

Haier

CAUTION:

READ THIS MANUAL CAREFULLY
TO DIAGNOSE TROUBLE CORRECTLY
BEFORE OFFERING SERVICE

SERVICE MANUAL

COLOR TV

MODEL : HL42R



TV-8888-126

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 b electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product deal with in this service information by anyone else could result in serious injury or death.

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1 .Warning



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 product's 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 appliance.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THIS POLARIZED PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

CAUTION: These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

IMPORTANT SAFETY INSTRUCTIONS

Read all of the instructions before using this appliance. When using this appliance, always exercise basic safety precautions, including the following:

Read instructions

Read all of the safety and operating instructions before you use your TV.

Retain instructions

Retain safety and operating instructions for future reference.

Follow warnings and instructions

Follow all warnings on your TV and in the operating instructions. Follow all operating and use instructions.

Water and moisture

Do not use your TV near water. For example, do not use it near a bath tub, wash bowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool.

Cleaning

Unplug your TV before cleaning. Do not use liquid or aerosol cleaners. Use only a damp cloth to clean the exterior of your TV.

Ventilation

Slots and openings in the cabinet and the back or bottom are provided for ventilation, reliable operation, and protection from overheating. These openings must not be blocked or covered. Do not block the openings by placing your TV on a bed, sofa, rug, or other similar surface. Do not place your TV near or over a radiator or heat register. Do not place your TV in a built-in installation, such as a bookcase or rack, unless you provide correct ventilation or follow the manufacturer's instructions.

Heat

Make sure that your TV is located away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

Grounding or polarization

Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a grounding prong. The wide blade or grounding prong are provided for your safety. If the plug does not fit, contact an electrician to replace the obsolete outlet.

Power cord protection

Route power cords so that they are not likely to be walked on or pinched by items placed on or against them. Pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from your TV.

Attachments

Use only attachments recommended by Insignia.

Stand

Do not place your TV on an unstable cart, stand, tripod, bracket, or table. Your TV may fall, causing serious personal injury and serious damage to your TV. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with your TV. If you mount your TV to the wall, follow the manufacturer's instructions and use a mounting accessory recommended by the manufacturer. Your TV and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause your TV and cart combination to overturn.



Lightning

For added protection for your TV's receiver during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the power outlet and disconnect the antenna or cable system. This helps prevent damage to your TV from lightning and power line surges.

Servicing

Do not attempt to service your TV yourself because opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

Replacement parts

When replacement parts are required, make sure that the service technician uses replacement parts specified by the manufacturer that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, personal injury, or other hazards.

Overloading

Do not overload power outlets and extension cords because this can result in a risk of fire or electric shock.

Object and liquid entry

Never push objects of any kind into your TV through openings because objects 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 your TV.

Damage requiring service

Unplug this TV from the power outlet and refer servicing to qualified service personnel under the following conditions:

- When the power supply cord or plug is damaged or frayed.
- If liquid has been spilled or objects have fallen into your TV.
- If your TV has been exposed to rain or water.
- If your TV does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions because incorrect adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore your TV to its normal operation.
- If your TV has been dropped or damaged in any way.
- When your TV exhibits a distinct change in performance.

Safety check

After completing any service or repair to this TV, ask the service technician to perform routine safety checks to determine that your TV is in correct operating condition.

Power source

Operate your TV only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your TV dealer or local power company.

Screen protection

Your TV's screen is made of glass. Do not drop your TV or hit the glass screen. If the screen breaks, be careful of broken glass. Reviewers: Please confirm.

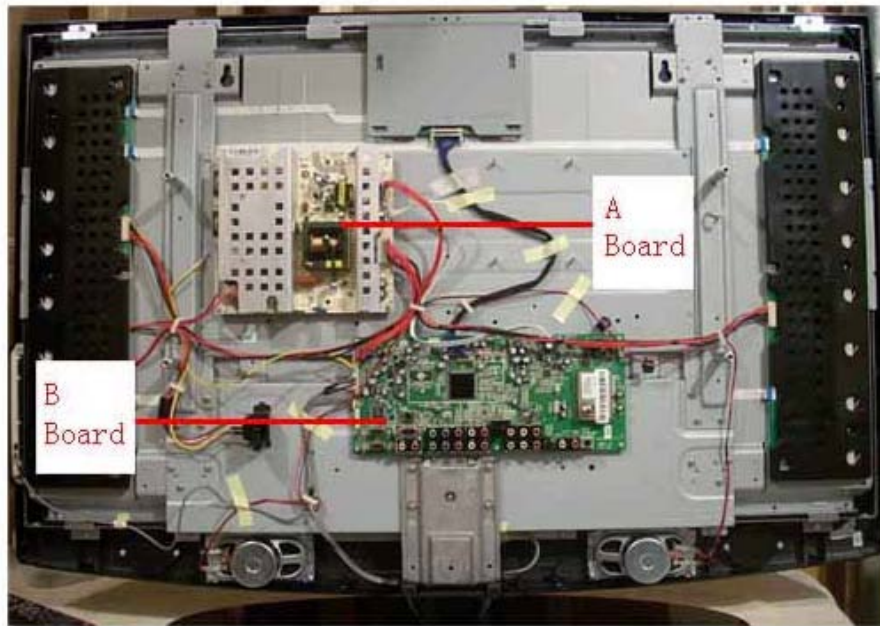
Non-active pixels

The LCD panel contains almost 3 million thin film transistors, which provide exceptionally sharp video quality. Occasionally, a few non-active pixels may appear on the screen as a fixed blue, green, or red point. These non-active pixels do not adversely affect the performance of your TV, and are not considered defects.

2. Specification

Model	HL42R
Screen size	42inch
Aspect ratio	16:9
Resolution	1920X1080
Response Time (ms)	8(GRAY TO GRAY)
Angel of view	178 ⁰
Color display	16,770,000(256 steps of each R, G and B)
NO.of preset channels	181
OSD language	English
Color system	NTSC ATSC Clear QAM
Audio system	DK,BG
Audio output power(Built-in)(W)	10W×2
Audio output power(outer)(W)	YES
Total power input (W)	240W
Voltage range (V)	120V
Power frequency (Hz)	60Hz
Time of sleep timer(MINS)	120Min
Net weight(KG)	32
Gross weight(KG)	32
Net dimension(MM)	1115X375X830
Packaged dimension(MM)	1115X375X830

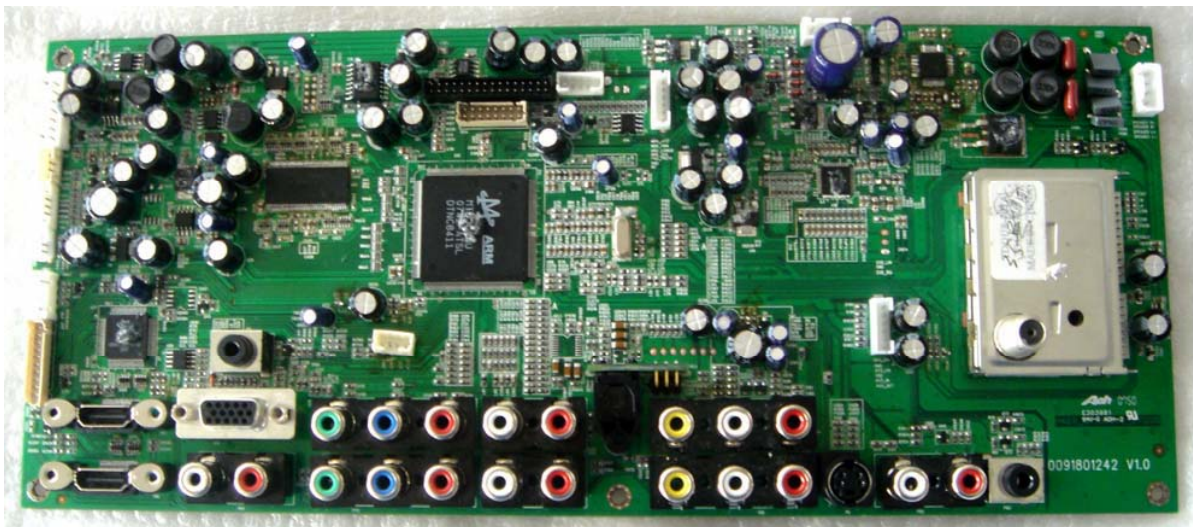
3. LOCATION OF CONTROLS AND COMPONENTS



3.1.Board Location

No.	Parts number	Description
A Board		Power Board
B Board		Main Board

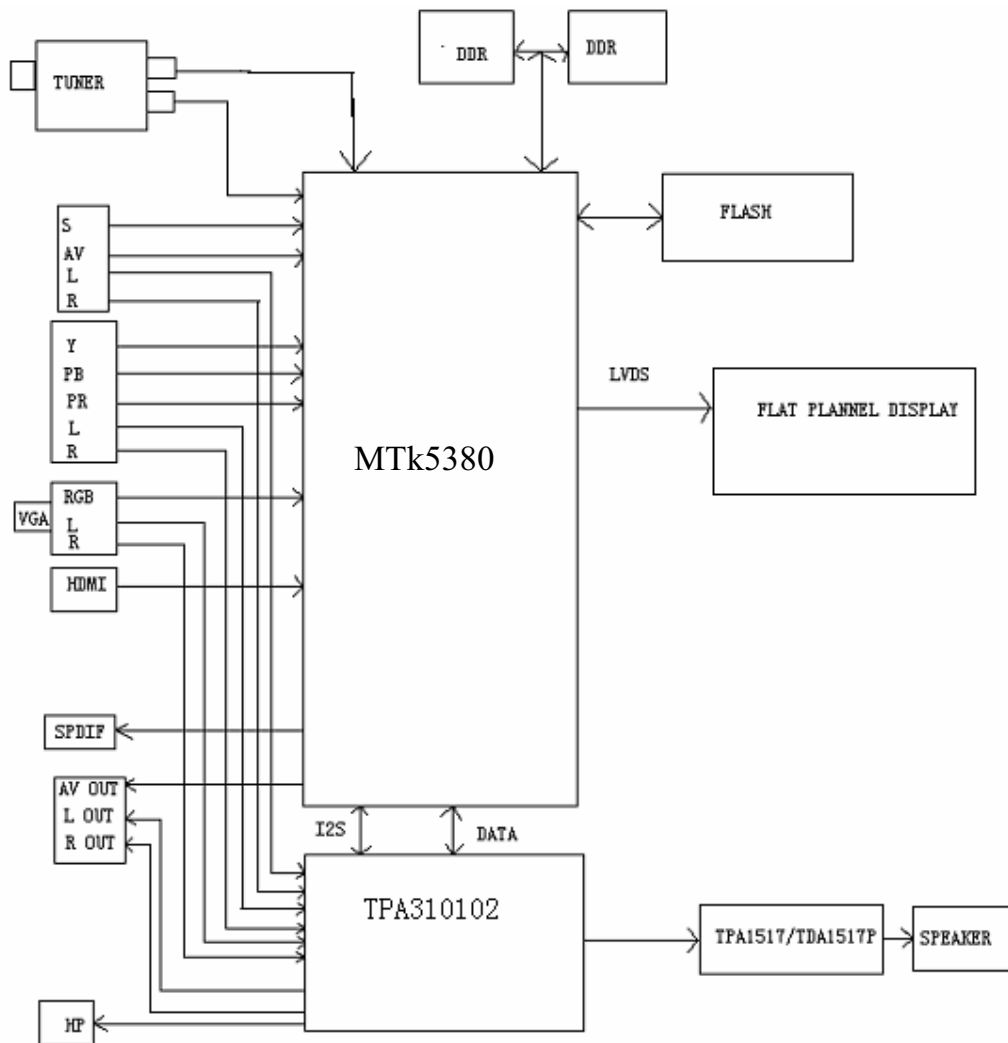
3.2. Main Board



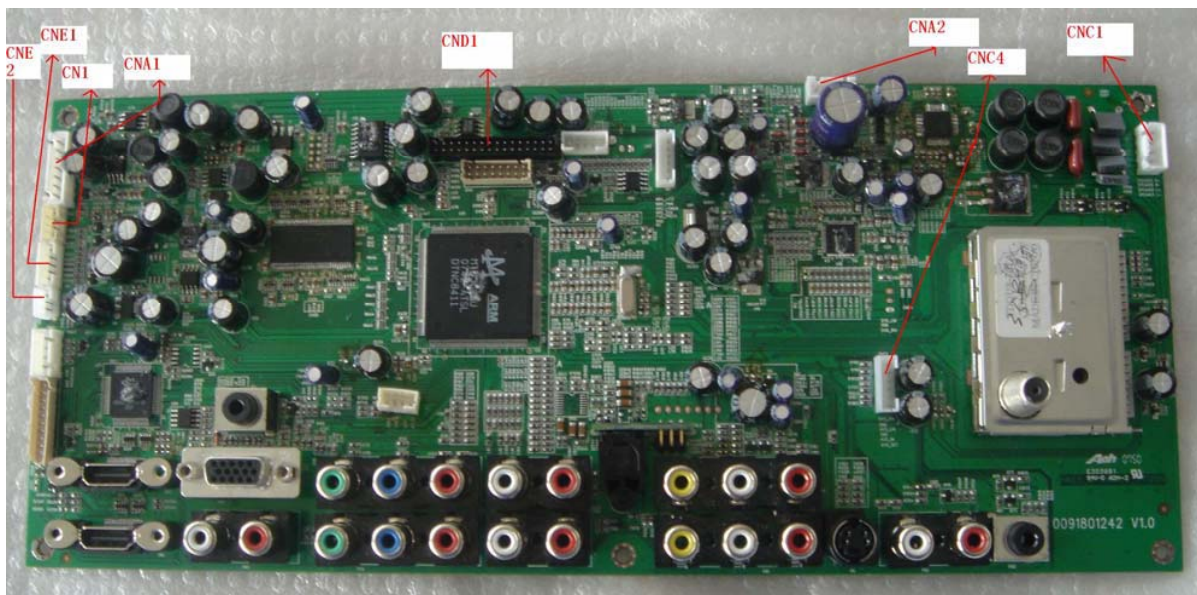
3.2.1 Function Description

Main Board:

Process signal which incept from exterior equipment, then translate into signal that panel can display.
Signal flowing chart.



3.2.2 Connector definition



Power connector(CNA1)

Pin number	Signal name	Description
1	ON/OFF	Control the power of system
2	GND	Ground
3	5VSB	Power of TV standby
4	GND	Ground
5	GND	Ground
6	12V	Power of system
7	12V	Power of system

IR connector (CNE1)

Pin number	Signal name	Description
1	5V	Supply the Power of bright and IR receiver
2	IR	Receive IR signal
3	RED	Show red when TV standby
4	BLUE	Show blue when TV working
5	GND	Ground
6	NC	NC

Key connector(CNE2)

Pin number	Signal name	Description
1	GND	Ground
2	AD0	Control Power,CH+,CH-
3	AD1	Control Menu,V+,V-,INPUT

Backlight control connector(CN1)

Pin number	Signal name	Description
1	BKANJ	Control the backlight of pannel
2	BKEN	The system turn on or turn off the backlight of TFT LCD Panel through the power supply unit path.
3	GND	GND
4	5V	Not use

LVDS Signal connector(CND1)

Pin number	Signal name	Pin number	Signal name	Pin number	Signal name
1	LVDS VDD	9	Not use	17	A1P
2	LVDS VDD	10	Not use	18	A1N
3	LVDS VDD	11	Not use	19	A2P
4	LVDS VDD	12	Not use	20	A2N
5	Not use	13	A0P	21	GND
6	Not use	14	A0N	22	GND
7	GND	15	GND	23	CK1P
8	GND	16	LVDS_SEL	24	CK1N
Pin number	Signal name				
25	A3P				
26	A3N				
27	GND				
28	GND				
29	Not use				
30	Not use				

AMP connector(CNA2)

Pin number	Signal name	Description
1	18V	Power of Audio power amp
2	18V	Power of Audio power amp
3	GND	Ground
4	GND	Ground

Speaker connector(CNC1)

Pin number	Signal name
1	L-
2	L+
3	R-
4	R+

3.3 Power Board

3.3.1 Function Description:

Supply power for Main board, Panel and DC/DC power board



3.3.2 Connector definition

CONNECTOR (CN2 CN3)

CN2 CN3	Signal name
1	24V
2	24V
3	24V
4	24V
5	24V
6	GND
7	GND
8	GND
9	GND
10	GND

CONNECTOR (CN4)

CN4	Signal name
1	ON/OFF
2	GND
3	5VSB
4	GND
5	GND
6	12V
7	12V

3.4 LCD PANEL.

3.4.1 Function Description:

Display the signal.



3.4.2 Connector definition

Pin No	Symbol	Description	Note
1	Power	DC 12V	
2	Power	DC 12V	
3	Power	DC 12V	
4	Power	DC 12V	
5	Power	DC 12V	
6	GND	GND	
7	GND	GND	
8	GND	GND	
9	GND	GND	
10	RO[0]N	ODD LVDS SINGAL-	
11	RO[0]P	ODD LVDS SINGAL+	
12	RO[1]N	ODD LVDS SINGAL-	
13	RO[1]P	ODD LVDS SINGAL+	
14	RO[2]N	ODD LVDS SINGAL-	
15	RO[2]P	ODD LVDS SINGAL+	
16	GND	GND	
17	ROCLK-	ODD LVDS SINGAL-	
18	ROCLK+	ODD LVDS SINGAL+	
19	GND	GND	
20	RO[3]N	ODD LVDS SINGAL-	
21	RO[3]P	ODD LVDS SINGAL+	
22	NC	NC	
23	NC	NC	
24	GND	GND	
25	RE[0]P	EVEN LVDS SINGAL-	
26	RE[0]N	EVEN LVDS SINGAL+	

27	RE[1]P	EVEN LVDS SINGAL-	
28	RE[1]N	EVEN LVDS SINGAL+	
29	RE[2]P	EVEN LVDS SINGAL-	
30	RE[2]N	EVEN LVDS SINGAL+	

CND1(Header):S14B-PH-SM4-TB(D)(LF)(JST) or equivalent.

Pin No.	Symbol	Description
1	VBL	+24V Power input
2		
3		
4		
5		
6	GND	Ground
7		
8		
9		
10		
11	NC	NC
12	BLON	BL ON/OFF
13	PWM	Internal PWM Control
14	NC	NC

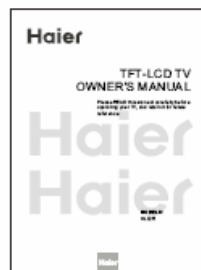
4. INSTALLATION INSTRUCTIONS

4.1 External Equipment Connections

Accessories



Remote control



Owner's manual



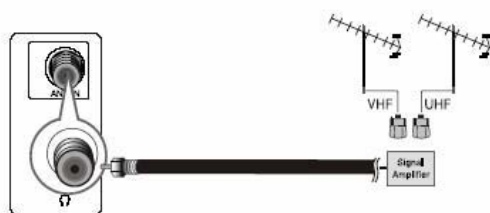
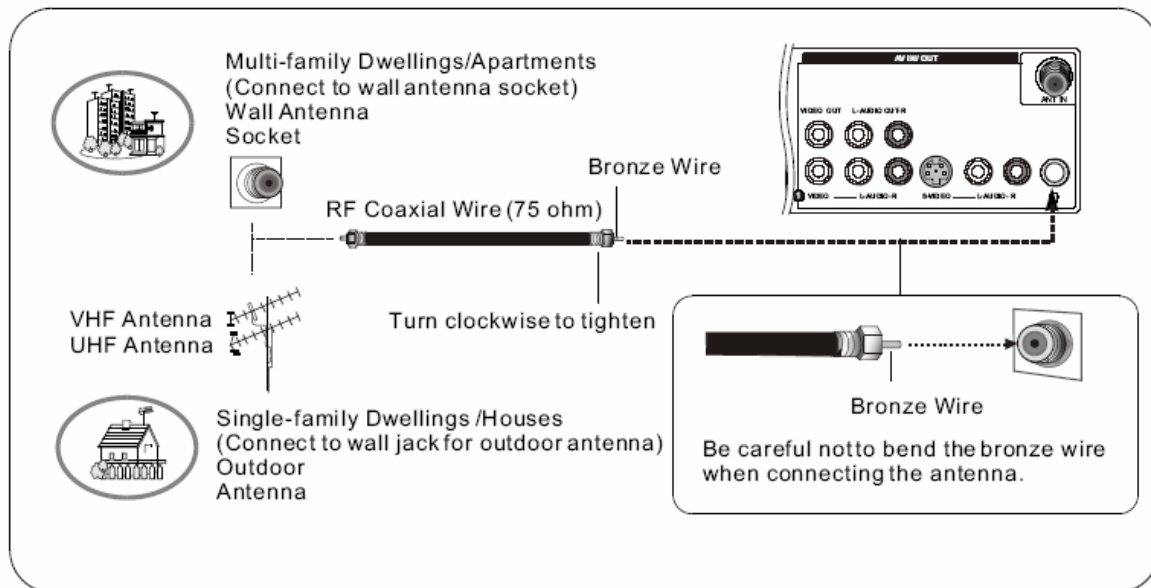
Alkaline battery(AAA)×2



Power cable

Antenna Connection

Generally speaking, to enjoy a clearer picture, we recommend that you use a CATV system or an outdoor antenna . location and antenna positioning.



- To improve the picture quality in a poor signal area, please purchase a signal amplifier and install properly.
- If the antenna needs to be split for two TV's, install a "2-Way Signal Splitter" in the connections.
- To install the antenna properly please contact a professional in your area.

External Equipment Connections

NOTE: All cables shown are not included with the TV.

Choose Your Connection

There are several ways to connect your television, depending on the components you want to connect and the quality of the signal you want to achieve. The following are examples of some different ways to connect your TV with different input sources.

VCR connection

To avoid picture noise (interference), leave an adequate distance between the VCR and TV.

Connection Option 1

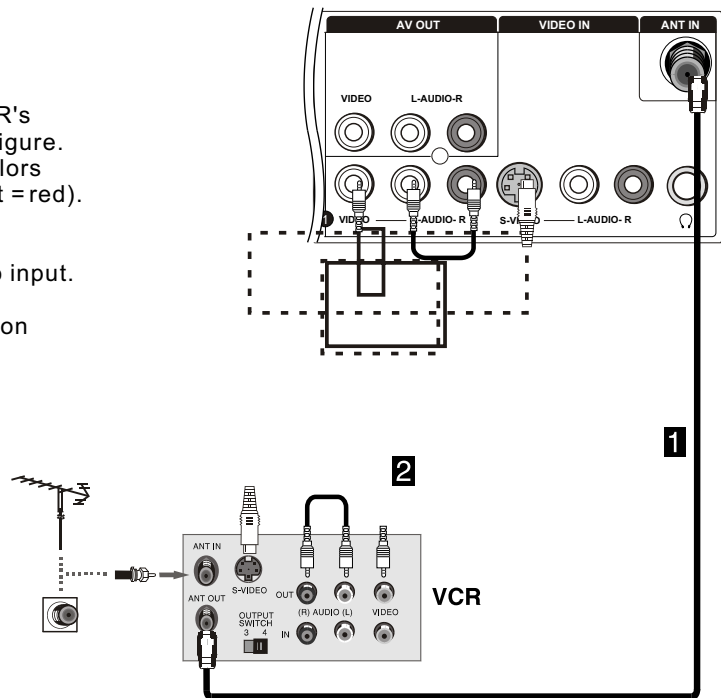
Set VCR output switch to channel 3 or 4 and then tune the TV to the same channel number.

Connection Option 2

1. Connect the audio and video cables from the VCR's output jacks to the TV input jacks, as shown in the figure. When connecting the TV to VCR, match the jack colors (Video = yellow, Audio Left = white, and Audio Right = red). If you connect a S-VIDEO output from VCR to the S-VIDEO input, the picture quality is improved; compared to connecting a regular VCR to the Video input.

2. Insert a video tape into the VCR and press PLAY on the VCR. (Refer to the VCR owner's manual.)

3. Select the input source with using the INPUT button on the remote control, and then press ▲ / ▼ button to select the source, press **OK** button to confirm.



External Equipment Connections

External A/V Source Setup

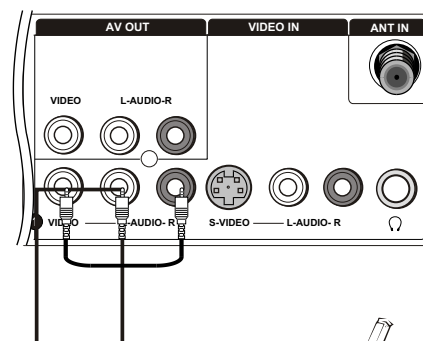
How to connect

Connect the audio and video cables from the external equipment's output jacks to the TV input jacks, as shown in the figure.

When connecting the TV to external equipment, match the jack colors (Video = yellow, Audio Left = white, and Audio Right = red).

How to use

1. Select the input source with using the INPUT button on the remote control.
2. Press ▲ / ▼ button to select the desired source.
3. Press OK button to confirm.
2. Operate the corresponding external equipment.



Connecting a DVD player

How to connect

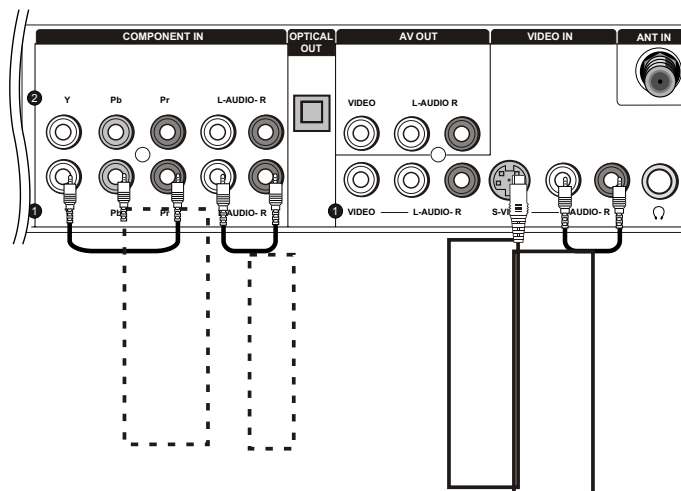
1. Connect the DVD video outputs (COMPONENT) to the YPbPr jacks on the TV and connect the DVD audio outputs to the YPbPrAudio IN jacks on the TV, as shown in the figure.
2. If your DVD only has an S-VIDEO output jack, connect this to the S-VIDEO input on the TV, as shown in the figure.

Note

If your DVD player does not have component video output, use S-Video.

How to use

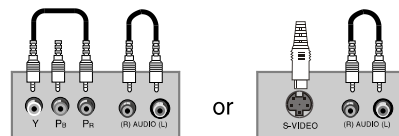
1. Turn on the DVD player, insert a DVD.
2. Use INPUT button on the remote control to select Y Pb Pr mode.
3. Press Play button on external equipment for program play.
4. Refer to the DVD player's manual for operating instructions.



■ Component Input ports

To get better picture quality, connect a DVD player to the component input ports as shown below.

Component ports on the TV	Y	Pb	Pr
Video output ports on DVD player	Y	Pb	Pr
	Y	B-Y	R-Y
	Y	Cb	Cr
	Y	P _B	P _R



DVD

External Equipment Connections

Connecting a DTV(digital TV)

This TV can receive Digital Over-the-air/Cable signals without an external digital set-top box. However, if you do receive Digital signals from a digital set-top box or other digital external device, refer to the figure as shown below.

This TV supports HDCP (High-bandwidth Digital Contents Protection) protocol for Digital Contents (480p, 720p, 1080i).

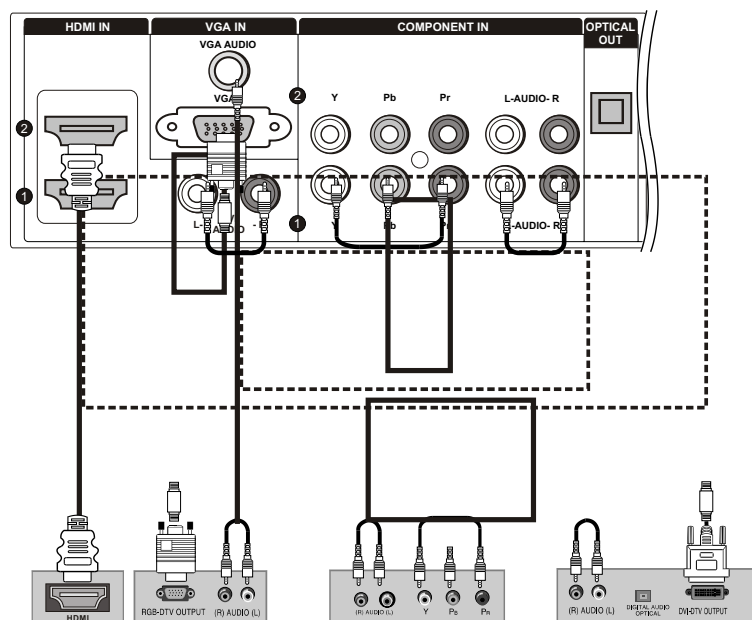
How to connect

Use the TV's COMPONENT, VGA or HDMI jack for video connections, depending on your set-top box connector. Then, make the corresponding audio connections.

How to use

1. Turn on the digital set-top box. (Refer to the owner's manual for the digital set-top box.)
2. Use INPUT on the remote control to select COMPONENT, VGA or HDMI source.

Signal	COMPONENT	HDMI
480i	Yes	Yes
480p	Yes	Yes
720p	Yes	Yes
1080i	Yes	Yes
1080p	Yes	Yes



Digital Set-top Box

Connecting a digital audio output

Send the TV's audio to external audio equipment (stereo system) via the Digital Audio Output (Optical) port.

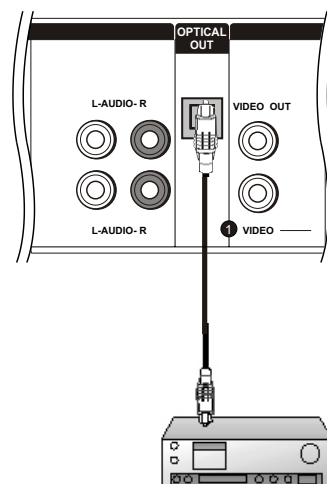
How to connect

1. Connect one end of an optical cable to the TV Digital Audio (Optical) Output port.
 2. Connect the other end of the optical cable to the digital audio (optical) input on the audio equipment.
- See the external audio equipment instruction manual for operation.

Note

When connecting with external audio equipments, such as amplifiers or speakers, please turn the TV speakers off.

Caution: Do not look into the optical output port. Looking at the laser beam may damage your vision.



External Equipment Connections

Connecting a computer

How to connect

1. To get the best picture quality, adjust the VGA graphics card to 1024x768.
2. Use the TV's VGA or DVI (Digital Visual Interface) Audio IN port for audio connections, depending on your computer connector.
 - If the graphic card on the computer does not output analog and digital RGB simultaneously, connect only one of either VGA IN or HDMI IN to display the VGA on the TV.
 - If the graphic card on the computer does output analog and digital RGB simultaneously, set the TV to either VGA or HDMI; (the other mode is set to Plug and Play automatically by the TV.)
3. Then, make the corresponding audio connection. If using a sound card, adjust the VGA sound as required.

How to use

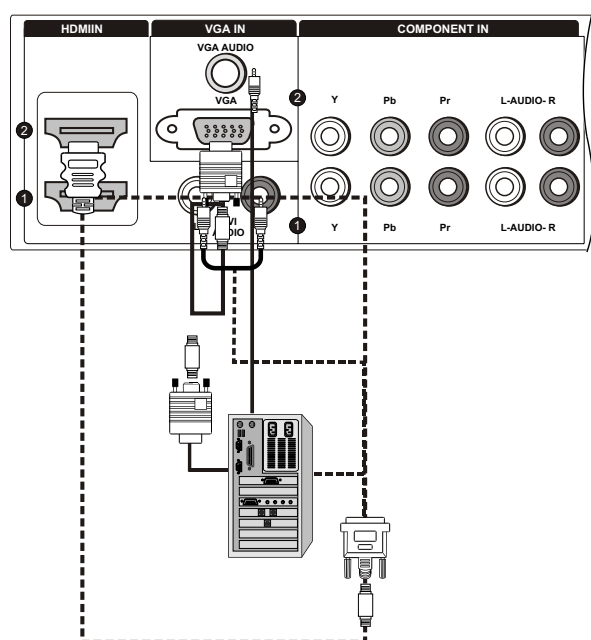
1. Turn on the computer and the TV.
2. Use INPUT on the remote control to select VGA or HDMI source.
3. Check the image on your TV. There may be noise associated with the resolution, vertical pattern, contrast or brightness in VGA mode. If noise is present, change the VGA mode to another resolution, change the refresh rate to another rate or adjust the brightness and contrast on the menu until the picture is clear. If the refresh rate of the VGA graphic card cannot be changed, change the VGA graphic card or consult the manufacturer of the VGA graphic card.

Note

1. Use a DVI cable.
2. Avoid keeping a fixed image on the TV's screen for a long period of time. The fixed image may become permanently imprinted on the screen.
3. The synchronization input form for Horizontal and Vertical frequencies is separate.

Resolution

Mode	Resolution	Frame frequency (Hz)
VGA	640x480	60Hz
SVGA	800x600	60Hz
		75Hz
XGA	1024x768	60Hz
		75Hz



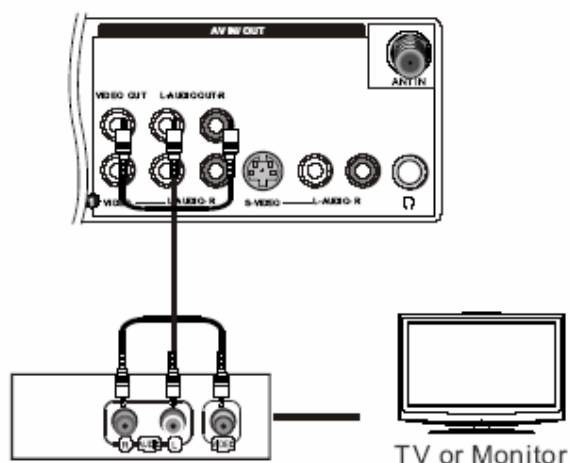
Monitor Out Setup

Connect the second TV or monitor to the TV's AV OUT.
See the Operating Manual of the second TV or monitor for further details regarding that device's input settings.

Note

YPbPr, PC, HDMI, DTV input sources cannot be used for Monitor out.

When connecting with external audio equipments, such as amplifiers or speakers, please turn the TV speakers off.



4.2 HDMI CINNECTIONS

When the source device(DVD player or Set Top Box) supports HDMI

How To Connect

1. Connect the source device to HDMI port of this TV with an HDMI cable(not supplied with this product).
2. No separated audio connection is necessary.

How To Use

If the source device supports Auto HDMI function, the output resolution of the source device will be automatically set to 1280x720p.

If the source device does not support Auto HDMI, you need to set the output resolution appropriately.

To get the best picture quality, adjust the output resolution of the source device to 1280x720p.

Select HDMI input source in input source option of Select Main source menu.

When the source device(DVD player or Set Top Box) supports DVI

How To Connect

1. Connect the source device to HDMI port of this TV with a HDMI-to-DVI cable(not supplied with this product).
2. A separated audio connection is necessary.
3. If the source device has an analog audio output connector, connect the source device audio output to DVI Audio In port located on the left side of HDMI port.

How To Use

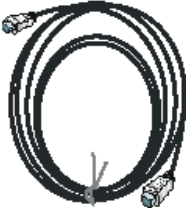
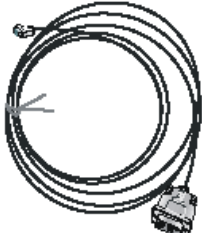

If the source device supports Auto DVI function, the output resolution of the source device will be automatically set to 1280x720p.

If the source device does not support Auto DVI, you need to set the output resolution appropriately.

To get the best picture quality, adjust the output resolution of the source device to 1280x720p.

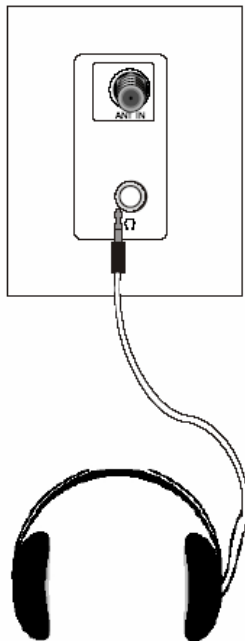
Press the INPUT button to select HDMI input source in input source option of Select Main source menu.

Cable sample

	HDMI Cable (not supplied with the product)
	HDMI to DVI Cable (not supplied with the product)
	Analog Audio Cable (Stereo to RCA type) (not supplied with the product)

Connecting Headphones

You can connect a set of headphones to your set if you wish to watch a TV programme without disturbing the other people in the room.

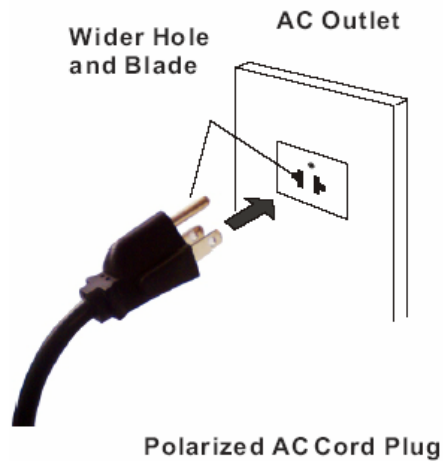


Plug a set of headphones into the 3.5mm mini-jack socket on the side panel of the set.

Note

- Prolonged use of headphones at a high volume may damage your hearing.
- You will not receive sound from the speakers when you connect headphones to the system.

Power source



TO USE AC POWER SOURCE

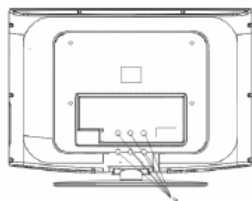
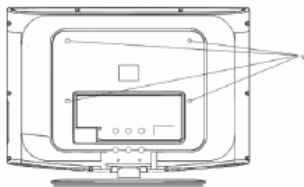
Use the AC polarized line cord provided for operation on AC. Insert the AC cord plug into a standard polarized AC outlet.

Note

- Never connect the AC line cord plug to other than the specified voltage. Use the attached power cord only.
- If the polarized AC cord does not fit into a non-polarized AC outlet, do not attempt to file or cut the blade. It is the user's responsibility to have an electrician replace the obsolete outlet.
- If you cause a static discharge when touching the unit and the unit fails to function, simply unplug the unit from the AC outlet and plug it back in. The unit should return to normal operation.

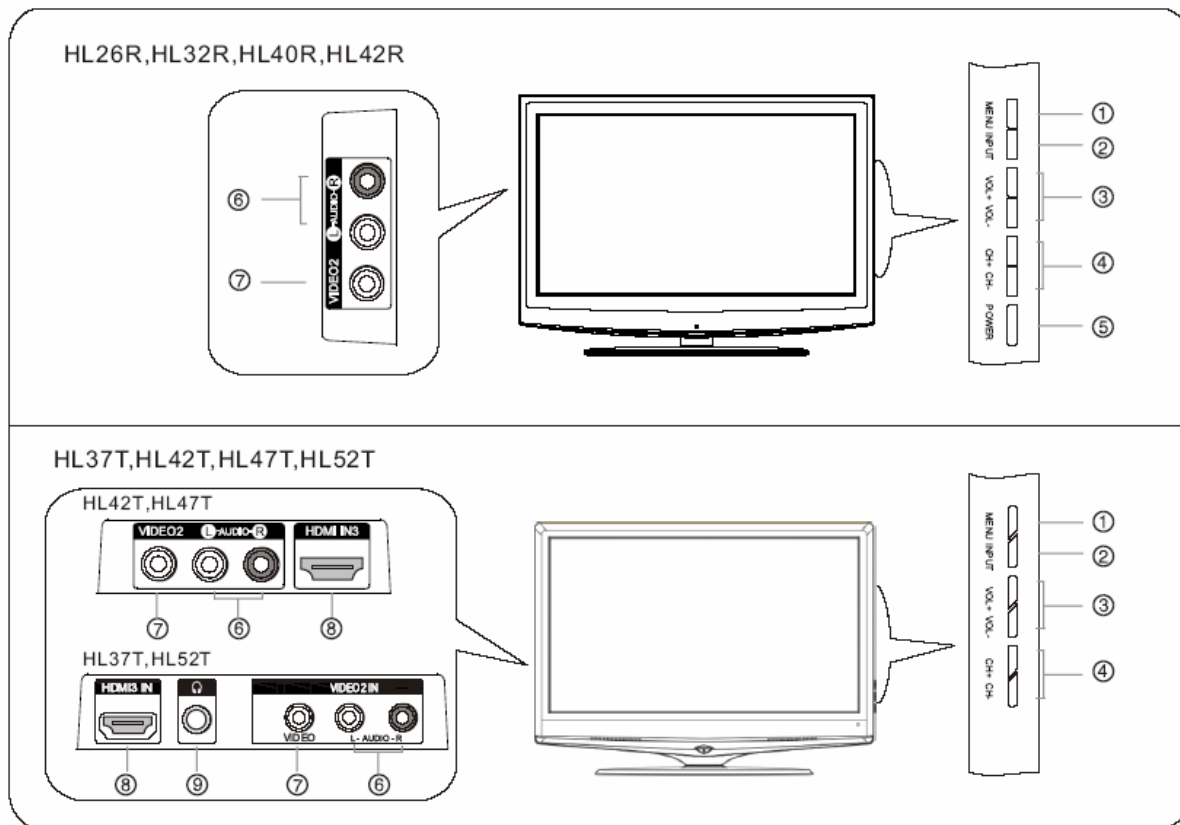
Removing the table stand and installing a wall mount bracket

HL26R, HL32R, HL40R, HL42R

	<p>Remove 6X M4 screws securing the stand to the TV, then remove the stand.</p>
	<p>Use 4X M6 screws to secure the wall bracket (not supplied) to the back of your TV.</p>

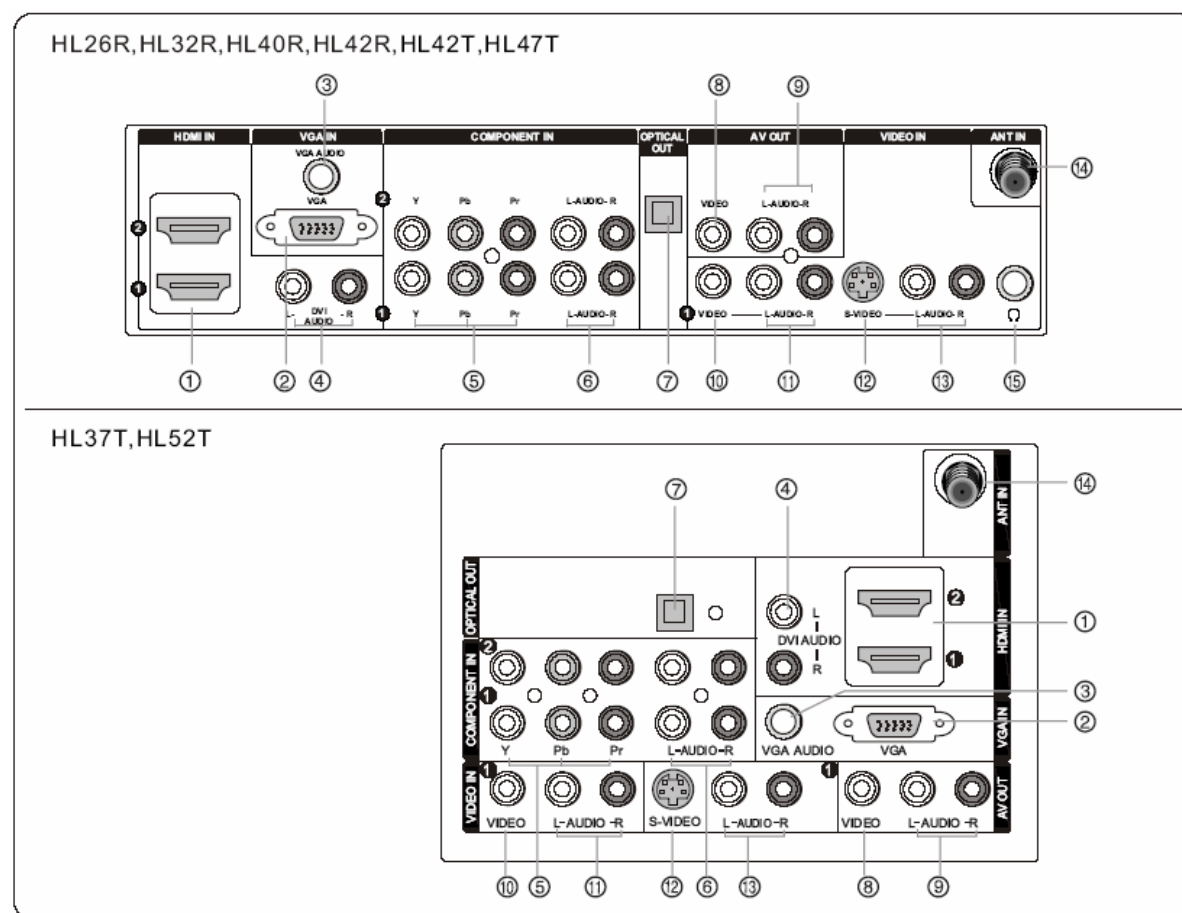
5. OPERATION INSTRUCTIONS

5.1 Front panel controls



1. **MENU:** Press to show the on-screen menu.
2. **INPUT:** Press to show the input source mode. In the **MENU/INPUT** screen, these buttons serve as **OK** button.
3. **VOL +/-:** Press to adjust the volume. In the **MENU** screen, these buttons serve as left/right buttons.
4. **CH +/- :** Press to scan through channels. To scan quickly through channels, press and hold down either +/- . In the **MENU** screen, these buttons serve as up/down buttons.
5. **POWER:** Press to turn on and off the TV.
6. **AV2 AUDIO IN:** Connect to hear stereo sound from an external device.
7. **HDMI3 IN:** Connect a signal from an external device to HDMI.
8. **AV2 VIDEO IN:** Connects the video signal from a video device.
9. **AV2 VIDEO IN:** Connects the video signal from a video device.

5.2 Back panel controls



- 1 **HDMI/DVI:** Connect an HDMI/DVI signal to the jack.
 - 2 **PC VIDEO IN:** Connect the monitor output connector from a PC to the jack.
 - 3 **PC Audio IN:** Connect an audio cable for a computer to the jack.
 - 4 **DVI Audio IN:** Connect a component video device to these jacks.
 - 5 **DVD/DTV IN(Component):** Connect a component video device to these jacks.
 - 6 **AUDIO IN(Component):** . Connect the Audio L/R cables from the Component Video signal source these jacks
 - 7 **Digital Audio Output:** Connect digital audio from an external device.
- NOTE:** In standby mode, these ports will not work.
- 8 **VIDEO Out:** Connect the second TV or monitor to the TV's AV OUT.
 - 9 **AUDIO Out:** Connect the audio L/R cables to the second TV's AV IN.
 - 10 **VIDEO IN:** Connects the video signal from a video device.
 - 11 **AUDIO IN:** Connect the audio L/R cables from the Video signal source these jacks.
 - 12 **S-VIDEO IN:** Connect the S-Video cable from an external signal source to the jack.
 - 13 **AUDIO IN:** Connect the audio L/R cables from the S-Video signal source these jacks.
 - 14 **Antenna IN:** Connect cable or antenna signals to the TV, either directly or through your cable box.
 - 15 **Headphone jack :** Headphone audio output terminal.

5.3 Setting Up Your Remote Control

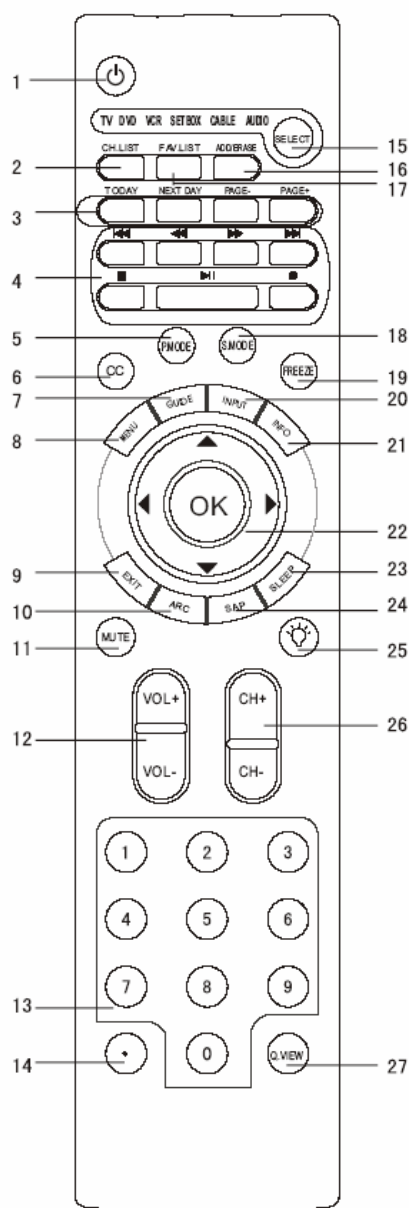
The remote control cannot be operated unless the batteries are properly loaded.

When using the remote control, aim it at the remote control sensor on the.

Notes

- Do not expose the remote control to shock or liquids.
- Do not use the remote control in an area with high humidity.
- Do not place the remote control in direct sunlight.
- Do not place objects, such as furniture, between the remote control and the remote sensor.
- The remote control may not work if direct sunlight or bright light shines on the remote sensor. Either move your TV or change the angle at which you use the remote control.

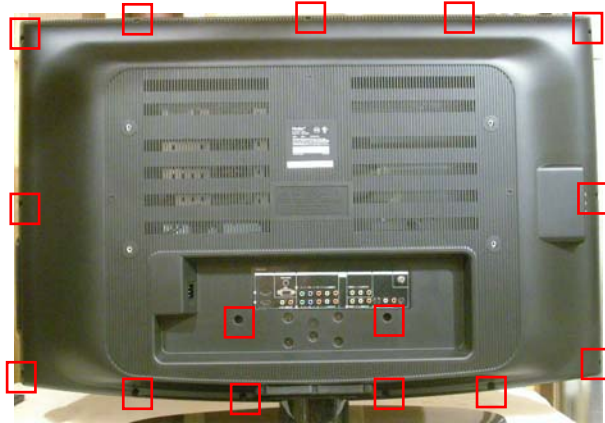
Function introduction





- POWER**
Press to turn on and off the TV.
- CH.LIST**
Open the channel list.
- Shortcut Button of Input**
 - TODAY: Press to enter TODAY signal;
 - NEXT DAY: Press to enter NEXT DAY signal;
 - PAGE-: Press to enter PAGE- signal;
 - PAGE+: Press to enter PAGE+ signal.
- VCR/DVD Functions**
Control some video cassette recorders or DVD players.
 - ⏮️ Rewind / Fast ⏭️ backward / Forward
 - Stop ⏸️ Play/Pause ● REC
- P.MODE**
Press repeatedly to cycle through the available picture modes.
- CC(closed caption)**
Select a closed caption.
- GUIDE**
Press to display the guide when you are watching analog or digital channels.
- MENU**
Press to show the on-screen menu.
- EXIT**
Clears all on-screen displays and returns to TV viewing from any menu.
- ARC(Aspect Ratio Control)**
Press to change the aspect ratio.
- MUTE**
Switches the sound on or off.
- VOLUME UP/DOWN**
Press to adjust the volume.
- Number buttons**
Press to change a channel.
- button**
Press to select digital channels. For example, to enter "54-3", press "54", "-", and "3".
- TV DVD VCR SETBOX CABLE AUDIO**
Press the SELECT button repeatedly to select one of the system modes in which the remote control can be used. When the desired device is selected, the corresponding LED lights on 5 seconds.
- PC**
Press to enter PC signal.
- HDMI**
Press to enter HDMI signal.
- S.MODE**
Press to cycle through different sound settings.
- FREEZE**
Press once to display a frozen image of the current program, but audio continues. Press again to return to the program.
- INPUT**
Show the input source mode.
- INFO**
When you watch the TV, press the key, the information displays on top of the screen.
- THUMBSTICK (Up/Down/Left/Right/OK)**
Allows you to navigate the on-screen menus and adjust the system settings to your preference.
- SLEEP button**
Press to display the sleep timer option.
- SAP**
Selects MTS sound: Mono, Stereo, and SAP in Analog mode. Change the audio language in DTV mode.
- LIGHT**
Press the light button, white LED will be ON, release this key, white LED will be OFF.
- CHANNEL UP/DOWN**
Press to scan through channels. To scan quickly through channels, press and hold down either +/-.
- Q.VIEW**
Press to jump back and forth between two channels.

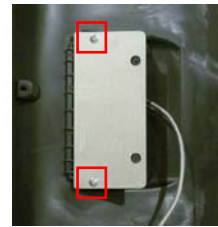
6. DISASSEMBLY INSTRUCTIONS

1. Remove the back cover

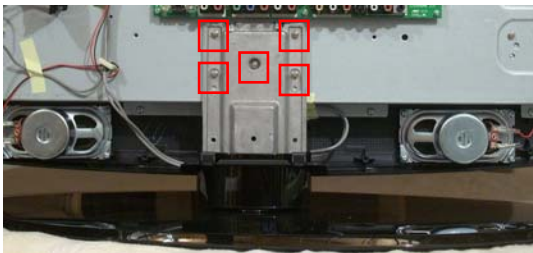


A. Remove the fifteen screws indicated in the figure by the 


B. Once the back cover has been detached you will have to disconnect the side A/V Board by either disconnecting connector CNC2 on the mainboard or detaching the side A/V board from the back cover by removing the 2 screws indicated by 



2. Remove the Pedestal



A. Lay the unit down on its face

B. Remove the five screw indicated by the  from the pedestal to detach it.

3. Remove the speakers

Each speaker is attached by 4 screws

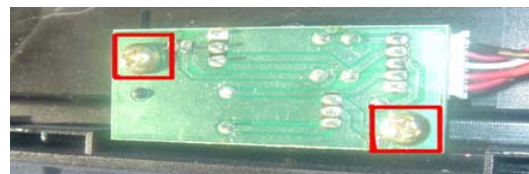


4. Remove the Power Supply P.C.B.



Remove the 4 screws indicated by the 

5. Remove the Remote Receiver P.C.B.



P.C.B. is located at the bottom center of the front cabinet.

Remove the 2 screws

6. Remove the Main board

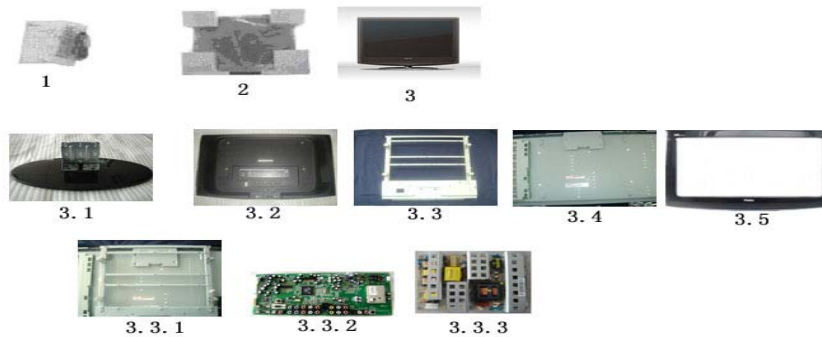


A. Disconnect the 7 connectors – CNA1, CN1, CNE1, CNE2, CND1, CNA2

B. Remove the five screws indicated with 

6.1 Whole Machine

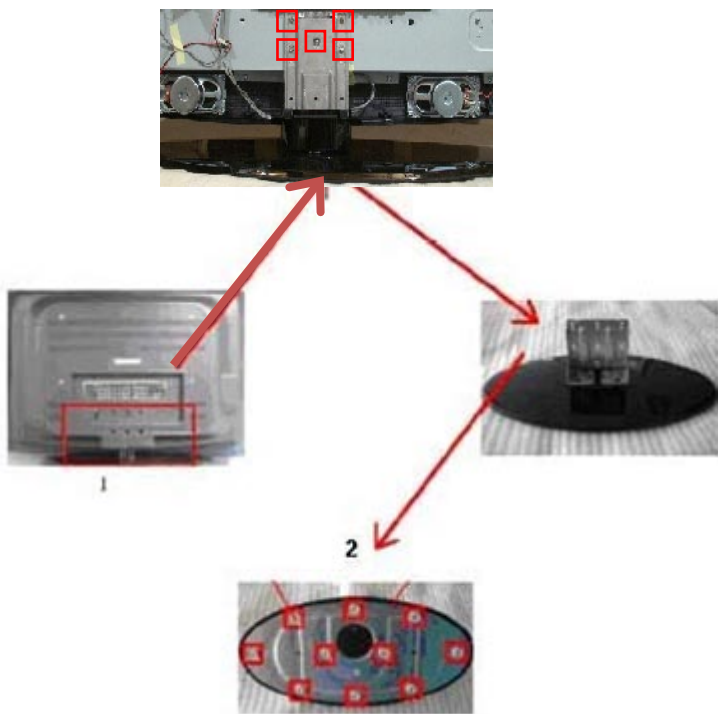
The whole machine includes Packaging subassembly, Front-frame subassembly, Back-cover subassembly, Screen bracket subassembly, Base subassembly, LCD panel, Power Supply P.C.B., and Wire subassembly.



Components List

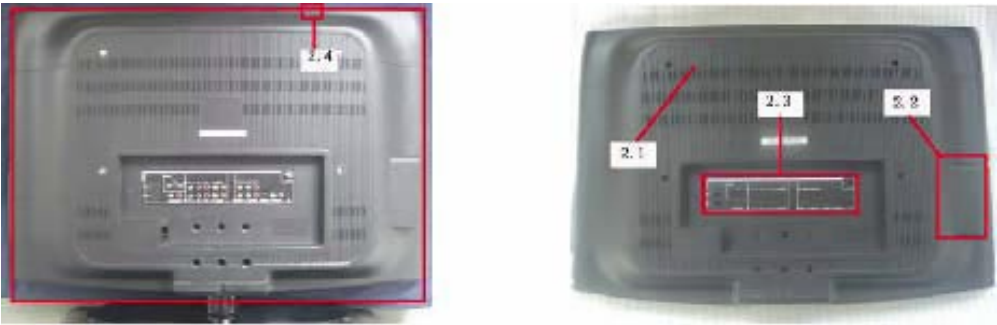
NO	Name	Description	Parts number
1	Bagging of owner's manual		
2	Bagging of whole machine		
3	TV Set		/
3.1	Base subassembly		
3.2	Back cover subassembly		
3.3	Armor Plate		
3.3.1	Metals slice		
3.3.2	Main Board		
3.3.3	PSU		
3.4	LCD PANEL		
3.5	Front frame subassembly		

6.2 Base subassembly



NO	Name	Description	Parts number
1	Base subassembly		
2	Bolt	GB9074.4-88 M4X12	

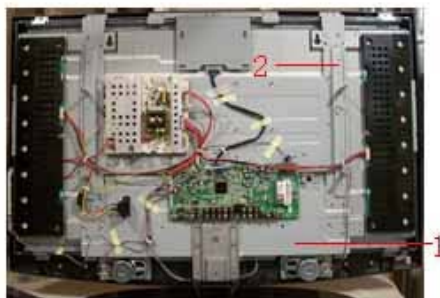
6.3 Back cover subassembly



12

NO	Name	Description	Parts number
1	Back cover subassembly		
2.1	Back cover assembly		
2.2	Side av Bracket		
2.3	Back jack label		
2.4	Screw	SJ2824-87 ST4X12F (Black)	

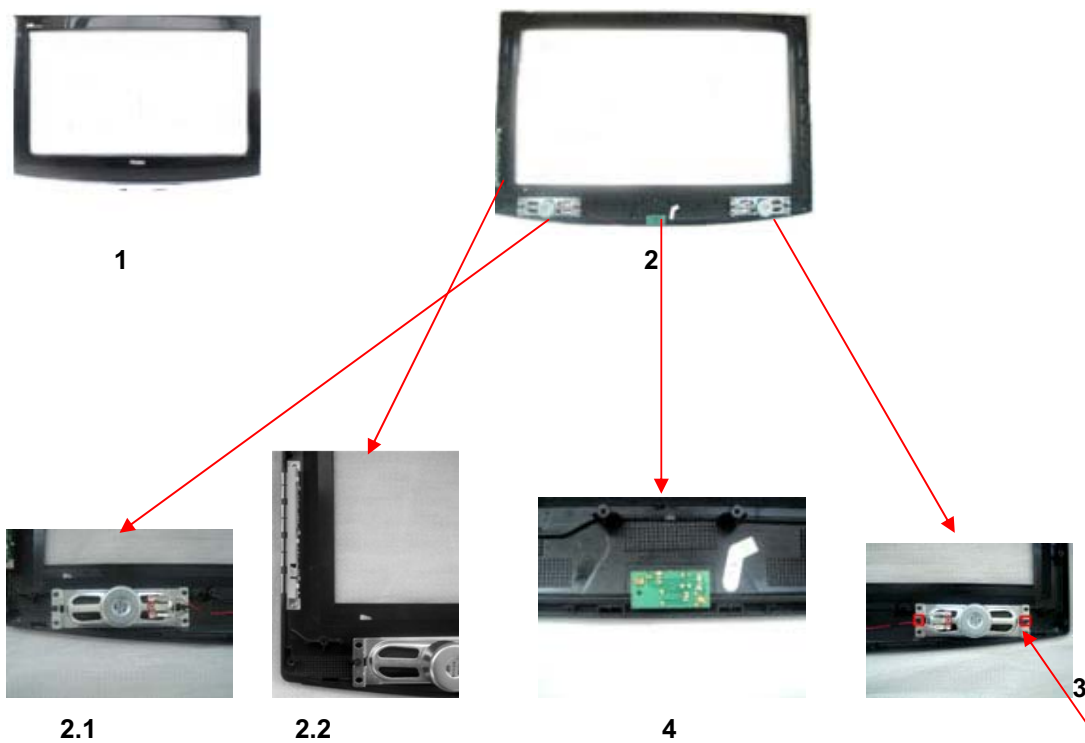
6.4 Screen bracket subassembly



Components List

NO	Name	Description	Parts number
1	Armor Plate		
2	Metals slice		

6.5 Front-frame subassembly

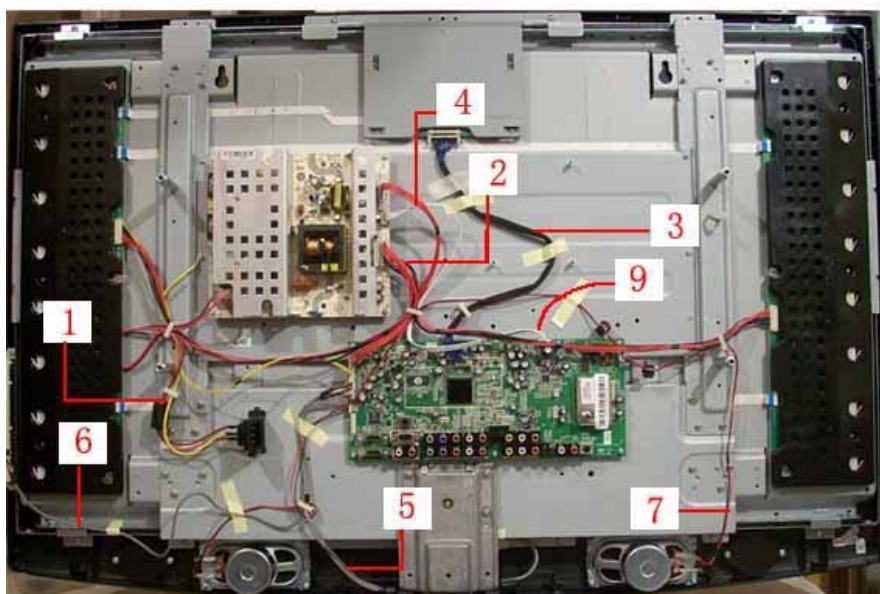


Components List

NO	Name	Description	Parts number
1	Front frame module		
2	Former Shell	HIPS-FV0	
2.1	Speaker	RoHS-Y613-869-10W8Ω	
2.2	Key-press control Subassembly		
3	Screw		
4	Remote control Subassembly		

6.6 Wire subassembly---- Connection Sketch Interpretat

6.6.1. Wire Photo



6.6.2 Components List

NO	Name	Description	Parts number
1	Power input connect wire	(TJC6-5P)-500mm-(D187T)	
2	24v power wire	(TJC3-10)&(PH-4)-50	
3	LVDS wire		
4	12V、5V power wire	FI-RE51HL/600/A2006H00-2*16P/3	
5	Remote control wire	(PH-5) -500- (PH-5)	
6	Key board wire	(PH-3)-800mm-(PH-3)	
7	Speaker wire	(TJC3-4)-300/400-(SMP-2)/SMP-2	
8	Side AV wire	(PH-5) -300- (PH-5)	
9	18v Power wire	(TJC3-4P)-350mm-(TJC3-4P)	

7. MEASUREMENTS AND ADJUSTMENTS

The way to the factory mode menu:

1st: press the manu button

2^{en}: input 8893

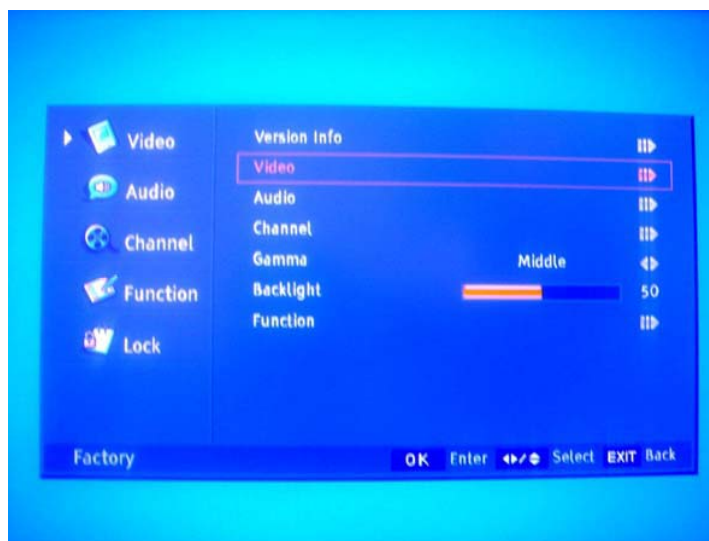
Finished these operations , system will be into the factory mode menu.

The following are the detail descriptions for the menu items.

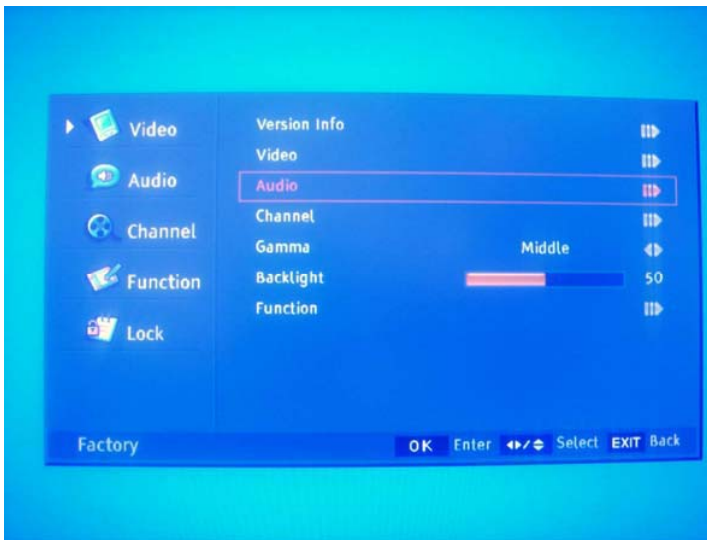
1. Version Info



2. Video



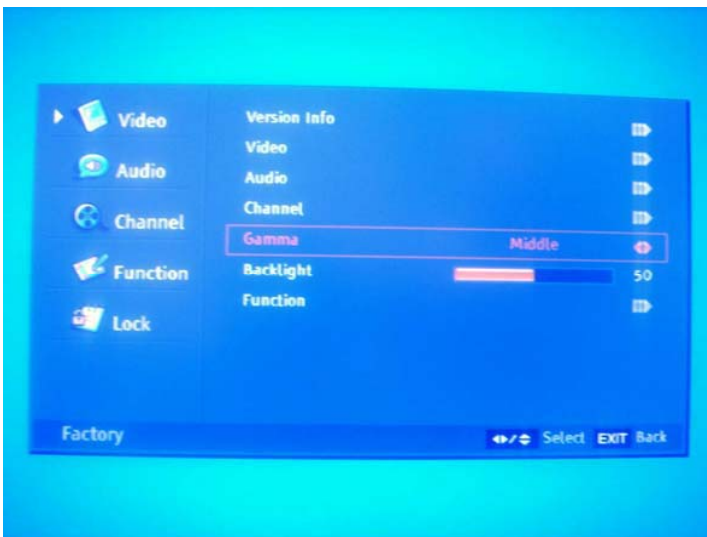
3. Audio



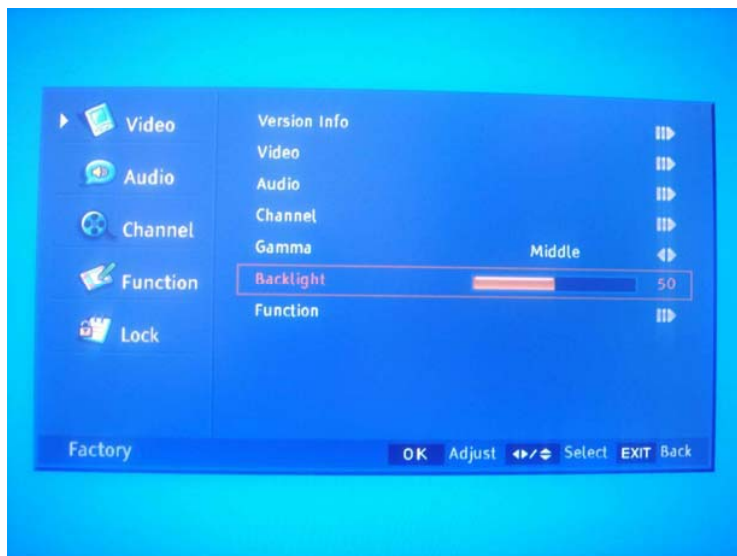
4. Channel



5. Gamma



6. BackLight

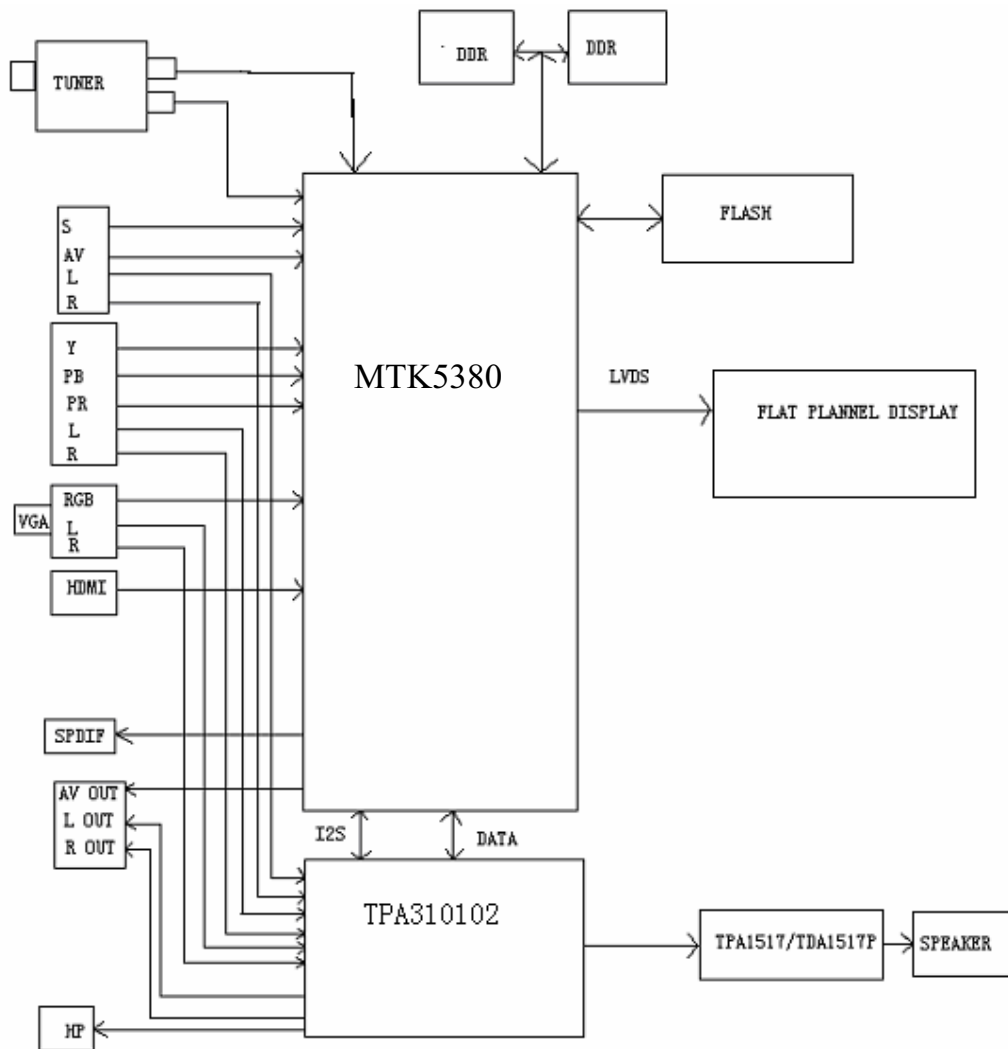


7. Function



8. BLOCK DIAGRAM AND CIRCUIT DIAGRAM

8.1 BLOCK DIAGRAM



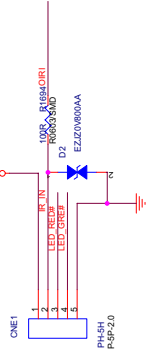
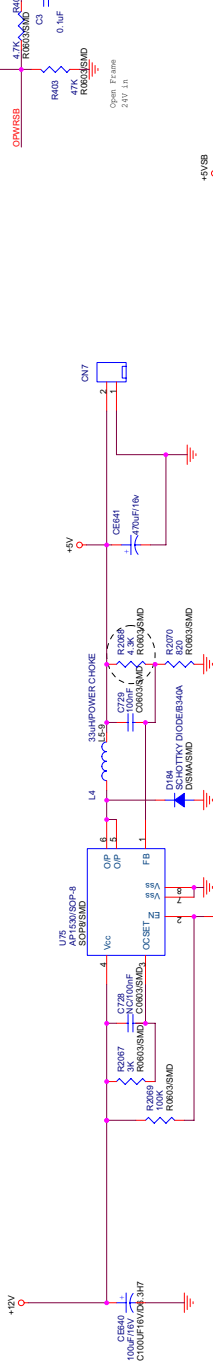
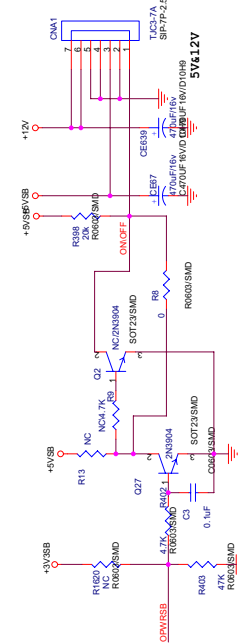
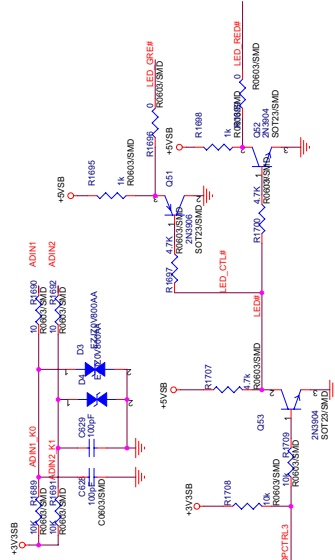
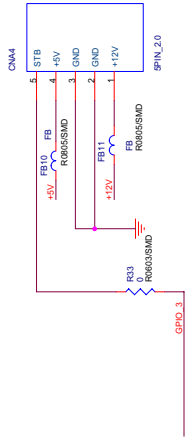
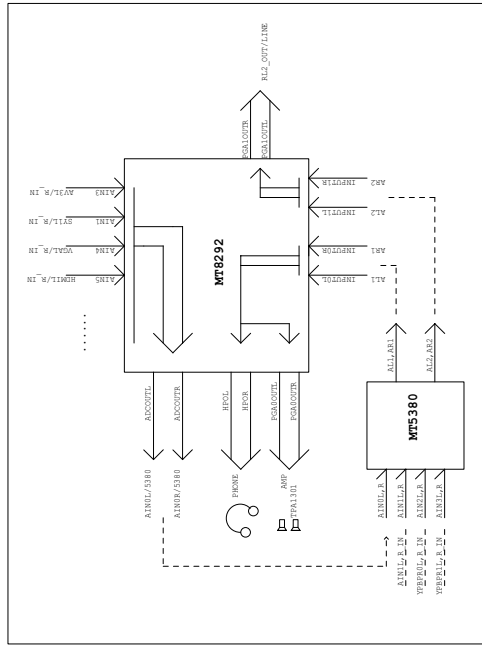
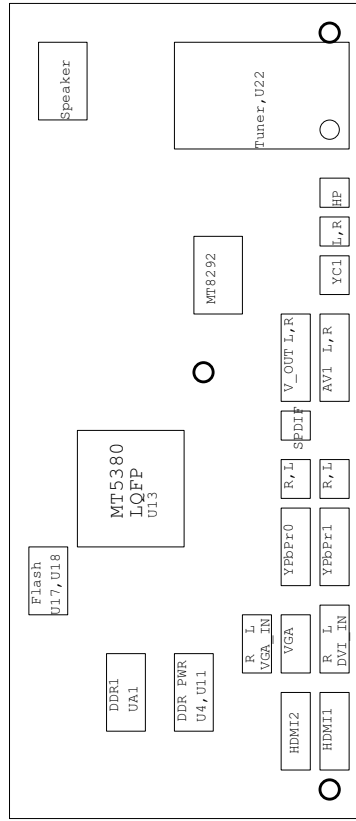
8.2 CIRCUIT DIAGRAM

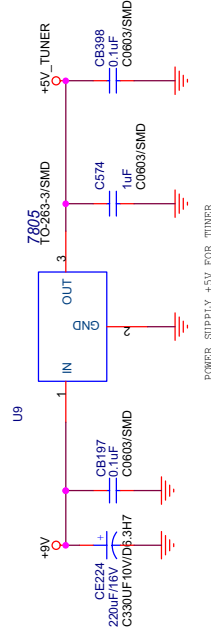
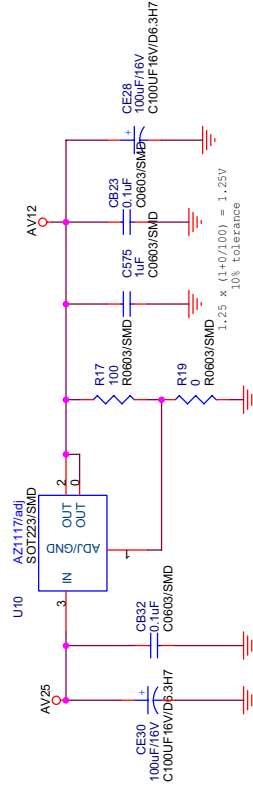
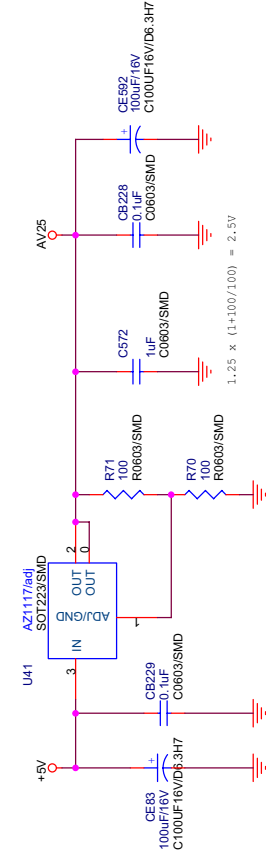
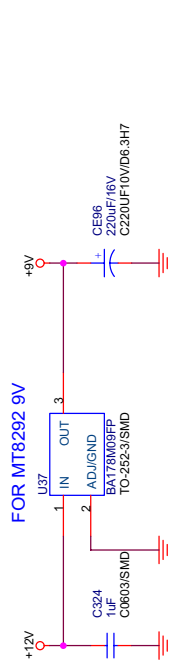
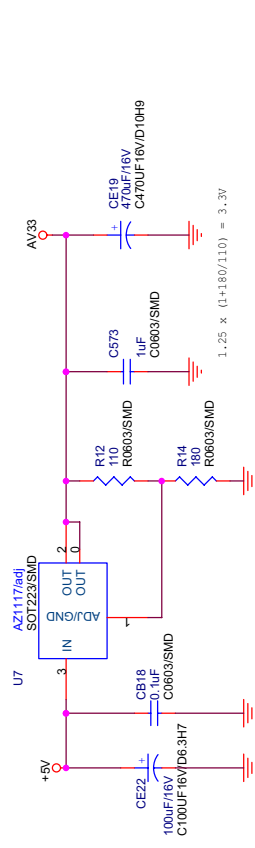
MT5380 (DDR1)
MODEL NAME: MT5380P1-V2

01. INDEX
02. DIGITAL POWER
03. ANALOG POWER
04. PERIPHERAL
05. ANALOG PLL/USB2.0/TUNER
06. DDR2 MEMORY
07. FLASH/ATAG/UART/IR/IRTRAP
08. HDMI/SPEAKER
09. LVDS/MUTE
10. YPBPR/L/R
11. YGBA IN/LR
12. AV IN/LR/CVBS0
13. LINE OUT/HP
14. BACK LIGHT MAIN POWER


GPIO Definition	
GPIO_0	System EEPROM Write Protect
GPIO_1	Mute#
GPIO_3	HDMI/S1
GPIO_4	Headphone Detect
GPIO_5	Audio Mute Control
GPIO_6	HDMI EEPROM Write Protect
GPIO_7	HDMI HDP
GPIO_8	Speaker Mute
GPIO_9	LVDS Power Control
GPIO_10	LVDS Panel Control(Reserve)
GPIO_11	LVDS Panel Control(Reserve)
GPIO_12	U2RX
GPIO_13	U2TX
OPCTRL0	CFC Function
OPCTRL1	VGA EEPROM Write Protect
OPCTRL2	Back Light Control
OPCTRL3	Unused
OPCTRL4	Trap
OPCTRL5	HDMI/S2
AIN1.2.4	Unused
OPWM0(GPIO 40)	Unused
VCX0(GPIO 67)	Unused

GPIO Definition	
RF_AGC(GPIO 62)	Unused
AIN3_L(GPIO 74)	Unused
AIN3_R(GPIO 75)	Unused





NUSTC 5380P1 V2 FOR:HAIER

	ANALOG POWER				
	Title				
	Size B	Document Number MT5380P-1V2	Drawn	Rev V 1	No. 1-2, Innovation Rd 1, SGP, Hsin-Chu City 300
	Date:	Wednesday, January 30, 2008	Sheet 3 of 15		

OSDA0	206	GPIO_0	245	GPIO_0
OSDA1	63	GPIO_1	246	GPIO_1
OSDA2	64	GPIO_2	247	GPIO_2
OSDA3	65	GPIO_3	248	GPIO_3
OSDA4	66	GPIO_4	249	GPIO_4
OSDA5	67	GPIO_5	250	GPIO_5
OSDA6	68	GPIO_6	251	GPIO_6
OSDA7	69	GPIO_7	252	GPIO_7
OSDA8	70	GPIO_8	253	GPIO_8
OSDA9	71	GPIO_9	254	GPIO_9
OSDA10	72	GPIO_10	255	GPIO_10
OSDA11	73	GPIO_11	256	GPIO_11
OSDA12	74	GPIO_12	257	GPIO_12
OSDA13	75	GPIO_13	258	GPIO_13
OSDA14	76	GPIO_14	259	GPIO_14
OSDA15	77	GPIO_15	260	GPIO_15

OPCTRL3	1	OPCTRL3
ADIN1	1	ADIN1
ADIN2	1	ADIN2

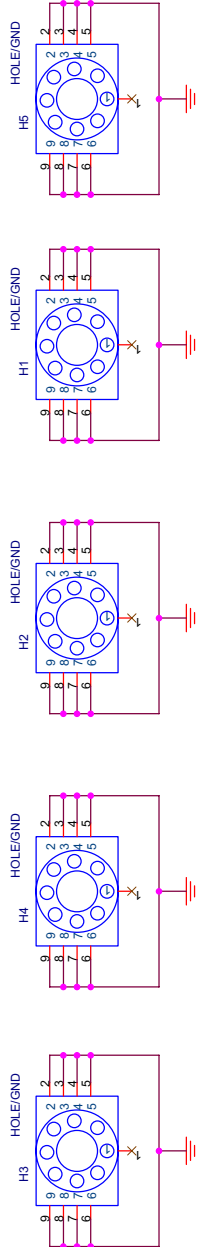
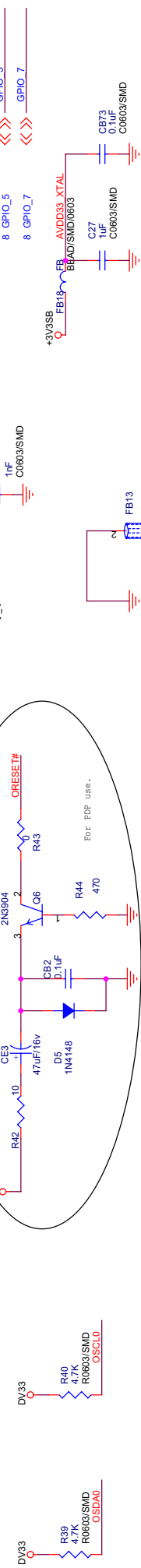
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OSDA7	69	GPIO_7	252	GPIO_7
OSDA8	70	GPIO_8	253	GPIO_8
OSDA9	71	GPIO_9	254	GPIO_9
OSDA10	72	GPIO_10	255	GPIO_10
OSDA11	73	GPIO_11	256	GPIO_11
OSDA12	74	GPIO_12	257	GPIO_12
OSDA13	75	GPIO_13	258	GPIO_13
OSDA14	76	GPIO_14	259	GPIO_14
OSDA15	77	GPIO_15	260	GPIO_15

OPCTRL3	1	OPCTRL3
ADIN1	1	ADIN1
ADIN2	1	ADIN2

OSDA0	206	GPIO_0	245	GPIO_0
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OSDA2	64	GPIO_2	247	GPIO_2
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OSDA4	66	GPIO_4	249	GPIO_4
OSDA5	67	GPIO_5	250	GPIO_5
OSDA6	68	GPIO_6	251	GPIO_6
OSDA7	69	GPIO_7	252	GPIO_7
OSDA8	70	GPIO_8	253	GPIO_8
OSDA9	71	GPIO_9	254	GPIO_9
OSDA10	72	GPIO_10	255	GPIO_10
OSDA11	73	GPIO_11	256	GPIO_11
OSDA12	74	GPIO_12	257	GPIO_12
OSDA13	75	GPIO_13	258	GPIO_13
OSDA14	76	GPIO_14	259	GPIO_14
OSDA15	77	GPIO_15	260	GPIO_15

POWER DOWN RESET# CIRCUIT

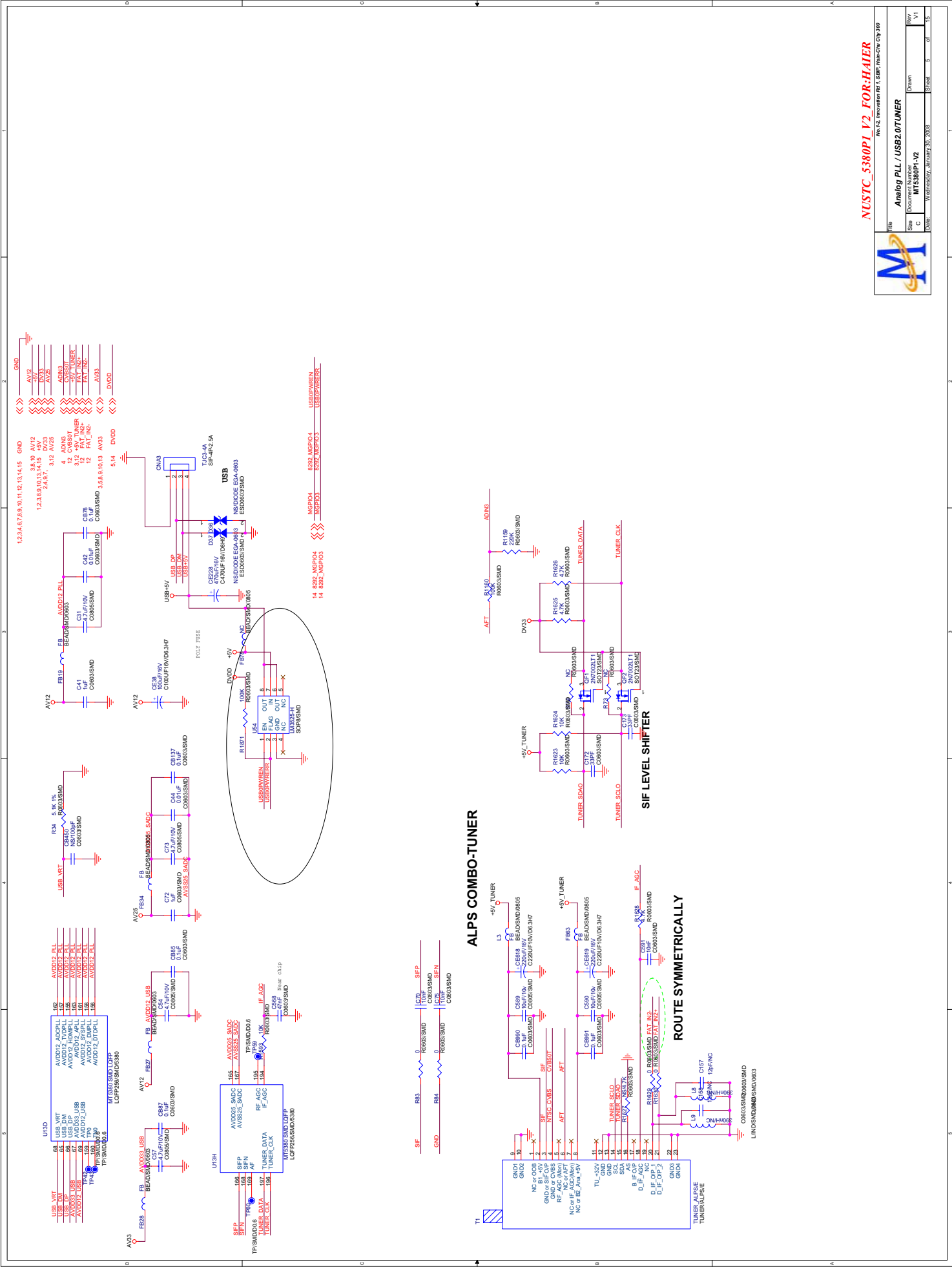
DV33



NUSTC_5380P1_V2 FOR:HAIER

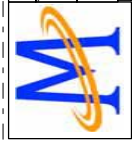
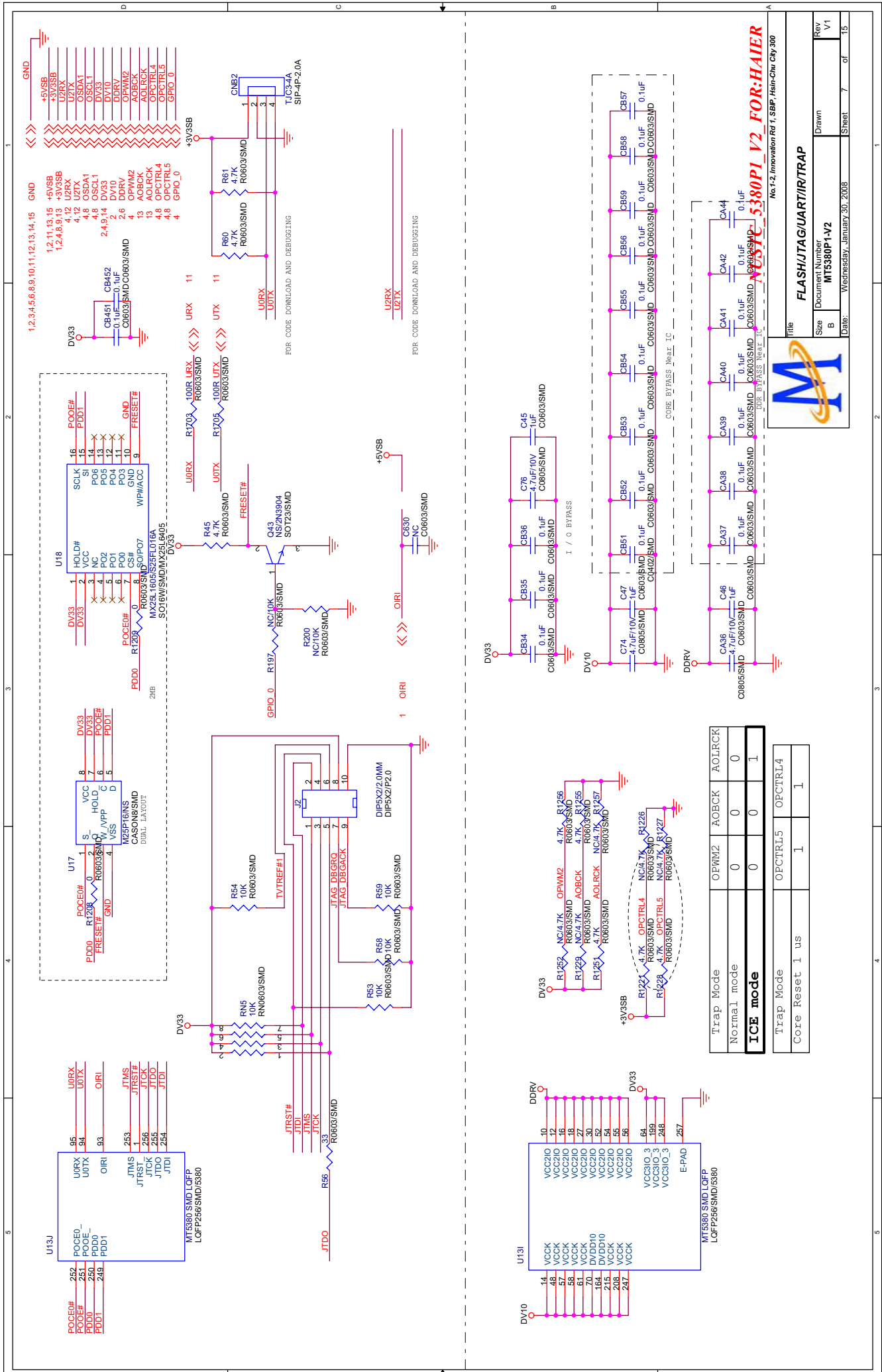


Title		No.1-2, Innovation Rd 1, SIPP, Hai-Chu, City 300	
PERIPHERAL			
Size	Document Number	Drawn	Rev
B	MT5380P1-V2		V1
Date:	Wednesday, January 30, 2008	Sheet	4 of 15



USTC_5380PI_V2_FOR:HAUER

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202nd	
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216th	
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222nd	
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224th	
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233rd	1.0
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240th	
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250th	
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304th	
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314th	
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374th	
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380th	
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391st	1

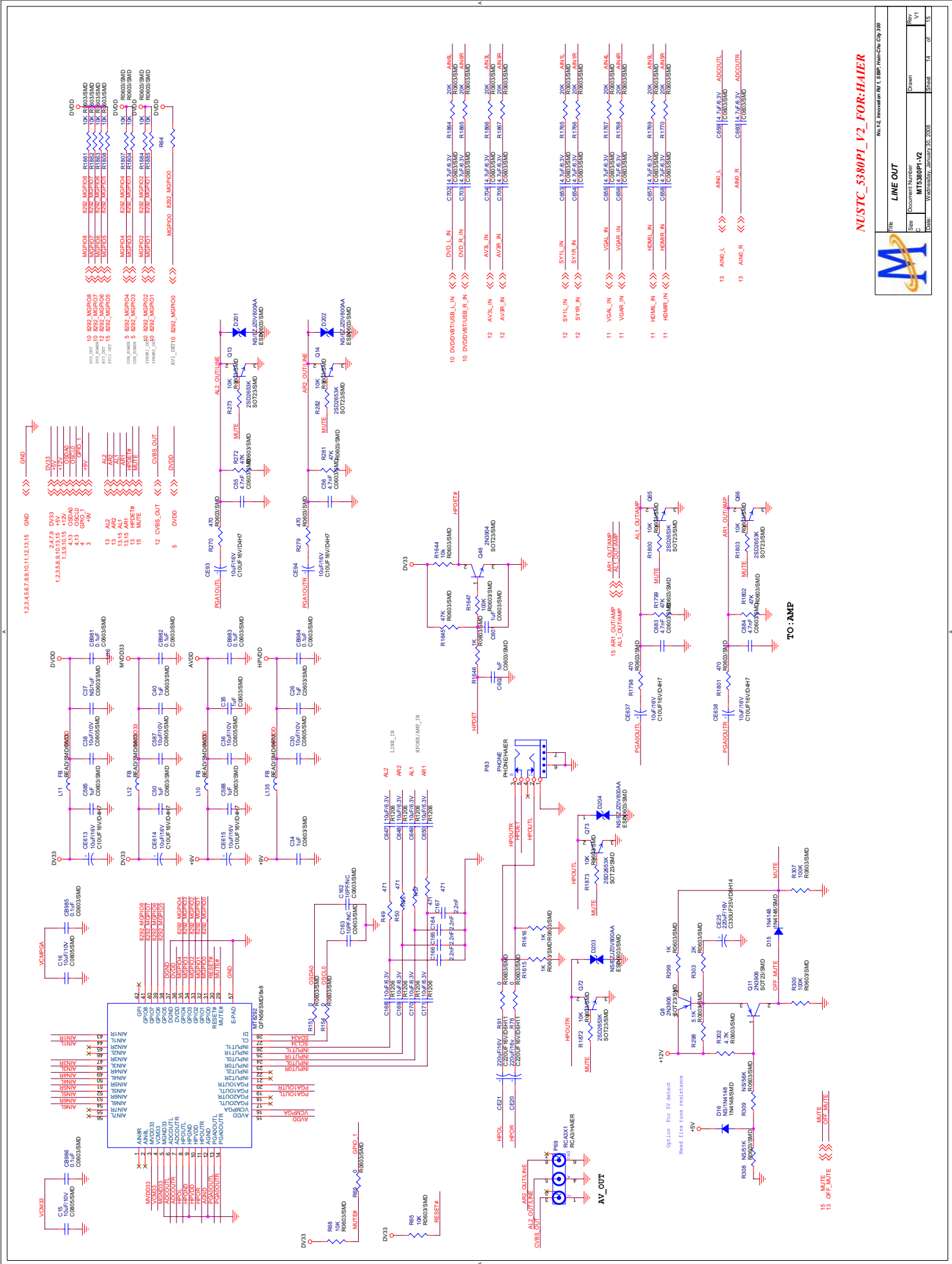


No.1-2, Innovation Rd 1, SGP, Hain-Chu, City 300

Title	
FLASH/JTAG/UART/IR/TRAP	
Size	Document Number
B	MT5380P1-V2
Date:	Wednesday, January 30, 2008
Sheet	7 of 15

Trap Mode	OPWM2	AOBCK	AOLRCK
Normal mode	0	0	0
ICE mode			
Trap Mode	0	0	1
Core Reset 1 us	1	1	1

MT5380P1 V2 FOR:HAIER



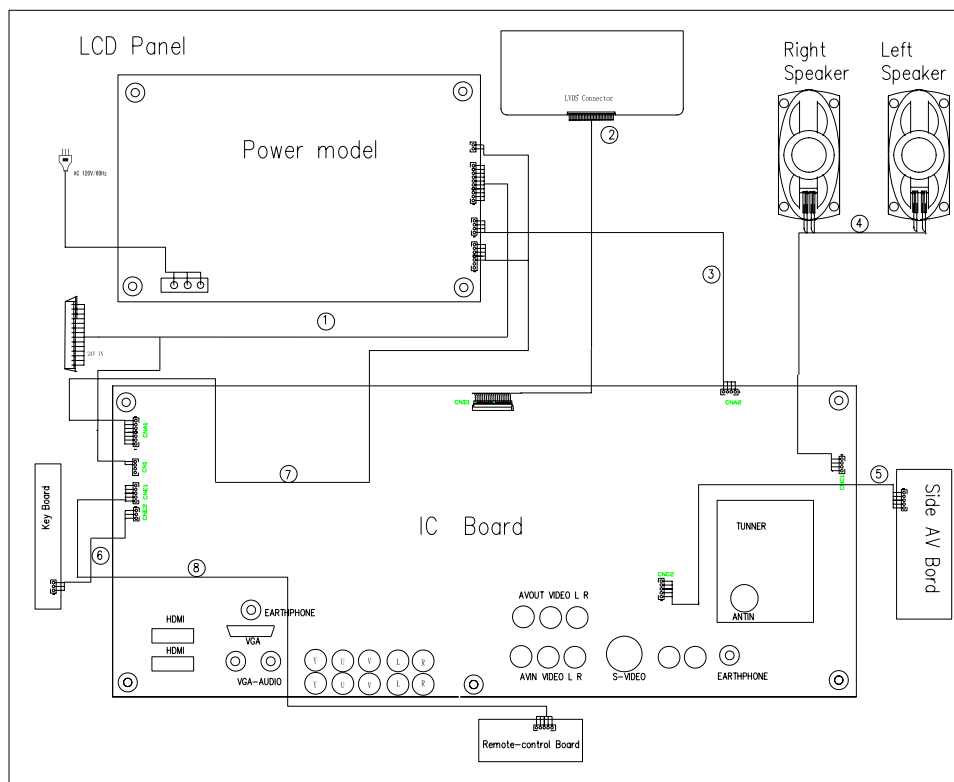
M15380PI-V2 FOR:HAIER

Title		No. 12, Innovation Rd 1, 588P, Hai-De, Chongqing 401300	
Rev	1.1	Document Number	M15380PI-V2
Size	A4	Drawn	
Code	1.1	Version	1.1
Date		2008.12.11	



9.WIRING CONNECTION DIAGRAM

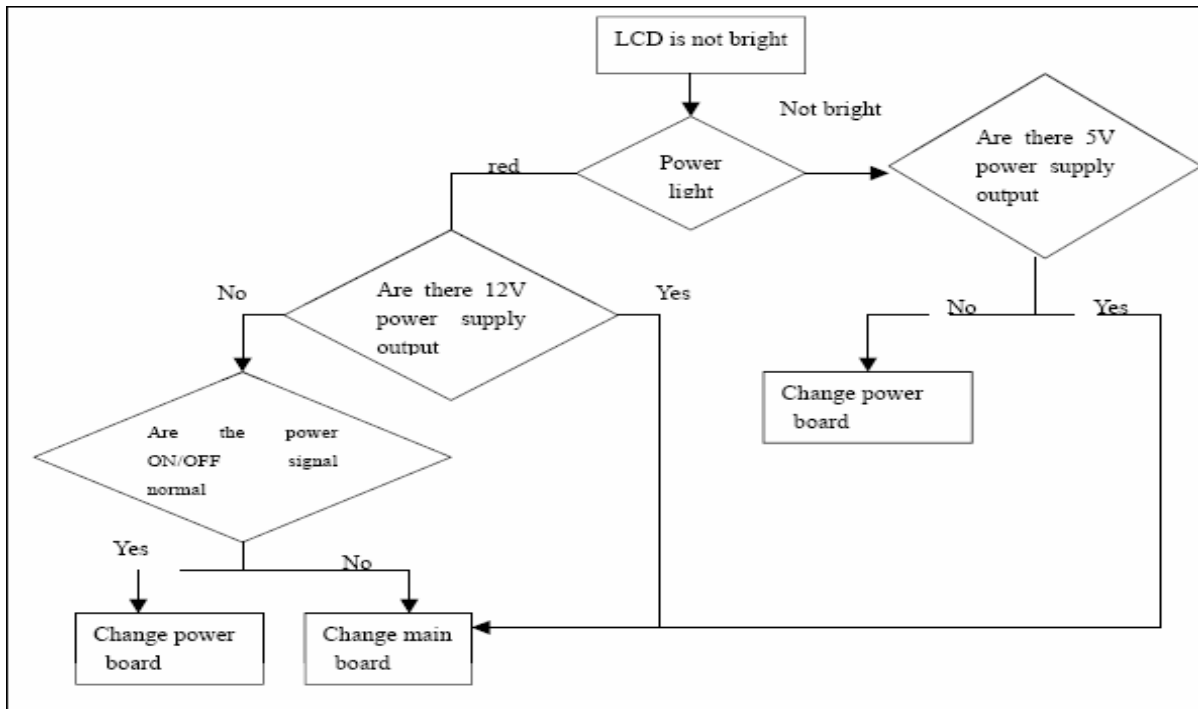
Number	Code	Name
①	0090402748	BackLight Wire
②	00904003350	LVDS Wire
③	0090403399B	18V Power supply wire
④	0090403331	Speaker Connecting Wire
⑤	0090402508B	Side AV Wire
⑥	0090403408	keypad Wire
⑦	0090401417	12V Power supply Wire
⑧	0090402508A	IR Wire



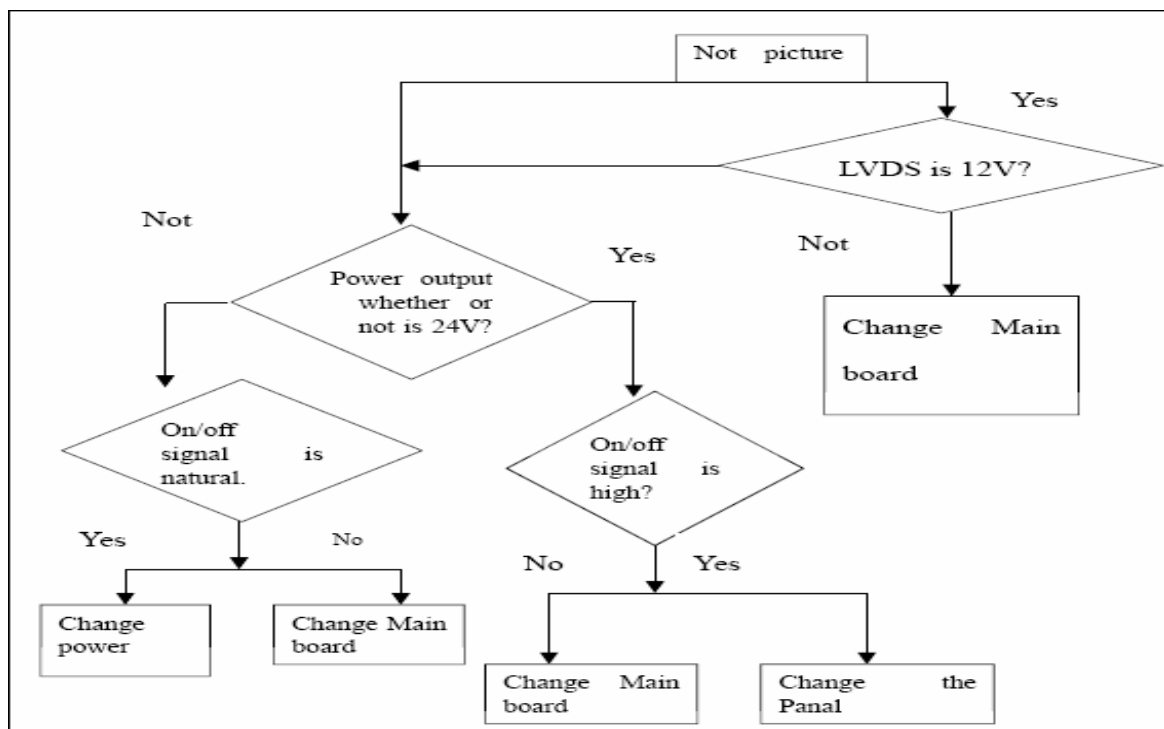
10. TROUBLE SHOOTING GUIDE

10.1. Simple check

10.1.1 LCD is not bright



10.1.2 No picture

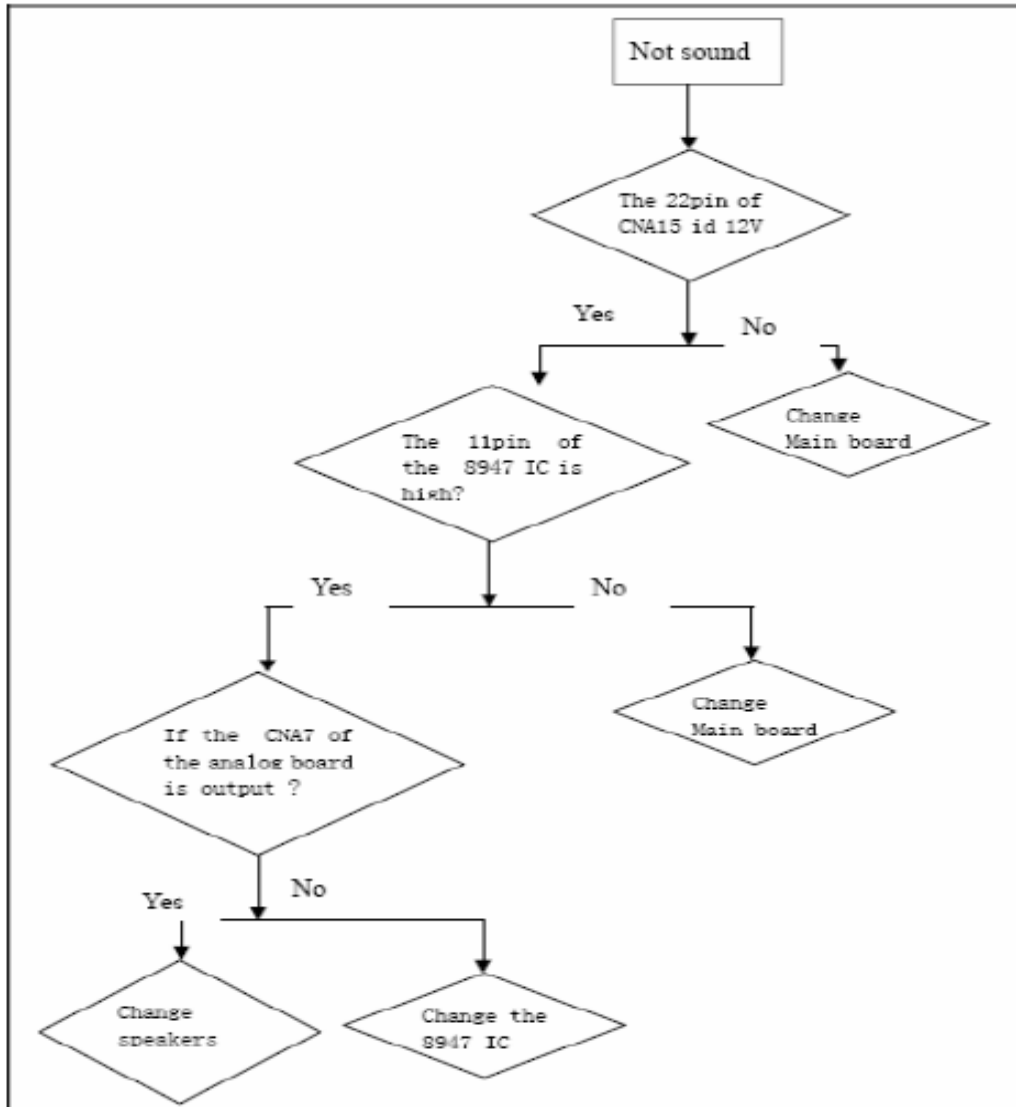


First, check cables which connect with PSU, then check as follows

1) Check input voltage (CNA1)

2) Check output voltage (CND1)

10.1.3 No sound



First, check cables which connect with PSU, then check as follows

1) Check input voltage as NO picture

2) Check speaker output

10.2 PSU failure check

State: No power

First, check cables which connect with PSU, then check as follows

1) Check PSU input voltage (AC input) (CON1)

2) Check PSU output voltage orderly (CON2)







10.3 Panel failure

Failure Mode



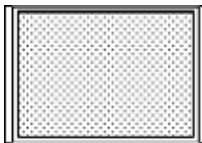

Part	Name	Description	Phenomena	Failure cause
TCP	V B/D	Vertical bar		Block Defect :TCP cracking or cracking Dim or L/D :TCP Sunken :TCP lead cracking :ACF bonding short :Awful environment and something electric enter into LCD :Mis-align between TCP and Panel :Panel failure :TCP failure
	V Dim	Virtual gray line		
	V L/D	Vertical color line(light or dark forever)		
	H B/D	Horizontal bar		
	H Dim	Horizontal gary line		
	H L/D	Horizontal line(light or dark forever)		

Failure Mode

Part	Name	Description	Phenomena	Failure cause
Panel or Polarizer	Dot Defect	Bright dot dark dot in panel		Incoming Inspection Standard


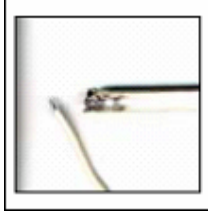


	Polarizer Bubble	Bladder in Polarizer		Bladder between Polarizer and top glass
	Polarizer Scratch	Polarizer Scratch		Tine or rigidity arose
	F/M inside Polarizer	Eyewinker inside Polarizer		Eyewinker inside Polarizer
Circuit	Abnormal Display	Abnormal Display		1. Chip lose action 2. IC Abort or jointing bad 3. Panel and VSC connect bad
	Flashing	Bright and dark display alternately		

Failure Mode

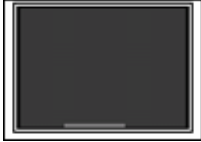

Part	Name	Description	Phenomena	Failure cause
Circuit	White Screen	B/L normal, only white screen display		Maybe caused by surge current and EDS
	Black Screen	B/L normal, only Black screen display		
	Flicker	Crosstalk		LCD Vcom imbalance
	Abnormal Color	Only abnormal color		Capacitance improper bring crosstalk inside LCD panel
	Abnormal Color	Only abnormal color		1. Chip lose action 2. IC short or joint bad 3. Panel and VSC connect bad

Failure Mode

Part	Name	Description	Phenomena	Failure cause
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	Mechanical Noise	When turn panel, appear cacophony		Caused by Mechanical noise of backlight unit
	Ripple	Connectric circle		Caused by between mechanism and Panel
	B/L off	B/L lose action		*Connect badness between wire and electrode
	B/L dark	B/L brightness darker than normal		*Connect badness Short between wire and electrode
	B/L wire damaged	B/L wire damaged		Operation abnormal or systemic noise
	B/L wire open	Without backlight open		Operation abnormal or systemic noise
	B/L shut down	B/L shutdown in sometime		Short between lamp housing and wire, Because consume power too much
	F/M	F/M in B/L ,white, back Rotundity or wire like		F/M in B/L unit

Failure Mode

Part	Name	Description	Phenomena	Failure cause
Mechanical or B/L	Light leakage	Brightness at bottom of LCM brighter than normal		B/L unit badness
	Uniformity	B/L brightness asymmetric		Sheet in B/L unit is uneven
	Mount hole	Lack screw or screw damage		*Lack screw Screw damage