# **Industrial Monitor**

# **User Manual**



### **Product Quality Assurance (for one year)**

From the date of purchase, the company provides one year of product quality assurance for the original buyer. However, the quality assurance shall not be provided for those products repaired by unauthorized maintenance personnel. But ichuang has the right to be exempted from problems caused by incorrect use, disaster and incorrect installation.

If you believe that the product you purchased is faulty, follow the following steps:

- 1. Collect information about the problems you have encountered (such as the CPU main frequency, the creative products used, and other software, hardware, etc.). Note any abnormal information display appearing on the screen.
- 2. Call your supplier to describe the fault problem. Please use the manuals, the products, and any helpful information.3. If your product is diagnosed as failing, please obtain the RMA (Return from your supplier

Material Authorization) The serial number. This allows us to recycle the faulty products as soon as possible.4. Please carefully package the faulty products, and attach to the package a complete after-sales service card and the purchase date certificate

(Such as the sales invoice). We do not provide quality assurance services for products that cannot provide proof of purchase date.5. Write the relevant RMA serial number on the outer package and ship it to the salesperson.

### Safety instructions

- 1. Please read this safety operation instructions carefully.
- 2. Please keep this user manual properly for your future reference.
- 3. Unplug the power cord from the socket before cleaning the equipment with a wet cloth. Please do not use a liquid or a decontamination spray to clean the equipment.
- 4. For the equipment using the power cord, there must be easily accessible power outlets around the equipment.5. Please do not use the equipment in a wet environment.
- 6. Please ensure that the equipment is placed on a reliable plane before installation. An accidental drop may cause damage to the equipment.
- 7. The opening of the equipment enclosure is used for air convection to prevent the equipment from overheating. **Please do not cover these openings.**
- 8. Before you connect the device to the power socket, please confirm that the voltage of the power socket meets the requirements.
- 9. Please place the power cord in places where people are not easy to trip to, and do not cover any debris on the power cord.10. Note all warning signs on the device.
- 11. If the equipment is not used for a long time, please disconnect the same power socket to avoid the equipment being damaged by excessive voltage fluctuation.
- 12. Please do not let any liquid flow into the vent to cause fire or short circuit.
- 13. Please do not open the device by yourself. To ensure your safety, the certified engineers should open the equipment.14. In the following cases, please have professional maintenance:

Damaged power cord or plug;

There is a liquid inflow inside the equipment;

The equipment has been exposed to too wet environment;

The equipment does not work properly, or you cannot work properly through the user manual;

Falling or damaged equipment;

The equipment has obvious appearance damage.

- 15. Please do not place the equipment in an environment beyond our recommended temperature range, i. e. not below-20°C (-4°F) or above 60°C (140°F), or the equipment may be damaged.
- 16. The sound pressure level of the operator's position shall not exceed 70dB (A) as per IEC 704-1:1982.

Disclaimer: This safety instruction meets the requirements of IEC 704-1. However does not assumes no legal responsibility for the accuracy of its content.

pay attenti on to! If no power adapter is included in the equipment package, then refer to the user manual for the adapter output rating (minimum: 12 VDC, 5 A / 18 W) to select the appropriate power adapter.



## **Chapter 1 Overview**

### 1.1 Product Introduction

The MT series monitors is a new range of industrial-grade full plane capacitor / resistance touch displays that can be easily and quickly integrated into a variety of applications such as public signage, public area information, medical and retail terminals.

### 1.2 Product characteristics

- Unique projection-type capacitive touch screen / five-wire resistance touch design
- All-aluminum alloy case design
- Support embedded installation of front panel / complete VESA installation

# 1.3 Product application

application scenarios

- KIOSK / POI terminal equipment
- Conveyor
- Ticket-issuing machine
- ATM machine
- Entertainment / betting / vending machines
- HMI (Human-machine interface) device control display
- Public communication equipment
- Public advertising equipment

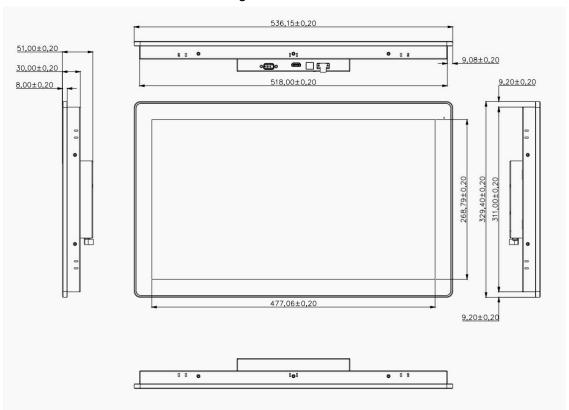
# 1.4 Product photos



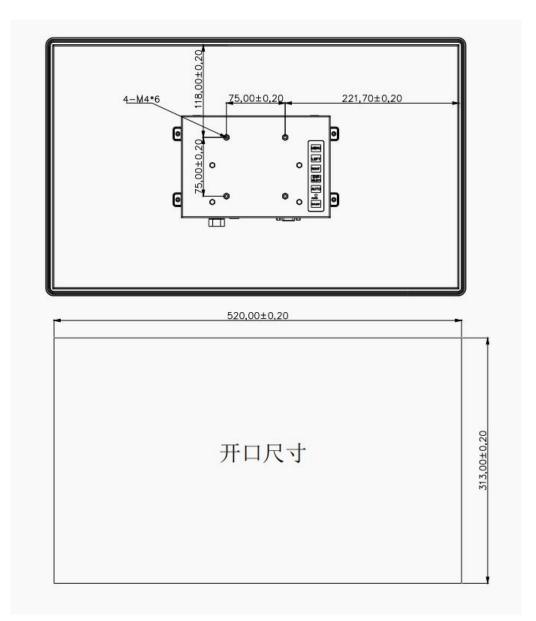


# 1.5 Dimension drawing and hole opening size

#### ■ Dimension drawing



■ Opening size



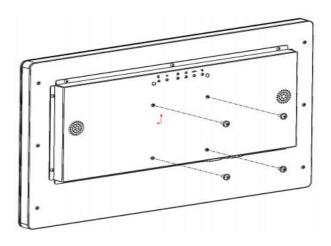
# 1.6 Specification

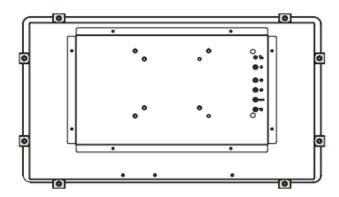
	Display Type	21.5" TFT-LCD
	Resolution	1920*1080
	Brightness	250 cd/m²
LCD Display	Viewing Angle	-89~89° (H), -89~89° (V) C9(CR≥10)
	Backlight	LED
	Backlight Life MTBF (hrs))	30000 Hours
	Max color	16.7M
	Contrast Ratio	1000:1
Touch Screen	Touch Panel	Five wire Resistive touch(Capacitive touch optional)
	Connection Port	USB 2.0
	Light transmittance	>85%
	Click Life time	250 g Pressure, 10 Million times
Mechanical	Color	Grey

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	Display Connection	VGA, HDMI	
	Size	536.2 x 329.4 x 51 mm	
	Opening Hole size	NA	
	Mounting	Embedded Mounting/ Vesa Mounting	
	Weight (kg)	NA	
Environment	Operational Temperature	0 ~ 50° C	
	Storage Temperature	-20 ~ 70° C	
	Relative Humidity	95% @ 40° C (non-condensing)	
	IP rate	Front panel IP65	
	Anti-Vibration	1.5Grms@5~500Hz,random,1 hr/axis	
	Anti-Shock	10g acceleration, 11ms duration	
Accessories	USB Cable 1.5 meters		
	HDMI cable 1.5 meters		
	Mounting brackets(embedded mounting)		
	Vesa mounting optional		

# Chapter II: System Settings

# 2.1 Rear installation









# 2.2 Packaging list

- 1 x HDMI Cable, 1.5M
- 1 x USB-A/USB-B, 15M
- 1 x 36 W 12 V DC Power supply adapter
- 1 x AC Power Cable
- 1 x Resistor touch pen (provided for resistive touch)
- 4 x Embedded mounting buckle

# Chapter 3: OSD Settings and Touch Drive 3.1 OSD function

The MT family of products support the following OSD features:

push-button	explain
Menu	Activate the OSD menu
Left	Move the cursor to the value of the increased option
Right	Move the cursor to the first item / reduced value of the option
Exit/Select	Select the options, or exit the selection
	Auto adjust the clock, phase, horizontal, and vertical positions
On/Off	Power on the display on or off
LED function	
DPMS ON	green
DPMS STANDBY	orange
DPMS OFF	red

# 3.2 OSD Menu Description

first layer	first layer	first layer	explain	Default location
Picture	Backlight	100	Adjust the backlight	100
	Brightness	100	adjusting brightness	50
	Contrast	0	Regulate contrast	50
	Display Ratio	4:3 Full Screen	Adjust the width and height display ratio	Full Screen
Color Temp	Color Temp	User 9300K 7500K 6500K 5800K	Adjust the color temperature type	User
	Red	255	Adjust the Red color value in User mode	128
	Green	0 255	Adjust the Green Color value in User mode	128
	Blue	0 255	Adjust the Blue color value in the User mode	128
VGA	Auto Config		The picture of the VGA channel is automatically adjusted	
	Auto Color		The color of the VGA channel is automatically adjusted	
	H Position	100	Adjust the output capture window horizontal position under the VGA	50
	V Position	100	Adjust the vertical position of the output capture window under the VGA	50
	Clock	100	Adjust the clock delay of the output capture window under the VGA	Decided by the input resolution

	Phase	100	Adjust the clock phase of the output capture window under the VGA	Decided by the input resolution
OSD	Language	English simplified Chinese Japanese	Set up the OSD display language	English
	Osd H Position	100	Adjust the OSD level position	50
	Osd V Position	0	Adjust the OSD vertical position	50
	Menu Timer	10	Adjust the time of the OSD display	10
	Transparency	0	Adjust the transparency of the OSD	0
MISC	Signal Source	Auto D1-HDMI VGA	Set up the signal-end input channel	Auto
	Power Saving	Off 30s 20s 10s	Set the standby time	Off
	Reset	Off On	Reset to the initial state	Off

# 3.3 Touch-screen drive

The capacitive touch display does not require touch driver installation, and the resistance touch display can find the business manager or technician to provide touch driver.

# appendix A

### A.1 Introduction

If there is a problem with the display or the display is not working properly, please do the following check before contacting it. If you cannot find the problem as follows, please contact the Vistron dealer or customer service / repair center.

### A.2 Troubleshooting

#### Images are not displayed correctly or the full-screen images are not displayed

Please check whether the screen resolution of the motherboard is correct.

#### The screen display position is not in the center

Adjust the horizontal position (H-position) and the vertical position (V-position) or perform the "Auto" adjustment.

#### out of range

If the "Out of Range" message appears on the screen, the computer signal is not compatible with the LCD display, that is, the resolution exceeds the resolution value supported by the LCD

Adjust the BIOS to set the matching resolution.

#### no signal

The display is on, but is unable to receive or display any signals from the computer. Check all power switches, power lines and HDMI signal lines to verify that all cables are properly connected.

#### Enter sleep mode

If the system enters sleep mode, the display is in provincial mode or the display has a burst signal interruption. Check the system BIOS settings and / or Windows configuration. Then, check whether the two ends of the power cord are properly connected to the computer and the power outlet end.