

Service Service Service



Service Manual

TABLE OF CONTENTS

	Chapter
Technical Specification, PCBs Location.....	1
Safety Instruction	2
Instruction for Use.....	3
Mechanical and Dismantling Instructions.....	4
Troubleshooting	5
Overall Block Diagram,	6
Electrical Diagram.....	7
Exploded View Diagram & Service Part List.....	8
Revision List.....	9

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

VIDEO FORMAT

DVD, VCD, MP3, JPEG, DivX
 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 / 5.8MHz: -8dB
 With progressive scan: 8.4MHz -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
 DVD: Philips LVP 9.01 audio test disc
 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, 230V AC: <1W

AUDIO FORMAT

CD/MP3, DVD audio

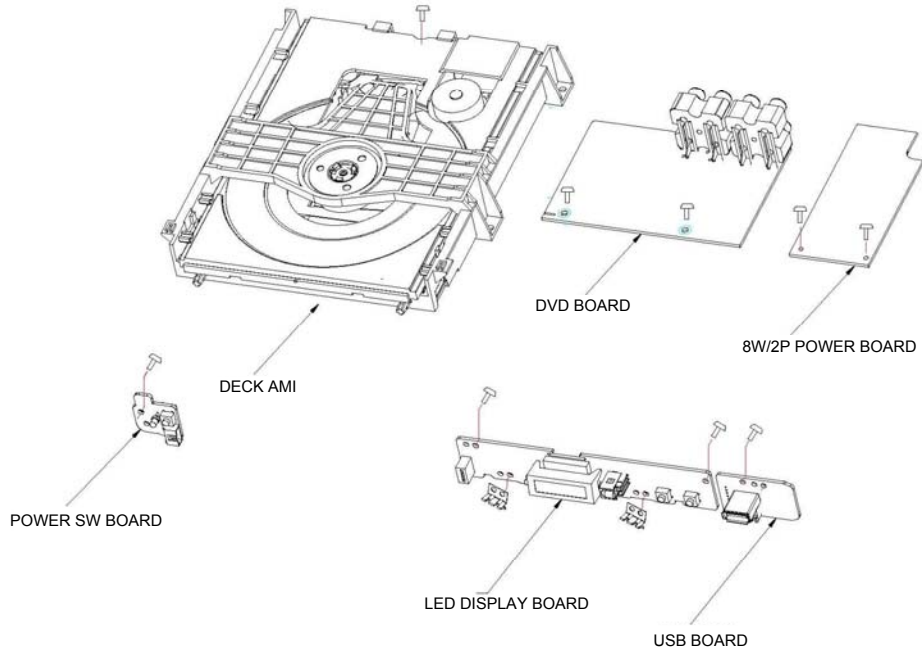
GENERAL DESCRIPTION

Optical Pickup: IM S76RFVP
 Chip set/Solution: Mediatek MTK1389DE-LA
 Disc Size: 8cm/12cm

CVBS

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

1.1 PCBs LOCATION



VERSION VARIATIONS

Type/Versions:		DVP3336					
Service policy	94						
Board in used:							
MAIN BOARD	M/C						
8W/2P POWER BOARD	M/C						
LED DISPLAY 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 $1\text{M } \Omega$
- 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

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)

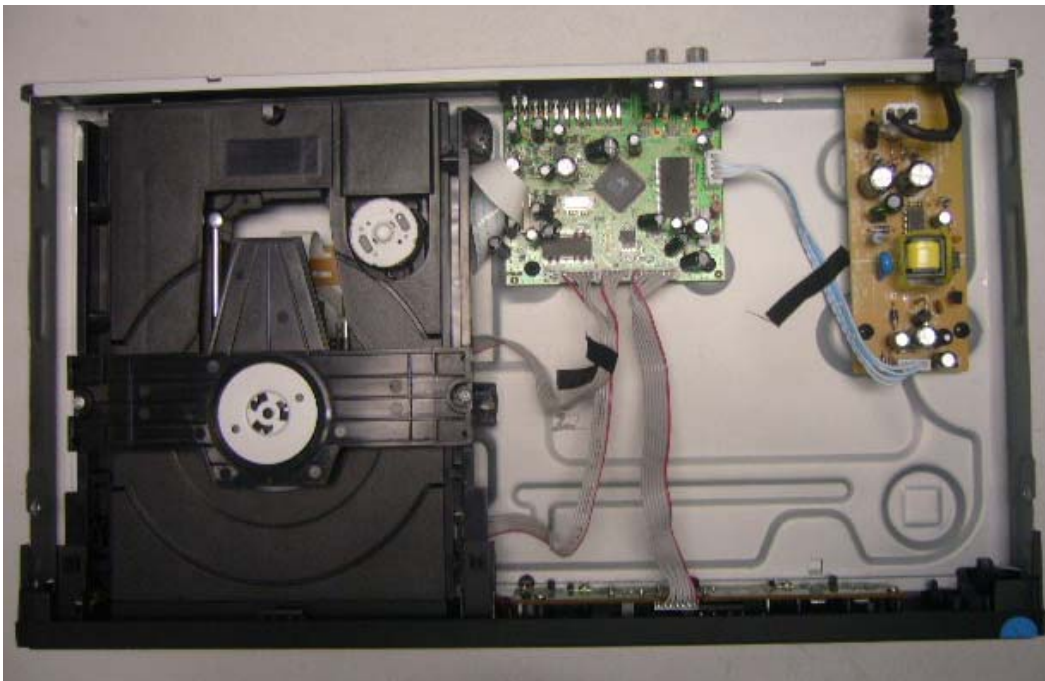


Figure 1

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)

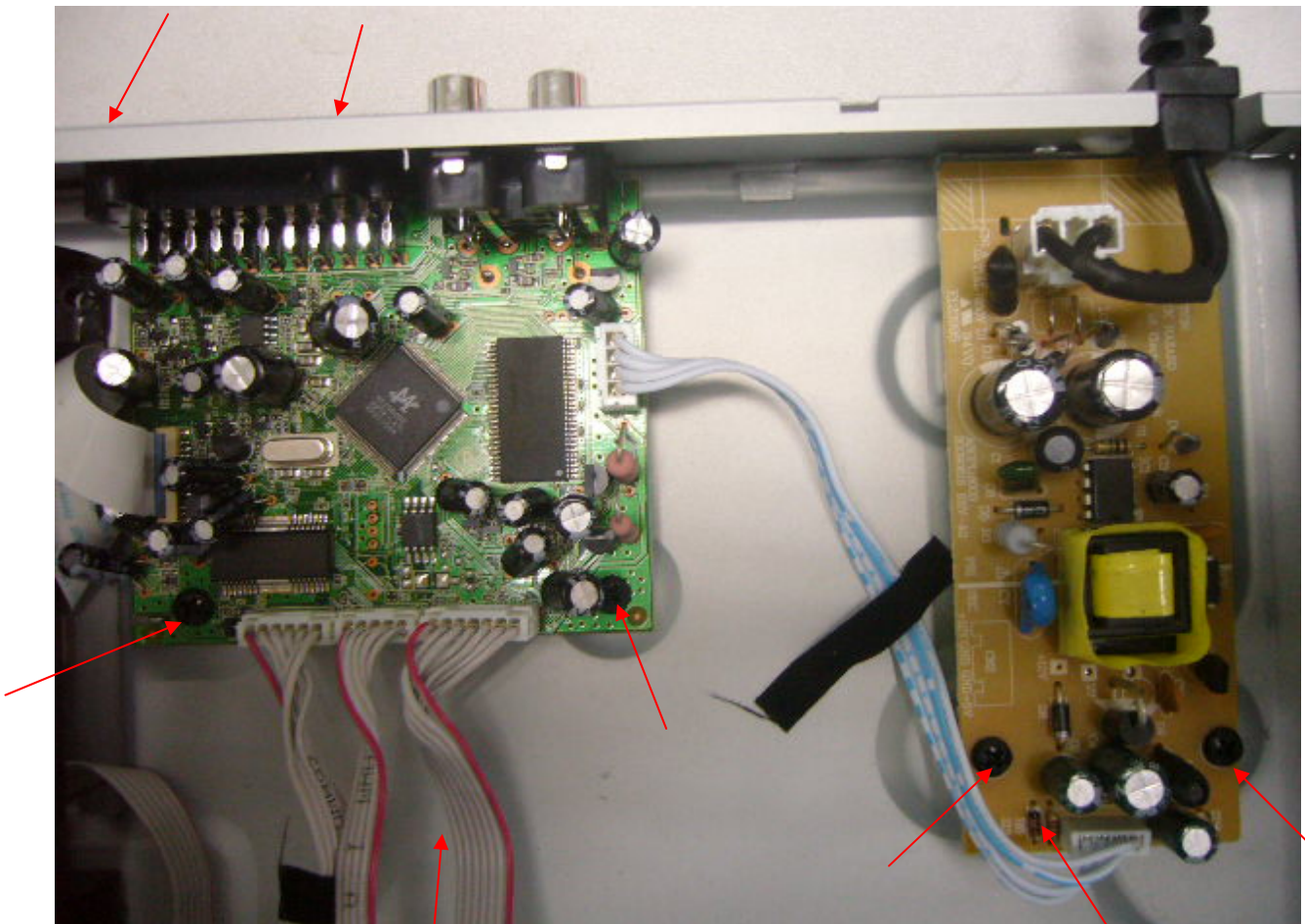
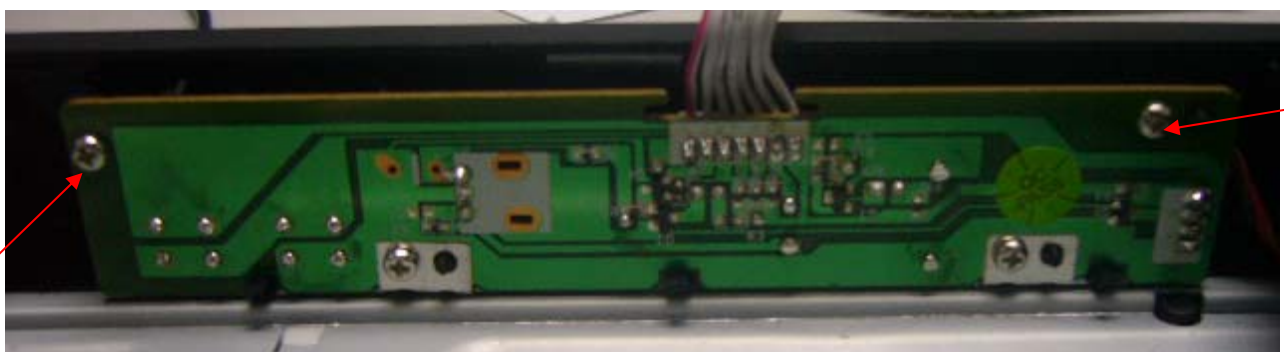
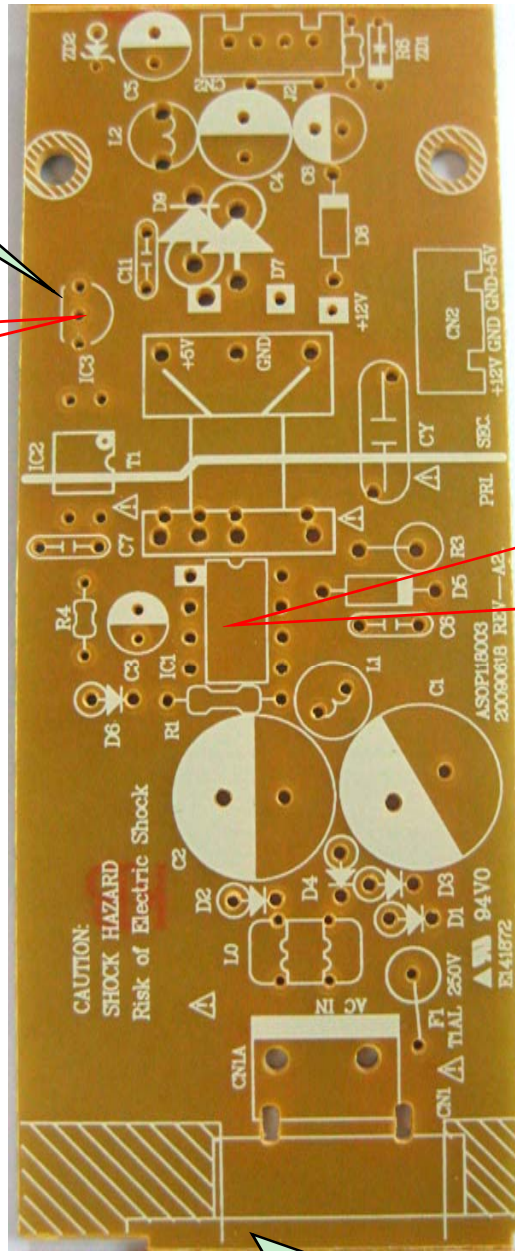
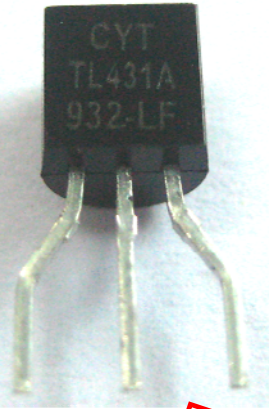


Figure4



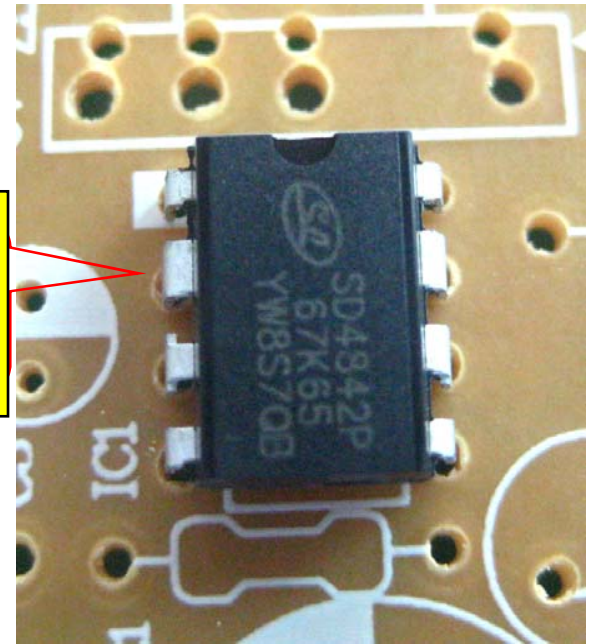
DVP3336和
DVP3320/3326共
用此IC

CYT431 location
(IC3)



Power Board repair (swap IC and transformer)

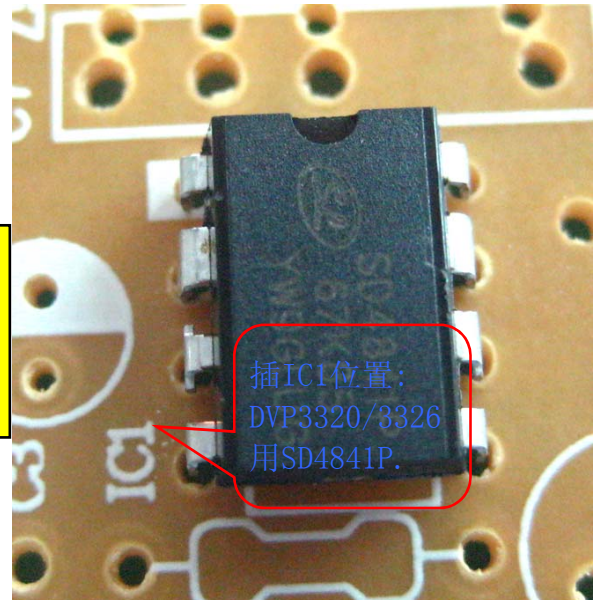
IC1: placement of
SD4842P on
DVP3336 board



location IC1:
DVP3336 uses
SD4842P

DVP3320/3326 uses
SD4841P

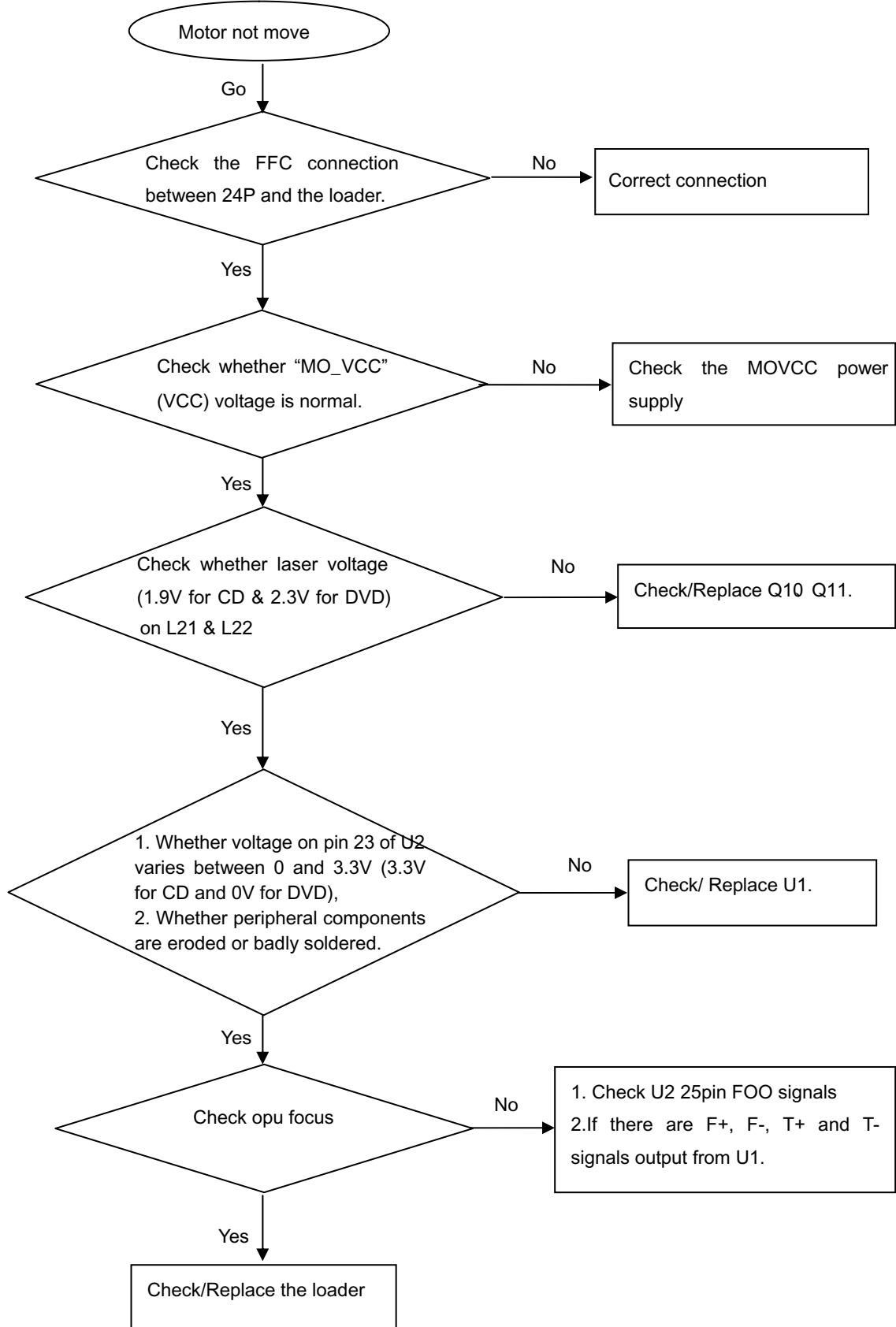
IC1: placement of SD4841P
on DVP3320/3326 board

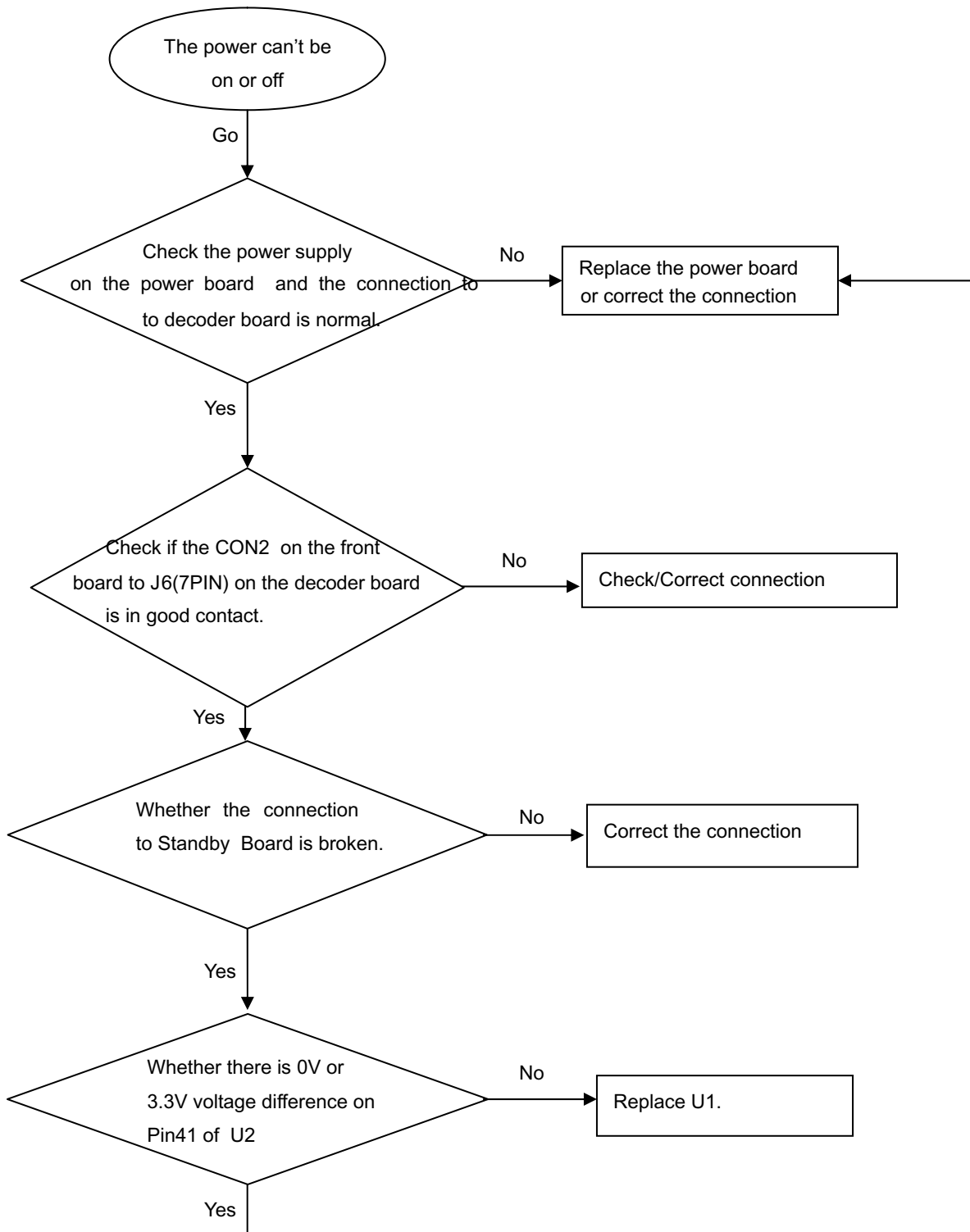


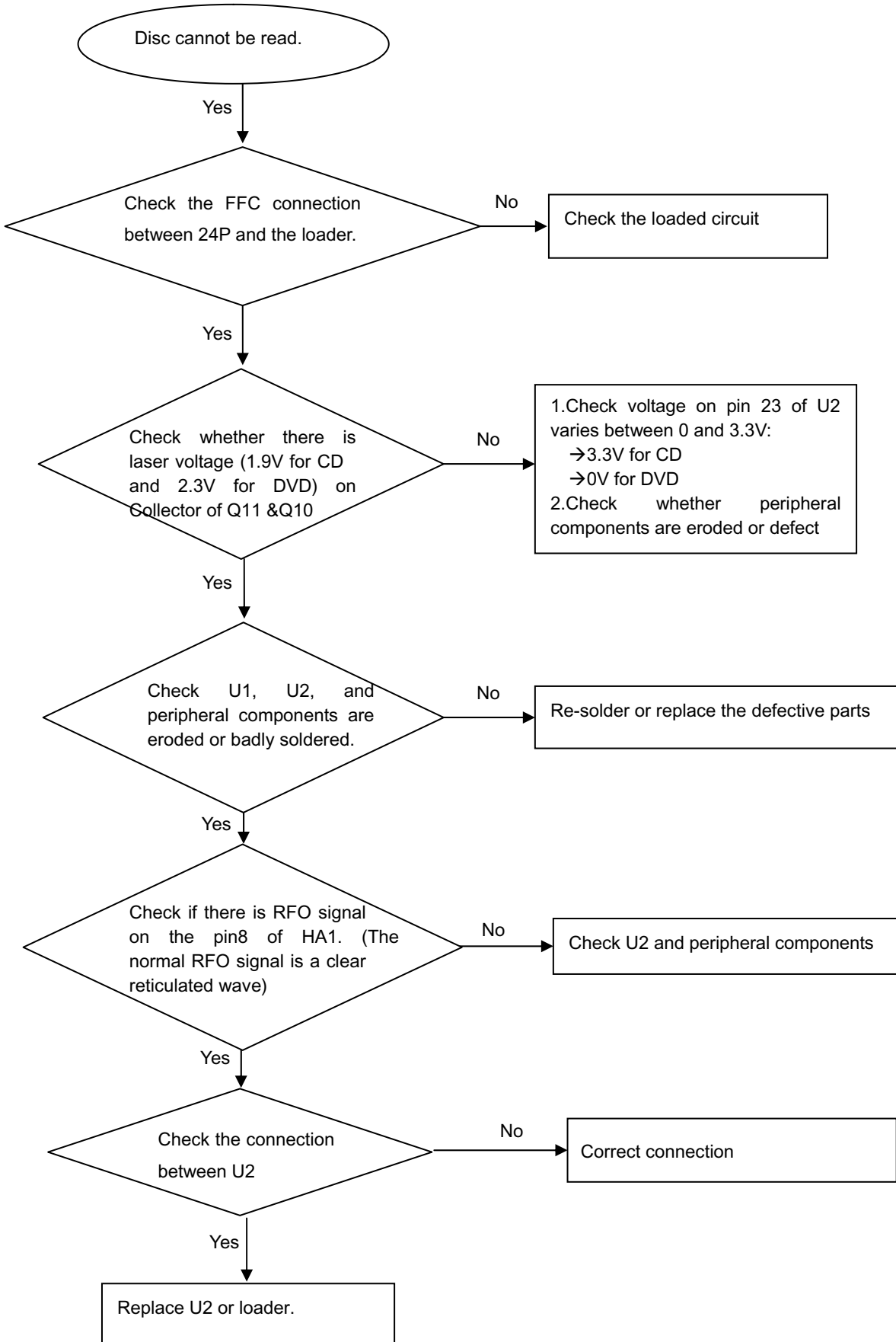
插IC1位置:
DVP3320/3326
用SD4841P.

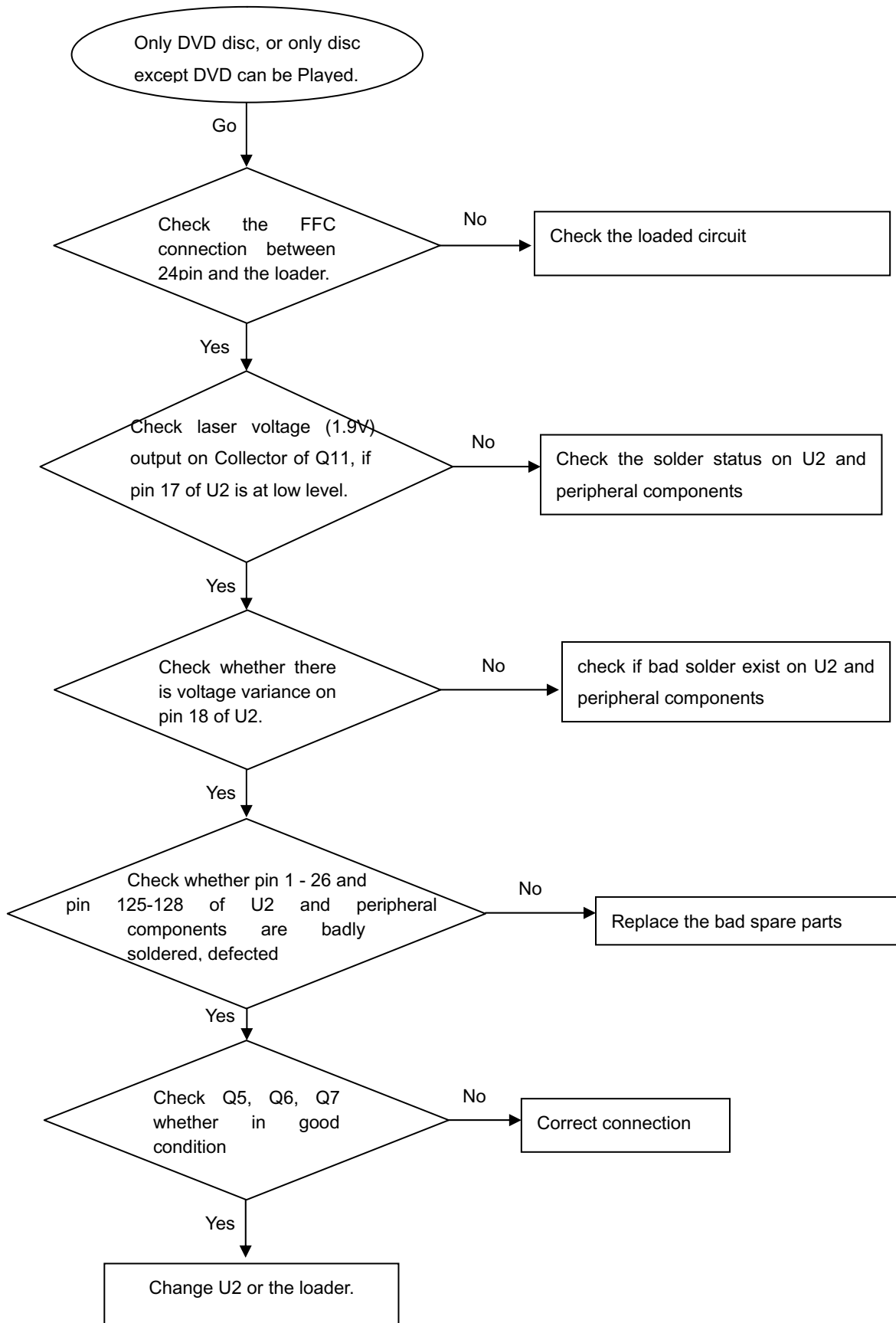
Common power board of
DVP3336/DVP3320/3326

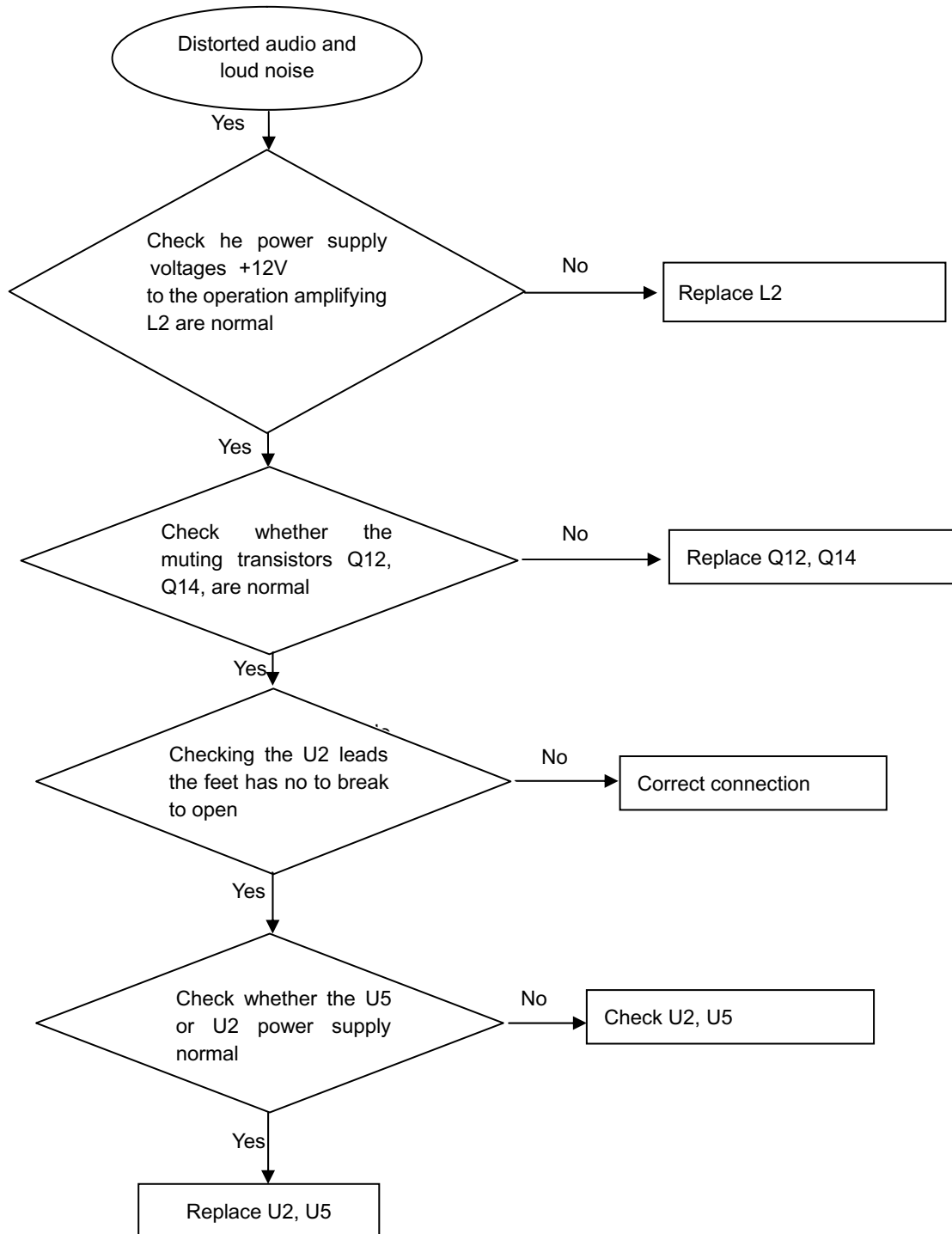


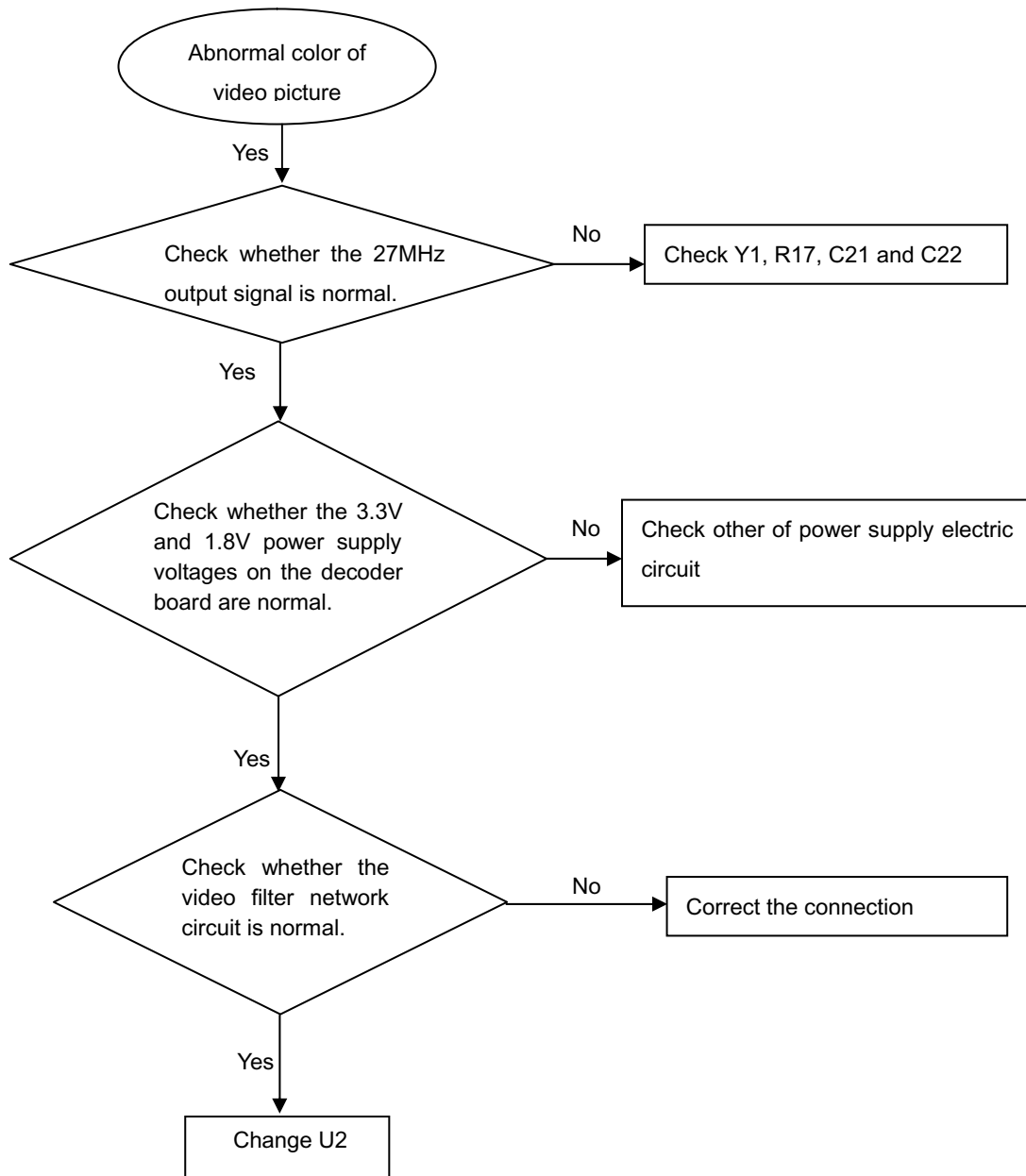
Spindle motor does not move

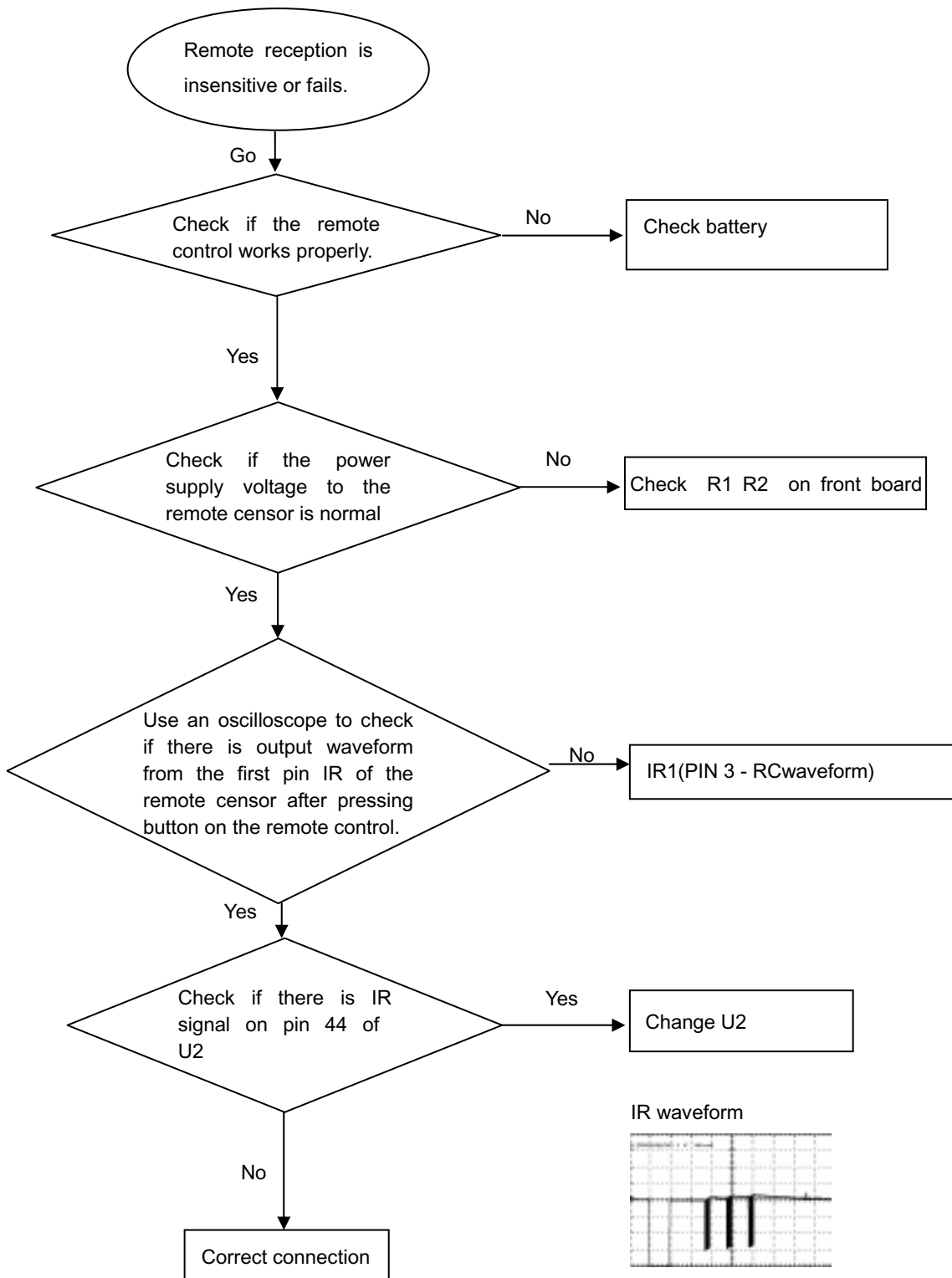
The power can not be on or off

Disc cannot be read.

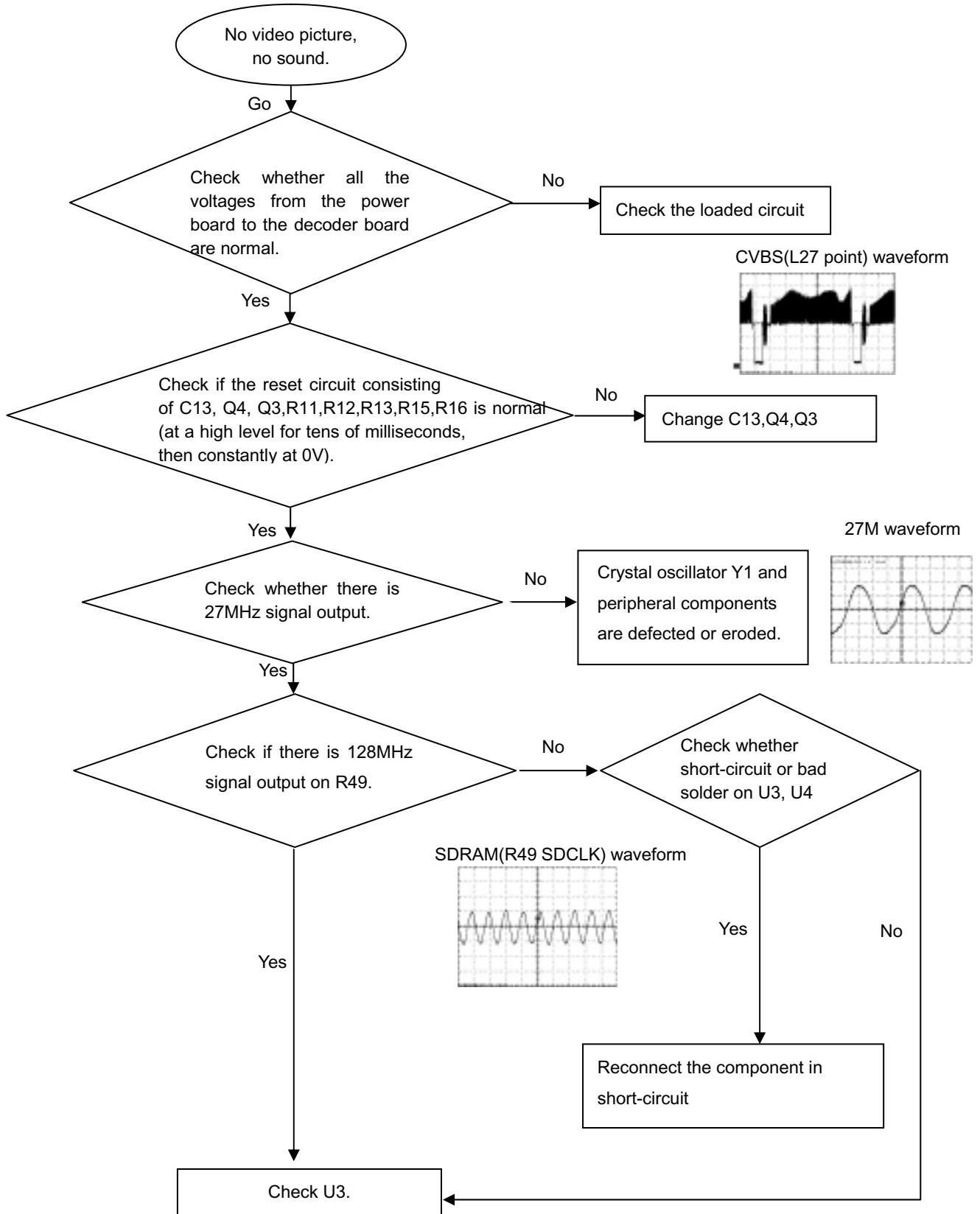
Only DVD disc or only disc except DVD can be played


Distorted audio and loud noise

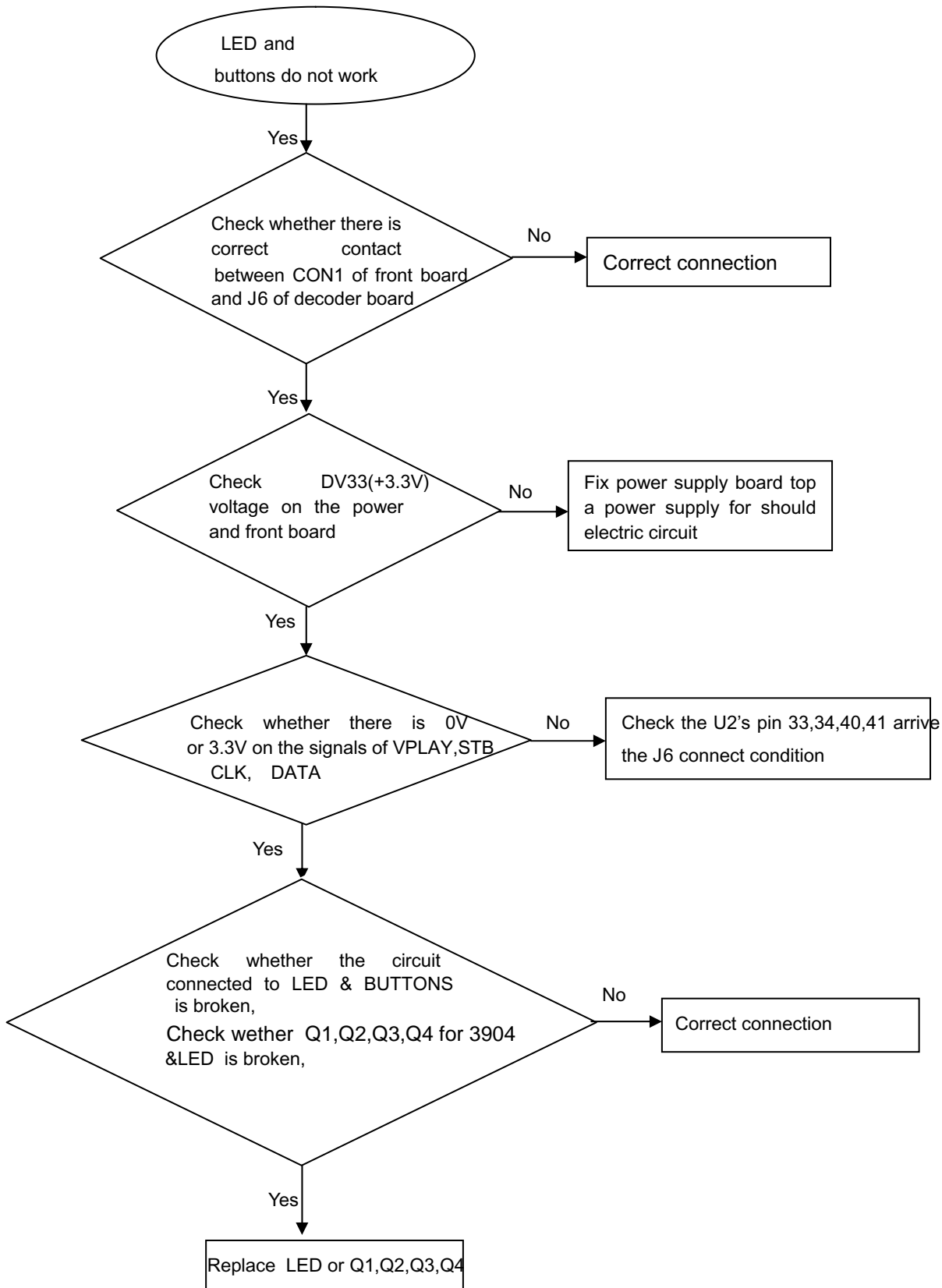
Abnormal color of video picture

Remote reception is insensitive or fails.

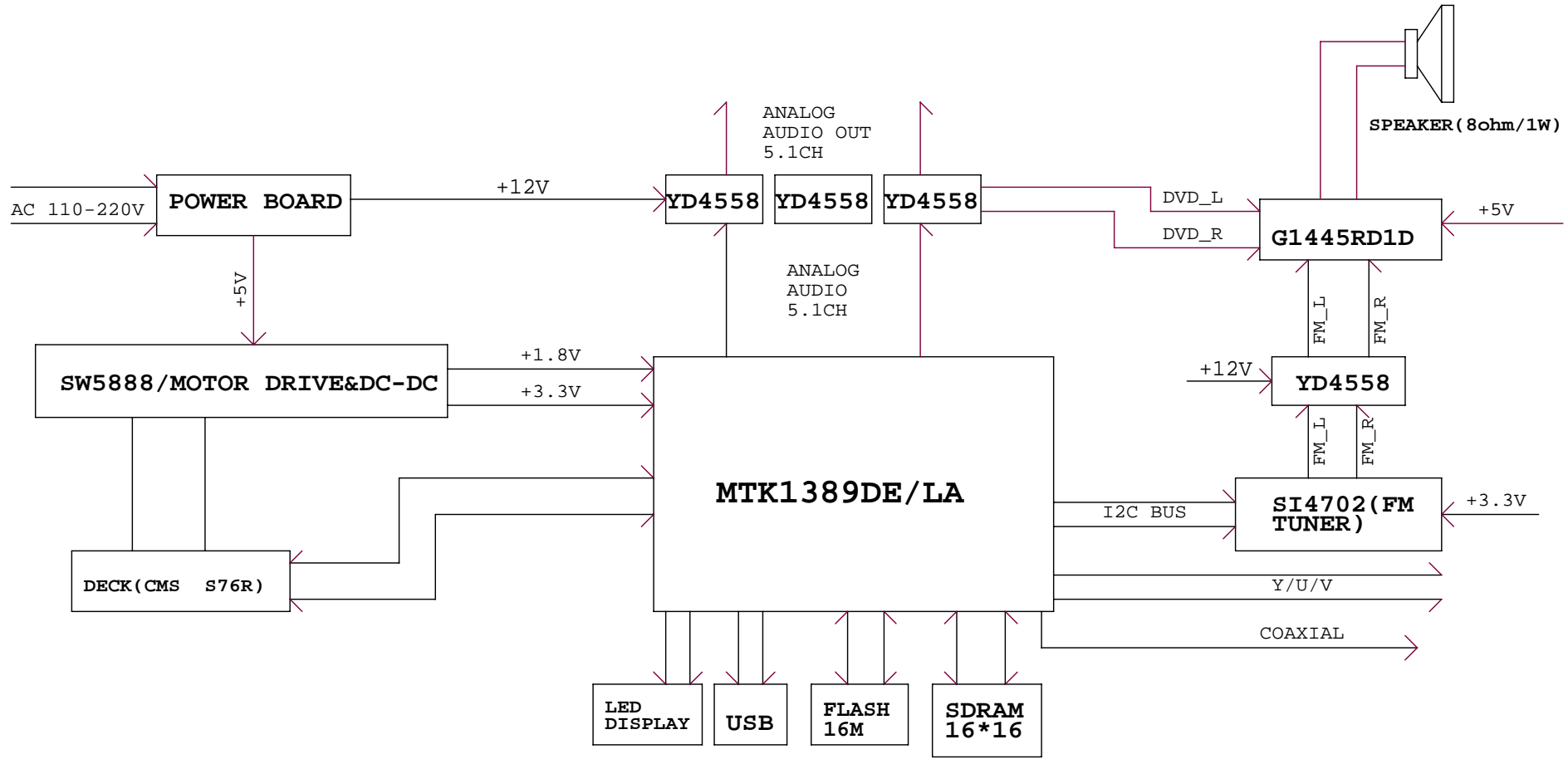
No video picture, no sound.



No display on LED, and buttons do not work

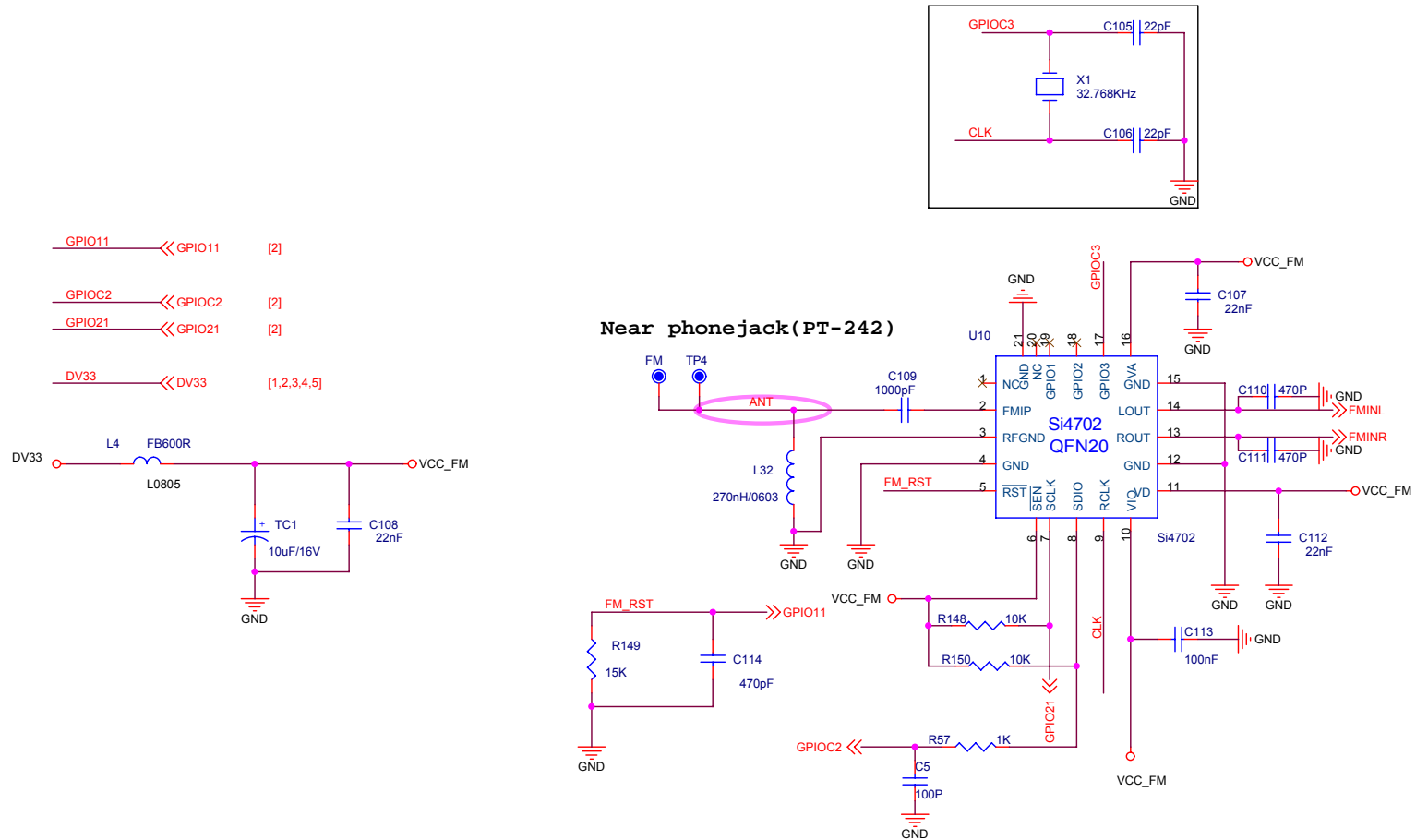


BLOCK DIAGRAM



CIRCUIT DIAGRAM-MAIN BOARD (FM)

7-1

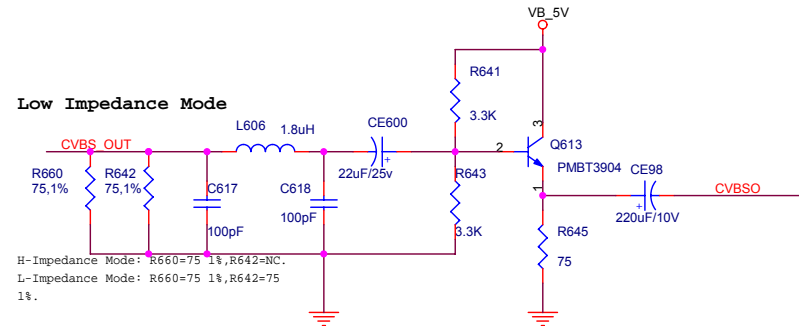
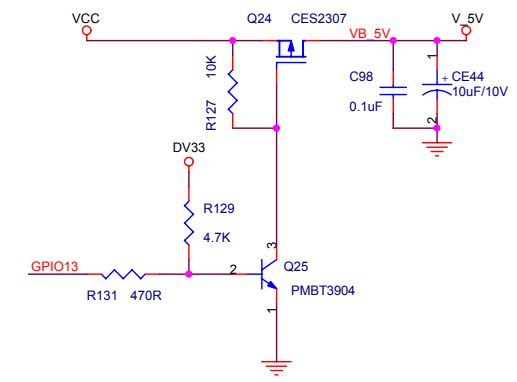
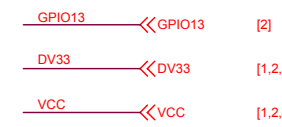
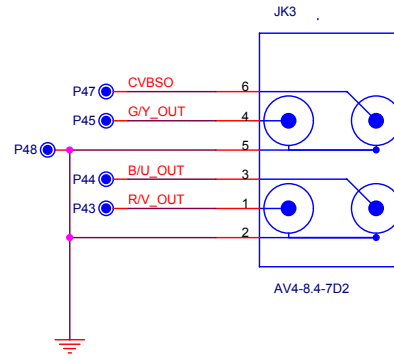
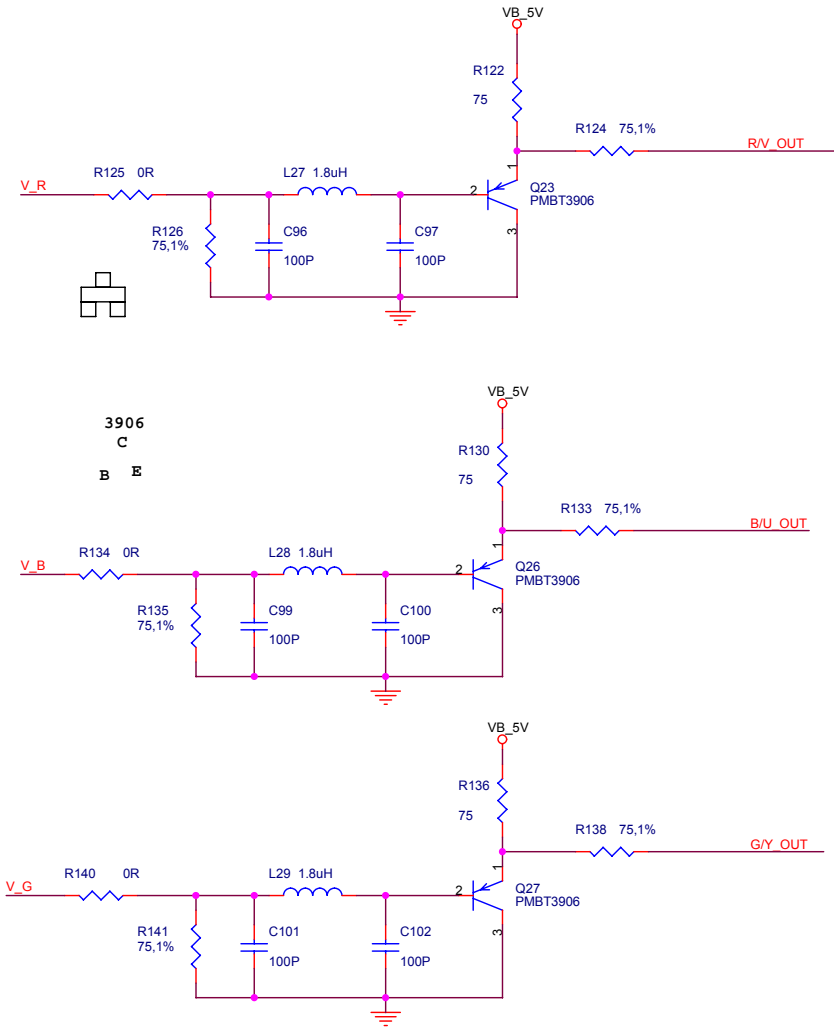


If use 3V3D to power the si4702 chip. must use GPIO to controll the FM reset

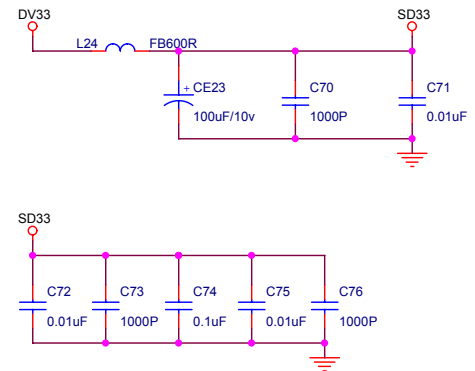
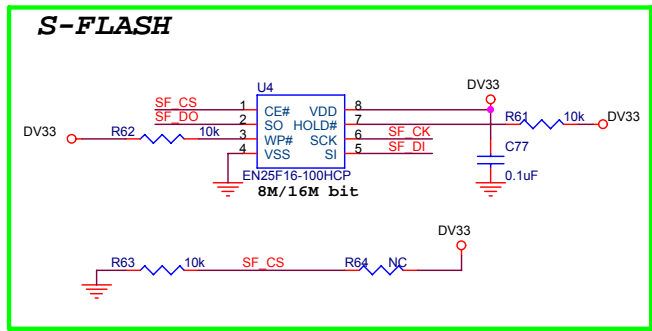
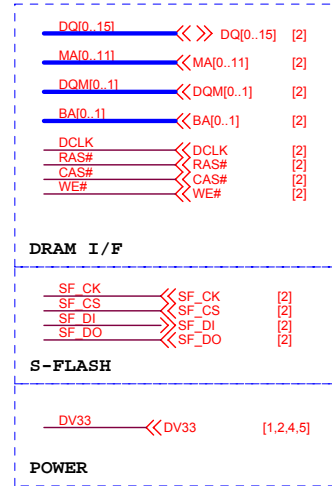
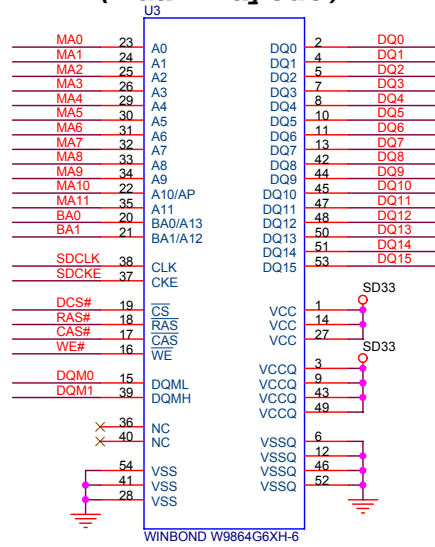
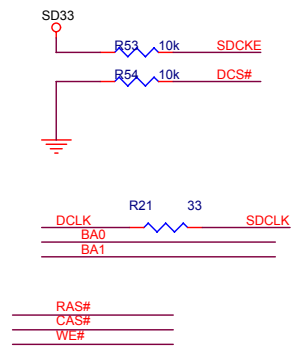
SI4702/03

CIRCUIT DIAGRAM-MAIN BOARD(VIDEO)

7-2



SDRAM (Dual Layout)



CIRCUIT DIAGRAM-POWER & MOTOR DRIVER

Rev	History	Date
V1	The original released. Base on 3-SYHI89LSD1-V10.DSN	2006/12/12
V2	1),Re-arrange MT1389LK Servo IO Pin & VFD Pin; 2),Update brake ciucuit; 3),Change RFO circuit	2007/01/22
V3_Ext	1),Re-arrange MT1389L IO Pin 2),GPIO Extension Solution; 3),Add Scart Circuit;	2007/02/05
V4_Ext	1),Exchange Trin and Limit GPIO Pin;	2007/02/12
V5_Ext	1),Modify Mute Circuit;	2007/03/01
V6	1),Re-arrange MT1389L IO Pin; 2),Add GPIO reuse function and circuit;	2007/06/05

MT1389L/K Full Function:
(USB,1CH MIC,6CH DAC,VGA/SCART,GAME,CARD,VFD)

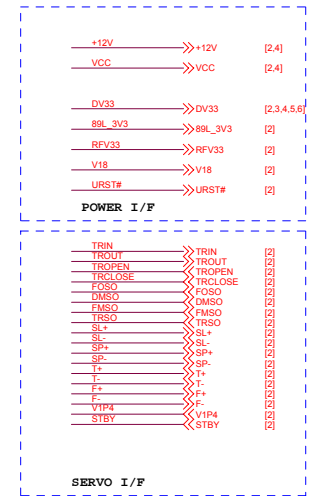
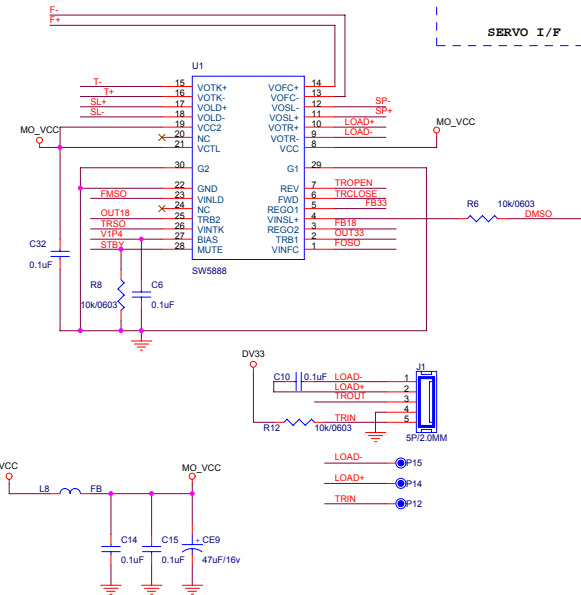
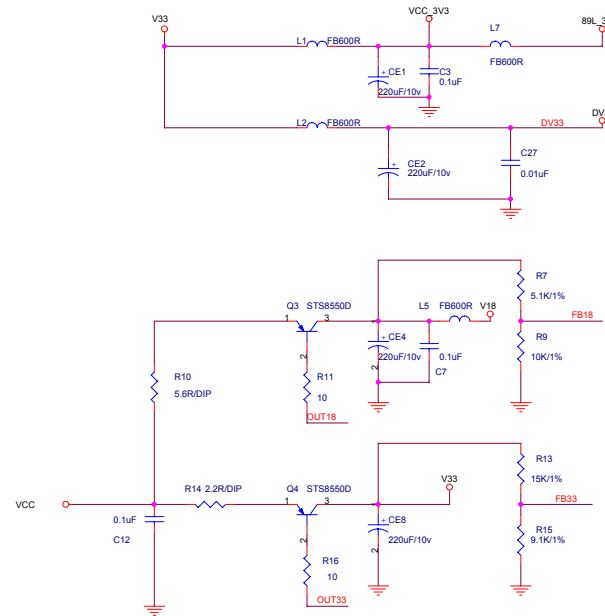
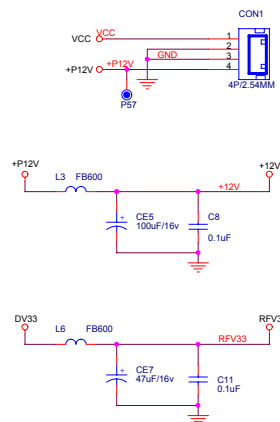
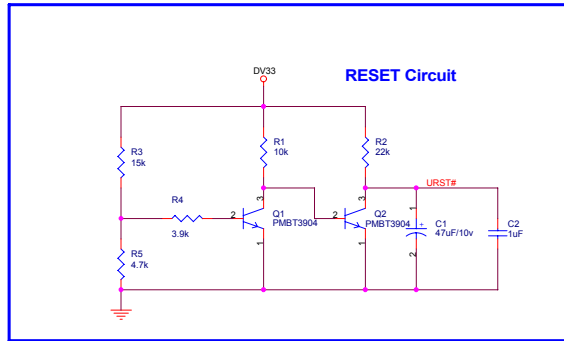
MT1389L/K General GPIO List

Name	PIN	Features
GPIO3	33	
GPIO4	34	LIMIT TROUT
GPIO6	35	TRCLOSE
GPIO7	87	MS_CLK
GPO_A	22	STBY
GPO_B	23	TROPEN IOA
GPIO2	26	TRIN
GPIO8	88	MS_BS SD_CLK
GPIO9	89	MS_D0 SD_CMD
GPIO10	91	SD_D0
GPIO11	92	SCART1 HSYNC
GPIO12	93	ASPDIF
GPIO13	94	VSTB
GPIO19	106	SCART2 VSYNC
GPIO20	107	ADVCM
GPIO21	108	AKIN1 AUDIO_MUTE
GPIOK0	27	USB_DP
GPIOK1	28	USB_DM
GPIOK2	31	PAD_VRT
UP1_6	40	VSCK
UP1_7	41	VSDA
ARF	114	AUDIO_ARF
ARS	115	AUDIO_ARS
ALS	119	AUDIO_ALS
ALF	120	AUDIO_ALF

COMMON1389L/K_HM313_AM5888_V6 Desktop Model

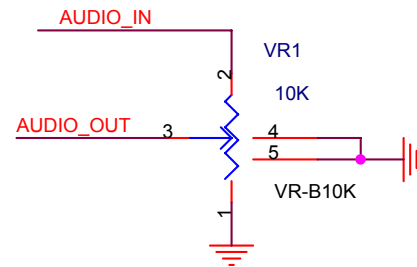
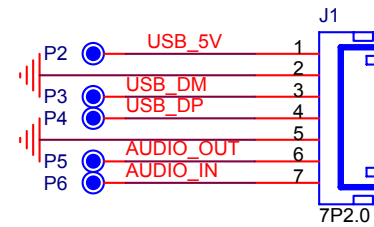
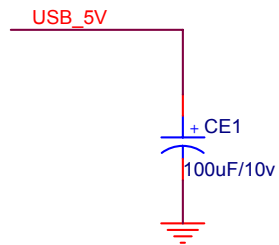
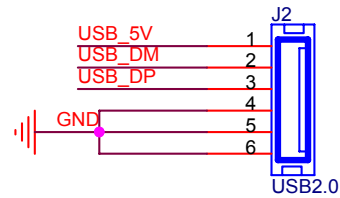
MT1389L/K (LQFP128) DVD TEST Board w/ Sanyo HD6x Series PUHs

- 1 INDEX & POWER, RESET
- 2 MT1389L/K LQFP128
- 3 SDRAM & FLASH
- 4 AUDIO I/F
- 5 VIDEO I/F
- 6 FM

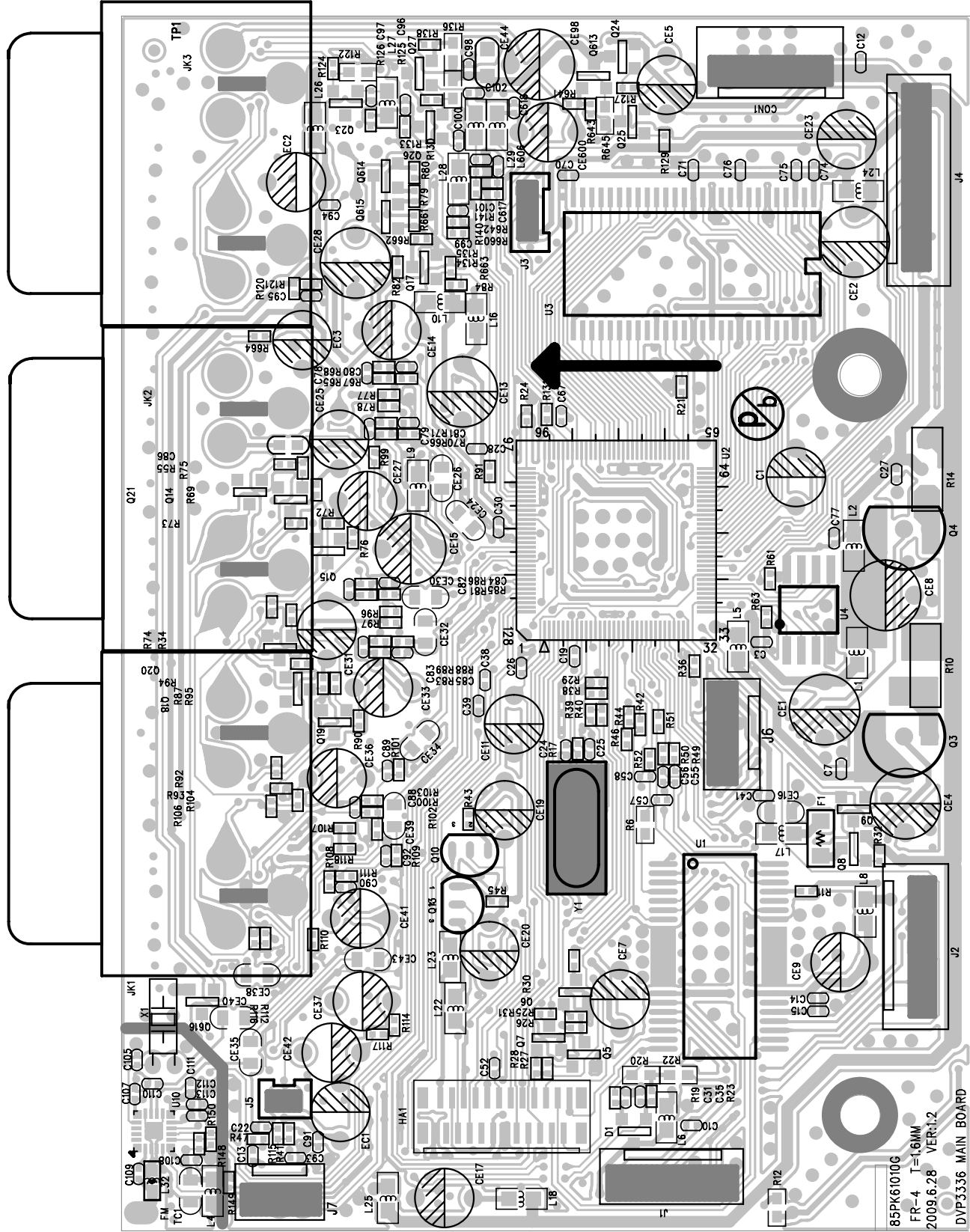


CIRCUIT DIAGRAM-USB JACK

7-8

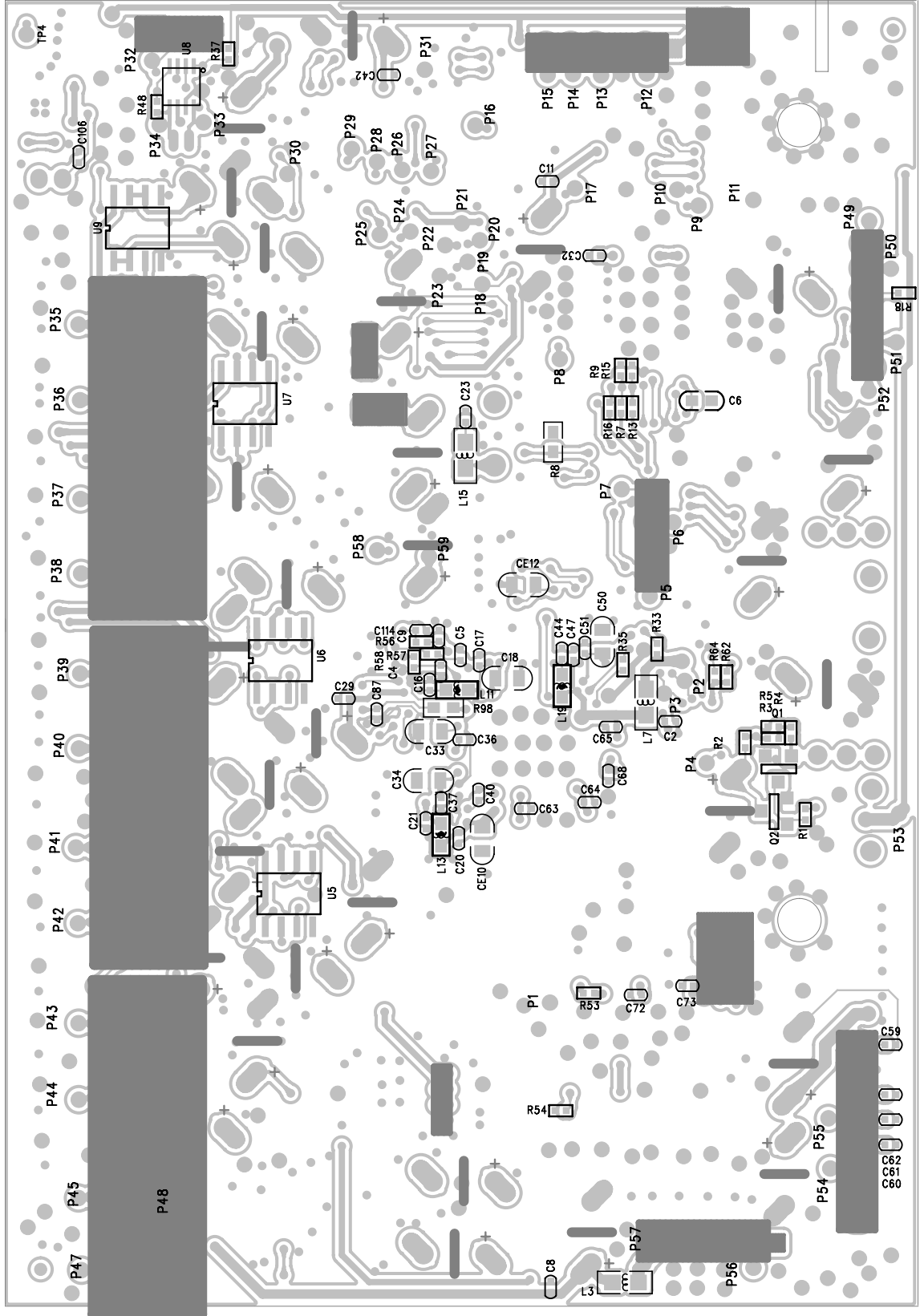


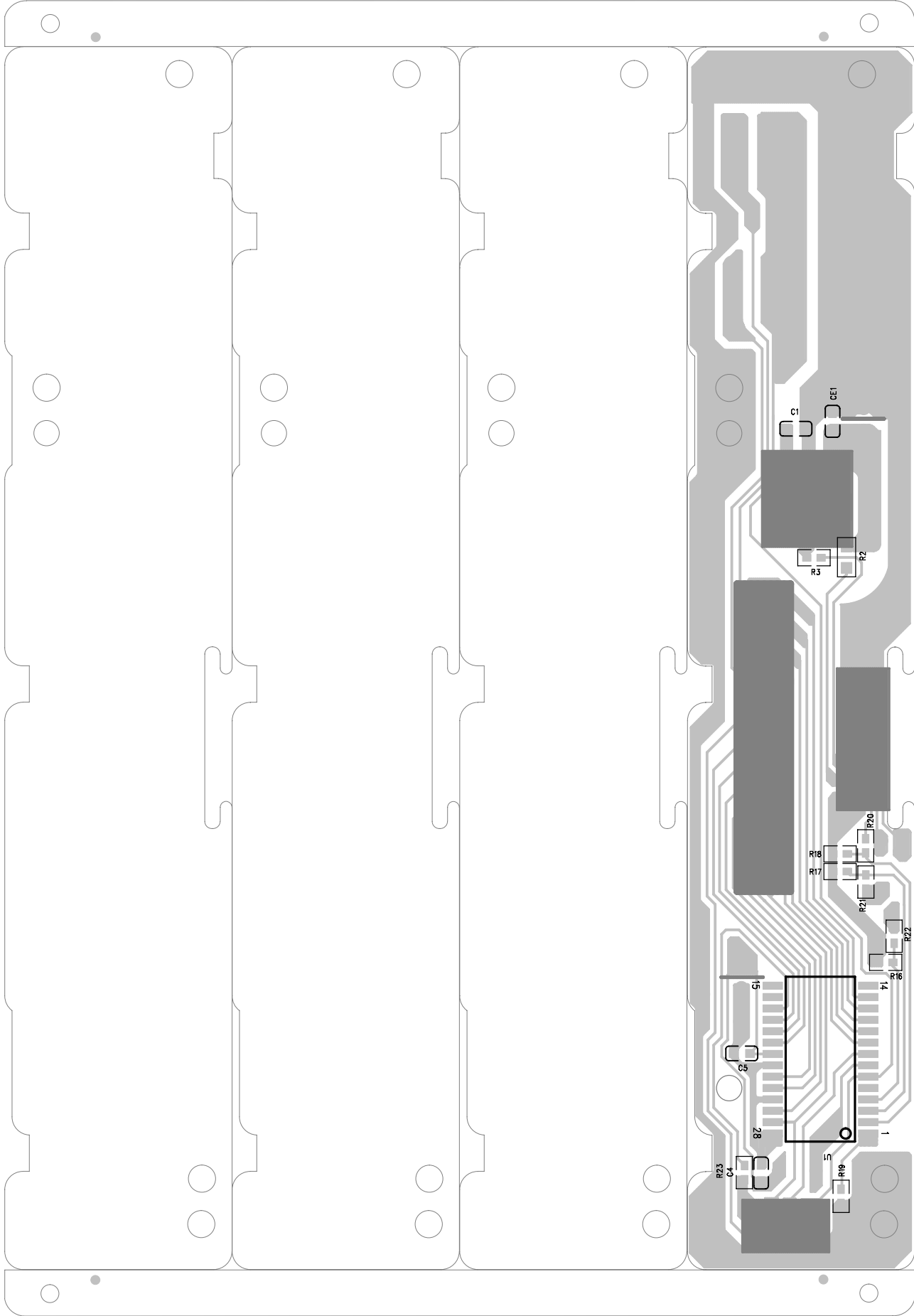
MAIN TOP PCB



85PK61010G
FR-4 T=1.6MM
2009.6.28 VER:1.2
DVP3336 MAIN BOARD

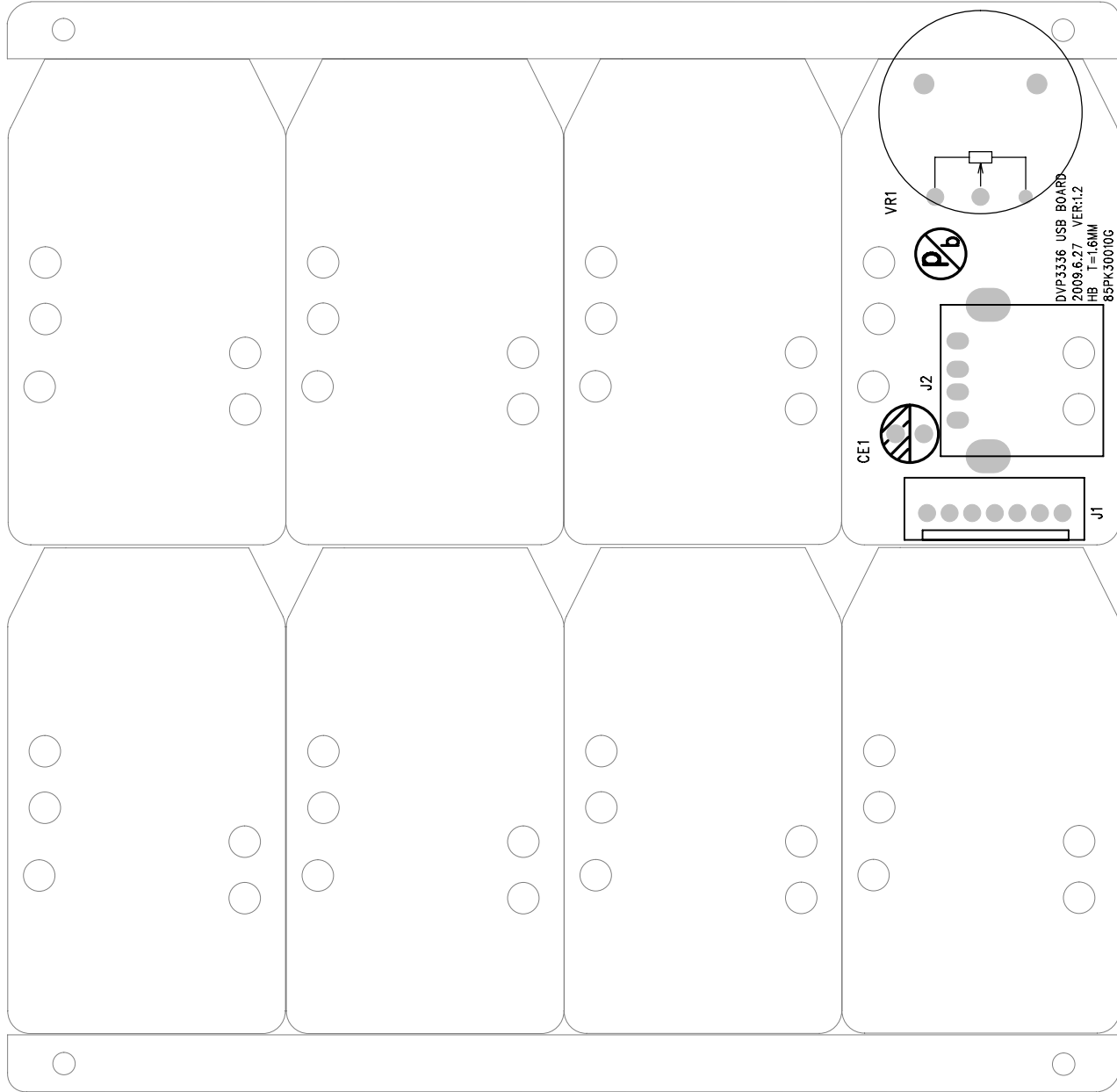
MAIN BOTTOM PCB



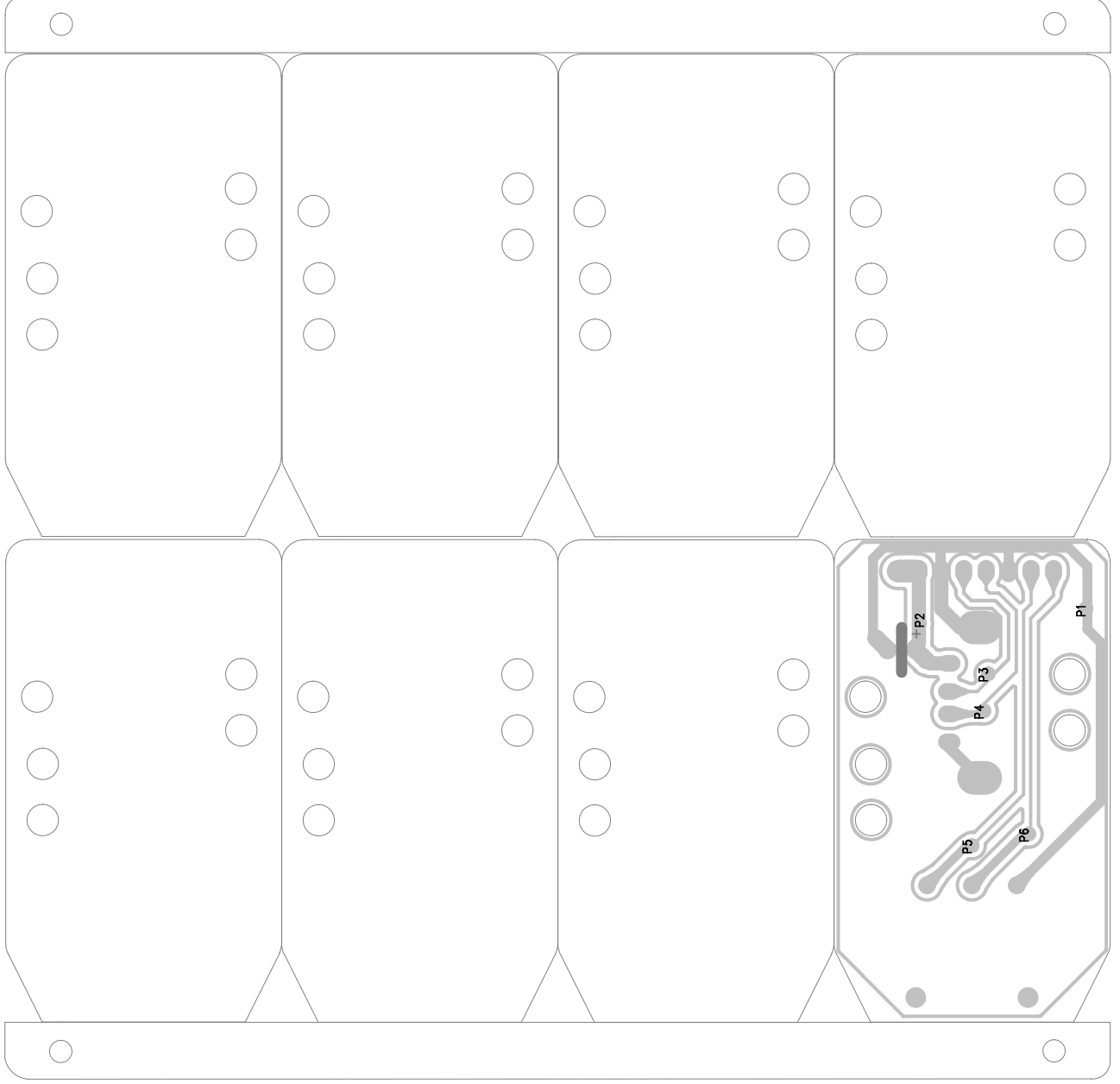


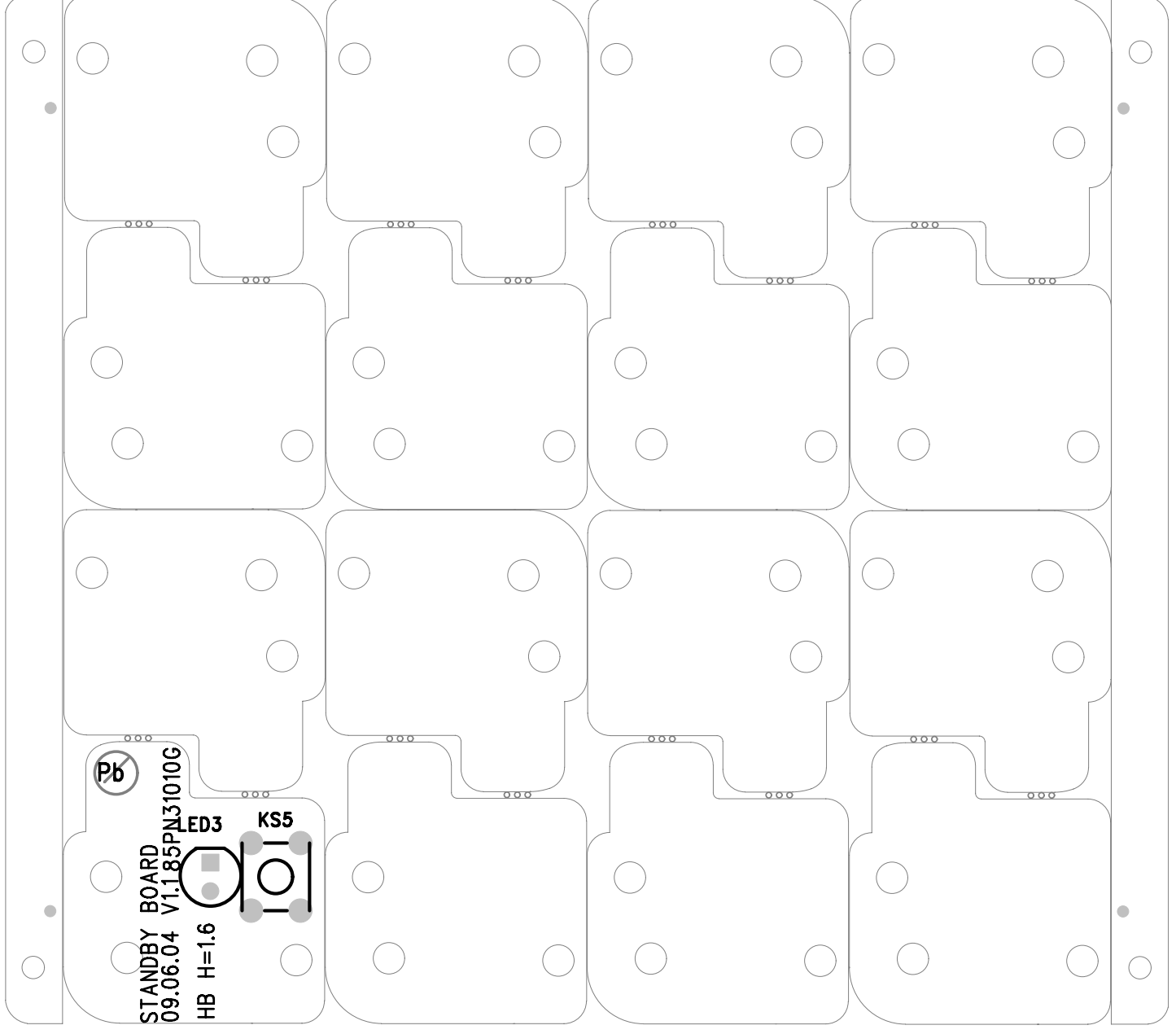
USB TOP PCB

7-13



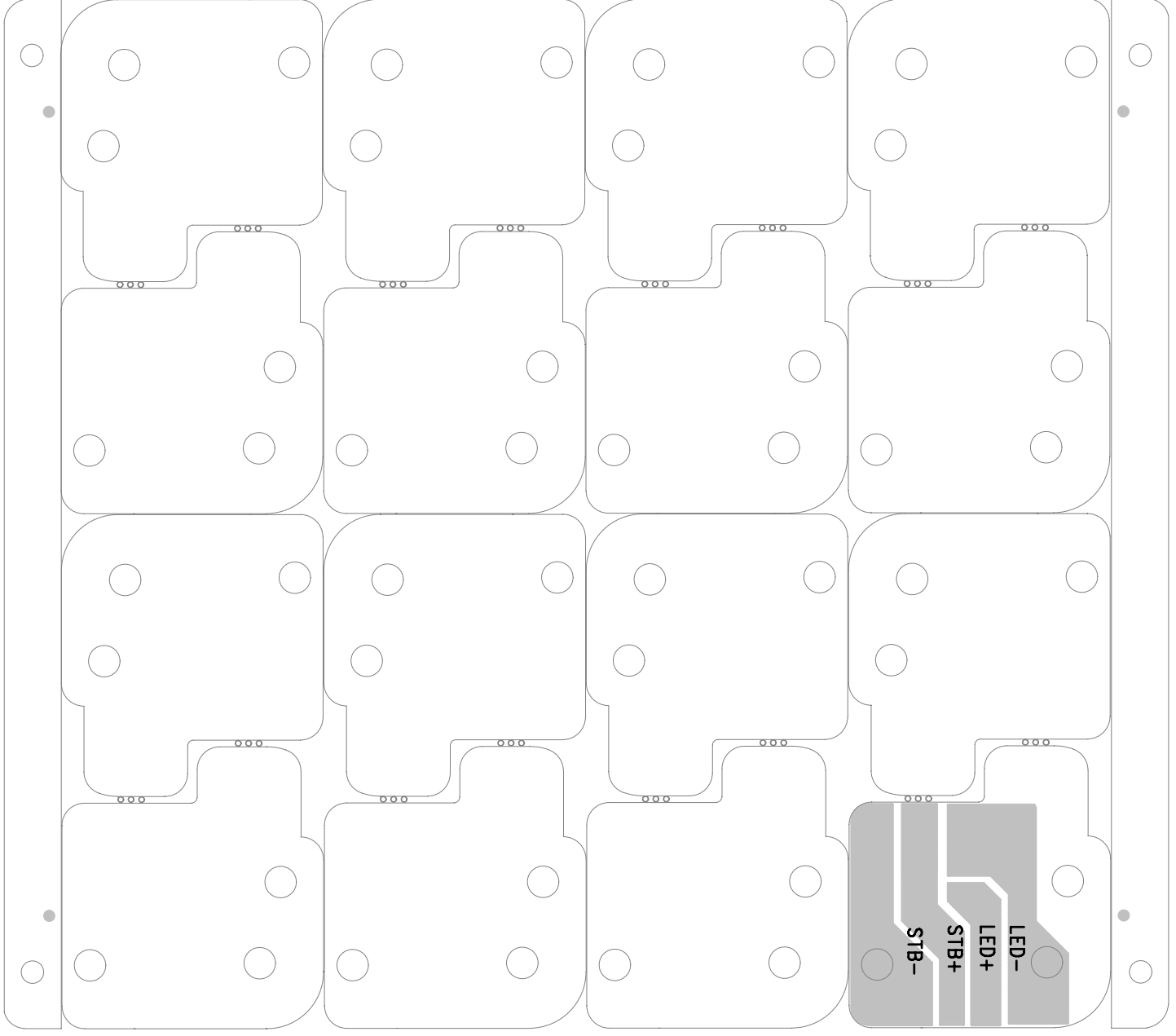
USB BOTTOM PCB



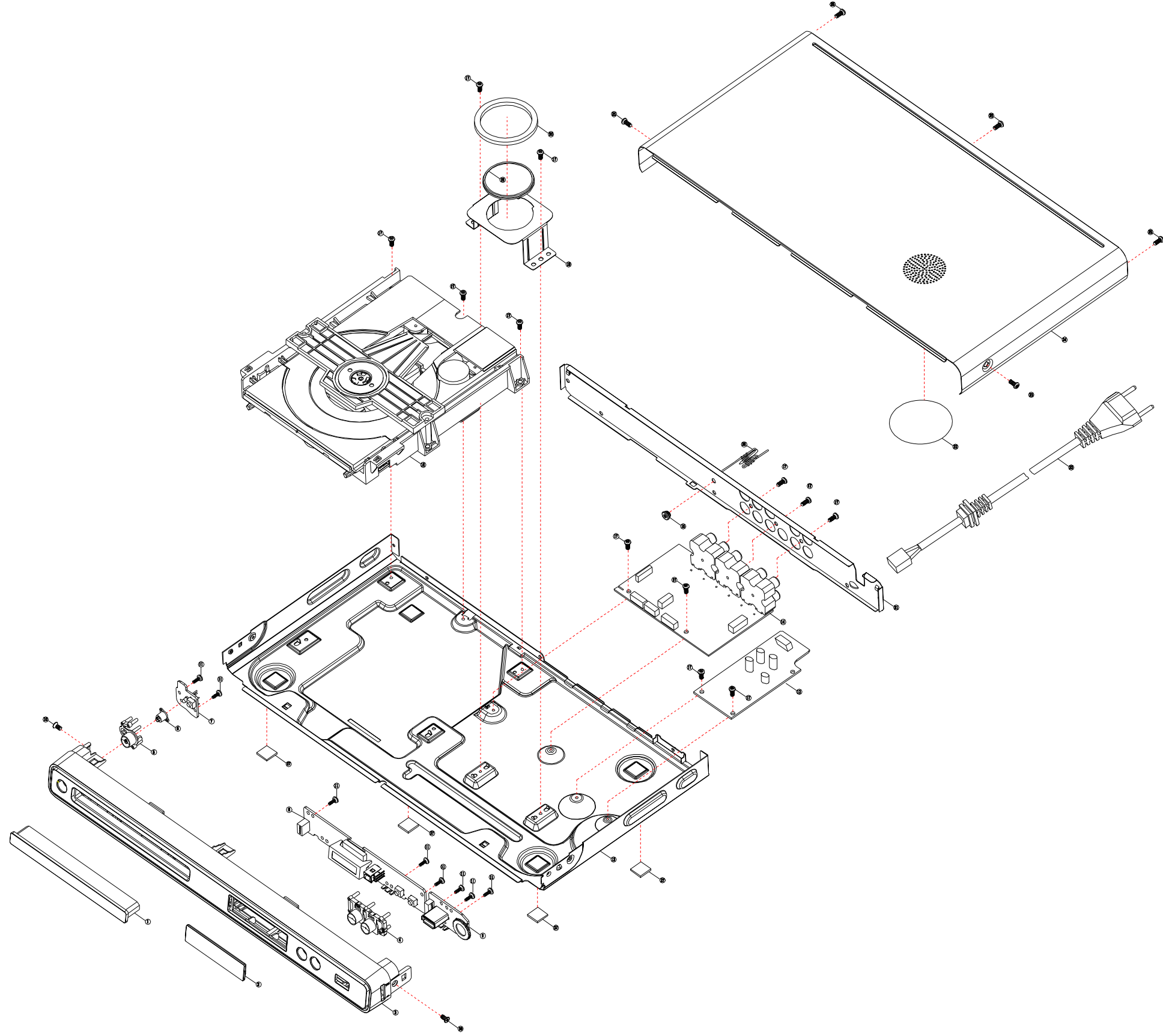


LED BOTTOM PCB

7-16



8.0 Exploded View Diagram



DVP3336/94 MAIN PCB PARTS LIST

No	12NC No.	Part Name	Qty
1	996510028058	DVD PCBA ASS'Y DVP3336	1
L32	996510028046	IC MT1389DE/LA LQFP128 CODEC	1
U2	996510028038	IC SI4702C19GM QFN20 RADIO	1
U10	996510028069	IC G1445RD1D TDFN3X38 AMP	1
U8	996510028064	IC SW5888 BTL DRIVE SW	1
U1,U6,U7,U9	996510028051	IC YD4558PIN XY	4
U3	996510028043	IC W9864G6XH6 64M SDRAM	1
U4	996510028054	IC EN25F16100HIP 16M FLASH	1
Q3,Q4,Q10,Q13	996510028047	TR STS8550D TO92 PNP	4
X1	996510028039	X'TAL 32.768KHZ +/-10PPM	1
Y1	996510028074	X'TAL 27.00MHZ +/-10PPM	1
Q6,Q7	996510028056	TR 2SK3018 SOT23	2
Q8,Q24	996510028041	MOS CES2307 SOT23 CET	2
Q1,Q2,Q5,Q9,Q14,Q15,Q17,Q18,Q19,Q21,Q20,Q25,Q613,Q616	996510028078	TR PMBT3904 SOT23 NPN	14
Q23,Q26,Q27,Q614,Q615	996510028086	TR PMBT3906 SOT23 PNP	5
D1	996510028055	DIODE BAT54C SOT23	1
JK1,JK3	996510028087	AV JACK AV48.47D1	2
JK2	996510028076	AV JACK AV38.47D	1
F1	996510028048	CHIP RESET FUSE 0.5A/6V LPNSM050 GP	1

DVP3336/94 USB PCB PARTS LIST

No	12NC No.	Part Name	Qty
2	996510028085	USB PCB ASS'Y DVD3336	1
VR1	996510028088	DIP VR B10K 18/2 (BLACK) HDS	1
J2	996510028079	DIP USB AF180°USB015 ZIYOU DA	1

DVP3336/94 STANDBY PCB PARTS LIST

No	12NC No.	Part Name	Qty
3	996510028049	STANDBY PCB ASS'Y DVD3320	1
KS5	996510028072	TACT SWITCH 6x6x5mm 180g JIXIN	1
LED3	996510028067	LED RED 1.8V D3 MASON	1

DVP3336/94 LED PCB PARTS LIST

No	12NC No.	Part Name	Qty
4	996510028068	LED DISPLAG PCBA ASS'Y DVP3320	1
U1	996510028075	SMD IC SM1628C SOP28 DRIVER SUNMOON	1
D1	996510028044	DISPLAY LED DT25801BG DL	1
R1	996510028082	DIP IR SENSOR 36KHZ IRM36C AAD	1
KS3,KS4	996510028072	TACT SWITCH 6x6x5mm 180g JIXIN	2

DVP3336/94 POWER PCB PART LIST

No	12NC No.	Part Name	Qty
5	996510028066	12W/2P OPEN FIXED 94VERSION PCBA	1

DVP3336/94 DECK PARTS LIST

No	12NC No.	Part Name	Qty
7	996510028053	DVD DECK CMS-S76R IM	1
6	996510028059	DVD LOADER WXD8829B ASA	1

DVP3336/94 ACCESSORIES PARTS LIST

No	12NC No.	Part Name	Qty
9	996510028063	FFC 24P/0.5MM 220MM(3/54/8) +/-OU	1
12	996510028052	R/C CD31A006 BLACK C&D DVP3336/94	1
14	996510028081	AC CORD VDE 94FIXED 1.3M HO3VVH2F	1
15	996510028065	AV CORD RCA/M*3/1.3M BOTH ENDS YI	1
17	996510028045	SPEAKER 8 OHM 0.7W Ø40 SHUNJIA	1

DVP3336/94 MECHANICAL PARTS LIST

No	12NC No.	Part Name	Qty2
12	996510028073	DVD DOOR HIPS GREY	1
23	996510028062	FRONT CASE HIPS DARK GRE	1
25	99651002806	BUTTON POWER LENS	1
24	996510028083	BUTTON BLACK	1
26	996510028071	OPEN BUTTON BLACK	1
27	996510028042	LENS DISPLAY PPMA BLACK	1

MAIN PCB PARTS LIST

No	12NC No.	Part Name	Qty
14	996510028058	DVD PCBA ASS'Y DVP3336	1
L32	996510028046	IC MT1389DE/LA LQFP128 CODEC	1
U2	996510028038	IC SI4702C19GM QFN20 RADIO	1
U10	996510028069	IC G1445RD1D TDFN3X38 AMP	1
U8	996510028064	IC SW5888 BTL DRIVE SW	1
U1,U6,U7,U9	996510028051	IC YD4558PIN XY	4
U3	996510028043	IC W9864G6XH6 64M SDRAM	1
U4	996510028054	IC EN25F16100HIP 16M FLASH	1
Q3,Q4,Q10,Q13	996510028047	TR STS8550D TO92 PNP	4
X1	996510028039	X'TAL 32.768KHZ +/-10PPM	1
Y1	996510028074	X'TAL 27.00MHZ +/-10PPM	1
Q6,Q7	996510028056	TR 2SK3018 SOT23	2
Q8,Q24	996510028041	MOS CES2307 SOT23 CET	2
Q1,Q2,Q5,Q9,Q14, Q15,Q17,Q18,Q19, Q21,Q20,Q25,Q613, Q616	996510028078	TR PMBT3904 SOT23 NPN	14
Q23,Q26,Q27,Q614, Q615	996510028086	TR PMBT3906 SOT23 PNP	5
D1	996510028055	DIODE BAT54C SOT23	1
JK1,JK3	996510028087	AV JACK AV48.47D1	2
JK2	996510028076	AV JACK AV38.47D	1
F1	996510028048	CHIP RESET FUSE 0.5A/6V LPNSM050 GP	1

USB PCB PARTS LIST

No	12NC No.	Part Name	Qty
9	996510028085	USB PCB ASS'Y DVD3336	1
VR1	996510028088	DIP VR B10K 18/2 (BLACK) HDS	1
J2	996510028079	DIP USB AF180°USB015 ZIYOU DA	1

STANDBY PCB PARTS LIST

No	12NC No.	Part Name	Qty
7	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	Qty
8	996510028068	LED DISPLAG PCBA ASS'Y DVP3320	1
U1	996510028075	SMD IC SM1628C SOP28 DRIVER SUNMOON	1
D1	996510028044	DISPLAY LED DT25801BG DL	1
R1	996510028082	DIP IR SENSOR 36KHZ IRM36C AAD	1
KS3,KS4	996510028072	TACT SWITCH 6x6x5mm 180g JIXIN	2

POWER PCB PART LIST

No	12NC No.	Part Name	Qty
13	996510028066	12W/2P OPEN FIXED 94VERSION PCBA	1

DECK PARTS LIST

No	12NC No.	Part Name	Qty
6	996510028053	DVD DECK CMS-S76R IM	1
16	996510028059	DVD LOADER WXD8829B ASA	1

ACCESSORIES PARTS LIST

No	12NC No.	Part Name	Qty
40	996510028063	FFC 24P/0.5MM 220MM(3/54/8) +/-OU	1
RC	996510028052	R/C CD31A006 BLACK C&D DVP3336/94	1
CARAPT	996510028081	AC CORD VDE 94FIXED 1.3M HO3VVH2F	1
AVCABLE	996510028065	AV CORD RCA/M*3/1.3M BOTH ENDS YI	1
19	996510028045	SPEAKER 8 OHM 0.7W Φ40 SHUNJIA	1

MECHANICAL PARTS LIST

No	12NC No.	Part Name	Qty
1	996510028073	DVD DOOR HIPS GREY	1
3	996510028062	FRONT CASE HIPS DARK GRE	1
6	996510028061	BUTTON POWER LENS	1
5	996510028083	BUTTON BLACK	1
4	996510028071	OPEN BUTTON BLACK	1
2	996510028042	LENS DISPLAY PPMA BLACK	1