

Service
Service
Service



Service Manual



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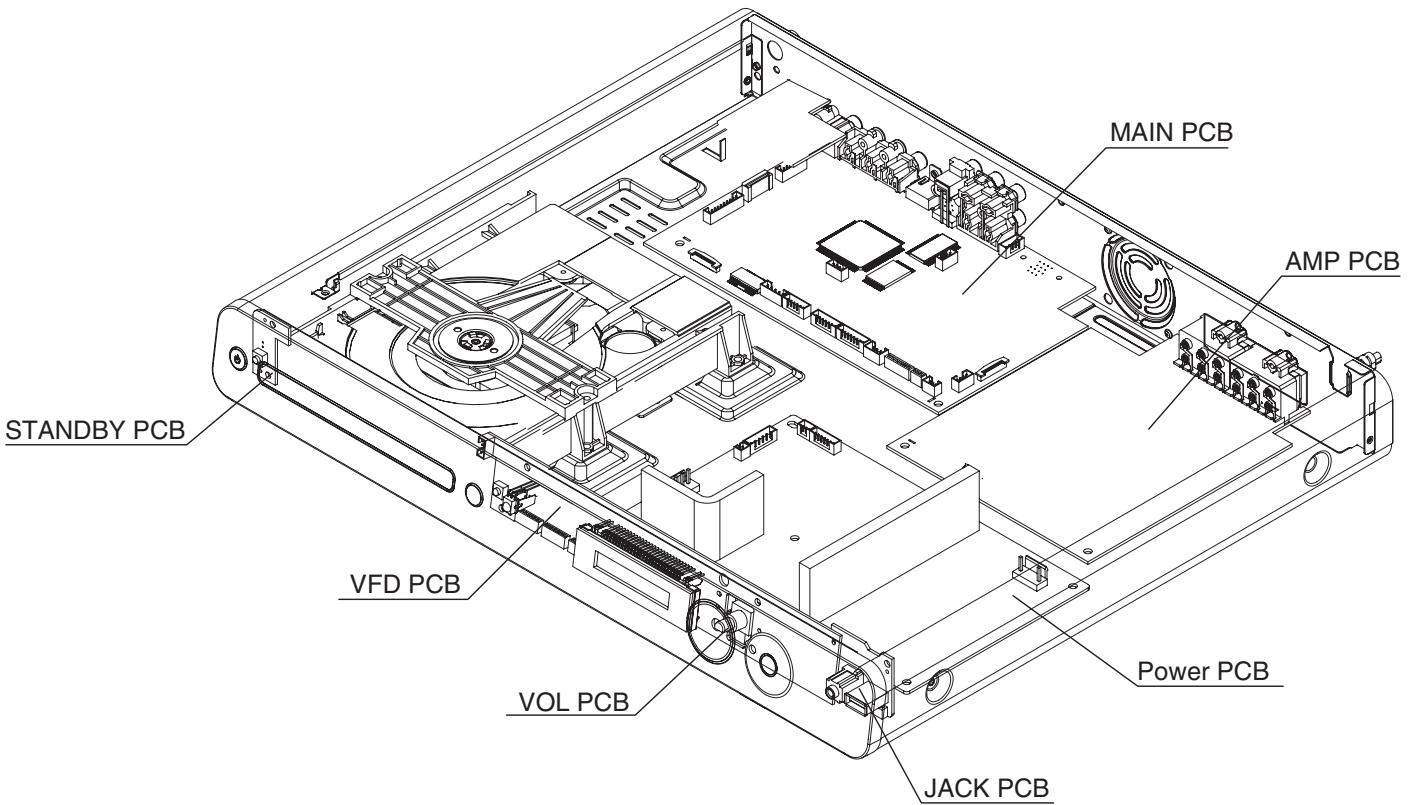
GB 3139 785 33640

Version 1.0



PHILIPS

LOCATION OF PCB BOARDS



VERSION VARIATION:

Features	Type/Versions	HTS3365
		/55
Main(Power Output-600W)		X
S-video out		X
Power Voltage (120V/230V)		X
WMA		X

SERVICE SCENARIO MATRIX:

Boards in used	Type/Versions	HTS3365
		/55
Main Board		C
Power Board		C
AMP Board		C
VFD+JACK+VOL+STANDBY Board		C

* C= Component

SPECIFICATIONS

AMPLIFIER

Total output power	
Home Theatre mode.....	600 W
Frequency Response	180 Hz – 18 kHz / ± 3 dB
Signal-to-Noise Ratio:.....	> 60 dB (A-weighted)
Input Sensitivity	
AUX 1	400 mV
AUX 2	400 mV
MP3 LINK	400 mV

RADIO

Tuning Range	FM 87.5-108 MHz
.....	(50/100 kHz)
.....	AM/MW 530-1700 kHz
.....	(10 kHz)
.....	531-1602 kHz
.....	(9 kHz)
26 dB Quieting	
Sensitivity	FM 22 dBf,
.....	AM/MW 5000 μ V/m
IF Rejection Ratio	FM 60 dB, AM/MW 24 dB
Signal-to-Noise Ratio.....	FM 50 dB, AM/MW 30 dB
AM/MW Suppression Ratio	FM 30 dB
Harmonic Distortion	FM Mono 3%
.....	FM Stereo 3%
.....	AM/MW 5%
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 Diametre	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 MassStorage Class)
MTP	(Media TransferProtocol)

MAIN UNIT

Power Supply Rating	110-127 V / 220-240 V~;
.....	50-60 Hz
Power Consumption	100 W
Dimensions.....	435 x 58 x 360 (mm)
.....	(w x h x d)
Weight	3.75 kg

FRONT AND REAR SPEAKERS

System.....	Full range satellite
Impedance.....	3 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	0.54 kg/each

CENTRE SPEAKER

System.....	Full range satellite
Impedance.....	6 Ω
Speaker drivers:	2 x 2.5" full range speaker+
.....	1 x 2" tweeter
Frequency response.....	150 Hz – 20 kHz
Dimensions.....	440 x 105 x 75 (mm)
.....	(w x h x d)
Weight	1.39 kg

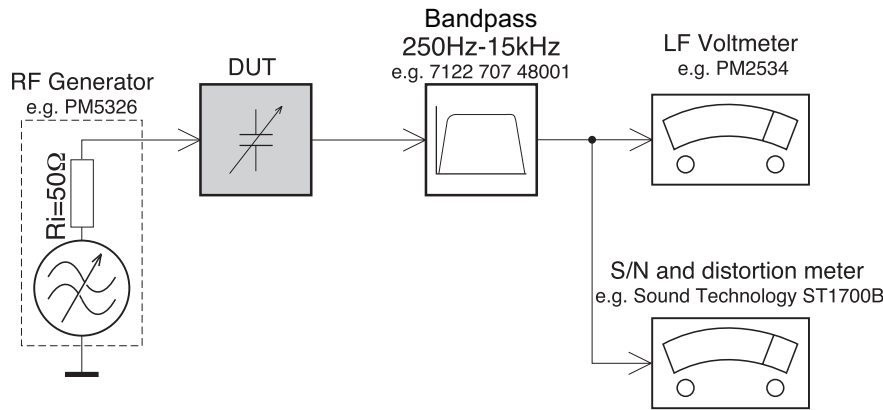
SUBWOOFER

Impedance.....	6 Ω
Speaker drivers	165mm (6.5") woofer
Frequency response.....	40 Hz – 150 Hz
Dimensions.....	163 x 363 x 369 (mm)
.....	(w x h x d)
Weight	5.08 kg

Specifications subject to change without prior notice.

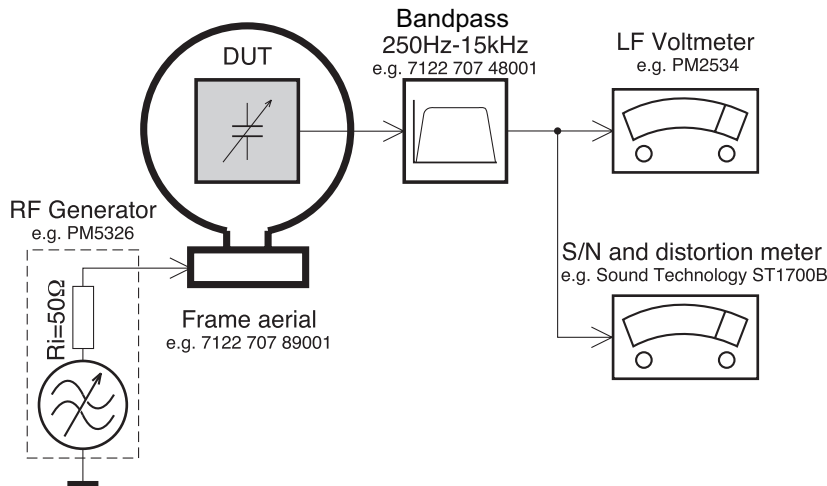
MEASUREMENT SETUP

Tuner FM



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

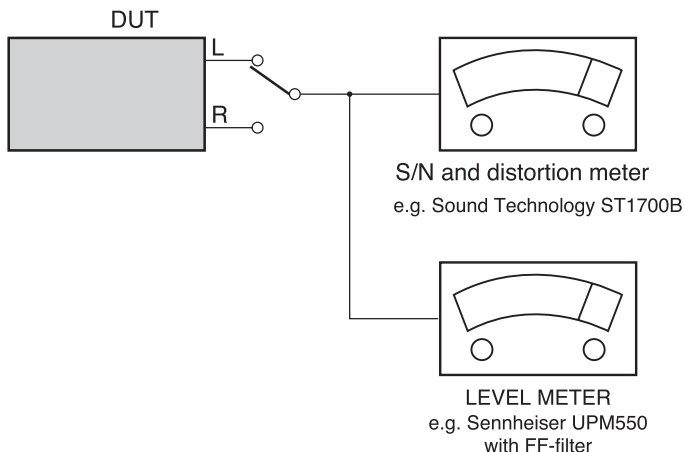
Tuner AM (MW,LW)



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)



SERVICE AIDS

Service Tools:

- Universal Torx driver holder4822 395 91019
- Torx bit T10 150mm4822 395 50456
- Torx driver set T6-T204822 395 50145
- Torx driver T10 extended4822 395 50423

Compact Disc:

- SBC426/426A Test disc 5 + 5A4822 397 30096
- SBC442 Audio Burn-in test disc 1kHz4822 397 30155
- SBC429 Audio Signals disc4822 397 30184
- Dolby Pro-logic Test Disc4822 395 10216

HANDLING CHIP COMPONENTS

GENERAL

SOLDER CHIP COMPONENT SOLDER
COPPER TRACK P.C.B.
GLUE

SERVICE PACKAGE

DISMOUNTING

VACUUM PISTON
4822 395 10082

SOLDERING IRON
e.g. WELLER
solder tip PT-H7

SOLDERING IRON
SOLDER WICK
4822 321 40042

e.g. A PAIR OF TWEEZERS

HEATING HEATING

SOLDERING IRON SOLDER WICK
CLEANING

PRECAUTIONS

SOLDERING IRON CORRECT COPPER TRACK

SOLDERING IRON CHIP COMPONENT

MOUNTING

e.g. A PAIR OF TWEEZERS

SOLDERING IRON SOLDER
ø0.5-0.8mm PRESSURE

SOLDERING TIME
< 3 sec/side SOLDER
ø0.5-0.8mm PRESSURE SOLDERING IRON

EXAMPLES

CORRECT

SOLDERING IRON NO!

(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).

Unsorgfältige 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, estention 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 symbool Δ .

(F)

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

Less composants de sécurité sont marqués 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.

Componenty 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 suojalukituksen ohitettaessa olet alttiina näkymättömälle laserisäteilylle. Älä katso säteeseen!

(DK) Advarsel !

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


(F)

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

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 (lead-free/ 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 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.

System , Region Code , etc. Setting Prochure

1)System Reset

- press "OPTIONS" button on R/C,TV will show setup menu
- select the menu using the ▼ and ► on R/C
- go preference page to do ssystem reset

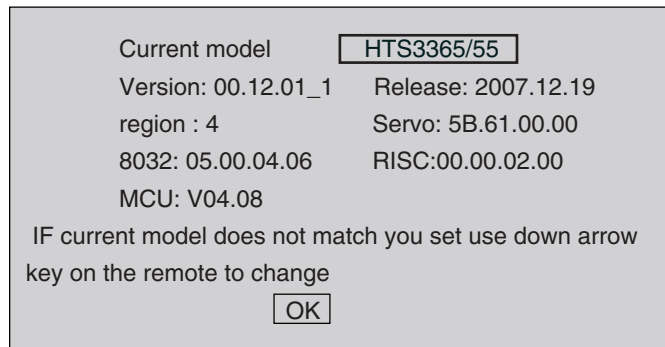
2)Region Code Change

- In open model,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

- In open model, press "1" "5" "9" on R/C
- press "ok" button to confirm
- TV will show message as below:



4)Password Change

- press "OPTIONS " button on R/C,TV will show setup menu
 - select the menu using the ▼ and ► on R/C
 - go preference page select "password" to change
- * 000000 is default password supplied.

5)Check on the Sofeware Version

- open the CD Door
- press "INFO" button on R/C
- TV will show the version on screen

6)Trade model

- press "Open/Close " button on R/C
- Press "2" "5" "9" on R/C,VFD will display "TRA ON " or "TRA OFF"

8) Produce to Change Tuner Grid

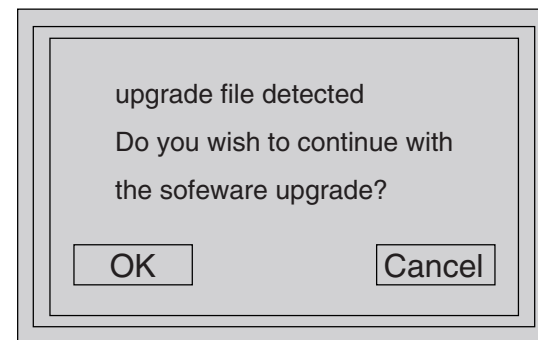
(only applicable for certain regions)

In some countries, the frequency step between adjacent channels in the (AM/MW)/FM band is 9kHz/50kHz(10kHz/100kHz in some areas).

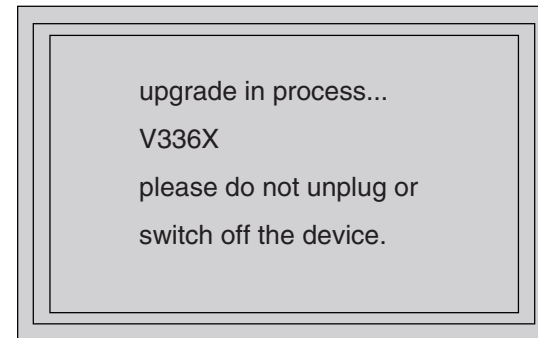
- press "source" to select "FM" or "AM"
 - In "FM" or "AM" playback mode, press & hold "play/pause" button until "Grid 9" or "Grid 10" appears
- Note: repeating the same action will toggle back to it previous tuning grid setting.
- * "Grid 10" is default for/55 version.

8) Upgrading new sofeware

- copy "sofeware files" into a CD-R disc
 - open the CD Door,then insert CD-R program disc
 - close the CD Door
 - VFD will show:
 - "Loading"
 - "Erase" -- erase the flash memory
 - "Writing" about 1 minute
 - "done "
- * the system will switch off and on again automatically.
- OSD will show:



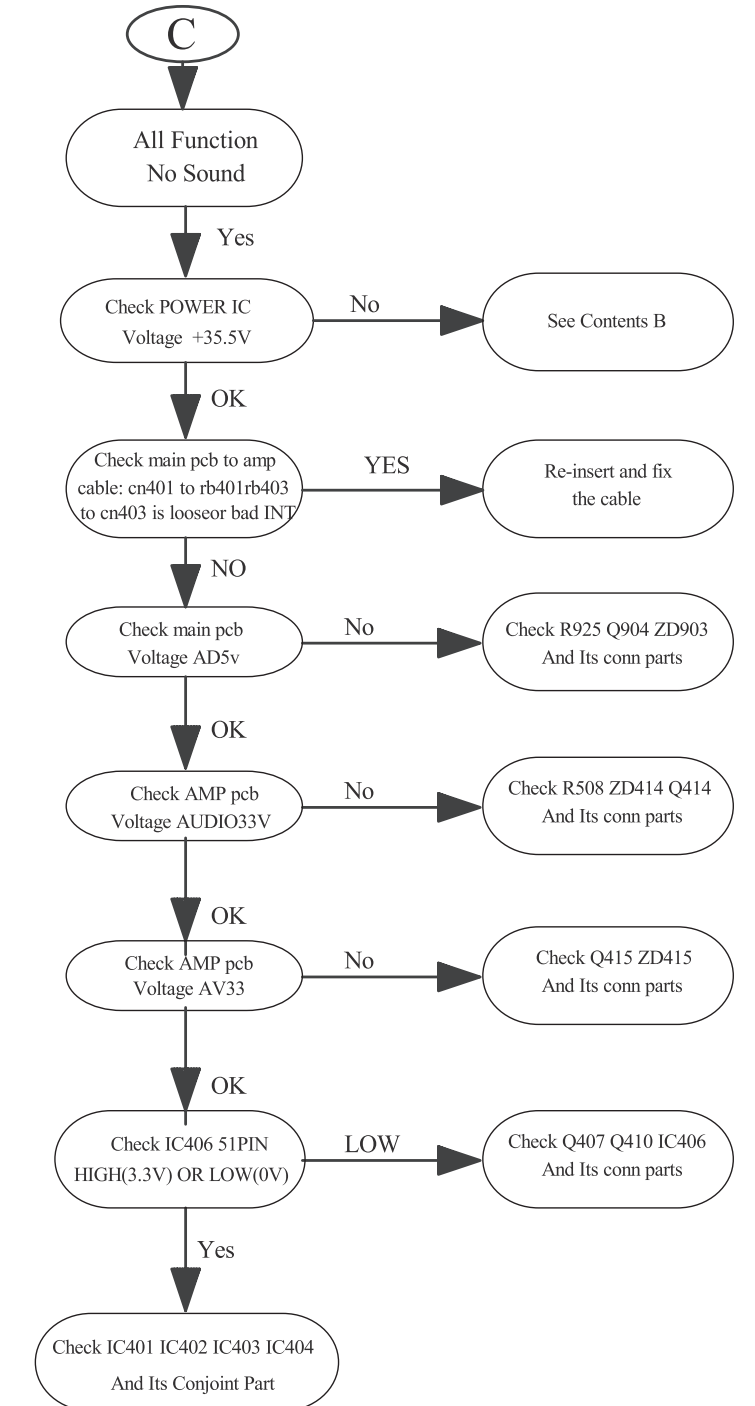
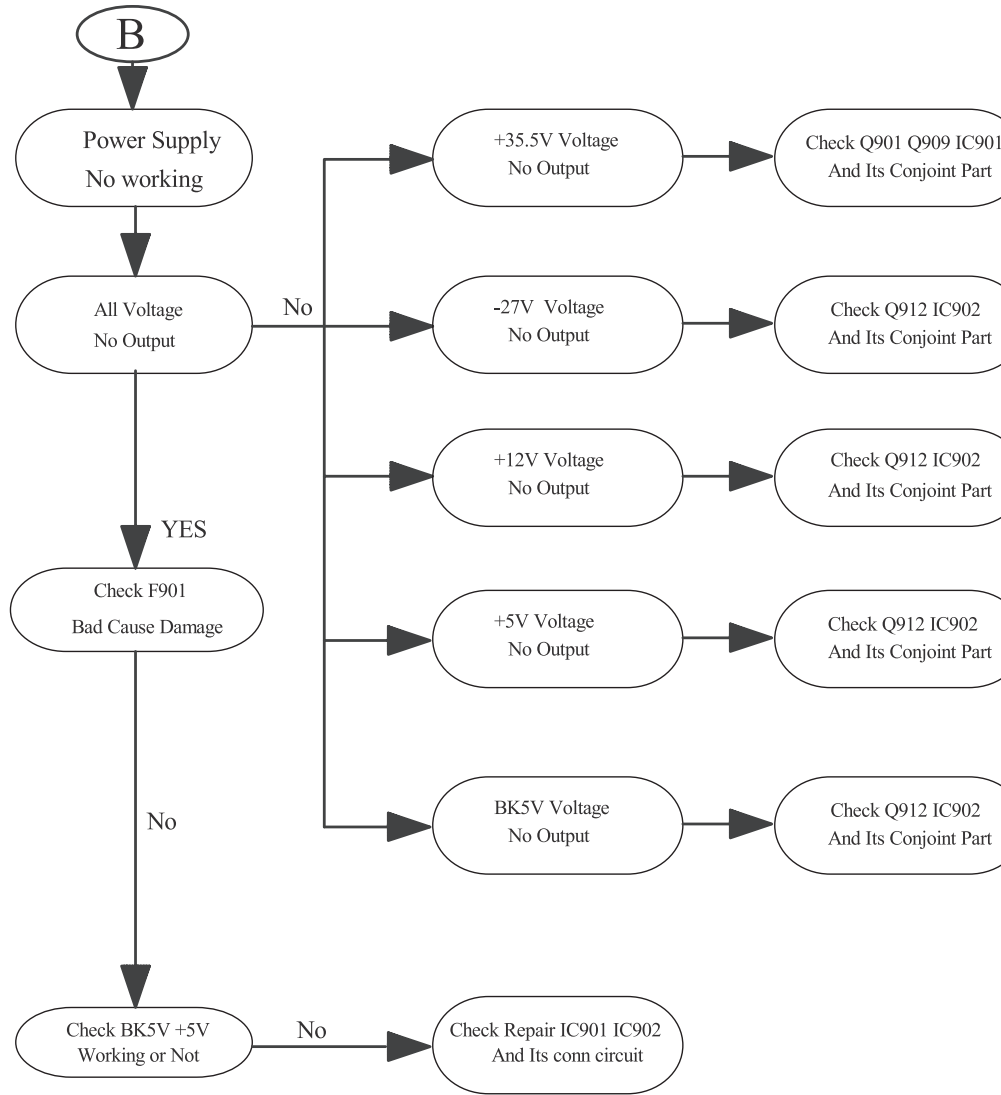
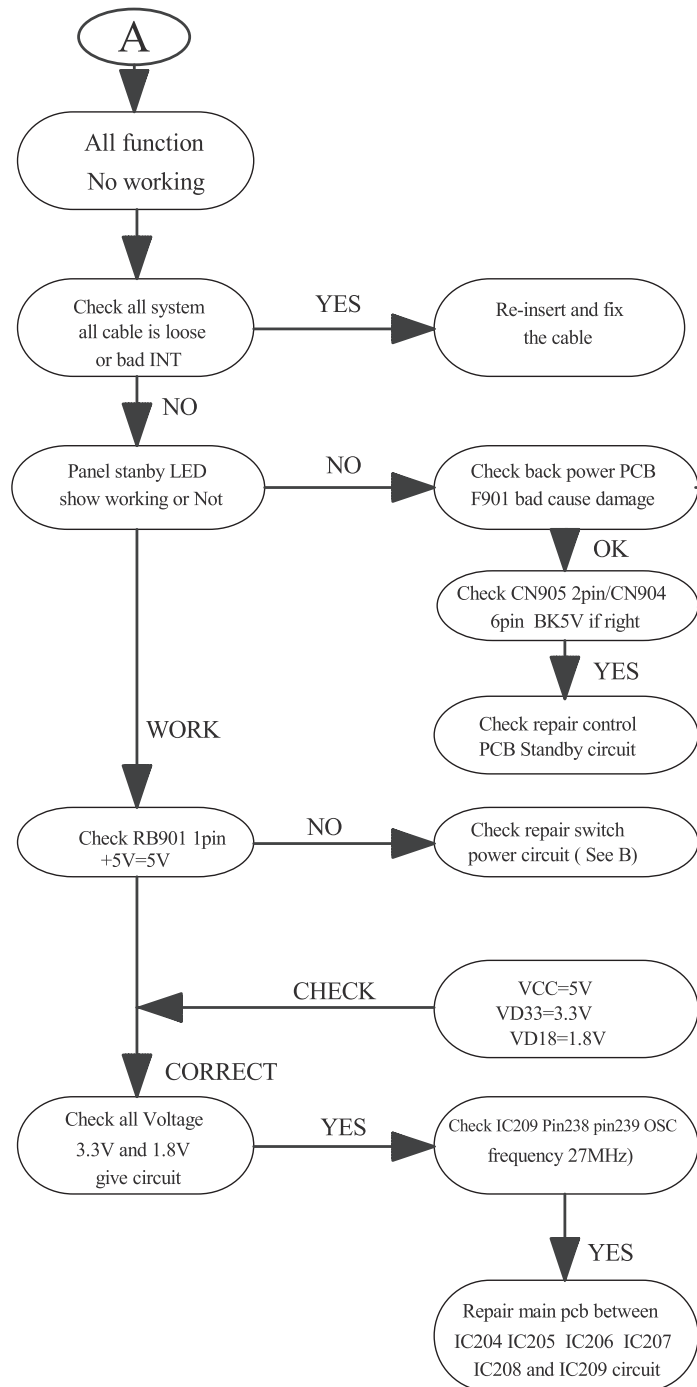
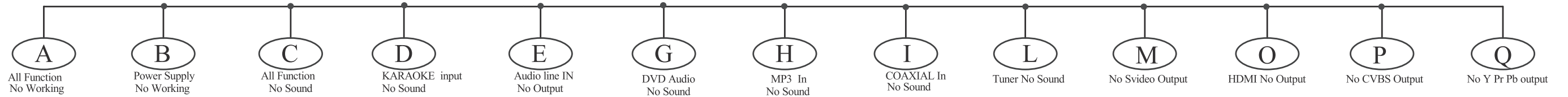
- select "OK", OSD will show:



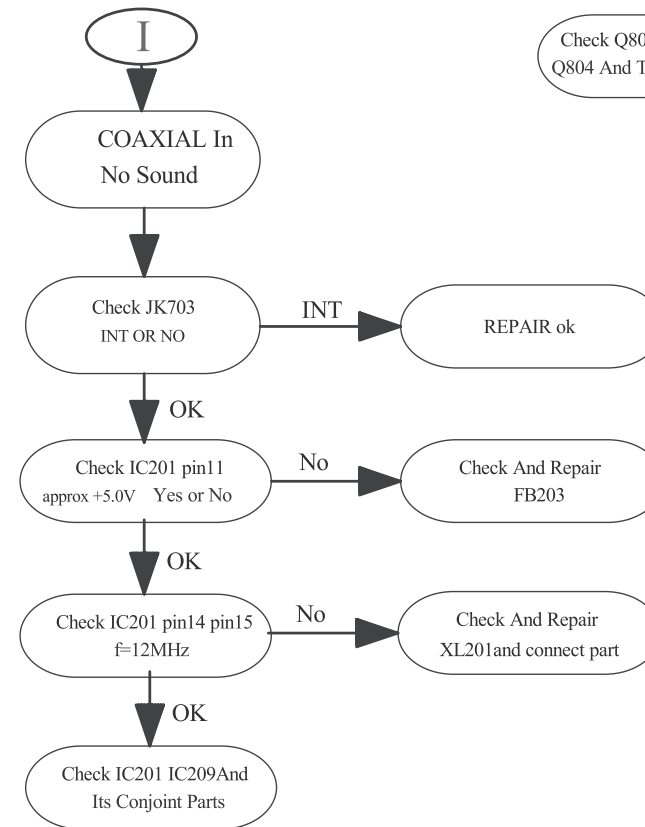
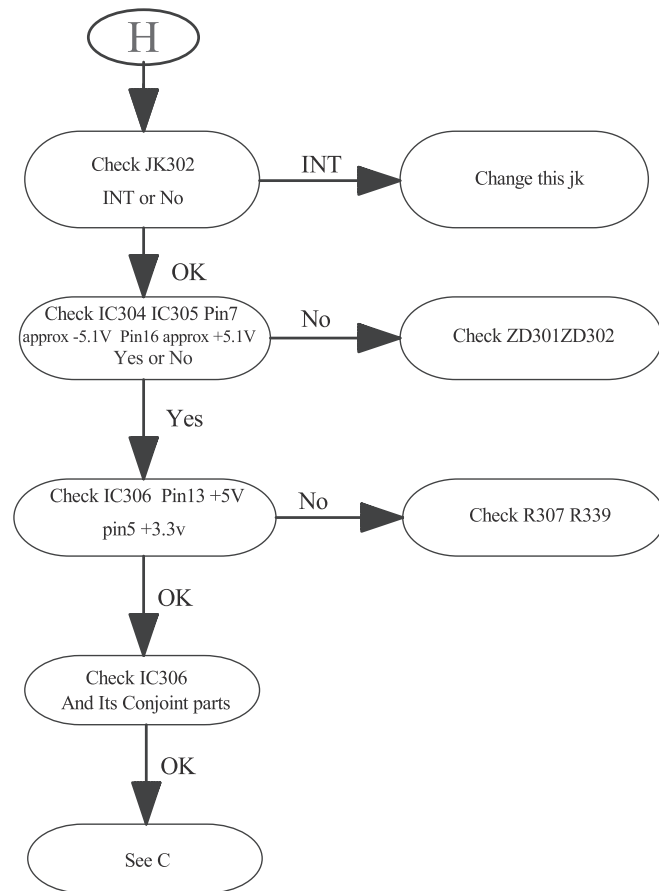
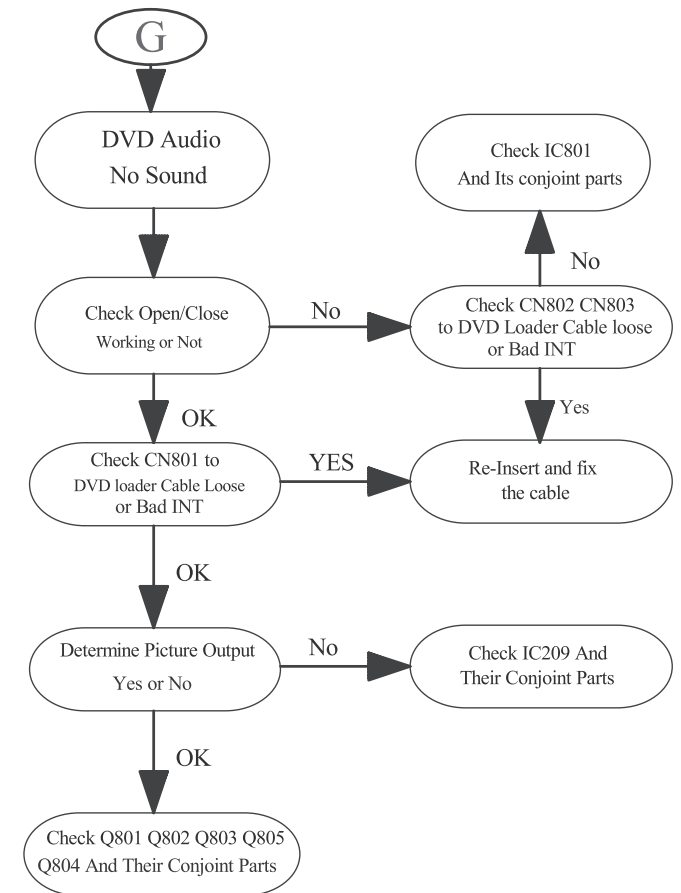
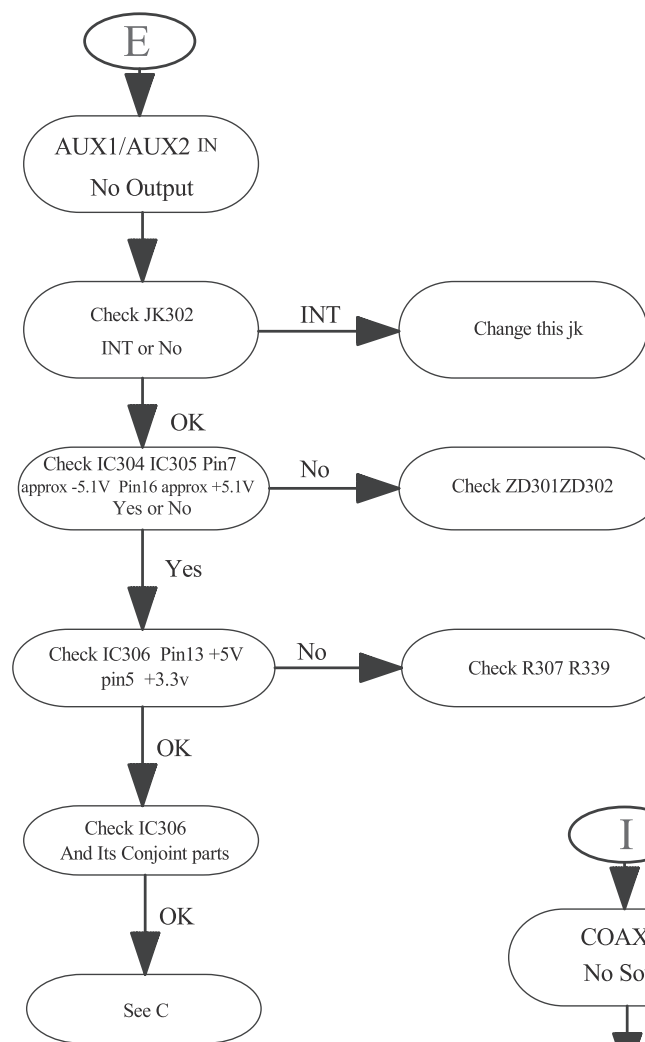
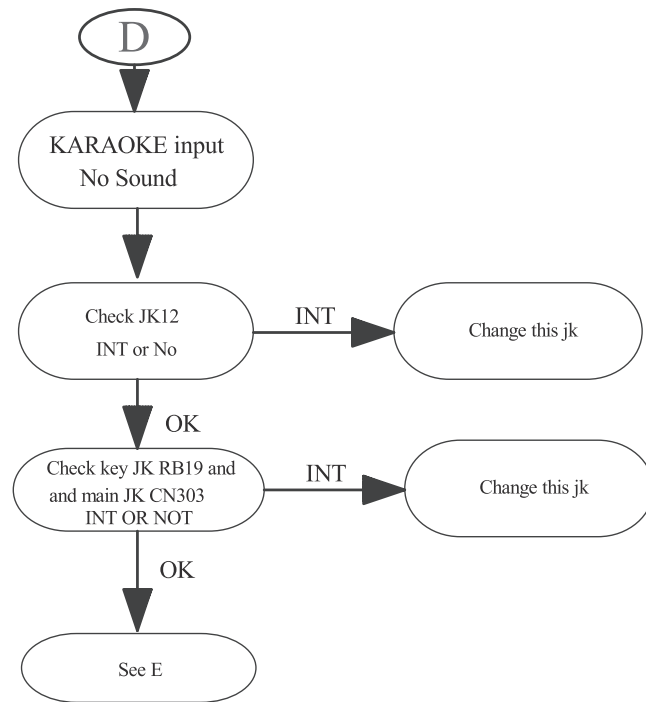
CAUTION!

This information is confidential and may not be distributed.Only a qualified service person should reprogram the Region Code.

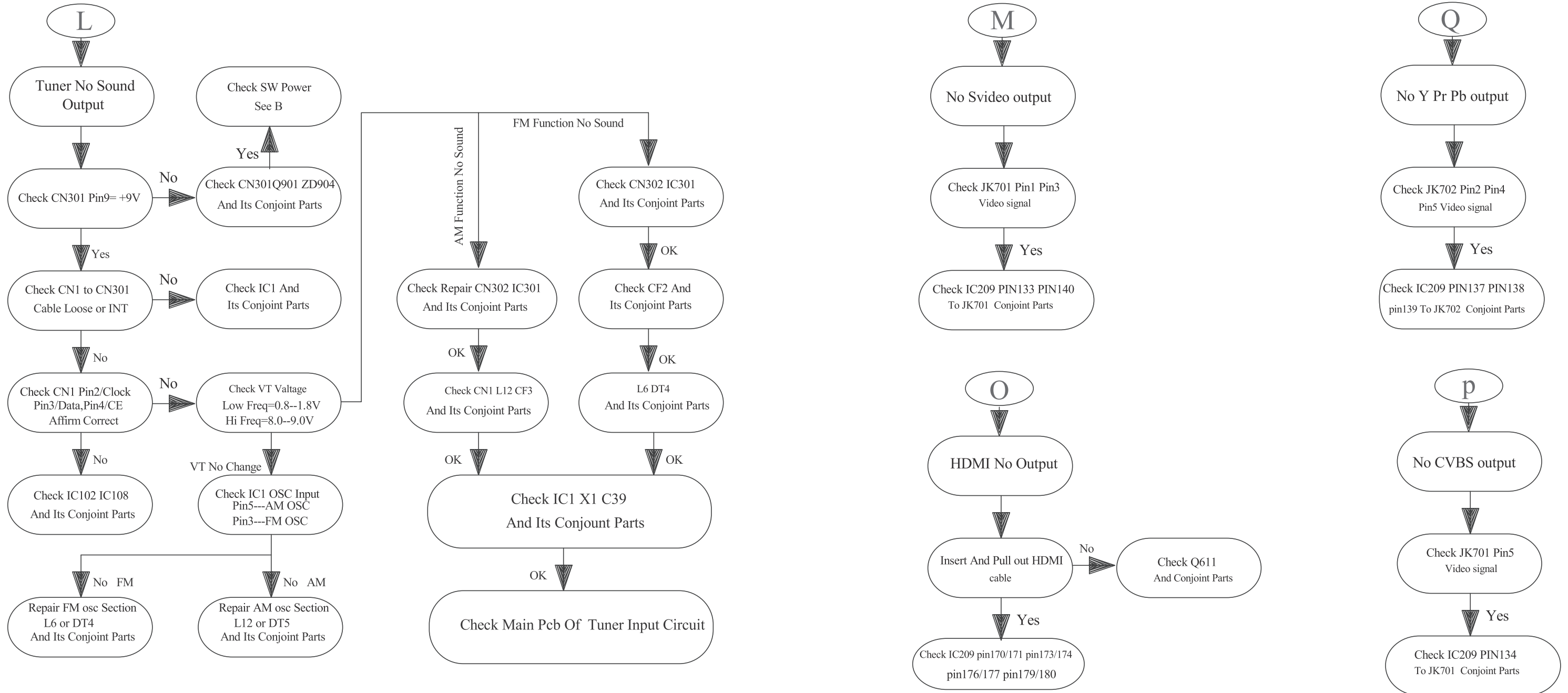
MAIN UNIT REPAIR CHART 1/3



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.

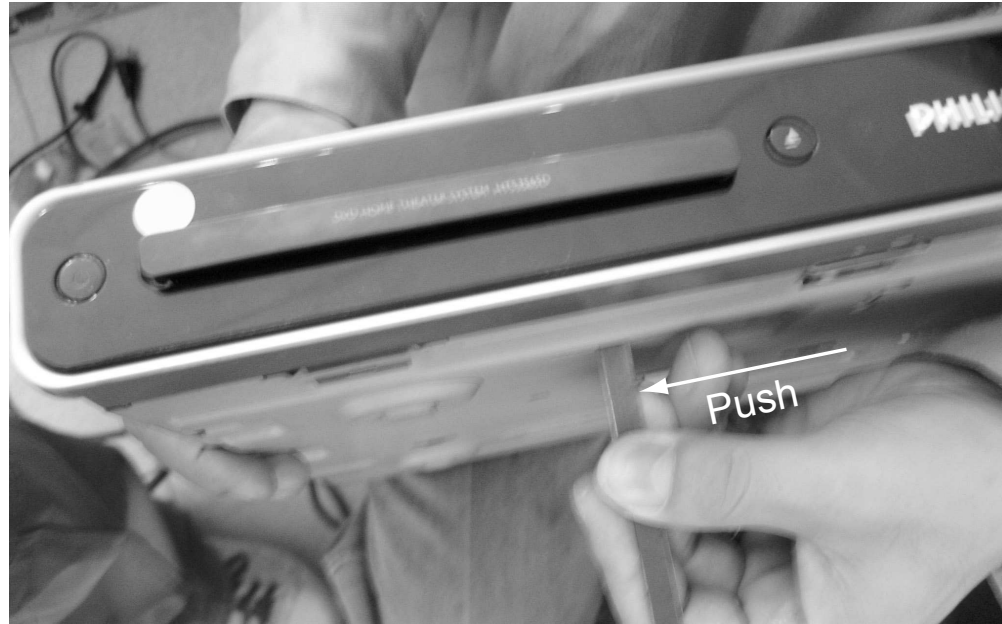


Figure 1



Figure 2

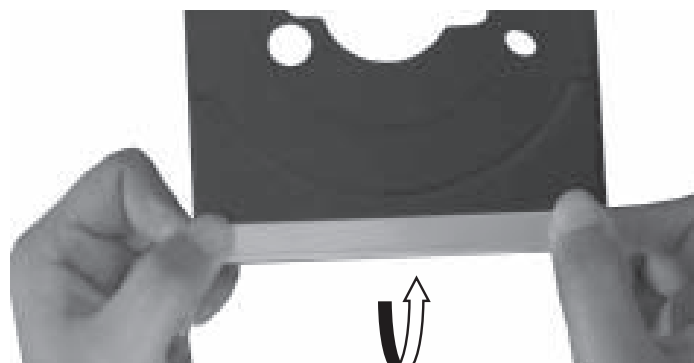


Figure 3

- 3) Loosen 7 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
 - 5 screws "B" at the back panel as shown in figure 5
- 4) Loosen 1 screw "C" each left & right side on the front panel after move the top panel as shown in figure 6.
- 5) Loosen 6 screws "D" at bracket of front panel as shown in figure 7



Figure 4

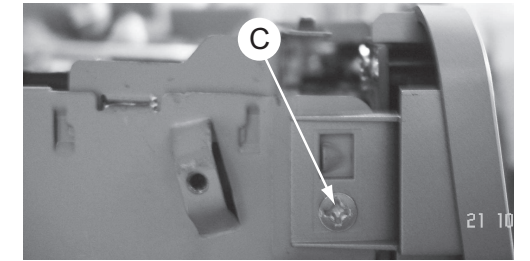


Figure 6

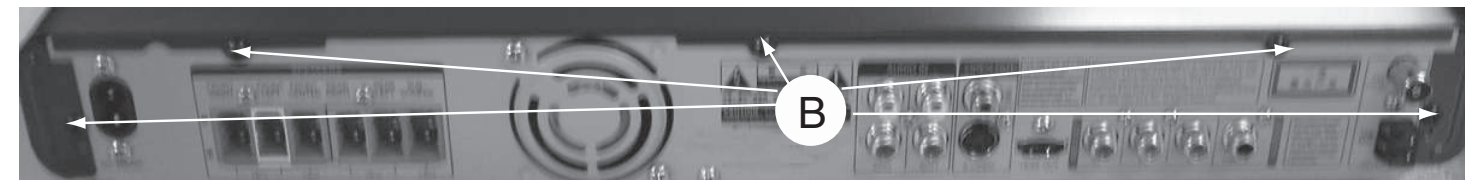


Figure 5

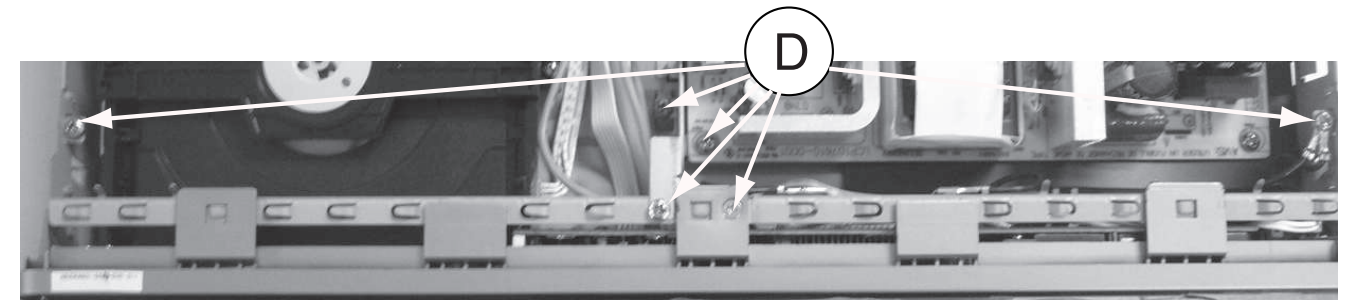


Figure 7

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 8
 - 2 screws "F" at the back panel as shown in figure 9

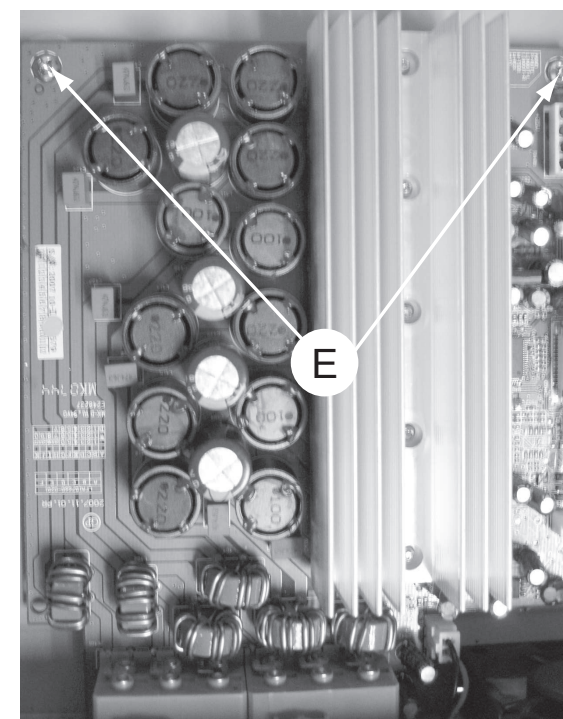


Figure 8



Figure 9

Dismantling of the Main Board

- 1) Loosen 2 screws "G" on the top of main board as shown in figure 10
- 2) Loosen 7 screws "H" at the back panel as shown in figure 11

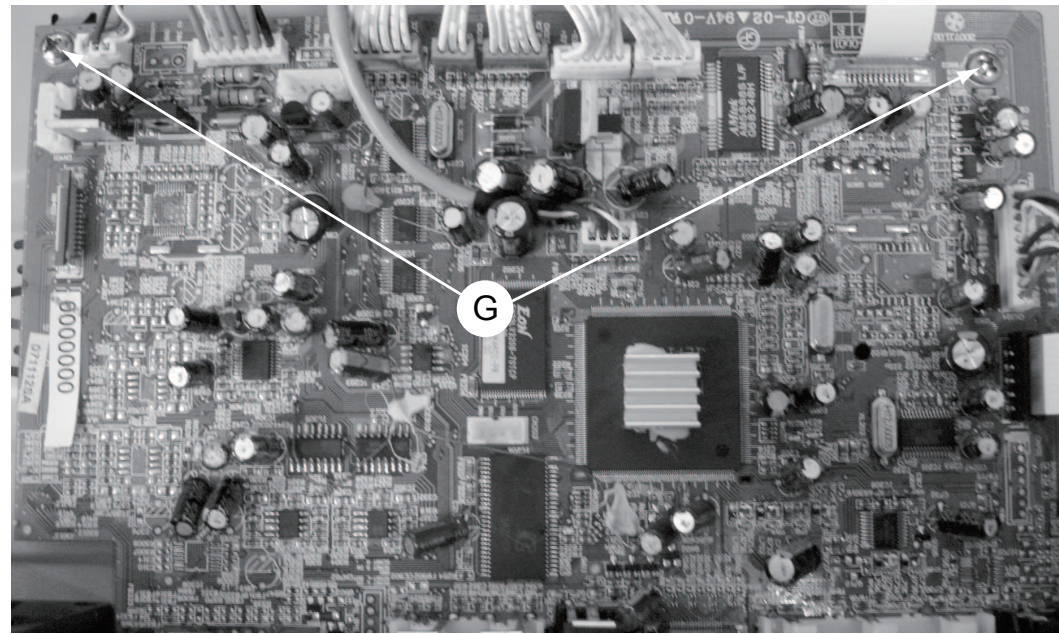


Figure 10

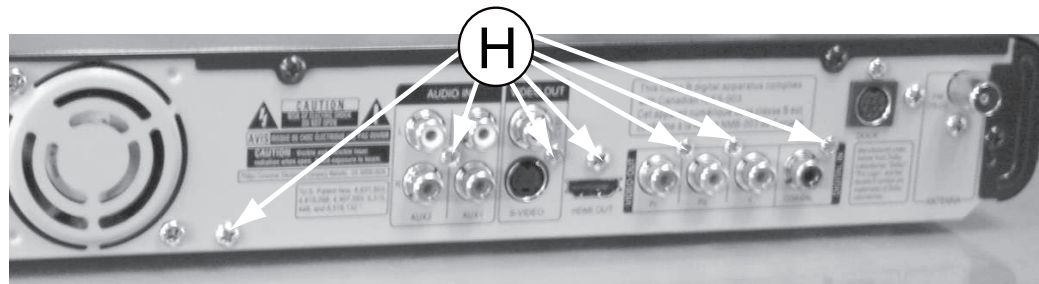


Figure 11

Dismantling of the Power Board

- 1) Loosen 4 screws "I" on the top of power board as shown in figure 12

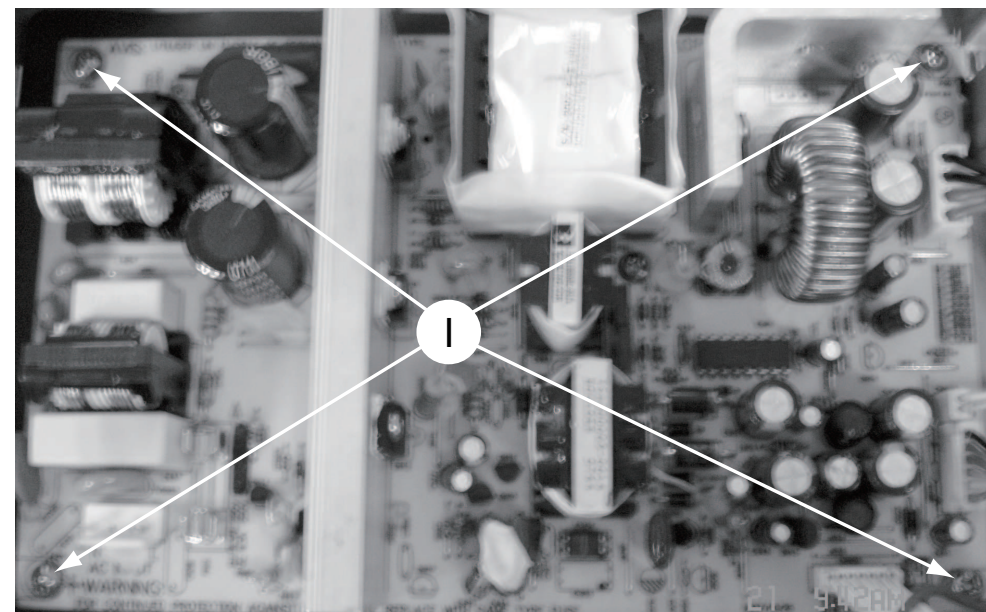


Figure 12

Dismantling of the VFD+JACK+VOL+STANDBY Board

- 1) Loosen 9 screws "J" on the top of control board as shown in 13

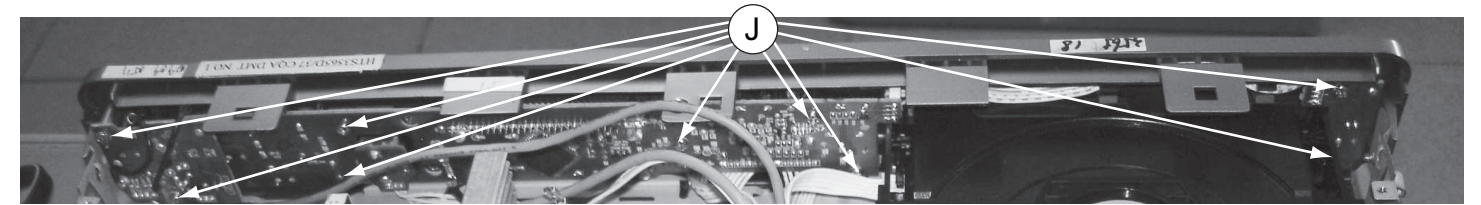


Figure 13

Dismantling of the DVD Module

- 1) Loosen 4 screws "K" as shown in figure 14.

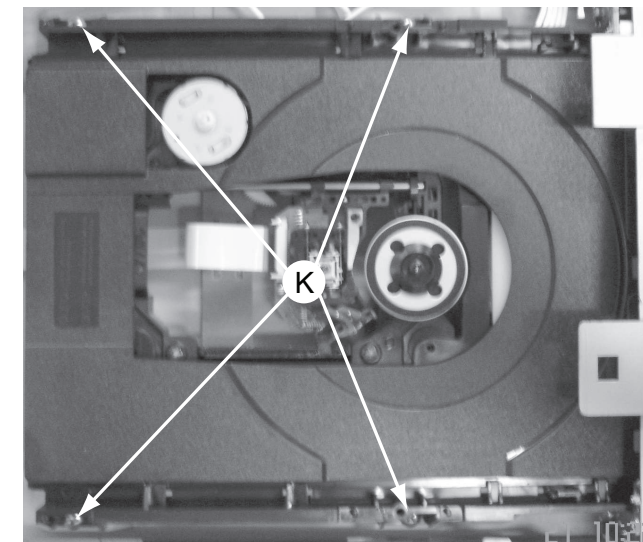
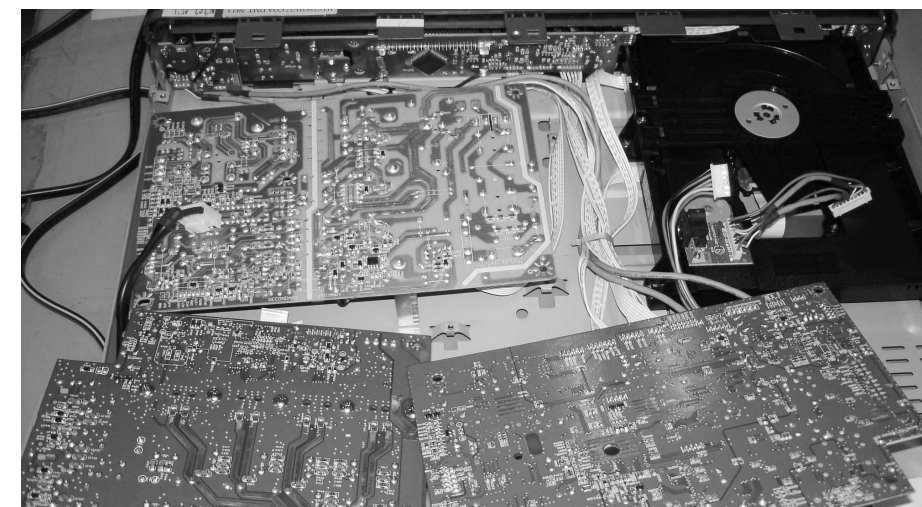


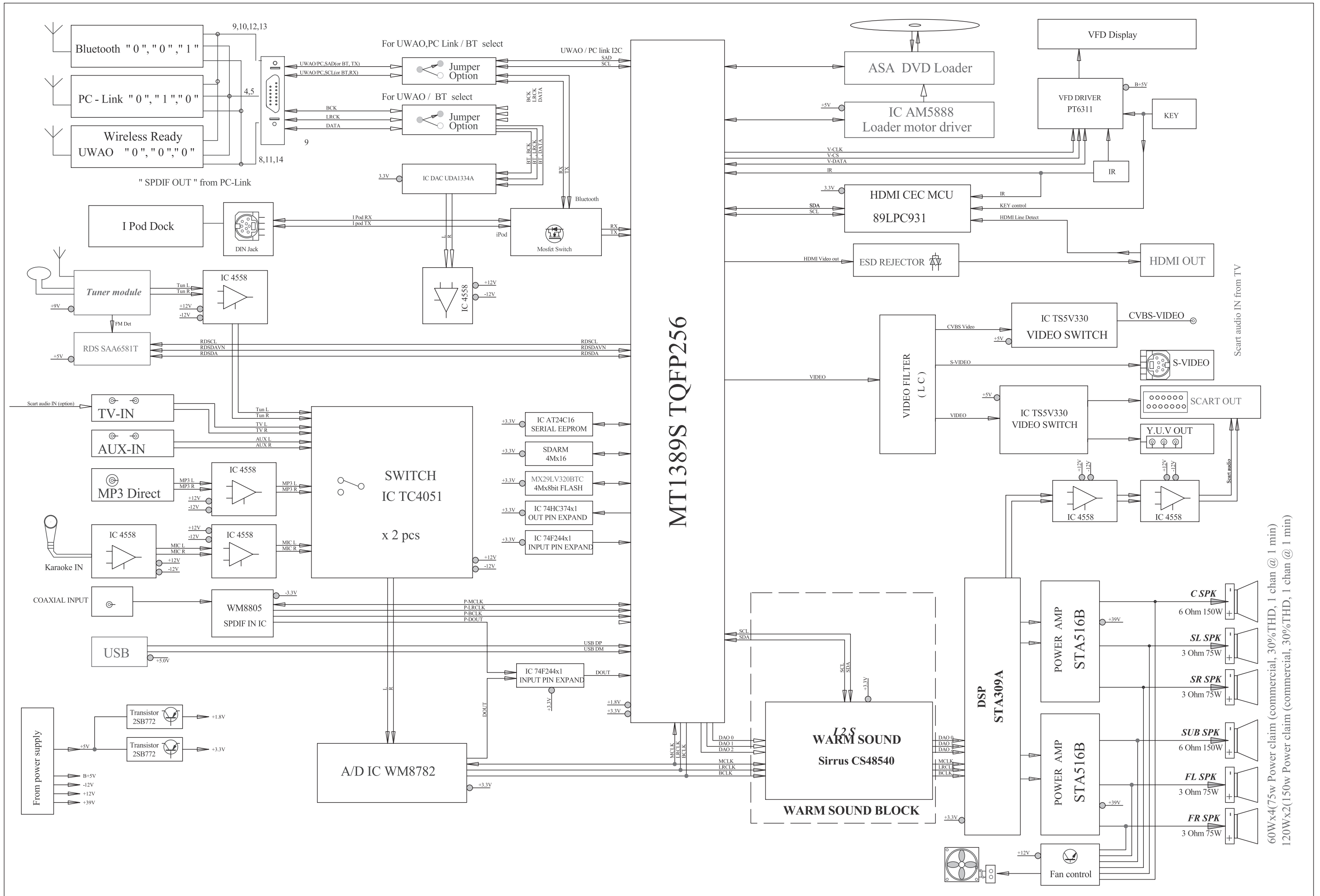
Figure 14

SERVICE POSITIONS

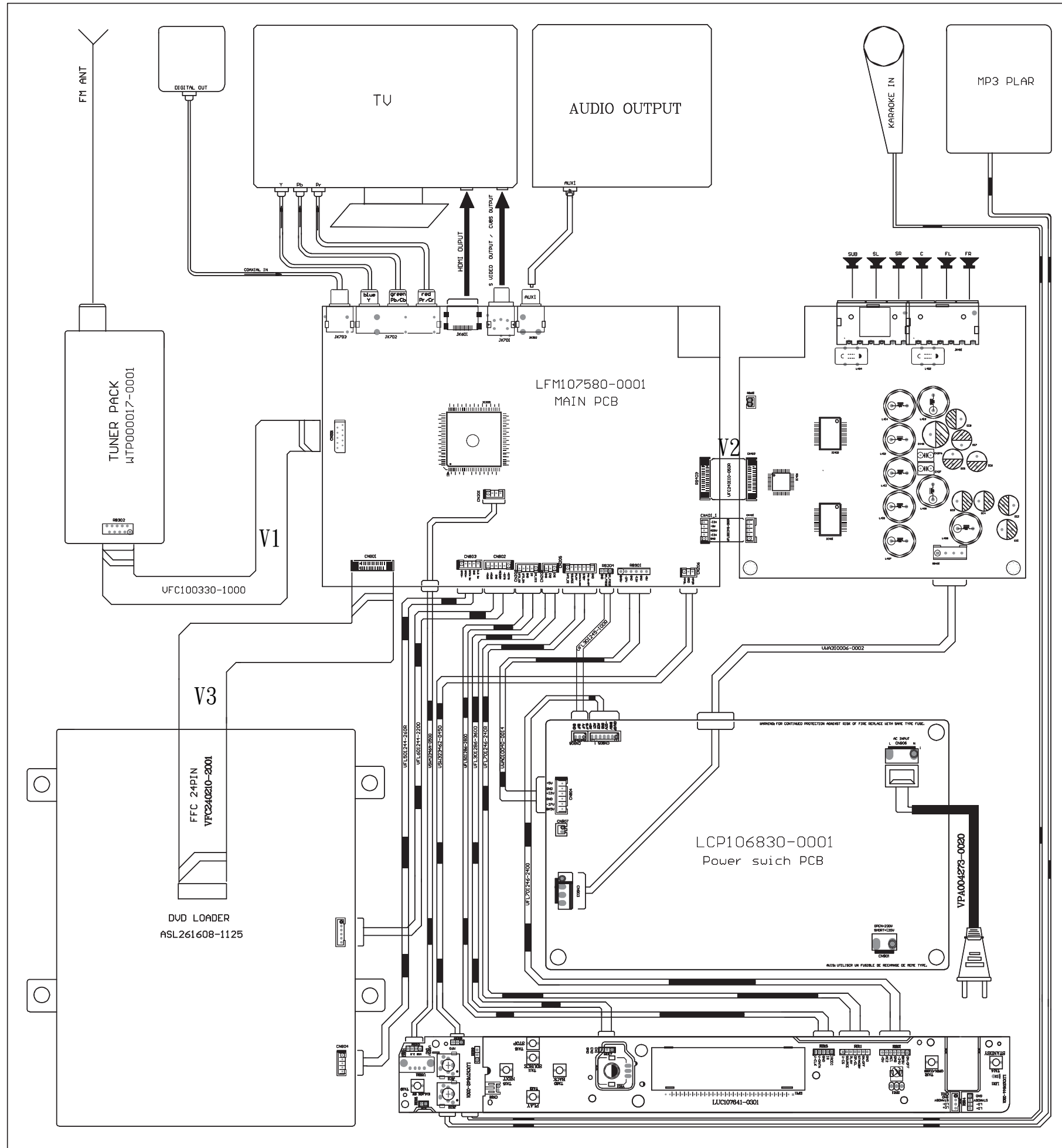
service position A (main unit)



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.



60Wx4(75w Power claim, 30%THD, 1 chan @ 1 min)
 120Wx2(150w Power claim, 30%THD, 1 chan @ 1 min)

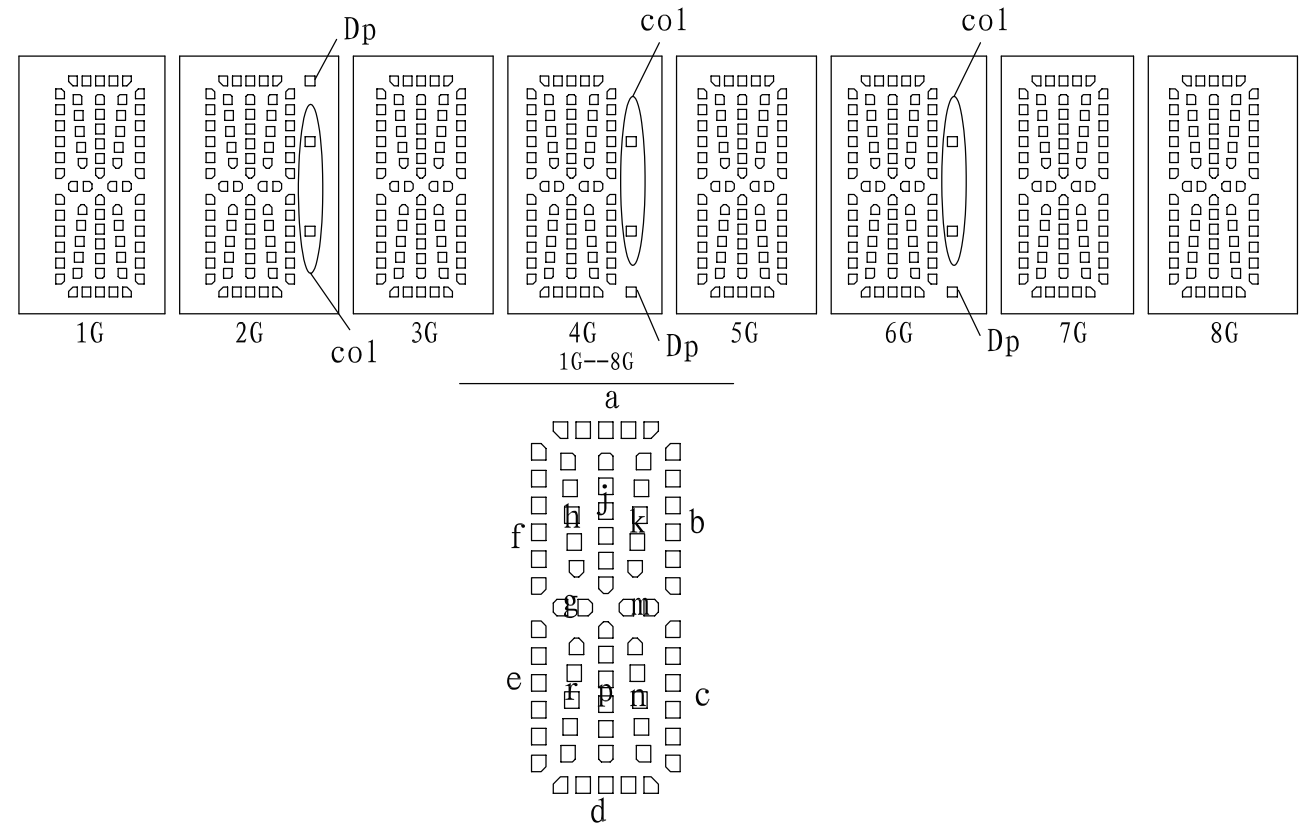


CONTROL BOARD

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FTD Display Pin Assignment.....5-1
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 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	/	/

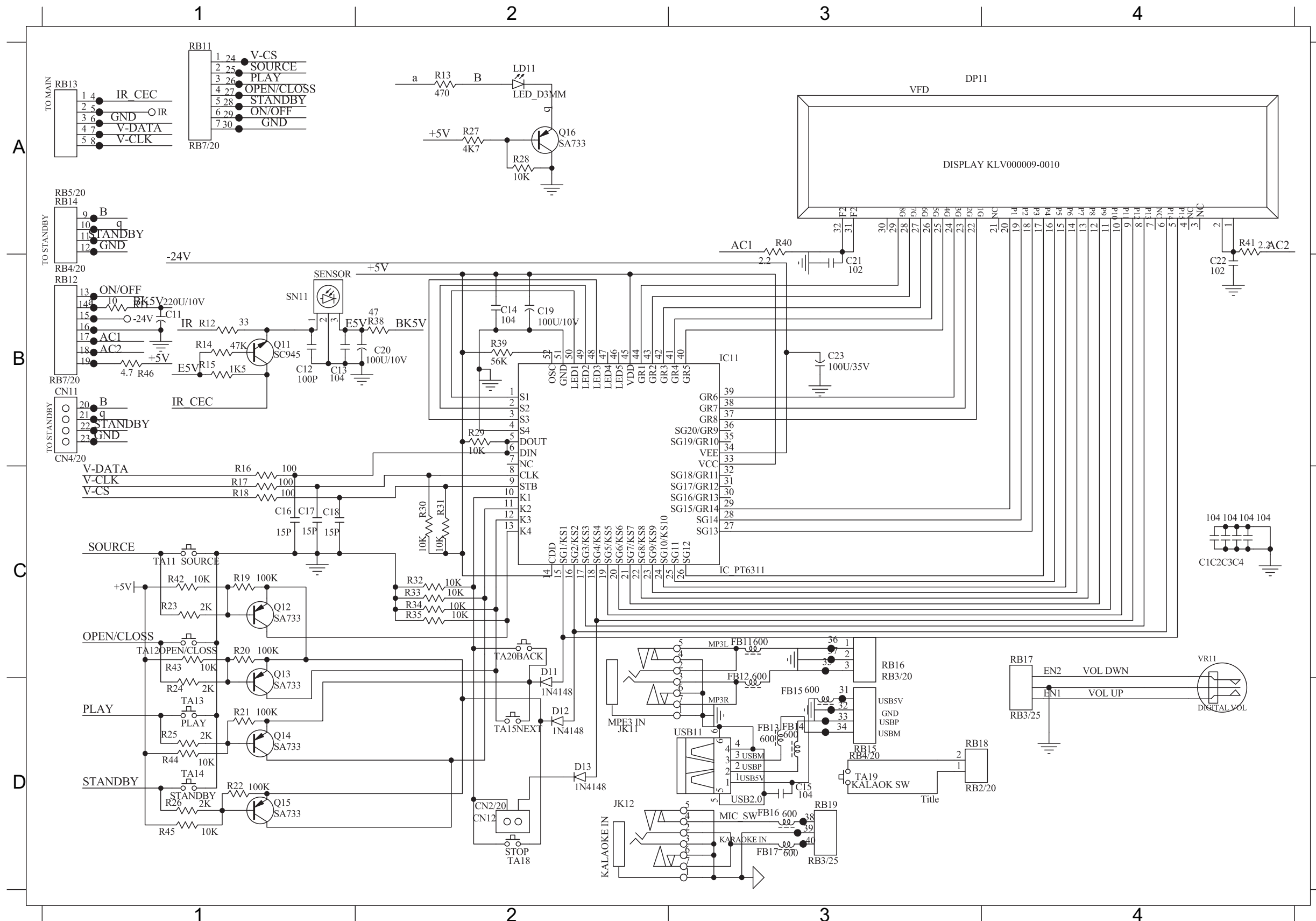
PIN CONNECTION

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)

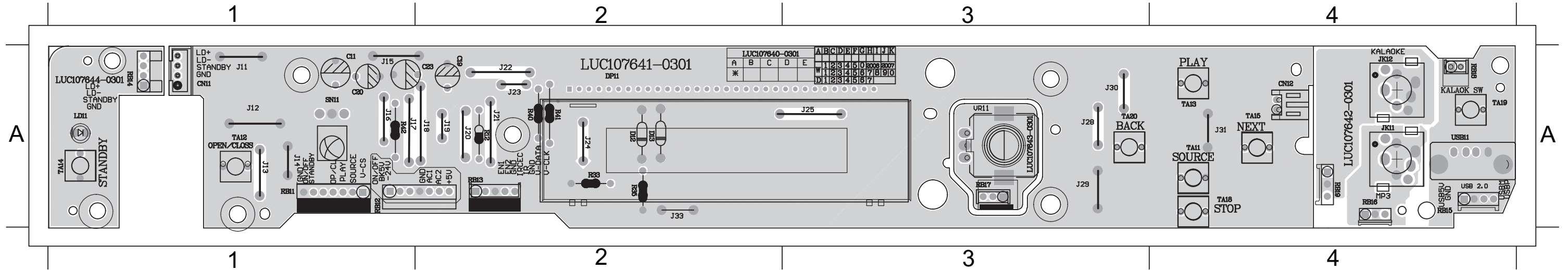
CIRCUIT DIAGRAM

C11	B1	C17	C1	C23	B3	FB11	C3	FB17	D3	Q12	C1	R12	B1	R18	C1	R24	D1	R30	C2	R38	B2	R44	D1	RB14	A1	SN11	B1	TA18	D2
C12	B1	C18	C1	CN12	D2	FB12	D3	IC11	B3	Q13	C1	R13	A2	R19	C1	R25	D1	R31	C2	R39	B2	R45	D1	RB15	D3	TA11	C1	TA19	D3
C13	B1	C19	B2	D11	D2	FB13	D3	JK11	D2	Q14	D1	R14	B1	R20	C1	R26	D1	R32	C2	R40	A3	R46	B1	RB16	C3	TA12	C1	TA20	C2
C14	B2	C20	B2	D12	D2	FB14	D3	JK12	D2	Q15	D1	R15	B1	R21	D1	R27	A2	R33	C2	R41	A4	RB11	A1	RB17	C4	TA13	D1	USB11	D3
C15	D3	C21	B3	D13	D2	FB15	D3	LD11	A2	Q16	A2	R16	C1	R22	D1	R28	A2	R34	C2	R42	C1	RB12	B1	RB18	D3	TA14	D1	VR11	D4
C16	C1	C22	B4	DP11	A3	FB16	D3	Q11	B1	R11	B1	R17	C1	R23	C1	R29	B2	R35	C2	R43	C1	RB13	A1	RB19	D3	TA15	D2		



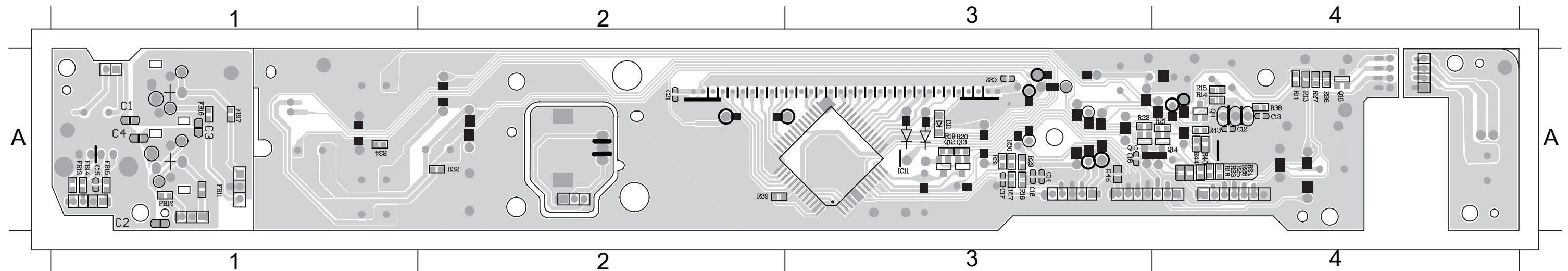
PCB LAYOUT - TOP VIEW

C11	A1	CN12	A2	J11	A1	J15	A1	J19	A2	J23	A2	J29	A3	JK11	A4	R33	A2	R42	A1	RB14	A1	RB18	A4	TA12	A1	TA18	A4	VR11	A3
C19	A2	D12	A2	J12	A1	J16	A1	J20	A2	J24	A2	J30	A3	JK12	A4	R35	A2	RB11	A1	RB15	A4	RB19	A4	TA13	A4	TA19	A4		
C20	A1	D13	A2	J13	A1	J17	A1	J21	A2	J25	A3	J31	A4	LD11	A1	R40	A2	RB12	A1	RB16	A4	SN11	A1	TA14	A1	TA20	A3		
C23	A1	DP11	A2	J14	A1	J18	A2	J22	A2	J28	A3	J33	A2	R12	A2	R41	A2	RB13	A2	RB17	A3	TA11	A4	TA15	A4	USB11A4			



PCB LAYOUT - BOTTOM VIEW

C12	A4	C16	A3	C22	A3	FB13	A1	FB17	A1	Q13	A3	R11	A4	R16	A3	R20	A3	R24	A4	R28	A4	R32	A2	R43	A4
C13	A4	C17	A3	D11	A3	FB14	A1	IC11	A3	Q14	A4	R13	A4	R17	A3	R21	A4	R25	A4	R29	A3	R34	A1	R44	A4
C14	A3	C18	A3	FB11	A1	FB15	A1	Q11	A4	Q15	A3	R14	A4	R18	A4	R22	A3	R26	A4	R30	A3	R38	A4	R45	A4
C15	A1	C21	A2	FB12	A1	FB16	A1	Q12	A3	Q16	A4	R15	A4	R19	A3	R23	A4	R27	A4	R31	A3	R39	A2	R46	A3

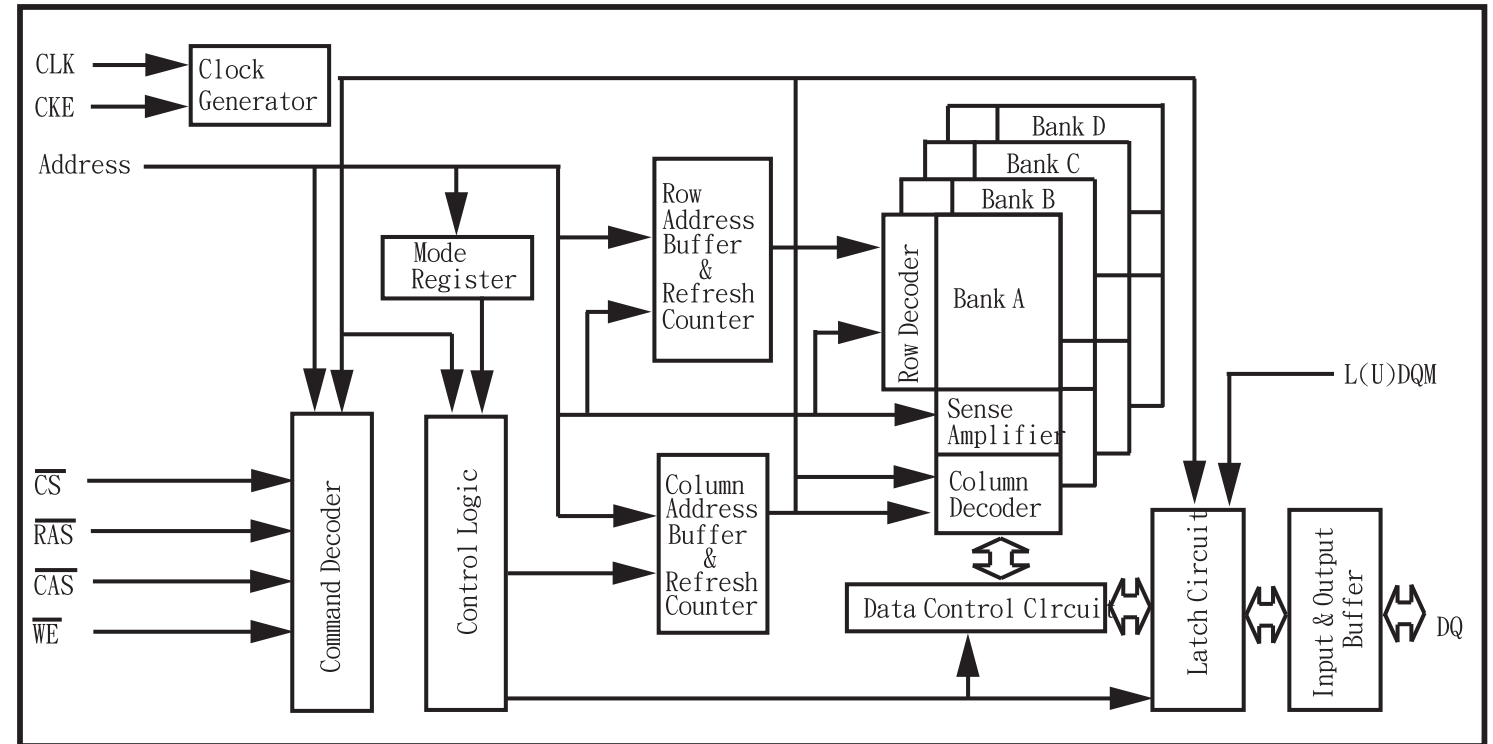


MAIN BOARD

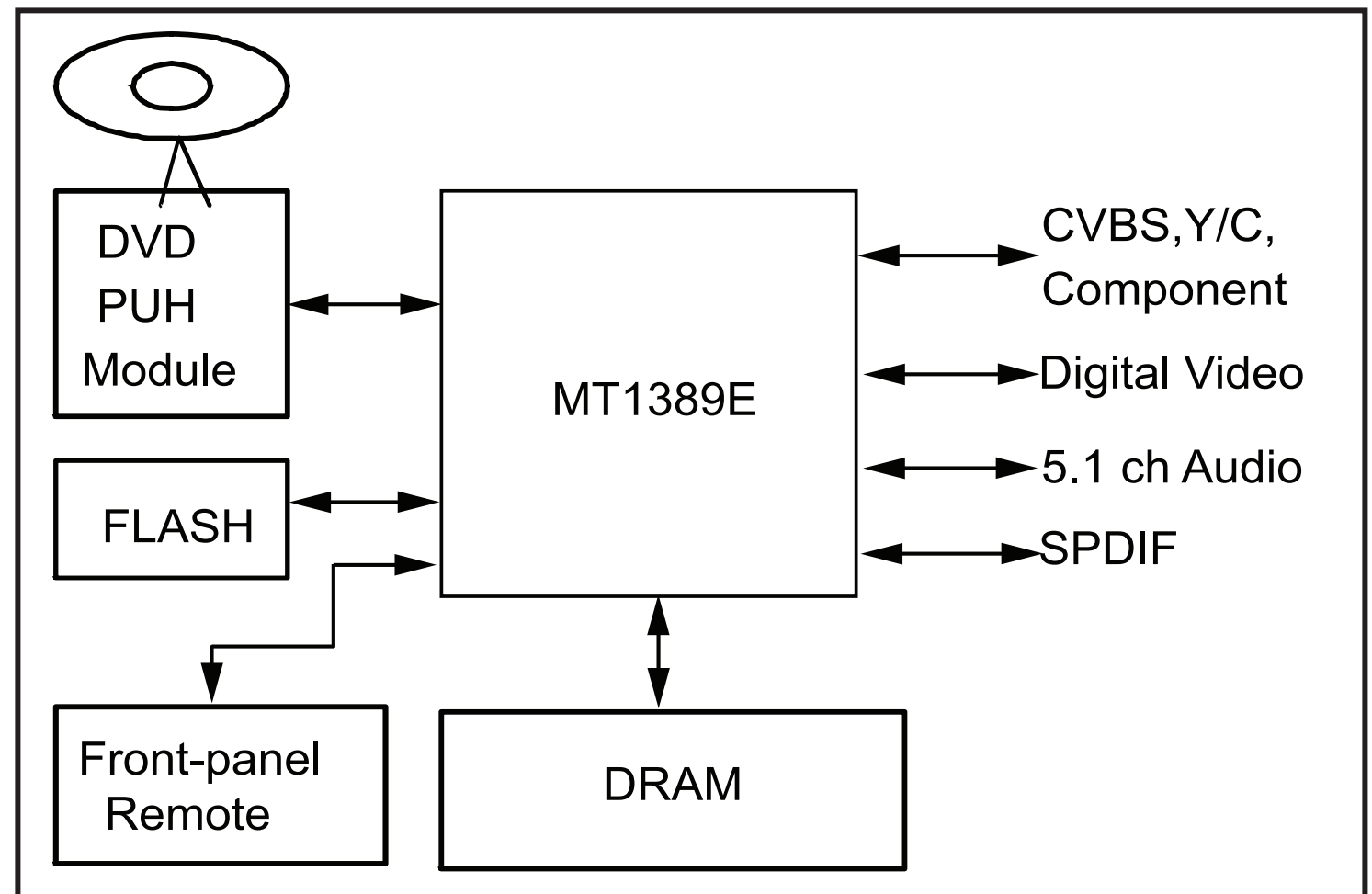
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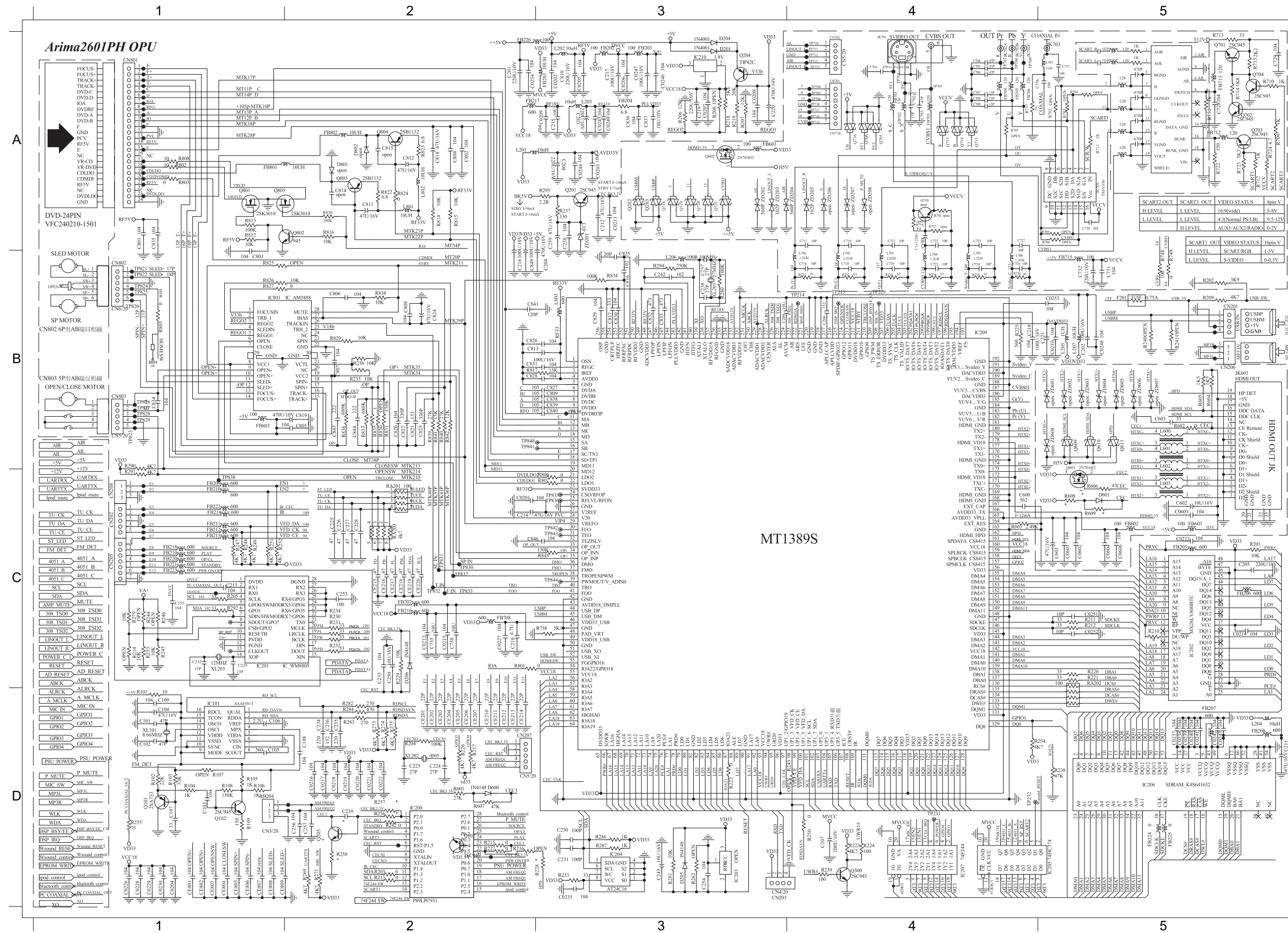
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INTERNAL IC DIAGRAM - MT1389E

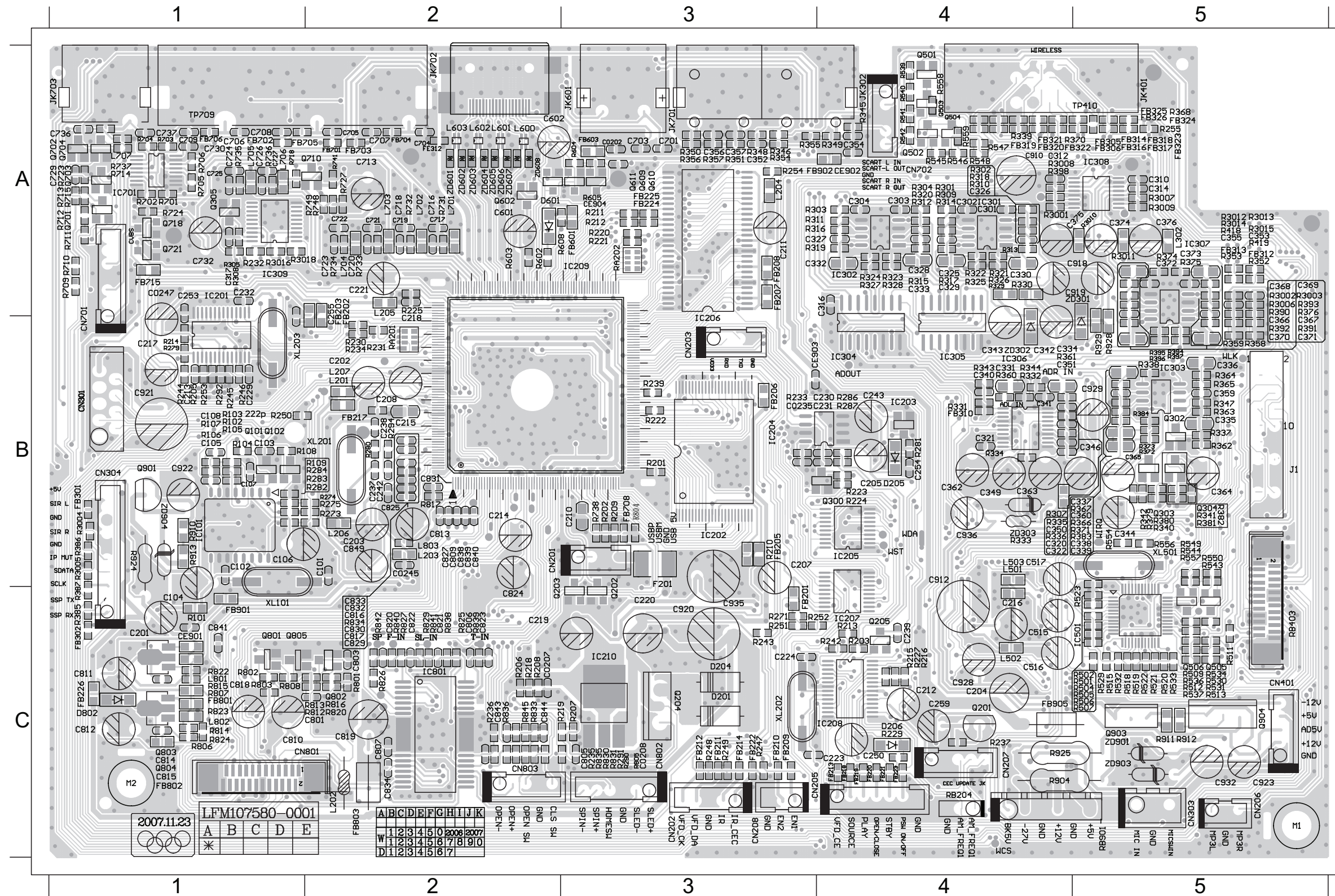


CIRCUIT DIAGRAM - part two



C0201	C2	C242	B3	CE203	D2	IC202	C5	R237	A3
C0202	A3	C243	D3	CE204	D2	IC203	D3	R238	D5
C0203	A3	C253	C2	CE205	D2	IC204	D3	R239	D4
C0204	D1	C254	D3	CE206	D2	IC205	D4	R242	D2
C0205	A3	C255	C1	CE207	D2	IC206	D5	R245	C1
C0206	A3	C259	A3	CE210	D2	IC207	D4	R247	C1
C0207	A3	C600	C4	CE211	D2	IC208	D2	R248	C1
C0208	A3	C601	C5	CE212	D2	IC209	B4	R249	C1
C0209	A3	C602	C5	CE213	D2	IC210	A3	R250	D4
C0210	B5	C603	B5	CE214	D2	IC801	B1	R251	C1
C0211	A3	C701	A4	CE215	C2	JK601	B5	R252	C1
C0212	C2	C702	A4	CE216	C2	JK701	A4	R253	C1
C0213	C5	C703	A4	CE217	C2	JK702	A4	R269	D2
C0214	C5	C704	A4	CE218	C2	JK703	A5	R271	D2
C0215	C2	C705	A4	CE219	C2	L201	A2	R274	D2
C0216	D2	C706	A4	CE220	C2	L202	A3	R279	C1
C0217	D2	C707	A4	CE801	D1	L203	A3	R280	B3
C0218	D2	C708	A4	CE802	D1	L204	D5	R281	D3
C0219	D2	C709	A4	CE803	D1	L205	B5	R286	D3
C0220	D2	C713	B5	CE204	D1	L206	B3	R287	D3
C0221	D2	C716	B4	CE805	D1	L207	B5	R290	B1
C0222	D2	C717	A4	CE806	D1	L701	B4	R291	C1
C0226	D1	C718	B4	CE807	D1	L702	B4	R292	C1
C0227	C2	C719	A4	CE808	D1	L703	B4	R294	B3
C0228	D1	C720	B4	CE809	D1	L704	B4	R295	A3
C0229	D1	C721	A4	CN201	B5	L705	B4	R601	D2
C0230	D1	C722	A4	CN202	C1	L706	B4	R602	B5
C0235	D3	C723	B4	CN203	D3	L707	A5	R603	C4
C0237	D5	C724	B4	CN205	C1	L801	A2	R604	B5
C0238	D5	C725	A4	CN206	B5	L802	A2	R605	B5
C0239	D5	C726	B4	CN207	D2	L803	B3	R606	C5
C0240	D5	C727	A4	CN208	C1	Q201	A3	R701	A4
C0241	D5	C732	B5	CN801	A1	Q202	A3	R703	A5
C0242	D5	C735	C2	CN802	B1	Q203	A3	R706	A5
C0243	D5	C736	A4	CN803	B1	Q204	A3	R731	B4
C0244	A3	C737	A5	CO254	A2	Q300	D4	R732	B4
C0245	A3	C738	C2	D201	A3	Q601	C5	R733	B4
C0246	A3	C801	A1	D204	A3	Q602	A3	R734	B4
C0247	A3	C802	A2	D205	D3	Q611	B5	R735	B4
C0248	B5	C803	B1	D600	D2	Q705	A4	R736	B4
C0249	A3	C804	A2	F201	B5	Q706	A4	R737	A4
C0251	C5	C805	B2	FB201	A3	Q713	A4	R738	C3
C0252	C5	C806	B2	FB202	A3	Q714	A4	R748	B5
C0253	B5	C807	B2	FB203	A3	Q715	A4	R749	B5
C0254	A2	C808	B2	FB204	A3	Q716	A4	R801	C2
C0601	C5	C809	B3	FB205	C5	Q801	A1	R802	A1
C0602	C5	C810	A3	FB206	C5	Q802	A2	R803	A1
C0603	C5	C811	A2	FB207	D5	Q803	A2	R804	B1
C0604	C5	C812	A2	FB208	D5	Q804	A2	R805	B1
C0606	C5	C813	B3	FB209	C1	Q805	A1	R806	C3
C201	A2	C816	B3	FB210	C1	R201	C5	R807	C3
C202	B5	C817	B3	FB211	C1	R202	B5	R808	A1
C203	A3	C818	A2	FB212	C1	R203	D2	R812	A1
C204	B3	C819	B2	FB213	B5	R204	D2	R813	A1
C205	C5	C820	B2	FB214	C1	R205	C1	R814	A2
C206	B4	C821	B2	FB216	C2	R206	A3	R815	A2
C207	D4	C822	B2	FB217	A2	R207	A3	R816	A2
C208	A3	C823	B2	FB218	C1	R209	B5	R817	B2
C209	B3	C824	B2	FB219	C1	R210	C5	R820	A2
C210	C2	C825	B3	FB220	C1	R211	C5	R822	A2
C211	D5	C826	B3	FB221	C1	R212	C5	R823	A2
C213	C1	C827	B3	FB222	C1	R213	D2	R824	A2
C214	C2	C828	B3	FB223	C1	R215	D2	R826	B1
C215	A3	C829	B3	FB224	D5	R217	D2	R827	B1
C216	B2	C830	B3	FB225	D5	R218	A3	R829	B2
C217	A3	C831	B3	FB226	A2	R219	A3	R831	B2
C218	B4	C832	B3	FB601	A3	R220	C5	R833	B2
C219	A3	C833	B3	FB602	C5	R221	C5	R834	B3
C220	A3	C834	B1	FB603	C5	R222	D3	R835	B2
C221	B5	C835	A1	FB701	A4	R223	D4	R836	B2
C223	D2	C836	A3	FB702	A4	R224	D4	R838	B2
C224	D2	C837	A3	FB703	A4	R225	B4	R839	B2
C225	C2	C838	B3	FB704	A4	R226	D2	R840	B2
C226	C2	C839	B3	FB705	A4	R227	D2	R841	B2
C227	C2	C840	B3	FB706	A4	R228	D3	R842	B2
C228	C2	C841	B2	FB707	C2	R230	C2	R845	C3
C229	C1	C843	B2	FB708	C2	R231	C2	RA201	C2
C230	D3	C844	B2	FB715	B5	R232	C2	RA202	C5
C231	D3	C846	C3	FB801	A1	R233	D3	RA203	C2
C232	C1	C849	B2	FB802	A2	R234	C2	XL201	B3
C237	B3	CE201	D2	FB803	B1	R235	B2	XL203	C1
C238	B3	CE202	D2	IC201	B1	R236	B2	ZD201	A3

PCB LAYOUT - TOP VIEW

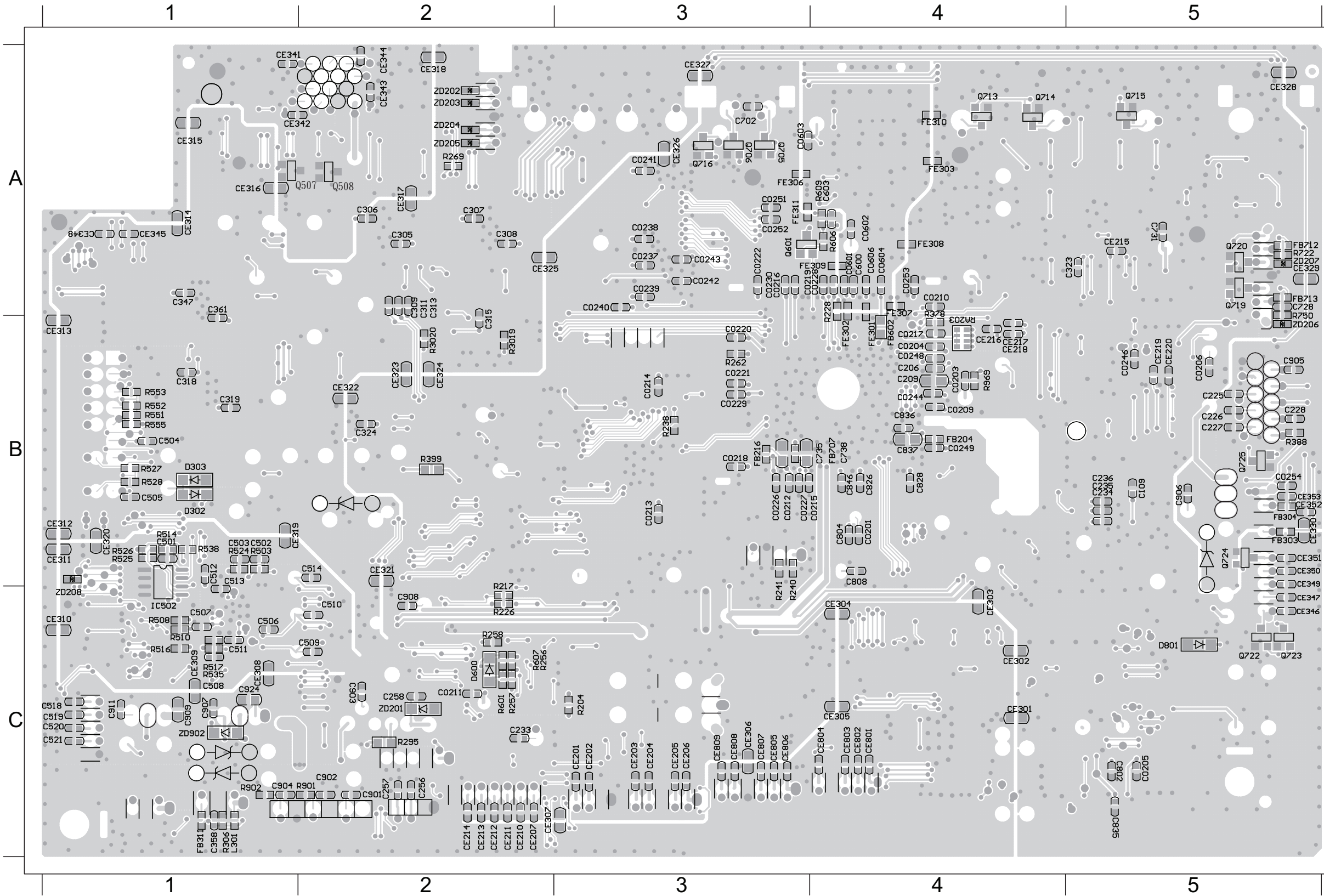


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C0208	C3	C602	A2	CN203	B3	JK601	A3	R251	C3	R419	A5
C0235	B3	C701	A3	CN205	C3	JK701	A3	R252	C3	R602	A2
C0245	B2	C703	A3	CN206	C5	JK702	A2	R253	B1	R603	A2
C0247	A1	C704	A2	CN207	C4	JK703	A1	R271	C3	R604	A3
C201	C1	C705	A2	CN208	C3	L201	B2	R274	B2	R605	A3
C202	B2	C706	A1	CN301	B1	L202	C2	R279	B1	R701	A1
C203	B2	C707	A2	CN303	C5	L203	B2	R280	B2	R703	A1
C204	C4	C708	A1	CN401	C5	L204	A3	R281	B4	R706	A1
C205	B4	C709	A1	CN801	C1	L205	A2	R286	B4	R731	A2
C207	B3	C713	A2	CN802	C3	L206	B2	R287	B4	R732	A2
C208	B2	C716	A2	CN803	C2	L207	B2	R290	C3	R733	A2
C210	B3	C717	A2	D201	C3	L701	A2	R291	C3	R734	A2
C211	A3	C718	A2	D204	C3	L702	A2	R292	B1	R735	A1
C213	B1	C719	A2	D205	B4	L703	A2	R301	A4	R736	A1
C214	B2	C720	A2	F201	B3	L704	A2	R3018	A1	R737	A1
C215	B2	C721	A2	FB201	C3	L705	A1	R302	A4	R738	B3
C216	C4	C722	A2	FB202	A2	L706	A1	R305	A1	R748	A2
C217	B1	C723	A2	FB203	A2	L707	A1	R307	B5	R749	A2
C218	A2	C724	A1	FB205	B3	L801	C1	R308	A1	R801	C2
C219	C2	C725	A1	FB206	B3	L802	C1	R309	A4	R802	C1
C220	C3	C726	A1	FB207	A3	L803	B2	R310	A4	R803	C1
C221	A2	C727	A1	FB208	A3	Q201	C4	R313	A4	R805	C3
C223	C4	C732	A1	FB209	C3	Q202	C3	R314	A4	R806	C1
C224	C3	C736	A1	FB210	C3	Q203	C3	R317	A4	R807	C1
C229	B1	C737	A1	FB211	C3	Q204	C3	R318	A4	R808	C1
C230	B4	C801	C2	FB212	C3	Q300	B5	R321	A4	R812	C2
C231	B4	C803	C2	FB213	C4	Q302	B5	R322	A4	R813	C2
C232	A1	C805	C3	FB214	C3	Q303	B5	R325	A4	R814	C1
C237	B2	C806	C2	FB217	B2	Q304	B5	R326	A4	R815	C1
C238	B2	C807	C2	FB218	C4	Q305	A1	R329	A4	R816	C2
C242	B2	C809	B2	FB219	C4	Q602	A2	R330	A4	R817	B2
C243	B4	C810	C1	FB220	C4	Q611	A3	R331	B4	R820	C2
C253	A1	C811	C1	FB221	C4	Q801	C1	R332	B4	R822	C1
C254	B4	C812	C1	FB222	C3	Q802	C2	R334	B4	R823	C1
C255	A2	C813	B2	FB223	C4	Q803	C1	R335	B4	R824	C1
C259	C4	C816	C2	FB224	A3	Q804	C1	R336	B4	R826	C2
C301	A4	C817	C2	FB225	A3	Q805	C1	R337	B5	R827	C2
C302	A4	C818	C1	FB226	C1	Q901	B1	R338	B5	R829	C2
C316	A4	C819	C2	FB310	B5	Q903	C5	R340	B5	R831	C3
C317	A1	C820	C2	FB312	A5	Q904	C5	R341	B5	R833	C2
C320	B5	C821	C2	FB313	A5	R201	B3	R342	B5	R834	C2
C321	B5	C822	C2	FB601	A3	R202	B3	R343	B4	R835	

PCB LAYOUT - BOTTOM VIEW

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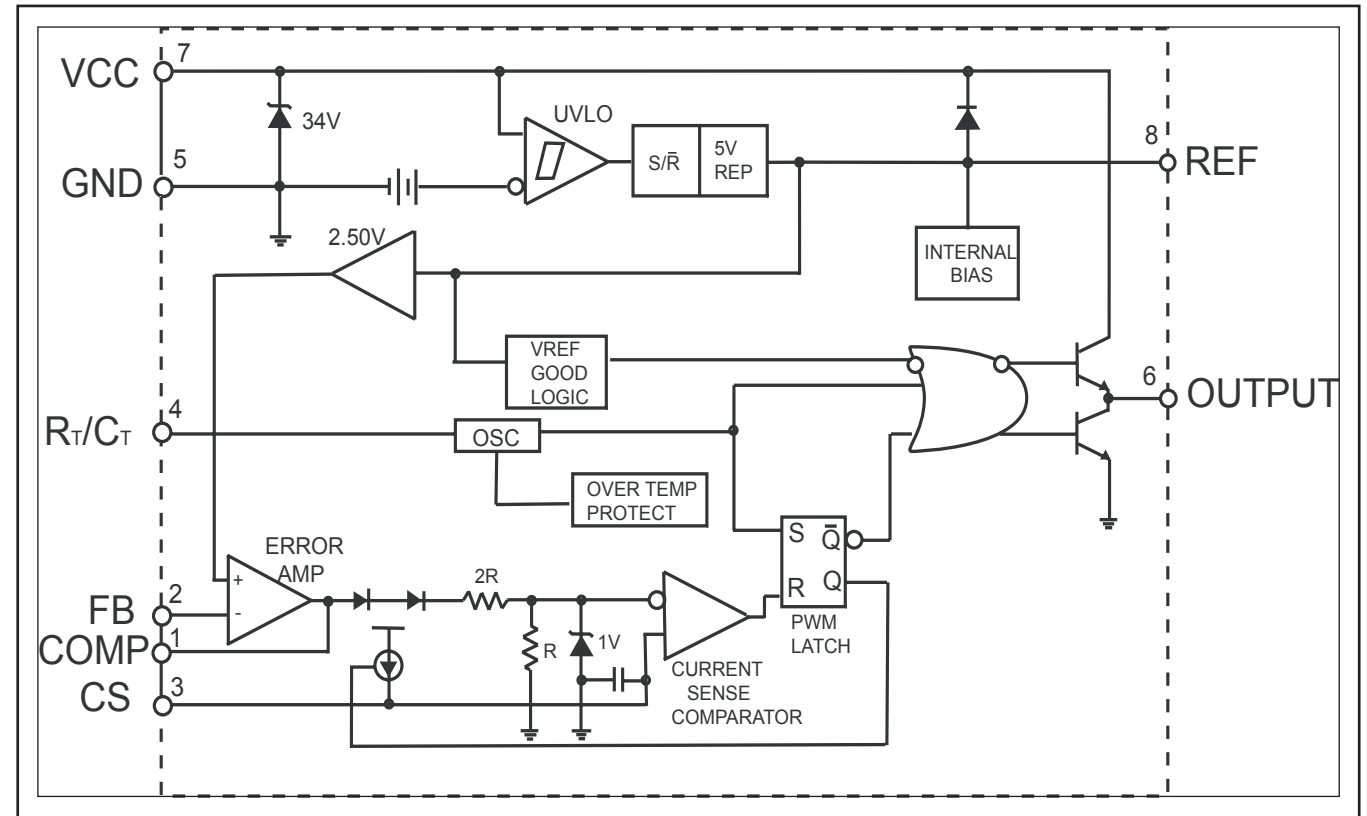
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C0205 C5	C520 C1	CE315 A1	Q706 A3
C0206 B5	C521 C1	CE316 A1	Q713 A4
C0209 B4	C600 A4	CE317 A2	Q714 A4
C0210 A4	C603 A4	CE318 A2	Q715 A5
C0211 C2	C702 A3	CE319 B1	Q716 A3
C0212 B3	C735 B4	CE320 B1	Q722 C5
C0213 B3	C738 B4	CE321 B2	Q723 C5
C0214 B3	C802 C5	CE322 B2	Q724 B5
C0215 B3	C804 B4	CE323 B2	R204 C3
C0216 A3	C808 B4	CE324 B2	R217 C2
C0217 B4	C826 B4	CE325 A2	R226 C2
C0218 B3	C828 B4	CE326 A3	R228 A4
C0219 A3	C835 C5	CE327 A3	R238 B3
C0220 B3	C836 B4	CE328 A5	R269 A2
C0221 B3	C837 B4	CE329 A5	R295 C2
C0222 A3	C846 B4	CE330 B5	R3019 B2
C0226 B3	C901 C2	CE341 A1	R3020 B2
C0227 B3	C902 C2	CE342 A1	R306 C1
C0228 A4	C903 C2	CE343 A2	R378 B4
C0229 B3	C904 C1	CE344 A2	R388 B5
C0230 A3	C905 B5	CE345 A1	R399 B2
C0237 A3	C906 B5	CE346 C5	R601 C2
C0238 A3	C907 C1	CE347 C5	R606 A4
C0239 A3	C908 C2	CE348 A1	R804 B3
C0240 A3	C909 C1	CE351 B5	RA203 B4
C0241 A3	C911 C1	CE352 B5	ZD201 C2
C0242 A3	C924 C1	CE353 B5	ZD902 C1
C0243 A3	CE201 C3	CE801 C4	
C0244 B4	CE202 C3	CE802 C4	
C0246 B5	CE203 C3	CE803 C4	
C0248 B4	CE204 C3	CE804 C4	
C0249 B4	CE205 C3	CE805 C3	
C0251 A3	CE206 C3	CE806 C3	
C0252 A3	CE207 C2	CE807 C3	
C0253 A4	CE210 C2	CE808 C3	
C0254 B5	CE211 C2	CE809 C3	
C0601 A4	CE212 C2	CO254 B5	
C0602 A4	CE213 C2	D302 B1	
C0603 A3	CE214 C2	D303 B1	
C0604 A4	CE215 A5	D600 C2	
C0606 A4	CE216 B4	FB204 B4	
C206 B4	CE217 B4	FB216 B3	
C209 B4	CE218 B4	FB311 C1	
C225 B5	CE219 B5	FB602 B4	
C226 B5	CE220 B5	FB707 B4	
C227 B5	CE301 C4	FE301 B4	
C228 B5	CE302 C4	FE302 B4	
C305 A2	CE303 C4	FE303 A4	
C306 A2	CE304 C4	FE304 A4	
C309 A2	CE305 C4	FE305 A3	
C311 A2	CE306 C3	FE306 A3	
C313 A2	CE307 C2	FE307 A4	
C315 A2	CE308 C1	FE308 A4	
C318 B1	CE309 C1	FE309 A4	
C319 B1	CE310 C1	FE310 A4	
C323 A5	CE311 B1	FE311 A3	

POWER BOARD

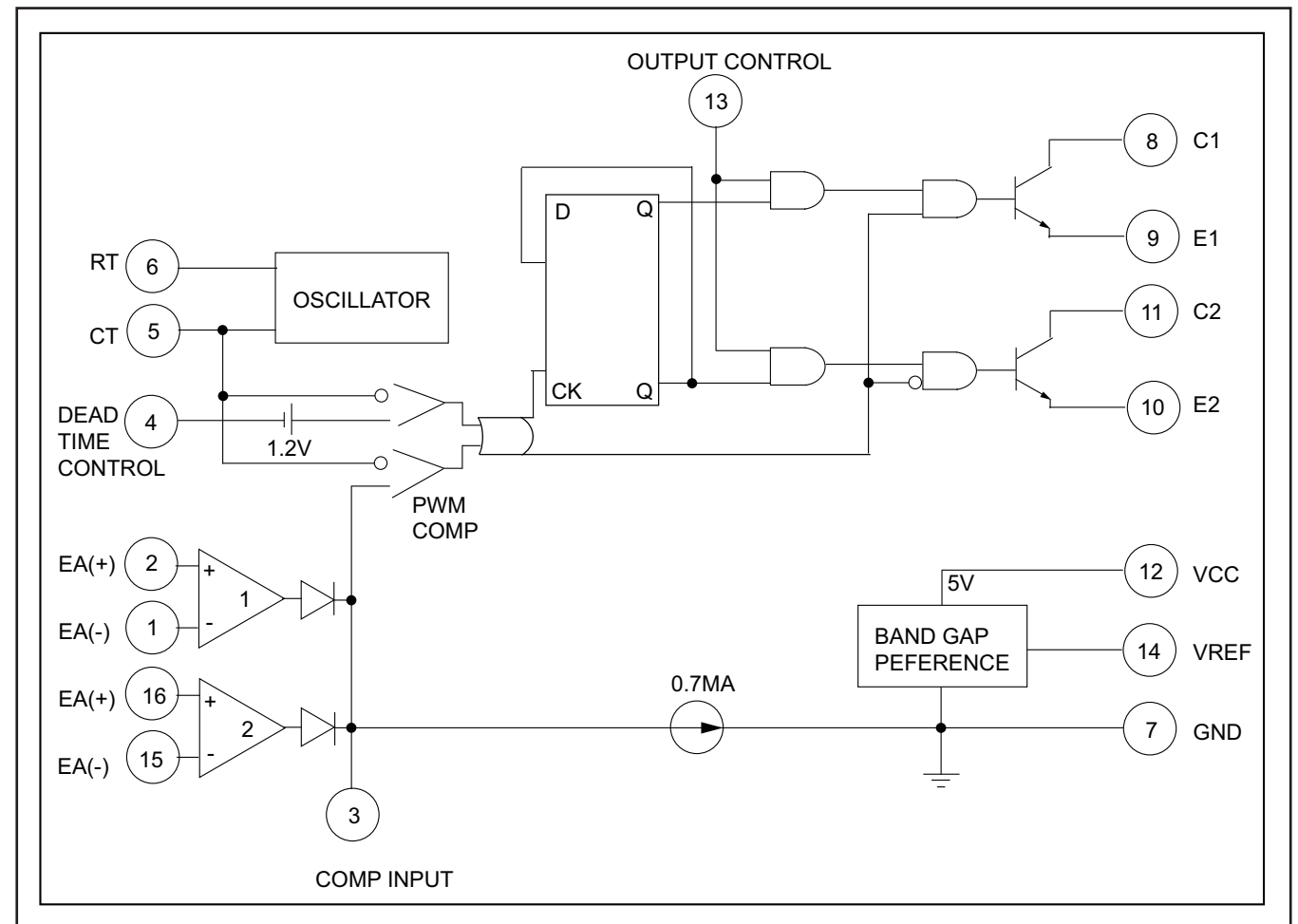
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7-1
INTERNAL IC DIAGRAM - AP3843GMTR

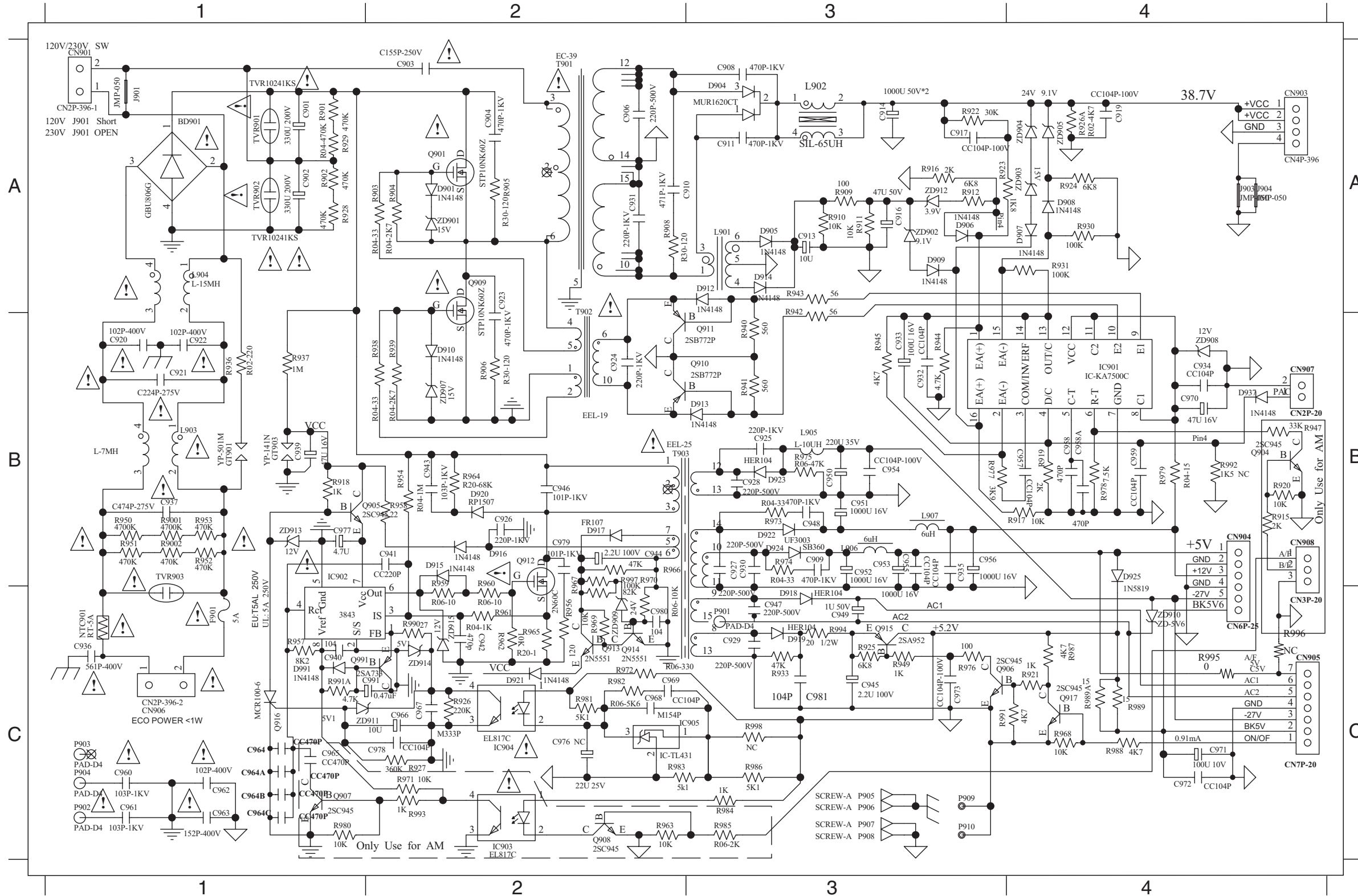


INTERNAL IC DIAGRAM - AZ7500BP



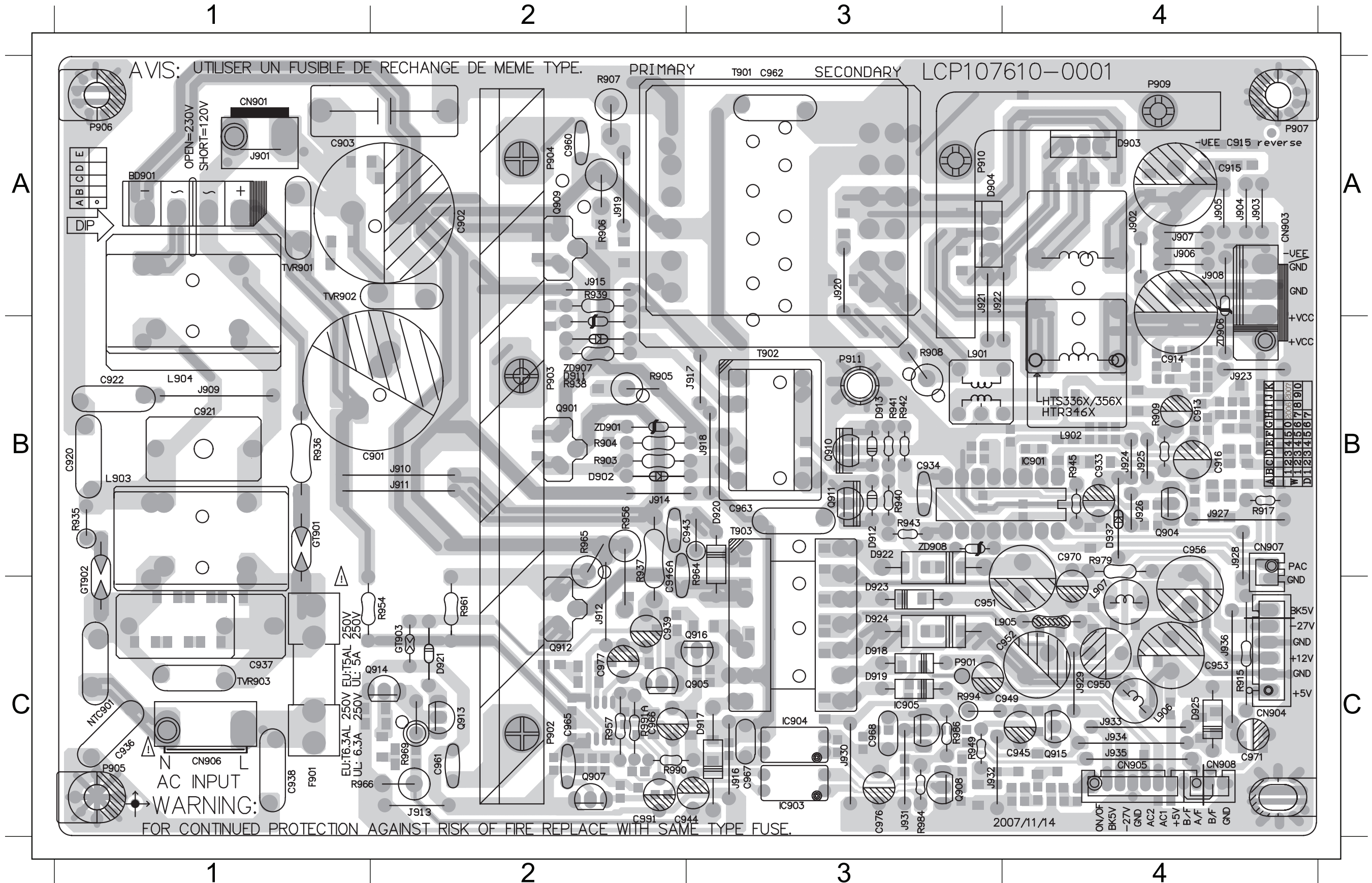
CIRCUIT DIAGRAM

BD901	A1	C917	A3	C931	A2	C946	B2	C959	B4	C970	B4	CN907	B4	D916	B2	GT901	B1	L906	B3	Q916	C1	R910	A3	R926B	A4	R941	B3	R958	B2	R973	B3	R989	C4	TVR901A1	ZD912	A3
C901	A1	C919	A4	C932	B3	C948	B3	C960	C1	C971	C4	CN908	B4	D917	B2	GT903	B1	L907	B3	Q917	C4	R911	A3	R926C	A4	R942	A3	R959	C2	R974	B3	R989A	C4	TVR902A1	ZD913	B1
C902	A1	C920	B1	C933	B3	C949	C3	C961	C1	C972	C4	D901	A2	D918	C3	IC901	B4	NTC901C1	Q991	C1	R912	A3	R926D	A4	R943	A3	R960	C2	R975	B3	R990	C2	TVR903B1	ZD914	C2	
C903	A2	C921	B1	C934	B4	C950	B3	C962	C1	C973	C3	D904	A3	D919	C3	IC902	B1	Q901	A2	R9001	B1	R916	A3	R927	C2	R944	B3	R961	C2	R976	C3	R991	C4	ZD901	A2	
C904	A2	C922	B1	C935	B3	C951	B3	C963	C1	C977	B1	D905	A3	D920	B2	IC904	C2	Q905	B1	R9002	B1	R917	B4	R928	A1	R945	B3	R962	C2	R977	B4	R991A	C1	ZD902	A3	
C906	A2	C923	A2	C937	B1	C952	B3	C964	C1	C978	C2	D907	A4	D921	C2	IC905	C2	Q906	C3	R901	A1	R918	B1	R929	A1	R949	C3	R964	B2	R978	B4	R993	C2	ZD903	A4	
C908	A3	C924	B2	C939	B1	C953	B3	C964A	C1	C980	C2	D908	A4	D922	B3	J903	A4	Q909	A2	R902	A1	R919	B4	R930	A4	R950	B1	R965	C2	R979	B4	R994	C3	ZD904	A4	
C909	B3	C925	B3	C940	C1	C954	B3	C964B	C1	C991	C1	D909	A3	D923	B3	J904	A4	Q910	B3	R903	A2	R921	C4	R931	A4	R951	B1	R966	B2	R981	C2	R995	C4	ZD905	A4	
C910	A2	C926	B2	C941	B2	C955	B3	C964C	C1	CN901	A1	D910	B2	D924	B3	L901	A3	Q911	B3	R904	A2	R922	A3	R936	B1	R952	B1	R967	B2	R982	C2	R997	B2	ZD907	B2	
C911	A3	C927	B3	C942	C2	C956	B3	C966	C2	CN903	A4	D912	A3	D925	B4	L902	A3	Q912	B2	R905	A2	R923	A4	R937	B1	R953	B1	R968	C4	R983	C2	T901	A2	ZD908	B4	
C913	A3	C928	B3	C943	B2	C957	B4	C967	C2	CN904	B4	D913	B3	D937	B4	L903	B1	Q913	C2	R906	B2	R924	A4	R938	B2	R954	B2	R969	C2	R986	C3	T901	B2	ZD909	C2	
C914	A3	C929	C3	C944	B2	C958	B4	C968	C2	CN905	C4	D914	A3	D991	C1	L904	A1	Q914	C2	R908	A2	R925	C3	R939	B2	R955	C4	R970	C2	R987	C4	T902	B2	ZD910	C4	
C916	A3	C930	B3	C945	C4	C958A	B4	C969	C2	CN906	C1	D915	B2	F901	C1	L905	B3	Q915	C3	R909	A3	R926A	A4	R940	B3	R957	C1	R972	C2	R988	C4	T903	B2	ZD911	C1	



PCB LAYOUT - TOP VIEW

BD901	A1	C921	B1	C945	C4	C960	A2	C971	C4	CN907	B4	D920	B3	GT901	B1	J910	B2	J918	B3	J927	B4	L901	B3	Q901	B2	Q915	C4	R917	B4	R943	B3	R966	C1	T901	B3	ZD908	B3		
C901	B2	C922	B1	C946	B2	C961	C2	C977	C2	CN908	C4	D921	C2	GT903	C2	J911	B2	J920	A3	J929	C4	L902	B4	Q905	C2	Q916	C3	R936	B1	R945	B4	R969	C2	T902	B3				
C902	A2	C933	B4	C949	C3	C962	A3	C991	C2	D904	A3	D922	B3	IC901	B4	J912	C2	J921	A3	J930	C3	L903	B1	Q909	A2	R903	B2	R937	B2	R949	C3	R979	B4	T903	B3				
C903	A1	C934	B3	C950	C4	C963	B3	CN901	A1	D912	B3	D923	C3	IC904	C3	J913	C2	J922	A3	J931	C3	L904	B1	Q910	B3	R904	B2	R938	B2	R954	C1	R986	C3	TVR901	A1				
C913	B4	C937	C1	C951	C4	C966	C2	CN903	A4	D913	B3	D924	C3	IC905	C3	J914	B2	J923	B4	J932	C3	L905	C4	Q911	B3	R905	B2	R939	A2	R957	C2	R990	C2	TVR902	A1				
C914	B4	C939	C2	C952	C4	C967	C3	CN904	C4	D917	C3	D925	C4	J903	A4	J915	A2	J924	B4	J933	C4	L906	C4	Q912	C2	R906	A2	R940	B3	R961	C2	R991A	C2	TVR903	C1				
C916	B4	C943	B2	C953	C4	C968	C3	CN905	C4	D918	C3	D937	B4	J904	A4	J916	C3	J925	B4	J934	C4	L907	C4	Q913	C2	R908	B3	R941	B3	R964	B3	R994	C3	ZD901	B2				
C920	B1	C944	C2	C956	B4	C970	B4	CN906	C1	D919	C3	F901	C1	J909	B1	J917	B3	J926	B4	J936	C4	NTC901	C1	Q914	C2	R909	B4	R942	B3	R965	B2	T901	A3	ZD907	B2				

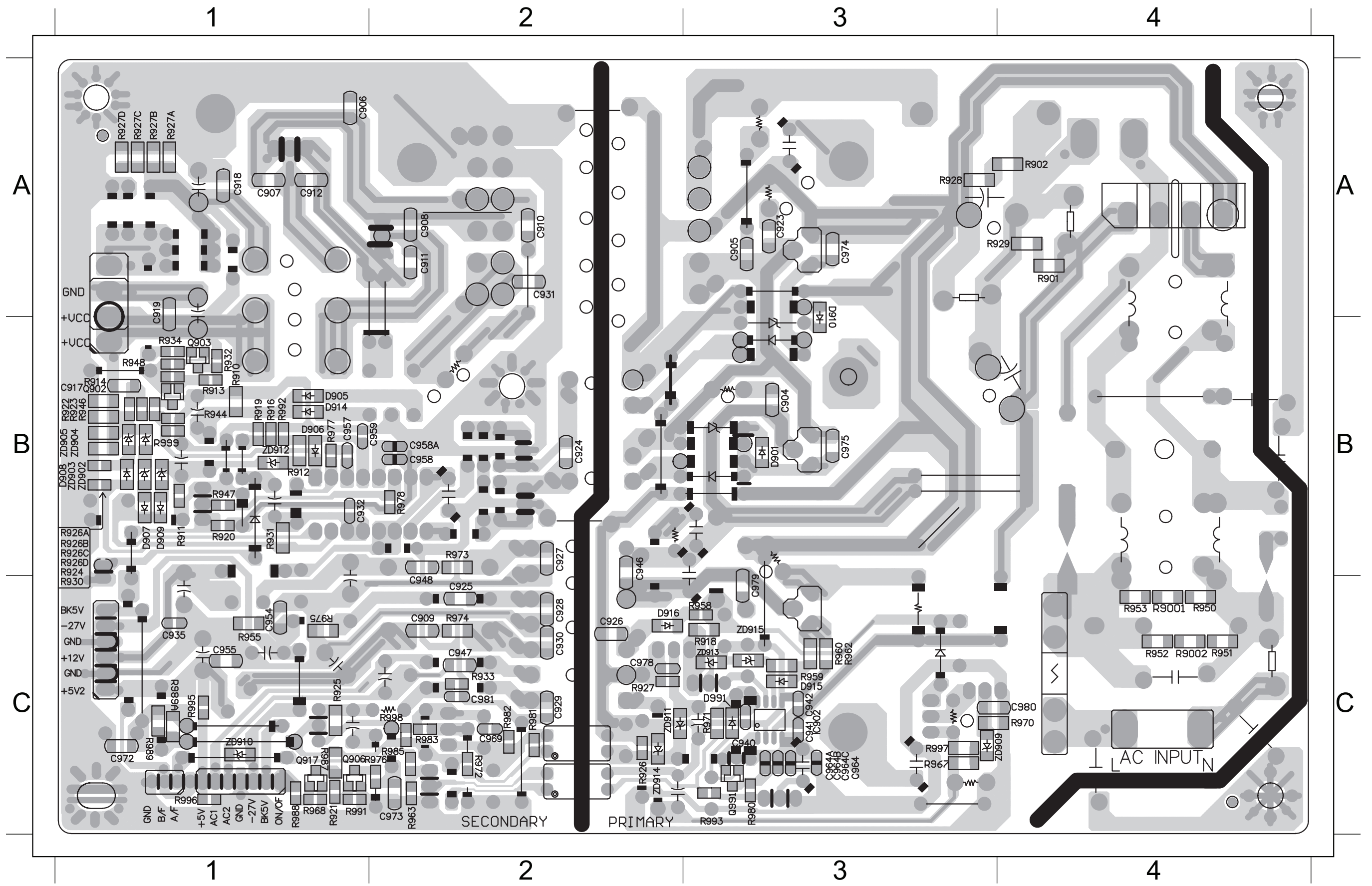


PCB LAYOUT - BOTTOM VIEW

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C906	A1	C923	A3	C917	B1	D909	B1	R919	B1	R926CB1	ZD902	B1	C927	B2	R973	B2	C955	C1	R955	C1	R989AC1	C926	C2	C978	C2	R981	C2	C941	C3	D915	C3	R959	C3	ZD909	C3	R951	C4		
C919	A1	D910	A3	C932	B1	D914	B1	R922	B1	R926DB1	ZD903	B1	C946	B2	R978	B2	C972	C1	R968	C1	R991	C1	C928	C2	D916	C2	R982	C2	C942	C3	D991	C3	R960	C3	ZD913	C3	R952	C4	
C908	A2	R928	A3	C957	B1	R910	B1	R923	B1	R930	B1	ZD904	B1	C948	B2	C904	B3	Q906	C1	R975	C1	R995	C1	C929	C2	R927	C2	R983	C2	C964	C3	IC902	C3	R962	C3	C980	C4	R953	C4
C910	A2	R901	A4	D905	B1	R911	B1	R924	B1	R931	B1	ZD905	B1	C958	B2	D901	B3	Q917	C1	R987	C1	ZD910	C1	C930	C2	R972	C2	ZD911	C2	C964AC3	Q991	C3	R967	C3	R9001	C4	R970	C4	
C911	A2	R902	A4	D907	B1	R912	B1	R926AB1	R944	B1	ZD912	B1	C958AB2	C935	C1	R921	C1	R988	C1	C909	C2	C969	C2	R974	C2	ZD914	C2	C964BC3	R918	C3	R993	C3	R9002	C4					
C931	A2	R929	A4	D908	B1	R916	B1	R926BB1	R977	B1	C924	B2	C959	B2	C954	C1	R925	C1	R989	C1	C925	C2	C973	C2	R976	C2	C940	C3	C964CC3	R958	C3	R997	C3	R950	C4				

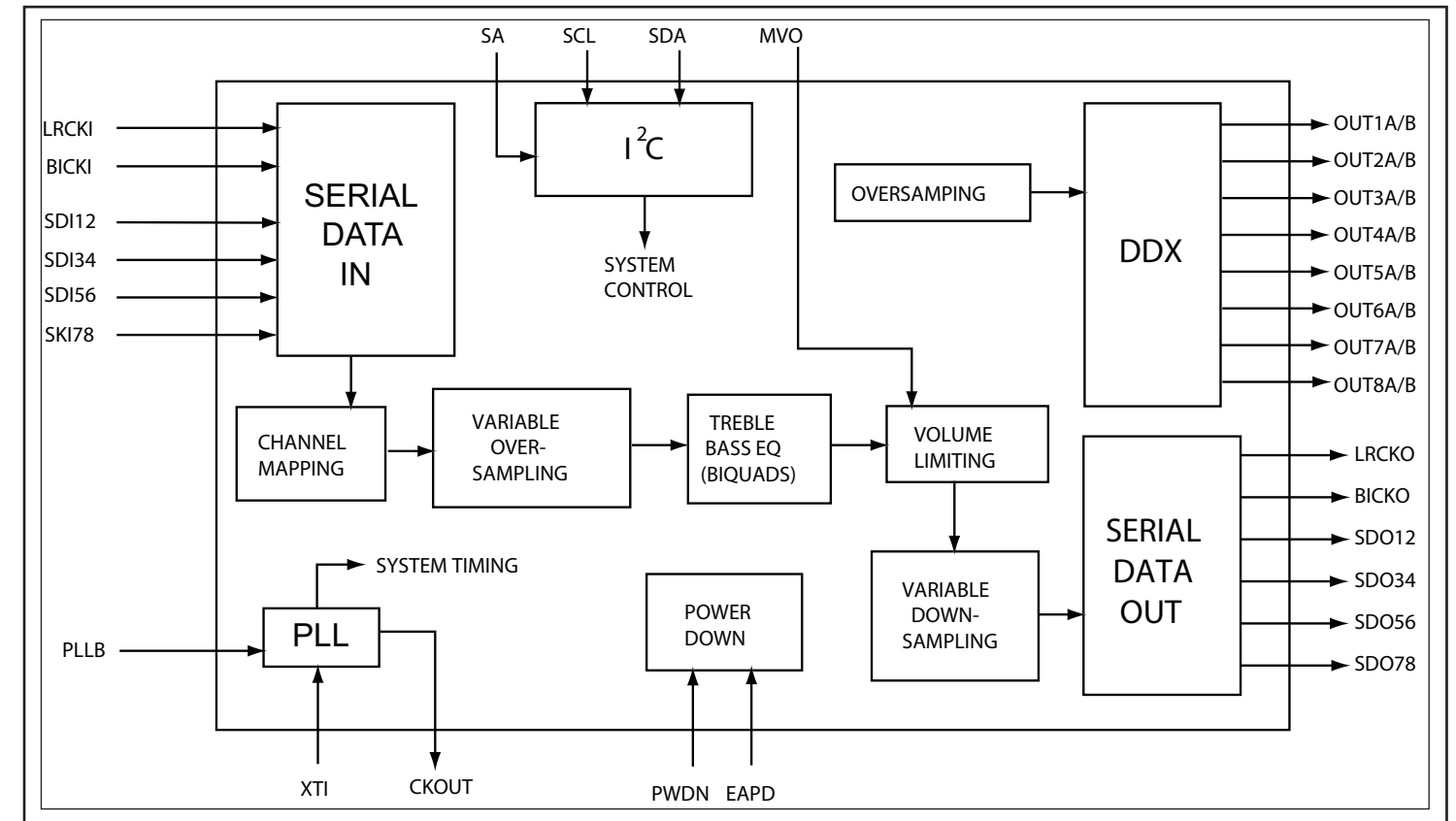


AMP BOARD

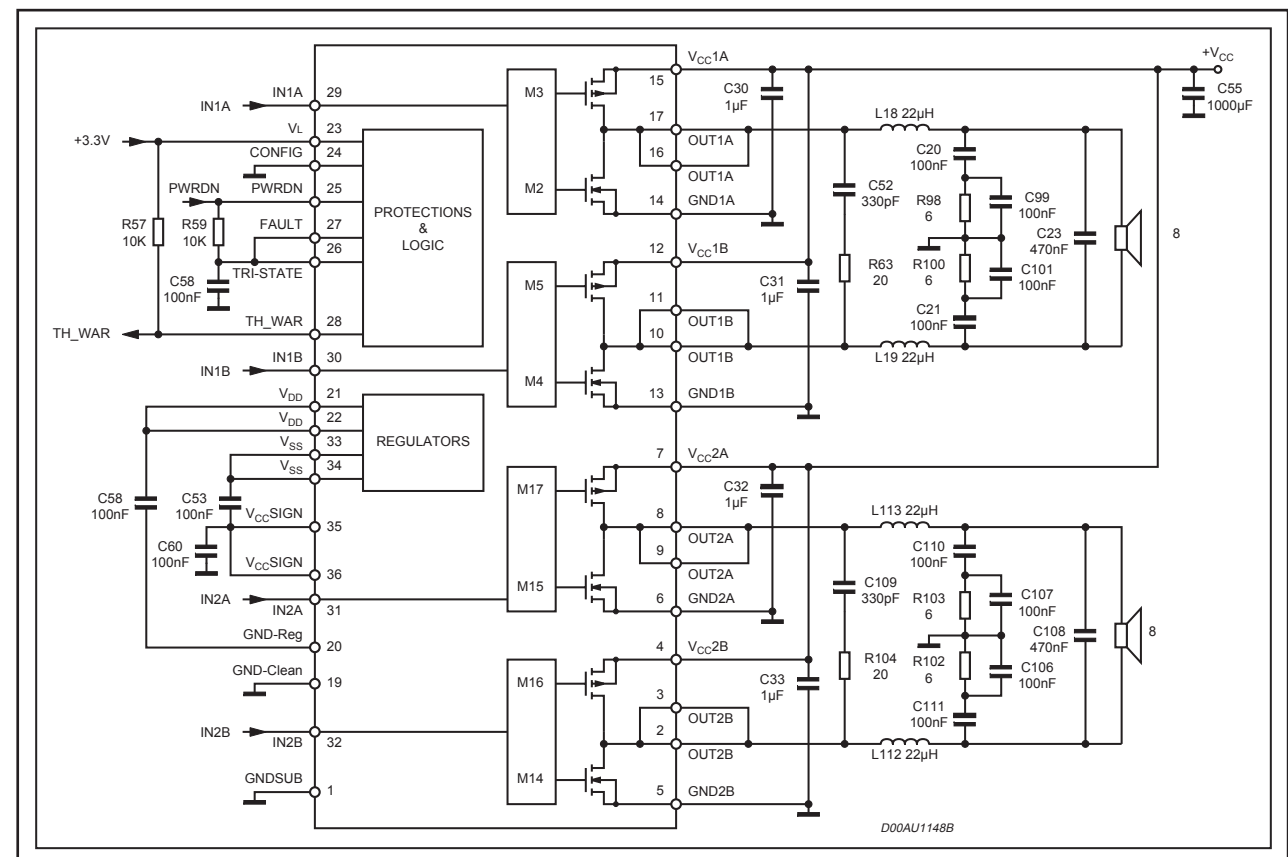
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INTERNAL IC DIAGRAM - STA309A

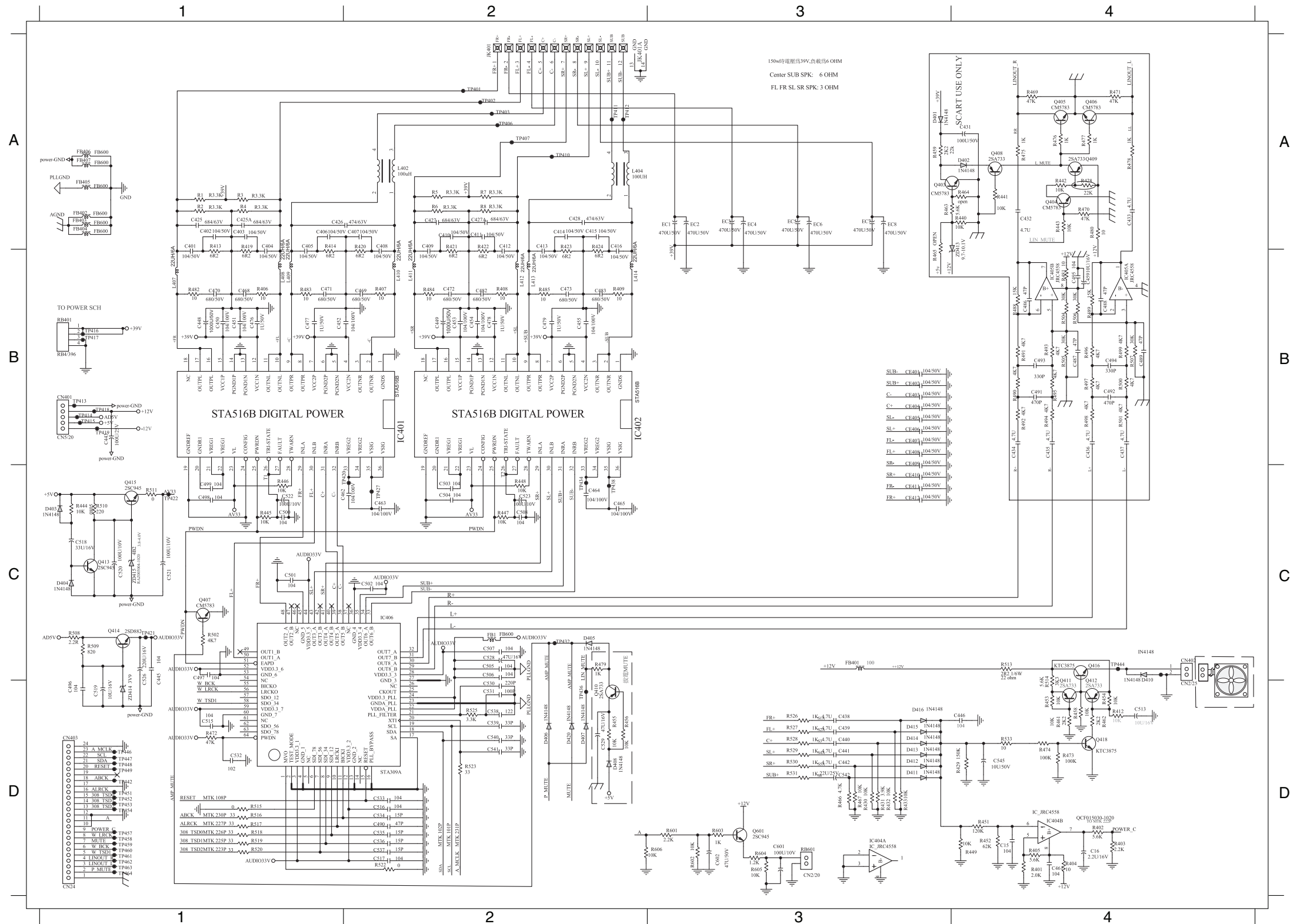


INTERNAL IC DIAGRAM - STA516B



CIRCUIT DIAGRAM

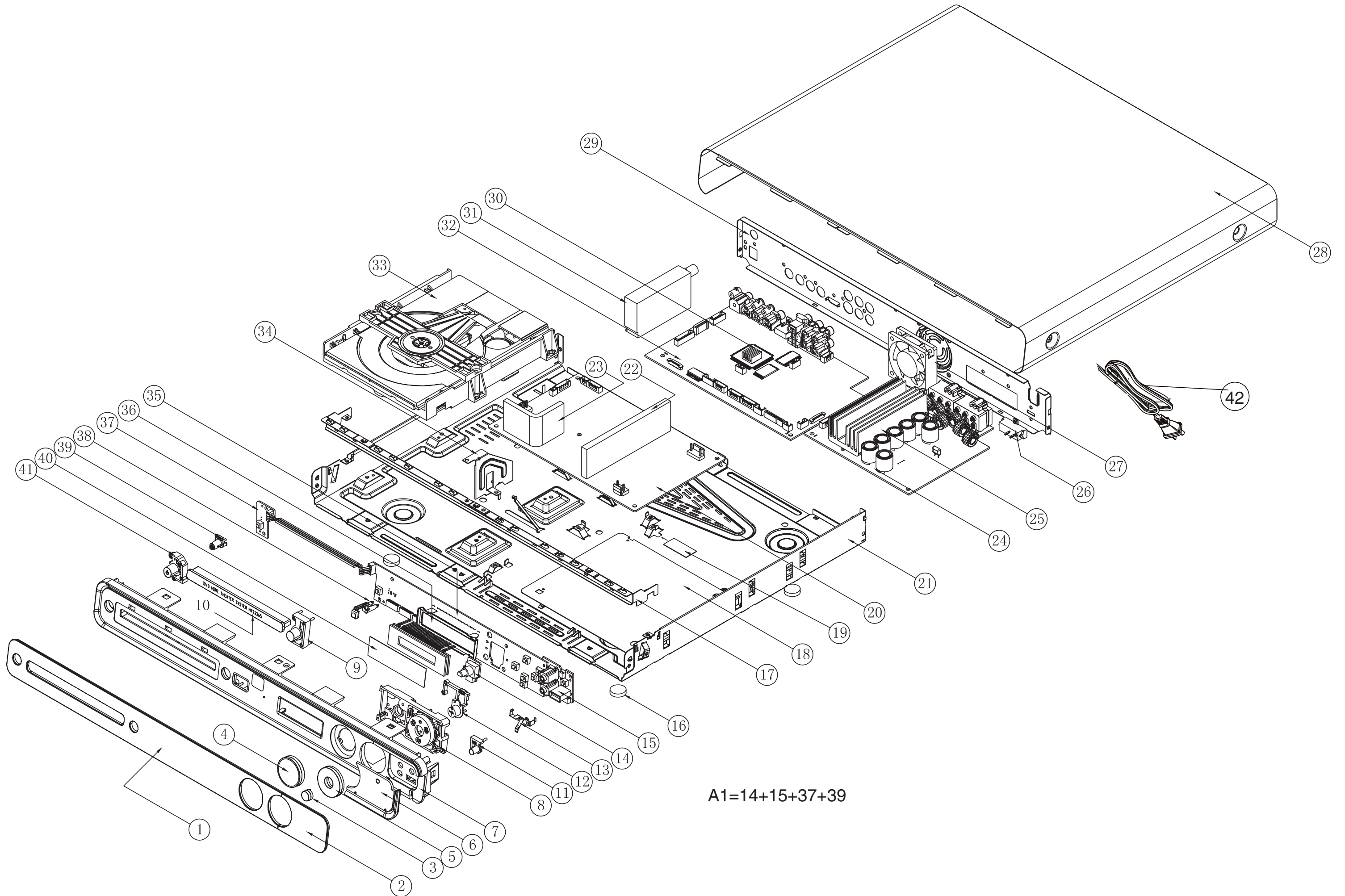
C15	D4	C412	B2	C440	D3	C455	B2	C477	B1	C503	C2	C521	C1	C538	D2	CE406	B3	D404	C1	EC1	A3	FB405	A1	L409	B1	Q416	C4	R407	B2	R430	D3	R455	D2	R484	B2	R514	D4	R529	D3	RB601	D3
C16	D4	C413	B2	C441	D3	C461	D4	C478	B2	C504	C2	C522	C1	C539	D2	CE407	B3	D405	C2	EC2	A3	FB406	A1	L410	B2	Q418	D4	R408	B2	R431	D3	R456	D2	R485	B2	R515	D1	R530	D3	ZD414	D1
C401	B1	C414	A2	C442	D3	C462	C2	C479	B2	C505	C2	C523	C2	C540	D2	CE408	B3	D406	D2	EC3	A3	FB407	A1	L411	B2	Q601	D3	R409	B2	R432	D3	R458	D4	R490	B4	R516	D1	R531	D3	ZD415	C1
C402	A1	C415	A2	C443	B1	C463	C2	C482	B2	C506	C2	C526	C1	C541	D2	CE409	C3	D407	D2	EC4	A3	IC401	B1	L412	B2	R1	A1	R412	D4	R433	D3	R461	D4	R495	B4	R517	D1	R533	D4		
C403	A1	C416	B2	C445	C1	C464	C2	C483	B2	C507	C2	C528	C2	C542	D3	CE410	C3	D408	D2	EC5	A3	IC402	B2	L413	B2	R2	A1	R413	B1	R444	C1	R462	D4	R497	B4	R518	D1	R6	A2		
C404	B1	C425	A1	C446	D4	C465	C2	C490	D2	C508	C2	C529	D2	C545	D4	CE411	C3	D410	C4	EC6	A3	IC404	D3	L414	B2	R3	A1	R414	B1	R445	C1	R466	D3	R5	A2	R519	D1	R601	D3		
C405	B1	C425A	A1	C448	B1	C468	B1	C496	D1	C513	D4	C530	D2	C601	D3	CE412	C3	D411	D3	EC7	A3	IC406	C2	Q407	C1	R4	A1	R419	B1	R446	C1	R467	D3	R501	B4	R520	D1	R602	D3		
C406	A1	C426	A1	C449	B2	C469	B2	C497	C1	C515	D1	C531	D2	C602	D3	CN401	B1	D412	D3	EC8	A3	JK401	A2	Q410	D2	R401	D4	R420	B2	R447	C2	R472	D1	R502	C1	R522	D2	R603	D3		
C407	A2	C427	A2	C450	B1	C470	B1	C498	C1	C516	D2	C533	D2	CE401	B3	CN402	C4	D413	D3	FB1	C2	JK401AA2	Q411	D4	R402	D4	R421	B2	R448	C2	R473	D4	R508	C1	R523	D2	R604	D3			
C408	B2	C427A	A2	C451	B1	C471	B1	C499	C1	C517	D2	C534	D2	CE402	B3	CN403	D1	D414	D3	FB401	C3	L402	A2	Q412	D4	R403	D4	R422	B2	R451	D4	R474	D4	R509	C1	R525	D2	R605	D3		
C409	B2	C428	A2	C452	B1	C472	B2	C500	C1	C518	C1	C535	D2	CE403	B3	D403	A3	D415	D3	FB402	A1	L404	A2	Q413	C1	R404	D4	R423	B2	R452	D4	R479	C2	R510	C1	R526	D3	R7	A2		
C410	A2	C438	D3	C453	B2	C473	B2	C501	C1	C519	D1	C536	D2	CE404	B3	D403	A4	D416	D3	FB403	A1	L407	B1	Q414	C1	R405	D4	R424	B2	R453	D4	R482	B1	R511	C1	R527	D3	R8	A2		
C411	A2	C439	D3	C454	B2	C476	B1	C502	C2	C520	C1	C537	D2	CE405	B3	D404	C1	D420	D2	FB404	A1	L408	B1	Q415	C1	R406	B1	R429	D4	R454	D4	R483	B1	R513	C4	R528	D3	RB401	B1		



MECHANICAL EXPLODED VIEW

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MECHANICAL PART LIST

Loc.	12NC.	Description
MECHANICAL PART LIST		
1	996510012484	DISPLAY LENS PMMA
2	996510012485	USB DOOR LENS
3	996510010835	SOURCE BUTTON PC PMMA
4	996510010833	VOLUME KNOB PMMA PC
5	996510010832	FUNCTION BUTTON
6	996510010829	USB DOOR
7	996510012486	FRONT PANEL
8	996510010837	FUNCTION BRACKET
9	996510010834	EJECT KEY
10	996510013383	DVD DOOR ABS
11	996510012488	MIC LEVEL BUTTON
12	996510010838	SOURCE BRACKET
16	996510010842	RUBBER FOOT
18	996510010826	PVC SHEET
19	996510010827	PVC SHEET
20	996510012860	POWER PCB
21	996510012217	BOTTOM PANEL
24	996510012862	AMP PCB
27	996510010843	FAN
28	996510012858	TOP COVER
29	996510013384	REAR PANEL
31	996510001690	TUNER PACK
32	996510013386	MAIN PCB
33	996510010819	DVD LOADER
39	996510010840	STANDBY LENS
41	996510010836	POWER KEY
42	996510013385	LINE CORD 2P
A1	996510012531	VFD+JACK+VOL+STANDBY PCB
AM	996510001621	LOOP ANT
FM	994000002731	FM ANTENNA 1500MM
RC	996510012491	REMOTE CONTROL
V1	996510007429	GP FCCBLE 10P100mmUL20798 P=1
V2	996510011292	FFC CABLE 24P 50mm
Video	996500013058	RCA CABLE 2P 1.2M
LSCREW	996510009092	SCREW8.5X60LX12LXM5X0.8P

Speaker

RFC	996510001599	RUBBER FOOT -CENTER SPK
RFF	996510001601	RUBBER FOOT - REAR SPK
RFR	996510001601	RUBBER FOOT - REAR SPK
RFS	996510010854	RUBBER FOOT -SUB
SPKC	996510013387	SPEAKER BOX -CENTER
SPKFL	996510013388	SPEAKER BOX -FRONT LEFT
SPKFR	996510013389	SPEAKER BOX - FRONT RIGHT
SPKRL	996510013390	SPEAKER BOX- REAR LEFT
SPKRR	996510013391	SPEAKER BOX- REAR RIGHT
SUBW	996510013392	SUBWOOFER

DVD LOADER

DT	996500020250	TRAVERSE MECHANISM
LB	996510012492	LOADER BASE
V3	996510007319	FFC CABLE 24P 180MM

POWER PCB

BD901	996500038405	BRIDGE KBU808 8A 800V
BD901	996500041973	BRIDGE KBU808 8A 800V
BD901	996510011372	BRIDGE KBU808 8A 800V
C901	996500027123	CAP.E 330UF 200V 20% 105°C D18
C902	996500027123	CAP.E 330UF 200V 20% 105°C D18
C903	996500027124	COND METAL 1.5UF 250V DC /-10
C920	996500027115	CAP.SAFTY Y1 102PF 250V 20% Y5

C920	996510012510	COND SAFETY 0.001uF 400V
C921	994000005343	COND SAFETY 0.22UF 275V 20%
C922	996500027115	CAP.SAFTY Y1 102PF 250V 20% Y5
C922	996510012510	COND SAFETY 0.001uF 400V
C937	994000000932	COND SAFTY 0.47UF 275V 10%
C943	996500018042	COND DISC 0.01UF 1KV 20%
C944	996510012511	COND ELECT 2.2 uF 100V
C945	996510012511	COND ELECT 2.2 uF 100V
C960	996500018042	COND DISC 0.01UF 1KV 20%
C961	996500018042	COND DISC 0.01UF 1KV 20%
C962	996500027115	CAP.SAFTY Y1 102PF 250V 20% Y5
C963	996500038398	CAP. SAFTY 152PF 250V 20%
C967	996510004633	COND MYLAR 0.1 uF 100V 5%
C968	996510012514	COND MYLAR 0.15uF 100V 5%
C972	996510012861	CHIP CAP 0.1uF 100V 10%
C973	996510012861	CHIP CAP 0.1uF 100V 10%
CN901	996500017458	CONNECTOR 3P CL3962WVO
CN903	996500017360	CONNECTOR 4P CL3962WVO
CN904	996510012515	CONNECTOR B6B-XH-A 6 PIN
CN905	996500017358	CONNECTOR 7P
CN906	996500015936	CONNECTOR 4PIN P=3.96MM
CN907	996500015898	CONNECTOR 2 PIN PITCH=2.0MM
CN908	996500015900	CONNECTOR 3 PIN P=2.0MM
D901	996510010354	DIODE 1N4148W 100V SOD-123 CJ
D901	996510010355	DIODE BAV16W/1N4148W (SKYWELL)
D904	994000005346	RECTIFIER UF1602CT TO-220AB 3P
D904	996500041972	DIODE STPR1620CT 3P
D912	996500026949	DIODE SW 1N4148 PB<1000PPM
D913	996500026949	DIODE SW 1N4148 PB<1000PPM
D917	996510012516	DIODEHER105 DO-411A400V50nSFMS
D918	994000000941	DIODE HER104 1A 300V 50NS
D919	994000000941	DIODE HER104 1A 300V 50NS
D920	994000000938	DIODE PR1507 1.5A 1000V
D921	996500026949	DIODE SW 1N4148 PB<1000PPM
D922	994000000943	DIODE UF3003 3A 200V
D923	994000000941	DIODE HER104 1A 300V 50NS
D924	994000005249	DIODE SB360 3A 60V DO-201AD
D925	996510004297	IN5819 1A 28V SCHOTTKY
D937	996500026949	DIODE SW 1N4148 PB<1000PPM
F901	996500042572	FUSE 5A 250V SLOW
IC901	996510008293	IC 16P AZ7500BP-E1
IC902	996510004113	IC 8P AP3843GMTR-E1
IC904	994000000946	OPTICAL SENSOR 4P
IC905	994000000952	IC 3PIN TL431
IC905	996500029312	IC 3 PIN TL431 TO-92 CHANG JI
L901	996500027102	TOROID COIL S1=1TS D0.65MMX2 P
L902	994000005341	COMMON COIL 65UH +/-10% 2XD1.2
L906	996500016694	6UH 13.5TS 2UEW
L907	996500016694	6UH 13.5TS 2UEW
Q901	996500038406	MOSFET STP10NK60Z 10A 600V
Q905	996510000615	XISTR NPN 2SC945P
Q906	996510004282	XISTR NPN SMT (2SC945)
Q909	996500038406	MOSFET STP10NK60Z 10A 600V
Q910	996500026946	XISTR PNP 2SB772P/Q NEC PB<10
Q911	996500026946	XISTR PNP 2SB772P/Q NEC PB<10
Q912	994000005348	MOSFET STF3NK80Z N-CH 2.5A
Q913	996510004298	XISTR NPN 2N5551B TO-92
Q914	996510004298	XISTR NPN 2N5551B TO-92
Q915	996500026939	XISTR PNP 2SA952 NEC PB<1000P
Q915	996510010356	XISTR PNP 2SB647 TO-92MOD
Q916	996510012518	TRIACS 3P MCR100-6 TO-92 CJ
Q917	996510004282	XISTR NPN SMT (2SC945)
Q991	994000000921	XISTR PNP 2SA812 HFE:200-400
R905	996510012519	RES. 120 OHM 3W 5% MOF
R906	996510012519	RES. 120 OHM 3W 5% MOF
R908	996510012519	RES. 120 OHM 3W 5% MOF
R965	996510012520	RES. 1 OHM 2W 5% MO
R969	996510012521	RES 10K OHM 2W 5% STANDARD RAD

T901	996510012522	SWTRANS EC-39DWKB486-8519 600W
T901	996510012523	SW TRANS ER39/40 600W 8+8PIN
T902	994000001057	SW. MODEL TRANSFORMER
T903	996510012524	SWTRANS EEL-25 40WDWKB486-8218
T903	996510012525	SW TRANS EEL-25 6+8P
ZD901	994000002067	DIODE ZENR 14.5-15.1V 0.5W
ZD907	994000002067	DIODE ZENR 14.5-15.1V 0.5W
ZD908	996500026940	DIODE ZENR 11.9-12.4V 0.5W
L903	996510013776	LINE FILTER ET-24
L904	996510013747	LINE FILTER ET-28

MAIN PCB

CN201	996500015859	CONNECTOR 4PIN P2.0MM
CN202	996510012494	CONNECTOR 5 PIN RED
CN203	996510012495	CONNECTOR 4P
CN205	996510012496	CONNECTOR 7P
CN206	996500015900	CONNECTOR 3 PIN P=2.0MM
CN207	996500015895	CONNECTOR 5 PIN P=2.0MM
CN208	996500015897	CONNECTOR 3 PIN RED P=2.0MM
CN301	996510012497	FPC/FFC CONN. 10P
CN303	996500018015	CONNECTOR 3P
CN401	996500015895	CONNECTOR 5 PIN P=2.0MM
CN801	996510012498	CHIP HOUSING 24P
CN802	996500015901	CONNECTOR 6 PIN P=2.0MM
CN803	996500015895	CONNECTOR 5 PIN P=2.0MM
D201	996510010358	DIODE 1N4007
D204	996510010358	DIODE 1N4007
IC201	996510012499	IC 28P
IC202	996510004290	IC 48P EN29LV320B-70TCP
IC202	996510013913	IC 48P KH29LV320CBTC-70G
IC203	996500041284	IC 3P STM809SWX6F 3.0V
IC204	996510004289	IC 8P TU24C16CS2 SOIC TURBO
IC205	996500041967	IC 20P SN74HC374PW
IC206	996510004115	IC 54P AS81F641642C-6P TSOPII
IC206	996510009895	IC 54P A641604L-6T TSOP II
IC207	996510012500	IC 20 PIN SN74HC244PWR TSSOPTI
IC208	996510013914	IC 28P P89LPC931FDH TSSOP PHIL
IC209	996510012502	IC 256P MT1389FXE/S LQFP MEDIA
IC210	996500027090	IC 3 PIN AP1117E18LA 1.8V SOT2
IC301	996500029611	IC 8P CO4558A SO8 CERAMATE LF
IC301	996500041286	IC 8P 4558
IC303	996500029611	IC 8P CO4558A SO8 CERAMATE LF
IC303	996500041286	IC 8P 4558
IC304	996510012503	IC 16P CD4051BM SOIC TI ANALOG
IC305	996510012503	IC 16P CD4051BM SOIC TI ANALOG
IC306	996510012504	IC 20P WM8782SEDS SSOP WOLFSON
IC309	996510012500	IC 20 PIN SN74HC244PWR TSSOPTI
IC801	996510010380	Motor Drive IC
IC801	996510012506	IC 28P AM5888S L/F HSOP AMTEK
JK302	996510004283	RCA JACK 4P AUDIO
JK601	996510012507	HDMI JACK 19P PDVBT8-19 FLBS4N
JK701	996500023599	RCA+DIN JK 1RCA+4P DIN YEL
JK702	996500012609	RCA JACK R/G/B
JK703	996500017363	RCA JACK 1P W/GND P
Q201	996510000615	XISTR NPN 2SC945P
Q204	996510012508	XISTR PNP TIP42C
Q300	994000000915	XISTR NPN 2SC1623
Q302	994000000915	XISTR NPN 2SC1623
Q303	994000000915	XISTR NPN 2SC1623
Q304	994000000915	XISTR NPN 2SC1623
Q305	994000000915	XISTR NPN 2SC1623
Q601	996510008289	FET AO3402 SOT23 30V/4A
Q602	996500041281	FET 2N7002 60V/115MA
Q801	996510004117	FET 2SK3018 30V/0.1A SC-70
Q802	994000000915	XISTR NPN 2SC1623
Q803	996500026927	XISTR PNP 2SB1132RT100 ROHM HF

Q804	996500026927	XISTR PNP 2SB1132RT100 ROHM HF
Q805	996510004117	FET 2SK3018 30V/0.1A SC-70
Q901	996510000615	XISTR NPN 2SC945P
Q903	996500026946	XISTR PNP 2SB772P/Q NEC PB<10
Q904	994000005335	XISTR NPN TIP41C
ZD901	994000005204	DIODE ZENR 12.6-13.1V 0.5W
ZD903	996510010364	DIODE ZENER 5.32-5.88V 0.5W
ZD904	996500028741	DIODE ZENR 9.1-9.5V 0.5W PB<10

AMP PCB

CN401	996510012526	C/W 5P 50mm 2468 26 RAINBOW
CN402	996500015862	CONNECTOR B2B-XH-A 2 PIN
CN403	996510012498	CHIP HOUSING 24P
IC401	996510008280	IC 36P STA516B
IC402	996510008280	IC 36P STA516B
IC404	996500029611	IC 8P CO4558A SO8 CERAMATE LF
IC404	996500041286	IC 8P 4558
IC406	996510012527	IC 64P STA309A TQFP ST
JK401	996510012528	SPKJACK6PRED-WHT-GRNSD-0103-01
JK401A	996510012529	SPKJACK 6PGY-BLU-PURPLESD-0103
L402	996510011371	COIL 4P 100UH 30% 1KHZ 0.25V
L402	996510012530	TOROIDCOIL4P110uH+/-25uH1KHz
L404	996510011371	COIL 4P 100UH 30% 1KHZ 0.25V
L404	996510012530	TOROIDCOIL4P110uH+/-25uH1KHz
Q407	996510000578	XISTR NPN KTC3875-Y
Q410	994000000921	XISTR PNP 2SA812 HFE:200-400
Q411	994000000921	XISTR PNP 2SA812 HFE:200-400
Q412	994000000921	XISTR PNP 2SA812 HFE:200-400
Q413	994000000915	XISTR NPN 2SC1623
Q414	996500028742	XISTR NPN 2SD882P PB<1000PPM
Q415	996510000615	XISTR NPN 2SC945P
Q416	996510000578	XISTR NPN KTC3875-Y
Q418	996510000578	XISTR NPN KTC3875-Y
Q601	994000000915	XISTR NPN 2SC1623
ZD414	996500027138	DIODE ZENR 3.8-4.0V 0.5W
ZD415	996500027138	DIODE ZENR 3.8-4.0V 0.5W

VFD+JACK+VOL+STANDBY PCB

JK11	996510004129	KARAOKE JACK D3.6MM 7P
JK12	996510004129	KARAOKE JACK D3.6MM 7P
USB11	996510013742	USB JACK 4P
CN12	996500018030	CONNECTOR 2P
D12	996500026949	DIODE SW 1N4148 PB<1000PPM
D13	996500026949	DIODE SW 1N4148 PB<1000PPM
DP11	996510012856	VFD 32P
IC11	996500029614	IC 52 PIN PT6311(PTC)
Q11	994000000915	XISTR NPN 2SC1623
Q12	994000000921	XISTR PNP 2SA812 HFE:200-400
Q13	994000000921	XISTR PNP 2SA812 HFE:200-400
Q14	994000000921	XISTR PNP 2SA812 HFE:200-400
Q15	994000000921	XISTR PNP 2SA812 HFE:200-400
Q16	994000000921	XISTR PNP 2SA812 HFE:200-400
SN11	994000005472	IRT RECEIVER IRM-2638AF4
LD11	996510004102	LED 3 DIA RED ROUND

REVISION LIST

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Version 1.0
*Initial release