

15" G-WIN Rugged Panel PC



Full IP67

Model No. R15IK3S-67C3(HB)
R15IH3S-67A3(HB)
R15IB3S-67A3(HB)
R15ID3S-67A3(HB)

Quick Start Guide

Contents

Chapter 1: Introduction	5
1.1 Features	5
1.2 Package Contents	5
1.3 Description of Parts	6
1.4 Physical Buttons and LED Indicators	7
Chapter 2: Getting Started	9
2.1 Turning On and Off Your Device	9
2.2 How to Enable Watchdog	11
Chapter 3: Mounting	12
3.1 VESA Mount	12
3.2 Dash/ Yoke Mount	13
Chapter 4: Installation	15
4.1 Safety Information	15
4.2 Wiring Requirements	15
4.3 Connecting to Other Devices	16
4.4 Connector Description	17
4.4.1 Power Input Connector	17
4.4.2 Ethernet Connector	18
4.4.3 Serial Interface Connector	19
4.4.4 USB 2.0 Connector	20
Appendix	21
Appendix A: Product Specifications	21
Appendix B: Cleaning the Monitor	23
Appendix C: Winmate Software Development Kit	23

FCC 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.

European Union



Electromagnetic Compatibility Directive (2014/30/EU)

- EN55024: 2010/ A1: 2015
 - IEC61000-4-2: 2009
 - IEC61000-4-3: 2006+A1: 2007+A2: 2010
 - IEC61000-4-4: 2012
 - IEC61000-4-5: 2014
 - IEC61000-4-6: 2014
 - IEC61000-4-8: 2010
 - IEC61000-4-11: 2004
- EN55032: 2012/AC:2013
- 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

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

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

Winmate Inc. 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

Winmate Inc. 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.

Chapter 1: Introduction

Congratulations on purchasing Winmate® 15-inch G-WIN Rugged Panel PC with full IP67 waterproof rating. Panel PC features 15" panel with sunlight readable screen, fanless cooling system, low power consumption, WLAN integration, shock and vibration resistant. The robust design fits the demands for every harsh environment applications such as logistics, transportation/ fleet management, heavy vehicles, utility and also outdoor usage.

1.1 Features

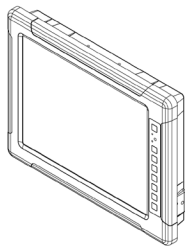
Winmate® 15" G-WIN Rugged Panel PC features:

- 15" high quality LCD panel, 1024 x 768 resolution, 300 nits
- IP67 dust and water proof design (with VESA mount installation)
- Aluminum die-casting housing with anti-corrosion treatments
- Build-in ambient light sensor
- Wide range 9 to 36V DC input with isolation
- 5 wire resistive touch/ anti-reflective protection glass (optional)

1.2 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



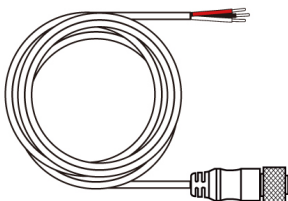
- **Quick Start Guide**

Part No. 91521111102C



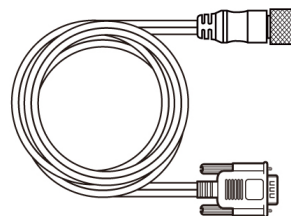
- **Driver CD**

Varies by product specifications



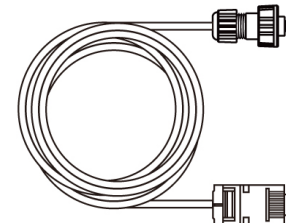
- **Power Cable**

Part No. 94J003L020K1



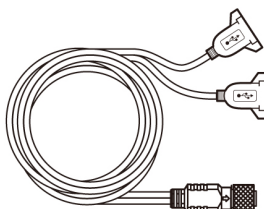
- **Serial Interface Cable**

Part No. 94G0103090Q0



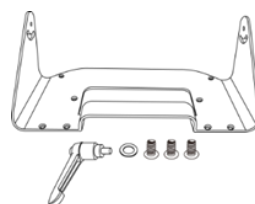
- **LAN Cable**

Part No. 94I0080080KF



- **USB Cable**

Part No. 9480108080Q0

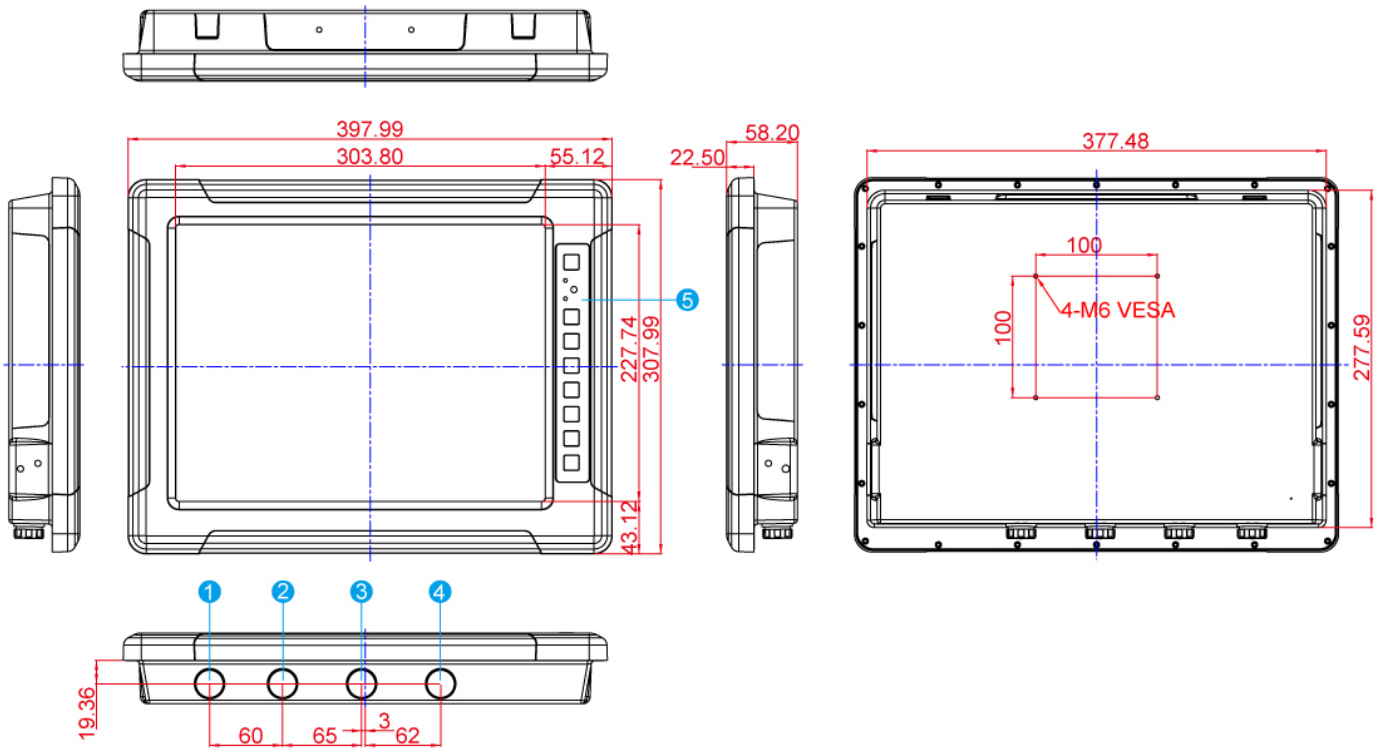


- **Mounting Bracket (Optional)**

Part No. 99KK15A00001

1.3 Description of Parts

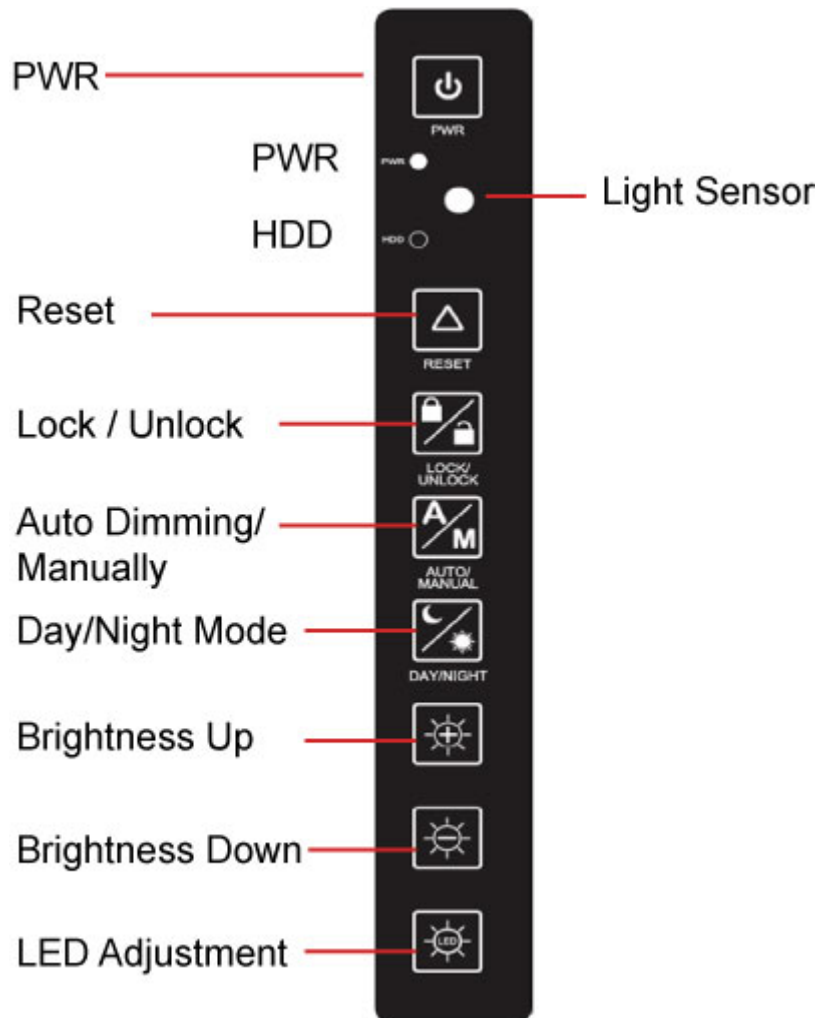
Unit: mm
Dimensions: 398 x 308 x 58











No	Description
①	LAN (M12 Type)
②	USB (M12 Type)
③	RS232 (M12 Type)
④	9-36V DC (M12 Type)
⑤	OSD Control Panel

1.4 Physical Buttons and LED Indicators




Physical buttons and LED indicators (OSD Control Panel) are located on the rear side of the panel PC.



Physical Buttons

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.

LED Indicators

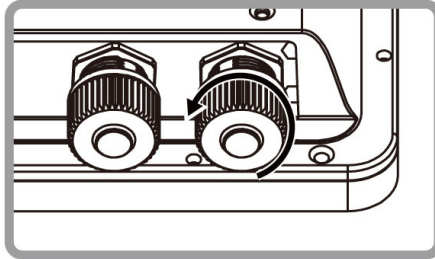
Indicator	Color		Definition
PWR	Green		Power is ON and the device functions normally.
	Orange		Panel PC is suspended.
HDD	Green		HDD is active.
	OFF		HDD is inactive.

Chapter 2: Getting Started

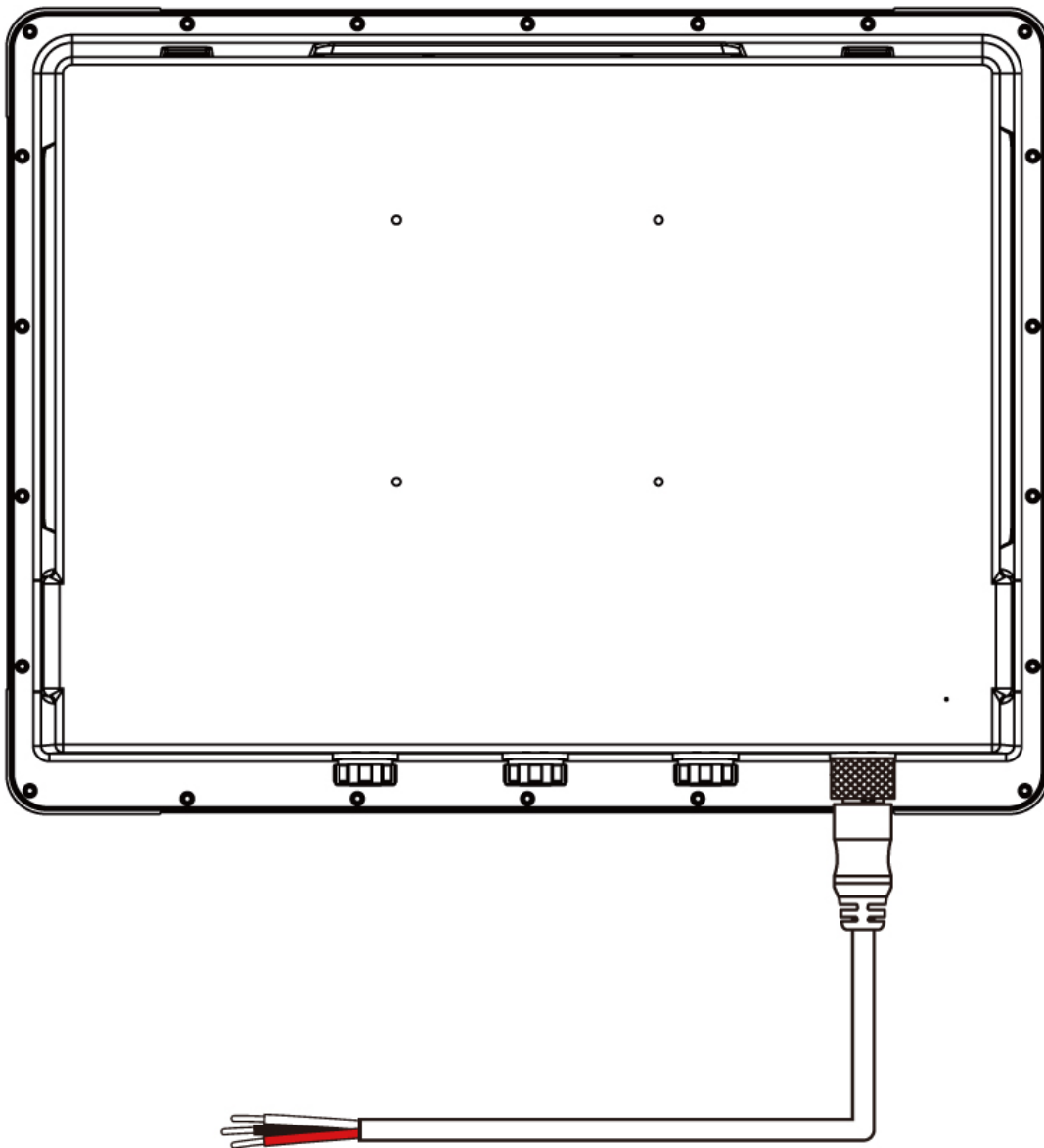
2.1 Turning On and Off Your Device

To turn on your device:

1. Remove the protective cap of the power connector.




2. Connect power cable to the connector of your device. Make sure the cable fits to the connector, then tighten the O-ring (by turning clockwise) to secure the connection.



3. The device will boot automatically when powered on.

To shut down your device:

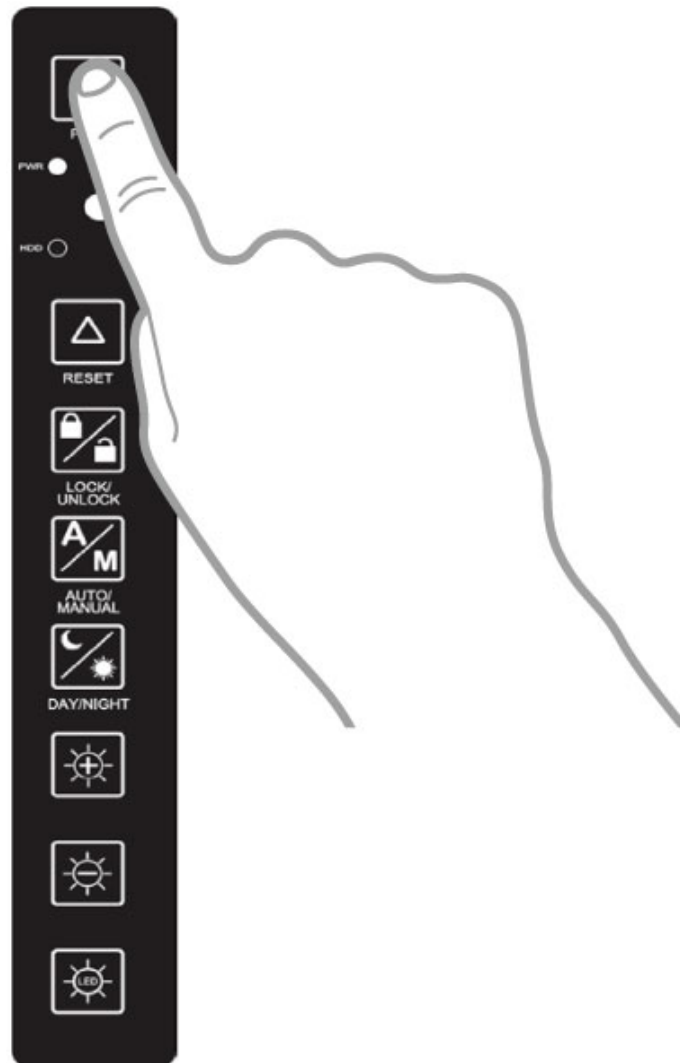
1. Select the Start button () and then select **Power > Shut down**.
2. Disconnect the power cord from the Panel PC to completely turn off the device.

To forcibly shut down your device, press and hold for three to five seconds the power button located on the front OSD control panel.



IMPORTANT:



During forced shut down unsaved data may be lost.

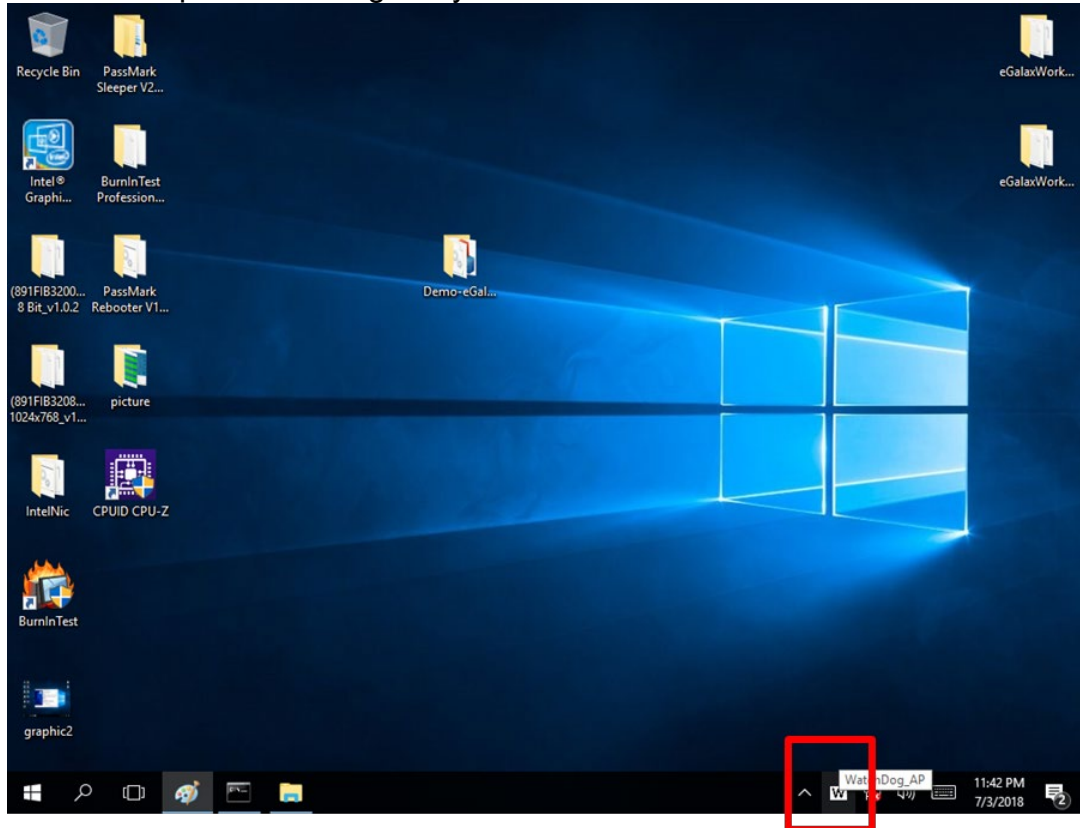


2.2 How to Enable Watchdog

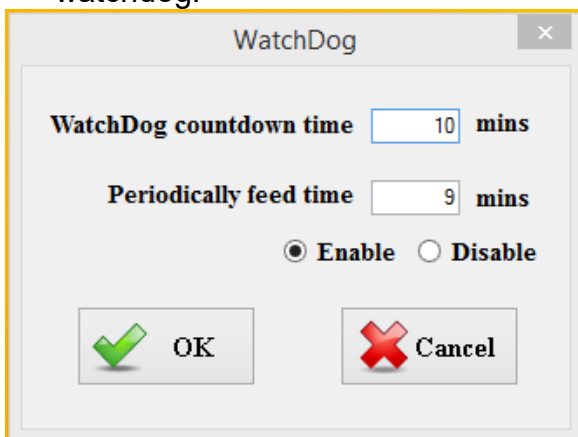
To enable Watchdog, download Winmate Watchdog utility. Find more information about Watchdog in “Watchdog Guide” that you can download from Winmate Download Center.

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  icon to open Watchdog utility.



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

Chapter 3: Mounting

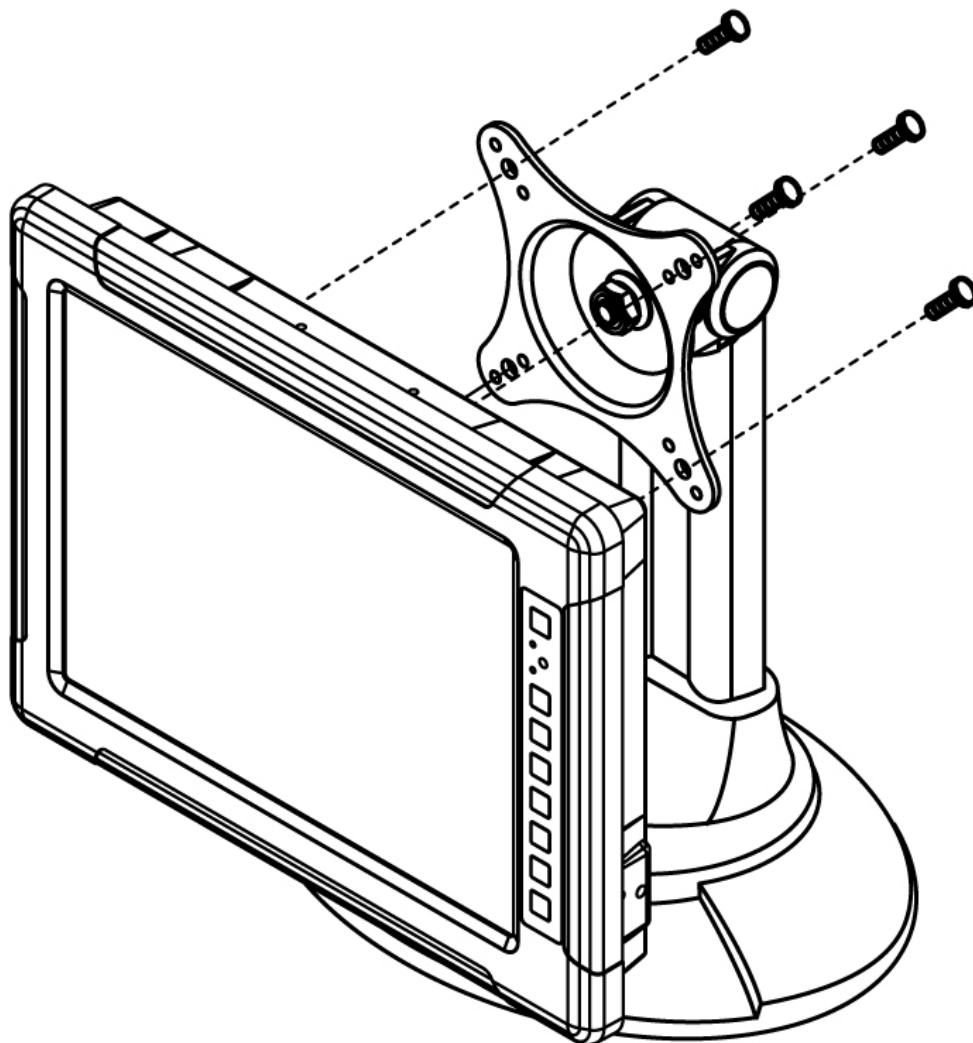
3.1 VESA Mount

This device supports VESA Mounting and provides various types of mounting options to fit any industrial use or vehicle.

Size	VESA Plate
15"	100x100 mm

Mounting Instruction

Use Philips M4x5 screws to fix the desk stand to VESA holes on the back cover of the device.



**The picture is for demonstration purposes only. VESA Mounting accessories are not supplied by Winmate.*

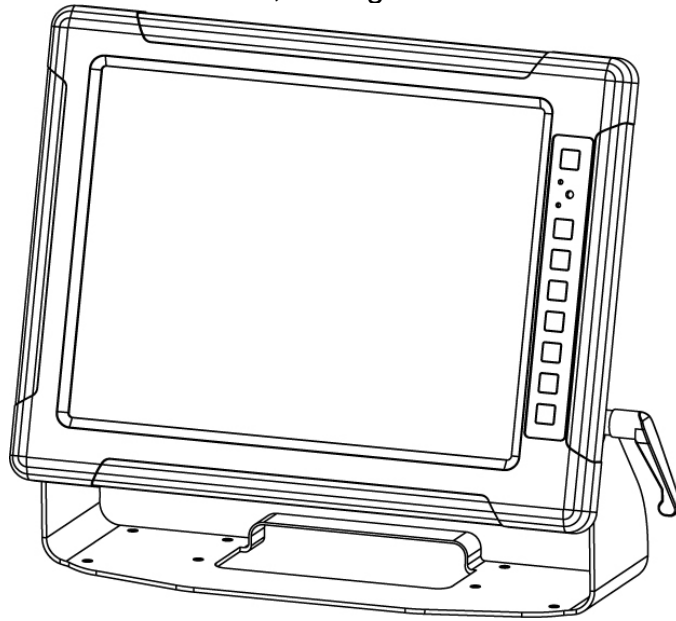
3.2 Dash/ Yoke Mount

You can purchase mounting bracket from Winmate as an optional accessory.

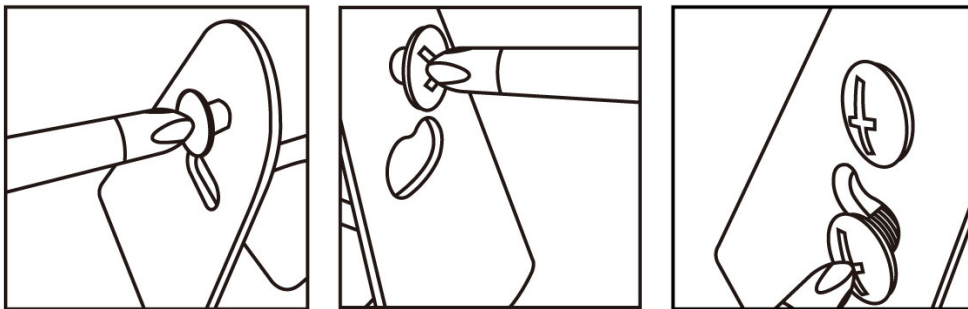
Part Number: 99KK15A00001

Mounting instruction:

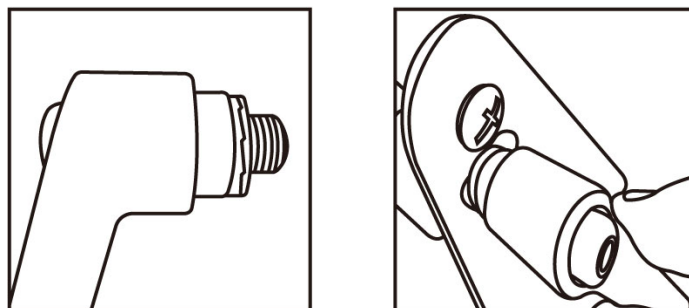
1. Place the Panel PC on the bracket stand, aiming screw hole for each other.



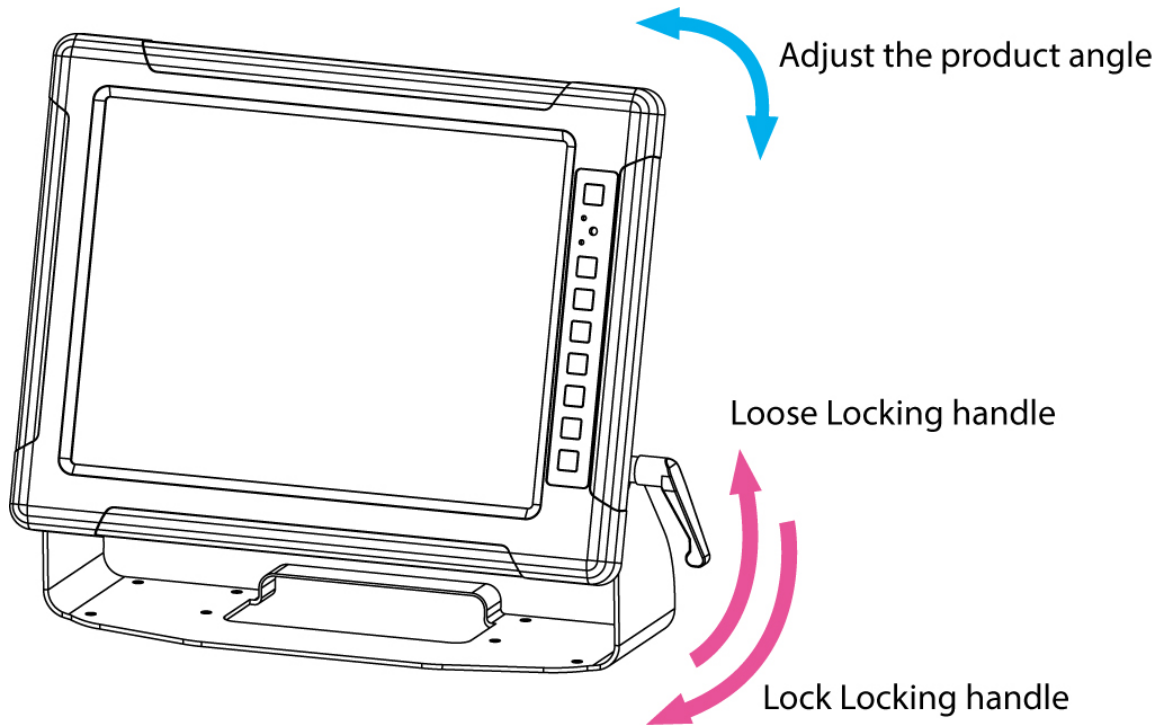
2. Secure three M5x10 screws to fix the device upon the bracket stand.



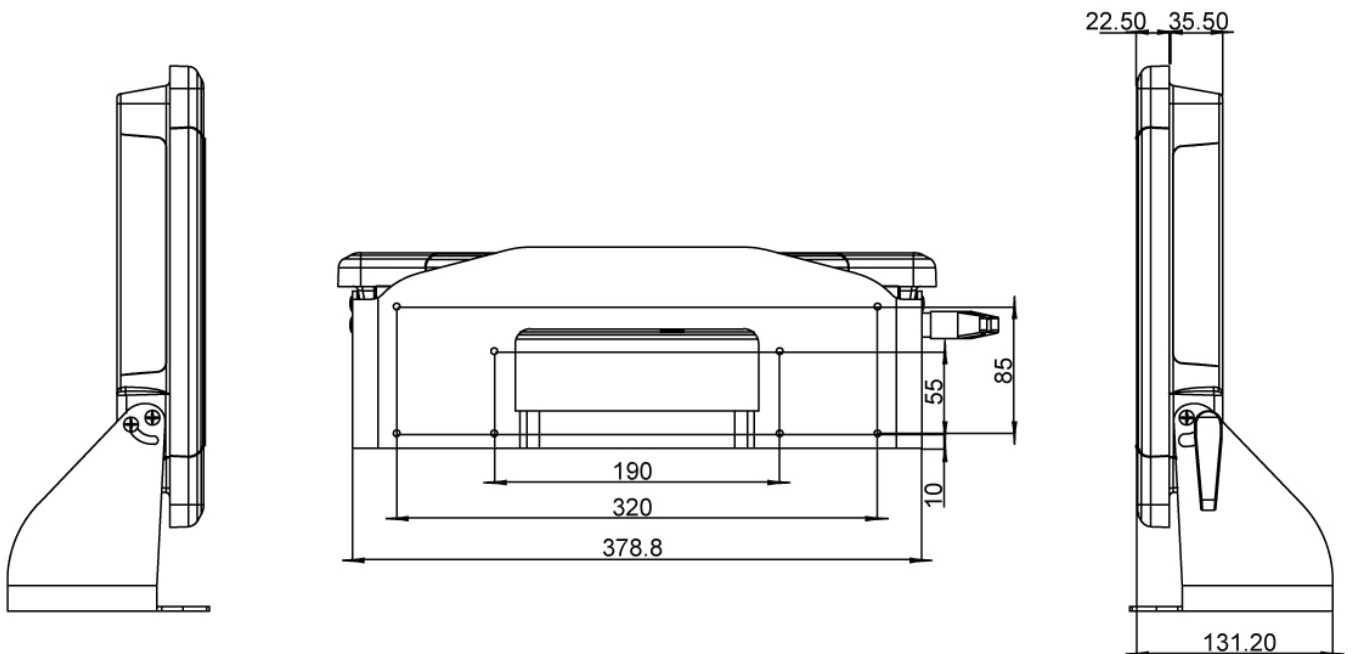
3. Secure tightly locking handle to the Panel PC.



- 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.



Desk Stand Dimensions



Chapter 4: Installation

4.1 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 composantes électroniques sensibles peuvent être endommagées 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.



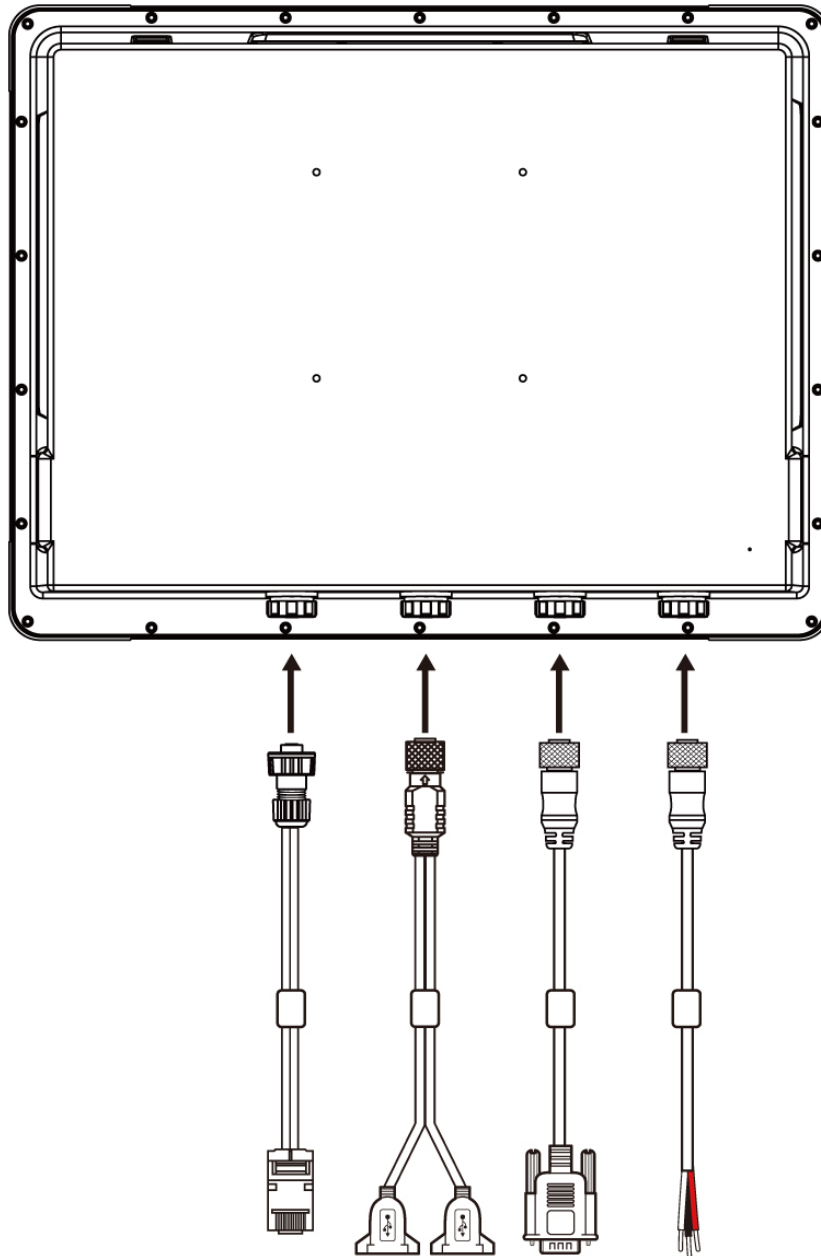
4.2 Wiring Requirements

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.
- 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, 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 leave the outer casing too hot to touch.

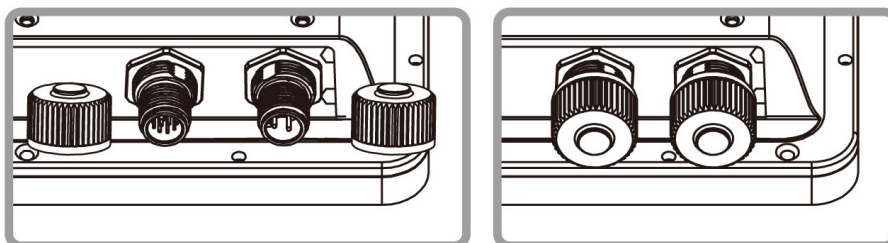
4.3 Connecting to Other Devices

This Panel PC comes with various interfaces located on the bottom panel. All of these connectors have been shipped with protective caps. To ensure the waterproof function can work properly, make sure that the protective caps and have been securely tightened whenever the connectors are not used.



IMPORTANT

Please note that when reinstalling the protective cap, it must be fully tightened to ensure the unit is properly sealed to meet the IP67 enclosure rating.



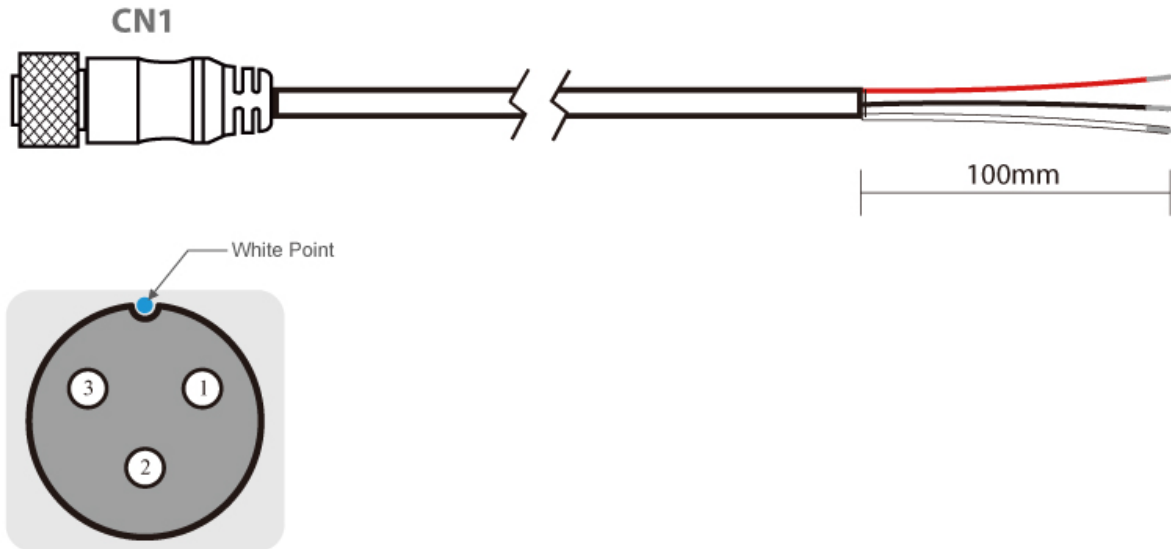
4.4 Connector Description

The panel PC features M12 type waterproof connectors covered with protective caps.

4.4.1 Power Input Connector

Panel PC has M12 type 3 pin male power input connector which accepts 9-36 V DC power input. Use waterproof power cable to connect the Panel PC to the source of power.

DC Power Cable



Pin No.	Symbols	Color
CN1-1	VCC+	Red
CN1-2	GND	Black
CN1-3	VCC-	White

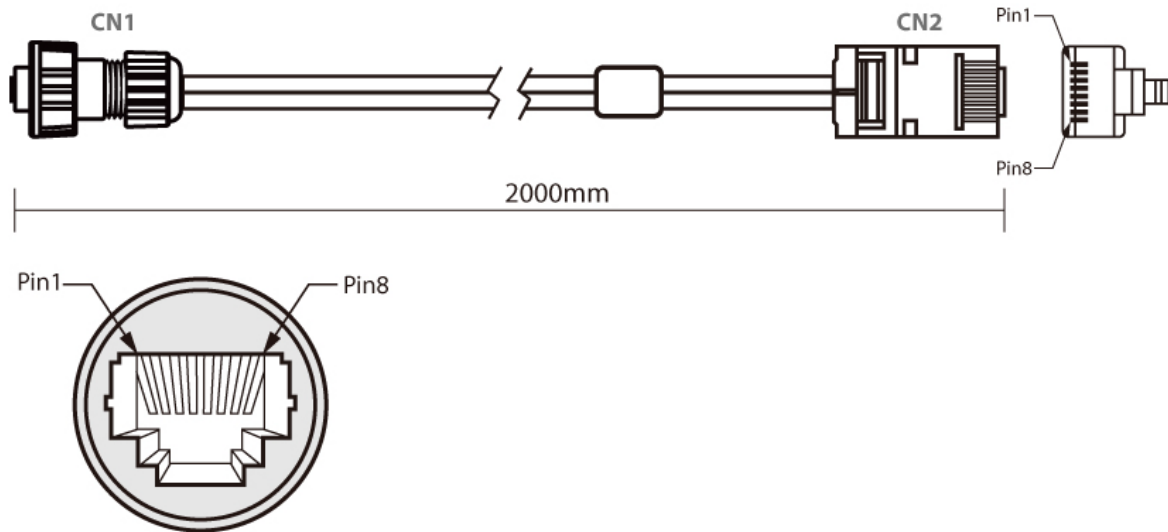


Pin No.	Symbols	Color
CN2-1	VCC+	Red
CN2-2	GND	Black
CN2-3	VCC-	White

4.4.2 Ethernet Connector

Panel PC has M12 type Ethernet connector. Use waterproof LAN cable to connect the panel PC to the Ethernet.

LAN Cable

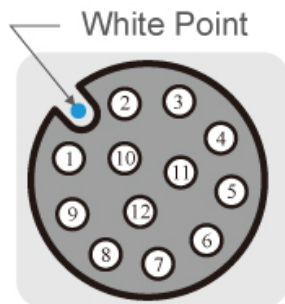
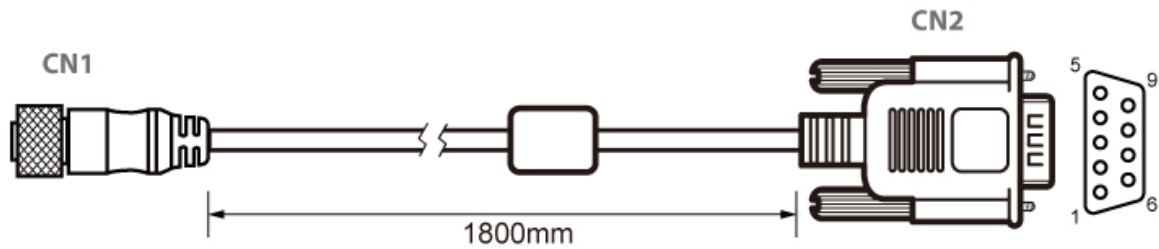


Plug	Wire Color	Conn.	
1	Orange / White	1	Twist
2	Orange	2	
3	Green / White	3	Twist
4	Blue	4	
5	Blue / White	5	
6	Green	6	Twist
7	Brown / White	7	
8	Brown	8	Twist

4.4.3 Serial Interface Connector

Panel PC has M12 type 10 pin male RS-232 connector. Use waterproof serial cable to connect the panel PC to external devices.

COM Cable

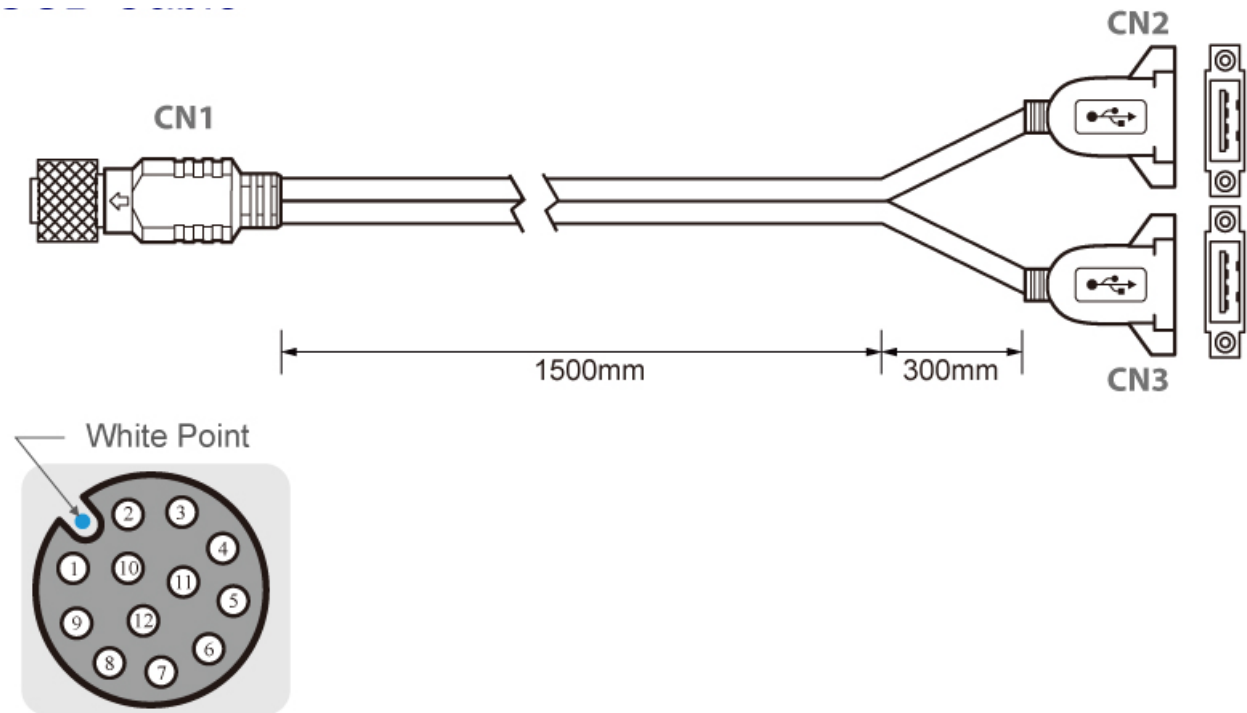


Pin No.	Symbols	Color		Pin No.	Symbols	Color
CN1-1	DCD-CON2	Green	↔	CN2-1	DCD-CON2	Green
CN1-6	DSR-CON2	Brown	↔	CN2-2	DSR-CON2	Brown
CN1-2	RXD-CON2	Red	↔	CN2-3	RXD-CON2	Red
CN1-7	RTS-CON2	Orange	↔	CN2-4	RTS-CON2	Orange
CN1-3	TXD-CON2	Blue	↔	CN2-5	TXD-CON2	Blue
CN1-8	CTS-CON2	White	↔	CN2-6	CTS-CON2	White
CN1-4	DTR-CON2	Purple	↔	CN2-7	DTR-CON2	Purple
CN1-9	RI-CON2	Yellow	↔	CN2-8	RI-CON2	Yellow
CN1-5	GND-CON2	Black	↔	CN2-9	GND-CON2	Black

4.4.4 USB 2.0 Connector

Panel PC has M12 12 pin male USB connector. Use waterproof USB 2.0 cable to connect the panel PC to external devices.

USB Cable



Pin No.	Symbols	Color		Pin No.	Symbols	Color	
CN1-2	VCC	RED	↔	CN2-1	VCC	RED	twisted pair
CN1-3	D-	WHITE	↔	CN2-2	D-	WHITE	
CN1-4	D+	GREEN	↔	CN2-3	D+	GREEN	
CN1-5	GND	BLACK	↔	CN2-4	GND	BLACK	
CN1-6	VCC	RED	↔	CN3-1	VCC	RED	twisted pair
CN1-7	D-	WHITE	↔	CN3-2	D-	WHITE	
CN1-8	D+	GREEN	↔	CN3-3	D+	GREEN	
CN1-9	GND	BLACK	↔	CN3-4	GND	BLACK	
CN1-1	GND	Braid	↔	Braid connect to the housing			

Appendix

Appendix A: Product Specifications

Hardware Specifications

	Model Name			
	R15IK3S-67A3(HB)	R15IH3S-67A3(HB)	R15IB3S-67A3(HB)	R15ID3S-67A3(HB)
Display				
Size/ Type	15"	15"	15"	15"
Resolution	1024 x 768	1024 x 768	1024 x 768	1024 x 768
Brightness	Std: 300 nits Opt.: 1000 nits	Std: 300 nits Opt.: 1000 nits	Std.: 300 nits Opt.: 1000 nits	Std.: 300 nits Opt.: 1000 nits
Contrast Ratio	2000:1	2000:1	2000:1	2000:1
Viewing Angle	-88~88(H) ; -88~88(V)	-88~88(H) ; -88~88(V)	-88~88(H) ; -88~88(V)	-88~88(H) ; -88~88(V)
Max Colors	16.2M	16.2M	16.2M	16.2M
Touch	5 Wire Resistive (Optional)	5 Wire Resistive (Optional)	5 Wire Resistive (Optional)	5 Wire Resistive (Optional)
Mechanical Specifications				
Dimensions	398 x 308 x 58 mm	398 x 308 x 58 mm	398 x 308 x 58 mm	398 x 308 x 58 mm
Mounting	VESA Mount, Desk Mount w/ adjustable mounting bracket (with locking handle - 5 deg. to 90 deg.)	VESA Mount, Desk Mount w/ adjustable mounting bracket (with locking handle -5 deg. to 90 deg.)	VESA Mount, Desk Mount w/ adjustable mounting bracket (with locking handle -5 deg. to 90 deg.)	VESA Mount, Desk Mount w/ adjustable mounting bracket (with locking handle -5 deg. to 90 deg.)
Weight	4.9 ~ 5.3 kg*	4.9 ~ 5.3 kg*	4.9 ~ 5.3 kg*	4.9 ~ 5.3 kg*
Cooling	Fanless design	Fanless design	Fanless design	Fanless design
Input / Output Connectors				
Power	1 x 9~36V DC (M12)	1 x 9~36V DC (M12)	1 x 9~36V DC (M12)	1 x 9~36V DC (M12)
Ethernet	1 x LAN (M12)	1 x LAN (M12)	1 x LAN (M12)	1 x LAN (M12)
USB Ports	2 x USB (M12)	2 x USB (M12)	2 x USB (M12)	2 x USB (M12)
COM Port	1 x RS-232 (M12)	1 x RS-232 (M12)	1 x RS-232 (M12)	1 x RS-232 (M12)
System Specifications				
Processor	Intel® 7th Gen .Core™ i5-7200U 2.5GHz (turbo to 3.1GHz)	Intel® Core™ i5-5200U Broadwell, 2.2 GHz (turbo to 2.7 GHz)	Intel® Celeron® Bay Trail N2930, 1.83 GHz	Intel® Atom D2550, 1.86 GHz
BIOS	Insyde BIOS	AMI UEFI BIOS	AMI 16Mbit Flash	AMI 16Mbit Flash
Memory	4GB DDR4-2133 SO-DIMM (Max 16GB)	1 x SODIMM, DDR3L 1600, default 4 GB, maximum 16 GB	1 x SODIMM, DDR3L 1600, default 4 GB, maximum 8 GB	1 x SODIMM, DDR3L 1600, default 2 GB, maximum 4 GB
Storage	64GB M.2 B Key SATA III (Options up to 512GB)	mSATA SSD, default 64GB	mSATA SSD, default 64GB	mSATA SSD, default 32 GB or 2.5" HDD
Ethernet	Intel® Gigabit-LAN Controller I211AT + PHY I219LM	Intel® WG82574L GbE LAN	Intel® WG82574L GbE LAN	Broadcom BCM57780 GigaLAN
OS	Windows 10 IoT Enterprise	Win10 IoT Enterprise, Win Emb. 8.1 Ind Pro, Win Emb. Std 7	Win10 IoT Enterprise, Win Emb. 8.1 Ind Pro, Win Emb. Std 7	Win Emb. Std 7, Windows XP

	Model Name			
	R15IK3S-67A3(HB)	R15IH3S-67A3(HB)	R15IB3S-67A3(HB)	R15ID3S-67A3(HB)
Power Specifications				
Power Input	9~36V DC in with isolation. Optional 6-60V DC, with Ignition On/Off delay	9~36V DC in with isolation. Optional 6-60V DC, with Ignition On/Off delay	9~36V DC in with isolation. Optional 6-60V DC, with Ignition On/Off delay	9~36V DC in with isolation. Optional 6-60V DC, with Ignition On/Off delay
Power Consumption	47W (typ.)	47W (typ.)	47W (typ.)	47W (typ.)
Environment Considerations				
Operating Temp.	-10°C to +55°C	-10°C to +55°C	-10°C to +55°C	-10°C to +55°C
Storage Temp.	-30°C to +70°C	-30°C to +70°C	-30°C to +70°C	-30°C to +70°C
Operating Humidity	10 ~ 95%, non-condensing	10 ~ 95%, non-condensing	10 ~ 95%, non-condensing	10 ~ 95%, non-condensing
IP Rating	Full IP67	Full IP67	Full IP67	Full IP67
Certification				
Safety	CE, FCC	CE, FCC	CE, FCC	CE, FCC
Vibration	Comply with MIL-STD-810F/G	Comply with MIL-STD-810F/G	Comply with MIL-STD-810F/G	Comply with MIL-STD-810F/G

**Weight of this device varies based on actual component configuration.*

Appendix B: Cleaning the Monitor

Before cleaning:

- Make sure the device is turned off.
- Disconnect the power cable from any AC outlet.

When cleaning:

- Never spray or pour any liquid directly on the screen or case.
- Wipe the screen with a clean, soft, lint-free cloth. This removes dust and other particles.
- The display area is highly prone to scratching. Do not use ketene type material (ex. Acetone), Ethyl alcohol, toluene, ethyl acid or Methyl chloride to clear the panel. It may permanently damage the panel and void the warranty.
- If it is still not clean enough, apply a small amount of non-ammonia, non-alcohol based glass cleaner onto a clean, soft, lint-free cloth, and wipe the screen.
- Don not use water or oil directly on the display screen. If droplets are allowed to drop on the screen, permanent staining or discoloration may occur.

Appendix C: Winmate Software Development Kit

Wimate® provides Software Development Kit (SDK). The table below lists SDK provided by Winmate for 15" G-WIN Rugged Full IP67 panel PC:

Item	File Type	Description
1	SDK	Watchdog SDK
2	Utility	Watchdog Utility

To find the Drivers and SDK, please refer to the Driver CD that comes in the package or contact us. Also, you can download drivers from [Winmate Download Center](https://www.wimate.com/DownCenter/DownLoadCenterIndex.asp) at <https://www.wimate.com/DownCenter/DownLoadCenterIndex.asp> .

