

EPD-4200

42" E Ink Public Display with Glass by E Ink T1000 TCON board

Quick Reference Guide

1st Ed – 06 January 2022

Copyright Notice

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FCC Statement



THIS DEVICE COMPLIES WITH PART 15 FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:

(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE.

(2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRE OPERATION.

THIS EQUIPMENT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS "B" DIGITAL DEVICE, PURSUANT TO PART 15 OF THE FCC RULES.

THESE LIMITS ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE WHEN THE EQUIPMENT IS OPERATED IN A COMMERCIAL ENVIRONMENT. THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY AND, IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION MANUAL, MAY CAUSE HARMFUL INTERFERENCE TO RADIO COMMUNICATIONS.

OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE HARMFUL INTERFERENCE IN WHICH CASE THE USER WILL BE REQUIRED TO CORRECT THE INTERFERENCE AT HIS OWN EXPENSE.

A Message to the Customer

Avalue Customer Services

Each and every Avalue's product is built to the most exacting specifications to ensure reliable performance in the harsh and demanding conditions typical of industrial environments. Whether your new Avalue device is destined for the laboratory or the factory floor, you can be assured that your product will provide the reliability and ease of operation for which the name Avalue has come to be known.

Your satisfaction is our primary concern. Here is a guide to Avalue's customer services. To ensure you get the full benefit of our services, please follow the instructions below carefully.

Technical Support

We want you to get the maximum performance from your products. So if you run into technical difficulties, we are here to help. For the most frequently asked questions, you can easily find answers in your product documentation. These answers are normally a lot more detailed than the ones we can give over the phone. So please consult the user's manual first.

To receive the latest version of the user's manual; please visit our Web site at:

<http://www.avalue.com.tw/>

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1. Getting Started

1.1 Safety Precautions

Warning!



Always completely disconnect the power cord from your chassis whenever you work with the hardware. Do not make connections while the power is on. Sensitive electronic components can be damaged by sudden power surges. Only experienced electronics personnel should open the PC chassis.

Caution!



Always ground yourself to remove any static charge before touching the CPU card. Modern electronic devices are very sensitive to static electric charges. As a safety precaution, use a grounding wrist strap at all times. Place all electronic components in a static-dissipative surface or static-shielded bag when they are not in the chassis.

1.2 Packing List

- 1 x EPD-4200 42" Communication Board
- 1 x Power Adapter
- 1 x US Power cord
- 1 x Wall mounting bracket
- 1 x Wall locking bracket
- 1 x Pan head screws (D6.8, M4*10mm) with washer (D8.1)
- 4 x Thumb screws (M4*10L)
- 2 x Pan head screws (D6.85, M4*6mm)



If any of the above items is damaged or missing, contact your retailer.

1.3 System Specifications

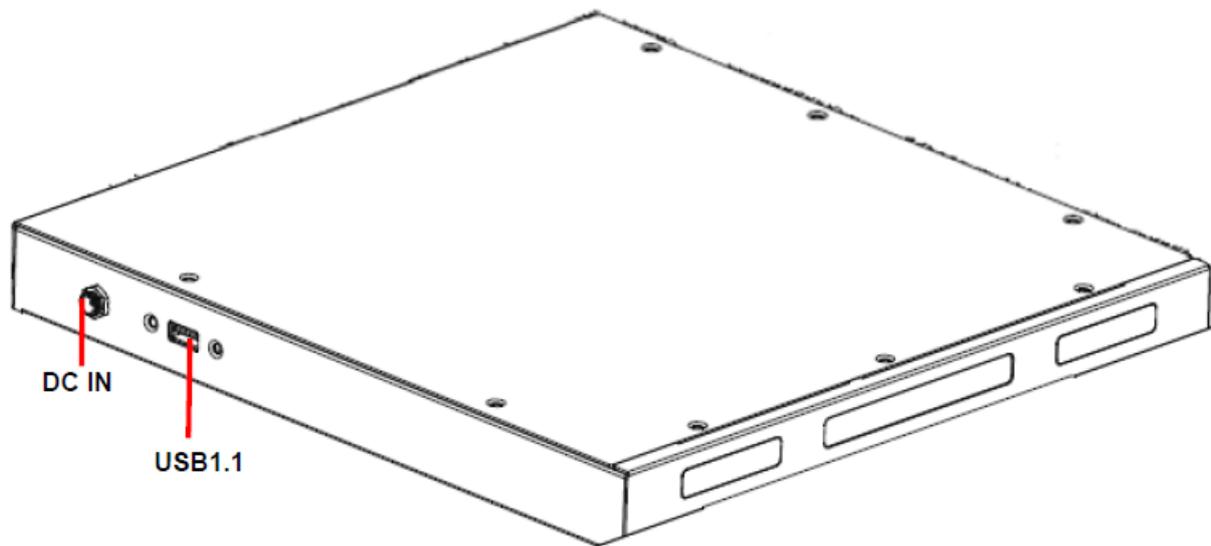
Component	
Mother Board	T1000 T-con board
Power Supply	DC-12V
Adapter	12V/ 5A
Panel	
LCD Panel	42" E Ink Display with 2160 x 2880 pixels (ED420TT3)
Touch Screen	N/A (Use protection glass)
External I/O	
USB Port	1 x USB 1.1
Others	EPD thermal sensor is only available in left-up
Mechanical	
Power Type	DC in +12V/5A
Power Connector Type	Lockable DC Jack
Dimension	934mm x 704mm
Weight	11.4kgs (N.W) / 17.4kgs (G.W)
Color	Black
Fanless	Yes
Reliability	
EMI Test	FCC Class B
Dust and Rain Test	Front Panel IP65
Vibration Test	5Grms, IEC 60068-2-64, Random, 10 ~ 500Hz, 1hr/axis (Only for Z-axis)
Mechanical Shock Test	50G, IEC 60068-2-27, Half Sine, 11ms (Only for Z-axis)
Drop Test	Avalue Standard Test Criteria (Change to use ISTA-1A)
Operating Temperature	EPD (ED420TT3): 0°C ~ 50°C EPD-4200: 0°C ~ 50°C
Operating Humidity	40°C@95% relative humidity, non-condensing
Storage Temperature	-20 ~ 60°C (-4 ~ 140°F)



Note:

Specifications are subject to change without notice.

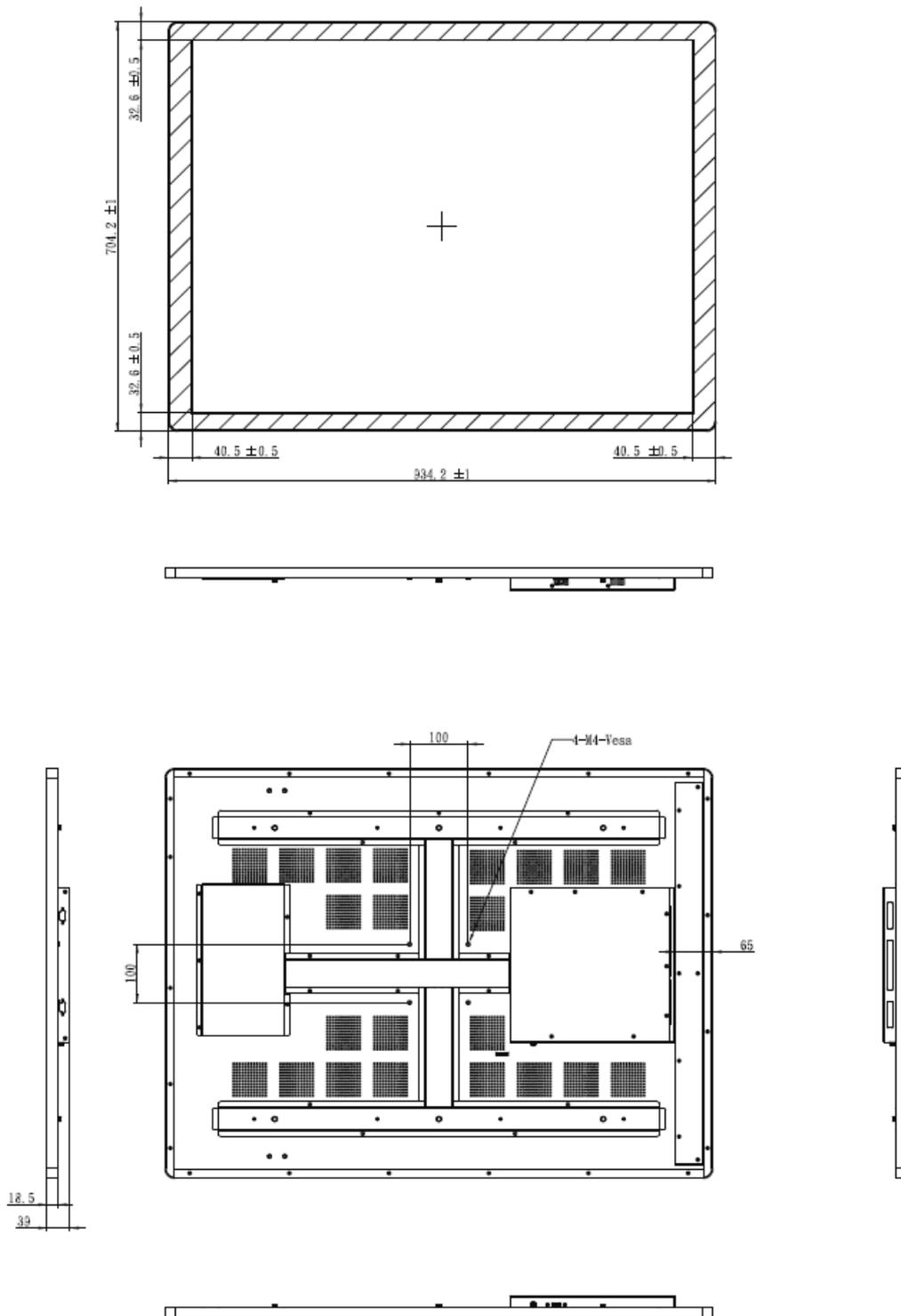
1.4 System Overview



Connectors

Label	Function	Note
USB1.1	USB1.1 connector	
DC IN	DC Power-in connector	

1.5 System Dimensions



(Unit: mm)

2. Hardware Configuration



Note: If you need more information, please visit our website:

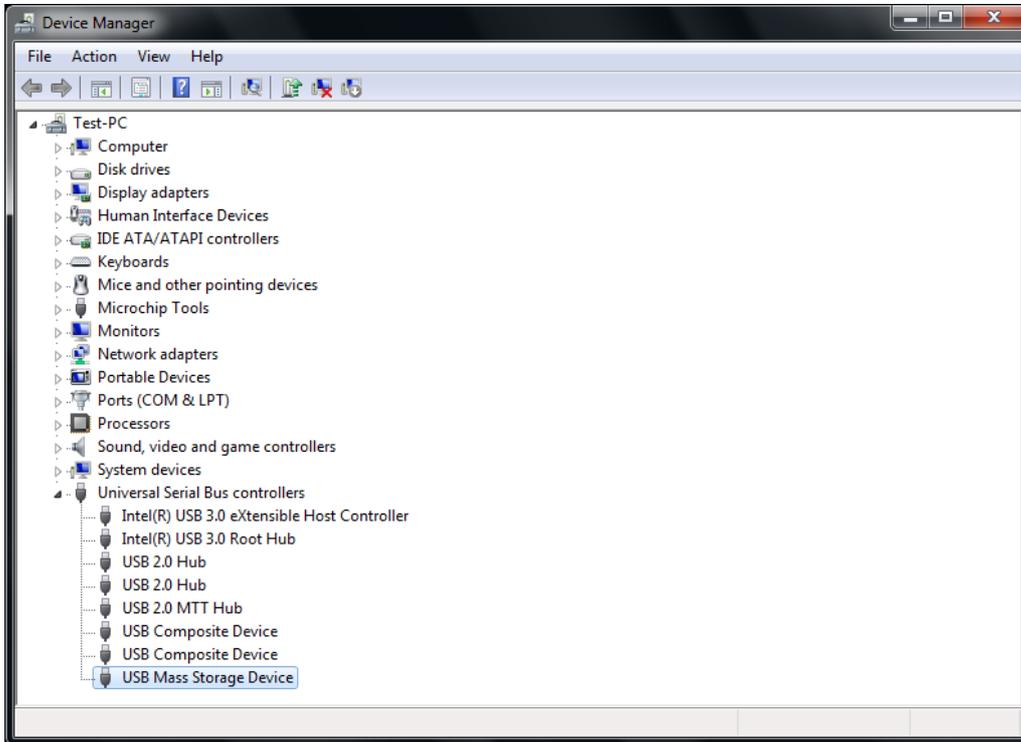
<http://www.avalue.com.tw>

3. T1000 test tool

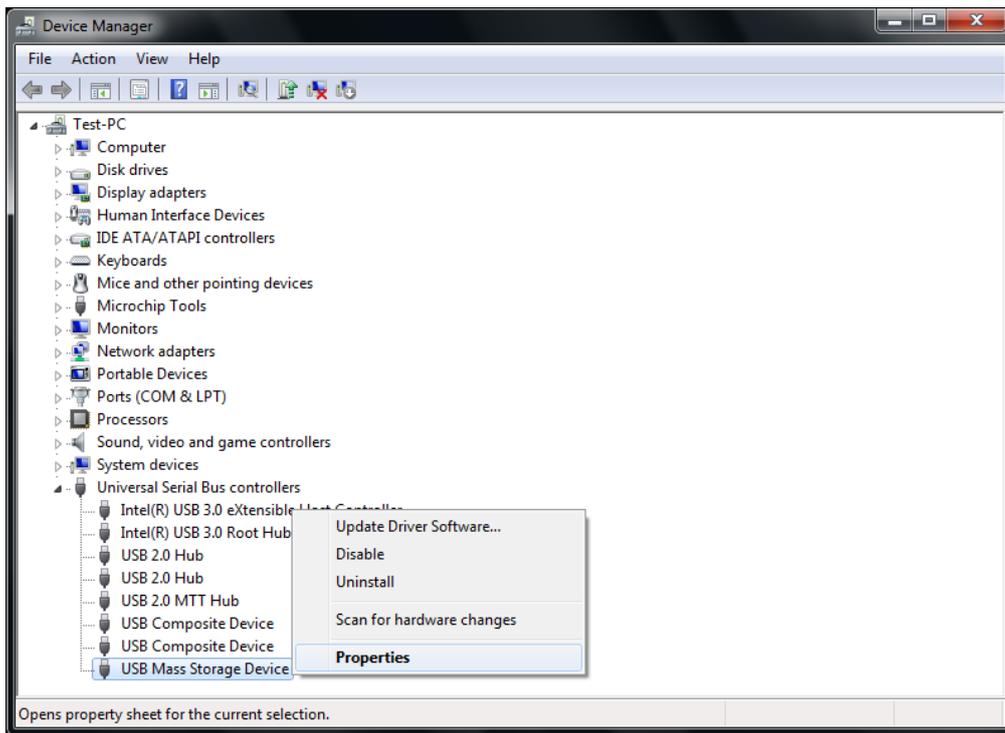
3.1 Driver

3.1.1 Windows 7

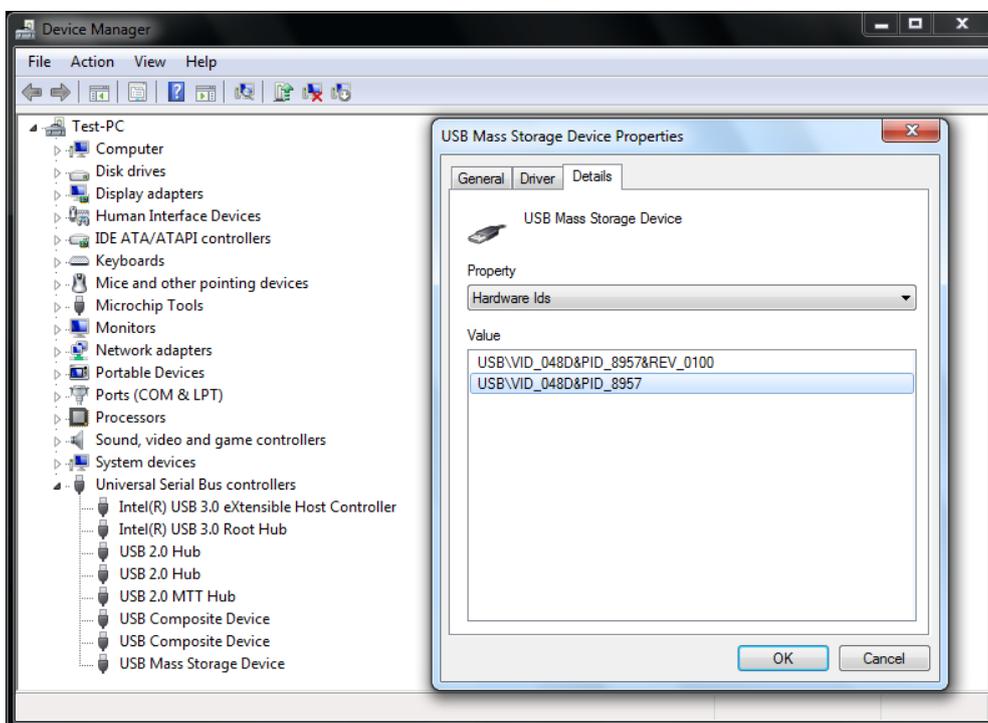
- a. Connect the T1000 device to PC and find the **USB Mass Storage Device** in the subtree of universal serial bus controllers in the device manager.



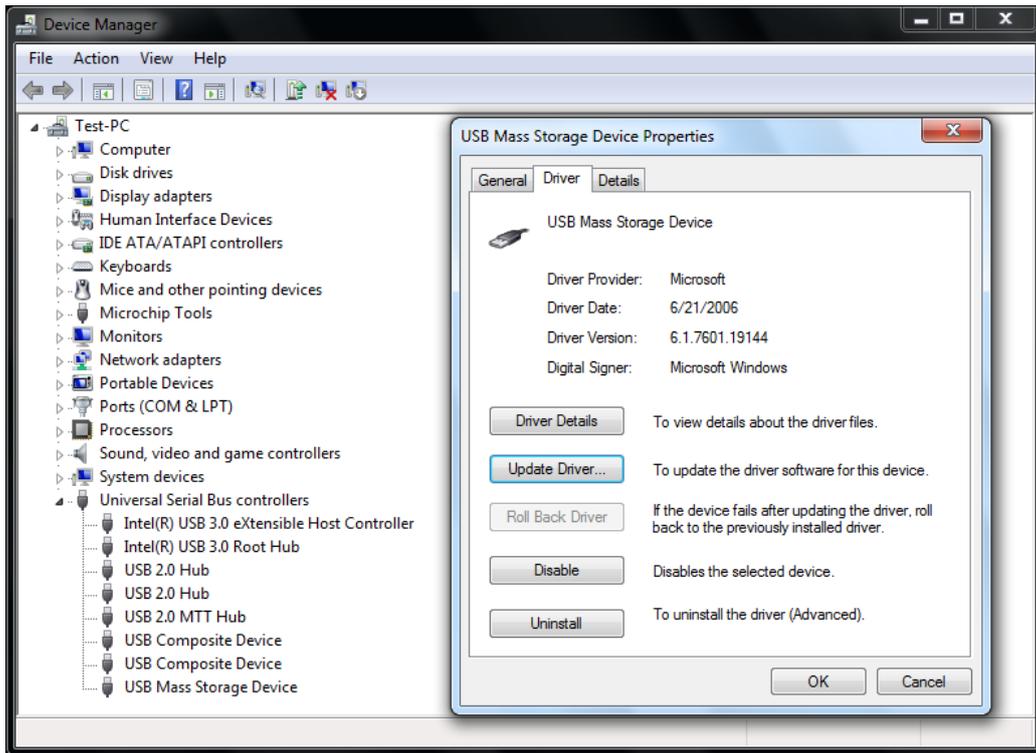
- b. Right click **USB Mass Storage Device** and click **Properties** to check device.



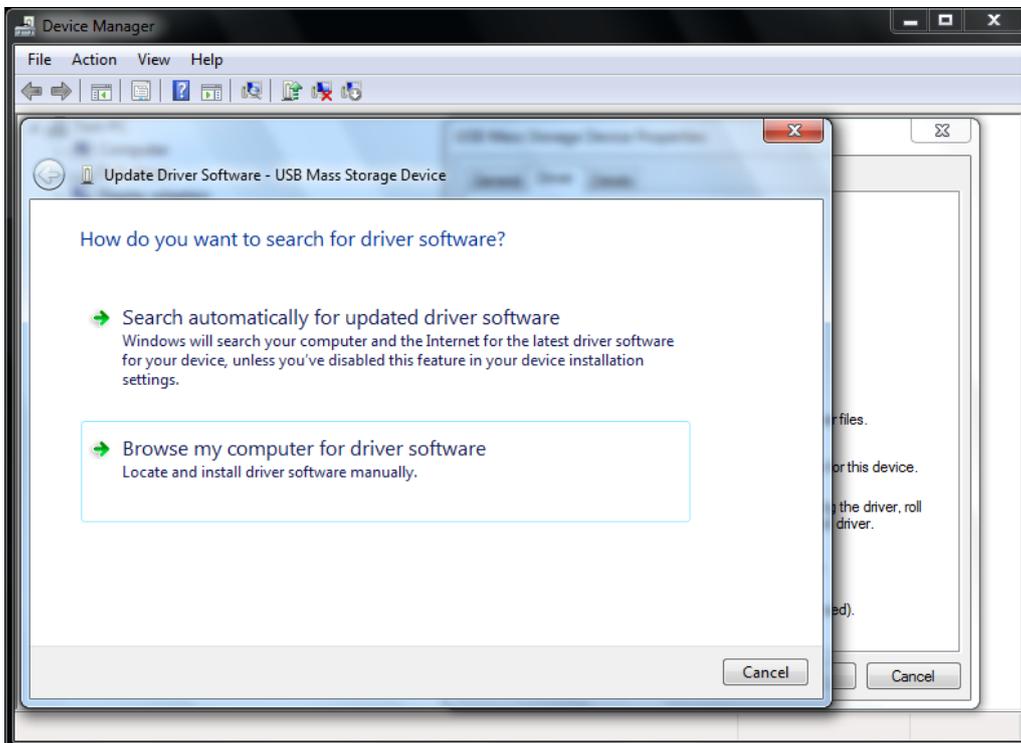
- c. Change to **Details** page and select **Property** to **Hardware Ids**, the device connect to PC is **USB\VID_048D&PID_8957**.



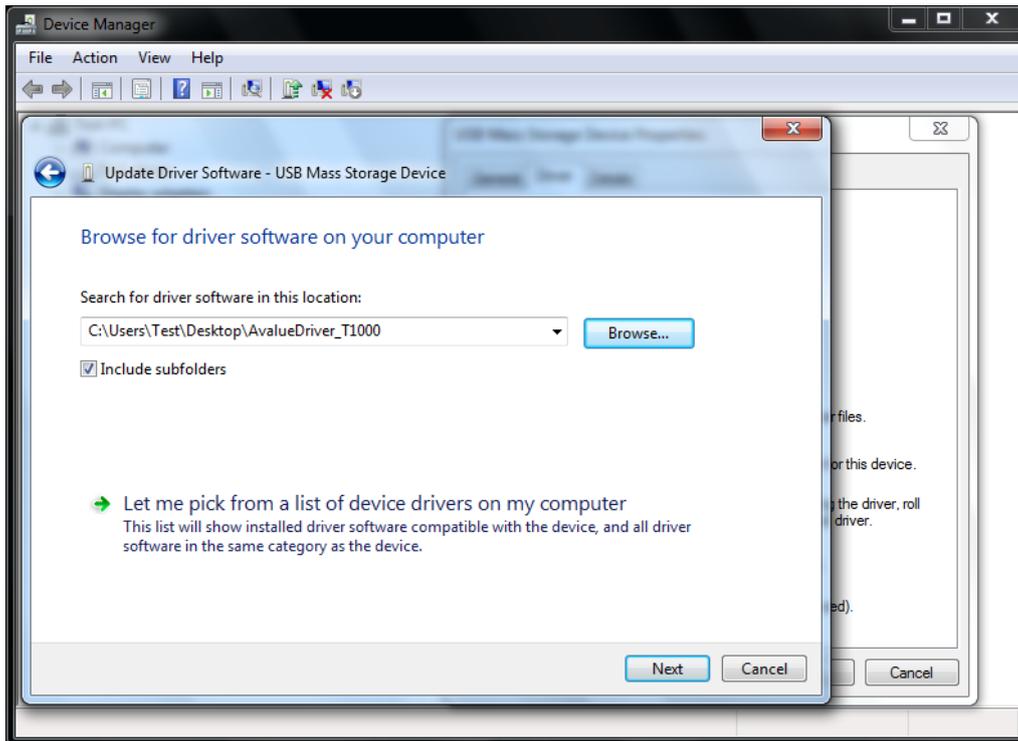
d. When find the device, change to **Driver** page and click **Update Driver**.



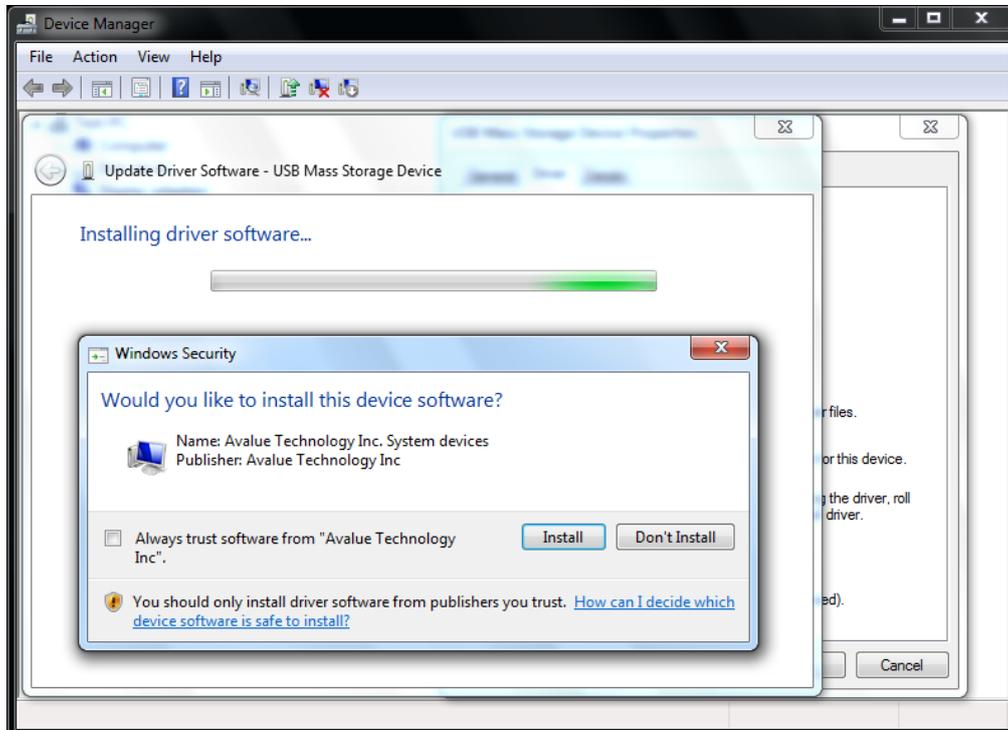
e. Select **Browse my computer for driver software**.



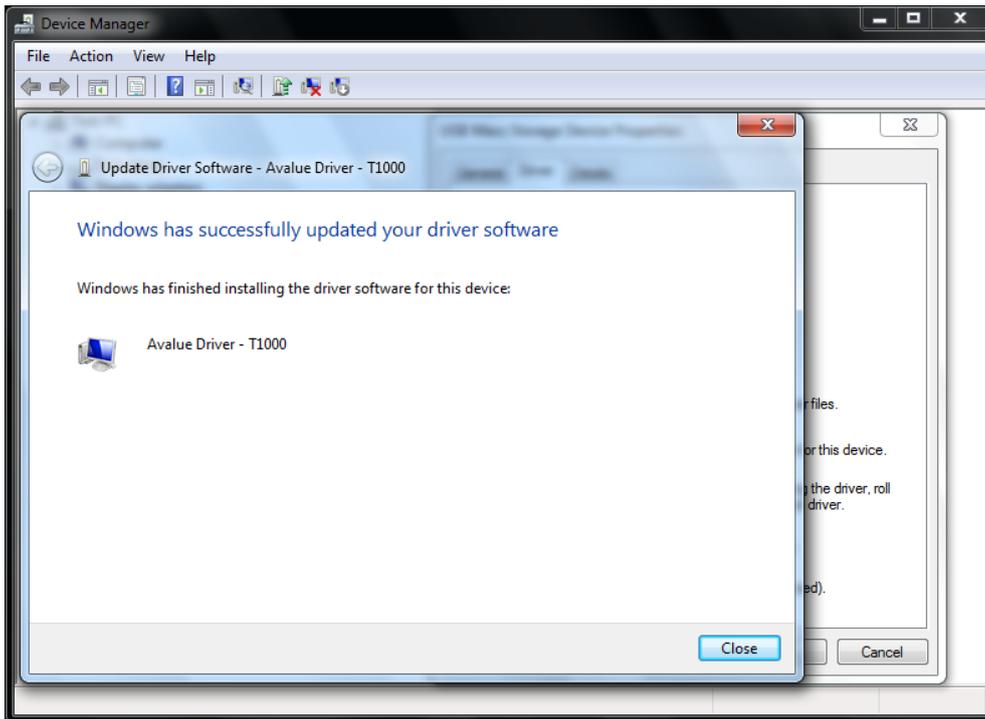
- f. Browse the folder which contain the **AvalueDriver_T1000.inf**.



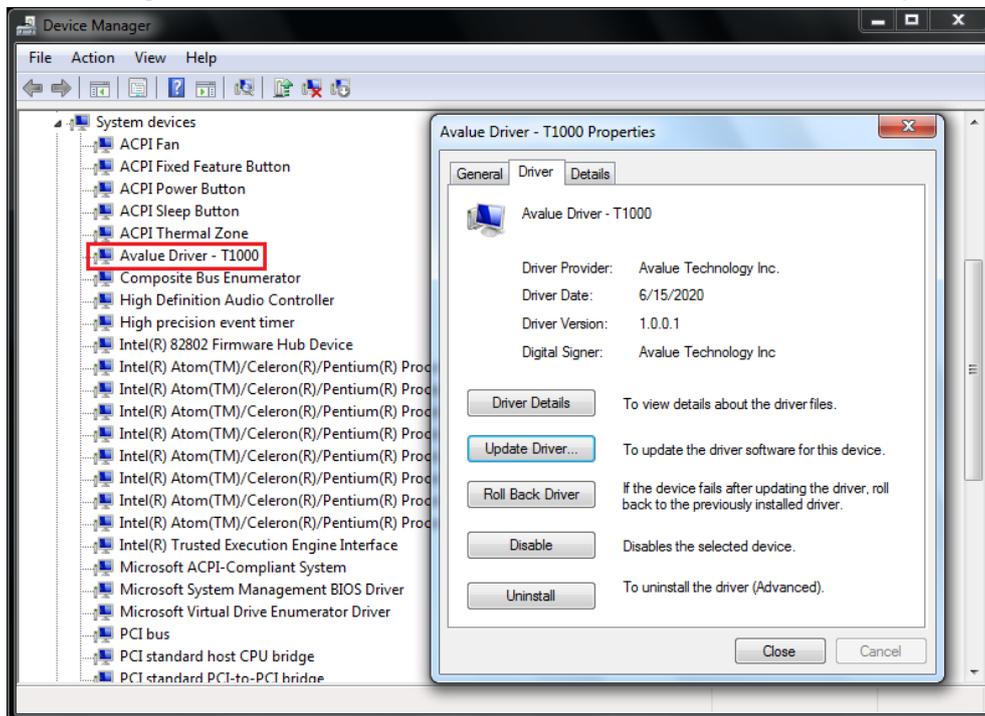
- g. Click **Install**.



h. Finish.

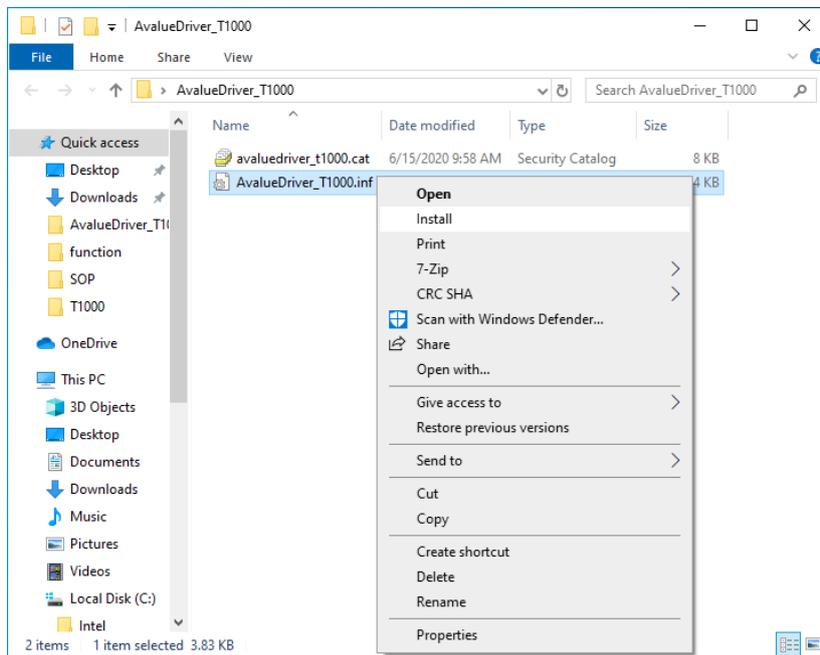


i. Device manager will see **Avalue Driver - T1000** in the subtree of system devices.

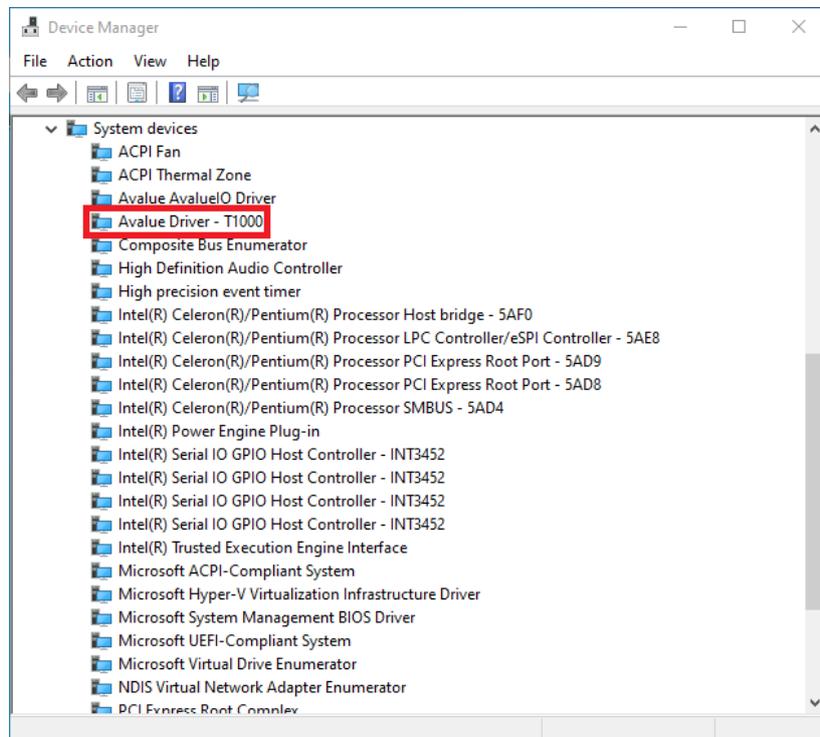


3.1.2 Windows 10

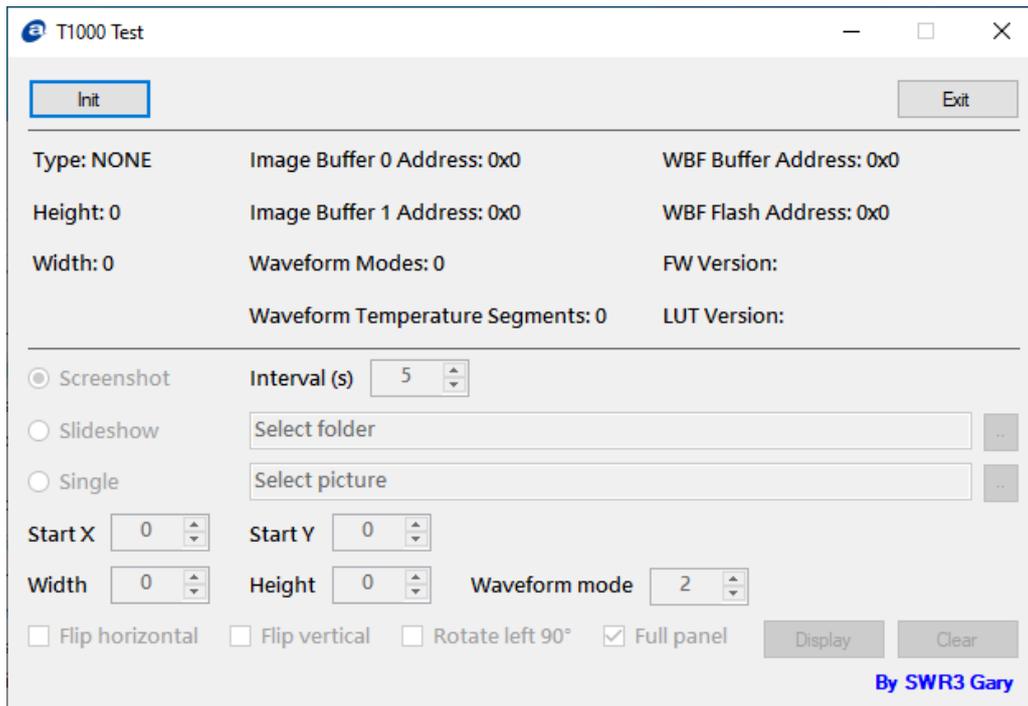
- a. After connect the T1000 device to PC, Right click **AvalueDriver_T1000.inf** to install driver.



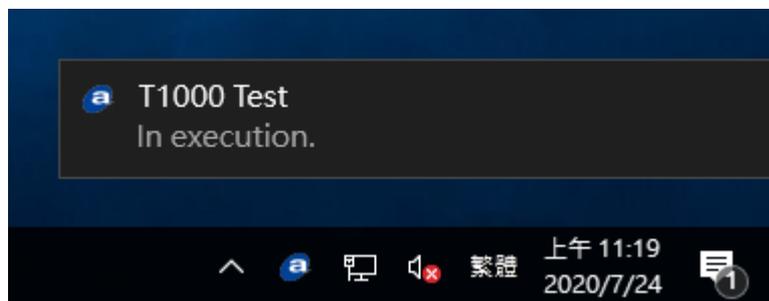
- b. Device manager will see **Avalue Driver - T1000** in the subtree of system devices.



3.2 Application



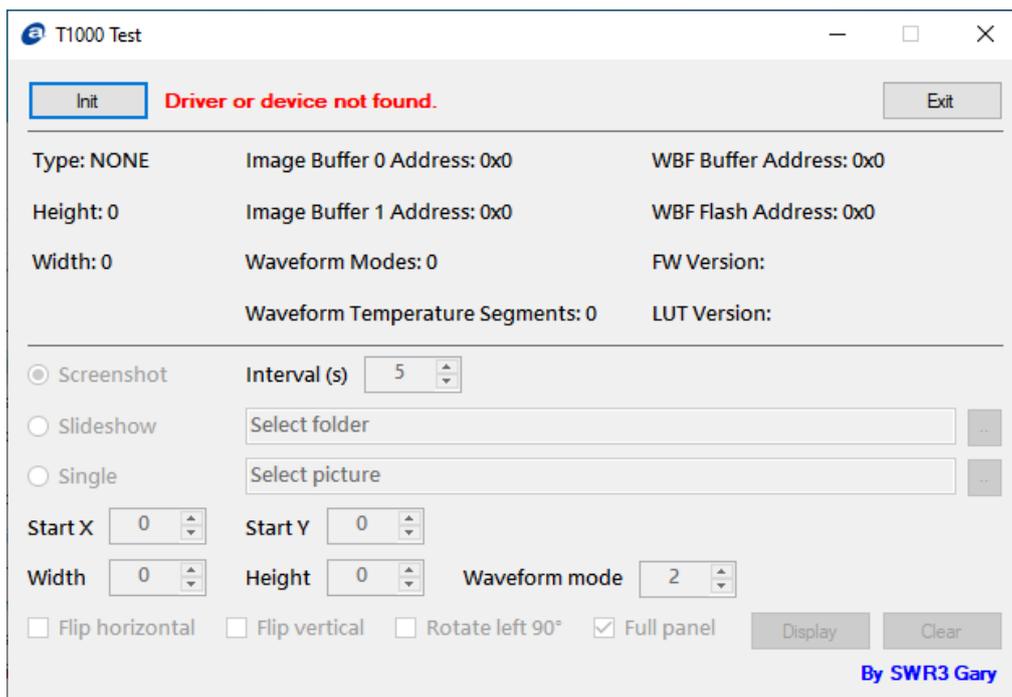
- a. Connect the T1000 device to PC before click **Init**.
- b. This application will hide in the notification area if click upper right corner **X** to close application when initial is success.



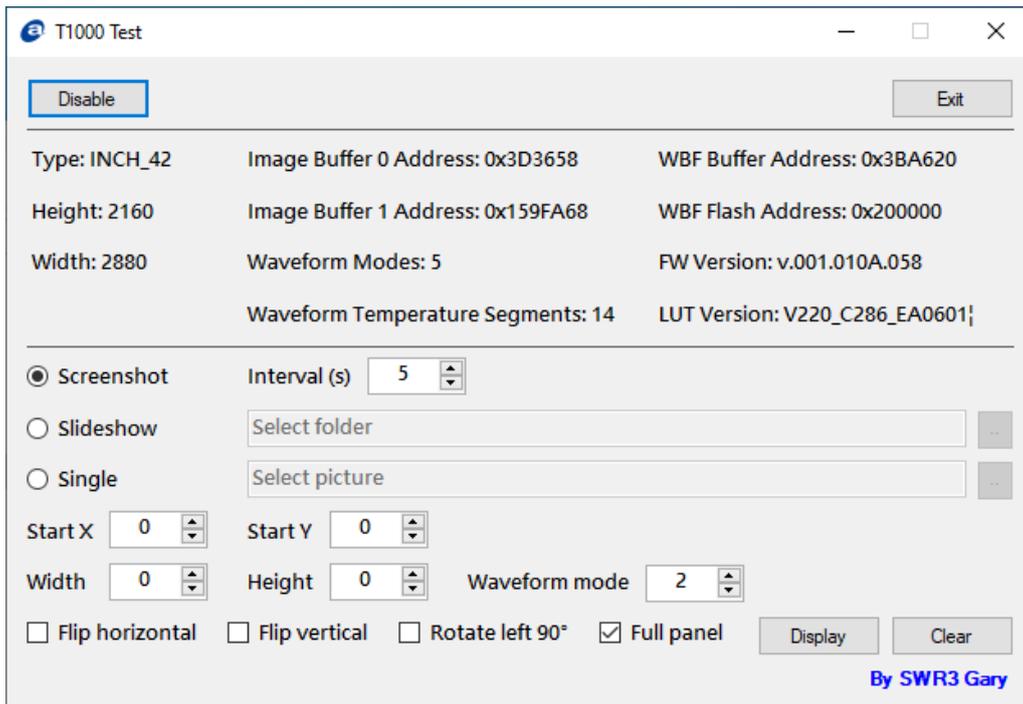
- c. Right click the Avalue icon will show the option menu.
- Click **Show** or double click the Avalue icon to show the application.
 - Click **Start** (when the application is executing screenshot or slideshow, this option is **Stop**) to stop (start) display.
 - Click **Exit** to close application and stop screenshot or slideshow if the application is executing.



- d. If **Avalue Driver - T1000** not install or T1000 device not connect, it will see the error message as below when click **Init**.



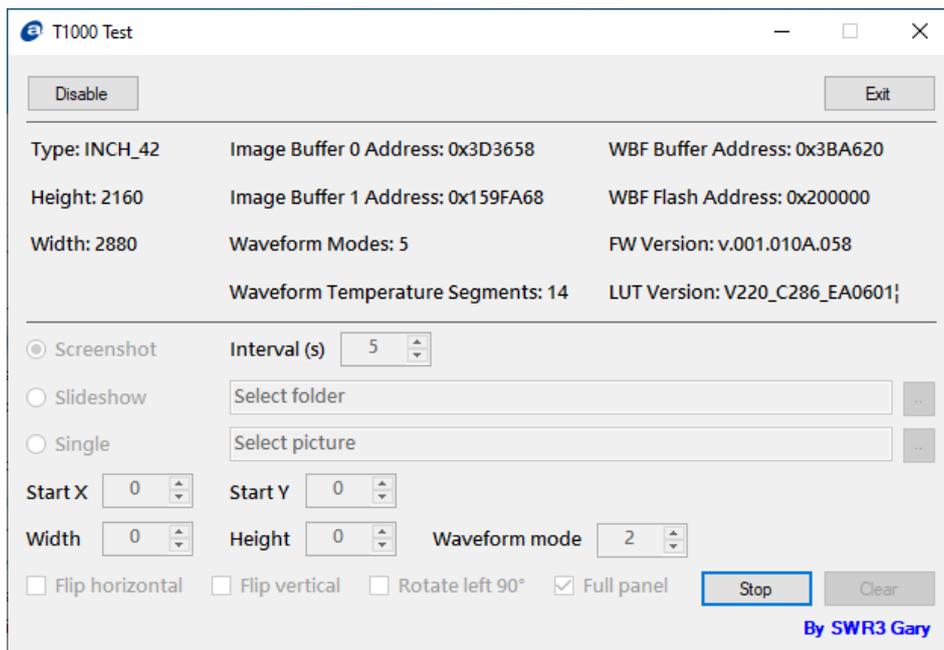
e. The T1000 device information will show when initial success.



f. Both **Display** and **Clear** apply **Start X/ Start Y/Width/Height** setting, others setting only apply for **Display**.

- **Interval** range is 1 ~ 600 seconds and it is set for screenshot and slideshow.
- **Start X/ Start Y** is set the display start x/y axis position.
- **Width/Height** is set the display width/height size.
- **Waveform mode** is set the display mode.
- **Flip horizontal/Flip vertical/Rotate 90°** is set the display direction.
- **Full panel** will ignore **Start X/ Start Y/Width/Height**.

g. When click **Display** the application will disable all the setting option.



- **Screenshot** function will capture full screen to show.
- **Slideshow** function will show the BMP files which in the select folder.
- **Single** function will show the BMP file is selected.

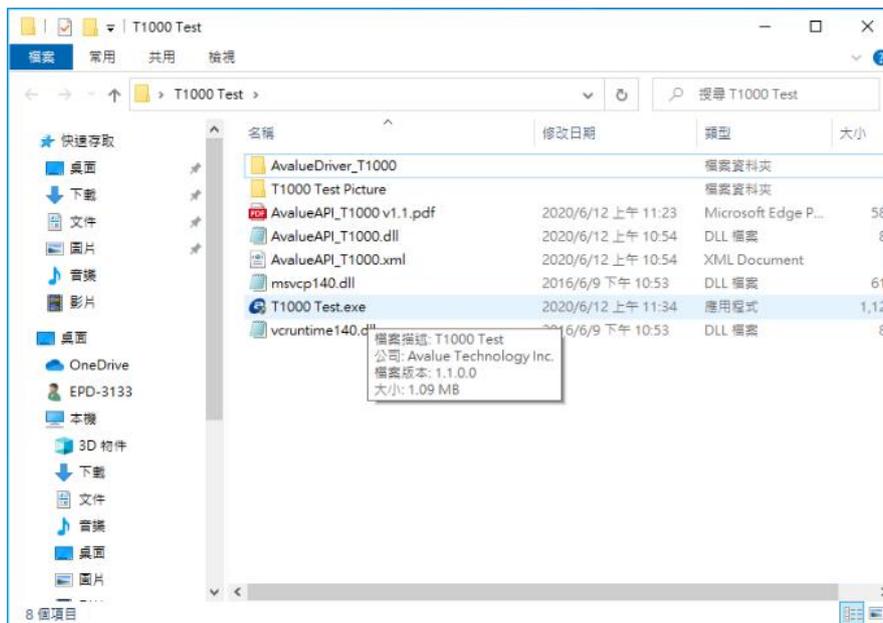
3.3 Installation

a. Plug 12V adapter into the EPD-4200 and connect it with a box PC or an SBC via an USB cable (Type A to Type A). After that, connect the box PC or SBC to a monitor via HDMI/DP/VGA...etc. and then power on both box PC or SBC and EPD-4200.

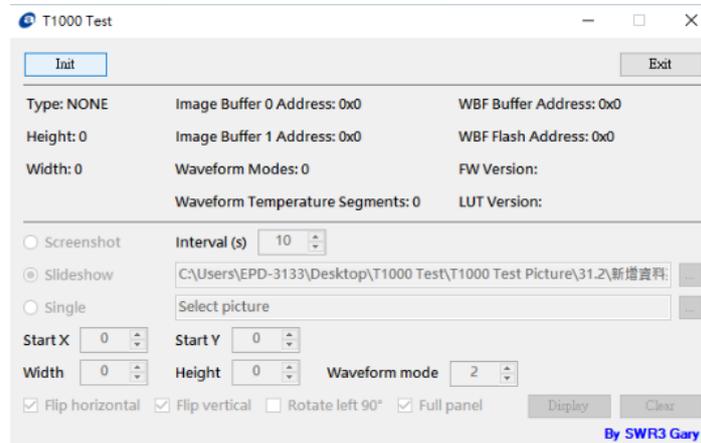


b. Refer to the item [1.Driver](#) to install T1000 device driver.

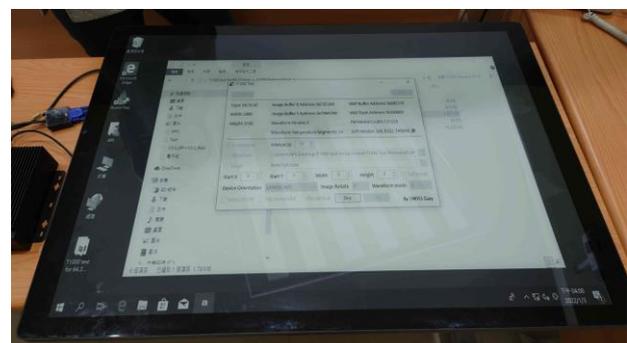
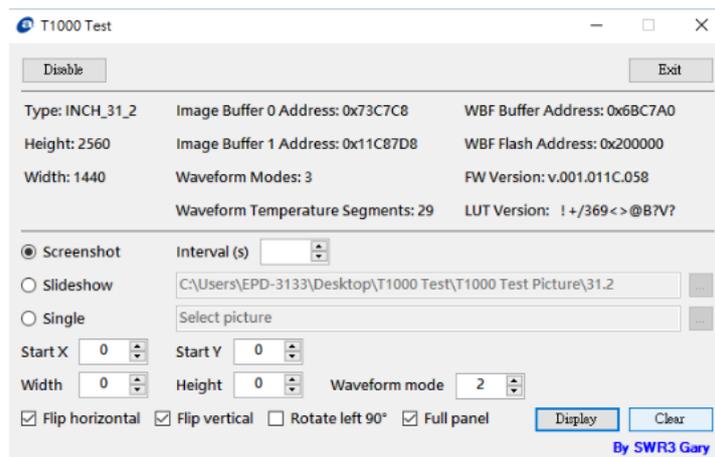
c. Open EPD-4200 T1000 test tool folder to execute “T1000 Test.exe”



d. "T1000 Test.exe" will be showed as below when it has been launched, and please refer to the item [2. Application](#) for all function of the test tool

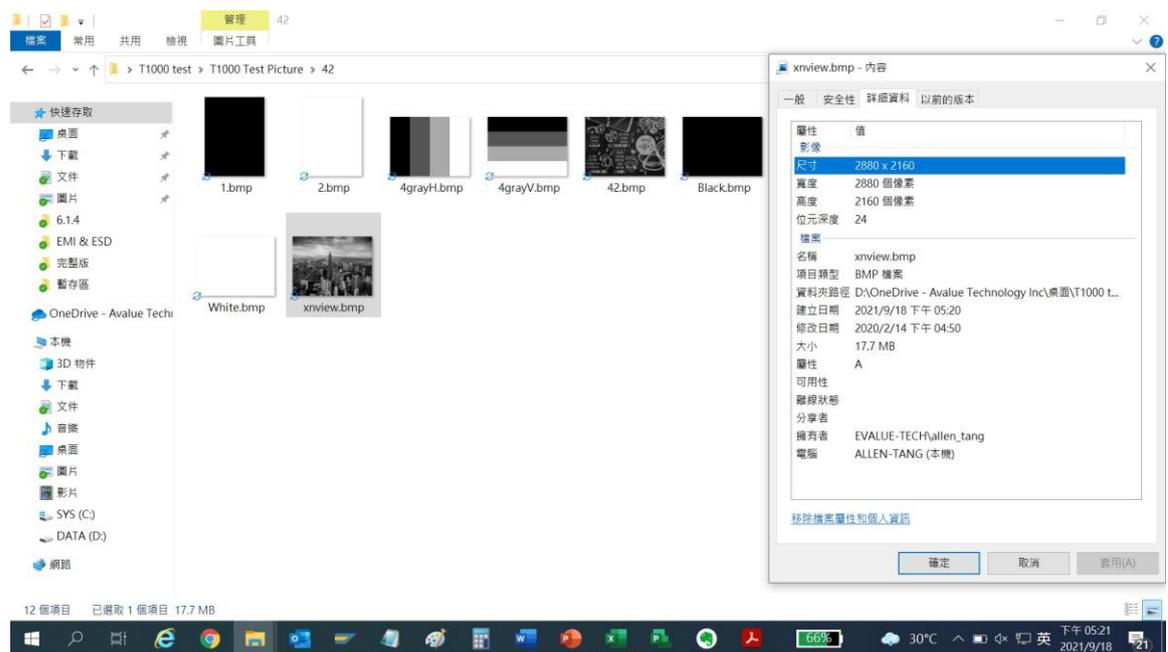
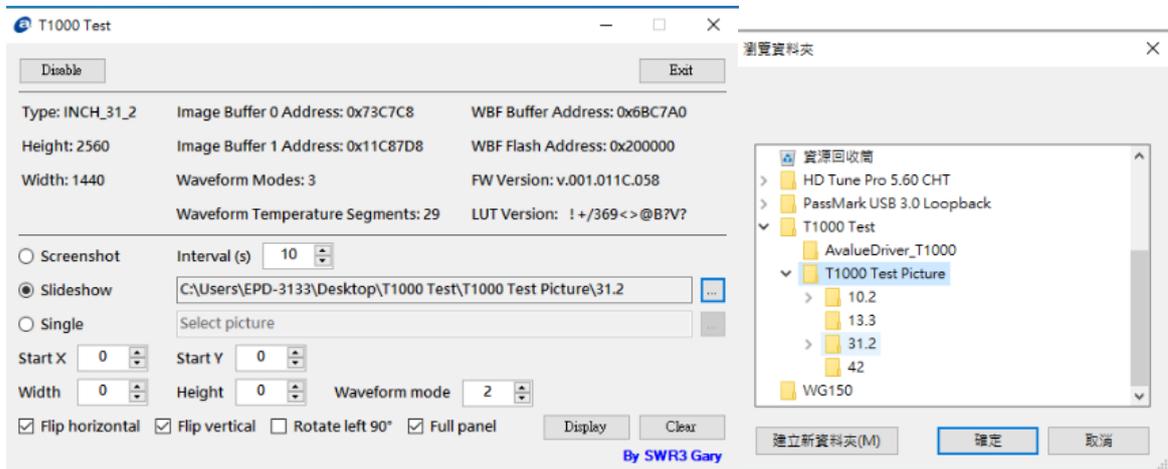


e. Click "Init" for initializing T1000 device, and check "Screenshot"



EPD-4200

f. Check "Slideshow" and then choose the folder's pictures you want to show periodically. The picture needs to comply with the EPD resolution. For example, EPD-4200's resolution is 2880 x 2160, so the picture needs to be 2880 x 2160 resolution. The picture format needs to be BMP.



g. Check “Single” and then choose the folder’s picture you want to show constantly. The picture needs to comply with the EPD resolution. For example, EPD-4200’s resolution is 2880 x 2160, so the picture needs to be 2880 x 2160 resolution. The picture format needs to be BMP.

