

Service
Service
Service

Service Manual

HDMI

DVD
VIDEODIVX[®]
ULTRADOLBY
DIGITAL
PRO LOGIC IIdts[™]
Digital SurroundHI-SPEED
CERTIFIED
USBEnergy Star
ENERGY STARPlays
Windows
Media[™]

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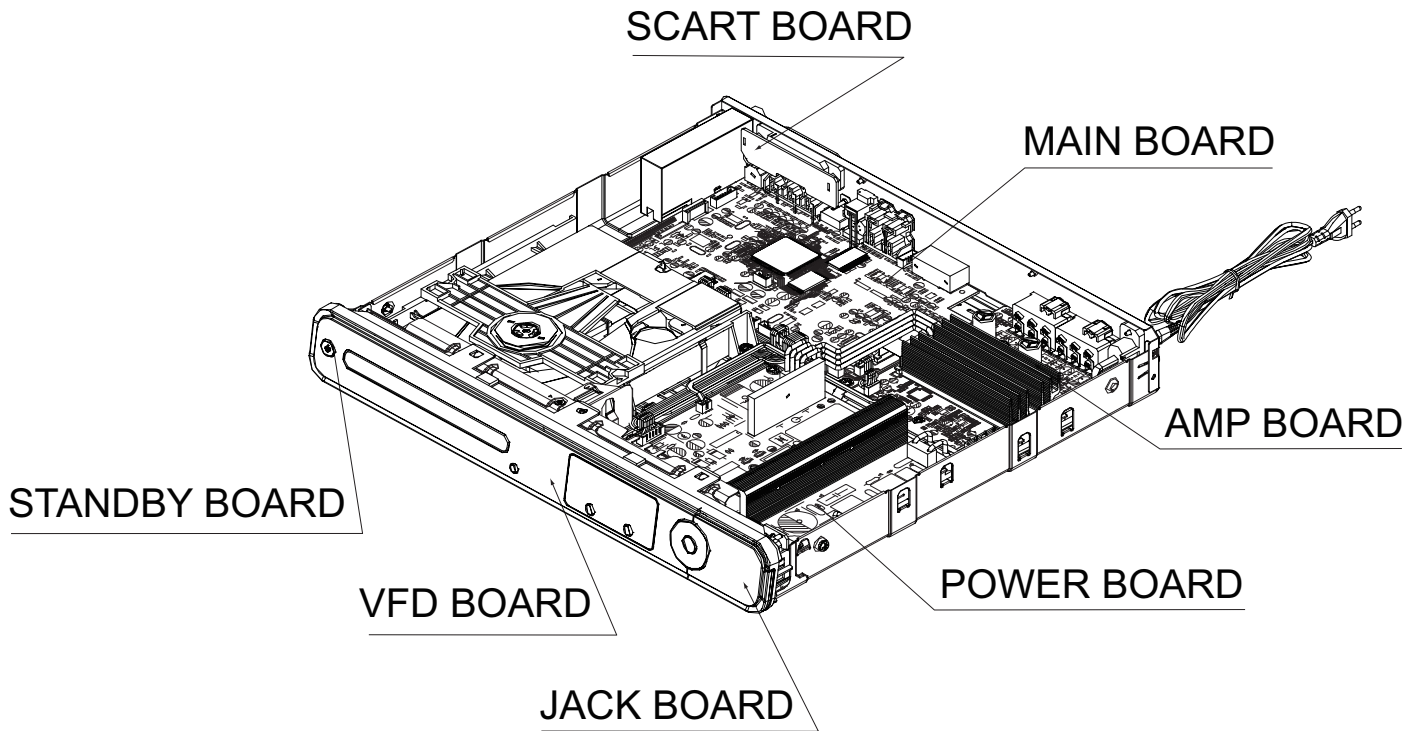
GB 3139 785 33301

Version 1.1



PHILIPS

LOCATION OF PCB BOARDS



VERSION VARIATION:

Type/Versions Features	HTS3164	
	/05	/12
Output Power - 300W	X	X
Voltage (220V~240V)	X	X
HDMI Out	X	X

SERVICE SCENARIO MATRIX:

Type/Versions Board in used	HTS3164	
	/05	/12
Main Board	Bd	Bd
Power Board	Bd	Bd
AMP Board	Bd	Bd
Scart Board	Bd	Bd
VFD+JACK+STANDBY Board	Bd	Bd

*Bd = Board Level Repair

SPECIFICATIONS

AMPLIFIER

Total output power:	
- Home Theatre mode	300 W
Frequency Response	180 Hz – 18 kHz / ± 3 dB
Signal-to-Noise Ratio.....	> 60 dB (A-weighted)
Input Sensitivity	
- AUX	400 mV
- SCART TO TV.....	200 mV
- MP3 LINK.....	400 mV

RADIO

Tuning Range.....	FM 87.5–108 MHz (50 kHz)
.....	26 dB Quieting
Sensitivity	FM 22 dBf
IF Rejection Ratio	FM 60 dB
Signal-to-Noise Ratio.....	FM 50 dB
Harmonic Distortion	FM Mono 3%
.....	FM Stereo 3%
Frequency Response	FM 180 Hz–10 kHz / ± 6 dB
Stereo Separation	FM 26 dB (1 kHz)
Stereo Threshold.....	FM 29 dB

DISC

Laser Type.....	Semiconductor
Disc Diameter.....	12cm / 8cm
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
Video S/N	56 dB
Composite Video	
Output.....	1.0 Vp-p, 75 Ω
Frequency Response	4 Hz–20 kHz (44.1 kHz)
.....	4 Hz–22 kHz (48 kHz)
.....	4 Hz–44 kHz (96 kHz)
PCM.....	IEC 60958
Dolby Digital	IEC 60958, IEC 61937
DTS	IEC 60958, IEC 61937

USB

Compatibility	Hi-Speed USB (2.0)
Class Support.....	UMS (USB Mass
.....	Storage Class),
.....	MTP (Media Transfer
.....	Protocol)

MAIN UNIT

Power Supply Rating	220 - 240V; 50Hz
Power Consumption	60 W
Dimensions.....	360 x 58 x 332 (mm)
.....	(w x h x d)
Weight	2.8 kg

FRONT AND REAR SPEAKERS

System.....	Full range satellite
Impedance.....	4 Ω
Speaker drivers	3" full range speaker
Frequency response.....	150 Hz – 20 kHz
Dimensions.....	103 x 203 x 71 (mm)
.....	(w x h x d)
Weight	0.45 kg/each

CENTRE SPEAKER

System.....	Full range satellite
Impedance.....	8 Ω
Speaker drivers	3" full range speaker
Frequency response.....	150 Hz – 20 kHz
Dimensions.....	103 x 244 x 74 (mm)
.....	(w x h x d)
Weight	0.78 kg

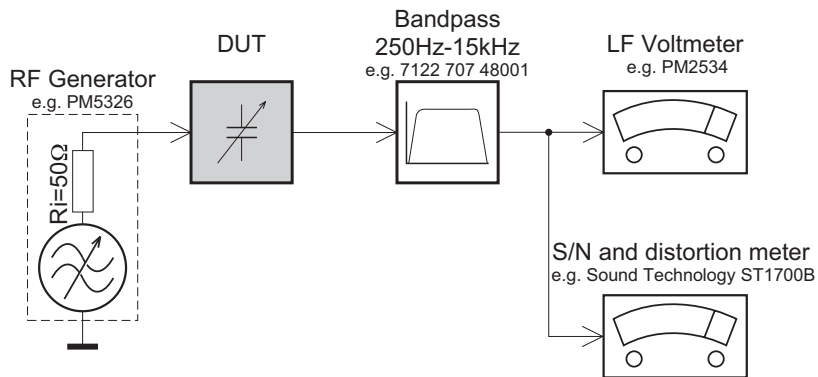
SUBWOOFER

Impedance.....	8 Ω
Speaker drivers	165mm (6.5") woofer
Frequency response.....	40 Hz – 150 Hz
Dimensions.....	123 x 310 x 369 (mm)
.....	(w x h x d)
Weight	3.85 kg

Specifications subject to change without prior notice.

MEASUREMENT SETUP

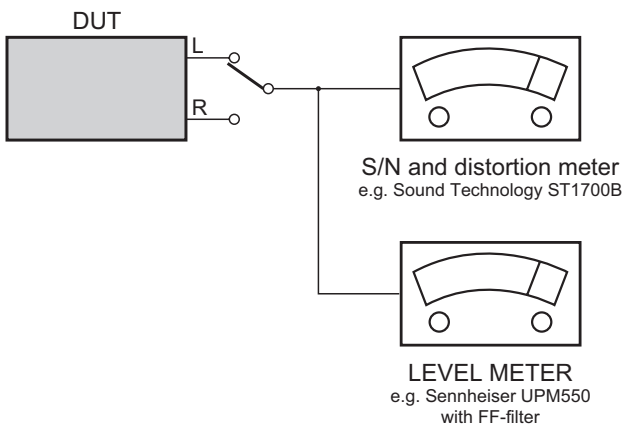
Tuner FM



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

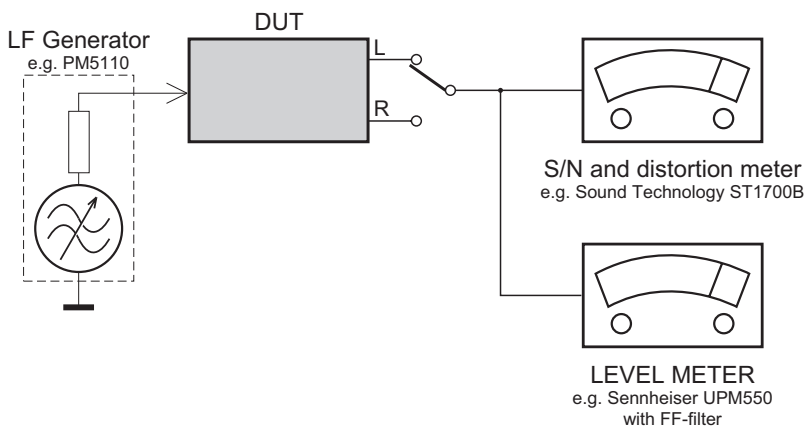
CD

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

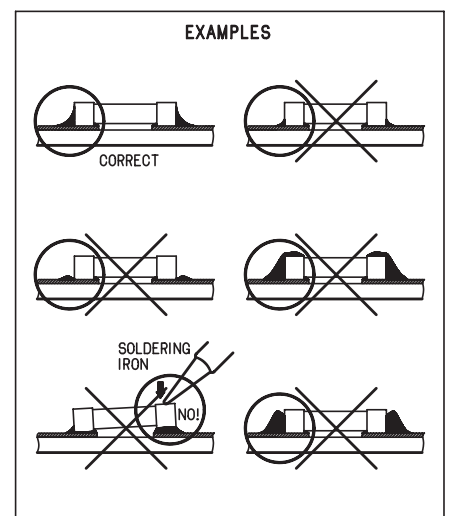
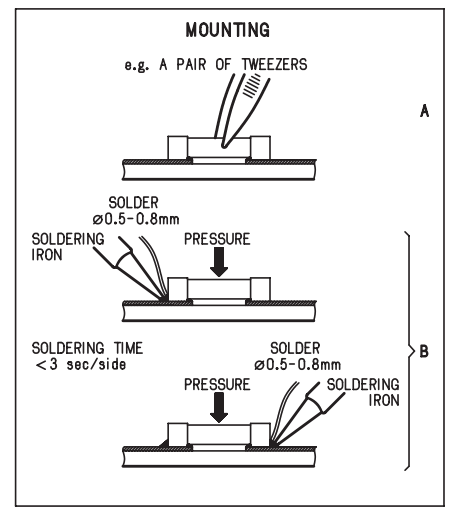
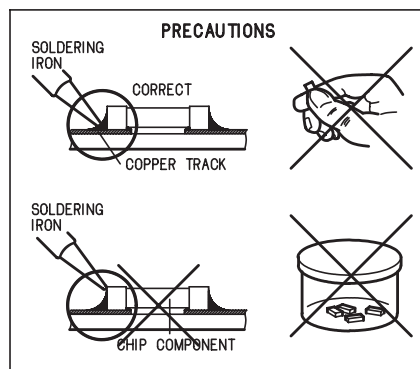
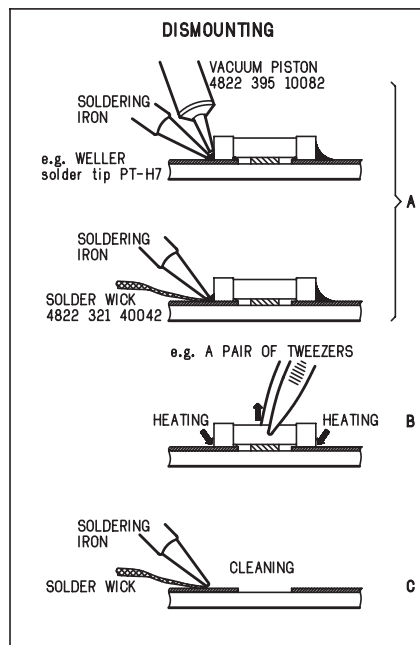
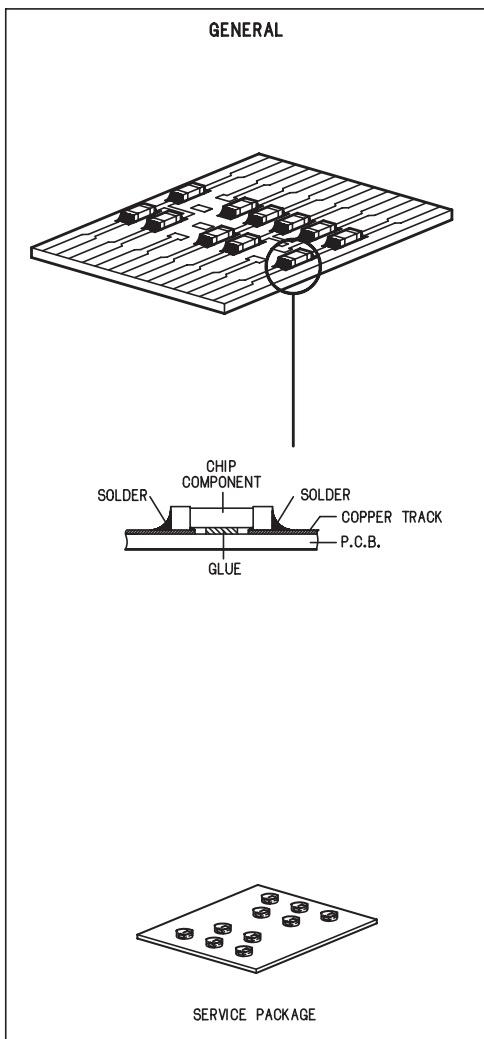
Service Tools:

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.

(F) ATTENTION

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

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

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

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

(D) WARNUNG

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

Unvorsichtige Behandlung im Reparaturfall kann die Lebensdauer drastisch reduzieren. Veranlassen Sie, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand verbunden sind mit dem gleichen Potential wie die Masse des Gerätes.

Bauteile und Hilfsmittel auch auf dieses gleiche Potential halten.

(NL) WAARSCHUWING

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).

Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen. Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.

Houd componenten en hulpmiddelen ook op hetzelfde potentiaal.

(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, extension cable and earth cable 4822 310 10671
Wristband tester 4822 344 13999

(GB)

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

Safety components are marked by the symbol Δ .

(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 symbol Δ .

(F)

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

Less composants de sécurité sont marqués Δ .

(D)

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

Sicherheitsbauteile sind durch das Symbol Δ markiert.

(I)

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

Componenti di sicurezza sono marcati con Δ .

(GB)

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

**(GB) Warning !**

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

(S) Varning !

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

(SF) Varoitus !

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

(DK) Advarsel !

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

(F)

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

Pb(Lead) Free Solder

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

IDENTIFICATION:

Regardless of special logo (not always indicated)



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

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

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

- Use only lead-free solder alloy Philips SAC305 with order code 0622 149 00106. If lead-free solder-paste is required, please contact the manufacturer of your solder-equipment. In general use of solder-paste within workshops should be avoided because paste is not easy to store and to handle.
- Use only adequate solder tools applicable for lead-free solder alloy. The solder tool must be able
 - 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 unused equipment, or reduce heat.
- Mix of lead-free solder alloy / parts with lead-ed solder alloy / parts is possible but PHILIPS recommends strongly to avoid mixed solder alloy types (lead-ed and lead-free).
If one cannot avoid or does not know whether product is lead-free, clean carefully the solder-joint from old solder alloy and re-solder with new solder alloy (SAC305).
- Use only original spare-parts listed in the Service-Manuals. Not listed standard-material (commodities) has to be purchased at external companies.
- Special information for BGA-ICs:
 - Always use the 12nc-recognizable soldering temperature profile of the specific BGA (for de-soldering always use the lead-free temperature profile, in case of doubt)
 - Lead free BGA-ICs will be delivered in so-called 'dry-packaging' (sealed pack including a silica gel pack) to protect the IC against moisture. After opening,

dependent of MSL-level seen on indicator-label in the bag, the BGA-IC possibly still has to be baked dry. (MSL=Moisture Sensitivity Level). This will be communicated via AYS-website.

Do not re-use BGAs at all.

- For sets produced before 1.1.2005 (except products of 2004), containing lead-ed solder-alloy and components, all needed spare-parts will be available till the end of the service-period. For repair of such sets nothing changes.
- On our website www.atyourservice.ce.Philips.com you find more information to:
 - BGA-de-/soldering (+ baking instructions)
 - Heating-profiles of BGAs and other ICs used in Philips-sets

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

For additional questions please contact your local repair-helpdesk.

System , Region Code , etc. Setting Prochure

1)System Reset

- a) Press “OPTIONS“ button on R/C,TV will show setup menu
- b) Select the menu using the▼ and ► on R/C
- c) Go preference page to do system reset

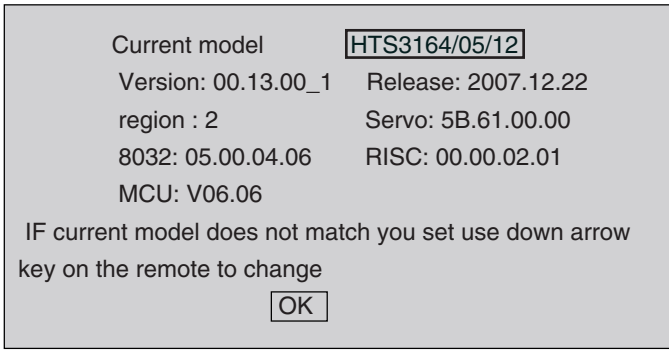
2)Region Code Change

- a) Open the CD Door, press”9” “9” “9” on R/C,then input desired number to change region code :

- | | |
|---|-----------------------|
| 1 | USA |
| 2 | EU |
| 3 | AP |
| 4 | Australia ,NZ , Latam |
| 5 | Russia , INDIA |
| 6 | CHINA |

3)Version Control Change

- a) In open model, press “1” “5” “9” on R/C
- b) Press “ok” button to confirm
- c) TV will show message as below:



4>Password Change

- a) Press “OPTIONS “ button on R/C,TV will show setup menu
 - b) Select the menu using the▼ and ► on R/C
 - c) Go preference page select “password” to change
- * 000000 is default password supplied.

5)Check on the Sofeware Version

- a) Open the CD Door
- b) Press “INFO“ button on R/C
- c) TV will show the version on screen

6)Trade model

- a) Press “Open/Close “ button on R/C
- b) Press “2” “5” “9” on R/C,VFD will display “TRA ON “ or “TRA OFF“

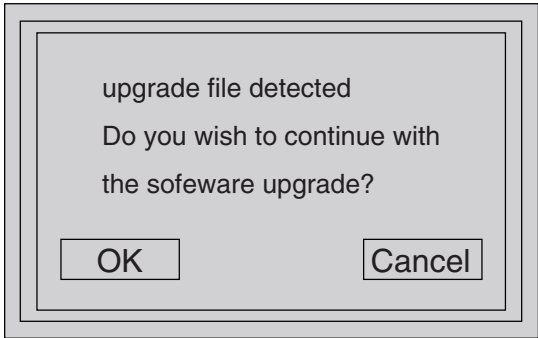
7) Upgrading new sofeware

- a) Copy “sofeware files” into a CD-R
- b) Open the CD Door,the insert CD into USB jack in the front panel
- c) Close the CD Door
- d) VFD will show:

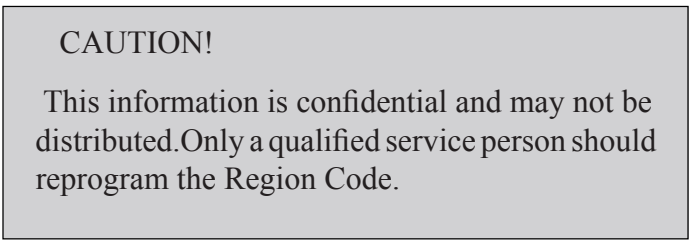
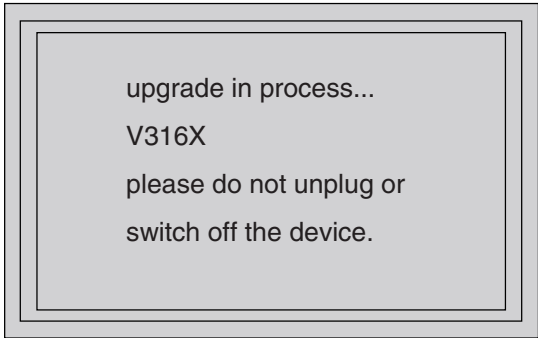
“Loading“
“Erase” -- erase the flash memory
“Writing” about 1 minute
“done “

* The system will switch off and on again automatically.

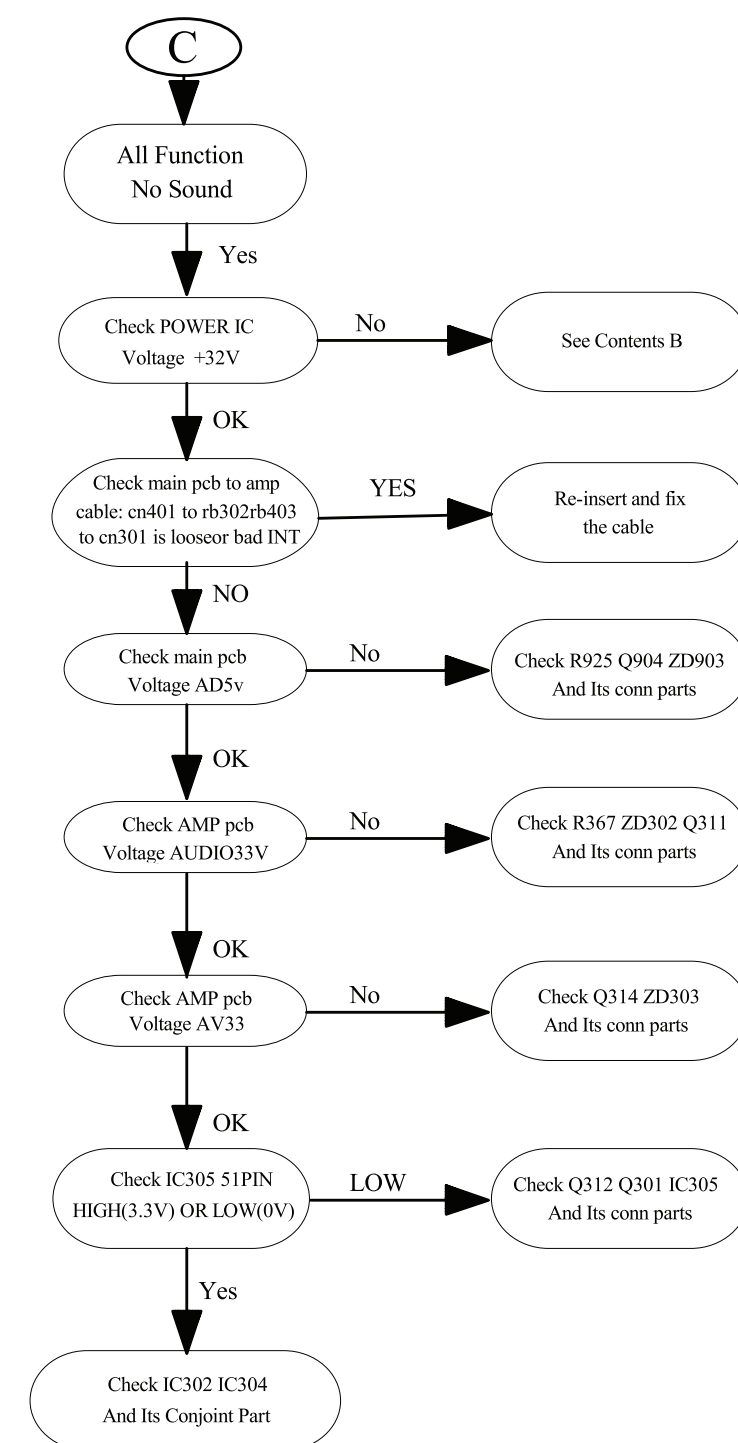
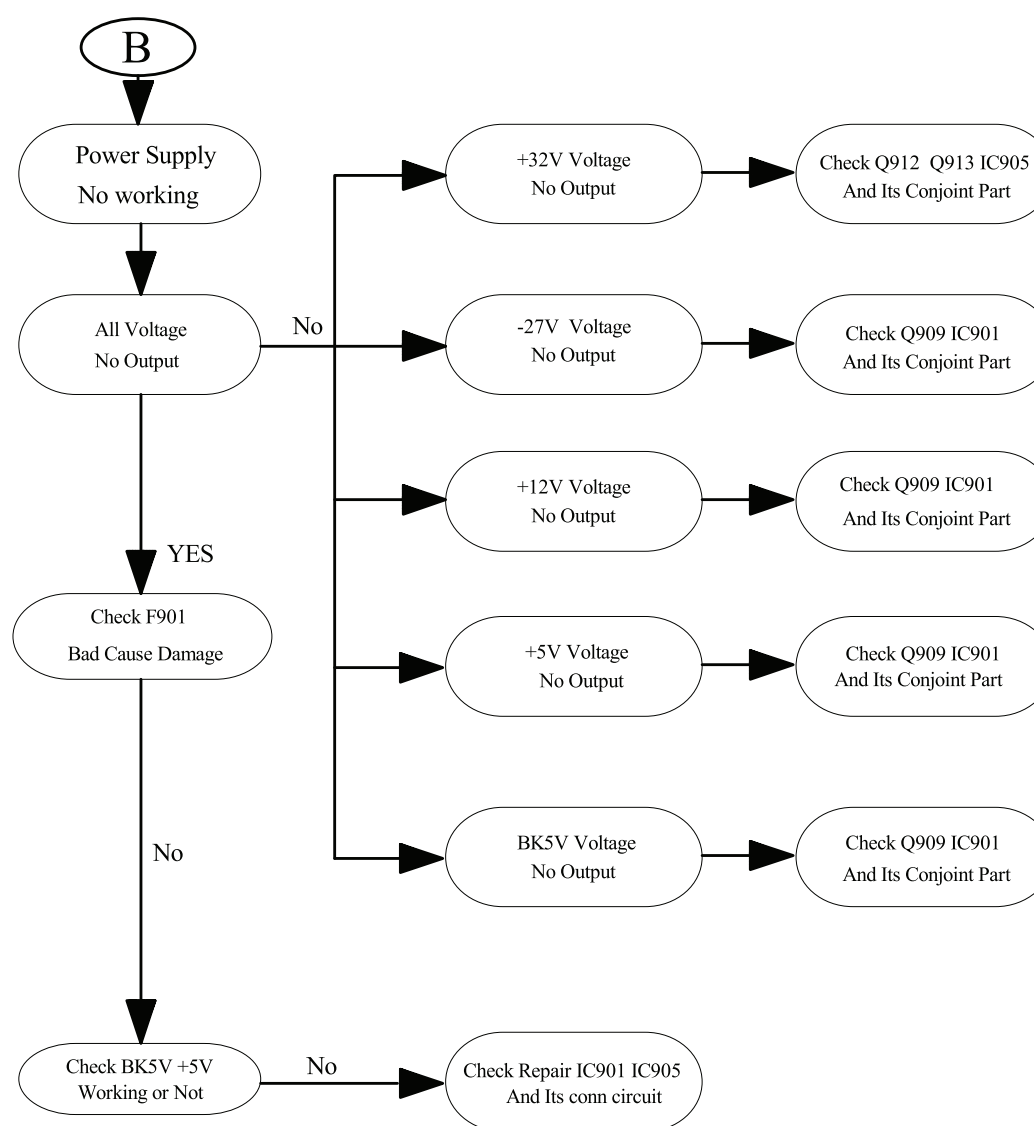
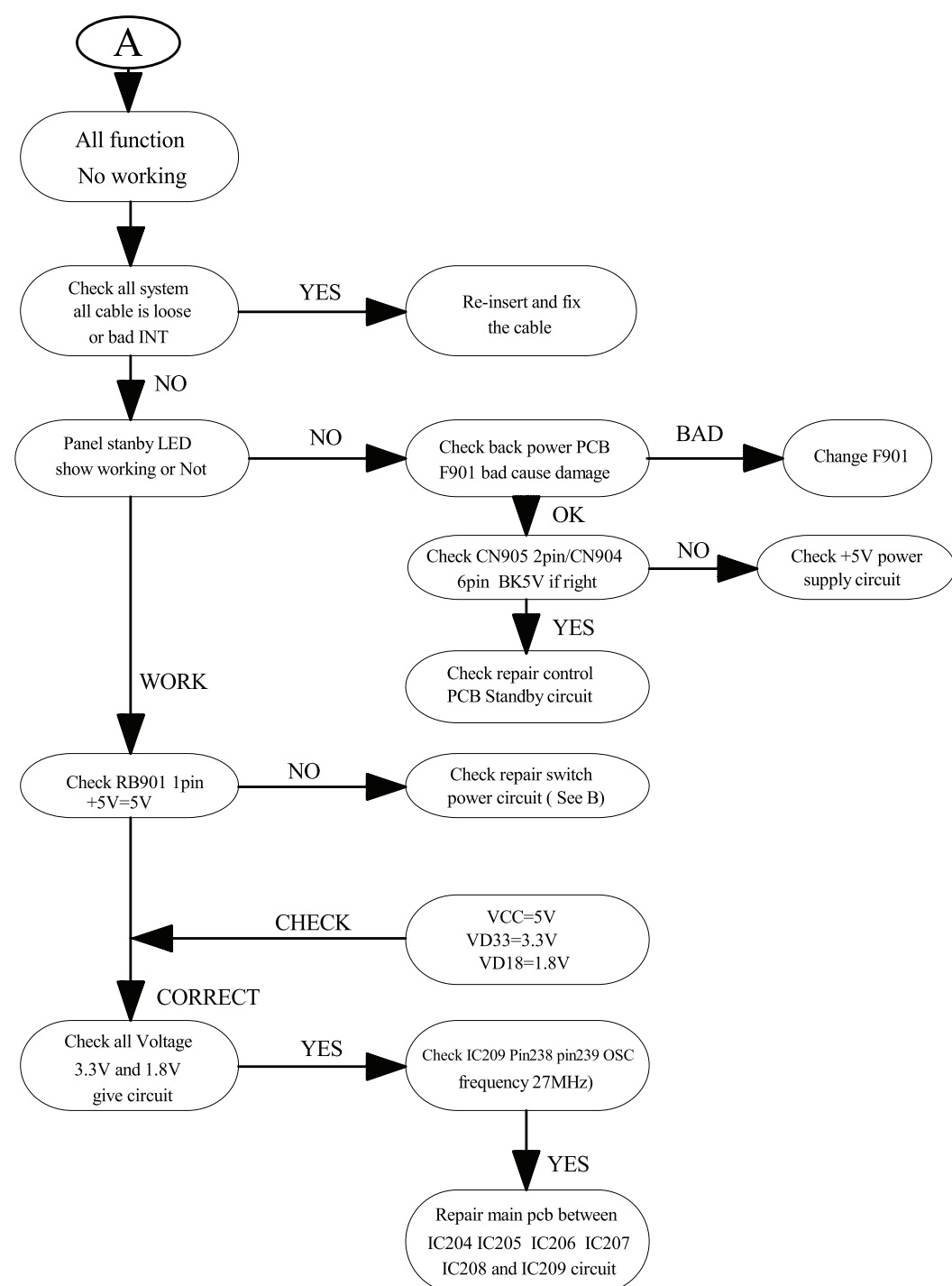
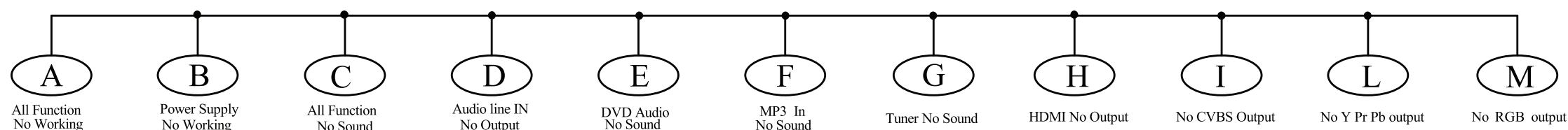
- e) OSD will show:



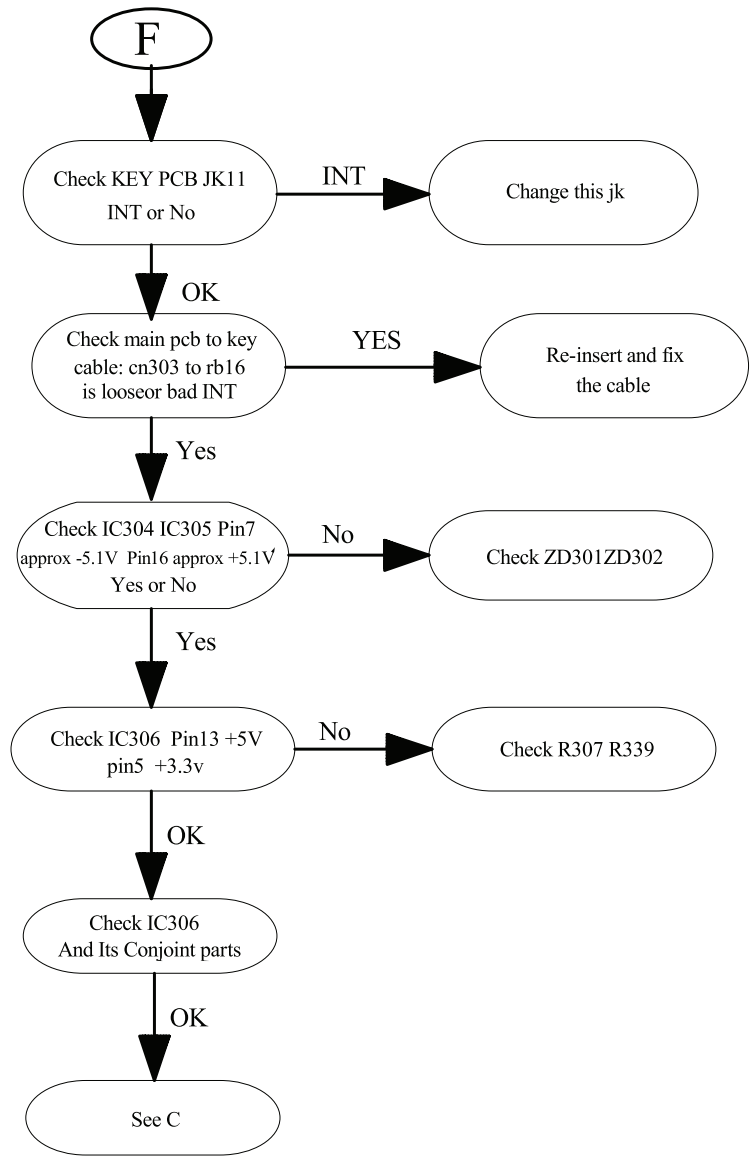
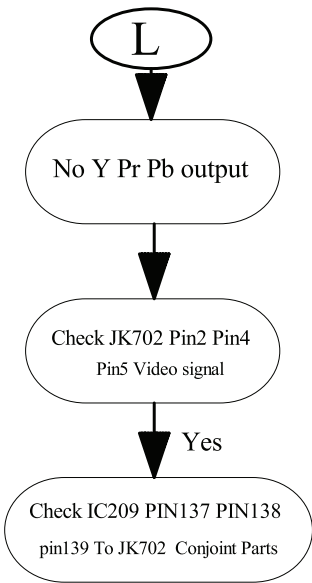
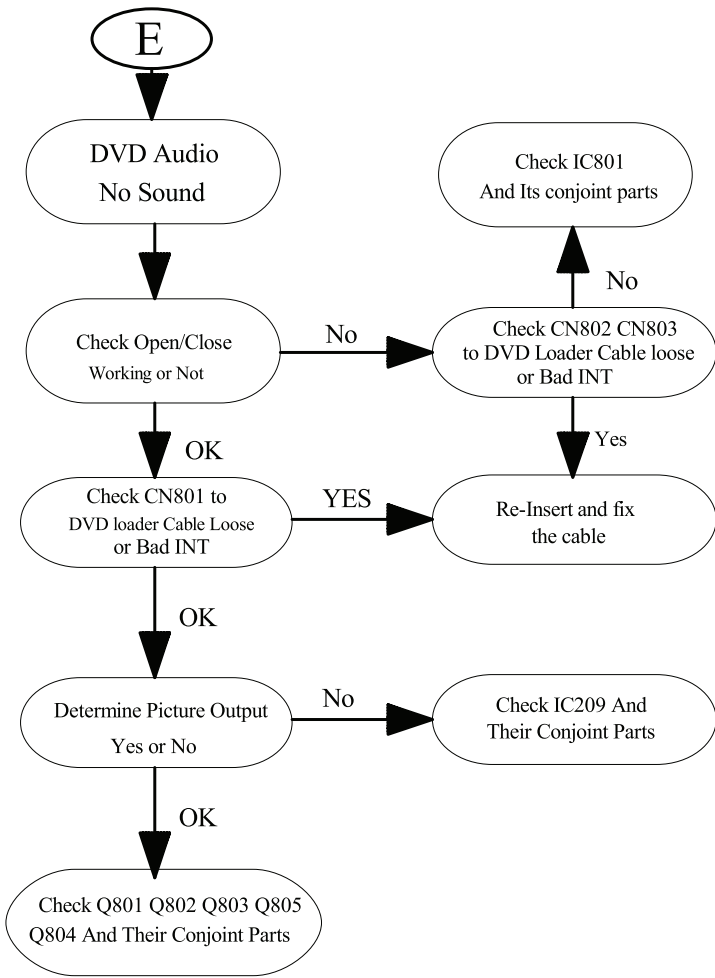
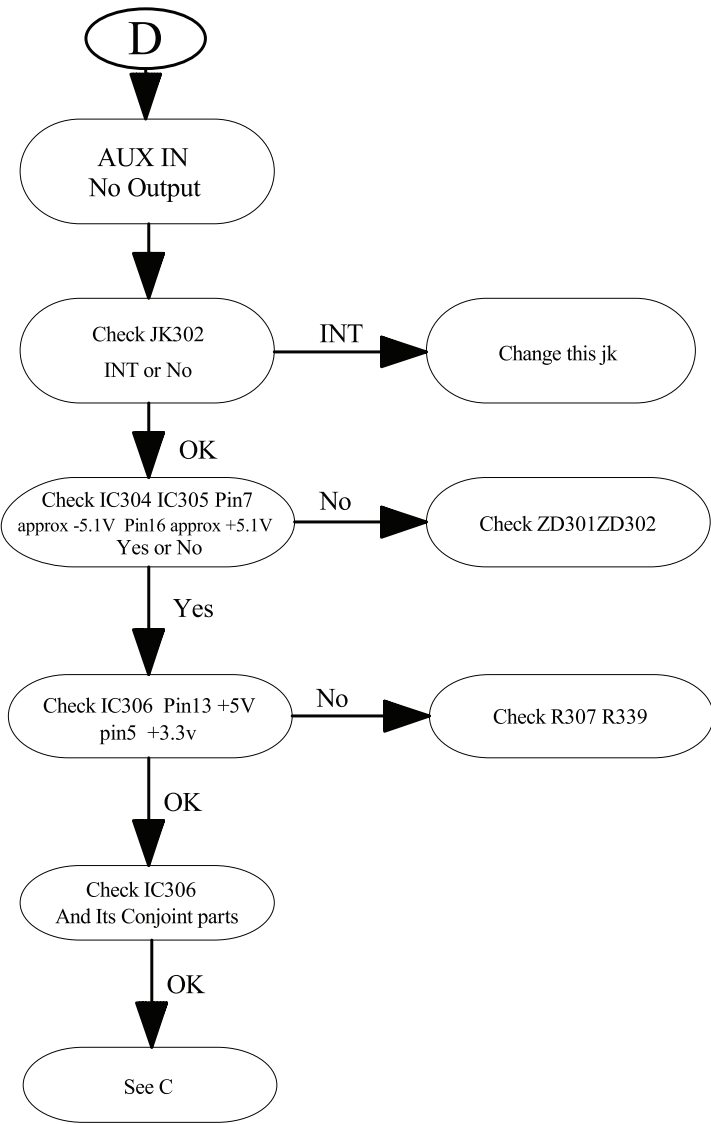
- f) Select “OK”, OSD will show:



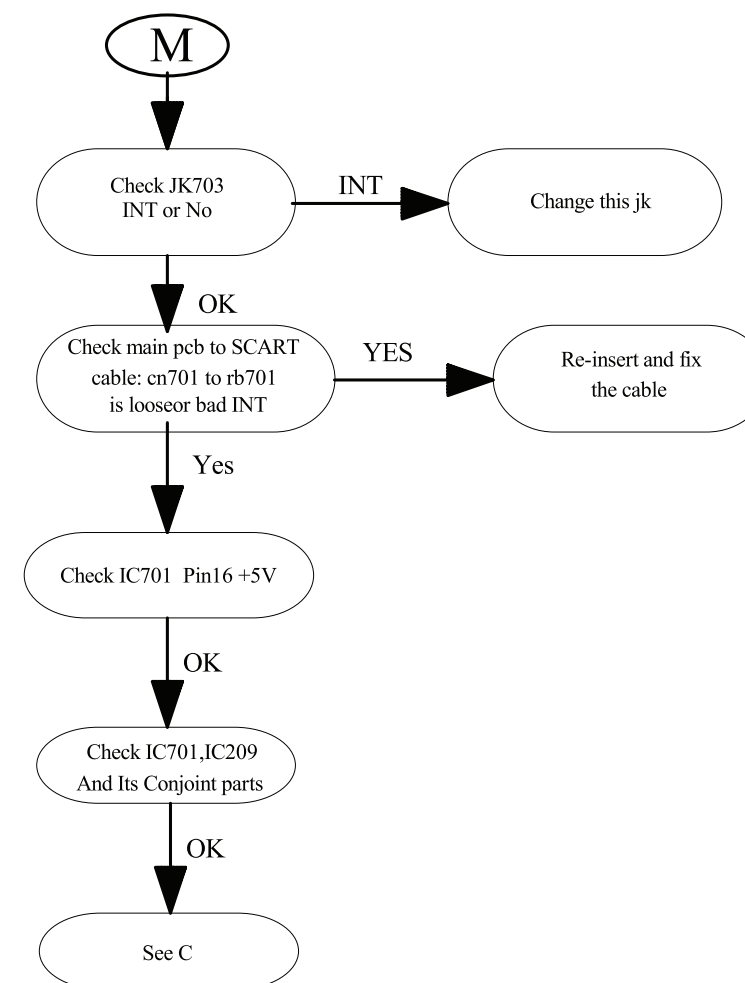
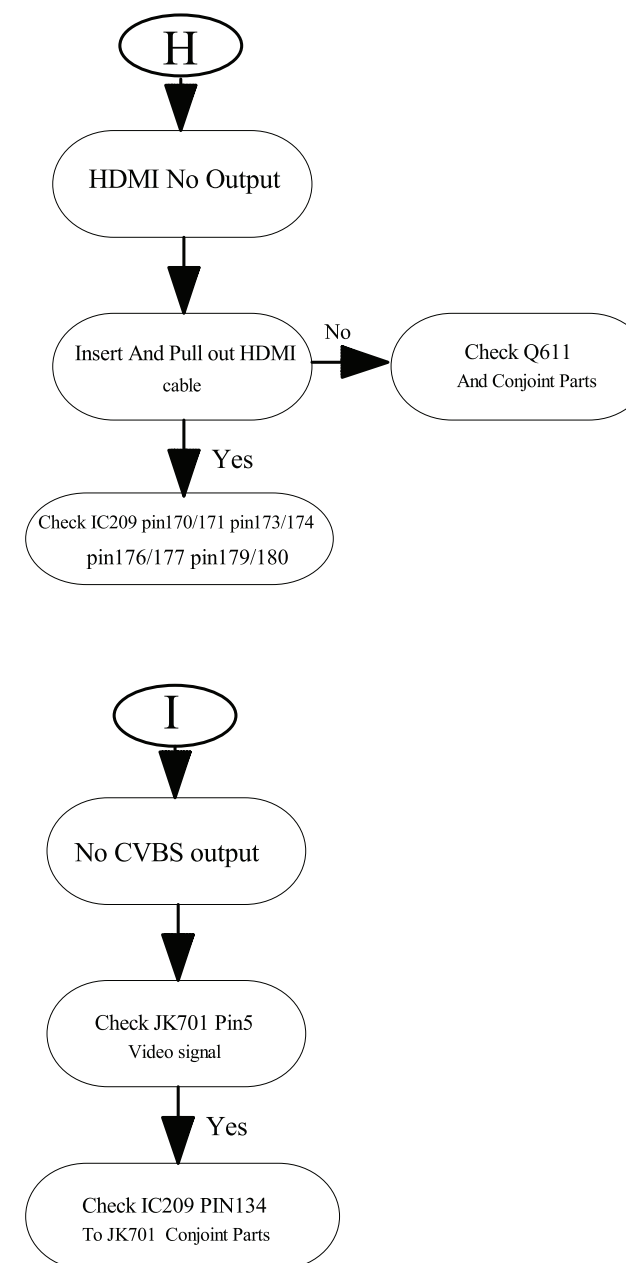
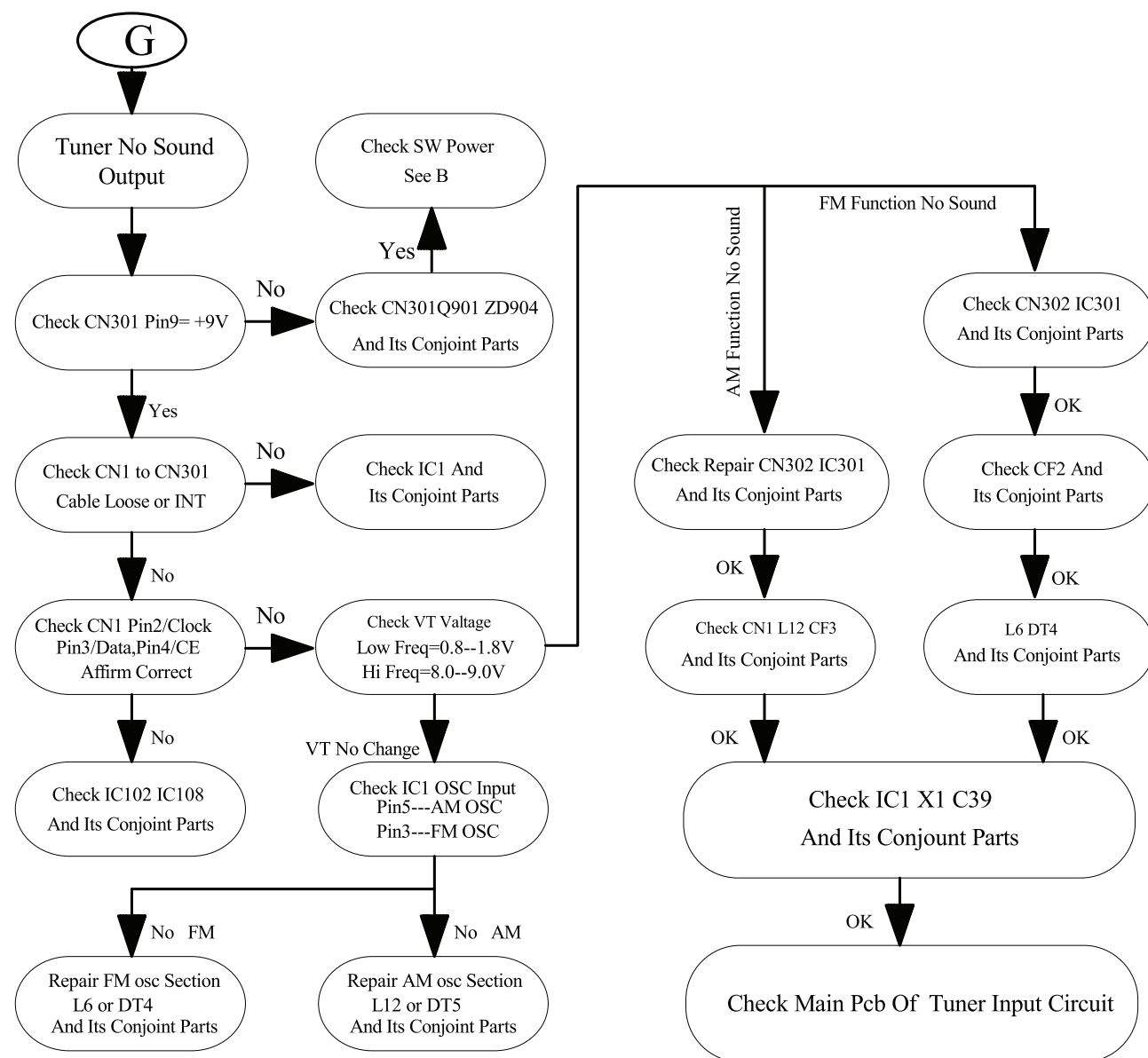
MAIN UNIT REPAIR CHART 1/3



MAIN UNIT REPAIR CHART 2/3



MAIN UNIT REPAIR CHART 3/3



DISASSEMBLY INSTRUCTIONS

Dismantling of the Front Panel Assemble

- 1) Open the DVD Tray by using the Open/Close Button while the Set is ON and disconnect the mains supply after removing the Tray Cover.
Note: If this is not possible, the DVD Tray has to be open manually.
Take a mini screw driver about 2mm diameter and make a marking 24mm from the tip as shown in figure 2 . Place the set on its side, insert the mini screw driver till the marking and slide it towards the right as shown in figure 1 until the Tray moves out of the Front Panel.
- 2) Return the set to its upright position and remove the Tray Cover as shown in Figure 3 and close the tray manually by pushing it back in.

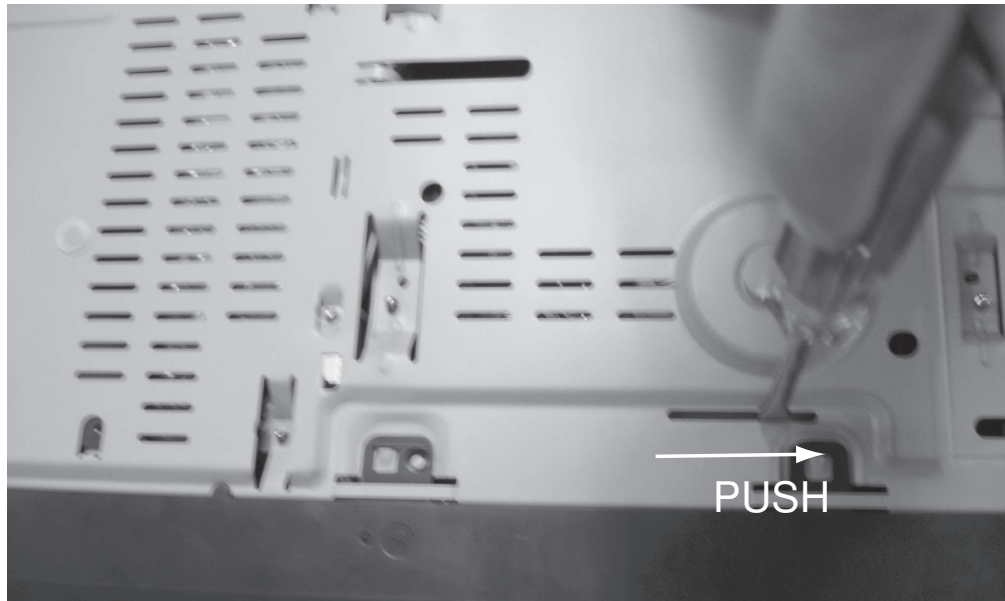


Figure 1

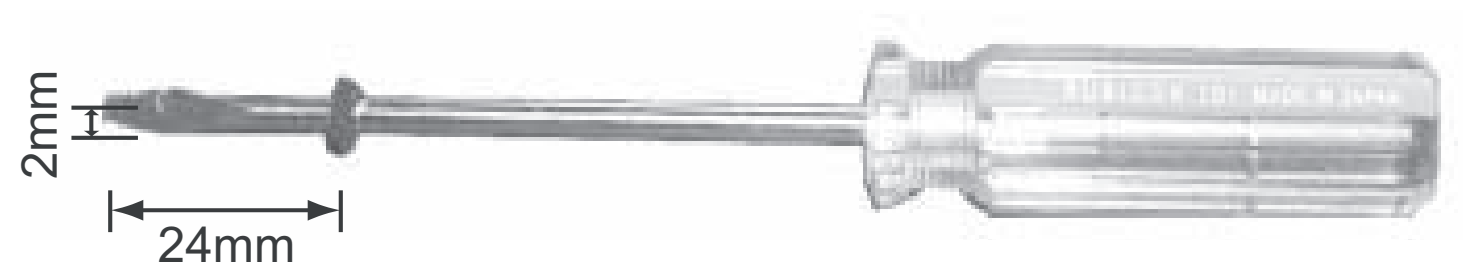


Figure 2

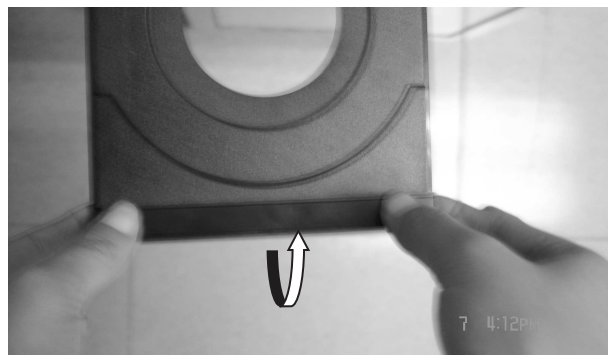


Figure 3

3 - 1

- 3) Loosen 6 screws and remove the Top Cover by lifting the rear portion upwards before sliding it out towards the rear.
 - 1 screw "A" each on the left & right side as shown in figure 4.
 - 4 screws "B" at the back panel as shown in figure 5.
- 4) Loosen 6 screws "C" at the bottom panel as in figure 6 to remove the front panel.

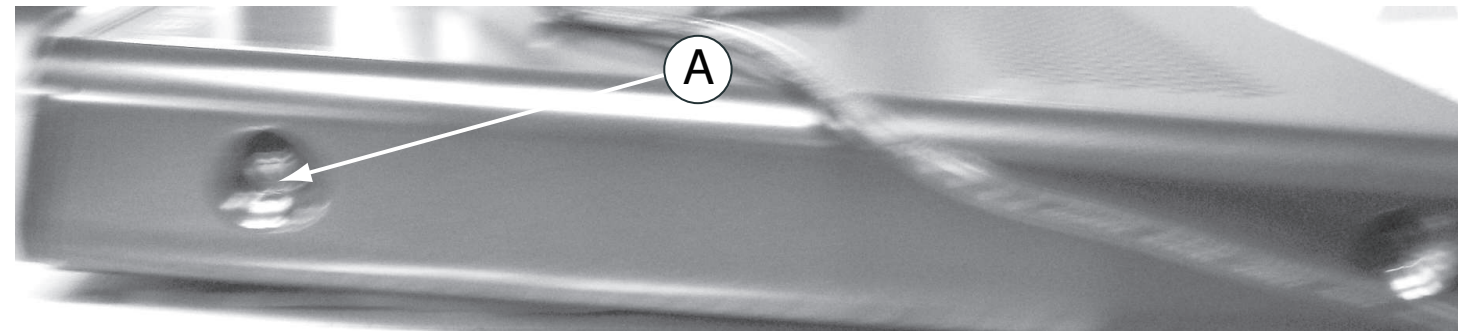


Figure 4

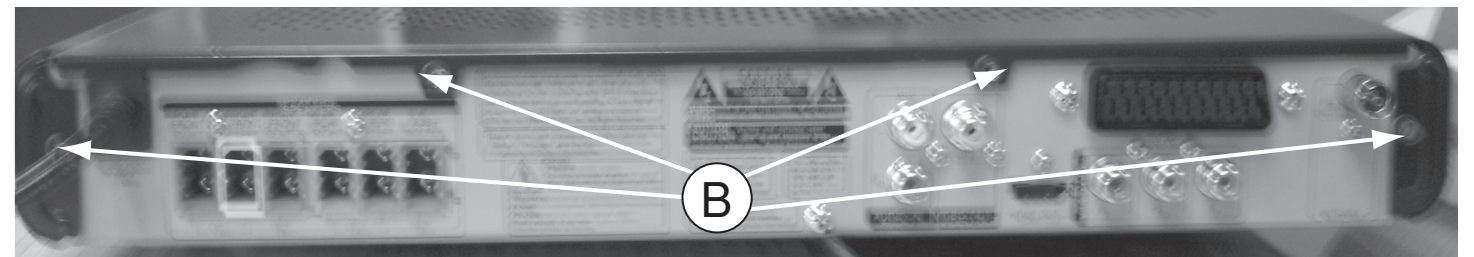


Figure 5

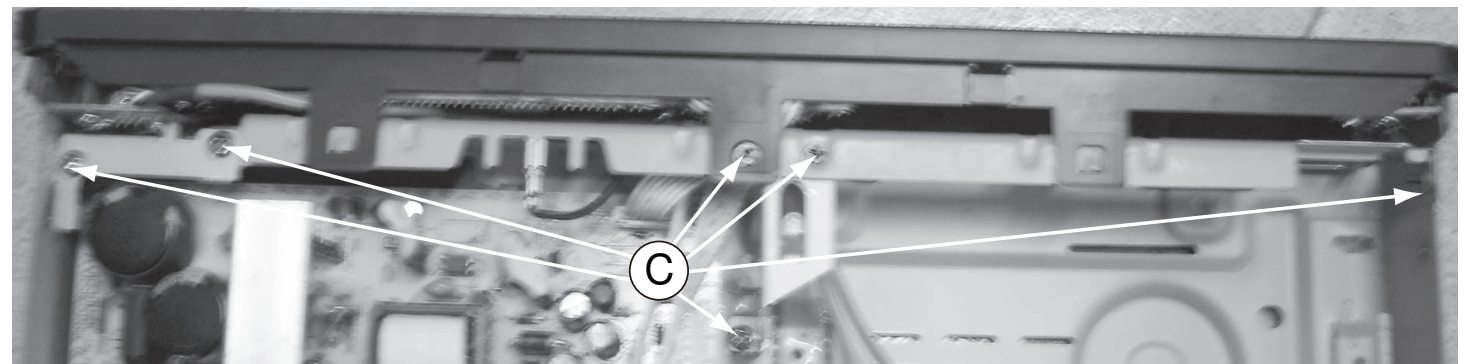


Figure 6

Dismantling of the Power Board

- 1) Loosen 4 screws “D” on the top of power board as shown in figure 7.
- 2) With a pincers to nip this space as shown in figure 8 and to take up the power board.

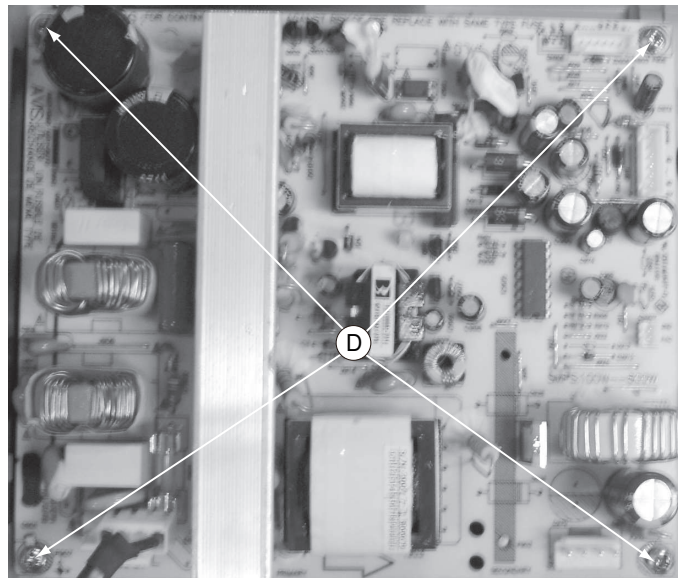


Figure 7

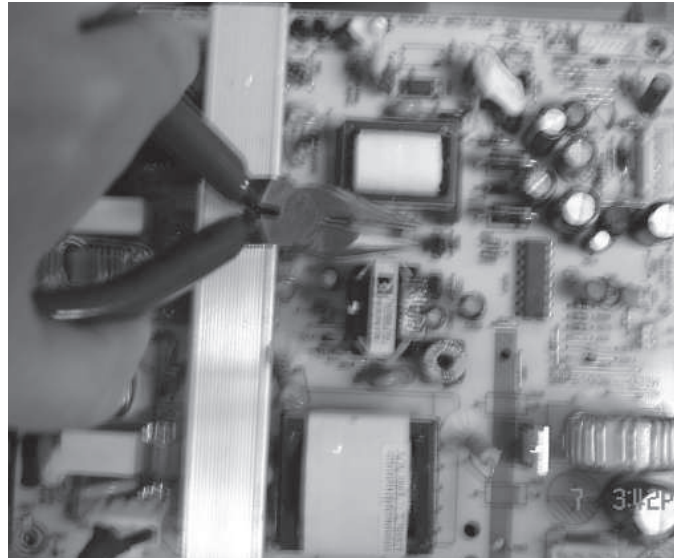


Figure 8

Dismantling of the AMP Board

- 1) Loosen 4 screws to remove the AMP board.
 - 2 screws “E” on the top of AMP board as shown in figure 9.
 - 2 screws “F” at the back panel as shown in figure 10.

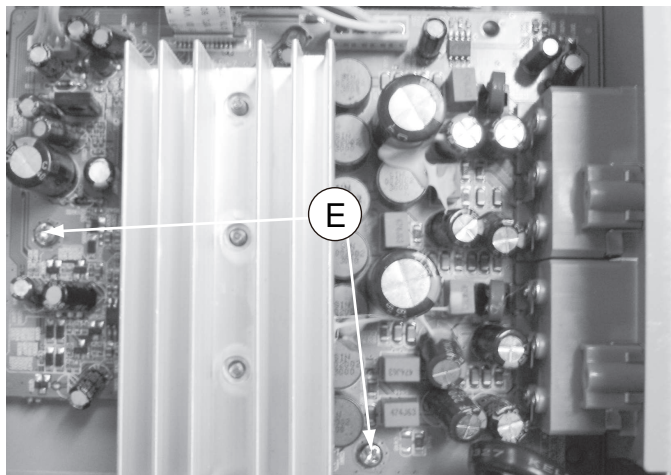


Figure 9

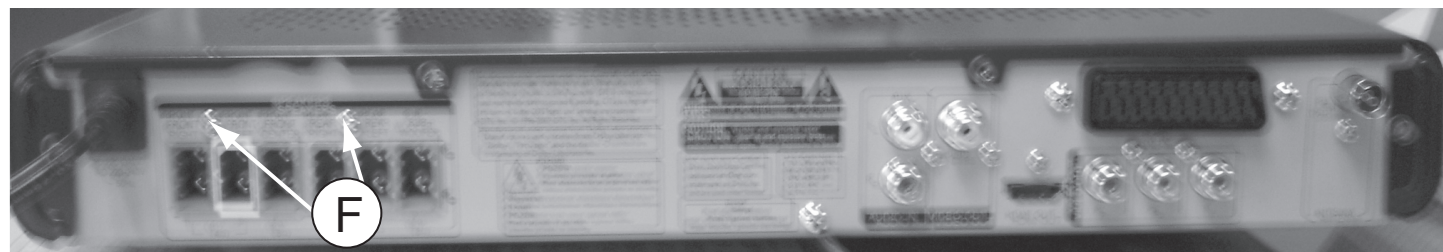


Figure 10

Dismantling of the Scart Board

- 1) Loosen 2 screws “G” at the back panel as shown in figure 11.



Figure 11

Dismantling of the Main Board

- 1) Loosen 6 screws “H” at the back panel as shown in figure 12.
- 2) Loosen 2 screws “I” on the top of main board as shown in figure 13.



Figure 12

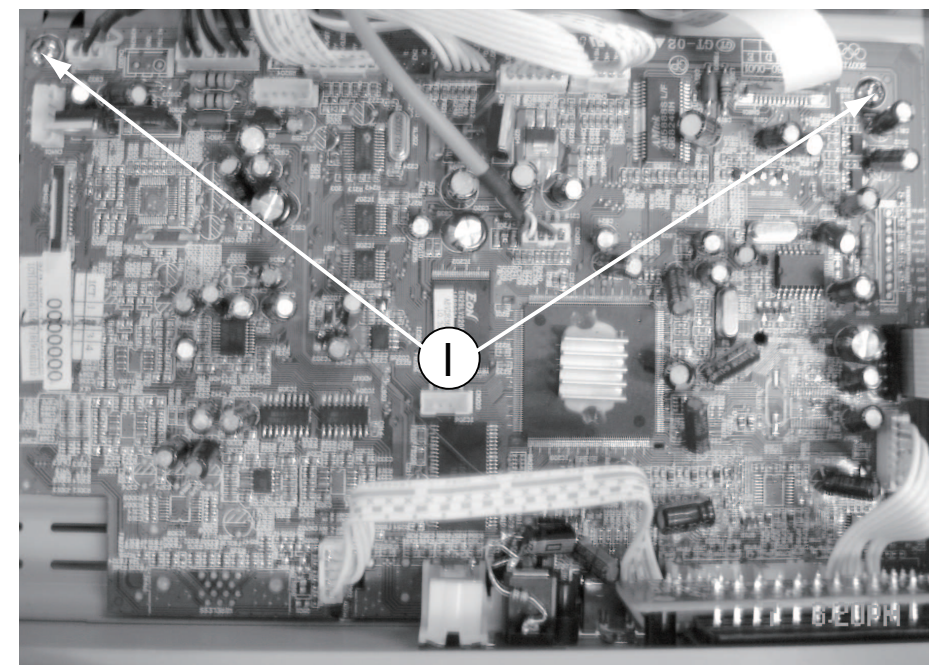


Figure 13

Dismantling of the DVD Module

- 1) Loosen 4 screws “J” at the DVD module as shown in figure 14.

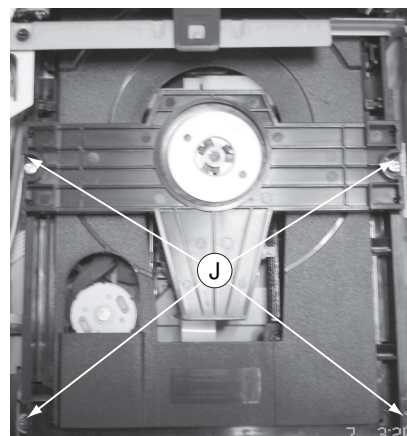


Figure 14

Dismantling of the VFD+JACK+STANDBY Board

- 1) Loosen 8 screws “K” on the top of VFD+JACK+STANDBY board as shown in figure 15.

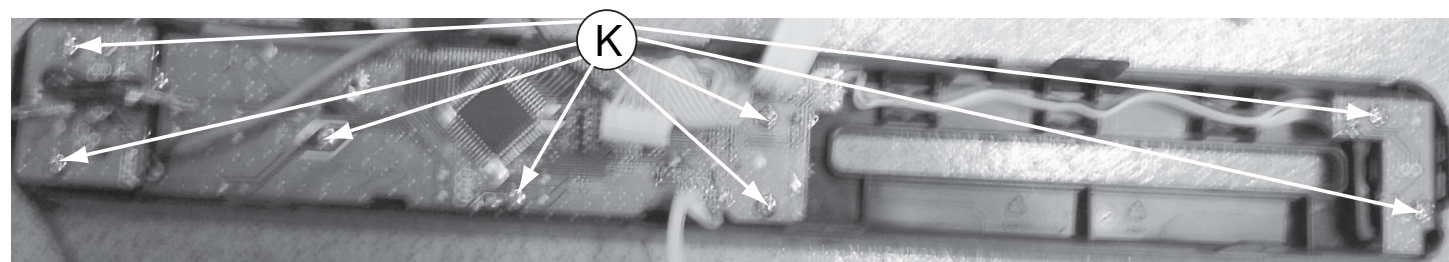
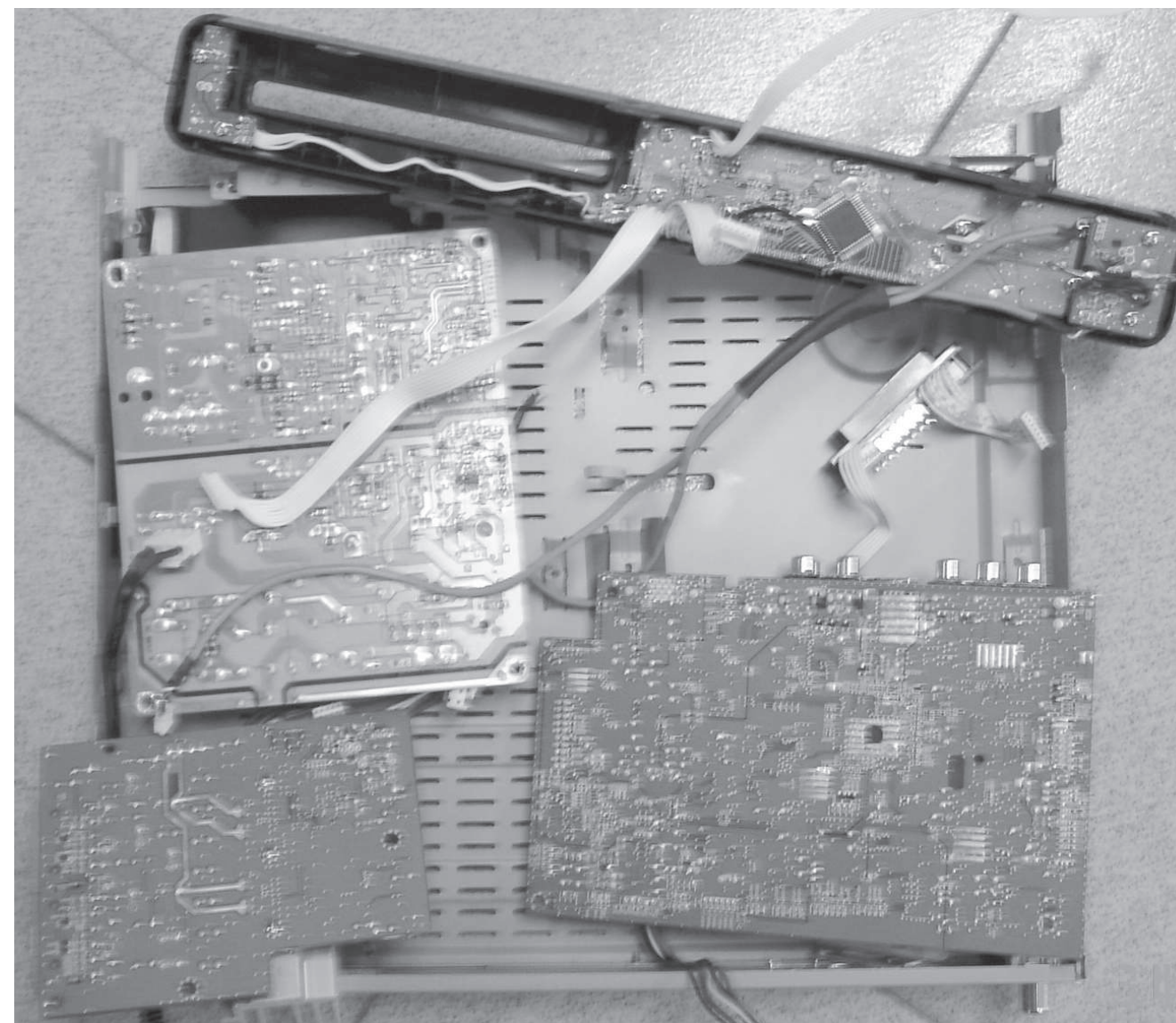


Figure 15

SERVICE POSITIONS

Service position A

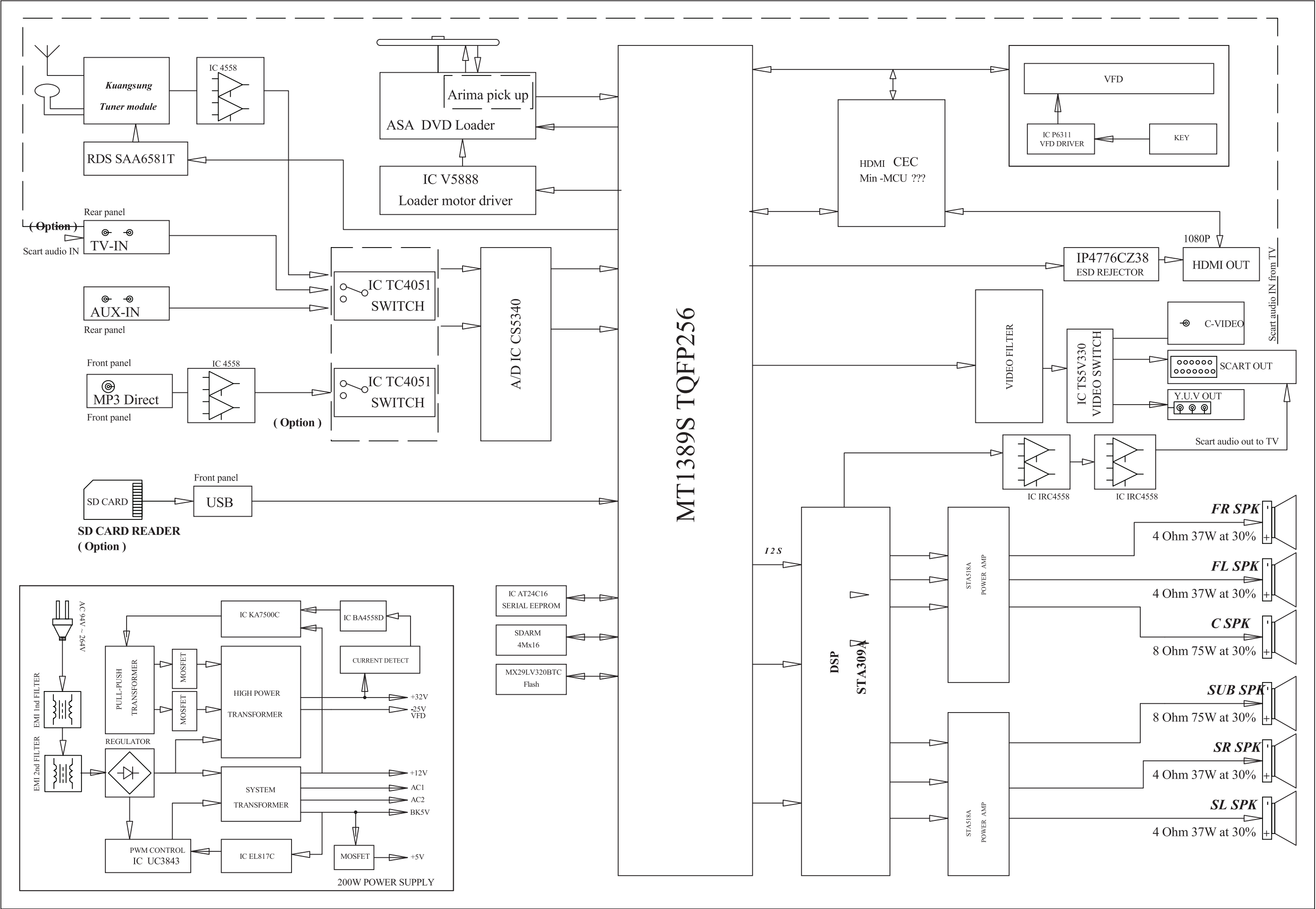


Note: In some service positions the components or copper patterns of one board may risk touching its neighbouring pc boards or metallic parts. To prevent such short-circuit use a piece of hard paper or other insulating material between them.

BLOCK DIAGRAM

4 - 1

4 - 1



CONTROL BOARD

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FTD Display Pin Assignment.....

5-1

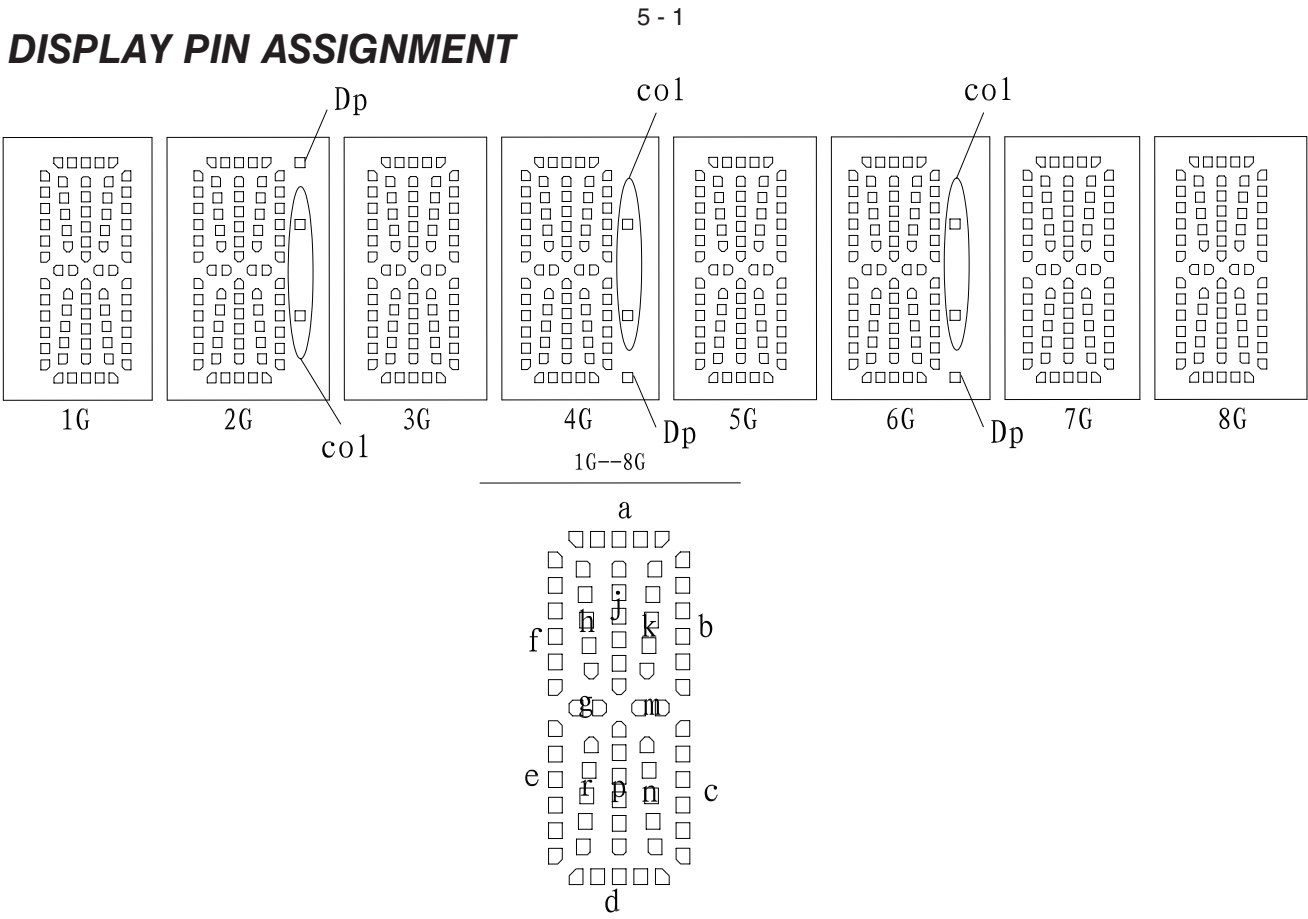
Circuit Diagram

5-2

PCB Layout Top & Bottom View.....

5-3

FTD DISPLAY PIN ASSIGNMENT



	1G	2G	3G	4G	5G	6G	7G	8G
P1	a	a	a	a	a	a	a	a
P2	j, p	j, p	j, p	j, p	j, p	j, p	j, p	j, p
P3	h	h	h	h	h	h	h	h
P4	k	k	k	k	k	k	k	k
P5	b	b	b	b	b	b	b	b
P6	f	f	f	f	f	f	f	f
P7	m	m	m	m	m	m	m	m
P8	g	g	g	g	g	g	g	g
P9	c	c	c	c	c	c	c	c
P10	e	e	e	e	e	e	e	e
P11	r	r	r	r	r	r	r	r
P12	n	n	n	n	n	n	n	n
P13	d	d	d	d	d	d	d	d
P14		col		col		col		
P15		Dp		Dp		Dp		

PIN CONNECTION

管脚序号 (Pin NO.)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
连接 (Connection)	F1	F1	NP	NC	P15	P14	NC	P13	P12	P11	P10	P9	P8	P7	P6	P5
管脚序号 (Pin NO.)	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
连接 (Connection)	P4	P3	P2	P1	NC	1G	2G	3G	4G	5G	6G	7G	8G	NP	F2	F2

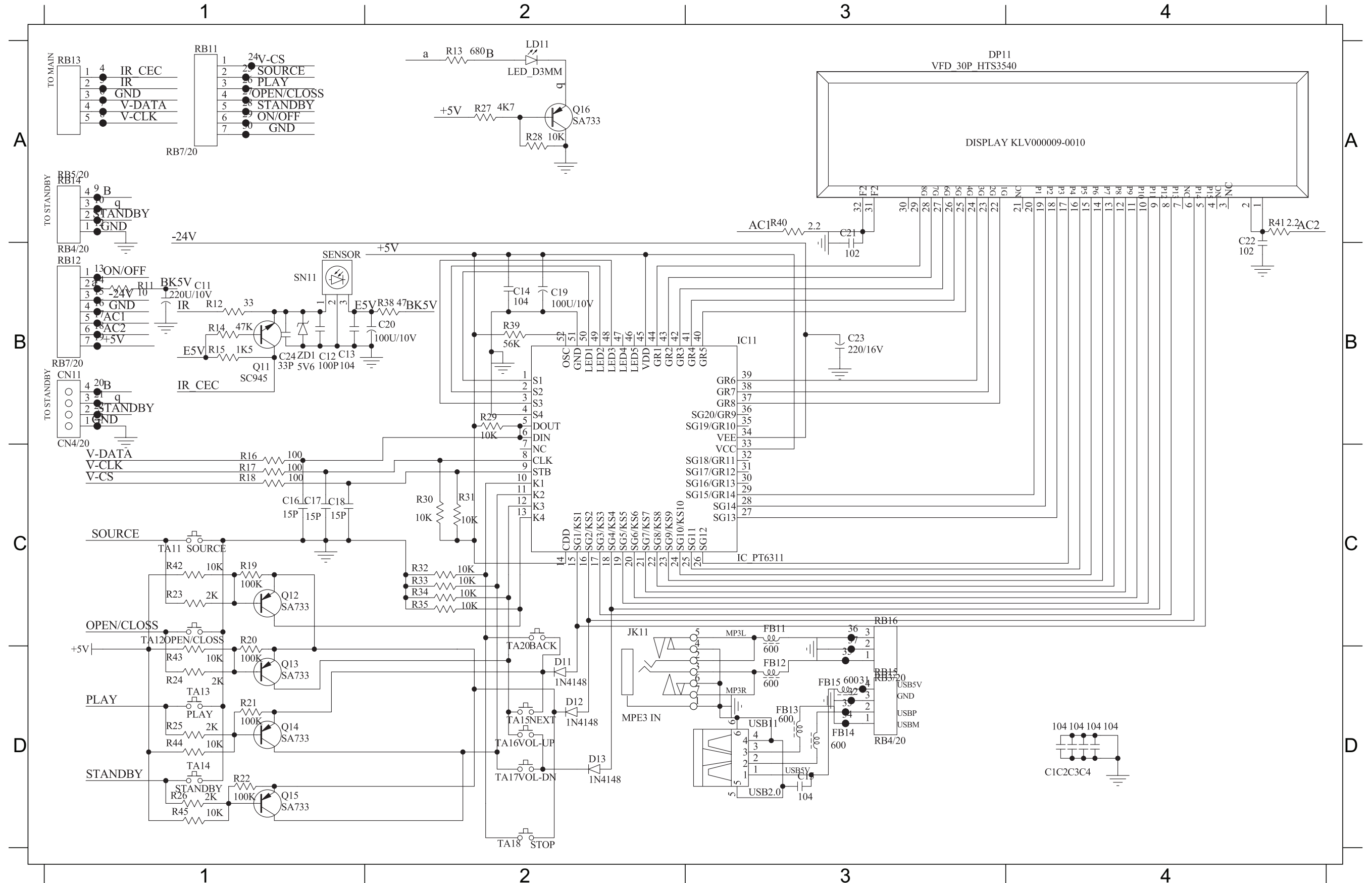
注 (Notes) : Fn : 灯丝 (Filament Pin) nG : 栅极 (Grid Pin)
Pn : 阳极 (Anode Pin) NP : 无引出脚 (No Pin)
NC : 无功能 (No connection Pin)

CIRCUIT DIAGRAM

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C1	D4	C14	B2	C18	C1	C22	B4	D12	D2	FB12	D3	IC11	B3	Q12	C1	Q16	A2	R14	B1	R18	C1	R22	D1	R26	D1	R30	C2	R34	C2	R40	A3	R44	D1	RB13	A1	SN11	B1	TA14	D1	TA18	D2
C11	B1	C15	D3	C19	B2	C23	B3	D13	D2	FB13	D3	JK11	C2	Q13	D1	R11	A1	R15	B1	R19	C1	R23	C1	R27	A2	R31	C2	R35	C2	R41	A4	R45	D1	RB14	A1	TA11	D1	TA15	D2	TA20	D2
C12	B1	C16	C1	C20	B2	C24	B1	DP11	A3	FB14	D3	LD11	A2	Q14	D1	R12	B1	R16	C1	R20	C1	R24	D1	R28	A2	R32	C2	R38	B2	R42	C1	RB11	A1	RB15	D3	TA12	D1	TA16	D2	USB11	D3
C13	B1	C17	C1	C21	B3	D11	D2	FB11	C3	FB15	D3	Q11	B1	Q15	D1	R13	A2	R17	C1	R21	D1	R25	D1	R29	B2	R33	C2	R39	B2	R43	D1	RB12	B1	RB16	D3	TA13	D1	TA17	D2	ZD1	A1

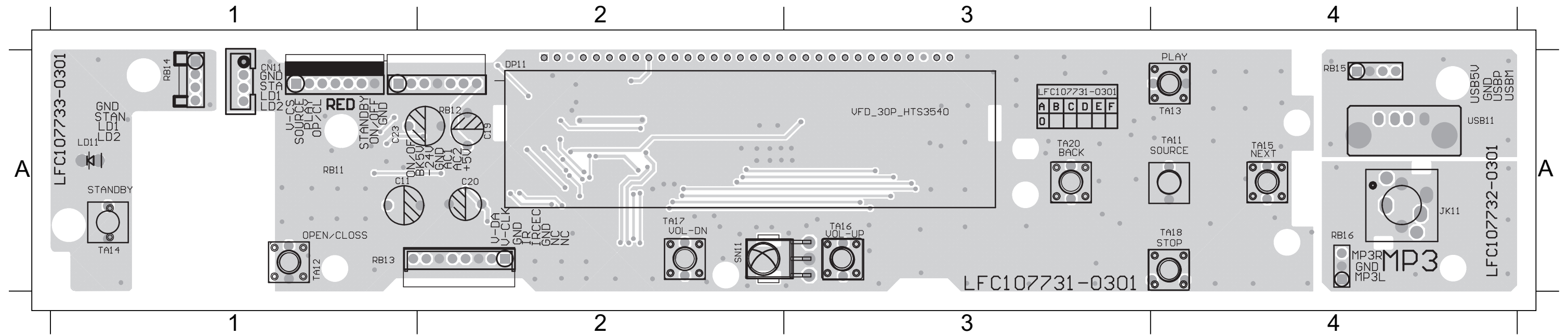


PCB LAYOUT - TOP VIEW

5 - 3

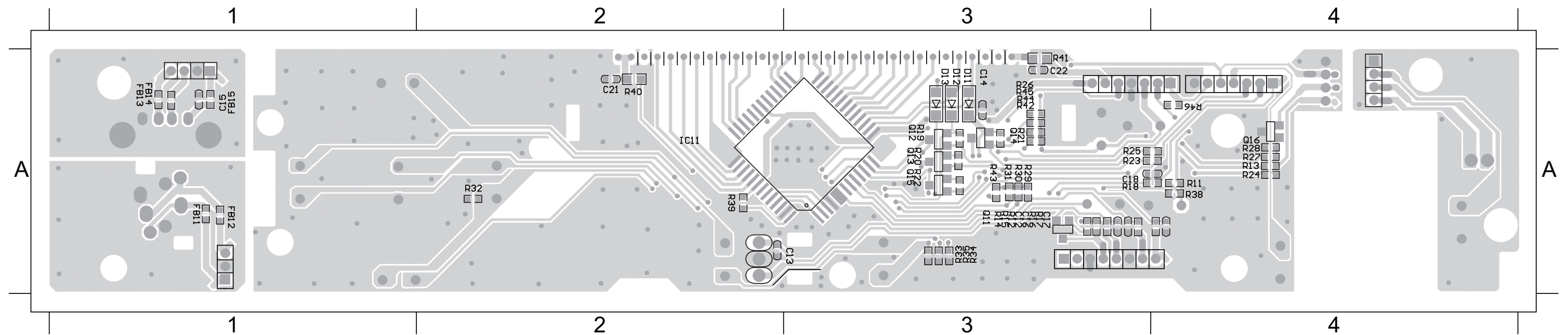
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C11 A1 C20 A2 DP11 A2 JK11 A4 RB11 A1 RB13 A1 RB15 A4 SN11 A2 TA12 A1 TA14 A1 TA16 A3 TA18 A4 USB11A4
C19 A2 C23 A1 ESD5 A4 LD11 A1 RB12 A2 RB14 A1 RB16 A4 TA11 A4 TA13 A4 TA15 A4 TA17 A2 TA20 A2



PCB LAYOUT - BOTTOM VIEW

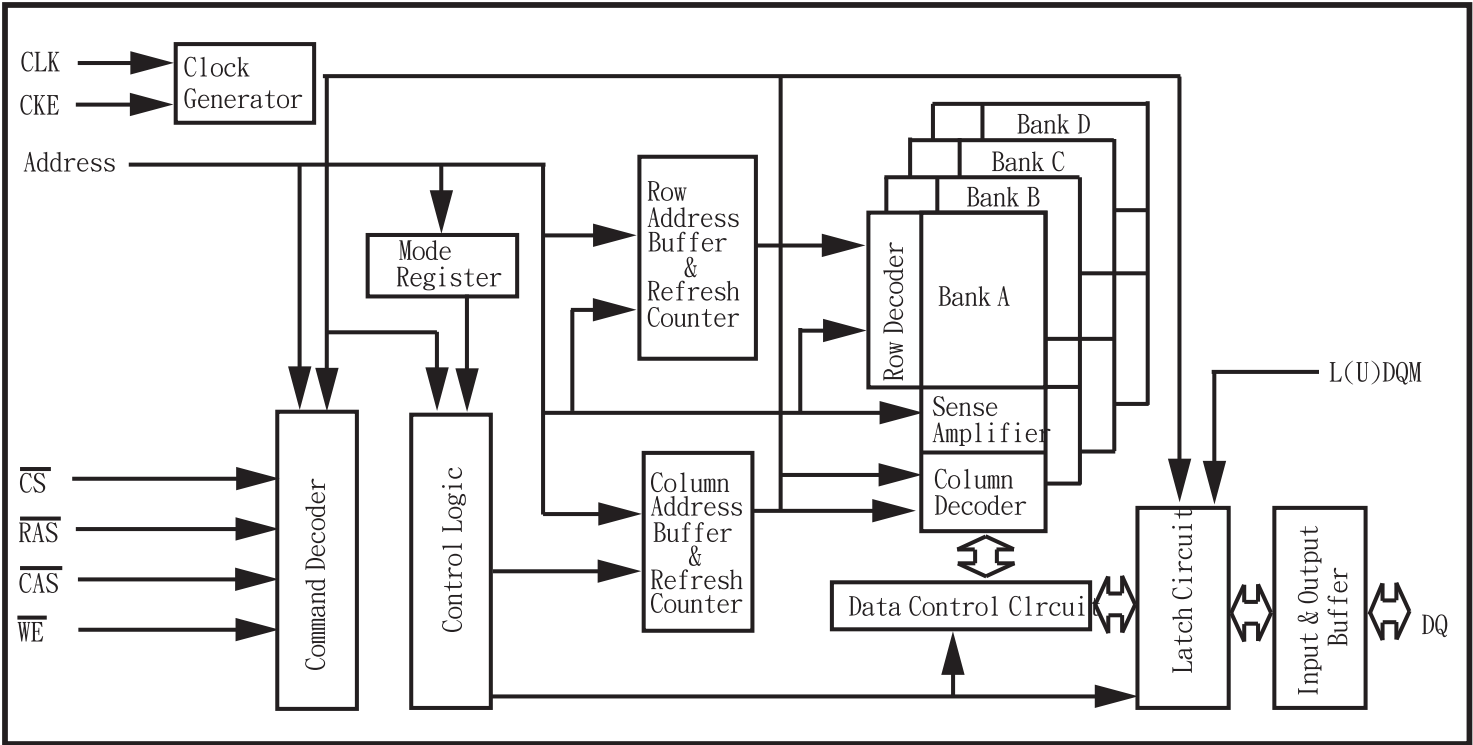
C11 A1 C20 A2 DP11 A2 JK11 A4 RB11 A1 RB13 A1 RB15 A4 SN11 A2 TA12 A1 TA14 A1 TA16 A3 TA18 A4 USB11A4
C19 A2 C23 A1 ESD5 A4 LD11 A1 RB12 A2 RB14 A1 RB16 A4 TA11 A4 TA13 A4 TA15 A4 TA17 A2 TA20 A2



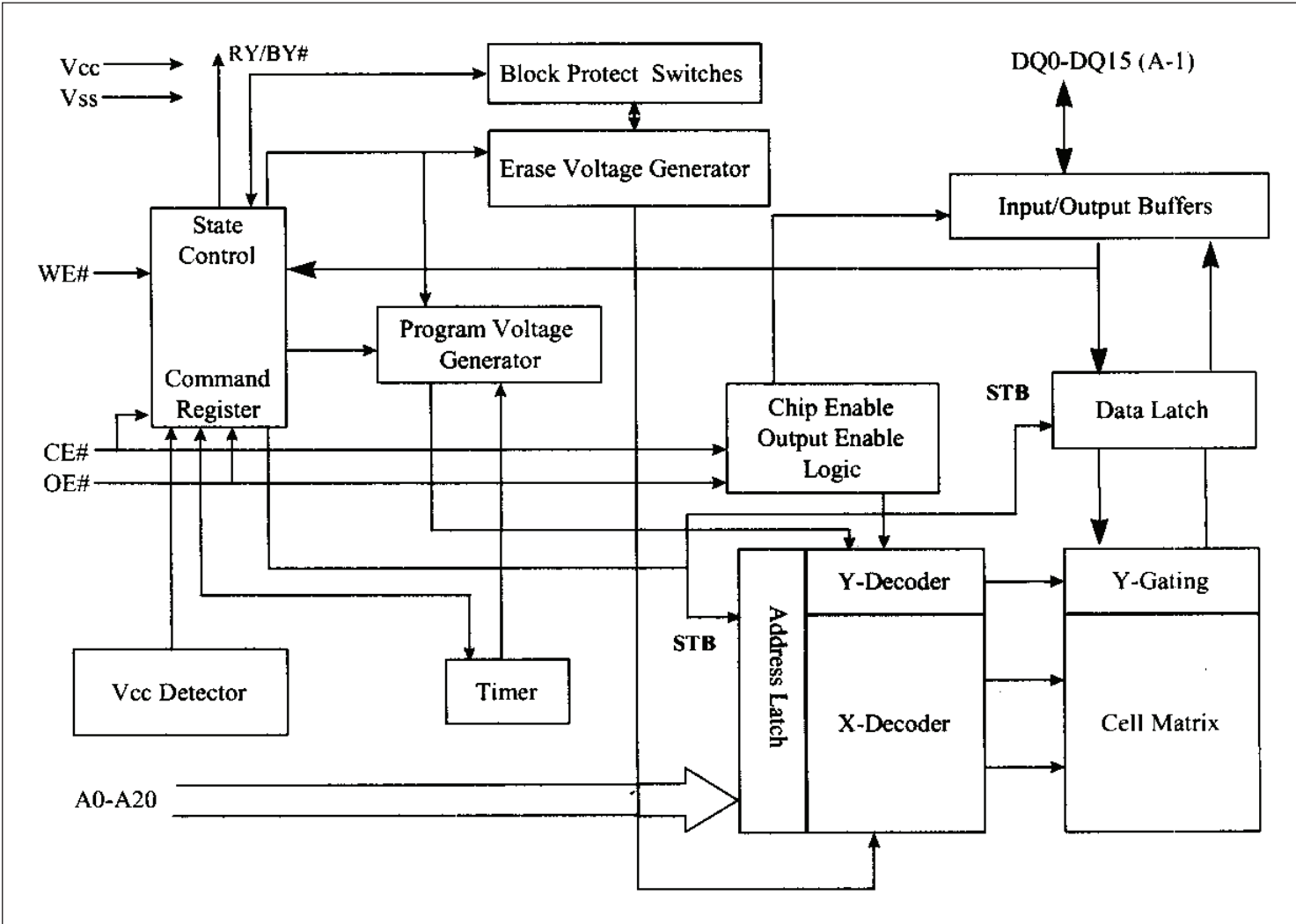
MAIN BOARD

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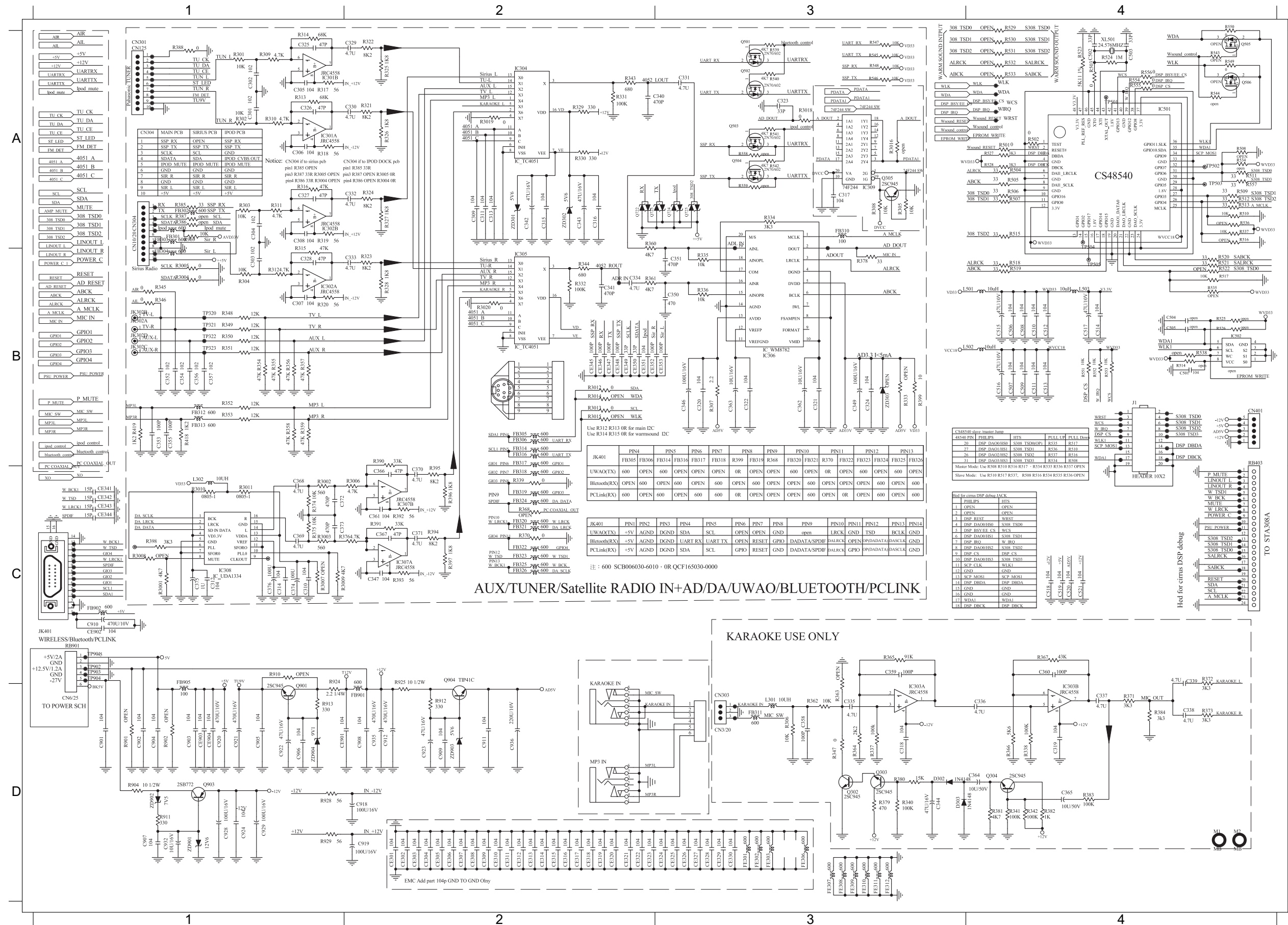
INTERNAL IC DIAGRAM - EN29LV320



CIRCUIT DIAGRAM - part one

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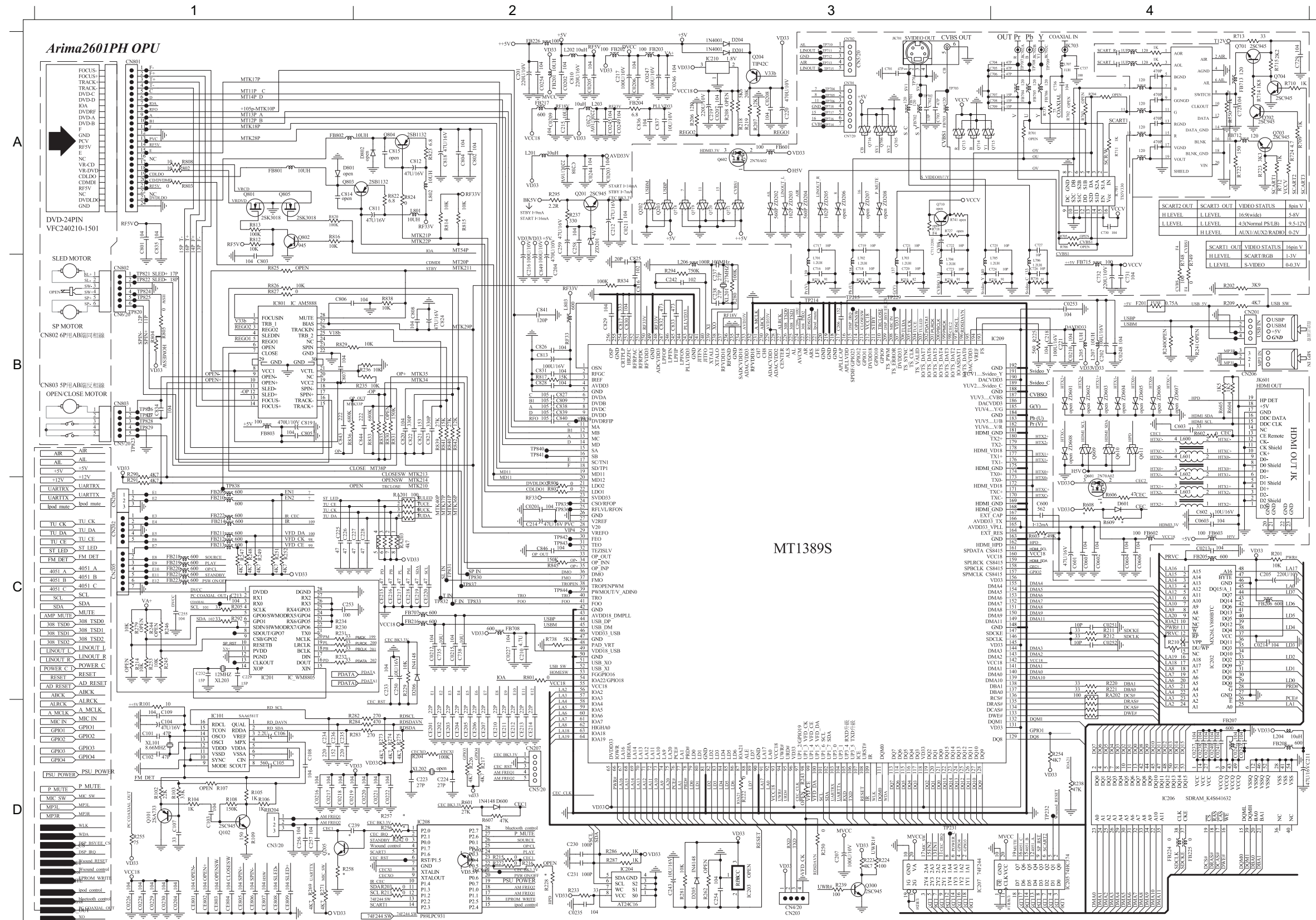


C301	A1	CE303D1	R310	A1
C302	A1	CE304D1	R313	A1
C305	A1	CE305D1	R314	A1
C306	A1	CE306D1	R317	A1
C309	A2	CE307D1	R318	A1
C311	A2	CE308D1	R321	A2
C313	A2	CE309D1	R322	A2
C315	A2	CE310D1	R325	A2
C316	A2	CE311D1	R326	A2
C320	B3	CE312D1	R329	A2
C321	B3	CE313D1	R330	A2
C322	B3	CE314D1	R331	A2
C323	A3	CE315D1	R332	B2
C324	B3	CE316D1	R334	A3
C325	A1	CE317D1	R335	B3
C326	A1	CE318D1	R336	B3
C329	A2	CE319D1	R342	D4
C330	A2	CE320D1	R343	A2
C331	A3	CE321D1	R344	B2
C334	B2	CE322D1	R345	B1
C340	A3	CE323D1	R346	B1
C341	B2	CE324D2	R348	B1
C342	A2	CE325D2	R349	B1
C343	A2	CE326D2	R350	B1
C346	B3	CE327D2	R351	B1
C349	B3	CE328D2	R352	B1
C350	B3	CE329D2	R353	B1
C351	B3	CE330D2	R354	B1
C352	B1	CE341C1	R355	B1
C353	B1	CE342C1	R356	B1
C354	B1	CE343C1	R357	B1
C355	B1	CE344C1	R358	B1
C356	B1	CN301A1	R359	B1
C357	B1	CN401B4	R360	A2
C362	B3	FB310A3	R361	B2
C363	B3	FB312B1	R378	B3
C518	C4	FB313B1	R388	A1
C519	C4	FB901D2	R399	B3
C520	C4	FB905D1	R418	B1
C901	D1	FE301D3	R419	B1
C902	D1	FE302D3	R515	A4
C903	D1	FE306D3	R530	A4
C904	D1	FE307D3	R531	A4
C905	D1	FE308D3	R532	A4
C906	D1	FE309D3	R533	A4
C907	D1	FE310D3	R904	D1
C908	D2	FE311D3	R911	D1
C909	D2	FE312D2	R912	D2
C911	D2	IC301 A1	R913	D1
C912	D2	IC304 A2	R924	D1
C918	D2	IC305 B2	R925	D2
C919	D2	IC306 B3	R928	D1
C920	D1	JK302 B1	R929	D1
C921	D1	Q901 D1	RB403C4	
C922	D1	Q903 D1	RB901C1	
C923	D2	Q904 D2	ZD301A2	
C924	D2	R301 A1	ZD302A2	
C928	D2	R3016A3	ZD901D1	
C929	D1	R3018A3	ZD902D1	
C932	D2	R3019A2	ZD903D2	
C935	D2	R302 A1	ZD904D1	
C936	D2	R3020B2		
CE301D1	R307	B3		
CE302D1	R309	A1		

CIRCUIT DIAGRAM - part two

6 - 3

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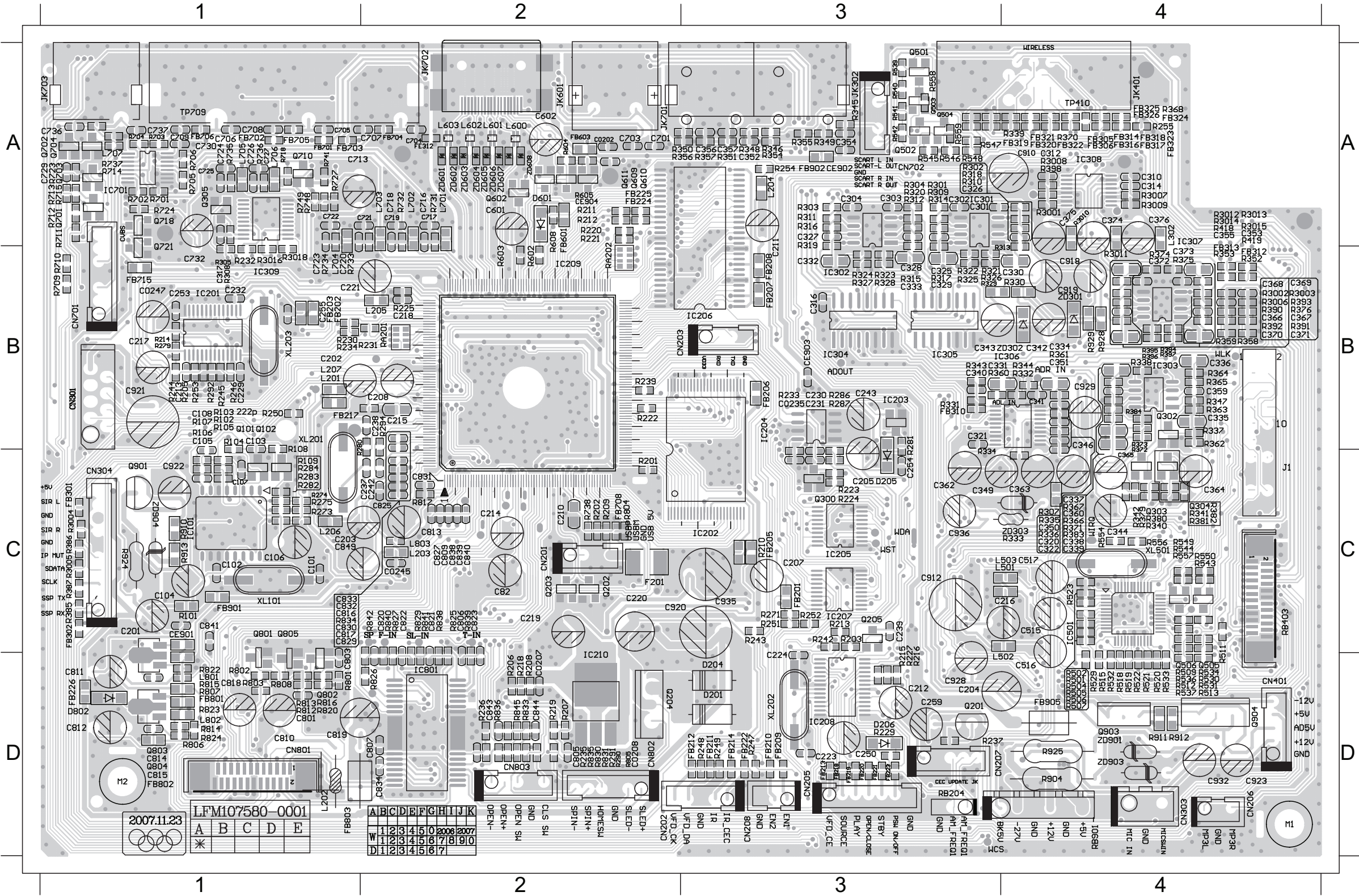


PCB LAYOUT - TOP VIEW

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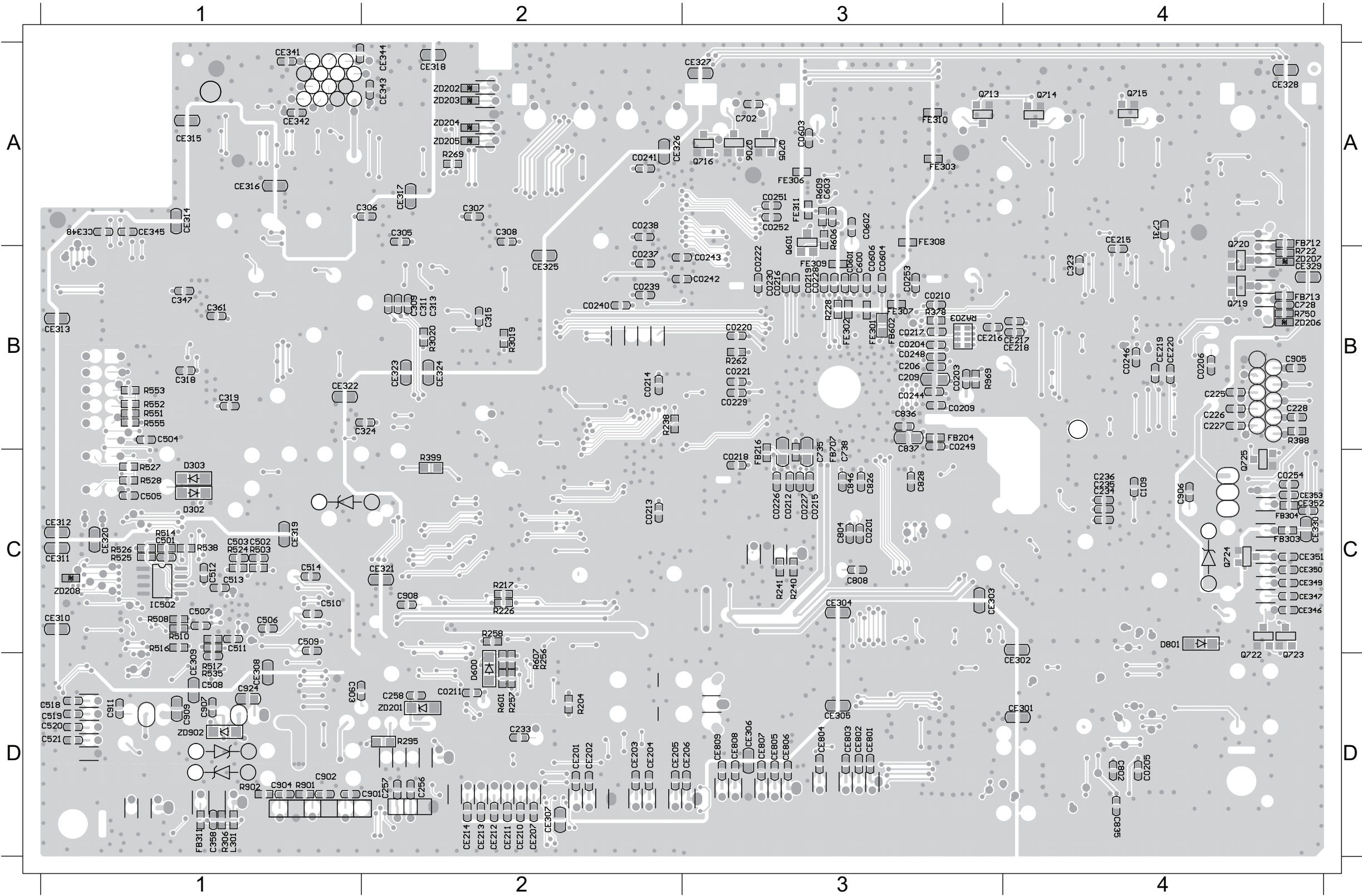
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C0202 A2	C202 B1	C221 B1	C321 C3	C351 B4	C705 A1	C725 A1	C813 C2	C832 C1	C922 C1	CN301B1	FB205 C3	FB222 D3	FB708 C2	IC208 D3	L203 C2	Q102 B1	Q802 D1	R201 C2	R221 A2	R249 D3	R291 D2	R325 B3	R349 A3	R515 D4	R713 A1	R802 D1	R823 D1	R845 D2	ZD201 D3
C0207 D2	C203 C1	C223 D3	C322 C4	C352 A3	C706 A1	C726 B1	C816 C1	C833 C1	C923 D4	CN401D4	FB206 B3	FB223 D3	FB715 B1	IC209 B2	L204 A3	Q201 D3	Q803 D1	R202 C2	R222 B2	R250 B1	R294 B2	R326 B3	R350 A3	R529 D4	R714 A1	R803 D1	R824 D1	R845 D2	ZD301 B4
C0208 D2	C204 D3	C224 C3	C325 B3	C353 A4	C707 A2	C727 A1	C817 C1	C834 D2	C928 D3	CN701B1	FB207 B3	FB224 A2	FB801 D1	IC210 D2	L205 B2	Q202 C3	Q804 D1	R203 C3	R223 C3	R251 C3	R295 B3	R327 B3	R351 A3	R530 D4	R715 A1	R804 C2	R826 D2	R911 D4	ZD302 B3
C0235 B3	C205 C3	C230 B3	C326 A3	C354 A3	C708 A1	C729 A1	C818 D1	C838 C2	C929 B4	CN702A3	FB208 B3	FB225 A2	FB802 D1	IC301 A3	L206 C1	Q203 C2	Q805 C1	R206 D2	R224 C3	R252 C3	R3016 B1	R330 B4	R352 B4	R531 D4	R723 A1	R805 D2	R827 C2	R912 D4	ZD901 D4
C0245 C2	C207 C3	C231 B3	C329 B3	C355 A4	C709 A1	C730 A1	C819 D1	C839 C2	C932 D4	CN801D1	FB209 D3	FB226 D1	FB803 D1	IC304 B3	L207 B1	Q204 D2	Q901 C1	R207 D2	R225 B2	R271 C3	R3018 B1	R331 B3	R353 B4	R532 D4	R724 A1	R806 D1	R829 C2	R913 C1	ZD903 D4
C0247 B1	C208 B2	C237 C1	C330 B4	C356 A3	C713 A1	C732 B1	C820 C2	C840 C2	C935 C3	CN802D2	FB210 D3	FB310 B3	FB901 C1	IC305 B3	L701 B2	Q300 C3	Q903 D4	R209 C2	R227 C2	R273 C1	R302 A3	R332 B4	R354 A3	R533 D4	R731 B2	R807 D1	R831 D2	R924 C1	ZD904 C1
C101 C1	C210 C2	C238 C1	C331 B3	C357 A3	C716 B2	C801 D1	C821 C2	C841 C1	C936 C3	CN803D2	FB211 D3	FB312 B4	FB905 D4	IC306 B3	L702 B2	Q602 A2	Q904 D4	R210 C3	R228 C2	R274 C1	R307 C4	R334 C4	R355 A3	R602 B2	R732 B2	R808 D1	R833 D2	R925 D4	
C102 C1	C211 A3	C242 C1	C334 B4	C362 C3	C717 A2	C803 D1	C822 C2	C843 D2	CE901C1	D201 D3	FB212 D3	FB313 B4	FE312 A2	IC701 A1	L703 B2	Q611 A2	R101 C1	R211 A2	R233 B3	R275 C1	R309 A3	R335 C4	R356 A3	R603 B2	R733 B1	R812 D1	R834 C1	R928 B4	
C103 B1	C214 C2	C243 B3	C340 B3	C363 C4	C718 B2	C805 D2	C823 C2	C844 D2	CE903B3	D204 D3	FB213 D3	FB603 A2	IC101 C1	IC801 D2	L704 B1	Q701 A1	R102 B1	R212 A2	R235 D2	R280 C1	R310 A3	R336 C4	R357 A3	R604 A2	R734 B1	R813 D1	R835 D2	R929 B4	
C104 C1	C215 C1	C254 C3	C341 B4	C600 B2	C719 A2	C806 C2	C824 C2	C849 C1	CE904A2	D205 C3	FB214 D3	FB701 A1	IC202 C3	JK302 A3	L705 B1	Q702 A1	R103 B1	R213 C3	R236 D2	R281 B3	R313 A3	R342 C4	R358 B4	R605 A2	R735 B1	R814 D1	R836 D2	RA201B2	
C105 B1	C216 B2	C259 D3	C342 B4	C601 A2	C720 B1	C807 D2	C825 C1	C912 C3	CN201C2	D600 A2	FB217 C1	FB702 A1	IC203 B3	JK601 A2	L706 B1	Q703 A1	R104 B1	R215 C3	R237 D3	R282 C1	R314 A3	R343 B3	R359 B4	R606 B3	R736 B1	R815 D1	R838 C2	RA202B2	
C106 C1	C217 B1	C301 A3	C343 B3	C602 A2	C721 A1	C809 C2	C827 C2	C918 B4	CN202D2	F201 C2	FB218 D3	FB703 A1	IC204 B3	JK701 A2	L801 D1	Q704 A1	R105 B1	R217 D2	R239 B2	R283 C1	R317 B3	R344 B4	R360 B3	R709 B1	R738 C2	R816 D1	R839 C2	RB403C4	
C107 C1	C218 B2	C302 A3	C346 B4	C701 A2	C722 A1	C810 D1	C829 C2	C919 B4	CN205D3	FB201 C3	FB219 D3	FB704 A2	IC205 C3	JK702 A2	L802 D1	Q718 A1	R106 B1	R218 D2	R242 C3	R286 B3	R318 A3	R345 A3	R361 B4	R710 B1	R748 A1	R817 C2	R840 C2	RB901D4	
C108 B1	C219 D2	C316 B3	C349 C3	C703 A2	C723 B1	C811 D1	C830 C1	C920 C2	CN206D4	FB202 B1	FB220 D3	FB705 A1	IC206 B3	L201 B1	L803 C2	Q721 A1	R108 C1	R219 D2	R247 D3	R287 B3	R321 B3	R346 A3	R418 A4	R711 A1	R749 A1	R820 D1	R841 C2	XL101 C1	
C201 C1	C220 D2	C320 C4	C350 C4	C704 A2	C724 B1	C812 D1	C831 C2	C921 B1	CN208D3	FB203 B1	FB221 D3	FB706 A1	IC207 C3	L202 D1	Q101 B1	Q801 C1	R109 C1	R220 A2	R248 D3	R290 D2	R322 B3	R348 A3	R419 A4	R712 A1	R801 D1	R822 D1	R842 C2	XL201 B1	



PCB LAYOUT - BOTTOM VIEW

C0201	C3	C0214	B2	C0227	C3	C0243	B2	C0602	A3	C228	B3	C323	B4	C735	B3	C846	C3	C911	D1	CE211	D2	CE301	D4	CE311	C1	CE321	C2	CE341	A1	CE807	D3	FE301	B3	Q705	A3	R238	B2	RA203	A3
C0203	B3	C0215	C3	C0228	B3	C0244	B3	C0603	A3	C234	C4	C324	B2	C738	B3	C901	D1	C924	D1	CE212	D2	CE302	D4	CE312	C1	CE322	B1	CE342	A1	CE808	D3	FE302	B3	Q706	A3	R269	A2	ZD201	D2
C0204	B3	C0216	B3	C0229	B3	C0246	B4	C0604	B3	C235	C4	C518	D1	C802	D4	C902	D1	CE201	D2	CE213	D2	CE303	C3	CE313	B1	CE323	B2	CE343	A2	CE809	D3	FE303	A3	Q713	A3	R295	D2	ZD202	A2
C0205	D4	C0217	B3	C0230	B3	C0248	B3	C0606	B3	C236	C4	C519	D1	C804	C3	C903	D2	CE202	D2	CE214	D2	CE304	C3	CE314	A1	CE324	B2	CE344	A2	FB204	B3	FE306	A3	Q714	A4	R3019	B2	ZD203	A2
C0206	B4	C0218	C3	C0237	B2	C0249	B3	C109	C4	C305	A2	C520	D1	C808	C3	C904	D1	CE203	D2	CE215	A4	CE305	D3	CE315	A1	CE325	B2	CE801	D3	FB216	C3	FE307	A3	Q715	A4	R3020	B2	ZD204	A2
C0209	B3	C0219	B3	C0238	A2	C0251	A3	C206	B3	C306	A2	C521	D1	C826	C3	C905	B4	CE204	D2	CE216	A3	CE306	D3	CE316	A1	CE326	A2	CE802	D3	FB601	B3	FE308	A3	Q716	A3	R378	B3	ZD205	A2
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C0211	D2	C0221	B3	C0240	B2	C0253	B3	C225	B3	C311	B2	C702	A3	C835	D4	C907	D1	CE206	D2	CE218	A4	CE308	D1	CE318	A2	CE328	A4	CE804	D3	FB707	B3	FE310	A3	Q720	A4	R601	D2		
C0212	C3	C0222	B3	C0241	A2	C0254	C4	C226	B3	C313	B2	C728	B4	C836	B3	C908	C2	CE207	D2	CE219	A4	CE309	D1	CE319	C1	CE329	B4	CE805	D3	FB712	A4	FE311	A3	R204	D2	R722	B4		
C0213	C2	C0226	C3	C0242	B2	C0601	B3	C227	B3	C315	B2	C731	B4	C837	B3	C909	D1	CE210	D2	CE220	A4	CE310	C1	CE320	C1	CE330	C4	CE806	D3	FB713	B4	Q601	A3	R226	C2	R750	B4		

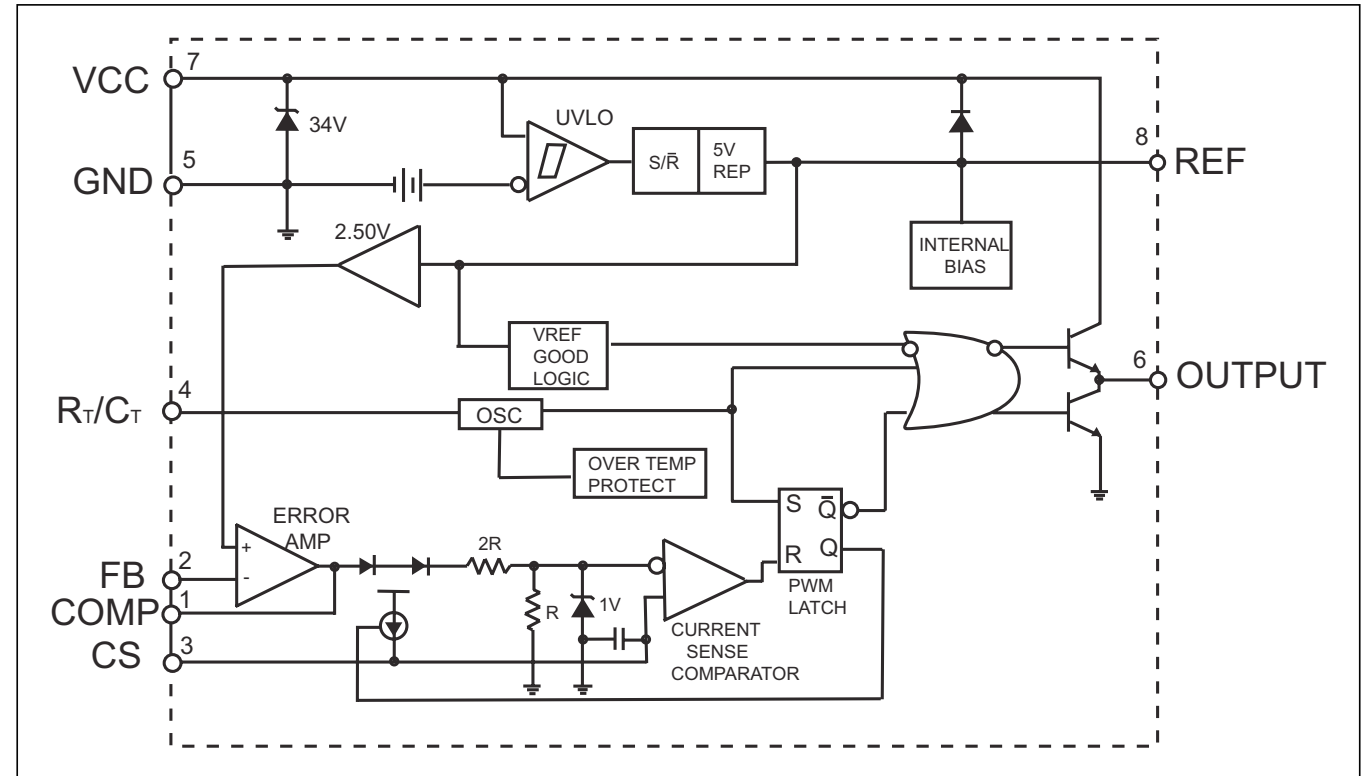


POWER BOARD

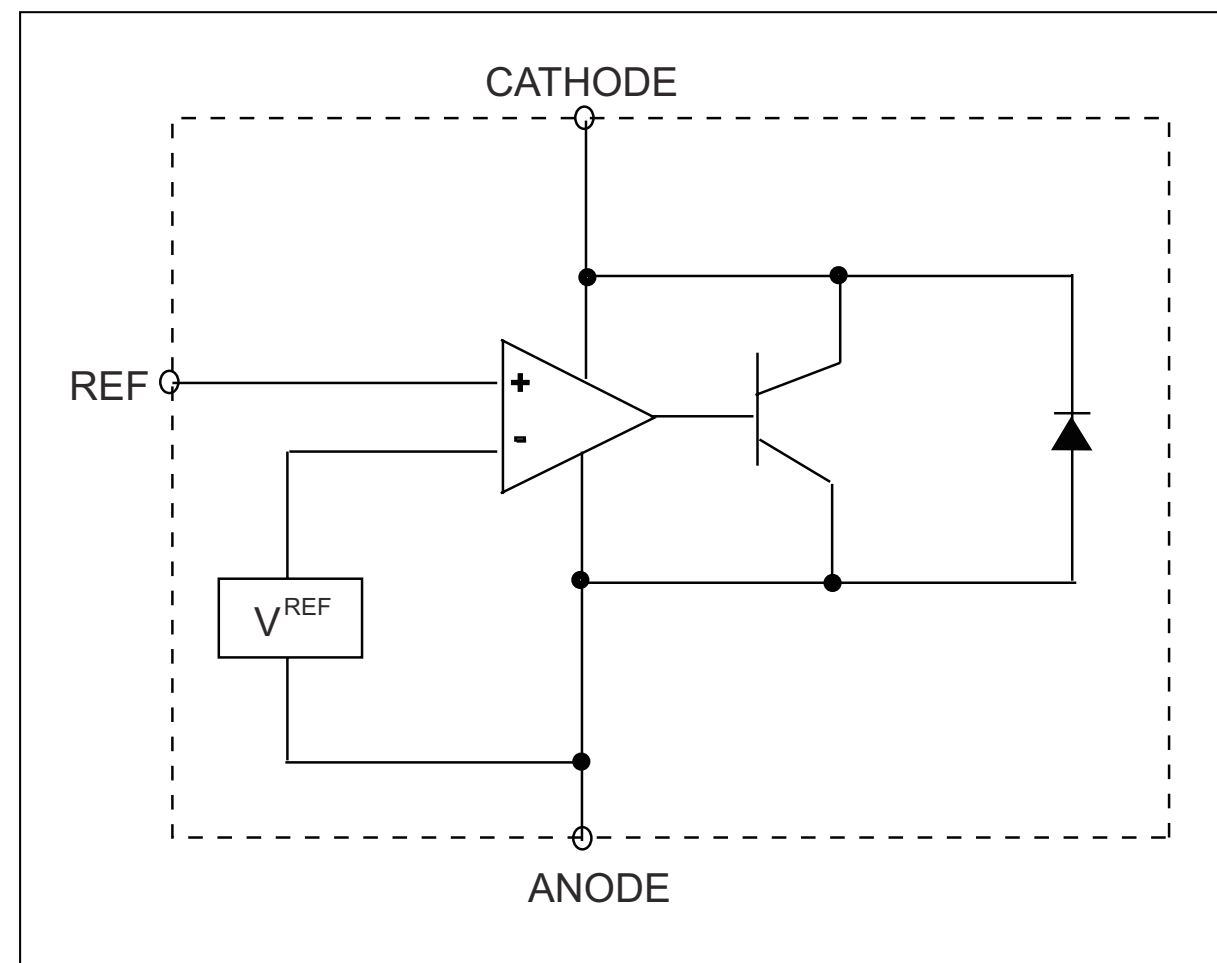
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INTERNAL IC DIAGRAM - AP3843GMTR



INTERNAL IC DIAGRAM - AZ431

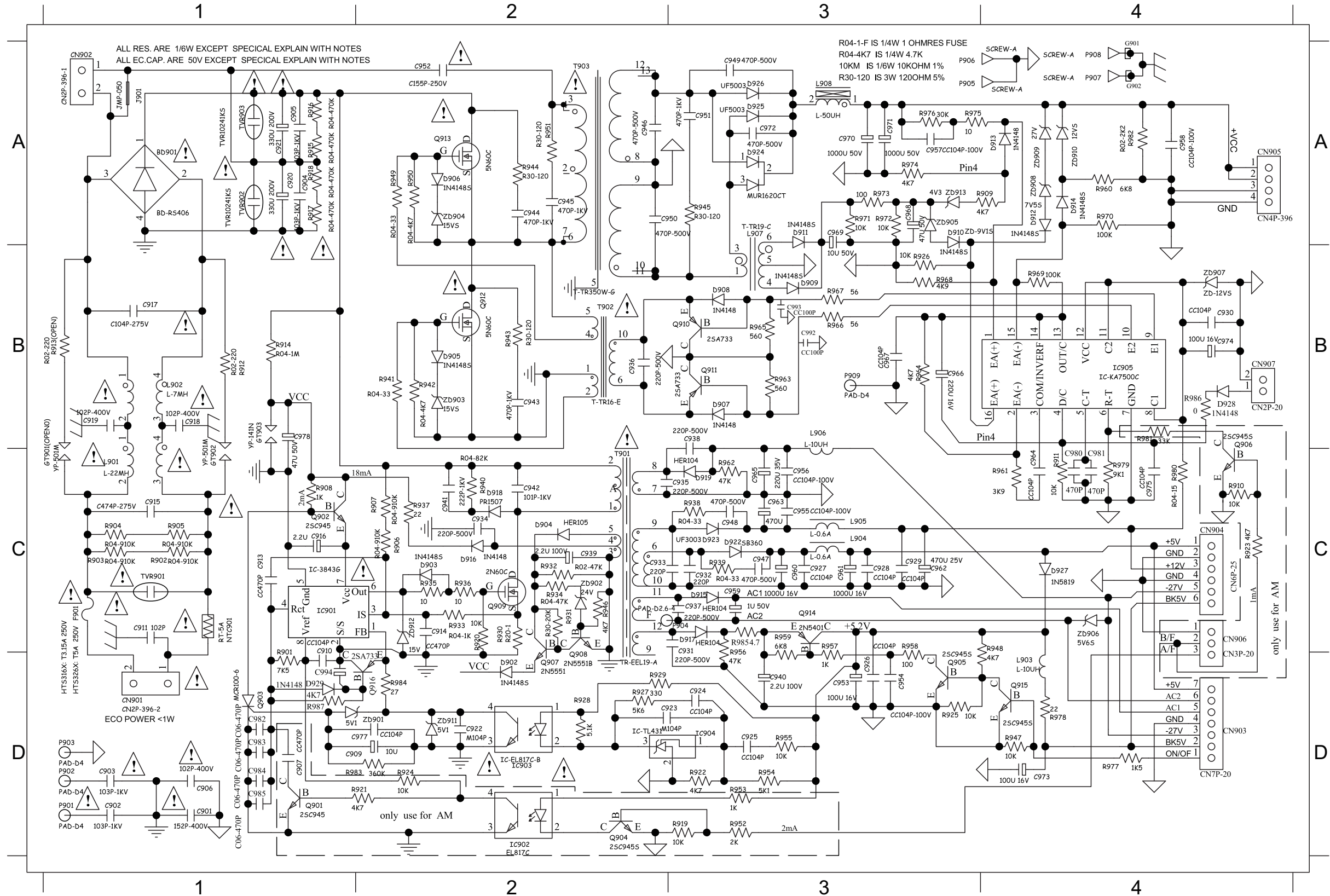


CIRCUIT DIAGRAM

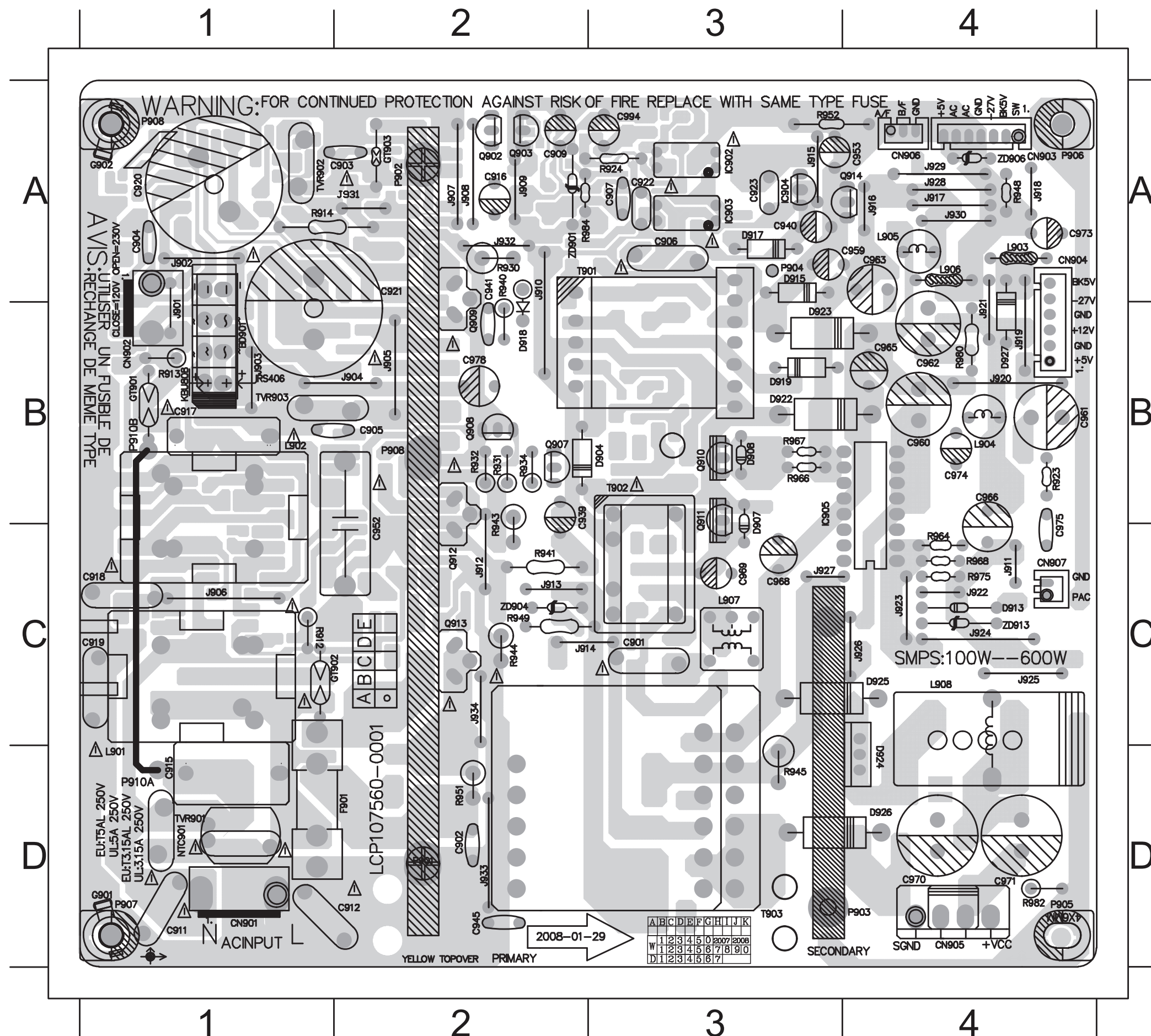
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BD901	A1	C915	C1	C926	D3	C937	C3	C948	C3	C960	C3	C972	A3	C985	D1	D905	B2	D917	C3	GT902	B2	L907	A3	Q912	B2	R907	C2	R922	D3	R935	C2	R946	C2	R959	C3	R970	A4	R982	A4	ZD903	B2
C901	D1	C916	C1	C927	C3	C938	B3	C949	A3	C961	C3	C973	D4	C992	B3	D906	A2	D918	C2	IC901	C1	L908	A3	Q913	A2	R908	C1	R925	D3	R936	C2	R947	D4	R960	A4	R971	A3	R983	D1	ZD904	A2
C902	D1	C917	B1	C928	C3	C939	C2	C950	A2	C962	C3	C974	B4	C993	B3	D907	B3	D919	C3	IC903	D2	NTC901	C1	Q914	C3	R909	A3	R926	B3	R937	C2	R948	C4	R961	C4	R972	A3	R984	D2	ZD905	A3
C903	D1	C918	B1	C929	C3	C940	D3	C951	A3	C963	C3	C975	C4	C994	D1	D908	B3	D922	C3	IC904	D3	Q902	C1	Q915	D4	R911	C4	R927	D2	R938	C3	R949	A2	R962	C3	R973	A3	R985	C3	ZD906	C4
C904	A1	C919	B1	C930	B4	C941	C2	C952	A2	C964	C4	C977	D1	CN901	D1	D909	B3	D923	C3	IC905	C4	Q903	D1	Q916	D2	R912	B1	R928	D2	R939	C3	R950	A2	R963	B3	R974	A3	R987	D1	ZD907	B4
C905	A1	C920	A1	C931	C3	C942	C2	C954	D3	C965	C3	C978	B1	CN903	D4	D910	A3	D924	A3	L901	C1	Q905	D3	R901	C1	R914	B1	R929	D2	R940	C2	R951	A2	R964	B3	R975	A3	T901	C2	ZD908	A4
C906	D1	C921	A1	C932	C3	C943	B2	C955	C3	C966	B3	C980	C4	CN904	C4	D911	A3	D927	C4	L902	B1	Q907	D2	R902	C1	R915	A1	R930	C2	R941	B2	R954	D3	R965	B3	R976	A3	T902	B2	ZD909	A4
C909	D1	C922	D2	C933	C2	C944	A2	C956	C3	C967	B3	C981	C4	CN905	A4	D912	A4	D929	D1	L903	D4	Q908	D2	R903	C1	R916	A1	R931	C2	R942	B2	R955	D3	R966	B3	R977	D4	T903	A2	ZD910	A4
C910	C1	C923	D2	C934	C2	C945	C1	C957	A3	C968	A3	C982	D1	D902	D2	D914	A4	F901	C1	L904	C3	Q909	D2	R904	C1	R917	A1	R932	C2	R943	B2	R956	C3	R967	B3	R978	D4	TVR901	C1	ZD911	D2
C913	C1	C924	D3	C935	C3	C946	A2	C958	A4	C969	A3	C983	D1	D903	B2	D915	C3	G901	A4	L905	C3	Q910	B3	R905	C1	R918	A1	R933	C2	R944	A2	R957	C3	R968	B3	R979	C4	ZD901	D2	ZD913	A3
C914	C2	C925	D3	C936	B2	C947	C3	C959	C3	C971	A3	C984	D1	D904	B2	D916	B2	G902	A4	L906	B3	Q911	B3	R906	C2	R920	C2	R934	C2	R945	A3	R958	C3	R969	B4	R980	C4	ZD902	C2		



PCB LAYOUT - TOP VIEW

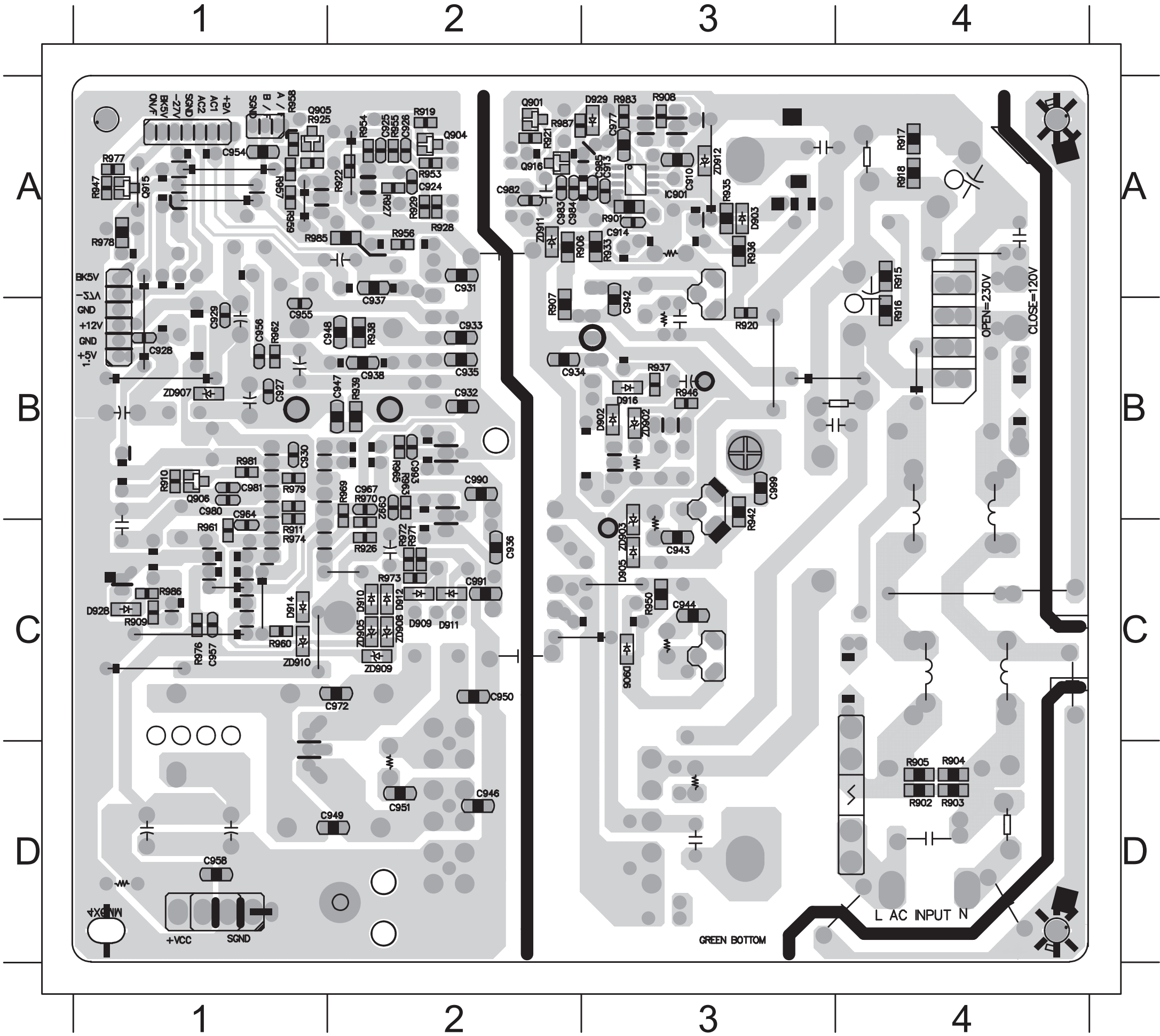


BD901	B1	C994	A3	J915	A3	Q914	A4
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C903	A2	CN904	A4	J918	A4	R930	A2
C904	A1	CN905	D4	J920	B4	R931	B2
C905	B2	D904	B3	J921	B4	R932	B2
C906	A3	D907	B3	J922	C4	R934	B2
C909	A2	D908	B3	J923	C4	R940	A2
C915	D1	D915	A3	J924	C4	R941	C2
C916	A2	D917	A3	J924	C4	R943	C2
C917	B1	D918	B2	J926	C4	R944	C2
C918	C1	D919	B3	J927	C3	R945	D3
C919	C1	D922	B3	J929	A4	R948	A4
C920	A1	D923	B3	J930	A4	R949	C2
C921	A2	D924	D4	J931	A2	R951	D2
C922	A3	D927	B4	J932	A2	R964	C4
C923	A3	F901	D2	J933	D2	R966	B3
C939	B2	G901	D1	J934	D2	R967	B3
C940	A3	G902	A1	L901	D1	R968	C4
C941	A2	GT902	C2	L902	B1	R975	C4
C945	D2	IC903	A3	L903	A4	R980	B4
C952	C2	IC904	A3	L904	B4	R982	D4
C959	A4	IC905	B3	L905	A4	R984	A2
C960	B4	J902	A1	L906	A4	T901	A2
C961	B4	J903	B1	L907	C3	T902	B3
C962	B4	J904	B2	L908	C4	T903	D3
C963	B4	J905	B2	NTC901	D1	TVR901	D1
C965	B4	J906	C2	Q902	A2	ZD901	A2
C966	B4	J907	A2	Q903	A2	ZD904	C2
C968	C3	J908	A2	Q907	B2	ZD906	A4
C969	C3	J909	A2	Q908	B2	ZD911	A2
C971	D4	J910	A2	Q909	B2	ZD913	C4
C973	A4	J911	C4	Q910	B3		
C974	B4	J912	C2	Q911	B3		
C975	B2	J913	C2	Q912	C2		
C978	B2	J914	C2	Q913	C2		

PCB LAYOUT - BOTTOM VIEW

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C910	A3	C985	A3	R936	A3
C913	A3	C992	B2	R937	B3
C914	A3	C993	B2	R938	B2
C924	A2	D902	B3	R939	B2
C925	A2	D903	A3	R942	B3
C926	A2	D905	C3	R946	B3
C927	B1	D906	C3	R947	A1
C928	B1	D909	C2	R950	C3
C929	B1	D910	C2	R954	A2
C930	B1	D911	C2	R955	A2
C931	A2	D912	C2	R956	A2
C932	B2	D914	C1	R957	A1
C933	B2	D916	B3	R958	A1
C934	B2	D929	A3	R959	A1
C935	B2	IC901	A3	R960	C1
C936	C2	Q905	A1	R961	C1
C937	A2	Q915	A1	R962	B1
C938	B2	Q916	A2	R963	B2
C942	A3	R901	A3	R965	B2
C943	C3	R902	D4	R969	B2
C944	C3	R903	D4	R970	B2
C946	D2	R904	D4	R971	C2
C947	B2	R905	D4	R972	C2
C948	B1	R906	A2	R973	C2
C949	D1	R907	A2	R974	C1
C950	C2	R908	A3	R976	C1
C951	D3	R909	C1	R977	A1
C954	A1	R911	C1	R978	A1
C955	B1	R915	A4	R979	B1
C956	B1	R916	B4	R983	A3
C957	C1	R917	A4	R985	A1
C958	D1	R918	A4	R987	A2
C964	B1	R920	B3	ZD902	B3
C967	B2	R922	A2	ZD903	C3
C972	C1	R925	A1	ZD905	C2
C977	A3	R926	C2	ZD907	B1
C980	B1	R927	A2	ZD908	C2
C981	B1	R928	A2	ZD909	C2
C982	A2	R929	A2	ZD910	C1
C983	A2	R933	A3		
C984	A2	R935	A3		

AMP BOARD

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Internal IC Diagram

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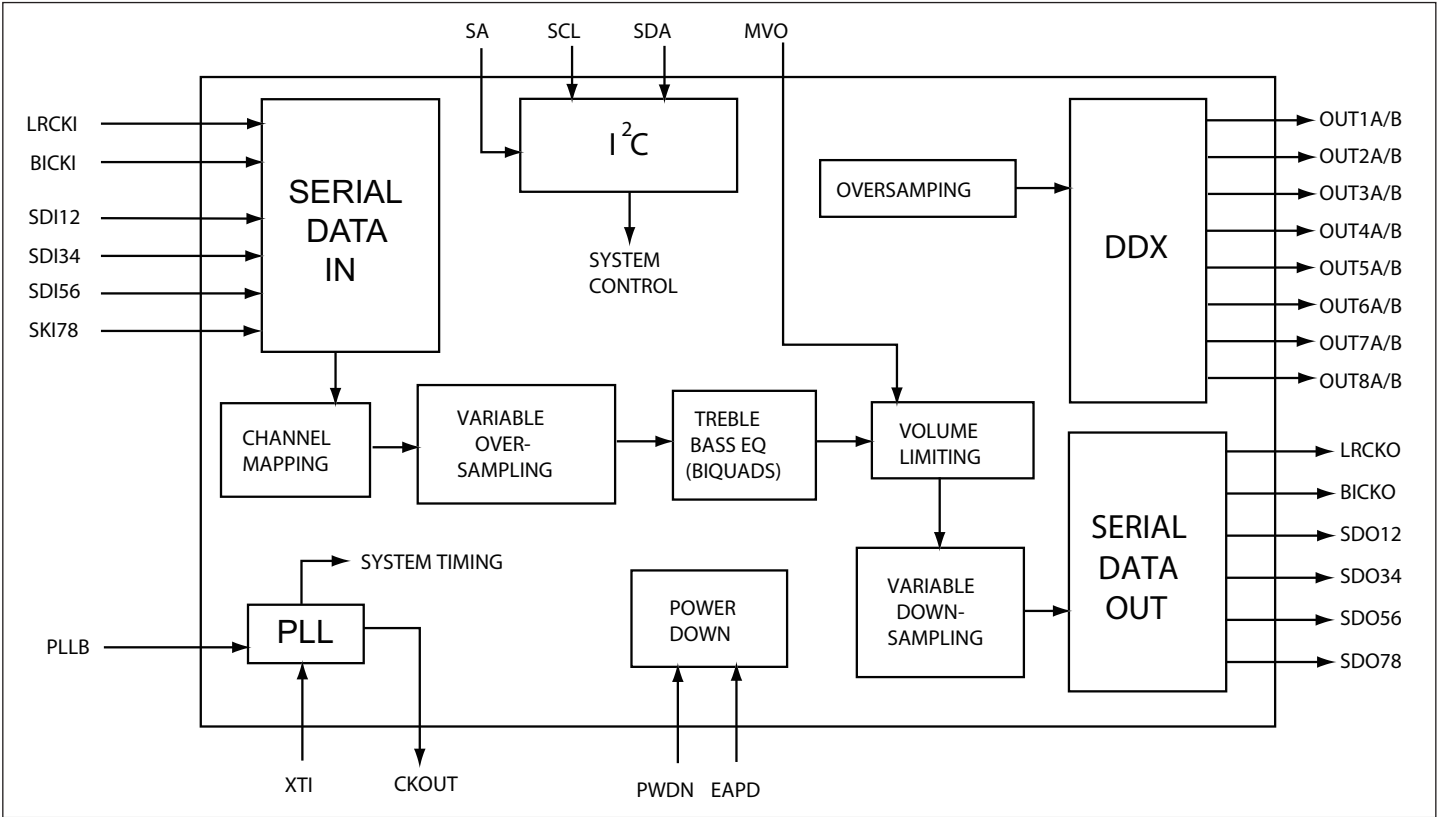
PCB Layout Top view.....

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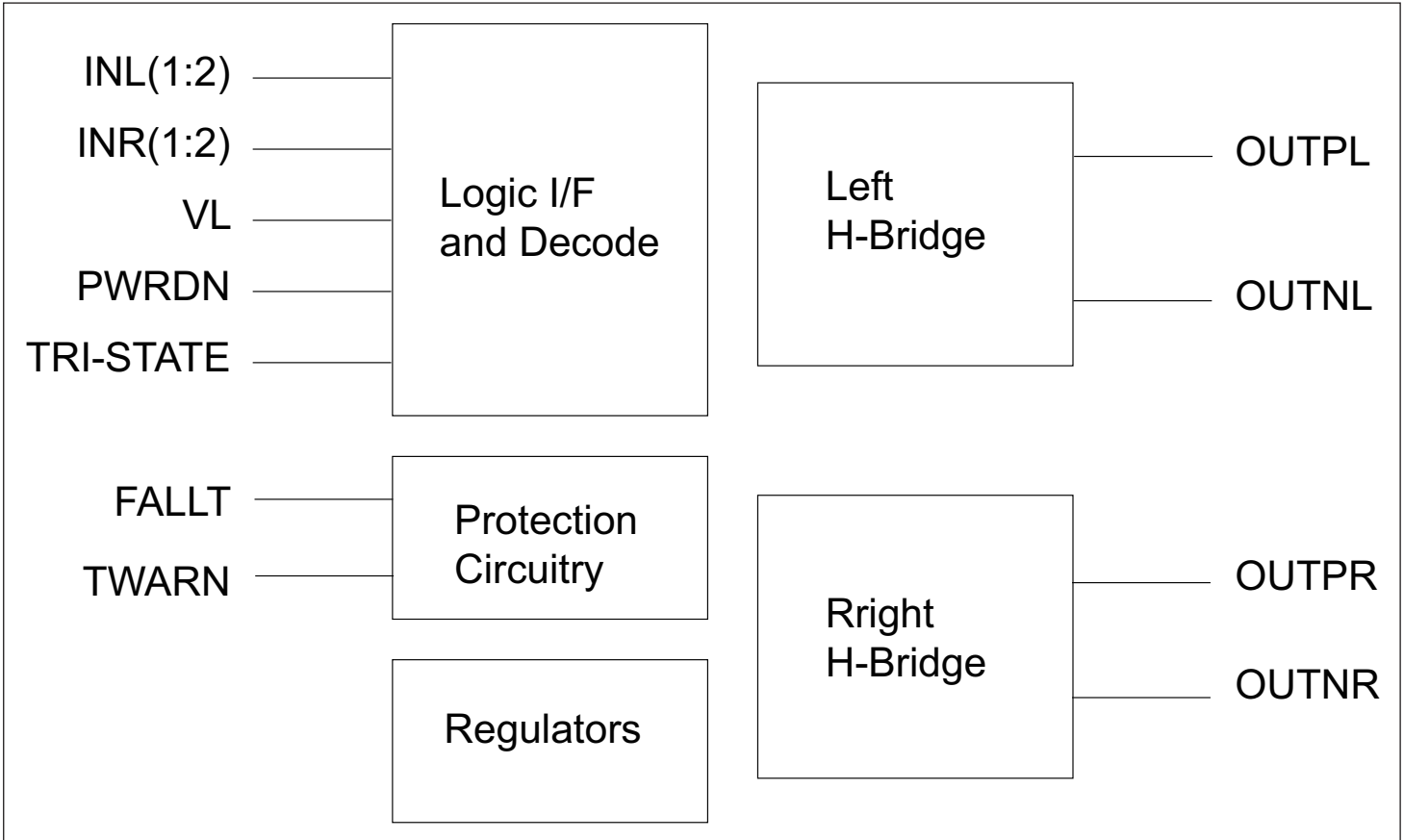
PCB Layout Bottom View

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INTERNAL IC DIAGRAM - STA309A



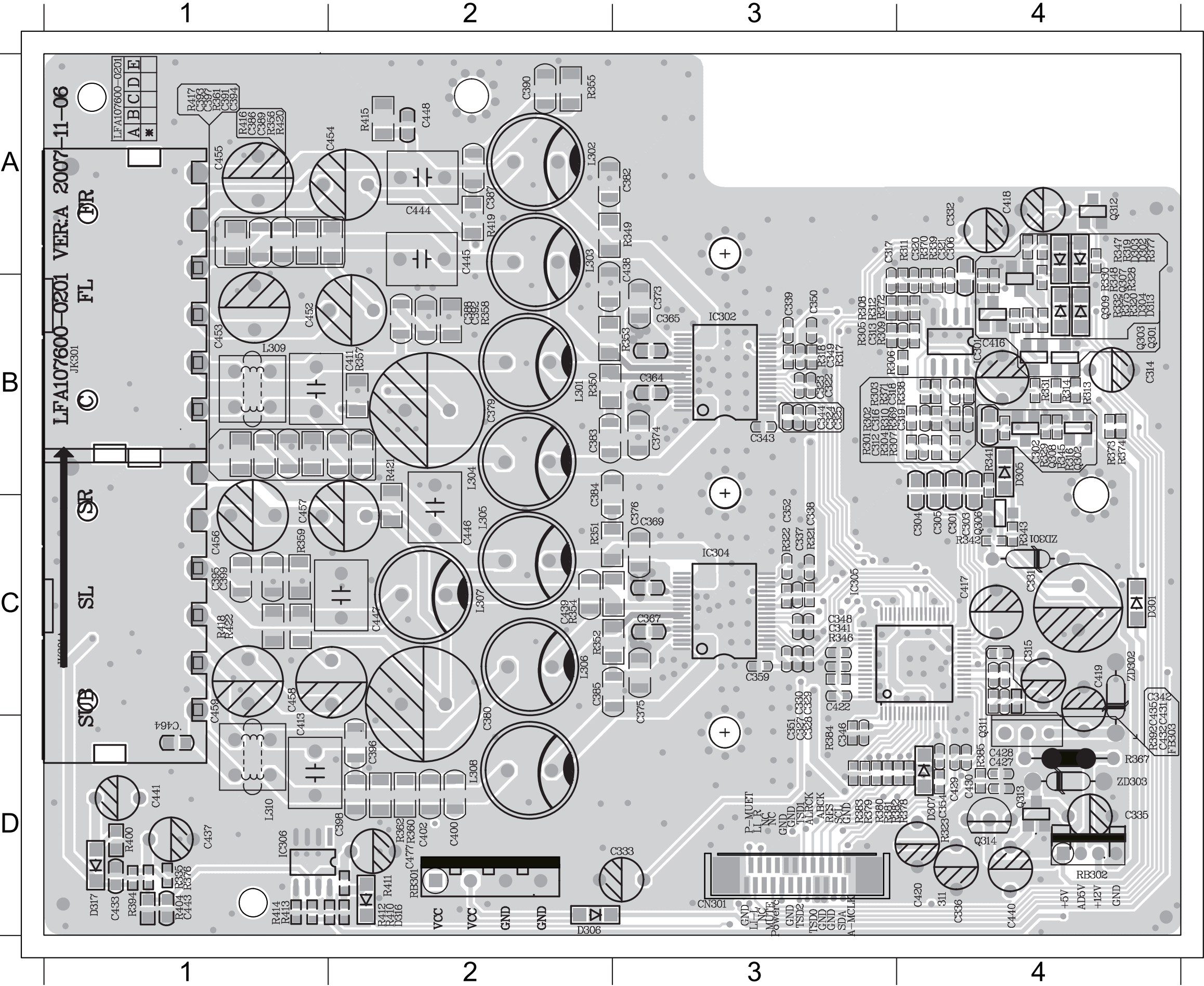
INTERNAL IC DIAGRAM - STA518





C301	A1	C364	B3	C445	B4	Q308	A2	R367	A3
C302	A2	C365	B3	C446	C4	Q309	A2	R368	A3
C303	A1	C367	D3	C447	C4	Q311	A3	R369	A1
C304	A1	C369	C3	C448	A2	Q312	B2	R370	B1
C305	B1	C373	B3	C449	B4	Q313	D1	R371	A1
C306	B2	C374	B3	C450	C4	Q314	D1	R372	A1
C307	D2	C375	C3	C451	C4	R301	A1	R373	A1
C308	D2	C376	C3	C452	B4	R302	A1	R374	B2
C309	D2	C379	B3	C453	B4	R303	A1	R375	A2
C310	D2	C380	C3	C454	B4	R304	A1	R376	D2
C311	D2	C382	A3	C455	B4	R305	A1	R377	B2
C312	A1	C383	B1	C456	C4	R306	B1	R378	C1
C313	B1	C384	C3	C457	C4	R307	A1	R379	C1
C314	A1	C385	D3	C458	C4	R308	A1	R380	C1
C315	C2	C386	B4	C459	C4	R309	B1	R381	C1
C316	A1	C387	A4	C464	A4	R310	A1	R382	C1
C317	B1	C388	B4	C477	D3	R311	A1	R383	B1
C318	A1	C389	B4	CN301C1		R312	B1	R384	B1
C319	A1	C390	B4	D301	A1	R313	A1	R385	C1
C320	B1	C391	B4	D302	A1	R314	A1	R386	D2
C321	B1	C392	B4	D303	A1	R315	A2	R387	D2
C322	B2	C393	B4	D304	A1	R316	A2	R388	D2
C323	B2	C394	C4	D305	A2	R317	B3	R389	D2
C324	B2	C395	C4	D306	A2	R318	B3	R390	D2
C325	B2	C396	C4	D308	D1	R319	A2	R391	D2
C326	C1	C397	C4	D309	D1	R320	A2	R392	C2
C327	D2	C398	C4	D310	D2	R321	C3	R394	D2
C328	D2	C399	C4	D311	D2	R322	C3	R395	C2
C329	D2	C400	D4	D312	D2	R325	D1	R398	D1
C330	D2	C402	D4	D313	A1	R328	A1	R399	D1
C331	A2	C411	B4	D314	D2	R329	A2	R400	D2
C332	B2	C413	D4	D315	D2	R330	B2	R401	D2
C333	C3	C416	A1	D316	D3	R331	A2	R402	D4
C335	D1	C417	A3	D317	D2	R332	A2	R403	D2
C336	D1	C419	A3	FB303C2		R335	D3	R404	D2
C337	C3	C421	A3	IC301	A1	R338	A1	R410	D3
C338	A3	C422	B1	IC302	A3	R339	A1	R411	D3
C339	A3	C423	C1	IC304	C3	R342	A2	R412	D3
C340	A1	C424	C1	IC305	C2	R343	A2	R413	D4
C341	B1	C425	C1	IC306	D3	R345	A2	R414	D3
C342	B2	C426	C1	J301A	B4	R346	B1	R415	A4
C343	B3	C427	C1	JK301	B4	R347	A2	R416	B4
C344	B3	C428	C1	L301	B4	R348	B2	R417	C4
C345	A3	C429	C1	L302	A4	R349	A3	R418	C4
C346	B1	C430	C1	L303	B4	R350	B3	R419	A4
C347	B2	C431	C1	L304	B4	R351	C3	R420	B4
C348	C2	C432	C2	L305	C4	R352	C3	R421	C4
C349	B3	C434	D2	L306	C4	R353	B3	R422	C4
C350	C3	C435	C2	L307	C4	R354	C3	R429	D2
C351	D3	C437	D2	L308	D4	R355	B4	RB301D1	
C352	C3	C438	B3	L309	B4	R356	B4	RB302D1	
C353	C1	C439	C3	L310	C4	R357	B4	ZD301A1	
C354	C1	C440	D1	Q301	A1	R358	B4	ZD302A3	
C355	C2	C441	D2	Q302	A2	R359	C4	ZD303D1	
C356	C2	C442	A4	Q303	A2	R360	D4		
C357	C2	C443	D3	Q306	A2	R361	C4		
C359	D3	C444	A2	Q307	A2	R362	C4		

PCB LAYOUT - TOP VIEW

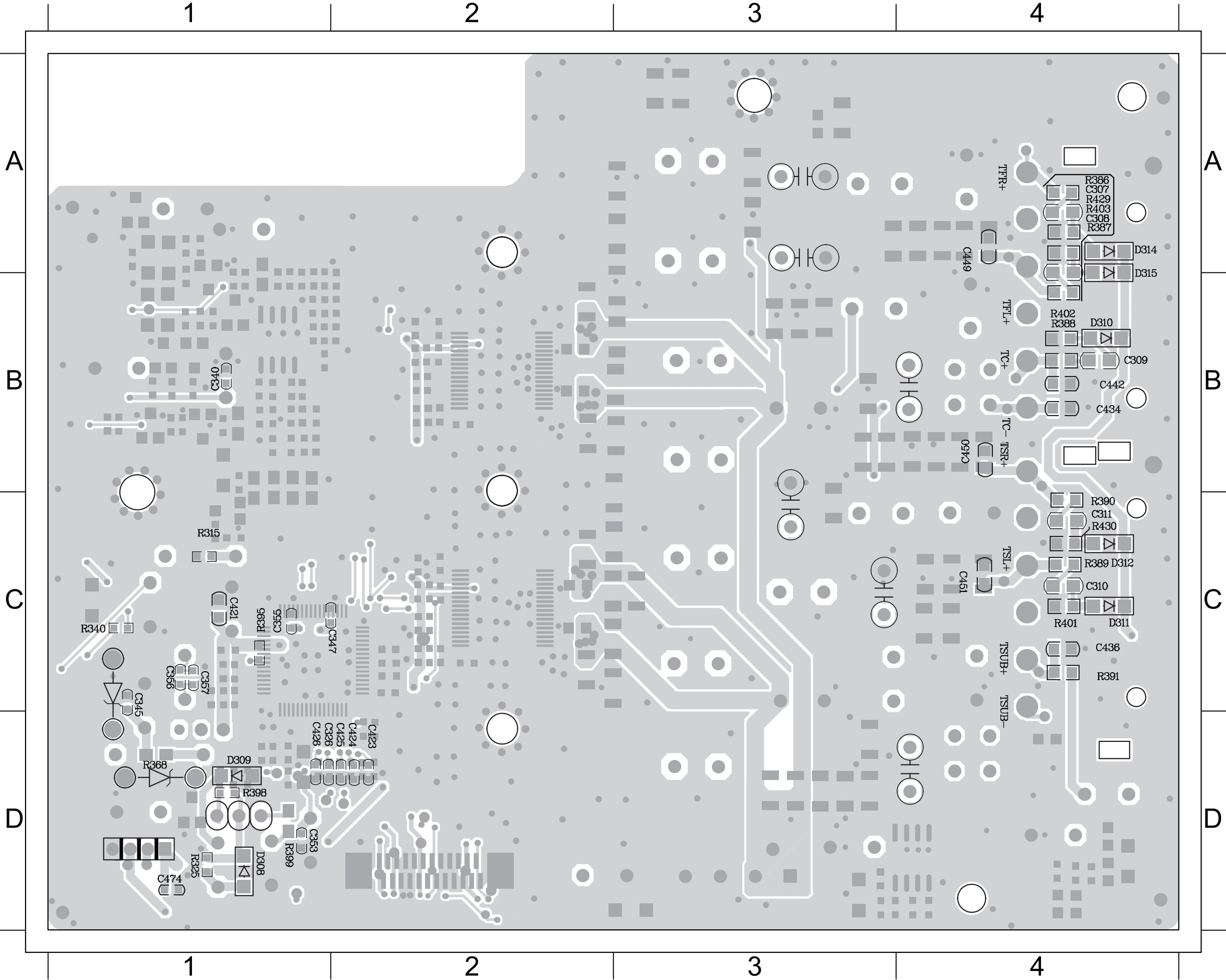


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C302	B4	C389	A1	IC304	C3	R348	A4
C303	C4	C390	A2	IC305	C3	R349	A3
C304	C4	C391	A1	IC306	D1	R350	B2
C305	C4	C392	B2	J301A	C1	R351	C2
C306	A4	C393	A1	JK301	B1	R352	C2
C312	B3	C394	A4	L301	B2	R353	B3
C313	B3	C395	C1	L302	A2	R354	C2
C314	B4	C396	D2	L303	A2	R355	A2
C315	C4	C397	A1	L304	B2	R356	A1
C316	B3	C398	D2	L305	C2	R357	B2
C317	A3	C399	C1	L306	C2	R358	B2
C318	B3	C400	D2	L307	C2	R359	C1
C319	B4	C402	D2	L308	D2	R360	D2
C320	A4	C411	B2	L309	B1	R361	A1
C321	A4	C413	D1	L310	D1	R362	D2
C322	B3	C416	B4	Q301	B4	R367	D4
C323	B3	C417	C4	Q302	B4	R369	B3
C324	B3	C419	C4	Q303	B4	R370	A4
C325	B3	C422	C3	Q306	C4	R371	B3
C327	D3	C427	D4	Q307	A4	R372	B3
C328	D3	C428	D4	Q308	B4	R373	B4
C329	C3	C429	D4	Q309	B4	R374	B4
C330	C3	C430	D4	Q311	D4	R375	B4
C331	C4	C431	C4	Q312	A4	R376	D1
C332	A4	C432	D4	Q313	D4	R377	A4
C333	D3	C435	C4	Q314	D4	R378	D4
C335	D4	C437	D1	R301	B3	R379	D3
C336	D4	C438	A3	R302	B3	R380	D3
C337	C3	C439	C2	R303	B3	R381	D3
C338	C3	C440	D4	R304	B3	R382	D3
C339	B3	C441	D1	R305	B3	R383	D3
C341	C3	C443	D1	R306	B3	R384	D3
C342	C4	C444	A2	R307	B3	R385	D4
C343	B3	C445	A2	R308	B3	R392	D4
C344	B3	C446	C2	R309	B3	R394	D1
C346	D3	C447	C2	R310	B3	R400	D1
C348	C3	C448	A2	R311	A4	R404	D1
C349	B3	C452	B1	R312	B3	R410	D2
C350	B3	C453	B1	R313	B4	R411	D2
C351	D3	C454	A2	R314	B4	R412	D2
C352	C3	C455	A1	R316	B4	R413	D1
C354	D4	C456	C1	R317	B3	R414	D1
C359	C3	C457	C1	R318	B3	R415	A2
C364	B3	C458	C1	R319	A4	R416	A1
C365	B3	C459	C1	R320	B4	R417	A1
C367	C3	C464	D1	R321	C3	R418	C1
C369	C3	C477	D2	R322	C3	R419	A2
C373	B3	CN301	D3	R328	A4	R420	A1
C374	B3	D301	C4	R329	B4	R421	B2
C375	C3	D302	A4	R330	A4	R422	C1
C376	C3	D303	A4	R331	B4	RB301	D2
C379	B2	D304	B4	R332	B4	RB302	D4
C380	D2	D305	B4	R335	D1	ZD301	C4
C382	A3	D306	D2	R338	B4	ZD302	C4
C383	B2	D313	B4	R339	A4	ZD303	D4
C384	B2	D316	D2	R342	C4		
C385	C2	D317	D1	R343	C4		
C386	A1	FB303	D4	R345	B4		
C387	A2	IC301	B4	R346	C3		

PCB LAYOUT - BOTTOM VIEW

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C307	A4	R388	B4
C308	A4	R389	C4
C309	B4	R390	C4
C310	C4	R391	C4
C311	C4	R395	C1
C326	D1	R398	D1
C340	B1	R399	D1
C341	C1	R401	C4
C345	C1	R402	B4
C347	C2	R403	A4
C353	D4	R429	A4
C355	C1		
C356	C1		
C357	C1		
C421	C1		
C423	D2		
C424	D2		
C425	D2		
C426	D1		
C434	B4		
C442	B4		
C449	A4		
C450	B4		
C451	C4		
D308	D1		
D309	D1		
D310	B4		
D311	C4		
D312	C4		
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D315	A4		
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R325	D1		
R368	D1		
R386	A4		
R387	A4		

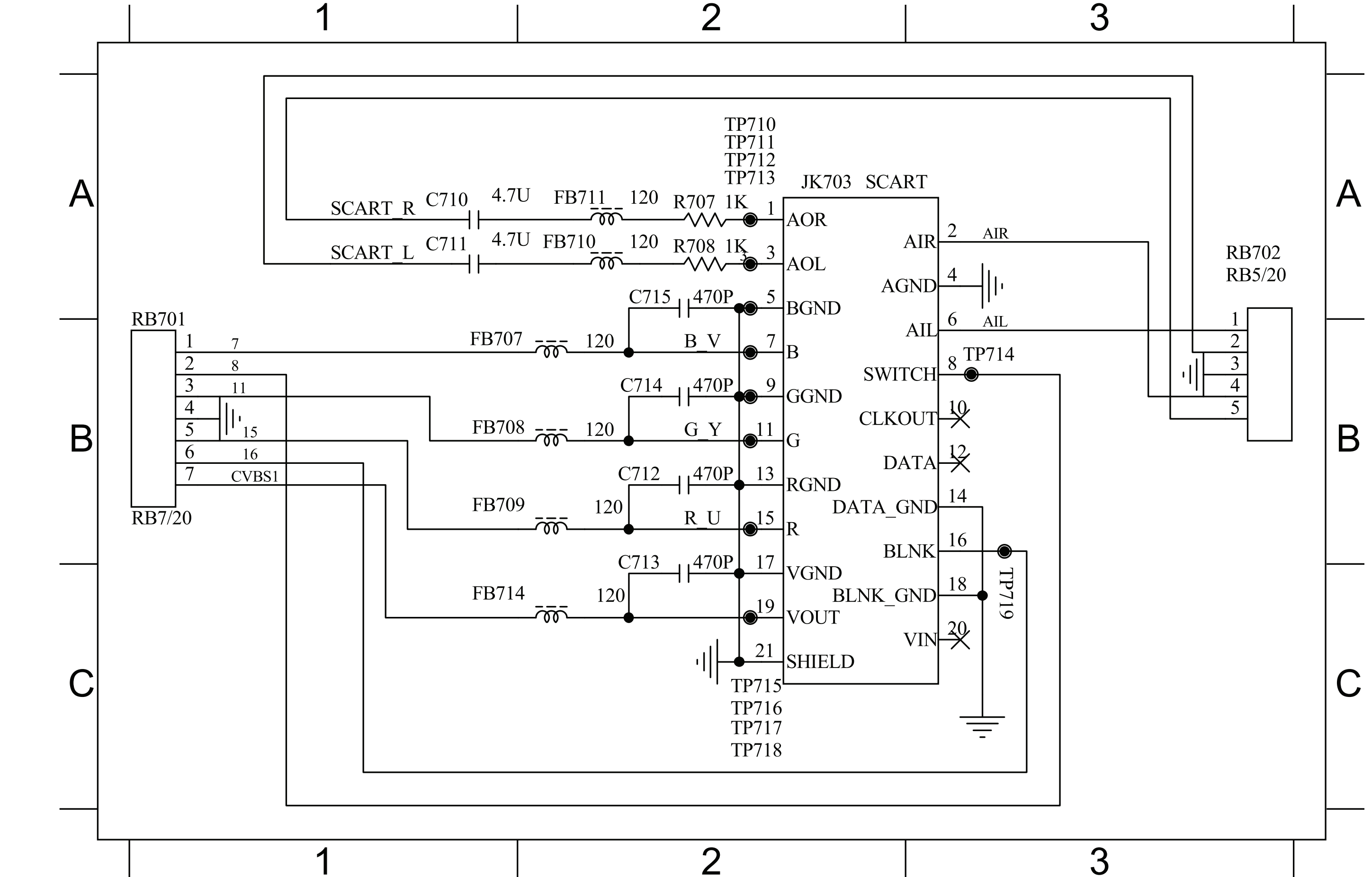
SCART BOARD

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C710 A1 C712 B2 C714 B2 FB707 B1 FB709 B1 FB711 A2 JK703 A2 R708 A2 RB702 A1
C711 A1 C713 B2 C715 A2 FB708 B1 FB710 A2 FB714 C2 R707 A2 RB701 B1

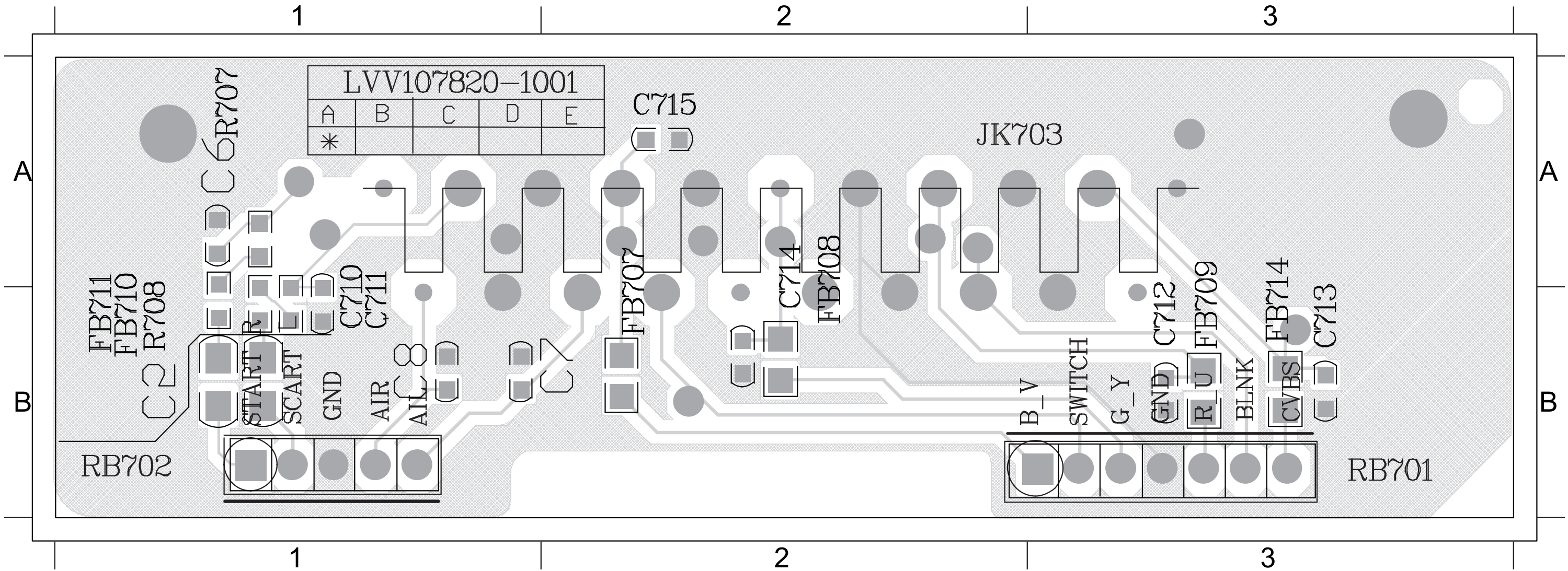


PCB LAYOUT - SCART PCB VIEW

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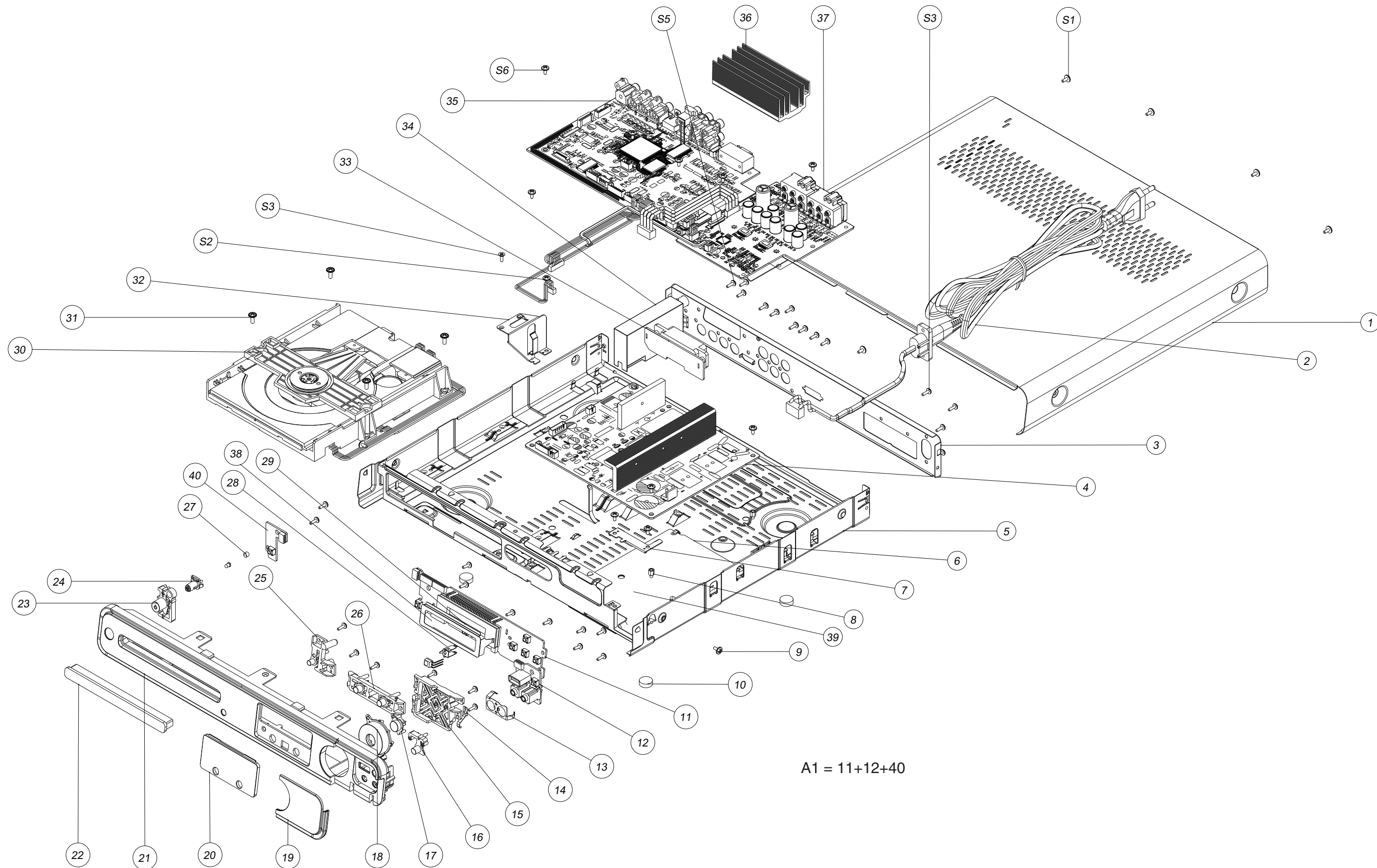
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C711 A1 C713 B3 C715 A2 FB708 A1 FB710 A1 FB714 A1 R707 A1 RB701 B3



MECHANICAL EXPLODED VIEW

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MECHANICAL PART LIST

Loc.	Part No.	Description
MAIN		
1	996510011289	TOP COVER
2	996510001638	POWER CORD (for:/12)
2	996510002665	POWER CORD (for:/05)
3	996510011290	REAR COVER (for: /12)
3	996510011300	REAR COVER (for: /05)
4	996510015627	POWER PCB ASSY 230V 300W
5	996510011291	BOTTOM COVER SECC
6	996510011277	PVC SHEET-SMALL
10	996510011288	RUBBER FOOT
15	996510011285	FUCTION BUTTON BASE ABS
17	996510011284	SOURCE BUTTON ABS
18	996510011282	FUNCTION BUTTON ABS
19	996510011287	CONNECTORS COVER
20	996510011286	VFD LENS PMMA
21	996510011279	FRONT PANEL
22	996510011278	DVD DOOR ABS
23	996510011280	POWER BUTTON ABS
24	996510010840	STANDBY LENS
25	996510011281	EJECT BUTTON ABS
26	996510011283	VOLUME BUTTON ABS
30	996510010819	DVD LOADER
33	996510015545	SCART PCB ASSY
34	996510011275	TUNER PACK
35	996510015628	MAIN PCB ASSY
37	996510015629	AMP PCB ASSY
39	996510011276	POWER PCB PLATE PVC
A1	996510015630	VFD+JACK+STANDBY PCB ASSY
FM	996510008251	FM ANT
RC	996510011293	REMOTE CONTROL 39 KEYS
SCART	996510001650	SCART CABL
V1	996510007429	FFCCBLE 10P100mm
V2	996510011292	FFC CABLE 24P 50mm
V3	996510007319	FFC CABLE 24P 200MM
V3	996510013767	FFC CABLE 24P

SPEAKER		
RFR/FF	996510001601	RUBBER FOOT - REAR/FRONT
RFC	996510001599	RUBBER FOOT -CENTER SPK
RFS	996510010854	RUBBER FOOT -SUB
SPKC	996510012656	SPEAKER BOX -CENTER
SPKFL	996510012657	SPEAKER BOX - FRONT LEFT
SPKFR	996510012658	SPEAKER BOX - FRONT RIGHT
SPKRL	996510012659	SPEAKER BOX - REAR LEFT
SPKRR	996510012660	SPEAKER BOX - REAR RIGHT
SUBW	996510012661	SUBWOOFER