

Full IP65 Flat Stainless P-CAP Display

Quick Start Guide V1.0

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

Model No.: R10L100-SPT2
R15L100-SPC3
R17L100-SPA1
R19L100-SPM1
W22L100-SPA3

Document Part Number: 91521110100N

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 1W17Axxxxxxx means October of year 2017.

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 châssis 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 châssis.

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 châssis.

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INTRODUCTION

Congratulations on purchasing Winmate® IP65 Flat Stainless P-CAP Series Display. Winmate® IP65 Flat Stainless P-CAP Series Display is rugged, industrial-grade display 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. Projected Capacitive Multi-Touch (P-CAP) screen supports glove mode and provides even more convenience for the operator.

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

Features

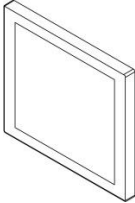


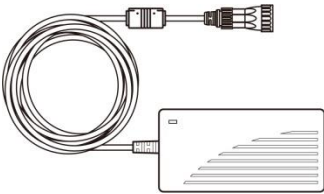
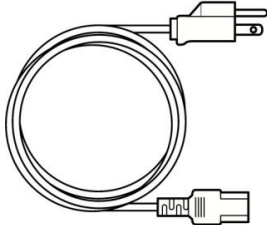
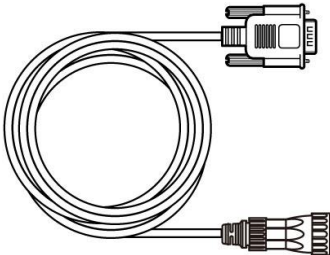
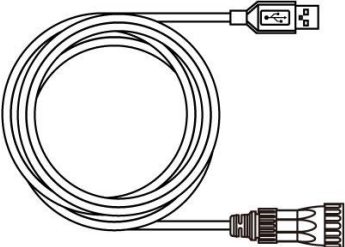
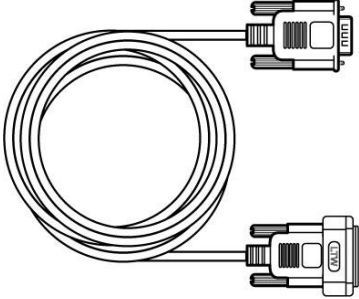
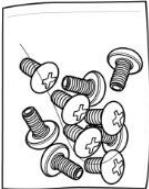
Wimate® IP65 Flat Stainless Display features:

- SUS304 Brushed Stainless Steel housing
- Sealed to IP65 for protection against water and dust (it's suggested to use LAN/USB/COM only)
- A true flat, easy-to-clean front surface with edge-to-edge design
- Flat multi-touch display with superior readability and P-CAP technology
- Various mounting solutions, Yoke mounting and VESA mounting
- Waterproof ports with adapter cables for external connectivity
- Rain/ Glove Mode
- Widely used in chemical industry, food industry, medical devices, appliances etc. with good corrosion resistance

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 may include the following items:

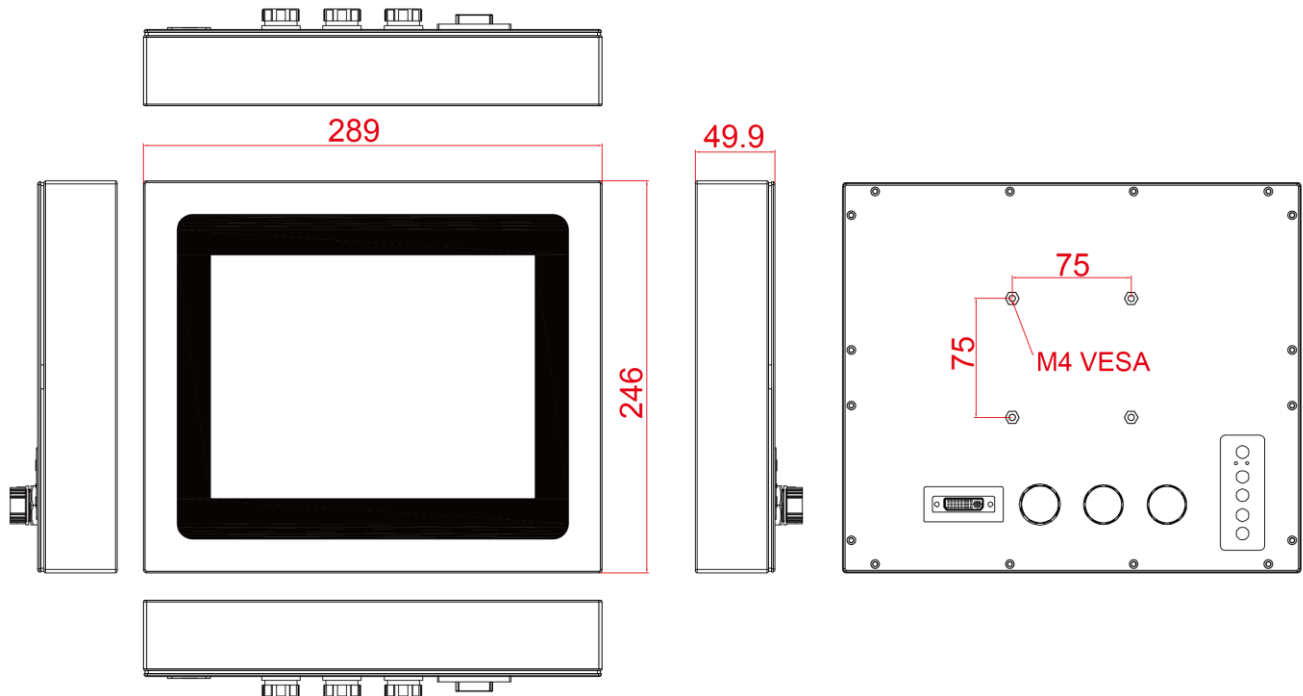
		
Display	Quick Start Guide (Hardcopy)	R-series AD Board Manual (Hardcopy)
Varies by product specifications	91521110100N	91521112100C
		
AC Adapter	Power Cable*	VGA Cable
50W: 90PO12050002 80W: 90PO12080003	Varies by country	944115010000
		
USB Cable (For Touch)	DVI Cable (Optional)	VESA Screws
948704010000	9455255250Q1	913511101101

Product Overview

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

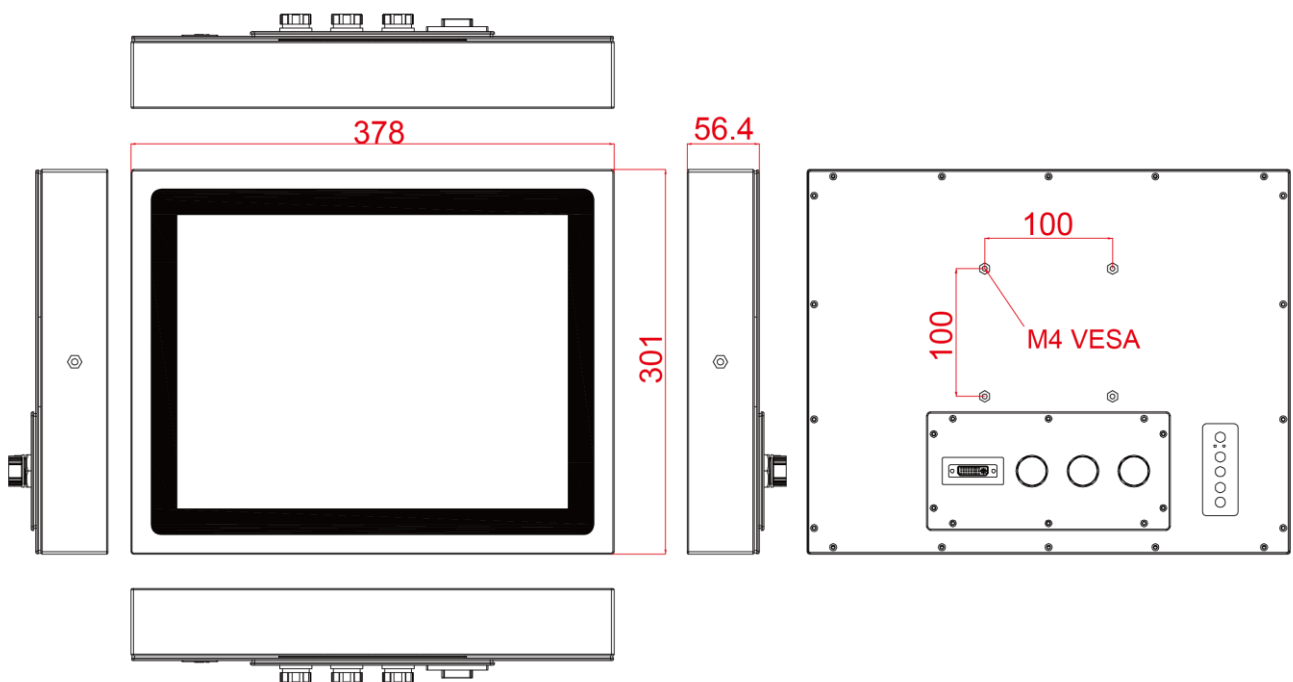
Dimensions 10.4"

Unit: mm



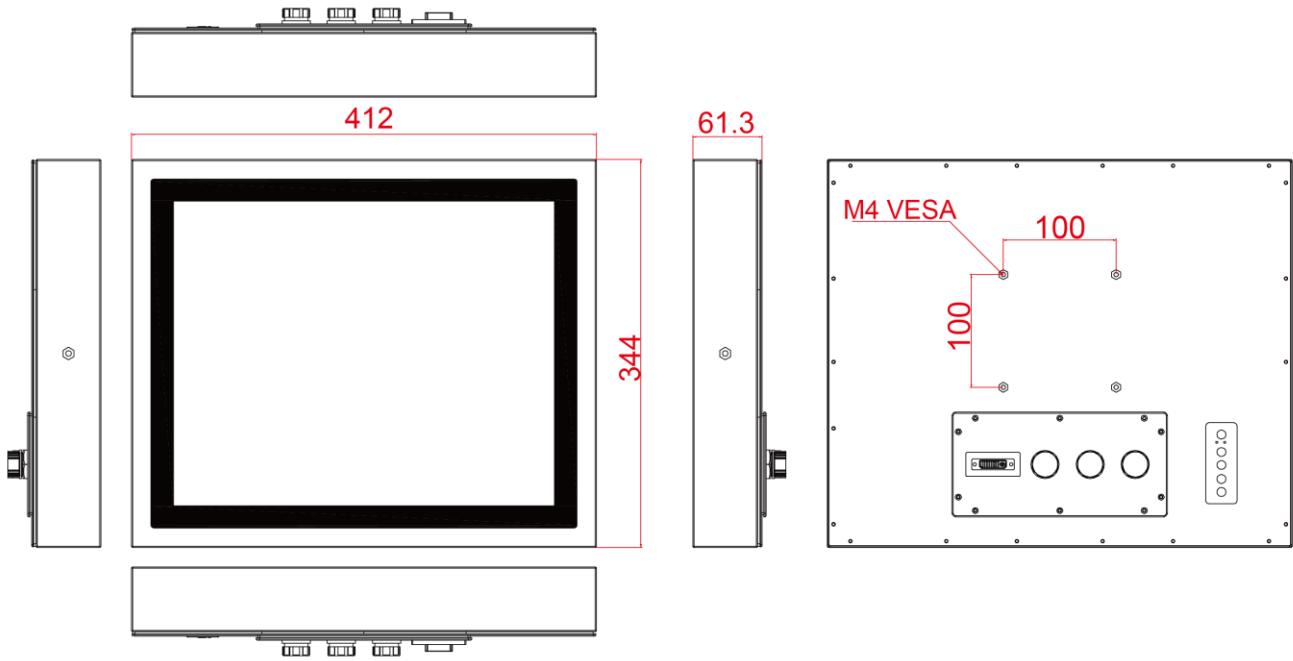
Dimensions 15"

Unit: mm



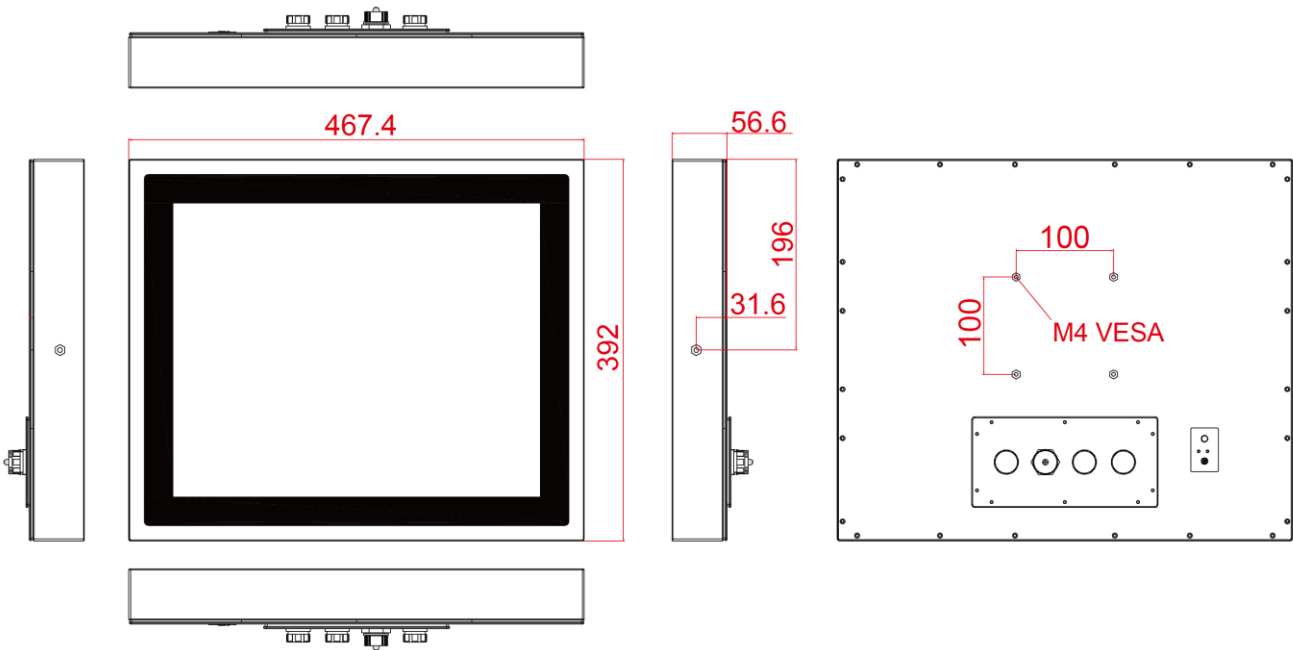
Dimensions 17"

Unit: mm



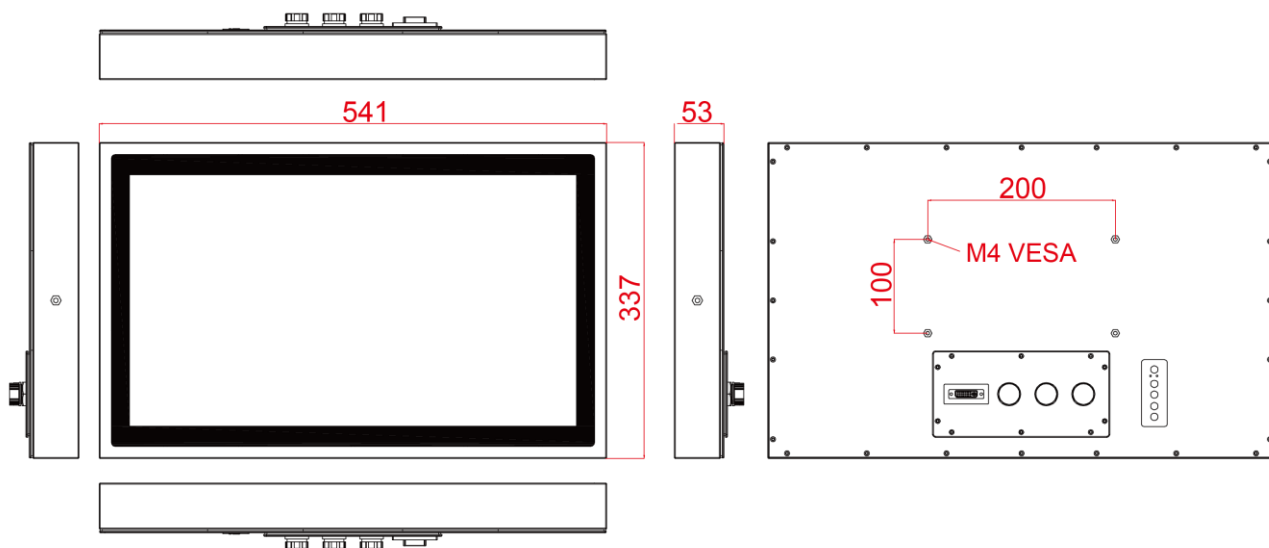
Dimensions 19"

Unit: mm



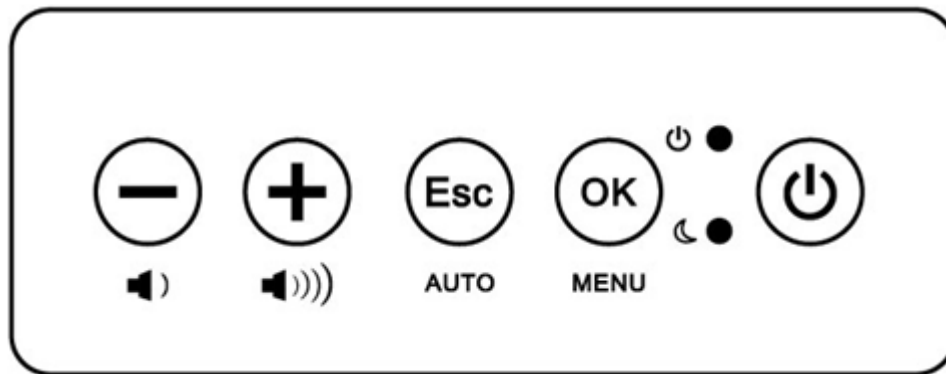
Dimensions 21.5"

Unit: mm

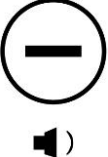






Physical Buttons and LED Indicators





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



Physical Buttons

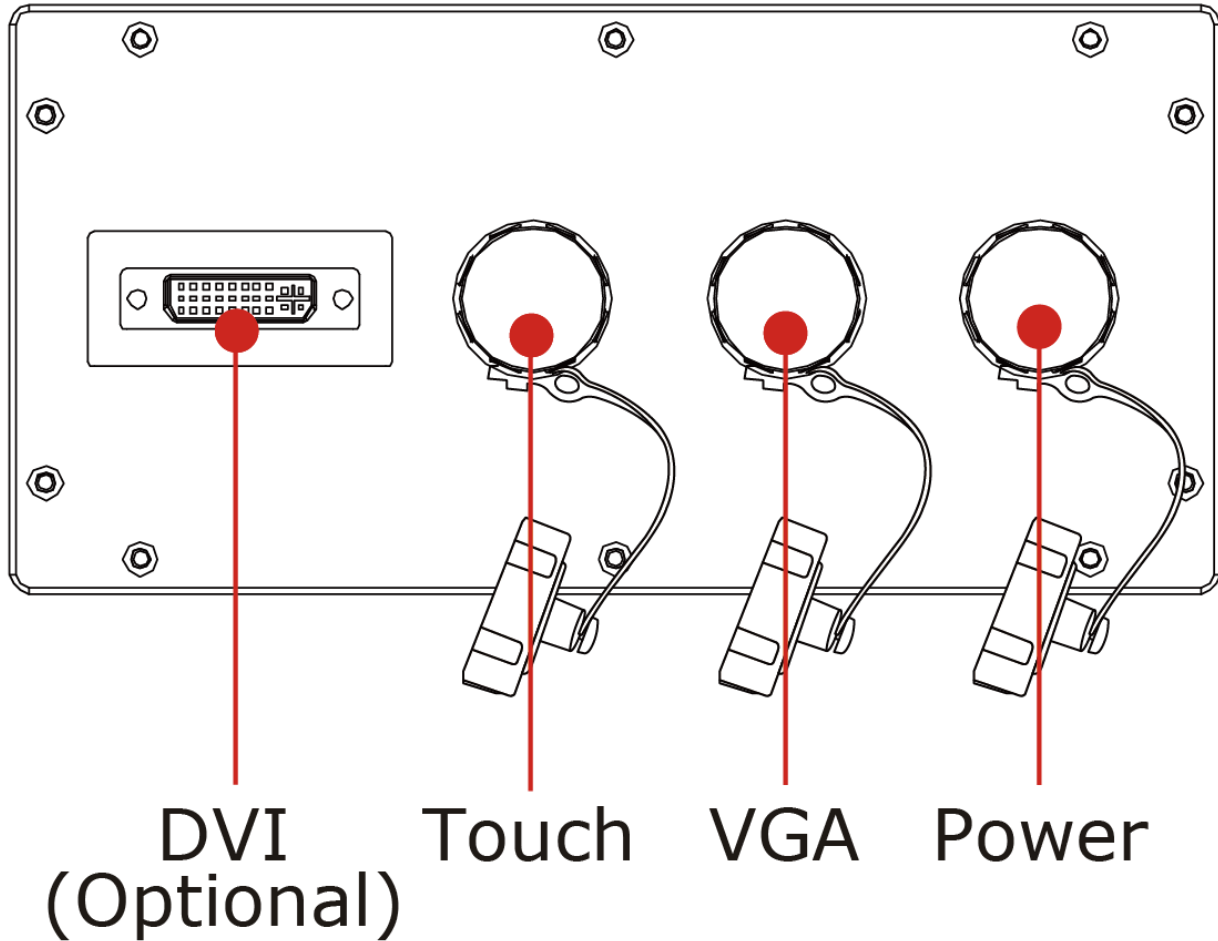
Icon	Button	Description
	DOWN/ VOLUME DOWN	Press to decrease the volume or volume down when without OSD menu
	UP/ VOLUME UP	Press to increase the value or volume up when without OSD menu
	ESC/ AUTO	Press to exit the menu or auto adjustment when without OSD menu
	OK/ MENU	Press to confirm the action or to call main OSD menu
	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
 	On	System is in standby mode
	Off	System is idle

Connectors

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



IMPORTANT:

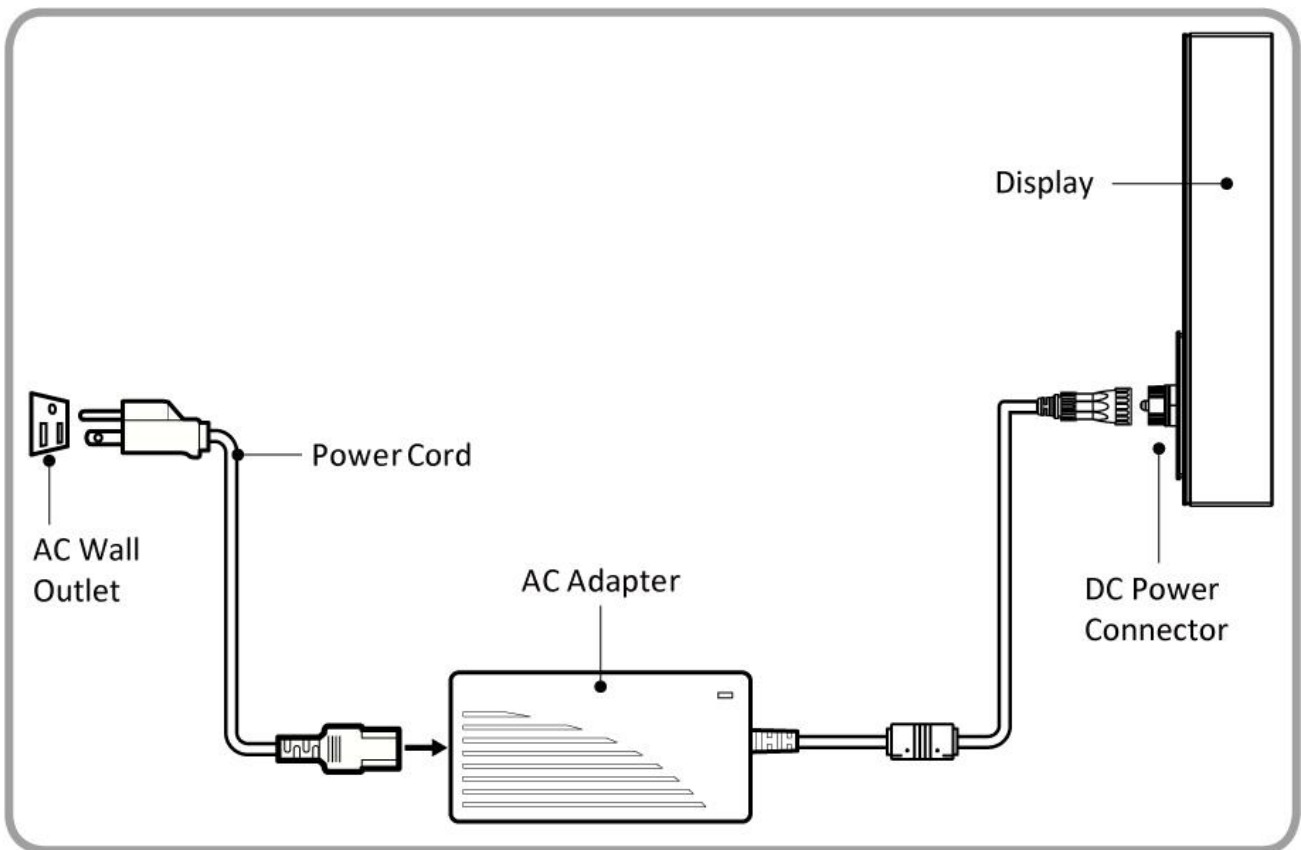
To maintain the IP65 rating of the full unit it is recommended to use only IP65 waterproof cables. You must remember to firmly close all protective caps when connector is not used.

GETTING STARTED

Turning On Your Device

Follow the following steps to turn on your device:

1. Connect the AC adapter (12V/50W) to the DC power connector located on the back side of the display.
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/ 50W	12V/ 50W	12V/ 50W	12V/ 50W
Power Consumption*	26W	30W	31W	36W	50W

*Normal operation.

Turning Off Your Device

To shut down your device, do the following:

1. Disconnect the power cord and the device will automatically turn off.

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.

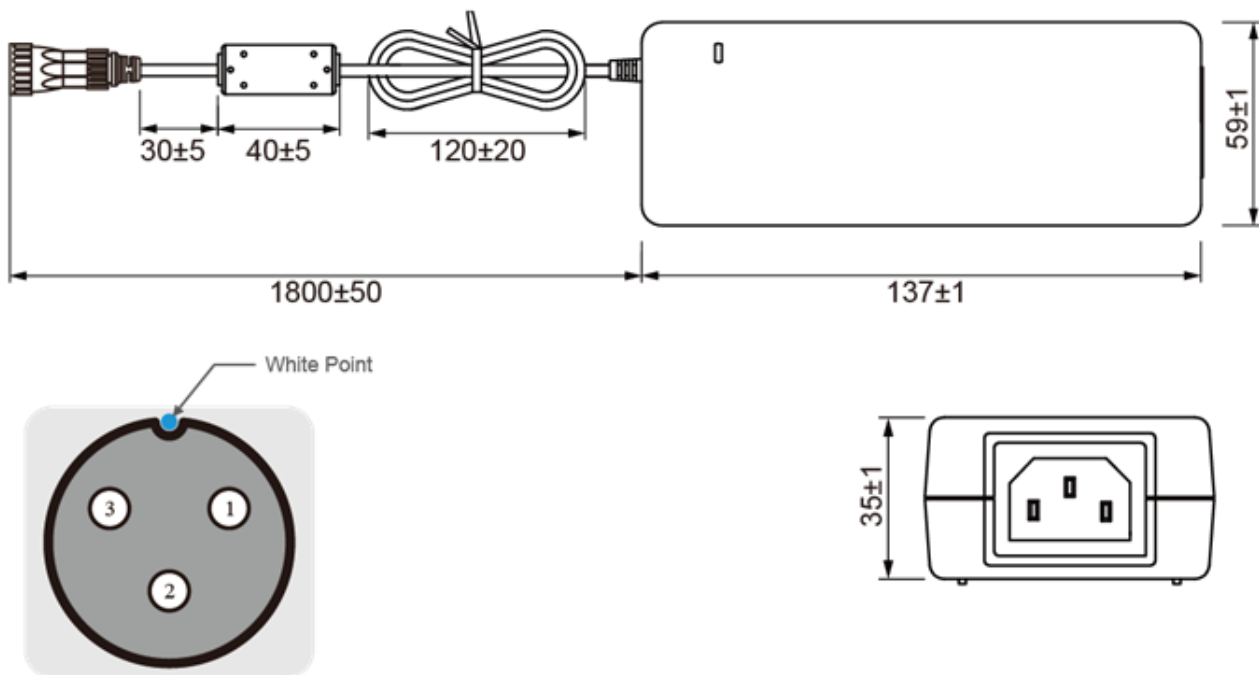
Connector Pin Assignments

This Display 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 Display has IP65 power connector. Use power cable to connect the display to the source of power.

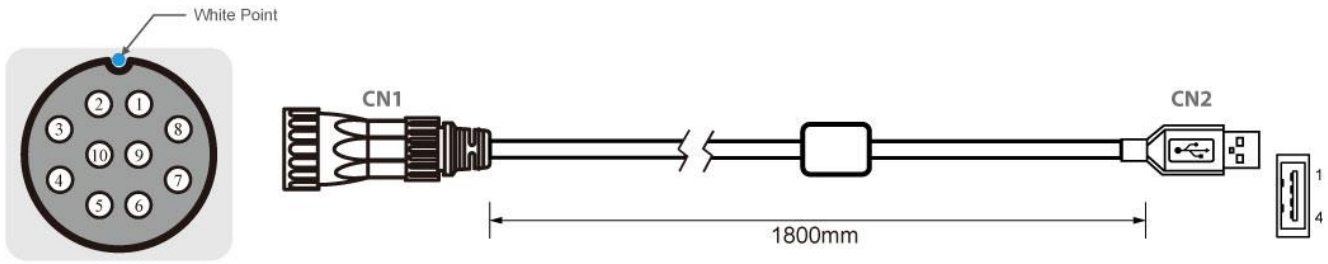
Flat Stainless P-CAP Display support 12V DC power input.



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

USB Cable (For Touch)

The Flat Stainless P-CAP Display has IP65 USB connector for touch. Use USB cable to connect touch.

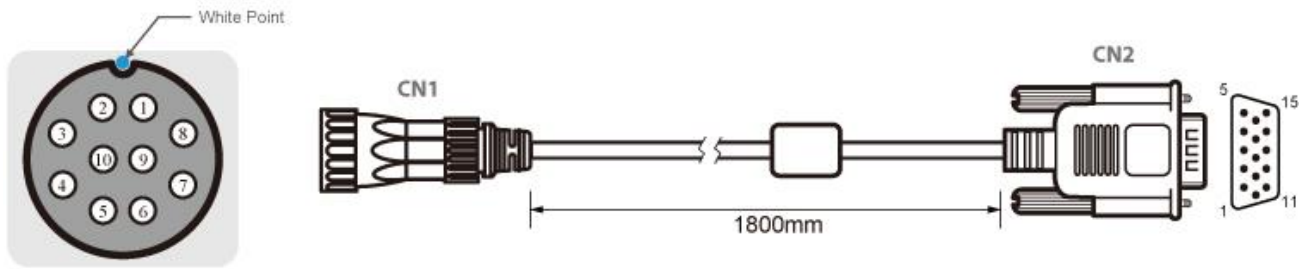


Pin No.	Symbols	Color	Pin No.	Symbols	Color
CN1-1	VCC	RED	CN2-1	VCC	RED
CN1-2	D-	WHITE	CN2-2	D-	WHITE
CN1-3	D+	GREEN	CN2-3	D+	GREEN
CN1-4	GND	BLACK	CN2-4	GND	BLACK
CN1-5	Shield		CN2	Shield	

Twist

VGA Cable

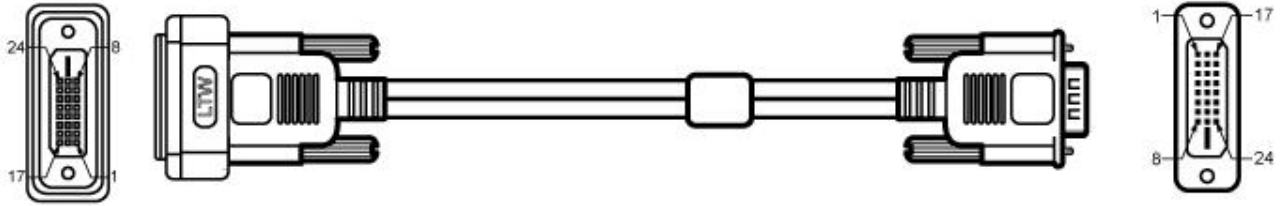
The Flat Stainless P-CAP Display has IP65 VGA connector. Use VGA cable to connect the display to other external devices.



CN1				CN2		
Pin No.	Symbols	Color		Pin No.	Symbols	Color
1	R	Red	↔	1	R	Red
2	R-GND	Black	↔	6	R-GND	Black
3	G	Green	↔	2	G	Green
4	G-GND	Black	↔	7	G-GND	Black
5	B	Blue	↔	3	B	Blue
6	B-GND	Black	↔	8	B-GND	Black
7	SDA	Yellow	↔	12	SDA	Yellow
8	HS	Orange	↔	13	HS	Orange
9	VS	White	↔	14	VS	White
10	SCL	Brown	↔	15	SCL	Brown
				4	HS-GDN	
				5	NC	
				9	NC	
				10	NC	
				11	VS-GDN	

DVI Cable (Optional)

The Flat Stainless P-CAP Display has optional IP65 DVI connector. Use DVI cable to connect the Display to other external device.



CN1			CN2		
Pin No.	Symbol	↔	Pin No.	Symbol	
CN1-1	TMDS Data2-	↔	CN2-1	TMDS Data2-	twist
CN1-2	TMDS Data2+	↔	CN2-2	TMDS Data2+	
CN1-3	TMDS Data2 Shield	↔	CN2-3	TMDS Data2 Shield	
CN1-4	NC		CN2-4	NC	
CN1-5	NC		CN2-5	NC	
CN1-6	DDC Clock	↔	CN2-6	DDC Clock	
CN1-7	DDC Data	↔	CN2-7	DDC Data	
CN1-8	NC		CN2-8	NC	
CN1-9	TMDS Data 1-	↔	CN2-9	TMDS Data 1-	twist
CN1-10	TMDS Data 1+	↔	CN2-10	TMDS Data 1+	
CN1-11	TMDS Data 1 Shield	↔	CN2-11	TMDS Data 1 Shield	
CN1-12	NC		CN2-12	NC	
CN1-13	NC		CN2-13	NC	
CN1-14	+5V Power	↔	CN2-14	+5V Power	
CN1-15	Ground	↔	CN2-15	Ground	
CN1-16	Hot Plug Detect	↔	CN2-16	Hot Plug Detect	
CN1-17	TMDS Data 0-	↔	CN2-17	TMDS Data 0-	twist
CN1-18	TMDS Data 0+	↔	CN2-18	TMDS Data 0+	
CN1-19	TMDS Data 0 Shield	↔	CN2-19	TMDS Data 0 Shield	
CN1-20	NC		CN2-20	NC	
CN1-21	NC		CN2-21	NC	
CN1-22	TMDS Data Clock Shield	↔	CN2-22	TMDS Data Clock Shield	twist
CN1-23	TMDS Clock+	↔	CN2-23	TMDS Clock+	
CN1-24	TMDS Clock-	↔	CN2-24	TMDS Clock-	

Mounting

IP65 Flat Stainless P-CAP Display comes with different mounting options suitable for most of the industrial and commercial applications.

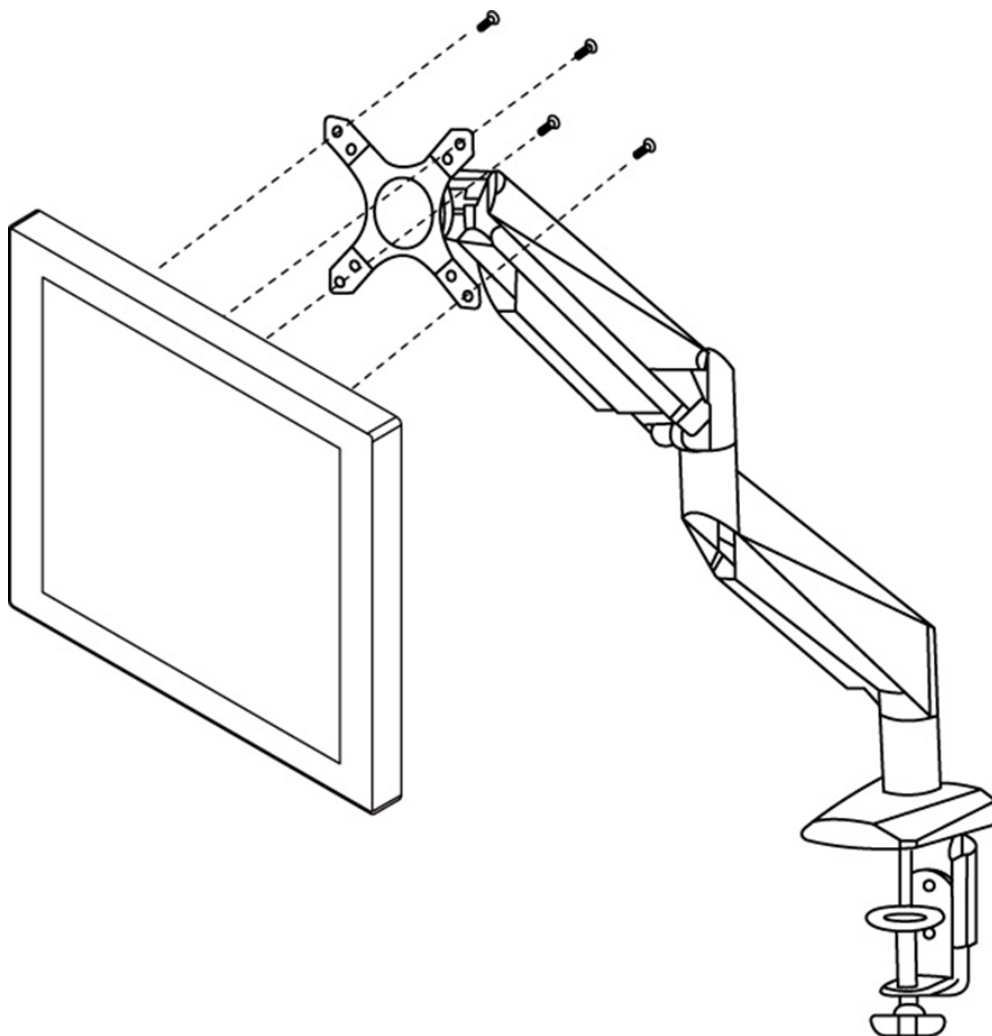
VESA Mounting

The Display 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.

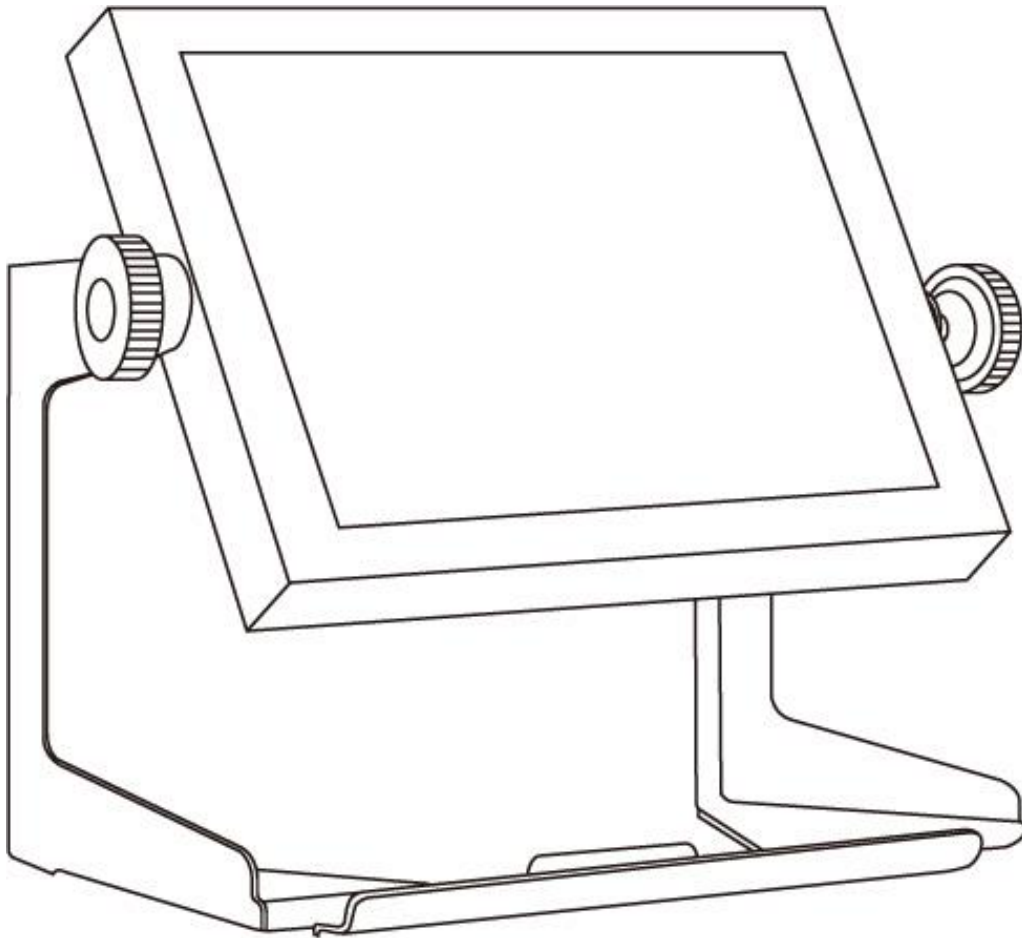


Yoke Mounting

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

Mounting instruction:

1. Place the Display 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 Display.



SPECIFICATIONS

Hardware Specifications

	Model Name				
	R10L100-SPT2	R15L100-SPC3	R17L100-SPA1	R19L100-SPM1	W22L100-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)
Active Display Area, H x V mm	210.4x 157.8	304.128x 228.096	337.92x 270.34	376.32x 301.06	476.64x 268.11
Pixel Pitch, H x V mm	0.0685x0.2055	0.297x0.297	0.264x0.264	0.294x0.294	0.248 x0.248
Max Colors	16.2M	16.2M	16.7M	16.7M	16.7M
Touch	Projected Capacitive Multi-Touch (P-CAP)				
Input/ Output Connectors					
Power	1 x 12V DC (IP65 connector)				
USB	1 x USB For Touch (IP65 connector)				
VGA	1 x 10pin VGA (IP65 connector)				
DVI	1 x DVI-D (Optional) (IP65 connector)				
Mechanical Specification					
Mounting	Yoke Mount, VESA Mount				
Environmental Consideration					
Operating Temperature	-10°C to +55°C				
Operating Humidity	30% to 90% (non-condensing)				
IP Rating	Full IP65				

Power Specifications					
Power Input	12V DC, with External AC to DC Adapter (100~240V AC)				
Power Management	VESA DPMS Compliant				
Plug & Play	VESA DDC 1/2B				
Power Consumption	26W (typ.)	30W (typ.)	31W (typ.)	36W (typ.)	50W (typ.)
Standards and Certification					
Certification	CE, FCC, RoHs				

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: AVAILABLE INPUT SIGNALS

For information about available input signals, please refer to R-Series AD Board Manual included in the package. You can also download R - Series AD Board Manual from [Winmate Download Center](#).

Follow the link below:

<http://dc.winmate.com.tw/downloadCenter/2009/Lcd/Display%20RSeries%20User%20Manual.pdf>



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