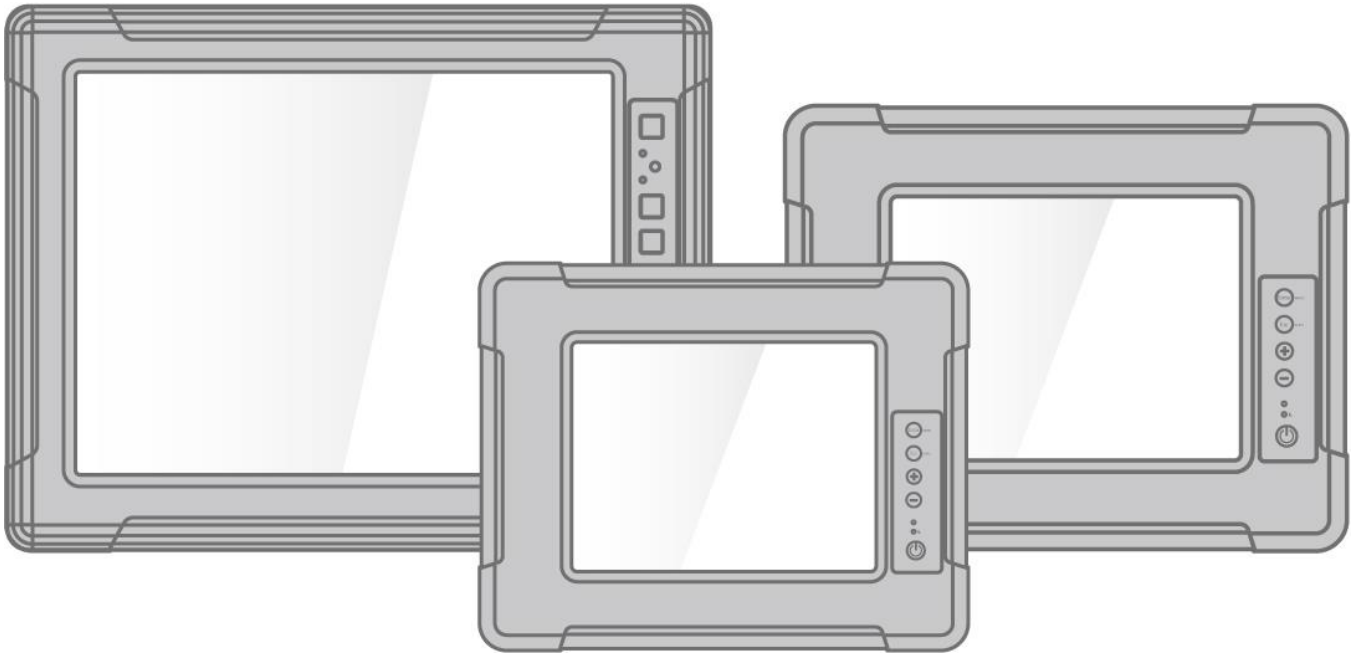


# G-WIN Military Panel PC

Intel® Celeron® N2930, 1.83 GHz



Model No.: R08IB3S-MLU1  
R10IB3S-MLT2  
R15IB3S-MLC3HB

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# User Manual

Document Version 1.1  
Document Part Number: 91521110102Z

Please read these instructions carefully before using this product, and save this manual for future use.

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## Preface

### Copyright Notice

No part of this document may be reproduced, copied, translated, or transmitted in any form or by any means, electronic or mechanical, for any purpose, without the prior written permission of the original manufacturer.

### Trademark Acknowledgement

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

### Disclaimer

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

### Warranty

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

For example, the serial number 1W18Axxxxxxx means October of year 2018.

### Customer Service

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

You may need the following information ready before you call:

- Product serial number
- Software (OS, version, application software, etc.)
- Description of complete problem
- The exact wording of any error messages

In addition, free technical support is available from our engineers every business day. We are always ready to give advice on application requirements or specific information on the installation and operation of any of our products.

## Advisory Conventions

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

**Note:**

A note is used to emphasize helpful information

**Important:**

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

**Caution/ Attention**

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

Une alerte d'attention indique un dommage possible à l'équipement et explique comment éviter le problème potentiel.

**Warning!/ Avertissement!**

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

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

**Alternating Current Mise à le terre !**

The Protective Conductor Terminal (Earth Ground) symbol indicates the potential risk of serious electrical shock due to improper grounding.

Le symbole de Mise à Terre indique le risqué potentiel de choc électrique grave à la terre incorrecte.

## Safety Information



### **Warning!/ Avertissement!**

Always completely disconnect the power cord from your chassis whenever you work with the hardware. Do not make connections while the power is on. Sensitive electronic components can be damaged by sudden power surges. Only experienced electronics personnel should open the PC chassis. Toujours débrancher le cordon d'alimentation du chassis lorsque vous travaillez sur celui-ci. Ne pas brancher de connexions lorsque l'alimentation est présente. Des composants électroniques sensibles peuvent être endommagés par des sauts d'alimentation. Seulement du personnel expérimenté devrait ouvrir ces chassis.



### **Caution/ Attention**

Always ground yourself to remove any static charge before touching the CPU card. Modern electronic devices are very sensitive to static electric charges. As a safety precaution, use a grounding wrist strap at all times. Place all electronic components in a static-dissipative surface or static-shielded bag when they are not in the chassis. Toujours vérifier votre mise à la terre afin d'éliminer toute charge statique avant de toucher la carte CPU. Les équipements électroniques modernes sont très sensibles aux décharges d'électricité statique. Toujours utiliser un bracelet de mise à la terre comme précaution. Placer toutes les composantes électroniques sur une surface conçue pour dissiper les charge, ou dans un sac anti-statique lorsqu'elles ne sont pas dans le chassis.

For your safety carefully read all the safety instructions before using the device. Keep this user manual for future reference.

- Always disconnect this equipment from any AC outlet before cleaning. Do not use liquid or spray detergents for cleaning. Use a damp cloth.
- For pluggable equipment, the power outlet must be installed near the equipment and must be easily accessible.
- Keep this equipment away from humidity.
- Put this equipment on a reliable surface during installation. Dropping it or letting it fall could cause damage.
- The openings on the enclosure are for air convection and to protect the equipment from overheating.



### **Caution/Attention**

Do not cover the openings!  
Ne pas couvrir les ouvertures!

- Before connecting the equipment to the power outlet make sure the voltage of the power source is correct.
- Position the power cord so that people cannot step on it. Do not place anything over the power cord.
- If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient over-voltage.
- Never pour any liquid into an opening. This could cause fire or electrical shock.
- Never open the equipment. For safety reasons, only qualified service personnel should open the equipment.
- All cautions and warnings on the equipment should be noted.

**Let service personnel to check the equipment in case any of the following problems appear:**

- 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 you cannot get it to work according to the user manual.
- The equipment has been dropped and damaged.
- The equipment has obvious signs of breakage.
- Do not leave this equipment in an uncontrolled environment where the storage temperature is below -20°C (-4°F) or above 60°C (140°F). It may damage the equipment.



**Caution/Attention**

Use the recommended mounting apparatus to avoid risk of injury.  
Utiliser l'appareil de fixation recommandé pour éliminer le risque de blessure.



**Warning!/ Avertissement!**

Only use the connection cords that come with the product. When in doubt, please contact the manufacturer.

Utiliser seulement les cordons d'alimentation fournis avec le produit. Si vous doutez de leur provenance, contactez le fabricant.



**Warning!/ Avertissement!**

Always ground yourself against electrostatic damage to the device.  
Toujours vérifier votre mise à la terre afin que l'équipement ne se décharge pas sur vous.

- Cover workstations with approved anti-static material. Use a wrist strap connected to a work surface and properly grounded tools and equipment.
- Use anti-static mats, heel straps, or air ionizer for added protection.
- Avoid contact with pins, leads, or circuitry.
- Turn off power and input signals before inserting and removing connectors or test equipment.
- Keep the work area free of non-conductive materials, such as ordinary plastic assembly aids and Styrofoam.
- Use filed service tools, such as cutters, screwdrivers, and vacuum cleaners that are conductive.
- Always put drivers and PCB's component side on anti-static foam.

## Important Information

### Federal Communications Commission Radio Frequency Interface Statement



This device complies with part 15 FCC rules.

Operation is subject to the following two conditions:

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

This equipment has been tested and found to comply with the limits for a class "B" digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

### EC Declaration of Conformity



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

#### Electromagnetic Compatibility Directive (2014/30/EU)

- EN55024: 2010 EN 55022: 2010 Class B
  - IEC61000-4-2: 2009
  - IEC61000-4-3: 2006+A1: 2007+A2: 2010
  - IEC61000-4-4: 2012
  - IEC61000-4-5: 2014
  - IEC61000-4-6: 2013
  - IEC61000-4-8: 2010
  - IEC61000-4-11: 2004
- EN55022: 2010/AC:2011
- EN61000-3-2:2014
- EN61000-3-3:2013

#### Low Voltage Directive (2014/35/EU)

- EN 60950-1:2006/A11:2009/A1:2010/A12:2011/ A2:2013



## About This User Manual

This User Manual provides information about using the Winmate® G-WIN Military Panel PC. This User Manual applies to G-WIN Military Panel – R08IB3S-MLU1, R10IB3S-MLT2 and R15IB3S-MLC3HB.

The documentation set for the G-WIN Military Panel PC with Freescale® Cortex® A9 i.MX6 Dual Core provides information for specific user needs, and includes:

- **G-WIN Military Panel PC User Manual** – contains detailed description on how to use the panel PC, its components and features.



**Note:**

Some pictures in this guide are samples and can differ from actual product.

### Document Revision History

Version	Date	Note
1.0	25-Oct-2018	Initial document release
1.1	10-Jul-2019	Revise specifications

## **Chapter 1: Introduction**

This chapter gives you product overview, describes features and hardware specification. You will find all accessories that come with the panel PC in the packing list. Mechanical dimensions and drawings included in this chapter.

---

## 1.1 Introduction

Congratulations on purchasing Winmate® G-WIN Military Panel PC. Winmate® G-WIN Military Panel PC comes with fanless, low power but high performance platform design, sunlight readable panel, WLAN integration, great ability for anti-shock & vibration, IP65 protection and anti-corrosion coating with aluminum alloy housing.

Both of great mobility and robust design are fitting the demands for every harsh environment applications such as logistics, transportation/ fleet management, heavy vehicles, utility and also outdoor usage.

## 1.2 Product Features

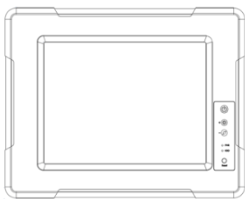
Winmate® G-WIN Military Panel PCs offers the following features:

- IP65-proof enclosures (Except I/O parts) for 8.4", 10.4", and 15"
- Totally sealed IP67 Design for 15"
- Fanless, streamlined enclosure for highly efficient heat dissipation
- Compliance with MIL-STD 810 & IEC 60068-2-27 for shock and vibration test
- Aluminum Housing with anti-corrosion
- 5 Wire Resistive Touch / anti-reflective protection glass
- Optional GPS, 3G/WLAN (Either one)
- Wide range 9-36 V DC input
- Mounting options suitable for vehicle mounting: VESA Mount, Yoke Mount and Roof Mount
- Compliance with EN50155

## 1.3 Package Contents

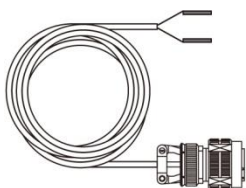
Carefully remove the box and unpack your device. Please check if all the items listed below are inside your package. If any of these items are missing or damaged contact us immediately.

Standard factory shipment list



- **Panel PC**

Varies by product specifications



- **Open Wire Cable**

P/N: 94J003L020K2



- **User Manual**

P/N: 91521110102Z



- **Driver CD and User Manual**

P/N: 91711111103I

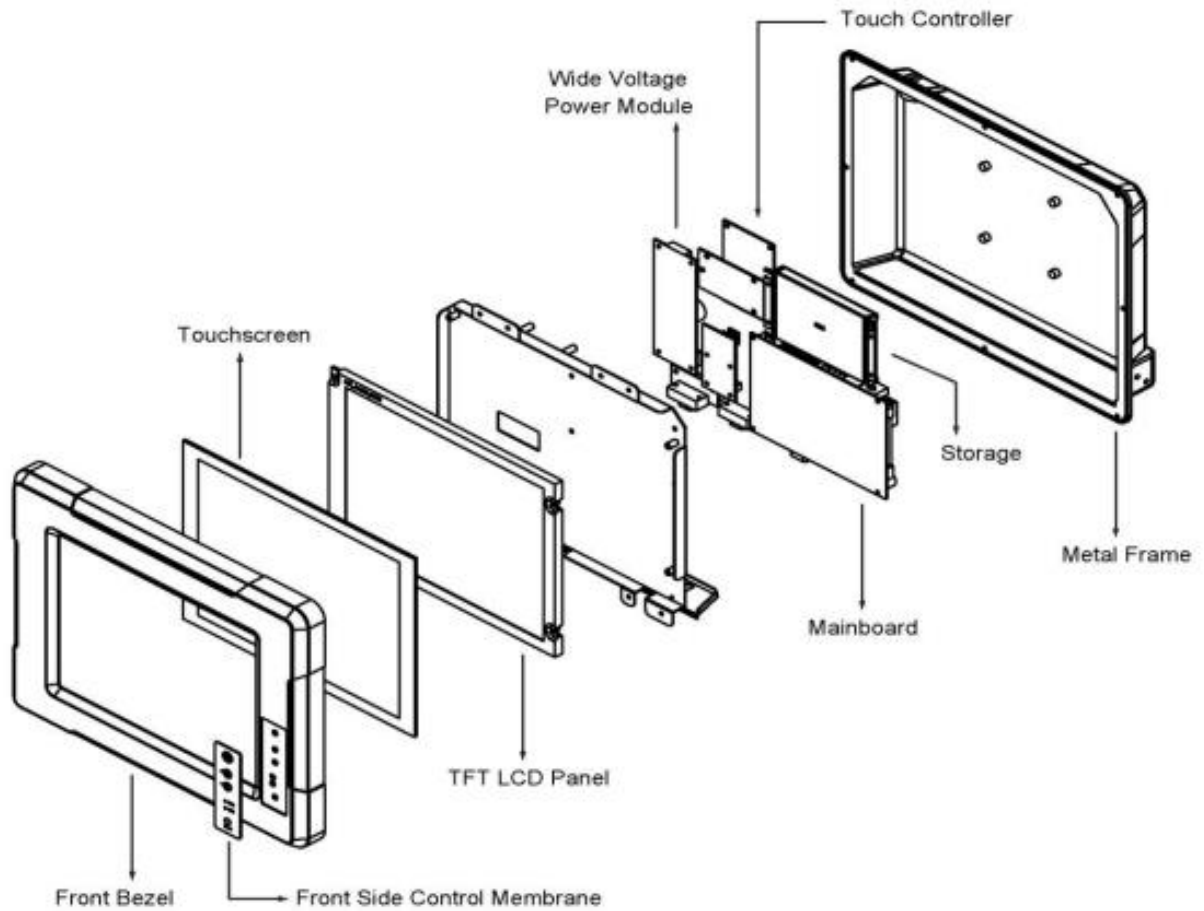


- **Touch Driver CD**

P/N: 91711111T100H

## 1.4 Mechanical Concept

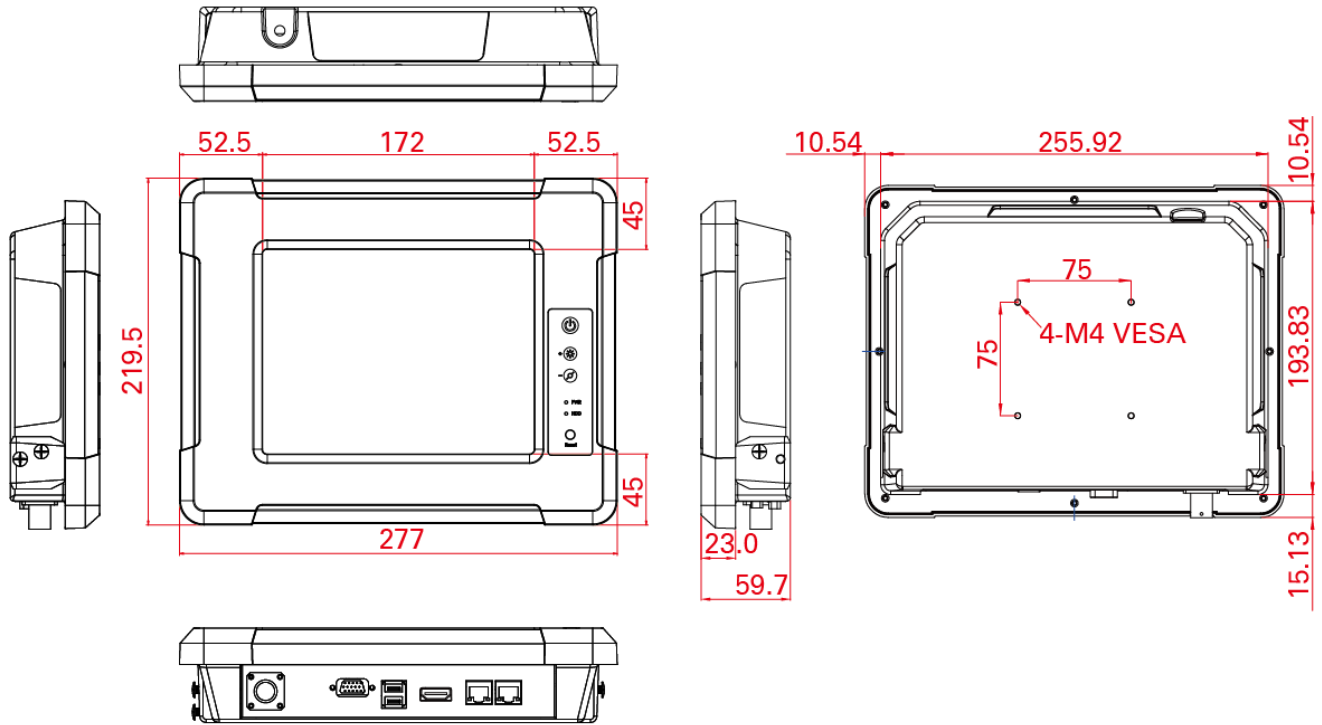
On the picture below you can see spare parts exploded drawing of a standard G-WIN Military Panel PC.



## 1.5 Physical Appearance

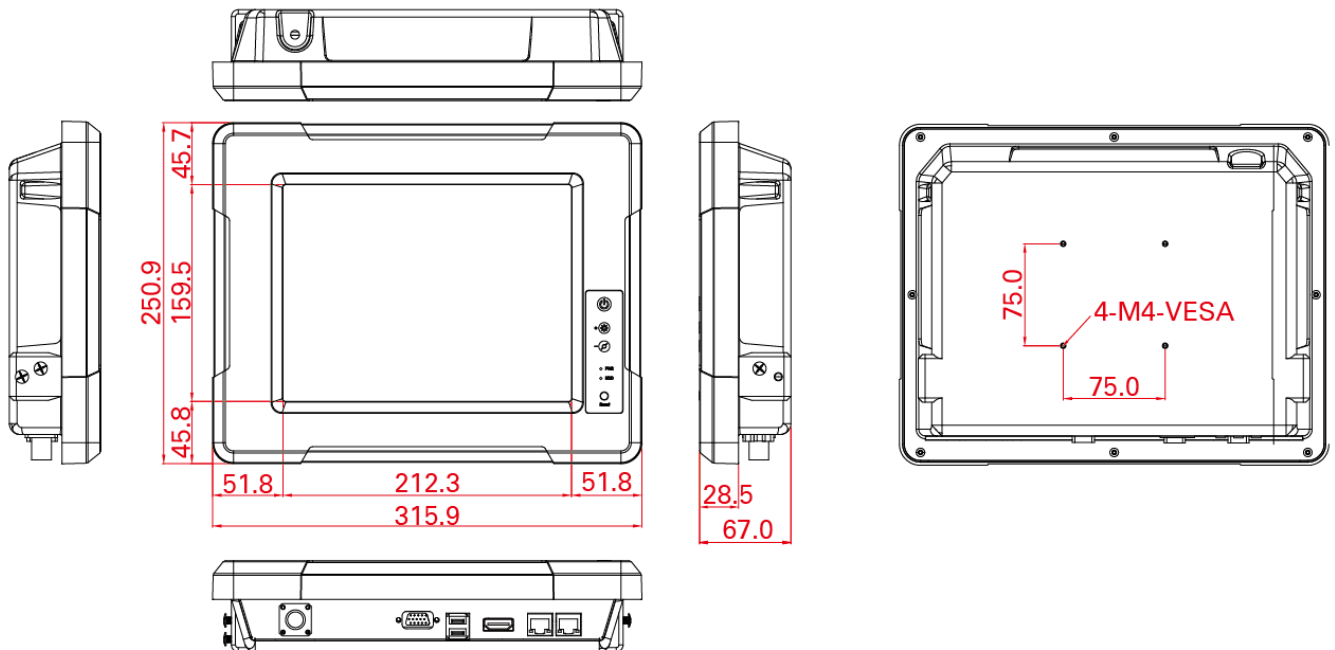
G-WIN Panel PC comes with various interfaces located on the bottom panel. The I/O placement varies by processor and screen size of the Panel PC.

### R08IB3S-VMU1

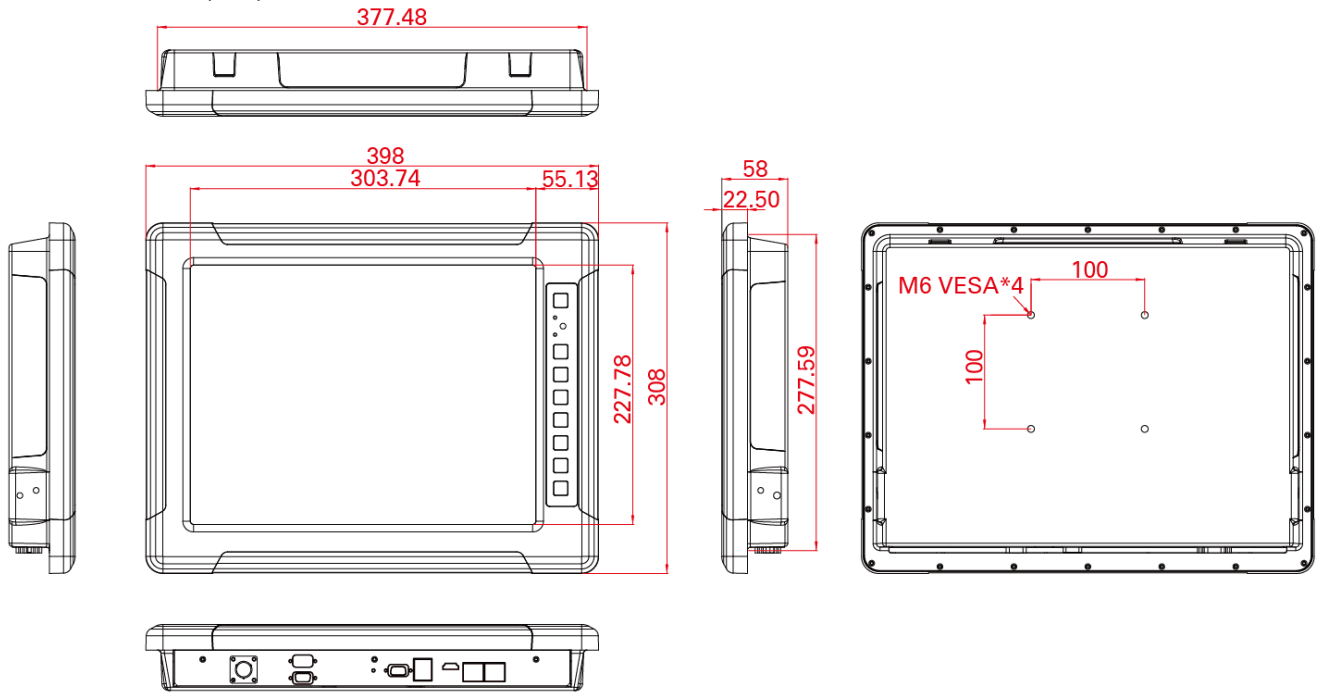


### G-WIN Panel PC 10.4"

R10IB3S-VMT2, R10IB3S-VMP3, R10IB3S-VMP1

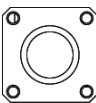
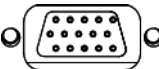
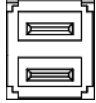

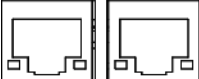


**G-WIN Panel PC 15"**  
R15IB3S-VMA3(HB)



**1.6 Connector Description**

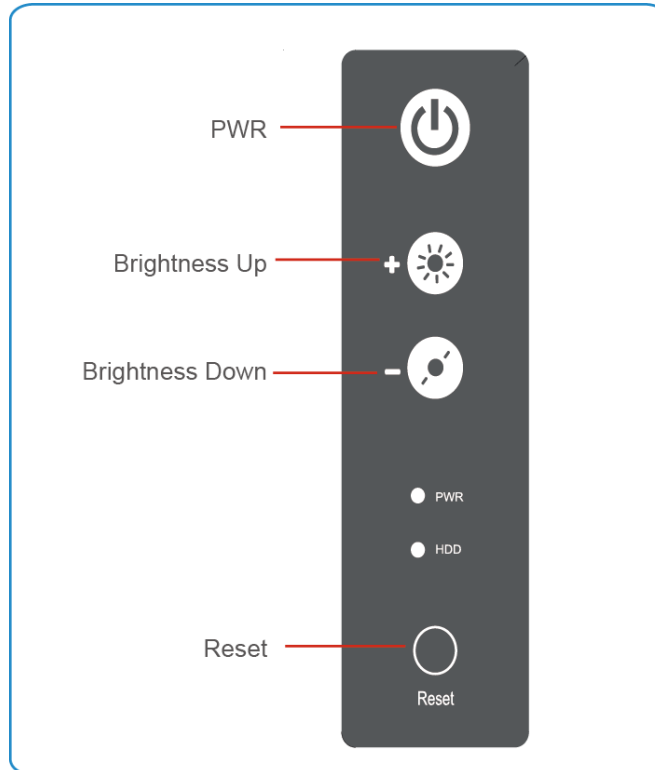
G-WIN Military Panel PC connectors are located on the bottom side.





Item	Description
	<p><b>Power</b> – Military grade lockable power connector.</p>
	<p><b>RS-232/422/485</b> – Serial interface connector controls/monitors devices and offers in addition digital inputs/outputs. <i>Example: A printer or scanner to a panel PC.</i></p>
	<p><b>USB</b> – Connects USB 2.0 or USB 3.0 devices. <i>Example: A mouse or keyboard to a panel PC.</i></p>
	<p><b>HDMI</b> –Transmits and protects copyrighted digital video and audio. <i>Example: An HD tuner to an HD ready TV.</i></p>
	<p><b>RJ-45</b> – Connect computers onto Ethernet-based local area networks (LAN).</p>

## 1.7 Physical Buttons

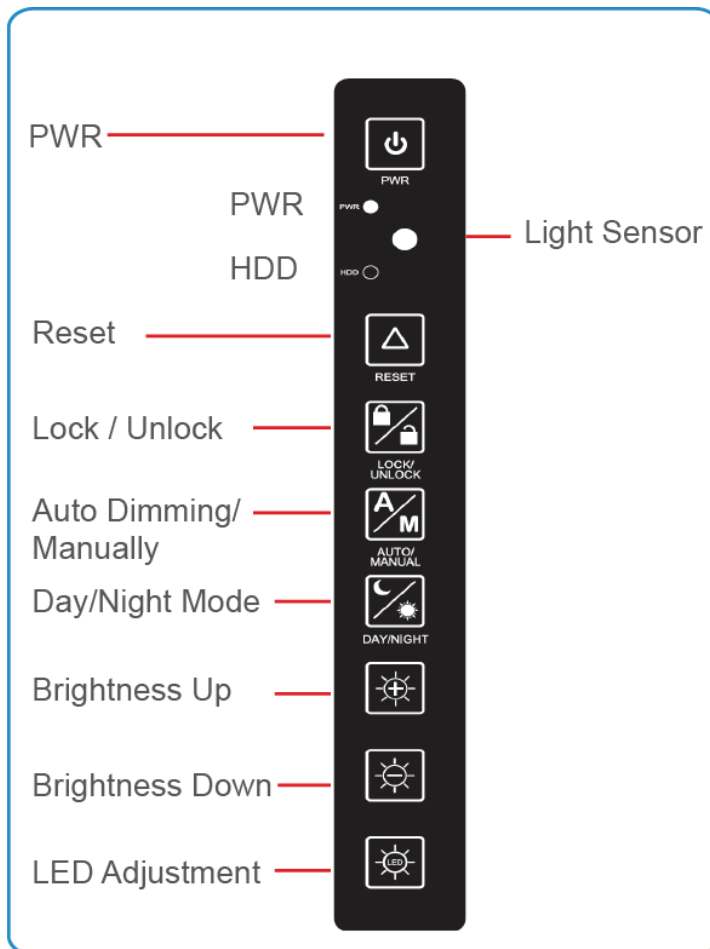
On-Screen Display (OSD) is a user-friendly interface to remote the display function and to adjust the display's image properties. It also supports special Hot Keys for easy control, such as auto-adjustment and brightness control for backlight.

### G-WIN Panel PC 8.4", 10.4"



Icon	Button	Function
	Power	Turn ON or turn OFF the Panel PC.
	Brightness UP	Increase the brightness of the display screen, or allows user to navigate items of a single OSD menu.
	Brightness DOWN	Decrease the brightness of the display screen, or allows user to navigate items of a single OSD menu.
 Reset	Reset	Clear any pending errors or events and brings a system to normal condition or an initial state.

**G-WIN Panel PC 15"**






Icon	Button	Function
	Power	Turn ON or turn OFF the Panel PC.
	Reset	Clear any pending errors or events and brings a system to normal condition or an initial state.
	Lock / Unlock	Tap this button to lock / unlock the function of OSD panel.
	Auto Dimming/ Manually	Tap the button once to AUTOMATICALLY adjust brightness mode.
		Press the button again to MANUALLY adjust brightness mode.
	Day/ Night Mode	Tap this button to enter DAY MODE.
		Tap this button to enter NIGHT MODE to increase visibility in low-light conditions.
	Brightness UP	Increase the brightness of the display screen, or allows user to navigate items of a single OSD menu.
	Brightness DOWN	Decrease the brightness of the display screen, or allows user to navigate items of a single OSD menu.
	LED Adjustment	Adjust the brightness of the LED.



## 1.8 LED Indicators

LED indicators are located on the OSD panel on the back side of G-WIN Military Panel PC.

Indicator	Color	Definition
PWR	Green 	Power is ON and the device functions normally
	Orange 	Panel PC is suspended
HDD	Green 	HDD is active
	OFF	HDD is inactive

## **Chapter 2: Getting Started**

This chapter tells you important information on power supply, adapter and precautions tips. Pay attention to power considerations.



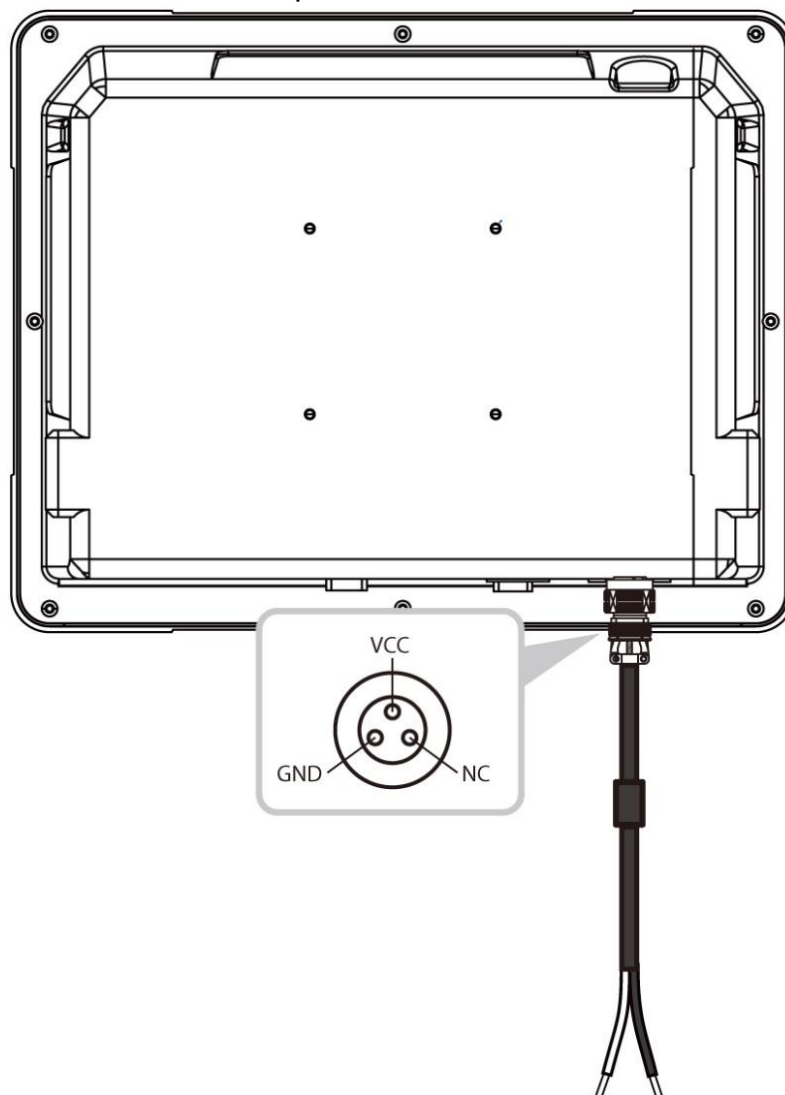
## 2.1 Connecting the Power

### Safety Precautions:

- Do not use the adapter in a high moisture environment
- Never touch the adapter with wet hands or foot
- Allow adequate ventilation around adapter while using
- Do not cover the adapter with paper or other objects that will reduce cooling
- Do not use the adapter while it is inside a carrying case
- Do not use the adapter if the cord is damaged
- There are NO serviceable parts inside
- Replace the unit if it is damaged or exposed to excess moisture

### Connecting to Power Source

1. Connect a power cable to military power connector located on the back side of the Panel PC.
2. Connect open wires to the source of power.

**Note:**

Power cords vary in appearance by region and country.

## 2.2 Turning On and Off

### To turn on the Panel PC:

1. Press the power on switch to turn the Panel PC on.
2. Press "DEL" to enter the CMOS setting and check the BIOS setup.

### To shut down the Panel PC:

To shut down your device, do the following: Tap **Start** (■) > **Shut down**.

Wait for your computer to completely turn off before disconnecting the power cord (if necessary).



#### **Note:**

If your system is not Windows 7, the method to turn off the device may slightly vary.

## 2.3 Installing Operating System

You may install your own OS if it is not installed. When installing OS to this device, please follow the steps and use external equipment such as Keyboard and Mouse.



(a) Use external USB DVD-ROM to run the OS and Driver settings (as shown on the picture below).

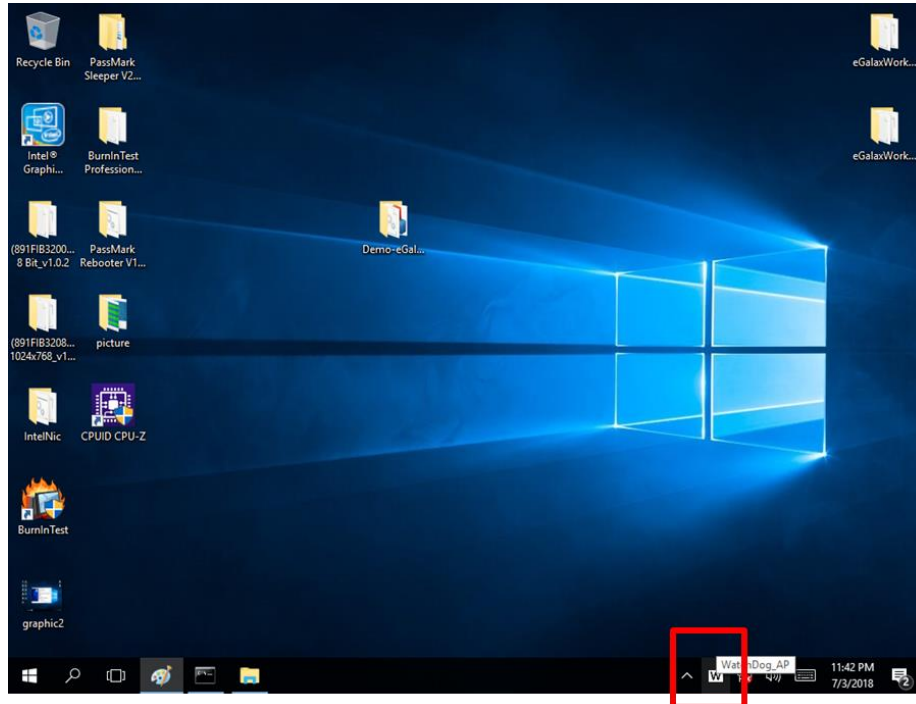


## 2.4 How to Enable Watchdog

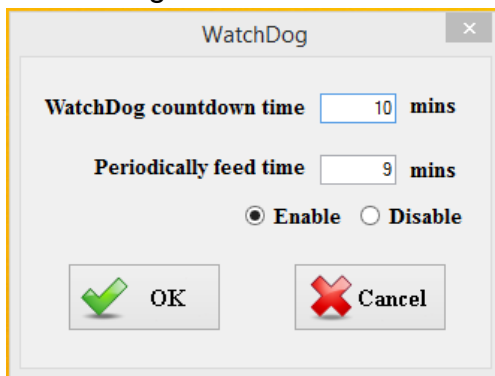
To enable Watchdog, you need to download Winmate Watchdog utility. Find more information on Watchdog in “Watchdog Guide” that you can download from Winmate Download Center.

To enable watchdog in Watchdog AP follow the instructions below:

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



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



### Example:

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

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

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

## 2.5 Connectors

### 2.5.1 Wiring Requirements

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

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



#### Safety Precautions:

- Do not run signal or communication wiring and power wiring in the same conduit. To avoid interference, wires with different signal characteristics (i.e., different interfaces) should be routed separately.
- Be sure to disconnect the power cord before installing and/or wiring your device.
- Verify the maximum possible current for each wire gauge, especially for the power cords. Observe all electrical codes dictating the maximum current allowable for each wire gauge.
- If the current goes above the maximum ratings (80 W), the wiring could overheat, causing serious damage to your equipment.
- Be careful when handling the unit. When the unit is plugged in, the internal components generate a lot of heat which may lead the outer casing too hot to touch.

### 2.5.2 Connector Description and Pin Assignment

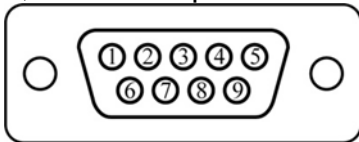
This section contains the description of the G-WIN Panel PC (Bay Trail) external connectors.

#### 2.5.2.1 Power Input Connector

G-WIN Military Panel PC uses military grade lockable connector (MS27467T9F98S for power input and accepts voltage 12V DC (Optional9-36V DC).

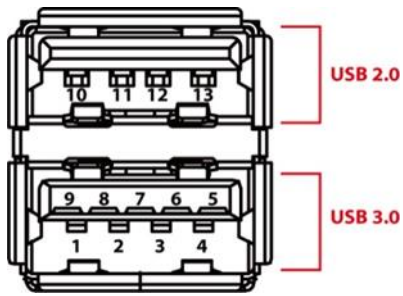
#### 2.5.2.2 Serial Interface (RS-232/422/485)

Use RS-232/422/485serial port connector to connect your Panel PC to external devices such as mouse, modem or printer.



Pin No	RS232	RS422	RS485
1	DCD	TxD-	D-
2	RXD	TxD+	D+
3	TXD	RxD+	NC
4	DTR	RxD-	NC
5	GND	GND	GND
6	DSR	NC	NC
7	RTS	NC	NC
8	CTS	NC	NC
9	RI	NC	NC

### 2.5.2.3 USB 2.0/ USB 3.0 Connector



Pin №	Signal Name	Pin №	Signal Name
1	+5V	2	USB_D-
3	USB_D+	4	GND
5	STDA_SSRX-	6	STDA_SSRX+
7	GND_DRAIN	8	STDA_SSTX-
9	STDA_SSTX+	10	+5V
11	USB_D-	12	USB_D+
13	GND		

### 2.5.2.4 HDMI Connector

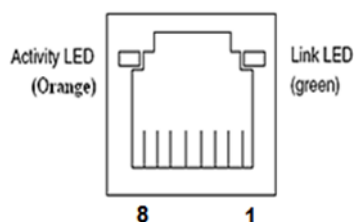
G-WIN Panel PC uses HDMI1.4a connector to connect to the external display.



Pin №	Signal Name	Pin №	Signal Name
1	TMDS_DATA2+	2	GND
3	TMDS_DATA2-	4	TMDS_DATA1+
5	GND	6	TMDS_DATA1-
7	TMDS_DATA0+	8	GND
9	TMDS_DATA0-	10	TMDS_CLOCK+
11	GND	12	TMDS_CLOCK-
13	CEC	14	NC
15	DDC_CLOCK	16	DDC_DATA
17	GND	18	5V
19	Hot Plug Detect		

### 2.5.2.6 Ethernet (LAN) Connector

The G-WIN Panel PC supports one RJ45 10/100/1000 Mbps Ethernet interface for connecting to the internet.



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

## **Chapter 3: Mounting**

This chapter provides mounting guide for all available mounting options. Pay attention to cautions and warning to avoid any damages.





## 3.1 Cable Mounting Considerations

For a nice look and safe installation, make sure cables are neatly hidden behind the Panel PC. Refer to [Chapter 2, section 2.1](#) for the cable installation instruction.



### **Warning!/ Avertissement!**

Observe all local installation requirements for connection cable type and protection level.

Suivre tous les règlements locaux d'installations, de câblage et niveaux de protection.



### **Warning!/ Avertissement!**

Turn off the device and disconnect other peripherals before installation.

Éteindre l'appareil et débrancher tous les périphériques avant l'installation.



### **Warning!/ Avertissement!**

Follow mounting instructions and use recommended mounting hardware to avoid the risk of injury.

Suivez les instructions de montage et d'utilisation recommandé le matériel de montage pour éviter le risque de blessure.



### **Alternating Current !/ Mise a le Terre!**

To prevent electrical shock, the Safety Ground location on the rear must be bonded to the local earth ground through a minimum 12 AWG wire as short as possible

Pour éviter les chocs électriques, l'emplacement de la prise terre à l'arrière doit être lié à terre locale, à travers un 12 AWG minimum et aussi court que possible.

## 3.2 Safety Precautions

Observe the following common safety precautions before installing the equipment:

- Use separate, non-intersecting paths to route power and networking wires. If power wiring and device wiring paths must be crossed make sure the wires are perpendicular at the intersection point.
- Keep the wires separated according to the interface. Do not bundle input wiring with output wiring. Keep them separate.
- When necessary, it is strongly advised to label wiring to all devices in the system.

## 3.3 Mounting Guide

The device comes with different mounting options suitable for most of the industrial and commercial applications. There are two main mounting approaches - Vehicle Mounting (Dash/Yoke Mounting) and VESA Wall Mounting; both approaches are very easy for user to set up the Panel PC.



### **IMPORTANT:**

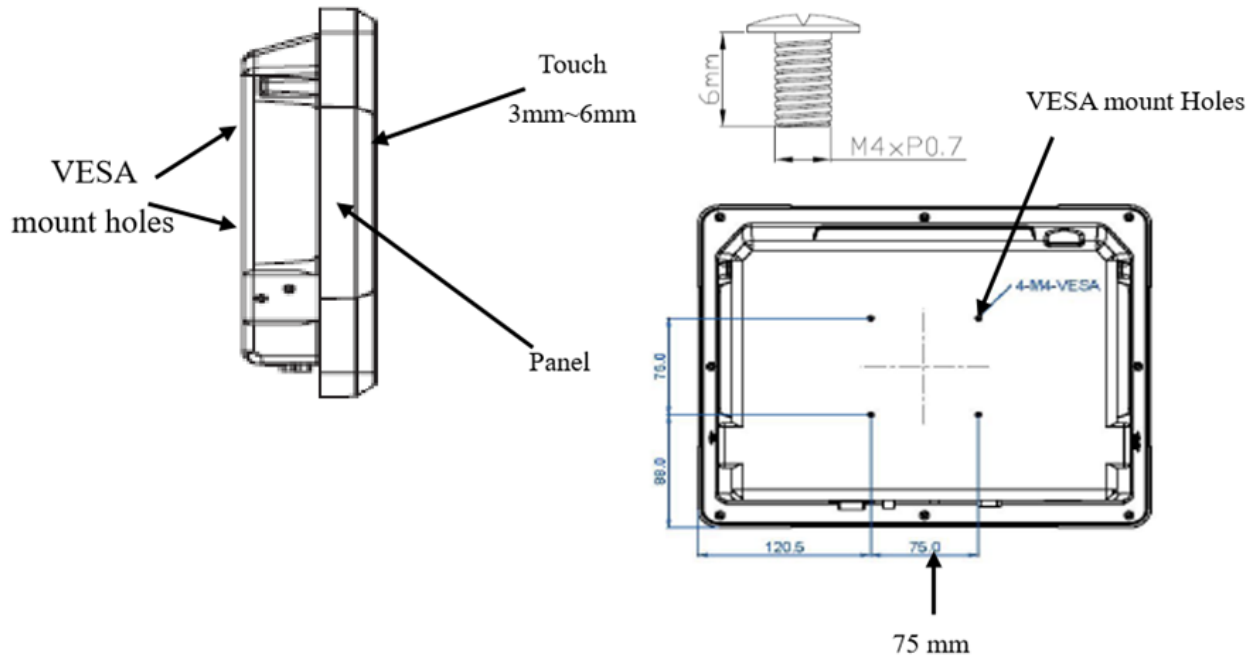
Perform mounting after you establish all the necessary connections. Refer to [Chapter 2](#) for wiring requirements and instructions.

### 3.3.1 VESA Mounting

G-WIN Military Panel PC compatible with VESA Mount solution. Follow the instruction below to complete mounting.

Size	VESA Plate Dimensions	Screw hole diameter
8.4", 10.4"	75 x 75 mm	VESA M4x6 mm
15"	100 x 200 mm	VESA M6x8 mm

#### VESA Plate Installation

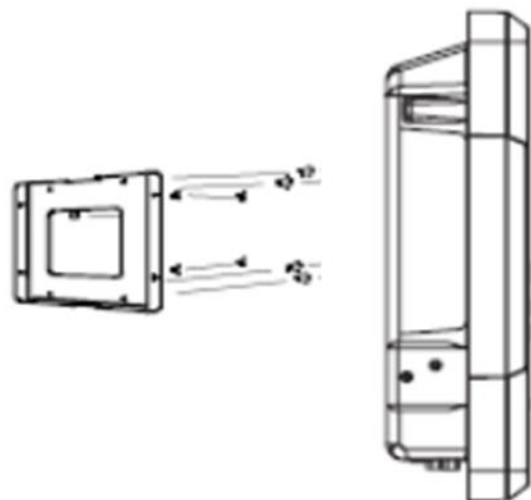


#### Wall Mount

*\*with customer's bracket*

#### Mounting Steps:

1. Screw VESA Bracket to the fixture (ex. wall) with M4 flathead screws.
2. Place the device on VESA bracket.
3. Carefully mount the device to the fixture (for ex. wall).
4. When the installation is complete, plug the power cord into a grounded AC outlet. Turn on the power.

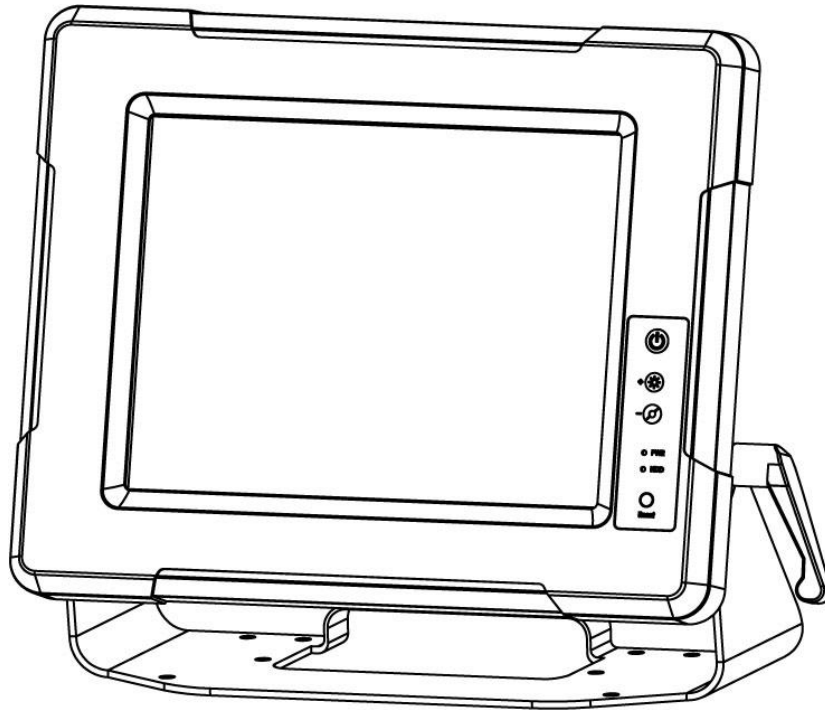


#### Note:

Notice that both hooks on bracket should lock the notches on the back cover of the device.

### 3.3.2 Yoke Mounting

Yoke Mount solution allows to mount your device on a wall or ceiling. You can purchase dash/ yoke mounting kit from Winmate as an optional accessory.

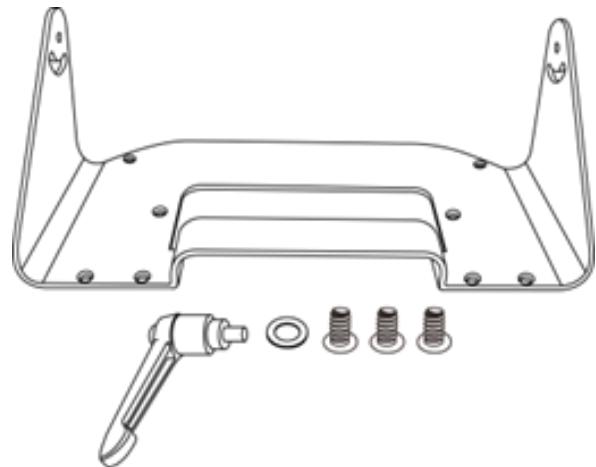


#### Yoke Mounting Kit:

Size	Winmate Part Number
8.4"	99KK08Z00010
10.4"	99KK00Z00010

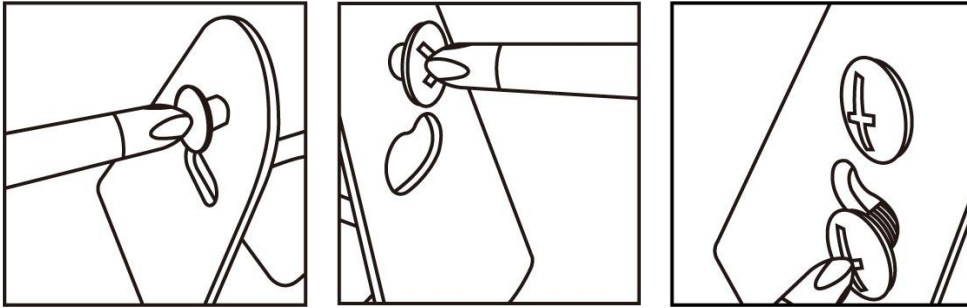
#### Yoke Mount Kit includes:

- One bracket stand
- Three M5 x10 screws with washer
- One locking handle adjustment tool with metal washer

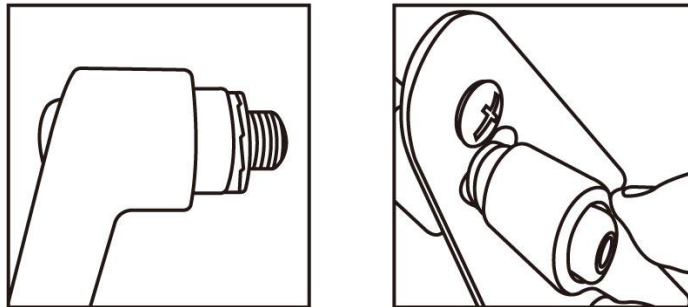


**Mounting steps:**

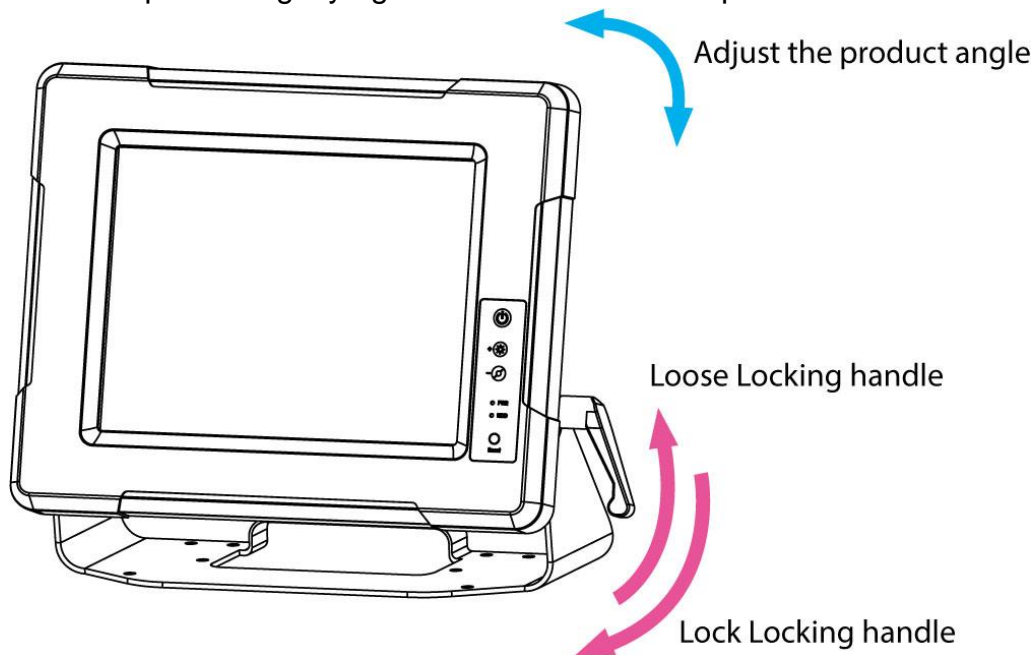
1. Place the G-WIN Vehicle Mount Panel PC on the bracket stand, aiming screw hole for each other.
2. Secure three M5x10 screws to fix the device upon the bracket stand.



3. Secure tightly locking handle to the Panel PC.

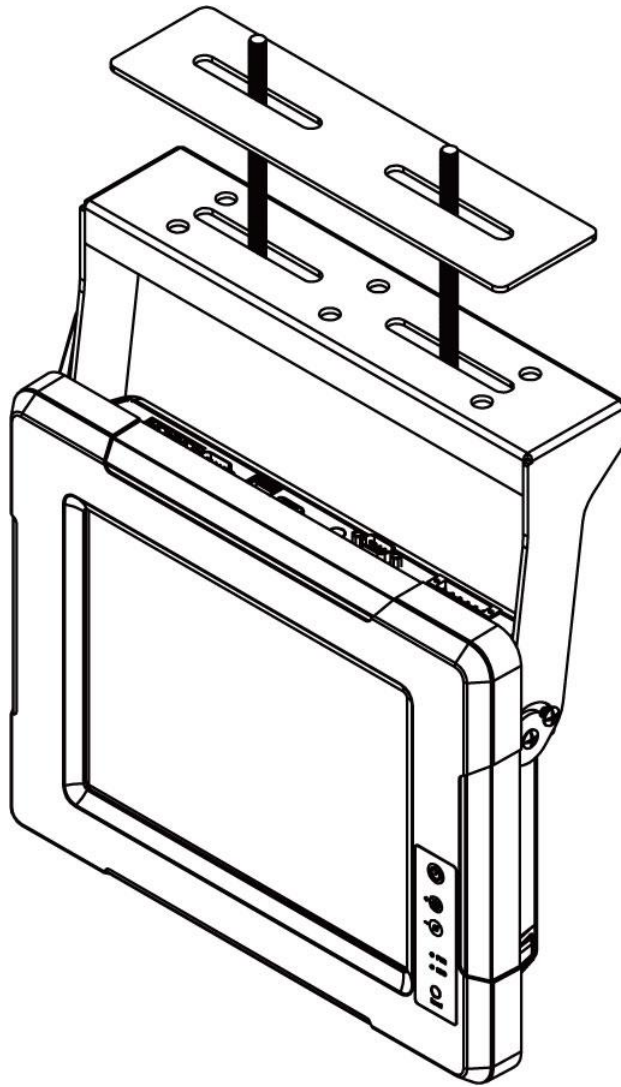


4. Loosen the hand-screw adjustment tool, then you can adjust product angle on the stand. Then screw the product tightly again to secure the stand position.



### 3.3.3 Roof Mounting

Roof mounting allows mounting your device on the roof. You can purchase roof mounting kit from Winmate as an optional accessory.

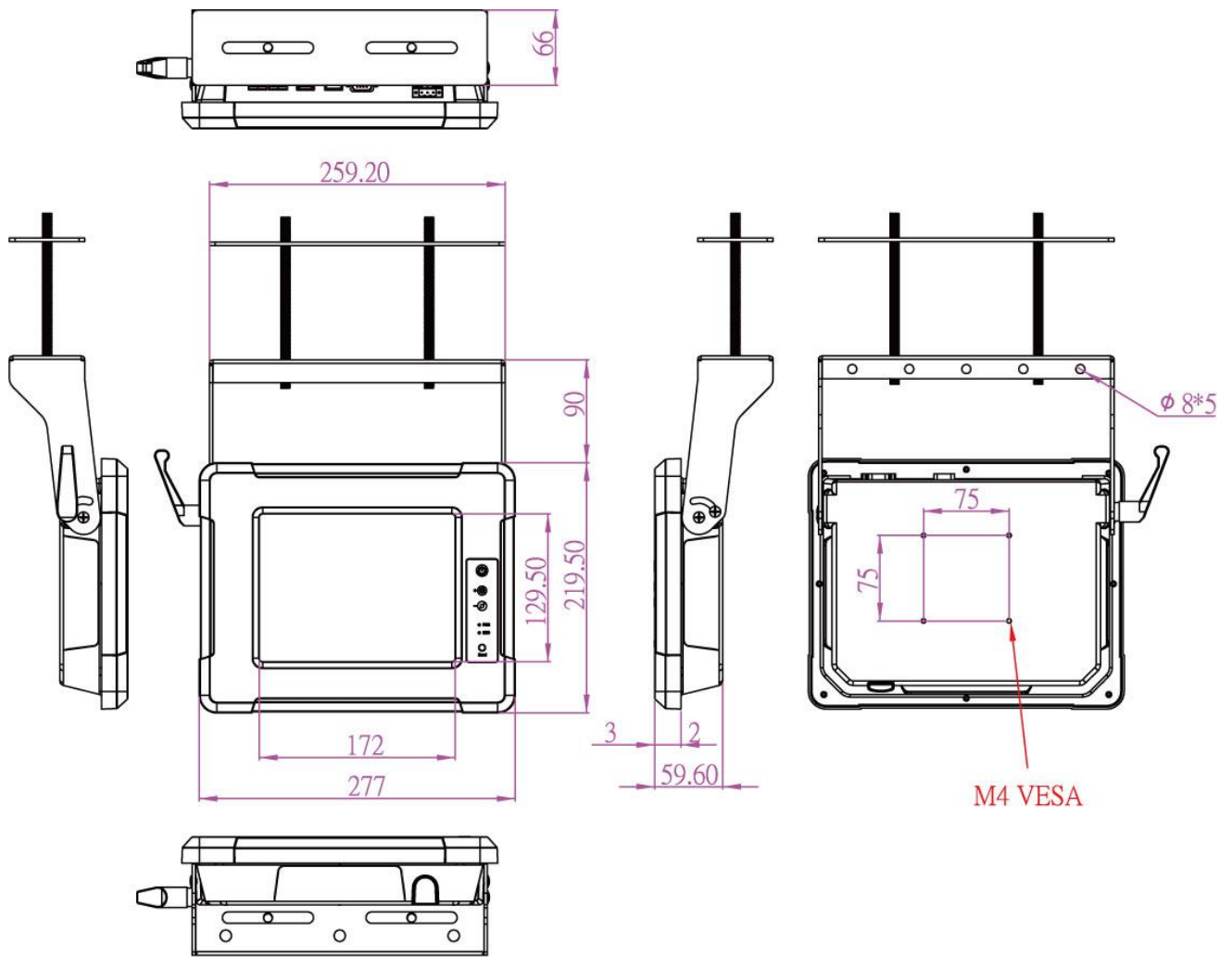


U-Shape Mounting Kit:

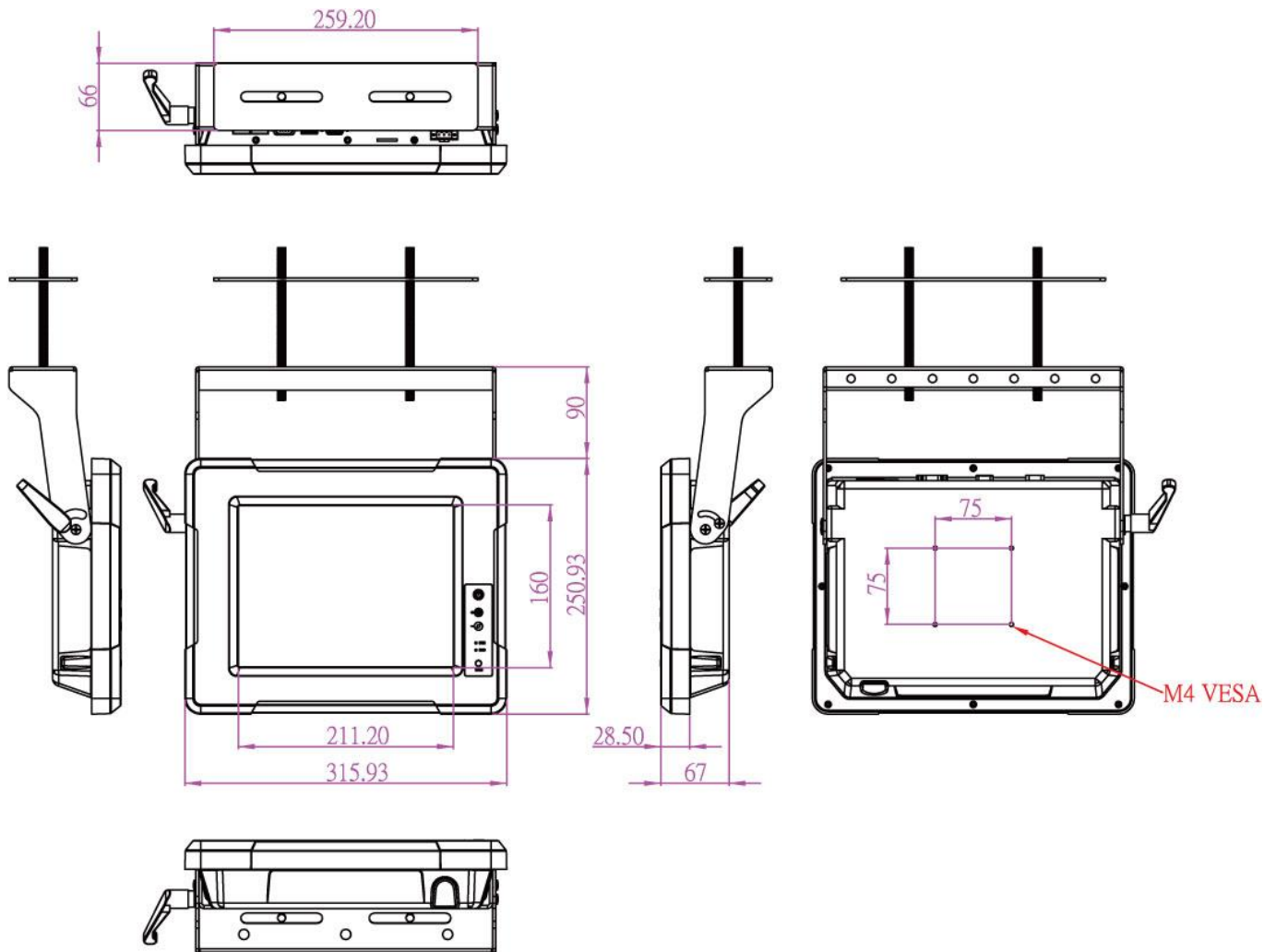
Size	Winmate Part Number
8.4"	98K008A0000R
10.4"	98K010A00018

### U-Shape Mounting Kit Mechanical Drawing

For 8.4" G-WIN Vehicle Mount Panel PC



## For 10.4" G-WIN Vehicle Mount Panel PC



## **Chapter 4: Driver Installation**

This chapter describes how to install all necessary drivers.





## 4.1 Introduction

The Panel PC comes with Motherboard User Manual and Driver CD according to the CPU, and contains most of the drivers and utilities that you need. To install Graphics, Chipset, VGA, Audio, SATA and Ethernet drivers, follow the step-by-step driver installation guide in the Motherboard User Manual (included in the package).

To install touch screen drivers (if necessary), follow the instructions included in this chapter.



### Note:

For other drivers installation instructions and BIOS settings please refer to the Motherboard User Manual that can be found in the Driver CD included in the package.

## 4.2 Touch Driver Installation

### 4.2.1 Downloading Drivers

ELO AccuTouch/ CarrollTouch infrared driver software provides a consistent software interface among all ELO AccuTouch/ CarrollTouch infrared touch screens and controllers. Go to <http://www.elotouch.com/Support/dnld.asp> for a complete list of available drivers.

For Driver Installation, please install the “**ELO Touch System Touch Tools CD**” for Windows XP Professional Embedded, Windows 2000, Windows Me, Windows 98, Windows 95, Windows NT, Windows CE 2.x, 3.0, 4.x, Windows XP Embedded, Windows 3.1, DOS, OS/2 Warp, and Apple Macintosh. Just follow the step by step to install the driver. Select “Auto-detect ELO devices” in the first step. If not, the following step will need users choose COM2 port for detecting the devices.



## 4.2.2 Configuration Utility

After finishing the installation, follow the steps below to test the configuration utility.

**Step 1** Enter "My Computer", click the "ELO Touch Screen" shortcut function.



**Step 2** Click "Align" function key to continue.



**Step 3** Calibrate four-point locations on the screen.



**Step 4** Click "Yes" if the cursor follows your finger and finish the utility test.



## 4.3 The Premier Touch Driver Installation

Touch-Kit is the Premier Touch software, which contains drivers of the touch panel controllers for the specified communication connectors, RS232, PS/2 and USB, and the other two utilities.

The two utilities are as follows:

- **Touch Tray support**  
This is utility for emulating the right and left button of mouse through controlling touch panel. Users can toggle between right/left mouse buttons by this utility.
- **Configuration support**  
The calibration and draw test of touch panel can be done by this utility. Besides, you can add or remove for new RS-232 or PS/2 touch panel devices.

### 4.3.1 Installing Touch Kit

Follow the steps below to install Touch Kit:

**Step 1** Insert the Touch-Kit CD to CD-ROM.

**Step 2** Open the G-WIN Vehicle Mount Panel PC User Manual CD to "Touch \_PM" directory.

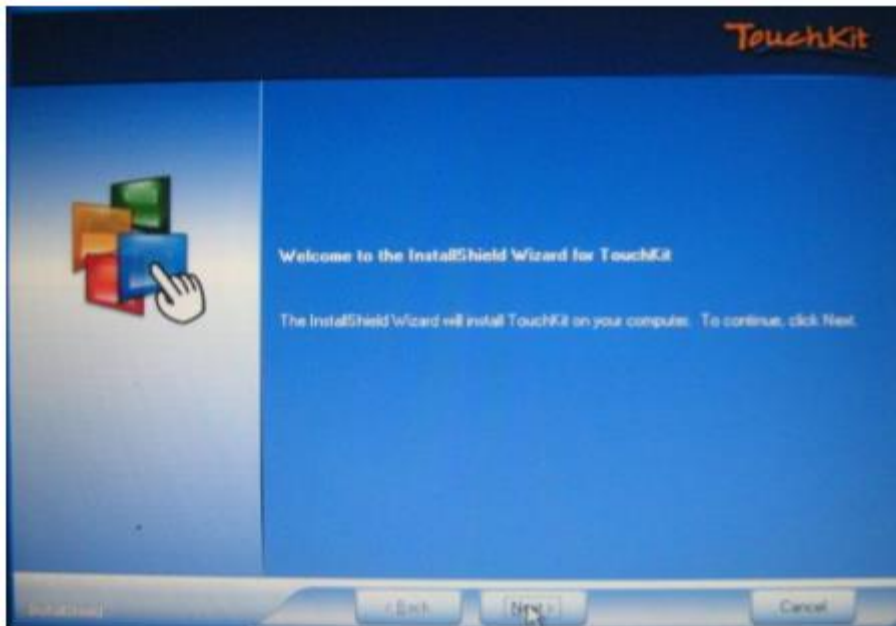
**Step 3** Double-click the Setup.exe, then Windows starts to run the installation program.



**Important:**

Do not plug the USB controller on the system before the installation has been finished.

**Step 4** Click Next to continue installation. The system will automatically detect touch devices connected to the COM2 port on your Panel PC.

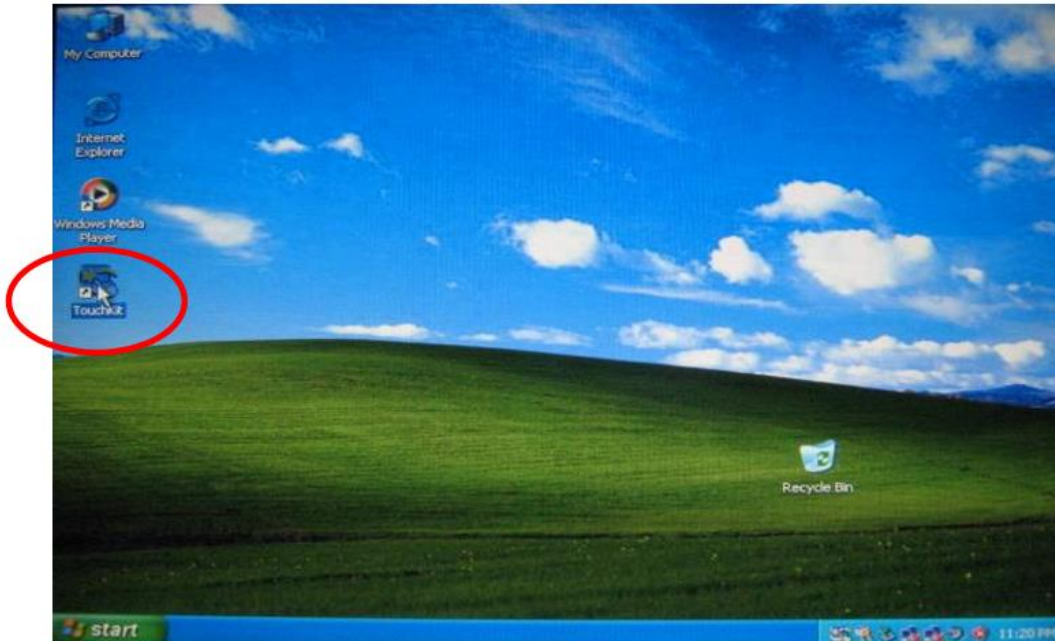


**Step 5** Follow on-screen instructions to finish the driver installation.

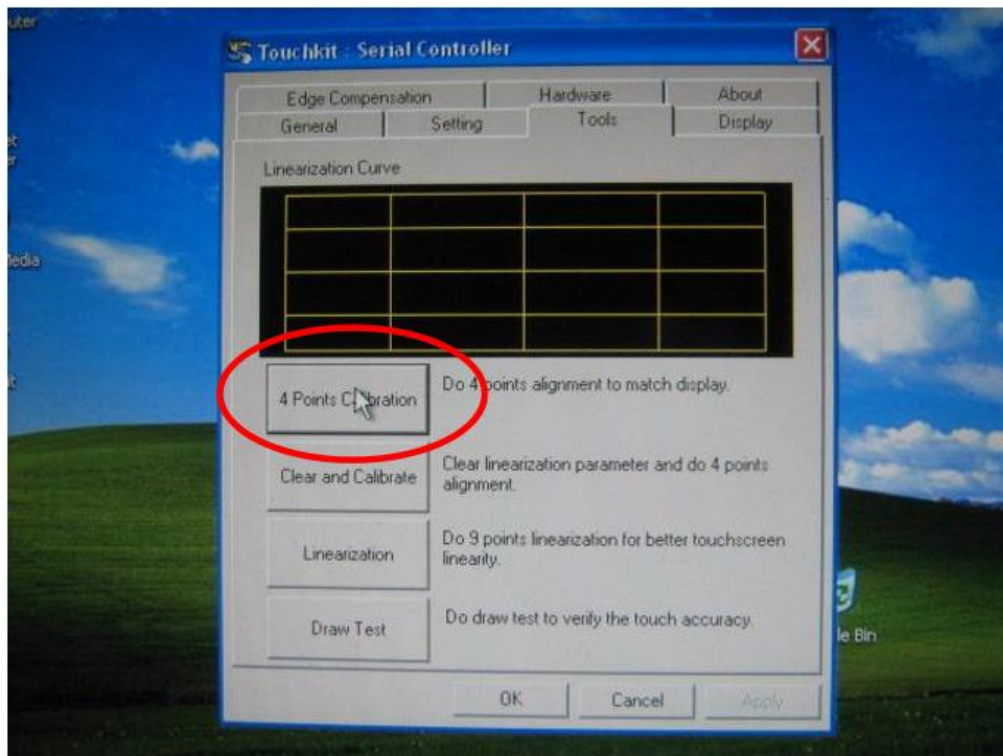
### 4.3.2 Configuration Utility

After finishing the touch driver installation, you need to test the configuration utility.

**Step 1** Click the "Touch-Kit" shortcut function on the desktop.



**Step 2** Enter “General” functions and choose the language you need. Then Enter “Tool” function alignments to match the display. And go to the next step.

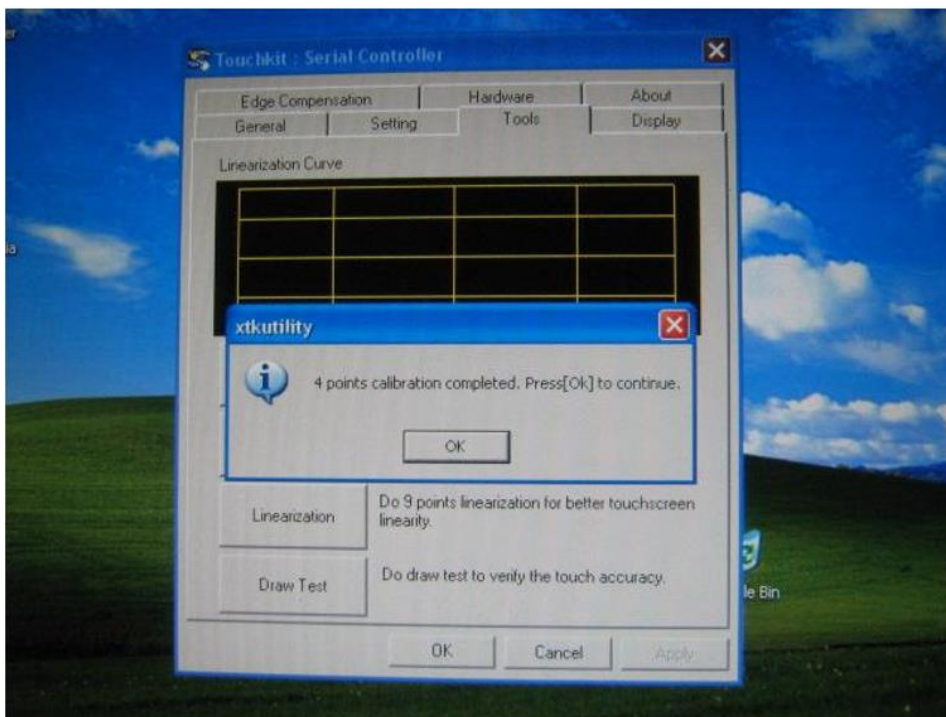


**Step 3** Correct four-point locations on screen.





**Step 4** Press “Yes” to continue if four-point calibration test is complete successfully and press Ok to finish the screen calibration.



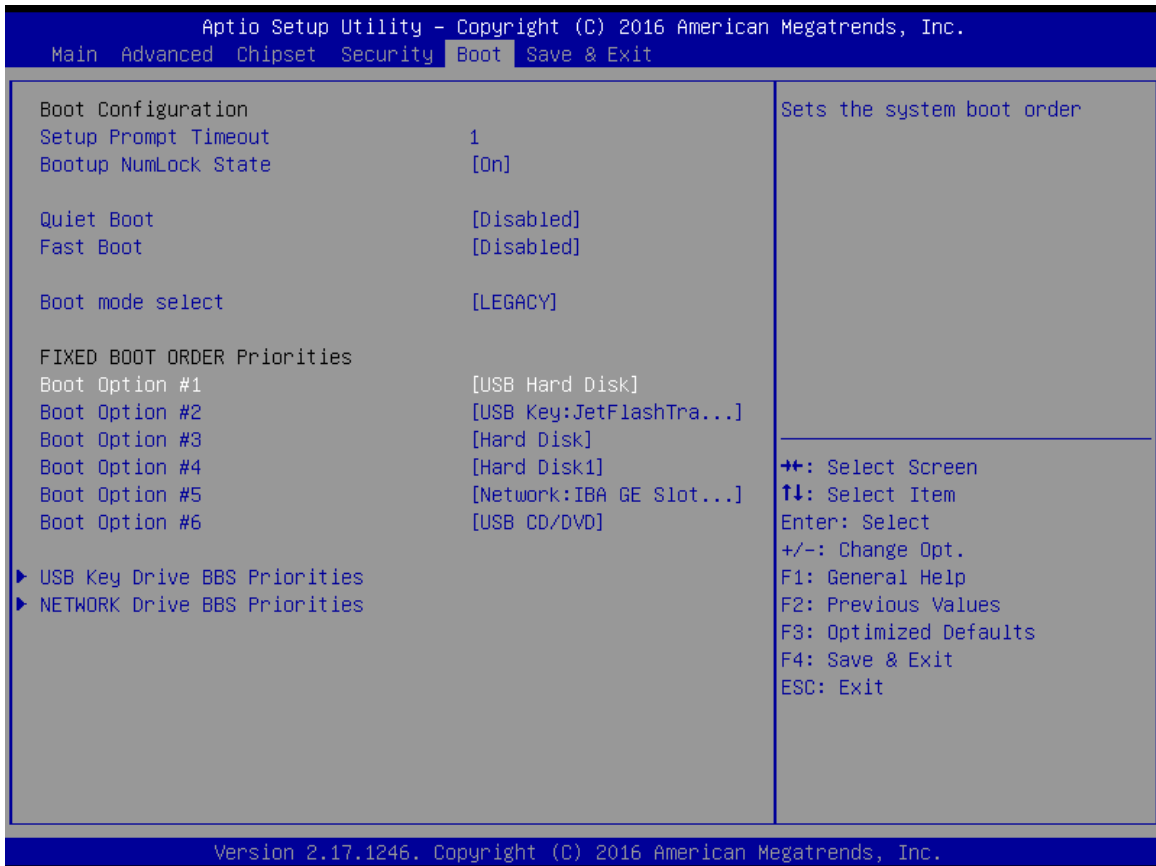
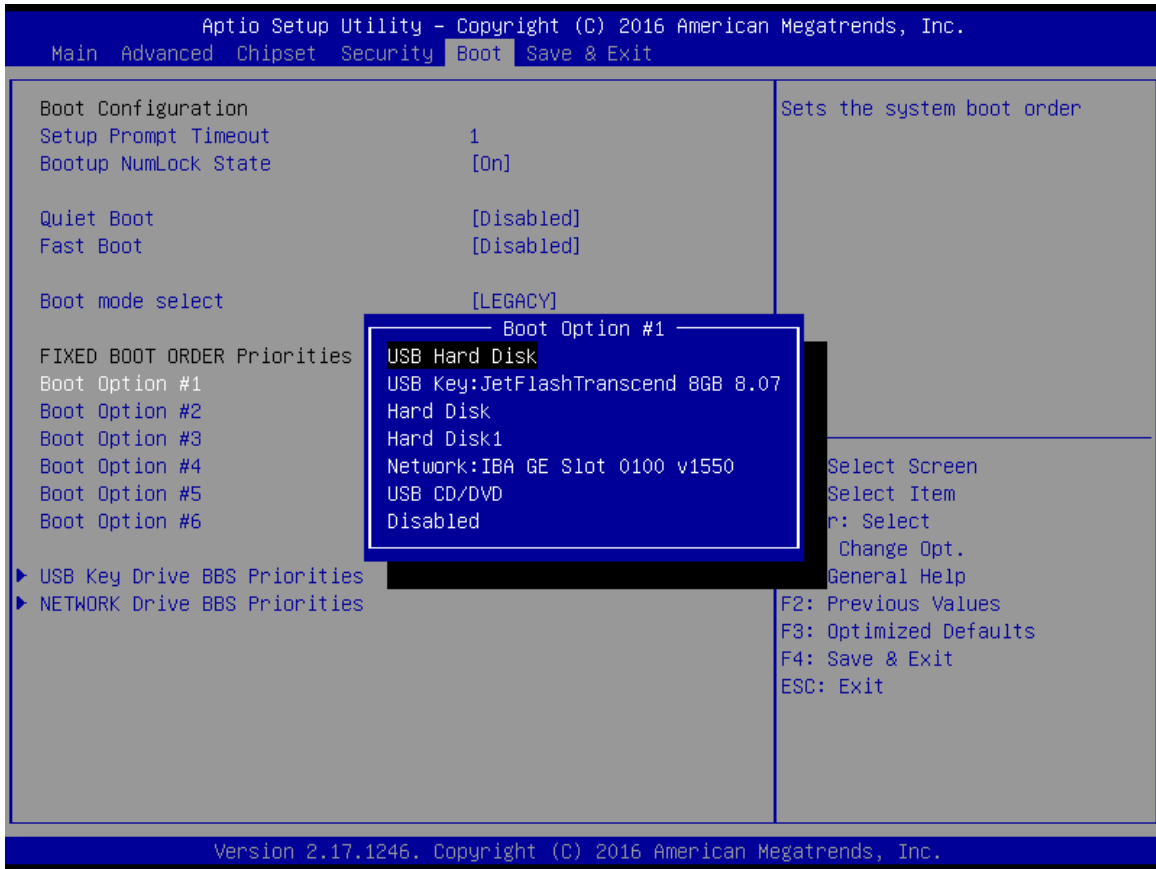
## **Chapter 5: Troubleshooting**

This chapter describes all known issues and solutions.

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## 5.1 Using USB-HDD or USB-CDROM for Booting OS

If you need to use USB-HDD or USB-CDROM for booting an operating system at start-up time, we recommend disabling the “Quick Power On Self Test” function in CMOS setting.







### Important:

While using CF card as storage of the Operation System, you need to use “**Fixed Disk Mode**” type Compact Flash Card instead of removable disk mode. The internal Compact Flash socket is **NOT A PLUG & PLAY DEVICE**; you are allowed to remove the CF card only at **POWER-OFF** status.

## 5.2 Using Recovery Wizard to Restore Computer

G-WIN Vehicle Mount computer has a dedicate recovery partition stored on the hard drive of the tablet to enable quick one-key recovery process. This partition occupies about 11GB of the storage space, and comes built-in to each G-WIN Vehicle Mount computer.



### Important:

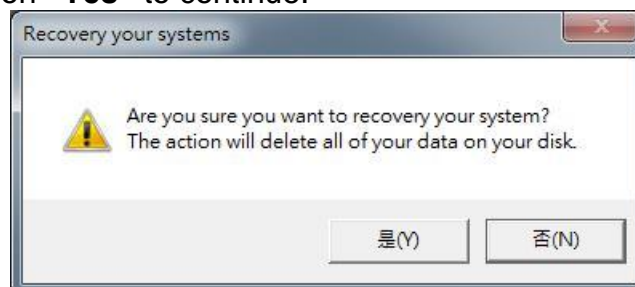
Before starting the recovery process, be sure to backup all user data, as all data will be lost after the recovery process.

Follow the procedure below to enable quick one-key recovery procedure:

1. Plug-in the AC adapter to the computer. Make sure the computer stays plugged in to power source during the recovery process.
2. Power on the tablet computer, and when the boot screen shows up, press the **Fn1** button (Recovery Key) on the front bezel OR press **F6** when using an external USB keyboard to initiate the Recovery Wizard.
3. The following screen shows the Recovery Wizard. Click on “Recovery” button to continue.



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



5. Wait till the recovery process to complete. During the recovery process, a command prompt will show up to indicate the percent of recovery process. After recovery is completed, and the tablet computer will restart automatically.

## **Chapter 6: Technical Support**

This chapter includes information where to find technical support and Winmate's Software Developing Kit (SDK). If any problem occurs fill in Problem Report Form enclosed and immediately contact us.

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## 6.1 Software Developer Support

We provide the SDK in the User Manual and SDK CD, or you can download the SDK from Winmate Download Center or Winmate Partner Portal.

The list of SDK for S-Series HMI:

Item	Type	Description
1	SDK	Digital I/O SDK
2	SDK	Watchdog SDK
3	Utility	Watchdog Utility

### Winmate Download Center:

Go to <http://www.winmate.com/> >Support > Download Center > Rugged Series > G-WIN Rugged PC-IB32

Or follow the link:

<http://www.winmate.com/DownCenter/DownLoadCenter.asp?DownType=0907>

### Winmate File Share

Go to <http://www.winmate.com/> > Support > Partner Portal > Public Documents > Panel PC > G-WIN > IB32 (Celeron N2930)

Or follow the link below: <https://winmate.box.com/v/GWIN-PPC-IB32>

## 6.2 Problem Report Form

### G-WIN Vehicle Mount Panel PC

Customer name:	
Company:	
Tel.:	Fax:
E-mail:	Date:

Product Serial Number: \_\_\_\_\_

**Problem Description:** Please describe the problem as clearly as possible. Detailed description of the occurred problem will allow us to find the best solution to solve the problem as soon as possible.

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## **Appendix**

This section includes additional product information.



## Appendix A: Hardware Specifications

	R08IB3S-MLU1	R10IB3S-MLT2	R15IB3S-MLC3HB
<b>Display</b>			
Size/ Type	8.4"	10.4"	15"
Resolution	800 x 600	1024 x 768	1024 x 768
Brightness	600 nits	350 nits	1000 nits
Contrast Ratio	600:1 (typ.)	1200:1 (typ.)	700:1 (typ.)
Viewing Angle	-75~75 (H); -70~60 (V)	-88~88(H);-88~88(V)	-80~80(H);-70~70(V)
Max Colors	262,144 (6bits/color)	16.2M	16.2M
Touch	Resistive touch/ EMI Glass (Optional)		
<b>System Specifications</b>			
Processor	Intel® Bay Trail-M N2930, 1.83 GHz		
System Chipset	Bay Trail SoC Chipset		
BIOS	AMI 16Mbit Flash		
System Memory	1 x DDR3L 1066 /1333 MHz SO-DIMM default 4GB, Max.8GB		
Storage	mSATA SSD, default 64GB		
Ethernet	Intel® I210-AT GbE LAN		
Audio	Realtek HD Audio Codec		
Expansion Slot	1 x Mini PCIe		
Wireless	1 x Mini PCIe base Wireless LAN card with SMA antenna (Optional)		
OS	Windows Embedded 7, Windows Embedded 8*, Windows 10 IoT Enterprise		
<b>Input / Output Connectors</b>			
Power	1 x Military Grade Lockable (MS27467T9F98S)Connector	1 x Military Grade Lockable (MS27467T9F98S)Connector	1 x Military Grade Lockable (MS27467T9F98S)Connector
Ethernet Port	2 x RJ-45	2 x RJ-45	2 x RJ-45
USB Ports	1 x USB 2.0, 1 x USB 3.0	1 x USB 2.0, 1 x USB 3.0	1 x USB 2.0, 1 x USB 3.0
COM Port	1 x RS232/422/485	1 x RS232/422/485	1 x RS232/422/485
HDMI	1 x HDM 1.4a	1 x HDM 1.4a	1 x HDM 1.4a
<b>Power Specifications</b>			
Power Input	12V DC/ 9-36V (Optional)	12V DC/ 9-36V (Optional)	12V DC/ 9-36V (Optional)
Power Consumption	30W typ.	32W typ.	38W typ.
<b>Mechanical Specifications</b>			
Dimensions	277 x 219.5 x 59.7 mm	315 x 250 x 67mm	398 x 308 x 58 mm
Mounting	VESA 75x75	VESA 75x75	VESA 75x75, 100x100
Physical Buttons	Power On/ Off, Reset, Brightness Up, Brightness Down		
LED Indicators	Power , HDD		
<b>Environment Considerations</b>			
Operating Temp.	-20°C to 70°C		
Operating Humidity	10% to 95% (non-condensing)		
Shock	Operating:30g for 18ms, 300m/s2		
Vibration	Operating: 1.60/1.96/2.18 g rms for XYZ / 5-500 Hz		
<b>Certification</b>			
Safety	MIL-STD-810F/G / IEC60068-2-27 for Vibration /Shock		

## Appendix B: Order Information

Item	Description
<b>Mounting Bracket and Kits</b>	One robust bracket with locking handle (Can adjust from -5deg. to 90deg.)
<b>Operating System</b>	Windows Embedded 7 , Windows Embedded 8* , Windows 10 IoT Enterprise <i>*For Windows Embedded 8, this panel pc does not support the Metro UI, only support desktop mode.</i>
<b>Storage</b>	mSATA SSD up to 256GB
<b>Anti-Reflective Glass</b>	3mm Anti-reflective Protection Glass (w/o Touch)
<b>WLAN</b>	IEEE802.11 b/g/n
<b>Wide Power Input</b>	9V to 36V wide range acceptable

## Appendix C: Touchscreen

This section includes information on projected capacitive touchscreen (p-cap), its technology and specifications.

### Overview

The G-WIN Military Panel PC supports three kinds of Touch Panel Solutions: ELO AccuTouch touchscreen, ELO Infrared touch-screen and Premier Touch system. All of the touchscreens consist of a touch-screen and an electronic touch-screen controller.

The G-WIN Military Panel PC touch device uses RS-232 interface touch controller card via the COM2 port Note inside Panel PC. When the touch driver installed either for ELO or Premier Touch systems, it will detect COM2 port automatically.

The ELO AccuTouch and Premier Touchscreen are based on patented resistive technology. The touchscreen may be flat, spherical, or cylindrical. It is installed over the face of the display. Since its shape matches of the display face, the touchscreen has excellent clarity and minimal parallax.

The ELO CarrollTouch infrared (IR) technology uses a small frame around the display with LEDs and photoreceptors on opposite sides, hidden behind an IR-transparent bezel. The Controller sequentially pulses the LEDs to create a grid of IR beams. A touch obstructs one or more the beams which identify the X and Y coordinates. CarrollTouch technology combines superior optical performance with excellent gasket-sealing capabilities, so it's an excellent choice for harsh industrial and outdoor kiosk applications. Touched with a finger, gloved hand, fingernail, or stylus, it delivers a fast, accurate response every time.

### Recommended Touch Interface

COM Port	1 x RS-232	2 x RS-232
Optional	<ul style="list-style-type: none"> <li>RS-232 (default via COM2)</li> <li>USB</li> </ul>	<ul style="list-style-type: none"> <li>USB</li> </ul>



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