

Service
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Service Manual

TABLE OF CONTENTS

	Chapter
Technical Specification & Service Tips.....	1
Safety Instructions.....	2
Instruction for Use.....	3
Mechanical Instructions.....	4
Troubleshooting	5
Overall Block Diagram.....	6
Electrical Diagram.....	7
Service Part List.....	8
Revision List.....	9

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1.0 TECHNICAL SPECIFICATION

General

Dimensions (W x H x D):	195 x 154 x 38 mm
Bear Unit Weight:	680g
Power supply:	
Supply voltage	AC 100~240V (adapter) DC 12V (battery)
Supply Power consumption	9W
Operating Temp & RH	0~ 45degC / 30-90% RH
Audio System	
Output voltage 1kHz:	2V +/-0.2V
THD 20-20kHz (%):	≤ 1%
Dynamic range 1kHz	>/=80dB
Signal/Noise ratio:	>/=80dB
Frequency response (20-20kHz):	+/-1dB
Channel Separation 1kHz	>=85dB
Channel Balance 1kHz	1dB

Playback disc type:	CD,+/- R/RW,DVD,DVD +/-R/RW
Video Playback Format:	DVD / VCD /MP3,JPEG Image,Divx,AVI
Audio Playback Format:	CD/MP3, DVD,
Disc Diameter	12cm

Pixel specification

Max. 0 bright-dot & max. 3 dark-dots

Current consumption

DC Supply	DC9V-15.0V
Standby Power off	<0.45W
Battery	
Voltage	7.4V
Capacity	1500mAH
Battery playtime	
Charging time	3h
Standby Power off	

Headphone out (headphone output load 2x16 ohm)

Maximum output power:	≥ 1.5mW
Frequency response:	+/-1dB
SNR (A-wght):	≥ 70dB
THD (w/16 ohm loading):	1%
Left-Right Channel Separation:	≥ 45dB
Left-Right Channel Balance:	≤ 2.5dB

Supported disc type

Video Playback Formats:



Audio Playback Formats:



1.0 TECHNICAL SPECIFICATION

Factory Service Mode (FSM)

Procedure to change region code of your DVD Portable

1. Power ON the DVD player and do not insert DISC inside player
2. Setup→Prefer
Press the key in the sequence as
▶▶| ⇨ |◀◀ ⇨ ▶▶| ⇨ |◀◀ ⇨ ▶▶| ⇨ ▶▶| ⇨ |◀◀
The LCD display showed the existing region Code.
3. Press ▲ (navigation up) or ▼ (navigation down) repeatedly to select the number from 0 to 6.
4. Then press OK to confirm your region code.
5. Refer below table for your region code setting

Region Code	Region
1	USA
2	EUROPE
3	ASIA PACIFIC
4	AUSTRALIA, NEW ZEALAND, LATAM
5	RUSSIA, INDIA
6	CHINA

Select "0" setting = Region Free (confidential)

Procedure for SW upgrade

1. Please burn the "PHILIPS.BIN" file into a empty disc.
2. Power on PET741 with AC/DC adapter
3. The set will detect the upgraded SW
4. Press "OK" to confirm and proceed
5. The set will reset once finished upgrade

Warning: Do not unplug the AC adapter during firmware upgrade to prevent flash corrupt of the set!!

Procedure to check SW version of your DVD Portable

1. Setup→General
Press the key in the sequence as
▲ ⇨ ▼ ⇨ ▲ ⇨ ▼ ⇨ ▲ ⇨ ▲ ⇨ ▼
Then a menu will be show XX-YYYY-MM-DDD

2.0 SAFETY INSTRUCTIONS

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 enfilez 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.

ESD



NL WAARSCHUWING

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD). Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen. Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat. Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

I AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD). La loro longevità potrebbe essere fortemente ridotta in caso di non osservazione della più grande cauzione alla loro manipolazione. Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza. Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

GB

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

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

NL

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



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.

GB Warning !

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

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.

S Varning !

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

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.

SF Varoitus !

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

DK Advarsel !

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

"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."

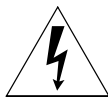
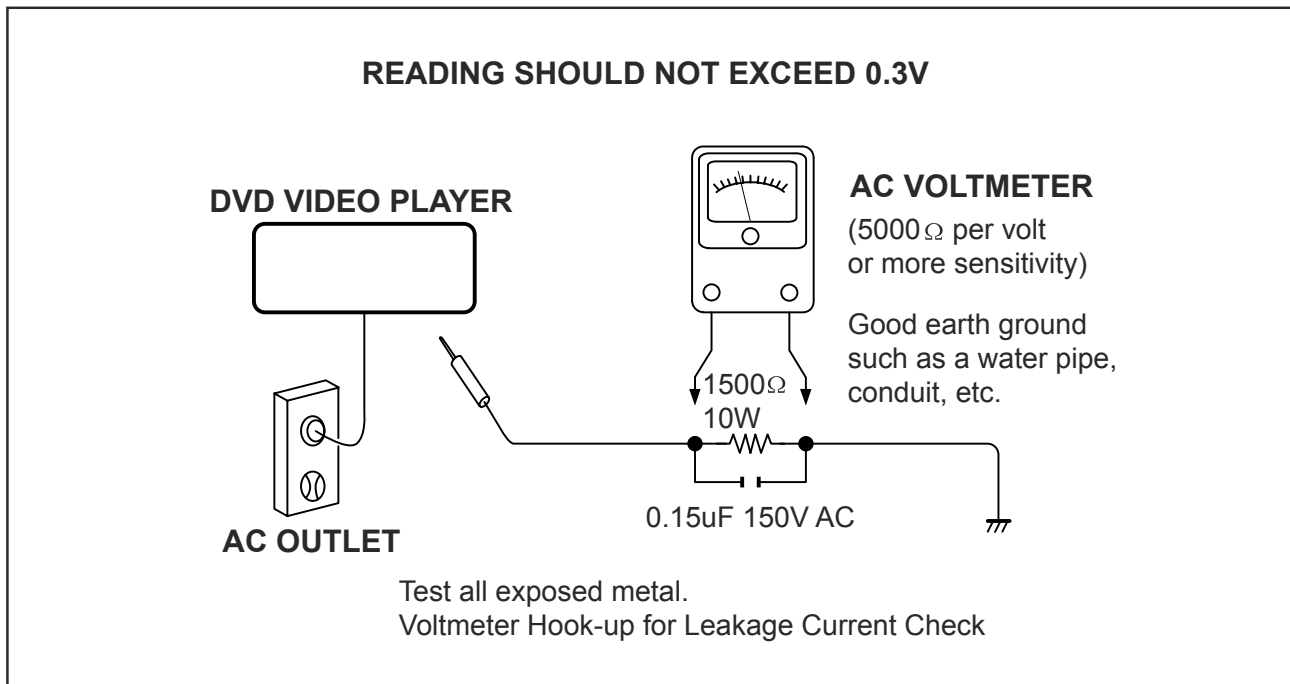
SAFTY NOTICE

SAFTY PRECAUTIONS

LEAKAGE CURRENT CHECK

Plug the AC line cord directly into a 120V AC outlet (do not use an isolation transformer for this check). Use an AC voltmeter, having 5000Ω per volt or more sensitivity. Connect a 1500Ω 10W resistor, paralleled by a $0.15\mu\text{F}$ 150V AC capacitor between a known good earth ground (water pipe, conduit, etc.) and all exposed metal parts of cabinet (antennas, handle bracket, metal cabinet screwheads, metal overlays, control shafts, etc.).

Measure the AC voltage across the 1500Ω resistor. The test must be conducted with the AC switch on and then repeated with the AC switch off. The AC voltage indicated by the meter may not exceed 0.3V. A reading exceeding 0.3V indicates that a dangerous potential exists, the fault must be located and corrected. Repeat the above test with the DVD VIDEO PLAYER power plug reversed. NEVER RETURN A DVD VIDEO PLAYER TO THE CUSTOMER WITHOUT TAKING NECESSARY CORRECTIVE ACTION.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

2.1 ESD PROTECTION

- レンズには絶対に触れないでください。
- DO NOT TOUCH THE LENS.
- LINSE NICHT BRÜHREN.
- NE PAS TOUCHER LA LENTILLE.

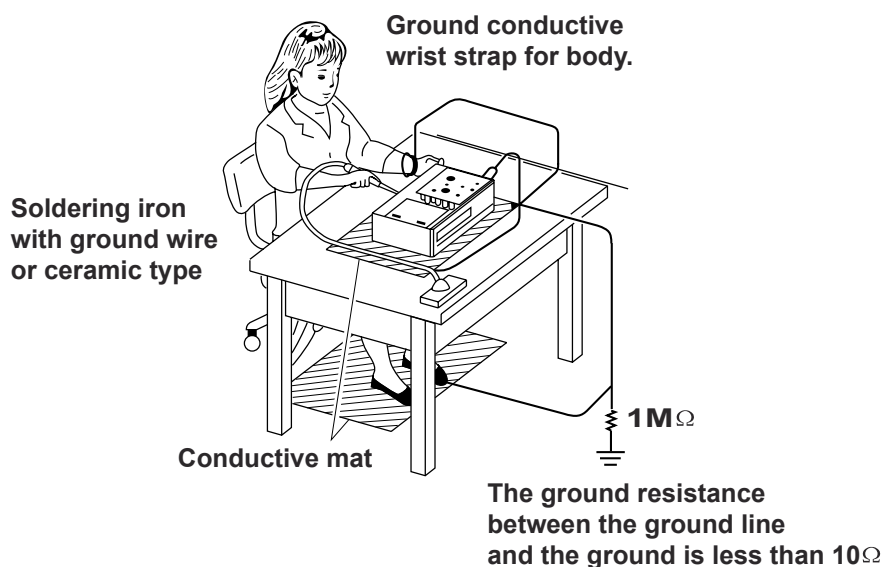
When the power supply is being turned on, you may not remove this laser cautions label. If it removes, radiation of laser may be received.

PREPARATION OF SERVICING

Pickup Head consists of a laser diode that is very susceptible to external static electricity.

Although it operates properly after replacement, if it was subject to electrostatic discharge during replacement, its life might be shortened. When replacing, use a conductive mat, soldering iron with ground wire, etc. to protect the laser diode from damage by static electricity.

And also, the LSI and IC are same as above.

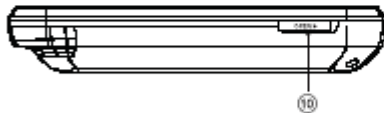


3.0 INSTRUCTION FOR USE

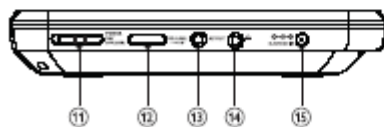
Overview of the main unit



- ① **SETUP**
 - Accesses or exits the setup menu.
- ② **Brightness**
 - Adjusts brightness of the screen backlight.
- ③ **STOP**
 - Stops disc play.
- ④ **SKIP**
 - Skips to the previous or next title, chapter, or track.
- ⑤ **NAVIGATION**
 - Navigates through the menus.
 - Searches backward/forward at different speeds.
 - ▶||OK
 - Confirms an entry or selection.
 - Starts, pauses or resumes disc play.
- ⑥ **CHR/IR/Ⓧ**
 - Charging indicator/Remote control sensor/Power indicator
- ⑦ **AV MODE**
 - Turns off the front panel display when the player is connected to TV.
- ⑧ **OPTION**
 - Accesses options relating to the current activity or selection.
- ⑨ **DISC MENU**
 - For DVD, accesses or exits disc menu.
 - For VCD, turns on or off PBC (Playback Control) mode.
 - For VCD version 2.0 or SVCD with PBC turned on, returns to the menu.



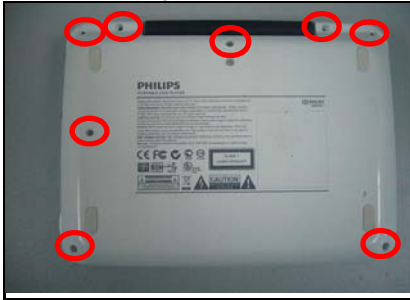


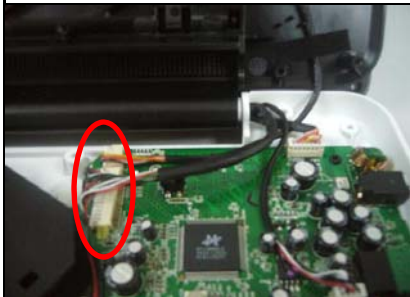


- ⑩ **OPEN**
 - Opens the disc compartment.

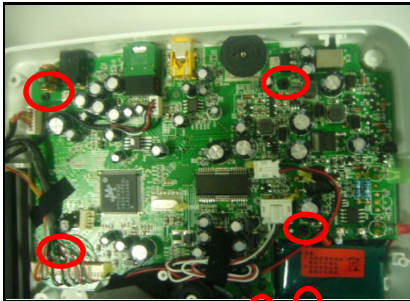




- ⑪ **POWER ON/OFF**
 - Turns on/off DVD player.
- ⑫ **VOLUME**
 - Increases or decreases volume.

4.0 MECHANICAL INSTRUCTION

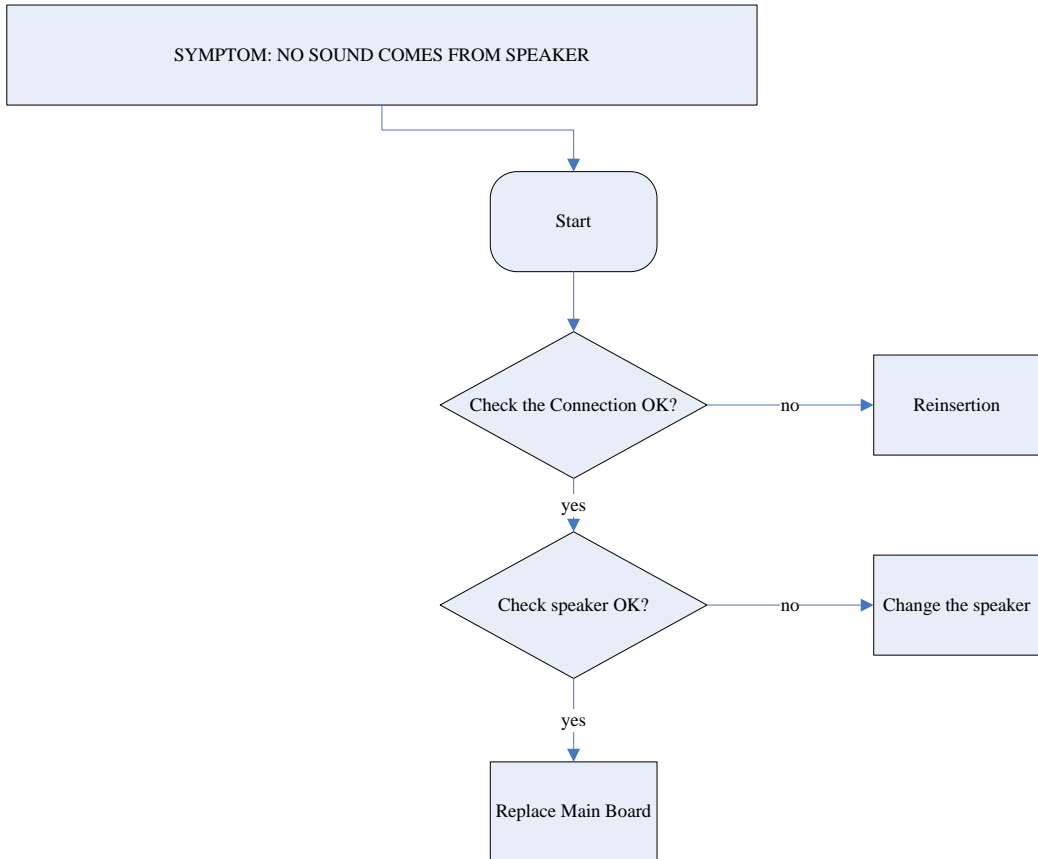
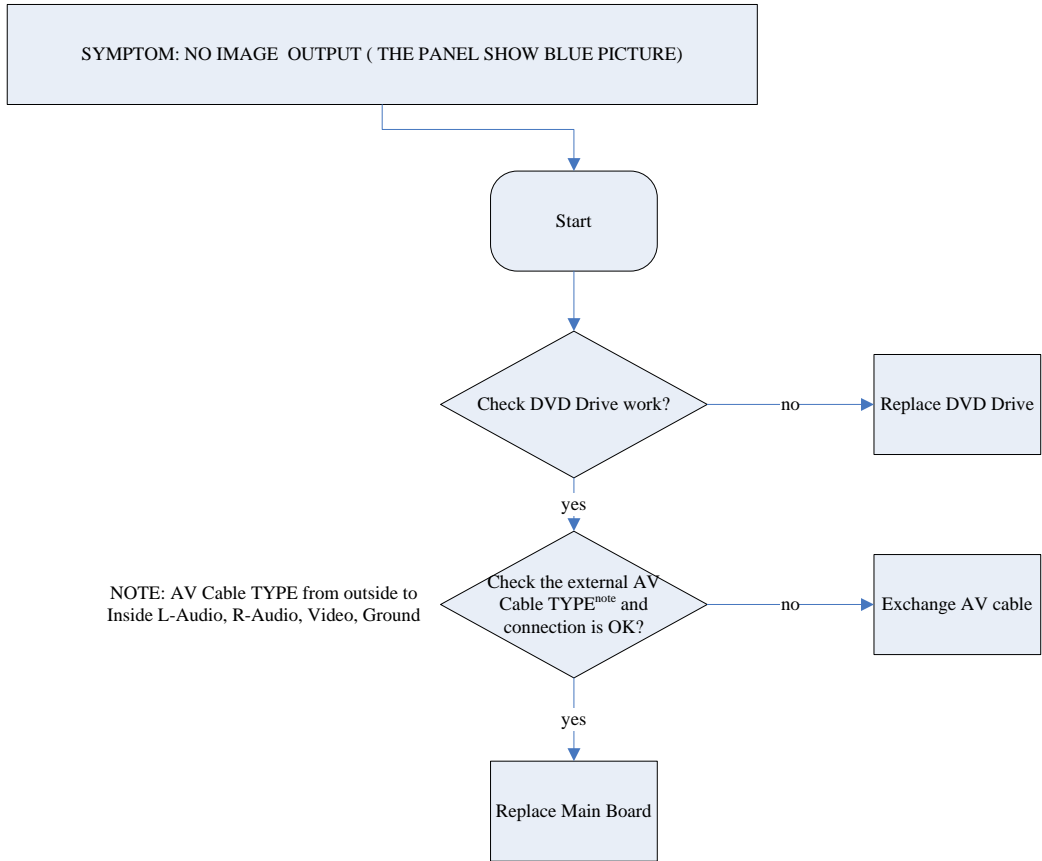
Disassembly Procedure on PET741D

	<p>Remove eight screws on back cabinet to separate top cabinet and back cabinet.</p>	<p>screws 8pcs</p>
	<p>Generally open the front cabinet.</p>	
	<p>Disassemble hous and connector.</p>	<p>7P housin.</p>
	<p>Disassemble hous and connector.</p>	<p>5P housin,basipetal→ yellow→ orange→ red →white →black. 14P housin,basipetal black"→ red→ black →white→ black→ green→ black→ white→ black→ red →black→ green →white→ red.</p>
	<p>Disassemble hous and connector.</p>	
	<p>Disassemble hous and connector,and take out the DVD LOADER.</p>	

	Remove four screws on main board.	screws 4pcs
	Remove ten screws on KEY board.	screws 10pcs
	Remove two screws on TFT board.	screws 2pcs

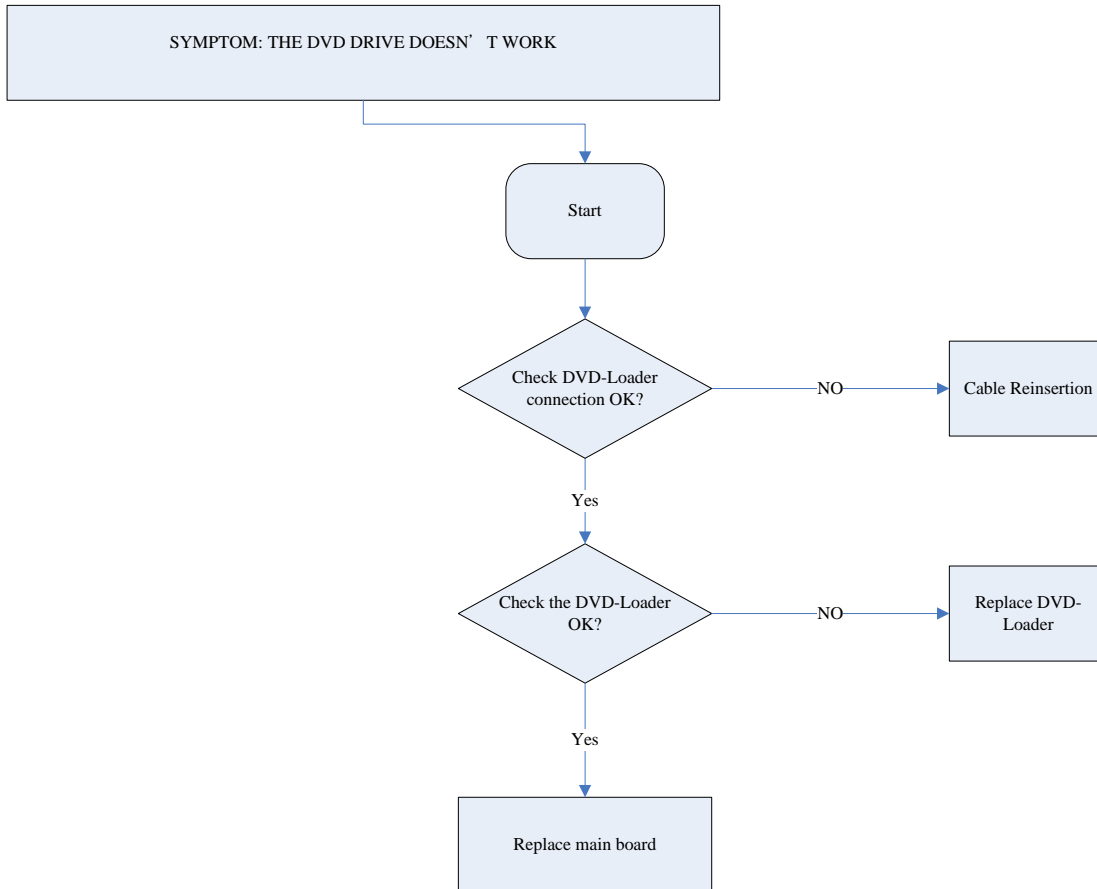
5.0 TROUBLESHOOTING

SYMPTOM: NO IMAGE / NO SOUND



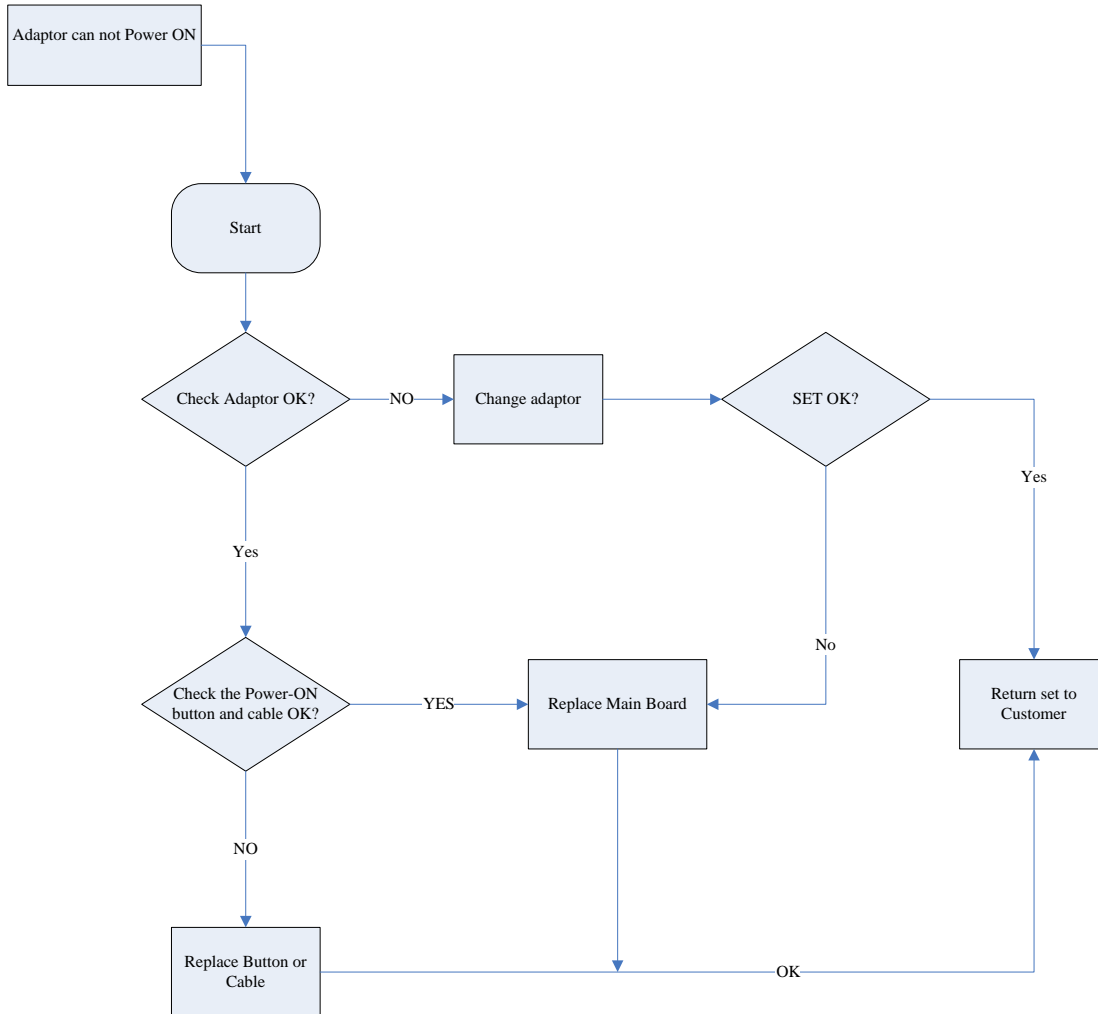
5.0 TROUBLESHOOTING

SYMPTOM: THE DVD DRIVE DOES NOT WORK



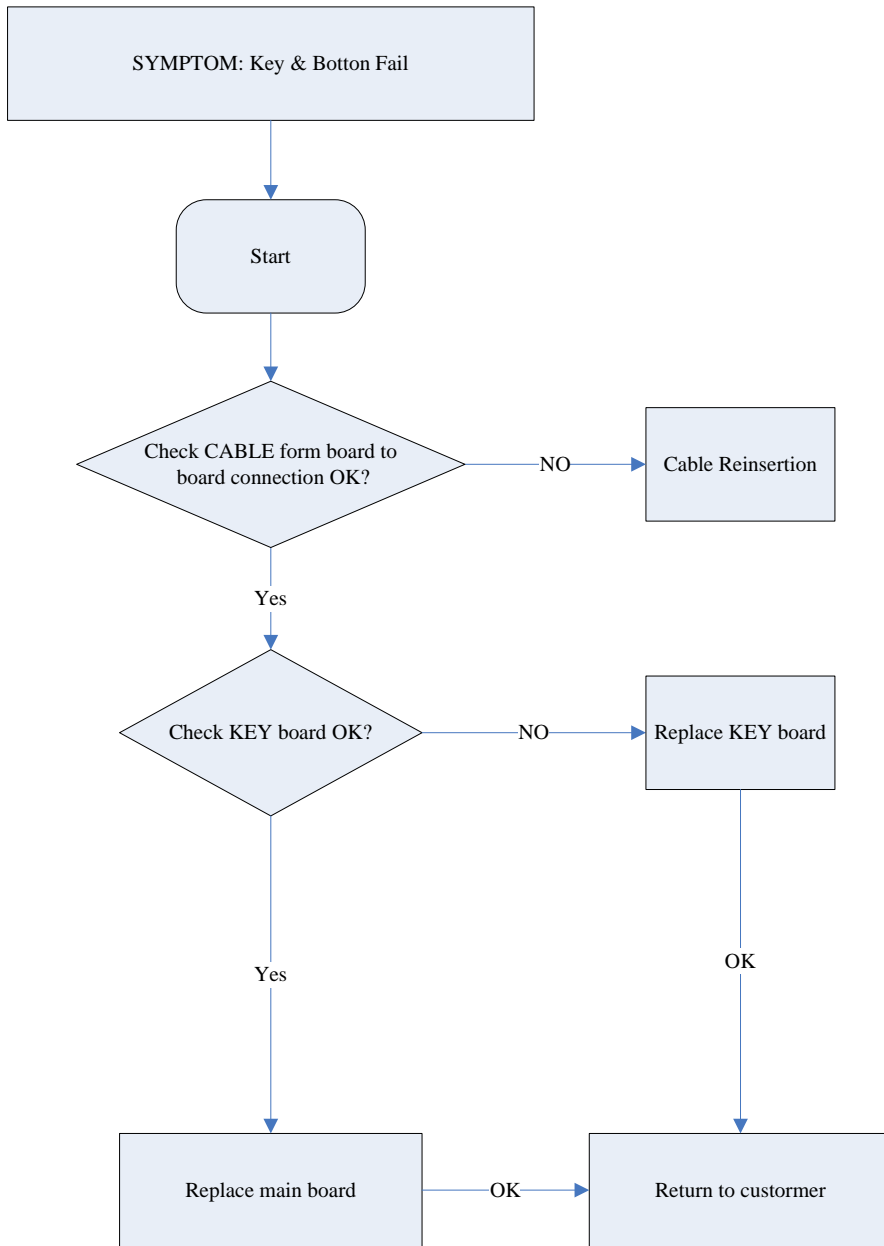
5.0 TROUBLESHOOTING

SYMPTOM: ADAPTOR CANNOT POWER ON

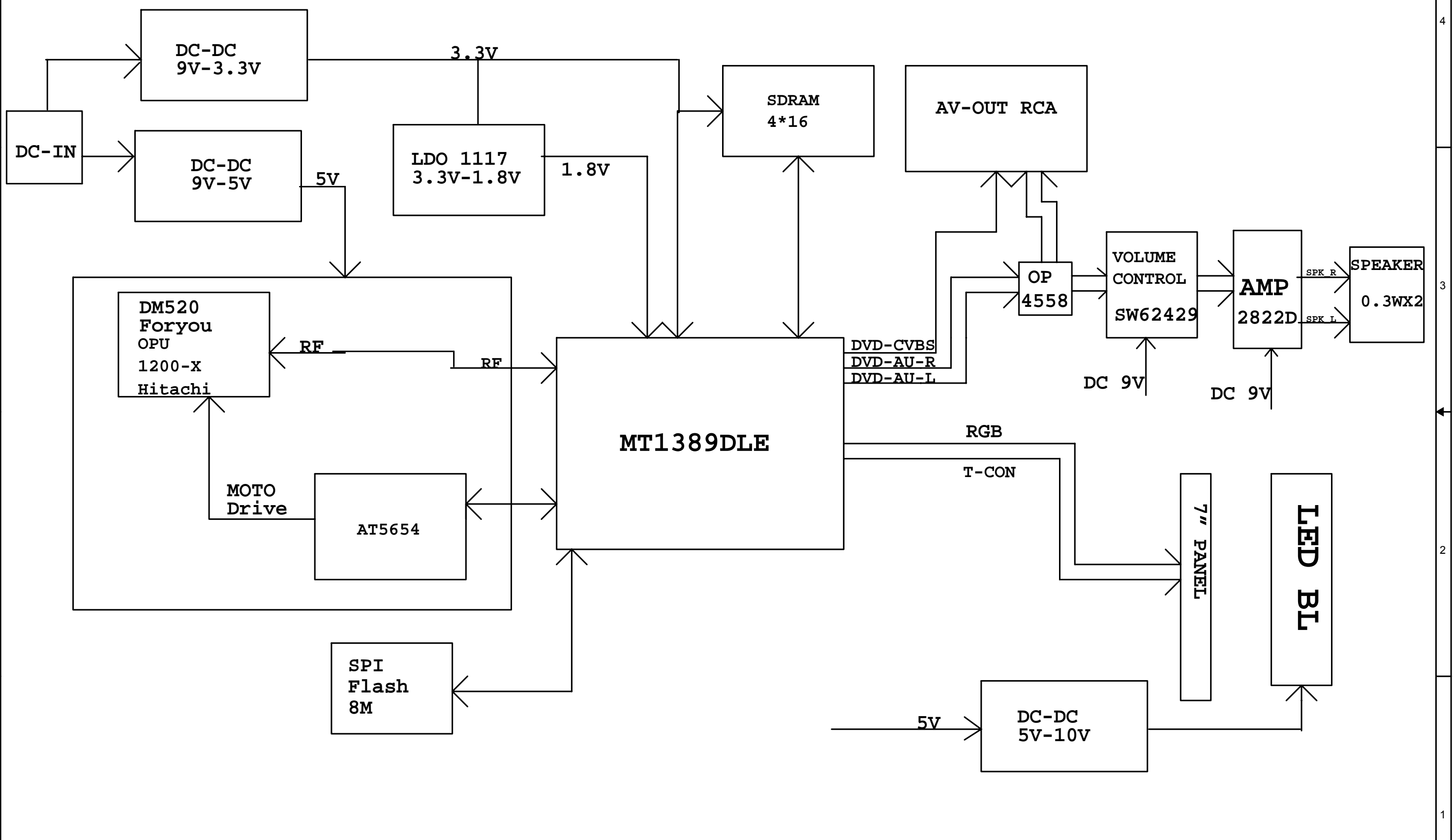


5.0 TROUBLESHOOTING

SYMPTOM: KEY & BOTTON FAILURE

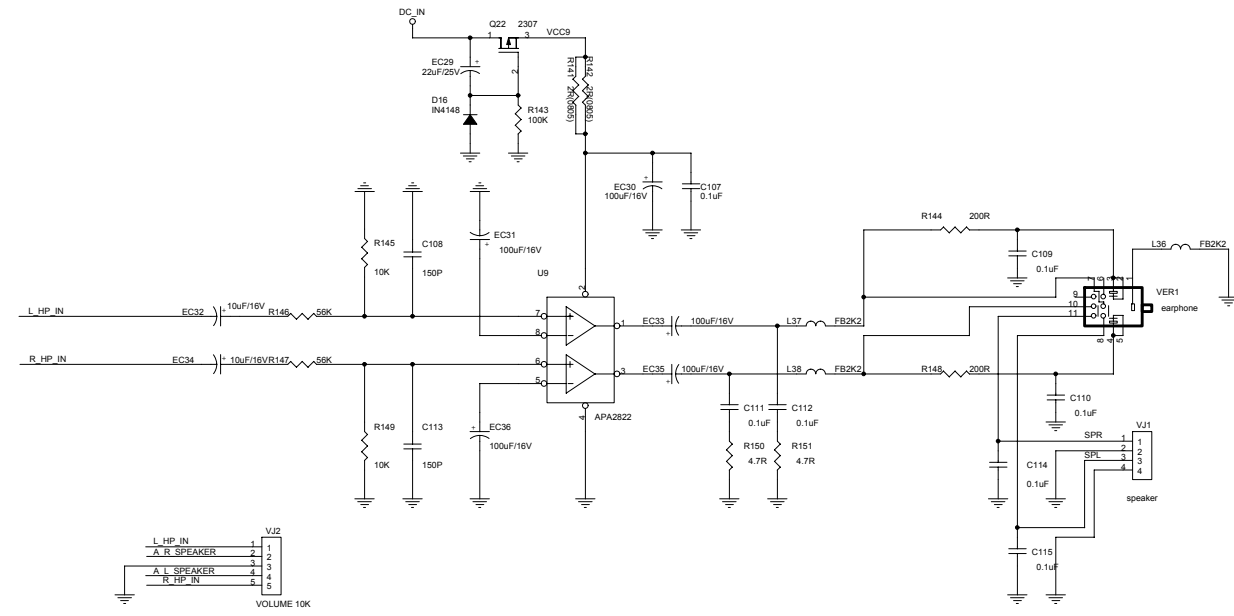
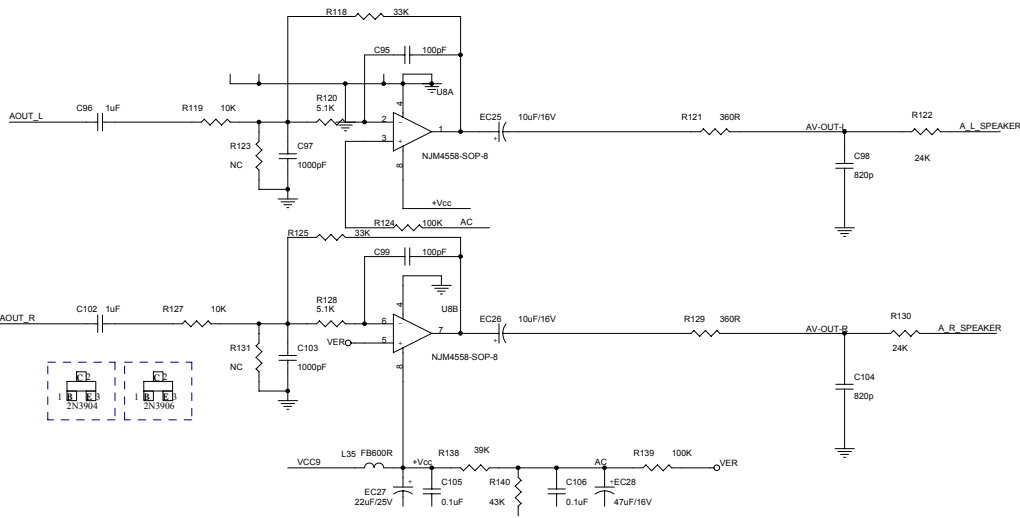
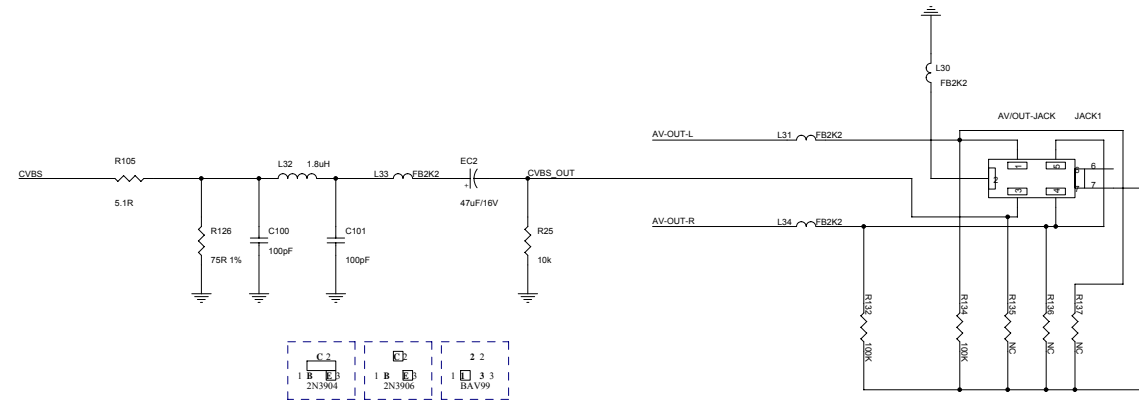


PET741D CIRCUIT BLOCK



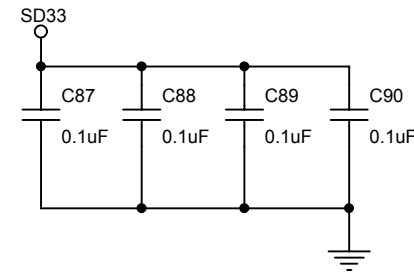
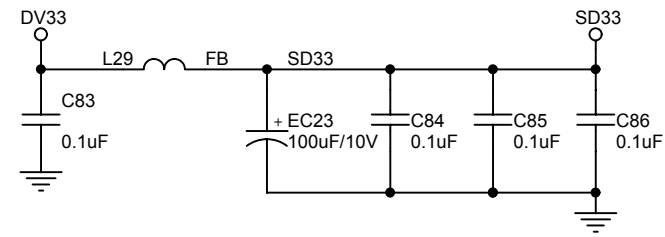
7.0 ELECTRICAL DIAGRAM

CIRCUIT DIAGRAM OF I2S AND AUDIO OUTPUT

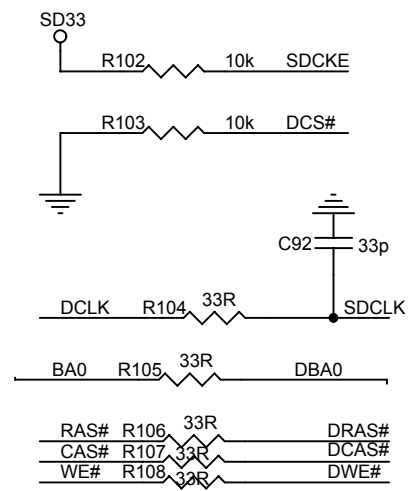
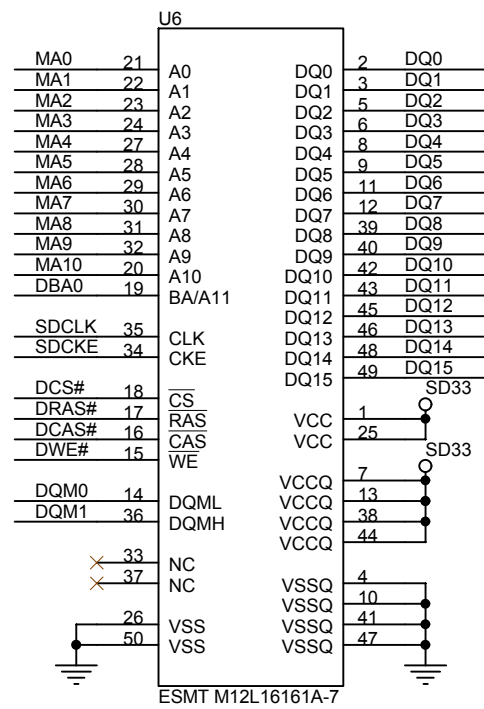


7.0 ELECTRICAL DIAGRAM

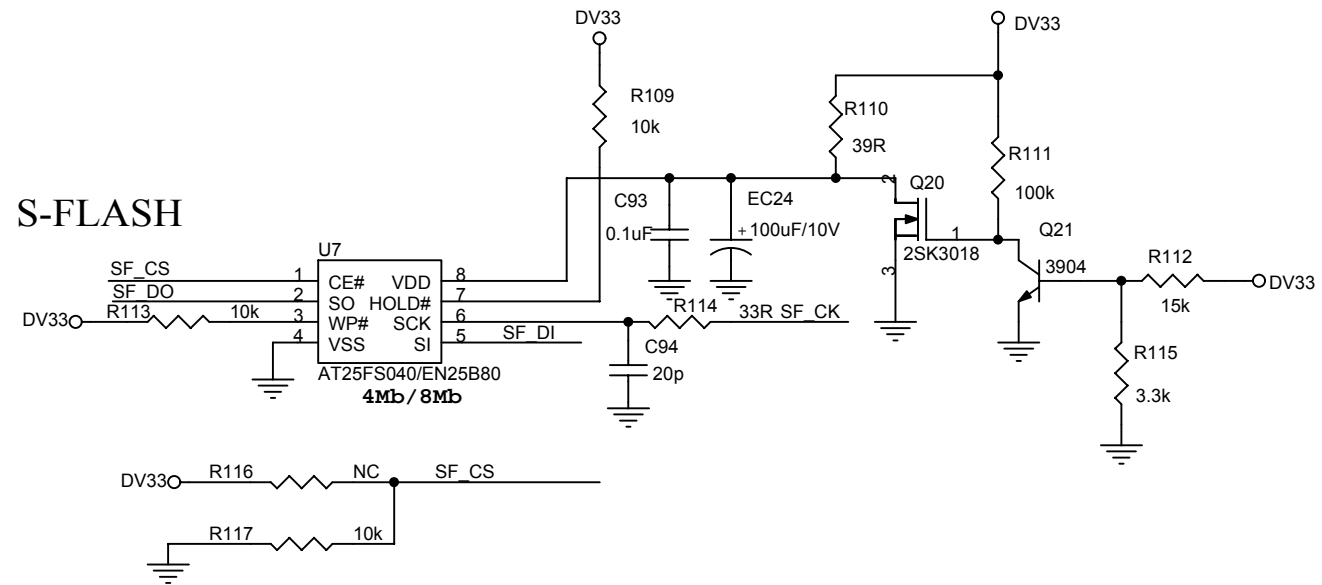
CIRCUIT DIAGRAM-SDRAM & FLASH & EEPROM



SDRAM (Dual Layout)

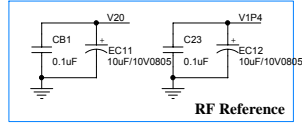


S-FLASH



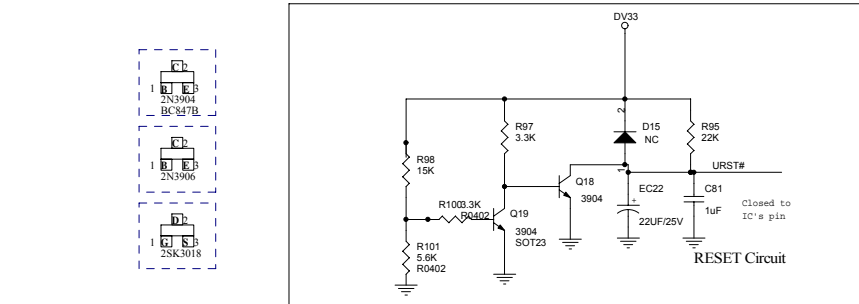
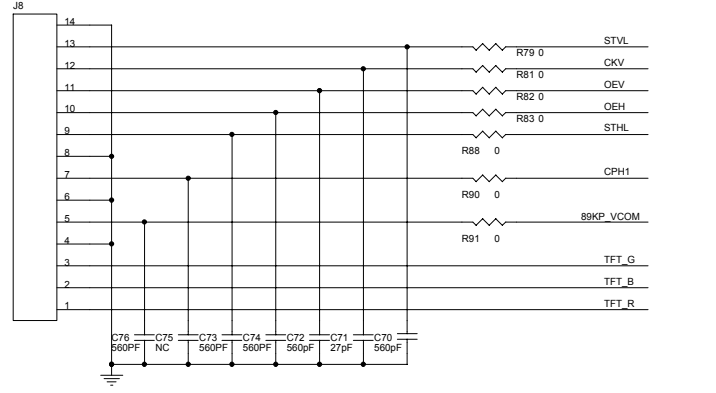
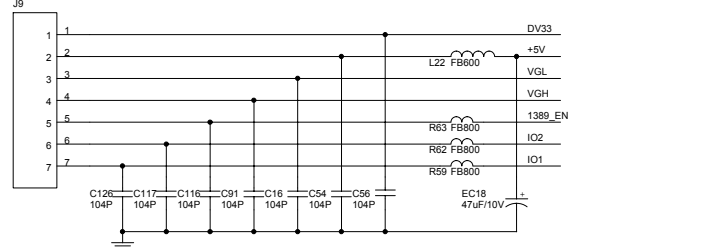
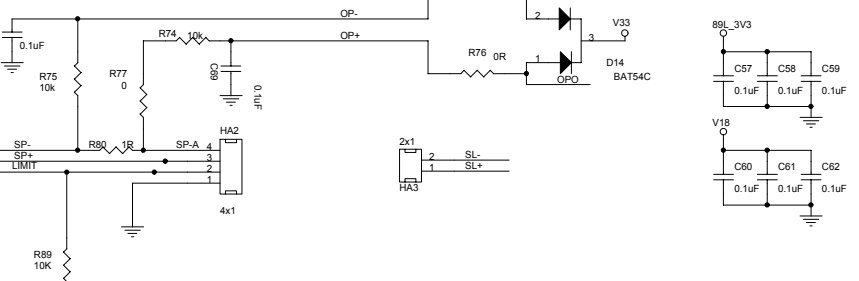
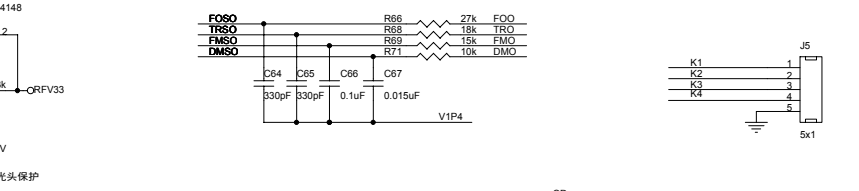
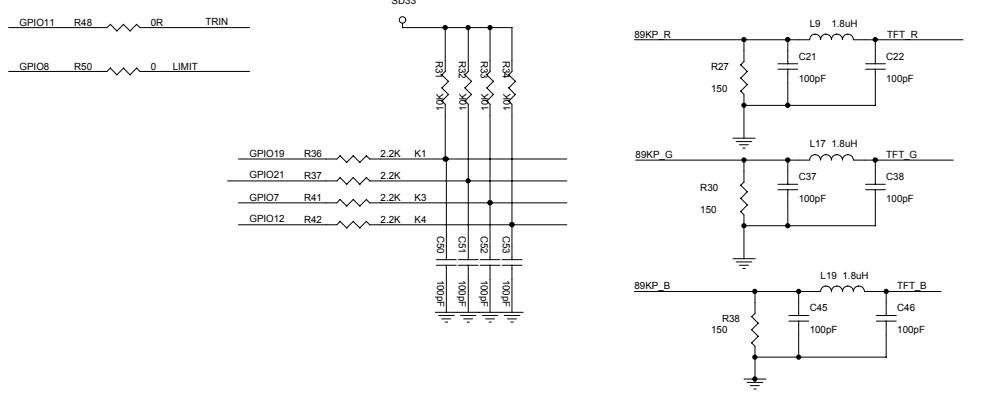
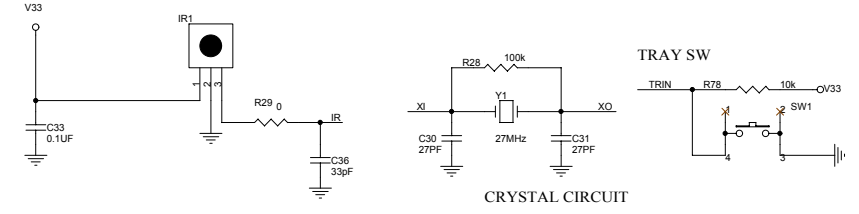
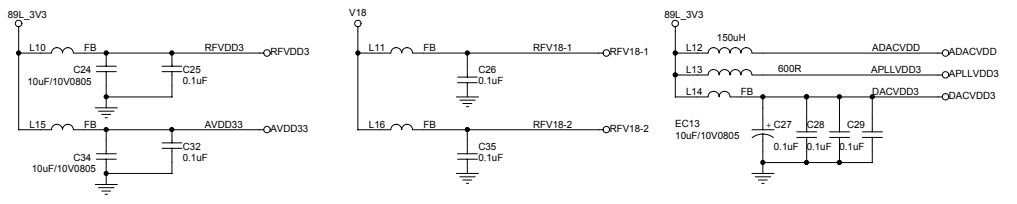
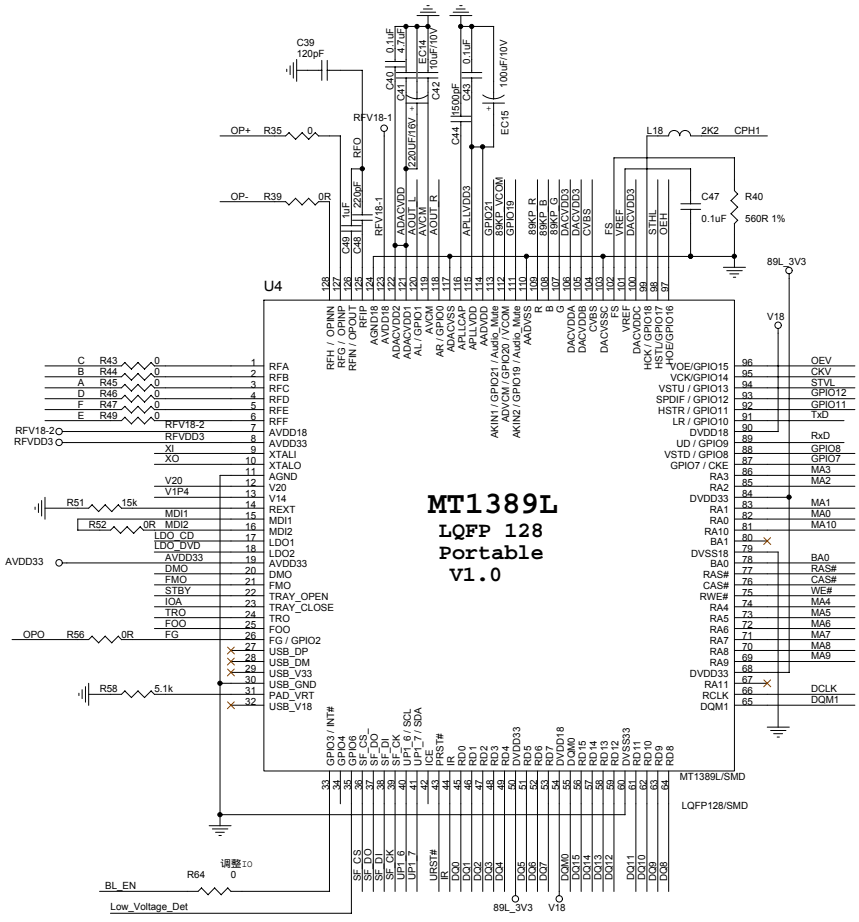
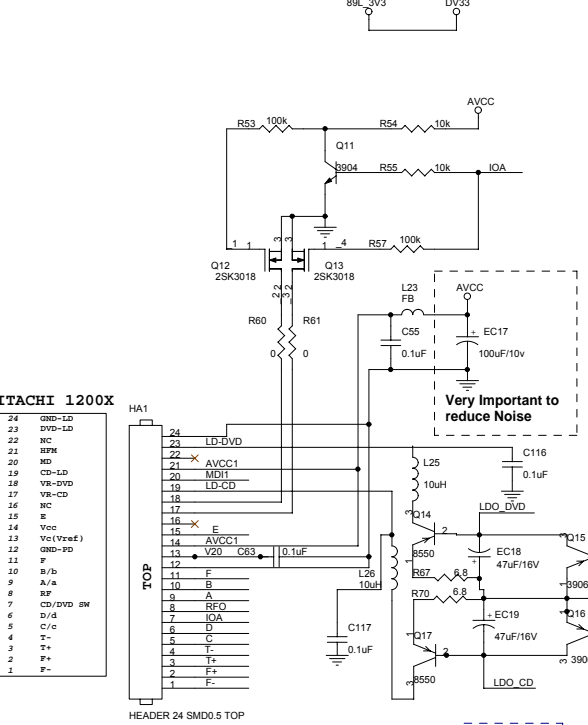
7.0 ELECTRICAL DIAGRAM

CIRCUIT DIAGRAM-MT1389



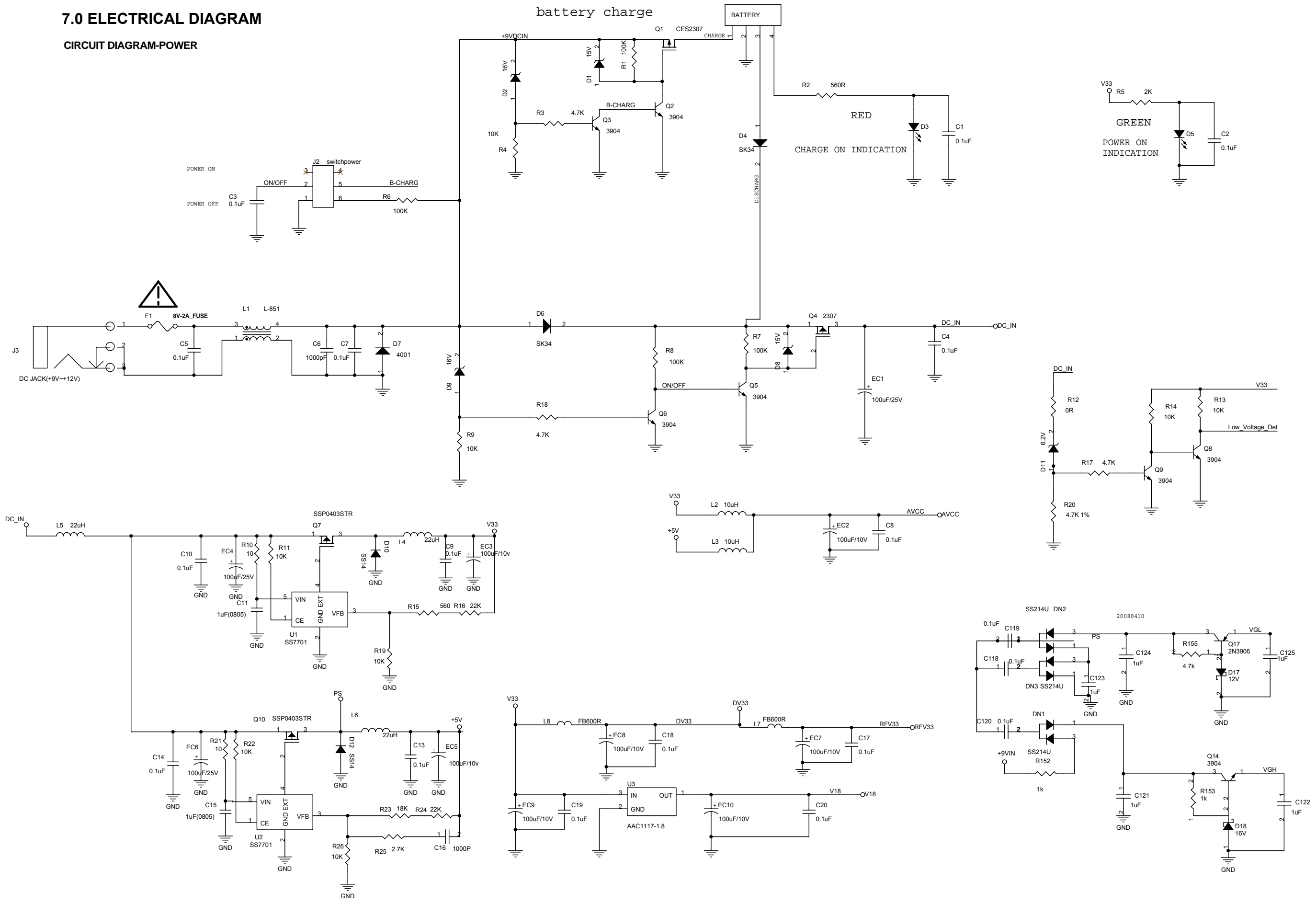
HITACHI 1200X

24	GRD-LD
23	DVD-LD
22	NC
21	NRFR
20	HD
19	CD-LD
18	VR-DVD
17	VR-CD
16	NC
15	NC
14	Vcc
13	Vc(Vrref)
12	GRD-PD
11	F
10	B/lb
9	RF
8	CD/DVD SW
7	D/A
6	C/O
5	T-
4	T+
3	F+
2	F-
1	F+



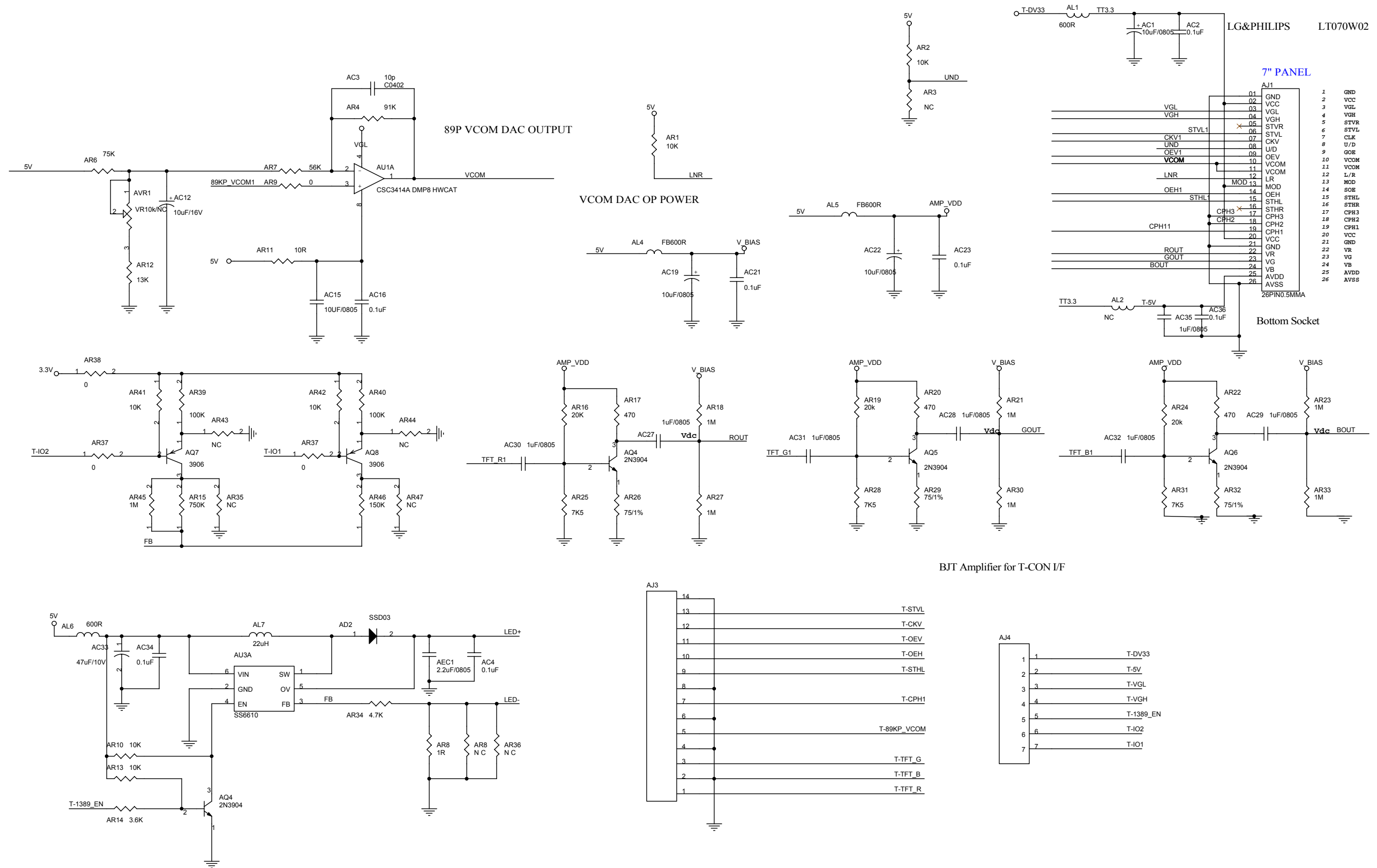
7.0 ELECTRICAL DIAGRAM

CIRCUIT DIAGRAM-POWER



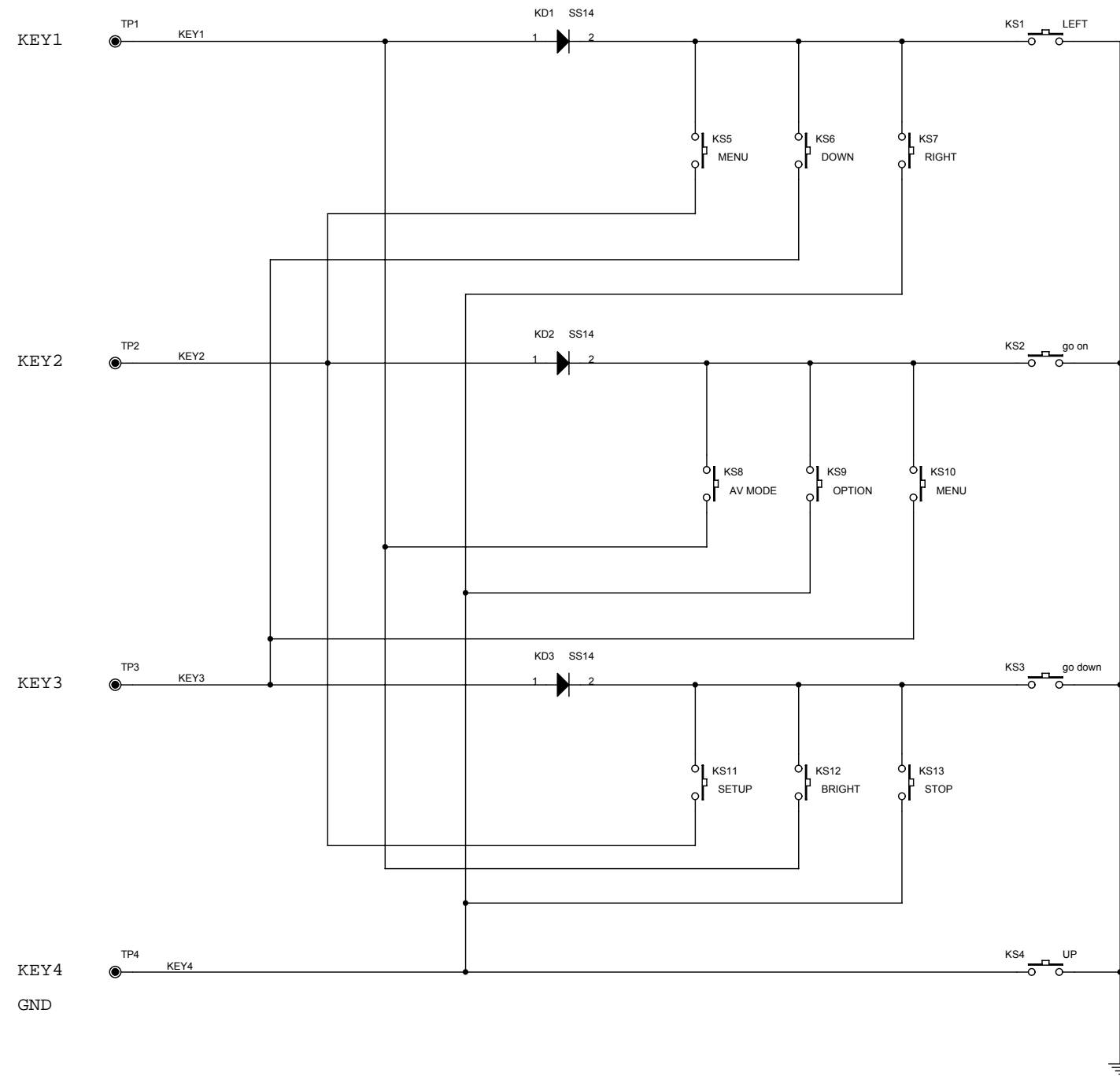
7.0 ELECTRICAL DIAGRAM

CIRCUIT DIAGRAM-DRIVER

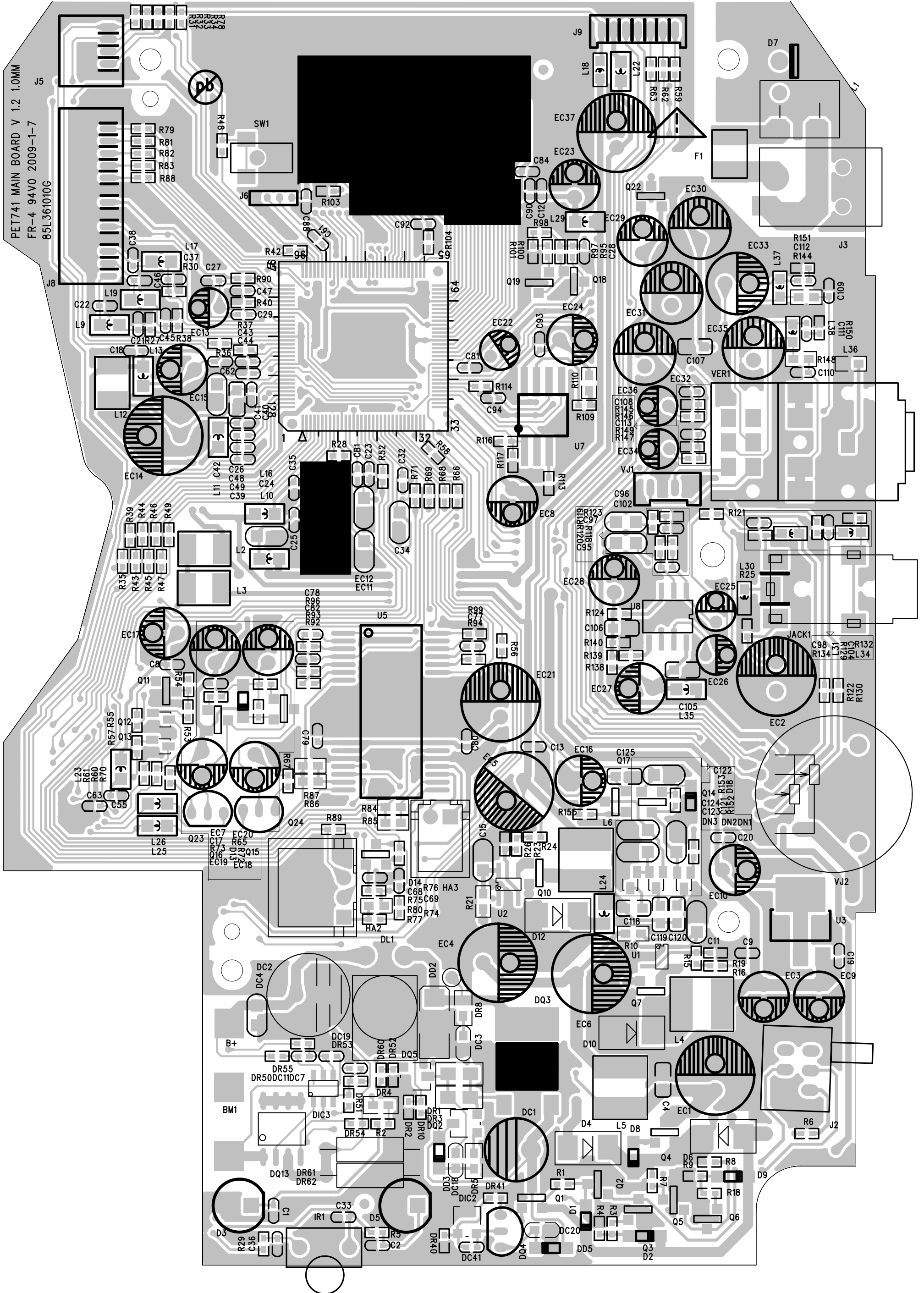


7.0 ELECTRICAL DIAGRAM

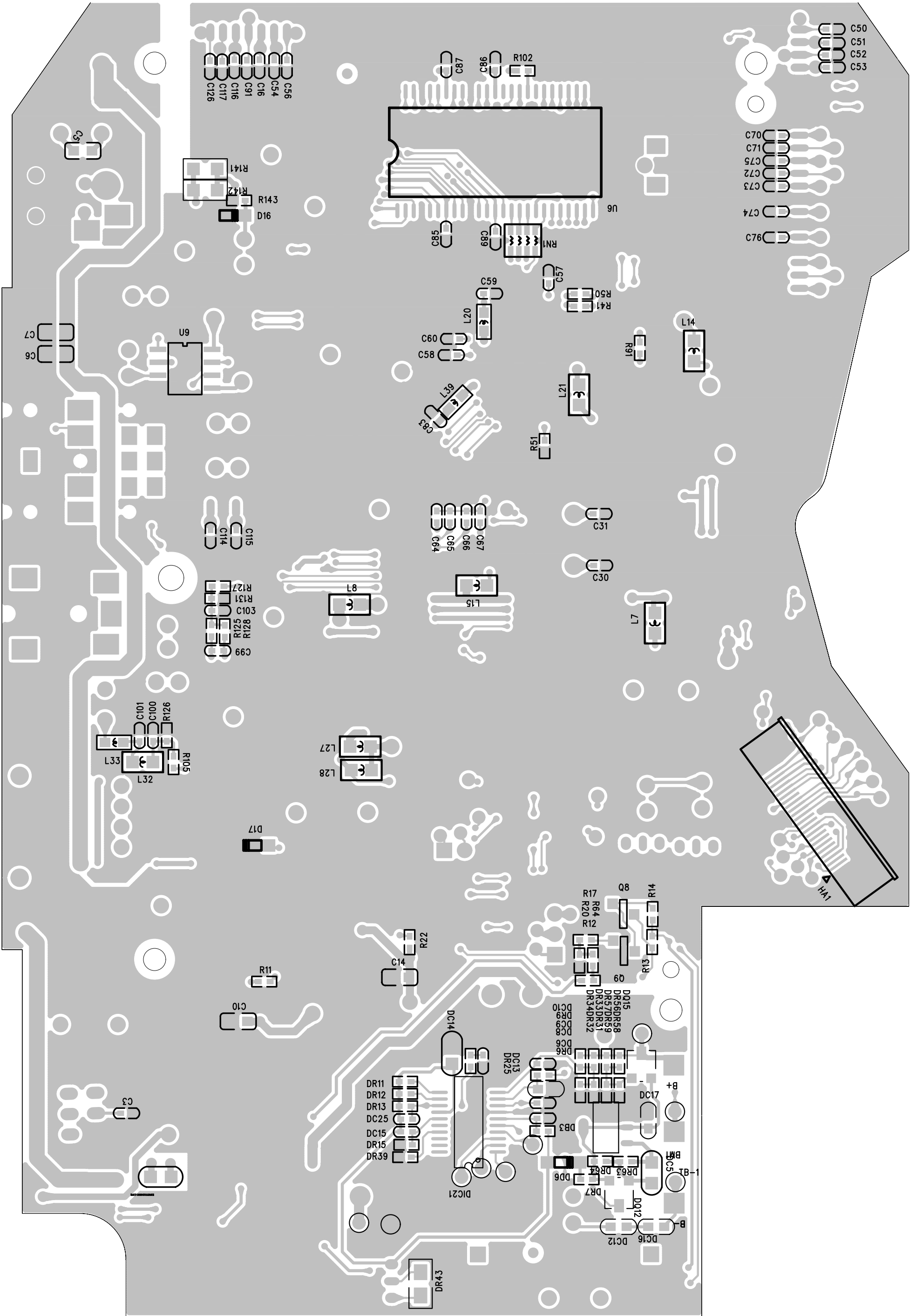
CIRCUIT DIAGRAM-KEY



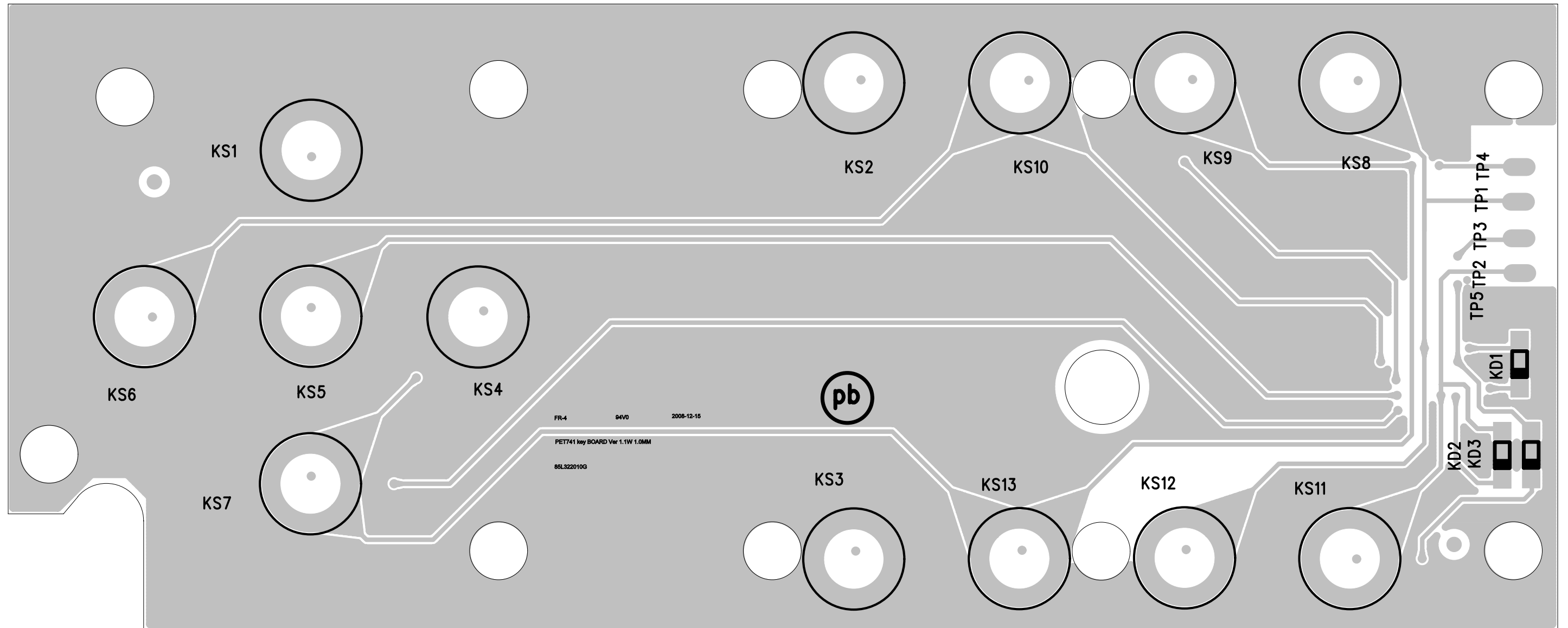
MAIN TOP PCB-COMPONENTI LAYOUT



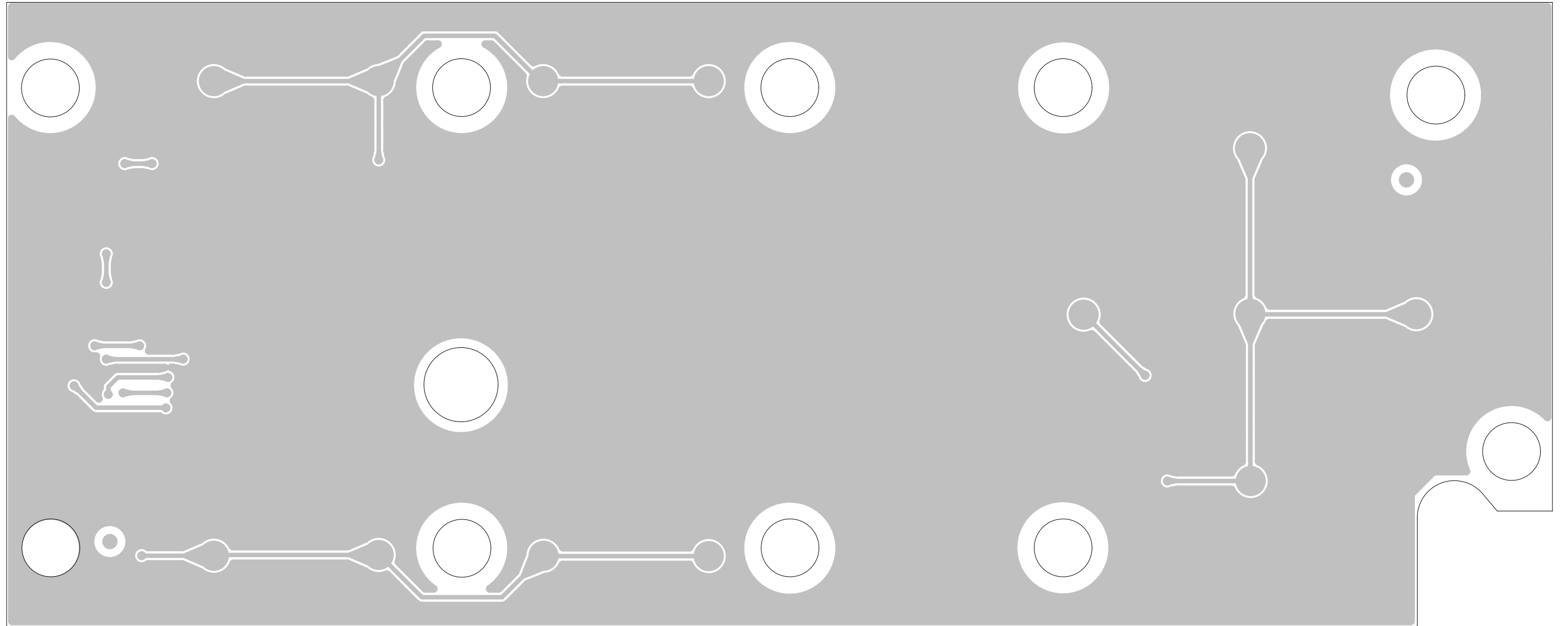
MAIN BOTTOM PCB-COMPONENT LAYOUT



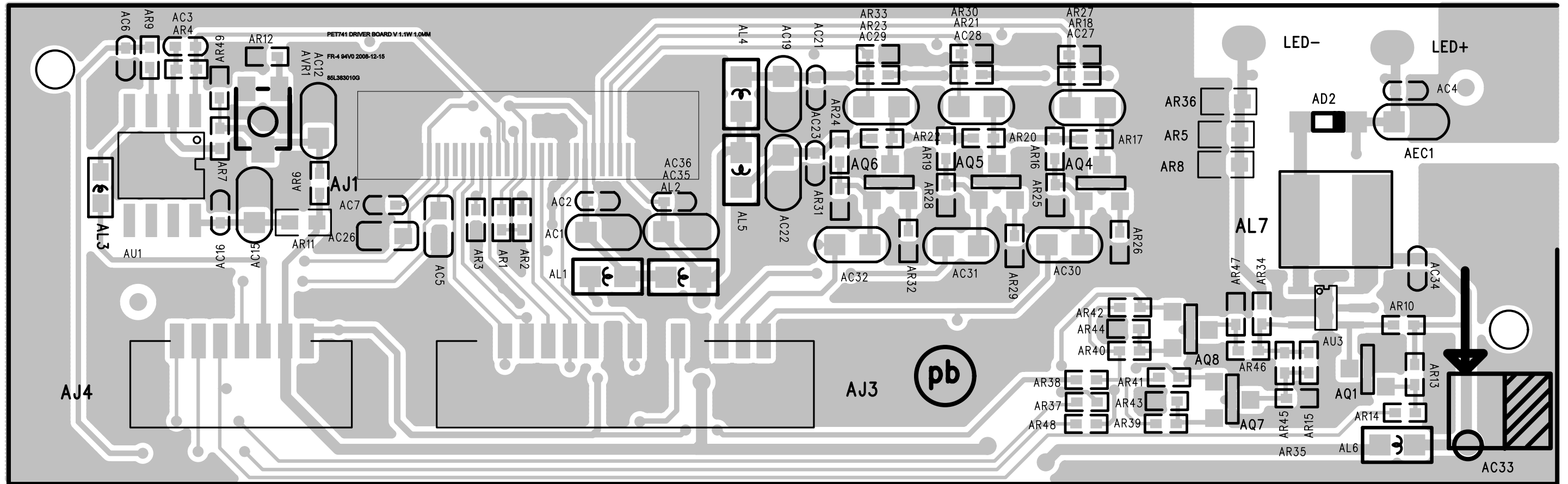
KEY TOP PCB-COMPONENT LAYOUT



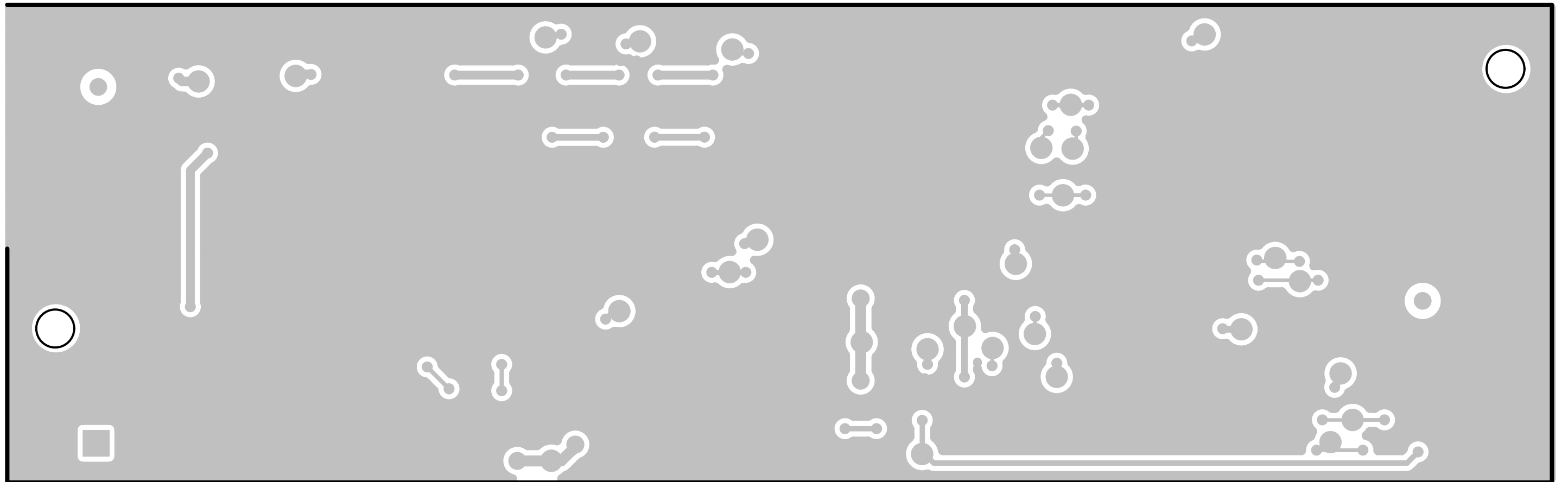
KEY BOTTOM PCB-COMPONENT LAYOUT



DRIVER TOP PCB-COMPONENT LAYOUT



DRIVER BOTTOM PCB-COMPONENT LAYOUT



8.0 SERVICE PARTLIST

Electrical Part List:

CTN	Service 12NC	Service Description	Photo	Pos. No.
PET741/37	996510021988	KEY PCBA ASSY PET741		100
PET741/37	996510022113	TFT PCBA ASSY PET741		110
PET741/37	996510022494	MAIN PCBA ASSY PET741		120
PET741/37	996510022493	BAT LI-ION 7.4V/1.5H MCNAIR		130
PET741/37	996510022112	7" PANEL ASSY FOR PET741		200
PET741/37	996510007686	DVD LOADER 1200X		210

8.0 SERVICE PARTLIST

Mechanical Part List:

CTN	Service 12NC	Service Description	Photo	Pos. No.
PET741/37	996510021998	TOP FRAME PET741		300
PET741/37	996510022037	DVD DOOR PET741D		320
PET741/37	996510022035	MIDDLE FRAME PET741D		330
PET741/37	996510022002	BOTTOM HOUSING PET741D		340
PET741/37	996510021994	PLAY KEY 1 (SET UP)		350
PET741/37	996510021992	PLAY KEY 2 (LOCK)		360
PET741/37	996510021993	PLAY KEY 3 (STOP)		370
PET741/37	996510021989	PLAY KEY 4 (BD/FD)		380




8.0 SERVICE PARTLIST

Mechanical Part List:

CTN	Service 12NC	Service Description	Photo	Pos. No.
PET741/37	996510022001	KEY OK PET741		390
PET741/37	996510022006	KEY SELECT PET741		391
PET741/37	996510021991	OPEN KEY PET741		392
PET741/37	996510021999	POWER KNOB PET741 WHITE		393
PET741/37	996510022008	LENS PET741D		394
PET741/37	996510022356	DISPLAY FRAME & SPK PET741		395
PET741/37	996510002384	FFC 24P/0.5MM L130MM		400
PET741/37	996510022005	HINGE LIFT TURN PET741		440

8.0 SERVICE PARTLIST

Accessories Part List:

CTN	Service 12NC	Service Description	Photo	Pos. No.
PET741/37	996510010992	ADAPTER 9.5V/1A - /37		ADP
PET741/37	996510004975	AV CABLE		AVCABLE
PET741/37	996510021031	CAR ADAPTER		CARADP

9.0 REVISION LIST

Version 1.0

- Initial release PET741/37