

Full IP65 Flat Stainless P-CAP Panel PC

Intel® Celeron® Bay Trail-M N2930 1.83 GHz

Quick Start Guide V1.0

For more information on this and other Winmate products, please visit our website at: www.winmate.com

Model No.: R10IB3S-SPT2
R15IB3S-SPC3
R17IB3S-SPA1
R19IB3S-SPM1
W22IB3S-SPA3

Document Part Number: 9152111101T

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

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.

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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 1W14Axxxxxxx means October of year 2014.

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.

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 charges, ou dans un sac anti-statique lorsqu'elles ne sont pas dans le chassis.

Contents

INTRODUCTION	1
Features	1
Package Content	2
Product Overview	3
Dimensions 10.4"	3
Dimensions 15"	3
Dimensions 17"	4
Dimensions 19"	4
Dimensions 21.5"	5
Physical Buttons and LED Indicators	6
Connectors	7
GETTING STARTED	8
Turning On Turning ON	8
How to Enable Watchdog	9
Turning Off Your Device	10
INSTALLATION	11
Wiring Requirements	11
Connector Pin Assignments	12
Power Cable	12
Serial Cable	13
Ethernet Cable	14
USB 2.0 Cable	15
Mounting	16
VESA Mounting	16
Yoke Mounting	17
SPECIFICATIONS	18
APPENDIX	20
Appendix A: Cleaning the Monitor	20
Appendix B: Winmate Software Development Kit	21
Winmate Download Center	21
Winmate File Share	21

INTRODUCTION

Congratulations on purchasing Winmate® IP65 Flat Stainless P-CAP Series Panel PC. Winmate® IP65 Flat Stainless P-CAP Series Panel PC is rugged, industrial-grade panel PC series built to withstand challenging environments, undergoing rigorous testing to ensure safety and top performance. All of the models in the series are sealed to IP65 standard. Stainless housing features anti-corrosion properties making it suitable for food, chemical and pharmaceutical industries. P-CAP multi-touch screen supports glove mode and provides even more convenience for the operator.

Wimate® IP65 Flat Stainless P-CAP Panel PC goes beyond that of the standard industrial panel computers with elegant, edge-to-edge design, rugged construction, powerful performance, and flexible mounting options.

Features

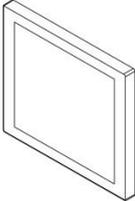
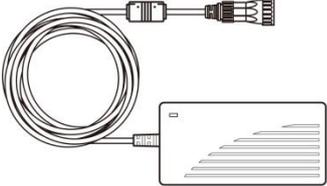
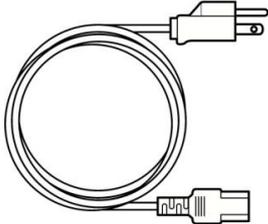
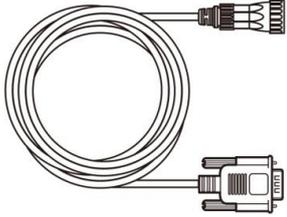
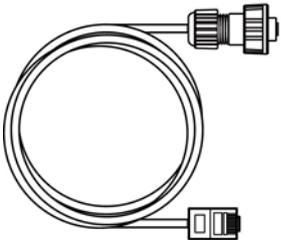
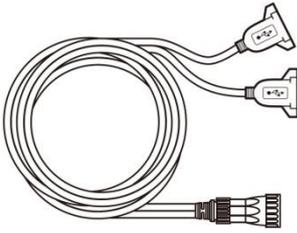
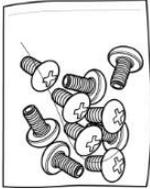
Wimate® IP65 Flat Stainless P-CAP Panel PC features:

- Intel® Celeron® Bay Trail-M N2930 1.83 GHz
- Stainless housing, built to withstand the most demanding industries
- Sealed to IP65 for protection against water and dust
- A true flat, easy-to-clean front surface with edge-to-edge design
- Flat multi-touch panel pc with superior readability and P-CAP technology
- Various mounting solutions, Yoke mount and VESA mount
- Plenty of I/O s including USB 2.0, RS-232 serial port and RJ45-10/100/1000 LAN ports
- Waterproof ports with adapter cables for external connectivity
- Rain/ Glove Mode

Package Content

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:

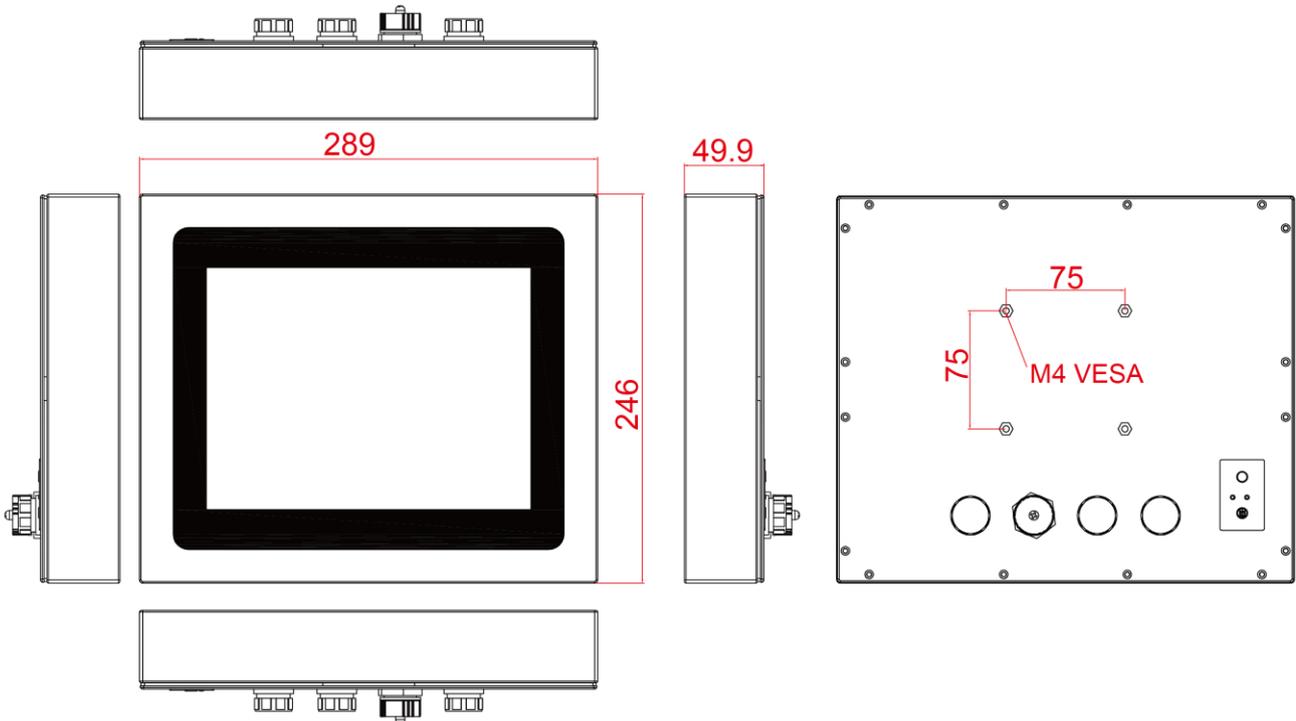
		
Panel PC	Quick Start Guide (Hardcopy)	Driver CD & User Manual
Varies by product specifications	91521111101T	IB32: 91711111101Y
		
AC Adapter	Power Cable*	Serial Cable
50W 90PO12050002 80W 90PO12080003	Varies by country	94G0103090Q0
		
Ethernet Cable	USB Cable	VESA Screws
94I0080080KF	9480108080Q0	913511101101

Product Overview

This section contains mechanical drawing of the Panel PC. Notice that this is a simplified drawing and some components are not marked in detail.

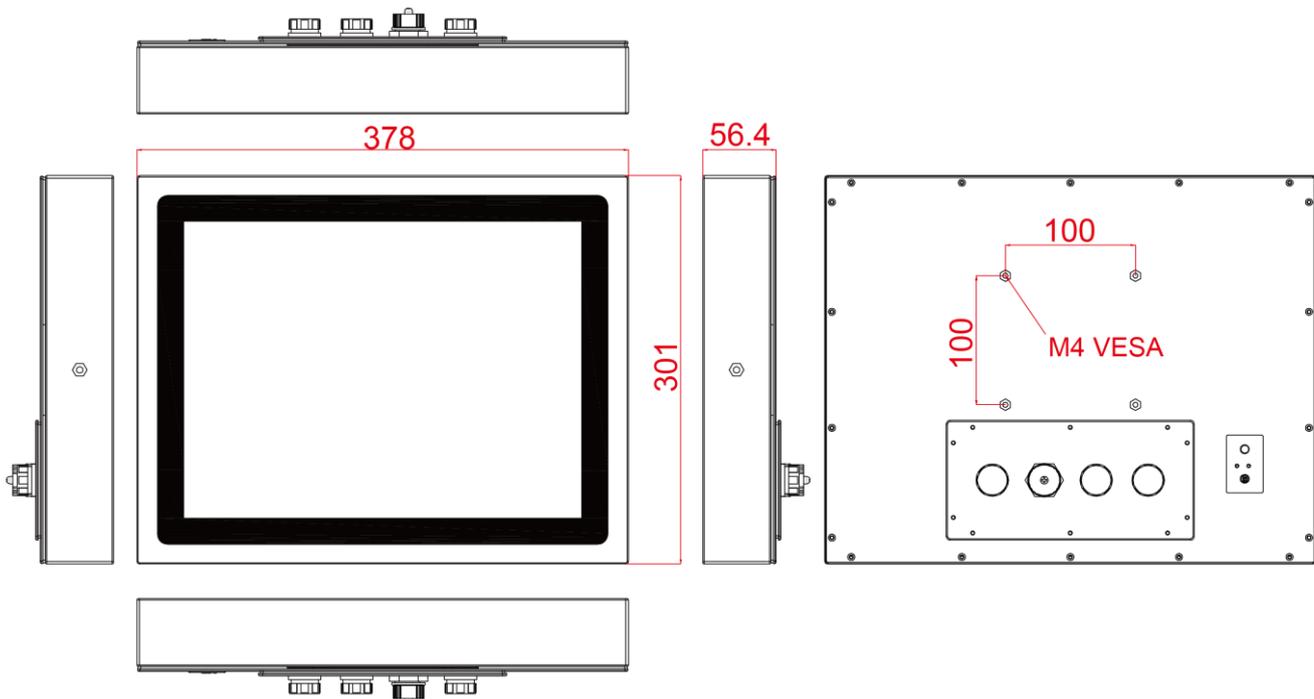
Dimensions 10.4"

Unit: mm



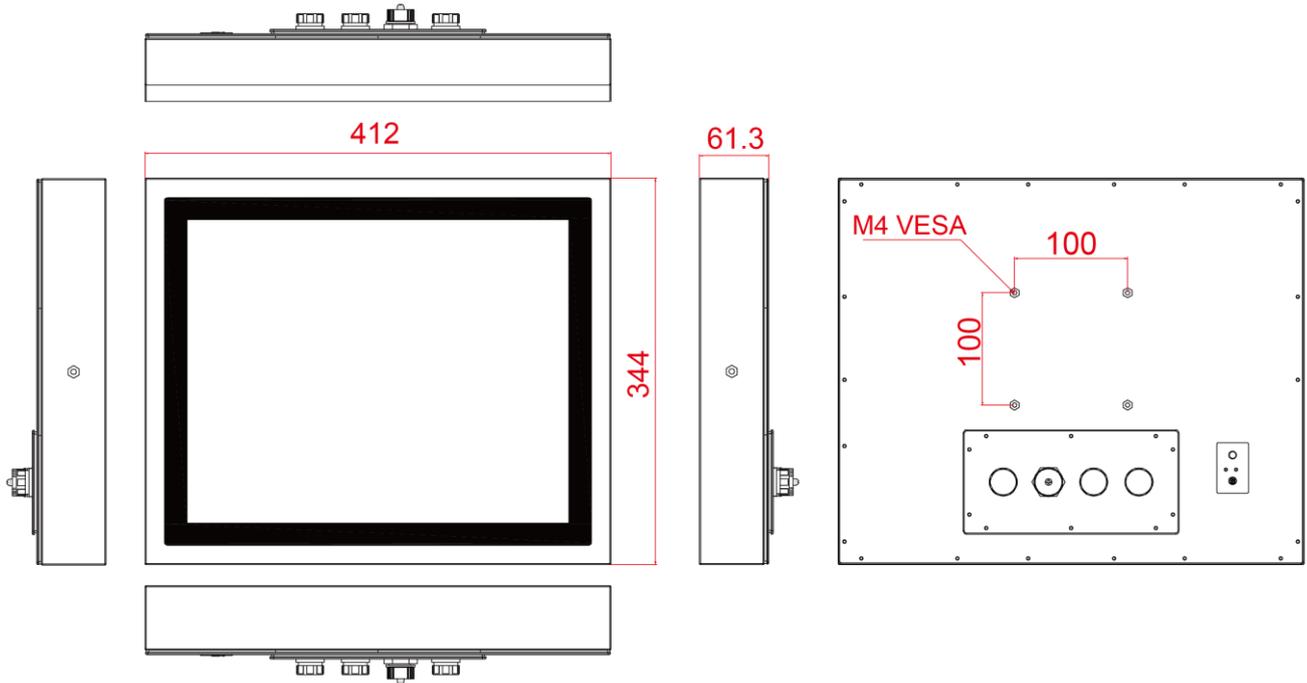
Dimensions 15"

Unit: mm



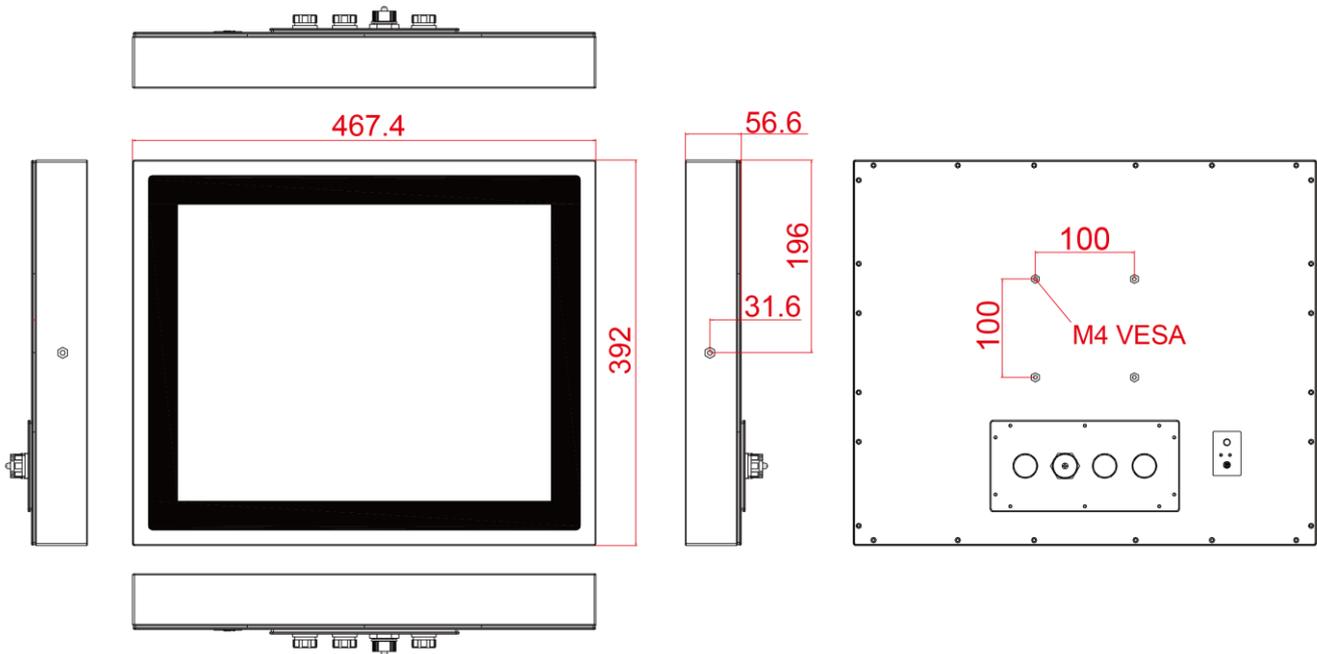
Dimensions 17"

Unit: mm



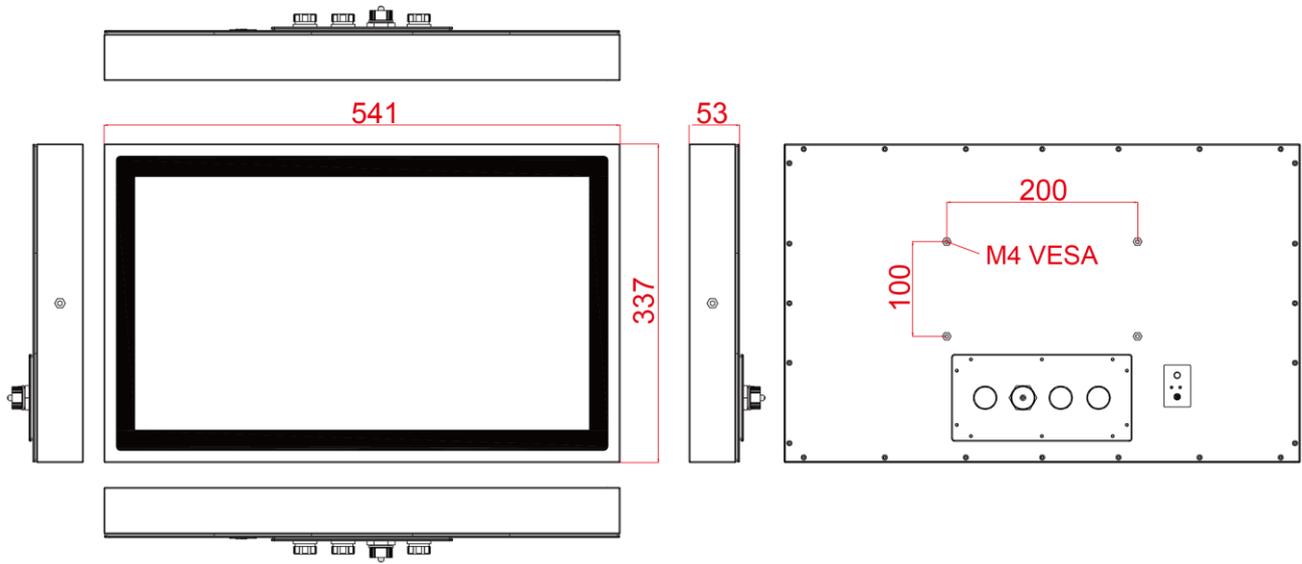
Dimensions 19"

Unit: mm



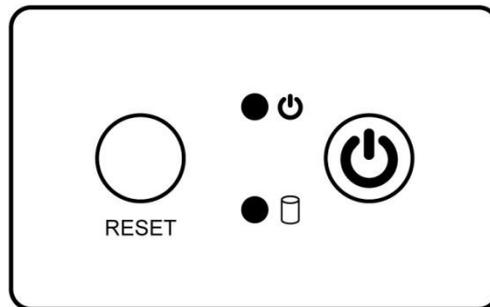
Dimensions 21.5"

Unit: mm

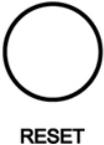


Physical Buttons and LED Indicators

Physical buttons and LED indicators located on the rear side of the Panel PC.



Physical Buttons

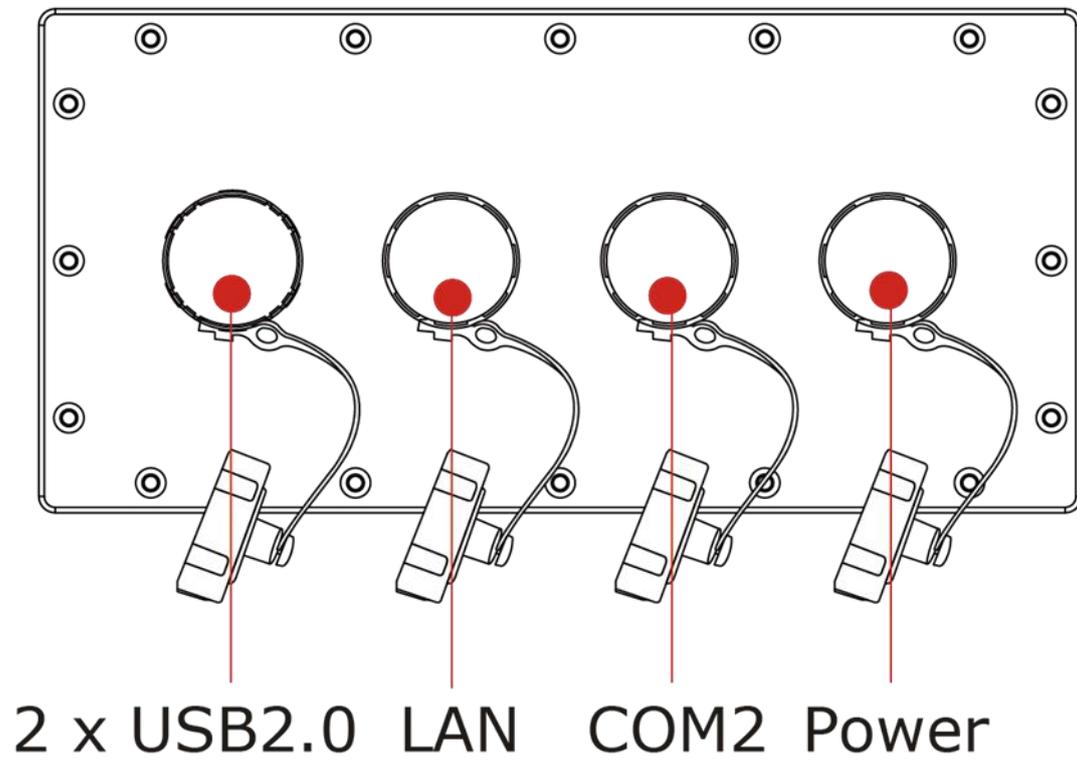
Icon	Button	Description
	Reset	Press to reset the system
	Power On/ Off	Press to power on or power off the device

LED Indicators

LED Type	Status	Description
	On	Power is on
	Off	Power is off
	Blinking	Storage activity (Data is being read or written)
	Off	System is idle

Connectors

IP65 Flat Stainless P-CAP Panel PC has IP65 type connectors with protection cap.

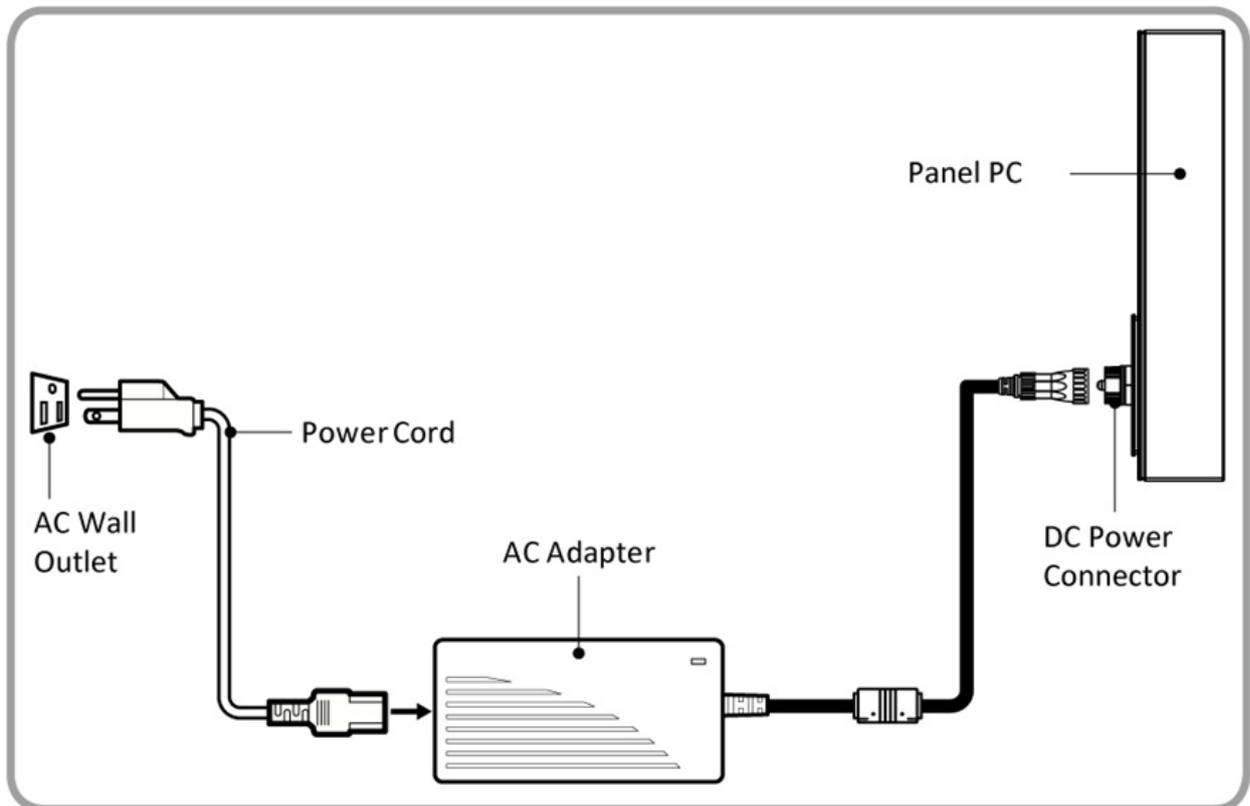


GETTING STARTED

Turning On Turning ON

Follow the following steps to turn on your device:

1. Connect the AC adapter to the DC-in jack connector located on the back side of the Panel PC.
2. Connect the power cord to AC adapter.
3. Plug the power cord to the AC outlet and the device will turn on automatically.



AC Adapter specifications vary by panel size.

Size	10.4"	15"	17"	19"	21.5"
AC Adapter	12V/ 50W	12V/ 80W	12V/ 80W	12V/ 80W	12V/ 80W
Power Consumption*	33W (typ.)	38W (typ.)	43W (typ.)	45W (typ.)	56W (typ.)

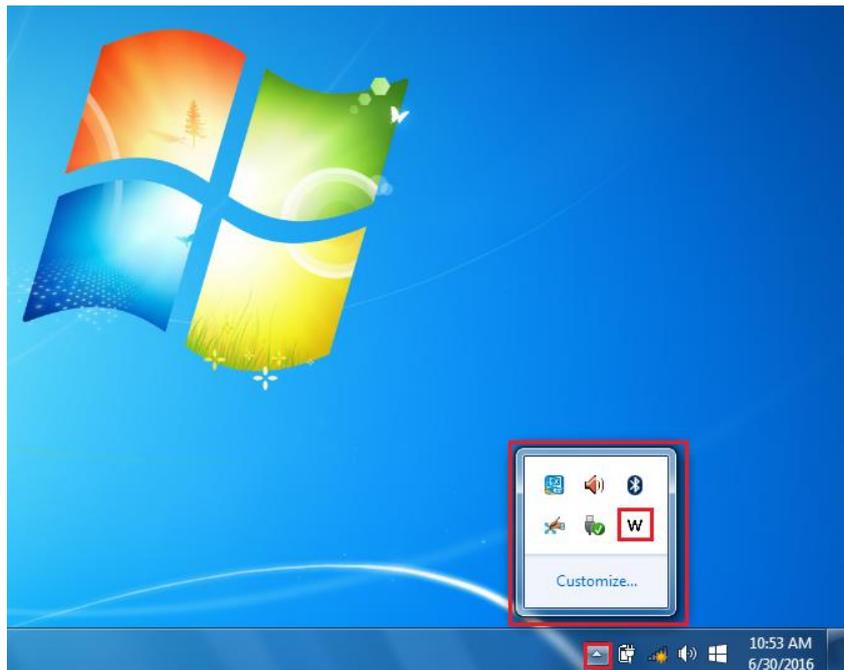
*With maximum backlight and high CPU load.

How to Enable Watchdog

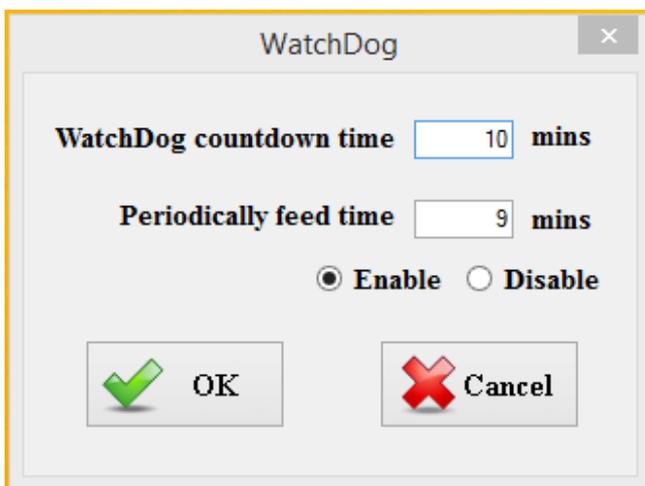
To enable Watchdog, you need to download Winmate Watchdog utility. Find more information on Watchdog in “Watchdog Guide” that you can download from Winmate Download Center or File Share. Refer to the User Manual for more details.

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. 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.

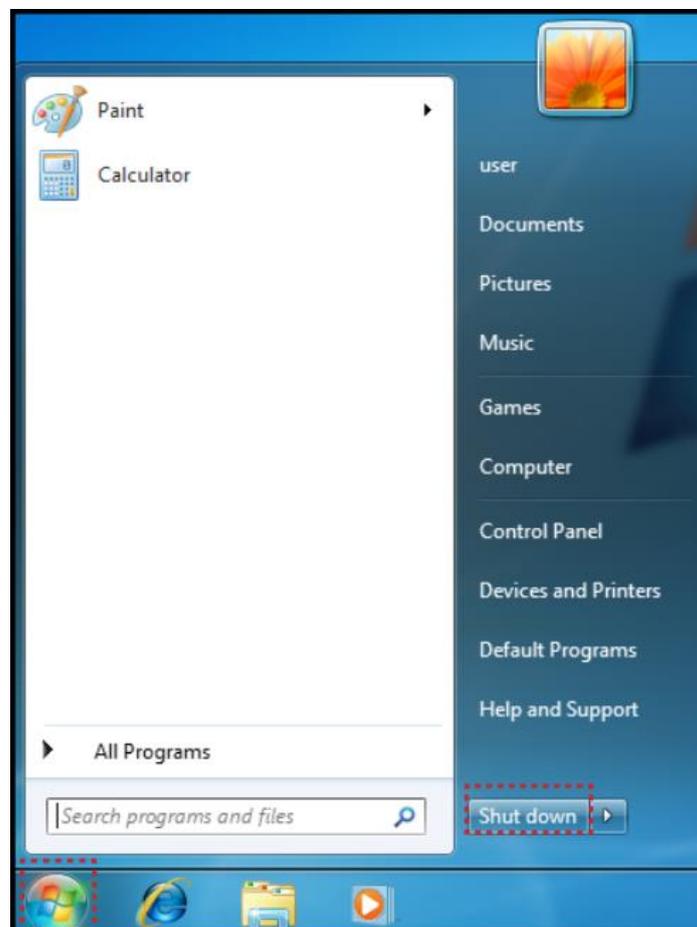
Every 9 min watchdog timer will be reset to 10 min.

Settings	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>

Turning Off Your Device

To shut down your device, do the following:

Tap **Start** () > **Shut down**.



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

INSTALLATION

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.



CAUTION

- 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.

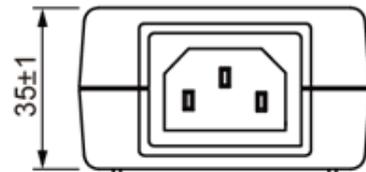
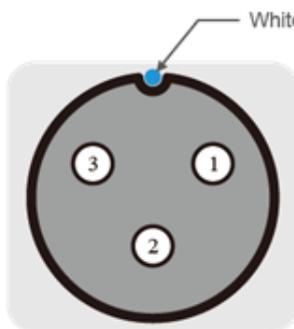
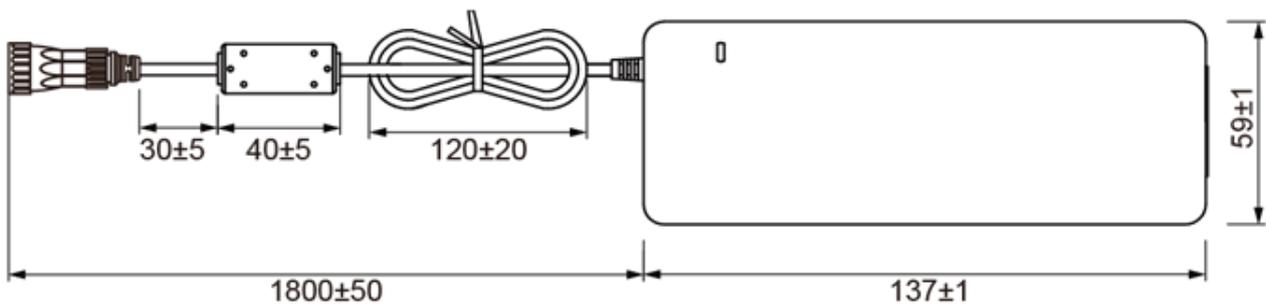
Connector Pin Assignments

This Panel PC is equipped with four connectors which are IP65 level and fool-proofing design. Use only the cables that are included in the package. The pin assignments of the cables are as follows.

Power Cable

The Flat Stainless P-CAP Panel PC has IP65 connector. Use power cable to connect Panel PC to the source of power.

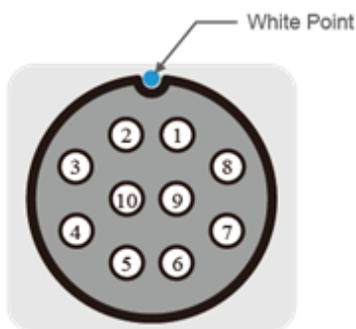
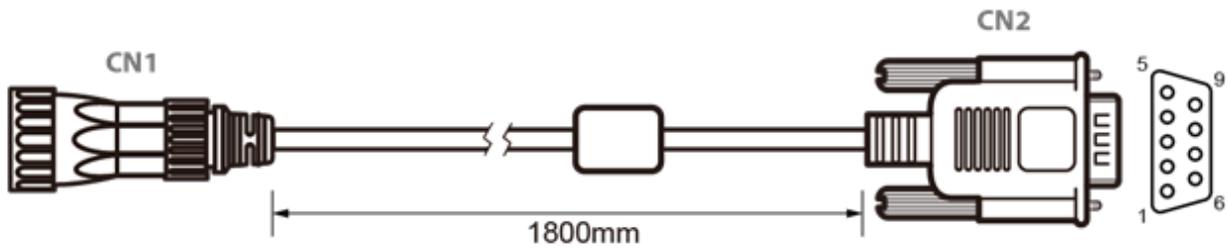
Flat Stainless P-CAP Panel PC support 12V DC power input.



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

Serial Cable

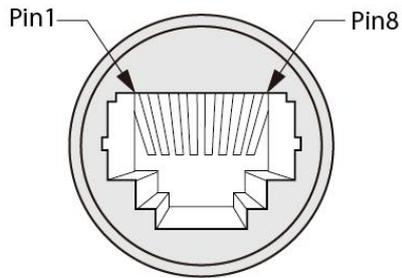
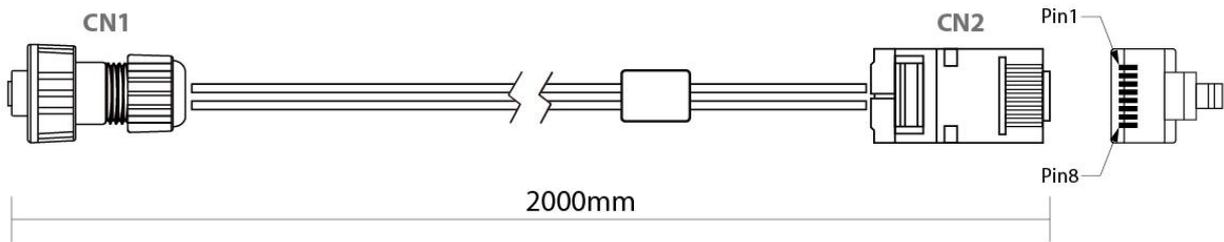
The Flat Stainless P-CAP Panel PC has IP65 serial port connector. Use serial cable to connect serial interfaces.



Pin No.	Symbols	Color		Pin No.	Symbols	Color
CN1-1	DCD-CON2	Green	↔	CN2-1	DCD-CON2	Green
CN1-2	DSR-CON2	Brown	↔	CN2-6	DSR-CON2	Brown
CN1-3	RXD-CON2	Red	↔	CN2-2	RXD-CON2	Red
CN1-4	RTS-CON2	Orange	↔	CN2-7	RTS-CON2	Orange
CN1-5	TXD-CON2	Blue	↔	CN2-3	TXD-CON2	Blue
CN1-6	CTS-CON2	White	↔	CN2-8	CTS-CON2	White
CN1-7	DTR-CON2	Purple	↔	CN2-4	DTR-CON2	Purple
CN1-8	RI-CON2	Yellow	↔	CN2-9	RI-CON2	Yellow
CN1-9	GND-CON2	Black	↔	CN2-5	GND-CON2	Black
CN1-10	NC		↔	CN2-10	NC	

Ethernet Cable

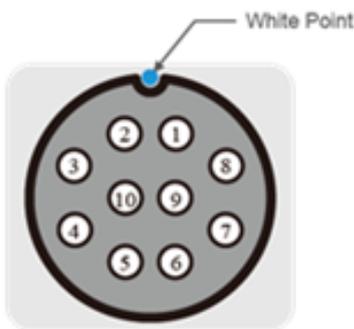
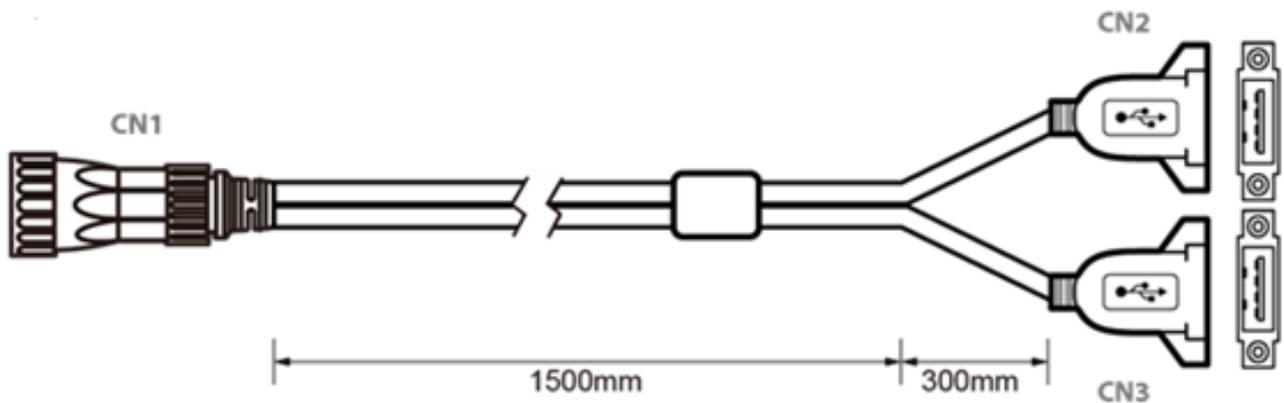
The Flat Stainless P-CAP Panel PC has IP65 Ethernet connector. Use Ethernet cable to connect the Panel PC to the Internet.



Plug	Wire Color	Conn.		
1	Orange / White	1	Twist	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	

USB 2.0 Cable

Flat Stainless P-CAP Panel PC has one full IP65 USB 2.0 connector. Use USB 2.0 cable to connect external devices such as mouse or keyboard to the Panel PC.



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

twisted pair

twisted pair

Mounting

IP65 Flat Stainless P-CAP Panel PC devices come with different mounting options suitable for most of the industrial and commercial applications.

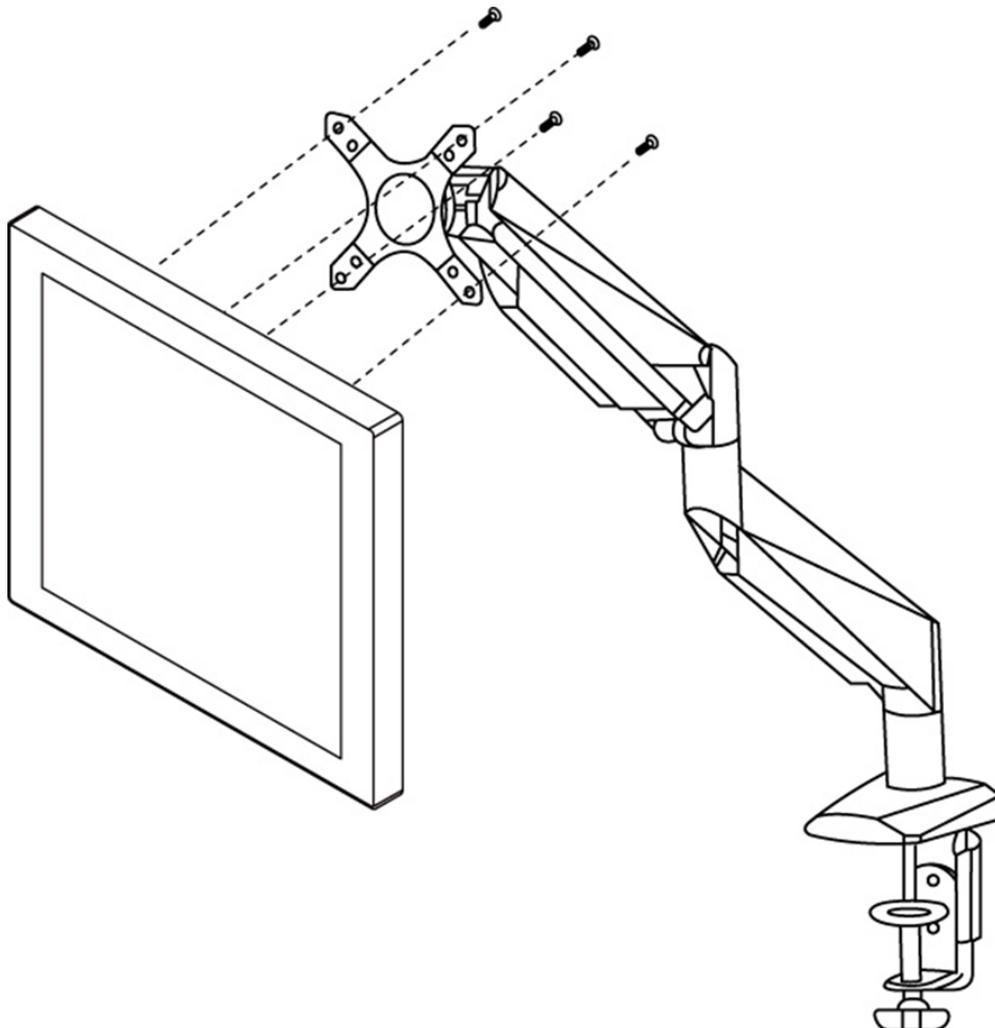
VESA Mounting

The Panel PC has VESA mount holes on the rear side. Follow instructions below to mount the unit with VESA Mount bracket (not supplied by Winmate).

Size	VESA Plate Dimensions	Screw Hole Diameter
10.4", 15", 17", 19"	100 x 100 mm	VESA M4x5 mm
21.5"	100 x 200 mm	VESA M4x5 mm

Mounting Instruction:

1. Screw VESA bracket to the fixture (ex. swing arm) with four VESA screws.
2. Place the device on VESA bracket.

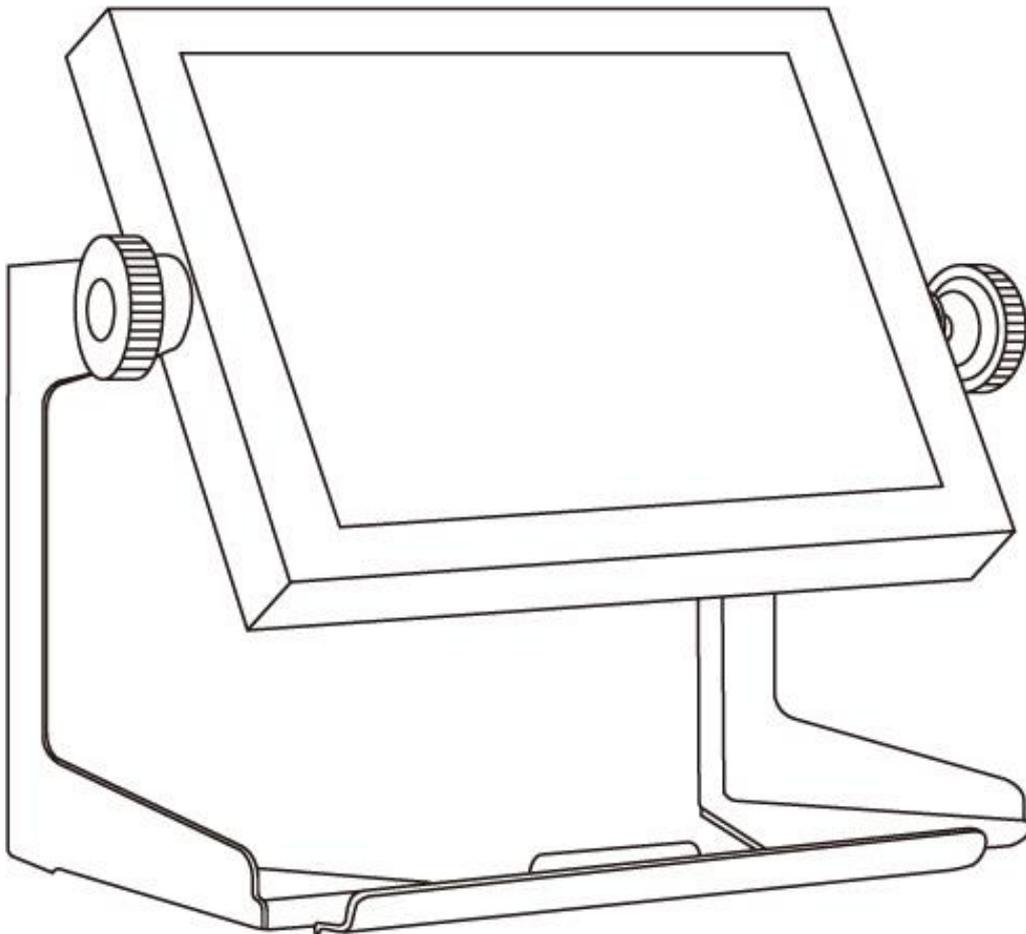


Yoke Mounting

Yoke Mount solution allows installing the Panel PC with the bracket (not supplied by Winmate).

Mounting instruction:

1. Place the Panel PC on the bracket stand, aiming screw holes for each other.
2. Secure screws to fix the device upon the bracket stand.
3. Firmly secure the locking handle to the Panel PC.



SPECIFICATIONS

Hardware Specifications

	Model Name				
	R10IB3S-SPT2	R15IB3S-SPC3	R17IB3S-SPA1	R19IB3S-SPM1	W22IB3S-SPA3
Display					
Size	10.4"	15"	17"	19"	21.5"
Resolution	1024 x 768	1024 x 768	1280 x 1024	1280 x 1024	1920 x 1080
Brightness	350 <i>cd/m²</i> (typ.)	250 <i>cd/m²</i> (typ.)	350 <i>cd/m²</i> (typ.)	250 <i>cd/m²</i> (typ.)	250 <i>cd/m²</i> (typ.)
Contrast Ratio	1000 : 1 (typ.)	700 : 1 (typ.)	1000 : 1 (typ.)	1000 : 1 (typ.)	3000 : 1 (typ.)
Viewing Angle	-88~88(H);- 88~88(V)	-80~80(H);- 70~70(V)	-85~85(H);- 80~80(V)	-85~85(H);- 80~80(V)	-89~89(H);- 89~89(V)
Max Colors	16.2M	16.2M	16.7M	16.7M	16.7M
System					
Processor	Intel® Celeron® Bay Trail-M N2930 1.83 GHz				
BIOS	AMI 16Mbit Flash				
System Chipset	Intel® Atom™ SoC Integrate				
System Memory	1 x SO-DIMM (default 4GB, max. 8GB DDR3L 1600)				
Storage	Default 64GB				
Graphic Chipset	Integrated HD Graphics				
Audio	Built in ALC886 HD Audio Codec				
Ethernet	2 x RJ45 Gigabit LAN (1 x RJ45 internal)				
USB	6 x USB2.0 (4 x USB internal) 4 x RS232 (3 x RS232 internal)				
Expansion Slot	1 x Mini PCIe (Internal)				
SSD Interface	1 x Mini PCIe SSD				
Power Input	DC-IN (Lockable, Power Jack)				
Security	Trusted Platform Module (TPM 1.2)				

Input/ Output Connectors					
Ethernet LAN	1 x RJ45 - 10/100/1000 Mbps				
COM	1 x RS232				
USB	2 x USB Type-A Receptacle				
Power	1 x 12VDC				
Mechanical Specification					
Cooling System	Fanless				
Mounting	Yoke Mount, VESA Mount				
Environmental Consideration					
Operating Temperature	0°C to +45°C				
Operating Humidity	30% to 90% (non-condensing)				
IP Rating	Full IP65				
Power Specifications					
Power Input	12V DC IN (Lockable Power Jack)				
Power Consumption	33W (typ.)	38W (typ.)	43W (typ.)	45W (typ.)	56W (typ.)
Standards and Certification					
Certification	CE, FCC, RoHs				

APPENDIX

Appendix A: 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 B: Winmate Software Development Kit

Wimate provides the following SDK and Utilities for the IP65 Flat Stainless P-CAP 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 or Winmate File Share.

Wimate Download Center

Go to <http://www.wimate.com.tw/> > Support > Download Center > Full IP65 Stainless PPC > IP65 Flat PCAP Series – Bay Trail

Or follow the link:

<http://www.wimate.com.tw/DownCenter/DownLoadCenter.asp?DownType=4302>

Wimate File Share

Go to <http://www.wimate.com.tw/> > Support > Partner Portal > Public Documents > Panel PC > Stainless Series > IP65 Flat P-CAP Series > IB32 (Bay Trail)

Or follow the link: <https://wimate.box.com/v/Flat-Stainless-PCAP-PPC-IB32>



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