

Service  
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**Service**



# Service Manual

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# 1.0 TECHNICAL SPECIFICATION

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## VIDEO PERFORMANCE

Test equipment: Tektronics VM700T  
Test discs: DVD test disc: Philips LVP 10. 01  
(PAL) /Abex TDV-540 (NTSC)  
Load Impedance: 75Ω

## COMPONENT VIDEO RGB

Luminance amplitude output: 700mV ± 10%  
RGB unbalance:5%  
Sync. Amplitude: 300mV ± 100mV  
S/N on RGB outputs: ≥52 dB  
DC Level: ≤ 1V

## VIDEO FORMAT

DVD, VCD, MP3, JPEG  
USB:2.0 HS,support MSC,MTP,sector size 4K

## COMPONENT VIDEO YPbPr

PbPr output unbalance:3%  
Sync. Amplitude: 286mV ± 100mV  
Video Bandwidth 4.2 MHz:-5db  
S/N on outputs: YUV: ≥52 dB

## AUDIO PERFORMANCE

**Line outputs**  
Test equipment: Audio Precision System2  
Test discs:CDDA:Philips audio signal test disc 1  
Load Impedance: 100KΩ for Audio

## POWER CONSUMPTION

Power-Supply:100-280V ac,50/60Hz,standby:310V  
Supply voltage:AC 100~280V  
Supply Power consumption(AC 100/240V):12W/+10%  
Standby Power,230VAC: <1W

## AUDIO FORMAT

CD/MP3,DVD audio

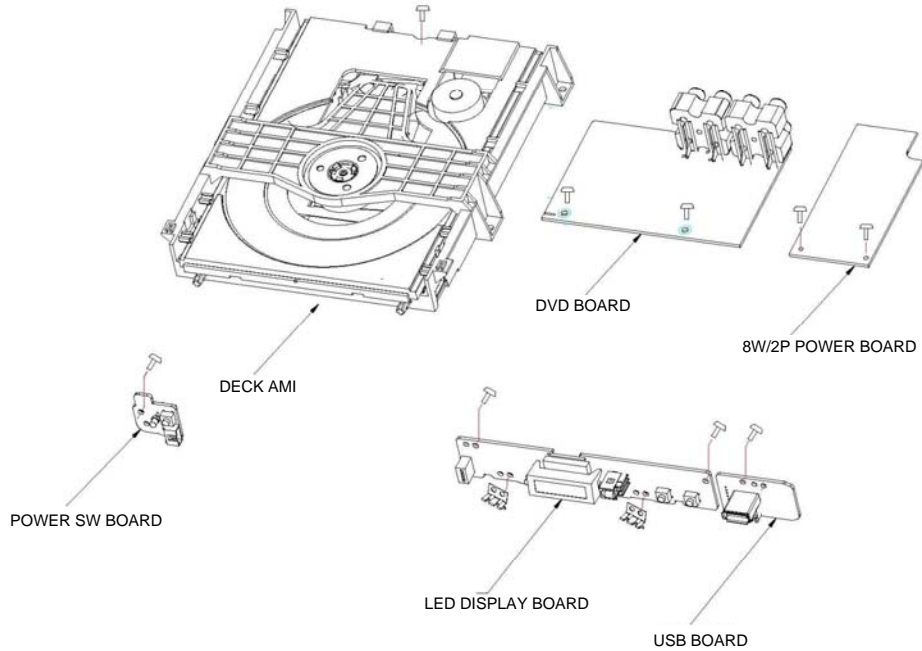
## GENERAL DESCRIPTION

Optical Pickup:IM S76RFVP  
Chip set/Solution:Mediatek MTK1389QE-LA  
Disc Size:8cm/12cm

## CVBS

Amplitude output:1Vpp± 0.1V/  
White bar: 714mV ± 10%/700mVpp ± 10%  
Sync. Amplitude: 286mV ±100mV/300mVpp ± 100mV  
Burst/chroma ratio: ± 10%  
S/N luminance: ≥52 dB

# 1.1 PCBs LOCATION



## VERSION VARIATIONS

Type/Versions:		DVP3336					
Service policy	94						
<b>Board in used:</b>							
<b>MAIN BOARD</b>	M/C						
<b>8W/2P POWER BOARD</b>	M						
<b>LED DISPLAY BOARD</b>	M/C						
<b>USB BOARD</b>	M/C						
<b>POWER SW BOARD</b>	M						

**\*TIPS: C -- Component Lever Repair.**  
**M -- Module Lever Repair**  
**X -- Used**

## 1.2 System, Region Code, etc. Setting Procedure

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### **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 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

**Select "0" setting = Region Free (confidential)**

### **Procedure for SW upgrade**

1. The upgrade will provide a document re-named: PHILIPS.BIN
2. "PHILIPS.BIN" copy to USB or CD-ROM into the data;
3. Reading the USB or CD-ROM, in accordance with prompt, press "OK" key to 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. OPEN
2. Press SETUP MENU
3. Select Preferences
4. Select Version Info
5. Press "OK" key

## 2.0 Safety instruction

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### 1. General safety

Safety regulations require that during a repair:

. Connect the unit to the mains via an isolation transformer.

. Replace safety components indicated by the symbol

Only by components identical to the original ones.

Any

Other component substitution (other than original type)

May increase risk of fire or electrical shock hazard.

Safety regulations require that after a repair, you must

Return the unit in its original condition. Pay, in particular,

Attention to the following points:

. Route the wires/cables correctly, and fix them with the

mounted cable clamps

. Check the insulation of the mains lead for external Damage

. Check the electrical DC resistance between the mains

Plug and the secondary side:

1) Unplug the mains cord, and connect a wire between

The two pins of the mains plug.

2) Set the mains switch the "on" position (keep the

Mains cord unplug).

3) Measure the resistance value between the mains

plug and the front panel, controls, and chassis bottom.

4) Repair or correct unit when the resistance measurement is less than 1M  $\Omega$

5) Verify this, before you return the unit to the customer/user (ref. UL-standard no. 1492).

6) Switch the unit "off", and remove the wire between

the two pins of the mains plug.

### 2. Laser safety

This unit employs a laser. Only qualified service personnel

May remove the cover, or attempt to service this device

(due to possible eye injury).

Laser device unit

Type :Semiconductor laser GaAlAs

Wavelength :650nm (DVD)

:780nm (VCD/CD)

Output power :7mW(DVD)

:10mW(DVD/CD)

Beam divergence:60 degree

Note: Use of controls or adjustments or performance of procedure other than those specified herein, may result in hazardous radiation exposure. Avoid direct exposure to beam.

### 3.0 INSTRUCTION FOR USE

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You can download this information from the following websites:

<http://www.philips.com/support>

<http://www.p4c.philips.com>

## 4.0 MECHANICAL AND DISMANTLING INSTRUCTIONS

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The following guidelines show how to dismantle the player.

Step1: Remove 5 screws around the Top Cover, and then remove the Top Cover(Figure1)

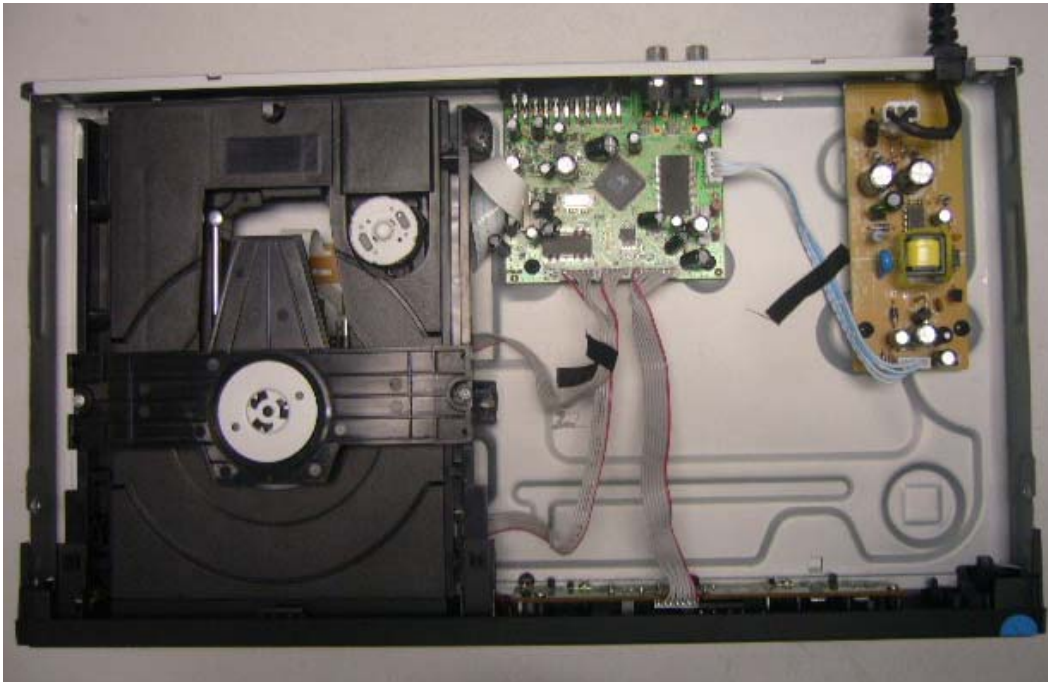


Figure 1

Step2: If the tray can't open in normal way, you can make it through the instruction as below (Figure2)



Figure 2

Step2: If it is necessary to dismantle Loader or Front Panel, the Front door should be removed first(Figure3)



# 4.0 MECHANICAL AND DISMANTLING INSTRUCTIONS



Figure3

Step4: Remove the 10 screws on board to dismantle the DVD BOARD & POWER BOARD & LED BOARD (Figure 4&5)

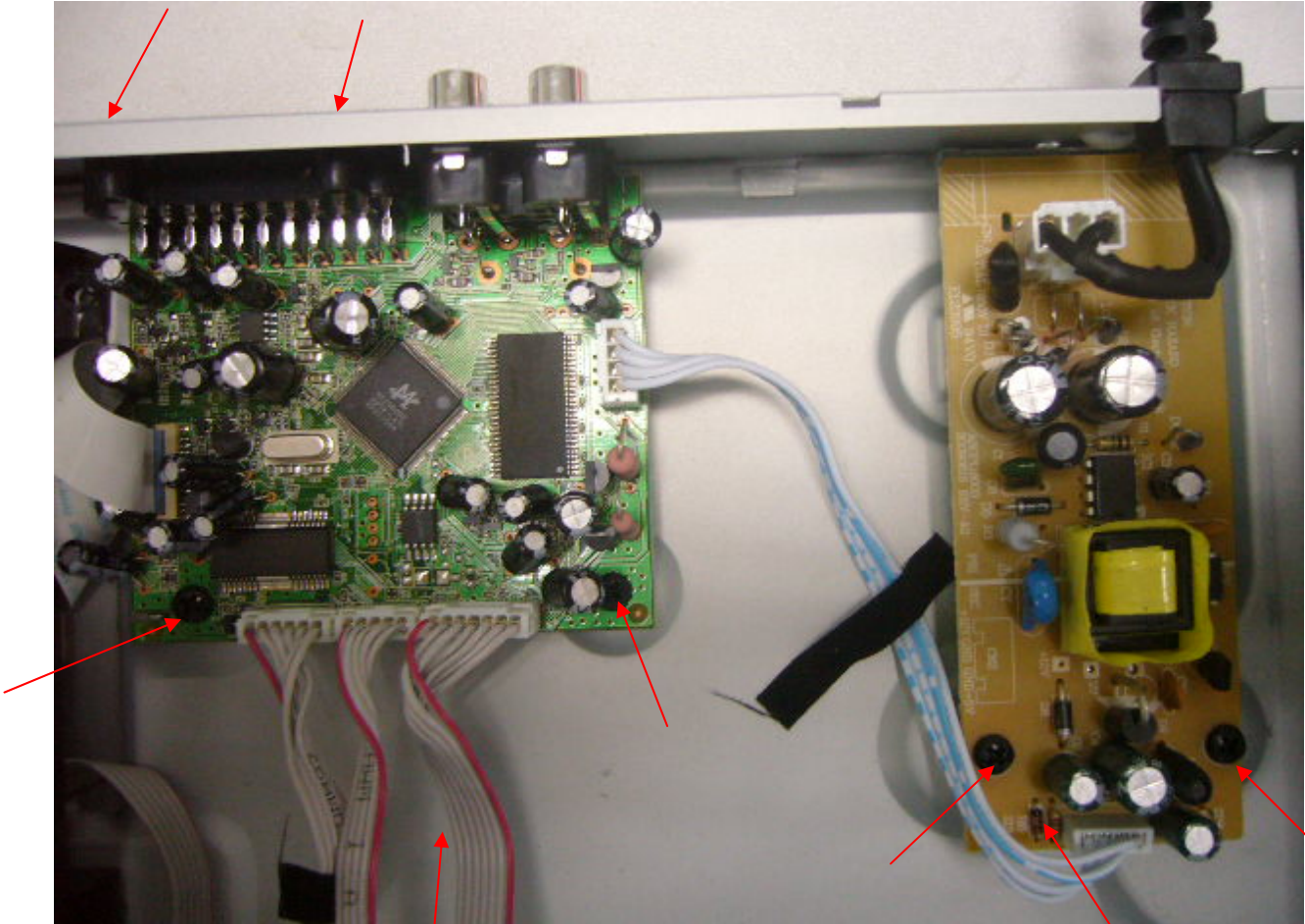
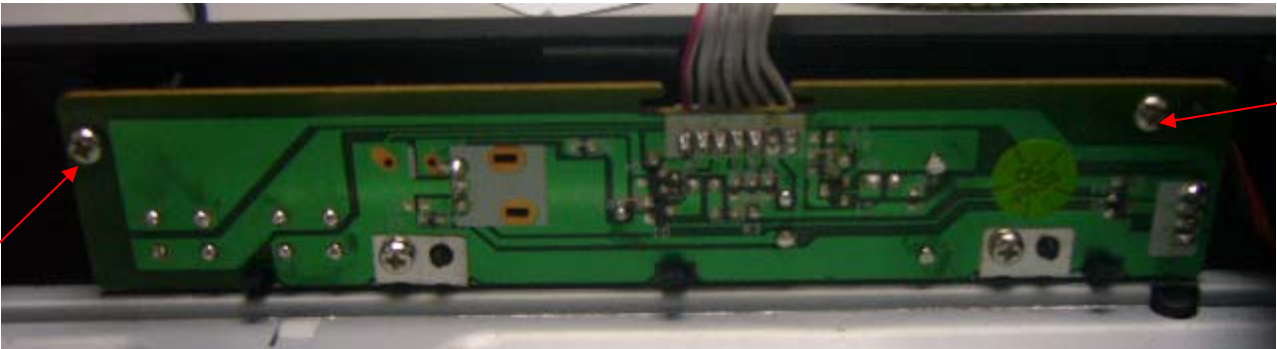


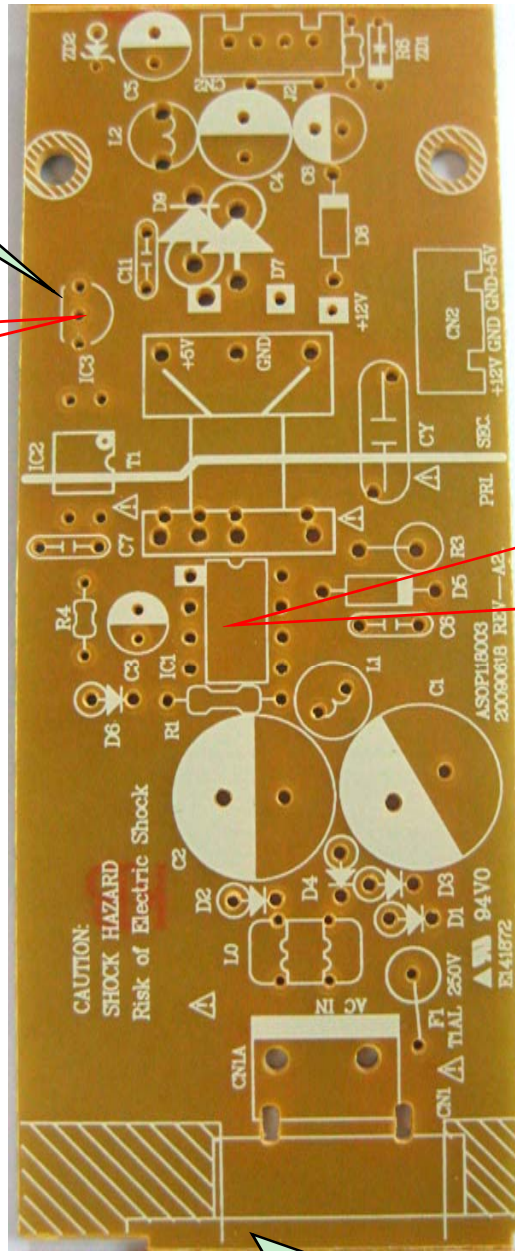
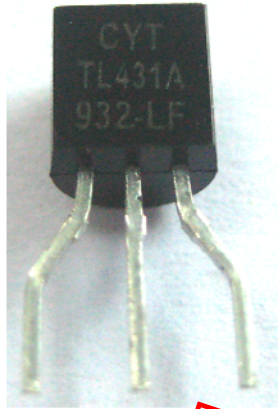
Figure4





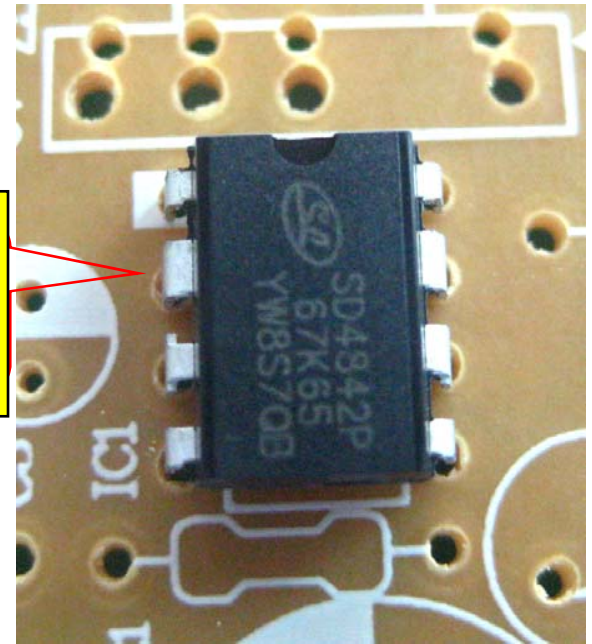
DVP3336和  
DVP3320/3326共  
用此IC

CYT431 location  
(IC3)



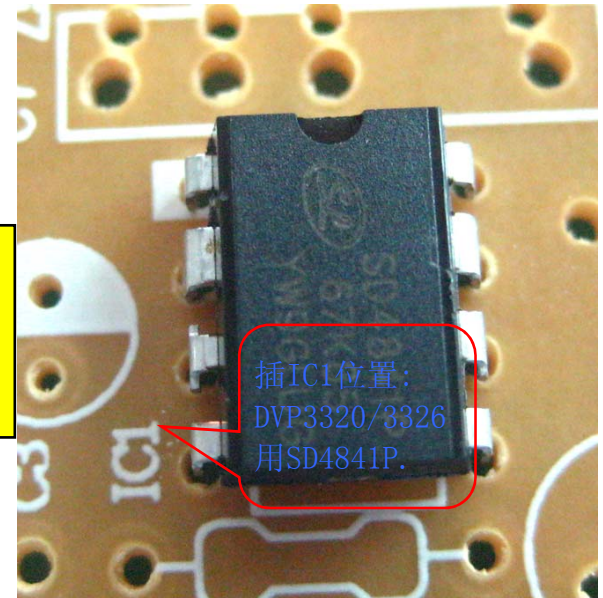
Power Board repair (swap IC and transformer)

IC1: placement of  
SD4842P on  
DVP3336 board



location IC1:  
DVP3336 uses  
SD4842P  
DVP3320/3326 uses  
SD4841P

IC1: placement of SD4841P  
on DVP3320/3326 board

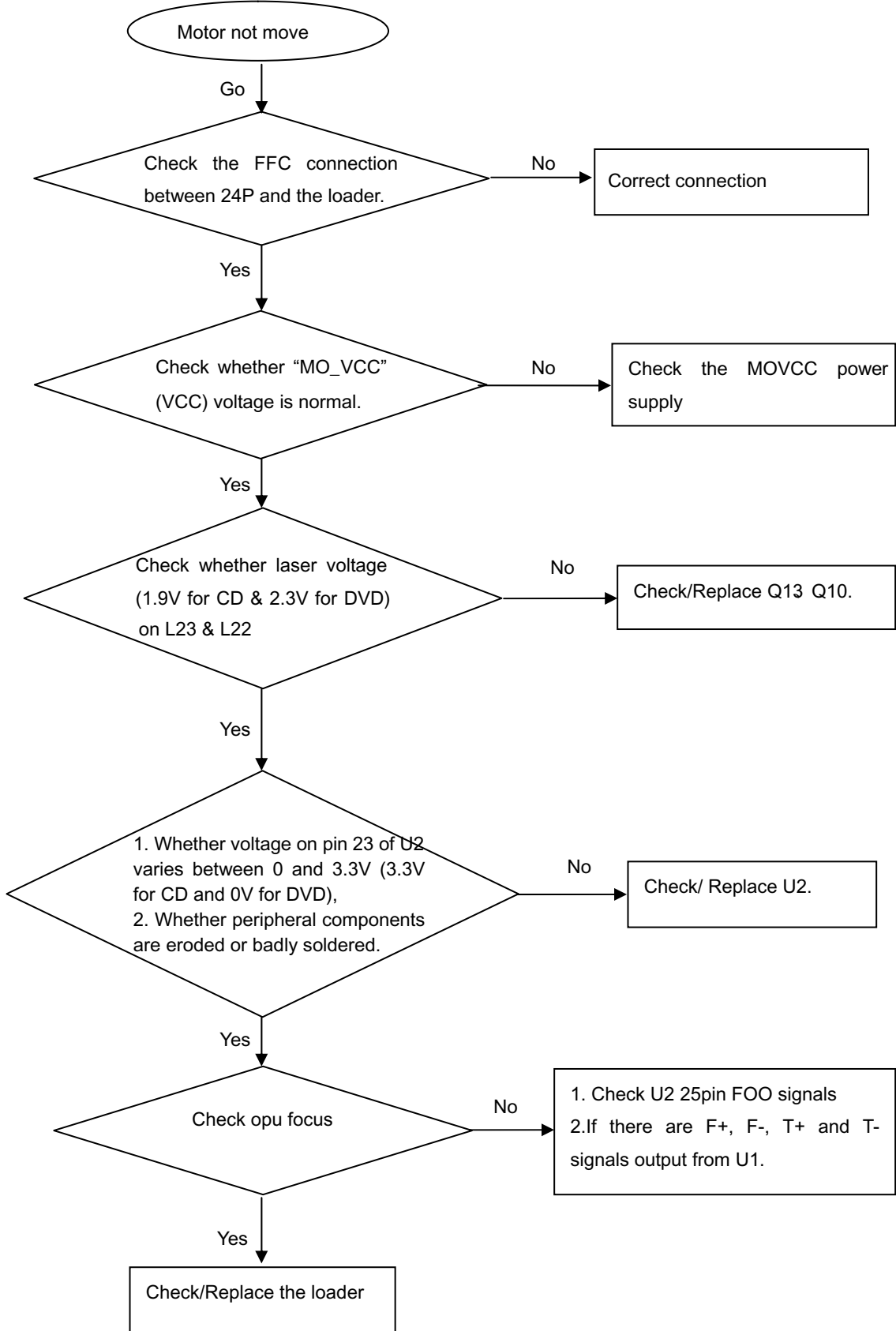


插IC1位置:  
DVP3320/3326  
用SD4841P.

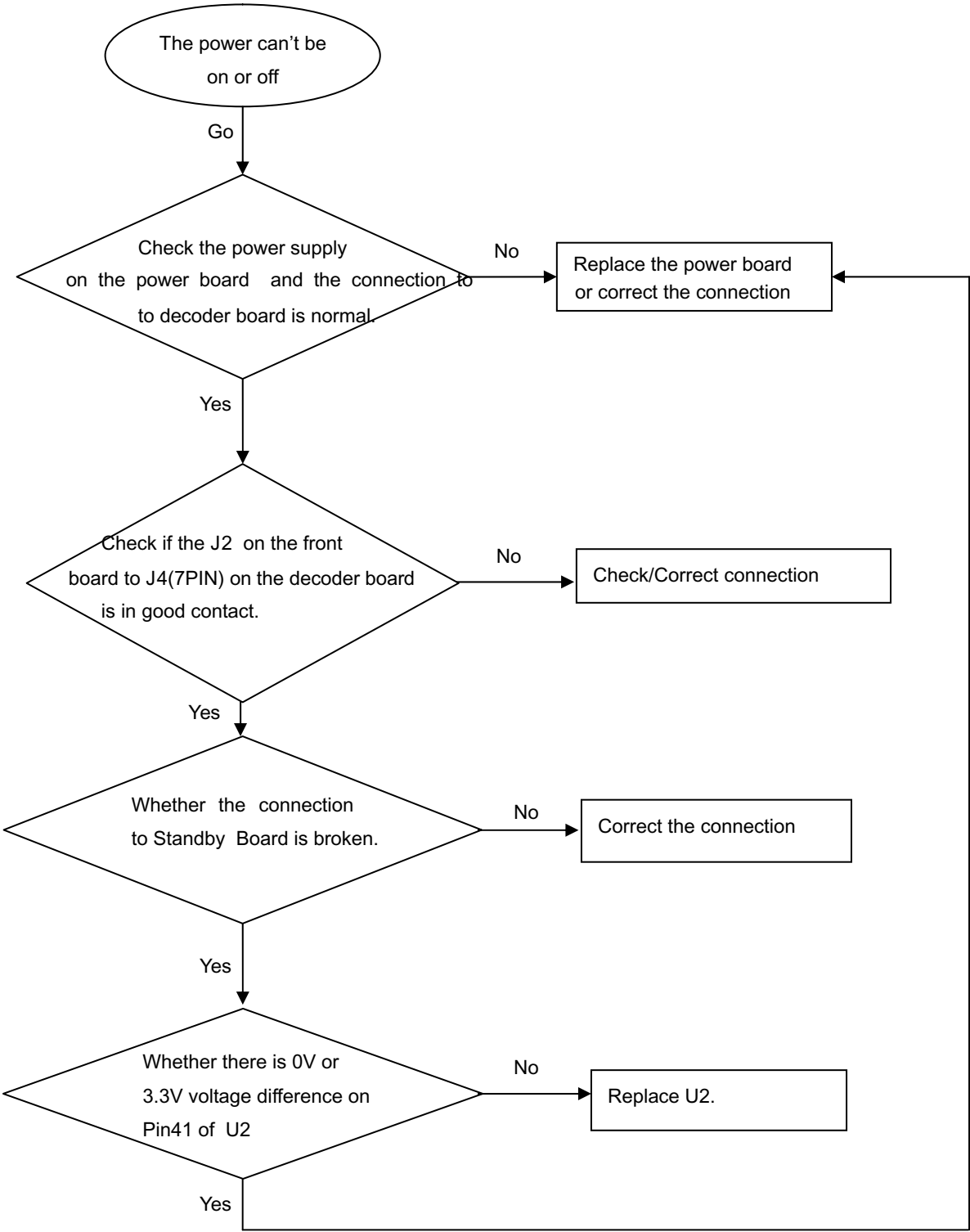
Common power board of  
DVP3336/DVP3320/3326



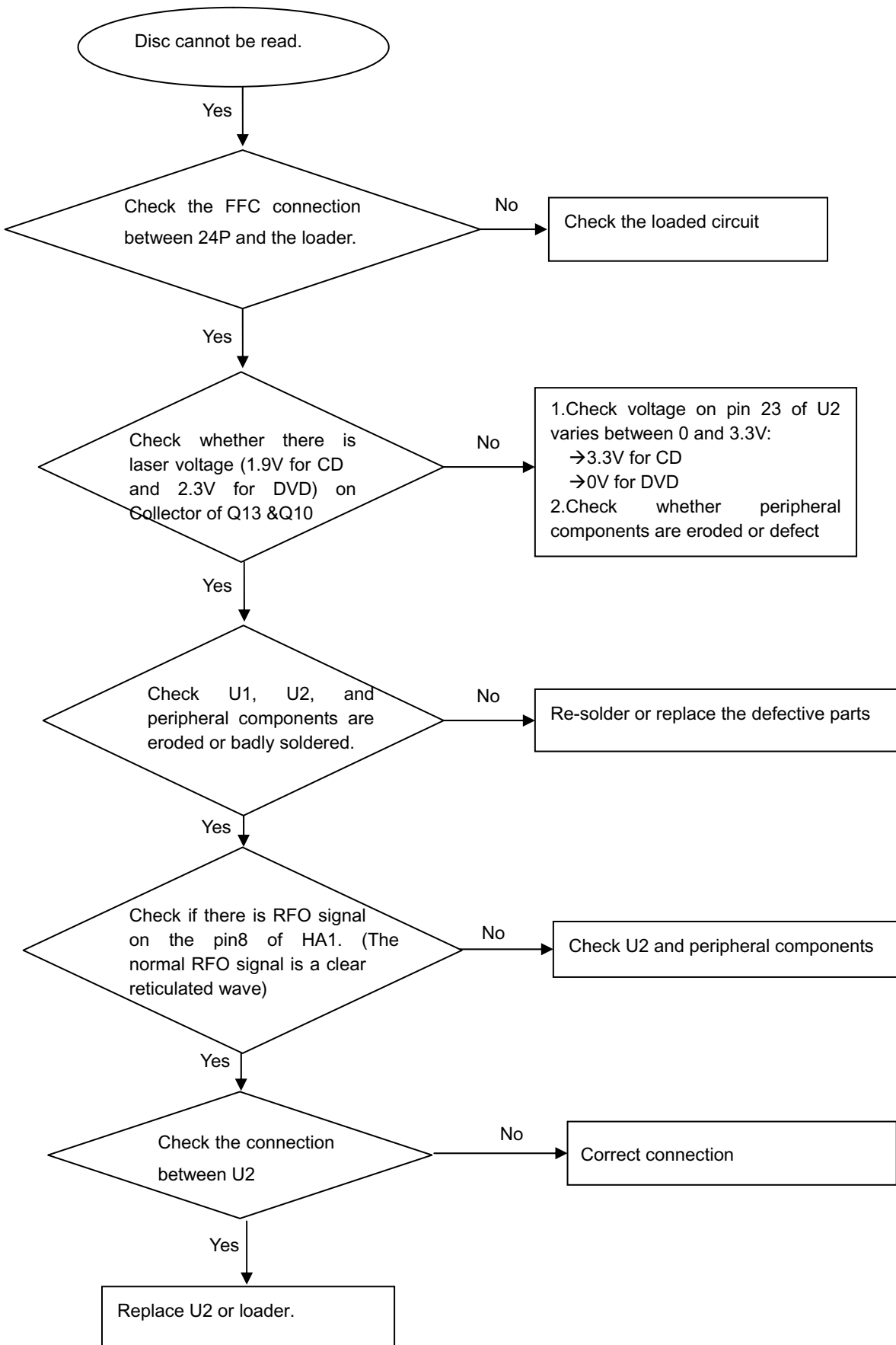
**Spindle motor does not move**



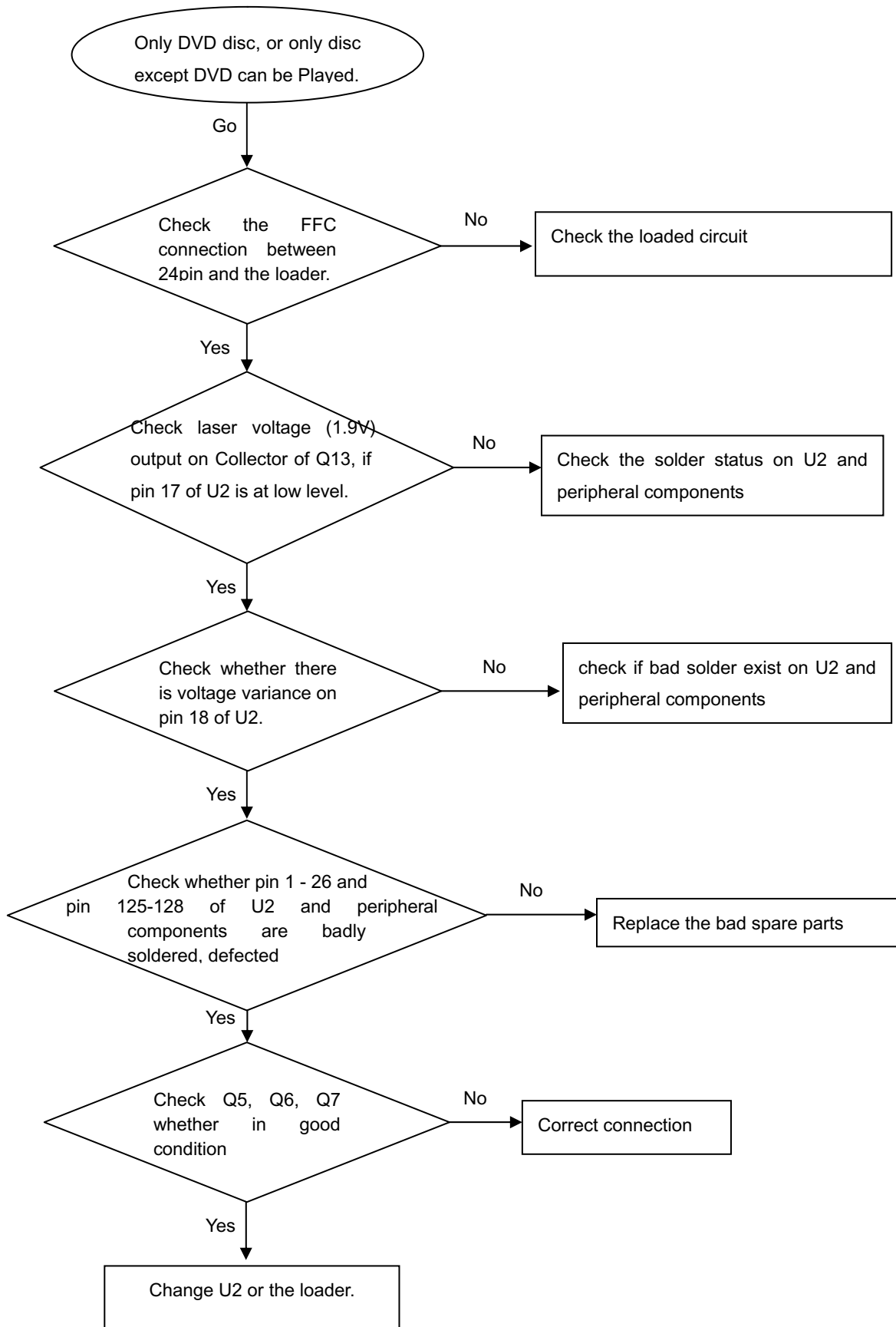
The power can not be on or off



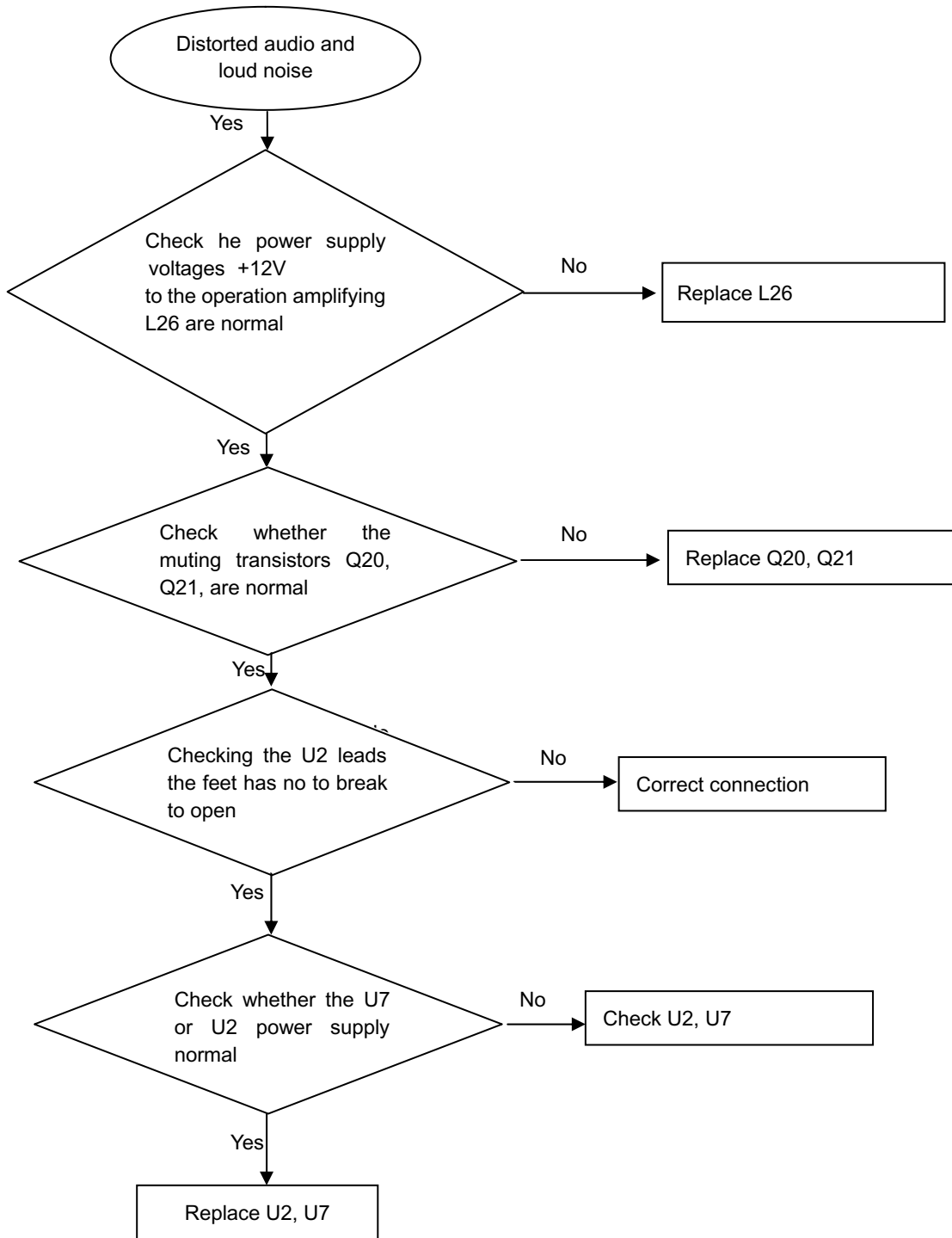
**Disc cannot be read.**



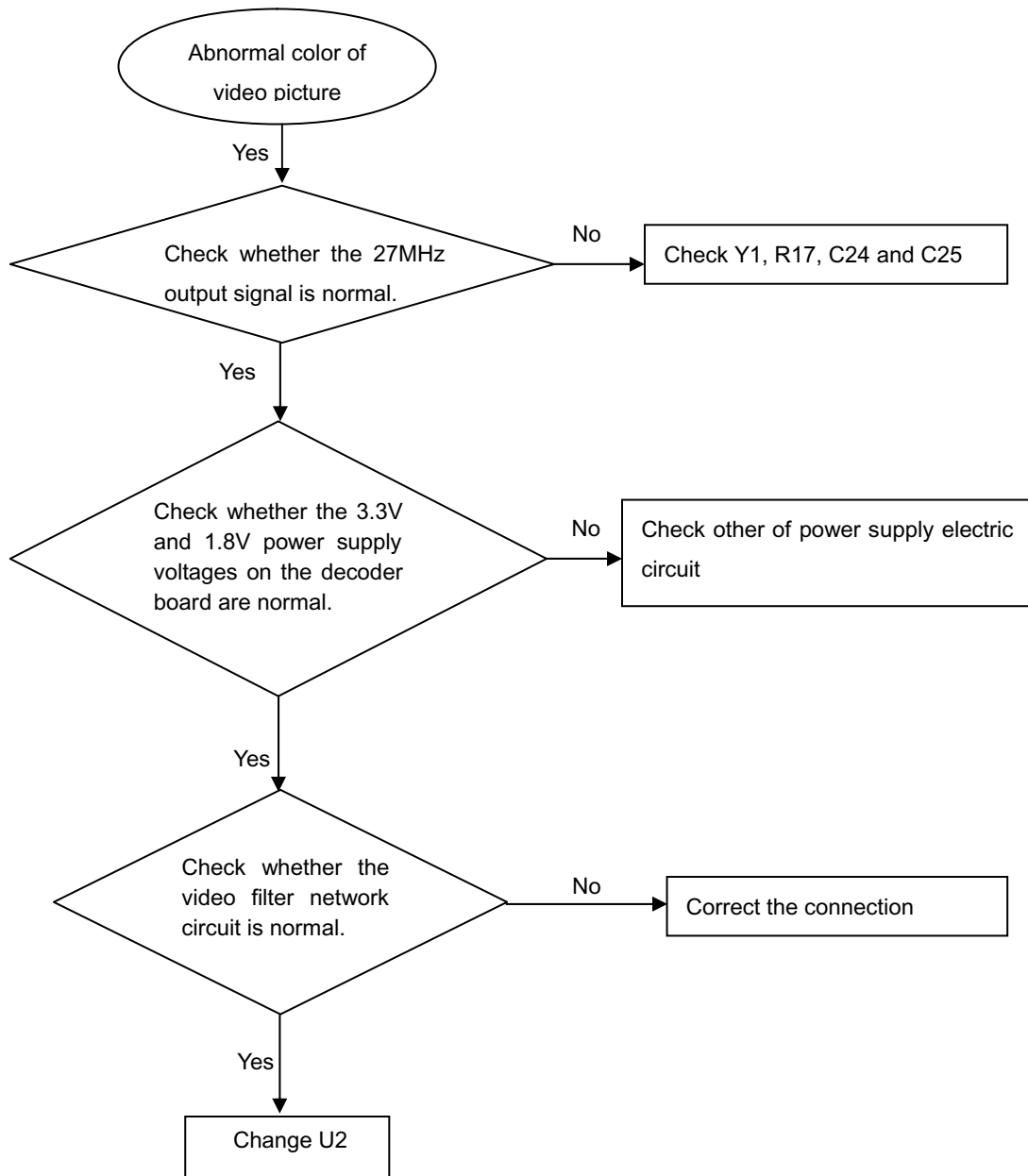
**Only DVD disc or only disc except DVD can be played**



**Distorted audio and loud noise**

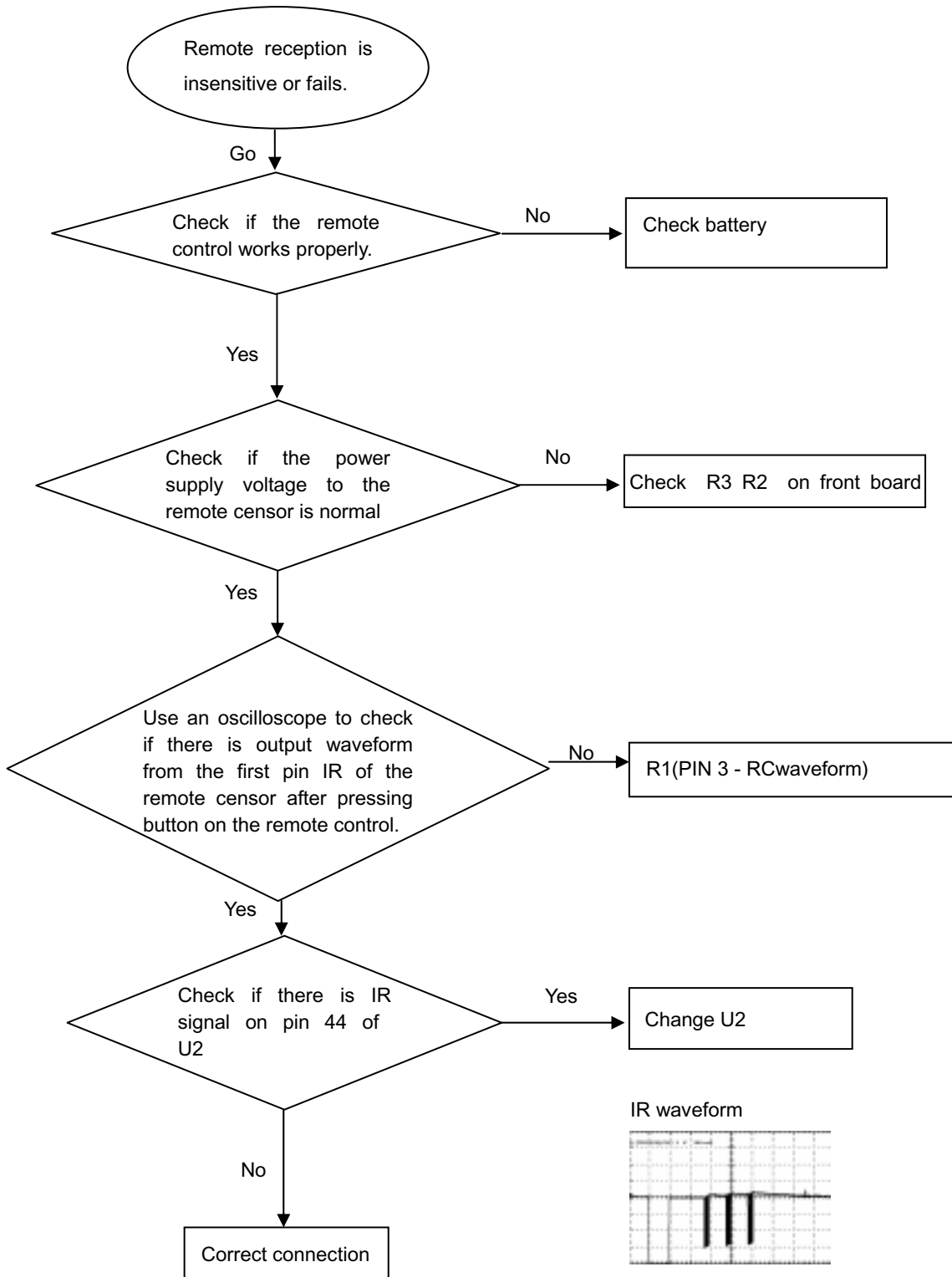


**Abnormal color of video picture**

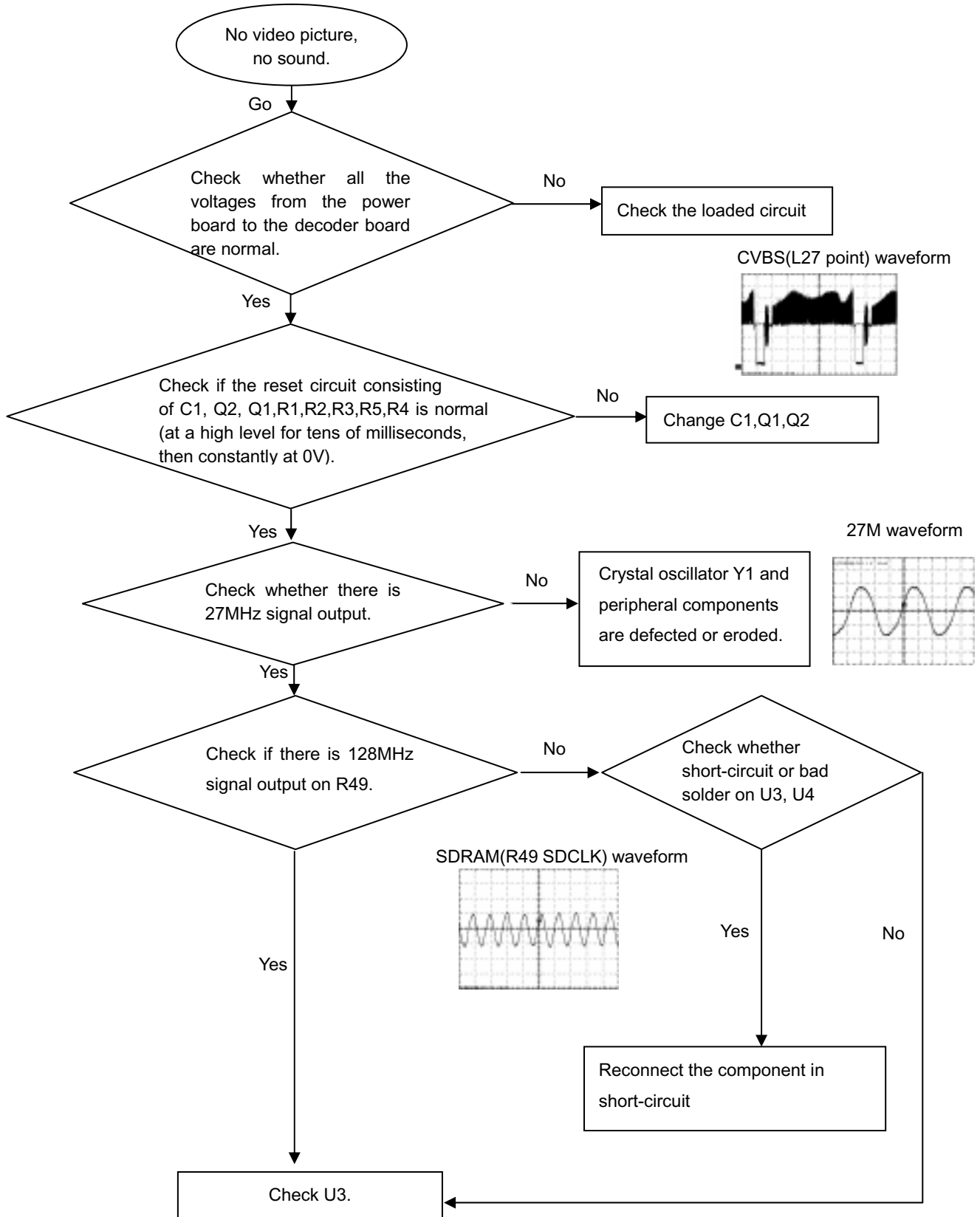




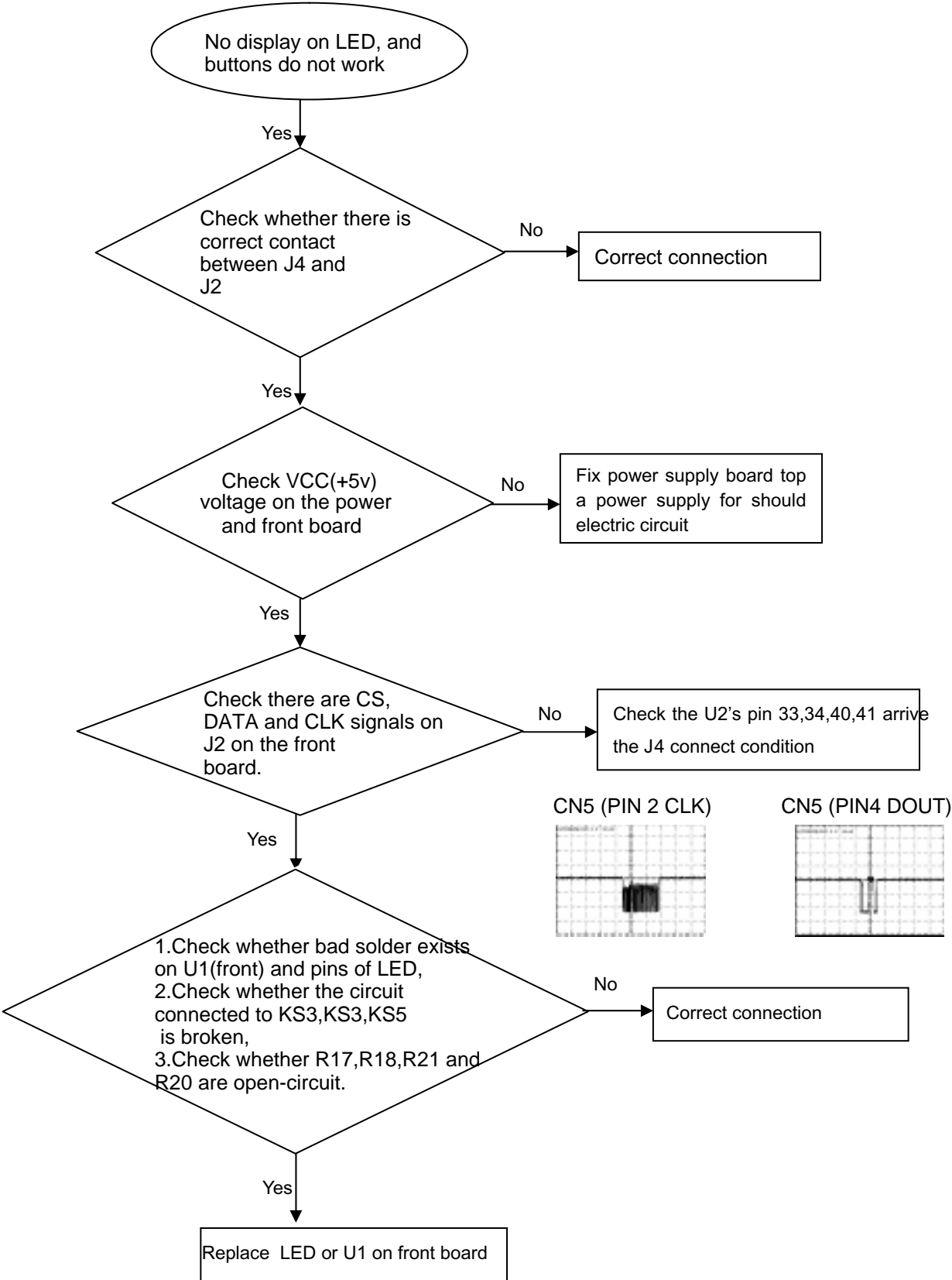
**Remote reception is insensitive or fails.**



**No video picture, no sound.**

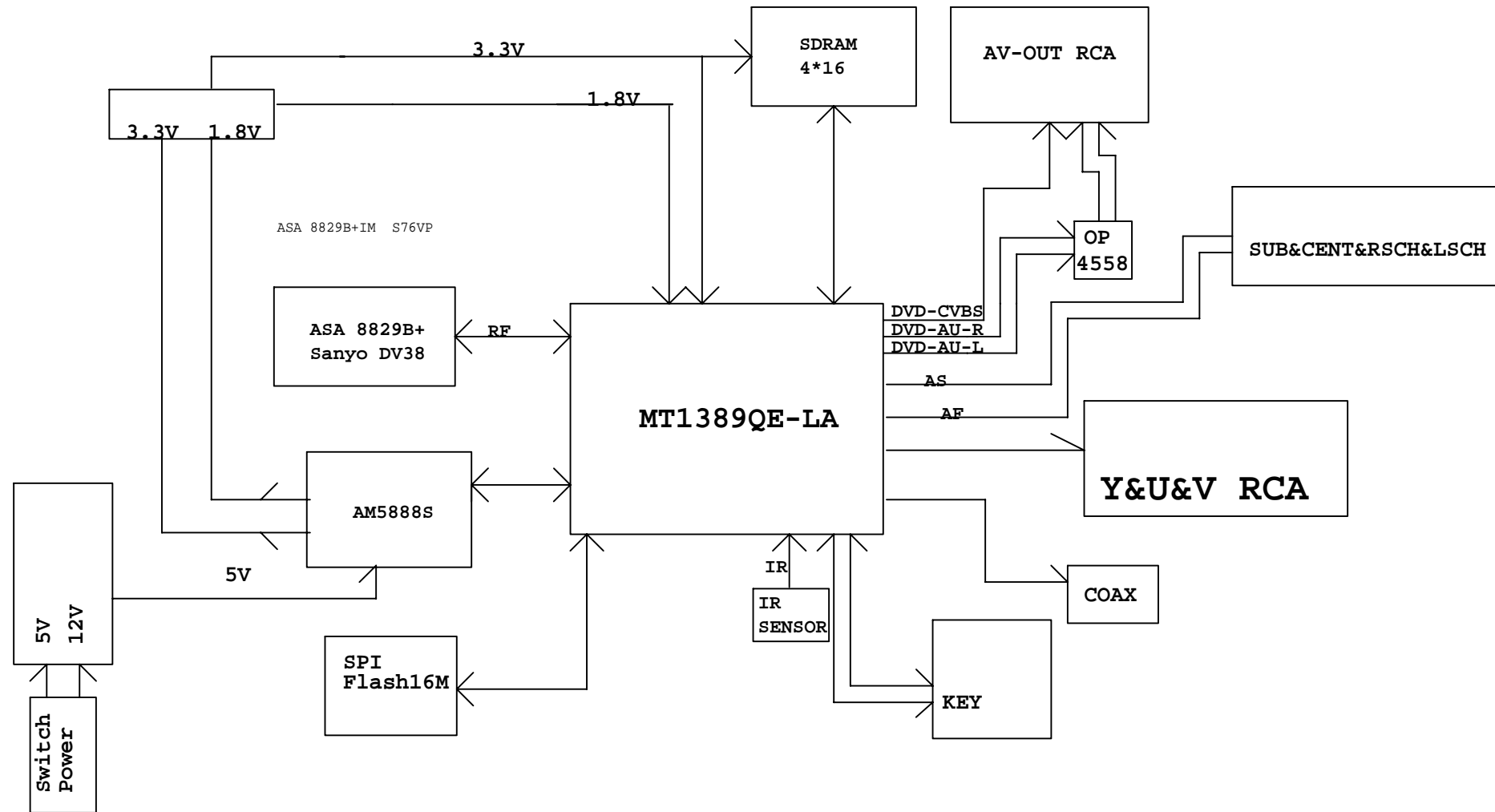


No display on LED, and buttons do not work

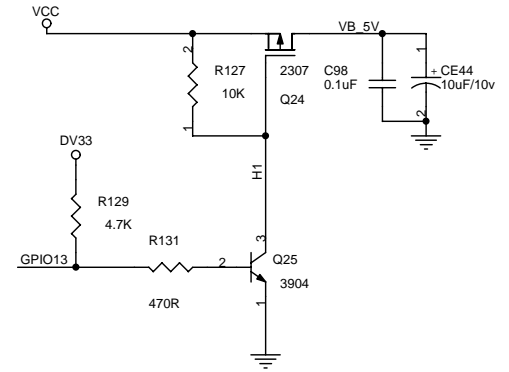
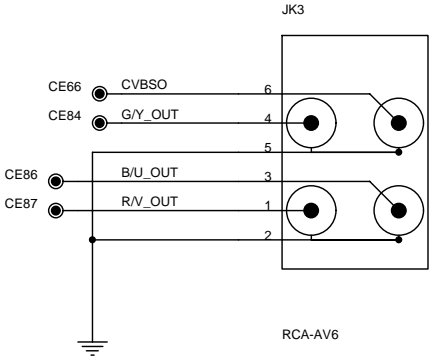
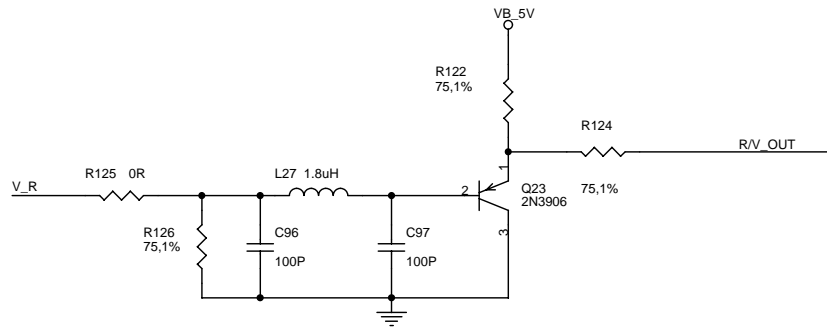


CIRCUIT DIAGRAM-Block  
INDEX&Block PART

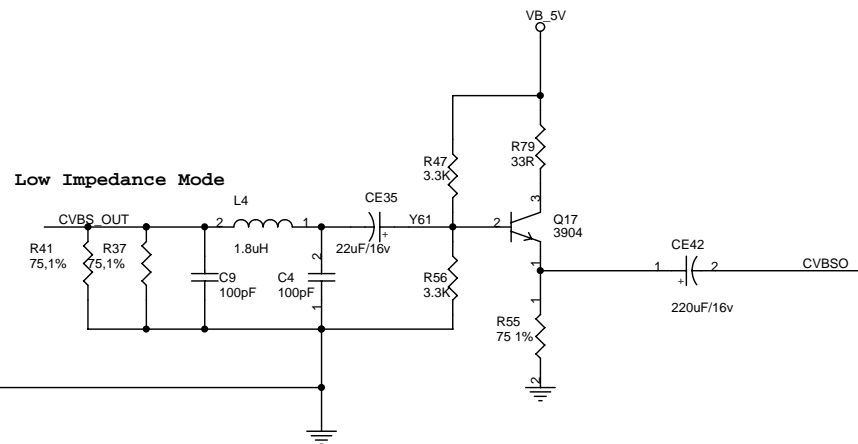
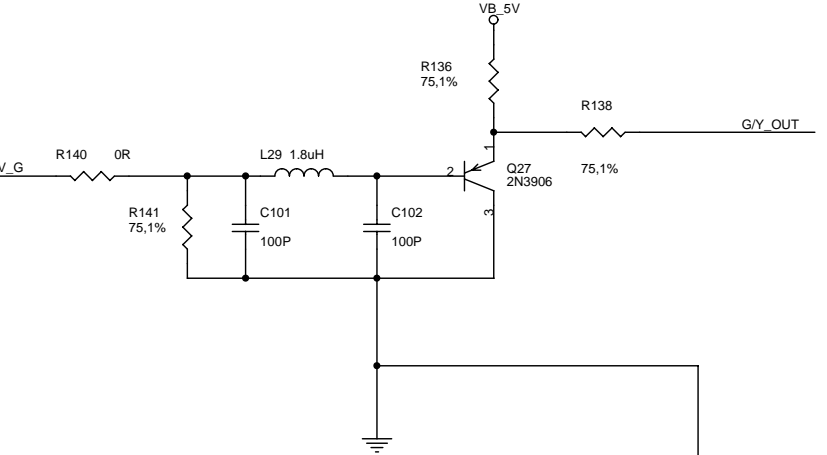
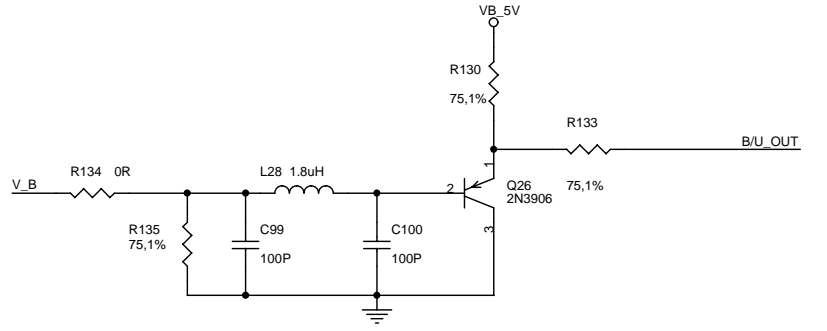
# DVP3326 circuit block



CIRCUIT DIAGRAM-DVD MAIN BOARD  
 INDEX&VIDEO PART

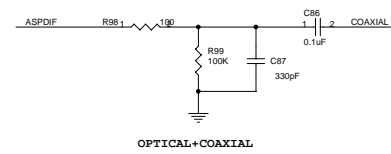
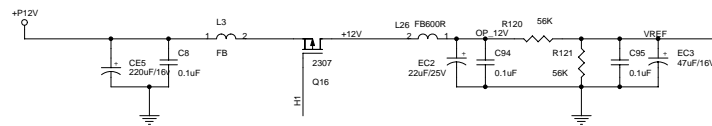
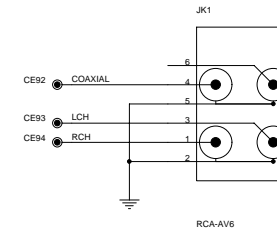
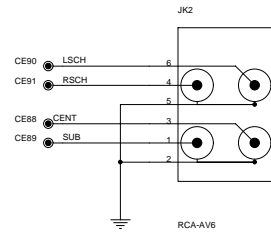
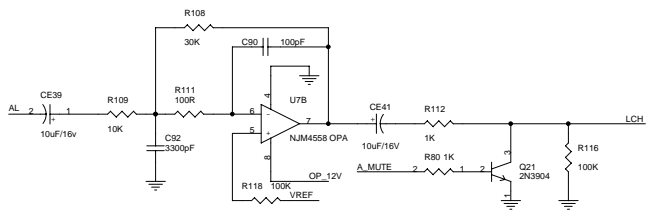
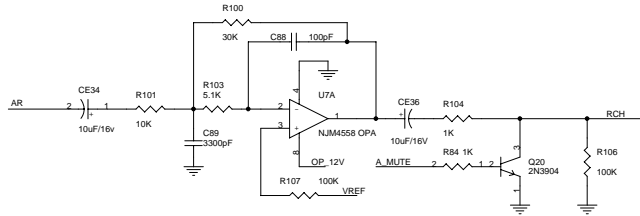
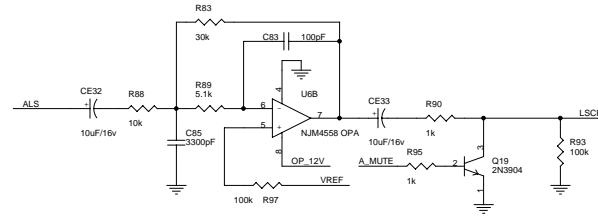
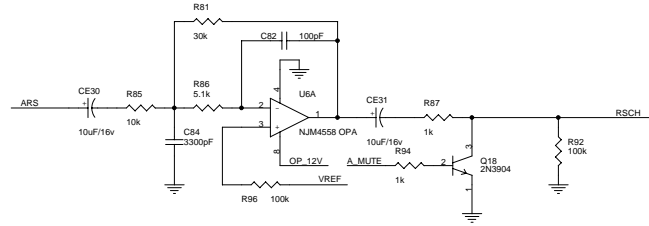
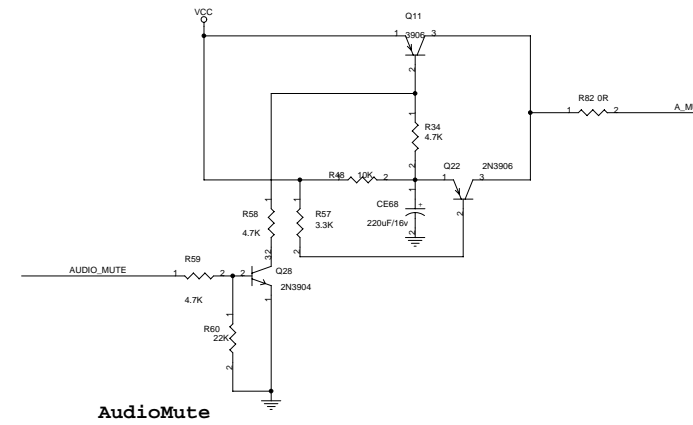
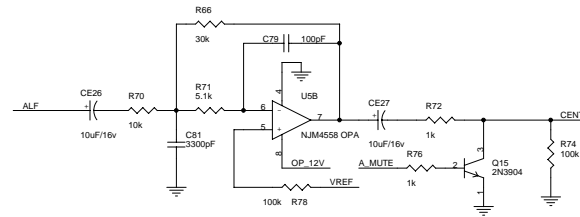
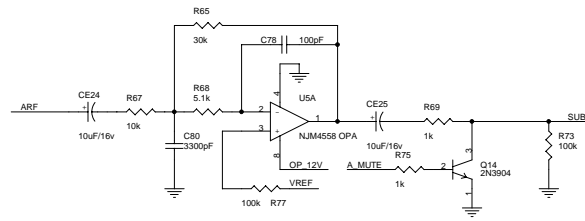


CVBS_OUT	CVBS_OUT	[2]
V_R	V_R	[2]
V_B	V_B	[2]
V_G	V_G	[2]
GPIO13	GPIO13	[2]
DV33	DV33	[1,2,3,4]
VCC	VCC	[1,2,4]
H1	H1	[4]

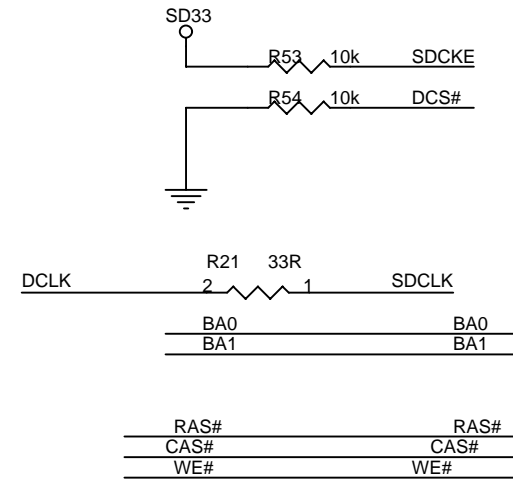


# CIRCUIT DIAGRAM-DVD MAIN BOARD INDEX&AUDIO PART

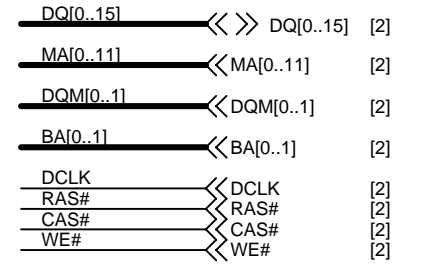
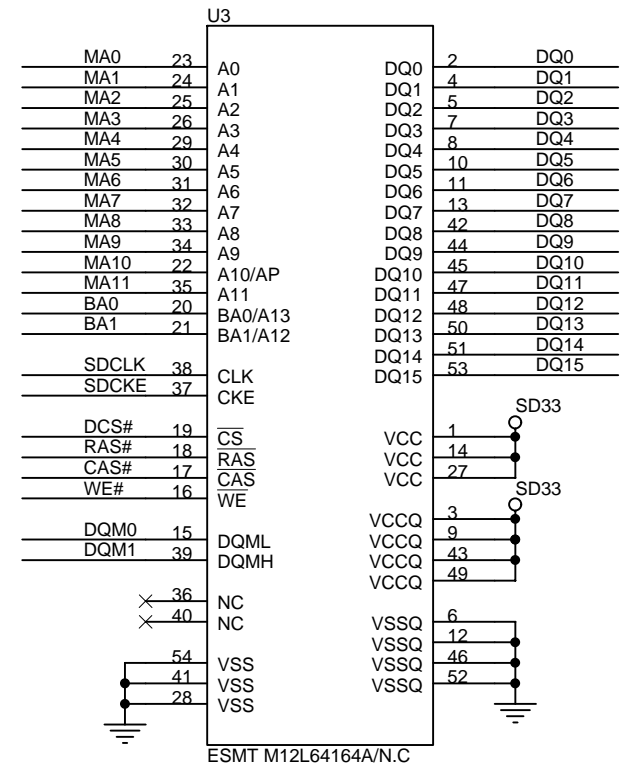
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AL	AL	[5]
ARS	ARS	[5]
ALS	ALS	[5]
ARF	ARF	[5]
ALF	ALF	[5]
ASPDF	ASPDF	[5]
AUDIO_MUTE	AUDIO_MUTE	[5]
VCC	VCC	[1,2,5]
+P12V	+P12V	[1]
DV33	DV33	[1,2,3]
H1	H1	[5]



CIRCUIT DIAGRAM-DVD MAIN BOARD  
INDEX&SDRAM&FLASH PART



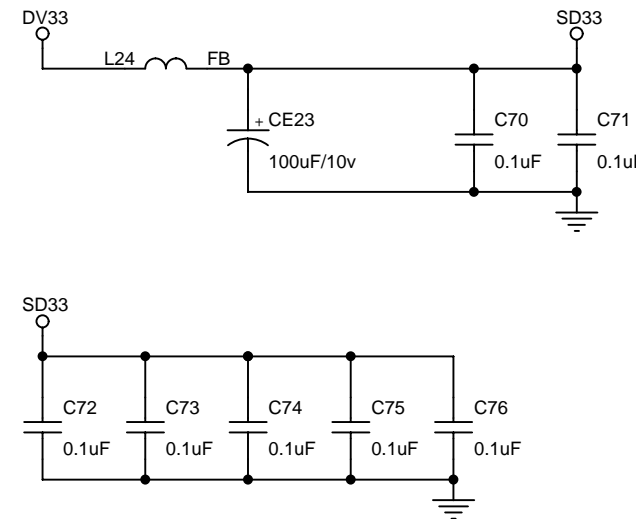
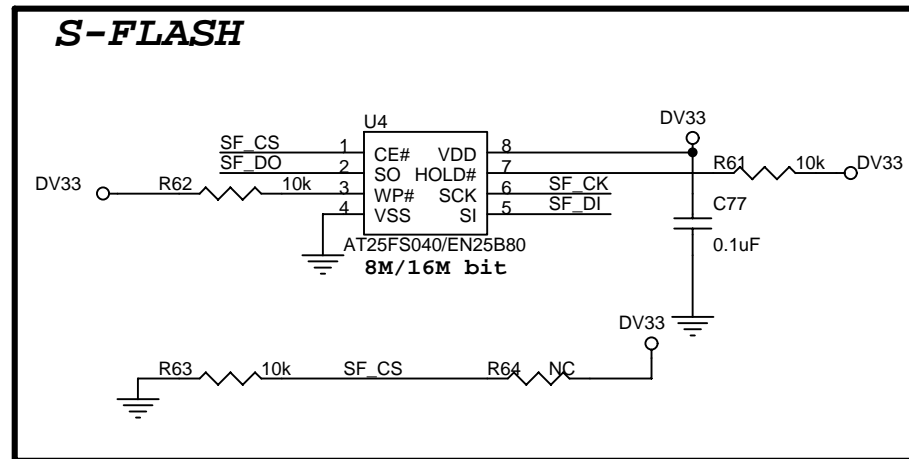
SDRAM (Dual Layout)



DRAM I/F

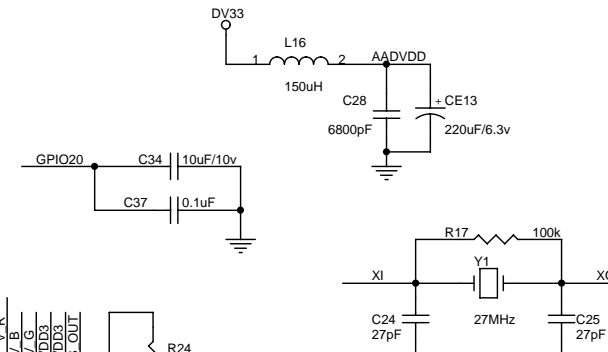
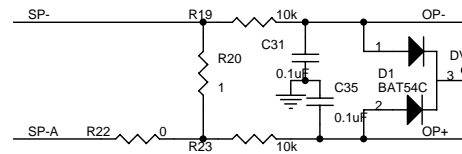
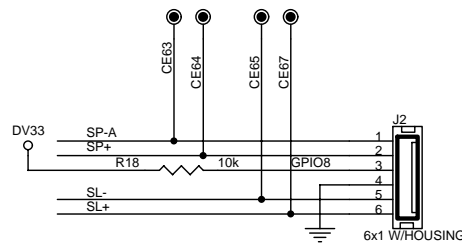
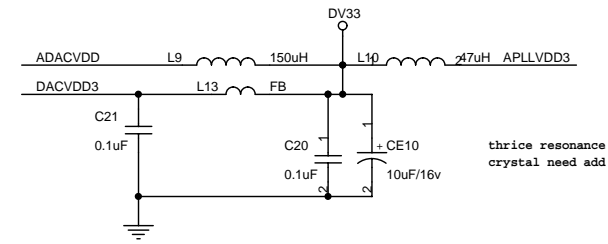
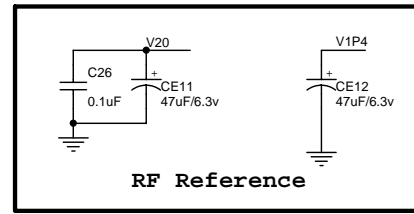
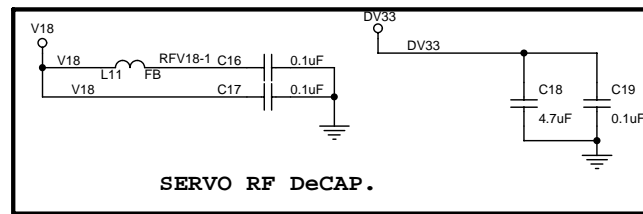


S-FLASH





# CIRCUIT DIAGRAM-DVD MAIN BOARD INDEX&SERVO&MT1389QE PART



DQ[0..15]	<<>>	DQ[0..15]	[3]
MA[0..11]	<<>>	MA[0..11]	[3]
DOM[0..1]	<<>>	DOM[0..1]	[3]
BA[0..1]	<<>>	BA[0..1]	[3]
DCLK	<<>>	DCLK	[3]
RAS#	<<>>	RAS#	[3]
CAS#	<<>>	CAS#	[3]
WE#	<<>>	WE#	[3]

<b>DRAM I/F</b>			
SF_CK	<<>>	SF_CK	[3]
SF_CS	<<>>	SF_CS	[3]
SF_DI	<<>>	SF_DI	[3]
SF_DO	<<>>	SF_DO	[3]

<b>S-FLASH</b>			
AUDIO_MUTE	<<>>	AUDIO_MUTE	[4]
ASPDI#	<<>>	ASPDI#	[4]
ARF	<<>>	ARF	[4]
ALF	<<>>	ALF	[4]
ARS	<<>>	ARS	[4]
ALS	<<>>	ALS	[4]

<b>AUDIO I/F</b>			
GPIO13	<<>>	GPIO13	[5]

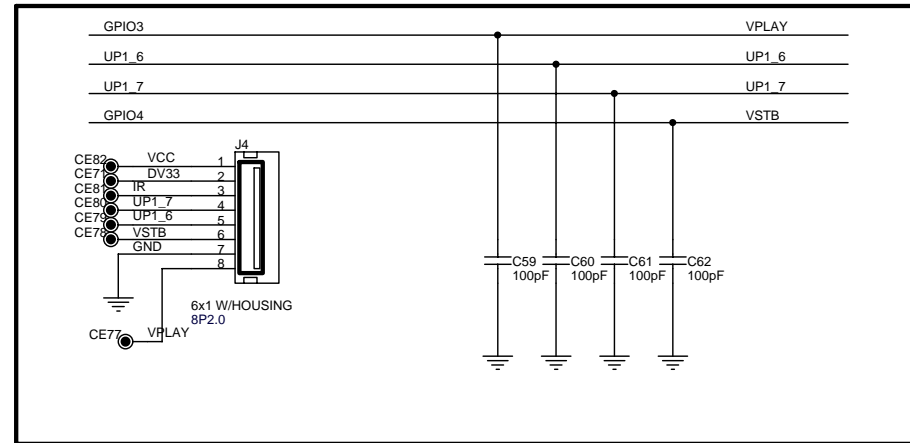
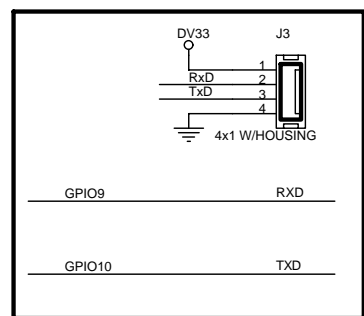
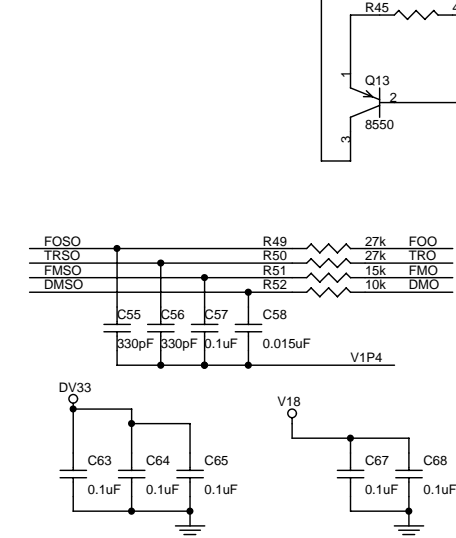
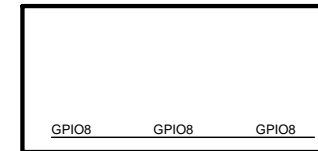
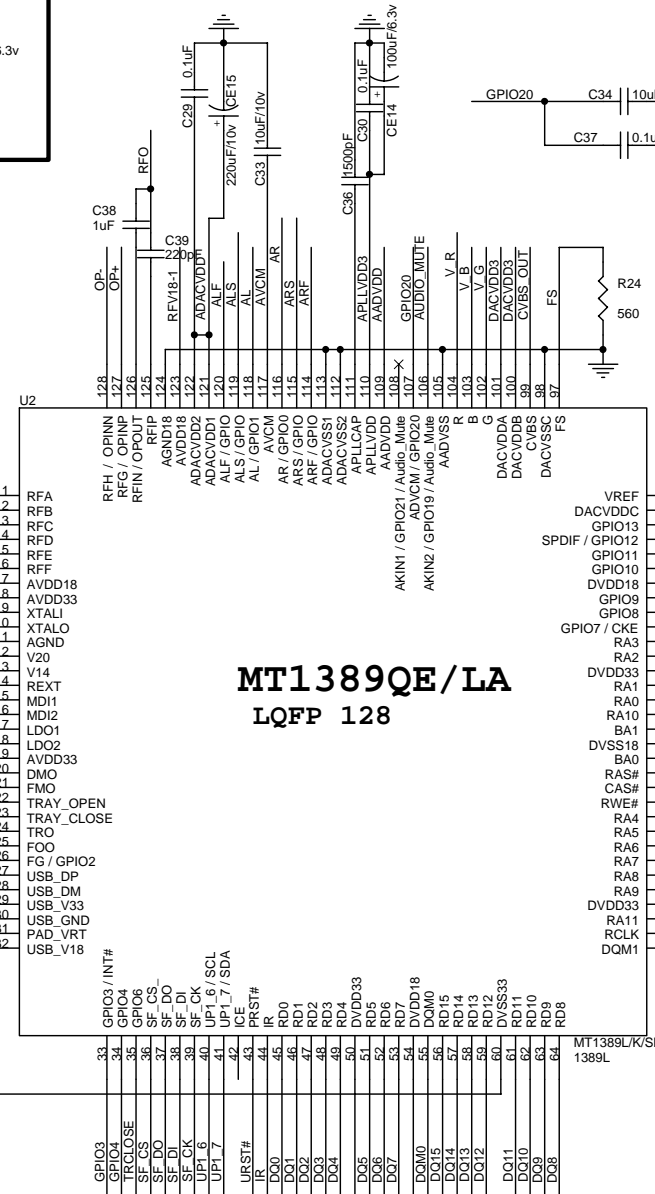
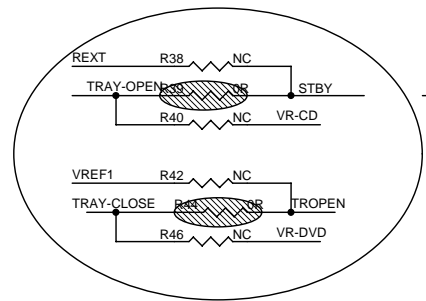
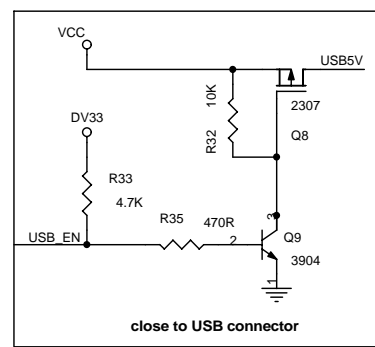
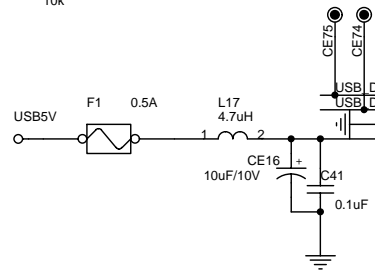
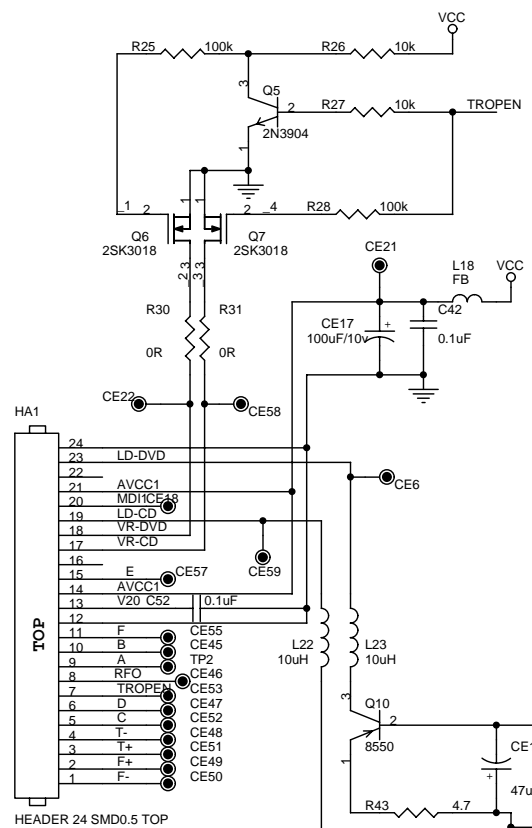
<b>VIDEO I/F</b>			
CVBS_OUT	<<>>	CVBS_OUT	[5]
V_R	<<>>	V_R	[5]
V_B	<<>>	V_B	[5]
V_G	<<>>	V_G	[5]

<b>SERVO I/F</b>			
STBY	<<>>	STBY	[1]
TROPEN	<<>>	TROPEN	[1]
TRCLOSE	<<>>	TRCLOSE	[1]
TRIN	<<>>	TRIN	[1]
GPIO8	<<>>	GPIO8	[1]

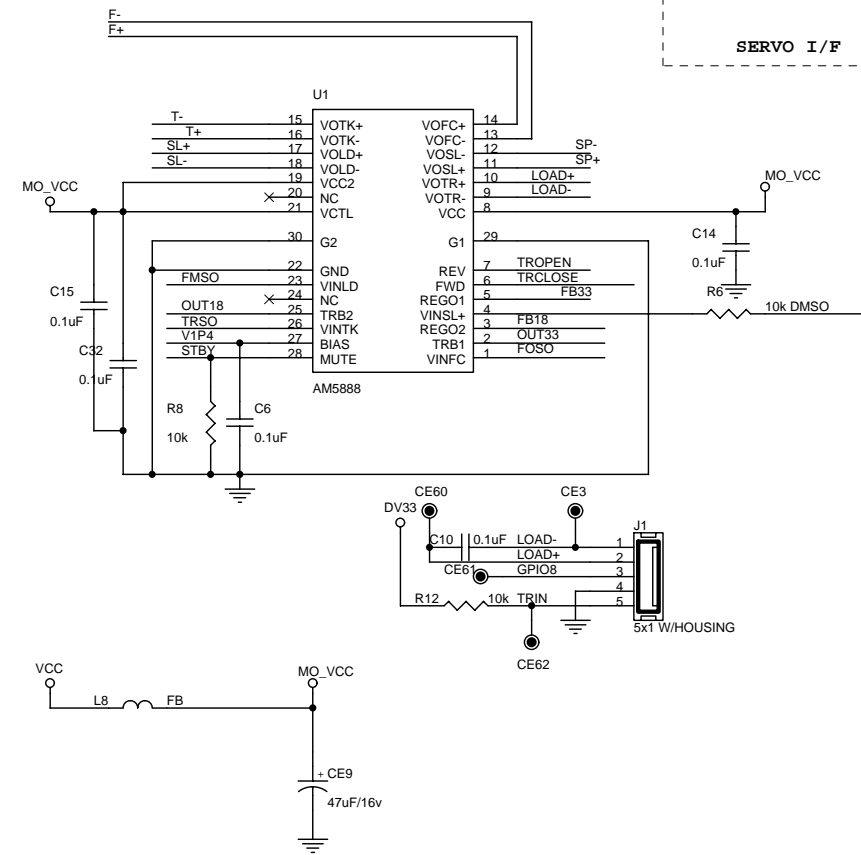
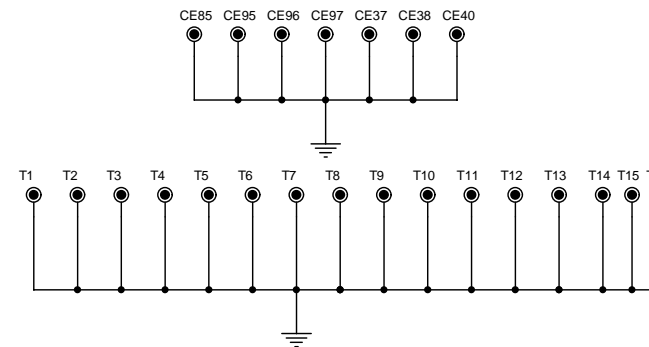
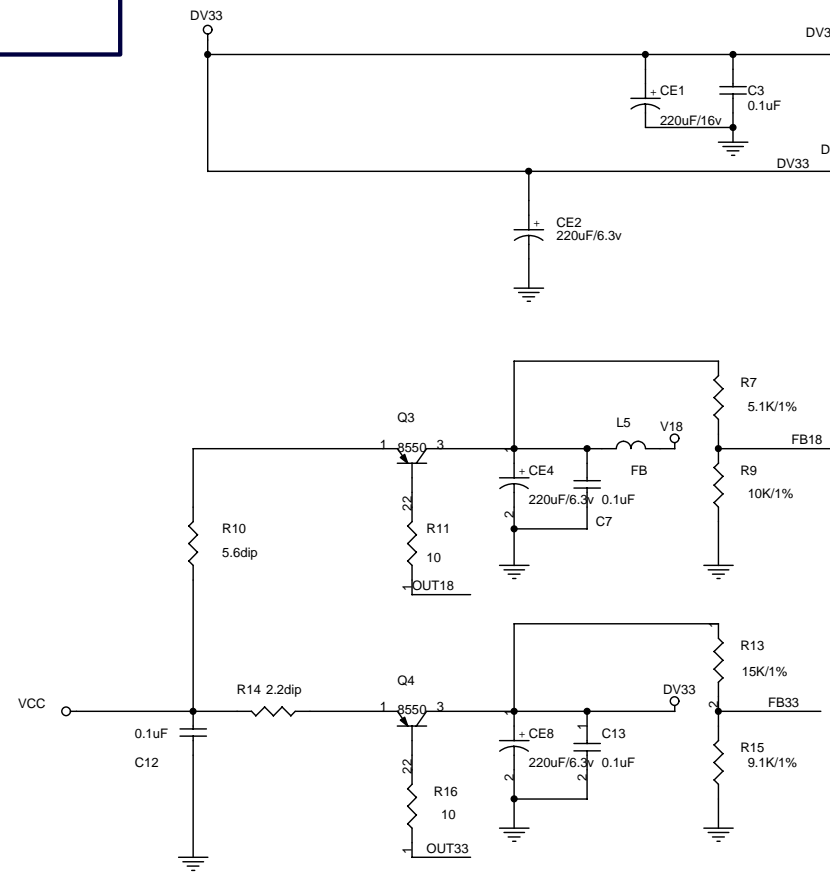
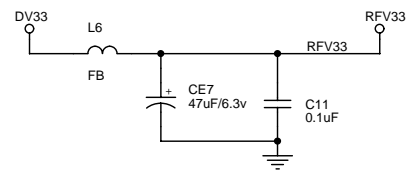
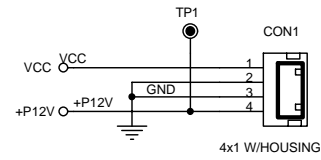
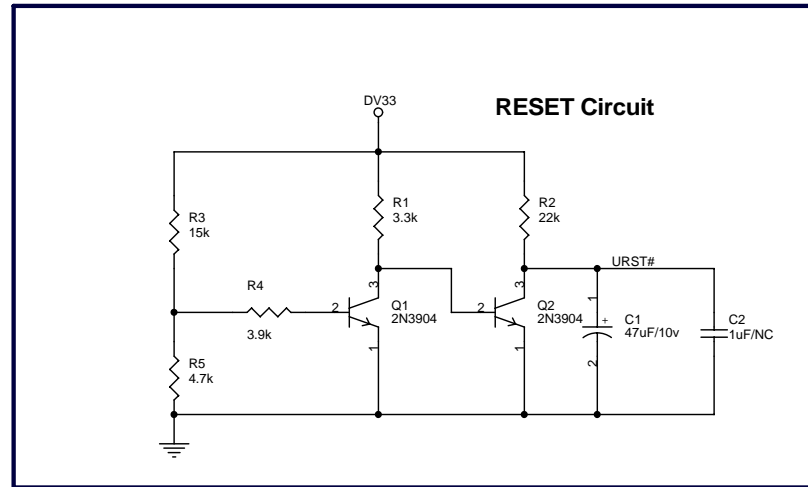
T-	<<>>	T-	[1]
T+	<<>>	T+	[1]
F-	<<>>	F-	[1]
F+	<<>>	F+	[1]
SL-	<<>>	SL-	[1]
SL+	<<>>	SL+	[1]
SP-	<<>>	SP-	[1]
SP+	<<>>	SP+	[1]
FOSO	<<>>	FOSO	[1]
TRSO	<<>>	TRSO	[1]
FMSO	<<>>	FMSO	[1]
DMSO	<<>>	DMSO	[1]
V1P4	<<>>	V1P4	[1]

<b>SERVO I/F</b>			
URST#	<<>>	URST#	[1]
DV33	<<>>	DV33	[1,3,4,5]
VCC	<<>>	VCC	[1,4,5]
V18	<<>>	V18	[1]
RFV33	<<>>	RFV33	[1]

<b>MIX</b>			
AL	<<>>	AL	[4]
AR	<<>>	AR	[4]



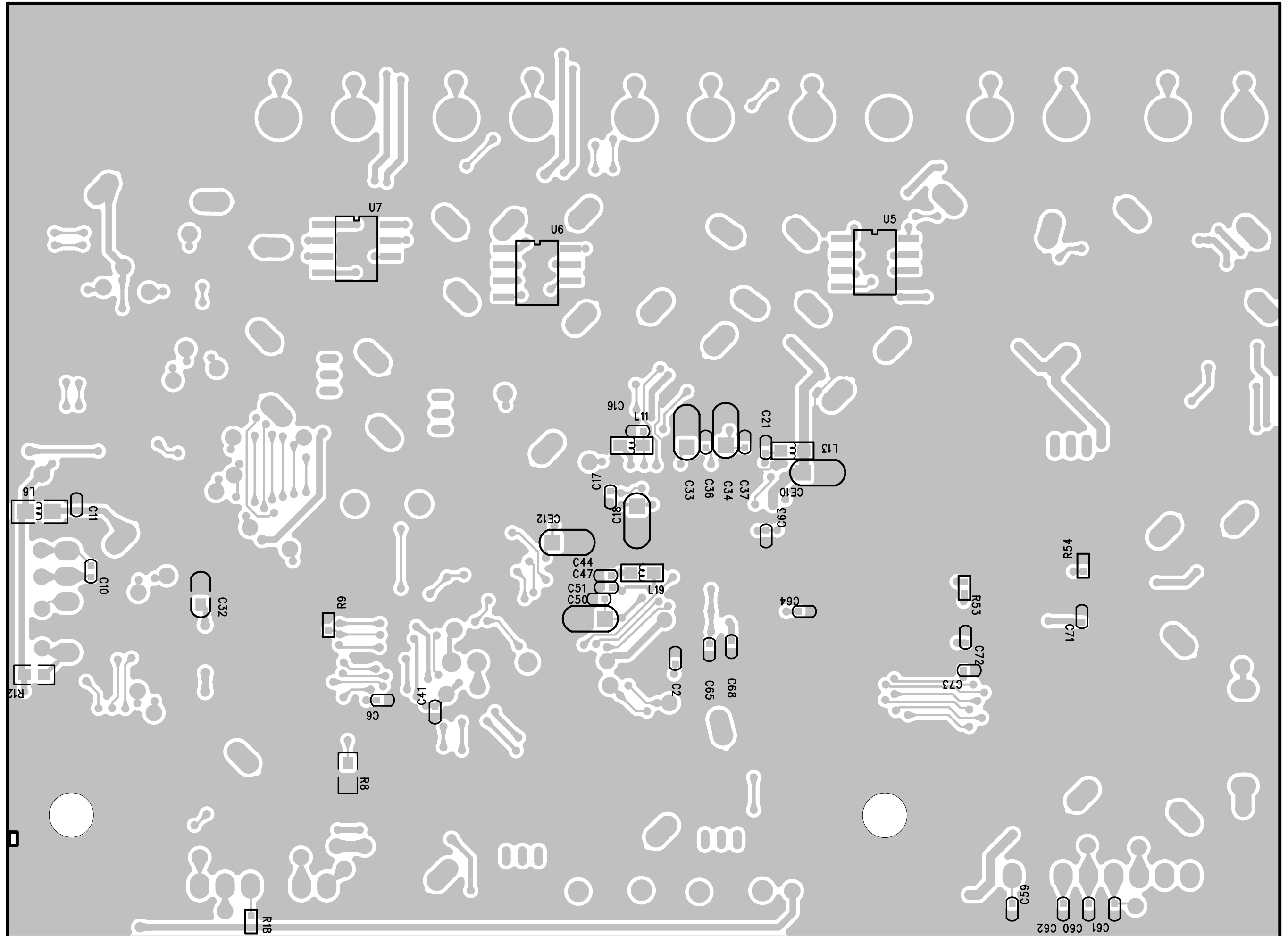
CIRCUIT DIAGRAM-DVD MAIN BOARD  
INDEX&POWER PART



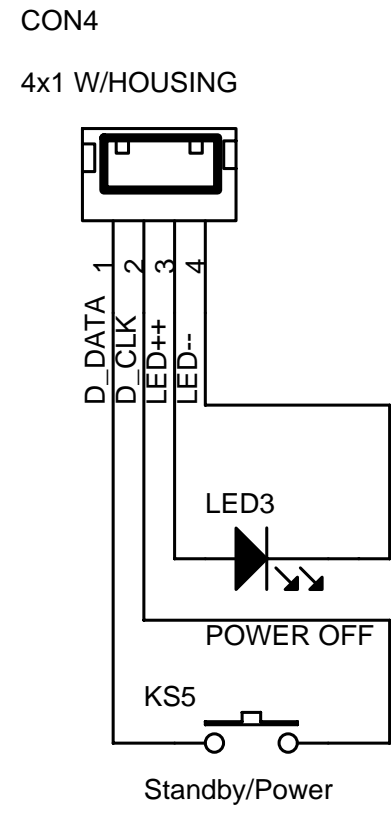
+P12V	>>>+P12V	[4]
VCC	>>>VCC	[2,4,5]
DV33	>>>DV33	[2,3,4,5,6]
RFV33	>>>RFV33	[2]
V18	>>>V18	[2]
URST#	>>>URST#	[2]
<b>POWER I/F</b>		
TRIN	>>>TRIN	[2]
GPIO8	>>>GPIO8	[2]
TROPEN	>>>TROPEN	[2]
TRCLOSE	>>>TRCLOSE	[2]
FOSO	>>>FOSO	[2]
DMSO	>>>DMSO	[2]
FMSO	>>>FMSO	[2]
TRSO	>>>TRSO	[2]
SL+	>>>SL+	[2]
SL-	>>>SL-	[2]
SP+	>>>SP+	[2]
SP-	>>>SP-	[2]
T+	>>>T+	[2]
T-	>>>T-	[2]
F+	>>>F+	[2]
F-	>>>F-	[2]
V1P4	>>>V1P4	[2]
STBY	>>>STBY	[2]
<b>SERVO I/F</b>		



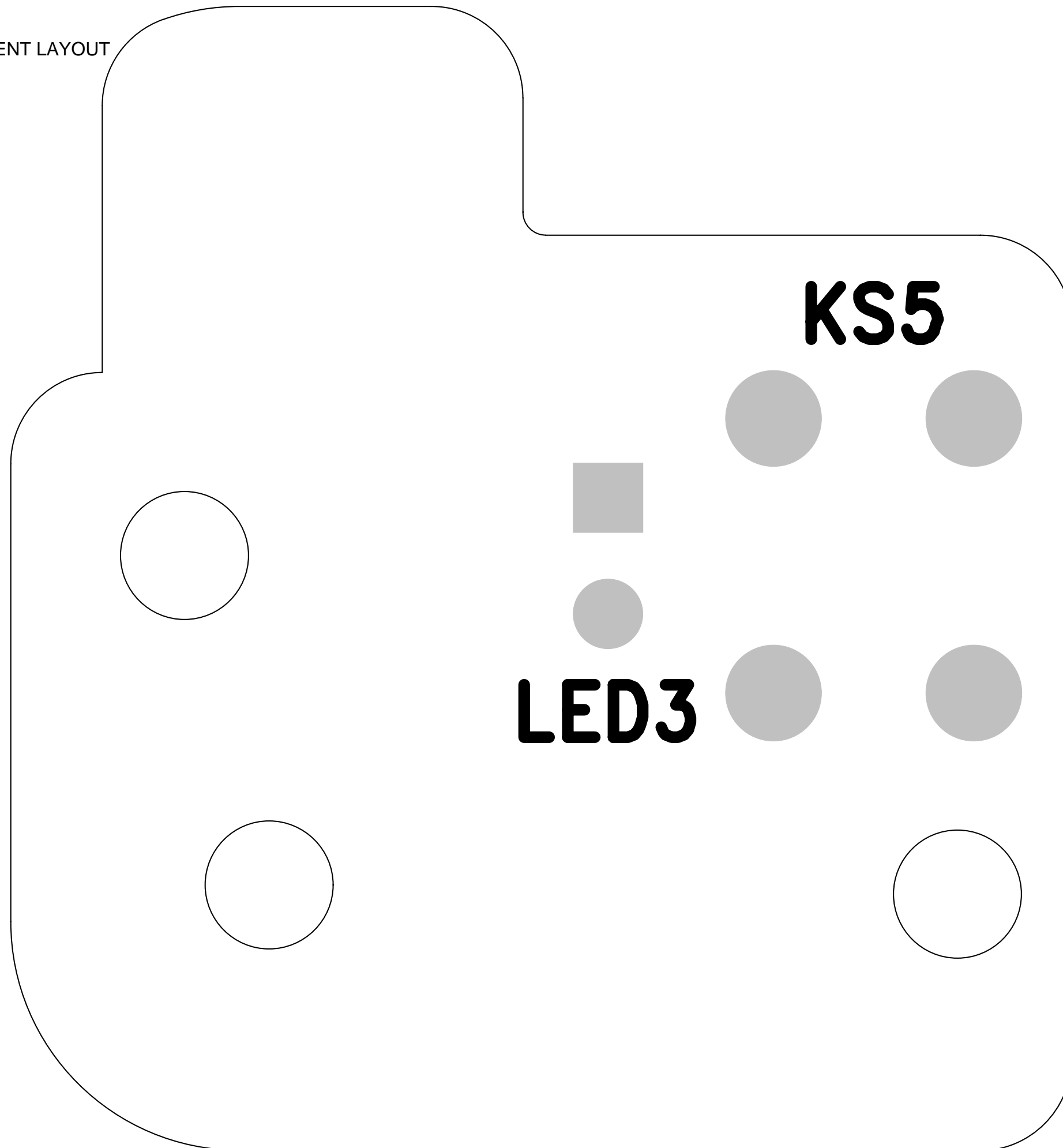
MAIN BOT PCB-COMPONENT LAYOUT



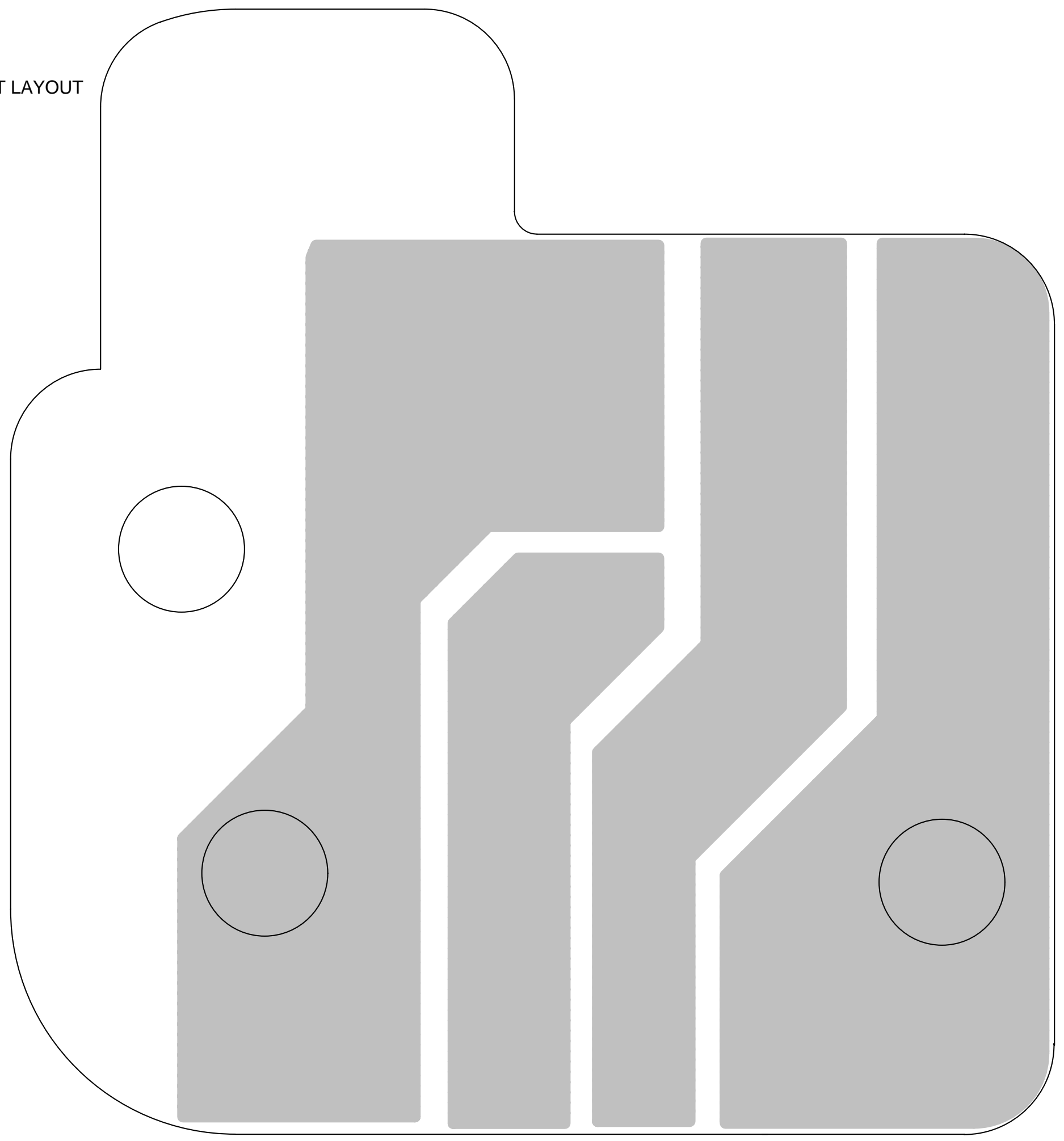
CIRCUIT DIAGRAM - STB/POWER BOARD  
INDEX & STB/POWER PART



STB TOP PCB-COMPONENT LAYOUT

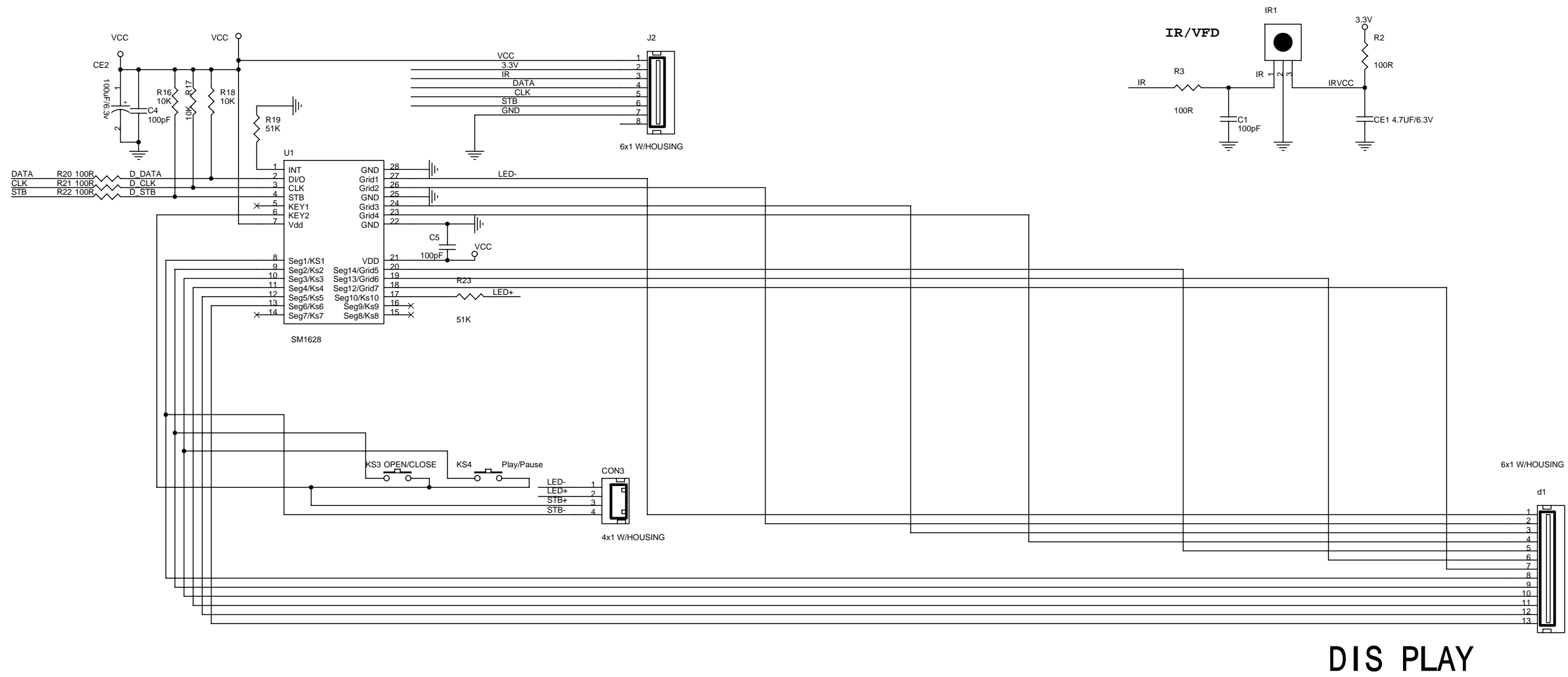


STB BOT PCB-COMPONENT LAYOUT

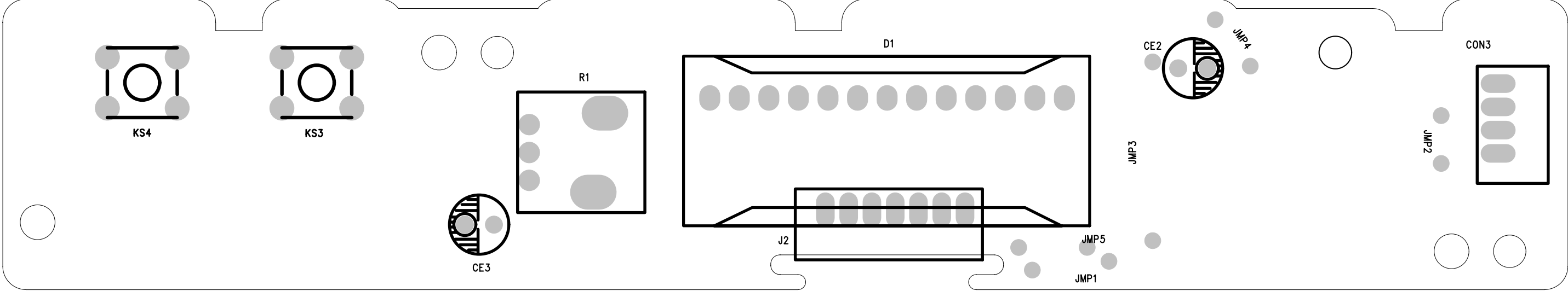




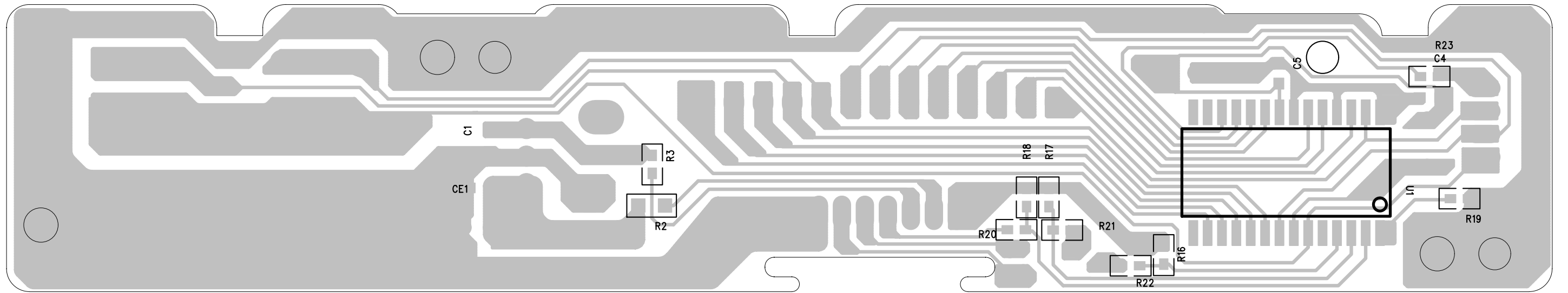
CIRCUIT DIAGRAM - DISPLAY&IR BOARD  
 INDEX & DISPLAY&IR PART



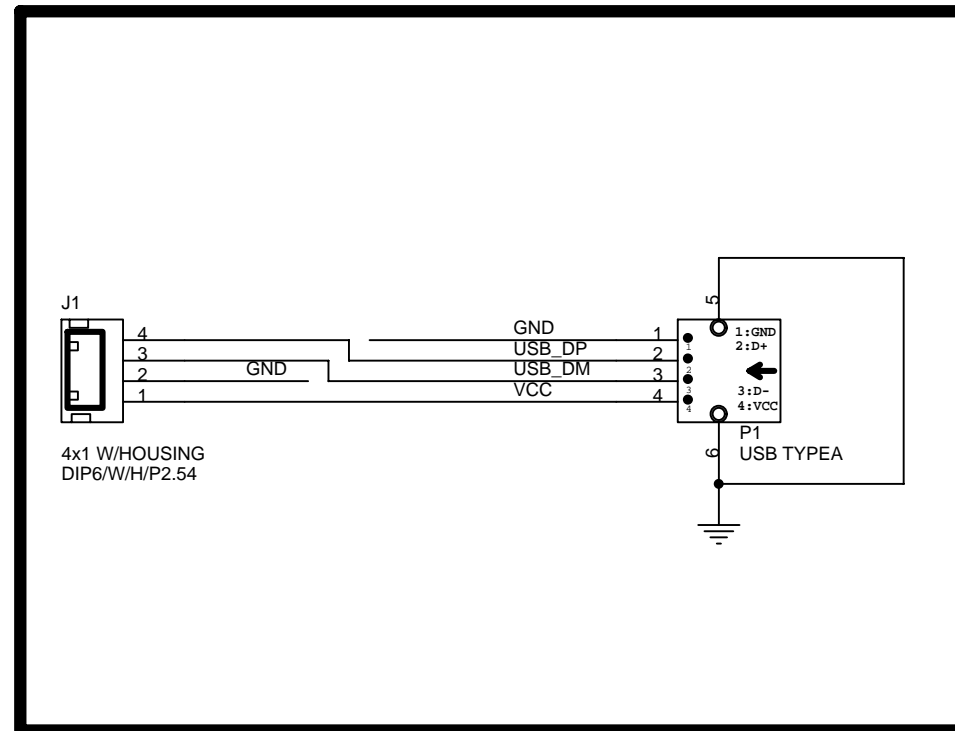
DISPLAY&IR TOP PCB-COMPONENT LAYOUT

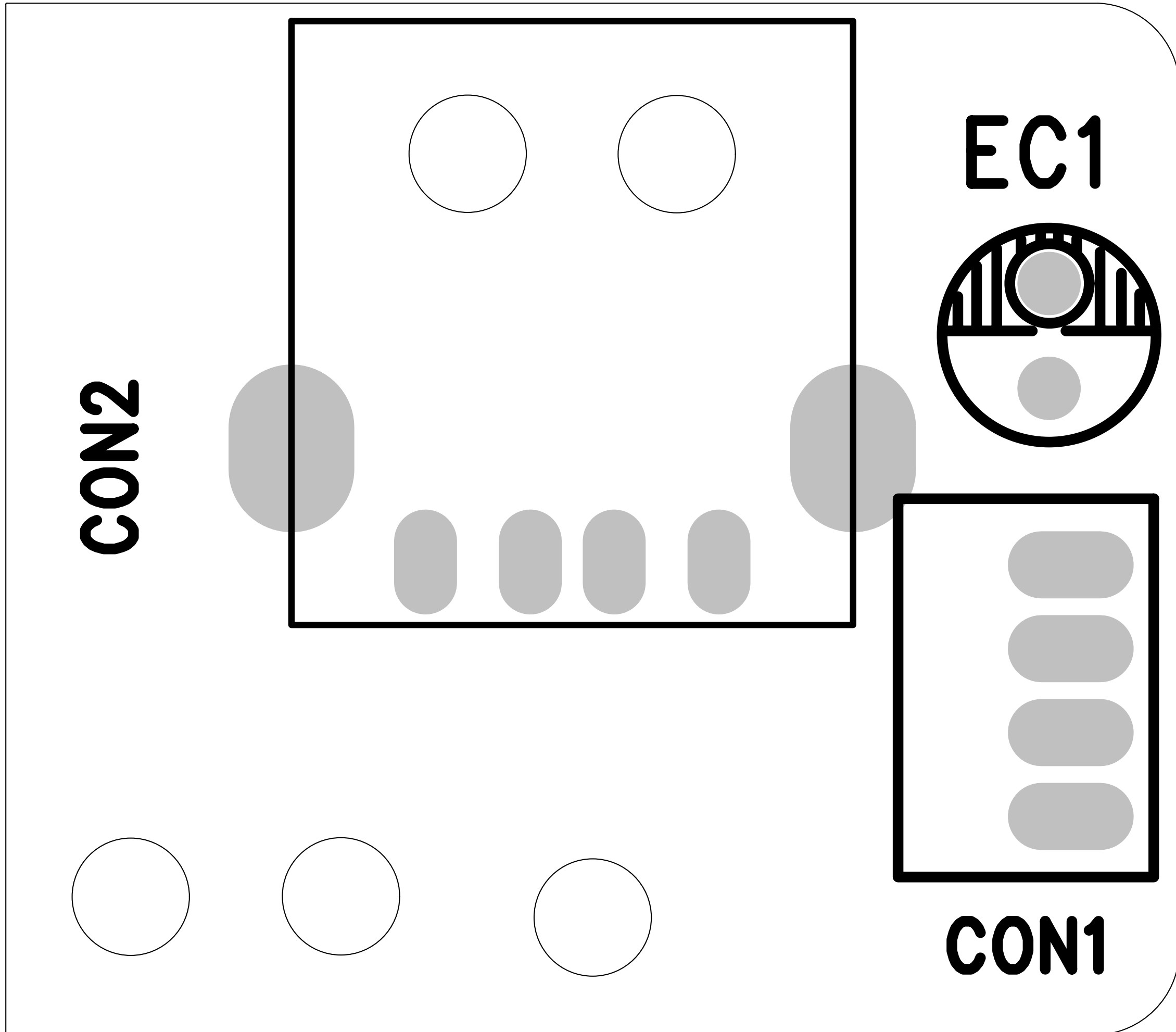


DISPLAY&IR BOT PCB-COMPONENT LAYOUT

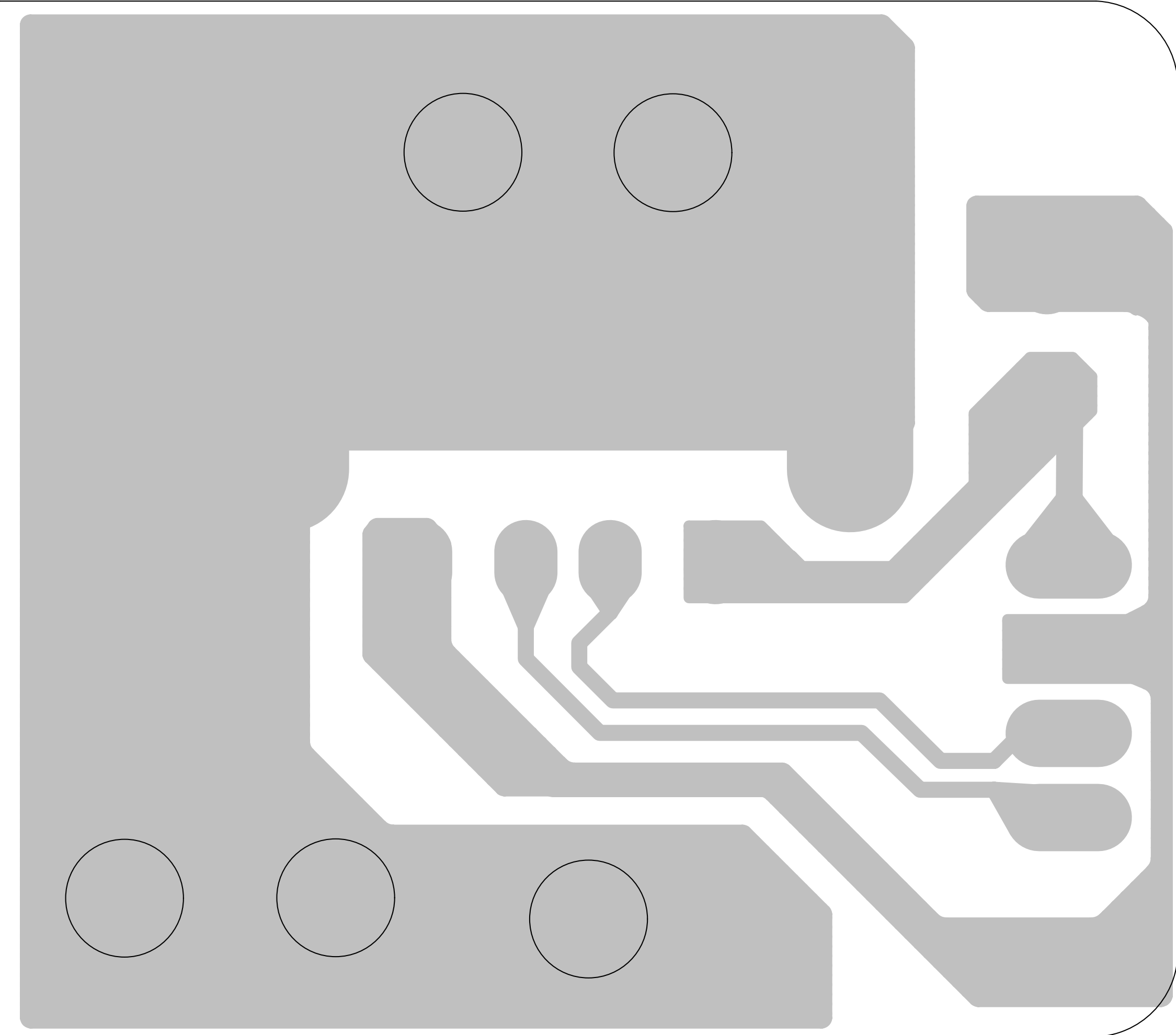


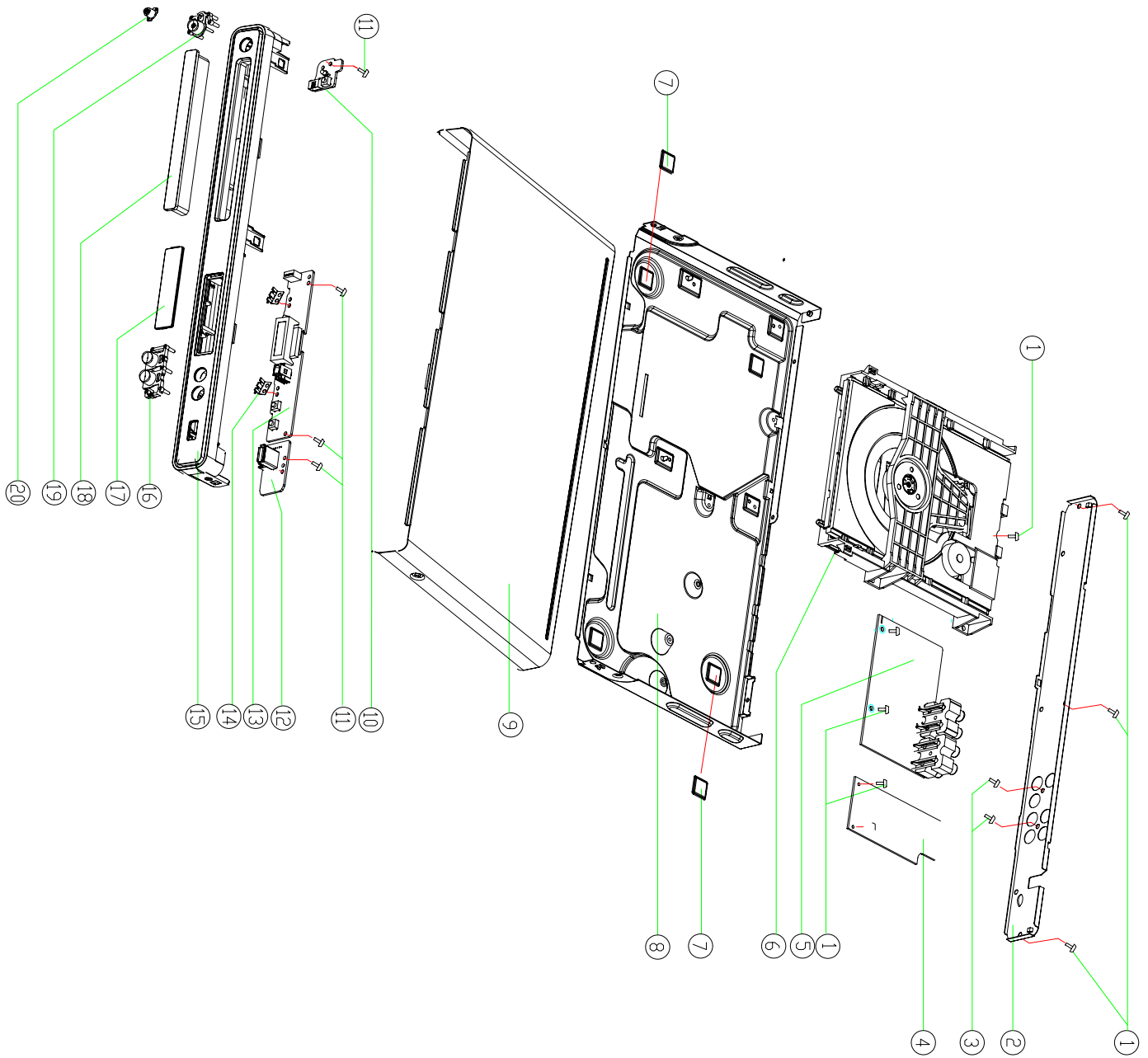
CIRCUIT DIAGRAM - USB BOARD  
INDEX & USB PART





USB BOT PCB-COMPONENT LAYOUT





## SERVICE PART LIST

### DVP3326/94 Accessories parts list

No	12NC No.	Part Name	Qty
RC	996510030712	R/C CD31A0003 BLACK TZH	1
CAR ADT	996510029036	ACCORD VDE 12FIXED 1.3M XIEJIN	1
AVCABLE	996510028065	AV CORD RCA/M*3 BOTH E <sub>1</sub>	

### DVP3326/94 MECHANICAL PARTS LIST

No	12NC No.	Part Name	Qty
6	996510029224	DVD LOADER RT628 CBU RELY	1
6	996510028053	DVD DECK CMS-S76R IM	1
FFC	996510030555	FFC 24P/0.5mm 200mm(4/4-6/12)	1
19	996510028083	PLA BUTTON POWER FOR DVP3111	1
20	996510028061	PLA BUTTON POWER LENS	1
18	996510029478	PLA DVD DOOR ABS SILVER	1
16	996510028071	PLA OPEN BUTTON ABS BLACK	1
15	996510029509	PLA FRONT PANEL ABS SILVER	1
17	996510028042	PLA LENS DISPLAY PPMA BLACK	1

### DVP3326/94 POWER PCB PARTS LIST

No	12NC No.	Part Name	Qty
4	996510029466	8W/2P OPEN 94VERSION PCBA YX	1

### DVP3326/94 STANDBY PCB PARTS LIST

No	12NC No.	Part Name	Qty
10	996510028049	STANDBY PCB ASS'Y DVD3320	1
KS5	996510028072	TACT SWITCH 6*6*5mm 250g JIXIN	1
LED3	996510028067	LED RED 1.8V D3 MASON	1

### DVP3326/94 LED PCB PARTS LIST

No	12NC No.	Part Name	Qty
27	996510028068	LED DISPLAG PCB ASS'Y DVD3320	1
U1	996510028075	IC SM1628C SOP28 DRIVER SUNM	1
D1	996510028044	DISPLAY LED DT-25801DG1 DL	1
R1	996510028082	IR SENSOR 36KHZ IRM36C AAD	1

### DVP3326/94 USB PCB PARTS LIST

No	12NC No.	Part Name	Qty
12	996510029468	USB PCB ASS'Y DVD3320	1
CON2	996510028079	DIP USB AF180°USB-015 ZIYOU DA	1



# SERVICE PART LIST

## DVP3326/94 DVD PCB PARTS LIST

No	12NC No.	Part Name	Qty
5	996510029477	MAIN PCB ASS'Y DVP3326 JD	1
U2	996510029222	SMD IC MT1389QE/LAE-L LQFP128	1
U1	996510028064	IC SW5888 HSOP28 5-CHA	1
U5,U6,U7	996510028051	SMD IC YD4558 SOP-8PIN XY	3
U3	996510028043	IC W9864G6XH-6 TSOP54 64M	1
U4	996510028054	IC EN25F16-100HIP SOP8 16M FLA	1
Q3,Q4,Q10,Q13	996510029221	TR SS8550D-1.5A TO-92 PNP ST	4
Y1	996510028074	DIP XTAL27.00MHZ+/-10PPM HC49	1
Q6,Q7	996510028056	SMD TR 2SK3018 SOT-23 ROHM	2
Q20,Q21,Q19,Q25, Q9,Q17,Q1,Q2,Q5, Q14,Q15,Q18,Q28	996510028078	TR PMBT3904 SOT23 NPN PHILIPS	13
Q11,Q22,Q23,Q26, Q27	996510028086	TR PMBT3906 SOT23 PNP PHILIPS	5
Q8,Q16,Q24	996510028041	SMD MOSFET CES2307 SOT-23 CET	3
D1	996510028055	DIODE BAT54C SOT-23 RECTRON	1
JK2	996510028087	DIP AV JACK AV4-8.4-7D1 JIXIN	1
JK3	996510029227	DIP AV JACK AV4-8.4-7D2 JIXIN	1
JK1	996510028076	DIP AV JACK AV3-8.4-7D JIXIN	1
F1	996510028048	FUSE 0.5A/6V LP-NSM050 GP	1

## 9.0 REVISION LIST

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Version 1.0

- Initial release