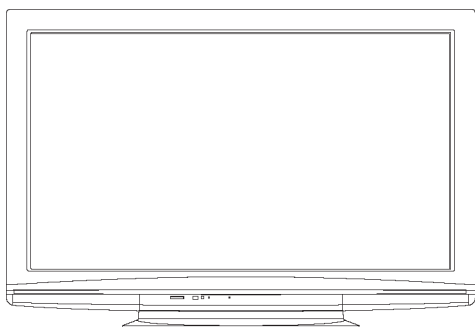


Service Manual

LED Television



Model No. TH-43D310M

TP.VST59S.PB781

Chassis

WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked by  in the Schematic Diagrams, Circuit Board Diagrams, Exploded Views and Replacement Parts List. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

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1. CAUTION

CAUTION:

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



CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN.



CAUTION: TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



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



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 appliance.

WARNING: TO REDUCE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

IMPORTANT SAFETY INSTRUCTIONS

CAUTION:

Read all of these instructions. Save these instructions for later use. Follow all Warnings and Instructions marked on the audio equipment.

1. Read Instructions-All the safety and operating instructions should be read before the product is operated.
2. Retain Instructions- The safety and operating instructions should be retained for future reference.
3. Heed Warnings- All warnings on the product and in the operating instructions should be adhered to.
4. Follow Instructions- All operating and use instructions should be followed.

FOR YOUR PERSONAL SAFETY

1. When the power cord or plug is damaged or frayed, unplug this television set from the wall outlet and refer servicing to qualified service personnel.
2. Do not overload wall outlets and extension cords as this can result in fire or electric shock.
3. Do not allow anything to rest on or roll over the power cord, and do not place the TV where power cord is subject to traffic or abuse. This may result in a shock or fire hazard.
4. Do not attempt to service this television set yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
5. Never push objects of any kind into this television set through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the television set.
6. If the television set has been dropped or the cabinet has been damaged, unplug this television set from the wall outlet and refer servicing to qualified service personnel.
7. If liquid has been spilled into the television set, unplug this television set from the wall outlet and refer servicing to qualified service personnel.
8. Do not subject your television set to impact of any kind. Be particularly careful not to damage the picture tube surface.
9. Unplug this television set from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
- 10.1. Do not place this television set on an unstable cart, stand, or table. The television set may fall, causing serious injury to a child or an adult, and serious damage to the appliance. Use only with a cart or stand recommended by the manufacturer, or sold with the television set. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.
- 10.2. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.



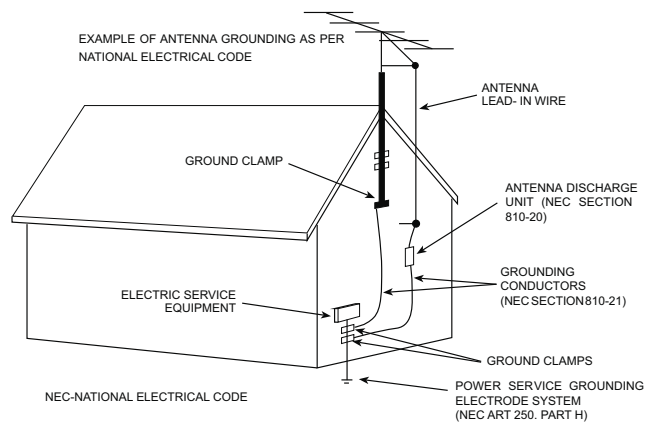
PROTECTION AND LOCATION OF YOUR SET

11. • Do not use this television set near water ... for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.
 - Never expose the set to rain or water. If the set has been exposed to rain or water, unplug the set from the wall outlet and refer servicing to qualified service personnel.
12. Choose a place where light (artificial or sunlight) does not shine directly on the screen.
13. Avoid dusty places, since piling up of dust inside TV chassis may cause failure of the set when high humidity persists.
14. The set has slots, or openings in the cabinet for ventilation purposes, to provide reliable operation of the receiver, to protect it from overheating. These openings must not be blocked or covered.
 - Never cover the slots or openings with cloth or other material.
 - Never block the bottom ventilation slots of the set by placing it on a bed, sofa, rug, etc.
 - Never place the set near or over a radiator or heat register.
 - Never place the set in a "built-in" enclosure, unless proper ventilation is provided.

PROTECTION AND LOCATION OF YOUR SET

- 15.1. If an outside antenna is connected to the television set, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges, Section 810 of the National Electrical Code, NFPA No. 70-1975, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrode, and requirements for the grounding electrode.

EXAMPLE OF ANTENNA GROUNDING AS PER NATIONAL ELECTRICAL CODE INSTRUCTIONS



15.2. Note to CATV system installer : (Only for the television set with CATV reception)

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

16. An outside antenna system should not be located in the vicinity of overhead power lines or other electric lights or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
17. For added protection for this television set during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage due to lightning and power-line surges.

OPERATION OF YOUR SET

18. This television set should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply at your home, consult your television dealer or local power company. For television sets designed to operate from battery power, refer to the operating instructions.
19. If the television set does not operate normally by following the operating instructions, unplug this television set from the wall outlet and refer servicing to qualified service personnel. Adjust only those controls that are covered in the operating instructions as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the television set to normal operation.
20. When going on a holiday : If your television set is to remain unused for a period of time, for instance, when you go on a holiday, turn the television set " off " and unplug the television set from the wall outlet.

IF THE SET DOES NOT OPERATE PROPERLY

21. If you are unable to restore normal operation by following the detailed procedure in your operating instructions, do not attempt any further adjustment. Unplug the set and call your dealer or service technician.
22. Whenever the television set is damaged or fails, or a distinct change in performance indicates a need for service, unplug the set and have it checked by a professional service technician.
23. It is normal for some TV sets to make occasional snapping or popping sounds, particularly when being turned on or off. If the snapping or popping is continuous or frequent, unplug the set and consult your dealer or service technician.

FOR SERVICE AND MODIFICATION

24. Do not use attachments not recommended by the television set manufacturer as they may cause hazards.
25. When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
26. Upon completion of any service or repairs to the television set, ask the service technician to perform routine safety checks to determine that the television is in safe operating condition.

PRODUCT SPECIFICATION RELEASE

Model: Panasonic TH-43D310M/V59S.PB781

Version: 1.0

Issued On: 2015-12-03

Basic Information

Product Type	LCD TV
Chassis	V59S.PB781
OSD Language	English/French/Arabian/Portuguese/Persian
TV System	PAL BG/DK/I ; SECAM
AV System	PAL、NTSC、SECAM
Channels(Analog)	199
DTV Channels(Digital)	---
Power Supply	AC 110V-240V 50/60Hz
Power Consumption (TV On)	75W
Power Consumption (Standby)	≤0.5W
Certification	CB

Basic Function

EPG	---
Subtitle	---
Parental Control	---
Lock	Yes(Program Lock)
V-Chip	---
CCD (Closed Caption)	---
Sleep Timer	Yes
Teletext	---
Nicam	---
MTS	---
Screen Saver	---
System Update	Yes (By USB)
Hotel Mode	---

Special Function

Natura Light Technology	---
HDD reading thru USB	2TB (max)
Analog / Digital Signal Receiver	Analog
Startup Setting	---
HDMI CEC,ARC	ARC yes, CEC option

Picture

DCC (Dynamic Contrast Control)	Yes
Backlight Adjustable	Yes (0~100)
Color Temperature	Normal/Cold/Warm
Picture Mode	4 picture effects preset (Standard, Dynamic,Mild, User)
Picture Size	16:9, 4:3, Zoom1, Zoom2
DLTI	---
DCTI	---
Comb Filter	3D
Dynamic Noise Reduction	3D
Adaptive Deinterlacing	3D

Sound

Speakers	Integrated speakers (Bottom side)
Audio Power Output (THD=7%)	2×8W
Smart Volume	---
Smart Audio	Music, Movie, Sports,Standard, User

Media Format

Music	MP3/WMA
Picture	JPEG、BMP、PNG
Video	H.264、MPEG4、MPEG2、MKV w/o Divx

File	---

Signal Format Capability

Component Video Format	YPbPr; up to 1080P
DVI Video Format	Up to XGA for HDMI-PC
HDMI Video Format	up to 1080P
PC Compatibility	Up to SXGA

Panel Specification

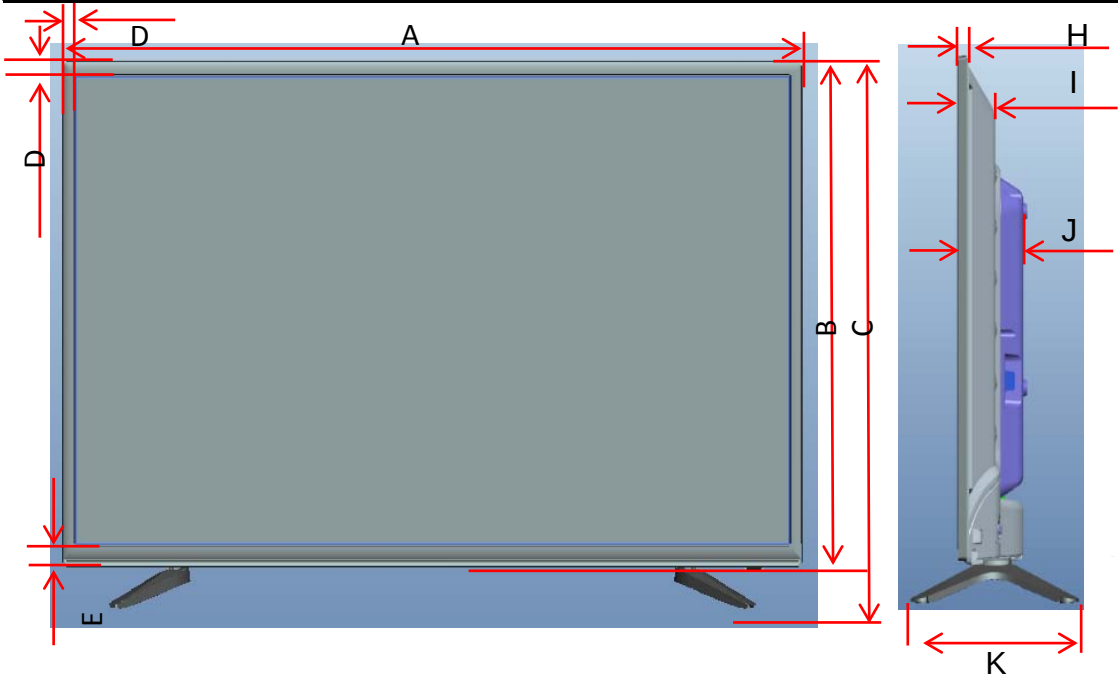
Backlight Unit	LED
Panel supplier	CSOT ST4251B01-1/LGD LC430DUY-SHA1
Aspect Ratio	16:9
Panel Size (inch)	43"
Display Resolution	1920*1080
Brightness (cd/m2)(typ.)	240
Contrast Ratio	3000:1
Response Time (G to G)	6.5ms
Viewing Angle (H/V)	178°/178°
Life Time(Typ.)	>30,000hrs
Color	16.7 M(8bit)
Refresh Rate	60Hz

Terminals

Side	
USB	2
AV in	2
Headphone	1
Bottom	
HDMI	2
VGA	1
VGA Audio in	1 mini
Antenna	1 ATV
AV out	1 mini

Sound Control	Treble/Bass/Balance
Surround Sound	---
Sound Scene	---
DD (Dolby Digital)	NO

Mechanical dimension



	A	B	C	D	E	H	I	J	K	40 w/o pallet	40HQ w/o pallet
43D1600	977	588	624	17	25	15	49	86	223	510	676

ID Picture



Mechanical Key Specification	
Carton Dimensions LxWxH（mm）	1128x142x660
Container Loading---20 feet（pcs）	246 w/o pallet
Container Loading---40 feet（pcs）	510 w/o pallet
Container Loading---40 feet High（pcs）	676 w/o pallet
Net Weight With Stand（Kg）	7.6
Net Weight Without Stand（Kg）	7.4
Gross Weight With Packaging（Kg）	10
VESA Mounting Dimensions LxH（mm）	400x200
Essential Accessories（Default）	
Operation Manual	English(Default)
Remote Control and batteries	Panasonic ATV RCU,with two batteries)
Base Stand	Integrated Packaging
AC power cord	1pc 1.5m VDE power cord 1pc 1.5m BS power cord
Adapt Cable Wire For AV Or YPBPR	---

Drafted by:

Design and specifications are subject to change without notice!

Remote ID Picture	
Optional Accessories	
Wall Mount	WMB233

Approved by:

Alignment Procedur

Series

MODEL: V59S.PB781/V59S.PB753/V59S.EB783

VERSION: V1.0

PREPARED BY : Tanner

DATE : 2016-2-2

APPROVED BY : _____ DATE : _____

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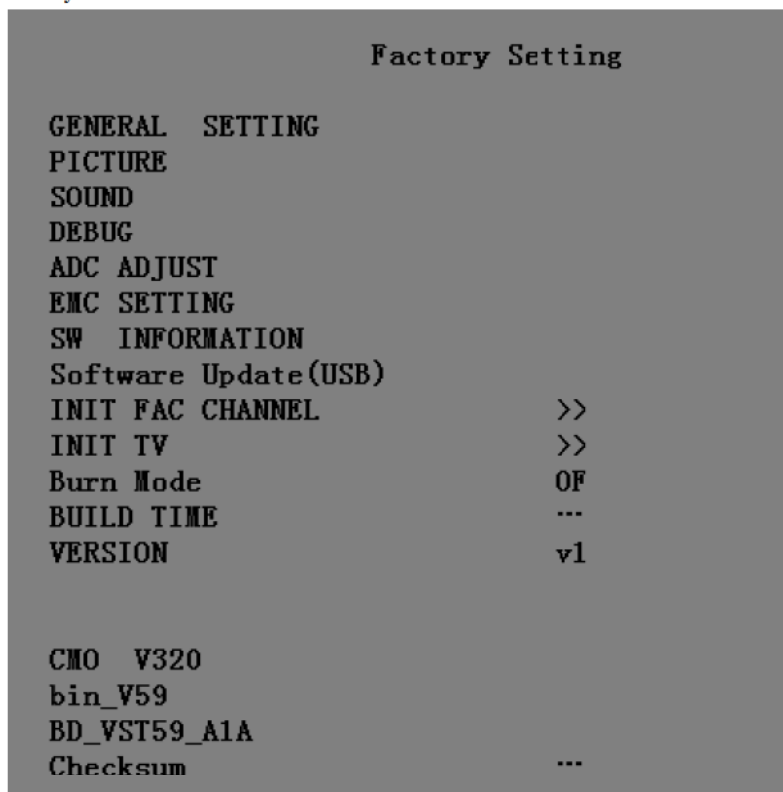
V59 Factory OSD Manual

1 Commonly functions

- 1.1 automatic correction: The first item of ADC ADJUST
- 1.2 white balance adjustment: The second item of PICTURE
- 1.3 PQ (Brightness, contrast, etc.) : In the PQ NONLINEAR
- 1.4 Volume curve: can be adjusted in the SOUND
- 1.5 KEY DESCRIPTION:
 - 1.5.1 Press up or down button to choose item
 - 1.5.2 Press right button to enter the submenu
 - 1.5.3 Press menu button to return to previous menu
- 1.6 STATEMENT: In this manual, parameters for illustration only, not directly as a reference parameter set application

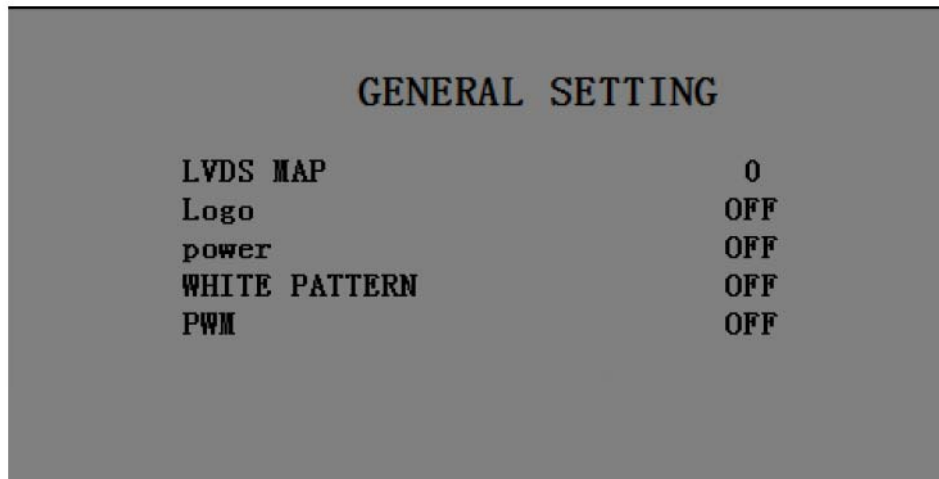
2 TO ENTER FACTORY MAIN MENU

- 2.1 Press menu button and follow with key 1,1,4,7 one by one.
- 2.2 Factory main menu as follows:



3 GENERAL SETTING

Press ▲/▼ button, choose GENERAL SETTING under the main menu and ENTER it.

**LVDS MAP**

Press ▲/▼ button, choose LVDS MAP, then press ◀/▶ to set the parameter.

Logo

Turn on/off logo

POWER

Press ENTER button to choose OFF /ON /LAST

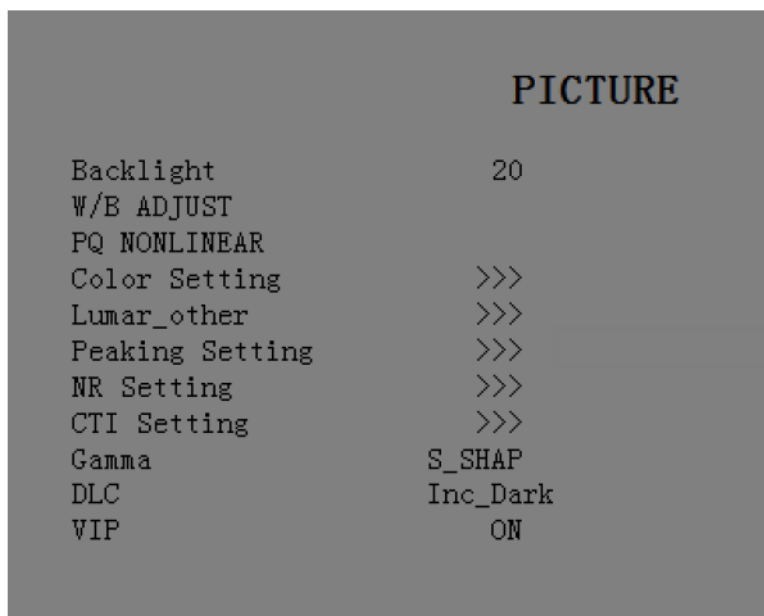
WHITE PATTERN

Press ▲/▼ button, to choose R/G/B/W/B SIGNAL

PWM

Press ENTER button into the PWM to adjust the parameter .

Press MENU button to back to the main menu.

4 PICTURE**Backlight**

Press ENTER button into the Backlight, adjust the backlight of the panel

W/B ADJUST

Press ▲/▼ button to choose W/B ADJUST, press ENTER button into the submenu, then press ◀/▶ to choose TEMPURTURE, press ◀/▶ to choose the TEMPURTURE mode.

W/B ADJUST		
TEMPERATURE		Medium
MODE		TV
R-GAIN		128
G-GAIN		128
B-GAIN		128
R-OFFSET		1024
G-OFFSET		1024
B-OFFSET		1024

Press ▲/▼ button to choose the items of the mode(R-GAIN, G-GAIN, B-GAIN etc.), then press ◀/▶ button to choose the parameter value.

PQ NONLINEAR—(important)

PQ NONLINEAR	
MODE	TV
PICTURE MODE Curve	standard
Brightness Curve	
Contrast Curve	
Saturation Curve	
Hue Curve	

MODE

Choose source

PICTURE MODE

Choose the picture mode of the source

Brightness Curve

Adjust the Brightness Curve

Contrast Curve

Adjust the Contrast Curve

Saturation Curve

Adjust the Saturation Curve

Hue Curve

Adjust the Hue Curve

Color setting

Color setting

LUMA other

Set the Brightness, Contrast and Saturation.

Peaking Setting

Set Peaking

NR Setting

Set NR

CTI Setting

Set CTI

Gamma

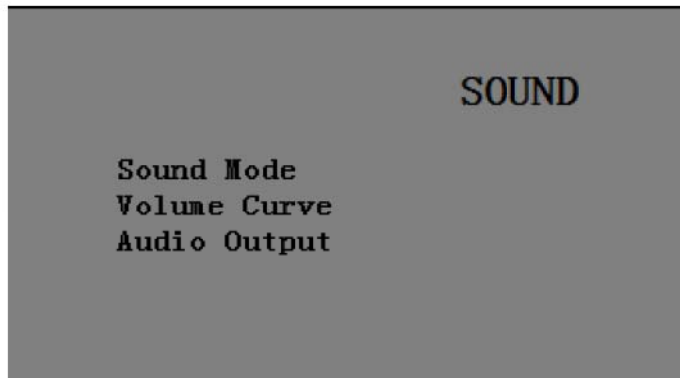
Adjust Gamma

DLC

Set DLC

VIP

VIP on/off

5 SOUND**Sound Mode**

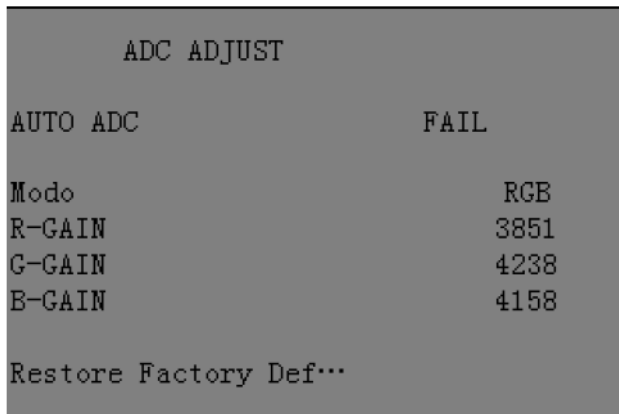
Press ▲/▼ button to choose Sound MODE, press ENTER button to submenu, then press ▲/▼, Choose the items of Sound Mode, then press ◀/▶ button to choose value or mode.

Volume Curve

Adjust the Volume Curve.

Audio output

Press ENTER into the submenu, then press ▲/▼ button to into the items of audio output. Then press ◀/▶ button to set the value

**AUTO ADC**

Automatic correction

MODE

Press ▲/▼ button to choose R-GAIN, then press ◀/▶ to set the value

Restore Factory De..

Press ▲/▼ button to choose Restore Factory, to recovery factory settings of this page.
Press MENU button to back to the main menu.

GENERAL SETTING	
W/B ADJUST	
PICTURE MODE	
Sound Mode	
Volume Curve	
WHITE PATTERN	OFF
Backlight	255
LVDS M A P	0
power	OFF
Logo	ON
Hotel Mode	OFF

W/B ADJUST

Press ▲/▼button to choose W/B ADJUST, press ENTER button into the submenu, then press ◀/▶to choose TEMPATURE, press ◀/▶to choose the TEMPATURE mode.

W/B ADJUST	
TEMPERAUTRE	Mdeium
MODE	TV
R-GAIN	128
G-GAIN	128
B-GAIN	128
R-OFFSET	1024
G-OFFSET	1024
B-OFFSET	1024
COPY ALL	

Press ▲/▼button to choose items of the MODE (R-GAIN, G-GAIN, B-GAIN etc.) ,then press ◀/▶button to set the value

PICTURE MODE

PICTURE MODE	
MODE	TV
BRIGHTNESS	128
CONTRAST	128
COLOR	50
SHARPNESS	50
TINT	50
COPY ALL	50

Press ▲/▼button to choose PICTURE MODE, press ENTER button into the submenu, then press ◀/▶ to choose the items of PICTURE MODE, press ◀/▶ button to set value

Sound Mode

Press ▲/▼button to choose Sound Mode, press ENTER button into the submenu, then press ◀/▶ to choose the items of Sound Mode, press ◀/▶ button to set value or mode.

Volume Curve

Adjust Volume Curve

WHITE PATTERN

Press ◀/▶ to choose mode: red, green, blue, black, yellow, off.

Backlight

Press ▲/▼ button to choose Backlight, then press ◀/▶ to set value

LVDS MAP

Press ▲ / ▼ button to select other options, and then press ◀ / ▶ to select a parameter value or mode.

POWER MAP

press ◀ / ▶ to select a parameter value

0: need to power-on with keypad (or remote) when AC-ON

ON: Direct boot when power on

Last: remember former state when power on

Logo

Turn on/off the LOGO.

6 DEBUG

Press ▲/▼ button in the main menu, and choose DEBUG, press ENTER into DEBUG submenu.

```

          DEBUG
QMAP ADJUST
PEQ                      OFF
VIF1
VIF2
VIF3

init ALL(WB+ADC)  >>>
UART DEBUG       None
Timer Test
  
```

QMAP ADJUST

Press ▲/▼ button to choose QMAP ADJUST, press ENTER button into the submenu, press ▲/▼ button to choose the settings, then press ◀/▶ button to set parameter value or on/off

VIF

Press ▲/▼ button to choose VIF, and press ENTER into the submenu, press ▲/▼ button to choose the settings, then press ◀/▶ button to set parameter value

Init ALL (WB+ADC)

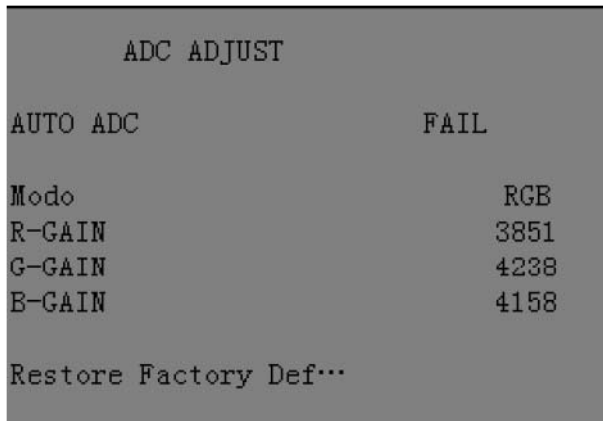
Press ENTER button to Initialization the White Balance and ADC

Timer test

Press ENTER and set the time you want to test.

7 ADC ADJUST

Press ▲/▼ button to choose ADC ADJUST, then press OK into the submenu of ADC

**AUTO ADC**

Automatic correction

MODE

press ▲/▼ button to choose R-GAIN, then press ◀/▶ to set the value

Restore Factory De..

Press ▲/▼ button to choose Restore Factory, to recovery factory settings of this page.

Press MENU button to back to the main menu.

8 OTHERS

8.1. Software Update (USB)

Press ENTER and set the appropriate EMC value.

8.2. SW INFORMATION

Press ▲/▼ button and choose SW INFORMATION under the main menu, then press ENTER to display the SW information.

8.3. Software Update (USB)

Press ENTER and upgrade the SW using USB.

8.4. INIT FAC CHANEL

Press ▲/▼ button and choose INIT FAC CHANEL, then press ENTER to Initialize the factory channel.

8.5. INIT TV

Press ▲/▼ button and choose INIT TV under the main menu, then press ENTER to Initialization TV.

8.6. Burn Mode

Press ▲/▼ button and choose Burn Mode under the main menu, then press ENTER into the submenu of Burn Mode, and press ◀/▶ to choose the Burn Mode on or off.

END.

MSD V59 Upgrade Instruction V2.0

- upgrade bin file.....2
- 一、 USB upgrade procedures for TV set3
- 二、 USB upgrade procedures for AD Board3
- 三、 ISP upgrade method4

MSD V59 Upgrade Instruction V1.0

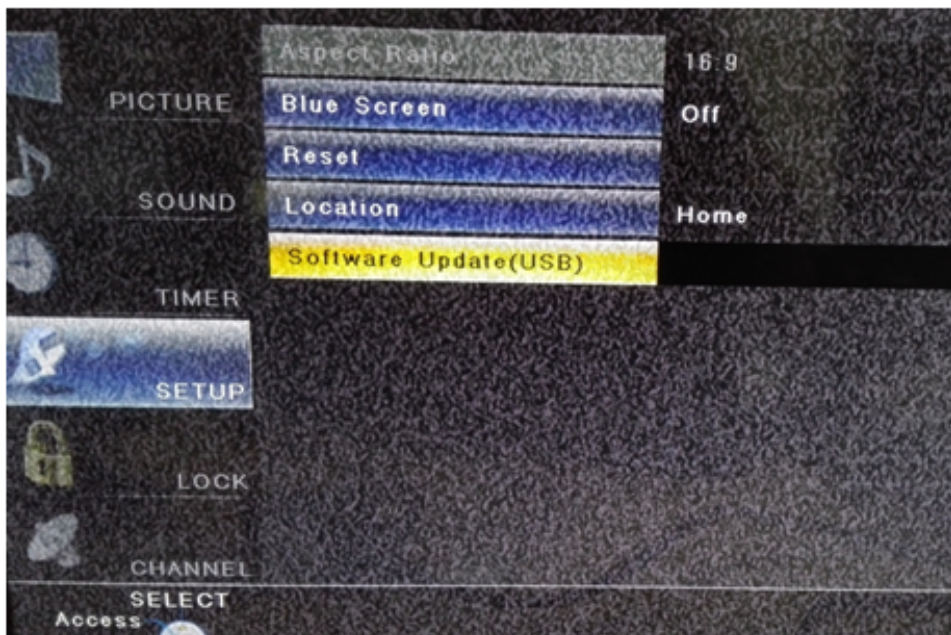
upgrade bin file

Different Board may need software with different name, for example, VST59.A1A which use the chipset TSUMV59XU only recognize software with the name of "bin_v59.bin"

The names for other board is as below:

A/D Board	T. VST59. A1A T. VST59. 91A T. VST59. A5A T. VST29. A2B	T. VST59S. 21A T. VST59S. 81A
Chip	TSUMV59XU TSUMV59XE	TSUMV59XUS TSUMV59XES
Name	bin_v59.bin	bin_v59S.bin
Note:	.bin is the extend file name.	

一、 USB upgrade procedures for TV set



1. Copy the software to the root directory of your USB memory stick.
Plug the USB memory stick to the USB port.
2. Select "Software Update(USB)" on the OSD and follow the instructions.
TV will switch-off automatically when upgrading finishes.
3. If you find the process stop at 19% and the TV does not turn off, it means the software in the board is the same as the one in the USB memory stick.

二、 USB upgrade procedures for AD Board

1. Make sure the board is dis-connected from the power.
2. copy the software to the root directory of your USB memory stick.
Plug the USB memory stick to the USB port.
3. Connect the power to the board, after a few seconds the LED will blink rapidly, when the upgrading finishes the board will enter the standby mode.

三、ISP upgrade method

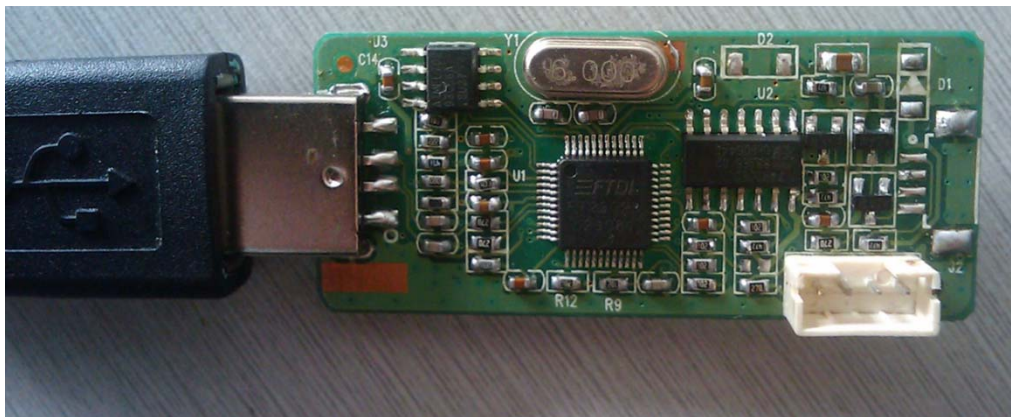
1、Hardware tools

1.1 USB Cable



1.2 Serial port board B.CNSISP7A

[you need to install the driver: [Debug_board_driver](#)(XP)]

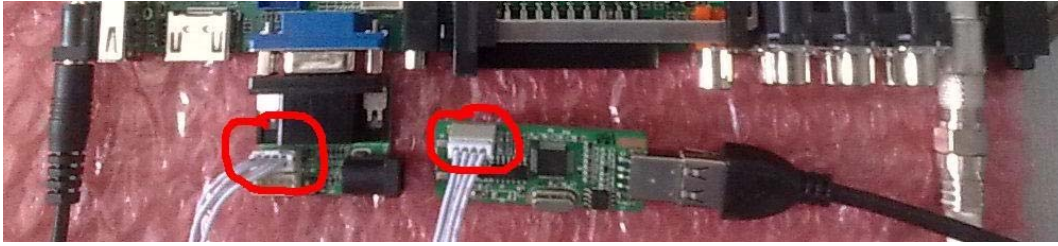


1.3 4PIN converted cable



2、Connect

Connection as shown below



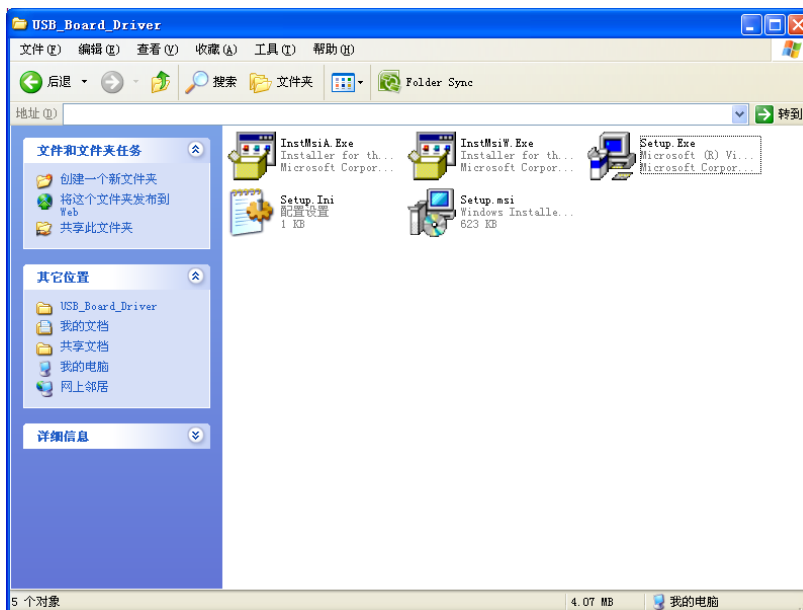
Please note that there are two plugs on the board "", you should connect the 4-pin cable to the correct plug on the board ""

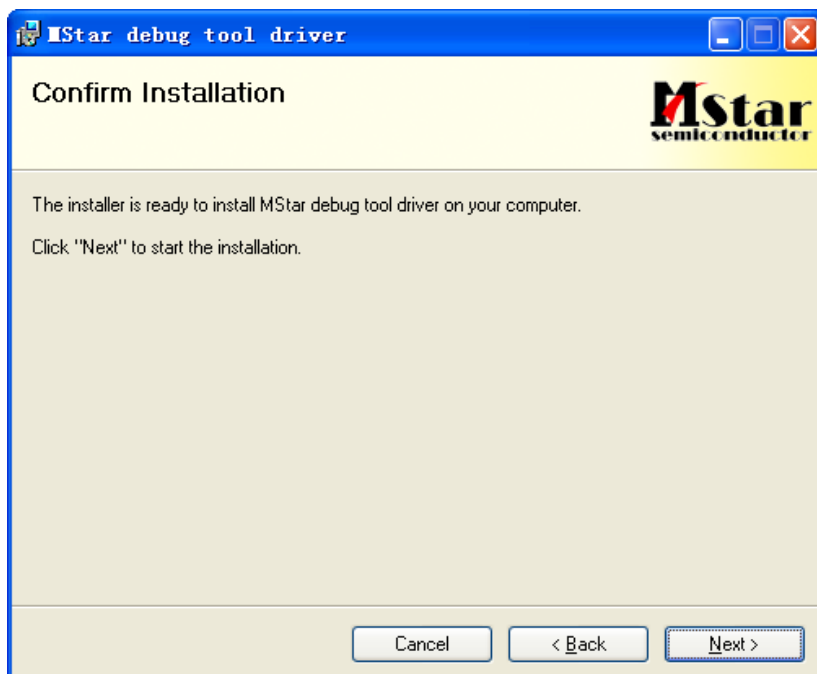
3、Driver and Upgrading Applications

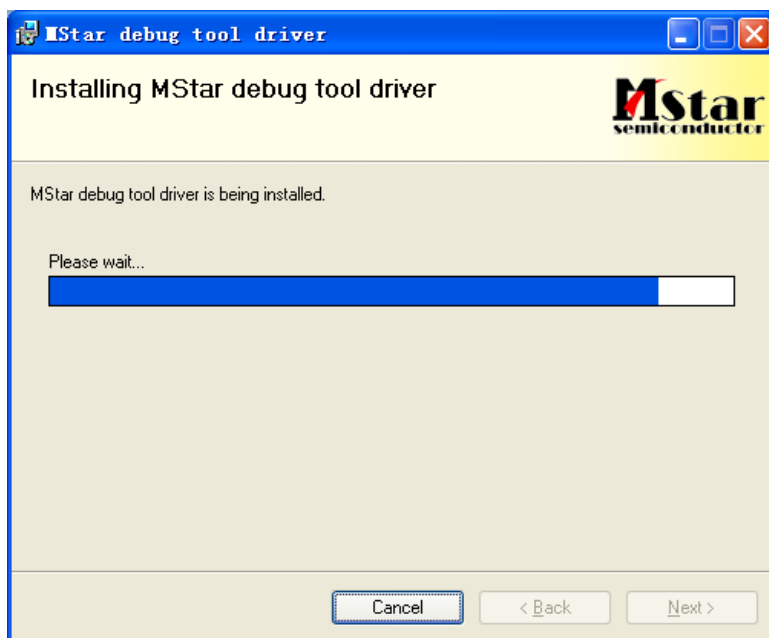
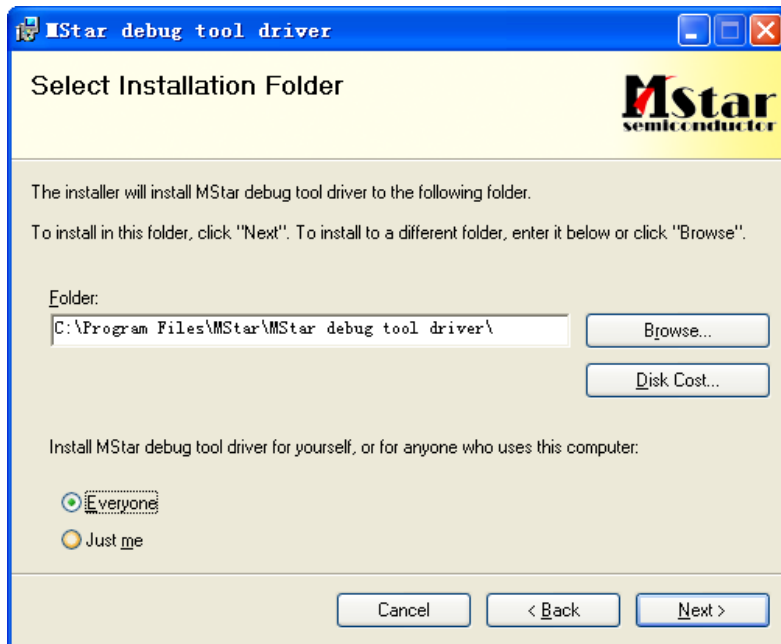
USB_Board_Driver 和 ISP_Tool_4528

3.1 To Install USB_Board_Driver, Please connect PC and B.CNSISP7A with USB cable.

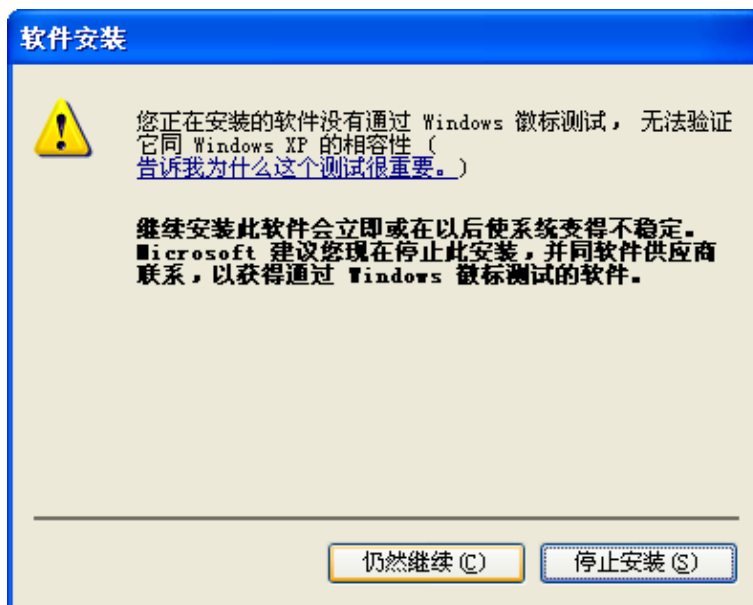
Run Setup.Exe, select "Next" and "Next" and "Next"



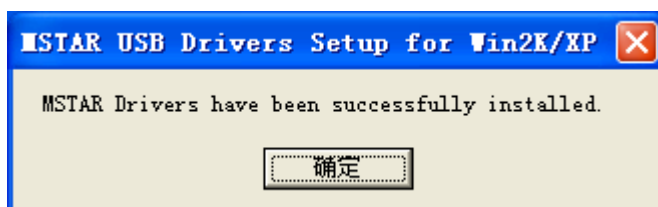




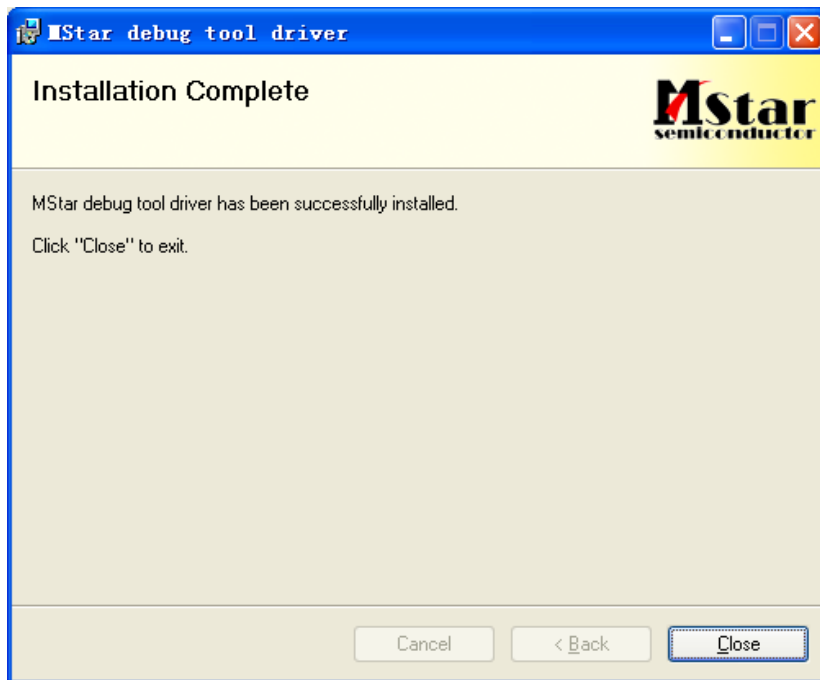
When you see some dialog window as below, select "Continues"



Successfully installed

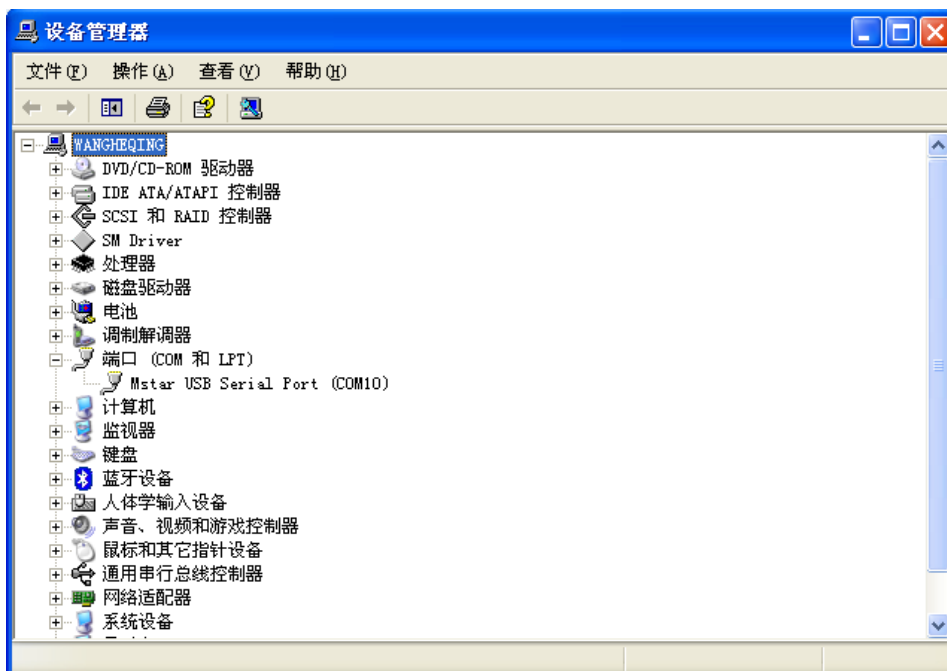


[Note: you must connect USB tool before installation]



3.2 Check if the installation was successful

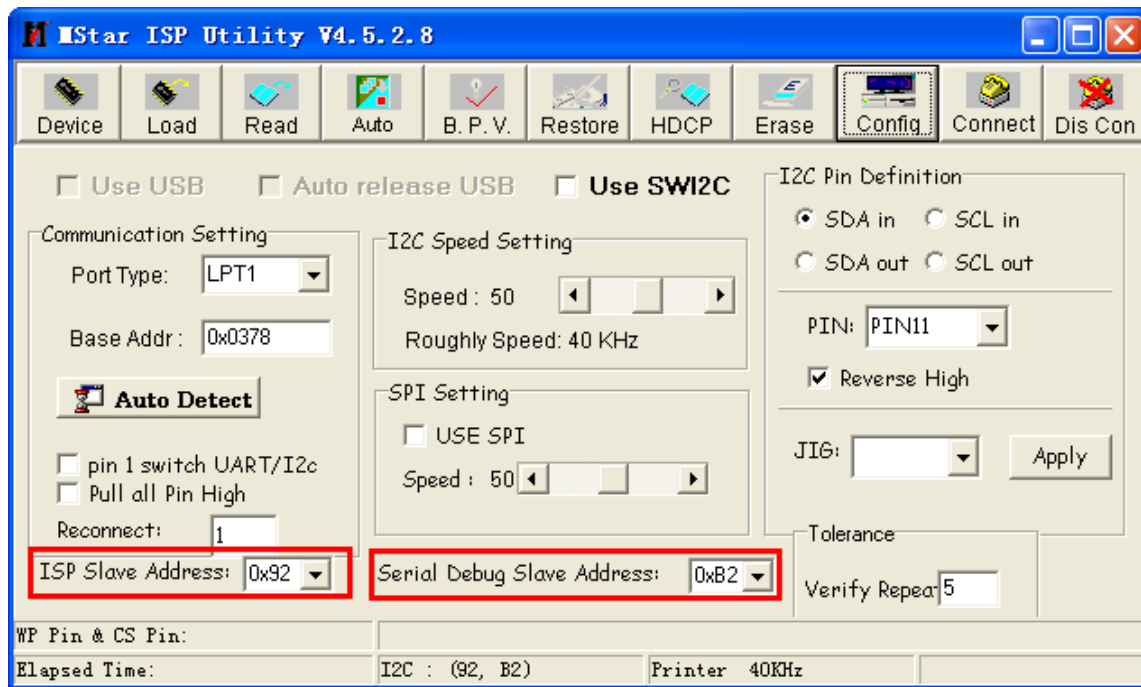
Open 'Device Manager', if you find the device like Mstar USB Serial Port (Com10), you have installed the driver successfully.



Note: If you can not find that, just unplug the USB cable and connect again.
Please allow the 'Found New Hardware Wizard' to search for driver by itself.

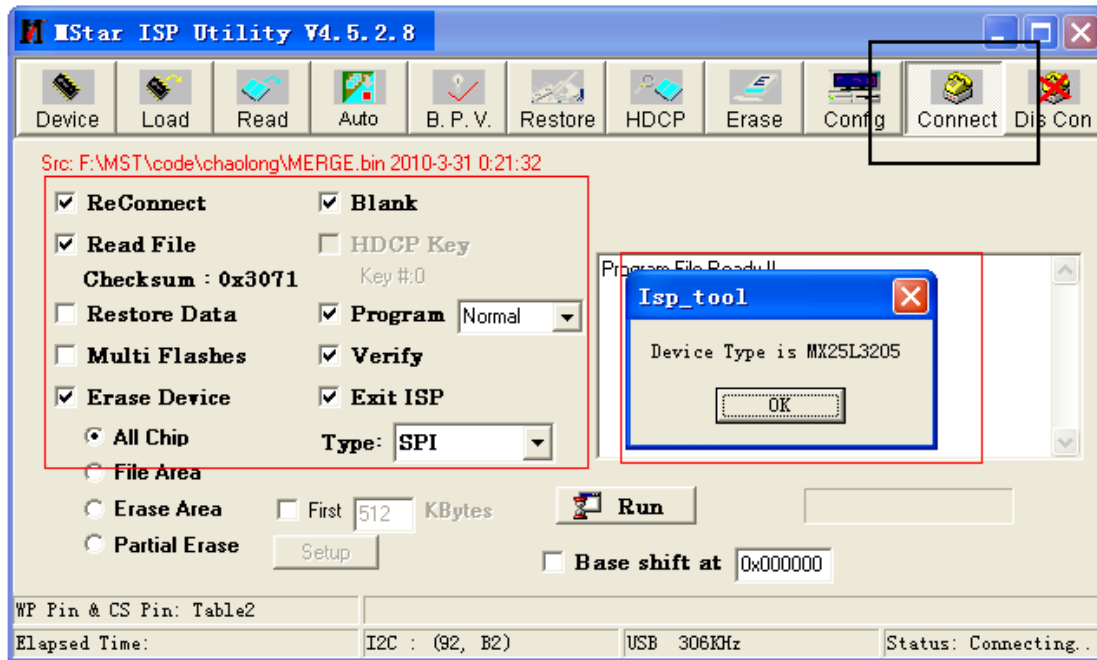
4、Decompress ISP_Tool_4528.rar and you will get ISPISP_Tool.exe

4.1 Run ISPISP_Tool.exe, Click the button "config", set the parameter as below:ISP 0x92, IIC:0xB2

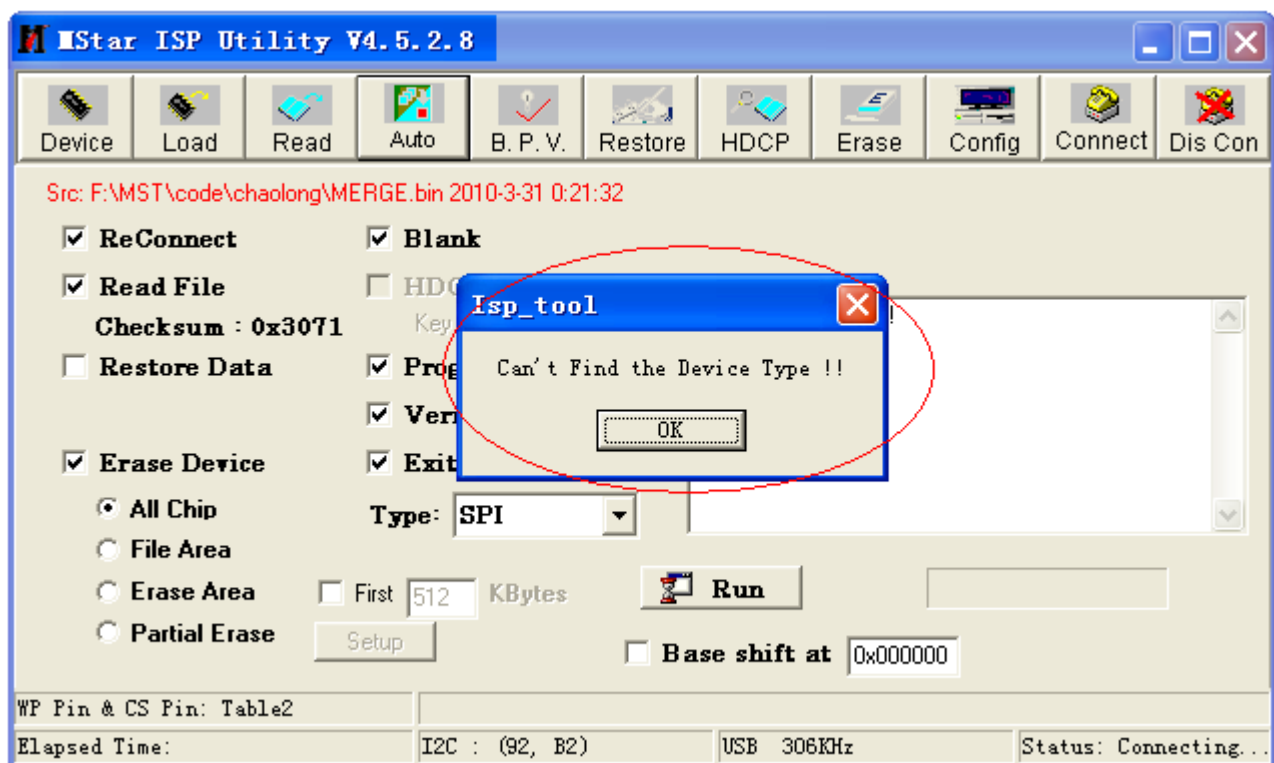


4.2 Click "connect" to enter ISP Mode.

4.2.1 Click "connect" to enter ISP Mode. If it connect successfully, it will shown "Device Type" as the picture below



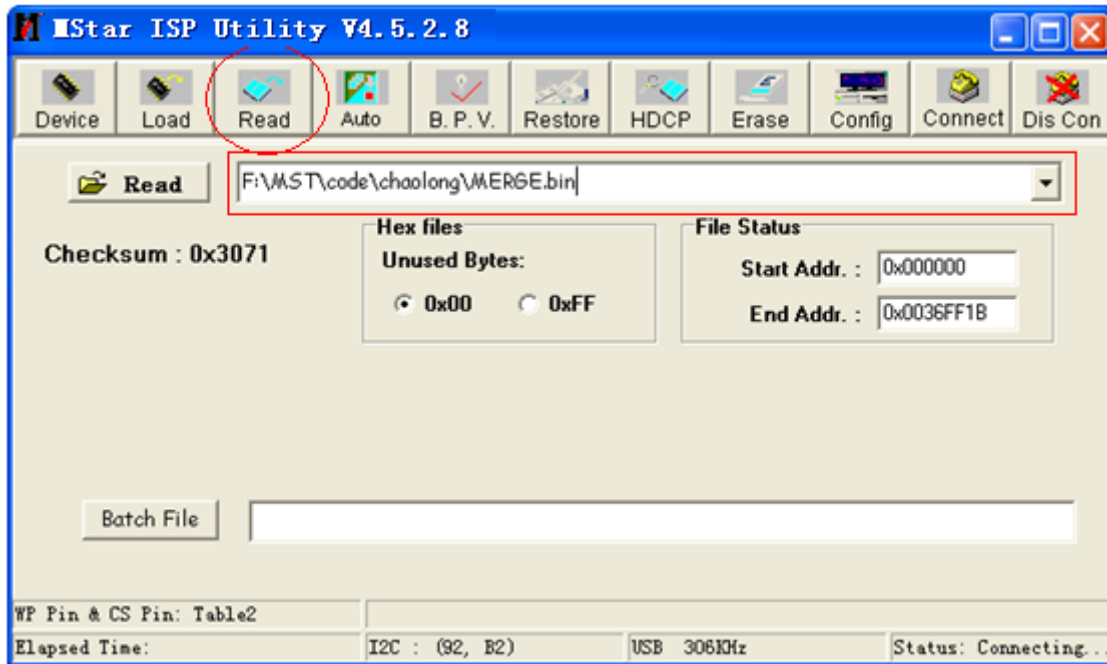
4.2.2 If it fail to connect, it will show “Can’t find the Device Type”



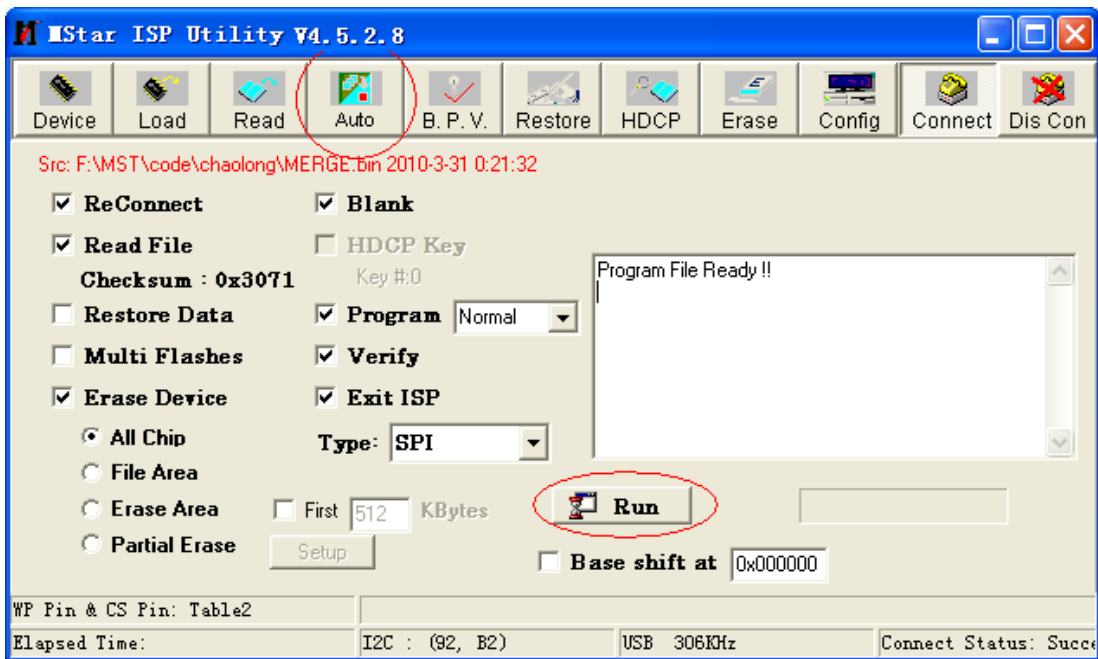
Note: If it fail to connect, please check:

- 1、 whether power is on.
- 2、 whether you have installed the driver successfully and you can find the device in the device manager
- 3、 whether the cable connection is correct.

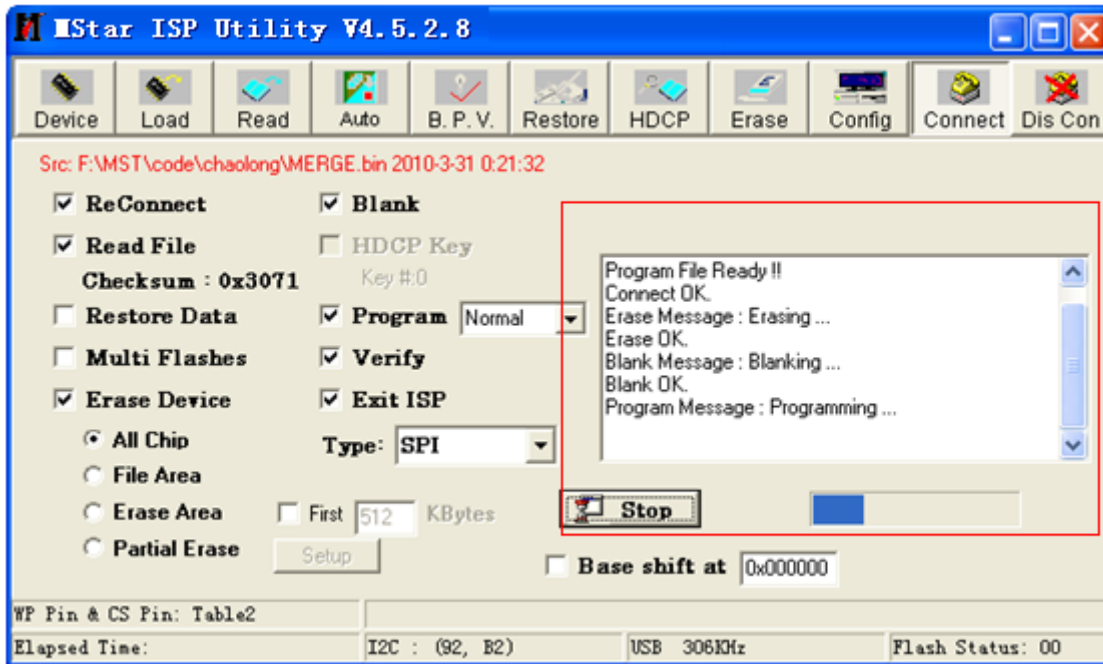
- 4.3 Switch to “**Read**” page, click “Read” then select the upgrade “**bin**” file.



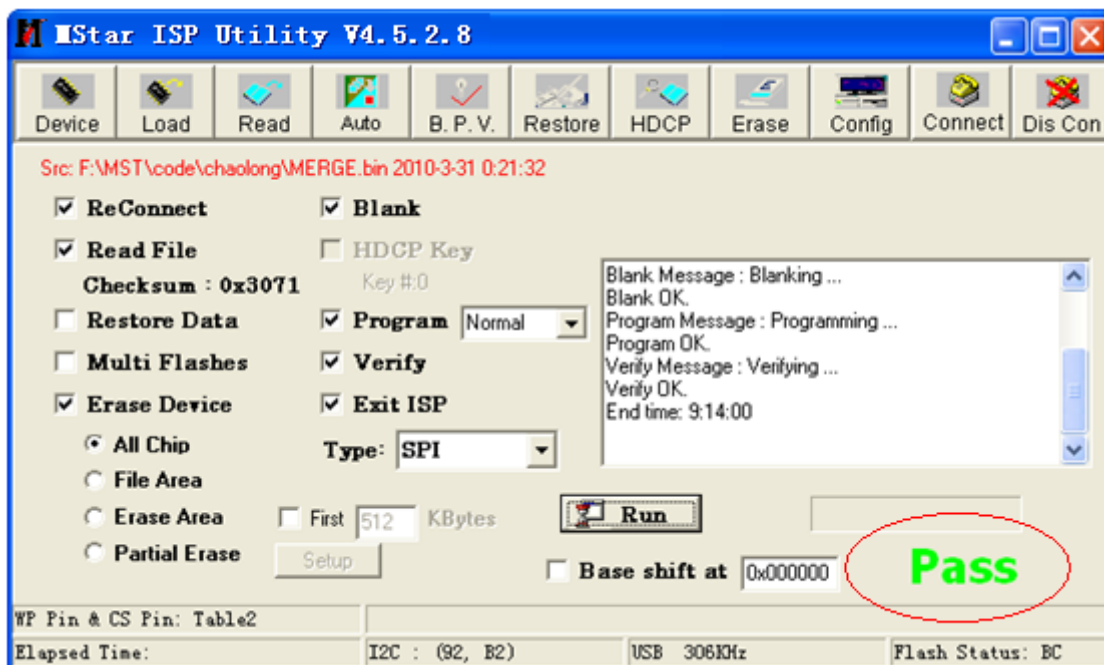
- 4.4 Switch to “Auto” page, set the parameter as below:
click “Run” to start the upgrading.



When upgrading it looks like:

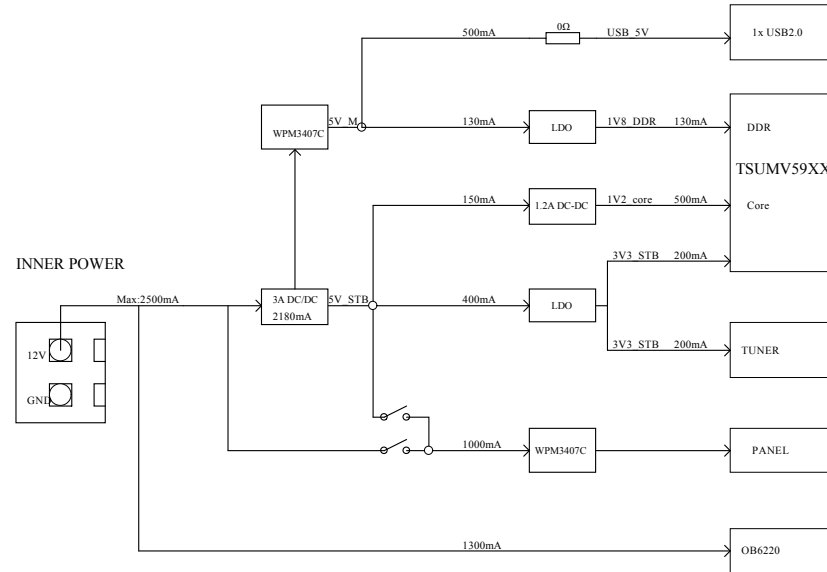


When it finishes, it looks like:

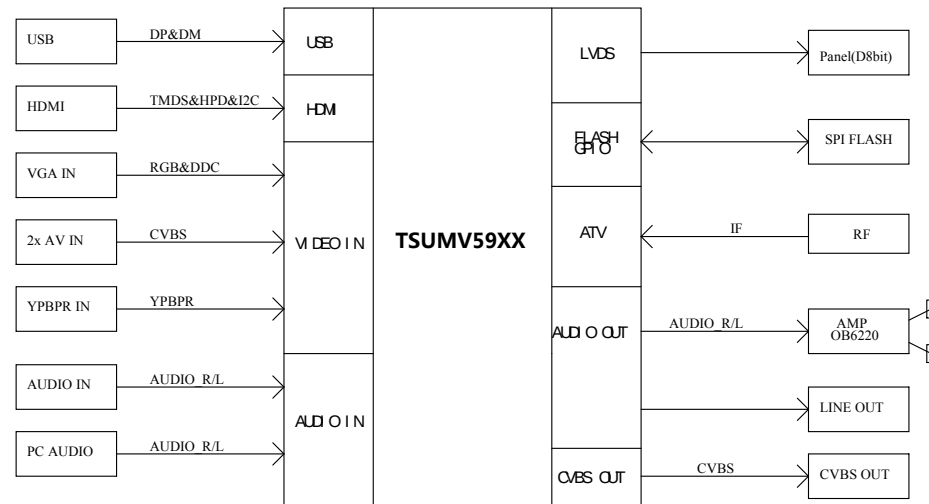


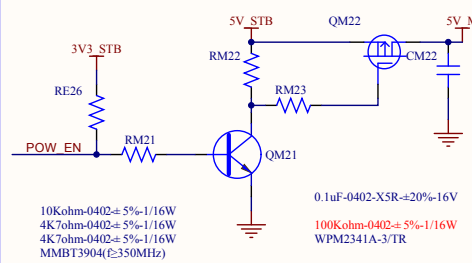
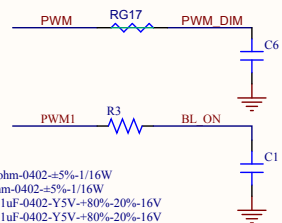
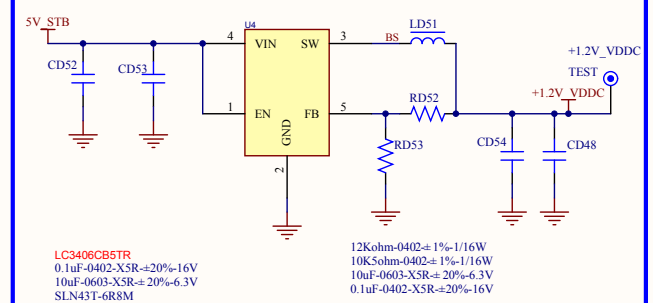
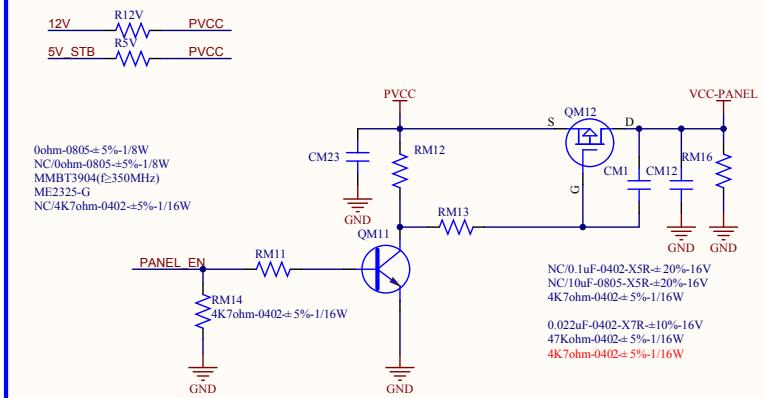
You will find a 'Pass' in green ,if not re-connect the power of the board, and upgrade again.

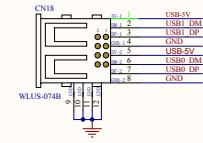
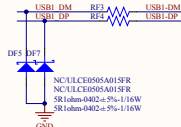
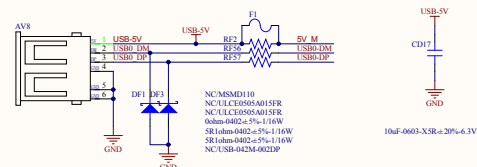
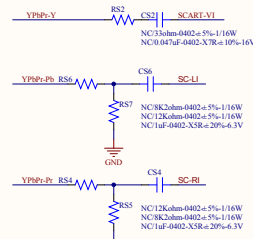
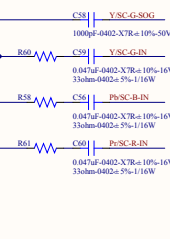
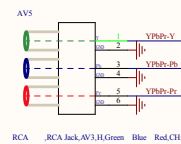
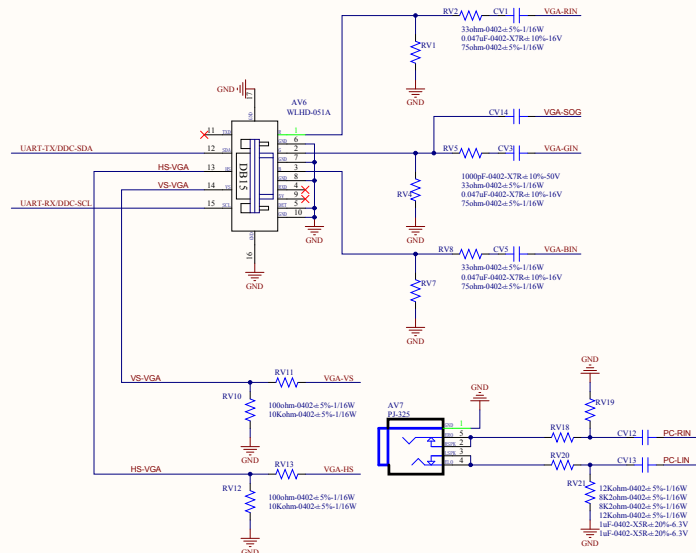
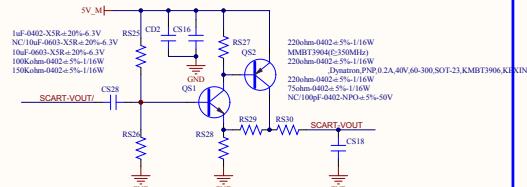
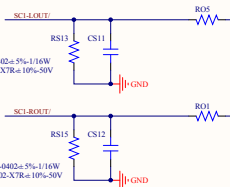
Power Tree



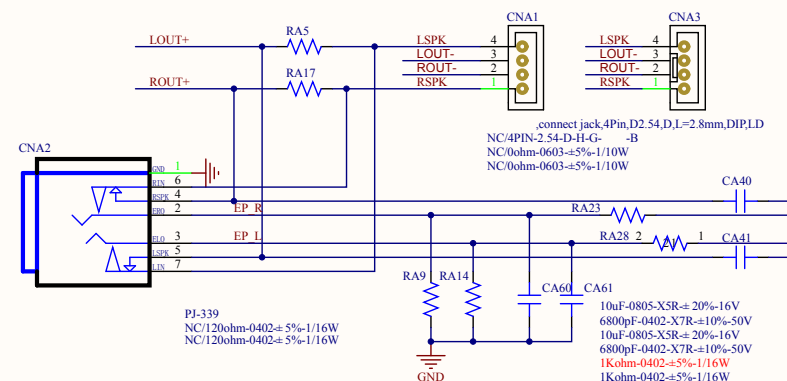
Block Diagram

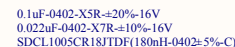
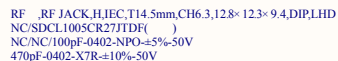
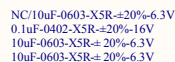






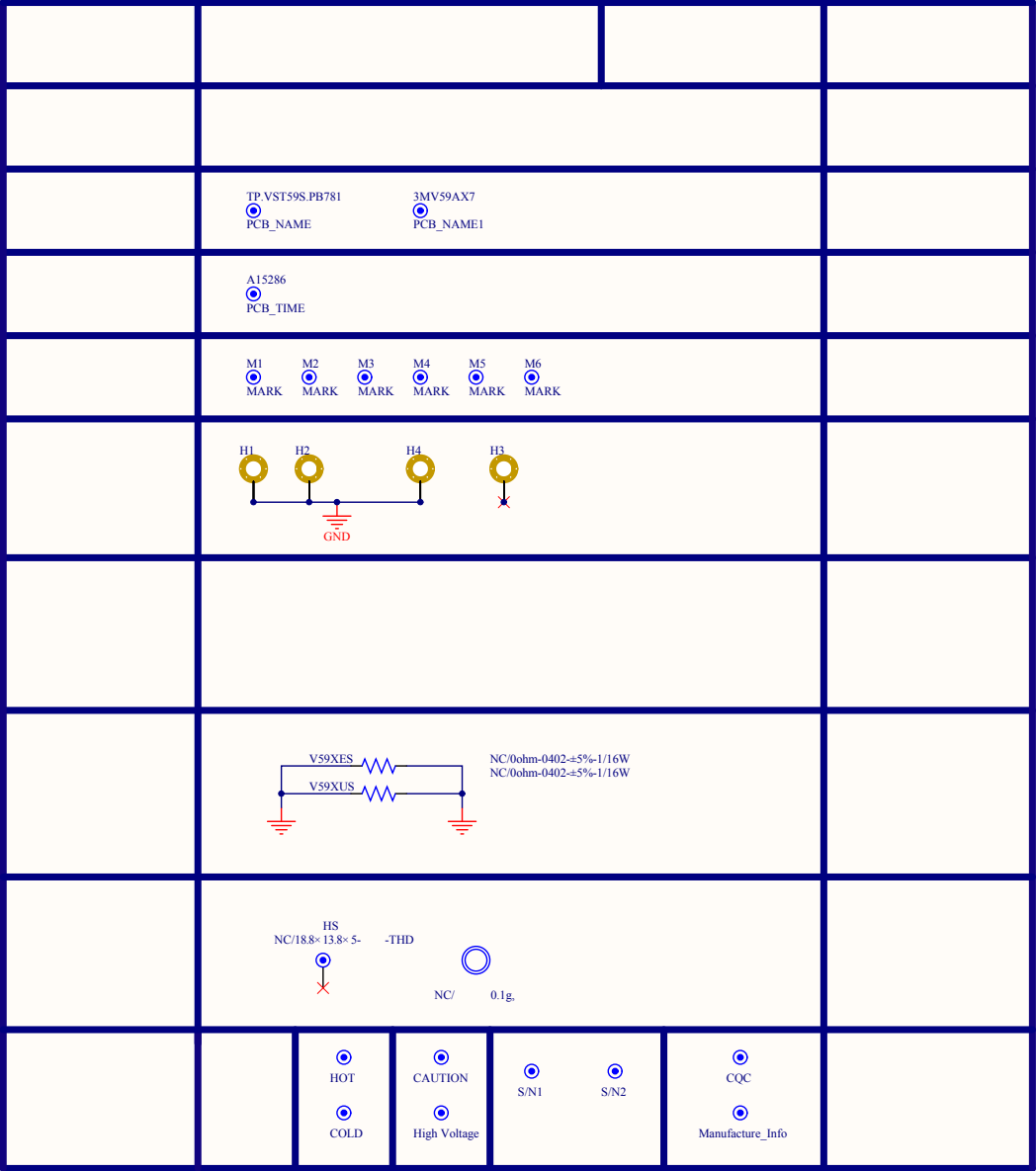
Title		
Size A1	Number	Revision
Date: 2015/5/24	Sheet of	
File: E:\3-1\IV#02 IN\PI\I_SchDoc	I Drawn By:	





.1C Si Tuner,QFN24,SMD,R842,Rafael
.1HF Inductor,.27nH,±5%,0402,SMT,SDCL1005C27NJTDF,Sunlord
SDCL1005CR27JTDF()
0.022uF-0402-X7R-±10%-16V
0.047uF-0402-X7R-±10%-16V

1	2	3	4	5	6	7	8
A							
B							
C							
D							
1	2	3	4	5	6	7	8



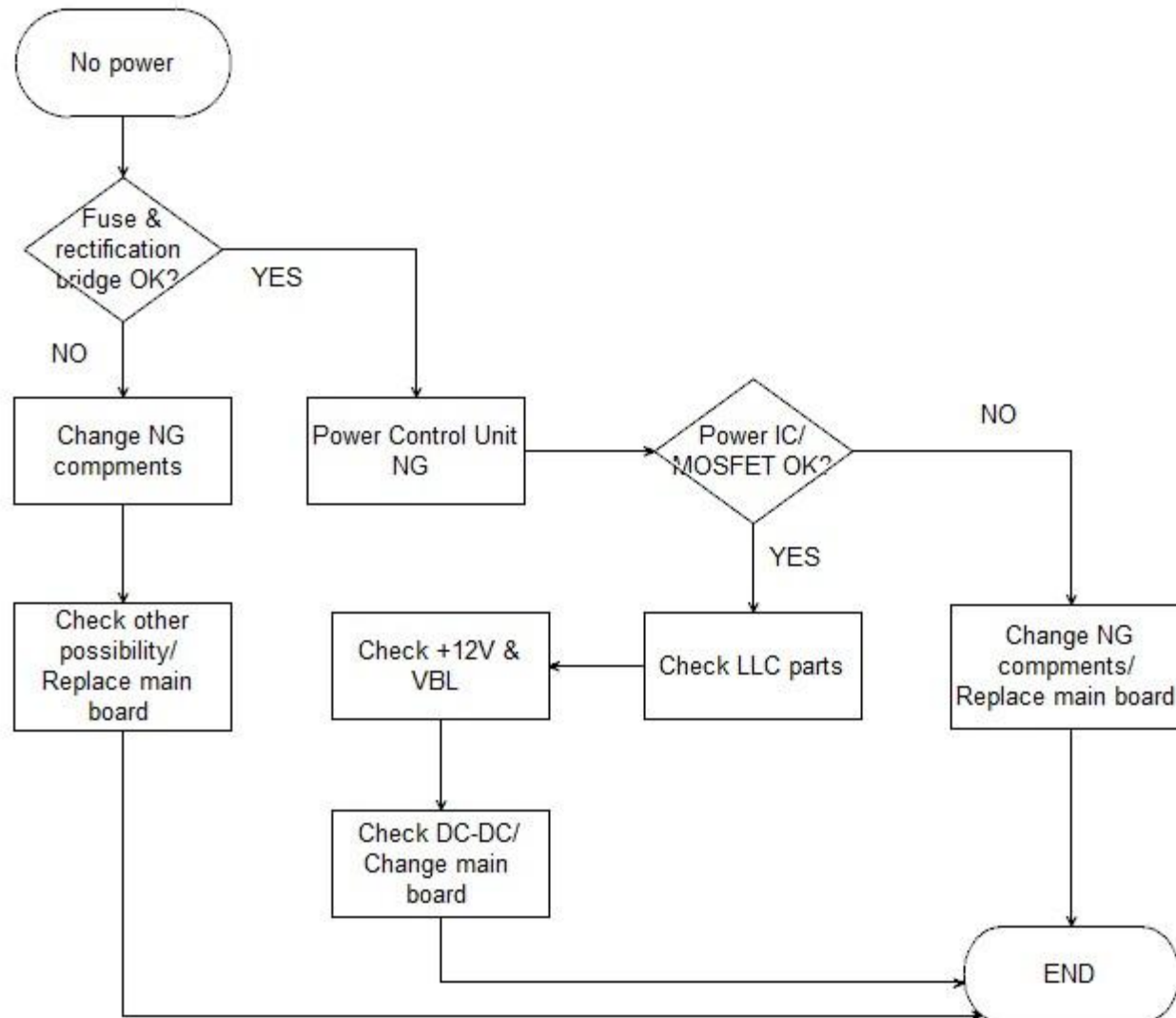
Trouble shooting diagram

Terms:

- ✓ **IR:** *Infrared Receiver*
- ✓ **RC:** *Remote Control*
- ✓ **IR logic:** *IR blink with RC action*
- ✓ **LVDS:** *Low Voltage Differential Signal, output from processor and input for panel*
- ✓ **O/C:** *Open Cell, panel with source board*
- ✓ **BL:** *Back Light, light source for panel module*
- ✓ **LB:** *LED (Light Emitting Diode) Bar, light source for BL module*
- ✓ **VBL:** *Voltage for Back Light (before Boost)*
- ✓ **VLED:** *Voltage for LED (after Boost)*
- ✓ **OVP:** *Over Voltage Protection*
- ✓ **OSD:** *On Screen Display*
- ✓ **AMP:** *Amplifier*

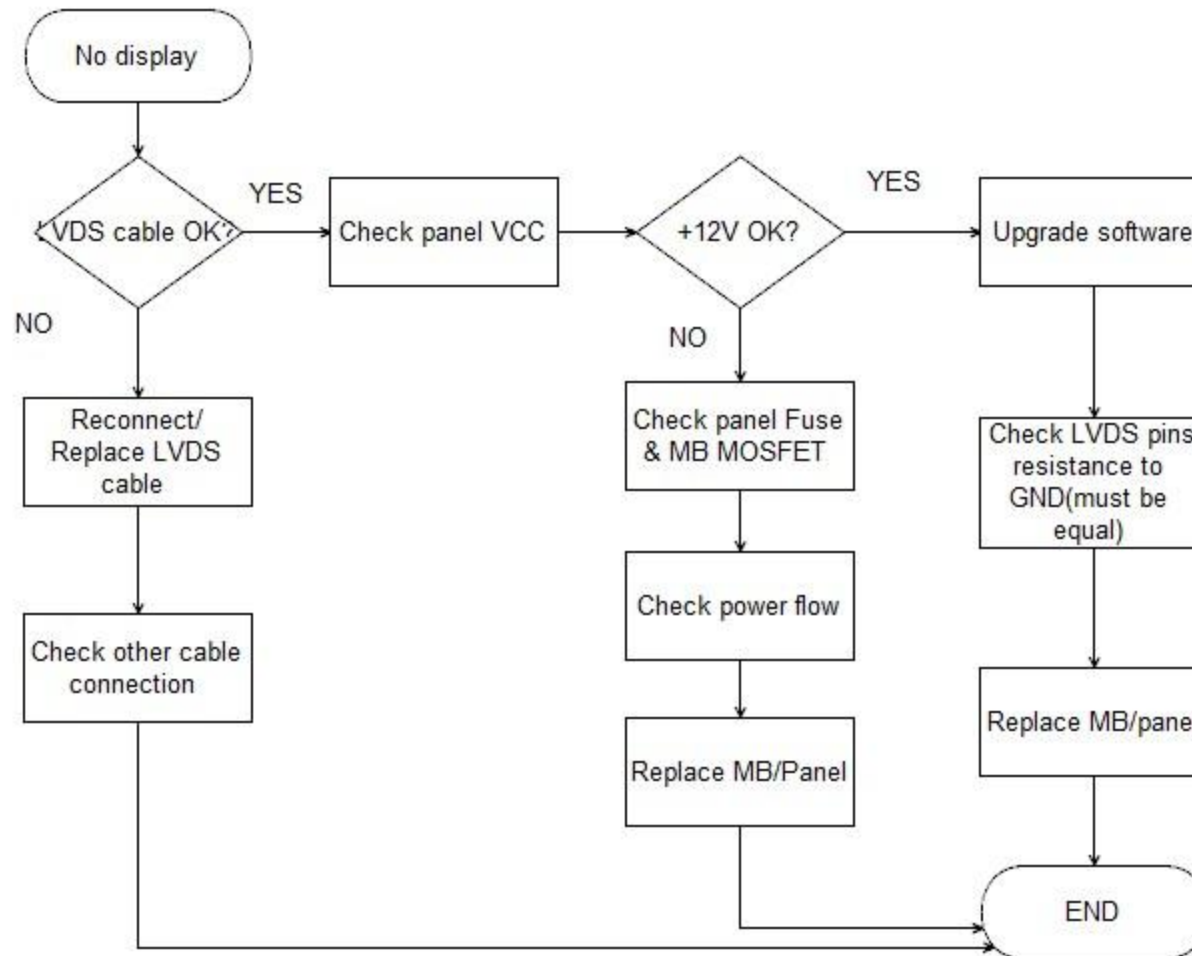
1.No power

No power LED, RC or Key can not turn on TV. Power LED no light/no change.



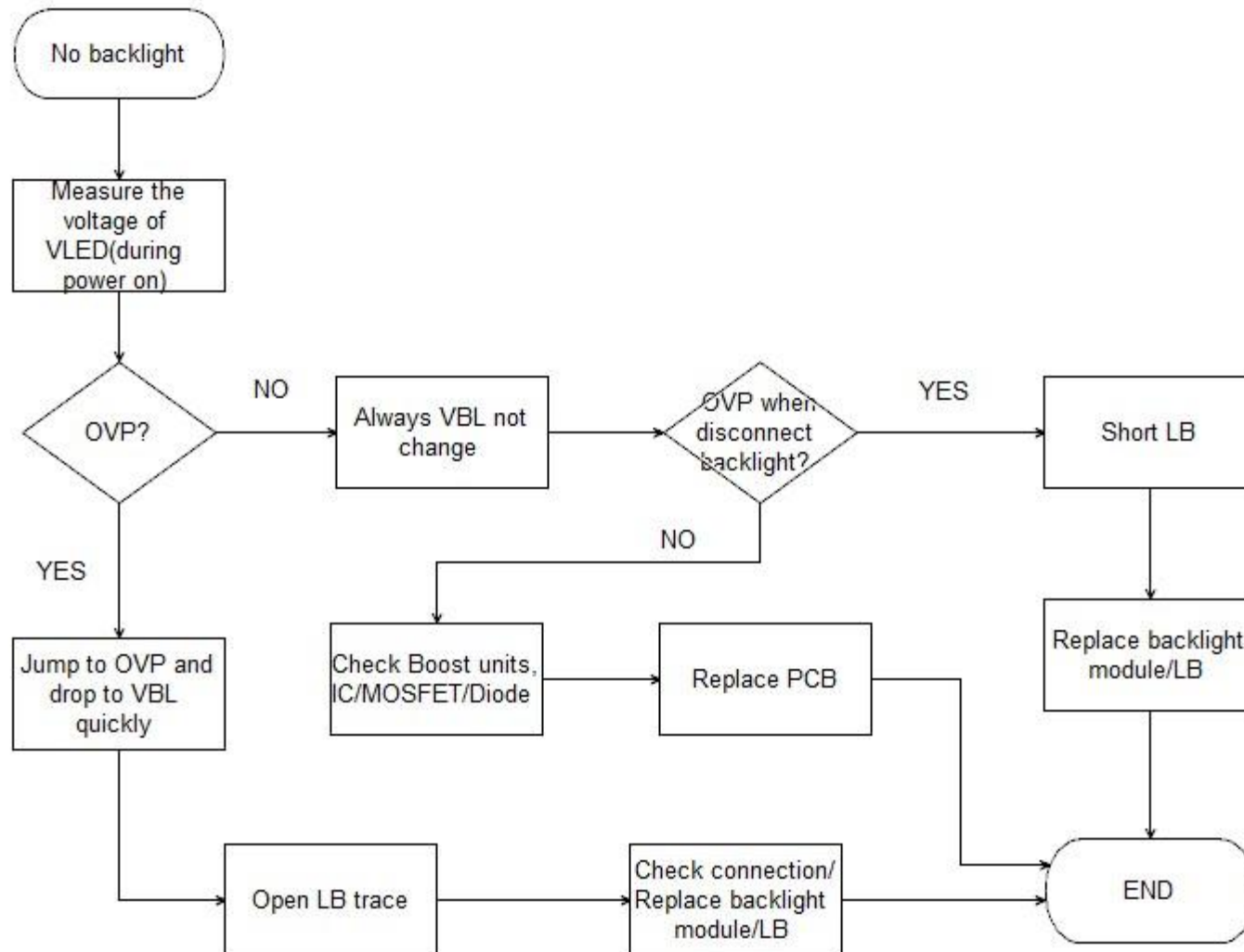
2.No Display / Black Panel

Back light is OK, sound is OK, but no picture.



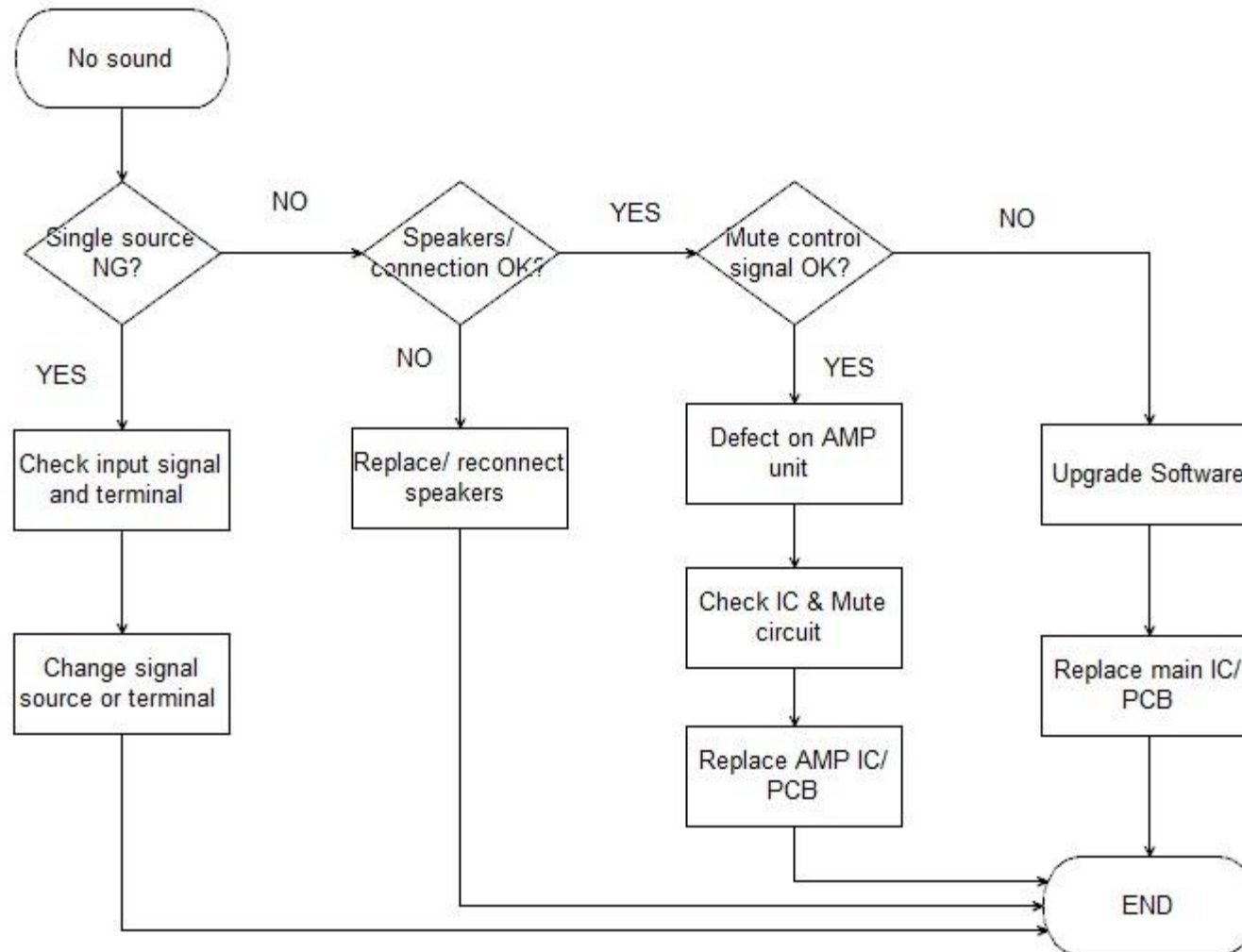
3.No back light

Power LED logic OK, sound OK, but no picture(Different from No Display).



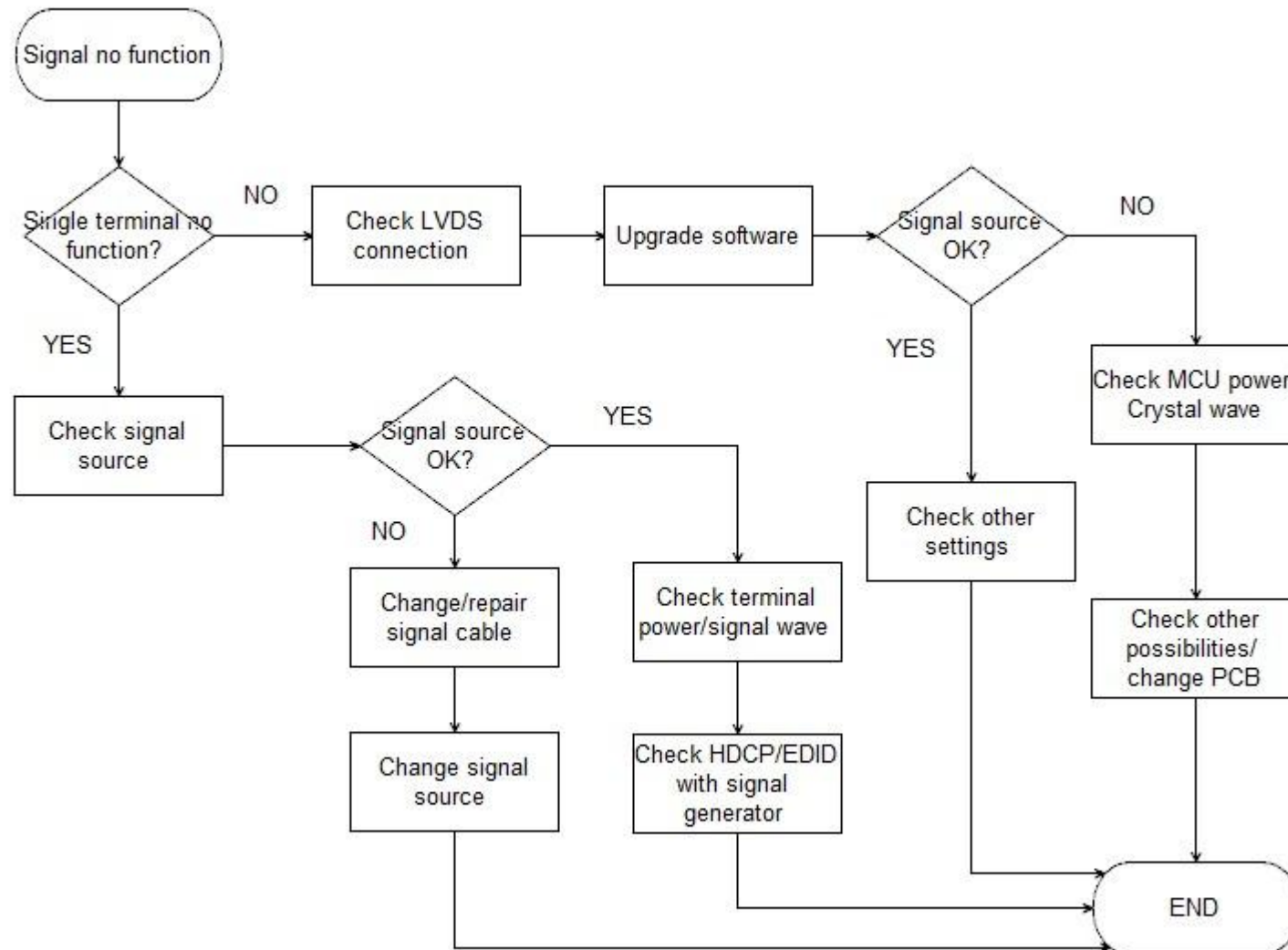
4.No sound

One or all signal source without sound.

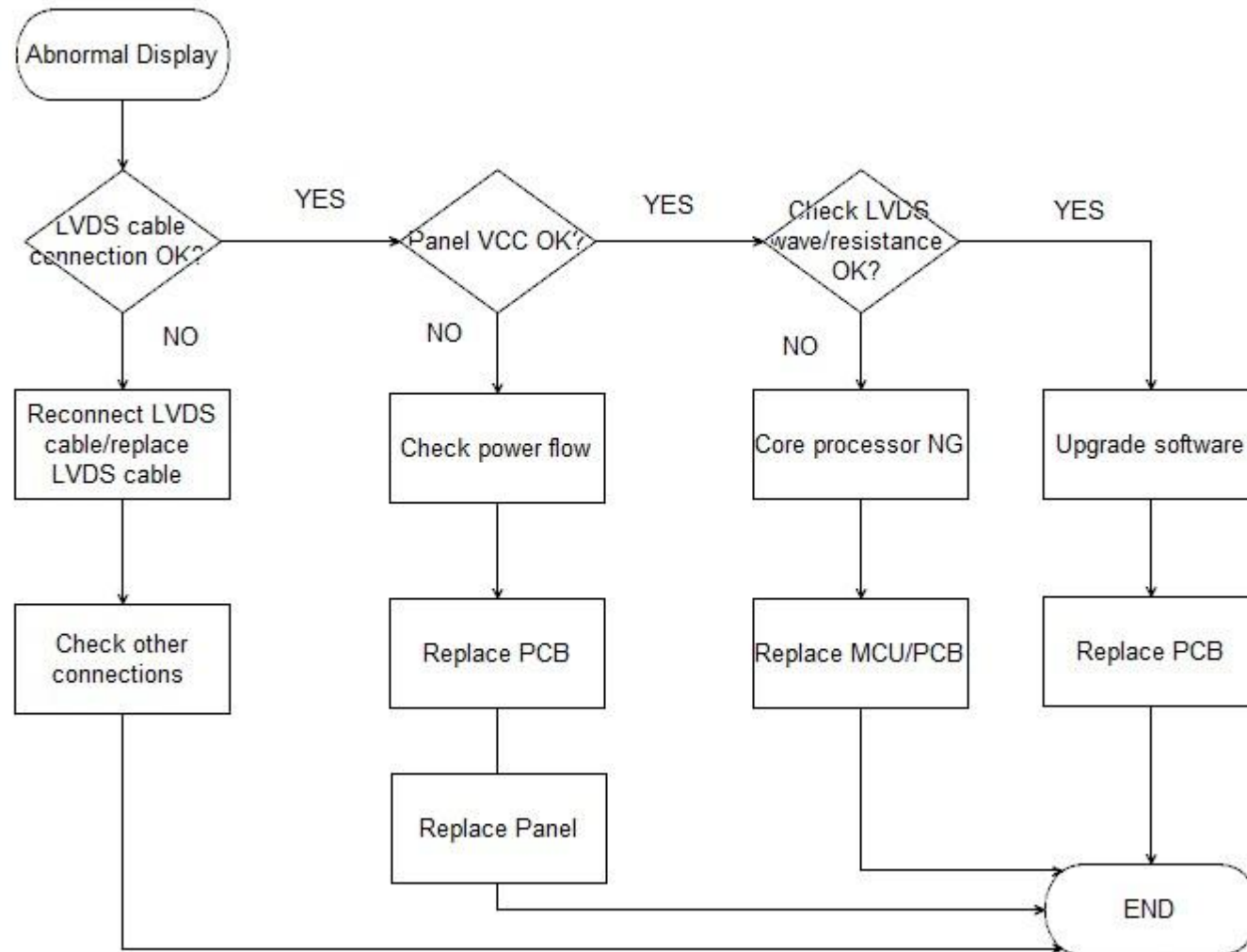


5.Signal source no function

One or several source no function.

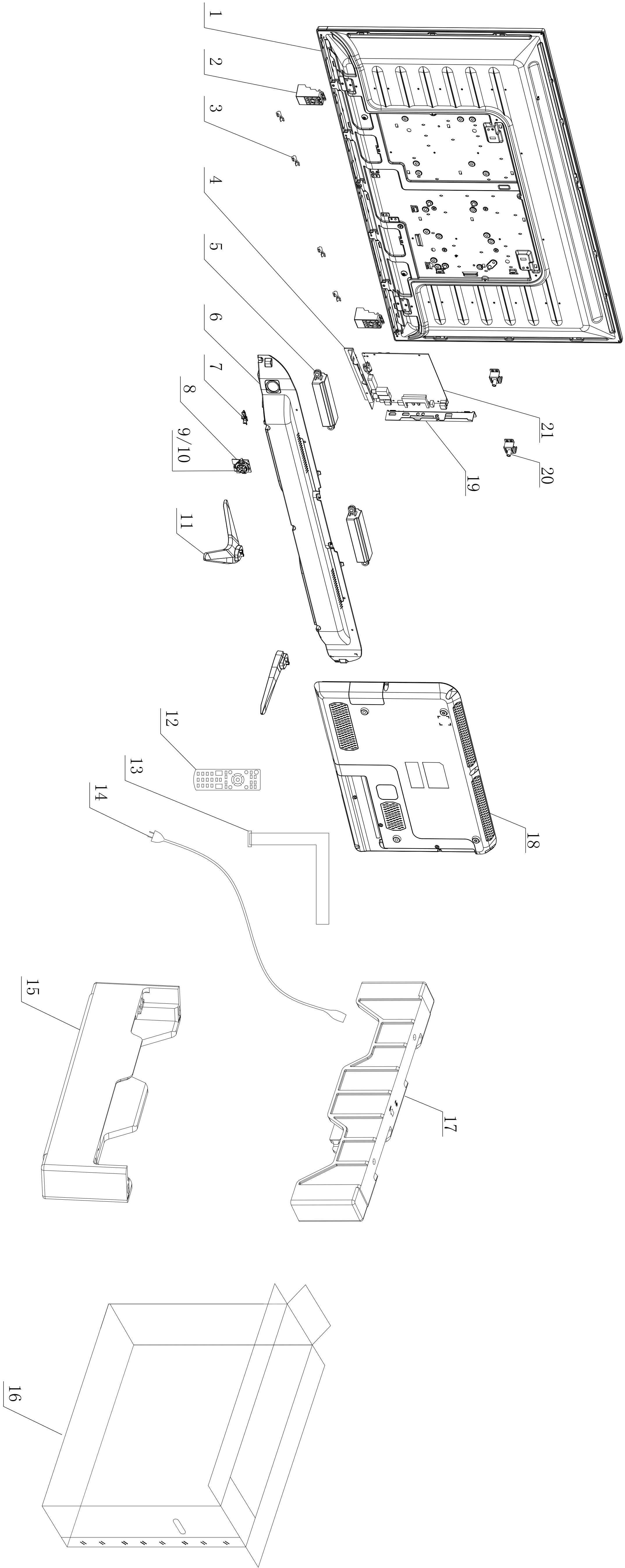


6.Abnormal Display OSD NG or picture NG.



Exploded Drawing

TH-43D310M, 3MV59AX7



	No	Code No	Description ; Specification	Qty	Remark
O	21	62-306530-C002000	Main PCB	1	
	20	67-486190-006	VESA Support	2	
	19	56-742100-N1G	AV Support-Right	1	
	18	55-42000-111G	Back Cover-Top	1	
	17	75-548160-FC1	ES-Top	1	
P	16	76-548270-041	Carton	1	
	15	75-548170-FC1	ES-Bottom	1	
	14	51-420160-0A006	Power cord	1	
	13	46-607450-8F010G	LDS WIRE	1	
	12	06-10P739-40823	Control	1	
Q	11	56-519960-011G	STD	2	
	10	56-483810-011G	Key Decor	1	
	9	56-483800-011G	KEY	1	
	8	06-55016V-FC2	KEY PCB	1	
	7	56-483960-011G	Lens	1	
R	6	55-486250-111G	Back Cover-down	1	
	5	42-004113-X11G	Speaker	2	
	4	56-742090-N1G	AV Support-Bottom	1	
	3	59-470850-100	S_PCB locating clip	4	
	2	62-486380-011G	STD support	2	
	1	06-433230M-1P711	MZ	1	

Optional reserve material list

E3-43D160YU-NGOW/ TH-43D310M/43D1600/3MV59AX7/LG1GTA/DT

S/N	Child	Description	Qty	Unit
1	M8-43D310M-LPPY1	MZ	1	PC
2	62-486380-OHAG	STD support	2	PC
3	59-470950-100	S PCB Locating clip	4	PC
4	56-742090-NUNG	AV Support-Bottom	1	PC
5	42-WDF413-XX1G	SPEAKER 8OHM 10W 80 180HZ RECTANGLE 30.1	2	PC
6	55-486320-1ULG	RAW BACKCOVER 43D1500 BK 3 H N R=Y	1	PC
7	56-487960-OHHG	RAW DECOR LENS TAWNY - - - R=Y	1	PC
8	M8-55D16YU-KE2	ASS'Y - KEY BD	1	PC
9	56-487800-OHAG	RAW DECOR KEY BLACK - - - R=Y	1	PC
10	56-487810-OHAG	RAW DECOR KEY SUPPORT BLACK - - - R=Y	1	PC
11	56-549990-OHAG	RAW STAND STAND BLACK 00 00 00 40D1500 R	2	PC
12	06-IRPT39-A0823	RCT PANASONIC BLACK 3.0V 45MA 3.5UA 0	1	PC
13	46-60FA50-BFB01G	WIRE LVDS 500MM 40-51PIN PHD PHD 2.0-1.0	1	PC
14	51-DC0160-OCR0HG	POWER CORD 1600MM DTIII-2P-03/DTIII-2P-0	1	PC
15	75-548170-EC1	RAW POLYFOAM BOTTOM 43D1500 -- 00 00 R=Y	1	PC
16	76-548270-OAT	RAW CARTON-BOX 43D1500 1128MM 142MM 660M	1	PC
17	75-548160-EC1	RAW POLYFOAM TOP 43D1500 -- 00 00 R=Y	1	PC
18	55-742030-1ULG	Back Cover-TOP	1	PC
19	56-742100-NUNG	RAW SUPPORT 40D1510 AV RIGHT 48D1500 BLA	1	PC
20	67-486190-OMG	RAW SUPPORT 48D1500 VESA 48D1500 VESA RA	2	PC
21	02-SM959D-C002000	Main PCB	1	PC