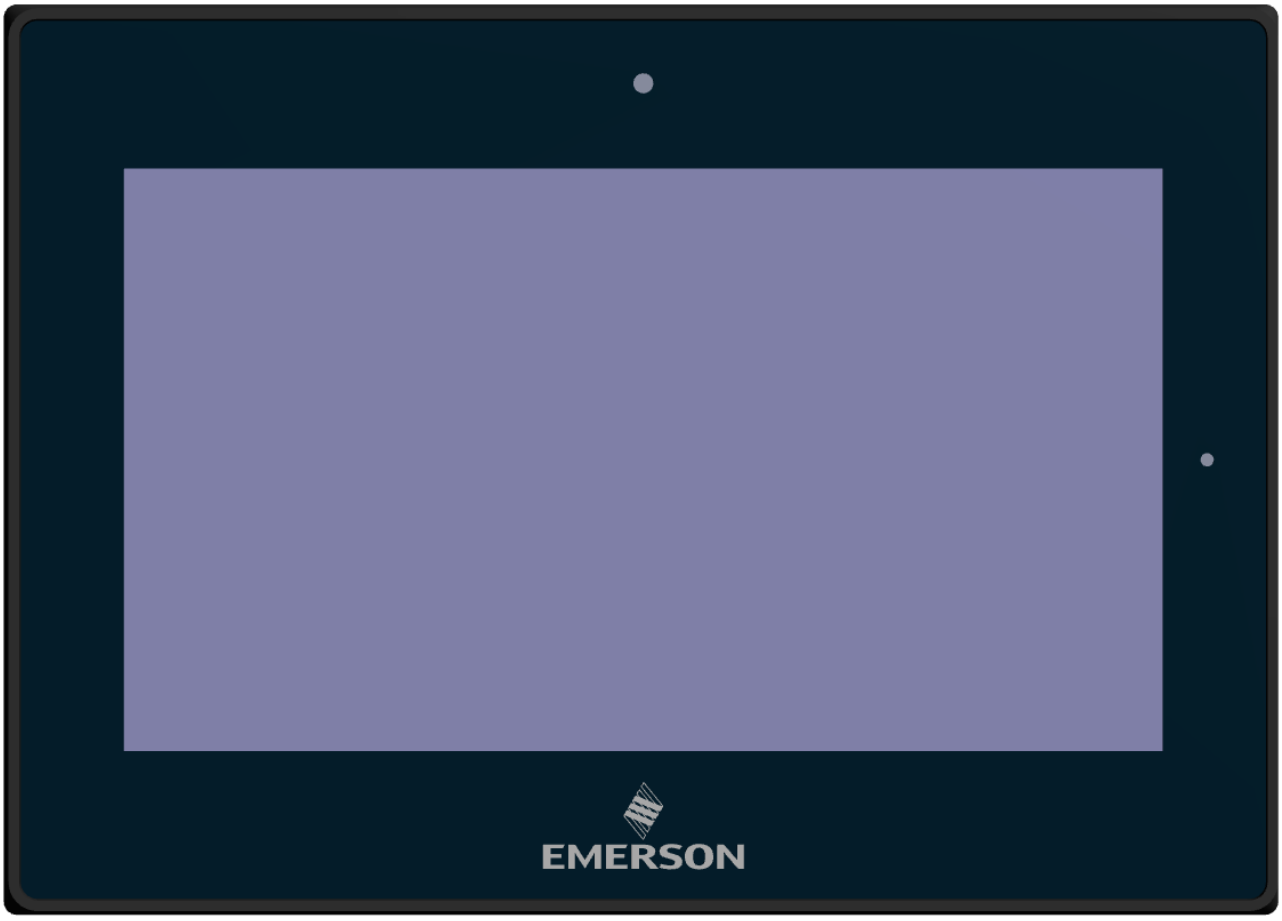
Quick Start Guide
GFK-3072F
Mar 2021

RXi – Panel PC

QUICK START GUIDE



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Caution Notes as Used in this Publication

⚠ WARNING

Warning notices are used in this publication to emphasize that hazardous voltages, currents, temperatures, or other conditions that could cause personal injury exist in this equipment or may be associated with its use.

In situations where inattention could cause either personal injury or damage to equipment, a Warning notice is used.

⚠ CAUTION

Caution notices are used where equipment might be damaged if care is not taken.

NOTICE

Notice tags are used where special attention is required to successfully complete a task.

Note: *Notes merely call attention to information that is especially significant to understanding and operating the equipment.*

These instructions do not purport to cover all details or variations in equipment, nor to provide for every possible contingency to be met during installation, operation, and maintenance. The information is supplied for informational purposes only, and Emerson makes no warranty as to the accuracy of the information included herein. Changes, modifications, and/or improvements to equipment and specifications are made periodically and these changes may or may not be reflected herein. It is understood that Emerson may make changes, modifications, or improvements to the equipment referenced herein or to the document itself at any time. This document is intended for trained personnel familiar with the Emerson products referenced herein.

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Contents

Regulatory Information

The FCC requires the following note to be published according to the FCC guidelines:

NOTE: *This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.*

⚠ CAUTION

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Industry Canada requires the following to be published: CAN ICES-3 (A)/NMB-3 (A)

Intended Use

The RXi Panel PC is intended for use in industrial environments only. Adherence to supplied documentation is part of the intended use. Installation, commissioning, and maintenance shall be carried out by qualified personnel. For more information, please consult GFK-3163, *RXi2 LP/ RXI Display Installation and Maintenance Requirements*.

RXi Panel PC Windows Activation Procedure

The preloaded Windows 10 IOT Enterprise image on Panel PC is not activated by default. The product key is present on the rear of the Panel PC backing module to activate Windows 10 IOT Enterprise.

Note: The user should write down the product key before installing the RXi Panel PC. **The product key may not be accessible after installation.**

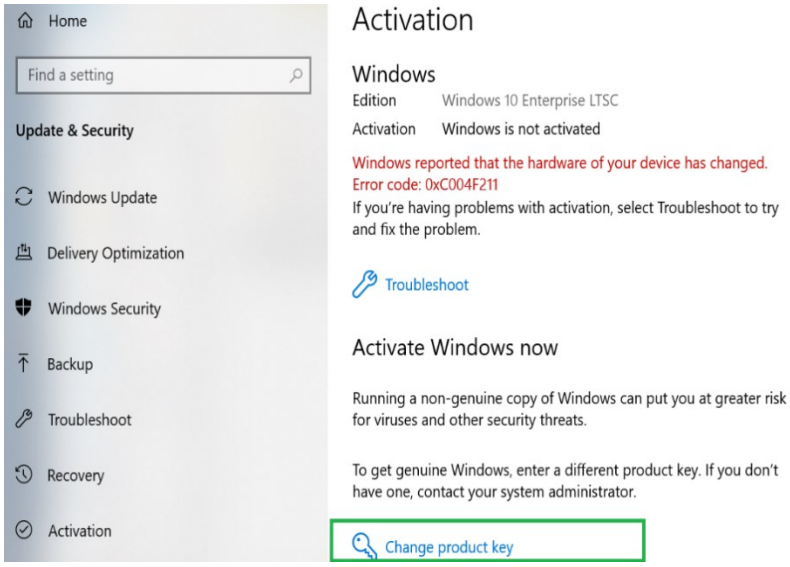
Activate a Windows 10 IoT Enterprise LTSC device Using an Internet Connection

NOTICE

It is required to place the Panel PC unit in a DMZ network architecture with internet access temporarily to perform the activation with Microsoft.

1. Press the Windows key (Start button), then go to **Settings** > **Update and Security** > **Activation (or) Launch This PC properties**.
2. Proceed with license activation by pressing the **Change Product Key** option which is highlighted in the below image in green color.

Figure 1: Activation



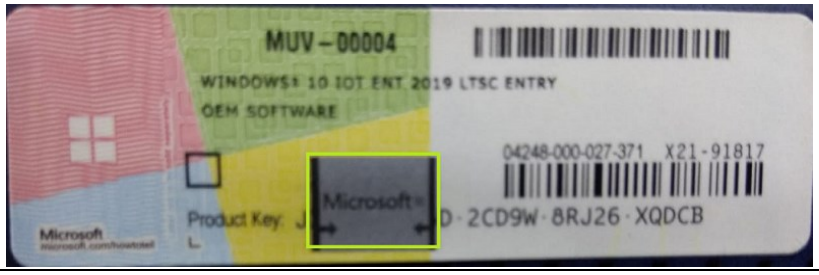
Note: Ignore the error message – "Windows reported that the hardware of your device has changed. Error code: 0xC004F211."

3. Find the **Product Key Sticker** that is present on the rear side of the Panel PC backing module as shown in (Figure 2).

Figure 2: Product Key Sticker

4. Part of the **Product Key** may be covered with gray scratch ink. Remove (scratch) the ink layer to reveal the Product Key as shown in (Figure 3).

Figure 3: Removing the Scratch Layer



5. Enter the retrieved **Product Key** into the popup box and press **Next** (Figure 4).

Figure 4: Enter the Product Key

6. The Windows 10 product key is now active.

Activate a Windows 10 IoT Enterprise LTSC Device Using a Telephone

1. On the device, open a command prompt as the administrator.

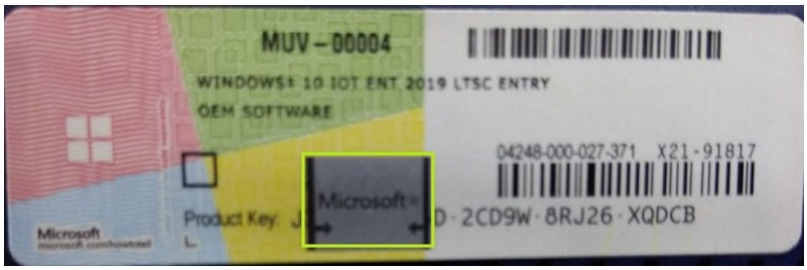
2. Navigate to the *<system drive>:\Windows\System32* with folder type **slmgr.vbs /ipk XXXXX-XXXXX-XXXXX-XXXXX-XXXXX**. The **XXXXX** characters will be the 25-character product key present on the side of the device (Figure 5).

3. **Product Key** is present on the Panel PC backing module as showing below.

Figure 5: Product Key Sticker

4. The part of the Product Key is covered by the scratch layer as highlighted below. The user needs to retrieve this by removing the scratch layer (scratch-off Microsoft labeled layer) as highlighted below.

Figure 6: Revealing the Product Key

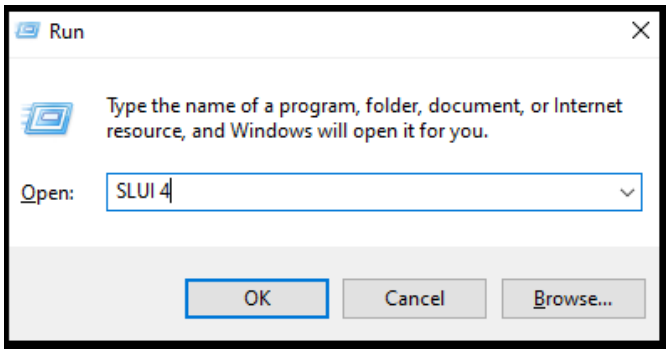


5. After step 2, a message display stating that the Product Key was installed successfully. Click **OK** to proceed.

Figure 7: Windows Script Host

6. Press the **Win+R** keys to open **Run**, then type**: SLUI 4** and click on **OK.**

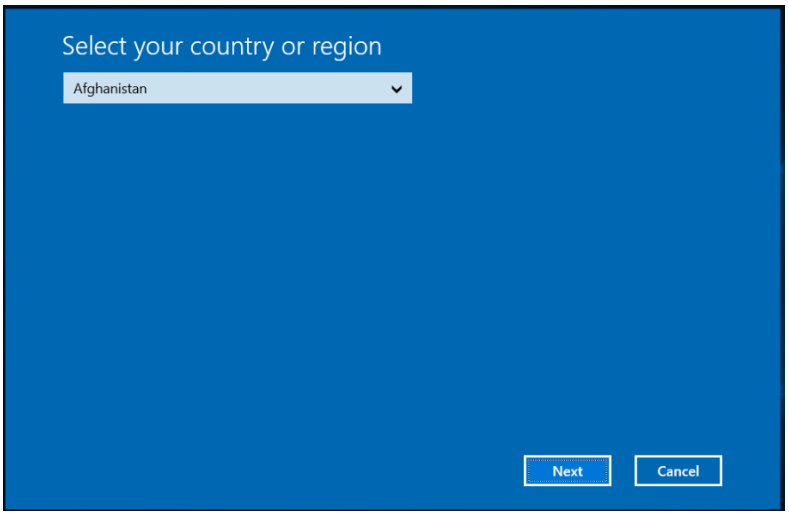
Figure 8: Run the SLUI 4 Command



Note: There is a space between SLUI and 4. The 4 option instructs SLUI to launch the telephone activation UI.

7. Select your country or region and click **Next**. It navigates to next page where we can see **Installation** ID.

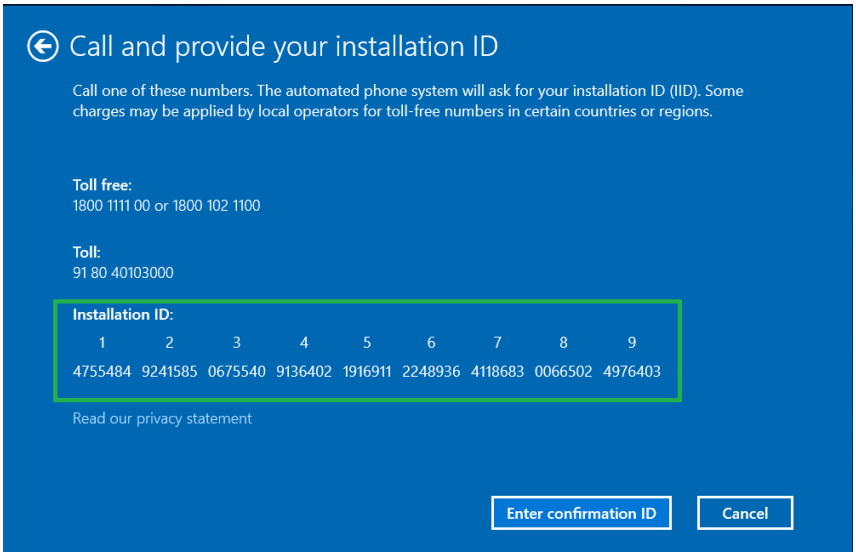
Figure 9: Select Country or Region



8. Call the Microsoft Product Activation Center. (The phone number is provided based on the selected region.) Proceed through the automated menu and answer a few questions about the Windows activation.

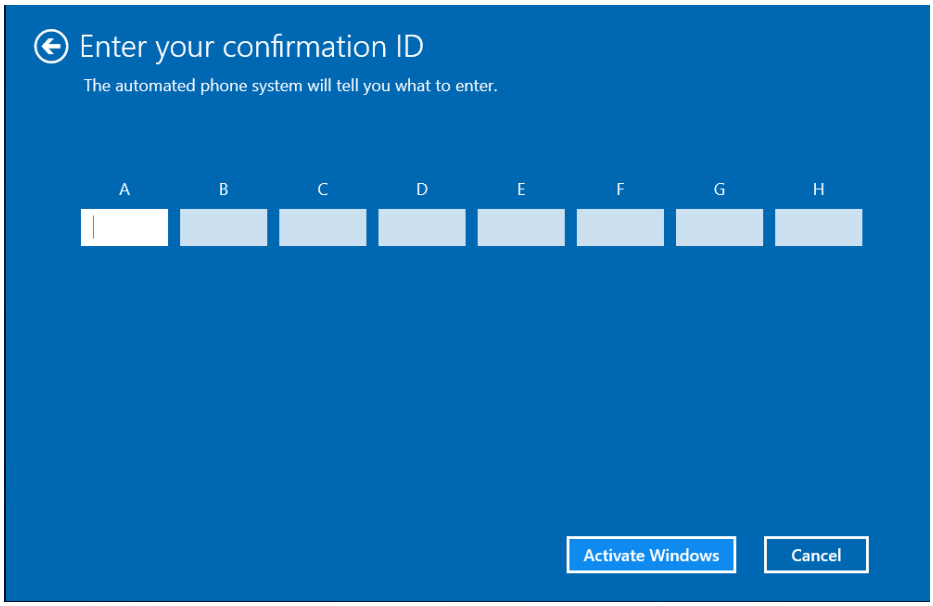
9. At the end of the automated menu, the user will need to confirm the 63-digit Installation ID number. Enter the Installation ID number as shown in Figure 10. The Installation ID number will be grouped into sets of nine (seven digits per set).

Figure 10: Technical Support



10. The phone activation system will provide the user with a 48-digit **Confirmation ID**. Enter the Confirmation ID as seen in (Figure 11).

Figure 11: Confirmation ID

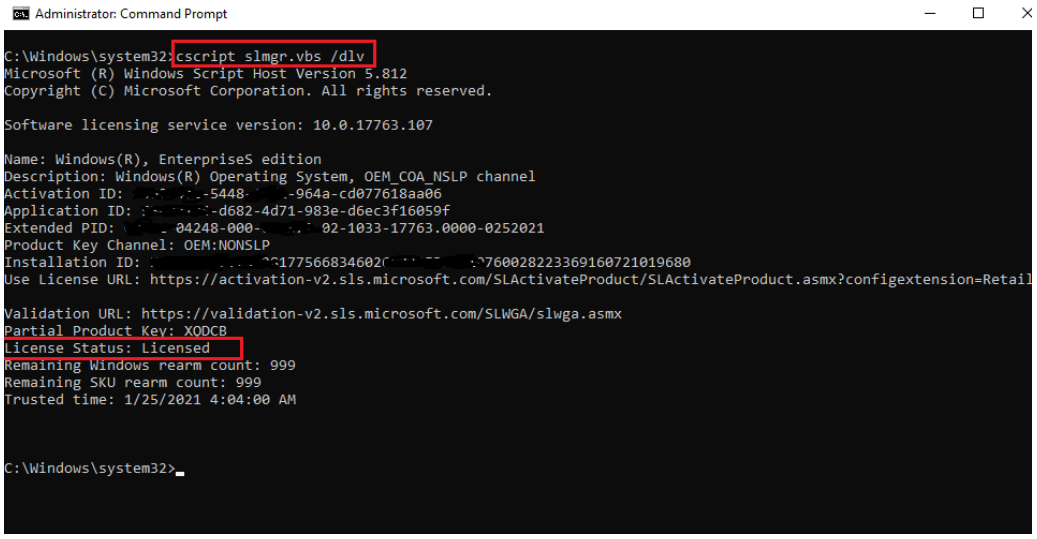


11. Once the Confirmation ID has been entered, click the **Activate Windows** button.

12. To verify the licensing status, open the command prompt as the Administrator on the device.

13. Navigate to the `<system drive >:\Windows\System32` folder, type **cscript slmgr.vbs /dlv**, and verify that the License Status now displays Licensed.
Example: `c:\Windows\System32>cscript slmgr.vbs /dlv`

Figure 12: Command Prompt



I/O and Connectors

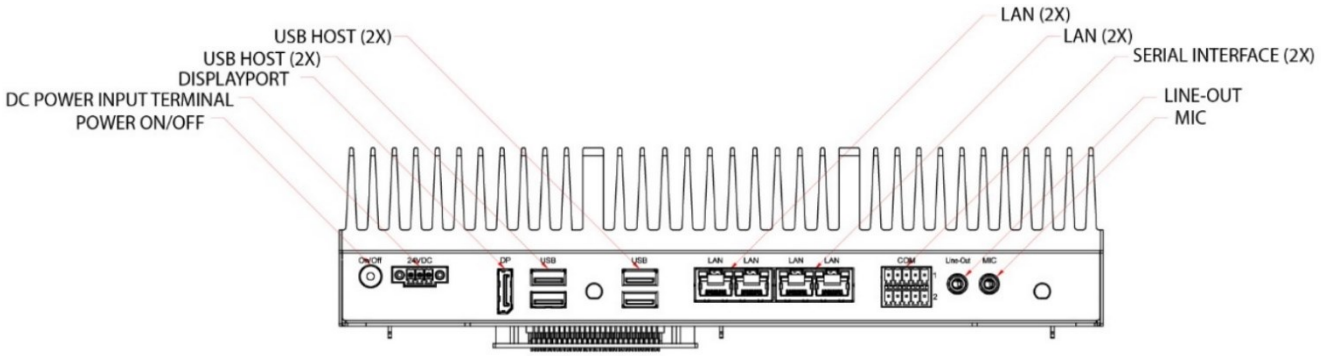
The rear panel I/O port arrangement consists of the following:

Base Model IO (IC758xxxxxxPC).

Figure 13: Rear Panel Arrangement

Ryzen Model IO (IC758xxxxxxPCX)

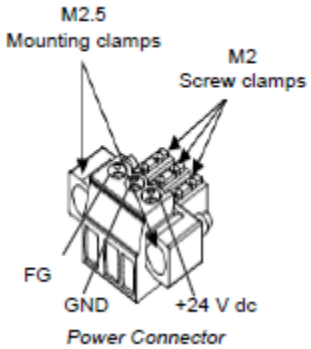
Figure 14: Rear Panel Arrangement



Connecting Input Power (24V DC-in)

To connect to power, follow these steps:

1. Verify that the power cable is not energized.
2. Loosen the screw clamps on the mating power connector.
3. Strip the insulation from the power cables.
4. Secure the power cable to the mating connector, noting polarity, and tighten the screw clamps. The torque for the attaching screws is 0.3 Nm (2.26 in-lb).
5. Apply dc power to the unit. During normal startup and operation, the LED status indicator displays as follows:
   - Solid amber while the RXi - Industrial Display unit is starting up
   - Solid green during normal operation
6. Once power is applied, the unit begins initializing. The first thing to display is the splash screen.
   Be sure to connect a DC power cord to this 3-pin power connector. Using a voltage out of the range may fail to boot the system or cause damage to the system board.



Power Connector

Graphics Interface

The display port consists of the following:

DP++ Port

The DP++ is a digital display interface used to connect a display device such as a computer monitor. It is used to transmit audio and video simultaneously. The interface, which is developed by VESA, delivers higher performance features than any other digital interface.

BIOS Setting

Configure the display device in the Chipset menu (“DISPLAY control” submenu) of the BIOS.

RJ45 LAN Ports

Features

2 Intel® I210IT PCI Express Gigabit Ethernet controllers

The LAN ports allow the system board to connect to a local area network through a network hub or router.

BIOS Setting

Configure the onboard LAN in the Advanced menu (“Wakeup Configuration” submenu) of the BIOS. Refer to chapter 3 for more information.

USB Ports

The USB ports allow for data exchange between your computer and a wide range of simultaneously accessible external Plug and Play peripherals.

The RXi – Panel PC is equipped with 2 onboard USB 3.0 ports (USB 0-1) in the small configuration with an additional 2 USB 2.0 ports (USB 4-5) in the large box configuration.

BIOS Setting

Configure the onboard USB in the Advanced menu (“Wakeup Configuration” submenu) of the BIOS. Refer to chapter 3 for more information.

Wake-On-USB Keyboard/Mouse

The Wake-On-USB Keyboard/Mouse function allows you to use a USB keyboard or USB mouse to wake up a system from the S3 (STR - Suspend To RAM) state.

Serial Ports (UART)

Serial Connection	Pin	Function
RS232	1	TXD
	2	RXD
	3	RTS
	4	CTS
	5	GND
RS485	6	TX+
	7	TX-
	8	RX+
	9	RX-
	10	GND

Audio

Rear Audio

The system board is equipped with 2 audio jacks (Line-out and Mic-in). A jack is a one-hole connecting interface for inserting a plug.

- Line-out Jack (Lime)

This jack is used to connect a headphone or external speakers.

- Mic-in Jack (Pink)

This jack is used to connect an external microphone.

BIOS Setting

Configure the onboard Audio device in the Chipset menu (“SB HD Azalia Configuration” submenu) of the BIOS.

I/O Connectors

Serial ATA (SATA) Connector

Features

- 1 Serial ATA 3.0 port with data transfer rate up to 6Gb/s
- Integrated Advanced Host Controller Interface (AHCI) controller

The Serial ATA connector is used to connect the Serial ATA device. Connect one end of the Serial ATA data connector to a SATA connector on the other end to your Serial ATA device.

BIOS Setting

Configure the Serial ATA drive in the Chipset menu (“SB SATA Configuration” submenu) of the BIOS. Refer to chapter 3 for more information.

Expansion Slots

Micro SD Socket

The micro SD socket allows you to install a micro SD card for the expansion of available storage.

LVDS LCD Panel Connector

The system board allows you to connect an LCD Display Panel with the LVDS LCD panel connector. This connector transmits video signals and power from the system board to the LCD Display Panel. Refer to the right side for the pin functions of the LVDS connector.

BIOS Setting

Configure the LCD panel in the Chipset menu (“DISPLAY control” submenu) of the BIOS. Refer to Chapter 3 for more information.

AIO/DIO Connector

AIO/DIO connector provides functionality to external devices that are connected to the connector. **(FOR FUTURE USE)**

Battery (Base Models)

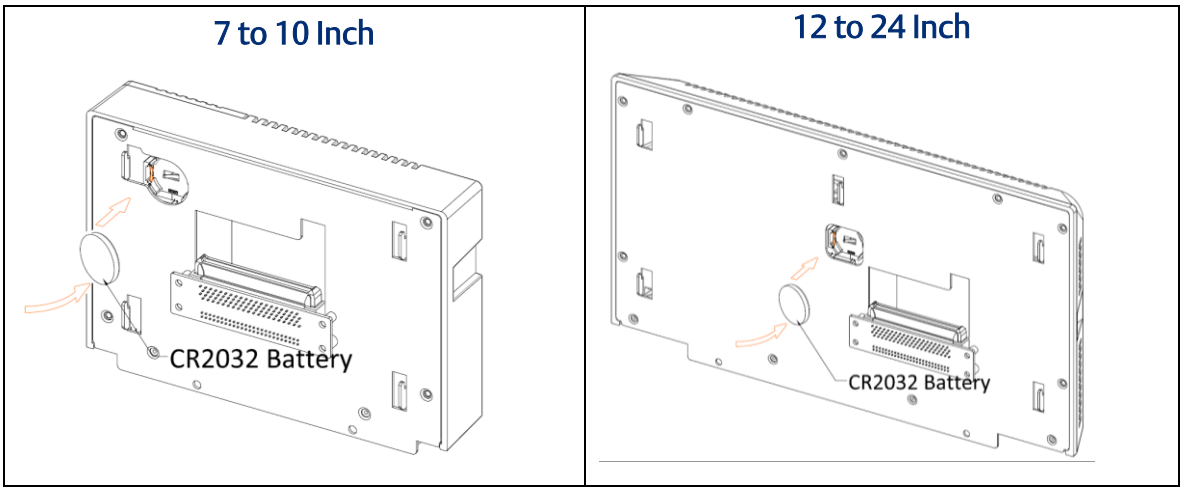
Base models are designated with a PC in their part number (IC758xxxxxxPC).

The lithium-ion battery powers the real-time clock and CMOS memory. It is an auxiliary source of power when the main power is shut off or disconnected. It is a standard CR2032 battery and is accessible on the bottom of the computing module when separated from the screen (as shown in Figure 15)

Safety Measures

- Danger of explosion if battery incorrectly replaced.
- Replace only with the same or equivalent type recommended by the manufacturer.
- Dispose of used batteries according to local ordinances.

Figure 15: CR2032 Battery



⚠ WARNING

Use of Another Battery May Present a Risk of Fire or Explosion.

Replace Battery with Panasonic Model CR2032 only.

⚠ CAUTION

Battery May Explode if Mistreated. Do not Recharge, Disassemble, or Dispose of In Fire.

Battery (Ryzen Models)

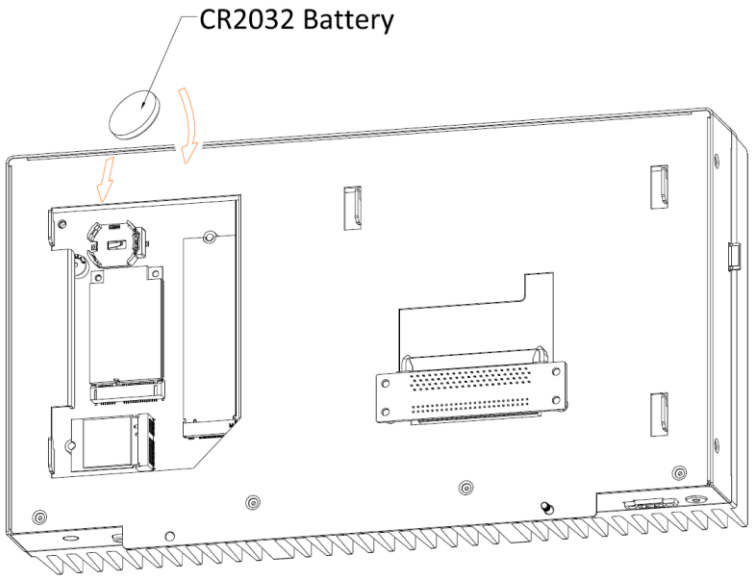
Ryzen models are designated with a PCX in their part number (IC758xxxxxxPCX).

The lithium-ion battery powers the real-time clock and CMOS memory. It is an auxiliary source of power when the main power is shut off or disconnected. It is a standard CR2032 battery and is accessible on the bottom of the computing module when separated from the screen (as shown in Figure 15)

Safety Measures

- Danger of explosion if battery incorrectly replaced.
- Replace only with the same or equivalent type recommended by the manufacturer.
- Dispose of used batteries according to local ordinances.

Figure 16: CR2032 Battery for Ryzen Models



⚠ WARNING

Use of Another Battery May Present a Risk Of Fire or Explosion.

Replace Battery With Tohoku Murata Manufacturing Co. LTD. Model CR2032 or CR2032W Only.

⚠ CAUTION

Battery May Explode if Mistreated. Do not Recharge, Disassemble, or Dispose of In Fire.

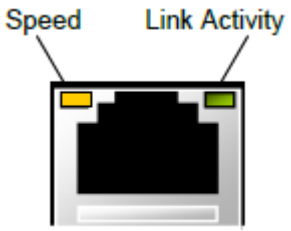
LED Indicators

Operation Status LEDs (Screen)

All RXi Industrial Displays have a tri-color LED built into the screen that provides visual indication of the operation status.

LED State	System State
Amber, Solid	Operating system starting
Green, Solid	Normal operating state
Green, Blinking	Backlight off
Red, Blinking	Backlight failure
Off	Power not applied to the unit

Ethernet Port Operation LEDs



LED	LED State	Operating State
Speed	Yellow, ON	10/100/1000
Link Activity	Green, ON	Link Status

Mounting Information

Panel Mount

The RXi Panel PC can be panel-mounted as presented in the section entitled *Mounting to Modular Display*.

A Type 4, Type 4X, or IP 66 rating is achieved when mounted to the flat surface of a sufficiently rated enclosure. Please follow the instructions in the section entitled *Installation Steps*.

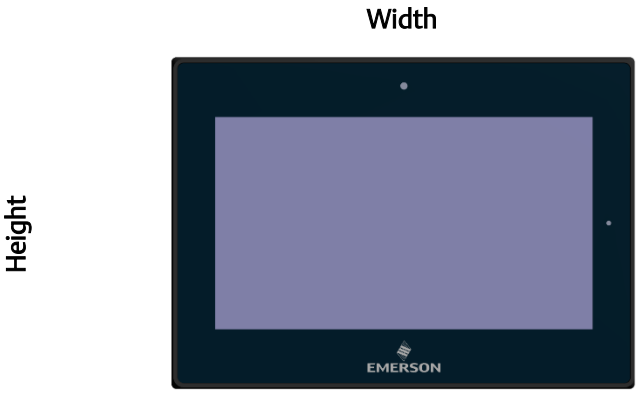
Panel Thickness: 16[1] to 7 gauge (1.6 to 5 mm)

Panel Thickness: 1.6 to 5mm

All measurements within ±0.5mm

Panel Cutout Dimensions

Figure 17: Panel Cutout Dimensions



Display Size (in)	Width (mm)	Height (mm)
7	183.5	128.5
10	255.5	174
12	317	214.5
15	398	245.5
19	482	297
24	581	360

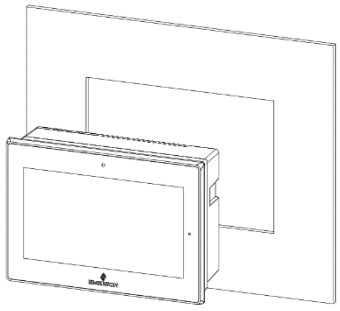
All panel cutout measurements should be within ±0.5 mm.
Values presented are width and height only.

[1] For IP66 installations of 12-inch displays (IC758CSW12SCREEN-A and IC758COW12SCREENSLR-A) use a 14 to 7 gauge (2 to 5 mm) thick panel.

Installation Steps

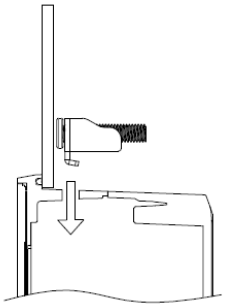
1. Verify that the gasket is present and properly seated in the bezel channel located on the sides of the unit.
2. Carefully insert the Panel PC into the mounting panel cutout.

Figure 18: Panel Install View



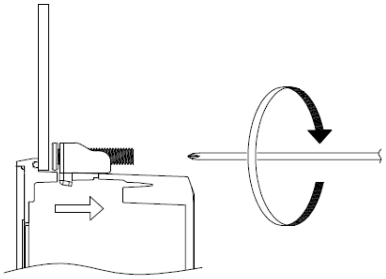
3. Insert the hook of the mounting bracket into the mounting hole as displayed in the following figure.

Figure 19: Mounting Bracket Insertion



4. Tighten all mounting brackets by hand until the gasket seal contacts the mounting surface uniformly.
5. In a cross pattern around the monitor tighten all mounting clip screws to a torque of 13 to 13.9 in-lbs. (15 to 16kgf-cm) making sure not to overtighten the bracket.

Figure 20: Tighten Mounting Bracket



Mounting to Modular Display

Figure 21: 7" Mount

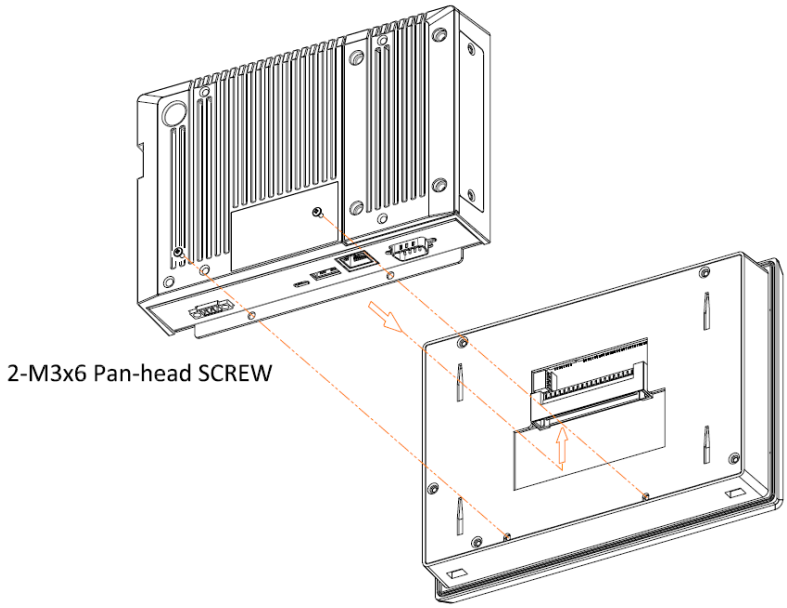


Figure 22: 10" mount

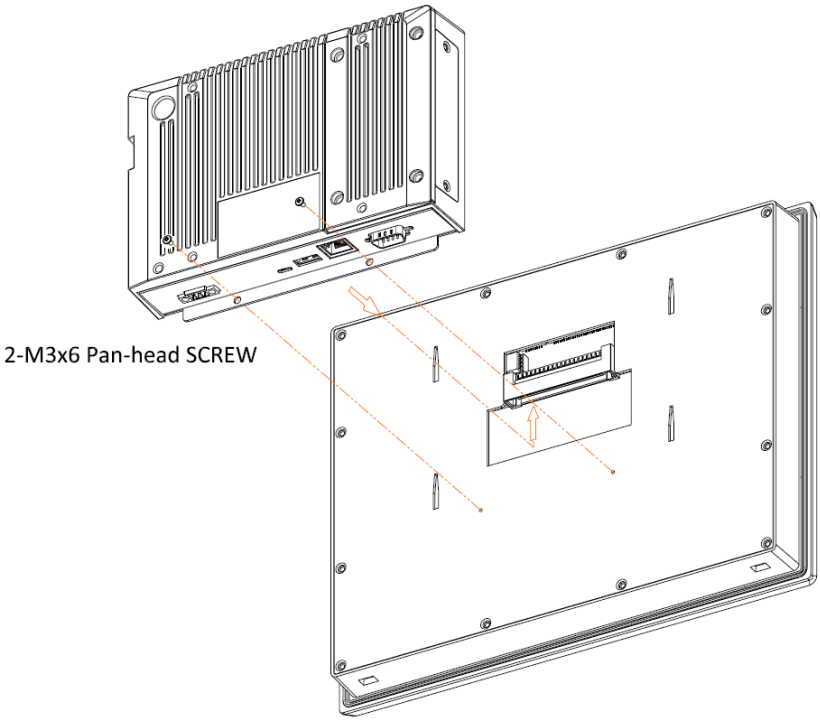


Figure 23: 12" Mount

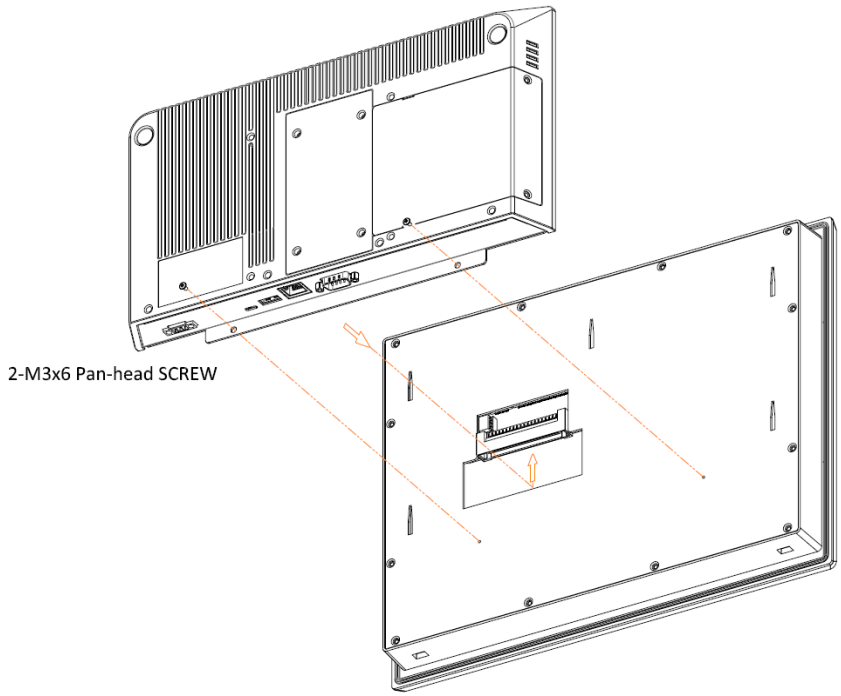


Figure 24: 15" Mount

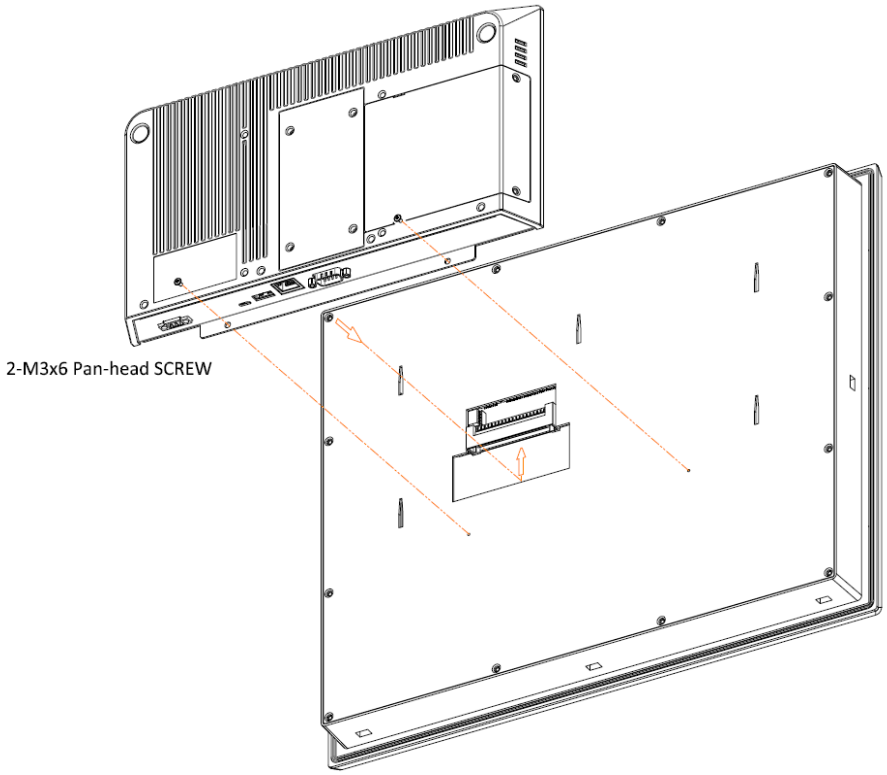


Figure 25: 19/24" Mount

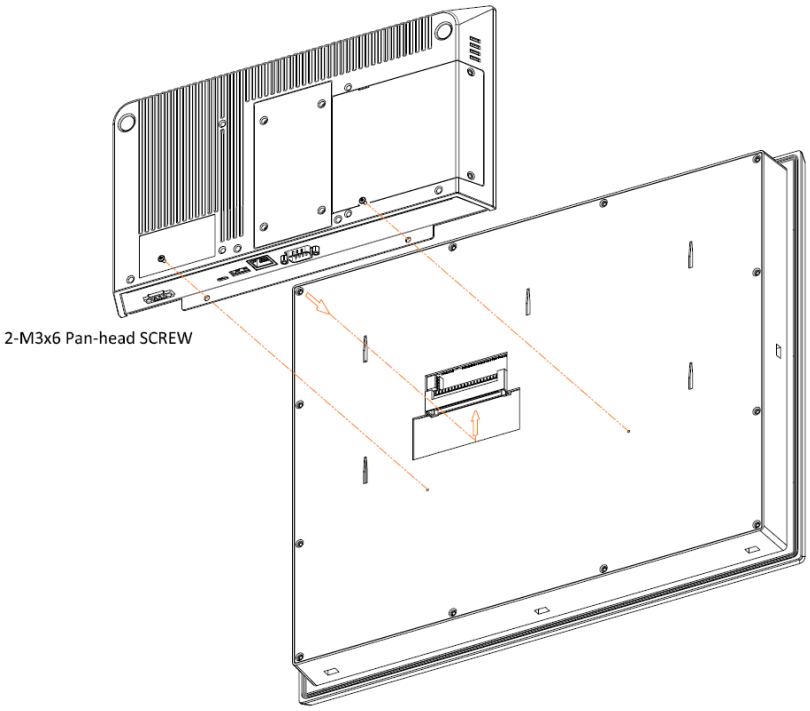
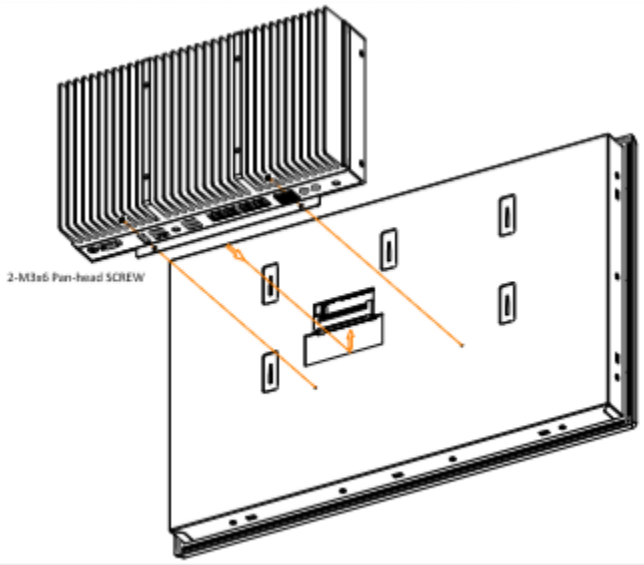


Figure 26: Panel PC with AMD Ryzen Mount



VESA Mount

VESA Mount Dimensions

The RXi Panel PC can also be VESA mounted as shown in the figures below. All 7” through 24” units include VESA Mount Dimensions of 100 mm x 100 mm.

All units are fastened with four M4x8 screws.

Figure 27: 7" VESA Mount

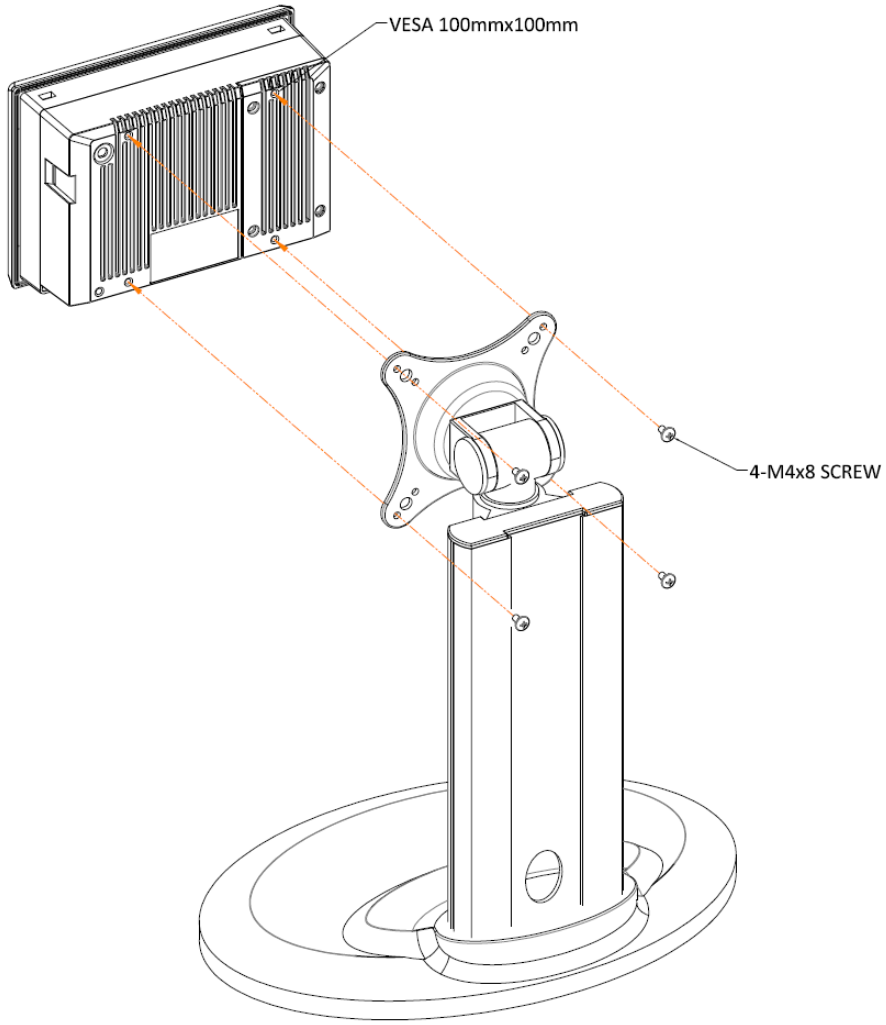


Figure 28: 10" VESA Mount

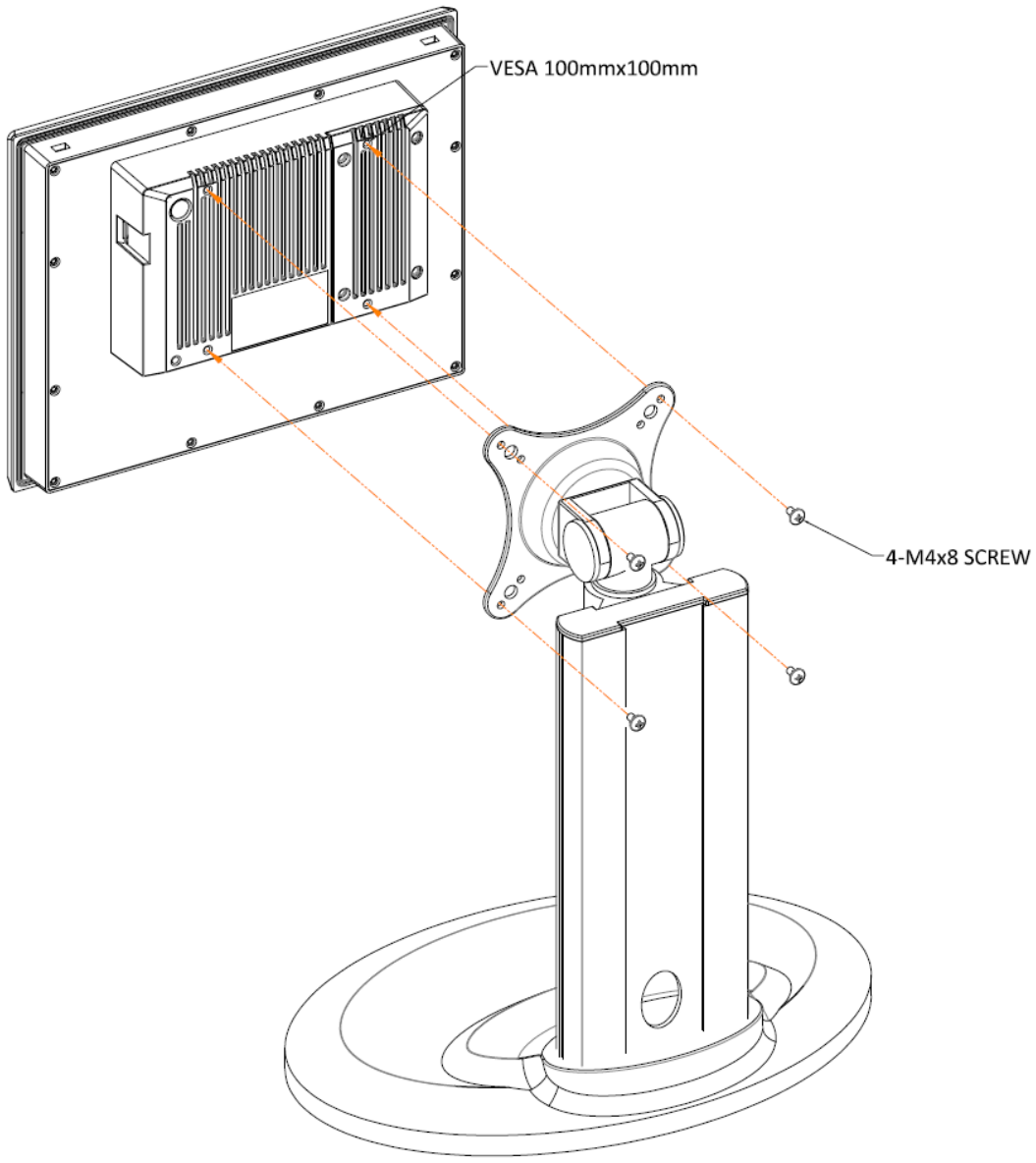


Figure 29: 12" VESA Mount

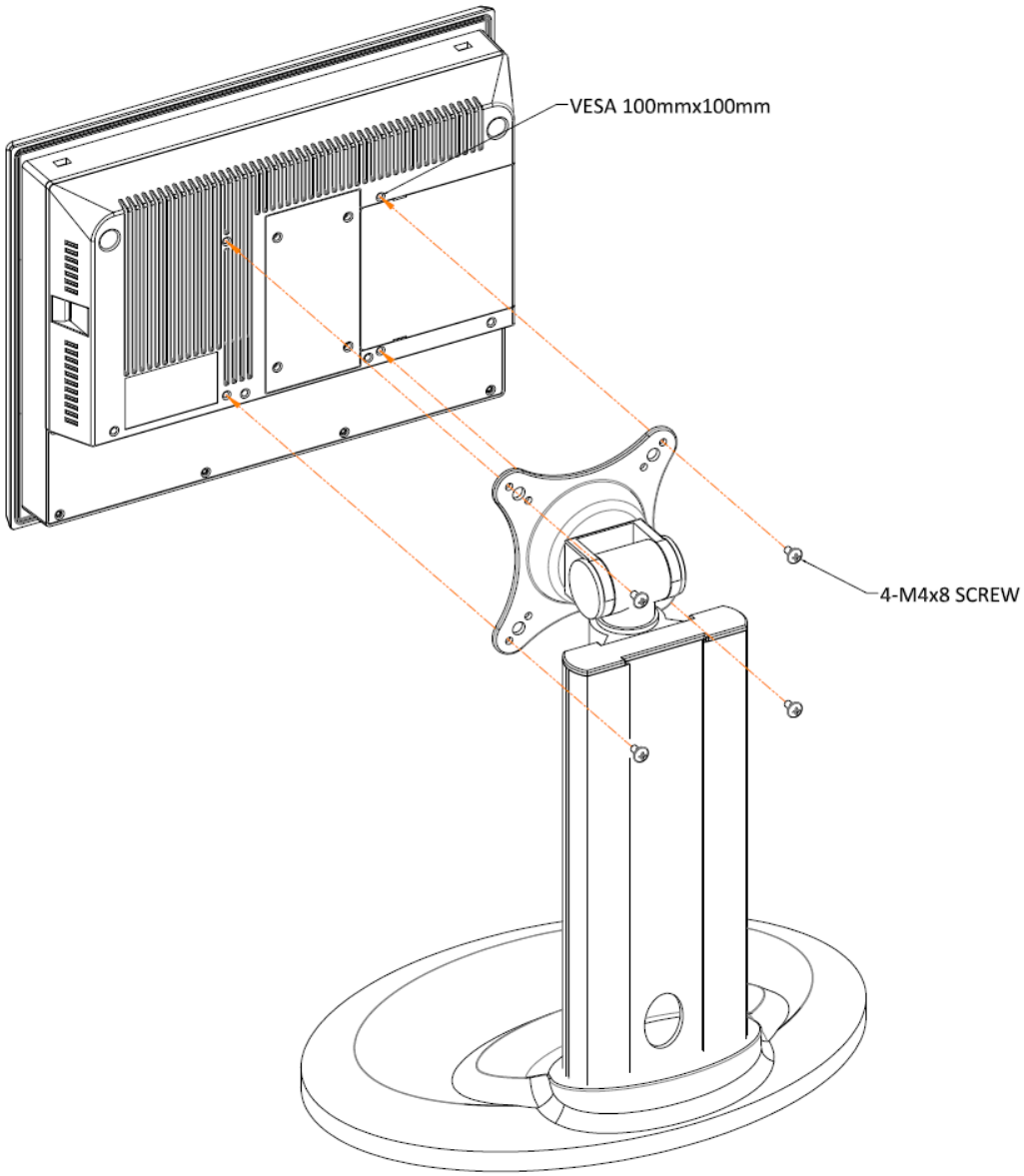


Figure 30: 15" VESA Mount

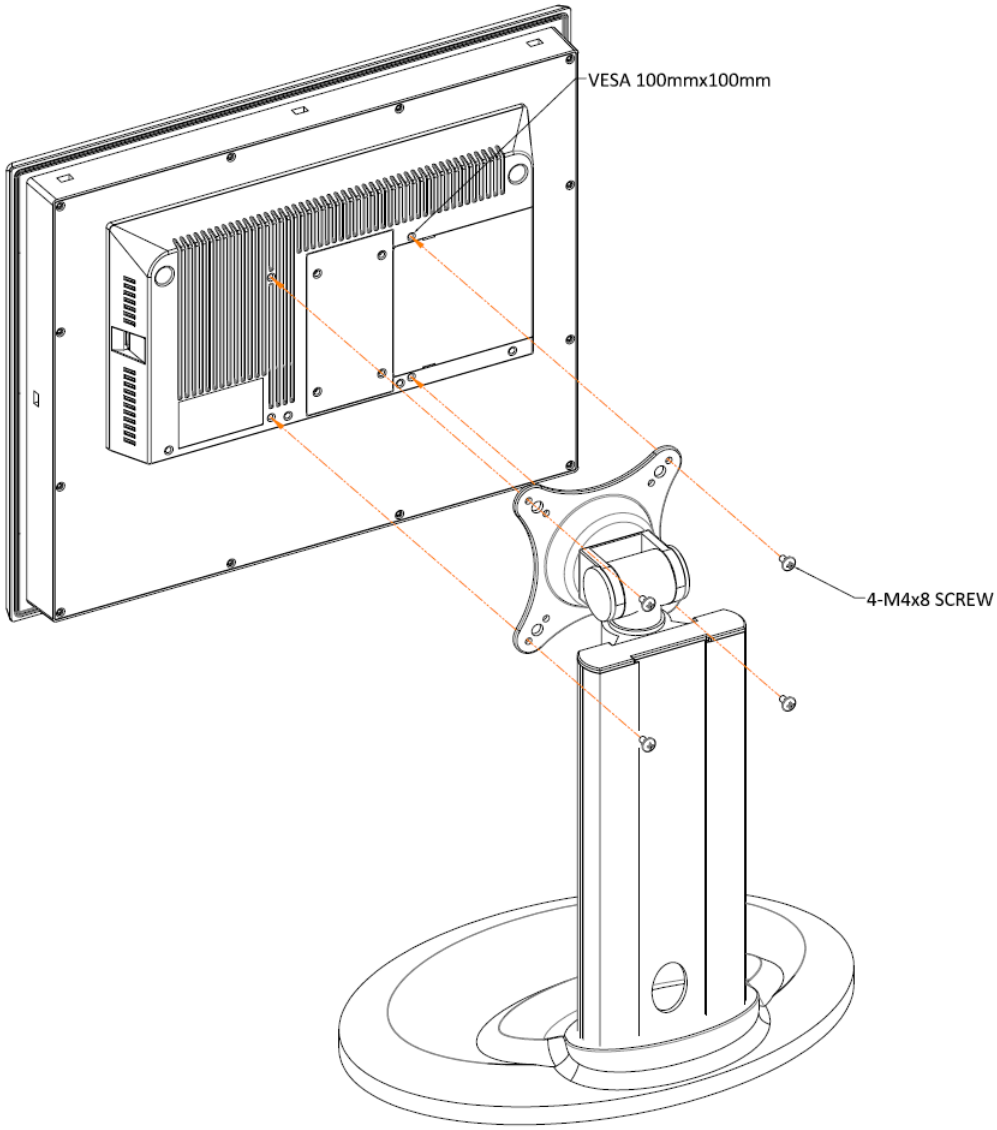


Figure 31: 19"/24" VESA Mount

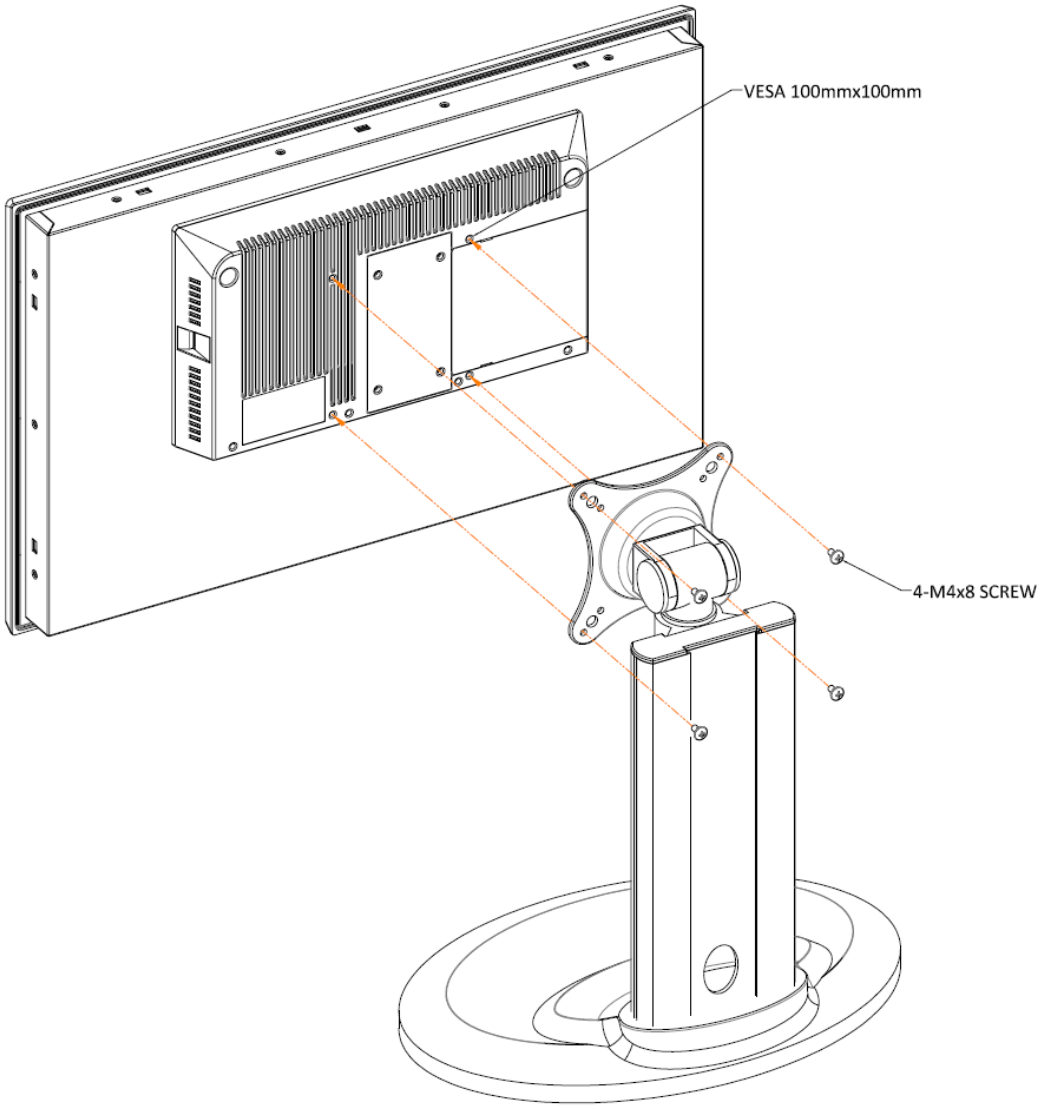
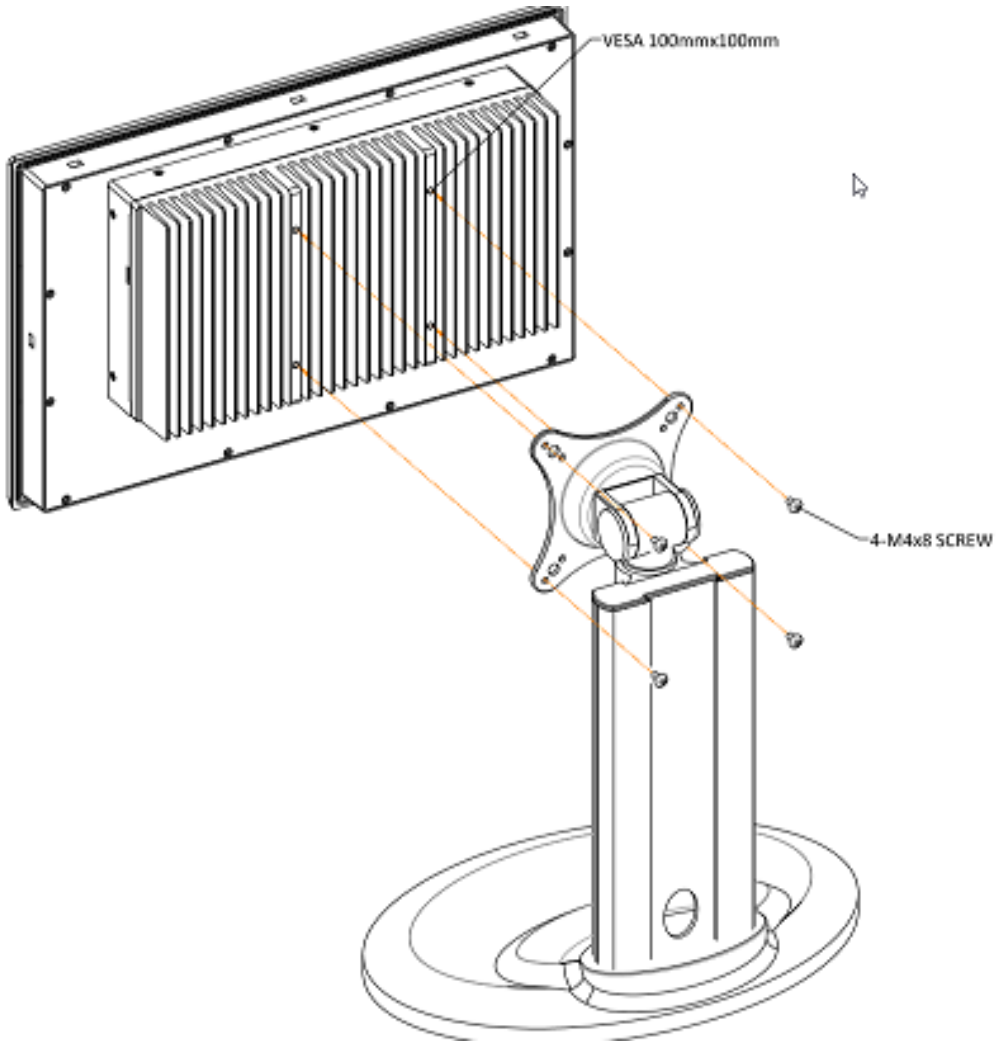


Figure 32: Panel PC with AMD Ryzen VESA Mount



Technical Support & Contact Information

Home link: http://www.emerson.com/industrial-automation-controls

Knowledge Base: https://www.emerson.com/industrial-automation-controls/support

Note: If the product is purchased through an Authorized Channel Partner, please contact the seller directly for any support.

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