

## Firmware and DDC Instruction

Take 27B1H for example

### 1 F/W Upgrade SOP

#### 1.1 Materials list



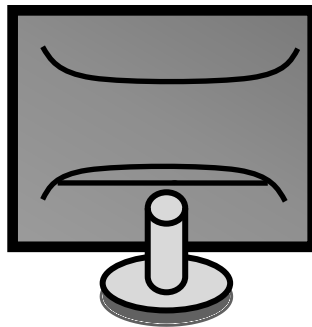
ISP JIG: 715GT089-B



HDMI cable



PC

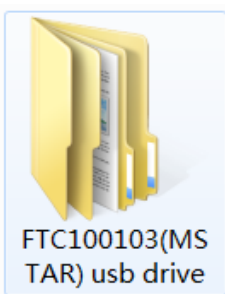


Monitor



USB cable

TPV P/N: 089G1758 X



USB port driver

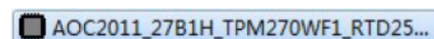


MSTAR driver



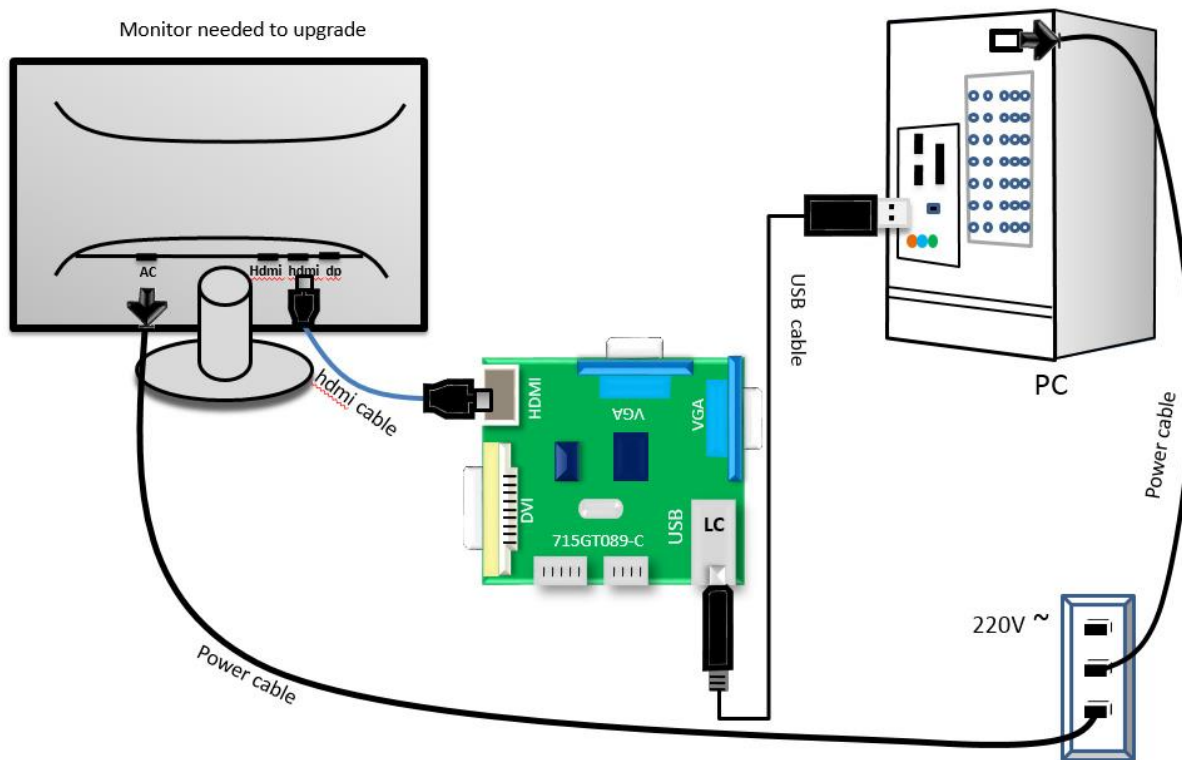
RTDTool.exe

ISP tool: V4.5.183



New F/W

## 1.2 Connection



## 1.3 Install USB driver.

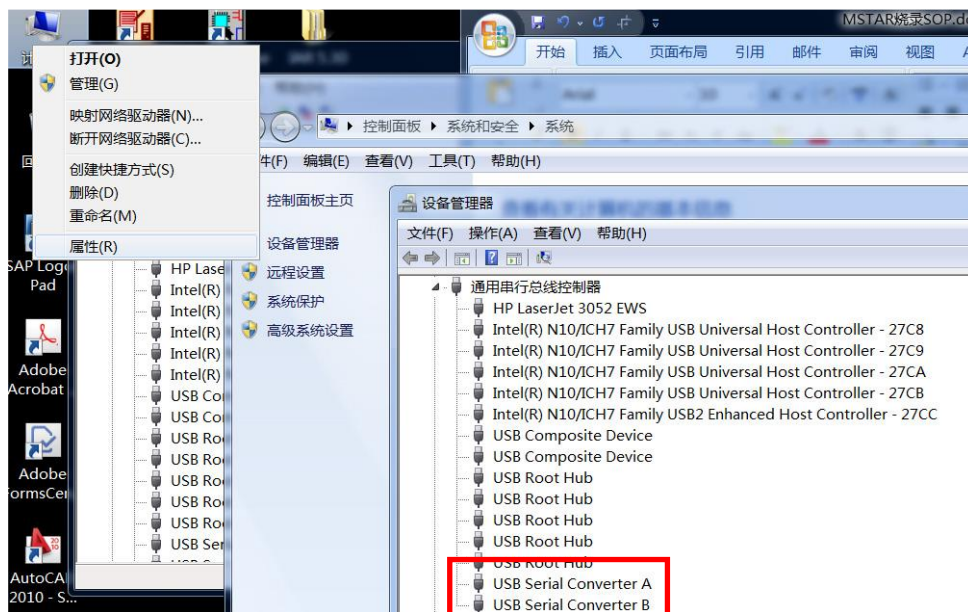
If you use this ISP board first time, you need to install mstar driver .

win10 CDM20600.exe

C:\Users\Bront.li\AppData\Local\Temp\ckz\_NDDV\DPInst\_Monx64.exe

```
64-bit OS detected
"C:\Users\Bront.li\AppData\Local\Temp\ckz_NDDV\DPInstx64.exe"
Installing driver.....
```

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

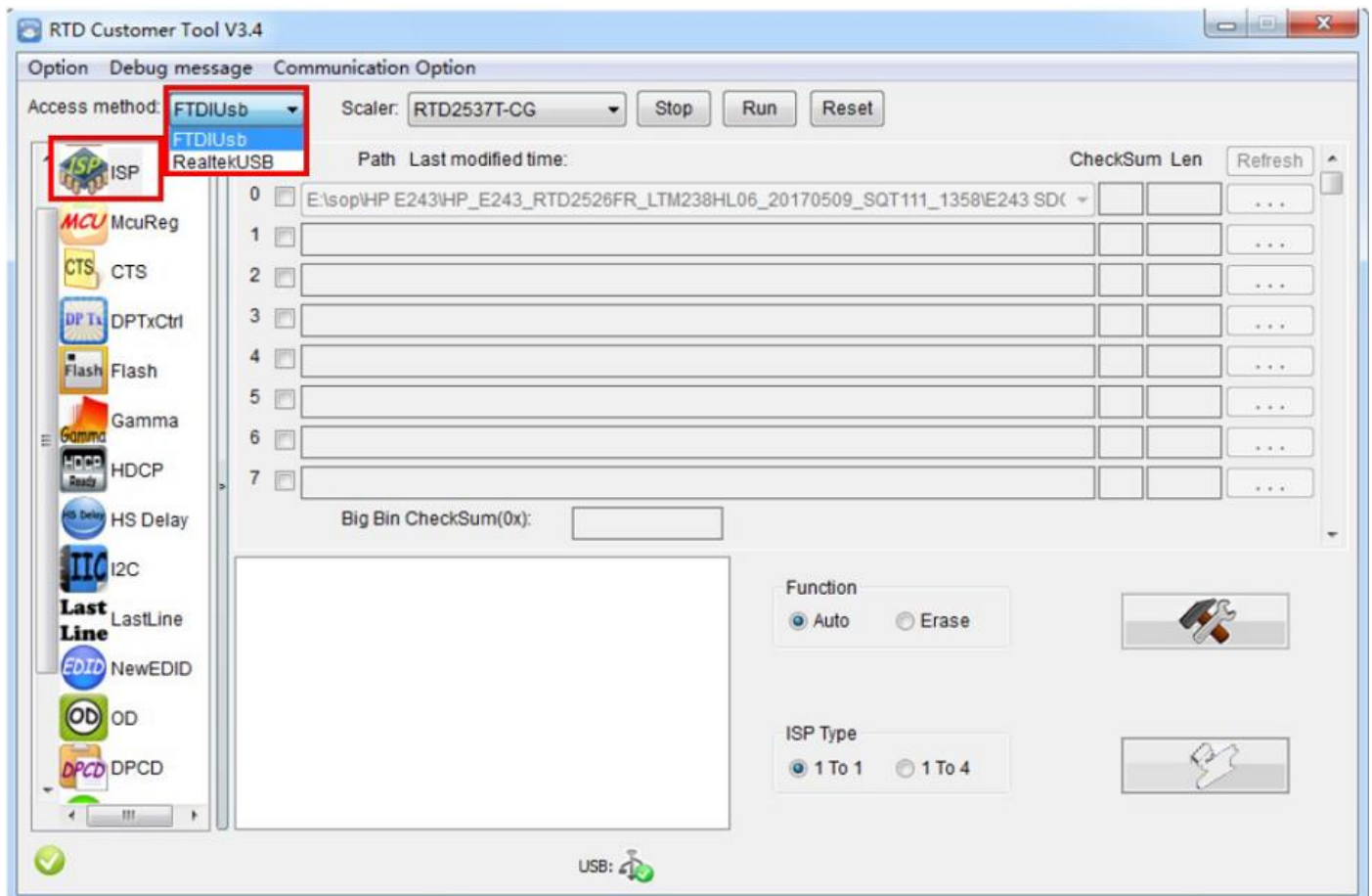


## 1.4 Update the Software.

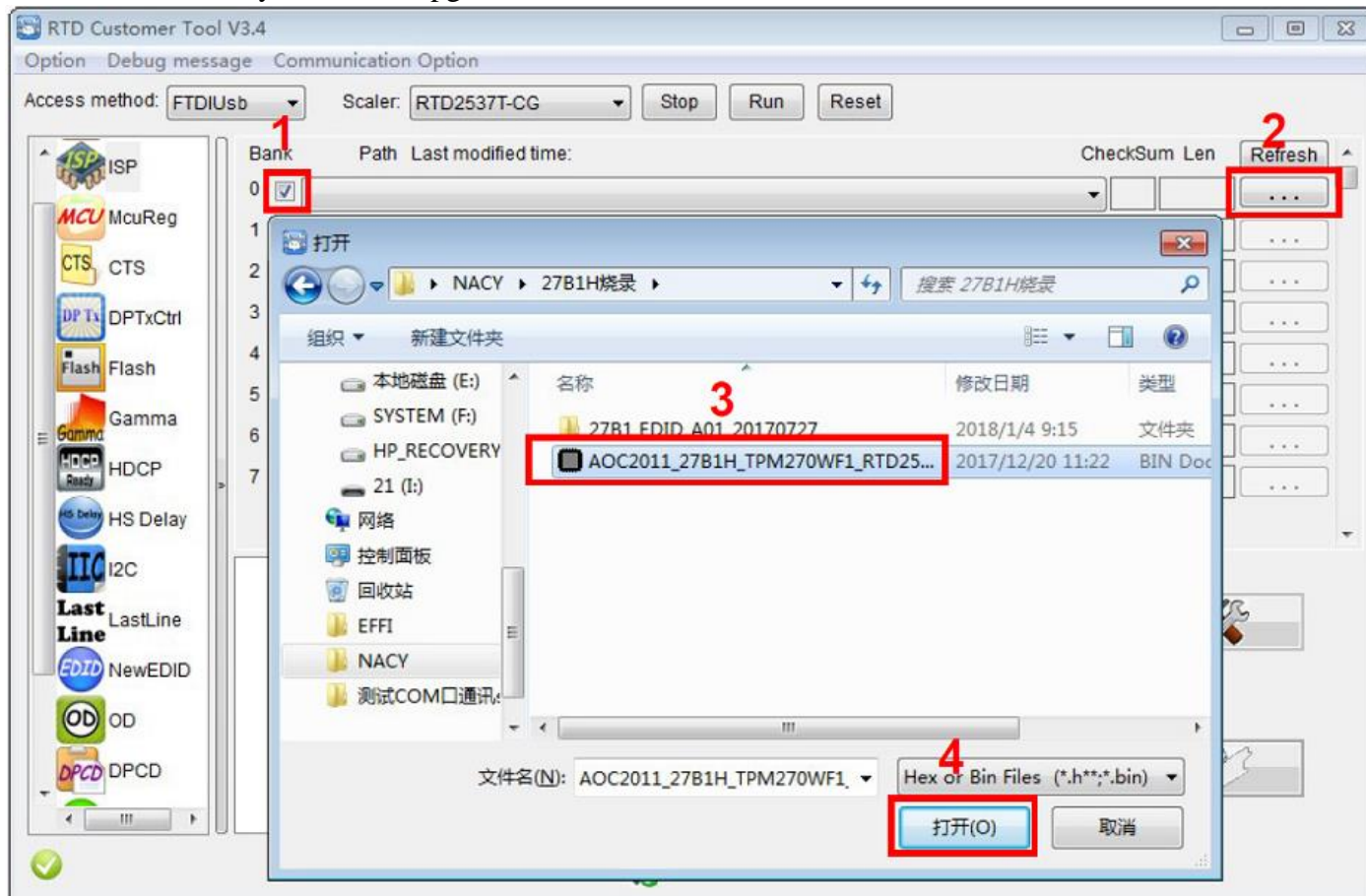


1.4.1 Double-click `RTDTool.exe` to run the ISP tool. Choose the FTDIUSB communication way.

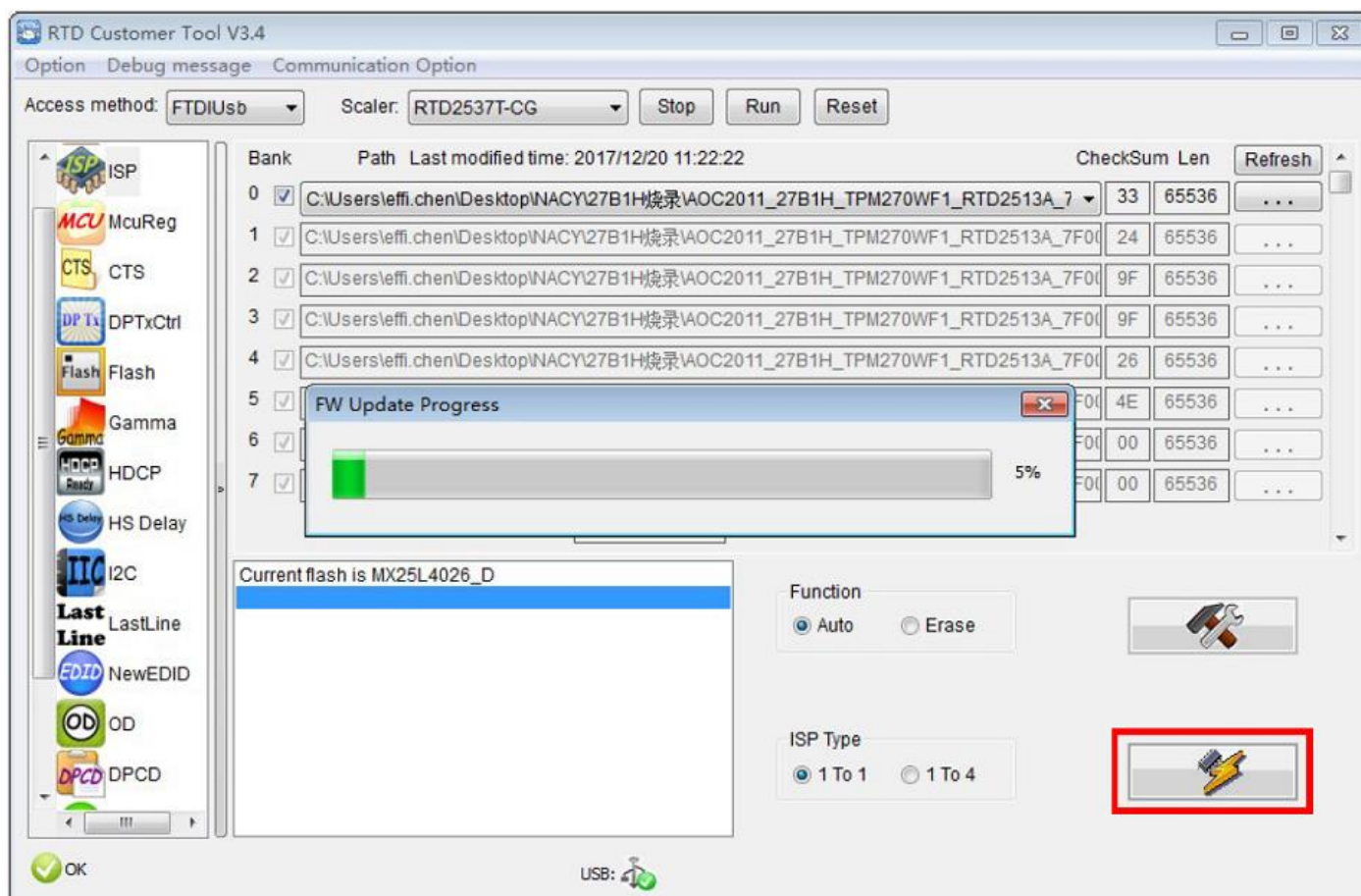
Note: Must to install driver firstly



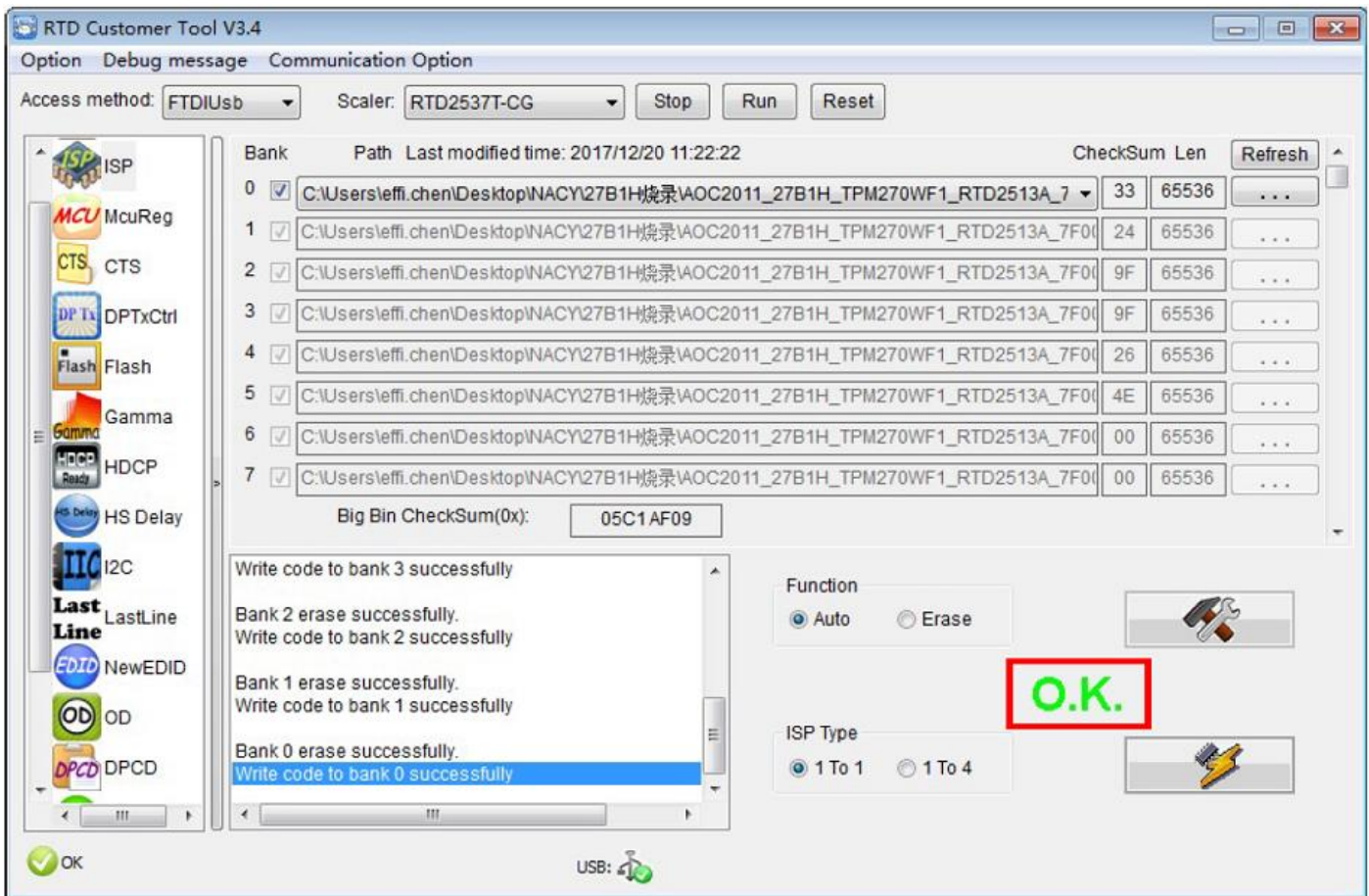
### 1.4.2 Load the F/W you want to upgrade.



### 1.4.3 Click to start programming.



1.4.4. After about 3 minutes, there will pop up message as below figure which promotes the upgrade successful..

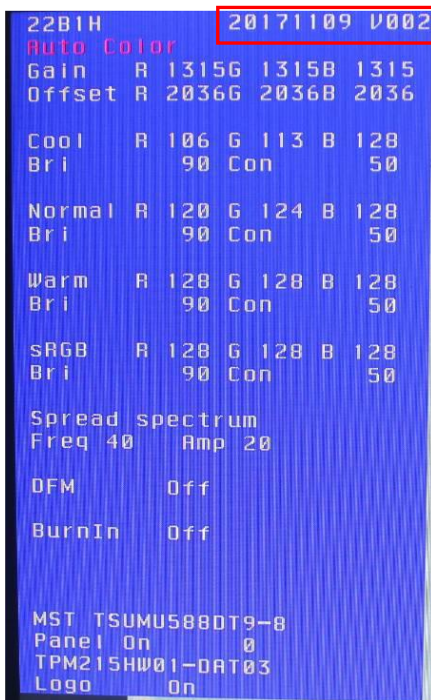


### 1.5. Check the FW version after upgrade.

Check in the factory menu.

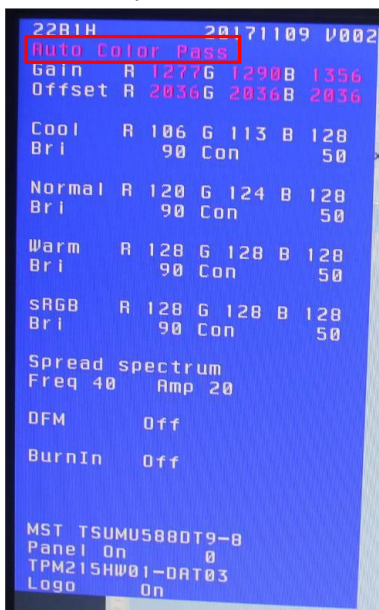
- (1) Connect source to monitor, and turn it on.
- (2) Press “menu” key and AC on simultaneously. when the screen lights, release the “menu” and then press “menu” again to open below menu and select “F” to open factory menu.



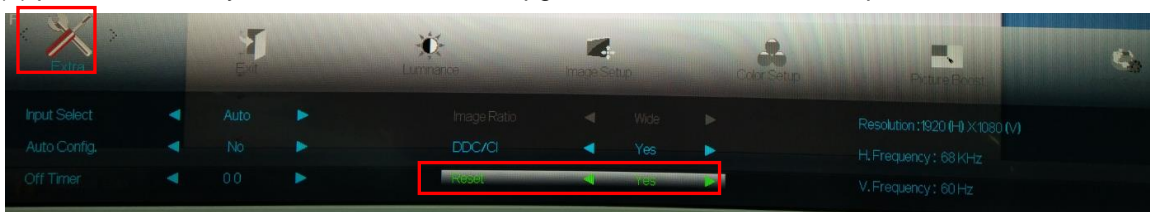


Check this  
F/W version.

(3) 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 IS OK.



(4) please do factory reset in user menu re-upgrade F/W as the above steps.



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

## 2 EDID writing SOP

Take 243B1 for example.

### 2.1 Materials list

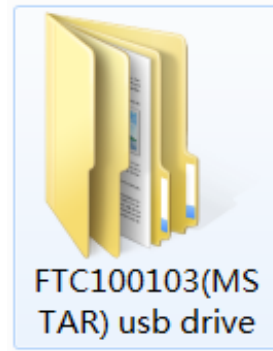


HDMI cable



USB cable

TPV P/N: 089G1758 X



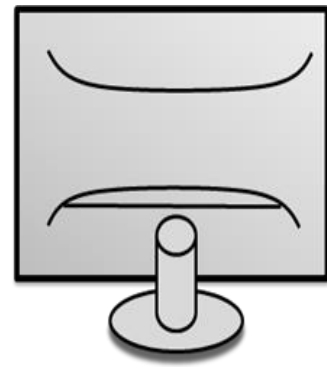
USB port driver



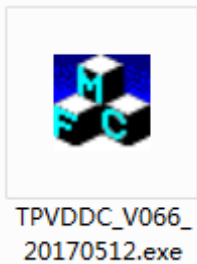
ISP JIG: 715GT089-B



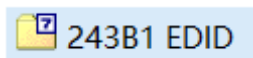
PC



Monitor

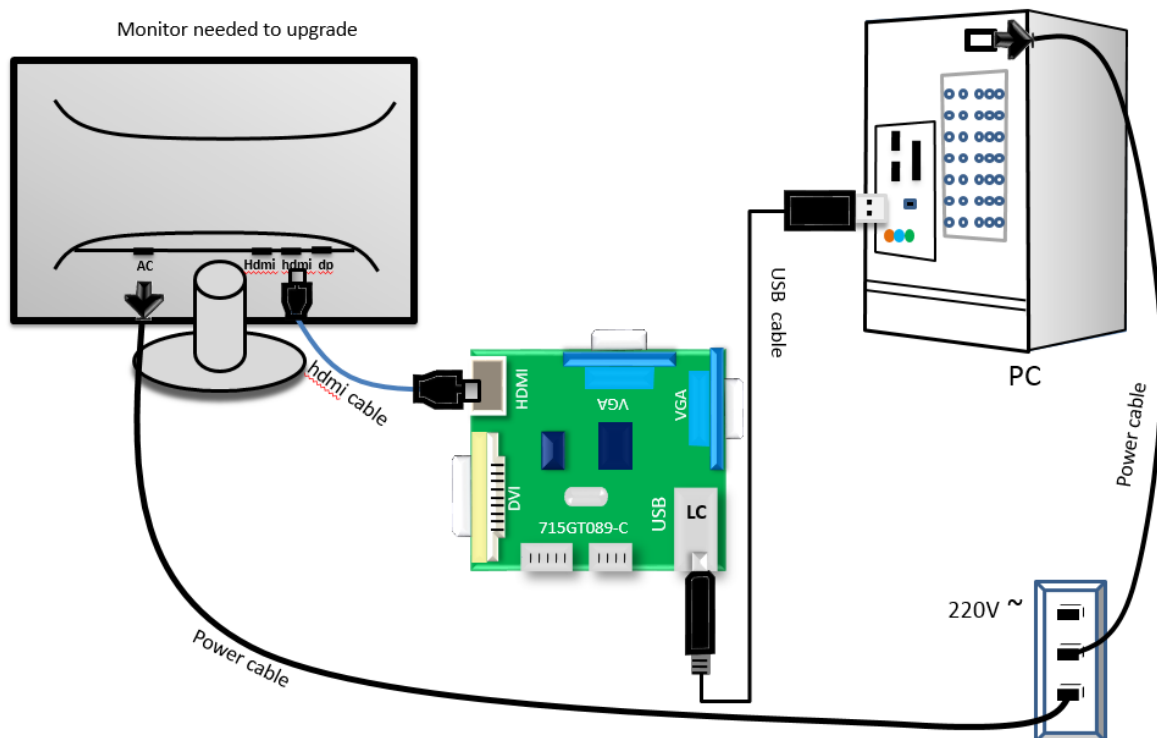


ISP tool



EDID

## 2.2 Connection(DC on the monitor)



## 2.3 Install USB driver.

## 2.4 Prepare the EDID written.

### 2.4.1 Change the EDID files name as below rule.

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

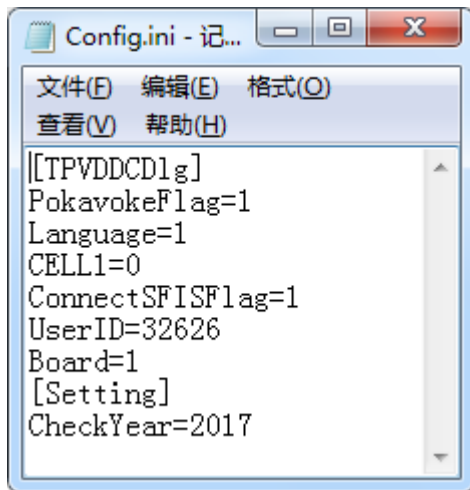
### 2.4.2 Copy these files to one folder named as 22B1H EDID which must contains “config.ini” file.



### 2.4.3 Copy 22B1H EDID to DDC folder and put DDC and ISP tool together.

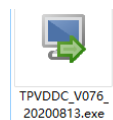


#### 2.4.4 Setting the Config as below.

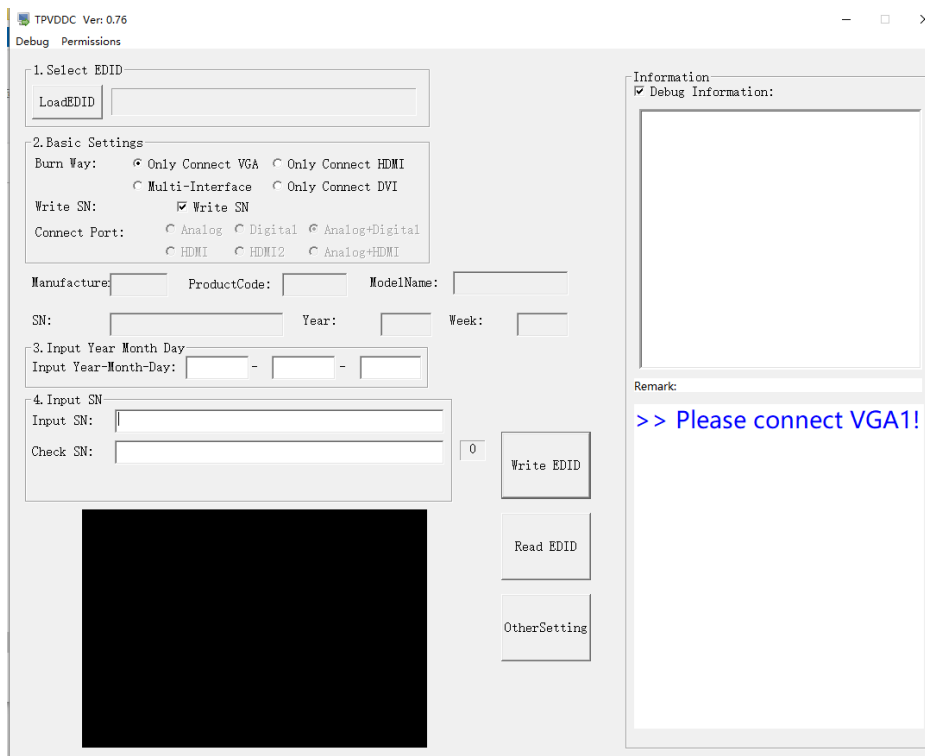


#### 2.5 Run the ISP tool

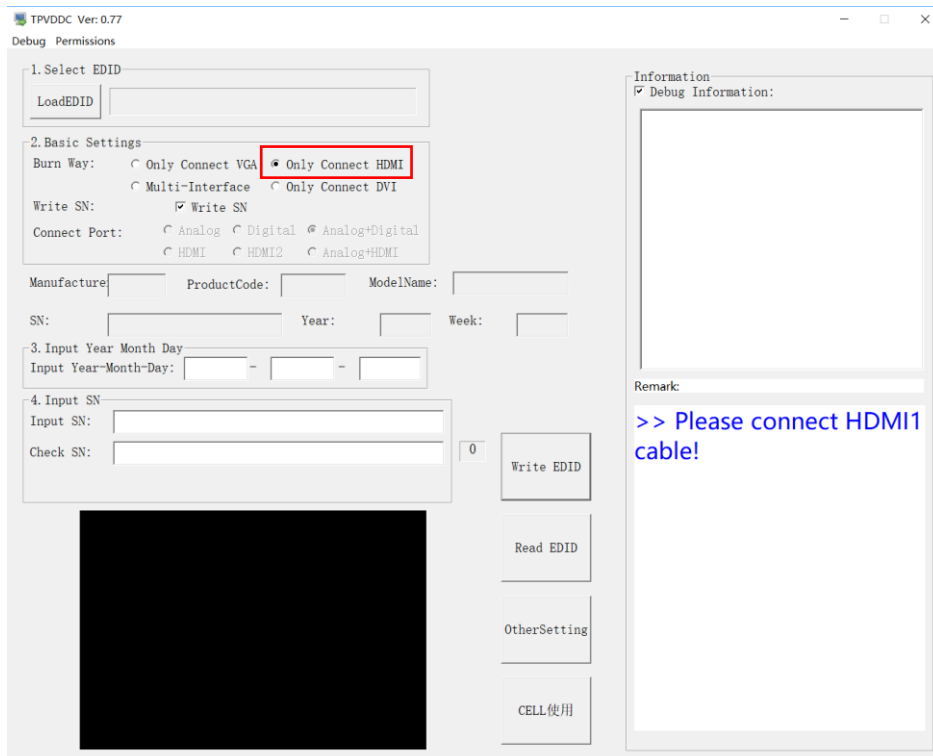
**Note:** If the F/W Upgrade use the same ISP tool as the EDID writing, you must close the F/W Upgrade tool before running the EDID writing tool.



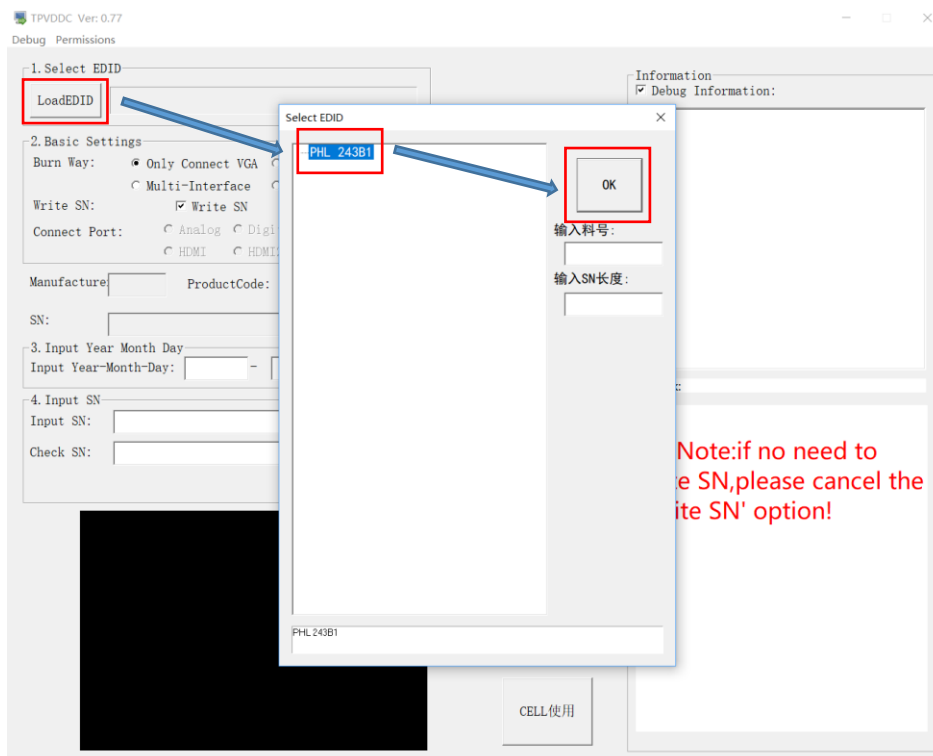
##### 2.5.1 Double-click the icon to open the tool.



## 2.5.2 Select Only Connect HDMI.



## 2.5.3 Select the EDID folder.



## 2.5.4 Load EDID successful.

TPVDDC Ver: 0.77  
Debug Permissions

1. Select EDID  
LoadEDID: PHL 243B1

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: PHL ProductCode: 0942 ModelName: PHL 243B1  
SN: [16843009] Year: 2019 Week: 0

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

4. Input SN  
Input SN:   
Check SN: 13

Write EDID  
Read EDID  
OtherSetting  
CELL使用

Information  
☒ Debug Information:

Remark:

>> Note:if no need to write SN,please cancel the 'Write SN' option!

## 2.5.5 Type in S/N of the monitor.

TPVDDC Ver: 0.76  
Debug Permissions

1. Select EDID  
LoadEDID: 272M3

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: PHL ProductCode: C215 ModelName: PHL 272M3  
SN: 1322131231233[16843009] Year: 2019 Week: 0

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

4. Input SN  
Input SN: UK02035000001  
Check SN: UK02035000001 13

Write EDID  
Read EDID  
OtherSetting

Information  
☒ Debug Information:

Remark:

>> Note:if no need to write SN,please cancel the 'Write SN' option!

## 2.5.6 Click “Write EDID” to start writing.

TPVDDC Ver: 0.76  
Debug Permissions

1. Select EDID  
LoadEDID: 272M8

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: PHL ProductCode: C215 ModelName: PHL 272M8  
SN: 1322131231233[16843009] Year: 2019 Week: 0

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

4. Input SN  
Input SN: UK02035000001  
Check SN: UK02035000001

13 Write EDID  
Read EDID  
OtherSetting

Information  
☒ Debug Information:

Remark:

>> Note:if no need to write SN,please cancel the 'Write SN' option!

## 2.5.7 When the green “PASS” appear, the process is finished.

TPVDDC Ver: 0.76  
Debug Permissions

1. Select EDID  
LoadEDID: 272M8

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: PHL ProductCode: C215 ModelName: PHL 272M8  
SN: 1322131231233[231233] Year: 2021 Week: 31

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

4. Input SN  
Input SN:   
Check SN:

13 Write EDID  
Read EDID  
OtherSetting

Information  
☒ Debug Information:

```
>> start 13:48:41  
>> EDID write enable command:  
>> Send command...  
6E 51 86 03 FE E1 A2 01 01 07  
>> Get Monitor Feedback:  
6E 84 02 8A 02 00 30 00 00 00 00 00  
>> Write SN:  
>> Send command...  
6E 51 93 03 FE EF 13 00 00 31 33 32 32  
>> Get Monitor Feedback:  
6E 83 00 00 0D B0  
>> Send Analog EDID:  
00 FF FF FF FF FF 00 41 0C 15 C2 41  
1F 1F 01 03 68 3C 22 78 2A 1C B5 A9 50
```

Remark:

PHL  
C215  
PHL 272M8  
UK02035000001 [000001]  
2021/31

Analog: PASS!  
DP: PASS!  
HDMI: PASS!  
SN: PASS!

2.5.8 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 uaually 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.