

LCD Television

Service Manual

Chassis: MT5652+MST6M40

Product: LTDN85XT910XWAM3D 、LTDN55K680XWAM3D、

LTDN55K680XWAM3D (20)

Ver 1.0

September, 2014

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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

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 **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. Servicetech 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.

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

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

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 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. Product Function

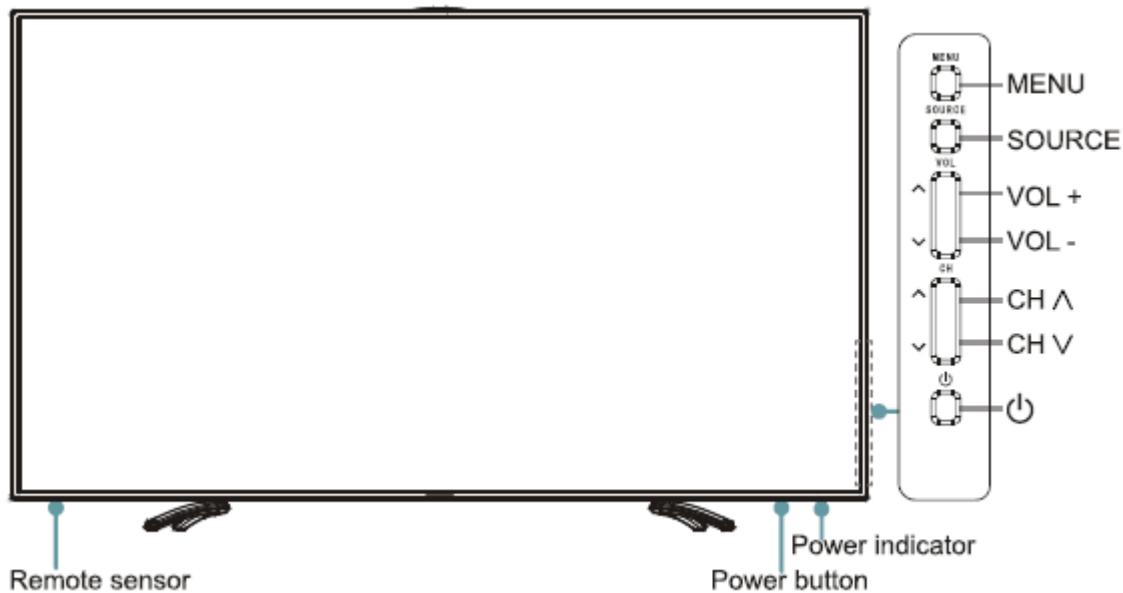
2.1 Products feature:

Product	Main & Power board	chassis	Panel	LVDS cable (main board-panel)	Resolution
LTDN85XT910XWAM3D	5827、 5506-9/5506-10	MT5652+6M40	SDC*LTA850FJ01	1、HX0.5-1X41KLB700-SAM\ROH 2、HX0.5-1X51KLB700-SAM\ROH	
LTDN55K680XWAM3D	5827-01、5567	MT5652+6M40	HS*HE550HUD-B31	1、HX2-2X20KLB500-LG\ROH; 2、HX2-2X25KLB500-LG-1\ROH	UD (3840*2160)
LTDN55K680XWAM3D(20)	Circuit part :Same to LTDN55K680XWAM3D				
LTDN55K680XWAM3D(20)	There is a little configuration different from LTDN55K680XWAM3D only . LTDN55K680XWAM3D(20) delete power switch; change to blue flickering Hisense logo and black glass stand. Configuration explode view can refer to LTDN55K680XWAM3D.				

2.2 TV Front and Rear

TV Front

LTDN85XT910XWAM3D



Item	Description
Remote sensor	Receive remote signals from the remote control. Do not put anything near the sensor, as its function may be affected.
Power indicator	The indicator is white when the TV is on.
MENU	Display an on-screen menu to setup your TV's features.
SOURCE	Select the different input signal SOURCE.
VOL + / -	Adjust the volume.
CH ▲ / ▼	Select the channel.
Power button ⏪	Turn on the TV or put the TV into standby mode. Caution: The TV continues to receive power even in standby mode. Unplug the power cord to disconnect power.

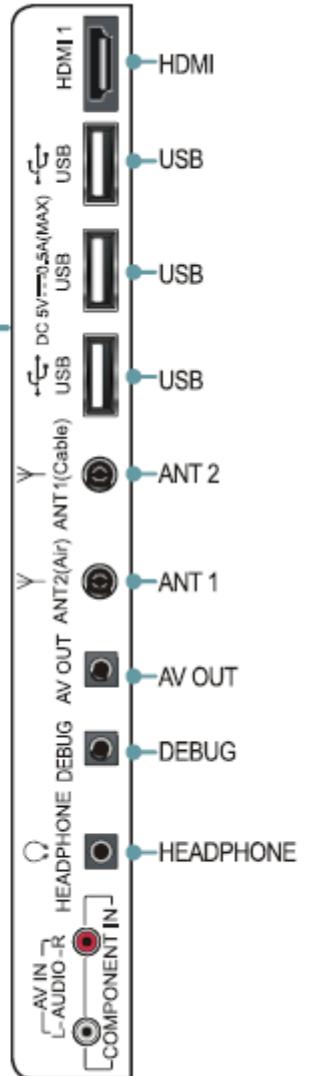
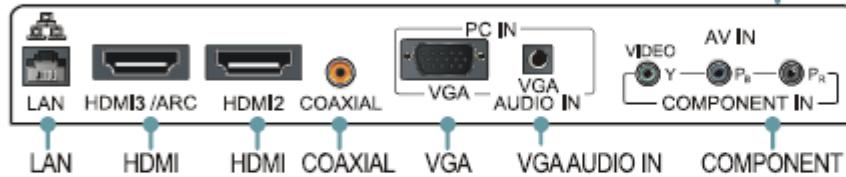
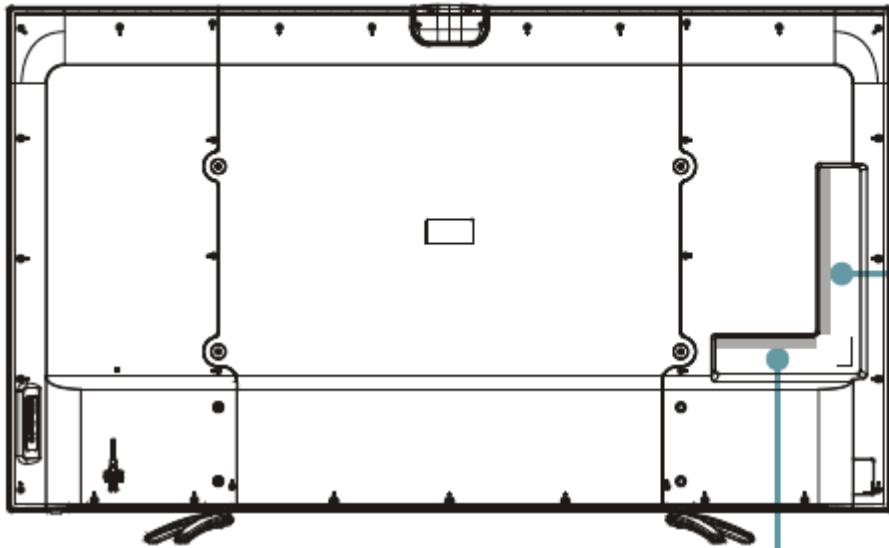
NOTES

- The Picture is Only for Reference.
- As power down and system processing require certain time, do not rapidly turn on/off in continuous way, or otherwise the TV set can be resulted in abnormal operation.

TV Back connections

LTDN85XT910XWAM3D

TV Side View

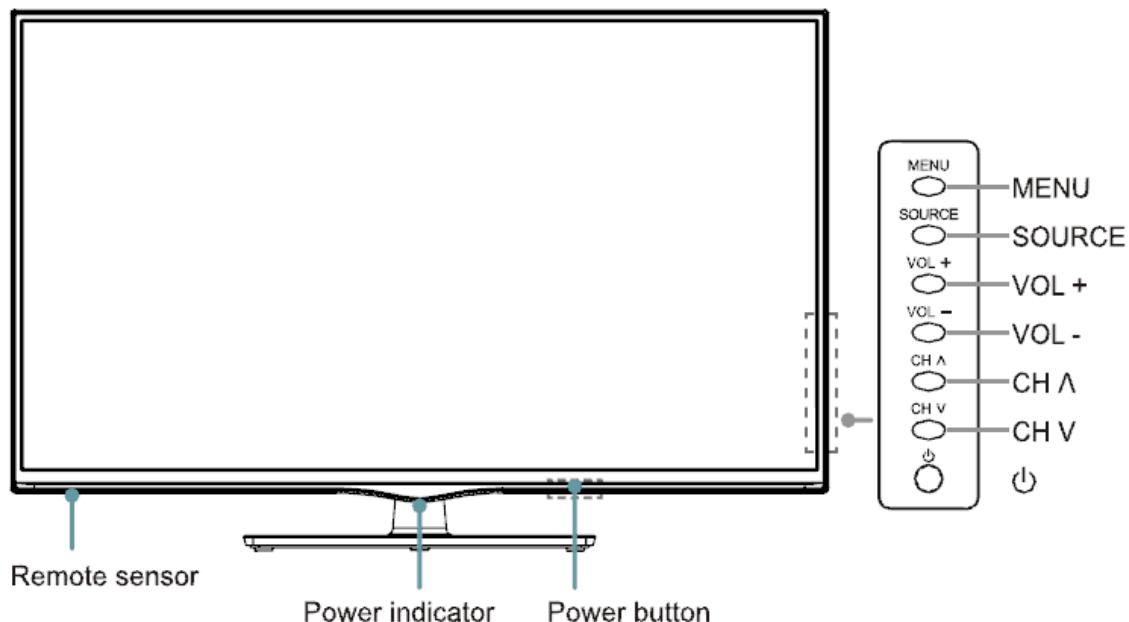


NOTE

Some external devices impossible insert to this set for individual difference. Please replace with appropriate external signal cable or increase the adapter to match with the port in such case.

TV Front

LTDN55K680XWAM3D



Item	Description
Remote sensor	Receive remote signals from the remote control. Do not put anything near the sensor, as its function may be affected.
Power indicator	The indicator is white when the TV is on.
MENU	Display an on-screen menu to setup your TV's features.
SOURCE	Select the different input signal SOURCE.
VOL + / -	Adjust the volume.
CH A / V	Select the channel.
Power button ⏪	Turn on the TV or put the TV into standby mode. Caution: The TV continues to receive power even in standby mode. Unplug the power cord to disconnect power.

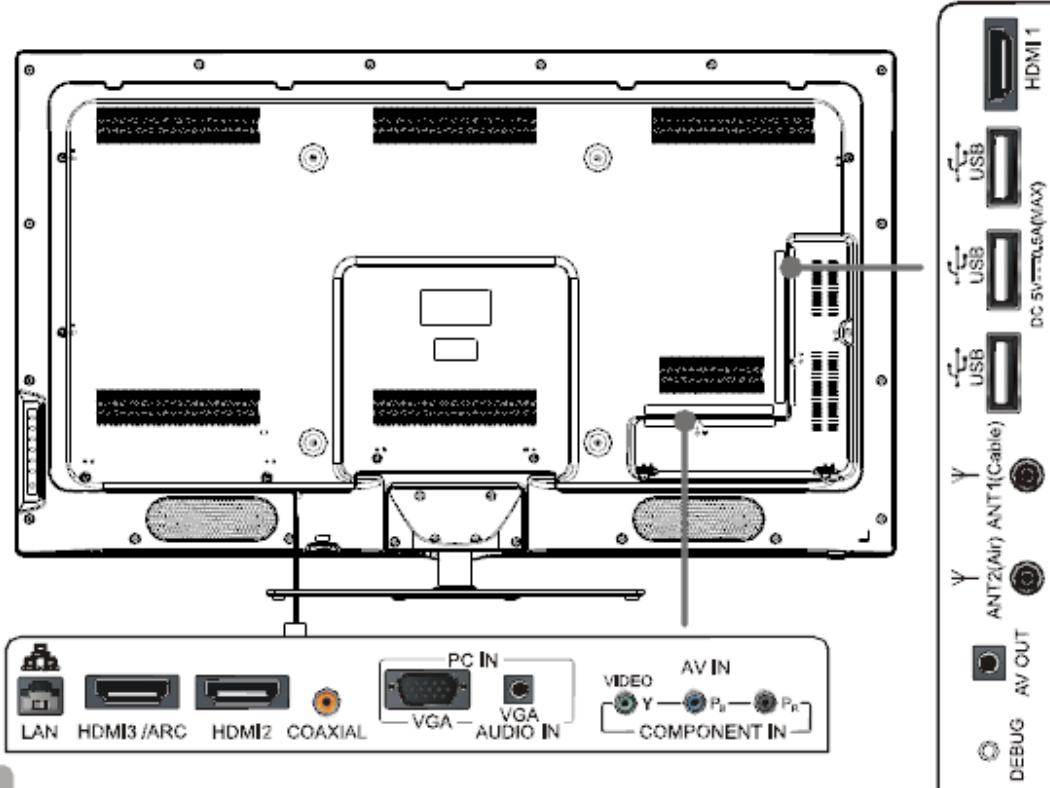
NOTES

- The Picture is Only for Reference.
- As power down and system processing require certain time, do not rapidly turn on/off in continuous way, or otherwise the TV set can be resulted in abnormal operation.

TV Back connections

LTDN55K680XWAM3D

TV Side View



NOTE

Some external devices impossible insert to this set for individual difference. Please replace with appropriate external signal cable or increase the adapter to match with the port in such case.

Item	Description
ANT 1(Cable)	Connect an antenna or cable TV to this jack.
ANT 2(Air)	

HDMI	HDMI provides an uncompressed, all digital audio/video interface between this TV and any HDMI-device. HDMI1 supports UD input.
COMPONENT	Connect to a DVD player, Digital Set-Top-Box, or other A/V devices with component (YP_BP_R) video and audio output jacks.
AV IN	Connect to the composite video and audio (L/R) output jacks on external video devices.
VGA/VGA AUDIO	Connect to a PC or other devices with a VGA interface.
AV OUT	Connect to external devices with video input function and transmit the video signals being played to these devices.
HEADPHONE	Connect headphone for private listening.
COAXIAL	Connect to an external digital audio device.
USB	Port for Digital Media Player.
LAN	Connect an ethernet cable to access a Network or the Internet.
DEBUG	Just for factory used, it can't be inserted any equipment.

2.3 Specification

LTDN85XT910XWAM3D ---Spec.

<i>Model Name</i>		85UHD230
Dimension	Without Stand (mm)	1909 × 1090 × 82.5
	With Stand (mm)	1909 × 1160 × 410
Weight	Without Stand	60 kg
	With Stand	64 kg
LCD Panel Minimum size (diagonal)		85 inches (215cm)
Screen resolution		3840 × 2160
Audio power		15 W + 15 W
Power consumption		520 W
Power supply		AC 100-240 V 50/60 Hz
Receiving systems	RF	PAL-M/N, NTSC, ISDB-T
	AV	PAL, NTSC
Environmental conditions		Temperature: 5°C - 45°C Humidity: 20% - 80% RH Atmospheric pressure: 86 kPa - 106 kPa
Component Input		480 I / 60 Hz, 480 P / 60 Hz, 720 P / 60 Hz, 1080 I / 60 Hz, 1080 P / 60 Hz
VGA Input		VGA (640×480 / 60 Hz), SVGA (800×600 / 60 Hz), XGA (1024×768 / 60 Hz)
HDMI Input		RGB / 60 Hz (640×480, 800×600, 1024×768) YUV / 60 Hz (480 I, 480 P, 720 P, 1080 I, 1080 P)

LTDN55K680XWAM3D--- Spec.

<i>Model Name</i>		55UHV130
Dimension	Without Stand (mm)	1235 × 717 × 59
	With Stand (mm)	1235 × 770 × 285
Weight	Without Stand	24.6kg
	With Stand	28.6 kg
LCD Panel Minimum size (diagonal)		55 inches (138 cm)
Screen resolution		3840 × 2160
Audio power		10 W + 10W
Power consumption		200 W
Power supply		AC 100-240 V 50/60 Hz
Receiving systems	RF	PAL-M/N, NTSC, ISDB-T
	AV	PAL, NTSC
Environmental conditions		Temperature: 5°C - 45°C Humidity: 20% - 80% RH Atmospheric pressure: 86 kPa - 106 kPa
Component Input		480 I / 60 Hz, 480 P / 60 Hz, 720 P / 60 Hz, 1080 I / 60 Hz, 1080 P / 60 Hz
VGA Input		VGA (640×480 / 60 Hz), SVGA (800×600 / 60 Hz), XGA (1024×768 / 60 Hz)
HDMI Input		RGB / 60 Hz (640×480, 800×600, 1024×768) YUV / 60 Hz (480 I, 480 P, 720 P, 1080 I, 1080 P)

General

NOTE

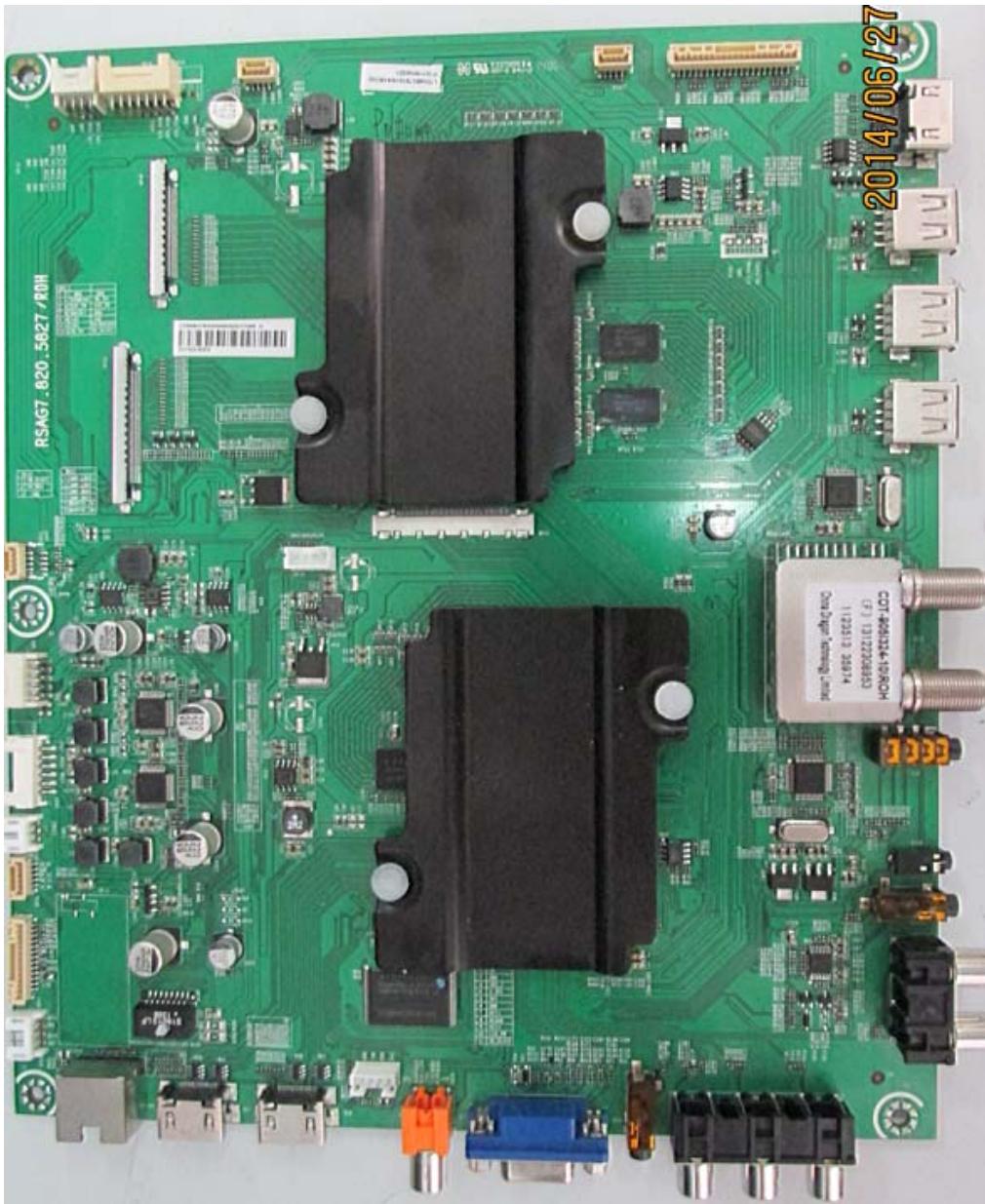
Features, appearance and specifications are subject to change without notice.

Model Name		LTDN55K680XWAM3D (20)
Dimension	Without Stand (mm)	1235 × 717 × 59
	With Stand (mm)	1235 × 770 × 285
Weight	Without Stand	24.6kg
	With Stand	28.6 kg
LCD Panel Minimum size (diagonal)		55 inches (138 cm)
Screen resolution		3840 × 2160
Audio power		10 W + 10W
Power consumption		200 W
Power supply		AC 100-240 V 50/60 Hz
Receiving systems	RF	PAL-M/N, NTSC, ISDB-T
	AV	PAL, NTSC
Environmental conditions		Temperature: 5°C - 45°C Humidity: 20% - 80% RH Atmospheric pressure: 86 kPa - 106 kPa
Component Input		480 I / 60 Hz, 480 P / 60 Hz, 720 P / 60 Hz, 1080 I / 60 Hz, 1080 P / 60 Hz
VGA Input		VGA (640×480 / 60 Hz), SVGA (800×600 / 60 Hz), XGA (1024×768 / 60 Hz)
HDMI Input		RGB / 60 Hz (640×480, 800×600, 1024×768) YUV / 60 Hz (480 I, 480 P, 720 P, 1080 I, 1080 P)

2.4 Main board layout

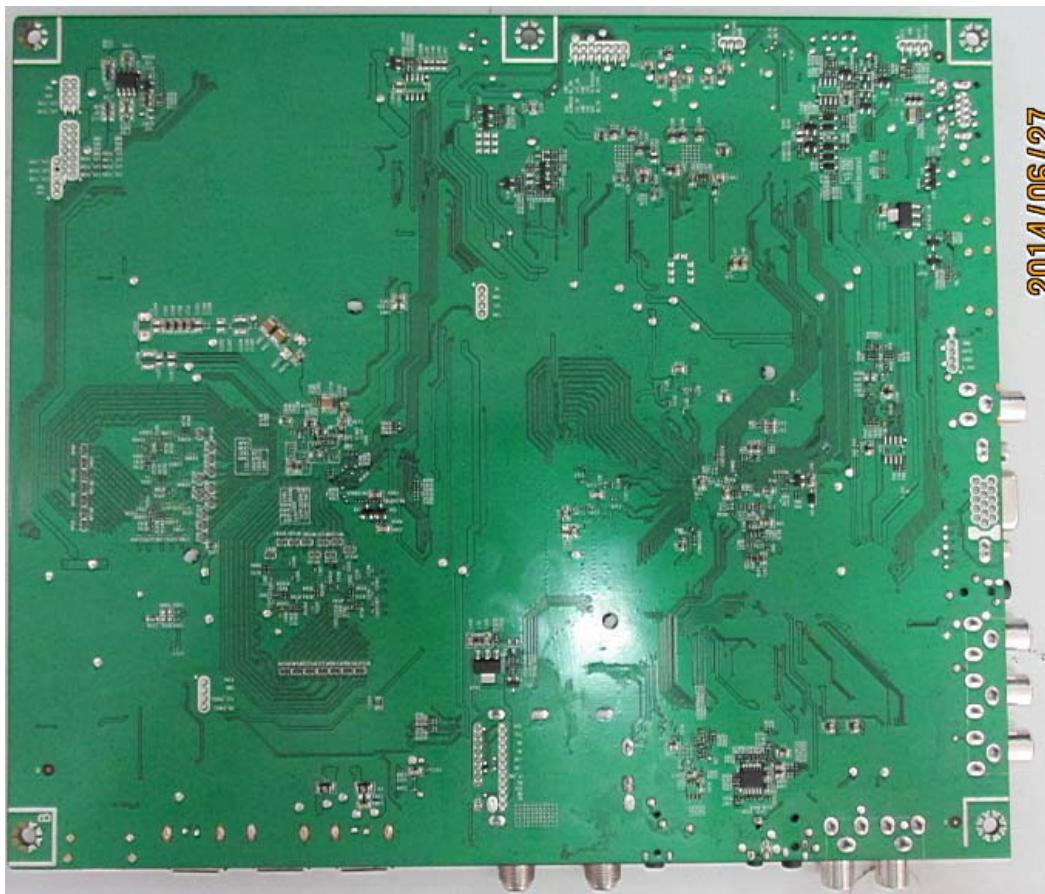
Main board: 5827

TOP:

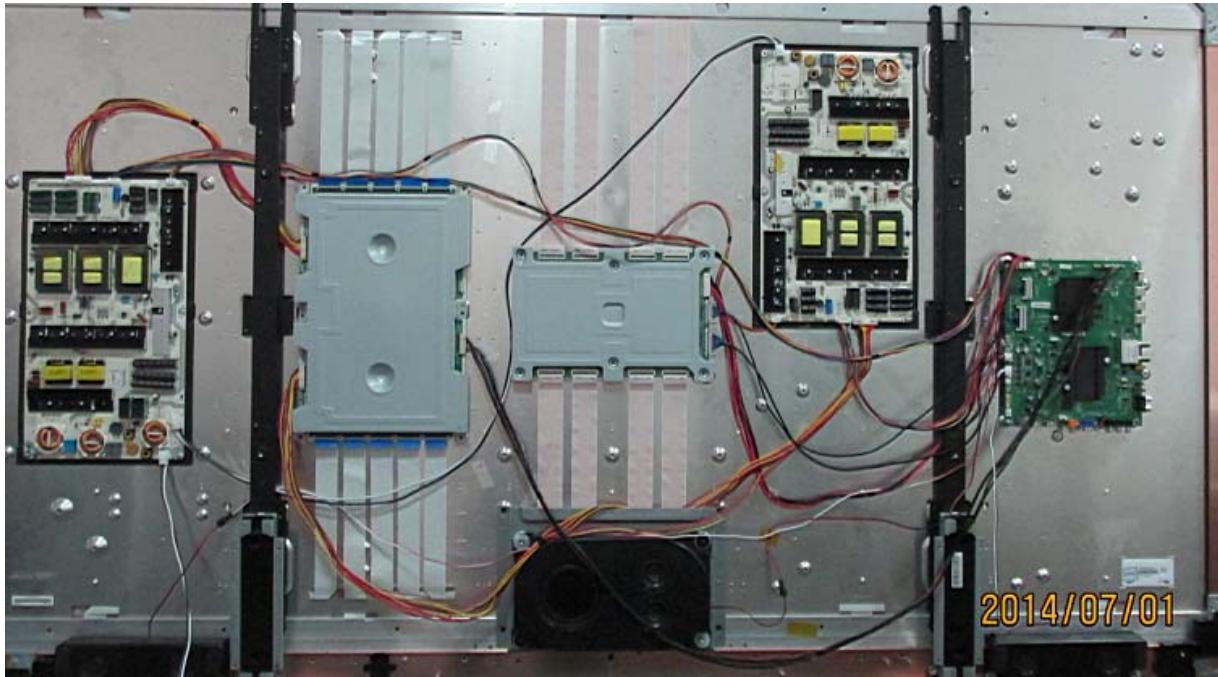


Detail description look up the quick setup guide, please.

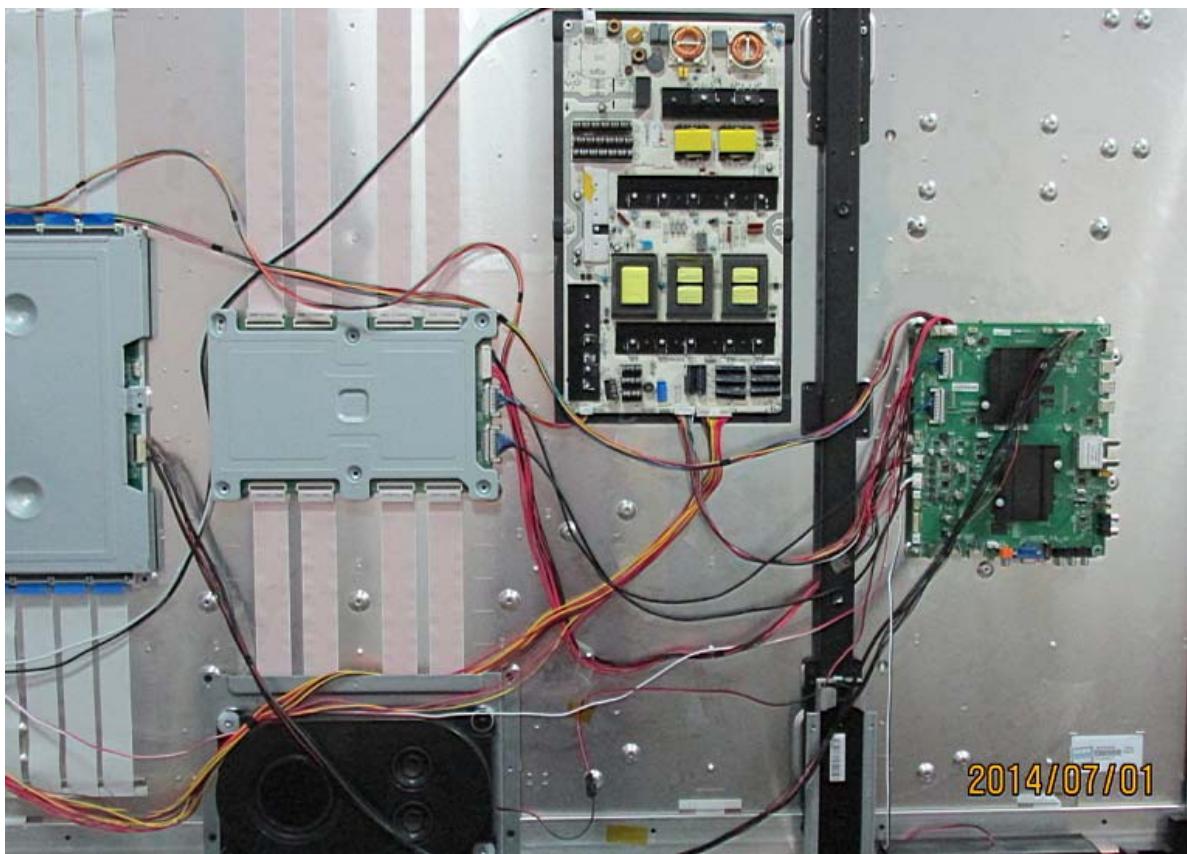
Bottom:



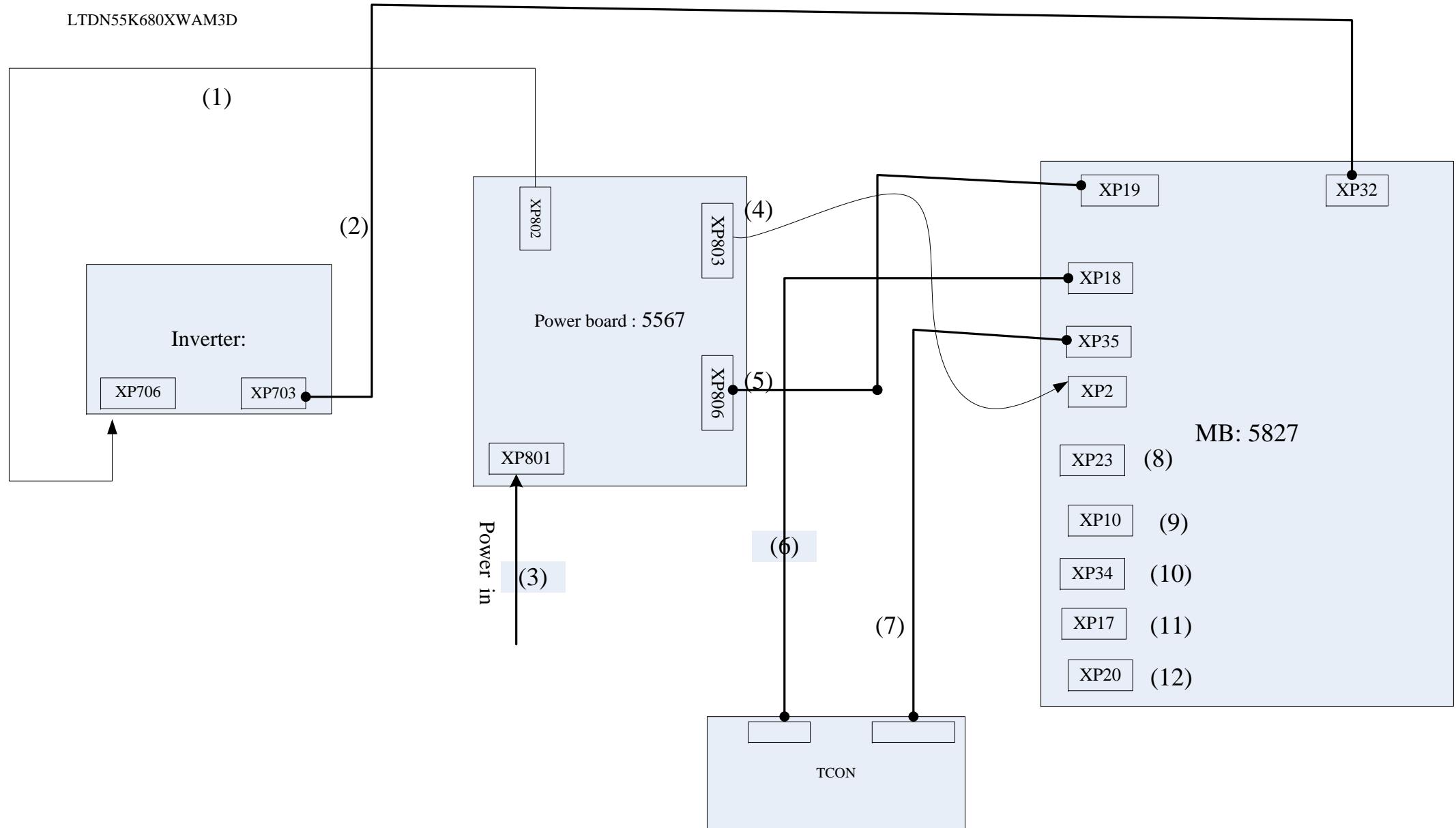
2.5 LTDN85XT910XWAM3D assemble figure



(Figure-1)



(Figure-2)



LTDN55K680XWAM3D	
No.	Connector
1	Inverter XP706---PB: XP802
2	Inverter XP703---MB: XP32
3	Power in
4	PB: XP803--MB:XP2
5	PB XP806--MB:XP19
6	MB: XP18---TCON
7	MB: XP35---TCON
8	MB:XP23 Speaker
9	MB:XP10 3D
10	MB:XP34 WIFI
11	MB:XP17 LED
12	MB:XP20 keypad

3. Factory/Service OSD Menu and Adjustment

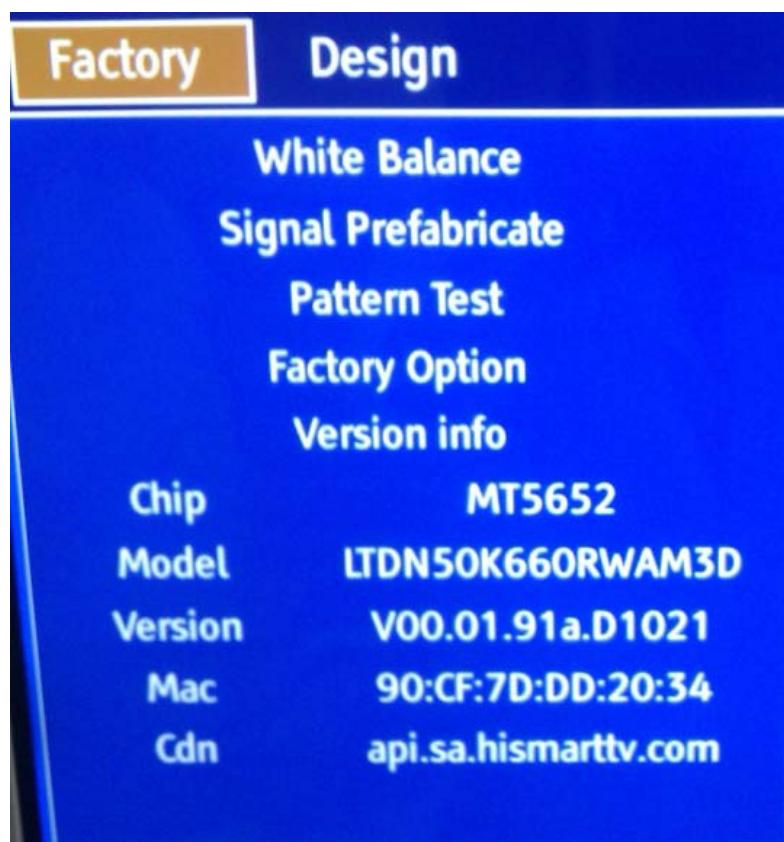
3.1 To enter the Factory OSD Menu

With user's RC

1. Power TV On
2. Press Menu button and call up User OSD Menu
3. Select Audio-> Balance, when Balance is "0"
4. Enter 1->9->6->9 in sequence.
Note: If necessary, re-enter number keys.
5. Factory OSD appears.
6. Press "EXIT" Key on remote control then can leave factory OSD Menu.

3.2 Factory OSD Menu

Take LTDN50K660RWAM3D for example



3.2.1 White Balance

Note: Different source has different WB values. Before adjusting, please change to desired source.

Factory	Design	
	White Balance	
	Signal Prefabricate	
	Pattern Test	
	Factory Option	
	Version info	
Chip	MT5652	
Model	LTDN50K660RWAM3D	
Version	V00.01.91a.D1021	
Mac	90:CF:7D:DD:20:34	
Cdn	api.sa.hismarttv.com	
	Panel	B1
	R Gain	128
	G Gain	128
	B Gain	128
	R Offset	128
	G Offset	128
	B Offset	128

3.2.2 Signal prefabricate

Factory	Design	
	White Balance	
	Signal Prefabricate	
	Pattern Test	
	Factory Option	
	Version info	
Chip	MT5652	
Model	LTDN50K660RWAM3D	
Version	V00.01.91a.D1021	
Mac	90:CF:7D:DD:20:34	
Cdn	api.sa.hismarttv.com	
	Zhong Shi	
	Huang Dao	
	Gui Yang	
	Liao Ning	
	Hungary	
	Australia	
	France	

3.2.3 Factory Option

Factory	Design																
White Balance																	
Signal Prefabricate																	
Pattern Test																	
Factory Option	<table border="1"> <thead> <tr> <th>TO FAC</th> <th>M</th> </tr> </thead> <tbody> <tr> <td>FirmWare Update</td> <td>On</td> </tr> <tr> <td>Blue Mute</td> <td>On</td> </tr> <tr> <td>Logo Option</td> <td>devant</td> </tr> <tr> <td>LVDS Spread</td> <td>0</td> </tr> <tr> <td>OpenVchip-Limit</td> <td>US</td> </tr> <tr> <td>Clean Protected</td> <td></td> </tr> <tr> <td>Clean All</td> <td></td> </tr> </tbody> </table>	TO FAC	M	FirmWare Update	On	Blue Mute	On	Logo Option	devant	LVDS Spread	0	OpenVchip-Limit	US	Clean Protected		Clean All	
TO FAC	M																
FirmWare Update	On																
Blue Mute	On																
Logo Option	devant																
LVDS Spread	0																
OpenVchip-Limit	US																
Clean Protected																	
Clean All																	
Chip	MT5652																
Model	LTDN50K660RWAM3D																
Version	V00.01.91a.D1021																
Mac	90:CF:7D:DD:20:34																
Cdn	api.sa.hismarttv.com																

	Item	Default	Options	Notes
1	MODE	M	M, U	M-Can enter factory mode with factory RC or user RC. U-Can enter factory mode only with user's RC.

Note: MODE “M” is only used for factory production.

	Item	Default	Options	Note
1	Version			Software version
2	Date			The date of current version

Note: Software version info of the TV, readable only.

Item	Meaning	Note
Clean Protected	Clear partly	
Clean All	Clear completely	

Note: The factory menu date varies according to different sources. In case changing the factory data by error, you can choose to “Clean ALL”, by which you can resume the default value.

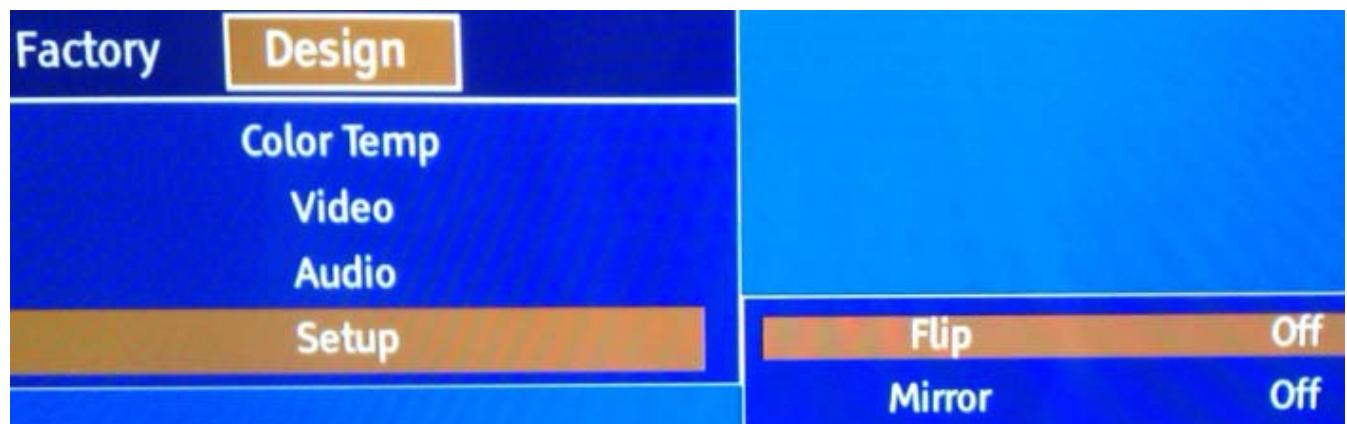
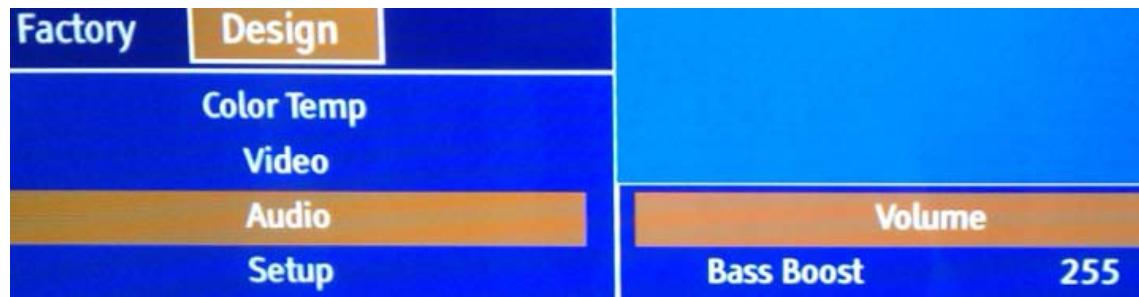
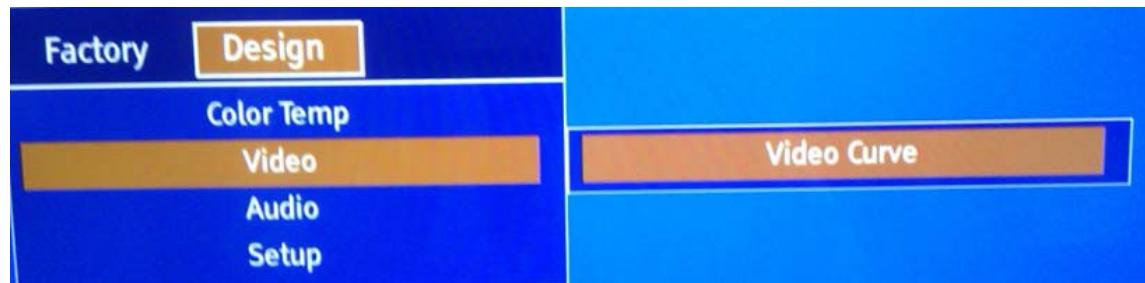
To clear the EEPROM:

- a. Select the item “Clean All” .
- b. Press VOL+ button to clear the EEPROM data.
- c. Close the OSD menu after 5 seconds.
- d. Restart the TV.

3.3 Designer Menu

A screenshot of the "Color Temp" sub-menu. The left side shows a list of options: "Color Temp", "Video", "Audio", and "Setup". The "Color Temp" option is highlighted with a yellow background. The right side shows a detailed view of the "Color Temp" settings under the "Cool" profile. The table lists six parameters with their current values:

Color Temp	Cool
R Gain	128
G Gain	128
B Gain	168
R Offset	128
G Offset	128
B Offset	128



Note:

The above “Factory/Service OSD Menu” is reference for chassis MTK5652 , please refer to the actual units to determine the appearances for different TV.

4. Software Upgrading

4.1 USB Software Upgrading directly

The software can be upgraded by USB Disk.

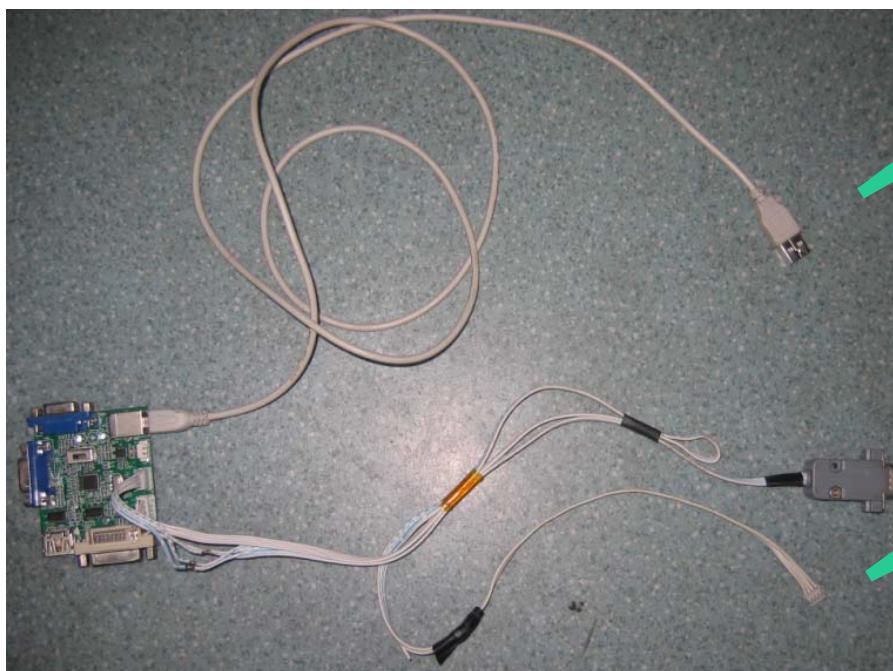
- First, copy the upgrade_loader.pkg file to USB Disk;.
- Second, make sure there is no other .pkg file in the root directory of USB Disk.
- Insert USB Disk to USB port, and then power on the TV.
- The TV will identify the software and upgrade automatically.

4.2 USB upgrading unsuccessfully

If USB upgrading unsuccessfully, then need burning the Nand Flash program file“ *.bin ”to the Nand Flash.

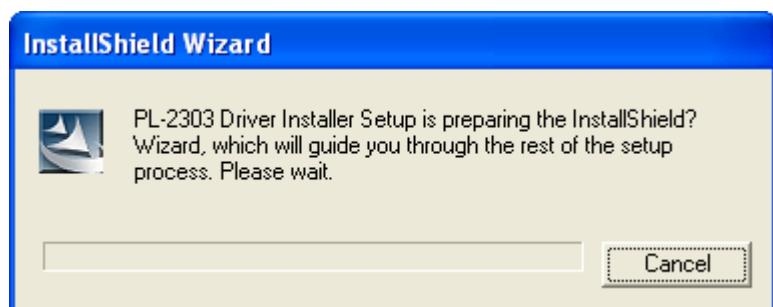
Hardware connecting

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 RS232 port. As following

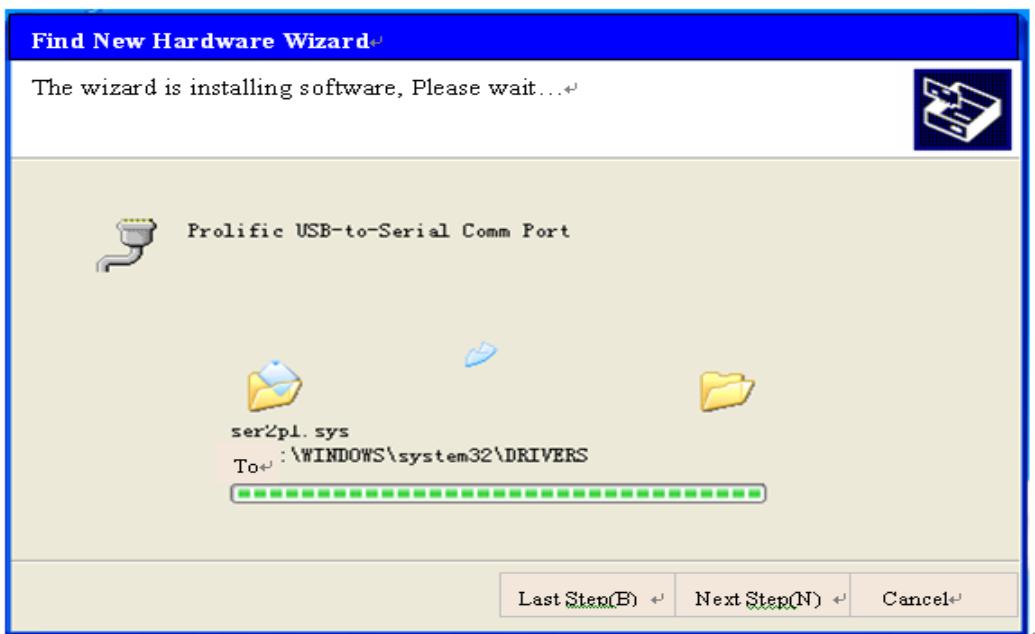


4.2.1 Install the driver

Double click the icon  , install the driver.



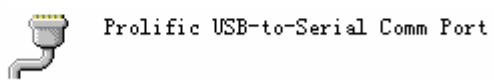
Select the default value, the driver will be installed step by step.



Find New Hardware Wizard

Finish Finding New Hardware Wizard

The wizard has finished the software installation:



If you close the wizard, Please click "Finish".

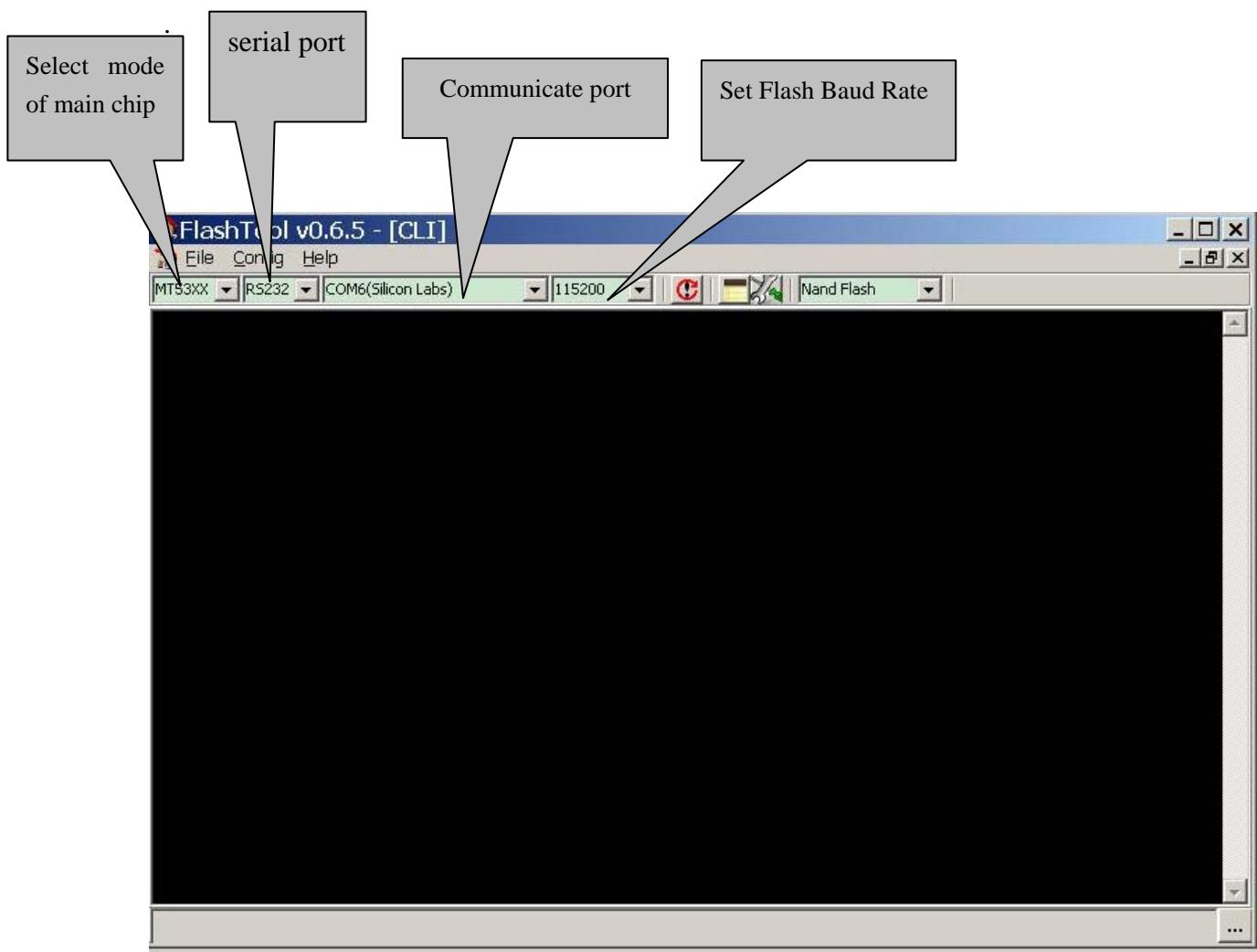
Last Step(B)

Finish

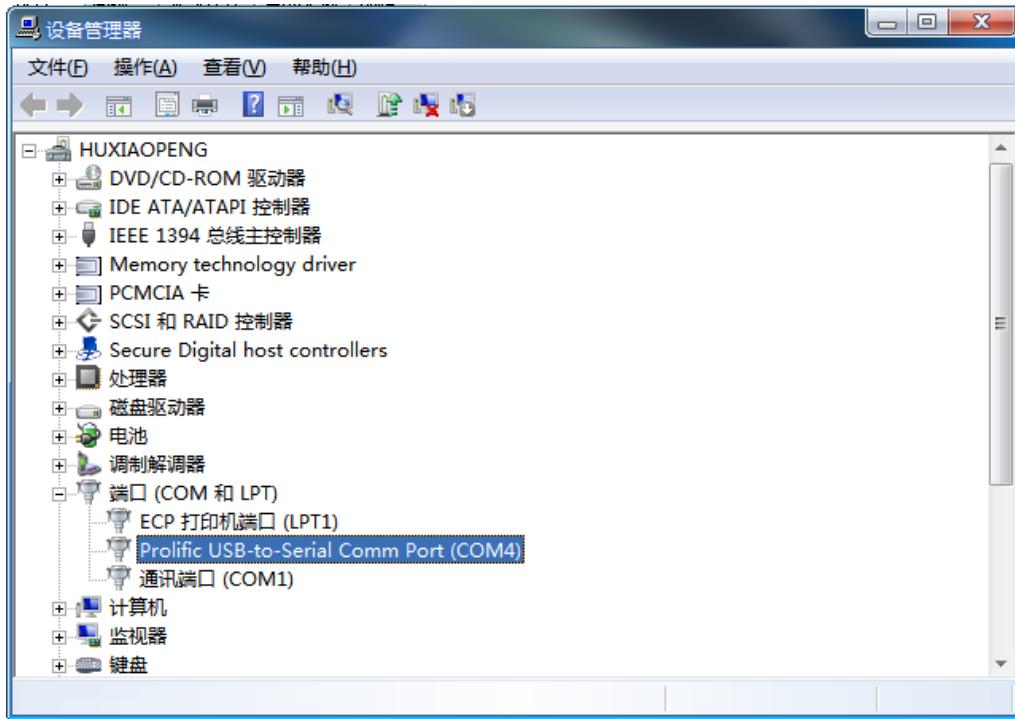
Cancel

4.3 Upgrading with the FlashTool0.6.0.exe

1、FlashTool is a green program needing no installation. After Connect the unit to your pc with a USB-to-serial port cable, run FlashTool0.6.0.exe. Please refer to the following steps to set.

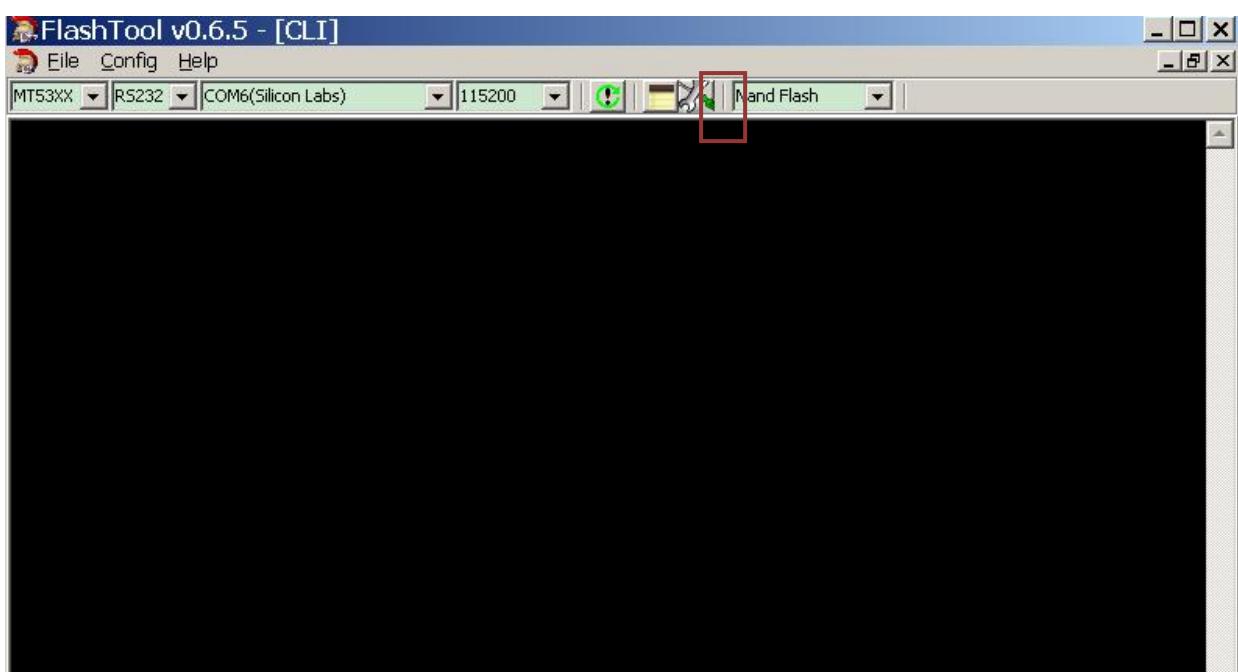


How to choose Communicate port and flash baud rate? See the following instruction..



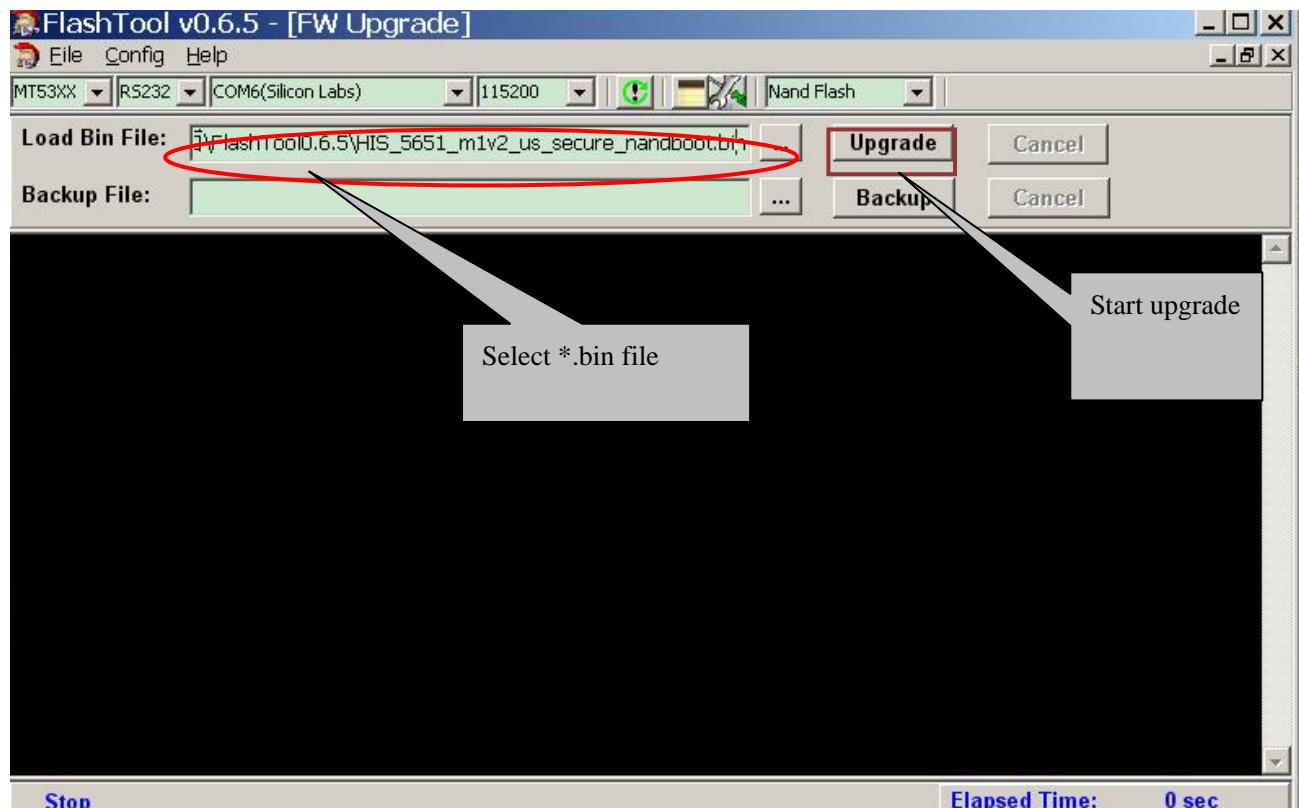
Open “Device Manager” and find which port is connected with the TV. In above picture, COM4 is connected to the TV, so, select “COM4” and if COM6 is connected to the TV, so select “COM6”. Select the right baud rate according to chip model. For this unit(chip model is MT5652), select 115200.

2、 Click to connect, if connect successfully then button from red turn green .



Click , bounce the following dialog box. Load Bin File: find the upgrading program file, and select it. for example:HIS_5651_m1v2_oceania_secure_nandboot.bin.

Press “Upgrade” button and start upgrading., if update defeat, try again.



If bootloader Tool upgrading is ok, then need renew USB upgrading.reference to 4.1(**USB Software Upgrading directly**)

4.4 Network updating

Network updating includes three ways. Auto Upgrade 、 Network upgrade and USB upgrade.

No matter Auto Upgrade is ON or Off, Network Upgrade is validated

4.4.1 Auto Upgrade---- When set to “on” , system can automatically check whether or not have any new updating file in servers after have connected to the network. Customer can download and update according to the guide.

Network upgrade ---- Check the process and it will prompt you to upgrade the software.

Network upgrade

Press “menu” key with RC, select as following.

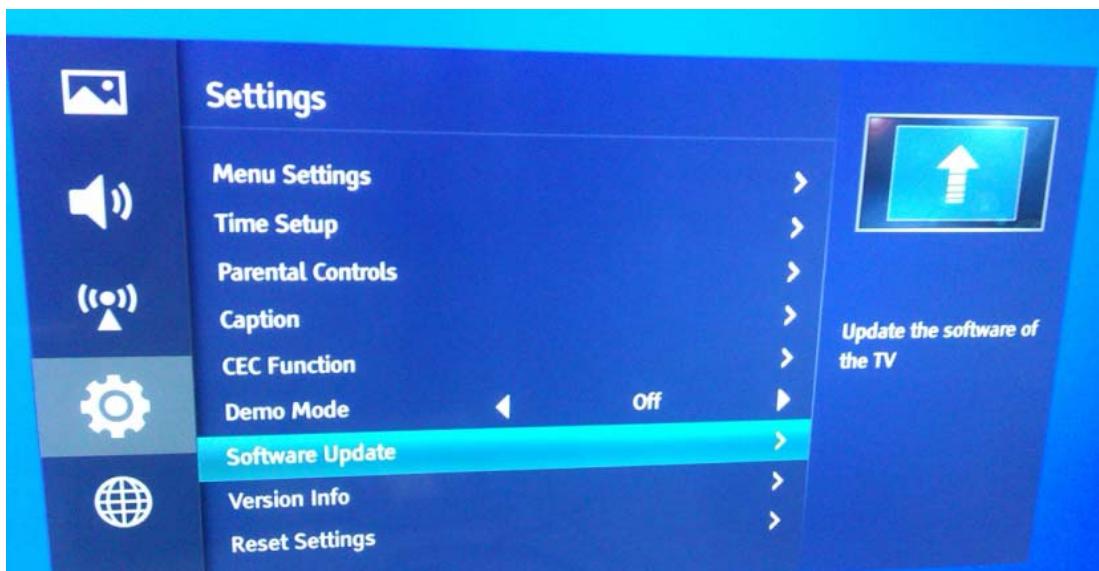


Figure-1

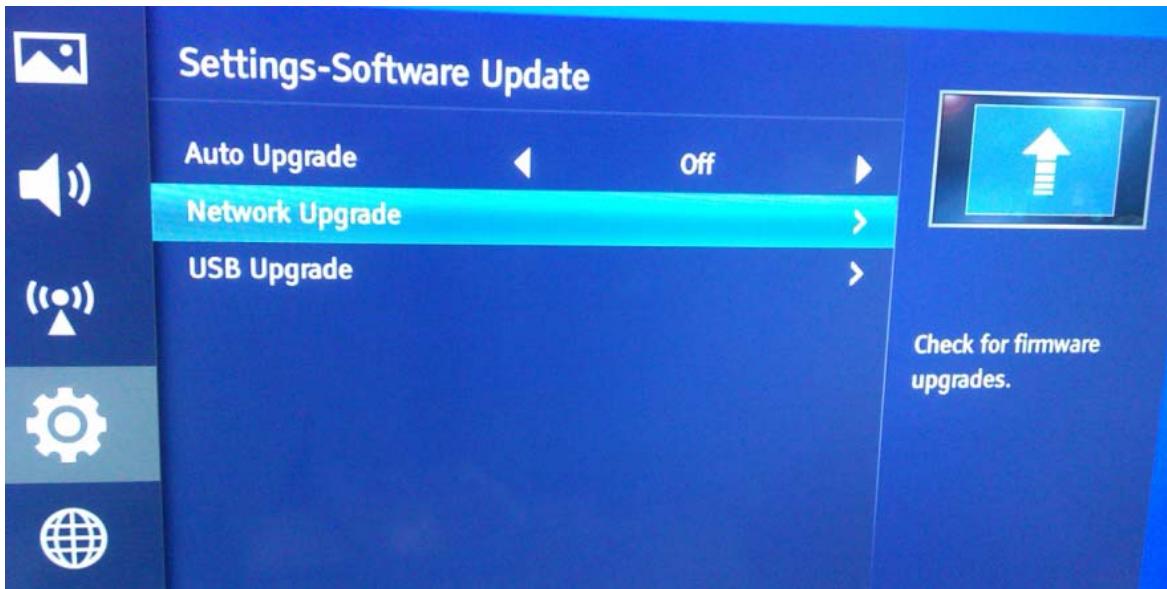


Figure-2

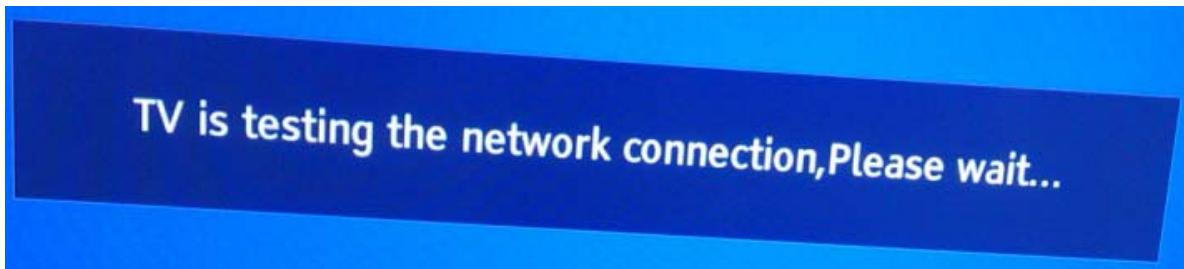


Figure-3

Check new version, bounce the following.

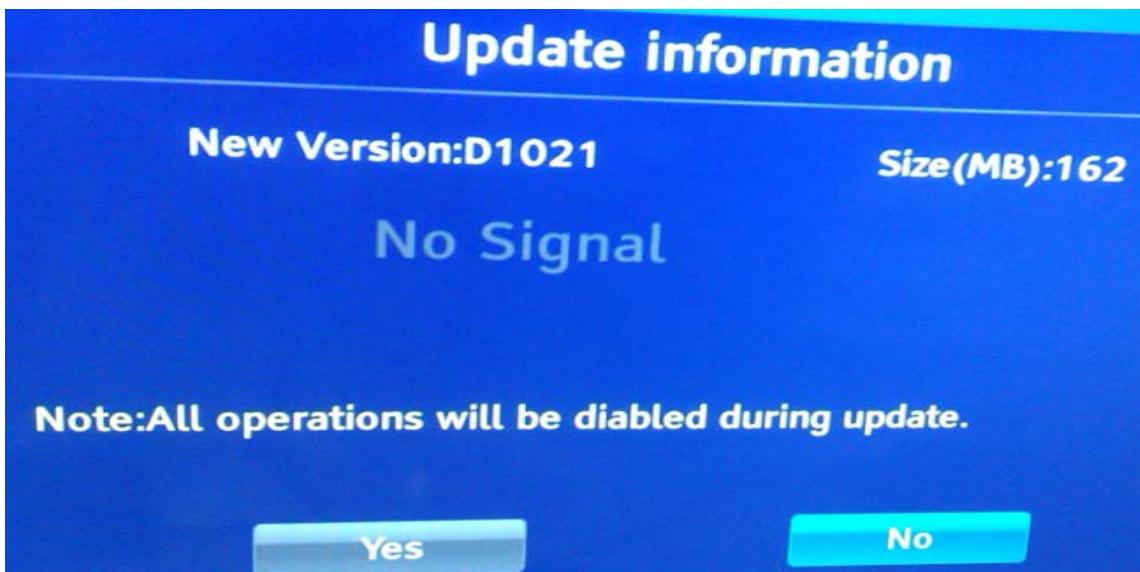


Figure-4

Select Yes to downloading.....

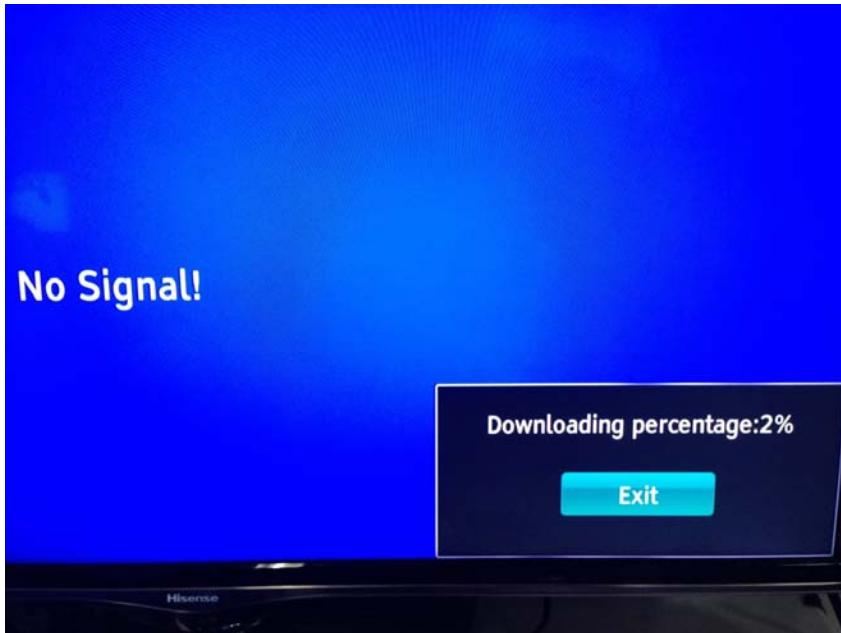


Figure-5

After verify, bounce dialog to select “yes” to update the firmware. Waiting.....

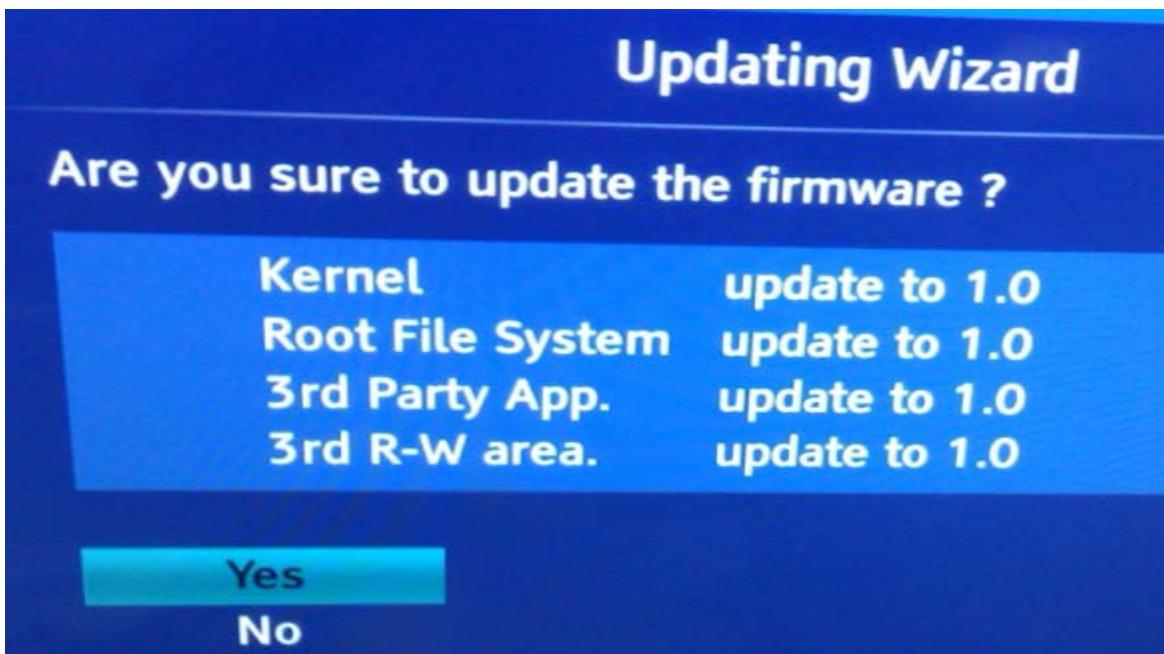


Figure-6

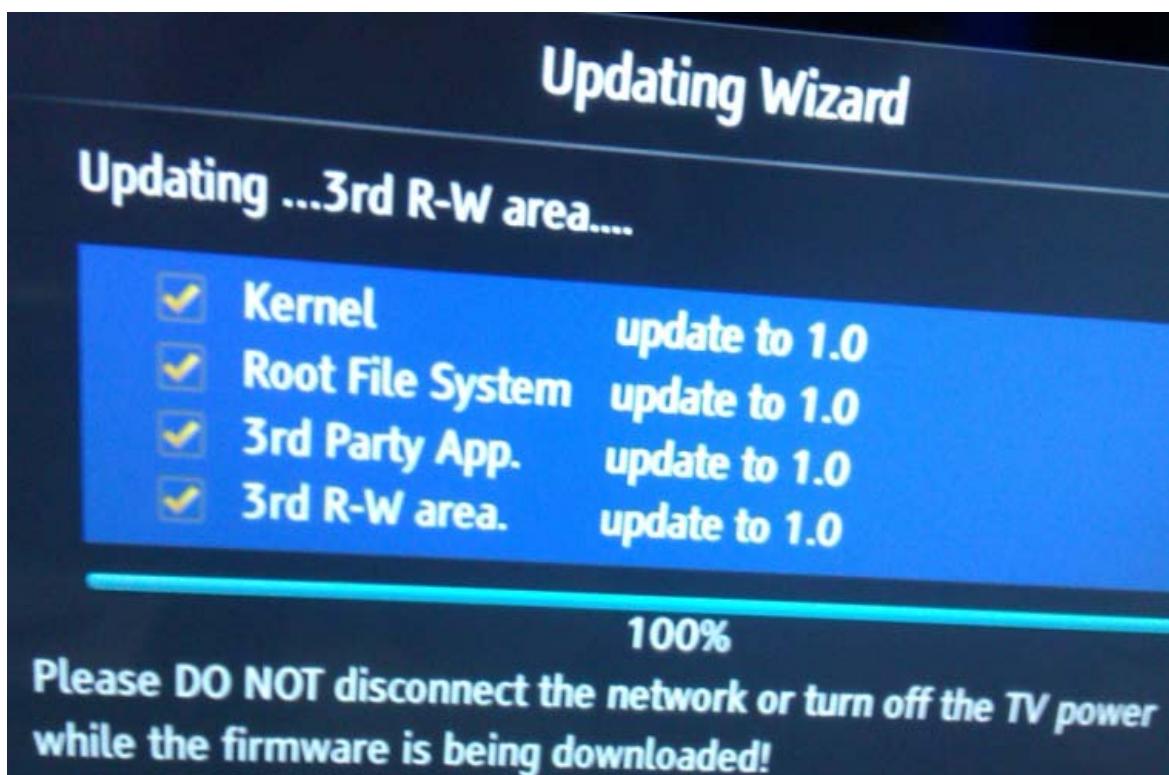
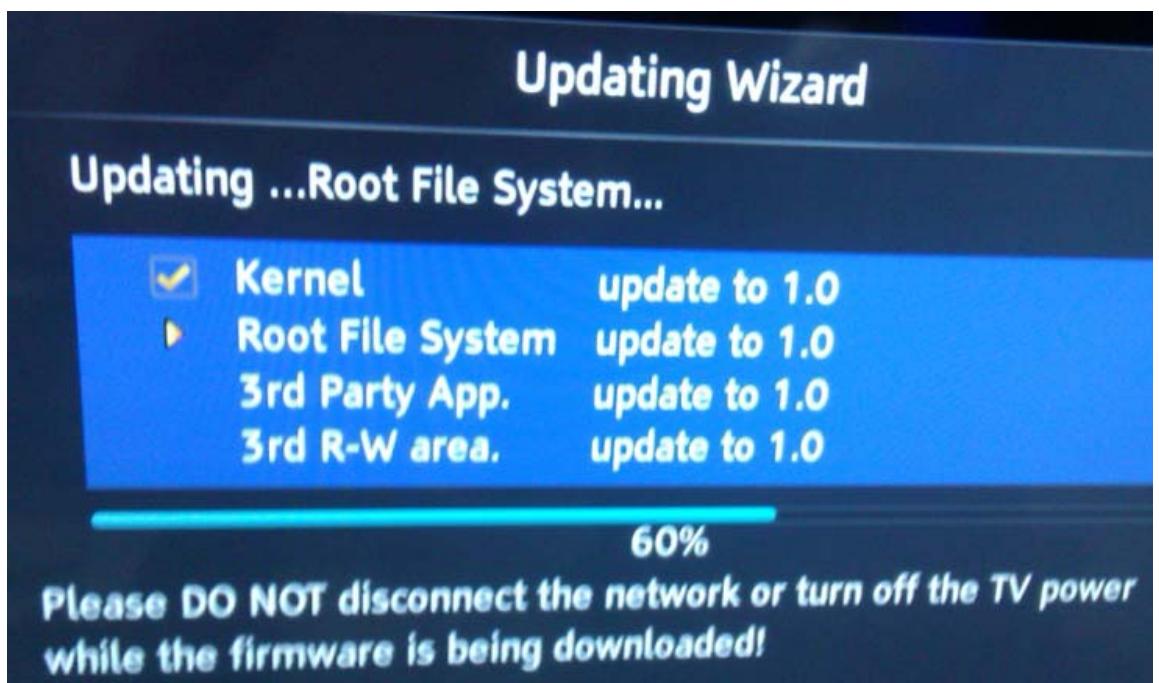


Figure-7

Bounding the following interface that indicates firmware update is successful.

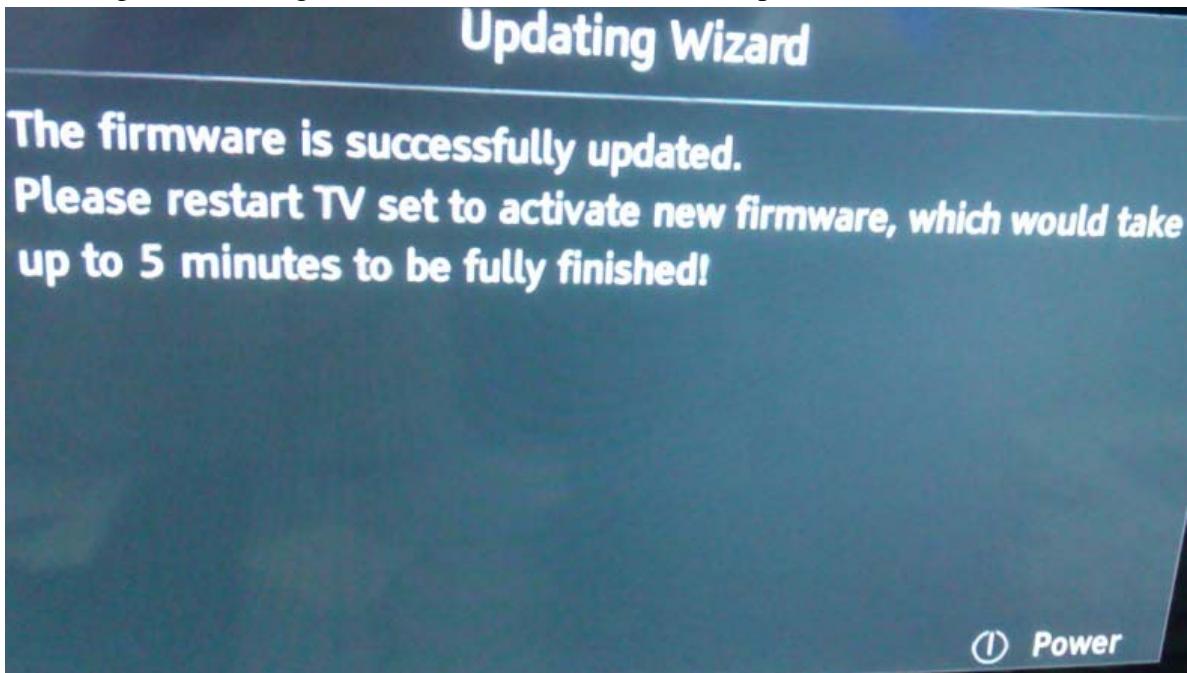


Figure-8

Remote control Power off and restart TV. indication led is linking .about 5 minutes , TV bounce following prompt message. otherwise upgrade is defeated.

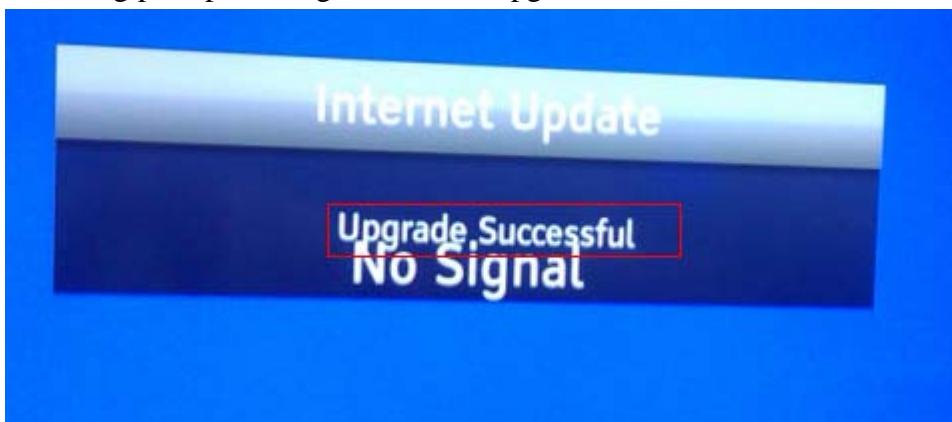


Figure-9

USB upgrade:

1. Copy the upgrade_loader.pkg file to USB Disk;
2. Make sure there is no other .pkg file in the root directory of USB Disk.
3. Insert USB Disk to USB port. and then turn on the TV.

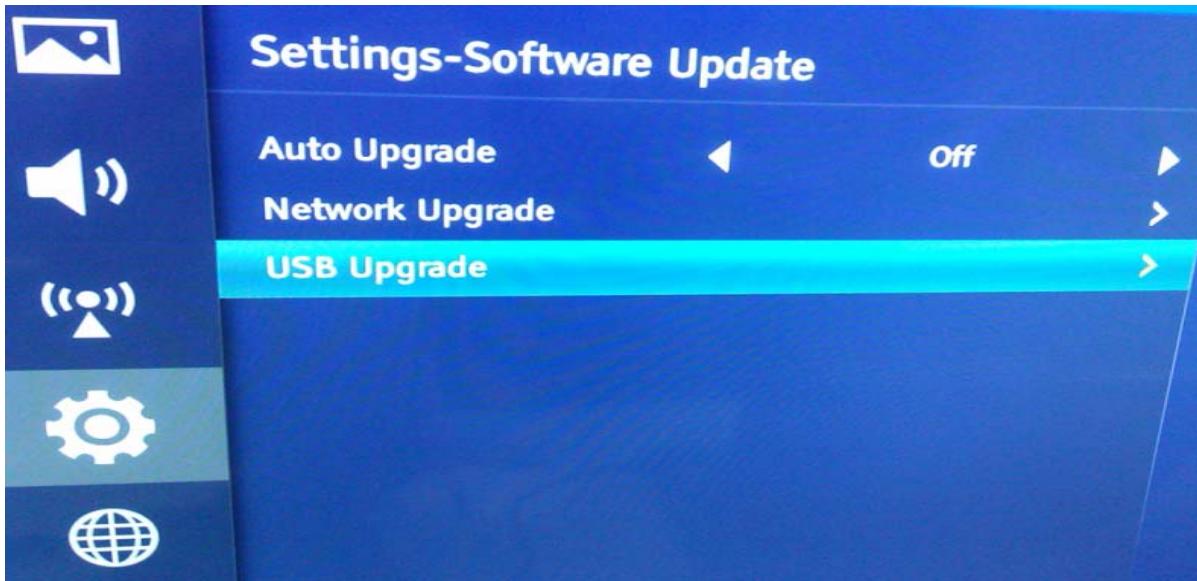
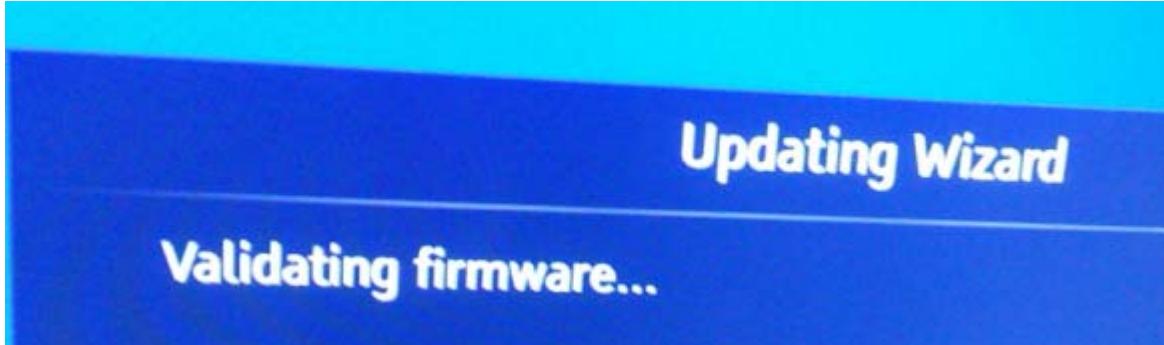


figure-2



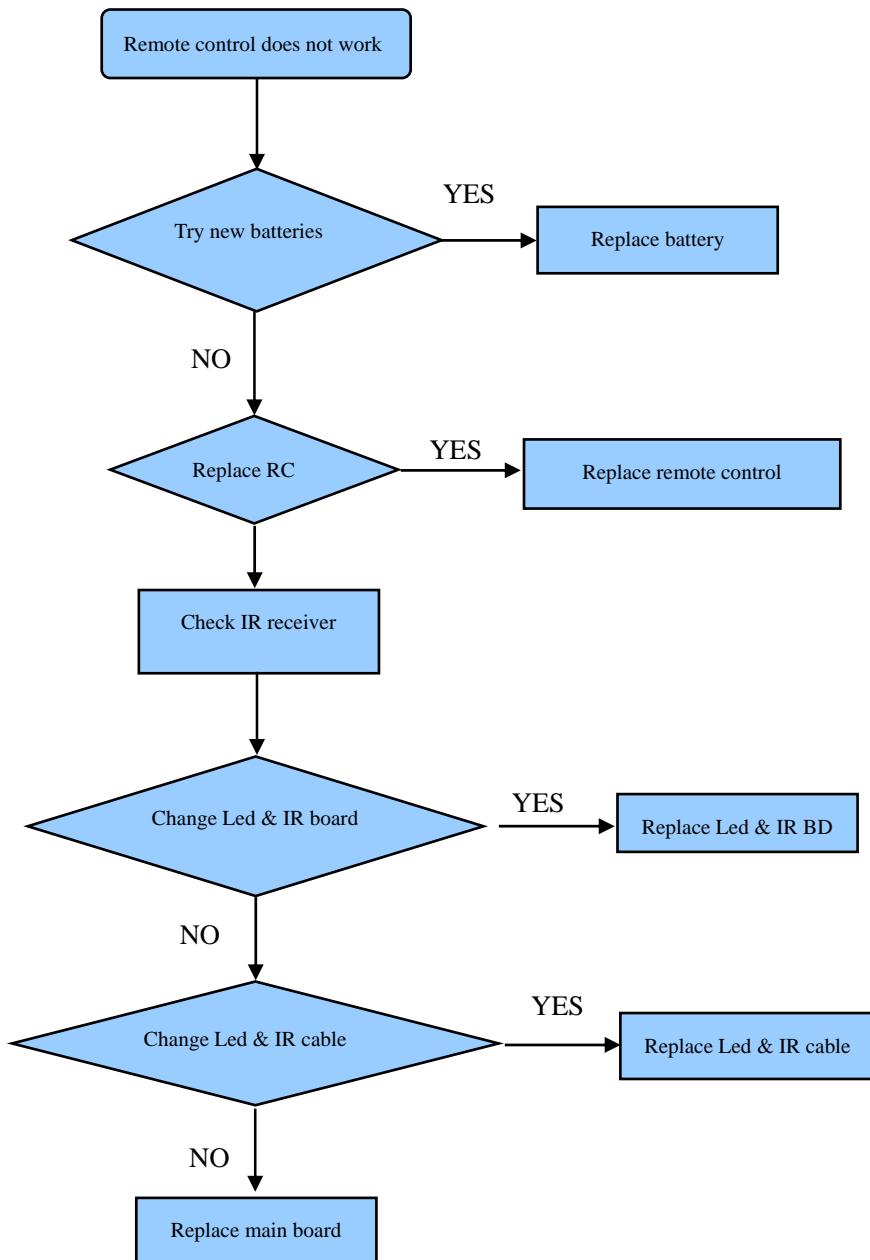
Next update steps can according to the network upgrade.

5. Trouble shooting

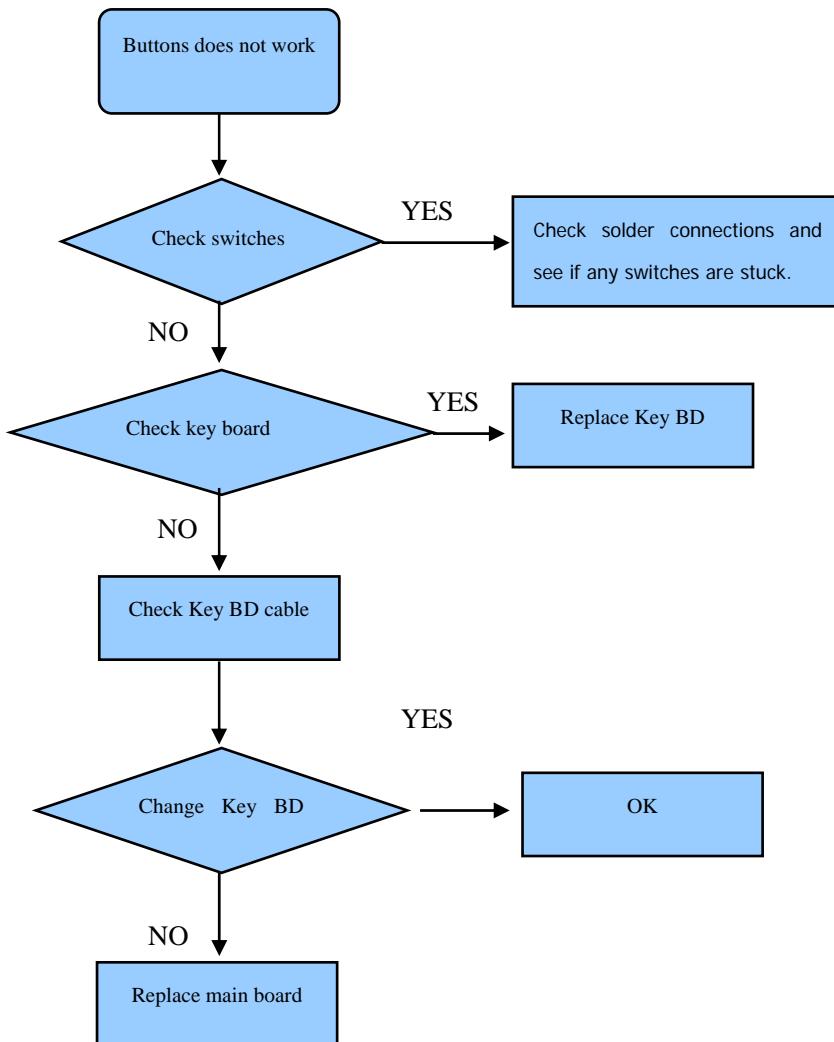
When there is something wrong with your TV, you can try turning off the TV and then restart it. You can also operate according to the follow chart. If the problems still cann't be solved, please contact the profession technician.

No sound or picture	<ol style="list-style-type: none">1. Check if the power line is in the outlet and if it has electricity.2. Check if you have pressed Power button on the TV or Power button on the remote control3. Check the setting of picture brightness and contrast.4. Check the volume.
The picture is normal but there is no sound	<ol style="list-style-type: none">1. Check the volume.2. Check if Mute mode is set.
No picture and white or black picture	<ol style="list-style-type: none">1. Adjust Picture Setting.2. Check Color System.
The sound and picture are interfered	<ol style="list-style-type: none">1. Try to find the appliance affecting TV set, and move it far away from the TV set.2. Try to insert the power plug of the TV set into another outlet.
Unclear picture or picture with snow	<ol style="list-style-type: none">1. Check the direction, position and connection of your antenna.2. Adjust the direction of your antenna or reset or fine tune the channel
The remote control does not work	<ol style="list-style-type: none">1. Change the batteries in the remote control.2. Clean the upper side of the remote control (radiating window)3. Check the contacting points of the batteries.4. Check if there is obstruction between the remote control and the monitor.5. Check if the batteries are correctly installed.
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.

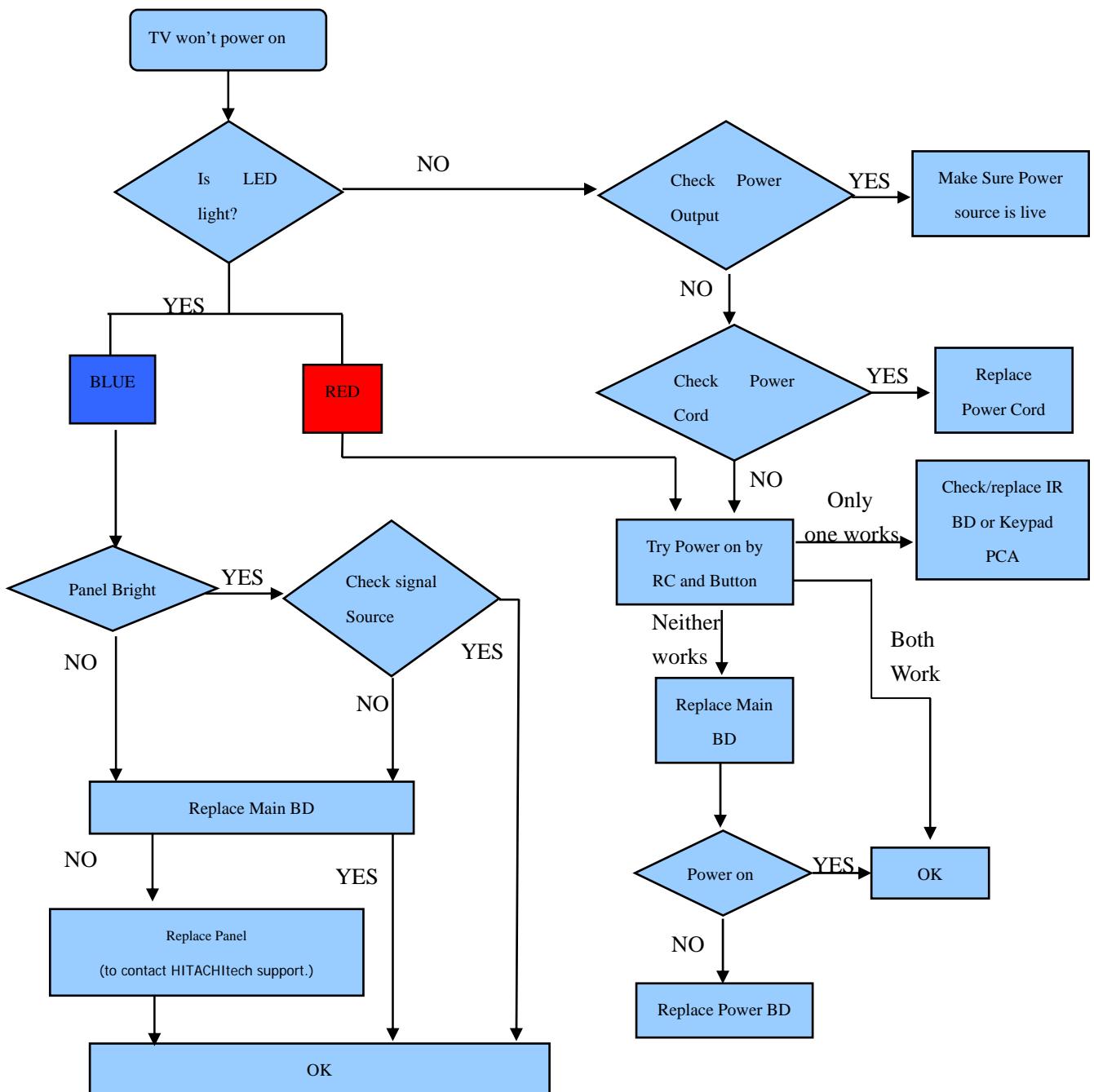
5.1 Troubleshooting for Remote Control



5.2 Troubleshooting for Function Key



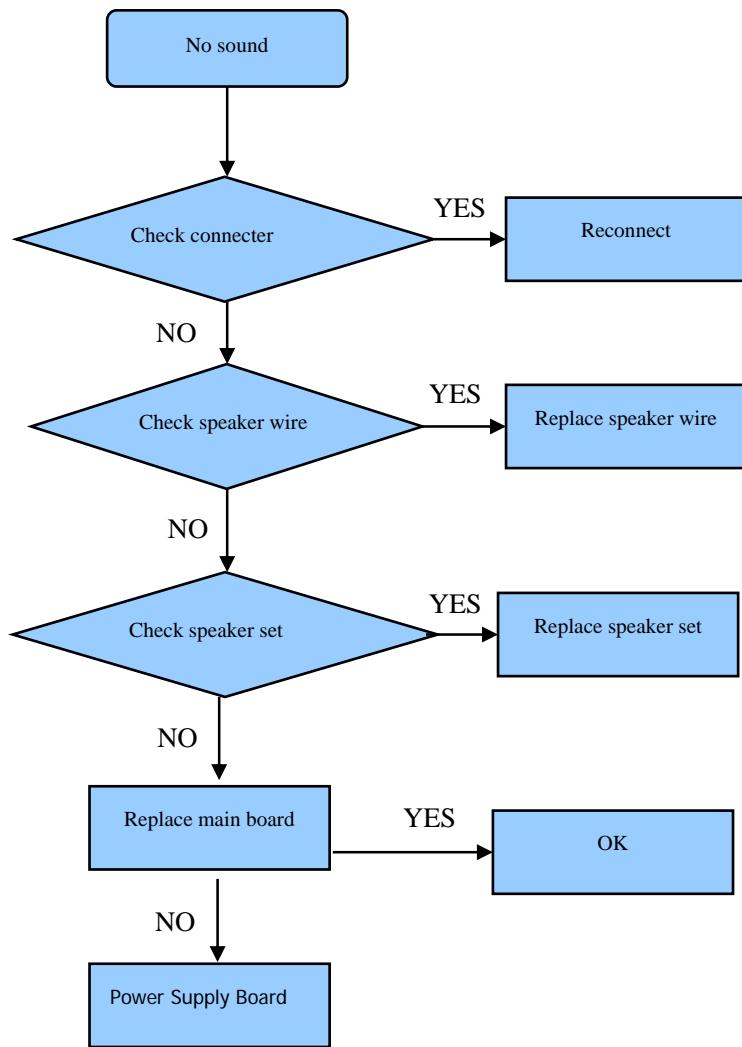
5.3 TV won't Power On



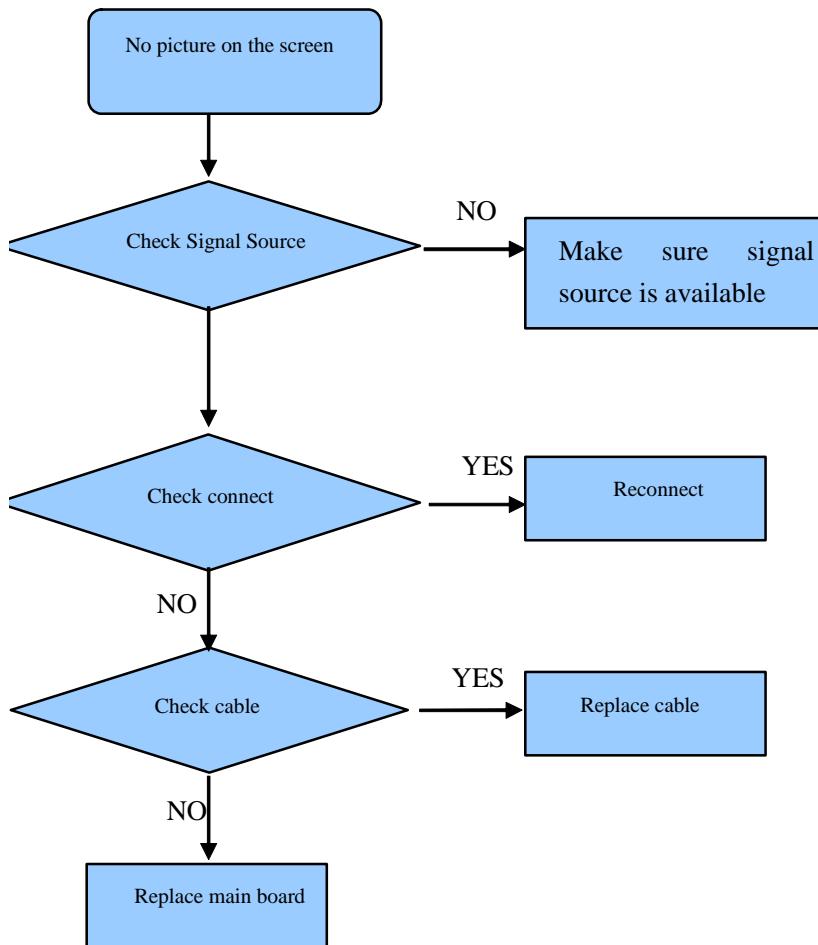
Note:

Above the indicated led color is only for standby is red , normal is blue.

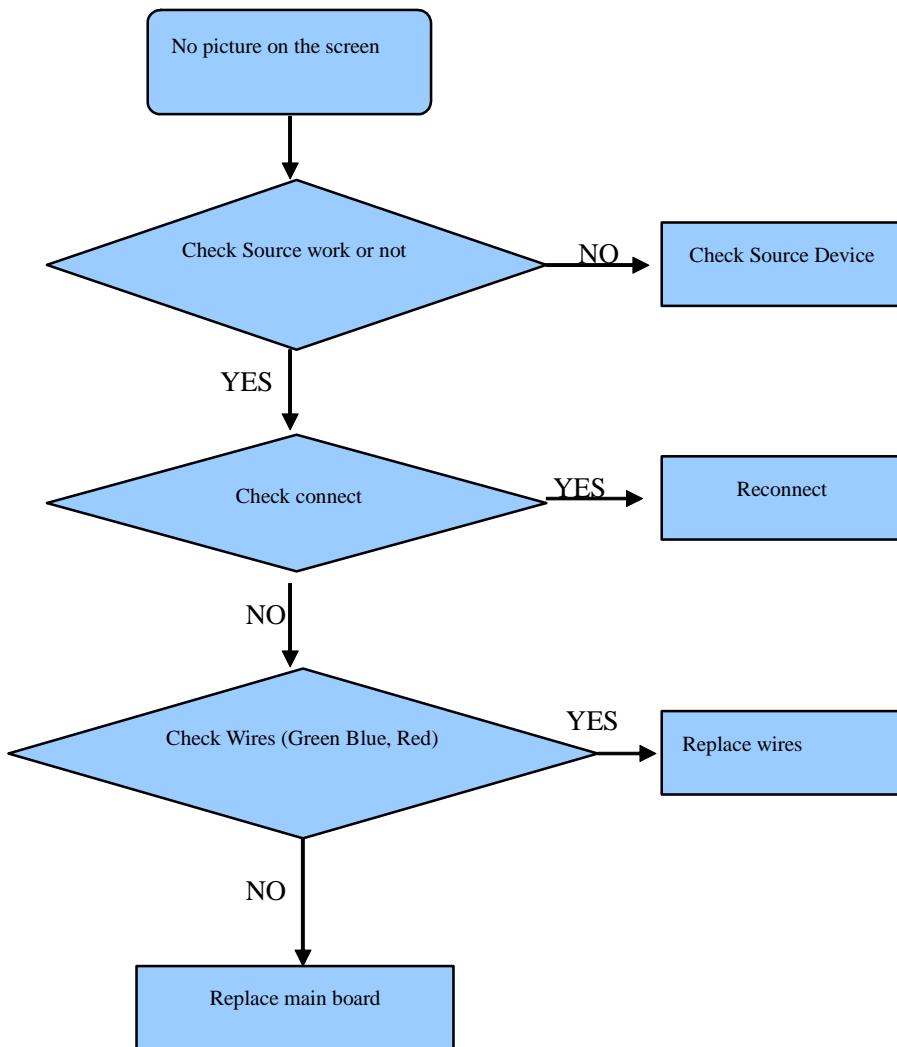
5.4 Troubleshooting for Audio



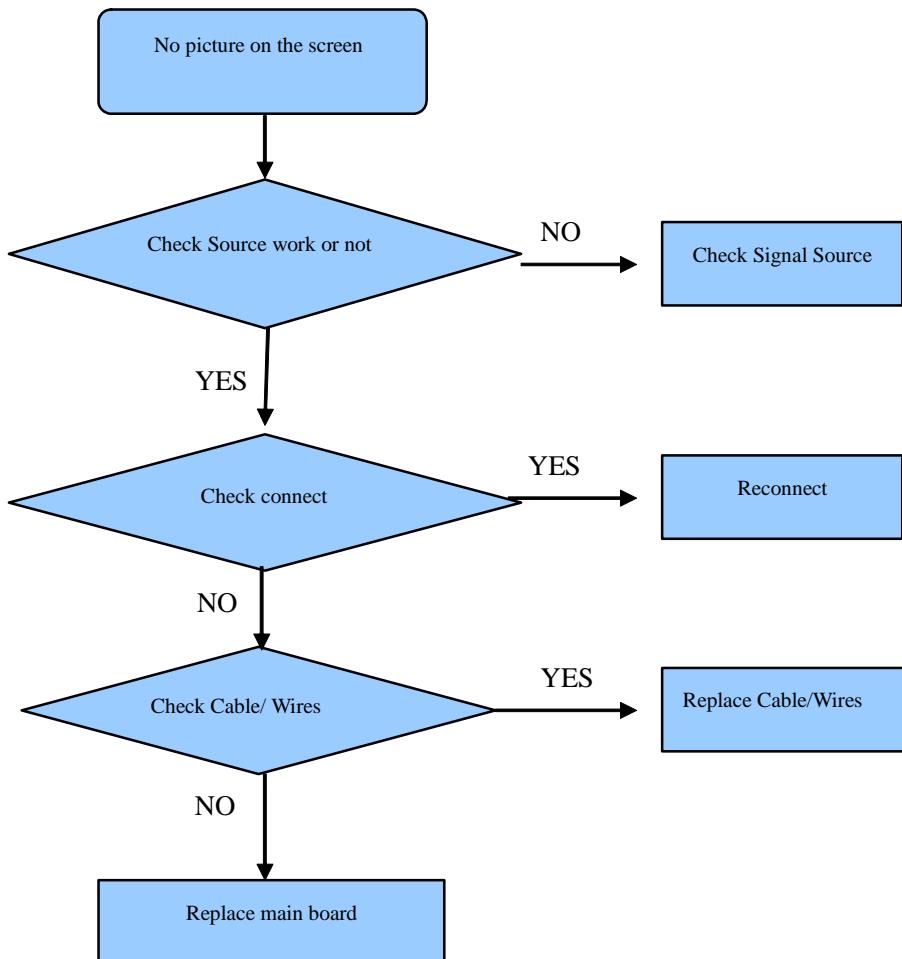
5.5 Troubleshooting for TV/VGA/HDMI input



5.6 Troubleshooting for YPbPr input



5.7 Troubleshooting for Video input

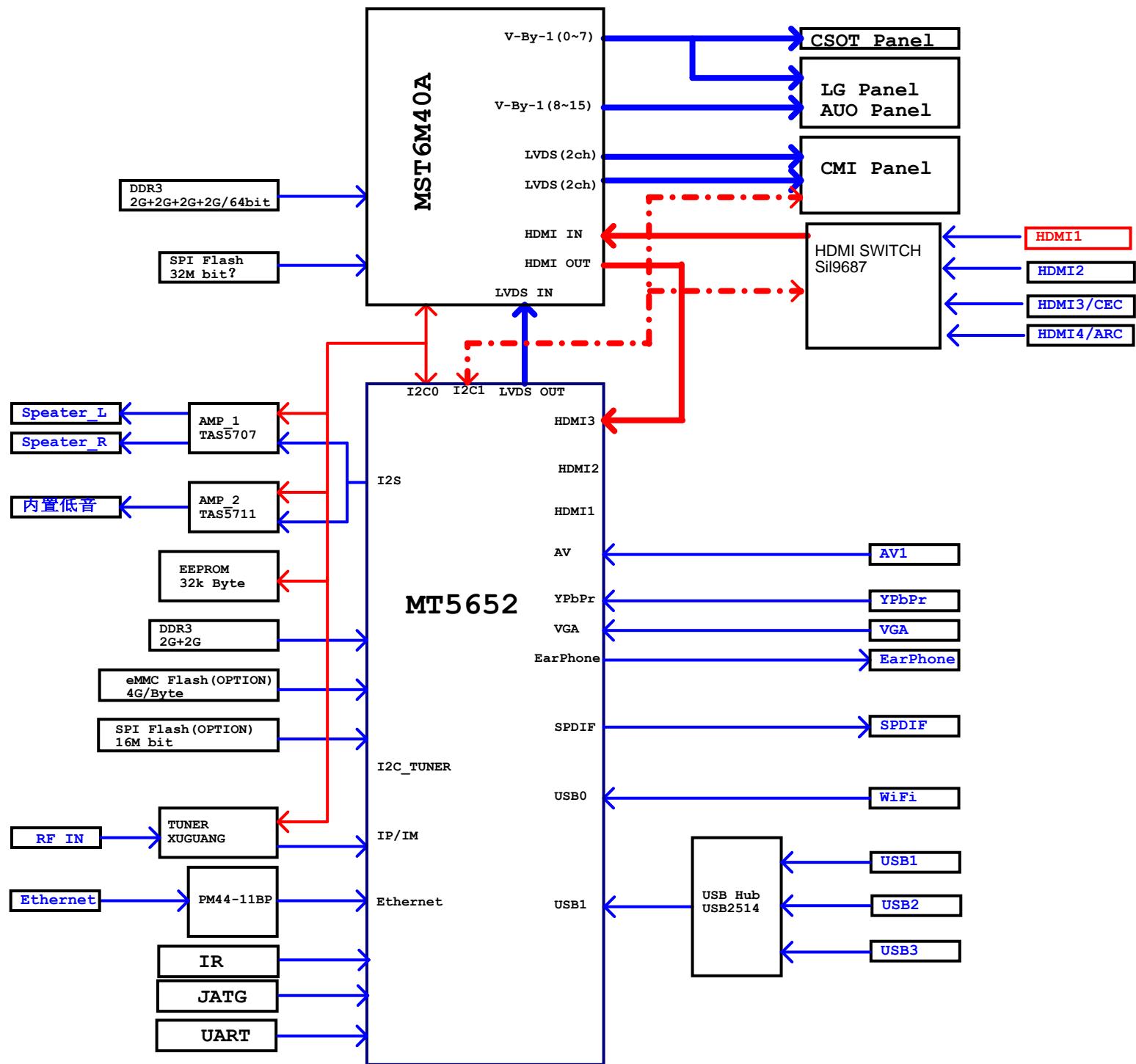


6. Signals Block Diagram and power assign:

(The next page)

7. Schematic circuit diagram

8. Explode View



MT5652

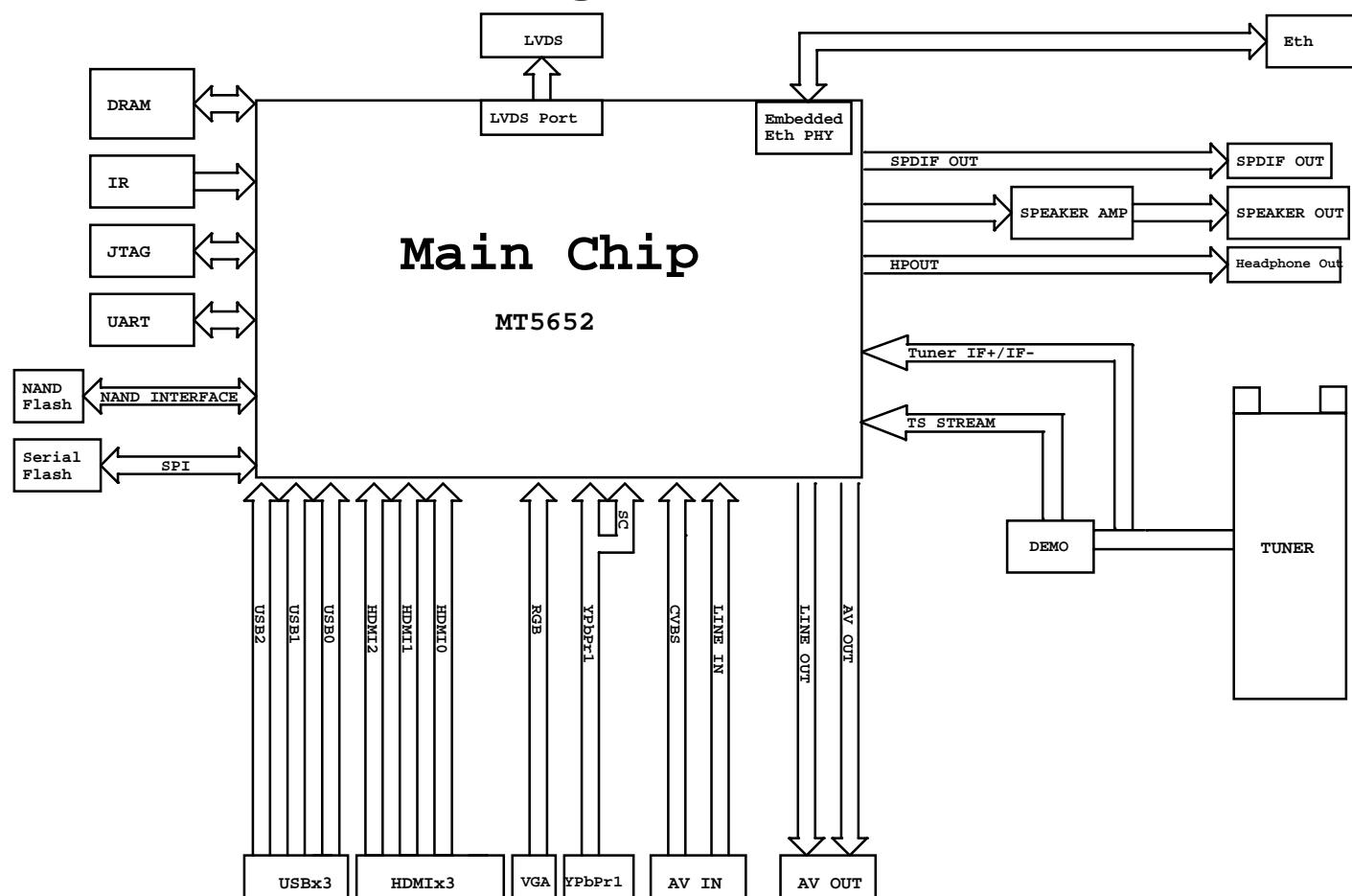
GPIO LIST

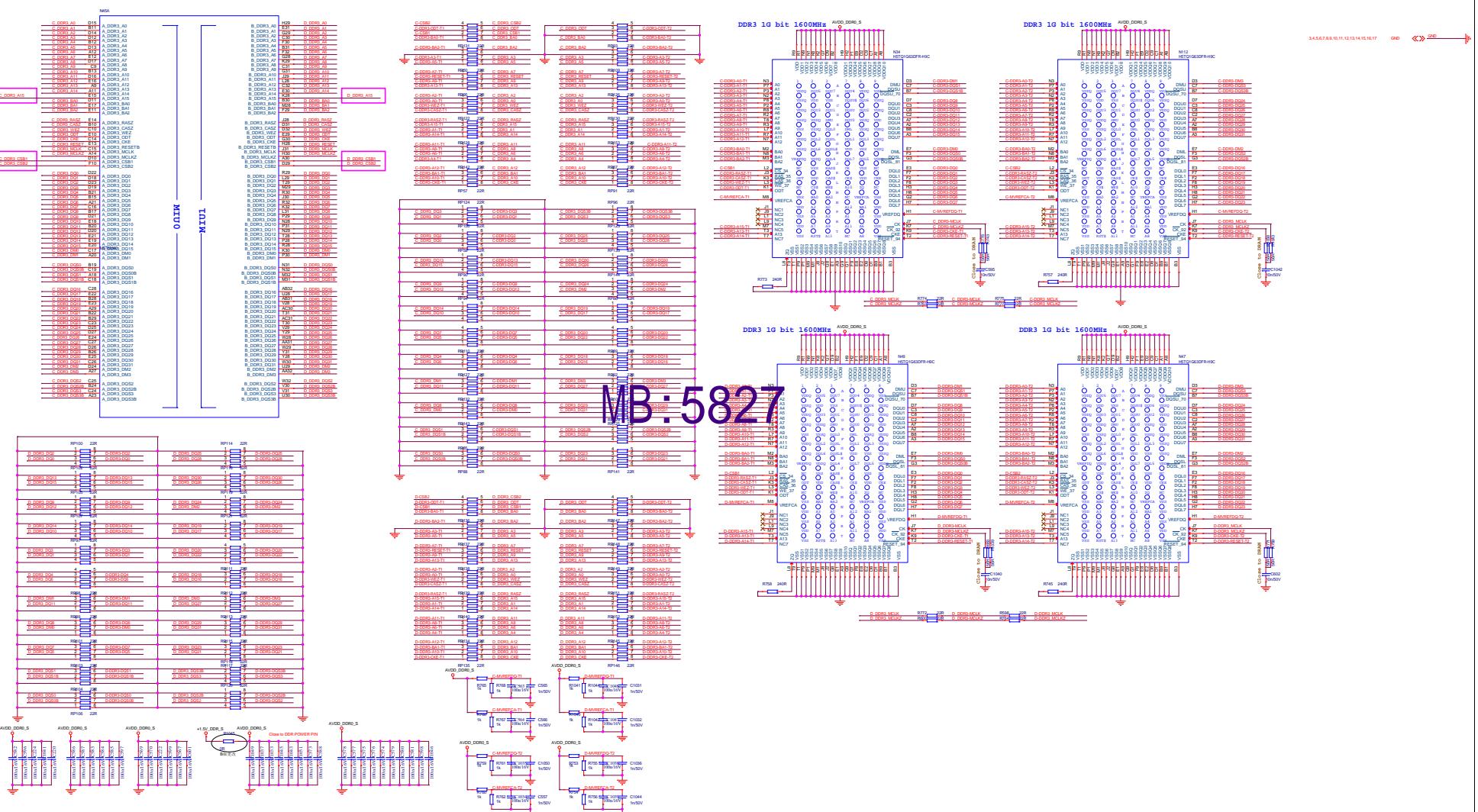
PIN NAME	GPIO Function	Function define
GPIO_0		LOCAL_DIM_EN
GPIO_1		TUNER_SW
GPIO_2		LVDS_PWR_EN
GPIO_3		EMMC_RST
GPIO_4		Demod_RST#
GPIO_5		not used
GPIO_6		3D_EN
GPIO_7		3D相关
GPIO_8		3D相关
GPIO_9		3D_OUT
GPIO_10		HPEDET#
GPIO_11		SYS_EEPROM_WP

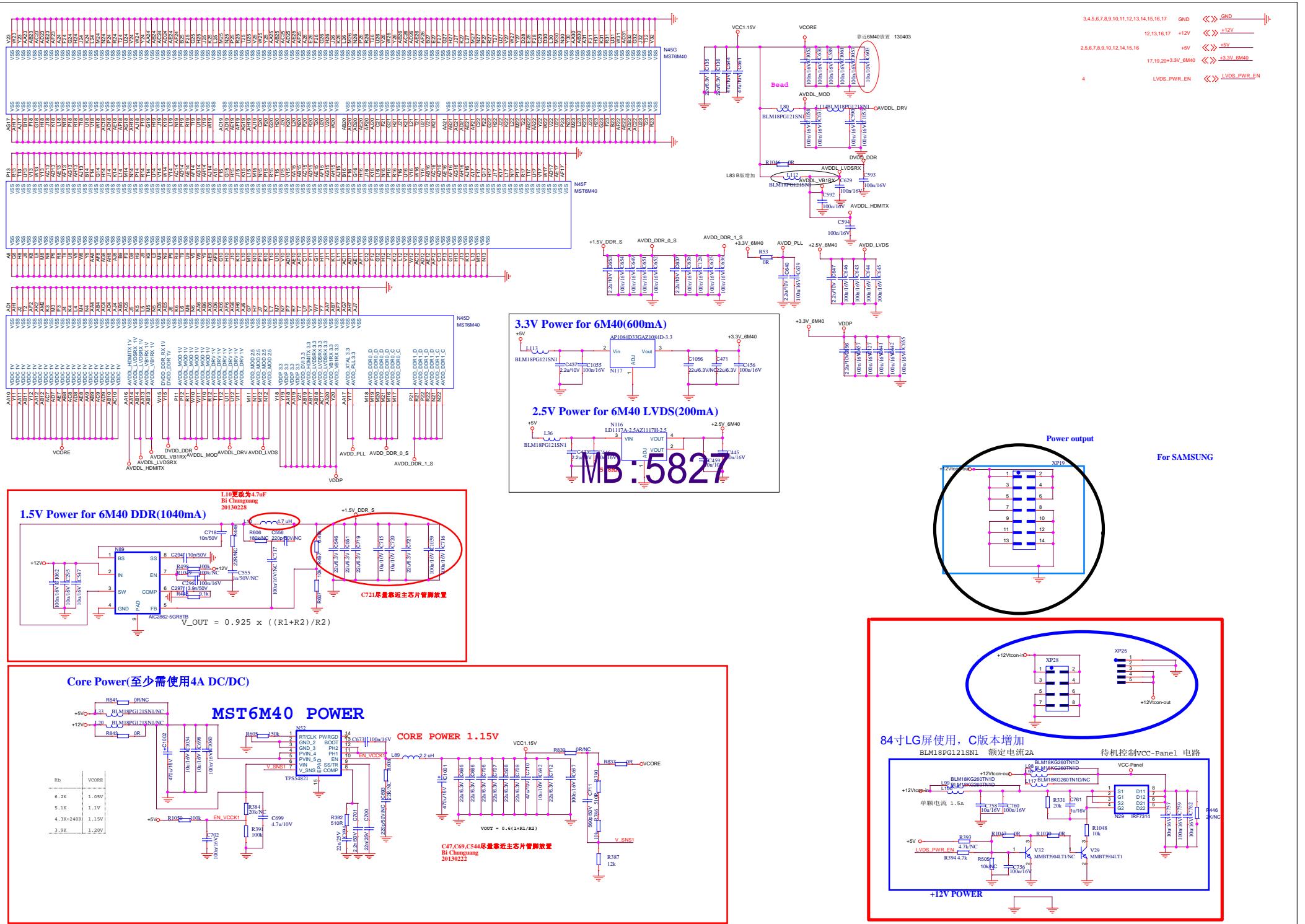
ADIN0	SCART_FS_SEL
ADIN1	通过10k接地,未使用
ADIN2	ADINO
ADIN3	ADIN1
ADIN4	LED_DX
ADIN5	POWER_LED
OPCTRL0	FLASH写保护控制
OPCTRL1	BL_ON/OFF
OPCTRL2	AMP_MUTE
OPCTRL3	strap[2]
OPCTRL4	strap[3] RST_AMP
OPWM0	WIFI_EN
OPWM1	MEMC_ON/OFF
OPWM2	BL_DIMMING
OPWM3	MUTE_HP
OPWM4	3D_CTRL
OPWM5	LED2/PHYAD2
OPWM6	LED3/PHYAD3
PACLE	strap[0]
CIGPIO0	RESERVED LVDS预留

CIGPIO15	TS1_OUT_CLK
CIGPIO16	TS1_OUT_VLD
CIGPIO17	TS1_OUT_SYNC
CIGPIO18	TS1_OUT_D0
CIGPIO19	TS1_OUT_D1
CIGPIO20	TS1_OUT_D2
CIGPIO21	TS1_OUT_D3
CIGPIO22	TS1_OUT_D4
CIGPIO23	TS1_OUT_D5
CIGPIO24	TS1_OUT_D6
CIGPIO25	TS1_OUT_D7

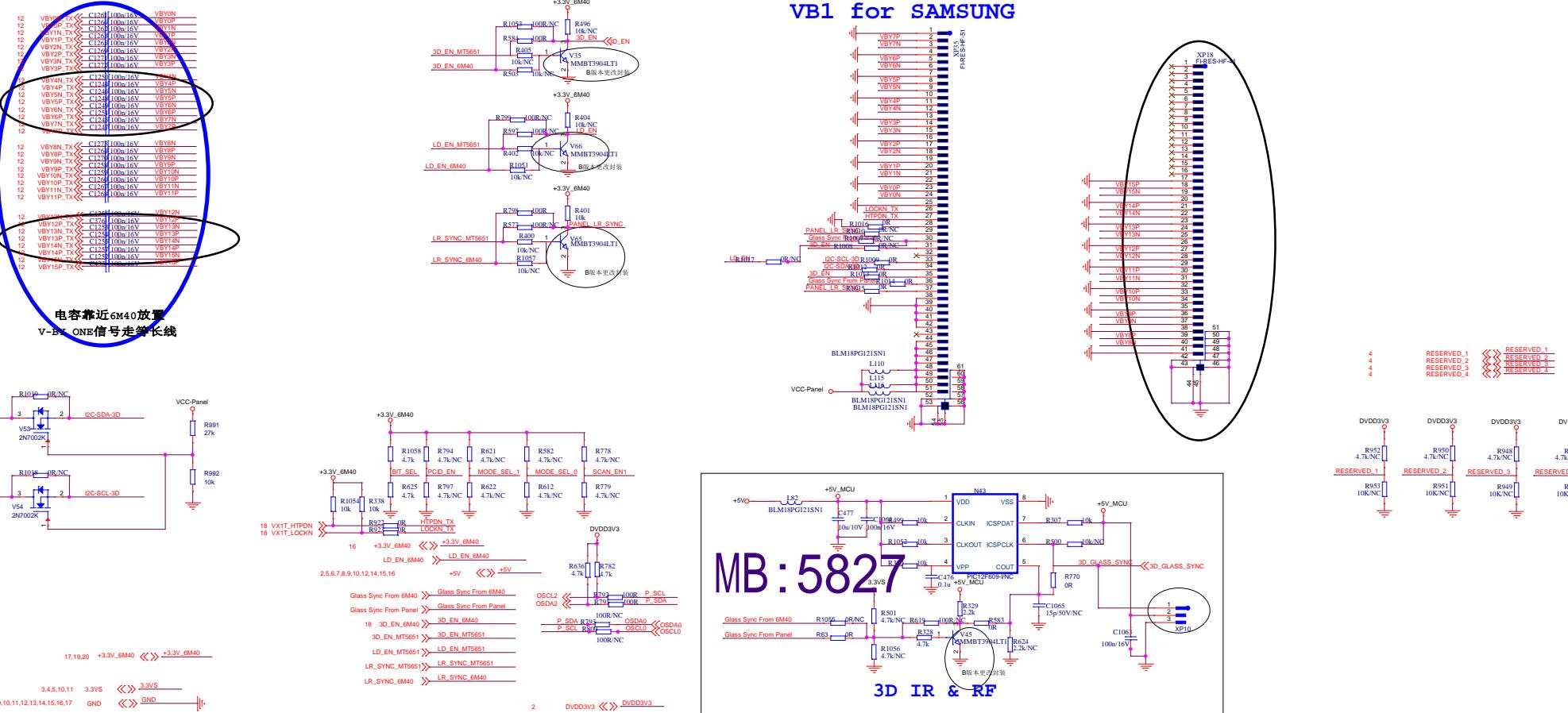
Block Diagram

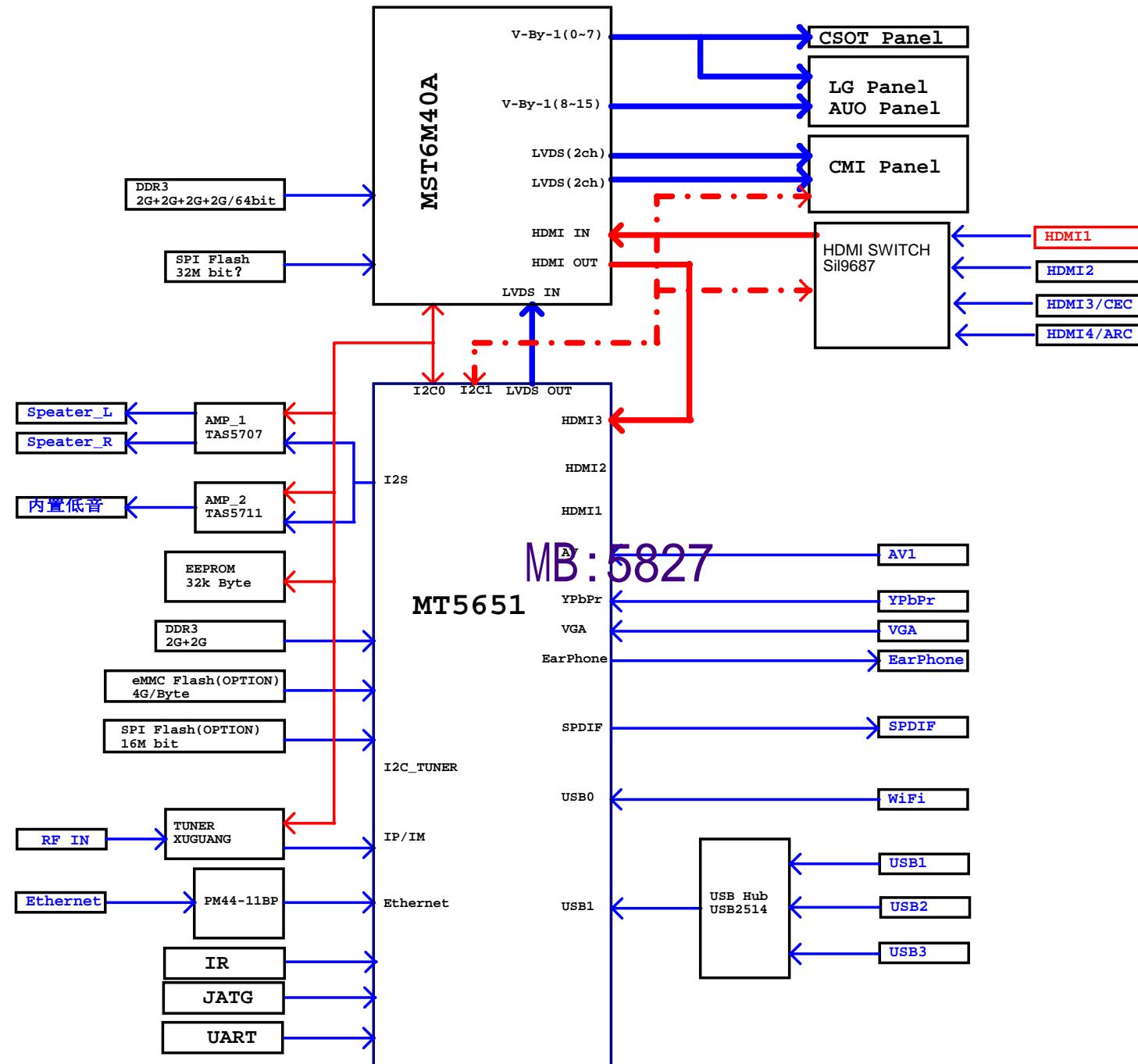


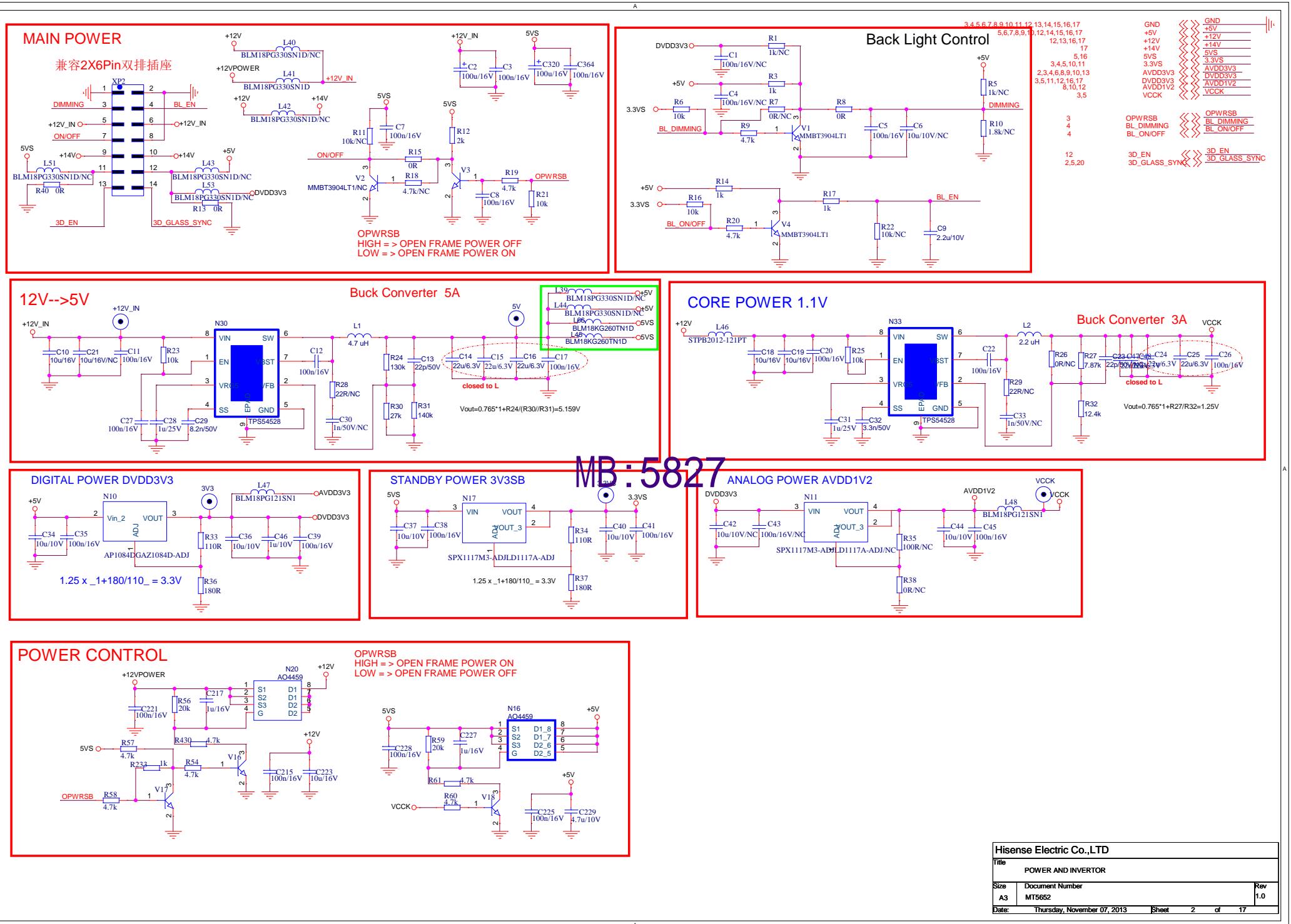


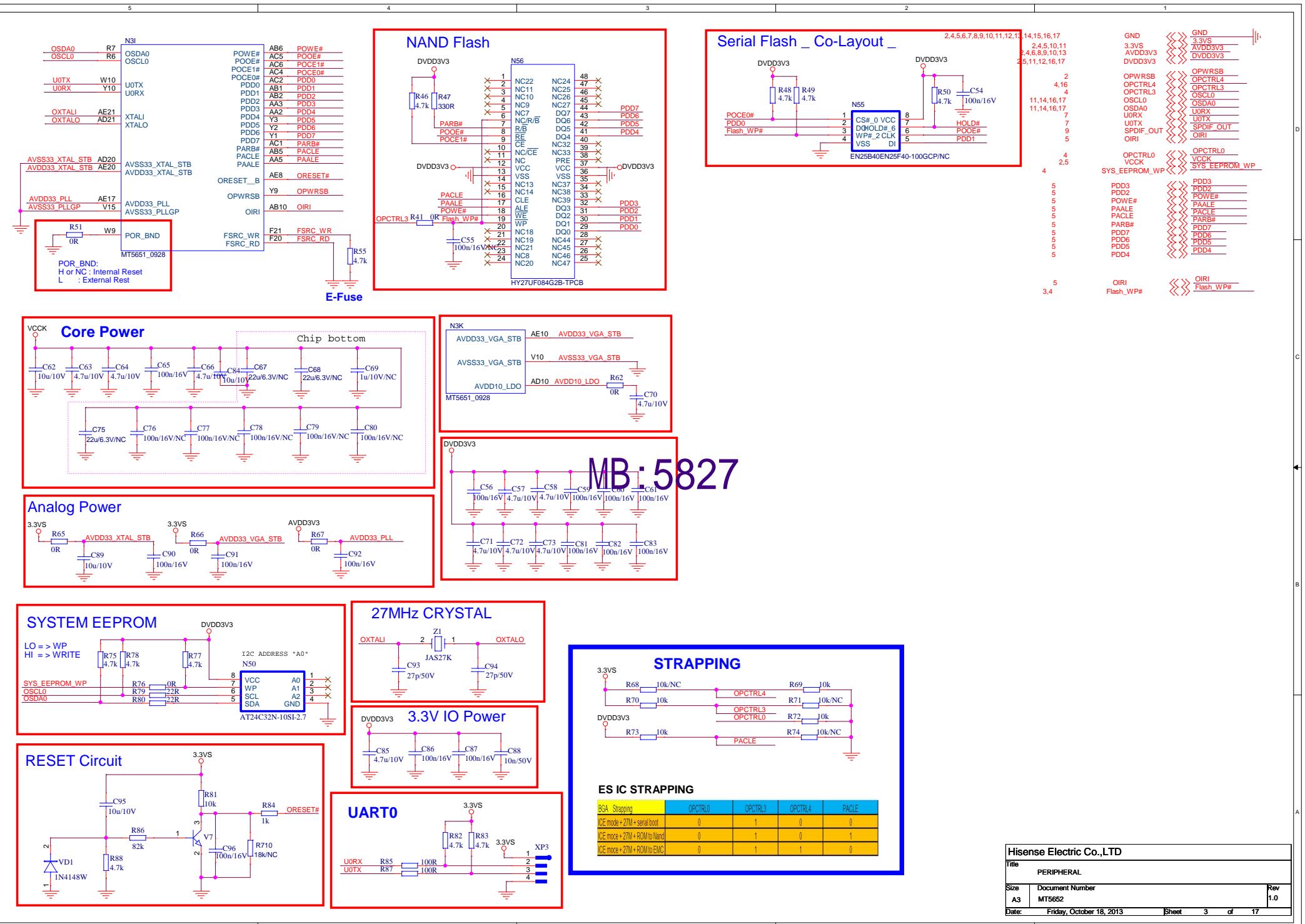


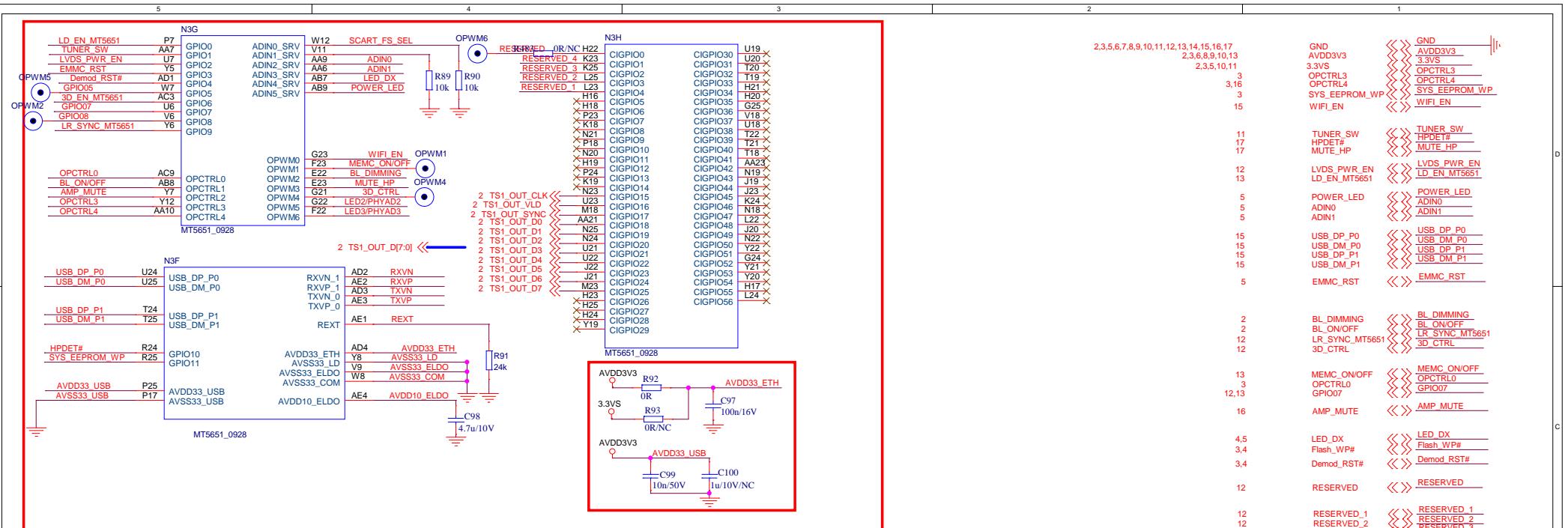
VB1 for SAMSUNG



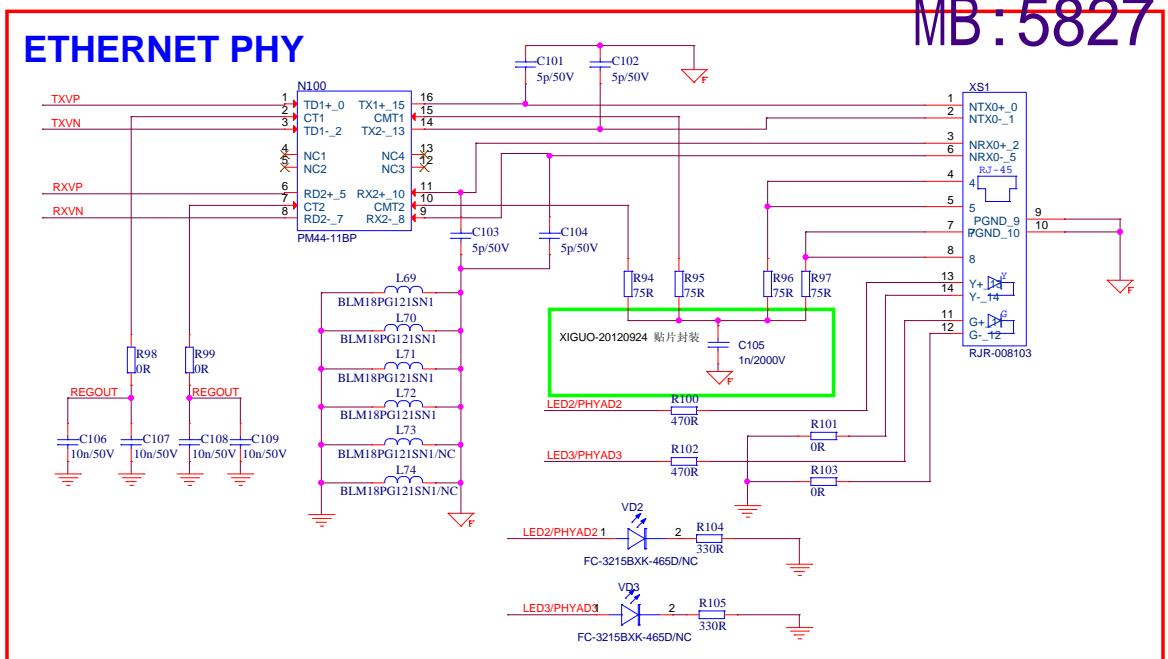








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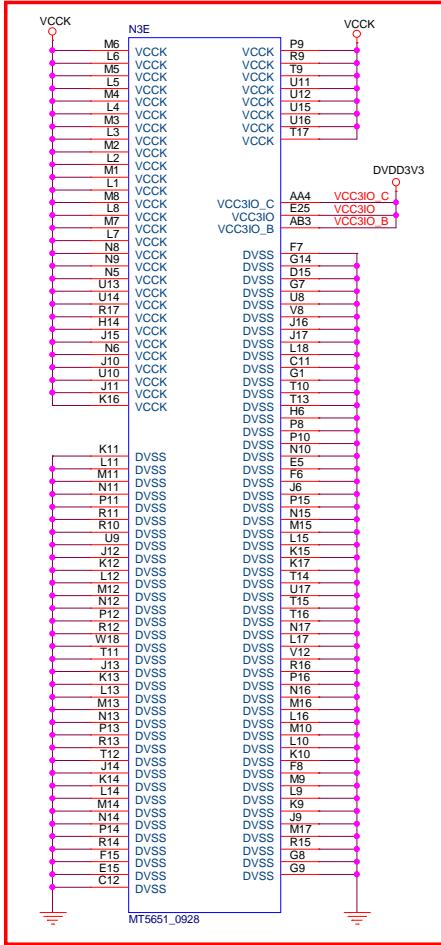


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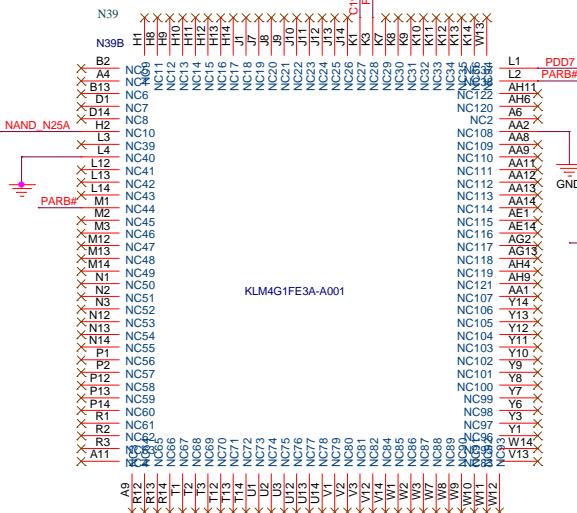
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Date: Thursday, November 07, 2013 Sheet: 4 of 17

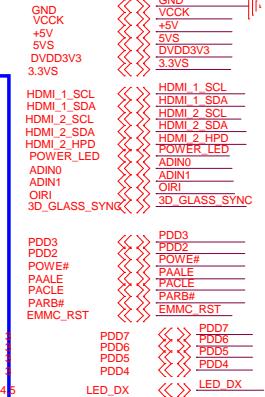
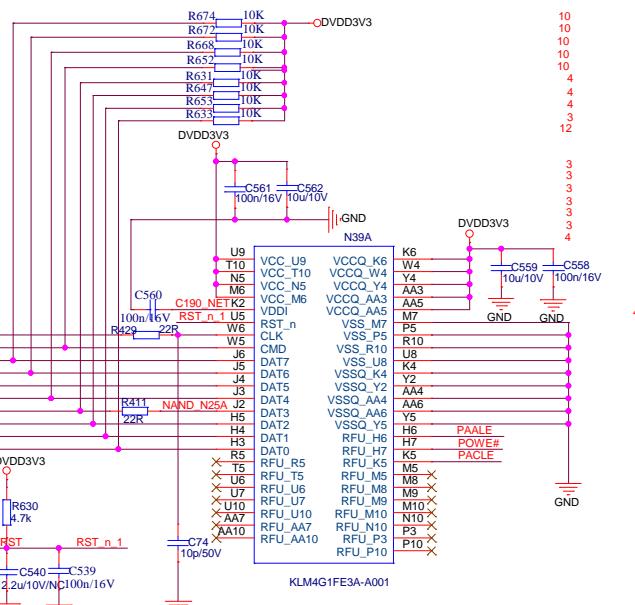
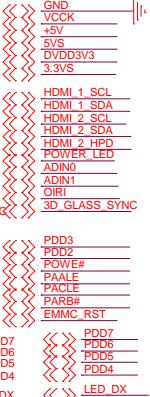


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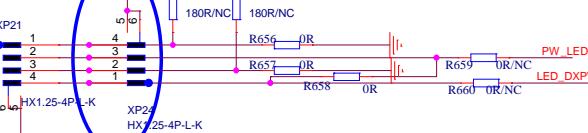
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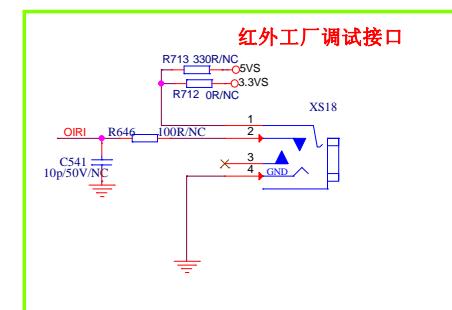
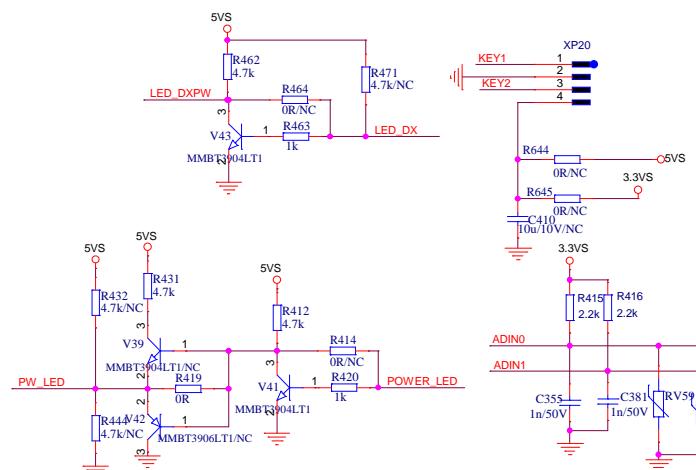
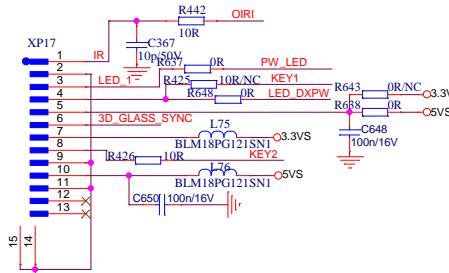
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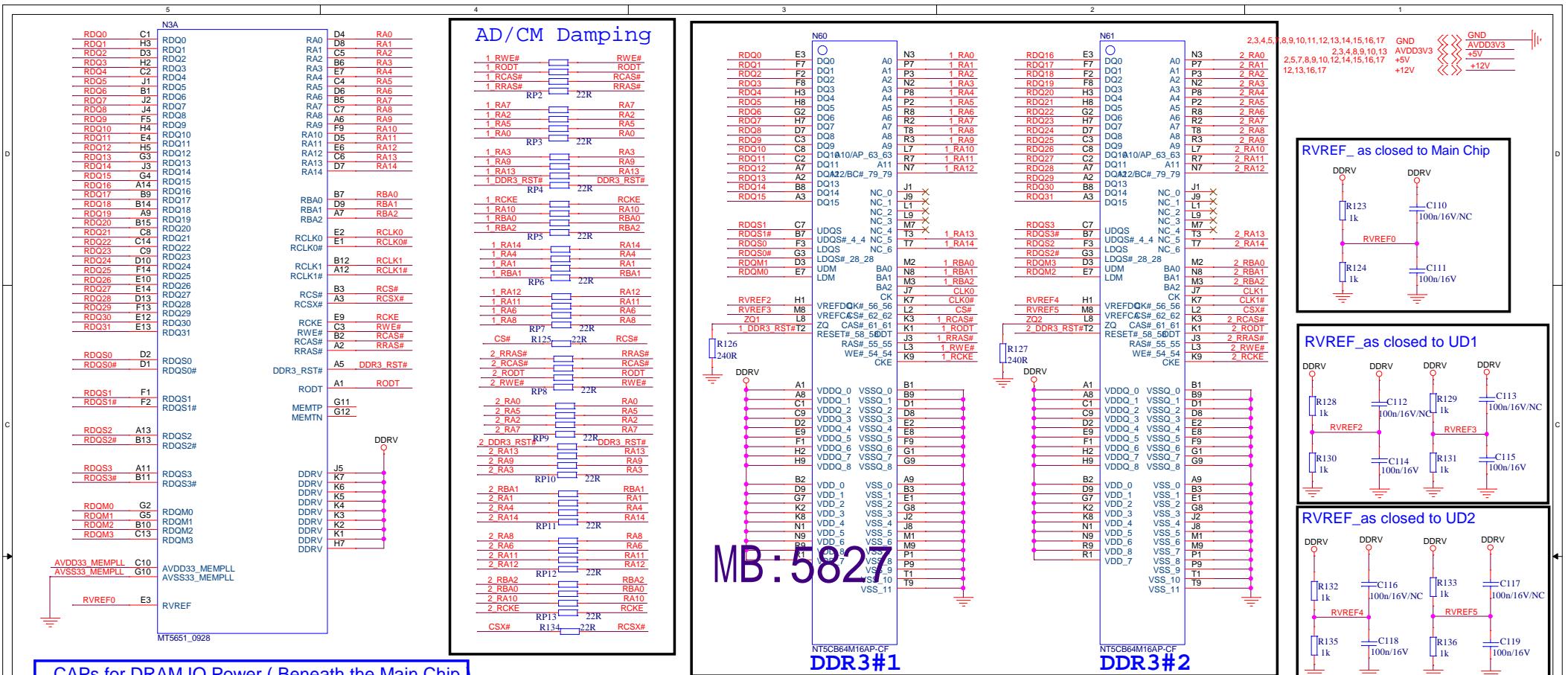


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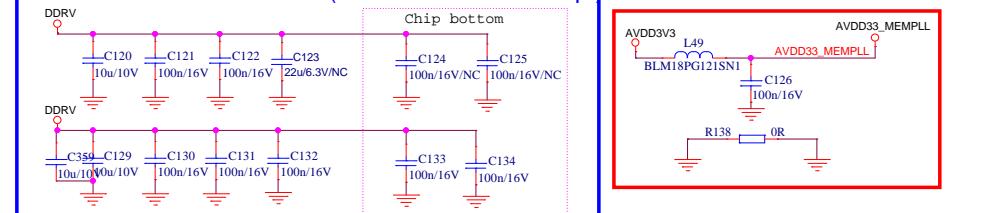


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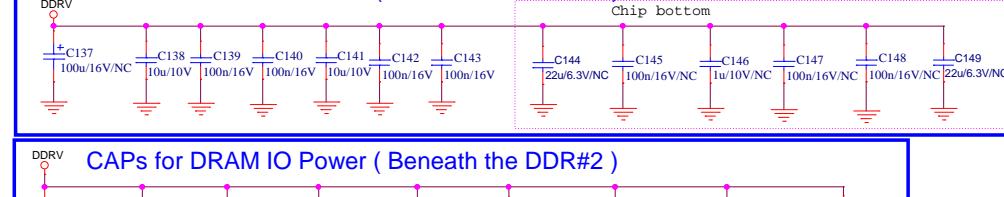




CAPs for DRAM IO Power (Beneath the Main Chip)



CAPs for DRAM IO Power (Beneath the DDR#1)



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DRAM X2

Size

A3

Document Number

MT5652

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Date:

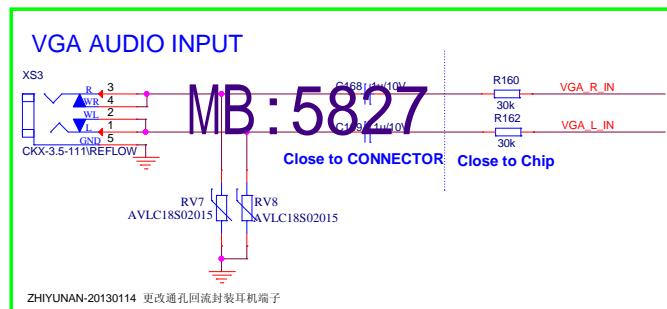
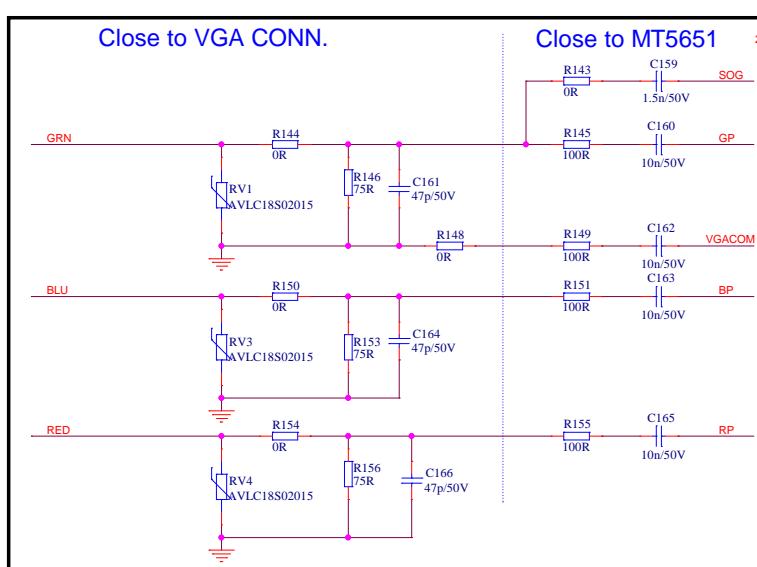
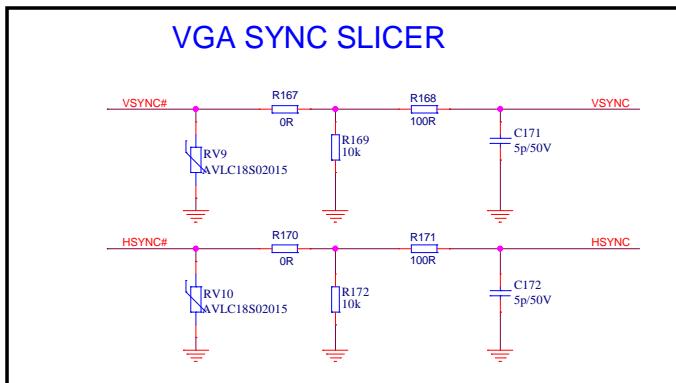
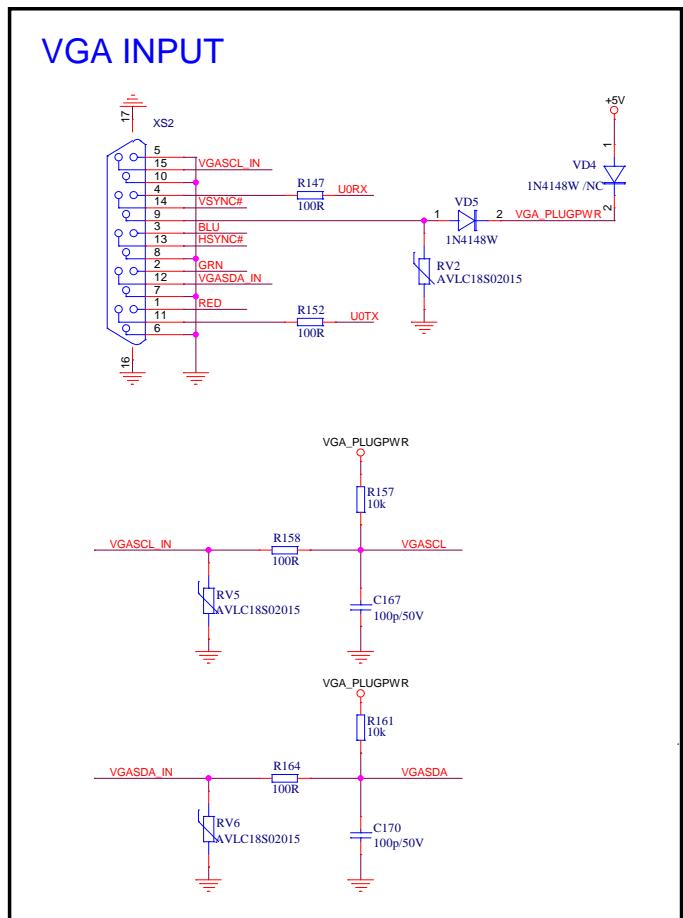
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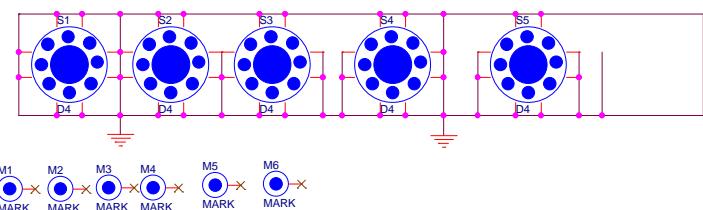
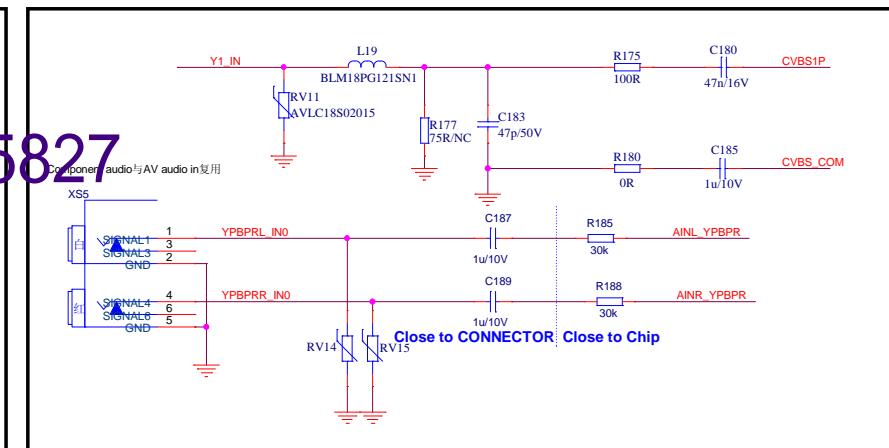
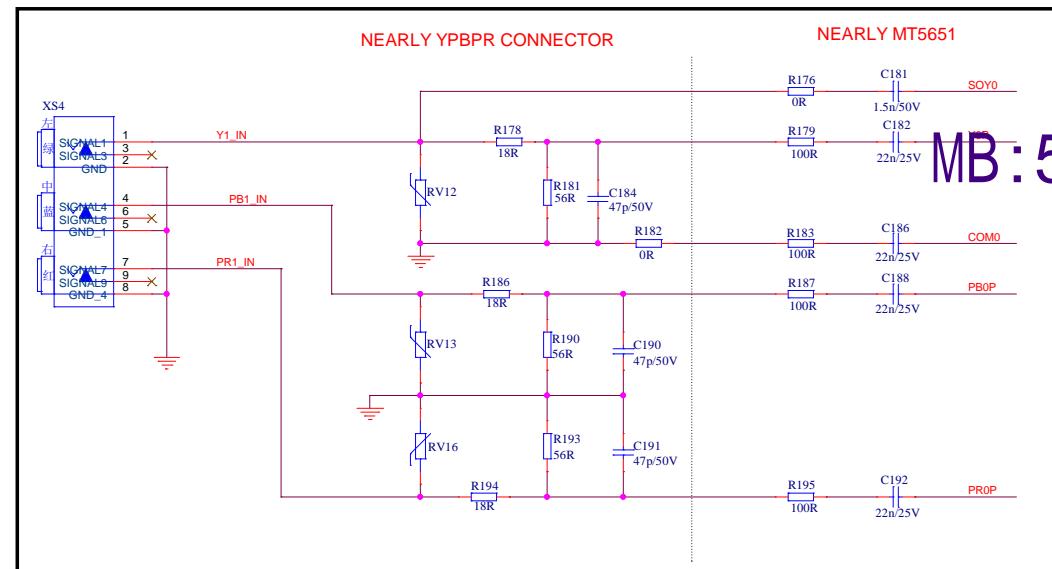
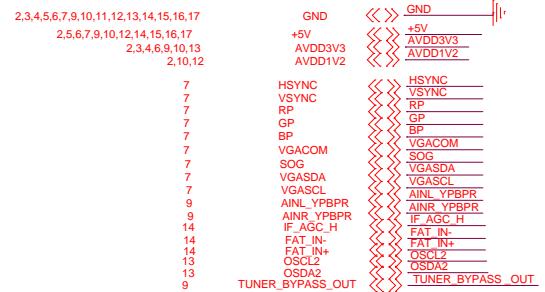
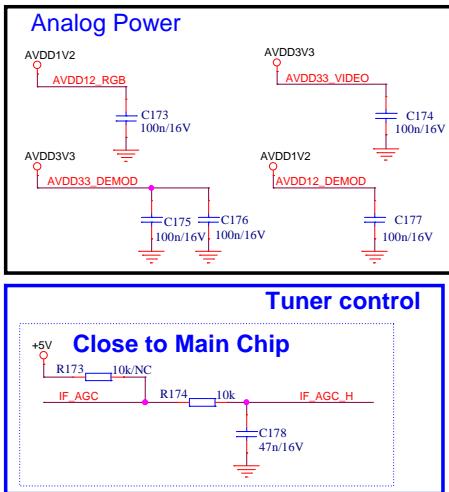
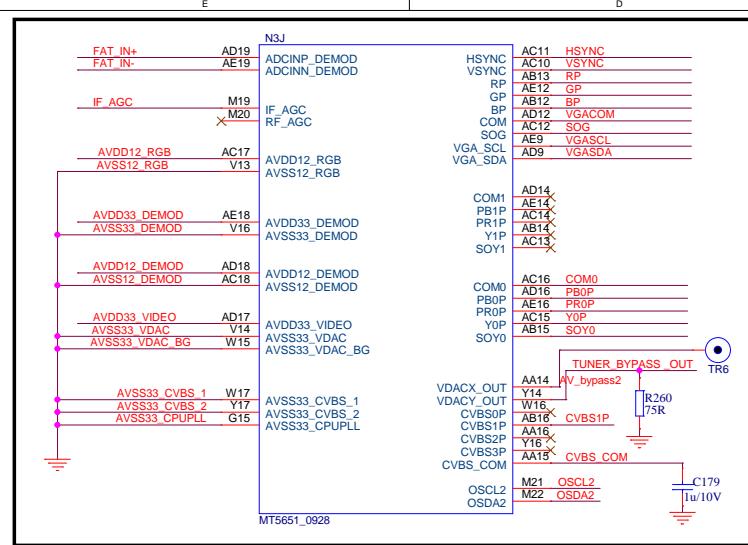
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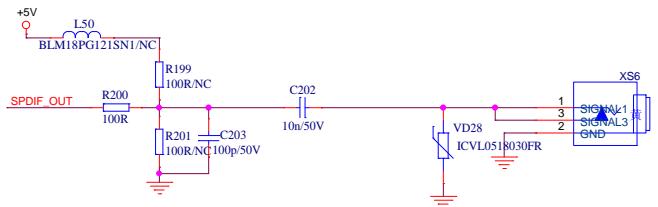
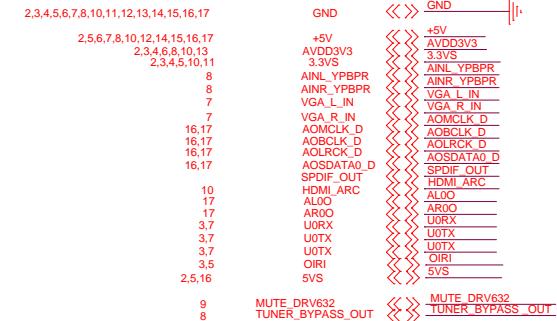
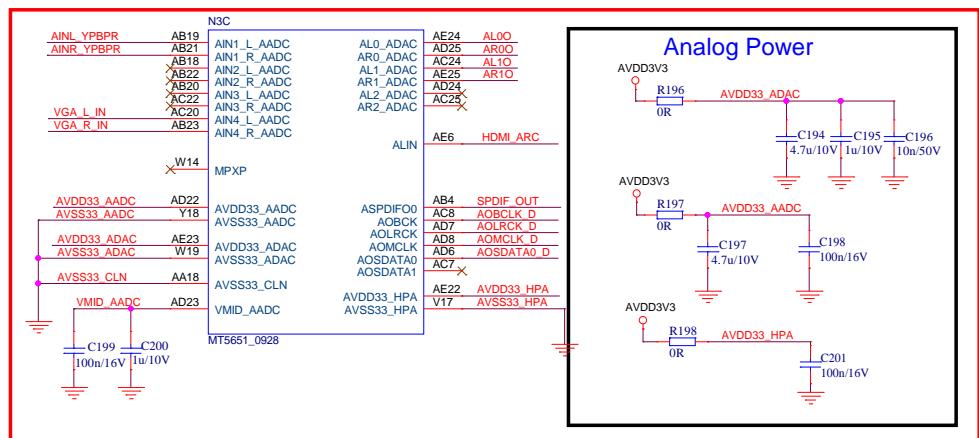
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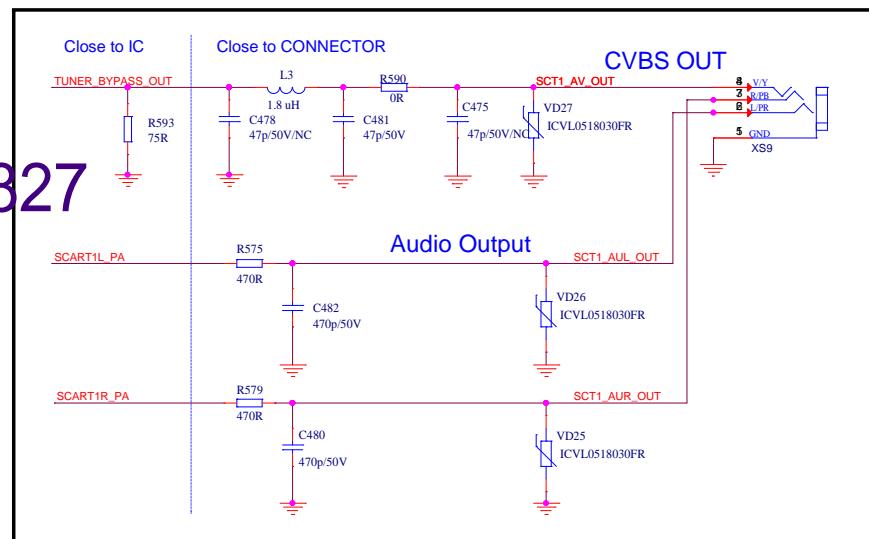
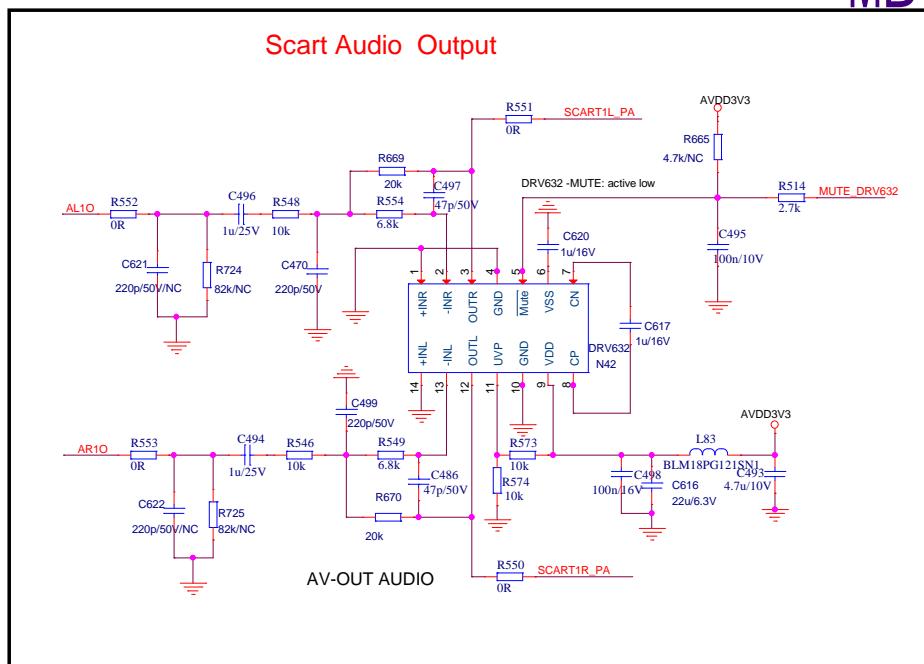


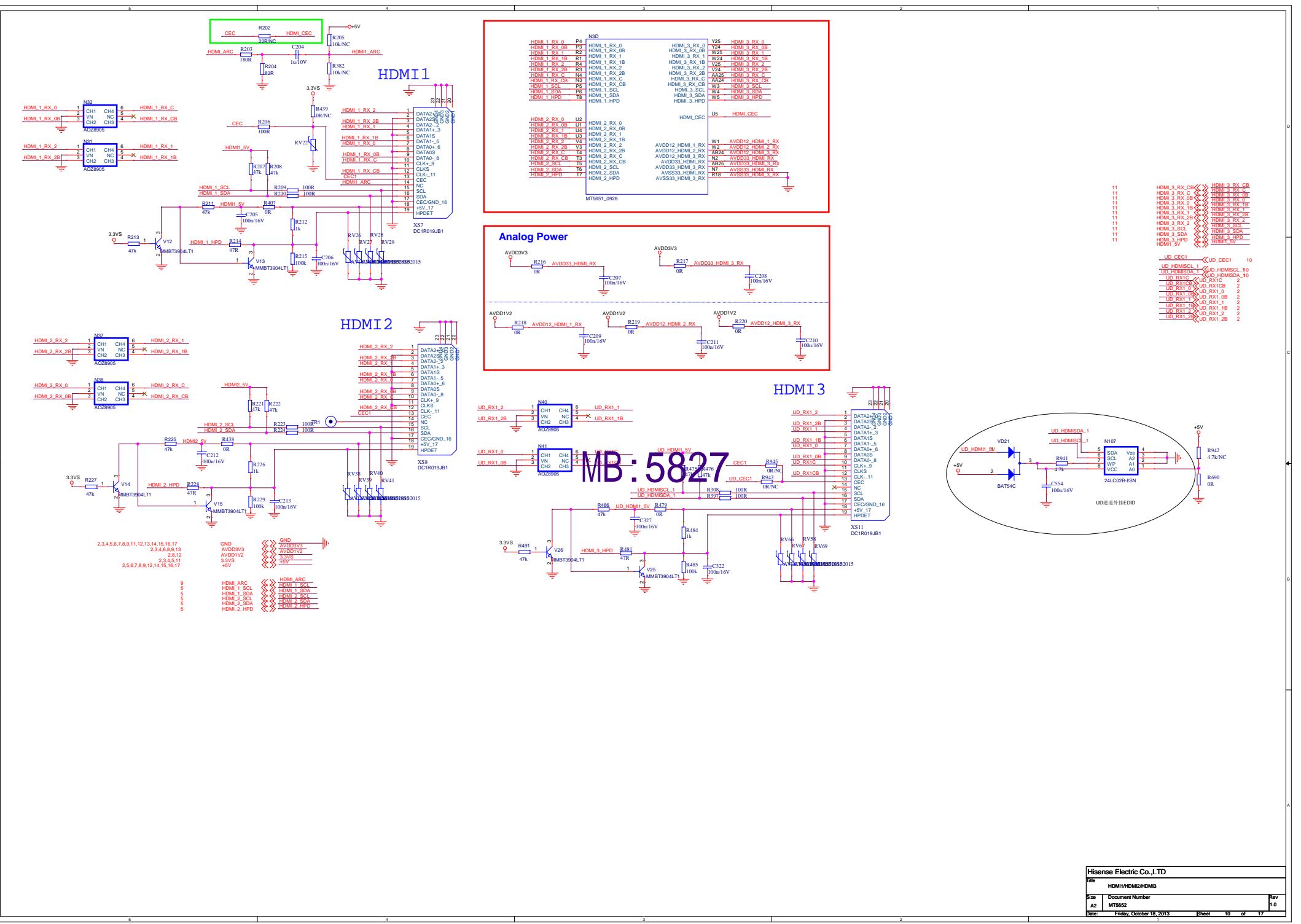


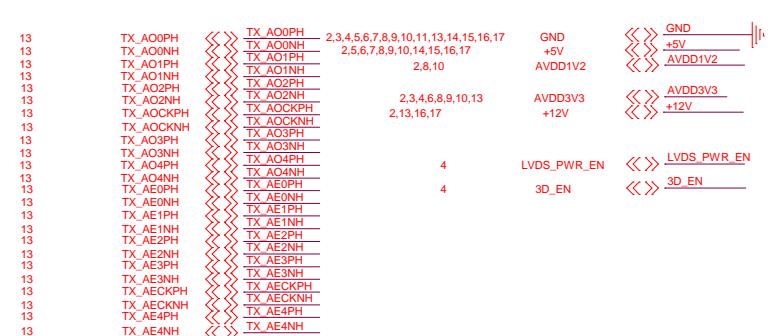
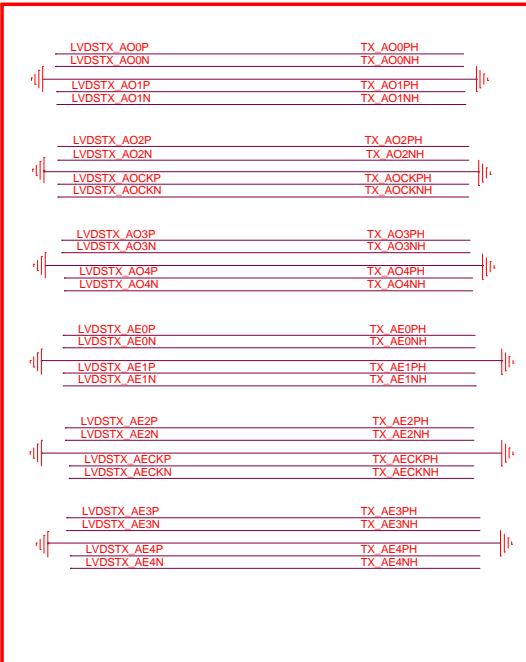
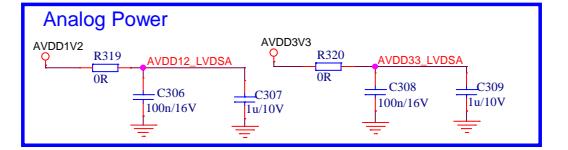
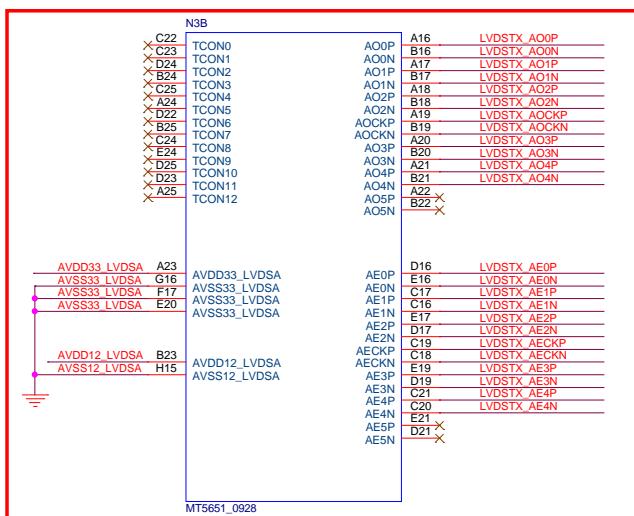
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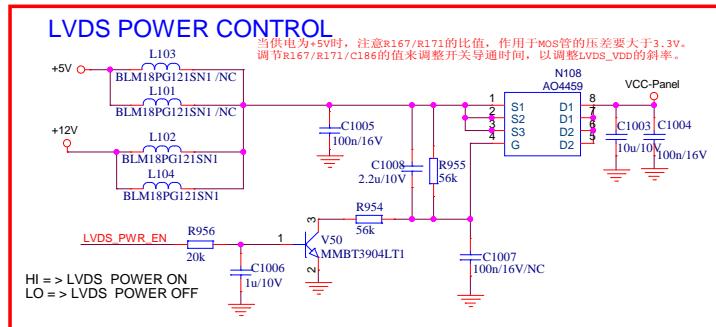
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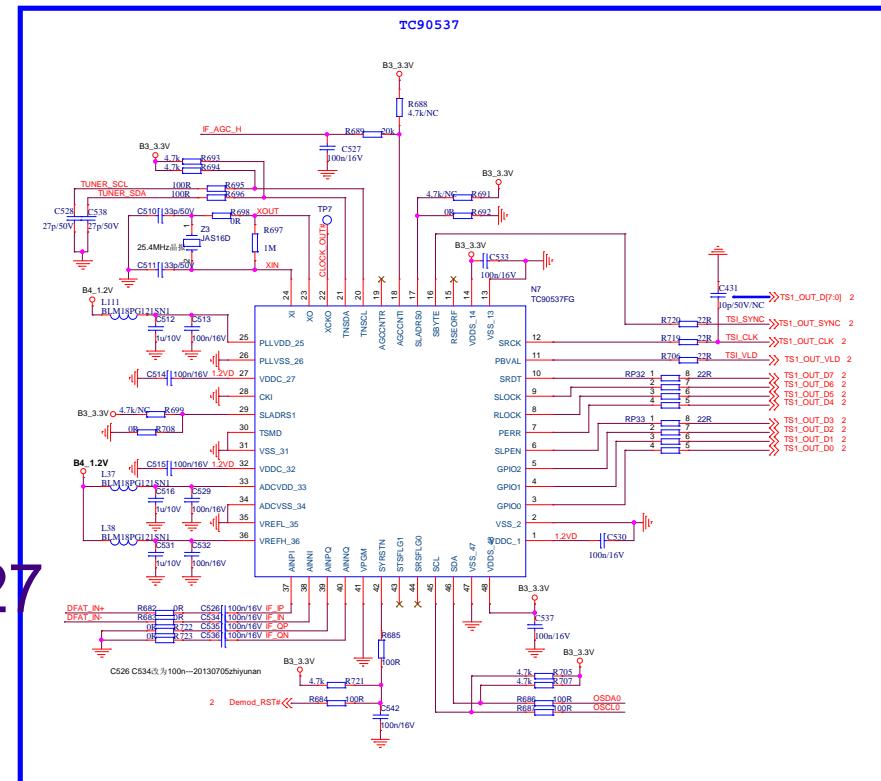
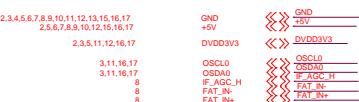
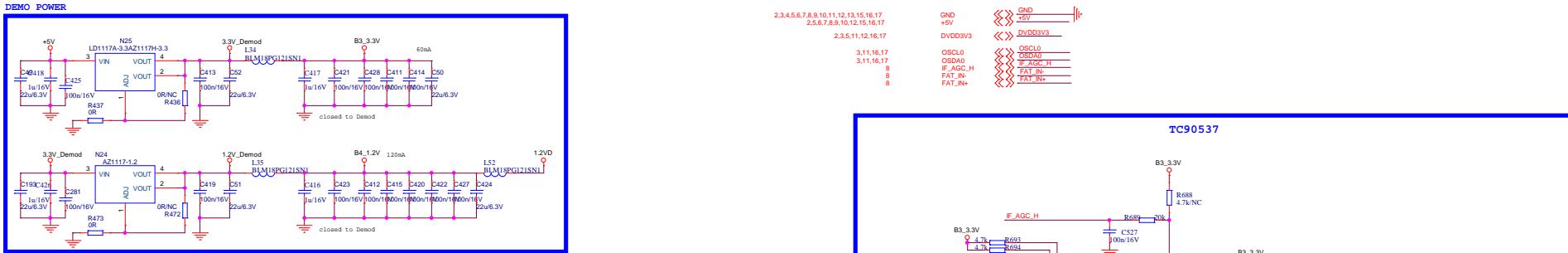




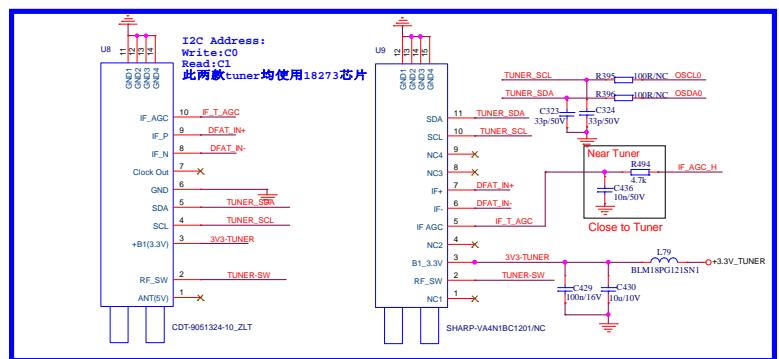
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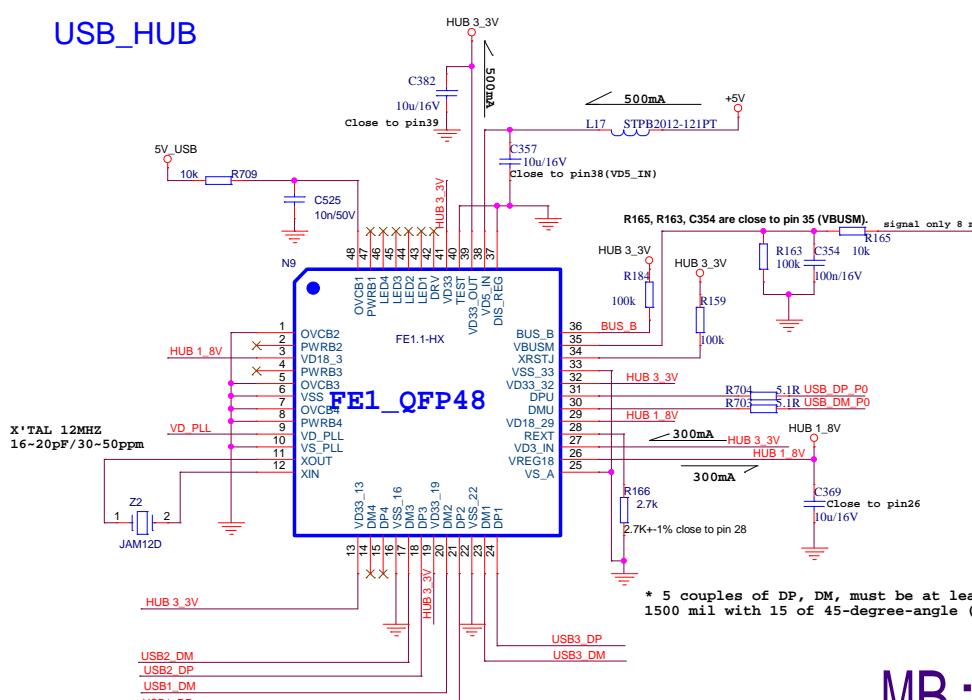
Hisense Electric Co.,LTD		
Title		
LVDS POWER CONTROL		
Size	Document Number	Rev
A3	MT5652	1.0
Date: Thursday, October 31, 2013 Sheet 11 of 17		



MB:5827

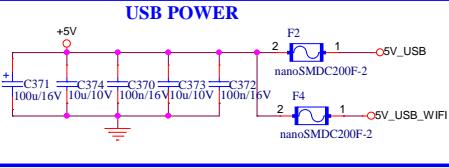


USB_HUB



2.3,4,5,6,7,8,9,10,11,12,13,14,16,17
2.5,6,7,8,9,10,12,14,16,17
2.3,5,11,12,16,17

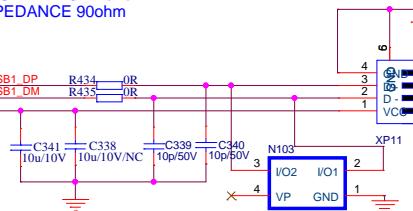
GND
+5V
DVDD3V3
USB_DP_P0
USB_DM_P0
USB_DP_P1
USB_DM_P1
WIFI_EN



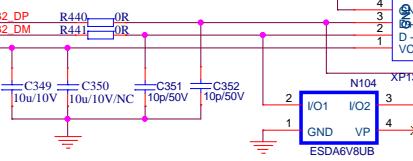
Near Connector

EQUAL LENGTH and DIFFERENTIAL IMPEDANCE 90ohm

USB PORT 1

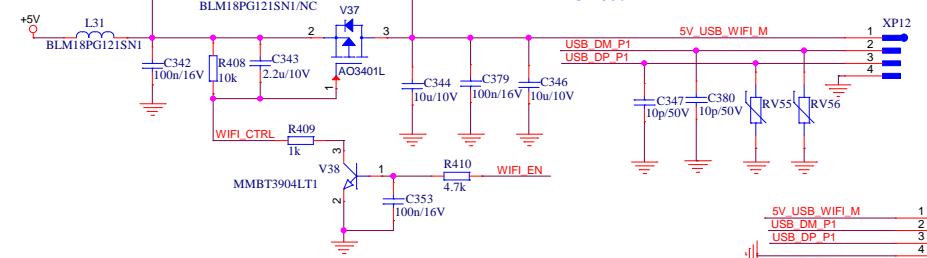


USB PORT 2



WIFI

EQUAL LENGTH and DIFFERENTIAL IMPEDANCE 90ohm

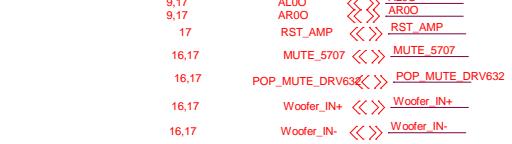
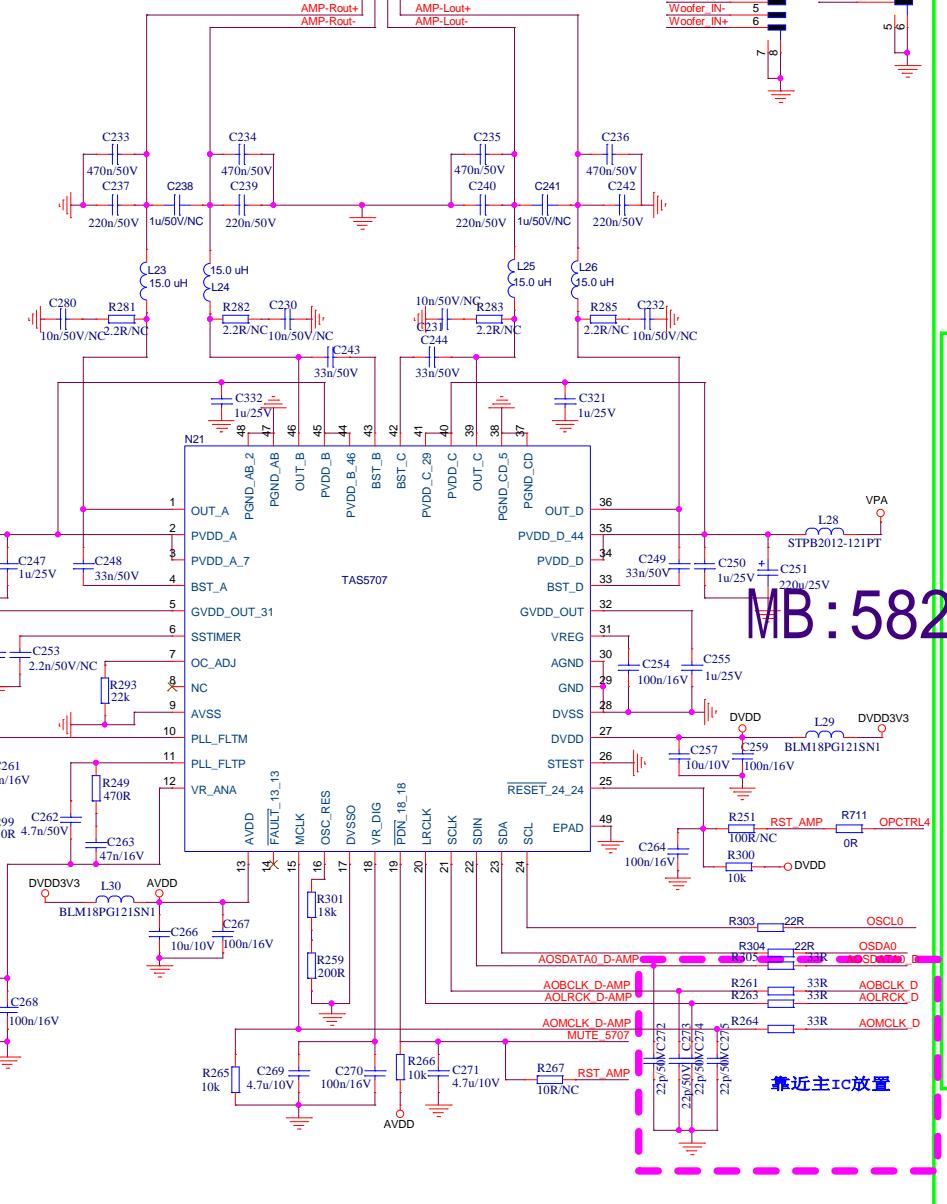


Hisense Electric Co., LTD

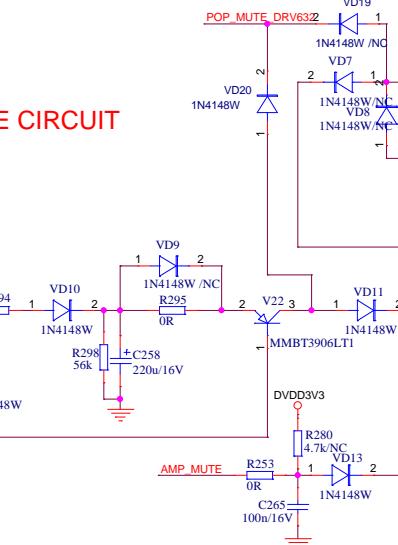
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A3		MT5652	1.0
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SPEAKER Amplifier

I2C Address
= 0x6A



MTUE CIRCUIT

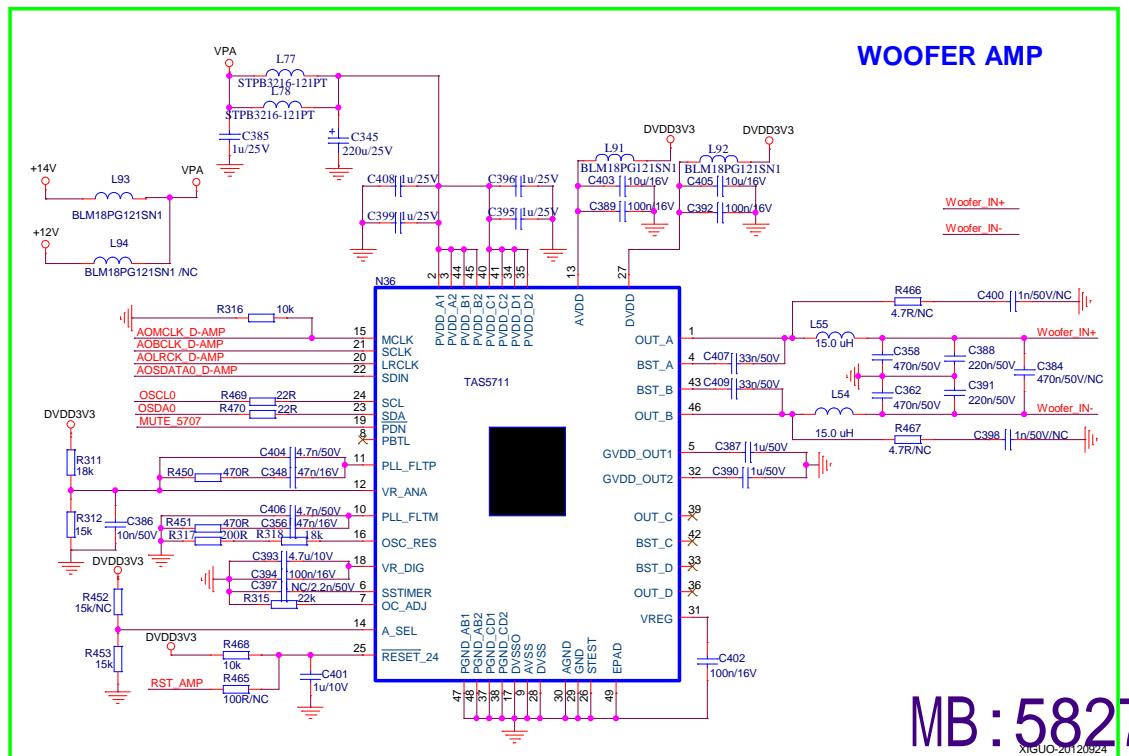


AOMCLK_D-AMP
AOBCLK_D-AMP
AOLRK_D-AMP
AOSDATA0_D-AMP

Hisense Electric Co., LTD

Title		SPEAKER/MUTE
Size	Document Number	Rev
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WOOFER AMP

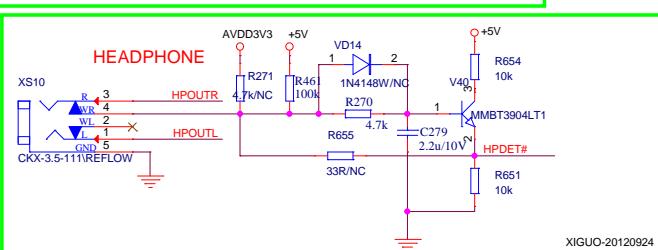
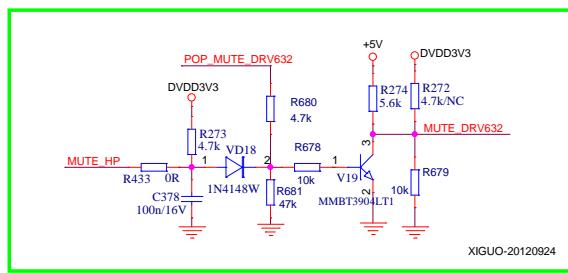
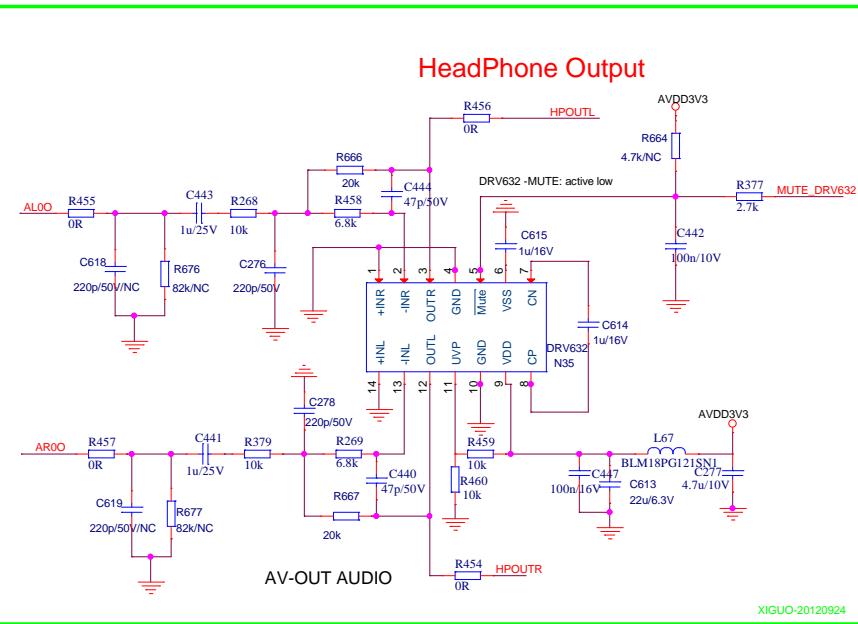


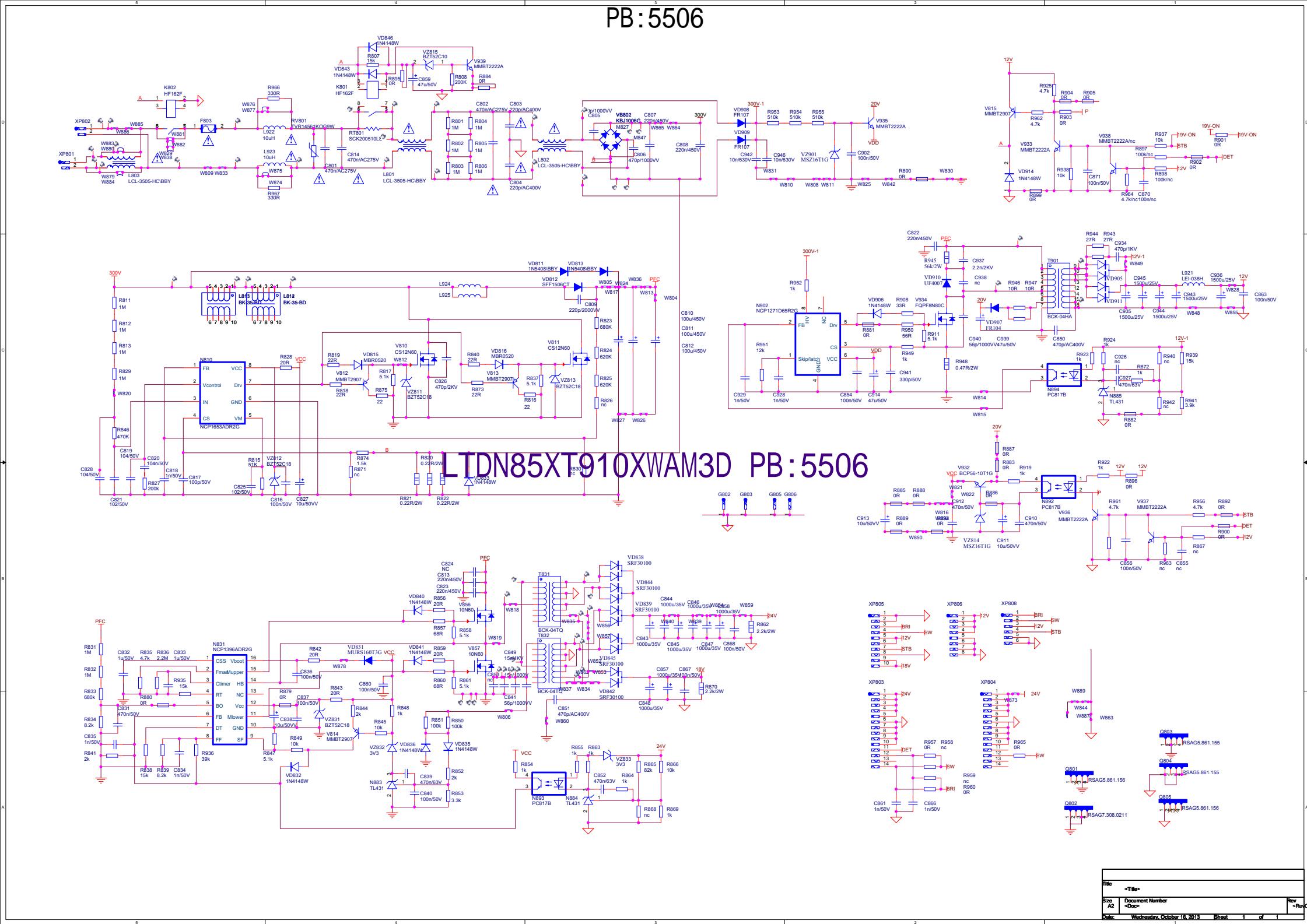
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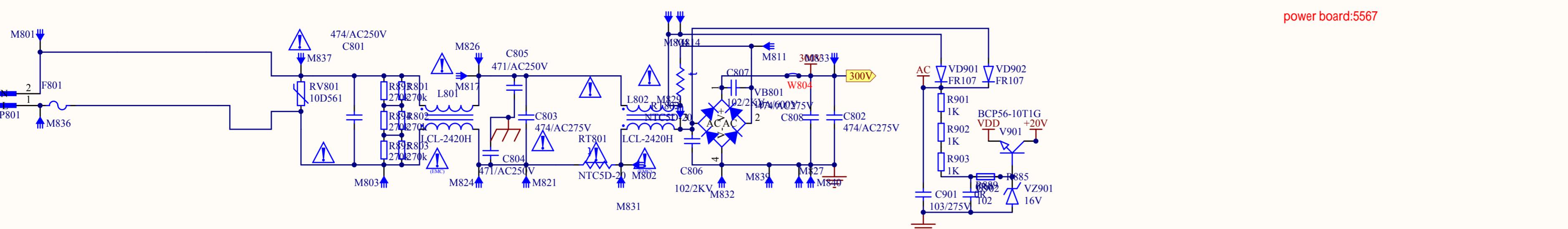
XIGUO-20120924

AVDD3V3	2,3,4,6,8,9,10,11,12,13,14,15,16 2,5,6,7,8,9,10,12,14,15,16
GND	2,12,13,16
+5V	2,5,16
+12V	2,3,4,5,10,11
+14V	2,3,5,11,12,16 3,11,14,15
5VS	3,11,14,15
DVDD5V3	3,16
OSC_L	9,16
OSDA0	9,16
OSCL0	9,16
OSDA0	9,16
AOMCLK_D	9,16
AOBCLK_D	9,16
AOLRK_D	9,16
AOSDATA0_D	9,16
HPDET#	4
MUTE_HP	4
AL00	9
AR00	9
RST_AMP	16
MUTE_5707	16,17
POP_MUTE_DRV632	9
MUTE_DRV632	16,17
Woofer_IN+	Woofer_IN+
Woofer_IN-	Woofer_IN-
AOMCLK_D-AMP	9,17
AOBCLK_D-AMP	9,17
AOLRK_D-AMP	9,17
AOSDATA0_D-AMP	9,17

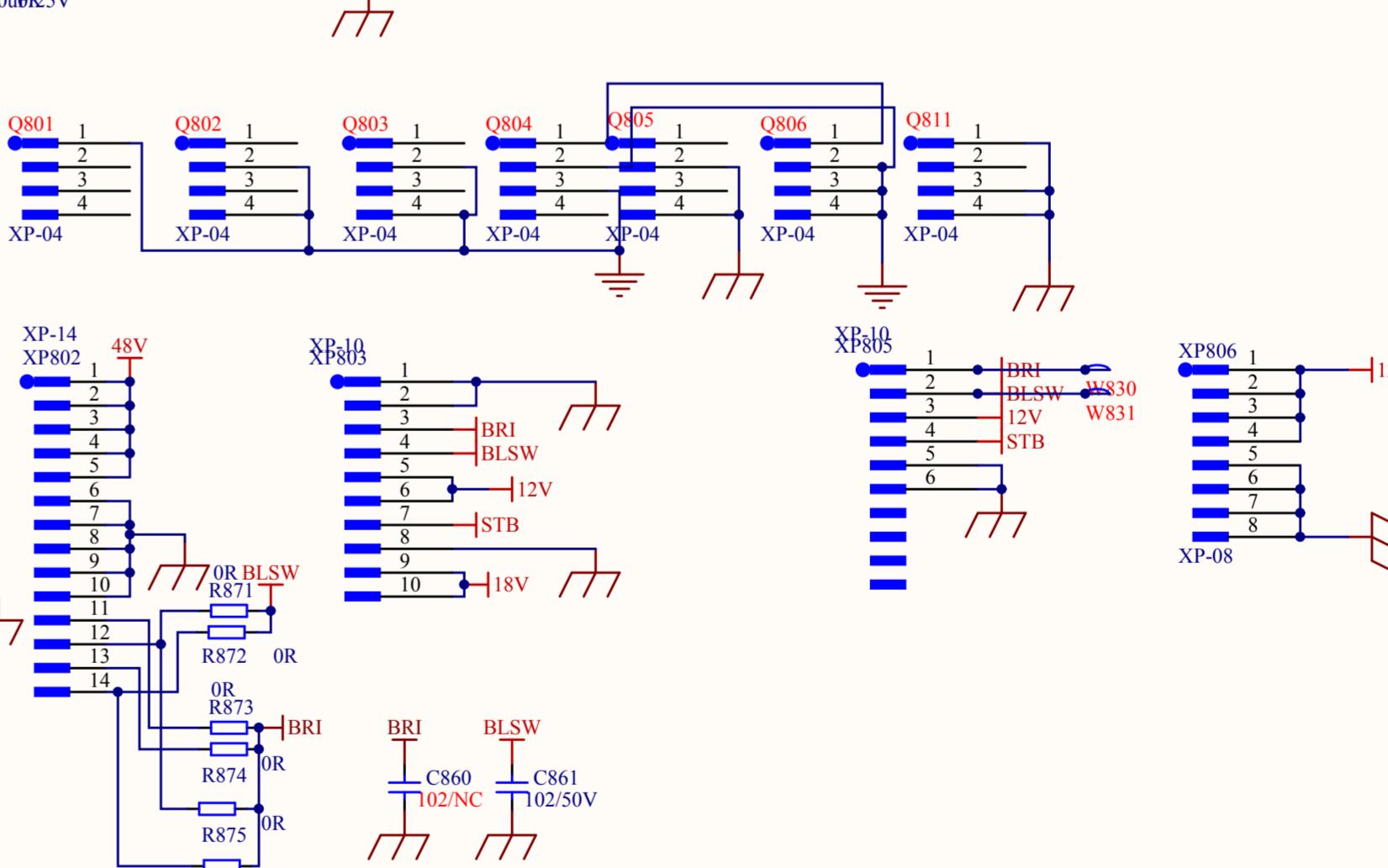
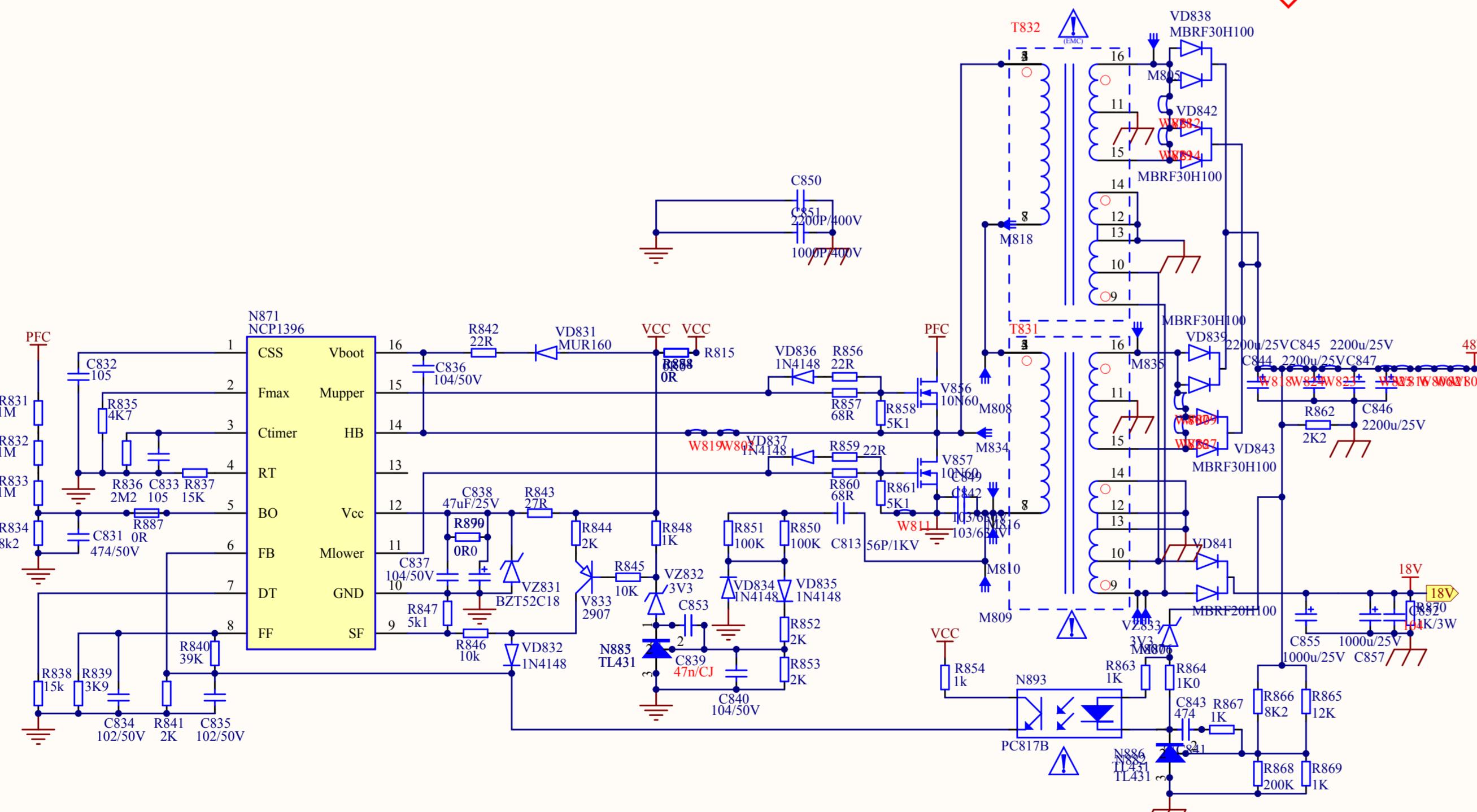
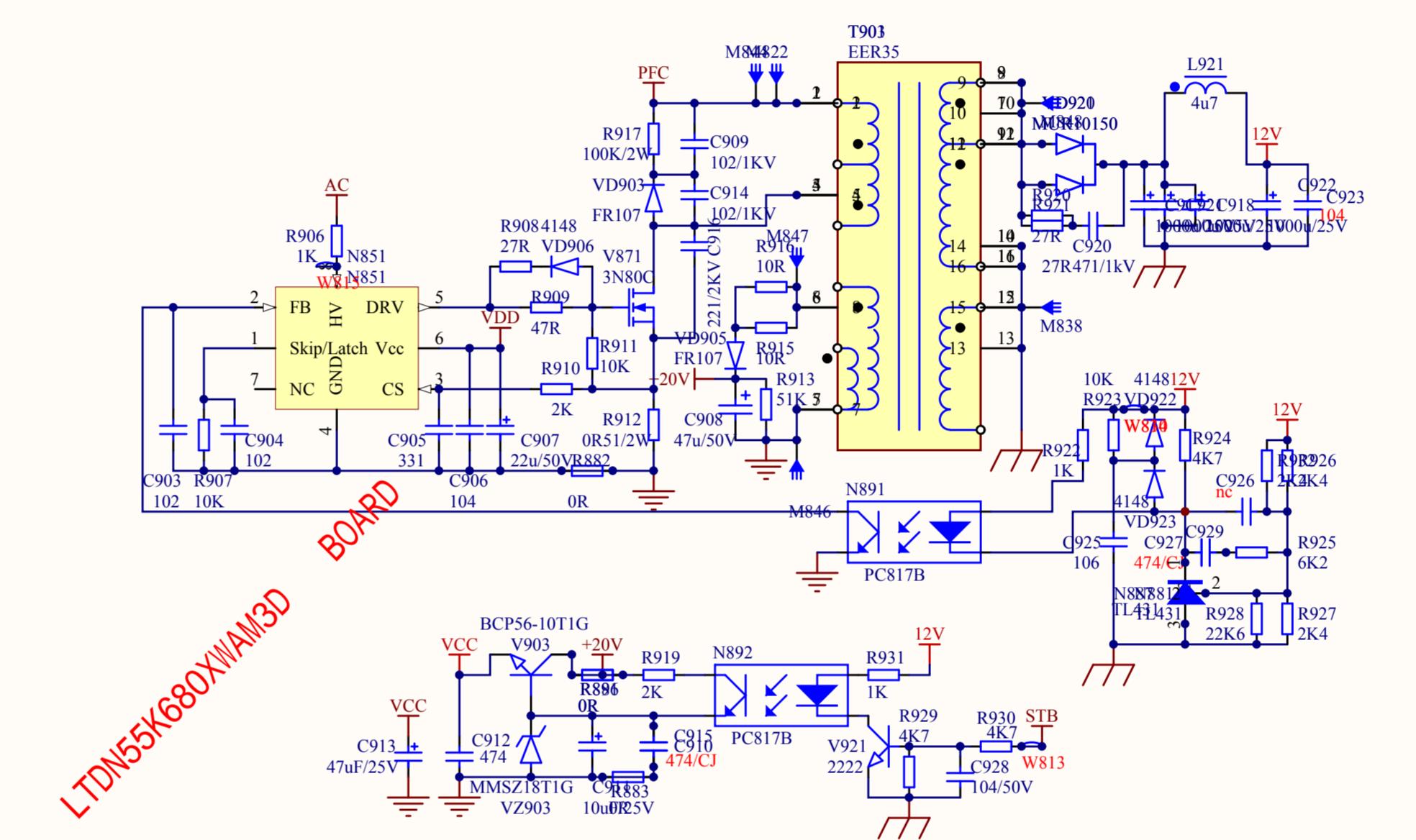
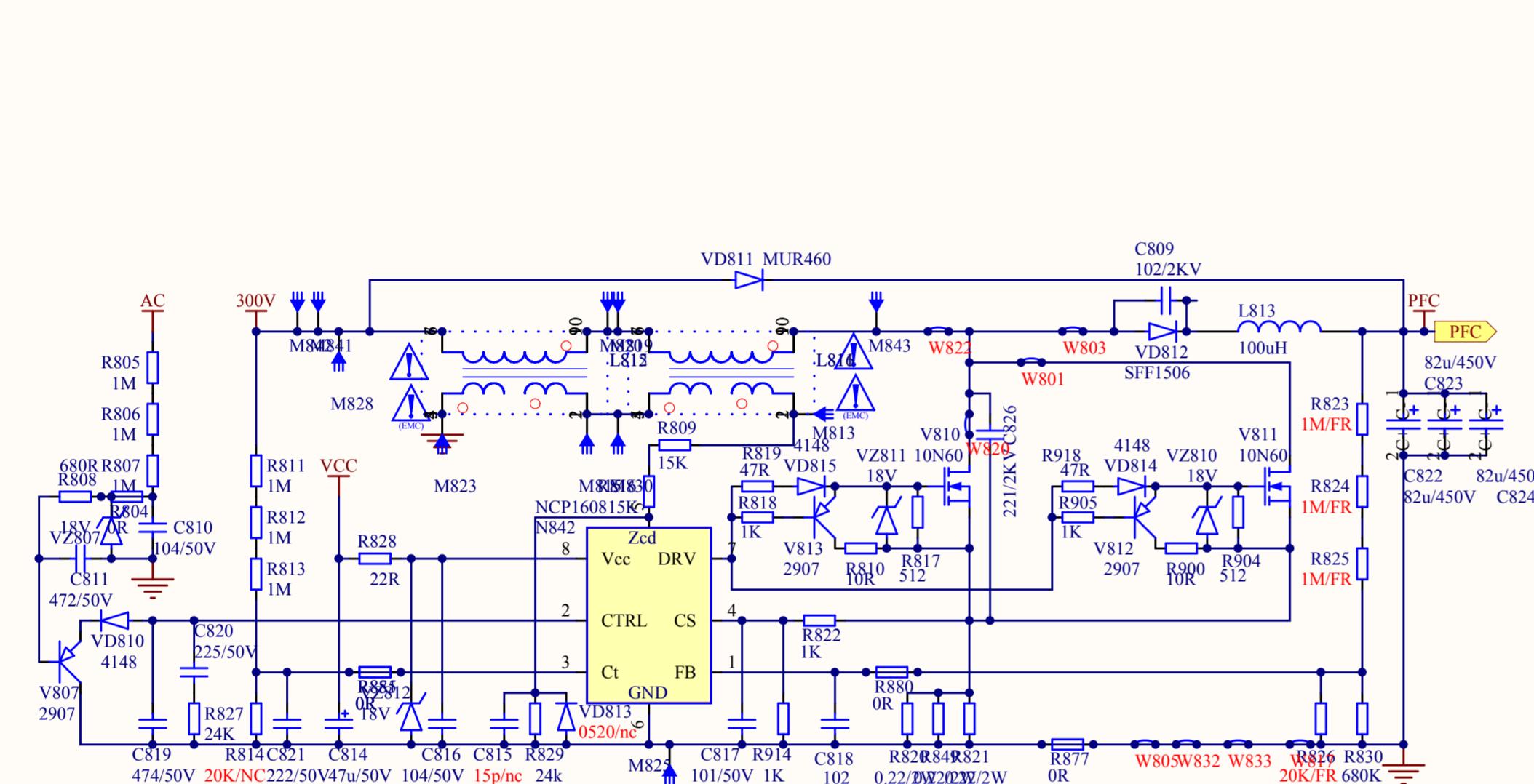
HeadPhone Output







power board:5567



Title			
Size	Number	Revision	
A2			
Date: 2013-9-12	Sheet of		CISGHDQC
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