

Service
Service
Service



Acer Monitor B27

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	12
4. Writing EDID Process	18
5. FRU (Field Replaceable Unit) List.....	31
6. Trouble shooting instructions	31

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.

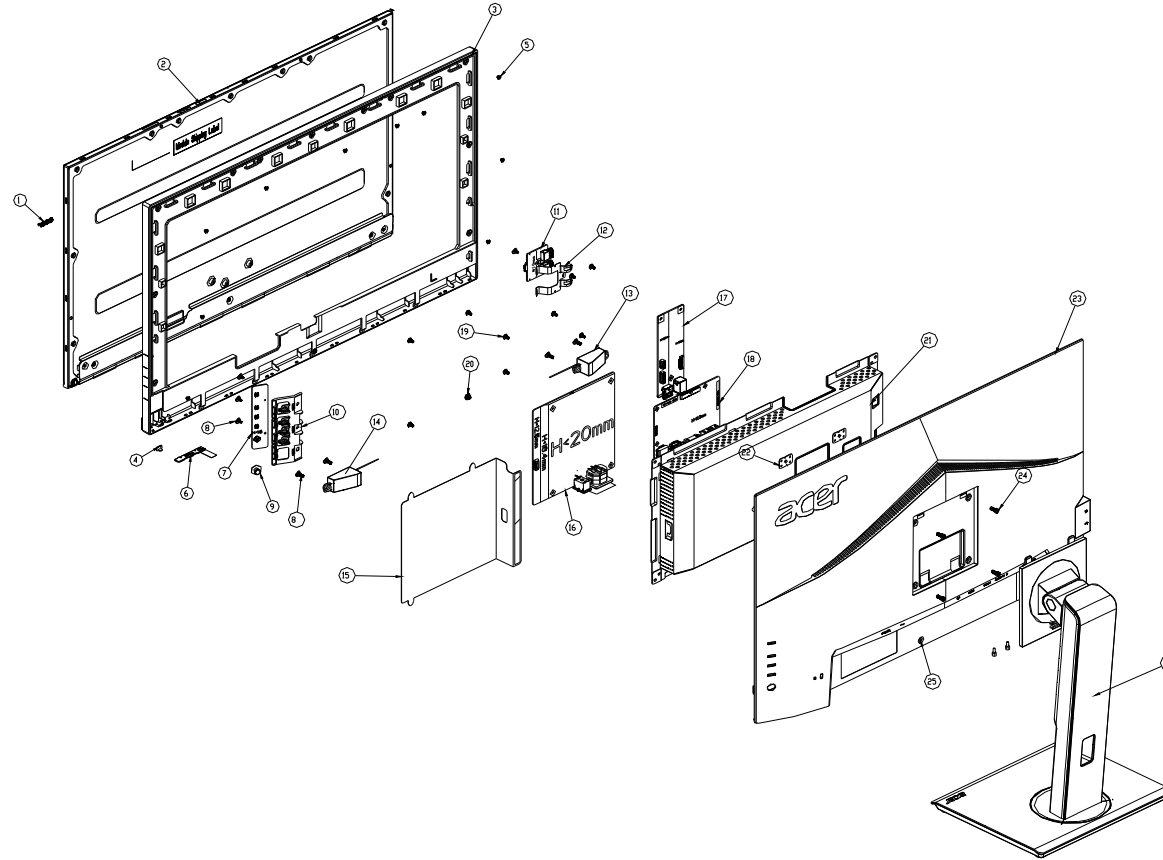
CAUTION -The use of optical instruments with this product will increase eye hazard.

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.
2	PANEL	750GBU270HA10JN000	NA
6	LED BOARD	LEPCLQA2	NA
7	KEY BOARD	KEPCLQA6	NA
11	USB BOARD	USBLQA6	NA
16	POWER BOARD	PLPCHH541KQB1	NA
17	USB BOARD	USBLQA4	NA
18	MAIN BOARD	756GQHCB0BA080000Q	NA
	CABLE 30P-30P 400MM(MB TO PANEL)	395G179Q30B8250000	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:

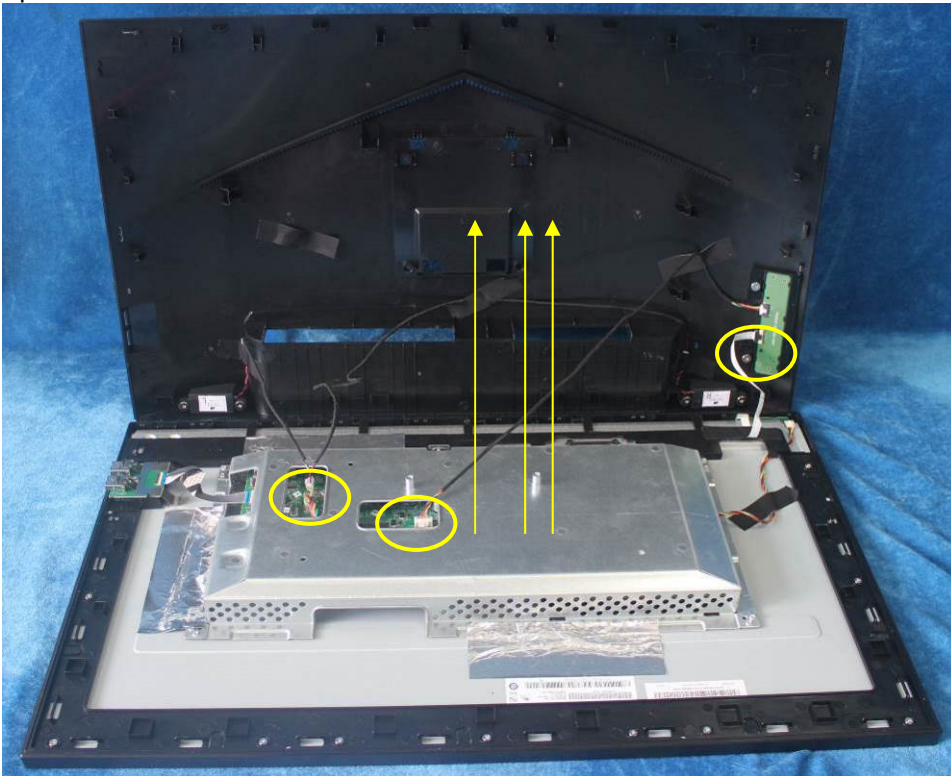
S1. Press the button to remove the stand ASS'Y and unscrew the screws on rear cover.



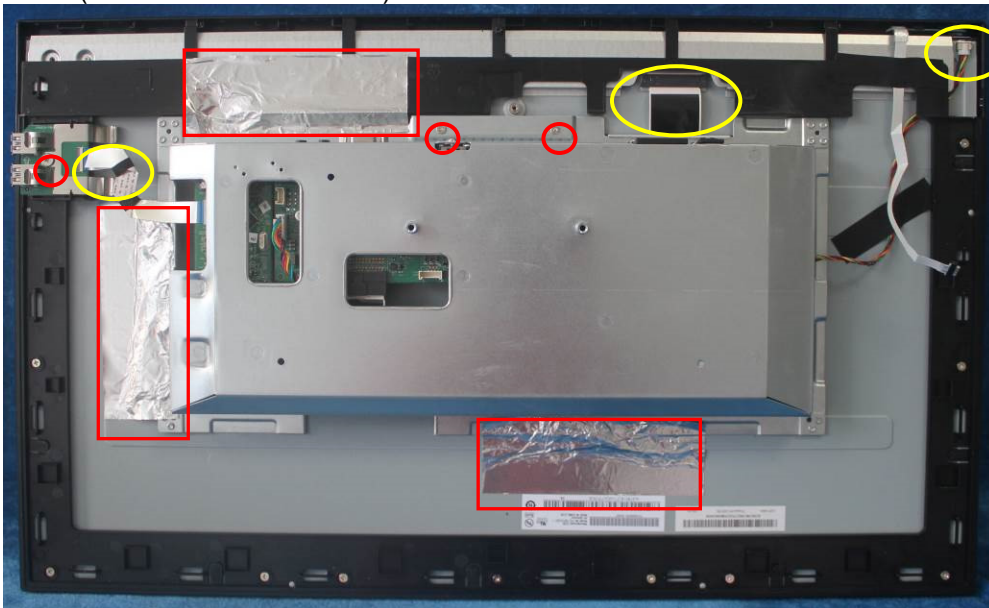
S2. Remove the rear cover. Use a tool (like picture using) to open all latches. (Be careful the position of the key board.)



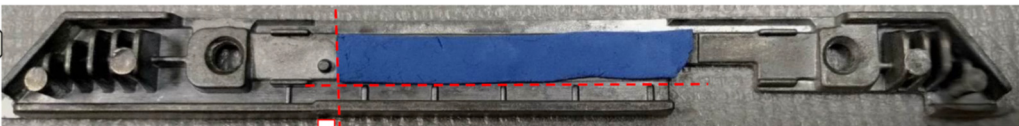
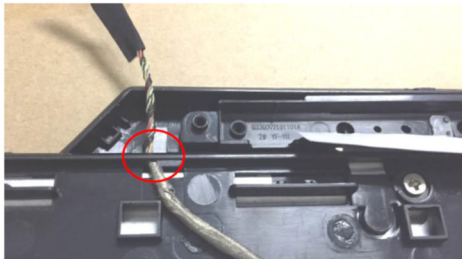
S3. Pull up the rear cover and disconnect the connectors.

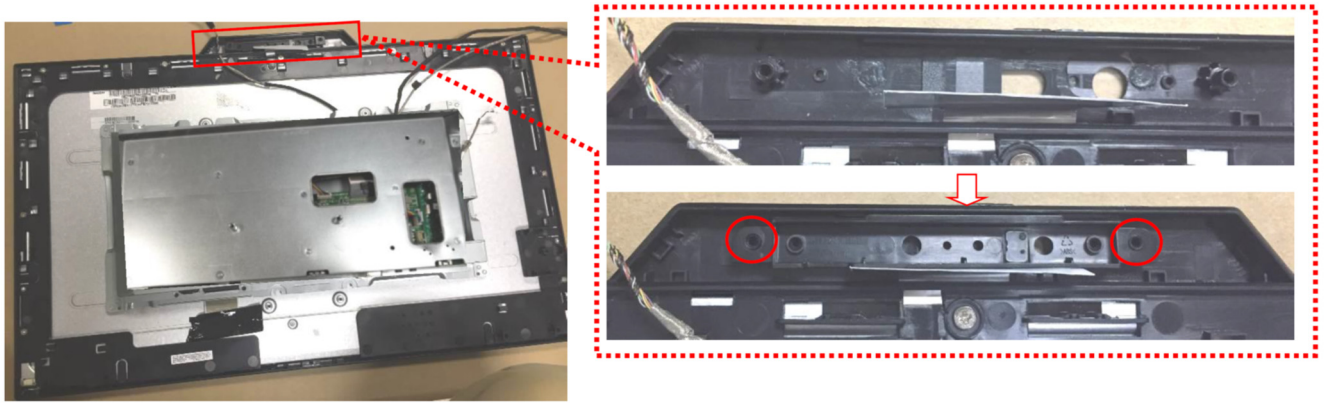


Tear up all tapes and disconnect the FFC cable (main board to panel), lamp power cable (power board to panel), USB cable(USB board to main board) and unscrew the screws to remove the mainframe and USB board.

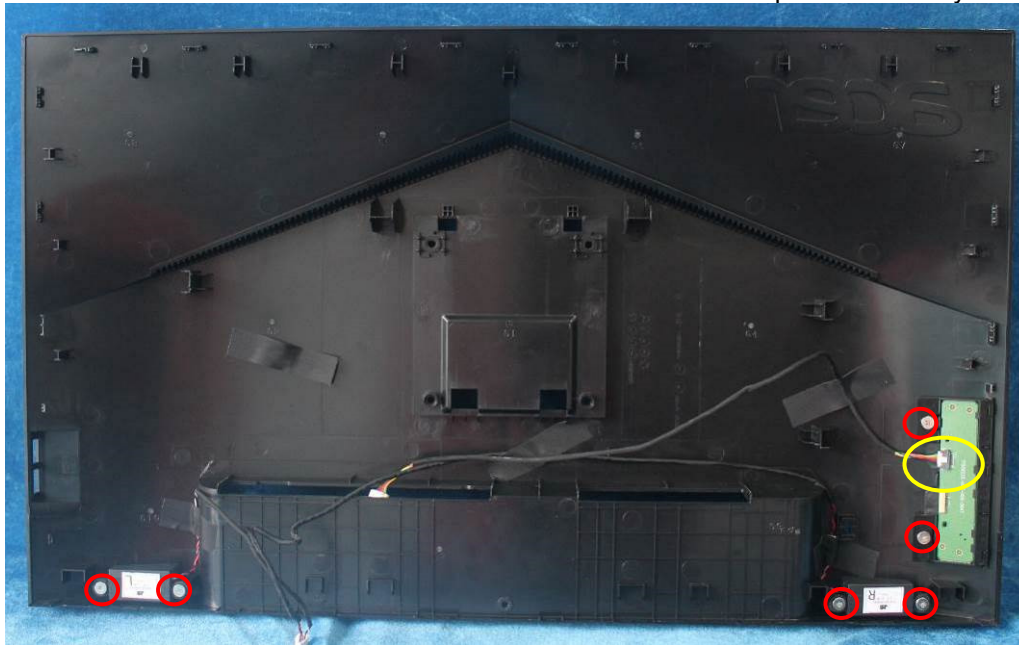


Below For webcam model:

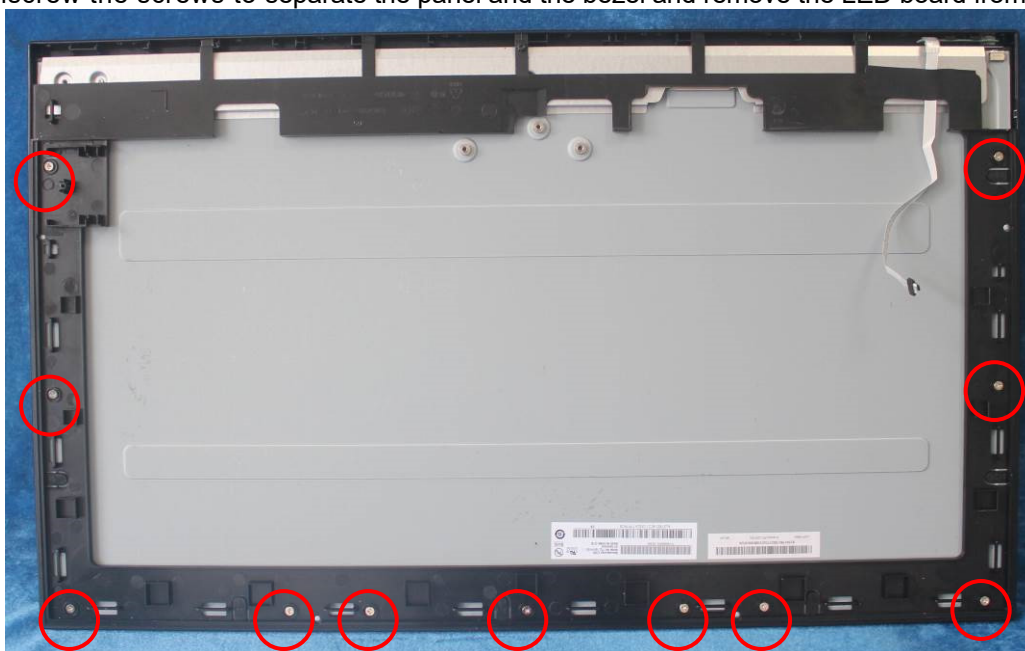


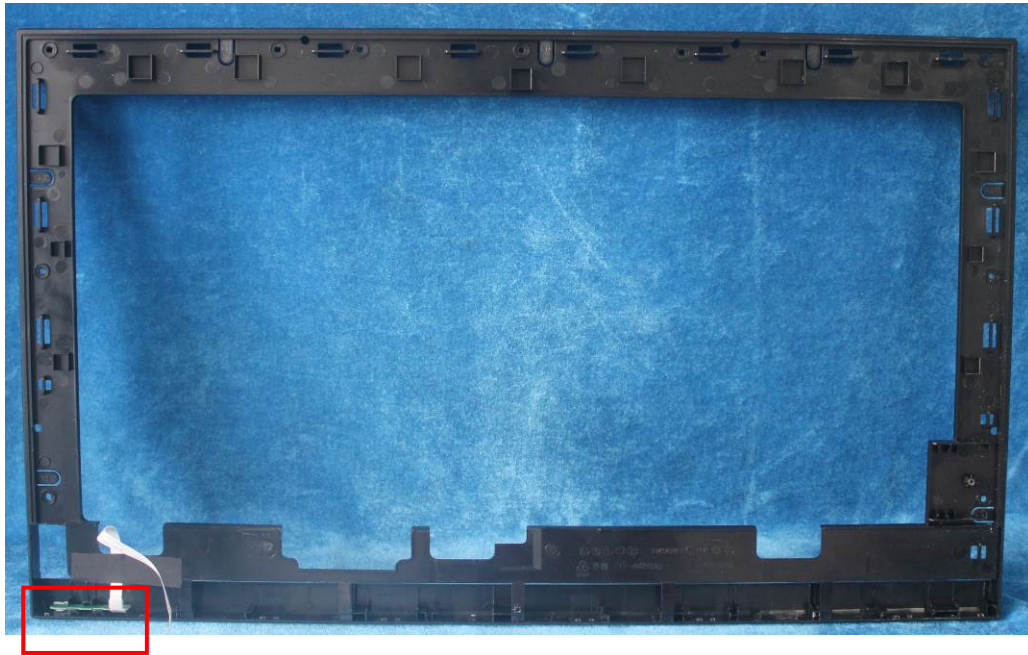


Unscrew the screws and disconnect the connector to remove the speakers and key board from the rear cover.

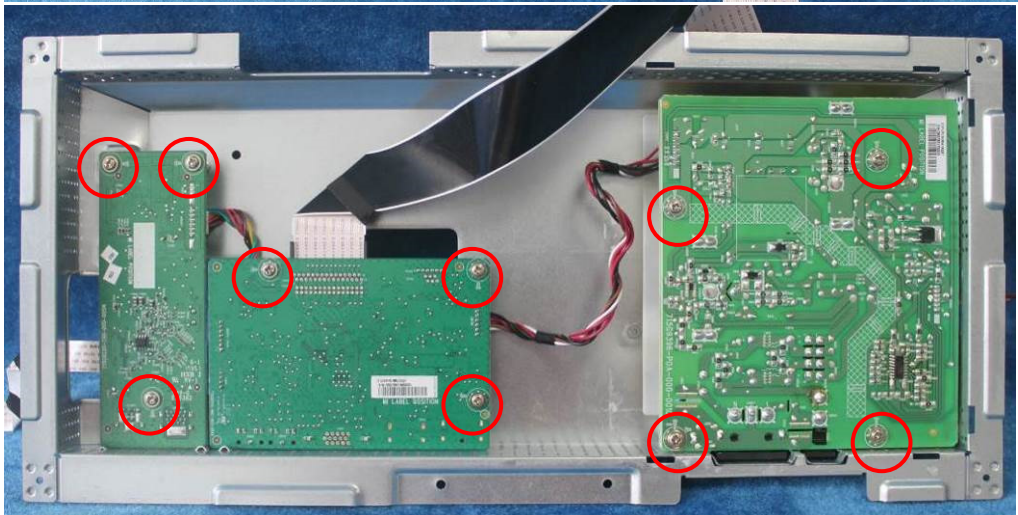
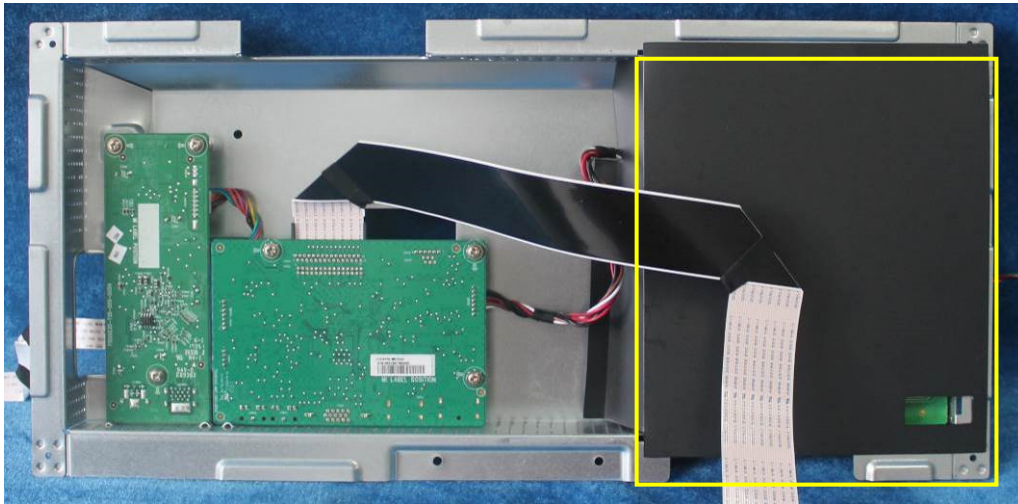


S4. Unscrew the screws to separate the panel and the bezel and remove the LED board from the bezel.

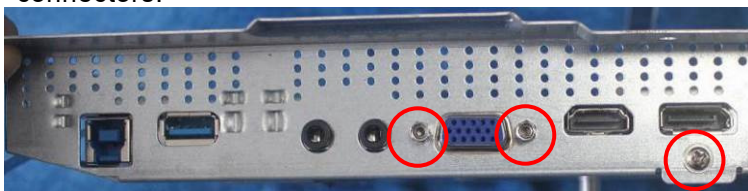




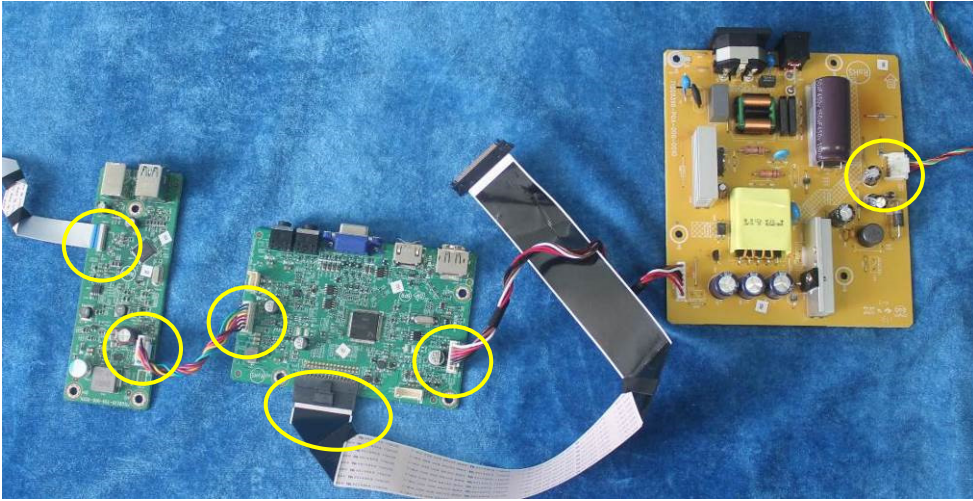
S5. Turn over the shield and remove the Mylar and unscrew the screws on main board, power board and USB board.



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

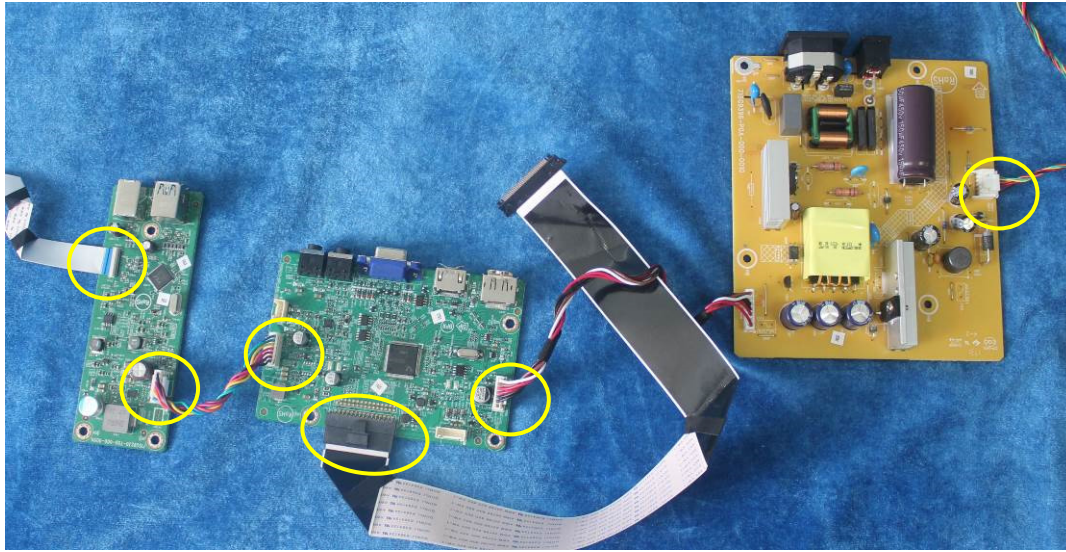


S7. Remove the main board and power board. Disconnect the cables.

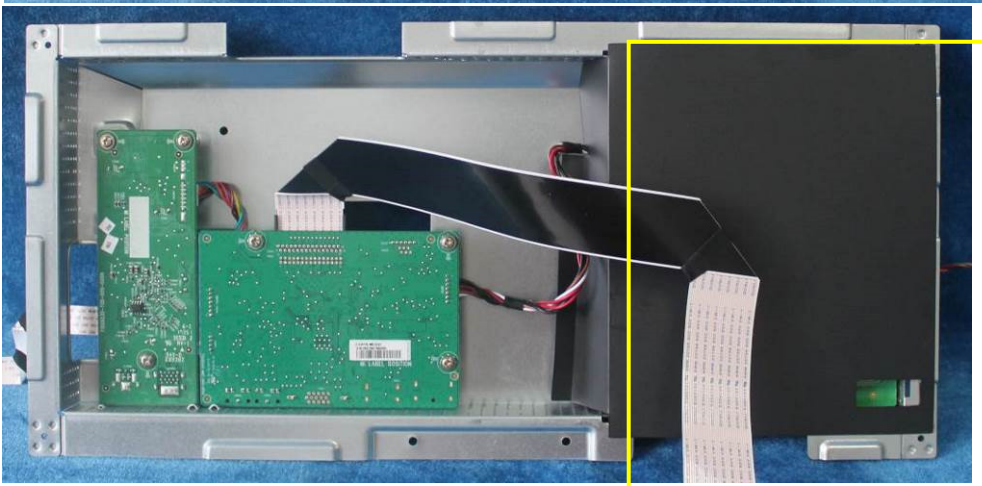
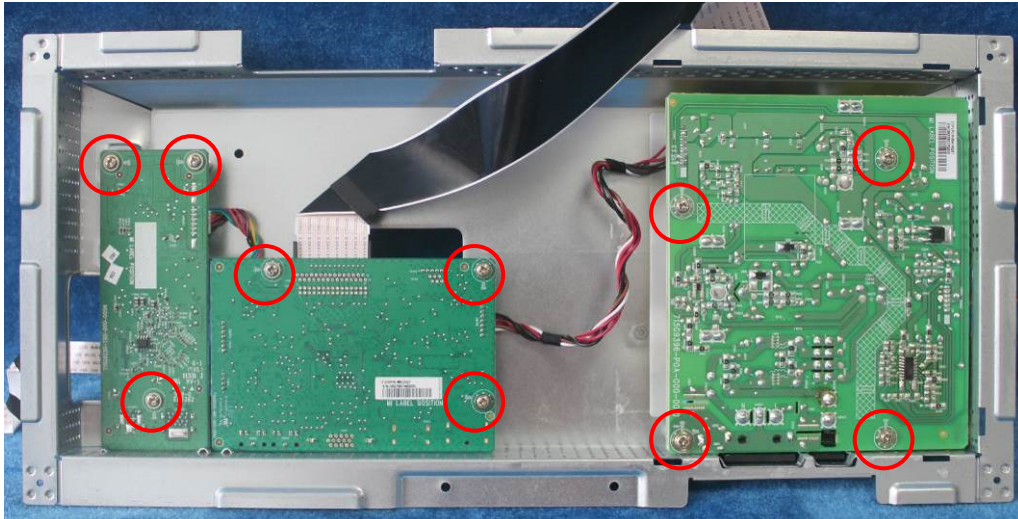


2.2 Assembly Procedures:

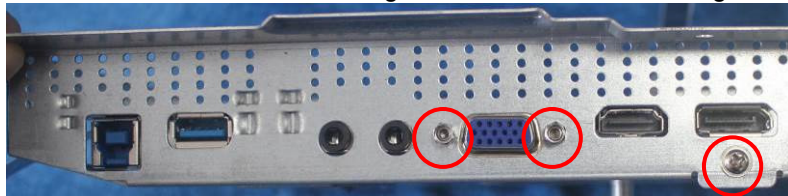
S1. Prepare a main board, a power board, a USB board and some essential cables. Connect every cable as the below picture.



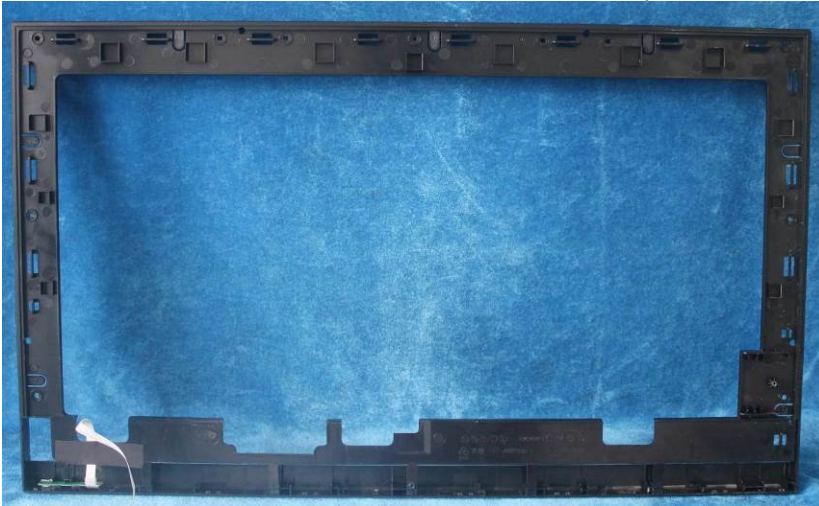
S2. Use a Philips-head screwdriver to tighten the screws till the power board, main board and USB board with shield are firmly attached. Tape the Mylar.



S3. Use a Hex-head screwdriver to tighten the screws for locking the connectors.

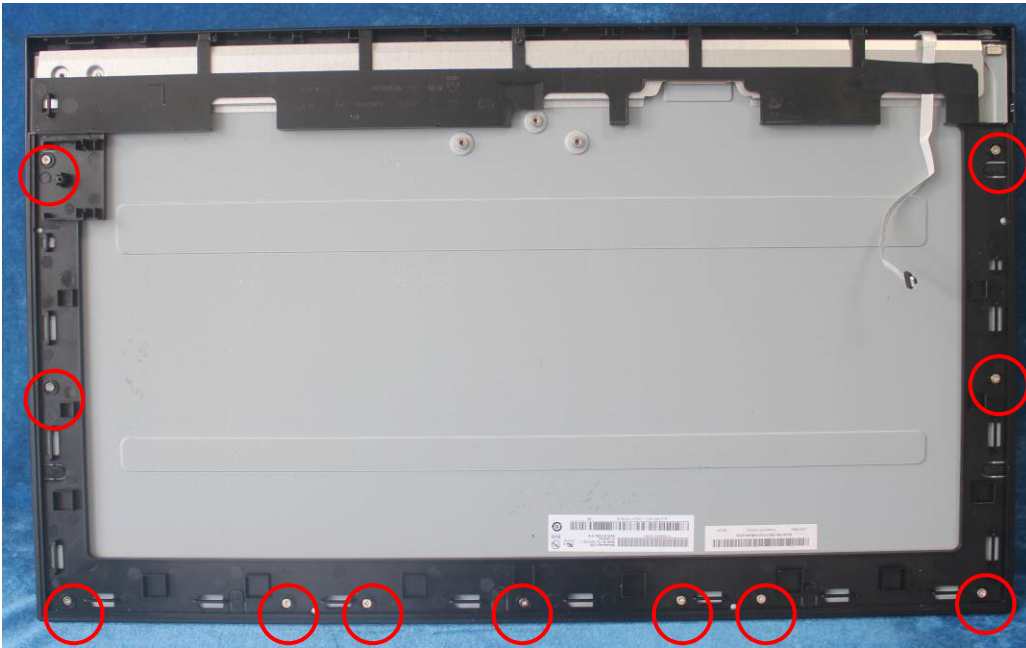


S4. Assemble the LED board to the bezel and assemble the panel to the bezel and screw all the screws.

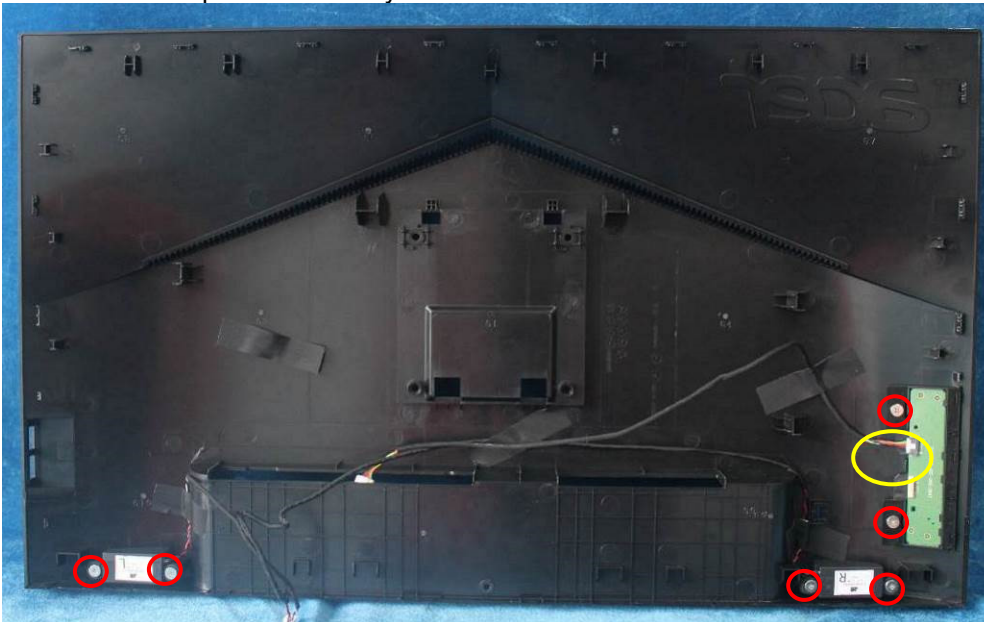


For IR webcam Model Bezel

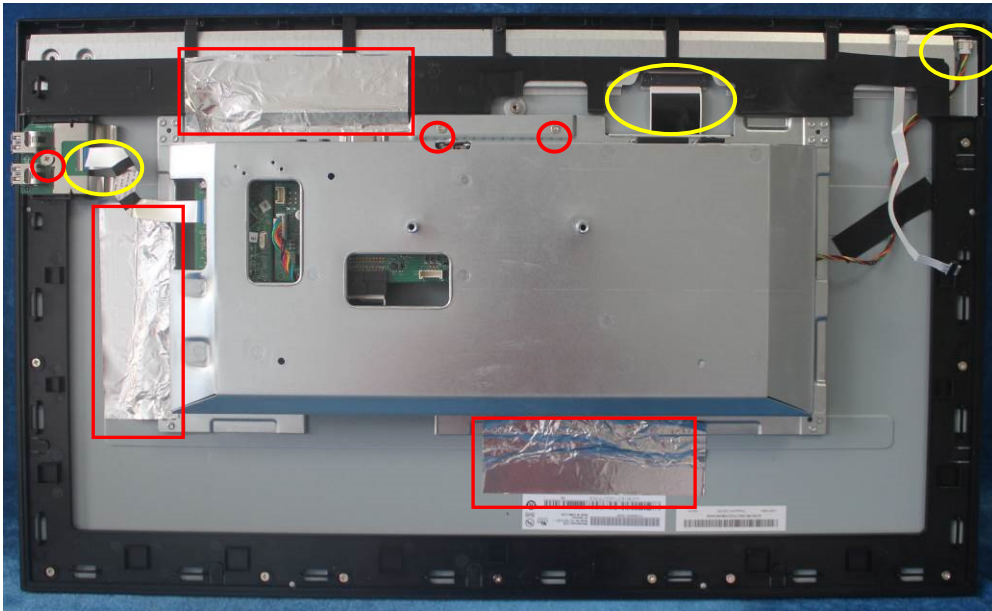




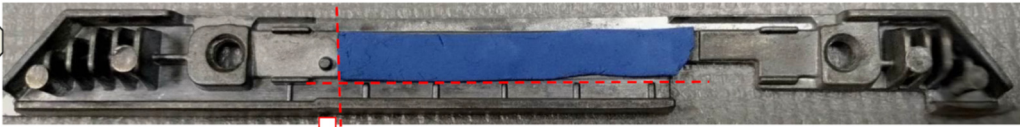
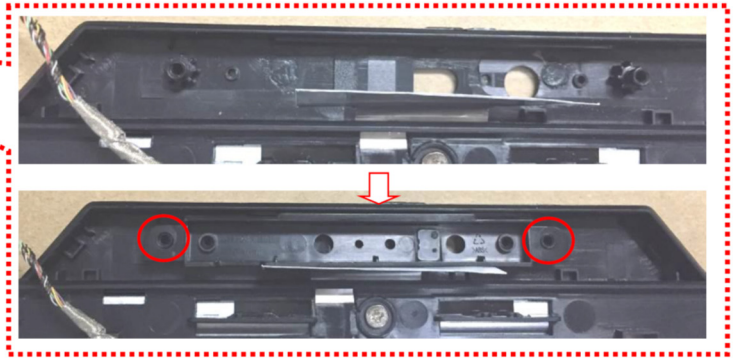
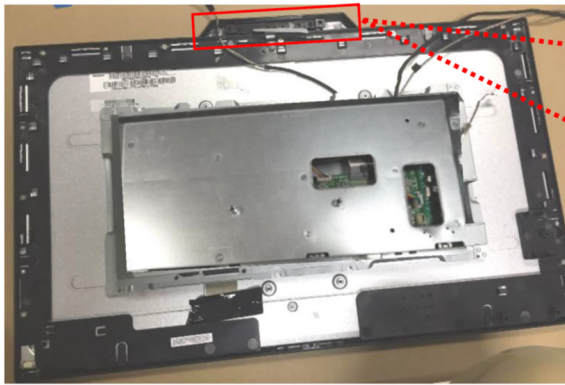
S5. Assemble the speakers and key board to the rear cover and screw the screws and the connector.



S6. Paste the tapes and connect lamp power cable (mainboard to panel, power board to panel, main board to key board), USB cable(USB board to main board) and screw the screw.



Below For webcam model:





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



S8. Assemble the stand ASS'Y to rear cover.



3. Firmware Upgrade Process

1. Materials



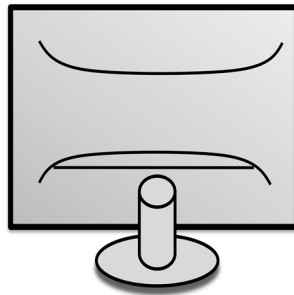
ISP JIG: 715GT089-C



VGA cable
TPV P/N: 089G728 GAA DB



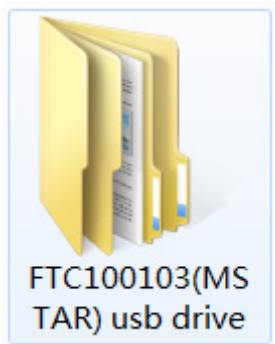
PC



Monitor



USB cable
TPV P/N: 089G1758 X



FTC100103(MS
TAR) usb drive

USB port driver

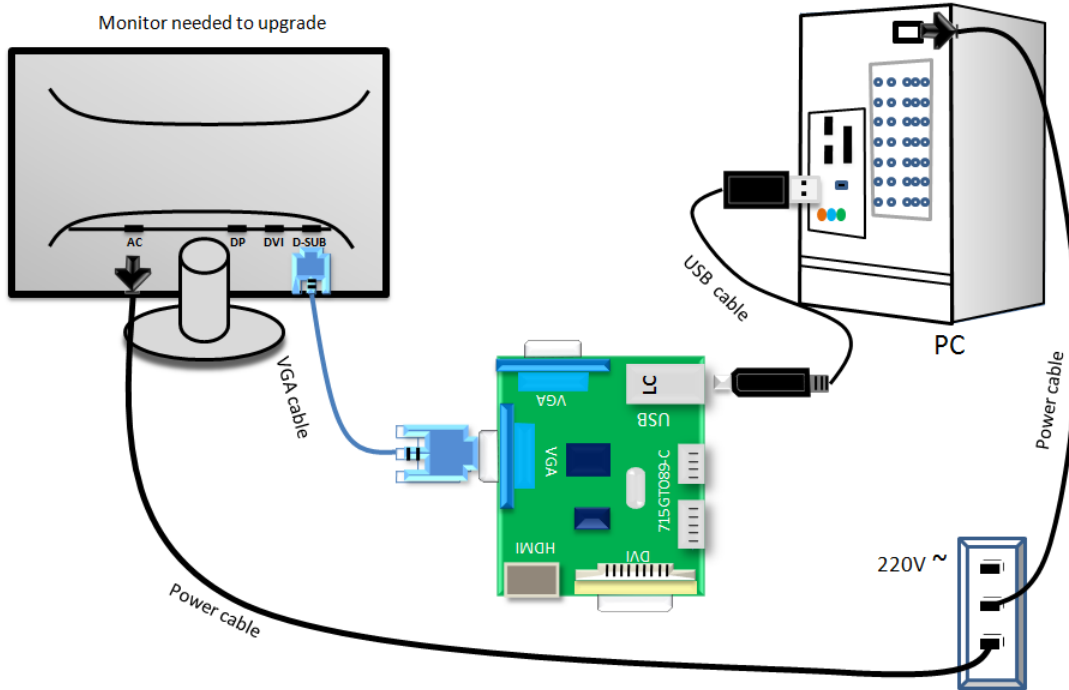


RTDTool.exe
ISP tool:



Acer_B277_RTD
2525AR_AHDPH
UB_AUO_M270
HAN01_1_7F0...
New F/W

2.Connection

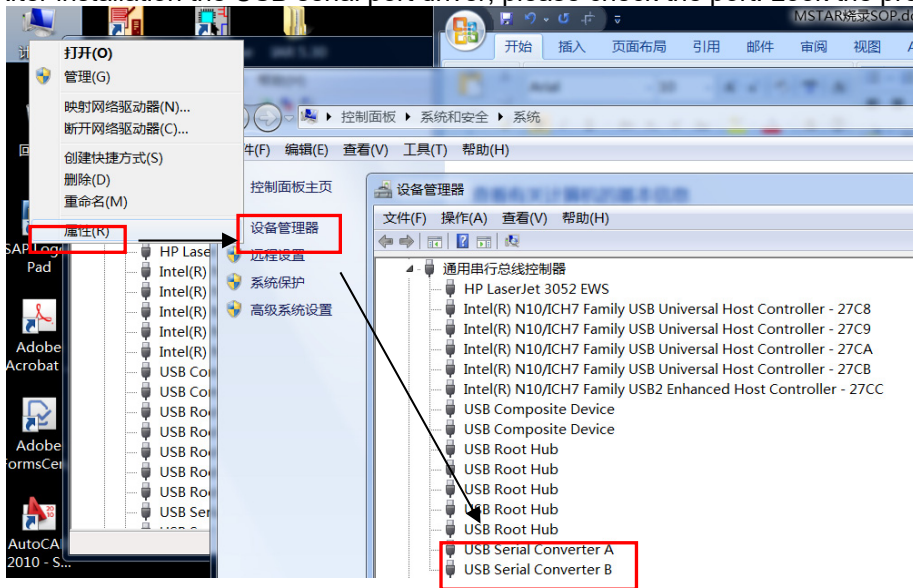


3.Install USB driver.

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. 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"



4. Install RTD tool.

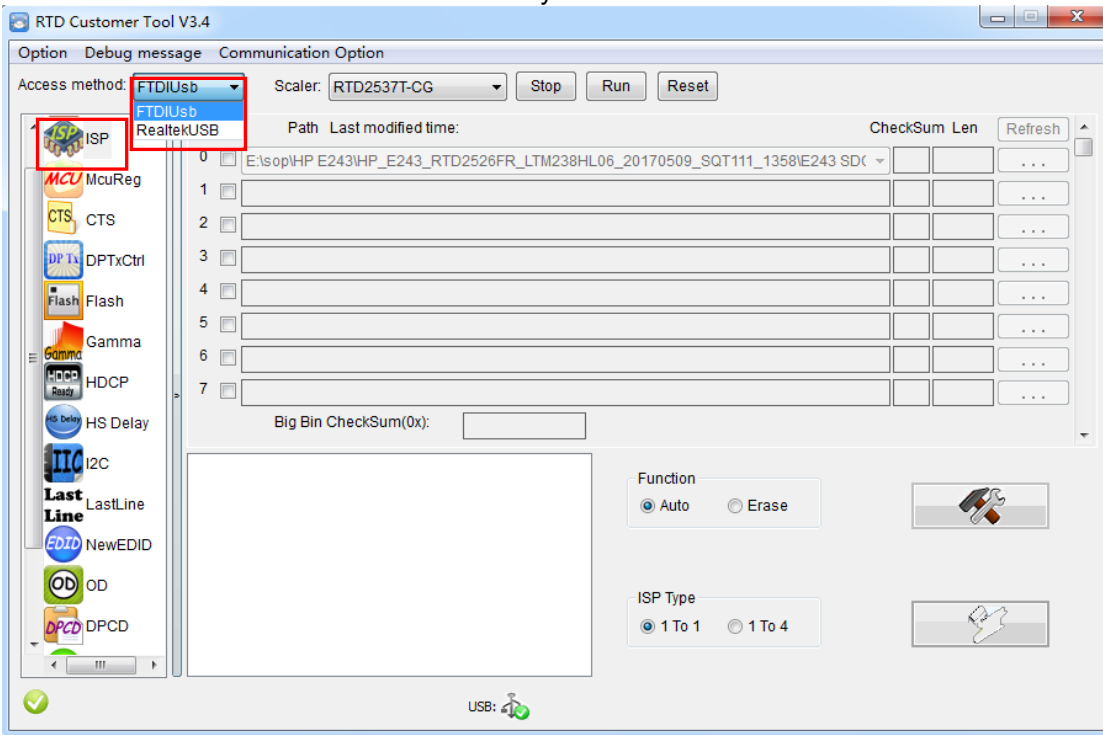
Note: If the F/W Upgrade use the same ISP tool as the EDID writing, you must close the EDID writing tool before running the F/W Upgrade tool.



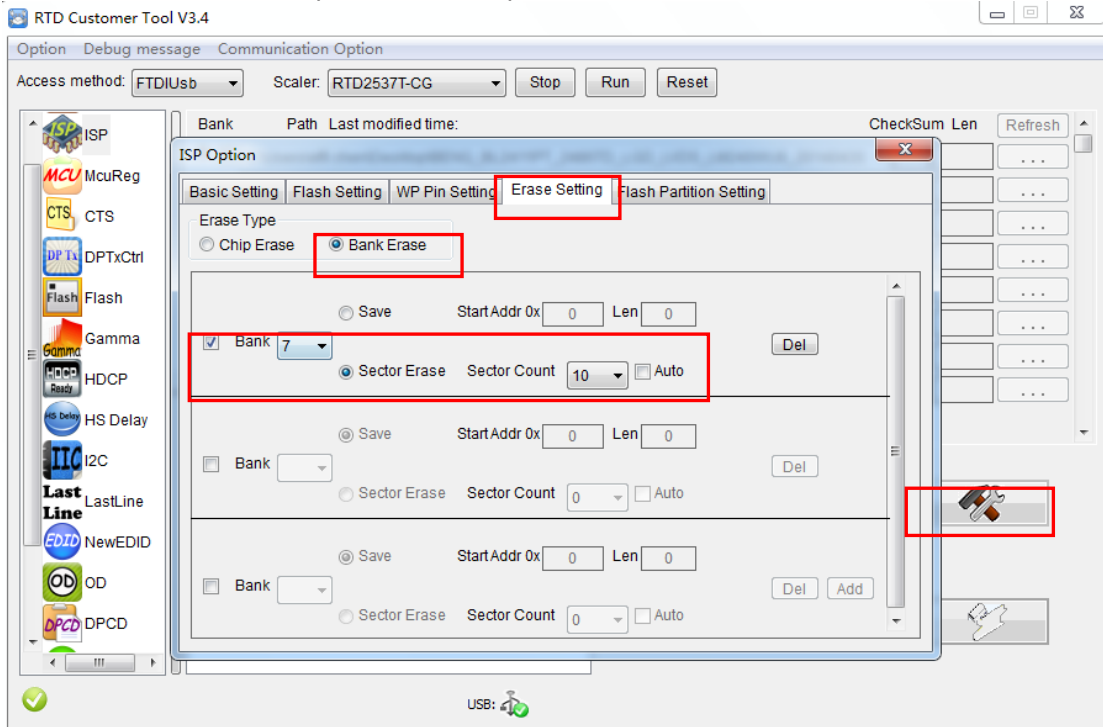
4.1. **RTDTool.exe** double-clicks the icon to run it.

Note: Must to install driver firstly

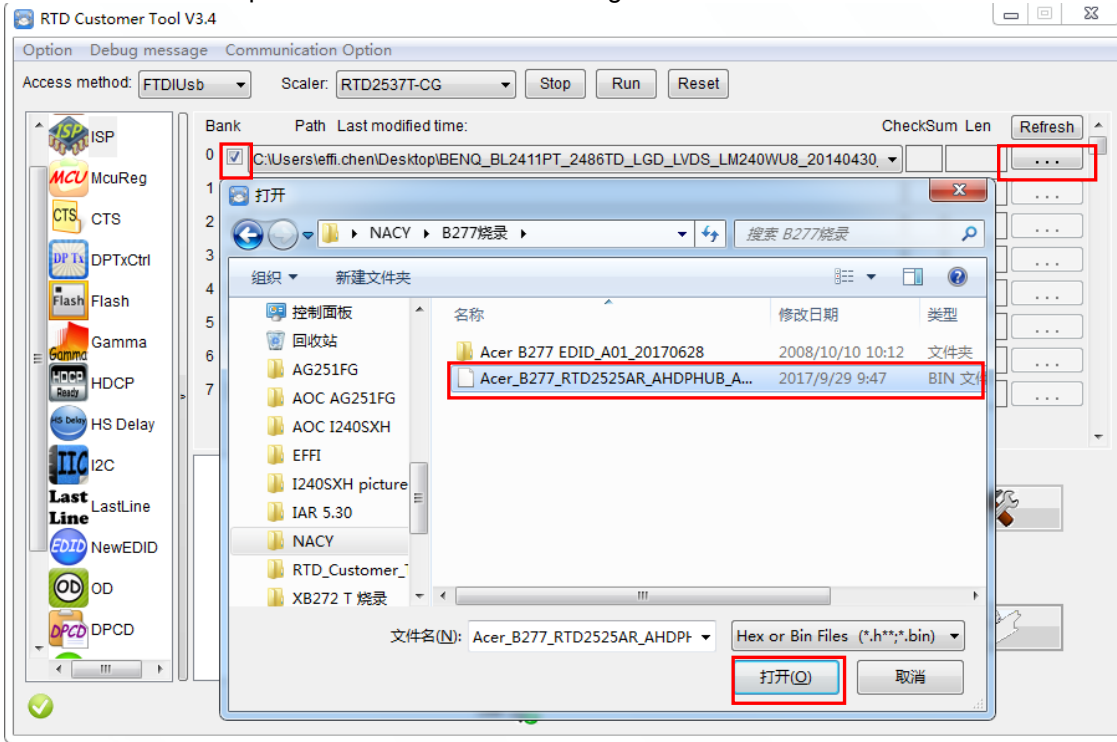
4.2. Choose the FTDIUSB communication way.



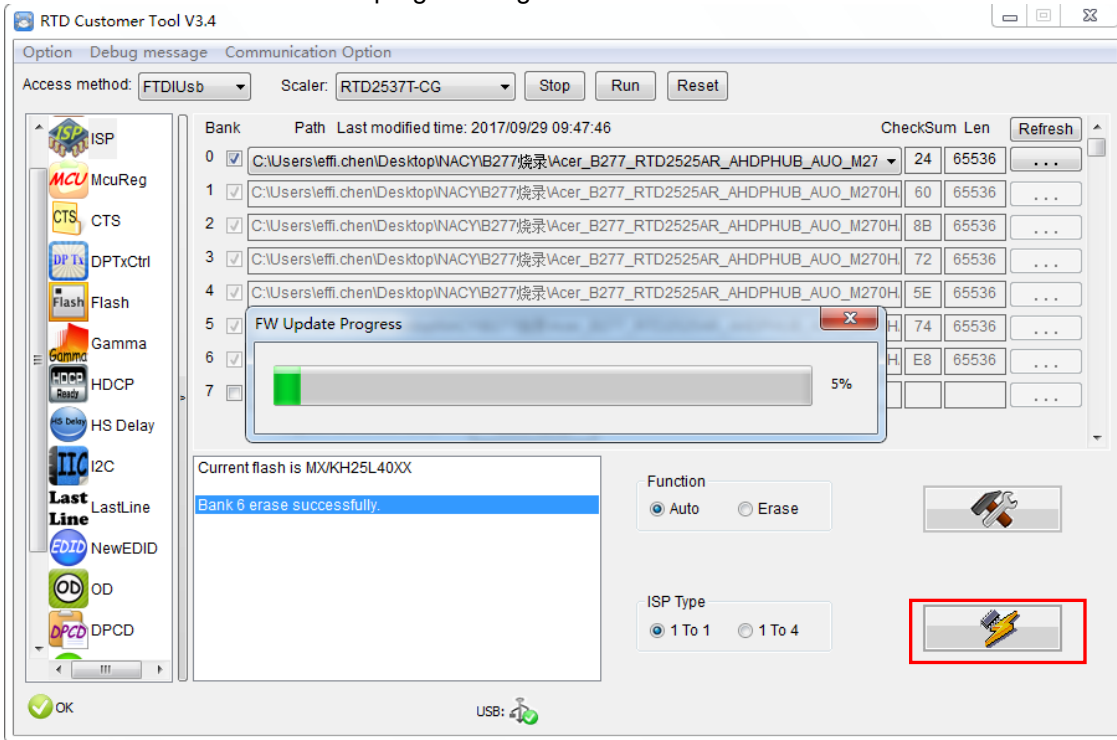
4.3 Click "ISP" and "ISP Option" to set the parameter.



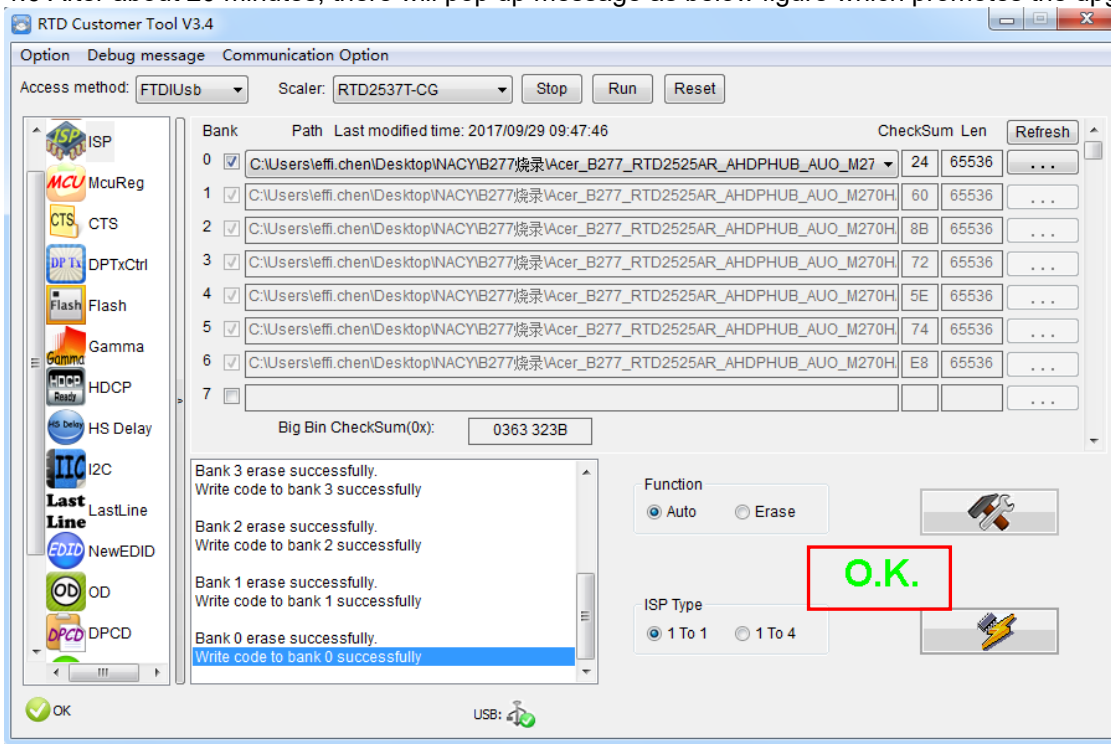
4.4 Close the "ISP Option" window and click the "BigBin" to load the correct F/W.



4.5 Click  to start programming.



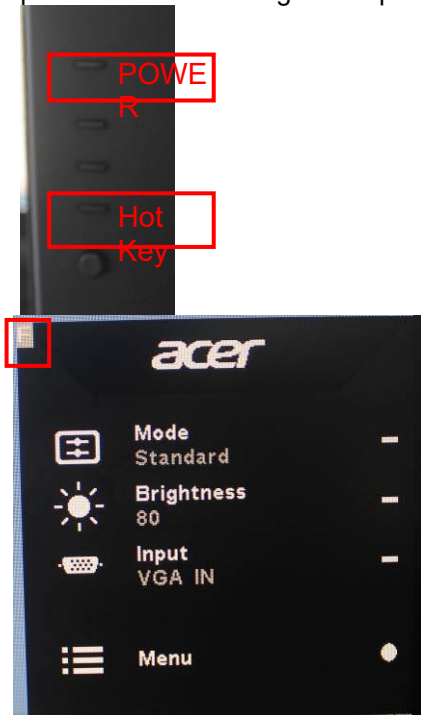
4.6 After about 20 minutes, there will pop up message as below figure which promotes the upgrade successful.



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 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: B277
Chips: RTD2525AA
Panel: AUO M270HAN01.1
Date : 20170929 Version: 0.05
AutoColor
Gain      R 174 G 164 B 164
Offset    R 116 G 115 B 116
          BRI  80   CON  50
Warm      R 128 G 128 B 128
Normal    R 125 G 122 B 128
Cool      R 111 G 110 B 128
Slight    R 128 G 128 B 115
Light     R 128 G 128 B 109
Medium    R 128 G 128 B  99
Strong    R 128 G 128 B  91

DFM       :      OFF
Burn In:   OFF
NVRAM Initial
Force Logo Off OFF
HW AutoColor FAIL
SSC 9     LVDS Current 2
Exit

```

Check this F/W version.

(3) Do "Auto Color" in factory mode.

```

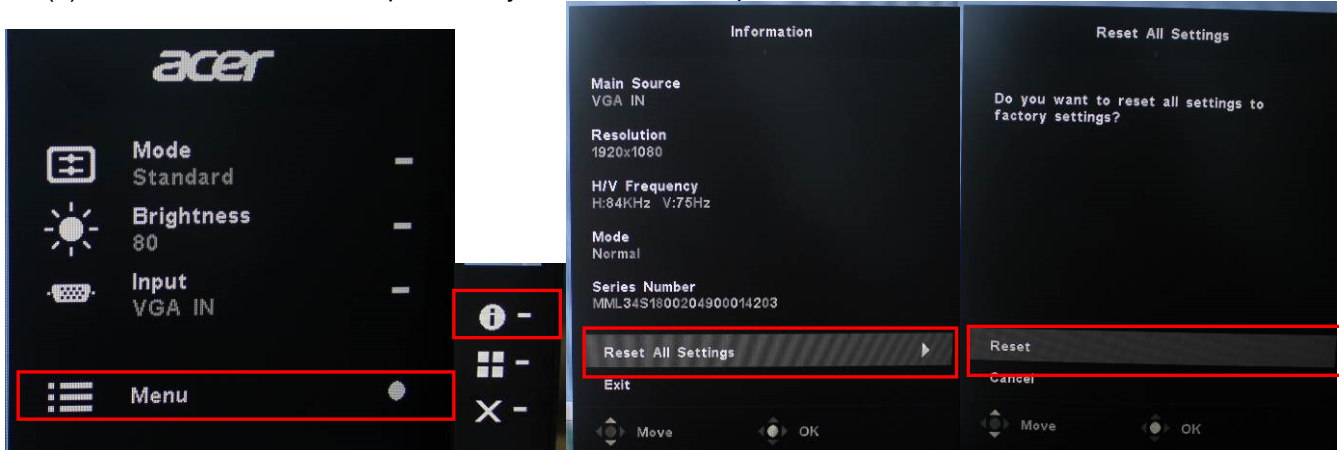
Model: B277
Chips: RTD2525AA
Panel: AUO M270HAN01.1
Date : 20170929 Version: 0.05
AutoColor PASS
Gain      R 168 G 156 B 149
Offset    R 118 G 116 B 118
          BRI  80   CON  50
Warm      R 128 G 128 B 128
Normal    R 125 G 122 B 128
Cool      R 111 G 110 B 128
Slight    R 128 G 128 B 115
Light     R 128 G 128 B 109
Medium    R 128 G 128 B  99
Strong    R 128 G 128 B  91

DFM       :      OFF
Burn In:   OFF
NVRAM Initial
Force Logo Off OFF
HW AutoColor PASS
SSC 9     LVDS Current 2
Exit

```

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

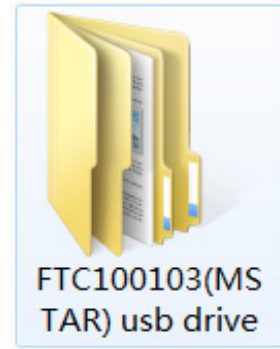
1. Materials list



VGA cable
TPV P/N: 089G728 GAA DB



USB cable
TPV P/N: 089G1758 X



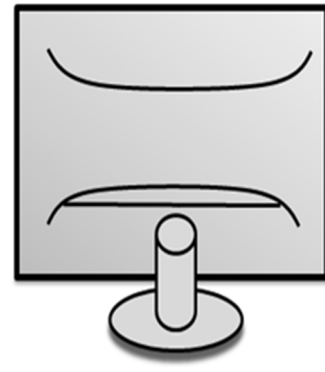
USB port driver



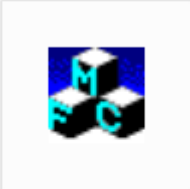
ISP JIG: 715GT089-B



PC



Monitor



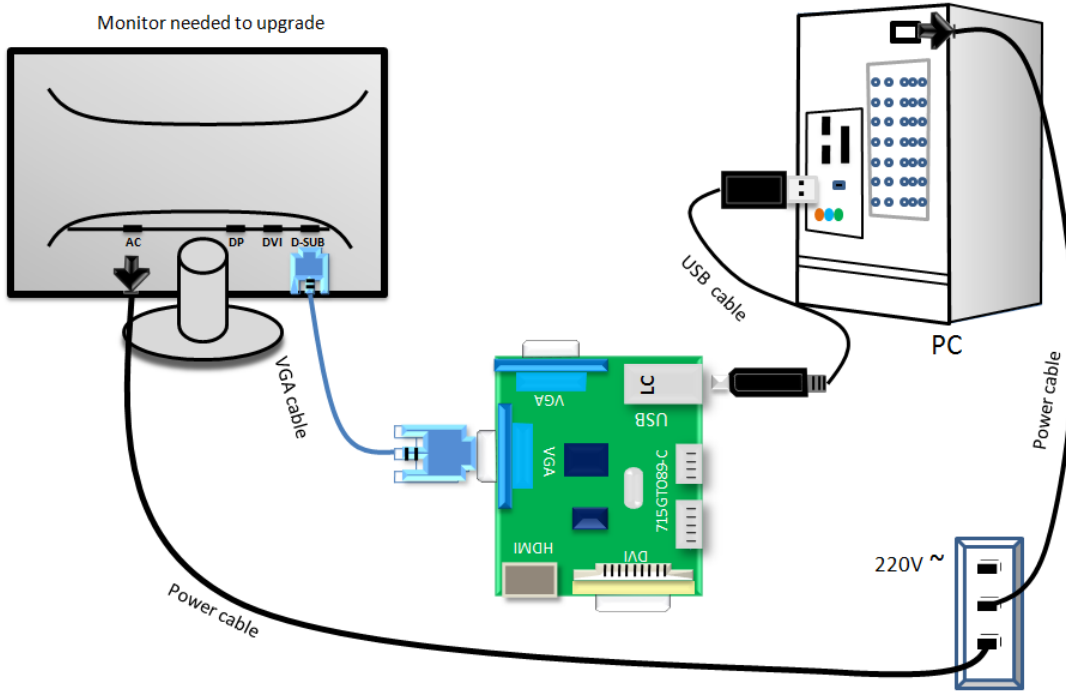
TPVDDC_V066_
20170512.exe

ISP tool



EDID

2. Connection(DC on the monitor)



3. Install USB driver.

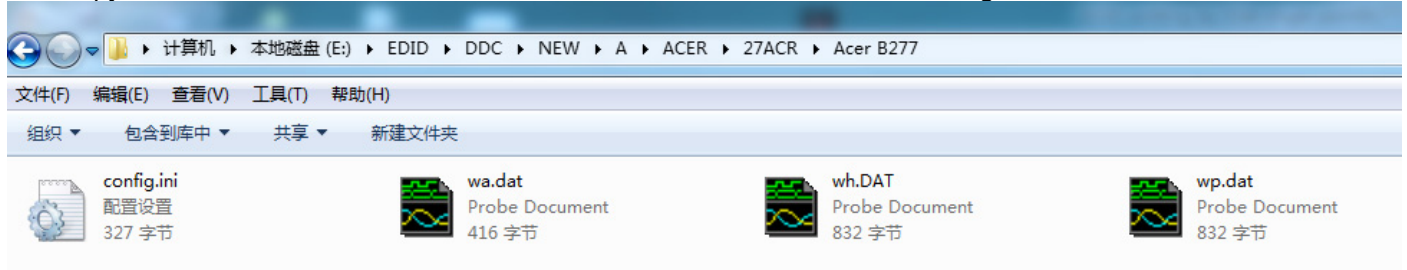
4. Prepare the EDID written.

4.1. Change the EDID files name as below rule.

Analog EDID → WA.dat HDMI EDID → WH.dat

DP EDID → WP.dat

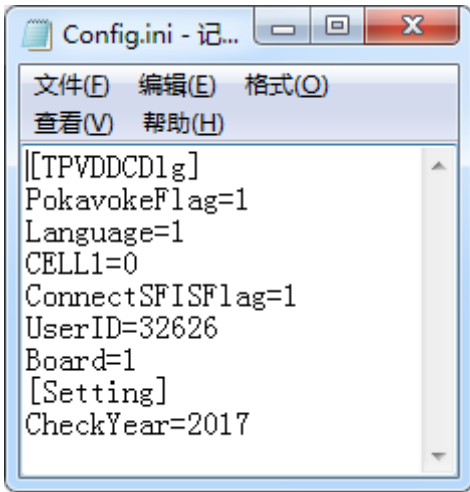
4.2. Copy these files to one folder named as Acer B277 which must contains "config.ini" file.



4.3. Copy Acer B277 to DDC folder and put DDC and ISP tool together.



4.4 Setting the Config as below.



5. Run the ISP tool

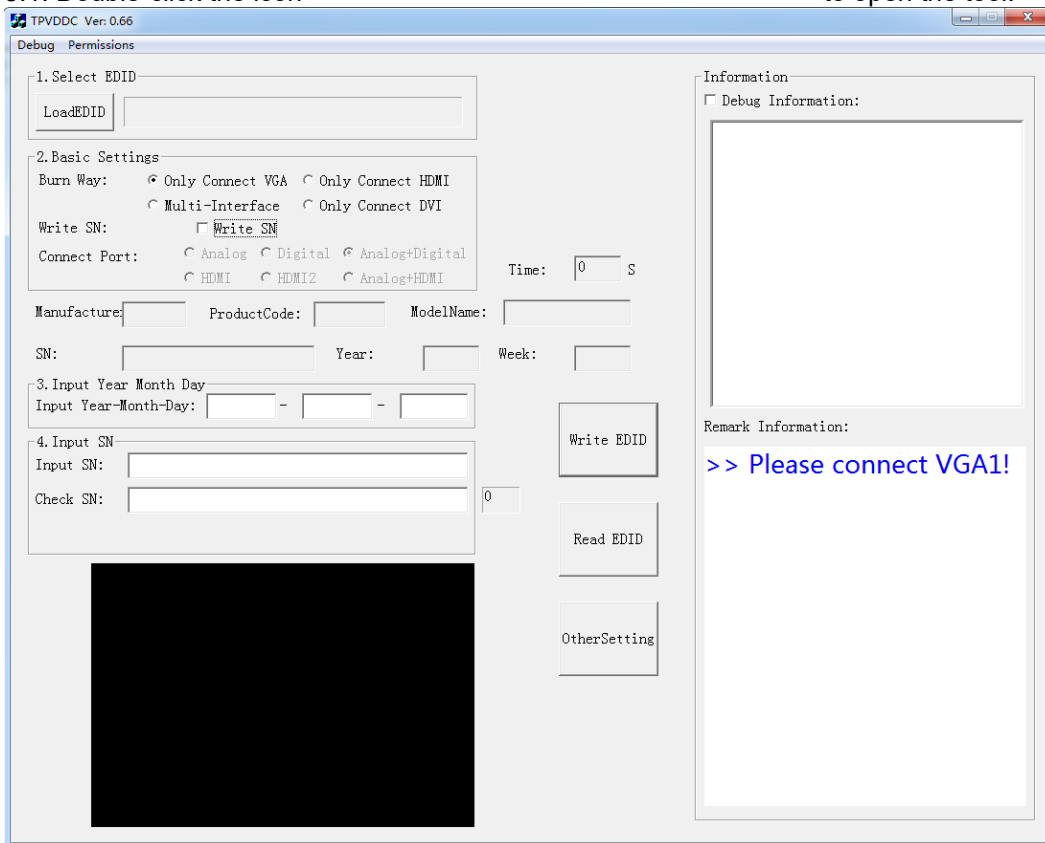
Note: If the F/W Upgrade use the same ISP tool as the EDID writing, you must close the F/W Upgrade tool before running the EDID writing tool.



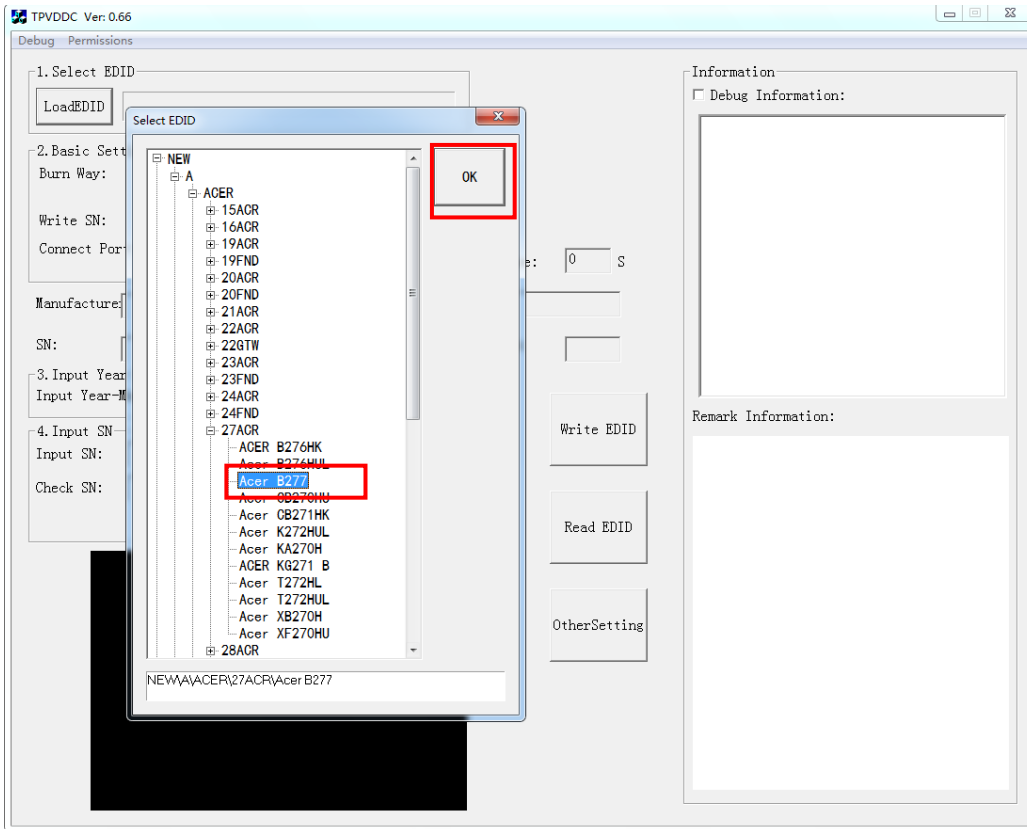
TPVDDC_V066_20170512.exe
 TPVDDC Microsoft 基础类应用...
 1.0.1.1

5.1. Double-click the icon

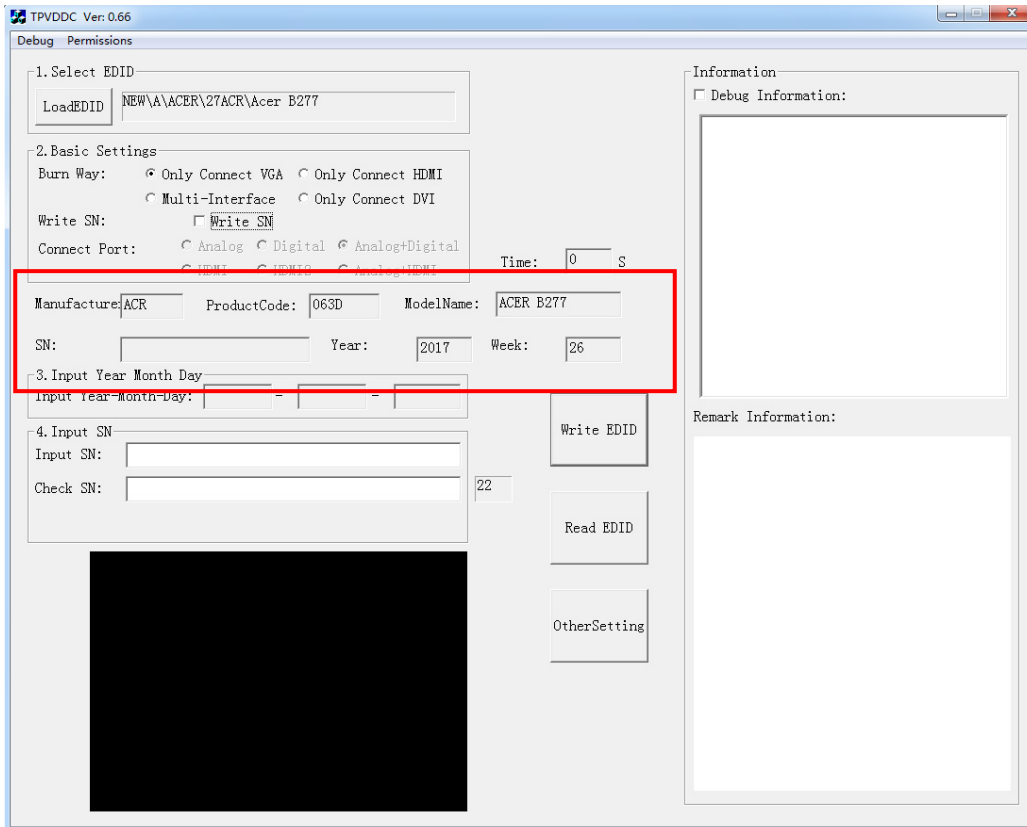
to open the tool.



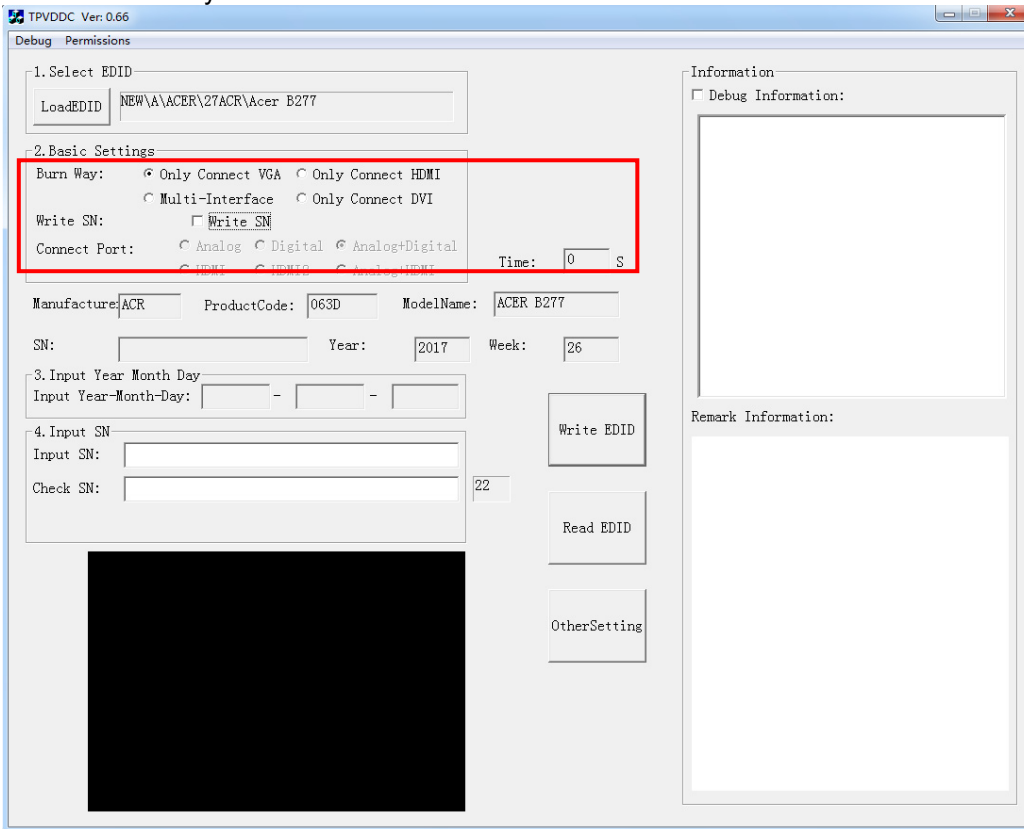
5.2. Select the EDID folder.



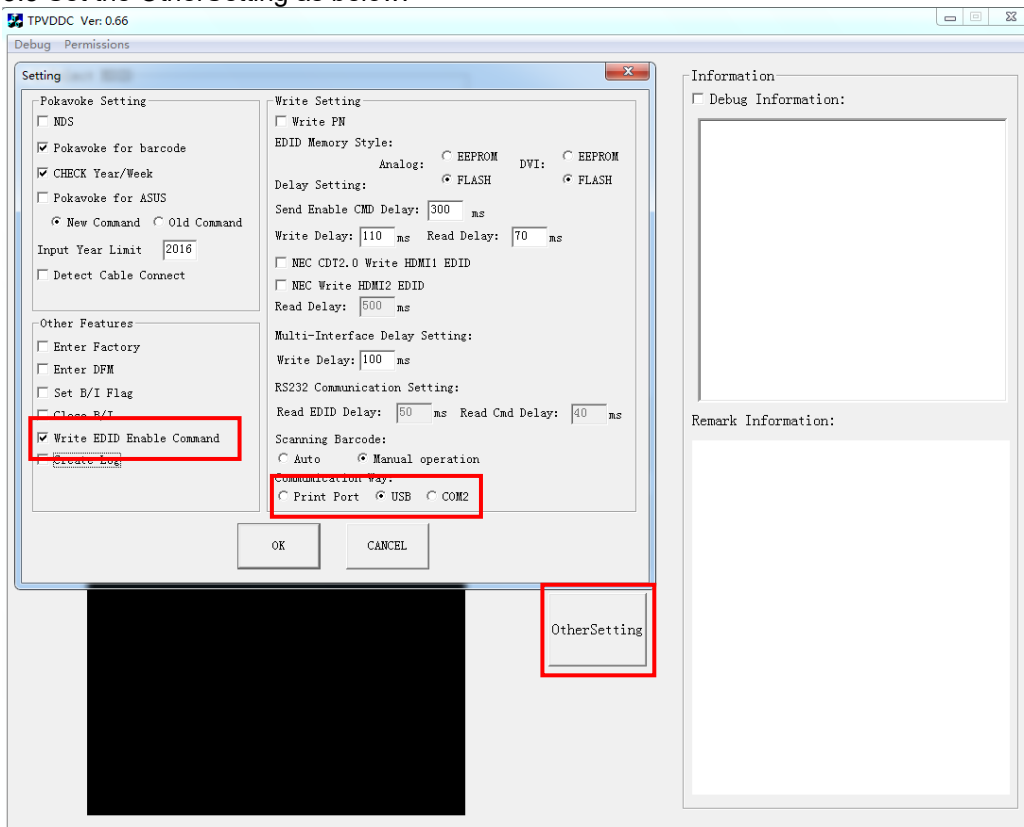
5.3. Load EDID successful.



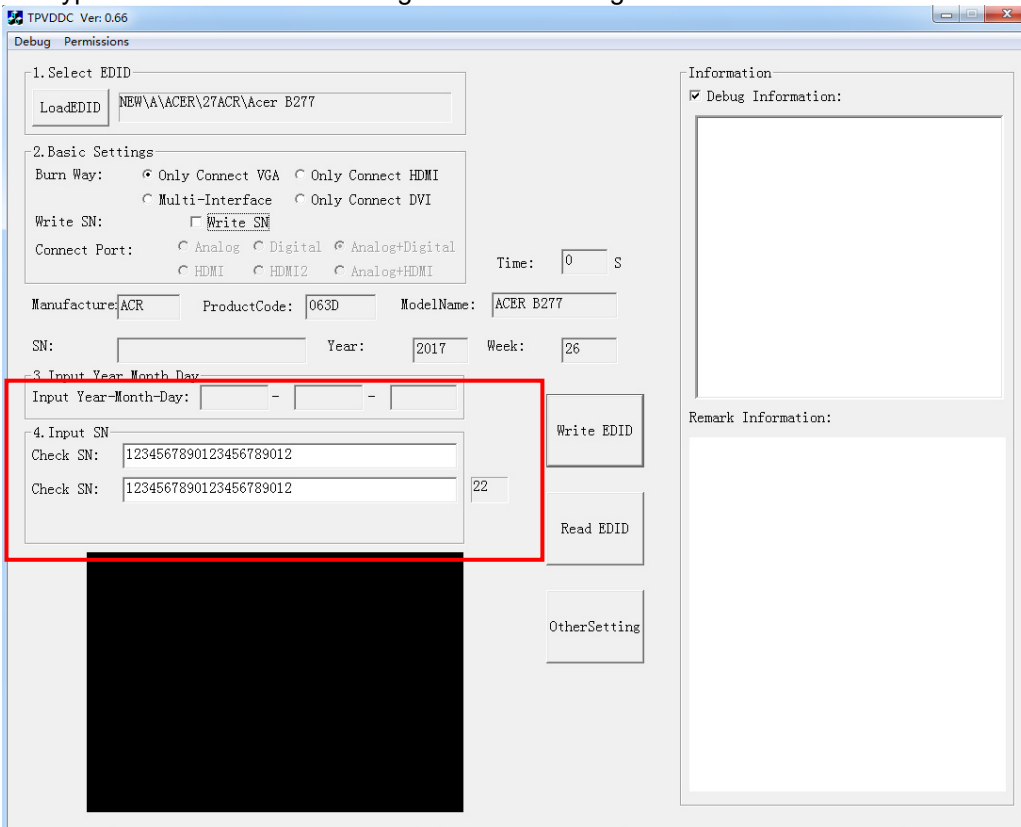
5.4 Tick the "Only connect VGA".



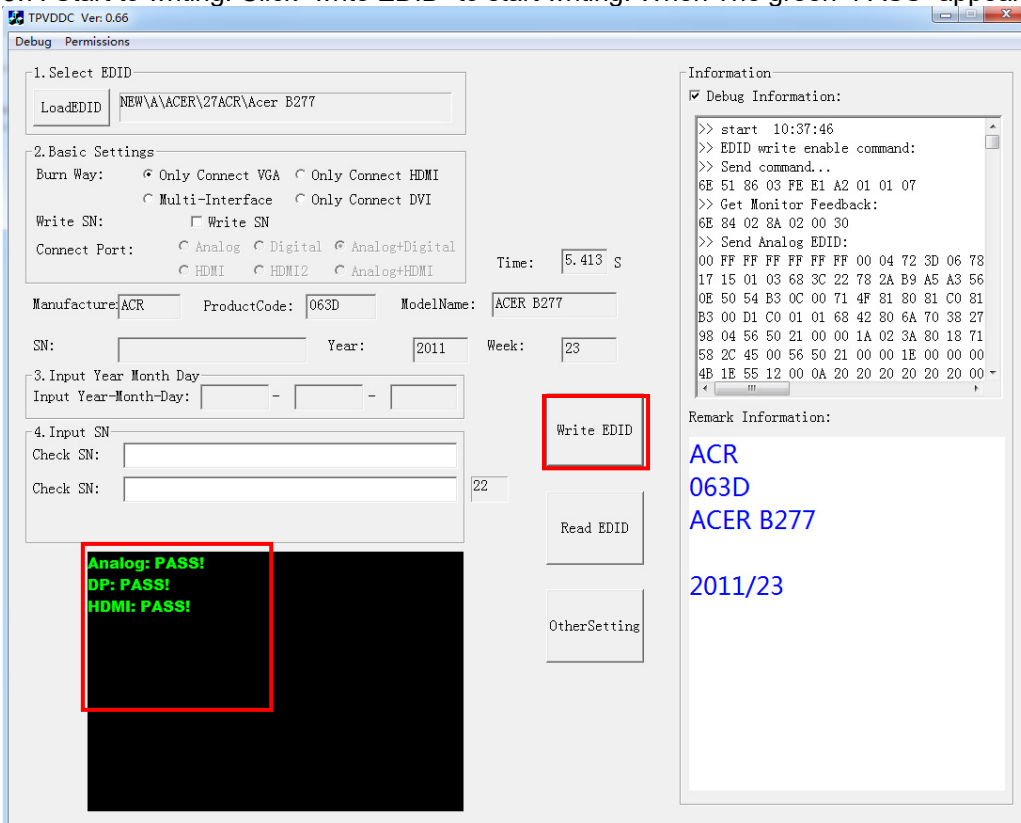
5.5 Set the OtherSetting as below.



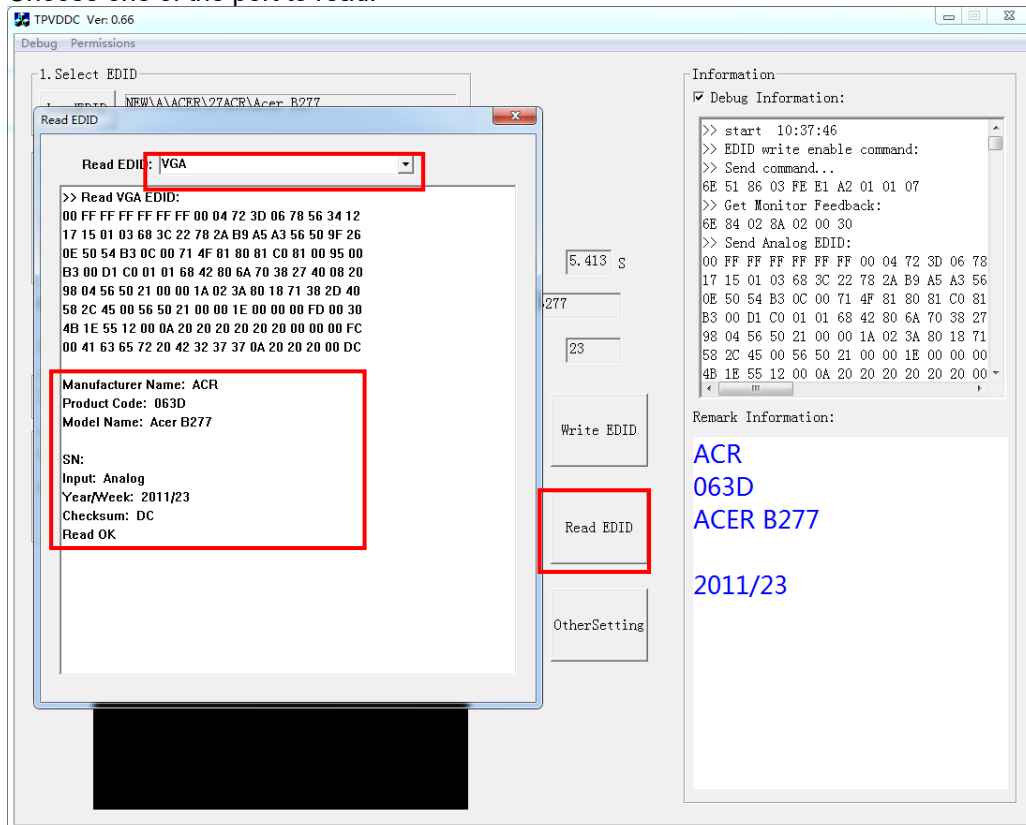
5.6 Type in the date and the 22 digit S/N and "Debug Information".



5.7. Start to writing. Click "write EDID" to start writing. When The green "PASS" appear, the process is finished.



5.8 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.

Note: While reading the DP EDID data, you must light up the monitor or connect a signal to the monitor. If after doing this setp the EDID still shows all “00”, but others port can show the EDID data, the EDID data of DP uually include in FW,can’t read out it.

2. If it appears all “FF”, it shows that the EDID data of the Main board is empty, you must writing the EDID again.

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 B27 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	756GQHCB0BA080000Q	NA
	POWER BOARD	PLPCHH541KQB1	NA
	KEY BOARD	KEPCLQA6	NA
	LED BOARD	LEPCLQA2	NA
	USB BOARD(USBLQ A4)	756GQHUS0BA005000Q	NA
	SIDE USB BOARD	USBLQA6	NA

	<p>SPEAKER-4-OHM-2.5W-63x22mm-50mm-BOX LEFT</p>	<p>378G0025689CLA</p>	<p>NA</p>
	<p>SPEAKER-4-OHM-2.5W-63x22mm-50mm-BOX RIGHT</p>	<p>378G0025689CRA</p>	<p>NA</p>
	<p>CABLE 30P-30P 400MM(MB TO PANEL)</p>	<p>395G179Q30B8250000</p>	<p>NA</p>
	<p>CABLE 30P-30P 180MM(USB BOARD TO SIDE USB BOARD)</p>	<p>395G176K0305170000</p>	<p>NA</p>
	<p>CABLE 4P-2P+2P 500/400MM(MB TO SPEAKER)</p>	<p>395GH20004WM049000</p>	<p>NA</p>
	<p>CABLE 6P-6P 600MM(PB TO PANEL)</p>	<p>395GH20006GM209000</p>	<p>NA</p>
	<p>CABLE 6P-6P 500MM(MB TO KEY BOARD)</p>	<p>395GH20006XM208000</p>	<p>NA</p>

	<p>CABLE 7P-7P 80MM(MB TO USB BOARD)</p>	<p>395GH20007XM035000</p>	<p>50.TA8M2.004</p>
	<p>MIDDLE FARME ASSY W LOGO</p>	<p>705GQHCS034447</p>	<p>NA</p>
	<p>REAR COVER</p>	<p>A34G4569AEM01L0130</p>	<p>NA</p>
	<p>FUNCTION KEY</p>	<p>A33G2236AEM01L0100</p>	<p>NA</p>
	<p>BUTTON</p>	<p>A33G2238AEM01L0100</p>	<p>NA</p>
	<p>STAND BASE ASSY</p>	<p>Q37G083710110100FH</p>	<p>NA</p>

	<p>INSULATING-SHEET(BLACK)</p>	<p>Q52G18016090HF0AJY</p>	<p>NA</p>
	<p>MAINFRAME</p>	<p>Q15G320010121100ZA</p>	<p>NA</p>
	<p>BKT SIDE USB</p>	<p>Q85G033310110100YM</p>	<p>NA</p>
	<p>USB 3.0 CABLE</p>	<p>089G 175M02 C</p>	<p>50.T28M2.003</p>
	<p>DP CABLE</p>	<p>089G 187BAA500</p>	<p>50.LW7M2.002</p>
	<p>D-SUB CABLE</p>	<p>089G 728GAA 2A</p>	<p>50.LZJM2.003</p>

 A black HDMI cable with both ends of the connectors visible, coiled on a blue background.	HDMI CABLE	389G1848CAA502	50.T27M2.010
 A black AC power cord with a standard three-prong electrical plug on one end and a power connector on the other, coiled on a blue background.	AC POWER CORD	389G404A18NISG	27.T1BM2.001

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/DP 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. If OSD Lock is On, the LED status set Amber.

Note: Acer monitor is purposed for video and visual display of information obtained from electronic devices.