

# **LCD Television**

## **Service Manual**

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**Chassis:** MSD6683

**Product:** Emerging market TV

**V 1.00**

**Hisense Electric Co., Ltd.**

**May , 2019**

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REVISION HISTROY			
Version	Revise content	Reviser	Date
V1.00	First issued		2019-5-9

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# Contents

<b>Contents</b> .....	- 3 -
<b>Service Manual</b> .....	- 4 -
1. Precautions and notices.....	- 4 -
1.1 Warning.....	- 5 -
1.2 Notes .....	- 8 -
2. TV boards: .....	- 10 -
3. Factory/Service OSD Menu and Adjustment.....	- 13 -
3.1 How to get into the Factory OSD Menu .....	- 13 -
3.2 Factory OSD Menu .....	- 14 -
4. Software Upgrading.....	- 14 -
4.1 USB Upgrading with Remote control, when TV in User status. ....	- 14 -
4.2 USB main software upgrading with SecureCRT(forced upgrading) .....	- 15 -
5. Trouble shooting .....	- 18 -
5.1 Troubleshooting for Remote Control .....	- 19 -
5.2 Troubleshooting for Function Key.....	- 20 -
5.3 TV won't Power On.....	- 21 -
5.4 Troubleshooting for Audio.....	- 22 -
5.5 Troubleshooting for HDMI input.....	- 23 -
5.6 Troubleshooting for Video input.....	- 24 -
6. Signals Block Diagram & power assign & schematic diagram : .....	- 24 -

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# Service Manual

## 1. Precautions and notices

BEFORE SERVICING THE LCD TV, READ THE SAFETY PRECAUTIONS IN THIS MANUAL.

USE ONLY MANUFACTURER SPECIFIED REPLACEMENT PARTS WHEN SERVICING.

USE OF NON-AUTHORIZED PARTS WILL VOID THE MANUFACTURE'S WARRANTY

Proper service and repair is important to the safe, reliable operation of all Hisense Equipment. The service procedures recommended by Hisense and described in this Service Guide 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 and pose risk of personal injury

. It is also important to understand that these CAUTIONS and NOTICES ARE NOT EXHAUSTIVE. Service should only be performed by an experienced electronics

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technician trained in the proper Television safety and service methods and procedures  
Hereafter throughout this manual, HISENSE will be referred to.

## **1.1 Warning**

### **1.1.1**

Critical components having special safety characteristics are identified with a ▲ by the Ref. No. in the parts list. Use of non-manufacturer's recommended parts may create shock, fire, or other hazards. Under no circumstances should the original design be modified or altered without written permission from RCA. Hisense Eassumes no liability, express or implied, arising out of any unauthorized modification of design. Service-tech assumes all liability.

#### **DANGER CAUTION**

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 GUIDE.

### **1.1.2.**

All ICs and many other semiconductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically. When repairing, be sure to use anti-static table mats and properly use a grounding wrist stra. Keep components and tools also at this same potential.

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**IMPORTANT:**

Always disconnect the power cord from AC outlet before replacing parts or modules.

1.1.3

To prevent electrical shock, use only a properly grounded 3 prong outlet or extension cord.

1.1.4

When replacement parts are required, be sure to use replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards and will void the manufacturer's warranty.

1.1.5

Safety regulations require that after a repair the set must be returned in its original condition. In addition, prior to closing set, check that:

-Note:

>All wire harnesses and flex cables are properly routed and secured with factory tape and/or mounted cable clamps.

> All cables and connectors are properly insulated and do not have any bare wires/lead exposed

1.1.6

(1) Do not supply a voltage higher than that specified to this product. This may

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damage the product and may cause a fire.

(2) Do not use this product:

> High humidity areas

> In an area where any water could enter or splash into the unit.

High humidity and water could damage the product and cause fire.

(3) If a foreign substance (such as water, metal, or liquid) gets inside the panel module, immediately turn off the power. Continuing to use the product may cause fire or electric shock.

(4) If the product emits smoke, and abnormal smell, or makes an abnormal sound, immediately turn off the power. Continuing to use the product, it may cause fire or electric shock.

(5) Do not pull out or insert the power cable from/to an outlet with wet hands. It may cause electric shock.

(6) Do not damage or modify the power cable. It may cause fire or electric shock.

(7) If the power cable is damaged, or if the connector is loose, do not use the product: otherwise, this can lead to fire or electric shock.

(8) If the power connector or the connector of the power cable becomes dirty or dusty, wipe it with a dry cloth. Otherwise, this can lead to fire.

(9) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over

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## 1.2 Notes

Notes on Safe Handling of the LCD panel and during service

The work procedures shown with the Note indication are important for ensuring the safety of the product and the servicing work. Be sure to follow these instructions.

- Before starting the work, secure a sufficient working space.
- At all times other than when adjusting and checking the product, be sure to turn OFF the POWER Button and disconnect the power cable from the power source of the TV during servicing.
- To prevent electric shock and breakage of PC board, start the servicing work at least 30 seconds after the main power has been turned off. Especially when installing and removing the power board, start servicing at least 2 minutes after the main power has been turned off.
- While the main power is on, do not touch any parts or circuits other than the ones specified. If any connection other than the one specified is made between the measuring equipment and the high voltage power supply block, it can result in electric shock or may trip the main circuit breaker When installing the LCD module in, and removing it from the packing carton, be sure to have at least two persons perform the work.
- When the surface of the panel comes into contact with the cushioning materials, be sure to confirm that there is no foreign matter on top of the cushioning materials before the surface of the panel comes into contact with the cushioning materials. Failure to observe this precaution may result in, the surface of the panel being scratched by foreign



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matter.

- Be sure to handle the circuit board by holding the large parts as the heat sink or transformer. Failure to observe this precaution may result in the occurrence of an abnormality in the soldered areas.
- Do not stack the circuit boards. Failure to observe this precaution may result in problems resulting from scratches on the parts, the deformation of parts, and short-circuits due to residual electric charge.
- Perform a safety check when servicing is completed. Verify that the peripherals of the serviced points have not undergone any deterioration during servicing. Also verify that the screws, parts and cables removed for servicing purposes have all been returned to their proper locations in accordance with the original setup.



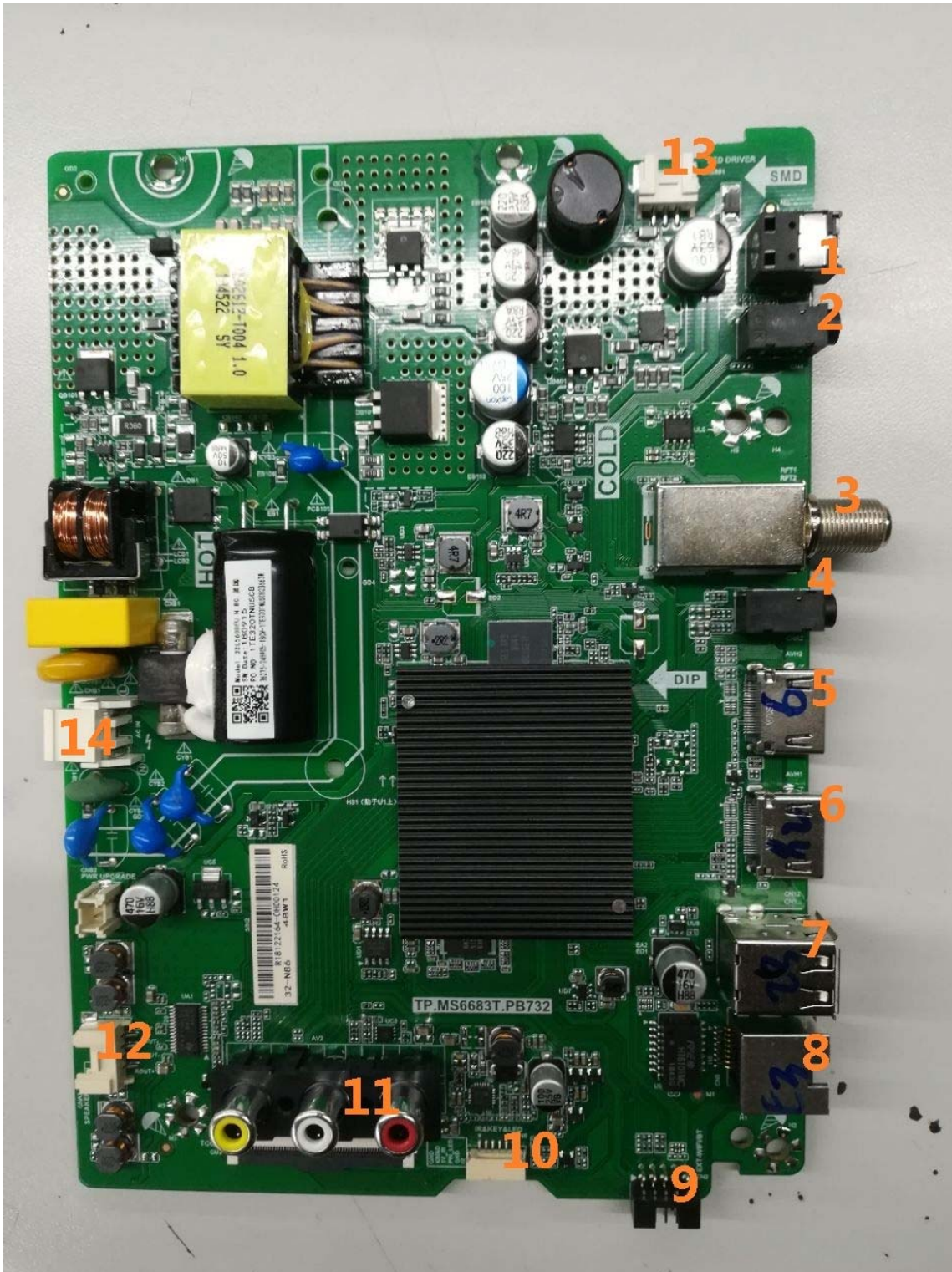
The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated dangerous voltage within the products enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the set.

## 2. TV boards:

### 2.1 The TOP of board : PB732



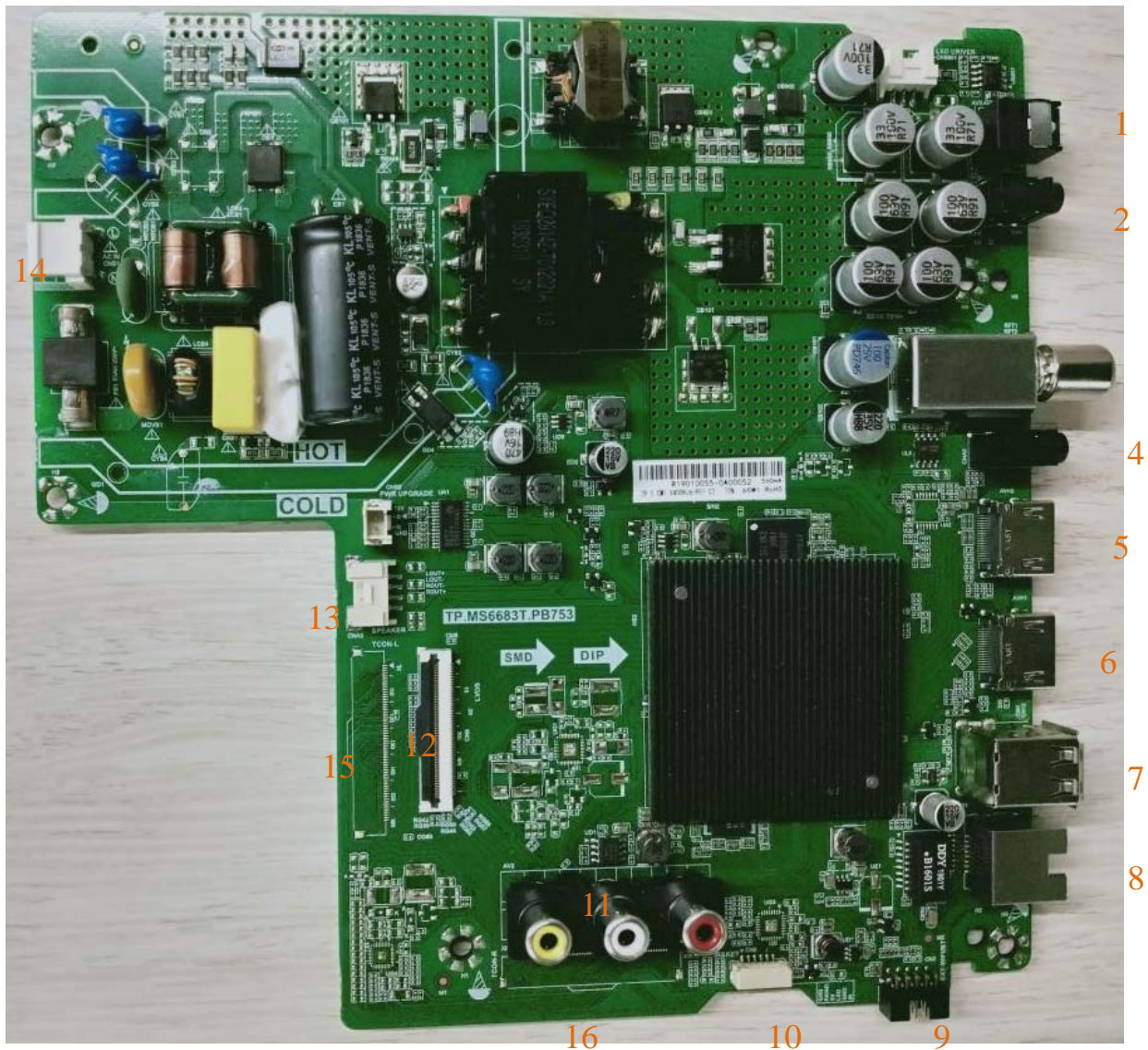
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Board PB732 terminals layout:

	<b>Position</b>	<b>Description</b>	<b>Market</b>
1	AV3	Digital Audio out	
2	CN4	SERVICE	
3	RFT1	RF Input	Tuner part on board
4	CNA2	Earphone	
5	AVH2	HDMI1(ARC)	
6	AVH1	HDMI2	
7	CN12	USB *2	
8	CN5	LAN	
9	CN2	WIFI	
10	CN6	IR&KEY	
11	AV2	AV	
12	CNA3	SPEAKER	
13	CNB801	LED DRIVER	
14	CNB1	Power input	



## 2.2 The TOP of board : PB753



Board PB753 terminals layout:

	Position	Description	Market
1	AV3	Digital Audio out	
2	CN4	SERVICE	
2	RFT1	RF Input	Tuner part on board
4	CNA2	Earphone	
5	AVH2	HDMI1(ARC)	
6	AVH1	HDMI2	
7	CN12	USB *2	
8	CN5	LAN	
9	CN2	WIFI	

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10	CN6	IR&KEY	
11	AV2	AV	
12	CNA3	LVDS	
13	CNB801	SPEAKER	
14	CNB1	Power input	
15	XL	MiniLvds1	TCON on board
16	XR	MiniLvds2	TCON on board

Board	Boards function difference (modify)	Suitable TV
PB732	complex board(main board part、 power board ) Side terminals and back terminals	32E5606EX TCON part not integrated in main board
PB753	complex board(main board part、 power board, TCON board ) Side terminals and back terminals	40E5606EX TCON part not integrated in main board 43E5606EX TCON part integrated in main board.

### 3. Factory/Service OSD Menu and Adjustment

#### 3.1 How to get into the Factory OSD Menu

##### . With user's remote control

1. TV Power on, choose input and into CHAANLE, HDMI or AV.
2. call out "Setting menu" with "menu function " button on remote control
3. Select—**TV options> Advanced options** ,input 1->9->6->9 in sequence. Note: If necessary, re-enter number keys.
4. Factory OSD appears.

- 
5. DC power off and power on the TV, which can exit Factory OSD.

## 3.2 Factory OSD Menu

### Factory OSD Menu

If you want to learn more about TV, you'd better read carefully but can't alter the figure and option. Factory menu may have difference for different customer . Take 32E5600EU for example.

## 4. Software Upgrading

### 4.1 USB Upgrading with Remote control, when TV in User status.

The main software can be upgraded by USB Disk. take [32E5606EX](#) for example.

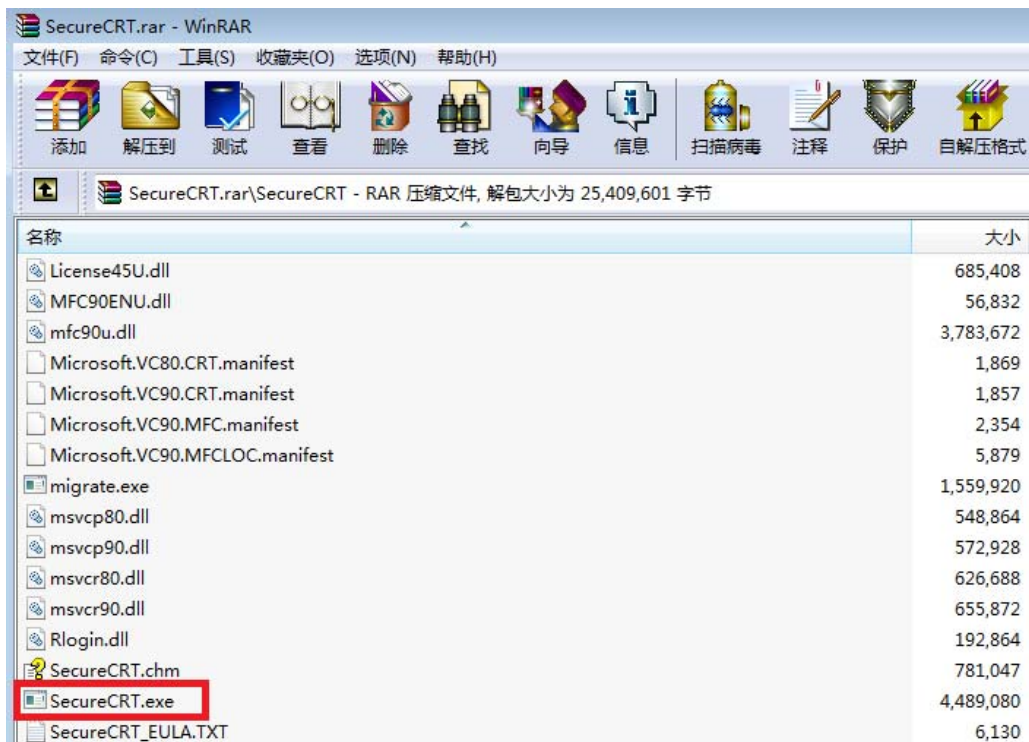
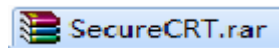
- Ensure there are no any “\*.pkg” files in USB root directory and decompress the upgrade file to the USB root directory and rename to” upgrade\_loader.pkg”
- Insert USB Disk to TV USB port, and then AC power on the TV.
- TV will upgrade automatically.
- When updating success, TV can automatically restart.

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## 4.2 USB main software upgrading with SecureCRT(forced upgrading)

When USB software upgrading fails with Remote control , We can upgrade with debug serial board Tool and SecureCRT Tool .

- Run SecureCRT.exe



- AC power on the TV , at the same time tightly press the “Enter” button on the PC until appear character

“<<Mstar>>#”

Behind the character“<<Mstar>>#”,Write lower-case letter “cu” and press enter key to ensure.

- TV will upgrade automatically ,the TV process as same as 4.1.

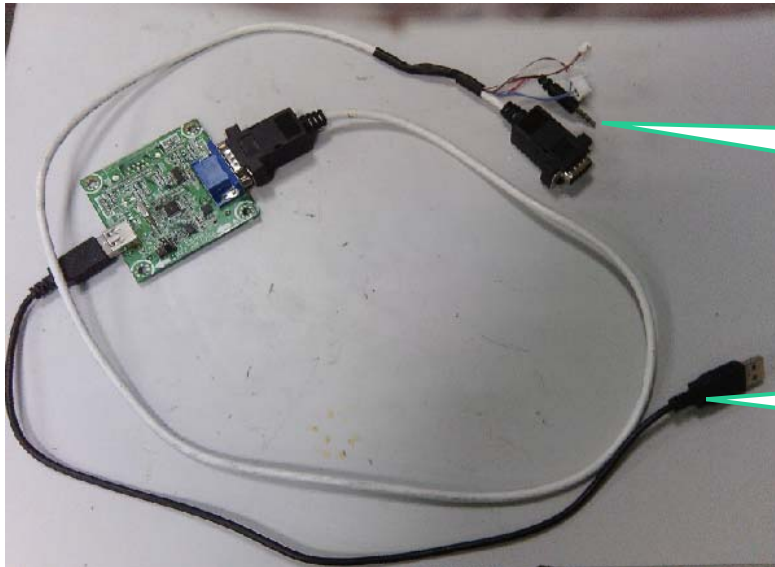
### USB upgrade failing

If USB upgrade failing. At last we can burn the emmc flash program file“ \*.bin ”to the flash IC then USB disk to upgrade the **upgrade\_loader.pkg** file.

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## Hardware connecting

Connect the unit to your pc with a USB-to-serial port cable. USB port connects to your PC and serial port to the TV's debug port. As following, except HU32N50HW 、HU32N50HW (1000) that use 4 pin serial port .





earphone Connect to the TV Service port.

USB Connect to the PC

### 4.2.1 Install the driver

#### 4.2.1 Install the bebug board driver for first use MTK FlashTool.

Double click the icon  CP210xVCPInstaller\_x64.exe  CP210xVCPInstaller\_x86.exe , install the driver.

#### Note:

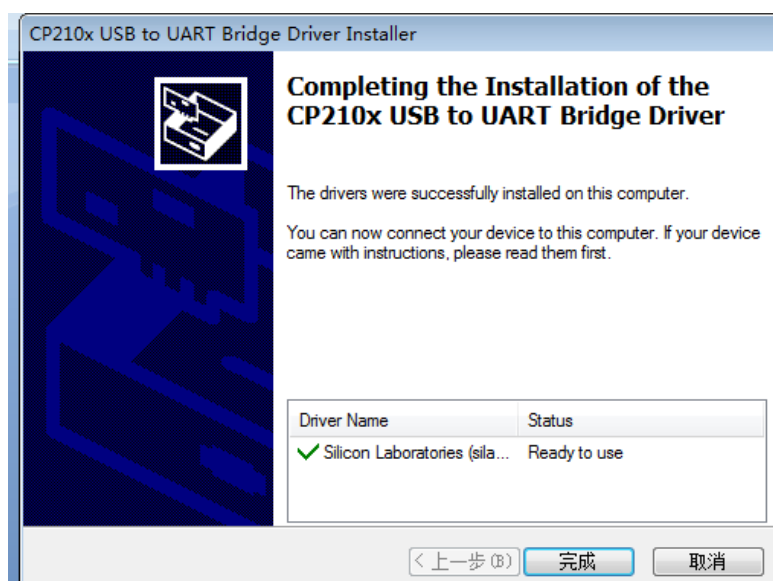
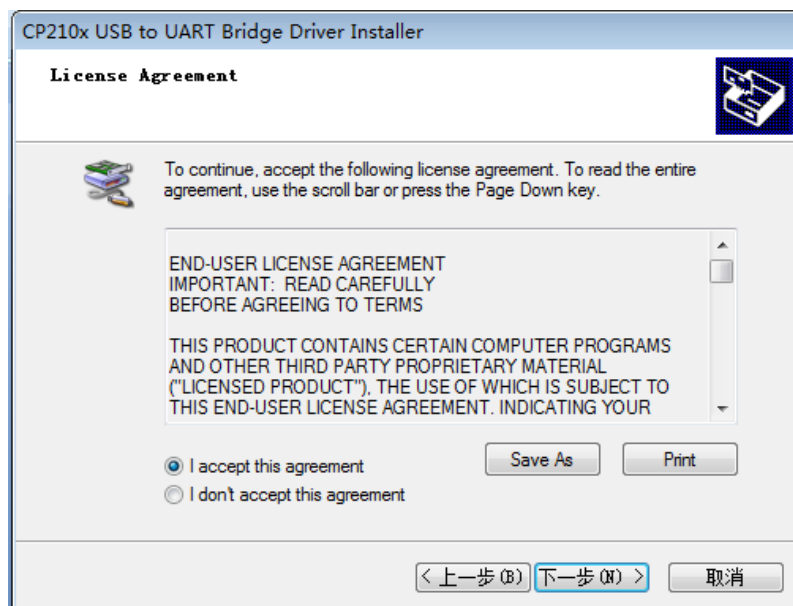
X64.exe is fit for 64bit system configure of the computer.

X86.exe is fit for 32bit system configure of the computer.





Select the default value, the driver will be installed step by step.



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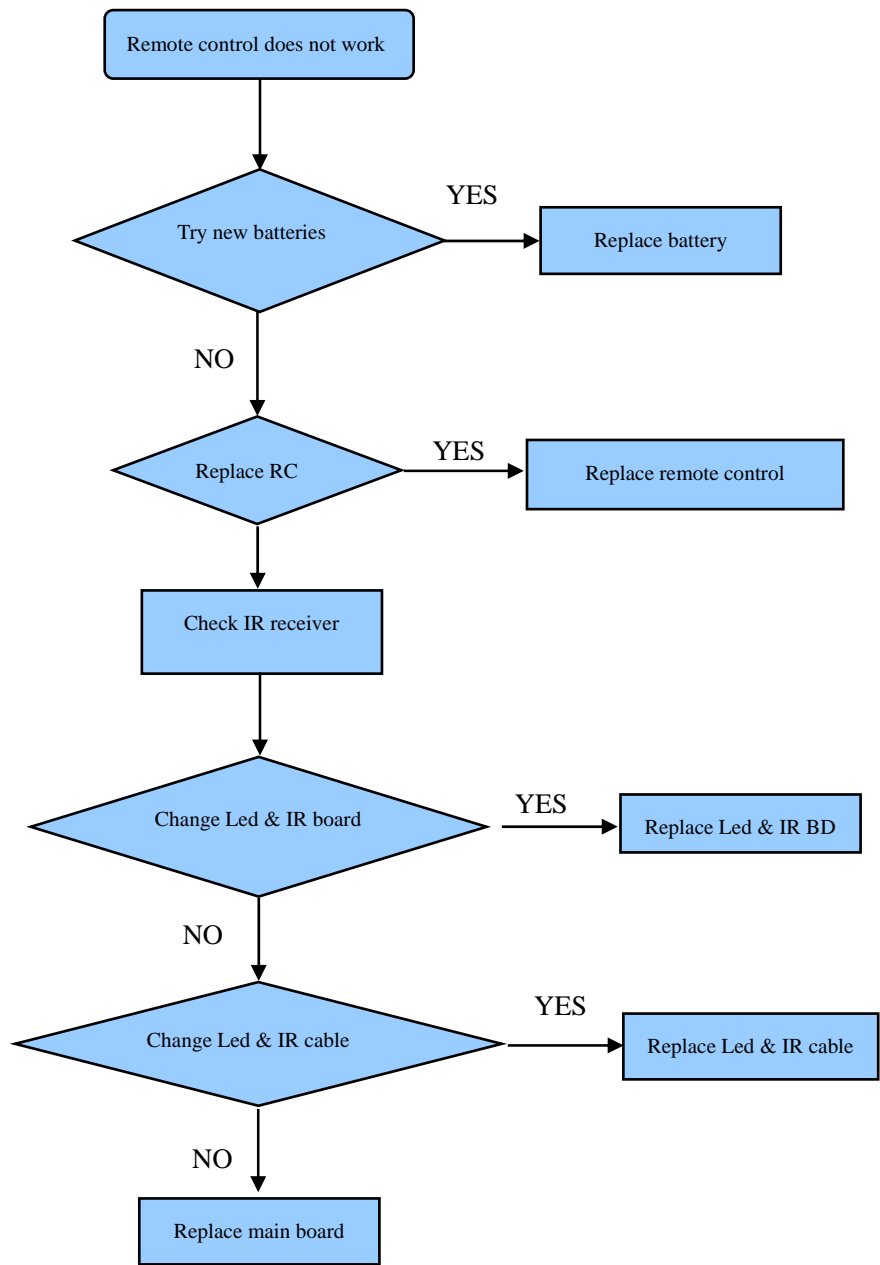
## 5. Trouble shooting

When there is something wrong with your TV, you can try turning off the TV and then restart it. You can also operate according to the follow chart. If the problems still can't be solved, please contact the profession technician.

No sound or picture	<ol style="list-style-type: none"><li>1. Check if the power line is in the outlet and if it has electricity.</li><li>2. Check if you have pressed Power button on the TV or Power button on the remote control</li><li>3. Check the setting of picture brightness and contrast.</li><li>4. Check the volume.</li></ol>
The picture is normal but there is no sound	<ol style="list-style-type: none"><li>1. Check the volume.</li><li>2. Check if Mute mode is set.</li></ol>
No picture and white or black picture	<ol style="list-style-type: none"><li>1. Adjust Picture Setting.</li><li>2. Check Color System.</li></ol>
The sound and picture are interfered	<ol style="list-style-type: none"><li>1 Try to find the appliance affecting TV set, and move it far away from the TV set.</li><li>2. Try to insert the power plug of the TV set into another outlet.</li></ol>
Unclear picture or picture with snow	<ol style="list-style-type: none"><li>1. Check the direction, position and connection of your antenna.</li><li>2. Adjust the direction of your antenna or reset or fine tune the channel</li></ol>
The remote control does not work	<ol style="list-style-type: none"><li>1. Change the batteries in the remote control.</li><li>2. Clean the upper side of the remote control (radiating window)</li><li>3. Check the contacting points of the batteries.</li><li>4. Check if there is obstruction between the remote control and the monitor.</li><li>5. Check if the batteries are correctly installed.</li></ol>
H/V strip or the picture shaking	Check if there is an interfering source nearby, such as appliance or electric tools.
The cabinet of the TV makes "Click" sound	makes "Click" sound"Sometimes the room temperature change can cause the television cabinet to inflate or contra, which makes this sound. This does not mean the TV breaks down.

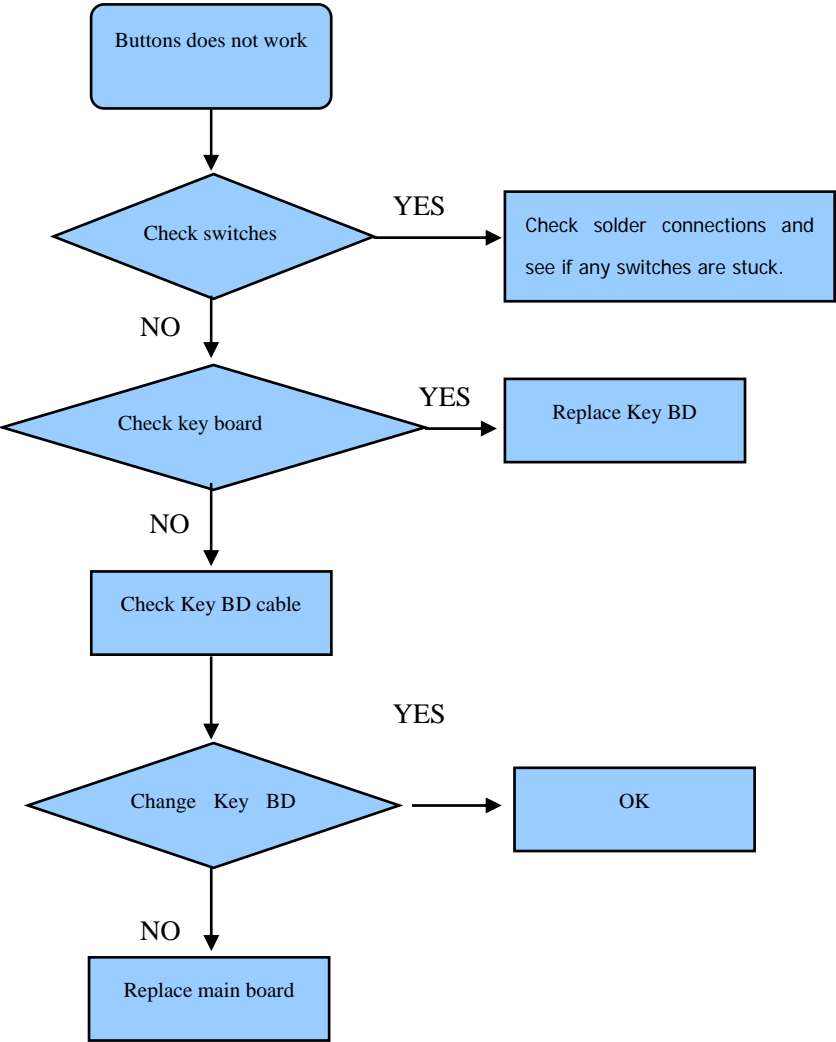
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# 5.1 Troubleshooting for Remote Control

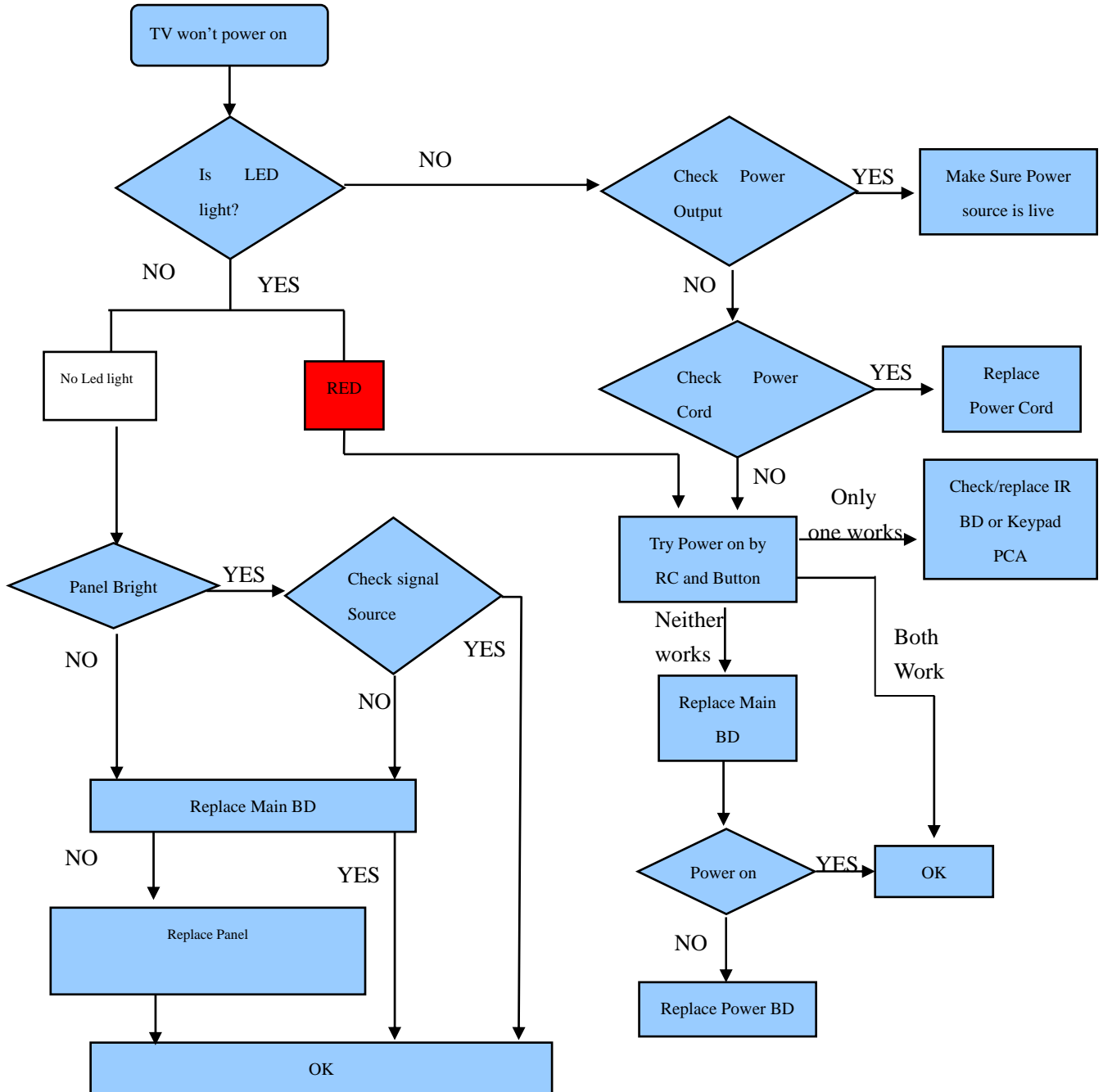


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# 5.2 Troubleshooting for Function Key



## 5.3 TV won't Power On



### Note:

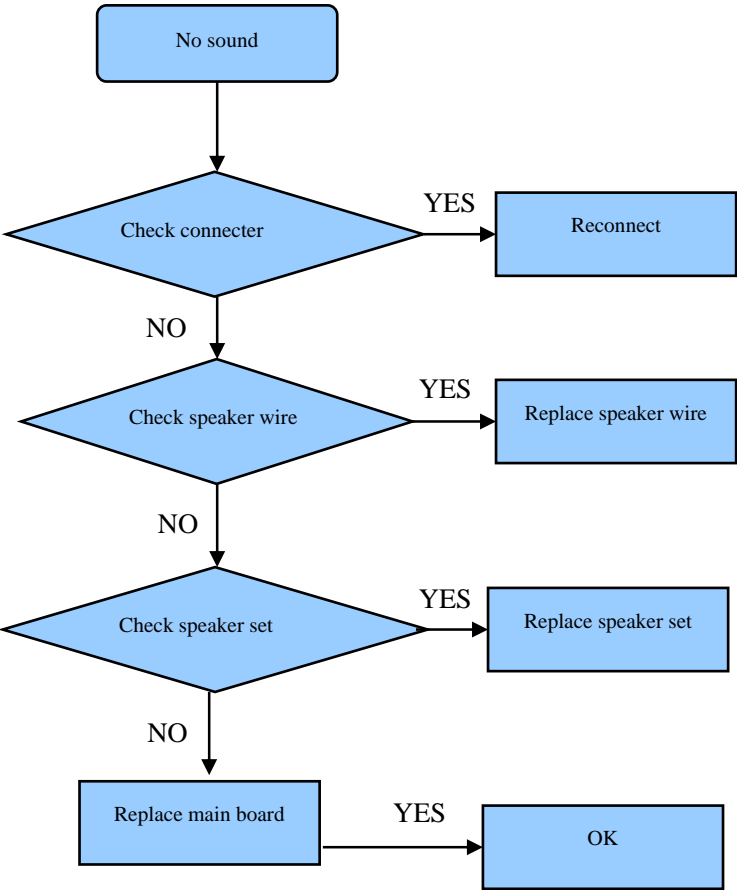
MSD6683 LED TV feature:  
When TV is in working status, No led light.  
When TV is in standby status, Led light is RED.

### Note:

If main board & power board are one complex board not separately, then replace main board or power board will change the complex board.

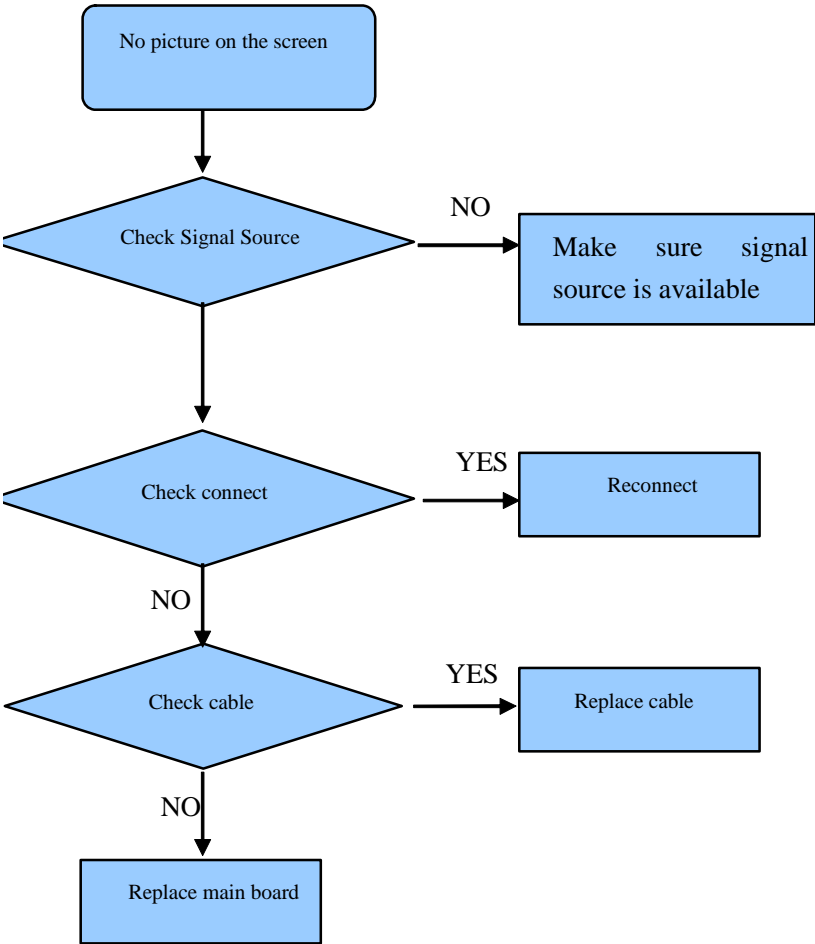
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# 5.4 Troubleshooting for Audio



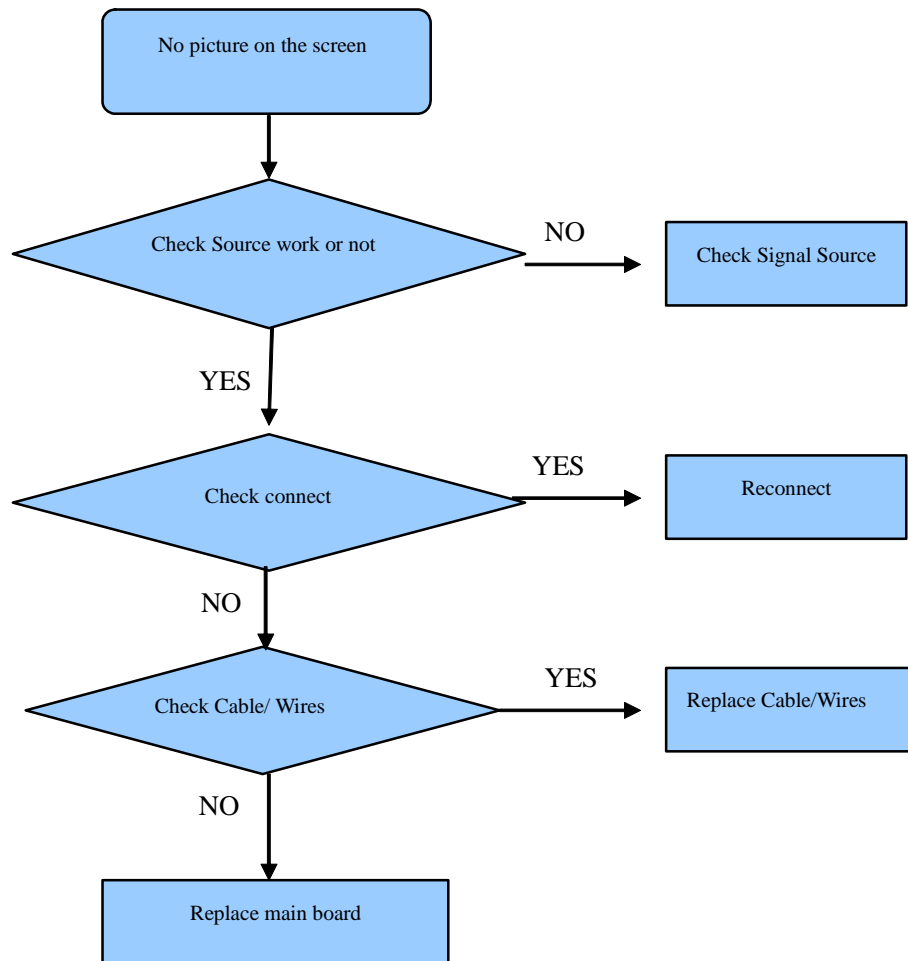
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# 5.5 Troubleshooting for HDMI input



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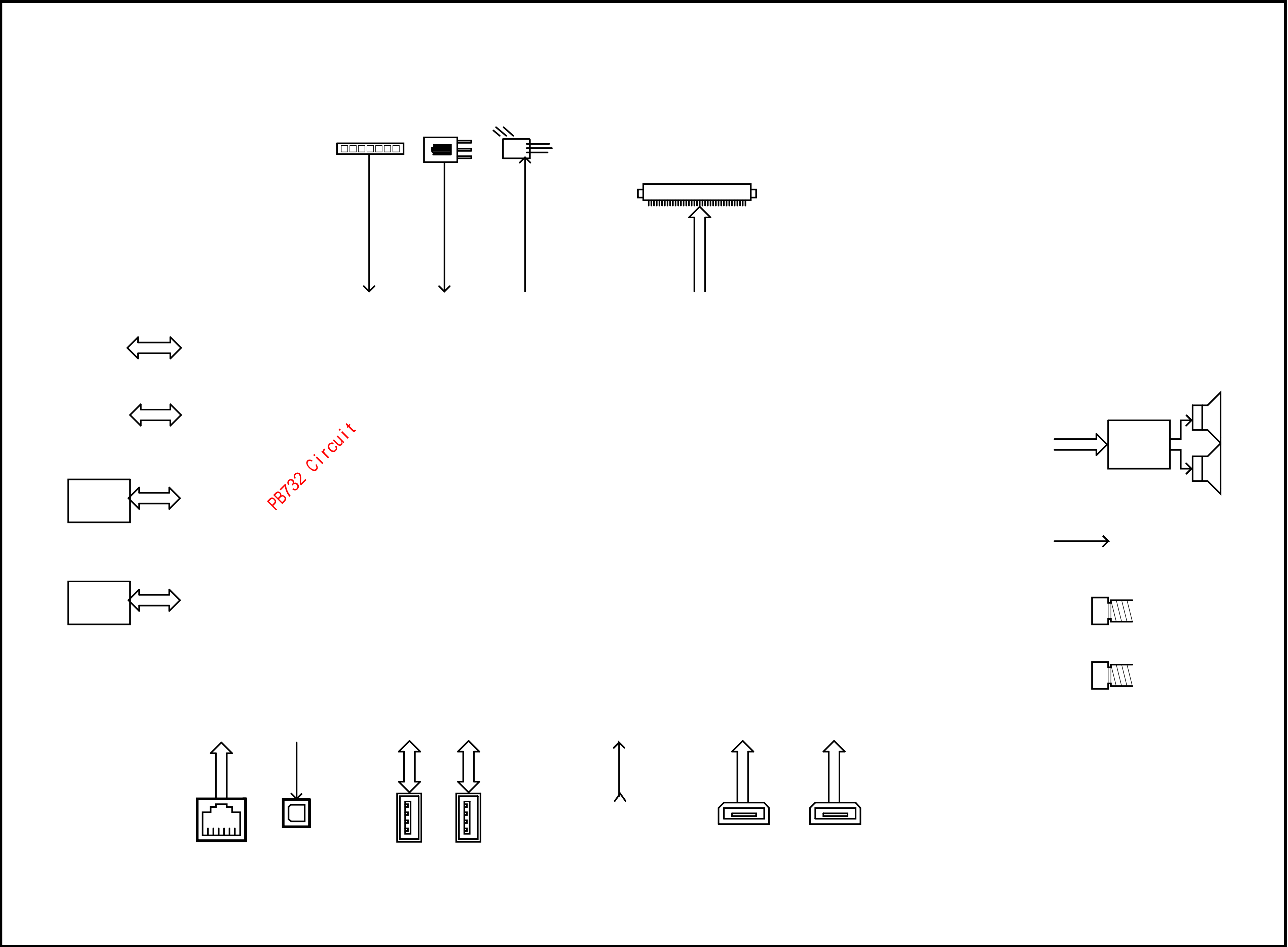
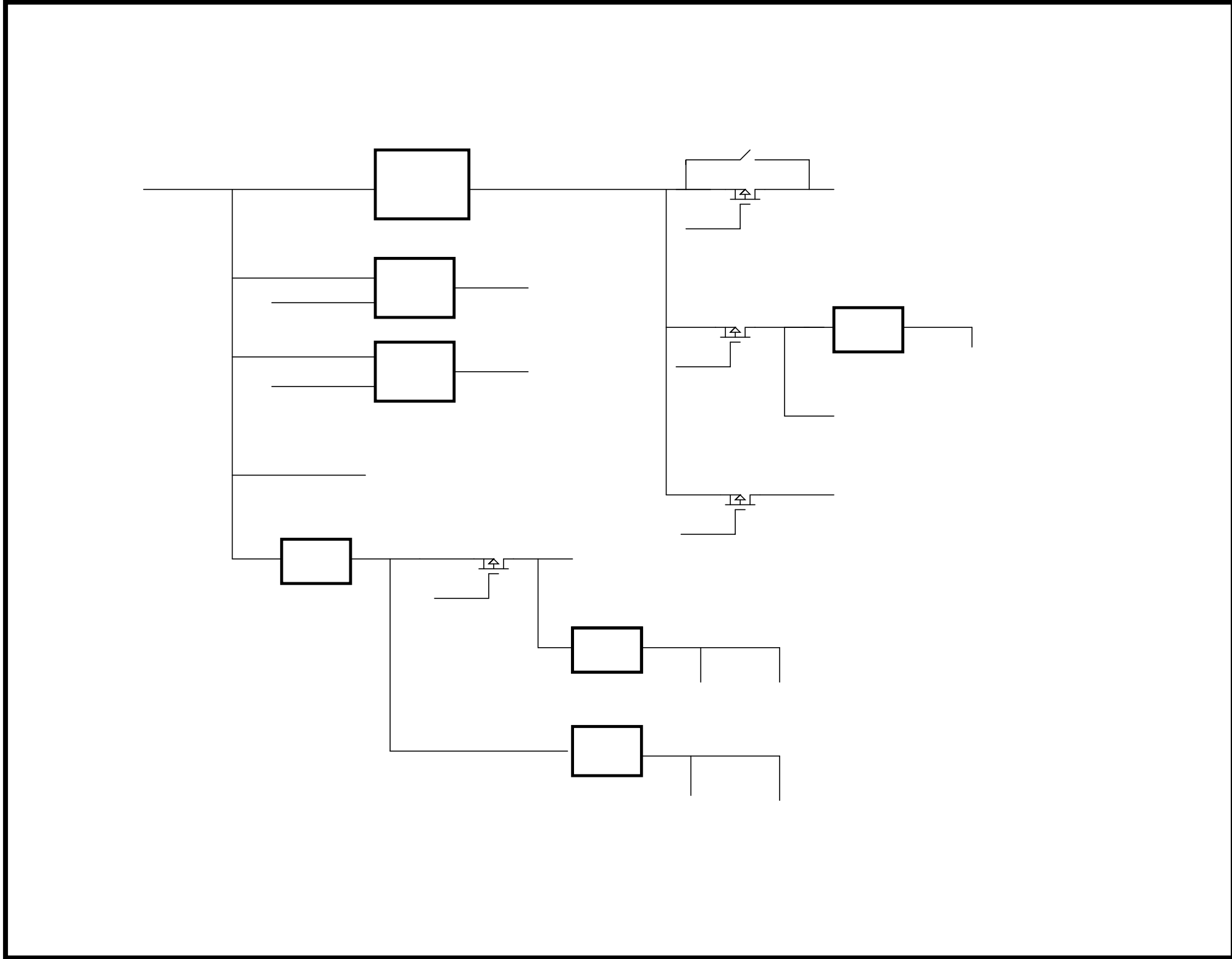
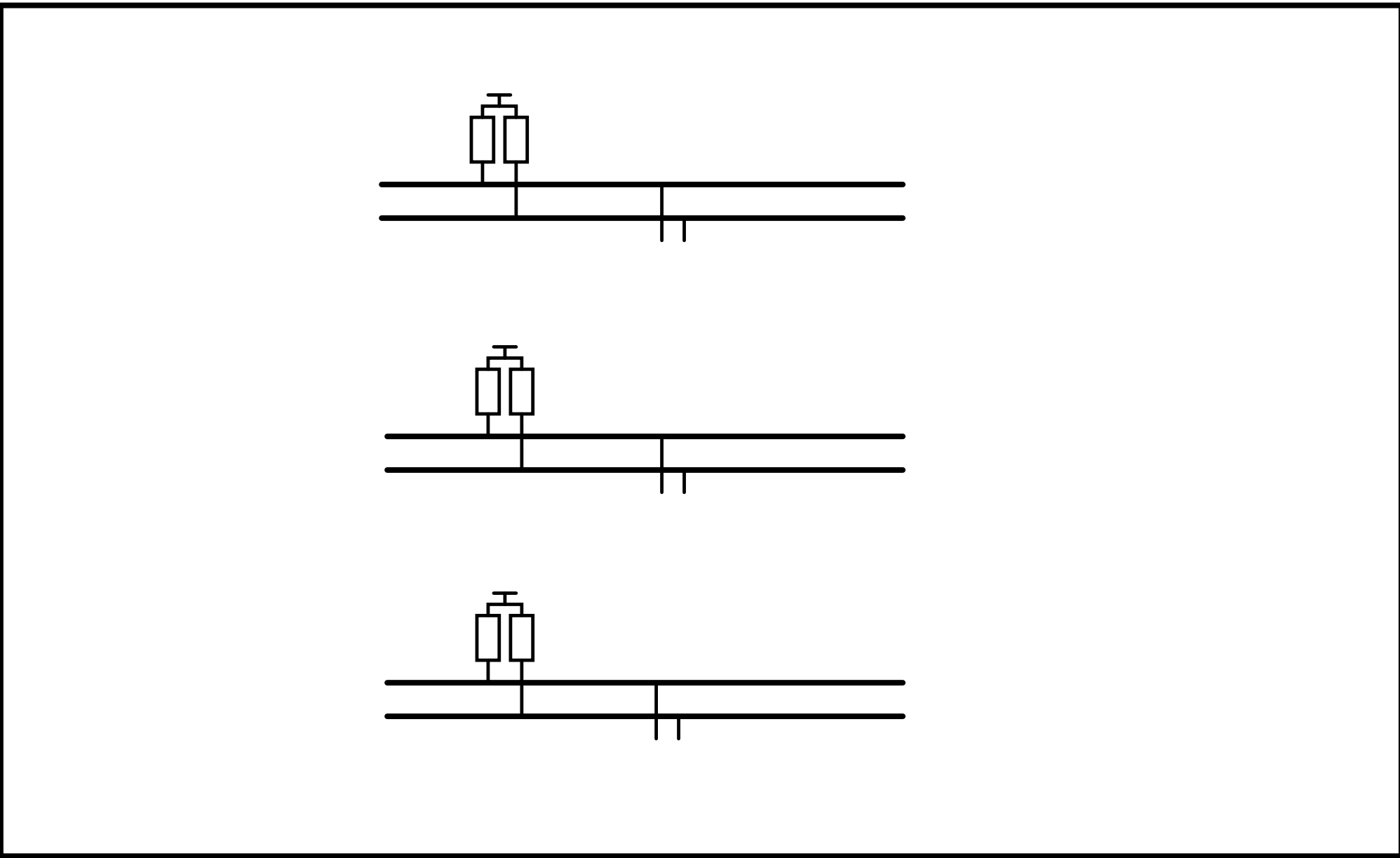
## 5.6 Troubleshooting for Video input



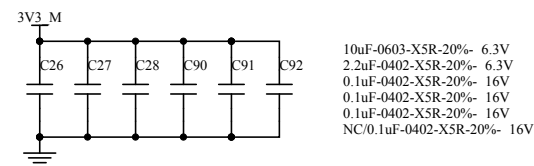
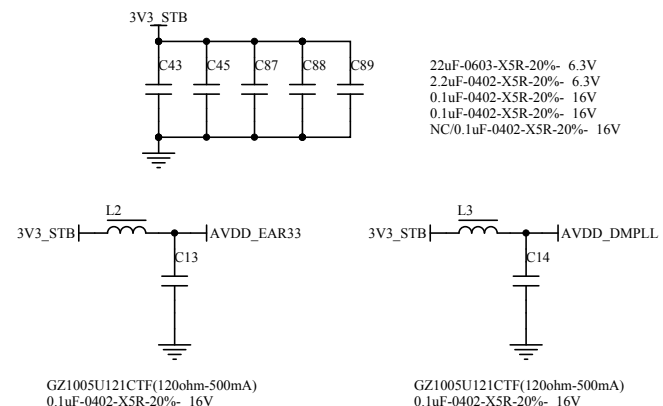
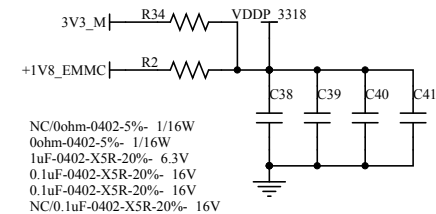
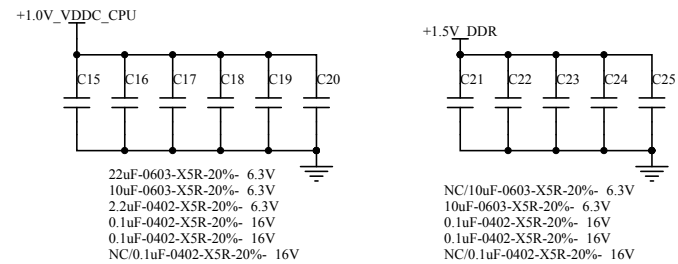
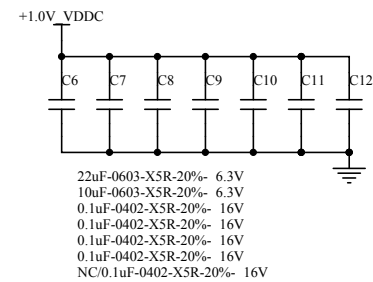
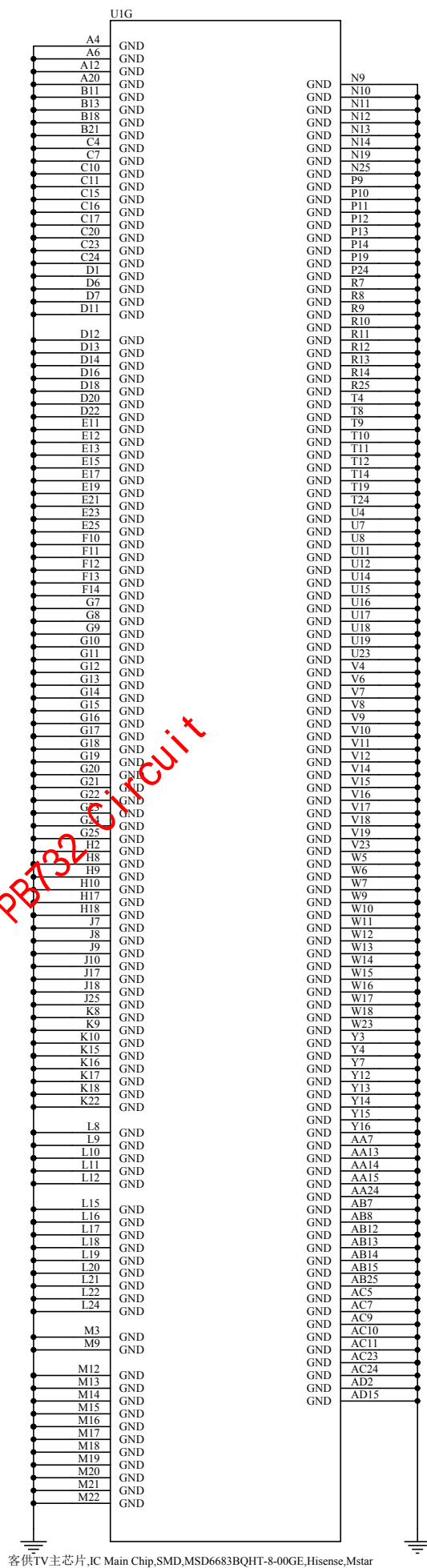
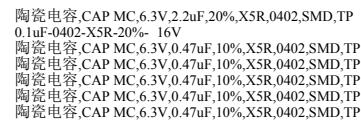
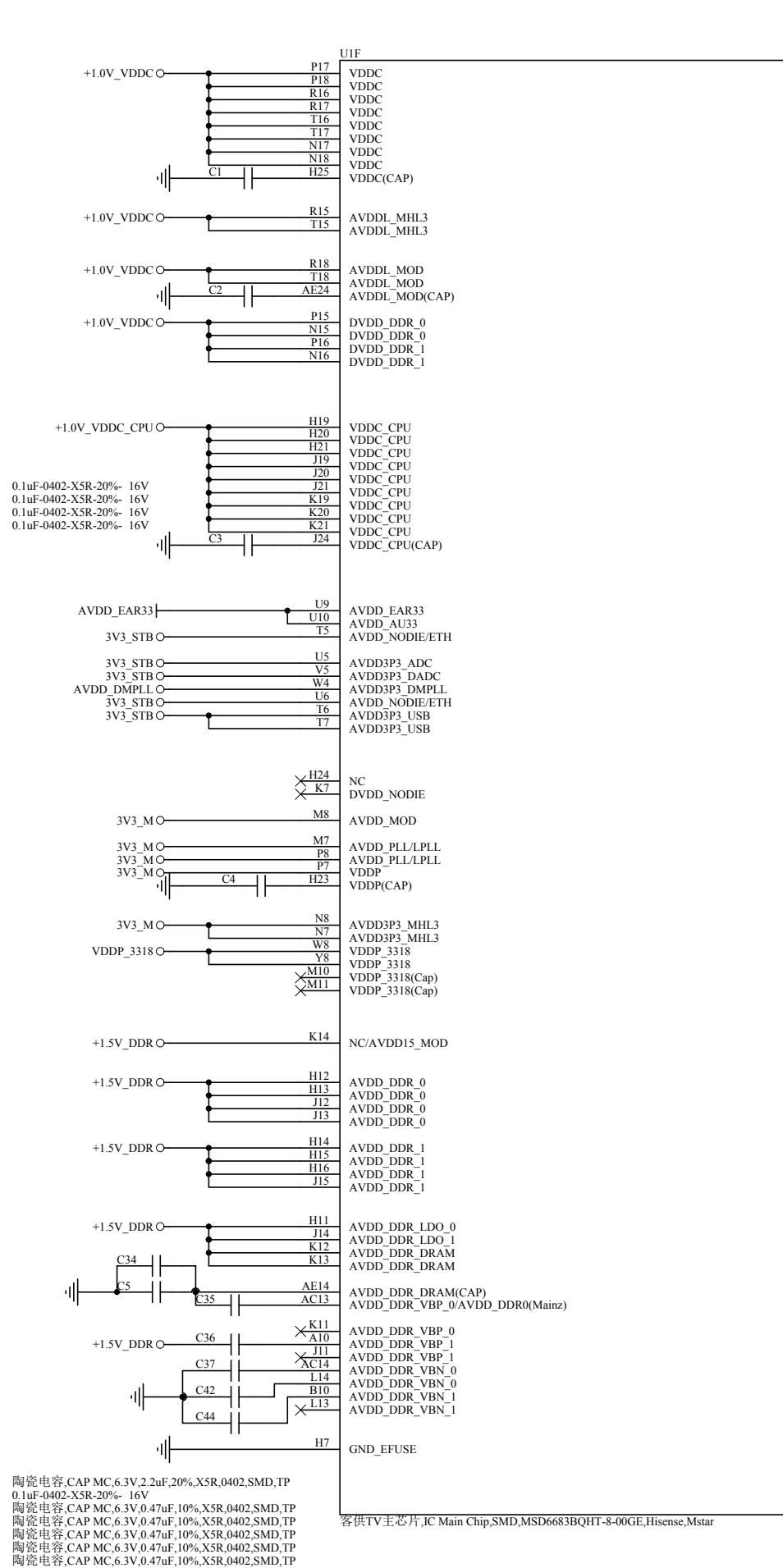
## 6. Signals Block Diagram & power assign & schematic diagram :

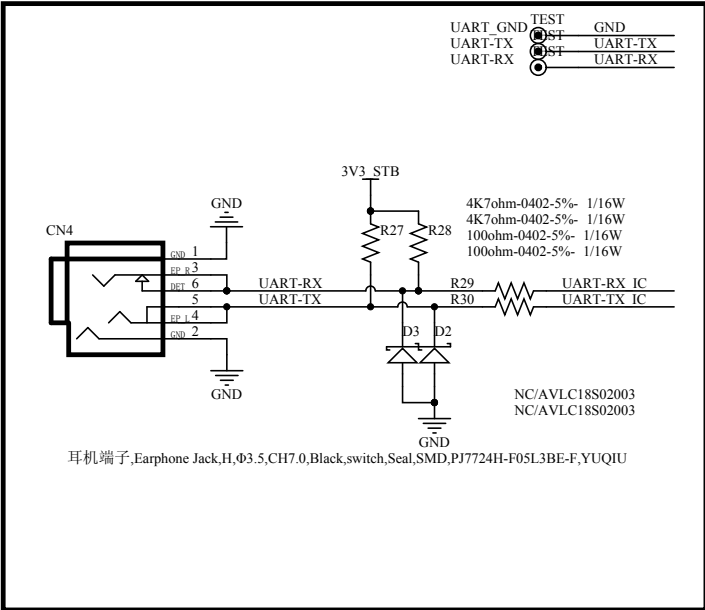
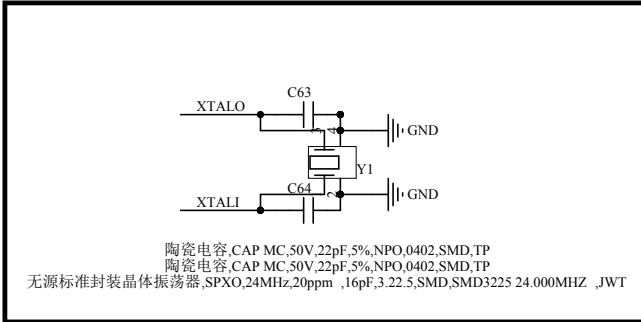
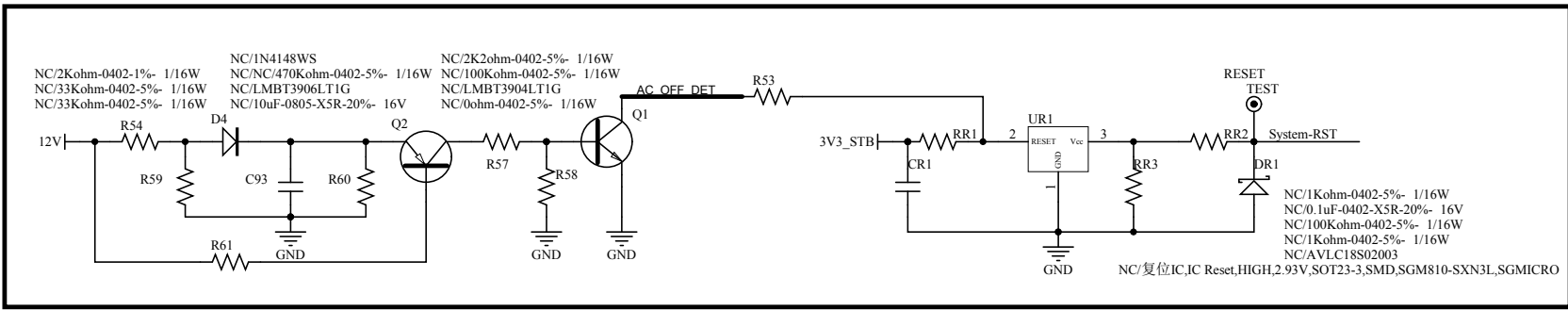
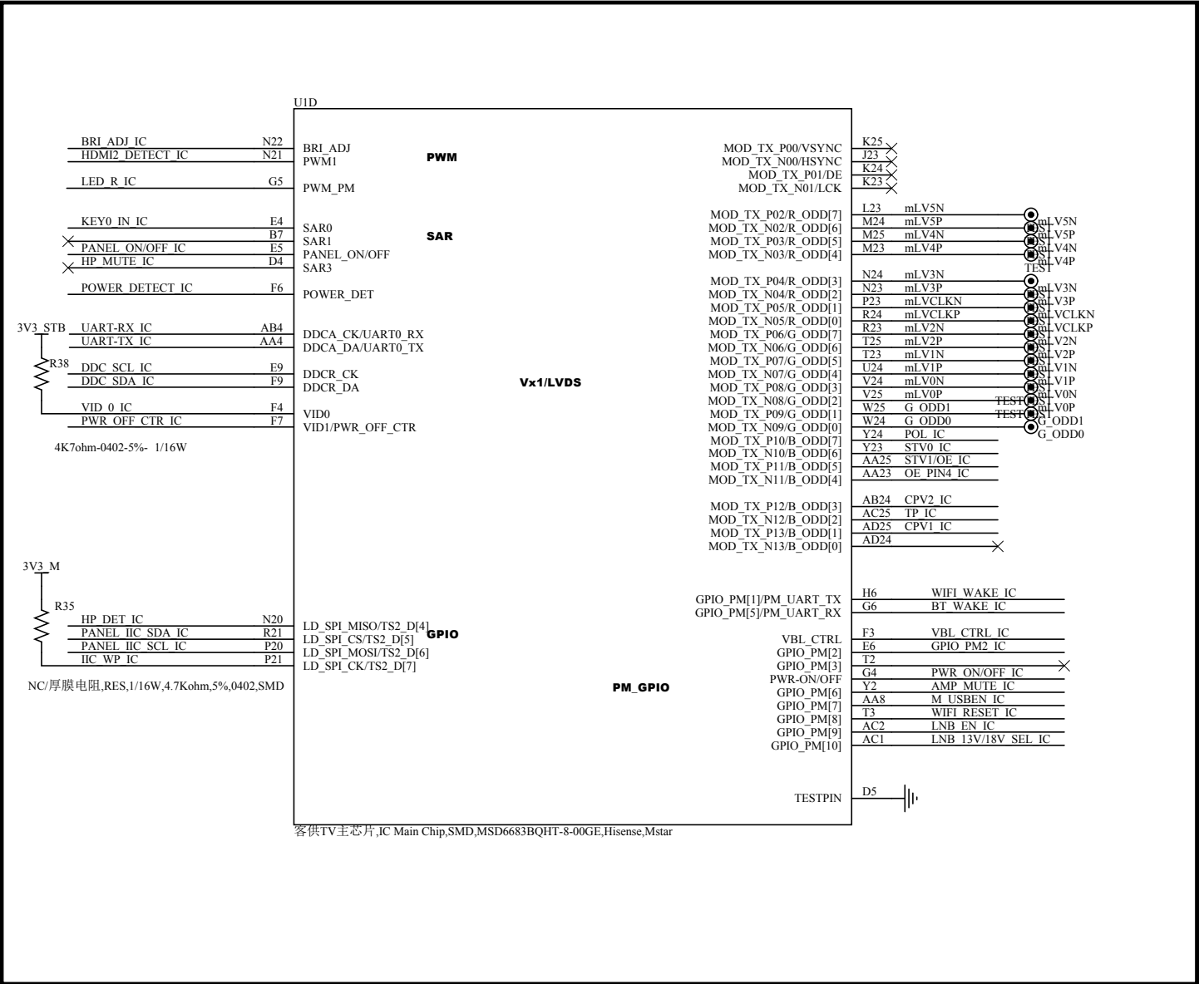
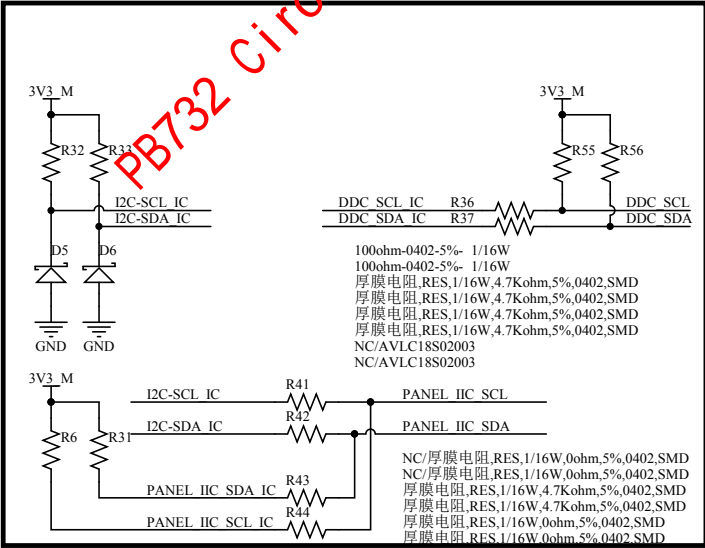
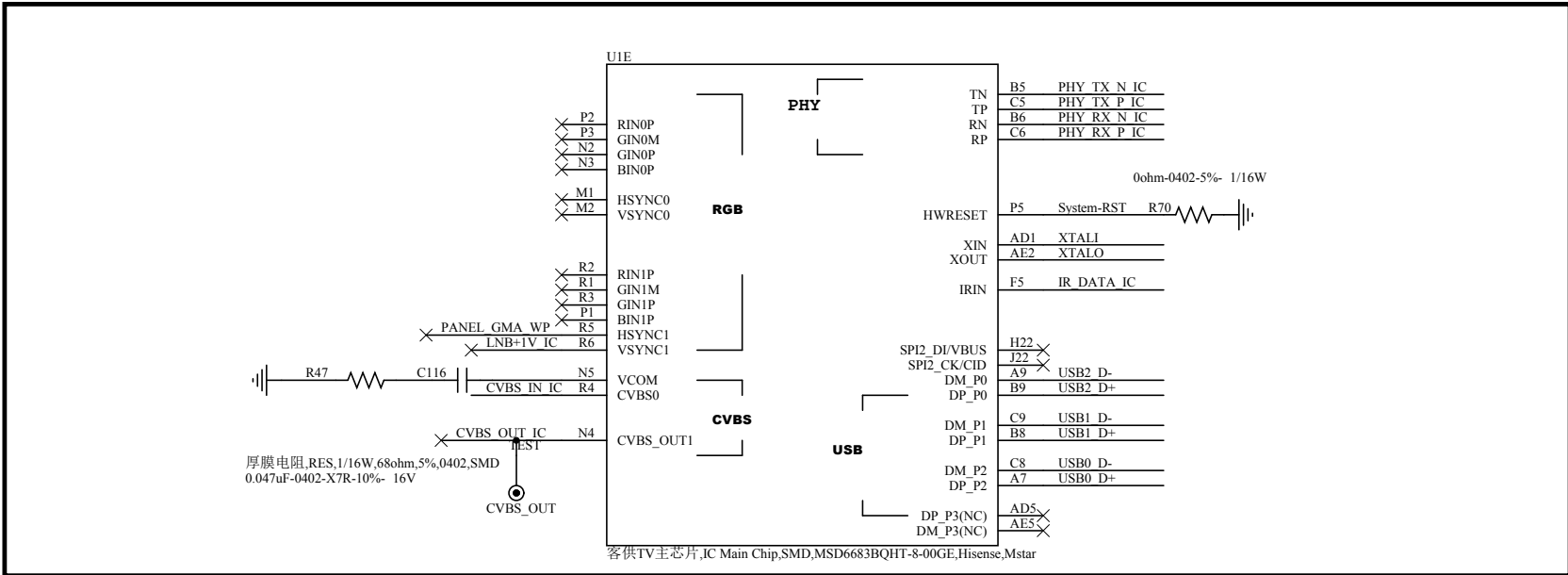
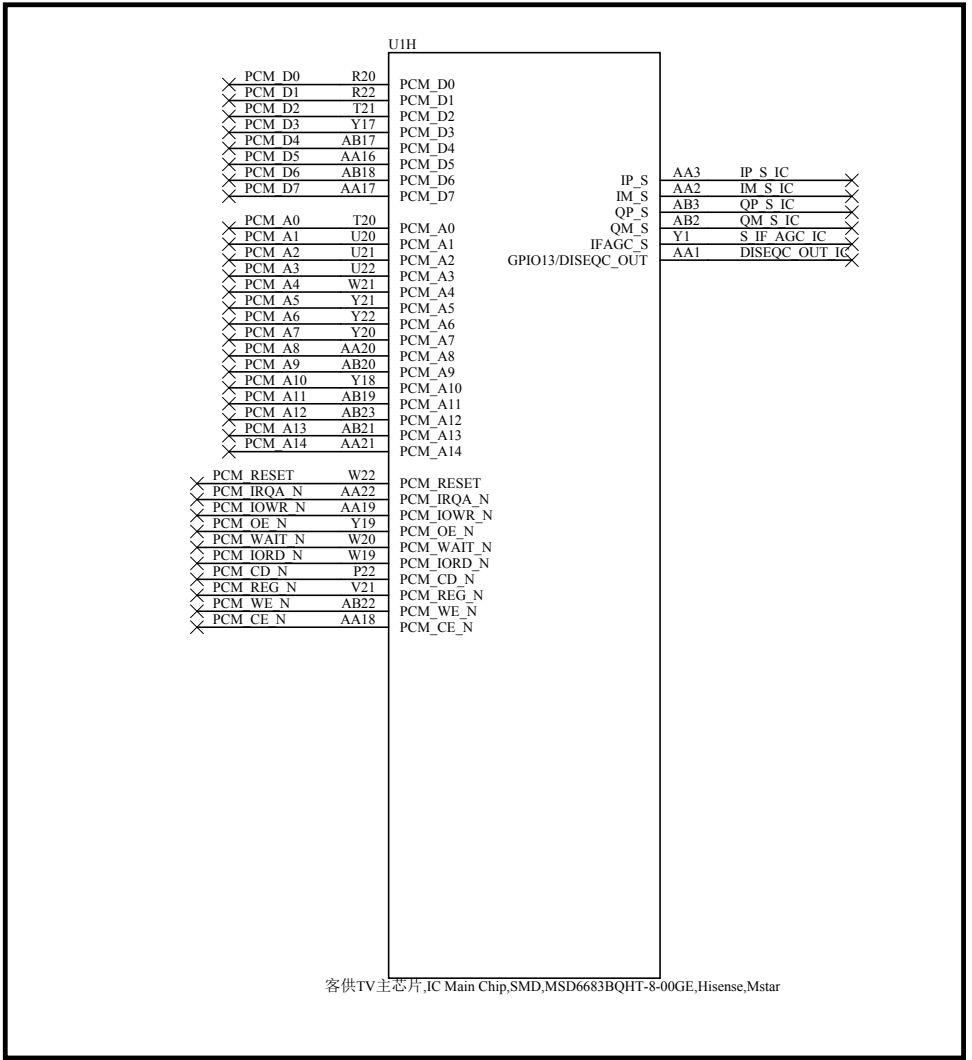
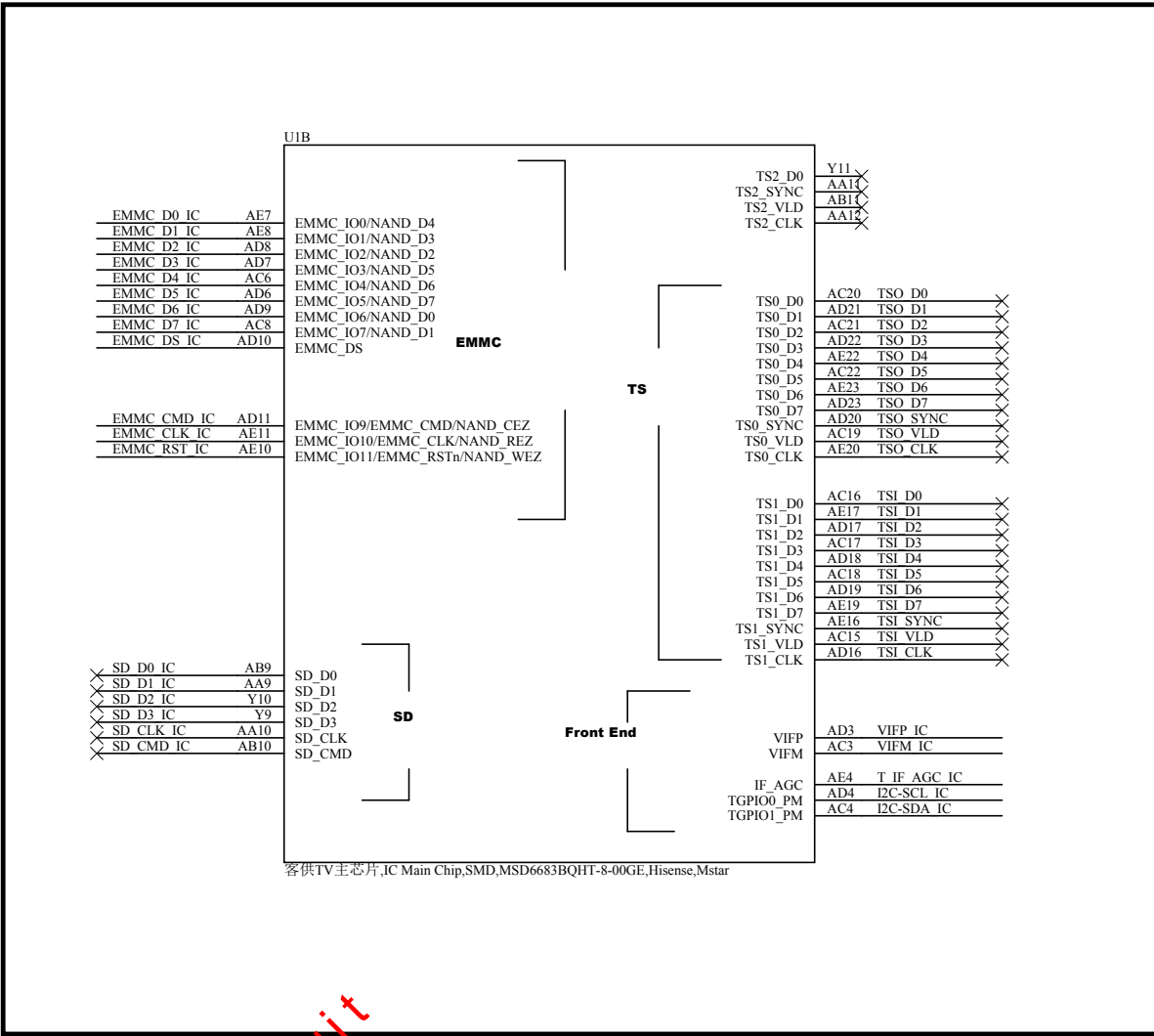
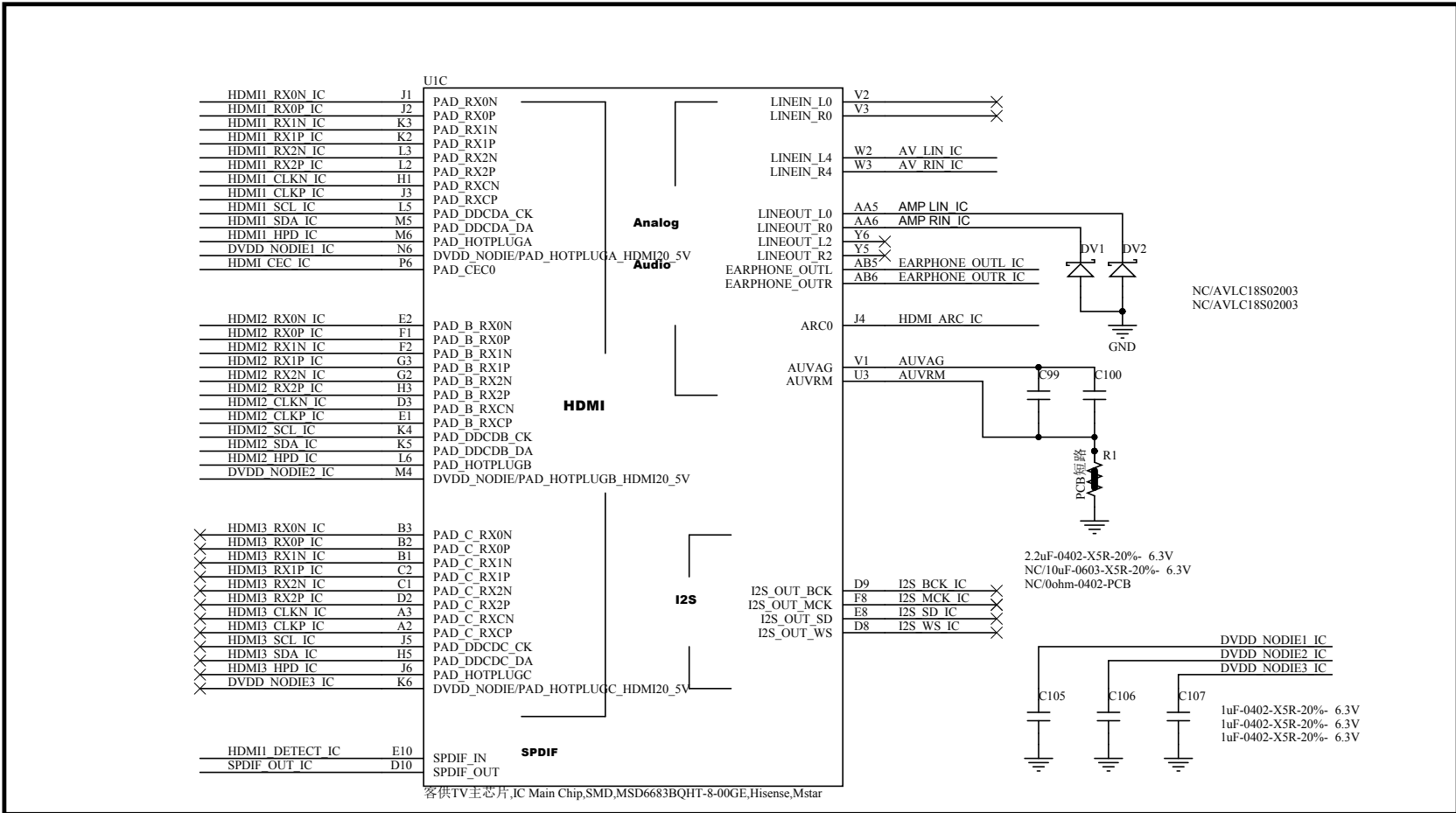




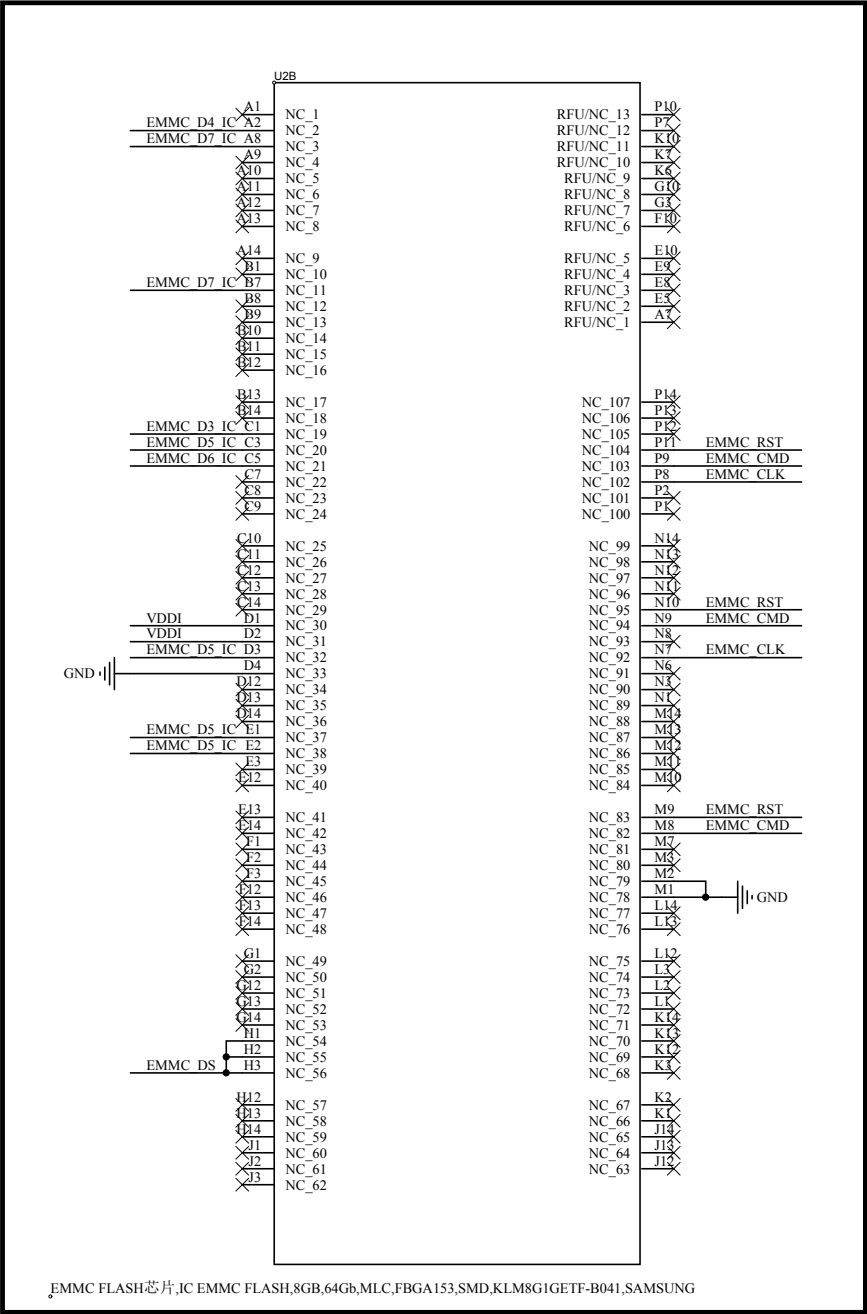
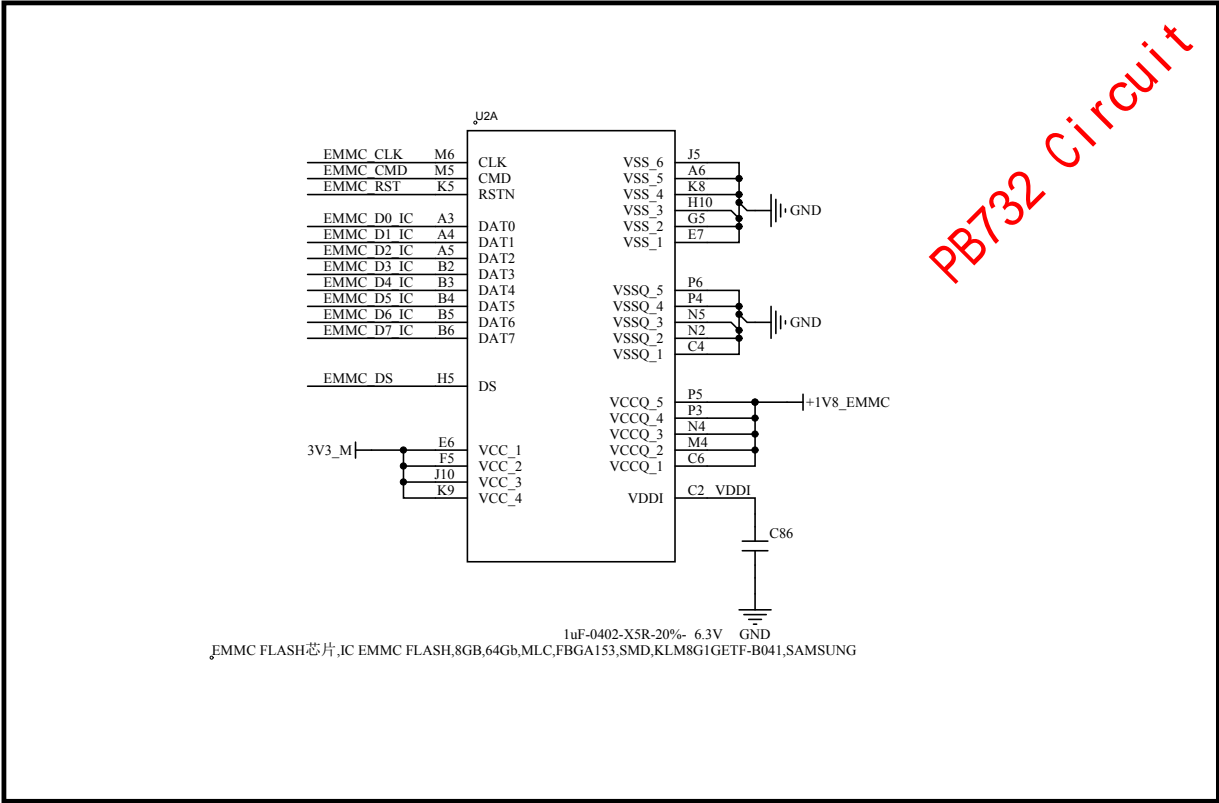
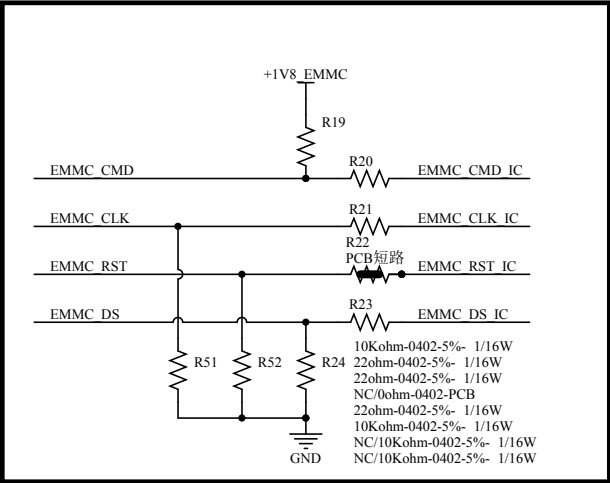
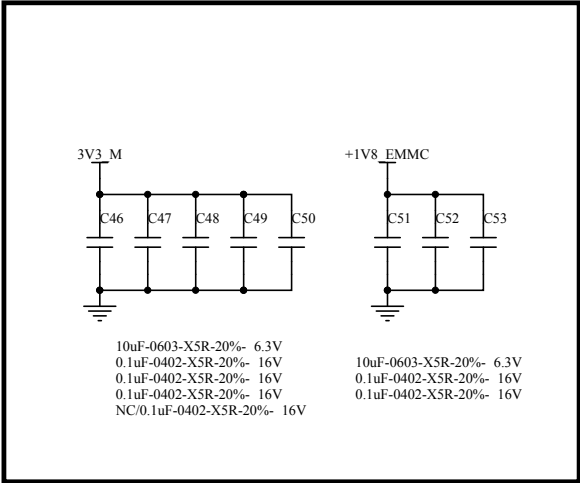


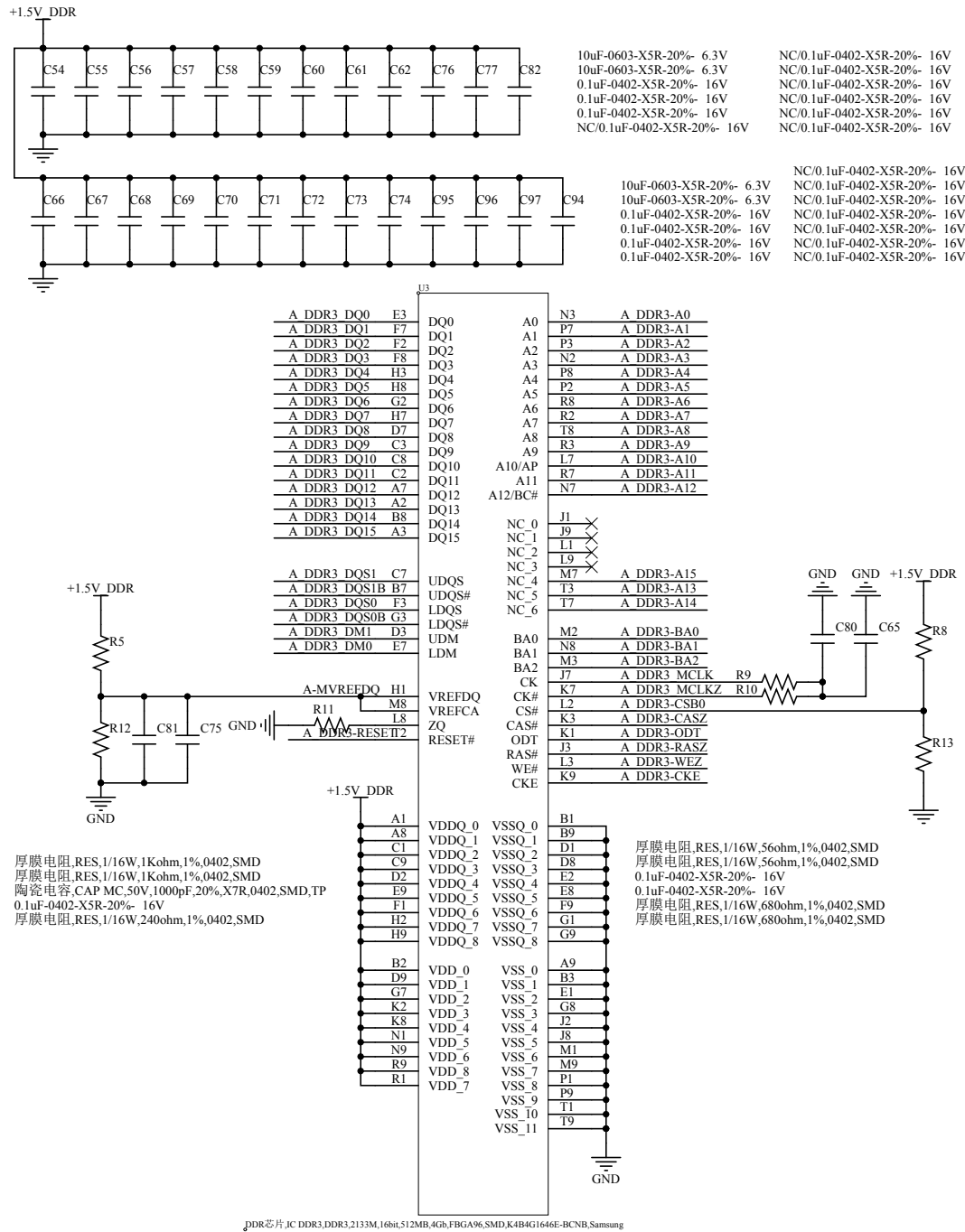


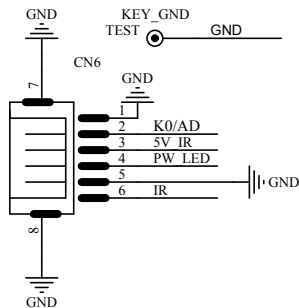
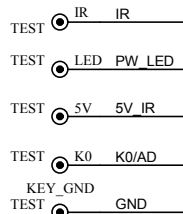




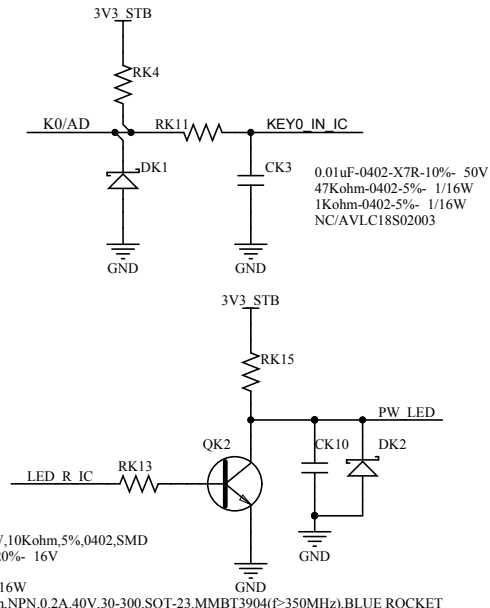
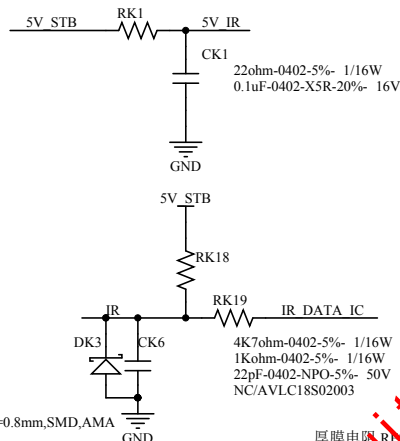








连接插座,connect jack,6Pin,D1.25,L,SNAP,Fool-proofing,Nature,L=0.8mm,SMD,AMA



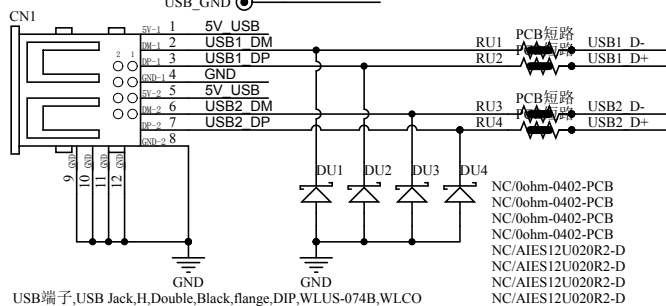
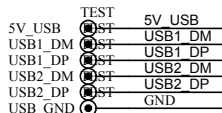
厚膜电阻,RES,1/16W,10Kohm,5%,0402,SMD

NC/0.1uF-0402-X5R-20%- 16V

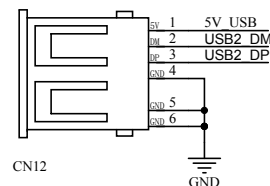
NC/AVLC18S02003

4K7ohm-0402-5%- 1/16W

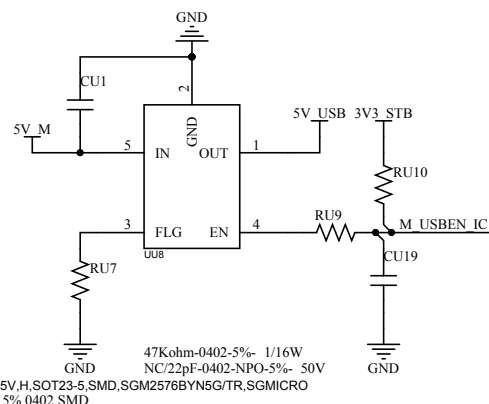
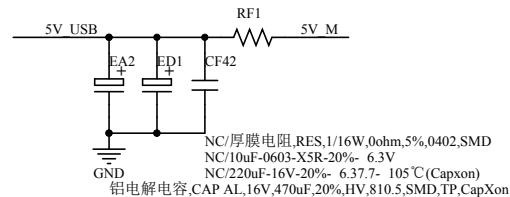
通用三极管,Dynatron,NPN,0.2A,40V,30-300,SOT-23,MMBT3904( $f_T \geq 350\text{MHz}$ ),BLUE ROCKET



USB端子,USB Jack,H,Double,Black,flange,DIP,WLUS-074B,WLCO



NC/USB端子,USB Jack,USB2.0,H,Single,White,flange,Block up,DIP,08100-00S051,GLGNET



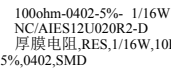
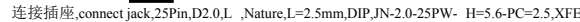
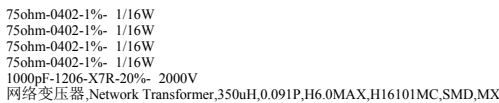
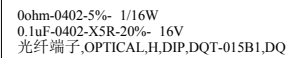
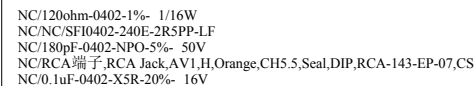
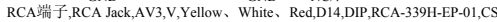
NC/0.1uF-0402-X5R-20%- 16V

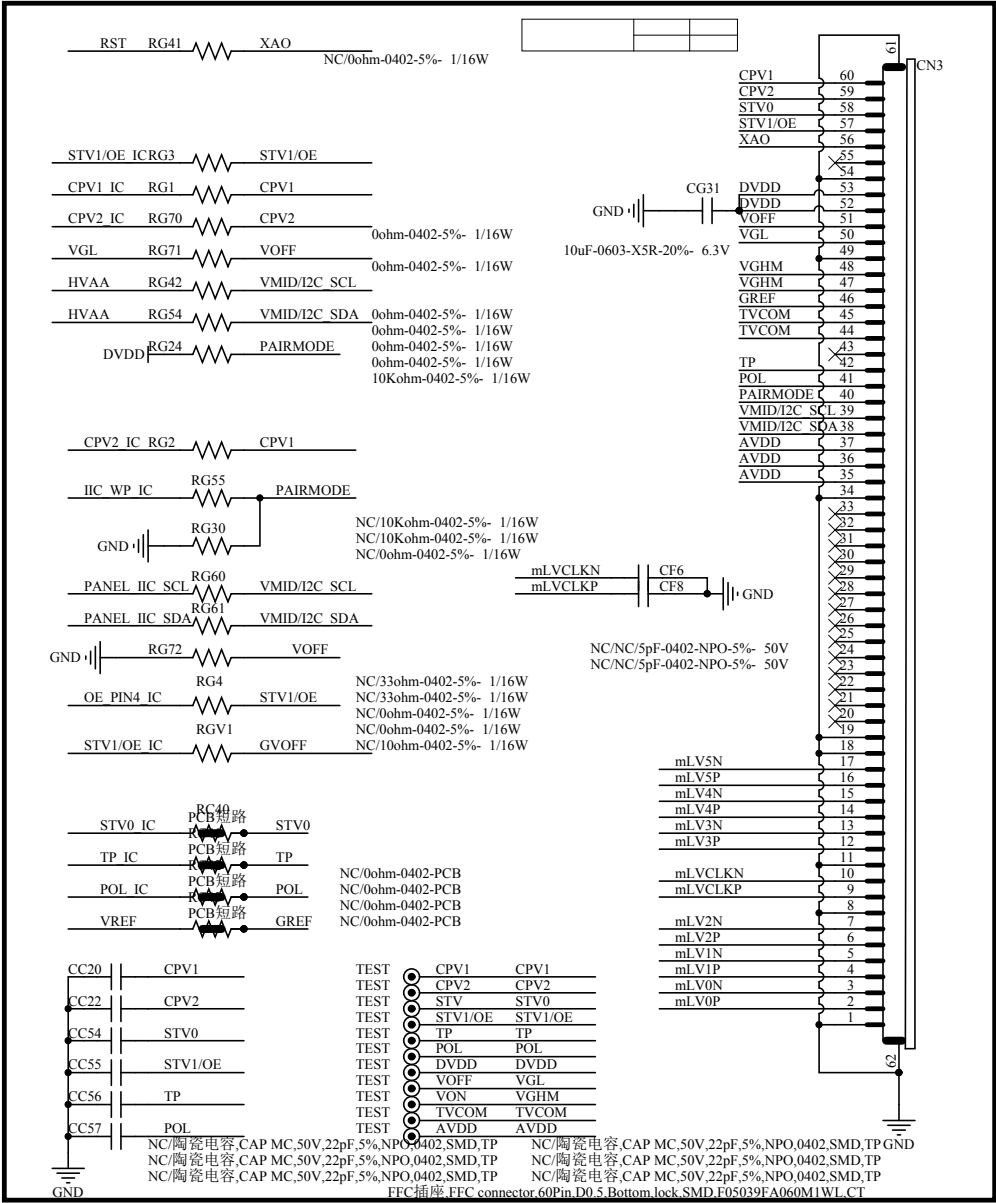
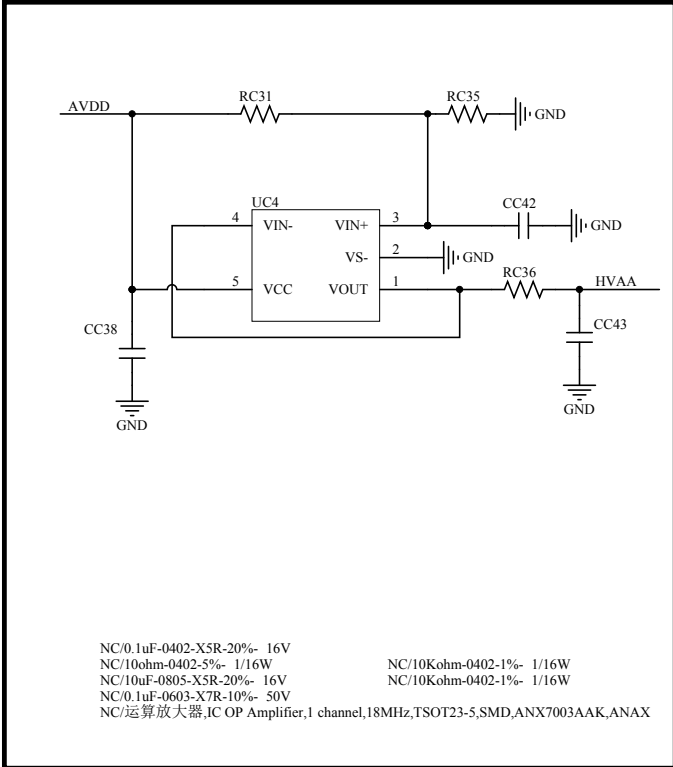
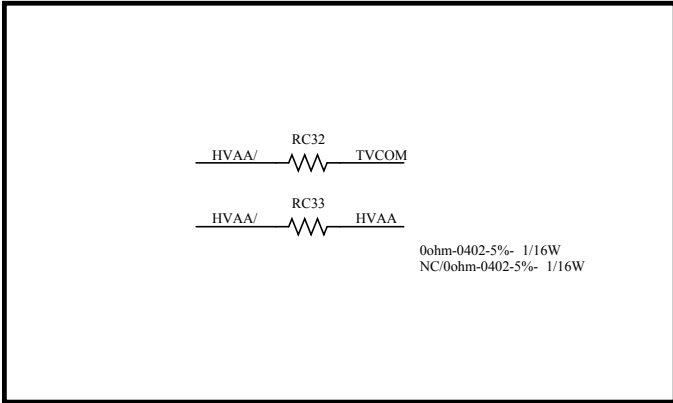
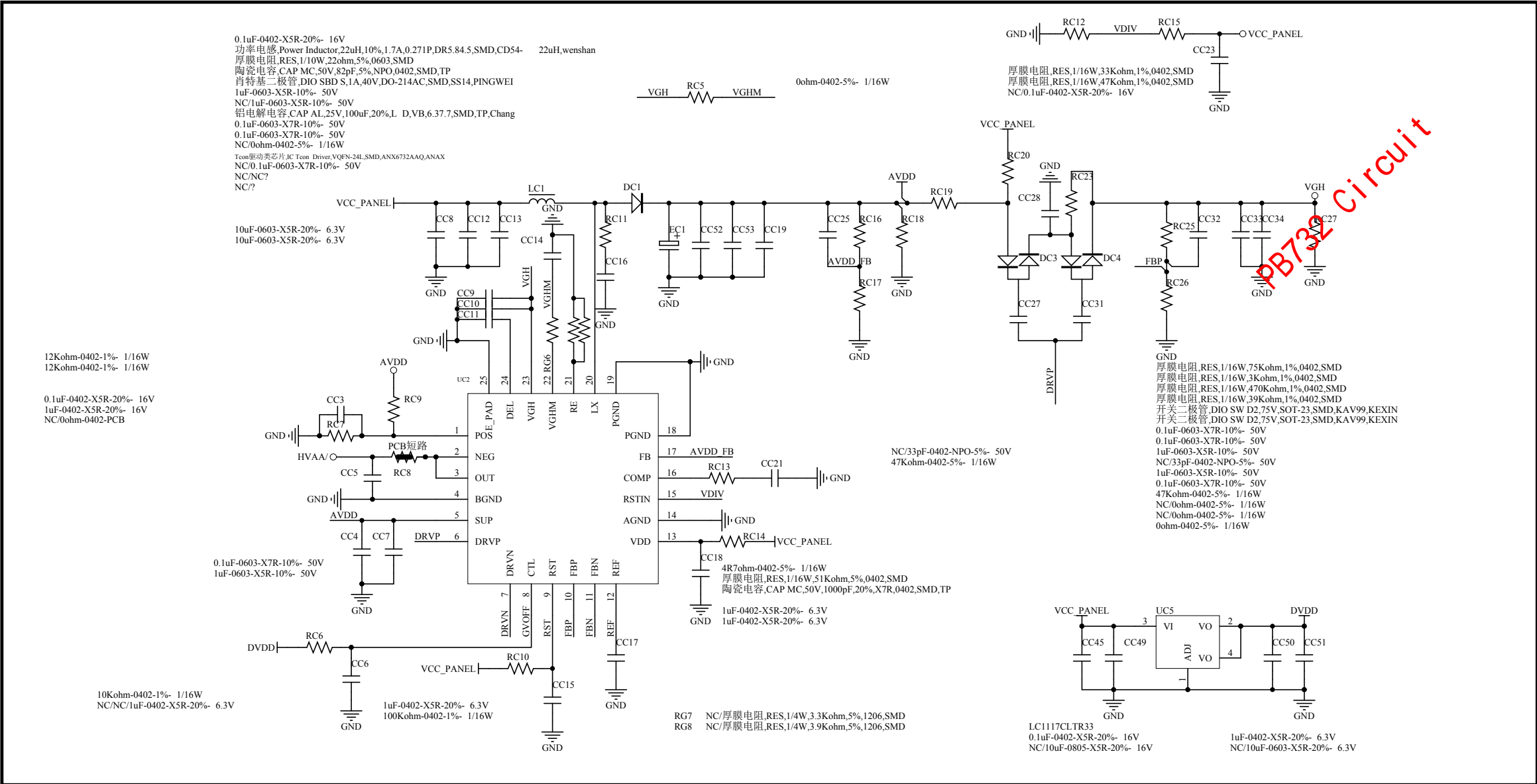
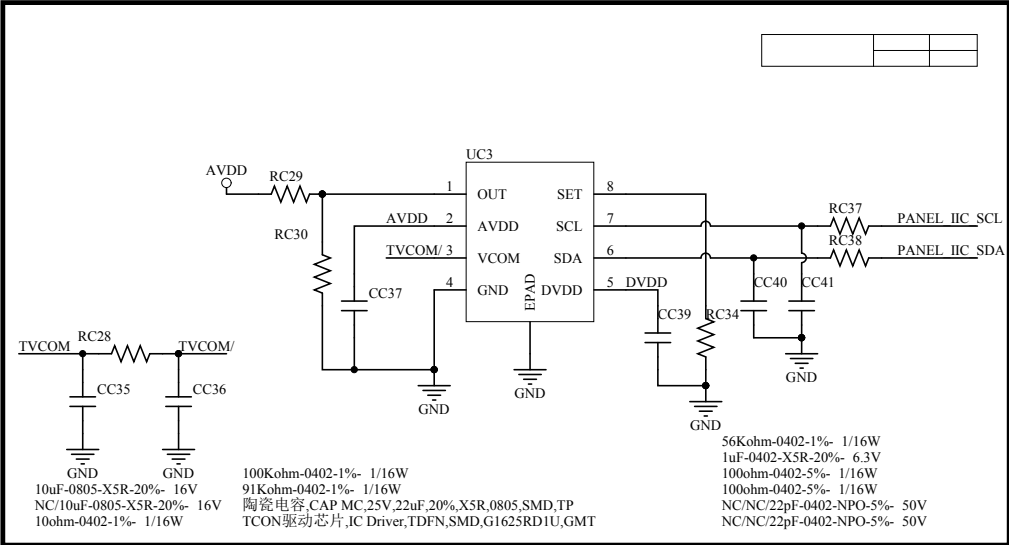
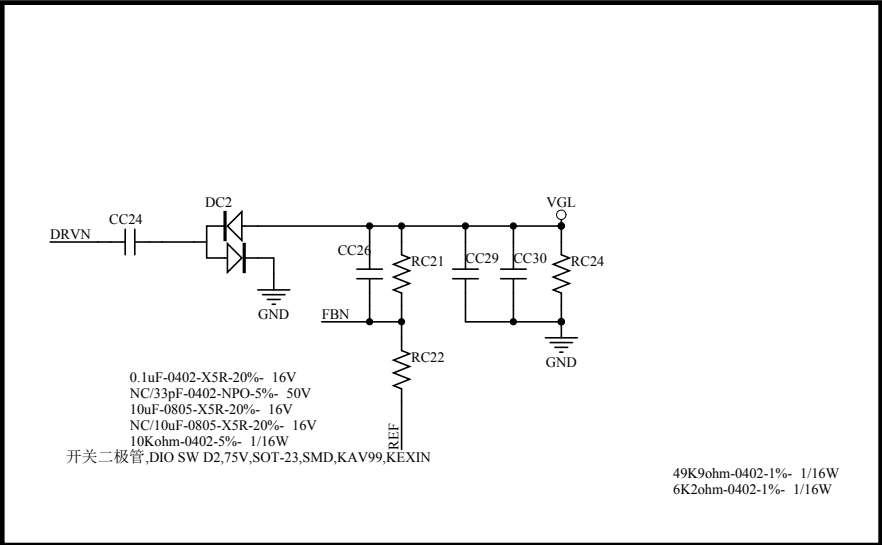
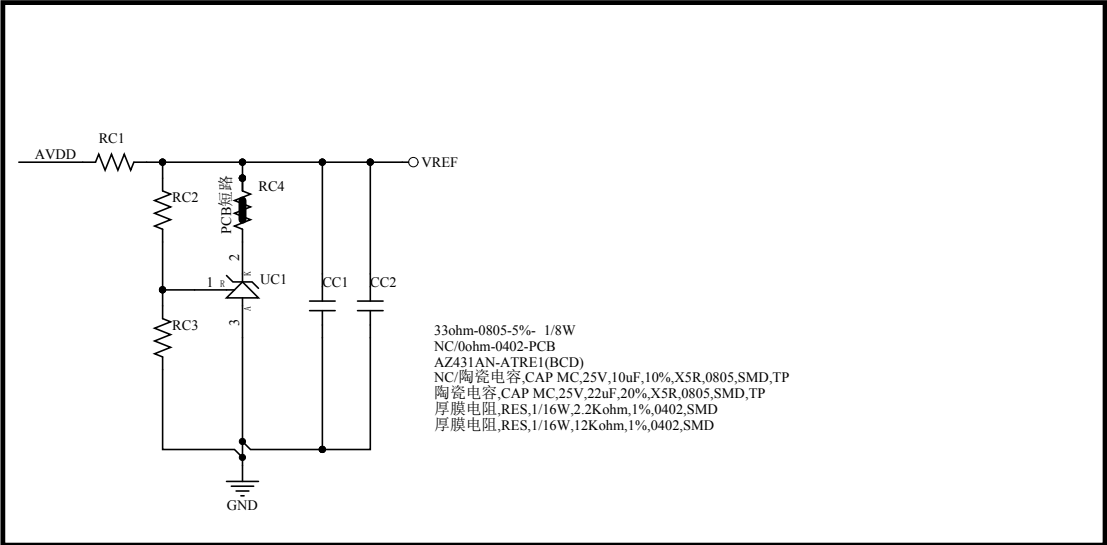
4K7ohm-0402-1%- 1/16W

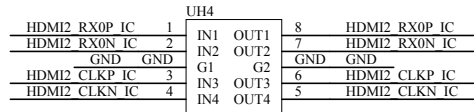
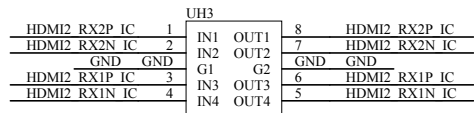
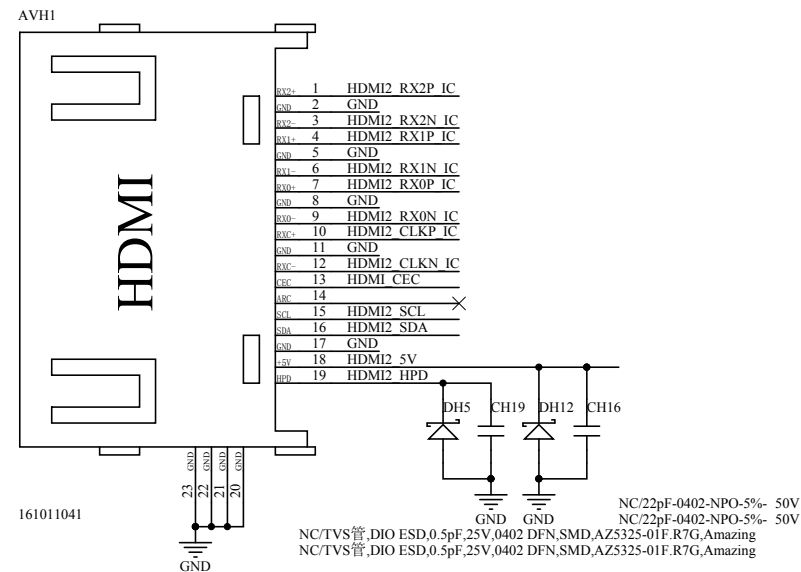
限流开关,IC OCP,0.4-2.5A adj,5.5V,H,SOT23-5,SMD,SGM2576BYN5G/TR,SGMICRO

厚膜电阻,RES,1/16W,10Kohm,5%,0402,SMD

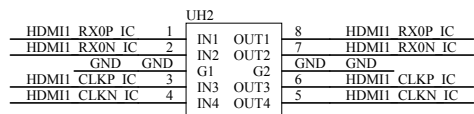
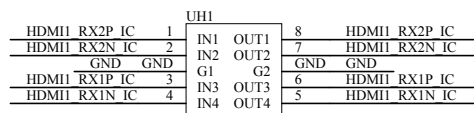
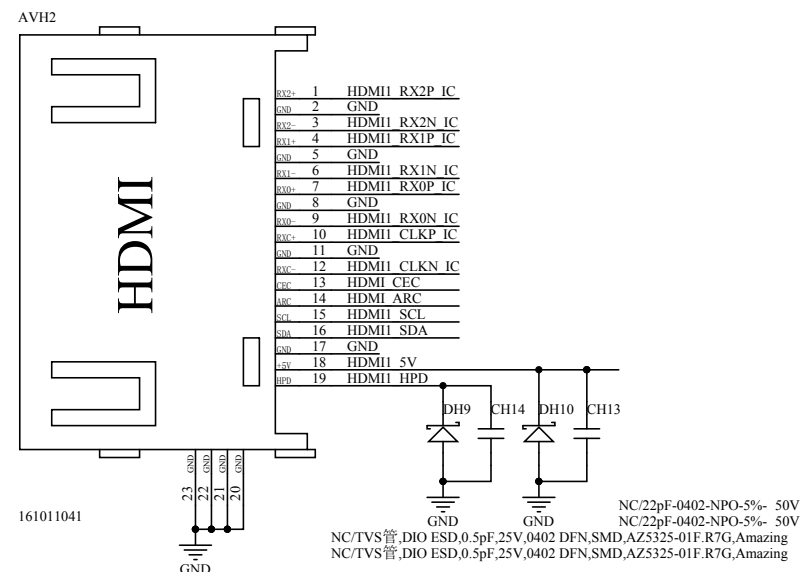
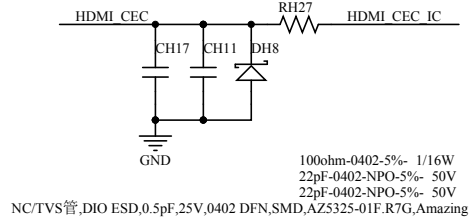
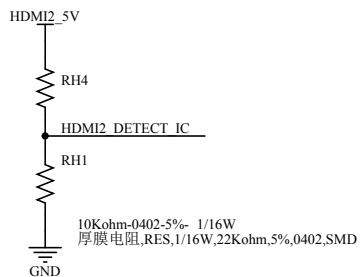
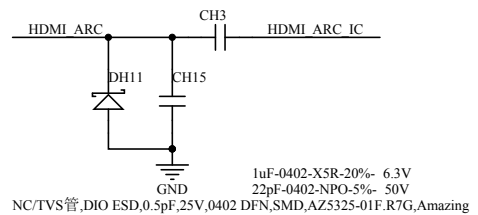
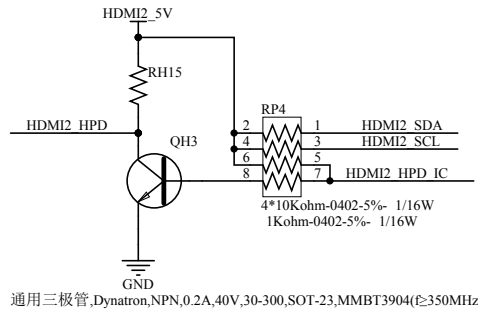
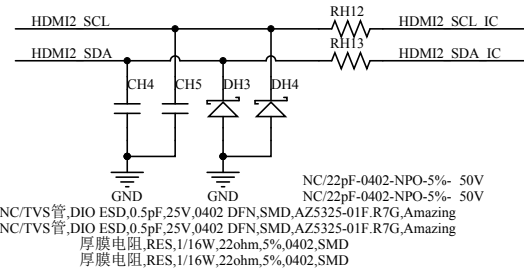




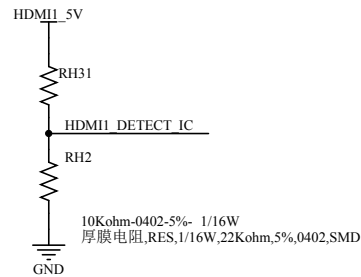
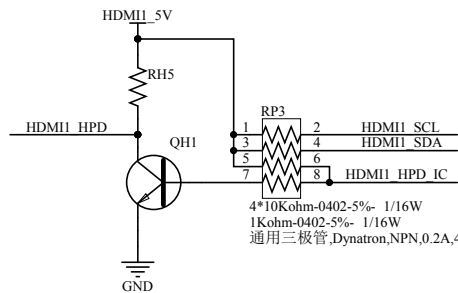
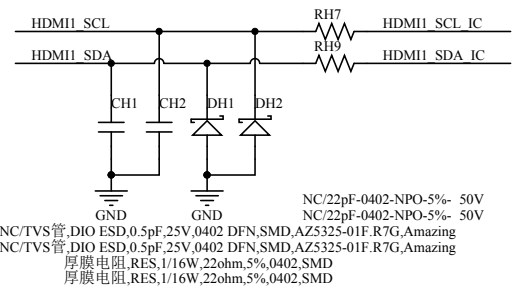




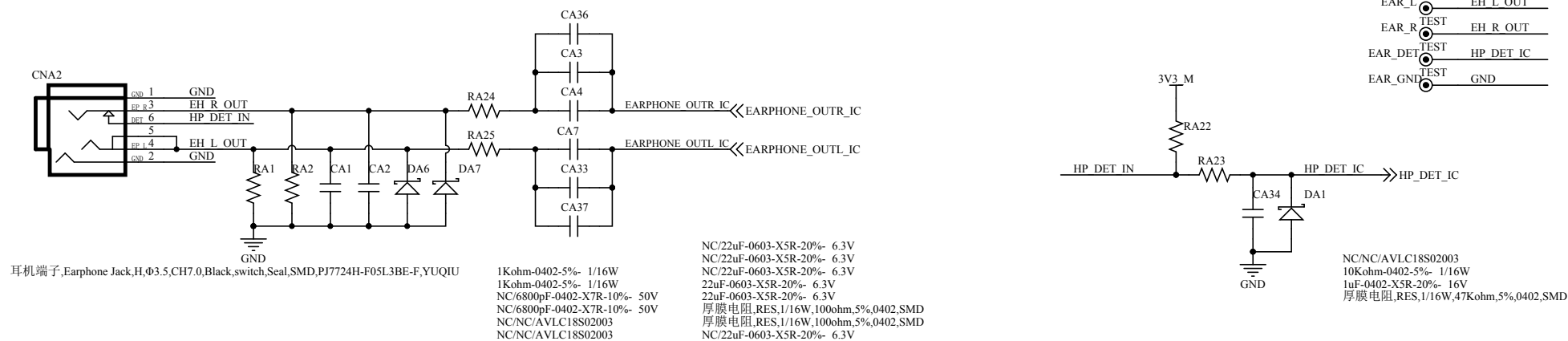
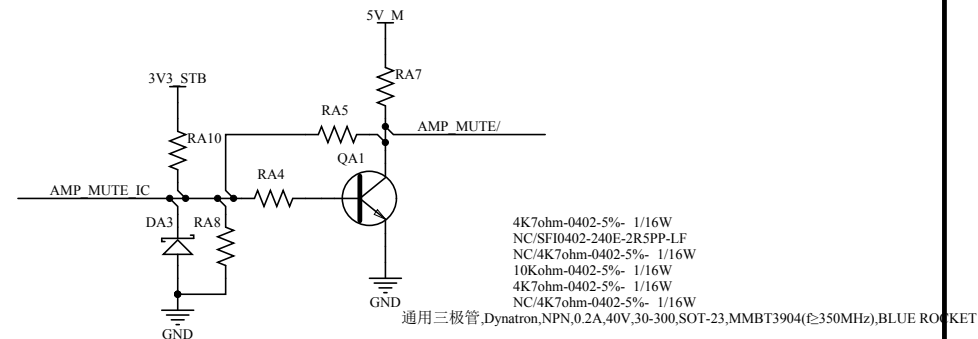
NC/TVS管,DIO ESD,0.4pF,19V,DFN2510-10L,SMD,ESD5304D-10/TR,Willsemi  
NC/TVS管,DIO ESD,0.4pF,19V,DFN2510-10L,SMD,ESD5304D-10/TR,Willsemi

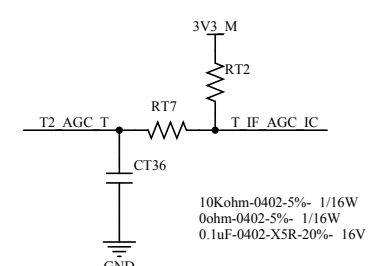
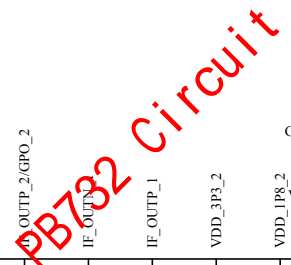


NC/TVS管,DIO ESD,0.4pF,19V,DFN2510-10L,SMD,ESD5304D-10/TR,Willsemi  
NC/TVS管,DIO ESD,0.4pF,19V,DFN2510-10L,SMD,ESD5304D-10/TR,Willsemi



PB732 Circuit



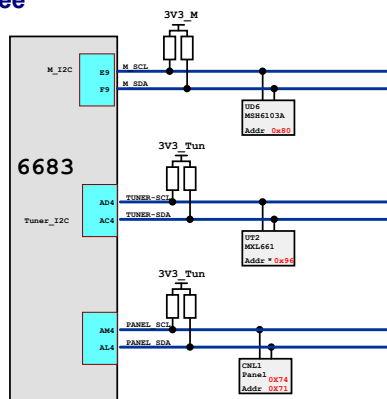


The diagram illustrates the IIC Tree structure for the 6683 module. The module is represented by a large grey block labeled "6683". It has three IIC interfaces: M\_I2C, AD4, and AM4. Each interface is connected to an external device via a 3V3 Tuner and a 3V3\_M. The connections are as follows:

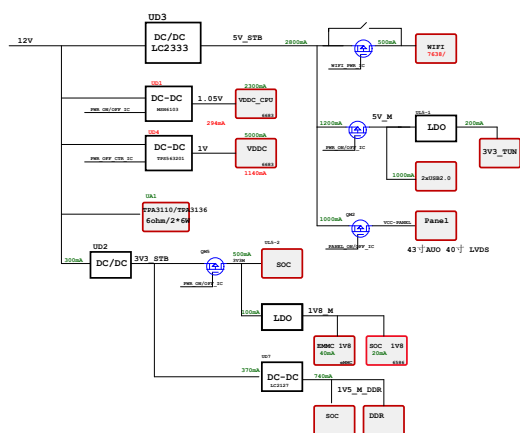
- M\_I2C:** Connected to the M\_SCL and M\_SDA pins of the 3V3\_M. The 3V3\_M is connected to the M\_SCL and M\_SDA pins of the 6683 module. The 3V3\_M is also connected to the M\_SCL and M\_SDA pins of the 3V3 Tuner.
- AD4:** Connected to the AD4\_SCL and AD4\_SDA pins of the 3V3 Tuner. The 3V3 Tuner is connected to the AD4\_SCL and AD4\_SDA pins of the 6683 module. The 3V3 Tuner is also connected to the AD4\_SCL and AD4\_SDA pins of the 3V3\_M.
- AM4:** Connected to the AM4\_SCL and AM4\_SDA pins of the 3V3 Tuner. The 3V3 Tuner is connected to the AM4\_SCL and AM4\_SDA pins of the 6683 module. The 3V3 Tuner is also connected to the AM4\_SCL and AM4\_SDA pins of the 3V3\_M.

The external devices are represented by boxes with their respective addresses:

- 3V3\_M:** Address 0x90
- 3V3 Tuner:** Address 0x91
- 3V3 Tuner:** Address 0x74



# Main Board Power Tree



# SYSTEM FUNCTION BLOCK DIAGRAM

The diagram illustrates the system architecture centered around the **MSD6683** IC. A red diagonal watermark **PB753 Circuit** is present across the central block.

**Top Connections:**

- KEYPAD**: Connected to the top of the MSD6683.
- IR**: Connected to the top of the MSD6683.
- LED**: Connected to the top of the MSD6683.
- TCONESS**: Connected to the top of the MSD6683, with a **V-B-I** signal line.

**Left Connections:**

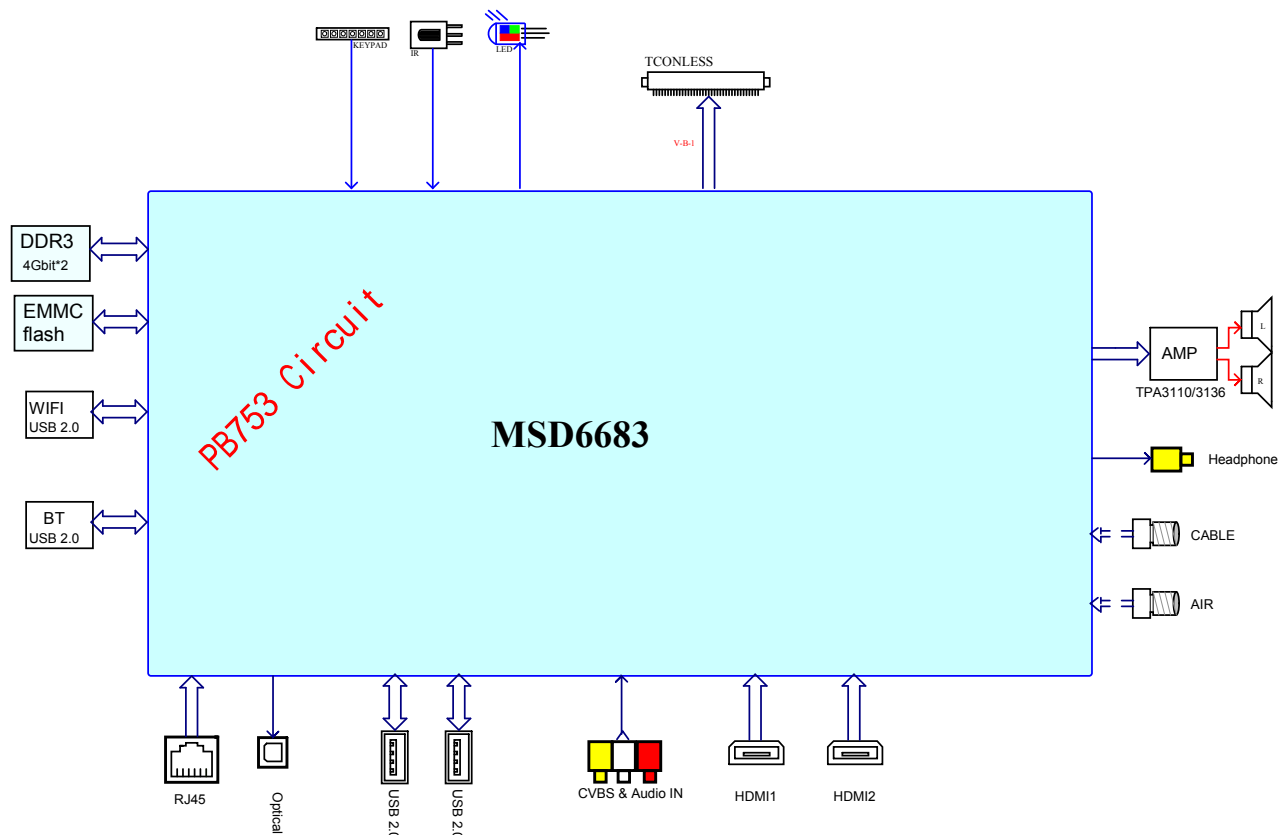
- DDR3 4Gbit\*2**: Connected to the left of the MSD6683.
- EMMC flash**: Connected to the left of the MSD6683.
- WIFI USB 2.0**: Connected to the left of the MSD6683.
- BT USB 2.0**: Connected to the left of the MSD6683.

**Right Connections:**

- AMP TPA3110/3136**: Connected to the right of the MSD6683, driving **L** and **R** speakers.
- Headphone**: Connected to the right of the MSD6683.
- CABLE**: Connected to the right of the MSD6683.
- AIR**: Connected to the right of the MSD6683.

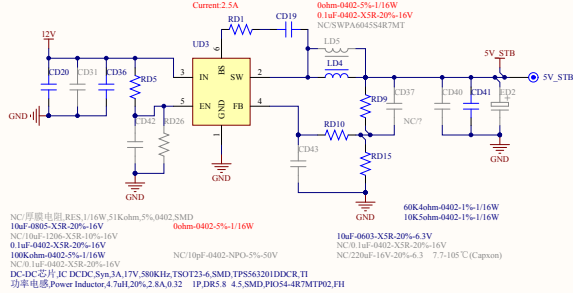
**Bottom Connections:**

- RJ45**: Connected to the bottom of the MSD6683.
- Optical**: Connected to the bottom of the MSD6683.
- USB 2.0**: Two USB 2.0 ports connected to the bottom of the MSD6683.
- CVBS & Audio IN**: Connected to the bottom of the MSD6683.
- HDMI1**: Connected to the bottom of the MSD6683.
- HDMI2**: Connected to the bottom of the MSD6683.



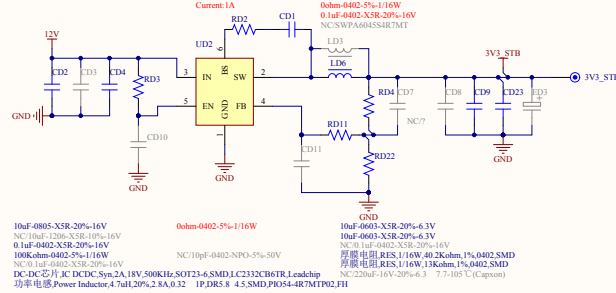
**12V ==>5V\_STB**

注意散热!!!  
Pc:2.27W  
Current:2.5A



Vin=4.2V~16V Io=3A ENL<0.6V ENH>1.5V @500KHz

**12V ==> 3V3\_STB**

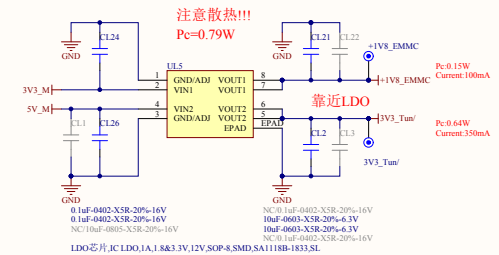


Vin=4.2V~16V Io=2A ENL<0.6V ENH>1.5V @500KHz

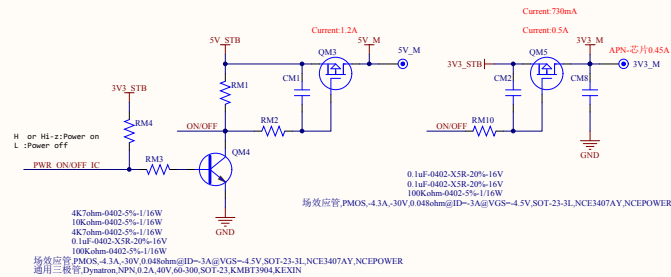
APN-芯片 0.253μm

5V\_M ==> 3V3\_M  
5V\_M ==> +1V8\_EMMC

注意: SL1833 LDO, 静态电流大, 不能用于待机有电的情况



**5V\_STB ==> 5V\_M**

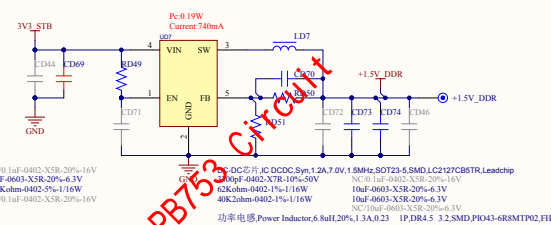


$V_{out}=0.8*(1+R1/R2)=5.16V$        $V_{in}=4.2V\sim 16V$   $I_o=3A$   $ENL<0.6V$   $ENH>1.5V$  @500KHz

**3.3V ==> +1.5V\_DDR**

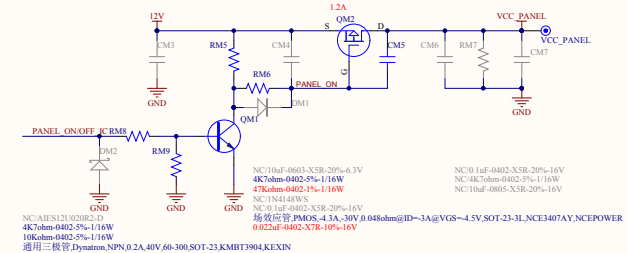
APN-芯片 0.55A

做STR用3V3\_STB



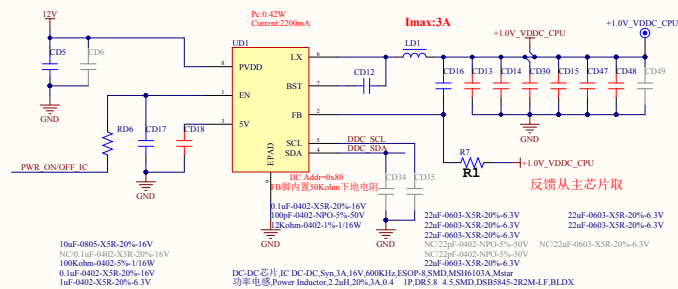
Vin=2.6V~7V Io=1.2A ENL<0.5V ENH>1V @1.5MHz

### PANEL\_VCC Control



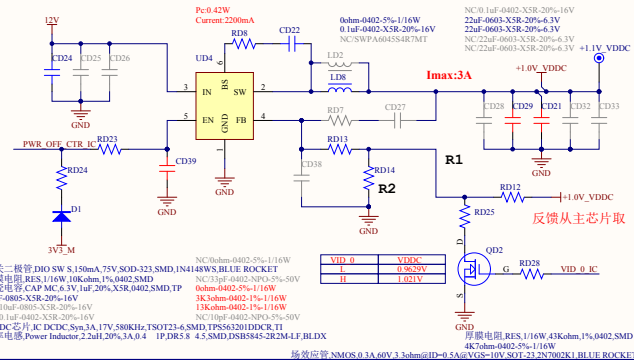
**12V ==>+1V0\_VDDC\_CPU** 远端反馈 APN-芯片 2.2A

远端反馈 APN-芯片 2.2A


$$V_{out}=0.828*(1+R1/50)=1.08V \quad V_{in}=4.5V\sim 16V \quad I_o=3A \quad ENL<0.5V \quad ENH>2V \quad @600KHz$$

**12V ==> +1.1V\_VDDC**

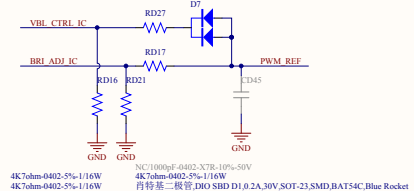
## APN-芯片 2.2A



$V_{out}=0.768*(1+R1/R2)=0.959V$        $V_{in}=4.2V\sim 16V$   $I_o=3A$   $ENL<0.6V$   $ENH>1.5V$  @500KHz

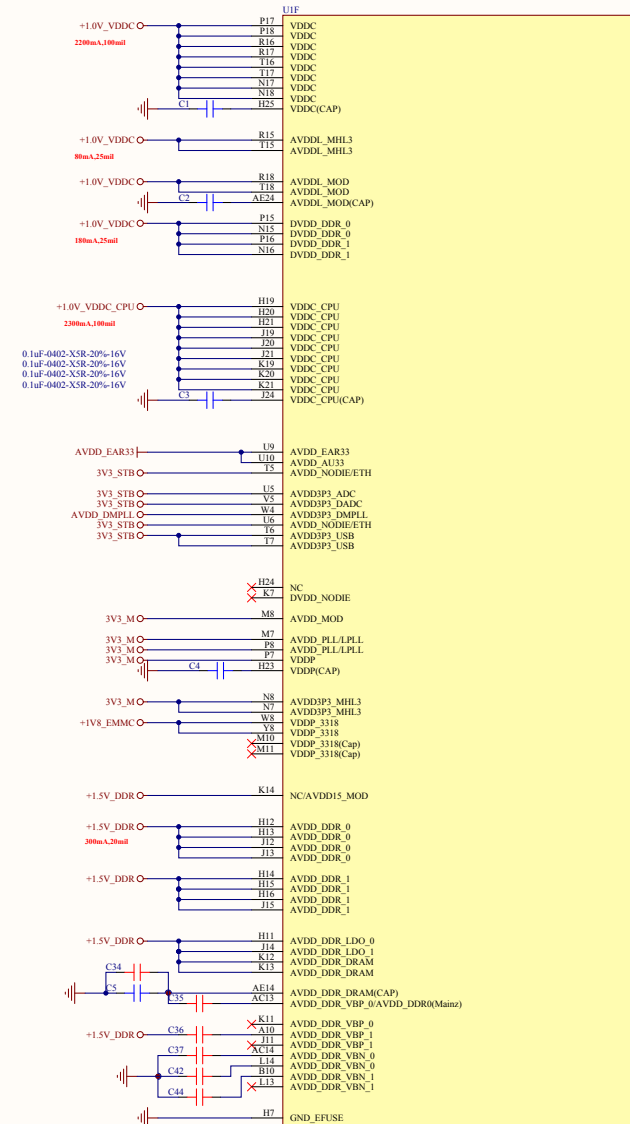
## Inverter Control

**拷贝注意：**这里是安卓机待机没有对PWM控制，所以加两级反向





## MAIN IC Power

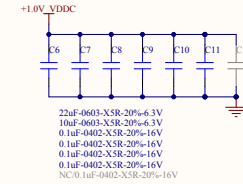


陶瓷电容,CAP MC,6.3V,2.2uF,20%,X 5R,0402,SMD,TP  
0.1uF,0402-X5R-20%-16V  
陶瓷电容,CAP MC,6.3V,0.47uF,10%,X 5R,0402,SMD,TP  
陶瓷电容,CAP MC,6.3V,0.47uF,10%,X 5R,0402,SMD,TP  
陶瓷电容,CAP MC,6.3V,0.47uF,10%,X 5R,0402,SMD,TP  
陶瓷电容,CAP MC,6.3V,0.47uF,10%,X 5R,0402,SMD,TP  
陶瓷电容,CAP MC,6.3V,0.47uF,10%,X 5R,0402,SMD,TP

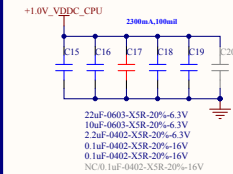
客供TV主芯片,IC Main Chip,SMD,MSD6683BQHT-8-00GE,Hisense,Mstar

客供TV主芯片,IC Main Chip,SMD,MSD6683BQHT-8-00GE,Hisense,Msta

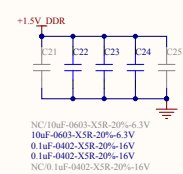
## CORE Power



## CPU Power



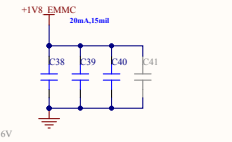
## DDR Power



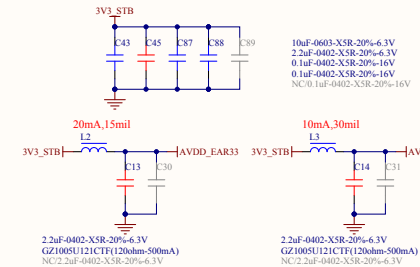
## eMMC Power

这里要注意：

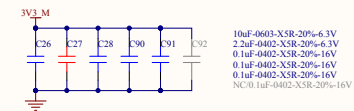
EMMC:1.8V  
NAND:3.3V



**3V3\_STB**



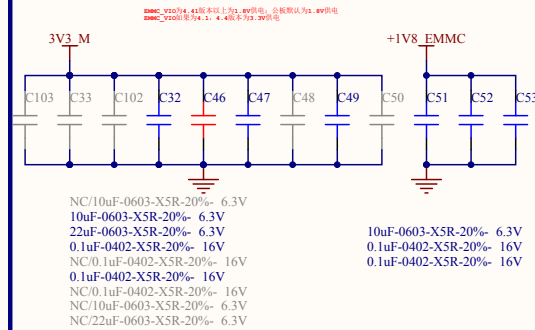
## 3V3\_M



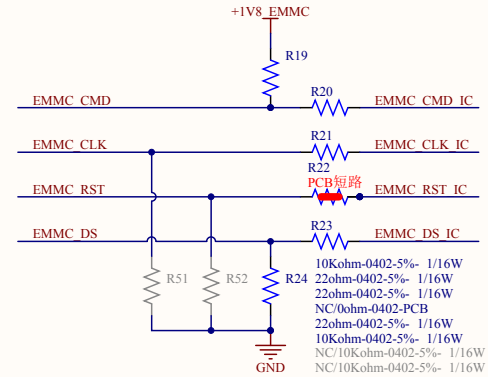




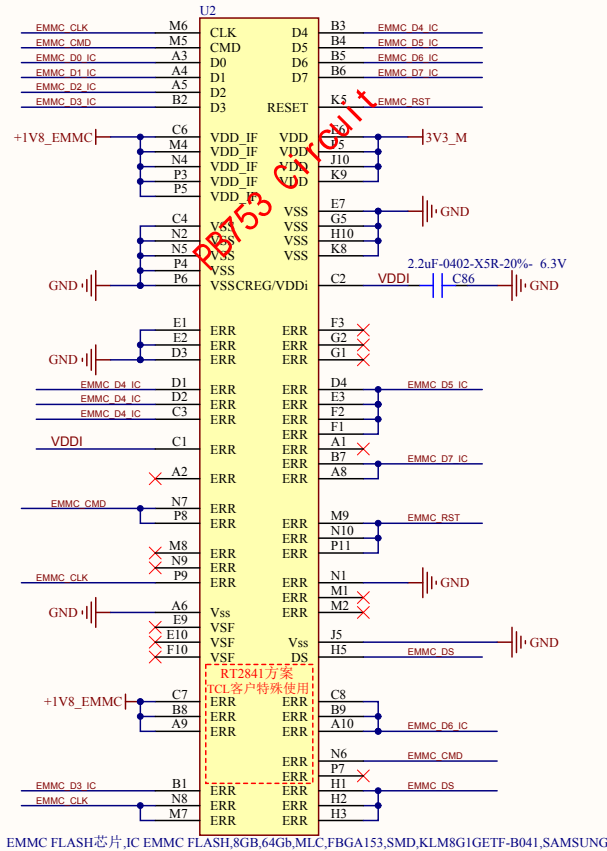
## eMMC POWER



## eMMC I/O



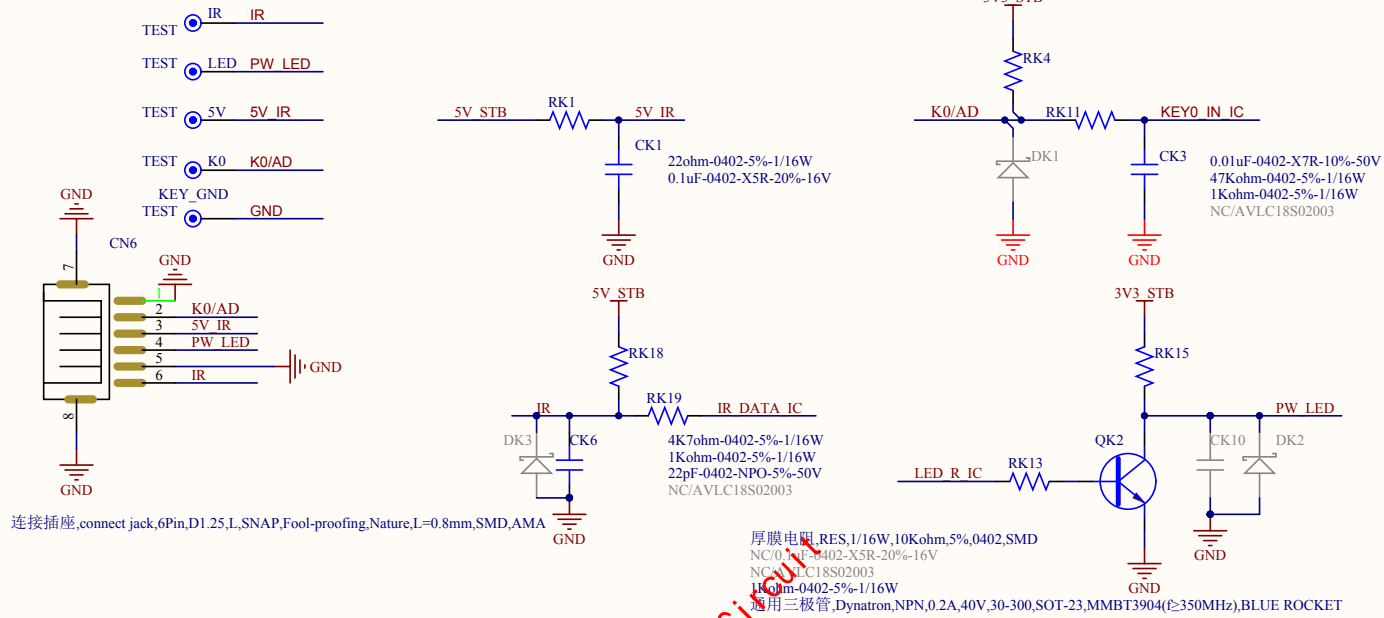
## eMMC Pin



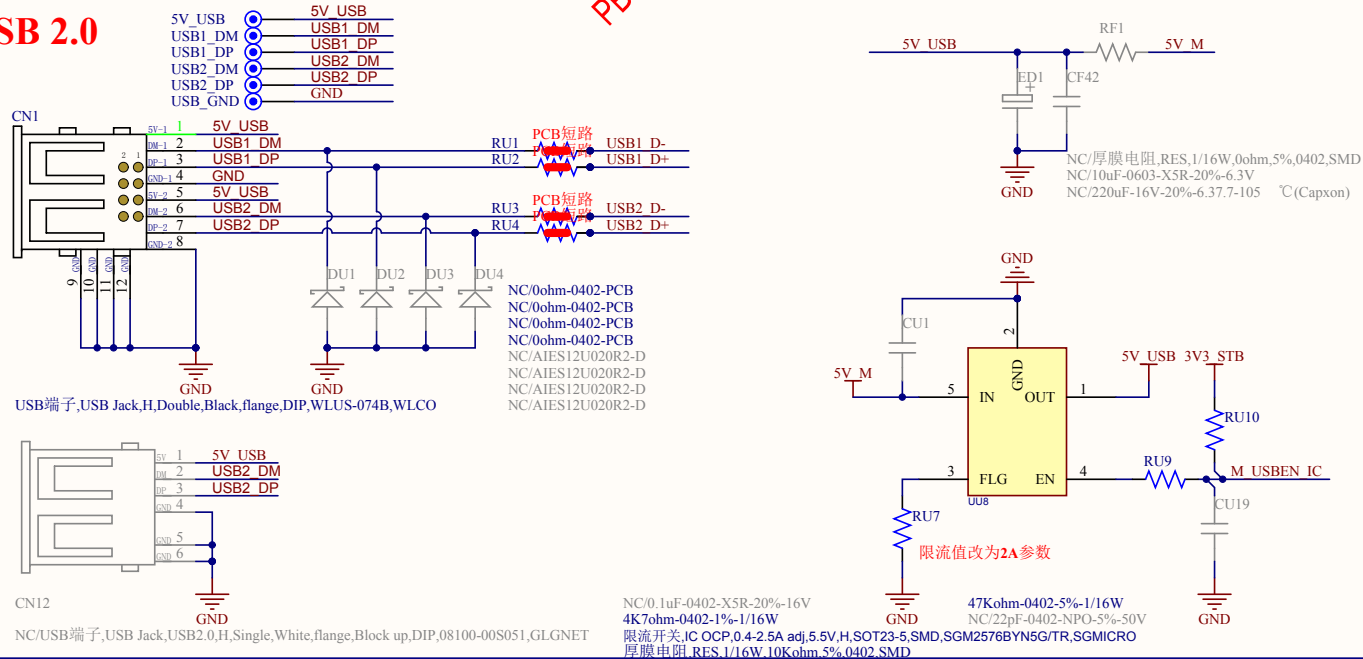


# USB, 光纤, 同轴插件物料

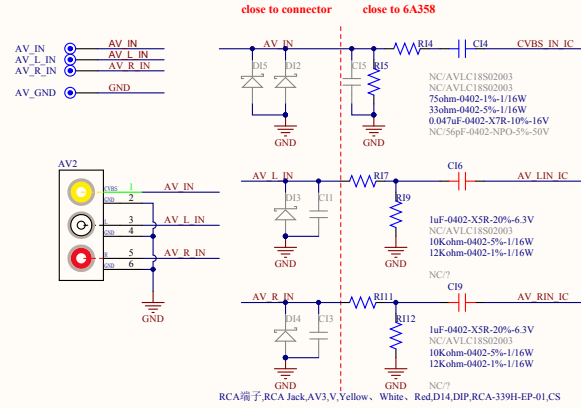
## IR&KEY&LED



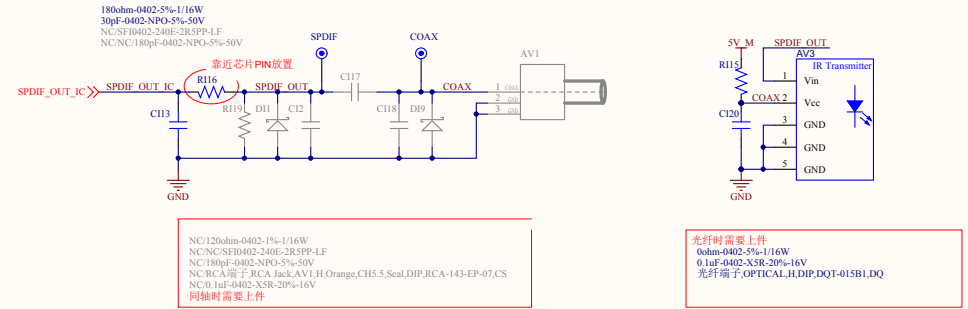
## USB 2.0



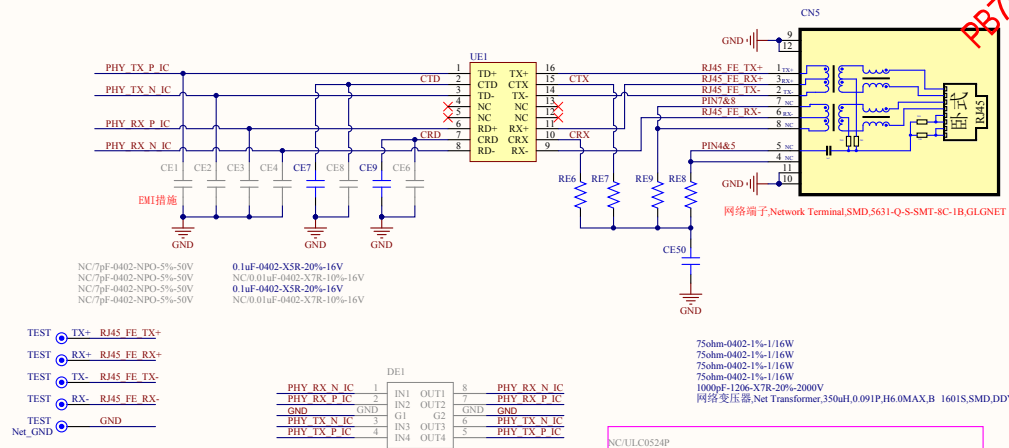
## AV\_IN



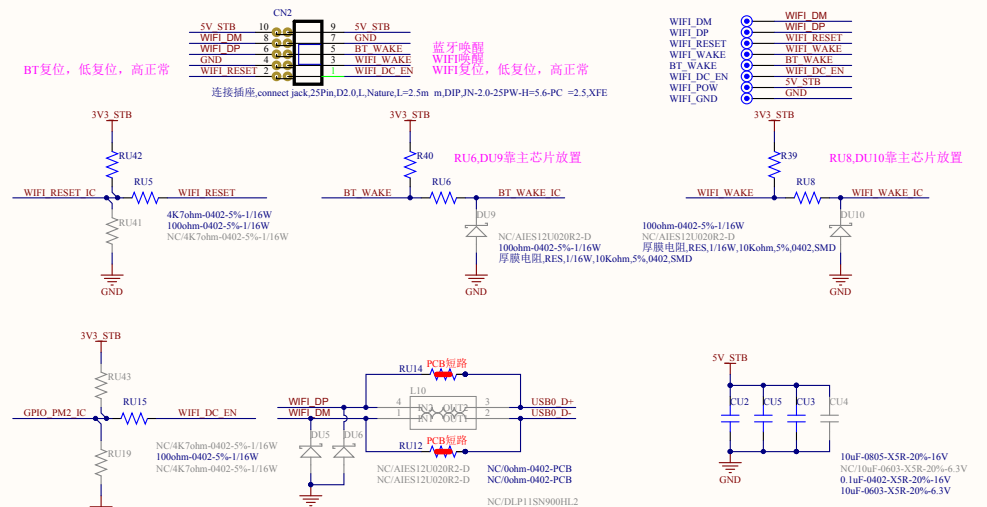
## COAX & OPTICAL



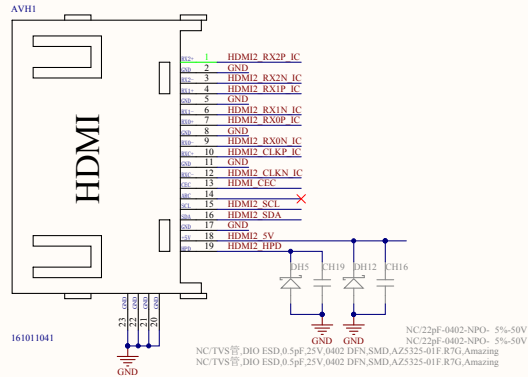
## Ethernet



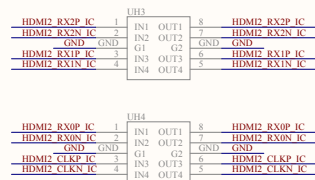
## WIFI\_BT



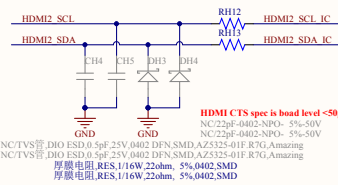
## HDMI2(CEC)



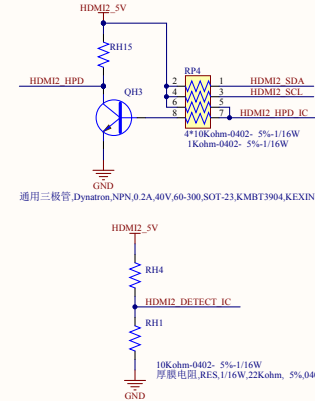
## ESD2



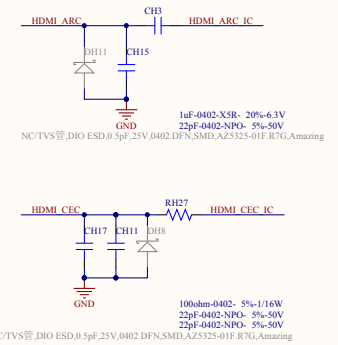
## DDC2



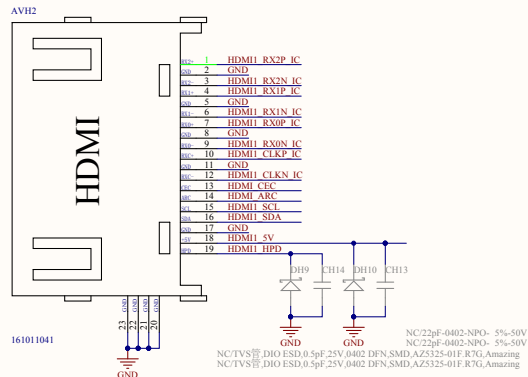
## HPD2



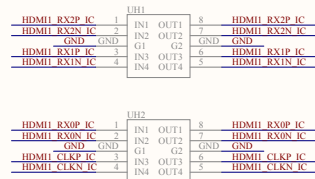
## CEC&ARC



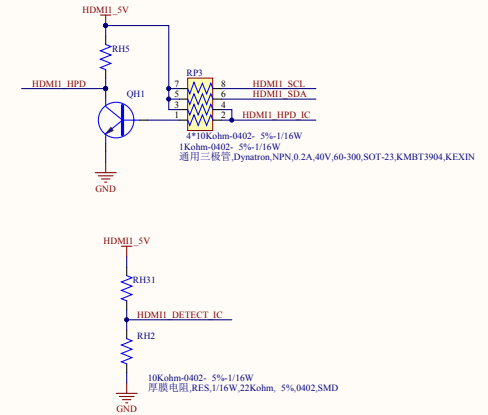
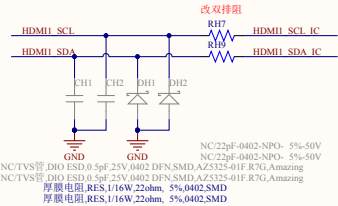
## HDMI1(ARC,CEC)



## ESD1



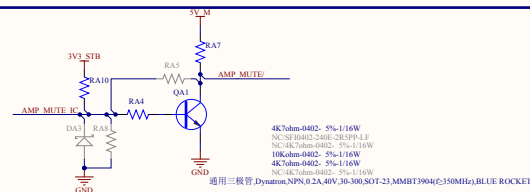
## DDC1



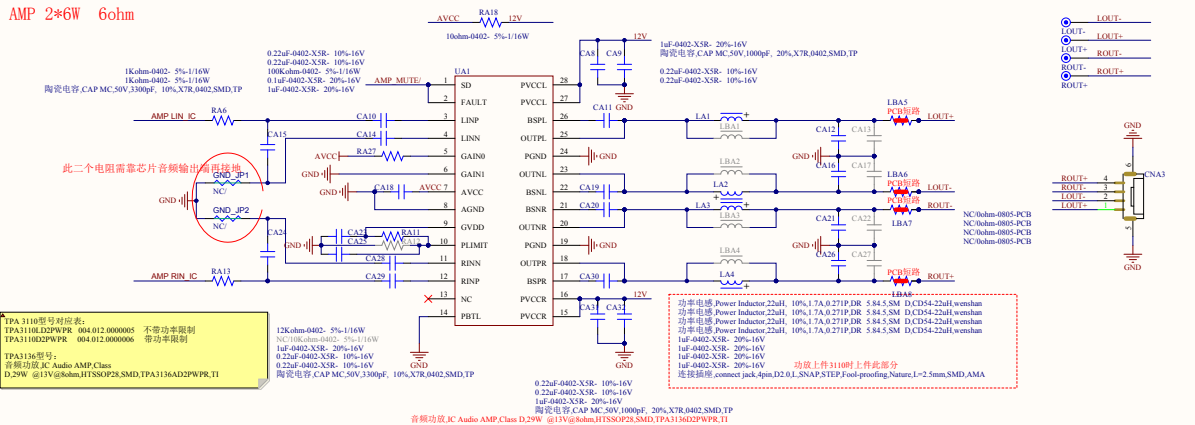
**AMP Power** 注意这里是考虑电解寿命，拷贝注意



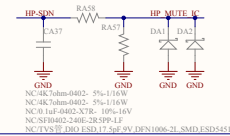
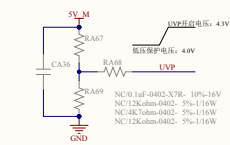
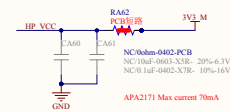
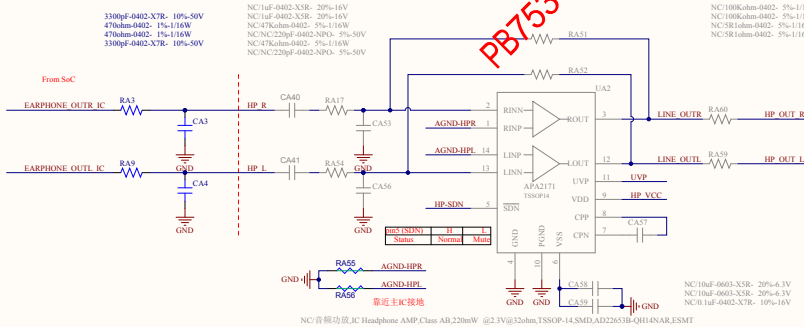
## MUTE



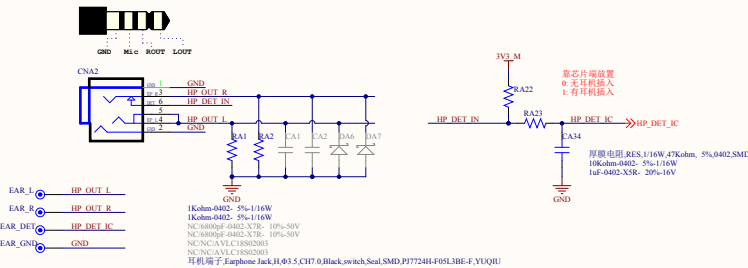
AMP 2\*6W 6ohm



## EAR AMP

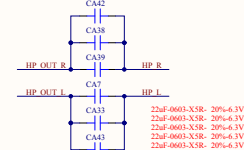


## EARPHONE



## 直通电路

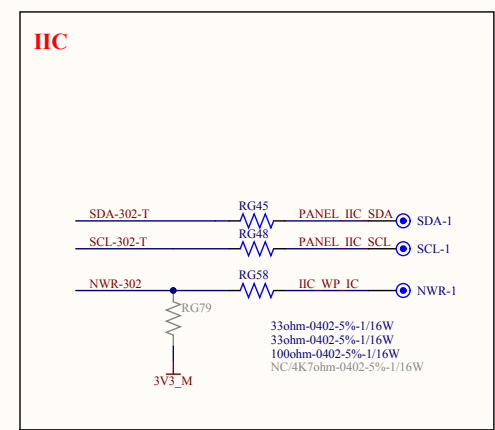
这里上件时，注意耳放芯片电路要去掉，要保留 RA3,RA6



22uF-0603-X5R- 20%-6.3V







-9.5V 0.15A

此电容 $<10\mu\text{F}$

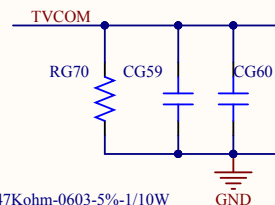
# Gamma

I2C ADDRESS	Write	0x74
	Read	0x75

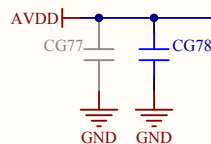
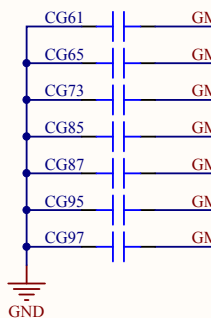
1uF-0603-X5R-10%-25V  
陶瓷电容,CAP MC,25V,0.1uF,20%,X5R,0402,SMD,TP

100Kohm-0402-1%-1/16W  
100Kohm-0402-1%-1/16W  
24K9ohm-0402-1%-1/16W  
10ohm-0805-5%-1/8W

7.03V

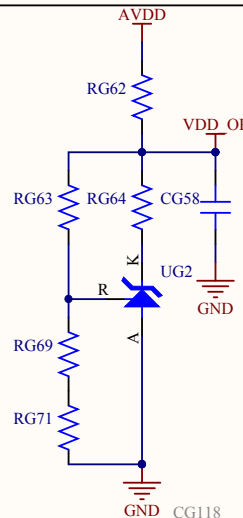
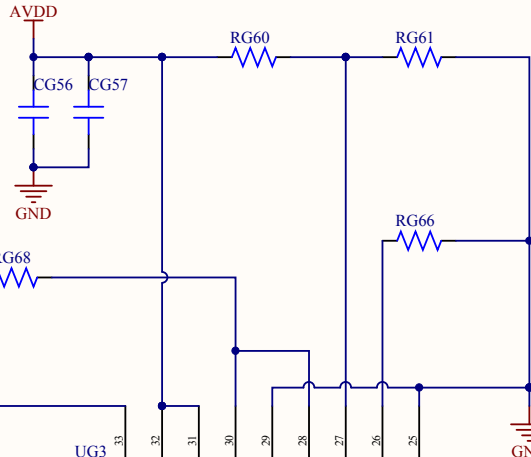
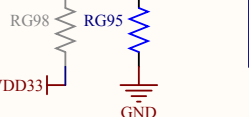
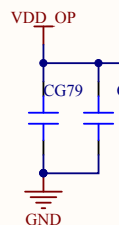


47Kohm-0603-5%-1/10W  
10uF-0805-X5R-20%-16V  
0.1uF-0402-X5R-20%-16V



NC/陶瓷电容,CAP MC,25V,0.1uF,20%,X5R,0402,SMD,TP  
陶瓷电容,CAP MC,25V,0.1uF,20%,X5R,0402,SMD,TP  
10ohm-0402-5%-1/16W  
陶瓷电容,CAP MC,25V,0.1uF,20%,X5R,0402,SMD,TP  
10ohm-0402-5%-1/16W  
0.1uF-0402-X5R-20%-16V  
10ohm-0402-5%-1/16W  
0.1uF-0402-X5R-20%-16V  
10ohm-0402-5%-1/16W  
0.1uF-0402-X5R-20%-16V  
10ohm-0402-5%-1/16W  
0.1uF-0402-X5R-20%-16V  
10ohm-0402-5%-1/16W  
陶瓷电容,CAP MC,25V,0.1uF,20%,X5R,0402,SMD,TP

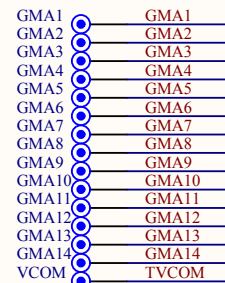
NC/3K3ohm-0402-1%-1/16W  
1uF-0603-X5R-10%-25V  
陶瓷电容,CAP MC,25V,0.1uF,20%,X5R,0402,SMD,TP  
3K3ohm-0402-1%-1/16W



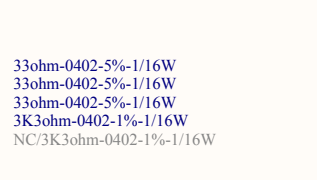
51ohm-0805-5%-1/8W  
0ohm-0402-5%-1/16W  
10Kohm-0402-1%-1/16W  
2Kohm-0402-1%-1/16W  
0ohm-0402-5%-1/16W  
陶瓷电容,CAP MC,25V,0.1uF,20%,X5R,0402,SMD,TP  
稳压器,IC Regulator,2.5V,0.4%,SOT23-3,SMD,AZ431AN-ATRE1,DIODES

PB753 circuit

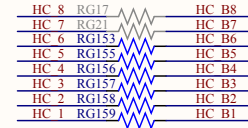
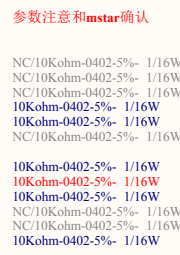
NC/10uF-0603-X5R-20%-6.3V  
0.1uF-0402-X5R-20%-16V  
10ohm-0402-5%-1/16W  
0.1uF-0402-X5R-20%-16V  
10ohm-0402-5%-1/16W  
0.1uF-0402-X5R-20%-16V  
10ohm-0402-5%-1/16W  
0.1uF-0402-X5R-20%-16V  
10ohm-0402-5%-1/16W  
0.1uF-0402-X5R-20%-16V  
10ohm-0402-5%-1/16W  
0.1uF-0402-X5R-20%-16V  
10ohm-0402-5%-1/16W  
0.1uF-0402-X5R-20%-16V  
PMU芯片,IC PMU,18V,QFN-32,SMD,KD632QA1U,GMT  
陶瓷电容,CAP MC,6.3V,1uF,20%,X5R,0402,SMD,TP



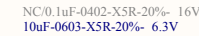
33ohm-0402-5%-1/16W  
33ohm-0402-5%-1/16W  
33ohm-0402-5%-1/16W  
3K3ohm-0402-1%-1/16W  
NC/3K3ohm-0402-1%-1/16W



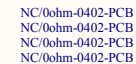
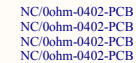
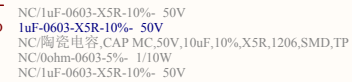
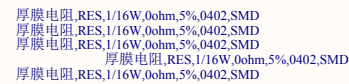
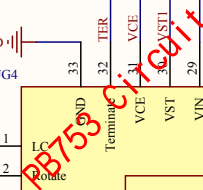
A
B
C
D



NC/33ohm-0603-5%- 1/10W  
NC/33ohm-0603-5%- 1/10W  
33ohm-0603-5%- 1/10W  
33ohm-0603-5%- 1/10W  
33ohm-0603-5%- 1/10W  
33ohm-0603-5%- 1/10W  
33ohm-0603-5%- 1/10W  
33ohm-0603-5%- 1/10W



LCD驱动芯片, IC Shifter, TQFN4X4-32, SMD, G2582K11U, GMT



## 43' TCONLESS

GAMMA电压测试点在GAMMA页

反向线材

反向线材

## 40' LVDS

同向线材, 注意这里ODD与EVEN需要软件调整, 后续更新芯片页图纸

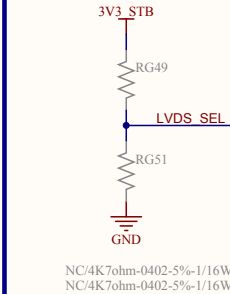
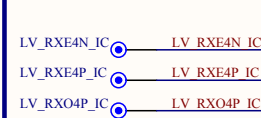
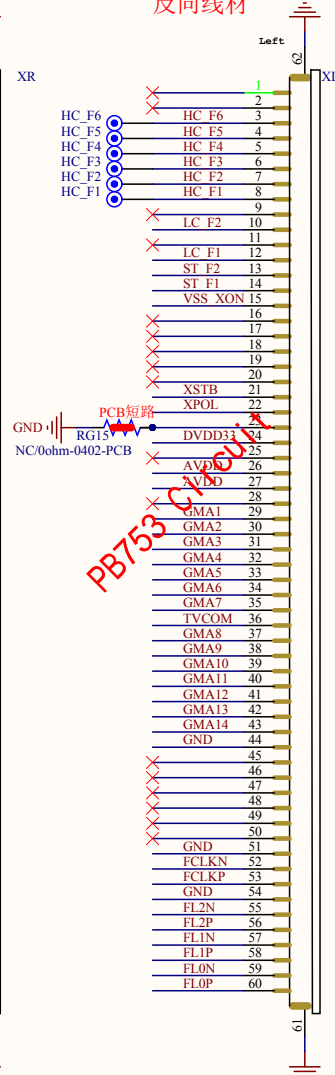
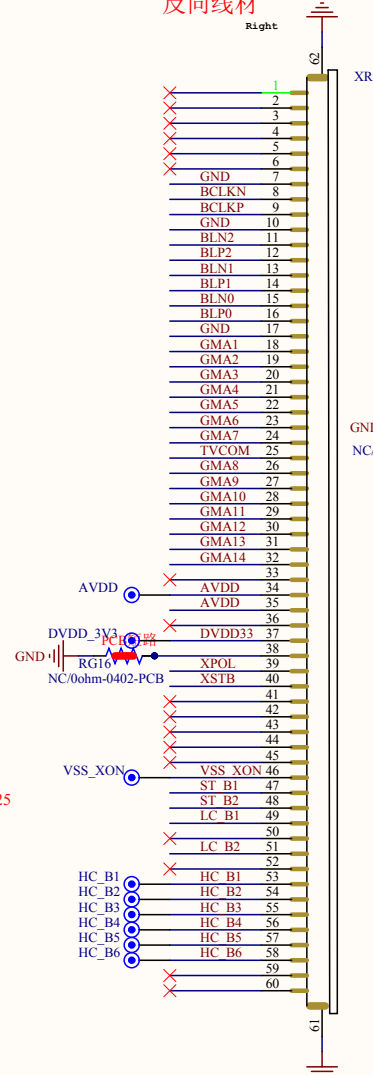
LV RXECKP_IC	RG36	BCLKN
LV RXECKN_IC	RG42	BCLKP
LV RXE2P_IC	RG44	BLN2
LV RXE2N_IC	RG50	BLP2
LV RXE1P_IC	RG52	BLN1
LV RXE1N_IC	RG53	BLP1
LV RXE0P_IC	RG57	BLN0
LV RXE0N_IC	RG59	BLP0
LV RXO2N_IC	RG1	XPOL

薄膜电阻,RES,1/16W,0ohm,5%,0402,SMD  
薄膜电阻,RES,1/16W,0ohm,5%,0402,SMD  
薄膜电阻,RES,1/16W,0ohm,5%,0402,SMD  
薄膜电阻,RES,1/16W,0ohm,5%,0402,SMD  
薄膜电阻,RES,1/16W,0ohm,5%,0402,SMD  
薄膜电阻,RES,1/16W,0ohm,5%,0402,SMD  
薄膜电阻,RES,1/16W,0ohm,5%,0402,SMD  
薄膜电阻,RES,1/16W,0ohm,5%,0402,SMD  
薄膜电阻,RES,1/16W,0ohm,5%,0402,SMD  
薄膜电阻,RES,1/16W,0ohm,5%,0402,SMD

LV RXO1P_IC	RG65	FCLKN
LV RXO1N_IC	RG67	FCLKP
LV RXO0P_IC	RG72	FL2N
LV RXO0N_IC	RG74	FL2P
LV RXE4P_IC	RG75	FL1N
LV RXE4N_IC	RG76	FL1P
LV RXE3P_IC	RG77	FL0N
LV RXE3N_IC	RG78	FL0P
LV RXO3P_IC	RG2	XSTB

薄膜电阻,RES,1/16W,0ohm,5%,0402,SMD  
薄膜电阻,RES,1/16W,0ohm,5%,0402,SMD  
薄膜电阻,RES,1/16W,0ohm,5%,0402,SMD  
薄膜电阻,RES,1/16W,0ohm,5%,0402,SMD  
薄膜电阻,RES,1/16W,0ohm,5%,0402,SMD  
薄膜电阻,RES,1/16W,0ohm,5%,0402,SMD  
薄膜电阻,RES,1/16W,0ohm,5%,0402,SMD  
薄膜电阻,RES,1/16W,0ohm,5%,0402,SMD  
薄膜电阻,RES,1/16W,0ohm,5%,0402,SMD  
薄膜电阻,RES,1/16W,0ohm,5%,0402,SMD

FFC插座,FFC connector,60Pin,D0.5,Bottom,lock,SMD,F05039FA060M1WL,CT  
FFC插座,FFC connector,60Pin,D0.5,Bottom,lock,SMD,F05039FA060M1WL,CT



NC/薄膜电阻,RES,1/16W,0ohm,5%,0402,SMD  
NC/薄膜电阻,RES,1/16W,0ohm,5%,0402,SMD

