

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, DivX

COMPONENT VIDEO YPbPr

PbPr output unbalance: 3%
 Sync. Amplitude: $286\text{mV} \pm 100\text{mV}$
 Video Bandwidth 4.2 MHz: -5db / 5.8MHz: -8dB
 With progressive scan: 8.4MHz -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
 DVD: Philips LVP 9.01 audio test disc
 Load Impedance: $100\text{K}\Omega$ for Audio

POWER CONSUMPTION

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

AUDIO FORMAT

CD/MP3, DVD audio

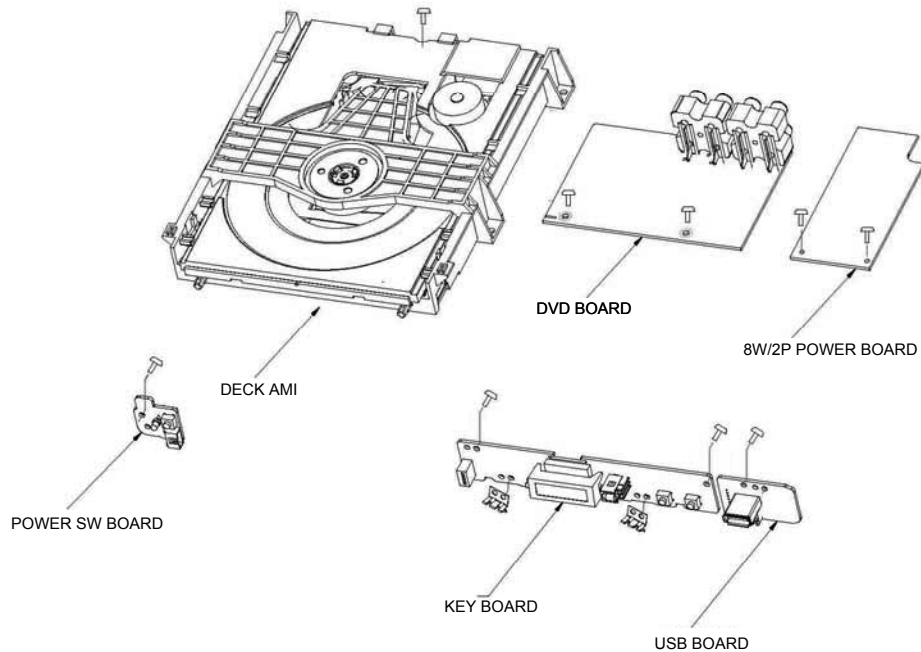
GENERAL DESCRIPTION

Optical Pickup: IM S76RFVP
 Chip set/Solution: Mediatek MTK1389DE-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: Service policy	DVP3111						
	58	77	98	12			
Board in used:							
DVD BOARD	X	C/M	C/M	X			
8W/2P POWER BOARD	X	M	M	X			
KEY BOARD	X	C/M	C/M	X			
USB BOARD	X	C	C	X			
POWER SW BOARD	X	C	C	X			

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

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)

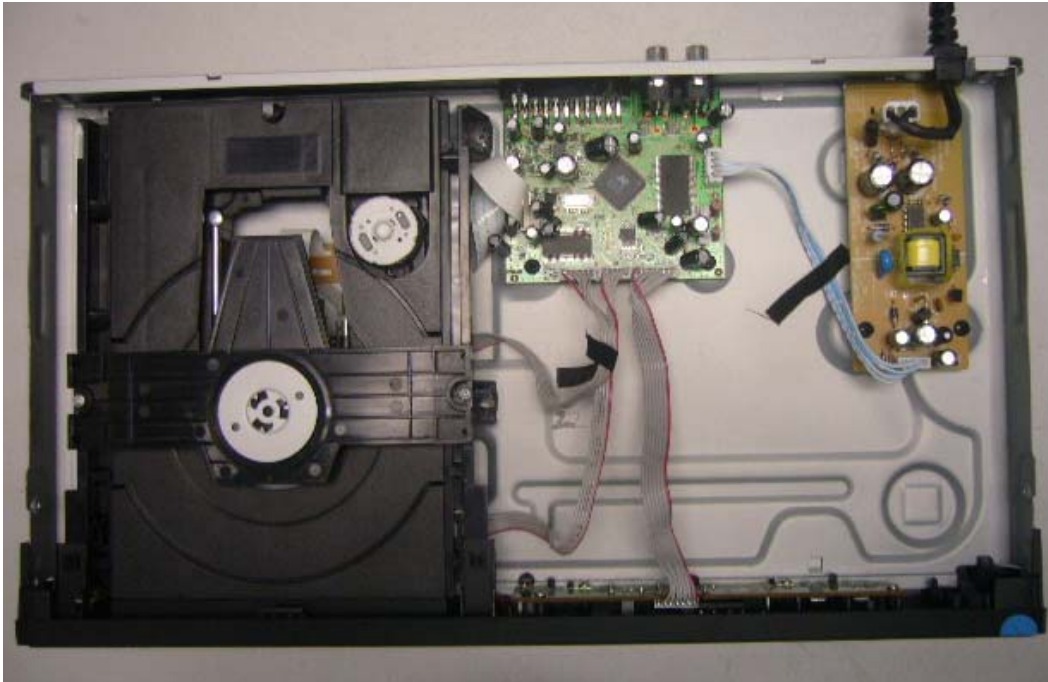


Figure 1

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



Figure 2

Step3: If it is necessary to dismantle Loader or Front Panel, the Front door should be removed first(Figure3)



Figure 3

4.0 MECHANICAL AND DISMANTLING INSTRUCTIONS

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

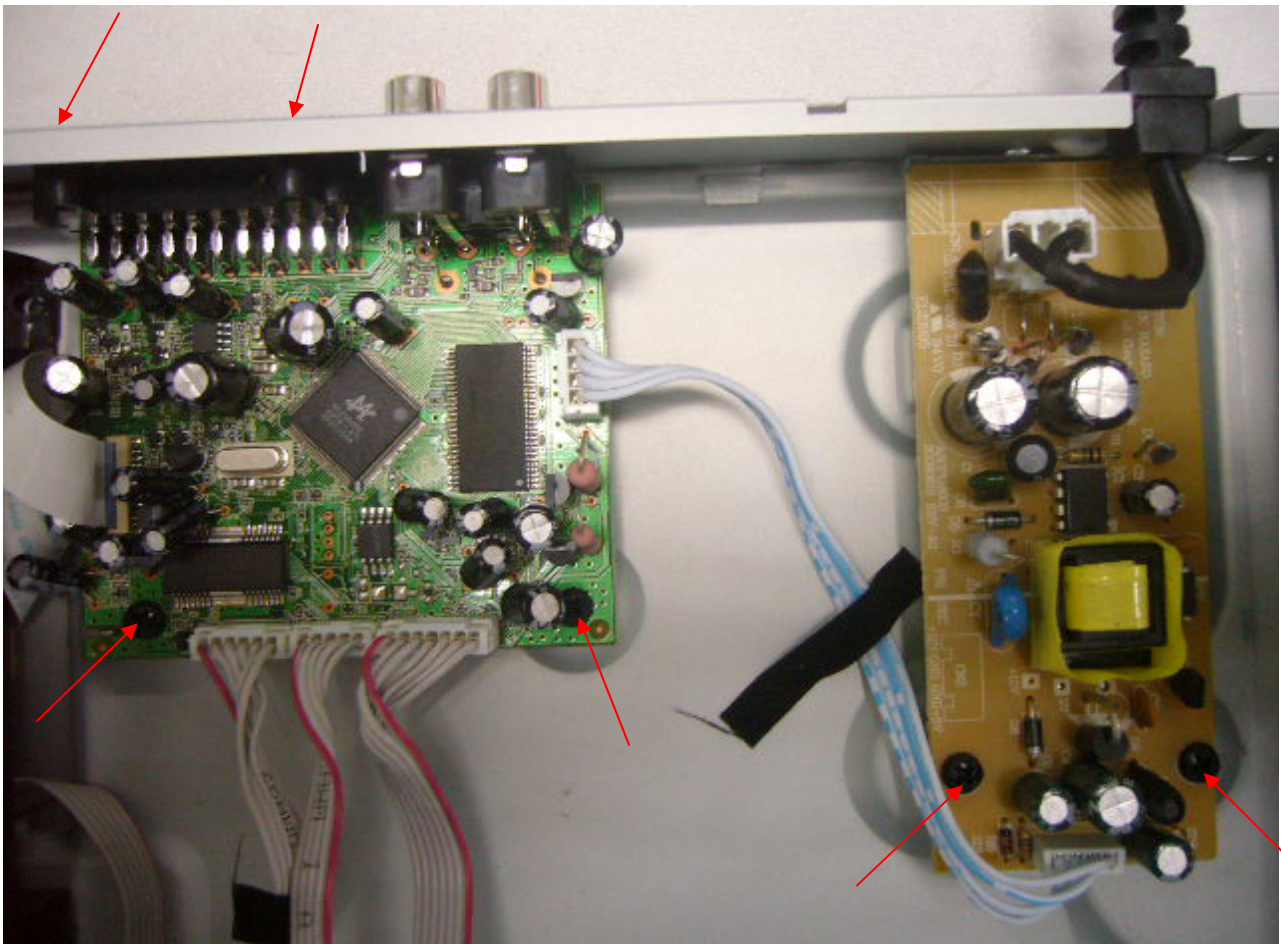


Figure4

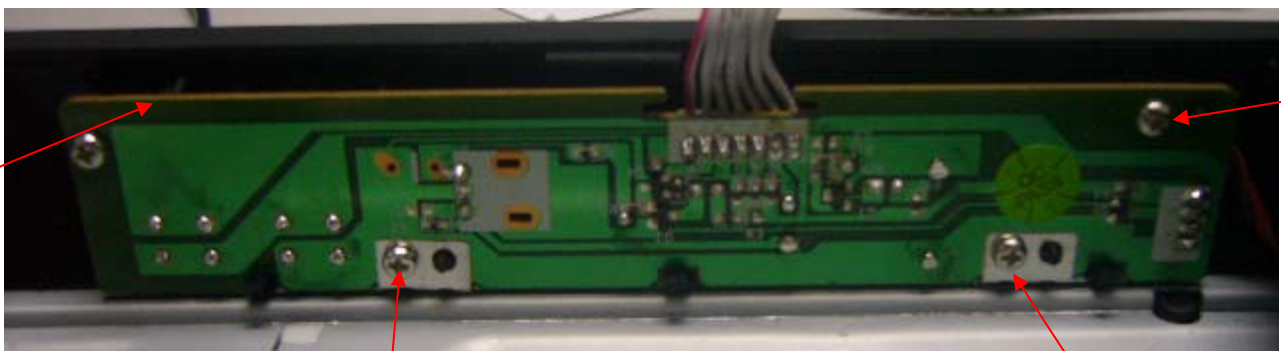
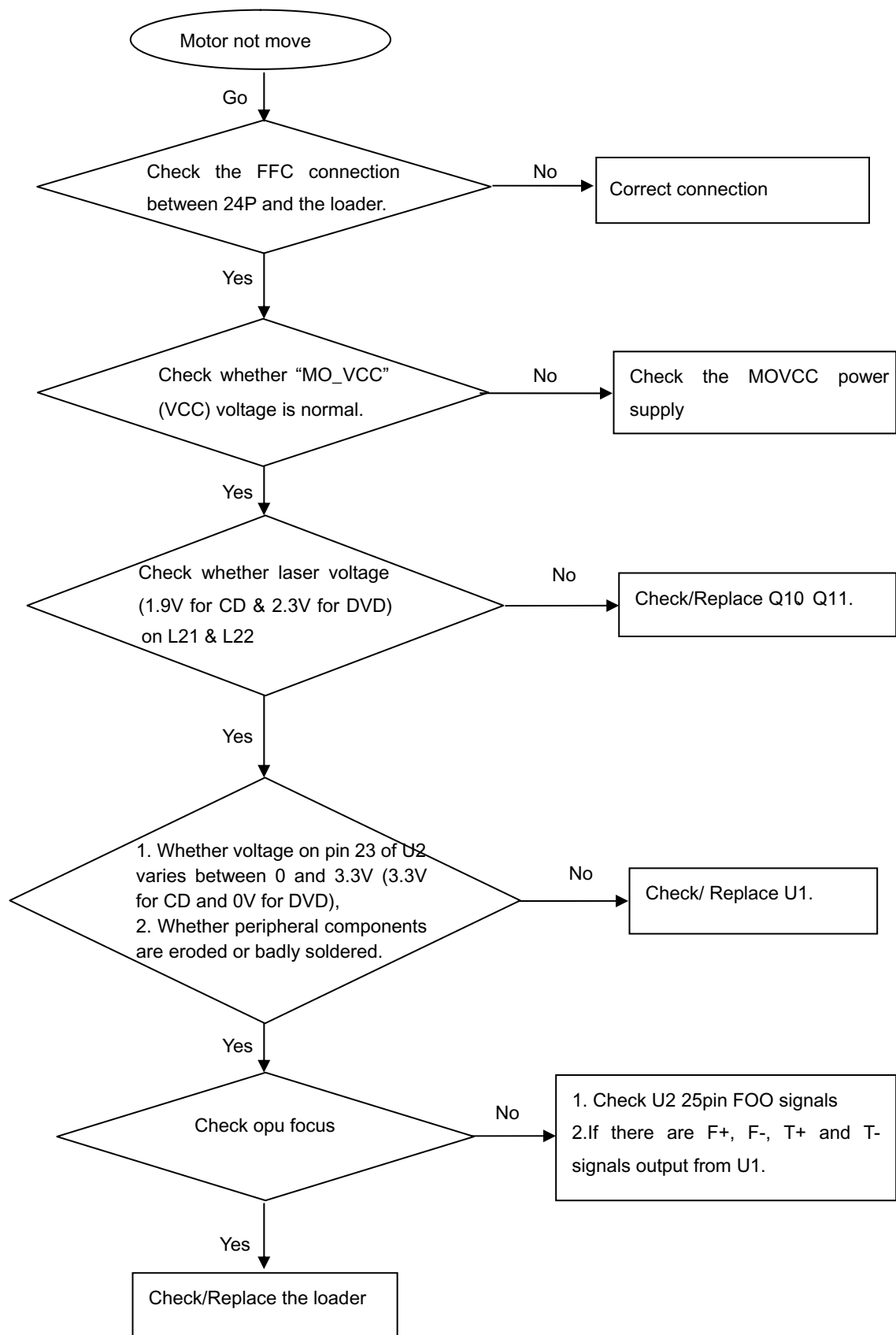
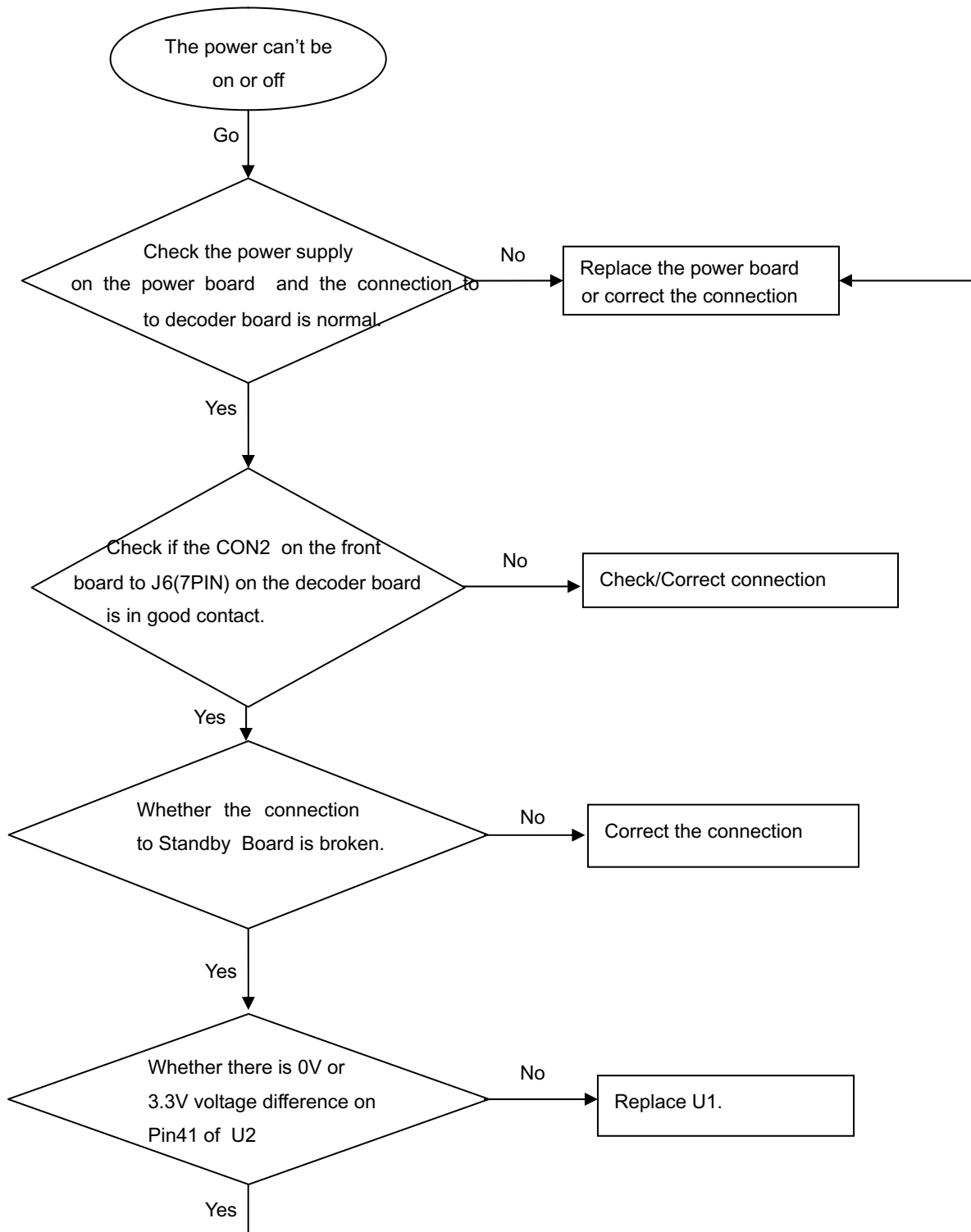
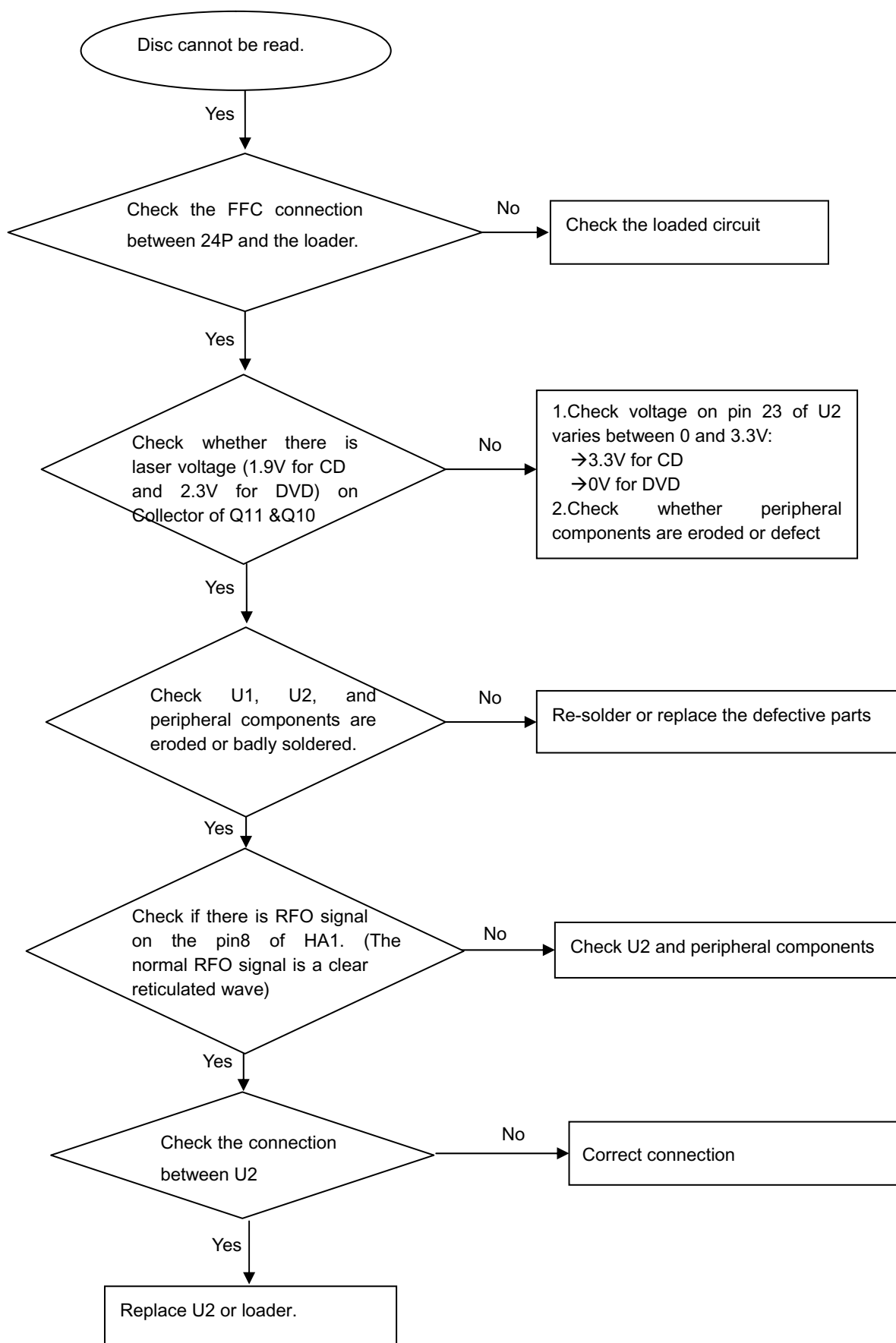
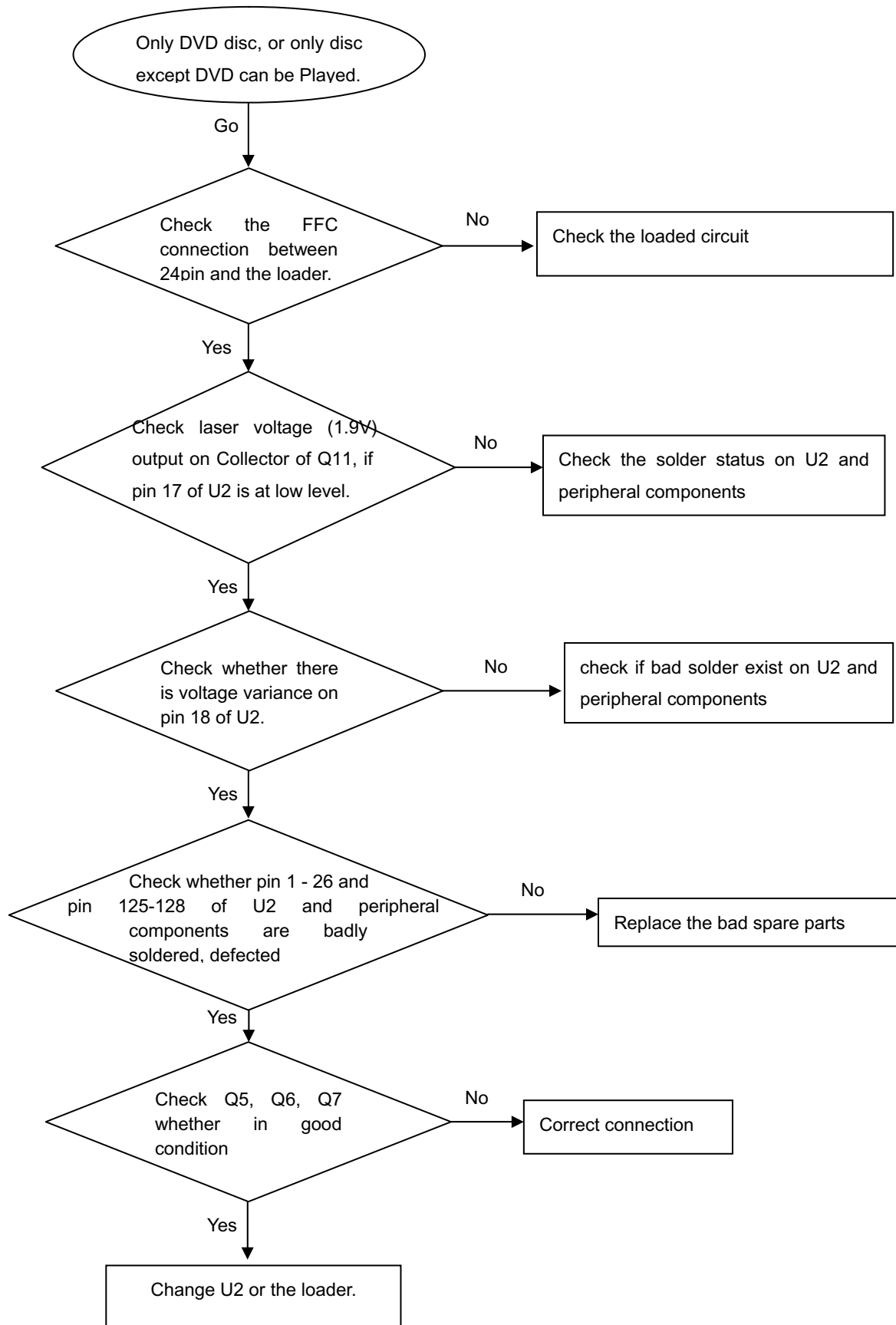


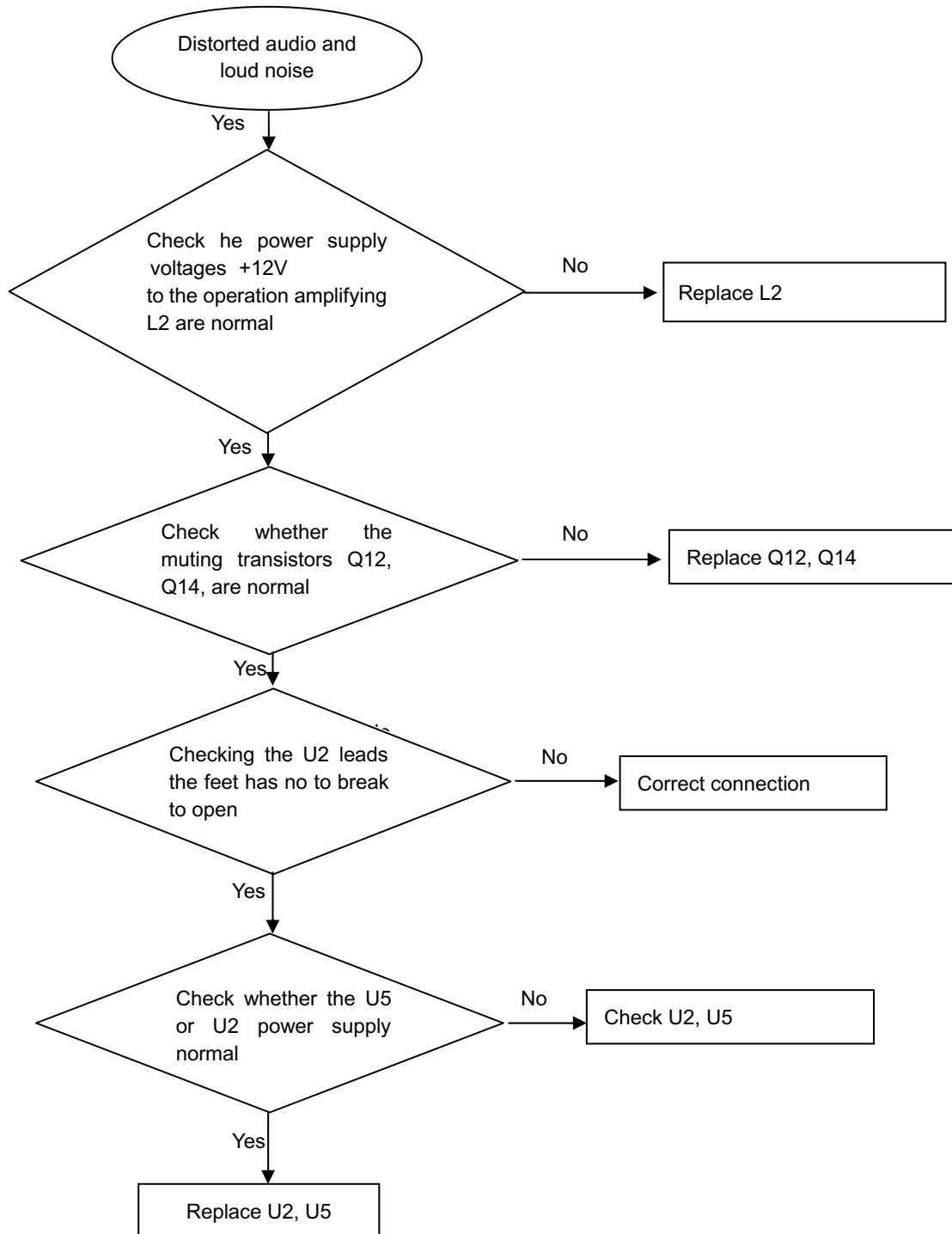
Figure 5

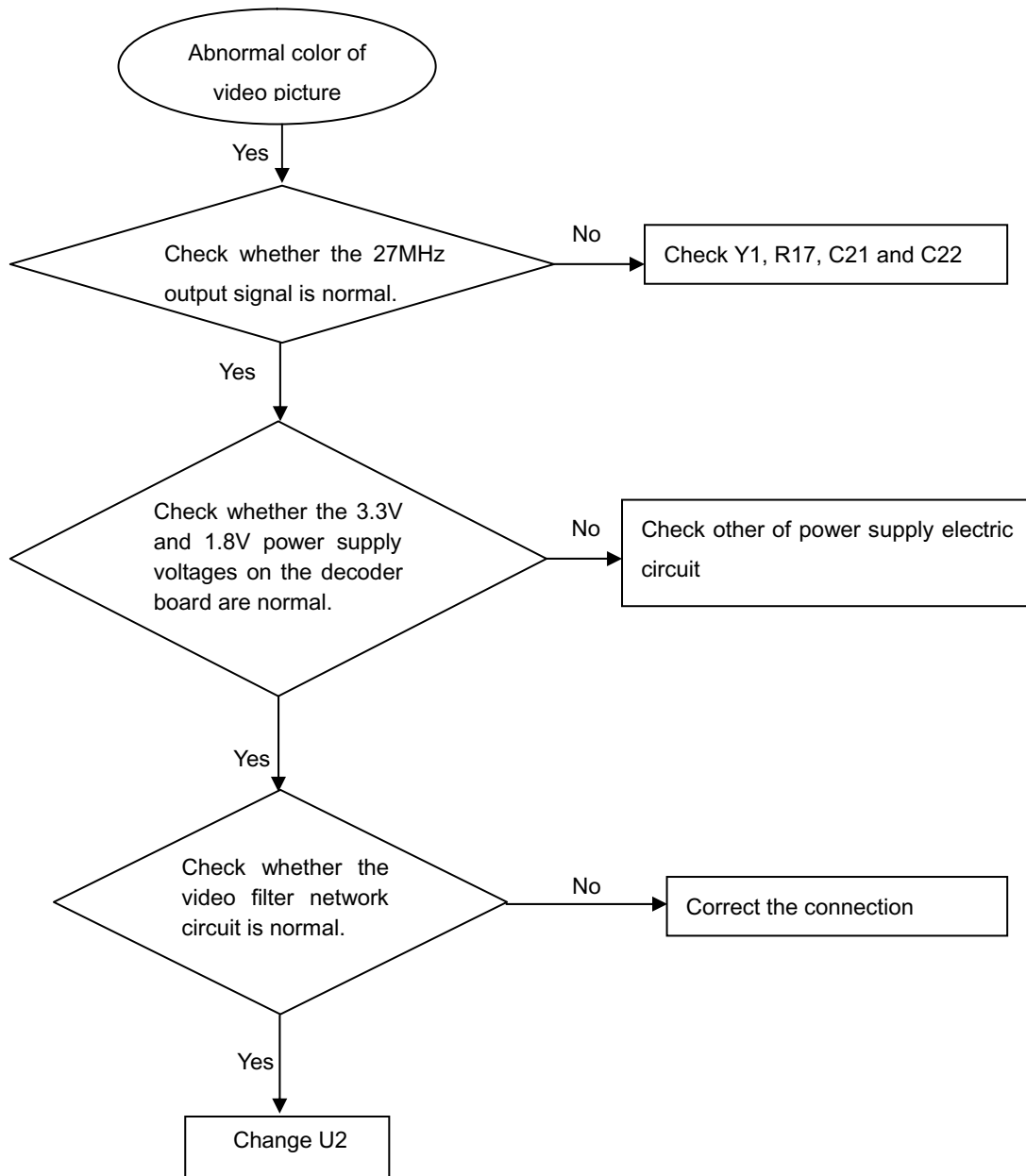
Spindle motor does not move

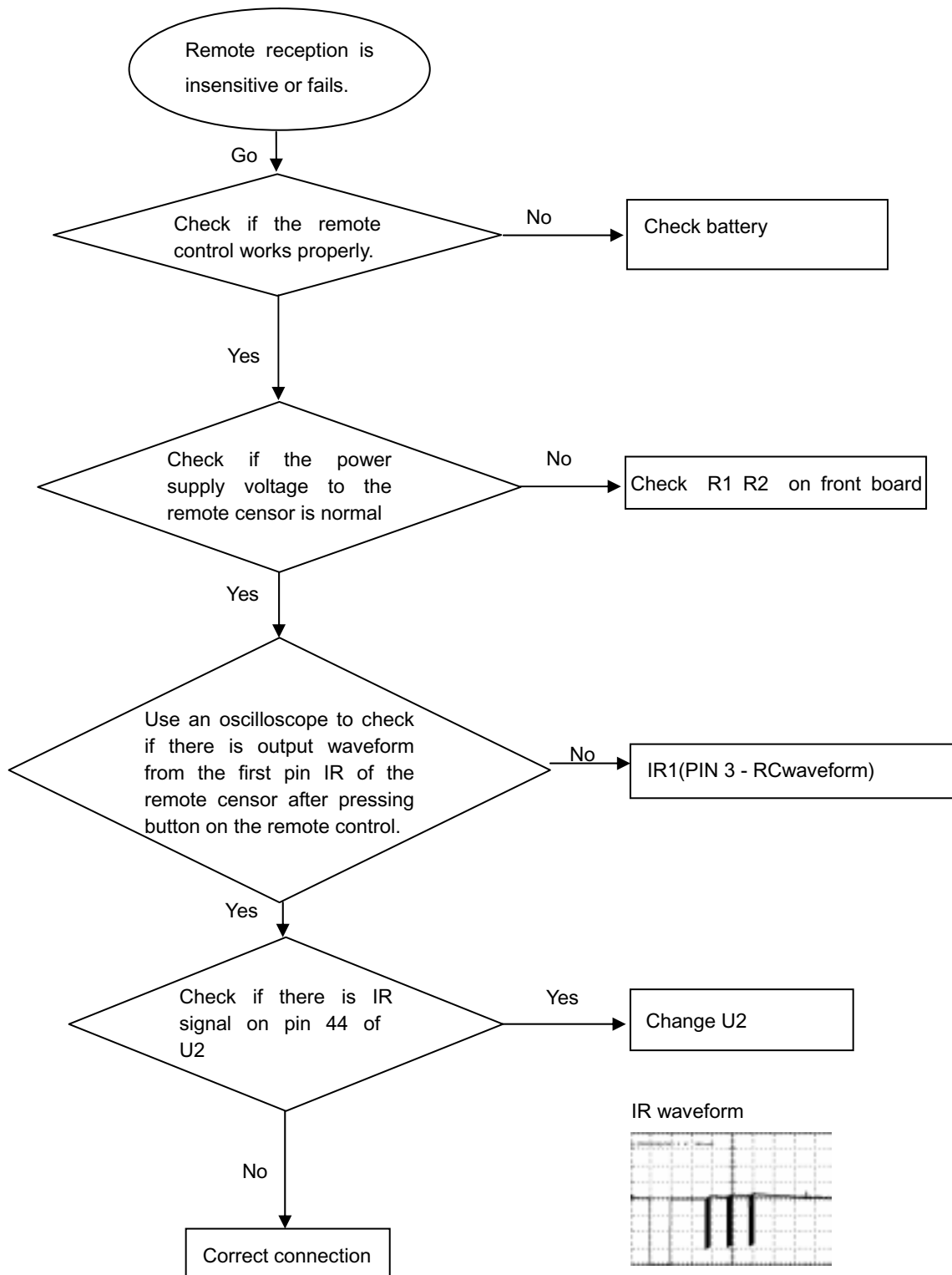
The power can not be on or off

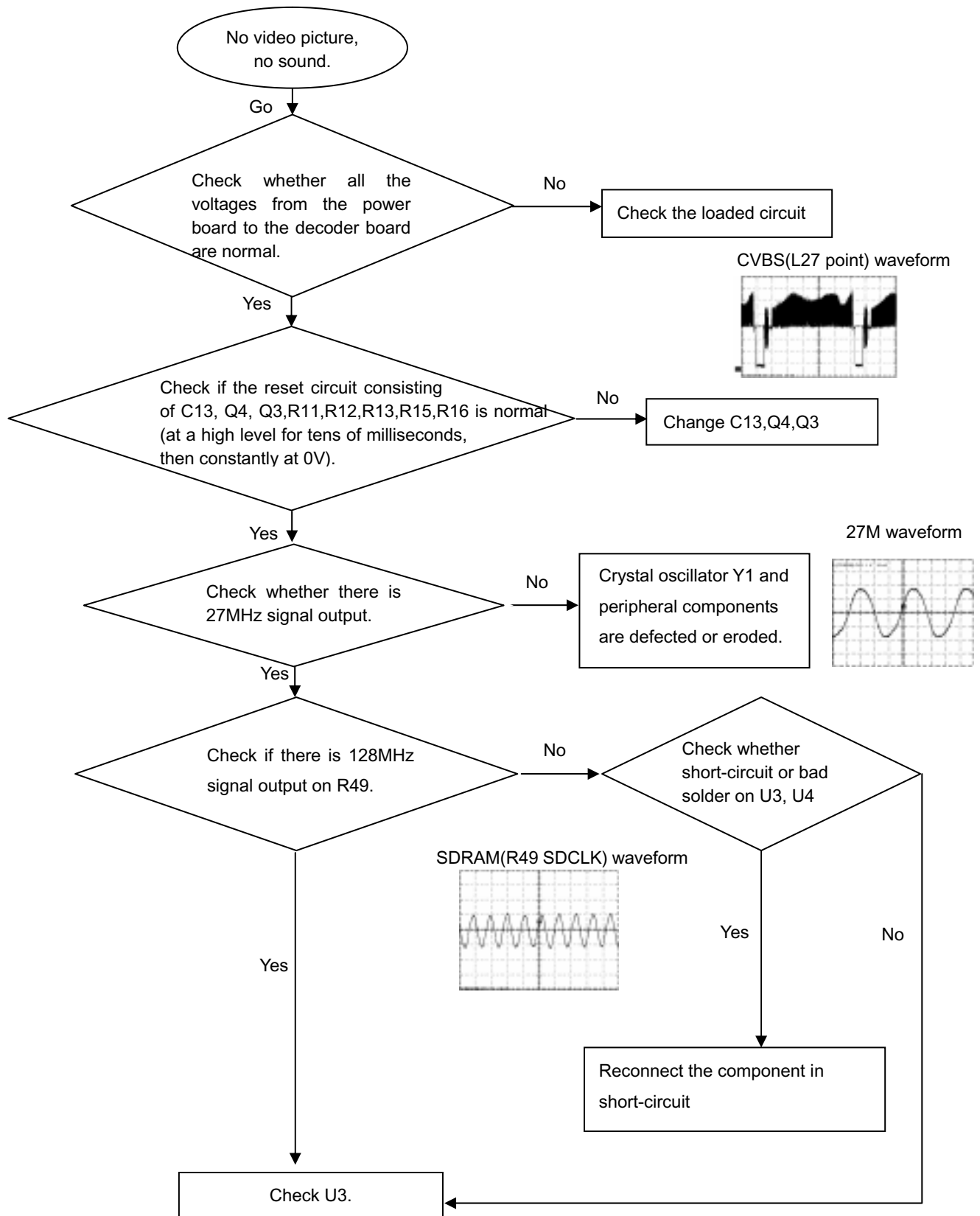
Disc cannot be read.

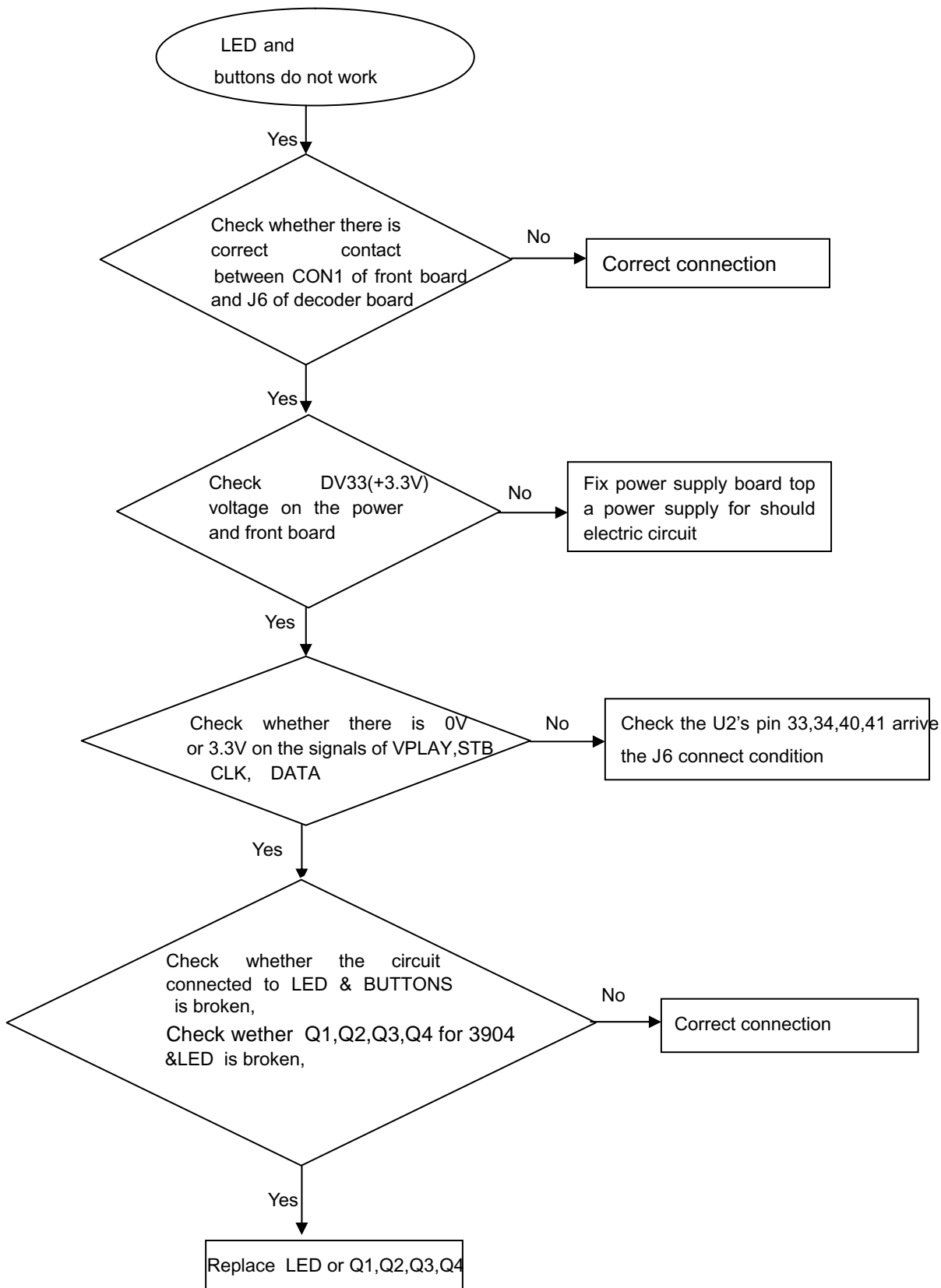
Only DVD disc or only disc except DVD can be played

Distorted audio and loud noise

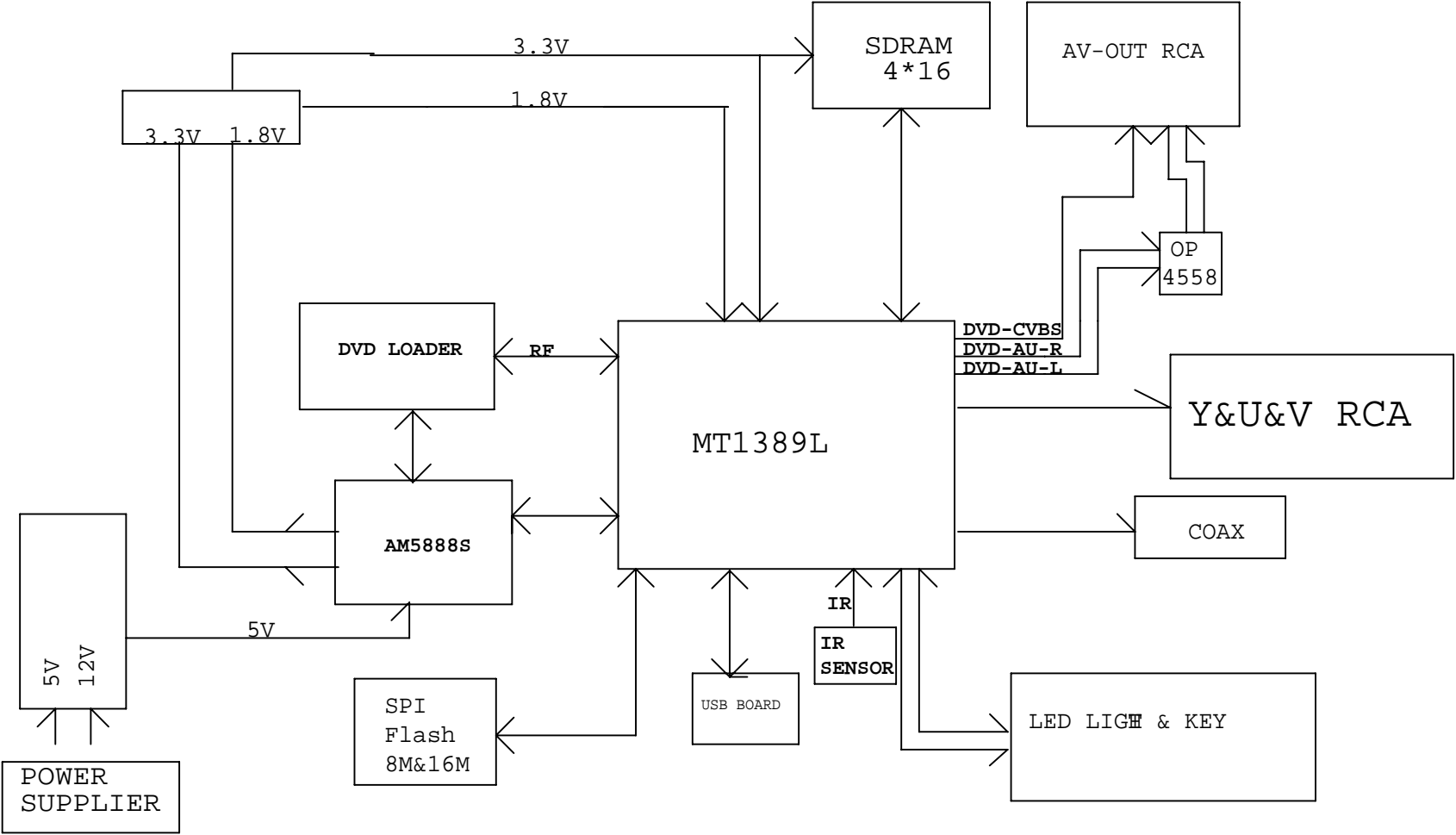
Abnormal color of video picture

Remote reception is insensitive or fails.

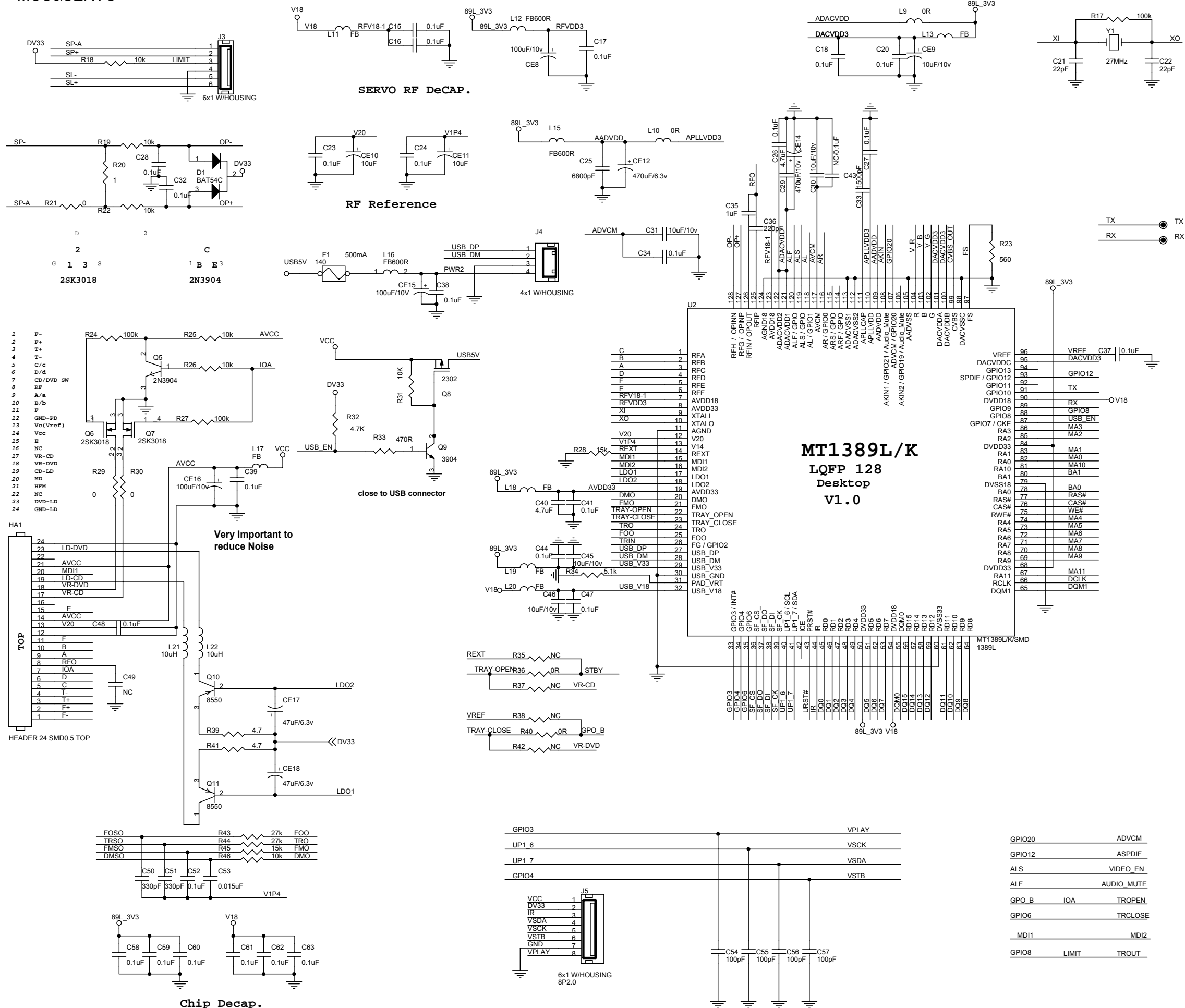
No video picture, no sound.

No display on LED, and buttons do not work

WIRING DIAGRAM

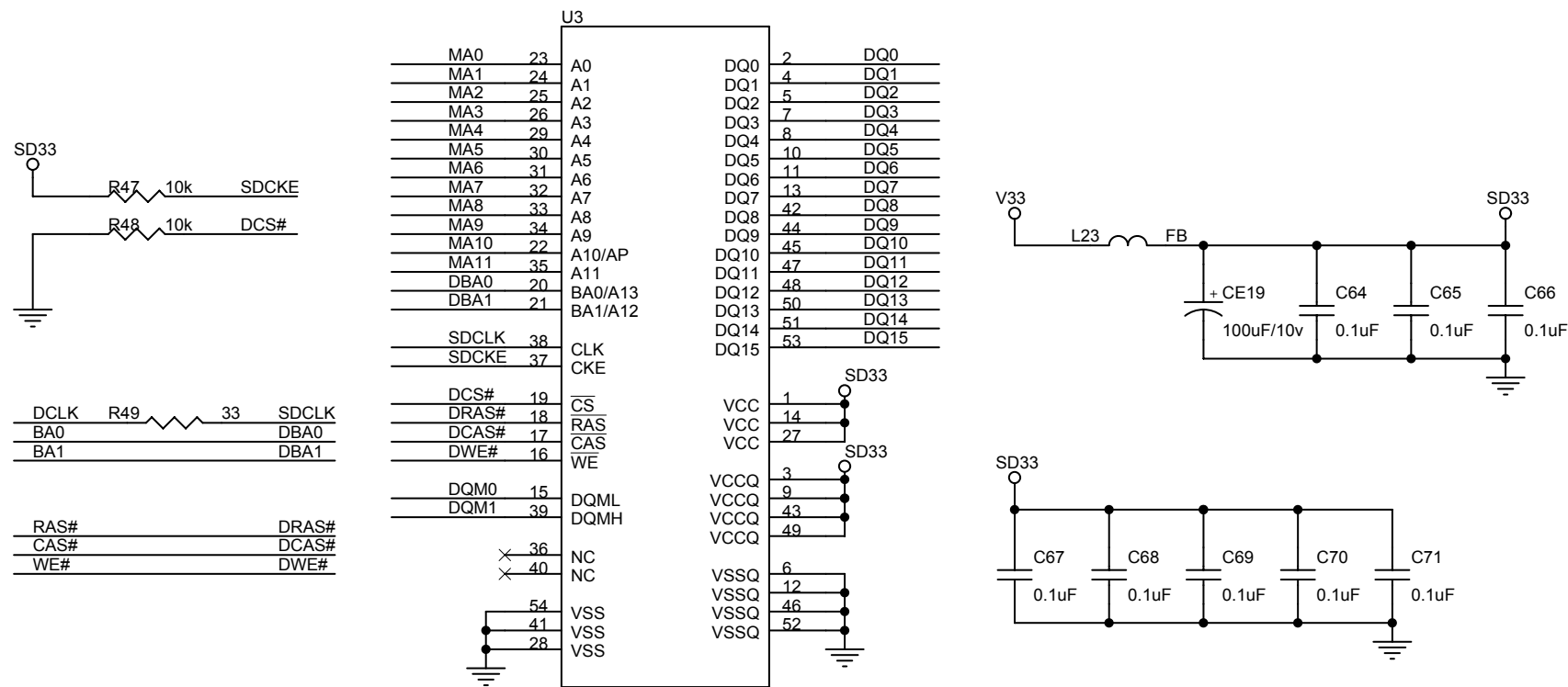


CIRCUIT DIAGRAM - DVD MAIN BOARD
MCU&SERVO

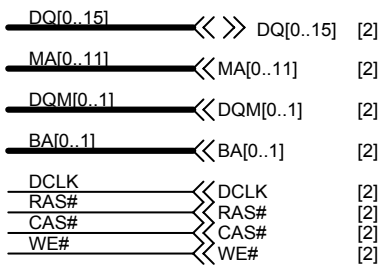
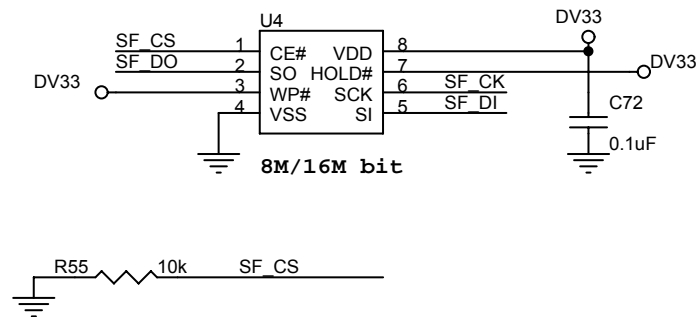


DQ[0..15]	>>>	DQ[0..15]	[3]
MA[0..11]	>>>	MA[0..11]	[3]
DQM[0..1]	>>>	DQM[0..1]	[3]
BA[0..1]	>>>	BA[0..1]	[3]
DCLK	>>>	DCLK	[3]
RAS#	>>>	RAS#	[3]
CAS#	>>>	CAS#	[3]
WE#	>>>	WE#	[3]
DRAM I/F			
SF CK	>>>	SF_CK	[3]
SF CS	>>>	SF_CS	[3]
SF DI	>>>	SF_DI	[3]
SF DO	>>>	SF_DO	[3]
S-FLASH			
AUDIO_MUTE	>>>	AUDIO_MUTE	[4]
ASPDIF	>>>	ASPDIF	[4]
AR	>>>	AR	[4]
AL	>>>	AL	[4]
AKIN	>>>	AKIN	[4]
AUDIO I/F			
VIDEO_EN	>>>	VIDEO_EN	[5]
CVBS_OUT	>>>	CVBS_OUT	[5]
V_R	>>>	V_R	[5]
V_B	>>>	V_B	[5]
V_G	>>>	V_G	[5]
VIDEO I/F			
STBY	>>>	STBY	[1]
TRCLOSE	>>>	TRCLOSE	[1]
TRIN	>>>	TRIN	[1]
TROUT	>>>	TROUT	[1]
+12V	>>>	+12V	[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]
SERVO I/F			
URST#	>>>	URST#	[1]
AVCC	>>>	AVCC	[1,4,5]
DV33	>>>	DV33	[1,3,4,5]
VCC	>>>	VCC	[1,4]
89L_3V3	>>>	89L_3V3	[1]
V18	>>>	V18	[1]
MIX			

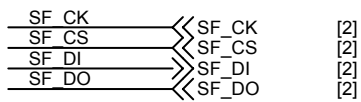
CIRCUIT DIAGRAM - DVD MAIN BOARD
SDRAM&FLASH



S-FLASH



DRAM I/F

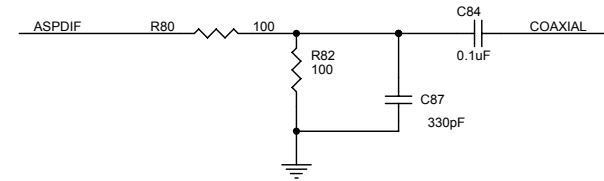
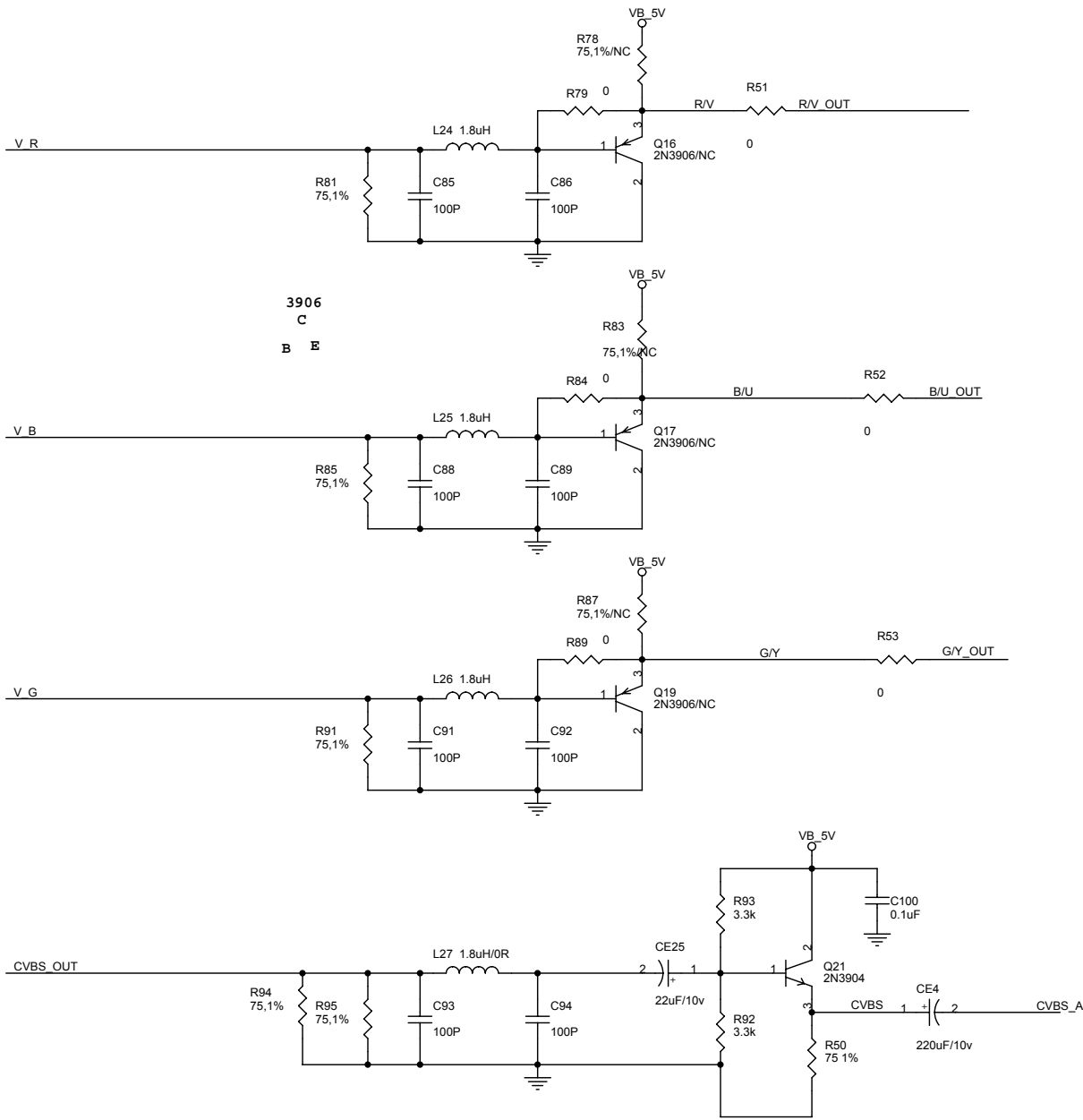


S-FLASH

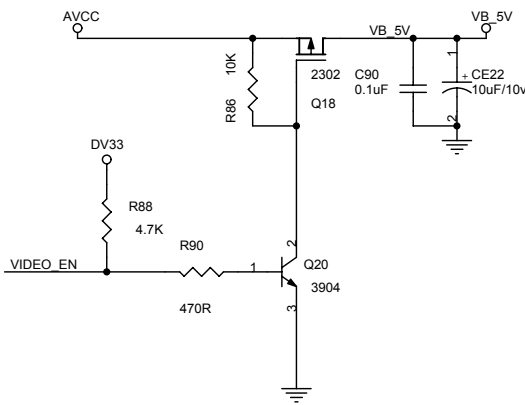


POWER

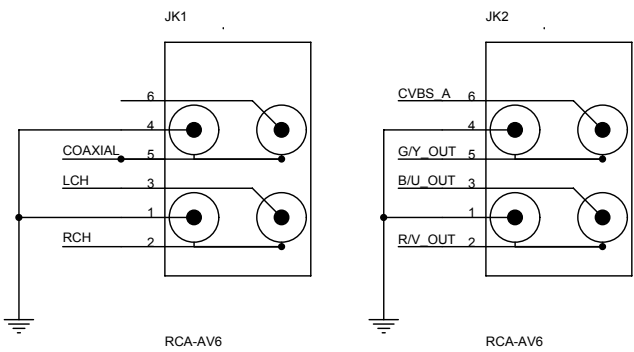
CIRCUIT DIAGRAM - DVD MAIN BOARD
VIDEO



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]



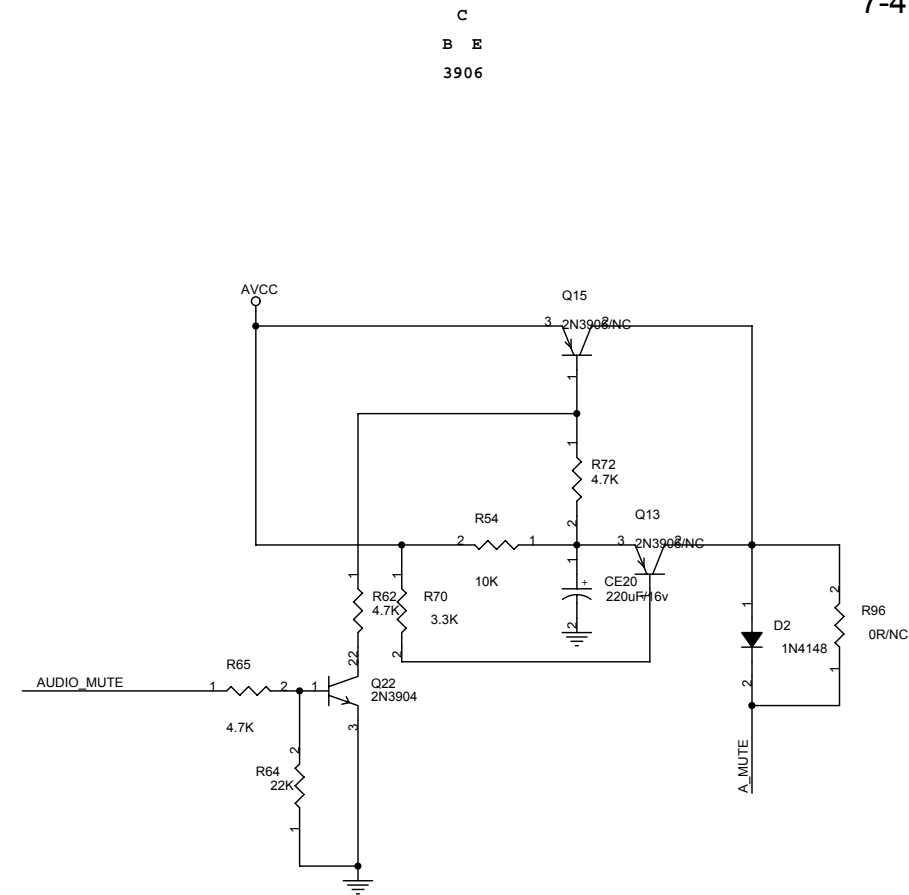
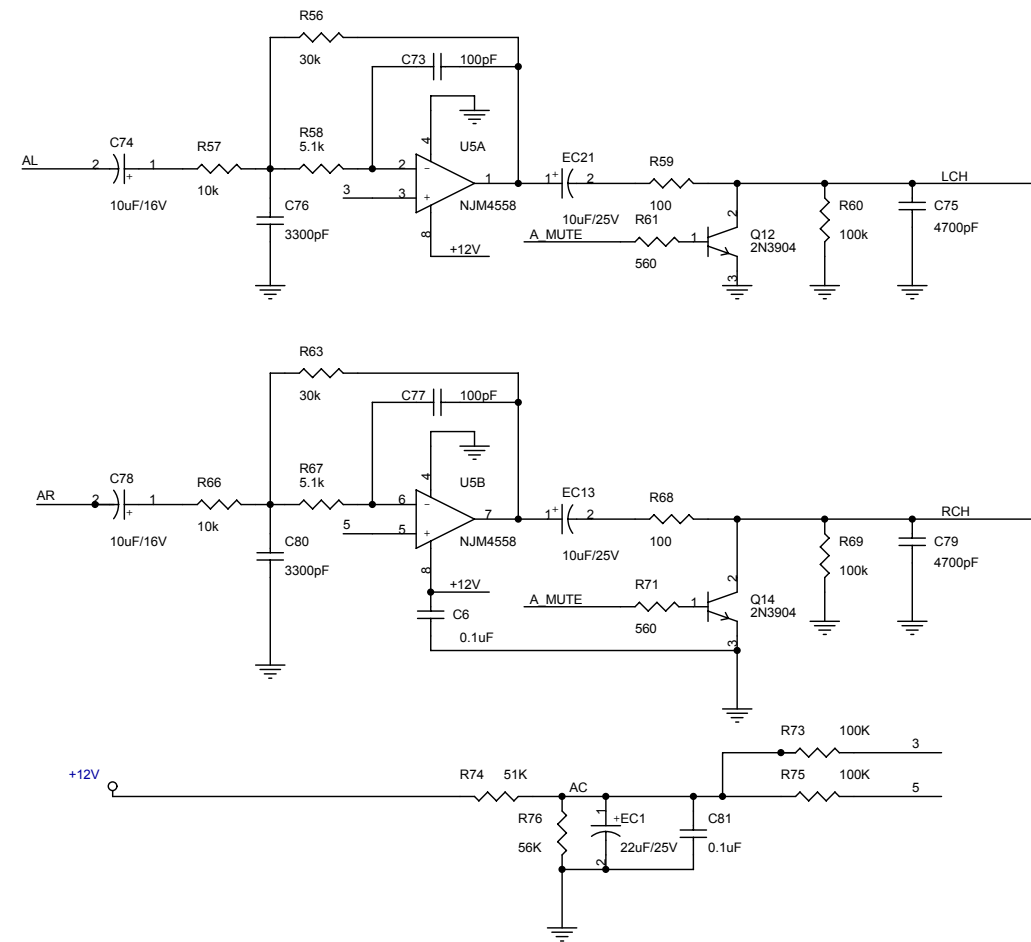
RCH	RCH	[4]
LCH	LCH	[4]
DV33	DV33	[1,2,3,4]
AVCC	AVCC	[1,2,4,5]
+12V	+12V	[1,5]
VCC	VCC	[1,2,5]



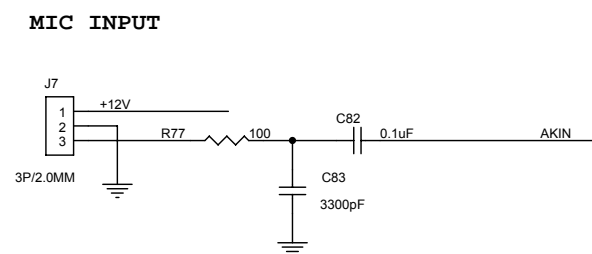
CIRCUIT DIAGRAM - DVD MAIN BOARD

AUDIO

7-4



Audio Mute

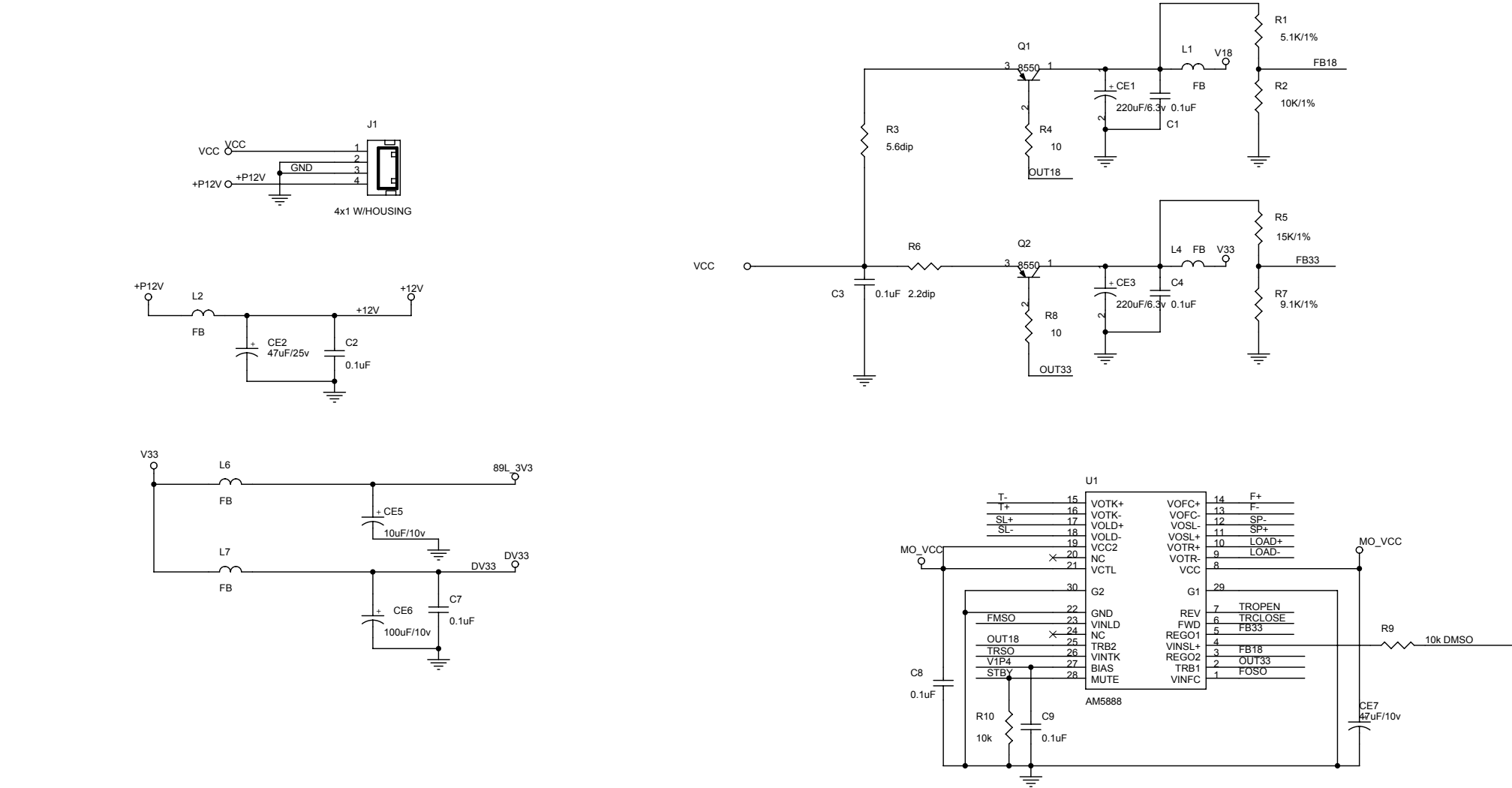


AUDIO I/F

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

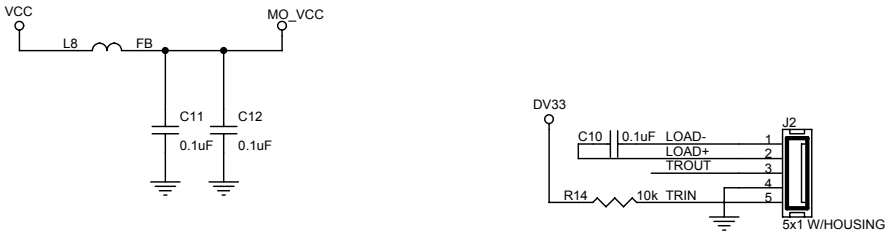
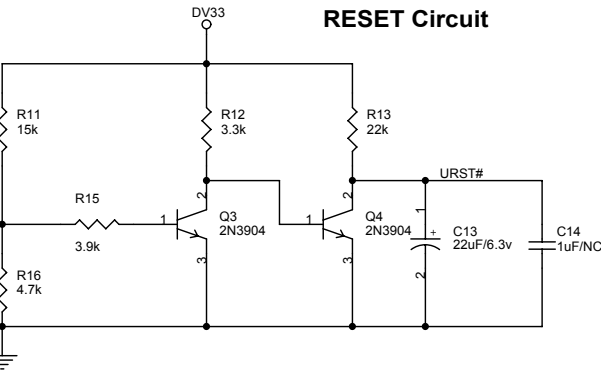
POWER

CIRCUIT DIAGRAM - DVD MAIN BOARD
POWER PART

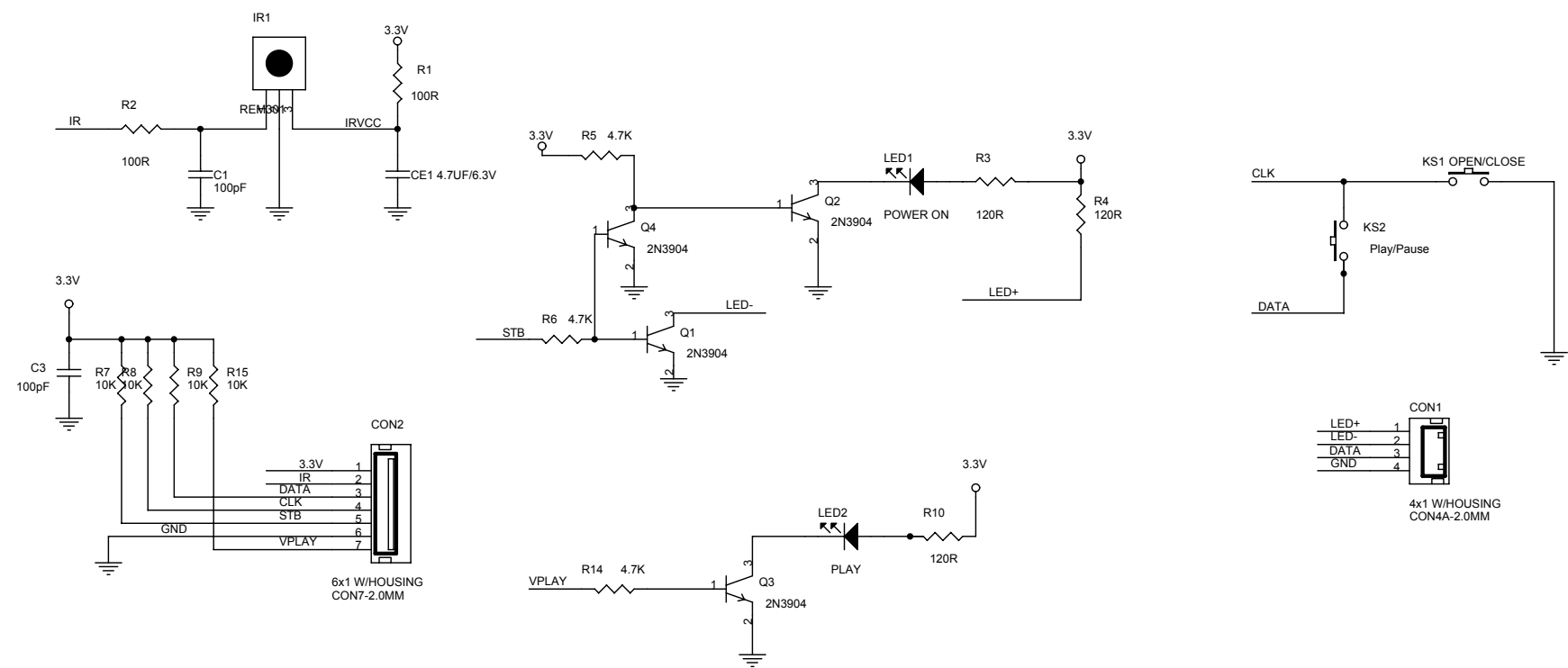


+12V	>>>+12V	[2,4]
VCC	>>>VCC	[2,4]
DV33	>>>DV33	[2,3,4,5]
89L_3V3	>>>89L_3V3	[2]
V18	>>>V18	[2]
URST#	>>>URST#	[2]
POWER I/F		
TROUT	>>>TROUT	[2]
TRIN	>>>TRIN	[2]
TROUT	>>>TROUT	[2]
TROPEN	>>>TROPEN	[2]
TRCLOSE	>>>TRCLOSE	[2]
FOSO	>>>FOSO	[2]
DMSO	>>>DMSO	[2]
FMSO	>>>FMSO	[2]
TRSO	>>>TRSO	[2]
SL+	>>>SL+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

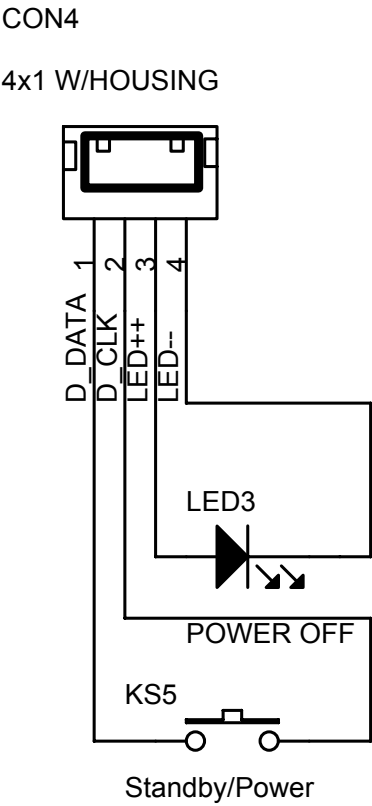
SERVO I/F

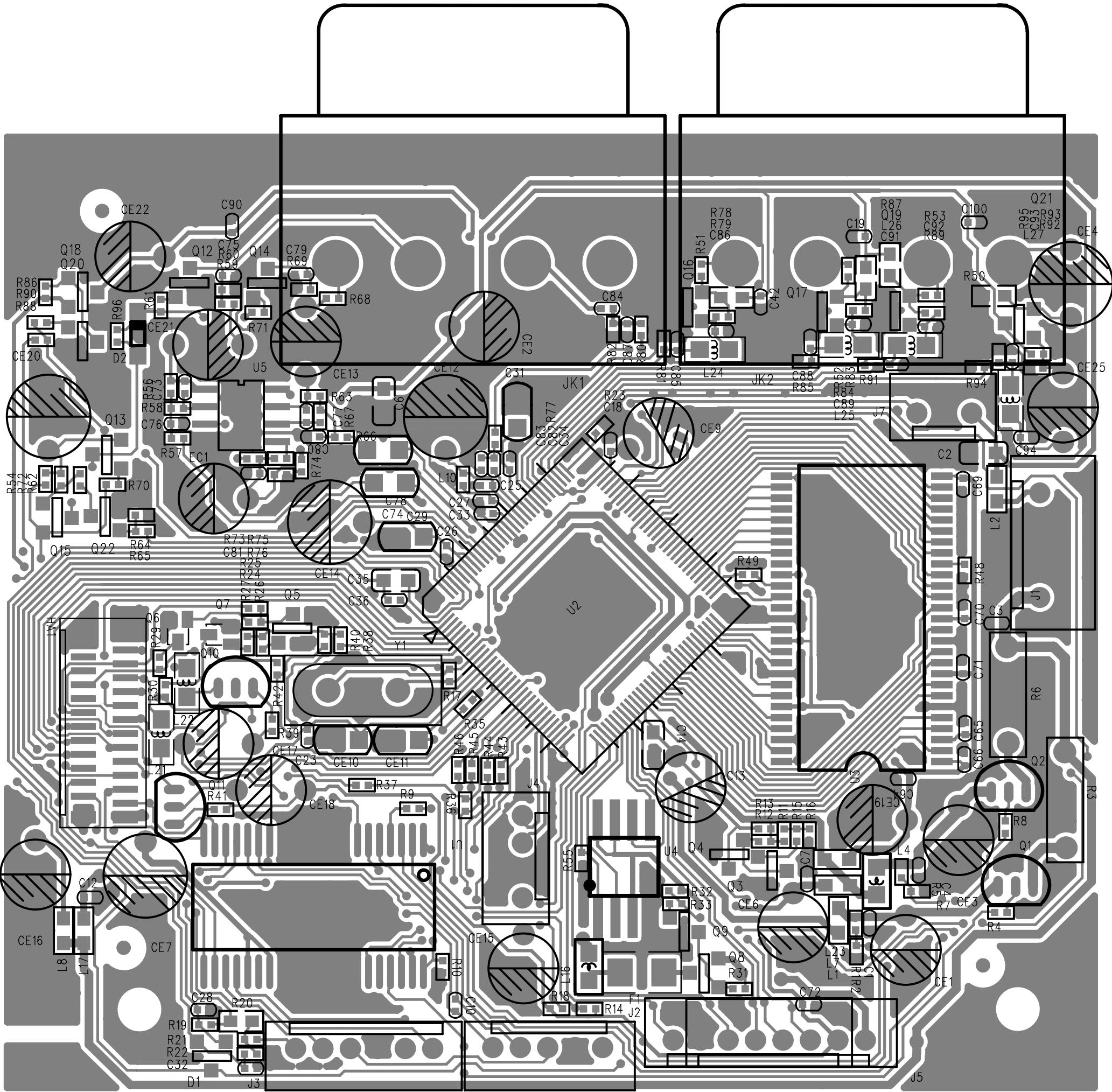


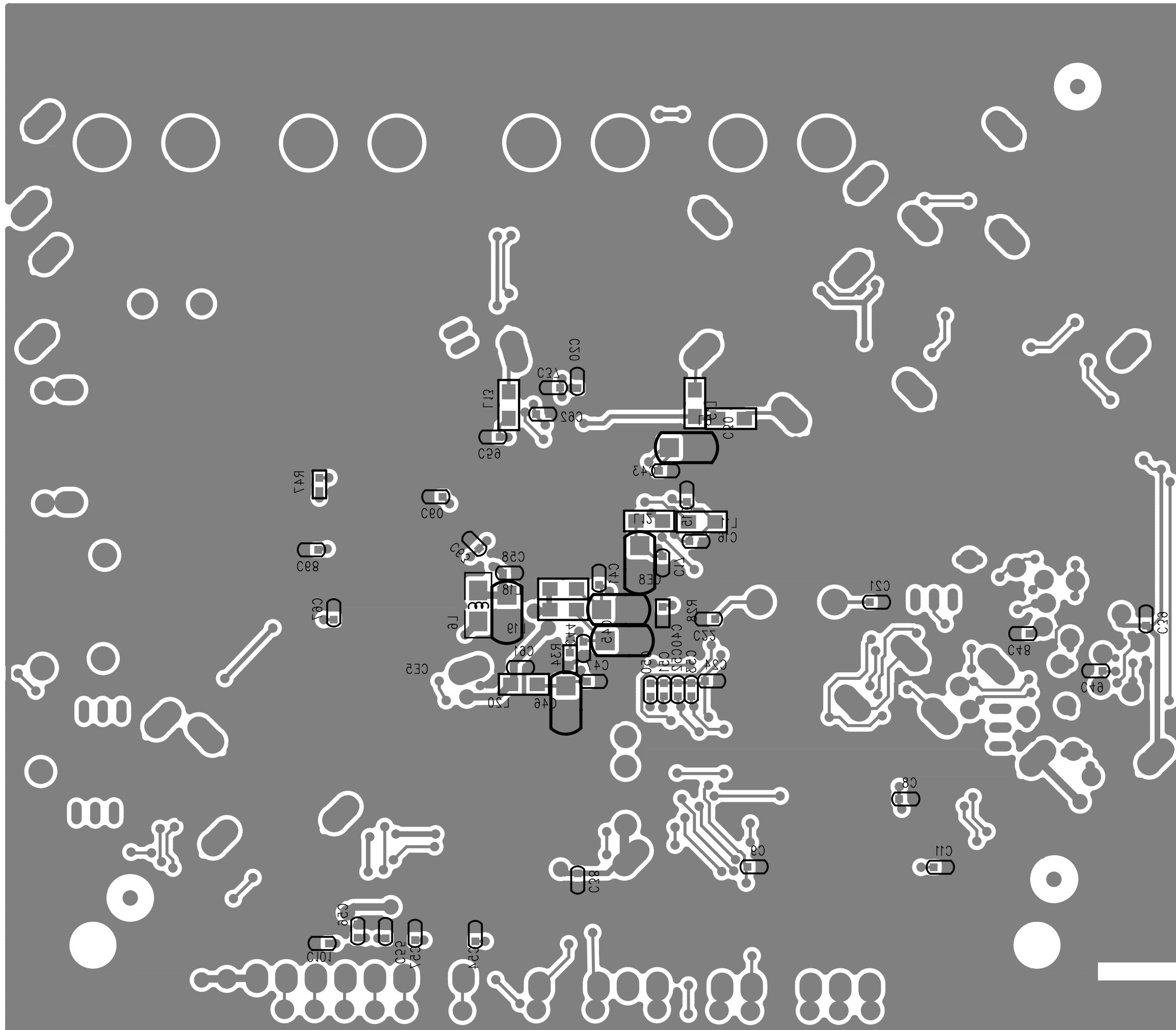
CIRCUIT DIAGRAM DVP3111/XX FRONT BOARD
LED LIGHT & IR

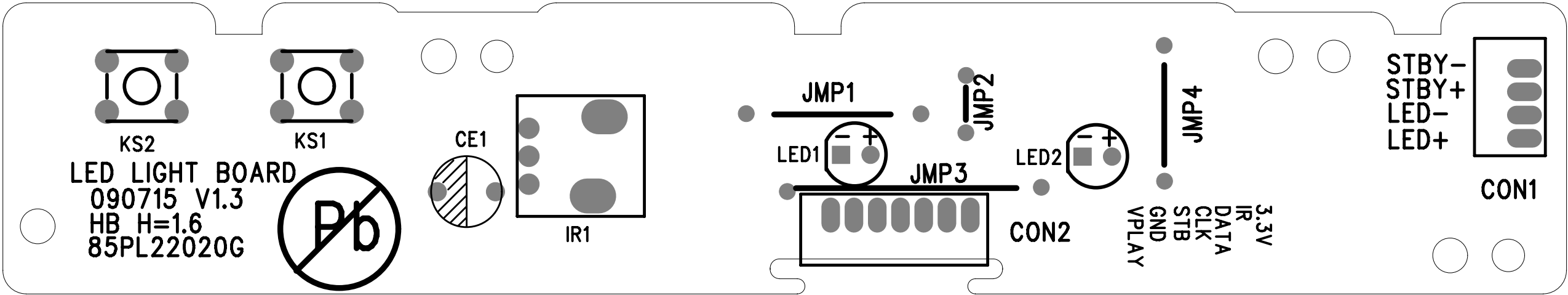


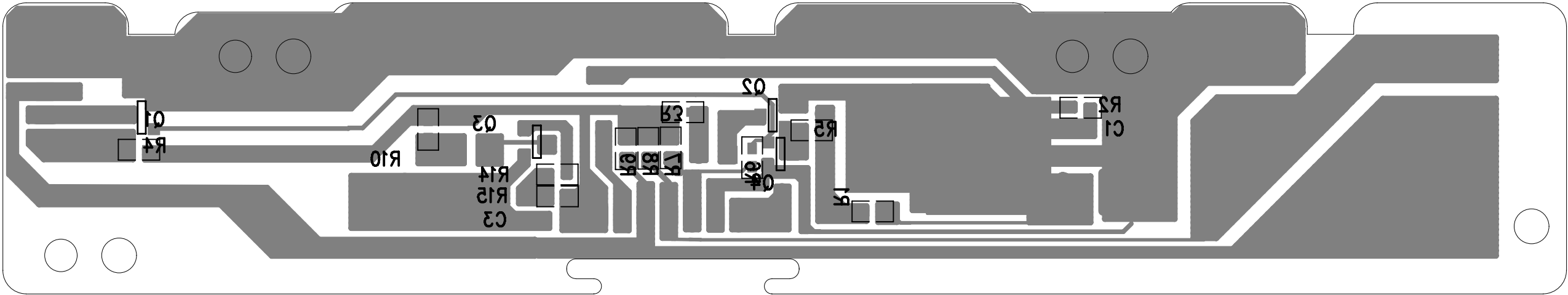
CIRCUIT DIAGRAM - STB/POWER BOARD
STB/POWER PART



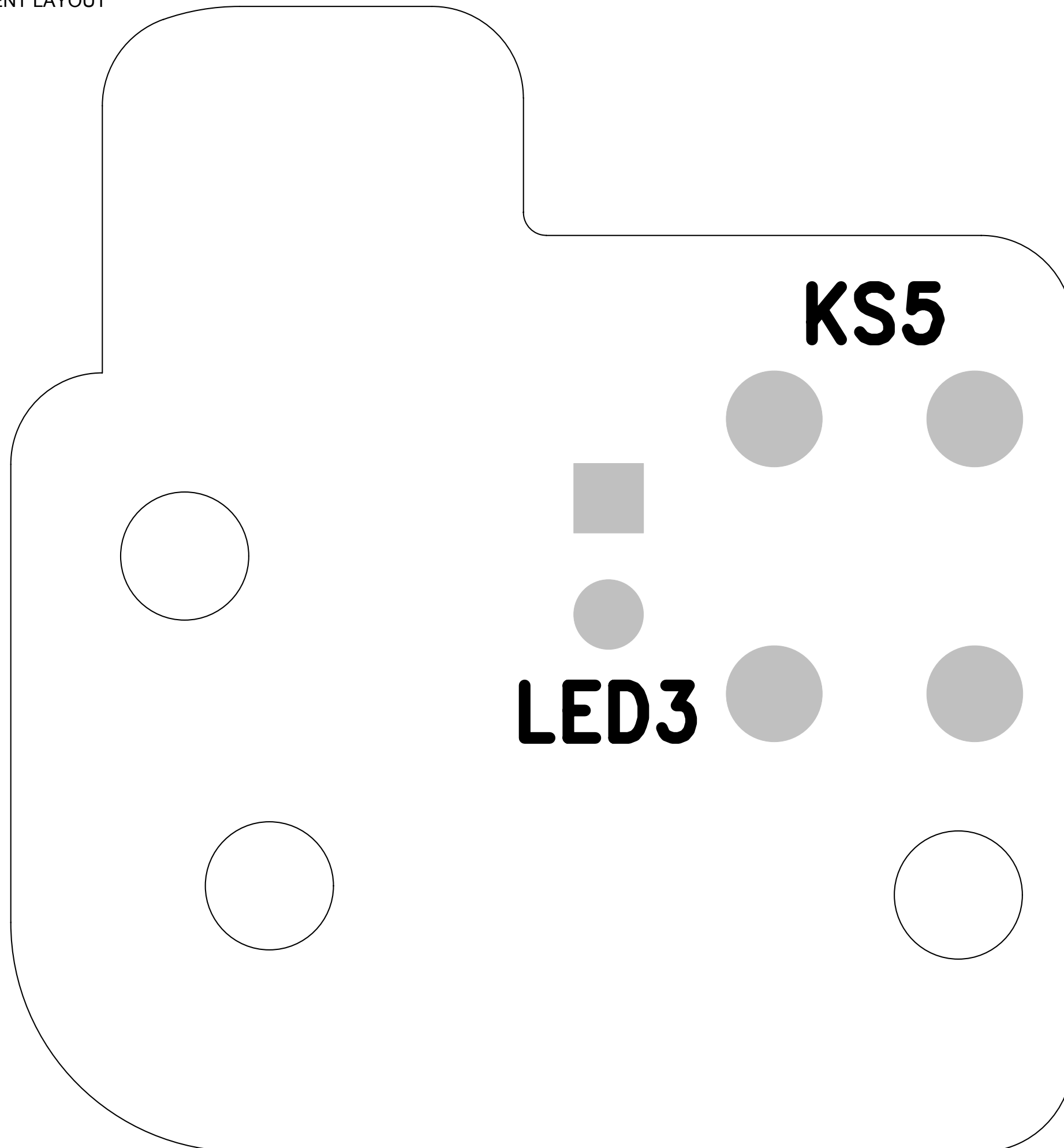




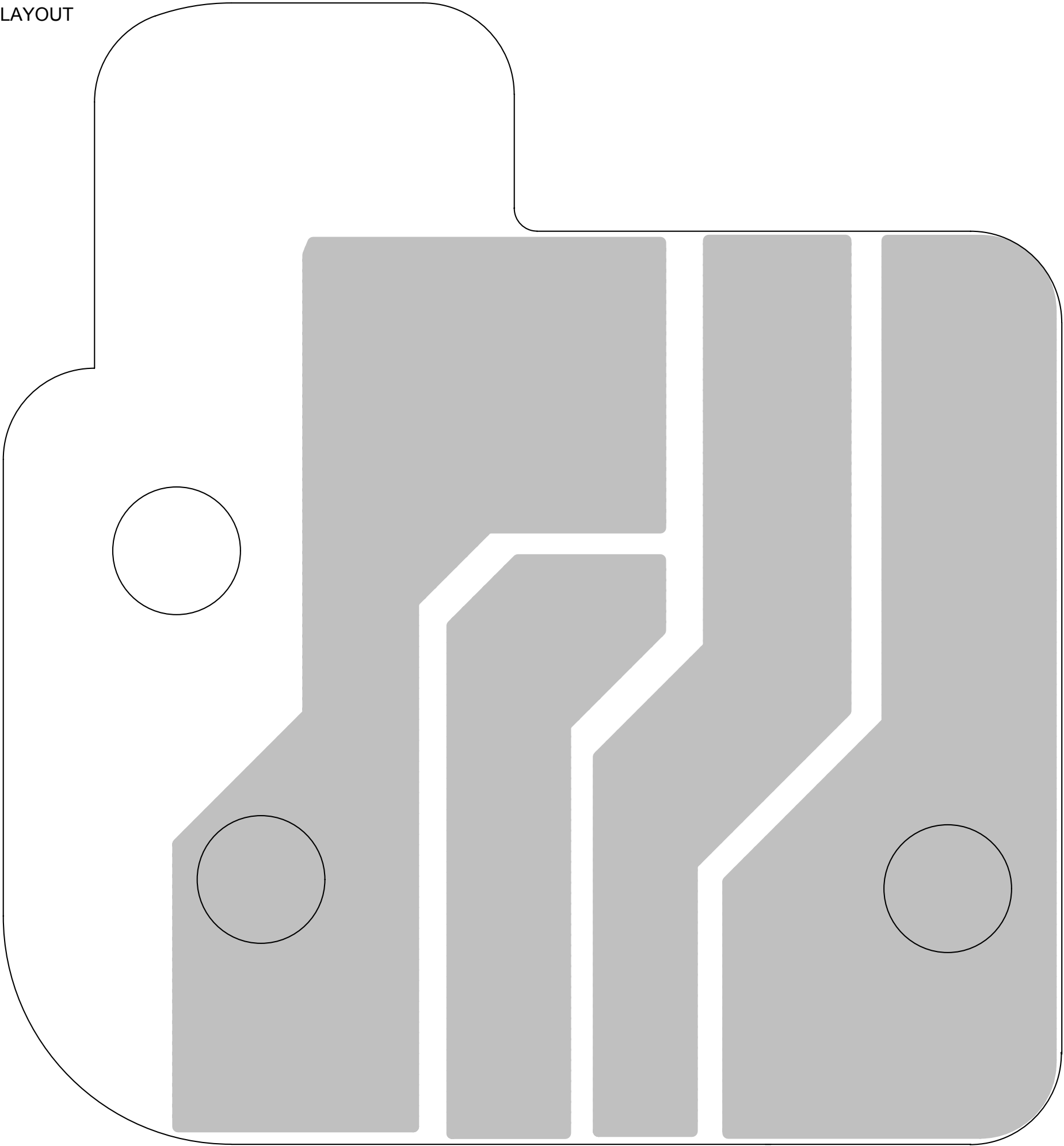




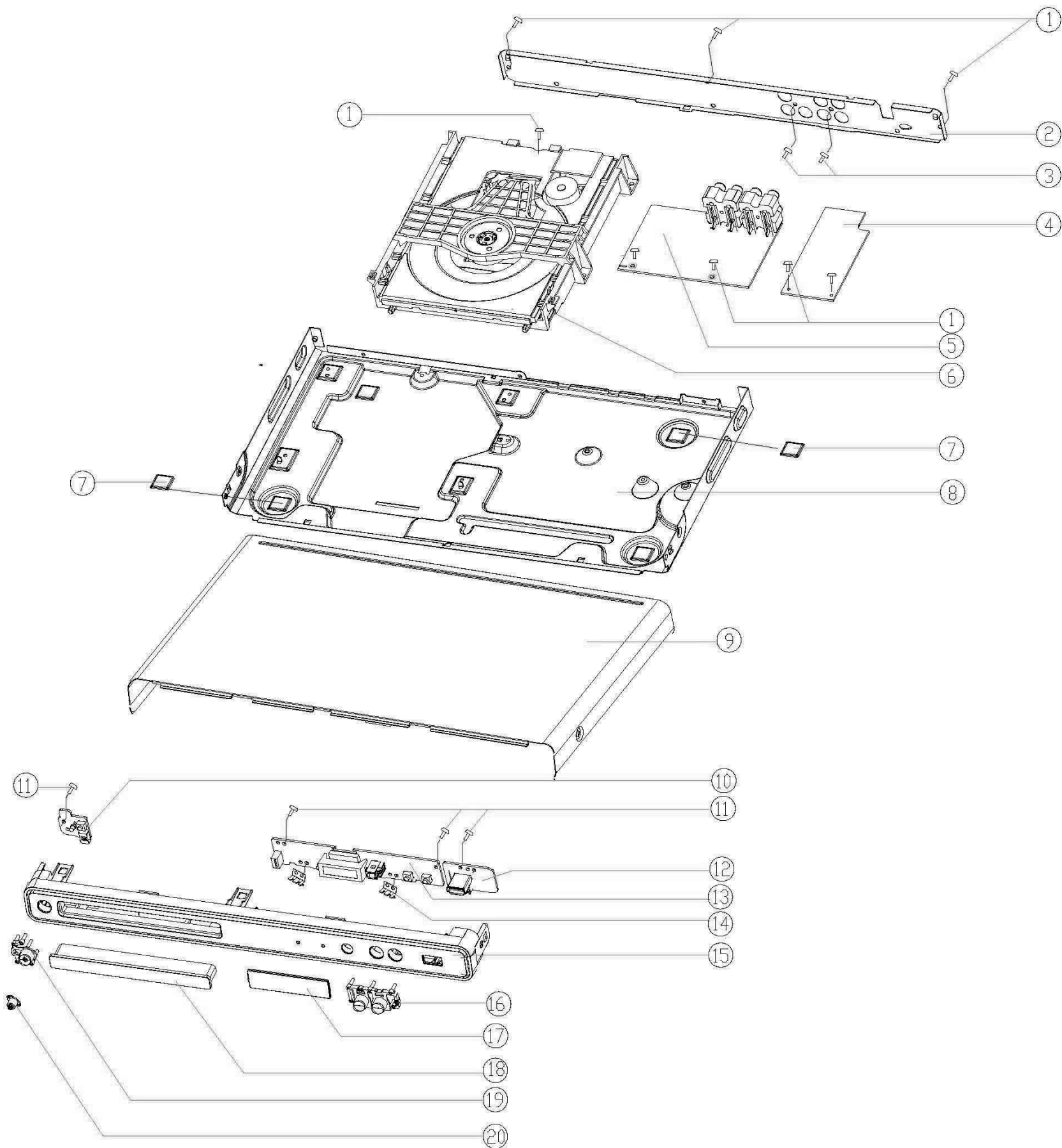
STB TOP PCB-COMPONENT LAYOUT



STB BOT PCB-COMPONENT LAYOUT



SET MECHANICAL EXPLODED VIEW



20	88-PL-030AAG	PLA BUTTON POWER LENS ABS DVP3350	1
19	88-PL-020AAG	PLA BUTTON POWER ABS DVP3111 BLACK	1
18	88-PL-040AAG	PLA DVD DOOR ABS DVP3111	1
17	88-PM-030AAG	PLA LENS DISPLAY ABS DVP3111	1
16	88-PL-060AAG	PLA OPEN BUTTON ABS DVP3111 BLACK	1
15	88-PL-080AAG	PLA FRPNT PANEL ABS DVP3111 DRAK GREY	1
14	87-PL-04010G	PRESS METAL PLATE DVP3111	2
13	82-PN-20010G	DISPLAY BOARD PCB	1
12	82-PN-30010G	USB&MIC PCB	1
11	69-21-26070G	SCREW TP RD+N 2.6*7	6
10	82-PN-31010G	POWER SW BOARD PCB	1
9	87-PL-02010G	PRESS top COVER METAL PLATE DVP3111	1
8	87-PL-01010G	PRESS BOTTOM COVER METAL PLATE DVP3111	1
7	64-PM-01010G	RUBBER BACK CABINET FOOT	4
6	34-PE-43020G	DECK AMI	1
5	82-PN-61010G	MAIN BOARD PCB	1
4	82-PN-80020G	INVERTER PCB	1
3	69-21-30060G	SCREW TP RD+N 3.0*6 BLACK	10
2	87-PL-03010G	PRESS BACK COVER METAL PLATE DVP3111	1
1	69-21-3006AG	SCREW TP RD+N 3.0*6 WHITE	2
ITEM	PART No.	DESCRIPTION	Q'TY

DVP3111/58/12/51 Accessories parts list

No	12NC No.	Part Name	Qty
RC	996510028621	R/C CD31A(S09080)BLACK	1
ACCORD	996510029036	AC CORD VDE 12FIXED 1.3M /12/51	1
CARADP	996510028081	AC CORD VDE 94FIXED 1.3M /58	1

DVP3111/98/77 MECHANICAL PARTS LIST

No	12NC No.	Part Name	Qty
RC	996510028081	R/C CD31A(S09080)BLACK	1
6	996510028059	DVD LOADER F8829H	1
6	996510028053	DVD DECK CMSS76R IM	1
CAR ADP	996510028081	AC CORD VDE 94FIXED 1.3M	1
23	996510028063	FFC 24P/0.5MM 220MM(3/54/8)	1
4	996510028606	8W/2P OPEN FICED PCBA	1
19	996510028083	BUTTON POWER	1
20	996510028061	BUTTON POWER LENS	1
18	996510028604	DVD DOOR BLACK	1
24	996510028626	LED LENS WHITE	1
25	996510028626	LED LENS WHITE	1
16	996510028071	OPEN BUTTON BLACK	1
26	996510028617	IR KENS BLACK	1
15	996510028673	FRONT PANEL DARK GREY	1

DVP3111-98/77 STANDBY PCB PARTS LIST

No	12NC No.	Part Name	Qty
10	996510028602	STANDBY PCBA ASS'Y	1
KS5	996510028072	TACT SWITCH 6*6*5mm	1
LED3	996510028067	DIP LED RED 1.8VD3	1

DVP3111-98/77 LED PCB PARTS LIST

No	12NC No.	Part Name	Qty
27	996510028601	LED LIGHT PCBA ASS'Y	1
Q1	996510028078	TR PMBT3904 SOT23	1
Q2,Q3	996510028086	TR PMBT3906 SOT23	2
IR1	996510029225	IR SENSOR 36KHZ	1
LED1,LED2	996510028625	WHITE LED L03W2P3D	2
21	996510028675	FRONT PANEL BLACK	1
22	996510028675	FRONT PANEL BLACK	1

DVP3111/79 Accessories parts list

No	12NC No.	Part Name	Qty
RC	996510028621	R/C CD31A(S09080)BLACK	1
ACCORD	996510029037	AC CORD CT 79FIXED 1.3M	1

8.0 SERVICE PART LIST

DVP3111-98/77 DVD MAIN PCB PARTS LIST

No	12NC No.	Part Name	Qty
5	996510028599	DVD MAIN PCBA	1
U1	996510028064	IC SW5888 HSOP28 5CHA	1
U5	996510028051	IC YD4558 SOP8PIN	1
U3	996510028043	IC W9864G6XH6	1
U4	996510028615	IC EN25B1675HCP SOP8 16M	1
U2	996510028622	IC MT1389DEXLA LQFP128	1
Q1,Q2,Q10,Q11	996510028623	DIP TR PSS8550C TO92	4
Y1	996510028074	DIP X'TAL 27.00MHZ	1
Q6,Q7	996510028056	TR 2SK3018 SOT23 ROHM	1
Q3,Q4,Q5,Q9, Q12,Q14,Q22, Q23,Q24	996510028078	TR PMBT3904 SOT23	9
Q13,Q15,Q16, Q17,Q19,Q20	996510028086	TR PMBT3906 SOT23	6
Q8,Q18	996510028041	MOS CES2307 SOT23	2
D1,D4	996510028055	DIODE BAT54C SOT23	2
D2,D3	996510028305	DIODE RLS4148 LL34 ROHM	2
JK1	996510028598	AV JACK AV48.47D JIXIN	1
JK3	996510028624	SCART JACK CS106 21PIN	1
J7	996510028603	WAFER 3 PIN 2.0mm UPRIGHT	1
J4	996510028311	WAFER 4 PIN 2.0 mm UPRIGHT	1
J1	996510028284	WAFER 4PIN 2.54mm UPRIGHT	1
J2	996510028618	WAFER 5PIN 2.0MM DIP UPRIGHT	1
J3	996510028294	WAFER 6PIN 2.0mm UPRIGHT	1
J5	996510028605	WAFER 7PIN 2.0 MM DIP UPRIGHT	1
HA1	996510028616	WAFER 24PIN 0.5mm UPRIGHT	1
F1	996510028619	CHIP RESET FUSE 0.5A/15V	1

9.0 REVISION LIST

Version 1.0

- Initial release