

Service
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Acer Monitor QG241Y

LIFECYCLE EXTENSION GUIDE

Contents

- Important Safety Notice..... 3
- 1. Exploded view diagram with list of items..... 4
- 2. Mechanical Instruction 5
- 3. Firmware Upgrade Process 19
- 4. Writing EDID Process 19
- 5. FRU (Field Replaceable Unit) List..... 32
- 6. Trouble shooting instructions 35

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.

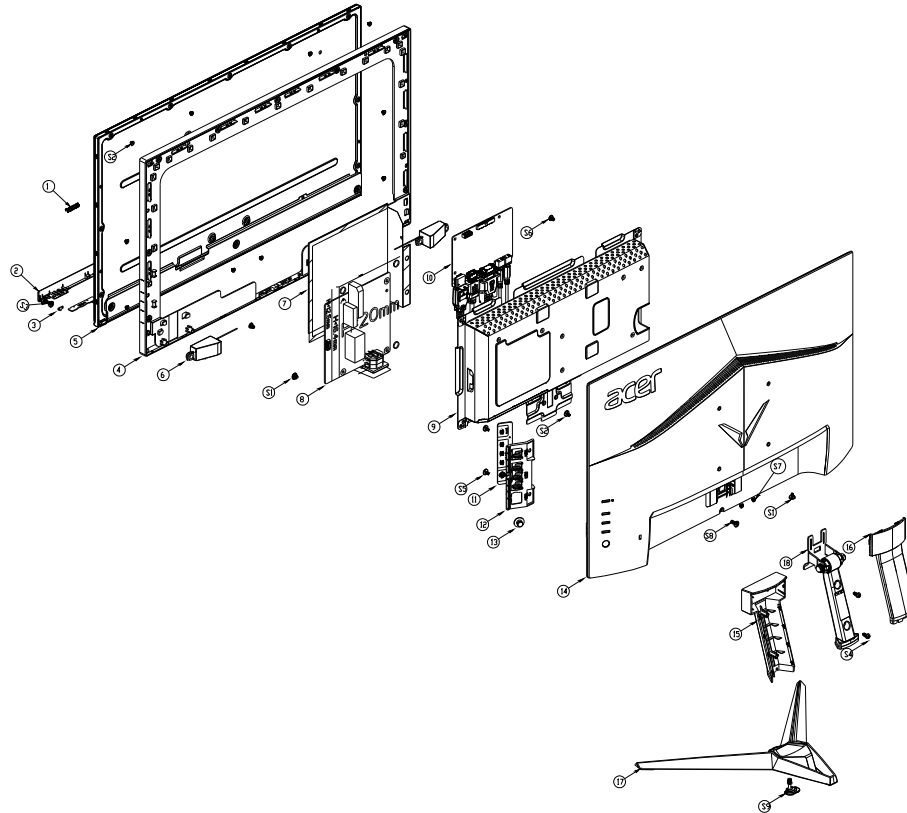
CAUTION -The use of optical instruments with this product will increase eye hazard.

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.
5	750GBV23810CAFN000	LCD TPM238WF1-HVN01.U 00CA BH TPV	#N/A
8	PLPCJE541KVP8	ADAPTER BOARD G9541-P0A-X-000-0010	#N/A
10	CBPRITMC0Q6	MAIN BOARD	#N/A
12	KEPCLQA6	KEY BOARD	55.TCCM2.003
	395G179W30P1520000	FFC CABLE 30P-30P 280MM(MB TO PANEL)	NA

2. Mechanical Instruction

Tools Required

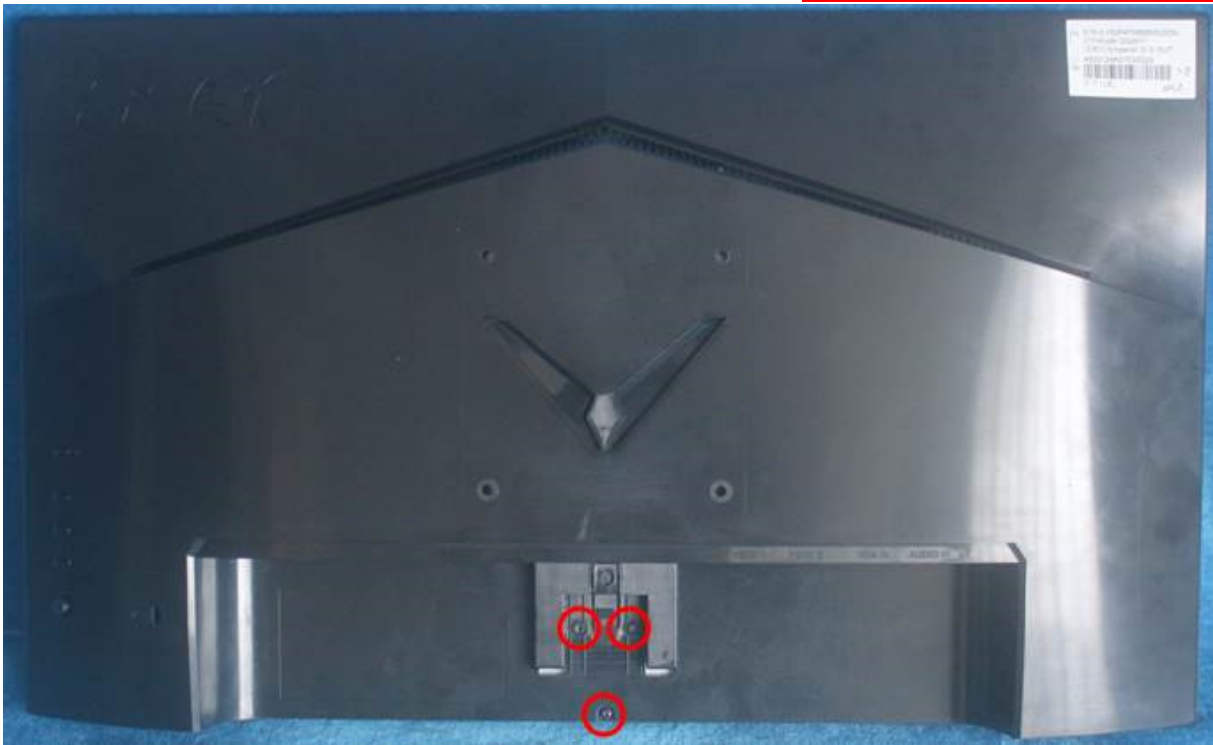
List the type and size of the tools that would typically can be used to disassemble the product to a point where components and materials requiring selective treatment can be removed.

Tool Description:

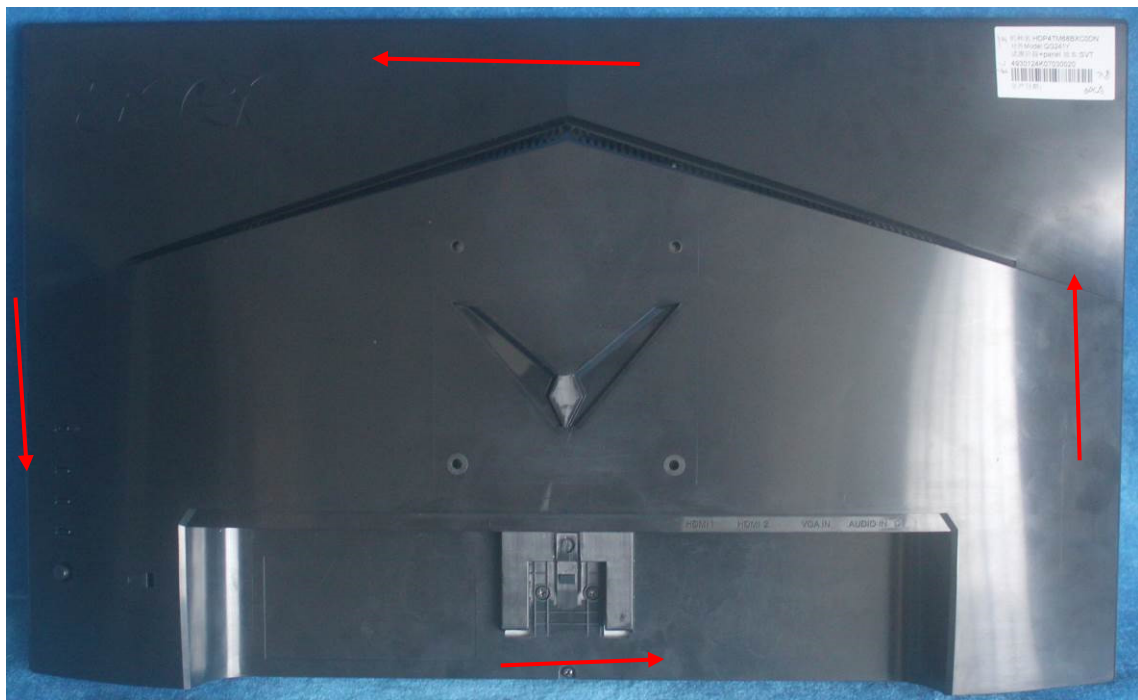
- Screwdriver (Phillip-head, Hexagonal head)
- Penknife

2.1 Disassembly Procedures:

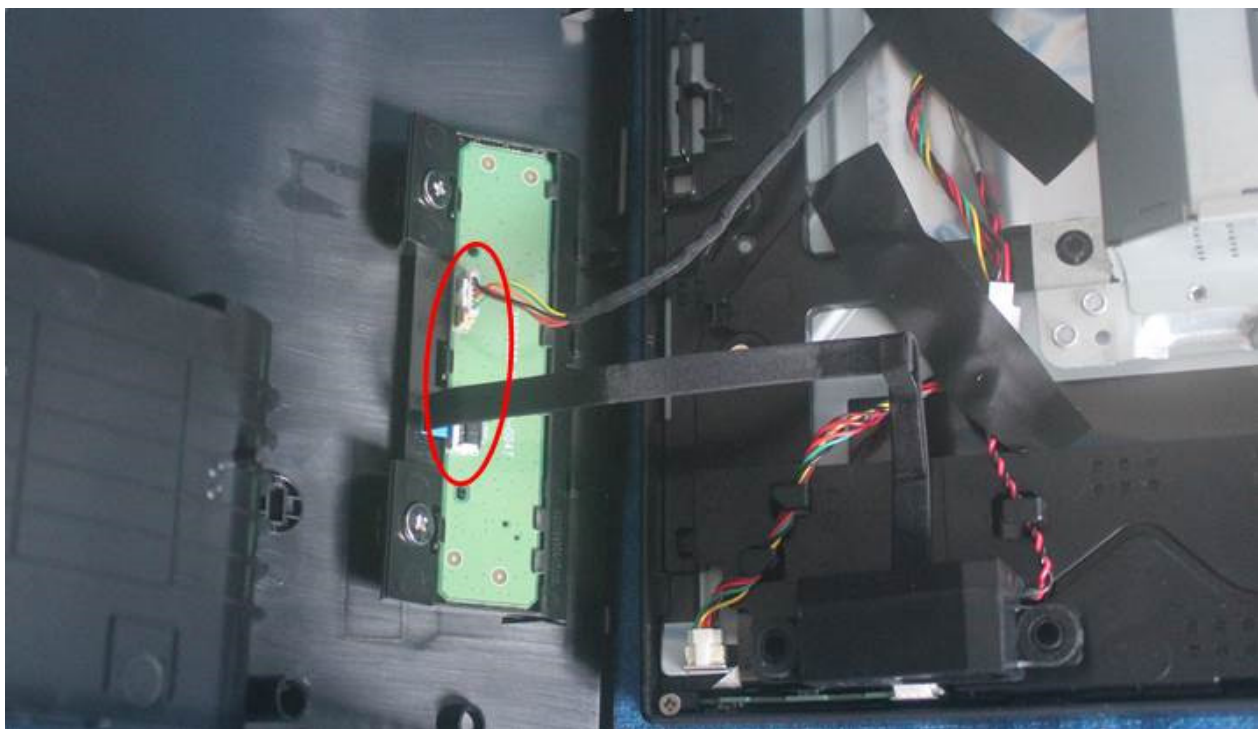
S1. Push the button to remove the stand –base ASS'Y and unscrew the screws on rear cover.



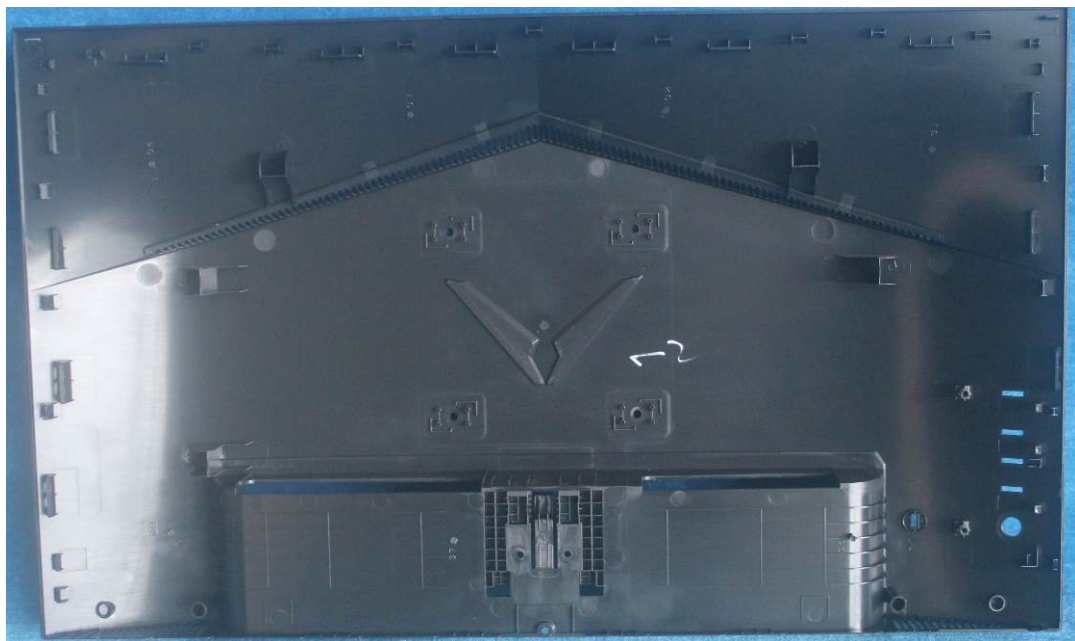
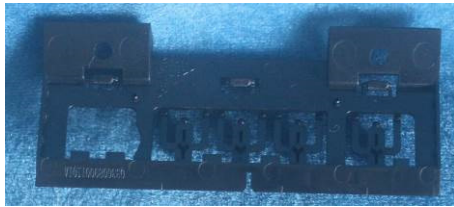
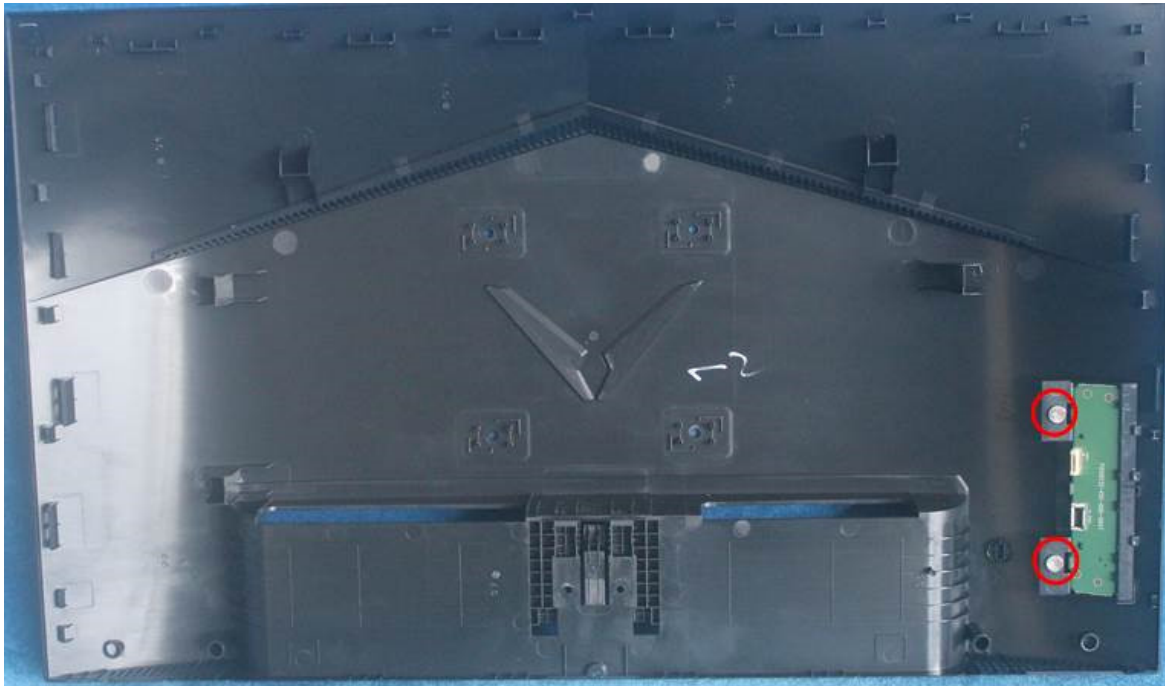
S2. Remove the rear cover. Use a tool to open all latches. (Be careful the position of the key board.)



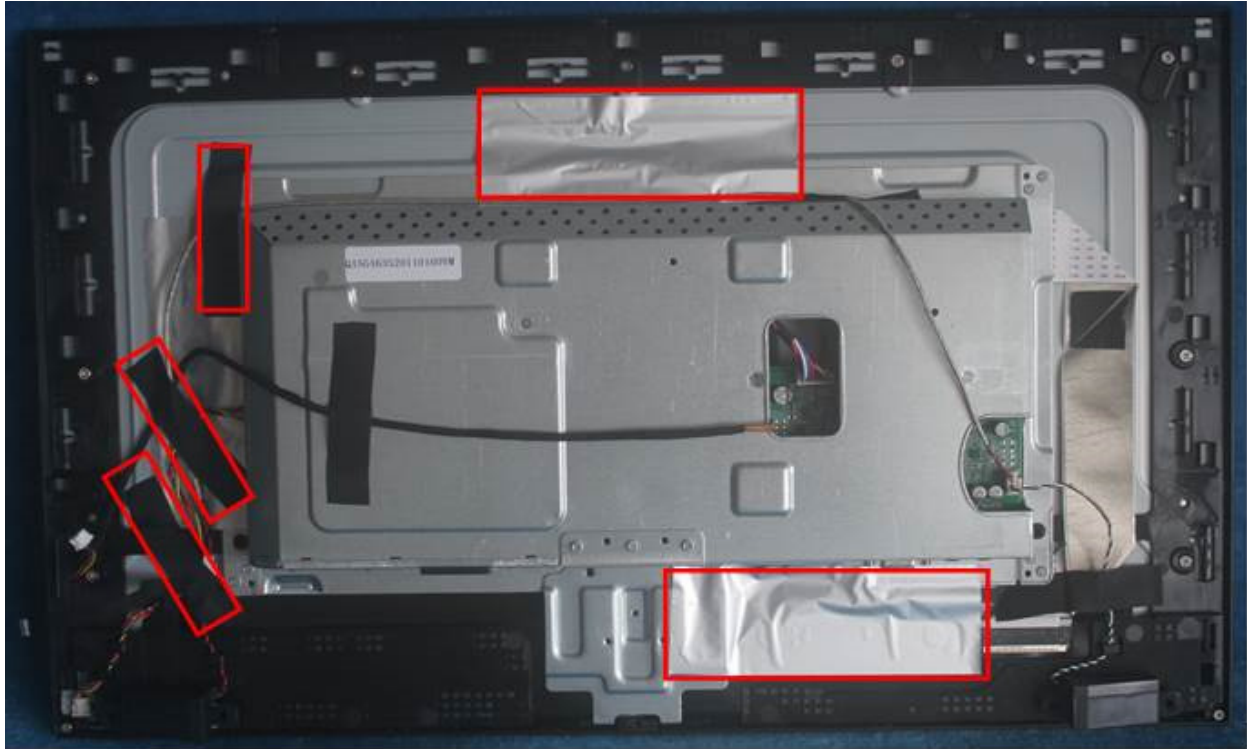
S3. Disconnect the cables (main board to Key board / LED board to Key board).



S4. Remove the screws to remove the key board.

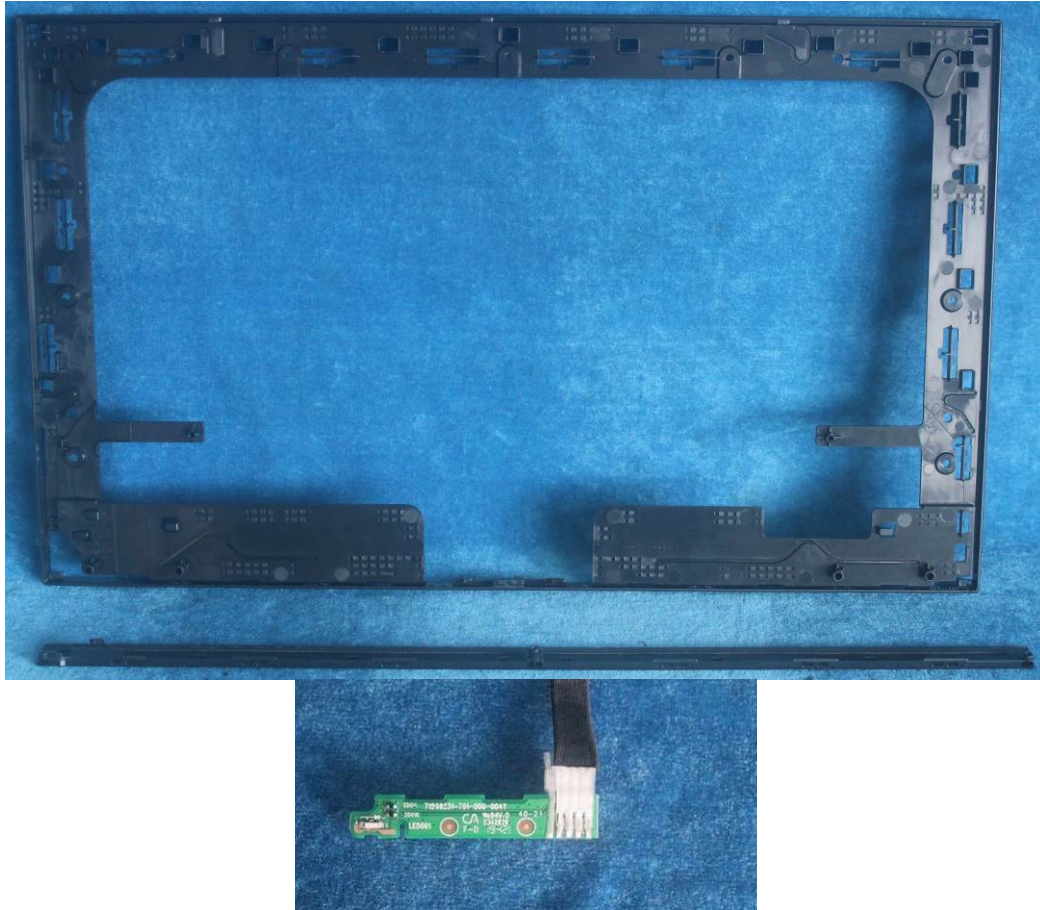


S4. Tear up all tapes and disconnect the cables (main board to panel), the cable (power board to panel). Remove the speaker.

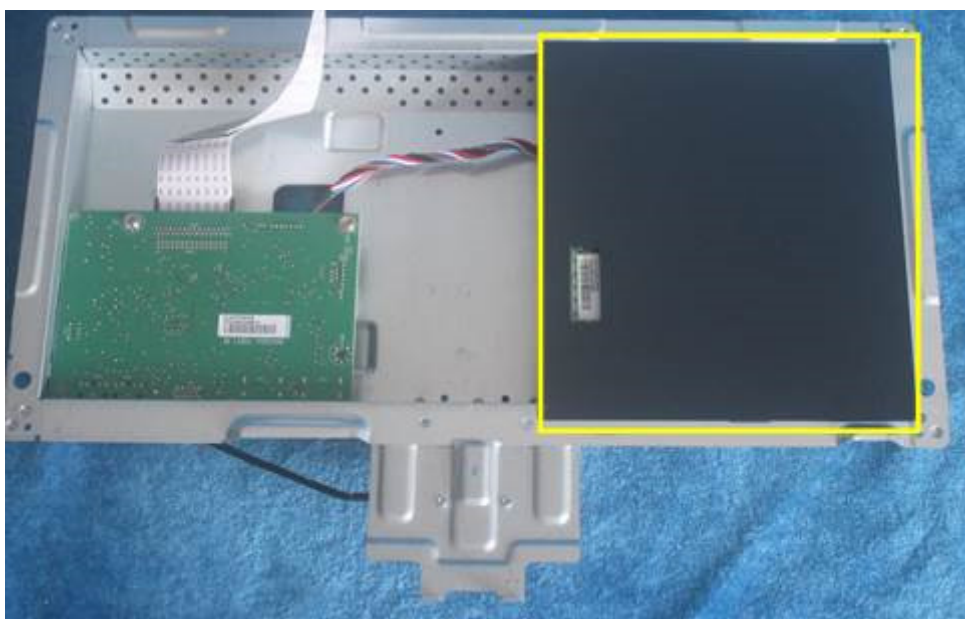
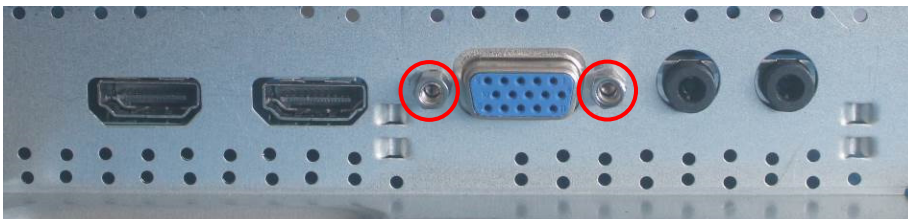


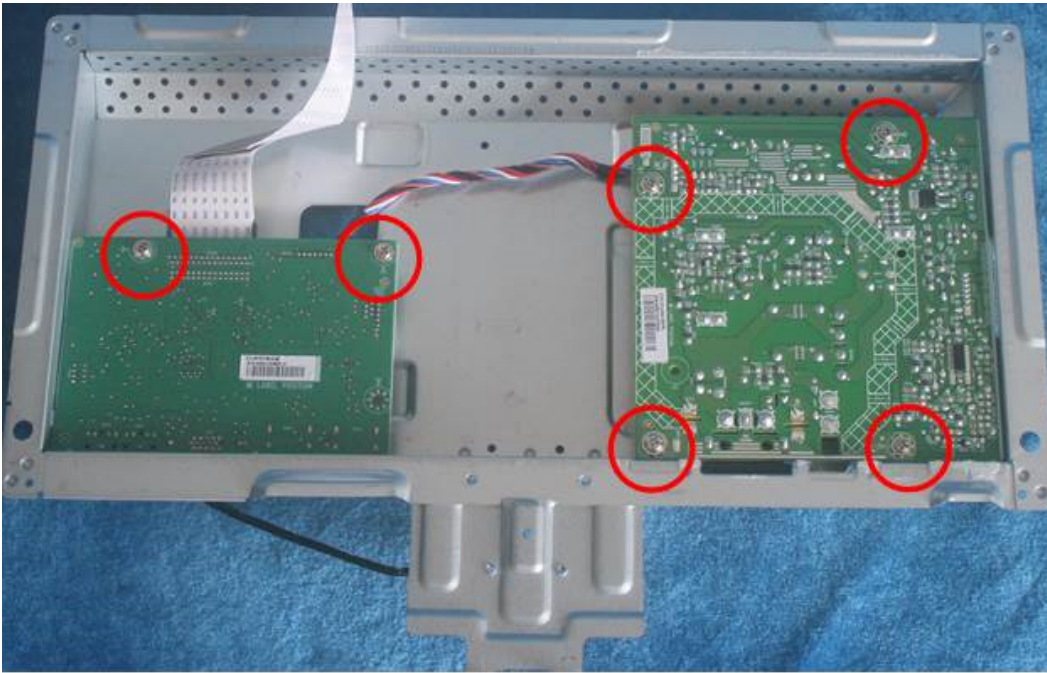
S5. Separate the panel, the middle frame and the LED board.



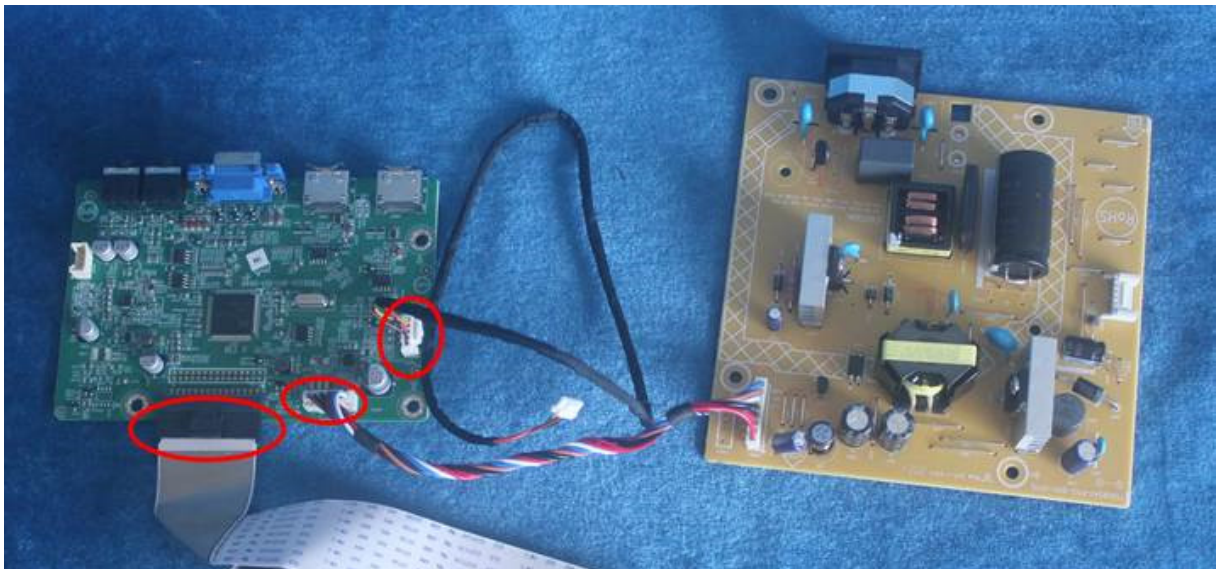


S6. Unscrew the screw of the main board, remove the mylar. Then unscrew the screws of the power board and main board to remove them from mainframe.



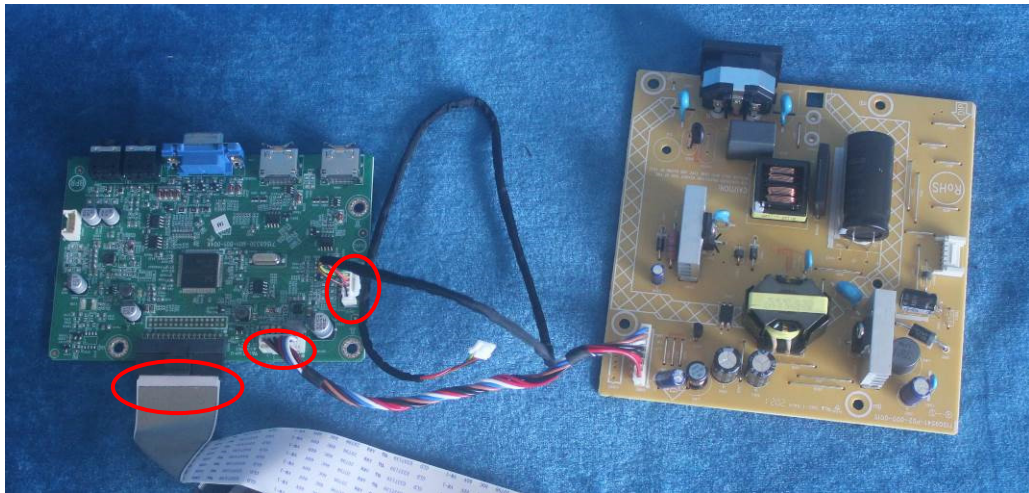


S7. Remove the main board and power board. Disconnect the cables.

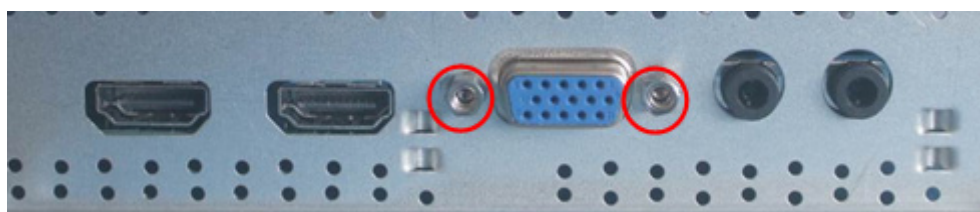
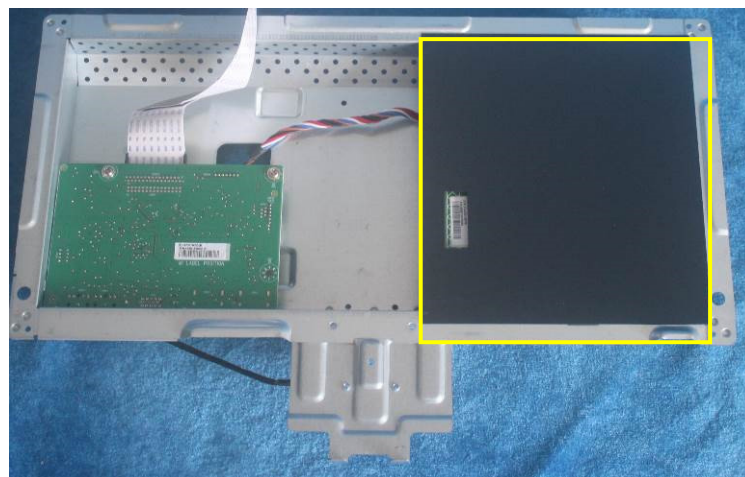
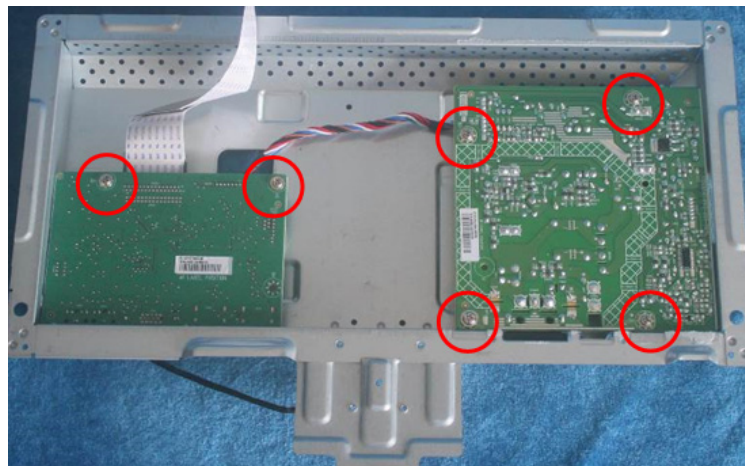


2.2 Assembly Procedures:

S1 Prepare a main board, a power 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. Tape the Mylar.

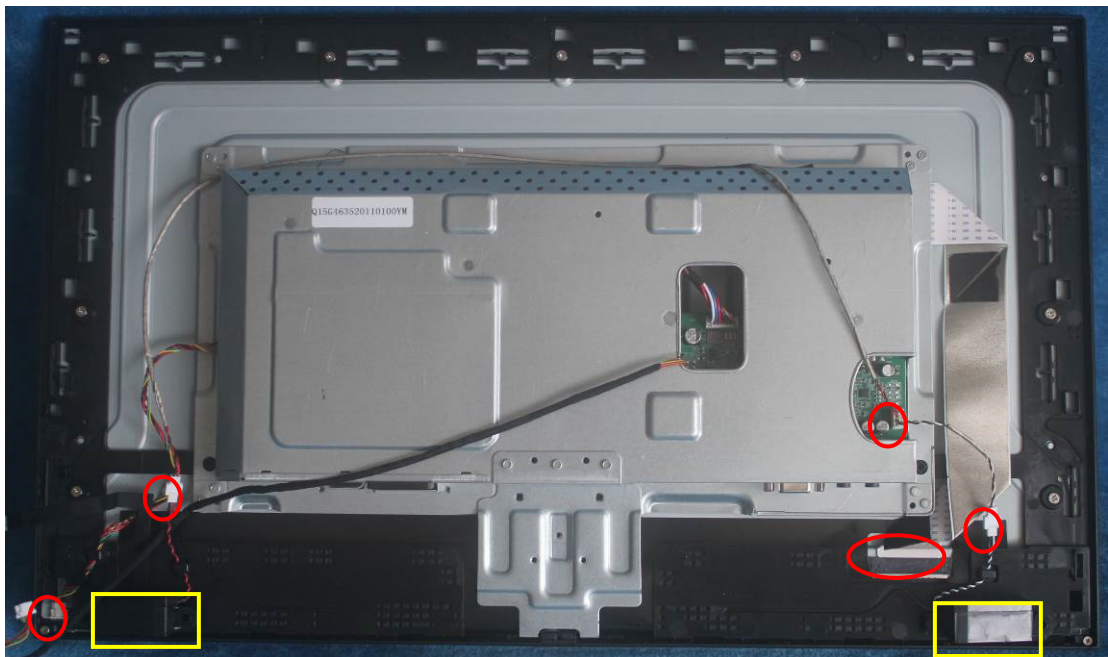


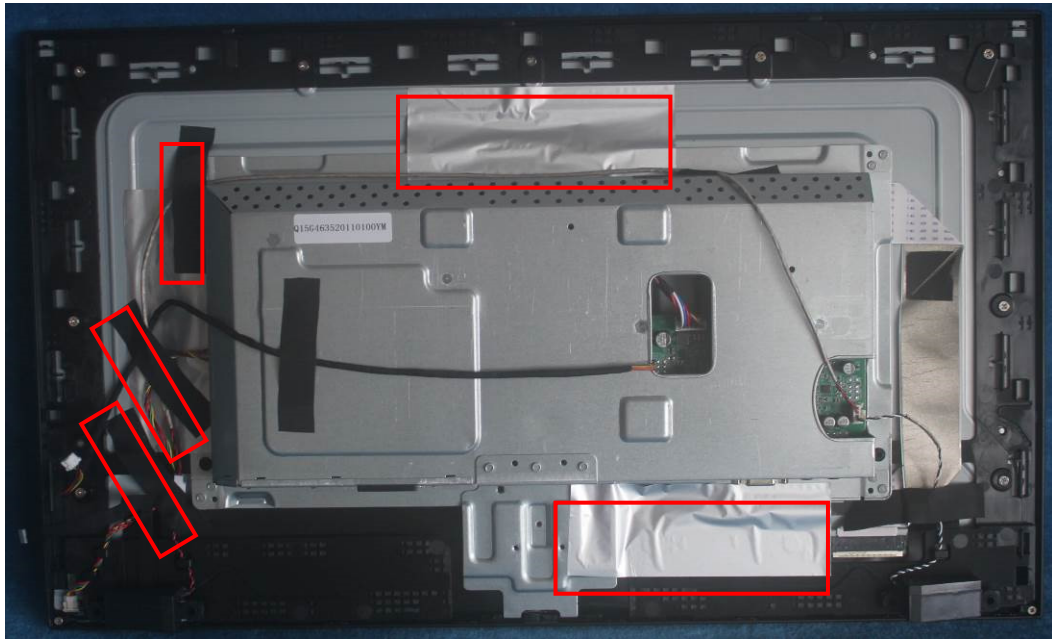
S3. Assemble the middle frame, the LED board and the panel.



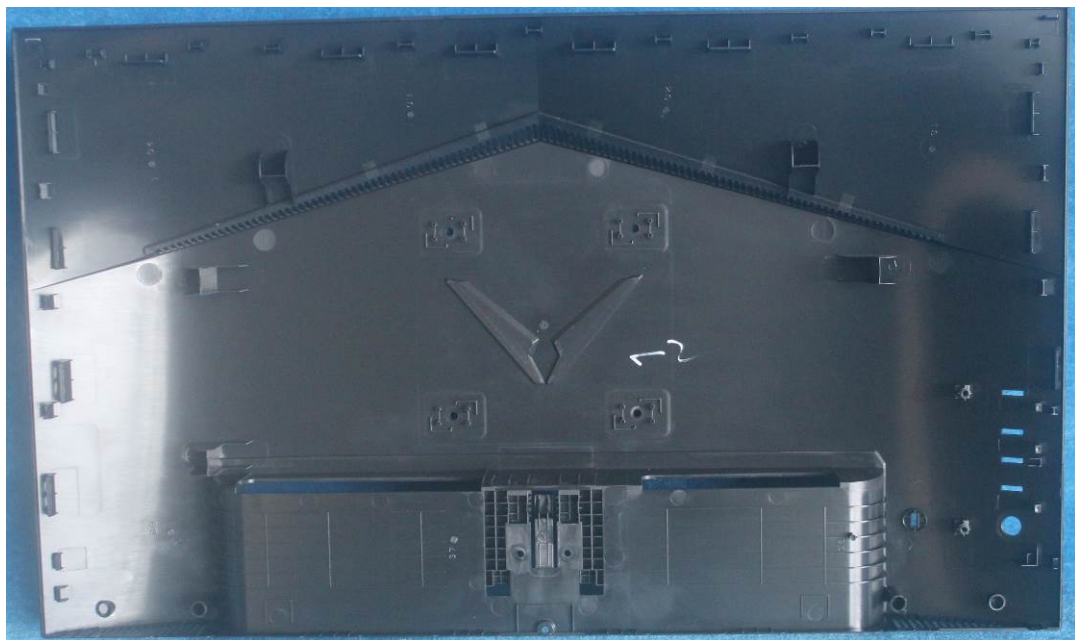


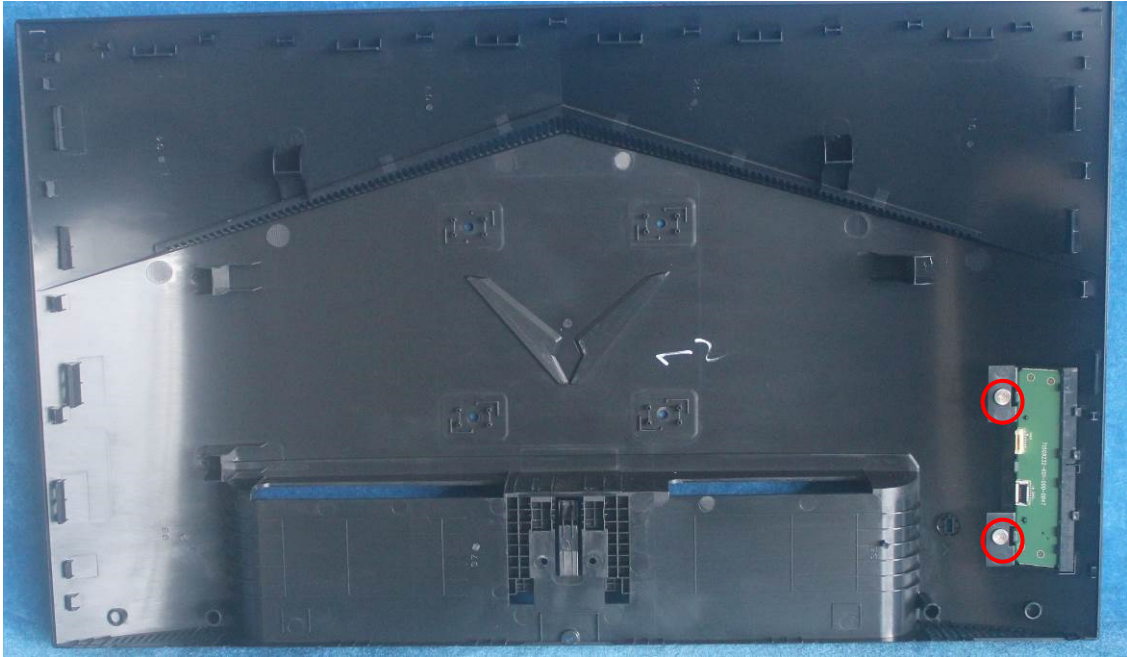
S4. Put the mainframe on the panel, connect cables (mainboard to panel and the power board to panel). Assemble the speaker. And paste all tapes.



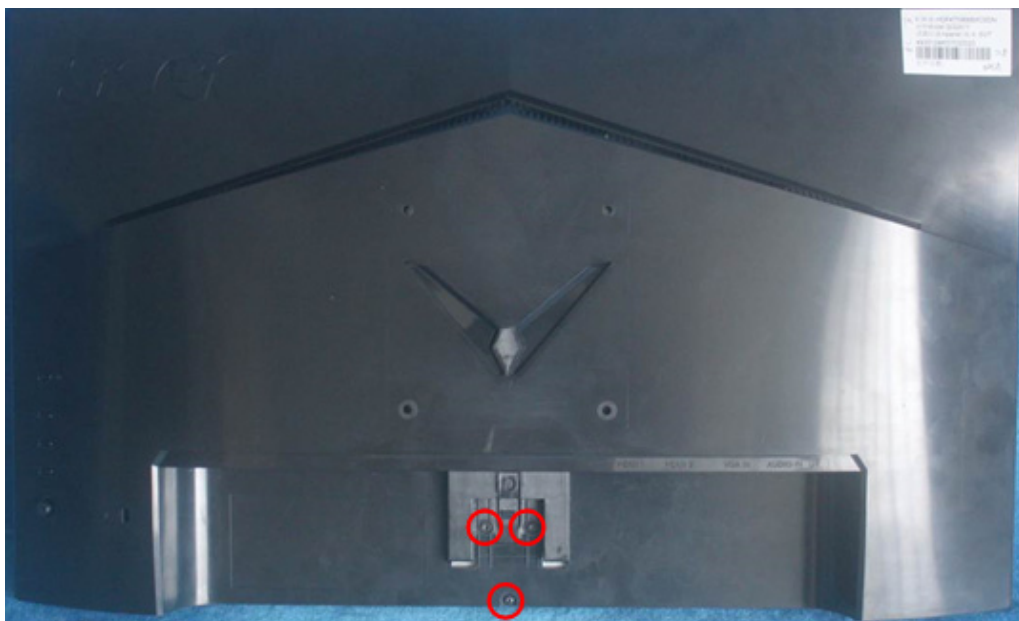
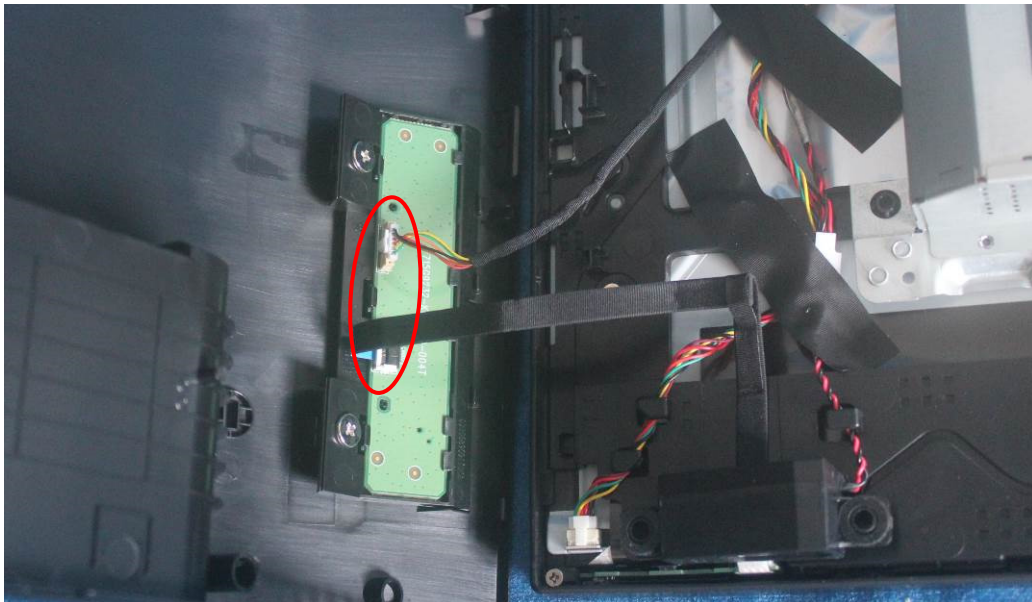


S5. Prepare a rear cover and a key board and use the screws to lock the key board. Paste the tapes.





S6. Connect the pin (LED board / Key board), the pin (Key board to mainboard) .Use the screws to lock the rear cover.

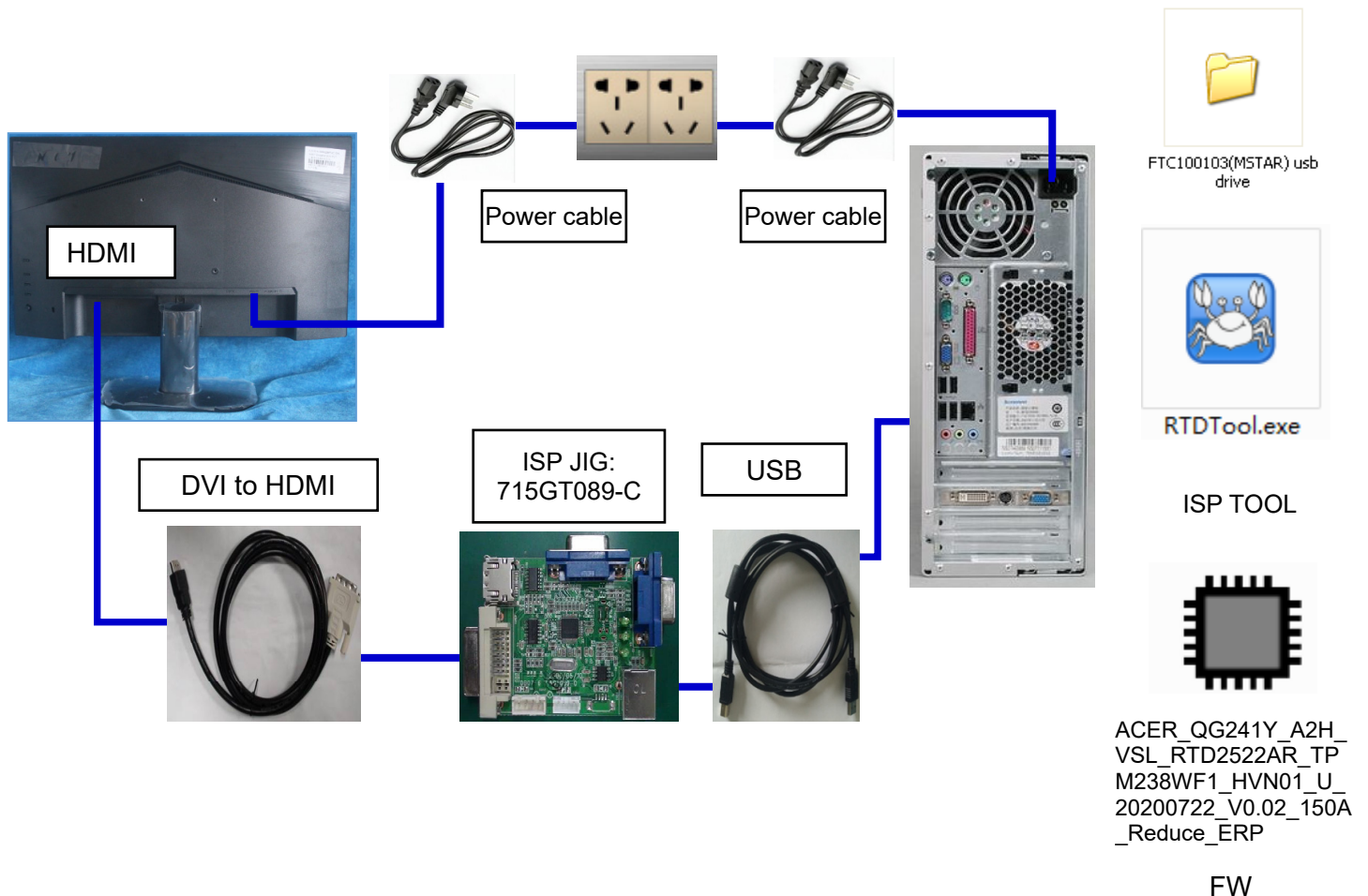


S7. Assemble the stand and base ASS'Y.



3. Firmware Upgrade Process

1. Materials list and connection

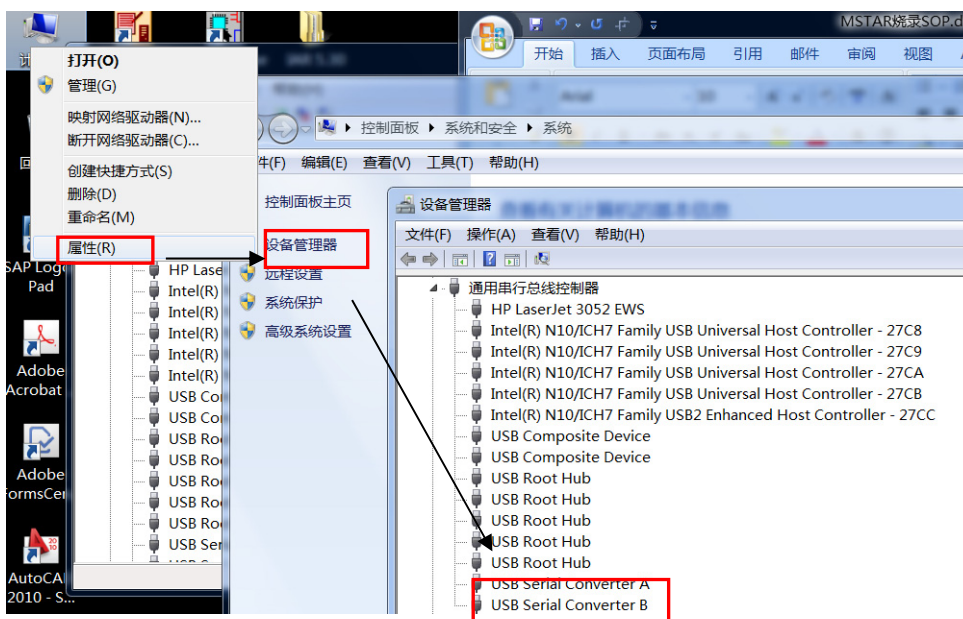


2. Install USB driver.

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. it can auto install success by itself

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

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



3. Install RTD tool.

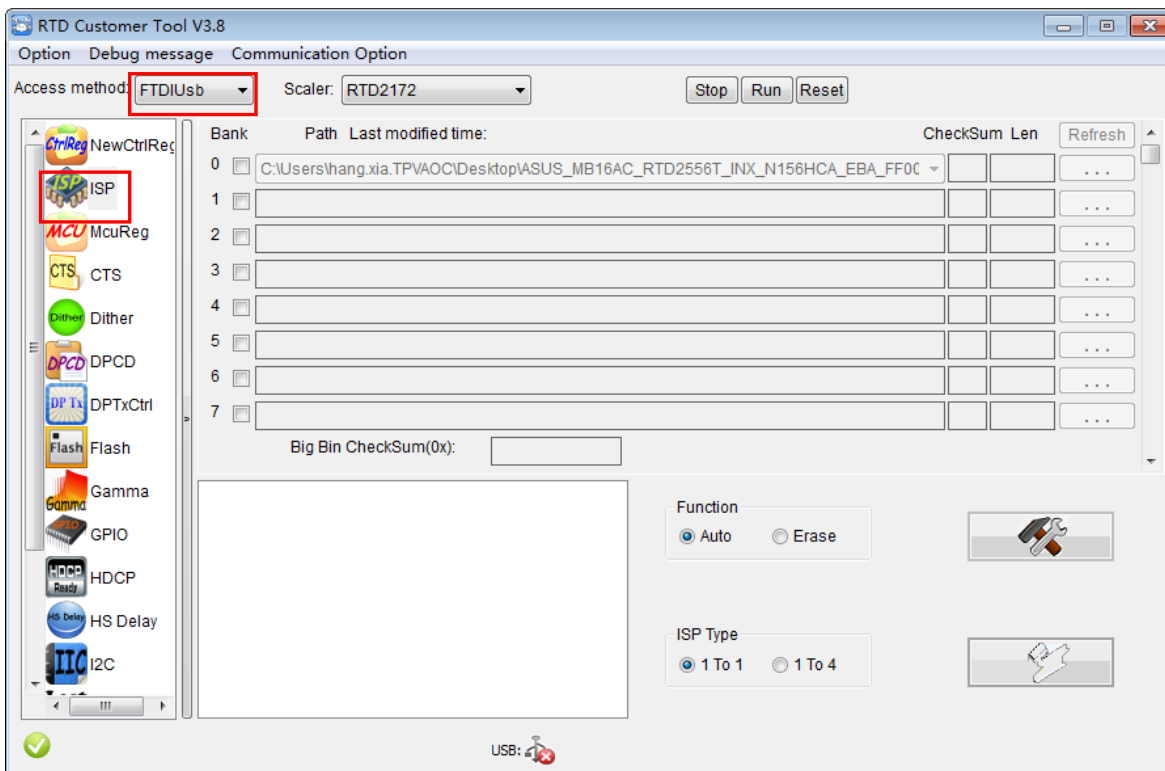
Note: If the F/W Upgrade use the same ISP tool as the EDID writing, you must close the EDID writing tool before running the F/W Upgrade tool.



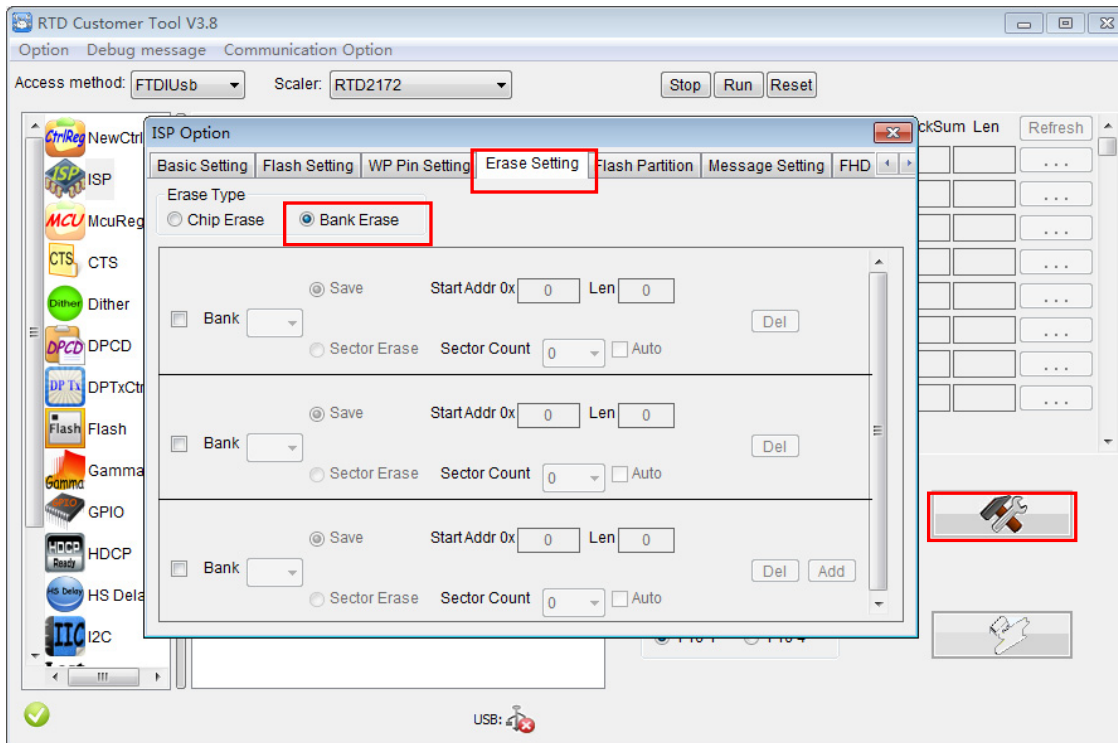
3.1. `RTDTool.exe` double- clicks the icon to run it.

Note: Must to install driver firstly

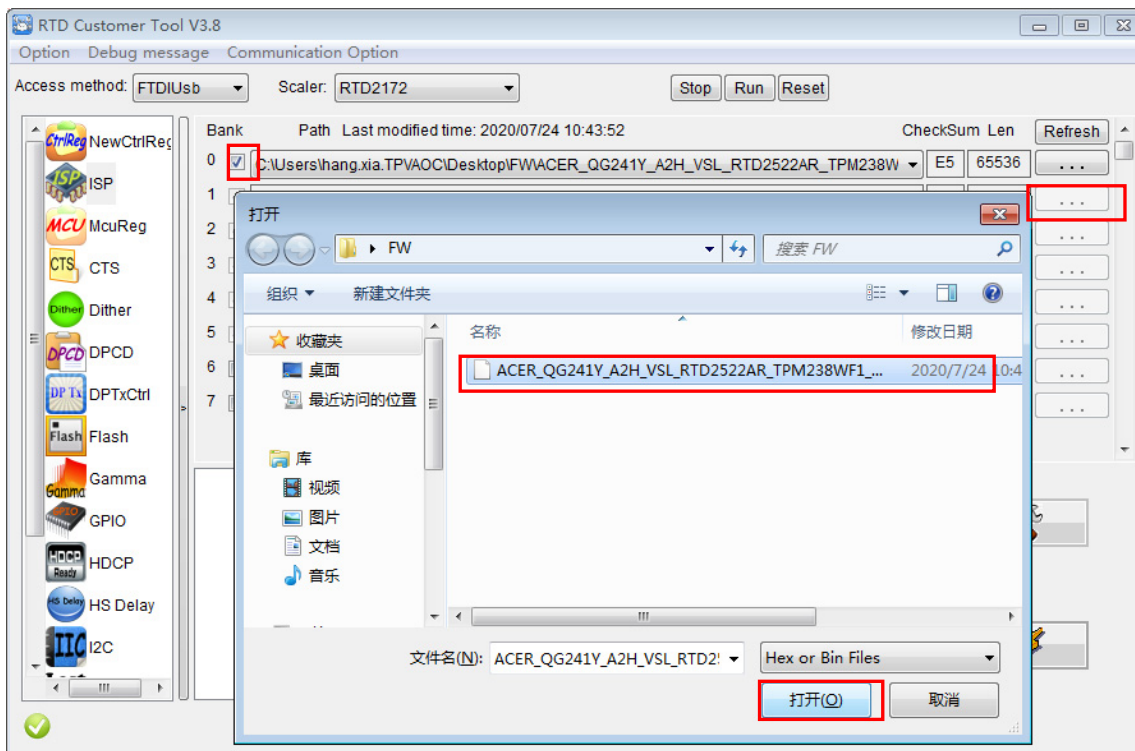
3.2. Choose the FTDIUSB communication way.



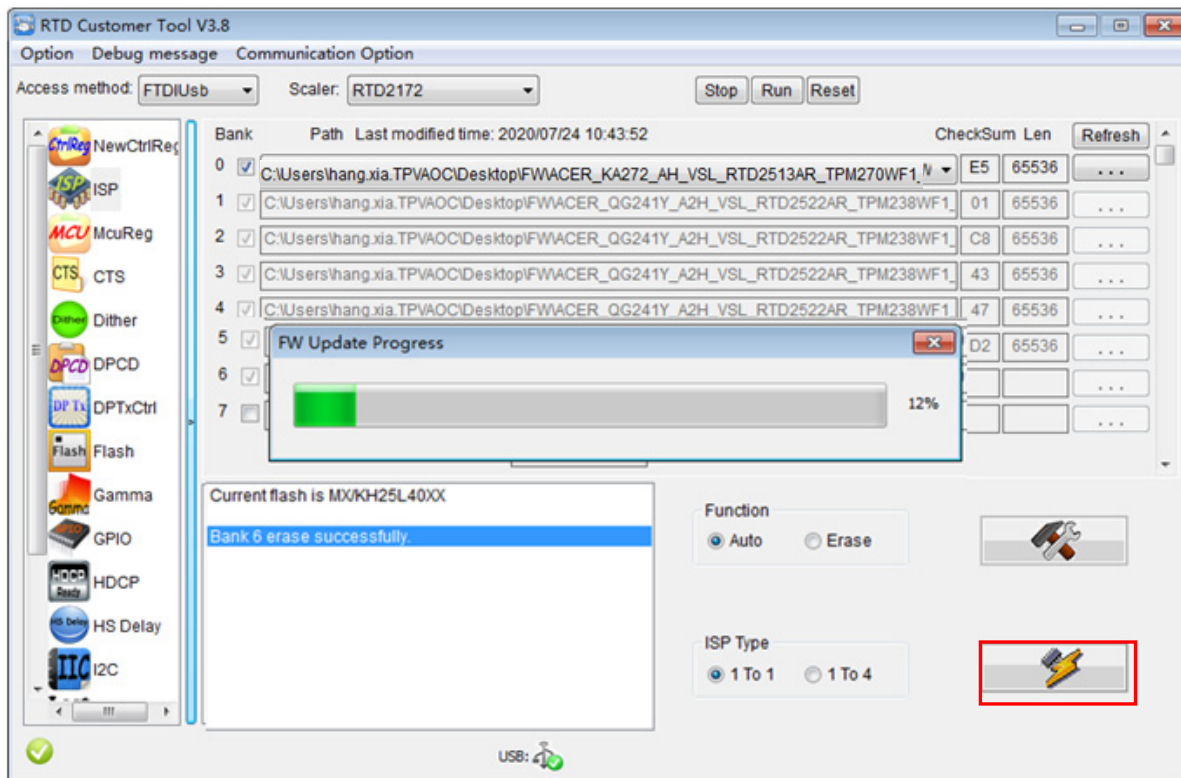
3.3 Click “ISP” and “ISP Option” to set as below. (In order to prevent HDCP KEY data loss, please must load the file name contain the “ Reduce” of the firmware)



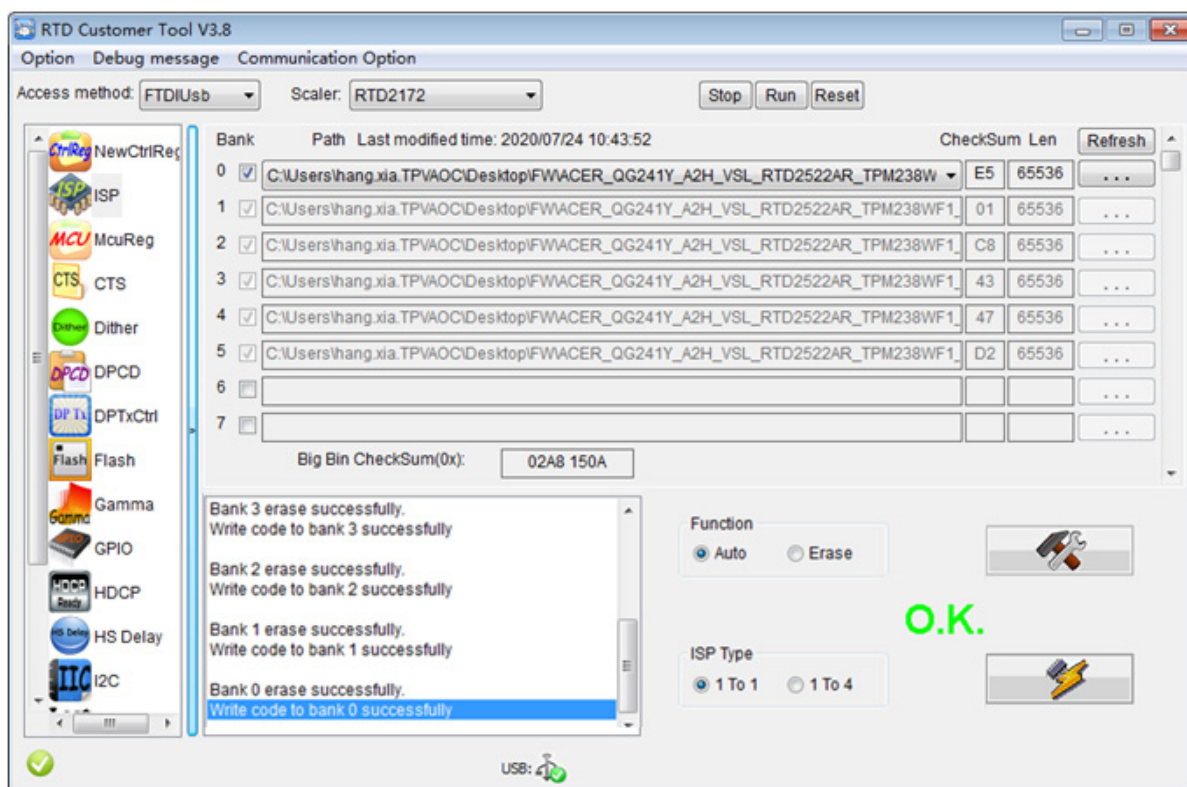
3.4 Close the “ISP Option” window and click the “BigBin” to load the correct F/W.



3.5 Click  to start programming.



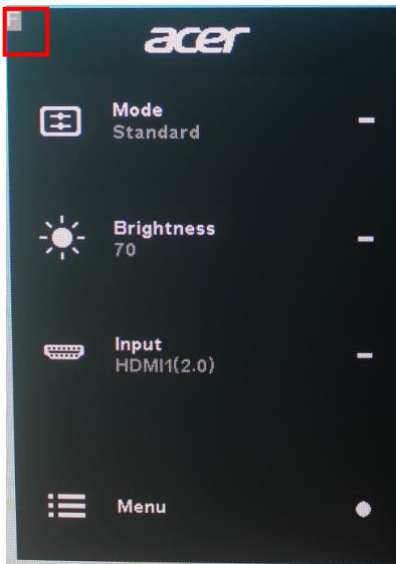
3.6 After about 20 minutes, there will pop up message as below figure which promotes the upgrade successful.



4. Check the FW version after upgrade.

4.1. The way to open factory menu.

- (1) Connect signal source to monitor and turn it on.
- (2) DC off the MNT, then pressing the hot key button and DC on, when the screen lights, release the key and press the left bottom again to open the menu with “F” and select “F” to open factory menu.



```

Model: QG241Y
Chips: RTD2522AR
Panel: TPV TPM238WF1
Date : 20200722 Version: 0.02

AutoColor
Gain   R   0 G   0 B   0
Offset R   0 G   0 B   0

BRI  26 CON  50 DEF  BRI  44

Warm   R 128 G 128 B 128
Normal R 106 G 115 B 120
Cool   R 103 G 114 B 128
Slight R 128 G 128 B 120
Light  R 128 G 128 B 113
Medium R 128 G 128 B 103
Strong R 128 G 128 B  92

OD      :      OK
FRC      :      OFF
HScaling:      OFF
DFM      :      OFF
Burn In:      OFF
NVRAM Initial
Force Logo Off OFF
HW AutoColor FAIL
SSC  8      LVDS Current  2
Backlight PWM 109
Exit

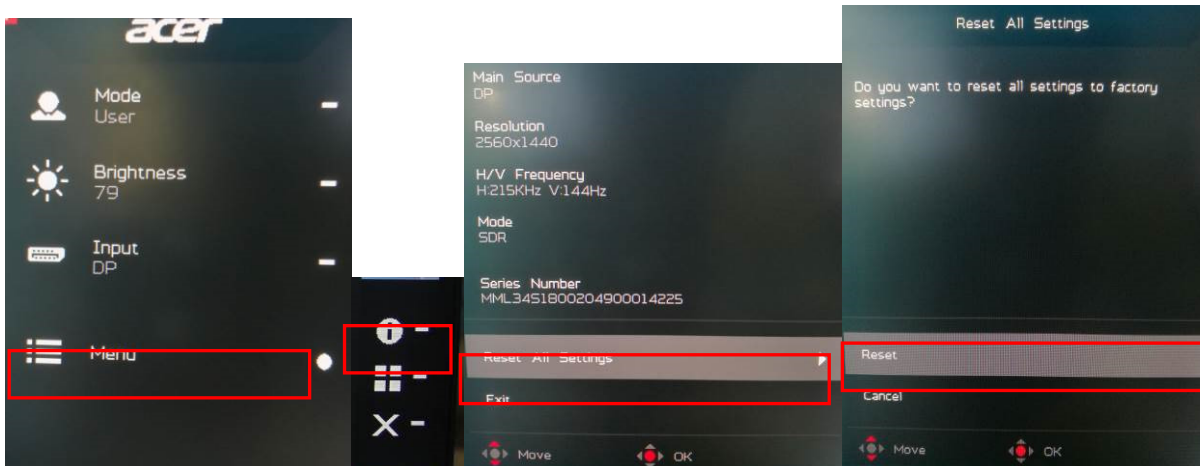
PANEL TIME:      5H 32M

```

Check this
F/W version.

4.2. Do factory reset in user menu.

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



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

4.3 How to close the burn in mode:

```
Model: QG241Y
Chips: RTD2522AR
Panel: TPV TPM238WF1
Date : 20200722 Version: 0.02

AutoColor
Gain   R   0 G   0 B   0
Offset R   0 G   0 B   0

BRI  26 CON  50 DEF  BRI  44

Warm   R 128 G 128 B 128
Normal R 106 G 115 B 120
Cool   R 103 G 114 B 128
Slight R 128 G 128 B 120
Light  R 128 G 128 B 113
Medium R 128 G 128 B 103
Strong R 128 G 128 B  92

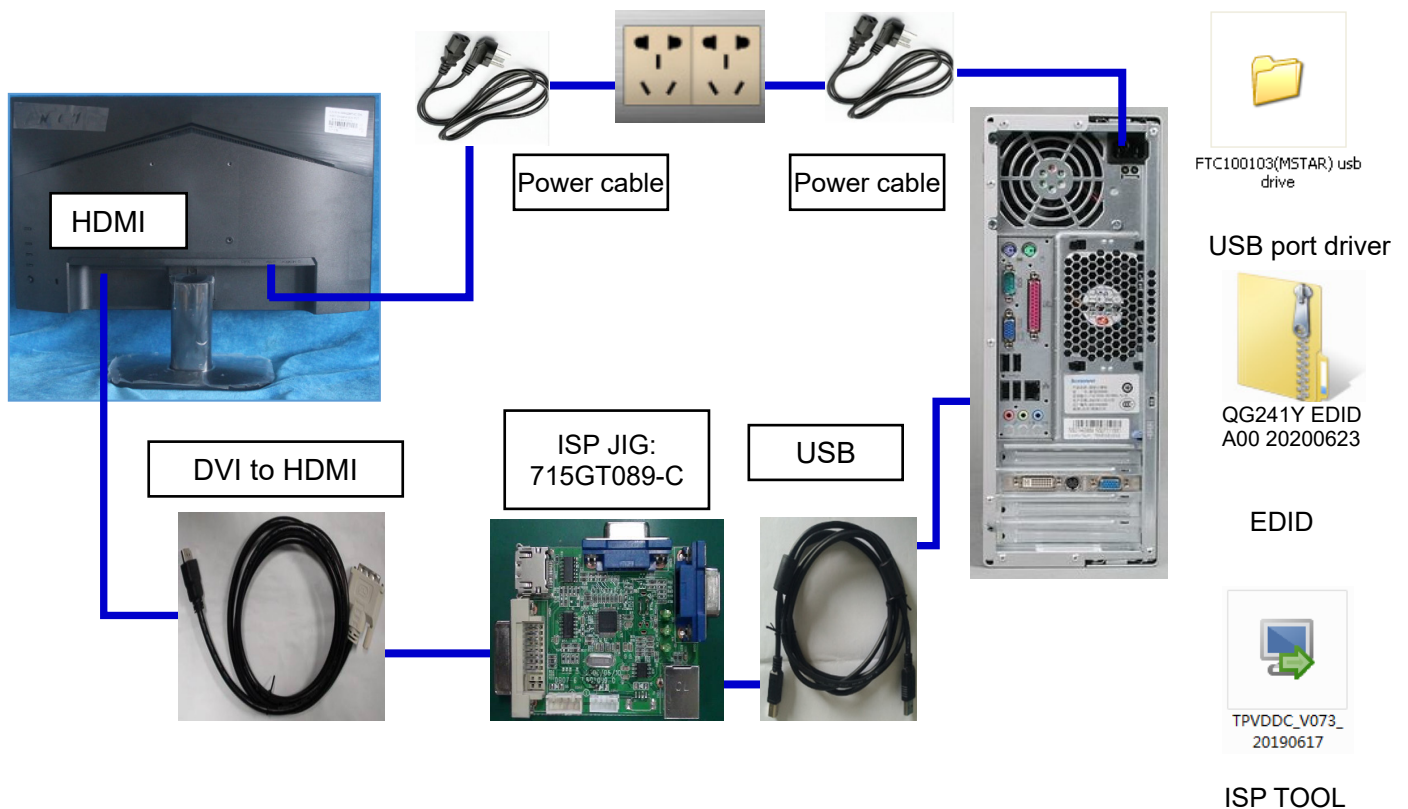
OD      :      OK
FRC      :      OFF
HScaling:      OFF
DFM      :      OFF
Burn In:  OFF
NVDRAM Initial
Force Logo Off OFF
HW AutoColor FAIL
SSC  8    LVDS Current  2
Backlight PWM 109
Exit

PANEL TIME:      5H 32M
```

Set the burn
in to "OFF"

4. Writing EDID Process

1. Materials list and connection



2. Install USB driver.

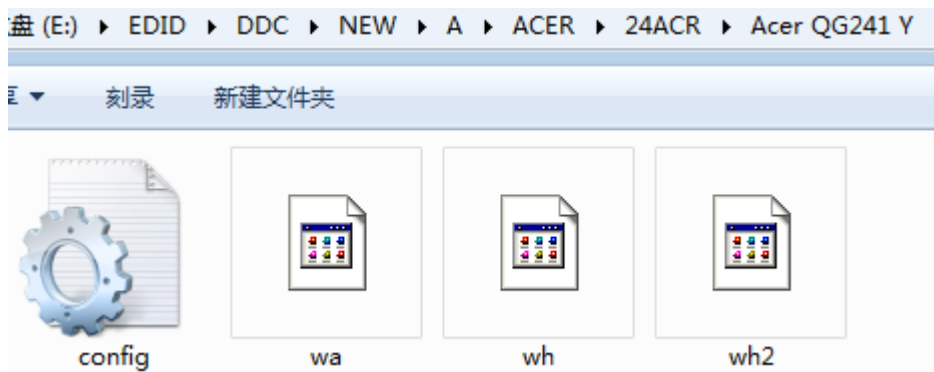
3. Prepare the EDID written.

3.1. Change the EDID files name as below rule.

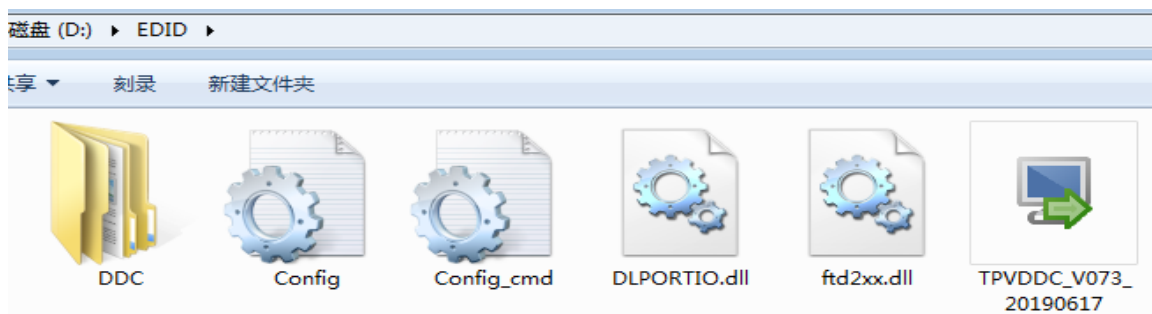
HDMI EDID → WH.dat VGA EDID → WA.dat

HDMI2 EDID → WH2.dat

3.2. Copy these files to one folder named as Acer QG241 Y which must contains “config.ini” file.



3.3. Copy Acer QG241 Y to DDC folder and put DDC and ISP tool together.

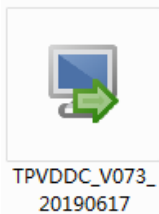


3.4 Setting the Config as below.

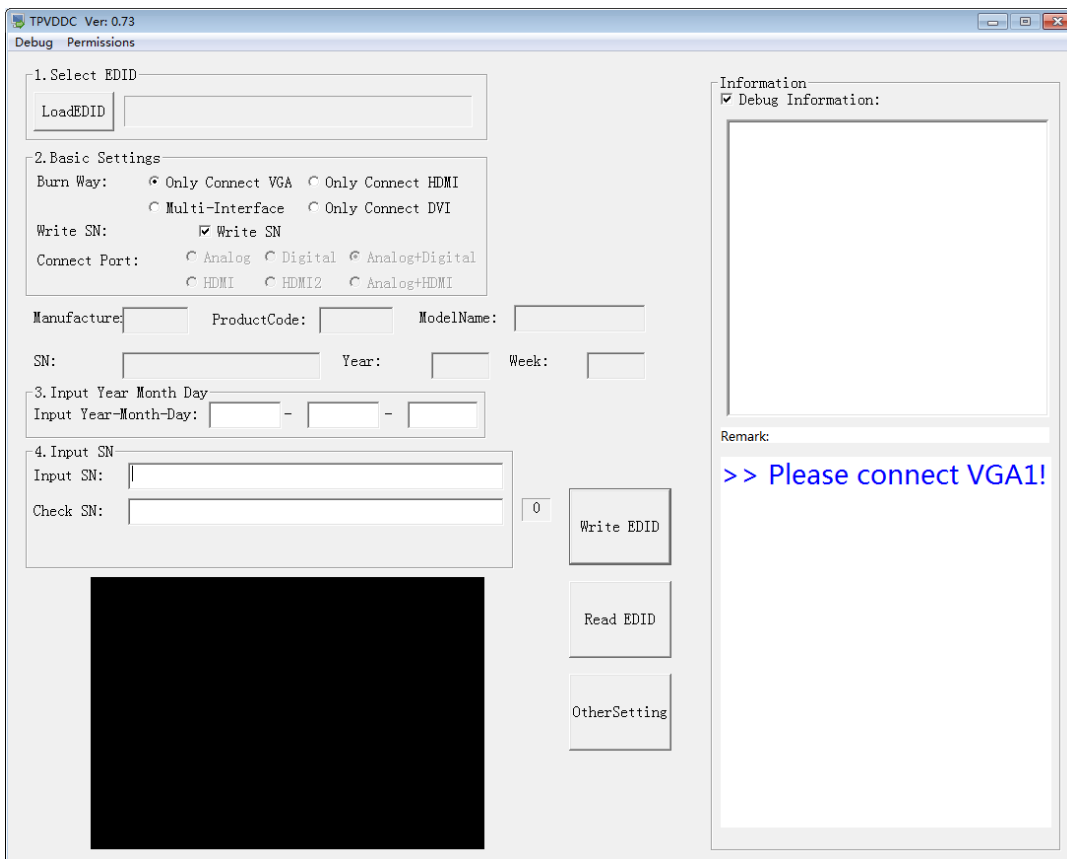


4. Run the ISP tool

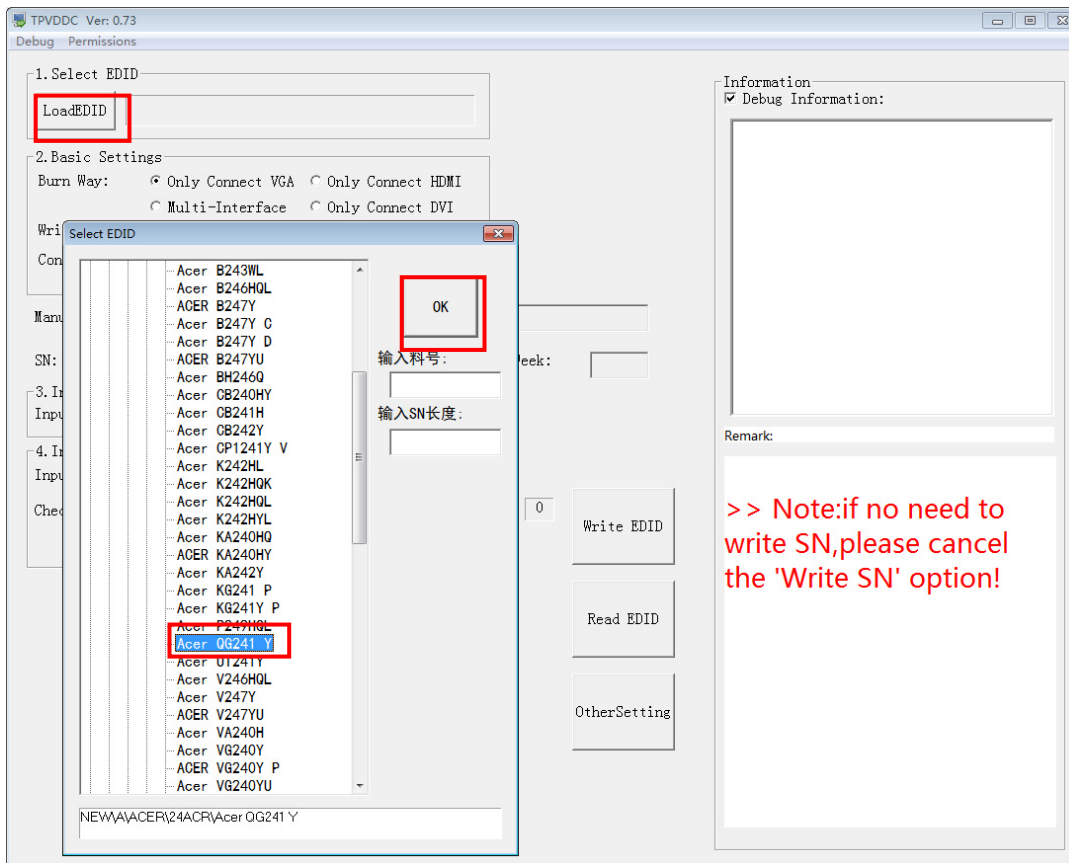
Note: If the F/W Upgrade use the same ISP tool as the EDID writing, you must close the F/W Upgrade tool before running the EDID writing tool.



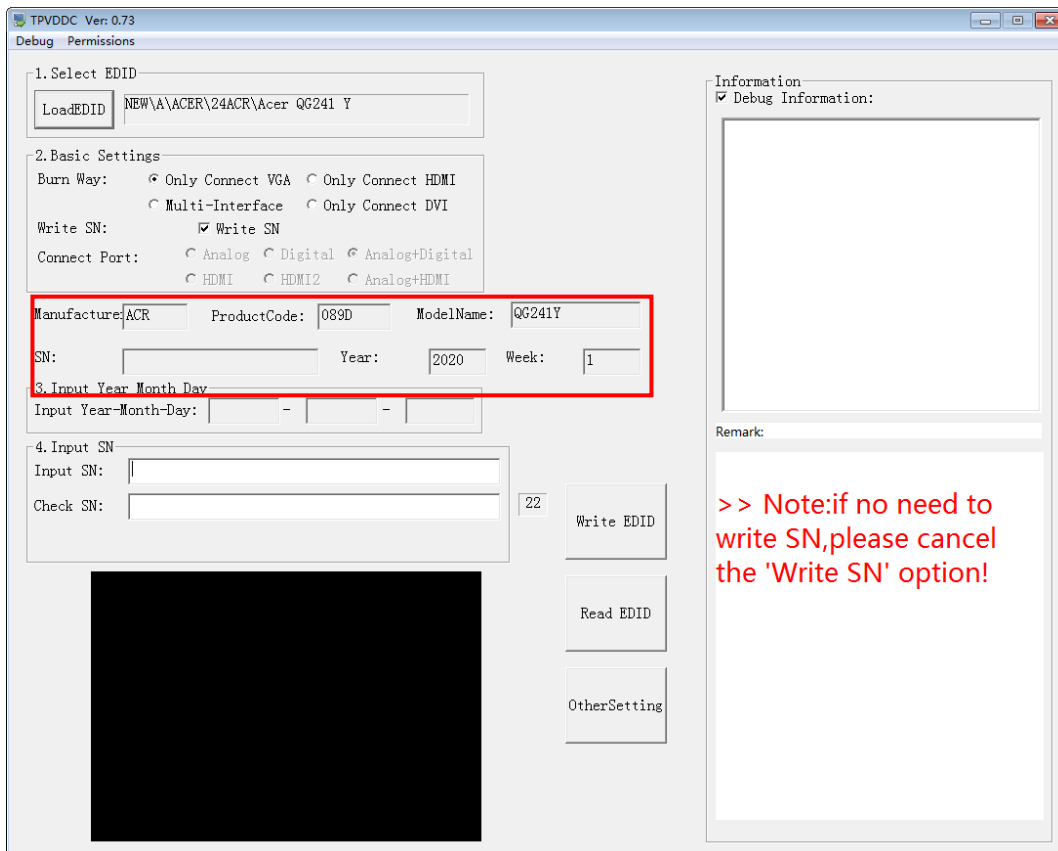
4.1. Double-click the icon to open the tool.



4.2. Select the EDID folder.



4.3. Load EDID successful.



4.4 Tick the “Only connect HDMI” and “Write SN”.

TPVDDC Ver: 0.73
Debug Permissions

1. Select EDID
LoadEDID NEW\A\ACER\24ACR\Acer QG241 Y

2. Basic Settings
Burn Way: ☐ Only Connect VGA ☒ Only Connect HDMI
☐ Multi-Interface ☐ Only Connect DVI
Write SN: ☒ Write SN
Connect Port: ☐ Analog ☐ Digital ☒ Analog+Digital
☐ HDMI ☐ HDMI2 ☐ Analog+HDMI

Manufacture: ACR ProductCode: 089D ModelName: QG241Y
SN: Year: 2020 Week: 1

3. Input Year Month Day
Input Year-Month-Day: - -

4. Input SN
Input SN:
Check SN:
22

Write EDID
Read EDID
OtherSetting

Information
☒ Debug Information:

Remark:
>> Please connect HDMI1 cable!

4.5 Set the OtherSetting as below.

TPVDDC Ver: 0.73
Debug Permissions

1. Select EDID

Setting

Pokavoke Setting
☐ NDS
☒ Pokavoke for barcode
☒ CHECK Year/Week
☐ Pokavoke for ASUS
☒ New Command ☐ Old Command
Input Year Limit 0
☐ Detect Cable Connect

Other Features
☐ Enter Factory
☐ Enter DFM
☐ Set B/I Flag
☐ Close B/I
☒ Write EDID Enable Command
☒ Create Log

Signal Detection Setting
Initialization Delay: 0 ms
White x: 0 White y: 0
White Lv: 0 Range: 0

Write Setting
☐ Write PN
EDID Memory Style: Analog: ☐ EEPROM DVI: ☐ EEPROM
Delay Setting: ☒ FLASH ☒ FLASH
Send Enable CMD Delay: 300 ms
Write Delay: 110 ms Read Delay: 70 ms
☐ NEC CDT2.0 Write HDMI1 EDID
☐ NEC Write HDMI2 EDID
Read Delay: 500 ms
Multi-Interface Delay Setting:
Write Delay: 100 ms
RS232 Communication Setting:
Read EDID Delay: 50 ms Read Cmd Delay: 40 ms
Scanning Barcode:
☐ Auto ☒ Manual operation
Communication way:
☐ Print Port ☒ USB ☐ COM

OK CANCEL

OtherSetting

Information
☒ Debug Information:

Remark:
>> Please connect HDMI1 cable!

4.6 Type in the date and the 22 digit S/N.

TPVDDC Ver: 0.73
Debug Permissions

1. Select EDID
LoadEDID NEW\A\ACER\24ACR\Acer QG241 Y

2. Basic Settings
Burn Way: ☐ Only Connect VGA ☒ Only Connect HDMI
☐ Multi-Interface ☐ Only Connect DVI
Write SN: ☒ Write SN
Connect Port: ☐ Analog ☐ Digital ☒ Analog+Digital
☐ HDMI ☐ HDMI2 ☐ Analog+HDMI

Manufacturer: ACR ProductCode: 089D ModelName: QG241Y
SN: Year: 2020 Week: 1

3. Input Year-Month-Day
Input Year-Month-Day: - -

4. Input SN
Input SN: 1234567891212345678912
Check SN: 1234567891212345678912 22 Write EDID
Read EDID
OtherSetting

Information
✓ Debug Information:
Remark:
>> Please connect HDMI1 cable!

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

TPVDDC Ver: 0.73
Debug Permissions

1. Select EDID
LoadEDID NEW\A\ACER\24ACR\Acer QG241 Y

2. Basic Settings
Burn Way: ☐ Only Connect VGA ☒ Only Connect HDMI
☐ Multi-Interface ☐ Only Connect DVI
Write SN: ☒ Write SN
Connect Port: ☐ Analog ☐ Digital ☒ Analog+Digital
☐ HDMI ☐ HDMI2 ☐ Analog+HDMI

Manufacturer: ACR ProductCode: 089D ModelName: QG241Y
SN: Year: 2022 Week: 12

3. Input Year-Month-Day
Input Year-Month-Day: - -

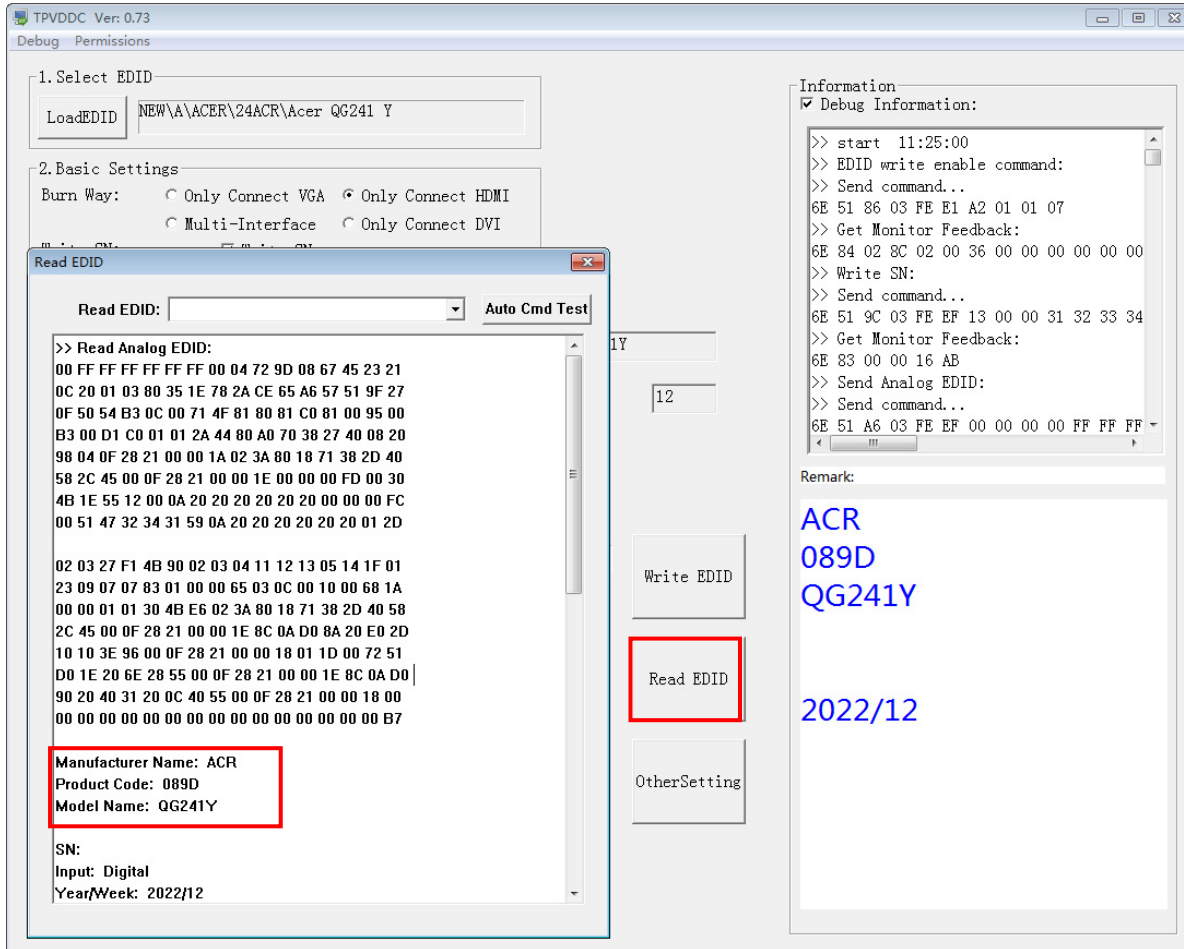
4. Input SN
Input SN: Check SN: 22 Write EDID
Read EDID
OtherSetting

Information
✓ Debug Information:
Remark:
ACR
089D
QG241Y
2022/12

Analog: PASS!
HDMI2: PASS!
HDMI: PASS!
SN: PASS!

```
>> start 11:25:00
>> EDID write enable command:
>> Send command...
6E 51 86 03 FE E1 A2 01 01 07
>> Get Monitor Feedback:
6E 84 02 8C 02 00 36 00 00 00 00 00
>> Write SN:
>> Send command...
6E 51 9C 03 FE EF 13 00 00 31 32 33 34
>> Get Monitor Feedback:
6E 83 00 00 16 AB
>> Send Analog EDID:
>> Send command...
6E 51 A6 03 FE EF 00 00 00 00 FF FF FF
```

4.8 After writing the EDID pass, you must read the EDID to ensure the EDID data had been write into the monitor. Choose one of the port to read.



1. If it appears all "00" when read the EDID data, you need reconnect the ISP tool or install the the driver of the ISP tool again.
2. If it appears all "FF", it shows that the EDID data of the Main board is empty, you must writing the EDID again.

5. Troubleshooting.

5.1. Can't write!

- (1) AC on the monitor and turn on it. (Restart the monitor)
- (2) 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 QG241Y 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	756GQKCB0BA140000Q	NA
	POWER BOARD	PLPCJE541KVP8	NA
	KEY BOARD	KEPCLQA6	55.TCCM2.003
	LED BOARD	LEPCLQA2	55.TCCM2.004
	PANEL	750GBV23810CAFN000	NA
	SPEAKER 4OHM 2.5W 63x22MM-50MM (LEFT)	378G0025689CLA	23.TCCM2.001

	SPEAKER 40HM 2.5W 63x22MM-50MM (RIGHT)	378G0025689CRA	23.TCCM2.002
	D SUB CABLE 1500MM	089G-725CAA-2A	50.LNY0B.014
	AUDIO CABLE 1500MM	389G017356G596	50.LXPM2.001
	FFC CABLE 30P-30P 280MM(MB TO PANEL)	395G179W30P1520000	NA
	CABLE 4P-2P 600/80MM(MB TO SPEAKER)	395GH20004DM150000	50.TDNM2.001
	CABLE 6P 500MM(MB TO KEY BOARD)	395GH20006GM208000	50.TCCM2.003
	CABLE 6P 200MM(PB TO PANEL)	395GH20006XM034000	50.TCCM2.005
	POWER CORD 1500MM (UK)	089G410A15N-CX	27.Q3Q0B.003

	POWER CORD 1500MM (EUROPE)	389G404A15NCXG	27.T2JM2.001
	KEY_FUNCTION	A33G2238AEM02L0100	60.TCBM2.002
	KEY	Q33G0890AEM01S0100	60.TCCM2.006
	MIDDLE_FRAME	Q34G9861AEM01S0100	NA
	REAR_COVER	Q34G9862AEM02S0130	NA
	STAND HINGE ASSY	705GQICS034714	60.TDNM2.007
	BASE_ASS'Y	Q37G085801100002ZA	NA
	BEZEL ASSY	705GQZCS034838	NA
	MAINFRAME	Q15G463520110100YM	NA

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.