

Service Service **Service**



Service Manual

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1.0 TECHNICAL SPECIFICATION

General

Dimensions (W x H x D):	199 x 164.7 x 30.8 mm
Bear Unit Weight:	0.82kg
Power supply:	
Supply voltage	AC 100~240V (adapter)
Supply Power consumption	13.5W
Operating Temp & RH	0~ 50degC / 40-90% RH
Audio System	
Output voltage 1kHz:	2V +/-0.2V
THD 20-20kHz (%):	≤1%
Dynamic range 1kHz	>/=80dB
Signal/Noise ratio:	>/=85dB
Frequency response (20-20kHz):	+/-1dB
Channel Separation 1kHz	>=80dB
Channel Balance 1kHz	<1dB

Playback disc type:

CD, +/- R/RW,DVD,DVD

+/-R/RW

DVD, VCD, DivX, JPEG Image

Video Playback Format:

CD/MP3, DVD,WMA

Disc Diameter

8cm/12cm

Pixel specification

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

Current consumption

DC Supply	DC6.3V-15.5V
Standby Power off	<0.45W
Battery	
Charge Voltage	8.5V
Capacity	3500mA
Battery playtime	
Charging time	8h
Standby Power off	<0.45W

Headphone out (headphone output load 2x16 ohm)

Maximum output power:	≥1.5mW
Frequency response:	+/-1dB
SNR (A-wght):	≥70dB
THD (w/16 ohm loading):	1.0%
Left-Right Channel Separation:	≥55dB
Left-Right Channel Balance:	≤ 2.0dB

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. Press the remote button in the sequence as 9 -> 6 -> 5 -> 3
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

Procedure for SW upgrade

1. Download the “PHILIPS.AP” file from the Philips support site
2. Unzip the file, Drag-n-drop to SD card drive
3. Power on PET744 with AC/DC adapter
4. Insert the SD card drive to SD card port of the main set
5. The set will detect the upgraded SW
6. Press “OK” to confirm and proceed
7. 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. Power ON the DVD player and no insert DISC
2. Press the remote button in the sequence as 3->3->0->8,then a menu will be show XX-YY YY-MM-DD

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.

ESD



NL WAARSCHUWING

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

F ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD). Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation. Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfiler le bracelet serti d'une résistance de sécurité. Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

D WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD). Unsorgfältige Behandlung im Reparaturfall 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.

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 utilisées les pièces de rechange identiques à celles spécifiées.

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 ohittaaessa olet alttiina näkymättömälle laserisäteilylle. Älä katso sääteenseen!

DK Advarse !

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

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.

"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

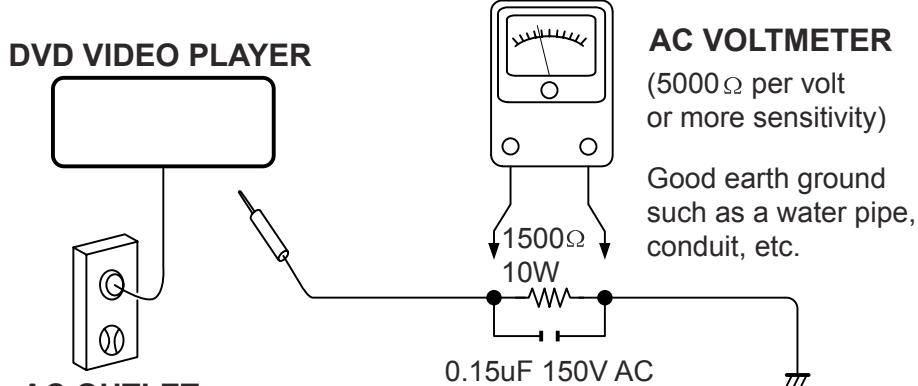
SAFTY PRECAUTIONS

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 $0.15\mu F$ 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.

READING SHOULD NOT EXCEED 0.3V



Test all exposed metal.
Voltmeter Hook-up for Leakage Current Check



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.

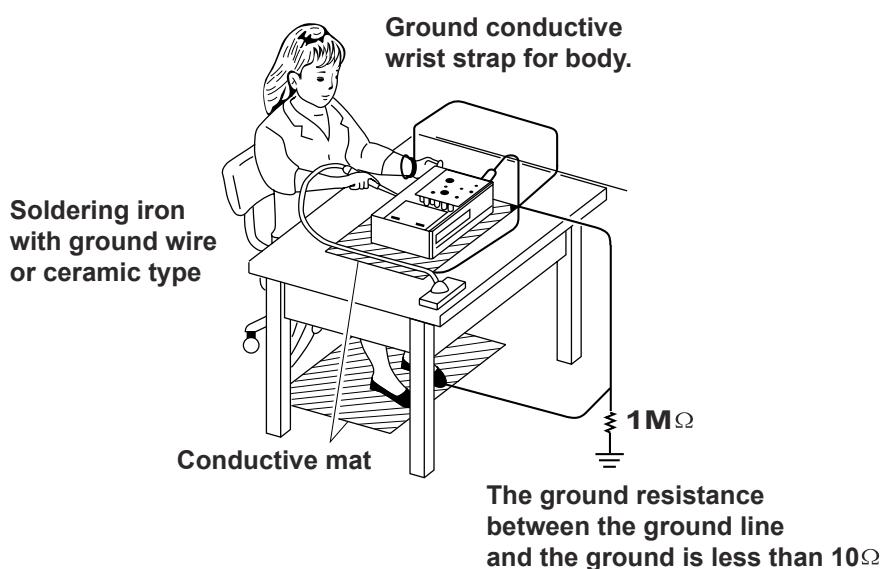
When the power supply is being turned on, you may not remove this laser cautions label. If it removes, radiation of laser may be received.

PREPARATION OF SERVICING

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

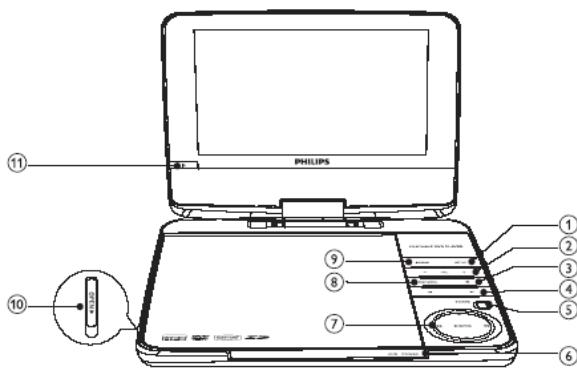
Although it operates properly after replacement, if it was subject to electrostatic discharge during replacement, its life might be shortened. When replacing, use a conductive mat, soldering iron with ground wire,etc. to protect the laser diode from damage by static electricity.

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

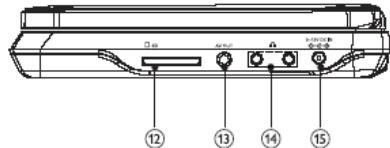


3.0 INSTRUCTION FOR USE

Overview of the main unit

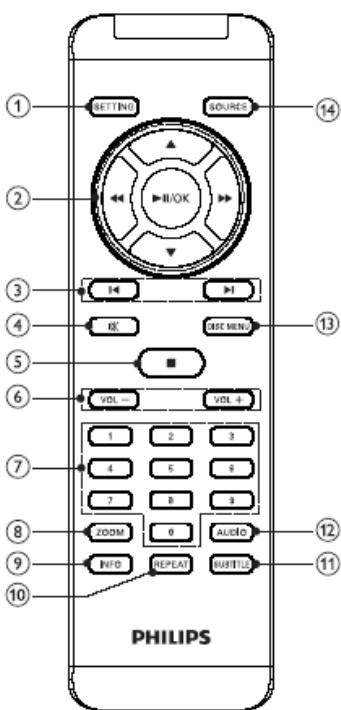


- ① SETUP**
 - Accesses or exits the setup menu.
- ② - VOL +**
 - Increases or decreases volume.
- ③ ■**
 - Stops disc play.
- ④ ▲, ▼, ▲◀, ▼▶**
 - Skips to the previous or next title, chapter, or track.
- ⑤ POWER**
 - Turns on/off DVD player.
- ⑥ CHR/D**
 - Charging indicator/Power indicator
- ⑦ ▲, ▼, ▲◀, ▼▶**
 - Navigates through the menus.
- ◀◀▶▶**
 - Searches backward/forward at different speeds.
- ▶▶OK**
 - Confirms an entry or selection.
 - Starts, pauses or resumes disc play.
- ⑧ 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.
- ⑨ SOURCE**
 - Switches between DVD and SD.
- ⑩ OPEN▶**
 - Opens the disc compartment.
- ⑪ IR**
 - Remote control sensor



- ⑫ SD**
 - SD card slot
- ⑬ AV OUT**
 - Selects video output format to TV system.
- ⑭ ▀**
 - Headphone jack
- ⑮ DC IN**
 - Power supply socket

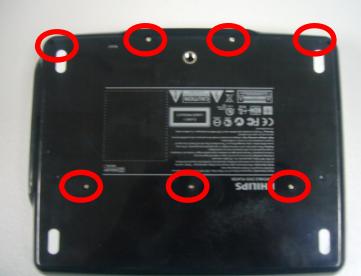
Overview of the remote control

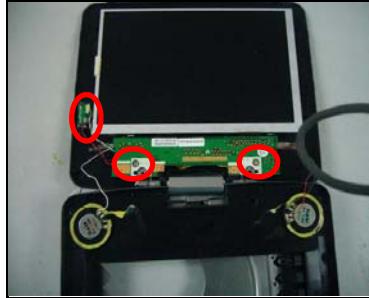


- ① SETTING**
 - Accesses or exits the setup menu.
- ② ▲, ▼, ▲◀, ▼▶**
 - Navigates through the menus.
- ◀◀▶▶**
 - Searches backward/forward at different speeds.
 - Rotates pictures anti-clockwise/clockwise.
- ▶▶OK**
 - Confirms an entry or selection.
 - Starts, pauses or resumes disc play.
- ③ ▲, ▼**
 - Skips to the previous or next title, chapter, or track.
- ④ ▯**
 - Mutes or restores audio output.
- ⑤ ■**
 - Stops disc play.
- ⑥ - VOL +**
 - Increases or decreases volume.
- ⑦ 0-9**
 - Numeric keypad
- ⑧ ZOOM**
 - Zooms in or out.
- ⑨ INFO**
 - Displays play information.
- ⑩ REPEAT**
 - Repeats a chapter/track/title.
- ⑪ SUBTITLE**
 - Selects DVD subtitle language.
- ⑫ AUDIO**
 - For DVD, selects an audio language.
 - For VCD, selects an audio mode.
- ⑬ 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.
- ⑭ SOURCE**
 - Switches between DVD and SD.

4.0 MECHANICAL INSTRUCTION

Disassembly Procedure on PET744

	<p>Remove seven screws on back cabinet to separate top cabinet and back cabinet.</p>	screws 7pcs
	<p>Generally open the front cabinet.</p>	
	<p>Remove six screws and disassemble the connecter on the Main board.</p>	screws 6pcs.connecter 5pcs.
	<p>Remove nine screws on the Key board and DVD LOADER.</p>	
	<p>Remove three screws on the Battery and Battery board.</p>	
	<p>Remove the speaker grill and 4pcs screws. .</p>	

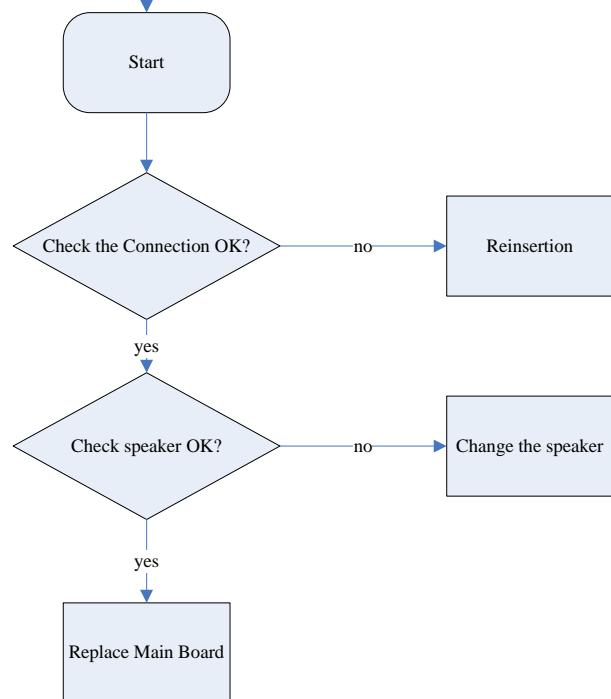
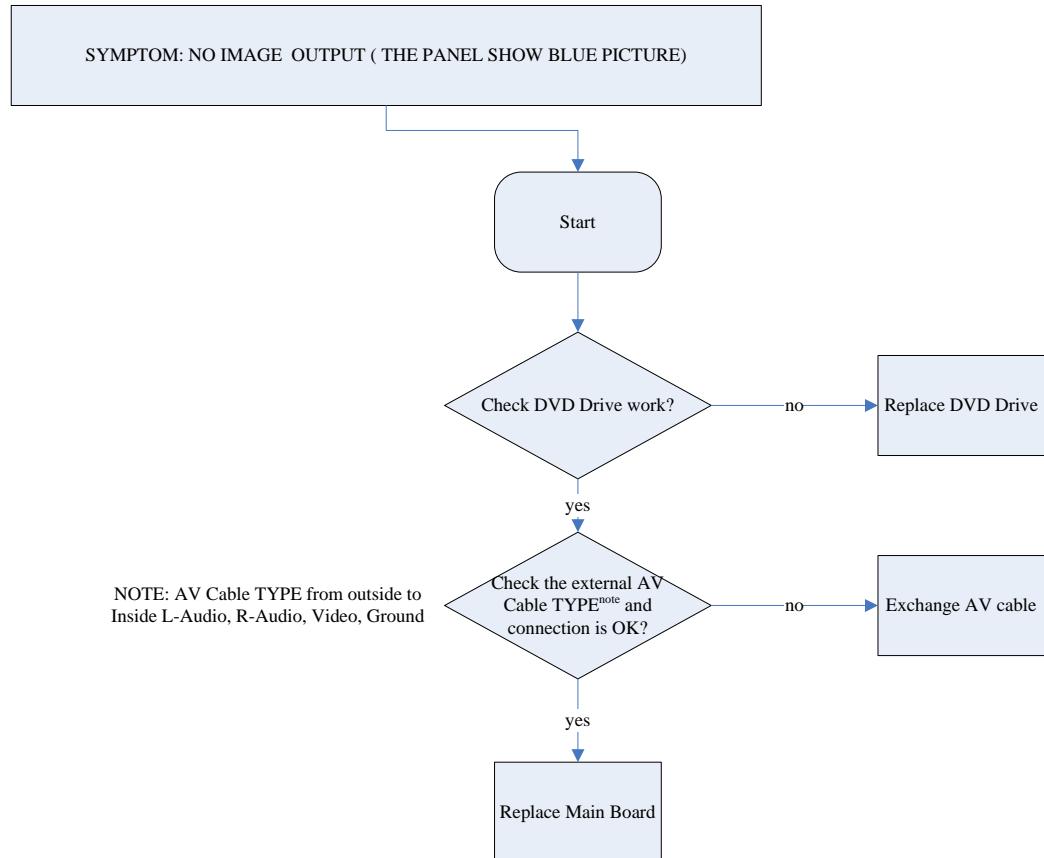


Remove the 2pcs screws on the TFT and IR board.



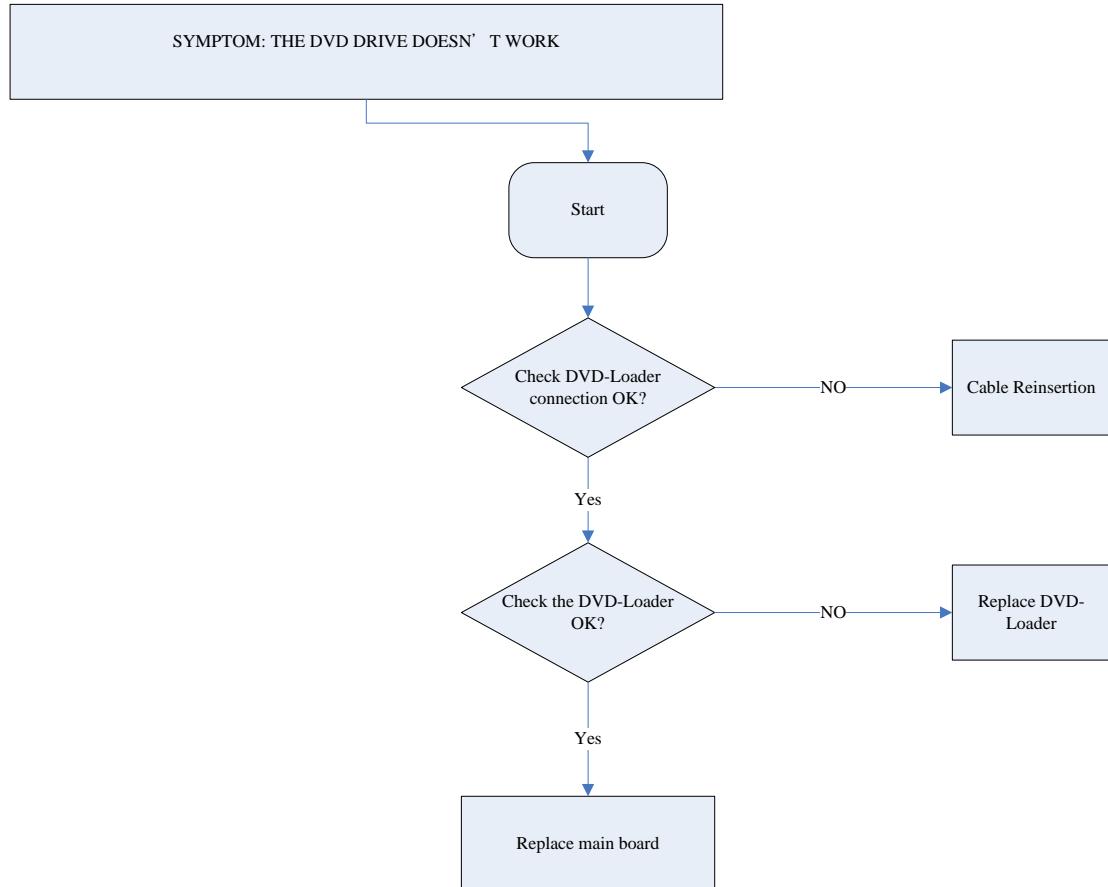
5.0 TROUBLESHOOTING

SYMPTOM: NO IMAGE / NO SOUND



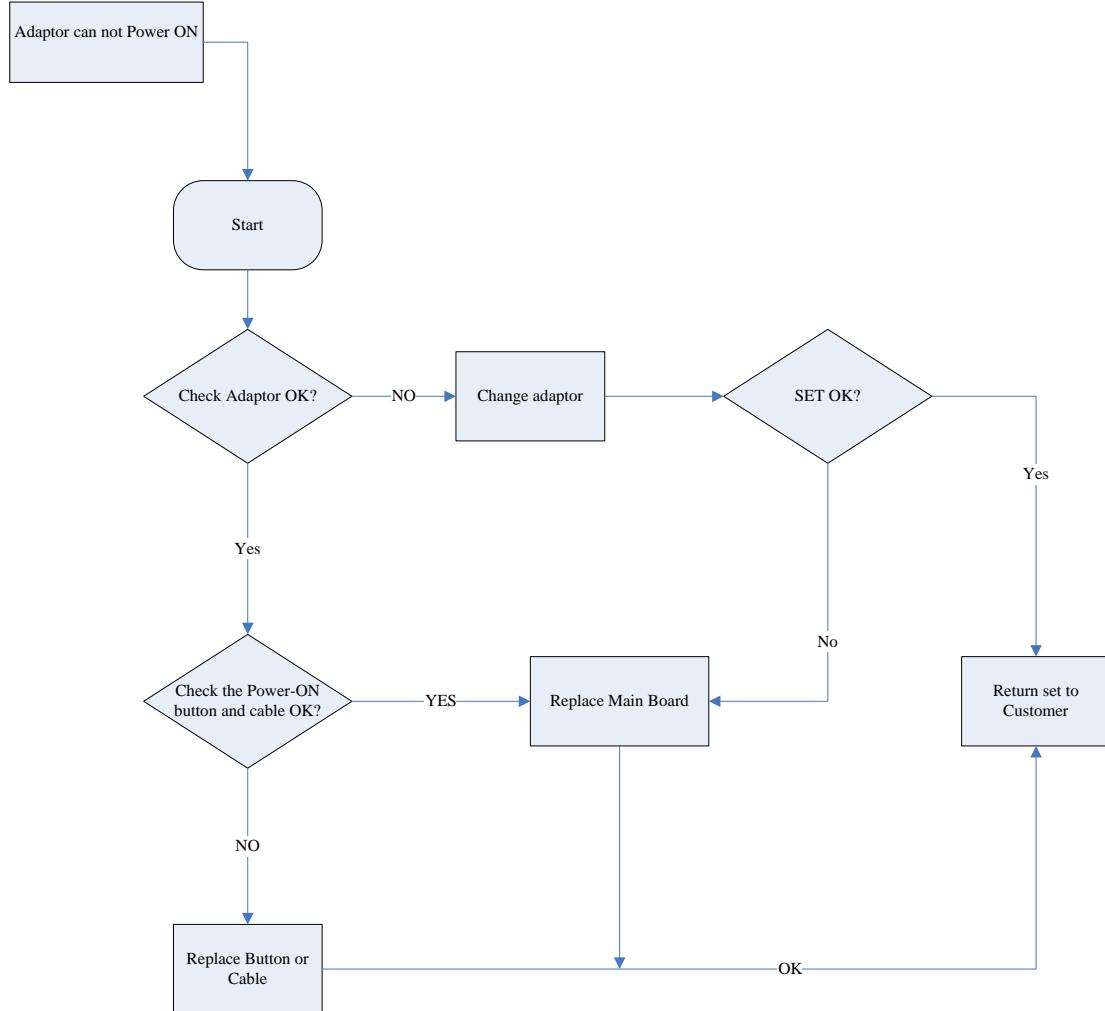
5.0 TROUBLESHOOTING

SYMPTOM: THE DVD DRIVE DOES NOT WORK



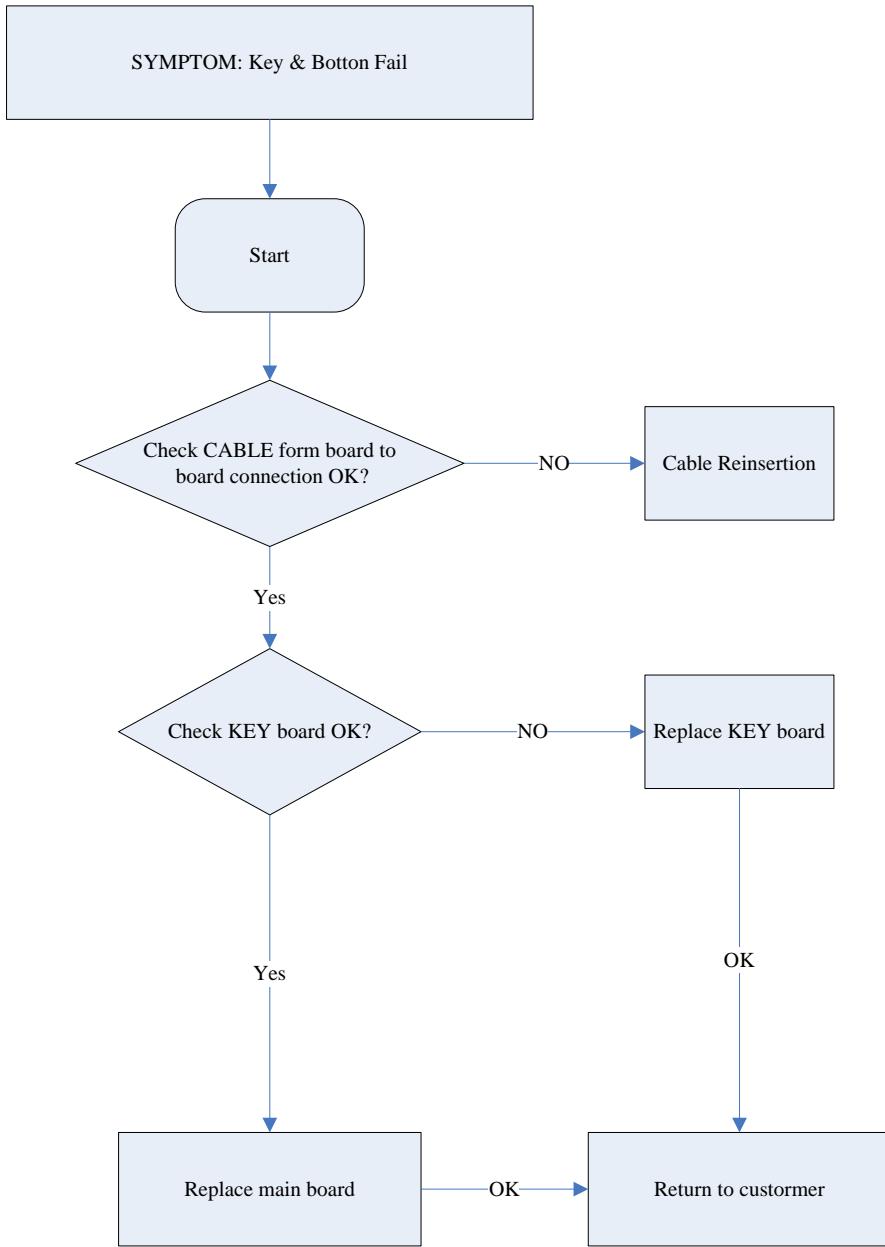
5.0 TROUBLESHOOTING

SYMPTOM: ADAPTOR CANNOT POWER ON

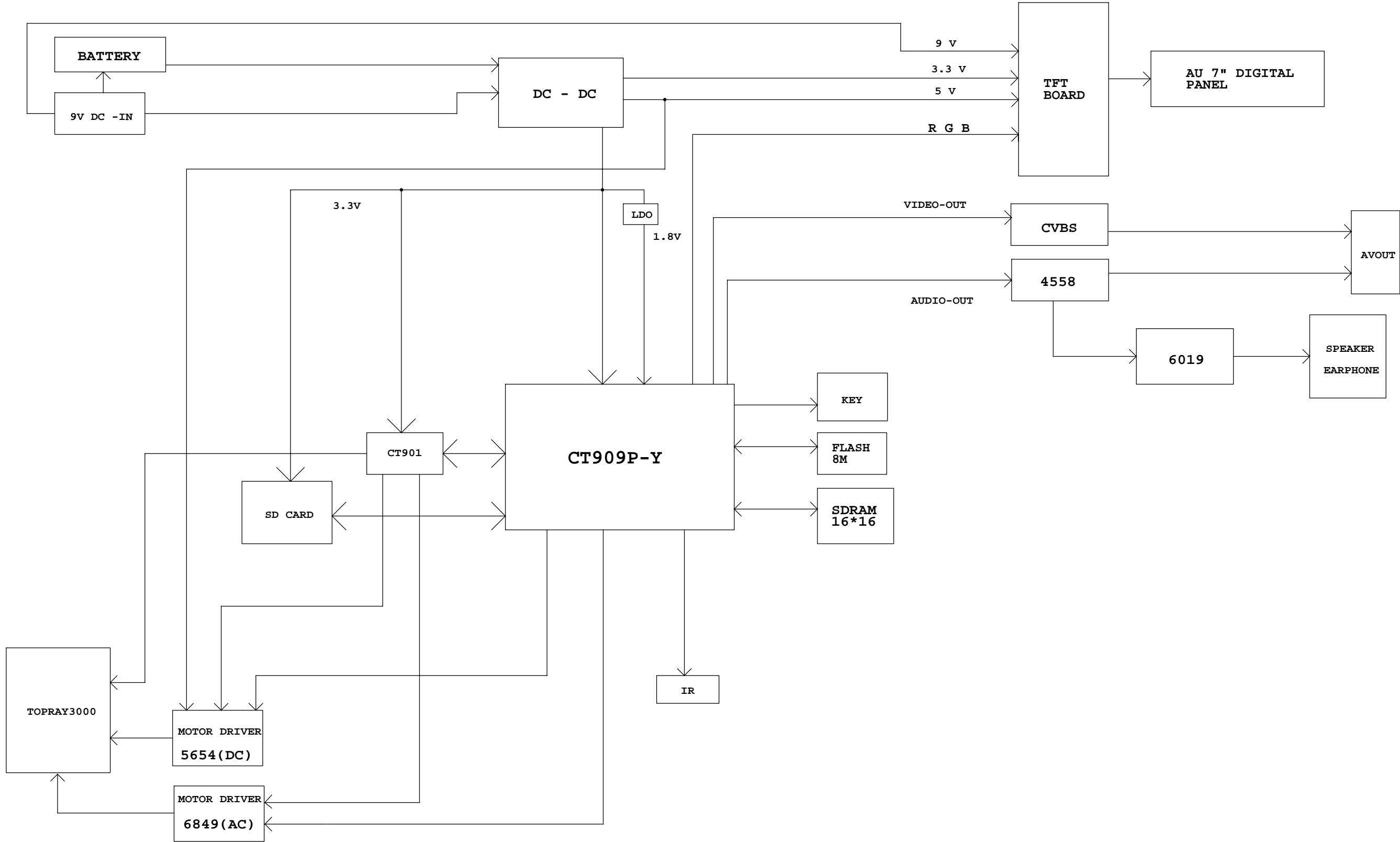


5.0 TROUBLESHOOTING

SYMPTOM: KEY & BOTTON FAILURE

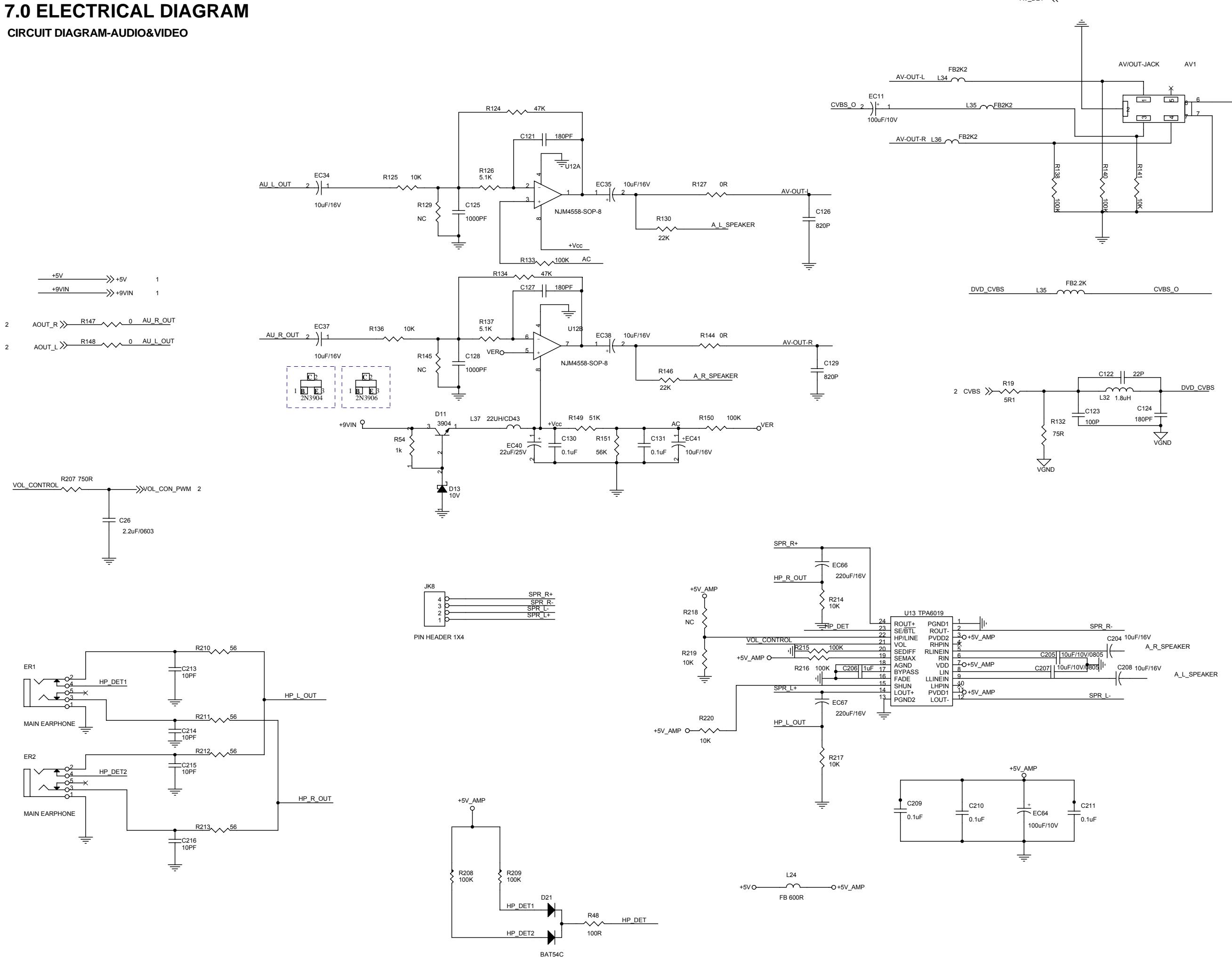


PET744 BLOCK DIAGRAM



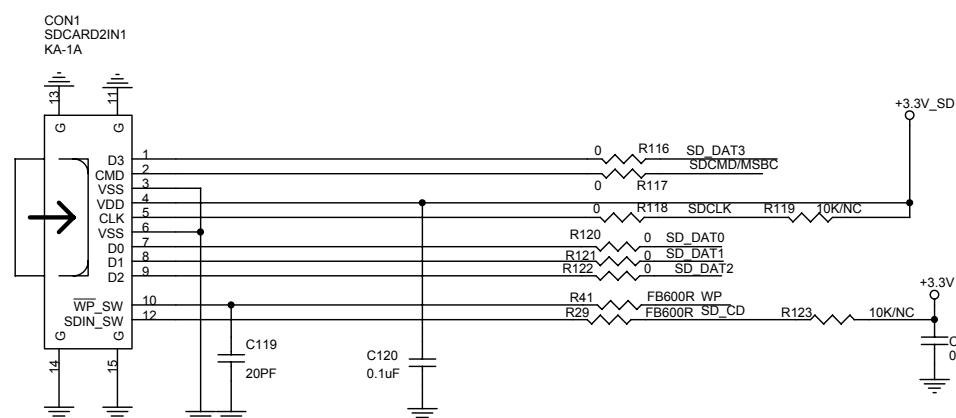
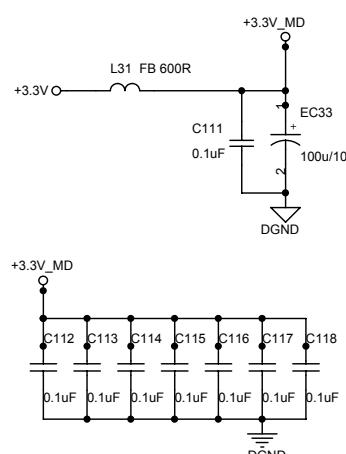
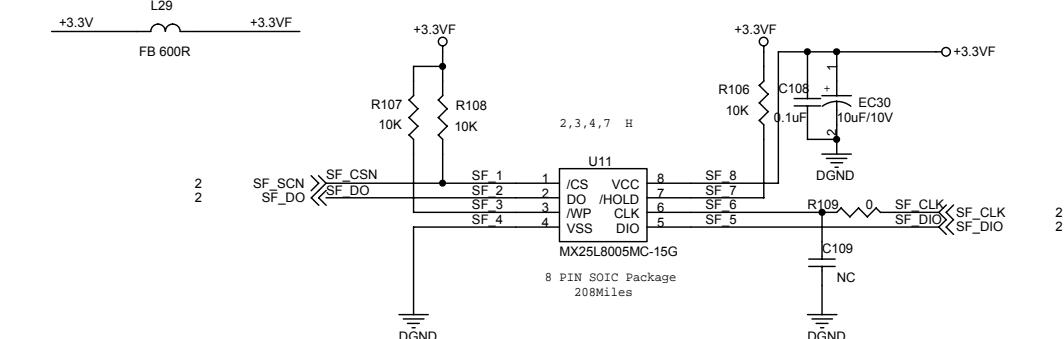
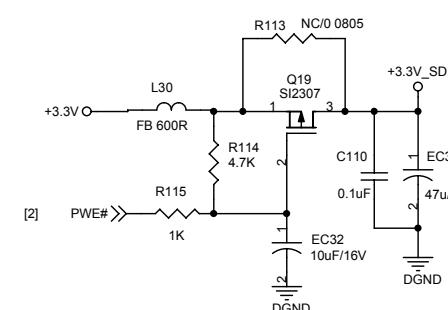
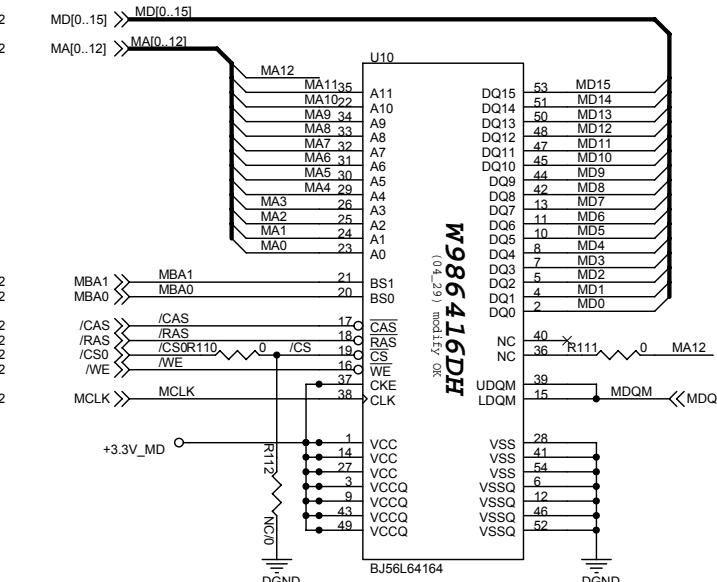
7.0 ELECTRICAL DIAGRAM

CIRCUIT DIAGRAM-AUDIO&VIDEO



7.0 ELECTRICAL DIAGRAM

CIRCUIT DIAGRAM-MEMORY

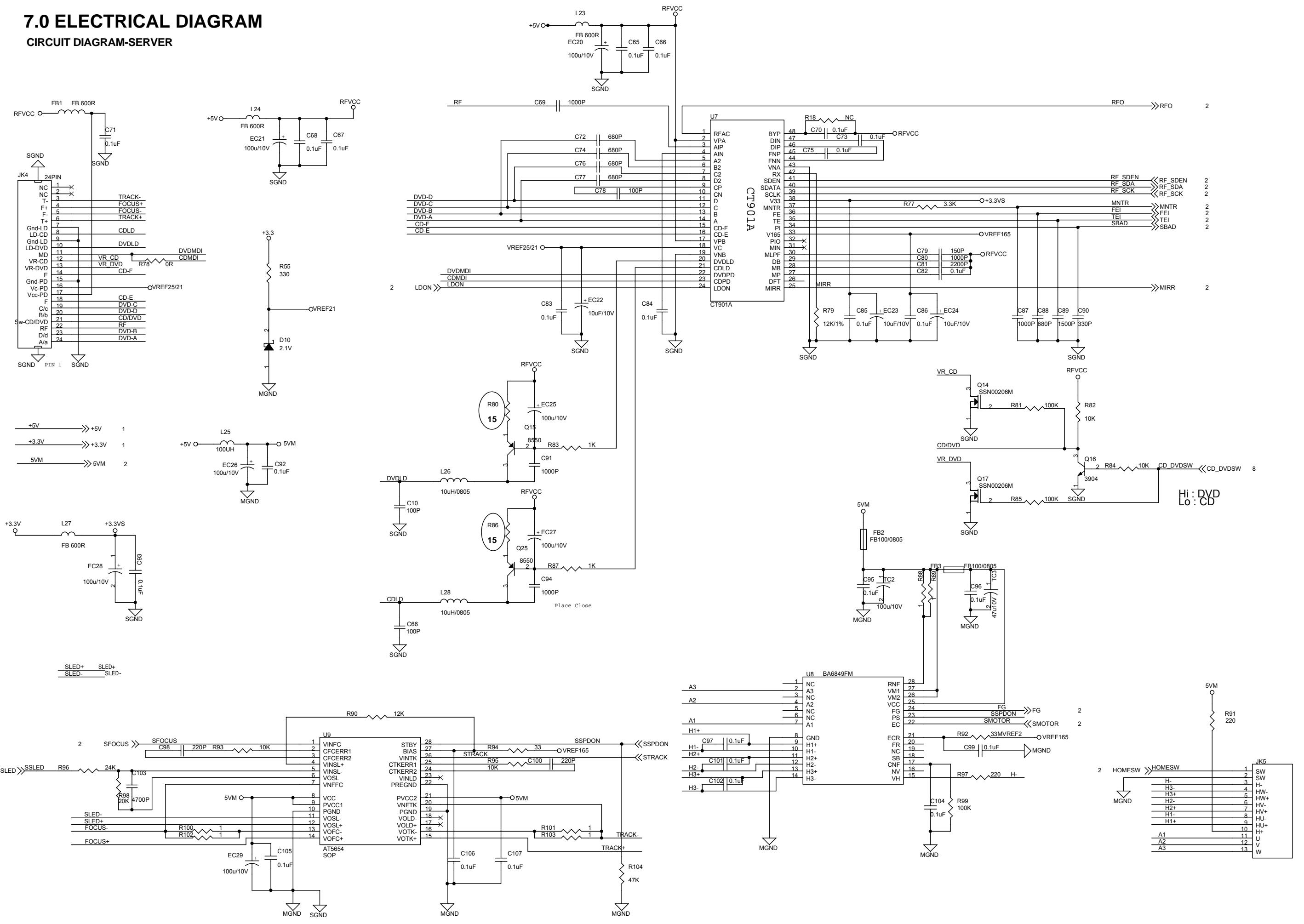


+3.3V	>> +3.3V	1
PWE#	>> PWE#	2
SD_CD	>> SD_CD	2
WP	>> WP	2
SDCMD/MSBC	>> SDCMD/MSBC	2
SDCLK	>> SDCLK	2
SD_DAT0	>> SD_DAT0	2
SD_DAT1	>> SD_DAT1	2
SD_DAT2	>> SD_DAT2	2
SD_DAT3	>> SD_DAT3	2

EACH POWER PIN -- A BYPASS CAPACITOR

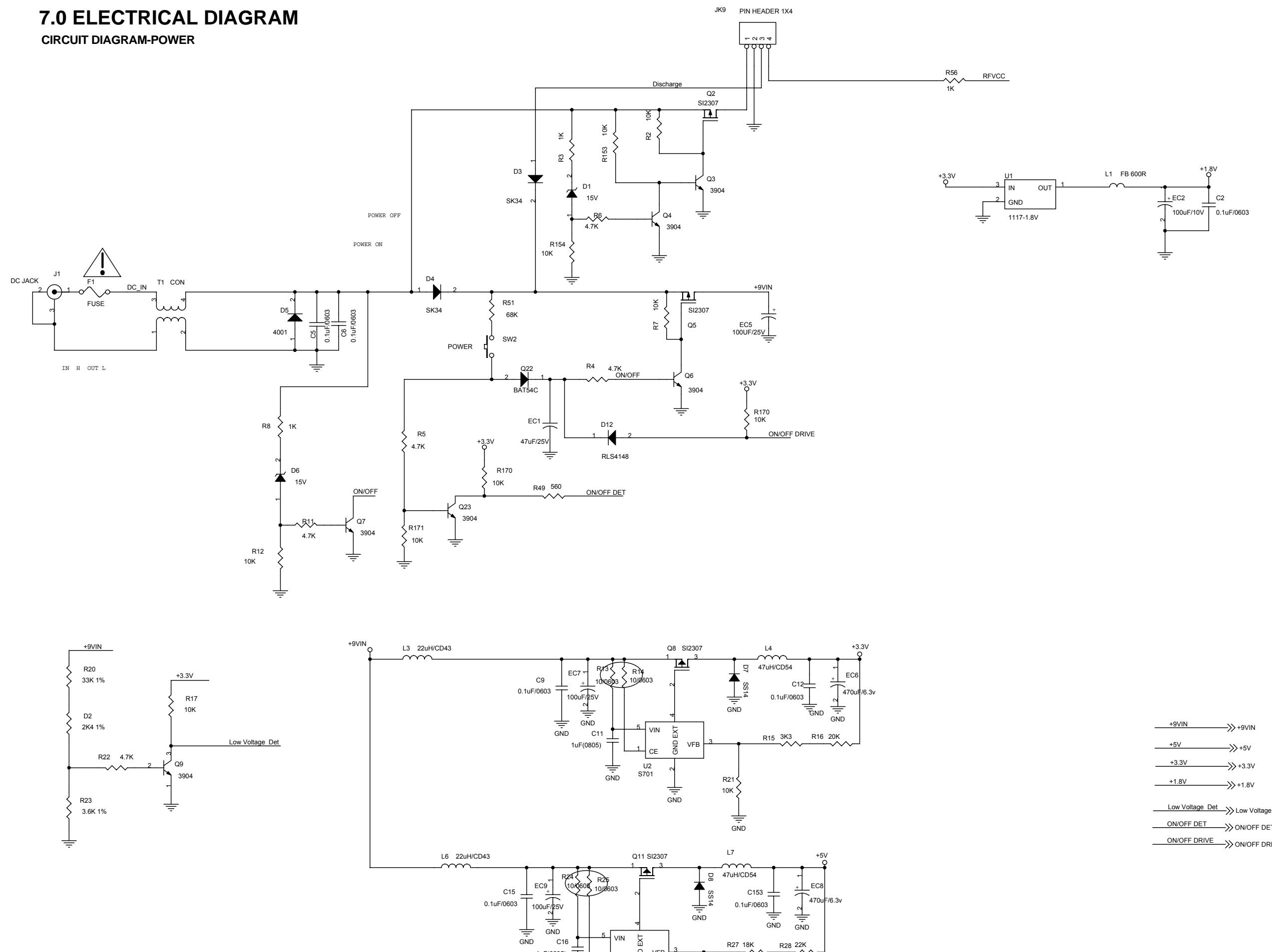
7.0 ELECTRICAL DIAGRAM

CIRCUIT DIAGRAM-SERVER



7.0 ELECTRICAL DIAGRAM

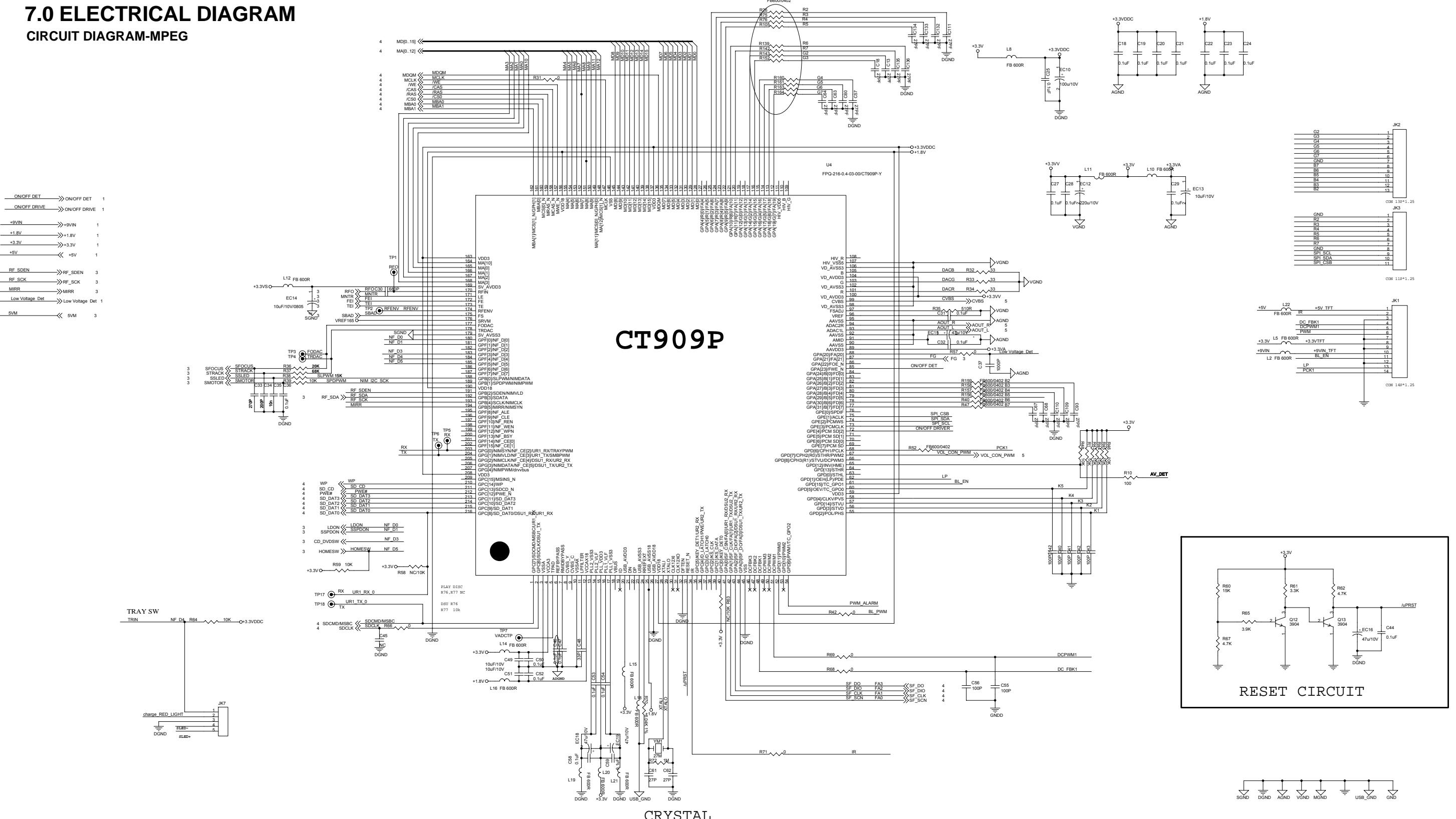
CIRCUIT DIAGRAM-POWER



+9VIN	»+9VIN	2,5
+5V	»+5V	2,3,5
+3.3V	»+3.3V	2,3,4
+1.8V	»+1.8V	2
Low Voltage Det	»Low Voltage Det	2
ON/OFF DET	»ON/OFF DET	2
ON/OFF DRIVE	»ON/OFF DRIVE	2

7.0 ELECTRICAL DIAGRAM

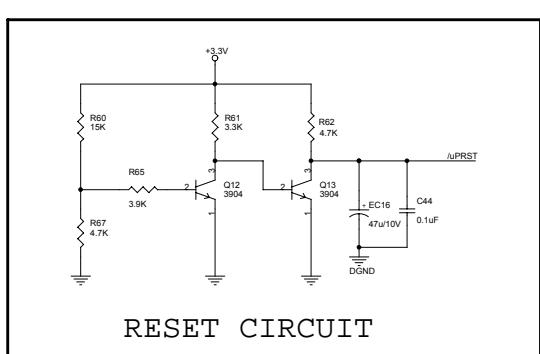
CIRCUIT DIAGRAM-MPEG



CRYSTAL

1	2	MODE
0	X	SYSTEM MODE
ON	OFF	PSU(C/R)

3	FLASH
ON	P
OFF	S

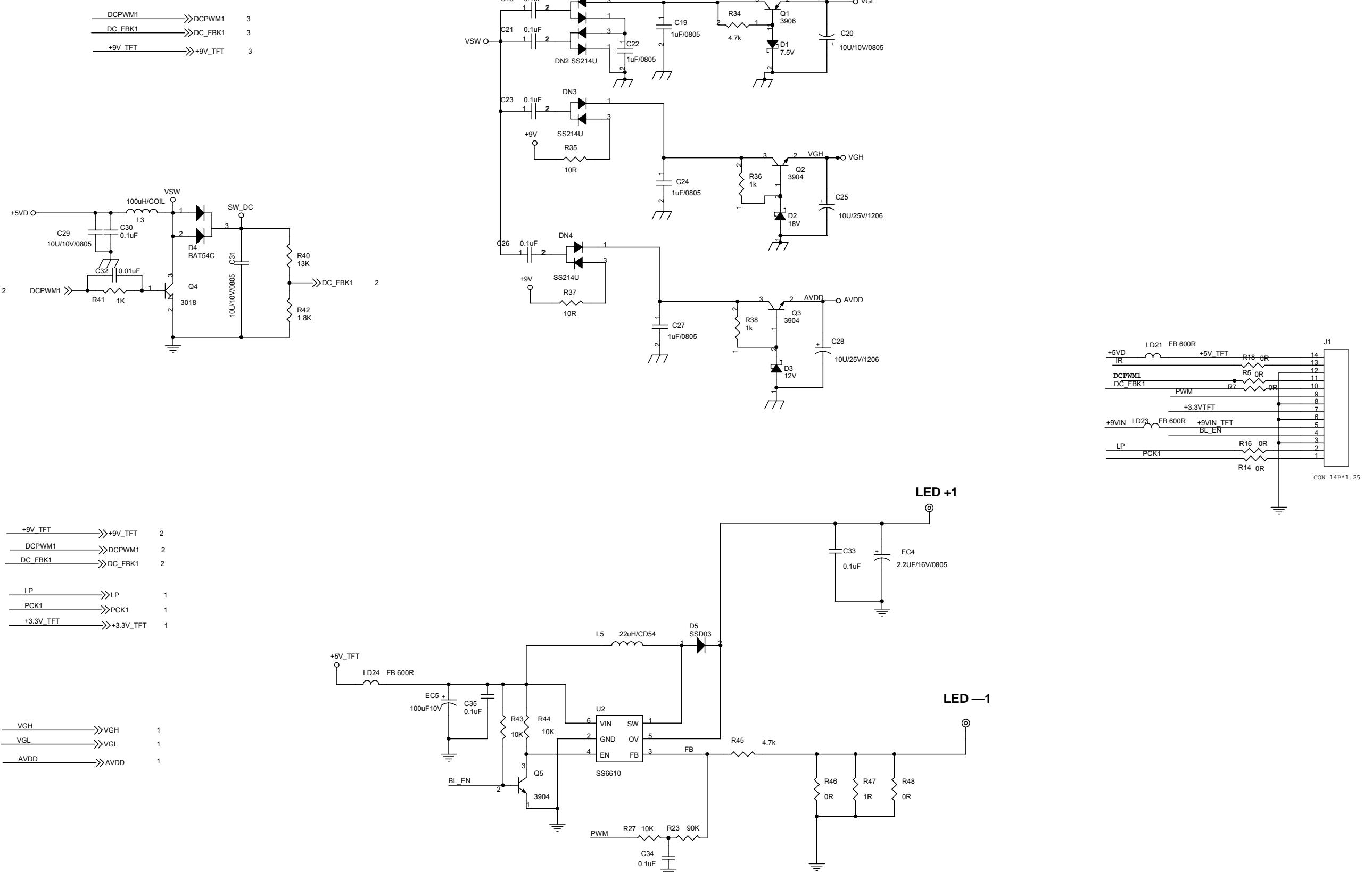


RESET CIRCUIT



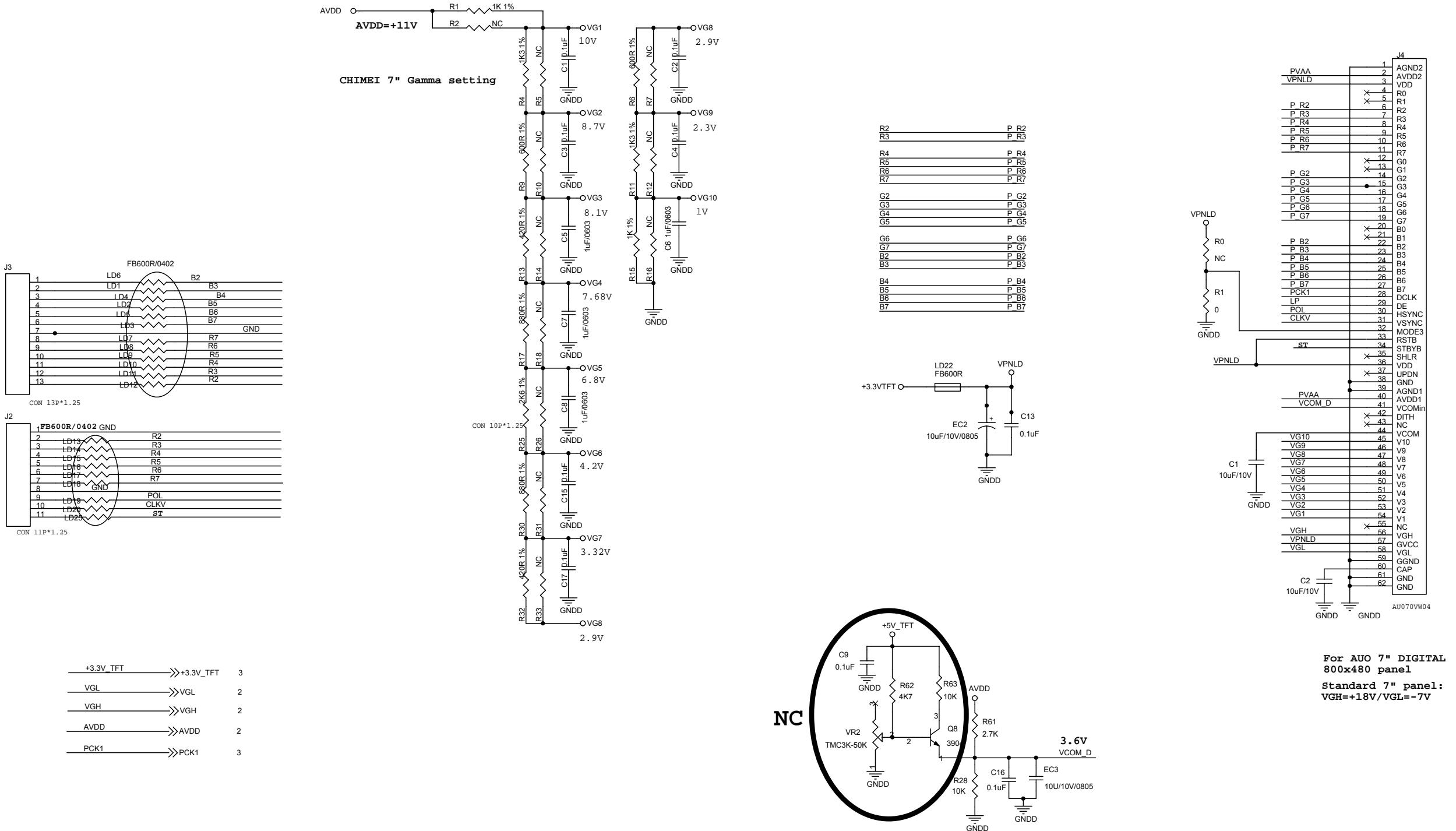
7.0 ELECTRICAL DIAGRAM

CIRCUIT DIAGRAM-TFT POWER/BL



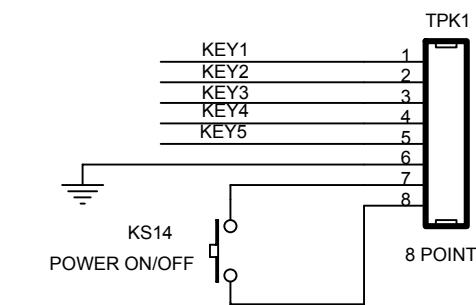
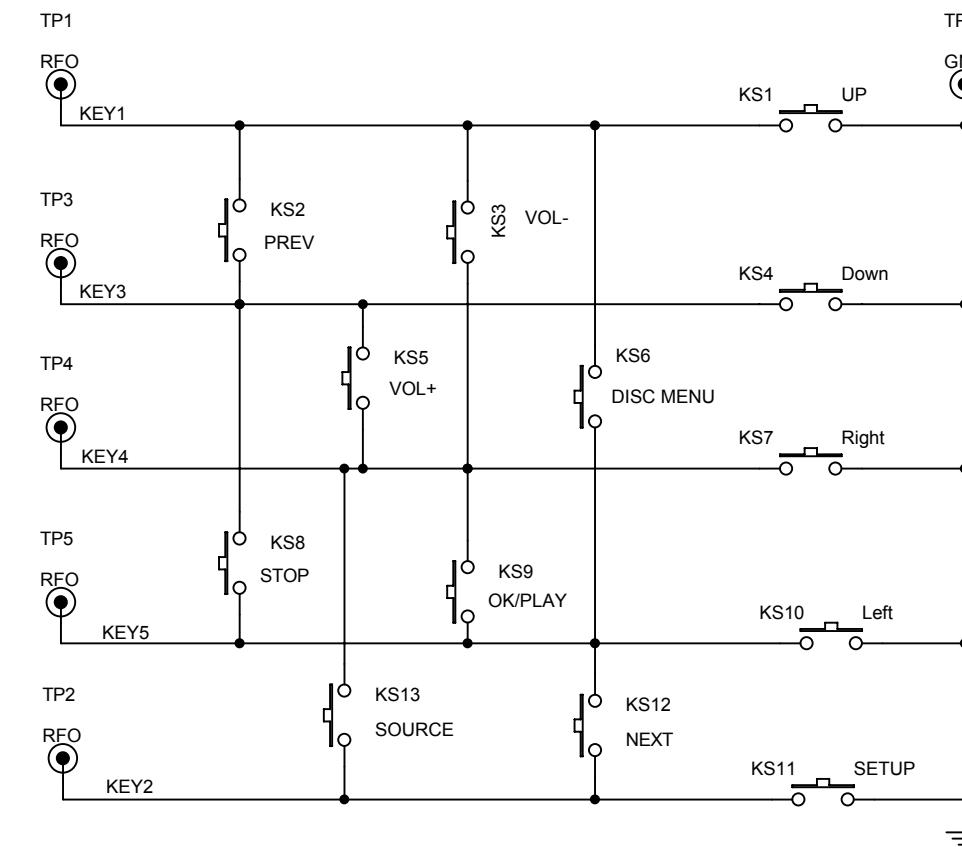
7.0 ELECTRICAL DIAGRAM

CIRCUIT DIAGRAM-TFT DRIVER

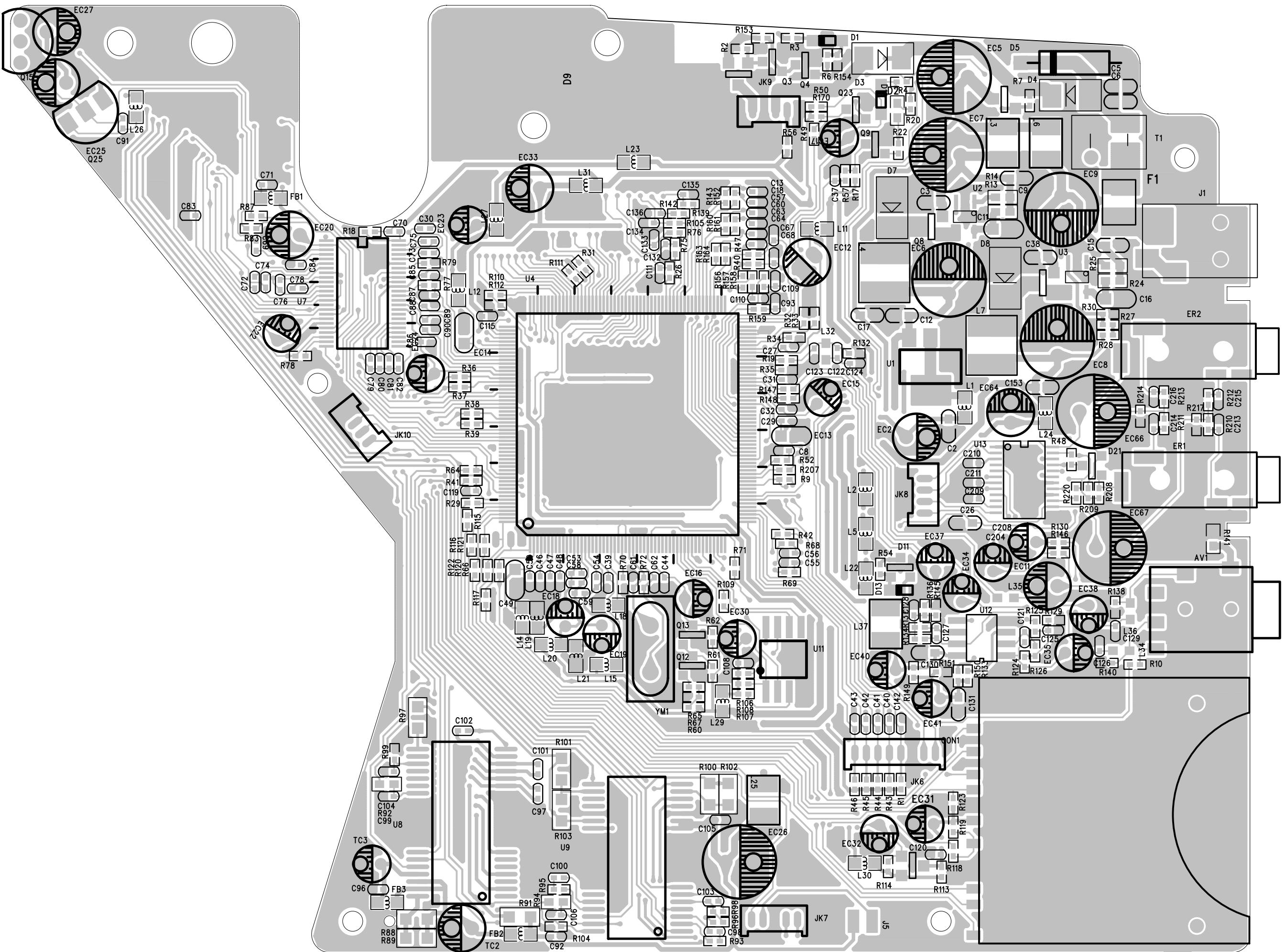


7.0 ELECTRICAL DIAGRAM

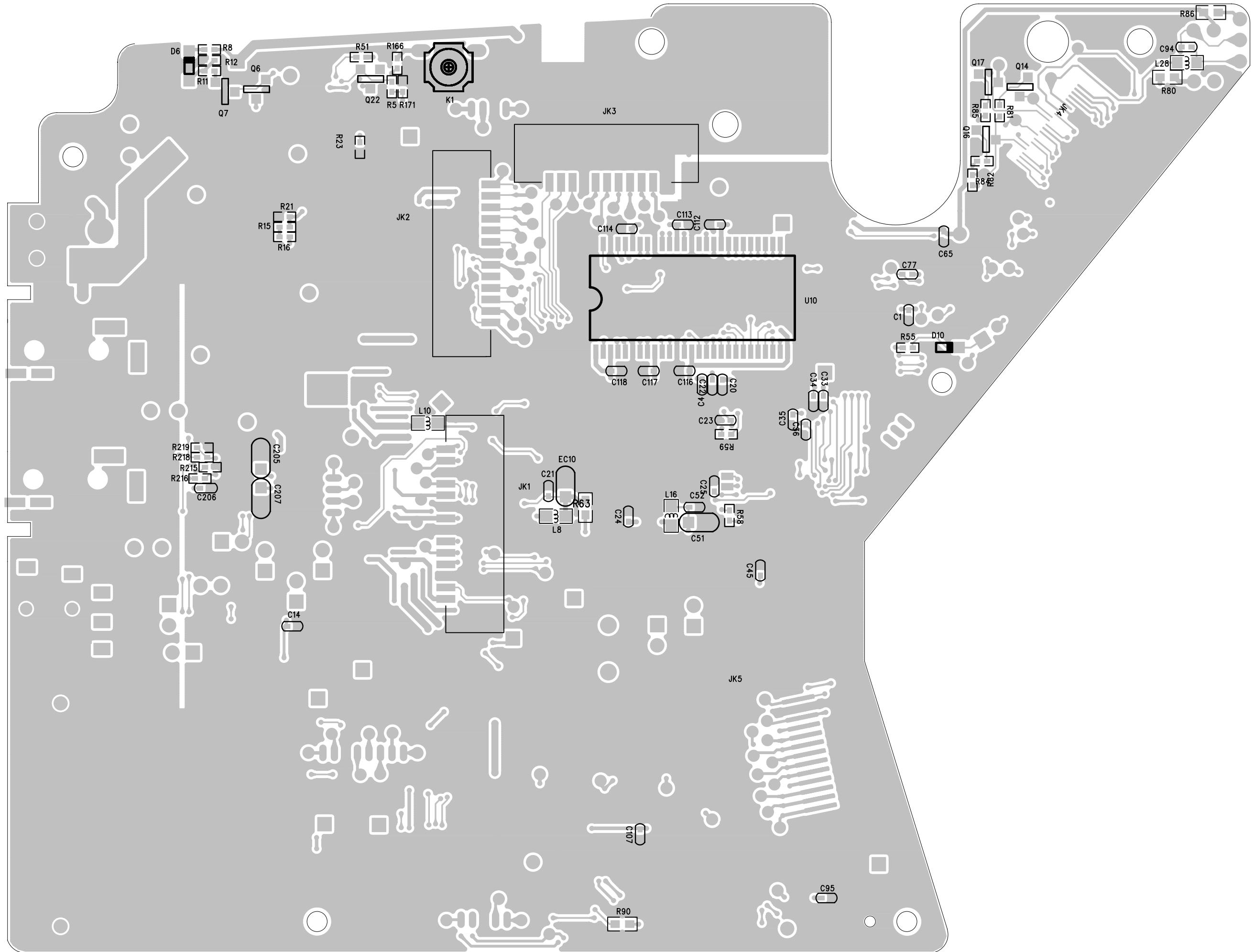
CIRCUIT DIAGRAM-POWER



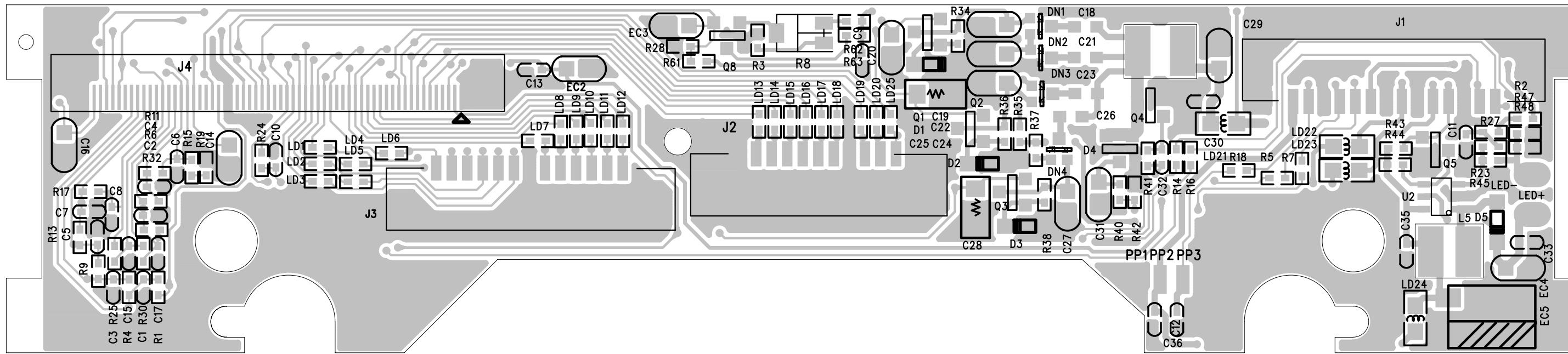
MAIN TOP PCB - COMPONENT LAYOUT



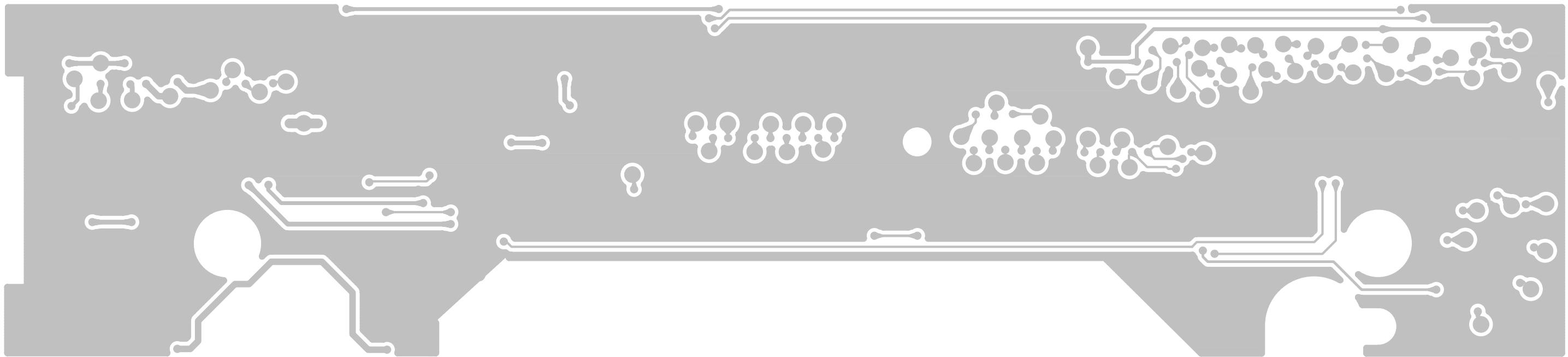
MAIN BOTTOM PCB - COMPONENT LAYOUT



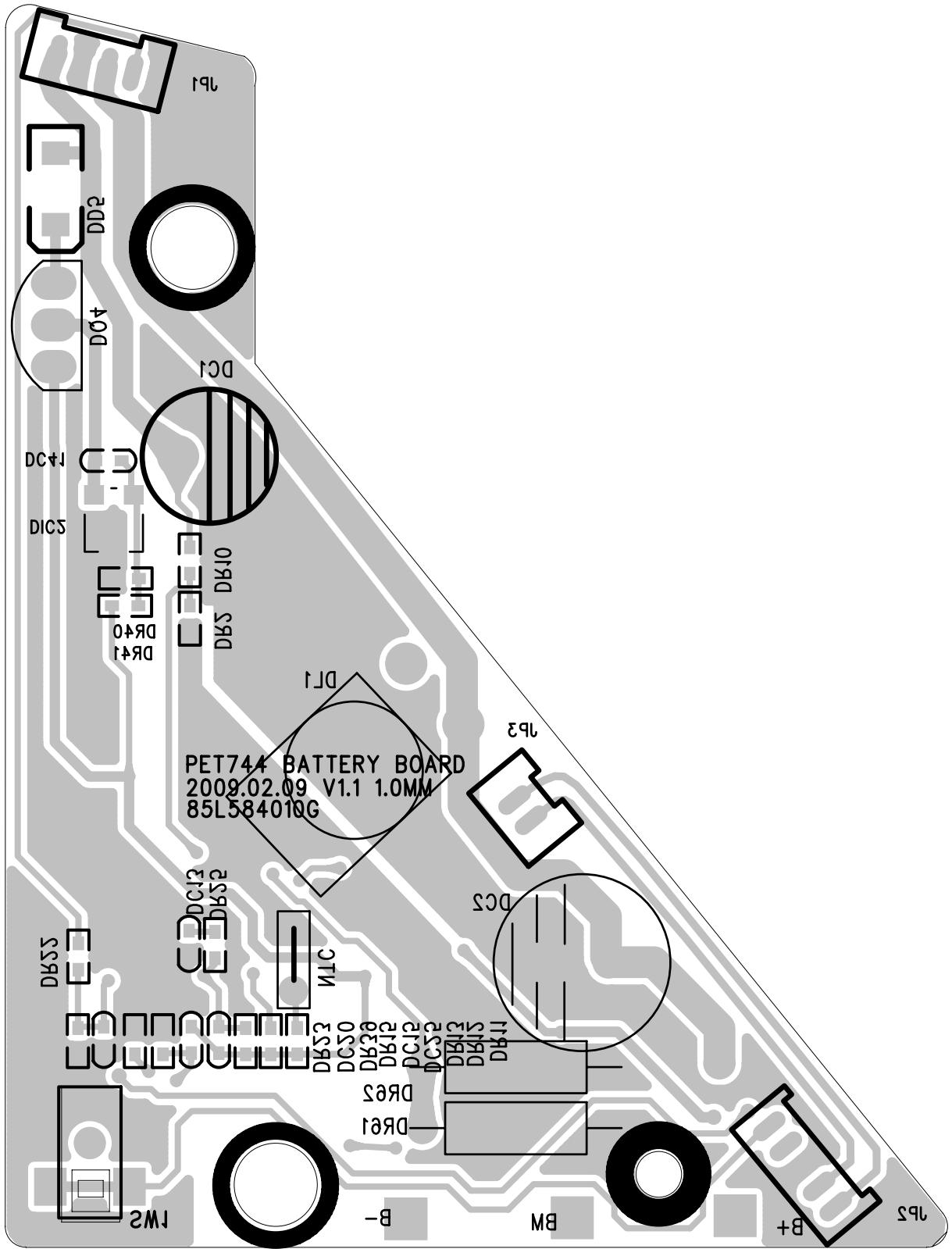
DRIVER TOP PCB - COMPONENT LAYOUT



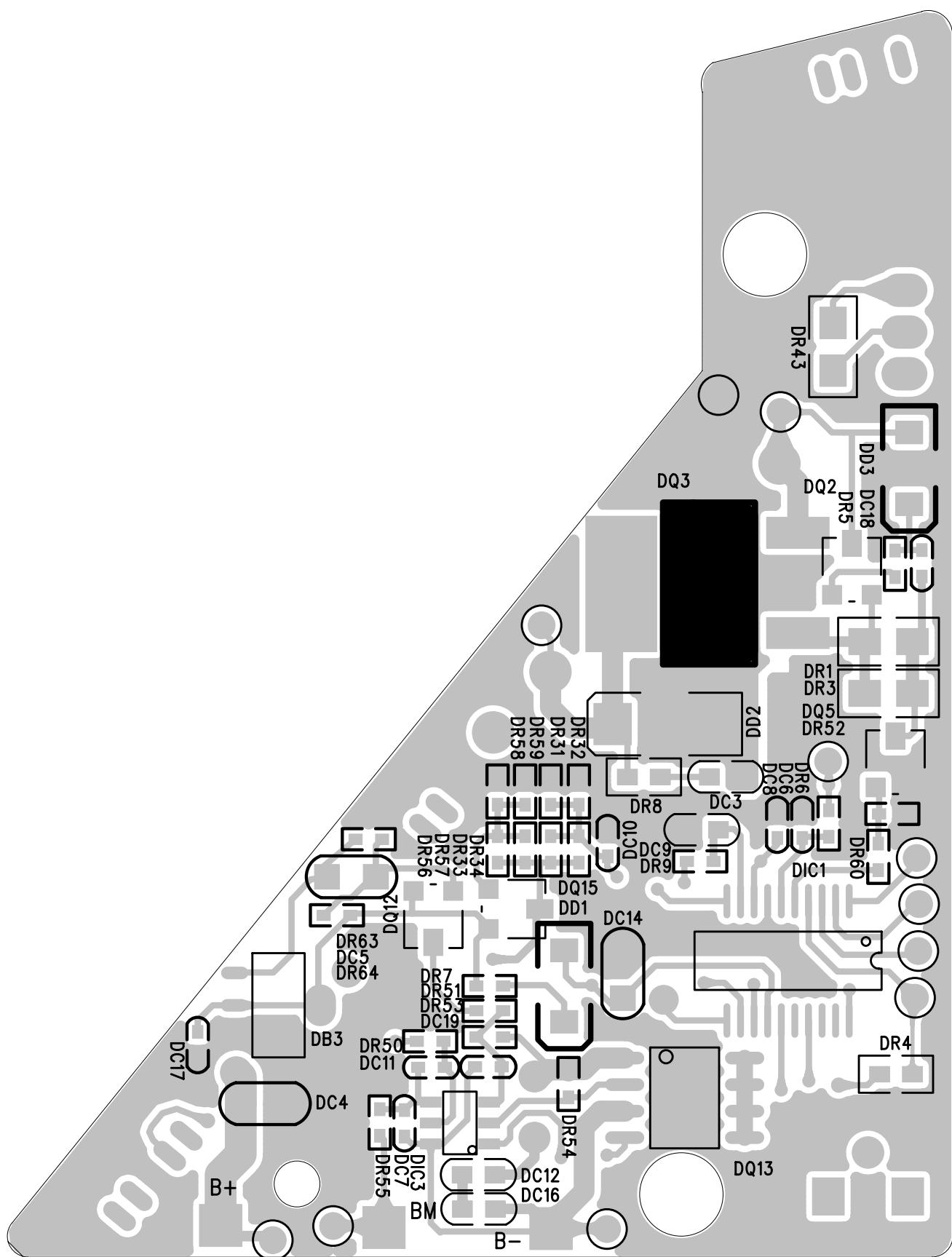
DRIVER BOTTOM PCB - COMPONENT LAYOUT



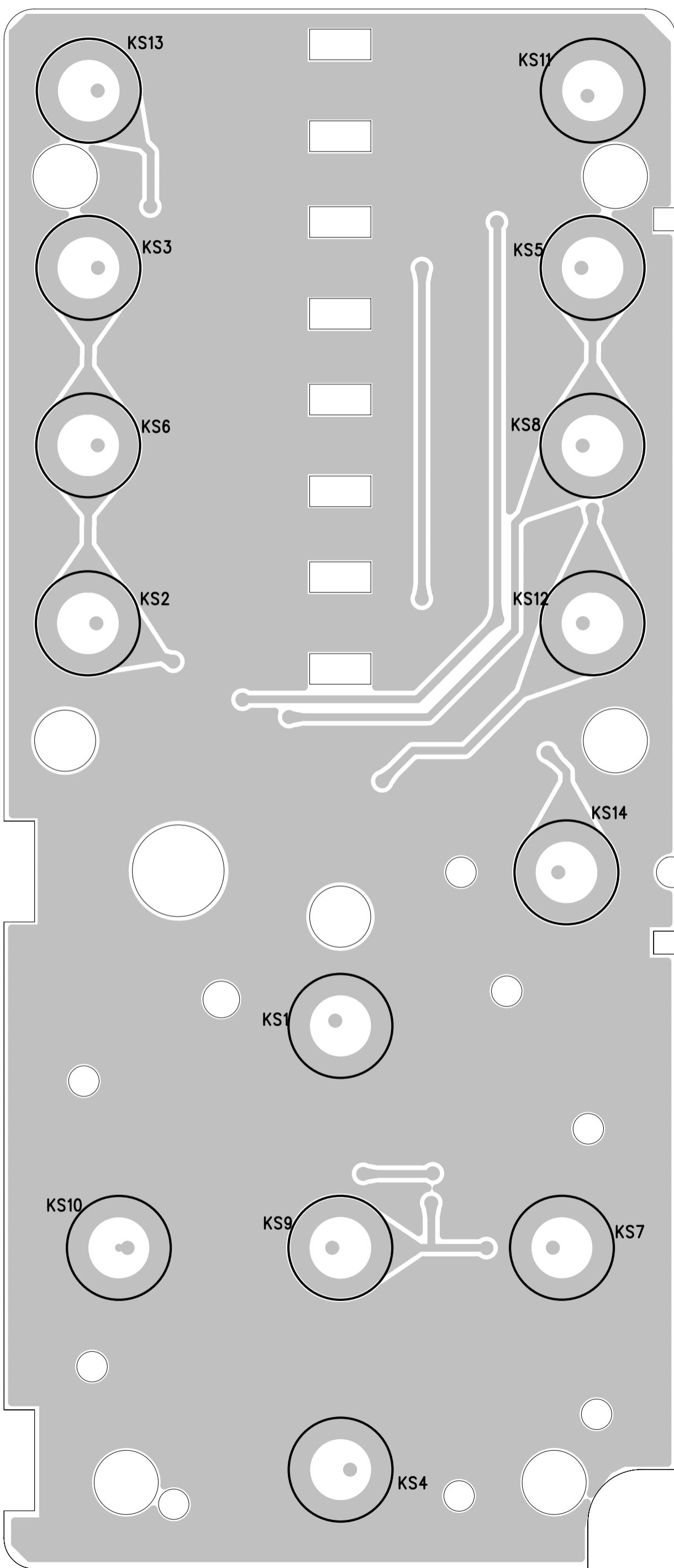
BATTERY TOP PCB - COMPONENT LAYOUT



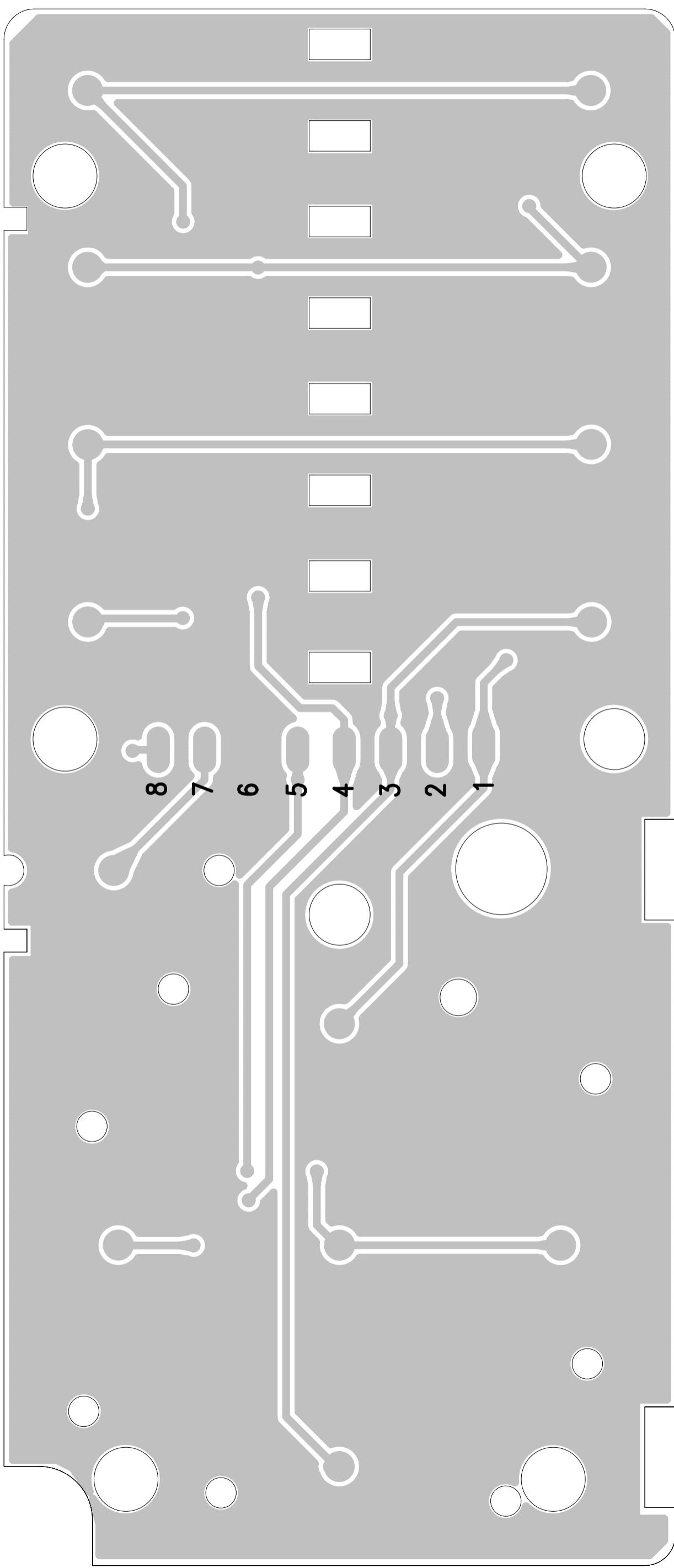
BATTERY BOTTOM PCB - COMPONENT LAYOUT



KEY TOP PCB - COMPONENT LAYOUT



KEY BOTTOM PCB - COMPONENT LAYOUT



8.0 SERVICE PARTLIST

Electrical Part List:

CTN	Service 12NC	Service Description	Photo	Pos. No.
PET744/05 PET744/12 PET744/58 PET744/98	996510022298	KEY PCBA ASSY PET744		100
PET744/05 PET744/12 PET744/58 PET744/98	996510022306	MAIN PCBA ASSY PET744		110
PET744/05 PET744/12 PET744/58 PET744/98	996510022353	TFT PCBA ASSY PET744		120
PET744/05 PET744/12 PET744/58 PET744/98	996510022289	BATTERY & BATT PCBA PET744		130
PET744/05 PET744/12 PET744/58	996510022352	7" PANEL ASSY FOR PET744		200
PET744/98	996510022987	7" PANEL ASSY FOR PET744		200
PET744/05 PET744/12 PET744/58 PET744/98	996510022315	DVD LOADER MG9703TIH TOP3000S		210

8.0 SERVICE PARTLIST

Mechanical Part List:

CTN	Service 12NC	Service Description	Photo	Pos. No.
PET744/05 PET744/12 PET744/58 PET744/98	996510022294	MONITOR BACK CABINET PET744		310
PET744/05 PET744/12 PET744/58 PET744/98	996510022311	DVD TOP CABINET PET744		320
PET744/05 PET744/12 PET744/58 PET744/98	996510022314	DVD BOTTOM CABINET PET744		330
PET744/05 PET744/12 PET744/58 PET744/98	996510022303	DVD DOOR CABINET PET744		340
PET744/05 PET744/12 PET744/58 PET744/98	996510022297	KEY COVER CABINET 1		350

8.0 SERVICE PARTLIST

Mechanical Part List:

CTN	Service 12NC	Service Description	Photo		Pos. No.	
PET744/05 PET744/12 PET744/58 PET744/98	996510022307	KEY COVER CABINET 2			360	
PET744/05 PET744/12 PET744/58 PET744/98	996510022295	HINGE COVER CABINET PET744			370	
PET744/05 PET744/12 PET744/58 PET744/98	996510022302	CABLE COVER CABINET PET744				380
PET744/05 PET744/12 PET744/58 PET744/98	996510022312	KENS CABINET PC PET744				381
PET744/05 PET744/12 PET744/58 PET744/98	996510022317	OPEN BUTTON CABINET PET744			382	
PET744/05 PET744/12 PET744/58 PET744/98	996510022304	CD LATCH CABINET POM PET744				383
PET744/05 PET744/12 PET744/58 PET744/98	996510022293	KEY DIRECTION CABINET PET744			384	
PET744/05 PET744/12 PET744/58 PET744/98	996510022299	KEY OK CABINET PET744			385	
PET744/05 PET744/12 PET744/58 PET744/98	996510022318	KEY SET CABINET PET744				386
PET744/05 PET744/12 PET744/58 PET744/98	996510022305	KEY COL CABINET PET744				387
PET744/05 PET744/12 PET744/58 PET744/98	996510022296	KEY STOP CABINET PET744				388

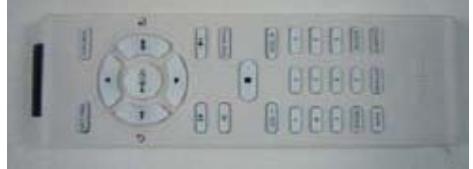
8.0 SERVICE PARTLIST

Mechanical Part List:

CTN	Service 12NC	Service Description	Photo		Pos. No.
PET744/05 PET744/12 PET744/58 PET744/98	996510022316	KEY NEXT CABINET PET744			389
PET744/05 PET744/12 PET744/58 PET744/98	996510022321	BUTTON POWER PET744			390
PET744/05 PET744/12 PET744/58 PET744/98	996510022954	METAL STAND PET744			391
PET744/05 PET744/12 PET744/58 PET744/98	996510022301	BLOCK PET744			392
PET744/05 PET744/12 PET744/58 PET744/98	996510022392	DISPLAY FRAME & SPK PET744			393
PET744/05 PET744/12 PET744/58 PET744/98	996510030919	SPEAKER GRILL PET744 BLACK			400
PET744/05 PET744/12 PET744/58 PET744/98	996510022291	PRESS METAL PLATE SPRING STEEL			410
PET744/05 PET744/12 PET744/58 PET744/98	996510022313	PRESS HINGE PET744			420

8.0 SERVICE PARTLIST

Accessories Part List:

CTN	Service 12NC	Service Description	Photo	Pos. No.
PET744/05	996510022322	ADAPTER 9V/1.5A UK		ADAPT
PET744/12 PET744/58 PET744/98	996510022959	ADAPTER 9V/1.5A EU		ADAPT
PET744/05 PET744/12 PET744/58 PET744/98	996510004975	AV CABLE		AVCABLE
PET744/05 PET744/12 PET744/58 PET744/98	996510021031	CAR ADAPTER		CARADP
PET744/05 PET744/12 PET744/58 PET744/98	996510022292	REMOTE CONTROL 29KEY		RC

9.0 REVISION LIST

Version 1.0

- Initial release PET744/05/12/58/98

Version 1.1

- Delete the region 0 setting
- Add speaker grill in mechanical spare part list
- Update the other spare part 12nc