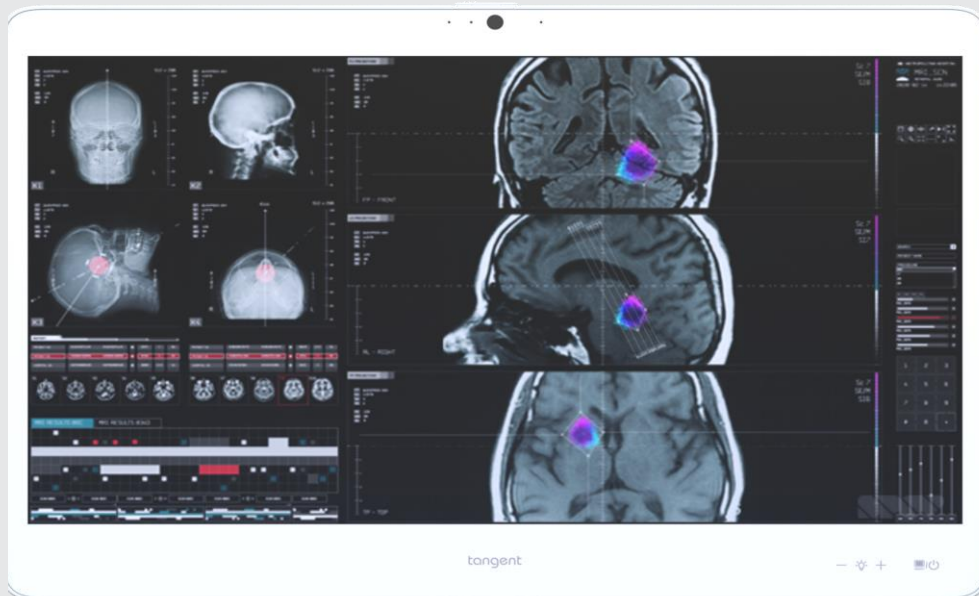




# tangent

*Medix 24*

## All in One PC



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## General Information

### Revision History

| Date       | Version | Updates       |
|------------|---------|---------------|
| 2020/11/10 | 1.0     | First Release |

### Trademark Recognition

All product names and trademarks used in this user's guide are properties of their respective owners.

### Intended Use

Thank you for choosing the Medix 24 product. This device is intended to serve as a computing unit in a healthcare institution for general use by healthcare personnel. It can be mounted on the wall, placed on a nursing cart, or any other flat surface for easy access and control.

### Operating Principle

1. All-In-One PC.
2. By utilizing the computing unit, it can translate inputs into meaningful data and information, and show on the screen for user easy access.
3. Users can gain data and information from it, and input feedback proactively through touch screen or relative peripherals.

### Significant Performance Characteristics

1. It can connect with relative devices as supplementary unit to the main frame for efficiency.

### Operator Profile / Intended User Profile

1. Software and hardware are adjustable for relative personnel upon different applications.
2. No limitation.

### Contact Information

Tangent  
191 Airport Boulevard  
Burlingame, CA 94010  
[www.tangent.com](http://www.tangent.com)

## Safety and Maintenance

To avoid any damages caused by improper usage, please read the following information carefully before you start using your All in One PC.

### Electrical and Power Source Related Hazards

- Use only the power supply and power cord included with your device.
- Ensure your electrical outlet is the same voltage and frequency as shown on the power supply. If you are unsure of the outlet's voltage and frequency, please consult the local power authority.
- To avoid power circuit overloads, ensure your wall outlet, extension cord, power strip, or other electrical receptacles are rated to handle the total current drawn by the Medix 24 in combination with other devices sharing the same power circuit.
- Please route the power cord properly to prevent it being stepped on.
- For your safety, avoid touching the plug if your hands are wet.
- Hold the power cord by the plug when disconnecting it from the electrical outlet.
- If the device is not going to be in use for an extended period, disconnect the device from the electrical outlet.
- Allowing foreign objects or liquids to enter the device could result in fire or electric shock.

### Abnormal Handling Procedure / Technical Support and Contact Information

- Product itself is designed with "long-press" on the "Power Button" as an enforced shut-down.
- Access number to local system integrator partners.

### Environmental Related Hazards

- Do not use the device under the following conditions:
  - In extremely hot, cold or humid environments. For more information, refer to page 14.
  - In areas susceptible to excessive dirt, dust, fumes, or steam.
  - In direct sunlight or heat generating sources.

### Disposal of the Battery

- Most rechargeable lithium polymer batteries are classified as non-hazardous waste and can be safely disposed of in accordance with normal urban waste disposal procedures. In many areas, laws have been enacted to require the recycling of batteries. Please confirm local regulations to ensure that rechargeable batteries can be disposed of as normal waste. To safely discard lithium polymer batteries, protect the battery terminals with packaging, covering, or electrical insulation tape to avoid contact with other metals and transport without causing a fire. However, lithium polymer batteries do contain recyclable materials and can be recycled according to the Rechargeable Battery Recycling Corporation (RBRC) battery recycling program.

Do not throw the battery into a fire to avoid an explosion.

**RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.**

## Other Hazards

- Do not block the ventilation openings on top of the device.
- Do not use the device if it has been dropped, power supply cord or plug have been damaged, liquid has been spilled on to the device, device has been exposed to rain or moisture, or any other physical damage has occurred.

## Caring for Your Device

- Turn off and unplug the power cord from the electrical outlet before cleaning the device.
- Please use a PDI detergent wipe or a similar product to clean the screen/panel.
- Do not use any acids or cleaning alkali liquids as this may cause cosmetic damage.

## FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT

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 in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

## CAUTION:

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

## RF Exposure Information (SAR)

This device meets the government's requirements for exposure to radio waves.

This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government.

The exposure standard employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6 W/kg. Tests for SAR are conducted using standard operating positions accepted by the FCC with the EUT transmitting at the specified power level in different channels.

This device is intended only for OEM integrators under the following conditions :

The module can be used to installation in other host.

the transmitter module may not be colocated with any other transmit or antenna. The module shall be only used with the integral antenna(s) that has been originally tested and certified with this module. As long as 2 conditions above are met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirement with this module installed (for example, digital device emission, PC peripheral requirements, etc.)

The final end product must be labeled in a visible area with the following: "Contains FCC ID: I178265NG".The equipment complies with FCC RF exposure limits set forth for an uncontrolled environment. The equipment must not be co-located or operating in conjunction with any other antenna or transmitter.

## Regulatory Information

Your All in One PC conforms to the following regulations and standards:

- UL 60601-1 3.1 Edition
- EN 60601-1-2 4th Edition
- IEC 60601-1-2 3.1 Edition
- FCC Class B
- CE
- Energy Star 8.0

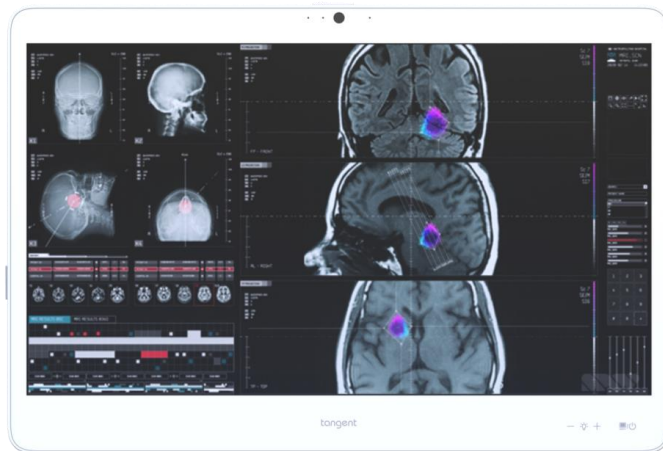
**Need to update**

## Product Overview

### Package Contents

Before using your All-In-One PC, ensure all of the following items are included in the package. If any of the items are missing or are damaged, please contact your dealer.

Medix 24 All-In-One PC  
White Medical Grade PSU  
White Power cord

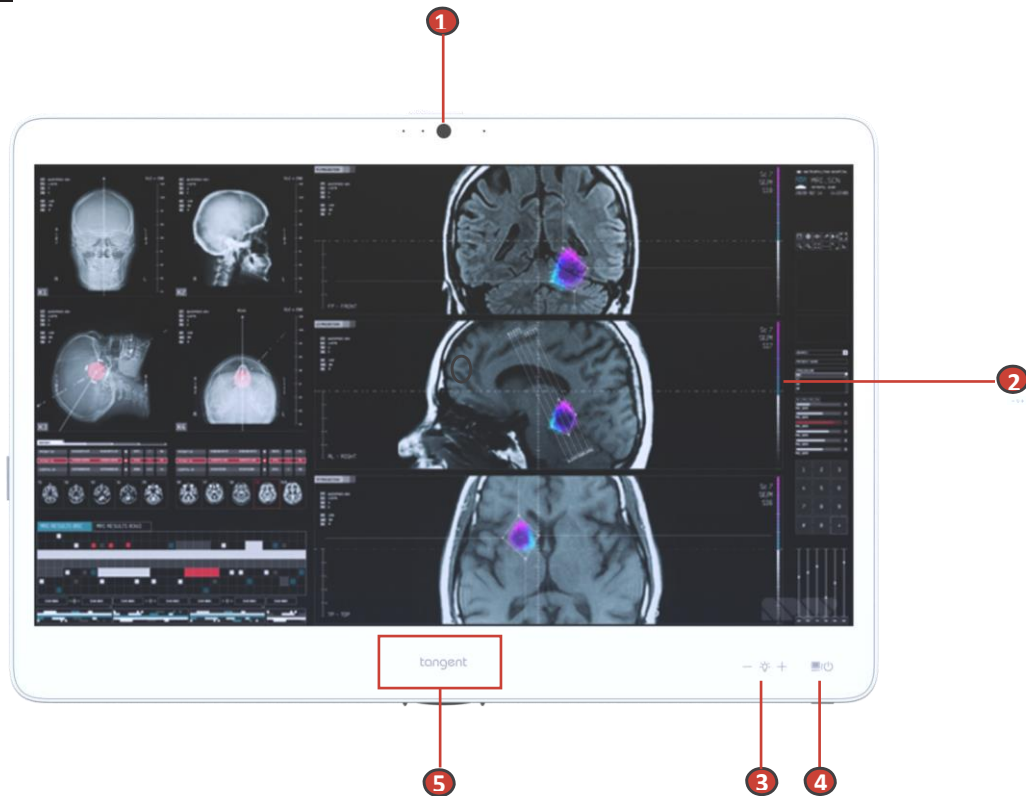


### Features

Device features include:

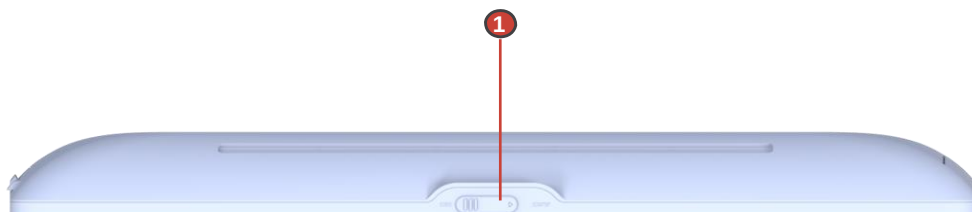
- Fanless all-in-one design
- With battery ?? kg/ ?? lbs, without ?? kg/ ?? lbs. -> Need to update
- IP54 at the front, IPX1 at the rear
- Up to Intel® Core™ i7 processor
- Two SSD M.2 SATA storage support
- Optical Disc Drive DVDRW SATA support
- 10 points projected capacitive (PCAP) multi-touch display with dual layers glove support
- Webcam with security cover and integrated microphone
- Stereo speakers
- Standard VESA mounts
- Versatile I/O interface
- Reading light
- Radio-Frequency Identification (RFID)
- Touch cap button
- One Physical power button

## Front View



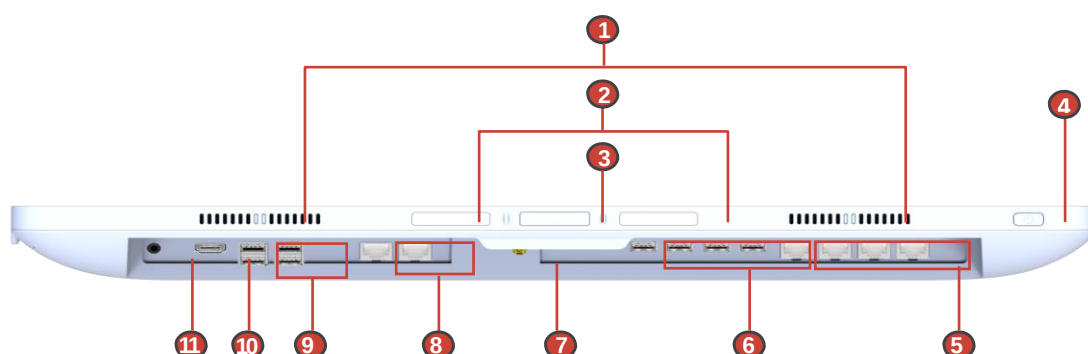
| No. | Icon | Item                          | Description                                                              |
|-----|------|-------------------------------|--------------------------------------------------------------------------|
| 1   |      | Webcam                        | Use camera to capture images, record videos, or hold a video conference. |
| 2   |      | Touchscreen                   | 10 point projected capacitive multi-touch display with glove support.    |
| 3   |      | Touch cap :<br>Brightness +/- | Brightness High and Low Control                                          |
| 4   |      | Touch cap :<br>Power key      | Power On (5 Seconds + 2 Seconds LCD Off)                                 |
| 5   |      | RFID detection area           | RFID reader supports RFID card tapping                                   |

## Top View



| No. | Icon | Item                  | Description                                |
|-----|------|-----------------------|--------------------------------------------|
| 1   |      | Webcam Security Cover | Slide to cover or uncover the webcam lens. |

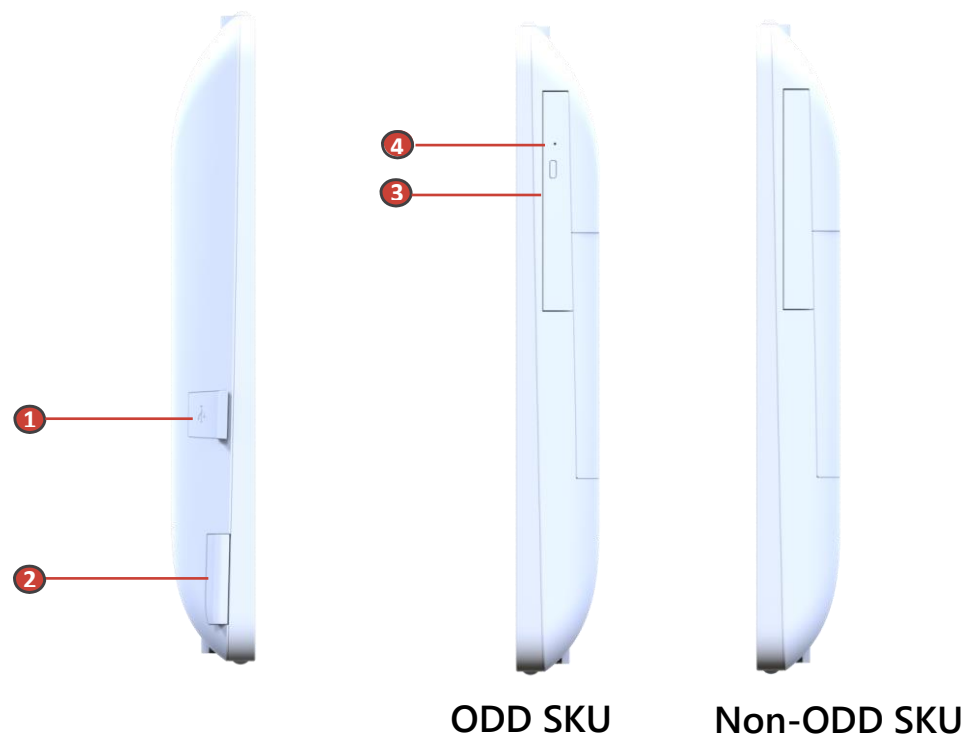
## Bottom View



**NOTE:** The bottom view is displayed with the cable management cover removed.

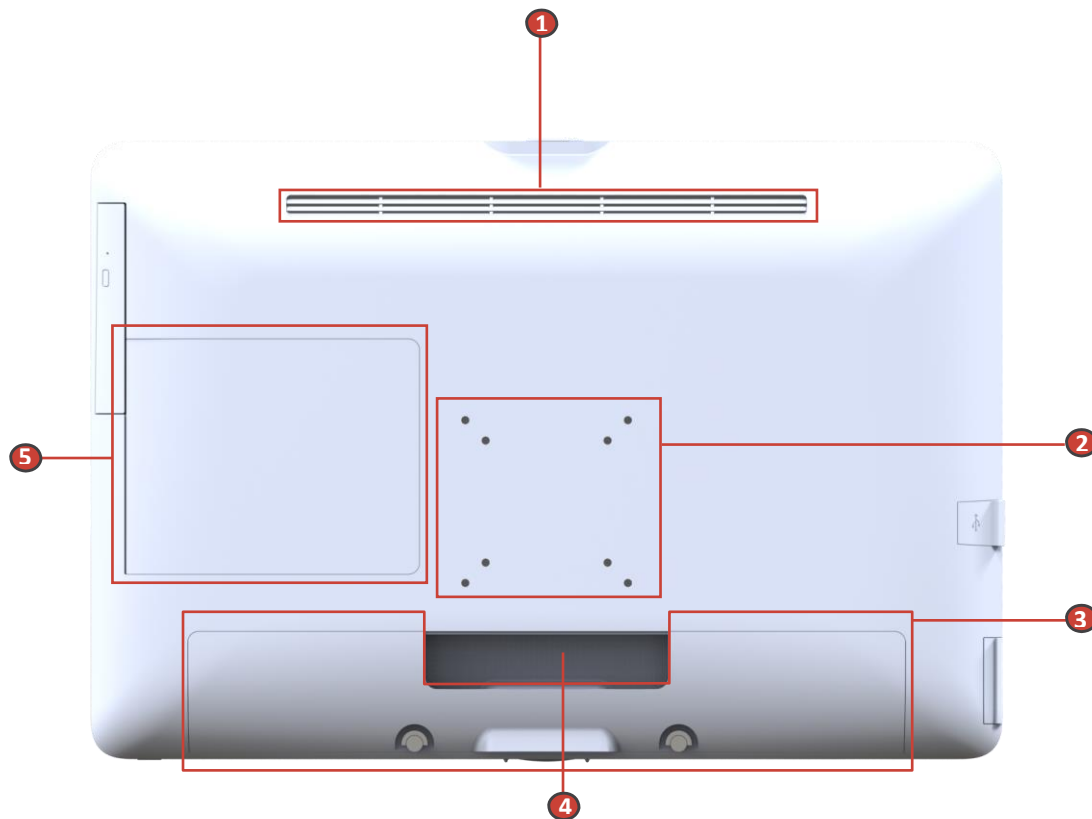
| No. | Icon | Item                    | Description                                             |
|-----|------|-------------------------|---------------------------------------------------------|
| 1   |      | Speakers                | Stereo audio output.                                    |
| 2   |      | Reading Light           | Helps illuminate work areas.                            |
| 3   |      | Reading Light Switch    | Toggle reading light on/off.                            |
| 4   |      | Physical key            | Physical Button: On/Off only                            |
| 5   |      | (4) Serial Ports (RJ45) | RJ45 Type connector, Connect RS-232 compatible devices. |
| 6   |      | (4) USB 2.0 Ports       | Connect USB 2.0 compatible devices.                     |
| 7   |      | DC-In Jack              | Power input from the supplied AC adapter.               |
| 8   |      | (2) LAN Ports           | Connect to a Local Area Network (LAN).                  |
| 9   |      | (4) USB 3.0 Ports       | Connect USB 3.0 compatible devices.                     |
| 10  |      | HDMI Out port           | Auxiliary HDMI compatible video monitor output.         |
| 11  |      | Audio Combo Jack        | External audio output.                                  |

## Left and Right Views



| No. | Icon | Item               | Description                                                                                                                     |
|-----|------|--------------------|---------------------------------------------------------------------------------------------------------------------------------|
| 1   |      | USB 2.0 Port       | Connect USB 2.0 compatible devices.<br>NOTE: To use the USB port, open the port cover first.<br>After using, replace the cover. |
| 2   |      | Label Cap          | Use for stick master label                                                                                                      |
| 3   |      | Optical Disc Drive | 8X DVD RW SATA interface                                                                                                        |
| 4   |      | Eject pin hole     | Use for eject disk by manual                                                                                                    |

## Rear View

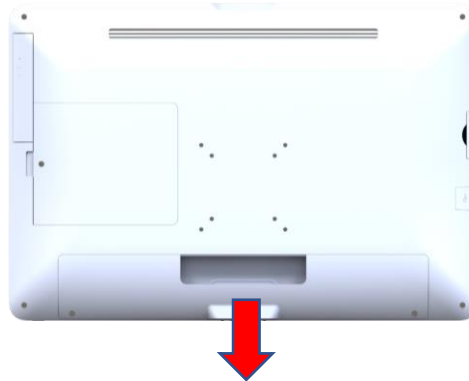


| No. | Icon | Item                   | Description                                                                                                         |
|-----|------|------------------------|---------------------------------------------------------------------------------------------------------------------|
| 1   |      | Ventilation Slots      | Allows proper ventilation of the device.<br><b>WARNING!</b> To prevent overheating, do not block ventilation slots. |
| 2   |      | VESA mounting holes    | Used to lock on a mobile medical cart.                                                                              |
| 3   |      | Cable Management Cover | Use for cable management.                                                                                           |
| 4   |      | Cable Guide            | Use for securing the AC adapter cable.                                                                              |
| 5   |      | Service Door           | Use for battery and SSD board maintenance.                                                                          |

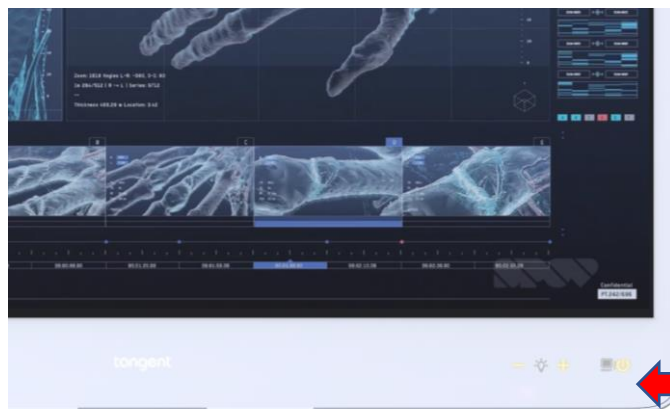
## Switching On the Device

To start using your All-In-One PC, do the following:

1. Connect the power cord to the AC power adapter.
2. Remove the cable management cover.



3. Connect the AC adapter to the DC-in jack on the All-In-One PC's bottom, and secure the cable to the cable guide as illustrated.
4. Connect the power cord to an electrical outlet.
5. Press the Power key of Touch cap button on the right side of the device. The Touch cap LED and Logo LED will be illuminated.



Power off status



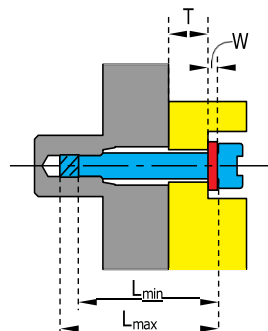
Power on status

Your All-In-One PC is ready to be used.

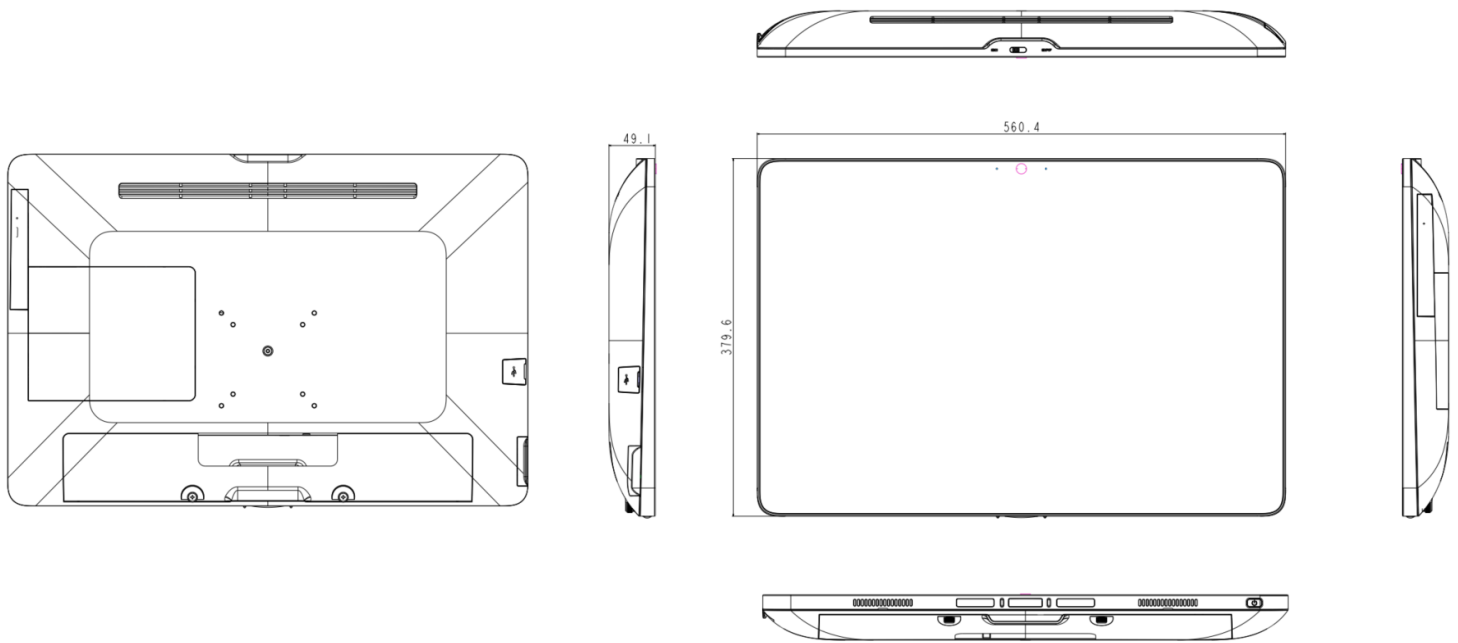
## Specifications

The following table includes all the features and operational requirements regarding your panel PC.

| Item                    |                 | Description                                                                                                                                               |
|-------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Size / Resolution       |                 | 23.8" FHD dual LVDS 8 bit 250 nits                                                                                                                        |
| Dimension (W x H x L)   |                 | <ul style="list-style-type: none"> <li>560.4 mm x 379.6 mm x 49.1 mm</li> <li>22.1 in x 14.9 in x 1.9 in</li> </ul> <p>NOTE: Please refer to page 14.</p> |
| Weight                  | With battery    | <ul style="list-style-type: none"> <li>TBD</li> </ul>                                                                                                     |
|                         | Without battery | <ul style="list-style-type: none"> <li>TBD</li> </ul>                                                                                                     |
| Processor               |                 | Intel Kaby lake-U                                                                                                                                         |
| Touch Feature           |                 | 10 points PCAP multi-touch display with dual layers glove support                                                                                         |
| Graphics                |                 | Integrated Intel Graphics                                                                                                                                 |
| Memory                  |                 | (2) DDR4 slots, up to 32G                                                                                                                                 |
| Network                 |                 | (2) Intel GbE LAN                                                                                                                                         |
| Wireless                |                 | WiFi 802.11 a/b/g/n/ac + Bluetooth 4.2                                                                                                                    |
| Intel vPro technology   |                 | Yes                                                                                                                                                       |
| Audio                   |                 | (2) Speakers 3W                                                                                                                                           |
| Webcam                  |                 | 2M webcam with digital microphone                                                                                                                         |
| Storage                 |                 | M.2 SATA SSD 256GB (replaceable by service door)                                                                                                          |
| 2 <sup>nd</sup> Storage |                 | M.2 SATA SSD                                                                                                                                              |
| Battery                 |                 | UPS battery pack 14.8V 5000mAh (optional)                                                                                                                 |
| I/O Ports               |                 | <ul style="list-style-type: none"> <li>(4) USB 3.0</li> <li>(1) Audio Combo</li> </ul>                                                                    |
|                         |                 | <ul style="list-style-type: none"> <li>(1) HDMI Out</li> <li>(1) Side USB 2.0</li> </ul>                                                                  |
|                         |                 | <ul style="list-style-type: none"> <li>(2) LAN (RJ45)</li> <li>(4) RS232 with RJ45</li> </ul>                                                             |
|                         |                 | <ul style="list-style-type: none"> <li>(1) DC-In</li> <li>(4) USB 2.0</li> </ul>                                                                          |
| Touch cap button        |                 | <ul style="list-style-type: none"> <li>(1) Volume up</li> <li>(1) Volume down</li> </ul>                                                                  |
|                         |                 | <ul style="list-style-type: none"> <li>(1) Power key</li> </ul>                                                                                           |
| Physical button         |                 | (1) Power key                                                                                                                                             |
| Light Bar               |                 | (1) Logo LED                                                                                                                                              |

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                      |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| RFID                       | RFID reader supports RFID card tapping (optional)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                      |
| Optical Disc Drive         | 8X DVD RW SATA interface (optional)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                      |
| Adapter                    | Input: 100-240V~1.5A 50/60Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Output: 19V/4.7A, max. 90W<br>(Medical Adapter:<br>FSP FSP090-RBBM1) |
| IP Rating                  | IP65 front panel , IPX1 Top                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                      |
| Thermal Solution           | Fanless housing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                      |
| VESA Wall Mount            | <ul style="list-style-type: none"> <li>75x75 &amp; 100x100mm VESA mounting, Compatible with ARS5 Arm Head (Quantity : 4 pcs)</li> <li>The VESA mounting holes at the back of the terminal are provided with M4-type blind fasteners to fix the VESA mounting plate. Depending on the VESA plate thickness (T) and the thickness of possible washers (W), a different screw length (L) should be selected.</li> </ul> <p>Please respect the following rule to select an appropriate screw length:</p> <ul style="list-style-type: none"> <li><math>L_{min} = T + W + 5 \text{ mm}</math></li> <li><math>L_{max} = T + W + 10 \text{ mm}</math></li> </ul>  <ul style="list-style-type: none"> <li>Arm selection suggestions:<br/>Includes VESA standards with hole pattern bracket.<br/>The designed using aluminium alloy and plastic materials.<br/>Max.Load-bearing: 10 kg or more</li> </ul> |                                                                      |
| Temperature                | <ul style="list-style-type: none"> <li>Operational: 0°C~40°C (32°F~104°F)</li> <li>Storage: -10°C~50°C (14°F~122°F)</li> <li>Transport: -10°C~+50°C (14°F~122°F)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                      |
| Humidity                   | <ul style="list-style-type: none"> <li>Operational: 20%~80% @40°C non-condensing</li> <li>Transport: 15%~95%</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                      |
| Atmospheric Pressure Range | <ul style="list-style-type: none"> <li>Operational: 650 to 1060 hPa</li> <li>Transport: 375 mmHg to 800 mmHg (500 hPa to 1060 hPa)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                      |
| Operation Altitude         | 4000m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                      |
| Operating System           | Windows 10 (optional)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                      |
| Safety and Certifications  | UL 60601-1 3.1 Edition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | FCC Class B                                                          |
|                            | EN 60601-1-2 4th Edition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | CE                                                                   |
|                            | IEC 60601-1-2 3.1 Edition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Energy Star 8.0                                                      |
| Other Features             | <ul style="list-style-type: none"> <li>Reading light</li> <li>Camera privacy latch</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                      |

## Dimensions



## Transport

1. Ambient Air Temperature:  $-10^{\circ}\text{C} \sim +50^{\circ}\text{C}$ .
2. Relative Humidity: 15% ~ 95%.
3. Ambient Pressure: 375 mmHg ~ 800 mmHg (500 hPa ~ 1060 hPa).

## About the All in One PC

1. Rotation angle: 90 degrees.
2. Can be fixed on the mobile device, and being able to be moved.



3. RFID reader supports RFID card tapping.



4. Label tap for check master label information.



\*\* The barcord displayed at the red arrow is only for notification of the machine's production serial number, not for the use of patients in diagnosis and treatment.

5. Battery and SSD board maintenance by service door

