

Service
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Service Manual

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1.0 TECHNICAL SPECIFICATION

General

Dimensions (W x H x D): 240 x 178.5x 34.8 mm
Bear Unit Weight: 1.1kg
Power supply:
Supply voltage AC 100~240V (adapter)

Supply Power consumption 14.0W
Operating Temp & RH 0~ 45degC / 30-90%

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:
Disc Diameter

CD/MP3,DVD,WMA
8/12cm

Pixel specification

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

Current consumption

DC Supply	DC6.3V-15.5V
Standby Power off	<0.45W
Battery	
Voltage	≤6.3V
Capacity	3500mAH
Battery playtime	
Charging time(Power off)	8h
Standby Power off	<0.45W

Headphone out (headphone output load 2x16 ohm)

Maximum output power: >1.5mW
Frequency response: +/-1dB
SNR (A-wght): >62dB
THD (w/16 ohm loading): 1.0%
Left-Right Channel
Separation: >40dB
Left-Right Channel
Balance: <3.0dB

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 key or IR 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 PET944 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-YYYY-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."

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.

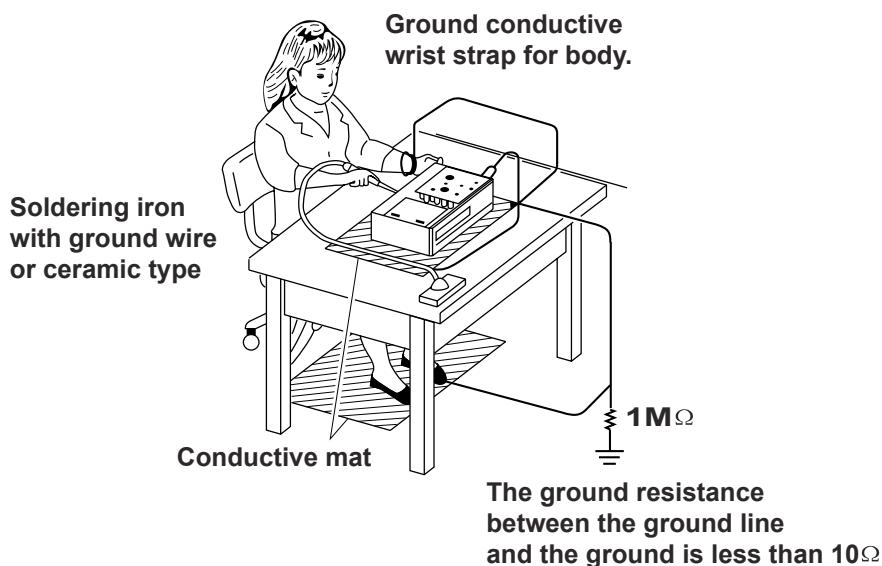
When the power supply is being turned on, you may not remove this laser cautions label. If it removes, radiation of laser may be received.

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.



SAFTY NOTICE

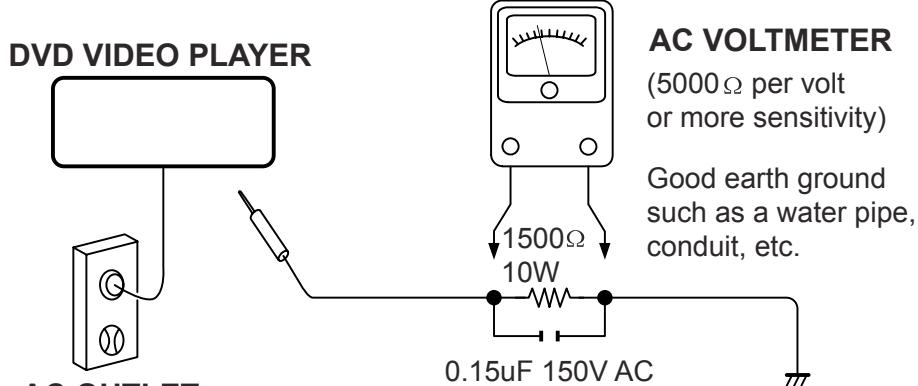
SAFTY PRECAUTIONS

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



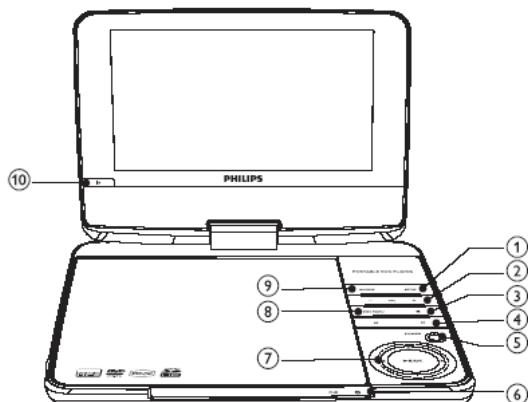
The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



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.

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/○**
 - Charging indicator/Power indicator
- ⑦ **▲, ▼, ◀, ▶**
 - Navigates through the menus.
- ⑧ **◀ ▶**
 - Searches backward/forward at different speeds.
- ⑨ **▶▶OK**
 - Confirms an entry or selection.
 - Starts, pauses or resumes disc play.

⑧ DISC MENU

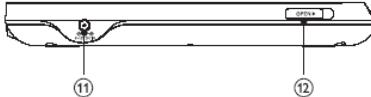
- For DVD, accesses or exits disc menu.
- For VCD, turns on or off PBC (Playback Control) mode.
- For VCD version 2.0 or SVCD with PBC turned on, returns to the menu.

⑨ SOURCE

- Switches between DVD and SD.

⑩ IR

- Remote control sensor

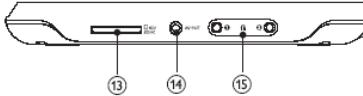


⑪ DC IN

- Power supply socket

⑫ OPEN▶

- Opens the disc compartment.



⑬ SD/SDHC

- SD card slot

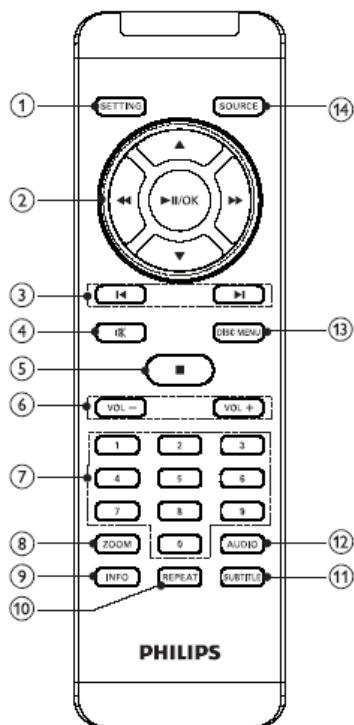
⑭ AV OUT

- Selects video output format to TV system.

⑮ ▲

- Headphone jack

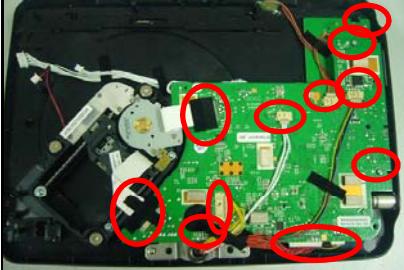
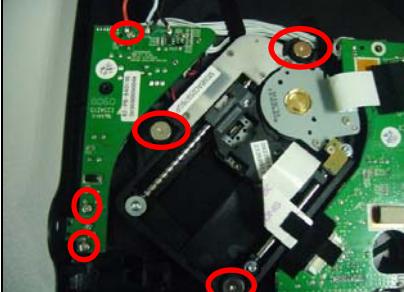
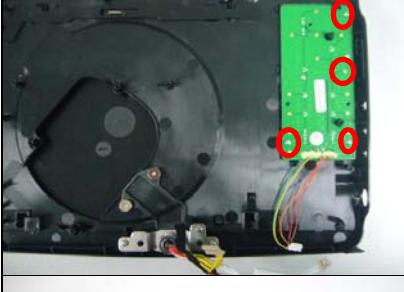
3.0 INSTRUCTION FOR USE



- 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 PET944

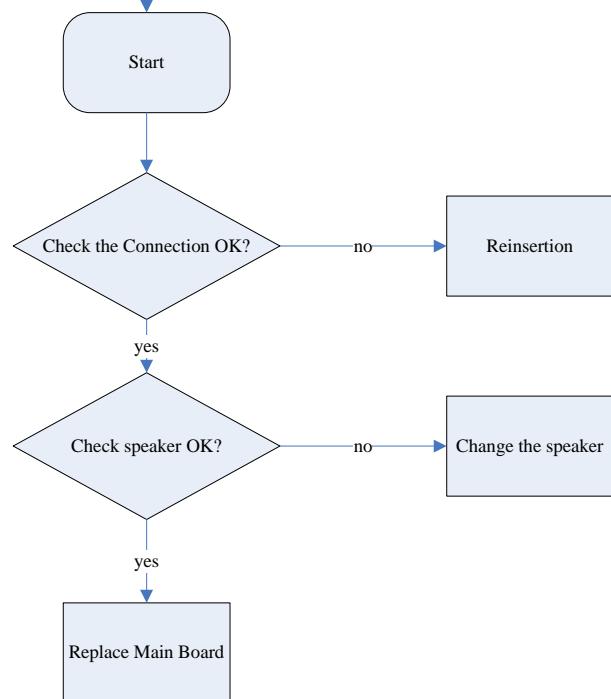
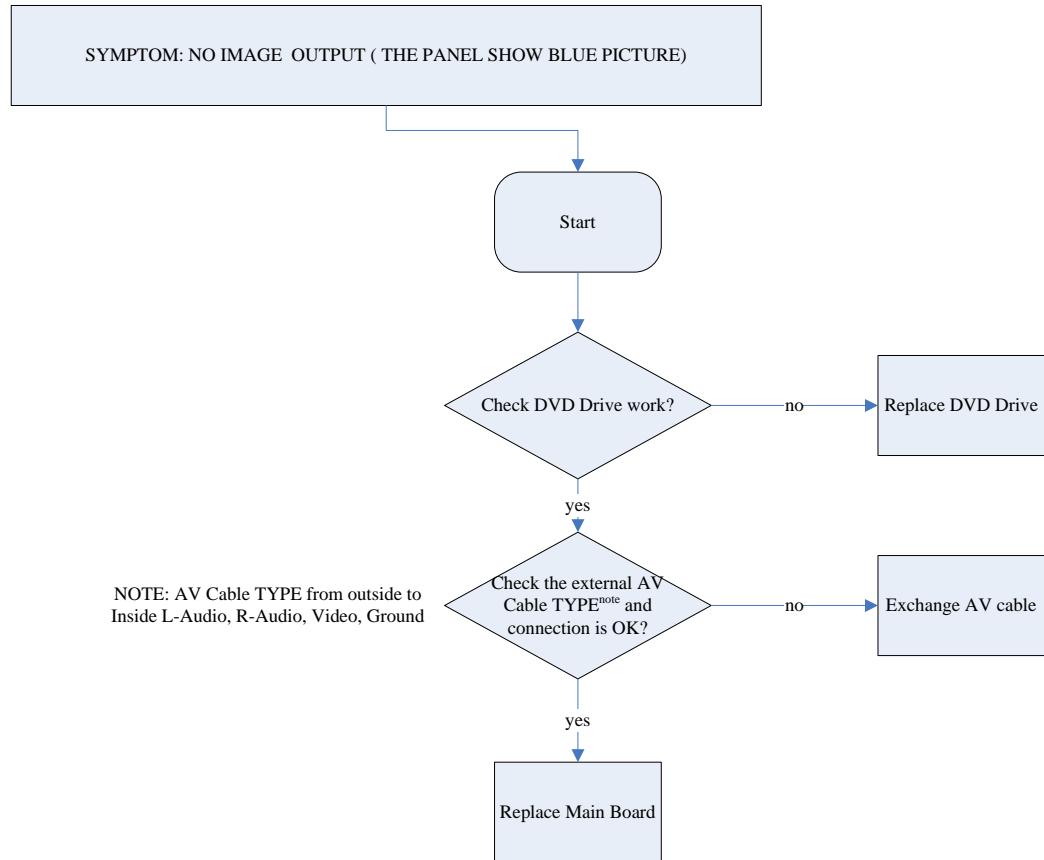
	<p>Remove eleven screws on back cabinet to separate top cabinet and back cabinet.</p>	screws 11pcs
	<p>Generally open the front cabinet.</p>	
	<p>Remove four screws and disassemble the connector on the Main board.</p>	screws 4pcs.connector 8pcs.
	<p>Remove six screws on the battery board and DVD LOADER.</p>	 
	<p>Remove four screws on the key board.</p>	
	<p>Remove the speaker grill and 4pcs screws. .</p>	



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

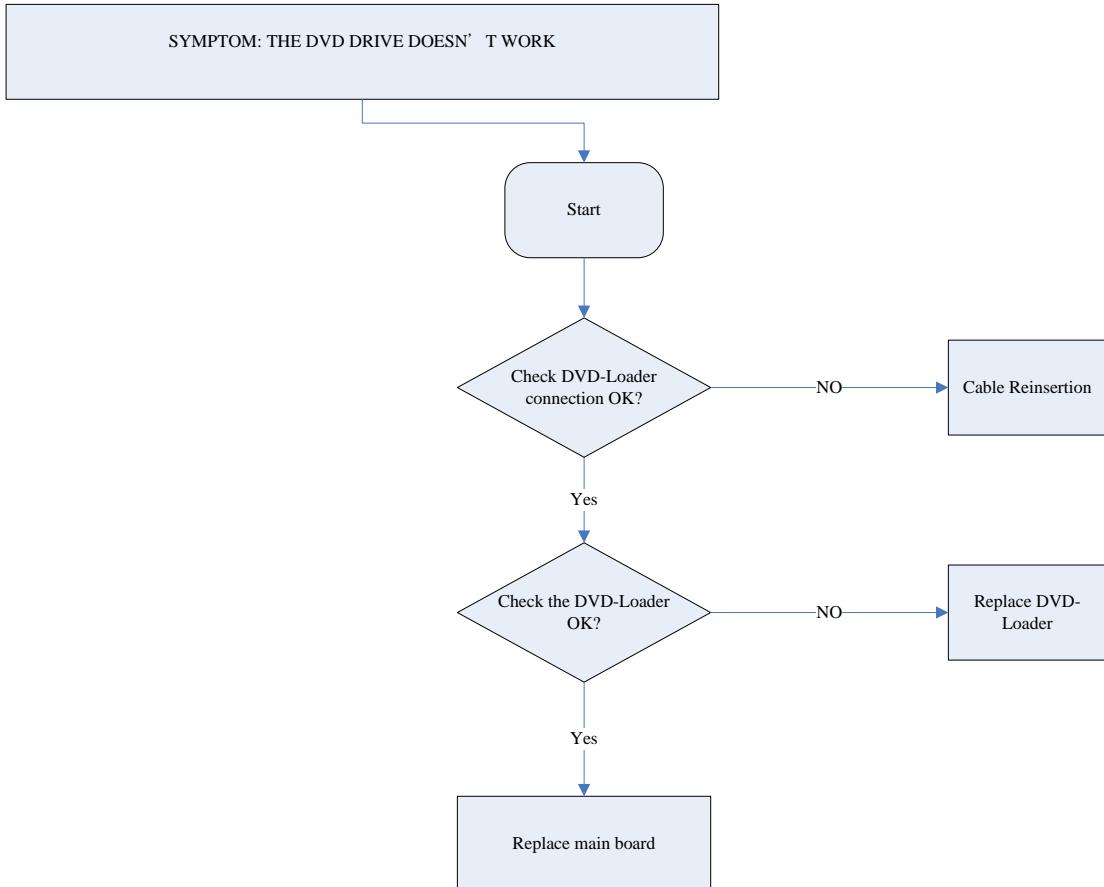
5.0 TROUBLESHOOTING

SYMPTOM: NO IMAGE / NO SOUND



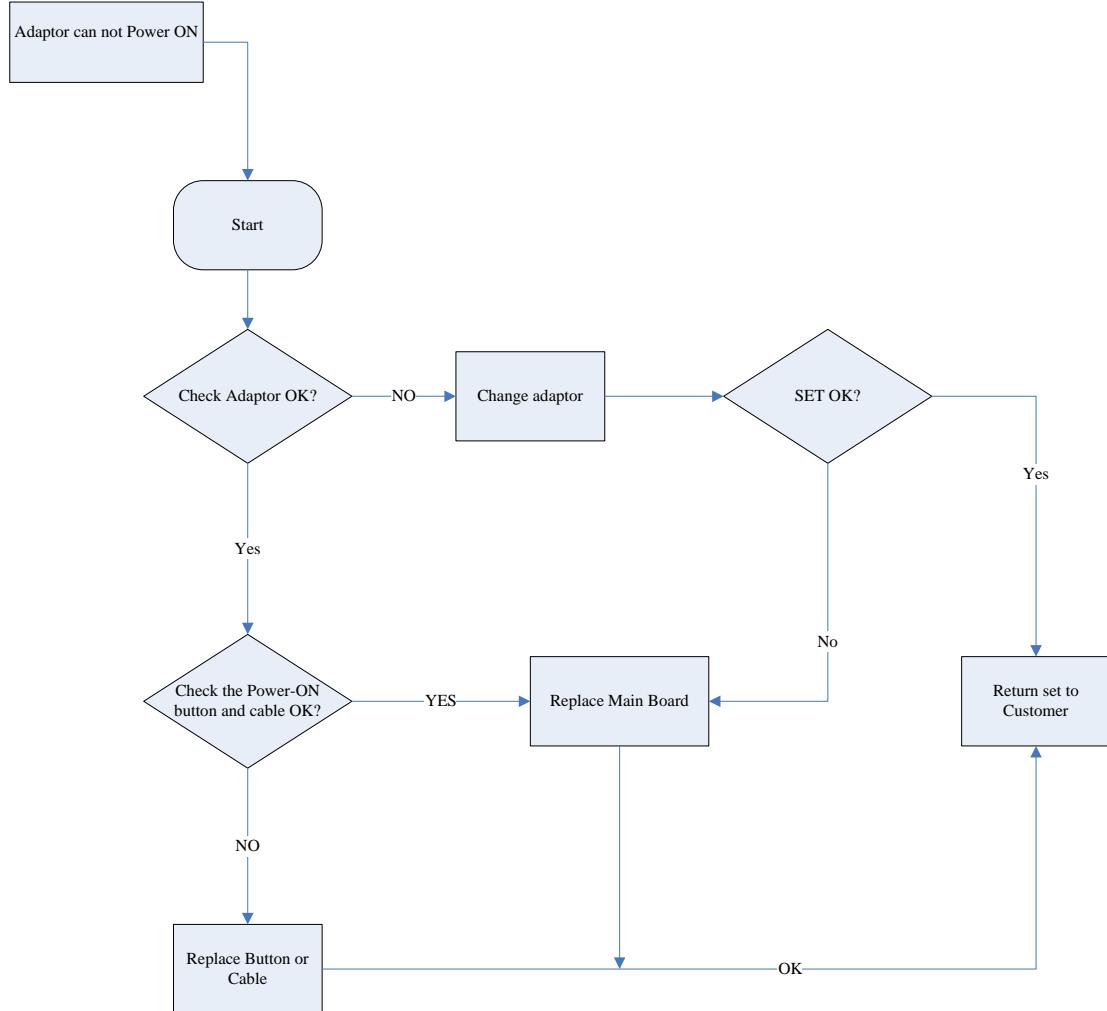
5.0 TROUBLESHOOTING

SYMPTOM: THE DVD DRIVE DOES NOT WORK



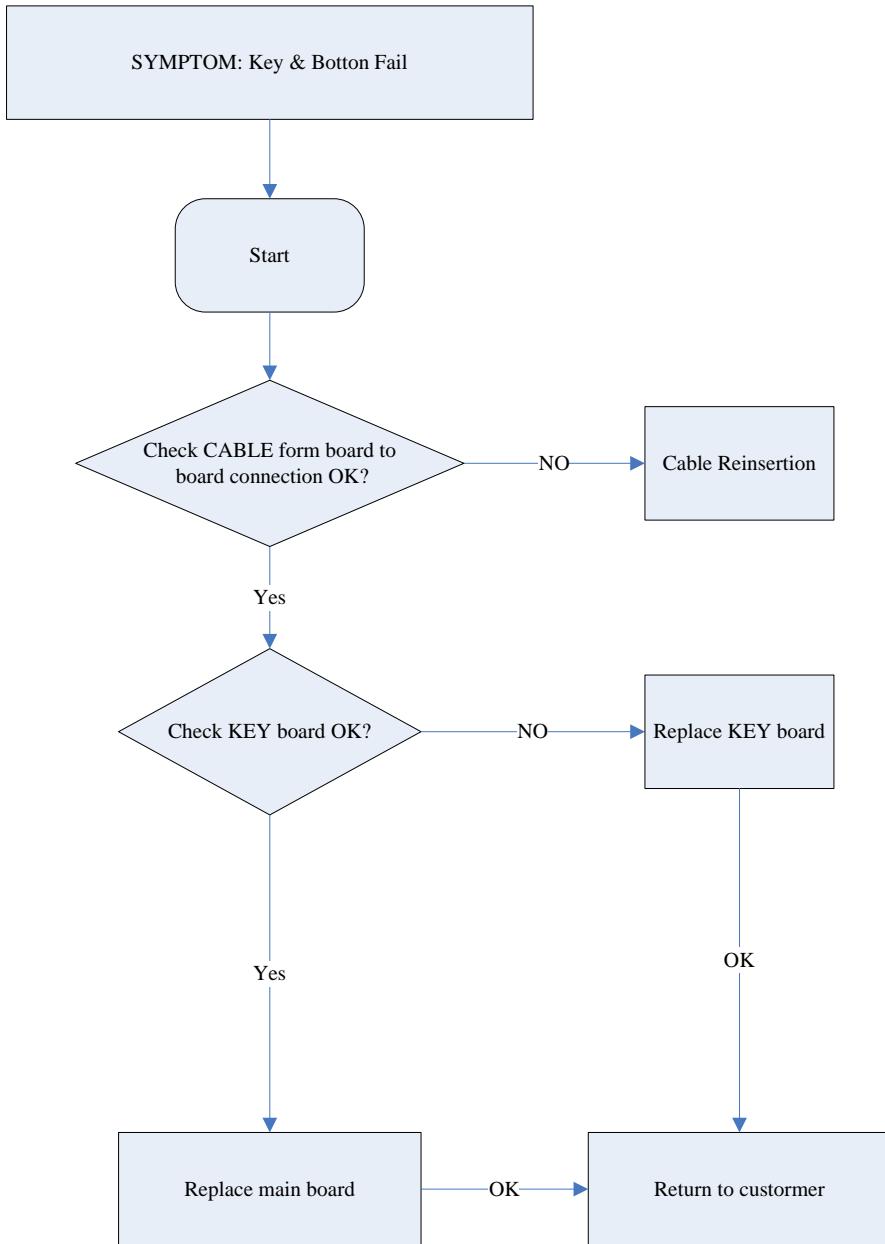
5.0 TROUBLESHOOTING

SYMPTOM: ADAPTOR CANNOT POWER ON

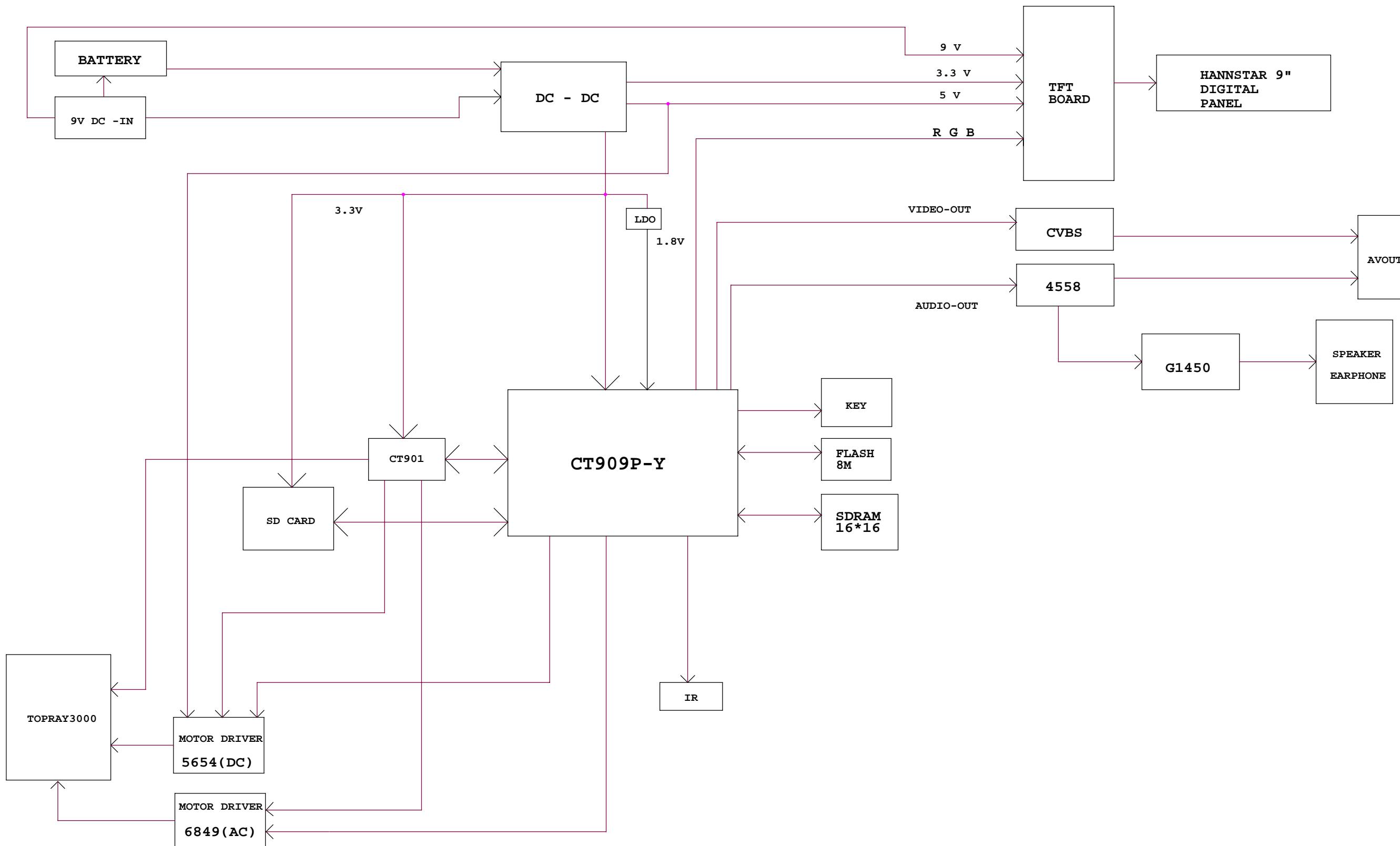


5.0 TROUBLESHOOTING

SYMPTOM: KEY & BOTTON FAILURE

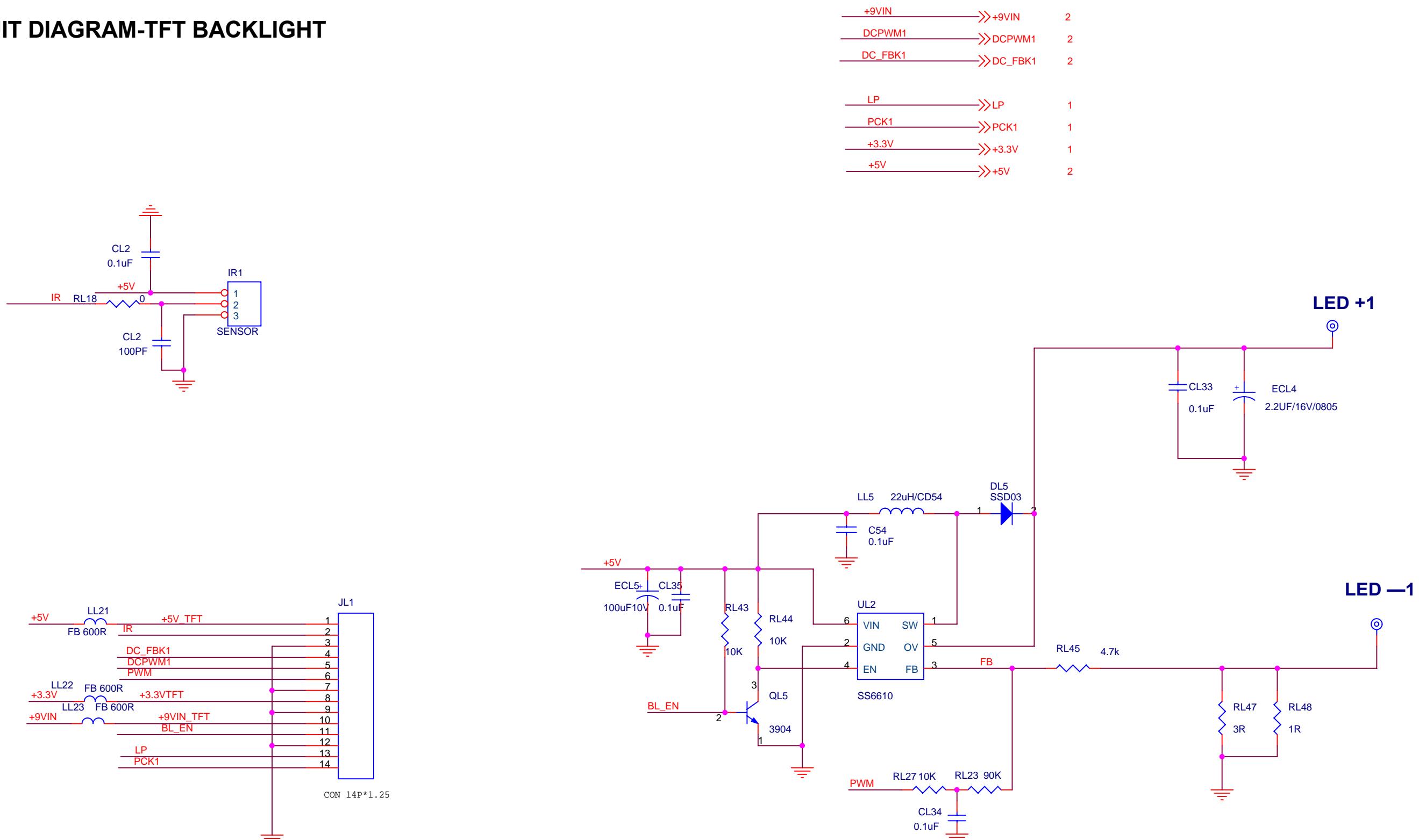


PET944 BLOCK DIAGRAM



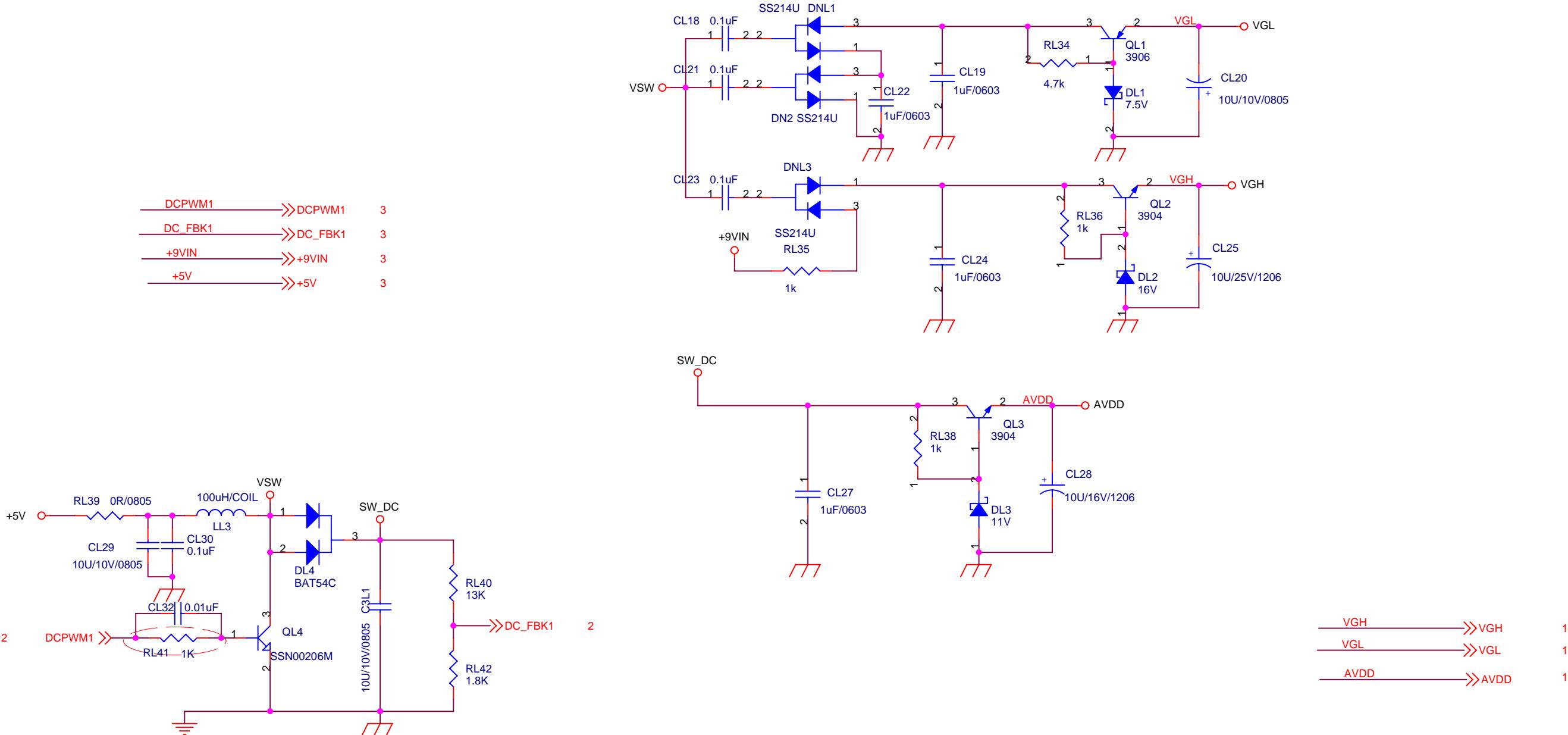
7.0 ELECTRICAL DIAGRAM

CIRCUIT DIAGRAM-TFT BACKLIGHT



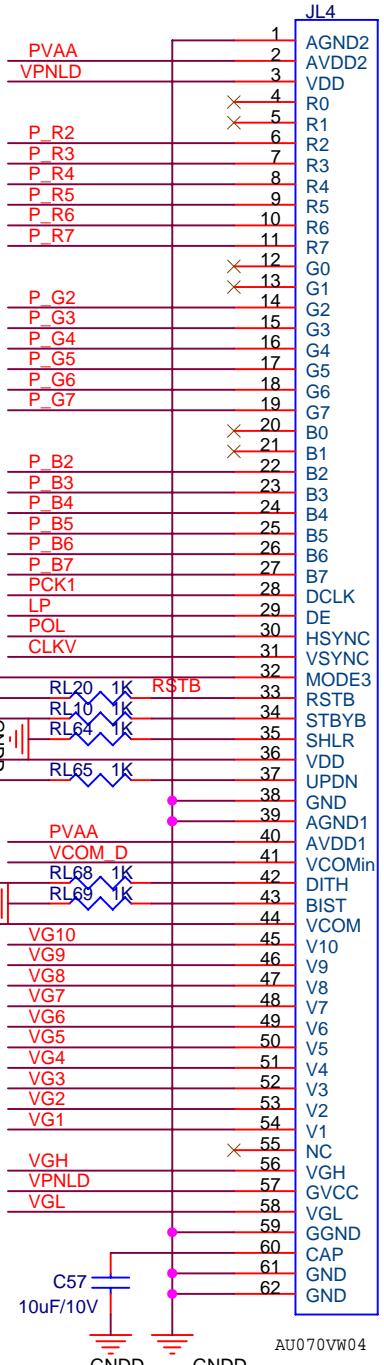
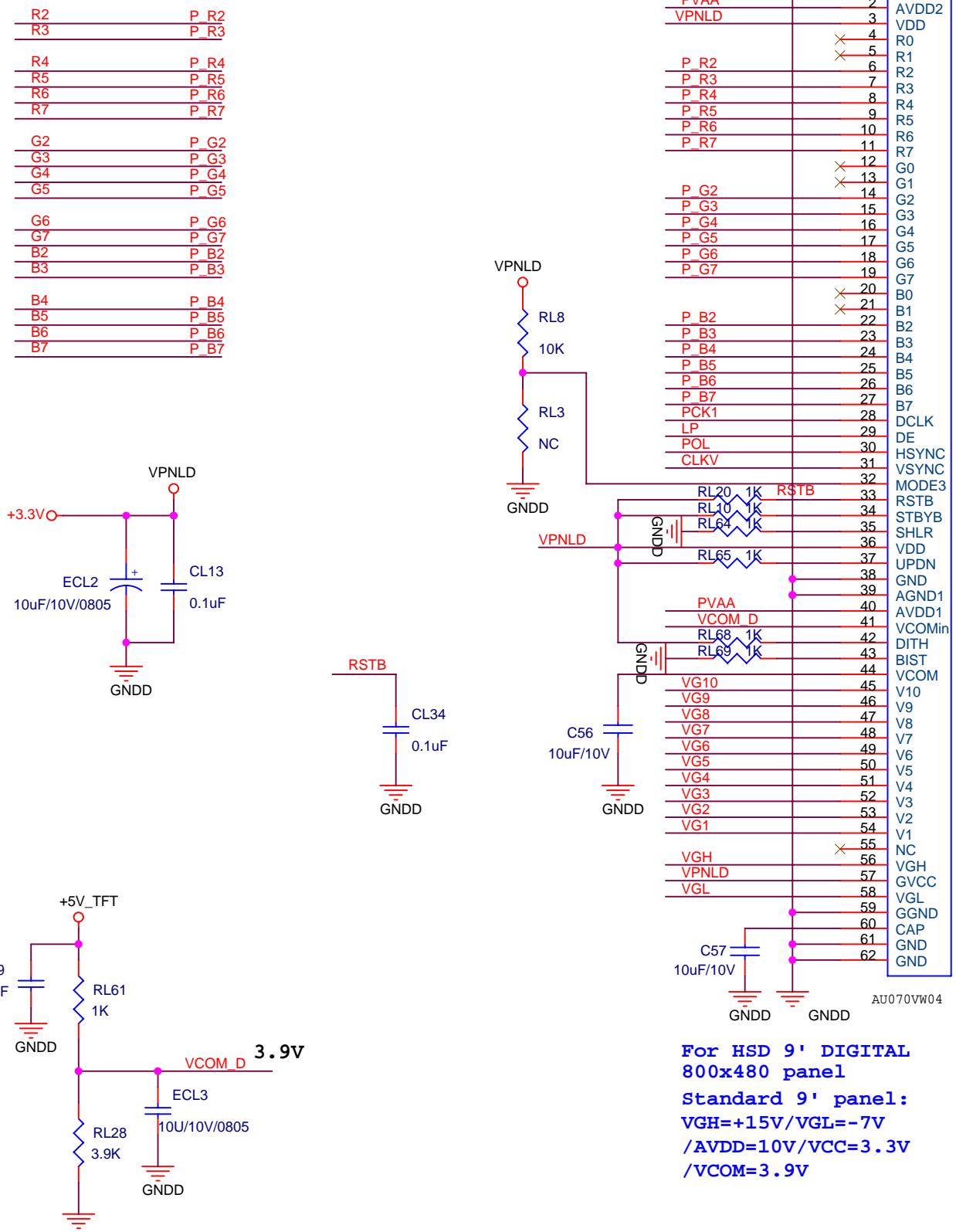
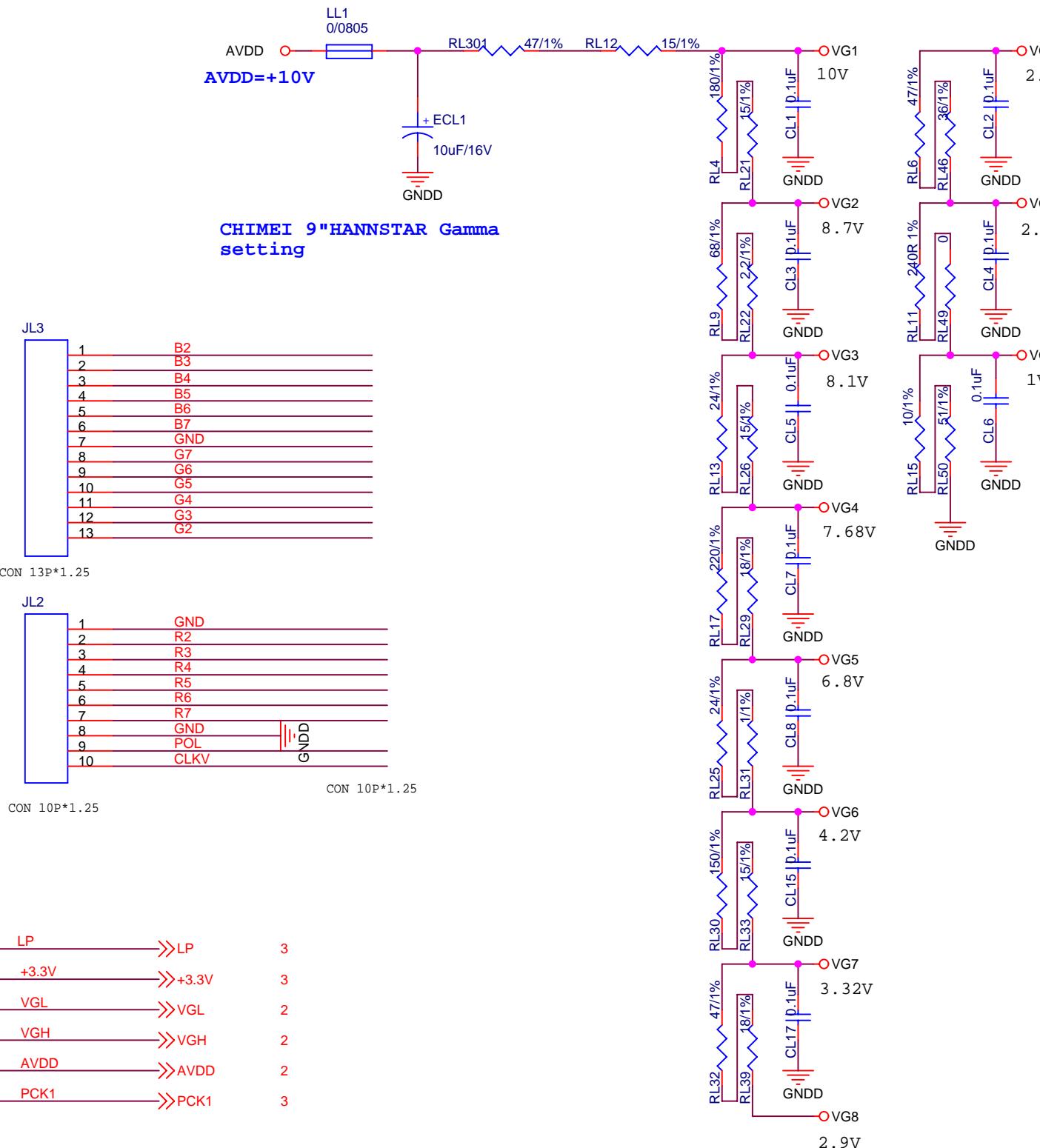
7.0 ELECTRICAL DIAGRAM

CIRCUIT DIAGRAM-TFT BACKLIGHT



7.0 ELECTRICAL DIAGRAM

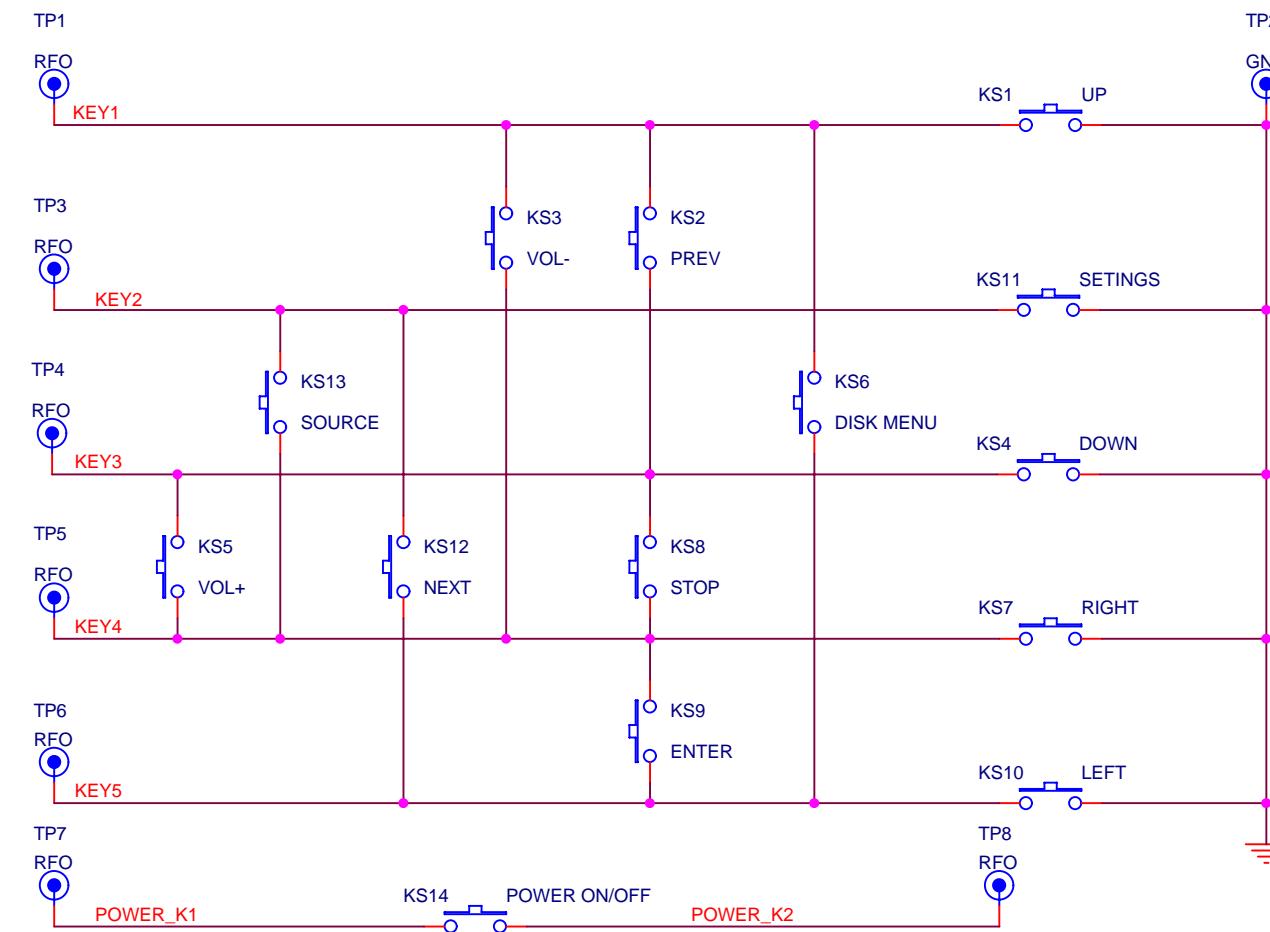
CIRCUIT DIAGRAM-TFT DRIVER



For HSD 9' DIGITAL
800x480 panel
Standard 9' panel:
VGH=+15V/VGL=-7V
/AVDD=10V/VCC=3.3V
/VCOM=3.9V

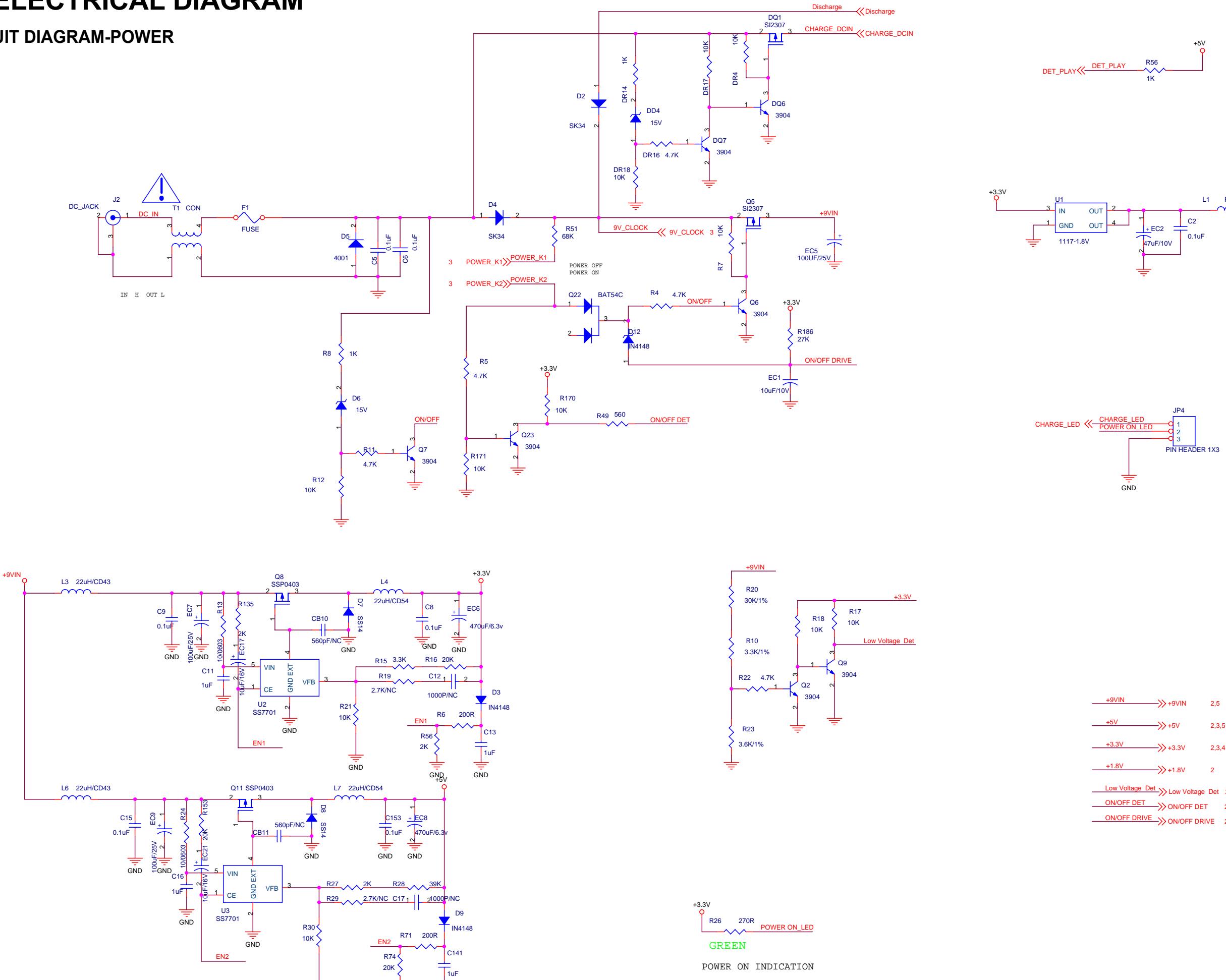
7.0 ELECTRICAL DIAGRAM

CIRCUIT DIAGRAM-TFT BACKLIGHT



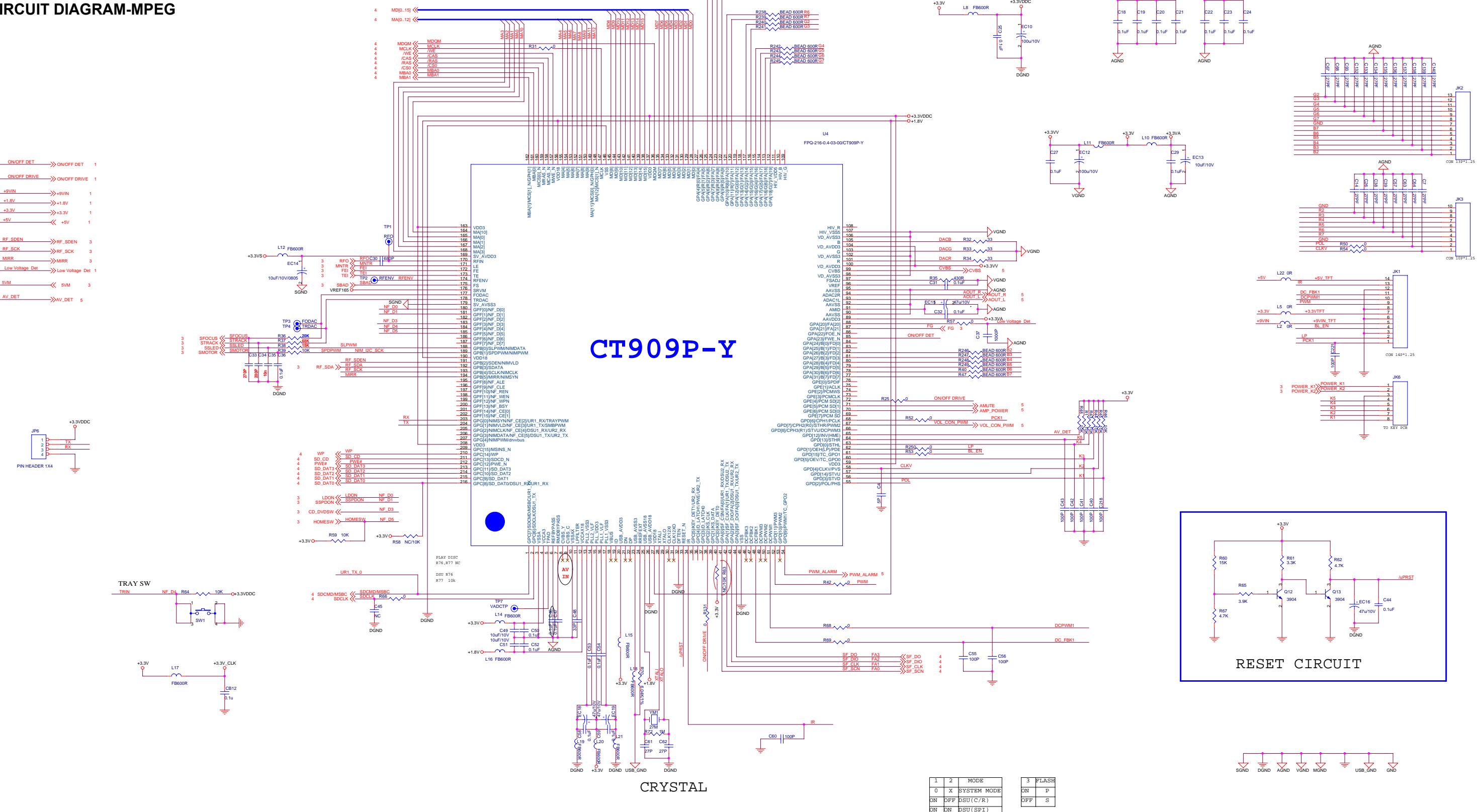
7.0 ELECTRICAL DIAGRAM

CIRCUIT DIAGRAM-POWER



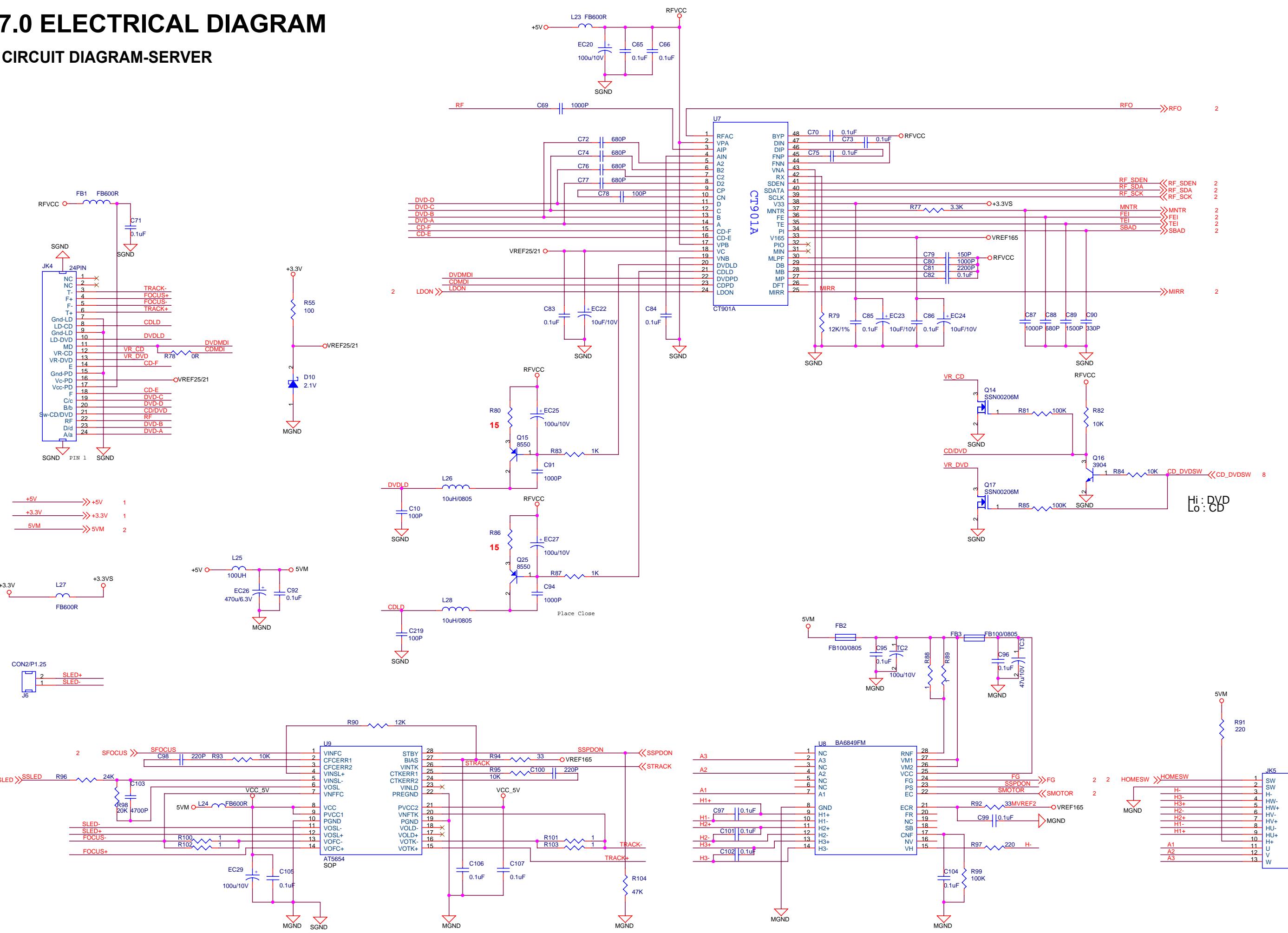
7.0 ELECTRICAL DIAGRAM

CIRCUIT DIAGRAM-MPEG



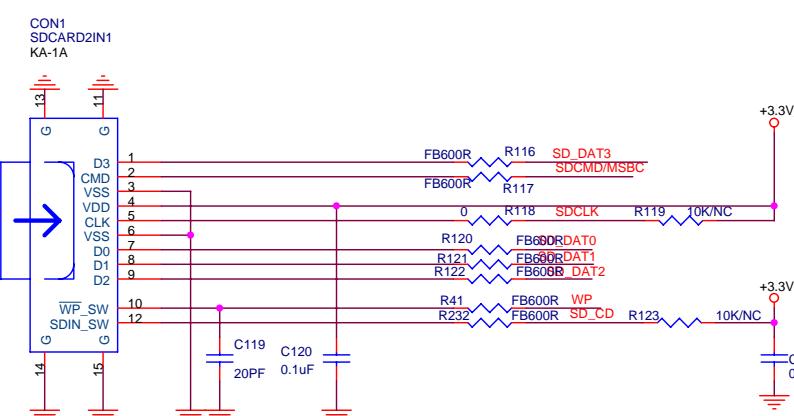
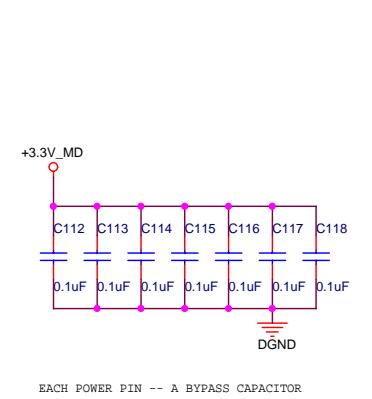
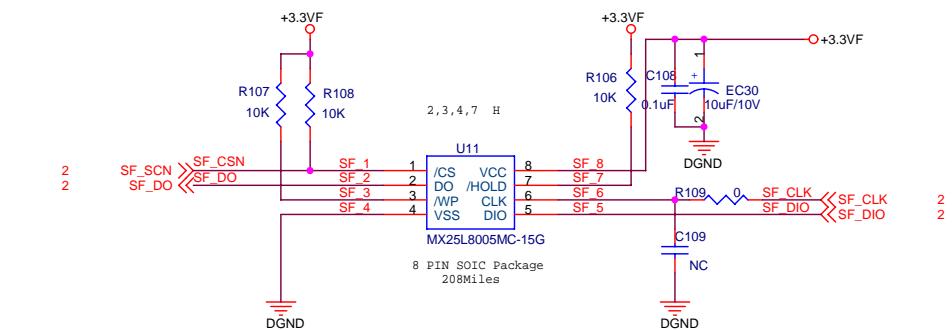
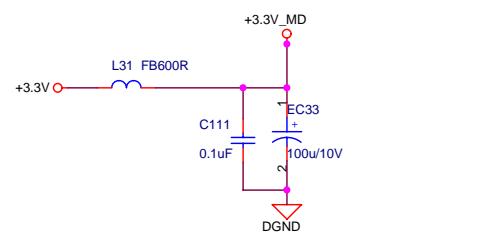
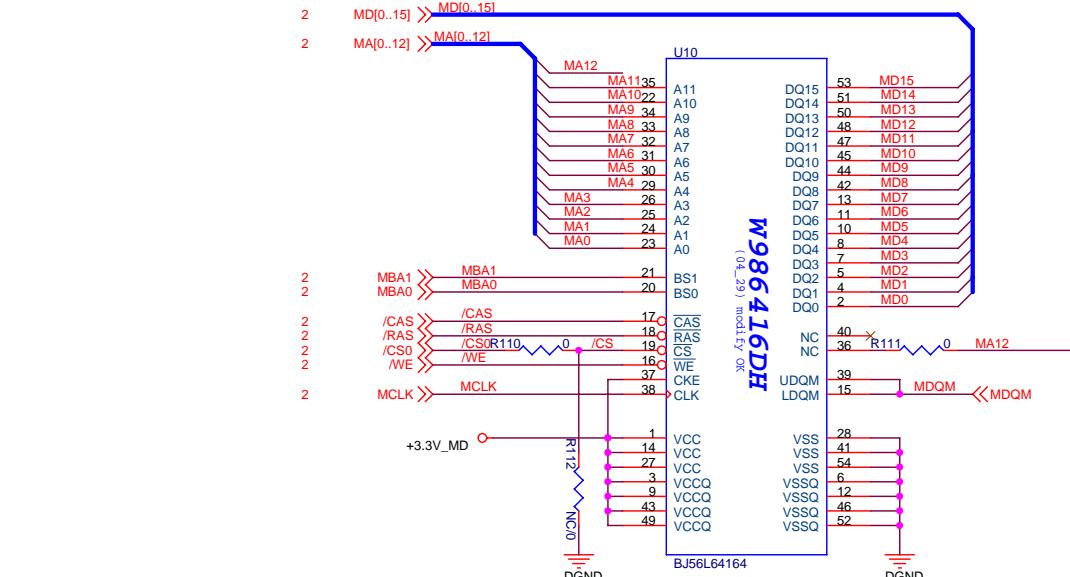
7.0 ELECTRICAL DIAGRAM

CIRCUIT DIAGRAM-SERVER



7.0 ELECTRICAL DIAGRAM

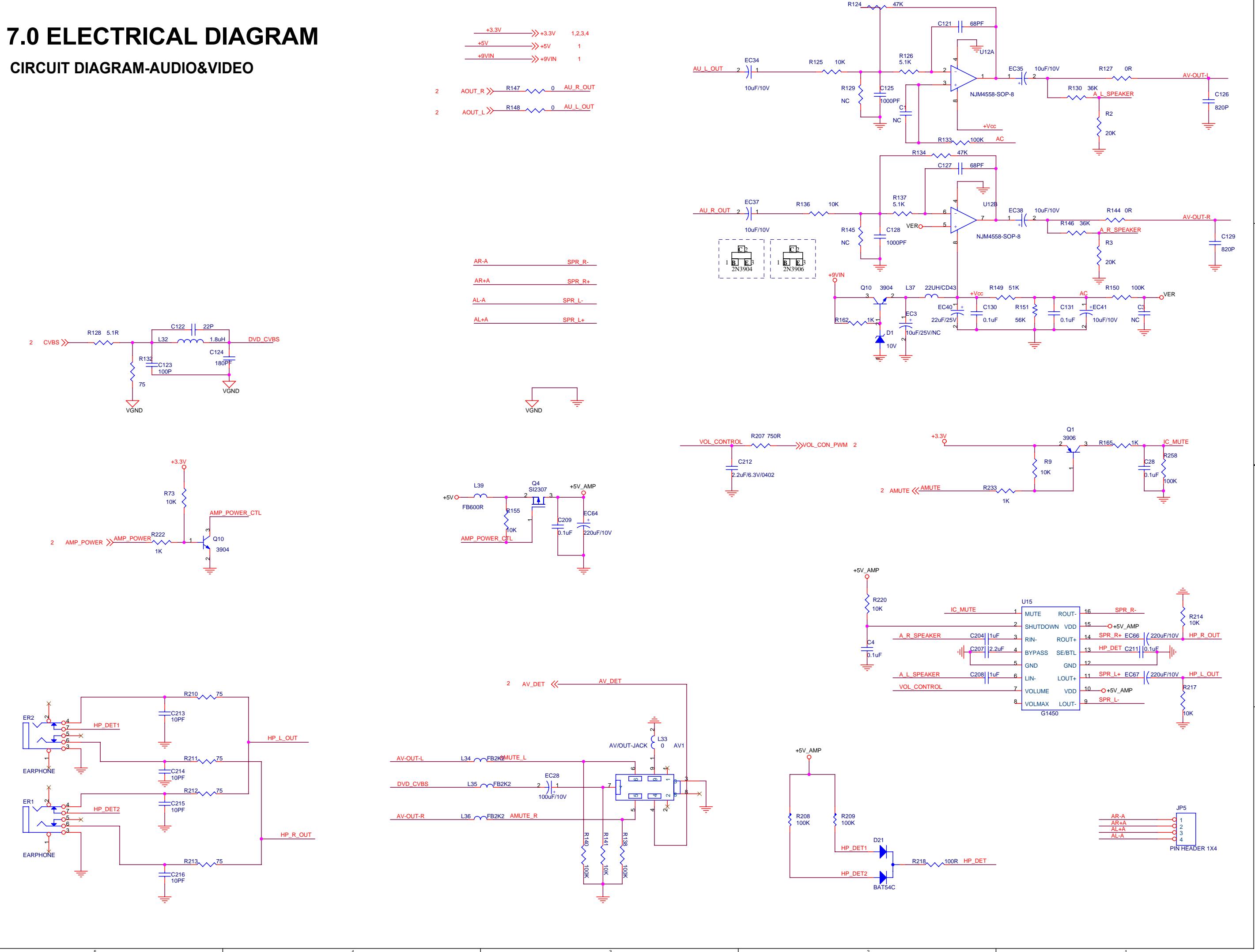
CIRCUIT DIAGRAM-SDRAM



+5V	» +5V	2.3.5
+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

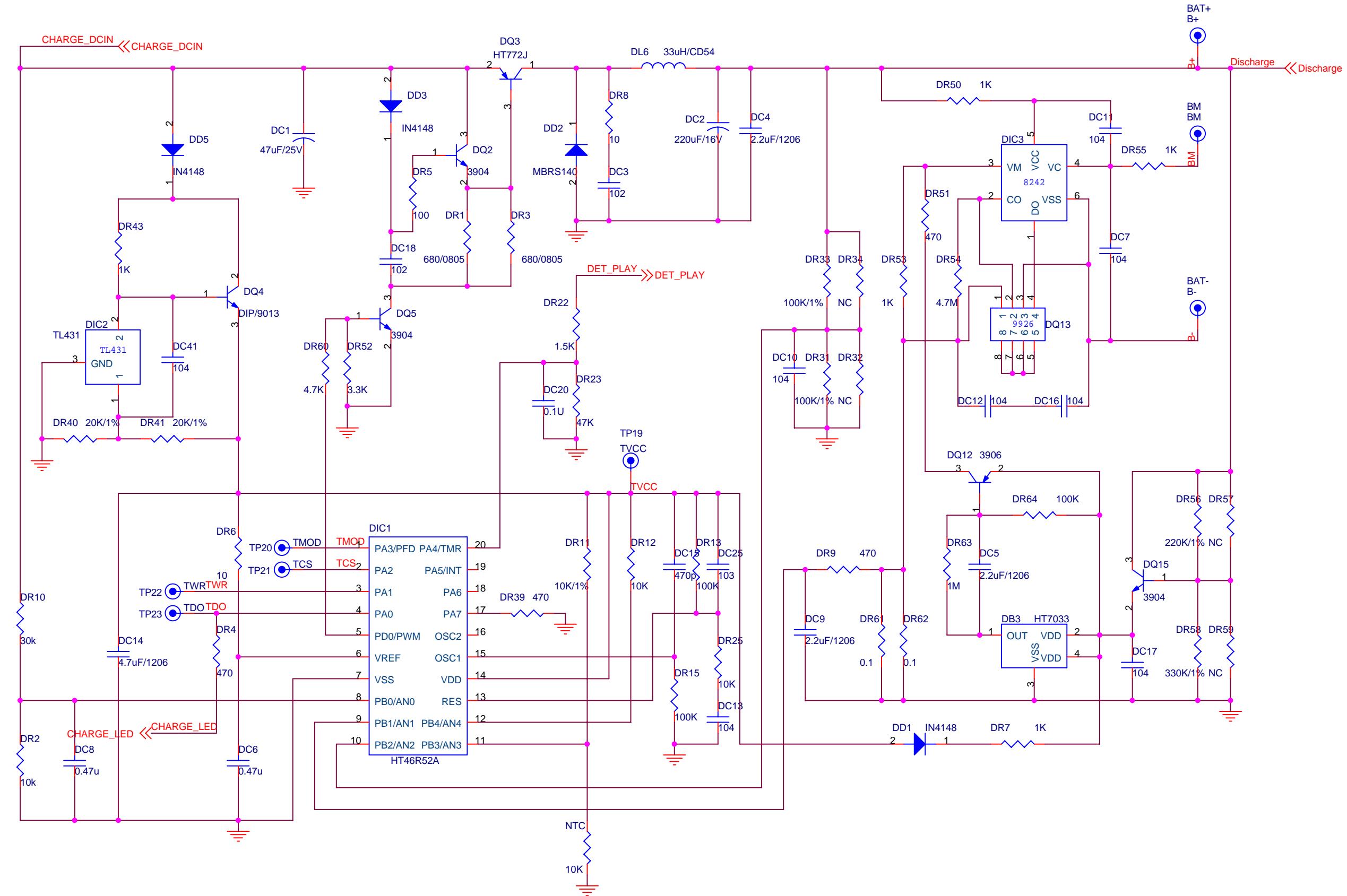
7.0 ELECTRICAL DIAGRAM

CIRCUIT DIAGRAM-AUDIO&VIDEO

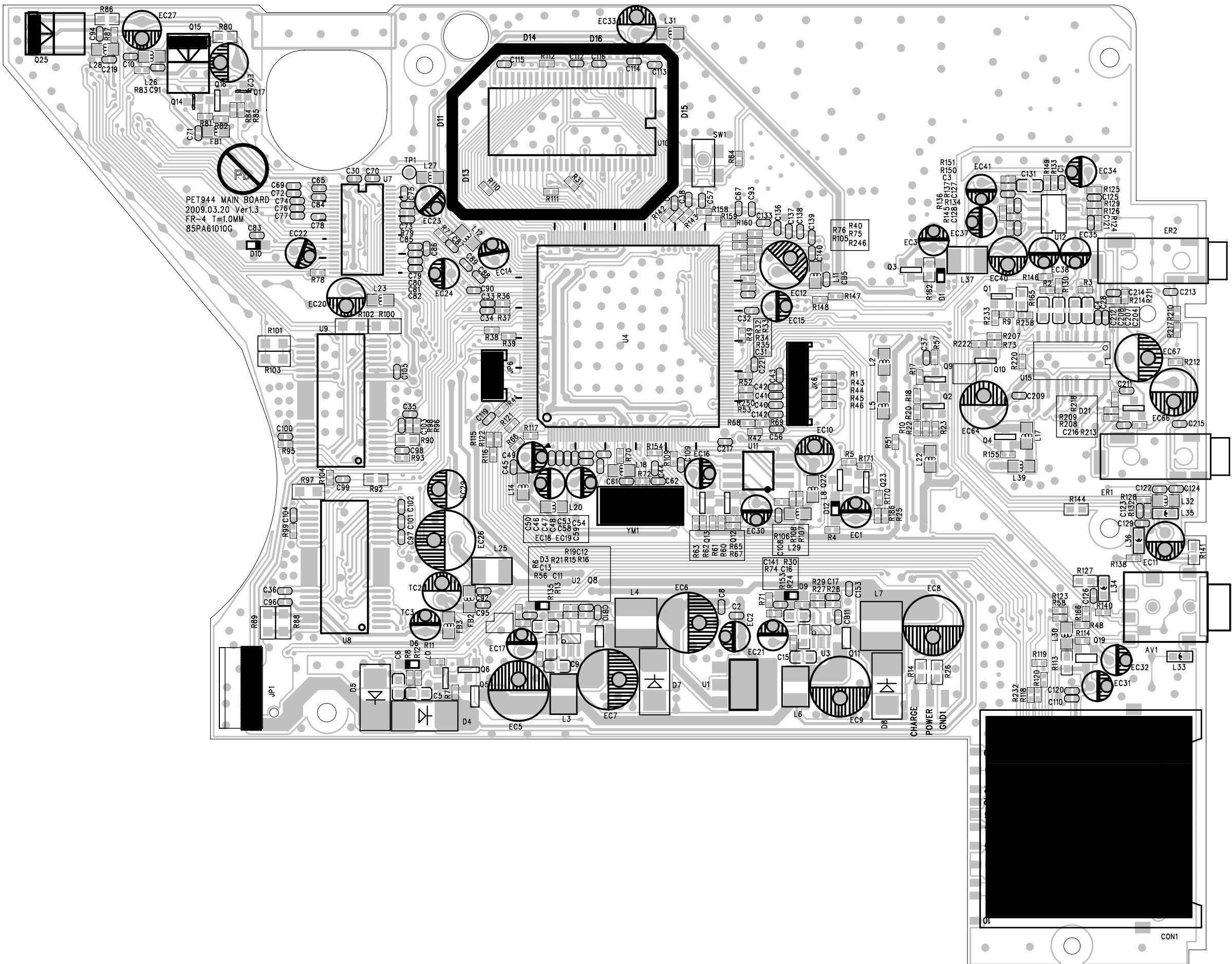


7.0 ELECTRICAL DIAGRAM

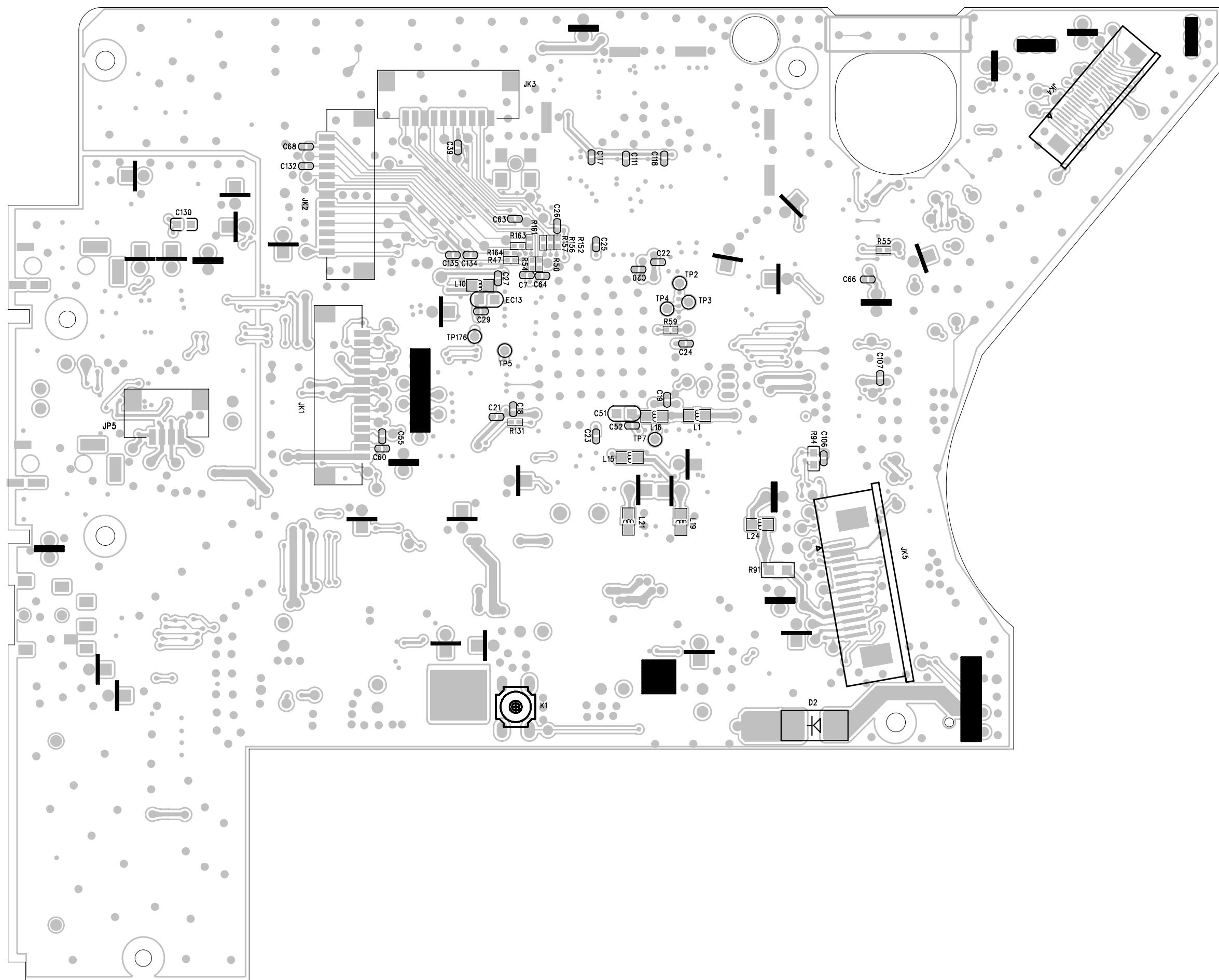
CIRCUIT DIAGRAM-BATTERY



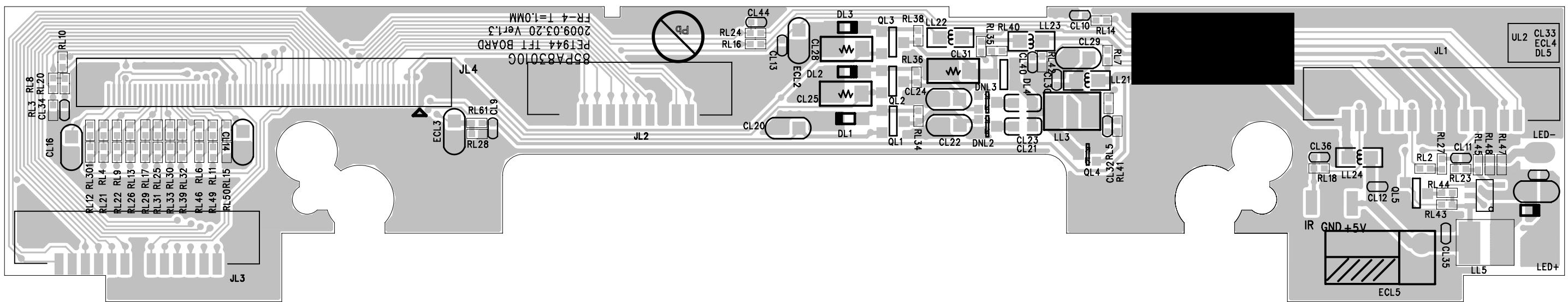
MAIN TOP PCB – COMPONENT LAYOUT



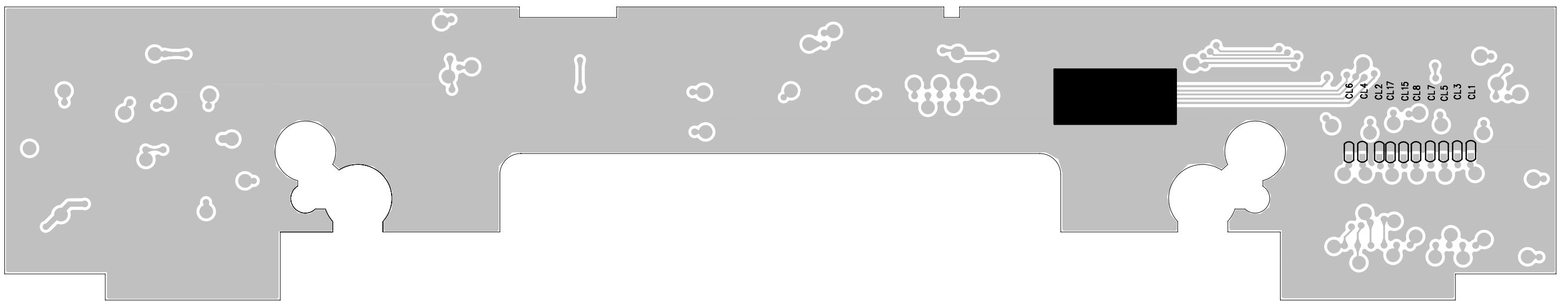
MAIN BOTTOM PCB – COMPONENT LAYOUT



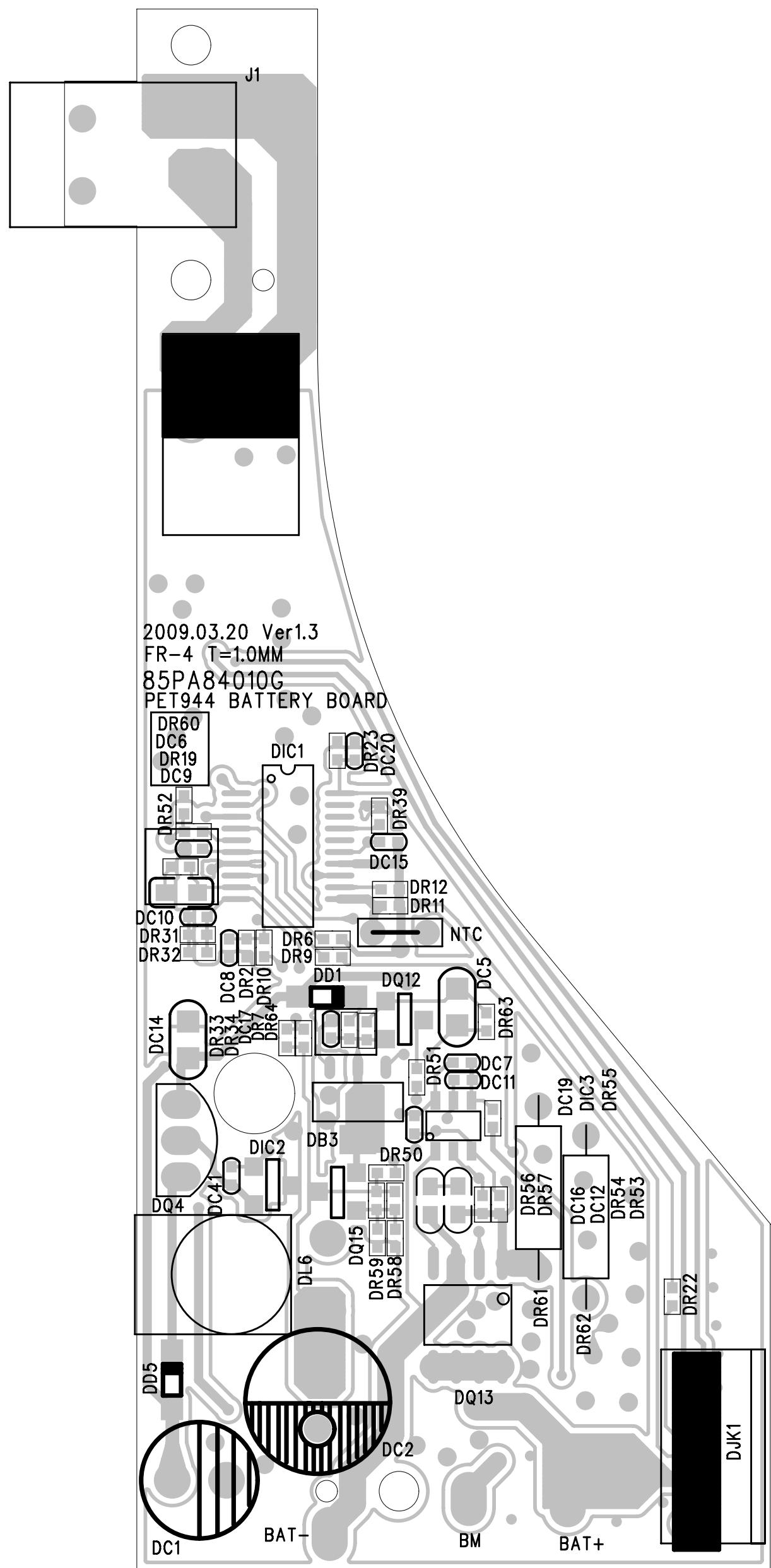
DRIVER TOP PCB – COMPONENT LAYOUT



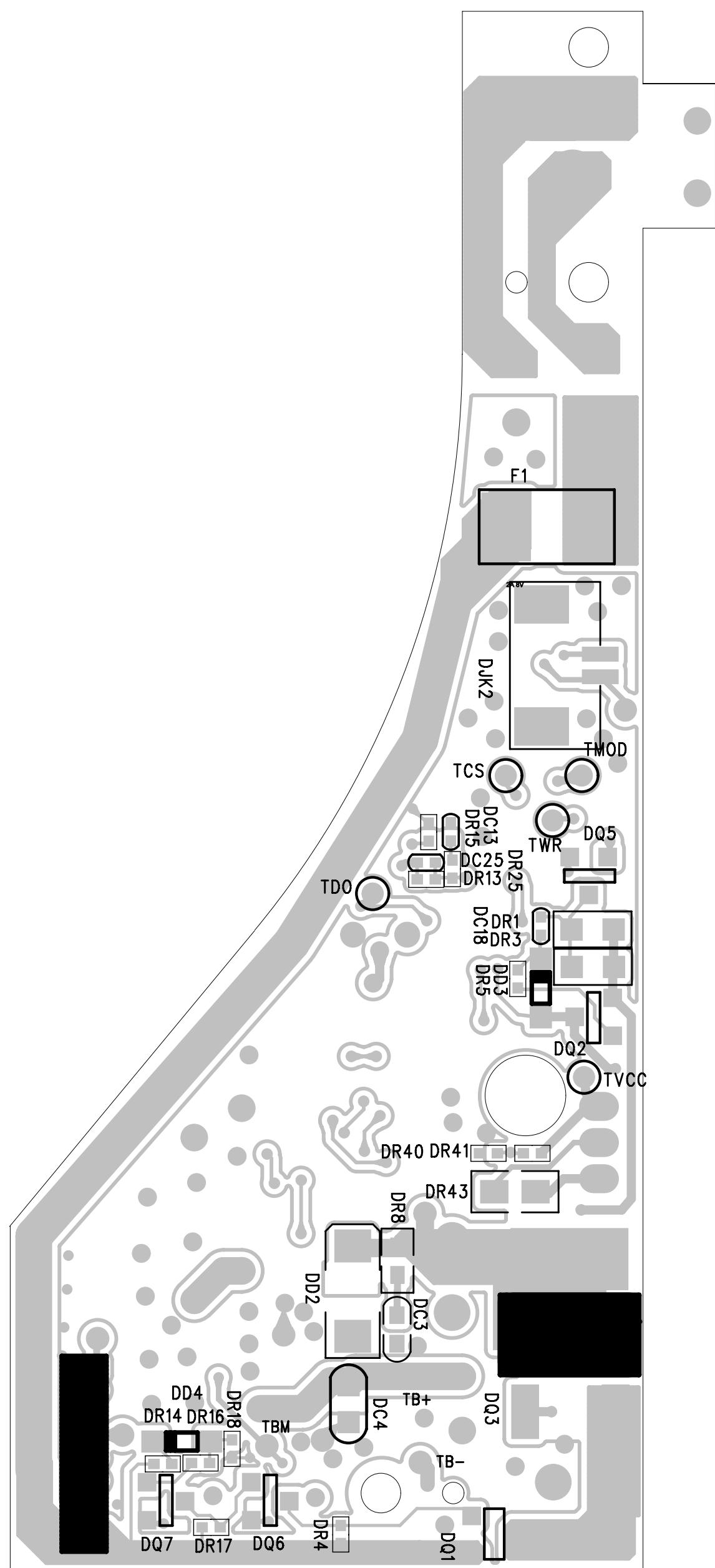
DRIVER BOTTOM PCB – COMPONENT LAYOUT



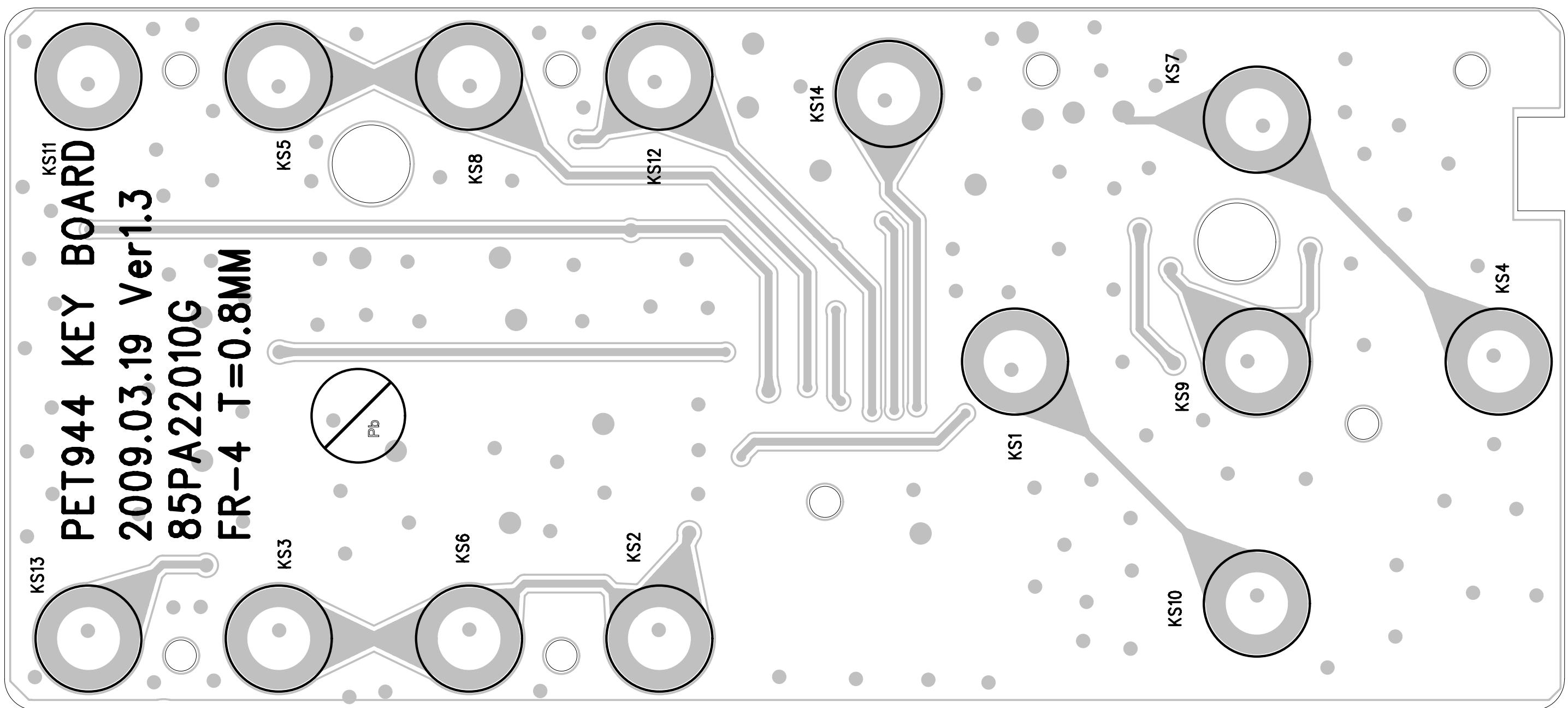
BATTERY TOP PCB – COMPONENT LAYOUT



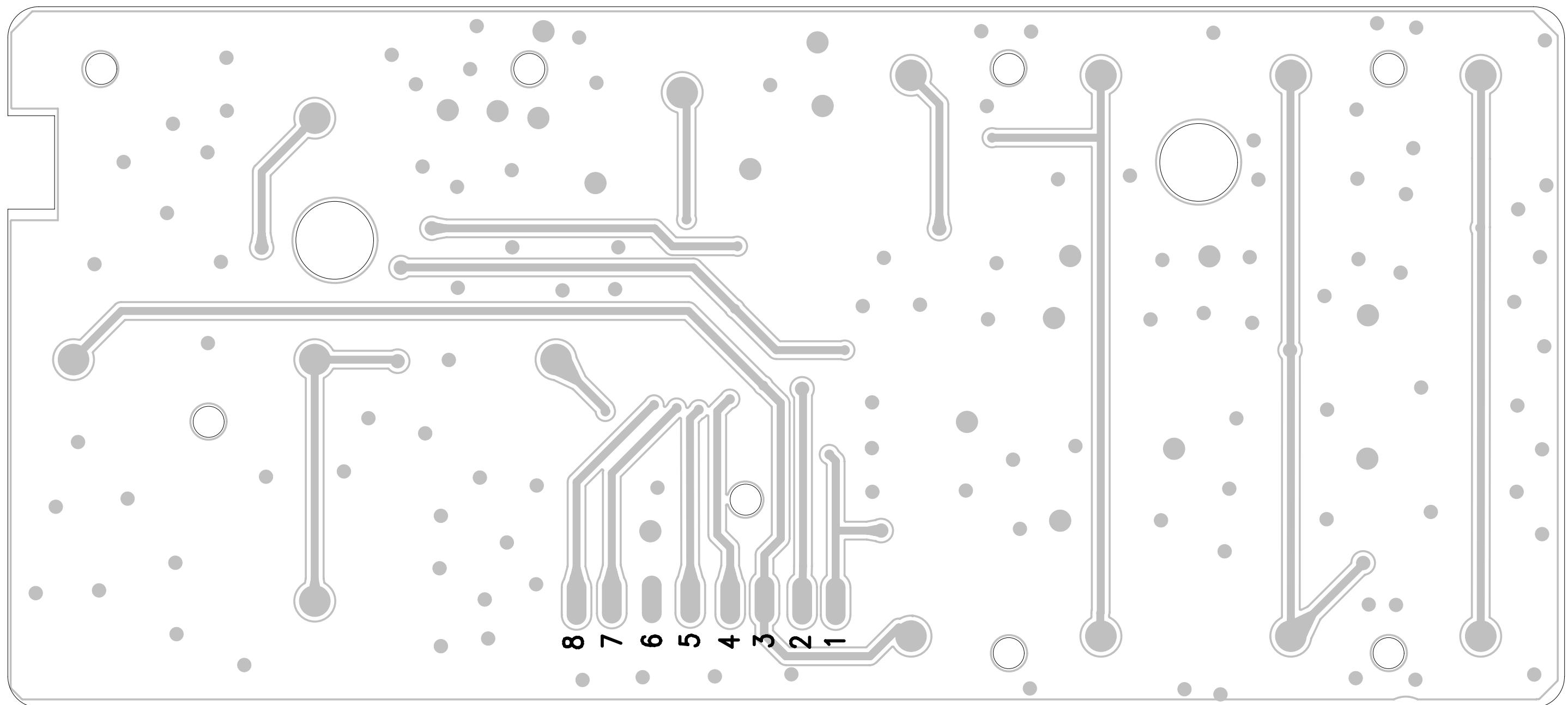
BATTERY BOTTOM PCB – COMPONENT LAYOUT



KEY TOP PCB - COMPONENT LAYOUT



KEY BOTTOM PCB – COMPONENT LAYOUT

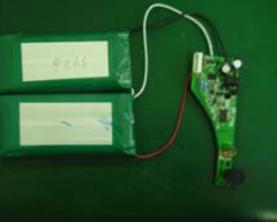


8.0 SERVICE PARTLIST

Electrical Part List:

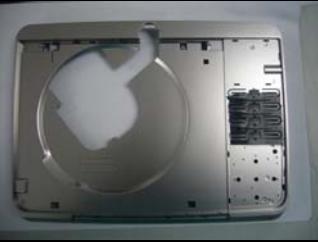
CTN	Service 12NC	Service Description	Photo	Pos. No.
PET944/12 PET944/58	996510023045	LED PCBA ASS'Y PET944		100
PET944/93	996510025387	LED PCBA ASSY PET944/93		100
PET944/12 PET944/58	996510023041	IR PCBA ASS'Y PET944		110
PET944/93	996510025381	IR PCBA ASSY PET944/93		110
PET944/12 PET944/58	996510023042	KEY PCBA ASS'Y PET944		120
PET944/93	996510025392	KEY PCBA ASSY PET944/93		120
PET944/12 PET944/58	996510023044	DVD PCBA ASS'Y PET944		130
PET944/93	996510026468	DVD PCBA ASSY PET944/93 (16M)		130
PET944/12 PET944/58	996510023055	TFT PCBA ASS'Y PET944		140
PET944/93	996510025429	TFT PCBA ASSY PET944/93		140

8.0 SERVICE PARTLIST

PET944/12 PET944/58	996510023048	BAT PCBA & BAT ASS'Y PET944		150
PET944/93	996510025398	BAT PCBA & BAT ASSY PET944/93		150
PET944/12 PET944/58	996510023056	9" PANEL FINAL ASS'Y		200
PET944/93	996510025428	9" PANEL FINAL ASS'Y		200
PET944/12 PET944/58	996510024067	DVD DECK MG9703T1HT		210
PET944/93	996510025386	DVD DECK MG9703T1HT		210
PET944/12 PET944/58 PET944/93	996510023046	HOUS UL#26 8P/1.25 L100MM		400
PET944/12 PET944/58 PET944/93	996510023049	HOUS (10/13/14/4PIN) & HINGE		410

8.0 SERVICE PARTLIST

Mechanical Part List:

CTN	Service 12NC	Service Description	Photo	Pos. No.
PET944/12 PET944/58	996510023015	MONITER BACK CABINET PET944		300
PET944/93	996510025379	MONITER BACK CABINET PET944		300
PET944/12 PET944/58	996510023047	DVD TOP CABINET PET944 BK		305
PET944/93	996510025385	DVD TOP CABINET PET944 BK		305
PET944/12 PET944/58	996510023022	DVD BOTTOM CABINET PET944 BK		310
PET944/93	996510025397	DVD BOTTOM CABINET PET944 BK		310
PET944/12 PET944/58	996510023028	DVDDOOR PET944 BK		315
PET944/93	996510025375	DVDDOOR PET944 BK		315
PET944/12 PET944/58	996510023009	OPEN KEY PET944 BK		320
PET944/93	996510025402	OPEN KEY PET944 BK		320

8.0 SERVICE PARTLIST

PET944/12 PET944/58	996510023014	POWER KEY PET944 PLATING			325
PET944/93	996510025403	POWER KEY PET944 PLATING			325
PET944/12 PET944/58	996510023024	NAVIGATION_KEY PET944 PLATING			330
PET944/93	996510025406	NAVIGATION_KEY PET944 PLATING			330
PET944/12 PET944/58	996510023037	OK KEY PET944 PLATING			335
PET944/93	996510025408	OK KEY PET944 PLATING			335
PET944/12 PET944/58	996510023026	LENS PET944 AUBERGINE			340
PET944/93	996510025383	LENS PET944 AUBERGINE			340
PET944/12 PET944/58	996510023029	SOURCE SETUP KEY PET944 BK			345
PET944/93	996510025404	SOURCE SETUP KEY PET944 BK			345

8.0 SERVICE PARTLIST

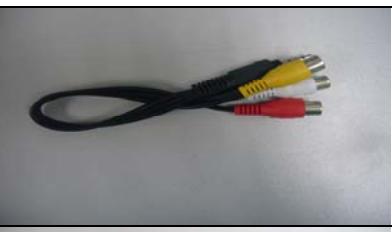
PET944/12 PET944/58	996510023038	DISC MENU KEY PET944 BK		350
PET944/93	996510025393	DISC MENU KEY PET944 BK		350
PET944/12 PET944/58	996510023036	VOLUME KEY PET944 BK		355
PET944/93	996510025384	VOLUME KEY PET944 BK		355
PET944/12 PET944/58	996510023011	PREV NEXT KEY PET944 BK		360
PET944/93	996510025405	PREV NEXT KEY PET944 BK		360
PET944/12 PET944/58	996510023025	COSMETIC KEY PET944 BK		365
PET944/93	996510025407	COSMETIC KEY PET944 BK		365
PET944/12 PET944/58	996510023033	COSMETIC COVER 2 PET944 BK		370
PET944/93	996510025389	COSMETIC COVER 2 PET944 BK		370

8.0 SERVICE PARTLIST

PET944/12 PET944/58	996510023012	BRACKET PET944 BK		375
PET944/93	996510025394	BRACKET PET944 BK		375
PET944/12 PET944/58	996510023031	CABLE COVER PET944 BK		380
PET944/93	996510025382	CABLE COVER PET944 BK		380
PET944/12 PET944/58	996510023027	CD LATCH PET944 BK		385
PET944/93	996510025395	CD LATCH PET944 BK		385
PET944/12 PET944/58	996510023051	DISPLAY FRAME & SPK PET944		396
PET944/12 PET944/58 PET944/93	996510030917	SPEAKER_GRILL PET944 BK		390
PET944/93	996510025391	DISPLAY FRAME & SPK PET944/93		390

8.0 SERVICE PARTLIST

Accessories Part List:

CTN	Service 12NC	Service Description	Photo
PET944/12 PET944/58	996510022959	SW ADAPTOR 9V/1.5A EU	
PET944/93	996510025396	SW ADAPTOR 9V/1.5A CHINA	
PET944/12 PET944/58 PET944/93	996510004975	AV CORD L230mm 3P	
PET944/12 PET944/58 PET944/93	996510021031	CAR CORD 1.5A UL1.8m	
PET944/12 PET944/58 PET944/93	996510022292	R/C 29KEY PHILIPS PET944	
PET944/12 PET944/58 PET944/93	996510012446	CAR MOUNT	

9.0 REVISION LIST

Version 1.0

- Initial release PET944/12

Version 1.1

- Add PET944/58/93

Version 1.2

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