Liquid Crystal Display Television

Service Manual

Chassis： MST6E16JS

Product Type：

Ver 1.1

Contents

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.

DANGER CAUTION

TO ENSURE THE CONTINUED RELIABILITY OF THIS PRODUCT, USE ONLY ORIGINAL MANUFACTURER'S REPLACEMENT PARTS, WHICH ARE LISTED WITH THEIR PART NUMBERS IN THE PARTS LIST SECTION OF THIS SERVICE GUIDE.

1.1.2.

All ICs and many other semiconductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically. When repairing, 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 no 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. Factory/Service OSD Menu and Adjustment

2.1 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.

2.2 Factory OSD Menu

The Factory OSD Menu comprises Factory Menu and Design Menu .

2.2.1、Factory Menu

FACTORY MENU
WHITE BALANCE
ADC ADJUST
LOGO
OSD LANGUAGE
COUNTRY
OPTIONS
FACTORY INIT
TEST PATTERN
VERSION
NON STANDARD

WHITE BALANCE

COL TEMP	STANDARD
R CUT	128
G CUT	128
B CUT	128
R DRV	128
G DRV	128
B DRV	128

ADC ADJUST

Only in component and VGA SOURCE ,The “ADC Adjust” Can be chosen.

LOGO

NULL
HISENSE
WELCOME

OPTION	
SOURCE	TV
TOFAC	M
ATS	1
STARTUP MENU	1
Search Sensitive	1
RF NTSC	0
HDCP OUT OR IN	1

FACTORY INIT
QINGDAO
HUANGDAO
HUNGARY
FRANCE
AUSTRALIA
CLEAR PROTECTLY
CLEAR UNPROTECTLY

TEST PATTERN
TEST PATTERN NULL

VERSION
VERSION:
PANEL TYPE:
FLASH :

2.2.2、Design Menu

DESIGN MENU

PICTURE MODE
SOUND MODE
PICTURE CURVE
AUDIO CURVE
SSC SETTING
SAVING MODE

PICTURE MODE

MODE	STANDARD
BRIGHTNESS	50
CONTRAST	50
COLOUR	50

SOUND MODE

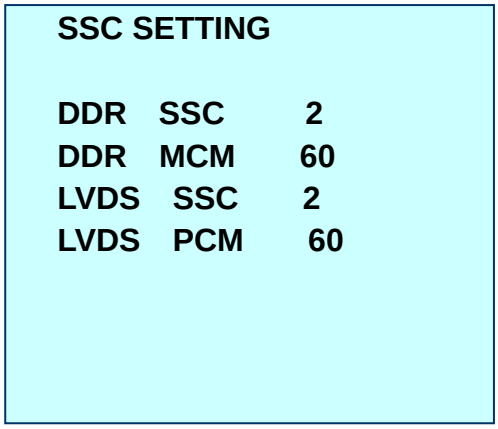
MODE	USER
120HZ	10
500HZ	10
1.5KHZ	10
5KHZ	10
10KHZ	10

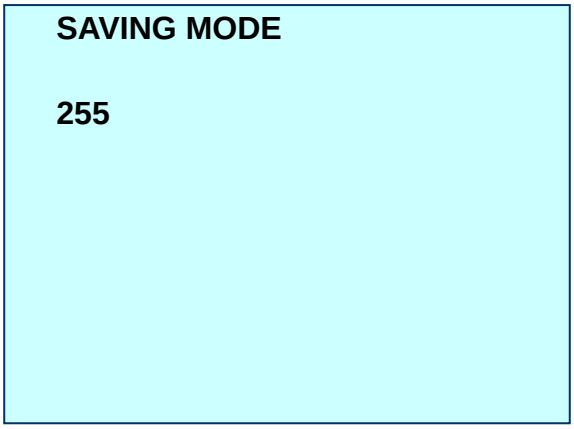
PICTURE CURVE

MODE		BRIGHTNESS
CURVE	0	97
CURVE	25	105
CURVE	50	120
CURVE	75	130
CURVE	100	141

AUDIO CURVE

MODE		VOLUME
CURVE	0	0
CURVE	25	18
CURVE	50	22
CURVE	75	28
CURVE	100	36





Note：

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

3. Software Upgrading

Before upgrading, read the following.

1、Before upgrading，Write down the ADC Calibration values of the channel of VGA and component。

2、Upgrade the software.

3、To clear the EEPROM .

A Select the item “Clear Unprotected”.

B Press VOL+ button to clear the EEPROM data.

C Close the OSD menu after 5 seconds.

D Restart the TV.

4 Write the ADC Calibration values copied just now into the the channels of VGA and component.

5、After the operation above all, necessarily, Renew search the channels for the users.

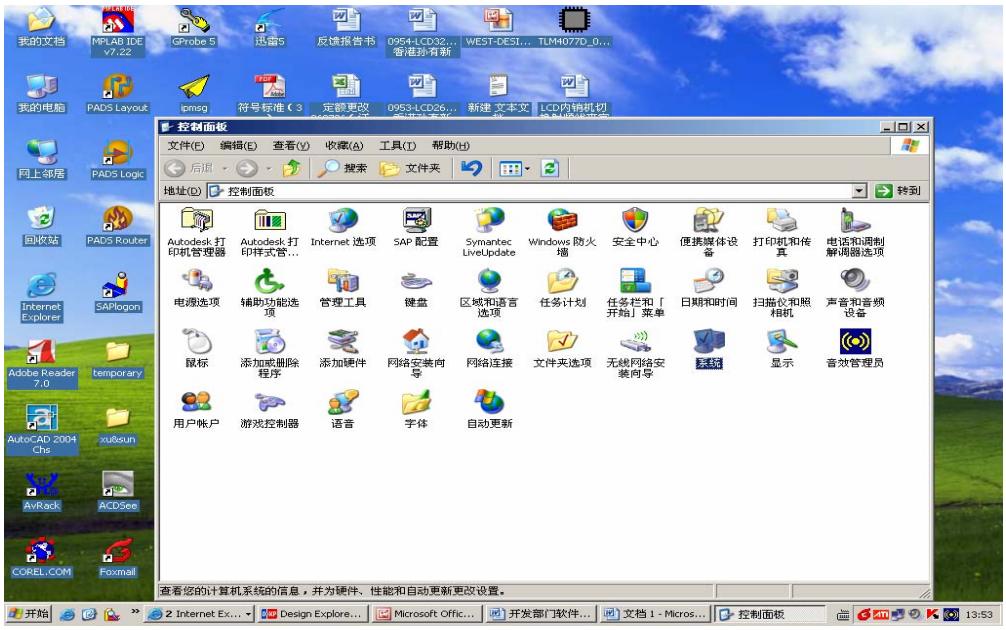
3.1 Get ready for upgrading

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

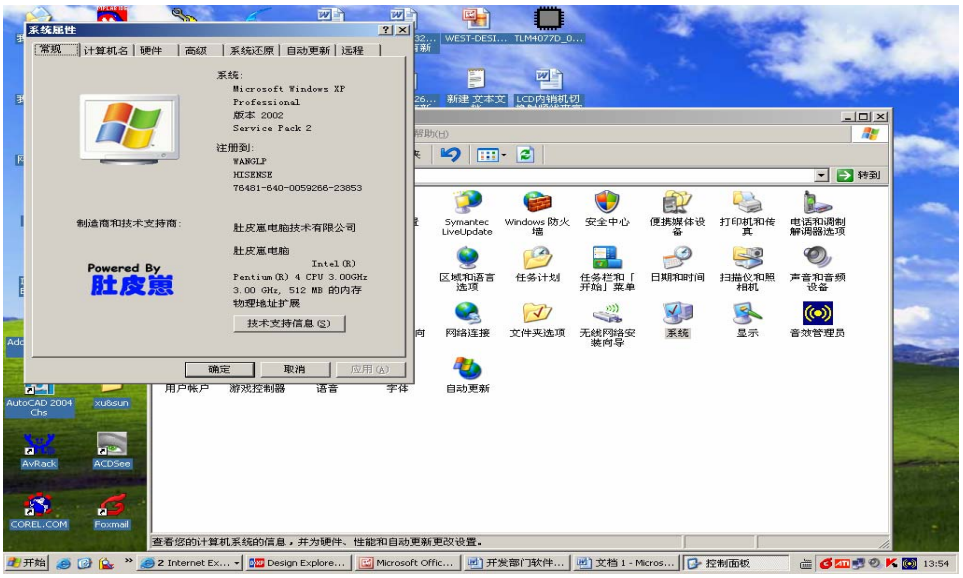
3.1.1 Install the ISP_TOOL4.0.9-------only for the first time update.

1、 Port Setting：

Choose “system”option from the “control panel”

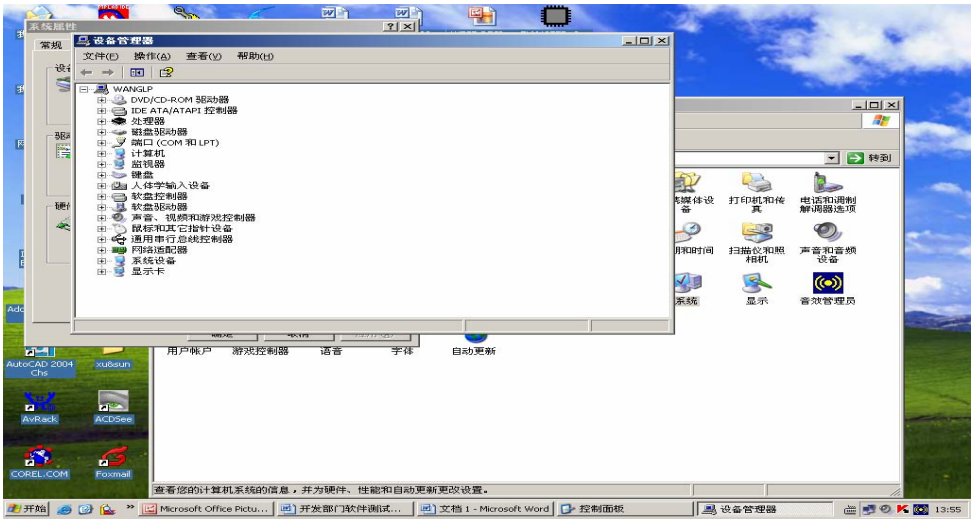


Click the “system” icon as the following

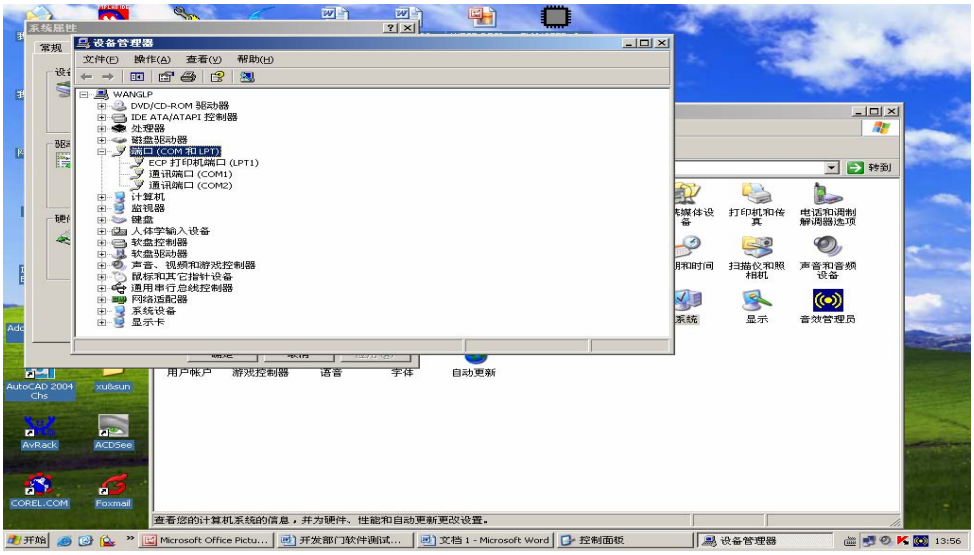


Choose the “hardware” option from the dialog window

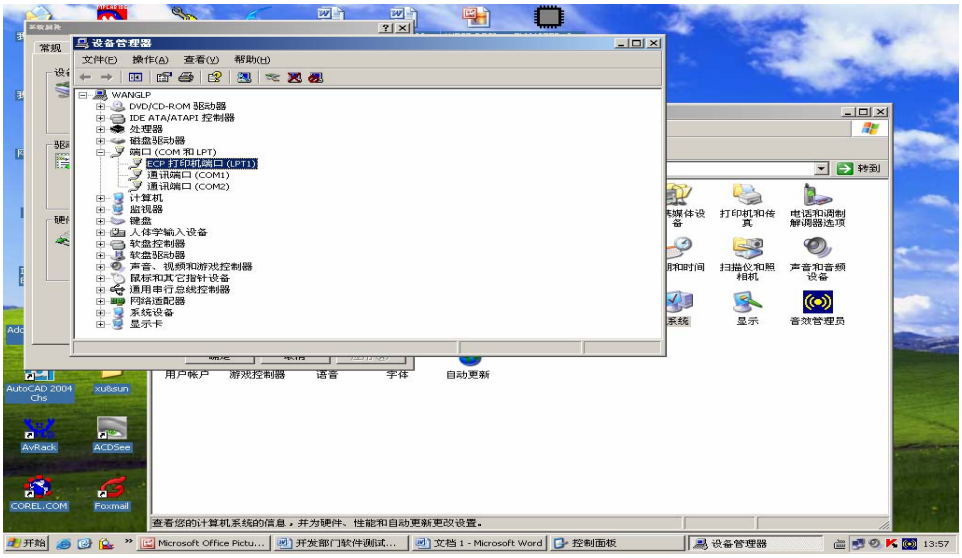
Click“device management” icon as the following



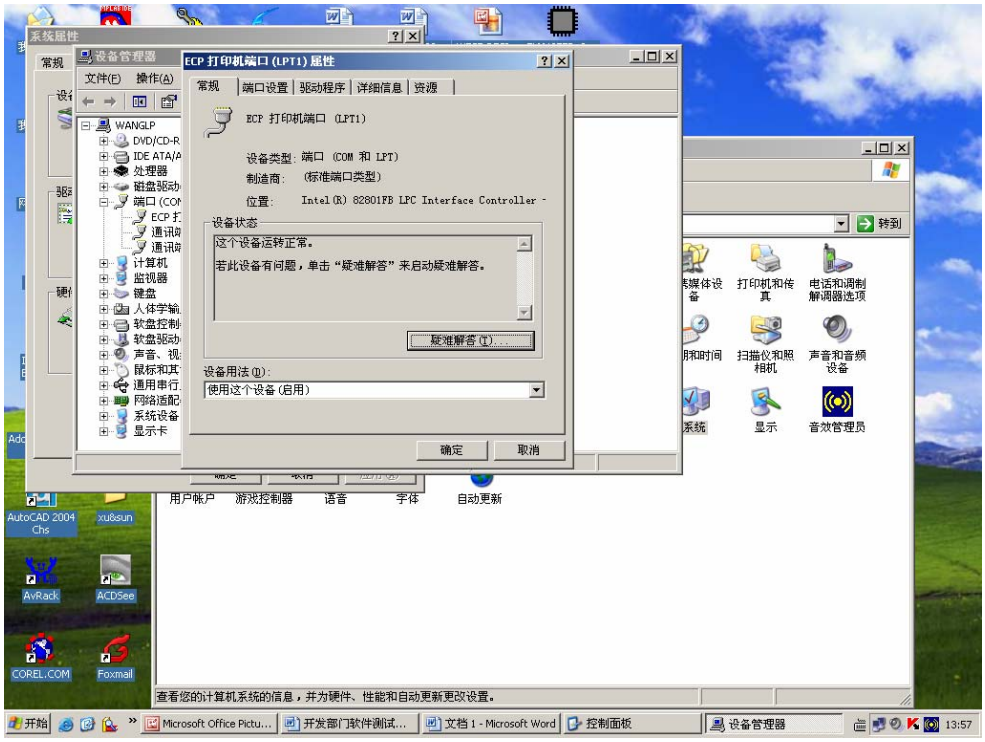
Choose the port (COM and LPT1)



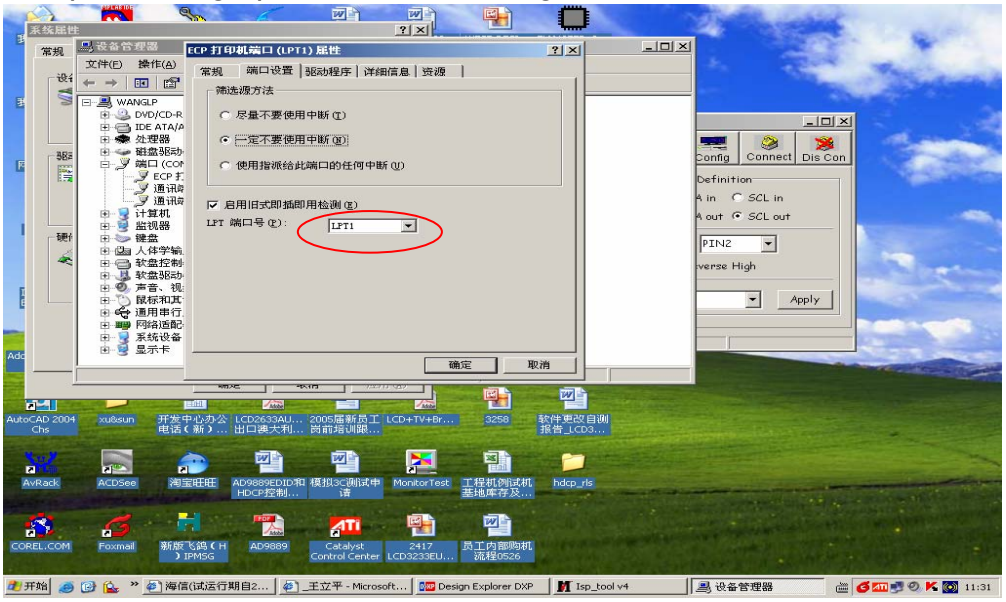
Choose the ECP print port (LPT1）



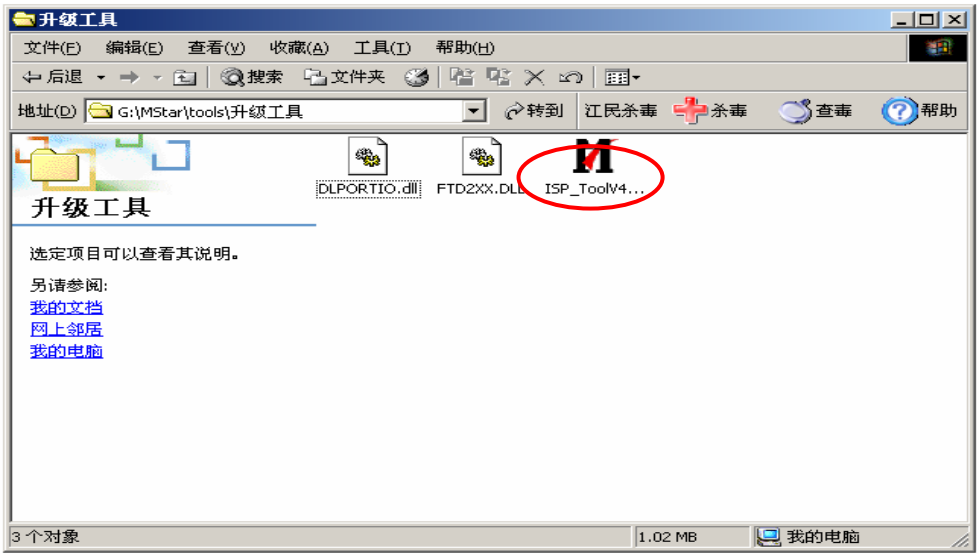
Click the port of print （LPT1）as the following



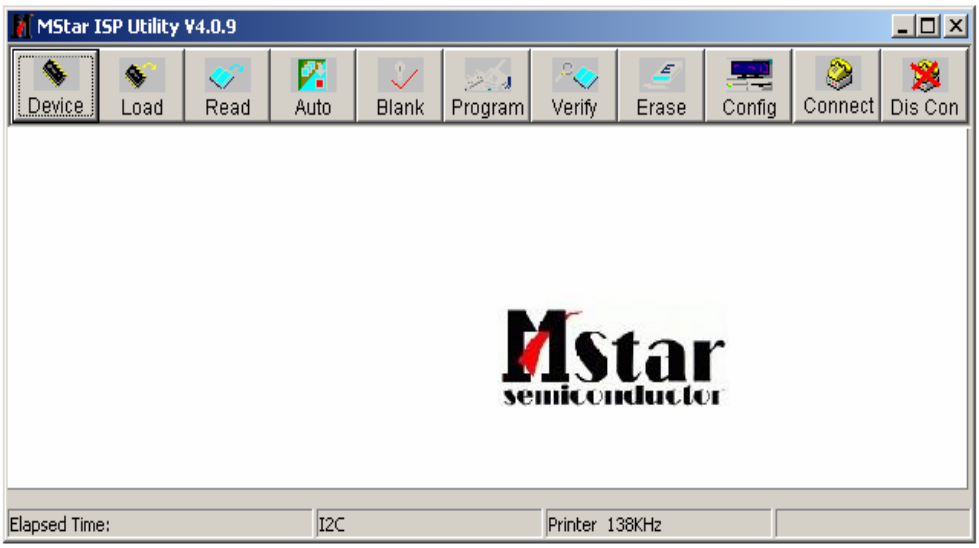
Choose “port setting”option as the following



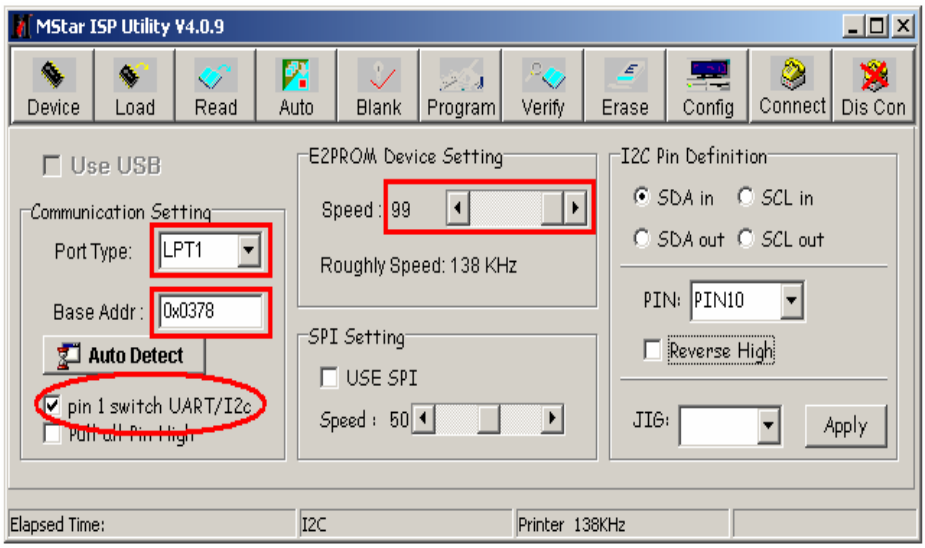
2、 Find the folder where the ISP_TOOL4.0.9 lies in.
There are three folders/files in this folder together.
DLPORTIO.dll and FTD2XX.DLL must be in the same folder



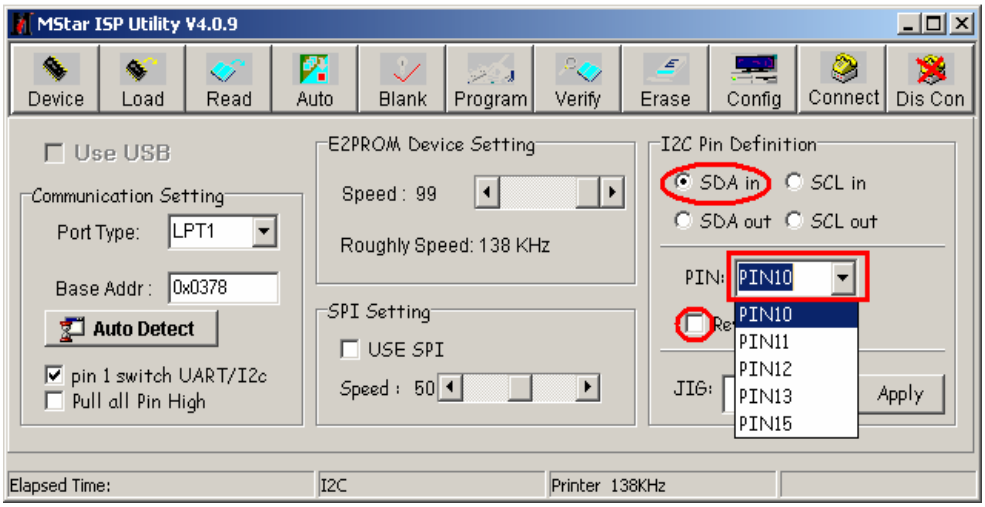
Double click the ISP_TOOL4.0.9 icon, and then a dialog window will show as below.



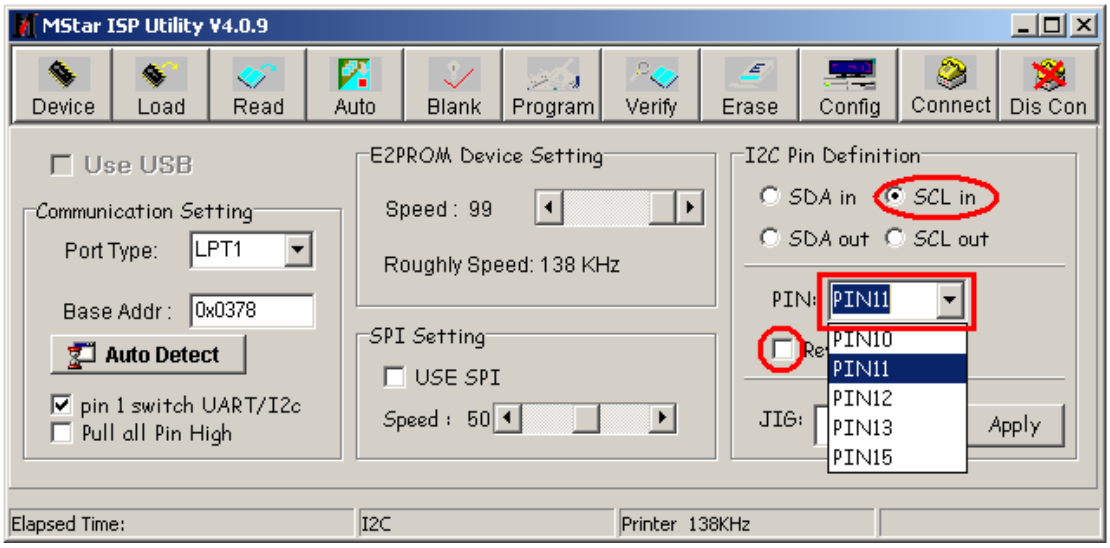
Click the **Config** button. And then a dialog window will show as below.
Port Type setting is LPT1
Base Addr setting is 0x378
Draw ✔ on the front of “pin 1 switch UART/I2c”
Speed setting is 99
As following



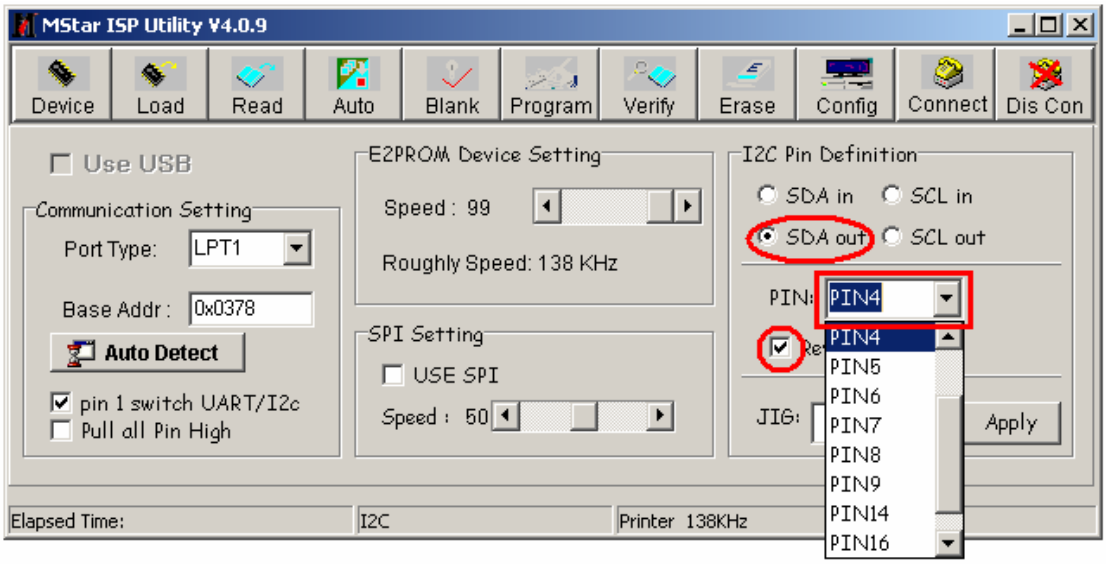
Choose“SDA in”and setting “PIN” is “PIN10”。
Notes:
Do not draw ✔ on the front of “Reverse High”。
As following



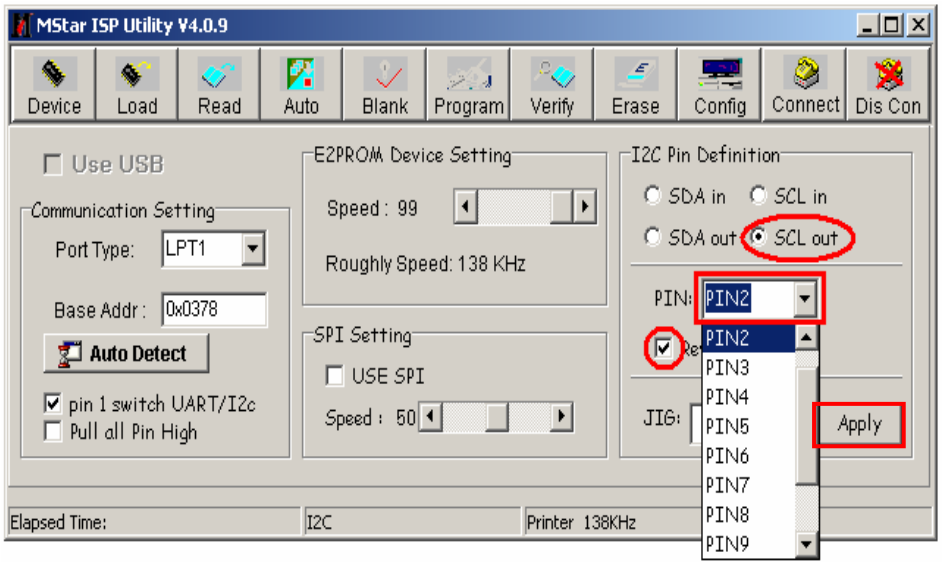
Choose “SCL in”and setting “PIN” is “PIN11”。
Notes:
Do not draw ✔ on the front of “Reverse High”。
As following



Choose “SDA out”and setting “PIN” is “PIN4”
Notes:
Draw ✔ on the front of “Reverse High”。
As following。



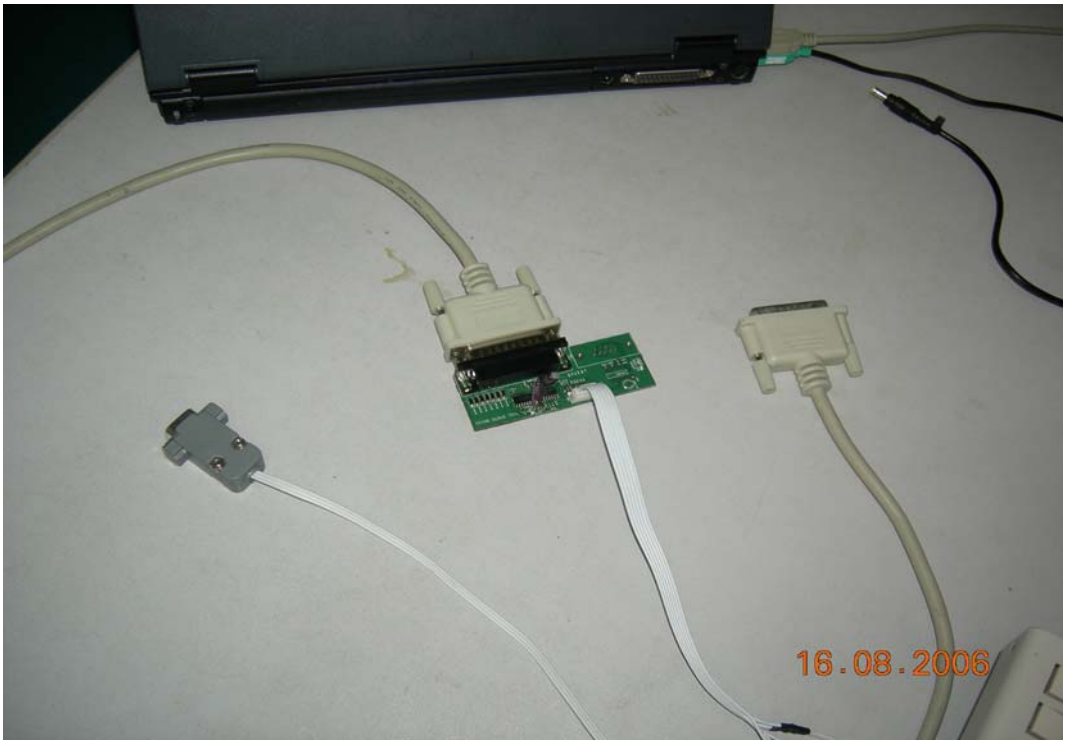
Choose “SCL out”and setting “PIN” is “PIN2”
Notes:
Draw ✔ on the front of “Reverse High”
As following



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

3.1.2 Hardware connecting

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

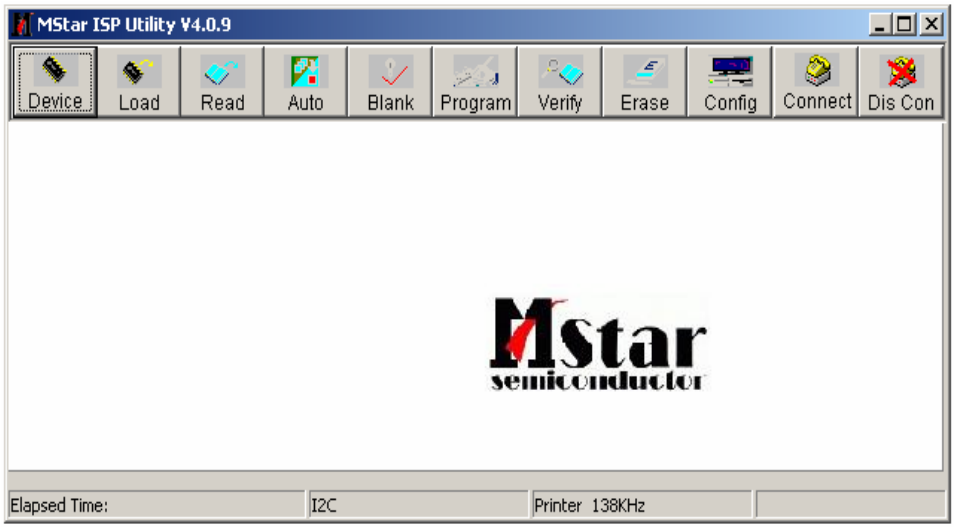


Connect the Debug board to the TV use VGA interface, the other parallel port to the

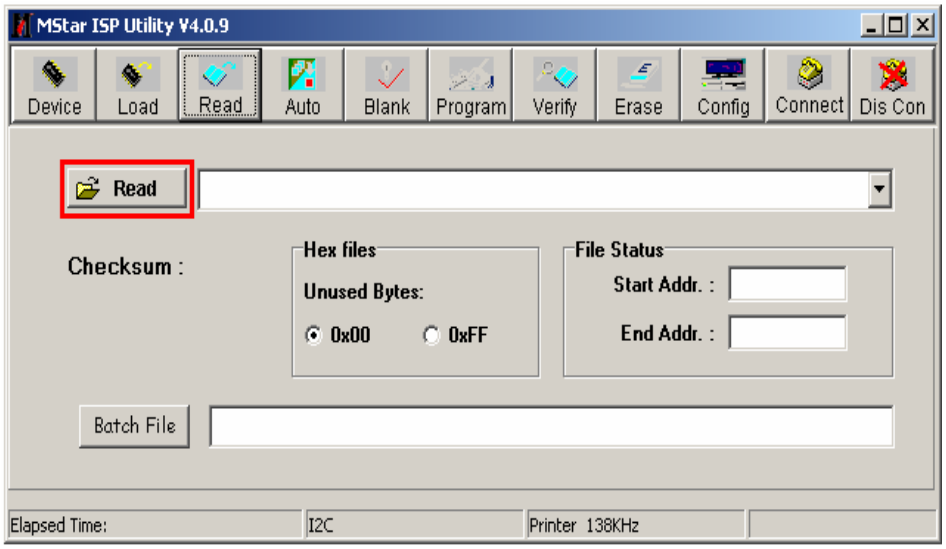
computer, just as the following。

3.2 Upgrading with the ISP_TOOL4.0.9

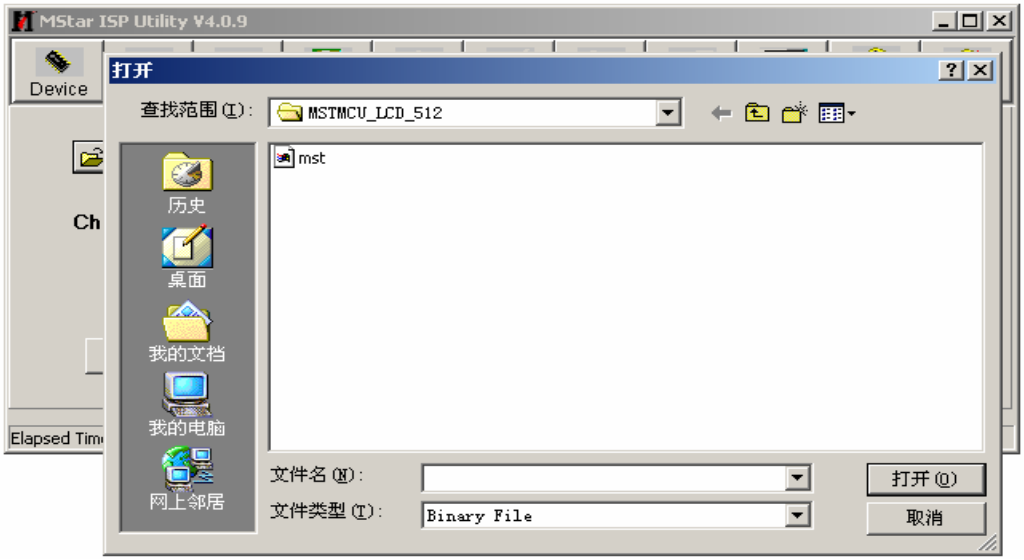
3.2.1 Double click the ISP_TOOL4.0.9 icon and a dialog window will show as following。

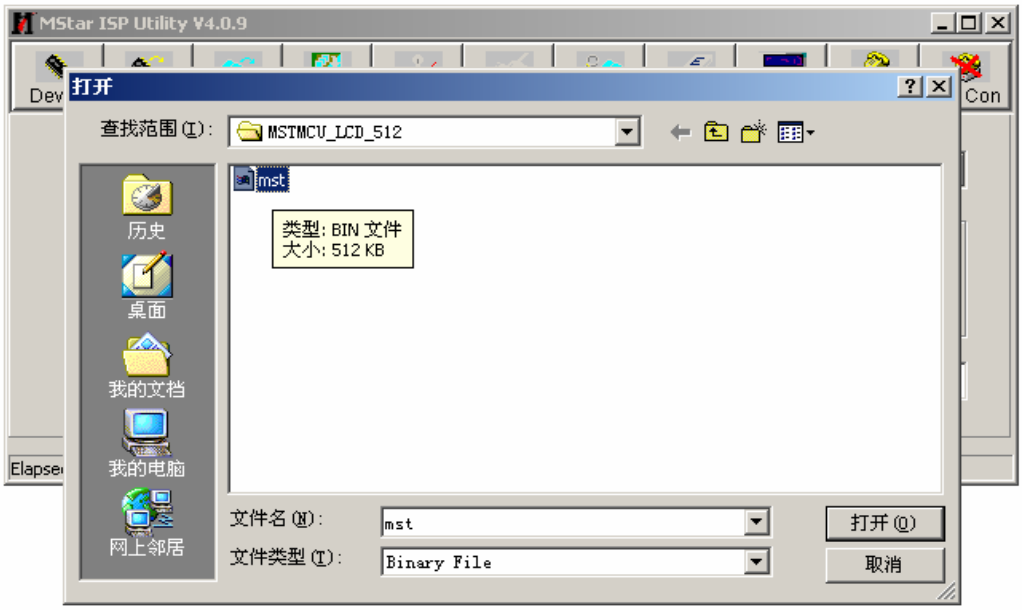


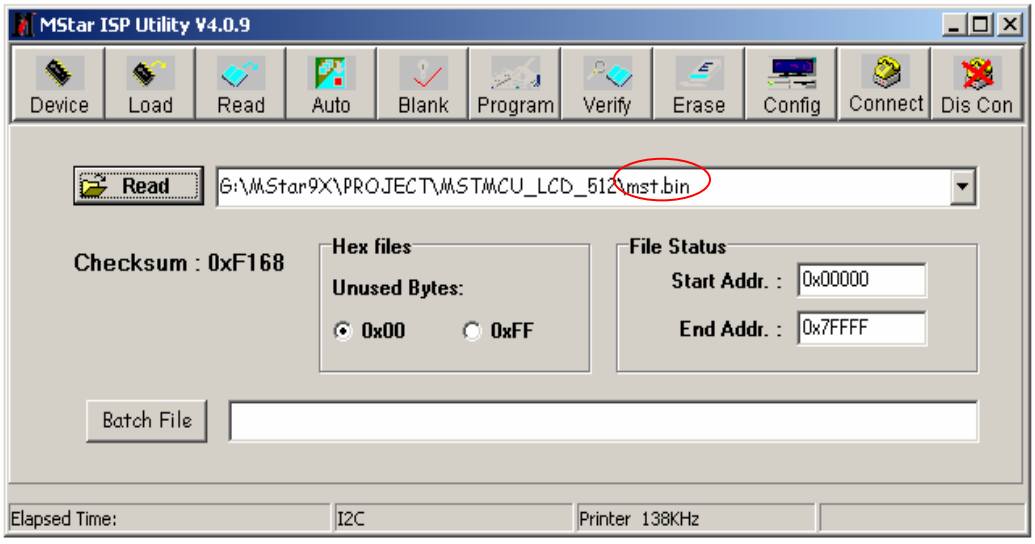
Click the“Read ”button。



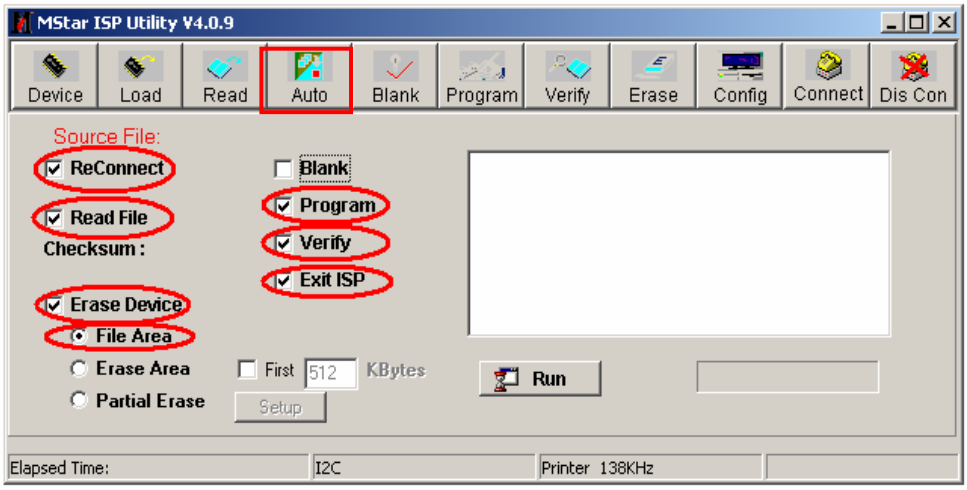
Choose the update file from the folder。



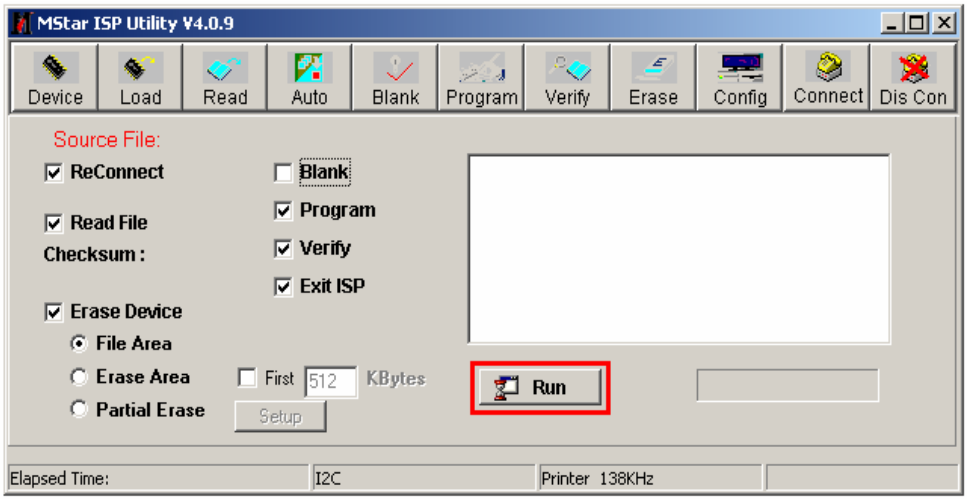




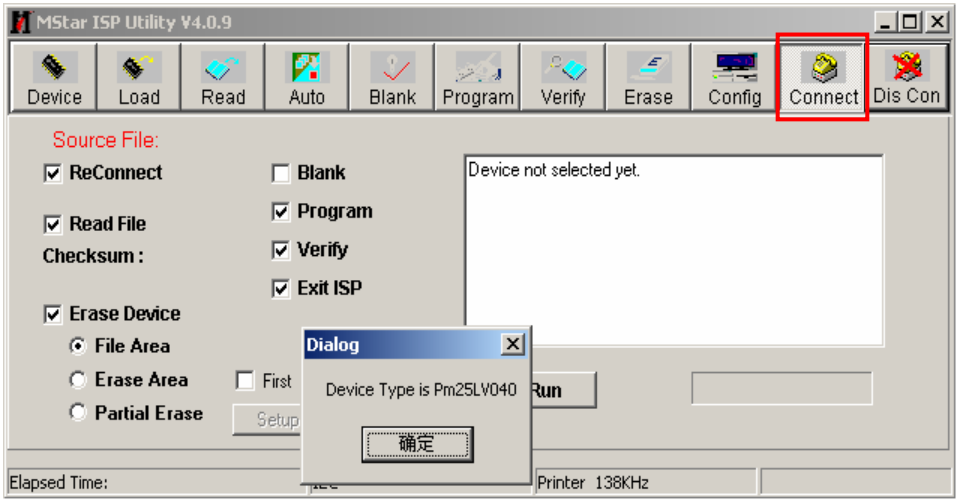
The update file has been chosen successfully。
Click the“Auto”button and choose parameters as following。

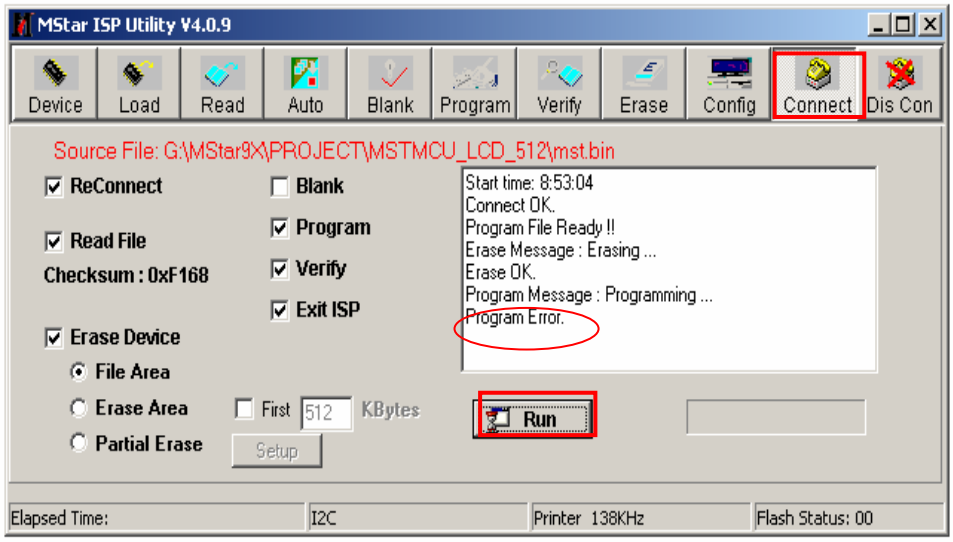


Click the“Run”button

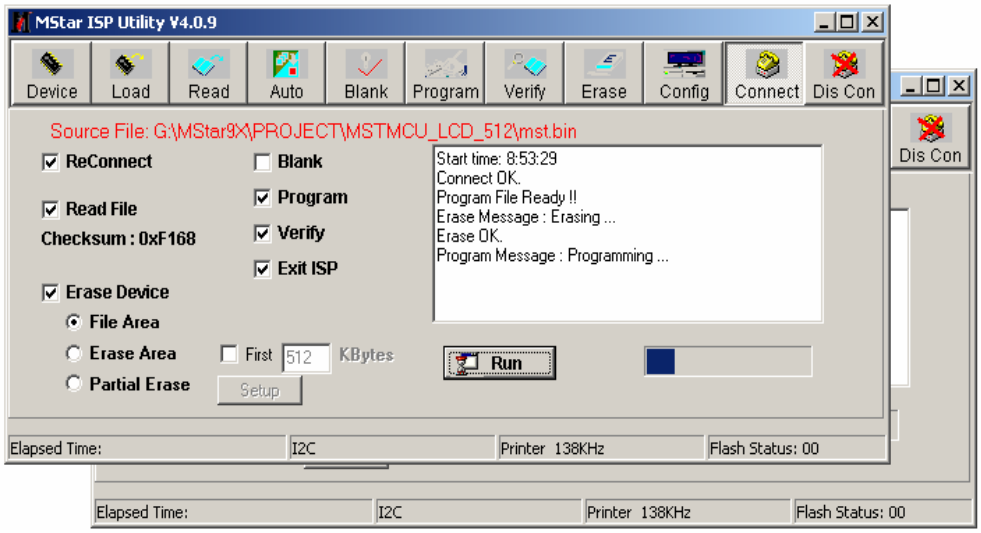


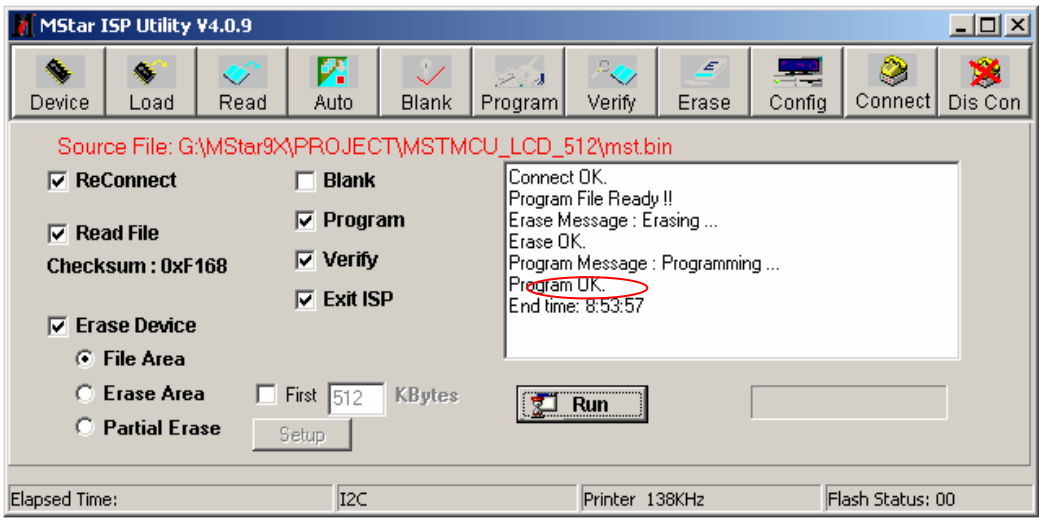
Click the“connect”button,then show a dialog box as following。





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





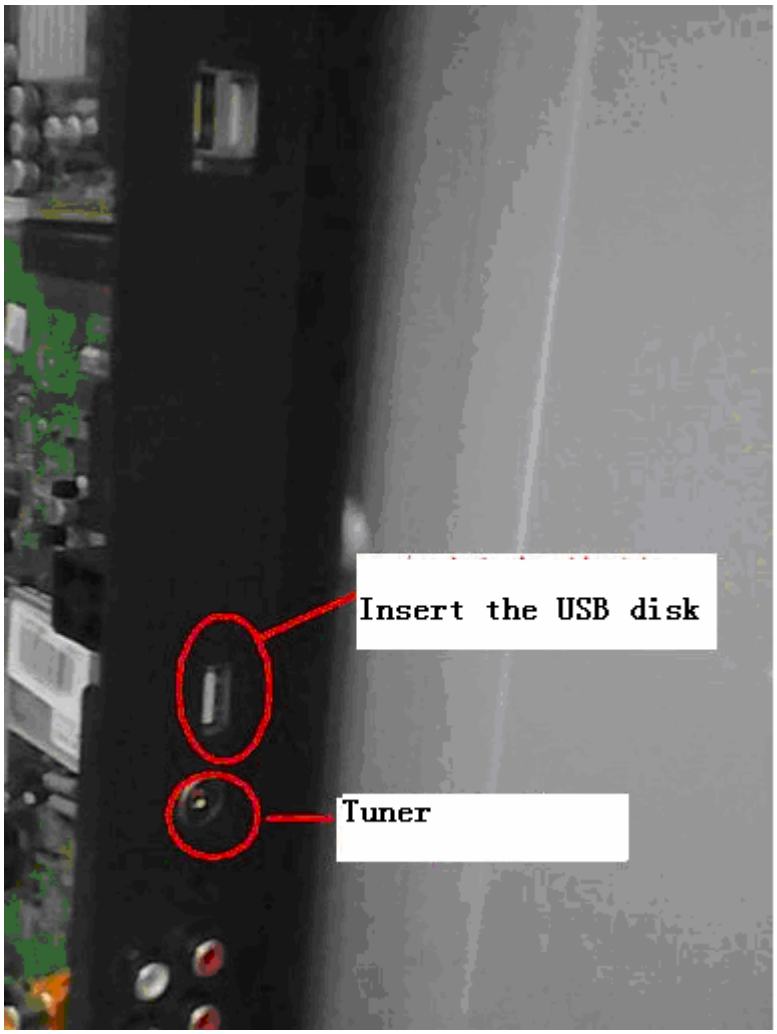
The above appears on the screen-the word “program ok”shows in the information displaying window,indicating upgrading is over。

3.2.2 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”

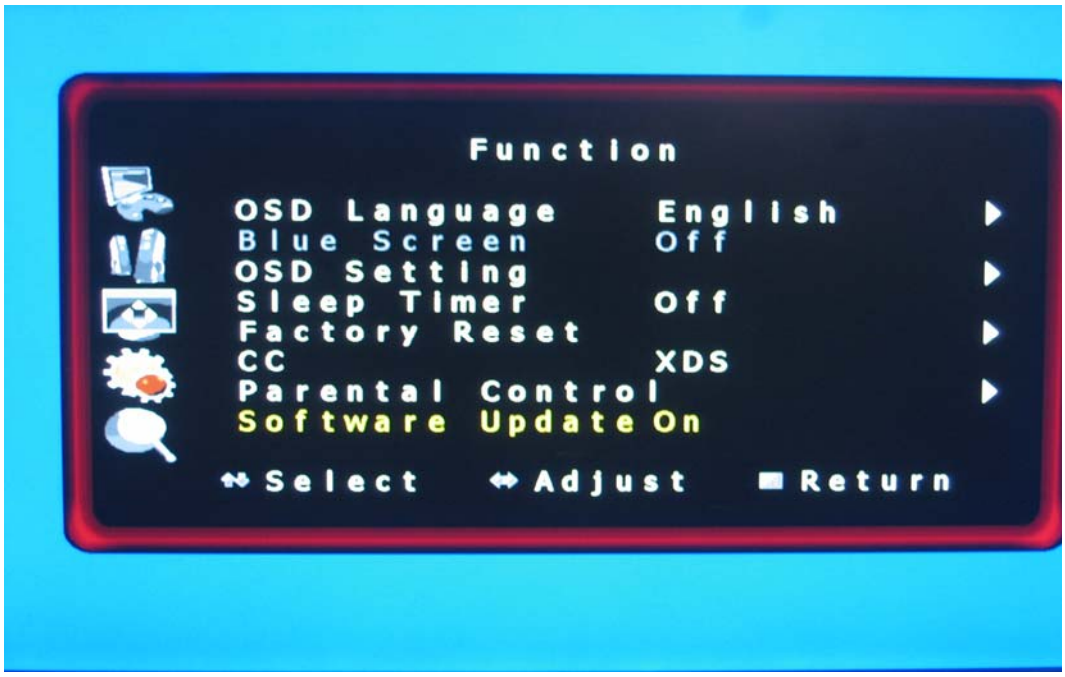
a. Press VOL+ button to clear the EEPROM data.
b. When the “Clear Unprotectly ” button becomes white, turn off the power.
c. Restart the TV.

3.3 USB Software upgrading

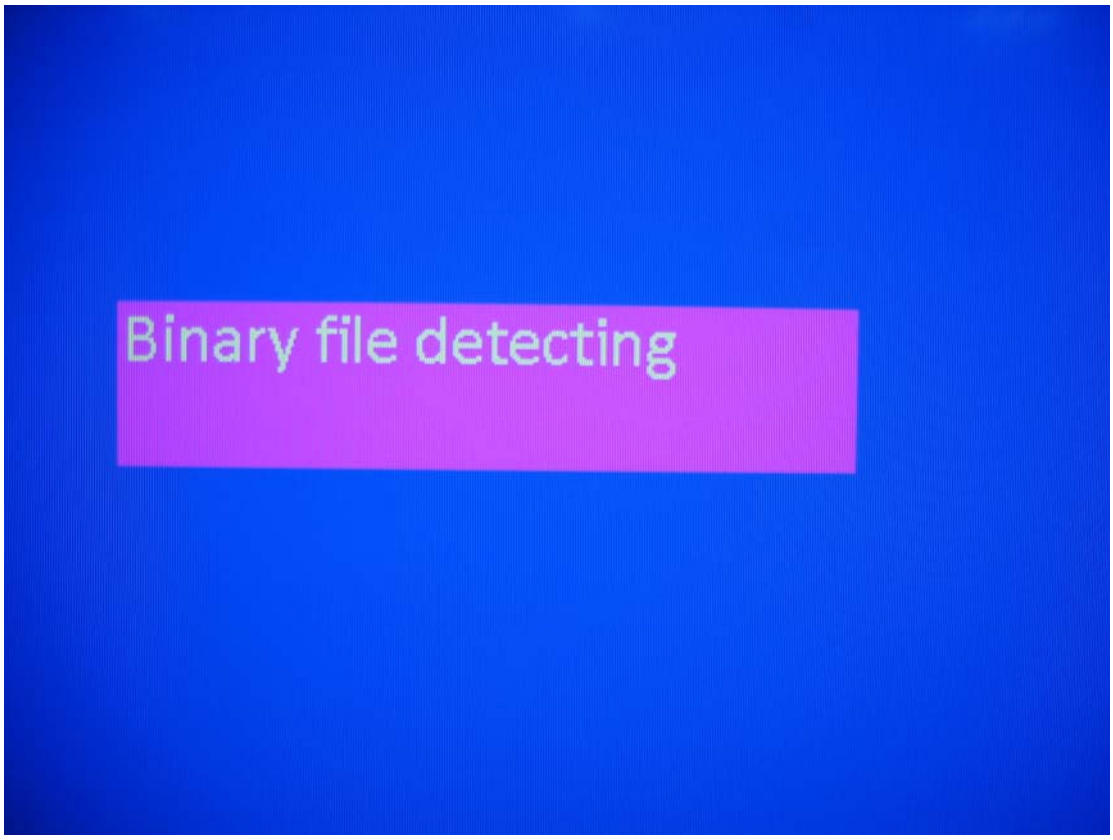
3.3.1、Copy the Updating software to the USB root directory, the software named *.bin. for example the TV LCD19W58AM(30) named LCD19W58AM.bin. If the TV has internet function, Insert the USB disk to the interface nearly the Tuner.



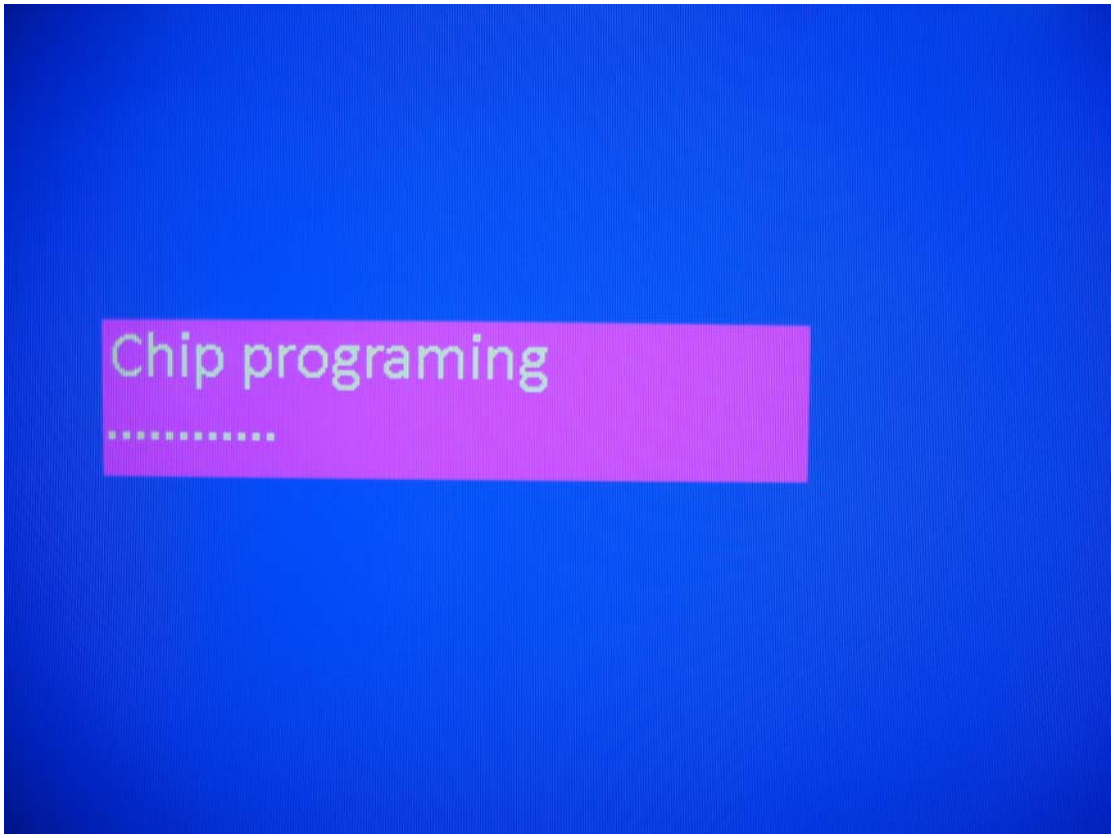
3.3.2、the “Function” Menu “Software Update”choose“on”，see the next figure。

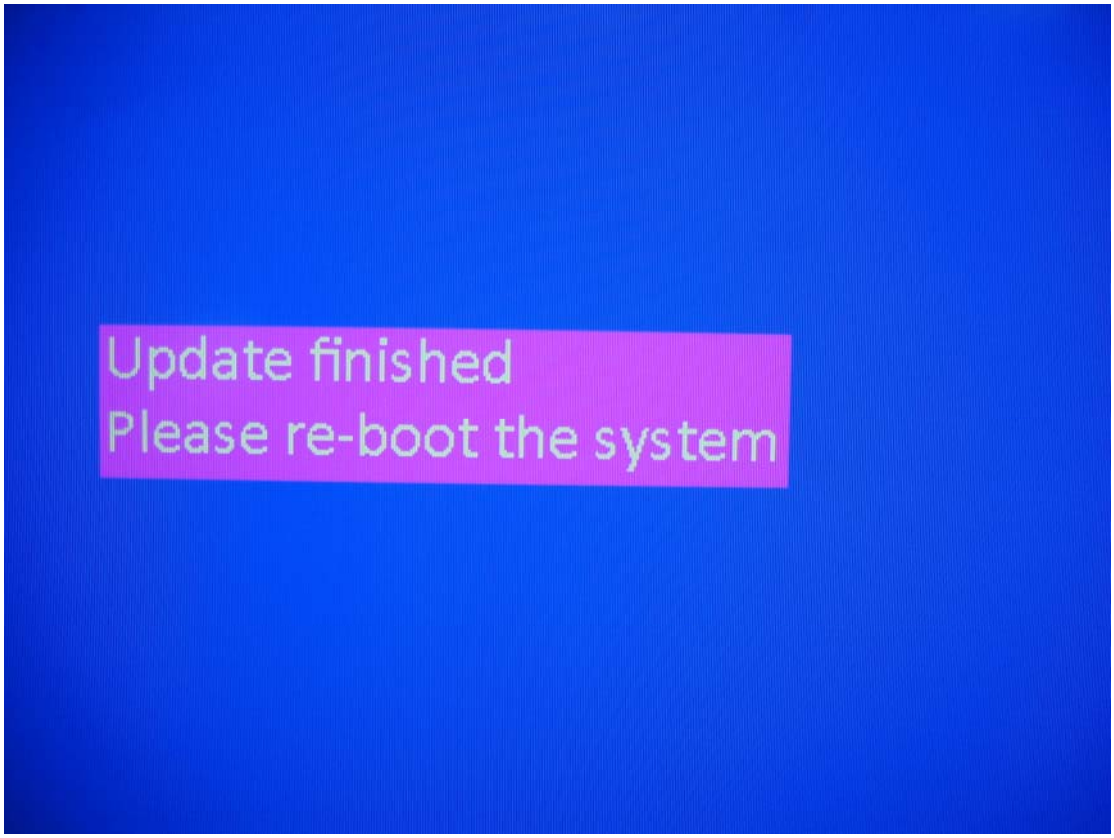


3.3.3AC power off, then restart the TV.




Chip erasing
..


Chip programing
.....



3.3.4 After update success, AC power off, and restart the TV.

If only appear the figure: "Binary file detecting", the last three figures not. Please modify the name of sotrware.

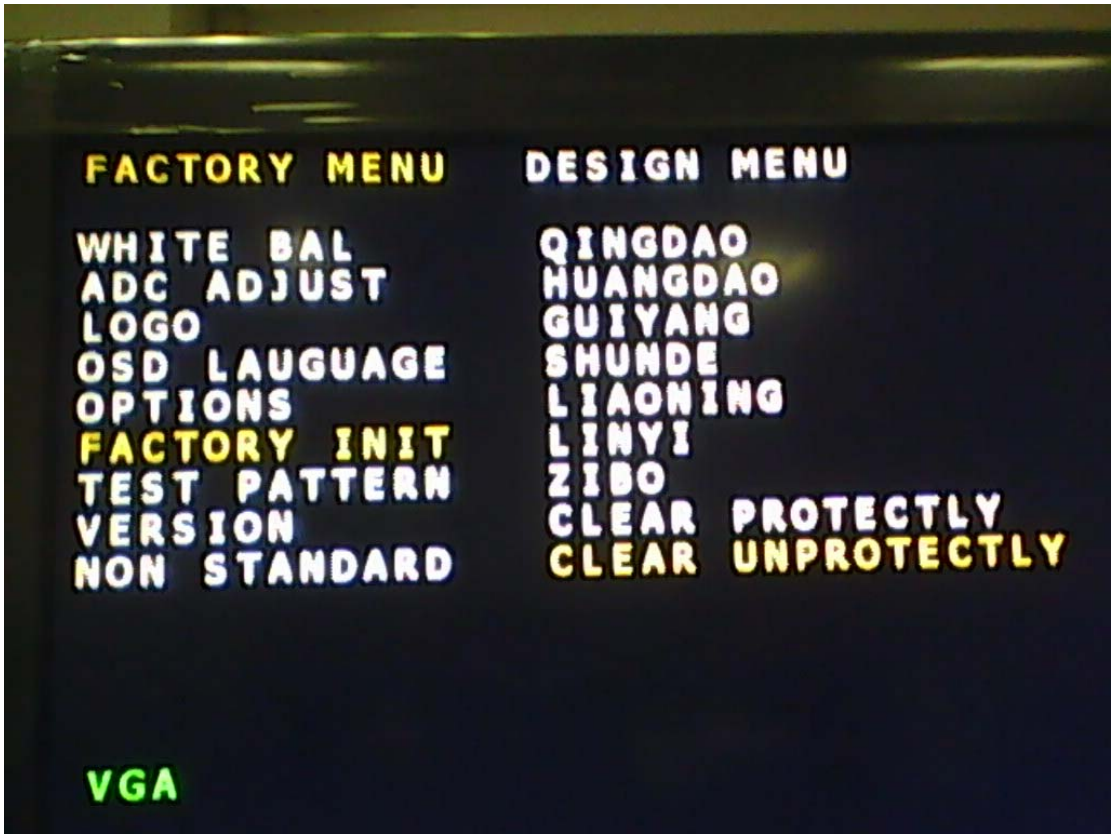
3.3.5、 After the update is over. Must Confirm the software Version in the Version Menu.

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

d. Press VOL+ button to clear the EEPROM data.

e. When the "Clear Unprotectly " button becomes white, turn off the power.

f. Restart the TV.



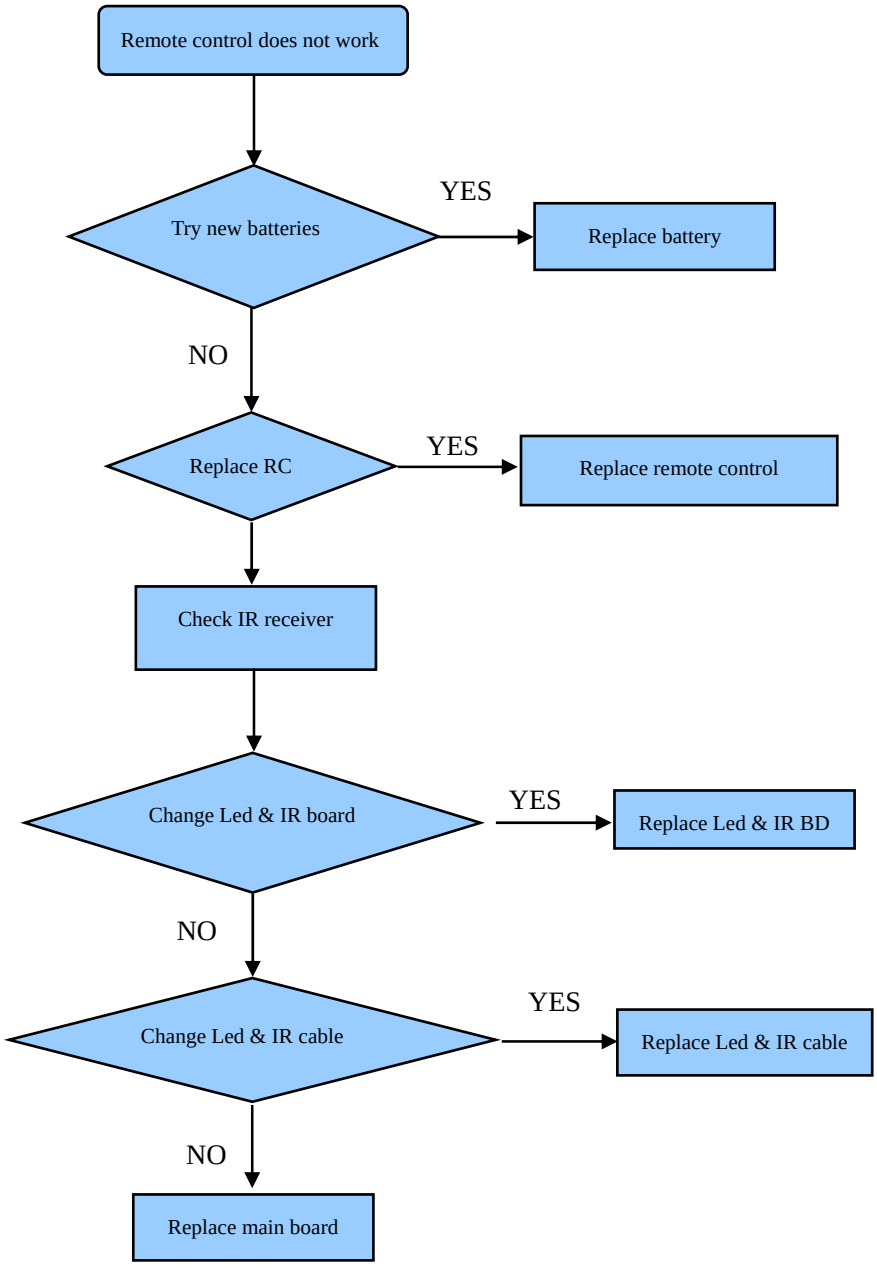
3.3.6、Chasis MST6E16 includes 6E16GS and 6E16JS

Chassis 6E16GS must be the last 8 bit figures and letters in front ot .bin For example : LCD19W58AM(30) named D19W58AM.bin.

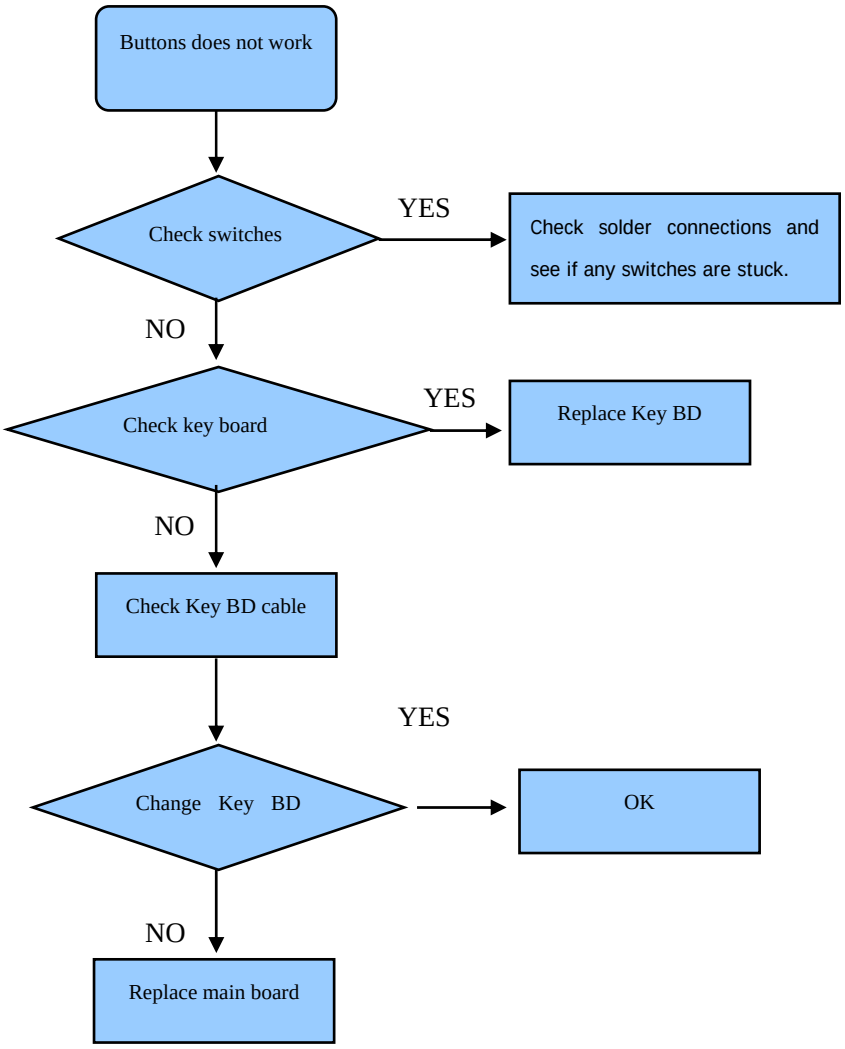
Chassis 6E16JS must be the the TV name in front ot.bin. For example : LCD19W58AM(30) named LCD19W58AM.bin.

4. Troubleshooting

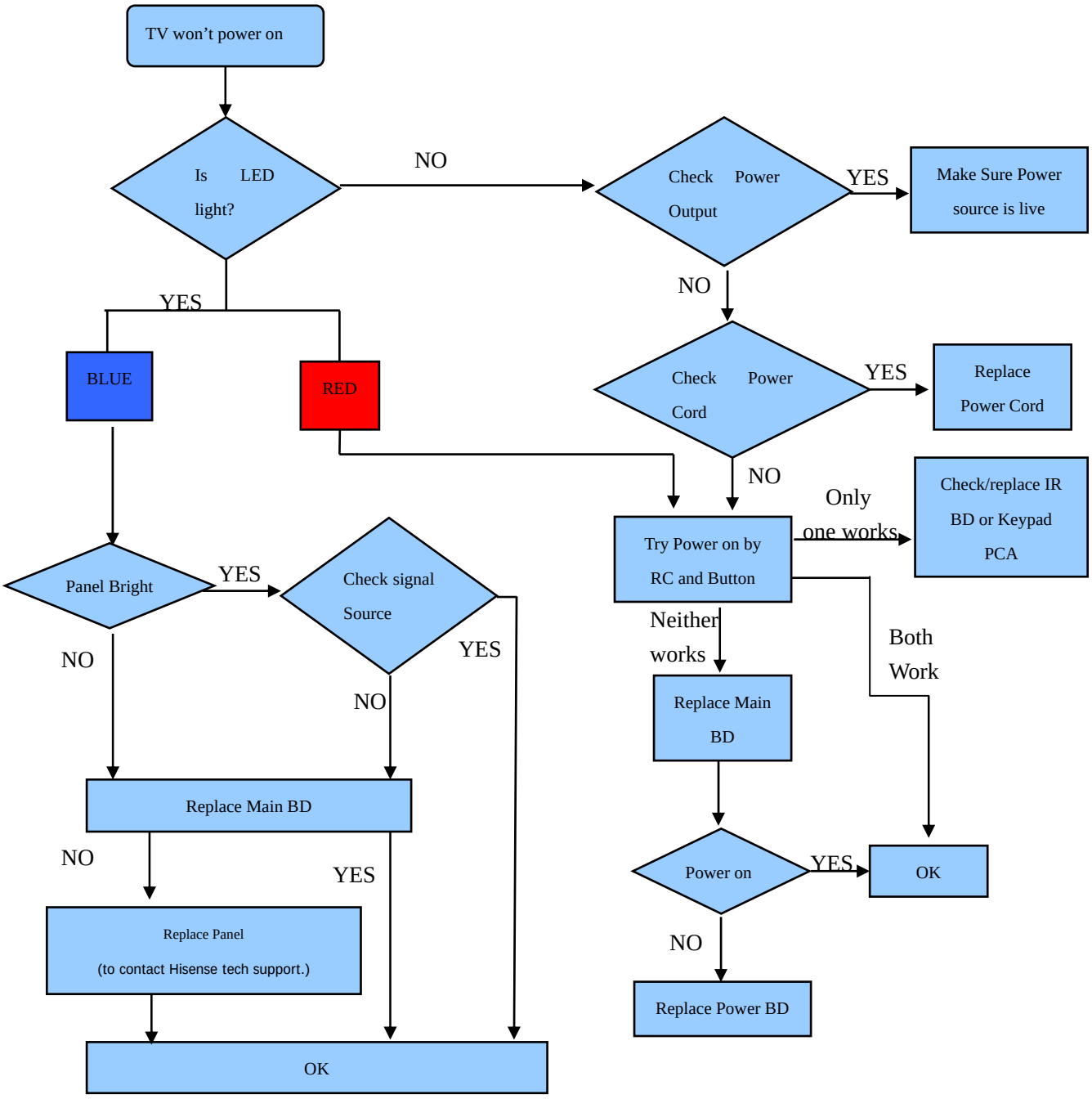
4.1 Troubleshooting for Remote Control



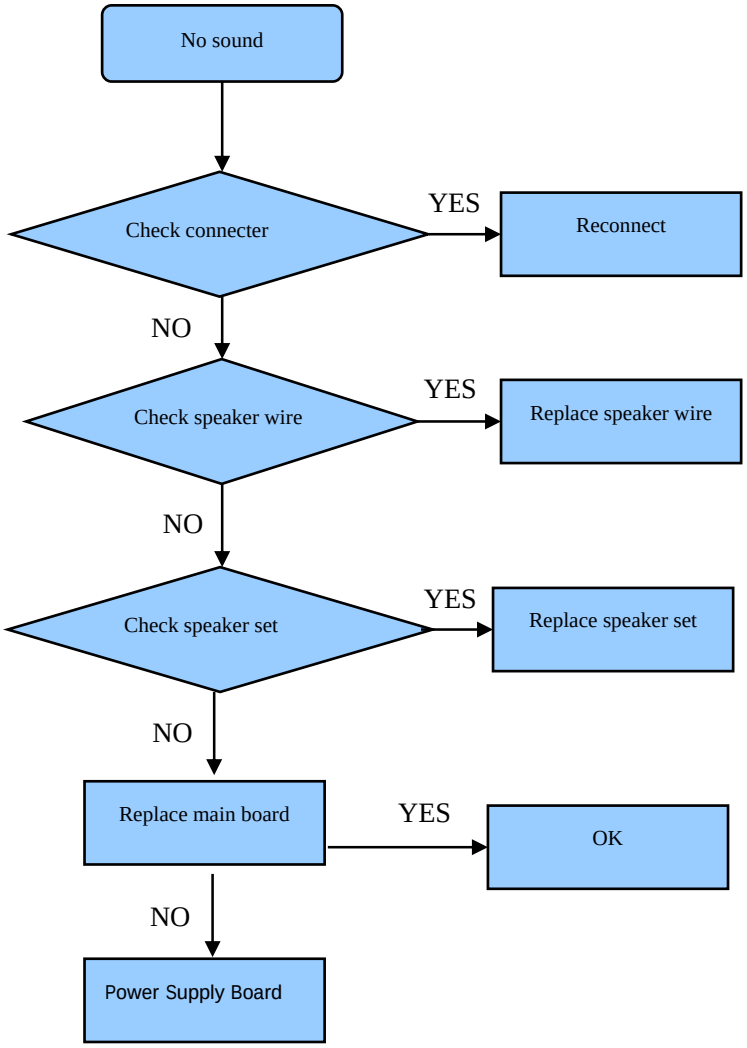
4.2 Troubleshooting for Function Key



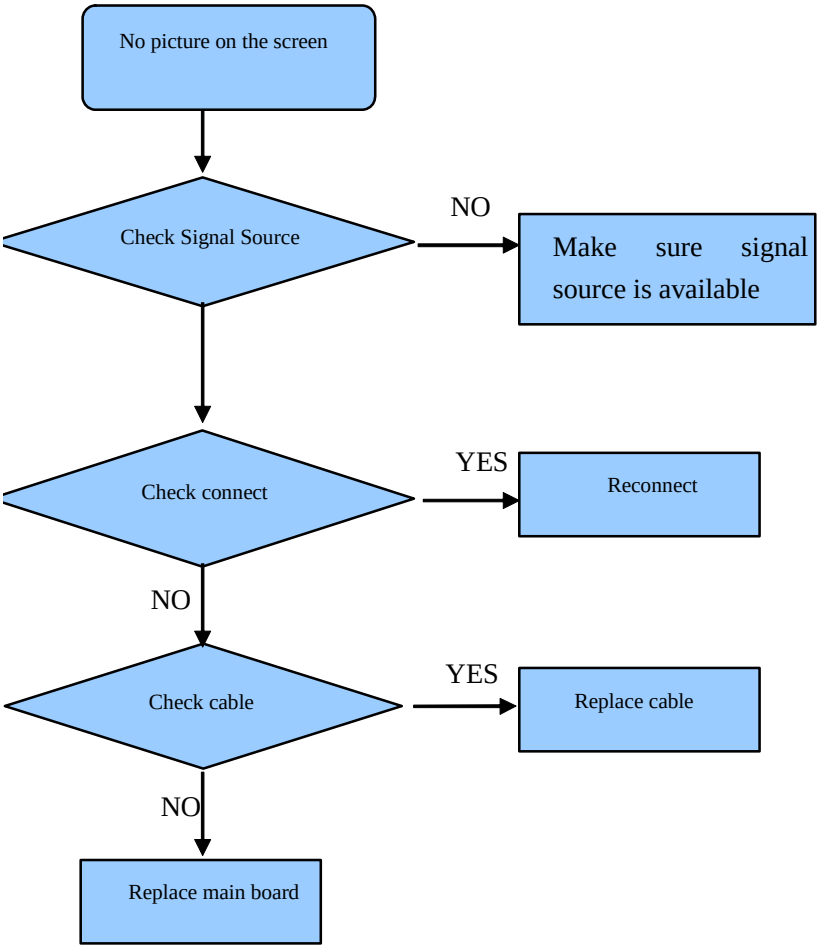
4.3 TV won’t Power On



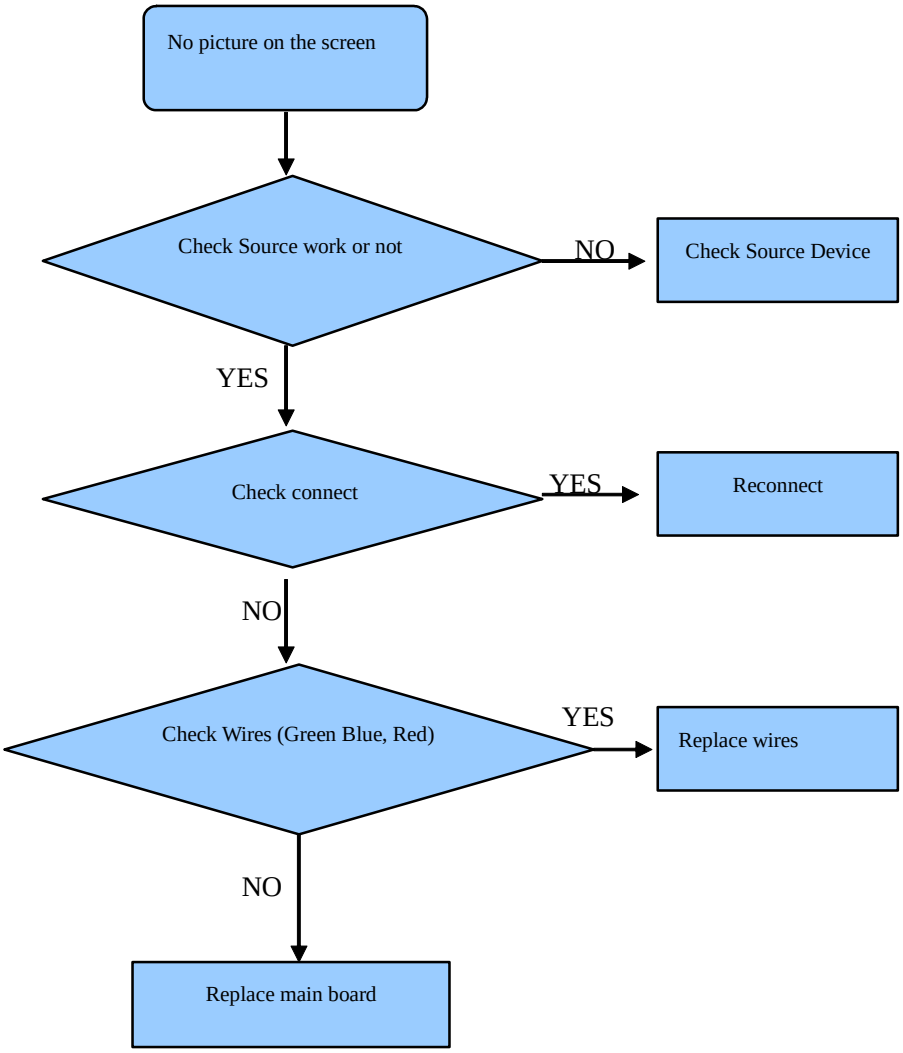
4.4 Troubleshooting for Audio



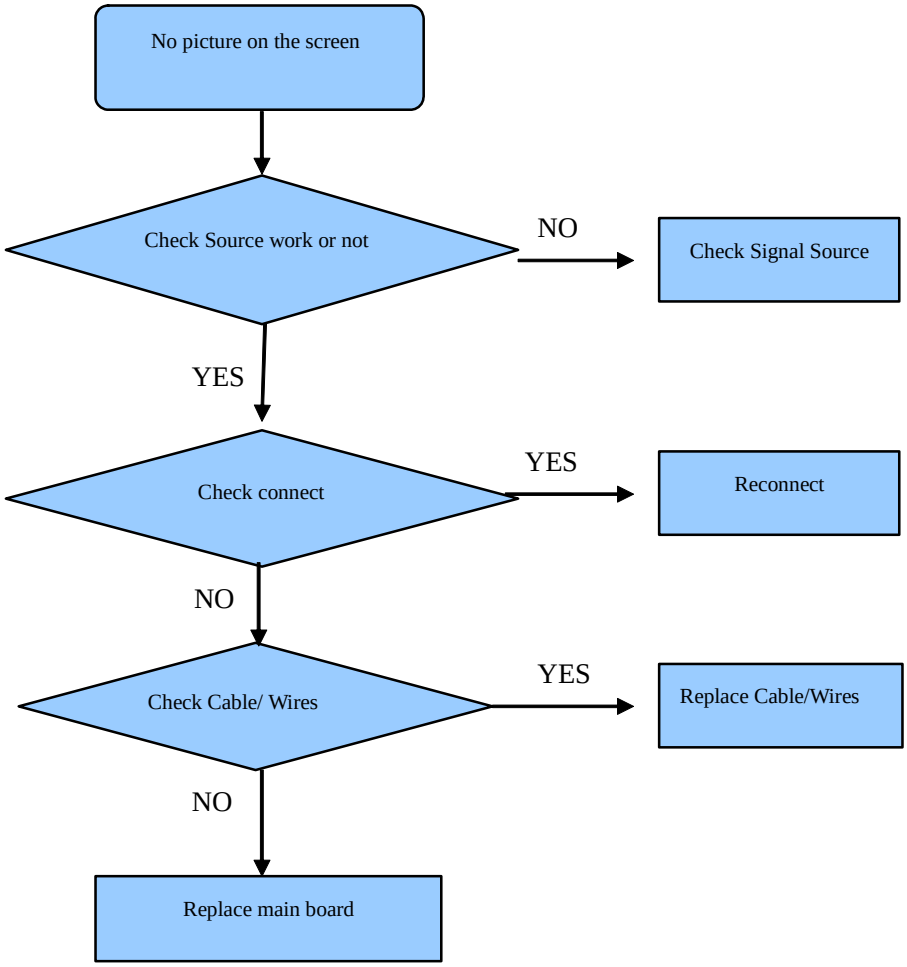
4.5 Troubleshooting for TV/VGA/HDMI input



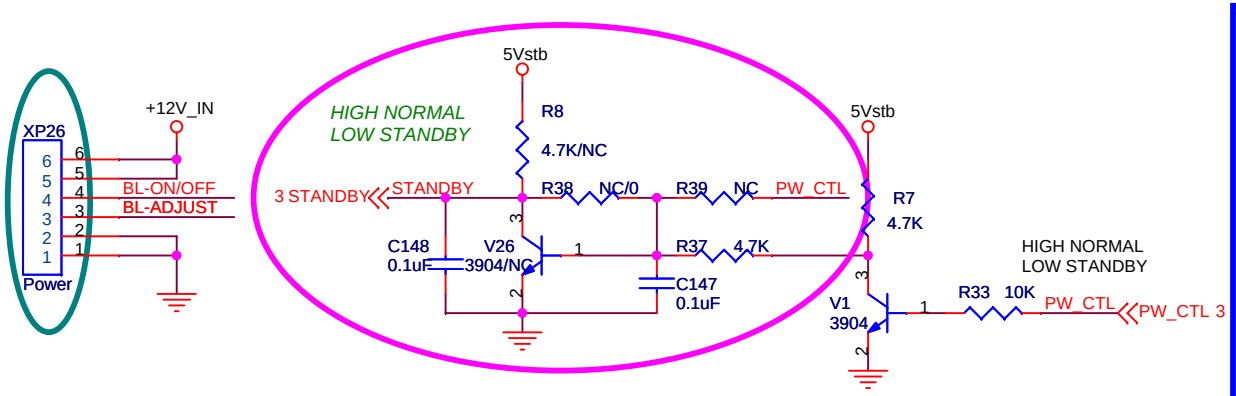
4.6 Troubleshooting for YPbPr input



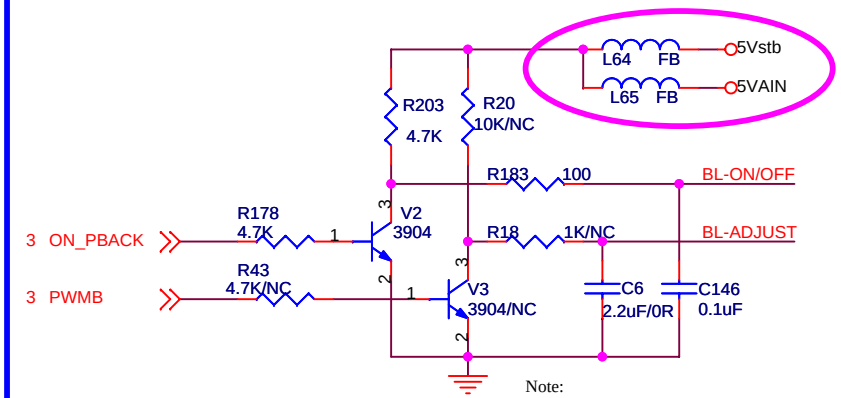
4.7 Troubleshooting for Video/S-Video input



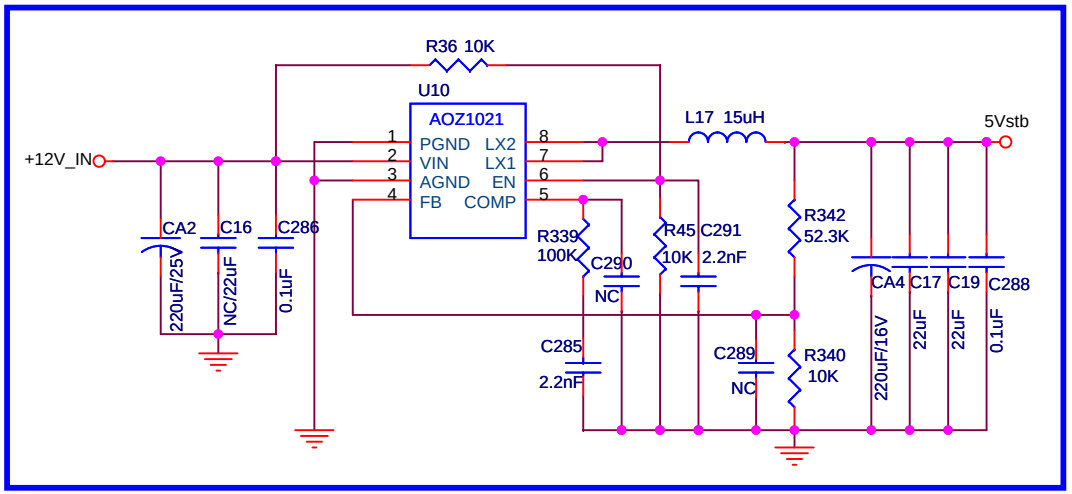
5. Schematic circuit diagram

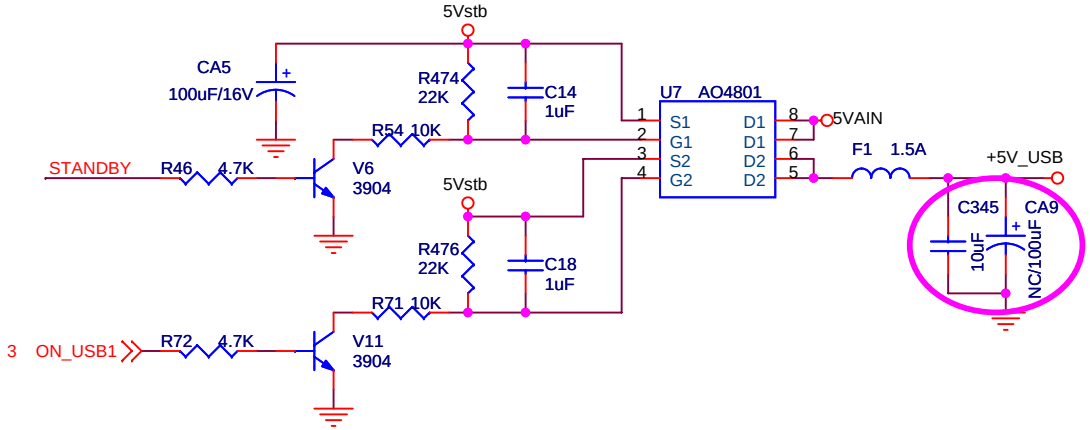


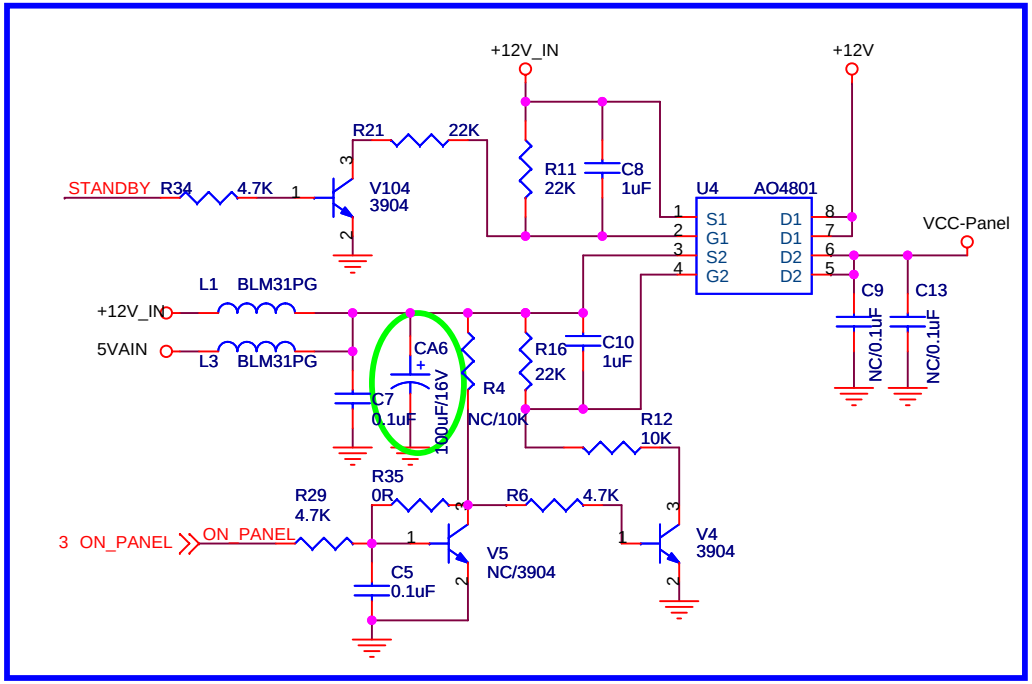
TO Inverter Board



Note:
1.Left C6 NC if want output PWM puls;
2.V3-PWM调光，3904偶尔质量问题导致PWM无法实现，后续新板建议使用1815。







Title: System Power		
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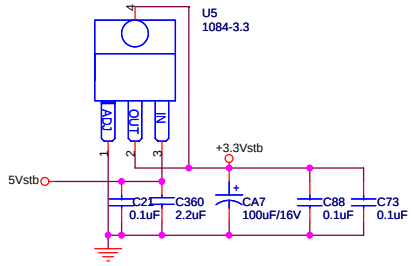
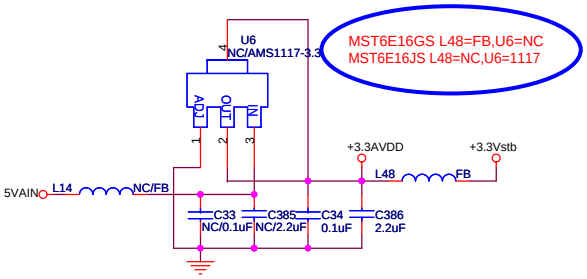
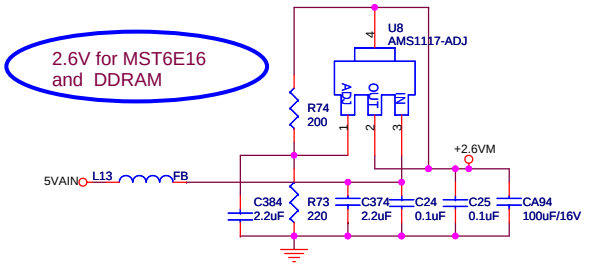
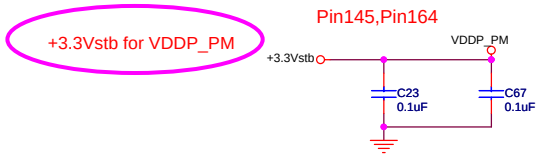
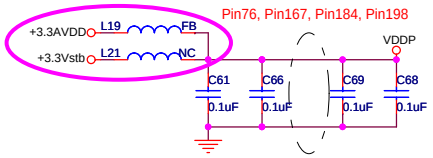


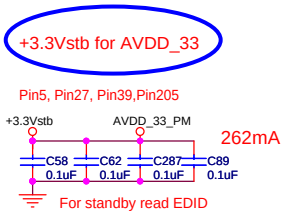


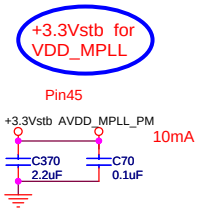


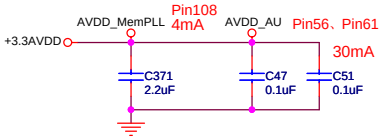


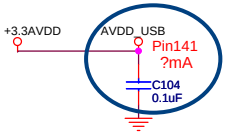


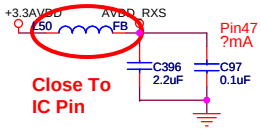
FOR use DDR,+2.6VM must be 2.6V

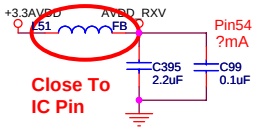




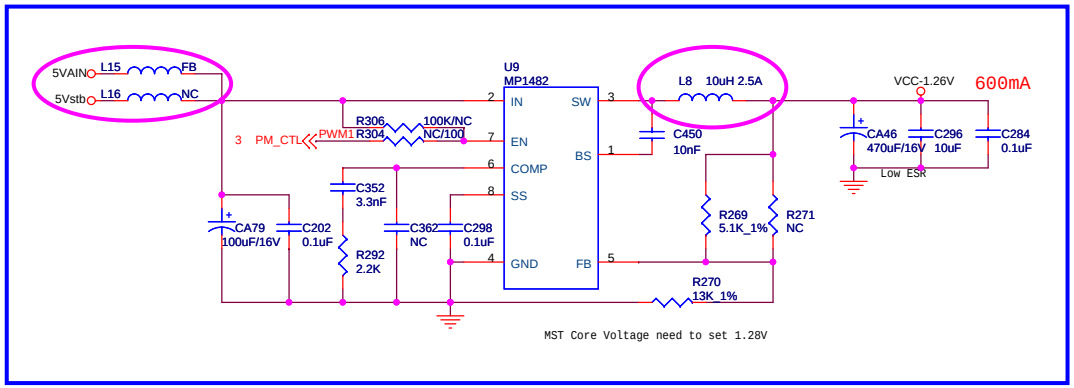


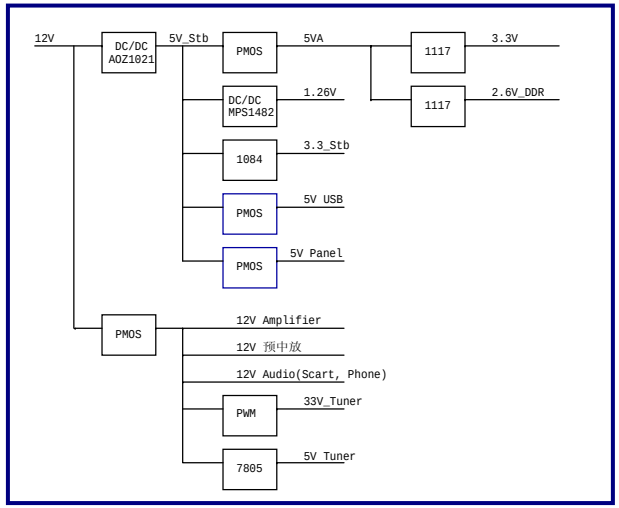


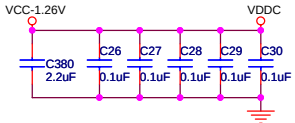




Vcc 1.26V for MST6E16 Core power







1.32V>VDDC>1.26V,最好在IC PIN脚有1.26V以上

Pin78, Pin89, Pin151, Pin171, Pin202

注意：L7电流要大，直流电阻要小，
保证VDDC到MST6E16GS的电压在1.26V

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Title: Power		
Size: A3	Document Number: MST6E16	Rev: A
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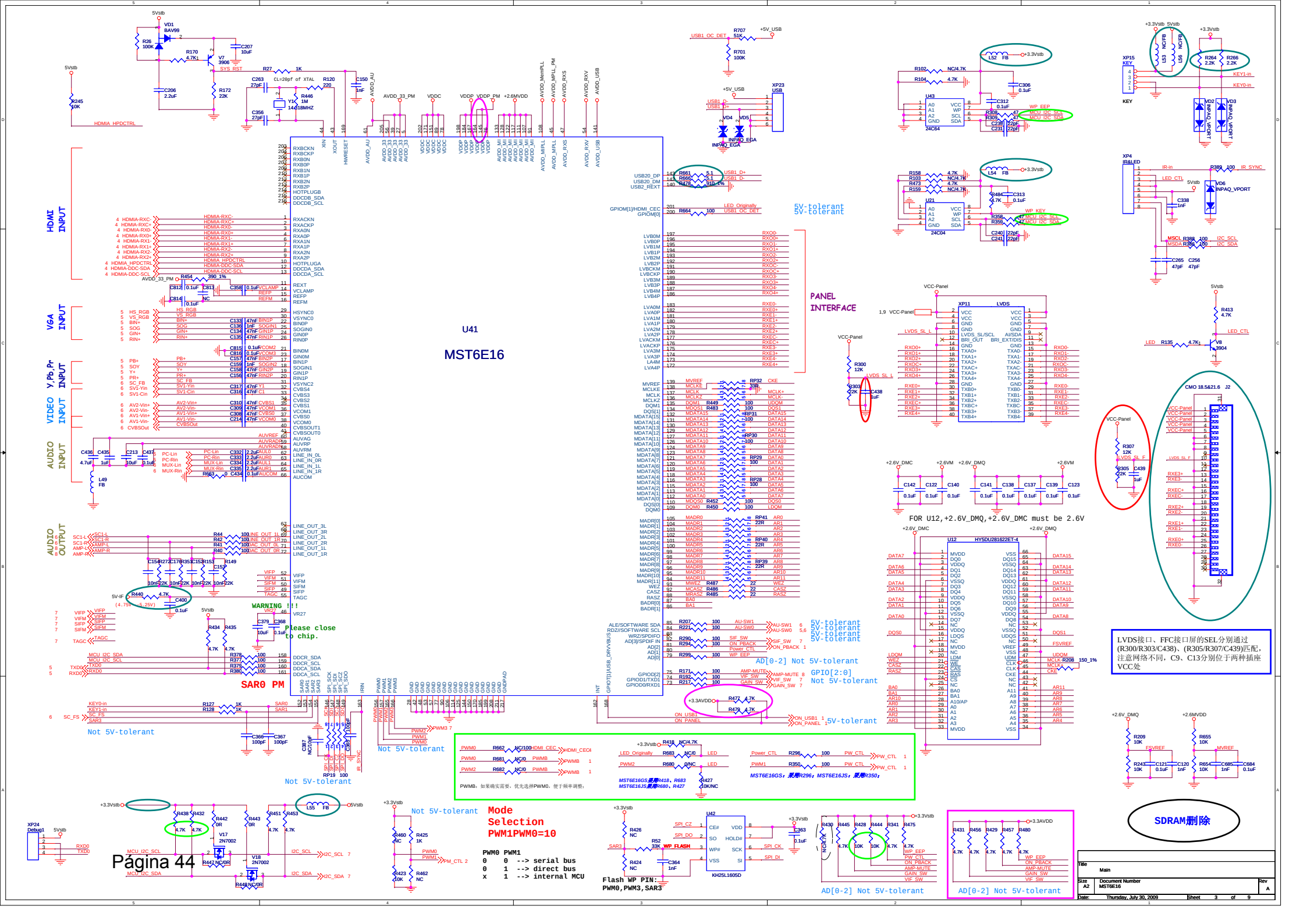
U41
MST6E16
HDMI INPUT
VGA INPUT
Y,Pb,Pr INPUT
VIDEO INPUT
AUDIO INPUT
AUDIO OUTPUT
PANEL INTERFACE
SAR0 PM
WARNING !!!
Please close to chip.
Not 5V-tolerant
5V-tolerant
AD[0-2] Not 5V-tolerant
GPIO[2:0] Not 5V-tolerant
FOR U12,+2.6V_DMQ,+2.6V_DMC must be 2.6V
LVDS接口、FFC接口屏的SEL分别通过(R300/R303/C438)、(R305/R307/C439)匹配，注意网络不同，C9、C13分别位于两种插座VCC处
SDRAM删除
Mode Selection
PWM1PWM0=10
PWM0 PWM1
0 0 --> serial bus
0 1 --> direct bus
x 1 --> internal MCU
Flash WP PIN:
PWM0,PWM3,SAR3
Página 44
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Rev A
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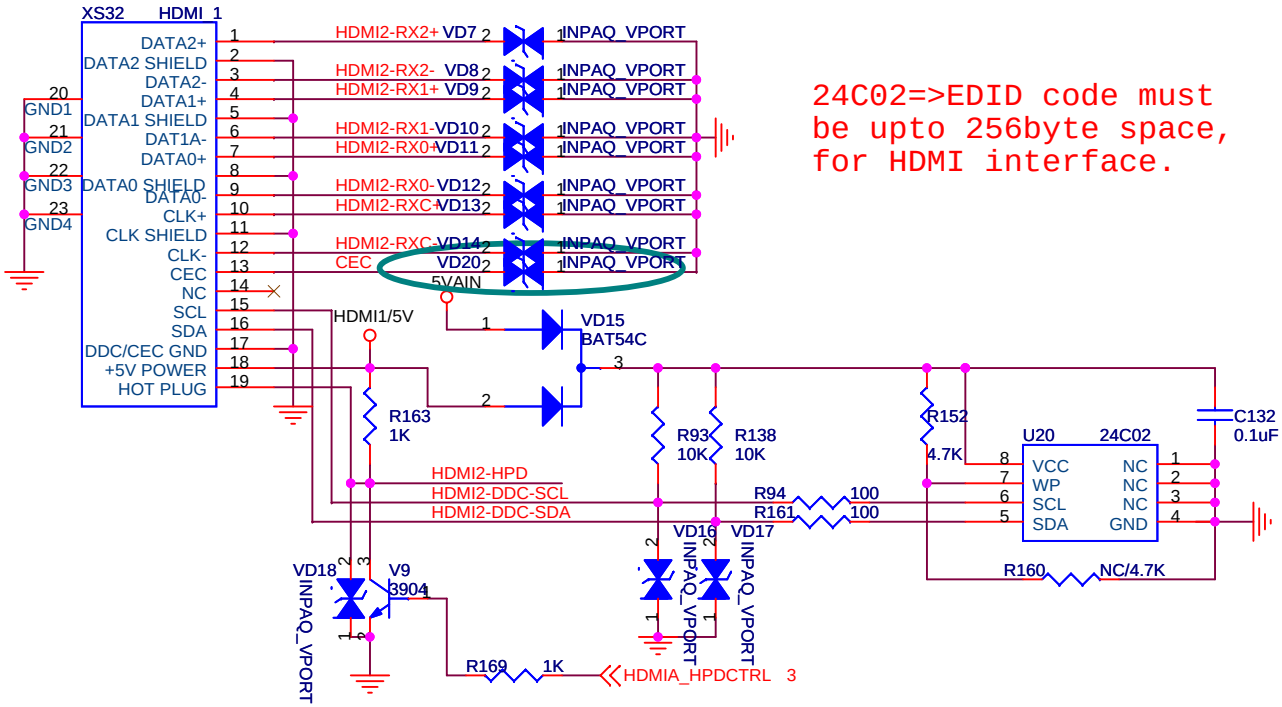
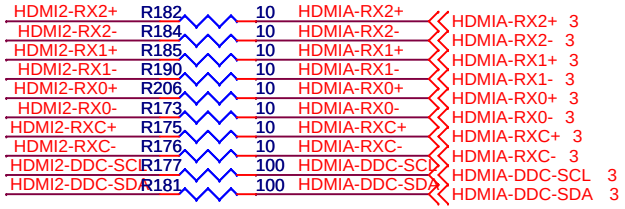
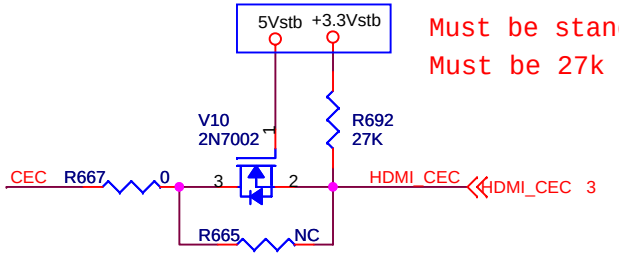


24C02=>EDID code must be upto 256byte space, for HDMI interface.



For CEC Leakage Protect



Must be standby power
Must be 27k

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Title: HDMI		
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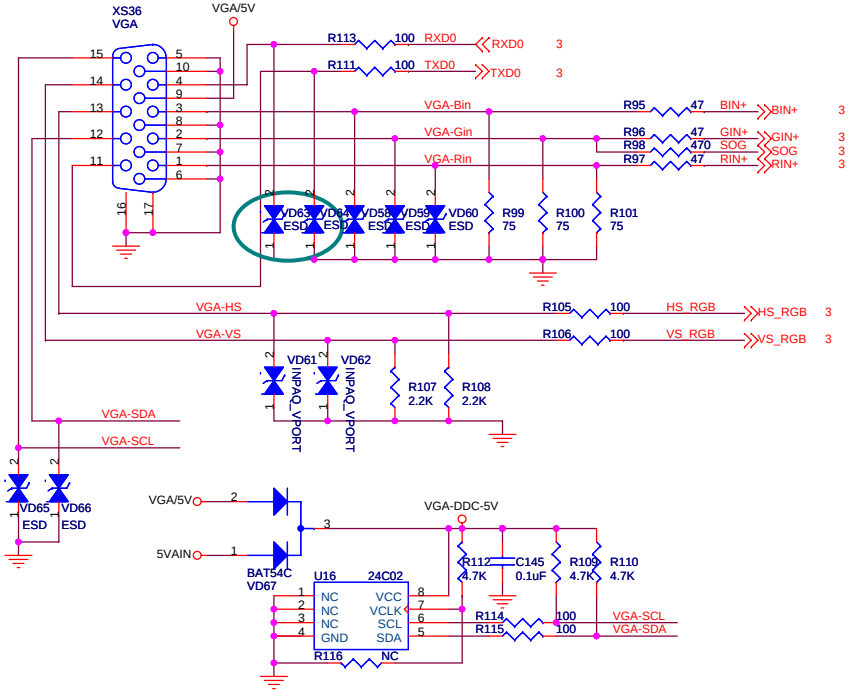

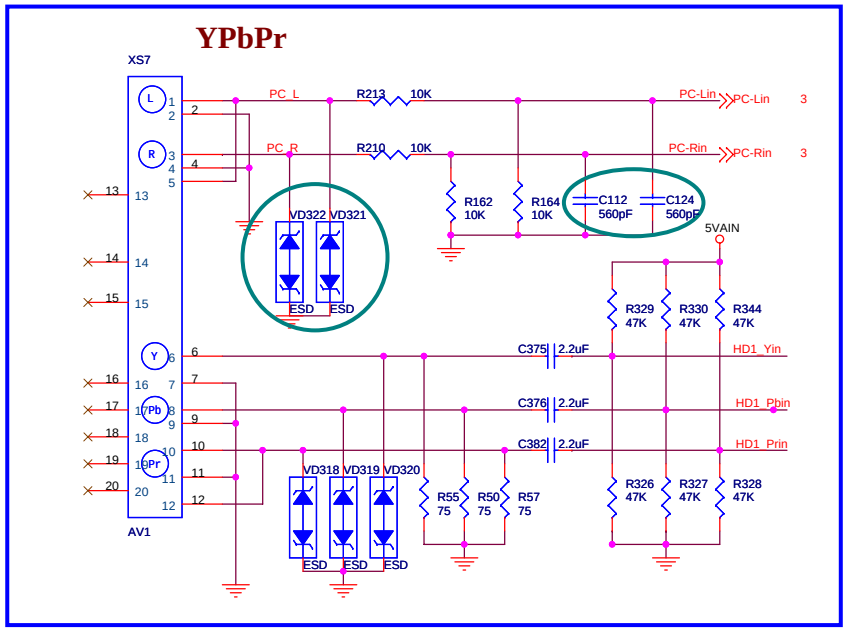

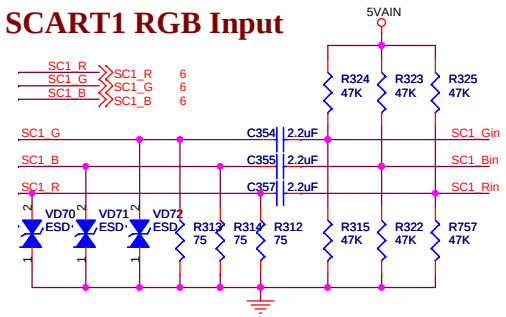

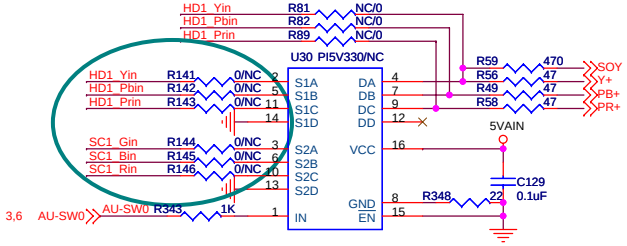

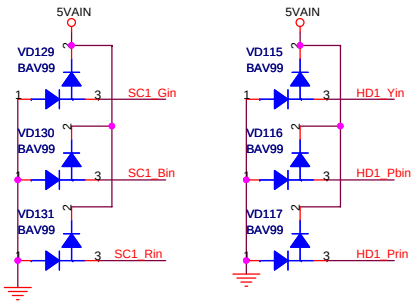

MStar semiconductor
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Title	VGA&Component	
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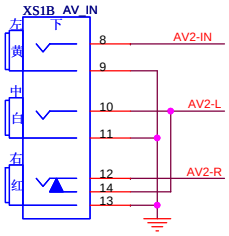
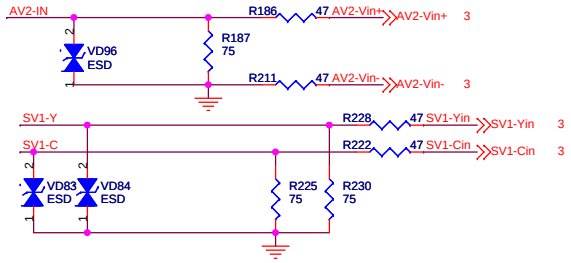
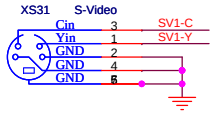
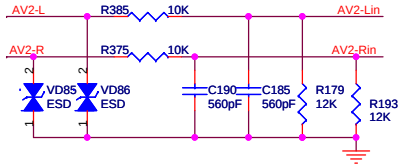
AV2 Input

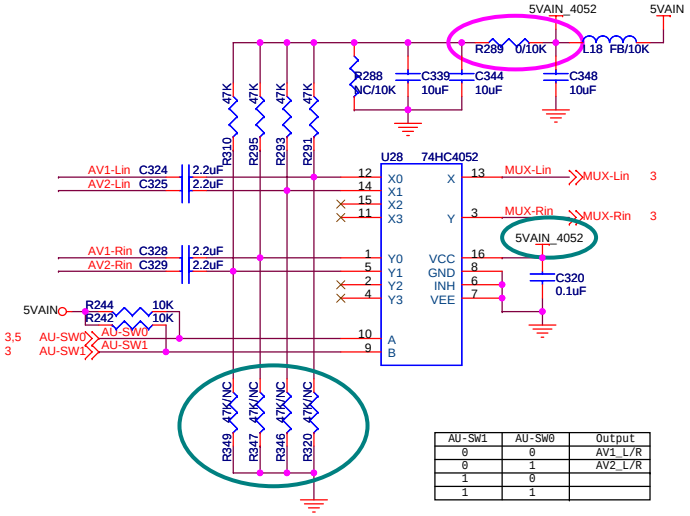




S-Video Input

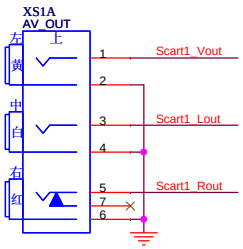




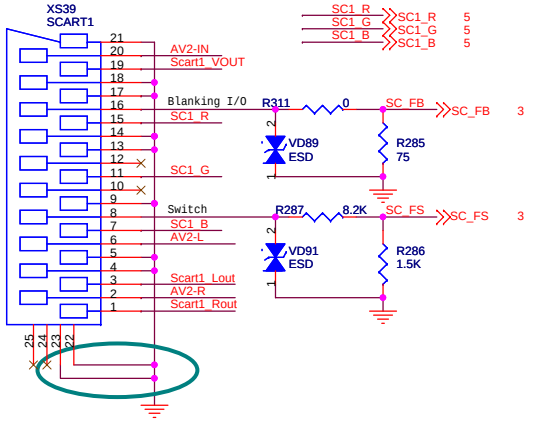


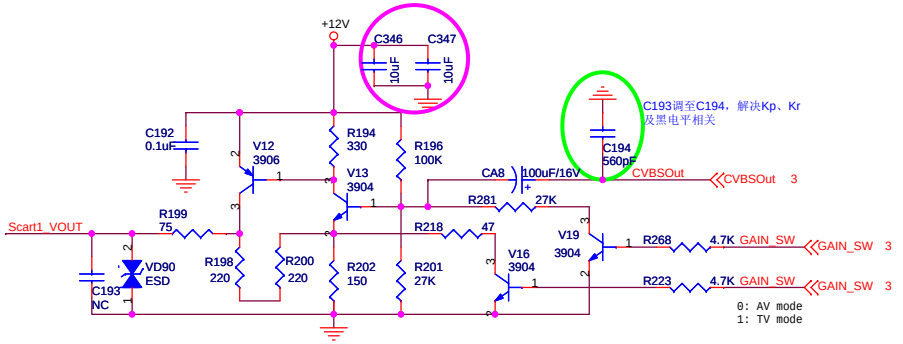
AU-SW1	AU-SW0	Output
0	0	AV1_L/R
0	1	AV2_L/R
1	0	
1	1	

AV Output

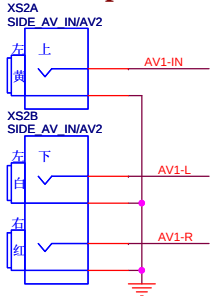


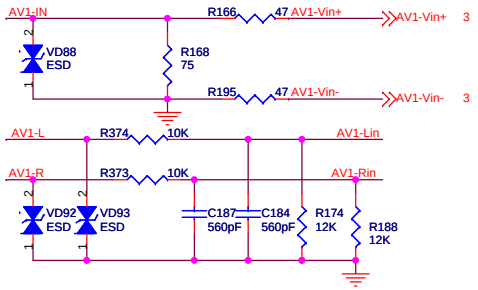
SCART1 Input

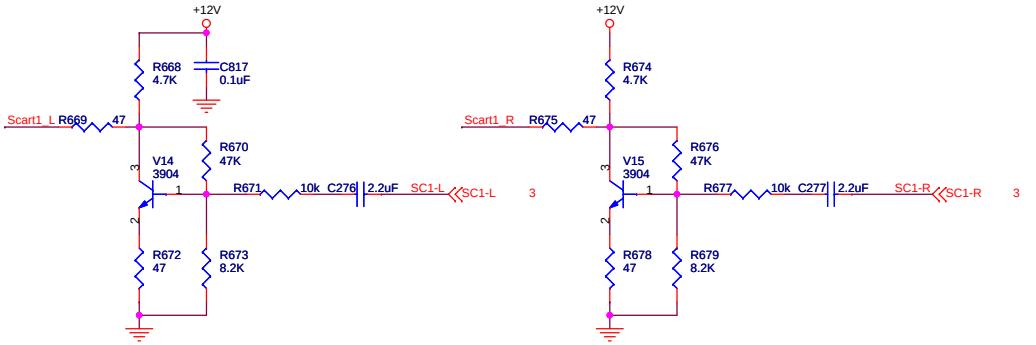


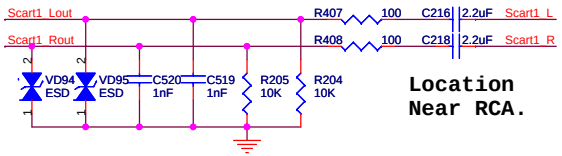


AV1 Input









Location Near RCA.

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Title	Video input	
Size A3	Document Number MST6E16	Rev A
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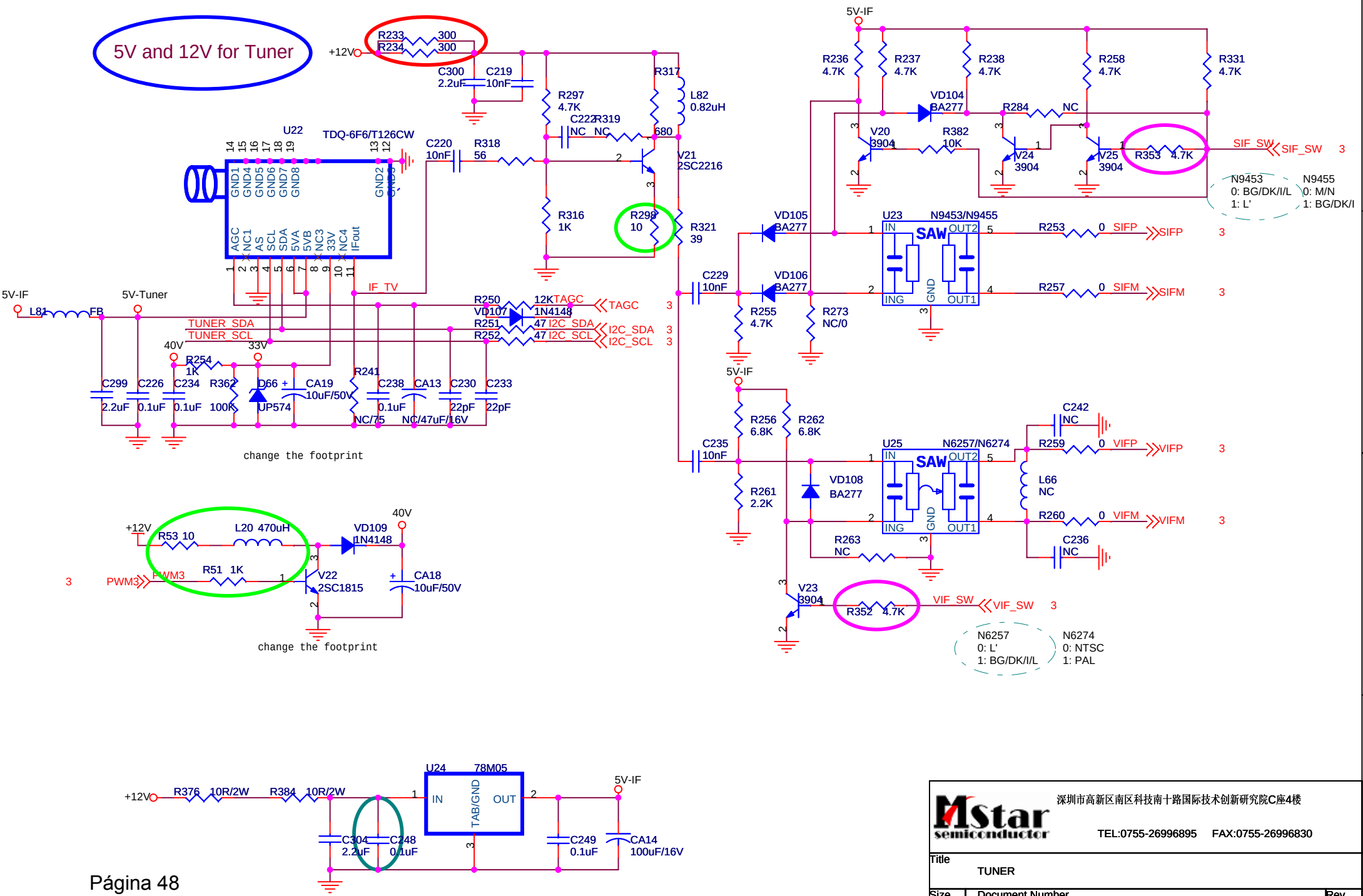

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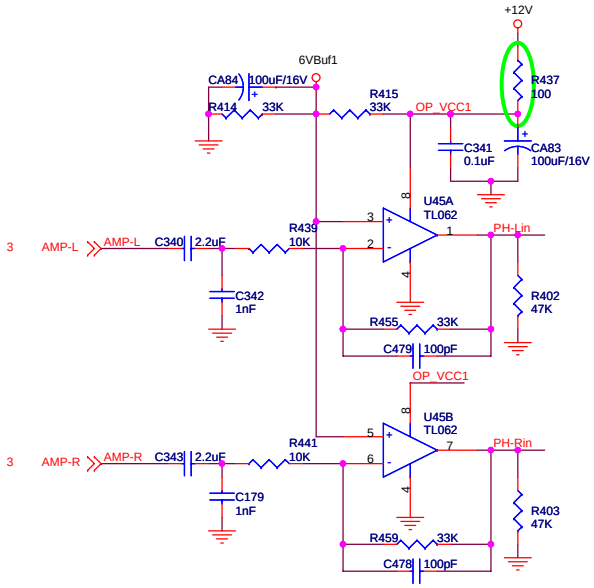
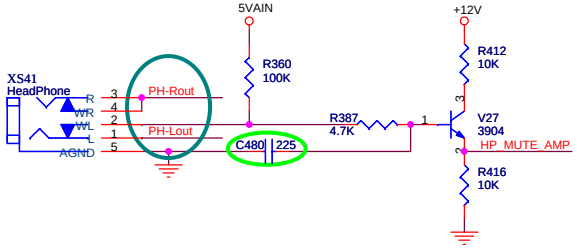
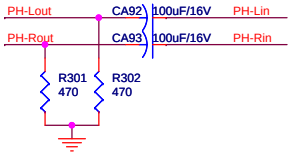
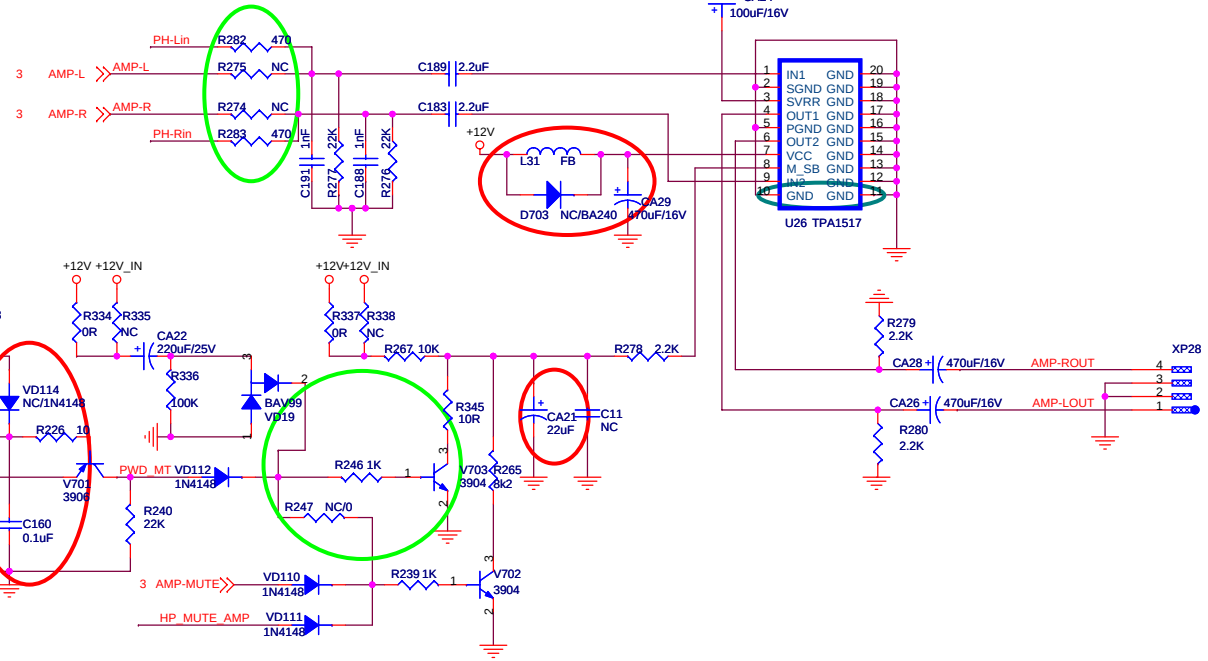
Title: TUNER		
Size: A4	Document Number: MST6E16	Rev: A
Date: Tuesday, May 05, 2009	Sheet 7 of 9	

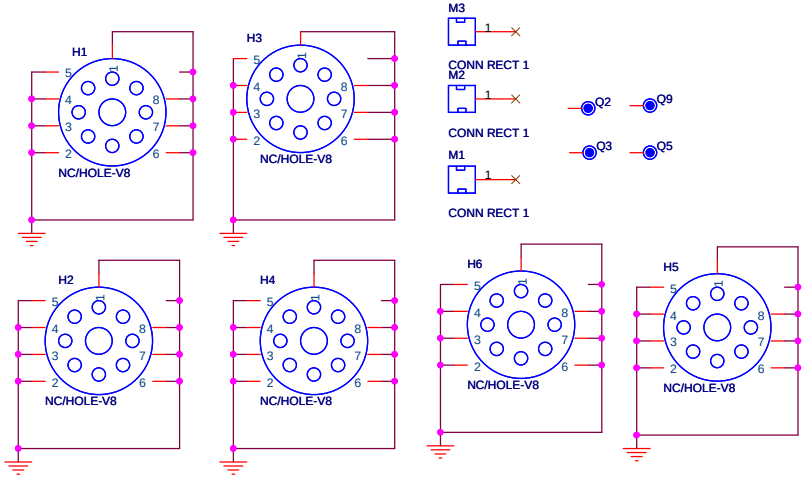
TPA1517(可兼容TDA1517P,10、11NC即可)

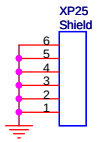












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Title	Amplifier	
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Version A:在LCD22W57DEU_ZB_1701_C的基础上更改。

Page1
1、STANDBY部分待机低功耗IC电路，注意采用原芯片增加R37、R38 0R；
2、BL_ON/OFF、BL_ADJUST上拉电压预留；
3、USB滤波电容位置预留；
Page2
1、DCDC部分待机低功耗IC电路，L8物料更换（成本），注意采用原芯片增加L16、更换L8；
2、VDDP、VDDP_PM调整，注意涉及电容排布，建议丝印依照原理图；
Page3
1、LED、PWMB、HDMI_CEC等网络调整，注意采用原芯片增加R683；
2、ON_USB1、ON_PANEL上拉增加；
3、PW_CTL调整，注意IC差异；
4、部分GPIO上拉电压更改，参照紫红标注部分；
Page6
1、4052 VCC电路优化，兼容原板增加R289 0R；
2、CVBSout VCC滤波电容，增加C346、C347；
Page4-6
压敏电阻封装更改为0402，注意兼容原板定额更改；
Page7
增加R352、R353，注意兼容原板定额更改。

Version B:在MST6E16JS_ZB_1861_A的基础上更改。

Page1
1、CA6位置调整，避免部分屏掉电残影等问题；
Page2
1、删除L19、L21；//改板方便，不再更改；
Page3
1、删除R456、R480；//改板方便，不再更改；
2、调整LED网络，删除R684,增加R427；
3、PCB增加主芯片散热焊盘；
Page6
1、增加C194；

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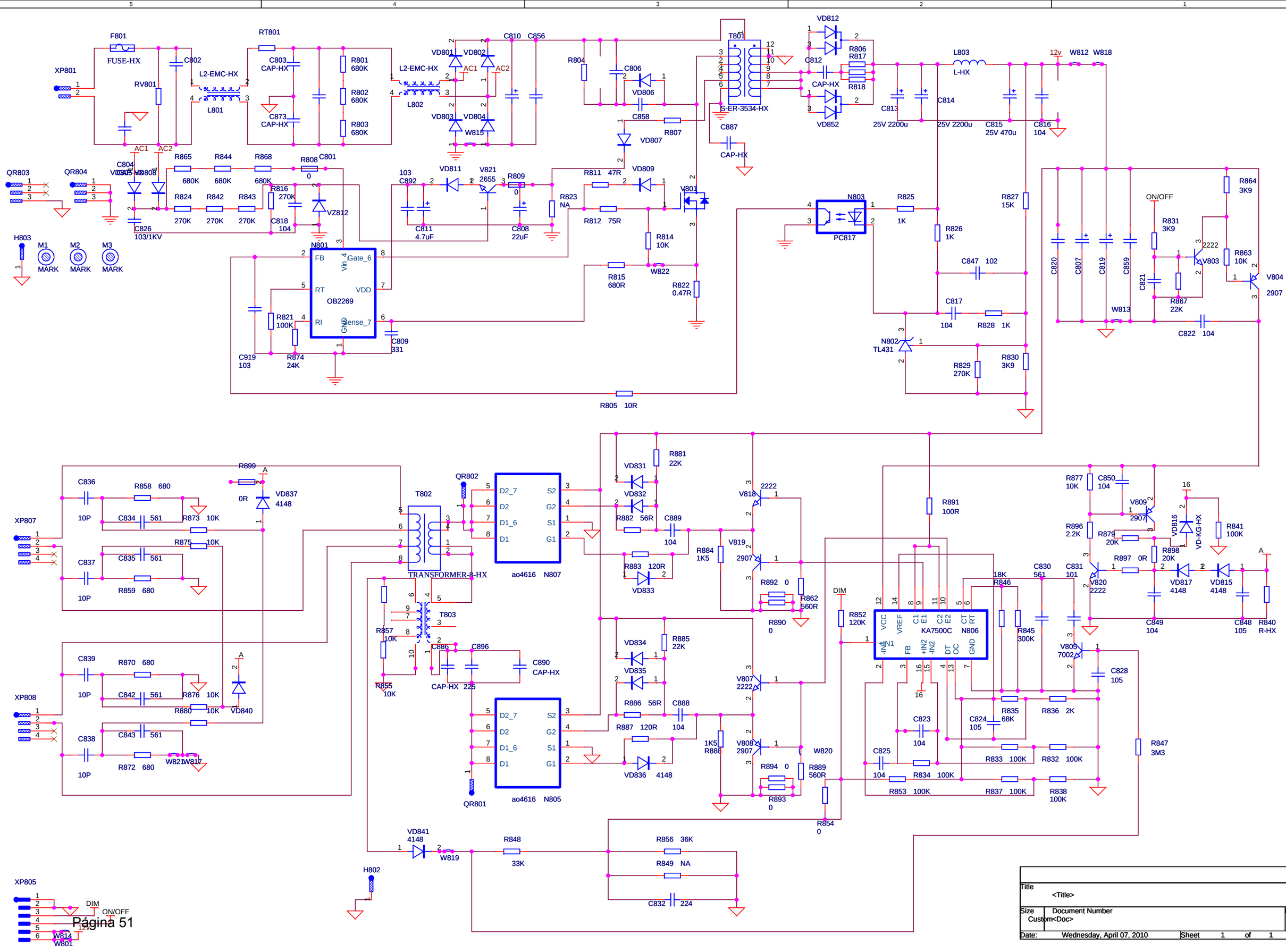
Title: Revision		
Size: A4	Document Number: MST6E16	Rev: A
Date: Thursday, July 30, 2009	Sheet 9 of 9	



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Title	<Title>	
Size Custom	Document Number <Doc>	Rev D
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	Listado partes de placa principal	
Código	Deescripción	Ubicación
124164	MB Unit\RSAG2.908.1658-4\ROH	
124165	MB SMC unit\RSAG2.908.1658-4JC\ROH	
1026283	Tuner\FTDC3Y13MH05\ROH	U22
1037882	Saw filter\HS9502\ROH	U23
1037881	Saw filter\HS3502\ROH	U25
1051586	AV Terminal\AV3-W-ZCP\ROH	XS2
1044757	AV Terminal\AV5-LYAP\ROH	XS7
1029541	STerminal\S4\ROH	XS31
1026699	Terminal\DR-15A\ROH	XS36
1032183	AV Terminal\AV6-W-2-P\ROH	XS1
1029340	EarphoneTerminal\CK3-3.5-02\ROH	XS41
1037911	USBTerminal\1064-00403\ROH	XP23
1028547	SOCKET\TJC10-5A\ROH	XP4
1029018	SOCKET\TJC10-3A\ROH	XP15
1028546	SOCKET\TJC10-4A\ROH	XP24
1026698	SOCKET\TJC10-6A\ROH	XP26
1026406	SOCKET\TJC3-4A\ROH	XP28
1002639	OXIDIZED FILM RESISTOR\RY27-2W-12R-J\R3F20\ROH	R376 R384
1058220	Inductor Coil\LGA0305-0u82-K\R1F10\ROH	L82
1029072	Inductor Coil\TLN471K\ROH	L20
1058116	IC\TPA1517\JK\ROH	
1052280	Radiator\RSAG7.308.111\ROH	
1043291	Radiator\RSAG5.861.112\ROH	
1044059	SOCKET\A2006WSO-2×20P\ROH	XP11
124165	MB SMC unit\RSAG2.908.1658-4JC\ROH	
124166	MB SMT unit\RSAG2.908.1658-4TP\ROH	
1027048	IC\CW574CS\UPC574J\JC\ROH\JK	D66
1057248	Transistor\2SC2717\JC\ROH	V21
1026655	Transistor\2SC1815Y\JC\ROH	V22
1026465	ELECTROLYSIS CAPACITOR\CD110-16V-100u-M\JC\ROH	CA5 CA6 CA7 CA8 CA14 CA24
1026465	ELECTROLYSIS CAPACITOR\CD110-16V-100u-M\JC\ROH	CA79 CA83 CA84 CA92 CA93 CA94
1026467	ELECTROLYSIS CAPACITOR\CD110-16V-470u-M\JC\ROH	CA20 CA26 CA28 CA29 CA46
1026476	ELECTROLYSIS CAPACITOR\CD110-50V-10u-M\JC\ROH	CA18 CA19
1042653	ELECTROLYSIS CAPACITOR\CD110-25V-220U-M\JC\ROH	CA2 CA4 CA22
1042651	ELECTROLYSIS CAPACITOR\CD110-16V-22U-M\JC\ROH	CA21
124166	MB SMT unit\RSAG2.908.1658-4TP\ROH	
1060557	PCB board\3RSAG7.820.1861\VER.B\ROH	△
1026789	SMT Resistor\RC0603JR-07-6K8\TP\ROH	C6
1002948	SMT Resistor\RC0603JR-07-2M2\TP\ROH	R224 R227
1051319	SMT Resistor\RC0603FR-07-909R\TP\ROH	R478

1019019	SMT Resistor\RC0603FR-07-390R\TP\ROH	R454
1031206	SMT Resistor\RC0805JR-07-10R\TP\ROH	R53 R298
1026749	SMT Resistor\RC0603JR-07-1K0\TP\ROH	R254
1026779	SMT Resistor\RC0603JR-07-680R\TP\ROH	R317 L18
1031698	SMT Resistor\RC0603JR-07-120R\TP\ROH	R202
1003032	SMT Resistor\RC0805JR-07-300R\TP\ROH	R233 R234
1032418	SMT Resistor\RC0603FR-07-5K1\TP\ROH	R269
1038447	SMT Resistor\RC0603JR-07-39R\TP\ROH	R321
1039132	SMT Resistor\RC0603JR-07-51K\TP\ROH	R707
1040900	SMT Resistor\RC0603FR-07-13K\TP\ROH	R270
1038979	SMT Resistor\RC0805JR-07-5R1\TP\ROH	R661 R666
1043866	SMT Resistor\RC0402 JR-07-10K\TP\ROH	R12 R33 R54 R71 R93 R138 R209 R336
1043866	SMT Resistor\RC0402 JR-07-10K\TP\ROH	R162 R164 R204 R205 R242 R243 R244
1043866	SMT Resistor\RC0402 JR-07-10K\TP\ROH	R245 R267 R412 R441
1043866	SMT Resistor\RC0402 JR-07-10K\TP\ROH	R210 R213 R416 R439 R655
1043866	SMT Resistor\RC0402 JR-07-10K\TP\ROH	R382 R423 R654 R671 R677
1043867	SMT Resistor\RC0402 JR-07-12K\TP\ROH	R250
1043868	SMT Resistor\RC0402 JR-07-1K0\TP\ROH	R27 R51 R127 R128 R163 R169
1043868	SMT Resistor\RC0402 JR-07-1K0\TP\ROH	R239 R246 R316 R343 R425
1043869	SMT Resistor\RC0402 JR-07-220R\TP\ROH	R120
1043870	SMT Resistor\RC0402 JR-07-2K2\TP\ROH	R264 R266 R278
1043870	SMT Resistor\RC0402 JR-07-2K2\TP\ROH	R107 R108 R261 R279 R280 R292
1043872	SMT Resistor\RC0402 JR-07-47R\TP\ROH	R49 R56 R58 R95 R96 R97 R166 R186
1043872	SMT Resistor\RC0402 JR-07-47R\TP\ROH	R195 R211 R222 R228 R251 R252 R308
1043872	SMT Resistor\RC0402 JR-07-47R\TP\ROH	R309 R358 R359 R669 R672 R675 R678
1043873	SMT Resistor\RC0402 JR-07-4K7\TP\ROH	R7 R29 R34 R46 R72 R104 R109 R110
1043873	SMT Resistor\RC0402 JR-07-4K7\TP\ROH	R112 R135 R152 R158 R170 R178 R236 R237
1043873	SMT Resistor\RC0402 JR-07-4K7\TP\ROH	R255 R258 R297 R387 R413
1043873	SMT Resistor\RC0402 JR-07-4K7\TP\ROH	R434 R435 R473 R484
1043873	SMT Resistor\RC0402 JR-07-4K7\TP\ROH	R6 R203 R238 R331 R475 R668 R674
1043873	SMT Resistor\RC0402 JR-07-4K7\TP\ROH	R201 R432 R438 R440 R451 R453
1043878	SMT Resistor\RC0402 JR-07-75R\TP\ROH	R50 R55 R57 R99 R100 R101 R168 R225
1043878	SMT Resistor\RC0402 JR-07-75R\TP\ROH	R187 R199 R230 R285 R312 R313 R314
1043880	SMT Resistor\RC0402JR-07-0R0\TP\ROH	R332 R334 R337 R345
1043880	SMT Resistor\RC0402JR-07-0R0\TP\ROH	R253 R257 R259 R260
1043880	SMT Resistor\RC0402JR-07-0R0\TP\ROH	R35 R311 R663 R442 R443
1043880	SMT Resistor\RC0402JR-07-0R0\TP\ROH	R81 R82 R89
1053324	SMT Resistor\RC0402JR-07-22R\TP\ROH	R348 R485 R486 R487
1037874	SMT Resistor\RC0603FR-07-220R\TP\ROH	R73
1050876	SMT Resistor\RC0603FR-07-200R\TP\ROH	R74
1052671	SMT Resistor\RC0402JR-07-100K\TP\ROH	R26 R306 R360 R362 R701
1052673	SMT Resistor\RC0402JR-07-33K\TP\ROH	R52 R414 R415 R455 R459
1052860	SMT Resistor\RC0402JR-07-56R\TP\ROH	R318
1053148	SMT Resistor\RC0402JR-07-100R\TP\ROH	R40 R41 R42 R44 R94 R437
1053148	SMT Resistor\RC0402JR-07-100R\TP\ROH	R105 R106 R111 R113 R114 R115 R161 R171

1053148	SMT Resistor\RC0402JR-07-100R\TP\ROH	R177 R181 R183 R207 R217 R221 R294
1053148	SMT Resistor\RC0402JR-07-100R\TP\ROH	R377 R378 R379 R380 R389 R407 R408
1053148	SMT Resistor\RC0402JR-07-100R\TP\ROH	R449 R450 R452 R483
1053148	SMT Resistor\RC0402JR-07-100R\TP\ROH	R192 R290 R299 R664
1053149	SMT Resistor\RC0402JR-07-10R\TP\ROH	R173 R175 R176 R182 R184 R185
1053149	SMT Resistor\RC0402JR-07-10R\TP\ROH	R190 R206
1026742	SMT Resistor\RC0603JR-07-10R\TP\ROH	R226
1053151	SMT Resistor\RC0402JR-07-1K8\TP\ROH	R286
1053152	SMT Resistor\RC0402JR-07-1M0\TP\ROH	R446
1053153	SMT Resistor\RC0402JR-07-22K\TP\ROH	R11 R16 R21 R149 R153 R172 R240 R272
1053153	SMT Resistor\RC0402JR-07-22K\TP\ROH	R276 R277 R351 R474 R476
1053325	SMT Resistor\RC0402JR-07-470R\TP\ROH	R194
1053157	SMT Resistor\RC0402JR-07-47K\TP\ROH	R291 R293 R295 R315 R324 R325 R403 R757
1053157	SMT Resistor\RC0402JR-07-47K\TP\ROH	R326 R327 R328 R329 R330 R344 R402
1053157	SMT Resistor\RC0402JR-07-47K\TP\ROH	R310 R322 R323 R670 R676
1053157	SMT Resistor\RC0402JR-07-47K\TP\ROH	R320 R346 R347 R349
1053158	SMT Resistor\RC0402JR-07-6K8\TP\ROH	R256 R262
1053159	SMT Resistor\RC0402JR-07-8K2\TP\ROH	R265 R287 R673 R679
1053325	SMT Resistor\RC0402JR-07-470R\TP\ROH	R59 R98 R282 R283 R301 R302
1051062	SMT Resistor\YC124-JR-07-22R\TP\ROH	RP39 RP40 RP41
1053160	SMT Resistor\YC124JR-07-33RL\TP\ROH	RP32
1056041	SMT Resistor\YC124-JR-07-100R\TP\ROH	RP19 RP28 RP29 RP30 RP31
1019048	Porcelain Capacitor\CC0603KRX7R7BB105\EMK107BJ105\JP\R	C8 C10 C14 C18
1026702	SMT Porcelain Capacitor\CC0603JRNPO9BN270\TP\ROH	C263 C356
1028465	SMT Porcelain Capacitor\CC0805KRX7R9BB104\TP\ROH	C234
1057880	SMT Porcelain Capacitor\GRM21BR61C106KE15L\TP\ROH	C207 C213 C296 C339 C344 C379
1038246	SMT Porcelain Capacitor\LMK212BJ225KD-T\TP\JK\ROH	C304
1019048	Porcelain Capacitor\CC0603KRX7R7BB105\EMK107BJ105\JP\R	C435
1056806	SMT Porcelain Capacitor\GRM188R61A475KE15D\TP\ROH	C436
1056805	SMT Porcelain Capacitor\GRM188R61A225KE34D\TP\ROH	C183 C189 C206 C218 C299 C324
1056805	SMT Porcelain Capacitor\GRM188R61A225KE34D\TP\ROH	C216 C276 C277 C355 C357 C371 C374 C395
1056805	SMT Porcelain Capacitor\GRM188R61A225KE34D\TP\ROH	C325 C328 C329 C332 C333 C334 C335 C340
1056805	SMT Porcelain Capacitor\GRM188R61A225KE34D\TP\ROH	C343 C354 C360 C370 C375 C376 C380 C382
1056805	SMT Porcelain Capacitor\GRM188R61A225KE34D\TP\ROH	C300 C384 C386 C396 C480
1052674	SMT Porcelain Capacitor\CC0402KRX7R7BB104\TP\ROH	C7 C21 C24 C33 C34
1052674	SMT Porcelain Capacitor\CC0402KRX7R7BB104\TP\ROH	C23 C25 C26 C27 C28 C29 C30
1052674	SMT Porcelain Capacitor\CC0402KRX7R7BB104\TP\ROH	C35 C36 C37 C38 C39 C42 C43 C44
1052674	SMT Porcelain Capacitor\CC0402KRX7R7BB104\TP\ROH	C45 C47 C51 C57 C58 C61 C62 C73
1052674	SMT Porcelain Capacitor\CC0402KRX7R7BB104\TP\ROH	C66 C67 C68 C69 C70 C89 C97 C99
1052674	SMT Porcelain Capacitor\CC0402KRX7R7BB104\TP\ROH	C88 C122 C129 C132 C138 C145 C146
1052674	SMT Porcelain Capacitor\CC0402KRX7R7BB104\TP\ROH	C104 C121 C123 C137 C139 C140 C141 C142
1052674	SMT Porcelain Capacitor\CC0402KRX7R7BB104\TP\ROH	C202 C226 C238 C249 C284 C298
1026703	SMT Porcelain Capacitor\CC0603KRX7R7BB104\TP\ROH	C160
1052674	SMT Porcelain Capacitor\CC0402KRX7R7BB104\TP\ROH	C192 C287 C341 C358 C434 C684 C812 C814
1052674	SMT Porcelain Capacitor\CC0402KRX7R7BB104\TP\ROH	C306 C312 C313 C320 C363 C368 C400

1052674	SMT Porcelain Capacitor\CC0402KRX7R7BB104\TP\ROH	C437 C815 C816 C817
1053134	SMT Porcelain Capacitor\CC0402JRNPO9BN101\TP\ROH	C365 C366 C367 C478 C479
1053135	SMT Porcelain Capacitor\CC0402JRNPO9BN220\TP\ROH	C230 C231 C233 C239 C240 C241
1053137	SMT Porcelain Capacitor\CC0402KRX7R9BB561\TP\ROH	C112 C124 C184 C185 C187 C190 C194
1053140	SMT Porcelain Capacitor\CC0402KRX7R7BB473\TP\ROH	C133 C134 C135 C156 C157 C158 C214
1053140	SMT Porcelain Capacitor\CC0402KRX7R7BB473\TP\ROH	C308 C309 C310 C316 C317
1053141	SMT Porcelain Capacitor\CC0402KRX7R9BB102\TP\ROH	C136 C150 C159 C179 C188 C191 C338
1053141	SMT Porcelain Capacitor\CC0402KRX7R9BB102\TP\ROH	C120 C364 C342 C519 C520 C685
1053142	SMT Porcelain Capacitor\CC0402KRX7R9BB103\TP\ROH	C152 C153 C154 C176 C219 C220 C229
1053142	SMT Porcelain Capacitor\CC0402KRX7R9BB103\TP\ROH	C235 C450
1051077	SMT Porcelain Capacitor\CC0603KRX7R8BB104\TP\ROH	C248
1053317	SMT Porcelain Capacitor\CC0402KRX7R9BB332\TP\ROH	C352
1029127	Magnetic ring\BLM31PG121SN1\TP\JK\ROH	F1 L3 L31
1029724	Magnetic ring\BLM21PG220SN1D\TP\JK\ROH	L13 L14 L49 L81
1034194	Magnetic ring\BLM18PG181SN1\TP\JK\ROH	L50 L51 L52 L54 L55
1059448	SMT Inductor Coil\NR-6045T-100-2R5\TP\JK\ROH	L8
1026718	SMT Diode\BAV99LT1\TP\ROH	VD1 VD19 VD701
1026718	SMT Diode\BAV99LT1\TP\ROH	VD115 VD116 VD117 VD129 VD130 VD131
1029194	SMT Diode\1N4148W\TP\ROH	VD107 VD109 VD110 VD111 VD112
1037996	SMT Diode\BAT54C\TP\ROH	VD15 VD67
1051943	SMT Diode\BA277\TP\JK\ROH	VD104 VD105 VD106 VD108
1026826	SMT Transistor\MMBT3904LT1\TP\ROH	V1 V2 V8 V9 V11 V20
1026826	SMT Transistor\MMBT3904LT1\TP\ROH	V4 V6 V13 V14 V15
1026826	SMT Transistor\MMBT3904LT1\TP\ROH	V23 V24 V25 V27 V104 V702 V703
1026833	SMT Transistor\MMBT3906LT1\TP\ROH	V7 V12 V701
1029198	SMT Transistor\RK7002T116\2N7002\TP\ROH	V17 V18
1035823	SMT Crystal Oscillator\JAS14C\TP\ROH	Y1
1059090	SMT Voltage-dependent Resistor\AVLC18S02015\TP\JK\ROH	VD4 VD5 VD6 VD16 VD17 VD18
1059091	SMT Voltage-dependent Resistor\ASES12U020R2\TP\JK\ROH	VD7 VD8 VD9 VD10 VD11 VD12 VD13 VD14
1059090	SMT Voltage-dependent Resistor\AVLC18S02015\TP\JK\ROH	VD58 VD59 VD60 VD61 VD62 VD63 VD64 VD65
1059090	SMT Voltage-dependent Resistor\AVLC18S02015\TP\JK\ROH	VD66 VD70 VD71 VD72 VD83 VD84 VD85 VD86
1059090	SMT Voltage-dependent Resistor\AVLC18S02015\TP\JK\ROH	VD88 VD89 VD90 VD91 VD92 VD93 VD94 VD95
1059090	SMT Voltage-dependent Resistor\AVLC18S02015\TP\JK\ROH	VD96 VD318 VD319 VD320 VD321 VD322
1060440	SMT IC\MST6E16JS\TP\JK\ROH	U41
1060454	SMT IC\H5DU1262GTR-FB\TP\JK\ROH	U12
1051015	SMT IC\MP1482\TP\JK\ROH	U9
1055205	SMT IC\AOZ1021AI\TP\JK\ROH	U10
1028815	SMT IC\IRF7314\ AO4801/3\TP\JK\ROH	U4 U7
1048052	IC\MX25L1605D\MX25L1606EM2I\TP\JK\ROH	U42
1029141	SMT IC\24LC02B-I/SNK24C02\TP\JK\ROH	U20
1038024	IC\AT24C04N-10SU-2.7K24C04\TP\JK\ROH	U21
1029142	SMT IC\24LC64I/SNK24C64\TP\JK\ROH	U43
1029143	SMT IC\74HC4052D\TP\JK\ROH	U28
1028814	SMT IC\PI5V330Q\TS5V330DBQR\TP\JK\ROH	U30
1029871	SMT IC\CW78D05CZ\TP\JK\ROH	U24

1015919	SMT IC\AP1084K33L\AZ1084S-33\TP\JK\ROH	U5
1031382	SMT IC\SPX1117M3-ADJ\LD1117A-ADJ\TPROH	U8
1036717	SMT IC\BA4558F\AZ4558CM\TP\JK\ROH	U45
1038245	HDMISOCKET\DC1R019JB1\TP\JK\ROH472662201	XS32
1043866	SMT Resistor\RC0402 JR-07-10K\TP\ROH	R36 R45
1052797	SMT Resistor\RC0603FR-07-56K\TP\ROH	R342
1042073	SMT Resistor\RC0603FR-07-10K2L\TP\ROH	R340
1040941	片式Inductor Coil\SLG-12080-150\TP\ROH	L17
1053316	SMT Porcelain Capacitor\CC0402KRX7R9BB222\TP\ROH	C291
1026801	SMT Resistor\RC0603JR-07-100K\TP\ROH	R339
1027433	SMT Porcelain Capacitor\CC0603KRX7R9BB222\TP\ROH	C285
1044720	SMT Porcelain Capacitor\GRM21BR60J226ME39L\TP\JK\ROH	C17 C19
1051077	SMT Porcelain Capacitor\CC0603KRX7R8BB104\TP\ROH	C286
1052674	SMT Porcelain Capacitor\CC0402KRX7R7BB104\TP\ROH	C288
1051041	SMT Resistor\RC0402FR-07-8K87\TP\ROH	R373 R374 R375 R385
1053150	SMT Resistor\RC0402JR-07-15K\TP\ROH	R174 R179 R188 R193
1052674	SMT Porcelain Capacitor\CC0402KRX7R7BB104\TP\ROH	C9 C13
1043867	SMT Resistor\RC0402 JR-07-12K\TP\ROH	R300 R307
1053153	SMT Resistor\RC0402JR-07-22K\TP\ROH	R303 R305
1019048	Porcelain Capacitor\CC0603KRX7R7BB105\EMK107BJ105\JP\R	C438 C439
1043880	SMT Resistor\RC0402JR-07-0R0\TP\ROH	R289 R680
1057880	SMT Porcelain Capacitor\GRM21BR61C106KE15L\TP\ROH	C345 C346 C347
1043873	SMT Resistor\RC0402 JR-07-4K7\TP\ROH	R352 R353
1026826	SMT Transistor\MMBT3904LT1\TP\ROH	V26
1043873	SMT Resistor\RC0402 JR-07-4K7\TP\ROH	R8 R37
1052674	SMT Porcelain Capacitor\CC0402KRX7R7BB104\TP\ROH	C147 C148
1034194	Magnetic ring\BLM18PG181SN1\TP\JK\ROH	L65
1043873	SMT Resistor\RC0402 JR-07-4K7\TP\ROH	R430 R445
1043866	SMT Resistor\RC0402 JR-07-10K\TP\ROH	R427 R428 R444 C5
1053148	SMT Resistor\RC0402JR-07-100R\TP\ROH	R350
1059629	SMT Resistor\RC0603FR-07-150R\TP\ROH	R208
1028818	SMT IC\LD1117A-3.3\AZ1117H-3.3\TP\JKRO	U6
1029724	Magnetic ring\BLM21PG220SN1D\TP\JK\ROH	L15 L21
1052673	SMT Resistor\RC0402JR-07-33K\TP\ROH	R196
1026739	SMT Resistor\RC0603JR-07-0R0\TP\ROH	R198
1026778	SMT Resistor\RC0603JR-07-390R\TP\ROH	R200
1043866	SMT Resistor\RC0402 JR-07-10K\TP\ROH	R20
1043868	SMT Resistor\RC0402 JR-07-1K0\TP\ROH	R18
1039579	SMT capacitor\GRM21BR61A106KE19L\TP\ROH	C385 C388

	Listado partes Fuente de Alimentación	
Código	**Descripción de parte**	**Ubicación**
1053083	MOS\STK0765BF\V2\JK\ROH	V801
1048431	SOCKET\S-4002P02B2T\jk\ROH	XP808 XP807

1026698	SOCKET\TJC10-6A\ROH	XP805
1029964	SOCKET\VH-3A-2\ROH	XP801
1053089	IC\KA7500C\JK\ROH	N806
1059569	IC\OB2269CAP\JK\ROH	N801
1038536	IC\KA431AZ\AZ431AZ\V3\JK\ROH	N802
1062251	Optocoupler\PC817B\HS817B\H11A817B\BBY\JK\RO	△N803
1053086	Power Supply Filter\LCL-2112\ROH	△(EMC)L801
1056406	Power Supply Filter\LCL-1623-KY\ROH	△(EMC)L802
1059426	Radiator\RSAG5.861.148\ROH	QR803
1052968	Radiator\RSAG5.861.136\ROH	QR804
1009959	Radiator\RSAG7.308.055\STD	QR801 QR802
1069563	INVERTER transformer\SPI-EEL23-A05\ROH	△(EMC)T802
1069562	switch transformer\BCK-65-3903\ROH	△(EMC)T801
1035808	Thermistor Resistor\NTC5D-15\C1F7.5\ROH	RT801
1059361	Voltage-dependent resistor\TVR10621KFC3FGNY\ROH	△RV801
1034511	High-voltage Porcelain Capacitor\CT81-1KV-B-2200p-M\C1F7.5\ROH	C812
1033215	High-voltage Porcelain Capacitor\CT81-1KV-F-10n-M\C1F7.5\ROH	C856
1049594	Polypropylene Capacitor\MKP62-AC275V-10N-K\C2F7.5\ROH	C826
1044296	High-voltage Porcelain Capacitor\CT81-2KV-R-2200p-K\C1F7.5\ROH	C806
1056408	High-voltage Porcelain Capacitor\CC81-6KV-SL-10J\C1F10\ROH	C836 C837 C838 C839
1028432	High-voltage Porcelain Capacitor\CC81-1KV-SL-56p-K\C1F7.5\ROH	C858
1026424	AC CERAMIC CAPACITOR\CT7-AC400V-B-470p-K\C1F10\ROH	△(EMC)C803 △(EMC)C873
1034513	AC CERAMIC CAPACITOR\CT7-AC400V-E-2200p-M\C1F10\ROH	△(EMC)C887
1037236	Polypropylene Capacitor\MKP62-AC275V-470N-K\C2F15\ROH	△(EMC)C801
1037235	Capacitor\MKP62-AC275V-220N-K\C2F15\R	△(EMC)C802
1044800	Touch piece\RSAG7.750.009\ROH	H803 H802
1065911	Fuse\5T-4A\R1F21\ROH	△F801
1004387	Transistor\2SC2655\V1\ROH	V821
1029301	OXIDIZED FILM RESISTOR\RY27-2W-0R33-J\R3F15\ROH	R822
1044045	OXIDIZED FILM RESISTOR\RY27-2W-51K-J\R4F5\ROH	R804
1044044	OXIDIZED FILM RESISTOR\RY27-2W-22R-J\R4F5\ROH	R806
1044046	Diode\MBRF20H100CTG\SRF20100\JK\ROH	VD812
1043991	screw\GB/T 818-2000 M3X6silver\ROH\STD	V801 VD812
1039101	Inductor Coil\LEO-21\ROH	L803
1064365	Inductor\BK-10-05YC\ROH	T803
1028444	ELECTROLYSIS CAPACITOR\CD263-25V-2200u-M\C4F5\ROH	C813 C814
1028445	ELECTROLYSIS CAPACITOR\CD263-25V-470U-M\C4F5\ROH	C807 C815 C819
1065670	ELECTROLYSIS CAPACITOR\CD264-450V-100U-M\V7A\ROH	C810
1001589	ELECTROLYSIS CAPACITOR\CD263-50V-22u-M\C3F5\ROH	C808
1001580	ELECTROLYSIS CAPACITOR\CD263-50V-10u-M\C3F5\ROH	C811
126248	Power board SMC unit\RSAG2.908.1954JC\ROH	
126249	Power board SMT unit\RSAG2.908.1954TP\ROH	
1026648	Diode\FR107\JC\ROH	
1026650	Diode\RM11C\JC\ROH	

1026650	Diode\RM11C\JC\ROH	
126249	Power board SMT unit\RSAG2.908.1954TP\ROH	
1069407	PCB\2RSAG7.820.2245\VER.B\ROH	△
1028462	SMT Porcelain Capacitor\CC0805JRNPO9BN101\TP\ROH	C831
1031201	SMT Porcelain Capacitor\CC0805JRNPO9BN331\TP\ROH	C809
1002041	SMT Porcelain Capacitor\CC0805JRNPO9BN561\TP\ROH	C830 C834 C835 C842 C843
1028464	SMT Porcelain Capacitor\CC0805KRX7R9BB103\TP\ROH	C919 C892
1028465	SMT Porcelain Capacitor\CC0805KRX7R9BB104\TP\ROH	C816 C820 C822 C850 C848
1028465	SMT Porcelain Capacitor\CC0805KRX7R9BB104\TP\ROH	C825 C821 C823 C849
1028465	SMT Porcelain Capacitor\CC0805KRX7R9BB104\TP\ROH	C817 C888 C889 C859
1043434	SMT Porcelain Capacitor\GRM21BR71H224KA01\TP\ROH	C832
1028465	SMT Porcelain Capacitor\CC0805KRX7R9BB104\TP\ROH	C818
1043436	SMT Porcelain Capacitor\GRM21BR71H105KA12\TP\ROH	C824 C828
1058049	SMT Porcelain Capacitor\TMK316B7225KL-T\TP\JK\ROH	C886 C890 C896
1028503	SMT resistor\RC0805JR-07-0R0\TP\ROH	R854 R890
1031206	SMT resistor\RC0805JR-07-10R\TP\ROH	R805
1002913	SMT resistor\RC0805JR-07-56R\TP\ROH	R882 R886
1002836	SMT resistor\RC0805JR-07-120R\TP\ROH	R883 R887
1028518	SMT resistor\RC0805JR-07-560R\TP\ROH	R862 R889
1029184	SMT resistor\RC0805FR-07-1K0\TP\ROH	R825 R826 R828
1031197	SMT resistor\RC0805JR-07-1K5\TP\ROH	R884 R888
1002923	SMT resistor\RC0805FR-07-2K0\TP\ROH	R836 R896 R897
1065004	SMT resistor\RC0805FR-07-3K9\TP\ROH	R831 R830 R864
1003058	SMT resistor\RC0805JR-07-6K2\TP\ROH	R858 R859 R870 R872
1026808	SMT resistor\RC0805JR-07-10K\TP\ROH	R814 R863 R877
1024542	SMT resistor\RC0805FR-07-10K\TP\ROH	R873 R875 R876 R880
1065003	SMT resistor\RC0805FR-07-15K\TP\ROH	R827
1059092	SMT resistor\RC0805FR-07-18K\TP\ROH	R846
1028508	SMT resistor\RC0805JR-07-22K\TP\ROH	R881 R885 R879 R898 R867
1015569	SMT resistor\RC0805JR-07-24K\TP\ROH	R874
1065006	SMT resistor\RC0805FR-07-33K\TP\ROH	R848
1065007	SMT resistor\RC0805FR-07-39K\TP\ROH	R856 R845
1028522	SMT resistor\RC0805JR-07-68K\TP\ROH	R835
1028504	SMT resistor\RC0805JR-07-100K\TP\ROH	R821 R832 R833 R834
1028504	SMT resistor\RC0805JR-07-100K\TP\ROH	R837 R838 R841 R853
1065005	SMT resistor\RC0805FR-07-120K\TP\ROH	R852
1002927	SMT resistor\RC0805FR-07-270K\TP\ROH	R829
1044740	SMT resistor\RC0805JR-07-3M3\TP\ROH	R847
1029189	SMT resistor\RC1206JR-07-0R0\TP\ROH	R893 R892 R894 R899 R808 R809
1043504	SMT resistor\RC1206JR-07-2R2\TP\ROH	R807
1013285	SMT resistor\RC1206JR-07-47R\TP\ROH	R817 R818 R811 R857
1038982	SMT resistor\RC1206JR-07-75R\TP\ROH	R812 R855
1048640	SMT resistor\RC1206JR-07-120R\TP\ROH	R891
1014882	SMT resistor\RC1206JR-07-470R\TP\ROH	R815

1048255	SMT resistor\RC1206JR-07-270K\TP\ROH	R824 R842 R843
1039186	SMT resistor\RC1206JR-07-680K\TP\ROH	R801 R802 R803 R865 R844 R868
1029194	SMT Diode\1N4148W\TP\ROH	VD809 VD840 VD816 VD836 VD811
1029194	SMT Diode\1N4148W\TP\ROH	VD837 VD815 VD831 VD817 VD841
1029194	SMT Diode\1N4148W\TP\ROH	VD832 VD833 VD834 VD835
1029898	SMT Transistor\2N7002\TP\ROH	V805
1037913	SMT Transistor\MMBT2222A\TP\ROH	V803 V807 V818 V820
1029197	SMT Transistor\MMBT2907ALT1\TP\ROH	V804 V808 V819 V809
1050434	SMT Diode\MSZ16T1G\TP\JK\ROH	VZ812
1053092	SMT IC\AO4616\TP\JK\ROH	N805 N807
1038973	SMT resistor\RC0805JR-07-680K\TP\ROH	R816
	Listado de partes placa teclado	
Código	**Descripción**	**Ubicación**
1044211	Remote Receiver\HS0038B3 SAME AS B4\JK\ROH	NR01
1029020	SOCKET\TJC10-5AW\ROH	XPR1
1029019	SOCKET\TJC10-3AW\ROH	XPR2
1026744	SMT Resistor\RC0603JR-07-100R\TP\ROH	RR02
1026752	SMT Resistor\RC0603JR-07-10K\TP\ROH	RR04
1056806	SMT Porcelain Capacitor\GRM188R61A475KE15D\TP\ROH	CR01
1026751	SMT Resistor\RC0603JR-07-4K7\TP\ROH	RR01
1026739	SMT Resistor\RC0603JR-07-0R0\TP\ROH	R4
1026806	SMT Resistor\RC0805JR-07-330R\TP\ROH	R12
1026751	SMT Resistor\RC0603JR-07-4K7\TP\ROH	R3
1052530	Diode\LCQR-C191\TP\ROH	VDR3
1026826	SMT Transistor\MMBT3904LT1\TP\ROH	Q2
1029019	SOCKET\TJC10-3AW\ROH	XPK1
1026416	Touch Switch\KAN-C202-5\ROH	SW01 SW02 SW03 SW04 SW05 SW06 SW07
1026739	SMT Resistor\RC0603JR-07-0R0\TP\ROH	RK01
1038449	SMT Resistor\RC0603FR-07-300R\TP\ROH	RK02
1041753	SMT Resistor\RC0603JR-07-620R\TP\ROH	RK03
1029890	SMT Resistor\RC0603FR-07-1K0\TP\ROH	RK04
1032414	SMT Resistor\RC0603FR-07-1K5\TP\ROH	RK05
1038445	SMT Resistor\RC0603FR-07-2K2\TP\ROH	RK06
1032416	SMT Resistor\RC0603FR-07-3K3\TP\ROH	RK07
1026703	SMT Porcelain Capacitor\CC0603KRX7R7BB104\TP\ROH	CK01 CK02