



# Liquid Crystal Display Television Service Manual

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**Chassis: MST9**

**ProductType: LCD19W57/LCD19W29EU**

**LCD26W57**

**LCD32W57**

**Ver 1.0**

**Hisense Electric Co., Ltd.**

**June. 2008**

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# Service Manual

## 1. Precautions and notices

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

WHEN REPLACEMENT PARTS ARE REQUIRED, BE SURE TO USE REPLACEMENT PARTS SPECIFIED BY THE MANUFACTURER.

Proper service and repair is important to the safe, reliable operation of all Hisense Electric Co., Ltd 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. It is also important to understand that these CAUTIONS and NOTICES ARE NOT EXHAUSTIVE. Hisense could not possibly know, evaluate and advise the service trade of all conceivable ways in which service might be done

or of the possible hazardous consequences of each way. Consequently, Hisense has not undertaken any such broad evaluation. Accordingly, a serviceman that uses a service procedure or tools, which are not recommended by Hisense, must first satisfy himself thoroughly that neither his safety nor the safe of the equipment will be jeopardized by the service method selected.

Hereafter throughout this manual, Hisense Electric Co., Ltd will be referred to as Hisense.

### 1.1 WARNING

#### 1.1.1

Critical components having special safety characteristics are identified with a ▲ by the Ref. No. in the parts list. Use of substitute replacement parts, which do not have the same specified safety characteristics, may create shock, fire, or other hazards.

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

#### DANGERCAUTION 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, make sure that you are connected with the same potential as the mass of the set by a wristband with resistance. Keep components and tools also at this same potential.

1. Never replace modules or other components while the unit is switched on.
2. When making settings, use plastic rather than metal tools. This will prevent any short circuits and the danger of a circuit becoming unstable.

### 1.1.3

To prevent electrical shock, do not use this polarized ac plug with an extension cord, receptacle, or the outlet unless the blades can be fully inserted to prevent blade exposure.

To prevent electrical shock, match wide blade or plug to wide slot, fully insert.

### 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.

### 1.1.5

Safety regulations require that after a repair the set must be returned in its original condition. In particular attention should be paid to the following points.

-Note: The wire trees should be routed correctly and fixed with the mounted cable clamps.

-The insulation of the mains lead should be checked for external damage.

### 1.1.6

(1) Do not touch Signal and Power Connector while this product operates. Do not touch EMI ground part and Heat Sink of Film Filter.

(2) Do not supply a voltage higher than that specified to this product. This may damage the product and may cause a fire.

(3) Do not use this product in locations where the humidity is extremely high, where it may be splashed with water, or where flammable materials surround it. Do not install or use the product in a location that does not satisfy the specified environmental conditions. This may damage the product and may cause a fire.

(4) 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.

(5) 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.

(6) Do not disconnect or connect the connector while power to the product is on. It takes some time for the voltage to drop to a sufficiently low level after the power has been turned off. Confirm that the voltage has dropped to a safe level before

disconnecting or connecting the connector.

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

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

(9) 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.

(10) 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.

(11) 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 activation of the leakage-detection 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.
- When handling the circuit board, be sure to remove static electricity from your body before handling the circuit board.
- 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.



- Routing of the wires and fixing them in position must be done in accordance with the original routing and fixing configuration when servicing is completed. All the wires are routed far away from the areas that become hot (such as the heat sink). These wires are fixed in position with the wire clamps so that the wires do not move, thereby ensuring that they are not damaged and their materials do not deteriorate over long periods of time. Therefore, route the cables and fix the cables to the original position and states using the wire clamps.
- 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 Specifications

Native Resolution:	1366 x 768 Pixels (26"/32")	1440 x 900 (19")
Colour System:	PAL/SECAM	
Sound System:	B/G, D/K, I, L/L'	
Tuner:	VHF/UHF: 48.25~863.25MHz	
Antenna:	75Ω VHF/UHF input	
Stereo:	NICAM/A2	
<b>VIDEO INPUT:</b>		
SCART (Video and RGB)	Video: 1 Vp-p, negative sync, 75Ω input RGB: 0.7 Vp-p, 75Ω input	
Audio in	Stereo audio input for SCART	
Video (CVBS)	1 Vp-p, 75Ω input	
Audio in	RCA Stereo audio input	
YPbPr (Component)	RCA, 0.7 Vp-p/75Ω input (480I/60Hz, 480P/60Hz, 576I/50Hz, 576P/50Hz, 720P/60Hz, 1080I/50Hz, 1080I/60Hz)	
Audio in	RCA Stereo audio input	
<b>PC INPUT:</b>		
VGA	15 Pin, Analog RGB signal, 0.7 Vp-p, 75Ω input (VGA, SVGA, XGA)	
Audio in	RCA Stereo audio input	
<b>MONITOR OUT</b>		
	19"	26"32"
Power Requirement	Refer to rating label	
Power Consumption	Refer to rating label	
Speaker Output	1.5W+1.5W	6W+6W6W+6W
Dimensions (L*H*D, mm)	538 x 447 x 176	762 x 587 x 288902 x 770 x 215
Weight (net)	5kg	12kg14kg

**Allowable temperature of operation environment**  
.....0°C to 40°C

### ACCESSORIES

Operating Instructions	1
Remote Control Unit	1
Power Lead	1 (only 32")
Dry Cell Battery	2

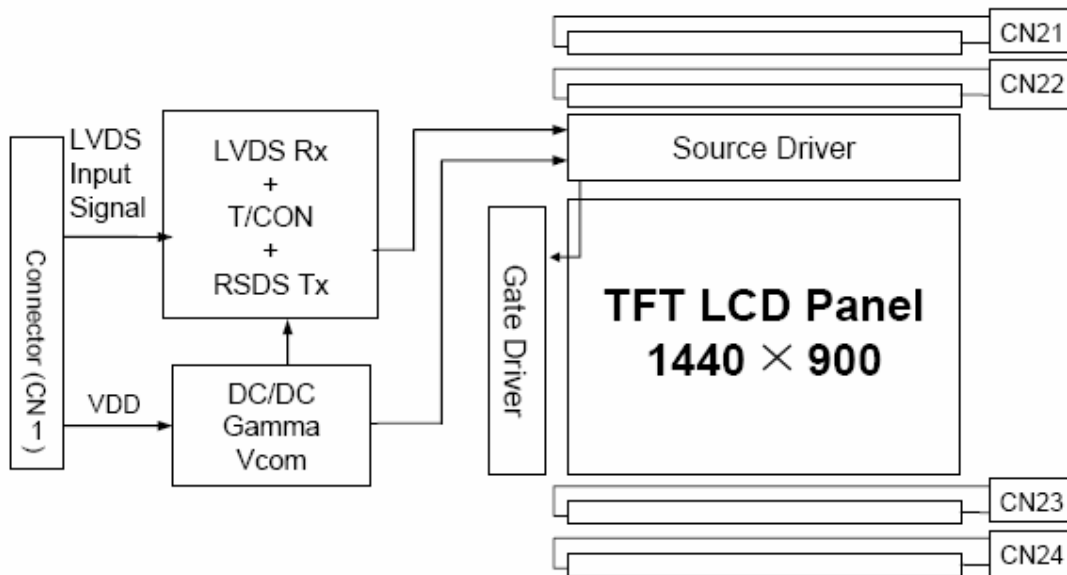
**Note:** Specifications and design are subject to possible modifications without notice due to improvements.

### 3. LCD Panel Spec

#### 3.1 LCD19W57:

##### General Description:

HT190WG1-100 is a color active matrix TFT LCD module using amorphous silicon TFT's (Thin Film Transistors) as an active switching devices. This module has a 19.0 inch diagonally measured active area with WXGA+ resolutions (1440 horizontal by 900 vertical pixel array). Each pixel is divided into RED, GREEN, BLUE dots which are arranged in vertical stripe and this module can display 16,7 M colors. The TFT-LCD panel used for this module is adapted for a low reflection and higher color type.



- LVDS Interface with 2 pixel / clock
- High-speed response
- Low power consumption
- 6-bit (Hi-FRC) color depth, display 16,7 M colors
- Incorporated edge type back-light (Four lamps)
- High luminance and contrast ratio, low reflection and wide viewing angle
- DE (Data Enable) only
- RoHS Compliant

### 3.2 LCD26W57:

#### General Description:

**V260B1- L02 is a 25.5" TFT Liquid Crystal Display module with 8-CCFL Backlight unit and RSDS interface.**

**This module supports 1366 x 768 WXGA format and can display 16.2M colors (6-bits+FRC colors).**

#### General Features

Item	Specification	Unit
Active Area	575.769 (H) x 323.712 (V) (26" diagonal)	mm
Bezel Opening Area	580.8 (H) x 328.8 (V)	mm
Driver Element	a-si TFT active matrix	
Pixel Number	1366 x R.G.B. x 768	pixel
Pixel Pitch (Sub Pixel)	0.1405 (H) x 0.4215 (V)	mm
Pixel Arrangement	RGB vertical stripe	-
Display Colors	16.2M	color
Display Operation Mode	Transmissive mode / Normally White	-
Surface Treatment	Anti-Glare coating (Haze 25%) Hard coating (3H)	-

### 3.3 LCD32W57

#### General Description:

**V315B1-L01 is a 31.5" TFT Liquid Crystal Display module with 16-CCFL Backlight unit and a ch LVDS interface.**

**This module supports 1366 x 768 WXGA format and can display 16.7M colors (8-bits colors).The inverter module for backlight is built-in.**

### General Features

- High brightness (500 nits)
- Ultra-high contrast ratio (1500:1)
- Faster response time (gray to gray average 6.5ms)
- High color saturation NTSC 72%
- Ultra wide viewing angle : 176(H)/176(V) (CR>20) with Super MVA technology
- DE (Data Enable) only mode
- LVDS (Low Voltage Differential Signaling) interface
- 180 degree rotation display (option)
- Color reproduction (nature color)
- Low color shift function

## 4. Chassis Layout and Overall Wiring Diagrams

### 4.1 Chassis Layout

LCD19W57/LCD19W29EU:

No	Description	Part No	Type/Model	PCB/ Model
(1)	Main Board	116132	RSAG2. 908. 1294\ROH	RSAG7. 820. 1264
(2)	Power Board	1041467	JSI-190411B\ROH	
(3)	Keypad	114552	RSAG2. 908. 1168-2\ROH	RSAG7. 820. 1214
(4)	IR & Led Board	114175	RSAG2. 908. 1169	RSAG7. 820. 1213

LCD26W57:

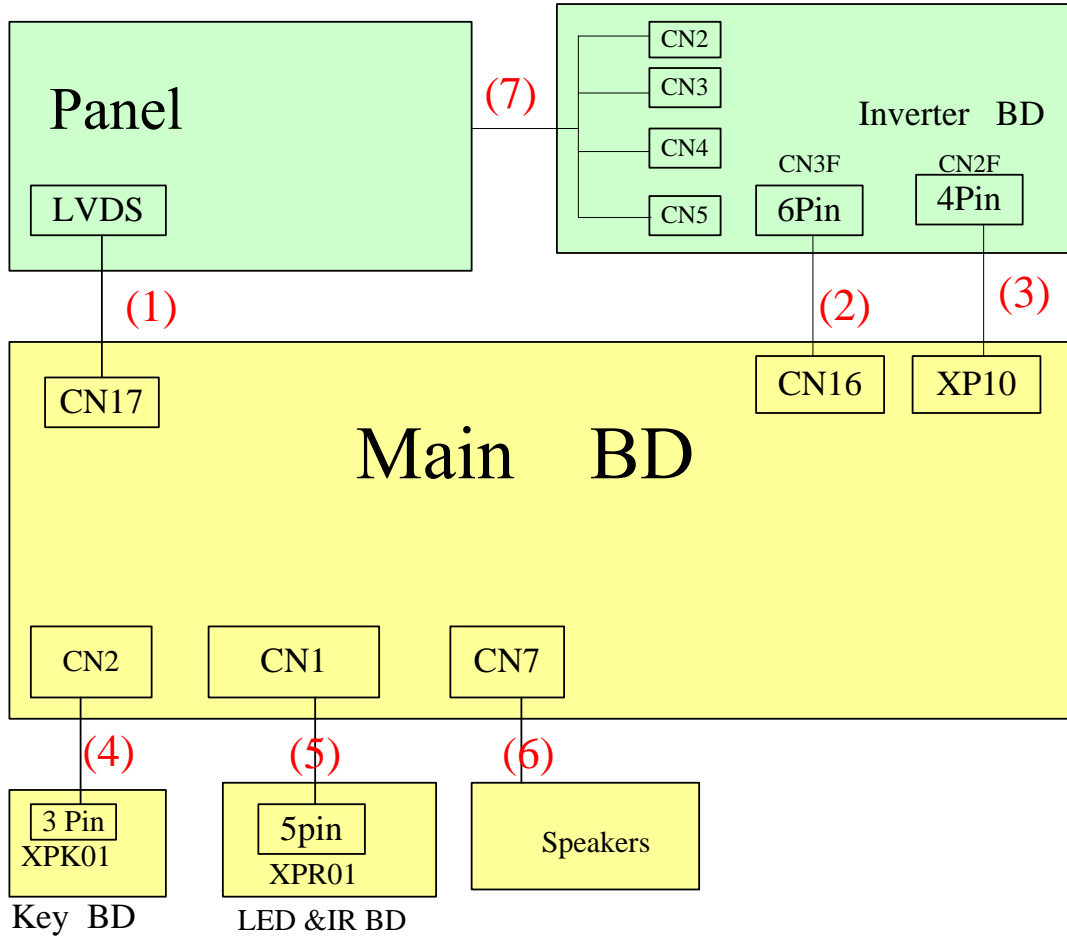
No	Description	Part No	Type/Model	PCB/ Model
(1)	Main Board	116134	RSAG2. 908. 1295\ROH	RSAG7. 820. 1269
(2)	Power Board	115429	RSAG2. 908. 1251\ROH	RSAG7. 820. 1235
(3)	Keypad	117301	RSAG2. 908. 1088-1\ROH	RSAG7. 820. 1101
(4)	IR & Led Board	116295	RSAG2. 908. 1260-2\ROH	RSAG7. 820. 1337

LCD32W57:

No	Description	Part No	Type/Model	PCB/ Model
(1)	Main Board	116440	RSAG2. 908. 1295-1\ROH	RSAG7. 820. 1269
(2)	Power Board	114538	RSAG2. 908. 1185-2\ROH	RSAG7. 820. 1032
(3)	Keypad	117301	RSAG2. 908. 1088-1\ROH	RSAG7. 820. 1101
(4)	IR & Led Board	116295	RSAG2. 908. 1260-2\ROH	RSAG7. 820. 1337

## 4.4 Wires and Cables Overall Wiring Diagrams

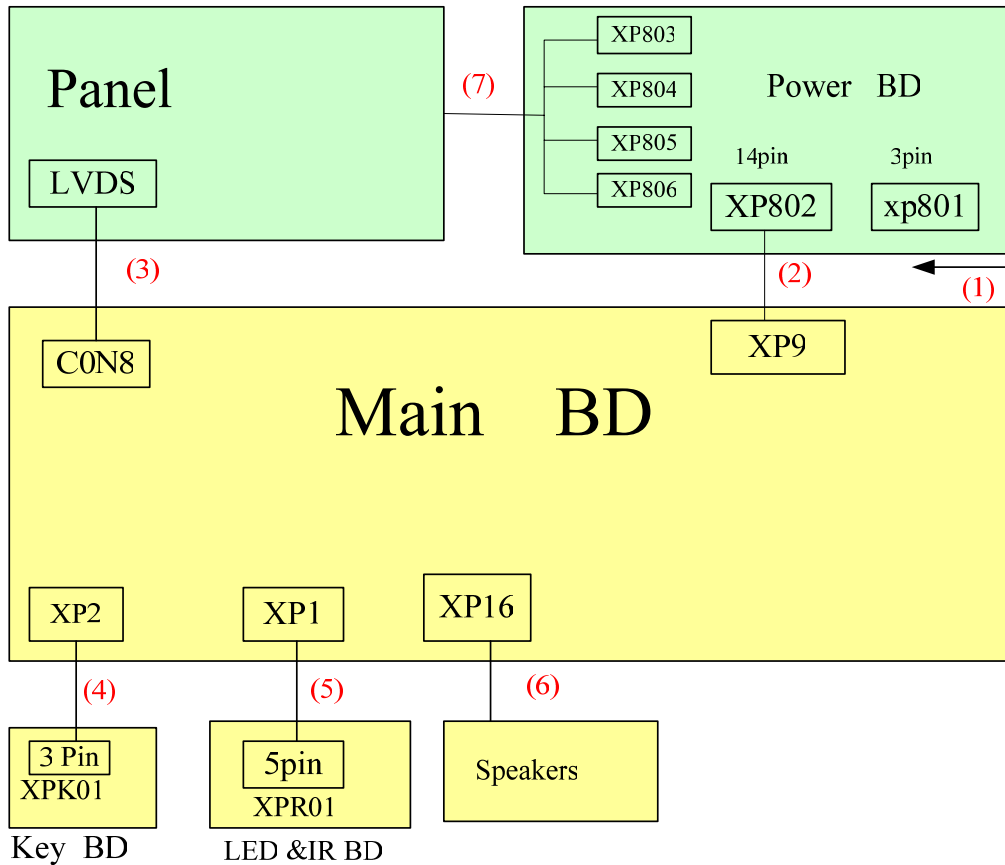
LCD19W57/LCD19W29EU:



No	DESCRIPTION	SPECIFICATION	NOTE
1	LVDS signal	FF-HX19-19\ROH	Main BD CN17<-->Panel
2	12V power and communication between Main BD and Inverter BD	TJC10T-6Y-150\ROH	Inverter BD CN3F<--> Main BD CN16
3	5V power and communication between Main BD and Inverter BD	TJC3T-4Y-200\ROH	Inverter BD CN2F<--> Main BD XP10
4	Buttons	TJC10T-3Y-400\ROH	Main BD CN2<--> Key BD XPK01
5	IR	TJC10T-5Y-1000\ROH	Main BD CN1<-->IR BD XPR01
6	Audio (input/output)	TJC3H-4Y-650-900\ROH	Main BD CN7<--> Speakers
7	Back light power	The Connectors on the panel	Inverter BD CN2、CN3、CN4、CN5<--> Panel backlight port

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LCD26W57:

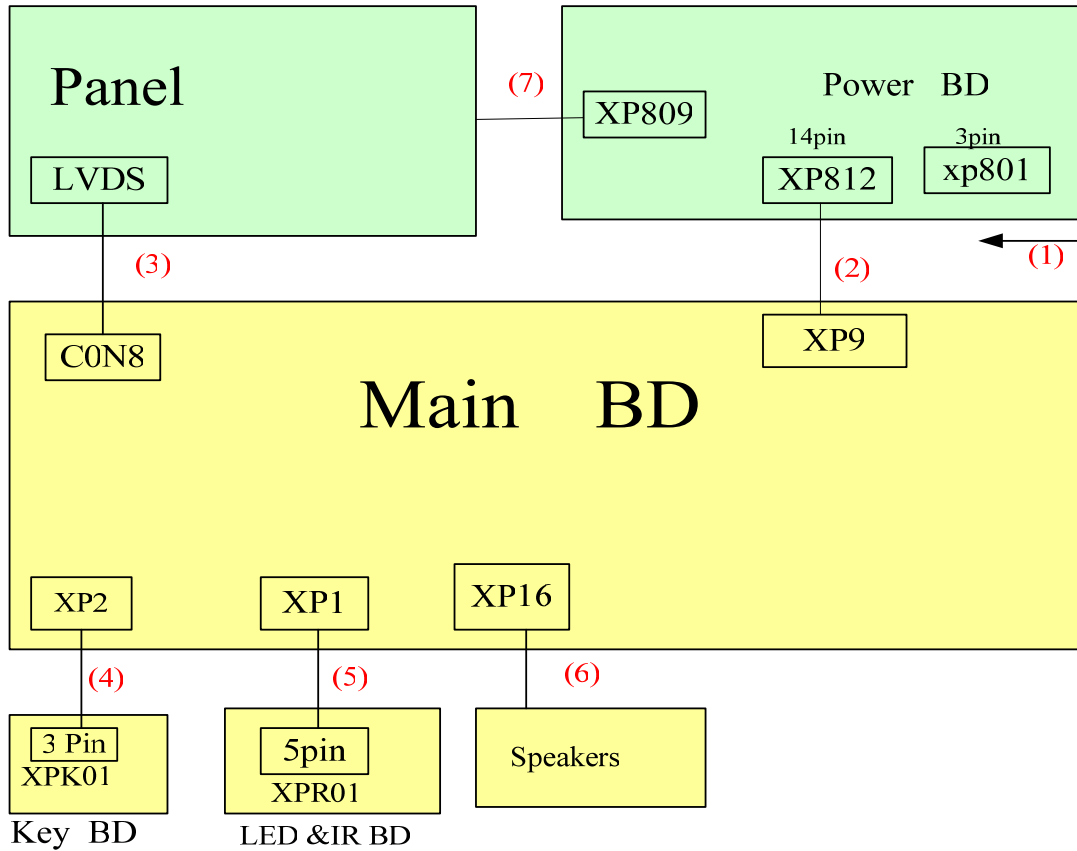


No	DESCRIPTION	SPECIFICATION	NOTE
1	Main Power	TJC2-3Y-250-2\ROH	Power Inlet-->Power BD XP801
2	5V,12V power and communication between Main BD and Power BD	TJC10T-14Y-450\ROH	Power BD XP802<-->Main BD XP9
3	LVDS signal	FPC-45-320-1\ROH	Main BD C0N8<-->Panel
4	Buttons	TJC10T-3Y-650\ROH	Main BD XP2<--> Key BD XPK1
5	IR & Led	TJC10T-5Y-400\ROH	Main BD XP1<-->IR BD XPR01
6	Audio out put (R/L)	TJC3H-4Y-650-900\ROH	Main BD XP16<-->Speaker L/R
7	Back light power	The connectors on the Panel	Power BD XP803、 XP804、 XP805、 XP806<-->Panel



## LCD TV Service Manual

LCD32W57:



No	DESCRIPTION	SPECIFICATION	NOTE
1	Main Power	TJC2-3Y-250-2\ROH	Power Inlet-->Power BD XP801
2	5V,12V power and communication between Main BD and Power BD	TJC10T-14Y-150\ROH	Power BD XP812<-->Main BD XP9
3	LVDS signal	HX2-2x15KLB350P-CMO\ROH	Main BD C0N8<-->Panel
4	Buttons	TJC10T-3Y-650\ROH	Main BD XP2<--> Key BD XPK1
5	IR & Led	TJC10T-5Y-400\ROH	Main BD XP1<-->IR BD XPR01
6	Audio out put (R/L)	TJC3H-4Y-800-600\ROH	Main BD XP16<-->Speaker L/R
7	Back light power	HX-3006B550\ROH	Power BD XP809<-->Panel

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## 5. Factory/Service OSD Menu and Adjustment

### 5.1 To enter the Factory OSD Menu

#### a. With factory RC (remote control)

1. Press “M” button and enter factory mode.
2. Press “Menu” button and enter factory OSD menu.
3. Press “CH+”/“CH-” button select the function menu, press “VOL+”/“VOL-” enter the selected function menu. Press “VOL+”/“VOL-” button adjust values in the menu.
4. Press “M” button exit factory mode in the factory OSD menu.

When TV outgoing factory, user can not enter factory OSD menu with Factory Remote

#### b. With user's RC

1. Power TV On
2. Press Menu button and call up User OSD Menu
3. Select Sound-> Balance
4. When Balance value is “0”, Enter 0->5->3 ->2 in sequence.  
Note: If necessary, re-do number keys.
5. Factory OSD appears.
6. Press the standby button then AC turn off and restart the TV, which can exit factory OSD menu.

### 5.2 Factory OSD Menu

The Factory OSD Menu comprises Factory Menu and Design Menu .

#### 5.2.1、 Factory Menu

**Factory Menu**  
**White Balance**  
**Auto Test**  
**Auto Calibration**  
**LOGO**  
**OSD Language**  
**Country**  
**Option**  
**Factory Init**  
**Test Pattern**  
**Version:**

**White Balance**  
  
**R DRV**  
**G DRV**  
**B DRV**  
**R CUT**  
**G CUT**  
**B CUT**  
**BRIGHT\_H**  
**CONTRAST\_H**  
**BRIGHT\_L**  
**CONTRAST\_L**

## Auto Calibration

### Auto Color

Color Temp.           Standard  
**RED COLOR**  
**GREEN COLOR**  
**BLUE COLOR**

## LOGO

**NULL**  
**HISENSE**  
**WELCOME**  
**EGYPT**               **OFF**

## Option

**SOURCE**           **TV**  
**BRIGHT 0**       **10**  
**BRIGHT 50**     **100**  
**BRIGHT 100**   **150**  
**CONTRAST 0**    **60**  
**CONTRAST 50**   **100**  
**CONTRAST 100** **150**  
**TOFAC**           **M**  
**HDMI Cable**     **Standard**  
**DQS PHASE**     **3**

## Factory Init

**QingDao**  
**HuangDao**  
**Guiyang**  
**shunde**  
**Hungary**  
**France**  
**Australia**  
**CLEAR PROTECTLY**  
**CLEAR UNPROTECTLY**  
**Turkey**

**Test Pattern**

**BLUE**

**Version**

**Version:**  
**Panel Type:**  
**FLASH :**

**5.2.2、 Design Menu**

**Design Menu**

**Picture Mode**  
**Sound Mode**  
**Sound Settings**  
**Power Save**  
**PIP Option**  
**EMI**  
**MOVESHARPNESS**  
**LipSync**

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### Picture Mode

<b>Standard</b>	<b>Brightness</b>	<b>50</b>
	<b>Contrast</b>	<b>50</b>
	<b>Colour</b>	<b>50</b>
<b>Bright</b>	<b>Brightness</b>	<b>60</b>
	<b>Contrast</b>	<b>60</b>
	<b>Colour</b>	<b>55</b>
<b>Soft</b>	<b>Brightness</b>	<b>45</b>
	<b>Contrast</b>	<b>45</b>
	<b>Colour</b>	<b>45</b>

### Sound Mode

<b>Standard</b>	<b>120Hz</b>	<b>12</b>
	<b>500Hz</b>	<b>10</b>
	<b>1.5KHz</b>	<b>11</b>
	<b>5KHz</b>	<b>8</b>
	<b>10KHz</b>	<b>15</b>
<b>Music</b>	<b>120Hz</b>	<b>19</b>
	<b>500Hz</b>	<b>11</b>
	<b>1.5KHz</b>	<b>12</b>
	<b>5KHz</b>	<b>14</b>
	<b>10KHz</b>	<b>20</b>
<b>Speech</b>	<b>120Hz</b>	<b>4</b>
	<b>500Hz</b>	<b>10</b>
	<b>1.5KHz</b>	<b>12</b>
	<b>5KHz</b>	<b>7</b>
	<b>10KHz</b>	<b>5</b>

### Sound Settings

<b>VOLUME 0</b>	<b>128</b>
<b>VOLUME 1</b>	<b>79</b>
<b>VOLUME 20</b>	<b>27</b>
<b>VOLUME 40</b>	<b>23</b>
<b>VOLUME 100</b>	<b>8</b>
<b>TVPRE SCALER</b>	<b>6</b>
<b>VOLUME SCALER</b>	<b>0</b>

### Note:

The above “Factory/Service OSD Menu” are reference only, please refer to the actual units to determine the appearances.

## 6. Software Upgrading

The software is upgraded by a burning tool- ISP\_TOOL4.0.9, which can burn the program file “\*. bin ” to the main board of the unit

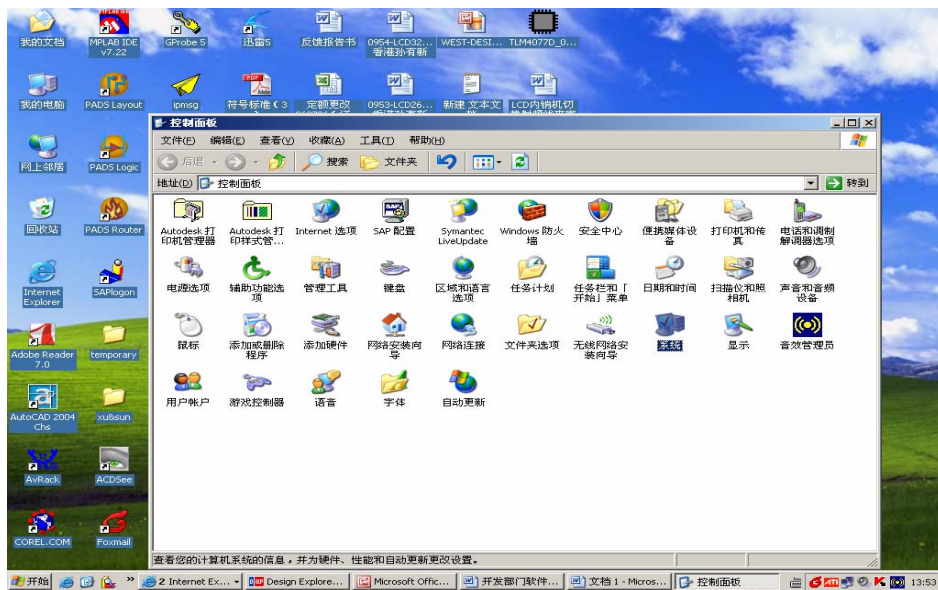
### 6.1 Get ready for upgrading

#### 6.1.1 Install the ISP\_TOOL4.0.9-----only for the first time update.

##### 1、 Port Setting:



Choose “system” option from the “control panel”

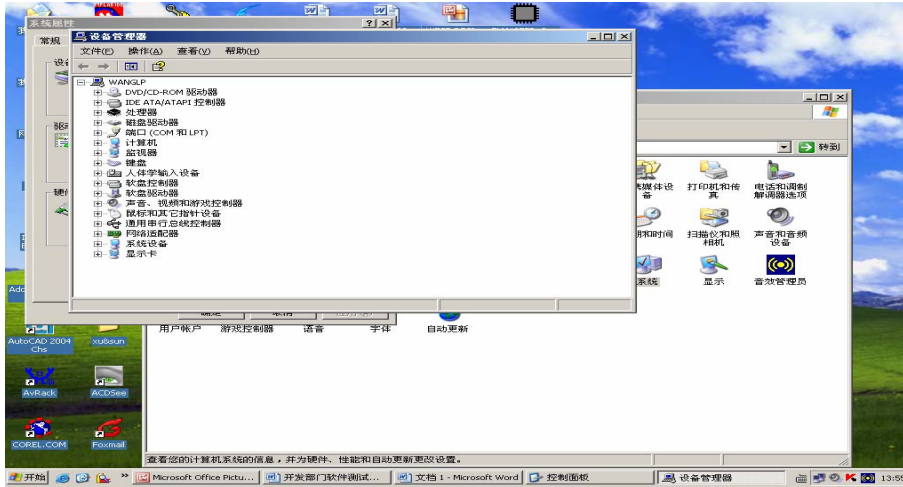




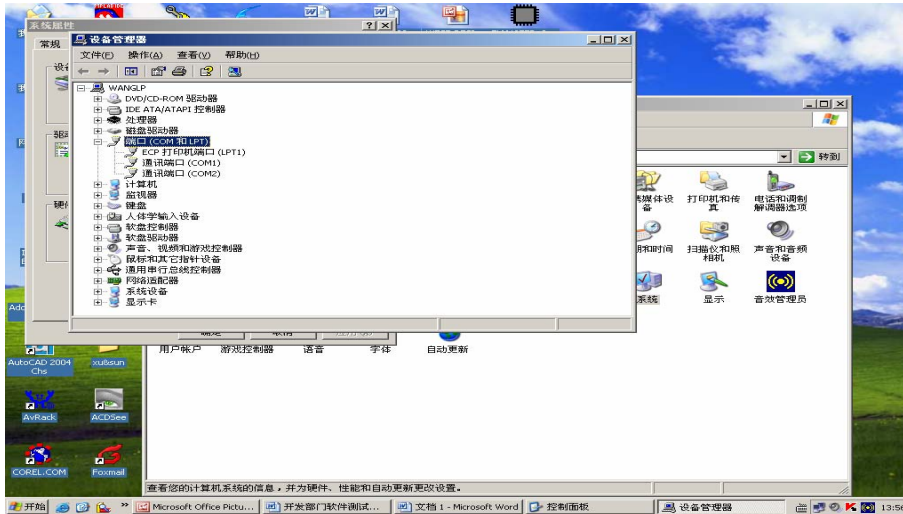


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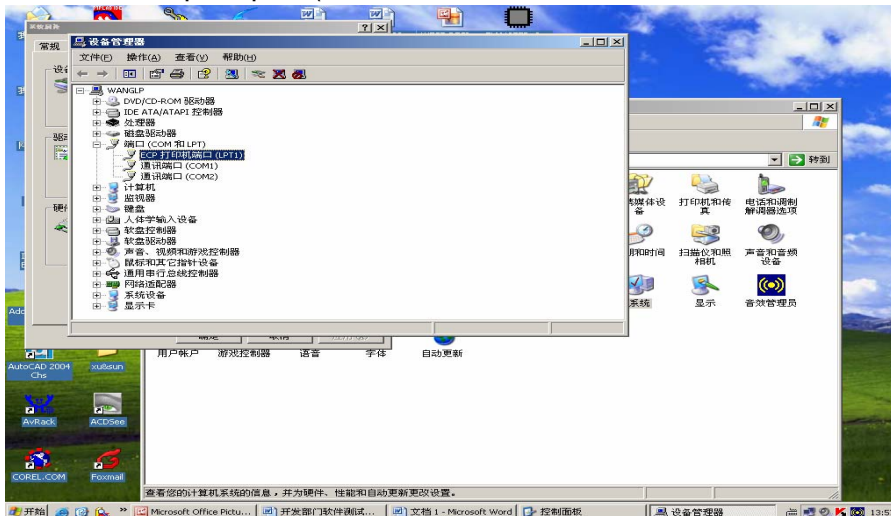
Click“device management” icon as the following



Choose the port (COM and LPT1)



Choose the ECP print port (LPT1)

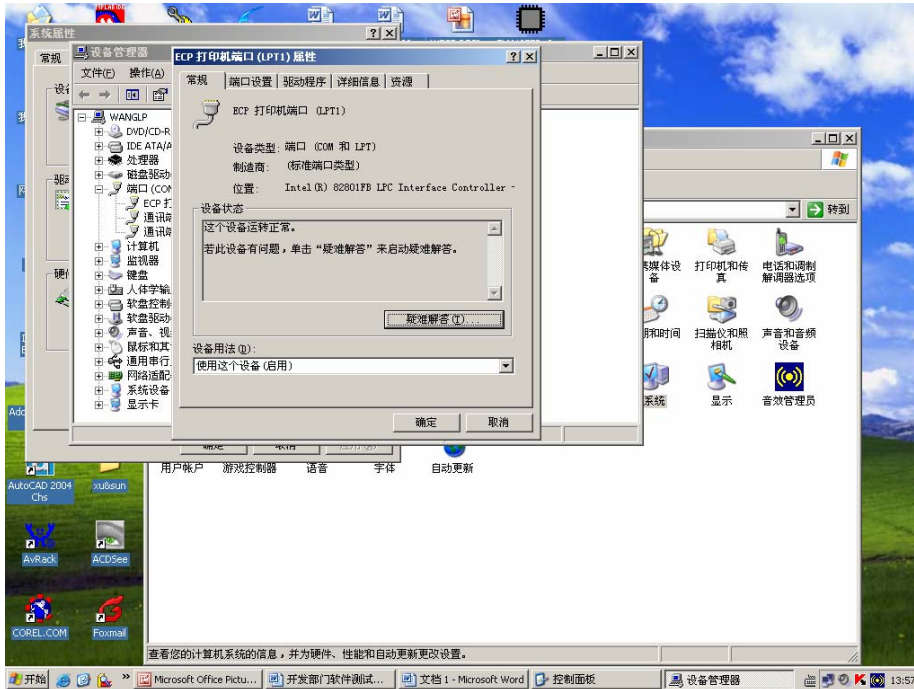


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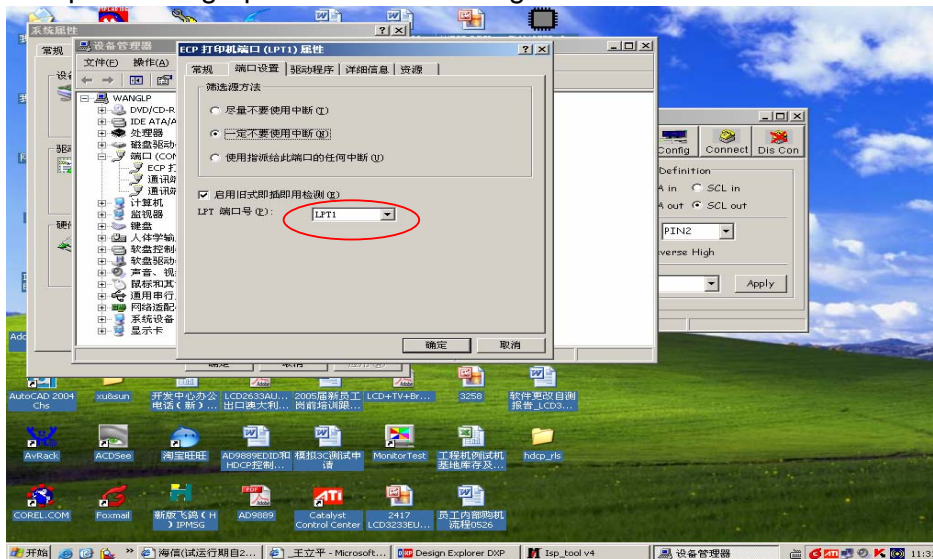


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Click the port of print （LPT1） as the following

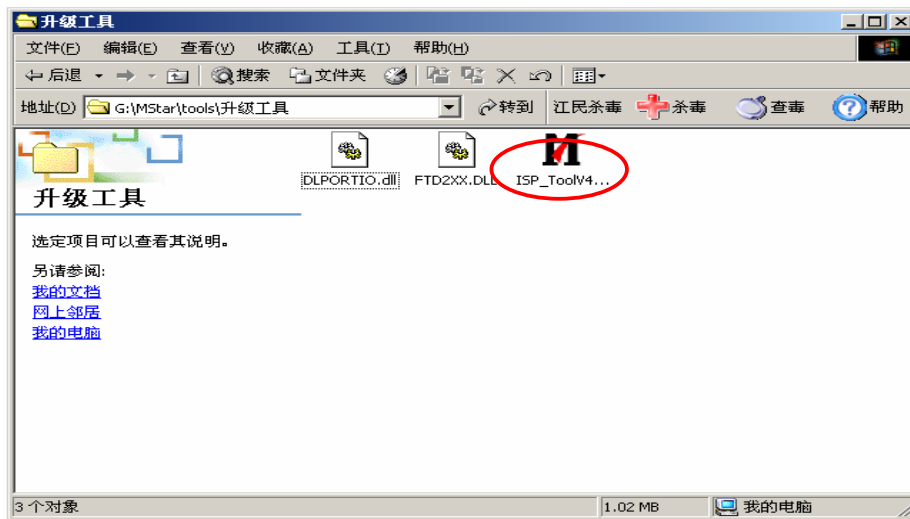


Choose “port setting”option as the following

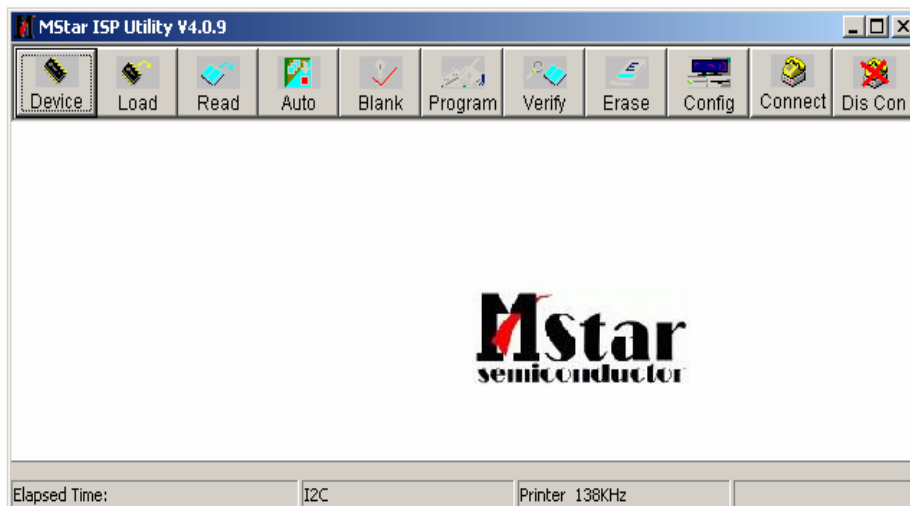


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- 2、 Find the folder where the ISP\_TOOL4.0.9 lies in.  
There are three folders/files in this folder together.  
DLPORTIO.dll and FTD2XX.DLL must be in the same folder



Double click the ISP\_TOOL4.0.9 icon, and then a dialog window will show as below.



## LCD TV Service Manual

Click the **Config** button. And then a dialog window will show as below.

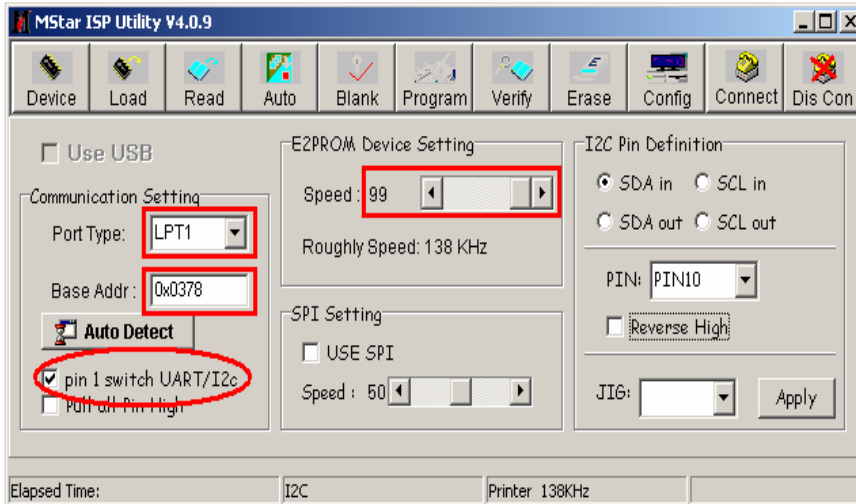
Port Type setting is LPT1

Base Addr setting is 0x378

Draw ☒ on the front of “pin 1 switch UART/I2c”

Speed setting is 99

As following

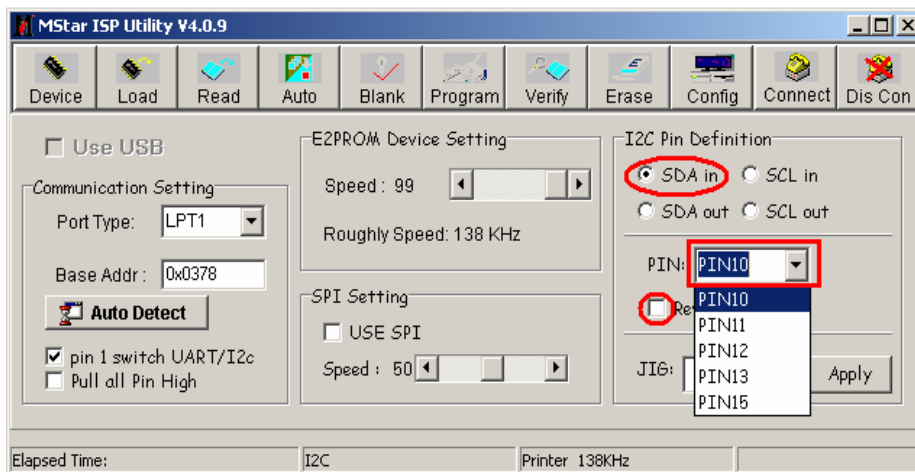


Choose “SDA in” and setting “PIN” is “PIN10”.

Notes:

Do not draw ☒ on the front of “Reverse High”.

As following



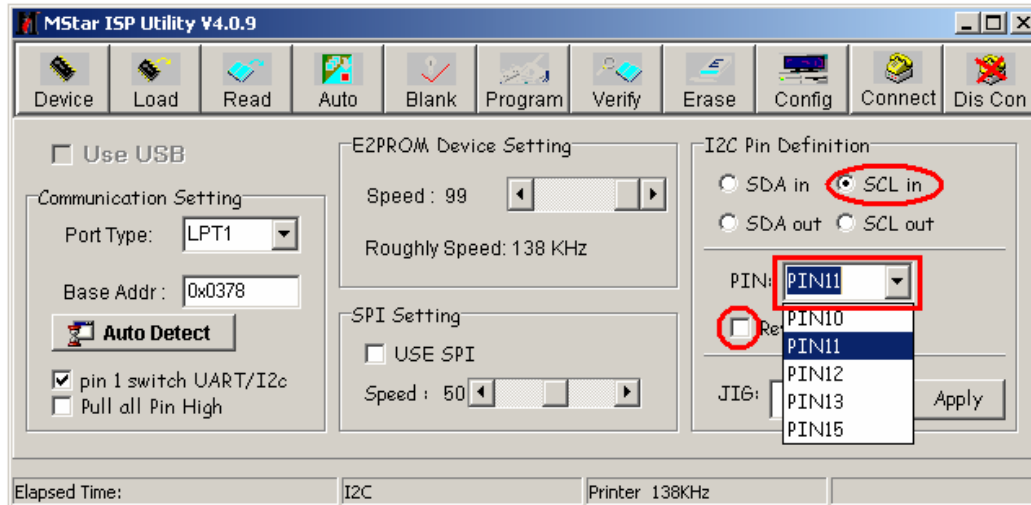
## LCD TV Service Manual

Choose “SCL in” and setting “PIN” is “PIN11”.

Notes:

Do not draw ☒ on the front of “Reverse High”.

As following

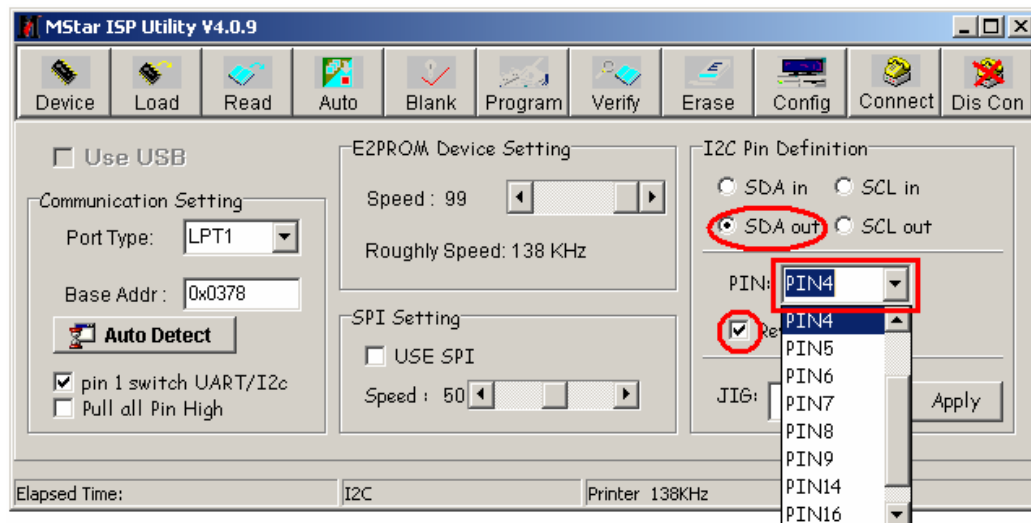


Choose “SDA out” and setting “PIN” is “PIN4”

Notes:

Draw ☒ on the front of “Reverse High”.

As following.



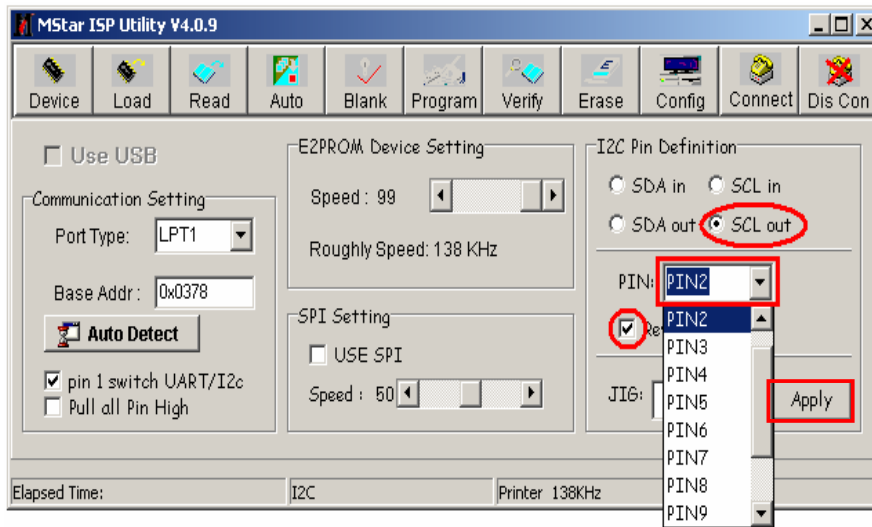
Choose “SCL out” and setting “PIN” is “PIN2”

Notes:

Draw ☒ on the front of “Reverse High”

As following

## LCD TV Service Manual



After having finished all above, clicking the “Apply ”button to complete the configuration。

### 6.1.2 Hardware connecting

You can update the software through a special tool (as following)



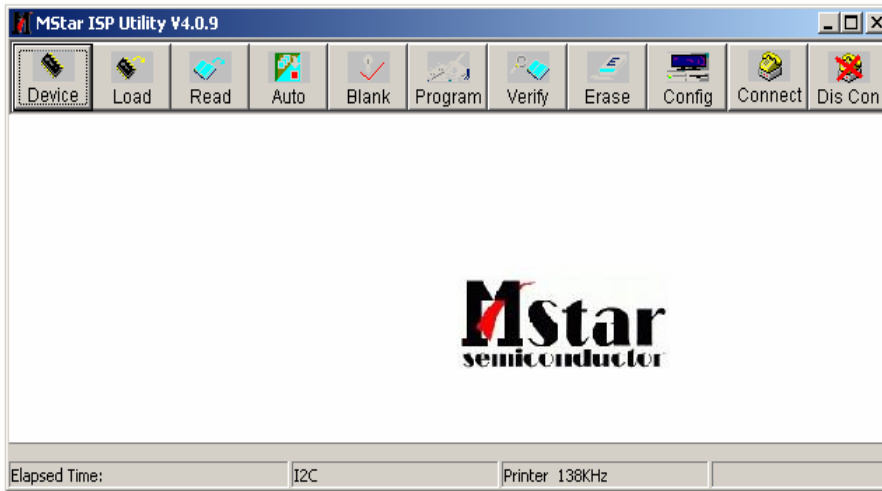
## LCD TV Service Manual

Connect the Debug board to the TV use VGA interface, the other parallel port to the computer, just as the following.

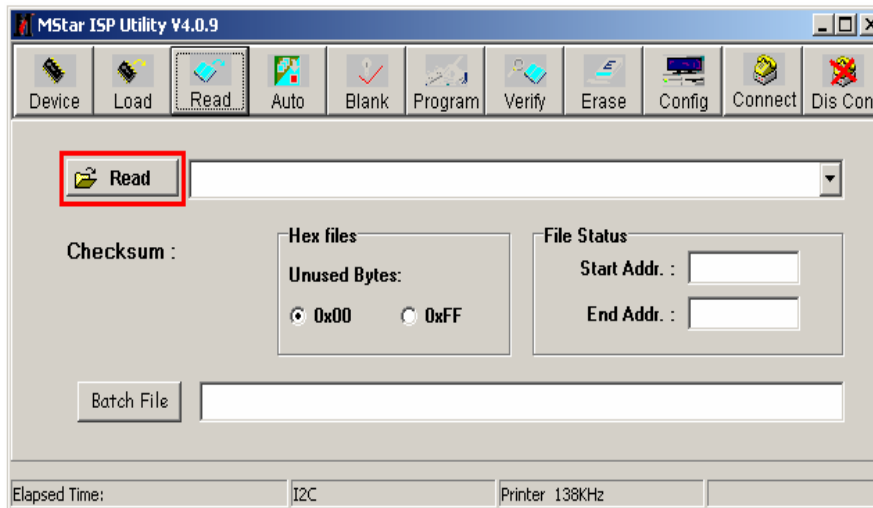


## 6.2 Upgrading with the ISP\_TOOL4.0.9

6.2.1 Double click the ISP\_TOOL4.0.9 icon and a dialog window will show as following.



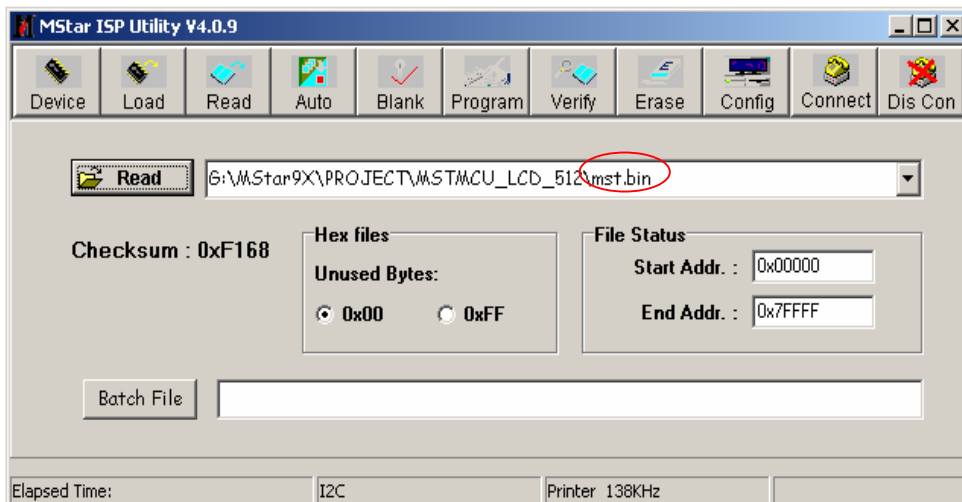
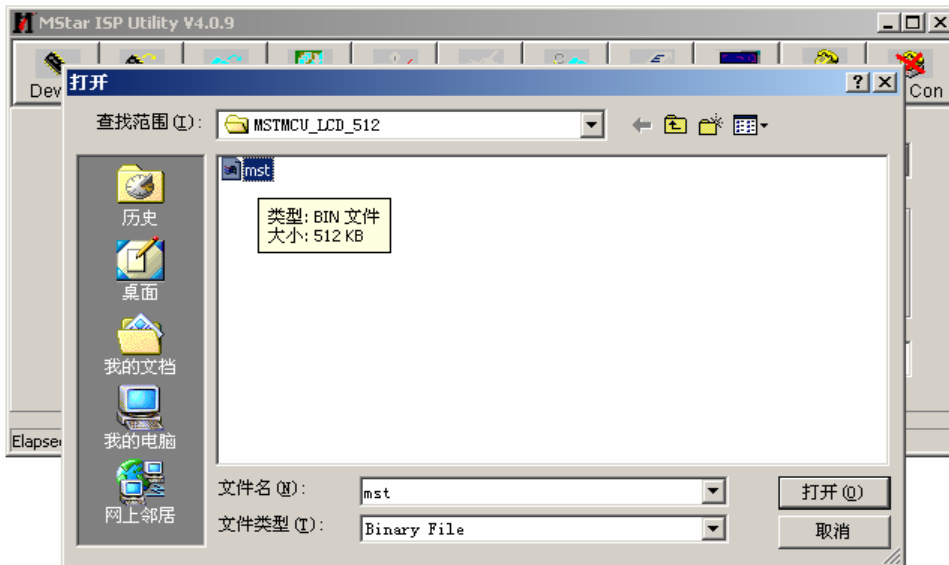
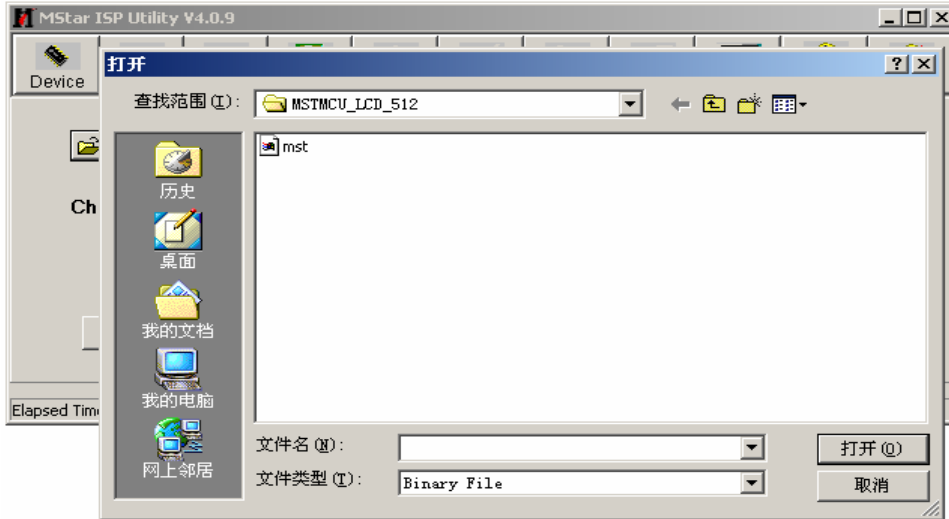
Click the "Read" button.





## LCD TV Service Manual

Choose the update file from the folder.



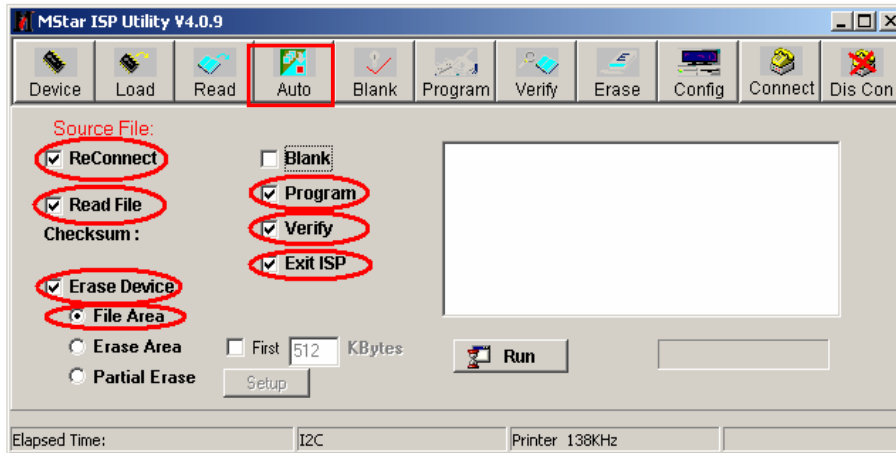
Hisense Confidential



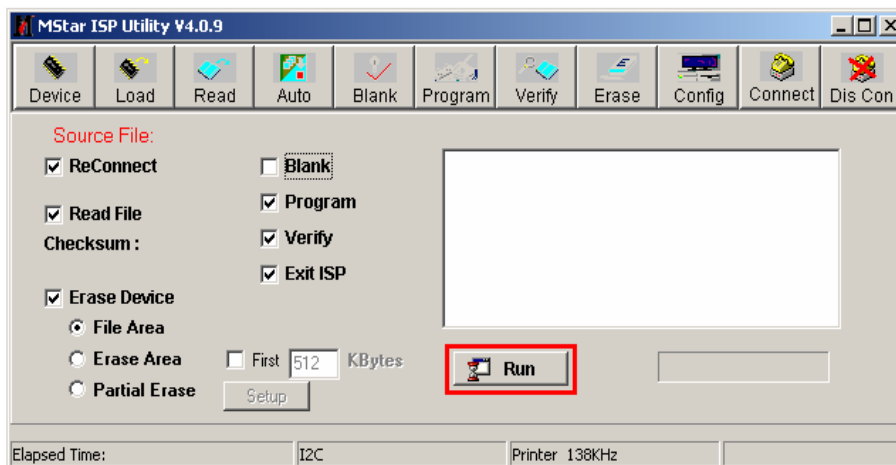
## LCD TV Service Manual

The update file has been chosen successfully。

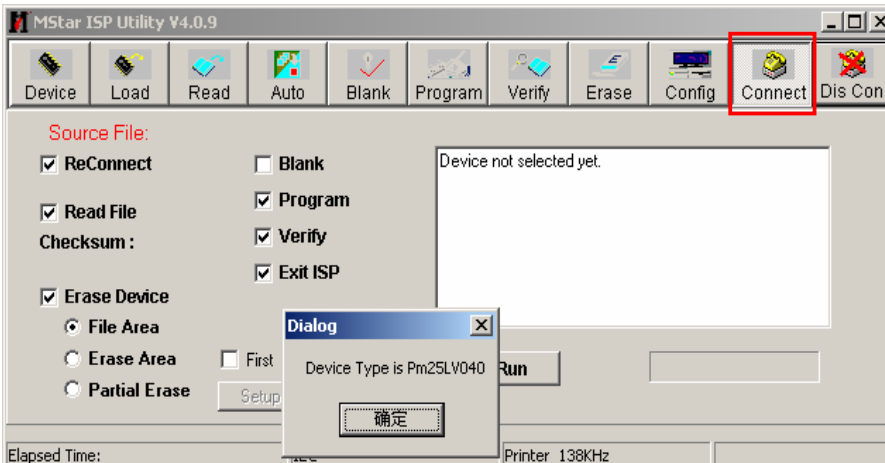
Click the“Auto”button and choose parameters as following。



Click the“Run”button

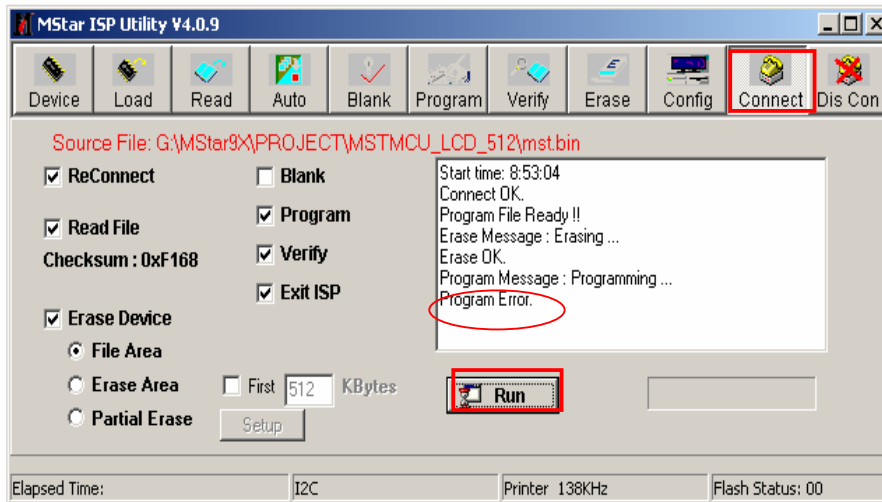


Click the“connect”button,then show a dialog box as following。

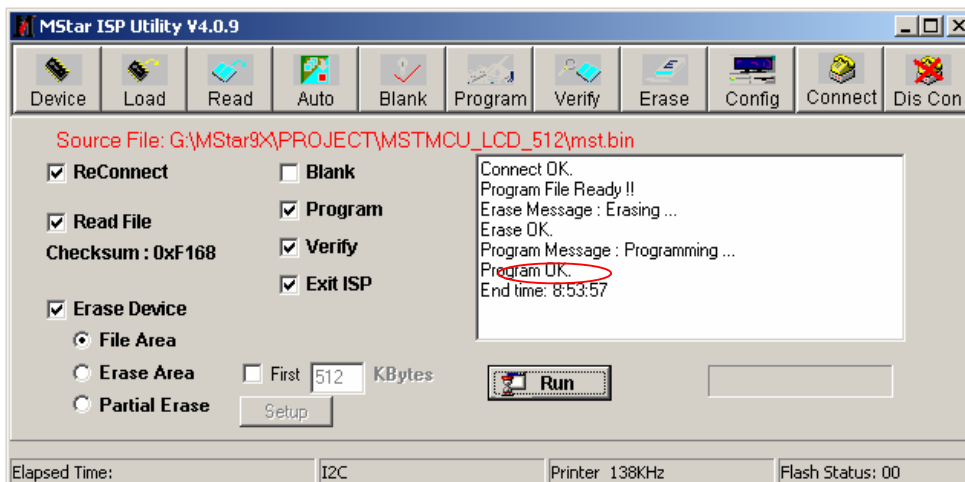
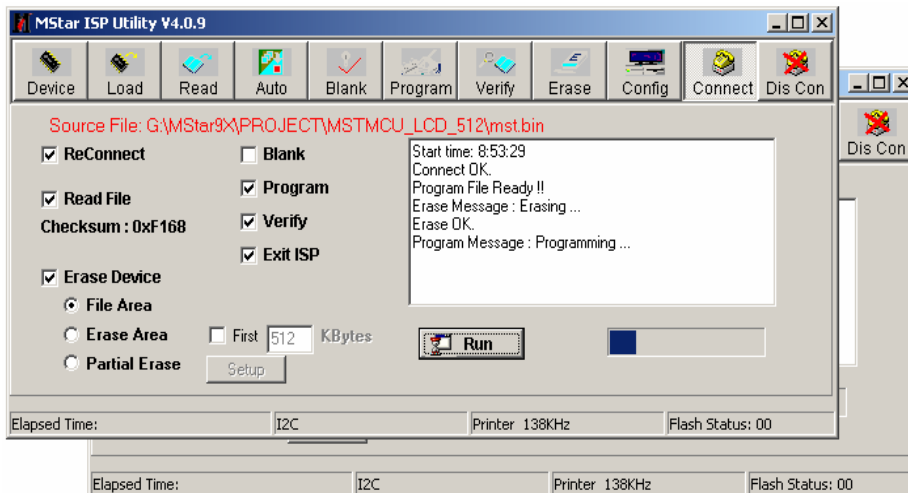


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## LCD TV Service Manual



If show above then click the “Run” button again and again, till show the following dialog window.



The above appears on the screen-the word “program ok”shows in the information displaying window,indicating upgrading is over。

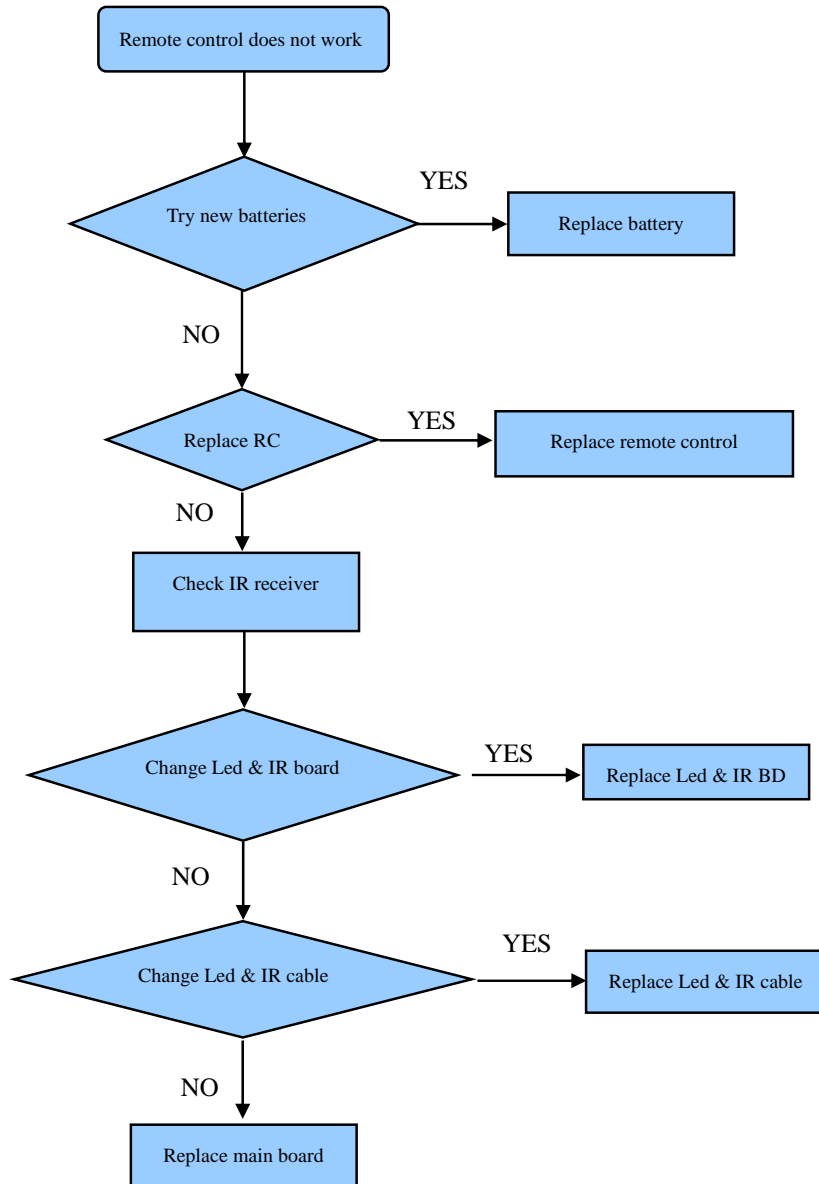
**6.2.2** After the update is over. Must Confirm the software Version in the Version Menu.

If the update is successful, enter Factory Init Menu and select “Clear Unprotectly”

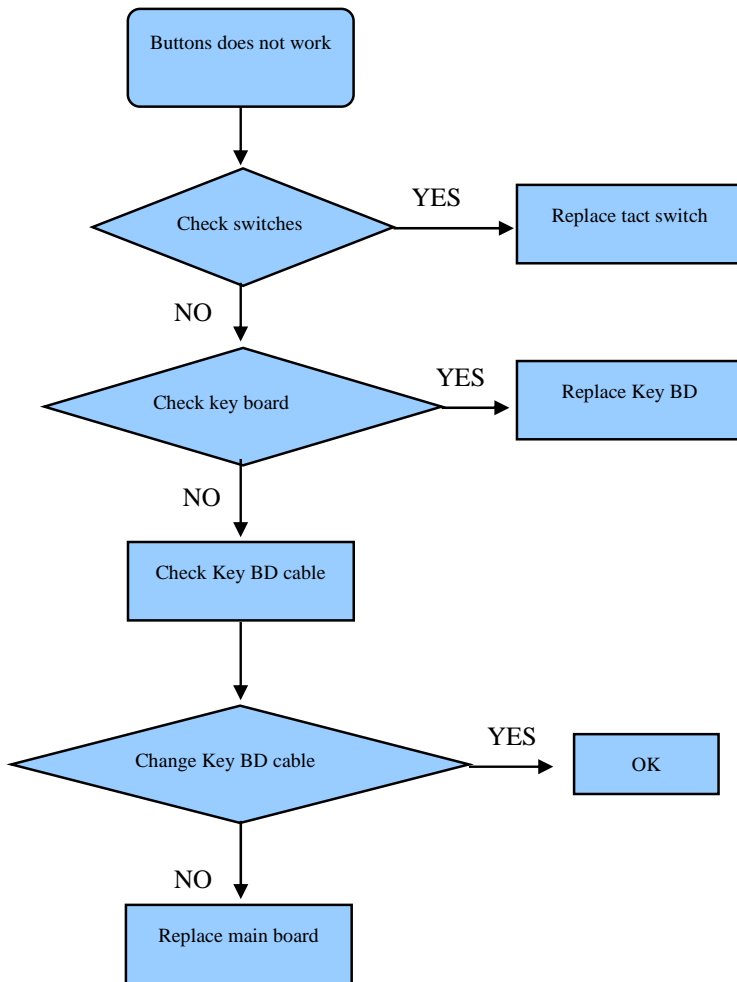
- a. Press VOL+ button to clear the EEPROM data.
- b. When the “Clear Unprotectly ” button becomes white, turn off the power.
- c. Restart the TV.

## 7. Troubleshooting

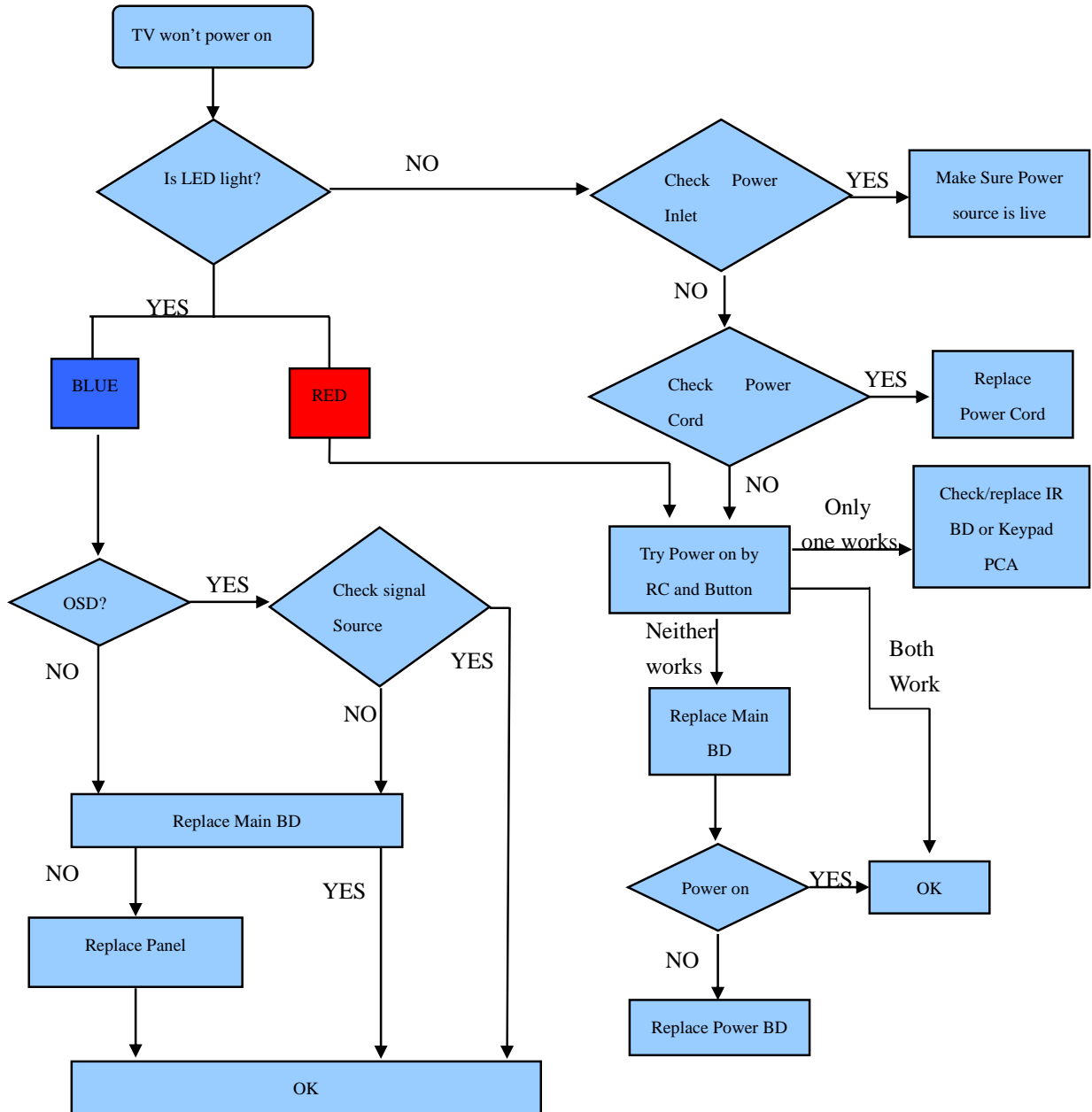
### 7.1 Troubleshooting for Remote Control



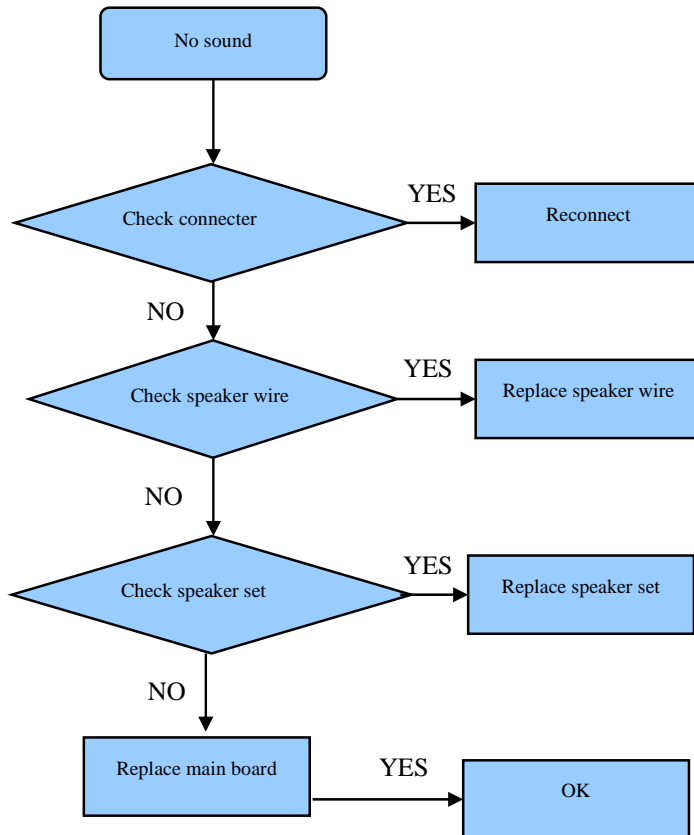
## 7.2 Troubleshooting for Function Key



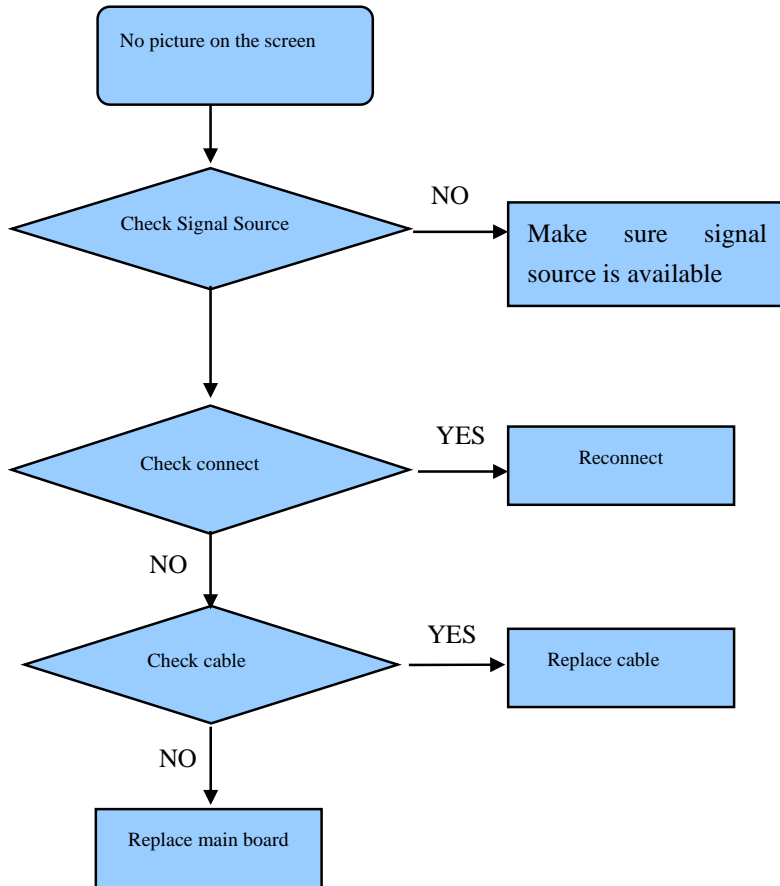
### 7.3 TV won't Power On



## 7.4 Troubleshooting for Audio

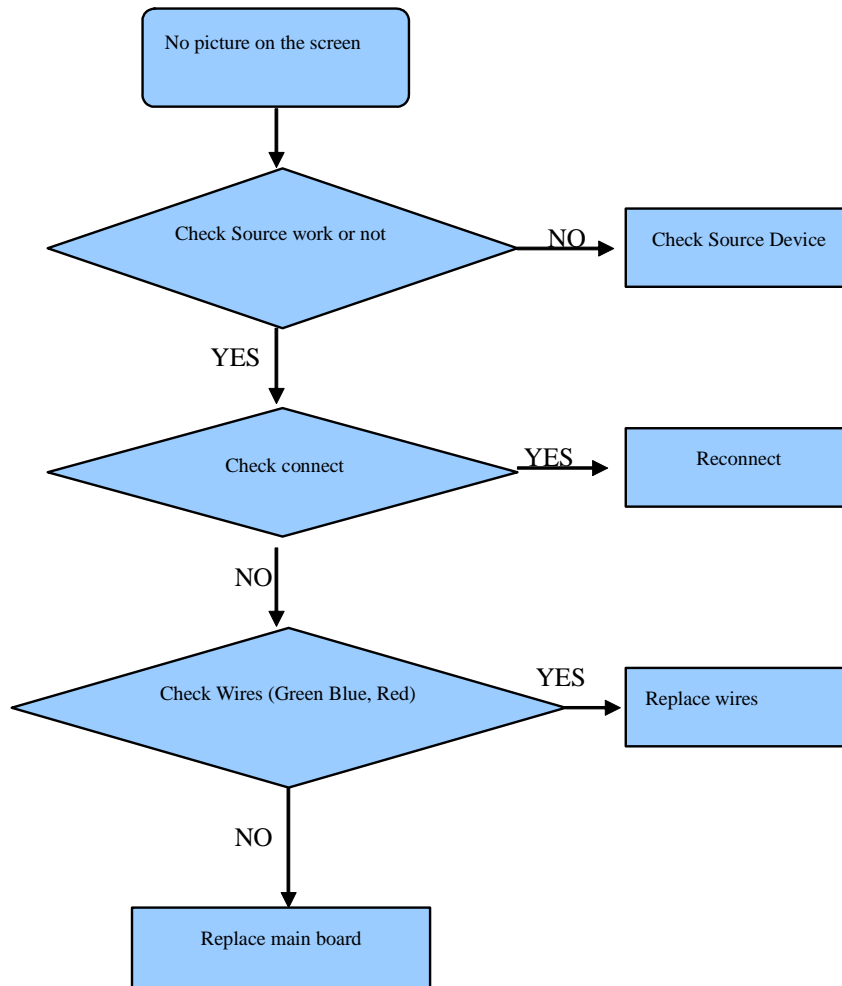


## 7.5 Troubleshooting for TV/VGA/HDMI input

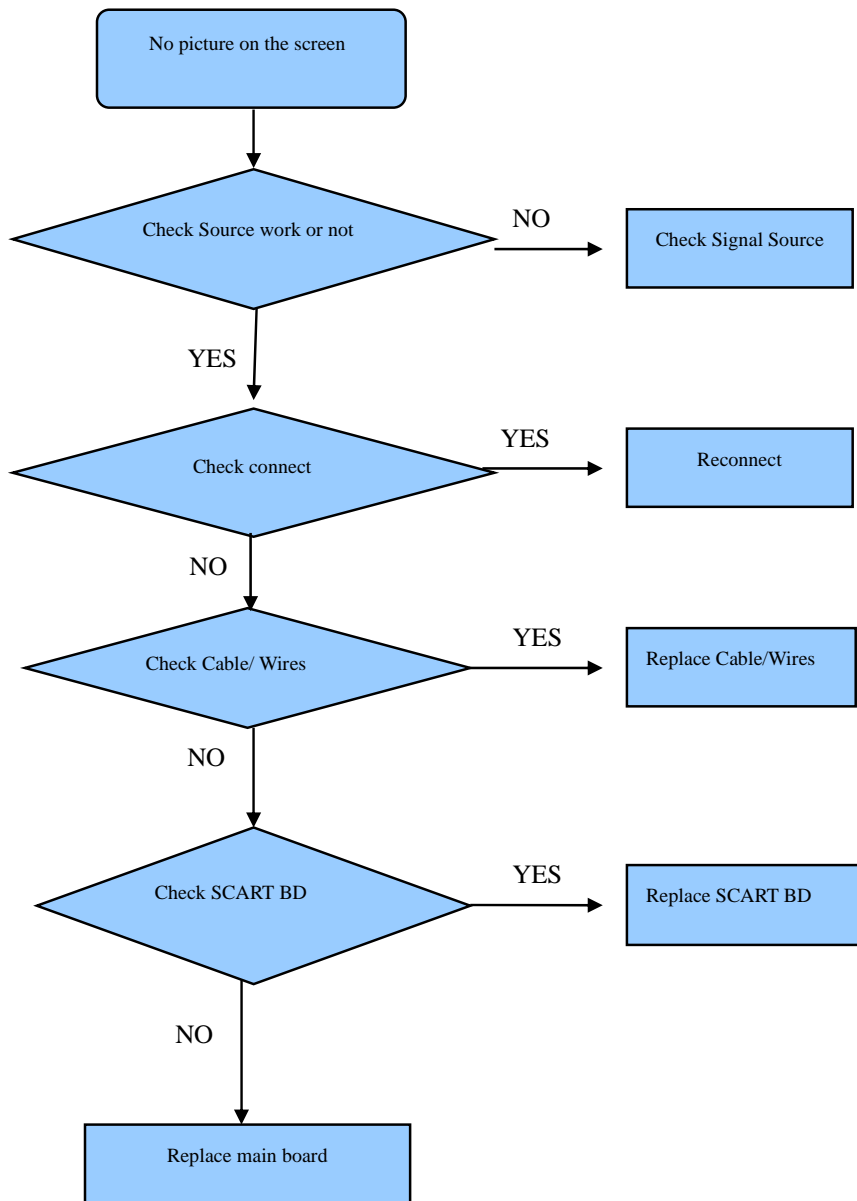




## 7.6 Troubleshooting for YPbPr input



## 7.7 Troubleshooting for Video/S-Video/ SCART input

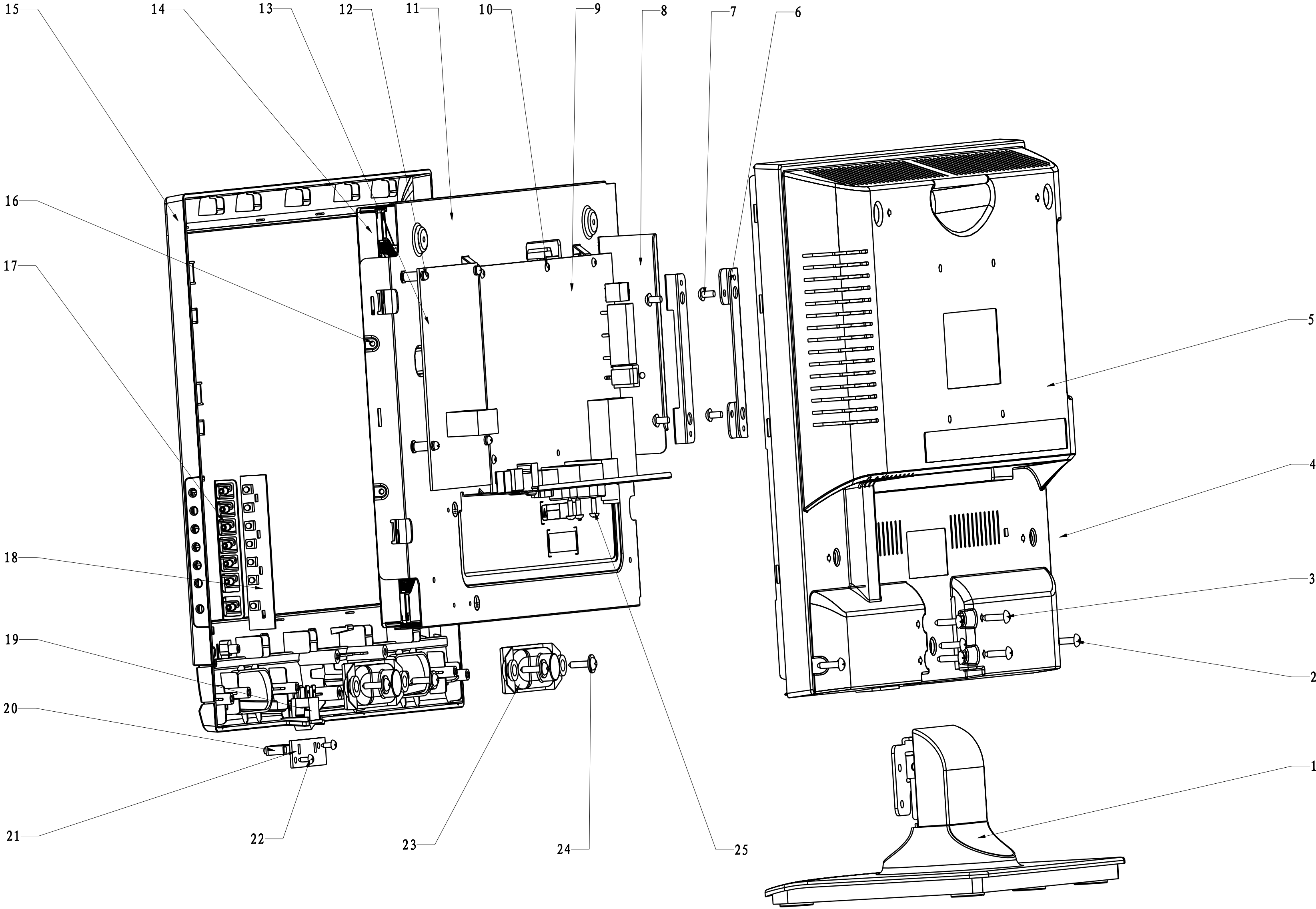


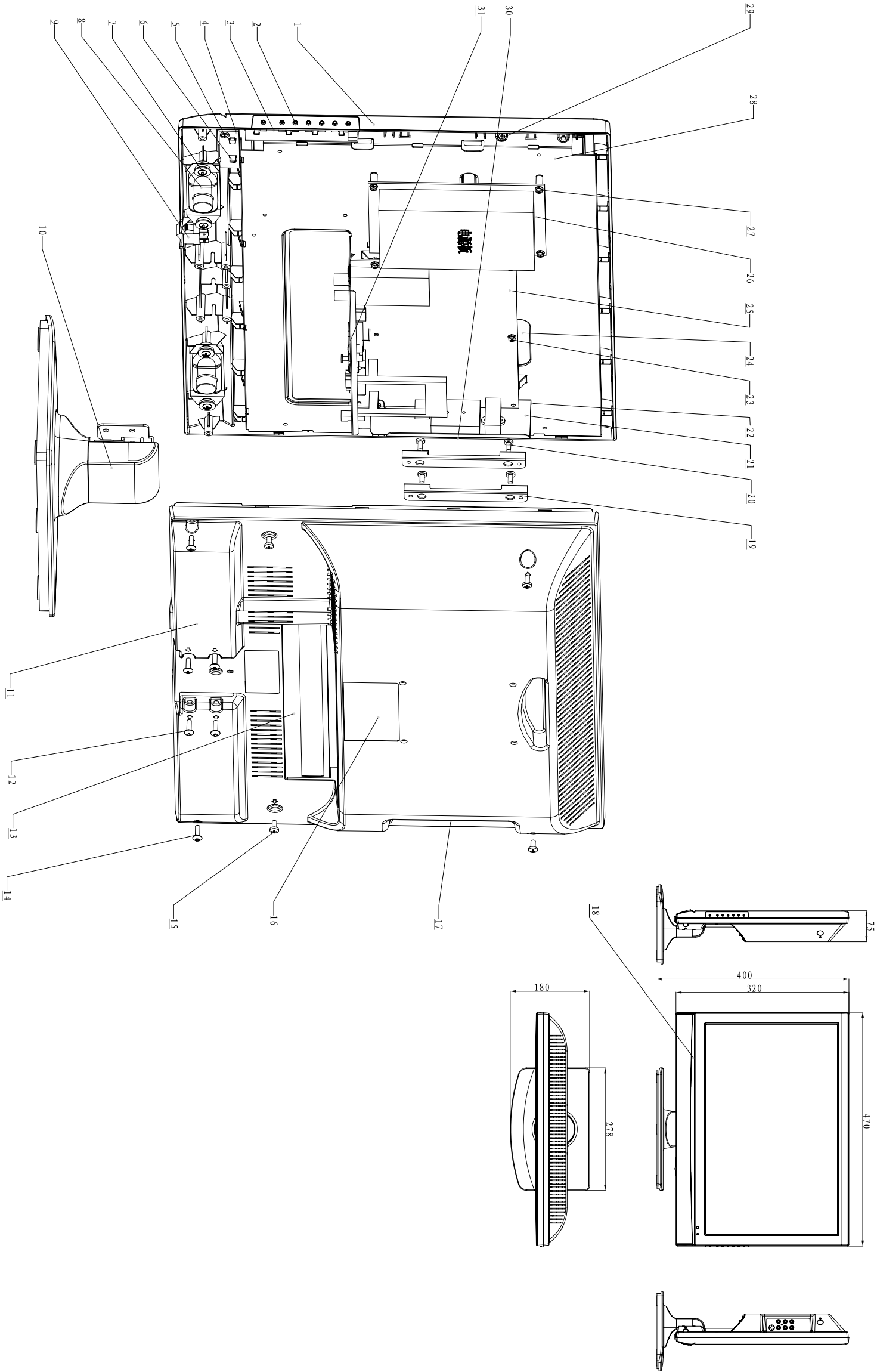
## 8. Explode View

## 9 Schematic circuit diagram

### Explode View:

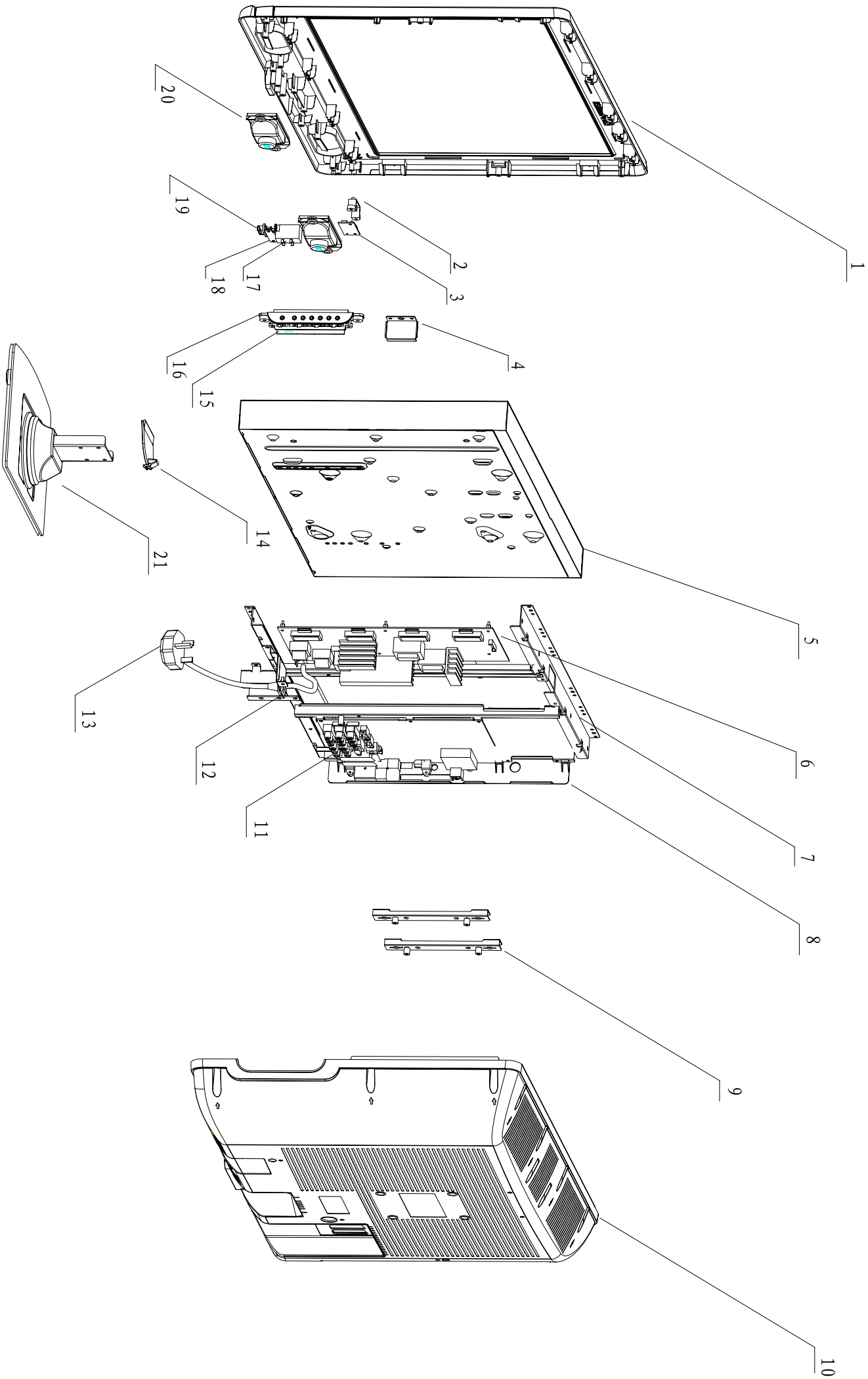
LCD19W57				
No.	Part Name	Qty.	Code No.	Remark
1	Pedestal	1	WG6. 121. 056	
2	Screw	3	SJ2824-87 ST4×16C	Black
3	Screw	4	SJ2824-87 ST4×16C	Black
4	Screw	4	GB/T818-2000 M4×8	Black
5	Back cover	1	RSAG8. 074. 486	
6	Bracket	2	RSAG8. 038. 1201	
7	Screw	4	SJ2824-87 ST4×8F	Black
8	Bracket	1	RSAG8. 038. 1351	
9	Main Board Unit	1	RSAG2. 908. 1294-1	
10	Screw	5	SJ2831-87 ST3×8	Zincification
11	Bracket unit	1	RSAG6. 150. 476	
12	Screw	4	SJ2836-87 M3×6	Zincification
13	Power Board Unit	1	JSI-190411BROHJK	
14	LCD Panel	1	HT190WG1-101JK	
15	Front cover	1	RSAG8. 074. 506	
16	Screw	4	GB/T819. 1-2000 M3X6	Zincification
17	Key	1	RSAG8. 335. 0732	
18	Key board unit	1	RSAG2. 908. 1168-2	
19	Power Switch	1	SDDJE30300\JK	
20	Lens led	1	RSAG8. 640. 062	
21	IR Board Unit	1	RSAG2. 908. 1169	
22	Screw	2	SJ2831-87 ST3×8C	Zincification
23	Speaker	2	YDT37E-3W8R-F	
24	Screw	4	SJ2838-87 ST4×16C. II	Zincification
25	Screw	3	SJ2825-87 ST3×12C	Black





31	SJ2825-497 STATIC black(XMM) STD	screw	2	
30	SJ2825-497 STATIC black(XMM) STD	screw	1	
29	SJ2825-497 WX8 silver-white(XMM) STD	screw	4	
28	KS606, 150, 393 STD(XMM)	main bracket assembly	1	
27	SJ2825-497 WX8 silver(XMM) STD	screw	4	
26	J91-1004 (18X000)	power board assembly	1	
25	KS602, 908, 1173(XMM)	main board assembly	1	
24	HT1000(C-10)\(XMM)	lcd panel	1	
23	SJ2825-497 ST18X(XMM) STD	screw	5	
22	SJ2825-497 ST18X	screw	1	
21	KS606, 038, 1200(XMM)	terminal board	1	
20	SJ2825-497 ST18AF black(XMM) STD	screw	4	
19	KS606, 038, 1200(XMM)	wall bracket	2	
18	KS606, 447, 246(XMM)	display	1	
17	KS606, 800, 3127(XMM)	rotation (6.000)	1	
16	KS606, 807, 3223(XMM)	horizontal	1	
15	GB7821-27000 WX8 black(XMM) STD	screw	4	
14	SJ2825-497 STATIC black(XMM) STD	screw	3	
13	KS606, 800, 3129(XMM)	rotation (6.000)	1	
12	SJ2825-497 STATIC black(XMM) STD	screw	4	
11	KS606, 074, 486,020(XMM)	back cover	1	
10	W66, 121, 659	base assembly	1	
9	S00J203000\X(XMM)	switch	1	
8	1077371-9004-F(XMM)	speaker	2	
7	SJ2825-497 STATIC, 11 silver-white(XMM) STD	screw	4	
6	KS606, 444, 062	top lid	1	
5	SJ2825-497 ST18XC black	screw	1	
4	KS602, 908, 1169	remote control board assembly	1	
3	KS602, 908, 1169-2	key board assembly	1	
2	KS606, 335, 070	key bracket	1	
1	KS606, 074, 485	front cover	1	

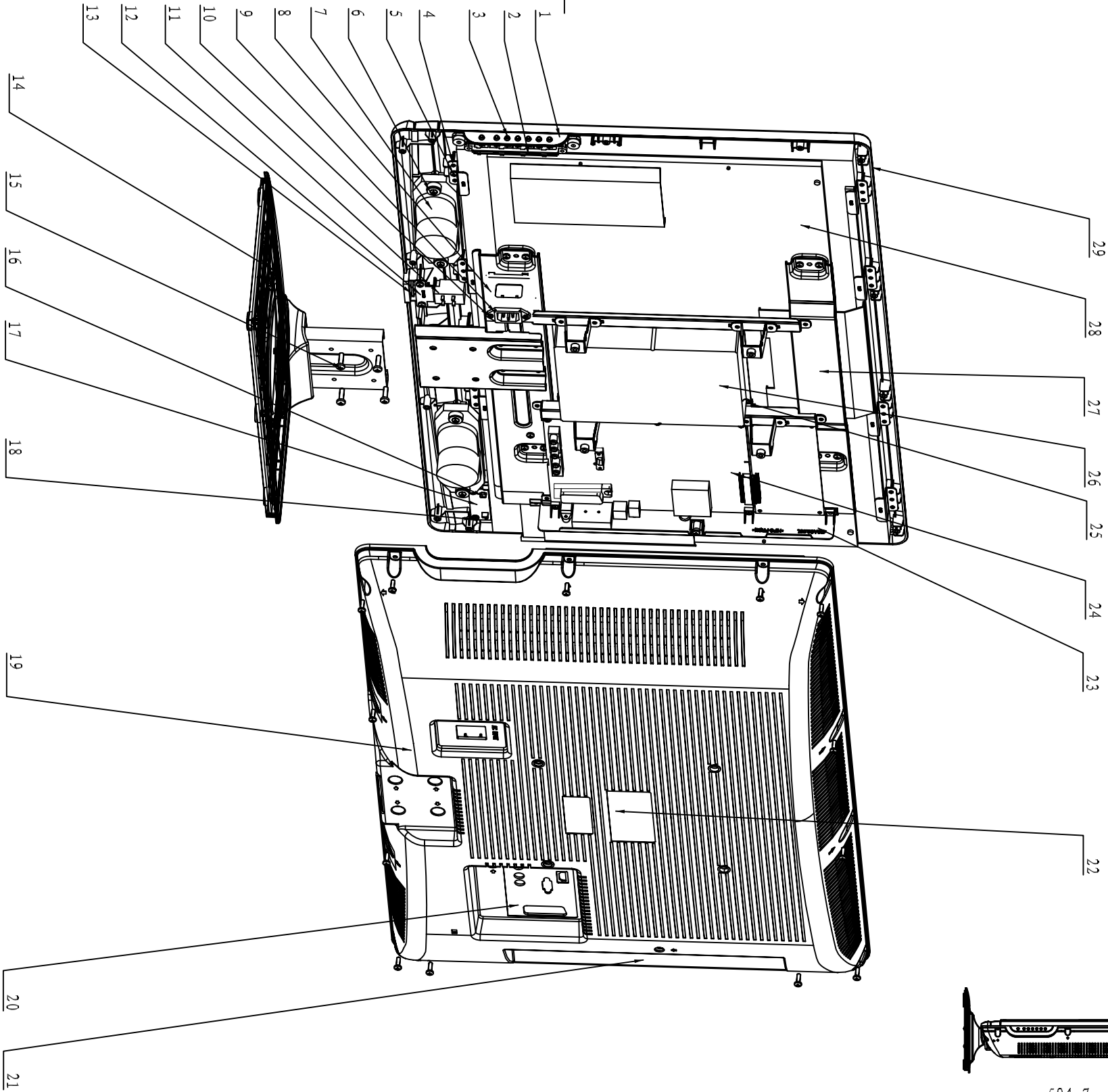
LCD19W29EU



21	RSAC6, 121, 053\K00\SSD	base unit		
20	YDT421LE-5W8-F\K0H	speaker		
19	RSAC6, 337, 000\K0H	button		
18	RSAC6, 038, 105\K0H	bracket		
17	power switch	DC-UI-2\K0H		
16	RSAC6, 078, 481\B2\21\K0H	key board		
15	RSAC2, 908, 108-F\K0H	key board		
14	RSAC6, 632, 022\B\K0H	cover board		
13	VS-1\K0H	power cord		
12	RSAC6, 038, 1304\K0H	bracket		
11	RSAC2, 908, 129\K0H	main board		
10	RSAC6, 074, 541\B\K0H	back cover		
9	RSAC6, 150, 452\K0H	bracket		
8	RSAC6, 081, 385\B\K0H	bracket		
7	RSAC6, 114, 052\K0H	bracket unit		
6	RSAC2, 908, 125\K0H	Power board		
5	V26001-102\J\K0H	LCD Panel		
4	RSAC6, 038, 1303\K0H	bracket		
3	RSAC2, 908, 126-F\K0H	3 board unit		
2	RSAC6, 645, 065\K0H	lens led		
1	RSAC6, 074, 453\B\K0H	Front cover		
NO.	CODE NO.	PART NAME	QTY.	REMARK

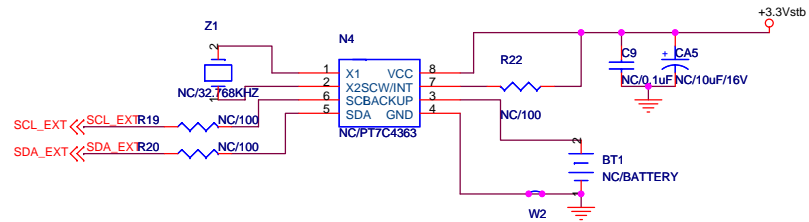
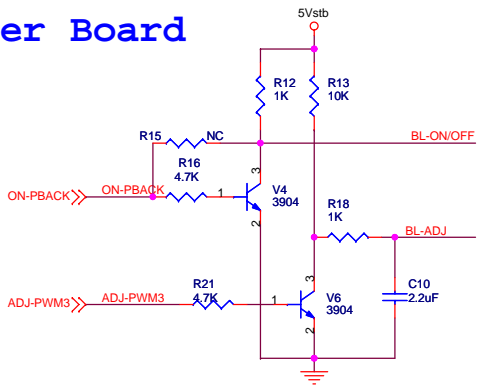
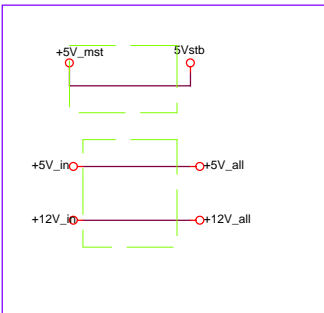
LCD26W57

L5M2CQJ7



33				
32				
31				
30				
29	front cover	1	RSAG8.074.527	
28	LCD Panel	1	V315B1-L01\JK\ROH	
27	bracket unit	1	RSAG4.114.047\ROH	
26	Power Board unit	1	RSAG2.908.1185-2\ROH	
25	screw	12	S12832-87 ST3X10\ROH STD	
24	Main Board Unit	1	RSAG2.908.1295-2\ROH	
23	terminal bracket	1	RSAG8.081.382\黑色\20\ROH	
22	Rating label	1	RSAG8.807.3596\ROH	
21	scutcheon	1	RSAG8.804.3276\ROH	
20	scutcheon	1	RSAG8.804.3277\ROH	
19	back cover	1	RSAG8.074.542\	
18	screw	2	S12825-87 ST3X10\黑色\ROH STD	
17	IR Board Unit	1	RSAG2.908.1260-2\ROH	
16	lens led	1	RSAG8.640.065\ROH	
15	screw	4	GB818/2000-T M5X12\黑\ROH STD	
14	base unit	1	W66.121.054\ROH	
13	button	1	RSAG8.337.024\ROH STD	
12	bracket	1	RSAG8.038.461\ROH STD	
11	power switch	1	KDC-A04\通KDC-A04-2\ROH	
10	screw	2	GB/T819.1-2000 M3X3\黑\ROH STD	
9	electrical outlet	1	HF-301\ROH	
8	bracket	1	RSAG8.038.1268\ROH	
7	speaker	2	YDT5016-10W8R-A\ROH	
6	screw	4	S12838-87 ST4X16G.IT\螺钉 银白\ROH ST	
5	screw	25	S12824-87 ST4X12F\黑\ROH STD	
4	bracket	1	RSAG8.048.078\ROH	
3	key board	1	RSAG8.335.067\20\ROH	
2	key board unit	1	RSAG2.908.1088\ROH	
1	bracket	1	RSAG8.078.481\B2\21\ROH	
NO.	NAME.	QTY.	CODE.	

LCD32W57



Title			
<Title>			
Size	Document Number	Rev	
A3	MST9E19A	2.0	
Date:	Tuesday, January 22, 2008	Sheet	1 of 19





Vcc3.3for MST9E19A analog

$$0.81 \times (1 + R_{up}/R_{down}) = 1.8V \text{---} R_{up} = 10K, R_{down} = 8.2K$$

Vcc1.8 for MST9E19A

+3.3AVDD for AVDD\_HDMI

+3.3AVDD for AVDD\_AU

+3.3AVDD for AVDDA

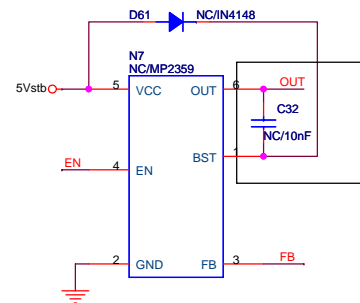
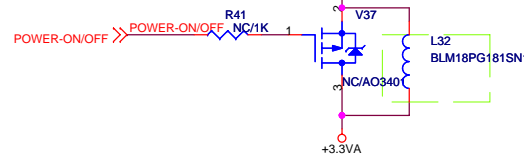
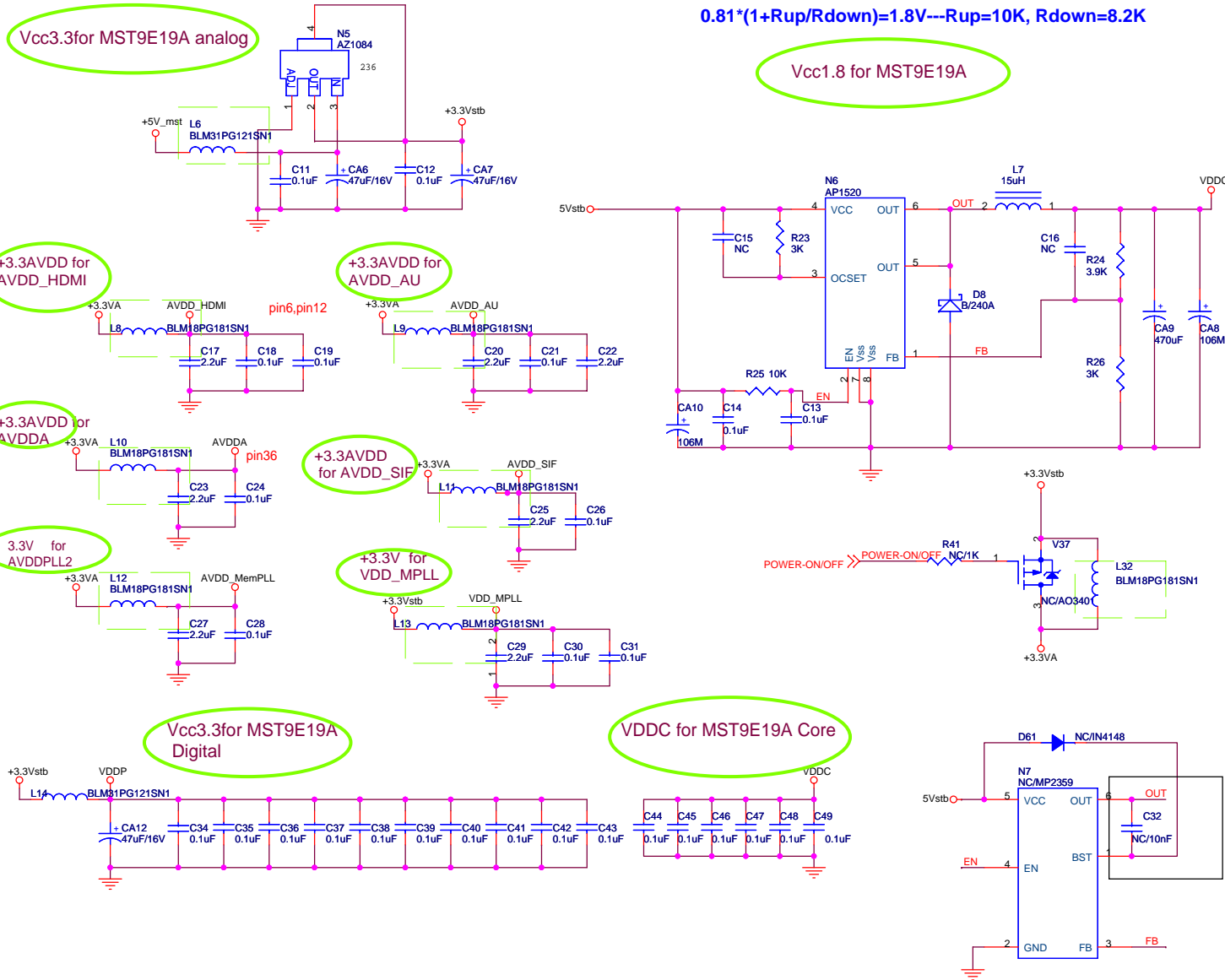
+3.3AVDD for AVDD\_SIF

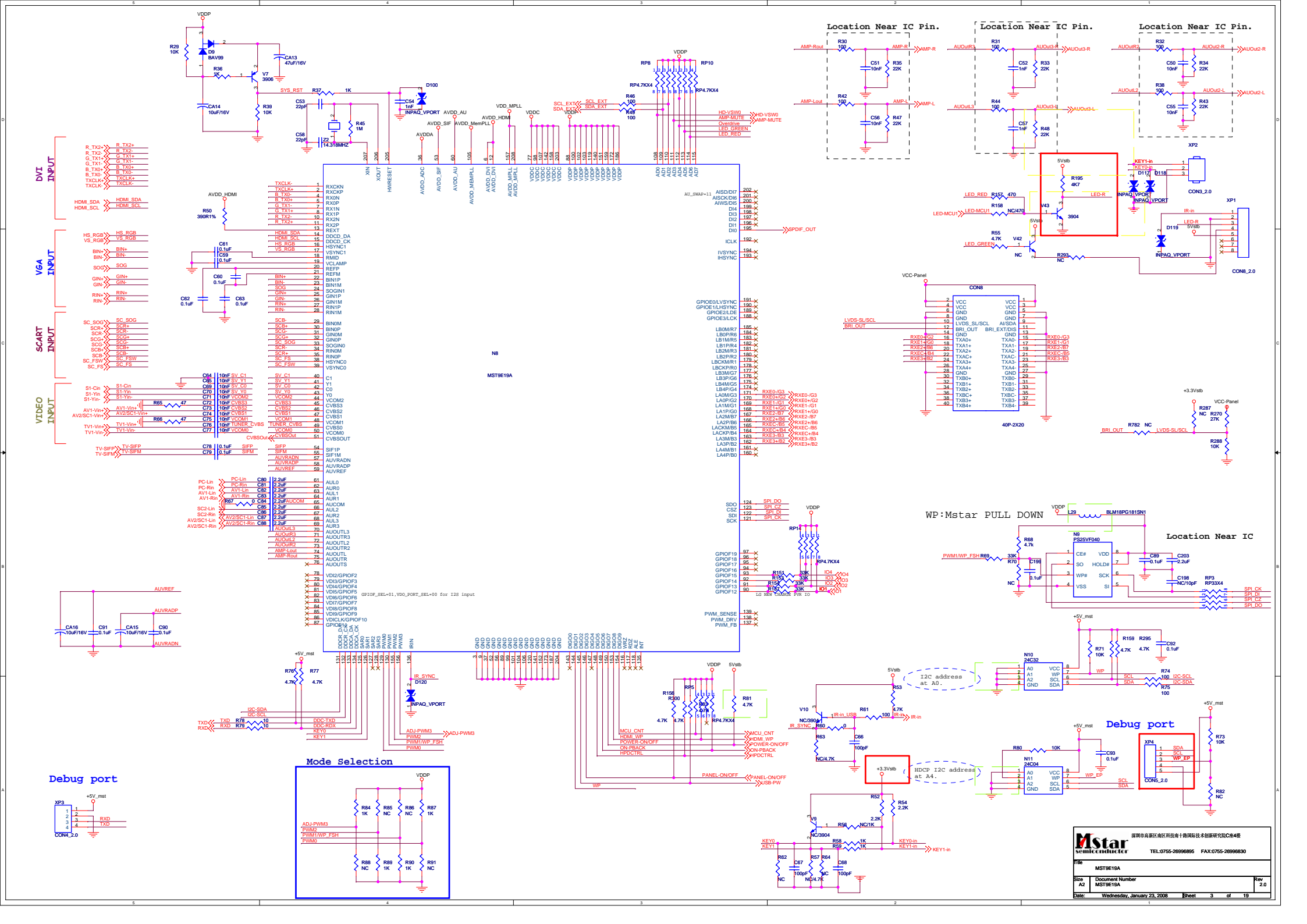
3.3V for AVDDPLL2

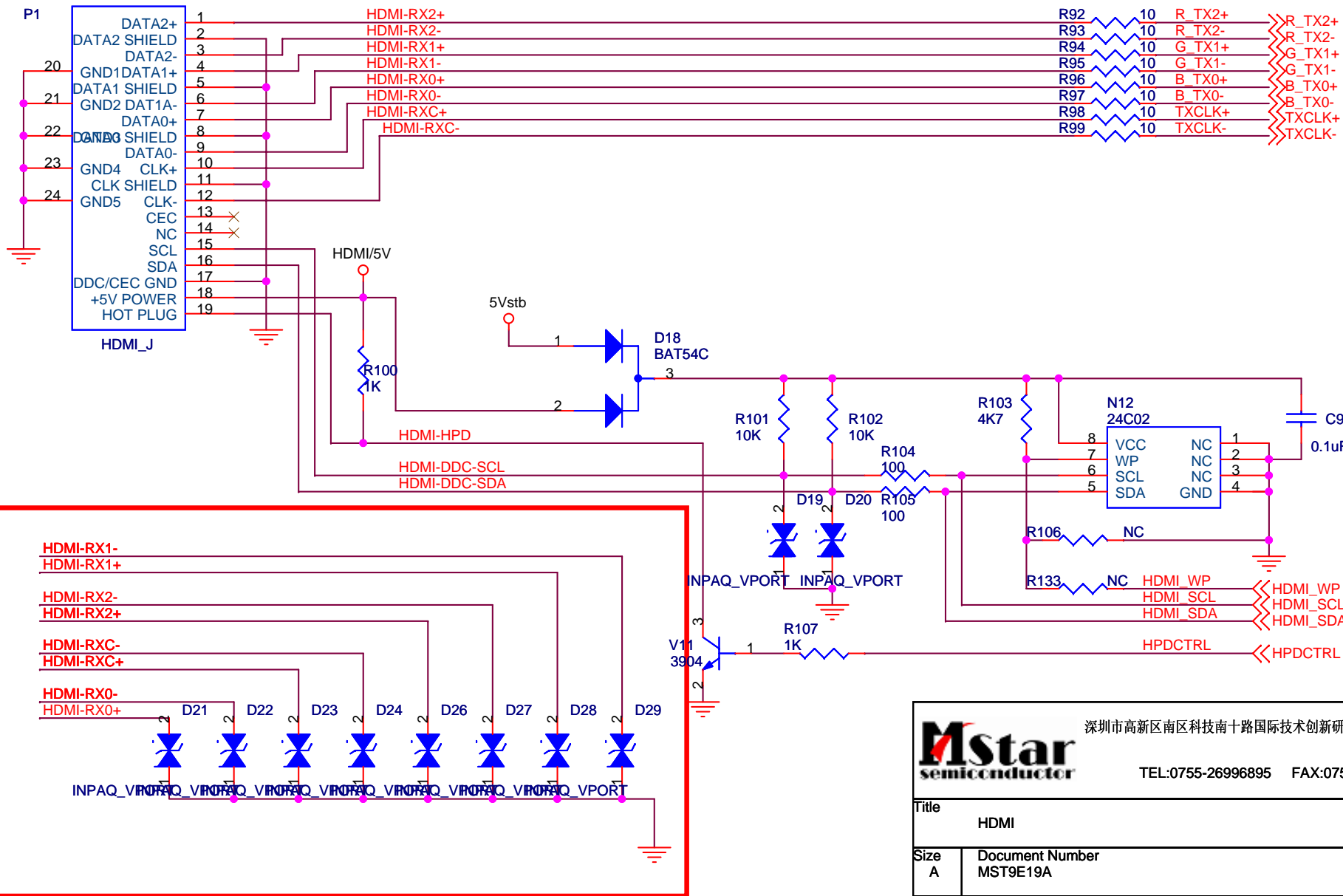
+3.3V for VDD\_MPLL

Vcc3.3for MST9E19A Digital

VDDC for MST9E19A Core





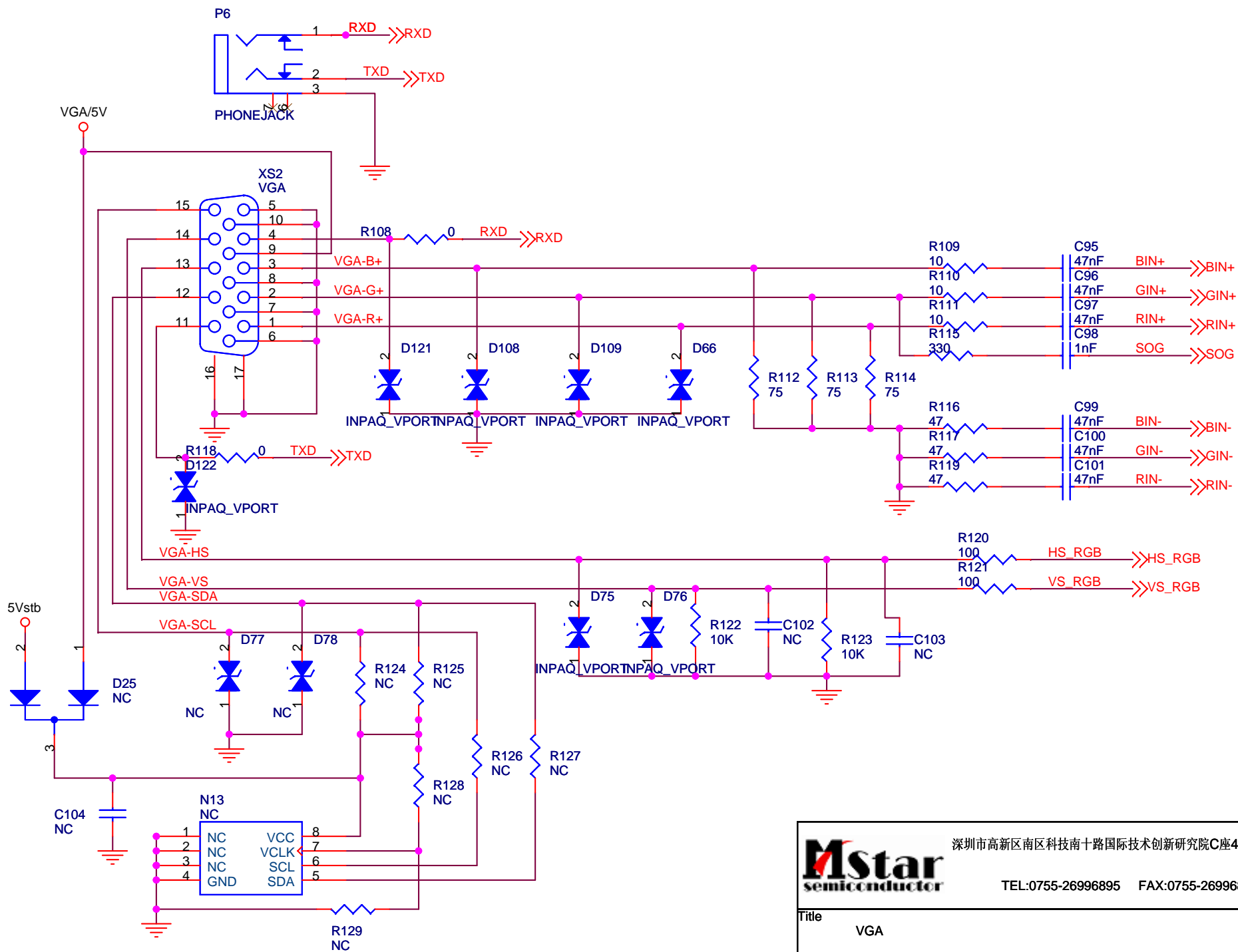




深圳市高新区南区科技南十路国际技术创新研究院C座4楼

TEL:0755-26996895 FAX:0755-26996830

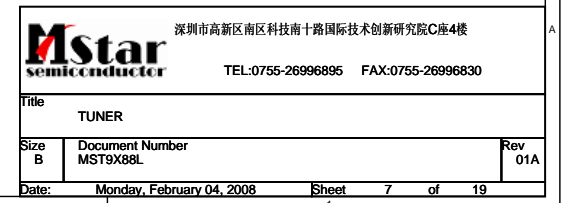
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HDMI		
Size	Document Number	Rev
A	MST9E19A	2.0
Date:	Wednesday, January 23, 2008	Sheet 4 of 19



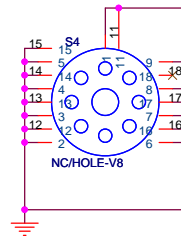
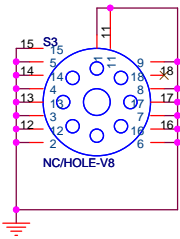
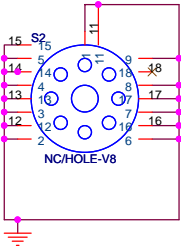
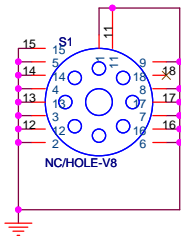
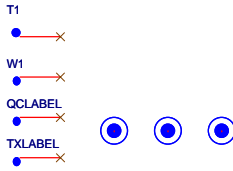
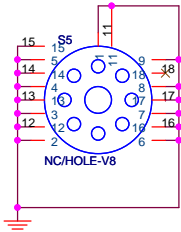
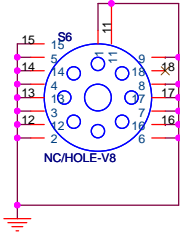
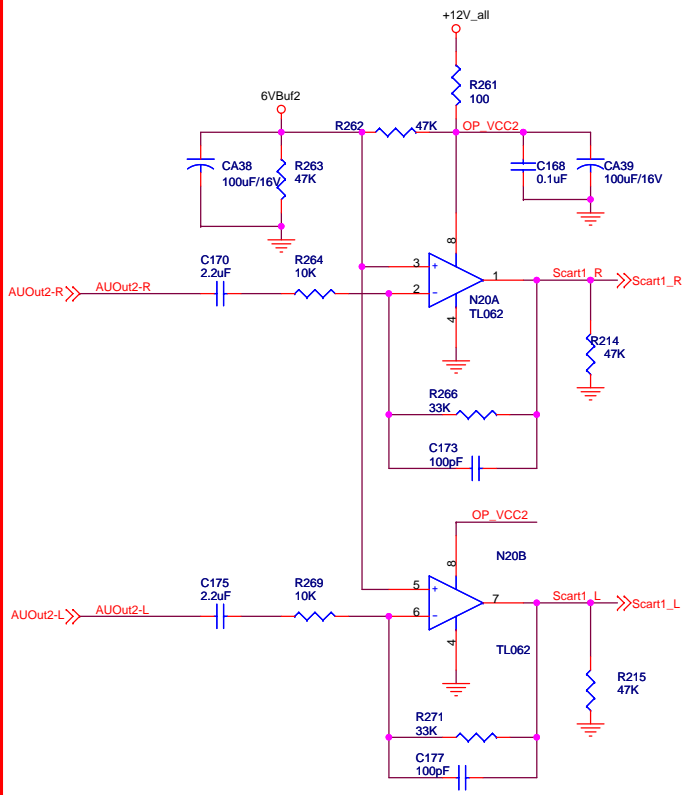
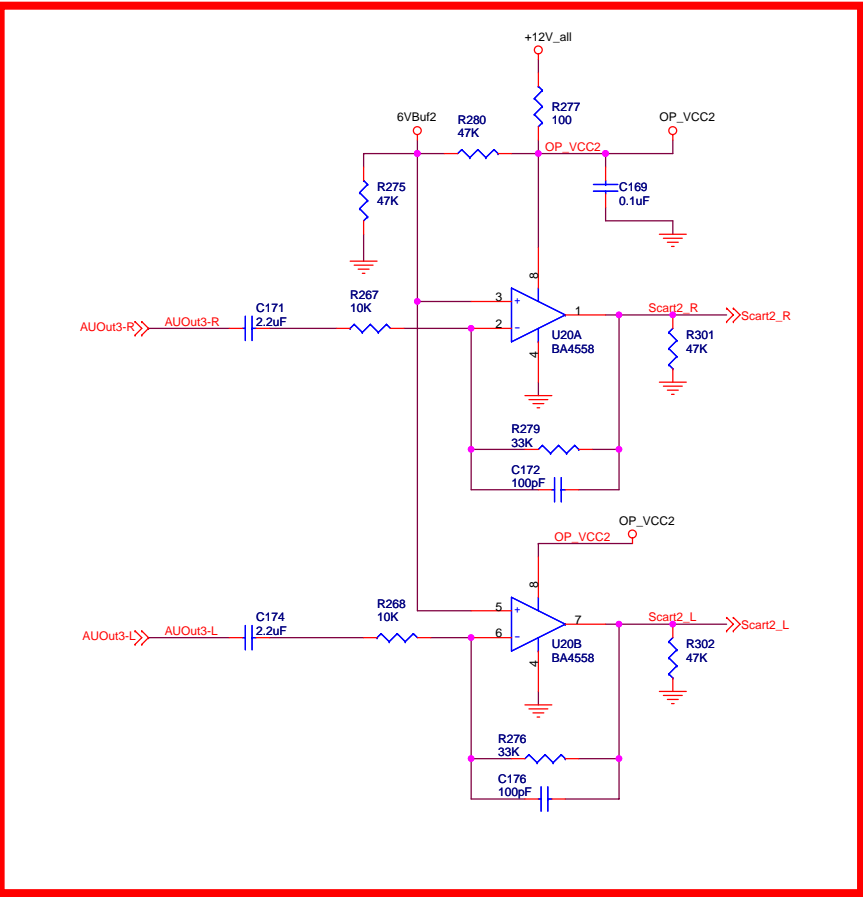
 深圳市高新区南区科技南十路国际技术创新研究院C座4楼 TEL:0755-26996895 FAX:0755-26996830		
Title VGA		
Size A	Document Number MST9E19A	Rev 2.0
Date: Friday, December 07, 2007	Sheet 5	of 19



```
I2C ADDRESS(R263 NC):
READ is 0X87
WRITE is 0X86
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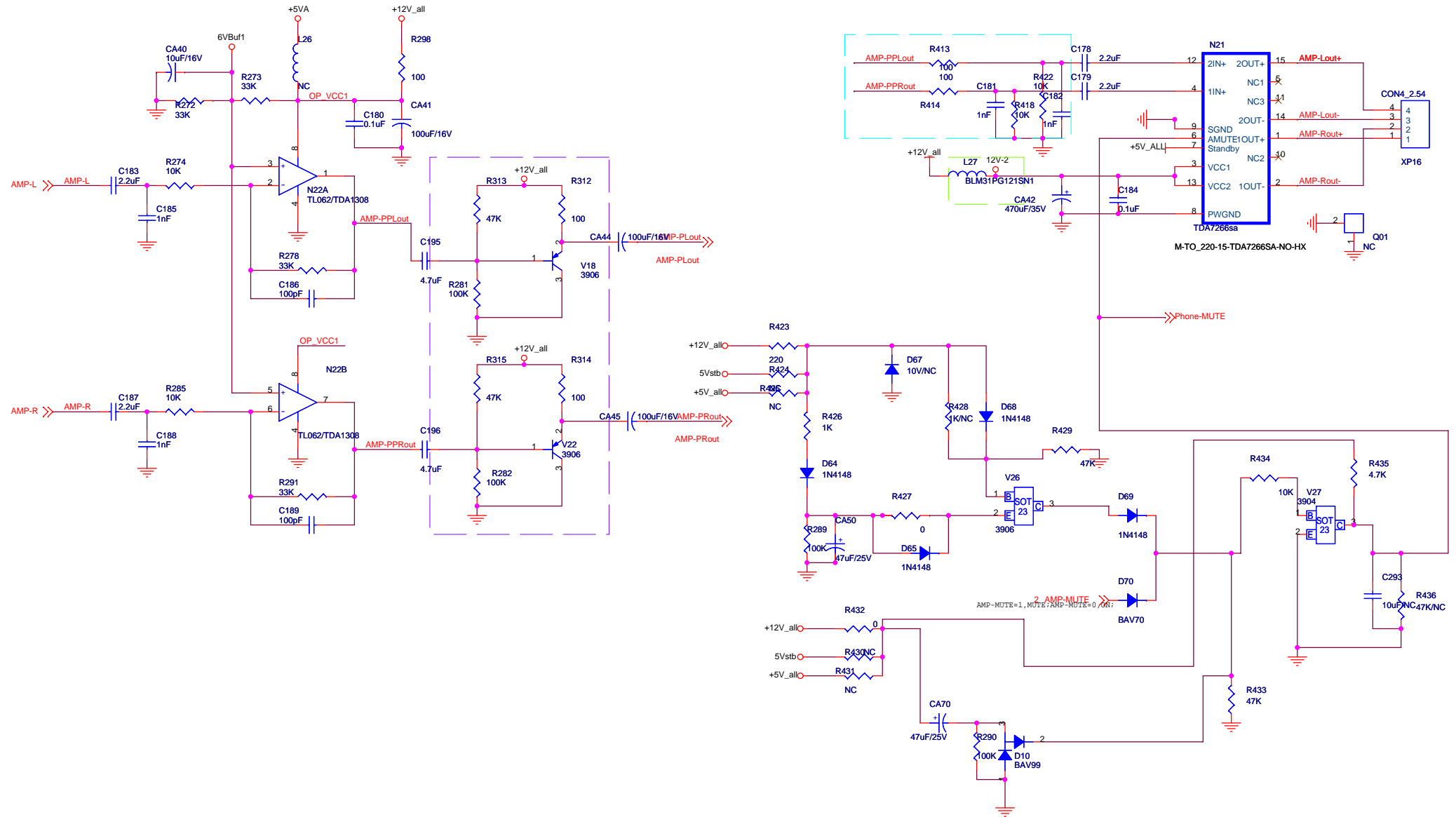
Audio OP(AUOUTL3/AUOUTR3; AUOUTL2/AUOUTR2)



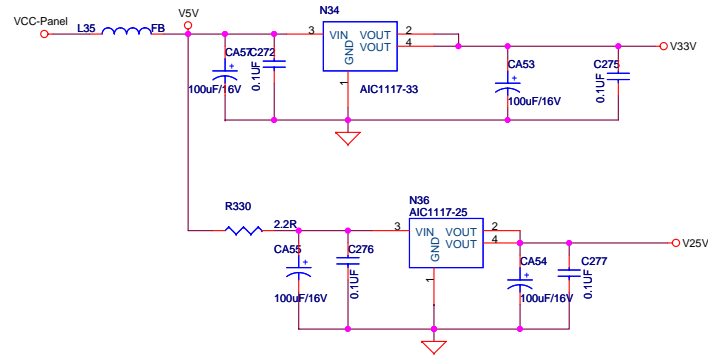
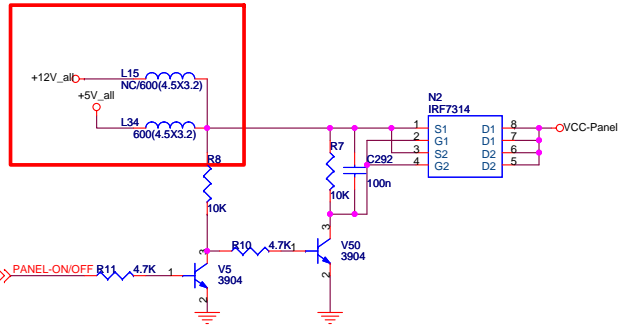
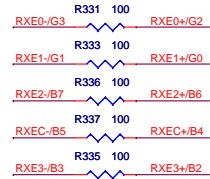
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MSTAR		
Size	Document Number	Rev
A3	MST9E19A	0.01
Date:	Monday, February 04, 2008	Sheet 8 of 19



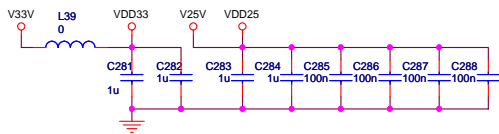
FOR TDA1308/PT2308 L26 FB,R298 NC;  
FOR TL062 L26 NC,R298 0;



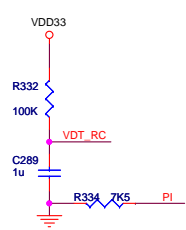
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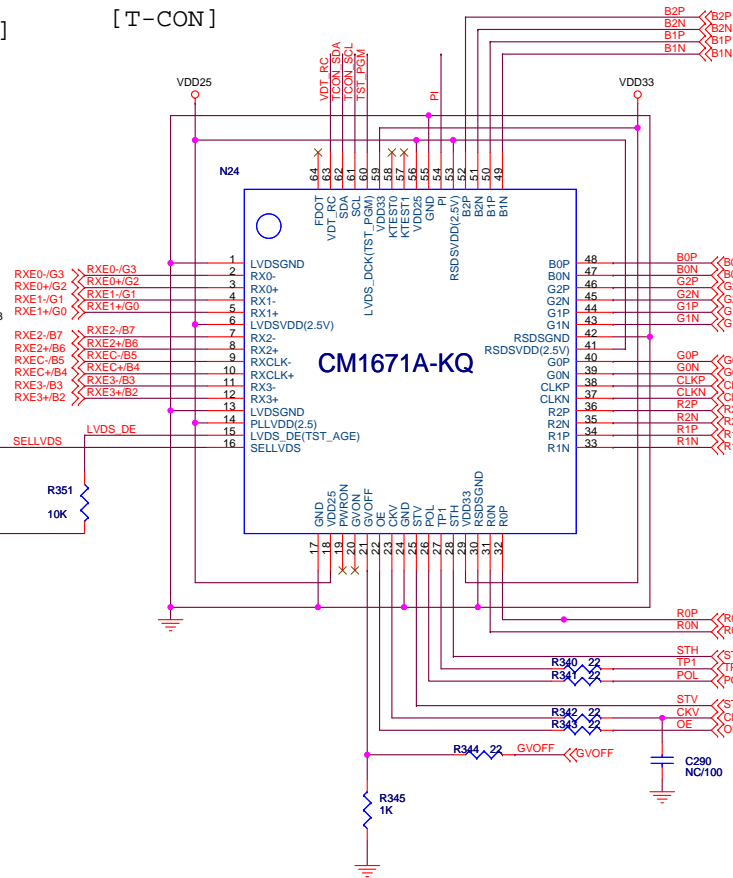
## [Filter near T-CON]



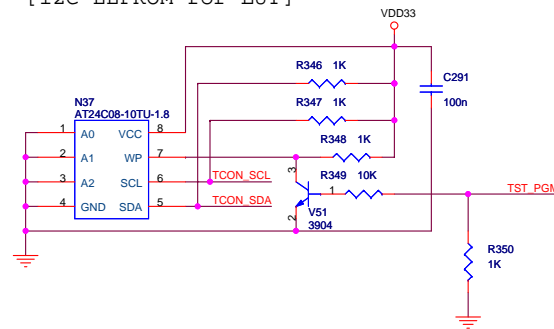
## [ASIC Control]



## [T-CON]



## [I2C EEPROM for LUT]



## Debug port

