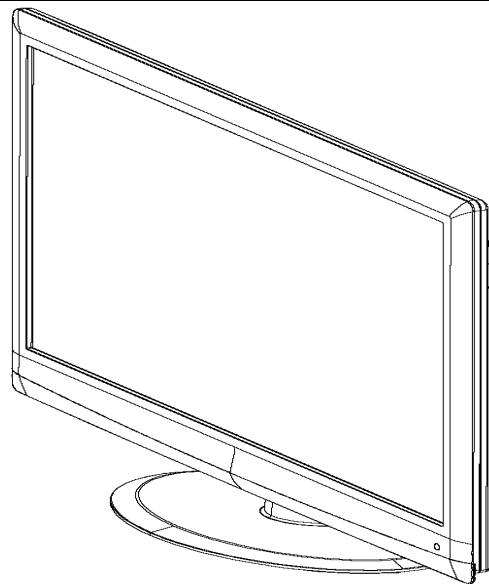


Service

Service

Service



Service Manual

TABLE OF CONTENTS

Description	Page	Description	Page
Table of Contents.....	1	6.1 Main Board.....	29
Important Safety Notice.....	2	6.2 Power Board.....	31
Revision List.....	3	6.3 Key Board.....	40
1. General Specification.....	4	6.4 IR Board.....	40
2. Operating Instructions.....	5	7. Adjustment.....	41
2.1 The Use of Remote Control.....	5	8. Block Diagram.....	42
2.2 To Use the Menus.....	6	9. Wiring Diagram.....	44
2.3 Front Panel Control Knobs.....	13	10. Schematic Diagram.....	47
2.4 How to Connect.....	15	10.1 Main Board.....	47
3. Input/Output Specification.....	17	10.2 Power Board.....	58
4. Mechanical Instructions.....	19	10.3 Key Board.....	64
5. Repair Flow Chart	22	10.4 IR Board.....	65
6. PCB Layout	29		

SAFETY NOTICE

ANY PERSON ATTEMPTING TO SERVICE THIS CHASSIS MUST FAMILIARIZE HIMSELF WITH THE CHASSIS AND BE AWARE OF THE NECESSARY SAFETY PRECAUTIONS TO BE USED WHEN SERVICING ELECTRONIC EQUIPMENT CONTAINING HIGH VOLTAGES.

CAUTION: USE A SEPARATE ISOLATION TRANSFORMER FOR THIS UNIT WHEN SERVICING

Important Safety Notice

Proper service and repair is important to the safe, reliable operation of all Haier Company Equipment. The service procedures recommended by Haier and described in this service manual are effective methods of performing service operations. Some of these service operations require the use of tools specially designed for the purpose. The special tools should be used when and as recommended.

It is important to note that this manual contains various CAUTIONS and NOTICES which should be carefully read in order to minimize the risk of personal injury to service personnel. The possibility exists that improper service methods may damage the equipment. It is also important to understand that these CAUTIONS and NOTICES ARE NOT EXHAUSTIVE. Haier could not possibly know, evaluate and advise the service trade of all conceivable ways in which service might be done or of the possible hazardous consequences of each way. Consequently, Haier has not undertaken any such broad evaluation. Accordingly, a servicer who uses a service procedure or tool which is not recommended by Haier must first satisfy himself thoroughly that neither his safety nor the safe operation of the equipment will be jeopardized by the service method selected.

Hereafter throughout this manual, Haier Company will be referred to as Haier.

WARNING

Use of substitute replacement parts, which do not have the same, specified safety characteristics might create shock, fire, or other hazards.

Under no circumstances should the original design be modified or altered without written permission from Haier. Haier assumes no liability, express or implied, arising out of any unauthorized modification of design. Servicer assumes all liability.

FOR PRODUCTS CONTAINING LASER:

DANGER-Invisible laser radiations when open AVOID DIRECT EXPOSURE TO BEAM.

CAUTION-Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

CAUTION -The use of optical instruments with this product will increase eye hazard.

TO ENSURE THE CONTINUED RELIABILITY OF THIS PRODUCT, USE ONLY ORIGINAL MANUFACTURER'S REPLACEMENT PARTS, WHICH ARE LISTED WITH THEIR PART NUMBERS IN THE PARTS LIST SECTION OF THIS SERVICE MANUAL.

Take care during handling the LCD module with backlight unit

- Must mount the module using mounting holes arranged in four corners.
- Do not press on the panel, edge of the frame strongly or electric shock as this will result in damage to the screen.
- Do not scratch or press on the panel with any sharp objects, such as pencil or pen as this may result in damage to the panel.
- Protect the module from the ESD as it may damage the electronic circuit (C-MOS).
- Make certain that treatment person's body is grounded through wristband.
- Do not leave the module in high temperature and in areas of high humidity for a long time.
- Avoid contact with water as it may a short circuit within the module.
- If the surface of panel becomes dirty, please wipe it off with a soft material. (Cleaning with a dirty or rough cloth may damage the panel.)

Revision List

[illegible]

1. General Specification

Function	PC input function, support TV, AV(CVBS), Component(YPbPr), HDMI inputs, USB input, Earphone Output function.		
Item		LE19Z6	LE22Z6
TV function	TV standard	Color system: PAL/NTSC/SECAM Sound system: B/G, I, D/K, M	
Video input	Rear connector	COMPONENTx1 AVx1 HDMIx1	
	Side connector	HDMIx1 AVx1	
Video output	Rear connector	AVx1	
PC input	Rear connector	PCx1 AUDIO INx1	
Audio output	Audio output: L/R	Speaker (built-in): 2 x 3W	
		For stereo earphone mini socket	
Power supply	Power supply	100-240V~, 50-60Hz	
	Power consumption	<35W	<40W
	Power consumption in standby mode	<1W	
Operating environment	Temperature	5°C ~ 35°C	
	Storage temperature	- 20 °C ~ 50 °C	
	Humidity	20% ~ 80%	
Size	Wide x Height x Thickness (including the seat)	469.4x353.5x150(mm)	536.16x391.2x160(mm)
	Wide x Height x Thickness (excluding the seat)	469.4x313.7x41.4(mm)	536.16x351.43x41.4(mm)
Net weight	(including the seat)	3.1kg	4.0kg
	(excluding the seat)	2.85kg	3.68kg

2. Operating Instructions

2.1 The Use of Remote Control



KEY	Introduction
POWER	Press to turn on/off the TV.
HDMI	Press to choose HDMI source mode.
FREEZE	Freeze or unfreeze a piece of screen.
P.Mode	Press to choose the Auto picture Mode.
S.Mode	Press to choose the Auto sound Mode.
SLEEP	Press to set sleep timer, setting amount of time before your TV turn off automatically.
I/II	Switch stereo or mono mode in Stereo program, select Dual I or Dual II in dual language program.
0-9	Press to enter TV channel number to select channel.
RECALL	Press to display the previous channel or source, or return the previous menu when the menu is displaying.
VOL+/-	Press + or - to adjust the volume.
SOURCE	The Source List should be activated and show on OSD.
MUTE	Switch the sound ON/OFF.
CH \wedge / \vee	Press \wedge or \vee to browse through the TV channels.
\blacktriangle / \blacktriangledown / \blacktriangleleft / \blacktriangleright	Press the keys to navigate OSD menu.
OK	1. Press button to activate the setting/selection of OSD. 2. Press to return previous level.
MENU	1. Press to activate OSD menu or back to previous level of OSD. 2. Exit OSD.
USB	Press to choose USB source mode.
PLAY/PAUSE	Start or stop a Music/picture/video of playing.
REV	Fast Reverse(only for USB).
FWD	Fast Forward(only for USB).
PREV	Select previous Music/picture/video (only for USB).
NEXT	Select next Music/picture/video (only for USB).
ARC	Press this key to select the screen display proportion.
DISPLAY	Display or close the current input source information.
EXIT	Exit current menu.
SCAN	No available.
ZOOM	No available.
H.LOCK	No available.
FAVORITE	No available.
BACK	No available.
REC	No available.
TIMESHIFT	No available.
HELP	No available.
TEXT	No available.
MIX	No available.
SUBCODE	No available.
HOLD	No available.
PIP	No available.
SWAP	No available.
MOVE	No available.

2.2 To Use the Menus

1. Press the Menu key to display the main menu.
2. Use “▲/▼” key to select the function item that needs to be adjusted.
3. Press “▶”(right) or “OK” key to enter the sub-menu, to start or adjust the selected function item.
4. Press Menu button to return to previous menu or to exit.
5. Press “◀”(left) key to return to previous menu.
 - Picture: Adjust picture parameter setting.
 - Audio: Adjust audio parameter setting.
 - Features: Set different functions, timer, TV-lock , etc.
 - Installation: Setting OSD language, channel search, TV reset to factory setting, etc.

SOURCE MENU

1. Press Source key to display Source Menu, and re-press the button to change input source.
2. Press “▲ / ▼” (up/down) key to select input source.
3. Press “▶”(right) or “OK” key for entry.



PICTURE MENU

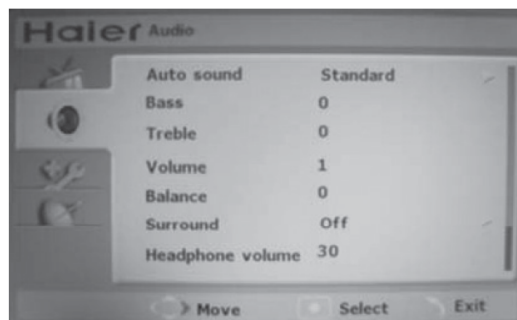
1. Auto Picture: Select smart picture modes, if you select modes except personal mode, the preset value will apply to those items: Contrast, brightness, colour, tint, sharpness, noise reduction, Color Temp, dynamic contrast, dynamic backlight, color enhancement, etc.
2. Contrast: Adjust black and white level for picture, for suitable contrast makes picture clear and bright.
3. Brightness: Video brightness adjustment, usually used together with contrast.
4. Colour: Video color saturation adjustment.
5. Tint: Video tint adjustment.
6. Sharpness: Video sharpness adjustment.
7. Noise reduction: Video noise signal reduction.
8. Color Temp: Provide different color temperature modes.
9. (Advanced Pic): Adjust picture appearance to the best contrast, color and sharpness through digital method.
 - Dynamic contrast: Auto-enhance video contrast.
 - Dynamic backlight: Adjust backlight to get the best visual effect according to brightness.
 - Colour enhancement: Make color much brighter and clearer in detail.
10. Picture format: Switch the picture proportion.



- Notes: 1. Some picture settings would not be available or some items would show differently due to different signal.
2. When the source is HDMI, there would be a item named "PC MODE" in Picture page, and the HDMI picture mode could be selected throught the item.

AUDIO MENU

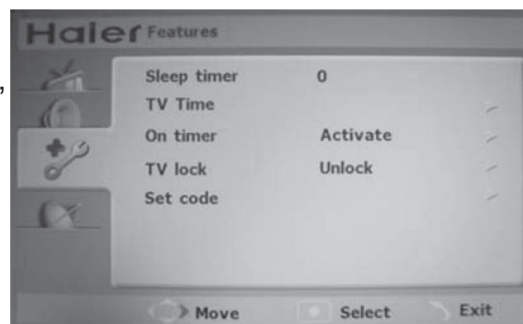
1. Auto sound: Select audio mode. If you select modes except personal mode, the preset value will apply to those items: bass, treble, surround, auto volume, etc.
2. Bass : Bass tone adjustment.
3. Treble : Treble tone adjustment.
4. Volume : Audio volume adjustment.
5. Balance: Adjust audio balance of speakers.
6. (Dual I/II) : Select Dual I or Dual II.
7. (Mono/Stereo) : Select mono or stereo.
8. Surround : Turn on/off Surround.
9. Headphone volume : Headphone volume adjustment.
10. Auto volume : Adjust volume automatically.
11. Delta volume : Balance volume differentia between channels.



Notes : Some audio settings would not be available due to different signal.

FEATURE MENU

1. Sleep timer : TV sleep timer setting. If you set sleep timer to be 0 minutes, the sleep timer is off.
2. TV Time :
 - After you press "TV Time" into sub-menu, press ▲ / ▼ / ◀ / ▶ key and number key to input time and then press "OK" key to confirm.
 - Display current time:
Press "Menu" key to exit main menu and press "OK" key; Select "TV Time" and press "OK" or "▶" key, and current TV time will show on top right corner of the screen.
3. On Timer : You can turn on TV and switch to appointed channel from standby mode automatically at the appointed time with setting on timer.
 - Activate: Set "Daily", "Once", "Off" and other items. While select "Off", you can turn off "On timer", and now only "activate" item is available. Please set TV Time before you activate "On timer".
 - Time: Set timing time.
 - Channel No.: Set input source or channel for timing switch.
4. TV Lock : Lock or unlock all channels and devices. After entering "TV lock" sub-menu, press ▲ / ▼ key to select "lock" or "unlock" and press "OK" key.
5. Set code : Set or modify password. Before entering TV Lock sub-menu, user has to key in the password first (the default password is: 8888) or to set a new password. If the password is valid, a new dialog box will guide you to finish the operation.



Notes : TV Lock will work only when you restart TV.

INSTALLATION MENU

1. Menu Language: Set Menu Language.

2. Channel Search: To select Auto search, Manual search and store channels for user;

- Auto Search: Press ► or “OK” key to start auto search.

To stop the search, please press “OK” key In the searching process, and you will see a dialog box shows “Stop” or “Continue”; To press ◀ / ▶ key to choose “Stop” or “Continue” and press “OK”, you could stop or continue the search.

- Manual Search: Press ► or “OK” key to enter the “Manual search” sub-menu; Press up/down key to select items(Colour system, Sound system, Search, Channel number, Fine-Tune, Store current channel, Store new channel, or Skip channel) you need to adjust.



- Colour system :

Force to set one channel's colour system. Operation steps as follows:

- Press ► or “OK” key to enter sub-menu of the colour system.
- Press ▲ / ▼ key to select colour system type.
- Press ◀ key could return to previous menu but do not select the chosen colour system type; Press “OK” key you can select the chosen colour system type and return to previous menu; If press Menu key and you could directly exit the menu, but the chosen colour system is not stored.
- If you want to store the modification, please press ▲ / ▼ key to select “store current channel” or “store new channel”.
- Press “OK” key to pop-up new menu, and press ◀ / ▶ key to decide whether to store the channel or not.

- Sound system:

Force to set one channel's sound system:

- Press ► or “OK” key to enter Sound system sub-menu.
- Press ▲ / ▼ key to select sound system type
- If you press ◀ key, you could return to the previous menu but do not select the chosen sound system type; Press “OK” key could confirm the selected sound system type and return to previous menu; If you press Menu key and you could directly exit the menu, but the selected sound system is not stored.
- Press ▲ / ▼ key to select “store current channel” or “store new channel”.
- Press “OK” key to pop-up new menu, and press ◀ / ▶ key to decide whether to store the channel or not.

- Search:

Set start frequency for channel search, that means to search channel from this frequency. Operation steps as follows:

- Press ► or “OK” to enter “ Search”sub-menu.
- Press ◀ / ▶ key to shift position of input number; use number key to input number when the position is shifted to the place needed modifying.
- Auto search starts when you press “OK” key or the input number position is in the 3rd ; the searching stop when new channel is found.
- Press “Recall” to return to previous menu. (If you press Menu key and you will directly exit the menu, but the selected sound system is not stored.)
- Press ▲ / ▼ to select “store current channel” or “store new channel”.
- Press “OK” key to pop-up new menu, and press ◀ / ▶ to decide whether to store the channel or not.

- Channel number: Use together with “Store new channel” to preset the serial number of the new channel.
- Fine-tune: Use to change the channel’s frequency.
Operation steps as follows:
 - Press or “OK” to enter fine-tune sub-menu.
 - Press / to adjust frequency, and press “OK” key to confirm.
 - Press / to select “store current channel” or “store new channel”.
 - Press “OK” key to pop-up new menu, and press / key to decide whether to store the channel or not.
- Store current channel: Store the current modification to current channel.
- Store new channel: Store the current modification to current channel and store it in the definite channel.
- Skip channel: Press / key to select, and press “OK” or key to enter “skip channel” Menu, then press / key to decide whether to skip current channel or not. When one channel is skipped, this channel will not be available by pressing remote control “CH \wedge / V” key but could be available by pressing relevant number.

3. Channel Swap:

- Current Channel: TV current channel, and the channel can be switched.
- Target Channel: Channel to be exchanged, and the channel can be switched.
- Swap: Channel exchange action.

4. Preferences:

- Location: Optimize TV Settings to fit your location: Home or Shop.
- Volume bar: Hide or show volume bar when volume adjusting.
- E-label: Only applies to shop. Set E-label’s position and switch.

5. Current software: Shows software version.

6. Local updates: Use to update software.

7. Factory settings: To restore factory settings of TV.

VGA MENU

(The following settings only apply to VGA mode.)

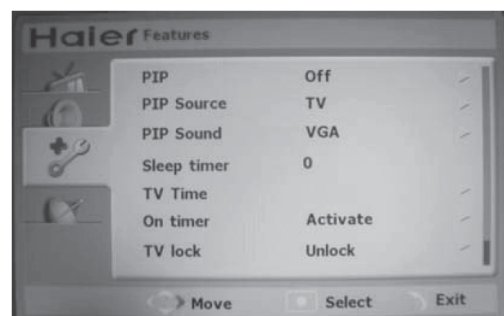
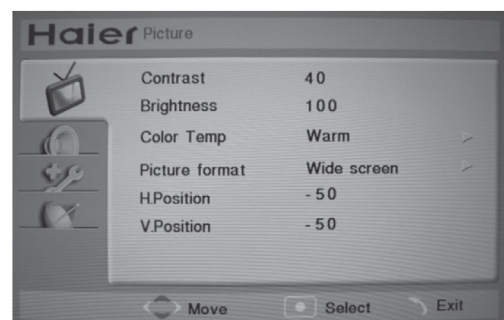
VGA setting in Picture menu:

1. H.Position: Picture horizontal position adjustment.
2. V.Position: Picture vertical position adjustment.

VGA setting in Features menu:

1. PIP: Turn on/off PIP.
2. PIP Source: Choose video source for PIP.
3. PIP Sound: Choose sound source for PIP.
4. Phase: Adjust signal phase.
5. PC Clock: Adjust signal clock .
6. Auto Adjust: Adjust the signal settings automatically.
7. Reset: Reset part of computer settings.

Notes: Some items are only available for TV in signal condition. PIP are also available when HDMI input DVI signal.



Multimedia feature setting (USB)

You could get music, picture, and video document from USB devices through the TV. Operation steps as follows:

1. Press "Source" key.
2. Choose "USB" to show multimedia menu.
3. Press ▲ / ▼ key to choose USB devices.
4. Press ◀ / ▶ key to choose browse way.
5. After entering menu, press ▲ / ▼ key to select music/ picture/ video page.
6. Press ▲ / ▼ / ◀ / ▶ key to select target file and press "OK" to play.



Remarks:

1. USB interface of digital multimedia player is not all-purpose. So when some USB devices could not be recognized, the problem is always not the model malfunction but due to device driver.
2. Because USB devices and memory capability are different, the time needs for multimedia player to read information are also different. So the information reading speed of the player temporarily getting slow are not the model malfunction.
3. The voltage supplied to USB interface is 5V, and the most electrical current is 500mA. When some interface criteria of USB devices are different from standard USB protocol, digital multimedia player may be unable to recognize USB devices correctly, which is normal.
4. USB could be used as an interface to update software.
5. If some files source could not play because of the parameter decoding-limited problem, the problem is not the model malfunction.
6. The system only applies to memory medium with FAT32 format.

Establish and use the channel favorite list

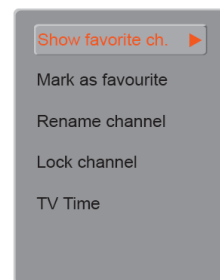
You could establish your favorite TV channel and broadcasting station list, so that you could find these channels easily.

Notes:

You are able to establish and store at most four favorite lists.

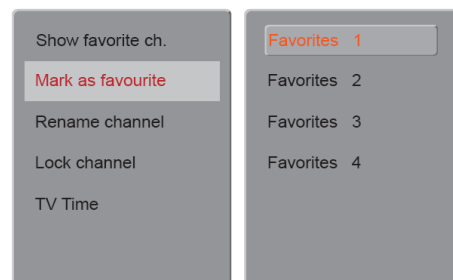
Choose favorite list

1. While watching TV, press “OK” to show channel option menu;
2. Press “OK” to choose “ Show favorite ch. ” and you will find favorite list;
3. Press ▲ / ▼ key to select favorite list;
4. Press “OK” to show favorite channel in the list.



Add channel to Favorite list

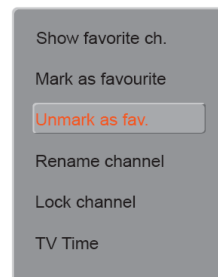
1. While watching TV, switch to the channel you would like to add to favorite list.
2. Press “OK” to show channel option menu.
3. Press ▲ / ▼ key to select “ Mark as favorite ”.
4. Press “OK” or ► key to show favorite list.
5. Press ▲ / ▼ to select favorite list you would like to add new channel.
6. Press “OK” key to finally add channel to the favorite list.



Move channel from favorite list

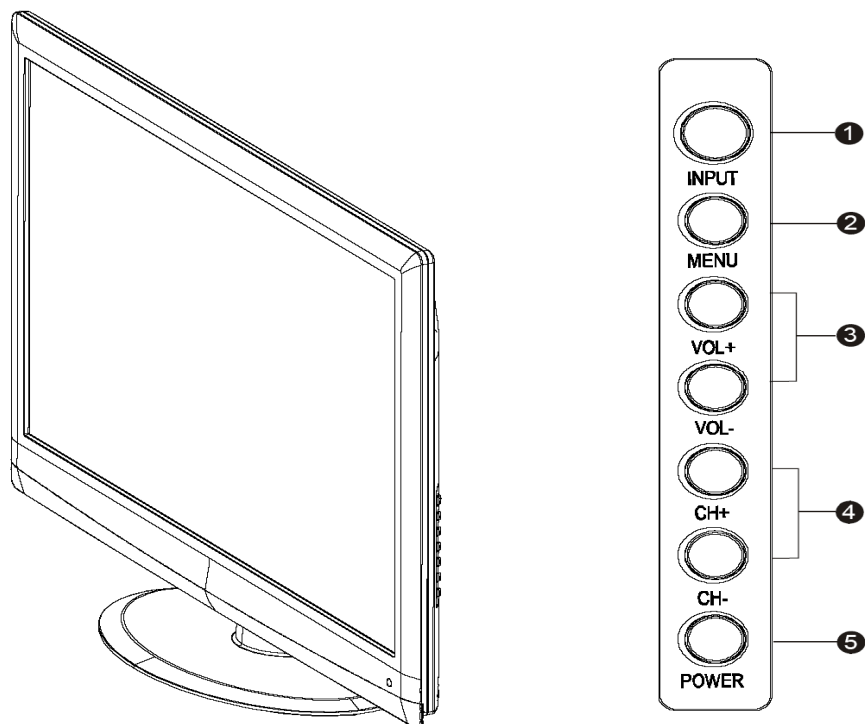
Notes: Please select favorite list of the channel before you move the channel away.

1. While watching TV, press “OK” key to show channel option menu.
2. Press “OK” to choose “ Show favorite ch. ”
3. Press ▲ / ▼ key to select favorite list and press “ OK ” for entry.
4. Press ▲ / ▼ key to select the channel you would like to move the channel away from the list.
5. Press “ OK ” to choose.
6. Press “OK” again to show channel option menu.
7. Press ▲ / ▼ key to choose “Unmark as fav.”

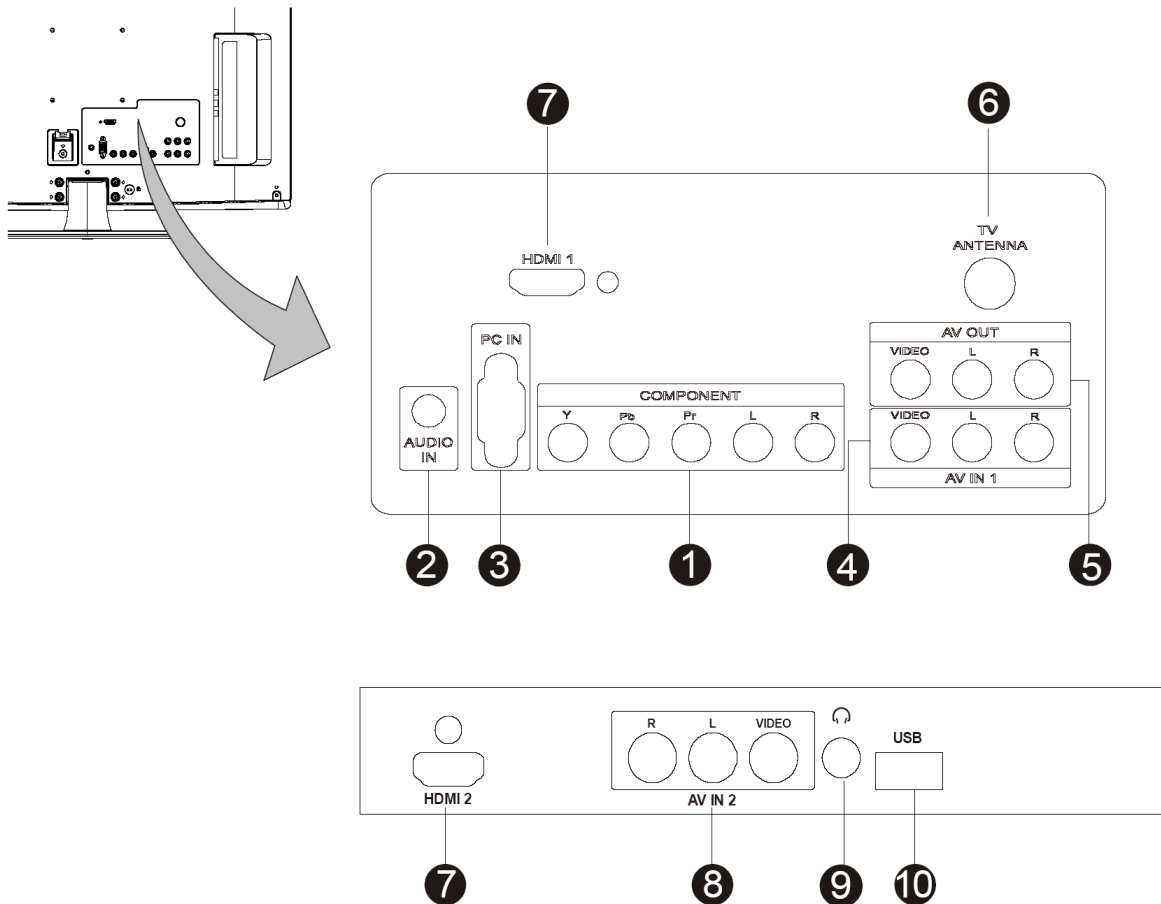


In addition, in channel option menu, “Rename channel” has the function to rename the current channel; “Lock channel” has the function to lock the current channel.

2.3 Front Panel Control Knobs



- ❶ **INPUT:** Press to select the input source, then Press VOL+ or the “ok” of RC to change the input source; while in standby mode, the input may be used to turn on the TV set.
- ❷ **MENU:** Press to open or exit the on-screen menu.
- ❸ **VOL+/-:**
 - In TV mode: Press to increase (+) or decrease (-) the volume.
 - In TV menu: Move right (+) or move left (-) in the options.
- ❹ **CH+/-:**
 - In TV mode: Press to increase (+) or decrease (-) the channel number.
 - In TV menu: Move up (+) and down (-) in the options. while in standby mode, the Channel +/- may be used to turn on the TV set.
- ❺ **POWER:** Press to turn on / off (standby) the TV set.



Explanations on the rear terminals and their functions:

- ① COMPONENT: Color aberration component (YCbCr, YPbPr) Video/ Audio Input Terminal.
- ② AUDIO IN: VGA audio input terminal.
- ③ PC IN: VGA video input terminal.
- ④ AV IN 1: AV IN 1 audio/video input terminal.
- ⑤ AV OUT: AV audio/video output terminal.
- ⑥ TV ANTENNA: Antenna input terminal.
- ⑦ HDMI1/HDMI2 input terminal.
- ⑧ AV IN 2: AV IN 2 audio/video input terminal.
- ⑨ Earphone output socket.
- ⑩ USB.

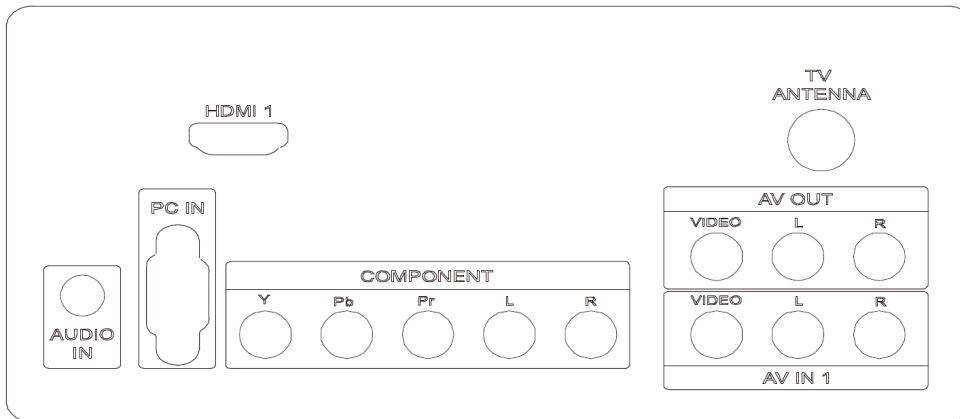
2.4 How to Connect

Friendly tips:

If you want to hang the TV set on a wall, all connecting lines must be inserted into the ports of the TV set in advance.

Whenever a peripheral equipment is connected to the TV set, be sure the TV set is powered off.

While connecting peripheral equipment, connect the cable to the terminal with the same color as its own.



Antenna input:

Insert the antenna terminal into the TV set's antenna socket. This socket is a 75Ω coaxial cable input.

AV IN 1 input:

Connect the VIDEO outputs of DVD player, LCD player, video recorder or video camera, etc. to the VIDEO input of the TV set.

Audio input: Connect the audio signal source (PC, DVD player, LCD player, video recorder or video camera, etc.) to the audio input port.

AV output:

This interface can be used to output the TV signal of the unit to another TV set.

Component input:

Connect the audio / video of the component signal source (PC, DVD player, LCD player, video recorder or video camera, etc.) to the component signal input port.

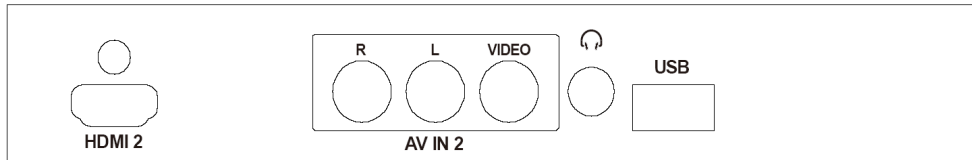
PC signal and PC audio input:

Connect the PC signal line to the PC and the PC interface of the TV set.

Connect the audio line to the PC audio input interface of a PC or a TV set.

HDMI:

It refers to "high definition multimedia interface". It connects the HDMI signal connecting line to DVD player, etc.



Earphone socket:

The user may use the earphone via the earphone socket.

AV IN 2 input:

Connect the VIDEO outputs of DVD player, LCD player, video recorder or video camera, etc. to the VIDEO input of the TV set.

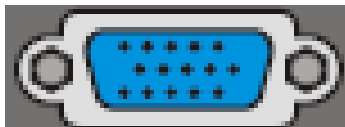
Audio input:

Connect the audio signal source (PC, DVD player, LCD player, video recorder or video camera, etc.) to the audio input port.

3. Input/Output Specification

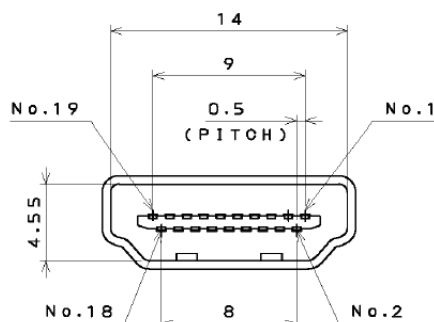
3.1 Input Signal Connector

D-SUB



Pin No.	Description	Pin No.	Description
1	Red Video	9	No Pin
2	Green Video	10	Sync Ground
3	Blue Video	11	RXD
4	TXD	12	Serial Data for DDC
5	Ground	13	H. Sync
6	Red Ground	14	V. Sync
7	Green Ground	15	Serial Clock for DDC
8	Blue Ground		

HDMI



Pin No.	Description	Pin No.	Description
1	TMDS Data2+	11	TMDS Clock Shield
2	TMDS Data2 shield	12	TMDS Clock-
3	TMDS Data2-	13	CEC
4	TMDS Data1+	14	Reserved (N.C. on device)
5	TMDS Data1 shield	15	SCL
6	TMDS Data1-	16	SDA
7	TMDS Data0+	17	DDC/CEC Ground
8	TMDS Data0 shield	18	+5V Power
9	TMDS Data0-	19	Hot Plug Detect
10	TMDS Clock+		

3.2 Input Signal Timing

Component (YPbPr)

SN	Signal Format	Refresh Frequency (Hz)
1	480i/480p	60
2	576i/576p	50
3	720p	50/60
4	1080i	50/60

Analog RGB

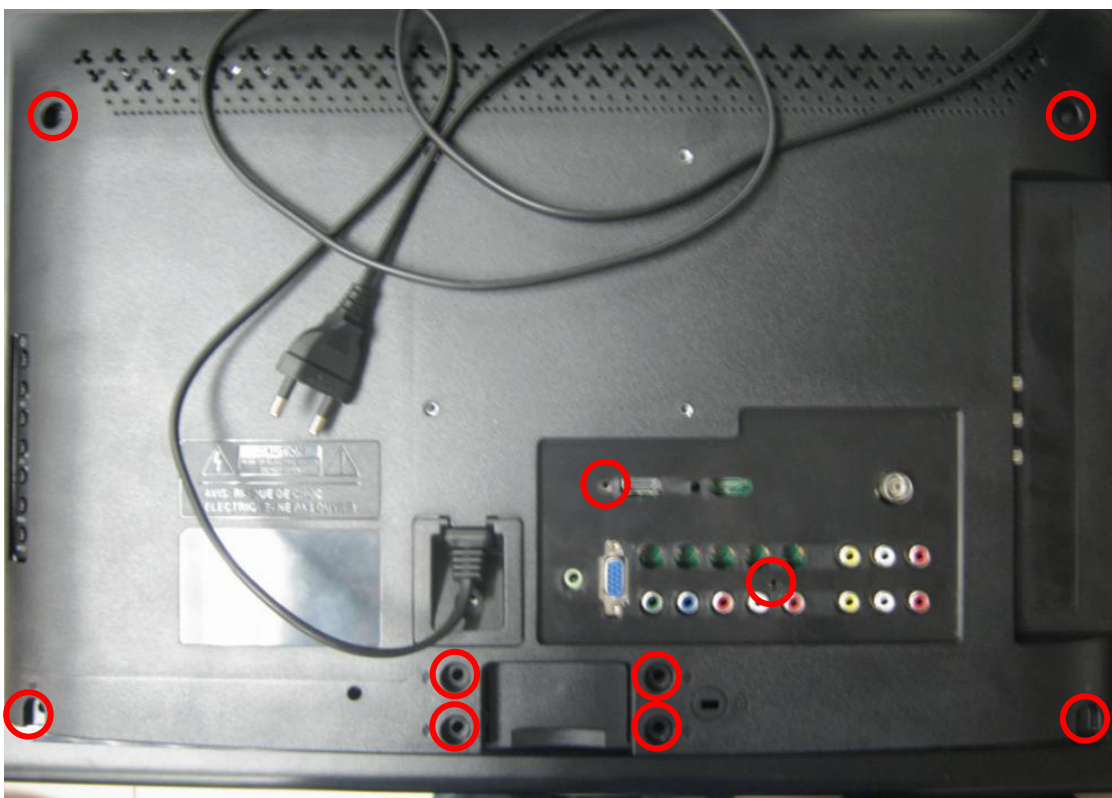
Number	Resolution	Refresh Frequency (Hz)
1	640*480	60
2	640*480	75
3	720*400	70
4	800*600	56
5	800*600	60
6	800*600	72
7	800*600	75
8	1024*768	60
9	1024*768	70
10	1024*768	75
11	1440*900 (only for LE22Z6)	60
12	1280*1024 (only for LE22Z6)	60
13	1360*768 (recommended)	60
14	1920*1080 (only for LE22Z6)	60

HDMI

SN	Name of Signal	Refresh Frequency (Hz)
1	480i/480p	60
2	576i/576p	50
3	720p	50/60
4	1080i/1080p	50/60
5	720*400	70
6	640*480	60/75
7	800*600	56/60/72/75
8	1024*768	60/70/75
9	1280*1024 (only for LE22Z6)	60
10	1440*900 (only for LE22Z6)	60
11	1360*768	60
12	1920*1080 (only for LE22Z6)	60

4. Mechanical Instructions

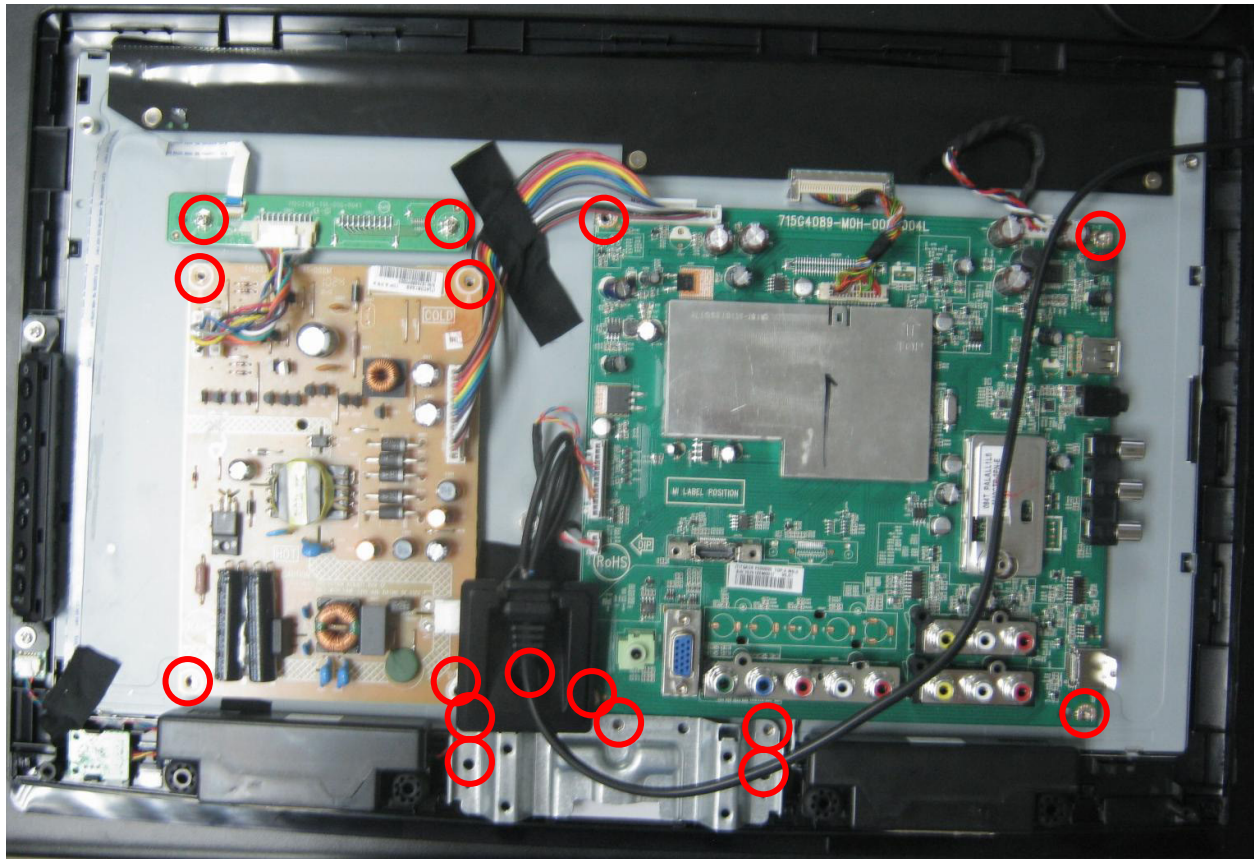
Step1. Remove the STAND ASS'Y and REAR COVER.
LE19Z6



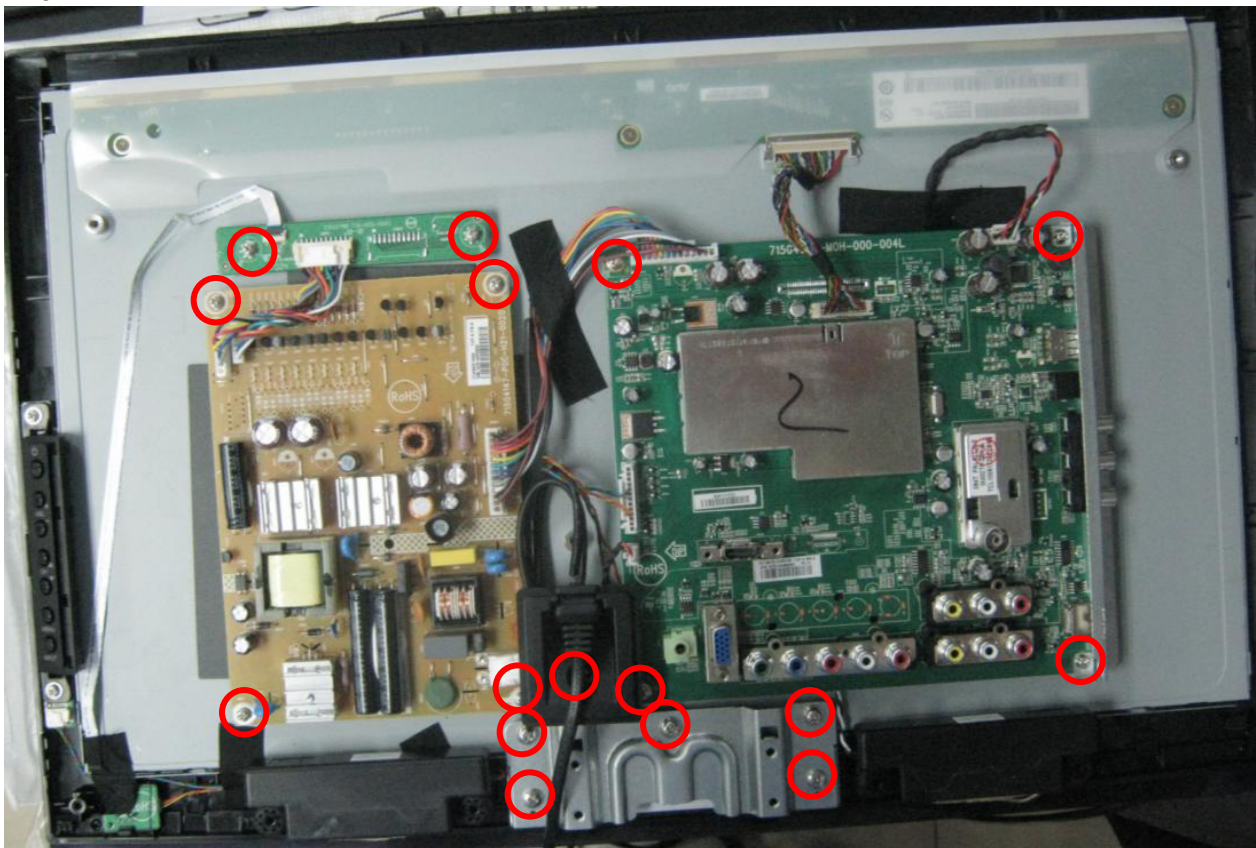
LE22Z6



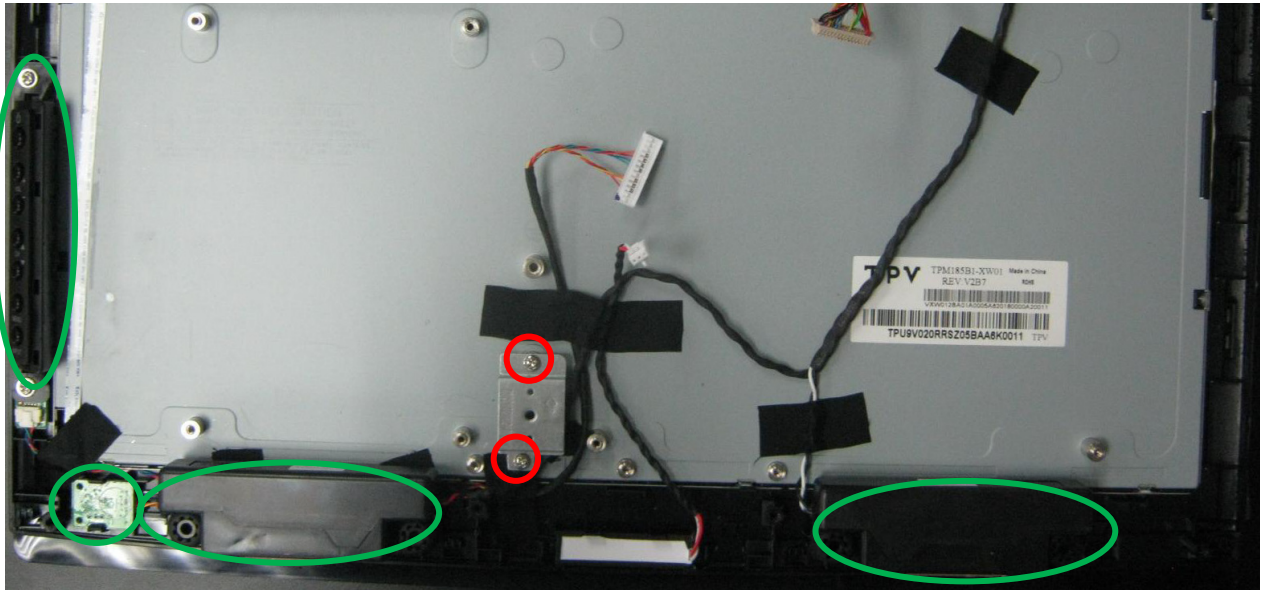
Step2. Remove the AC COVER, HINGE BKT, MAIN BOARD, POWER BOARD and INVERTER BAORD.
LE19Z6



LE22Z6

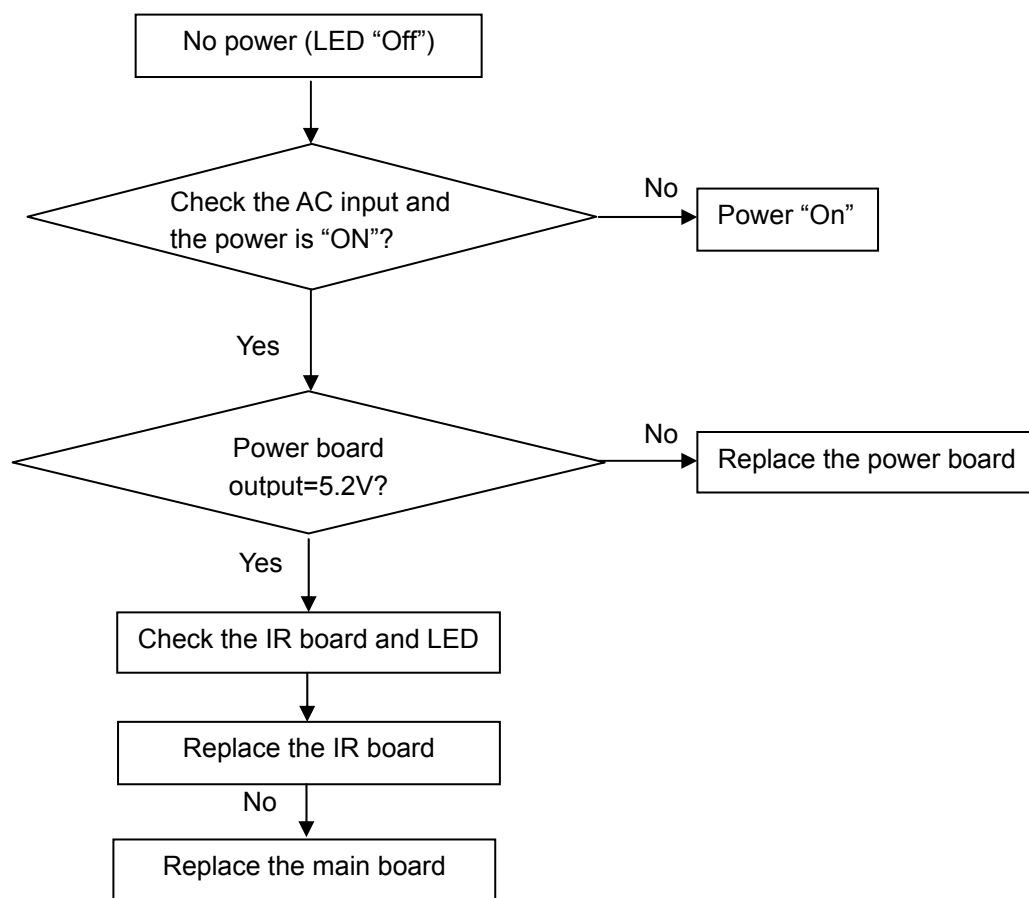


Step3. Remove the AC BKT, KEY BOARD, IR BOARD and SPEAKERS and separate PANEL and BEZEL.

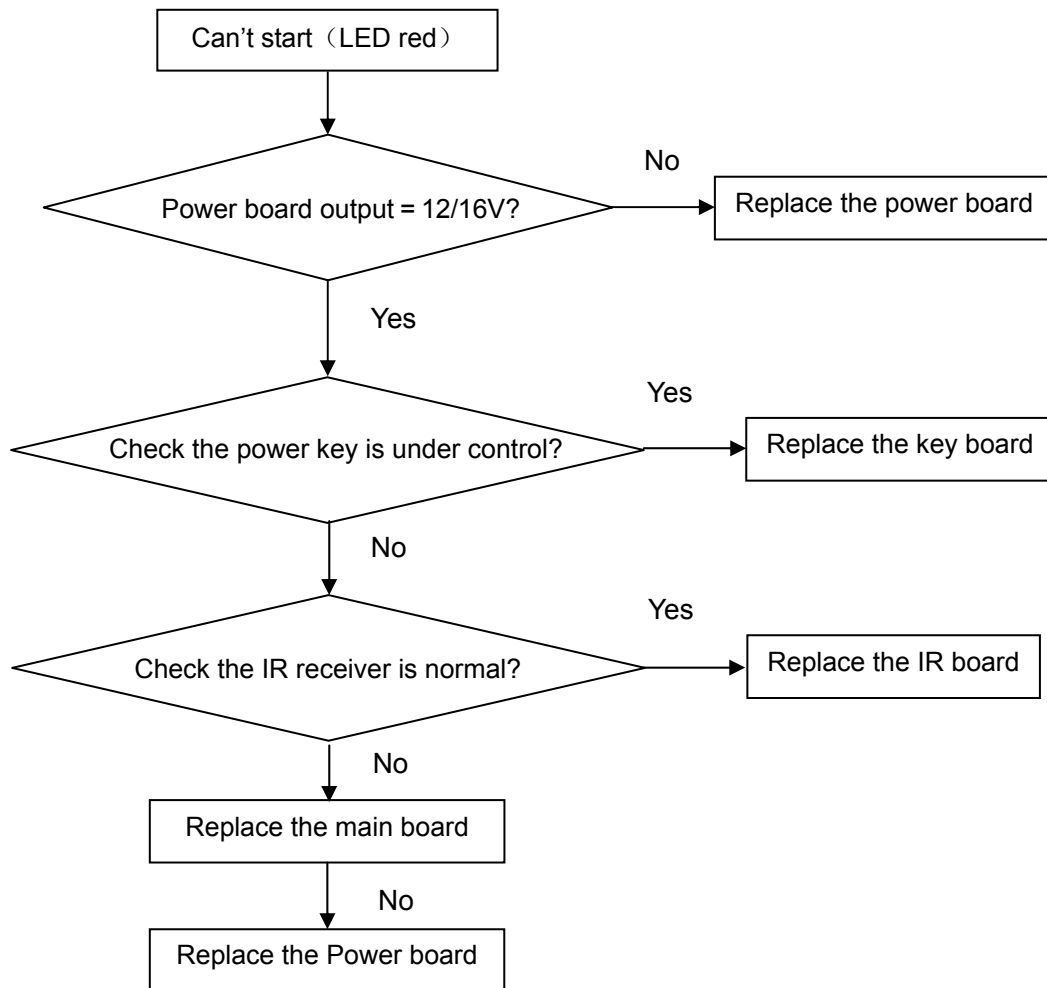


5. Repair Flow Chart

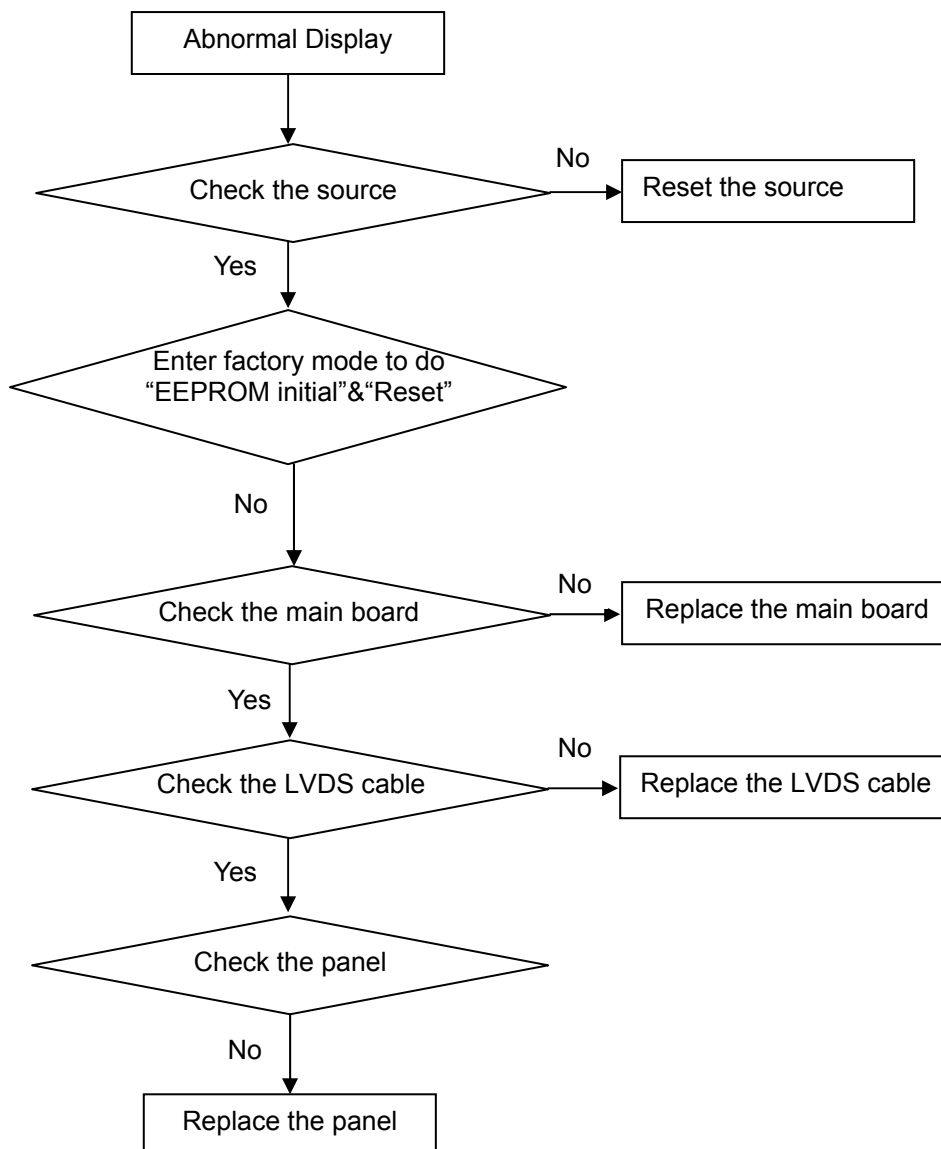
1. No power



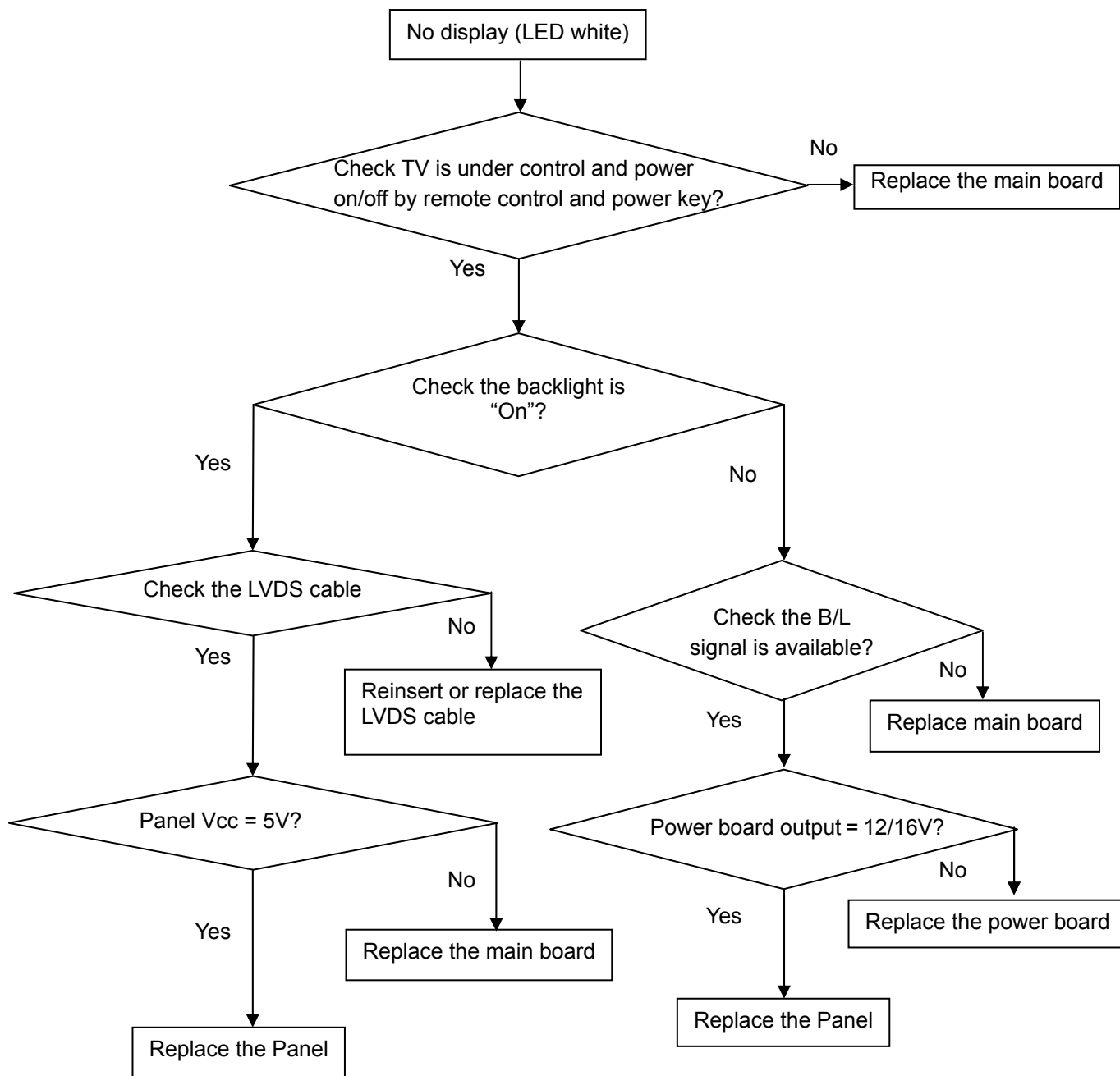
2. Can't start



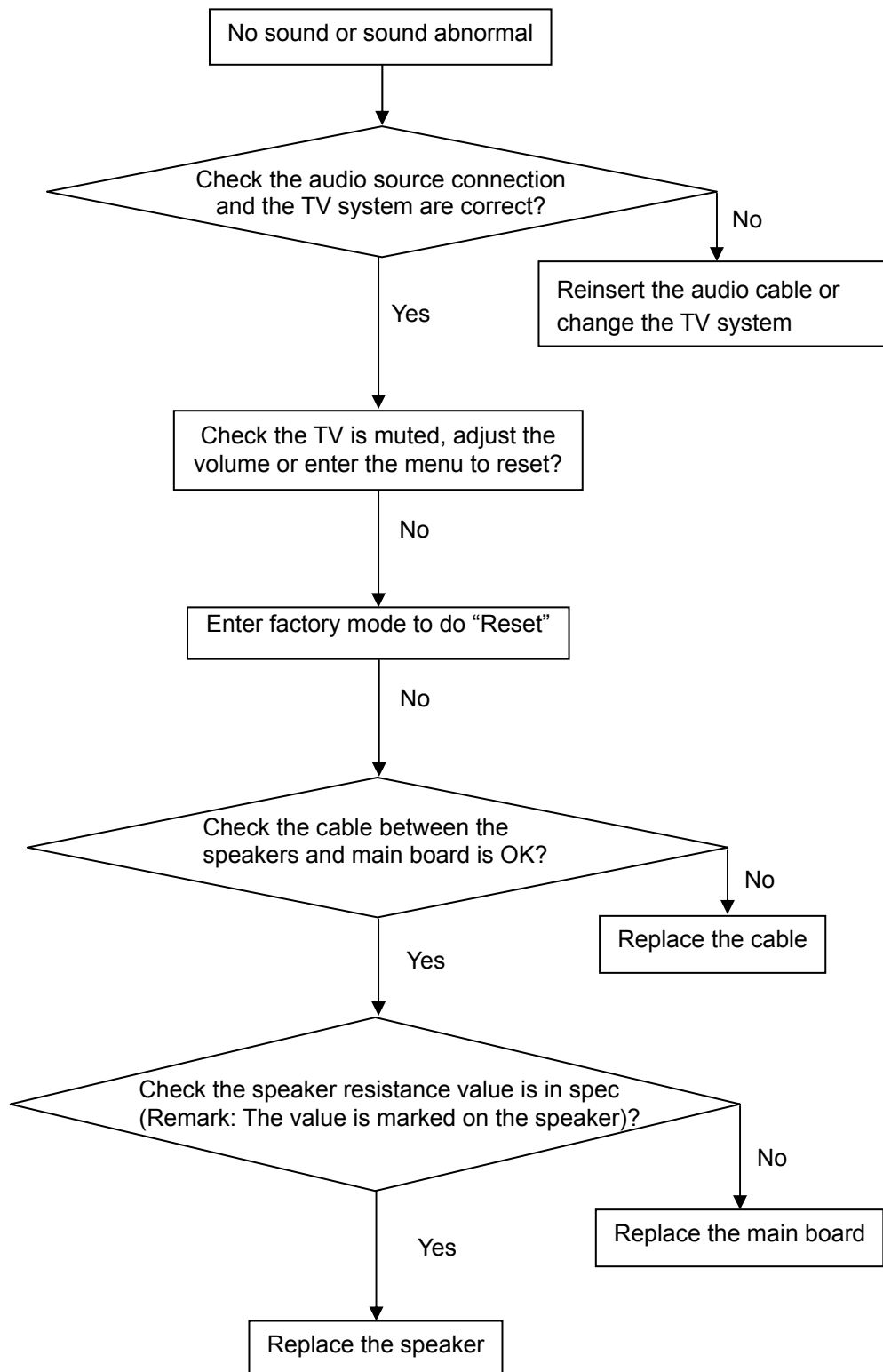
3. Abnormal Display



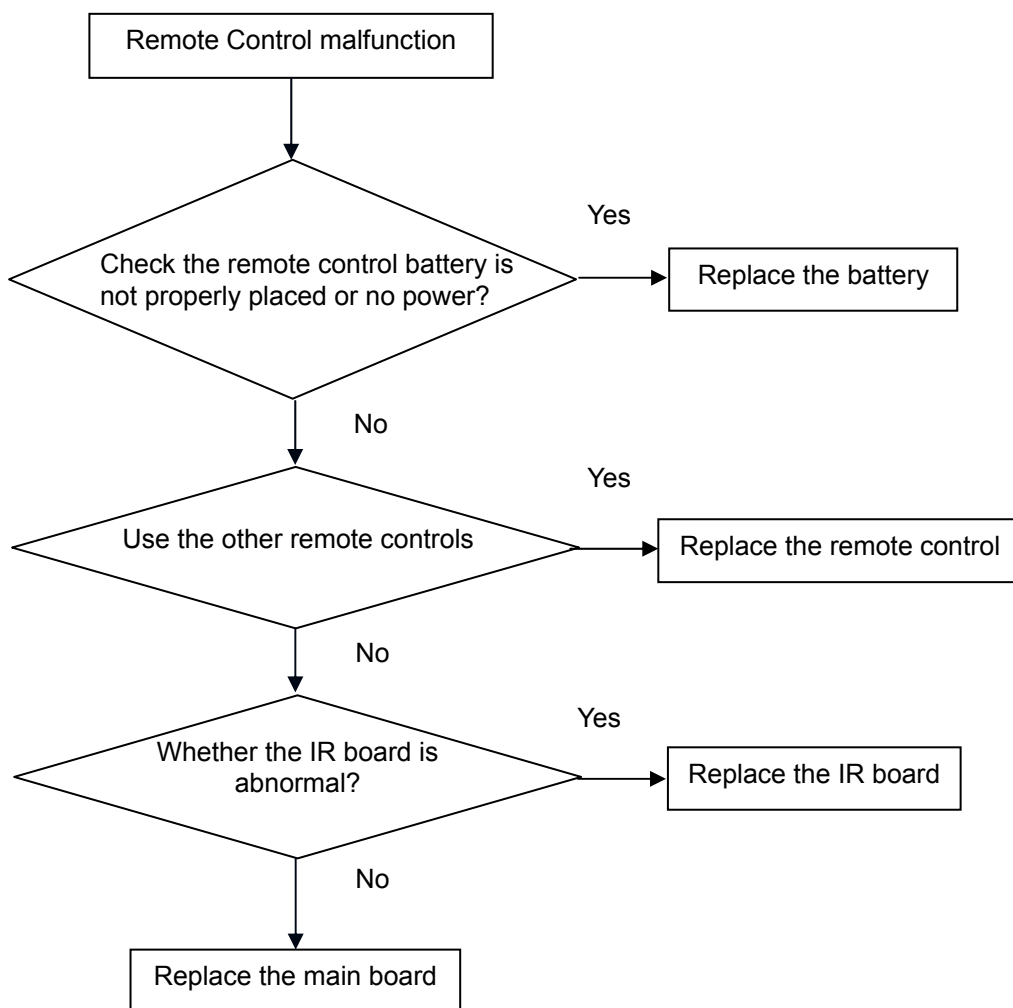
4. No display



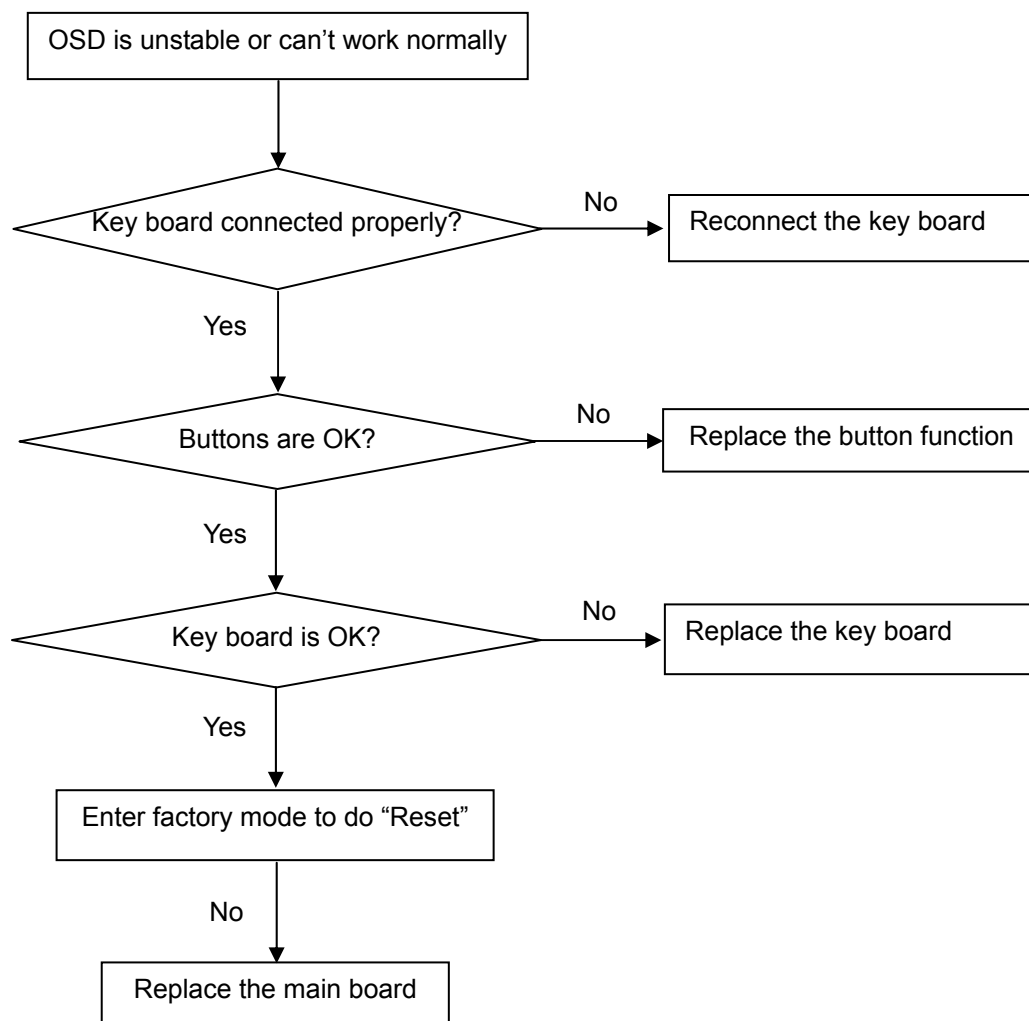
5. Sound problem



6. Remote control malfunction

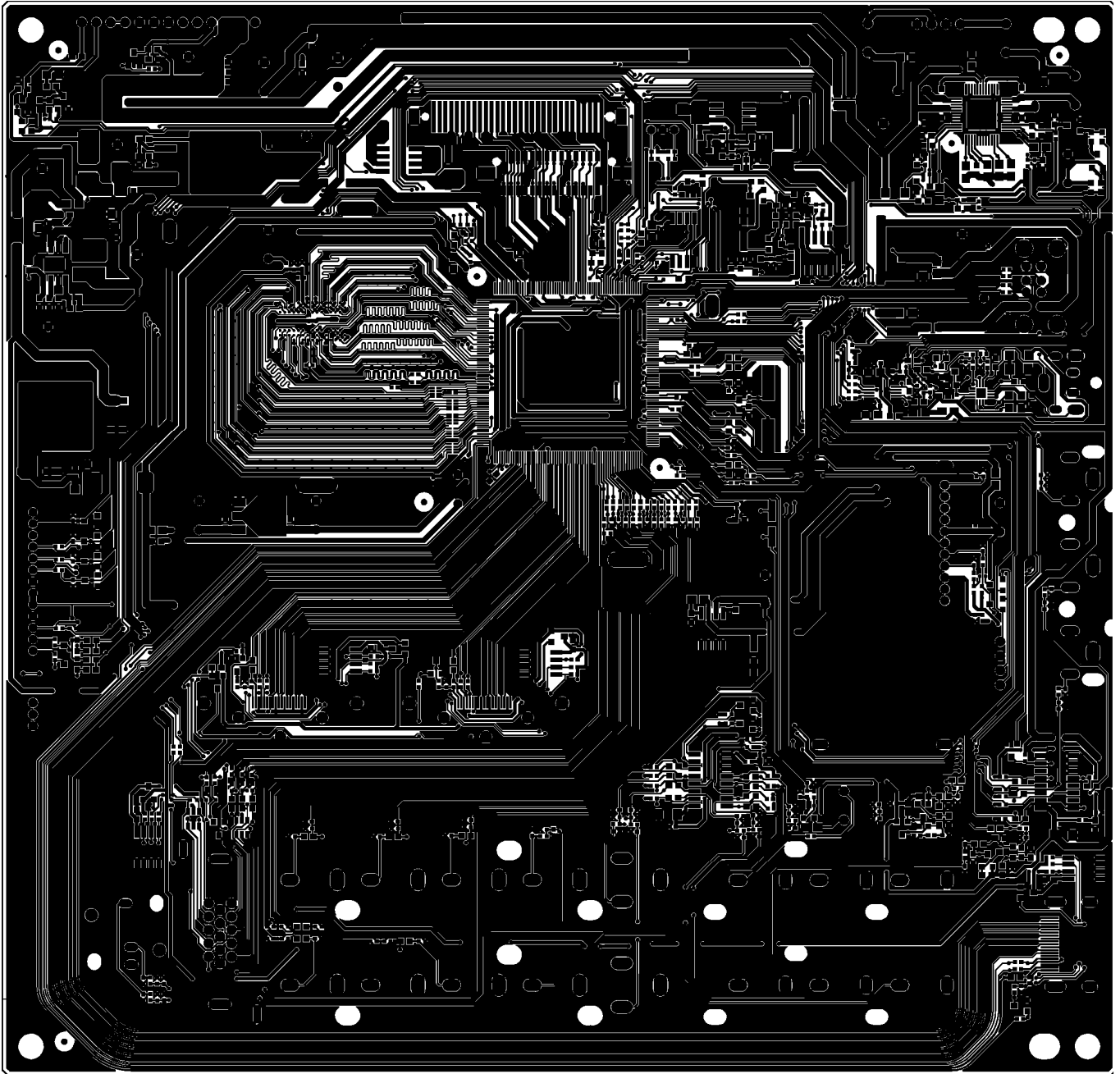


7. OSD is unstable or can't work normally



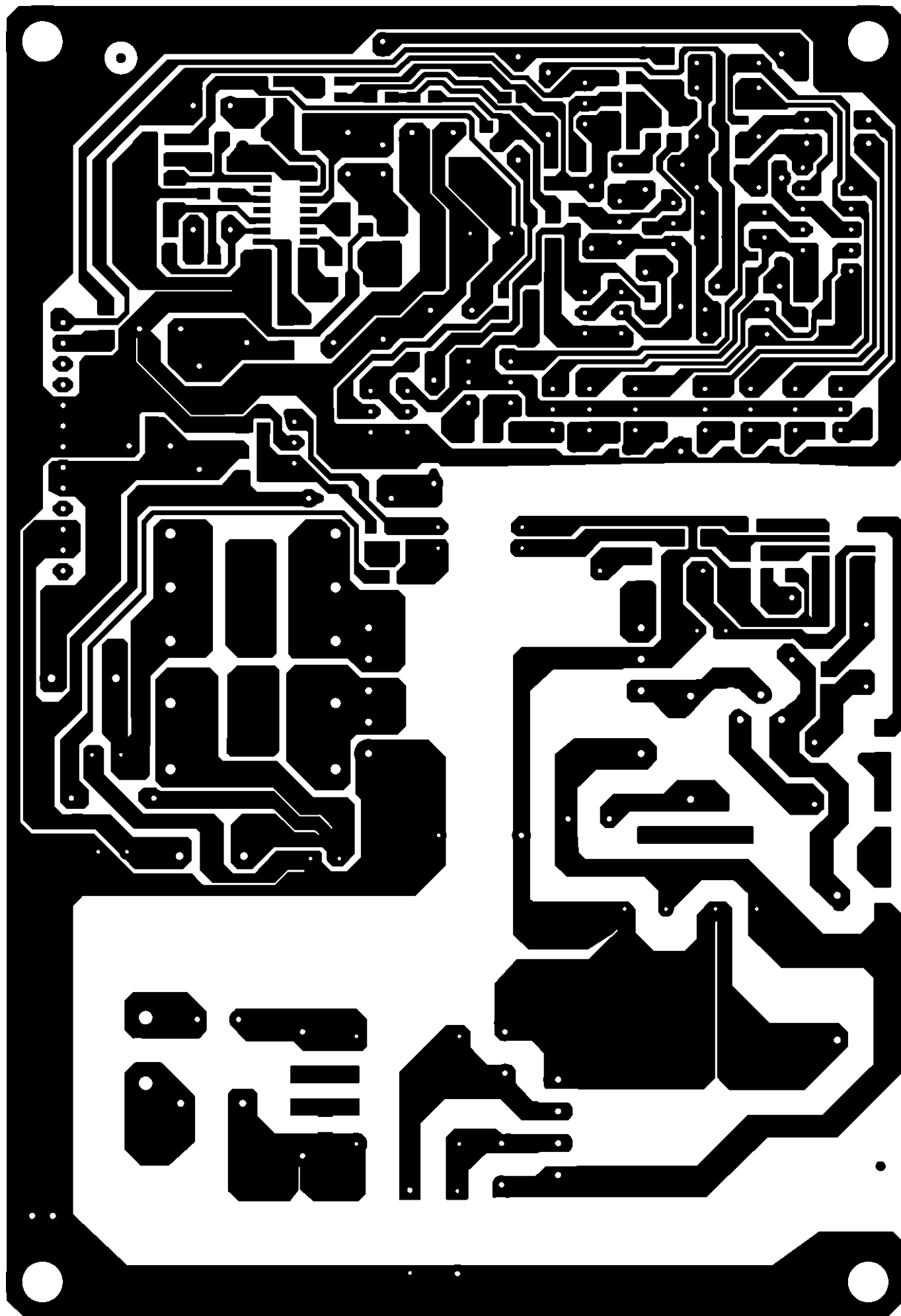
715G4089M01000004L

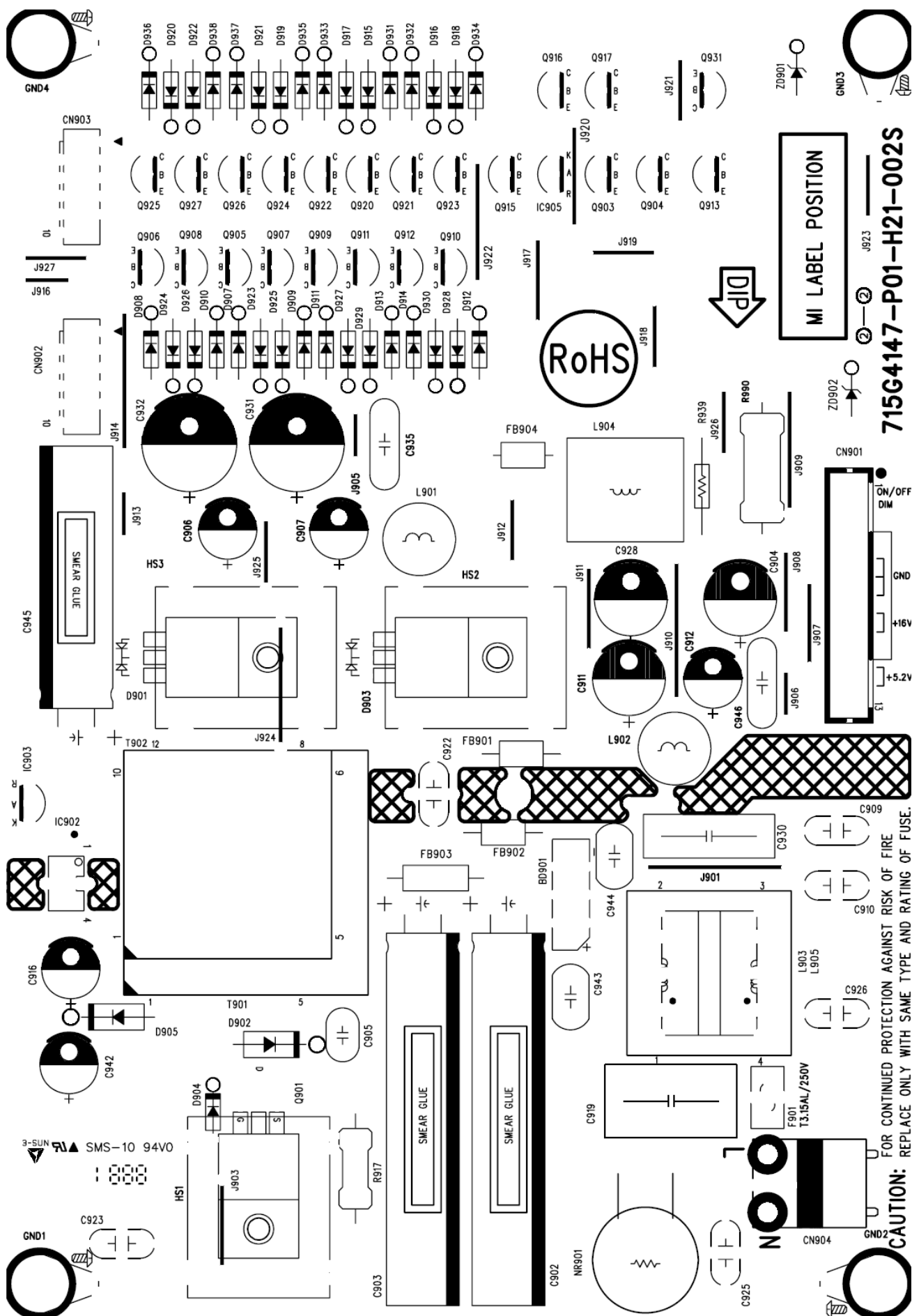


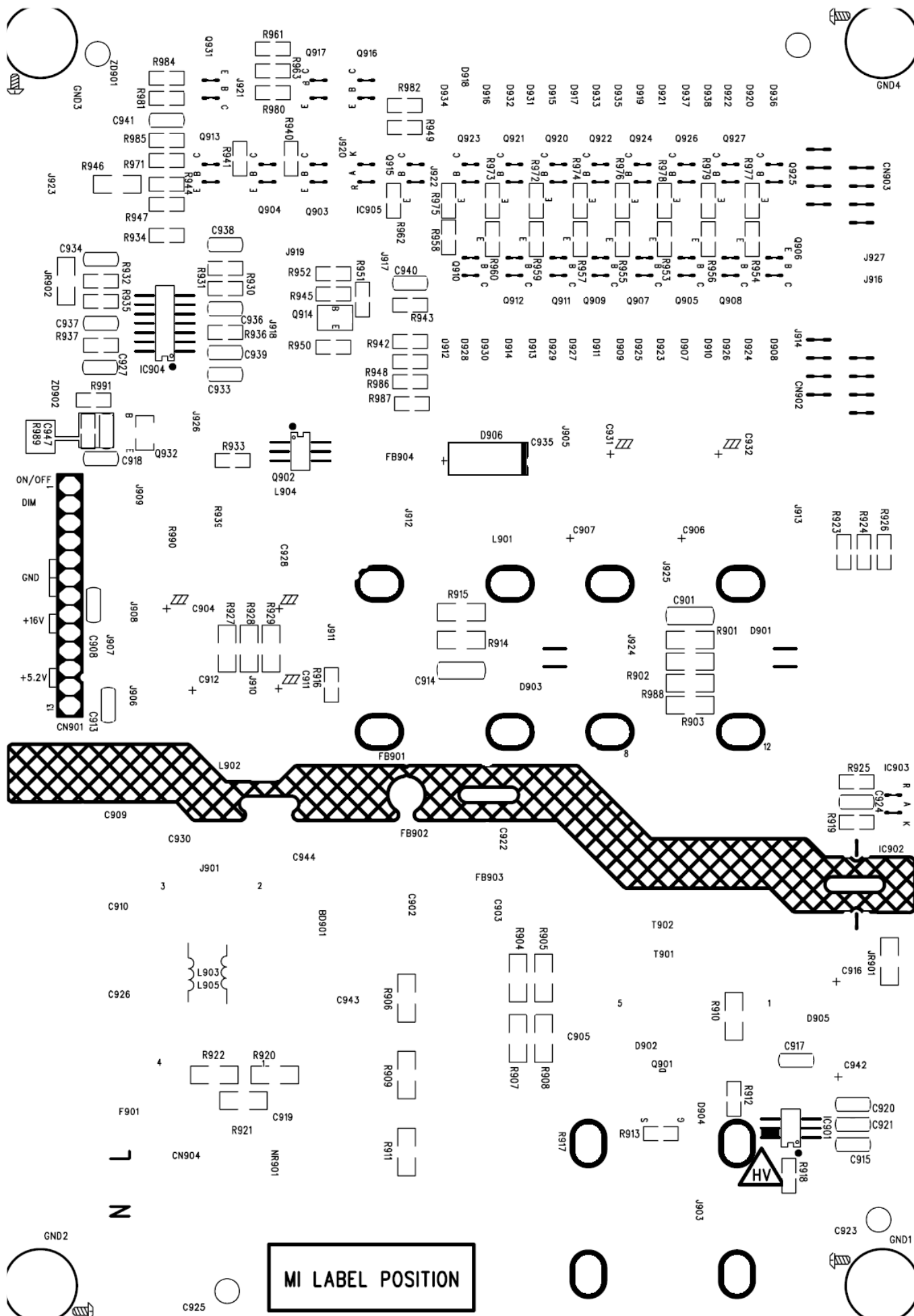


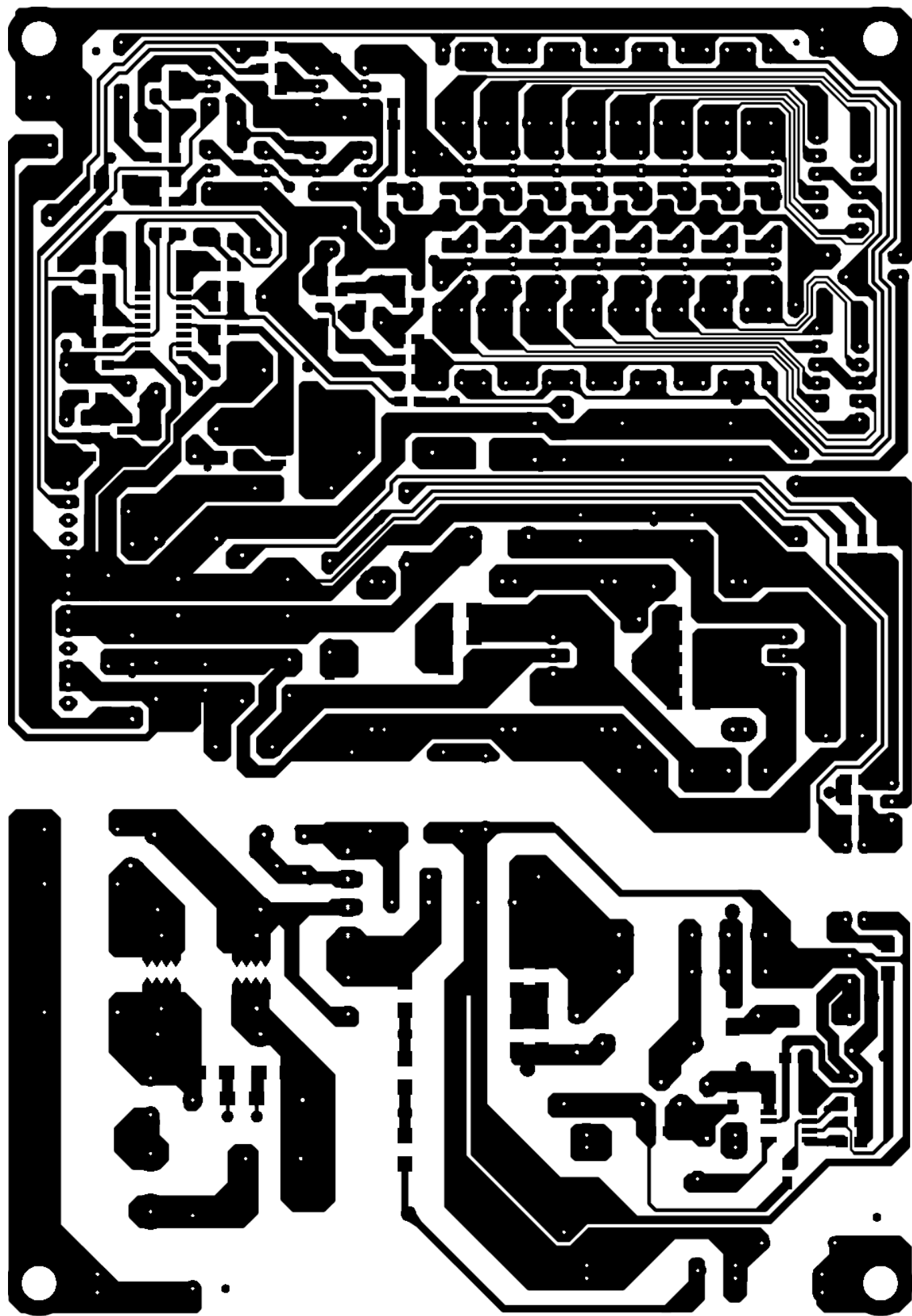
LE19Z6 715G3762P01W31002M

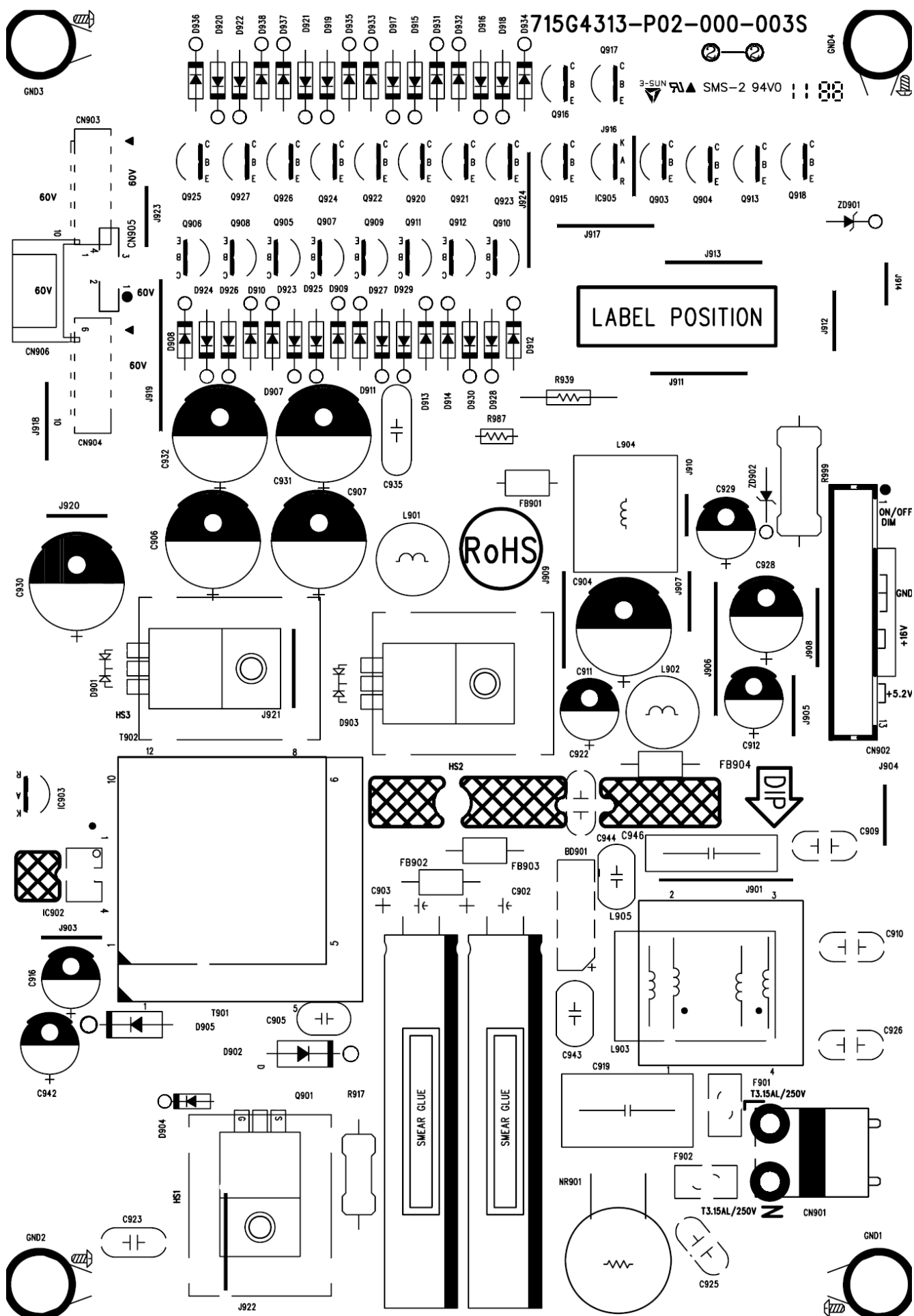


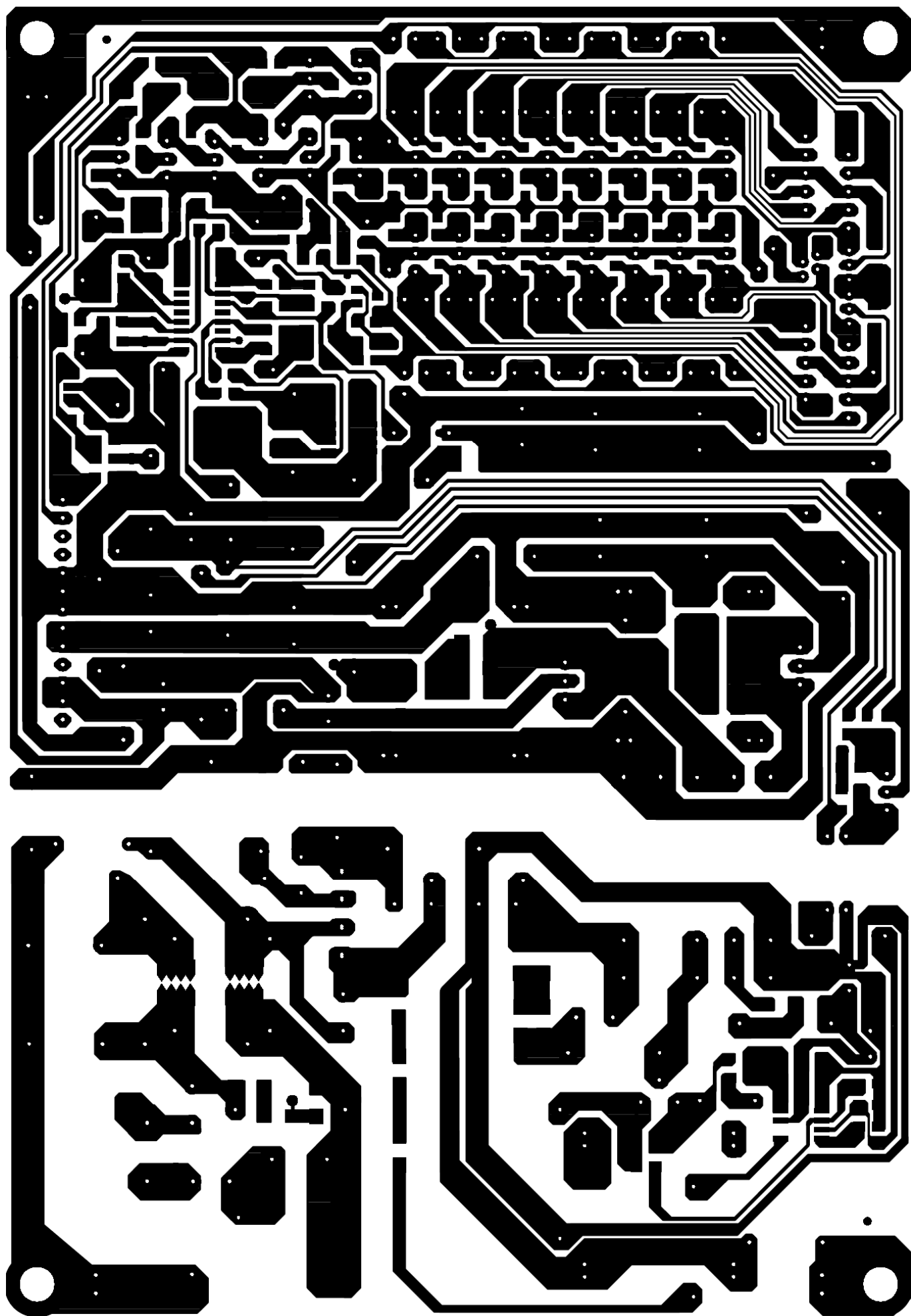




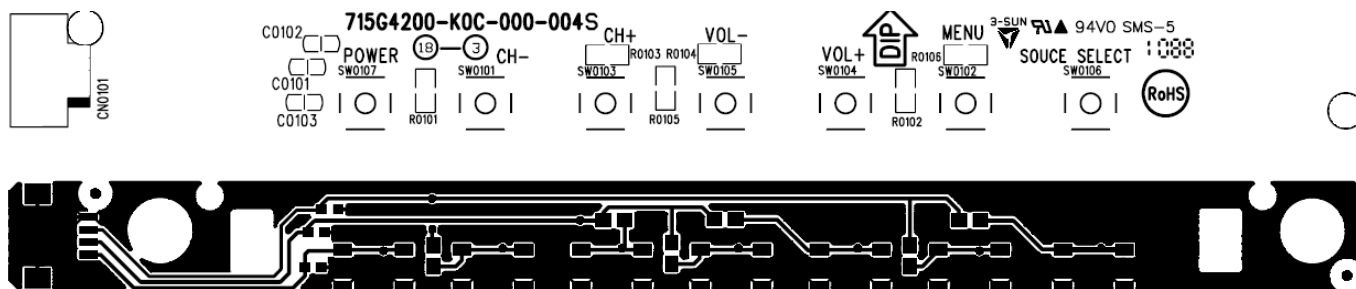




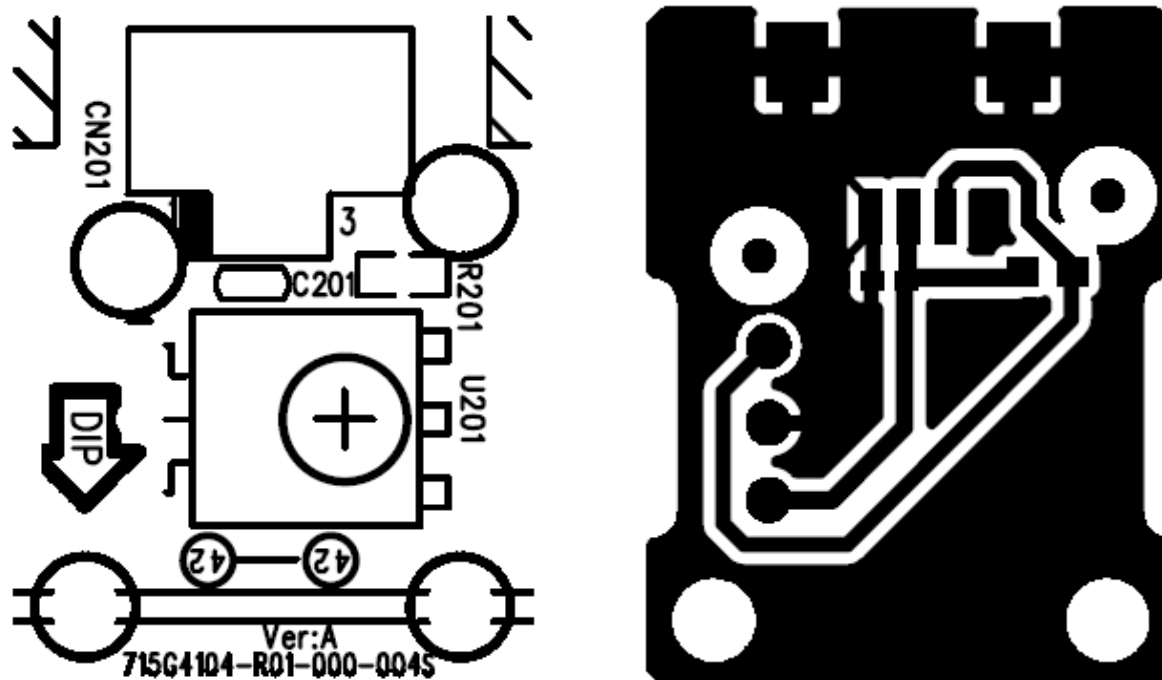




6.3 Key Board 715G4200K0C000004S



6.4 IR Board 715G4104R01000004S



7. Adjustment

It's no need to adjust the white balance for this model.

1. Enter into the factory mode:

Turn on the TV, press MENU key with remote control, then press number key 1 → 9 → 9 → 9. It will achieve the factory mode.

2. Click on "Auto Color" in the PC and Component modes:

PC mode: TIM = 137; PAT = 42

Component mode: TIM = 316; PAT = 185

3. Click on "Color temp" in the COMPONENT modes:

Component mode: TIM = 316; PAT = 105

Warm Temperature Spec

Warm_Spec_x = 314

Warm_Spec_y = 319

Normal Temperature Spec

Normal_Spec_x = 289

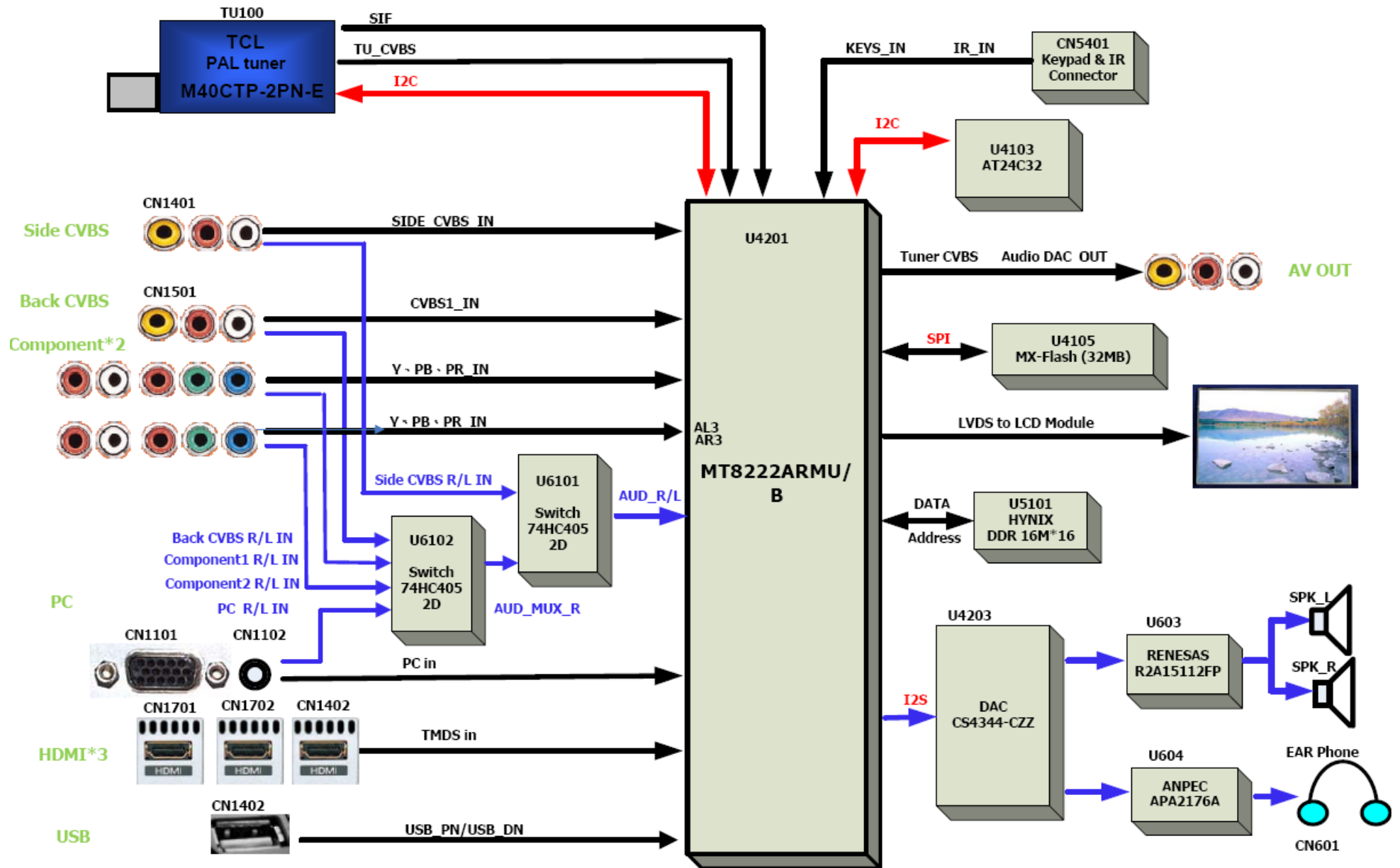
Normal_Spec_y = 291

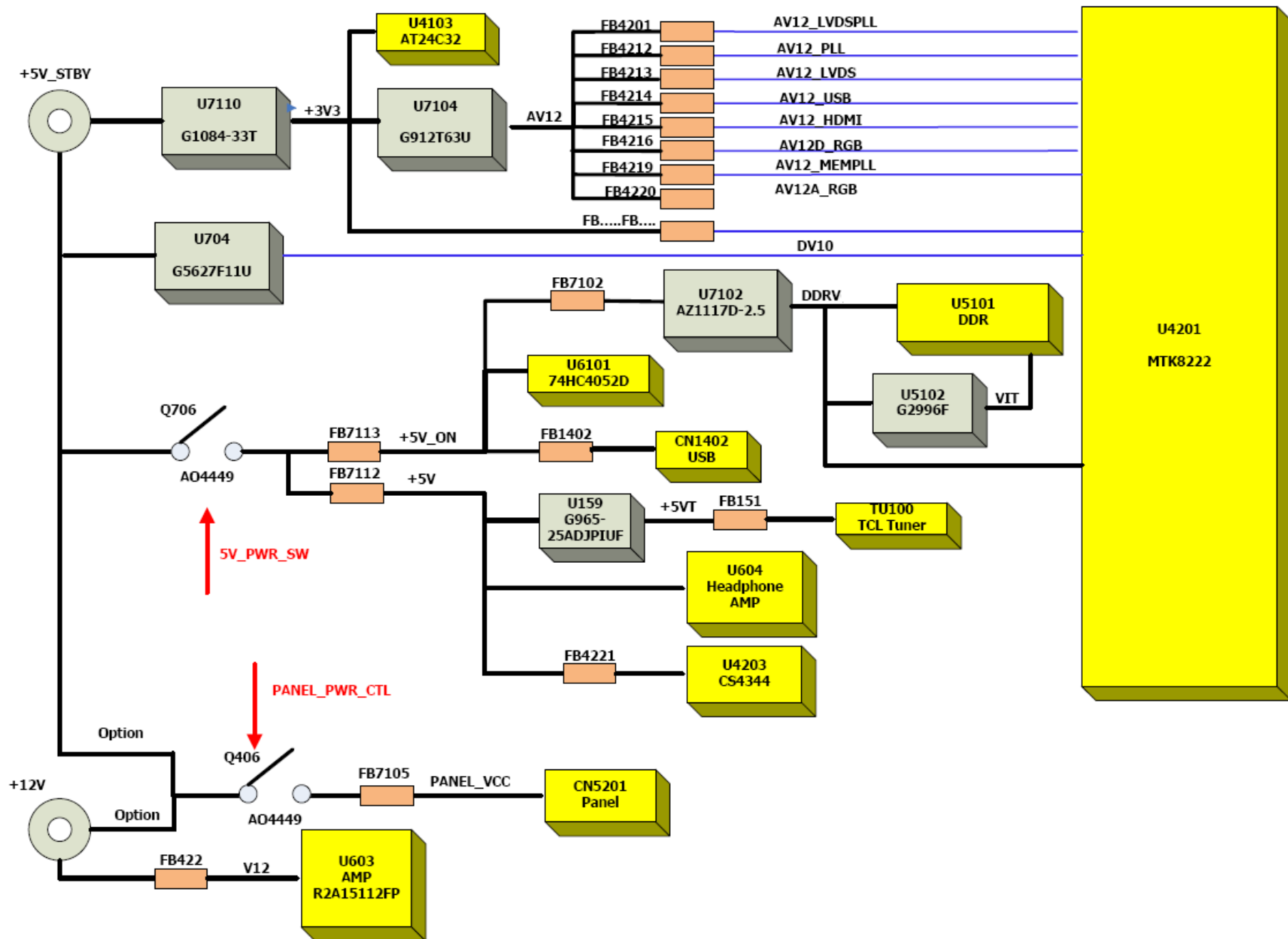
Cool Temperature Spec

Cool_Spec_x = 278

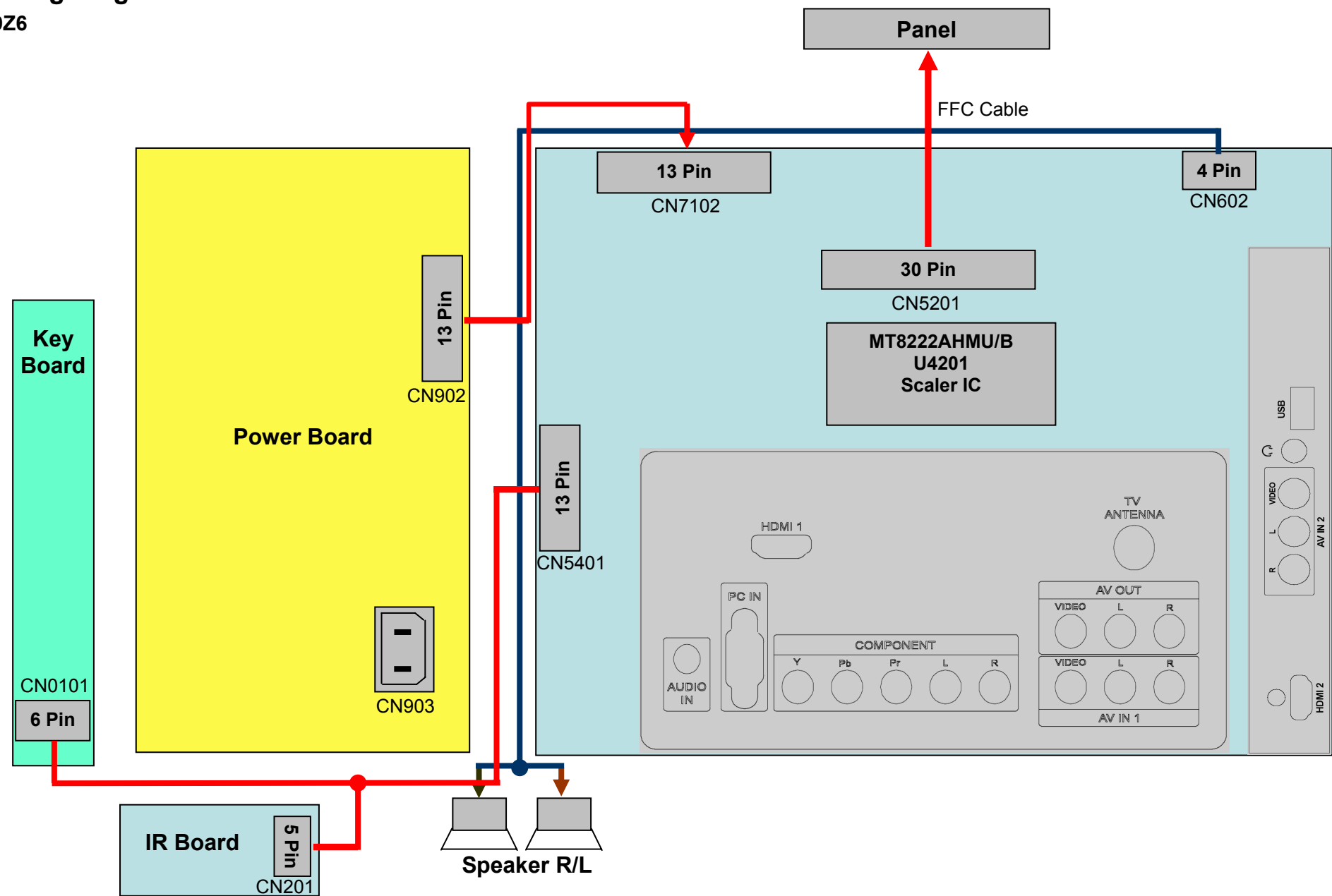
Cool_Spec_y = 278

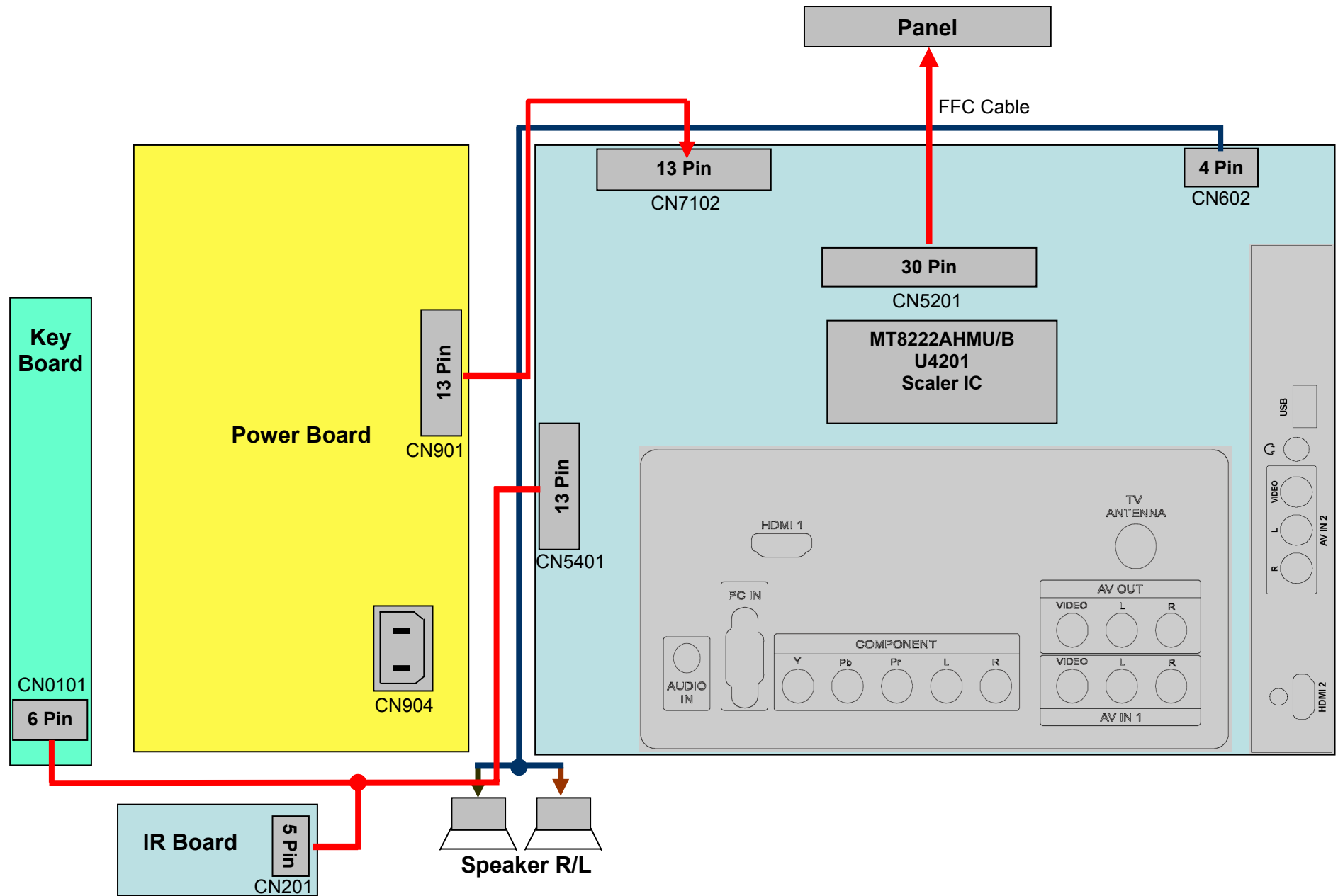
8. Block Diagram



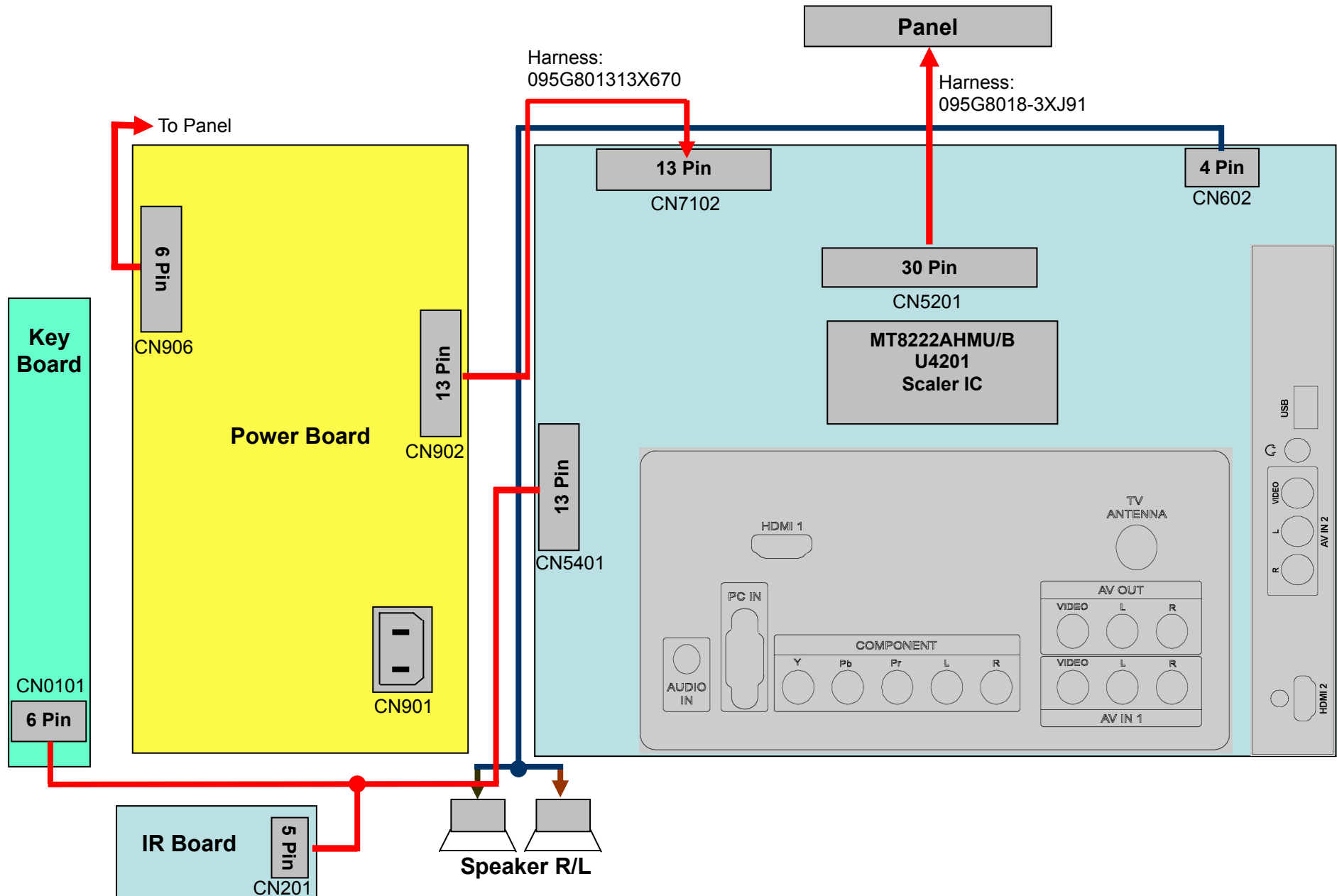


9. Wiring Diagram
LE19Z6





LE22Z6 Power Board: 715G4313P02000003S

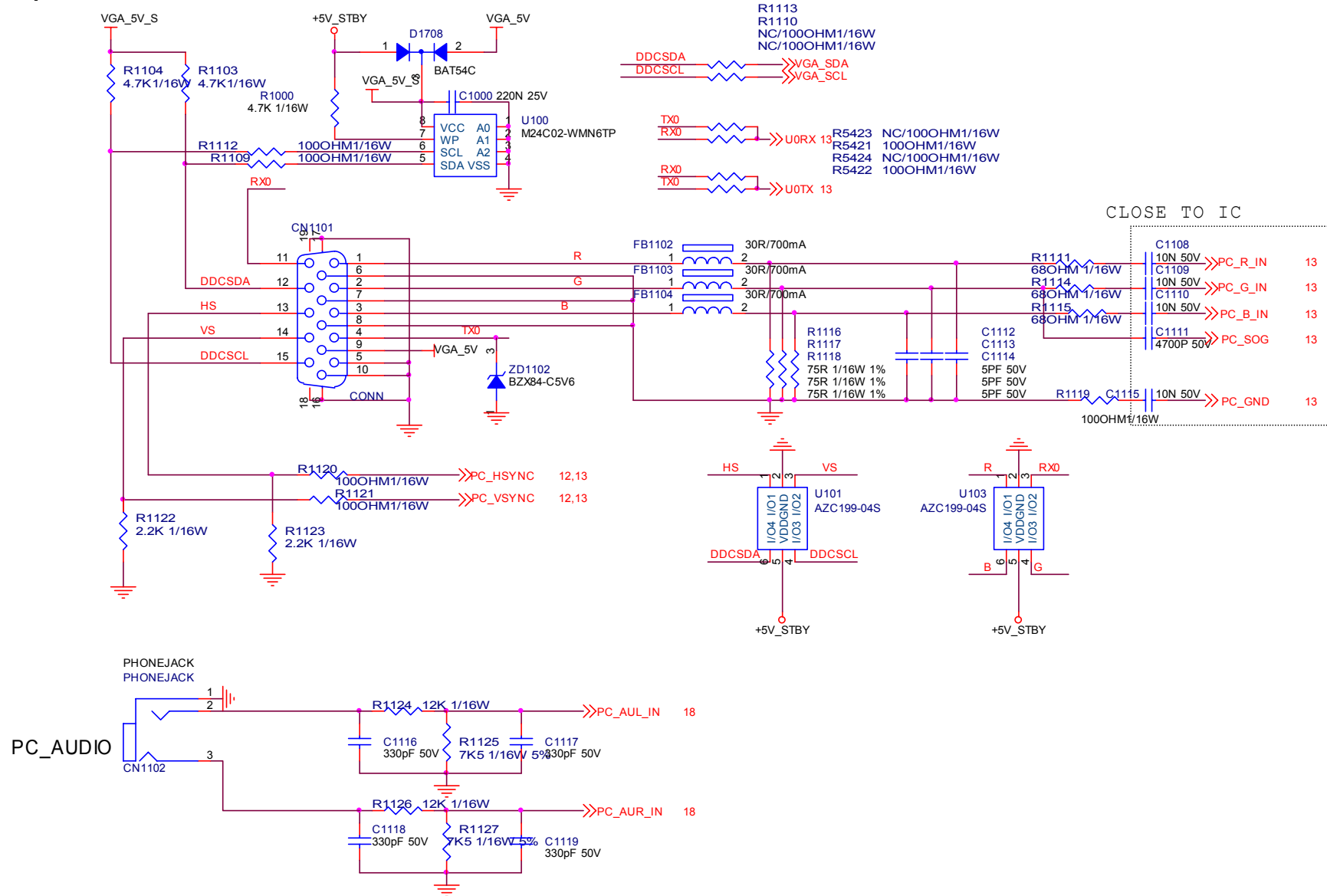


10. Schematic Diagram

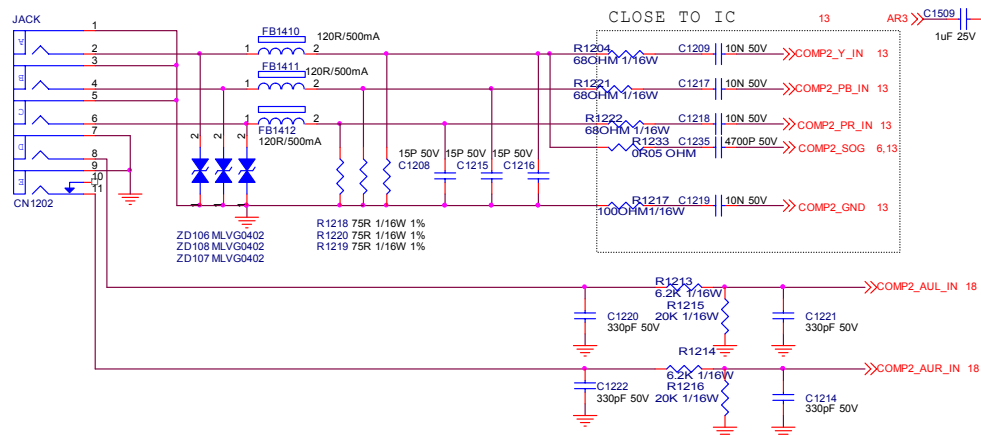
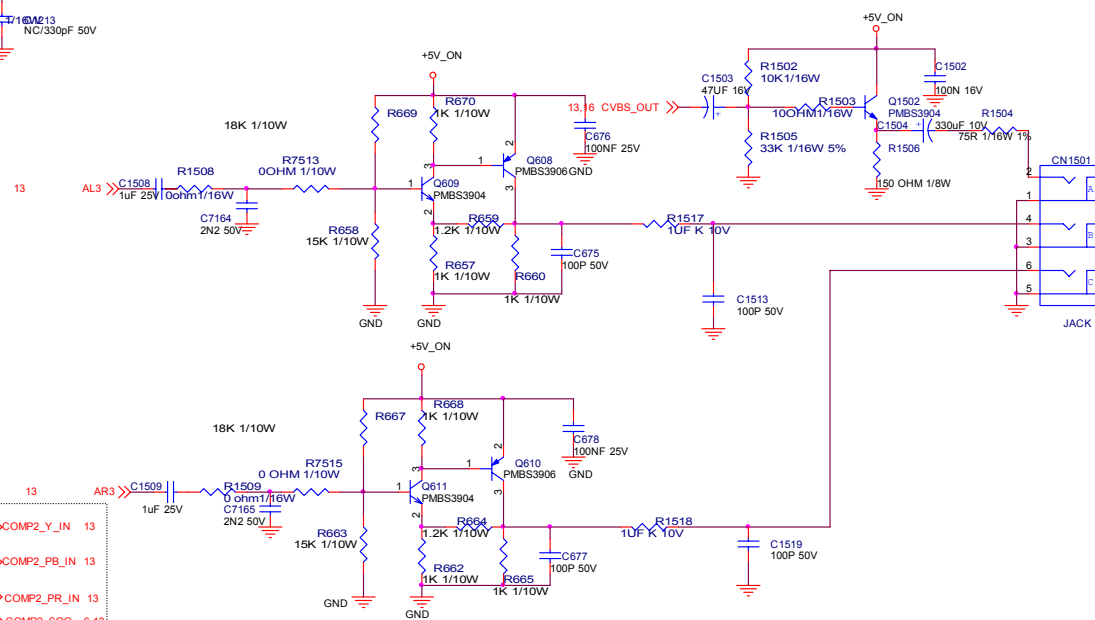
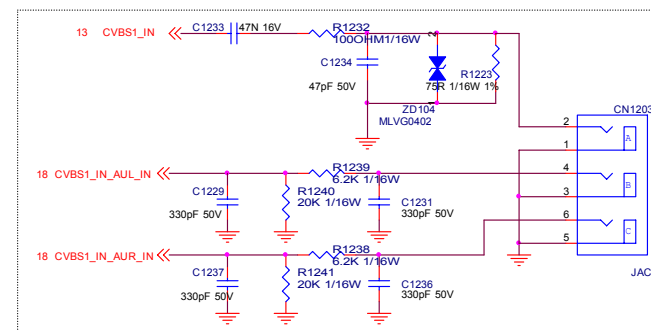
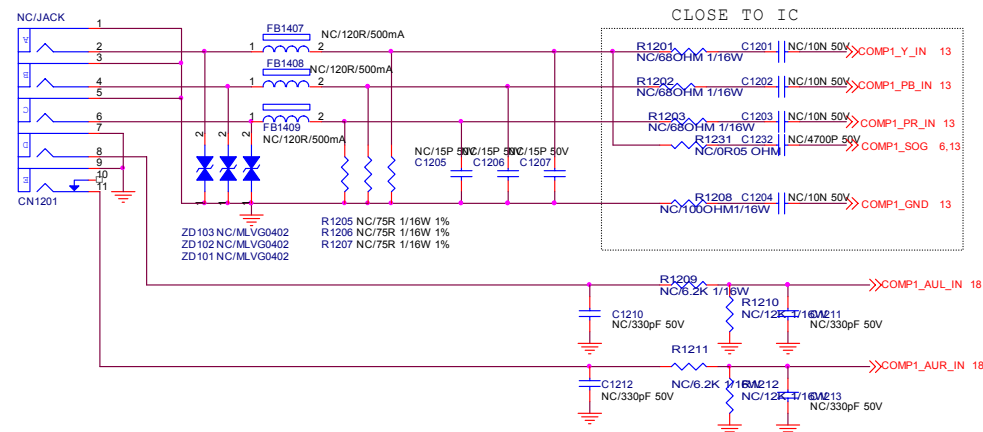
10.1 Main Board

715G4089M01000004L

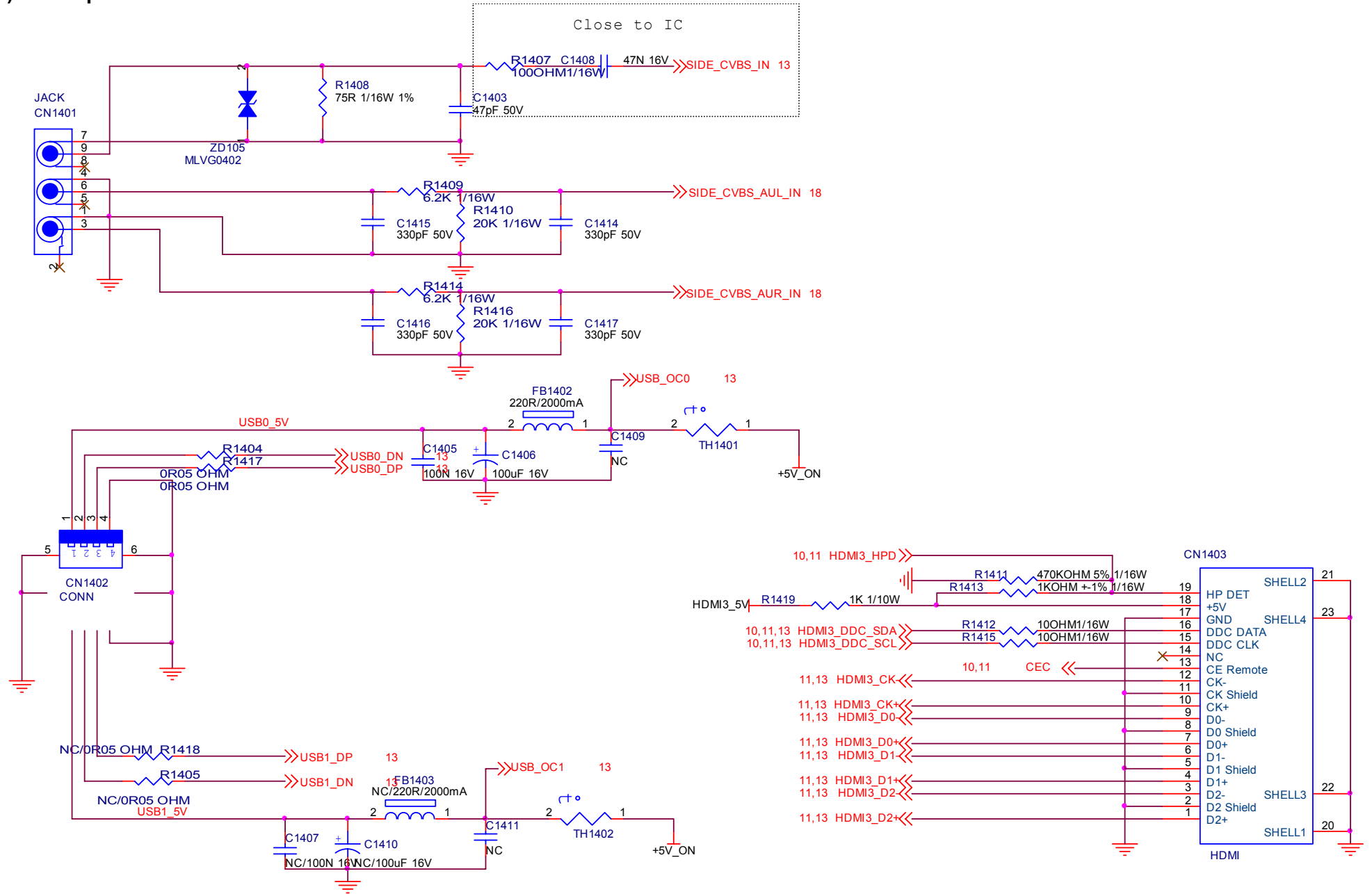
04) D-SUB Input



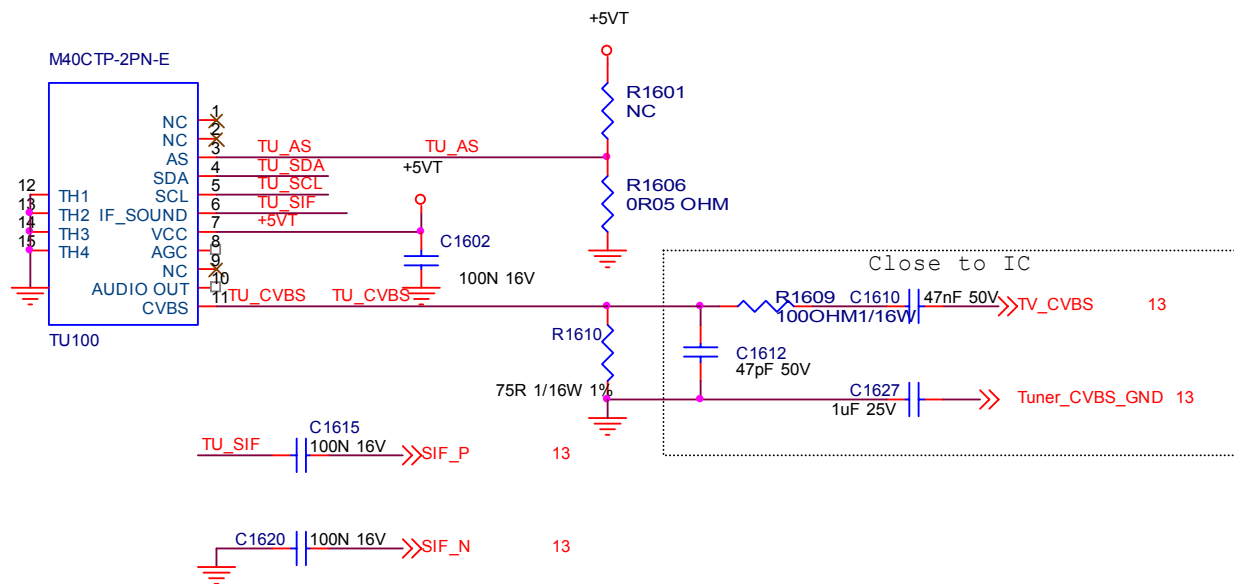
05) Rear I/O



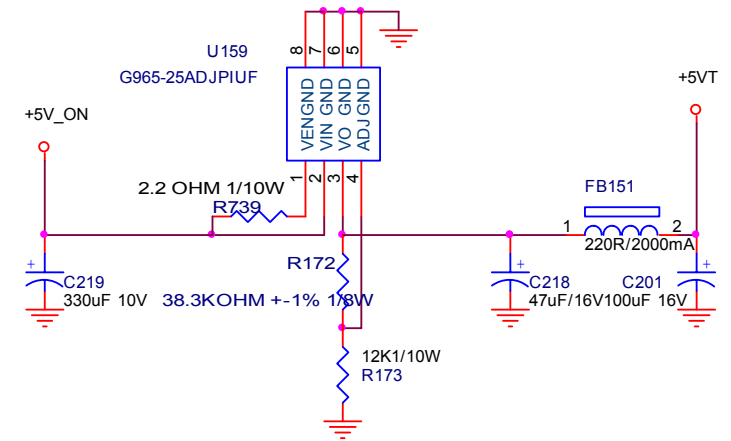
06) Side Input



07) Tuner

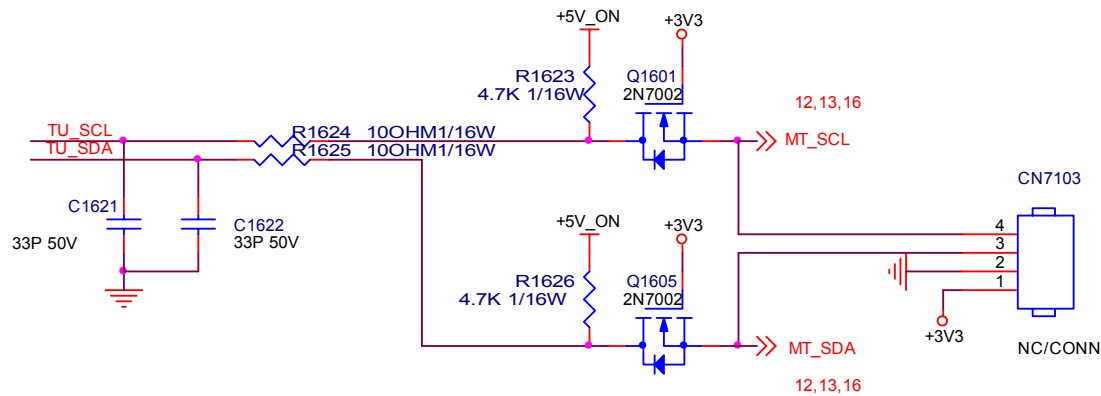


5V for Tuner

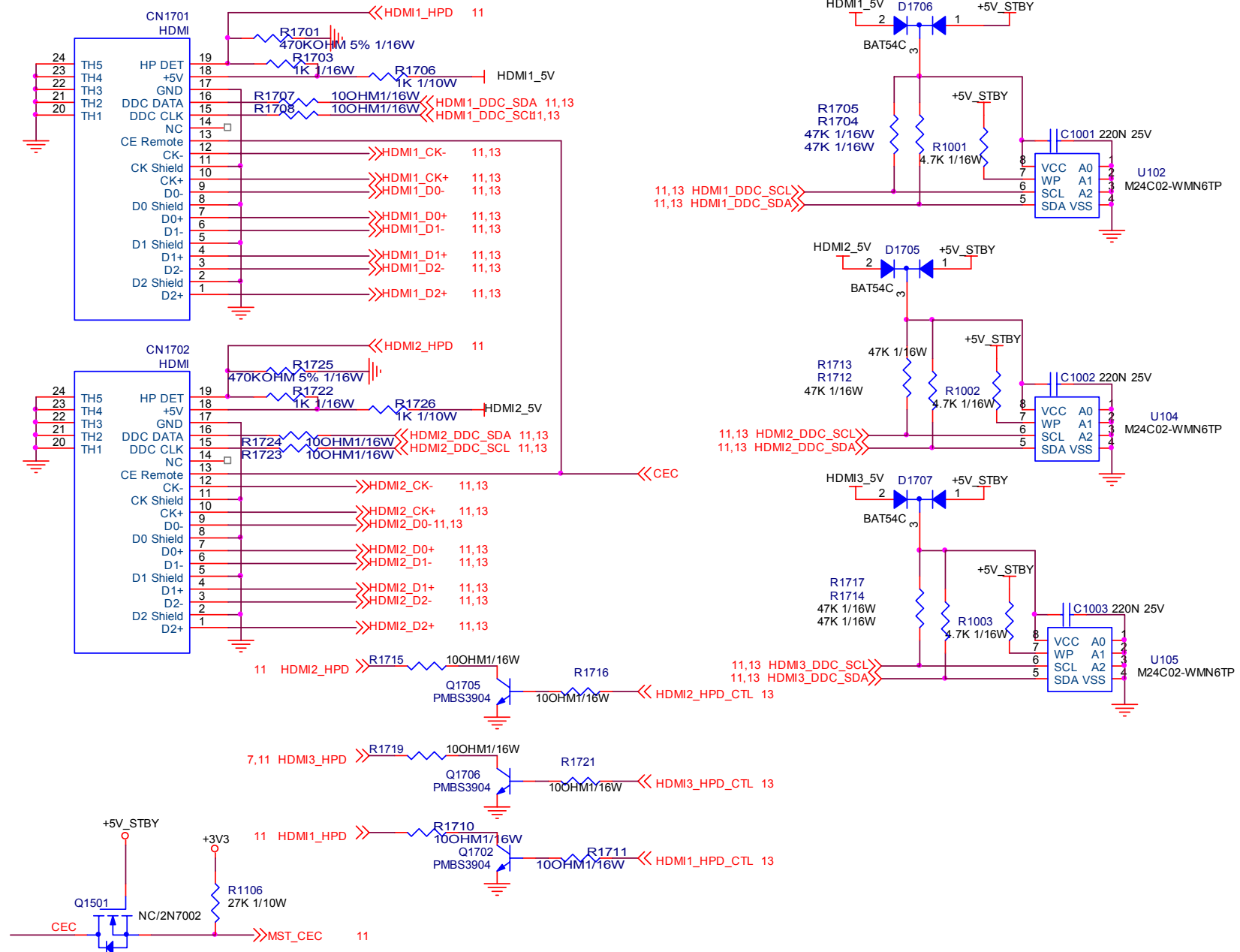


$$V_{out} = 1.2 * (38.3 + 12) / 12 = 5.03V$$

IIC LEVEL SHIFT



08) HDMI Input



21 PANEL_PWR_CTL < GPIO 0
15 COSSEL < GPIO 2
10 HDMI1_HPD_C < GPIO 2
10 HDMI2_HPD_C < GPIO 4
7 USB_OCD < R4226
51K 1/16W 5%
R4222
10K 1/16W
7 USB_ODT < R4230
51K 1/16W 5%
R4227
10K 1/16W
21 INVERTER_ON_OFF < GPIO_8
7 EARP_DET < GPIO_10

3V3

R4202 10K 1/16W

DV33 DV10

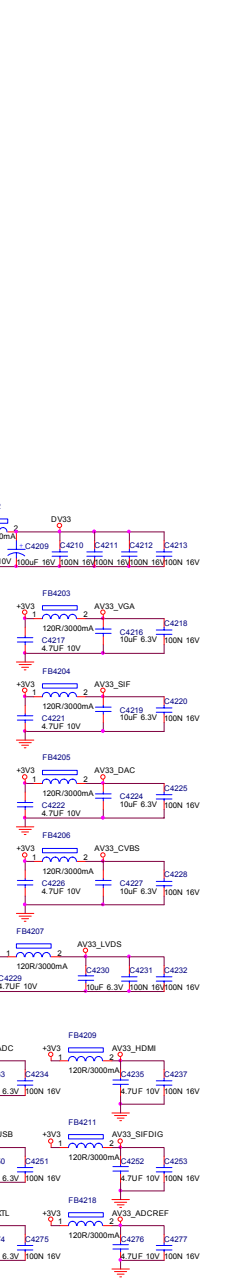
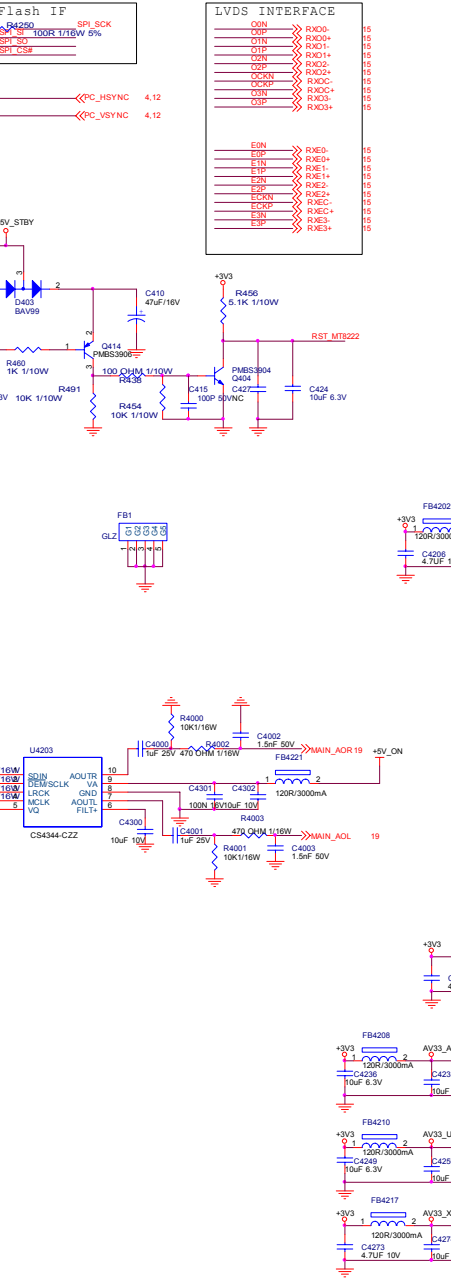
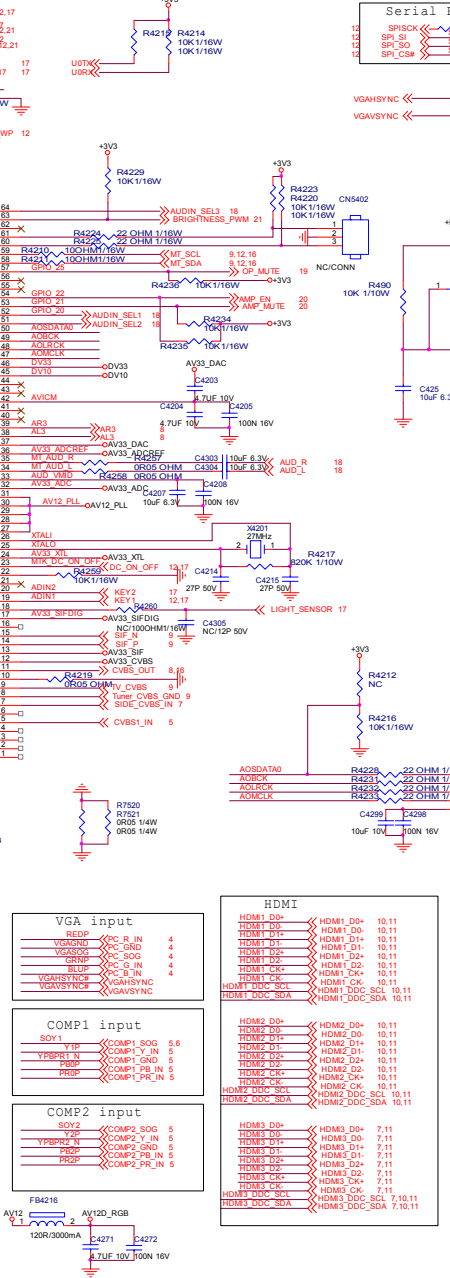
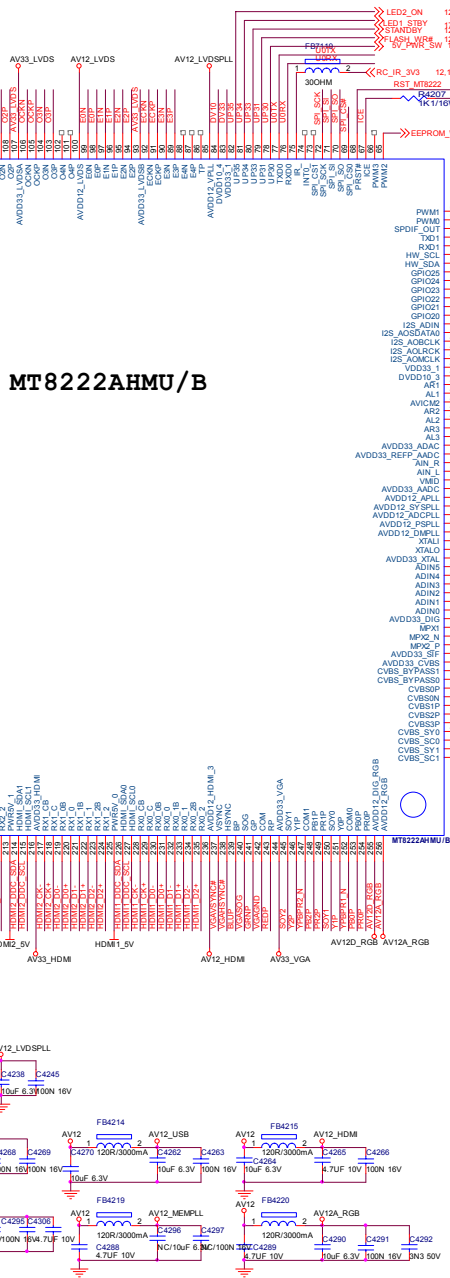
GPIO_0
GPIO_1
GPIO_2
GPIO_3
GPIO_4
GPIO_5
GPIO_6
GPIO_7
GPIO_8
GPIO_9
GPIO_10
GPIO_11
GPIO_12
GPIO_13
GPIO_14
GPIO_15
GPIO_16
GPIO_17
GPIO_18
GPIO_19
GPIO_20
GPIO_21
GPIO_22
GPIO_23
GPIO_24
GPIO_25
GPIO_26
GPIO_27
GPIO_28
GPIO_29
GPIO_30
GPIO_31

U4201

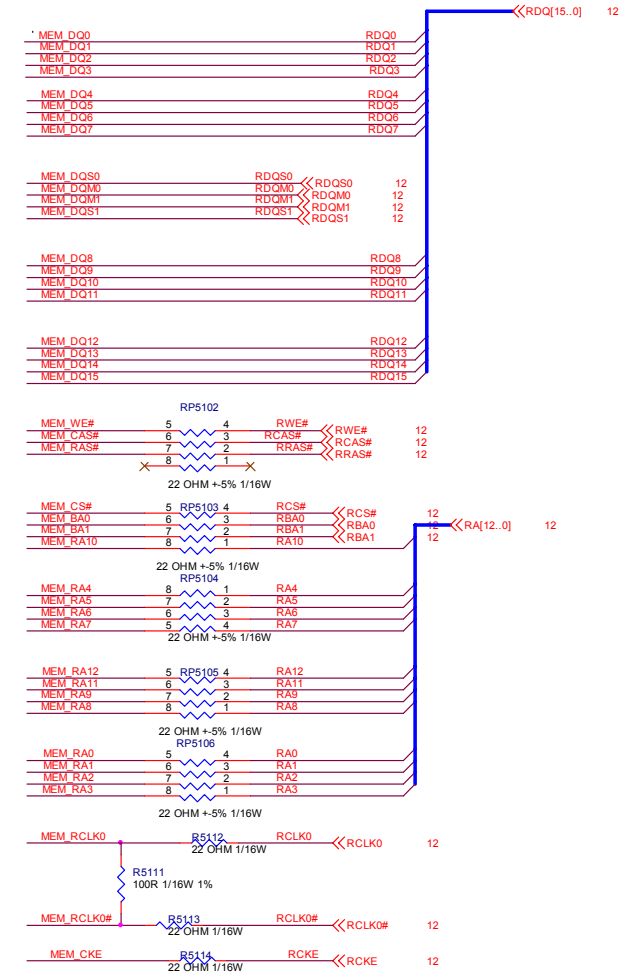
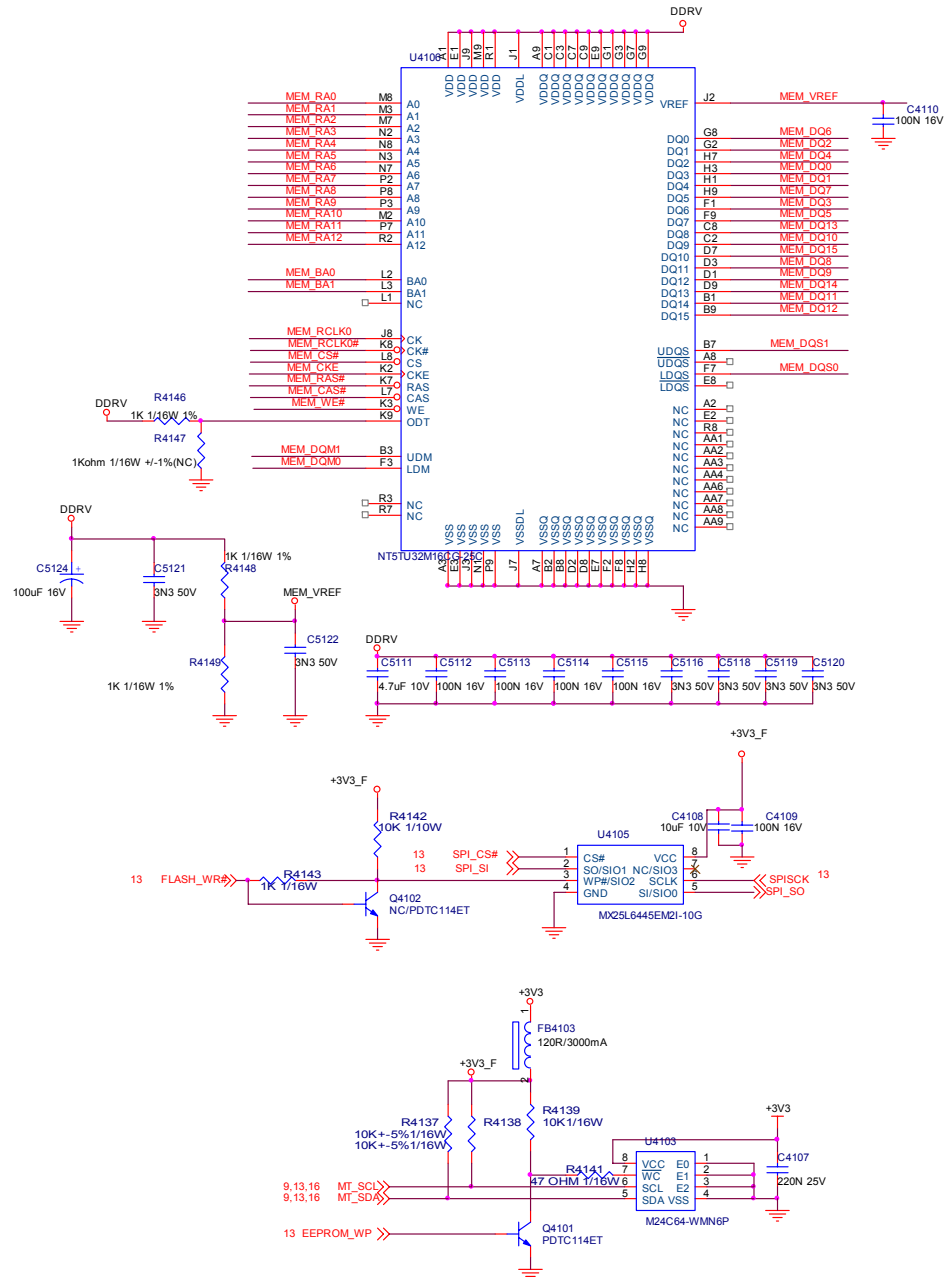
25T TH1

DDR_V D10

14 RDQ15_0 < RDQ0
14 RDQ15_1 < RDQ1
14 RDQ15_2 < RDQ2
14 RDQ15_3 < RDQ3
14 RDQ15_4 < RDQ4
14 RDQ15_5 < RDQ5
14 RDQ15_6 < RDQ6
14 RDQ15_7 < RDQ7
14 RDQ15_8 < RDQ8
14 RDQ15_9 < RDQ9
14 RDQ15_10 < RDQ10
14 RDQ15_11 < RDQ11
14 RDQ15_12 < RDQ12
14 RDQ15_13 < RDQ13
14 RDQ15_14 < RDQ14
14 RDQ15_15 < RDQ15
AV12_NEMPLL_0 < RDQ16
14 RCLK0 < RDQ17
14 RCLK1 < RDQ18
14 RA12_0 < RAKE
14 RA12_1 < RAT1
14 RA12_2 < RA9
14 RA12_3 < RA0
14 RA12_4 < RA1
14 RA12_5 < RA2
14 RA12_6 < RA3
14 RA12_7 < RA4
14 RA12_8 < RA5
14 RA12_9 < RA6
14 RA12_10 < RA7
14 RA12_11 < RA8
14 RA12_12 < RASB
14 RA12_13 < RASB
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14

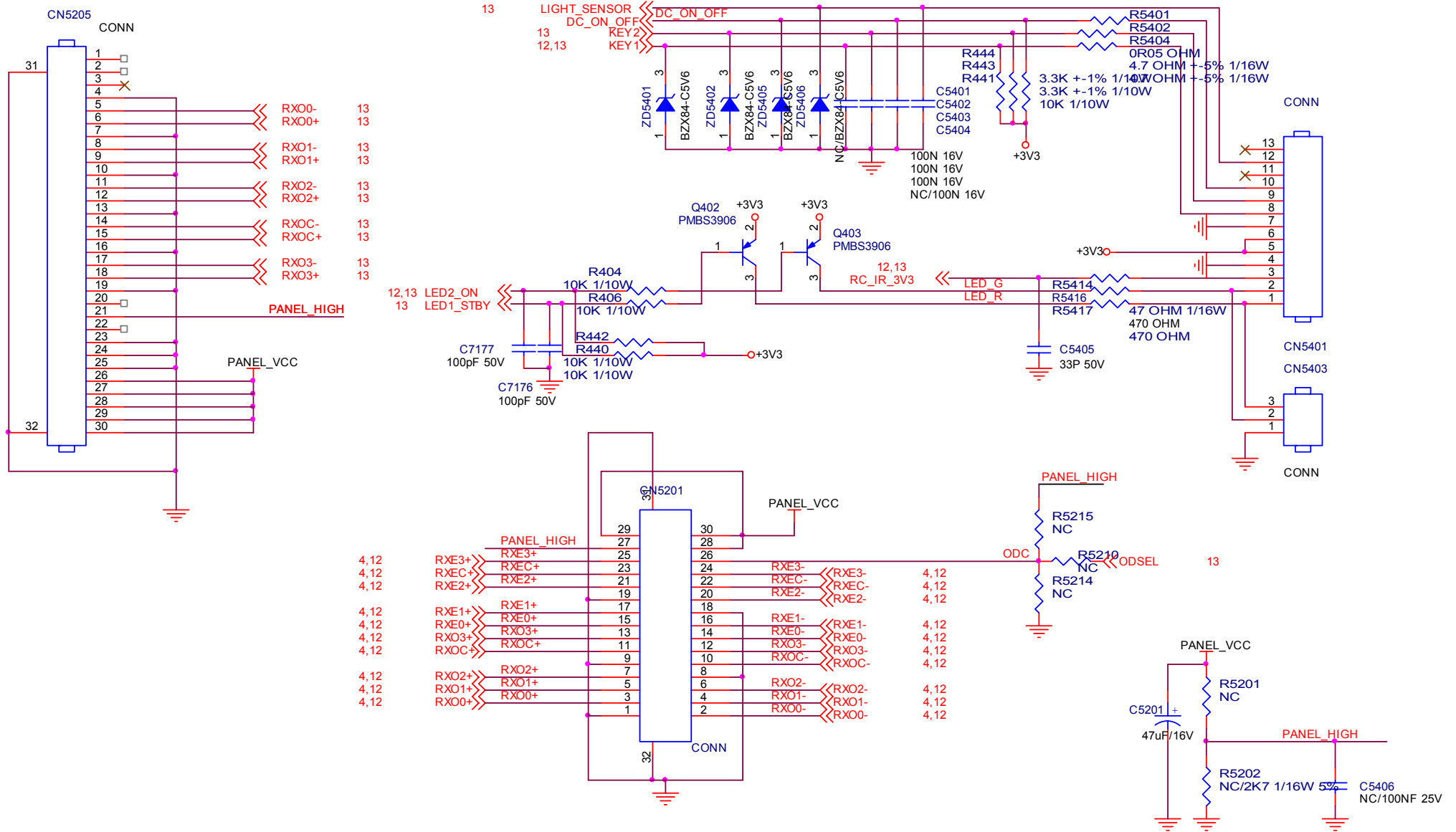


10) DDR2 Memory & E2PROM & Flash

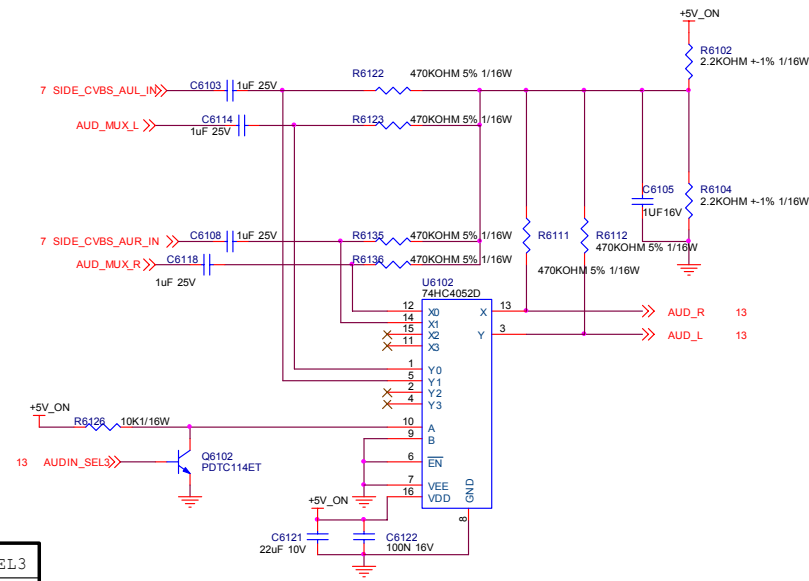
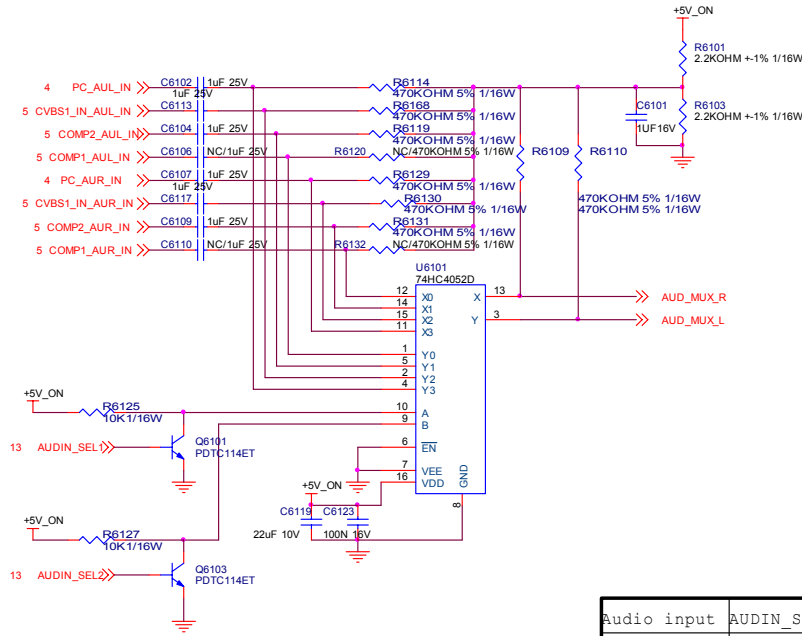


11) Key IR BD & Panel I/F

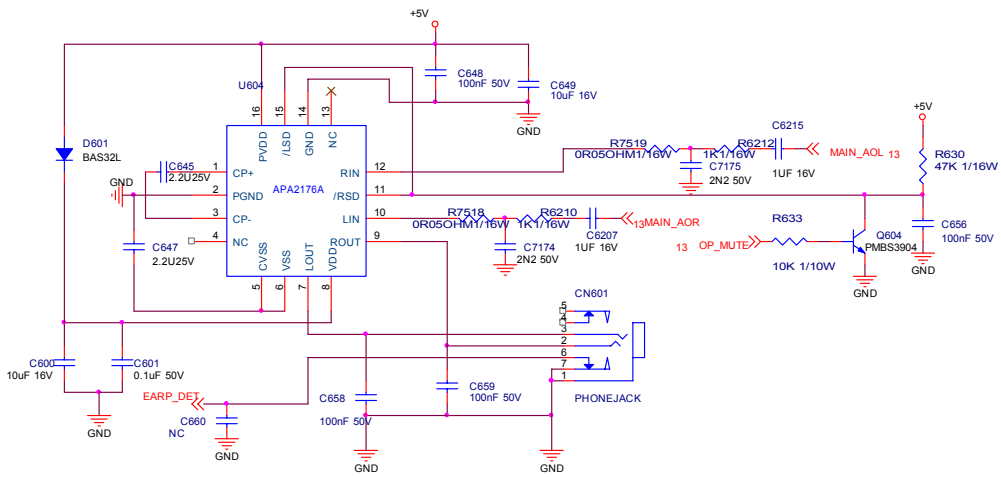
For KEY & IR



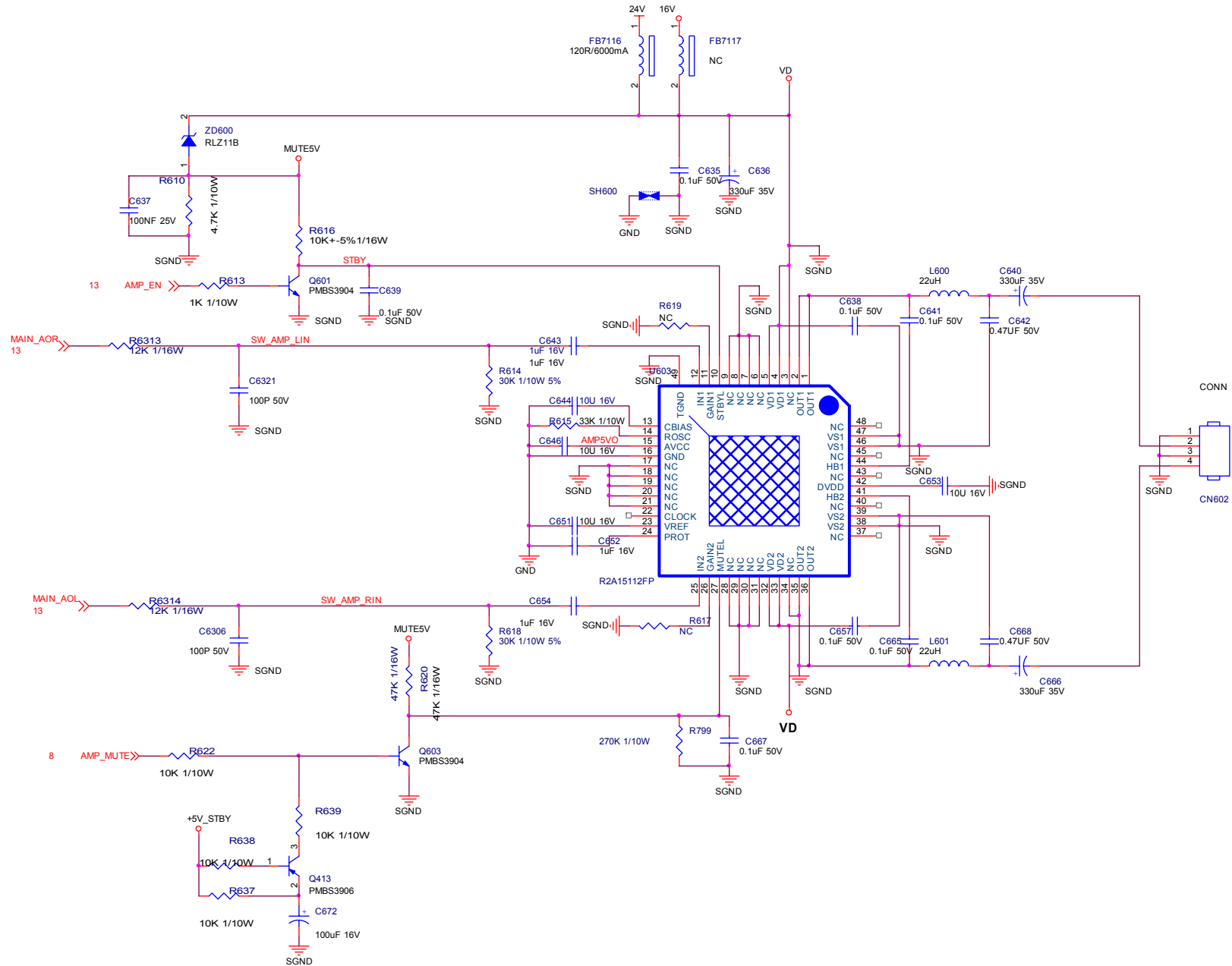
12) Audio SW & Earphone OP



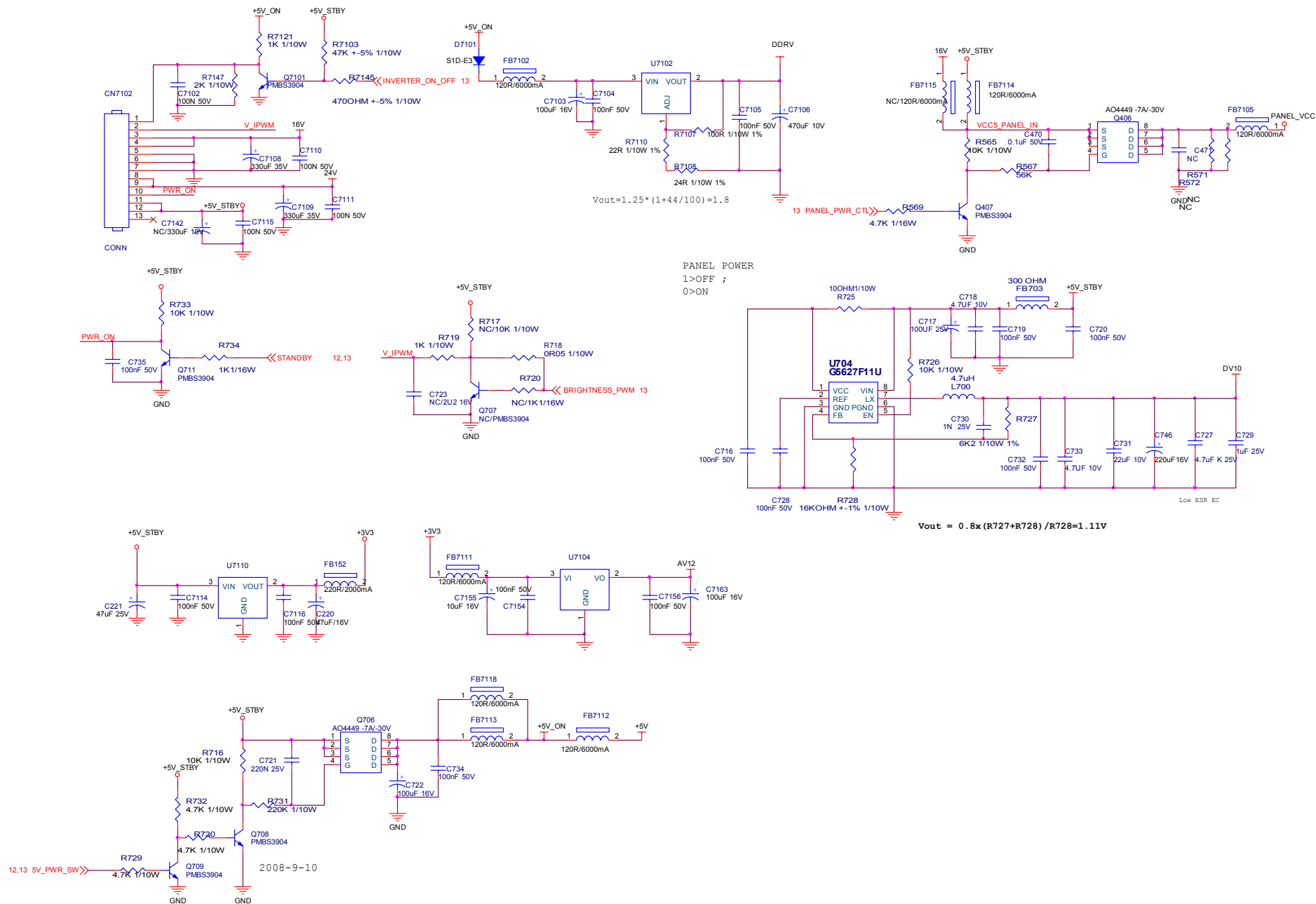
Audio input	AUDIN_SEL1	AUDIN_SEL2	AUDIN_SEL3
CVBS_AU_IN	1	0	1
COMP2_AU_IN	0	1	1
PC_AU_IN	0	0	1
COMP1_AU_IN	1	1	1
SIDE_AU_IN	X	X	0



13) Audio/AMP

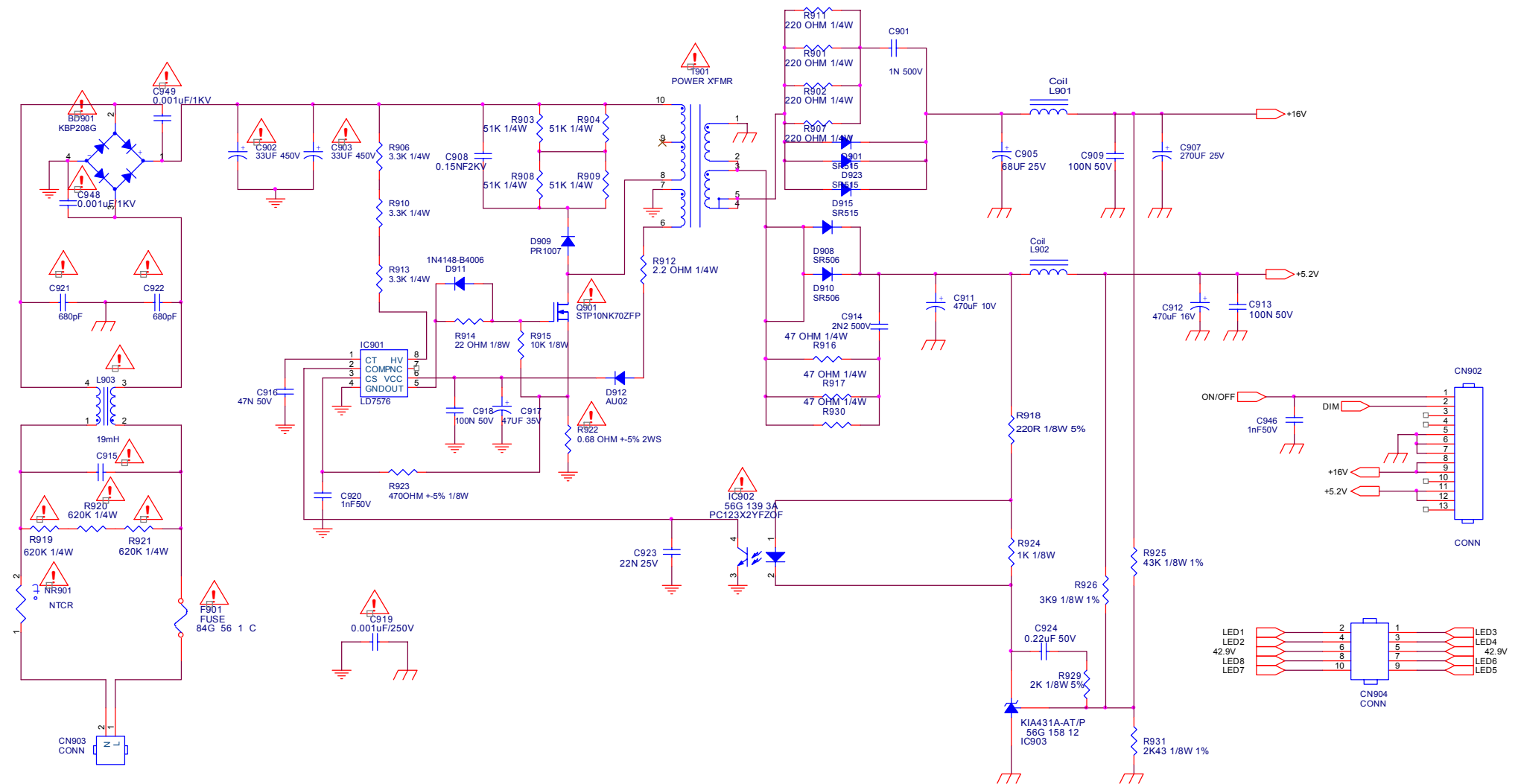


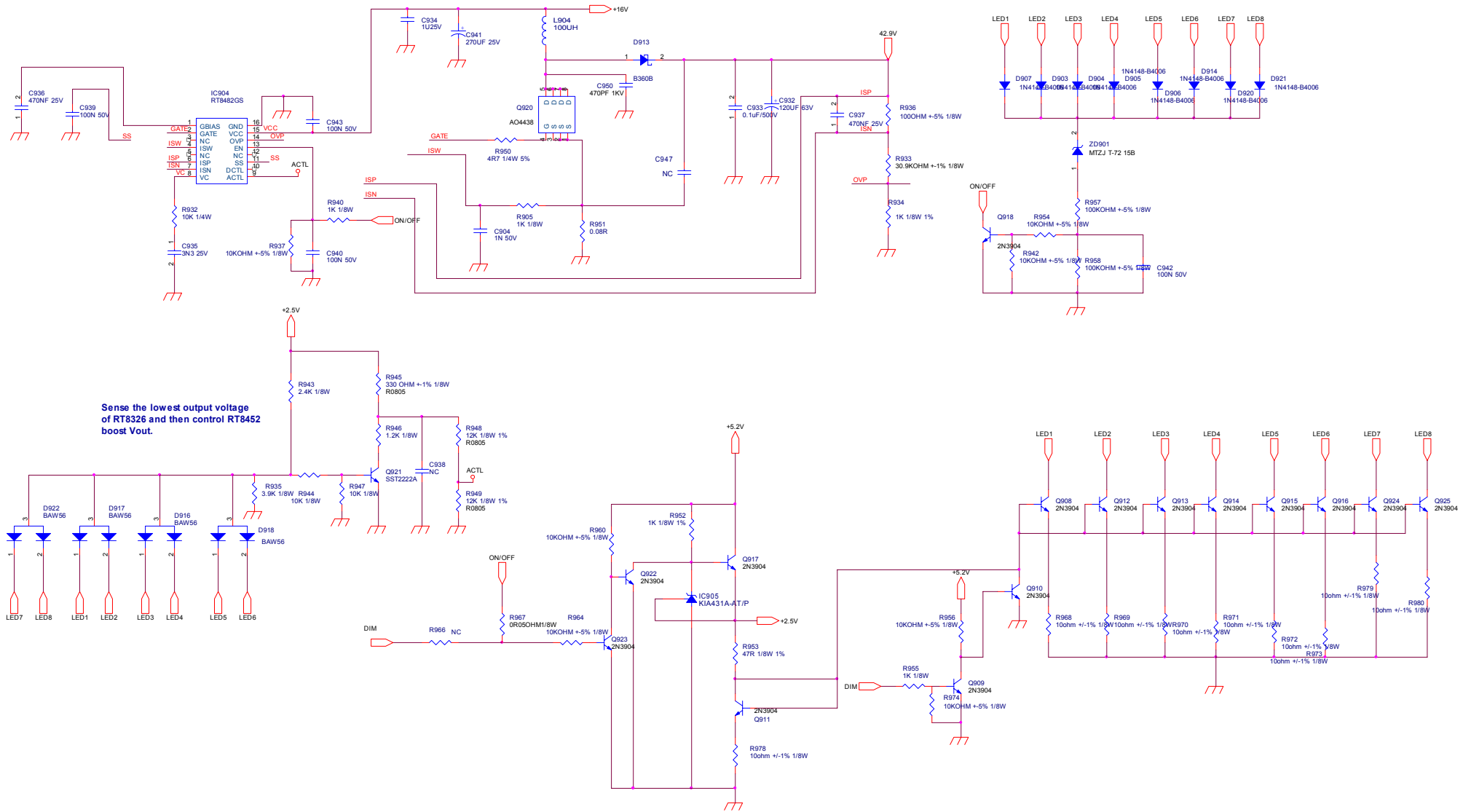
14) DC-DC Power



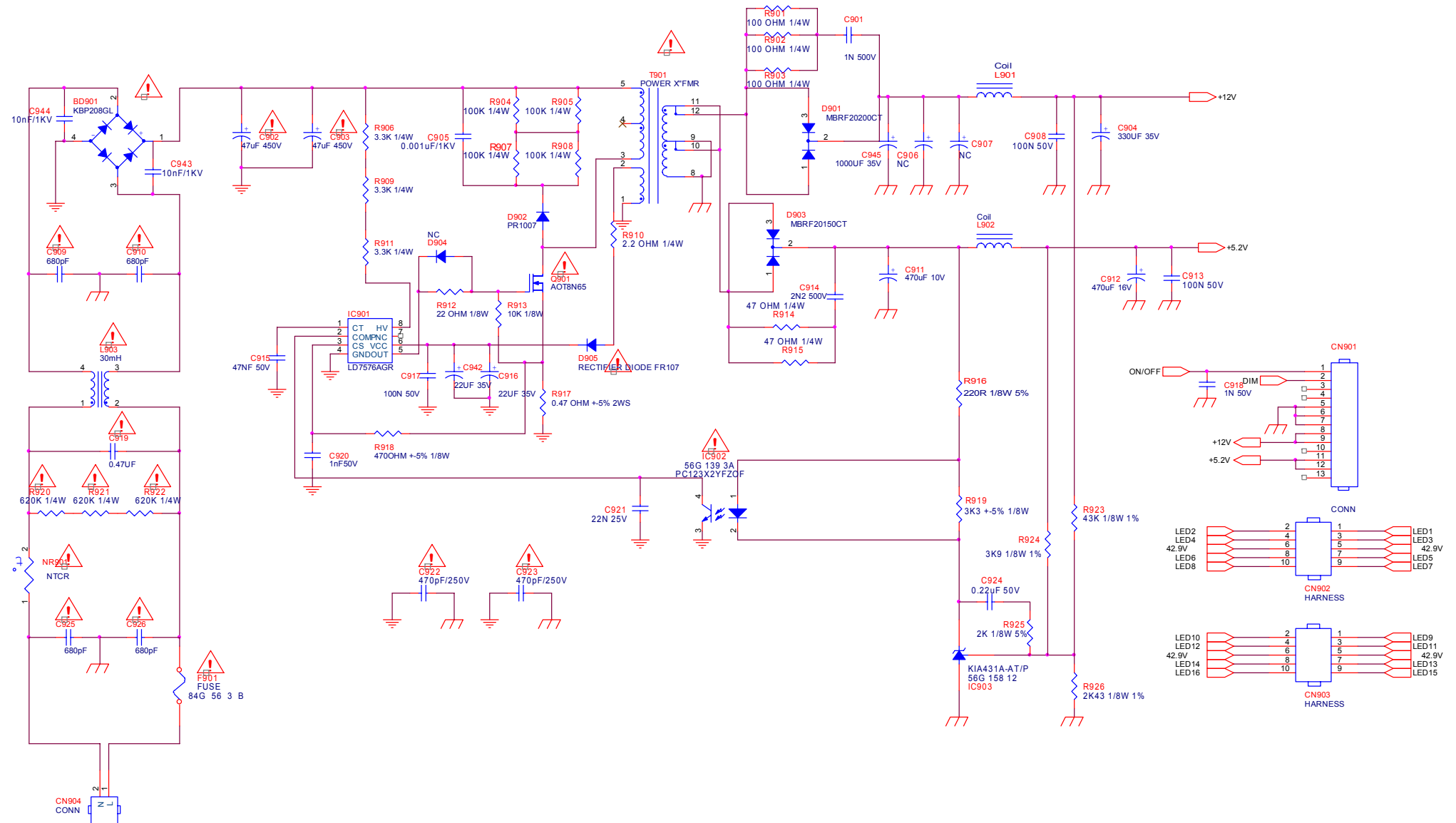
10.2 Power Board

LE19Z6 715G3762P01W31002M



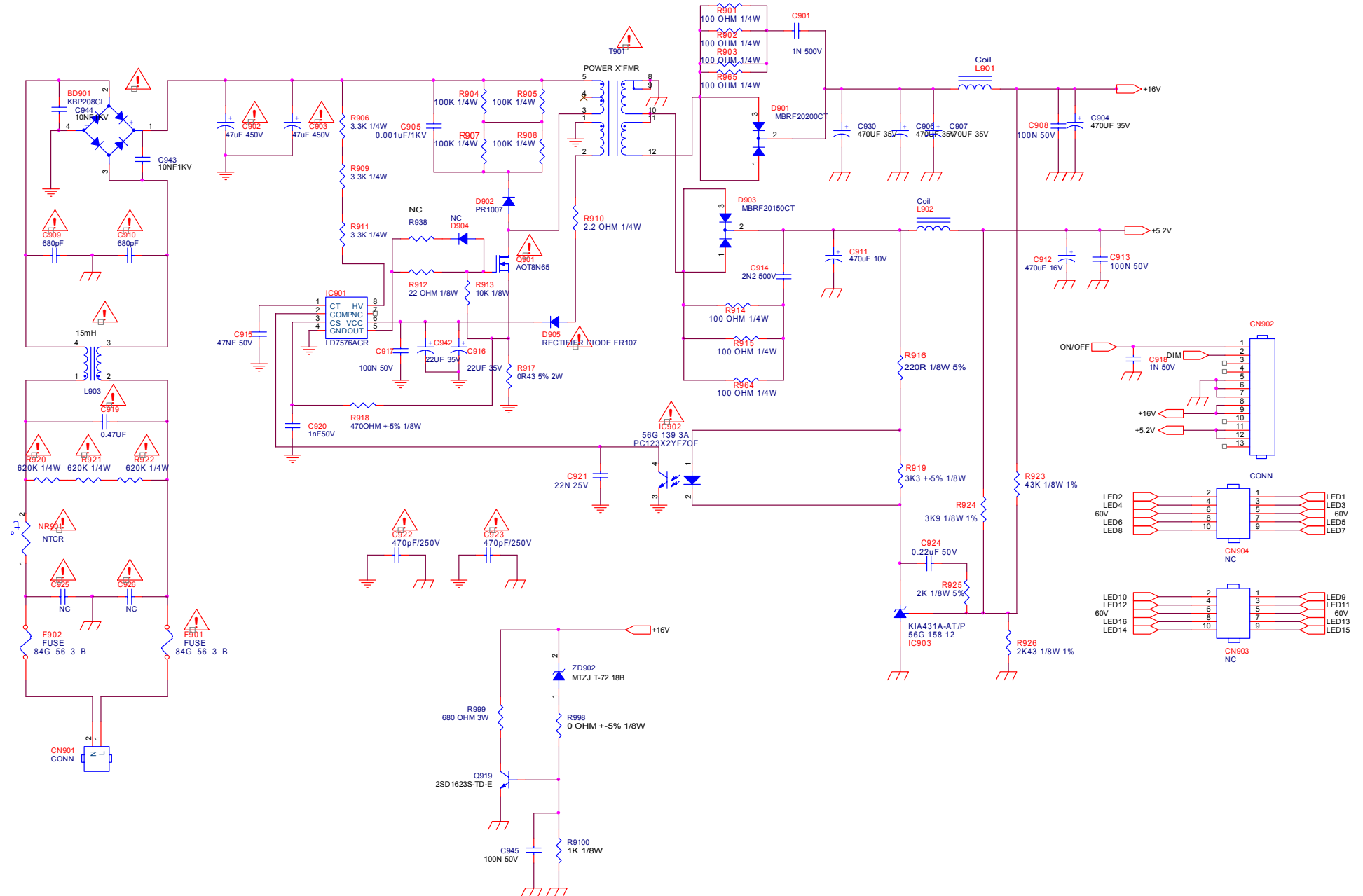


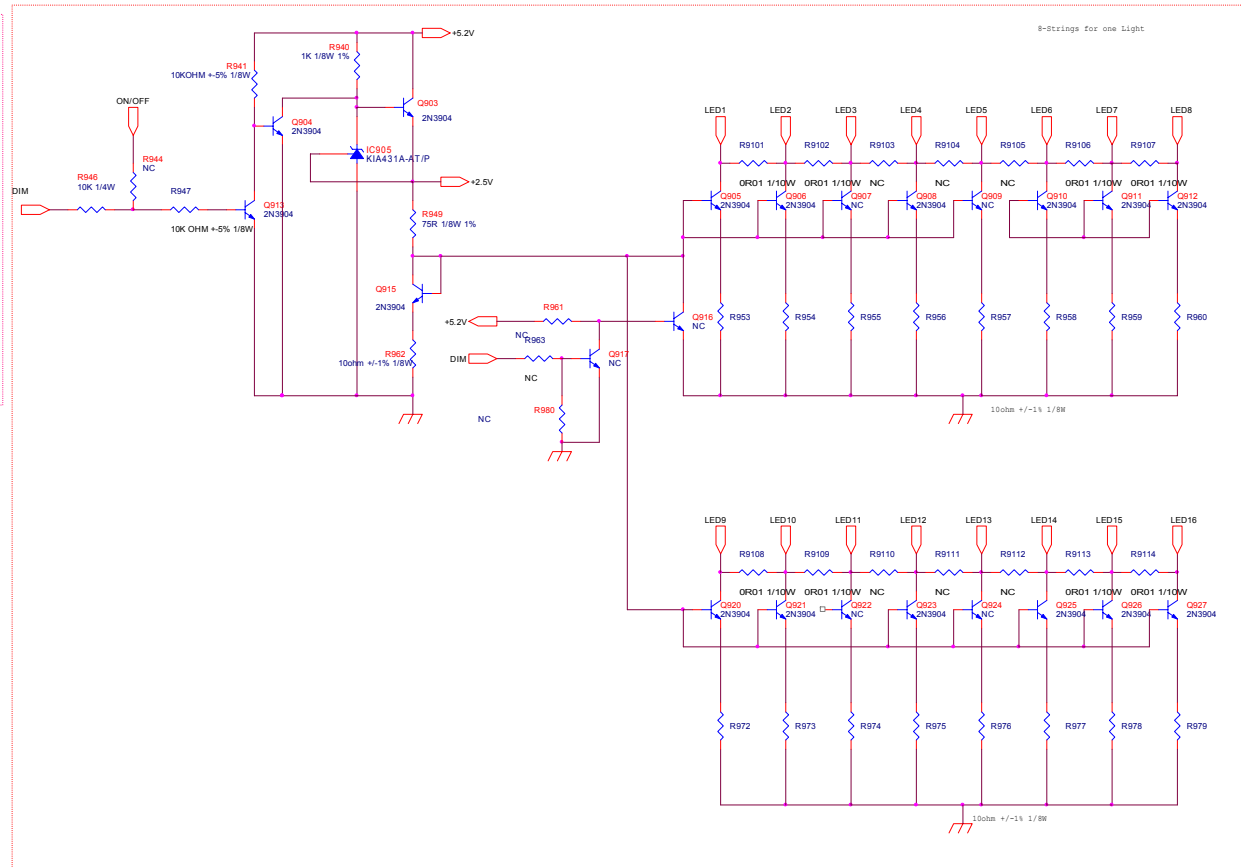
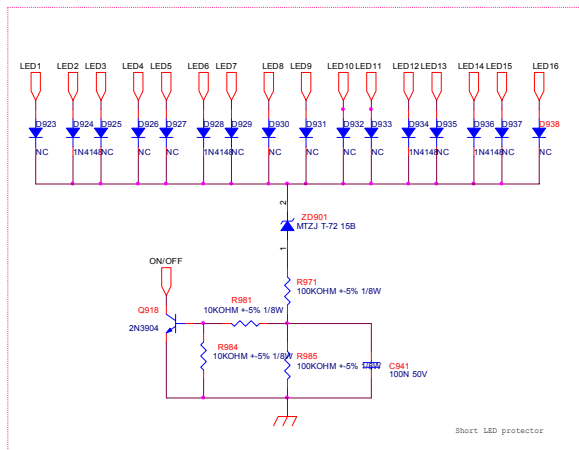
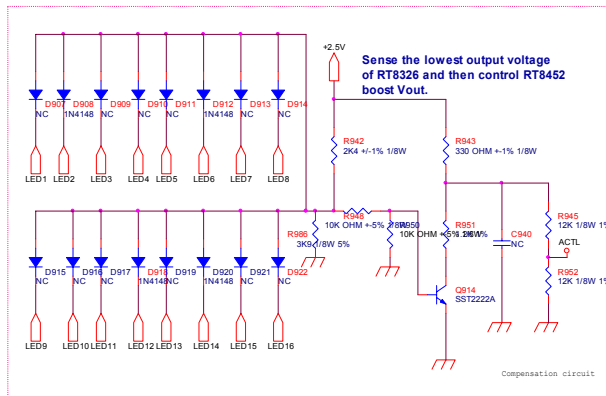
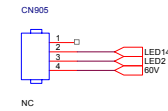
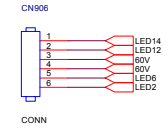
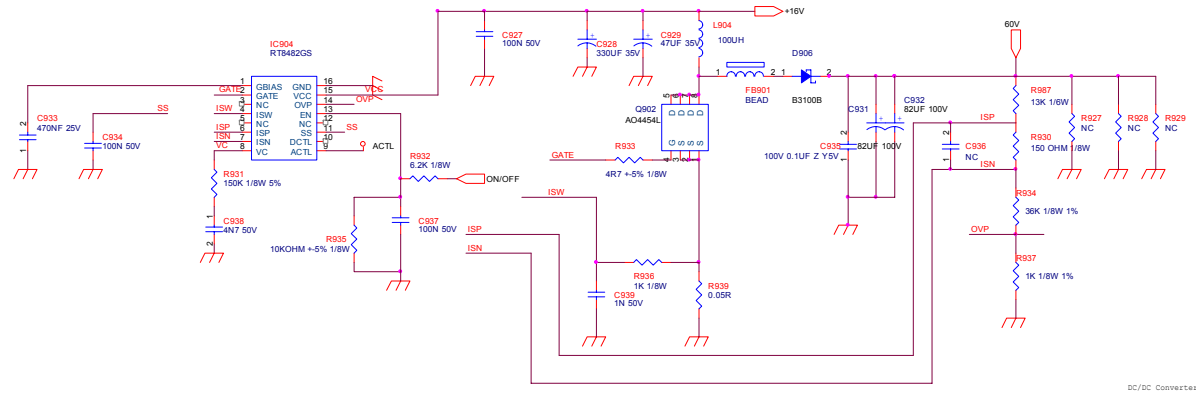
LE22Z6 715G4147P01H21002S



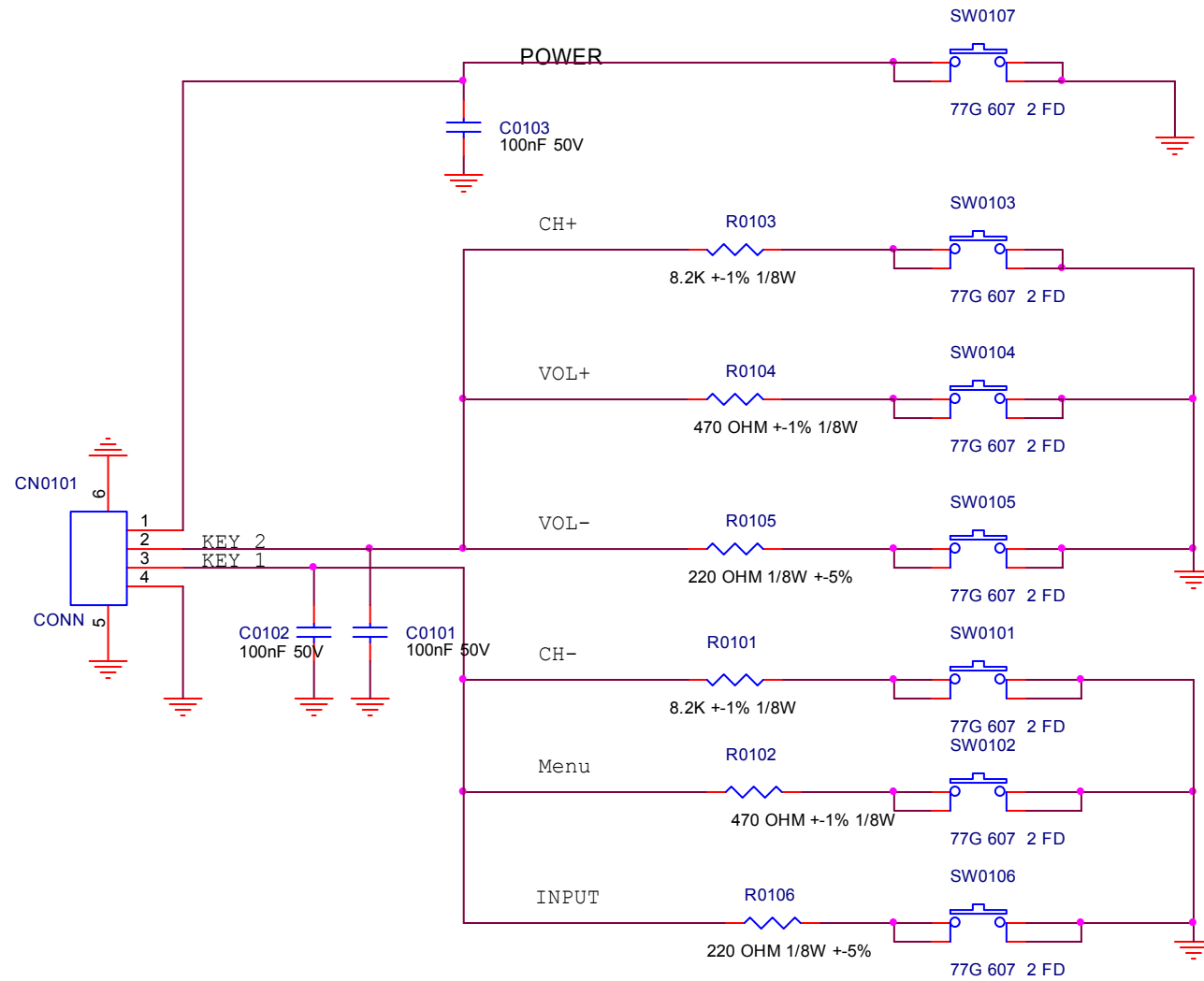


LE22Z6 715G4313P02000003S





10.3 Key Board 715G4200K0C000004S



10.4 IR Board
715G4104R01000004S

