USER'S MANUAL

VIO-200-MX100H Series

Industrial Touch Monitors



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Prefaces

Revision

Revision	Description	Date
1.0	Manual Released	2021/11/01

Disclaimer

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Environmental Protection Announcement

Do not dispose this electronic device into the trash while discarding. Please recycle to minimize pollution and ensure environment protection.



Safety Precautions

Before installing and using the equipment, please read the following precautions:

- Put this equipment on a reliable surface during installation. Dropping it or letting it fall could cause damage.
- The power outlet shall be installed near the equipment and shall be easily accessible.
- Turn off the system power and disconnect the power cord from its source before making any installation. Be sure both the system and the external devices are turned OFF. Sudden surge
- of power could ruin sensitive components. Make sure the equipment is properly grounded.
- When the power is connected, never open the equipment. The equipment should be opened only by qualified service personnel.
- Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
- Disconnect this equipment from the power before cleaning. Use a damp cloth. Do not use liquid or spray detergents for cleaning.
- Avoid the dusty, humidity and temperature extremes.
- Do not place heavy objects on the equipment.
- If the equipment is not used for long time, disconnect it from the power to avoid being damaged by transient over-voltage.
- The storage temperature shall be above -20°C and below 70°C.
- The computer is provided with a battery-powered real-time clock circuit. There is a danger of explosion if incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer.
- If one of the following situation arises, get the equipment checked be service personnel:
 - The power cord or plug is damaged.
 - Liquid has penetrated into the equipment.
 - The equipment has been exposed to moisture.
 - The equipment does not work well or it cannot work according the user's manual.
 - The equipment has been dropped and damaged.
 - The equipment has obvious signs of breakage.

Technical Support and Assistance

- Visit the Premio Inc website at <u>www.premioinc.com</u> where you can find the latest information about the product.
- 2. Contact your distributor, our technical support team or sales representative for technical support if you need additional assistance. Please have following information ready before you call:
 - Model name and serial number
 - Description of your peripheral attachments
 - Description of your software (operating system, version, application software, etc.)
 - A complete description of the problem
 - The exact wording of any error messages

Conventions Used in this Manual



This indication alerts operators to an operation that, if not strictly observed, may result in severe injury.



NOTE

This indication alerts operators to an operation that, if not strictly observed, may result in safety hazards to personnel or damage to equipment.



This indication provides additional information to complete a task easily.

Package Contents

Before installation, please ensure all the items listed in the following table are included in the package.

VIO-212-MX100H			VIO-2	215-MX100H	
ltem	Description	Q'ty	Item	Description	Q'ty
1	VIO-212-MX100H Series Touch Monitor	1	1	VIO-215-MX100H Series Touch Monitor	1
2	Panel Mount Kit	10	2	Panel Mount Kit	10
3	USB Cable	1	3	USB Cable	1
4	VGA Cable	1	4	VGA Cable	1
5	Screw Pack	1	5	Screw Pack	1
VIO-2	17-MX100H		VIO-2	219-MX100H	
Item	Description	Q'ty	Item	Description	Q'ty
1	VIO-217-MX100H Series Touch Monitor	1	1	VIO-219-MX100H Series Touch Monitor	1
2	Panel Mount Kit	10	2	Panel Mount Kit	14
3	USB Cable	1	3	USB Cable	1
4	VGA Cable	1	4	VGA Cable	1
5	Screw Pack	1	5	Screw Pack	1
VIO-V	V215-MX100H		VIO-V	W221-MX100H	
VIO-V	V215-MX100H Description	Q'ty	VIO-V Item	N221-MX100H Description	Q'ty
VIO-V Item 1	V215-MX100H Description VIO-W215-MX100H Series Touch Monitor	Q'ty 1	VIO-V Item 1	V221-MX100H Description VIO-W221-MX100H Series Touch Monitor	Q'ty 1
VIO-V Item 1 2	V215-MX100H Description VIO-W215-MX100H Series Touch Monitor Panel Mount Kit	Q'ty 1 8	VIO-V Item 1 2	V221-MX100H Description VIO-W221-MX100H Series Touch Monitor Panel Mount Kit	Q'ty 1 12
VIO-V Item 1 2 3	V215-MX100H Description VIO-W215-MX100H Series Touch Monitor Panel Mount Kit USB Cable	Q'ty 1 8 1	VIO-V Item 1 2 3	V221-MX100H Description VIO-W221-MX100H Series Touch Monitor Panel Mount Kit USB Cable	Q'ty 1 12 1
VIO-V Item 1 2 3 4	V215-MX100H Description VIO-W215-MX100H Series Touch Monitor Panel Mount Kit USB Cable VGA Cable	Q'ty 1 8 1 1	VIO-V Item 1 2 3 4	V221-MX100H Description VIO-W221-MX100H Series Touch Monitor Panel Mount Kit USB Cable VGA Cable	Q'ty 1 12 1 1 1
VIO-V Item 1 2 3 4 5	V215-MX100H Description VIO-W215-MX100H Series Touch Monitor Panel Mount Kit USB Cable VGA Cable Screw Pack	Q'ty 1 8 1 1 1 1	VIO-V Item 1 2 3 4 5	V221-MX100H Description VIO-W221-MX100H Series Touch Monitor Panel Mount Kit USB Cable VGA Cable Screw Pack	Q'ty 1 12 1 1 1 1 1
VIO-V Item 1 2 3 4 5	V215-MX100H Description VIO-W215-MX100H Series Touch Monitor Panel Mount Kit USB Cable VGA Cable Screw Pack	Q'ty 1 8 1 1 1 1	VIO-V Item 1 2 3 4 5	V221-MX100H Description VIO-W221-MX100H Series Touch Monitor Panel Mount Kit USB Cable VGA Cable Screw Pack	Q'ty 1 12 1 1 1 1
VIO-V Item 1 2 3 4 5 VIO-V Item	V215-MX100H Description VIO-W215-MX100H Series Touch Monitor Panel Mount Kit USB Cable VGA Cable Screw Pack V224-MX100H Description	Q'ty 1 8 1 1 1 1 2 2 4	VIO-V Item 1 2 3 4 5	V221-MX100H Description VIO-W221-MX100H Series Touch Monitor Panel Mount Kit USB Cable VGA Cable Screw Pack	Q'ty 1 12 1 1 1 1
VIO-V Item 1 2 3 4 5 VIO-V Item 1	V215-MX100H Description VIO-W215-MX100H Series Touch Monitor Panel Mount Kit USB Cable VGA Cable Screw Pack V224-MX100H Description VIO-W224-MX100H Series Touch Monitor	Q'ty 1 8 1 1 1 1 Q'ty Q'ty 1	VIO-V Item 1 2 3 4 5	V221-MX100H Description VIO-W221-MX100H Series Touch Monitor Panel Mount Kit USB Cable VGA Cable Screw Pack	Q'ty 1 12 1 1 1
VIO-V Item 1 2 3 4 5 VIO-V Item 1 2	V215-MX100H Description VIO-W215-MX100H Series Touch Monitor Panel Mount Kit USB Cable VGA Cable Screw Pack V224-MX100H Description VIO-W224-MX100H Series Touch Monitor Panel Mount Kit	Q'ty 1 8 1 1 1 1 Q'ty 1 1	VIO-V Item 1 2 3 4 5	V221-MX100H Description VIO-W221-MX100H Series Touch Monitor Panel Mount Kit USB Cable VGA Cable Screw Pack	Q'ty 1 12 1 1 1
VIO-V Item 1 2 3 4 5 VIO-V Item 1 1 2 3	V215-MX100H Description VIO-W215-MX100H Series Touch Monitor Panel Mount Kit USB Cable VGA Cable Screw Pack V224-MX100H Description VIO-W224-MX100H Series Touch Monitor Panel Mount Kit USB Cable	Q'ty 1 8 1 1 1 1 0 () 0 () 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	VIO-V Item 1 2 3 4 5	V221-MX100H Description VIO-W221-MX100H Series Touch Monitor Panel Mount Kit USB Cable VGA Cable Screw Pack	Q'ty 1 12 1 1 1
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VIO-V Item 1 2 3 4 5 VIO-V Item 1 2 3	V215-MX100H Description VIO-W215-MX100H Series Touch Monitor Panel Mount Kit USB Cable VGA Cable Screw Pack V224-MX100H Description VIO-W224-MX100H Series Touch Monitor Panel Mount Kit USB Cable	Q'ty 1 8 1 1 1 1 0 Q'ty 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	VIO-V Item 1 2 3 4 5	V221-MX100H Description VIO-W221-MX100H Series Touch Monitor Panel Mount Kit USB Cable VGA Cable Screw Pack	Q'ty 1 12 1 1

Ordering Information

Model No.	Product Description
VIO-212R-MX100H	12.1" XGA Resistive Touch Thin Frame Monitor with 2x 5W Speaker
VIO-212C-MX100H	12.1" XGA Capacitive Touch Thin Frame Monitor with 2x 5W Speaker
VIO-215R-MX100H	15" XGA Resistive Touch Thin Frame Monitor with 2x 10W Speaker
VIO-215C-MX100H	15" XGA Capacitive Touch Thin Frame Monitor with 2x 10W Speaker
VIO-W215R-MX100H	15.6" 16:9 FHD Resistive Touch Thin Frame Monitor with 2x 10W Speaker
VIO-W215C-MX100H	15.6" 16:9 FHD Capacitive Touch Thin Frame Monitor with 2x 10W Speaker
VIO-217R-MX100H	17" SXGA Resistive Touch Thin Frame Monitor with 2x 10W Speaker
VIO-217C-MX100H	17" SXGA Capacitive Touch Thin Frame Monitor with 2x 10W Speaker
VIO-219R-MX100H	19" SXGA Resistive Touch Thin Frame Monitor with 2x 10W Speaker
VIO-219C-MX100H	19" SXGA Capacitive Touch Thin Frame Monitor with 2x 10W Speaker
VIO-W221R-MX100H	21.5" 16:9 FHD Resistive Touch Thin Frame Monitor with 2x 10W Speaker
VIO-W221C-MX100H	21.5 " 16:9 FHD Capacitive Touch Thin Frame Monitor with 2x 10W Speaker
VIO-W224R-MX100H	23.8" 16:9 FHD Resistive Touch Thin Frame Monitor with 2x 10W Speaker
VIO-W224C-MX100H	23.8 " 16:9 FHD Capacitive Touch Thin Frame Monitor with 2x 10W Speaker

Optional Accessories

Model No.	Product Description
1-E09A06007	Adapter AC/DC 12V 5A 60W with 3pin Terminal Block Plug 5.0mm Pitch
SFICBL022	Power Cord, 3-pin US Type, 180cm
1-TPCD00002	Power Cord, European Type, 180cm
1-TPCD00001	Power Cord, 3-pin UK Type, 180cm

Chapter 1

Product Introductions

1.1 Overview

The VIO-200-MX100H series touch monitor provide a wide selection of display sizes are available from 12.1" to 23.8" with a format aspect of 4:3 and 16:9, and selected touch type. Featuring with flat surface, IP 65 dust/waterproof front panel, and aluminum die-casting front frame with rugged body structure, it is rugged and reliable for industrial environment. It also supports Multi-Mode Display Module (MDM) technology which allows to configure, upgrade and maintain easily.

The VIO-200-MX100H series supports both digital and analog signal input via three types of display interface: VGA, HDMI and DisplayPort. Touch screen can be connected with USB or COM port. It also has multi-language OSD function for adjusting the view options of display. In addition, supporting wide range power input from 9 to 48VDC and high reliability even operating in temperature extremes.

Featuring with completely cable-less designed and high functional, VIO-200-MX100H series are ruggedized display systems that can operate in harsh environments and easy to install and maintain. A build in over voltage protection (OVP), over current protection and reverse protection DC power input makes VIO-200-MX100H series are safety system for all industrial applications.



1.1.1 VIO-212-MX100H

Key Features

- 12.1" TFT XGA 4:3 LCD with Resistive 5-wire / Projected Capacitive Touch
- 1x VGA, 1x HDMI, 1x DisplayPort, 1x USB 2.0, 1x COM, 1x Audio
- 9 to 48VDC wide range power input •
- -10°C to 60°C extended operating temperature ٠
- Designed with Aluminum Die-Casting Front Frame
- **IP65** Compliant Front Panel •
- Two 5W Internal Speakers Built-in ٠
- Multi-language OSD built-in



Display

- LCD Size: 12.1" (4:3)
- Max. Resolution: 1024 x 768 (XGA)
- Brightness (cd/m²): 500 / 1000 (Optional)
- Contrast Ratio: 700 : 1
- LCD Color: 16.2M •
- Pixel Pitch (mm): 0.24 (H) x 0.24 (V)
- Viewing Angle (H-V): 160 / 160
- Backlight MTBF: 50000 hrs (LED Backlight)

Touch

- Resistive 5-Wire: VIO-212R-MX100H Only •
- Projected Capacitive: VIO-212C-MX100H Only

I/O

- VGA : 1x VGA Input
- HDMI : 1x HDMI Input
- DisplayPort : 1x DisplayPort Input
- USB 2.0 : 1x USB 2.0 Input
- COM Port : 1x COM Port Input
- Audio : 1x Audio Input

Other Features

- Internal Speaker: AMP 5W + 5W
- OSD:
 - LCD On/Off, Auto, Menu, Up and Down
 - Multi-language

- Power Supply Voltage: 9-48VDC
- Power Connector: 3-pin Terminal Block
- Power Adaptor: Optional AC/DC 12V/5A, 60W
- **Power Protection**
 - OVP (Over Voltage Protection)
 - **OCP** (Over Current Protection)
 - **Reverse Protection**

Environment

- Operating Temp.: -10°C to 60°C
- Storage Temp.: -20°C to 70°C
- Relative Humidity: 10%~95% (non-condensing)
- IP Level: IP 65 Compliant Front Panel
- Standards / Certification: CE, FCC Class A

- Front Panel Construction: Die-cast Flat Surface
- Dimension: 319 (W) x 257 (D) x 61.7 (H)mm
- Weight: 4.14 kg ~ 4.2 kg
- Mounting: VESA Mounting Holes 75 x 75mm, 100 x 100mm





1.1.2 VIO-215-MX100H

Key Features

- 15" TFT XGA 4:3 LCD with Resistive 5-wire / Projected Capacitive Touch
- 1x VGA, 1x HDMI, 1x DisplayPort, 1x USB 2.0, 1x COM, 1x Audio
- 9 to 48VDC wide range power input
- -10°C to 60°C extended operating temperature
- · Designed with Aluminum Die-Casting Front Frame
- IP65 Compliant Front Panel
- Two 10W Internal Speakers Built-in
- Multi-language OSD built-in



Display

- LCD Size: 15" (4:3)
- Max. Resolution: 1024 x 768 (XGA)
- Brightness (cd/m²): 350 / 1000 (Optional)
- Contrast Ratio: 700 : 1
- LCD Color: 16.2M
- Pixel Pitch (mm): 0.297 (H) x 0.297 (V)
- Viewing Angle (H-V): 170 / 160
- Backlight MTBF: 50000 hrs (LED Backlight)

Touch

- Resistive 5-Wire: VIO-215R-MX100H Only
- Projected Capacitive: VIO-215C-MX100H Only

I/O

- VGA : 1x VGA Input
- HDMI : 1x HDMI Input
- DisplayPort : 1x DisplayPort Input
- USB 2.0 : 1x USB 2.0 Input
- COM Port : 1x COM Port Input
- Audio : 1x Audio Input

Other Features

- Internal Speaker: AMP 10W + 10W
- OSD:
 - LCD On/Off, Auto, Menu, Up and Down
 - Multi-language

- Power Supply Voltage: 9-48VDC
- Power Connector: 3-pin Terminal Block
- Power Adaptor: Optional AC/DC 12V/5A, 60W
- Power Protection
 - OVP (Over Voltage Protection)
 - OCP (Over Current Protection)
 - Reverse Protection

Environment

- Operating Temp.: -10°C to 60°C
- Storage Temp.: -20°C to 65°C
- Relative Humidity: 10%~95% (non-condensing)
- IP Level: IP 65 Compliant Front Panel
- Standards / Certification: CE, FCC Class A

- Front Panel Construction: Die-cast Flat Surface
- Dimension: 377 (W) x 301 (D) x 64.7 (H)mm
- Weight: 5.33 kg ~ 5.43 kg
- Mounting: VESA Mounting Holes 75 x 75mm, 100 x 100mm



1.1.3 VIO-W215-MX100H

Key Features

- 15.6" Full HD 16:9 LCD with Resistive 5-wire / Projected Capacitive Touch
- 1x VGA, 1x HDMI, 1x DisplayPort, 1x USB 2.0, 1x COM, 1x Audio
- 9 to 48VDC wide range power input
- -10°C to 60°C extended operating temperature
- Designed with Aluminum Die-Casting Front Frame
- IP65 Compliant Front Panel
- Two 10W Internal Speakers Built-in
- Multi-language OSD built-in



Display

- LCD Size: 15.6" (16:9)
- Max. Resolution: 1920 x 1080 (Full HD)
- Brightness (cd/m²): 400 / 1000 (Optional)
- Contrast Ratio: 700 : 1
- LCD Color: 16.7M
- Pixel Pitch (mm): 0.17925 (H) x 0.17925 (V)
- Viewing Angle (H-V): 160 / 140
- Backlight MTBF: 50000 hrs (LED Backlight)

Touch

- Resistive 5-Wire: VIO-W215R-MX100H Only
- Projected Capacitive: VIO-W215C-MX100H Only

I/O

- VGA : 1x VGA Input
- HDMI : 1x HDMI Input
- DisplayPort : 1x DisplayPort Input
- USB 2.0 : 1x USB 2.0 Input
- COM Port : 1x COM Port Input
- Audio : 1x Audio Input

Other Features

- Internal Speaker: AMP 10W + 10W
- OSD:
 - LCD On/Off, Auto, Menu, Up and Down
 - Multi-language

- Power Supply Voltage: 9-48VDC
- Power Connector: 3-pin Terminal Block
- Power Adaptor: Optional AC/DC 12V/5A, 60W
- Power Protection
 - OVP (Over Voltage Protection)
 - OCP (Over Current Protection)
 - Reverse Protection

Environment

- Operating Temp.: -10°C to 60°C
- Storage Temp.: -20°C to 70°C
- Relative Humidity: 10%~95% (non-condensing)
- IP Level: IP 65 Compliant Front Panel
- Standards / Certification: CE, FCC Class A

- Front Panel Construction: Die-cast Flat Surface
- Dimension: 398 (W) x 247 (D) x 70.7 (H)mm
- Weight: 4.99 kg ~ 5.11 kg
- Mounting: VESA Mounting Holes 75 x 75mm, 100 x 100mm



1.1.4 VIO-217-MX100H

Key Features

- 17" TFT SXGA 4:3 LCD with Resistive 5-wire / Projected Capacitive Touch
- 1x VGA, 1x HDMI, 1x DisplayPort, 1x USB 2.0, 1x COM, 1x Audio
- 9 to 48VDC wide range power input
- -10°C to 60°C extended operating temperature
- Designed with Aluminum Die-Casting Front Frame
- IP65 Compliant Front Panel
- Two 10W Internal Speakers Built-in
- Multi-language OSD built-in

Hardware Specification

Display

- LCD Size: 17" (4:3)
- Max. Resolution: 1280 x 1024 (SXGA)
- Brightness (cd/m²): 350 / 1000 (Optional)
- Contrast Ratio: 800 : 1
- LCD Color: 16.7M
- Pixel Pitch (mm): 0.264 (H) x 0.264 (V)
- Viewing Angle (H-V): 170 / 160
- Backlight MTBF: 50000 hrs (LED Backlight)

Touch

- Resistive 5-Wire: VIO-217R-MX100H Only
- Projected Capacitive: VIO-217C-MX100H Only

I/O

- VGA : 1x VGA Input
- HDMI : 1x HDMI Input
- DisplayPort : 1x DisplayPort Input
- USB 2.0 : 1x USB 2.0 Input
- COM Port : 1x COM Port Input
- Audio : 1x Audio Input

Other Features

- Internal Speaker: AMP 10W + 10W
- OSD:
 - LCD On/Off, Auto, Menu, Up and Down
 - Multi-language

- Power Supply Voltage: 9-48VDC
- Power Connector: 3-pin Terminal Block
- Power Adaptor: Optional AC/DC 12V/5A, 60W
- Power Protection
 - OVP (Over Voltage Protection)
 - OCP (Over Current Protection)
 - Reverse Protection

Environment

- Operating Temp.: -10°C to 60°C
- Storage Temp.: -20°C to 70°C
- Relative Humidity: 10%~95% (non-condensing)
- IP Level: IP 65 Compliant Front Panel
- Standards / Certification: CE, FCC Class A

- Front Panel Construction: Die-cast Flat Surface
- Dimension: 407.5 (W) x 339 (D) x 70.5 (H)mm
- Weight: 6.3 kg ~ 6.38 kg
- Mounting: VESA Mounting Holes 75 x 75mm, 100 x 100mm



1.1.5 VIO-219-MX100H

Key Features

- 19" TFT SXGA 4:3 LCD with Resistive 5-wire / Projected Capacitive Touch
- 1x VGA, 1x HDMI, 1x DisplayPort, 1x USB 2.0, 1x COM, 1x Audio
- 9 to 48VDC wide range power input
- -10°C to 50°C extended operating temperature
- Designed with Aluminum Die-Casting Front Frame
- IP65 Compliant Front Panel
- Two 10W Internal Speakers Built-in
- Multi-language OSD built-in

Hardware Specification

Display

- LCD Size: 19" (4:3)
- Max. Resolution: 1280 x 1024 (SXGA)
- Brightness (cd/m²): 350 / 1000 (Optional)
- Contrast Ratio: 800 : 1
- LCD Color: 16.7M
- Pixel Pitch (mm): 0.264 (H) x 0.264 (V)
- Viewing Angle (H-V): 170 / 160
- Backlight MTBF: 50000 hrs (LED Backlight)

Touch

- Resistive 5-Wire: VIO-219R-MX100H Only
- Projected Capacitive: VIO-219C-MX100H Only

I/O

- VGA : 1x VGA Input
- HDMI : 1x HDMI Input
- DisplayPort : 1x DisplayPort Input
- USB 2.0 : 1x USB 2.0 Input
- COM Port : 1x COM Port Input
- Audio : 1x Audio Input

Other Features

- Internal Speaker: AMP 10W + 10W
- OSD:
 - LCD On/Off, Auto, Menu, Up and Down
 - Multi-language

- Power Supply Voltage: 9-48VDC
- Power Connector: 3-pin Terminal Block
- Power Adaptor: Optional AC/DC 12V/5A, 60W
- Power Protection
 - OVP (Over Voltage Protection)
 - OCP (Over Current Protection)
 - Reverse Protection

Environment

- Operating Temp.: -10°C to 50°C
- Storage Temp.: -20°C to 60°C
- Relative Humidity: 10%~95% (non-condensing)
- IP Level: IP 65 Compliant Front Panel
- Standards / Certification: CE, FCC Class A

- Front Panel Construction: Die-cast Flat Surface
- Dimension: 450 (W) x 375 (D) x 71 (H)mm
- Weight: 7.38 kg ~ 7.51 kg
- Mounting: VESA Mounting Holes 75 x 75mm, 100 x 100mm



1.1.6 VIO-W221-MX100H

Key Features

- 21.5" TFT FHD 16:9 LCD with Resistive 5-wire / Projected Capacitive Touch
- 1x VGA, 1x HDMI, 1x DisplayPort, 1x USB 2.0, 1x COM, 1x Audio
- 9 to 48VDC wide range power input
- -10°C to 60°C extended operating temperature
- Designed with Aluminum Die-Casting Front Frame
- IP65 Compliant Front Panel
- Two 10W Internal Speakers Built-in
- Multi-language OSD built-in



Hardware Specification

Display

- LCD Size: 21.5" (16:9)
- Max. Resolution: 1920 x 1080 (Full HD)
- Brightness (cd/m²): 300 / 1000 (Optional)
- Contrast Ratio: 5000 : 1
- LCD Color: 16.7M
- Pixel Pitch (mm): 0.248 (H) x 0.248 (V)
- Viewing Angle (H-V): 178 / 178
- Backlight MTBF: 50000 hrs (LED Backlight)

Touch

- Resistive 5-Wire: VIO-W221R-MX100H Only
- Projected Capacitive: VIO-W221C-MX100H Only

I/O

- VGA : 1x VGA Input
- HDMI : 1x HDMI Input
- DisplayPort : 1x DisplayPort Input
- USB 2.0 : 1x USB 2.0 Input
- COM Port : 1x COM Port Input
- Audio : 1x Audio Input

Other Features

- Internal Speaker: AMP 10W + 10W
- OSD:
 - LCD On/Off, Auto, Menu, Up and Down
 - Multi-language

- Power Supply Voltage: 9-48VDC
- Power Connector: 3-pin Terminal Block
- Power Adaptor: Optional AC/DC 12V/5A, 60W
- Power Protection
 - OVP (Over Voltage Protection)
 - OCP (Over Current Protection)
 - Reverse Protection

Environment

- Operating Temp.: -10°C to 60°C
- Storage Temp.: -20°C to 60°C
- Relative Humidity: 10%~95% (non-condensing)
- IP Level: IP 65 Compliant Front Panel
- Standards / Certification: CE, FCC Class A

- Front Panel Construction: Die-cast Flat Surface
- Dimension: 527.5 (W) x 323 (D) x 71 (H)mm
- Weight: 7.7 kg ~ 8.09 kg
- Mounting: VESA Mounting Holes 75 x 75mm, 100 x 100mm

1.1.7 VIO-W224-MX100H

Key Features

- 23.8" TFT FHD 16:9 LCD with Resistive 5-wire / Projected Capacitive Touch
- 1x VGA, 1x HDMI, 1x DisplayPort, 1x USB 2.0, 1x COM, 1x Audio
- 9 to 48VDC wide range power input
- -10°C to 50°C extended operating temperature
- Designed with Aluminum Die-Casting Front Frame
- IP65 Compliant Front Panel
- Two 10W Internal Speakers Built-in
- Multi-language OSD built-in



Display

- LCD Size: 23.8" (16:9)
- Max. Resolution: 1920 x 1080 (Full HD)
- Brightness (cd/m²): 350 / 1000 (Optional)
- Contrast Ratio: 1000 : 1
- LCD Color: 16.7M
- Pixel Pitch (mm): 0.2745 (H) x 0.2745 (V)
- Viewing Angle (H-V): 178 / 178
- Backlight MTBF: 30000 hrs (LED Backlight)

Touch

- Resistive 5-Wire: VIO-W224R-MX100H
- Projected Capacitive: VIO-W224C-MX100H

I/O

- VGA : 1x VGA Input
- HDMI : 1x HDMI Input
- DisplayPort : 1x DisplayPort Input
- USB 2.0 : 1x USB 2.0 Input
- COM Port : 1x COM Port Input
- Audio : 1x Audio Input

Other Features

- Internal Speaker: AMP 10W + 10W
- OSD:
 - LCD On/Off, Auto, Menu, Up and Down
 - Multi-language

- Power Supply Voltage: 9-48VDC
- Power Connector: 3-pin Terminal Block
- Power Adaptor: Optional AC/DC 12V/5A, 60W
- Power Protection
 - OVP (Over Voltage Protection)
 - OCP (Over Current Protection)
 - Reverse Protection

Environment

- Operating Temp.: -10°C to 50°C
- Storage Temp.: -20°C to 60°C
- Relative Humidity: 10%~80% (non-condensing)
- IP Level: IP 65 Compliant Front Panel
- Standards / Certification: CE, FCC Class A

- Front Panel Construction: Die-cast Flat Surface
- Dimension: 588 (W) x 360 (D) x 71.8 (H)mm
- Weight: 9.61 kg ~ 9.86 kg
- Mounting: VESA Mounting Holes 75 x 75mm, 100 x 100mm

1.2 System I/O

1.2.1 Rear

DC IN

Used to plug a DC power input with terminal block.

HDMI

Used to connect a DisplayPort monitor

VGA

Use the rear panel standard 15-pin female VGA connector to connect the monitor to the system graphics interface.

DisplayPort

The DisplayPort connector connects to a display device with DisplayPort interface.

COM Port for Touch Panel Connector (Resistive Touch Only)

Use the rear panel female DB-9 touch panel connector to connect the monitor to the system interface.

USB for Touch Panel Connector

Use the rear panel standard USB touch panel connector to connect the monitor to the system interface.

Audio-in

This port connects PC audio source by the bundled audio cable.



1.2.2 Top

VESA Mounting Hole

These are mounting holes for VESA mount (75x75mm and 100x100mm)



1.3 Mechanical Dimensions

1.3.1 VIO-212-MX100H



1.3.2 VIO-215-MX100H

Unit: mm



1.3.3 VIO-W215-MX100H

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1.3.4 VIO-217-MX100H

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Unit: mm



1.3.6 VIO-W221-MX100H



Unit: mm







Switches and Connectors

2.1 Switch and Connector Locations

2.1.1 Top View



2.1.2 Bottom View



2.1.3 Rear I/O



2.2 Connector / Switch Definition

List of Connector / Switch

Connector Location	Definition
DC_IN1	3-pin DC 9~48V Power Input Connector
DP_IN1	DisplayPort Input Connector
HDMI	HDMI signal connector
VGA_IN1	VGA Input Connector
COM_IN1	COM Port Input Connector
USB_IN1	USB 2.0 Input Connector
AUDIO_IN1	Audio Input Connector
SIG_OUT1	VIO Display Module Connector

2.3.1 Power Connector







Pin	Signal
1	9_48VSB_IN
2	9_32VSB_ACC
3	GND_VIN

2.3.2 DisplayPort Input





DP_IN1

Pin	Signal	Pin	Signal
1	DP_RX3N	11	GND
2	GND	12	DP_RX0P
3	DP_RX3P	13	GND
4	DP_RX2N	14	GND
5	GND	15	DP_AUXP
6	DP_RX2P	16	DP_DET
7	DP_RX1N	17	DP_AUXN
8	GND	18	DP_HPD
9	DP_RX1P	19	GND
10	DP_RX0N	20	DP_3V3

2.3.3 HDMI signal connector





HDMI1

Pin	Signal	Pin	Signal
1	HDMI_RX32+	11	HDMI_DET
2	GND	12	HDMI_RX3C-
3	HDMI_RX32-	13	NC
4	HDMI_RX31+	14	NC
5	GND	15	HDMI_SCL
6	HDMI_RX31-	16	HDMI_SDA
7	HDMI_RX30+	17	GND
8	GND	18	HDMI_5V
9	HDMI_RX3C+	19	HDMI_HPD
10	HDMI_RX3C+	20	

2.3.4 VGA Input





VGA_IN1

Pin	Signal	Pin	Signal
1	RED+	9	GND
2	GREEN+	10	NC
3	BLUE+	11	DDC_SDA_VGA
4	NC	12	HSYNC
5	VGA_DET	13	VSYNC
6	RED-	14	DDC_SCL_VGA
7	GREEN-	15	GND
8	BLUE-		

2.3.5 COM Port Input





COM_IN1

Pin	Signal
1	NC
2	RX_R_2
3	NC
4	TX_R_2
5	NC
6	NC
7	NC
8	NC

2.3.6 USB 2.0 Input Connector





USB_IN1

Pin	Signal
1	NC
2	USBN_2
3	USBP_2
4	GND

2.3.7 Audio Input





AUDIO_IN1

Pin	Signal
1	AGND2
2	AIN_R
3	AGND2
4	AGND2
5	AIN_L

2.3.8 VIO Display Module Connector





SIG_OUT1

Pin	Signal	Pin	Signal	
1	RXO0+	2	DDC_SDA_VGA	
3	RXO0-	4	DDC_SCL_VGA	
5	GND	6	GND	
7	RXO1+	8	EDID_0	
9	RXO1-	10	EDID_1	
11	GND	12	GND	
13	RXO2+	14	EDID_2	
15	RXO2-	16	EDID_3	
17	GND	18	GND	
19	RXO3+	20	HDMI_SDA	
21	RXO3-	22	HDMI_SCL	
23	GND	24	GND	
25	RXOC+	26	USBP	
27	RXOC-	28	USBN	
29	GND	30	GND	
31	RXE0+	32	TX_R	
33	RXE0-	34	RX_R	
35	GND	36	GND	

Chapter 2: Switches and Connectors

Pin	Signal	Pin	Signal	
37	RXE1+	38	POWER_KEY_R	
39	RXE1-	40	AUTO_KEY_R	
41	GND	42	GND	
43	RXE2+	44	MENU_KEY_R	
45	RXE2-	46	UP_KEY_R	
47	GND	48	GND	
49	RXE3+	50	DOWN_KEY_R	
51	RXE3-	52	NC	
53	GND	54	GND	
55	RXEC+	56	BL_ADJ	
57	RXEC-	58	BL_EN	
59	GND	60	GND	
61	OUT-R+	62	NC	
63	OUT-R-	64	LEDB	
65	NC	66	LEDA	
67	OUT-L+	68	NC	
69	OUT-L-	70	NC	
71	V5P0SB	72	V5P0SB	
73	V5P0SB	74	V5P0SB	
75	V5P0_LED	76	V5P0_LED	
77	V5P0_LED	78	V5P0_LED	
79	V3P3_LED	80	V3P3_LED	
81	V3P3_LED	82	V3P3_LED	
83	V3P3_LED	84	V3P3_LED	
85	VCCM12	86	VCCM12	
87	VCCM12	88	VCCM12	
89	VCCM12	90	VCCM12	
91	VCCM12	92	VCCM12	
93	VCCM5	94	VCCM5	
95	VCCM5	96	VCCM5	
97	VCCM3	98	VCCM3	
99	VCCM3	100	VCCM3	



Front Panel Controls

3.1 Users Controls



3.1.1 **(**) Power button

Turns the monitor on or off.

3.1.2 🔆 LED

1. Blue indicates power on.

2. Yellow indicates standby mode.

3.1.3 MENU/ Enter button

Press to view the OSD menu. Press it again to enter a selection in the OSD menu.

3.1.4 A Increase button

- 1. Activates the Volume control menu, and increases volume (with audio option).
- 2. Scrolls the OSD menu upward.
- 3. Increases the value of a selected function.

3.1.5 **V** Decrease button

- 1. Activates the Volume control menu, and decreases volume (with audio option).
- 2. Scrolls the OSD menu downward.
- 3. Decreases the value of a selected function.

3.1.6 AUTO/ Exit button

1. When the OSD menu is active, press this button to exit the OSD menu.

2. When the OSD menu is inactive, press this button for two seconds to activate the Auto Adjustment function and the monitor will automatically optimize the display position, focus, and clock of your display.

3.2 OSD Operation



3.2.1 Luminance



Brightness

Adjust the luminance level of the screen.

Contrast

Adjusts the contrast level of the screen.

Gamma

This item allows you to on or off the Gamma function.

SuperResolution

This setting allows you to select options for the SuperResolution. Select <Off> , <Weak>, <Median> or .

Chapter 3: Front Panel Controls

3.2.2 Picture (VGA input only)



Phase

Adjust the monitor internal signal phase.

Clock

Adjust the monitor internal sampling clock rate.

H. Position

Adjusts the position of the screen image left and right.

V. Position

Adjusts the position of the screen image up and down.

3.2.3 Color



Color Temperature

6500K: Select the setting of screen color to be reddish white. 7500K: Select the setting of screen color to be bluish white. 9300K: Select the setting of screen color to be bluish white. **sRGB:** Set the screen color to fit the sRGB standard color specification. **User Define:** Individual adjustments for red (R), green (G), blue (B).

3.2.4 OSD Settings



Horizontal

Changes the viewing position of the OSD menu to the left or right area of the screen.

Vertical

Changes the viewing position of the OSD menu to the top or bottom area of the screen.

Transparency

Adjust to view the background information through the OSD.

OSD Time Out

Sets the time duration in seconds that the OSD is visible after the last button is pressed.

Chapter 3: Front Panel Controls

3.2.5 Setup



Language

Selects the language in which the OSD menu is displayed. The factory default is English.

Mute

Allows the user to turn the Mute On or Off.

📕 Input

When press Input Select change Input signal to D-SUB, DVI or DP.

Reset

Reset monitor parameters back to factory preset values.



System Setup

4.1 Set torque force to 3.5 kgf-cm to execute all the screwing and unscrewing.



VARNIN

In order to prevent electric shock or system damage, before removing the chassis cover, must turn off power and disconnect the unit from power source.

4.2 Connecting MX100H monitor module with VIO display module

1. Hold the monitor module with its connector facing towards the connector on the back of VIO display module.



2. Press the monitor module downward to ensure two modules are firmly connected.



3. Lock the below 6 screws (M4x5L).



Mounting Guide

Flush Mount / Panel Mount:

• Cut hole in the wall w/ dimensions according to the screen size you have purchased. Please refer to the next page for the list of cutout dimensions and max wall depths



From the FRONT of the wall, place the VIO Panel PC with its rear (display screen forward) into the measured cutout hole.



Install the mounting clips around the VIO and screw them in to secure against the wall. If the wall's thickness is greater than maximum wall thickness allowed, the clips will not fit. Please refer to the next page for the list of max wall depths



VIO-200-MX100H Series

Model	Wall Cut-Out (W x H) Unit: mm	Max Wall Thickness (In)
VIO-212-MX100H	310 x 249	8″
VIO-215-MX100H	368 x 292.5	10"
VIO-217-MX100H	400 x 331.5	13"
VIO-219-MX100H	442 x 367	14"
VIO-W215-MX100H	389.5 x 238.5	10.5″
VIO-W221-MX100H	519.5 x 315	11"
VIO-W224-MX100H	580 x 352	11"



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