DVD Receiver HTS3325/51

Service
Service
Service

Service Manual

CLASS 1
LASER PRODUCT

MP3-CD PLAYBACK

DVD VIDEO

COMPACT disc DIGITAL VIDEO

COMPACT disc DIGITAL AUDIO

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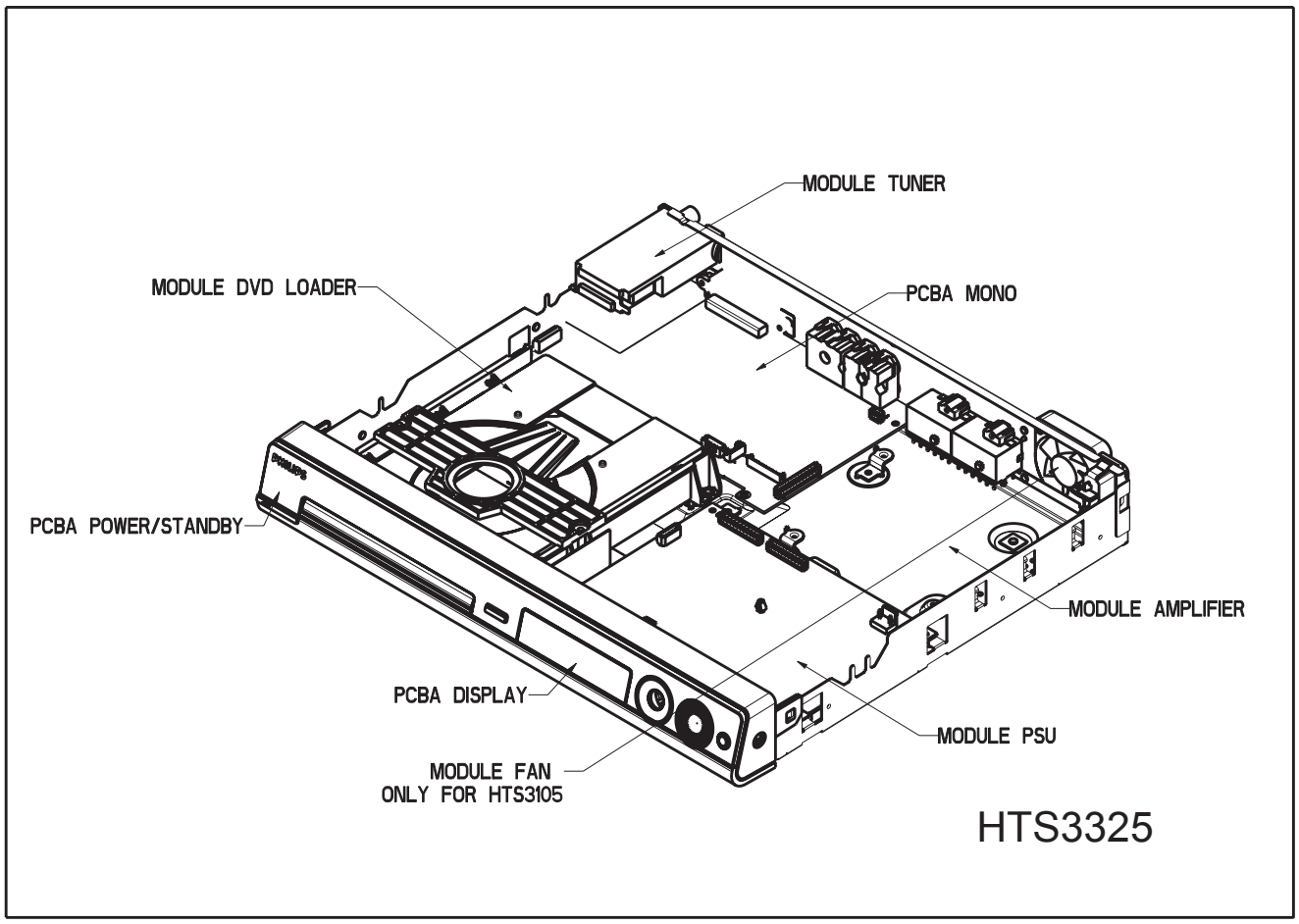
Version 1.0

PHILIPS

LOCATION OF PC BOARDS



VERSION VARIATIONS:

Type /Versions: / Features &	HTS3325 /51
Progressive Scan	x
Line-Out	x
TV-In	x
Aux-In	x
Y/Pb/Pr (YUV) Component Video Output	x
CVBS	x
SCART	–

1. Specifications

1.1 General:

Mains voltage	:	230V
Mains frequency	:	50Hz
Power consumption	:	150W < 1W Eco standby power < 150W at 1/8 P_{rated} (For main unit)
Dimension main unit	:	435 x 55 x 328mm

1.2 Tuner

FM

Tuning range	:	87.5-108MHz
Grid	:	50kHz 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	:	100W RMS / channel
Rear	:	75W RMS / channel
Center	:	100W RMS
Subwoofer	:	150W 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:

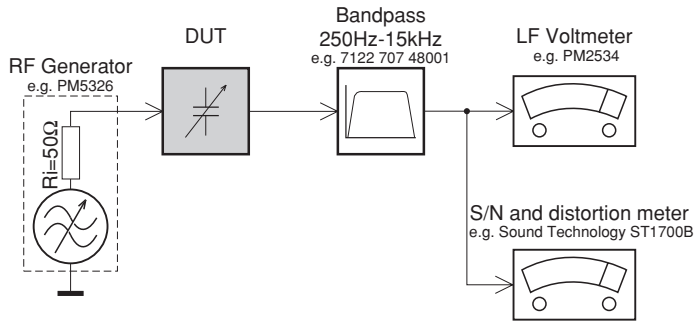
Video Decoding	:	MPEG-1/MPEG-2/ DivX 3/4/5/6 Ultra,
Video DAC	:	12 Bits
Signal System	:	PAL / NTSC
Video Format	:	4:3 / 16:9
CVBS Out [1)]		
CVBS level	:	1.0 ± 0.1 V_{p-p}
Luminance S/N	:	>= 60dB
RGB/YUV Out [1)]		
Amplitude	:	1.0 ± 0.1 V_{p-p}
S/N	:	>= 60dB

[1)] Output terminals to be terminated with 75Ω

2. Measurements Setup, Service Aid & Lead Free Requirements

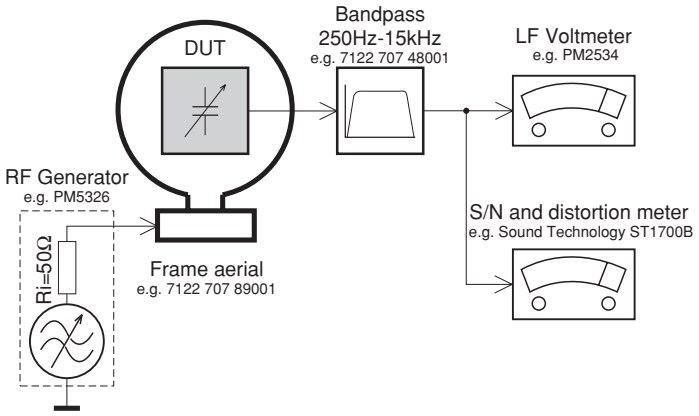
MEASUREMENT SETUP

Tuner FM



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

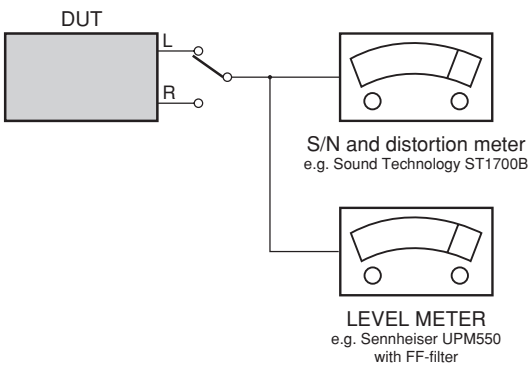
Tuner AM (MW,LW)



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).

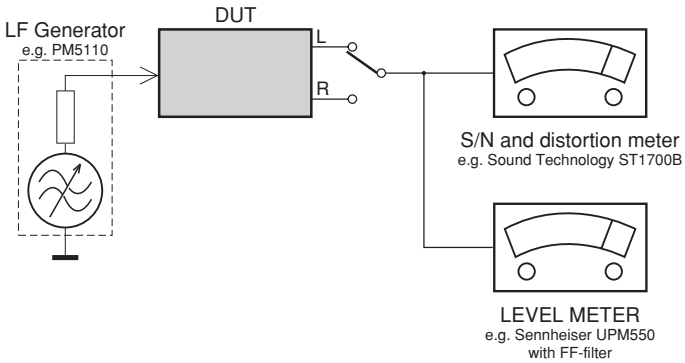
CD

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

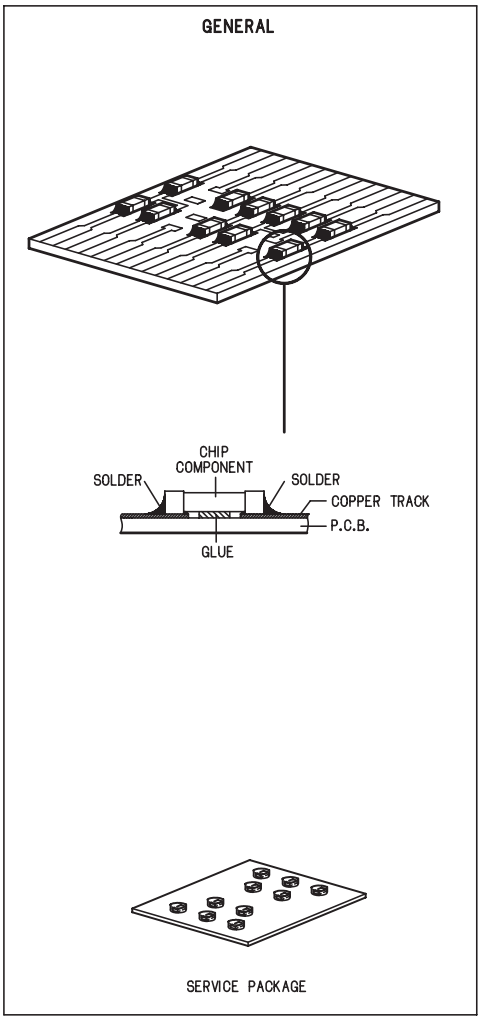
Service Tools:

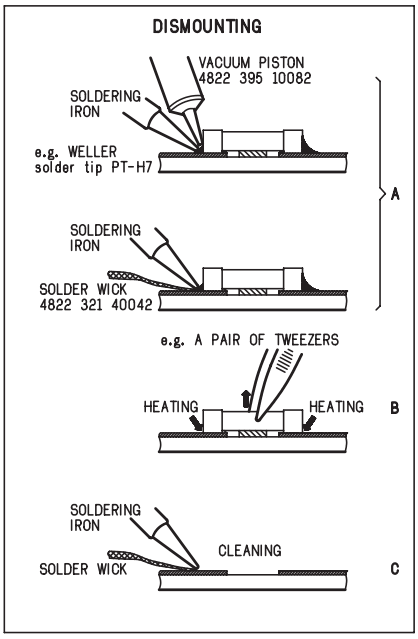
Universal Torx driver holder 4822 395 91019
Torx bit T10 150mm 4822 395 50456
Torx driver set T6 - T20 ..... 4822 395 50145
Torx driver T10 extended 4822 395 50423

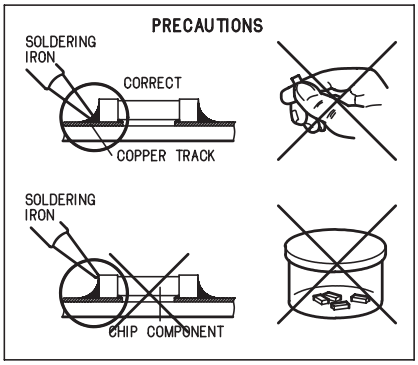
Compact Disc:

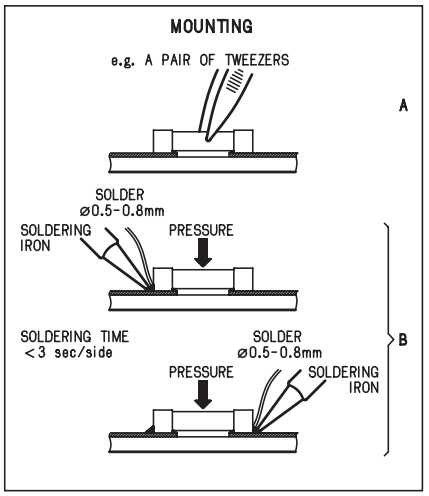
SBC426/426A Test disc 5 + 5A 4822 397 30096
SBC442 Audio Burn-in Test disc 1kHz 4822 397 30155
SBC429 Audio Signals disc 4822 397 30184
Dolby Pro-logic Test Disc 4822 395 10216

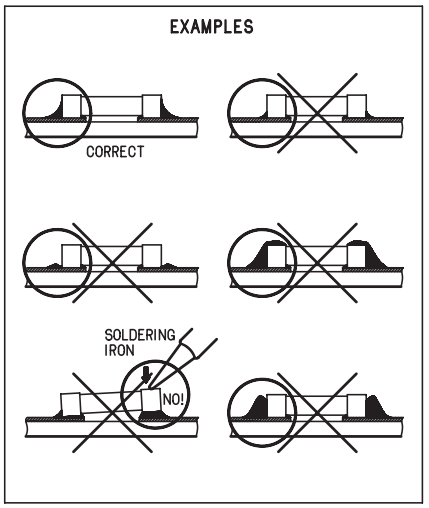
HANDLING CHIP COMPONENTS











ESD

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.

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

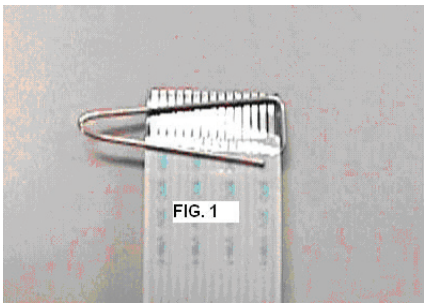
CHARGED CAPACITORS ON THE SERVO BOARD MAY DAMAGE THE DRIVE ELECTRONICS WHEN CONNECTING A NEW DRIVE.THAT'S WHY, BESIDES THE SAFETY MEASURES LIKE

- **SWITCH OFF POWER SUPPLY**
- **ESD PROTECTION**

ADDITIONAL ACTIONS MUST BE TAKEN BY THE REPAIR TECHNICIAN.

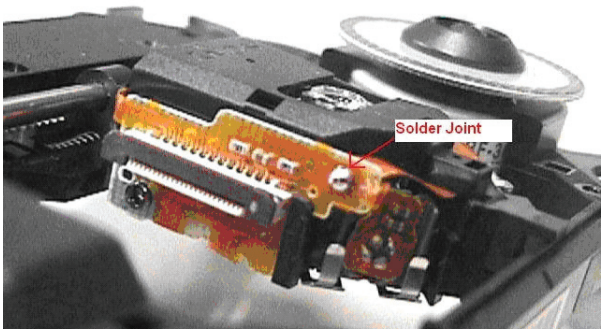
The following steps have to be done when replacing the defective loader :

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.



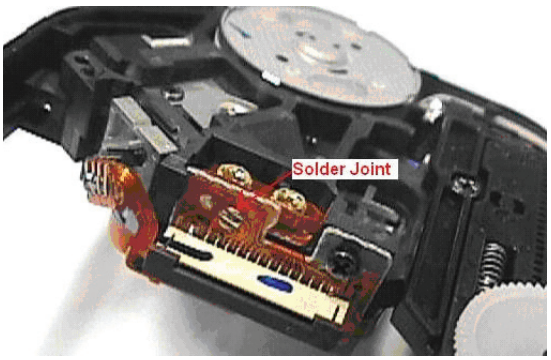
ATTENTION: The laser diode of this loader is protected against ESD by a solder joint which shortcircuits the laserdiode to ground. For proper functionality of the loader this solder joint must be remove **after** connection loader to the set.

Type 1



(ESD protection point is accessible from top of loader)

Type 2



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

Only applicable for defective loader needed to be sent back to supplier for failure analysis and to support backcharging evidence.
This is also applicable for all partnership workshops.

DVD HOME THEATRE SYSTEM HTS3325

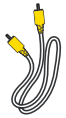
Quick Start Guide

1 Connect
2 Set up
3 Enjoy

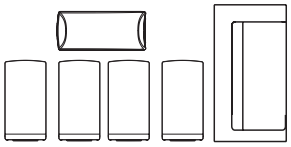
What's in the box?

DVD system

Remote Control and 2 batteries



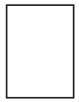
Composite video cable



1 centre, 2 front, 2 rear speakers and subwoofer

FM wire antenna

AM/MW loop antenna



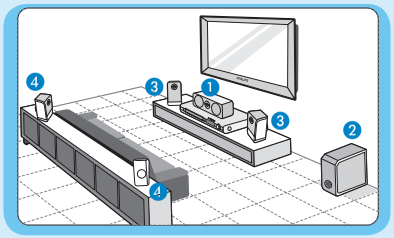
User Manual

PHILIPS

1 Connect

A Placement

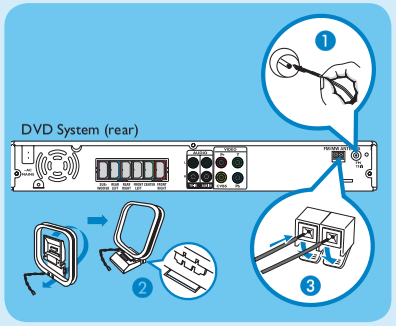
Proper speakers system placement is important to ensure optimum sound performance.



1. Place the centre 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

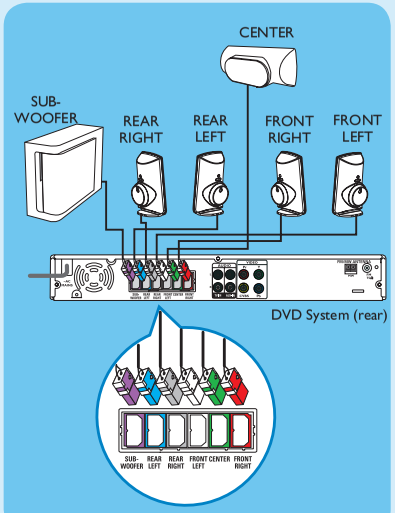
Keep the antennas away from the electronic devices to prevent unwanted interference.



1. Connect the FM antenna to the FM socket. 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 sockets.

C Connect the speakers and subwoofer

Connect the various coloured plugs from the speakers and subwoofer to the same coloured sockets at the rear of the DVD system.

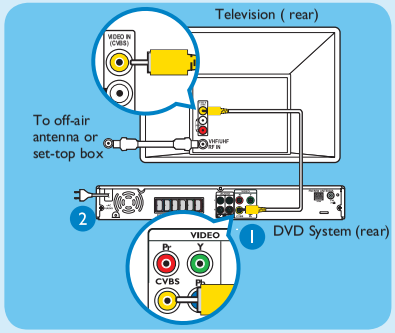


3. Directions For Use

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

D Connect the DVD system to TV

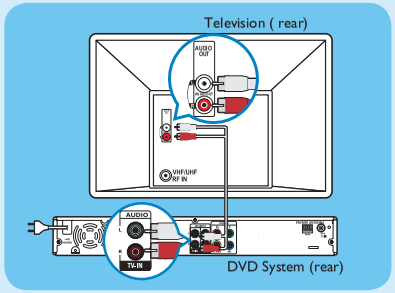


1. Use the supplied composite video cable to connect the CVBS socket on this DVD system to the VIDEO IN socket on your TV.
2. Plug in the power cable from the DVD system to an AC power outlet.

Note It is important to connect the DVD system directly to your TV. If your TV only has scart connector, use the supplied scart adaptor.

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

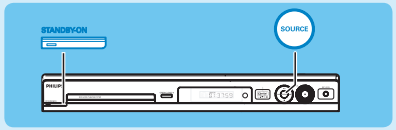
To hear the TV audio through this home theatre system, use the red and white audio cables (not supplied) to connect the TV IN (R/L) sockets on this DVD system to the AUDIO output sockets on your TV.



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

A Finding the viewing channel

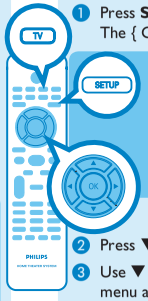
1. Press **STANDBY ON** on the DVD system.
2. Press **SOURCE** on the DVD system until "DISC" appears on the display panel.



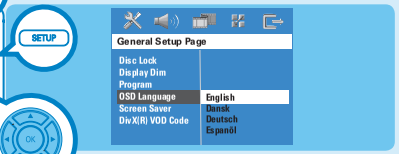
3. Turn on the TV. Use the TV's remote control to select the correct viewing channel for the DVD system.
   You should see the blue DVD background on the TV.

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.

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 option in the menu and press **OK** to confirm.
4. Press **SETUP** to exit.

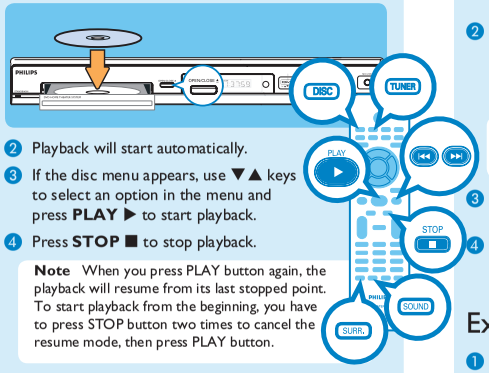
Note The language set here is only for the menus that are shown on the TV while operating this DVD system, not for the DVD disc menu.

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 its last stopped point. To start playback from the beginning, you have to press STOP button two times to cancel the resume mode, then press PLAY button.

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.

Note This feature is only available for the first time setup. If you wish to reinstall all the radio stations, hold down the PROGRAM button on the remote control.

3. Once complete, use ⏮ ⏭ keys to select a preset radio station.
4. To delete a preset radio station, hold down **STOP** ■ until "FM/MW X DELETED" appears.

Experience surround sound

1. Press **SURR** to switch between stereo and multi-channel.
2. Press **SOUND** to select either CONCERT, DRAMA, ACTION or SCI-FI preset digital sound effects.

Troubleshooting

For more troubleshooting tips, see the user manual.

No picture.
- Press DISC button on the remote control.
- Check the connection to the TV and ensure the plugs are firmly in place.

No sound.
- Adjust the volume.
- Check the speaker connections and settings.
- Check the audio connections and press SOURCE button to select the correct input source.
- The centre 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 cames with your Philips DVD System

Online
Go to www.philips.com/support

Be responsible
Respect copyrights

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12 NC 3139 245 22101
www.philips.com

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

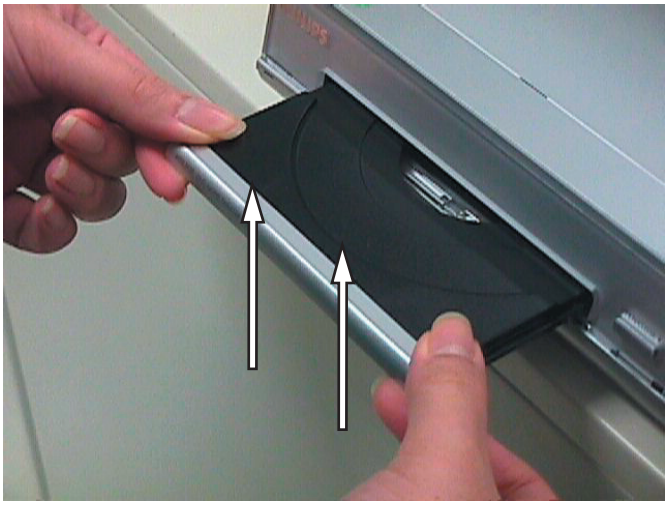


Figure 4-2

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 4 screws A (See Figure 4-3) to remove the PSU Module.

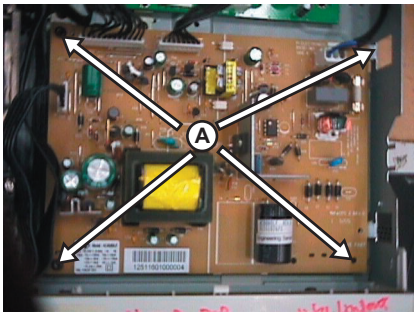


Figure 4 3

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

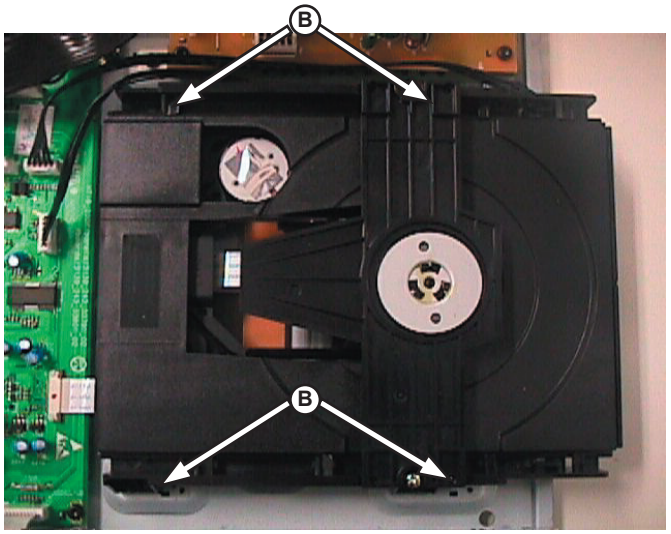


Figure 4-4

4.3 Dismantling of the Tuner Module & Mono Board.

1) Loosen 1 screw to remove the Tuner Module.
2) Loosen 2 screws D to remove the Mono Board.

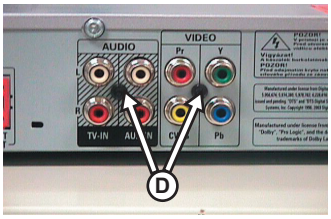


Figure 4-5 (AP)

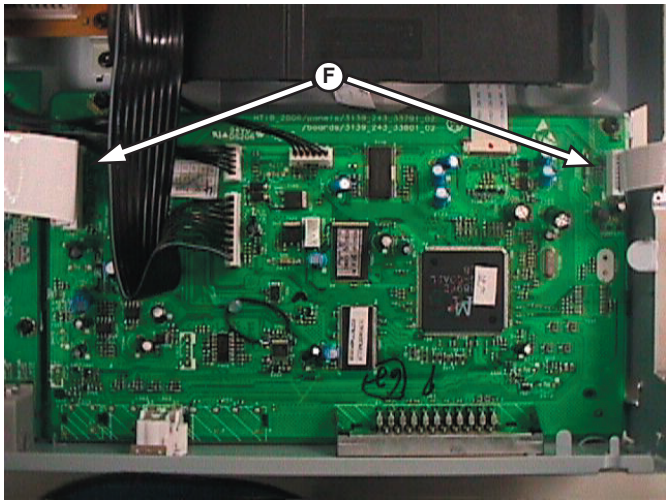


Figure 4-6

4.4 Dismantling of the Amp-module Board

1) Loosen 4 screws F and 2 screws G (See Figure 4-7 & Figure 4-8) to remove Amp-Module Board.

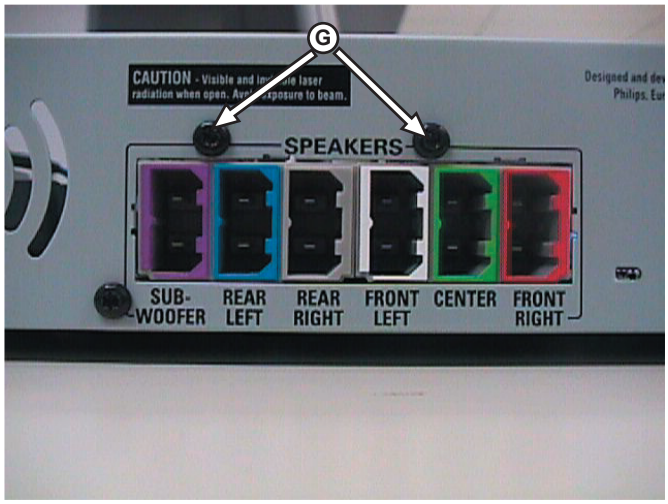


Figure 4-7

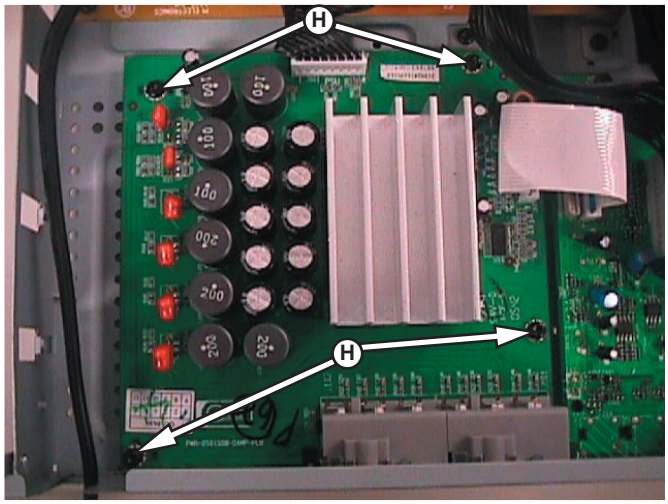
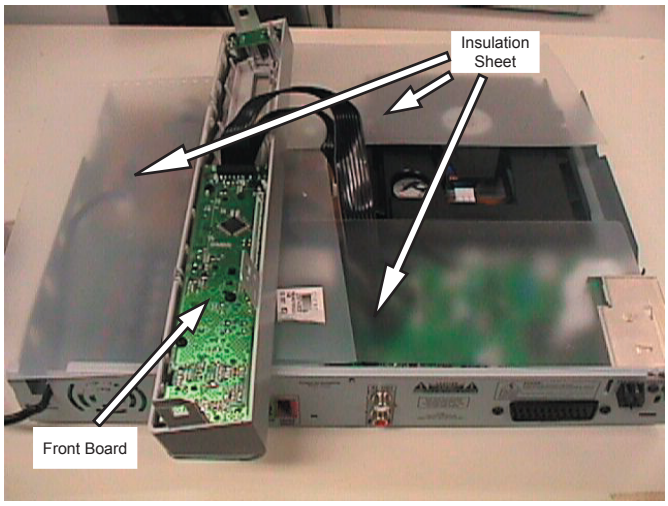
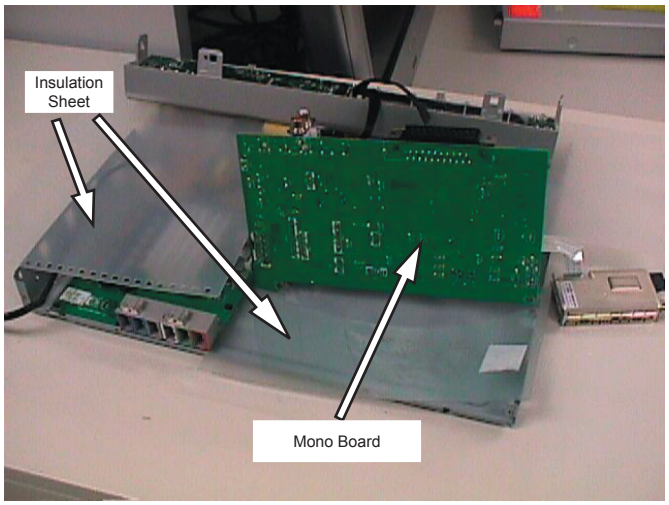


Figure 4-8

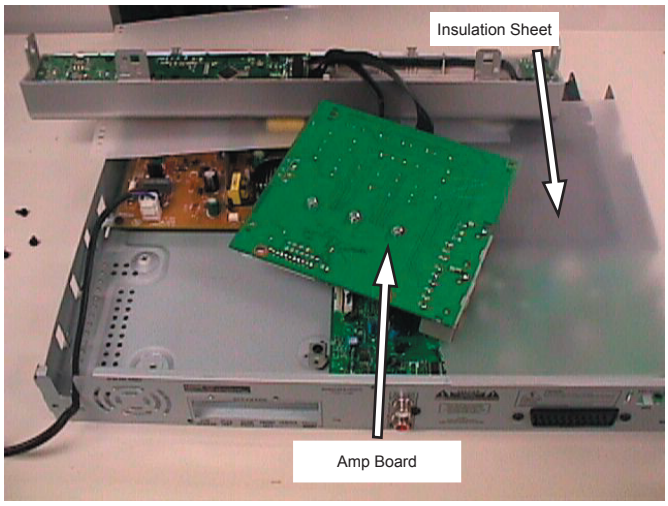
3.4 Service Positions



Service Position - Front Board

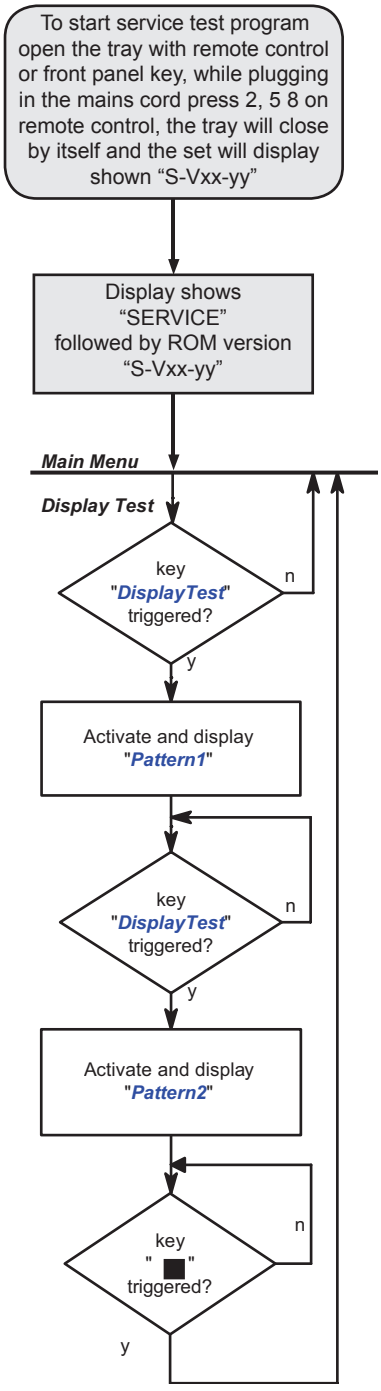


Service Position - Mono Board



Service Position -Amp-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)

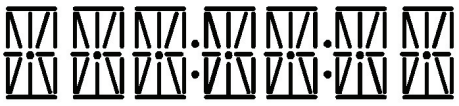
5.1 Display Test

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.

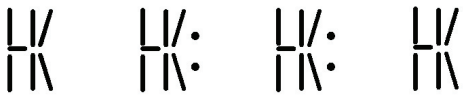
Player:

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 3325/51	Russia	5	PAL

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> <AUDIO> <8> .....for HTS 3325/51
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:

LOAD -> MULTICH ->…… ->UPG END.
The whole process takes less than 2 minutes.

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.

5.1.7 Procedure to change Tuner Grid (/98, /55 only)

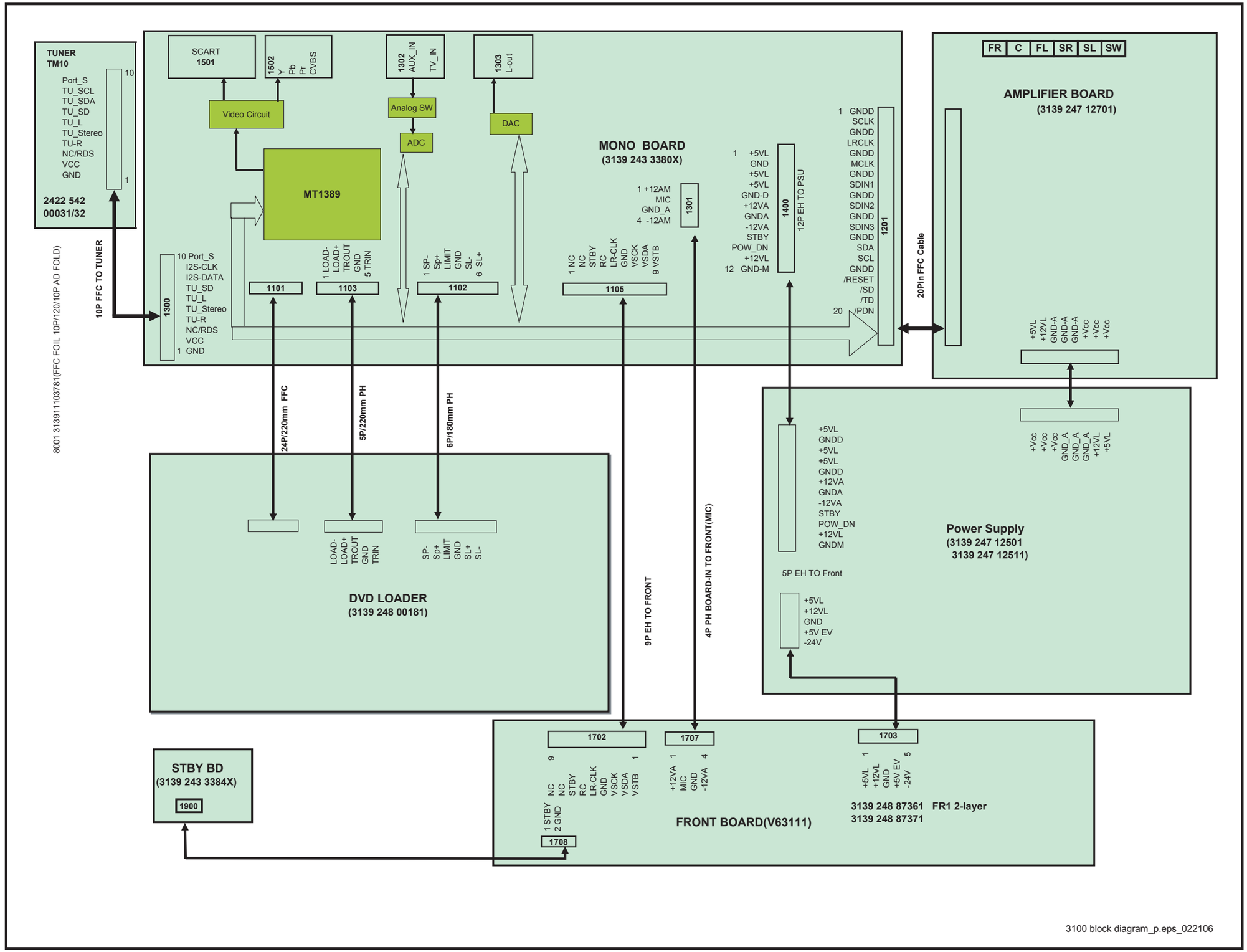
1. Press **SOURCE** to select “FM” or “MW”.
2. Press **STANDBY ON** to switch the DVD system to standby mode.
3. Press **STANDBY ON** again to turn on the DVD system and hold down |◄◄ button on the front panel.
   ➜ The display will show "GRID 9" or "GRID 10".

   Helpful Hint:
   – GRID 9 and GRID 10 indicate that the tuning grid is in step of 9 kHz and 10 kHz respectively.

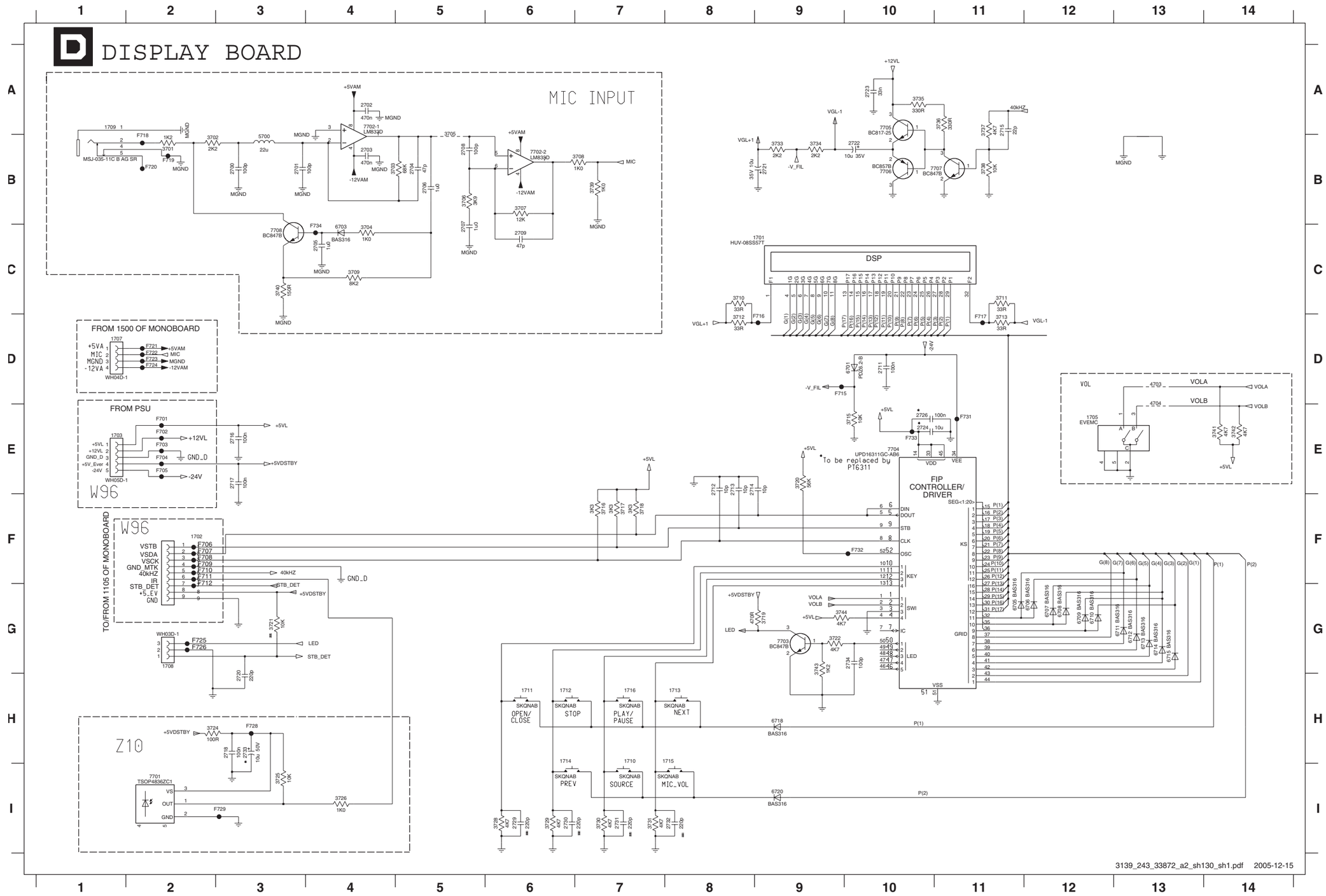
Note: Repeating the same action will toggle back to its previous tuning grid setting.

Notes:

Block Diagram

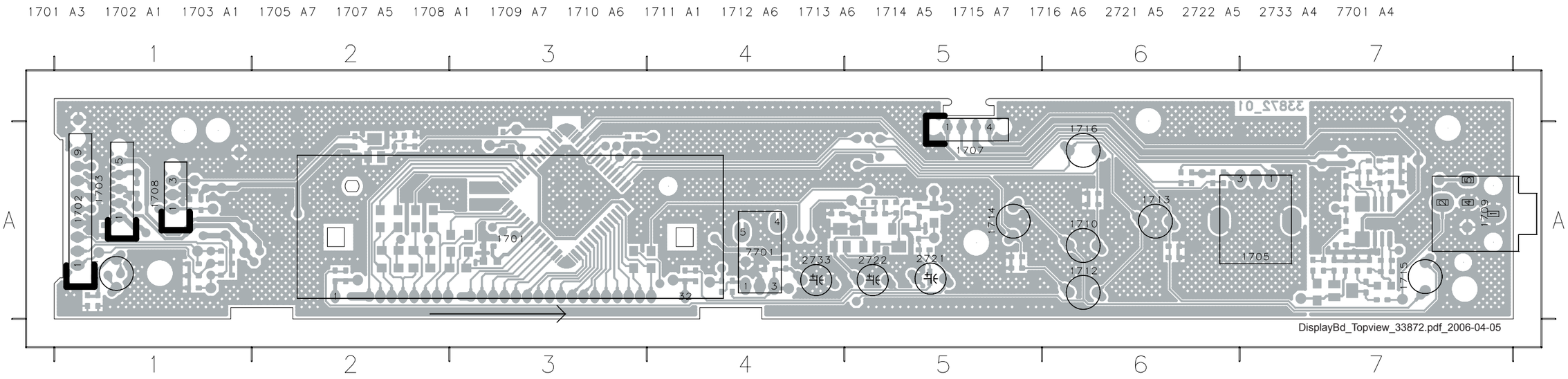


Front: Display



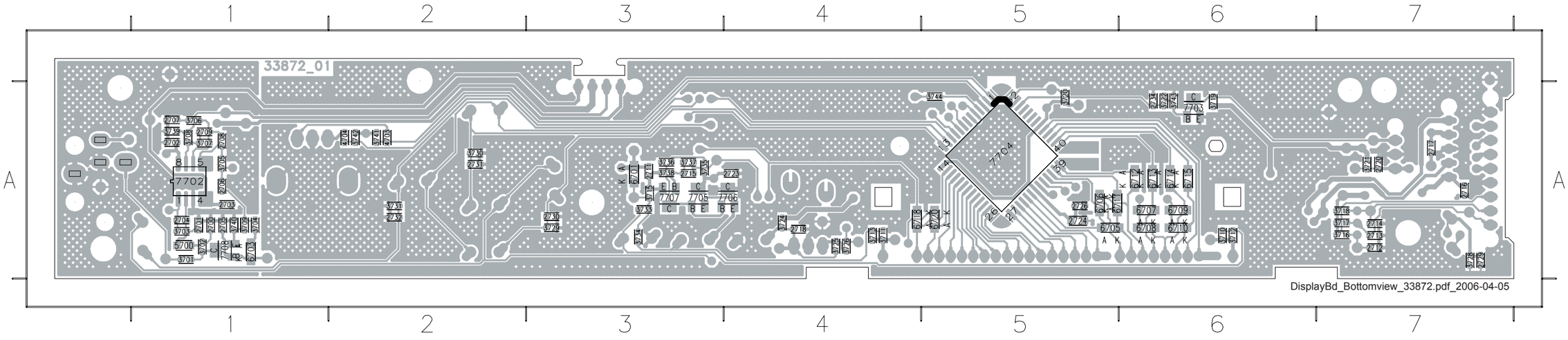
1701 C9
1702 F2
1703 E1
1705 E12
1707 D1
1708 G2
1709 A1
1710 H7
1711 H6
1712 H6
1713 H8
1714 H6
1715 H8
1716 H7
2700 B3
2701 B3
2702 A4
2703 B4
2704 B5
2705 C4
2706 B5
2707 C5
2708 B5
2709 C6
2711 D10
2712 E8
2713 E8
2714 E8
2715 A11
2716 E3
2717 E3
2718 H3
2720 H3
2721 B9
2722 B10
2723 A10
2724 E10
2726 E10
2729 I6
2730 I6
2731 I7
2732 I8
2734 G10
3701 B2
3702 B2
3703 B4
3704 C4
3705 B5
3706 B5
3707 B6
3708 B7
3709 C4
3710 C8
3711 C11
3712 D8
3713 D11
3715 E10
3716 F7
3717 F7
3718 F7
3719 G9
3720 E9
3721 G3
3722 G9
3724 H2
3725 I3
3726 I4
3728 I6
3729 I6
3730 I7
3731 I7
3733 B9
3734 B9
3735 A10
3736 A11
3737 A11
3738 B11
3739 B7
3740 C3
3741 E14
3742 E14
3743 G9
3744 G9
4703 D13
4704 E13
5700 B3
6701 D10
6703 C4
6705 G11
6706 G12
6707 G12
6708 G12
6709 G12
6710 G12
6711 G13
6712 G13
6713 G13
6714 G13
6715 G13
6718 H9
6720 I9
7701 I2
7702-1 A4
7702-2 B6
7703 G9
7704 E10
7705 A10
7706 B10
7707 B11
7708 C3
F701 E2
F702 E2
F703 E2
F704 E2
F705 E2
F706 F2
F707 F2
F708 F2
F709 F2
F710 F2
F711 F2
F712 G2
F715 D9
F716 D9
F717 D11
F718 B2
F719 B2
F720 B2
F721 D2
F722 D2
F723 D2
F724 D2
F725 G2
F726 G2
F728 H3
F729 I3
F731 E11
F732 E10
F733 C4
F734 C4
MGND
+5VAM
-12VAM
+12VL
-24V
+5VL
+5VDSTBY
-V_FIL
VGL-1
VGL+1
40kHZ
GND_D
STB_DET
LED
MIC
P(1)
P(2)
G(1)
G(2)
G(3)
G(4)
G(5)
G(6)
G(7)
G(8)

Front: Display (topview)

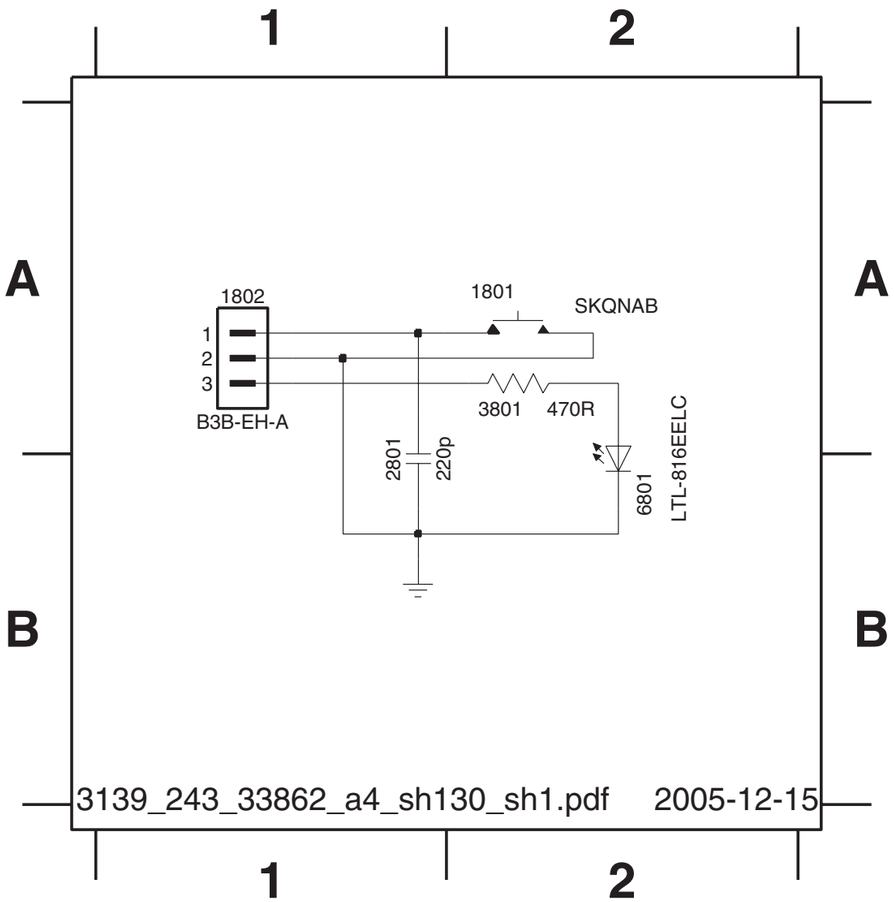


Front: Display (Bottom view)

2700 A1 2701 A1 2702 A1 2703 A1 2704 A1
2705 A1 2706 A1 2707 A1 2708 A1 2709 A1
2711 A3 2712 A7 2713 A7 2714 A7 2715 A3
2716 A7 2717 A7 2718 A4 2720 A7 2723 A4
2724 A5 2726 A5 2729 A7 2730 A3 2731 A2
2732 A2 2734 A6 3701 A1 3702 A1 3703 A1
3704 A1 3705 A1 3706 A1 3707 A1 3708 A1
3709 A1 3710 A6 3711 A4 3712 A6 3713 A4
3715 A3 3716 A7 3717 A7 3718 A7 3719 A6
3720 A5 3721 A7 3722 A6 3724 A4 3725 A4
3726 A4 3728 A7 3729 A3 3730 A2 3731 A2
3733 A3 3734 A3 3735 A3 3736 A3 3737 A3
3738 A3 3739 A1 3740 A1 3741 A2 3742 A2
3743 A6 3744 A5 4703 A2 4704 A2 5700 A1
6701 A3 6703 A1 6705 A5 6706 A5 6707 A6
6708 A6 6709 A6 6710 A6 6711 A5 6712 A6
6713 A6 6714 A6 6715 A6 6718 A4 6720 A5
7702 A1 7703 A6 7704 A5 7705 A4 7706 A4
7707 A3 7708 A1

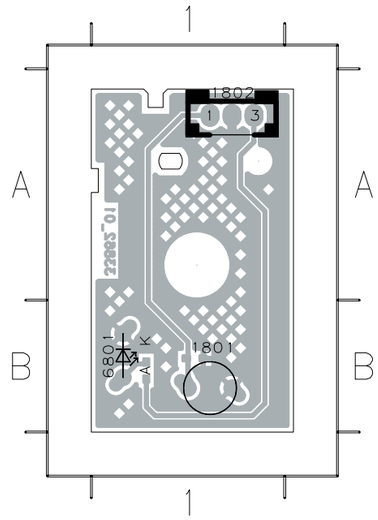


Front: Standby



1801 A2
1802 A1
2801 B1
3801 A2
6801 B2

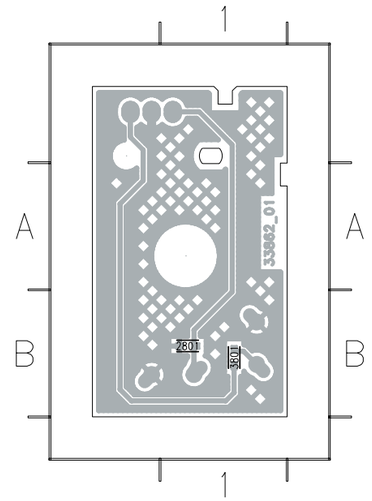
Front: Standby (Top View)



1801 B1
1802 A1
6801 B1

StandbyBoard_Topview_33862.pdf_2006-04-05

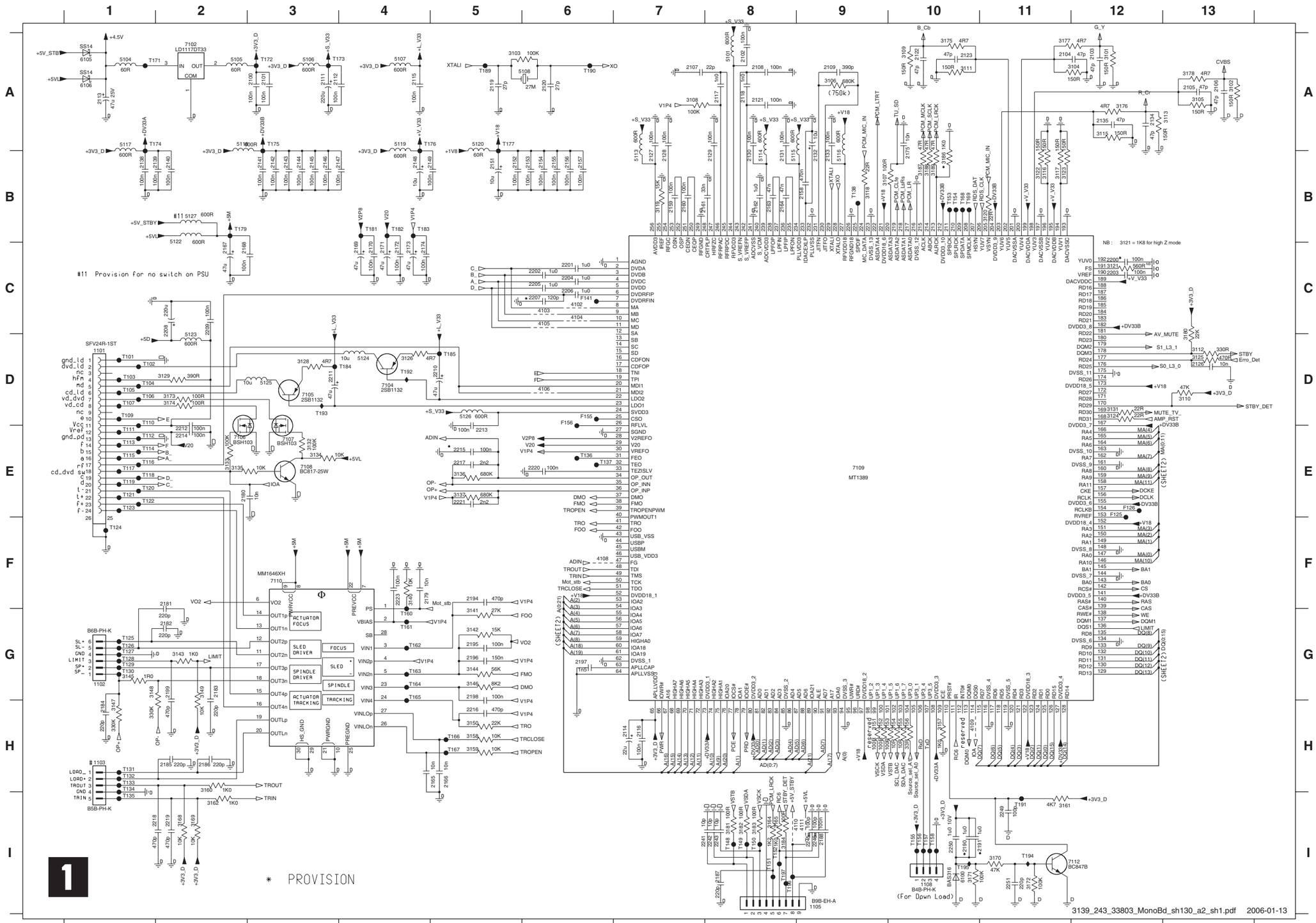
Front: Standby (Bottom View)



2801 B1
3801 B1

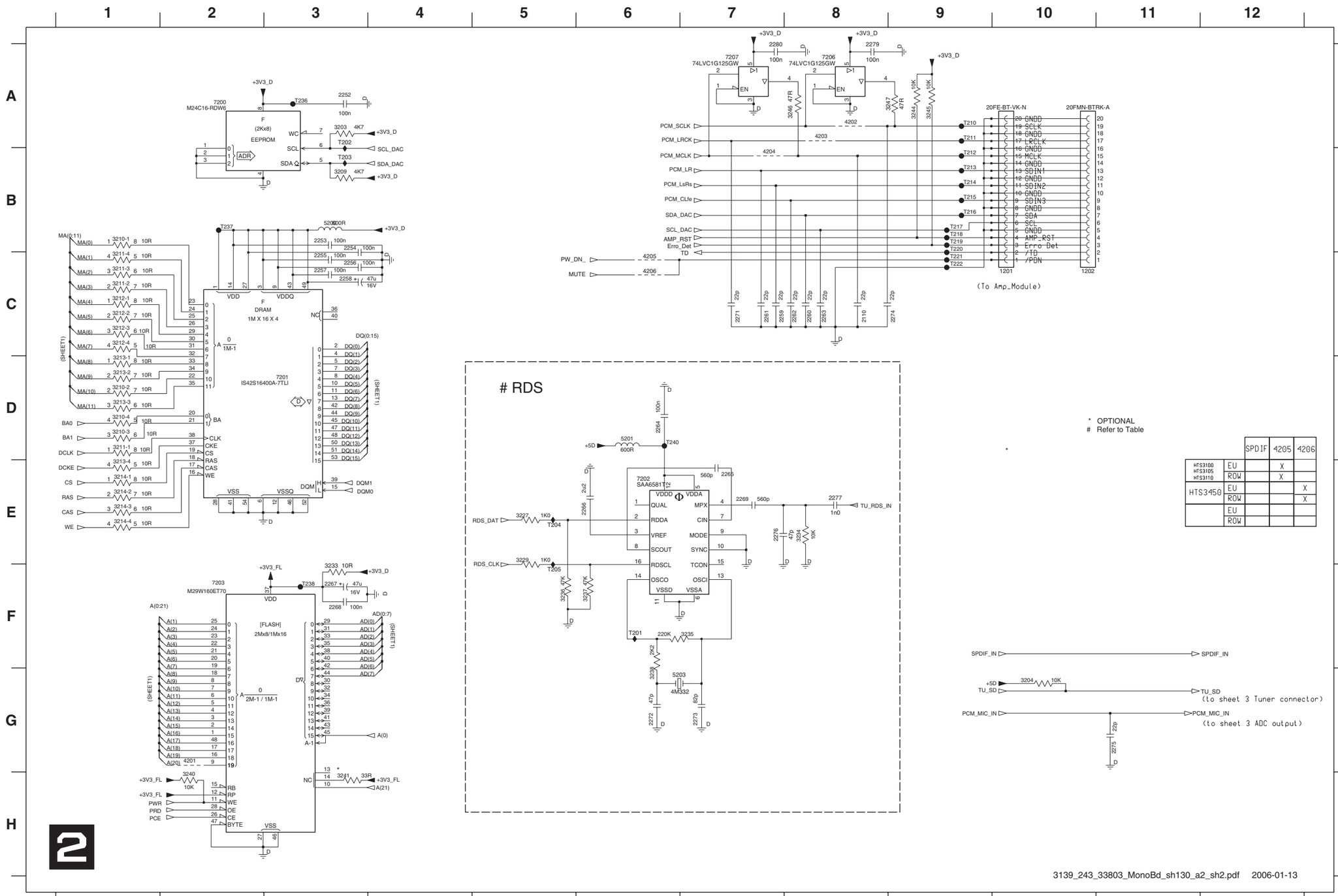
StandbyBoard_Bottomview_33862.pdf_2006-04-05

Mono Board: Circuit Diagram (Part 1)



1101 D1	2241 I7	6100 I10
1102 G1	2242 I8	6105 A1
1103 H1	2243 I8	6106 A1
1105 I9	2245 I9	7102 A2
1108 I10	2246 I9	7104 D4
2100 A3	2249 I11	7105 D3
2101 A3	2250 I10	7106 E2
2102 A8	2251 I11	7107 E3
2103 A12	3101 A12	7108 E3
2104 A11	3102 A13	7109 E9
2105 A13	3103 A5	7110 F3
2106 A13	3104 A12	7112 I11
2107 A7	3105 A13	F125 E12
2108 A8	3106 A9	F126 E12
2109 A9	3107 B9	F141 C6
2111 A3	3108 A7	F155 D6
2112 A3	3109 A10	F156 D6
2113 A1	3110 D13	T101 D1
2114 H7	3111 A10	T102 D1
2115 A4	3112 D13	T103 D1
2116 H7	3113 A13	T104 D1
2117 A8	3115 A12	T105 D1
2118 A8	3116 B11	T106 D1
2119 A5	3117 B11	T107 D1
2120 A6	3118 B9	T109 D1
2121 A8	3119 B7	T110 D1
2122 A10	3120 B11	T111 E1
2123 A10	3121 C12	T112 E1
2126 D13	3122 B11	T113 E1
2127 B7	3123 B11	T114 E1
2128 B7	3124 D12	T115 E1
2129 B8	3125 D13	T116 E1
2130 B8	3126 D4	T117 E1
2131 B8	3128 D3	T118 E1
2132 B9	3129 D2	T119 E1
2133 B9	3131 D12	T120 E1
2134 A12	3132 E3	T121 E1
2135 A12	3133 E2	T122 E1
2138 B1	3134 E3	T123 E1
2139 B2	3135 E2	T124 F1
2140 B2	3136 E5	T125 G1
2141 B3	3137 E5	T126 G1
2142 B3	3140 F4	T127 G1
2143 B3	3141 G5	T128 G1
2144 B3	3142 G5	T129 G1
2145 B3	3143 G2	T130 G1
2146 B3	3144 G5	T131 H1
2147 B4	3145 G1	T132 H1
2148 B4	3146 G5	T133 H1
2149 B5	3147 H1	T134 H1
2151 B5	3148 G1	T135 I1
2152 B5	3149 G2	T136 E6
2153 B6	3150 H5	T137 E6
2154 B6	3151 H9	T138 B9
2155 B6	3152 H9	T148 I8
2156 B6	3153 H9	T149 I8
2157 B6	3154 H10	T150 I8
2158 B9	3155 H10	T151 I8
2159 B7	3156 H10	T152 I8
2160 B7	3157 H10	T153 B10
2161 B7	3158 H5	T154 B10
2162 B8	3159 H5	T155 I10
2163 B8	3160 H2	T156 I10
2164 B8	3161 I11	T157 I10
2165 H5	3162 I2	T158 I10
2166 H5	3164 I8	T160 G4
2167 C2	3165 I8	T161 G4
2168 C2	3168 I2	T162 G4
2169 C4	3169 I2	T163 G4
2170 C4	3170 I11	T164 G4
2171 C4	3171 I10	T165 G4
2172 C4	3172 I11	T166 H5
2173 C4	3173 D2	T167 H5
2174 C4	3174 D2	T168 B10
2175 B10	3175 A10	T169 B10
2179 F4	3176 A12	T171 A1
2180 E2	3177 A11	T172 A3
2181 F2	3178 A13	T173 A3
2182 G2	3180 D13	T174 A1
2183 G2	3181 I8	T175 A3
2184 H1	3182 I8	T176 A4
2185 H2	3183 I8	T177 A5
2186 H2	3184 I8	T179 B2
2187 I8	3186 B10	T181 B4
2188 I9	3187 B10	T182 B4
2190 I10	3188 B10	T183 B4
2191 I11	3189 B10	T184 D4
2194 F5	4102 C6	T185 D5
2195 G5	4103 C6	T189 A5
2196 G5	4104 C6	T190 A6
2197 G6	4105 C6	T191 I11
2198 G5	4106 D6	T192 D4
2199 G2	4108 F6	T193 D3
2200 C12	4109 H10	T194 I11
2201 C6	4110 I9	T195 I10
2202 C6	4111 I9	T196 I8
2203 C12	5101 A8	T197 I8
2204 C6	5104 A1	
2205 C6	5105 A2	
2206 C6	5106 A3	
2207 C6	5107 A4	
2208 C2	5108 A6	
2209 C2	5113 B7	
2210 D5	5114 B8	
2211 D3	5115 B8	
2212 E2	5116 B9	
2213 E5	5117 A1	
2214 E2	5118 A2	
2215 E5	5119 A4	
2216 H5	5120 A5	
2217 E5	5122 C2	
2218 I2	5123 D2	
2219 I2	5124 D4	
2220 E6	5125 D3	
2221 E5	5126 D5	
2223 F4	5127 B2	

Mono Board: Circuit Diagram (Part 2)



		SPDIF	4205	4206
HTS3100 HTS3105 HTS3110	EU		X	
	ROW		X	
HTS3450	EU			X
	ROW			X
	EU			
	ROW			

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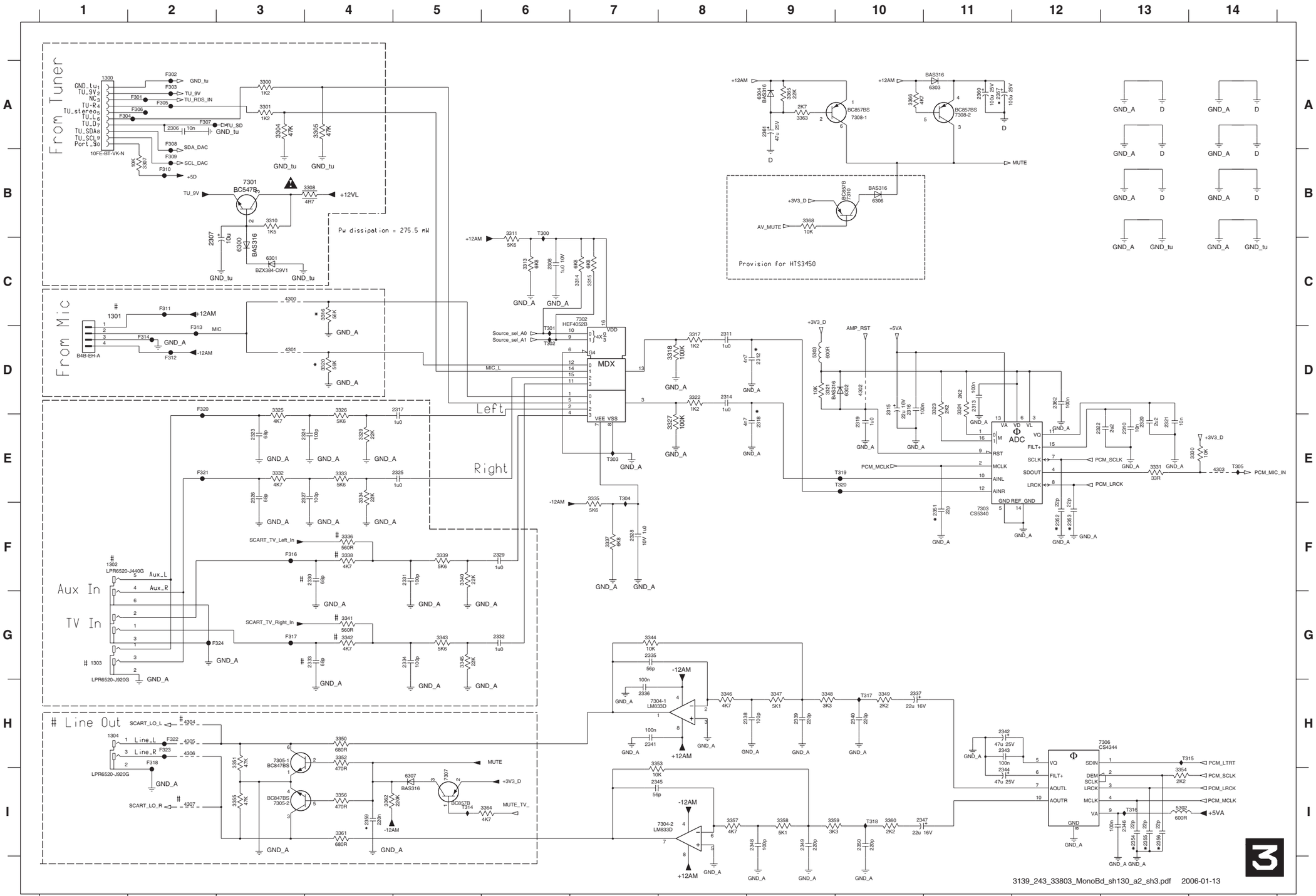
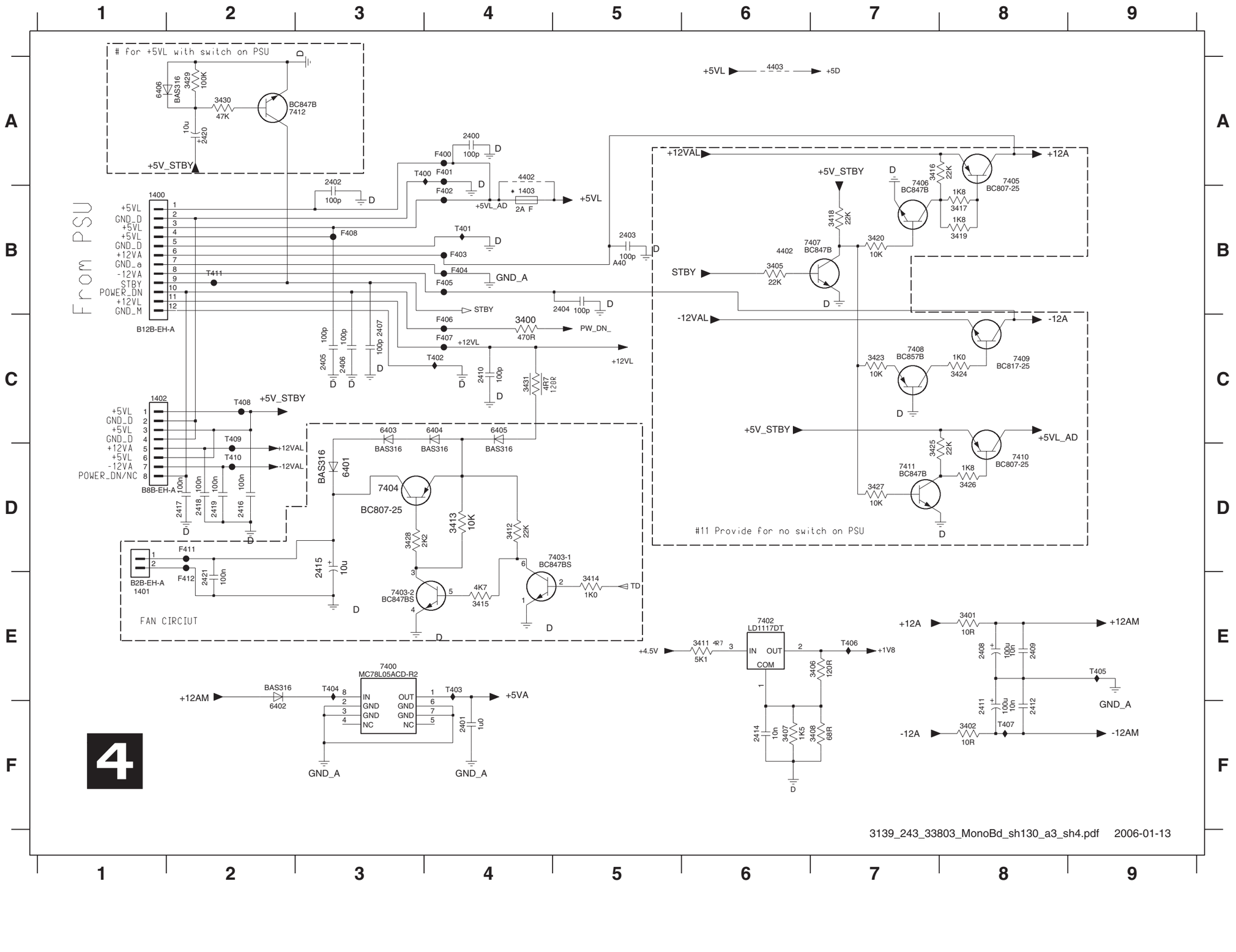
1201 C10
1202 C10
2110 C8
2252 A3
2253 B3
2254 B3
2255 C3
2256 C3
2257 C3
2258 C3
2259 C7
2260 C8
2261 C7
2262 C8
2263 C8
2264 D6
2265 E7
2266 E6
2267 F3
2268 F3
2269 E7
2271 C7
2272 G6
2273 G7
2274 C9
2275 G11
2276 E7
2277 E8
2279 A8
2280 A7
3203 A3
3204 G10
3209 B3
3210-1 B1
3210-2 D1
3210-3 D1
3210-4 D1
3211-1 D1
3211-2 C1
3211-3 C1
3211-4 C1
3212-1 C1
3212-2 C1
3212-3 C1
3212-4 C1
3213-1 D1
3213-2 D1
3213-3 D1
3213-4 E1
3214-1 E1
3214-2 E1
3214-3 E1
3214-4 E1
3227 E5
3229 E5
3233 F3
3234 E8
3235 F7
3236 F5
3237 F6
3238 G6
3240 H2
3241 H3
3244 A9
3245 A9
3246 A8
3247 A9
4201 G2
4202 A8
4203 A8
4204 B7
4205 C6
4206 C6
5200 B3
5201 D6
5203 G6
7200 A2
7201 D3
7202 E6
7203 F2
7206 A8
7207 A7
T201 F6
T202 A3
T203 B3
T204 E5
T205 F5
T210 A9
T211 A9
T212 B9
T213 B9
T214 B9
T215 B9
T216 B9
T217 B9
T218 B9
T219 B9
T220 B9
T221 C9
T222 C9
T236 A3
T237 B2
T238 F3
T240 D6

Mono Board: Circuit Diagram (Part 3)



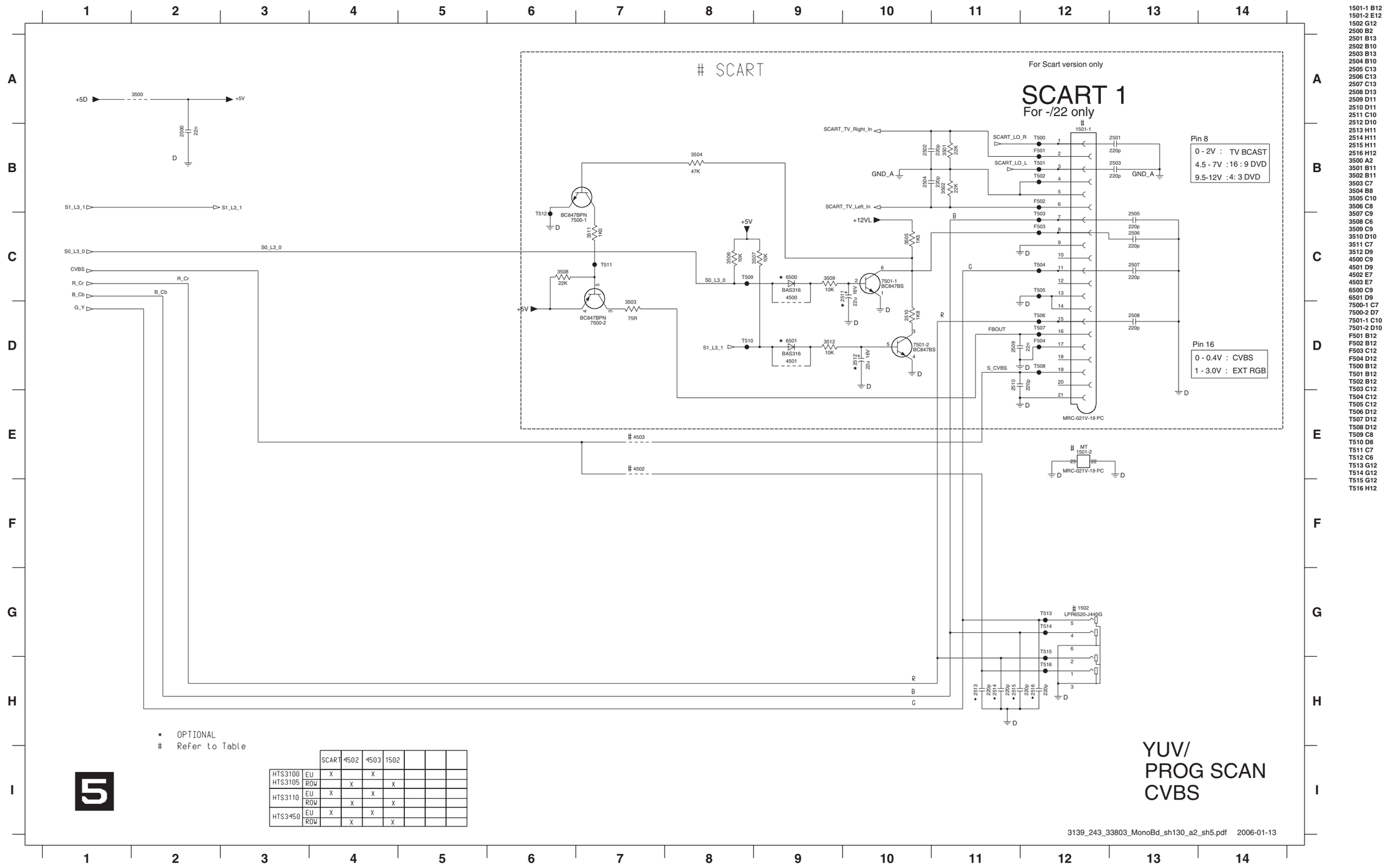
1300 A1	3364 I6
1301 C1	3365 A9
1302 F1	3366 A10
1303 G1	3368 B9
1304 H1	4300 C3
2306 A2	4301 D3
2307 C2	4302 D10
2308 C6	4303 E14
2310 E13	4304 H2
2311 D8	4305 H2
2312 D9	4306 H2
2313 D11	4307 I2
2314 D8	5302 I13
2315 D10	5303 D9
2316 D10	6300 C3
2317 D5	6301 C3
2318 E9	6302 D10
2319 E10	6303 A11
2320 E13	6304 A9
2321 E13	6306 B10
2322 E12	6307 I5
2323 E3	7301 B3
2324 E4	7302 C7
2325 E5	7303 F11
2326 E3	7304-1 H8
2327 E4	7304-2 I8
2328 F7	7305-1 H3
2329 F6	7305-2 I3
2330 F4	7306 H12
2331 F5	7307 I5
2332 G6	7308-1 A10
2333 G4	7308-2 A11
2334 G5	7310 B10
2335 G7	F301 A2
2336 H7	F302 A2
2337 H10	F303 A2
2338 H9	F304 A1
2339 H9	F305 A2
2340 H10	F306 A2
2341 H7	F307 A2
2342 H11	F308 A2
2343 H11	F309 B2
2344 I11	F310 B2
2345 I7	F311 C2
2346 I13	F312 D2
2347 I10	F313 D2
2348 I9	F314 D2
2349 I9	F316 F3
2350 I10	F317 G3
2351 F11	F318 H2
2352 F12	F320 D2
2353 F12	F321 E2
2354 I13	F322 H2
2355 I13	F323 H2
2356 I13	F324 G3
2357 A11	T300 B6
2359 I4	T301 D6
2360 A11	T302 D6
2361 A9	T303 E7
2362 D12	T304 E7
3300 A3	T305 E14
3301 A3	T314 I5
3304 A3	T315 H13
3305 A4	T316 I13
3307 B2	T317 H10
3308 B4	T318 I10
3310 B3	T319 E10
3311 B6	T320 E10
3313 C6	
3314 C7	
3315 C7	
3316 C4	
3317 D8	
3318 D8	
3320 D4	
3321 D9	
3322 D8	
3323 D11	
3324 D11	
3325 D3	
3326 D4	
3327 E8	
3329 E4	
3330 E14	
3331 E13	
3332 E3	
3333 E4	
3334 E4	
3335 E7	
3336 F4	
3337 F7	
3338 F4	
3339 F5	
3340 F5	
3341 G4	
3342 G4	
3343 G5	
3344 G7	
3345 G5	
3346 H8	
3347 H9	
3348 H9	
3349 H10	
3350 H4	
3351 H3	
3352 H4	
3353 H7	
3354 I13	
3355 I3	
3356 I4	
3357 I8	
3358 I9	
3359 I9	
3360 I10	
3361 I4	
3362 I4	
3363 A9	

Mono Board: Circuit Diagram (Part 4)



1400 B1
1401 E1
1402 C1
1403 B4
2400 A4
2401 F4
2402 A3
2403 B5
2404 B5
2405 C3
2406 C3
2407 C3
2408 E8
2409 E8
2410 C4
2411 F8
2412 F8
2414 F6
2415 D3
2416 D2
2417 D2
2418 D2
2419 D2
2420 A2
2421 E2
3400 C4
3401 E8
3402 F8
3405 B6
3406 E7
3407 F6
3408 F7
3411 E6
3412 D4
3413 D4
3414 E5
3415 E4
3416 A7
3417 B8
3418 B7
3419 B8
3420 B7
3423 C7
3424 C8
3425 D7
3426 D8
3427 D7
3428 D3
3429 A2
3430 A2
3431 C4
4402 A4
4403 A6
6401 D3
6402 F2
6403 C3
6404 C4
6405 C4
6406 A1
7400 E3
7402 E6
7403-1 D5
7403-2 E3
7404 D3
7405 A8
7406 A7
7407 B6
7408 C7
7409 C8
7410 D8
7411 D7
7412 A2
F400 A4
F401 A4
F402 B4
F403 B4
F404 B4
F405 B4
F406 C4
F407 C4
F408 B3
F411 D2
F412 E2
T400 A3
T401 B4
T402 C4
T403 E4
T404 E3
T405 E9
T406 E7
T407 F8
T408 C2
T409 C2
T410 D2
T411 B2

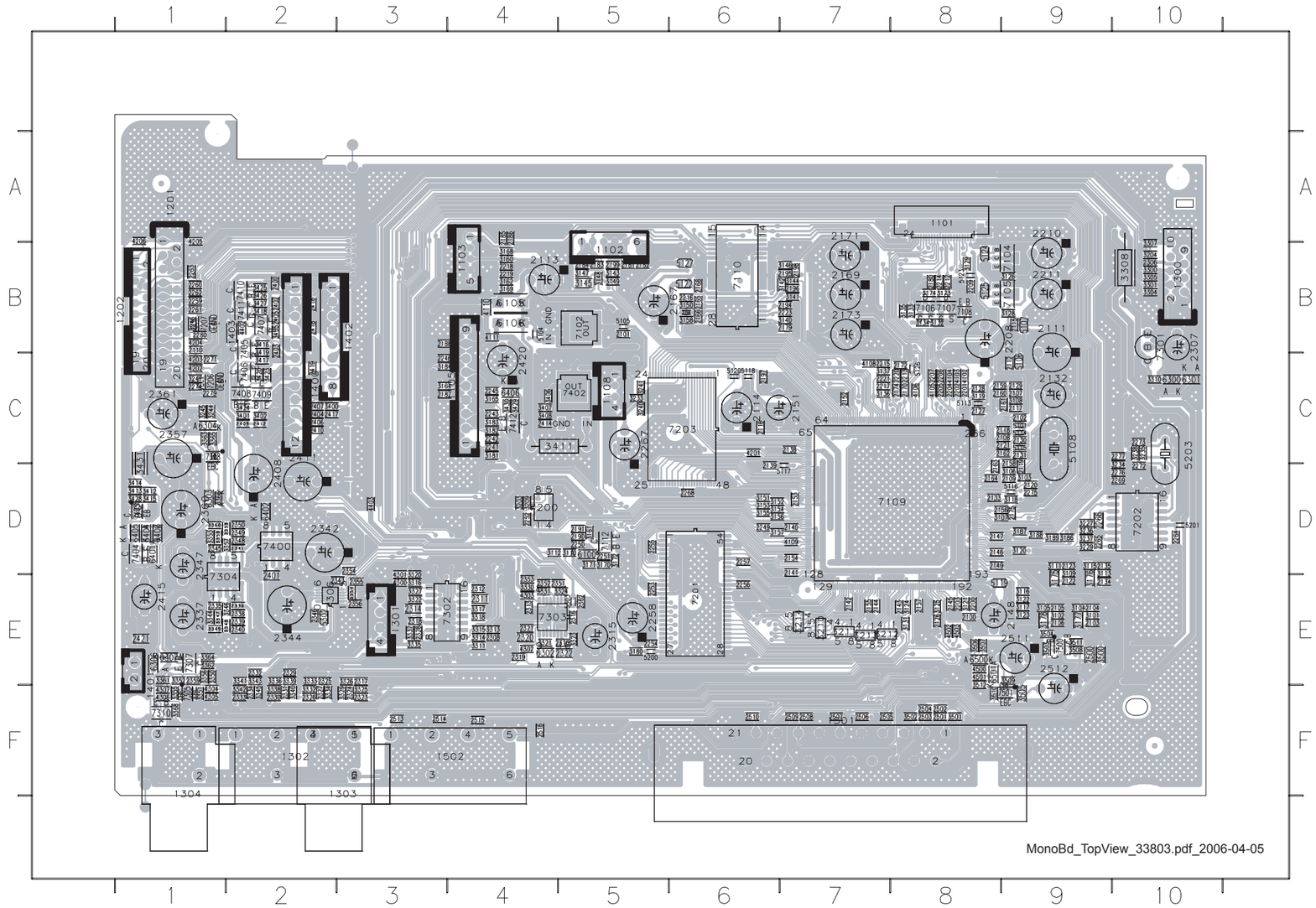
Mono Board: Circuit Diagram (Part 5)



		SCART	4502	4503	1502			
HTS3100 HTS3105	EU	X		X				
	ROW		X		X			
HTS3110	EU	X		X				
	ROW		X		X			
HTS3450	EU	X		X				
	ROW		X		X			

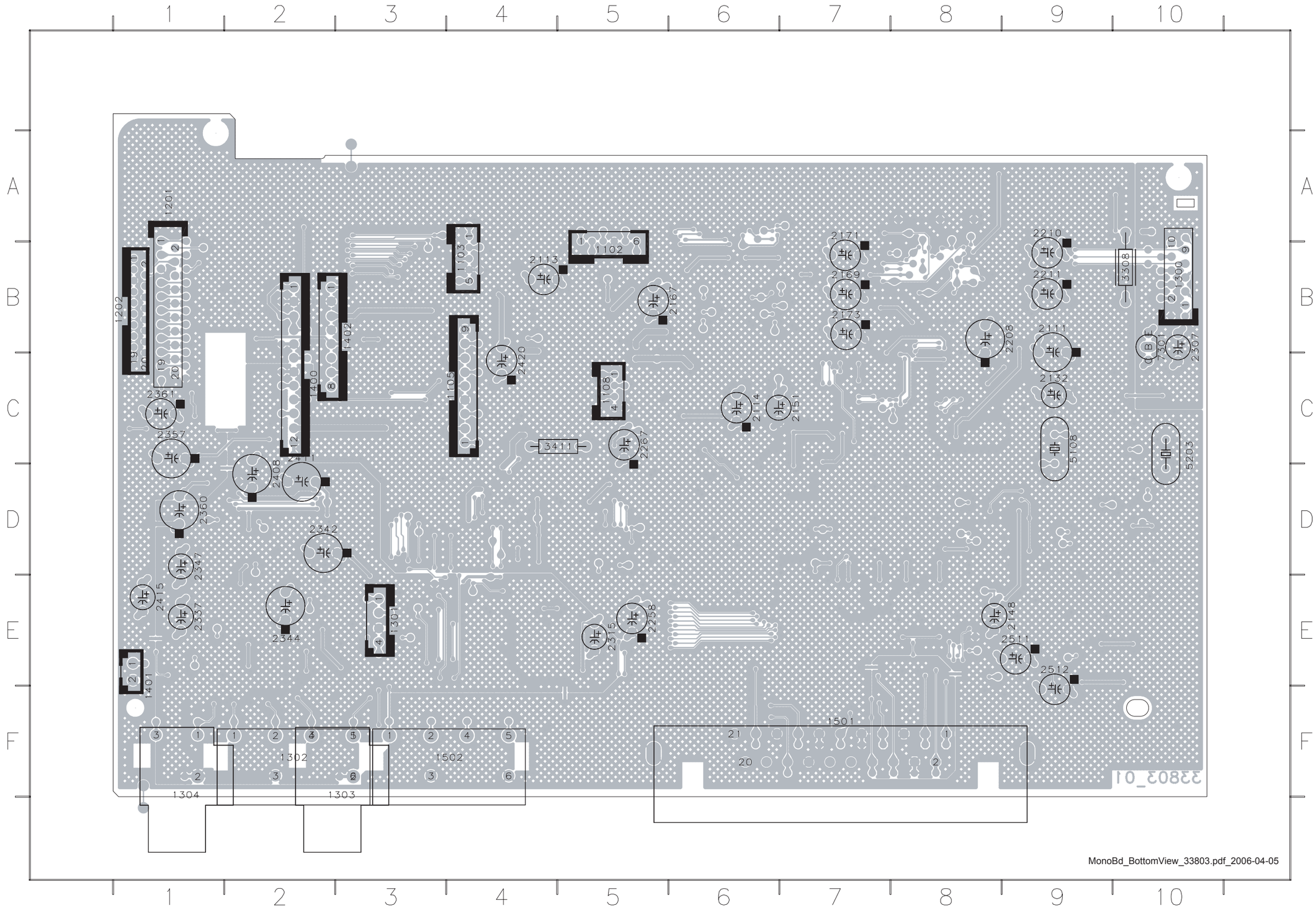
1501-1 B12
1501-2 E12
1502 G12
2500 B2
2501 B13
2502 B10
2503 B13
2504 B10
2505 C13
2506 C13
2507 C13
2508 D13
2509 D11
2510 D11
2511 C10
2512 D10
2513 H11
2514 H11
2515 H11
2516 H12
3500 A2
3501 B11
3502 B11
3503 C7
3504 B8
3505 C10
3506 C8
3507 C9
3508 C6
3509 C9
3510 D10
3511 C7
3512 D9
4500 C9
4501 D9
4502 E7
4503 E7
6500 C9
6501 D9
7500-1 C7
7500-2 D7
7501-1 C10
7501-2 D10
F501 B12
F502 B12
F503 C12
F504 D12
T500 B12
T501 B12
T502 B12
T503 C12
T504 C12
T505 C12
T506 D12
T507 D12
T508 D12
T509 C8
T510 D8
T511 C7
T512 C6
T513 G12
T514 G12
T515 G12
T516 H12

Layout: Mono Board (Topview)



1101	A8	2174	C8	2316	E5	3104	E9	3234	D10	3419	B2	6307	E1
1102	B5	2175	D9	2317	E3	3105	F9	3235	C10	3420	C2	6401	D1
1103	B4	2179	B7	2318	E3	3106	D9	3236	D9	3423	C2	6402	D2
1105	C4	2180	B8	2319	E4	3107	D8	3237	D9	3424	C2	6403	D1
1108	C5	2181	B5	2320	E4	3108	D9	3238	C10	3425	C2	6404	D1
1201	A1	2182	B5	2321	E4	3109	D9	3240	C5	3426	B2	6405	D1
1202	B1	2183	B5	2322	E5	3110	D5	3241	C5	3427	B2	6406	C4
1300	B10	2184	B5	2323	F3	3111	D9	3244	C1	3428	D1	6500	E8
1301	E3	2185	A4	2324	F3	3112	D4	3245	C1	3429	C4	6501	E8
1302	F2	2186	A4	2325	F2	3113	D9	3246	B1	3430	C4	7102	B5
1303	F3	2187	C3	2326	F2	3114	D9	3247	C1	3431	C1	7104	B9
1304	F1	2188	B3	2327	F2	3115	D9	3300	B10	3500	E9	7105	B9
1400	C2	2190	D5	2328	F3	3116	D9	3301	B10	3501	E8	7106	B8
1401	F1	2191	D5	2329	F2	3117	E9	3304	B10	3502	E8	7107	B8
1402	B3	2194	B7	2330	F2	3118	D9	3305	B10	3503	E9	7108	B8
1403	B2	2195	B7	2331	F2	3119	C8	3307	B10	3504	E9	7109	D8
1501	F7	2196	B7	2332	F2	3120	D9	3308	B10	3505	E9	7110	B6
1502	F4	2197	C6	2333	F2	3121	E8	3310	C4	3506	E9	7112	D5
2100	E8	2198	B7	2334	F2	3122	E9	3311	E4	3507	E8	7200	D4
2101	B5	2199	B5	2335	F1	3124	E8	3313	E4	3508	E9	7201	E6
2102	C9	2200	E8	2336	E2	3125	E8	3314	E4	3509	E9	7202	D10
2103	E9	2201	C8	2337	E1	3126	B9	3315	E4	3510	E8	7203	C6
2104	E9	2202	C8	2338	E2	3128	B9	3316	E3	3511	E9	7206	C1
2105	E9	2203	E8	2339	E2	3129	B8	3317	E4	3512	E8	7207	B10
2106	E9	2204	E8	2340	E2	3130	B8	3318	E3	3513	E8	7301	B10
2107	C9	2205	C8	2341	D2	3132	B8	3320	E3	4103	C8	7302	E3
2108	C9	2206	C8	2342	D2	3133	B8	3321	E4	4104	C8	7303	E4
2109	D9	2207	C8	2343	E3	3134	B8	3322	E3	4105	C8	7304	F1
2110	B1	2208	B9	2344	E2	3135	B8	3323	E5	4106	C8	7305	F1
2111	B9	2209	B8	2345	D1	3136	C7	3324	E5	4108	C7	7306	E2
2112	B9	2210	B9	2346	D2	3137	C7	3325	E4	4109	D7	7307	E1
2113	B4	2211	B9	2347	D2	3138	B7	3326	E3	4110	B4	7308	C1
2114	C6	2212	B8	2348	D2	3141	B7	3327	E3	4111	B4	7310	F1
2115	B9	2213	C8	2349	D2	3142	B7	3329	E3	4201	C6	7400	D2
2116	C6	2214	B8	2350	D2	3143	B5	3330	E4	4202	C1	7402	C5
2117	C9	2215	C7	2351	E5	3144	B7	3331	E4	4203	C1	7403	D1
2118	C9	2216	B6	2352	E4	3145	B5	3332	E2	4204	B1	7404	D1
2119	C9	2217	B6	2353	E4	3146	B5	3333	E2	4205	A1	7405	B2
2120	D9	2218	B4	2354	E4	3147	B5	3334	E2	4206	A1	7406	B2
2121	C9	2219	B4	2355	E3	3148	B5	3335	E3	4300	E3	7407	B2
2122	E9	2220	C8	2356	E3	3149	B5	3336	E2	4301	E3	7408	C2
2123	D9	2221	C7	2357	C1	3150	B6	3337	E3	4302	E4	7409	C2
2126	E8	2223	B7	2359	C1	3151	D6	3338	E2	4303	E4	7410	B2
2127	C8	2241	C4	2360	C1	3152	D6	3339	E2	4304	F1	7411	B2
2128	C8	2242	C4	2361	E5	3153	D6	3340	E2	4305	F1	7412	B2
2129	C9	2243	C4	2362	E5	3154	D6	3341	E2	4306	F1	7500	E9
2130	C9	2245	C4	2400	B2	3155	D6	3342	E2	4307	F1	7501	F9
2131	C9	2246	C3	2401	E2	3156	D6	3343	E2	4402	B2		
2132	C9	2249	D6	2402	B2	3157	D6	3344	E1	4403	D3		
2133	D8	2250	D5	2403	B2	3158	B6	3345	E2	4500	E8		
2134	E9	2251	D5	2404	C2	3159	B6	3346	E2	4501	E8		
2135	D9	2252	D4	2405	B2	3160	B4	3347	E2	4502	E8		
2138	C7	2253	E5	2406	C2	3161	D5	3348	E2	4503	E8		
2139	D6	2254	E5	2407	C2	3162	B4	3349	E1	5101	C9		
2140	D7	2255	D5	2408	D2	3164	C3	3350	E1	5104	B4		
2141	D7	2256	E6	2409	C2	3165	C4	3351	E1	5105	B5		
2142	E7	2257	D6	2410	C2	3168	B4	3352	E1	5106	C9		
2143	E6	2258	E5	2411	C2	3169	B4	3353	D1	5107	B9		
2144	E7	2259	B1	2412	C2	3170	D5	3354	E1	5108	C9		
2145	E8	2260	B1	2414	C4	3171	D5	3355	E3	5113	C8		
2146	D8	2261	B1	2415	E1	3172	D5	3356	E1	5114	C9		
2147	D8	2262	B1	2416	B2	3173	B8	3357	D2	5115	C9		
2148	E9	2263	B1	2417	C2	3174	B8	3358	D1	5116	D9		
2149	D8	2264	D10	2418	B2	3175	E9	3359	D2	5117	D7		
2151	C7	2265	D9	2419	C2	3176	E9	3360	D1	5118	C8		
2152	C7	2266	D9	2420	C4	3177	E9	3361	D1	5119	C8		
2153	D7	2267	C5	2421	E1	3178	E9	3362	E1	5120	C8		
2154	D7	2268	D6	2500	F9	3180	E5	3363	C1	5122	B6		
2155	E7	2269	D10	2501	F8	3181	C4	3364	E1	5123	B8		
2156	D8	2271	C1	2502	F8	3182	C4	3365	C1	5124	B8		
2157	E8	2272	D10	2503	F8	3183	C4	3366	D1	5125	B8		
2158	C9	2273	C10	2504	F7	3184	C3	3367	D1	5126	C8		
2159	C8	2274	C1	2505	F7	3186	D9	3400	C2	5129	B6		
2160	C8	2275	D9	2506	F7	3187	D9	3401	C2	5200	E5		
2161	C9	2276	D10	2507	F7	3188	D9	3402	C2	5201	D10		
2162	C9	2277	C10	2508	F7	3189	D9	3405	B2	5203	C10		
2163	D8	2279	C1	2509	F7	3203	D4	3406	C4	5302	E2		
2164	D8	2280	B1	2510	F6	3204	B10	3407	C4	5303	E5		
2165	B6	2306	B10	2511	F6	3209	D4	3408	C4	6100	D5		
2166	B6	2307	B10	2512	F6	3210	E7	3411	C5	6105	B4		
2167	B6	2308	E4	2513	F3	3211	E7	3412	D1	6106	B4		
2168	B6	2310	E5	2514	F3	3212	E7	3413	D1	6300	C10		
2169	B7	2311	E4	2515	F4	3213	E7	3414	D1	6301	C10		
2170	C8	2312	E4	2516	F4	3214	E7	3415	D1	6302	E4		
2171	A7	2313	E4	3101	E9	3227	D9	3416	B2	6303	D1		
2172	C8	2314	E3	3102	E9	3229	D9	3417	C2	6304	C1		
2173	B7	2315	E5	3103	D9	3233	C5	3418	B2	6306	E1		

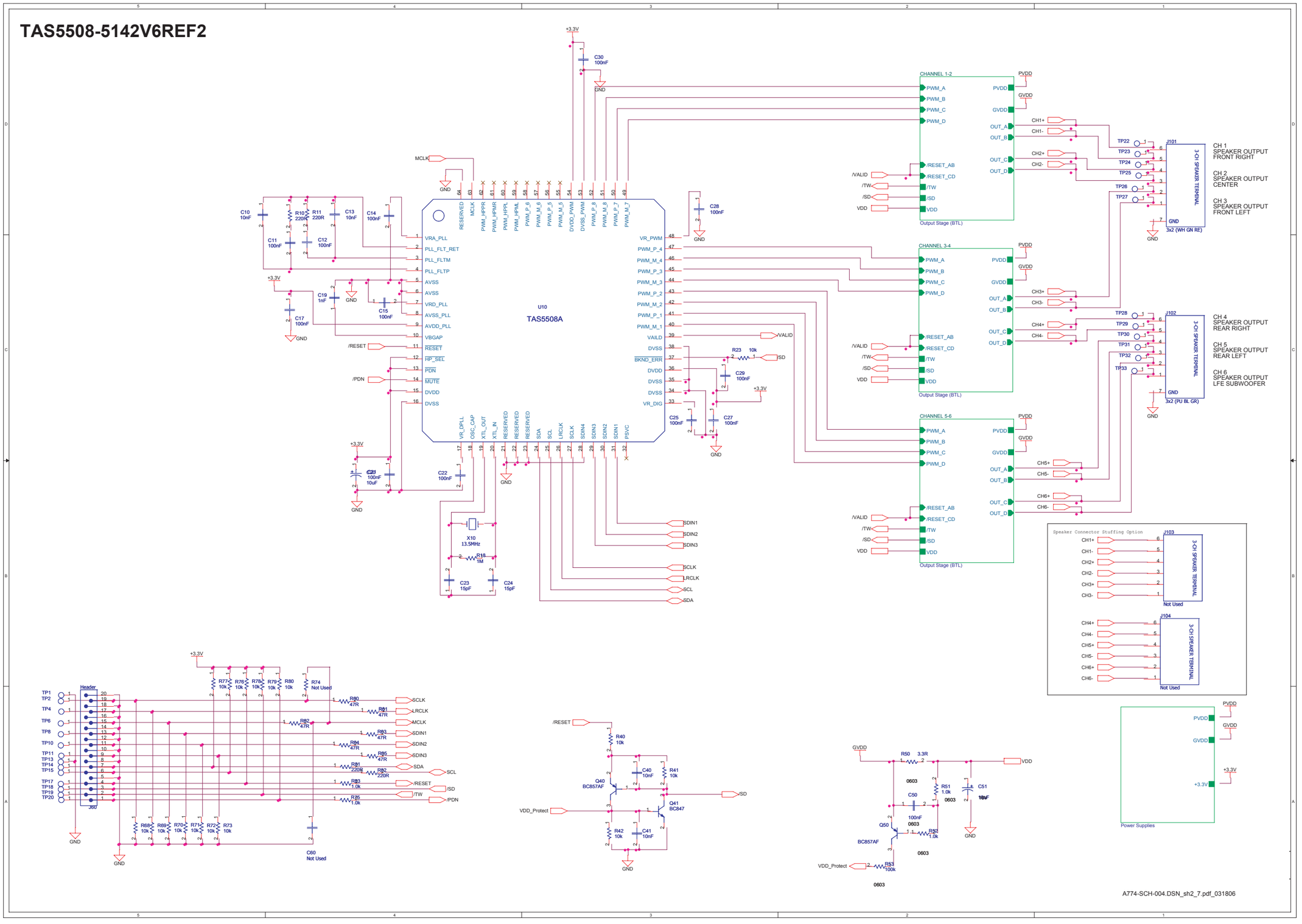
Layout: Mono Board (Bottom view)



MonoBd_BottomView_33803.pdf_2006-04-05

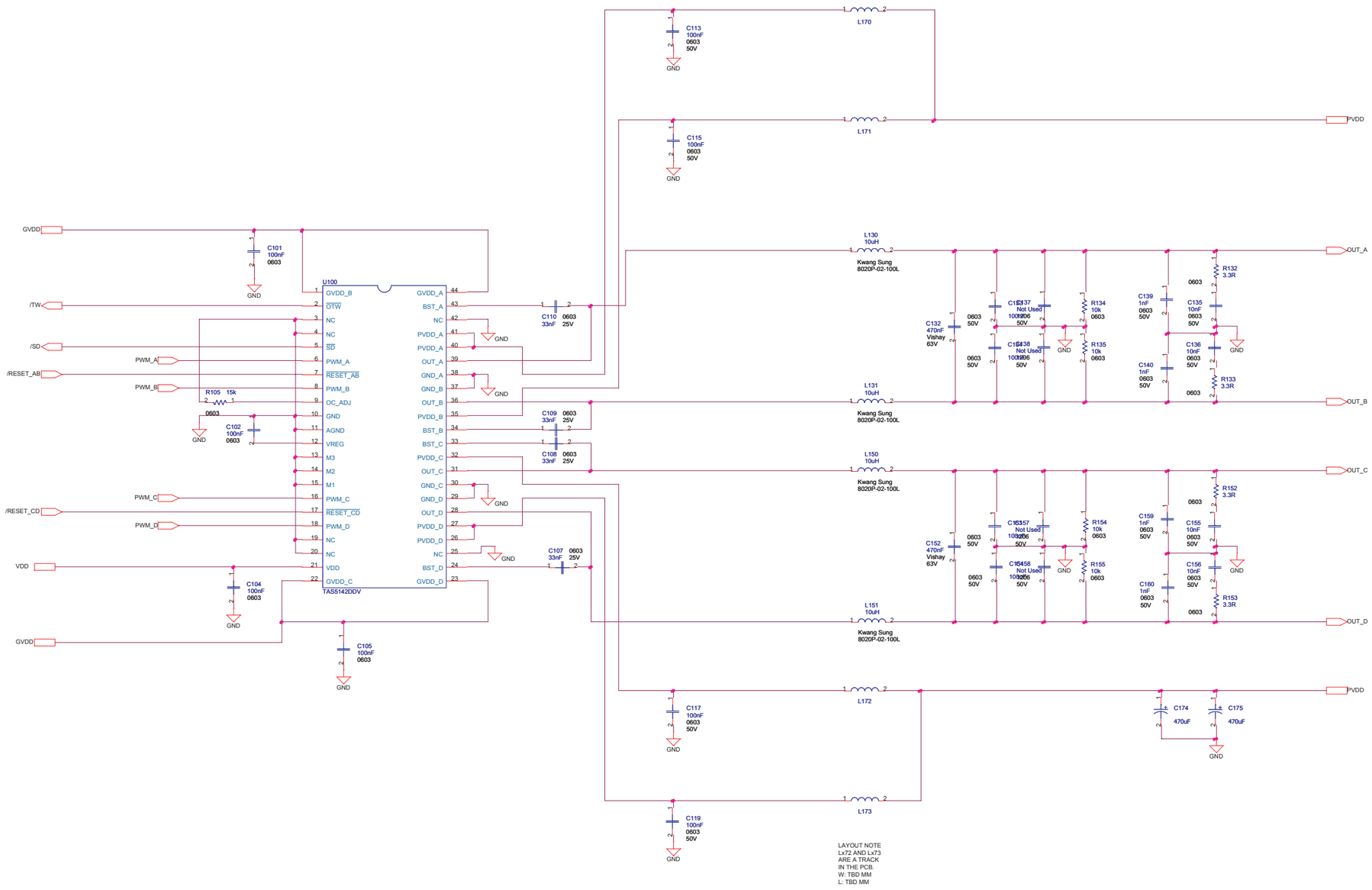
1102 B5
1103 B4
1105 C4
1108 C5
1201 A1
1202 B1
1300 B10
1301 E3
1302 F2
1303 F3
1304 F1
1400 C2
1401 F1
1402 B3
1501 F7
1502 F4
2111 B9
2113 B4
2114 C6
2132 C9
2148 E9
2151 C7
2167 B6
2169 B7
2171 A7
2173 B7
2208 B9
2210 A9
2211 B9
2258 E5
2267 C5
2307 B10
2315 E5
2337 E1
2342 D2
2344 E2
2347 D1
2357 C1
2360 D1
2361 C1
2408 D2
2411 C2
2415 E1
2420 C4
2511 E9
2512 E9
3308 B10
3411 C5
5108 C9
5203 C10
7301 B10

For information only (Amp Board)



For information only (Amp Board)

POWER OUTPUT STAGE (BTL)



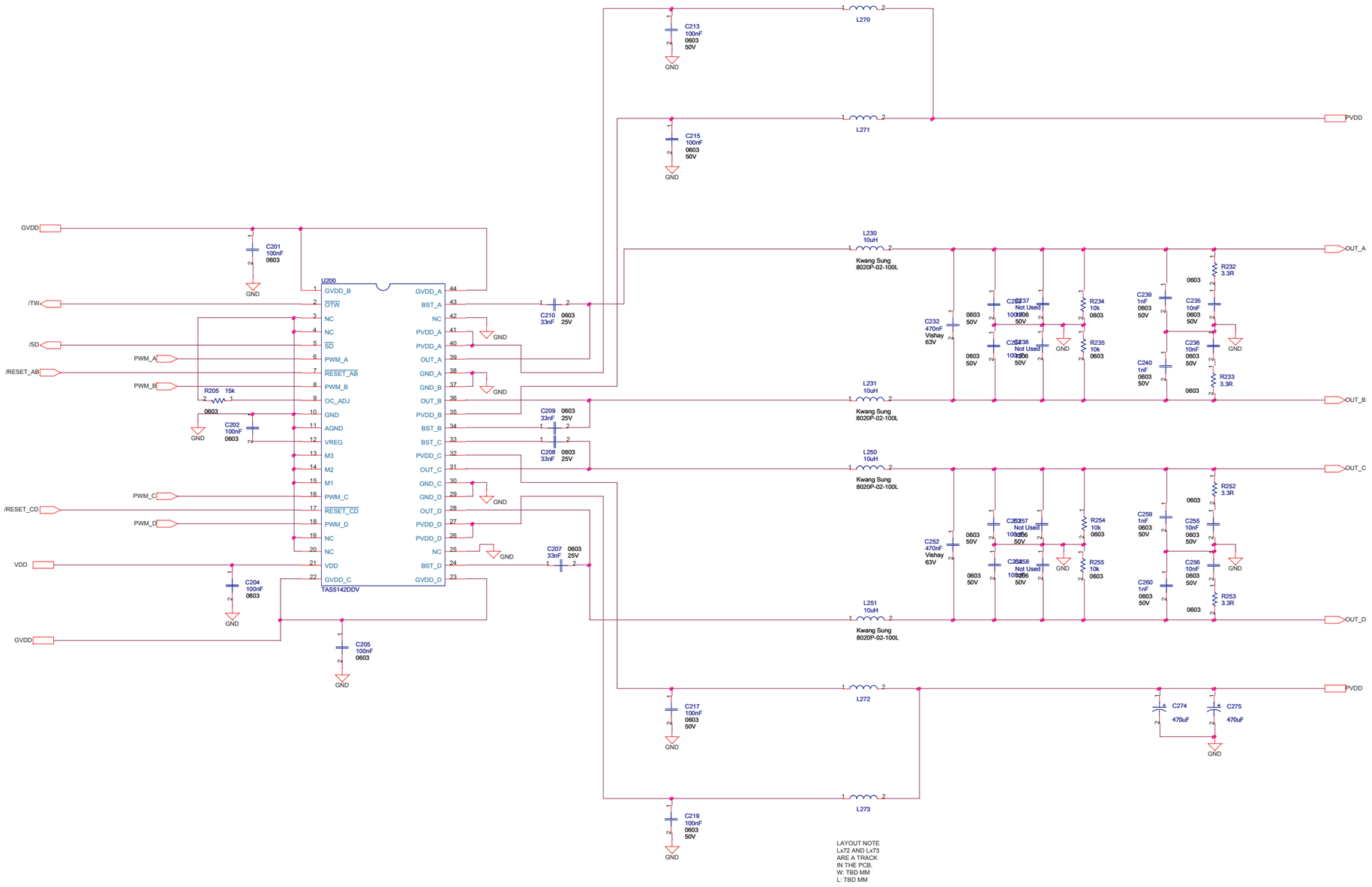
Mode Table

M2	M1	Type	Description
L	L	2xBTL	Full Protection, 2N+2 mode
L	H	2xBTL	No OLP - Latching Shutdown, 2N + 2, No Pulse Stretcher
H	L	2xBTL	Full Protection, 1N + 2 mode
H	H	1xPBTL	Full Protection, 1N + 2 mode (PBTL)

A774-SCH-004.(3.00)_sh3_7.pdf_031806

For information only (Amp Board)

POWER OUTPUT STAGE (BTL)

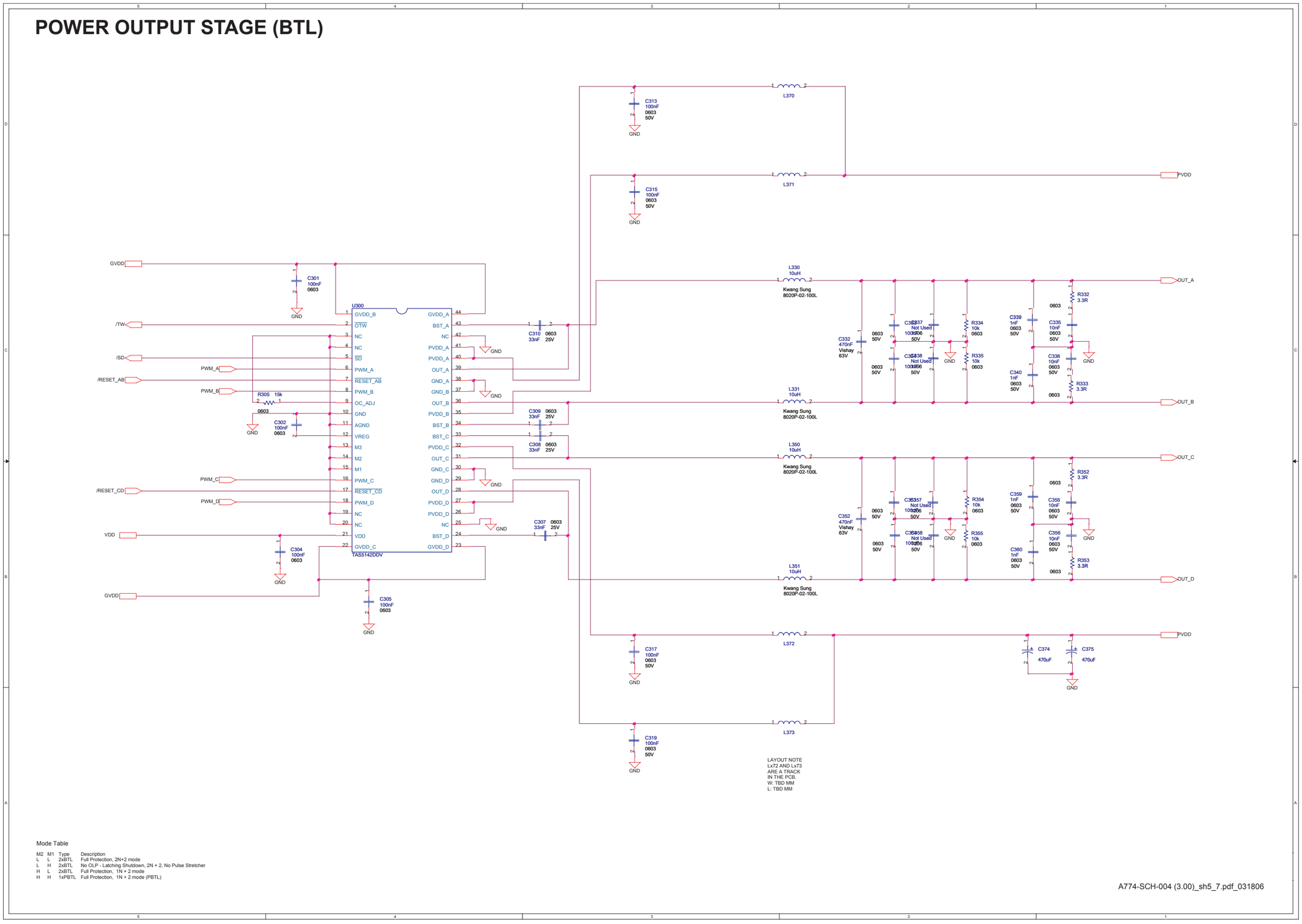


Mode Table

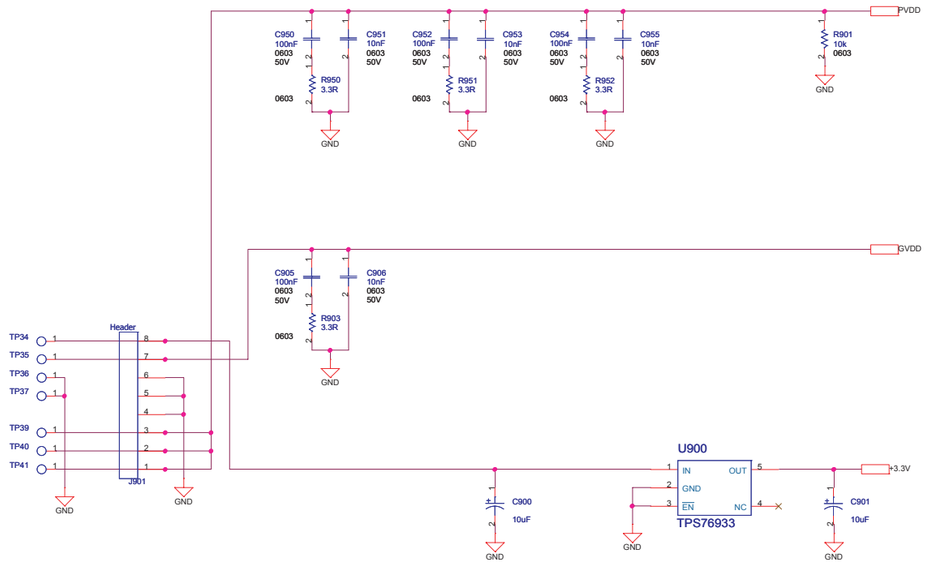
M2	M1	Type	Description
L	L	2xBTL	Full Protection, 2N+2 mode
L	H	2xBTL	No OLP - Latching Shutdown, 2N + 2, No Pulse Stretcher
H	L	2xBTL	Full Protection, 1N + 2 mode
H	H	1xPBTL	Full Protection, 1N + 2 mode (PBTL)

A774-SCH-004(3.00)_sh4_7.pdf_031806

For information only (Amp Board)

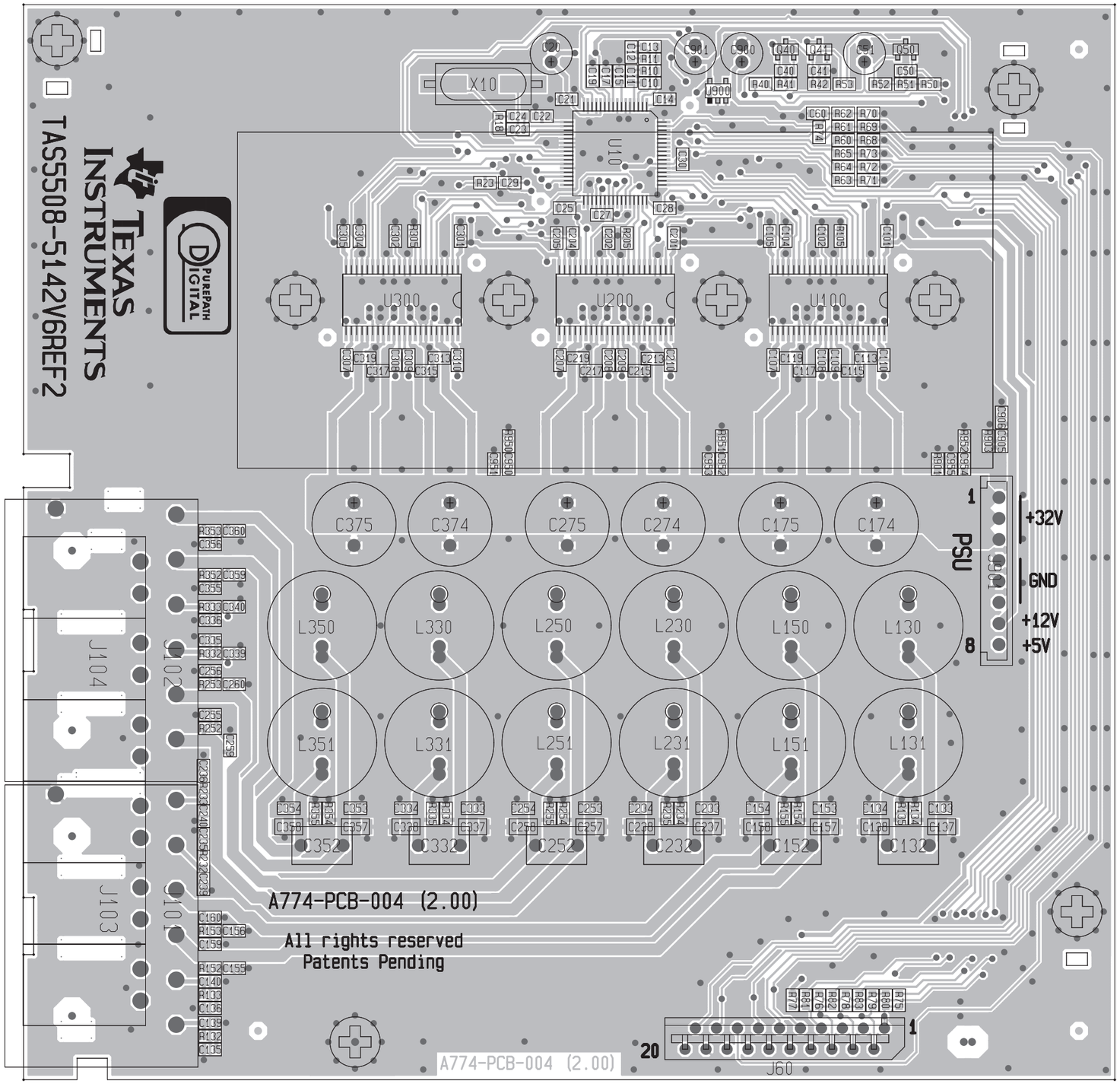


POWER SUPPLIES



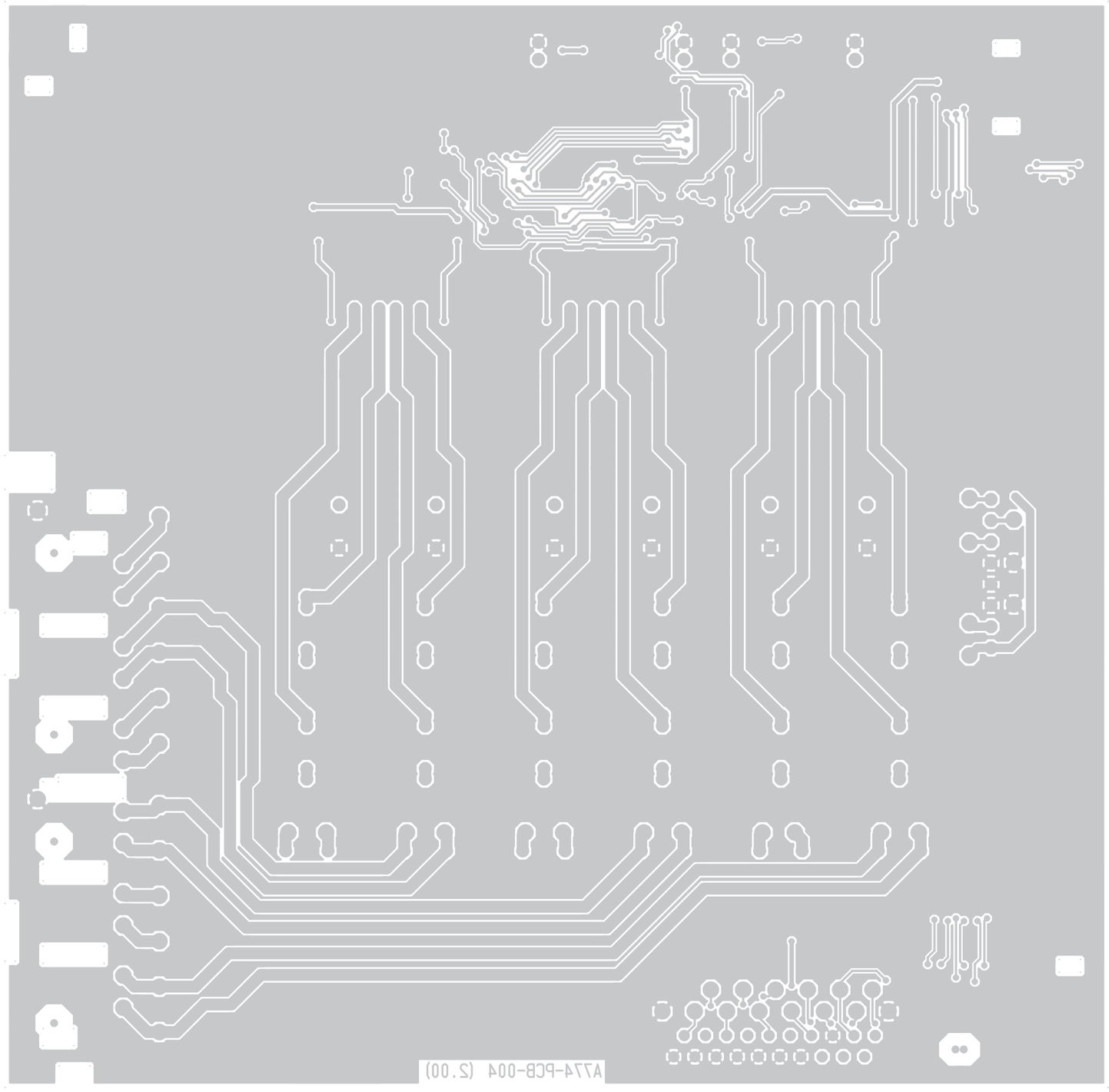
A774-SCH-004 (3.00)_sh6_7.pdf_031806

Amp Board Layout : Topview



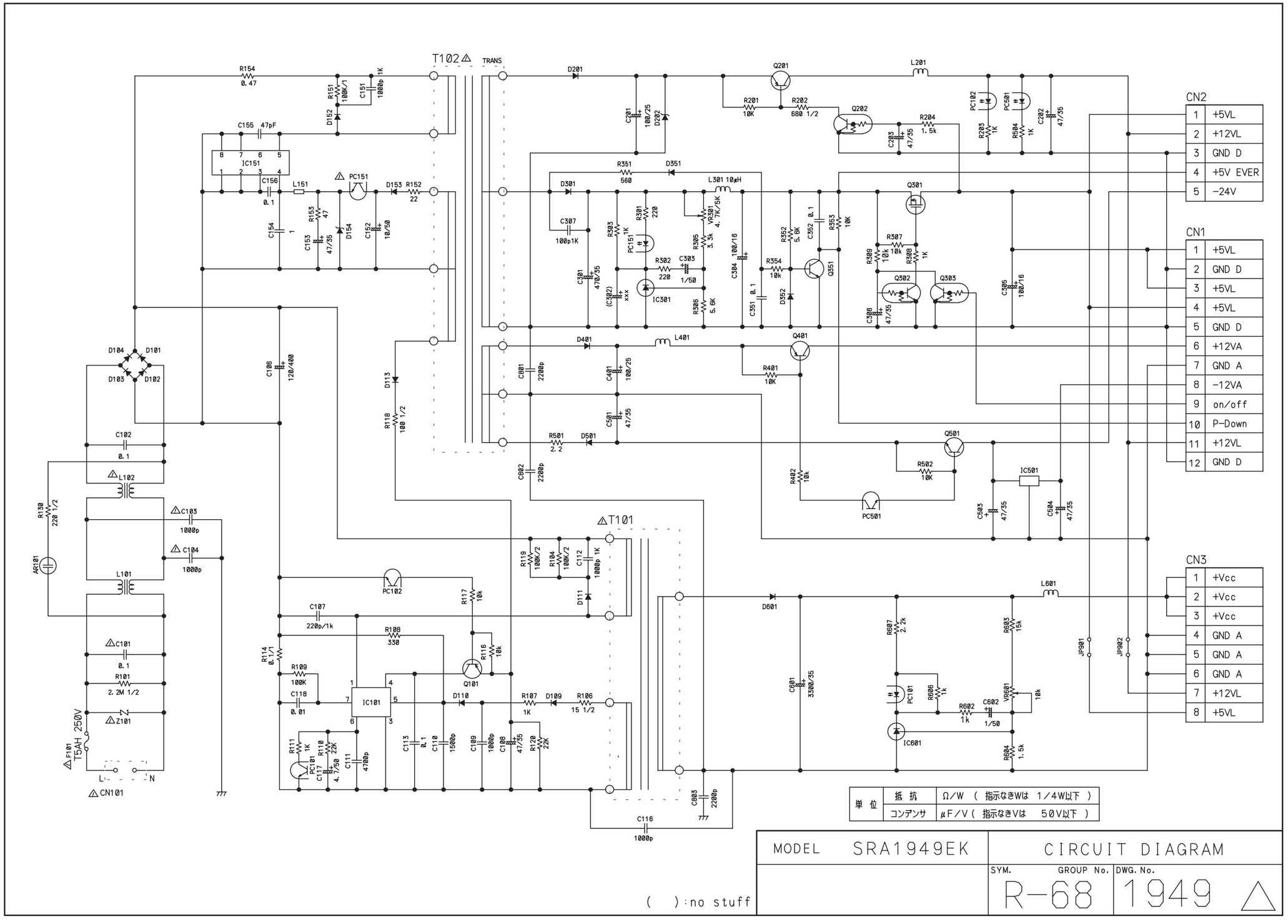
Pg4_A774_PCB_004 (2.00).pdf_Topview_031806

Amp Board Layout : Bottomview



hts3105ampbdbtm.pdf_Bottomview_031806

For Information Only PSU Module



9. Exploded View of the Set

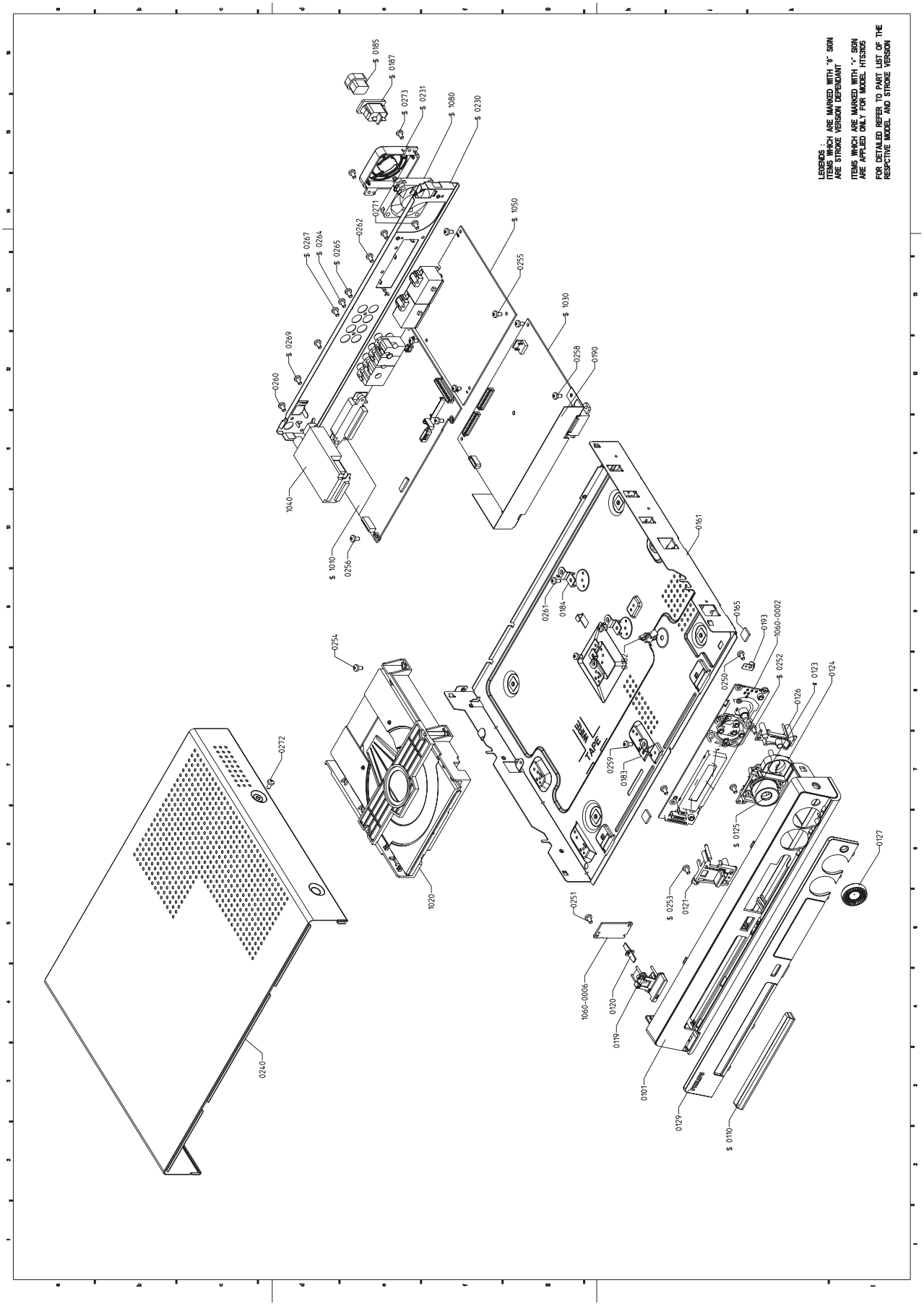


Figure 9-1

HTS3325/51

MISCELLANEOUS

0110	3139 244 12121		COVER CD TRAY HTS3325/51
0127	3139 244 10091		KNOB VOLUME HTS3455 CHROME
0185	4822 532 60948		BUSH
0331	2422 076 00546		FM AERIAL 24AWG BK B
0332	2422 549 45386		ANT AM LOOP LAN-011 B
0332Alt	2422 549 45813		ANT AM LOOP 039S20014 B
0333	2422 549 00901		REMOTE CONTR HTS3100-KOK B
0336	4822 321 11499	⚠	MAINSCORD 2.0M - EU
1010	3139 248 87711		PCBAS MONO HTS3110 ROW
1020	3139 248 00181		LOADER ASSY WXD8829 KHM313 RX
1030	3139 247 12711	⚠	MODULE PSU 06T400M EU
1040	2422 542 00031		TUN A F ENG07806QRF EUR B
1050	3139 247 12251		MODULE AMP-05-02 500W
1060	3139 248 87671		PCBAS FRONT HTS3110 ROW
1080	2822 031 00048		FAN 12VDC 0.5W 3700RPM B
8001	3139 241 01381		FFC FOIL10P/120/10P AD FOLD
8005	3139 241 02011		FFC FOIL 20P/140/20P AD
P001	3141 079 36151		FRAME ASSY HTS3110/75
P002	3141 079 36531		FRONT CAB ASSY HTS3325

LOADER ASSY WXD8829 KHM313 RX

0151	2422 549 00493	DVD LOADER WXD-8829(Y) B
0152	2422 549 00629	DVD MECHANISM KHM-313AAA Y
1101	3139 241 00341	FFC FOIL 24P/220/24P AD 0.5MMP

BOX SPK ASSY SW-3105 P

9965 000 35004	SW3105 SUBWOOFER BOX
9965 000 34997	RUBBER FOOT SW
9965 000 34998	CABLE A'SSY 5.3M PURPLE SMK

BOX SPK ASSY CS-3105 P

9965 000 34999	SPEAKER BOX FRONT-L
9965 000 35000	SPEAKER BOX FRONT-R
9965 000 35001	SPEAKER BOX REAR-L
9965 000 35002	SPEAKER BOX REAR-R
9965 000 34987	CABLE A'SSY 5.2M WHITE SMK
9965 000 34988	CABLE A'SSY 5.2M RED SMK
9965 000 34989	CABLE A'SSY 5.2M BLUE SMK
9965 000 34990	CABLE A'SSY 5.2M GREY SMK
9965 000 34991	RUBBER FOOT 58.5LX5.5WX3T
9965 000 34992	RUBBER FOOT 24LX6WX1T (L)
9965 000 35003	SPEAKER BOX CENTER
9965 000 34994	CABLE A'SSY 5.2M GREEN SMK S
9965 000 34995	RUBBER FOOT 39.5LX5.5WX2T