

Service Service Service



Service Manual

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1.0 TECHNICAL SPECIFICATION

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: $700\text{mV} \pm 10\%$
 RGB unbalance: 5%
 Sync. Amplitude: $300\text{mV} \pm 100\text{mV}$
 S/N on RGB outputs: $\geq 52\text{ dB}$
 DC Level: $\leq 1\text{V}$

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: $286\text{mV} \pm 100\text{mV}$
 Video Bandwidth 4.2 MHz: -5db
 S/N on outputs: YUV: $\geq 52\text{ dB}$

AUDIO PERFORMANCE

Line outputs

Test equipment: Audio Precision System2
 Test discs: CDDA: Philips audio signal test disc 1
 Load Impedance: $100\text{K}\Omega$ 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

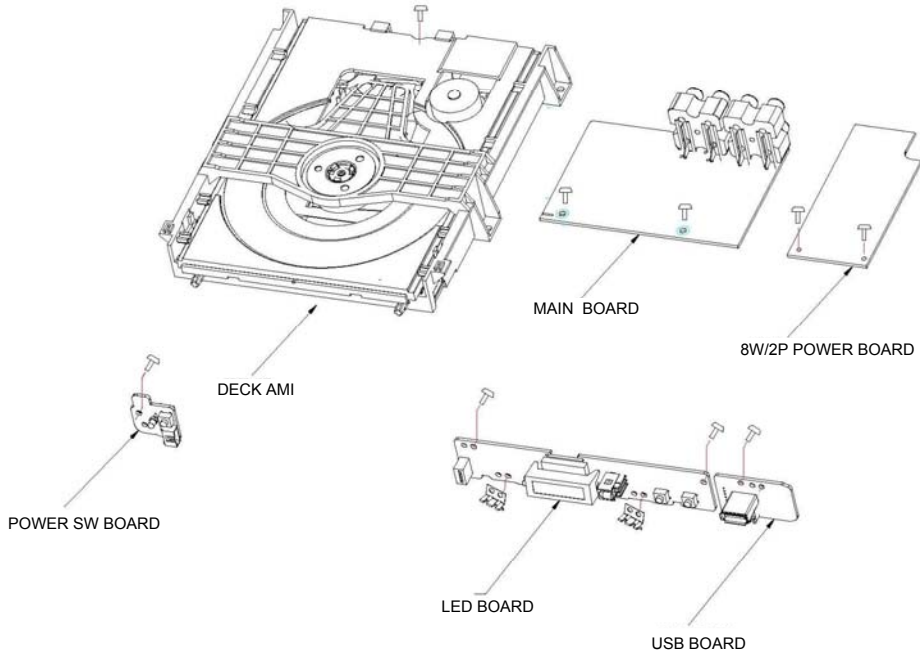
GENERAL DESCRIPTION

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

CVBS

Amplitude output: $1\text{Vpp} \pm 0.1\text{V}$
 White bar: $714\text{mV} \pm 10\%$ / $700\text{mVpp} \pm 10\%$
 Sync. Amplitude: $286\text{mV} \pm 100\text{mV}$ / $300\text{mVpp} \pm 100\text{mV}$
 Burst/chroma ratio: $\pm 10\%$
 S/N luminance: $\geq 52\text{ dB}$

1.1 PCBs LOCATION



VERSION VARIATIONS

Type/Versions:		DVP3320					
Service policy	94						
Board in used:							
MAIN BOARD	M/C						
8W/2P POWER BOARD	M/C						
LED BOARD	C						
USB BOARD	C						
POWER SW BOARD	C						

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

1.2 System, Region Code, etc. Setting Procedure

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

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 Ω
- 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

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

The following guidelines show how to dismantle the player.

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

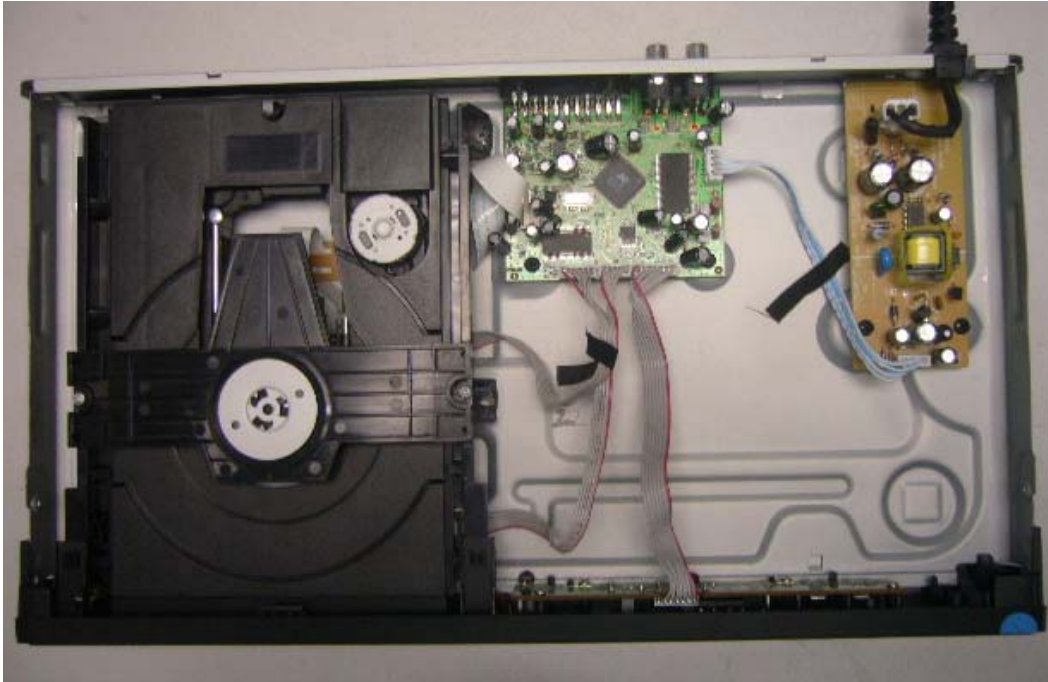


Figure 1

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)

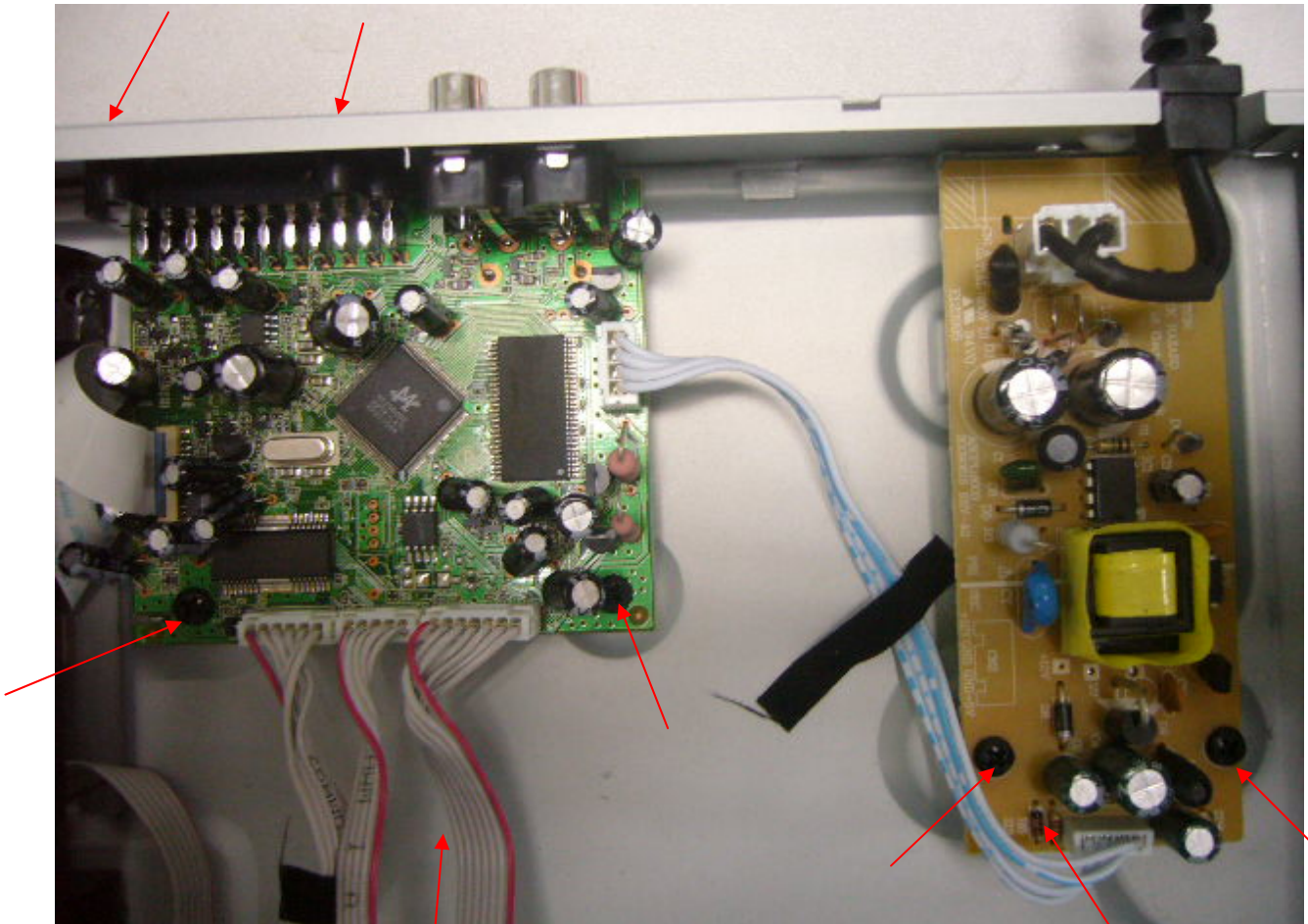
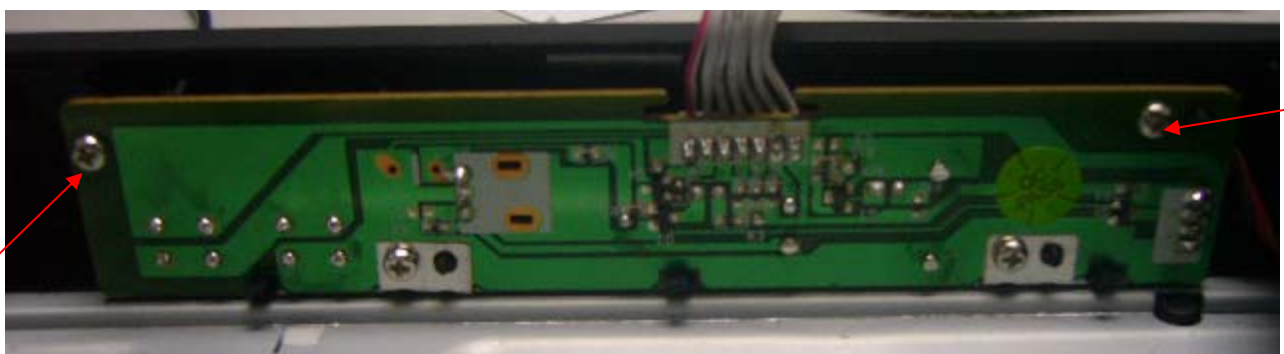
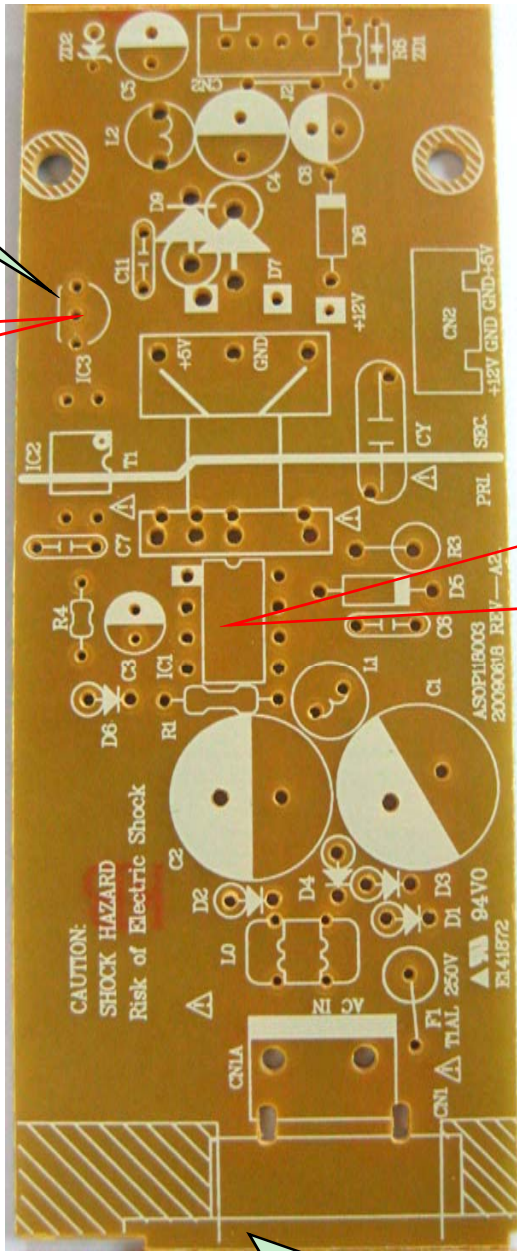
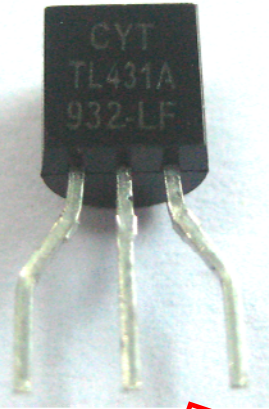


Figure4



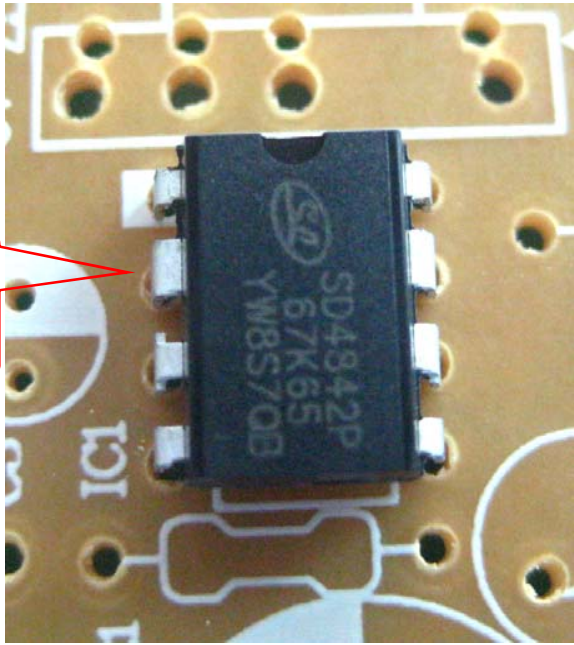
DVP3336和
DVP3320/3326共
用此IC

CYT431 location
(IC3)



Power Board repair (swap IC and transformer)

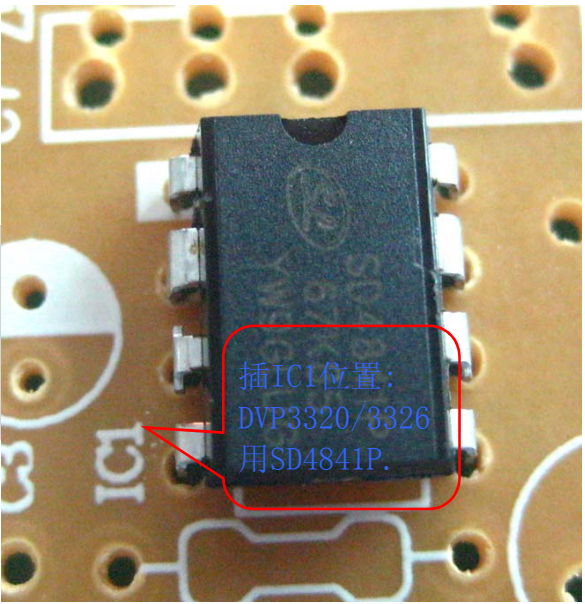
IC1: placement of
SD4842P on
DVP3336 board



location IC1:
DVP3336 uses
SD4842P

DVP3320/3326 uses
SD4841P

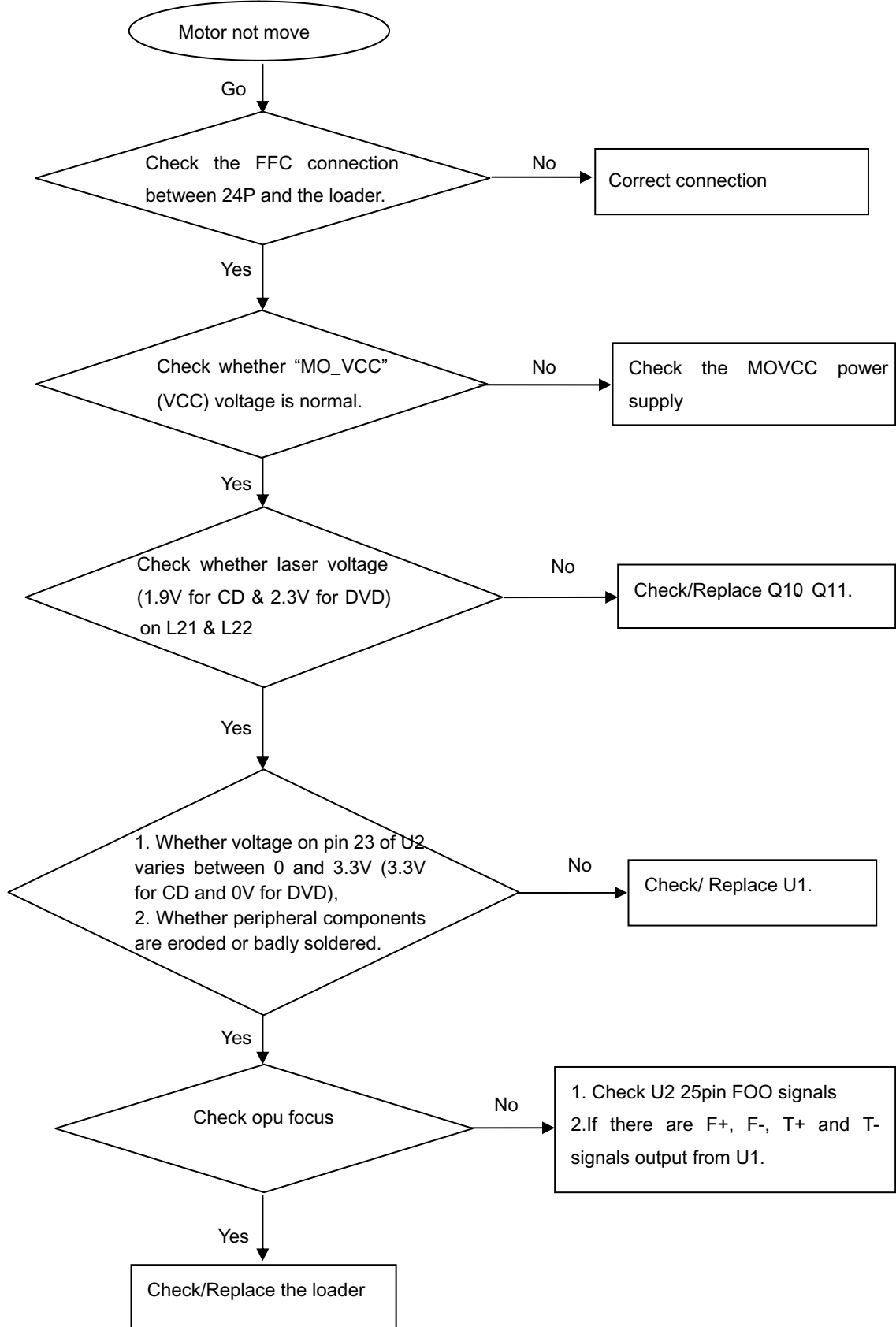
IC1: placement of SD4841P
on DVP3320/3326 board

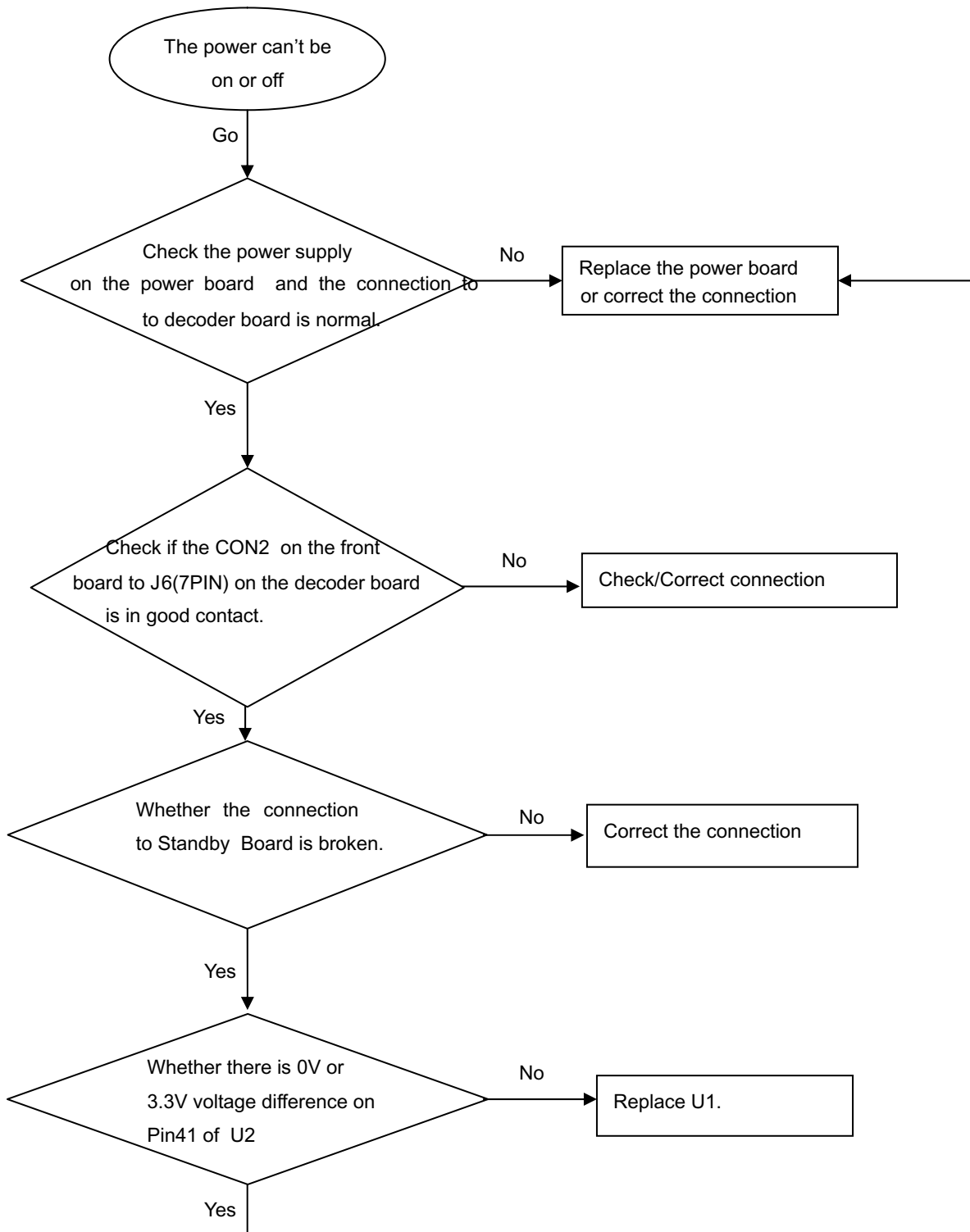


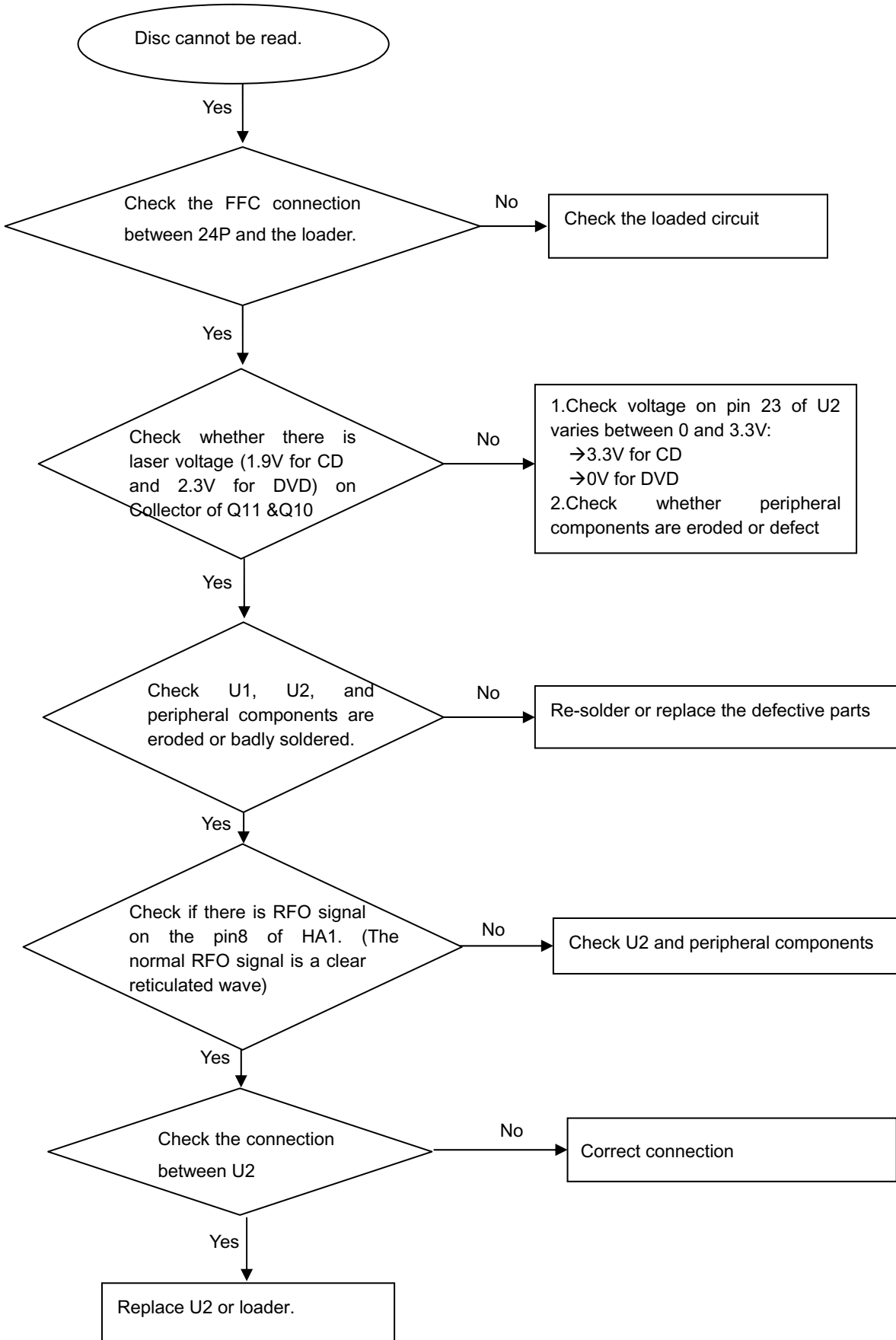
插IC1位置:
DVP3320/3326
用SD4841P.

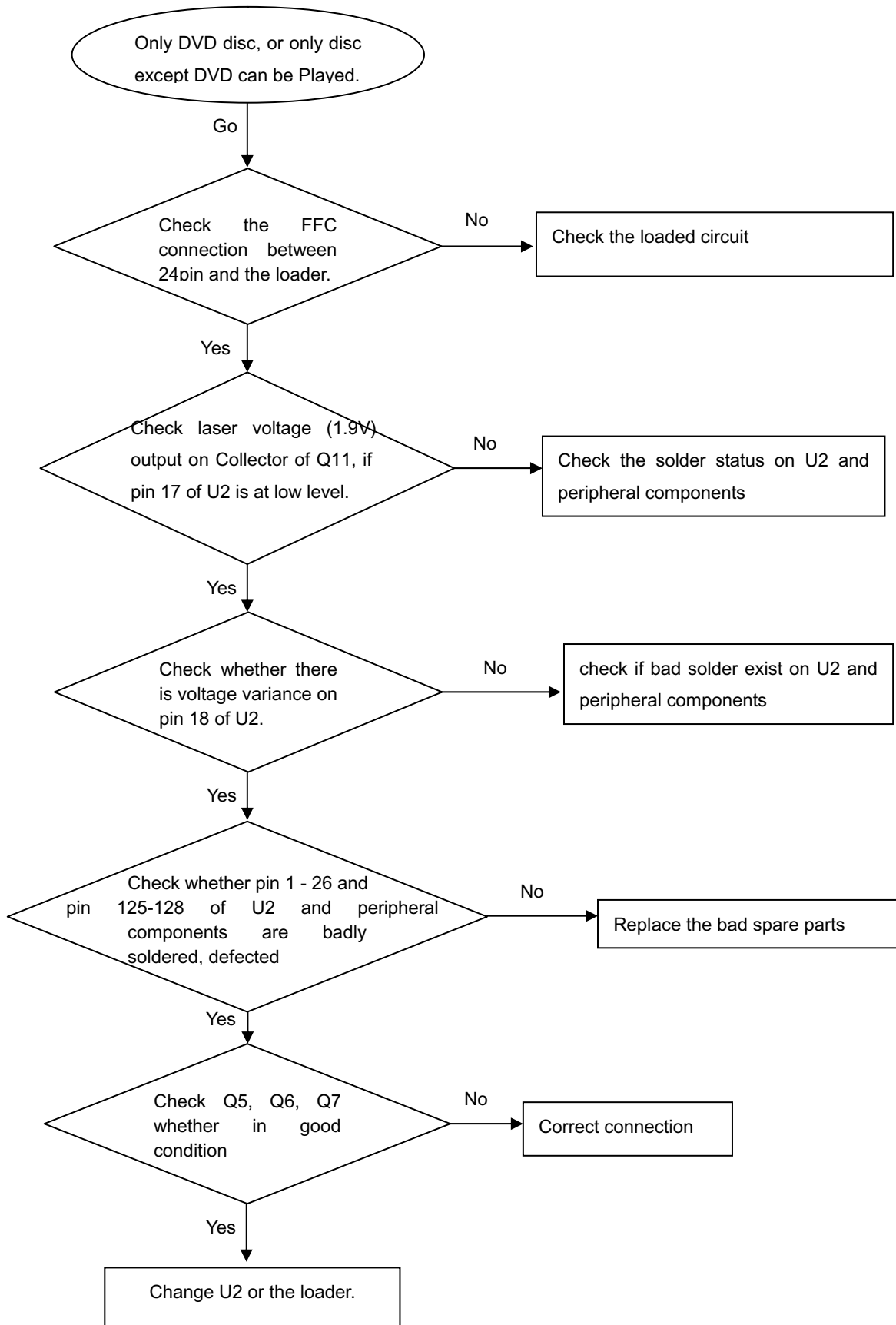
Common power board of
DVP3336/DVP3320/3326

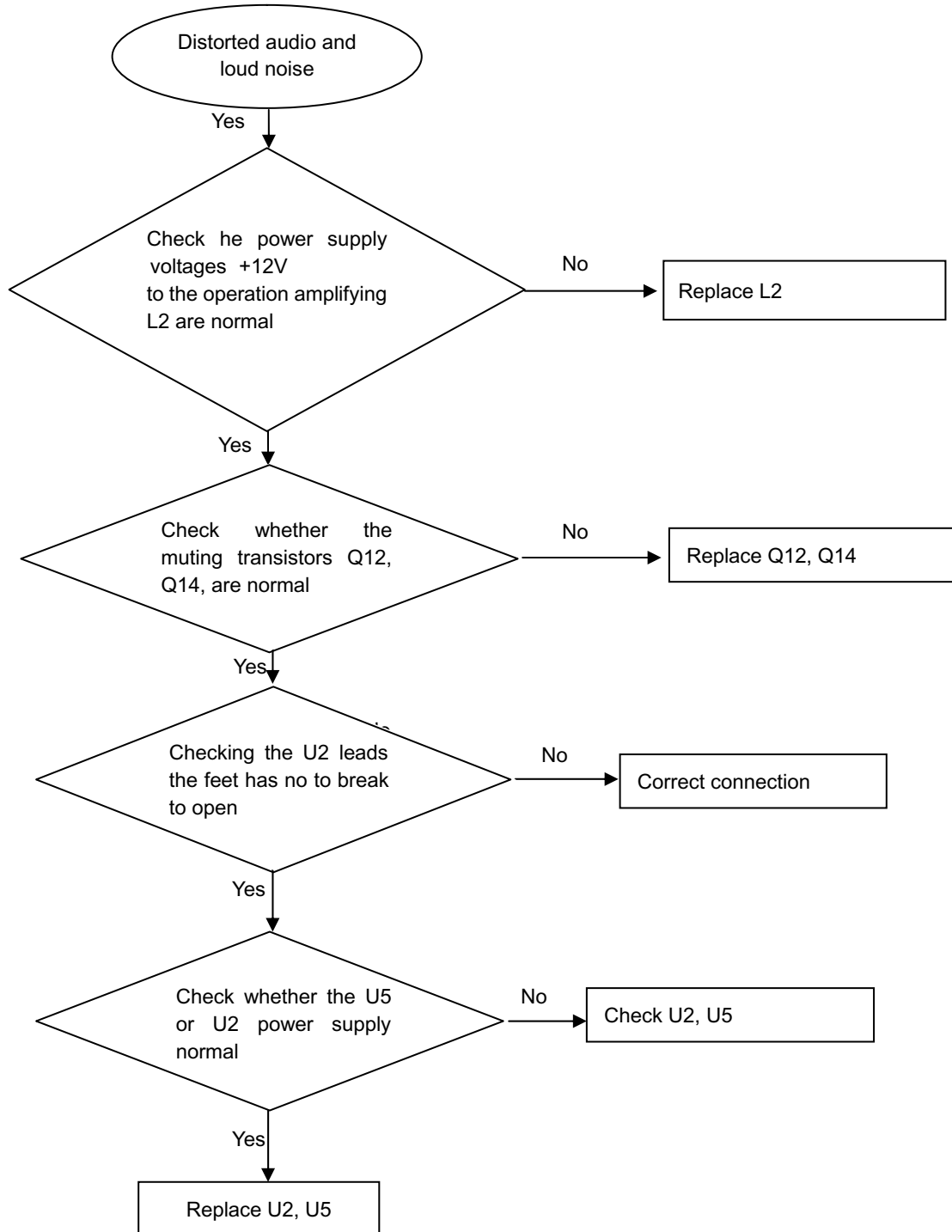


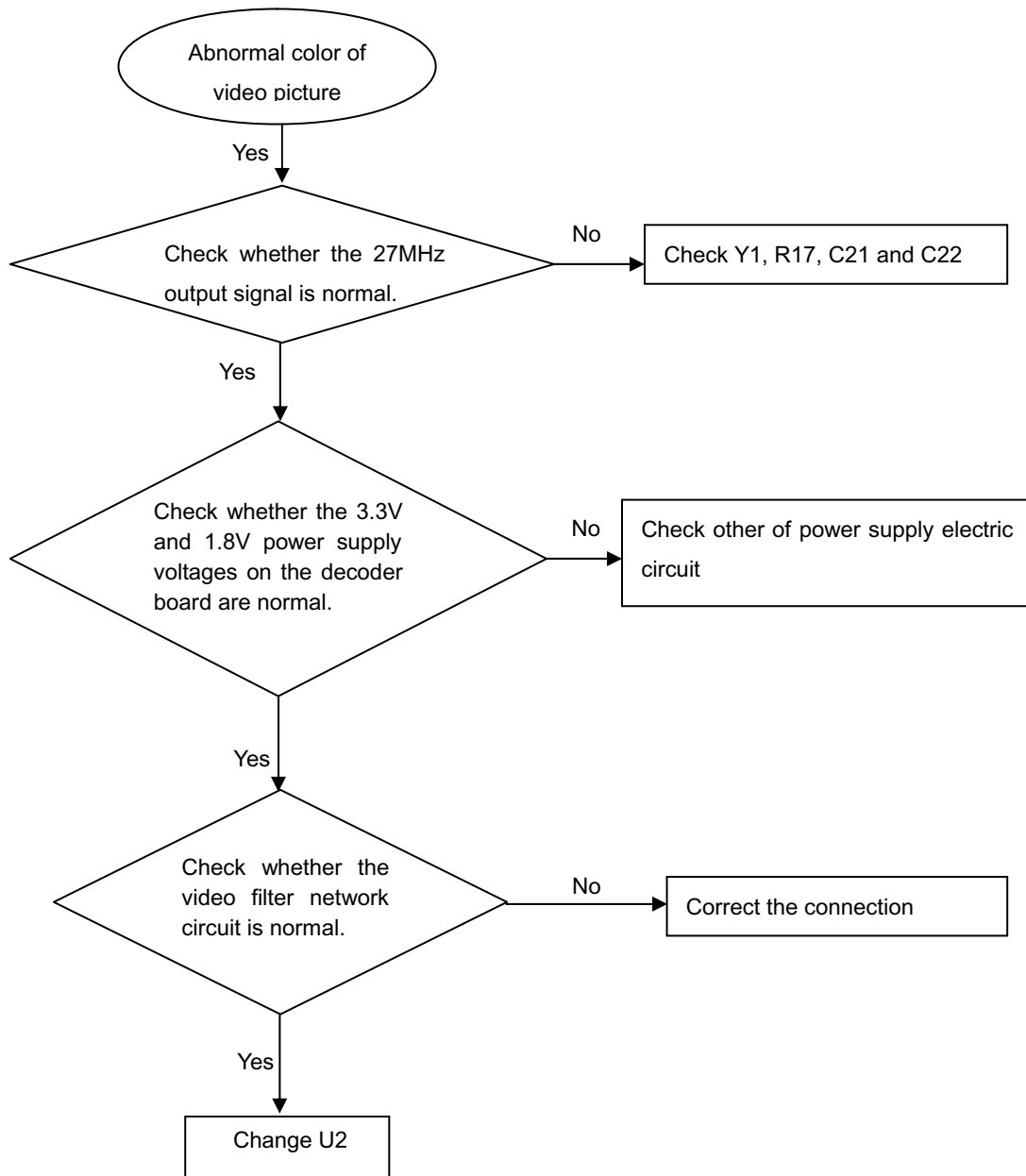
Spindle motor does not move

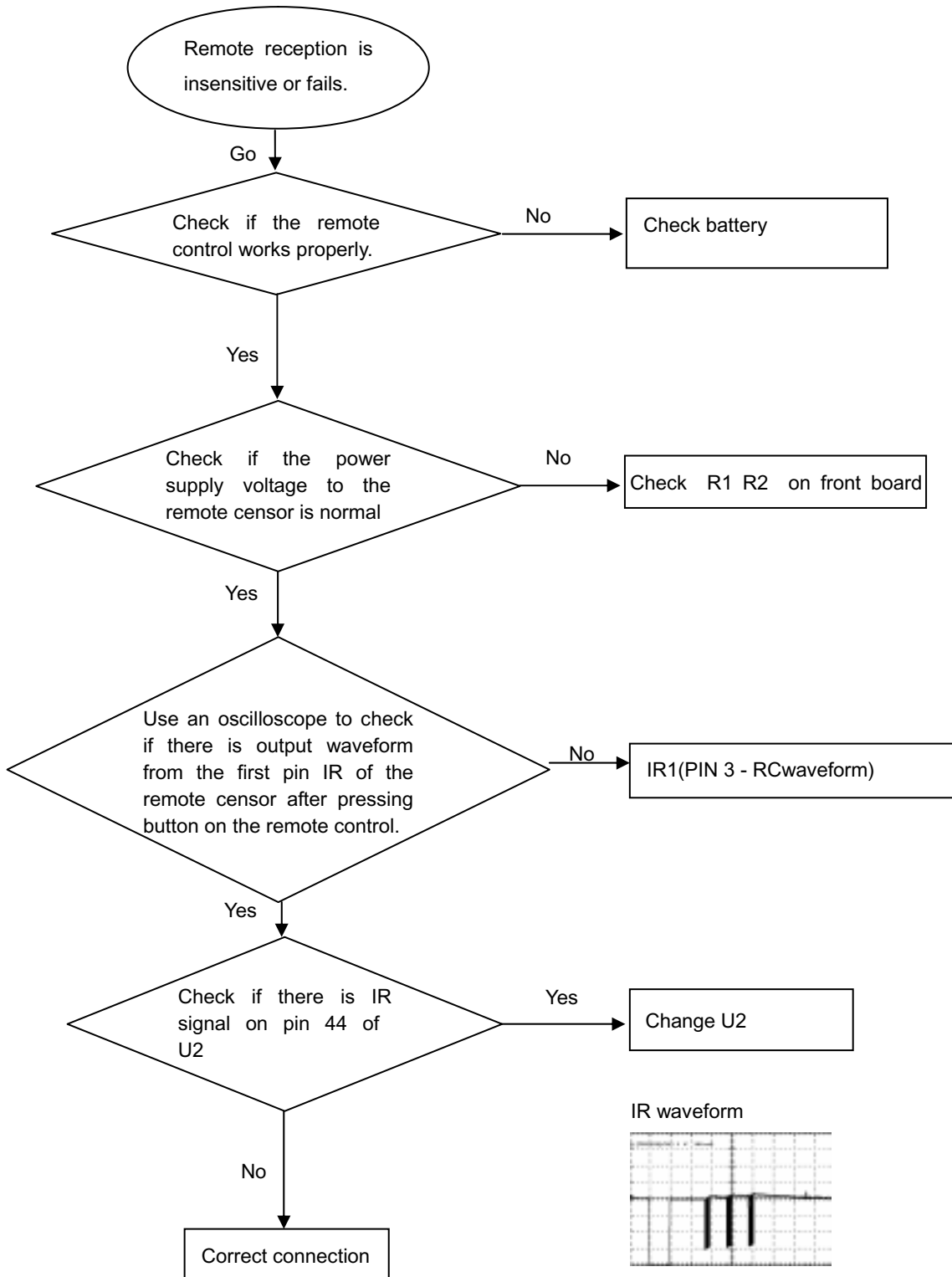
The power can not be on or off

Disc cannot be read.

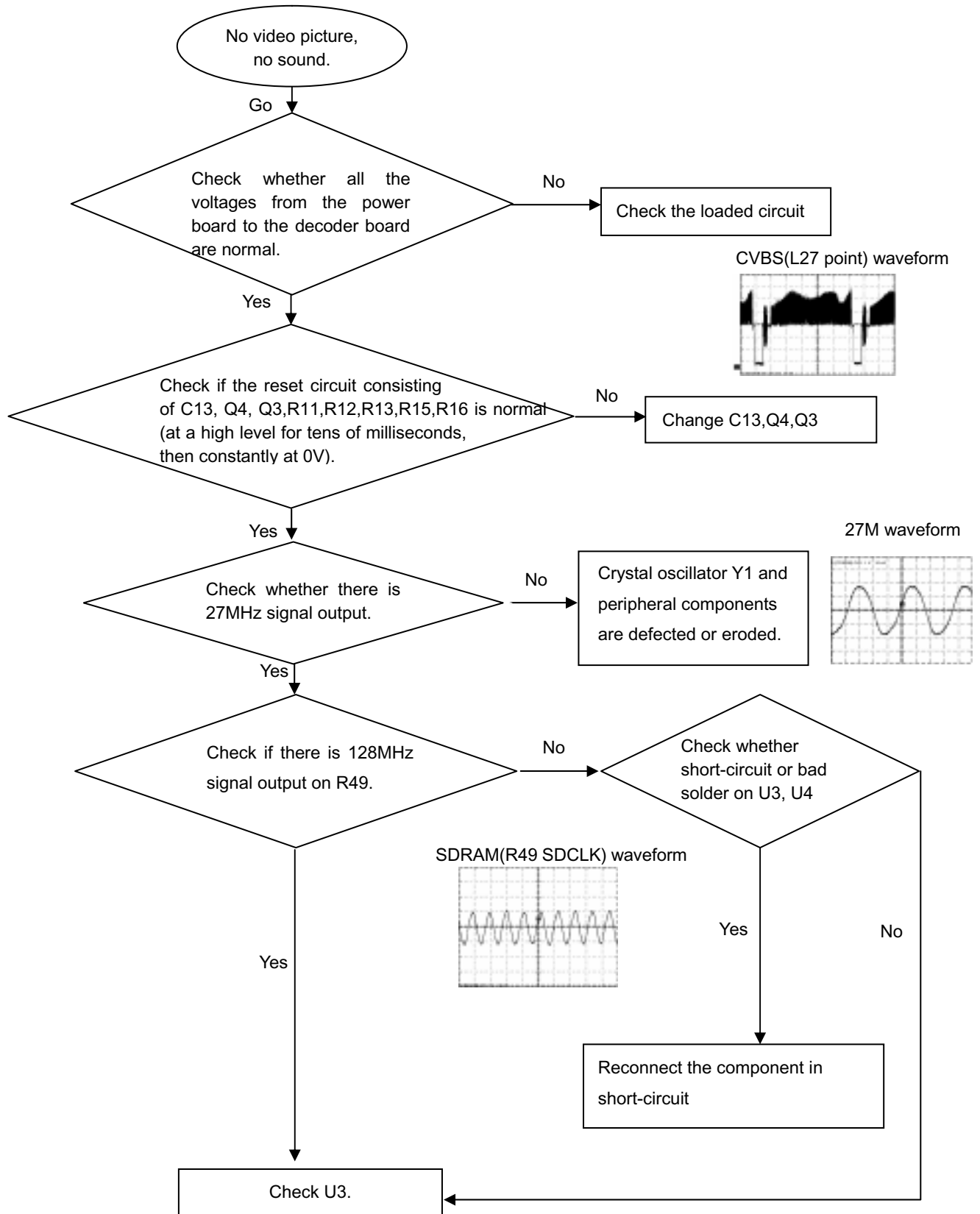
Only DVD disc or only disc except DVD can be played

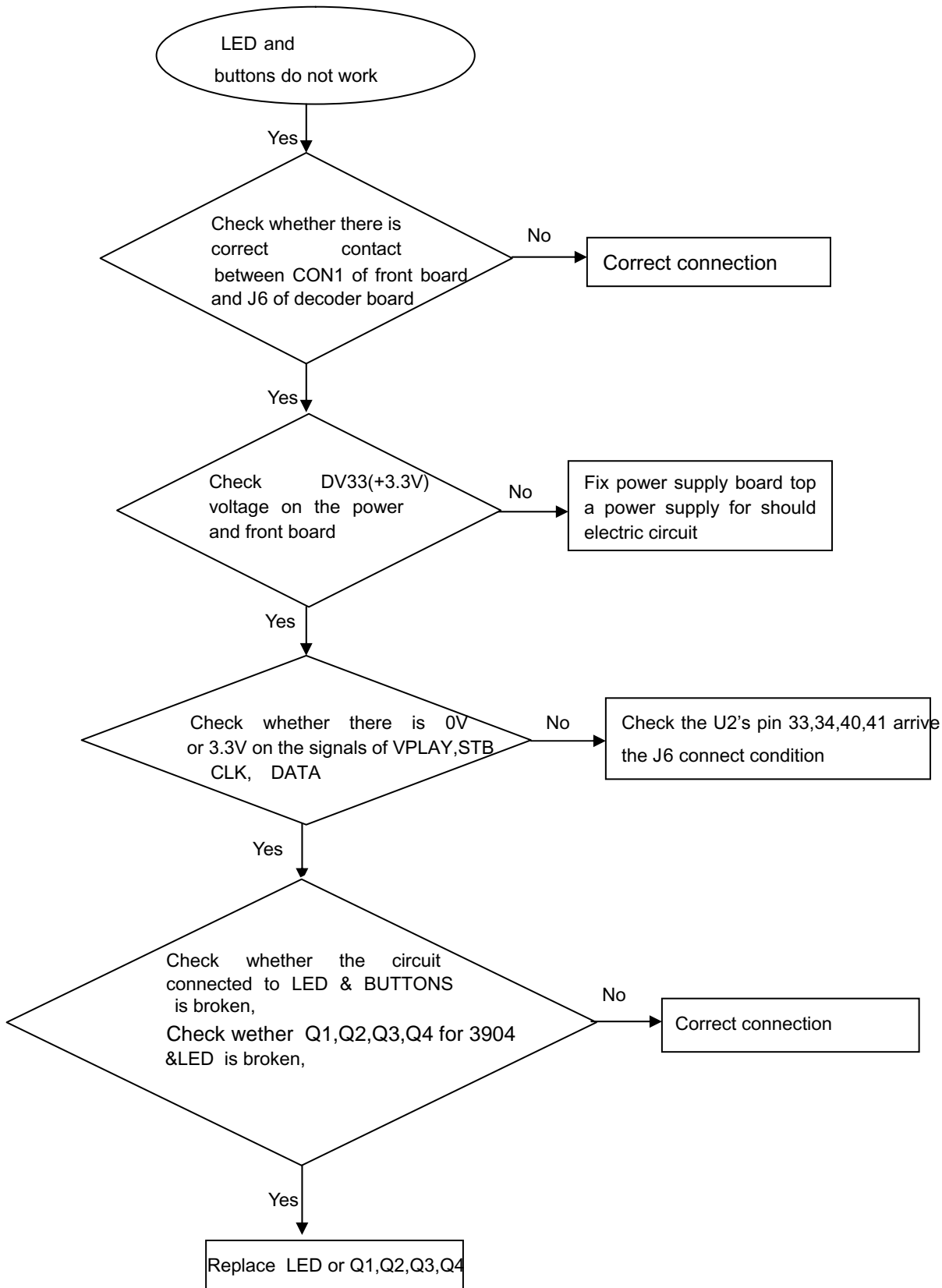
Distorted audio and loud noise

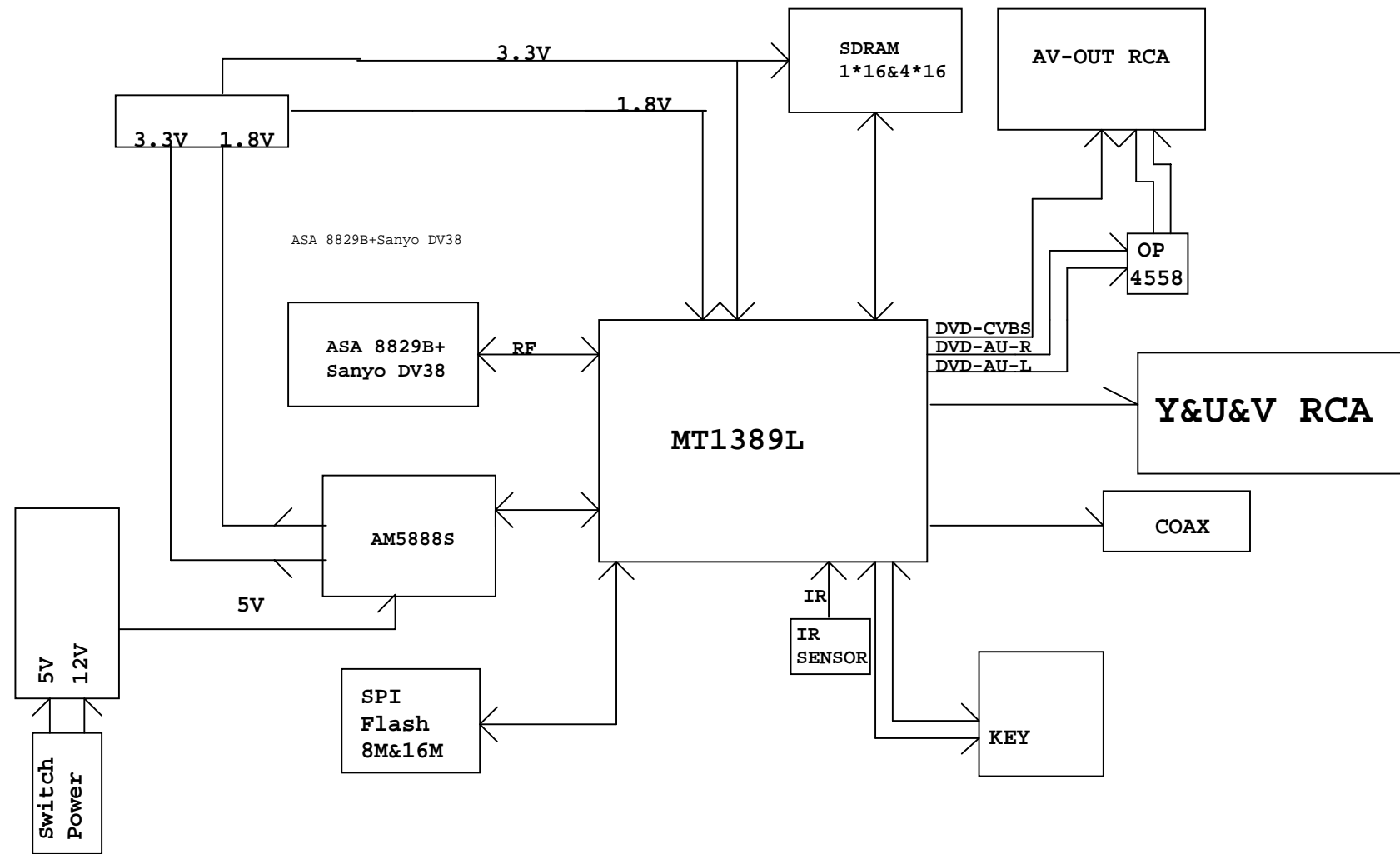
Abnormal color of video picture

Remote reception is insensitive or fails.

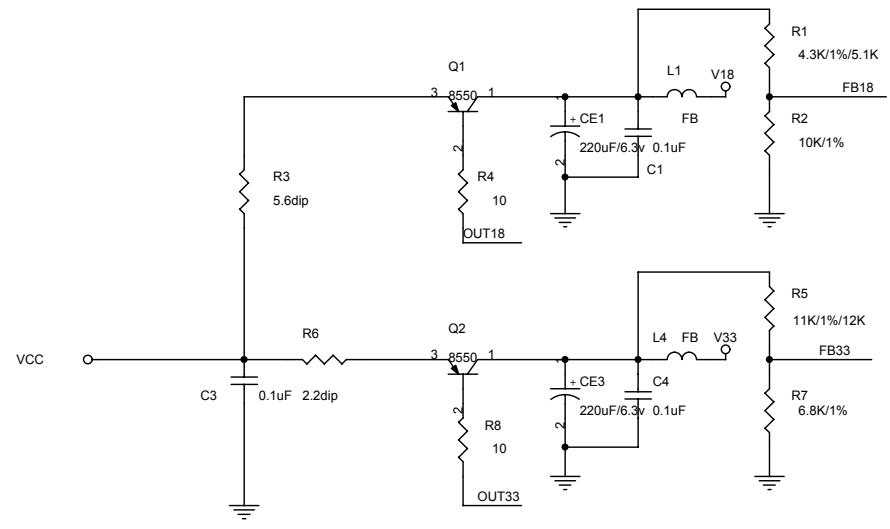
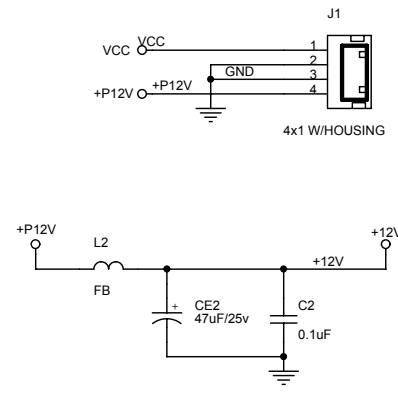
No video picture, no sound.



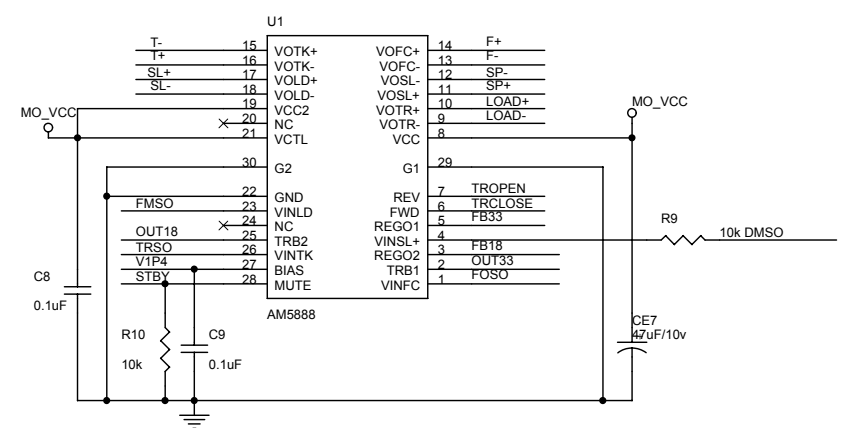
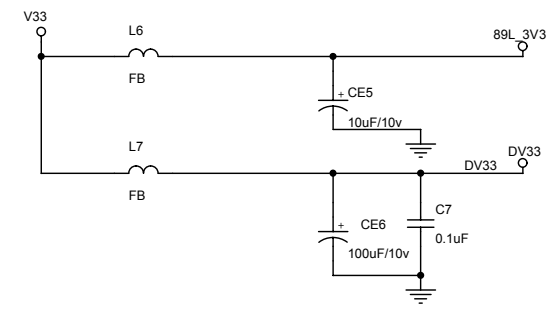
No display on LED, and buttons do not work



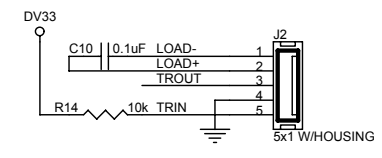
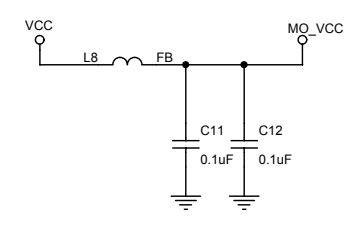
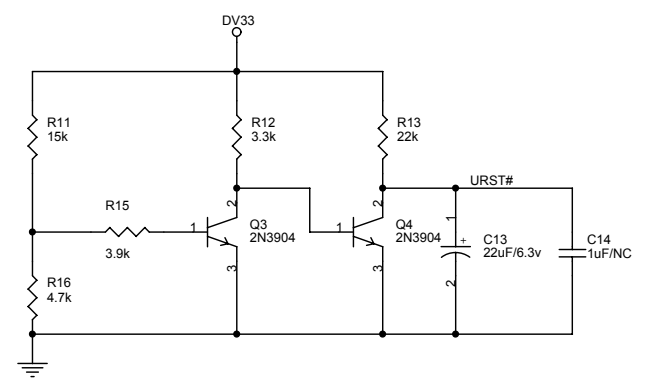
CIRCUIT DIAGRAM DVP3100 MAIN BOARD
POWER PART



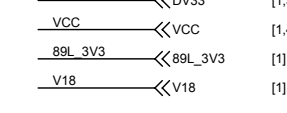
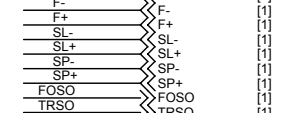
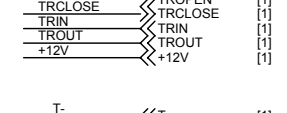
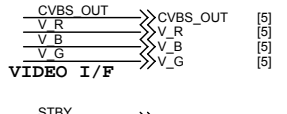
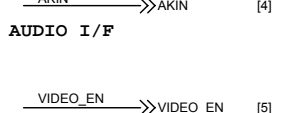
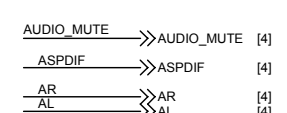
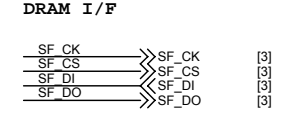
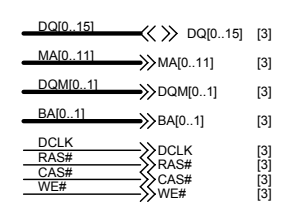
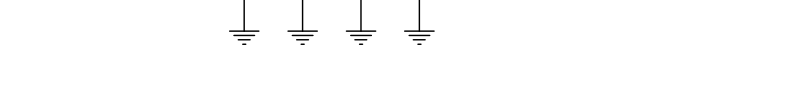
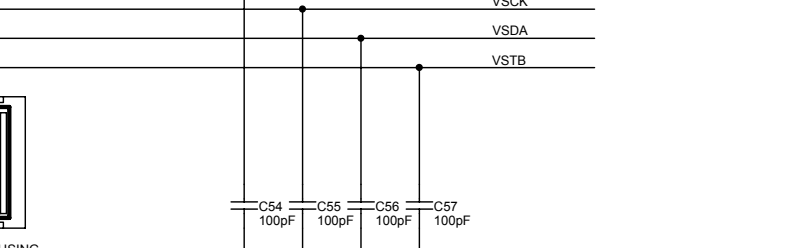
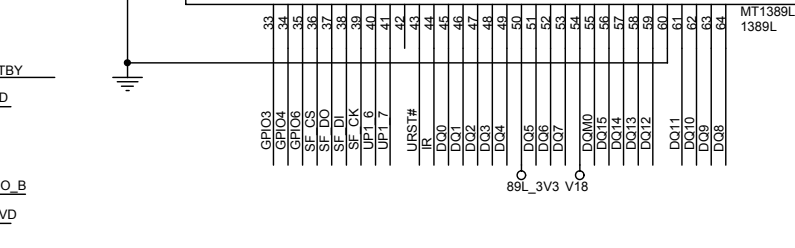
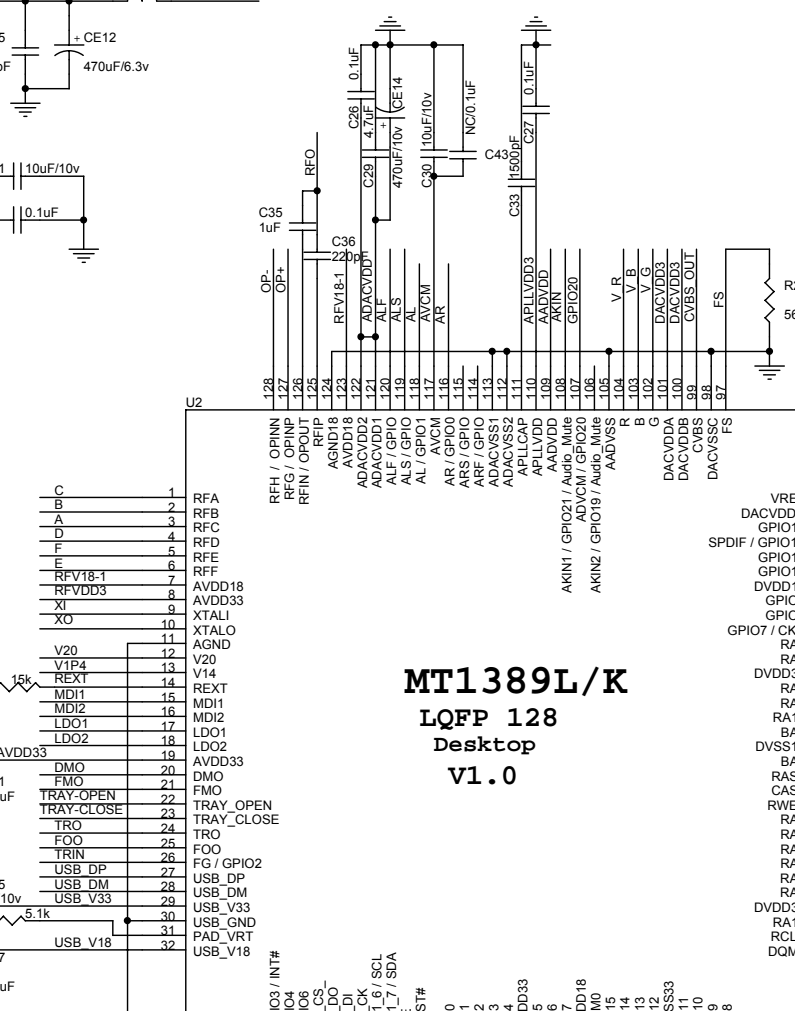
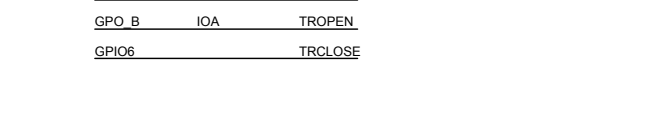
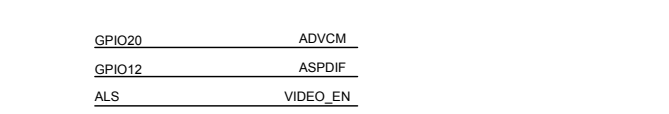
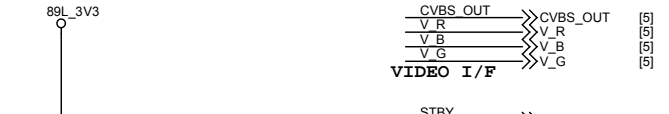
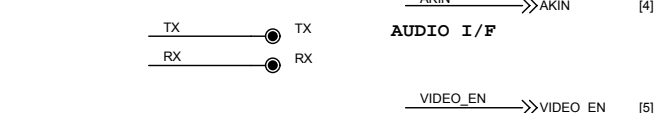
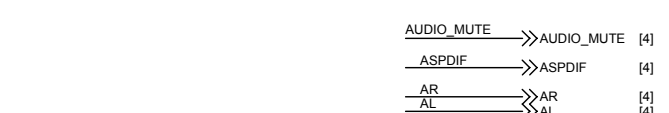
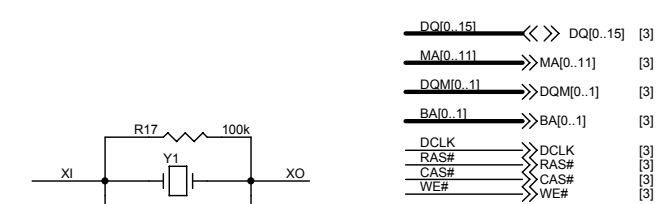
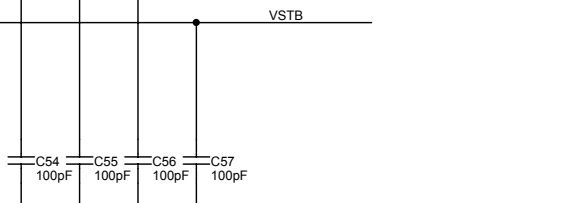
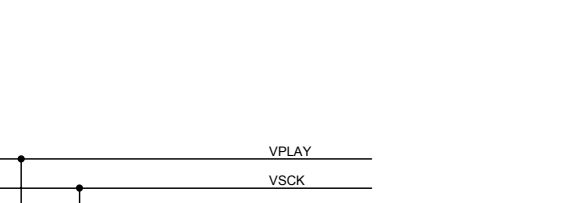
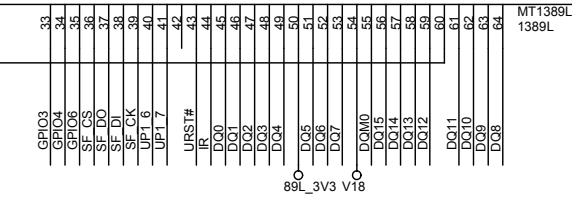
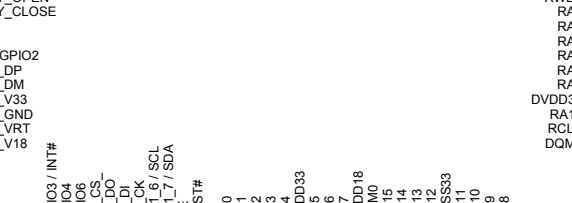
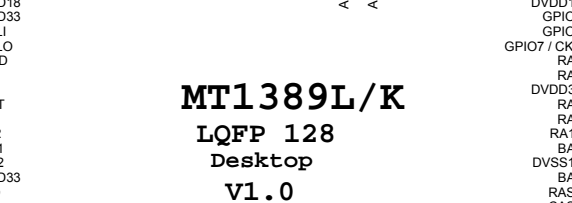
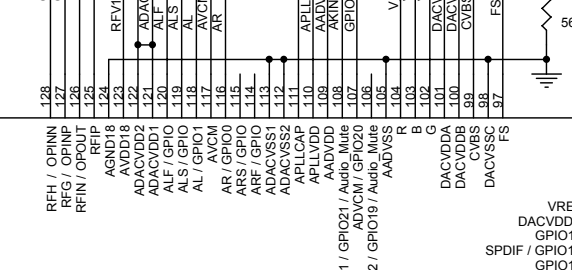
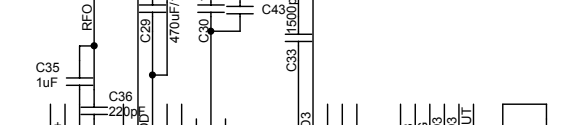
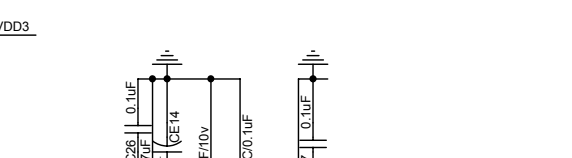
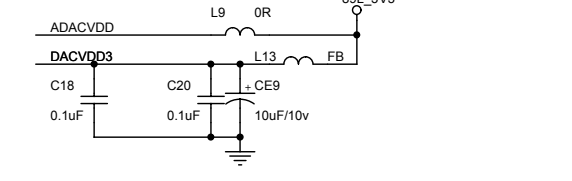
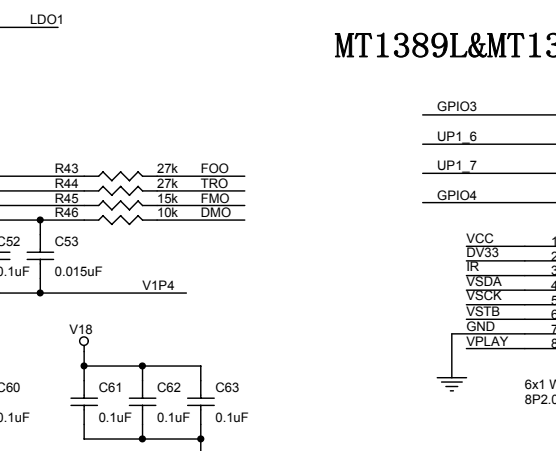
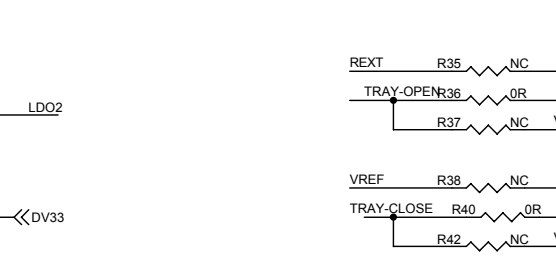
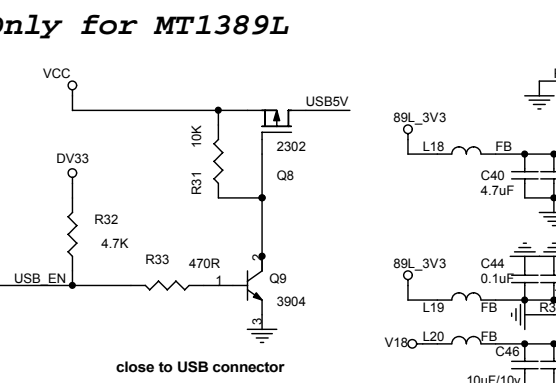
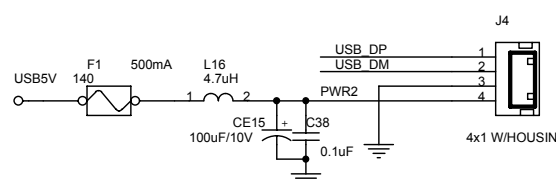
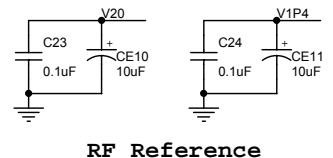
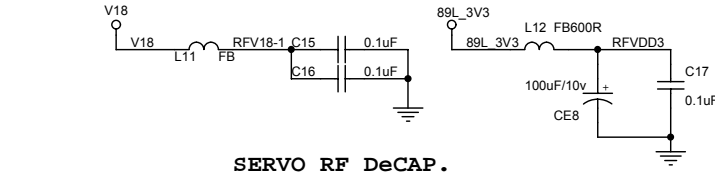
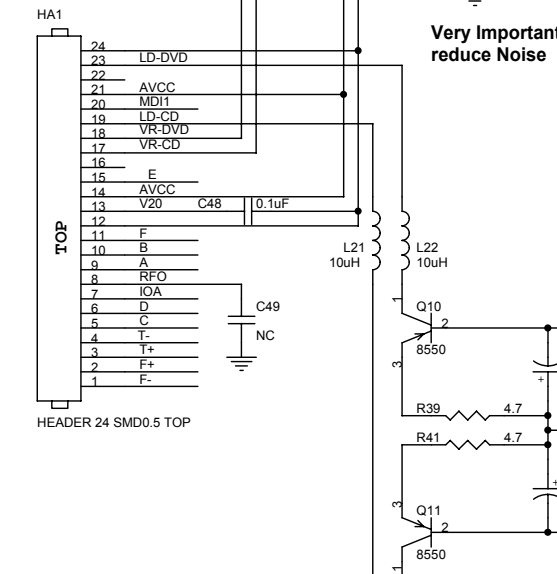
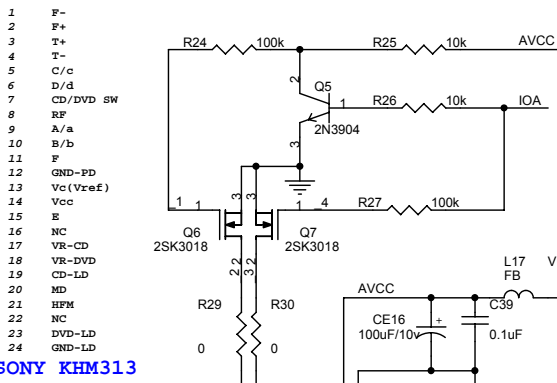
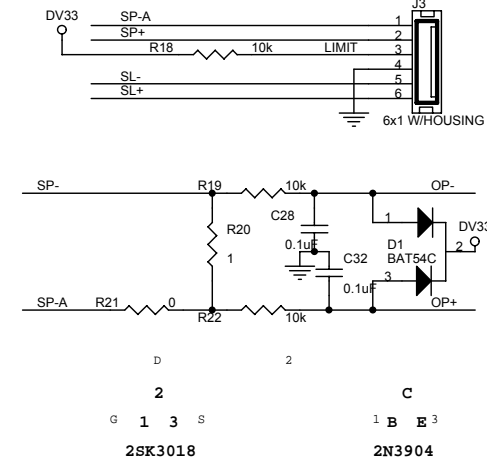
+12V	→ +12V	[2,4]
VCC	→ VCC	[2,4]
DV33	→ DV33	[2,3,4,5]
89L_3V3	→ 89L_3V3	[2]
V18	→ V18	[2]
URST#	→ URST#	[2]
POWER I/F		
TROUT	→ TROUT	[2]
TRIN	→ TRIN	[2]
TROUT	→ TROUT	[2]
TROPEN	→ TROPEN	[2]
TRCLOSE	→ TRCLOSE	[2]
FOSO	→ FOSO	[2]
DMSO	→ DMSO	[2]
FMSO	→ FMSO	[2]
TRSO	→ TRSO	[2]
SL+	→ SL+	[2]
SL-	→ SL-	[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]



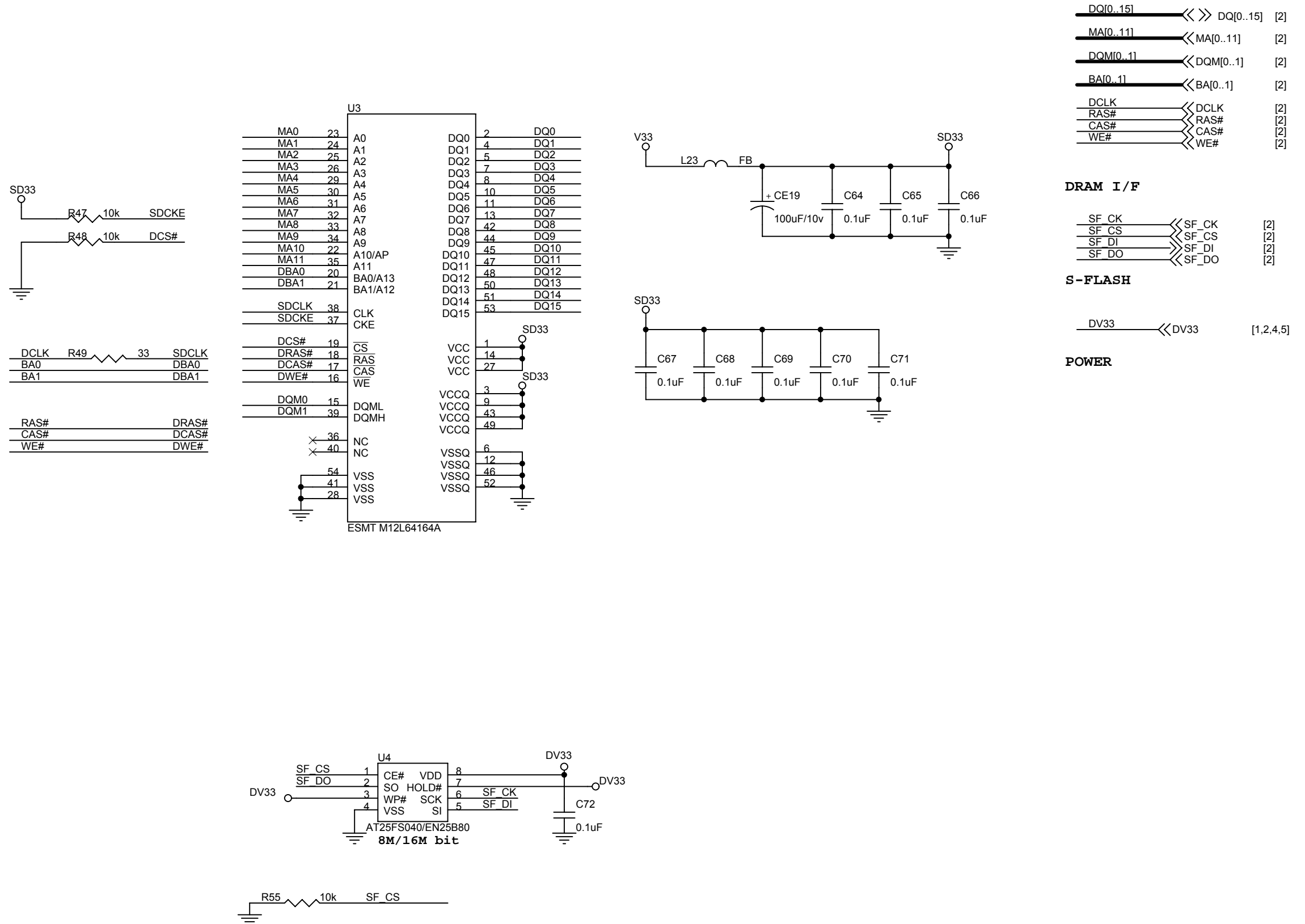
SERVO I/F



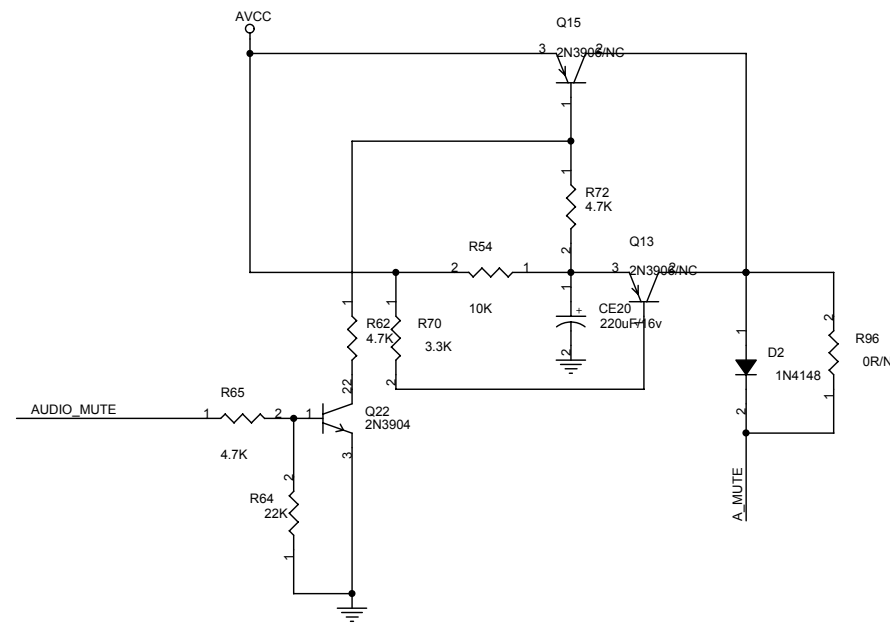
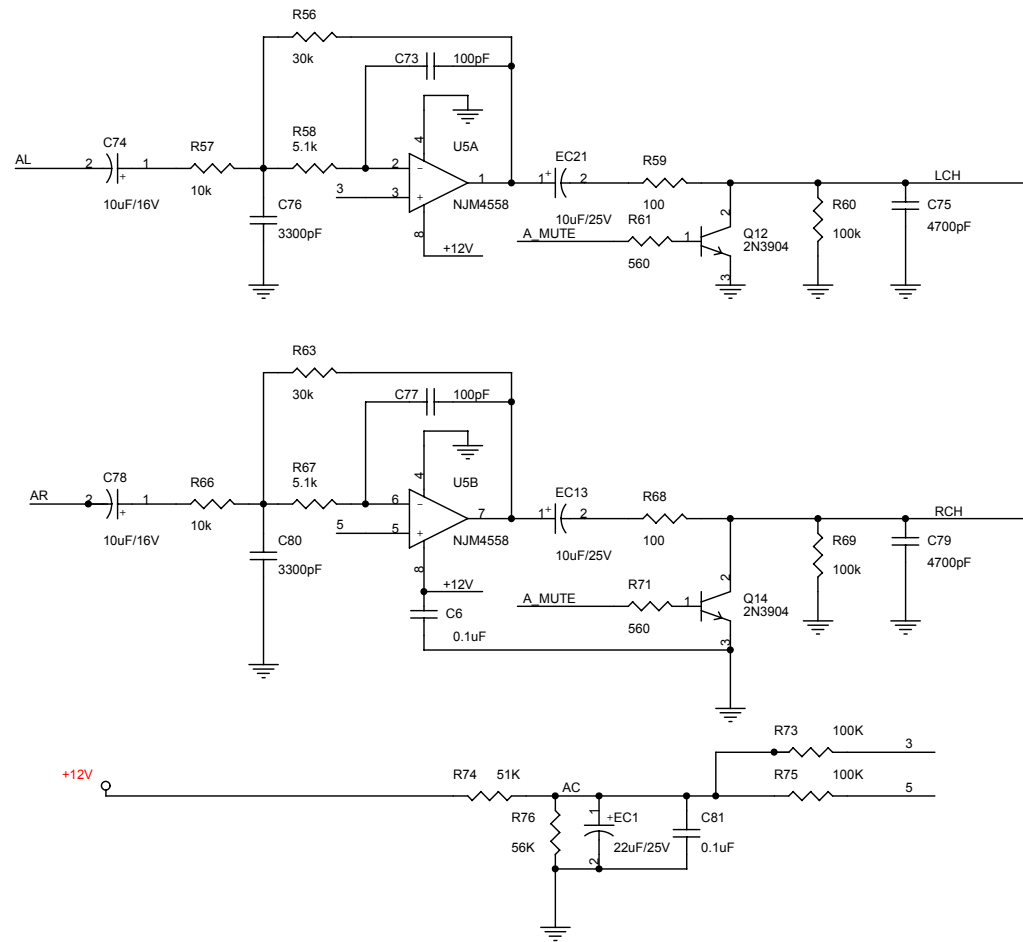
CIRCUIT DIAGRAM DVP3100 MAIN BOARD MCU PART



CIRCUIT DIAGRAM DVP3100 MAIN BOARD
SDRAM & FLASH PART



CIRCUIT DIAGRAM DVP3100 MAIN BOARD
AUDIO PART



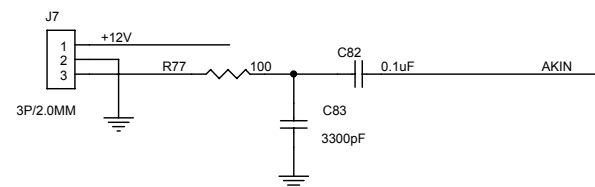
Audio Mute

AUDIO I/F

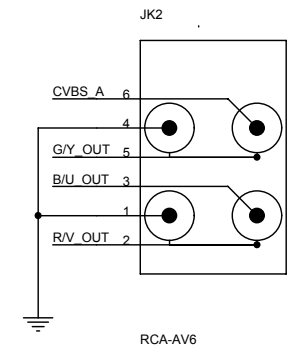
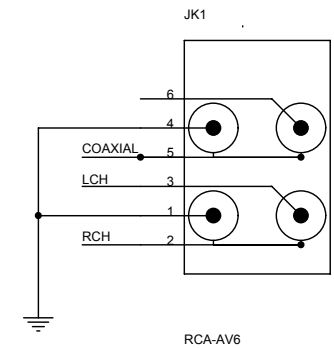
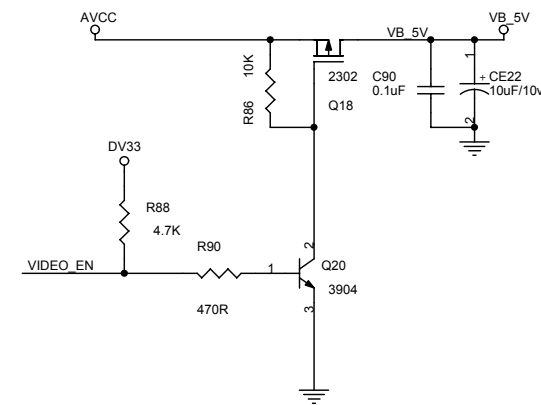
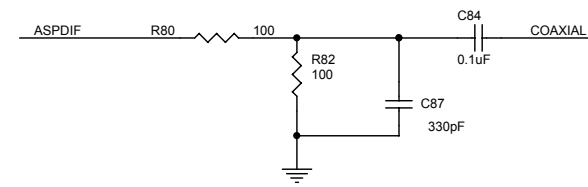
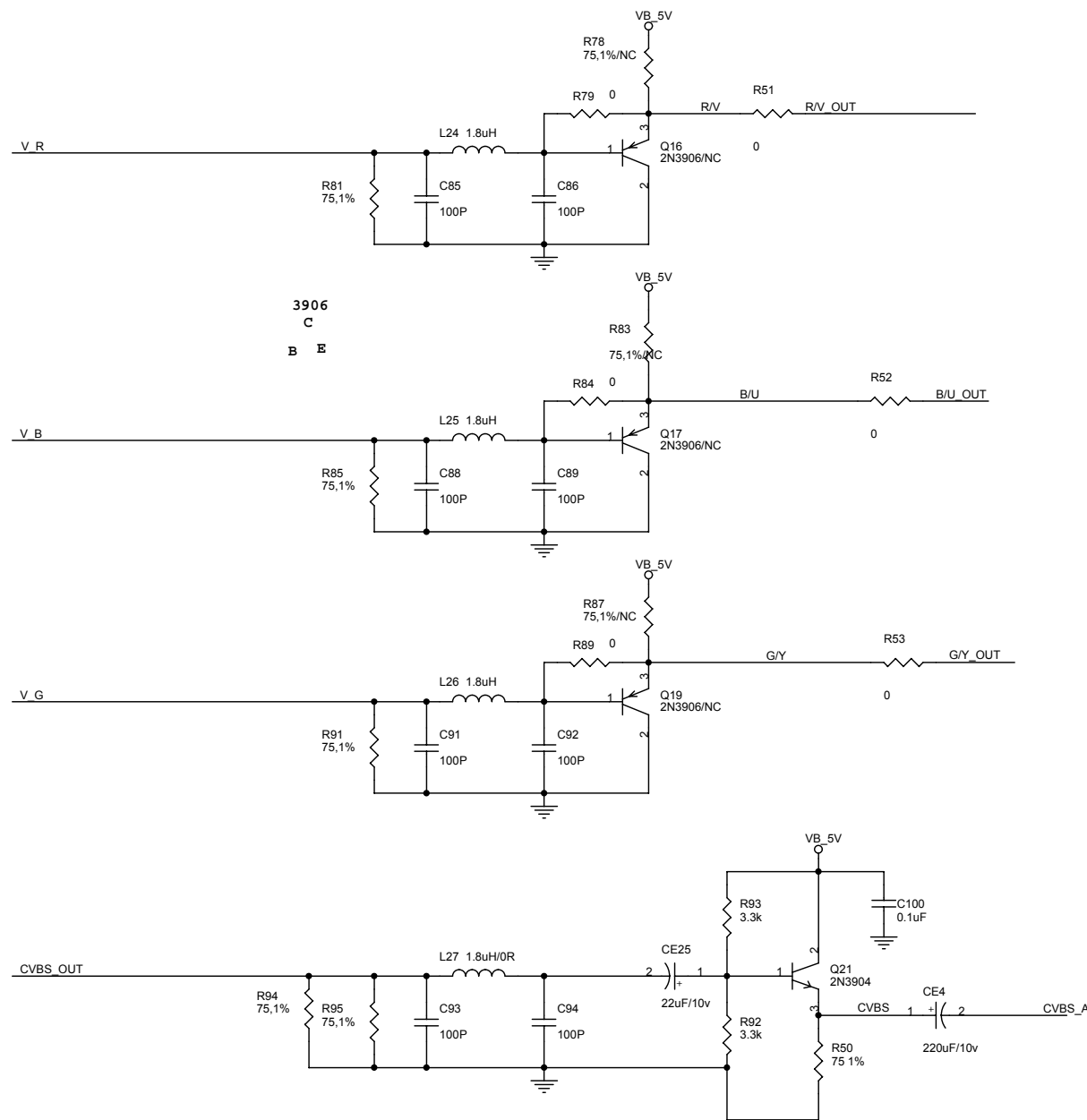
AR	AR	2
AL	AL	2
RCH	RCH	[5]
LCH	LCH	[5]
AKIN	AKIN	2
AUDIO_MUTE	AUDIO_MUTE	2
+12V	+12V	1
DV33	DV33	1,2,3,4,5
AVCC	AVCC	1,2,4,5

POWER

MIC INPUT



CIRCUIT DIAGRAM DVP3100 MAIN BOARD
VIDEO PART



CVBS_OUT	CVBS_OUT	[2]
V_R	V_R	[2]
V_B	V_B	[2]
V_G	V_G	[2]
ASPDIF	ASPDIF	[2]
VIDEO_EN	VIDEO_EN	[2]

VIDEO I/F

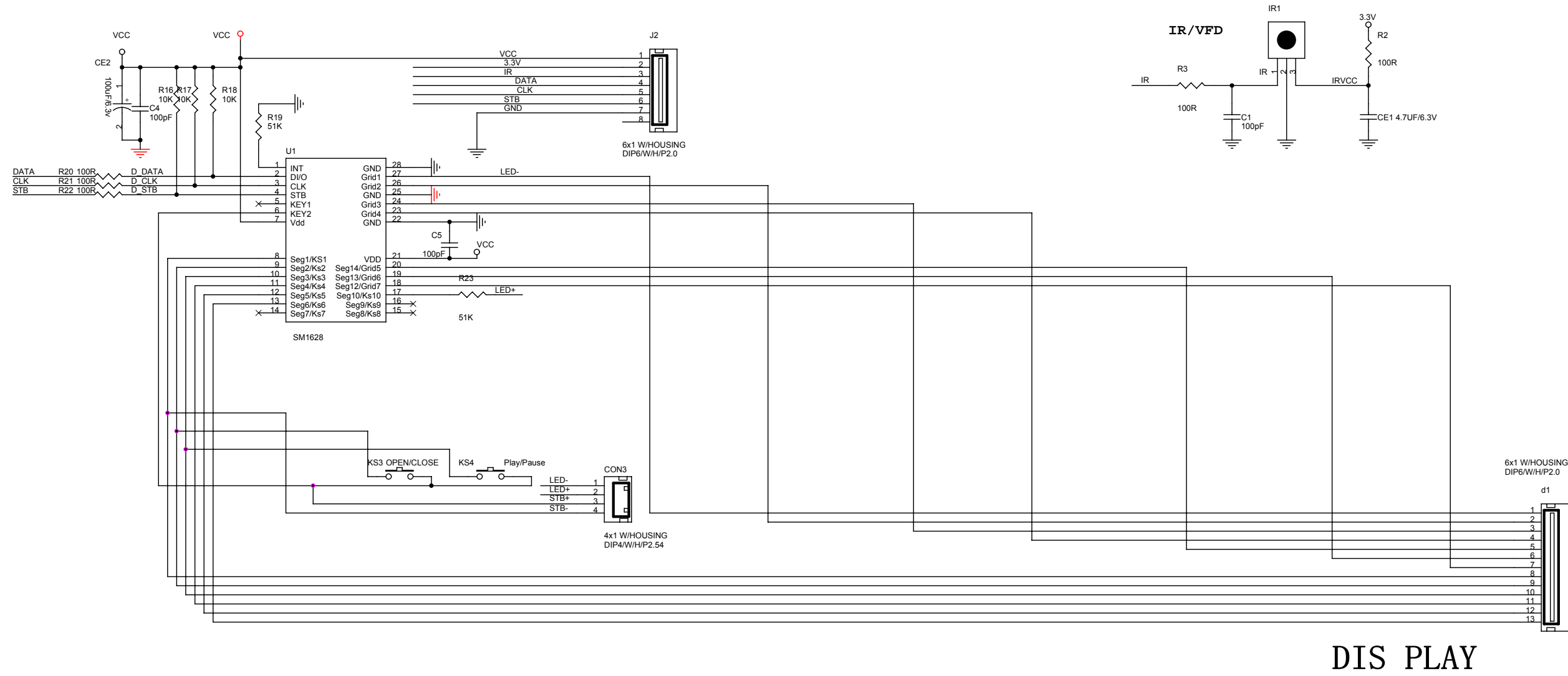
RCH	RCH	[4]
LCH	LCH	[4]

AUDIO I/F

DV33	DV33	[1,2,3,4]
AVCC	AVCC	[1,2,4,5]
+12V	+12V	[1,5]
VCC	VCC	[1,2,5]

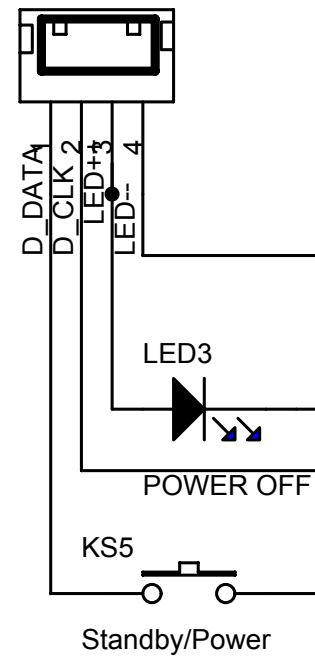
POWER

CIRCUIT DIAGRAM DVP3100 DISPLAY BOARD



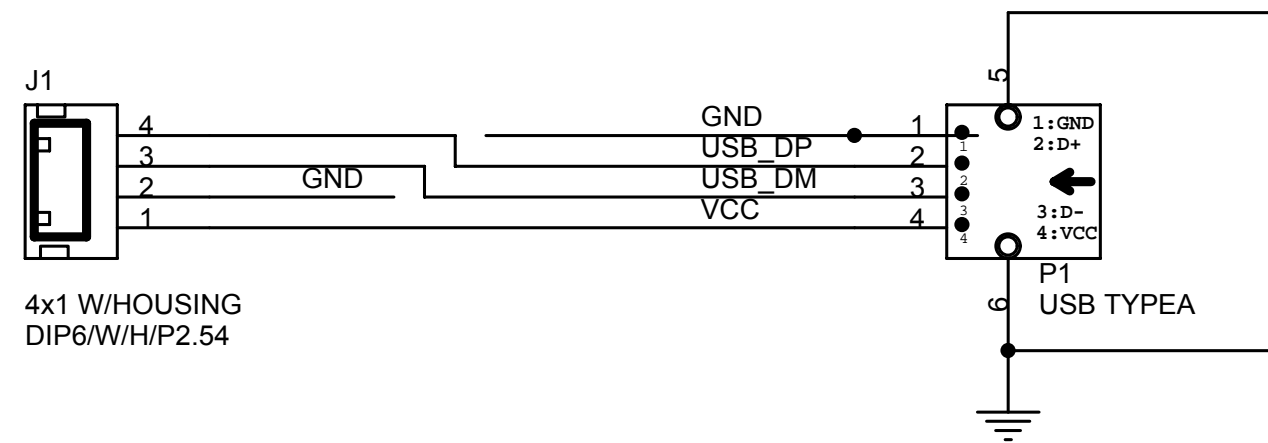
CIRCUIT DIAGRAM DVP3100 STANDBY POWER BOARD

CON4
DIP4/W/H/P2.54
4x1 W/HOUSING

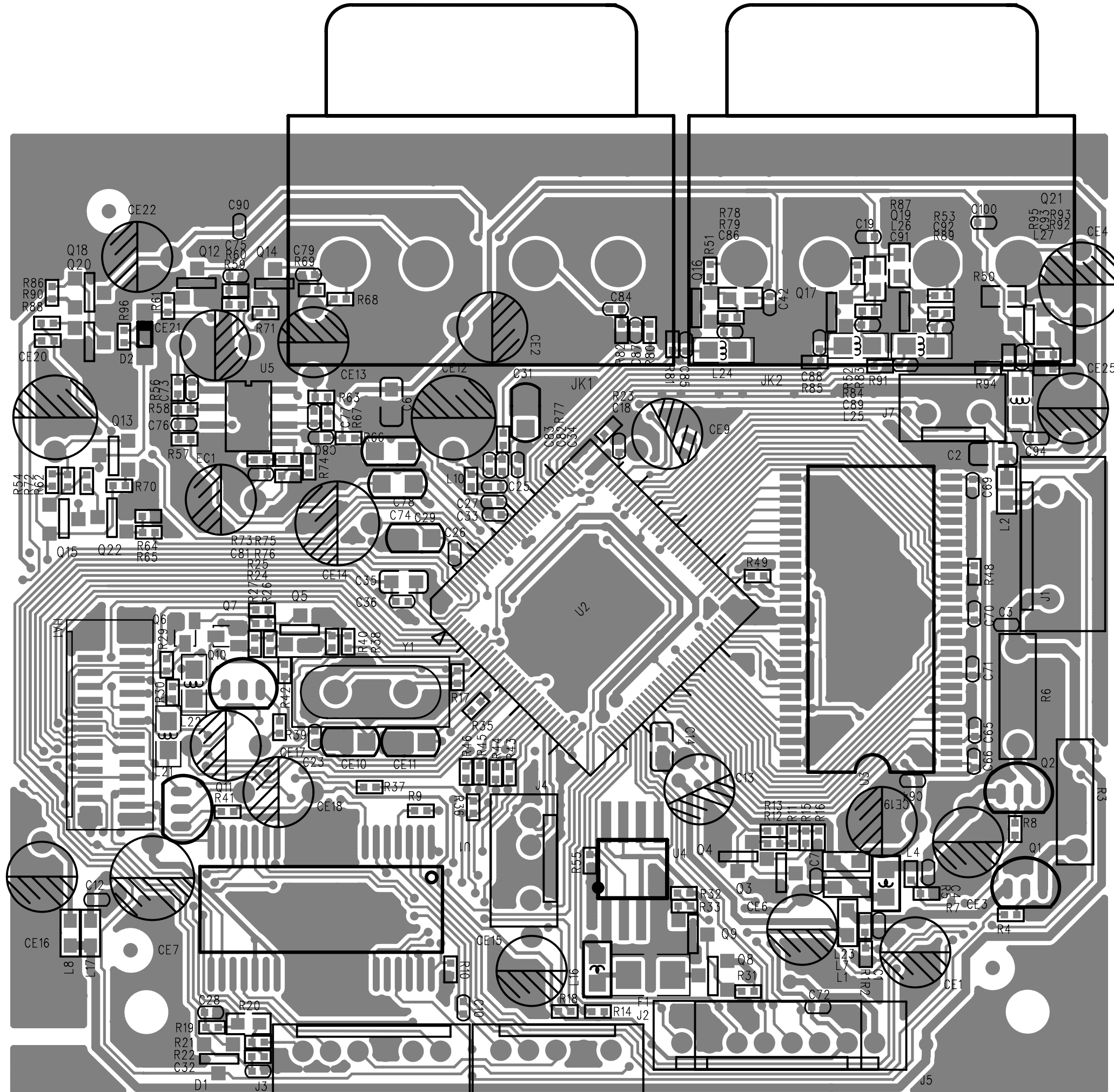


Standby/Power

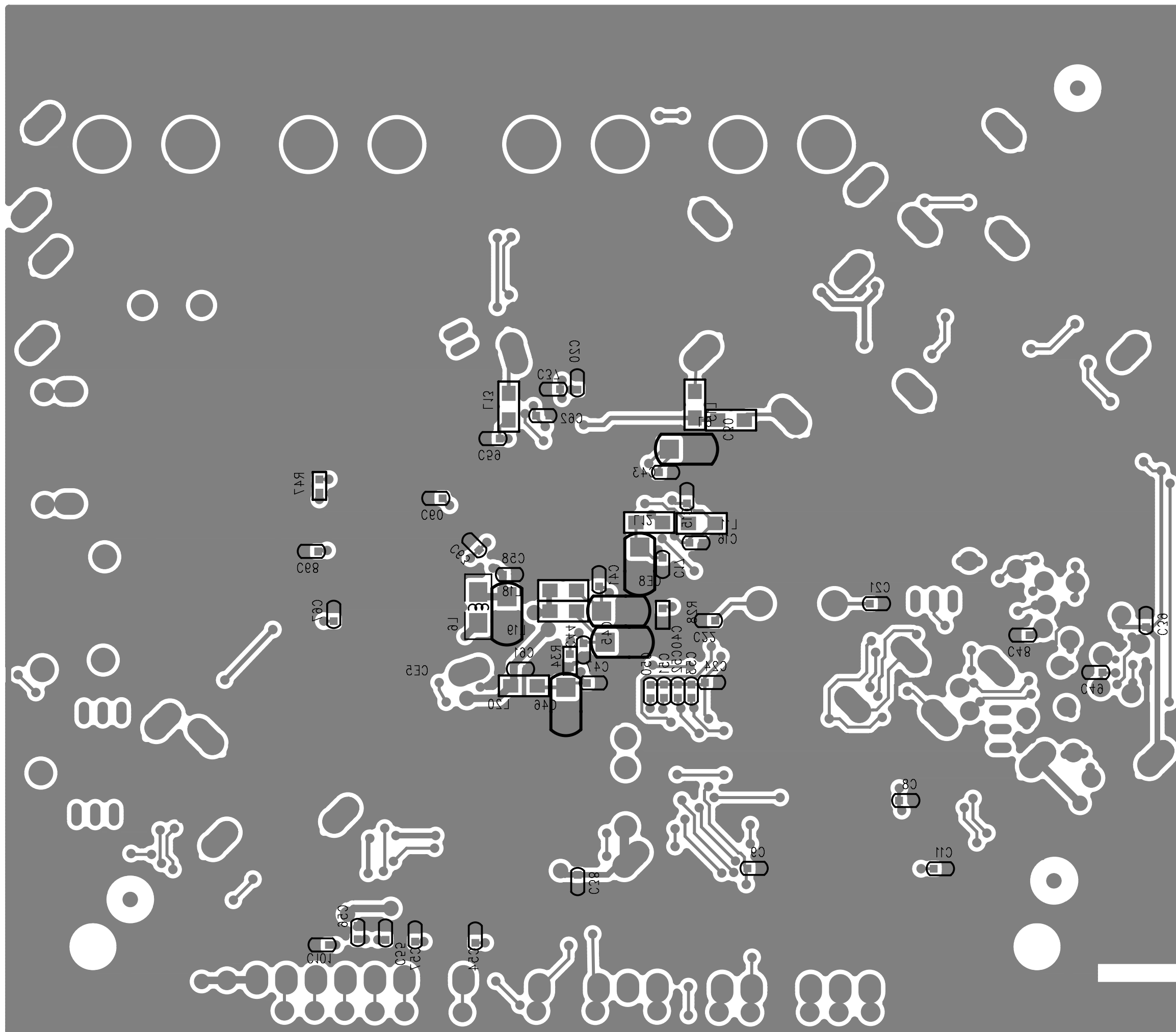
CIRCUIT DIAGRAM DVP3100 USB BOARD



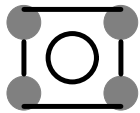
MAIN BOARD TOP



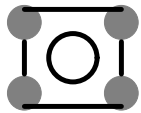
MAIN BOARD BOTTOM



LED PCB BOARD-TOP



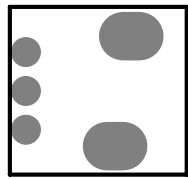
KS4



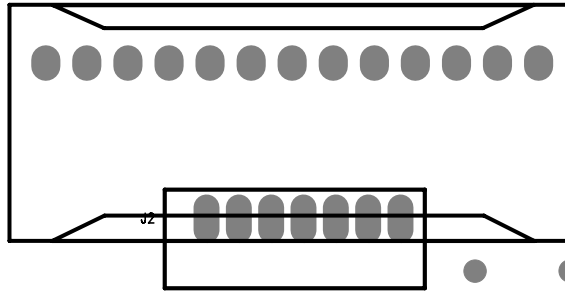
KS3



CE3

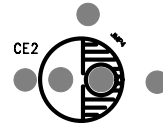


R1



D1

J2

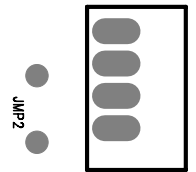


CE2

JMP3

JMP5

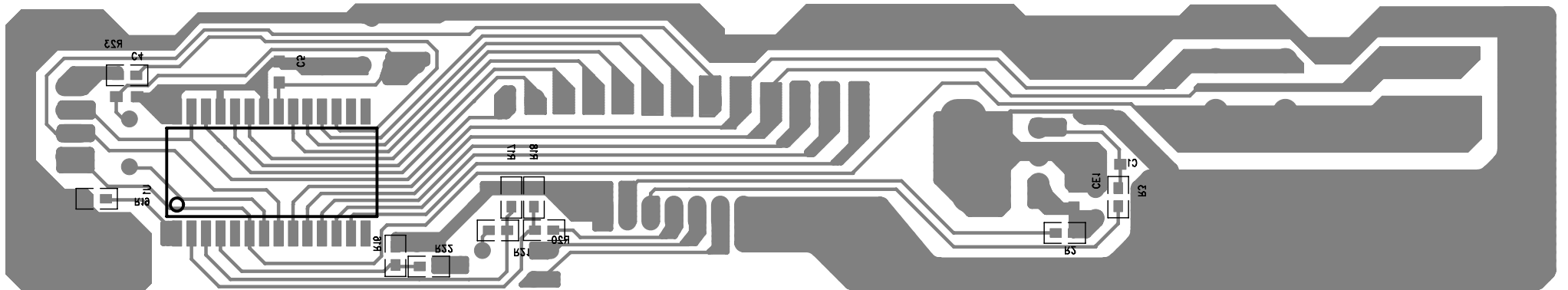
JMP1

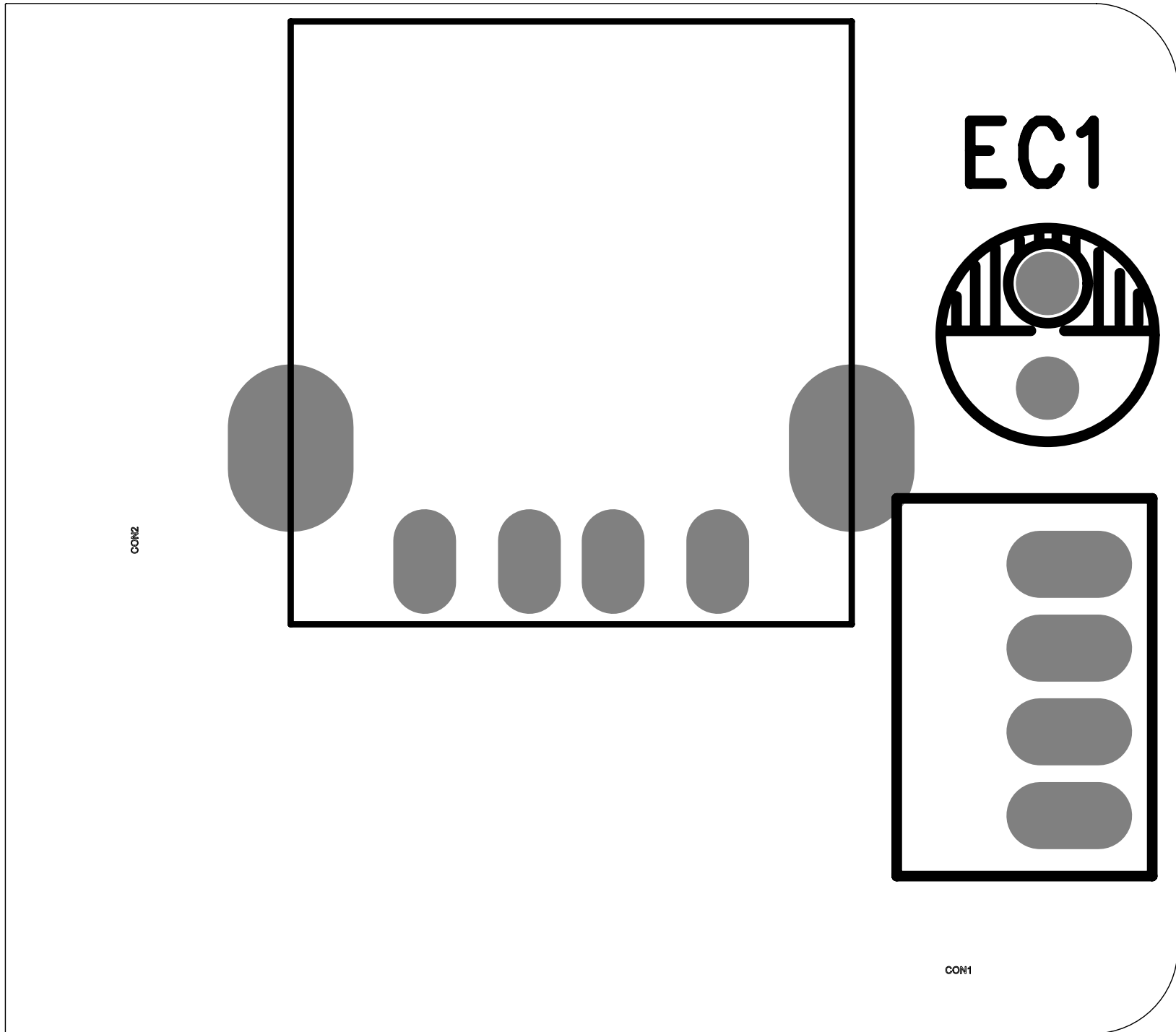


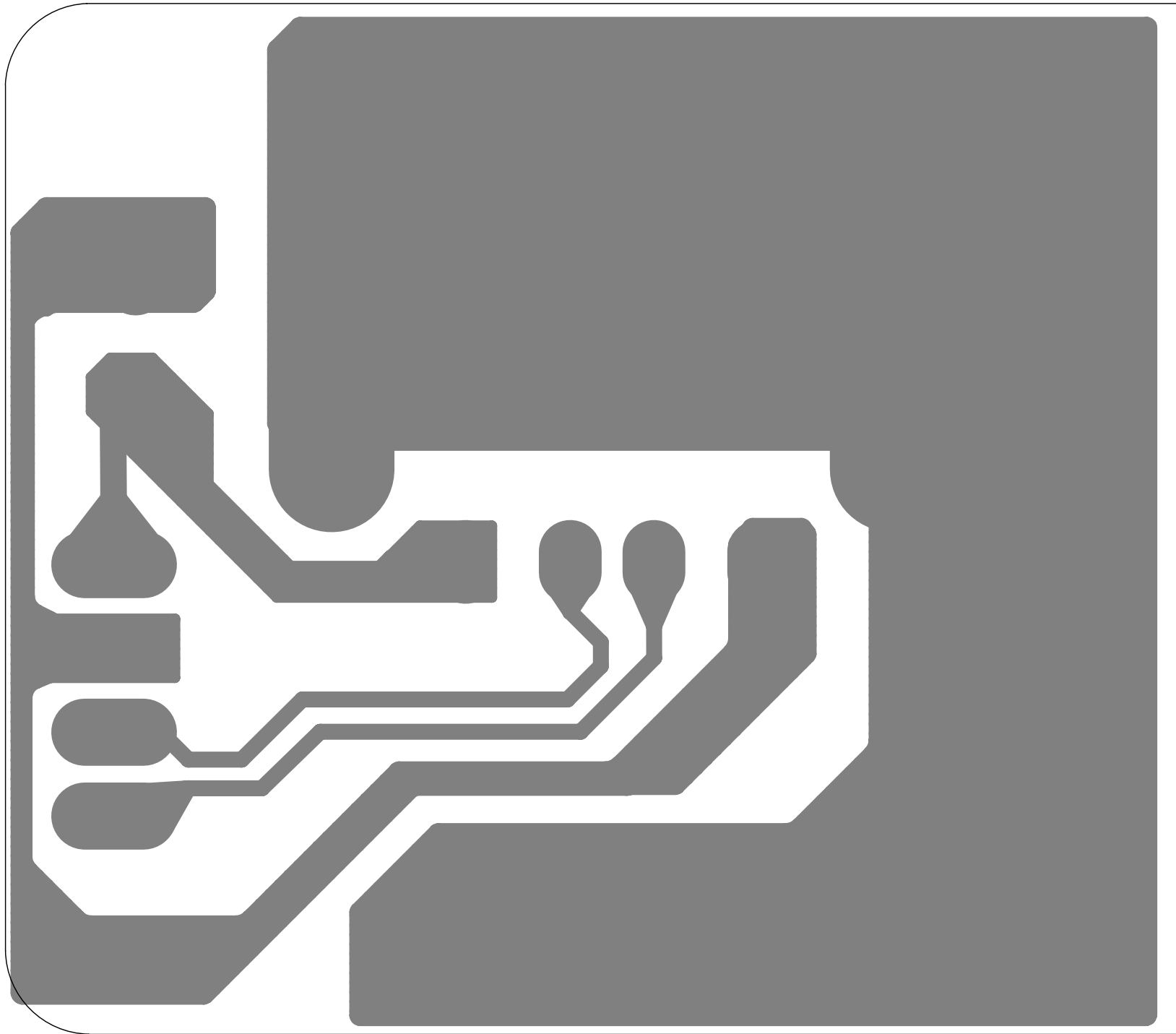
CON3

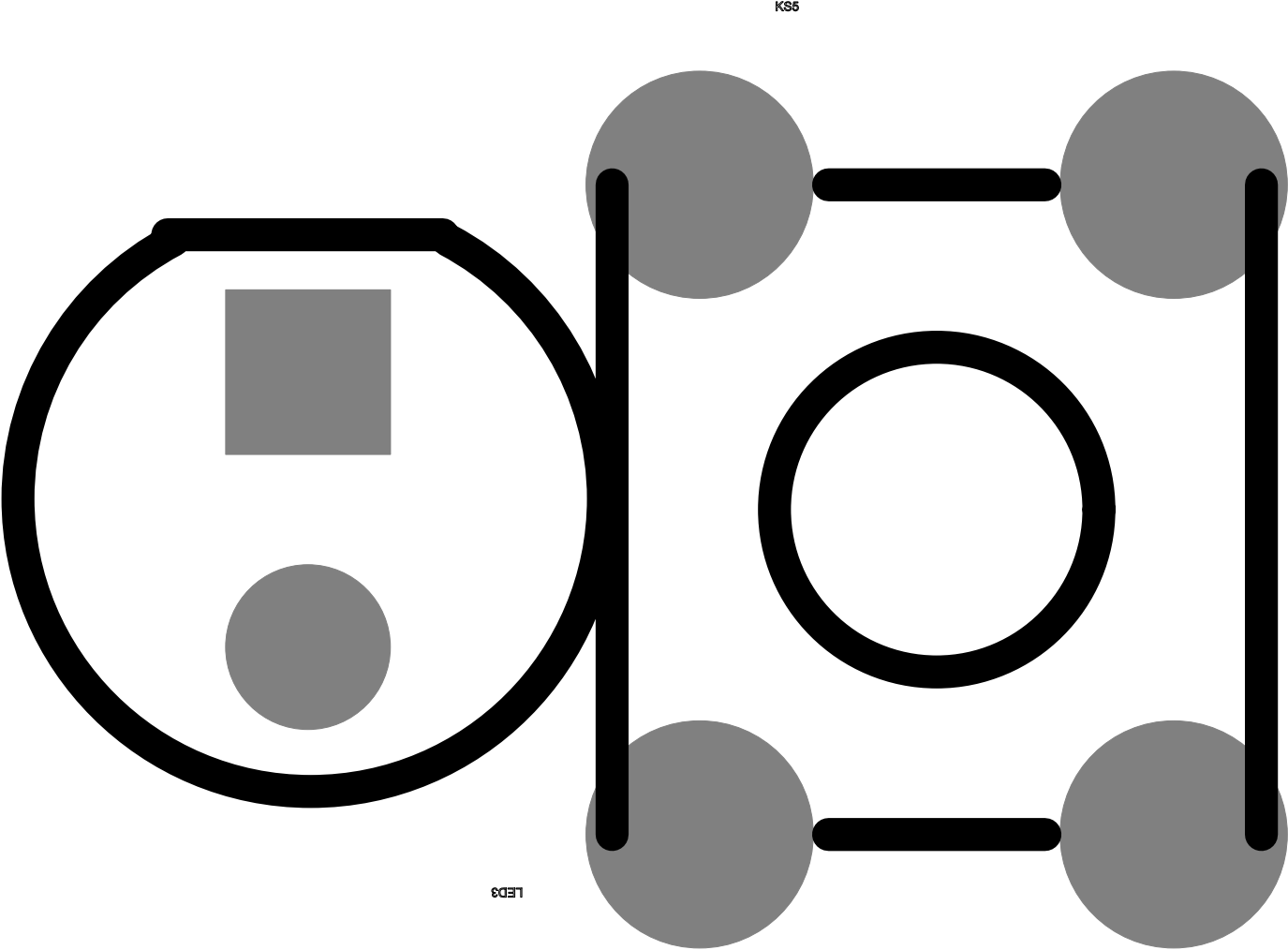
JMP2

LED PCB BOARD-BOTTOM



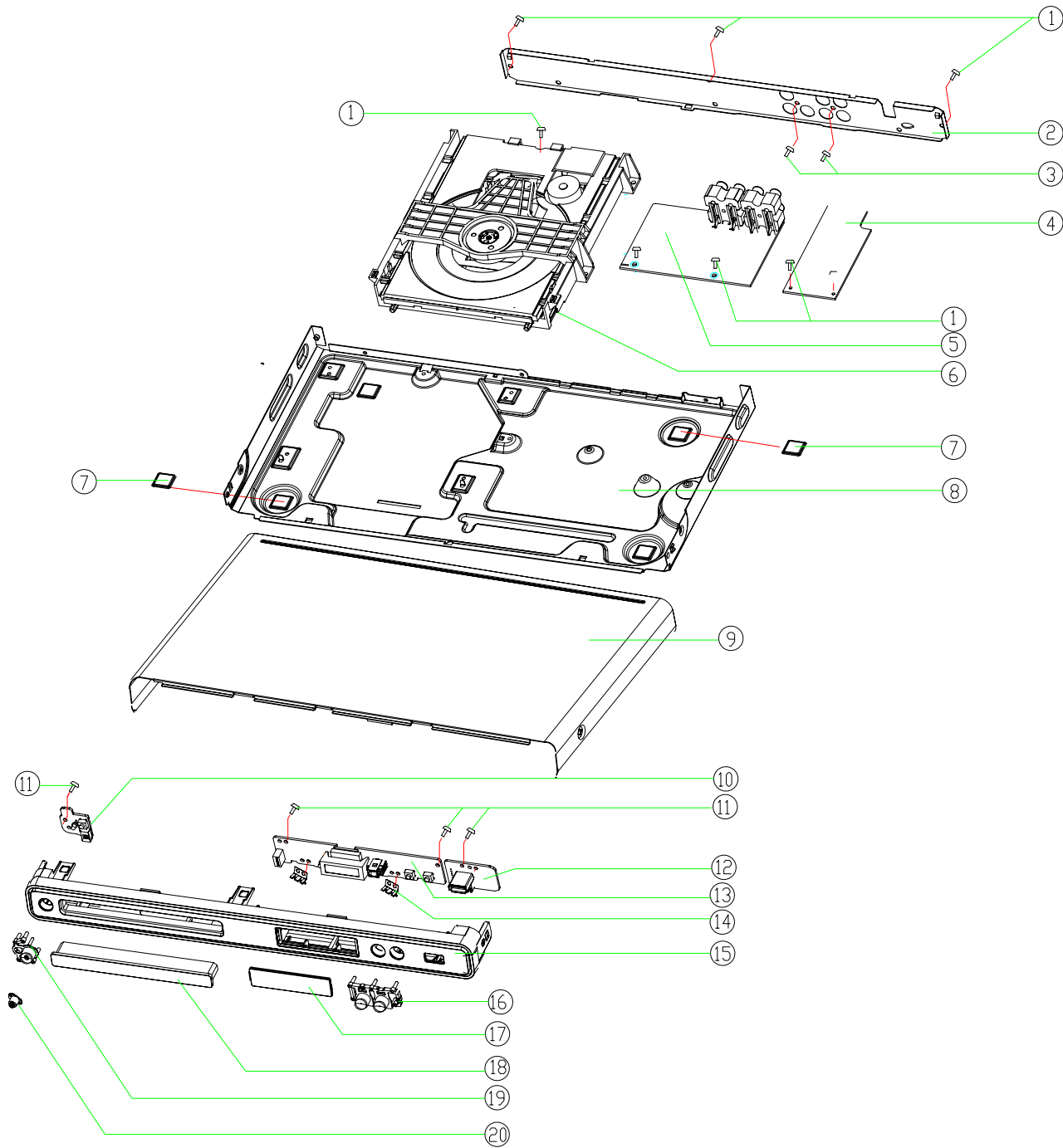








8.0 Mechanical Exploded View Diagram



8.1 SERVICE PART LIST

MAIN PCB PARTS LIST

No	12NC No.	Part Name	Qty
5	996510029467	MAIN PCB ASS'Y DVD3320	1
U2	996510029222	SMD IC MT1389QE-LA LQFP-128	1
U1	996510028064	SMD IC SW5888 HSOP-28 5-CHA BTL DRIVE SW	1
U5	996510028051	SMD IC YD4558 SOP-8PIN XY	1
U3	996510028043	SMD IC W9864G6XH-6 TSOP54 64M SDRAM WINBOND	1
U4	996510028054	SMD IC EN25F16-100HIP SOP-8 16M FLASH EON	1
Q1,Q2,Q10,Q11	996510029221	DIP TR STS8550D TO-92 PNP PHILIPS	4
Y1	996510028074	DIP X'TAL 27.00MHZ +/-10PPM HC-49/US	1
Q6,Q7	996510028056	SMD TR 2SK3018 SOT-23 ROHM	2
Q3,Q4,Q5,Q9,Q12,Q14,Q20,Q21,Q2	996510028078	SMD TR PMBT3904 SOT23 NPN PHILIPS	9
Q13,Q15,Q16,Q17,Q19	996510028086	SMD TR PMBT3906 SOT23 PNP PHILIPS	1
Q8,Q18	996510028041	SMD MOS CES2307 SOT-23 CET	2
D1	996510028055	SMD DIODE BAT54C SOT-23 RECTRON	1
JK2	996510029227	DIP AV JACK AV4-8.4-7D2 JIXIN	1
JK1	996510028076	DIP AV JACK AV3-8.4-7D JIXIN	1
F1	996510028048	CHIP RESET FUSE 0.5A/6V LP-NSM050 GP	1

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

STANDBY PCB PARTS LIST

No	12NC No.	Part Name	Qty
10	996510028049	STANDBY PCB ASS'Y DVD3320	1
KS5	996510028072	TACT SWITCH 6x6x5mm 180g JIXIN	1
LED3	996510028067	LED RED 1.8V D3 MASON	1

LED PCB PARTS LIST

No	12NC No.	Part Name	QtyG
G	996510028068	LED DISPLAY PCB ASS'Y DVD3320	1
U1	996510028075	SMD IC SM1628C SOP-28 DRIVER SUNMOON	1
D1	996510028044	DISPLAY LED DT-25801BG DL	1
R1	996510028082	DIP IR SENSOR 36KHZ IRM36C AAD	1
KS3,KS4	996510028072	TACT SWITCH 6x6x5mm 250g JIXIN	2

POWER PCB PART LIST

No	12NC No.	Part Name	Qty
4	996510029466	8W/2P OPEN 94VERSION PCBA DVP3320	1

DECK PARTS LIST

No	12NC No.	Part Name	Qty
30	996510029224	DVD LOADER WXD-8829B ASA	1
6	996510028053	DVD DECK CMS-S76R IM	1

8.1 SERVICE PART LIST

OTHER PARTS LIST

No	12NC No.	Part Name	Qty
31	996510028063	FFC 24P/0.5MM 220MM(3/5-4/8) +/-OUKE	1
RC	996510029469	R/C CD31A0003 BLACK C&D DVP3320-3326	1
CAR ADT	996510029036	AC CORD VDE 94FIXES 1.3M HO3VVH2-F A	1
AVCABLE	996510028065	AV CORD RCA/M*3 BOTH E ₁	1
19	996510028083	BUTTON POWER	1
20	996510028061	BUTTON POWER LENS	1
18	996510028014	DVD DOOR BLACK	1
16	996510028071	OPEN BUTTON BLACK	1
15	996510028112	FRONT PANEL BLACK	1
17	996510028042	LENS DISPLAY PPMA BLACK	1

9.0 REVISION LIST

Version 1.0

- Initial release