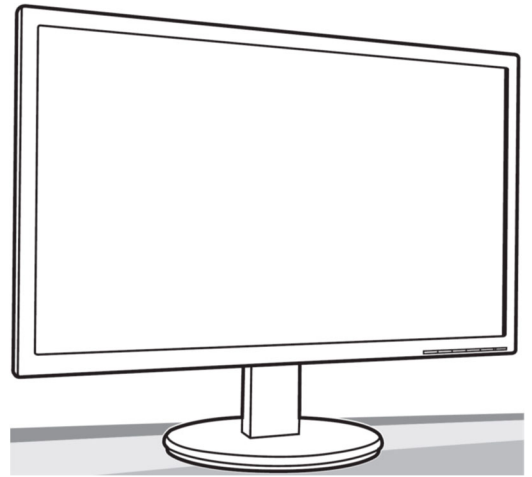


Service
Service
Service



Acer Monitor K242HYL

LIFECYCLE EXTENSION GUIDE

Contents

- Important Safety Notice..... 3
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- 2. Mechanical Instruction 5
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- 4. Writing EDID Process 26
- 5. FRU (Field Replaceable Unit) List..... 32
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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.

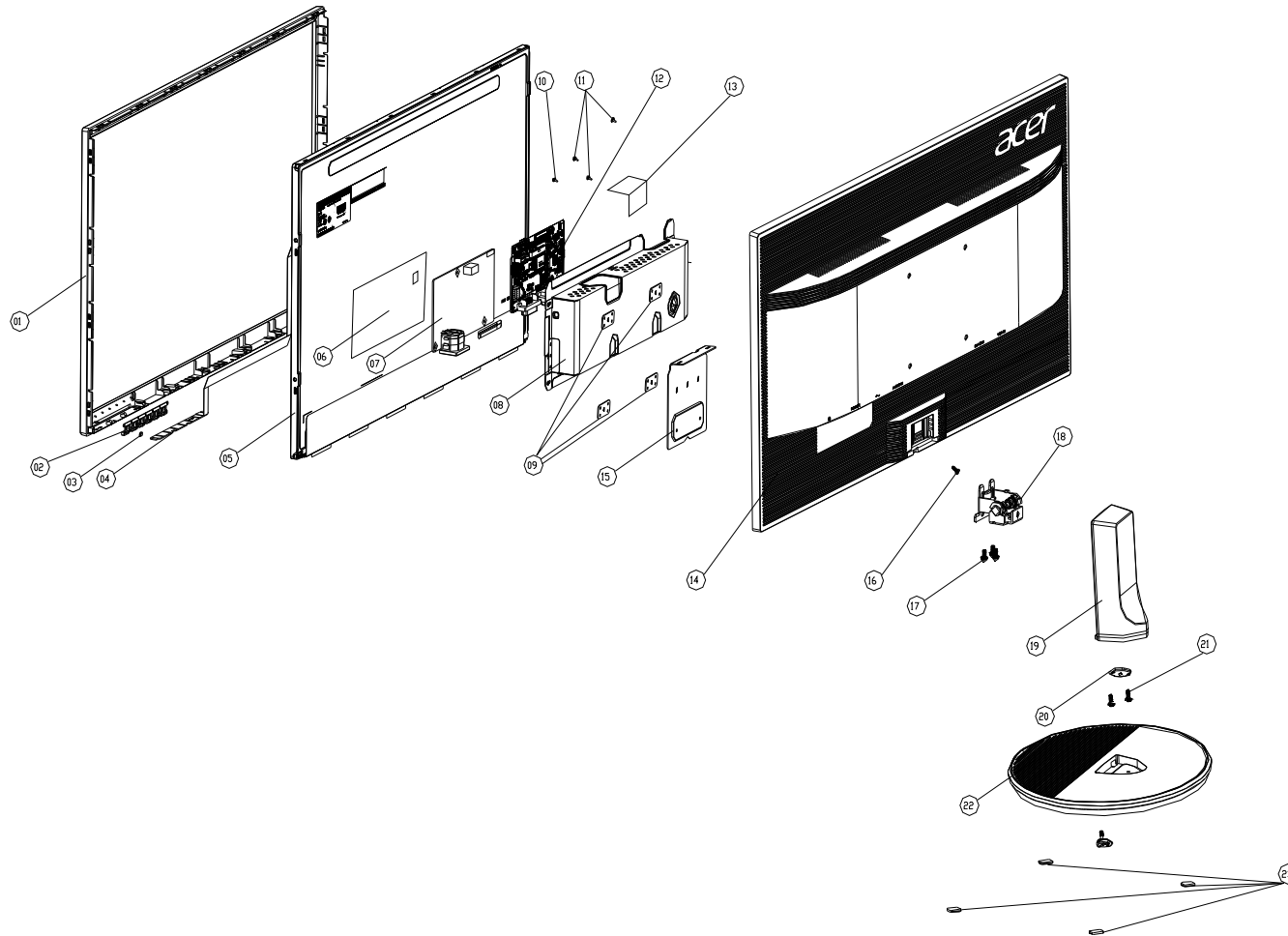
CAUTION -The use of optical instruments with this product will increase eye hazard.

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	KEPCCQKK	55.LXMM2.003
5	PANEL	750GBU238V10AJN000	N/A
7	POWER BOARD	PLPCE9191UYAT	N/A
12	MAIN BOARD	CBPCET3AEQ1	N/A
	FFC CABLE 320MM(MB TO PANEL)	S95G179T30BS16	N/A

2. Mechanical Instruction

Tools Required

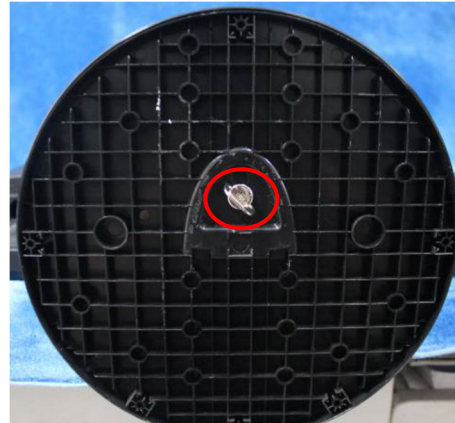
List the type and size of the tools that would typically can be used to disassemble the product to a point where components and materials requiring selective treatment can be removed.

Tool Description:

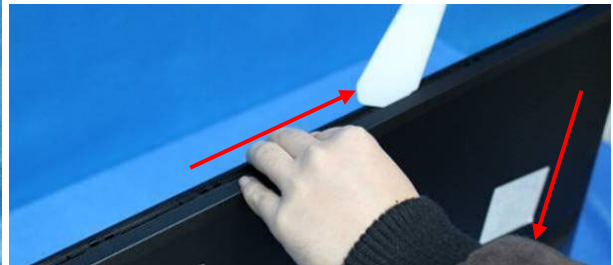
- Screwdriver (Phillip-head, Hexagonal head)
- Penknife

2.1 Disassembly Procedures:

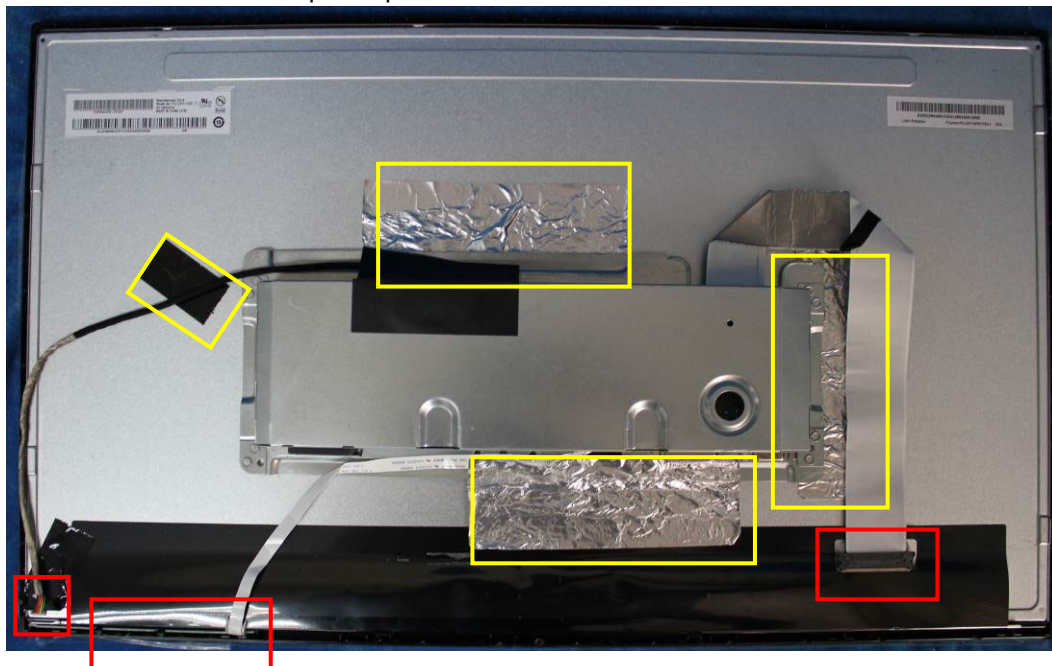
S1. Remove the stand ASS'Y and unscrew the screw to remove the base.



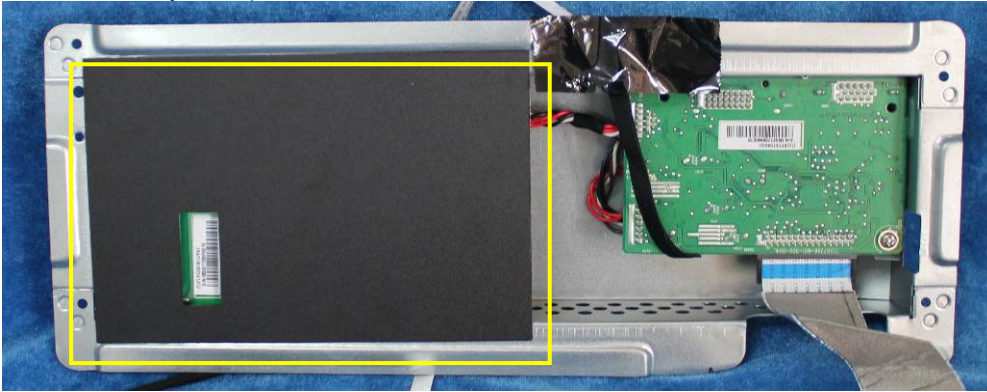
S2. Remove the rear cover. Unscrew the screw and use a tool (like picture using) to open all latches. (Be careful the position of the key board.)



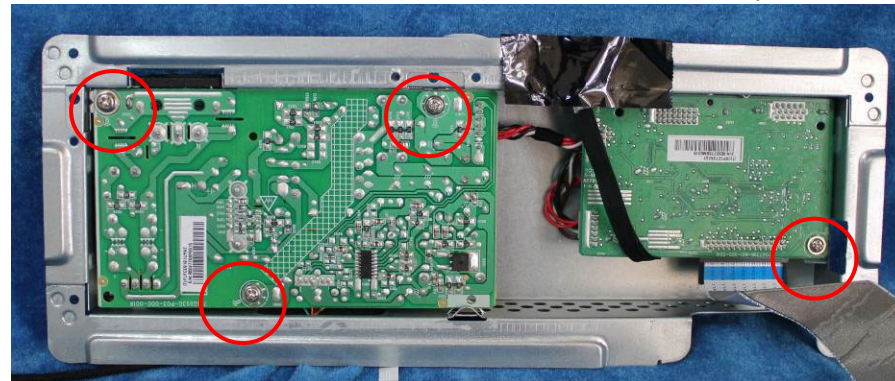
S3. Disconnect the FFC cable (main board to panel), lamp power cable (power board to panel), remove the key board from bezel and tear up all tapes.



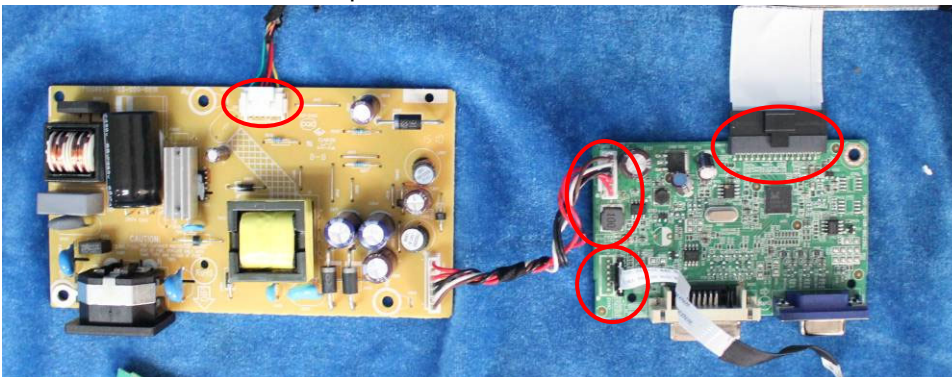
S4. Remove the mylar of power board.



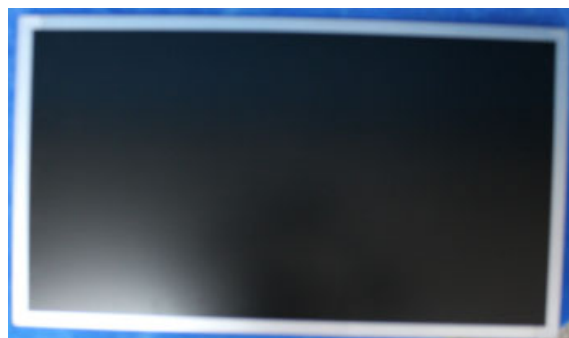
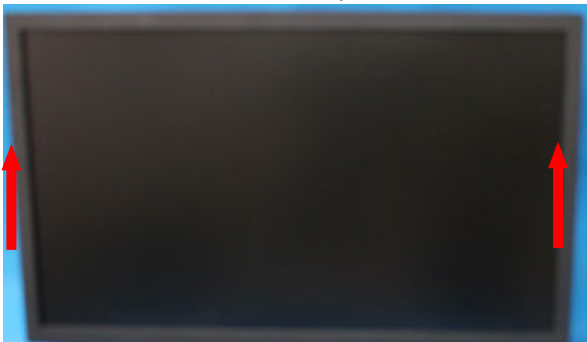
S5. Turn over the shield and unscrew the screws on main board and power board.



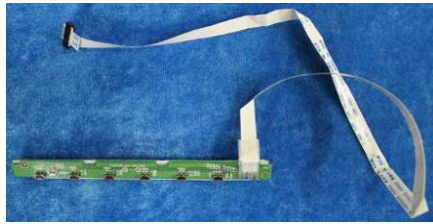
S6. Remove the main board and power board. Disconnect the cables.



S7. Remove the panel. Turn over the bezel and panel unit, Lift the bezel to separate it from the panel as below left picture. And then remove the panel.



S8. The bezel and key board.

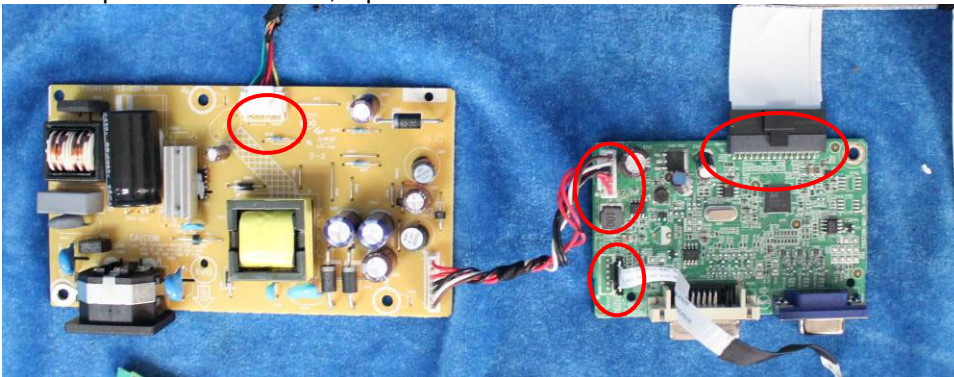


2.2 Assembly Procedures:

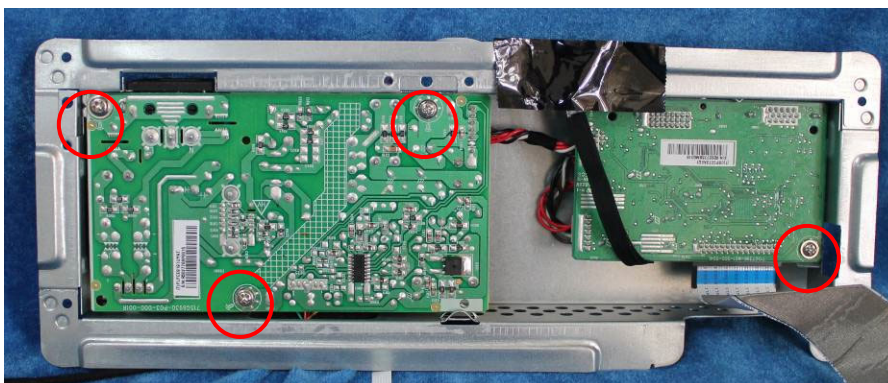
S1. Prepare a panel. Put panel into bezel.



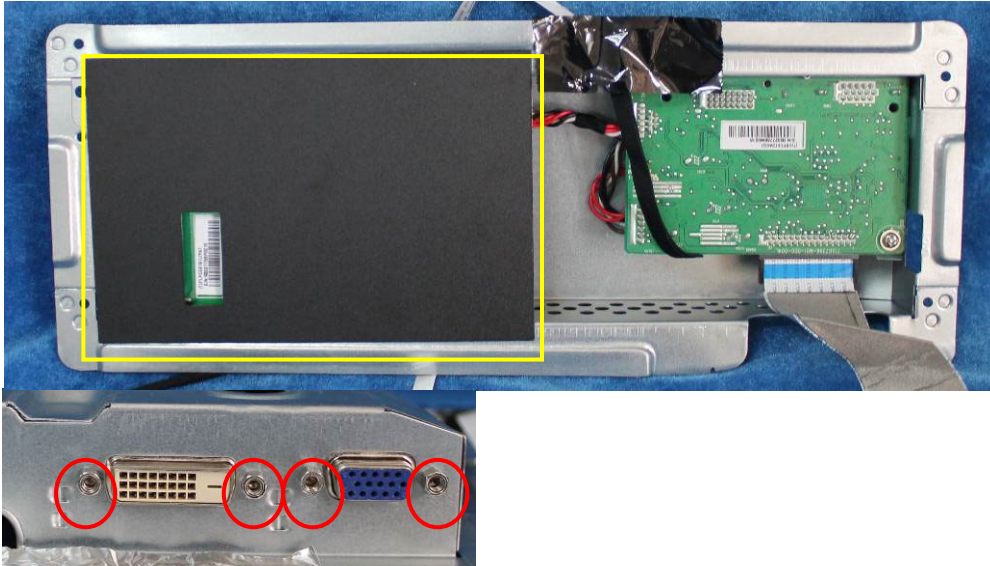
S2. Prepare a main board, a power board and some essential cables. Connect every cable as the below picture.



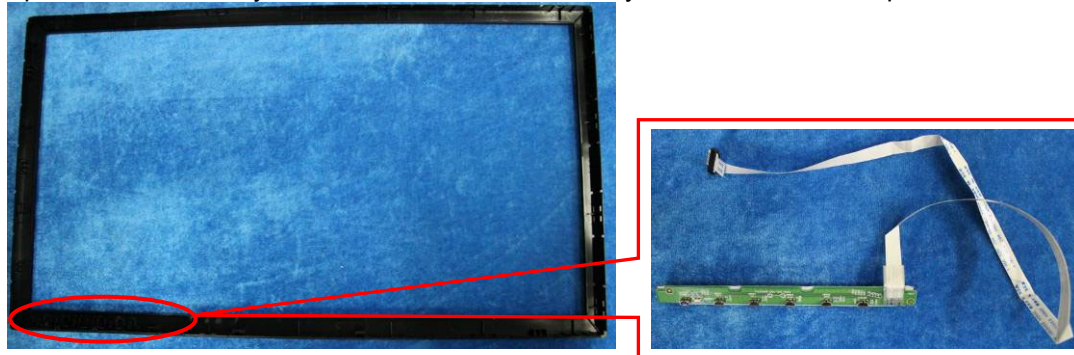
S3. Use a Philips-head screwdriver to tighten the screws till the power board and main board are firmly attached to the shield.



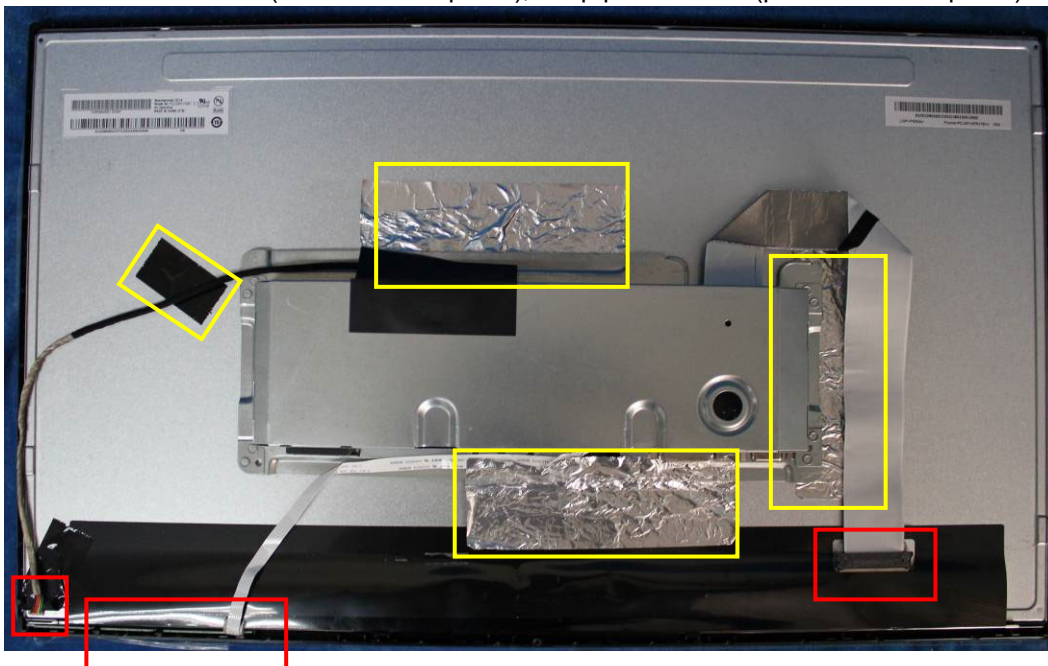
S4. Use a Hex-head screwdriver to tighten the screws for locking the connectors and put the mylar on the power board.



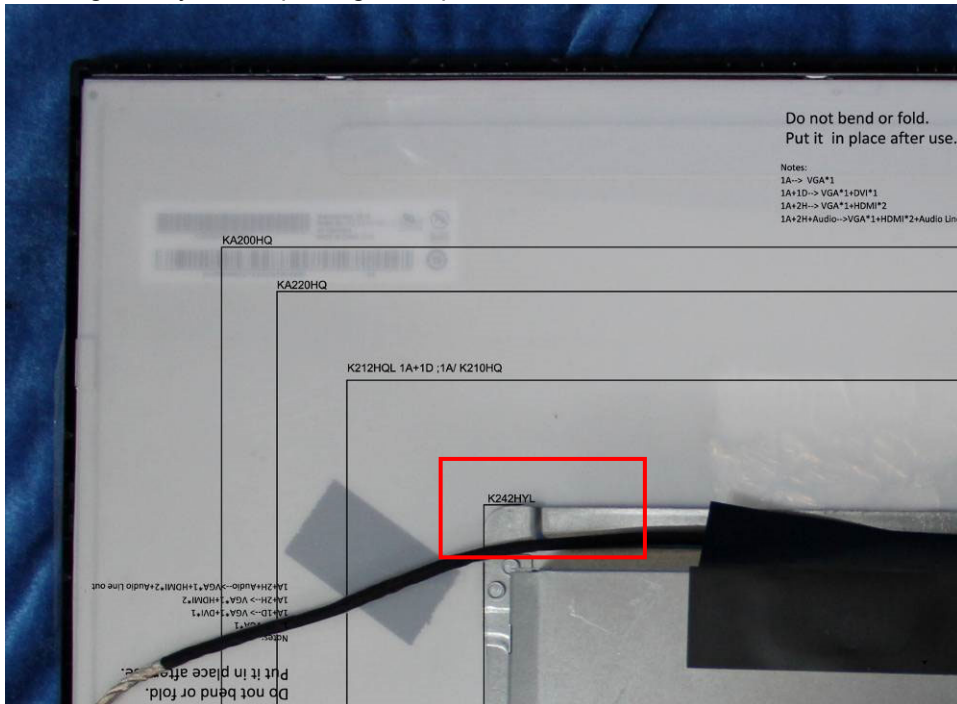
S5. Prepare a bezel and key board. Assemble bezel and key board aim the active position.



S6. Assemble bezel unit and shield unit. Put the shield unit on the panel, Aim the active position as below picture, Connect the FFC cable (main board to panel), lamp power cable (power board to panel). And then paste the tapes.



- S7. Put the Mylar slice (Note refer to page 51) marked the information of mainframe position on the panel. Mylar slice edge must be against the bezel. Put the mainframe along the mark. Holding the mainframe while you are removing the Mylar and pasting the tapes.



- S8. Prepare a rear cover to assemble and screw the screws as below picture.



S9. Assemble the stand ASS'Y to rear cover.



3. Firmware Upgrade Process

1. Materials



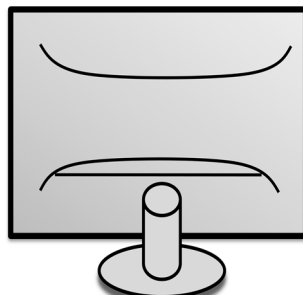
ISP JIG: 715GT089-B/C



VGA cable
TPV P/N: 089G728 GAA DB



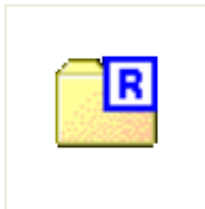
PC



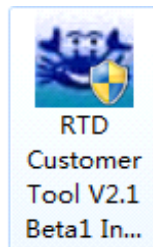
Monitor



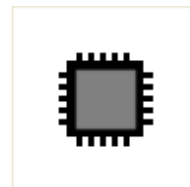
USB cable
TPV P/N: 089G1758 X



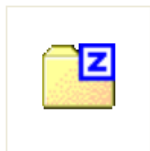
FTC100103(MSTAR) usb
drive.rar
USB port driver



ISP tool:



ACER_K242HYL_RTD2...
New F/W

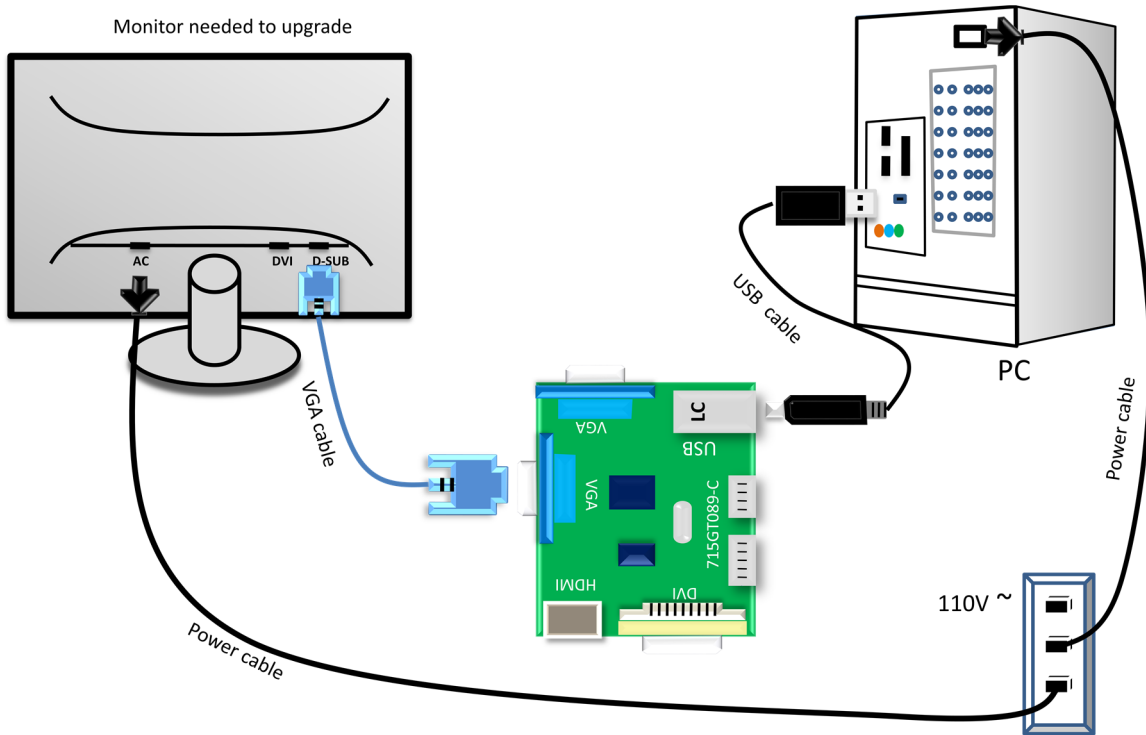


WindowsXP-KB935446-x86-ENU.zip

Installation patch

2.Connection

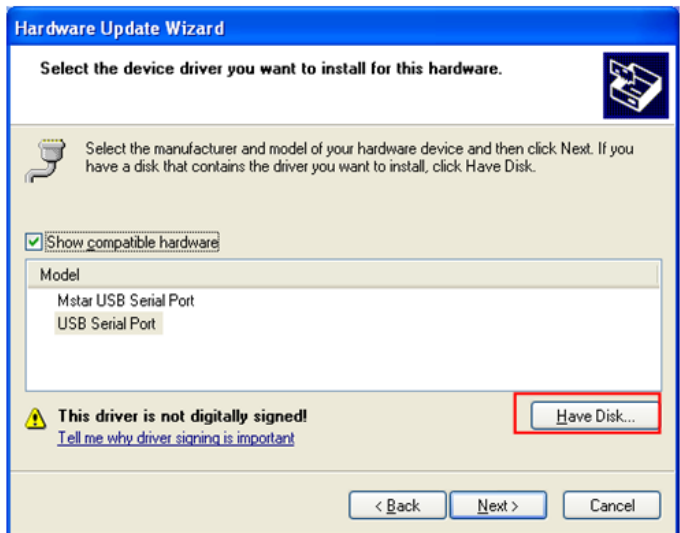
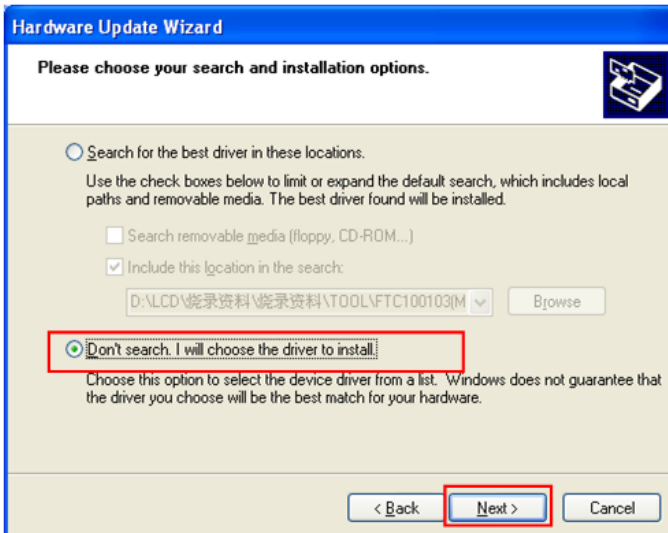
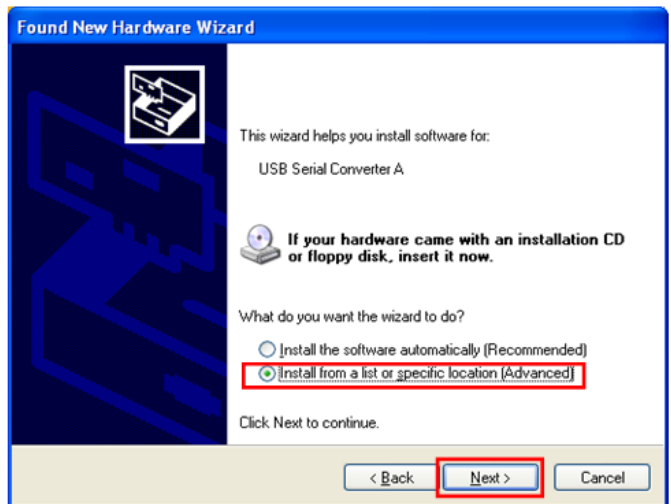
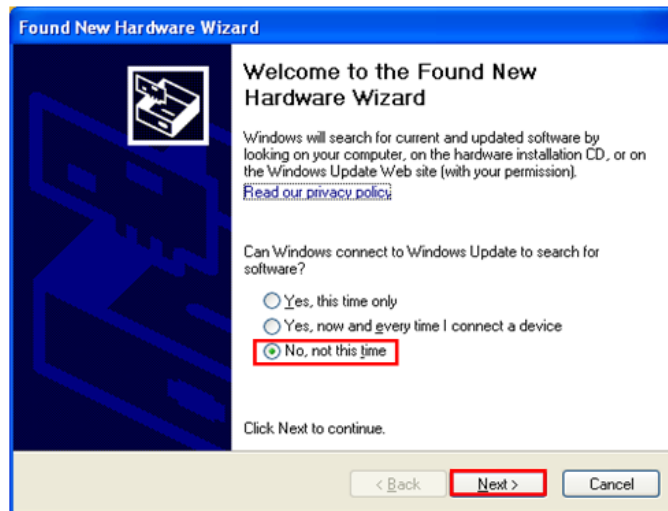
Monitor needed to upgrade

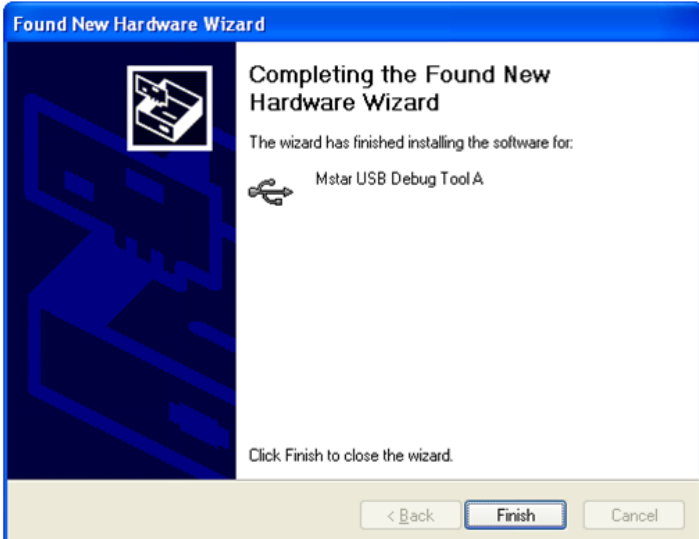
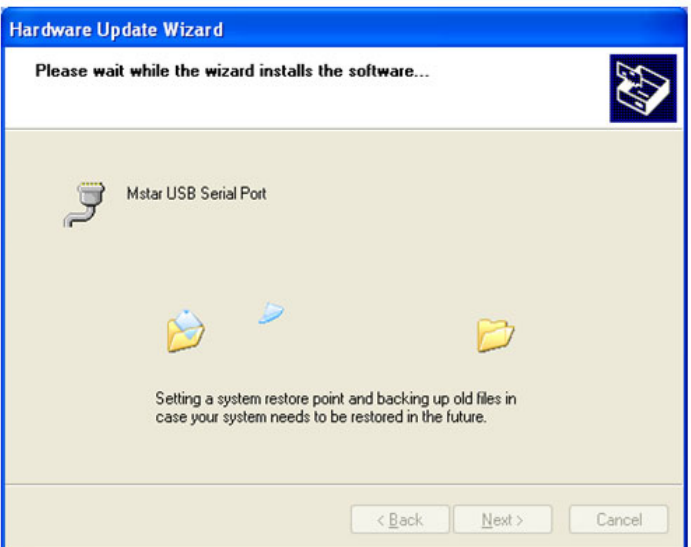
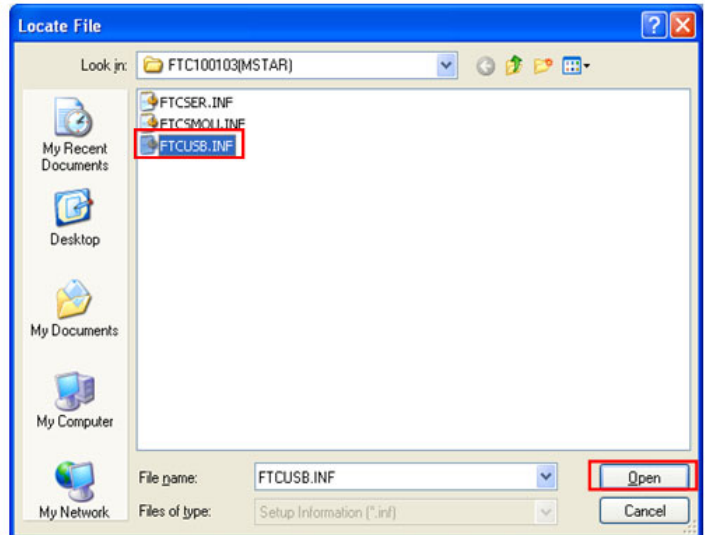
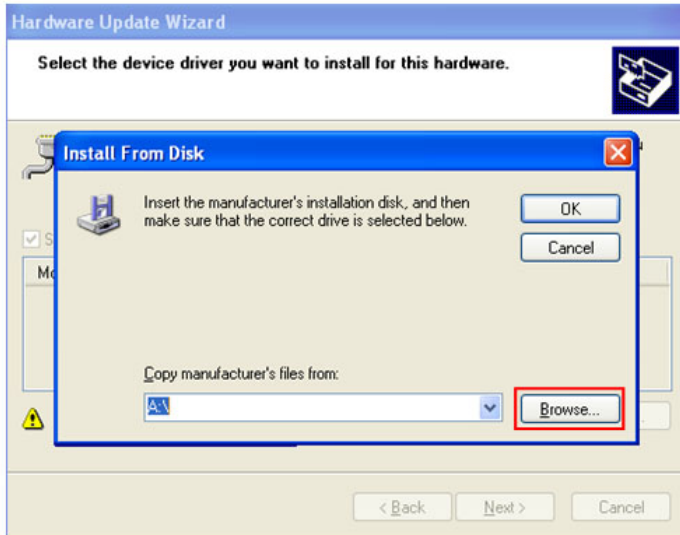


3.Install USB driver.

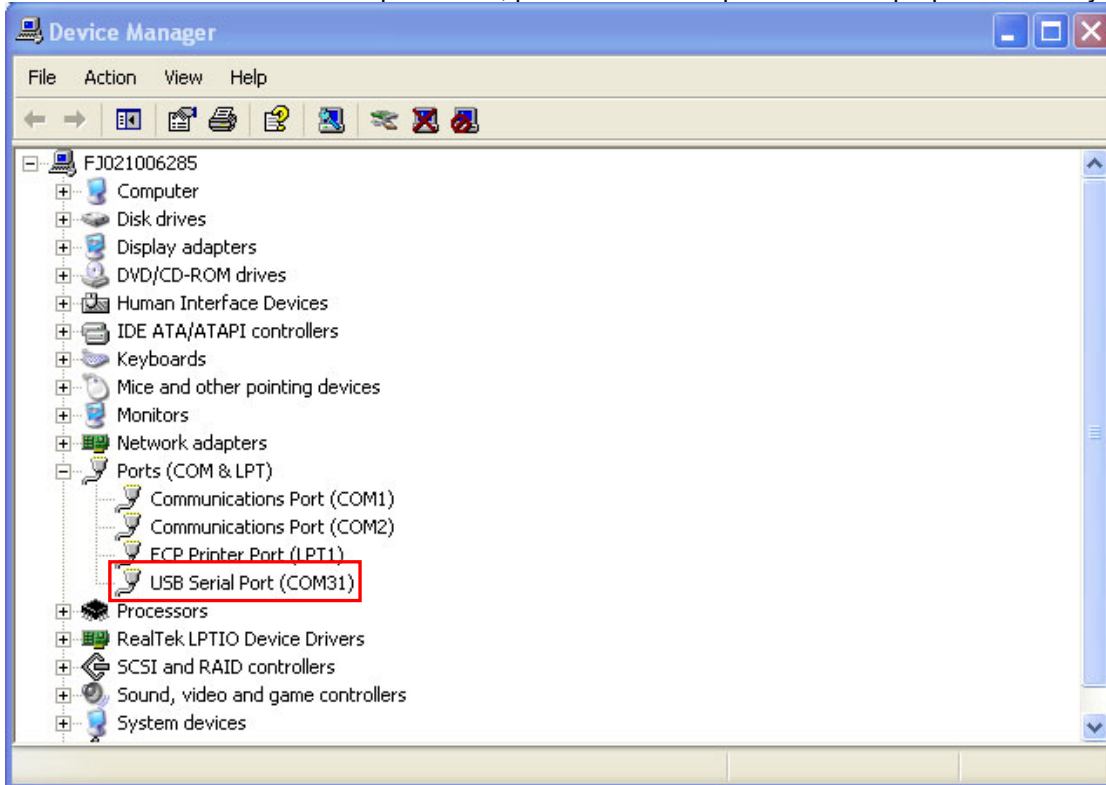
3.1. When insert the USB cable to PC USB port, will pop up a Hardware Wizard to help you install the USB driver if you use this ISP board first time. You can install it successfully as the below instruction step by step.

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

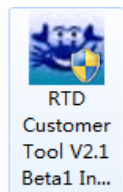




After installation the USB serial port driver, please check the port. Look the properties of “my Computer”



4. Install RTD tool.

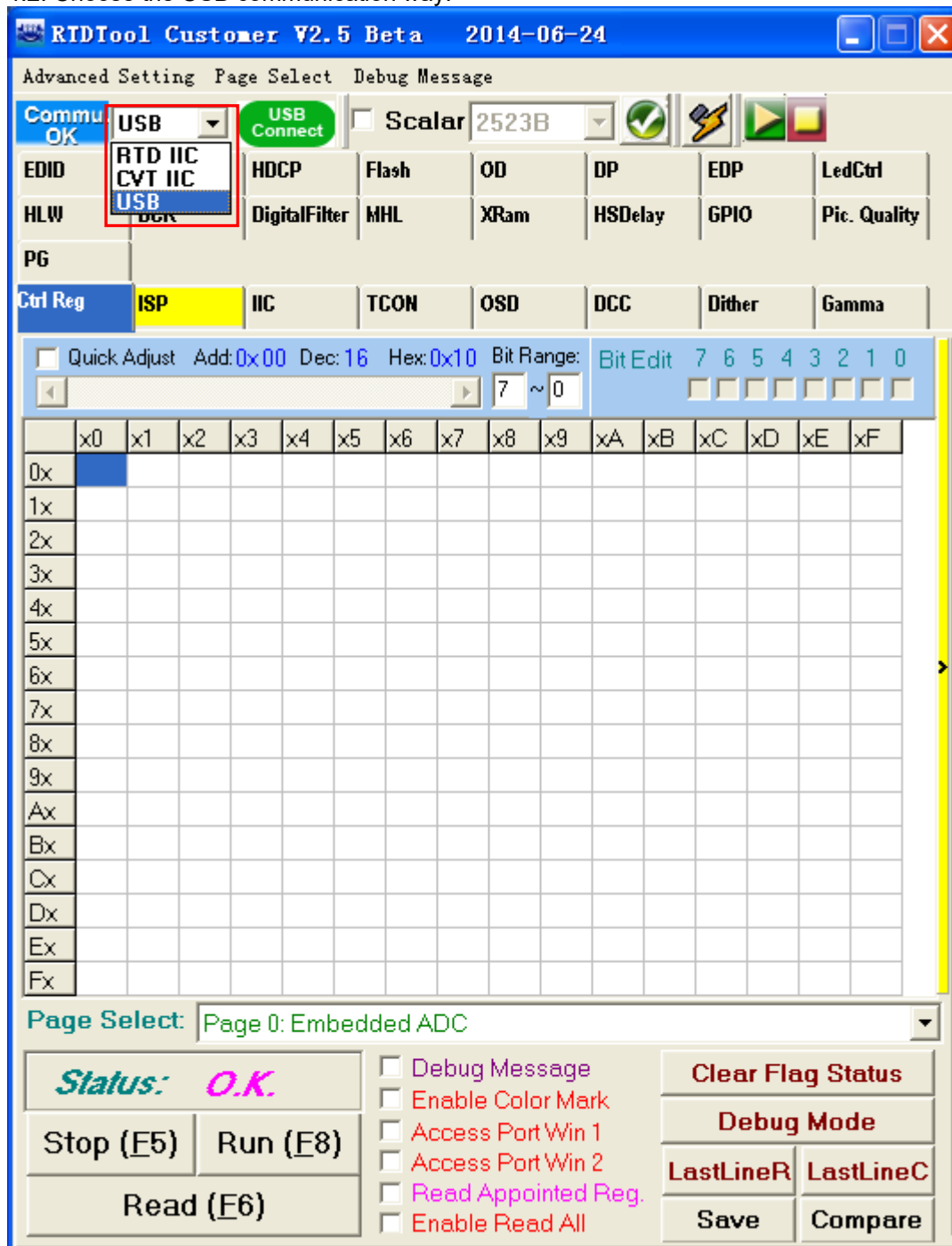


4.1. Click to install it. After installation, double-clicks the icon to run it.

(Note: Must to install patch firstly, and Click RTD Customer Tool V2.1.exe to installed in windows XP. RTD Customer Tool V2.1.exe can be installed in Windows 7 directly.)



4.2. Choose the USB communication way.



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

RTDItool Customer V2.5 Beta 2014-06-24

Advanced Setting Page Select Debug Message

Commu. OK USB USB Connect Scalar 2523B

EDID	Phase	HDCP	Flash	OD	DP	EDP	LedCtrl
HLW	DCR	DigitalFilter	MHL	XRam	HSDelay	GPIO	Pic. Quality
PG							
Ctrl Reg	ISP	IC	TCON	OSD	DCC	Dither	Gamma

RTD2120 RTD2122 Serial Flash EEprom EFuse

Bank	File Path	File Time	Checksum	Len	ProLen	Refresh
0	<input checked="" type="checkbox"/>					BigBin
1	<input type="checkbox"/>					
2	<input type="checkbox"/>					
3	<input type="checkbox"/>					
4	<input type="checkbox"/>					
5	<input type="checkbox"/>					
6	<input type="checkbox"/>					
7	<input type="checkbox"/>					

BigBin File CheckSum

ISP Type: Normal
Flash Brand: P-Flash
Option: Auto
EraseType: -
ISP Address: 0x94
File Type: Bin
Auto Detect Flash: Enable
Sector Erase: -

Option
☒ Auto
☐ Erase

☐ ISP Before AC On **ISP Option**

☐ ISP Boot Code

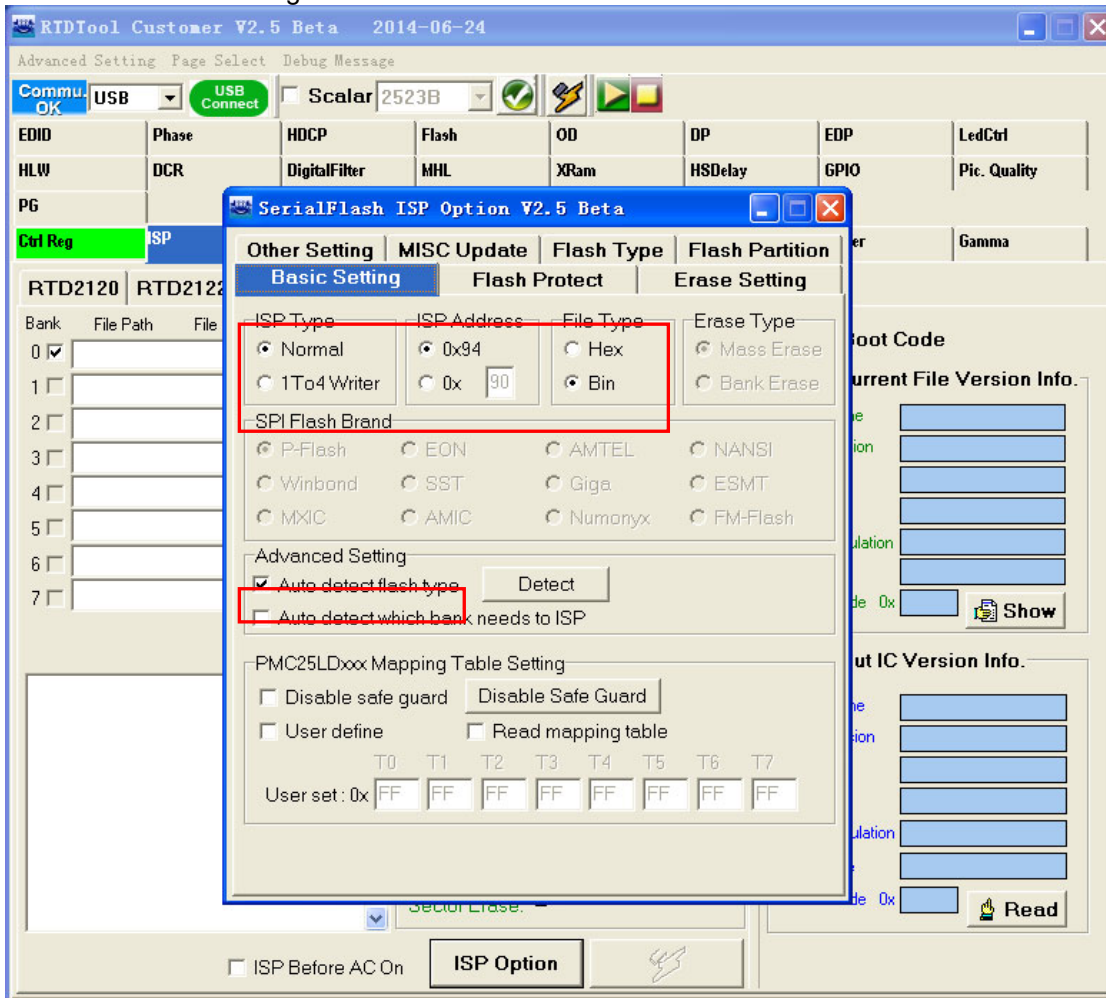
Show Current File Version Info.

ProjectName
ProjectVersion
Date
FlashType
EepromEmulation
ScalarType
Version Code 0x Show

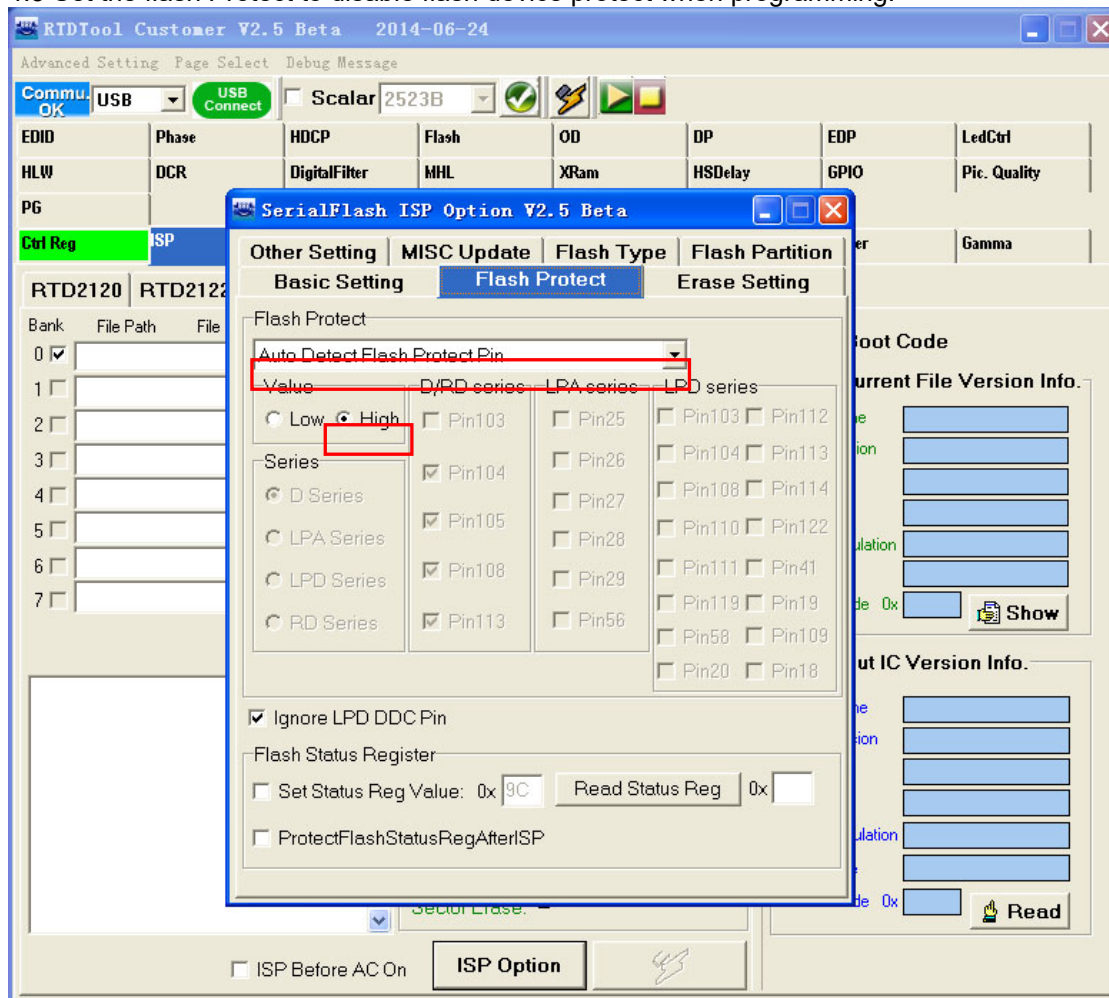
Read Out IC Version Info.

ProjectName
ProjectVersion
Date
FlashType
EepromEmulation
ScalarType
Version Code 0x Read

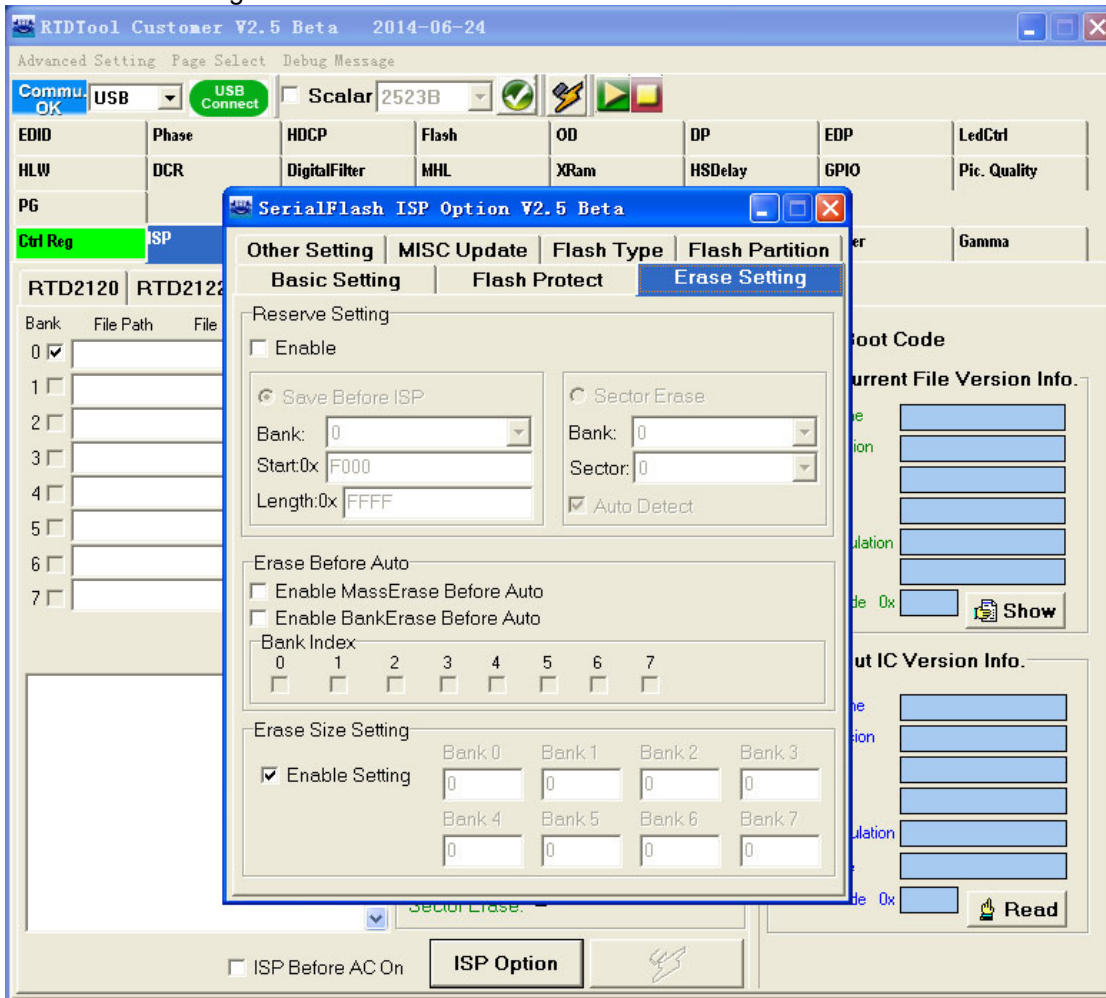
4.4 Set the Basic Setting.



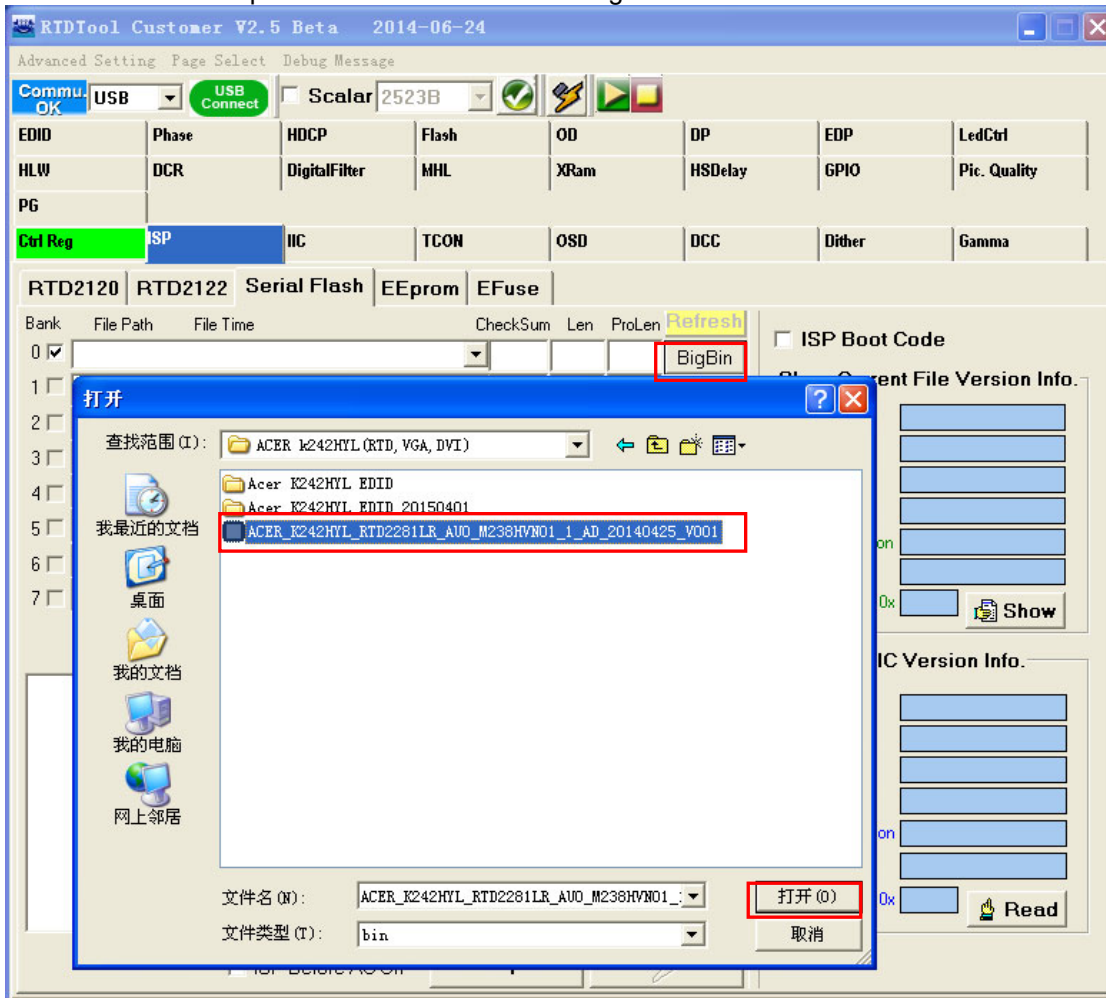
4.5 Set the flash Protect to disable flash device protect when programming.



4.6 Do erase setting as below.



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





4.8 Click

RTDItool Customer V2.5 Beta 2014-06-24

Advanced Setting Page Select Debug Message

Commu. OK USB USB Connect Scalar 2523B

EDID	Phase	HDCP	Flash	OD	DP	EDP	LedCtrl
HLW	DCR	DigitalFilter	MHL	XRam	HSDelay	GPIO	Pic. Quality
PG							
Ctrl Reg	ISP	IIC	TCON	OSD	DCC	Dither	Gamma

RTD2120 RTD2122 Serial Flash EEprom EFuse

Bank	File Path	2014-5-28 14:28:18	Checksum	Len	ProLen	Refresh
0	<input checked="" type="checkbox"/>	C:\Documents and Settings\Administrator\Desktop\0E5B	65536	65536	BigBin	
1	<input checked="" type="checkbox"/>	C:\Documents and Settings\Administrator\Desktop\2D4F	65536	65536		
2	<input checked="" type="checkbox"/>	C:\Documents and Settings\Administrator\Desktop\C7B1	65536	65536		
3	<input checked="" type="checkbox"/>	C:\Documents and Settings\Administrator\Desktop\635B	65536	65536		
4	<input type="checkbox"/>					
5	<input type="checkbox"/>					
6	<input type="checkbox"/>					
7	<input type="checkbox"/>					

BigBin File CheckSum 027F 66B6

Calculate CRC 0x22
Calculate CRC 0x8C
Calculate CRC 0x58
Calculate CRC 0x22

ISP Type: Normal
Flash Brand: P-Flash
Option: Auto
EraseType: -
ISP Address: 0x94
File Type: Bin
Auto Detect Flash: Enable
Sector Erase: -

Option
☒ Auto
☐ Erase

ISP Before AC On

ISP Option

ISP Boot Code

Show Current File Version Info.

ProjectName
ProjectVersion
Date
FlashType
EepromEmulation
ScalarType
Version Code 0x

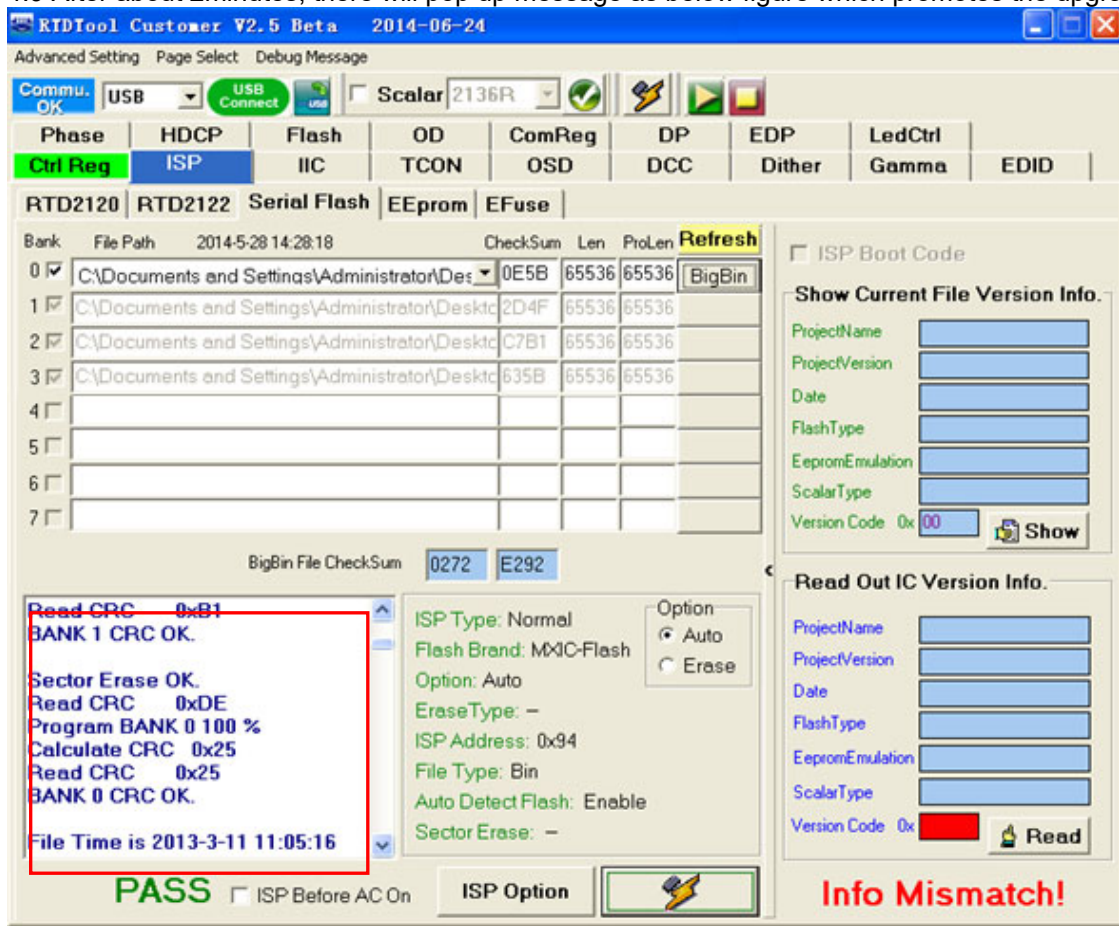
Show

Read Out IC Version Info.

ProjectName
ProjectVersion
Date
FlashType
EepromEmulation
ScalarType
Version Code 0x

Read

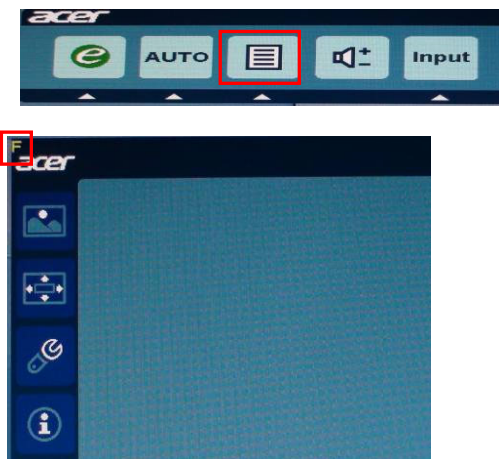
4.9 After about 2minutes, there will pop up message as below figure which promotes the upgrade successful.



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 “e” and DC on, when the screen lights, release the key and press “MENU” again to open the menu with “F” and select “F” to open factory menu.



```

Chips: RTD2281LA
Panel: AUO-M238HVN01-1
Date : 20150401 Version: 0.01

AutoColor
Gain   R 138 G 141 B 146
Offset R 105 G 107 B 110

      BRI 100   CON  50

Warm   R 128 G 128 B 128
Cool   R 100 G 110 B 128
Slight R 128 G 128 B 116
Light  R 128 G 126 B 108
Medium R 128 G 127 B 100
Strong R 128 G 128 B  91

DFM    :      OFF
Burn In:      OFF
NVRAM Initial
Force Logo Off OFF
HW AutoColor PASS
SSC 06 LVDS Current 02
Exit

```

Check this
F/W version.

(3) Do "Auto Color" in factory mode, If the version is right, please do autocolor in factory menu, choose to "autocolor" and click "menu", when appear the word "pass", it's seems that autocolor OK..

```

Chips: RTD2281LA
Panel: AUO-M238HVN01-1
Date : 20150401 Version: 0.01

AutoColor      PASS
Gain   R 126 G 131 B 137
Offset R 107 G 108 B 112

      BRI 100   CON  50

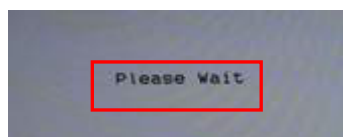
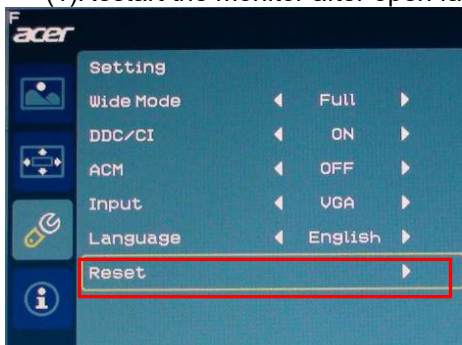
Warm   R 128 G 128 B 128
Cool   R 100 G 110 B 128
Slight R 128 G 128 B 116
Light  R 128 G 126 B 108
Medium R 128 G 127 B 100
Strong R 128 G 128 B  91

DFM    :      OFF
Burn In:      OFF
NVRAM Initial
Force Logo Off OFF
HW AutoColor PASS
SSC 06 LVDS Current 02
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



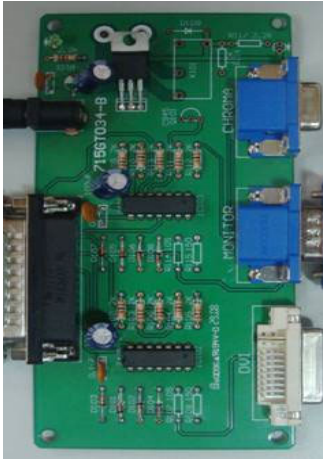
LPT cable (male to male)
TPV P/N: N/A



VGA cable
TPV P/N: 089G728 GAA DB



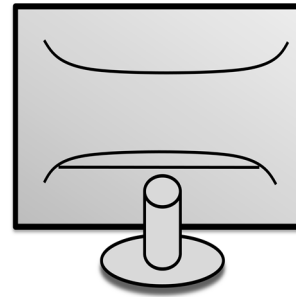
12V DC adapter
TPV P/N: ADPC12416BEP



ISP JIG: 715GT034-B



PC



Monitor



PORT95NT.EXE
LPT port driver

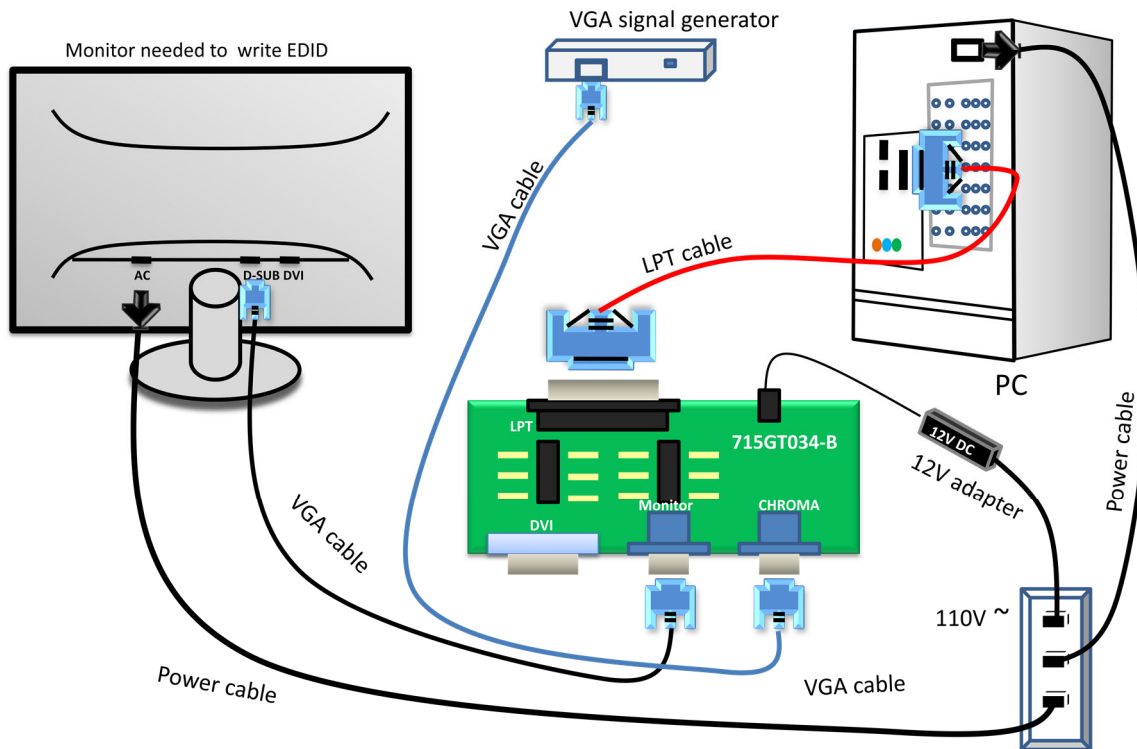


DDCV066
ISP tool



Acer K242HYL EDID
EDID

2. Connection(DC on the monitor)



3. Install LPT driver.



PORT95NT.EXE
PackageForTheWeb Stub
InstallShield Software Corpora...

3.1. Double click the icon to install the driver. Restart PC after installation.

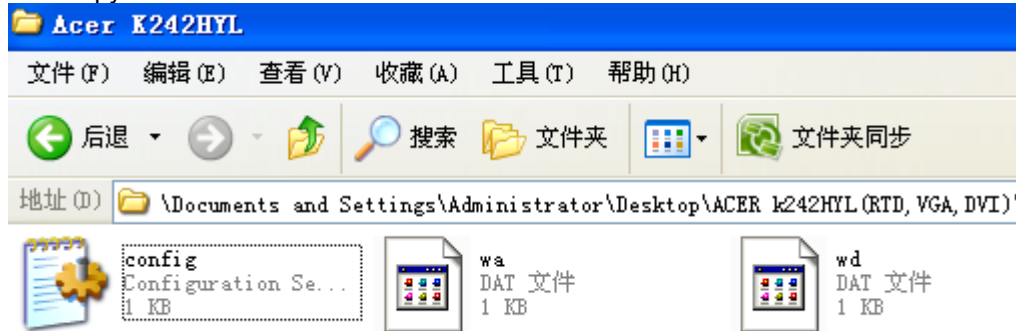
4. Prepare the EDID written.

4.1. Change the EDID files name as below rule.

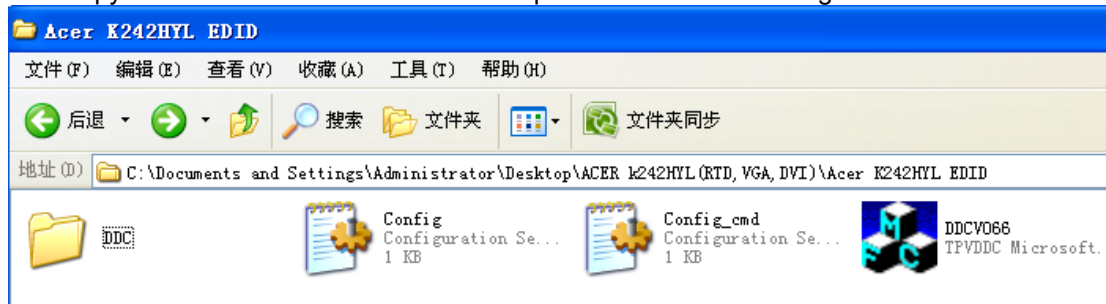
Anolog EDID → WA.dat

Digital EDID → WD.dat

4.2. Copy these three files to one folder named as ACER K242HYL which must contains "config.ini" file.



4.3. Copy ACER K242HL 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.

TPVDDC Ver: 0.66

1. Select EDID

LoadEDID

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: ProductCode: ModelName:

SN: Year: Week:

3. Input Year Month Day

Input Year-Month-Day: - -

4. Input SN

Input SN:

Check SN:

卡号:

Connect SFIS

Time: 0 S

Write EDID

Read EDID

OtherSetting

Information

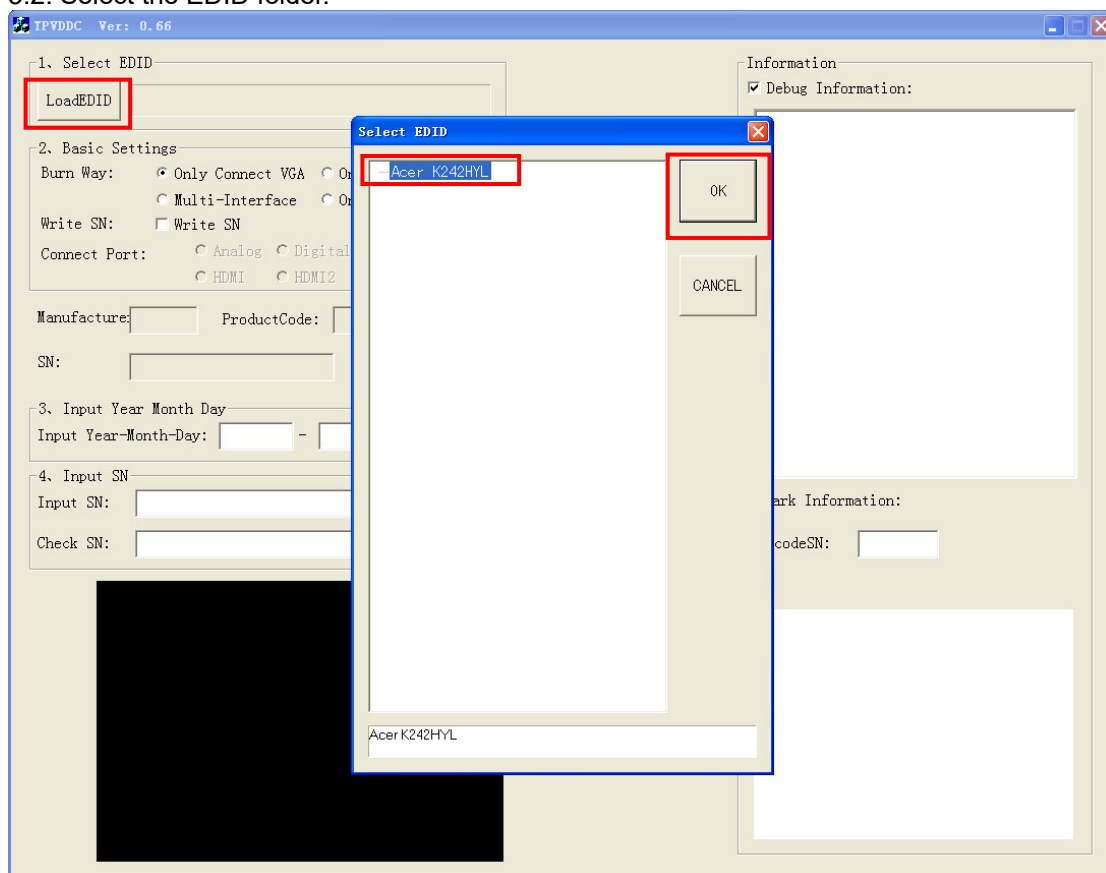
☒ Debug Information:

Remark Information:

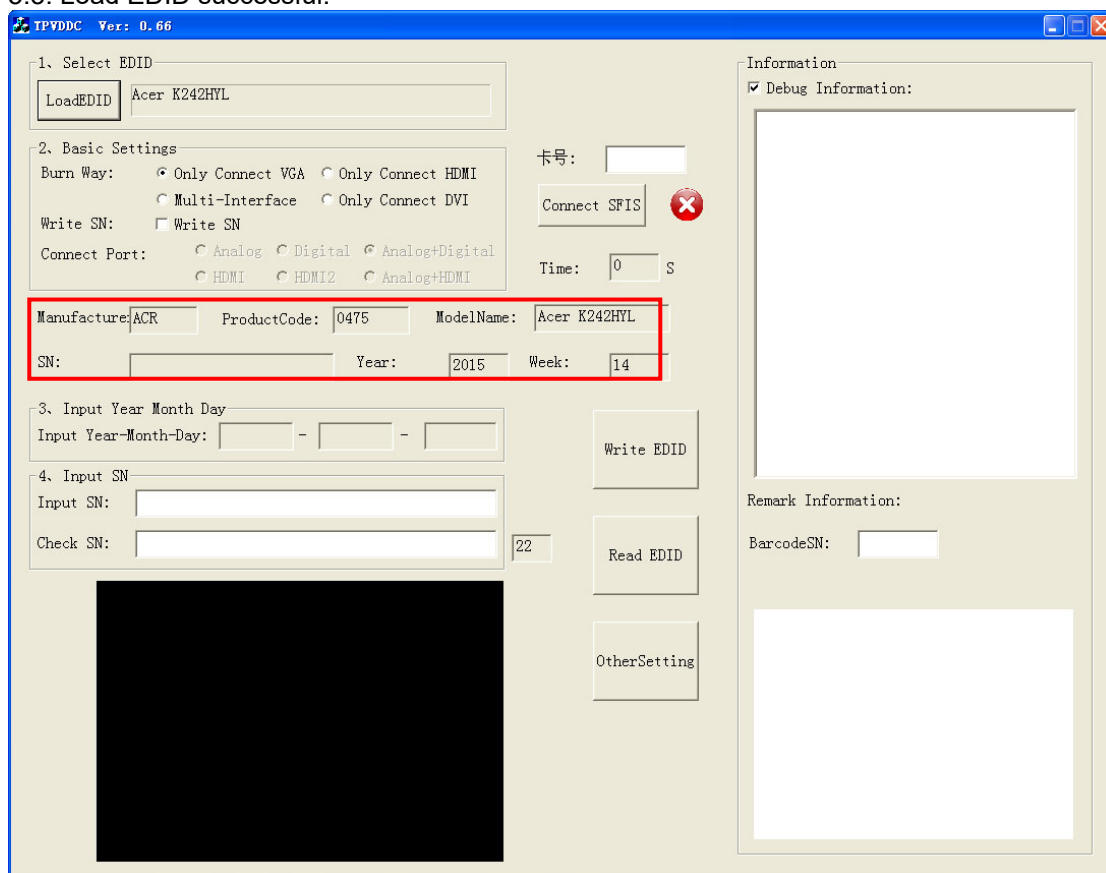
BarcodeSN:

>> Please connect
VGA1!

5.2. Select the EDID folder.



5.3. Load EDID successful.



5.4 Tick the “Only connect VGA”and “write SN”, then click “Debug Imformayion”.

TPVDDC Ver: 0.66

1. Select EDID
LoadEDID Acer K242HYL

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

卡号:
Connect SFIS

Time: 0 S

Manufacture: ACR ProductCode: 0475 ModelName: Acer K242HYL
SN: Year: 2015 Week: 14

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 Information:
BarcodeSN:

5.5 type in the 22 digit S/N.

TPVDDC Ver: 0.66

1. Select EDID
LoadEDID Acer K242HYL

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

卡号:
Connect SFIS

Time: 0 S

Manufacture: ACR ProductCode: 0475 ModelName: Acer K242HYL
SN: Year: 2015 Week: 14

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

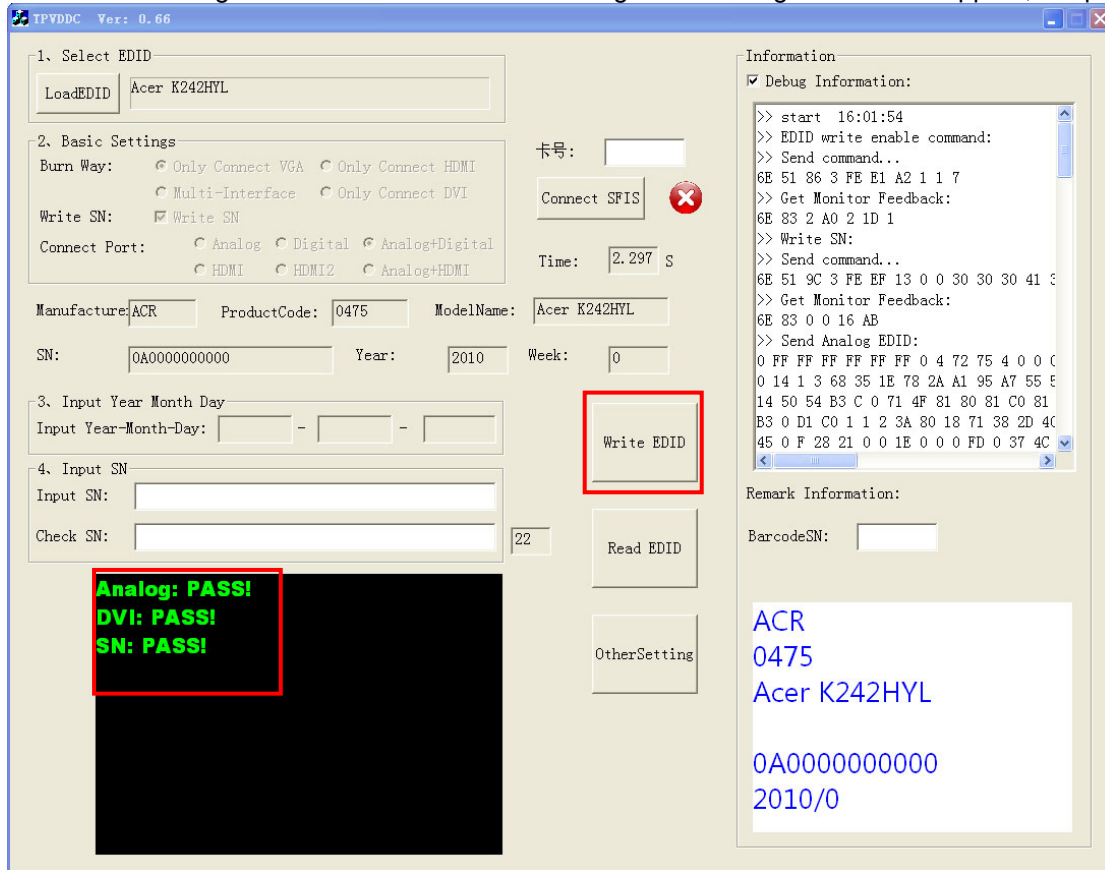
4. Input SN
Input SN: 000A00000000000000000000
Check SN: 000A00000000000000000000 22

Write EDID
Read EDID
OtherSetting

Information
☒ Debug Information:

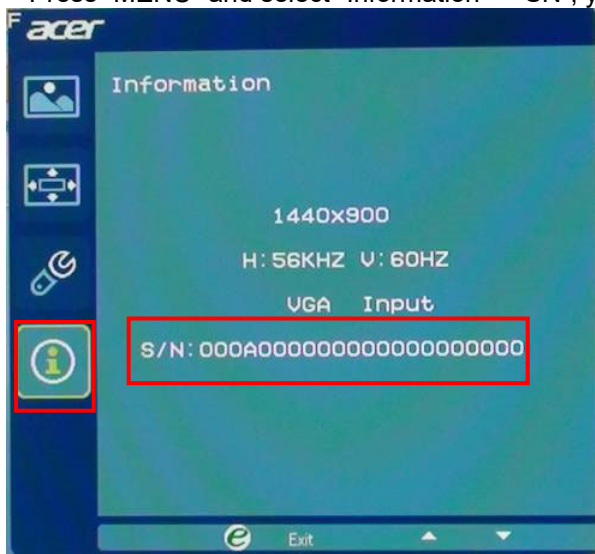
Remark Information:
BarcodeSN:

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



5.7 Check the S/N in monitor user menu.

Press “MENU” and select “Information”—“SN”, you can check the SN.



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 K242HYL 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	756GQFCB0BA023000Q	N/A
	Power board	PLPCE9191UYAT	N/A
	Key board	KEPCCQKK	55.LXMM2.003
	panel	750GBU238V10AJN000	N/A
	FFC CABLE 320MM(MB TO PANEL)	S95G179T30BS16	N/A

	AC POWER CORD 1500 for Europe	389G404A15NISG	27.T2JM2.001
	DVI CABLE 1500MM	389G0745CAAF01	50.LXPM2.002
	D-SUB CABLE 1500	089G 725CAA 2A	50.LNY0B.014
	BEZEL	Q34G7981AEMC1L0130	N/A
	REAR COVER	Q34G7730AEM0BS0102	N/A

	STAND ASSY	705GQECS034130	60.T2WM2.003
	BASE ASSY	705GQECS034131	60.T2WM2.004
	MAIN FRAME	Q15G191607102A00GH	N/A

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.

VGA mode

Problem	LED status	Remedy
No picture visible	Blue	Using the OSD, adjust brightness and contrast to maximum or reset to their default settings.
	Off	Check the power switch.
		Check if the power cord is properly connected to the monitor.
	Amber	Check if the video signal cable is properly connected at the back of monitor.
Unstable picture		Check if the computer system is switched on and in power saving/standby mode.
		Check if the specification of graphics adapter and monitor is in compliance which may be causing the input signal frequency mismatch.
Abnormal picture	Image is missing, off-center, too large or too small on the screen.	Using the OSD, adjust focus, clock, H-position and V-position with non-standard signals.
		Check the display setting on your system. In case of a missing image, please select another resolution or vertical refresh rate.
		Wait for a few seconds after adjusting the size of the image before changing or disconnecting the signal cable or switching off the monitor.

DVI/HDMI mode

Problem	LED status	Remedy
No picture visible	Blue	Using the OSD, adjust brightness and contrast to maximum or reset to their default settings.
	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 that the computer system is switched on and in power saving/standby mode.