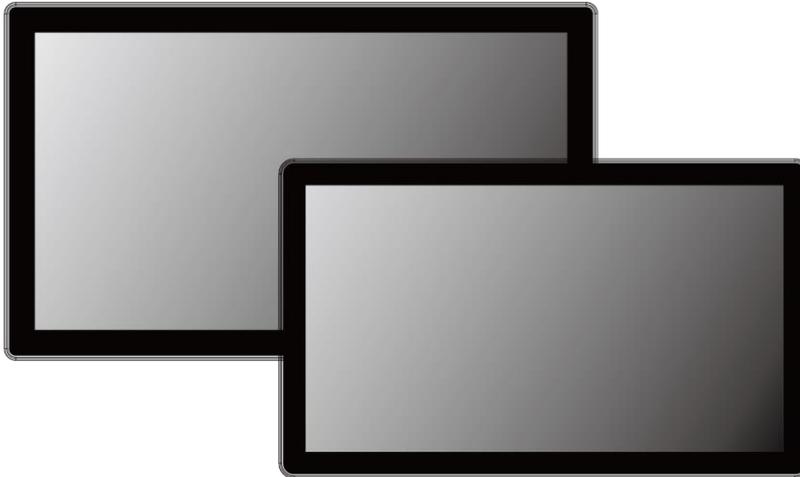


Healthcare Panel PC

Intel® Core™ i5-1135G7 2.4GHz (up to 4.2GHz)



Model No. W22IT7T-PTA3-ME
W24IT7T-PTA2-ME

User Guide

Part No. 9152111115B
Document Version 1.0



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Preface

FCC Statement

This device complies with part 15 FCC rules.



Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a class "A" 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.

European Union



Electromagnetic Compatibility Directive (2014/30/EU)

- EN55035: 2017/ A11: 2020
 - EN55032:2015+A11:2020
- IEC61000-4-2:2008
 - EN61000-3-2:2019+A1:2021
- IEC61000-4-3:2020
 - EN61000-3-3:2013+A2:2021
- IEC61000-4-4:2012
- IEC61000-4-5:2014/A1:2017
- IEC61000-4-6:2013+COR1:2015
- IEC61000-4-8:2009
- IEC61000-4-11:2020

Low Voltage Directive (2014/35/EU)

- EN62368-1:2014+A11:2017

This equipment is in conformity with the requirement of the following EU legislations and harmonized standards. Product also complies with the Council directions.

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Brand and product names are trademarks or registered trademarks of their respective owners.

Disclaimer

We reserve the right to make changes, without notice, to any product, including circuits and/or software described or contained in this manual in order to improve design and/or performance. We assume no responsibility or liability for the use of the described product(s) conveys no license or title under any patent, copyright, or masks work rights to these products, and make no representations or warranties that these products are free from patent, copyright, or mask work right infringement, unless otherwise specified. Applications that are described in this manual are for illustration purposes only. We make no representation or guarantee that such application will be suitable for the specified use without further testing or modification.

Warranty

Our warranty guarantees that each of its products will be free from material and workmanship defects for a period of one year from the invoice date. If the customer discovers a defect, we will, at his/her option, repair or replace the defective product at no charge to the customer, provide it is returned during the warranty period of one year, with transportation charges prepaid. The returned product must be properly packaged in its original packaging to obtain warranty service. If the serial number and the product shipping data differ by over 30 days, the in-warranty service will be made according to the shipping date. In the serial numbers the third and fourth two digits give the year of manufacture, and the fifth digit means the month (e. g., with A for October, B for November and C for December).

For example, the serial number 1W16Axxxxxxx means October of year 2016.

Customer Service

We provide a service guide for any problem by the following steps: First, visit the website of our distributor to find the update information about the product. Second, contact with your distributor, sales representative, or our customer service center for technical support if you need additional assistance.

Advisory Conventions

Four types of advisories are used throughout the user manual to provide helpful information or to alert you to the potential for hardware damage or personal injury. These are Notes, Important, Cautions, and Warnings. The following is an example of each type of advisory.



Note:

A note is used to emphasize helpful information



Important:

An important note indicates information that is important for you to know.



Caution/ Attention

A Caution alert indicates potential damage to hardware and explains how to avoid the potential problem.

Unalerted' attention indique un dommage possible à l'équipement et explique comment éviter le problem potentiel.



Warning!/ Avertissement!

An Electrical Shock Warning indicates the potential harm from electrical hazards and how to avoid the potential problem.

Un Avertissement de Choc Électrique indique le potentiel de choc sur des emplacements électriques et comment éviter ces problèmes.

Safety Information



Warning!/ Avertissement!

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.

Toujours débrancher le cordon d'alimentation du chassis lorsque vous travaillez sur celui-ci. Ne pas brancher de connexions lorsque l'alimentation est présente. Des composants électroniques sensibles peuvent être endommagés par des sauts d'alimentation. Seulement du personnel expérimenté devrait ouvrir ces chassis.



Caution/ Attention

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.

Toujours vérifier votre mise à la terre afin d'éliminer toute charge statique avant de toucher la carte CPU. Les équipements électroniques modernes sont très sensibles aux décharges d'électricité statique. Toujours utiliser un bracelet de mise à la terre comme précaution. Placer toutes les composants électroniques sur une surface conçue pour dissiper les charge, ou dans un sac anti-statique lorsqu'elles ne sont pas dans le chassis.



RoHS Declaration

According to the European Union issued Directive 2011/65/EU and (EU) 2015/863/RoHS on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS). Winmate Inc.'s guaranty is able to meet the current regulations and customer requirements in respect of the application of cadmium, lead, mercury, hexavalent chromium, PBBs, PBDEs in its product.

Chapter 1: Introduction

The Healthcare Panel PC runs on low power consuming Intel® Core™ i5-1135G7 processor. Multiple I/O interface includes USB2.0, LAN port, HDMI, Display port and optional serial interface isolated RS-232 to machine-to-machine communications.

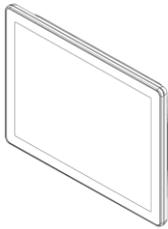
1.1 Features

- 21.5" and 23.8" screen with P-Cap touch
- Low power consumption with Intel® Core™ i5-1135G7 2.4GHz (up to 4.2GHz)
- Fanless cooling system and ultra-low power consumption
- Front IP65 for protection against water and dust
- A true flat, easy-to-clean front surface with edge-to-edge design

1.2 Package Contents

Carefully remove the box and unpack your device. Please check if all the items listed below are inside your package. If any of these items are missing or damaged contact us immediately.

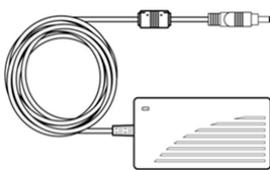
Standard factory shipment list:



- **Healthcare Panel PC**



- **Quick Start Guide (Hardcopy)**



- **AC Adapter (24V/150W)**



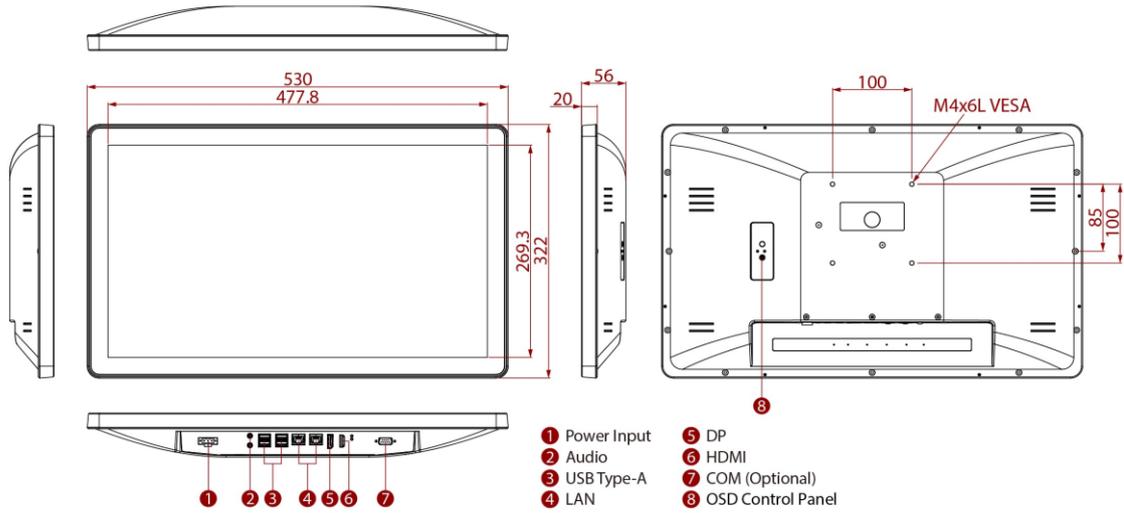
- **Power Cord**

1.3 Mechanical Dimensions

W22IT7T-PTA3-ME

Unit: mm

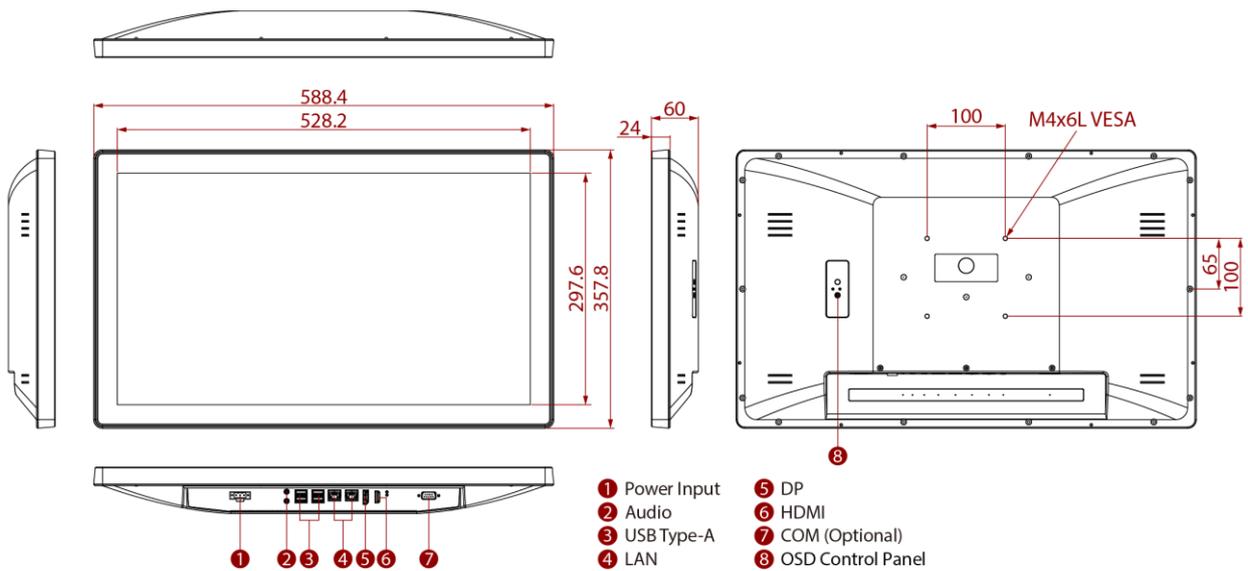
Dimensions: 530x322x56



W24IT7T-PTA2-ME

Unit: mm

Dimensions: 588.4x357.8x60



1.4 Connector Description

Terminal interfaces are located on the bottom side of the HMI device.



Note:

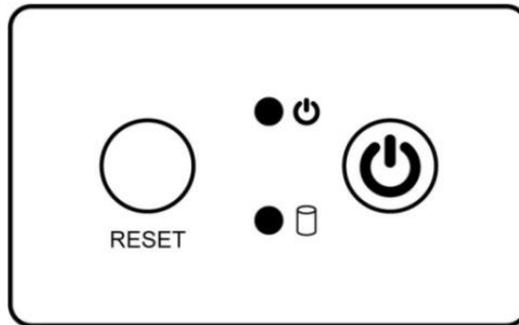
Notice that input and output connectors vary by product size and specifications.

Terminal interfaces description:

Item	Description
	<p>Power Jack – Provides power to the PANEL PC, accepts 9-36V DC power input.</p>
	<p>USB 3.2 Gen 2x1- Connects compatible devices to HMI device. <i>Example: A printer to HMI device.</i></p>
	<p>HDMI 2.0- Transmits audio/video from a panel PC to an output device. <i>Example: An external monitor to panel PC.</i></p>
	<p>Audio Jack - Connects audio equipment to panel PC, supports line-out and microphone.</p>
	<p>Display Port 1.4- Transmits video from a panel PC to an output device. <i>Example: An external monitor to panel PC.</i></p>
	<p>RJ45 – Connects HMI device to Ethernet network.</p>

1.5 Physical Buttons and LED Indicators

Physical buttons and LED indicators are located on the OSD membrane on the rear bottom side of the panel PC.



Physical Buttons		
Icon	Button	Description
	Reset	Press to reset the system.
	Power On/ Off	Press to power on or power off the device.
LED Indicators		
LED Type	Status	Description
	On	Power is on.
	Off	Power is off.
	Blinking	Storage activity (Data is being read or written).
	Off	System is idle.

Chapter 2: Installation

2.1 Wiring Requirements

The following common safety precautions should be observed before installing any electronic device:

- Strive to use separate, non-intersecting paths to route power and networking wires. If power wiring and device wiring paths must cross make sure the wires are perpendicular at the intersection point.
- Keep the wires separated according to interface. The rule of thumb is that wiring that shares similar electrical characteristics may be bundled together.
- Do not bundle input wiring with output wiring. Keep them separate.
- When necessary, it is strongly advised that you label wiring to all devices in the system.



Caution

- Do not run signal or communication wiring and power wiring in the same conduit. To avoid interference, wires with different signal characteristics (i.e., different interfaces) should be routed separately.
- Be sure to disconnect the power cord before installing and/or wiring your device.
- Verify the maximum possible current for each wire gauge, especially for the power cords. Observe all electrical codes dictating the maximum current allowable for each wire gauge.
- If the current goes above the maximum ratings, the wiring could overheat, causing serious damage to your equipment.
- Be careful when handling the unit. When the unit is plugged in, the internal components generate a lot of heat which may leave the outer casing too hot to touch.

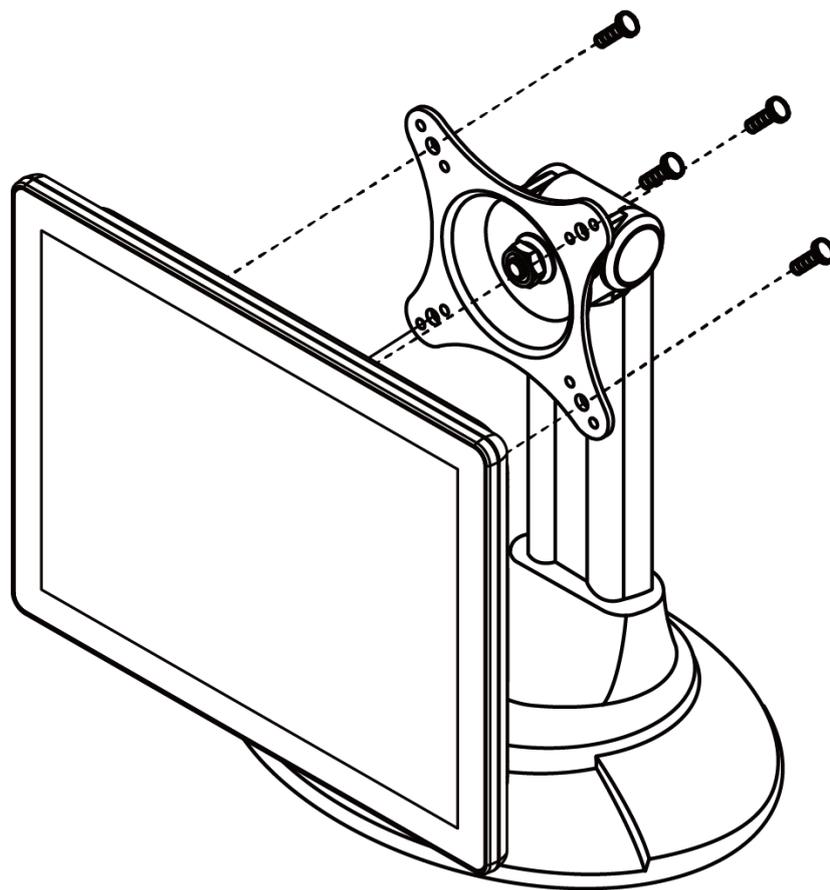
2.2 VESA Mounting

This device supports VESA Mounting and provides various types of mounting options to fit any industrial use.

Size	VESA Plate	Screw Size
21.5"	100x100mm	M4x 6
23.8"	100x100mm	M4 x 6

Installation Instruction

Use Philips M4x6 screws to fix the desk stand to VESA holes on the back cover of the device.

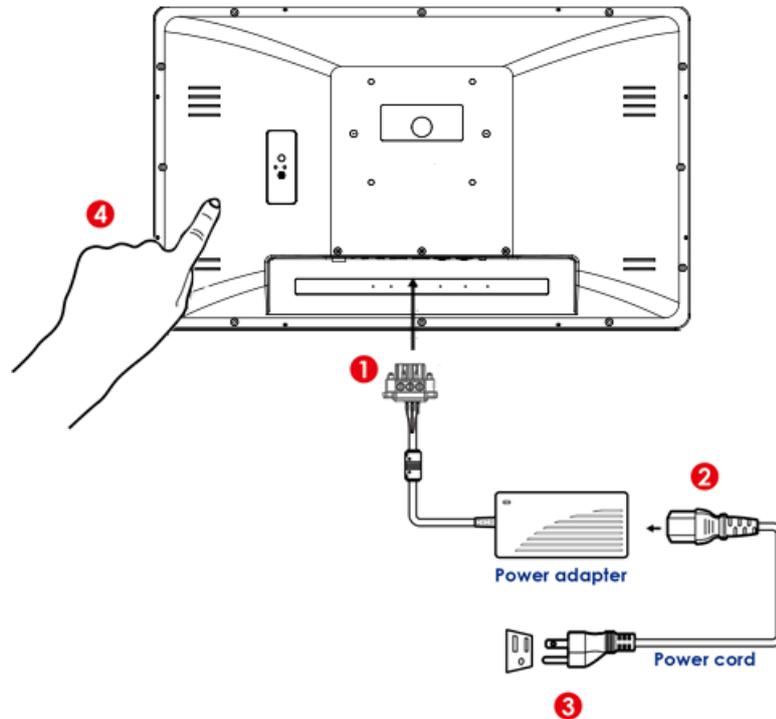


**The picture is for demonstration purposes only. VESA mount accessories are not supplied by Winmate.*

2.3 Turning On

Follow the following steps to turn on your device:

1. Connect AC adapter to DC jack connector of the panel PC.
2. Connect the power cord to AC adapter.
3. Plug the power cord to the AC outlet.
4. Press **Power** button on the rear OSD panel.



Caution

Use only the AC adapter included in your package. Using other AC adapters may damage the device.



Alternating Current

This product must be grounded. Use only a grounded AC outlet. Install the additional PE ground wire if the local installation regulations require it.

2.4 Connecting Peripherals

This section lists panel PC connectors and pin assignment.

2.4.1 Power Connector

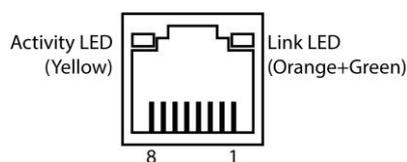
DC terminal block power source input compact design meets the maritime application. The 3- pin terminal block is to be secured that the cable to screw terminal.



Pin №	Signal Name	Description
1	VIN+	9-36V DC Input+
2	VIN-	9-36V DC Input-
3	GND	Ground

2.4.2 Ethernet Connector

The panel PC supports 1GbE and 2.5GbE Ethernet interface for connecting to the internet. Pin assignment and connector description of RJ45 connector

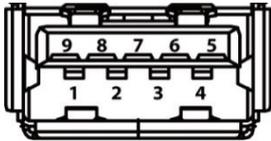


Pin №	Signal Name	Pin №	Signal Name
1	TX1+	2	TX1-
3	TX2+	4	TX2-
5	TX3+	6	TX3-
7	TX4+	8	TX4-

2.4.3 USB 3.2 Gen 2x1 Connector

Your panel PC has one USB A Type(USB 3.2 Gen 2x1) connector. Use A Type (USB 3.2 Gen 2x1) connector to connect your device to other USB 3.2 Gen 2x1 compatible devices.

Pin assignment and connector description of USB 3.2 Gen 2x1 connector



Pin No	Signal Name	Pin No	Signal Name
1	+5V	2	USB_D-
3	USB_D+	4	GND
5	STDA_SSRX-	6	STDA_SSRX+
7	GND_DRAIN	8	STDA_SSTX-
9	STDA_SSTX+		

2.4.4 HDMI 2.0 Connector

Use standard HMI 2.0 connector to connect your Panel PC to external display for video/audio transfer.

Pin assignment and connector description of HDMI 2.0 connector

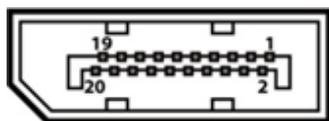


Pin No.	Signal Name	Pin No.	Signal Name
1	TDMS_DATA2+	2	GND
3	TDMS_DATA2-	4	TDMS_DATA+
5	GND	6	TDMS_DATA-
7	TDMS_DATA0+	8	GND
9	TDMS_DATA0+	10	TMDS_CLOCK+
11	GND	12	TMDS_CLOCK-
13	CEC	14	NC
15	DDC_CLOCK	16	DDC_DATA
17	GND	18	5V
19	Hot Plug Detect		

2.4.5 Display Port 1.4 Connector

Use standard Display Port 1.4 connector to connect your Panel PC to external display.

Pin assignment and connector description of Display Port1.4 connector

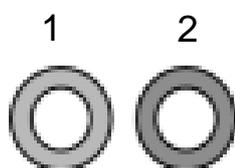


Pin No.	Signal Name	Pin No.	Signal Name
1	Lane 0+	2	GND
3	Lane 0-	4	Lane 1+
5	GND	6	Lane 1-
7	Lane 2+	8	GND
9	Lane 2-	10	Lane 3+
11	GND	12	Lane 3-
13	Aux_EN_N	14	GND
15	Aux+	16	GND
17	Aux-	18	Hot Plug
19	GND	20	+3.3V

2.4.6 Audio Connector

Your panel PC has two stereo audio ports with phone jack connectors, one is Line-out and the other one is Mic-in

Pin assignment and connector description of audio jack connector



Color	Signal Name
1	Line-out
2	Mic-in

Chapter 3: Operating the Device

3.1 Operating System

P-CAP Panel PC supports Windows 11 IT Enterprise, Windows 10 IoT Enterprise and Linux Ubuntu 22.04.

**Important:**

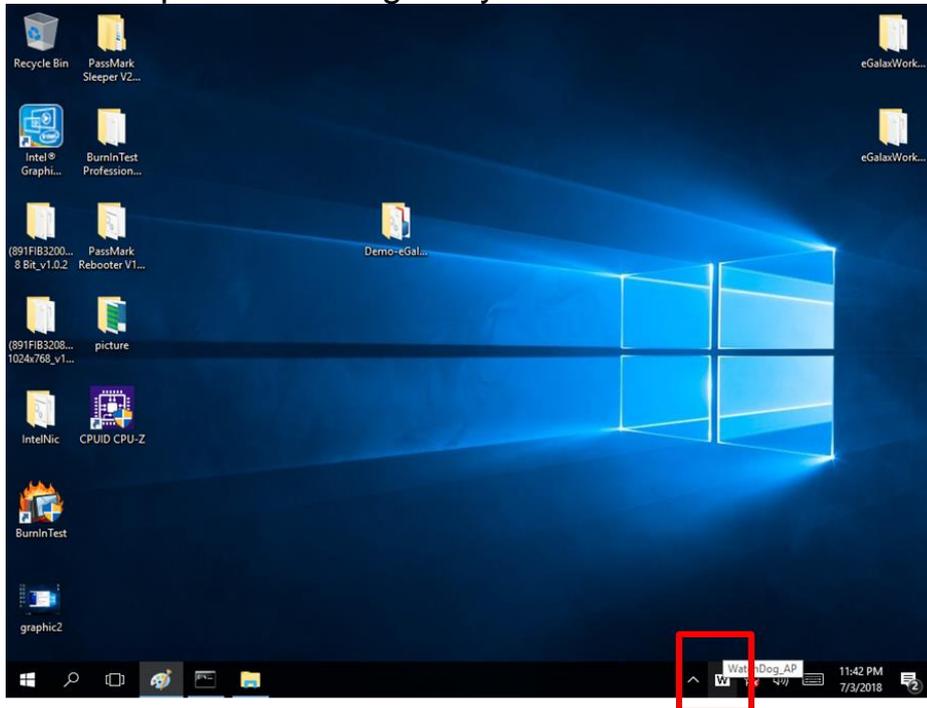
The device is shipped with the OS System according to your order. Contact us if you have any questions regarding OS settings.

3.2 How to Enable Watchdog

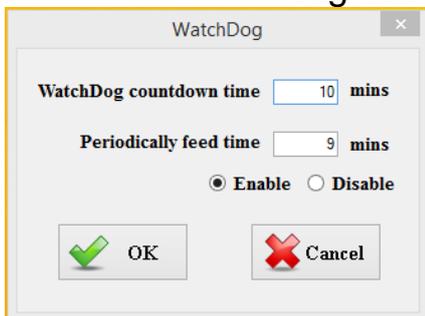
To enable Watchdog, you need to download Winmate Watchdog utility. Find more information on Watchdog in “Watchdog Guide” that you can download from Winmate Download Center.

To enable watchdog in Watchdog AP follow the instructions below:

1. On the right bottom side of the desktop screen, click  **triangle button** to show hidden icons.
2. Click  icon to open Watchdog utility.



3. In Watchdog utility window set countdown time and periodically feed time, or disable watchdog.



Example:

Every 10 min watchdog will monitor the system, in case any error occurs the system will restart automatically when the countdown time reaches 0.

Every 9 min watchdog timer will be reset to 10 min.

Setting	Description
Watchdog Countdown Time	The system automaticity restarts when this countdown time reaches zero. <i>Default: 10 min</i>
Periodically Feed Time	To set a cycle time to automatically reset watchdog timer. <i>Default: 9 min</i>
Enable / Disable	Enable or disable watchdog. <i>Default: Enable</i>

3.3 Using Recovery Wizard to Restore Computer

**Note:**

Before starting the recovery process, make sure to backup all user data. The data will be lost after the recovery process.

To enable quick one-key recovery procedure:

1. After complete the recovery process, the system will be turned off automatically. Please restart your system manually to complete the OS initialize process.
2. Turn on the computer, and when the boot screen shows up, press **Tab+ F6** to initiate the Recovery Wizard.
3. The following screen shows the Recovery Wizard. Click **Recovery** button to continue.



4. A warning message about data loss will show up. Make sure the data is backed up before recovery, and click **Yes** to continue.



1. Wait the recovery process to complete. During the recovery process, a command prompt will show up to indicate the percent of recovery process complete. After complete the recovery process, the system will be turned off automatically. Please restart your system manually to complete the OS initialize process.

Appendix

Appendix A: Product Specifications

	Model Name	
	W22IT7T-PTA3-ME	W24IT7T-PTA2-ME
Display		
Size	21.5"	23.8"
Resolution	1920 x 1080	1920 x 1080
Panel Brightness	250.0 nits	250.0 nits
Contrast Ratio	3000:1	3000:1
View Angles	89,89,89,89	89,89,89,89
Touch/Glass	Projected Capacitive Multi Touch Screen Protect Glass (Optional)	Projected Capacitive Multi Touch Screen Protect Glass (Optional)
Active Area	476.64x268.11 mm	527.04x296.46 mm
Mechanical		
Dimensions	530 x 322 x 56 (mm)	588.4 x 357.8 x 60 mm
Mounting	VESA mount	VESA mount
Cooling System	Fanless Design	Fanless Design
Enclosure	Plastic	Plastic
IO Ports		
Serial Port	1 x Isolation RS232 (Optional)	
USB Port	4 x USB3.2 Gen2x1 (Type-A)	
LAN	2 x Giga LAN RJ45 Connector	
Audio	1 x Mic in 1 x Line out 2 x Speaker	
Video	1 x DP1.4 1 x HDMI 2.0 (Optional)	
Expansion Port	1x M.2 2242/2280 Key M slot for SATA/NVMe SSD 1 x M.2 2230 Key E slot for WLAN (Optional)	
Indicator	1 x LED Indicator for power 1 x LED Indicator for storage	
Power		
Power Rating	24V DC in with terminal block	
Adapter	24V 150W	
System Specification		
Processor	Intel Core i5-1135G7 2.4GHz (up to 4.2GHz)	
Memory	1 x SO-DIMM, DDR4 3200 MHz, 4GB 8GB (Optional) 16GB (Optional) 32GB (Optional) 2 x SO-DIMM, DDR4 3200 MHz, 4GB (Optional) 8GB (Optional) 16GB (Optional) 32GB (Optional) 64GB (Optional)	
Storage	1 x M.2 M-Key 2242 SATA SSD or 1 x M.2 M-Key 2280 NVMe SSD, 128GB 256GB (Optional) 512GB (Optional) 1TB(for NVMe) (Optional) 2TB(for NVMe) (Optional) 4TB(for NVMe) (Optional) 1 x SATA III , up to 2TB (Optional)	
Ethernet controller	2 x Intel® Ethernet Controller	

Security	TPM 2.0
Operating System	Windows 11 IoT Enterprise (64 bit) (Optional) Windows 11 Pro 64 bit (Optional) Windows 10 IoT Enterprise (64 bit) (Optional) Linux Ubuntu 22.04 (Optional)
WLAN	Support (Optional)
BT	Support (Optional)
Environment	
Operating Humidity	10% to 90% RH, Non-Condensing
Operating Temperature	0°C to 40°C
Storage Temperature	-10°C to 60°C
Control	
Button	1 x Power Button 1 x Reset Button
Accessory	
Accessory	100~240V AC to DC Adapter Power Cord VESA screws
Certification	
Certification	CE, FCC IEC 60601-1-2:2014/AMD:2020 EN 60601-1-2:2015/A1:2021 EN 60601-1

