Service
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Acer Monitor KG241Q

LIFECYCLE EXTENSION GUIDE

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Important Safety Notice

Proper service and repair is important to the safe, reliable operation of all ACER Company Equipment. The service procedures recommended by ACER and described in this service manual 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. ACER 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, ACER has not undertaken any such broad evaluation. Accordingly, a servicer who uses a service procedure or tool which is not recommended by ACER must first satisfy himself thoroughly that neither his safety nor the safe operation of the equipment will be jeopardized by the service method selected.
Hereafter throughout this manual, ACER Company will be referred to as ACER.

WARNING
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 ACER. ACER assumes no liability, express or implied, arising out of any unauthorized modification of design.

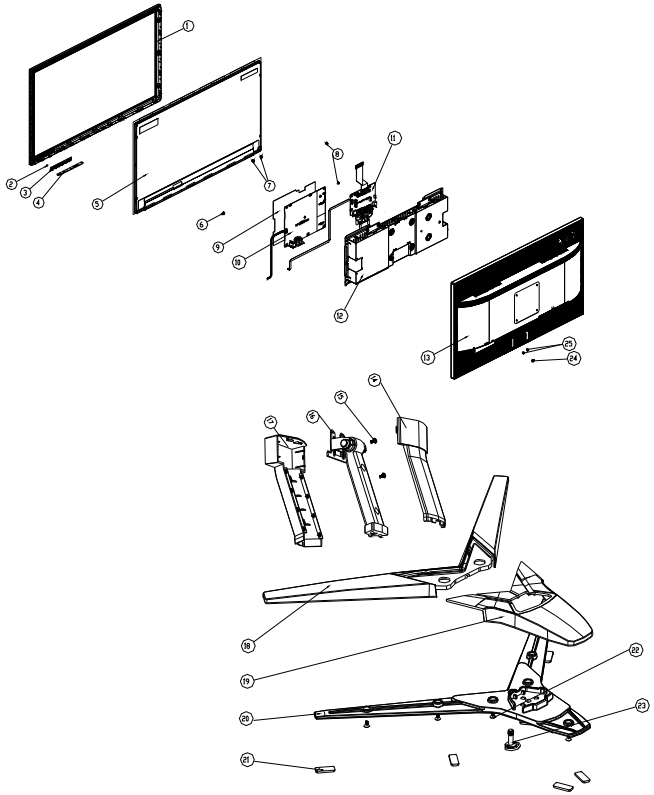
Servicer assumes all liability.

FOR PRODUCTS CONTAINING LASER:
DANGER-Invisible laser radiation when open. AVOID DIRECT EXPOSURE TO BEAM.
CAUTION-Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
CAUTION -The use of optical instruments with this product will increase eye hazard.

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 MANUAL.

Take care during handling the LCD module with backlight unit
-Must mount the module using mounting holes arranged in four corners.
-Do not press on the panel, edge of the frame strongly or electric shock as this will result in damage to the screen.
-Do not scratch or press on the panel with any sharp objects, such as pencil or pen as this may result in damage to the panel.
-Protect the module from the ESD as it may damage the electronic circuit (C-MOS).
-Make certain that treatment person’s body is grounded through wristband.
-Do not leave the module in high temperature and in areas of high humidity for a long time.
-Avoid contact with water as it may a short circuit within the module.
-If the surface of panel becomes dirty, please wipe it off with a soft material. (Cleaning with a dirty or rough cloth may damage the panel.)1.

1. Exploded view diagram with list of items



Item	Description	TPV Part No.	ACER Part No.
4	KEY BOARD	KEPCEQBA	55.TA2M2.003
5	LCD M236HGE-L20 C5 NB IDC	750GBN236GEK52N000	#N/A
10	ADAPTER BOARD	PLPCFE321AGE7	55.T2BM2.007
11	MAIN BOARD-CBPRITMC0Q1	756GQGCB0BA156000Q	55.TA2M2.001
	395GLM3030L5790000	CABLE 30P 160MM (MB TO PANEL)	50.T73M2.001

2. Mechanical Instruction

Tools Required

List the type and size of the tools that would typically can be used to disassemble the product to a point where components and materials requiring selective treatment can be removed.

Tool Description:

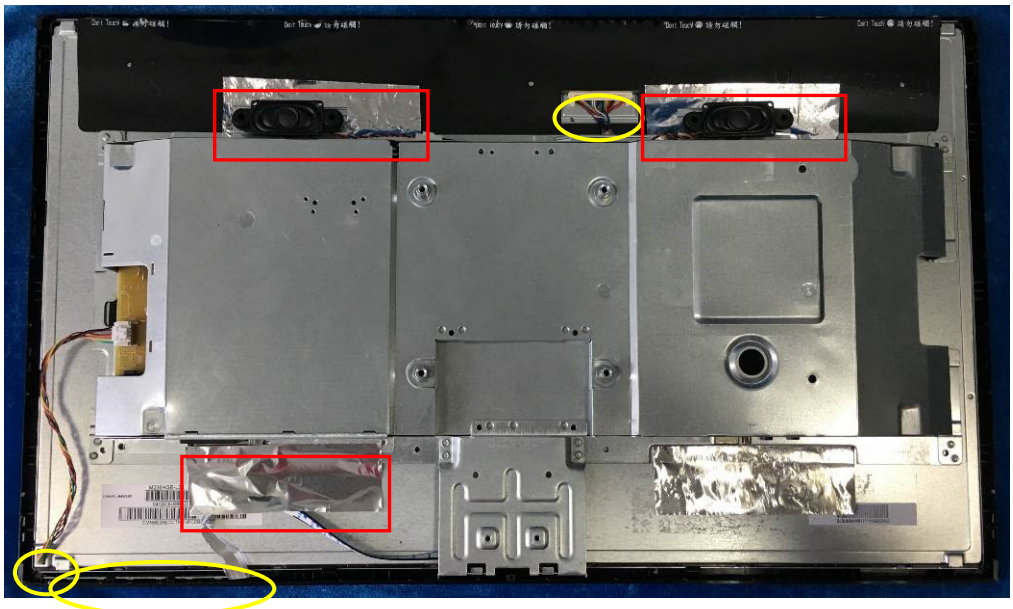
- Screwdriver (Phillip-head, Hexagonal head)
- Penknife

2.1 Disassembly Procedures:

S1 Remove the stand ASS'Y and unscrew the screw on rear cover.

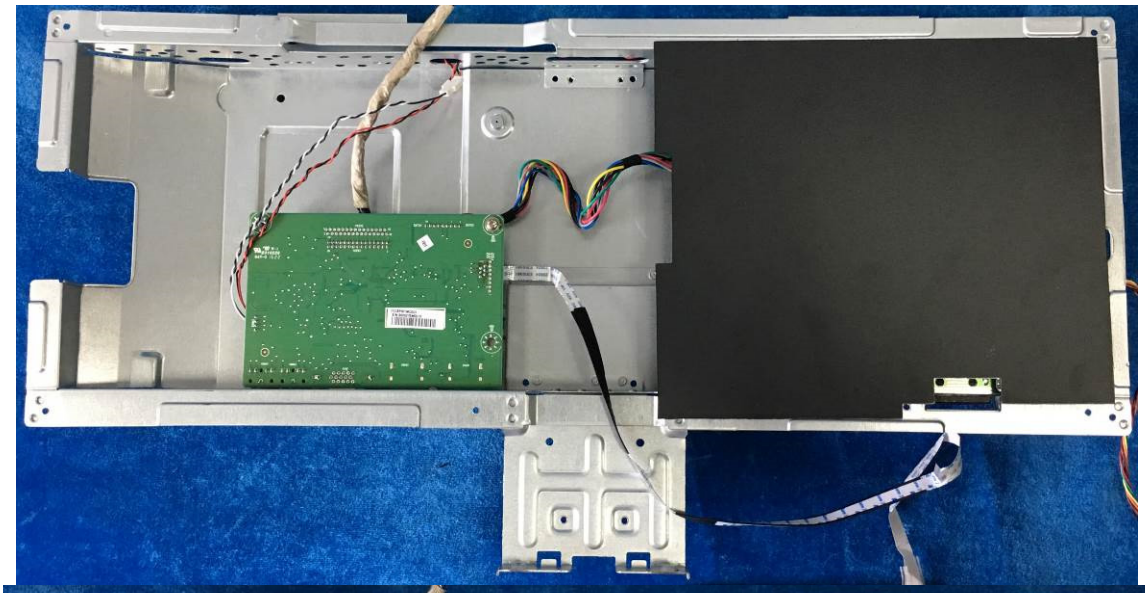
S2 Remove the rear cover. Use a tool (like picture using) to open all latches. (Be careful the position of the key board.)

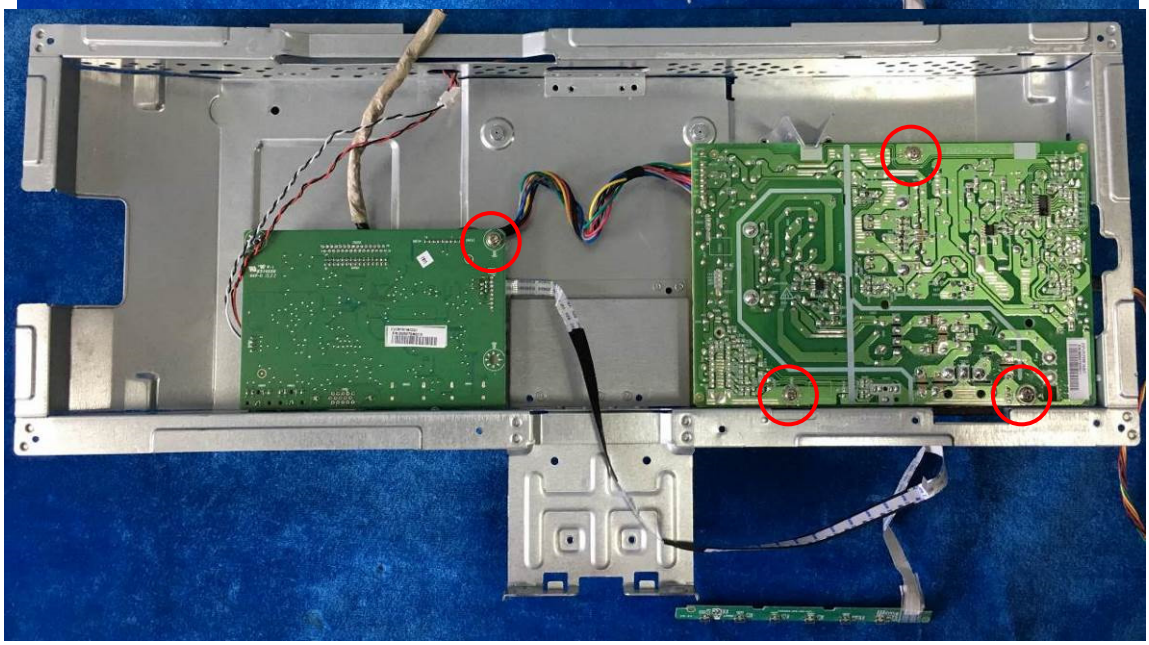
S3 Tear up all tapes and disconnect the LVDS cable (main board to panel), lamp power cable (power board to panel), remove the key board from the bezel.



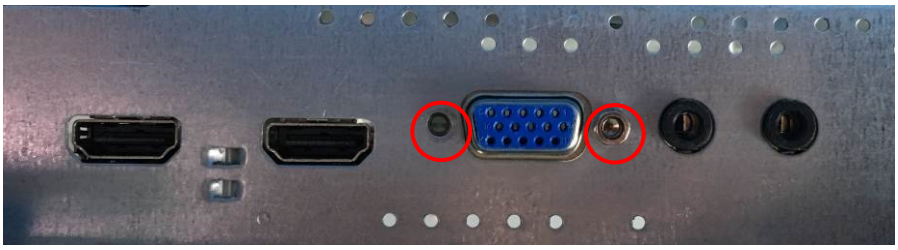
S4 Separate the panel and the bezel.

S5 Take off the mylar and turn over the shield and unscrew the screws on main board and power board. Take off the speakers.

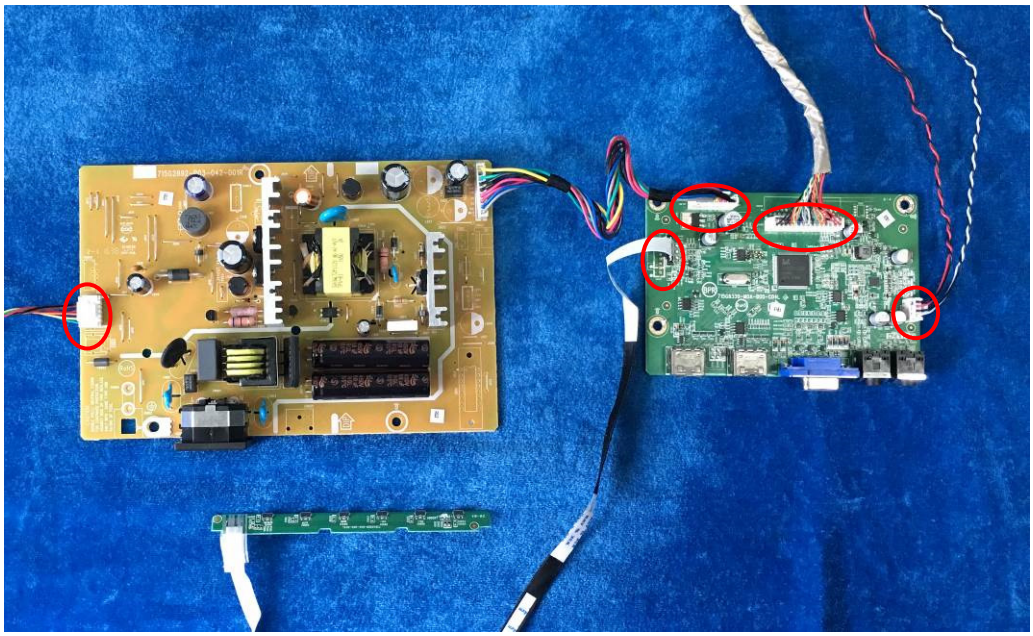




S6 Use a Hex-head screwdriver to tighten the screws and unscrew the screw for locking the connector.

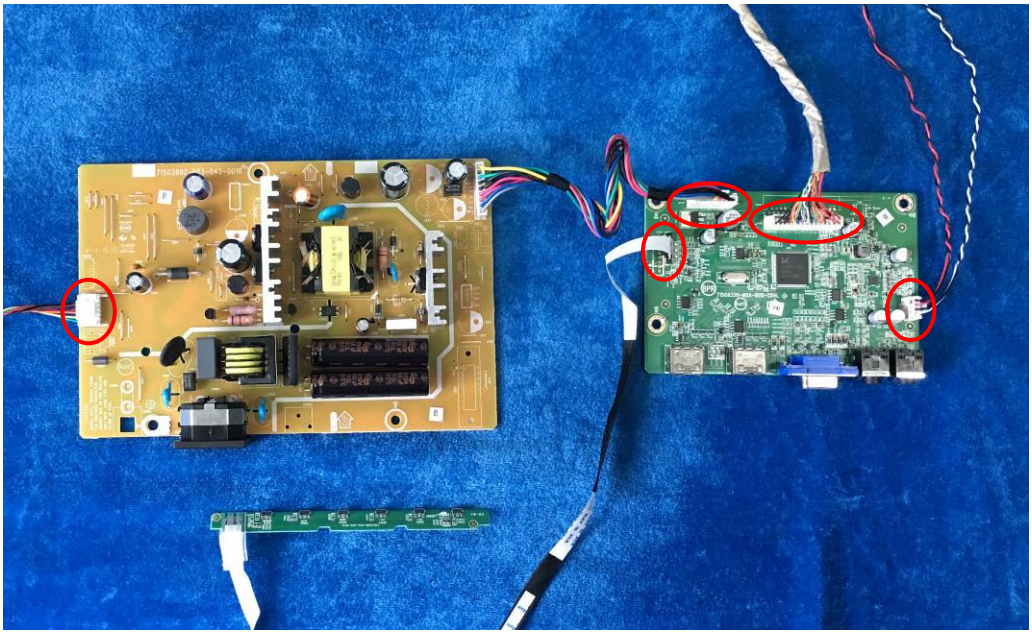


S7 Remove the main board and power board. Disconnect the cables.

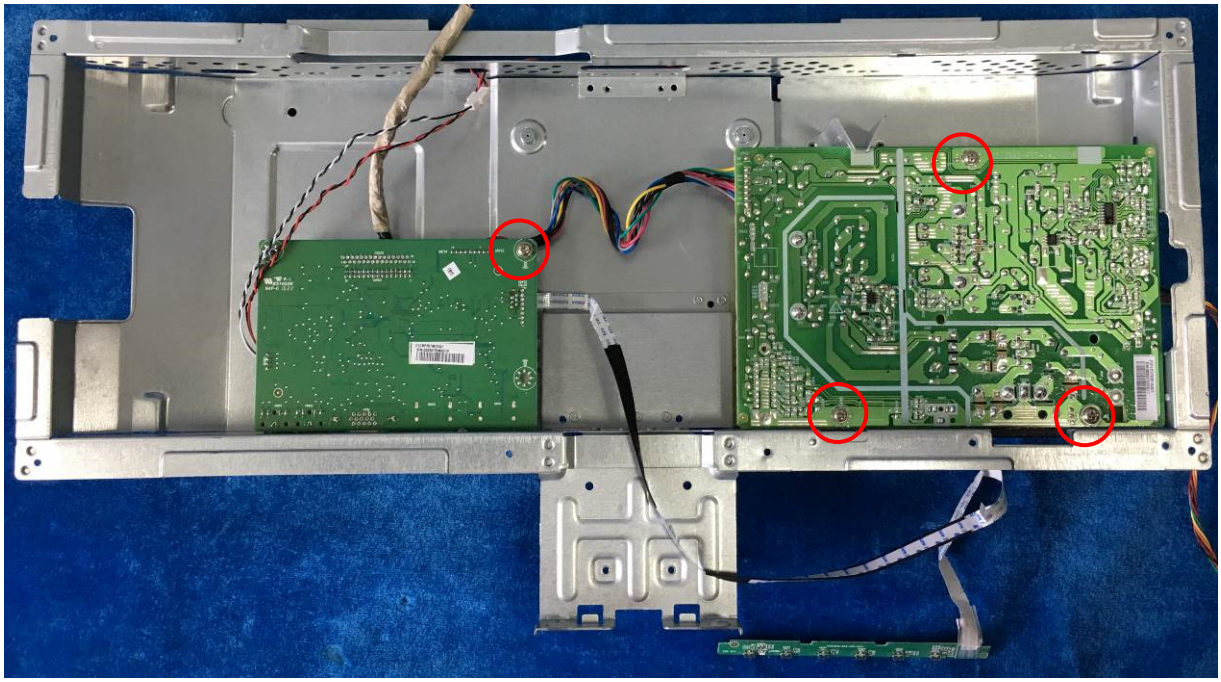


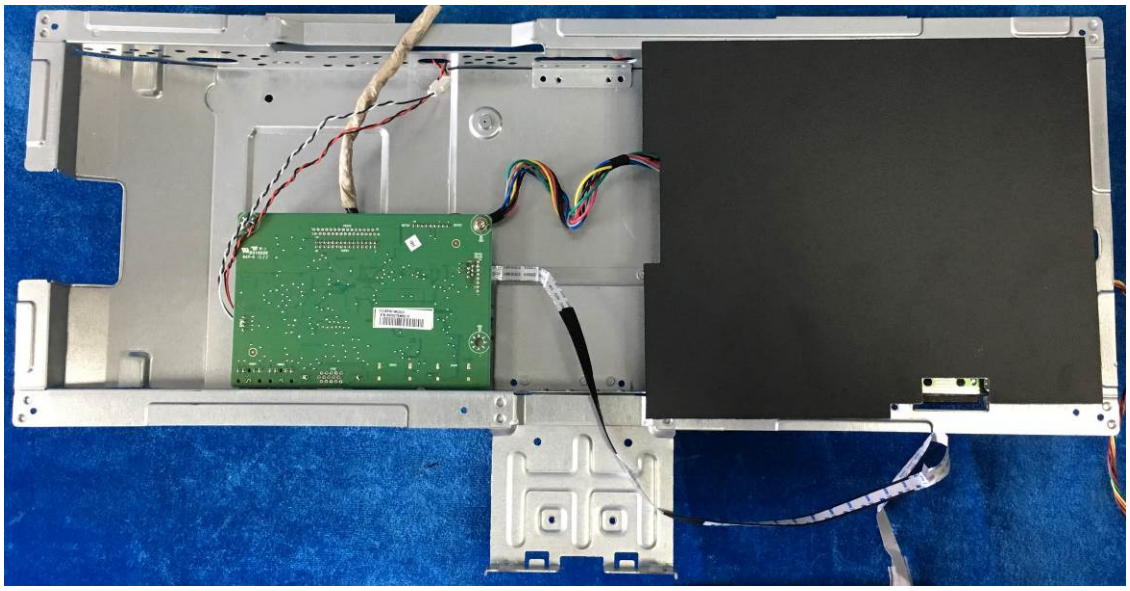
2.2 Assembly Procedures:

S1 Prepare a main board, a power board, a key board and some essential cables. Connect every cable as the below picture.



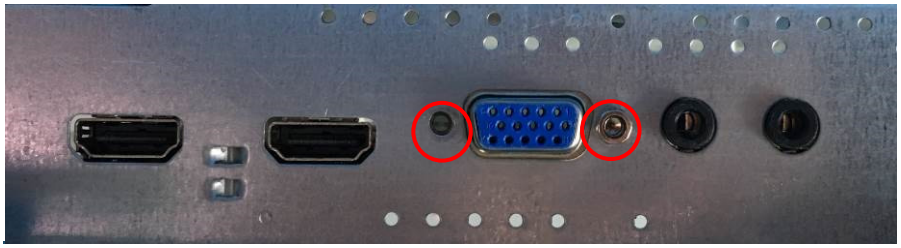
S2 Use a screwdriver to tighten the screws till the power board and main board with shield are firmly attached and paste the mylar on the power board.



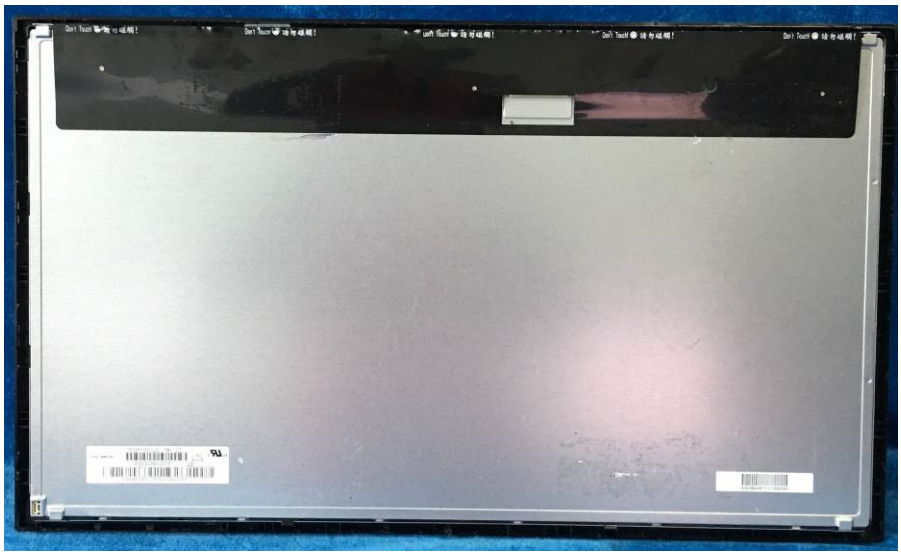


S3 Prepare speakers, a mainframe. Assemble the speakers to the mainframe as below picture.

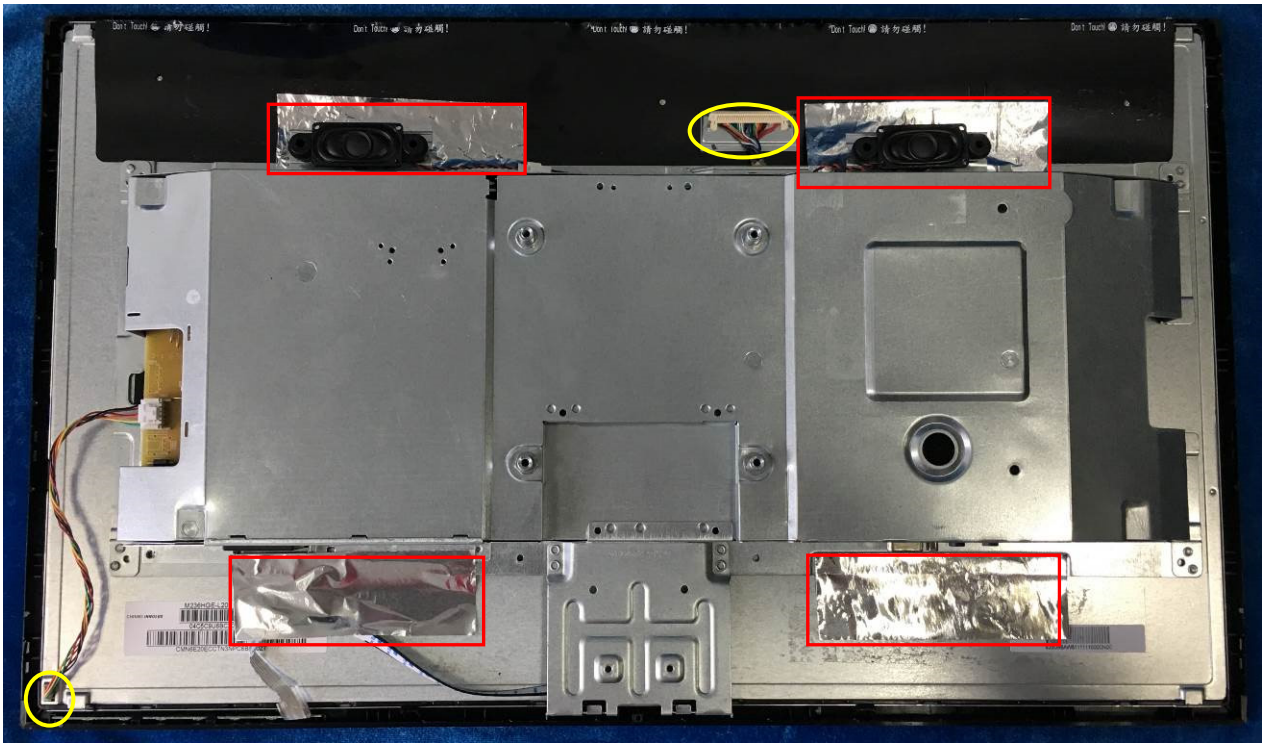
S4 Use a Hex-head screwdriver to tighten the screws for locking the connector.



S5 Prepare a panel. Put panel into bezel.

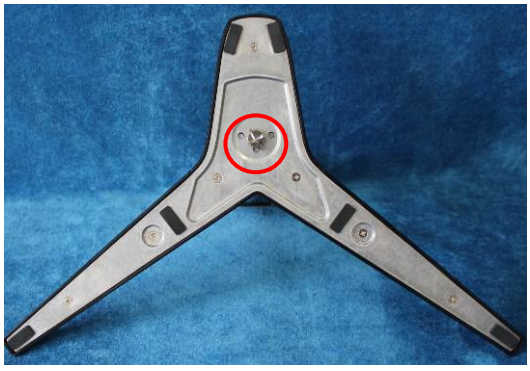


S6 Paste the tapes and connect lamp power cable (mainboard to panel, power board to panel). Assemble bezel and key board.



S7 Prepare a rear cover to assemble it. Use the screws to lock the rear cover.

S8 Assemble the stand-base ass'y to rear cover



3. Firmware Upgrade Process

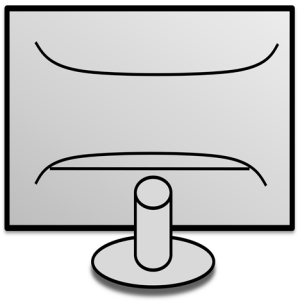
1.Materials list

ISP JIG: 715GT089-C

VGA cable

TPV P/N: 089G728 GAA DB

PC



Monitor

USB cable

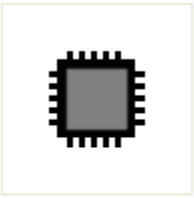
TPV P/N: 089G1758 X

FTC100103(MSTAR) usb drive.rar

USB port driver

RTDTool.exe

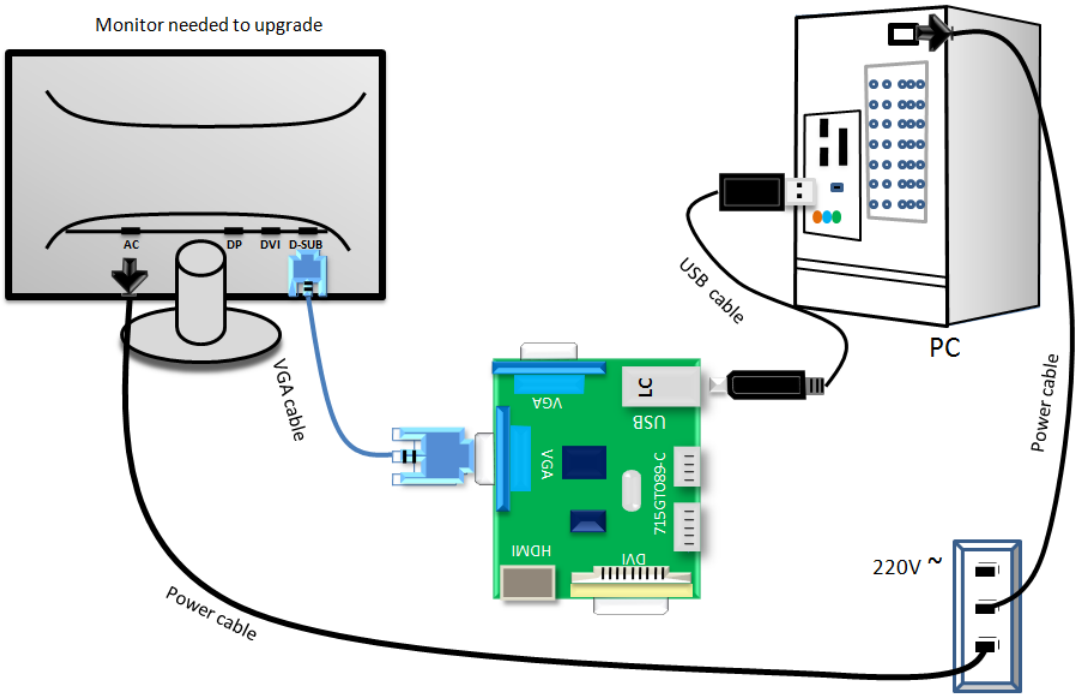
ISP tool:



Acer_KG271_RT2522R_1A2H_VSL_M270HTN02_1_FF000_20161227_V0.03_3199.bin

New F/W

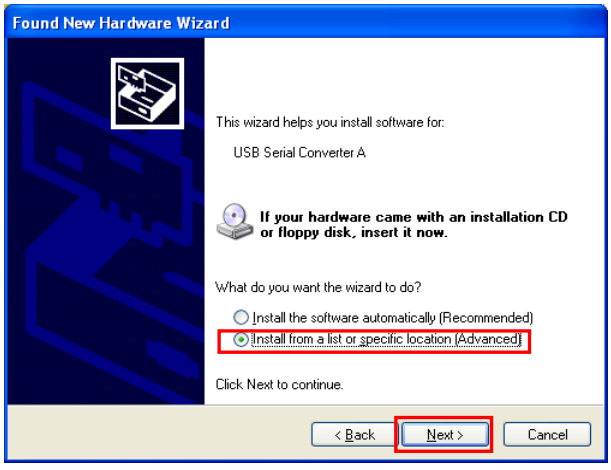
2.Connection

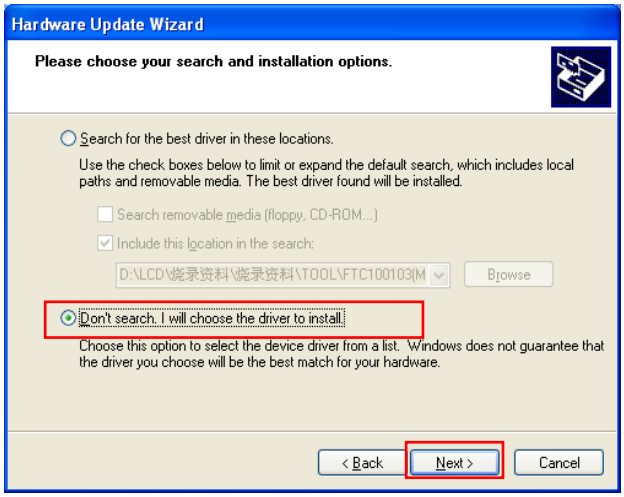


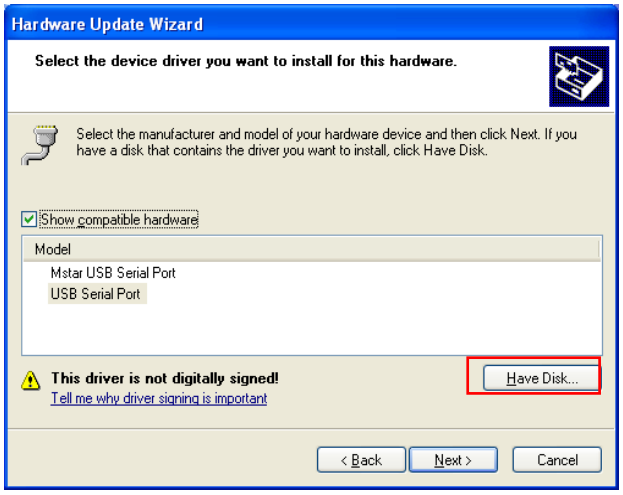
3.Install USB driver.

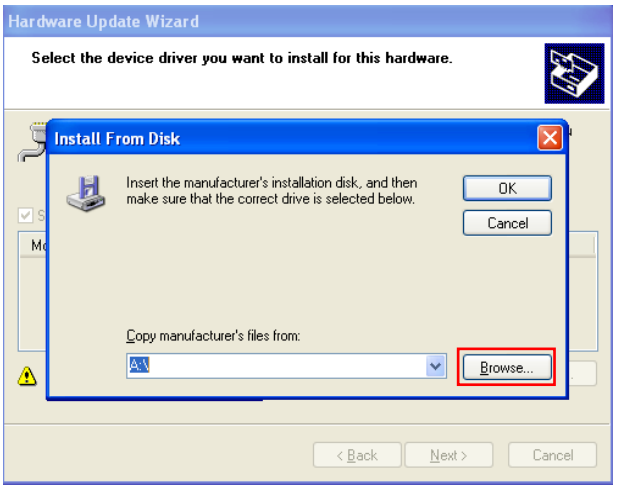
3.1. When insert the USB cable to PC USB port, will pop up a Hardware Wizard to help you install the USB driver if you use this ISP board first time. You can install it successfully as the below instruction step by step.

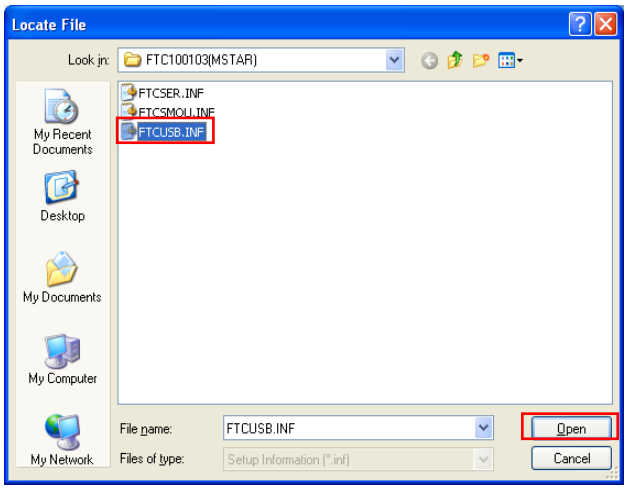
Remark: The USB driver files path: D:\FTC100103(Mstar)\FTCUSB.INF

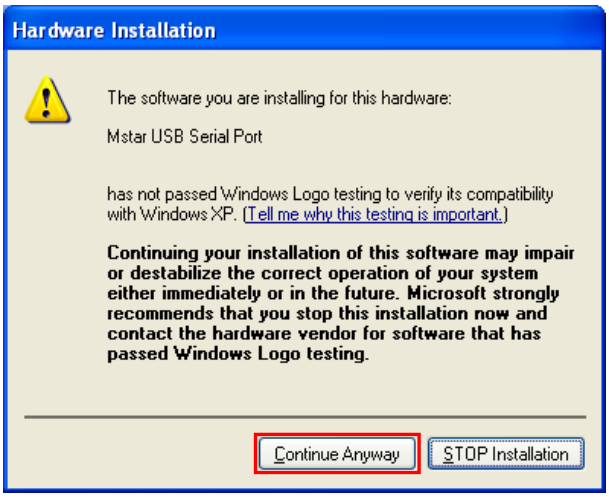


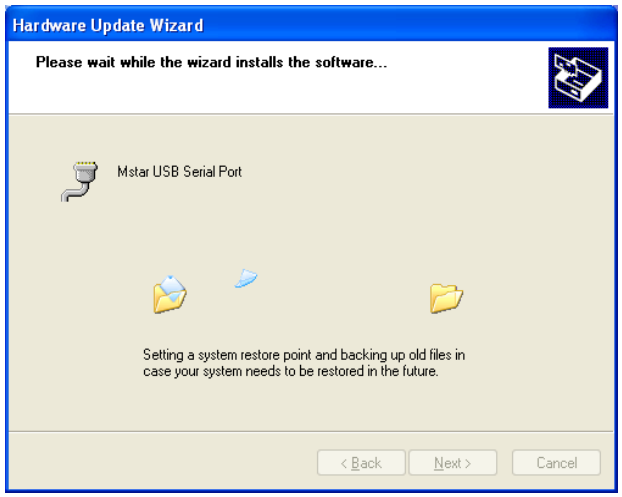


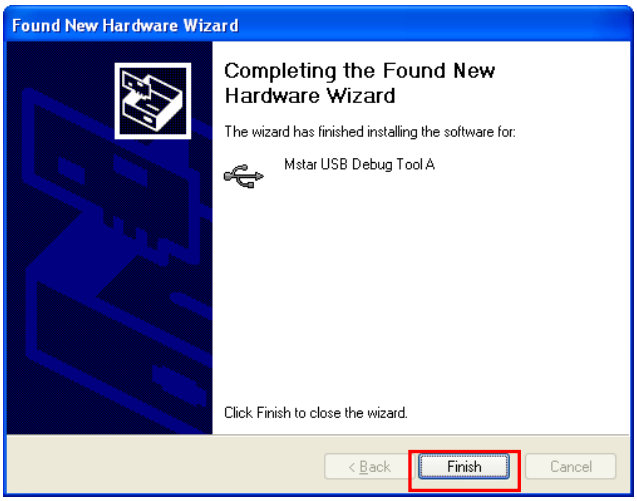



Hardware Update Wizard
Select the device driver you want to install for this hardware.
Install From Disk
Insert the manufacturer's installation disk, and then make sure that the correct drive is selected below.
OK
Cancel
Copy manufacturer's files from:
A:\
Browse...
< Back
Next >
Cancel

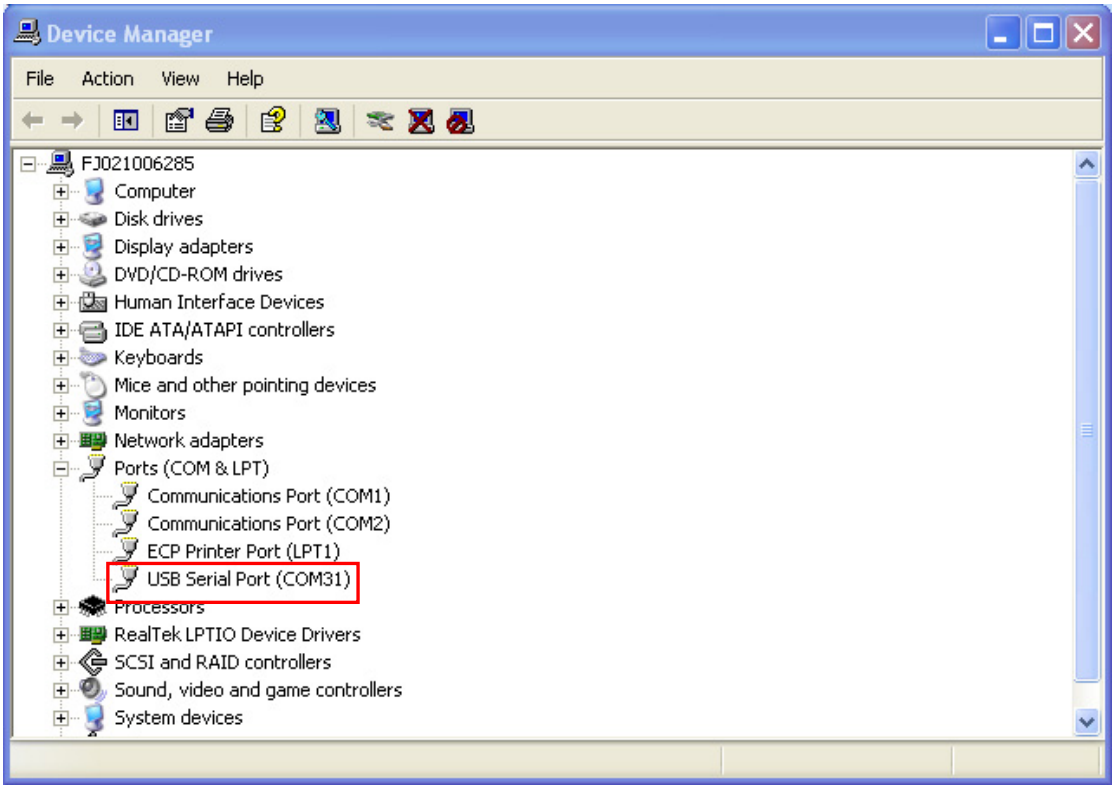

Locate File
Look in:
FTC100103(MSTAR)
FTCSER.INF
FTCSMOU.INF
FTCUSB.INF
My Recent Documents
Desktop
My Documents
My Computer
My Network
File name:
FTCUSB.INF
Open
Files of type:
Setup Information (*.inf)
Cancel


Hardware Installation
The software you are installing for this hardware:
Mstar USB Serial Port
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation


Hardware Update Wizard
Please wait while the wizard installs the software...
Mstar USB Serial Port
Setting a system restore point and backing up old files in case your system needs to be restored in the future.
< Back
Next >
Cancel


Found New Hardware Wizard
Completing the Found New Hardware Wizard
The wizard has finished installing the software for:
Mstar USB Debug Tool A
Click Finish to close the wizard.
< Back
Finish
Cancel

After installation the USB serial port driver, please check the port. Look the properties of “my Computer”

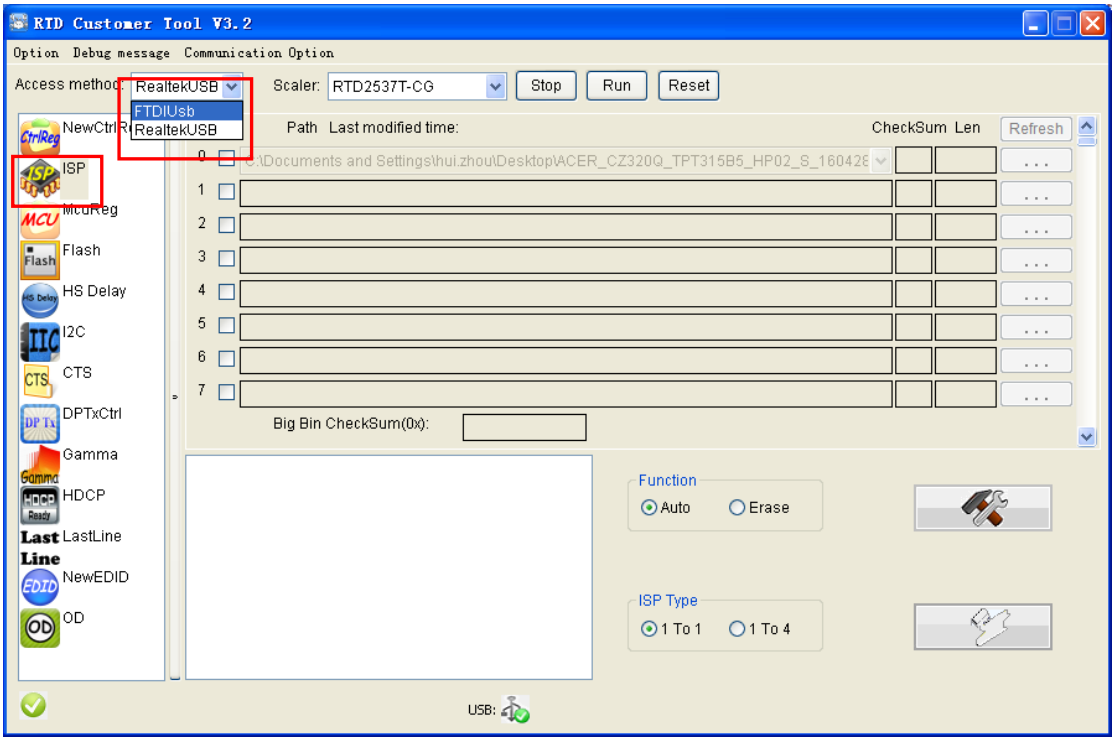


4. Install RTD tool.

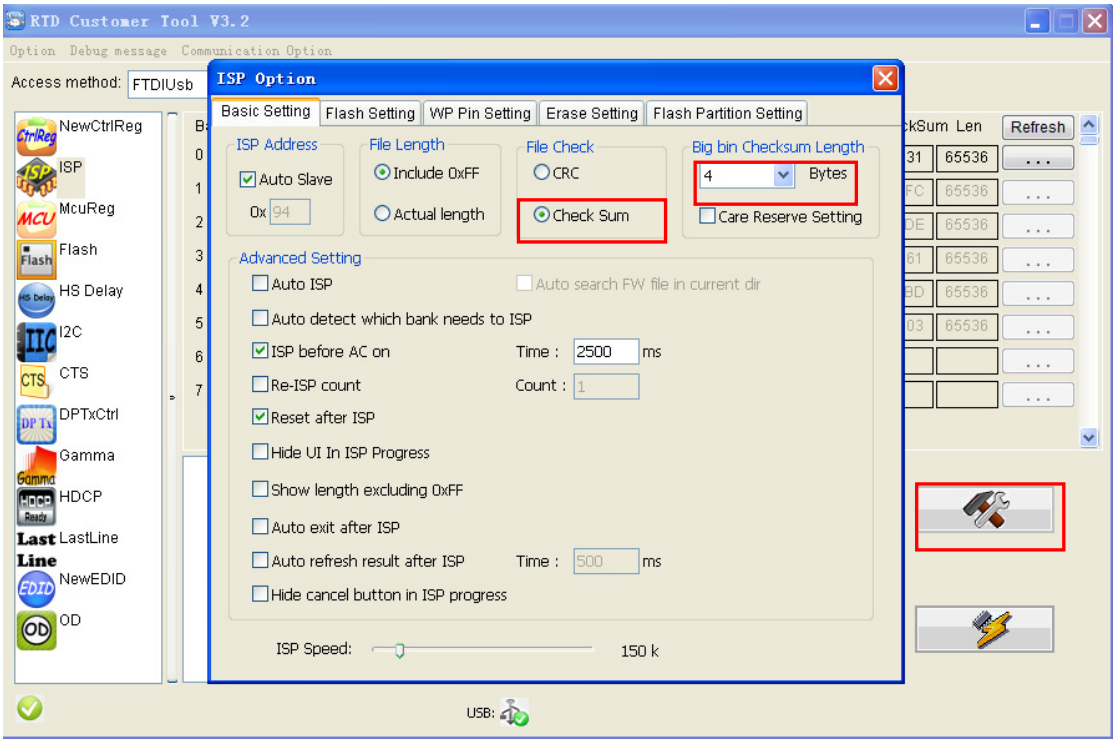
4.1. RTDTool.exe double- clicks the icon to run it.

Note: Must to install driver firstly

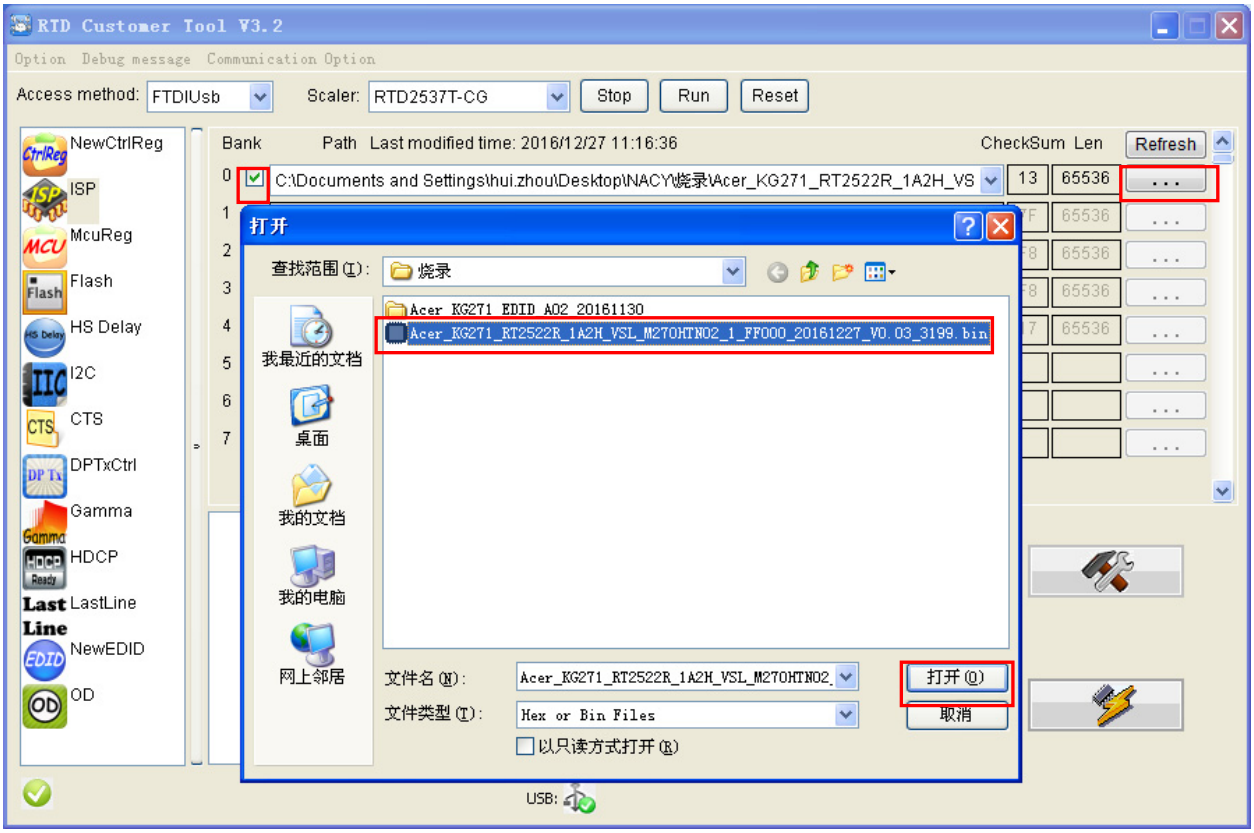
4.2. Choose the FTDIUSB communication way.



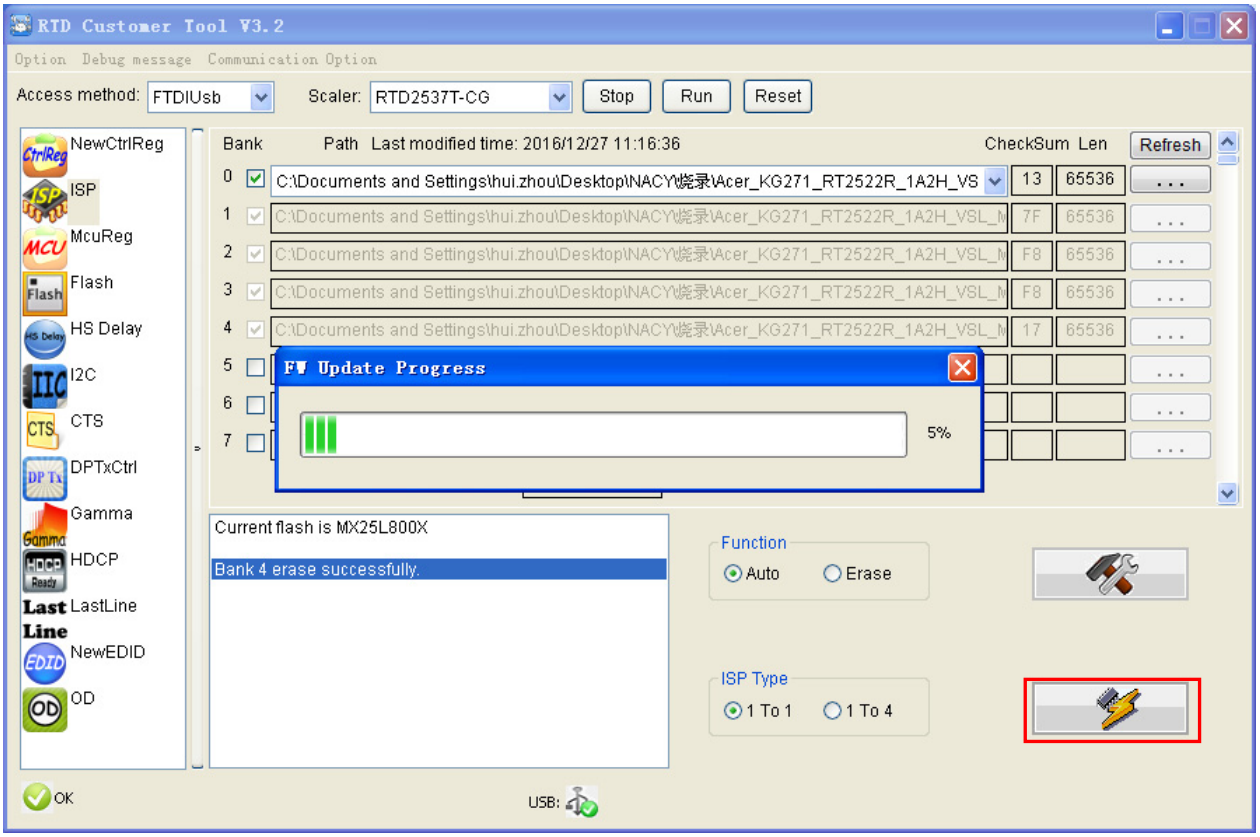
4.3 Click “ISP” and “ISP Option” to set the parameter.



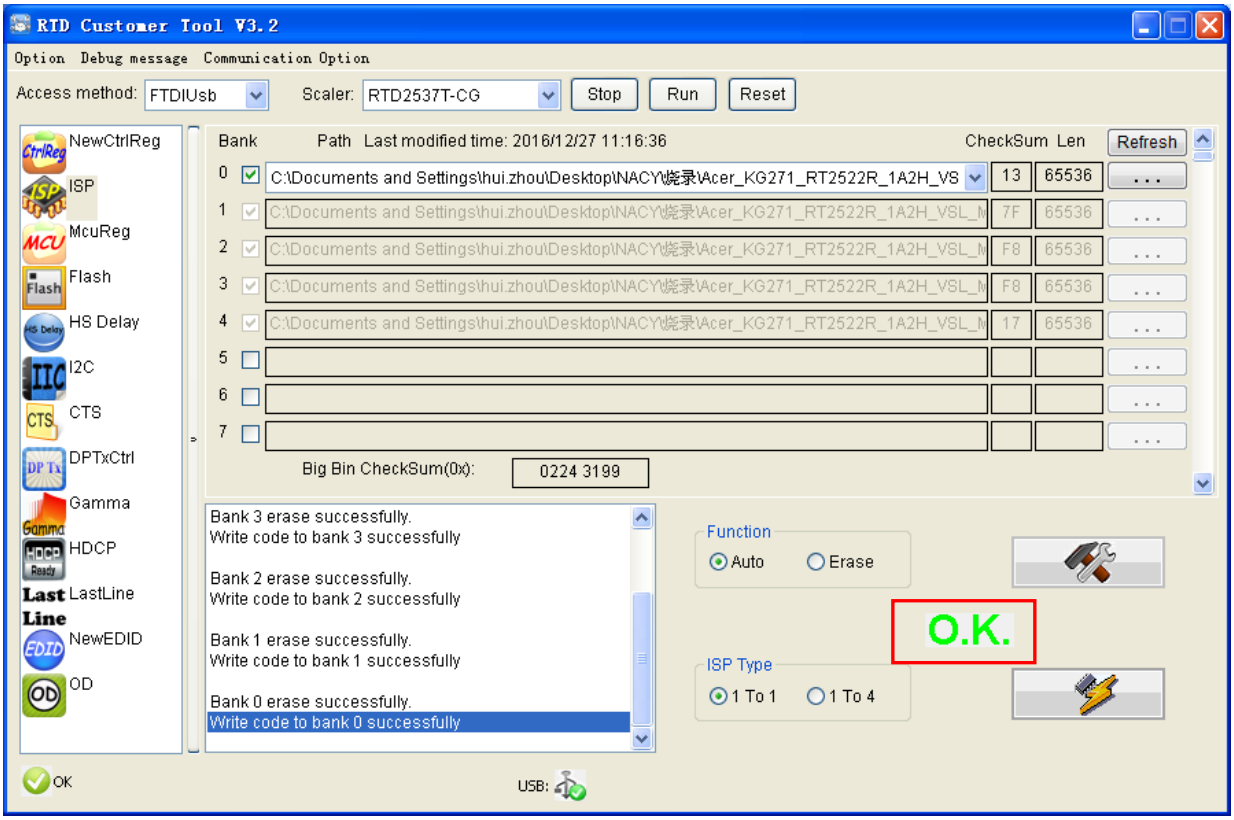
4.4 Close the “ISP Option” window and click the “BigBin” to load the correct F/W.



4.5 Click to start programming.



4.6 After about 20 minutes, there will pop up message as below figure which promotes the upgrade successful.

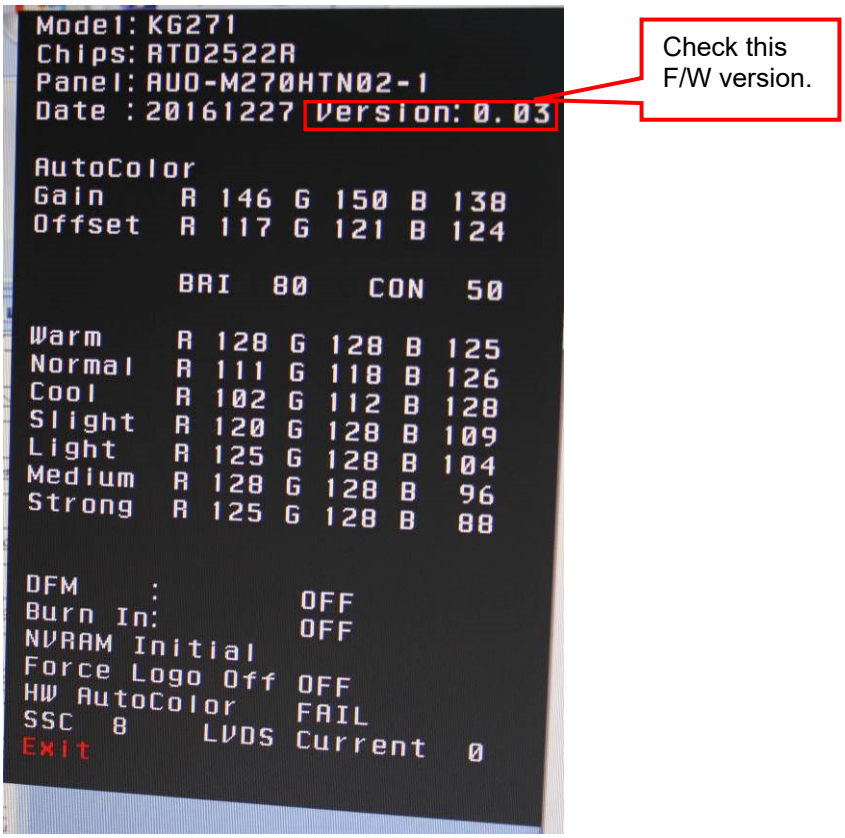


5. Check the FW version after upgrade.

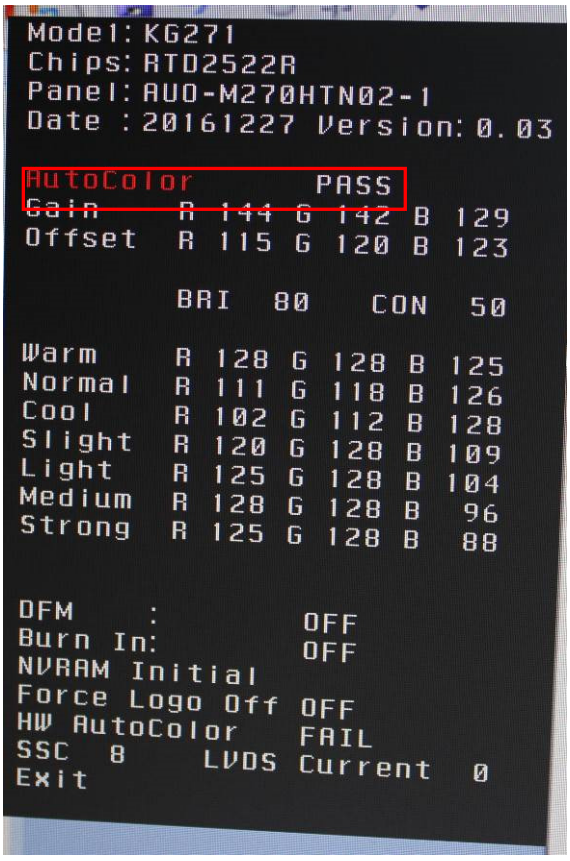
5.1. The way to open factory menu.

(1) Connect VGA source to monitor and turn it on.

(2) The way to factory menu: Pressing the left button and DC on, when the screen lights, release the key and press the left botton again to open the menu with “F” and select “F” to open factory menu.

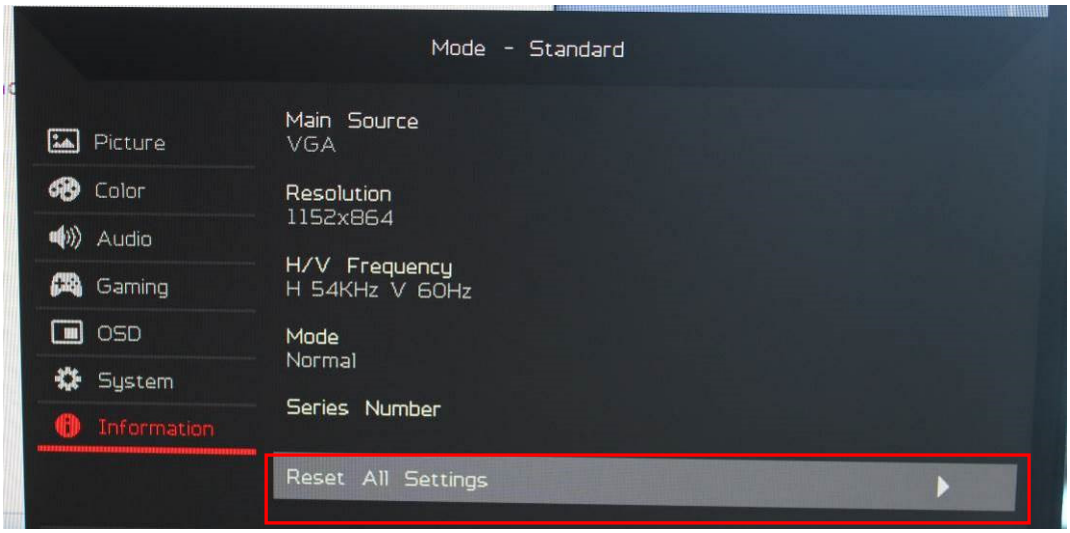


(3)Do “Auto Color” in factory mode.



5.2. Do factory reset in user menu.

(1)Restart the monitor after open factory menu. And then open the user menu.



(2)Factory reset will turn off “Burn in” mode which screen color switches among red, green, blue and black.

4. Writing EDID Process

1.Materials list

ISP JIG: 715GT089-C

VGA CABLE

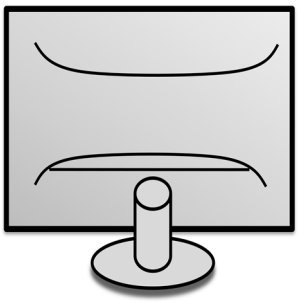
TPV P/N: 089G728 GAA DB

USB CABLE

TPV P/N: 089G1758 X

MSTAR driver

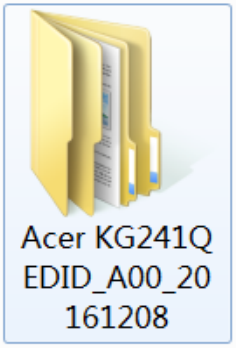
PC



Monitor

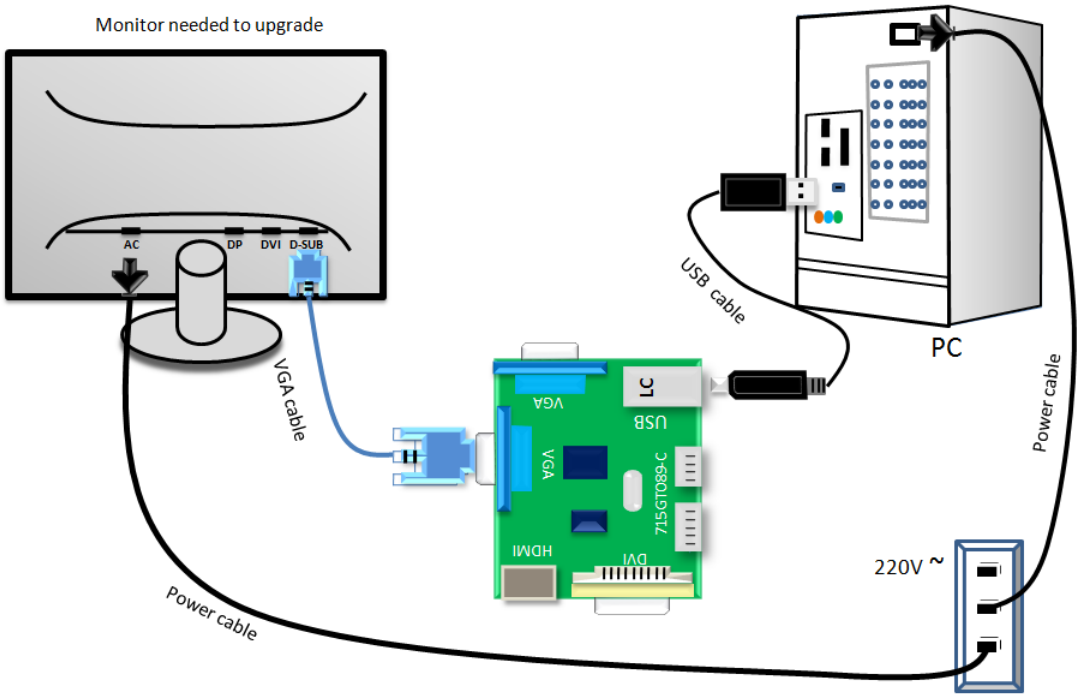
USB port driver

ISP tool



EDID

2. Connection(DC on the monitor)



3. Install driver.

4. Prepare the EDID written.

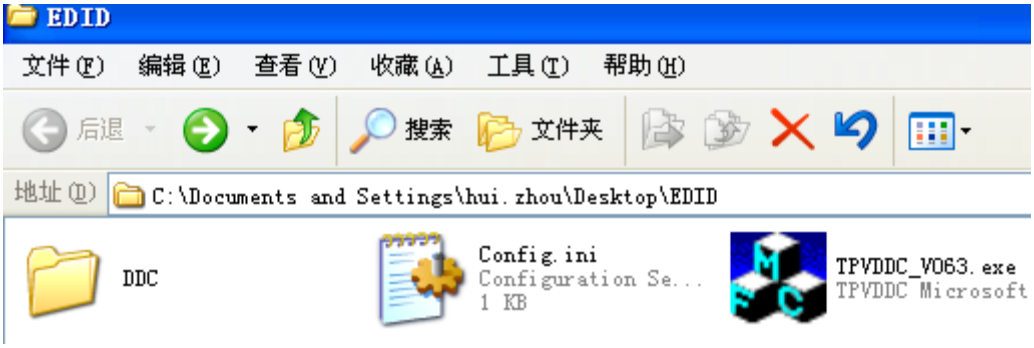
4.1. Change the EDID files name as below rule.

VGA EDID ⟶ WA.dat HDMI EDID ⟶ WH.dat

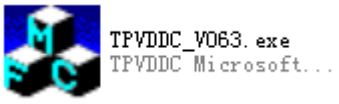
HDMI2 EDID ⟶ WH2.dat

4.2. Copy these files to one folder named as Acer KG241Q which must contains “config.ini” file.

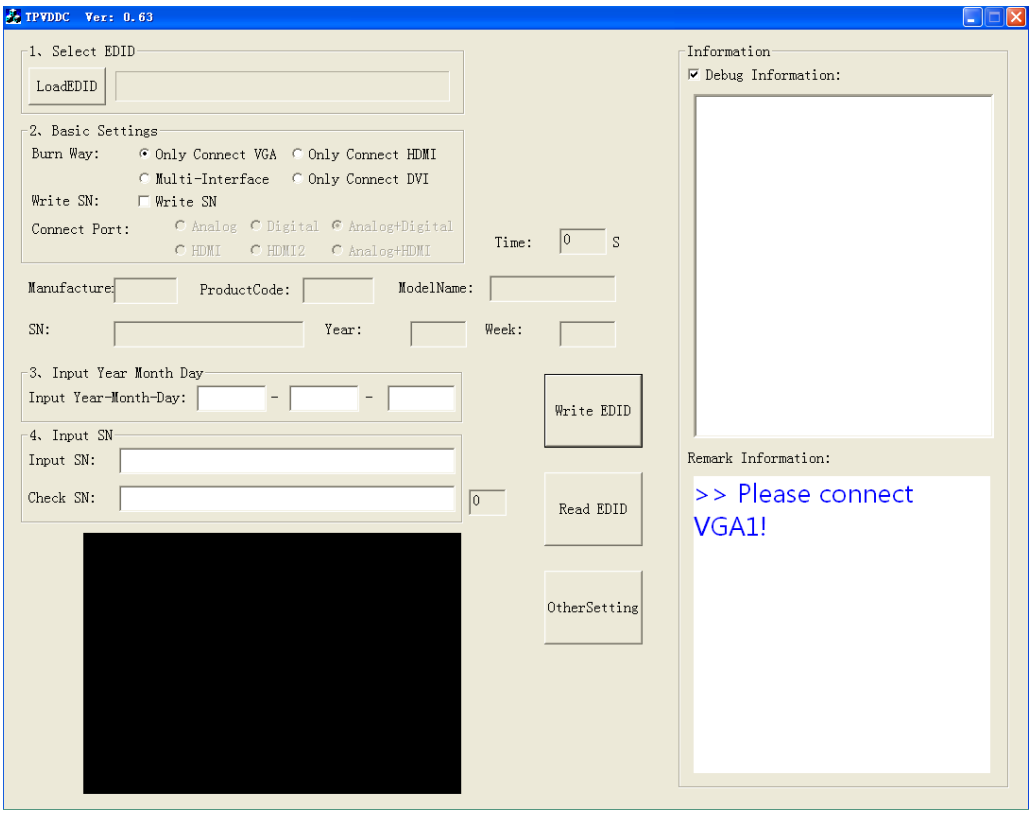
4.3. Copy Acer KG241Q to DDC folder and put DDC and ISP tool together.



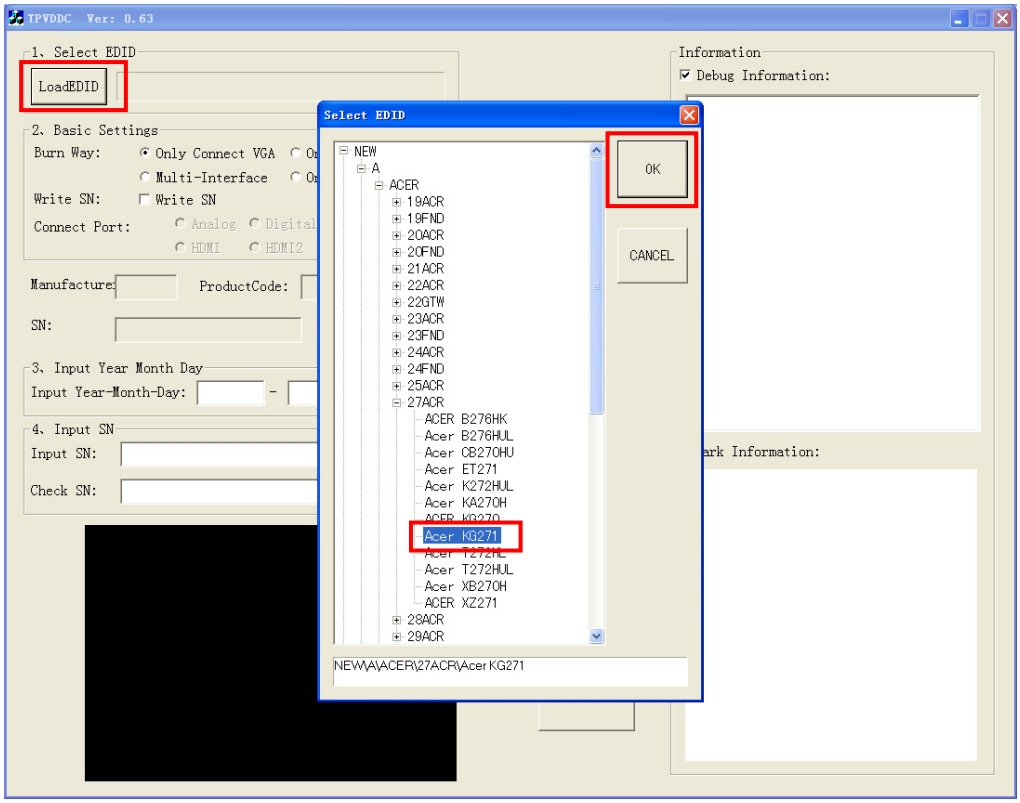
5. Run the ISP tool

5.1. Double-click the icon 

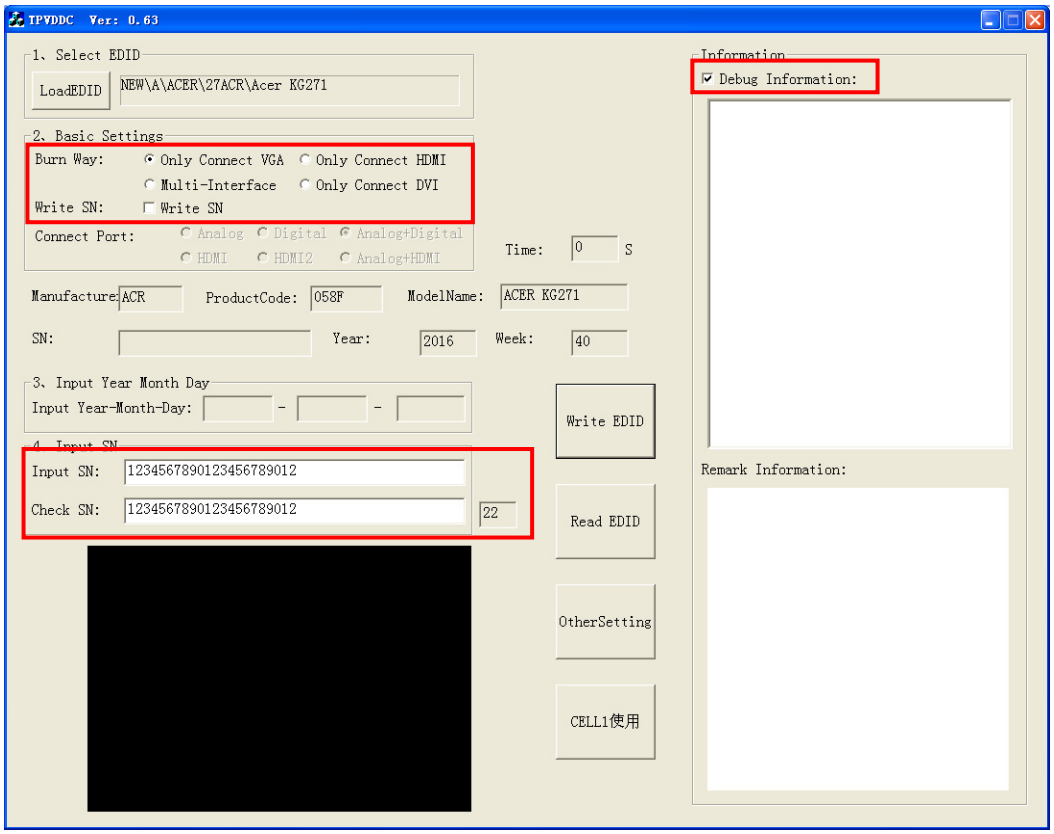
to open the tool.



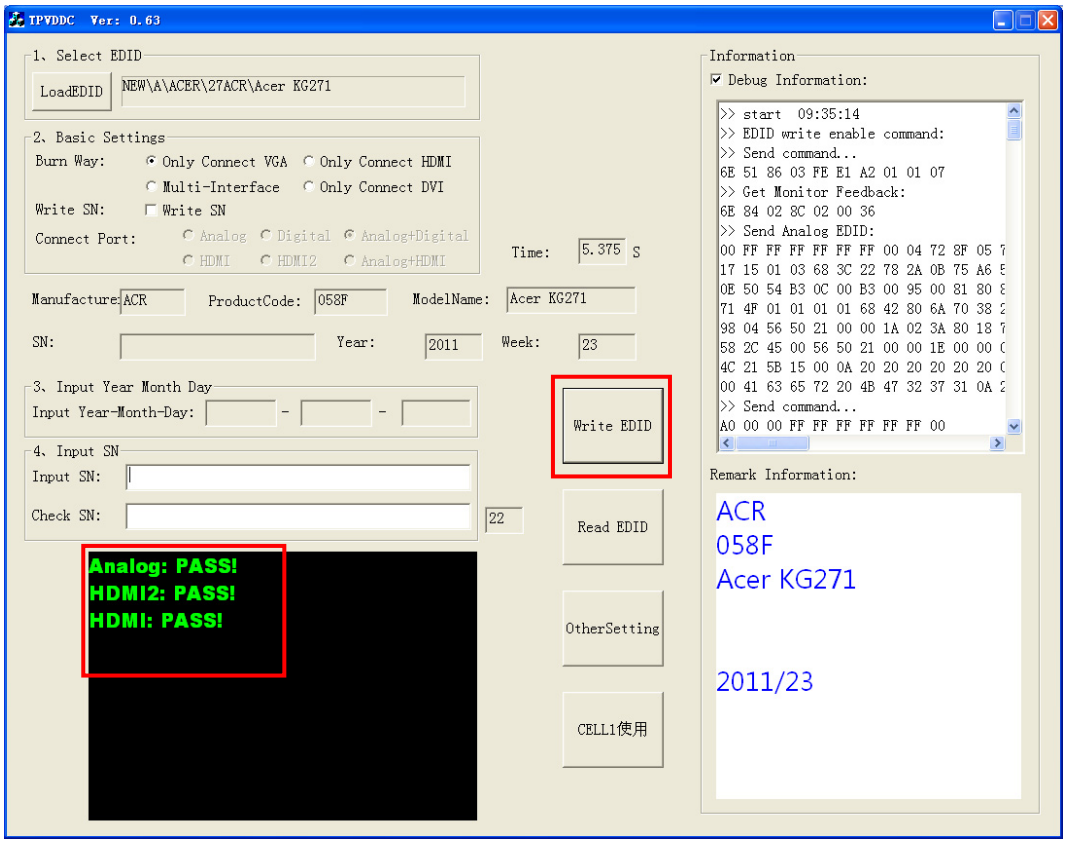
5.2. Select the EDID folder.



5.3 Load EDID successful.



5.4 Start to writing. Click “write EDID” to start writing. When The green “PASS” appear, the process is finished.



6. Troubleshooting.

6.1. Can’t write!

(1) AC on the monitor and turn on it.(Restart the monitor)

(2)Take apart the monitor and connect the 7pin of EEPROM to GND to diable write protection then write EDID one by one.

(3) Set the Burn in on last to try again.

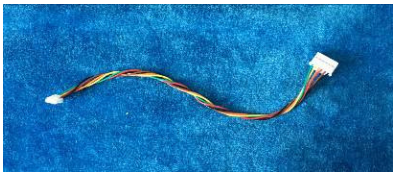
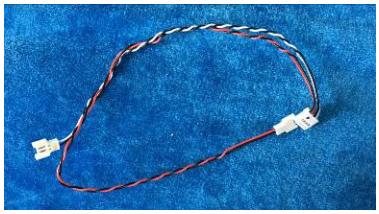
5. FRU (Field Replaceable Unit) List

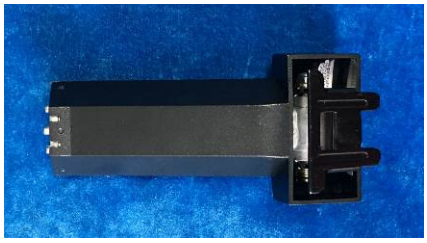
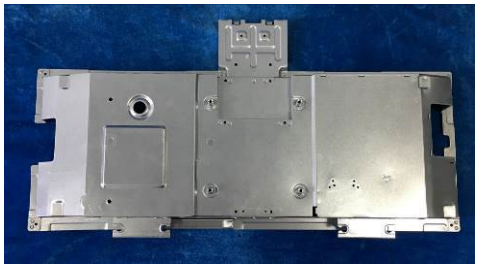
This chapter gives you the FRU (Field Replaceable Unit) listing in global configurations of ACER KG241Q Refer to this chapter whenever ordering for parts to repair or for RMA (Return Merchandise Authorization).

Please note that WHEN ORDERING FRU PARTS, you should check the most up-to-date information available on your regional web or channel. For whatever reasons a part number change is made, it will not be noted on the printed Service Guide. For ACER AUTHORIZED SERVICE PROVIDERS, your ACER office may have a DIFFERENT part number code from those given in the FRU list of this printed Service Guide. You MUST use the local FRU list provided by your regional ACER office to order FRU parts for repair and service of customer machines.

NOTE: To scrap or to return the defective parts, you should follow the local government ordinance or regulations on how to dispose it properly, or follow the rules set by your regional ACER office on how to return it.

Picture	Description	TPV Part No.	ACER Part No.
	MAIN BOARD	756GQGCB0BA173000Q	55.TA2M2.001
	POWER BOARD	PLPCFE321AGE7	55.T2BM2.007
	KEY BOARD	KEPCEQBA	55.TA2M2.003
	PANEL	750GBN236GEK52N000	NA
	SPEAKER	378G0025518VAB	23.C2XM2.002
	CABLE 30P 160MM (MB TO PANEL)	395GLM3030L5790000	50.T73M2.001

	CABLE 6P 160MM (PB TO PANEL)	395G801406WJ54	50.LS1M2.005
	CABLE (MB TO SPEAKER)	395G801404LF72	50.T4ZM2.002
	HDMI CABLE 1500	389G0184GAA502	50.LZ2M2.005
	D-SUB CABLE 1500	089G-725CAA-2A	50.LNY0B.014
	AUDIO CABLE 1500	389G017356G596	50.LXPM2.001
	POWER CORD 1500MM BLACK (EUROPE)	389G404A15NCXG	27.T2JM2.001

	BEZEL	Q34G8002AEMI3L0130	60.TA2M2.001
	REAR COVER	Q34G8463AEM03S0100	60.TA2M2.002
	STAND HINGE ASSY	705GQGCS034312	60.T8VM2.003
	BASE ASSY	705GQGCS034326	60.T8WM2.005
	MAINFRAME	Q15G2072101Y0100ZA	33.TA2M2.001

6. Trouble shooting instructions

Before sending your LCD monitor for servicing, please check the troubleshooting list below to see if you can self-diagnose the problem.

HDMI/VGA Mode (Optional)

Problem	LED status	Remedy
No picture visible	Blue	Using the OSD menu, adjust brightness and contrast to maximum or reset to their default setting.
	Off	Check the power switch. Check if the AC power cord is properly connected to the monitor.
	Amber	Check if the video signal cable is properly connected at the back of monitor. Check if the computer system is switched on and in power saving/standby mode.