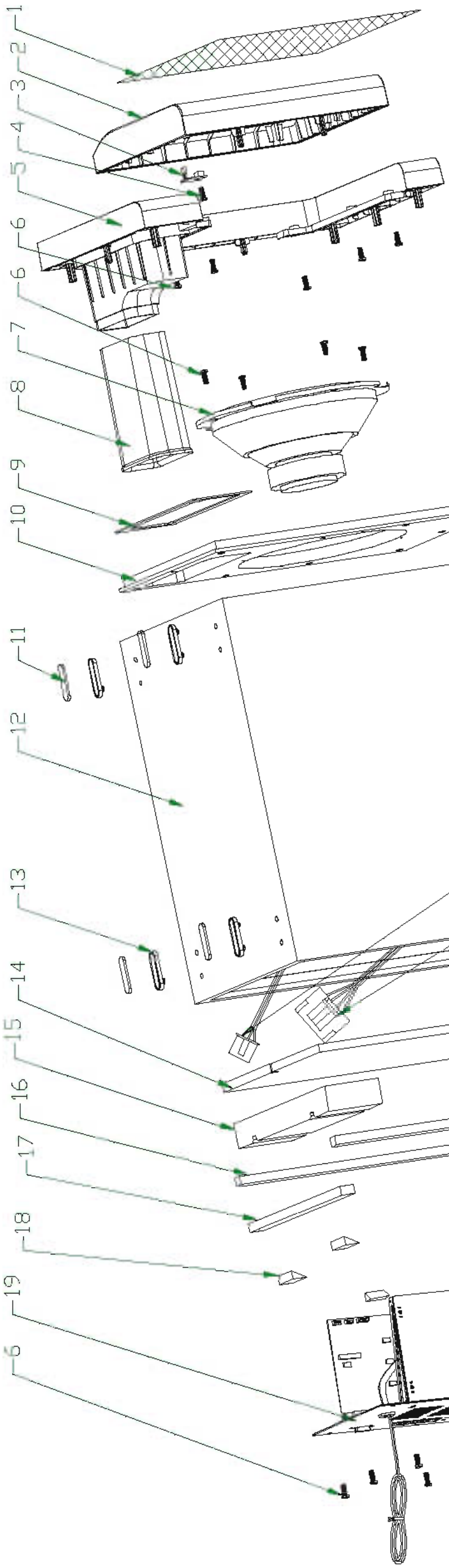


Figure 8-1

Exploded View: Subwoofer



NO.	PART CODE	PART NAME
11	1408-130000	RUBBER FOOT
10	1110-001800	FRONT BOARD
9	1606-002500	CUSHION
8	1209-000700	PORT TUBE
7	1300-004900	SUBWOOFER
6	2400-351203	SCREW
5	1200-001100	FRONT CABINET
4	1800-301003	SCREW
3	1336-000700	PCBA-LED
2	1204-002400	CLOTH FRAME
1	1802-801302	CLOTH

NO.	PART CODE	PART NAME
22	1310-001500	LED CORD
21	1310-001400	SPK CORD
20	1120-000800	L-BOARD(4)
19	1336-000700	PCB-AMP
18	1121-000300	TRIANGLE BOARD
17	1120-000600	L-BOARD(2)
16	1120-000500	L-BOARD(1)
15	1120-000700	L-BOARD(3)
14	1117-000900	MIDDLE BOARD
13	1404-130000	PLASTIC FOOT
12	1104-003100	ENCLOSURE BOARD

3440SW_Service_Manual_2_pg18.pdf 2006-04-06

Figure 8-2

HTS3450
MISCELLANEOUS

0125	3139 244 10091		KNOB VOLUME HTS3455 CHROME
0130	3139 244 11061		CAP BUTTON CONTROL CHROME
0186	4822 532 60948		BUSH
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 /37 ONLY
0341	2422 549 00901		REMOTE CONTR HTS3100-KOK B /55 ONLY
0344	2422 070 98235	⚠	MAINSCORD UL 6A 1M8 VH BK B /37 ONLY
0345	2422 070 00062	⚠	MAINSCORD BRZ 2A5 1M8 DET 2P B /55 ONLY
0346	3139 128 73010	⚠	MAINS PLUG ADAPTER /55 ONLY
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 88031		PCBAS FRONT NAFTA HTS3450 /37 ONLY
1050	3139 248 87861		PCBAS FRONT BOARD HTS3455 /55 ONLY
1064	3139 248 88501		PCBAS AV BOARD NAF HTS3455 /37 ONLY
1064	3139 248 87911		PCBAS AV BOARD HTS3455 /55 ONLY
1073	3139 248 87351		PCBAS AV-INTERFACE BD HTS4550
1080	3139 248 88541		PCBAS 9.1 HTS3450/37 /37 ONLY
1080	3139 248 87951		PCBAS 9.1 HTS3455 /55 ONLY
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 36061		FRONT CAB ASSY HTS3450/37 /37 ONLY
P002	3141 079 36051		FRONT CAB ASSY HTS3450/55 /55 ONLY

HTS3450/55 SUBWOOF ASSY HTS3450 E(NON-US)

9965 000 35300	SW3450 SUBWOOFER BOX
9965 000 28375	RUBBER FOOT

HTS3450/55 BOX SPK ASSY CS3450 E (NON-US)

9965 000 35295	SPEAKER BOX FRONT-L
9965 000 35296	SPEAKER BOX FRONT-R
9965 000 35297	SPEAKER BOX REAR-L
9965 000 35298	SPEAKER BOX REAR-R
9965 000 28363	CABLE A'SSY 5.2M WHITE SMK
9965 000 28364	CABLE A'SSY 5.2M RED SMK
9965 000 28365	CABLE A'SSY 5.2M BLUE SMK
9965 000 28366	CABLE A'SSY 5.2M GREY SMK
9965 000 35290	RUBBER FOOT 58LX4.5WX4.5T
9965 000 35291	RUBBER FOOT 22.93LX3.5WX3.0T (R)
9965 000 35292	RUBBER FOOT 22.93LX3.5WX3.0T (L)
9965 000 35299	SPEAKER BOX CENTER
9965 000 28367	CABLE A'SSY 5.2M GREEN SMK S
9965 000 35294	RUBBER FOOT 40.5LX6.0WX1.5T

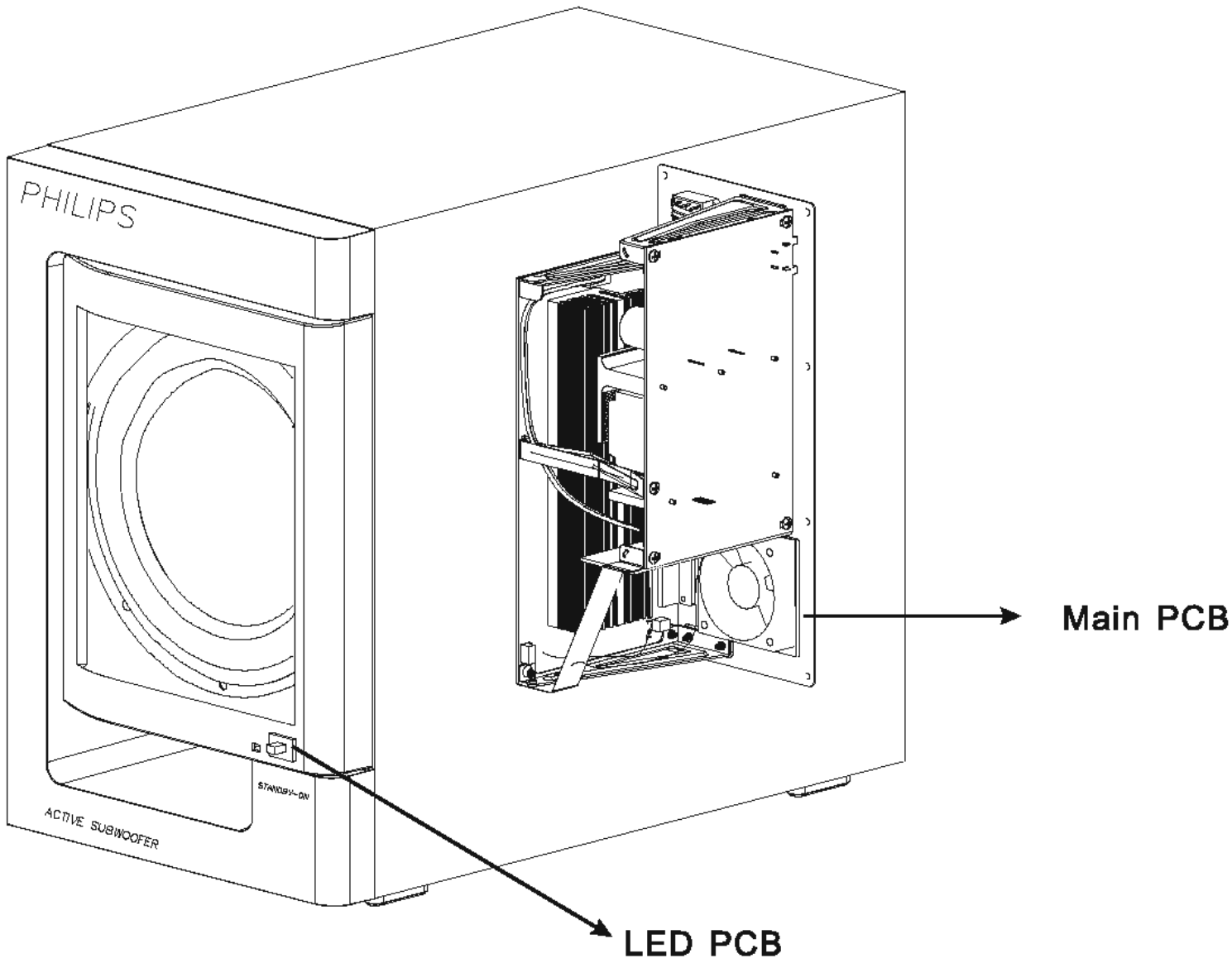
HTS3450/37 SUBWOOF ASSY HTS3450 E (US)

9965 000 35300	SW3450 SUBWOOFER BOX
9965 000 28375	RUBBER FOOT

HTS3450/37 BOX SPK ASSY CS3450 E

9965 000 35286	SPEAKER BOX FRONT-L
9965 000 35287	SPEAKER BOX FRONT-R
9965 000 35288	SPEAKER BOX REAR-L
9965 000 35289	SPEAKER BOX REAR-R
9965 000 28363	CABLE A'SSY 5.2M WHITE SMK
9965 000 28364	CABLE A'SSY 5.2M RED SMK
9965 000 28365	CABLE A'SSY 5.2M BLUE SMK
9965 000 28366	CABLE A'SSY 5.2M GREY SMK
9965 000 35290	RUBBER FOOT 58LX4.5WX4.5T
9965 000 35291	RUBBER FOOT 22.93LX3.5WX3.0T (R)
9965 000 35292	RUBBER FOOT 22.93LX3.5WX3.0T (L)
9965 000 35293	SPEAKER BOX CENTER
9965 000 28367	CABLE A'SSY 5.2M GREEN SMK S
9965 000 35294	RUBBER FOOT 40.5LX6.0WX1.5T

LOCATION OF PC BOARDS

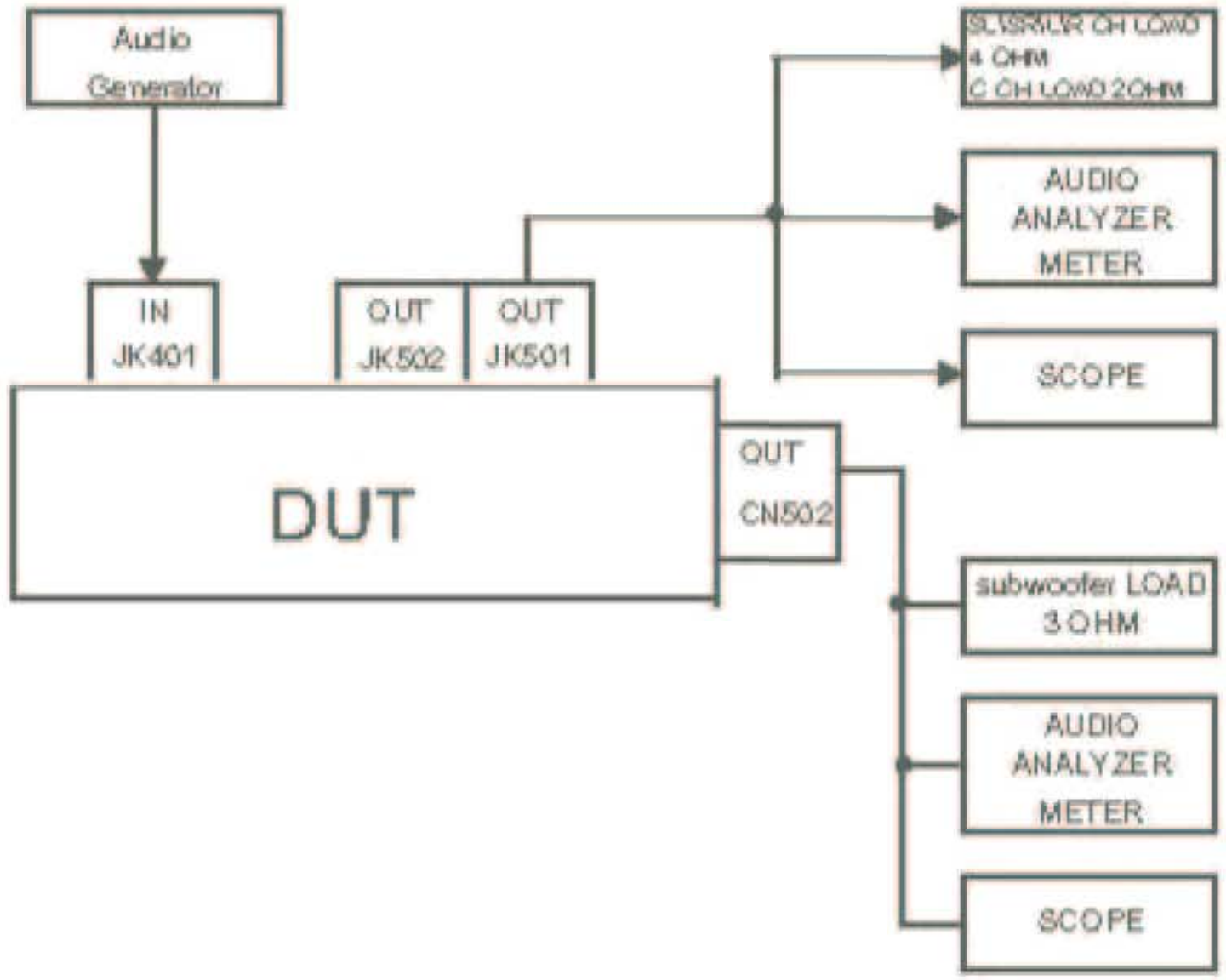


SPECIFICATIONS

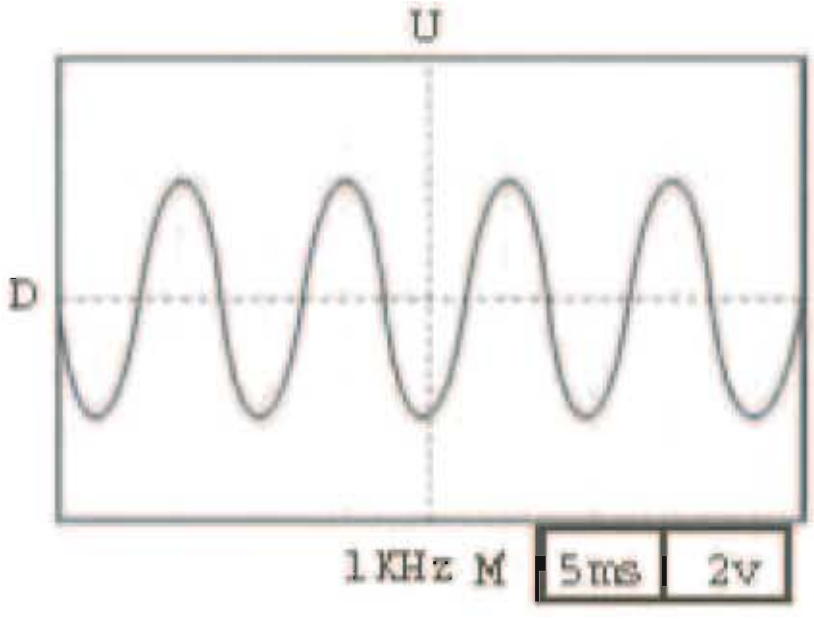
SUBWOOFER

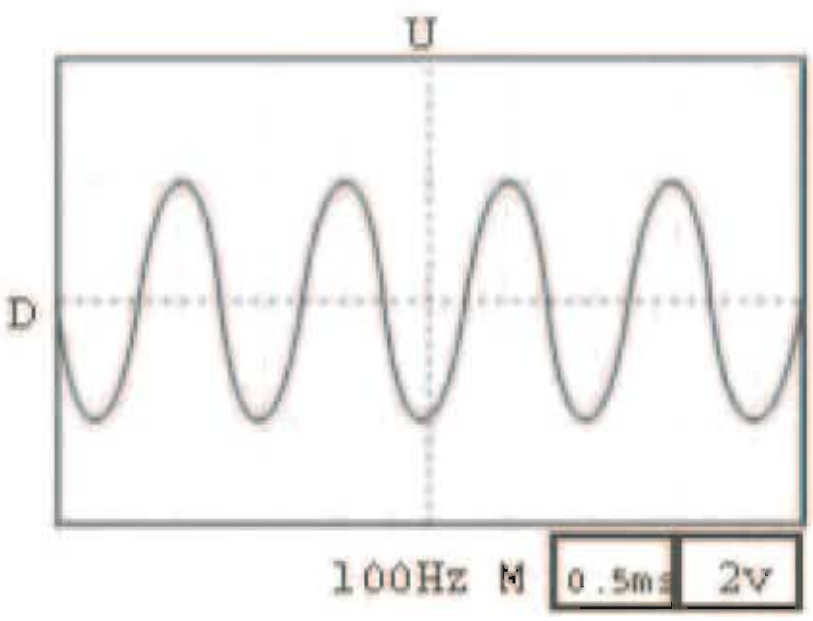
Subwoofer (not magnetically shielded design)	8"
Output Power	150W(2 , DIN)
THD (Total Harmonic Distortion)	10% at 55HZ
Reproduction Frequency Response	37HZ-145HZ
Phase Switch	NO
Input Sensitivity (Subwoofer In)	460mVrms
AC Power	110-127v/220-240v/50-60Hz(For 01)
AC Power	120v-60Hz(For 37)
Power Consumption	70W(at 1/8 Rated Power)
Dimensions(wxhxd)	390Lx359Wx239H
Weight	8.567Kg

MEASUREMENT SETUP



Audio test signal





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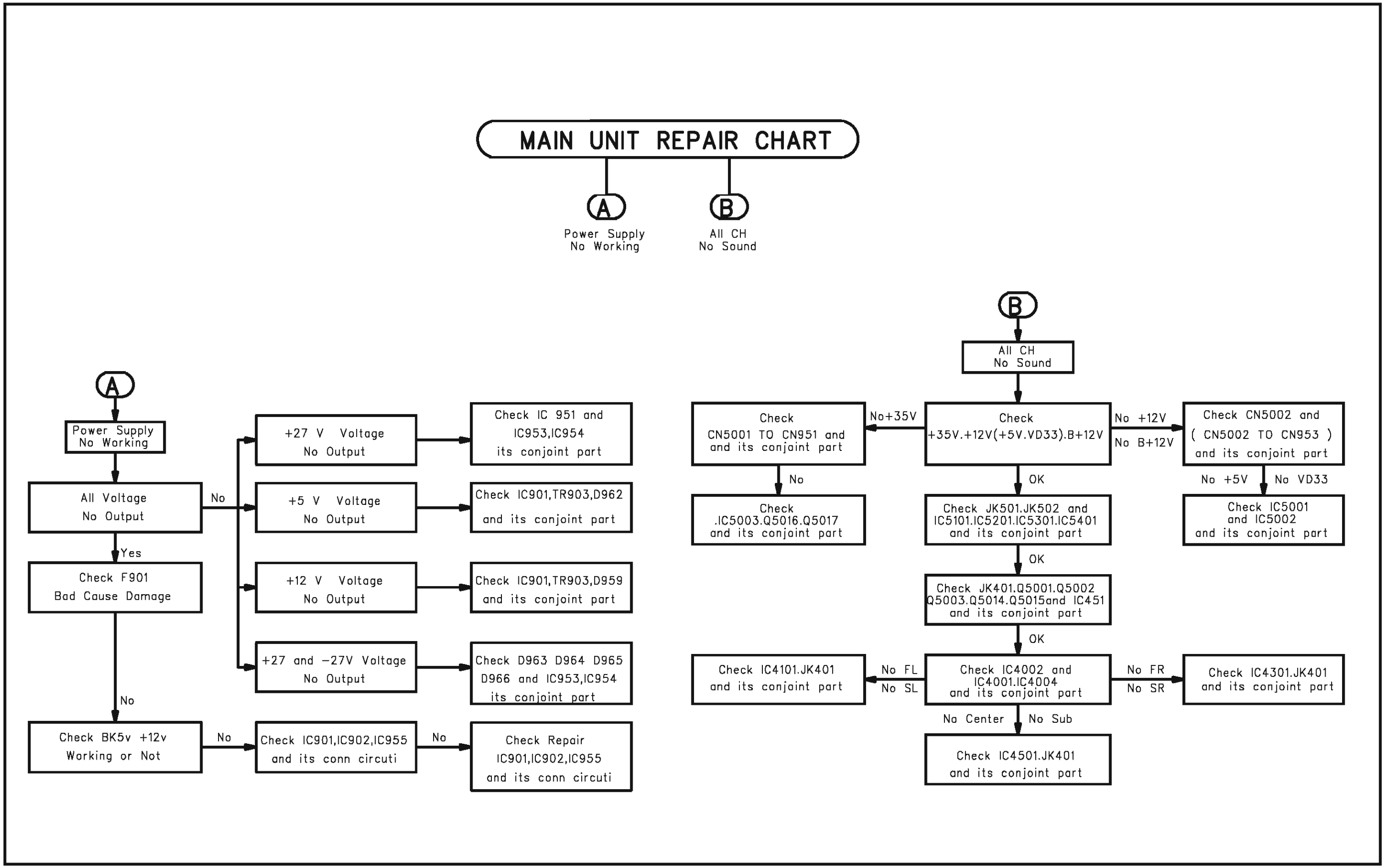

MAIN UNIT REPAIR CHART
A
Power Supply
No Working
B
All CH
No Sound
A
Power Supply
No Working
All Voltage
No Output
No
Yes
Check F901
Bad Cause Damage
No
Check BK5v +12v
Working or Not
No
Check IC901,IC902,IC955
and its conn circuti
No
Check Repair
IC901,IC902,IC955
and its conn circuti
+27 V Voltage
No Output
Check IC 951 and
IC953,IC954
its conjoint part
+5 V Voltage
No Output
Check IC901,TR903,D962
and its conjoint part
+12 V Voltage
No Output
Check IC901,TR903,D959
and its conjoint part
+27 and −27V Voltage
No Output
Check D963 D964 D965
D966 and IC953,IC954
its conjoint part
B
All CH
No Sound
Check
+35V.+12V(+5V.VD33).B+12V
No +12V
No B+12V
Check CN5002 and
(CN5002 TO CN953)
and its conjoint part
No +5V
No VD33
Check IC5001
and IC5002
and its conjoint part
No+35V
Check
CN5001 TO CN951 and
and its conjoint part
No
Check
.IC5003.Q5016.Q5017
and its conjoint part
OK
Check JK501.JK502 and
IC5101.IC5201.IC5301.IC5401
and its conjoint part
OK
Check JK401.Q5001.Q5002
Q5003.Q5014.Q5015and IC451
and its conjoint part
OK
Check IC4002 and
IC4001.IC4004
and its conjoint part
No FL
No SL
Check IC4101.JK401
and its conjoint part
No FR
No SR
Check IC4301.JK401
and its conjoint part
No Center
No Sub
Check IC4501.JK401
and its conjoint part

Notes:

DISASSEMBLYINSTRUCTIONS

Dismantling the Grill Base & Speaker Driver

Dismantling the Amplifer

1. Place the Subwoofer Box as shown in the picture 1 and loosen 8 screws A to remove.
   Caution: Take care the surface when loosing screws.

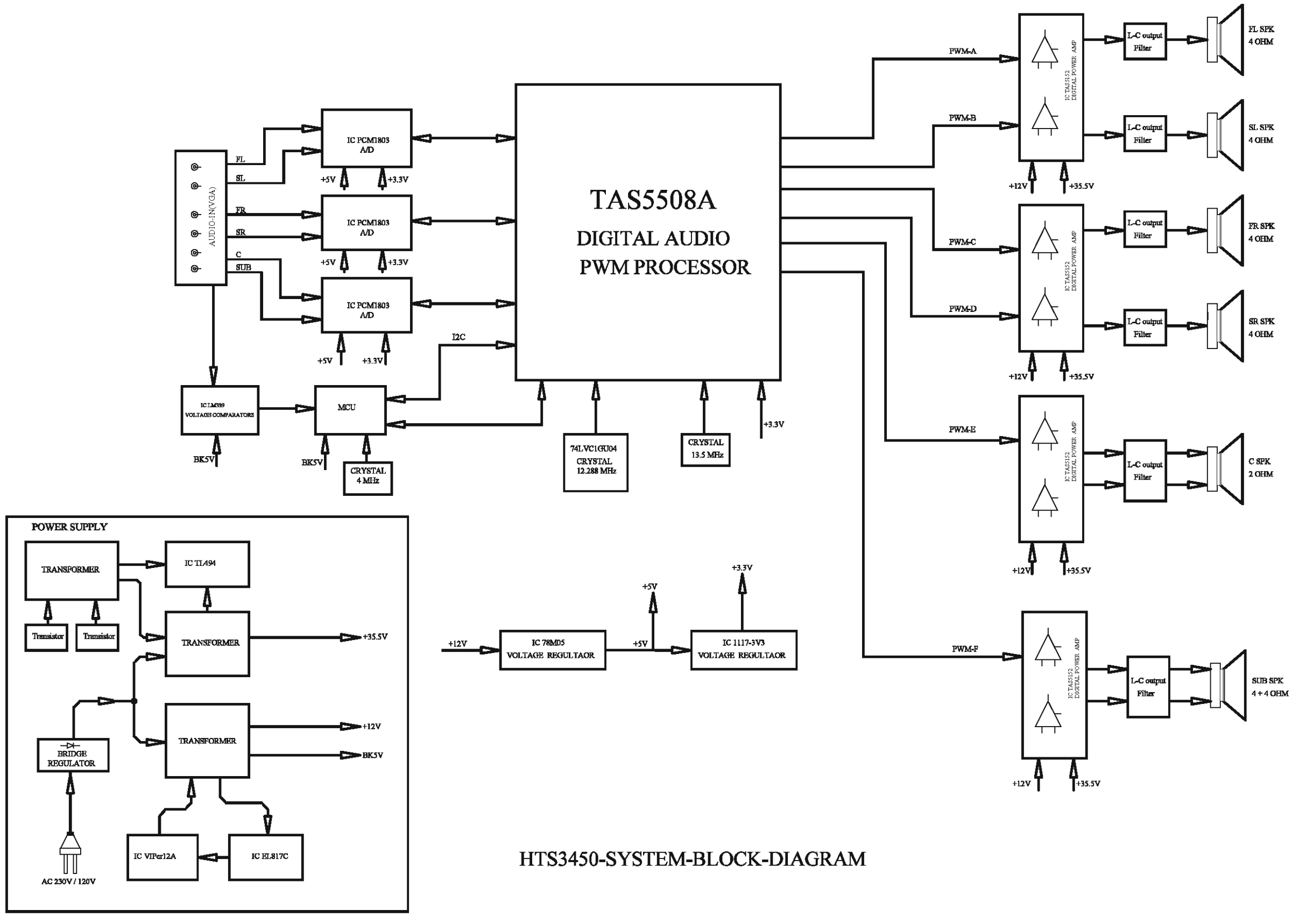
2. Drag the Amplifer out from the box which the wire is all still connected.
   Caution: Do not break the bundle of wires to the front.

3. Place the Subwoofer as shown in the picture 2 and disconnect the item B(which connect with the LEDPCB) from amplifer.
   Caution: Do not break the bundle of wires to the front.

3. Place the Subwoofer as shown in the picture 2 and disconnect the item C(which connect with the Speaker) from amplifer.
   Caution: Do not break the bundle of wires to the front.

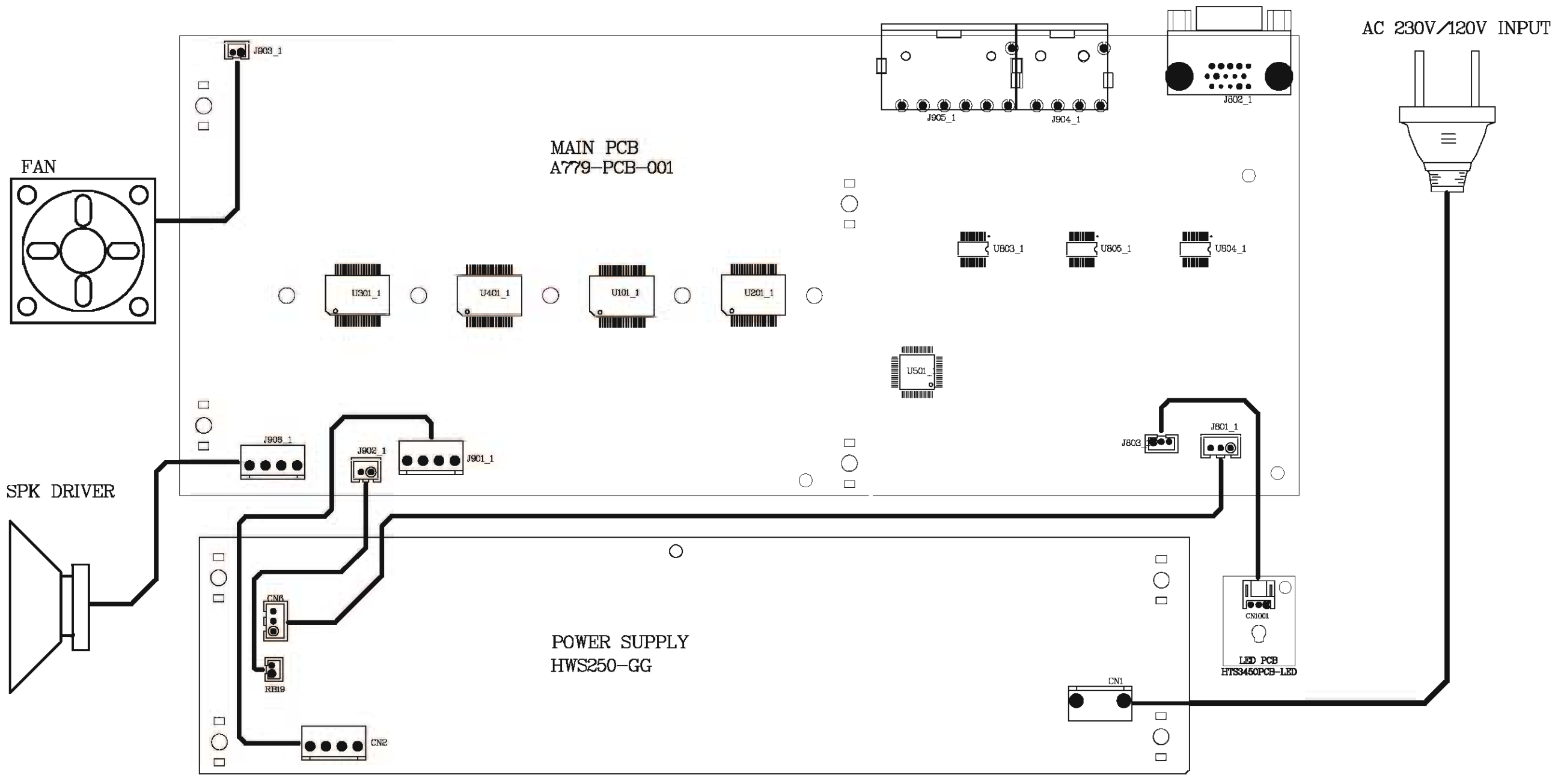
SERVICE POSITION

Block Diagram: Subwoofer

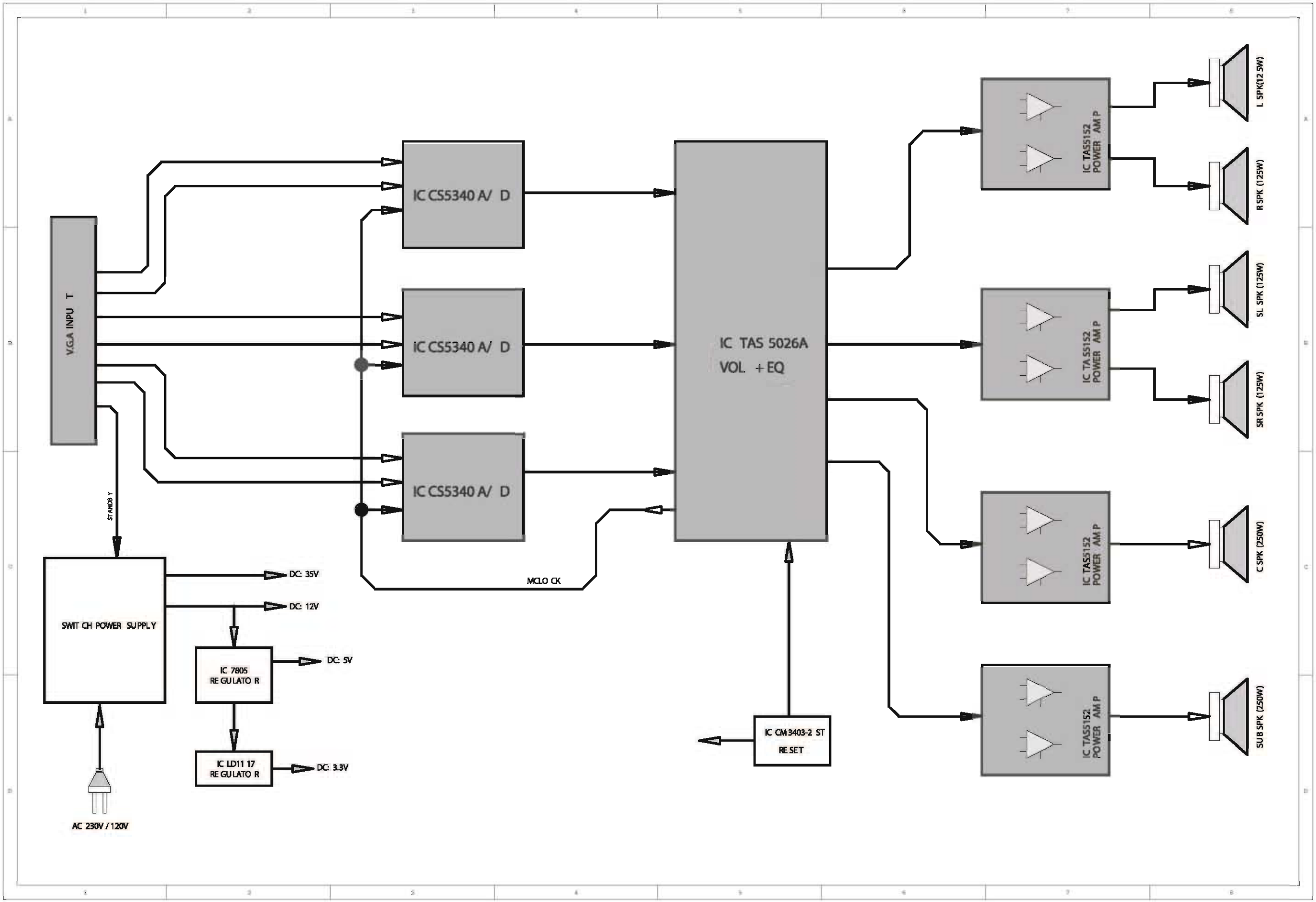


HTS3450-SYSTEM-BLOCK-DIAGRAM

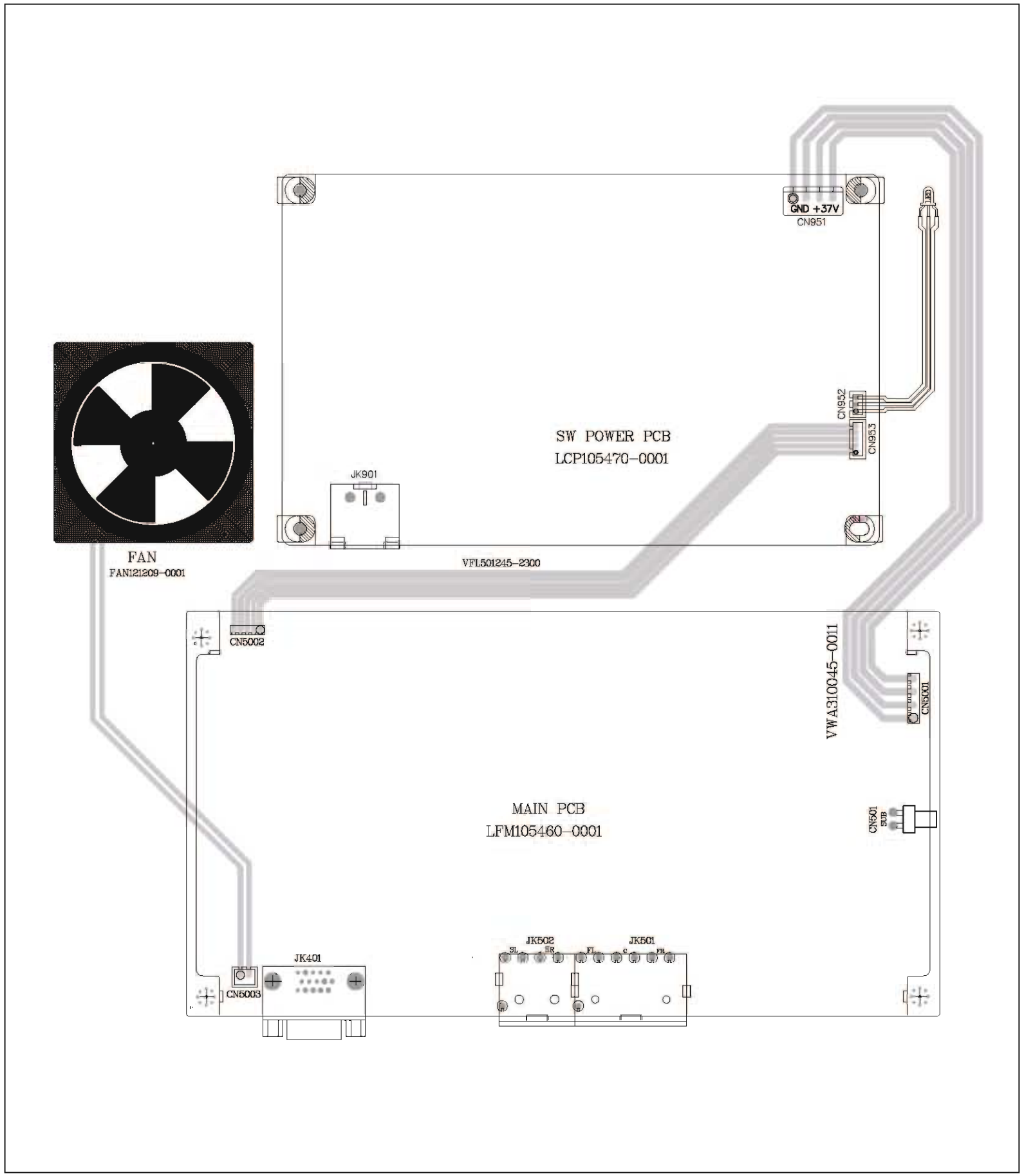
Wiring Diagram: Subwoofer



BLOCK DIAGRAM



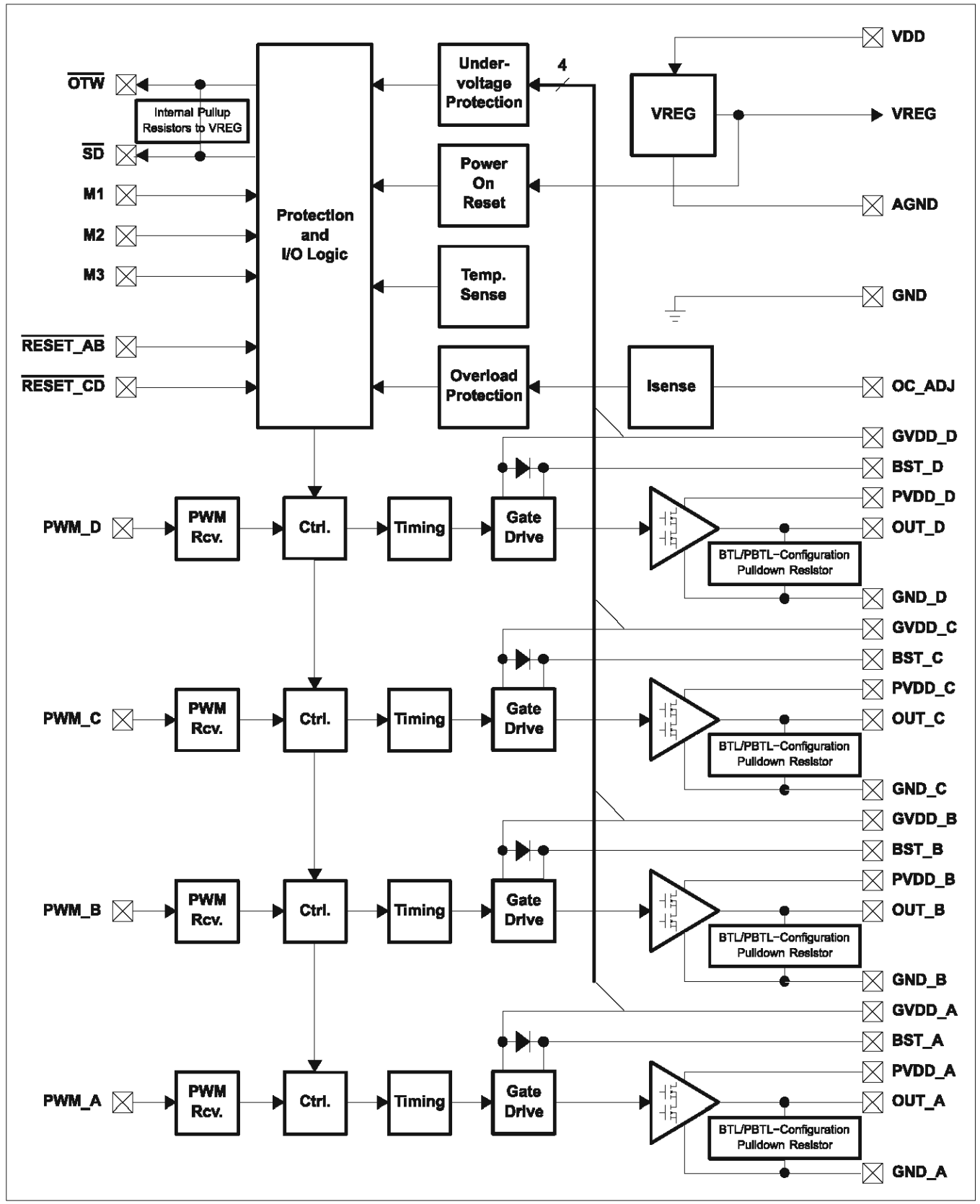
WIRING DIRGRAM



MAIN BOARD

TABLE OF CONTENTS

TAS5152 INTERNAL IC DIAGRAM



PCB VOLTAGE

IC5301(TAS5152DKDR)

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
VOLTAGE	11.3	3	2.1	1.6	3.2	0.5	1.1	0	0	3.2	0	3.2	3.2	0.3	3.2

PIN NO.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
VOLTAGE	0.3	11.36	11.3	11.3	29	36	18.5	0	0	18.5	37	29	29	37	18.4

PIN NO.	31	32	33	34	35	36									
VOLTAGE	0	0	18.4	30.9	29	11.3									

IC5101(TAS5152DKDR)

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
VOLTAGE	11.4	3	2.1	1.5	3.3	0.5	1.1	0	0	3.3	0	3.2	0	0.3	3.2

PIN NO.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
VOLTAGE	0.3	11.35	11.3	11.3	29	36	18.4	0	0	18.5	36.9	29	29	37	18.6

PIN NO.	31	32	33	34	35	36									
VOLTAGE	0	0	18.6	37	29	11.4									

IC5201(TAS5152DKDR)

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
VOLTAGE	11.3	3	2.2	1.4	3.2	0.5	1.1	0	0	3.2	0	3.2	0	0.3	3.2

PIN NO.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
VOLTAGE	0.3	11.36	11.3	11.3	29	36	18.4	0	0	18.4	36.9	29	29	37	18.6

PIN NO.	31	32	33	34	35	36									
VOLTAGE	0	0	18.6	37	29	11.3									

IC5401(TAS5152DKDR)

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
VOLTAGE	11.4	3	7.2	1.4	3.2	0.5	1.1	0	0	3.3	0	3.2	3.2	0.3	3.2

PIN NO.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
VOLTAGE	0.3	11.35	11.3	11.3	29	36	18.5	0	0	18.4	36.9	29	29	37	18.6

PIN NO.	31	32	33	34	35	36									
VOLTAGE	0	0	18.6	37	29	11.3									

IC4101(CS5340-CZ)

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
VOLTAGE	3.9	0	3.3	1.3	0	4.9	1.5	1.6	4	2.4	2.4	2.4	4.9	0	4.9

PIN NO.	16		
VOLTAGE	3.8		

IC4301(CS5340-CZ)

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
VOLTAGE	0	1	3.3	1.2	0	4.9	1.5	1.6	4	2.4	2.4	2.4	4.9	0	0

PIN NO.	16		
VOLTAGE	0		

IC4501(CS5340-CZ)

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
VOLTAGE	3.9	0	3.3	1.3	0	4.8	1.5	1.6	4	2.4	2.5	2.5	4.9	0	4.9

PIN NO.	16		
VOLTAGE	3.8		

IC5003(AZ4558AM-E1)

PIN NO.	1	2	3	4	5	6	7	8
VOLTAGE	12	1.9	4.2	0	1.9	2.7	1.4	12.8

IC4002(SN74LVC2G04DBV)

PIN NO.	1	2	3	4	5	6		
VOLTAGE	1.5	0	1.3	1.5	3.2	1.3		

IC4001(TAS5026APAG)

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
VOLTAGE	3.2	0	3.2	0	0	1.6	1.6	3.2	1.6	1.6	3.2	1.6	1.6	3.2	0

PIN NO.	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
VOLTAGE	0	3.2	0	0	3.2	0	1.6	1.6	3.2	1.6	3.2	1.6	1.6	0	3.2

PIN NO.	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
VOLTAGE	0	0	0	0	0	0	0	0	0	3.1	1.6	1.5	0.6	1.2	1.2

PIN NO.	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
VOLTAGE	1.2	3.1	0	0	0	0	0	3.2	3.2	3.2	2.2	4	1.6	0	0

PIN NO.	61	62	63	64	
VOLTAGE	0	2.2	3.2	0	

IC4004(AZ809NSTR-E1)

PIN NO.	1	2	3
VOLTAGE	0	4.8	4

Q5003(KTC3875-Y)

PIN NO.	1	2	3
VOLTAGE	0	3.2	0

Q5001(2SA812)

PIN NO.	1	2	3
VOLTAGE	3.2	0	0.7

Q5002(2SC1623)

PIN NO.	1	2	3
VOLTAGE	0.5	0.1	0

Q5007(KTC3875-Y)

PIN NO.	1	2	3
VOLTAGE	0.1	11.3	0

Q5021(KTC3875-Y)

PIN NO.	1	2	3
VOLTAGE	1.3	10.1	0.7

Q5014(2SA812)

PIN NO.	1	2	3
VOLTAGE	5.6	0	5.6

Q5005(KTC38755-Y)

PIN NO.	1	2	3
VOLTAGE	0	11.3	0

Q5006(2SA812)

PIN NO.	1	2	3
VOLTAGE	11.3	0	11.3

Q5008(KTC3875-Y)

PIN NO.	1	2	3
VOLTAGE	0	11.3	2.5

Q5004(2SA812)

PIN NO.	1	2	3
VOLTAGE	11.2	0	11.3

Q5009(2SC1623)

PIN NO.	1	2	3
VOLTAGE	0.6	5.5	0

Q5017(KTC38755-Y)

PIN NO.	1	2	3
VOLTAGE	0.6	0	0

Q5011(KTC38755-Y)

PIN NO.	1	2	3
VOLTAGE	0.6	0	0.6

IC5002(AP1117)

PIN NO.	1	2	3
VOLTAGE	0	3.3	5

Q5016(2SA812)

PIN NO.	1	2	3
VOLTAGE	4.1	4.8	4.8

Q5015(KTC38755-Y)

PIN NO.	1	2	3
VOLTAGE	0.2	5.6	0

Q5013(KTC38755-Y)

PIN NO.	1	2	3
VOLTAGE	2.8	11.3	2.3

Q5020(2SA812)

PIN NO.	1	2	3
VOLTAGE	2.9	1.2	0

Q5022(KTC38755-Y)

PIN NO.	1	2	3
VOLTAGE	0.6	0	0

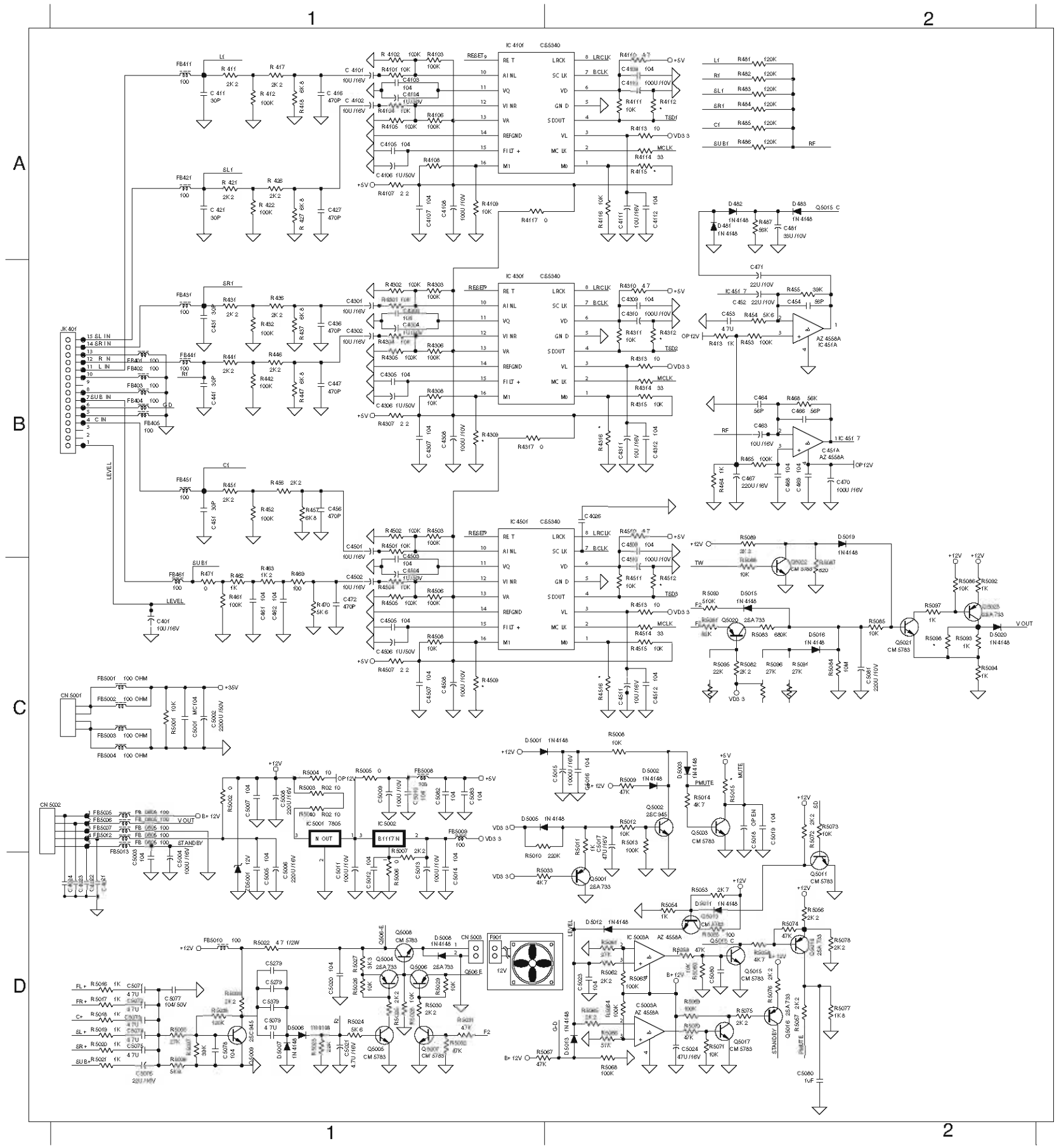
Q5001(2SA812)

PIN NO.	1	2	3
VOLTAGE	7.5	0	5

Q5023(2SA812)

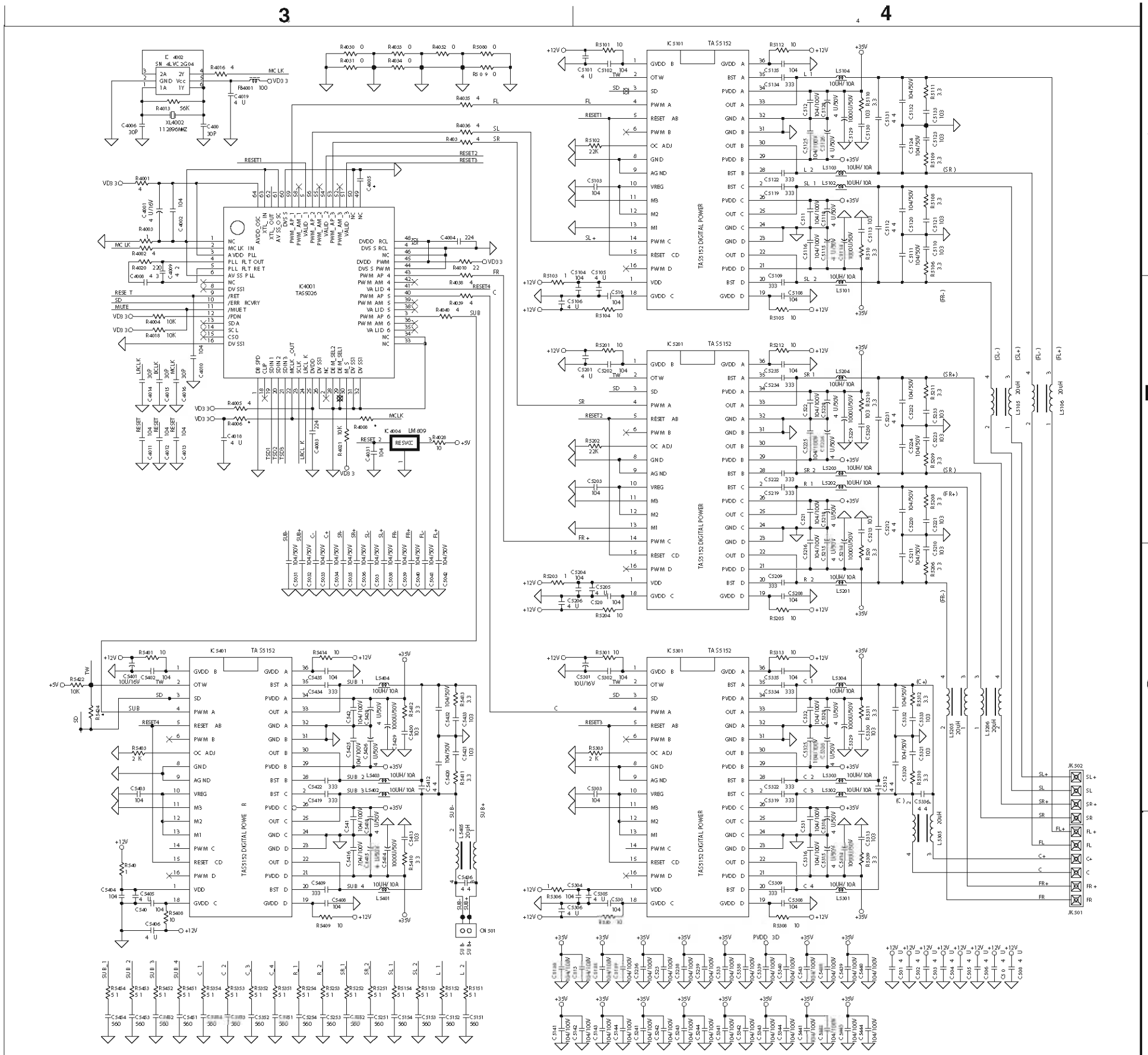
PIN NO.	1	2	3
VOLTAGE	10.1	1.4	10.7

MAIN PCB CIRCUIT DIAGRAM-LEFT



C401	C1	C5008	C1	FB5012	C1	R436	B1	R5030	D1
C4021	C1	C5009	C1	FB5013	C1	R437	B1	R5031	D1
C4022	C1	C5010	C1	FN501	D1	R441	B1	R5032	D1
C4023	C1	C5011	D1	IC3003	D2	R442	B1	R5033	D1
C4024	C1	C5012	D1	IC4101	A1	R446	B1	R5035	D1
C4026	B6	C5013	D1	IC4301	B1	R447	B1	R5036	D1
C4101	A1	C5014	D1	IC4501	B1	R4501	B1	R5037	D1
C4102	A1	C5015	C2	IC451	B2	R4502	B1	R5038	D1
C4103	A1	C5016	C2	IC5001	C1	R4503	B1	R5039	D1
C4104	A1	C5017	C2	IC5002	C1	R4504	C1	R5040	C1
C4105	A1	C5018	C2	IC5003	D2	R4505	C1	R5053	D2
C4106	A1	C5019	C2	JK401	B1	R4506	C1	R5054	D2
C4107	A1	C5020	D1	Q5001	D2	R4507	C1	R5055	D2
C4108	A1	C5021	D1	Q5002	C2	R4508	C1	R5056	D2
C4109	A2	C5023	D2	Q5003	C2	R4509	C1	R5057	D2
C411	A1	C5024	D2	Q5004	D1	R451	B1	R5058	D2
C4110	A2	C5071	D1	Q5005	D1	R4510	B2	R5059	D2
C4111	A2	C5072	D1	Q5006	D1	R4511	C2	R5060	D2
C4112	A2	C5073	D1	Q5007	D1	R4512	C2	R5061	D2
C416	A1	C5074	D1	Q5008	D1	R4513	C2	R5062	D2
C421	A1	C5075	D1	Q5009	D1	R4514	C2	R5063	D2
C427	A1	C5076	D1	Q5011	D2	R4515	C2	R5064	D2
C4301	B1	C5077	D1	Q5013	D2	R4516	C2	R5065	D2
C4302	B1	C5078	D1	Q5014	D2	R452	B1	R5066	D2
C4303	B1	C5079	D1	Q5015	D2	R453	B2	R5067	D2
C4304	B1	C5080	D2	Q5016	D2	R454	B2	R5068	D2
C4305	B1	C5081	C2	Q5017	D2	R455	B2	R5069	D2
C4306	B1	C5082	C1	Q5020	C2	R456	B1	R5070	D2
C4307	B1	C5083	C1	Q5021	C2	R457	B1	R5071	D2
C4308	B1	C5179	D1	Q5022	B2	R461	C1	R5072	C2
C4309	B2	C5279	D1	Q5023	C2	R462	C1	R5073	C2
C431	B1	C5379	D1	R4101	A1	R463	C1	R5074	D2
C4310	B2	CN5001	C1	R4102	A1	R464	B2	R5075	D2
C4311	B2	CN5001	C1	R4103	A1	R465	B2	R5076	D2
C4312	B2	CN5002	C1	R4104	A1	R468	B2	R5077	D2
C436	B1	CN5003	D1	R4105	A1	R469	C1	R5078	D2
C441	B1	D482	A2	R4106	A1	R470	C1	R5080	D2
C447	B1	D483	A2	R4107	A1	R471	C1	R5081	C2
C4501	B1	D5001	C1	R4108	A1	R481	A2	R5082	C2
C4502	C1	D5002	C2	R4109	A1	R482	A2	R5083	C2
C4503	B1	D5003	C2	R411	A1	R483	A2	R5084	C2
C4504	C1	D5005	C1	R4110	A2	R484	A2	R5085	C2
C4505	C1	D5006	D1	R4111	A2	R485	A2	R5086	C2
C4506	C1	D5007	D1	R4113	A2	R486	A2	R5087	B2
C4507	C1	D5008	D1	R4114	A2	R487	A2	R5088	B2
C4508	C1	D5011	D2	R4115	A2	R5001	C1	R5089	B2
C4509	B2	D5012	D2	R4116	A2	R5002	C1	R5090	C2
C451	B1	D5013	D2	R4117	A1	R5003	C1	R5091	C2
C4510	B2	D5015	C2	R412	A1	R5004	C1	R5092	C2
C4511	C2	D5016	C2	R413	B2	R5005	C1	R5093	C2
C4512	C2	D5019	B2	R417	A1	R5006	D1	R5094	C2
C452	B2	D5020	C2	R418	A1	R5007	C1	R5095	C2
C453	B2	F901	D1	R421	A1	R5008	C2	R5096	C2
C454	B2	FB401	B1	R422	A1	R5009	C2	R5097	C2
C456	B1	FB402	B1	R426	A1	R5010	C2	R5098	C2
C461	C1	FB403	B1	R427	A1	R5011	C2	ZD5001	D1
C462	C1	FB404	B1	R4301	B1	R5012	C2		
C463	B2	FB405	B1	R4302	B1	R5013	C2		
C464	B2	FB411	A1	R4303	B1	R5014	C2		
C466	B2	FB421	A1	R4304	B1	R5015	C2		
C467	B2	FB431	B1	R4305	B1	R5016	D1		
C468	B2	FB441	B1	R4306	B1	R5017	D1		
C469	B2	FB451	B1	R4307	B1	R5018	D1		
C470	B2	FB461	C1	R4308	B1	R5019	D1		
C471	A2	FB5001	C1	R4309	B1	R5020	D1		
C472	C1	FB5002	C1	R431	B1	R5021	D1		
C481	A2	FB5003	C1	R4310	B2	R5022	D1		
C5001	C1	FB5004	C1	R4311	B2	R5023	D1		
C5002	C1	FB5005	C1	R4313	B2	R5024	D1		
C5003	D1	FB5006	C1	R4314	B2	R5025	D1		
C5004	D1	FB5007	C1	R4315	B2	R5026	D1		
C5005	D1	FB5008	C1	R4316	B2	R5027	D1		
C5006	D1	FB5009	C1	R4317	B1	R5028	D1		
C5007	C1	FB5010	D1	R432	B1	R5029	D1		

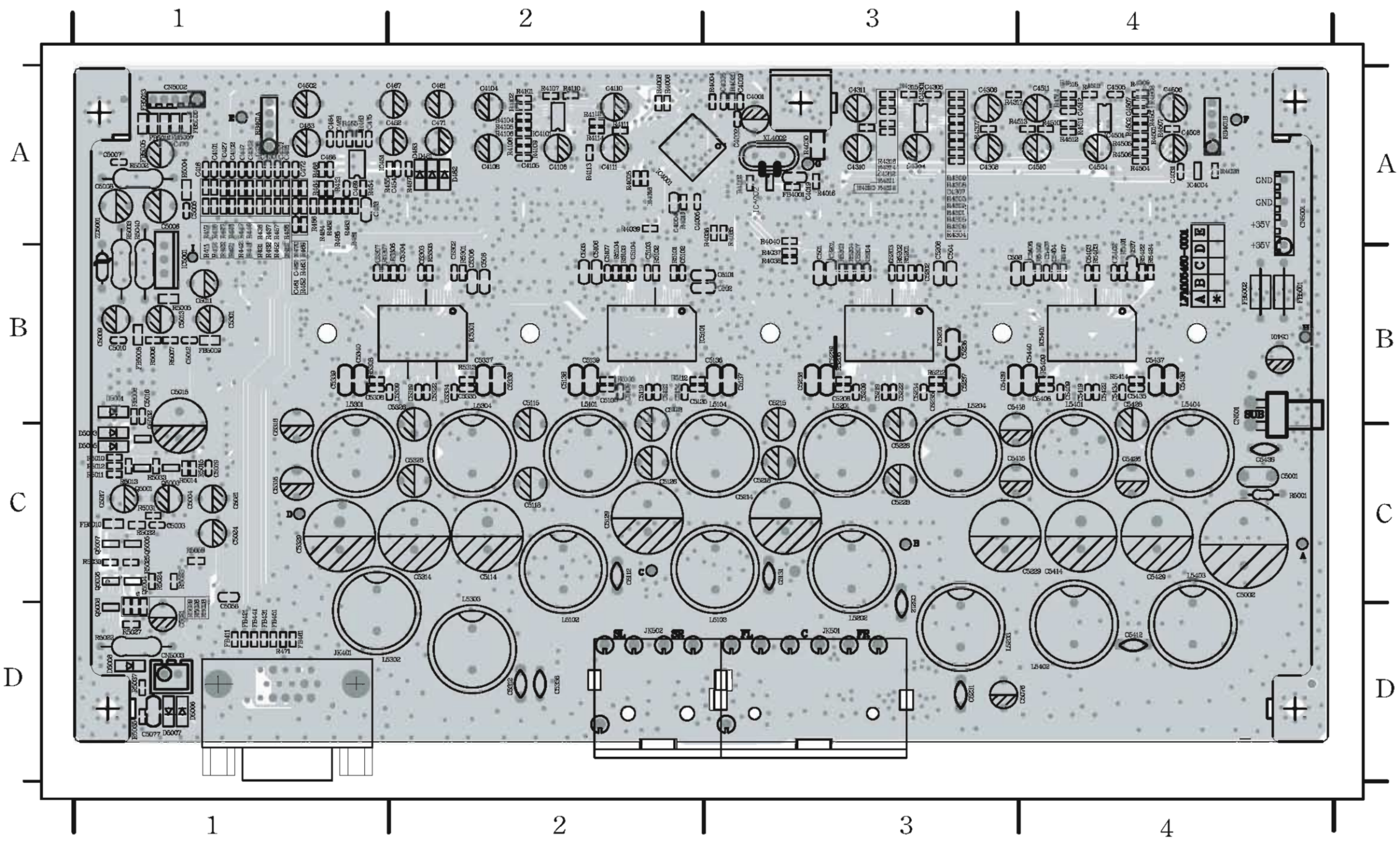
MAIN PCB CIRCUIT DIAGRAM- RIGHT



C1009	A3	C5143	D4	C5333	C4	L5102	A4	R5307	D4
C4001	A3	C5144	D4	C5334	C4	L5103	A4	R5308	D4
C4002	A3	C5151	D3	C5335	C4	L5104	A4	R5309	D4
C4003	B3	C5152	D3	C5336	C4	L5105	B4	R5310	C4
C4004	A3	C5153	D3	C5337	D4	L5106	B4	R5311	C4
C4005	A3	C5154	D3	C5338	D4	L5201	C4	R5312	C4
C4006	A3	C5201	B4	C5339	D4	L5202	B4	R5313	C4
C4007	A3	C5202	B4	C5340	D4	L5203	B4	R5351	D3
C4008	B3	C5203	B4	C5341	D4	L5204	B4	R5352	D3
C4009	A3	C5204	C4	C5342	D4	L5205	C4	R5353	D3
C4010	B3	C5205	C4	C5343	D4	L5206	C4	R5354	D3
C4011	B3	C5206	C4	C5344	D4	L5301	D4	R5401	C3
C4012	B3	C5207	C4	C5351	D3	L5302	C4	R5403	C3
C4013	B3	C5208	C4	C5352	D3	L5303	C4	R5407	D3
C4014	B3	C5209	C4	C5353	D3	L5304	C4	R5408	D3
C4015	B3	C5210	C4	C5354	D3	L5305	D4	R5409	D3
C4016	B3	C5211	C4	C5401	C3	L5401	D3	R5410	D3
C4018	B3	C5212	B4	C5401	D3	L5402	D3	R5411	C3
C4019	A3	C5213	B4	C5402	C3	L5403	C3	R5412	C3
C4031	B3	C5214	C4	C5402	C3	R4001	A3	R5413	C3
C501	D4	C5215	C4	C5403	C3	R4002	A3	R5414	C3
C502	D4	C5216	C4	C5403	C3	R4003	A3	R5422	C3
C503	D4	C5217	B4	C5404	C3	R4004	B3	R5424	C3
C5031	C3	C5218	B4	C5404	D3	R4005	B3	R5451	D3
C5032	C3	C5219	B4	C5405	D3	R4006	B3	R5452	D3
C5033	C3	C5220	B4	C5405	D3	R4008	B3	R5453	D3
C5034	C3	C5221	B4	C5406	D3	R4010	A3	R5454	D3
C5035	C3	C5222	B4	C5407	D3	R4013	A3	XL4002	A3
C5036	C3	C5223	B4	C5408	D3	R4016	A3		
C5037	C3	C5224	B4	C5408	D3	R4018	B3		
C5038	C3	C5225	B4	C5409	D3	R4020	A3		
C5039	C3	C5226	B4	C5412	C3	R4021	B3		
C504	D4	C5227	B4	C5413	D3	R4028	B3		
C5040	C3	C5228	B4	C5414	D3	R4030	A3		
C5041	C3	C5229	B4	C5415	D3	R4031	A3		
C5042	C3	C5230	B4	C5416	D3	R4032	A3		
C505	D4	C5231	B4	C5417	D3	R4033	A3		
C506	D4	C5232	B4	C5418	D3	R4034	A3		
C507	D4	C5233	B4	C5419	C3	R4035	A3		
C508	D4	C5234	B4	C5420	C3	R4036	A3		
C5101	A4	C5235	B4	C5421	C3	R4037	A3		
C5102	A4	C5236	D4	C5422	C3	R4038	B3		
C5103	A4	C5237	D4	C5425	C3	R4039	B3		
C5104	A4	C5238	D4	C5426	C3	R4040	B3		
C5105	A4	C5239	D4	C5427	C3	R5079	A3		
C5106	B4	C5241	D4	C5428	C3	R5080	A3		
C5107	B4	C5242	D4	C5429	C3	R5101	A4		
C5108	B4	C5243	D4	C5430	C3	R5102	A4		
C5109	A4	C5244	D4	C5432	C3	R5103	B3		
C5110	A4	C5251	D3	C5433	C3	R5104	B4		
C5111	A4	C5252	D3	C5434	C3	R5105	B4		
C5112	A4	C5253	D3	C5435	C3	R5106	A4		
C5113	A4	C5254	D3	C5436	D3	R5107	A4		
C5114	A4	C5301	C4	C5437	D4	R5109	A4		
C5115	A4	C5302	C4	C5438	D4	R5110	A4		
C5116	A4	C5303	C4	C5439	D4	R5111	A4		
C5117	A4	C5304	D3	C5440	D4	R5112	A4		
C5118	A4	C5305	D4	C5441	D4	R5151	D3		
C5119	A4	C5306	D4	C5442	D4	R5152	D3		
C5120	A4	C5307	D4	C5443	D4	R5153	D3		
C5121	A4	C5308	D4	C5444	D4	R5154	D3		
C5122	A4	C5309	D4	C5451	D3	R5201	B4		
C5123	A4	C5312	C4	C5452	D3	R5202	B4		
C5124	A4	C5312	C4	C5453	D3	R5202	C3		
C5125	A4	C5313	D4	C5454	D3	R5203	C4		
C5126	A4	C5314	D4	C5806	D3	R5204	C4		
C5127	A4	C5315	D4	CN501	D3	R5205	C4		
C5128	A4	C5316	D4	FB4001	A3	R5206	C4		
C5129	A4	C5317	D4	IC4001	B3	R5207	C4		
C5130	A4	C5318	D4	IC4002	A3	R5208	B4		
C5131	A4	C5319	C4	IC4004	B3	R5209	B4		
C5132	A4	C5320	C4	IC4006	A3	R5210	B4		
C5133	A4	C5321	C4	IC4007	A3	R5211	B4		
C5134	A4	C5322	C4	IC4013	A3	R5212	B4		
C5135	A4	C5325	C4	IC5101	A4	R5251	D3		
C5136	D3	C5326	C4	IC5201	B4	R5252	D3		
C5137	D3	C5327	C4	IC5301	C4	R5253	D3		
C5138	D4	C5328	C4	IC5401	C3	R5254	D3		
C5139	D4	C5329	C4	JK501	D4	R5301	C4		
C5141	D3	C5330	C4	JK502	C4	R5303	C4		
C5142	D3	C5332	C4	L5101	B4	R5306	D3		

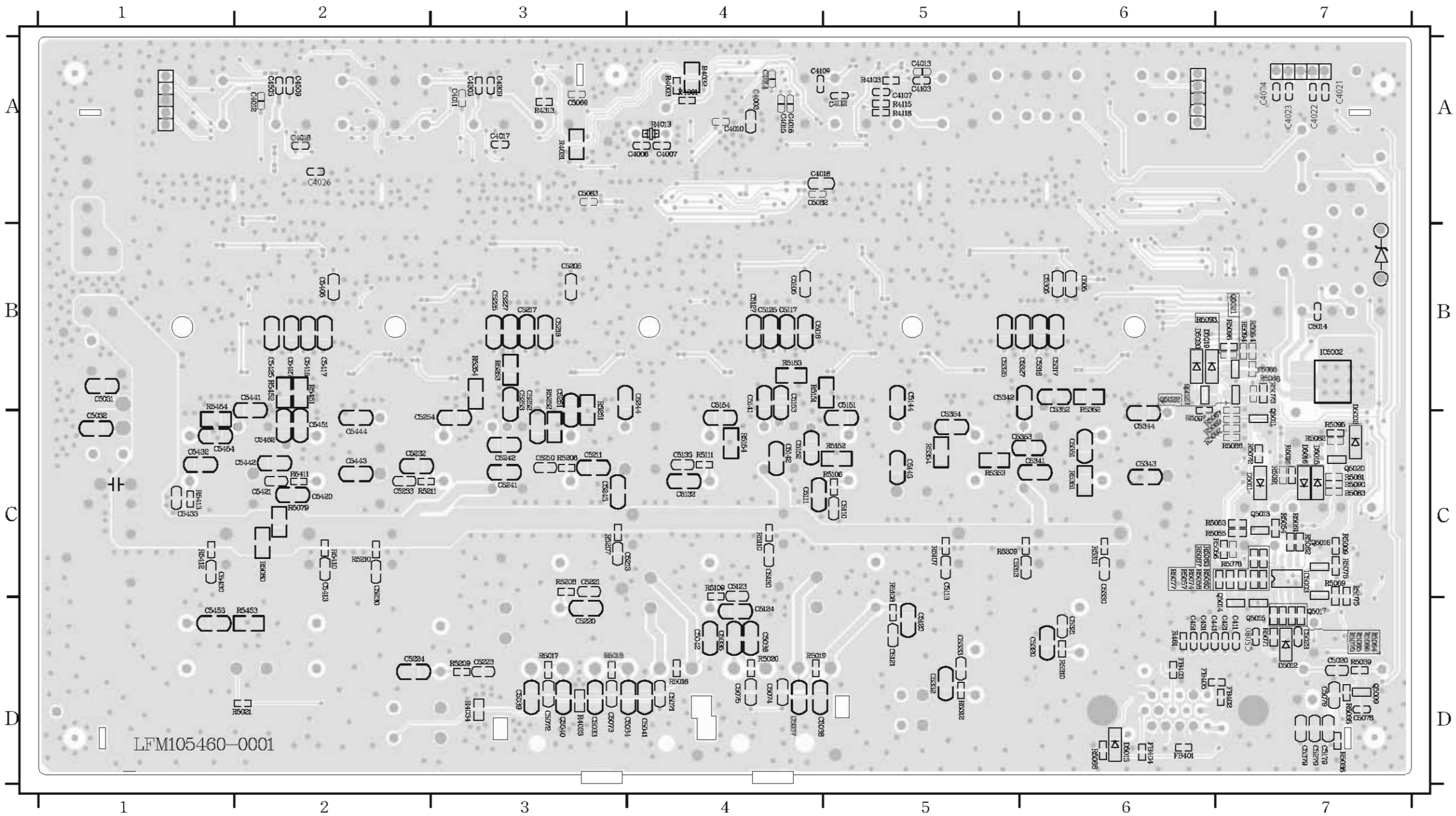
MAIN PCB TOP LAYOUT VIEW

C4003	A4	C4109	A4	C5037	D4	C5111	C4	C5154	C4	C5243	C3	C5343	C6	C5442	C2	FB404	D6	R4033	D3	R5055	C7	R5075	C7	R5095	C7	R5251	B3
C4006	A4	C411	D7	C5038	D4	C5113	D5	C5179	D7	C5244	B3	C5344	C6	C5443	C2	FB405	D6	R4034	D3	R5056	C7	R5076	C7	R5096	C7	R5252	B3
C4007	A4	C4112	A5	C5039	D3	C5116	B4	C5205	B3	C5251	B3	C5351	C6	C5444	C2	IC5002	B7	R4103	A5	R5057	C6	R5077	C6	R5097	C6	R5253	B3
C4010	A4	C421	D7	C5040	D3	C5117	B4	C5210	C3	C5252	B3	C5352	B6	C5451	C2	IC5003	C7	R4115	A5	R5058	C6	R5078	C7	R5098	B7	R5254	B3
C4011	A3	C4303	A3	C5041	D4	C5120	D5	C5211	C3	C5253	B3	C5353	C6	C5452	C1	Q5009	D7	R4116	A5	R5060	C6	R5079	C2	R5106	C5	R5309	C6
C4012	A2	C4309	A3	C5042	D4	C5121	D5	C5213	C3	C5254	C3	C5354	C5	C5452	C2	Q5011	B7	R4313	A3	R5061	C7	R5080	C2	R5107	C5	R5310	D6
C4013	A5	C431	D6	C505	B6	C5123	D4	C5216	B3	C5279	D7	C5363	C6	C5453	D1	Q5013	C7	R461	D6	R5062	C7	R5081	C7	R5108	C5	R5311	C6
C4014	A4	C441	D7	C5069	A3	C5124	D4	C5217	B3	C5305	B6	C5379	D7	C5454	C1	Q5014	C7	R5009	C7	R5063	C6	R5082	C7	R5109	D4	R5312	D5
C4015	A4	C4503	A2	C5071	D4	C5125	B4	C5218	B3	C5312	D6	C5405	B2	C5918	B6	Q5015	D7	R5016	D4	R5064	D7	R5083	C7	R5110	C4	R5351	C6
C4016	A4	C4509	A2	C5072	D3	C5127	B4	C5220	D3	C5313	C6	C5413	C2	D5002	B7	Q5016	C7	R5017	D3	R5065	D7	R5084	B7	R5111	C4	R5352	B6
C4017	A3	C451	D6	C5073	D3	C5130	C4	C5221	C3	C5316	B6	C5416	B2	D5011	C7	Q5017	D7	R5018	D3	R5066	D7	R5085	B7	R5151	B4	R5353	C5
C4018	A2	C5014	B7	C5074	D4	C5132	C4	C5223	D3	C5317	B6	C5417	B2	D5012	D7	Q5020	C7	R5018	D3	R5067	C6	R5086	C7	R5152	C5	R5354	C5
C4018	A4	C5020	D7	C5075	D4	C5133	C4	C5224	D2	C5320	D6	C5420	C2	D5013	D6	Q5021	B7	R5019	D4	R5068	D6	R5087	C7	R5153	B4	R5410	C2
C4021	A7	C5023	D7	C5078	D7	C5141	B4	C5225	B3	C5325	B5	C5421	C2	D5015	C7	Q5022	B6	R5020	D4	R5068	C7	R5088	B7	R5154	C4	R5411	C2
C4022	A7	C5031	B1	C5079	D7	C5142	C4	C5227	B3	C5327	B6	C5425	B2	D5016	C7	Q5023	B6	R5021	D2	R5069	C7	R5089	C7	R5206	C3	R5412	C1
C4023	A7	C5032	C1	C5080	D7	C5143	C5	C5230	C2	C5330	C6	C5427	B2	D5019	B6	R4001	A4	R5036	D7	R5070	D7	R5090	C7	R5207	C3	R5413	C1
C4024	A7	C5033	D3	C5082	A4	C5144	B5	C5232	C2	C5332	D5	C5430	C1	D5020	B6	R4003	A4	R5038	D7	R5071	D7	R5091	C7	R5208	C3	R5451	B2
C4026	A2	C5034	D3	C5083	A3	C5151	B5	C5233	C2	C5333	D5	C5432	C1	FB401	D6	R4013	A4	R5039	D7	R5072	C7	R5092	C7	R5209	D3	R5452	B2
C4103	A5	C5035	D4	C5105	B4	C5152	C4	C5241	C3	C5341	C6	C5433	C1	FB402	D7	R4031	A3	R5053	C7	R5073	B7	R5093	B6	R5210	C2	R5453	D2
C4107	A5	C5036	D4	C5110	C5	C5153	B4	C5242	C3	C5342	B5	C5441	B2	FB403	D6	R4032	A4	R5054	C7	R5074	C6	R5094	B7	R5211	C2	R5454	C1



MAIN PCB BOTTOM LAYOUT VIEW

C4003	A4	C4109	A4	C5037	D4	C5111	C4	C5154	C4	C5243	C3	C5343	C6	C5442	C2	FB404	D6	R4033	D3	R5055	C7	R5075	C7	R5095	C7	R5251	B3
C4006	A4	C411	D7	C5038	D4	C5113	D5	C5179	D7	C5244	B3	C5344	C6	C5443	C2	FB405	D6	R4034	D3	R5056	C7	R5076	C7	R5096	C7	R5252	B3
C4007	A4	C4112	A5	C5039	D3	C5116	B4	C5205	B3	C5251	B3	C5351	C6	C5444	C2	IC5002	B7	R4103	A5	R5057	C6	R5077	C6	R5097	C6	R5253	B3
C4010	A4	C421	D7	C5040	D3	C5117	B4	C5210	C3	C5252	B3	C5352	B6	C5451	C2	IC5003	C7	R4115	A5	R5058	C6	R5078	C7	R5098	B7	R5254	B3
C4011	A3	C4303	A3	C5041	D4	C5120	D5	C5211	C3	C5253	B3	C5353	C6	C5452	C1	Q5009	D7	R4116	A5	R5060	C6	R5079	C2	R5106	C5	R5309	C6
C4012	A2	C4309	A3	C5042	D4	C5121	D5	C5213	C3	C5254	C3	C5354	C5	C5452	C2	Q5011	B7	R4313	A3	R5061	C7	R5080	C2	R5107	C5	R5310	D6
C4013	A5	C431	D6	C505	B6	C5123	D4	C5216	B3	C5279	D7	C5363	C6	C5453	D1	Q5013	C7	R461	D6	R5062	C7	R5081	C7	R5108	C5	R5311	C6
C4014	A4	C441	D7	C5069	A3	C5124	D4	C5217	B3	C5305	B6	C5379	D7	C5454	C1	Q5014	C7	R5009	C7	R5063	C6	R5082	C7	R5109	D4	R5312	D5
C4015	A4	C4503	A2	C5071	D4	C5125	B4	C5218	B3	C5312	D6	C5405	B2	C5918	B6	Q5015	D7	R5016	D4	R5064	D7	R5083	C7	R5110	C4	R5351	C6
C4016	A4	C4509	A2	C5072	D3	C5127	B4	C5220	D3	C5313	C6	C5413	C2	D5002	B7	Q5016	C7	R5017	D3	R5065	D7	R5084	B7	R5111	C4	R5352	B6
C4017	A3	C451	D6	C5073	D3	C5130	C4	C5221	C3	C5316	B6	C5416	B2	D5011	C7	Q5017	D7	R5018	D3	R5066	D7	R5085	B7	R5151	B4	R5353	C5
C4018	A2	C5014	B7	C5074	D4	C5132	C4	C5223	D3	C5317	B6	C5417	B2	D5012	D7	Q5020	C7	R5018	D3	R5067	C6	R5086	C7	R5152	C5	R5354	C5
C4018	A4	C5020	D7	C5075	D4	C5133	C4	C5224	D2	C5320	D6	C5420	C2	D5013	D6	Q5021	B7	R5019	D4	R5068	D6	R5087	C7	R5153	B4	R5410	C2
C4021	A7	C5023	D7	C5078	D7	C5141	B4	C5225	B3	C5325	B5	C5421	C2	D5015	C7	Q5022	B6	R5020	D4	R5068	C7	R5088	B7	R5154	C4	R5411	C2
C4022	A7	C5031	B1	C5079	D7	C5142	C4	C5227	B3	C5327	B6	C5425	B2	D5016	C7	Q5023	B6	R5021	D2	R5069	C7	R5089	C7	R5206	C3	R5412	C1
C4023	A7	C5032	C1	C5080	D7	C5143	C5	C5230	C2	C5330	C6	C5427	B2	D5019	B6	R4001	A4	R5036	D7	R5070	D7	R5090	C7	R5207	C3	R5413	C1
C4024	A7	C5033	D3	C5082	A4	C5144	B5	C5232	C2	C5332	D5	C5430	C1	D5020	B6	R4003	A4	R5038	D7	R5071	D7	R5091	C7	R5208	C3	R5451	B2
C4026	A2	C5034	D3	C5083	A3	C5151	B5	C5233	C2	C5333	D5	C5432	C1	FB401	D6	R4013	A4	R5039	D7	R5072	C7	R5092	C7	R5209	D3	R5452	B2
C4103	A5	C5035	D4	C5105	B4	C5152	C4	C5241	C3	C5341	C6	C5433	C1	FB402	D7	R4031	A3	R5053	C7	R5073	B7	R5093	B6	R5210	C2	R5453	D2
C4107	A5	C5036	D4	C5110	C5	C5153	B4	C5242	C3	C5342	B5	C5441	B2	FB403	D6	R4032	A4	R5054	C7	R5074	C6	R5094	B7	R5211	C2	R5454	C1



POWER BOARD

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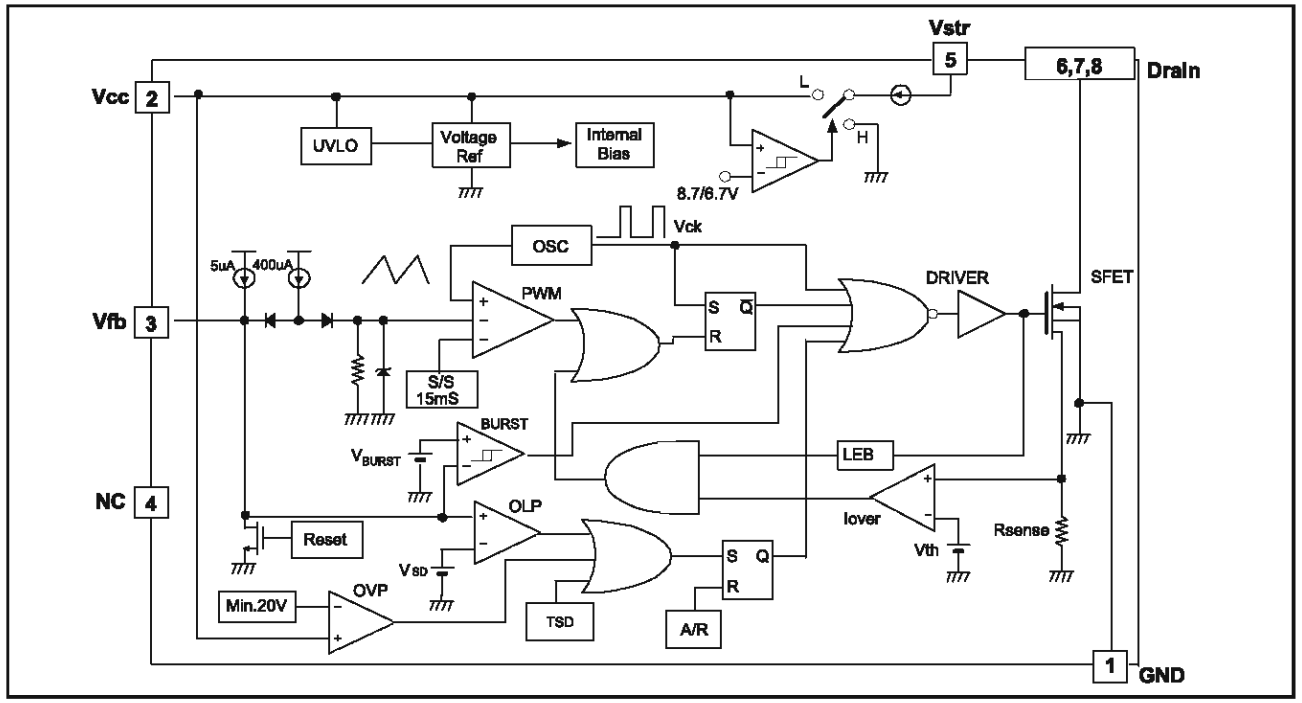
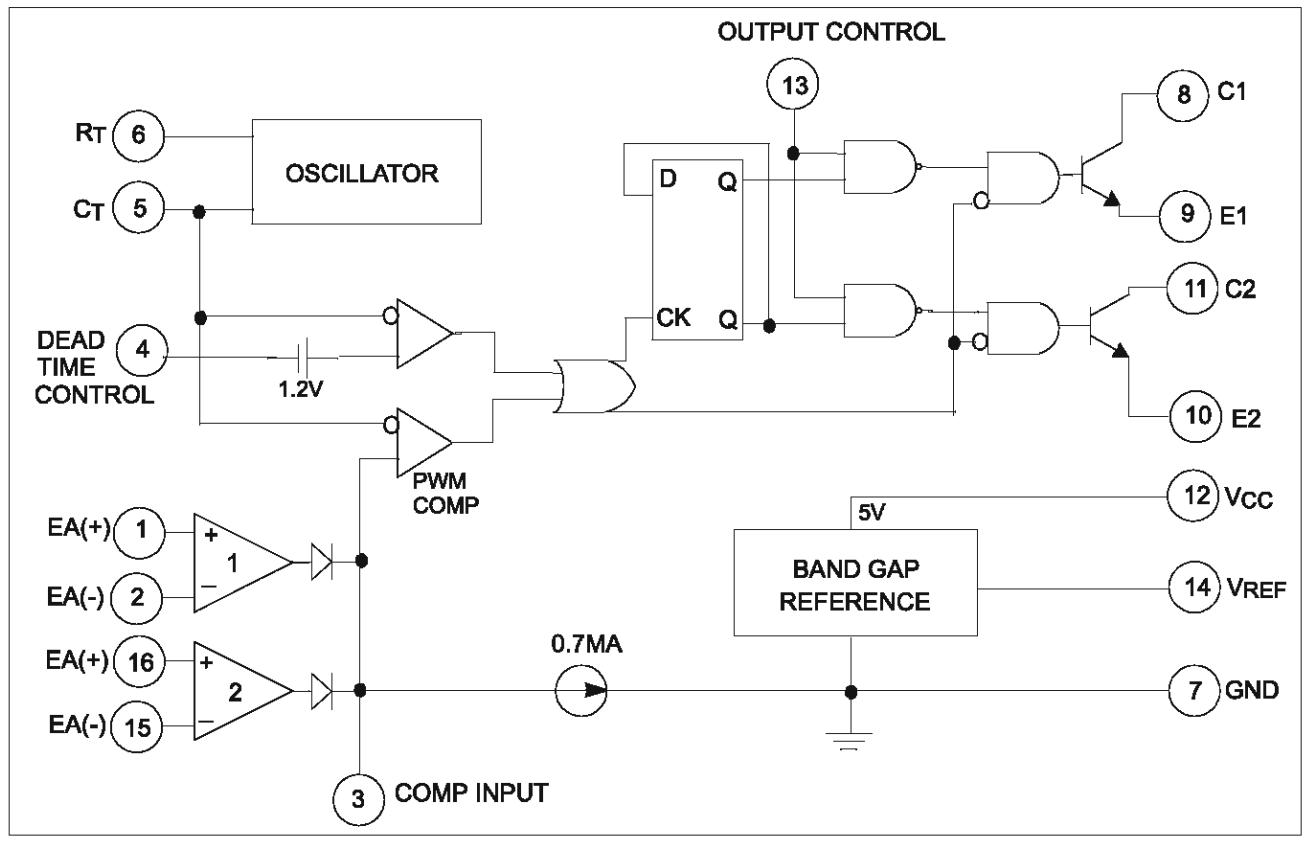
FSDM311 INTERNAL IC DIAGRAM



KA7500C INTERNAL IC DIAGRAM



PCB VOLTAGE

IC951(KA7500C)

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
VOLTAGE	5	4.9	3	0.6	1.5	3.4	0	12	1.1	1.1	12	12	4.9	5	4.9	0

IC953(NJM45008)

PIN NO.	1	2	3	4	5	6	7	8
VOLTAGE	1.3	4.9	0.7	0	1.1	1.2	1.2	12.2

IC901(OPTICAL SENSOR 4P)

PIN NO.	1	2	3	4
VOLTAGE	12.4	11.4	0	0

Q959(2SC945P)

PIN NO.	1	2	3
VOLTAGE	0.7	0	0

Q960(2SC945P)

PIN NO.	1	2	3
VOLTAGE	0.7	0	0

Q956(2SA952)

PIN NO.	1	2	3
VOLTAGE	12	12.6	12.8

Q951(2SB772 P/Q)

PIN NO.	1	2	3
VOLTAGE	0.7	0	0.7

IC952(AZ431AZ-A)

PIN NO.	1	2	3
VOLTAGE	2.4	0	11.4

Q952(2SB772P/Q)

PIN NO.	1	2	3
VOLTAGE	0.7	0	0.7

IC902(FSDM331) only for 37

PIN NO.	1	2	3	4	5	6	7	8
VOLTAGE	0	12	0.7	0.1	296	323	323	323

Q960(2SC945P)

PIN NO.	1	2	3
VOLTAGE	0	37	0

Q902(FQP12N60C) only for 37

PIN NO.	1	2	3
VOLTAGE	0	163	0

Q901(FQP12N60C) only for 37

PIN NO.	1	2	3
VOLTAGE	161	320	162

IC902(FSDM311) only for 01

PIN NO.	1	2	3	4	5	6	7	8
VOLTAGE	0	11.5	0.7	0.1	267	286	286	286

Q901(FQP12N60C) only for 01

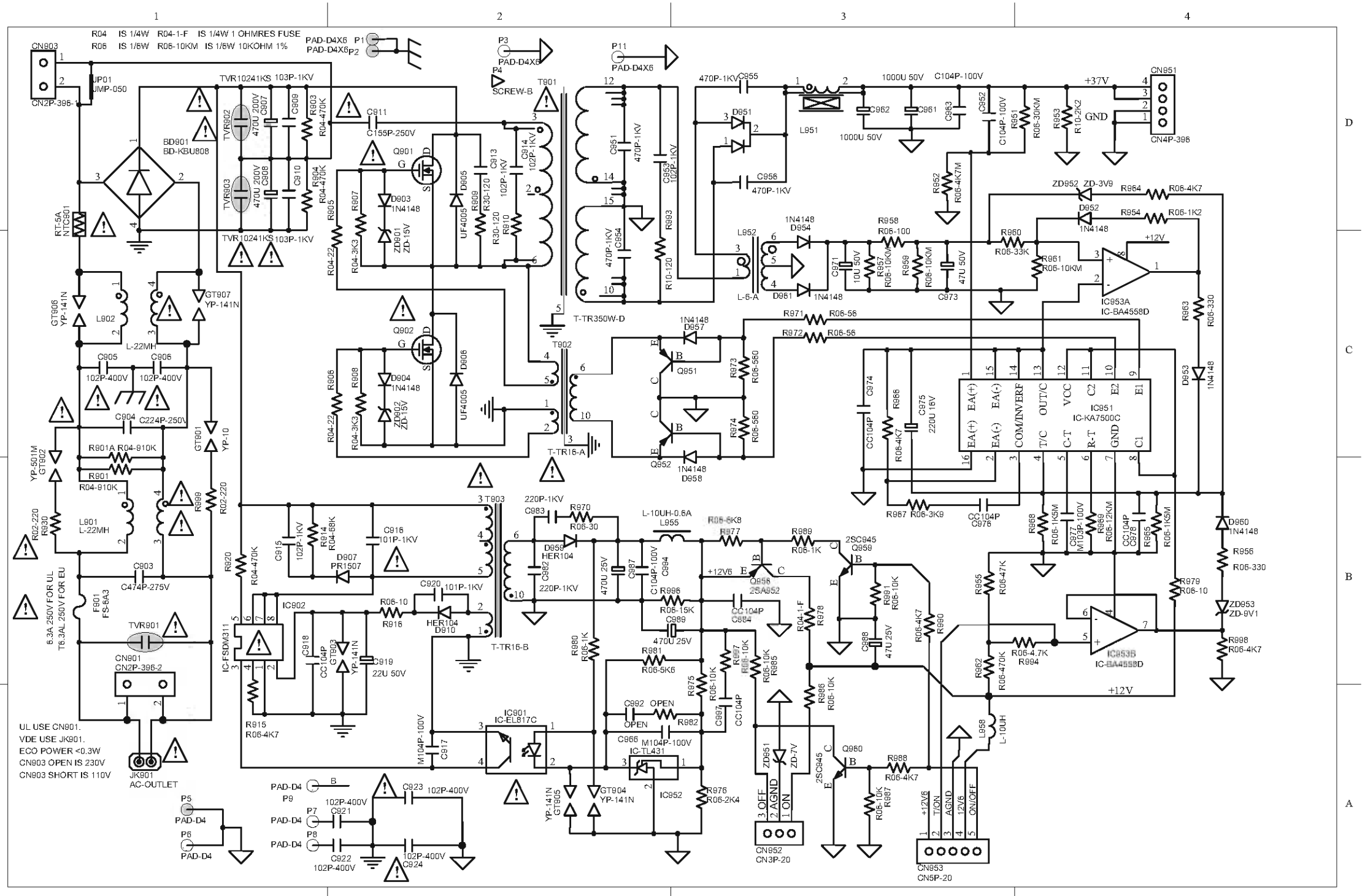
PIN NO.	1	2	3
VOLTAGE	142	287	144

Q902((FQP12N60C) only for 01

PIN NO.	1	2	3
VOLTAGE	0	144	0

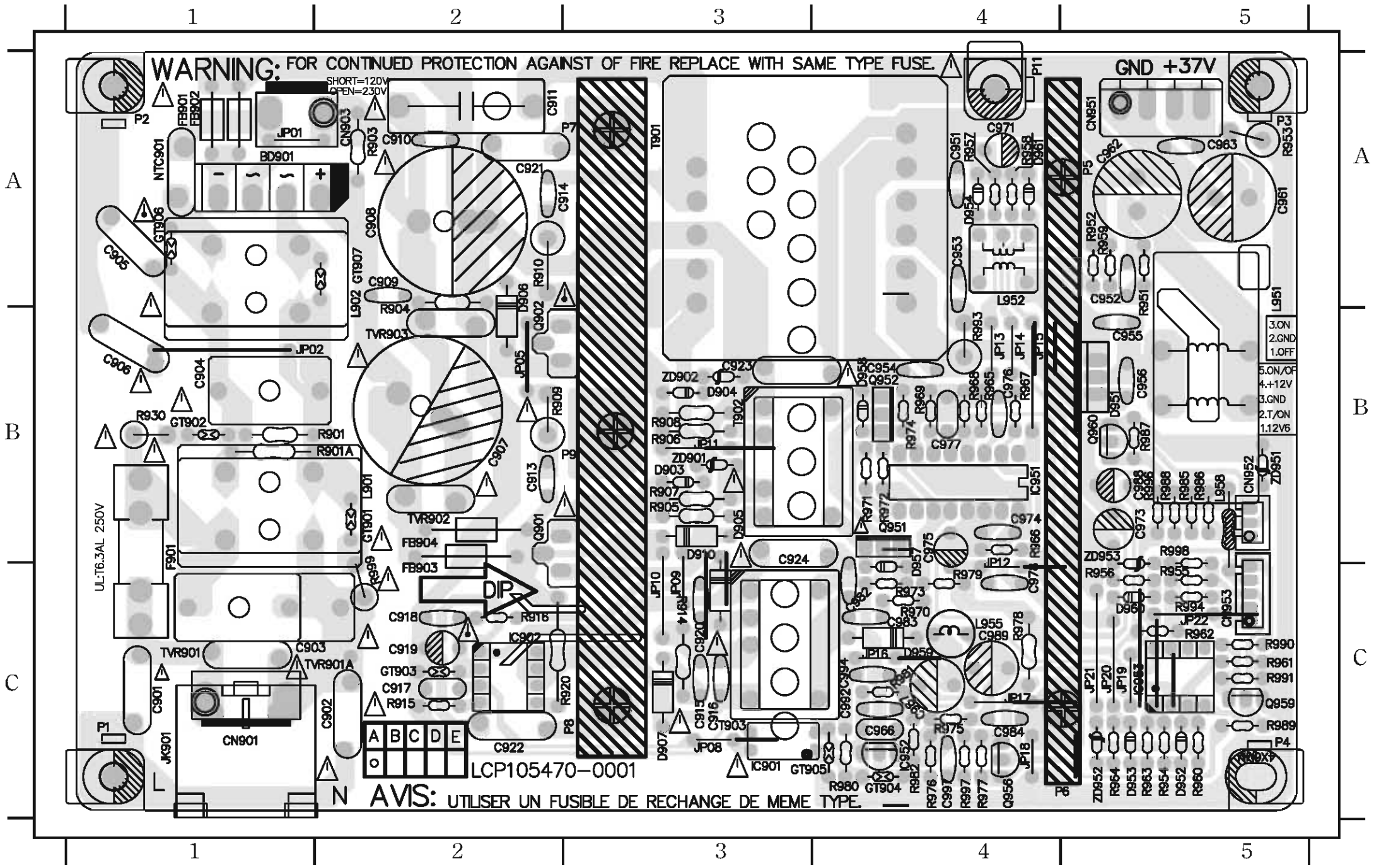
CIRCUIT DIAGRAM - POWER PCB

BD901	A1	C914	A2	C952	A5	C974	B4	C994	C4	D910	B3	FB902	A1	IC951	B4	JP14	B4	L952	A4	Q902	B2	R907	B3	R953	B4	R965	B4	R978	C4	R994	C5	ZD902	B3
C901	C1	C915	C3	C952	C4	C975	B4	C997	C4	D951	B5	FB903	C2	IC953	C5	JP15	B4	L955	C4	Q951	B4	R908	B3	R954	C5	R966	B4	R979	C4	R996	B5	ZD951	B5
C903	C1	C916	C3	C953	A4	C976	B4	CN901	C1	D952	C5	FB904	B2	JK901	C1	JP16	C4	L958	B5	Q952	B4	R909	B2	R955	C5	R967	B4	R980	C4	R997	C4	ZD952	C5
C904	B1	C917	C2	C954	B4	C977	B4	CN903	A2	D953	C5	GT901	B2	JP01	A1	JP17	C4	NTC901	A1	Q956	C4	R910	A2	R956	C5	R969	B4	R981	C4	R998	B5	ZD953	B5
C905	A1	C918	C2	C955	B5	C978	C4	CN951	A5	D954	A4	GT902	B1	JP02	B1	JP18	C4	P1	C1	Q959	C5	R914	C3	R957	A4	R970	C4	R982	C4	R999	C2		
C906	A2	C919	C2	C956	B5	C982	C4	CN952	B5	D957	C4	GT903	C2	JP05	B2	JP19	C5	P11	A4	Q960	B5	R915	C2	R958	A4	R971	B4	R985	B5	T901	A3		
C906	B1	C920	C3	C961	A5	C983	C4	CN953	C5	D958	B4	GT904	C4	JP08	C3	JP20	C5	P3	A5	Q989	C5	R916	C2	R959	A5	R972	B4	R986	B5	T902	B3		
C907	B2	C921	A2	C962	A5	C984	C4	D903	B3	D959	C4	GT905	C3	JP09	C3	JP21	C5	P4	C5	R901	B1	R920	C2	R960	C5	R973	C4	R987	B5	T903	C3		
C909	A2	C922	C2	C963	A5	C987	C4	D904	B3	D960	C5	GT906	A1	JP10	C3	JP22	C5	P5	A5	R903	A2	R930	B1	R961	C5	R974	B4	R988	B5	TVR901	C1		
C910	A2	C923	B3	C966	C4	C988	B5	D905	B3	D961	A4	GT907	A2	JP11	B3	L901	B2	P7	A3	R904	B2	R951	A5	R962	C5	R975	C4	R989	C5	TVR902	B2		
C911	A2	C924	B3	C971	A4	C989	C4	D906	A2	F901	B1	IC901	C3	JP12	B4	L902	A2	P9	B3	R905	B3	R952	A5	R963	C5	R976	C4	R990	C5	TVR903	B2		
C913	B2	C951	A4	C973	B5	C992	C4	D907	C3	FB901	A1	IC902	C2	JP13	B4	L951	A5	Q901	B2	R906	B3	R953	A5	R964	C5	R977	C4	R991	C5	ZD901	B3		



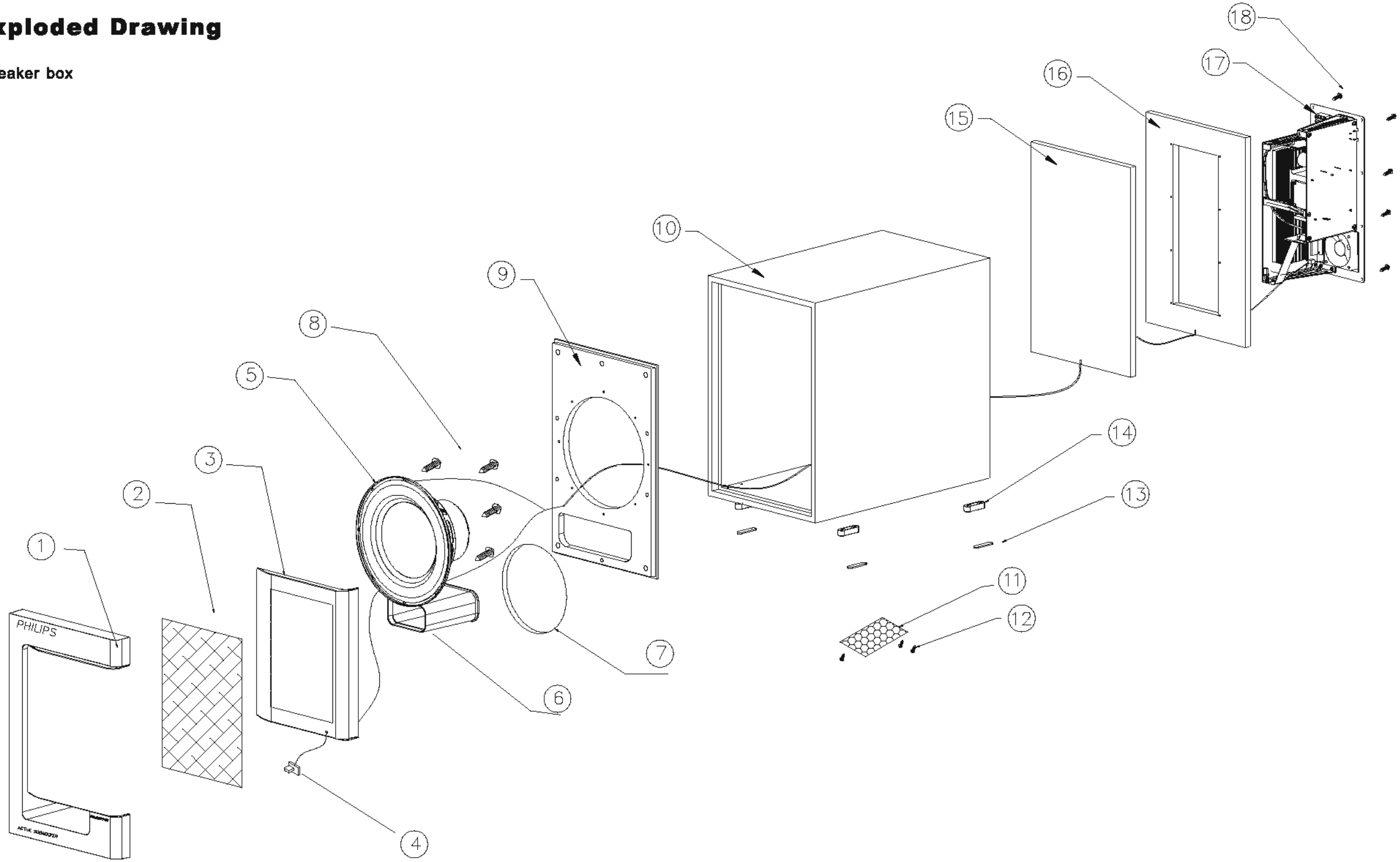
PCB LAYOUT - POWER PCB

BD901 D1	C911 D2	C922 A2	C961 D3	C978 B4	CN903 D1	D951 D3	GT901 C1	IC952 A3	NTC901 P7	R904 A1	R920 B3	R959 D2	R969 B3	R979 B4	R991 A3	TVR901 A3
C 962 D3	C913 D2	C923 A2	C963 D3	C982 B2	CN951 D4	D952 D4	GT902 C1	IC953 C4	Q901 C1	R905 A1	R930 A3	R960 B1	R970 B4	R980 C3	R993 A3	TVR902 A3
C903 B1	C914 D2	C924 A2	C966 A2	C983 B2	CN952 A3	D953 C4	GT903 B2	IC953 B4	Q902 D3	R906 A1	R951 C1	R961 A1	R971 C3	R981 B3	R994 B3	TVR903 B3
C904 C1	C915 B1	C945 A3	C971 C3	C984 B3	CN953 A3	D954 C3	GT904 A2	JK901 A1	Q951 B2	R907 A1	R952 D1	R962 B2	R972 C3	R982 B4	R996 B3	ZD901 B3
C905 C1	C916 B2	C951 D2	C973 C3	C987 B2	D903 D2	D957 C3	GT905 A2	JP01 P1	Q952 A3	R908 A1	R953 D1	R963 B1	R973 C3	R985 B4	R997 B4	ZD902 B3
C906 C1	C917 A2	C952 D3	C974 C3	C988 B3	D904 C2	D958 B3	GT906 C1	L901 P11	Q956 D1	R909 D2	R954 D2	R964 B1	R974 C4	R986 B2	R998 B2	ZD951 C2
C907 D1	C918 B1	C953 D2	C975 C3	C989 B3	D905 D2	D959 B2	GT907 C1	L902 P3	Q959 D2	R910 C2	R955 C2	R965 D4	R975 C4	R987 C3	R999 B2	ZD952 B4
C908 D1	C919 B2	C954 C2	C976 B3	C992 A2	D906 C2	D960 B4	IC901 A2	L951 P4	Q960 D2	R914 C3	R956 D2	R966 D3	R976 B3	R988 C3	T901 A3	ZD953 B2
C909 D1	C920 B2	C955 D3	C977 B4	C994 B2	D907 B2	D961 C3	IC902 B1	L955 P5	R901 D2	R915 C2	R957 C2	R967 D4	R977 C4	R989 C3	T902 B3	
C910 D1	C921 A2	C956 D3	C977 A3	CN901 B1	D910 B2	F901 B1	IC951 C4	L958 P6	R903 D2	R916 B3	R958 D2	R968 D4	R978 D4	R990 C3	T903 A3	



Exploded Drawing

Speaker box



Exploded Drawing

Amplyer