

DVD Player

DVP3126(K), DVP3146(K), DVP3148K

Service

DVP3126/94/96/98/51, DVP3126X/94

DVP3126K/56/93/96/98/61/51

Service

DVP3146/94, DVP3146X/94

DVP3146K/93/96/98

Service

DVP3148K/51



Service Manual

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Published by TCL-ET 0735 Service Audio Printed in The Netherlands Subject to modification

Version 1.2



GB

3139 785 32882

PHILIPS

Technical Specifications

TV standard (PAL/50Hz) (NTSC/60Hz)

Number of lines	625	525
Playback	Multi standard	(PAL/NTSC)

Video performance

Video DAC	12 bit, 108MHz
YPbPr	0.7Vpp ---- 75 ohm
Video output	1Vpp ----- 75 ohm

Video format

Digital Compression	MPEG 2 for DVD,SVCD MPEG 1 for VCD DivX® (For DVP3146/94,DVP3146K/98)
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DVD	50Hz	60Hz
Horiz. resolution	720 pixels	720 pixels
Vertical resolution	576lines	480 lines

VCD	50Hz	60Hz
Horiz. resolution	352 pixels	352 pixels
Vertical resolution	288lines	240 lines

Audio format

Digital	MPEG/AC-3/ PCM	Compressed Digital 16, 20, 24bits fs, 44.1, 48, 96kHz MP3(ISO 9660) 96,112,128,256,320kbps & variable bit rate fs,32, 44.1,48 kHz
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Analogue Sound Stereo

Dolby surround compatible downmix from Dolby Digital multi-channel sound

Audio performance

DA converter	24bits, 192KHz	
DVD	fs 96kHz	4Hz----44kHz
	fs 48kHz	4Hz----22kHz
SVCD	fs 48kHz	4Hz----22kHz
	fs 44.1kHz	4Hz----20kHz
CD/ VCD	fs 44.1kHz	4Hz----20kHz
Signal-Noise (1kHz)	>90dB	
Dynamic Range (1kHz)	>80dB	
Cross talk (1kHz)	>70dB	
Distortion/Noise (1kHz)	>65dB	
MPEG MP3	MPEG Audio L3	

6 Channal analog ouput

Audio Front L/R	Cinch(White/Red)
Audio Rear L/R	Cinch(White/Red)
Audio Center	Cinch(Blue)
Audio Subwoofer	Cinch(Black)

Connections

YPbPr output	Cinch 3x
Video output	Cinch(yellow)
Audio output (L+R)	Cinch (white/red)
Digital output	1 coaxial IEC60958 for CDDA/ LPCM IEC61937 for MPEG1/2, Dolby Digital

Cabinet

Dimensions (w X h X d)	360 x 37 x 209 mm /360 x 38 x 209 mm
Weight	Approximately 1.35kg

Power consumption

Power supply Rating	110V -240V; 50/60HZ
Power consumption	<10W
Power consumption in standby mode	<1W


Specifications subject to change without prior notice.

Safety instruction, Warning & Notes

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.

Warning

1. General

. All ICs and many other semiconductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically. Make sure that, during repair, you are at the same potential as the mass of the set by a wristband with resistance. Keep components and tools at this same potential. Available ESD protection equipment:

- 1) Complete kit ESD3 (small tablemat, wristband, connection box, extension cable and earth cable) 4822 310 10671.
- 2) Wristband tester 4822 344 13999.

. Be careful during measurements in the live voltage section. The primary side of the power supply, including the heat sink, carries live mains voltage when you connect the player to the mains (even when the player is "off!"). It is possible to touch copper tracks and/or components in this unshielded primary area, when you service the player. Service personnel must take precautions to prevent touching this area or components in this area. A "lighting stroke" and a stripe-marked printing on the printed wiring board, indicate the primary side of the power supply.

. Never replace modules, or components, while the unit is "on".

2. Laser

- . The use of optical instruments with this product, will increase eye hazard.
- . Only qualified service personnel may remove the cover or attempt to service this device, due to possible eye injury.
- . Repair handling should take place as much as possible with a disc loaded inside the player.
- . Text below is placed inside the unit, on the laser cover shield:


CAUTION: VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN, AVOID EXPOSURE TO BEAM.

Notes: Manufactured under licence from Dolby Laboratories. The double-D symbol is trademarks of Dolby Laboratories, Inc. All rights reserved.

Notes

Lead-Free requirement for service

IDENTIFICATION:

Regardless of special logo (not always indicated) 

One must treat all sets from 1.1.2005 onwards, according next rules.

Important note: In fact also products a little older can also be treated in this way as long as you avoid mixing solder-alloys (leaded/ lead-free). So best to always use SAC305 and the higher temperatures belong to this.

Due to lead-free technology some rules have to be respected by the workshop during a repair:

- Use only lead-free solder alloy Philips SAC305 with order code 0622 149 00106. If lead-free solder-paste is required, please contact the manufacturer of your solder-equipment. In general use of solder-paste within workshops should be avoided because paste is not easy to store and to handle.
- Use only adequate solder tools applicable for lead-free solder alloy. The solder tool must be able
 - To reach at least a solder-temperature of 400°C,
 - To stabilize the adjusted temperature at the solder-tip
 - To exchange solder-tips for different applications.
- Adjust your solder tool so that a temperature around 360°C – 380°C is reached and stabilized at the solder joint. Heating-time of the solder-joint should not exceed ~ 4 sec. Avoid temperatures above 400°C otherwise wear-out of tips will rise drastically and flux-fluid will be destroyed. To avoid wear-out of tips switch off un-used equipment, or reduce heat.
- Mix of lead-free solder alloy / parts with leaded solder alloy / parts is possible but PHILIPS recommends strongly to avoid mixed solder alloy types (leaded and lead-free). If one cannot avoid, clean carefully the solder-joint from old solder alloy and re-solder with new solder alloy (SAC305).

- Use only original spare-parts listed in the Service-Manuals. Not listed standard-material (commodities) has to be purchased at external companies.
- Special information for BGA-ICs:
 - always use the 12nc-recognizable soldering temperature profile of the specific BGA (for de-soldering always use highest lead-free temperature profile, in case of doubt)
 - lead free BGA-ICs will be delivered in so-called 'dry-packaging' (sealed pack including a silica gel pack) to protect the IC against moisture. After opening, dependent of MSL-level seen on indicator-label in the bag, the BGA-IC possibly still has to be baked dry. This will be communicated via AYS-website.
Do not re-use BGAs at all.
- For sets produced before 1.1.2005, containing leaded soldering-tin and components, all needed spare-parts will be available till the end of the service-period. For repair of such sets nothing changes.
- On our website:
www.atyourservice.ce.Philips.com

You find more information to:

BGA-de-/soldering (+ baking instructions)
Heating-profiles of BGAs and other ICs used in Philips-sets

You will find this and more technical information within the "magazine", chapter "workshop news".

For additional questions please contact your local repair-helpdesk.

Mechanical and Dismantling Instructions

Dismantling Instruction

The following guideline is a general instruction for how to dismantle the player, Detailed operation done according the set unit.

Step1: Remove 5 screws around the Top Cover, then remove the Top Cover (Figure 1).



Figure 1

Step2: If it is necessary to dismantle Loader or Front Panel, It should be remove the Front door assembly first. (Figure 2)

Note: Make sure to operate gently otherwise the guider would be damaged.

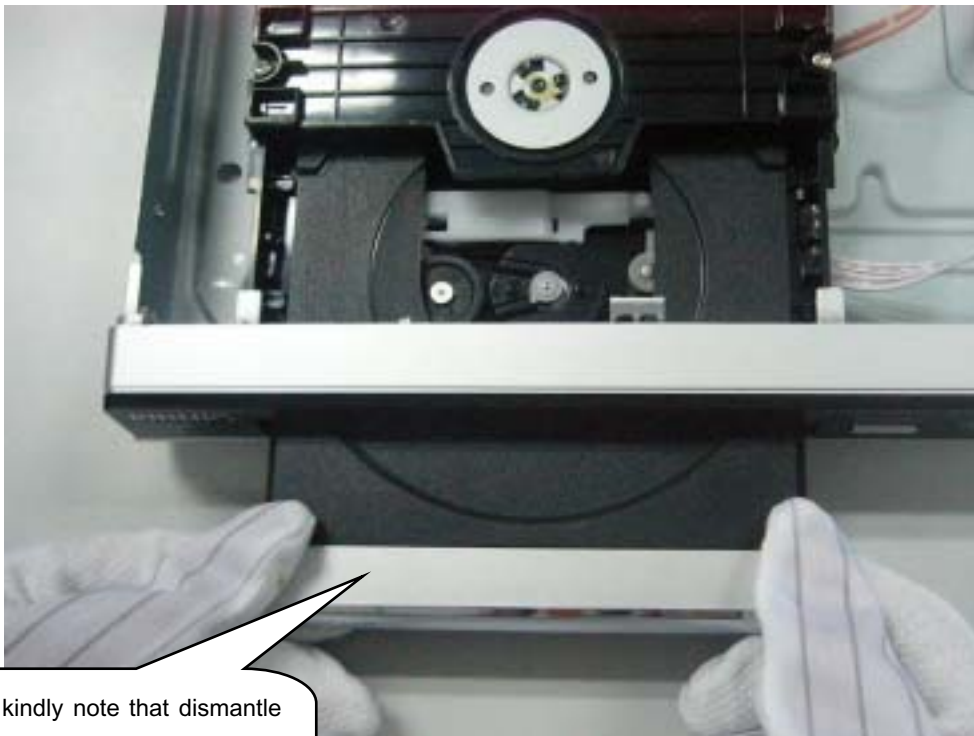


Figure 2

Please kindly note that dismantle the front door assembly carefully to avoid damage tray and the front door assembly.

Mechanical and Dismantling Instructions

Dismantling Instruction

Step3: If the tray can't open in normal way, you can make it through the instruction as below (Figure 3).
Note: Make sure to operate gently otherwise the guider would be damaged.



Figure 3

Step4: Dismantling Loader, disconnect the 3 connectors aiming in the below figure, and remove 1 screw around the Loader. (Figure 4)

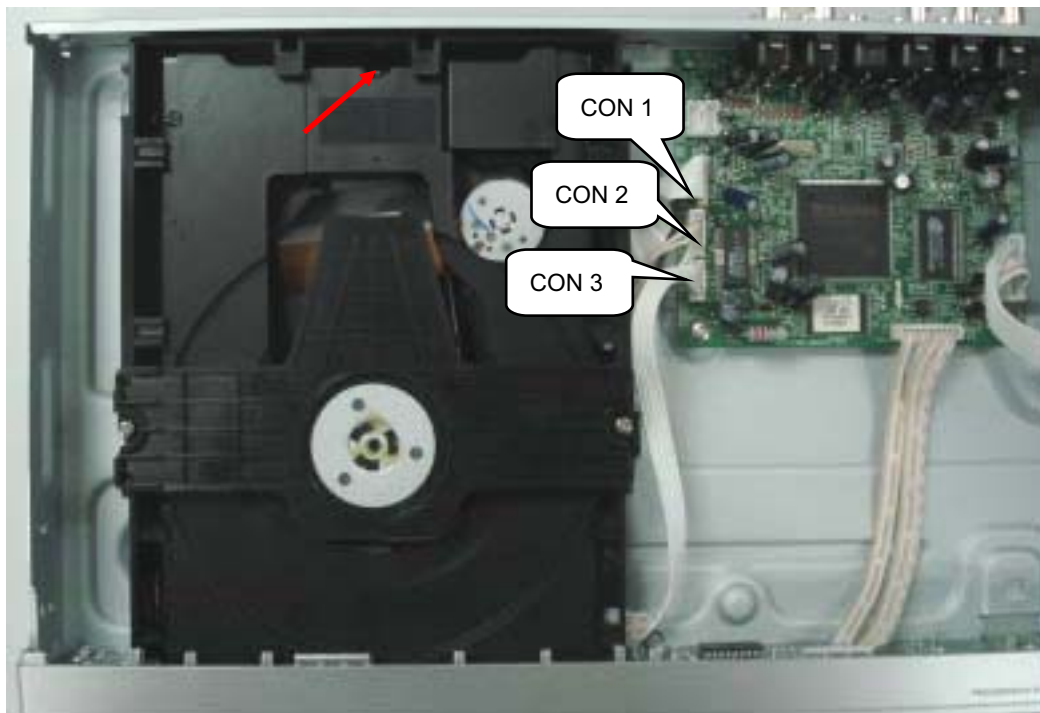


Figure 4

Mechanical and Dismantling Instructions

Dismantling Instruction

Step5: Dismantling Front Panel, disconnect the 1 connector, then release the snaps on the both sides of Front Panel and bottom cabinet , then gently pull the Panel out from the set. (Figure 5 & 6 & 7)

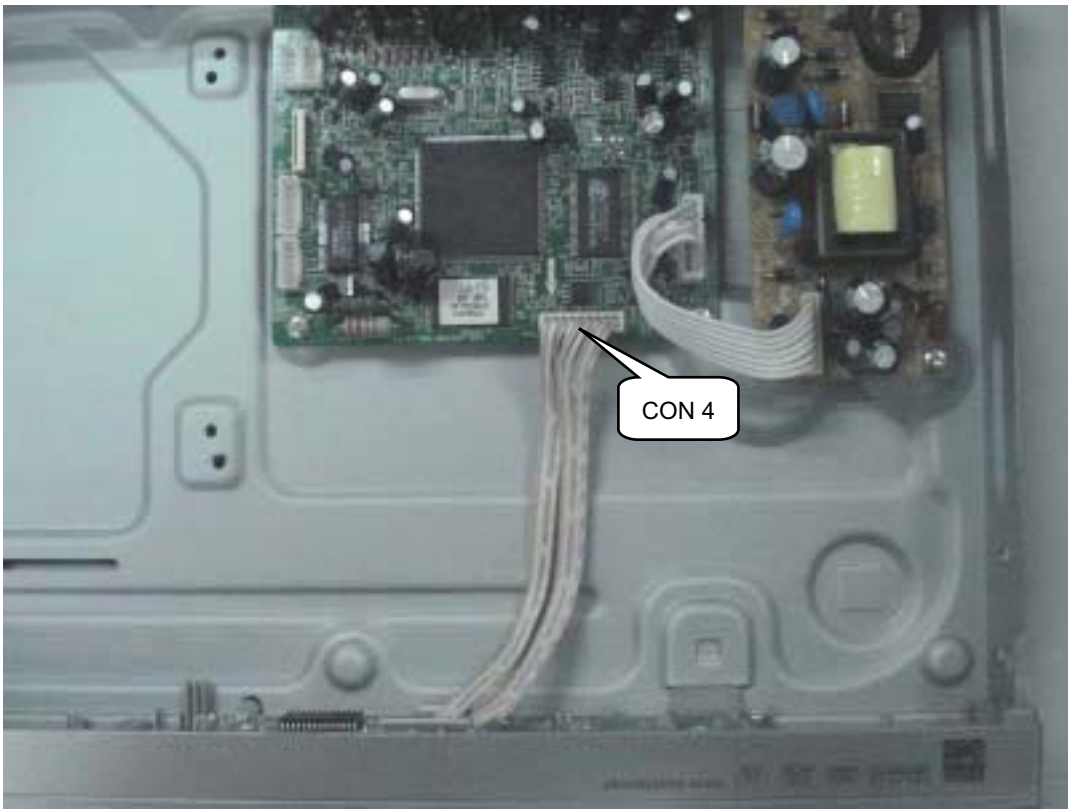


Figure 5

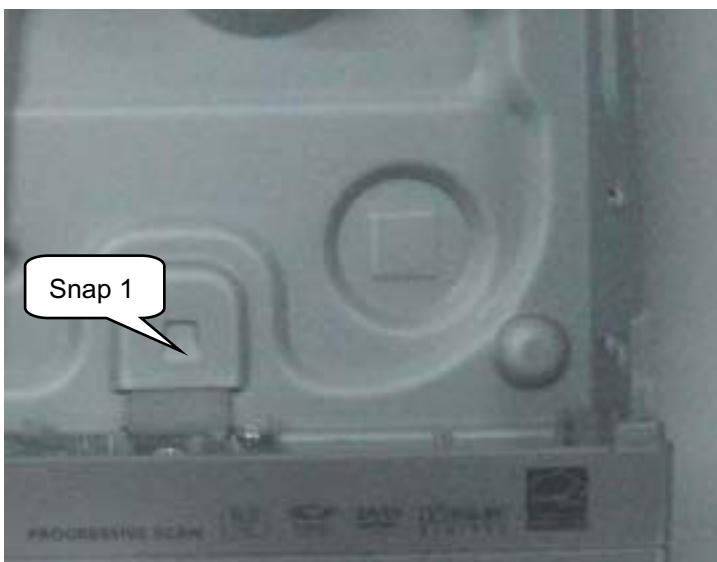


Figure 6

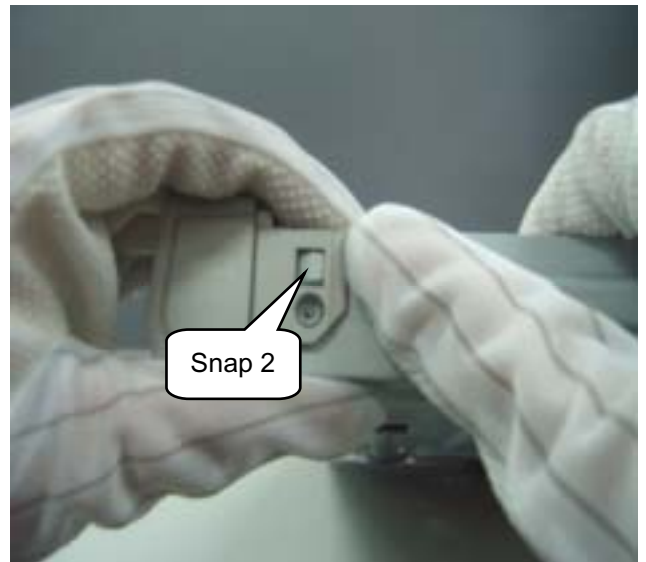


Figure 7

Mechanical and Dismantling Instructions

Dismantling Instruction

Step6: Dismantling Main Board, first disconnect the 1 connector, then remove 4 screws to remove the Main board. (Figure 8)

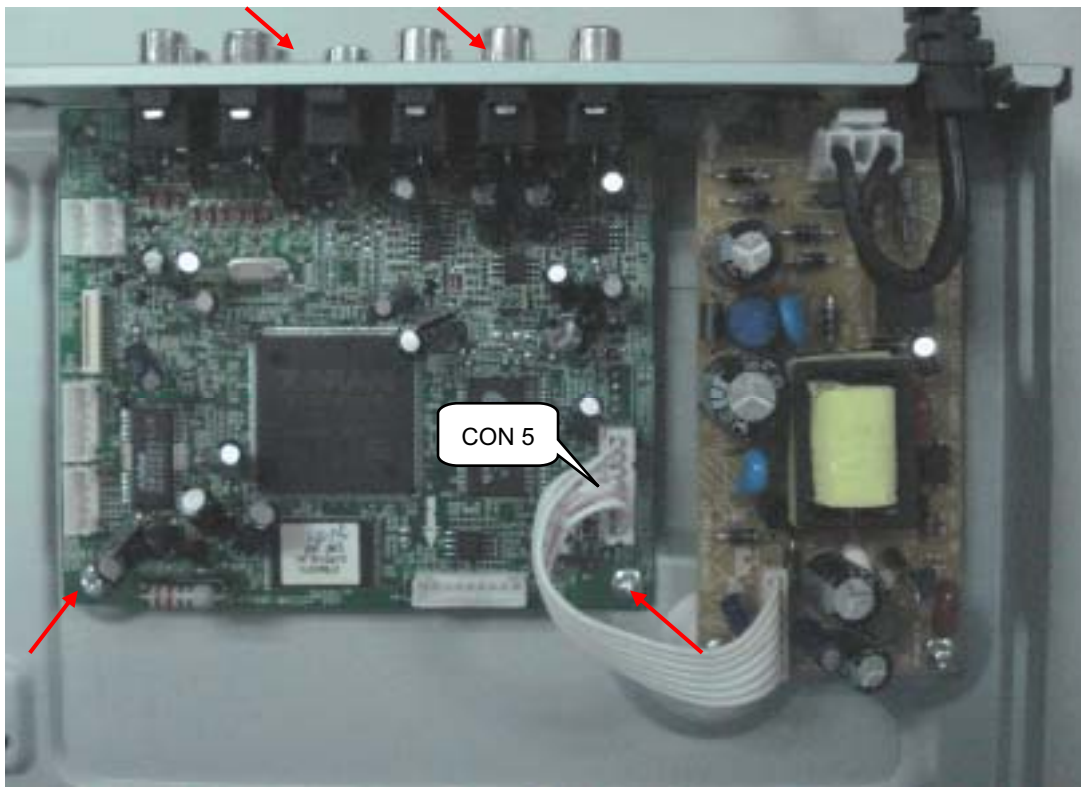


Figure 8

Step7: Remove the 2 screws on Power Board to dismantle the Power Board. (Figure 9)



Figure 9

Software upgrade

Preparation to upgrade software

- 1) Start the CD Burning software and create a new CD project (Data Disc) with the following setting:
Label: DVP3XXX (No need the label name)

Note: It is required capital letter for the File System name, and it no need have the File name during start the CD burning software for Zoran project.

- 2) Burn the data onto a blank CDR

A. Procedure for software upgrade:

- 1) Power on the set and insert the prepared Upgrade CDR.
- 2) The set will starts reading disc & response with the following display TV screen:

Loading

 Firmware Upgrade Erase and program.

Start
Cancel

 Select Start to start upgrade.
- 3) Press <OK> button to confirm, then screen will display :
Firmware Upgrade Programming, Please Wait...
Do not Switch the Player Off !
- 4) The upgraded disc will automatically out when files coping complete, then take out the disc.
- 5) About 1 minute later, the tray will automatically close when upgrading complete.

B. Read out the software versions to confirm upgrading

- 1) Power on e set and Open the tray door.
- 2) Press <9><6><6>button to check the software information.

The software version and other information are display on the TV screen as follows:

BE Version: DVP3XXXXX_XX.XX

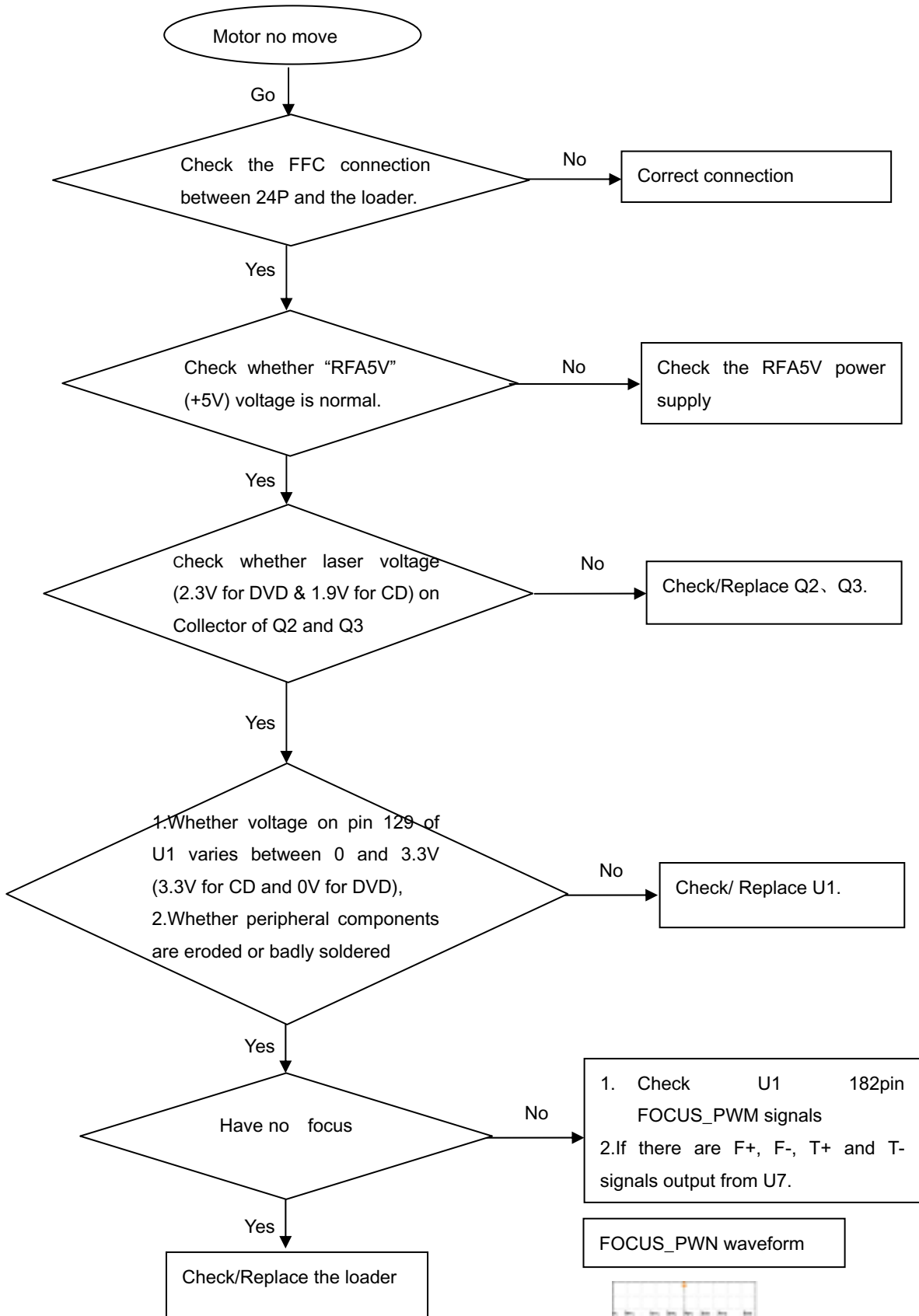
FE Version: DCX.XXXXXX.XX.XX

DSP Version: DSP.XX

Region Code: X

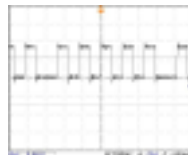
Caution: The set must not be power off during upgrading, Otherwise the Main board will be damaged entirely.

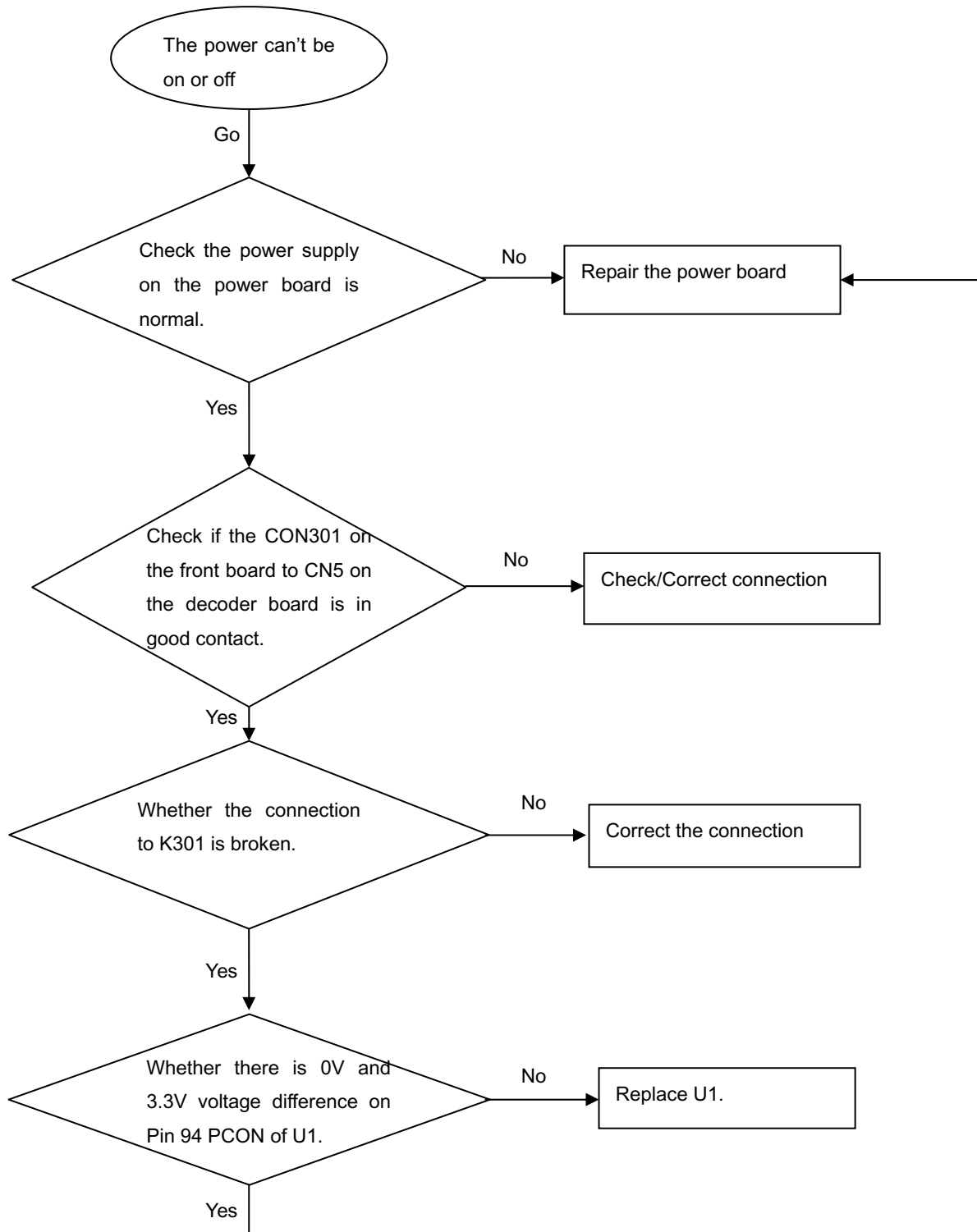
Spindle motor does not move



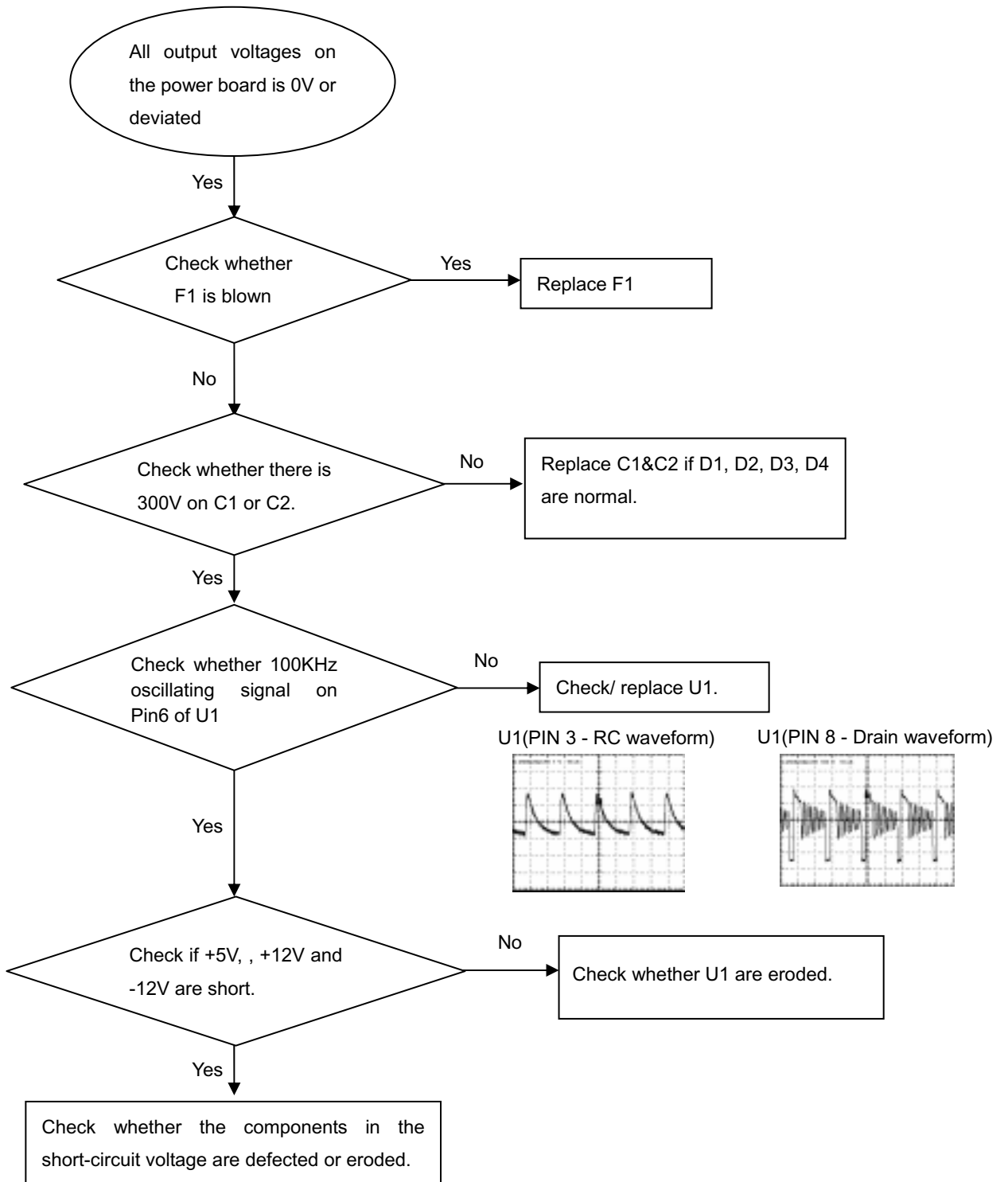
1. Check U1 182pin FOCUS_PWM signals
2.If there are F+, F-, T+ and T- signals output from U7.

FOCUS_PWN waveform

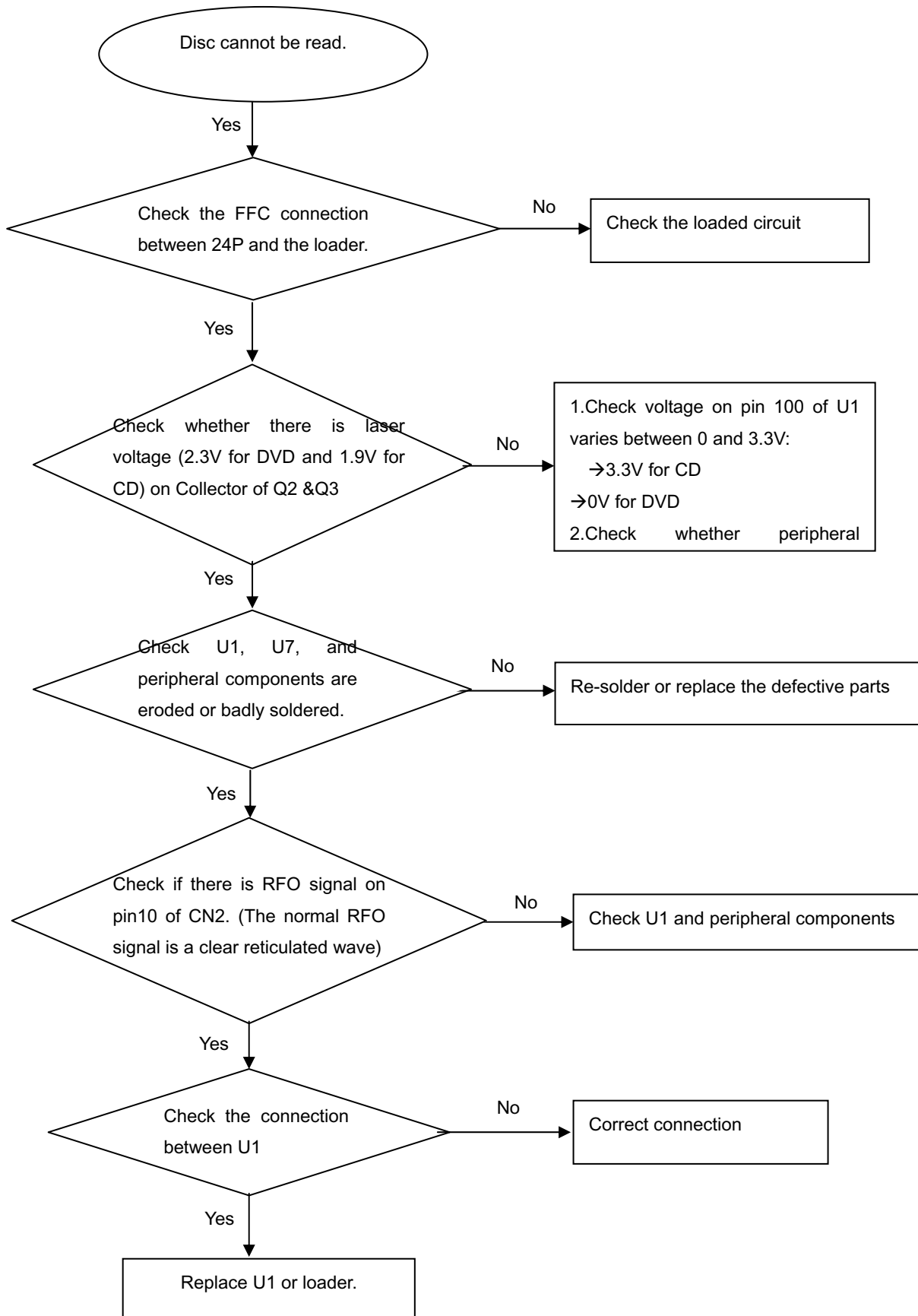


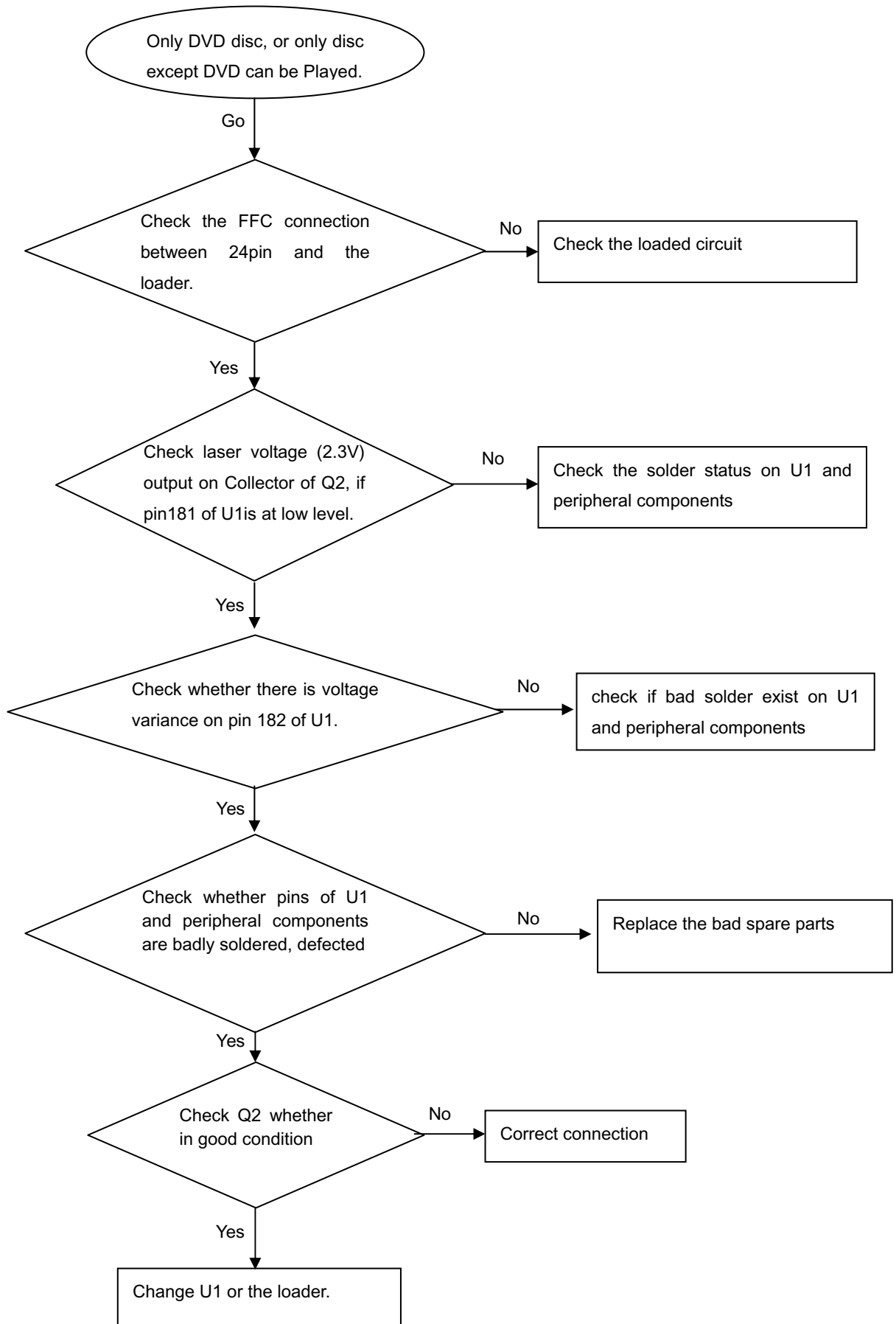
The power can not be on or off

All output voltages on the power board is 0V or deviated.

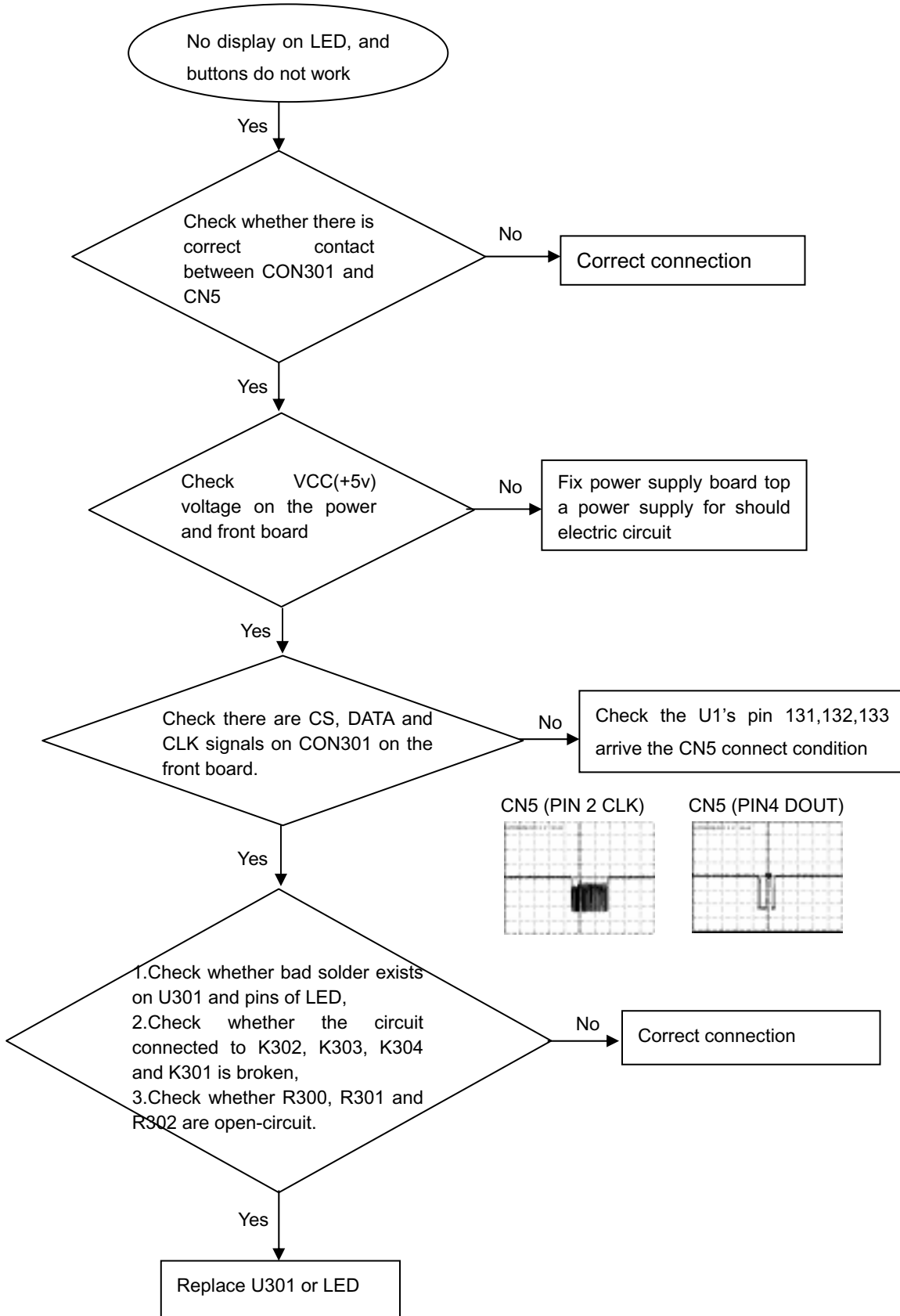


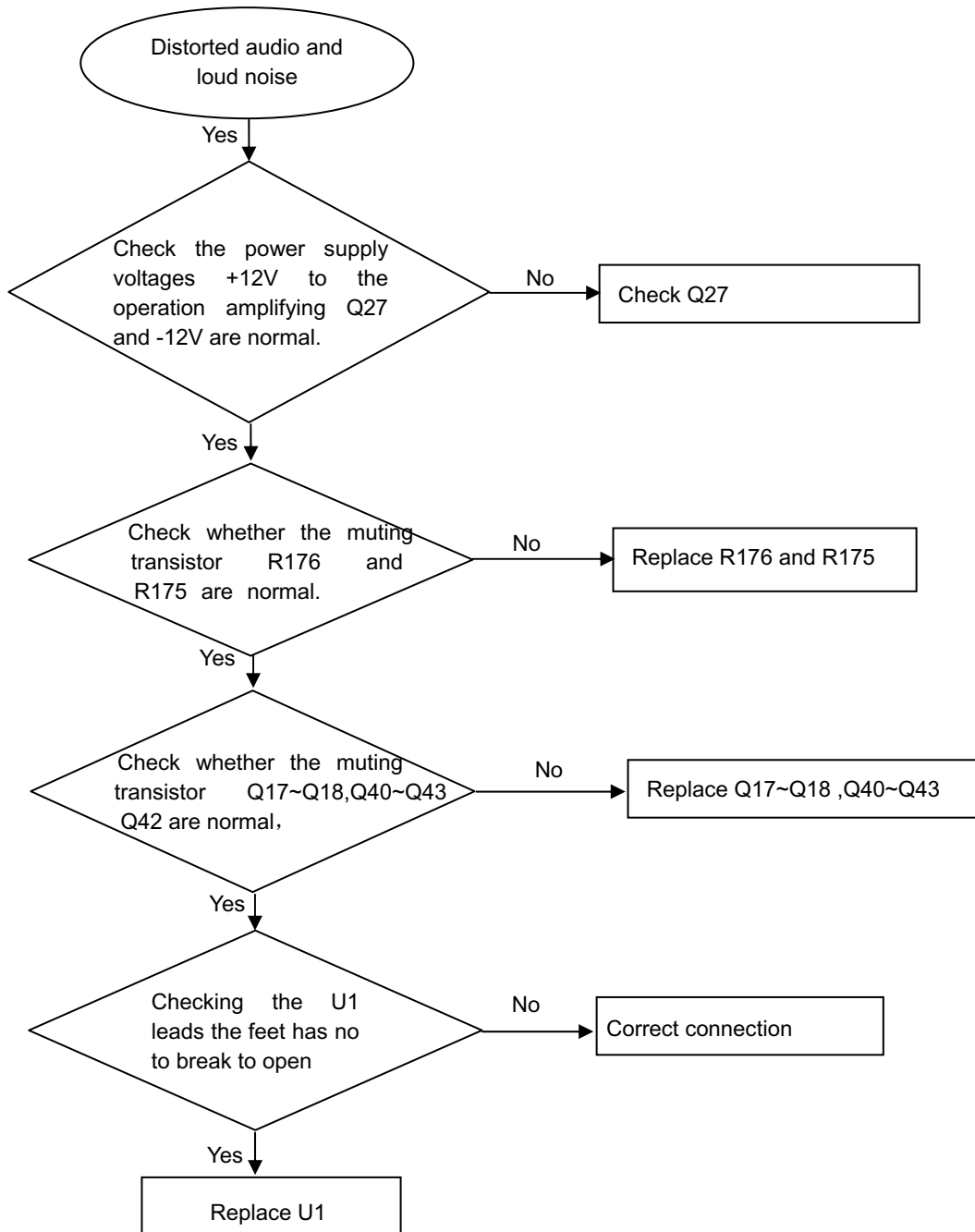
Disc cannot be read.

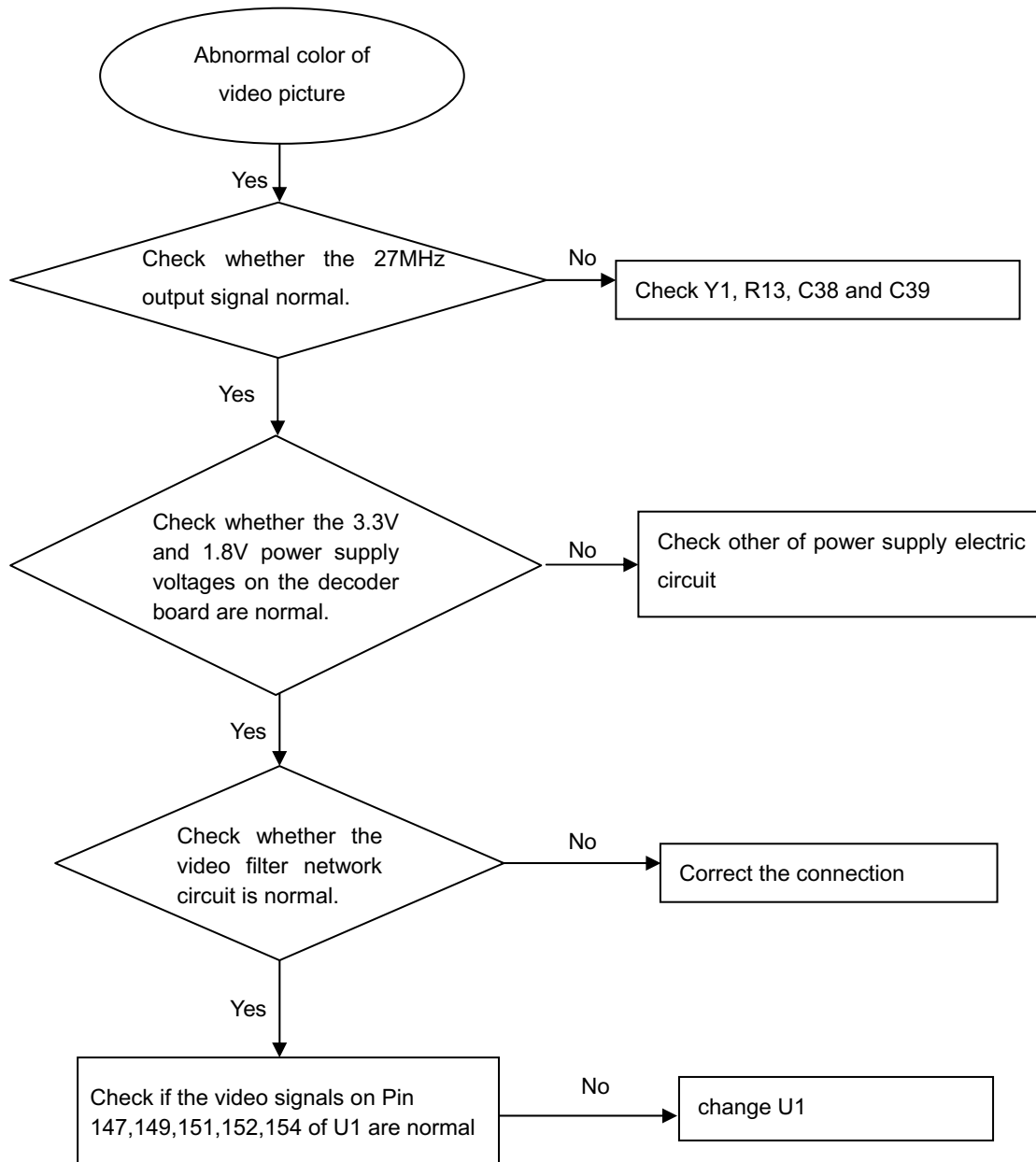


Only DVD disc or only disc except DVD can be played

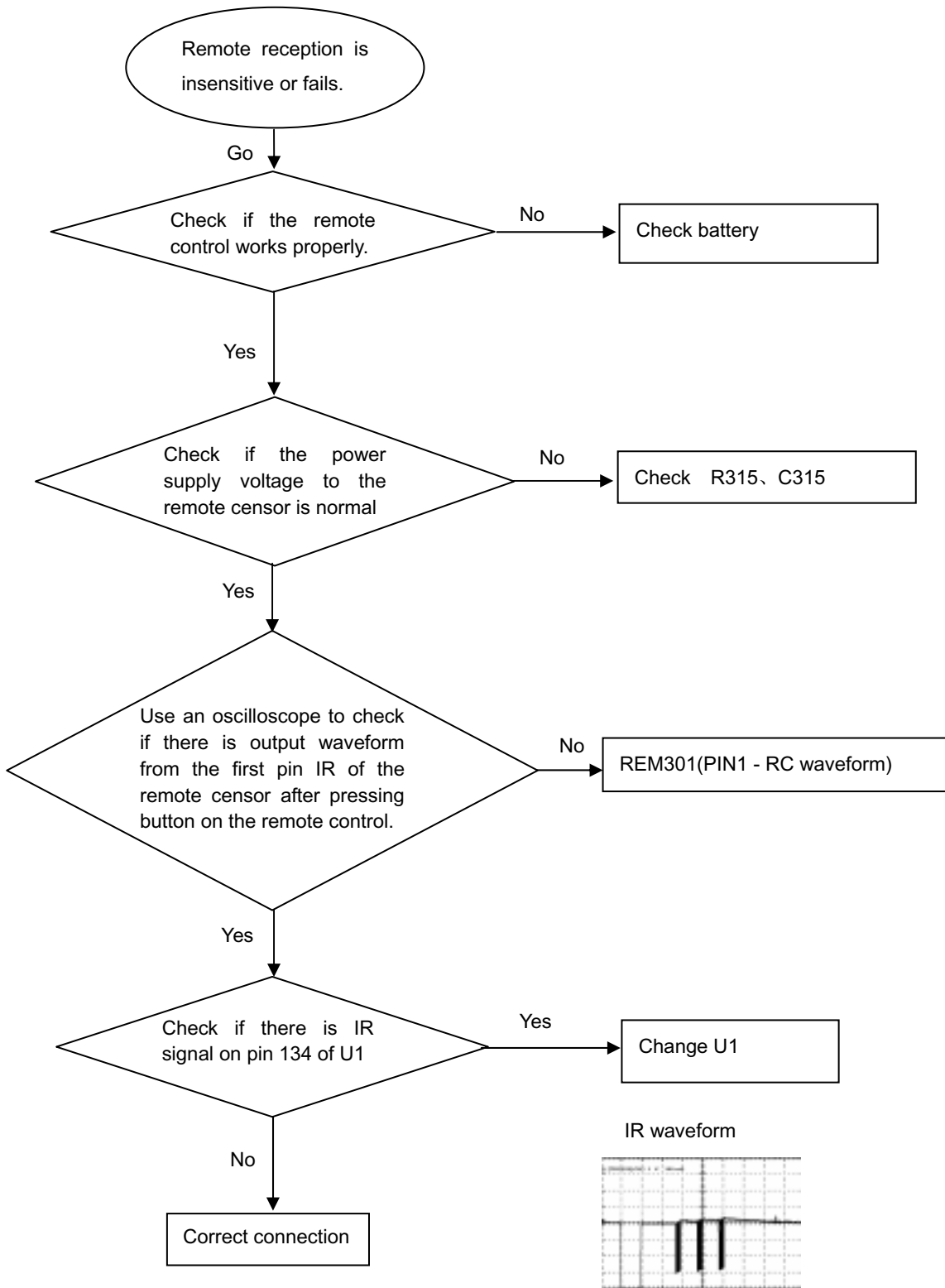
No display on LED, and buttons do not work



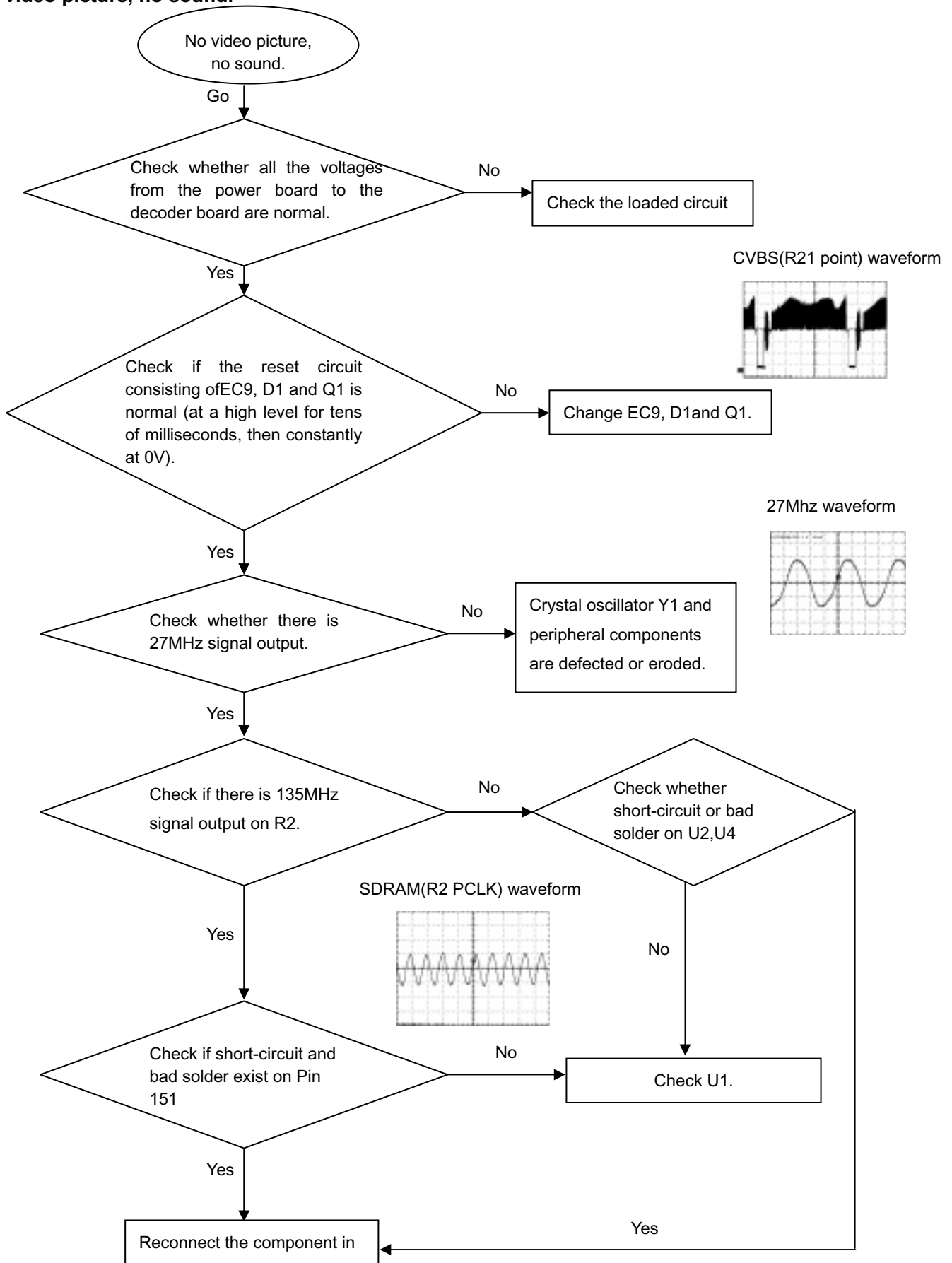
Distorted audio and loud noise

Abnormal color of video picture

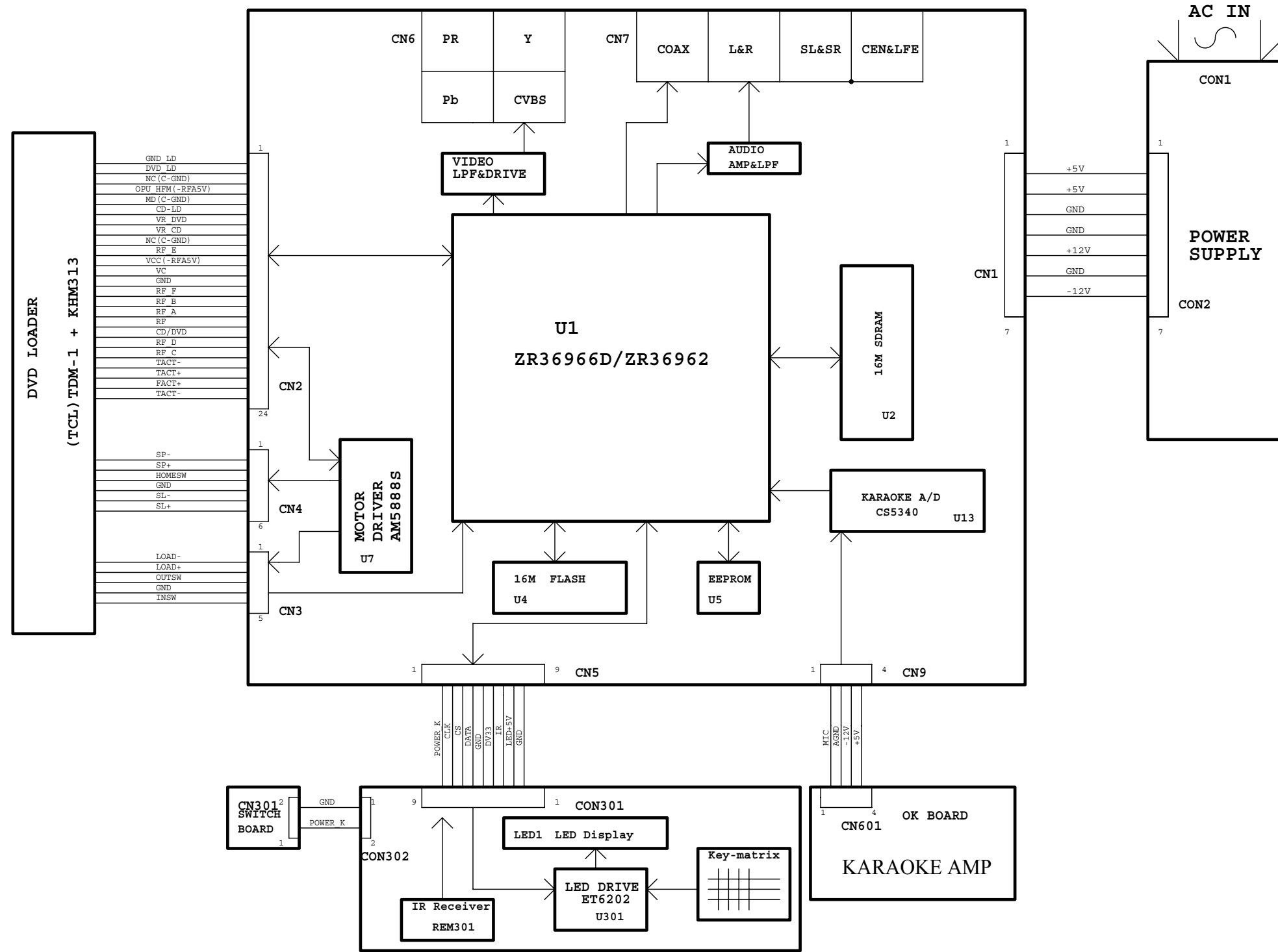
Remote reception is insensitive or fails.



No video picture, no sound.



DVP3126 (K) /XX, DVP3146 (K) /XX, DVP3148K/XX WIRING DIAGRAM

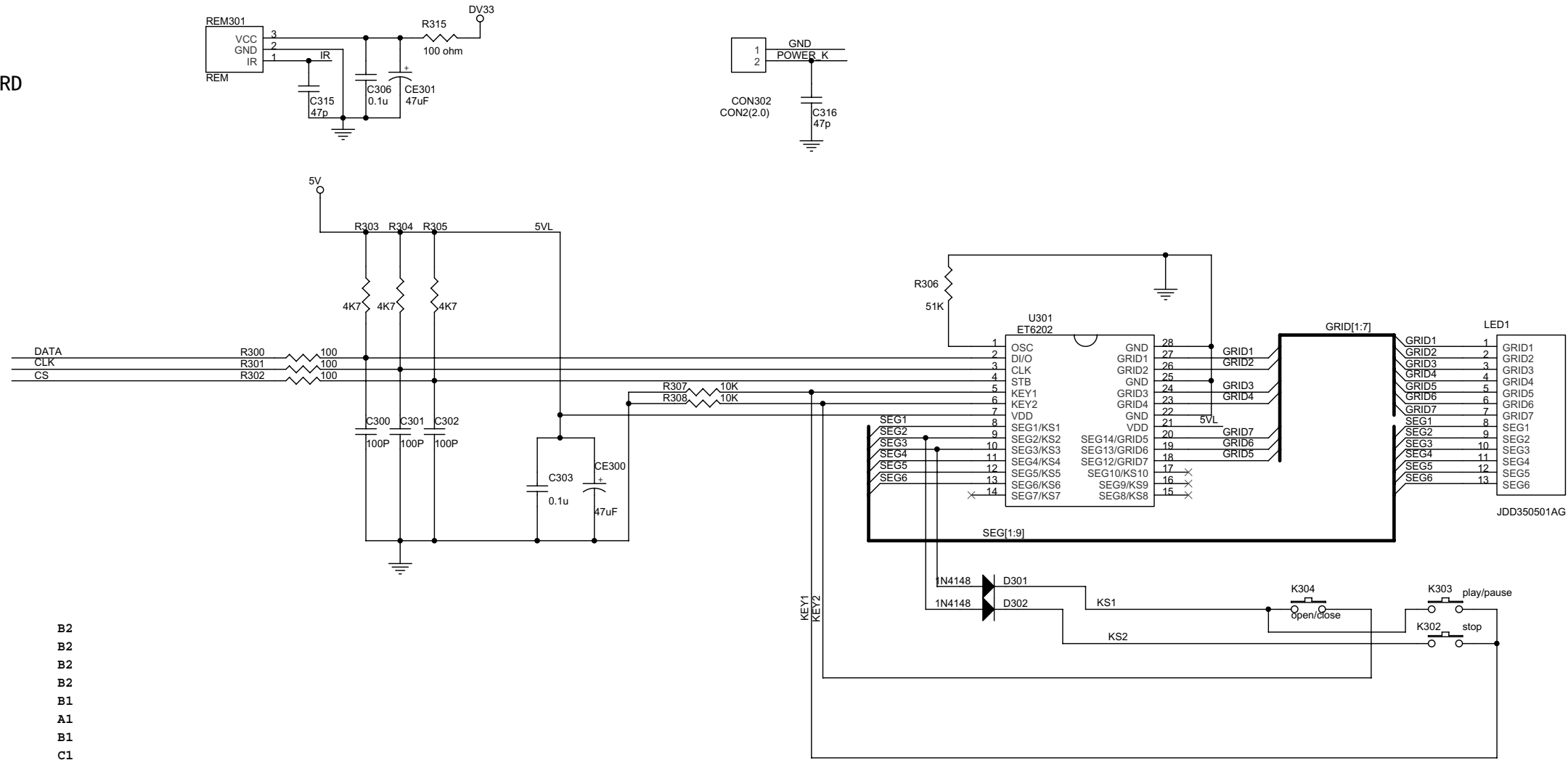
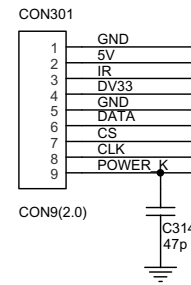


Remark:DVP3146 DVP3126 have no Karaoke.

Remark:DVP3146 (K) USE ZORAN36966,DVP3126 (k) USE ZORAN36962.

Front Board Electric Diagram for DVP3126(K)/XX, DVP3146(K)/XX, DVP3148K/XX

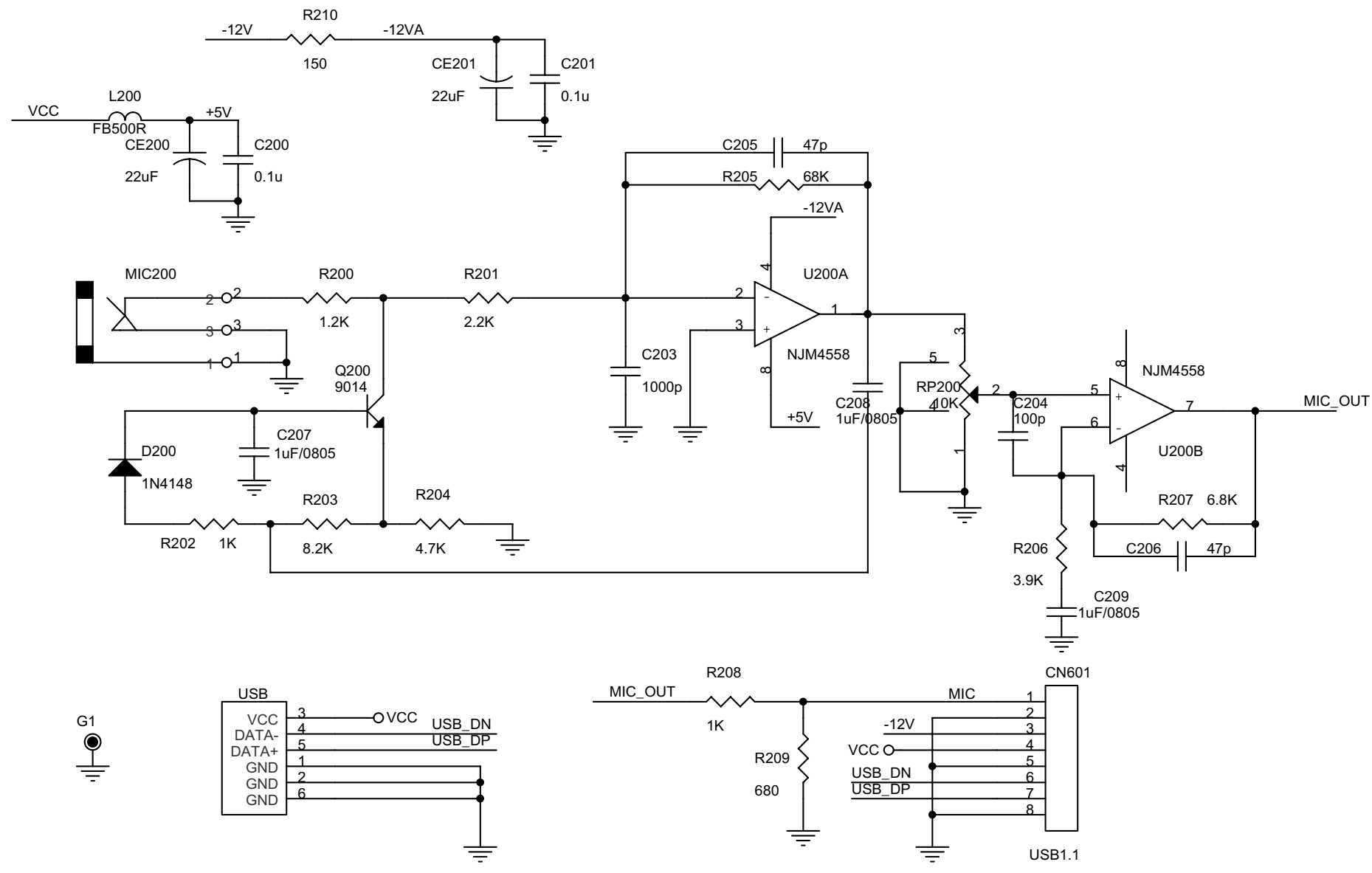
FROM MAIN BOARD



C300	B2
C301	B2
C302	B2
C303	B2
C306	B1
C314	A1
C315	B1
C316	C1
CE300	C2
CE301	B1
CON301	A1
CON302	C1
D301	D2
D302	D2
K302	E3
K303	E2
K304	D2
LED1	E2
R300	B2
R301	B2
R302	B2
R303	B2
R304	B2
R305	B2
R306	C1
R307	C2
R308	C2
R315	B1
REM301	B1
U301	D2

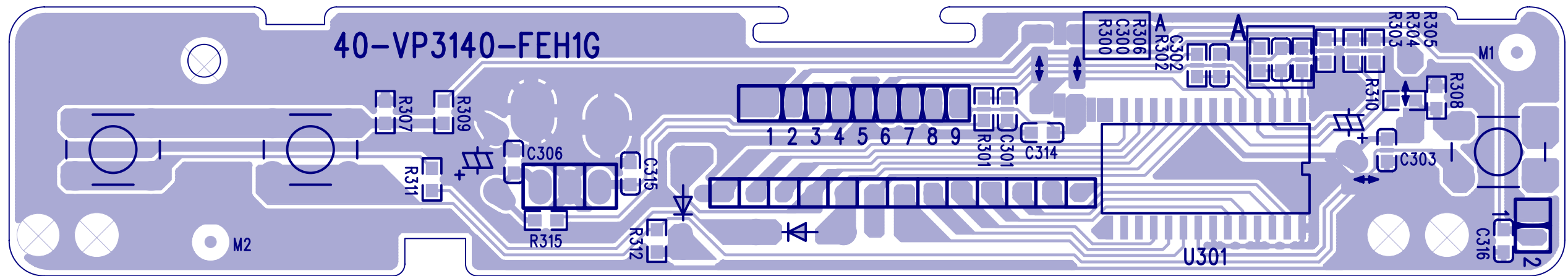
JDD350501AG

OK+USB Board Electric Diagram for DVP3126K/XX, DVP3146K/XX, DVP3148K/XX

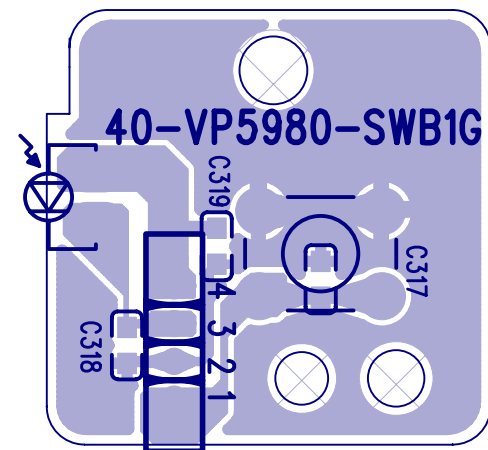


C200	A1
C201	B1
C203	B2
C204	C2
C205	C1
C206	D2
C207	A2
C208	C2
C209	D2
CE200	A1
CE201	B1
CN601	D3
D200	A2
G1	A3
L200	A1
MIC200	A1
Q200	B2
R200	B1
R201	B1
R202	A2
R203	B2
R204	B2
R205	C1
R206	D2
R207	D2
R208	C3
R209	C3
R210	B1
RP200	C2
U200A	C1
U200B	D2
USB	A3

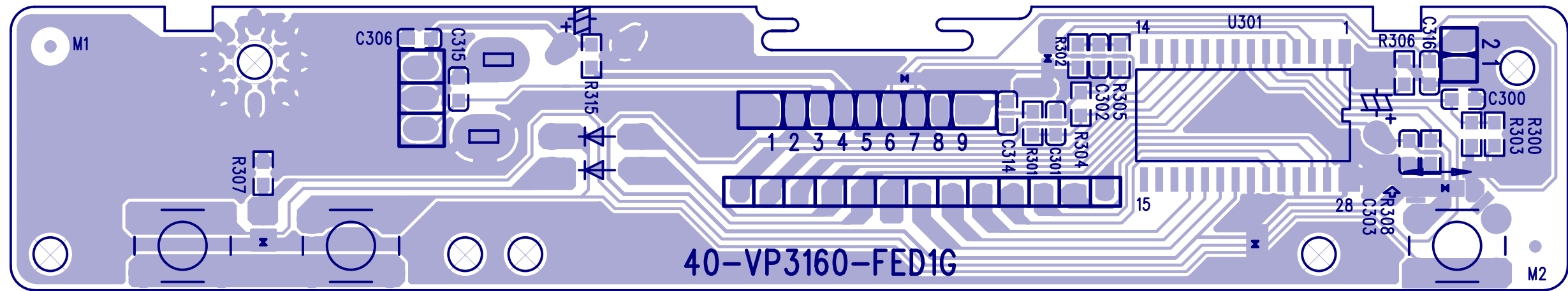
Front Board Print-Layout (Bottom Side) for DVP3126(K)/XX, DVP3146(K)/XX, DVP3148K/XX



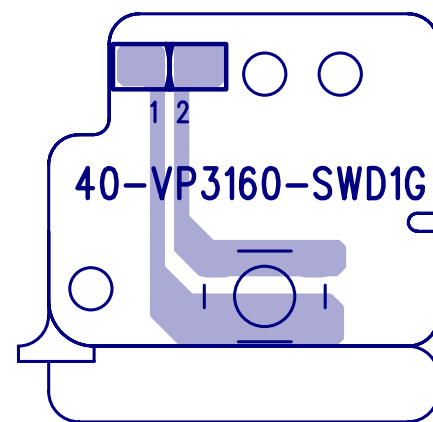
Switch Board Print-Layout (Bottom Side) for DVP3126(K)/XX, DVP3146(K)/XX, DVP3148K/XX



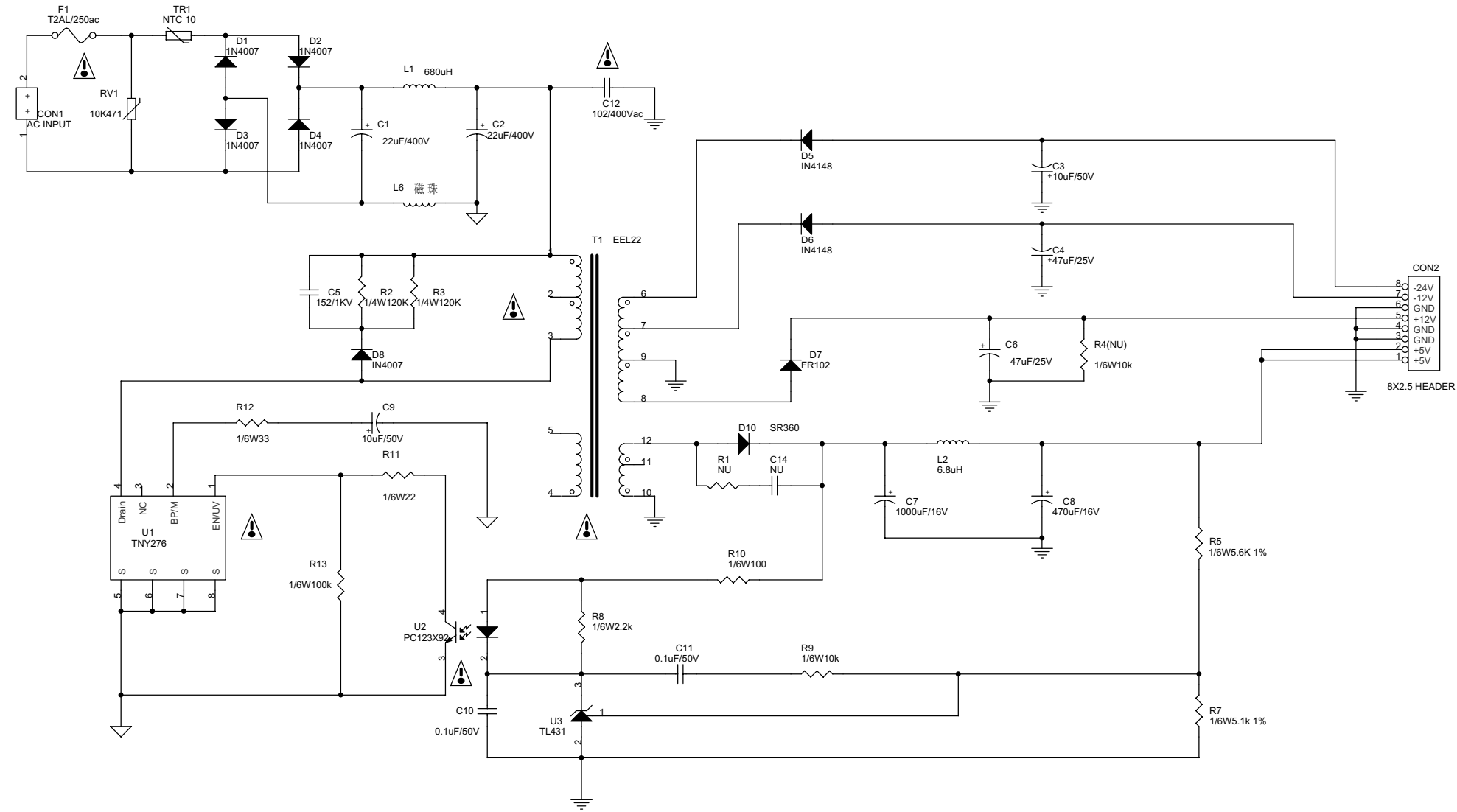
Front Board Print-Layout (Bottom Side) for DVP3146K/98, DVP3148K/51




Switch Board Print-Layout (Bottom Side) for DVP3146K/98, DVP3148K/51



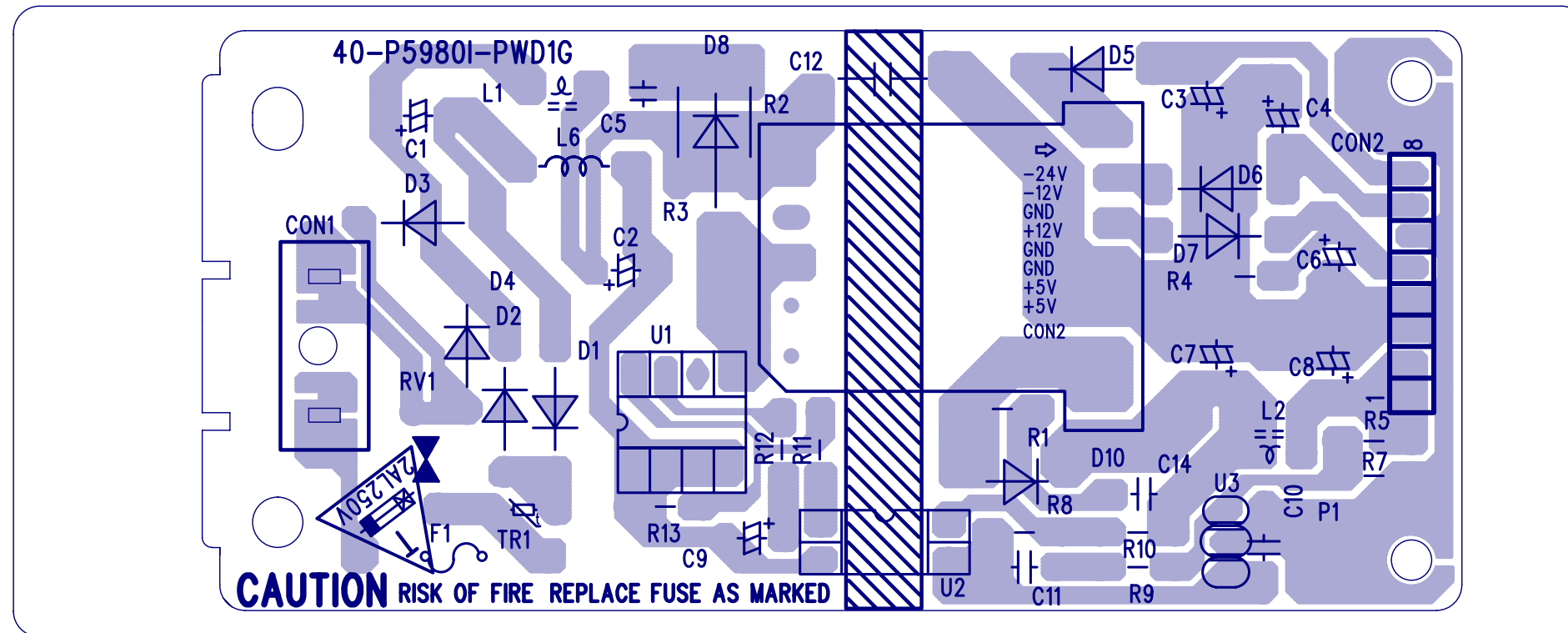
Power Board Electric Diagram for DVP3126(K)/XX



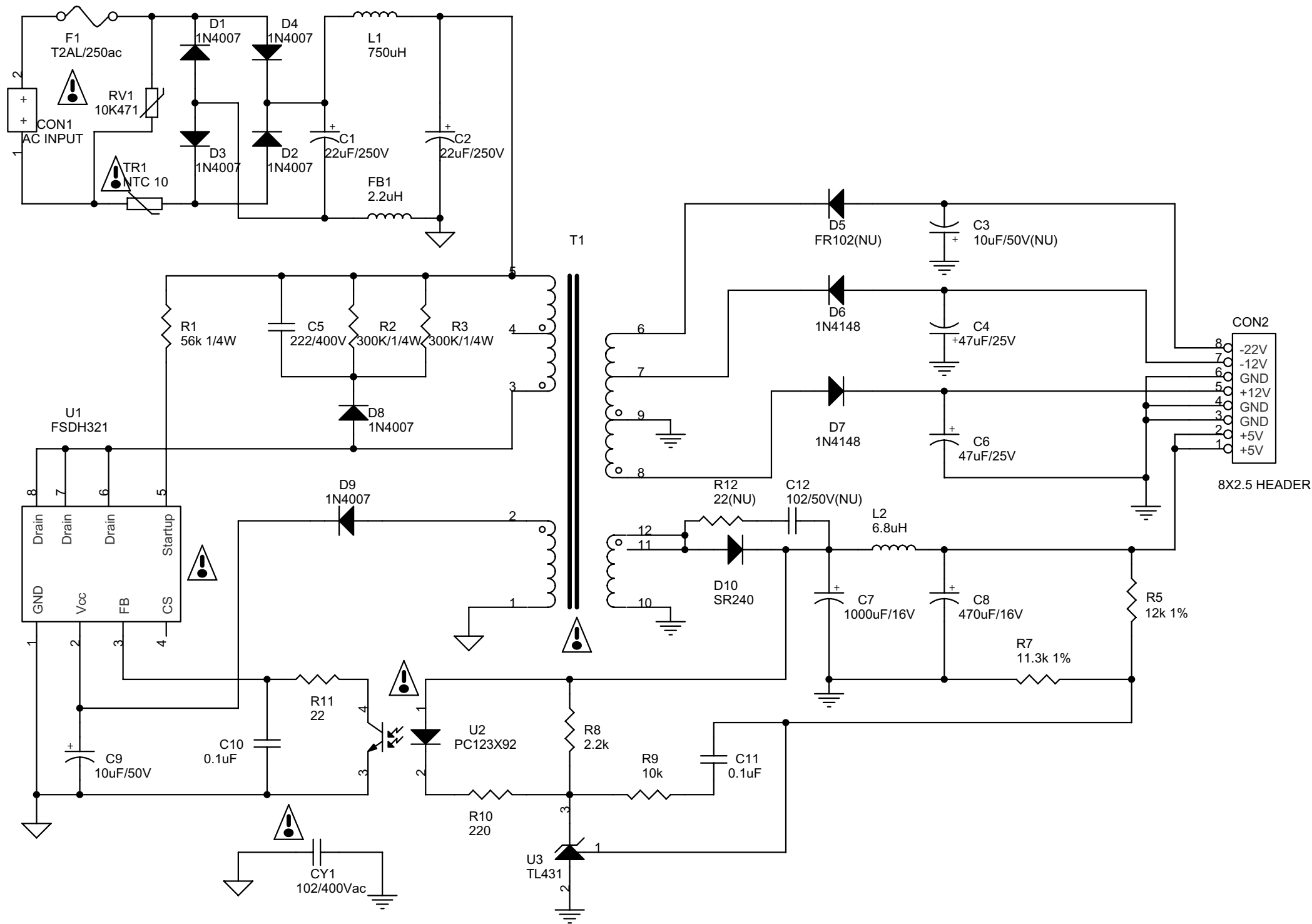
C1	B1
C10	B3
C11	B3
C12	B1
C14	C2
C2	B1
C3	C1
C4	C2
C5	B2
C6	C2
C7	C2
C8	C2
C9	B2
CON1	A1
CON2	D2
D1	A1
D10	C2
D2	B1
D3	A1
D4	B1
D5	C1
D6	C1
D7	C2
D8	B2
F1	A1
L1	B1
L2	C2
L6	B1
R1	C2
R10	C3
R11	B2
R12	A2
R13	B3
R2	B2
R3	B2
R4 (NU)	C2
R5	D2
R7	D3
R8	B3
R9	C3
RV1	A1
T1	B2
TR1	A1
U1	A2
U2	B3
U3	B3

*** CAUTION :**
 THE PARTS MARKED WITH  ARE IMPORTANT PARTS ON THE SAFETY.
 PLEASE USE THE PARTS HAVING THE DESIGNATED PARTS NUMBER WITHOUT FAIL.


Power Board Print-Layout (Bottom Side) for DVP3126(K)/XX



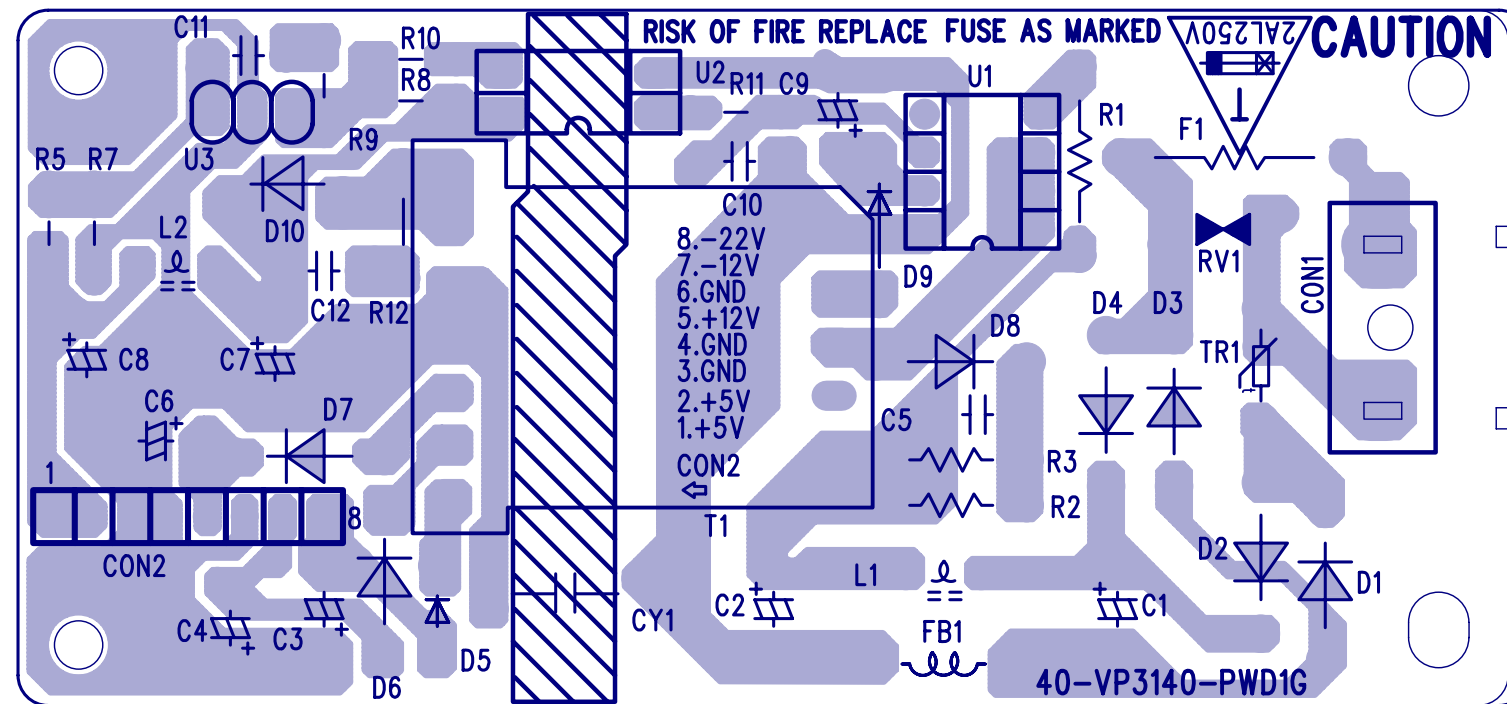
Power Board Electric Diagram for DVP3146(K)/XX, DVP3148K/XX



C1	B1
C10	A3
C11	C3
C12	C2
C2	B1
C3	C1
C4	C2
C5	A2
C6	C2
C7	C3
C8	C3
C9	A3
CON1	A1
CON2	D2
CY1	B4
D1	A1
D10	C3
D2	A1
D3	A1
D4	A1
D5	C1
D6	C2
D7	C2
D8	B2
D9	B2
F1	A1
FB1	B1
L1	B1
L2	C3
R1	A2
R10	B3
R11	A3
R12	C2
R2	B2
R3	B2
R5	D3
R7	D3
R8	B3
R9	B3
RV1	A1
T1	B2
TR1	A1
U1	A2
U2	B3
U3	B3

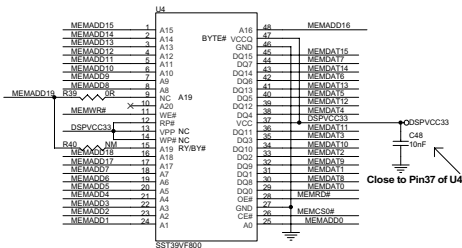
*** CAUTION :**
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Power Board Print-Layout (Bottom Side) for DVP3146(K)/XX, DVP3148K/XX



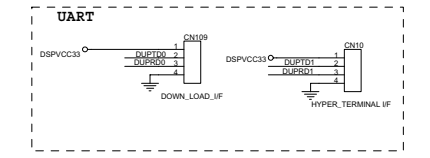
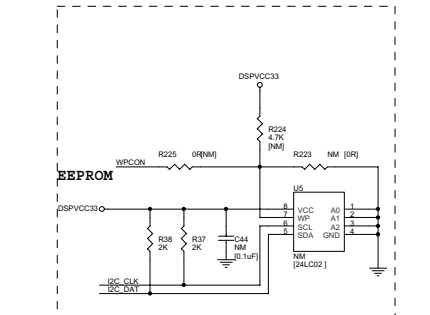
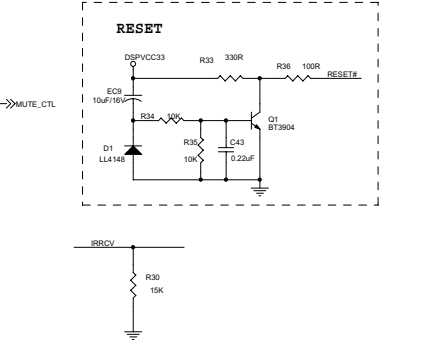
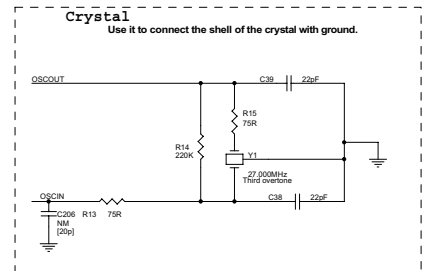
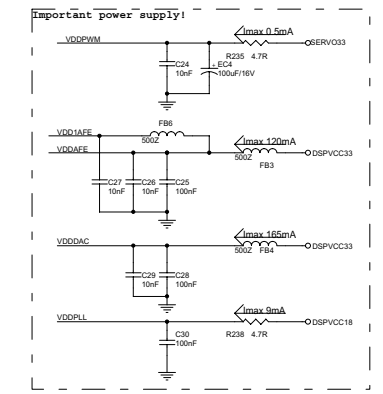
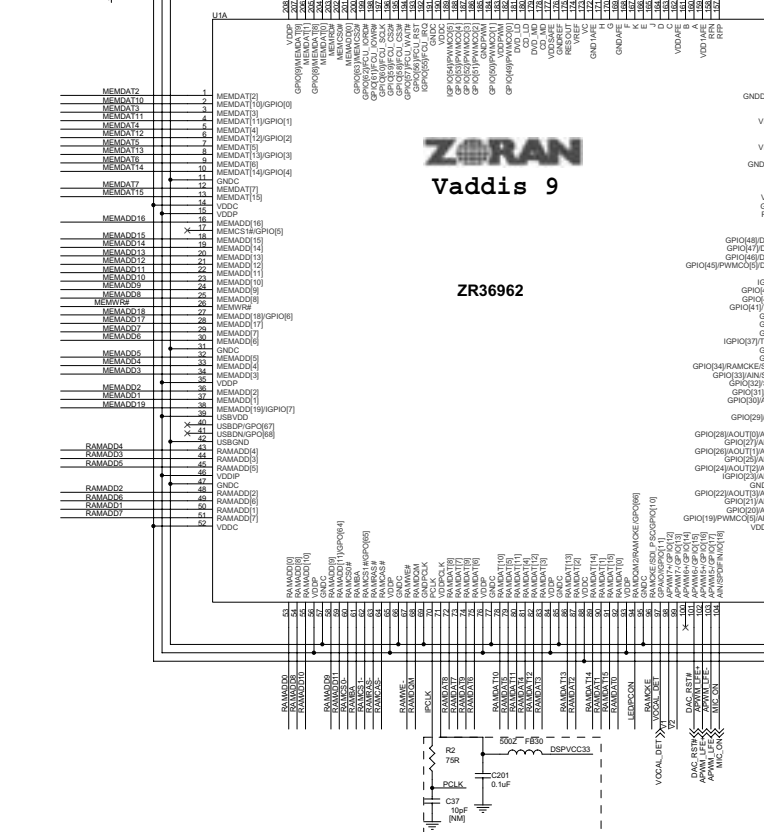
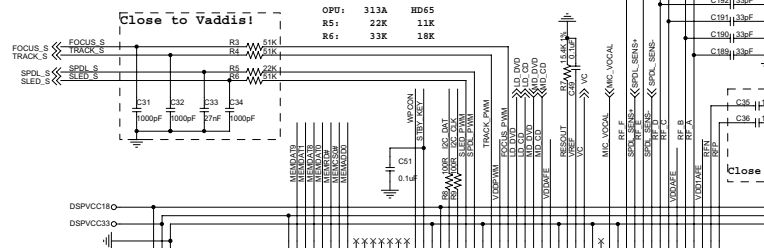
Main Board Electric Diagram for DVP3126(K)/XX, DVP3146(K)/XX, DVP3148K/XX: INDEX

Flash speed <= 70 ns.
If plan to use 90ns
Flash, it needs to be
verified by s/w.



Flash select	R39	R40
Intel	NM	OR
AMD/SST	OR	NM

BOOTSEL	JIP3	JIP2
Play	OPEN	OPEN
Download	OPEN	CLOSE
SW debug	CLOSE	OPEN

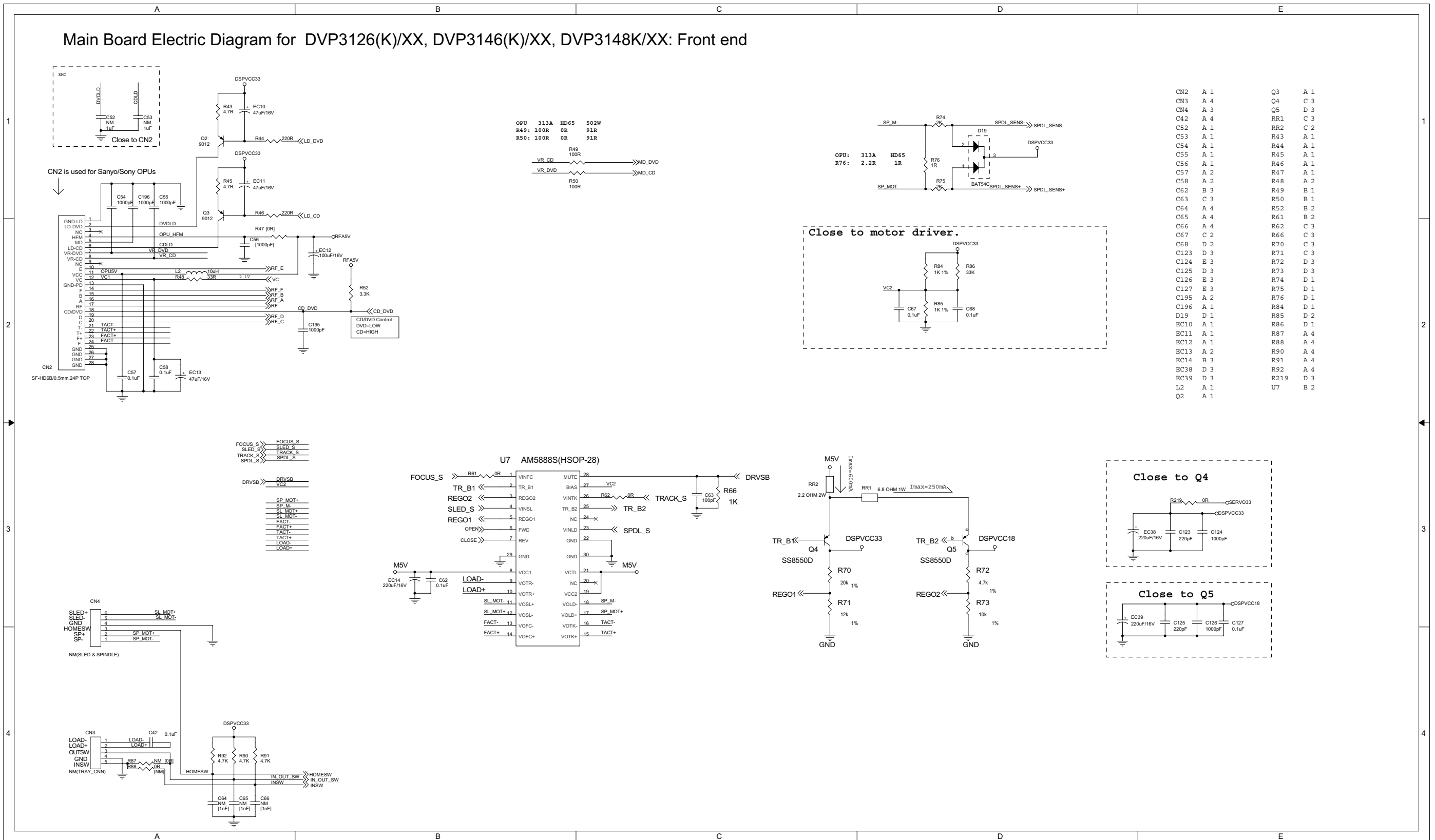


SDRAM configuration:
1X16bit: CS# = Low;
1X64bit: CS# = Low; CS# = BA1
SDRAM speed <= 7ns
Tras <= 44.4ns
Ttp <= 22.2ns

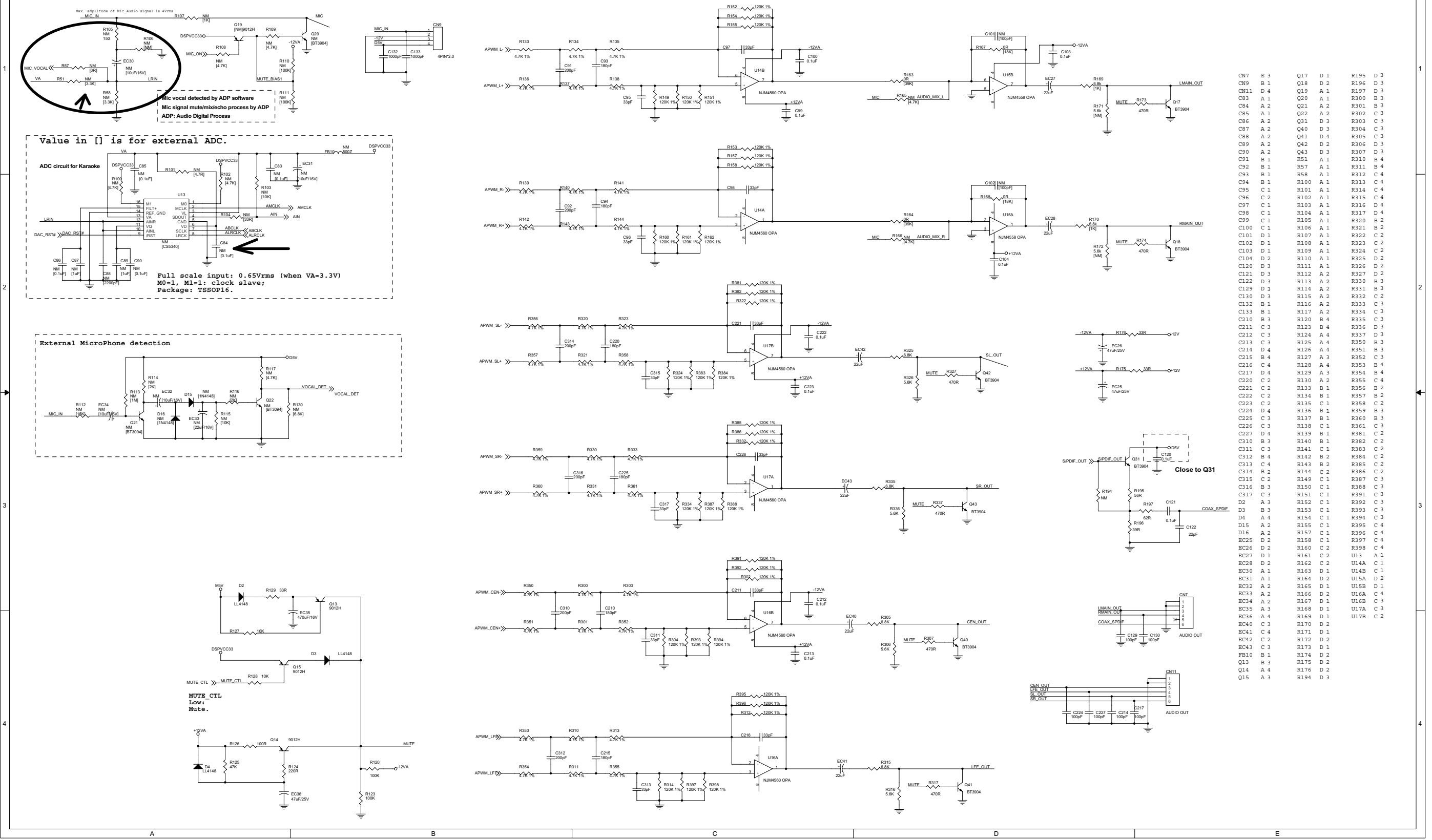
Place de-coupling capacitors close to power pins.

CN10	D 4	EC9	D 2
CN109	D 4	EC20	C 3
C2	A 4	FB1	A 4
C3	A 4	FB3	D 1
C4	A 4	FB4	D 1
C5	A 4	FB6	C 1
C6	A 4	FB8	C 2
C7	A 4	FB9	C 2
C8	A 4	FB9	C 2
C9	A 4	FB30	B 3
C10	A 4	JP2	A 3
C11	A 4	JP3	A 3
C12	A 4	A	A 4
C15	C 3	Q1	D 2
C19	A 4	R2	B 3
C20	A 4	R3	B 1
C21	A 4	R4	B 1
C22	A 4	R5	B 1
C23	A 4	R6	B 1
C24	C 1	R7	C 1
C25	C 1	R8	B 1
C26	C 1	R9	B 1
C27	C 1	R10	C 2
C28	C 1	R13	D 1
C29	C 1	R14	D 1
C30	C 1	R15	D 1
C31	B 1	R19	C 2
C32	B 1	R20	C 2
C33	B 1	R21	C 2
C34	B 1	R22	C 2
C35	C 1	R24	D 2
C36	C 1	R30	D 2
C37	B 3	R33	D 2
C38	D 1	R34	D 2
C39	D 1	R35	D 2
C43	D 2	R36	D 2
C44	D 3	R37	D 3
C45	B 4	R38	D 3
C48	A 1	R39	A 1
C49	C 1	R40	A 1
C50	C 1	R41	A 3
C51	B 1	R42	A 3
C189	C 1	R56	C 3
C190	C 1	R23	D 3
C191	C 1	R24	D 3
C192	C 1	R25	D 3
C193	C 1	R26	C 3
C194	C 1	R27	C 3
C201	B 3	R28	C 3
C202	C 2	R29	C 3
C205	D 2	R235	D 1
C206	D 1	R238	D 1
D1	D 2	U1A	B 1
EC1	A 4	U2	B 4
U4	A	U4	A 1
U5	D 3	U5	D 3
U11	D 4	X11	D 4
Y1	D 1	Y1	D 1

Main Board Electric Diagram for DVP3126(K)/XX, DVP3146(K)/XX, DVP3148K/XX: Front end

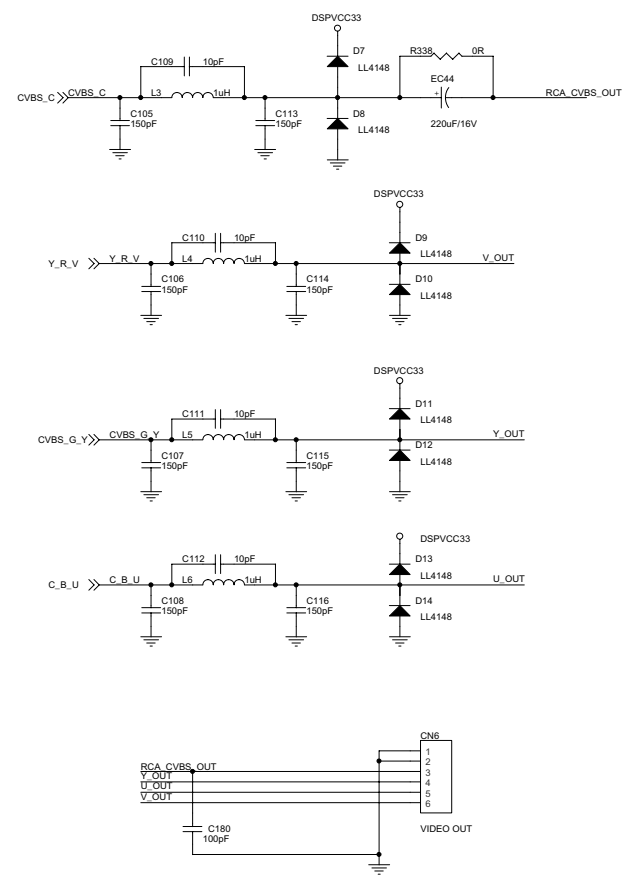
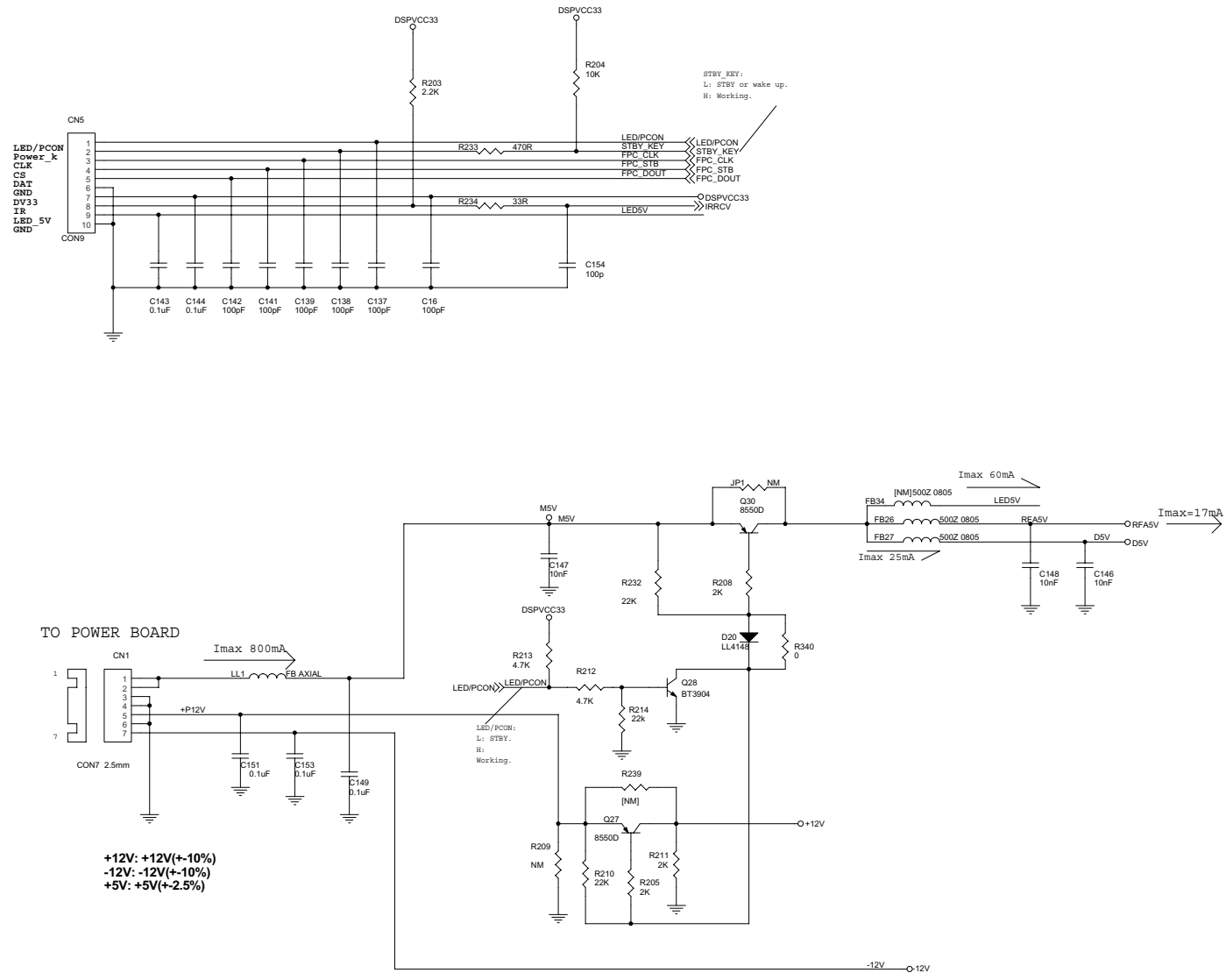


Main Board Electric Diagram for DVP3126(K)/XX, DVP3146(K)/XX, DVP3148K/XX: Audio Input_Outp



CN7	E 3	Q17	D 1	R195	D 3
CN9	B 1	Q18	D 2	R196	D 3
CN11	D 4	Q19	A 1	R197	D 3
C200	A 1	Q20	A 1	R300	B 3
C84	A 2	Q21	A 2	R301	B 3
C85	A 1	Q22	A 2	R302	C 3
C86	A 2	Q31	D 3	R303	C 3
C87	A 2	Q40	D 3	R304	C 3
C88	A 2	Q41	D 4	R305	C 3
C89	A 2	Q42	D 2	R306	D 3
C90	A 2	Q43	D 3	R307	D 3
C91	B 1	R51	A 1	R310	B 4
C92	B 1	R57	A 1	R311	B 4
C93	B 1	R58	A 1	R312	C 4
C94	B 1	R100	A 1	R313	C 4
C95	C 1	R101	A 1	R314	C 4
C96	C 2	R102	A 1	R315	C 4
C97	C 1	R103	A 1	R316	D 4
C98	C 1	R104	A 1	R317	D 4
C99	C 1	R105	A 1	R320	B 2
C100	C 1	R106	A 1	R321	B 2
C101	D 1	R107	A 1	R322	C 2
C102	D 1	R108	A 1	R323	C 2
C103	D 1	R109	A 1	R324	C 2
C104	D 2	R110	A 1	R325	D 2
C120	D 3	R111	A 1	R326	D 2
C121	D 3	R112	A 2	R327	D 2
C122	D 3	R113	A 2	R330	B 3
C129	D 3	R114	A 2	R331	B 3
C130	D 3	R115	A 2	R332	C 2
C132	B 1	R116	A 2	R333	C 3
C133	B 1	R117	A 2	R334	C 3
C210	B 3	R120	B 4	R335	C 3
C211	C 3	R123	B 4	R336	D 3
C212	C 3	R124	A 4	R337	D 3
C213	C 3	R125	A 4	R350	B 3
C214	D 4	R126	A 4	R351	B 3
C215	B 4	R127	A 3	R352	C 3
C216	C 4	R128	A 4	R353	B 4
C217	D 4	R129	A 3	R354	A 4
C220	C 2	R130	A 2	R355	C 4
C221	C 2	R133	B 1	R356	B 2
C222	C 2	R134	B 1	R357	B 2
C223	C 2	R135	C 1	R358	C 2
C224	D 4	R136	B 1	R359	B 3
C225	C 3	R137	B 1	R360	B 3
C226	C 3	R138	C 1	R361	C 3
C227	D 4	R139	B 1	R381	C 2
C310	B 3	R140	B 1	R382	C 2
C311	C 3	R141	C 1	R383	C 2
C312	B 4	R142	B 2	R384	C 2
C313	C 4	R143	B 2	R385	C 2
C314	B 2	R144	C 2	R386	C 2
C315	C 2	R149	C 1	R387	C 3
C316	B 3	R150	C 1	R388	C 3
C317	C 3	R151	C 1	R391	C 3
D2	A 3	R152	C 1	R392	C 3
D3	B 3	R153	C 1	R393	C 3
D4	A 4	R154	C 1	R394	C 3
D15	A 2	R155	C 1	R395	C 4
D16	A 2	R157	C 1	R396	C 4
EC25	D 2	R158	C 1	R397	C 4
EC26	D 2	R160	C 2	R398	C 4
EC27	D 1	R161	C 2	U13	A 1
EC28	D 2	R162	C 2	U14A	C 1
EC30	A 1	R163	A 1	U14B	D 1
EC31	A 1	R164	D 2	U15A	D 2
EC32	A 2	R165	D 1	U15B	D 1
EC33	A 2	R166	D 2	U17A	C 4
EC34	A 2	R167	D 1	U17B	C 3
EC35	A 3	R168	D 1	U18A	C 3
EC36	A 4	R169	D 1	U18B	C 3
EC40	C 3	R170	D 2	Q17	B 2
EC41	C 4	R171	D 1	Q18	D 1
EC42	C 4	R172	D 2	Q19	A 1
EC43	C 3	R173	D 1	Q20	A 1
FB10	B 1	R174	D 2	Q21	A 2
Q13	B 3	R175	D 2	Q22	A 2
Q14	A 4	R176	D 2	Q31	D 3
Q15	A 3	R194	D 3		

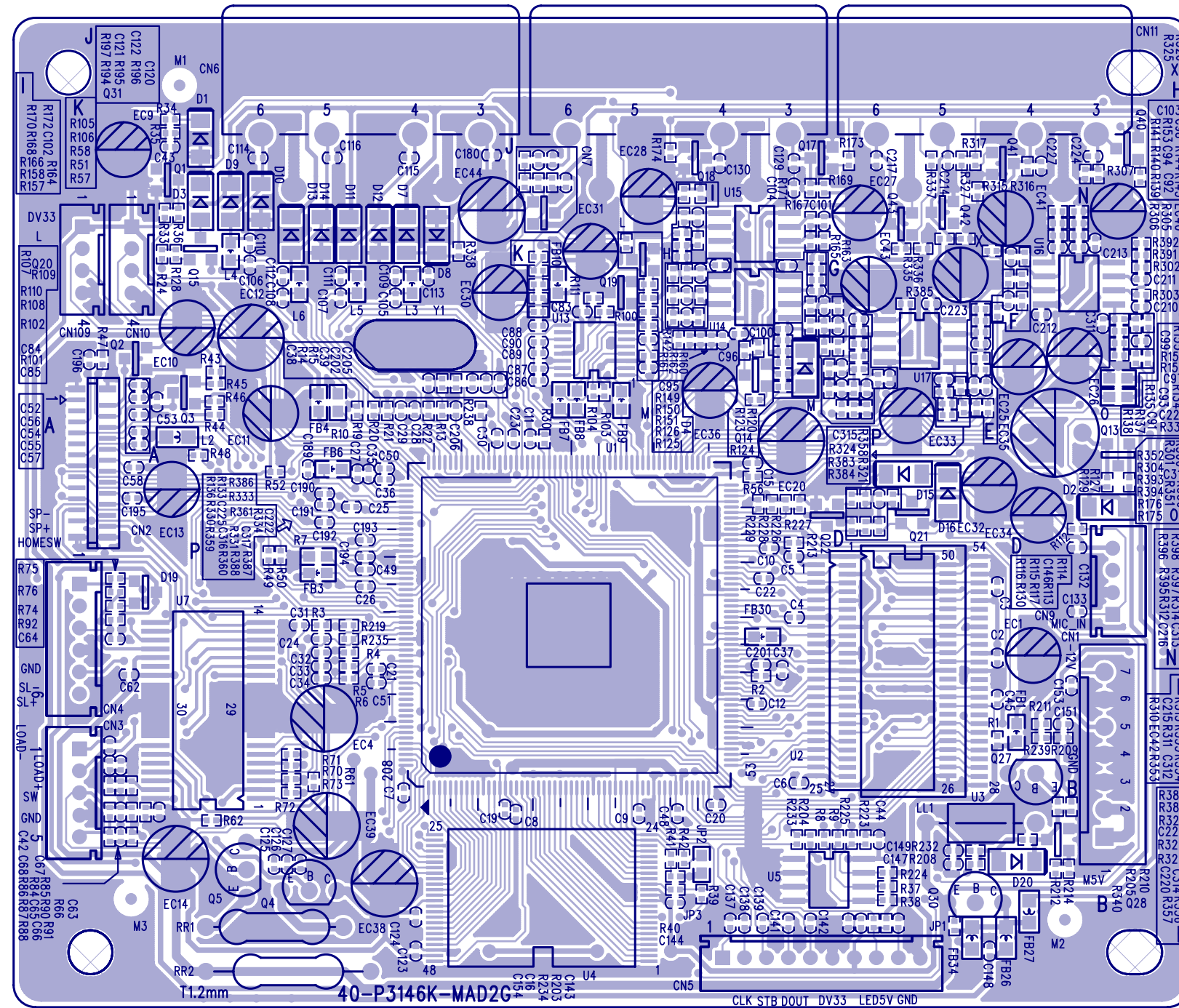
Main Board Electric Diagram for DVP3126(K)/XX, DVP3146(K)/XX, DVP3148K/XX: Power_Video Out_



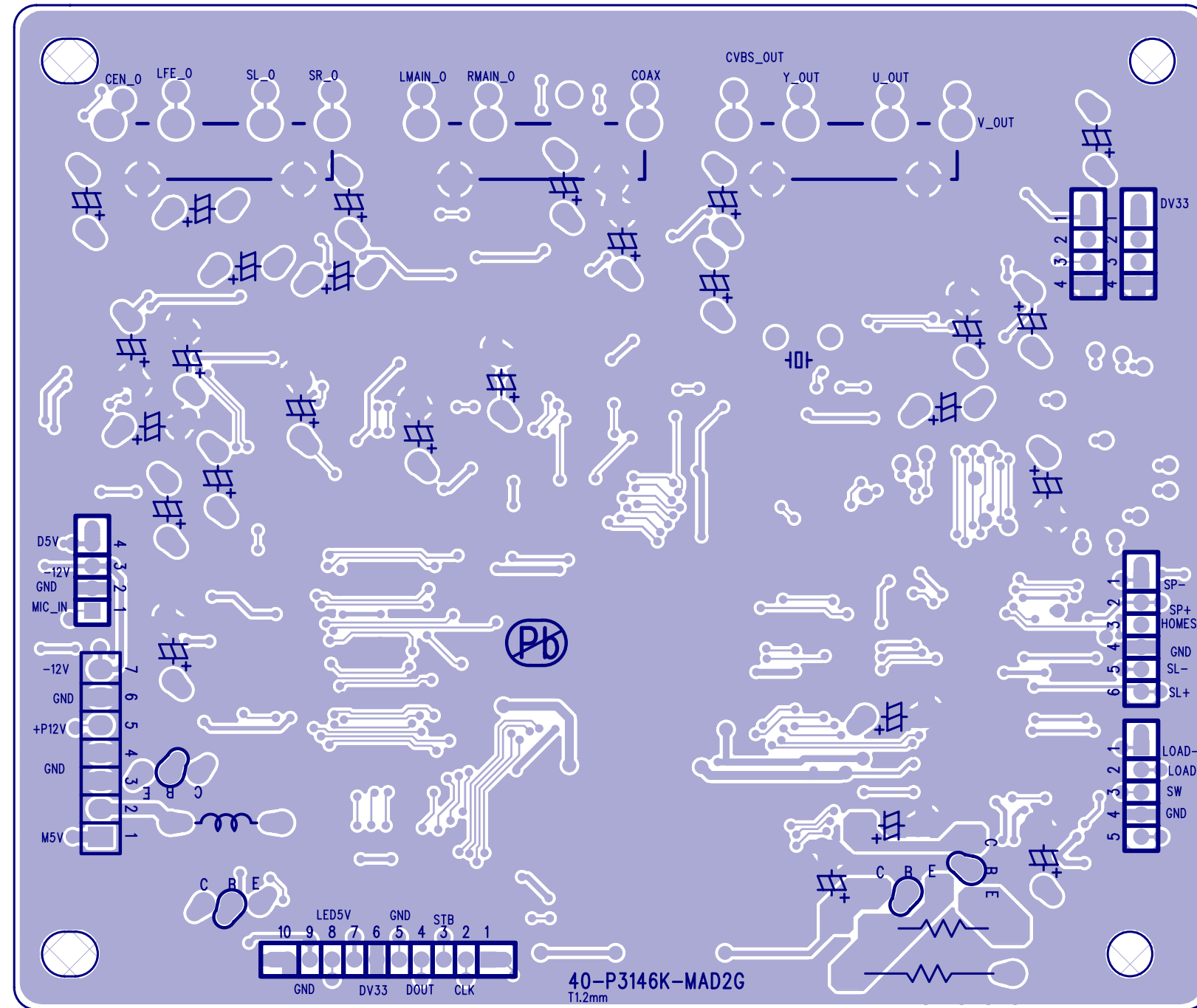
CN1	A 3
CN5	A 1
CN6	D 3
C16	A 2
C105	C 2
C106	C 2
C107	C 2
C108	C 3
C109	C 1
C110	D 2
C111	D 2
C112	D 3
C113	D 2
C114	D 2
C115	D 2
C116	D 3
C137	A 2
C138	A 2
C139	A 2
C141	A 2
C142	A 2
C143	A 2
C144	A 2
C146	C 3
C147	B 2
C148	C 3
C149	A 3
C151	A 3
C153	A 3
C154	B 2
C180	C 3
D7	D 1
D8	D 1
D9	D 2
D10	D 2
D11	D 2
D12	D 2
D13	D 3
D14	D 3
D20	B 3
EC44	D 1
FB26	B 2
FB27	B 2
FB34	B 2
JP1	B 2
LL1	A 3
L3	C 1
L4	C 2
L5	C 2
L6	C 3
Q27	B 3
Q28	B 3
Q30	B 2
R203	A 1
R204	B 1
R205	B 3
R208	B 3
R209	B 3
R210	B 3
R211	B 3
R212	B 3
R213	B 3
R214	B 3
R232	B 3
R233	B 1
R234	B 2
R239	B 3
R338	D 1
R340	B 3

+12V: +12V(+/-10%)
-12V: -12V(+/-10%)
+5V: +5V(+/-2.5%)

Main Board Print-Layout (Top Side) for DVP3126(K)/XX, DVP3146(K)/XX, DVP3148K/XX

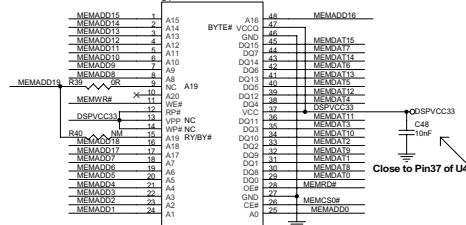


Main Board Print-Layout (Bottom Side) for DVP3126(K)/XX, DVP3146(K)/XX, DVP3148K/XX

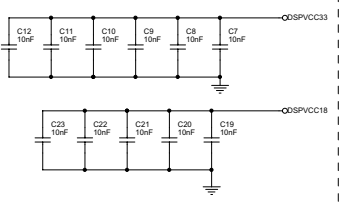
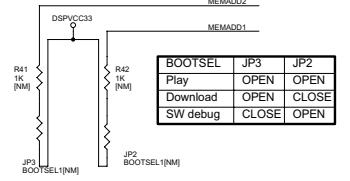
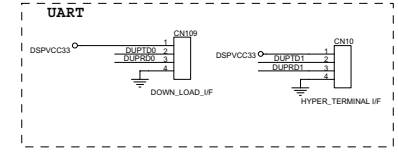
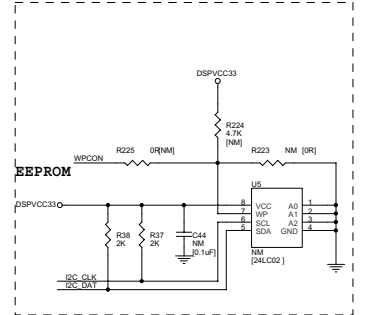
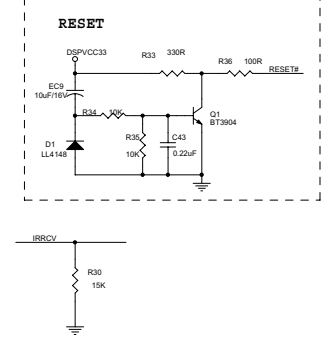
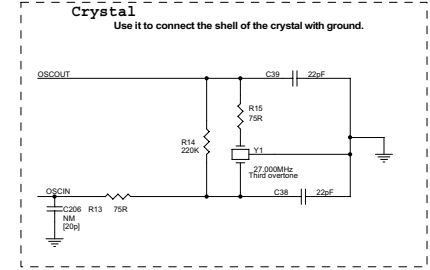
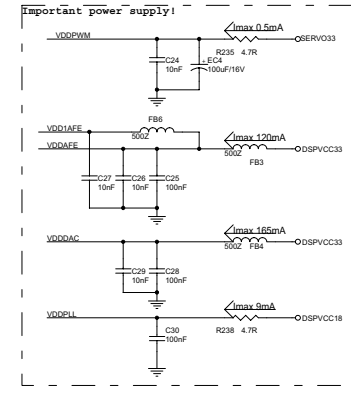
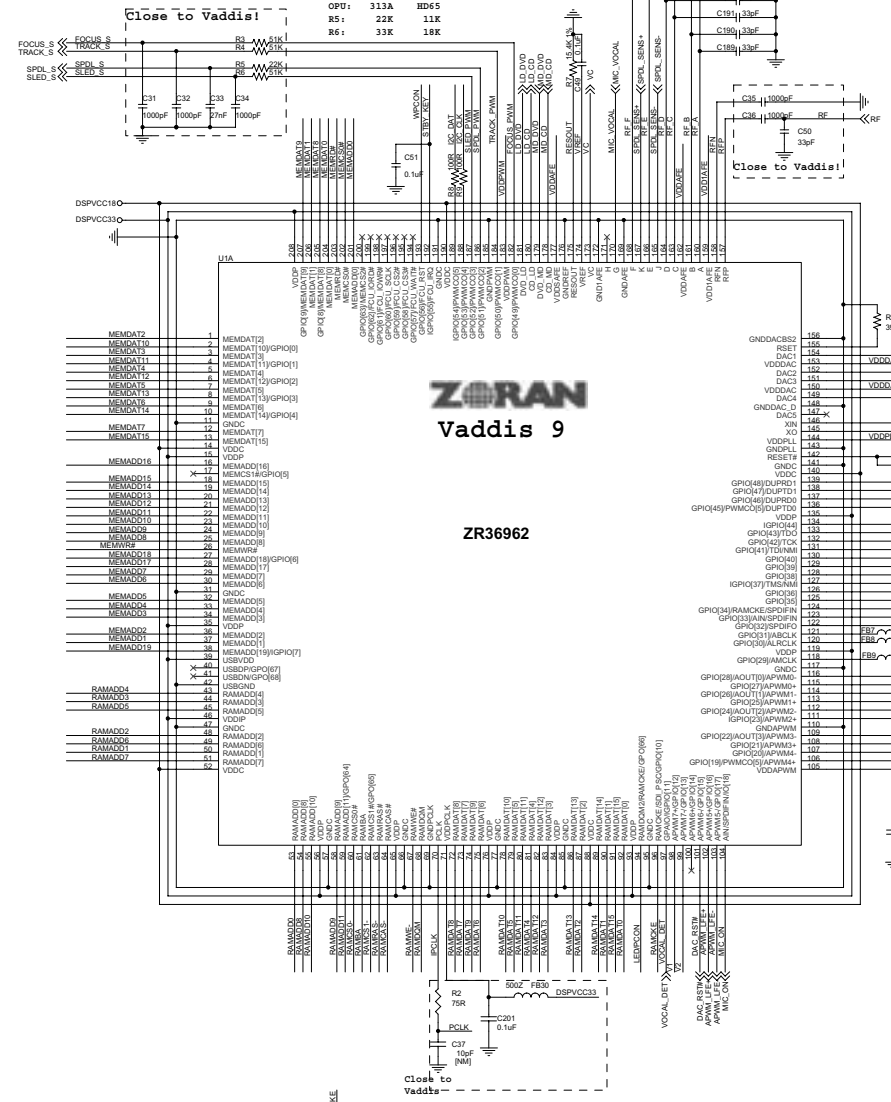


Main Board Electric Diagram for DVP3146K/93: Vaddis_SDRAM_Fla

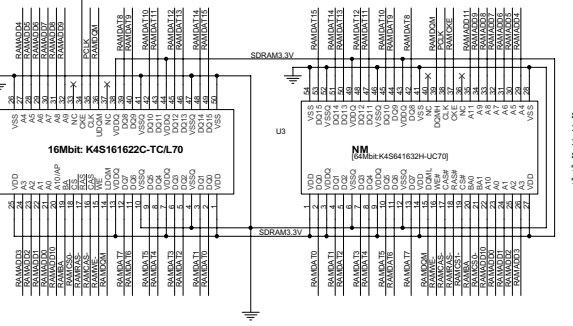
Flash speed <= 70 ns.
If plan to use 90ns
Flash, it needs to be
verified by s/w.



Flash select R39 R40			
Intel	NM	OR	R40
AMD/SST	OR	NM	R39



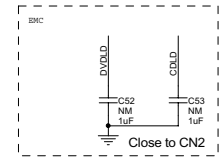
Place de-coupling capacitors close to power pins.



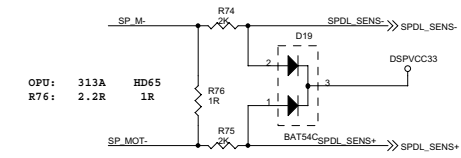
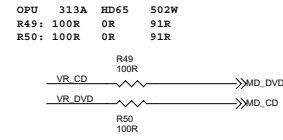
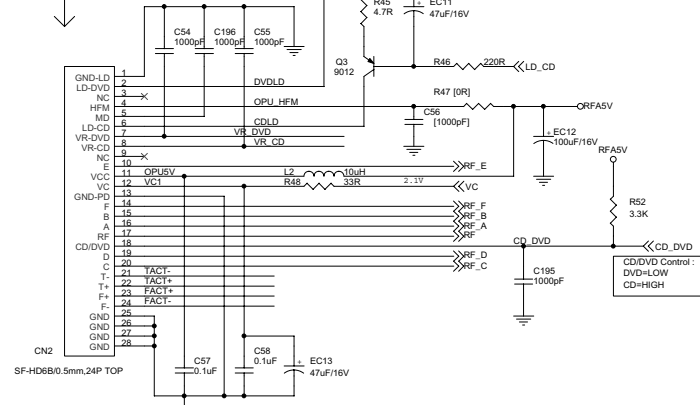
SDRAM configuration:
1X16Mbit: CS0# = Low;
1X4Mbit: CS1# = Low; CS0# = 8A1
SDRAM speed <= 7ns
Tras <= 44.4ns
Twp <= 22.2ns

CN10	D 4	EC9	D 2
CN109	D 4	EC20	C 3
C2	A 4	FB1	A 4
C3	A 4	FB3	D 1
C4	A 4	FB4	D 1
C5	A 4	FB6	C 1
C6	B 4	FB7	C 2
C7	A 4	FB8	C 2
C8	A 4	FB9	C 2
C9	A 4	FB30	B 3
C10	A 4	JP2	A 3
C11	A 4	JP3	A 3
C12	A 4	Q1	D 2
C15	C 3	R1	B 4
C19	A 4	R2	B 3
C20	A 4	R3	B 1
C21	A 4	R4	B 1
C22	A 4	R5	B 1
C23	A 4	R6	B 1
C24	C 1	R8	B 1
C25	C 1	R9	B 1
C26	C 1	R10	C 2
C27	C 1	R11	D 1
C28	C 1	R13	D 1
C29	C 1	R14	D 1
C30	C 1	R15	D 1
C31	B 1	R19	C 2
C32	B 1	R20	C 2
C33	B 1	R21	C 2
C34	B 1	R22	C 2
C35	C 1	R24	D 2
C36	C 1	R30	D 2
C37	B 3	R33	D 2
C38	D 1	R34	D 2
C39	D 1	R35	D 2
C43	D 2	R36	D 2
C44	D 3	R37	D 3
C45	B 4	R38	D 3
C48	A 1	R39	A 1
C49	C 1	R40	A 1
C50	C 1	R41	A 3
C51	B 1	R42	A 3
C189	C 1	R56	C 3
C190	C 1	R223	D 3
C191	C 1	R224	D 3
C192	C 1	R225	D 3
C193	C 1	R226	C 3
C194	C 1	R227	C 3
C201	B 3	R228	C 3
C202	C 2	R229	C 3
C205	D 2	R235	D 1
C206	D 1	R238	D 1
D1	D 2	U1A	B 1
BC1	A 4	U2	B 4
		U3	B 4
		U4	A 1
		U5	D 3
		X11	D 4
		Y1	D 1

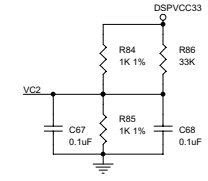
Main Board Electric Diagram for DVP3146K/93: Front end



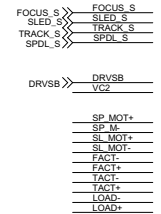
CN2 is used for Sanyo/Sony OPUs



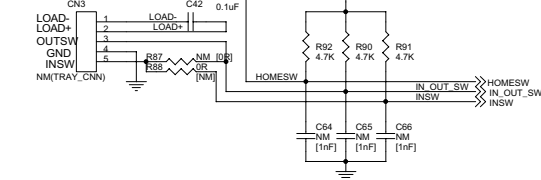
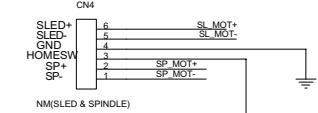
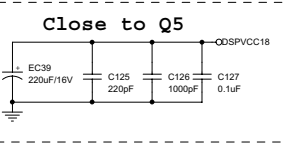
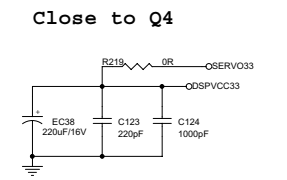
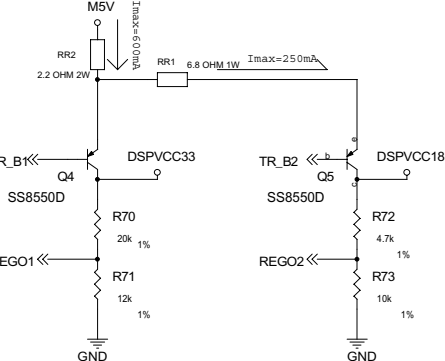
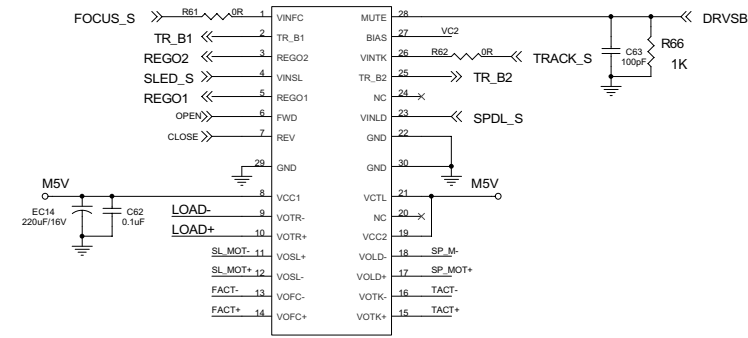
Close to motor driver.



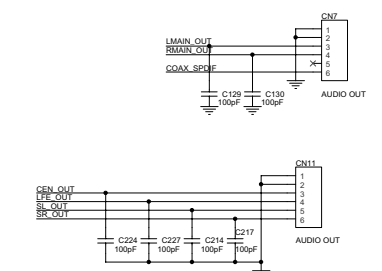
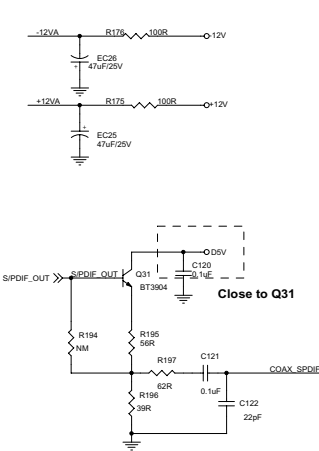
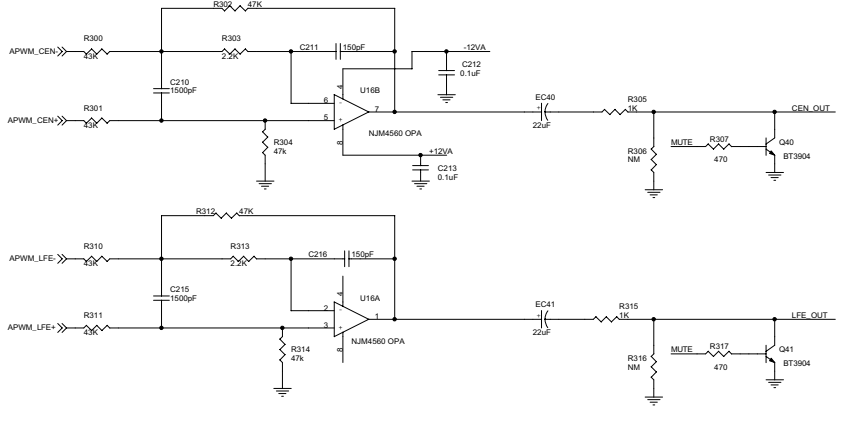
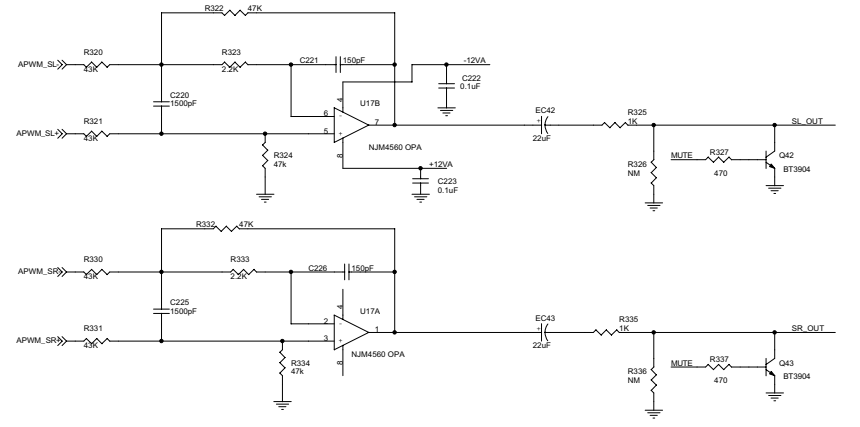
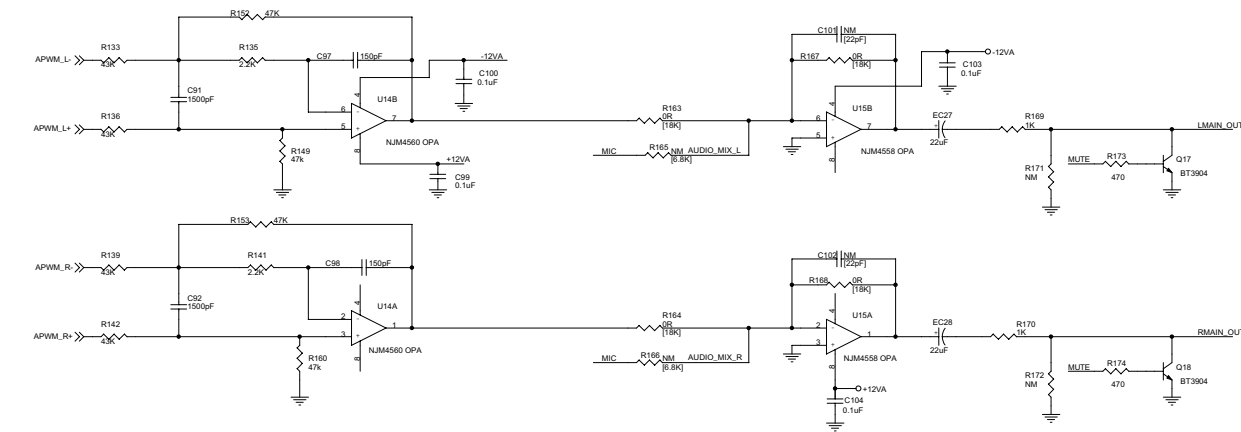
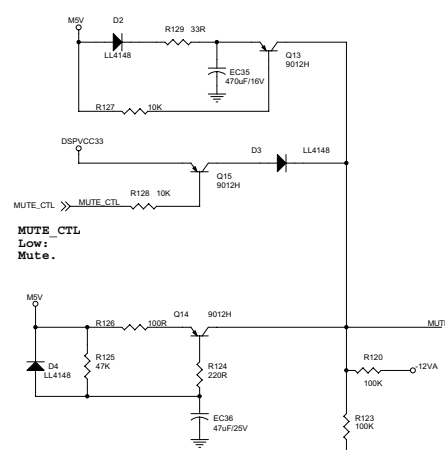
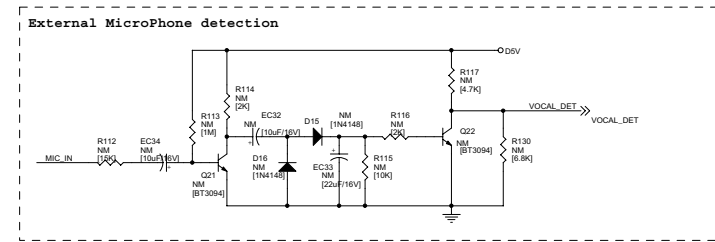
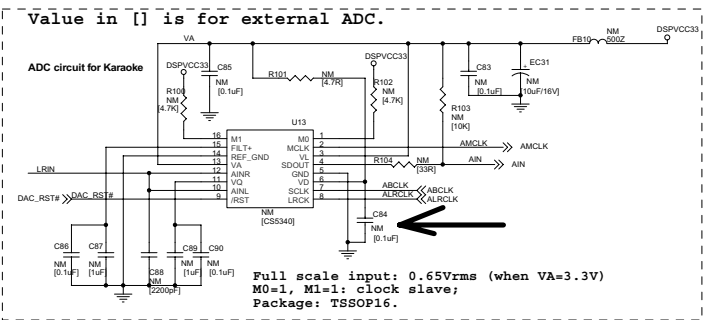
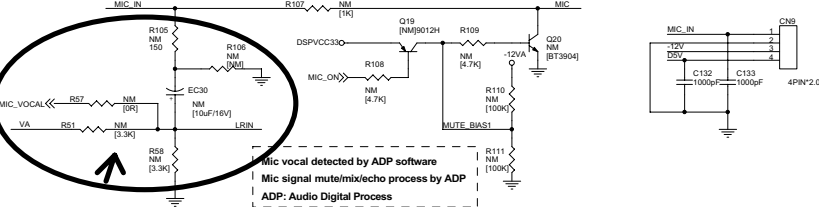
CN2	A 1	Q3	A 1
CN3	A 4	Q4	C 3
CN4	A 3	Q5	D 3
C42	A 4	RR1	C 3
C52	A 1	RR2	C 2
C53	A 1	R43	A 1
C54	A 1	R44	A 1
C55	A 1	R45	A 1
C56	A 1	R46	A 1
C57	A 2	R47	A 1
C58	A 2	R48	A 2
C62	B 3	R49	B 1
C63	C 3	R50	B 1
C64	A 4	R52	B 2
C65	A 4	R61	B 2
C66	A 4	R62	C 3
C67	C 2	R66	C 3
C68	D 2	R70	C 3
C123	D 3	R71	C 3
C124	E 3	R72	D 3
C125	D 3	R73	D 3
C126	E 3	R74	D 1
C127	E 3	R75	D 1
C195	A 2	R76	D 1
C196	A 1	R84	D 1
D19	D 1	R85	D 2
EC10	A 1	R86	D 1
EC11	A 1	R87	A 4
EC12	A 1	R88	A 4
EC13	A 2	R90	A 4
EC14	B 3	R91	A 4
EC38	D 3	R92	A 4
EC39	D 3	R219	D 3
L2	A 1	U7	B 2
Q2	A 1		



U7 AM5888S(HSOP-28)

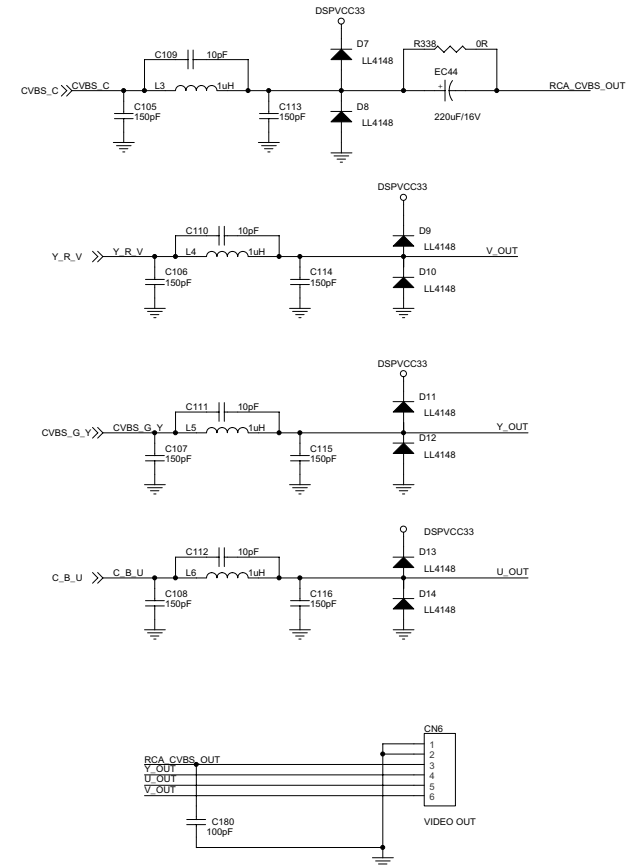
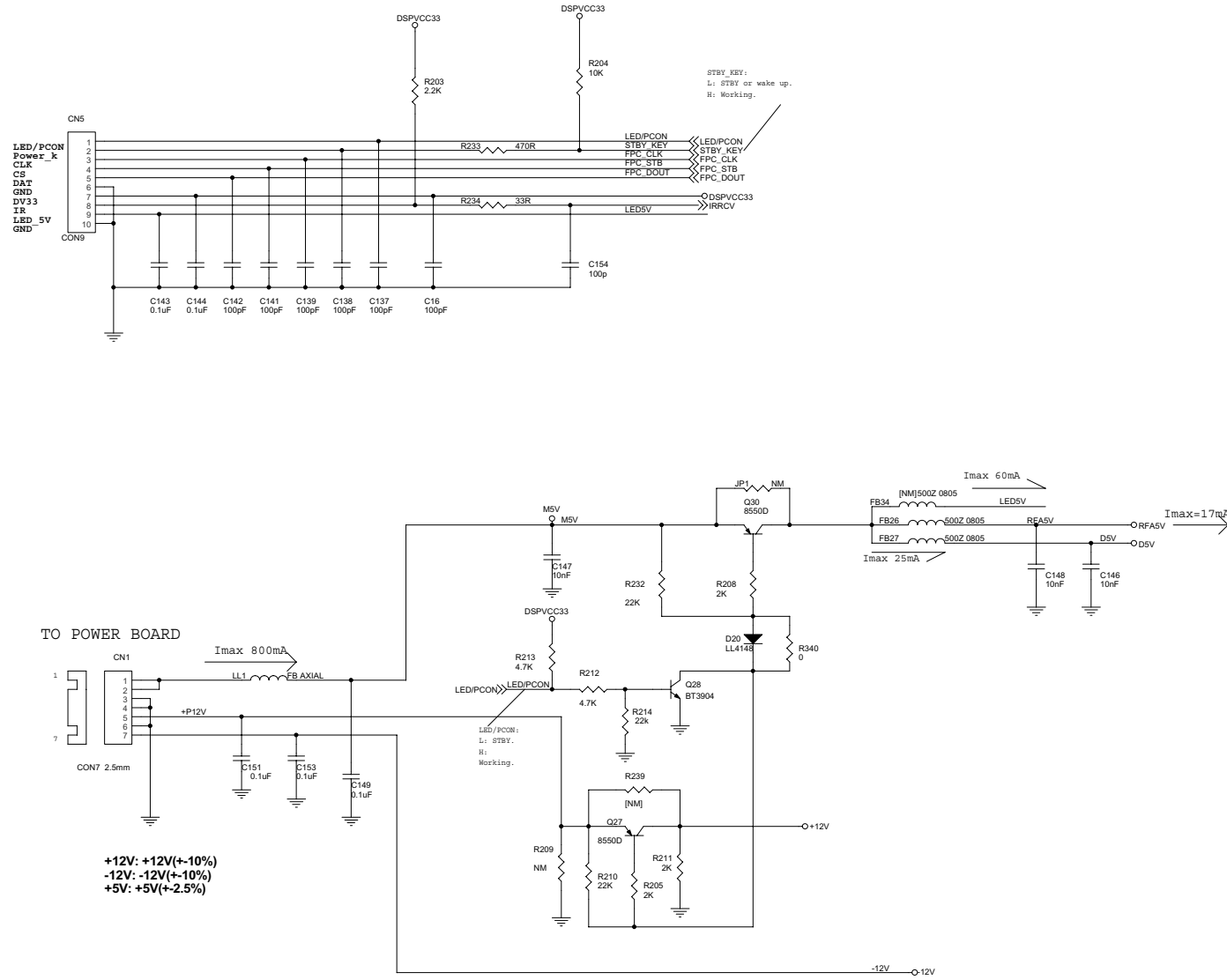


Main Board Electric Diagram for DVP3146K/93: Audio Input_Out



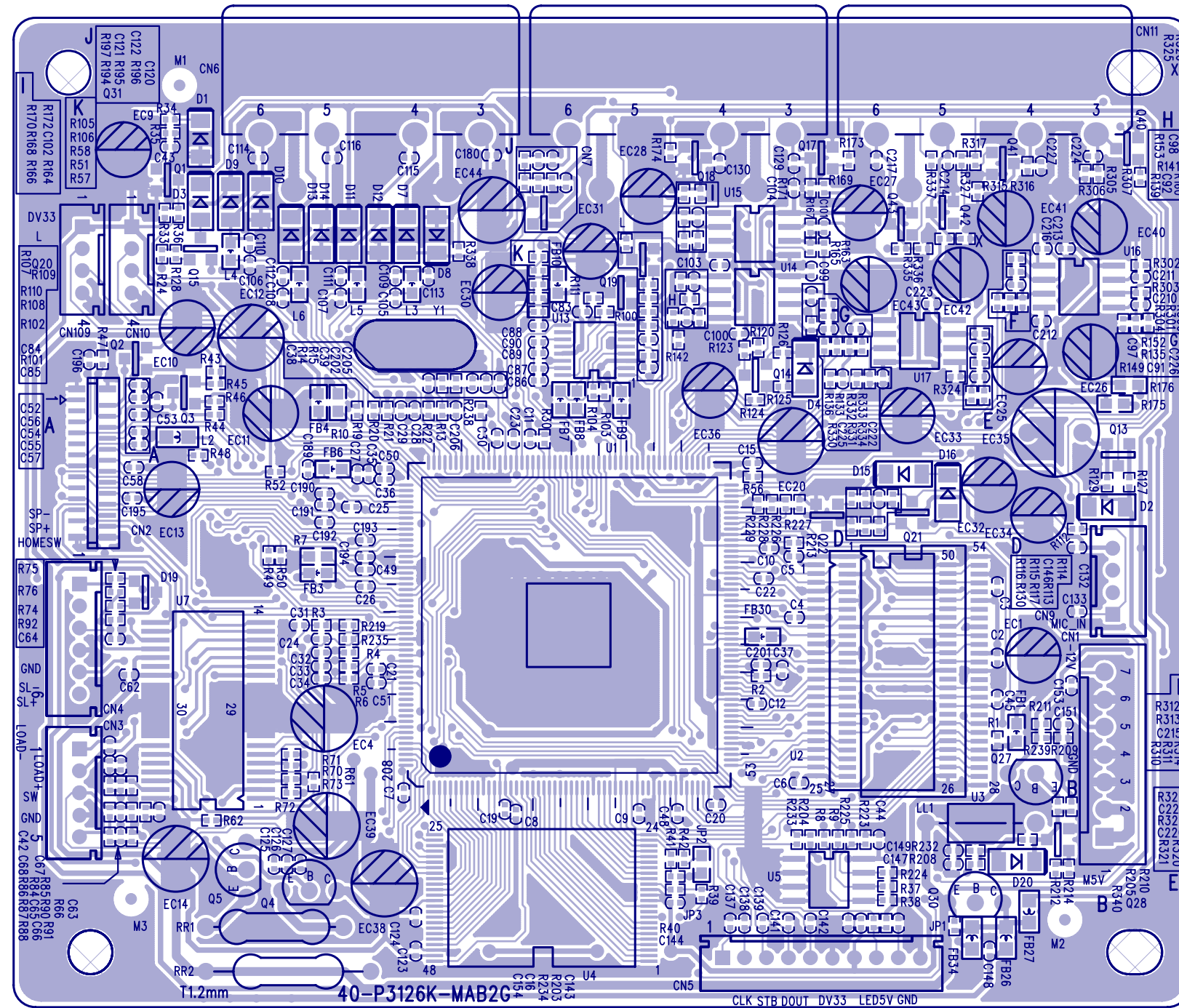
CN7	E3	R108	A1
CN9	B1	R109	A1
CN11	D4	R110	A1
C81	A1	R111	A1
C84	A2	R112	A2
C85	A1	R113	A2
C86	A2	R114	A2
C87	A2	R115	A2
C88	A2	R116	A2
C89	A2	R117	A2
C90	A2	R120	B4
C91	C1	R123	B4
C92	C1	R124	A4
C97	C1	R125	A4
C98	C1	R126	A4
C99	C1	R127	A3
C100	C1	R128	A4
C101	D1	R129	A3
C102	D1	R130	A2
C103	D1	R133	B1
C104	D2	R135	C1
C120	D3	R136	B1
C121	D3	R139	B1
C122	D3	R141	C1
C129	D3	R142	B1
C130	D3	R149	C1
C132	B1	R152	C1
C133	B1	R153	C1
C210	B3	R160	C1
C211	C3	R163	C1
C212	C3	R164	C1
C213	C3	R165	C1
C214	D4	R166	C1
C215	B4	R167	D1
C216	C3	R168	D1
C217	D4	R169	D1
C220	B2	R170	D1
C221	C2	R171	D1
C222	C2	R172	D1
C223	C2	R173	D1
C224	D4	R174	D1
C225	B2	R175	D2
C226	C2	R176	D2
C227	D4	R194	D3
D2	A3	R195	D3
D3	B3	R196	D3
D4	A4	R197	D3
D15	A2	R300	B3
D16	A2	R301	B3
EC25	D2	R302	C3
EC26	D2	R303	C3
EC27	D1	R304	C3
EC28	D1	R305	C3
EC30	A1	R306	C3
EC31	A1	R307	C3
EC32	A2	R310	B3
EC33	A2	R311	B4
EC34	A2	R312	C3
EC35	A3	R313	C3
EC36	A4	R314	C4
EC40	C3	R315	C4
EC41	C4	R316	C4
EC42	C2	R317	C4
EC43	C2	R320	B2
FB10	B1	R321	B2
Q13	B3	R322	C2
Q14	A4	R323	C2
Q15	A3	R324	C2
Q17	D1	R325	C2
Q18	D1	R326	C2
Q19	A1	R327	C2
Q20	A1	R330	B2
Q21	A2	R331	B3
Q22	A2	R332	C2
Q31	D3	R333	C2
Q40	D3	R334	C3
Q41	D4	R335	C2
Q42	D2	R336	C3
Q43	D3	R337	C3
RS1	A1	U13	A1
RS7	A1	U14A	C1
RS8	A1	U14B	C1
R100	A1	U15A	D1
R101	A1	U15B	D1
R102	A1	U16A	C4
R103	A1	U16B	C3
R104	A1	U17A	C2
R105	A1	U17B	C2
R106	A1		
R107	A1		

Main Board Electric Diagram for DVP3146K/93: Power_Video Out_

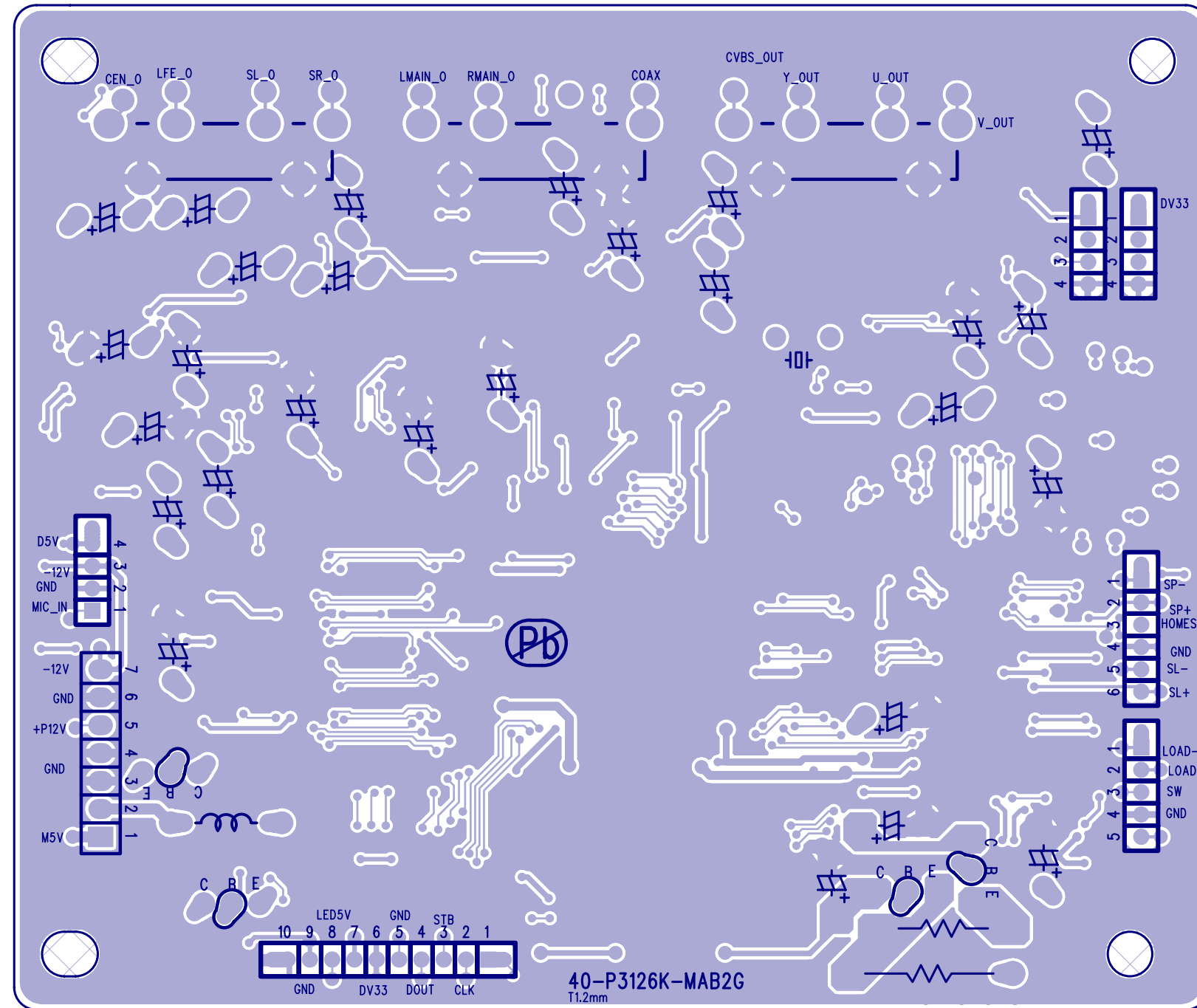


- CN1 A 3
- CN5 A 1
- CN6 D 3
- C16 A 2
- C105 C 2
- C106 C 2
- C107 C 2
- C108 C 3
- C109 C 1
- C110 D 2
- C111 D 2
- C112 D 3
- C113 D 2
- C114 D 2
- C115 D 2
- C116 D 3
- C137 A 2
- C138 A 2
- C139 A 2
- C141 A 2
- C142 A 2
- C143 A 2
- C144 A 2
- C146 C 3
- C147 B 2
- C148 C 3
- C149 A 3
- C151 A 3
- C153 A 3
- C154 B 2
- C180 C 3
- D7 D 1
- D8 D 1
- D9 D 2
- D10 D 2
- D11 D 2
- D12 D 2
- D13 D 3
- D14 D 3
- D20 B 3
- EC44 D 1
- FB26 B 2
- FB27 B 2
- FB34 B 2
- JP1 B 2
- LL1 A 3
- L3 C 1
- L4 C 2
- L5 C 2
- L6 C 3
- Q27 B 3
- Q28 B 3
- Q30 B 2
- R203 A 1
- R204 B 1
- R205 B 3
- R208 B 3
- R209 B 3
- R210 B 3
- R211 B 3
- R212 B 3
- R213 B 3
- R214 B 3
- R232 B 3
- R233 B 1
- R234 B 2
- R239 B 3
- R338 D 1
- R340 B 3

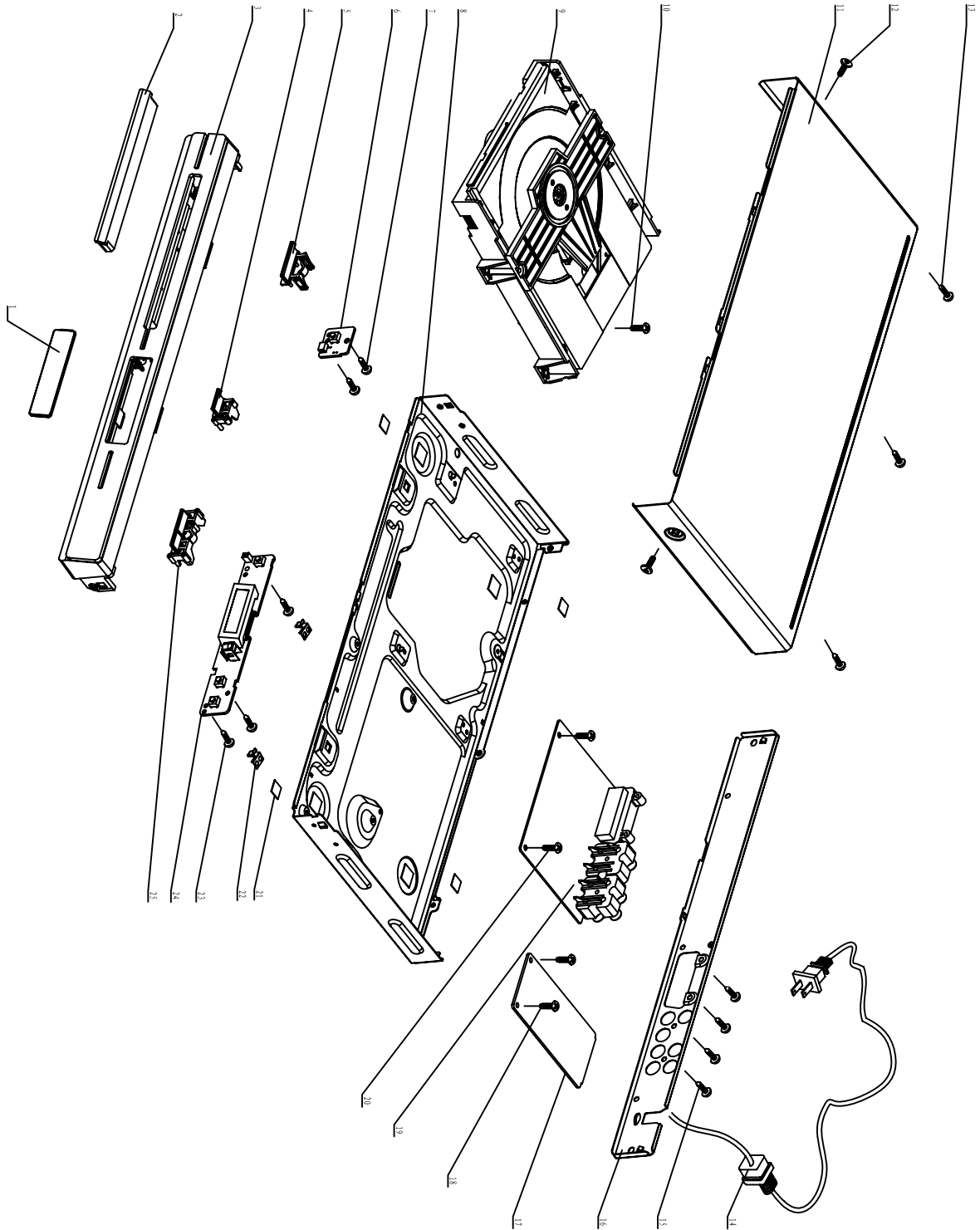
Main Board Print-Layout (Top Side) for DVP3146K/93



Main Board Print-Layout (Bottom Side) for DVP3146K/93



DVP3126/XX,DVP3146/XX Mechanical Exploded View



Remark: It's a general Mechanical Exploded View for DVP3126/XX,DVP3146/XX,
Detailed information please refer to Model set.

Ass'y1 is the assembled component for location 1,3,4,5,25

ENCASING & ACCESSORIES PARTS LIST

Accessory

No	12NC No.	Part Name	Q'ty
Assy1	996510002904	Front Panel Ass'y for DVP3126/94 ,DVP3126X/94	1
	996510002893	Front Panel Ass'y for DVP3126/98/96/51	
	996510002683	Front Panel Ass'y for DVP3146/94,DVP3146X/94	
2	996510002682	Front Door Ass'y for DVP3146/94,DVP3146X/94	1
	996510002892	Front Door Ass'y for DVP3126/94/98/96/51	1
6	996510001163	Ass'y-Switch Board	1
8	996510001177	Bottom Cabinet	1
9	996510001805	Loader for DVP3126/94/98,DVP3126x/94	1
	996510002887	Loader for DVP3126/96/51	
	996510001166	Loader for DVP3146/94,DVP346x/94	
11	/	Top cover	1
	996510001682	Top cover for DVP3126/94,DVP3126x/94,DVP3146/94, DVP3146x/94	
14	996510001179	Power Cord for DVP3126/94/51,DVP3126x/94, DVP3146/94,DVP3146X/94	1
16	996510001537	Power Cord for DVP3126/98	
	996510002223	Power Cord for DVP3126/96	
17	996510002899	Back Panel for DVP3126/94,DVP3126x/94	1
	996510001883	Back Panel for DVP3146/94 ,DVP3146x/94	
	996510002901	Back Panel for DVP3126/98	
	996510002890	Back Panel for DVP3126/96	
19	996510001820	Ass'y-Power Board for DVP3126/94,DVP3126x/94	1
	996510001190	Ass'y-Power Board for DVP3126/98	
	996510001878	Ass'y-Power Board for DVP3146/94/96 DVP3126/51,DVP3146x/94	
	996510002902	Ass'y-Main Board for DVP3126/94,DVP3126x/94	1
	996510002891	Ass'y-Main Board for DVP3126/98/96/51	
	996510002680	Ass'y-Main Board for DVP3146/94,DVP3146x/94	
21	/	Pad 4	1
22	/	ESD Pad 1	1
24	996510001164	Ass'y-Front Board DVP3126/94,DVP3126x/94	1

Cable

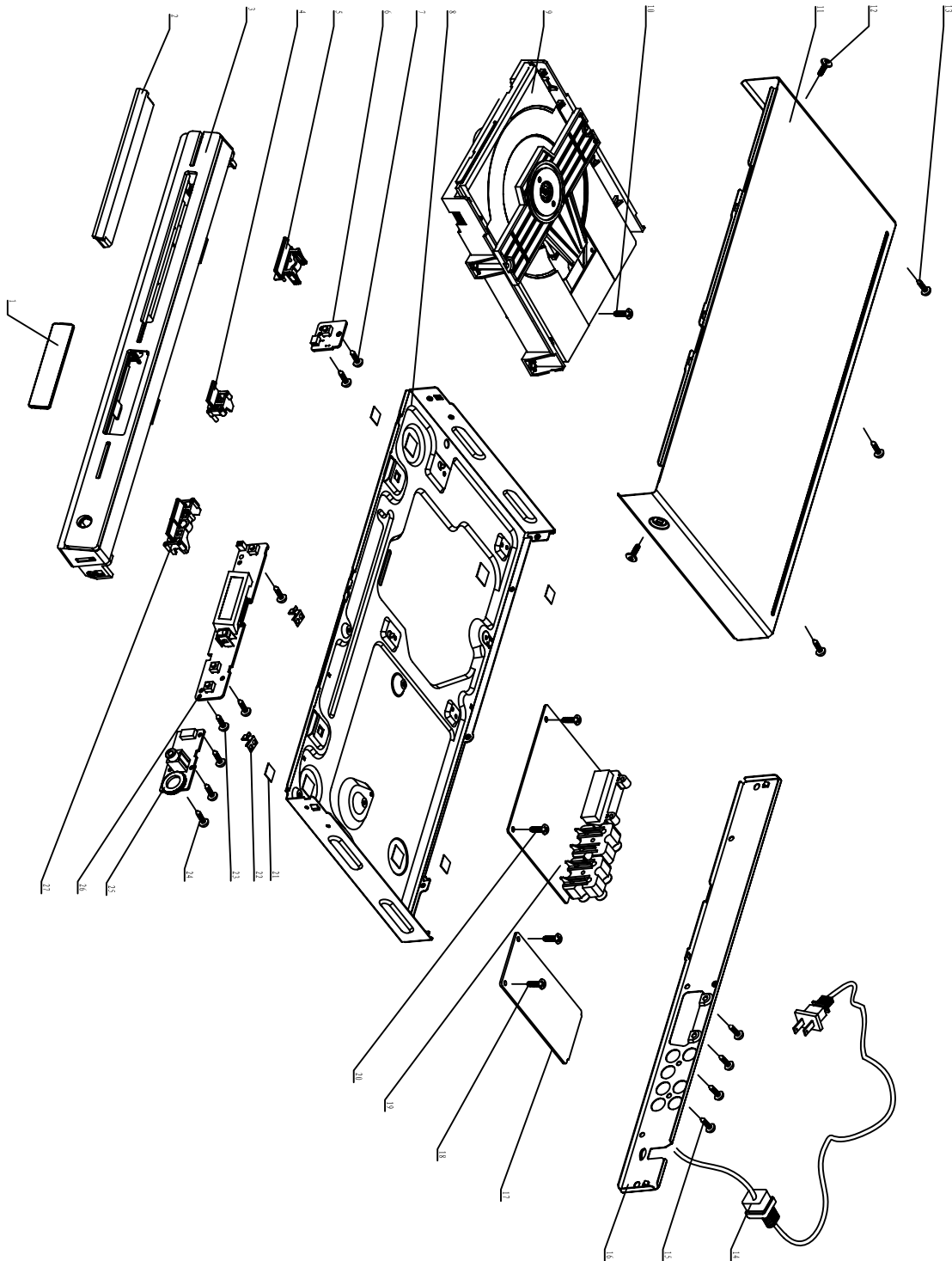
C0N302	996510001171	2P HS DVP3126/94 ,DVP3126x/94
CON301	996510001172	HS 9PIN DVP3126/94,DVP3126x/94
CN2	996510001168	24PIN HS DVP3146/94 ,DVP3146x/94
CN1	996510001169	TJC3-7Y/SCN-7P L=80MM for DVP3126 /94/98 , DVP3126x/94
CN3		PH-5Y/PH-5Y L=130MM 1 for DVP3126/94,
CN1	996510001192	DVP3126X/94,DVP3146/94,DVP3146x/94 CABLE HS 7P 2468#26 for DVP3126/96/51,
CN4	996510001904	DVP3146/94,DVP3146x/94
CN4	996510001170	6PIN HS for DVP3146/94,DVP3146x/94 / 6PIN HS for DVP3126/51

SCREW LIST

No	12NC No.	Part Name	Q'ty
7	/	S/T Screw B2.6X8 BF	2
10	/	Machine Screw	1
12	/	Triangle M/C Screw 3*6	2
13	/	Triangle M/C Screw B3*6	3
15	/	S/T Screw B 3 X 8 BF	4
18	/	Triangle M/C Screw B3*6	2
20	/	Triangle M/C Screw B3*6	2
23	/	S/T Screw B2.6X8 BF	3

Note:Only the parts mentioned in this list are normal service spare parts

DVP3126K/XX,DVP3146K/XX,DVP3148K/XX Mechanical Exploded View



Remark: It's a general Mechanical Exploded View for DVP3126K/XX,DVP3146K/XX,DVP3148K/XX
Detailed information please refer to Model set.

Ass'y1 is the assembled component for location 1,3,4,5,27

ENCASING & ACCESSORIES PARTS LIST

No	12NC No.	Part Name	Q'ty
Assy1	996510004028	Front Panel Ass'y for DVP3126K/61	1
	996510002889	Front Panel Ass'y for DVP3126K/56/96	
	996510002678	Front Panel Ass'y for DVP3146K/93	
	996510002671	Front Panel Ass'y for DVP3146K/96/98	
	/	Front Panel Ass'y for DVP3148K/51	
2	996510002896	Front Panel Ass'y for DVP3126K/98/51/93	
	/	Front Panel Ass'y for DVP3146K/51	
	996510002888	Front Door Ass'y for DVP3126K/61/56/96/98/51/93	1
6	996510002677	Front Door Ass'y for DVP3146K/93	
	996510002670	Front Door Ass'y for DVP3146K/96/98/51	
	/	Front Door Ass'y for DVP3148K/51	
8	996510001163	Ass'y-Switch Board for DVP3146K/93	1
		DVP3126K/96/56/61/98/51/93	
9	996510001188	Ass'y-Switch Board for DVP3146K/96/98/51, DVP3148K/51	
		DVP3148K/51	
11	996510001177	Bottom Cabinet	1
14	996510001805	Loader for DVP3126K/98	1
	996510002887	Loader for DVP3126K/56/96/51/61/93	
	996510001864	Loader for DVP3146K/93/51, DVP3148K/51	
16	996510001166	Loader for DVP3146K/96/98	
	996510001682	Top cover for DVP3126K/61/56/96/98/51/93	1
	/	DVP3146K/93/96/51, DVP3148K-51	
17	/	Top cover for DVP3146K/98	
	996510005741	Power Cord for DVP3126K/61	1
	996510001206	Power Cord for DVP3126K/93	
	996510001179	Power Cord for DVP3126K/56/51, DVP3148K/51	
	/	DVP3146K/51	
18	996510002223	Power Cord for DVP3126K/96, DVP3146K/96	
	996510001537	Power Cord for DVP3146K/98, DVP3126K/98	
	996510005742	Rear Cabinet for DVP3126K/61	1
	996510002897	Rear Cabinet for DVP3126K/93	
	/	Rear Cabinet for DVP3126K/56/51	
	/	Rear Cabinet for DVP3126K/96	
	/	Rear Cabinet for DVP3146K/93	
	/	Rear Cabinet for DVP3146K/96	
	/	Rear Cabinet for DVP3146K/98	
	/	Rear Cabinet for DVP3148K/51	
19	/	DVP3146K/51	
	/	Rear Cabinet for DVP3126K/98	
	996510001878	Ass'y-Power Board for DVP3126K/56/96/51/61/93	1
21		DVP3146K/93/96/51, DVP3148K/51	
	996510002667	Ass'y-Power Board for DVP3146K/98, DVP3126K/98	
	996510002886	Ass'y-Main Board for DVP3126K/61/56/96/98/51	1
22	996510002894	Ass'y-Main Board for DVP3126K/93	
	996510002673	Ass'y-Main Board for DVP3146K/93	
	996510001877	Ass'y-Main Board for DVP3146K/96/98/51	
	/	DVP3148K/51	
25	996510001183	Ass'y-OK Board for DVP3126K/61/98/51, DVP3146K/93/96/98/51, DVP3148K/51	1
	996510002674	Ass'y-OK Board for DVP3126K/93	
	996510002674	Ass'y-OK Board for DVP3126K/56/96	

ENCASING & ACCESSORIES PARTS LIST

No	12NC No.	Part Name	Q'ty
26	996510001164	Ass'y-Front Board for DVP3126K/61/56/96/51/93	1
		DVP3146K/93	
	996510001189	Ass'y-Front Board for DVP3146K/96/98/51	
		DVP3148K/51	
7	/	S/T Screw B2.6X8 BF	2
10	/	Machine Screw	1
12	/	Triangle M/C Screw 3*6	2
13	/	Triangle M/C Screw B3*6	3
15	/	S/T Screw B 3 X 8 BF	4
18	/	Triangle M/C Screw B3*6	2
20	/	Triangle M/C Screw B3*6	2
23	/	S/T Screw B2.6X8 BF	3
24	/	S/T Screw B2.6X8 BF	2
Accessory			
AVCAB	996510001106	VIDEO CABLE 1500mm	1
RC	996510001778	REMOTE CONTROL for DVP3126K/96/56/98/51/61	1
RC	996510002675	REMOTE CONTROL for DVP3126K/93	
RC	996500034181	REMOTE CONTROL for DVP3146K/96/51/98	
		DVP3148K/51	
RBuffer	996510001203	RIGHT BUFFER for DVP3126K/93/56/96/51/93/61	1
		DVP3146K/93/51	
LBuffer	996510001202	LEFT BUFFER	1
DBOX	996510005744	COLOUR BOX for DVP3126K/61	1
DBOX	996510002895	COLOUR BOX for DVP3126K/93	
DBOX	996510002676	COLOUR BOX for DVP3146K/93	
DBOX	/	COLOUR BOX for DVP3126K/51	
DBOX	/	COLOUR BOX for DVP3146K/51	
DBOX	/	COLOUR BOX for DVP3146K/98	
IFU	996510005756	OPERATION MANUAL for DVP3126K/61	2
FUSE	996510001780	FUSE 2A 250V 5X20MM	1
Battery	996510003815	BAT 1.5V/R03/AAA 1-PACK	1
Cable			
CON301	996510001172	HS 9PIN	1
CN601	996510001184	4P HS	1
CN2	996510001168	24PIN HS for DVP3126K/56/96/98/51/93/61, DVP3146K/96/51/98	1
CON2	996510001904	CABLE HS 7P 2468#26 60 for DVP3126K/56/61/93/96/98/51, DVP3146K/93/96/98/51, DVP3148K/51	1
C0N302	996510001171	2P HS for DVP3126K/96/98, DVP3146K/93	1
C0N302	996510004064	2P HS for DVP3126K/51/61/93	1
C0N302	996510001193	PH-2Y/SAW-2P L=170MM for DVP3146K/96	1
C0N302	/	2P HS for DVP3146K/51/98	1
CN3	996510001192	PH-5Y/PH-5Y for DVP3126K/56/96/98, DVP3146K/96/98, DVP3148K/51	1
CN3	/	PH-5Y/PH-5Y for DVP3126K/51/61/93, DVP3146K/51	1
	996510004063	CABLE PH-5Y/PH-5Y L=130MM for DVP3126K/61/93	
CN4	996510001170	6PIN HS for DVP3146K/96	1
CN4	/	6PIN HS for DVP3126K/51/61/93, DVP3146K/98	1
CN4	996510001222	HS 6P PH-6Y/PH-6Y for DVP3146K/93/51	1

Note: Only the parts mentioned in this list are normal service spare parts

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REVISION LIST

Version 1.0

*Initial release

Version 1.1

* Update Service manual to include 3126/51,3126k/51

* Correction of Partcode to Philips 12nc

Version 1.2

* Include DVP3126X/94 and DVP3146X/94 models

Remark: This Service manual only for Philips Service repairment, Please Don't transmitt or forward it to others.