

EPD-3133

31.2" E Ink Public Display

Quick Reference Guide

1st Ed – 07 September 2020

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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-3133 31.2" E Ink Public Display
- 1 x Power Adapter
- 1 x DC-in extended cable



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

1.3 System Specifications

Component	
Mother Board	ECM-APL2-B (with CPU Bottom Mounted)
CPU	Onboard Intel® Celeron® SoC BGA Processor N3350
CPU Cooler (Type)	Heatsink
Memory	1 x 204-Pin DDR3L 1866MTs SO-DIMM up to 8GB
Power Supply	+19V DC in
Adapter	+19V/3.4A (65W)
Speaker	2 x 2W(optional, need to add AUX-031 Amplifier Board)
Wireless LAN	mPCIe Wi-Fi/Bluetooth module(optional)
Bluetooth	mPCIe Wi-Fi/Bluetooth module(optional)
Operating System	Android 8.1(default) / Windows 10 IoT
Other Component	T1000 (E9697E33004R-A) Transfer board (E9697E33001R-B)
Storage	
Solid State Drive	1 x 2.5" Drive Bay
Other Storage Device	1 x mSATA (Shared mPCIe)
Panel	
LCD Panel	E Ink ED312TT2 or ED312TT3 (Active area with 2560 x 1440 pixels and 16:9 aspect ratios)
Touch Screen	P-cap touch(optional)
Touch Controller	EETI
Others	Front light module(optional)
External I/O	
Serial Port	1 x DB-9 male connector for COM1 supports RS232
USB Port	4 x USB 3.1 (Gen1 5Gbps)
DIO Port	8-bit GPIO(open frame)
Video Port	2 x HDMI (3840x2160@30Hz)
Audio Port	2 x speaker out (L/R 1x2 header)
LAN Port	2 x RJ45 LAN port (1 x Intel® I211AT/1 x Intel® I210IT, 10/100/1000 Base-Tx Gigabit Ethernet Compatible)
Wireless LAN Antenna	2 x Antenna Mounting with Dust Cover
Mechanical	
Power Type	Power Input: +19V/3.4A (65W)
Power Connector Type	Lockable DC Jack
Dimension	750 x 445 x 36.7 mm
Weight	7.2 Kgs (True flat mode) / 4.9 Kgs (Front bezel mode)

EPD-3133

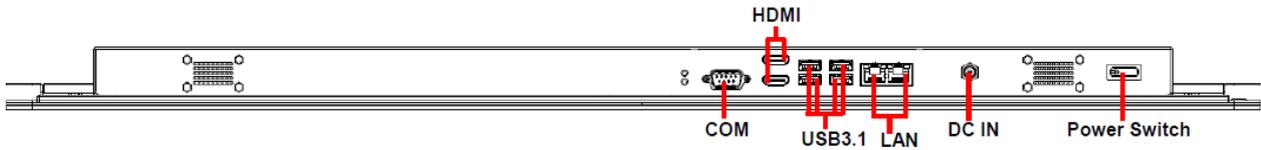
Color	Black
Fanless	Full System Fan-less
OS Support	Android 8.1(default) / Windows 10 IoT
	(400 × 200 mm) VESA mount compliant(optional)
Reliability	
EMI Test	CE/FCC Class A
Vibration Test	With SSD : 1.5Grms, IEC 60068-2-64, Random, 5 ~ 500Hz, 30min/axis
Mechanical Shock Test	With SSD : 10Grms, IEC 60068-2-27, Half Sine, 11ms
Drop Test	ISTA-2A, IEC-60068-2-32 (96.5cm)
Operating Temperature	0 ~ 50°C (32 ~ 122°F)
Operating Humidity	0% ~ 90% Relative Humidity, Non-condensing
Storage Temperature	-20 ~ 60°C (-4 ~ 140°F)



Note:

Specifications are subject to change without notice.

1.4 System Overview

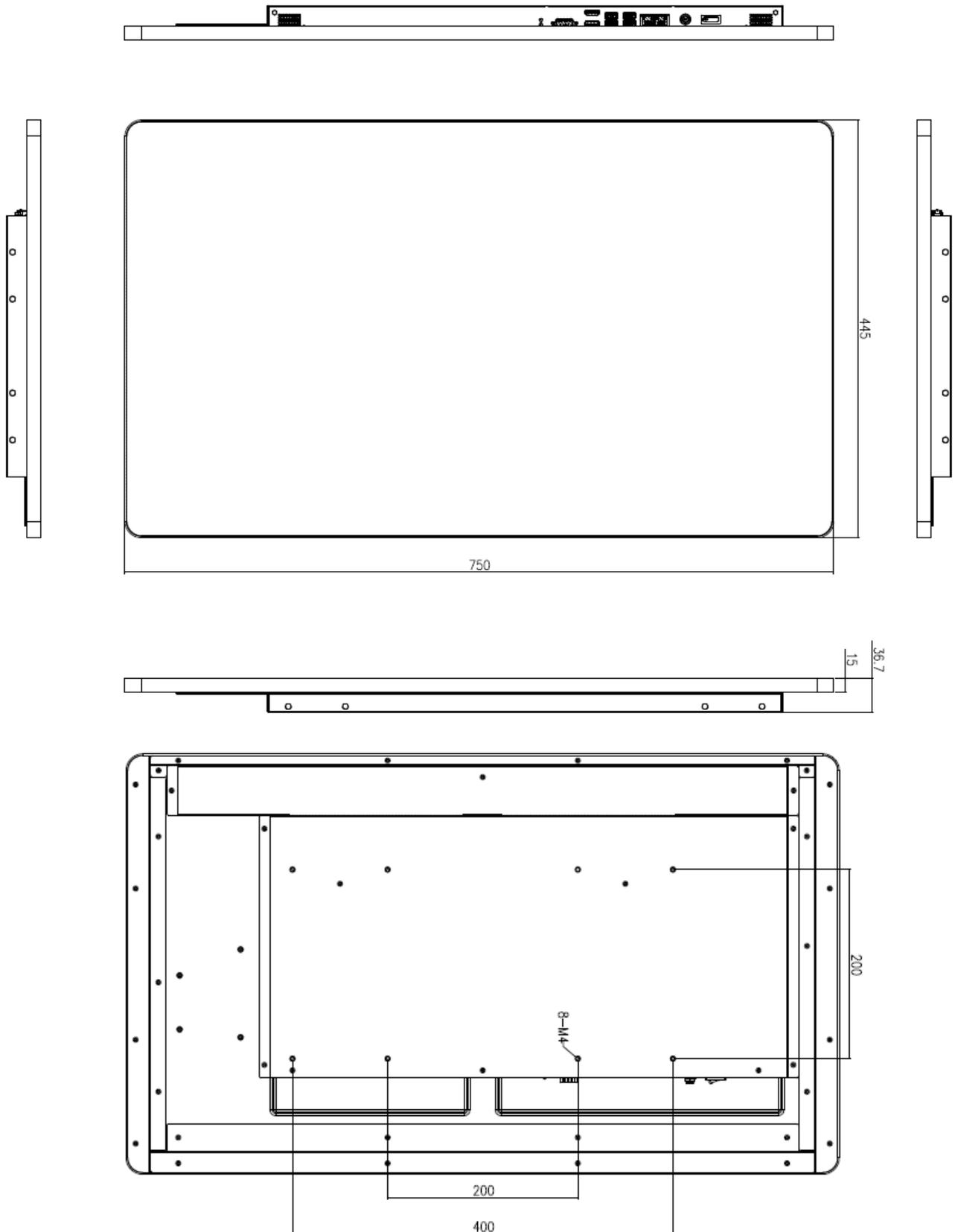


Connectors

Label	Function	Note
LAN	2 x RJ-45 Ethernet connector	
USB3.1	4 x USB3.1 connector	
COM	Serial port connector	
HDMI	2 x HDMI connector	
DC IN	DC Power-in connector	
Power Switch	Power Switch	

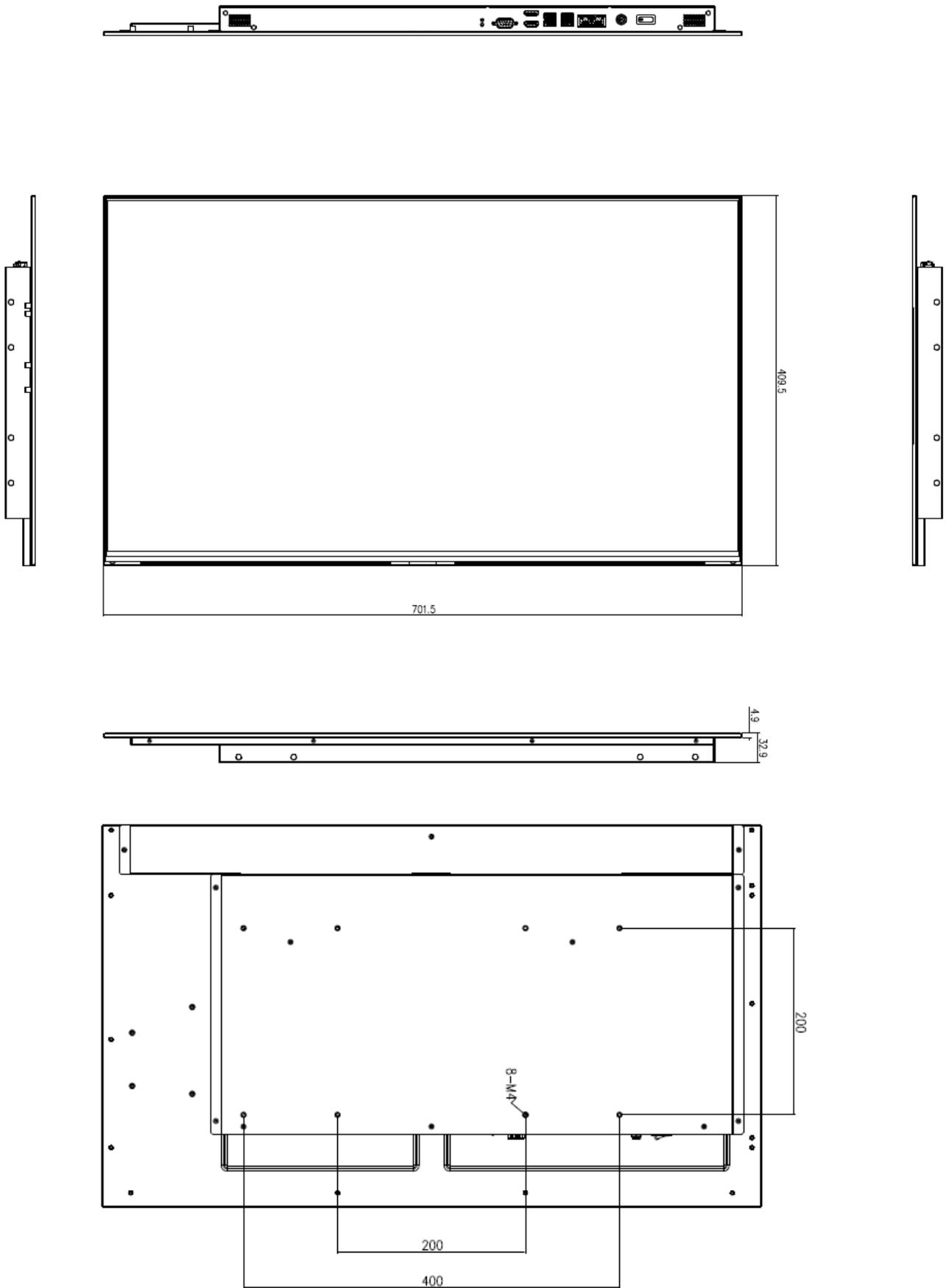
1.5 System Dimensions

EPD-3133 True Flat mode



(Unit: mm)

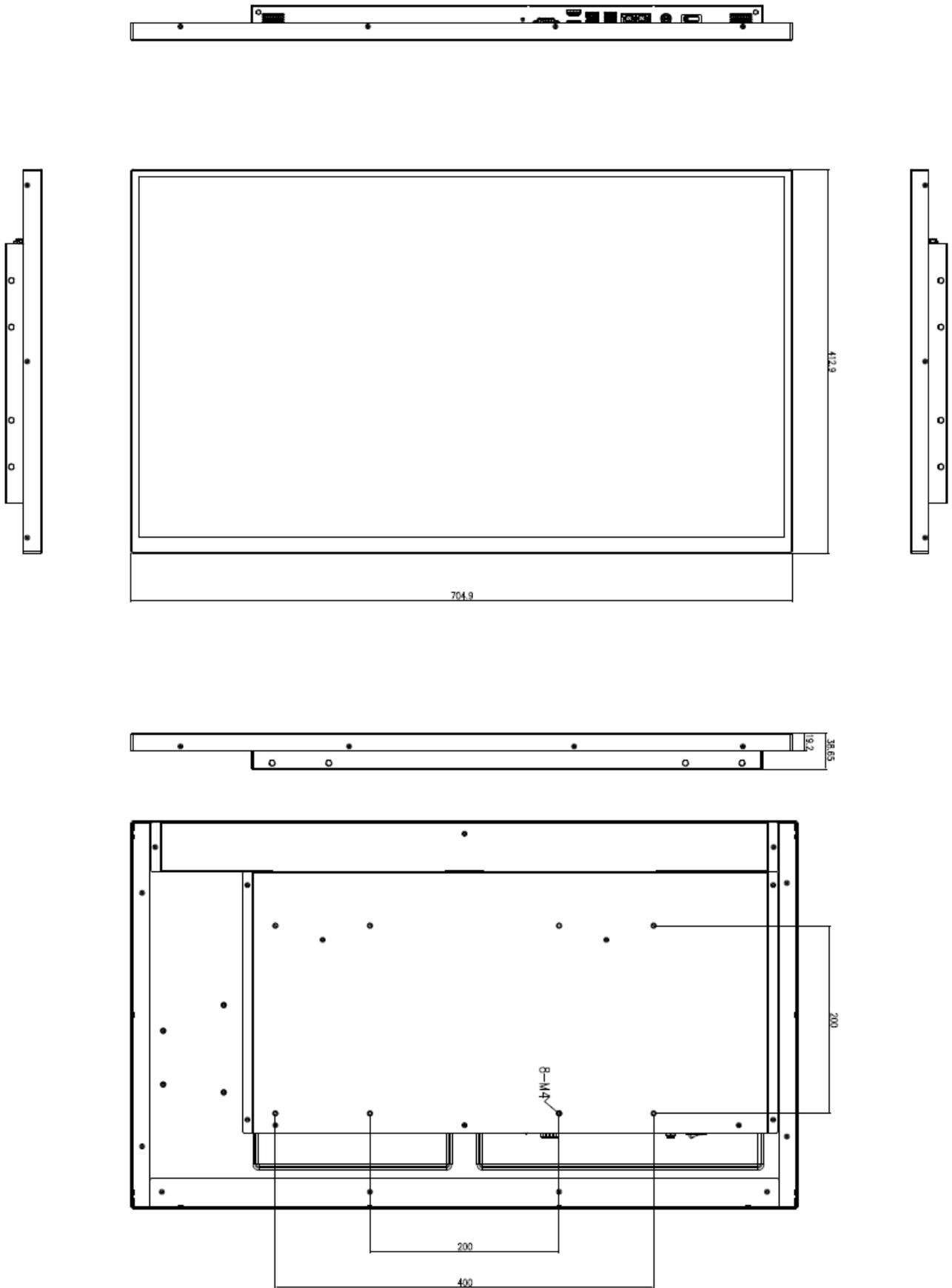
EPD-3133 Open Frame mode



(Unit: mm)

EPD-3133

EPD-3133 Front Bezel mode



(Unit: mm)

2. Hardware Configuration

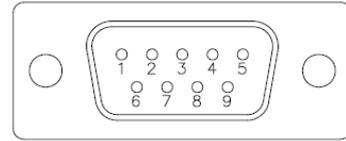


Note: If you need more information, please visit our website:

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2.1 EPD-3133 connector mapping

2.1.1 Serial port connector (COM)



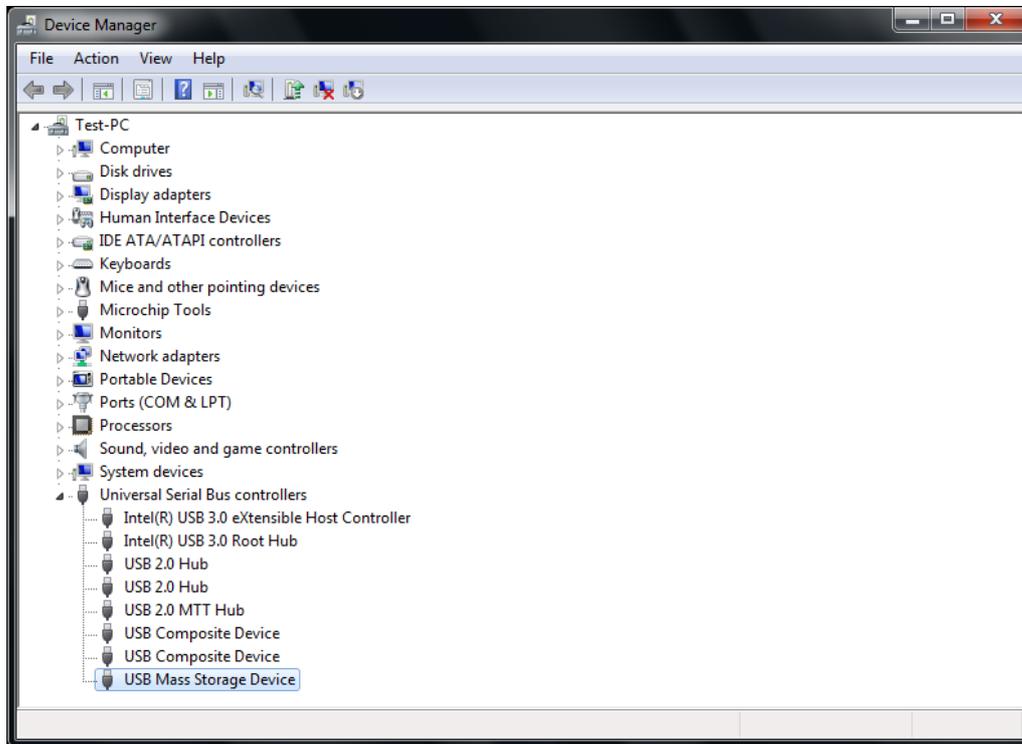
Signal	PIN	PIN	Signal
NDCDA#	1	6	NDSRA#
NRXDA	2	7	NRTSA#
NTXDA	3	8	NCTSA#
NDTRA#	4	9	NRIA#
GND	5		

3. T1000 test tool

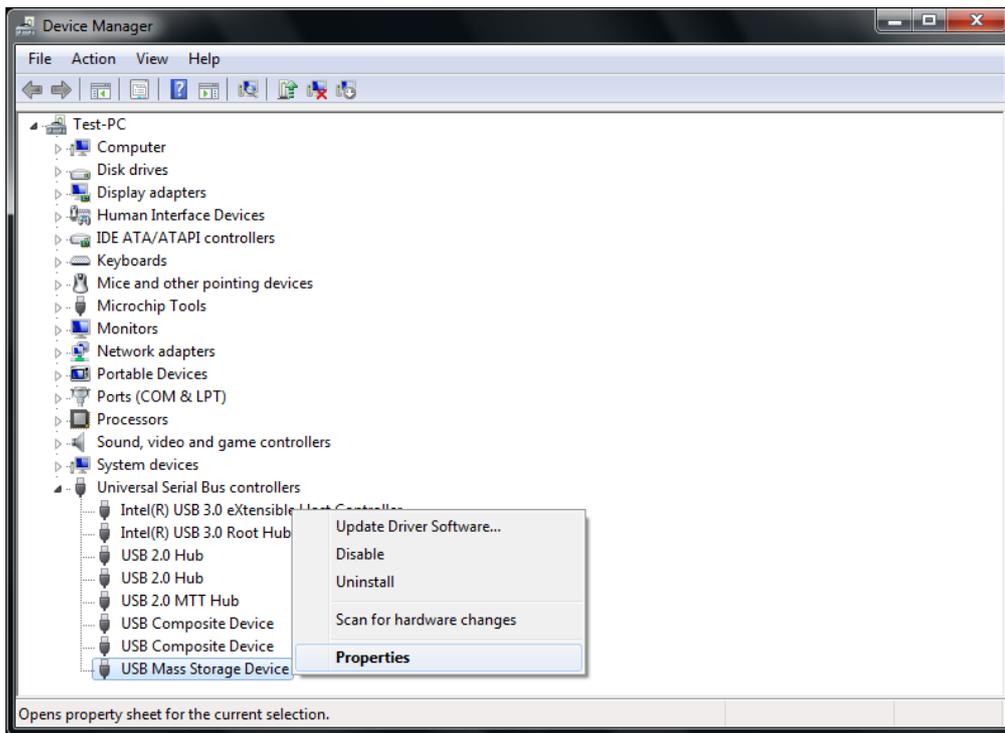
3.1 Driver

3.1.1 Windows 7

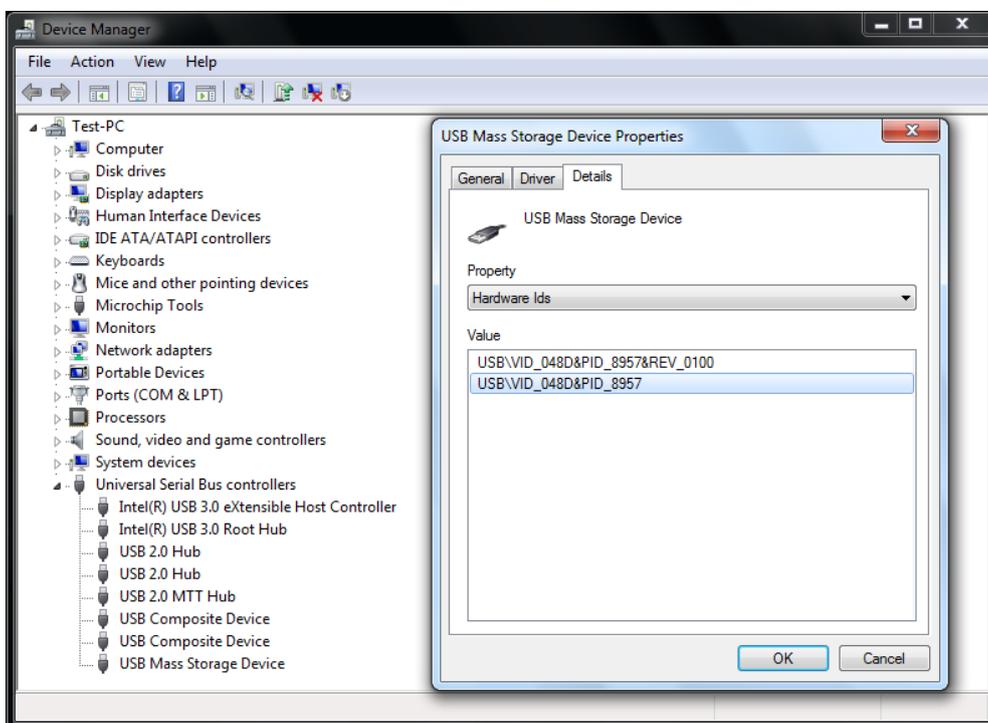
- a. Connect the T1000 device to PC and find the **USB Mass Storage Device** in the subtree of universal serial bus controllers in the device manager.



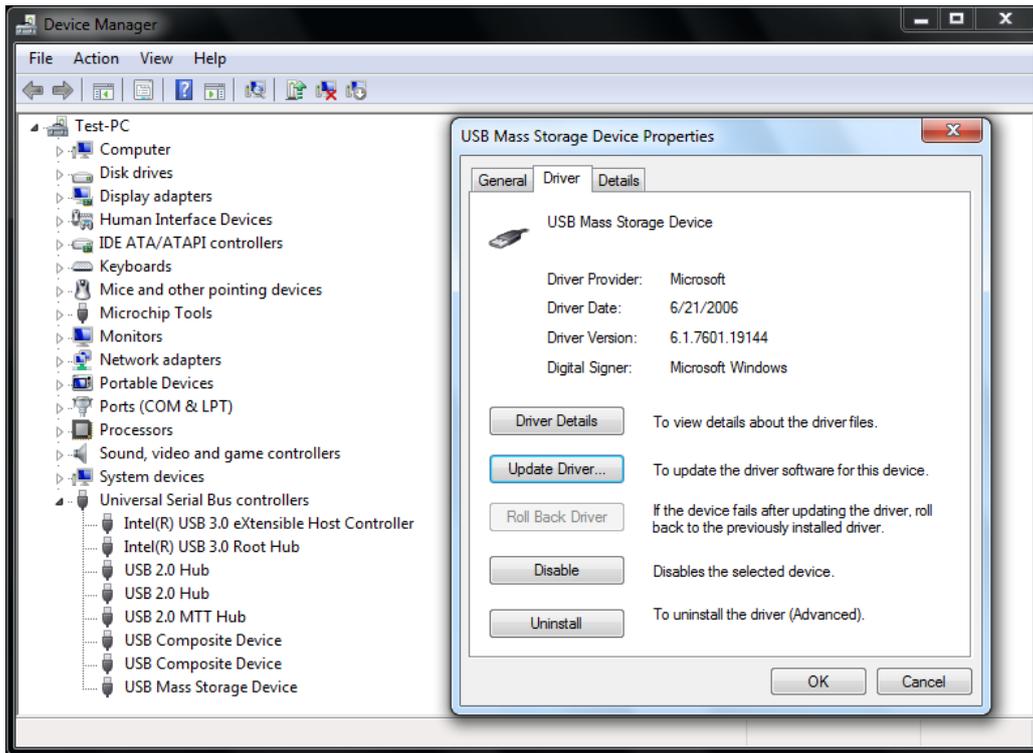
- b. Right click **USB Mass Storage Device** and click **Properties** to check device.



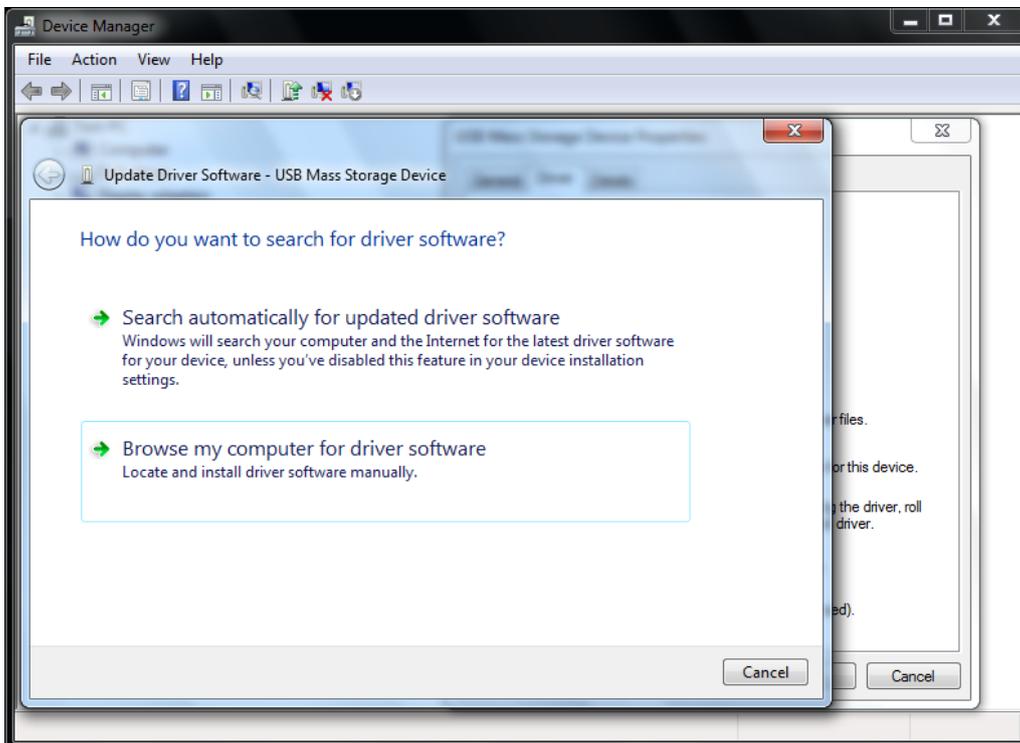
- c. Change to **Details** page and select **Property** to **Hardware Ids**, the device connect to PC is **USB\VID_048D&PID_8957**.



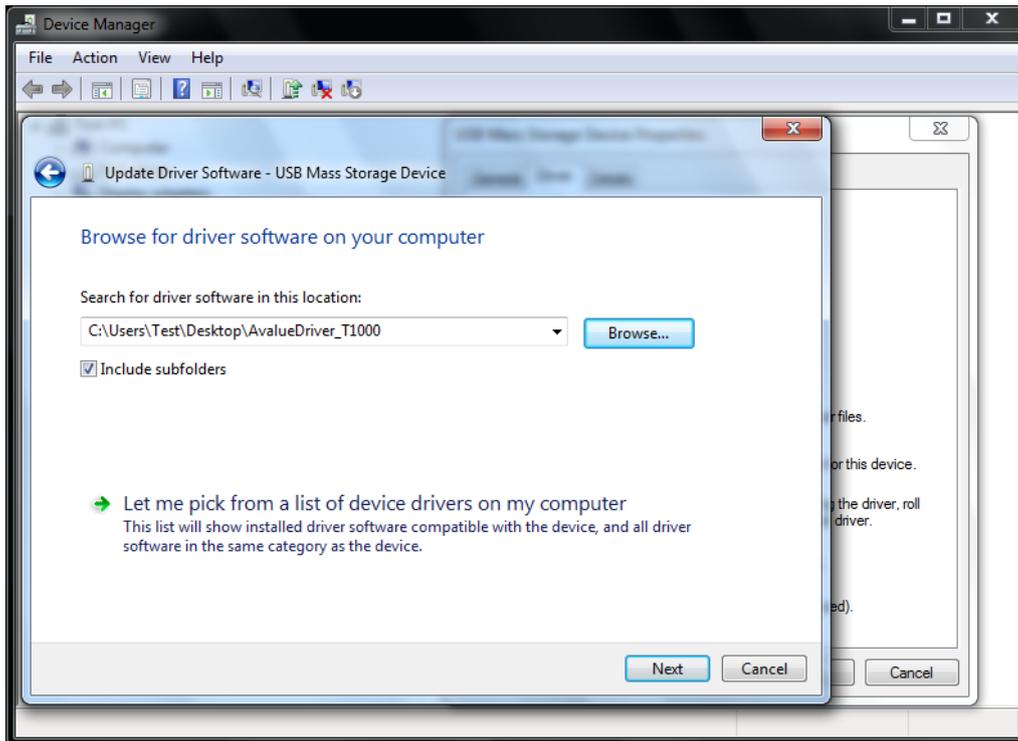
d. When find the device, change to **Driver** page and click **Update Driver**.



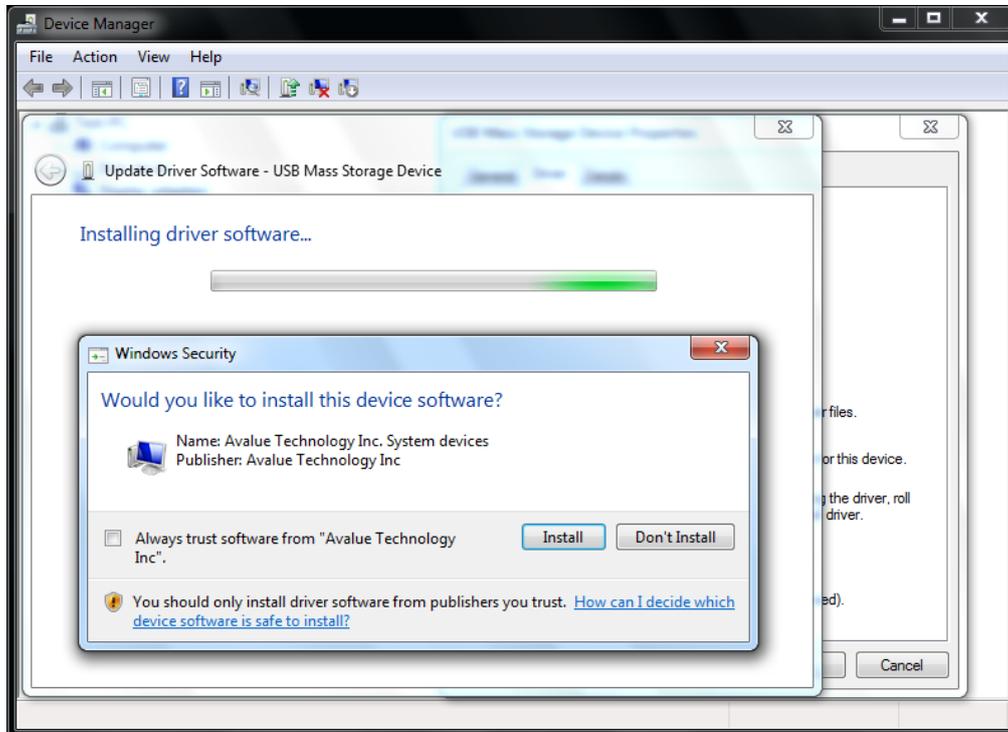
e. Select **Browse my computer for driver software**.



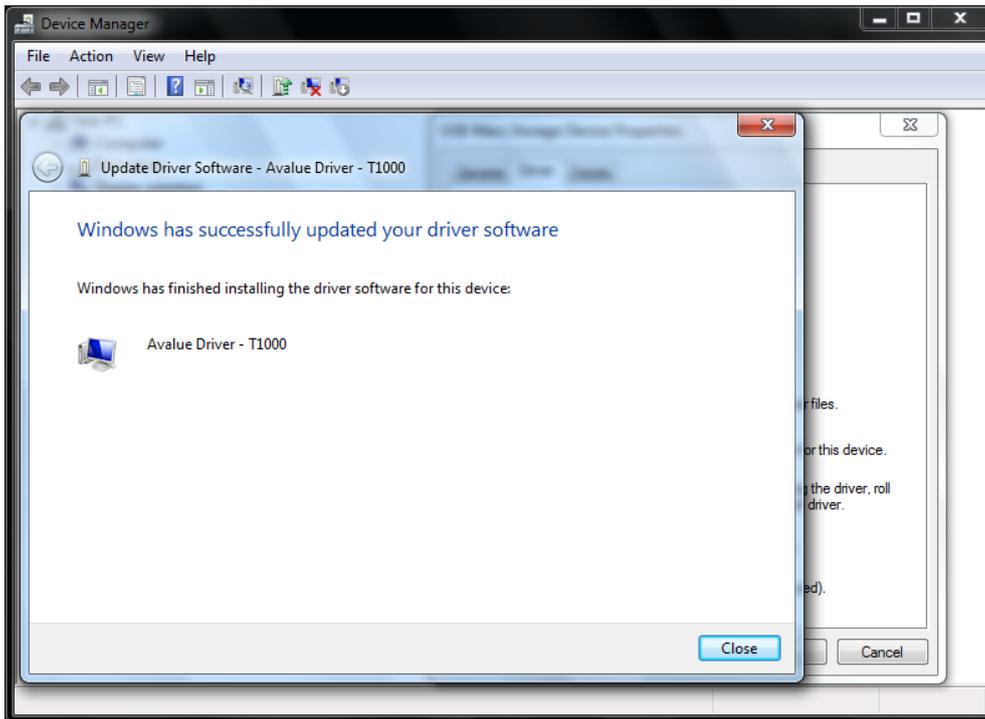
f. Browse the folder which contain the **AvalueDriver_T1000.inf**.



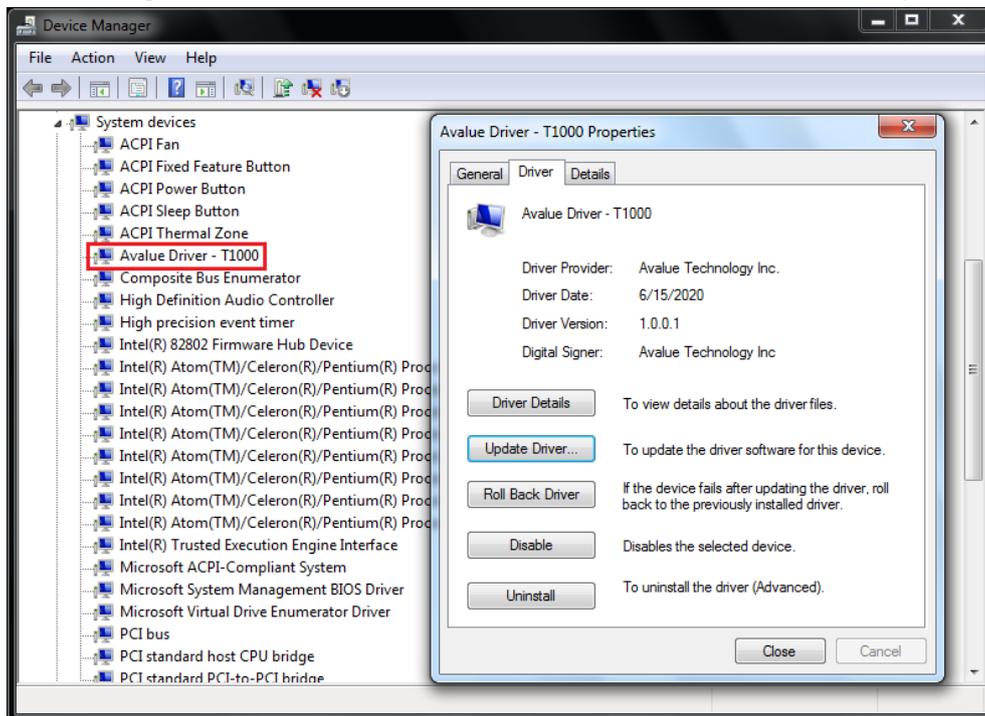
g. Click **Install**.



h. Finish.

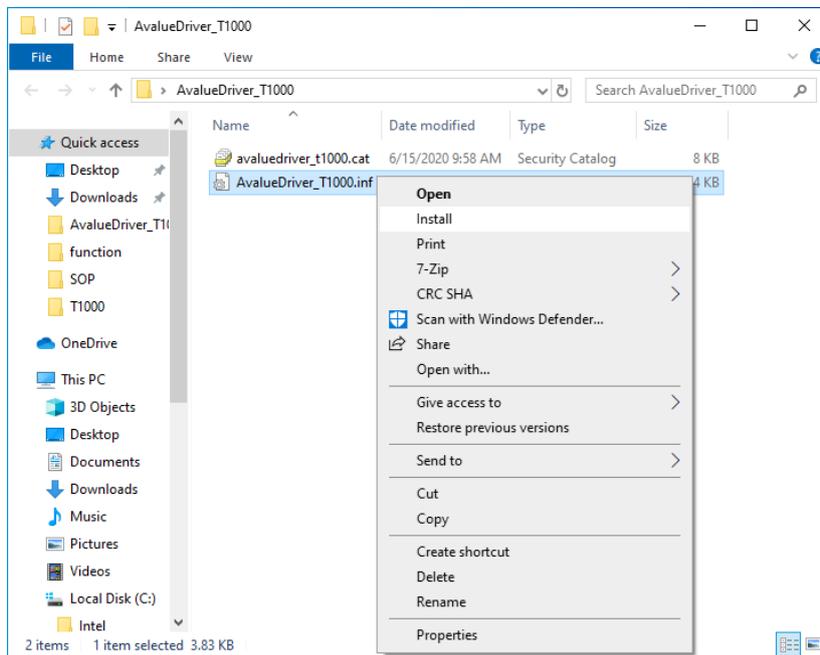


i. Device manager will see **Avalue Driver - T1000** in the subtree of system devices.

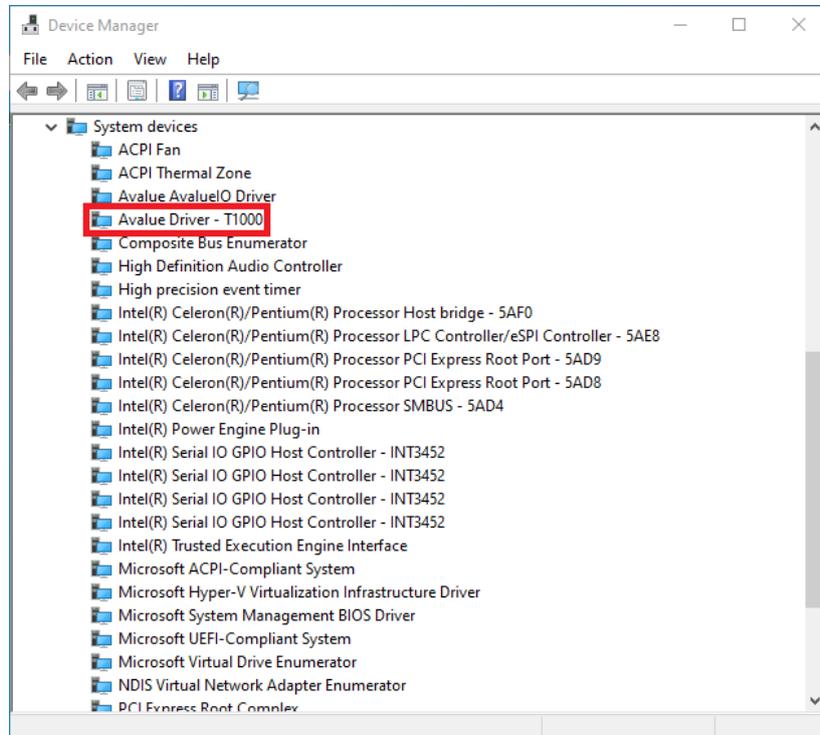


3.1.2 Windows 10

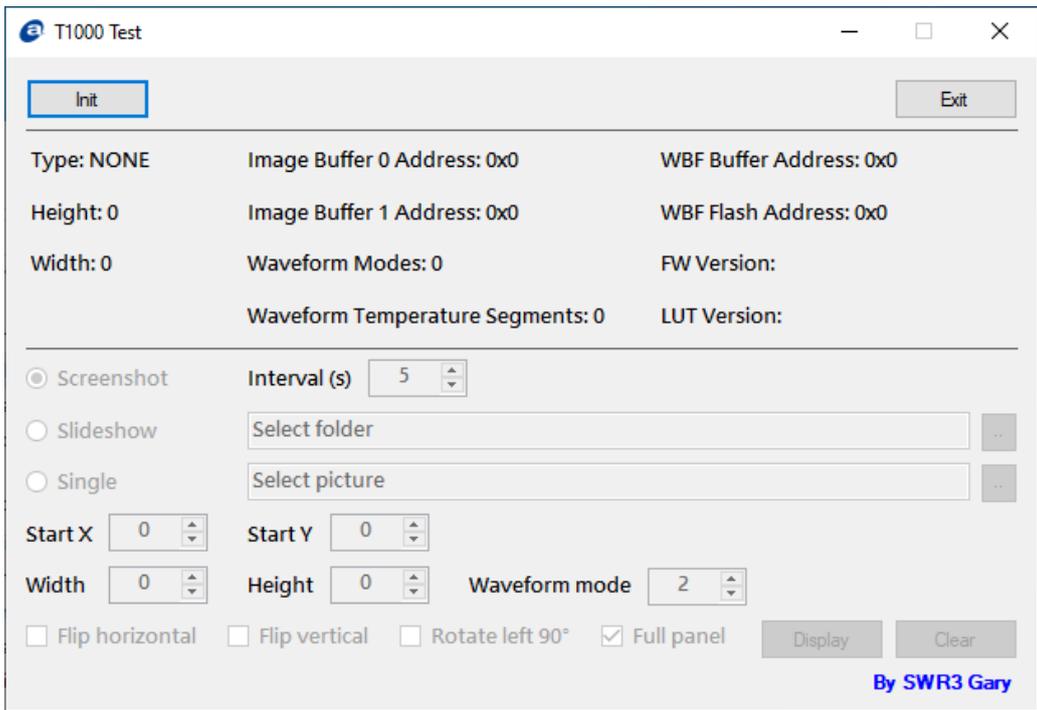
- a. After connect the T1000 device to PC, Right click **AvalueDriver_T1000.inf** to install driver.



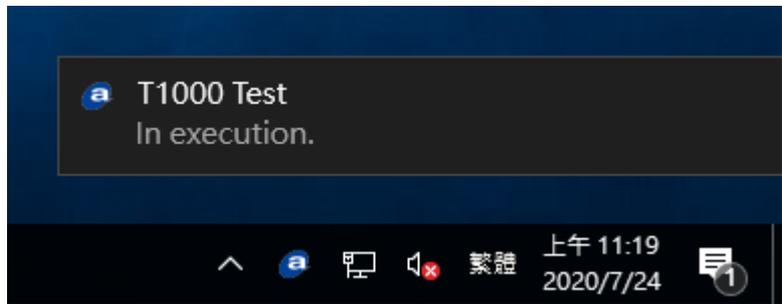
- b. Device manager will see **Avalue Driver - T1000** in the subtree of system devices.



3.2 Application



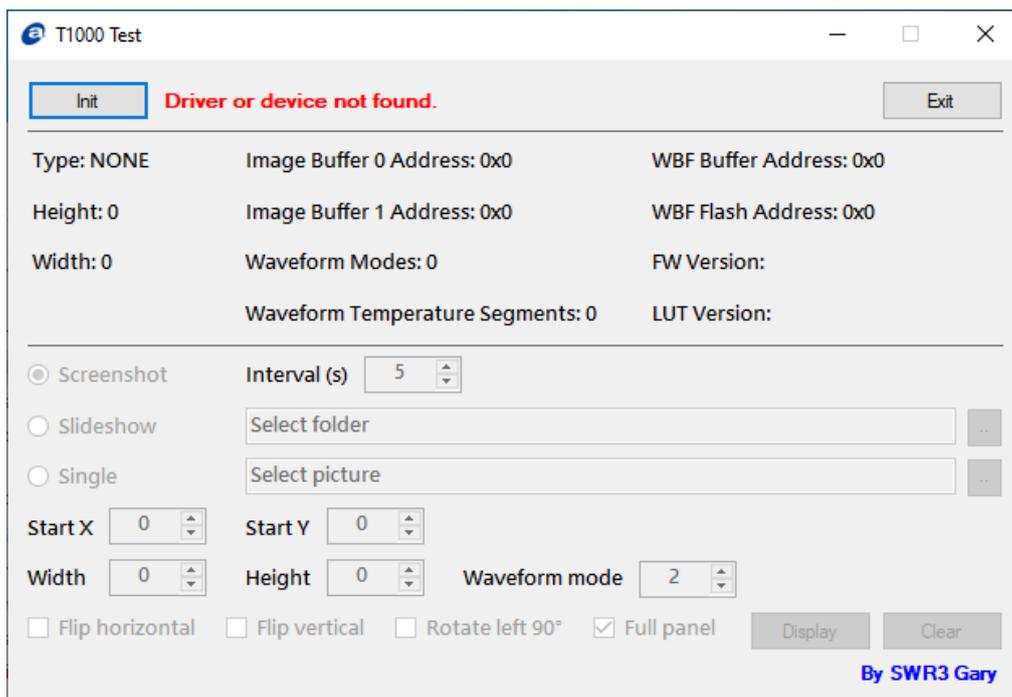
- a. Connect the T1000 device to PC before click **Init**.
- b. This application will hide in the notification area if click upper right corner **X** to close application when initial is success.



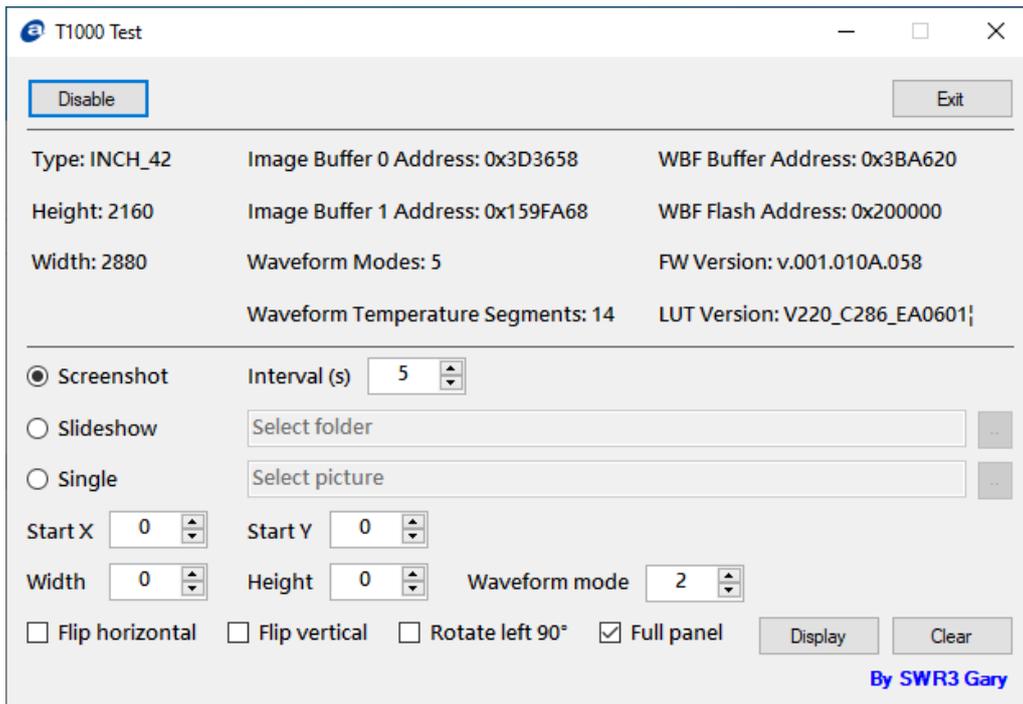
- c. Right click the Avalue icon will show the option menu.
- Click **Show** or double click the Avalue icon to show the application.
 - Click **Start** (when the application is executing screenshot or slideshow, this option is **Stop**) to stop (start) display.
 - Click **Exit** to close application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



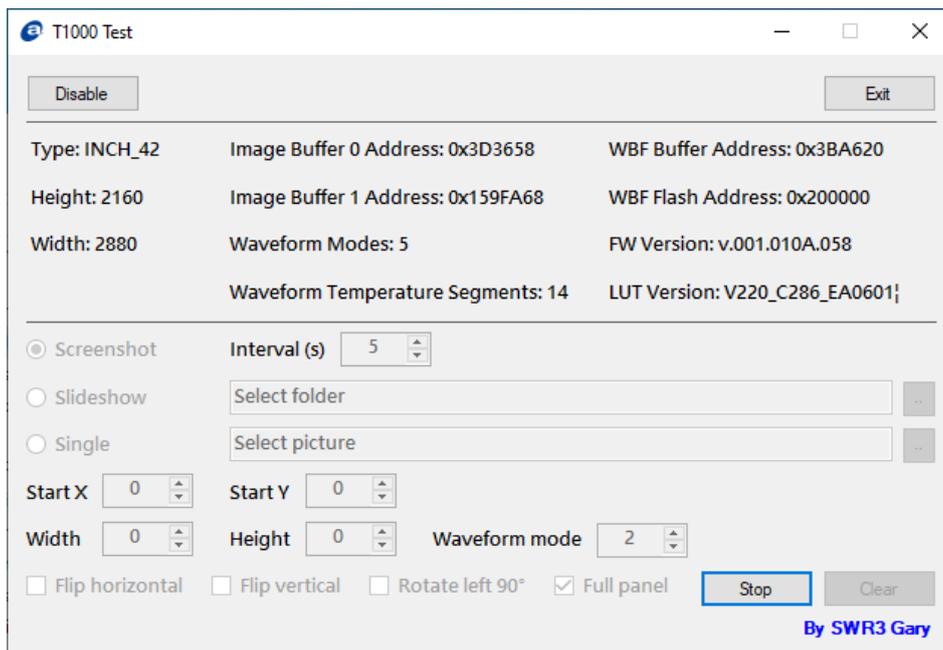
e. The T1000 device information will show when initial success.



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.

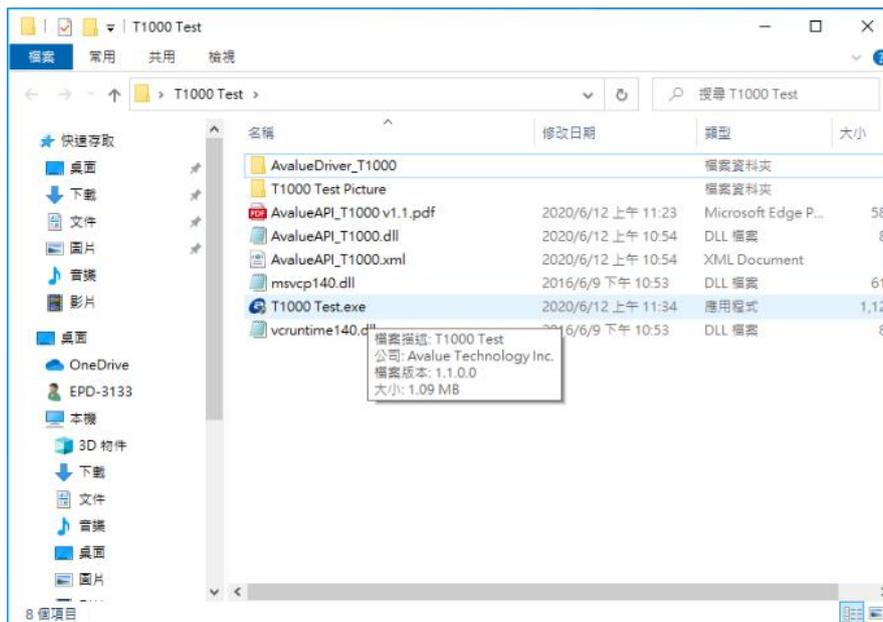
3.3 Installation

a. Plug 19V adapter into the EPD-3133 and connect HDMI with a monitor, and then power on EPD-3133. (The EPD-3133 needs to be installed Windows OS first)

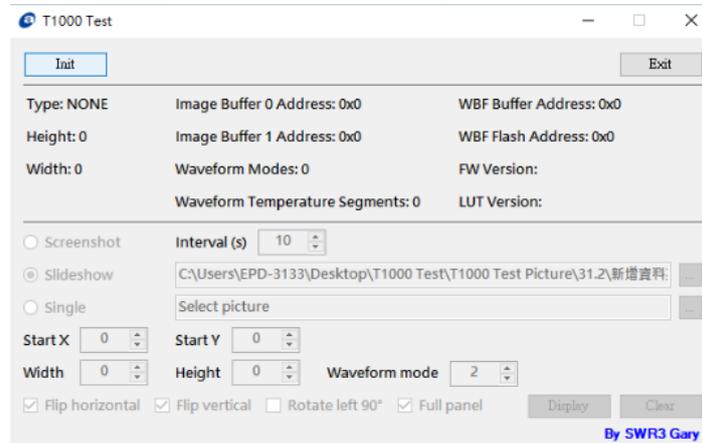


b. Refer to the item [1.Driver](#) to install T1000 device driver.

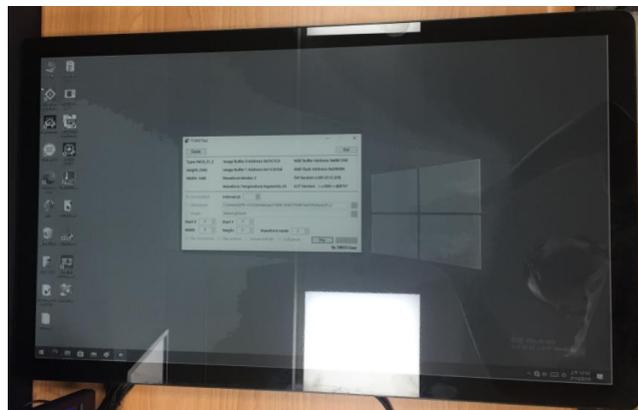
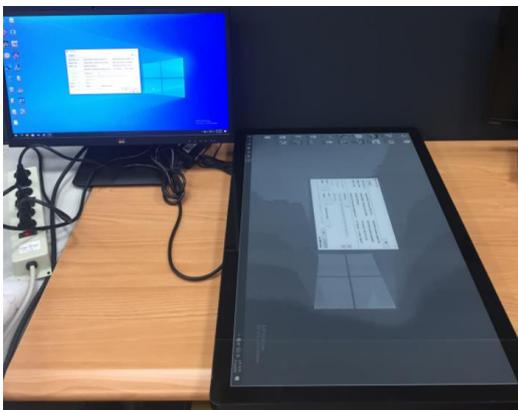
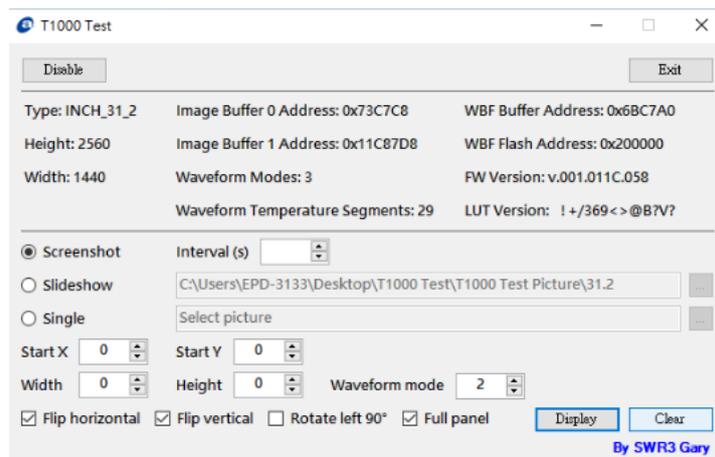
c. Open EPD-3133 T1000 test tool folder to execute “T1000 Test.exe”



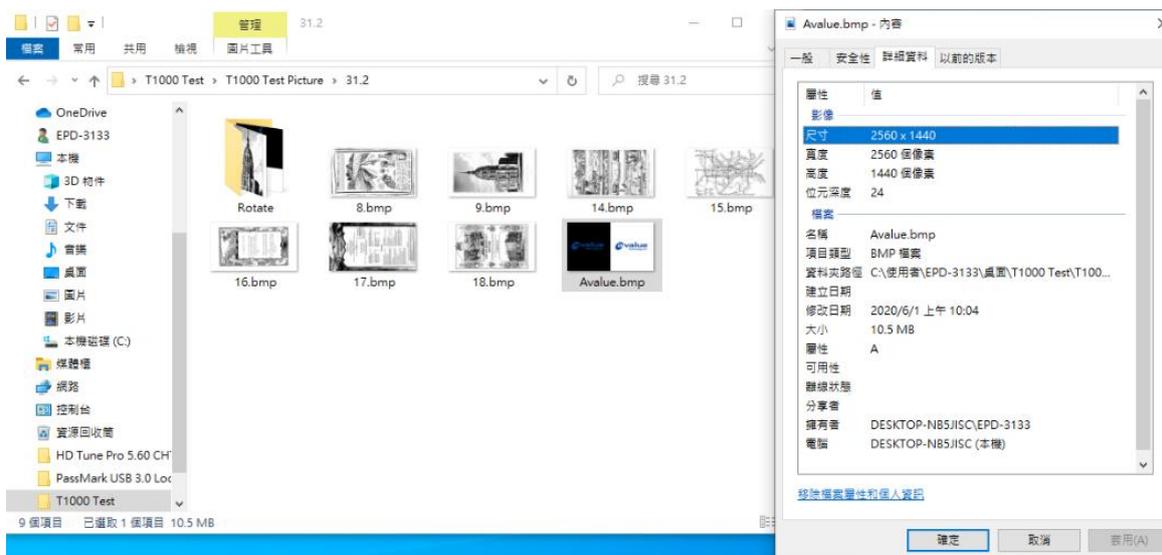
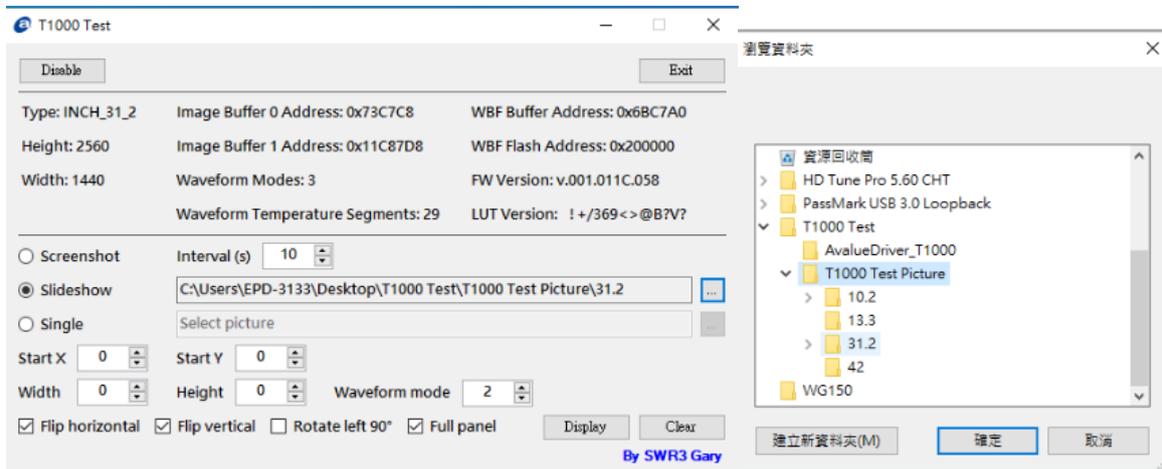
d. "T1000 Test.exe" will be showed as below when it has been launched, and please refer to the item [2. Application](#) for all function of the test tool



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



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-3133's resolution is 2560 x 1440, so the picture needs to be 2560 x 1440 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-3133’s resolution is 2560 x 1440, so the picture needs to be 2560 x 1440 resolution. The picture format needs to be BMP.

