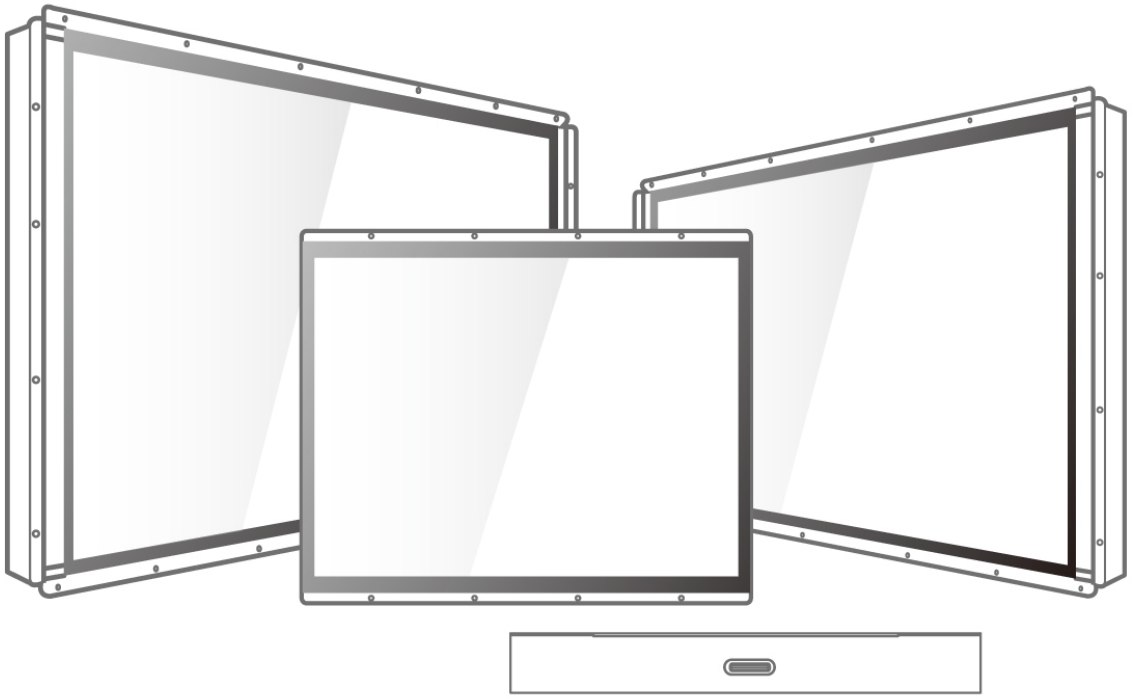
# P-Cap Open Frame Type-C Display 7~15”



**Model No.:** W07L100-POT1-C
W10L100-POH2-C
R10L100-POT2-C
R12L100-POM2-C
R15L100-POC3-C

# User Manual

Version 1.3
Document Part Number: 915211101020

Please read this instructions before operating the device and retain them for future reference.

# Contents

# Preface

## Copyright Notice



## Trademark Acknowledgement



## 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 1W16Axxxxxxxx means October of year 2016.

## 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
- 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.

# Naming Rule

**R07LXXX-POXX**

| Item | Description |
|---|---|
| **R** | Panel Type |
| **07** | Panel Size |
| **LXXX** | Product Size |
| **OF** | Mechanical Type(P-Cap Open Frame) |
| **XX** | Panel Model |

## 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.
Unealerted' attention indique un dommage possible à l'équipement et explique comment éviter le problem 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 Électriqueindique le potentiel de chocssur des emplacements électriques et comment éviterces problèmes.

**Alternating Current / Mise à la Terre**
The Protective Conductor Terminal (Earth Ground) symbol indicates the potential risk of serious electrical shock due to improper grounding.
Le symbole de Miseà Terre indique le risqué potential 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 connections 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 verifier votre mise à la terre afin d'éliminer toute charge statique avant de toucher la carte CPU. Les équipements électroniques moderns 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.

## Safety Precautions

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!

- 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.

**Caution/ Attention**
Always ground yourself to remove any static charge before touching the board. 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.

# About This User Manual

This User Manual provides information about using the Winmate® Open Frame Type-C Display. The documentation set provides information for specific user needs, and includes:

- **Open Frame Type-C Display User Manual** – contains detailed description on how to use the display, 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 | 15-Aug-2018 | New document release. |
| 1.1 | 14-Jun-2019 | Revise accessory list. |
| 1.2 | 12-Dec-2019 | Revise model name R15L100-POC3-C. |
| 1.3 | 29-Jul-2020 | Revise panel specifications of R15L100-POC3-C |

# Chapter 1: Introduction

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

# 1.1 About P-Cap Open Frame USB Type-C Display

Congratulations on purchasing Winmate® P-Cap Open Frame Type-C Display. Versatile display in an open-frame housing designed for rear and VESA mounting with integrated bracket design for KIOSK applications.

The industrial grade Open Frame Type-C Display is designed for usability with brilliant true-flat screens, which offer superior readability and Projected Capacitive Multi-Touch (P-CAP) technology, available in 7”, 10.1”, 10.4”, 12.1” and 15” options. The Display features Projected Capacitive Multi-Touch (P-CAP) for easy user controls .With USB 3.1 Type-C connector it is easy to integrate the display to industrial application, reducing the amount of cables required for connection.

# 1.2 Product Features

Winmate® Open Frame Type-C Display features:

- 7-15” TFT LCD
- USB 3.1 Type-C alternate mode, connector for power and video input
- Open frame housing
- Sleek and flush mounts
- Suitable for industrial applications

# 1.3 Package Overview

Carefully remove the box and unpack your display. Please check if all the items listed below are inside your package. If any of these items are missing or damaged contact us immediately. Your package may include items listed below based on your order.

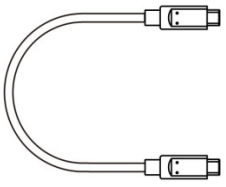
Packing List

- **Display**

Varies by product

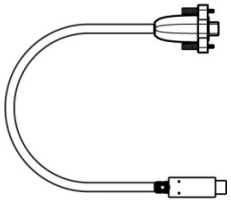

- **User Manual**

Part No. 91521110102O



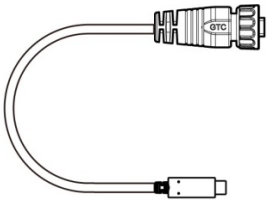
- **Std. USB Type-C Cable (Optional)**

Part No. 9480240240K7



- **Lockable USB-C to Std. USB-C Cable (Optional)**

Part No. 9480240240K5



- **Waterproof USB-C to Std. USB-C Cable (Optional)**

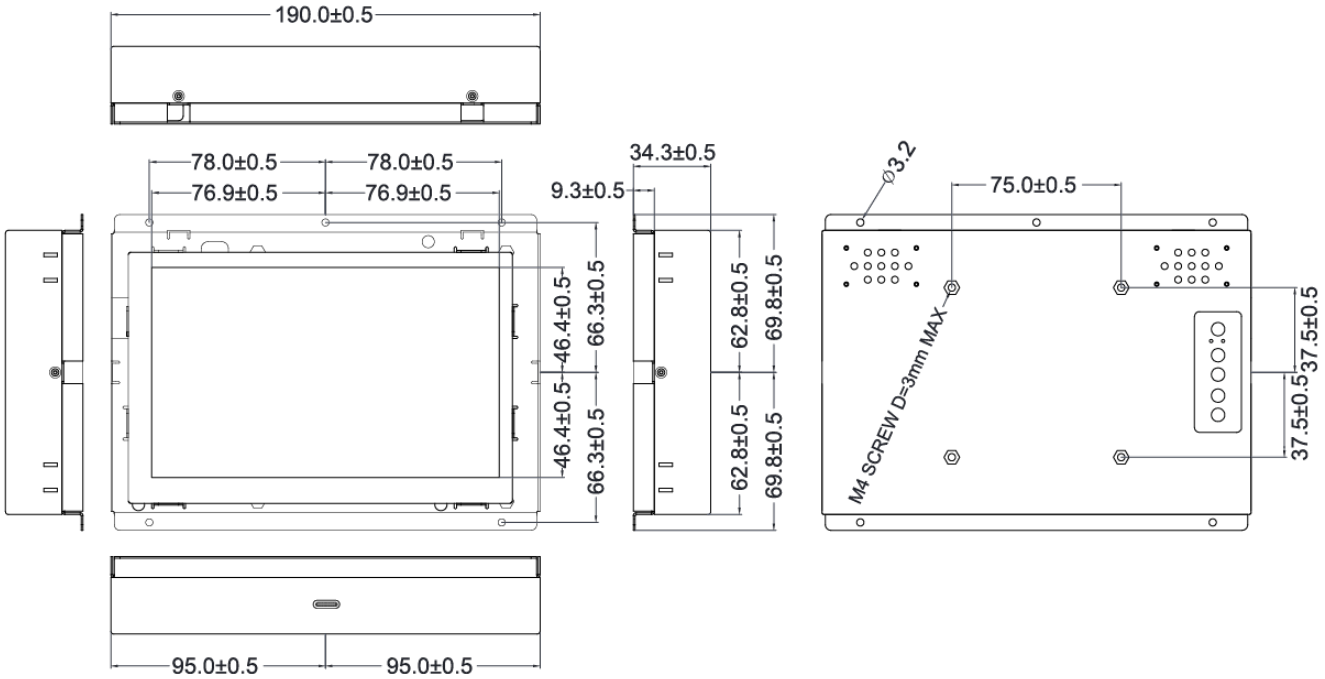
Part No. 9480240240K2

# 1.4 Product Overview

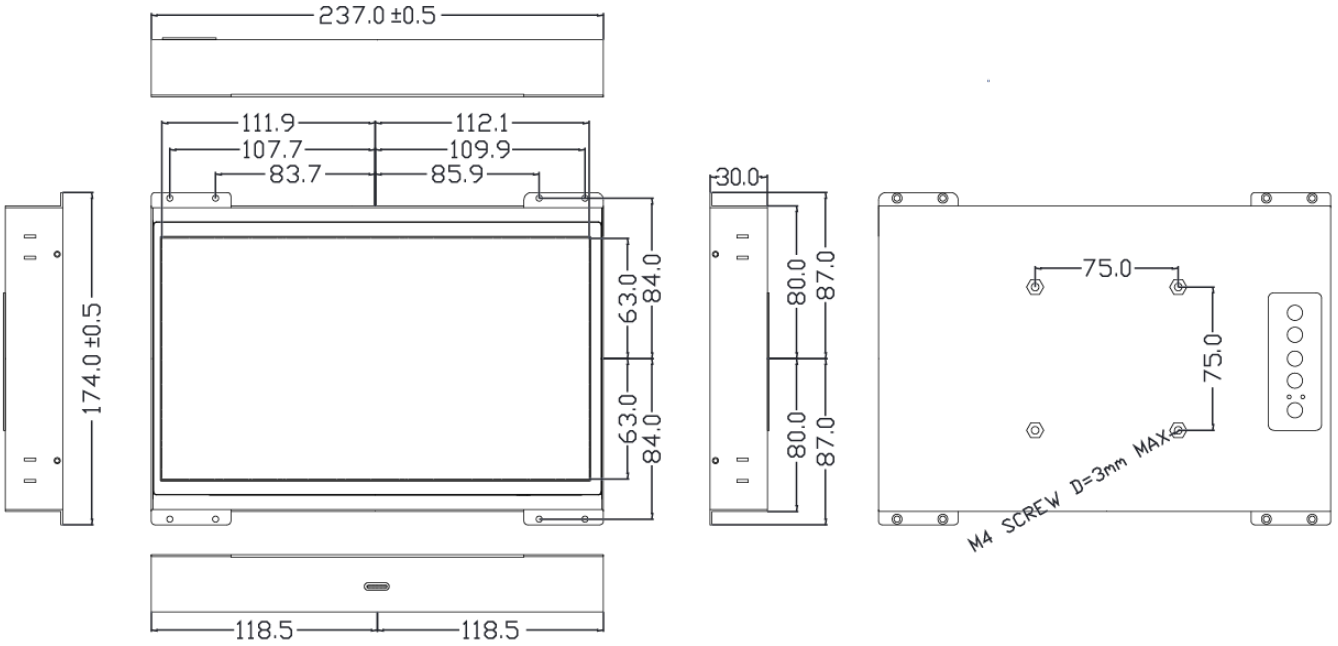
This section describes physical appearance of the P-Cap Open Frame Type-C Display.

All dimensions shown in mm.

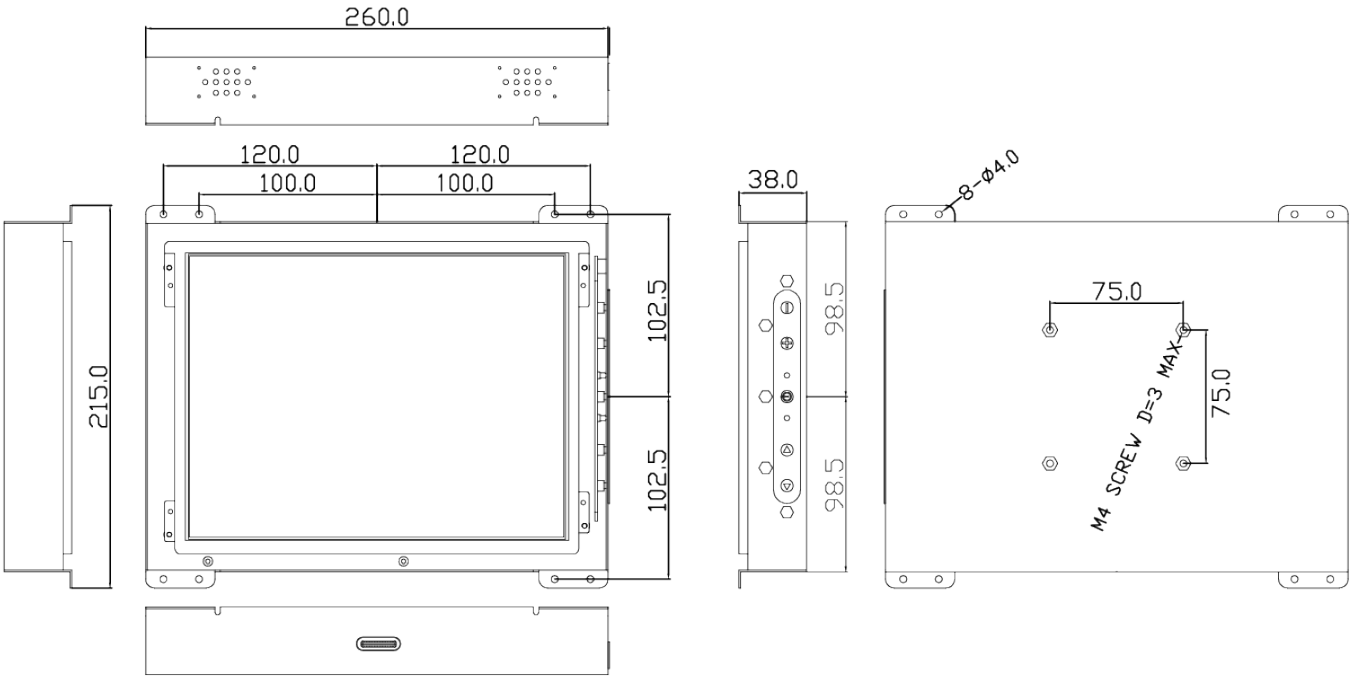
*W07L100-OFT1-C*



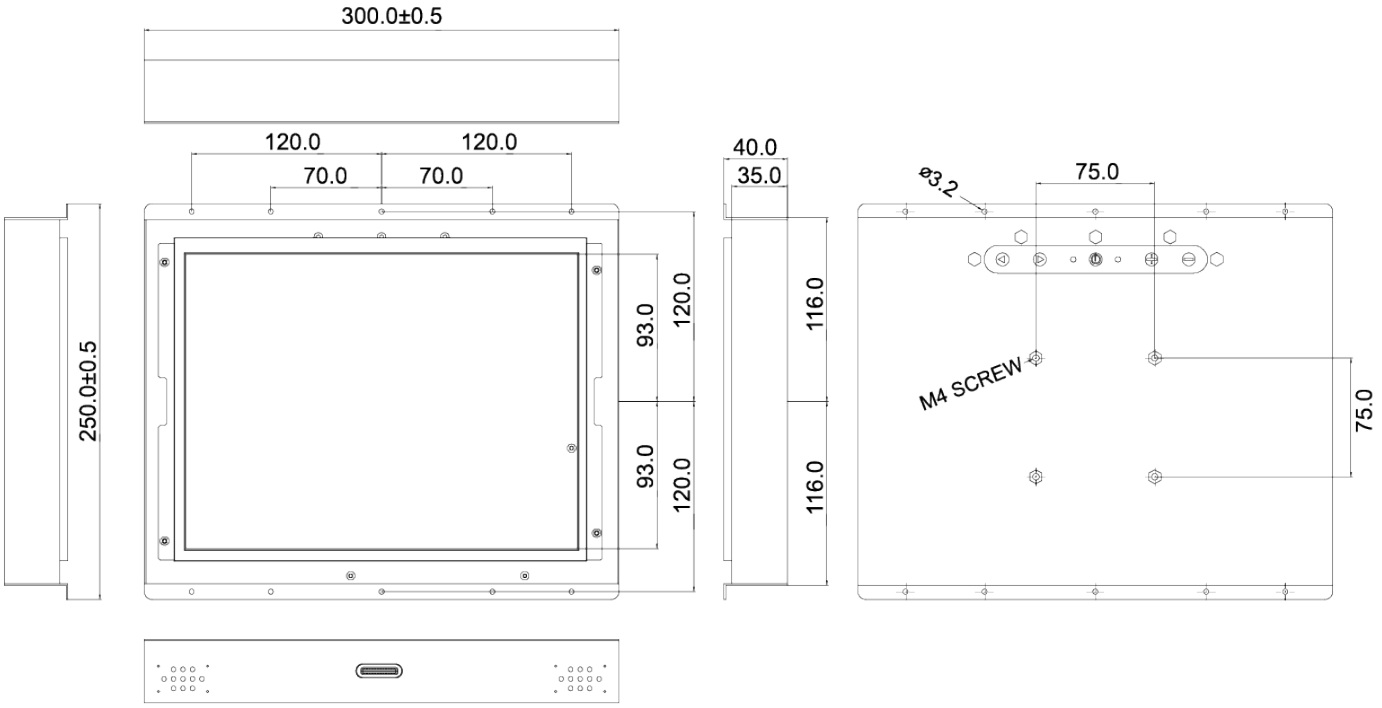

*W10L100-OFH2-C*



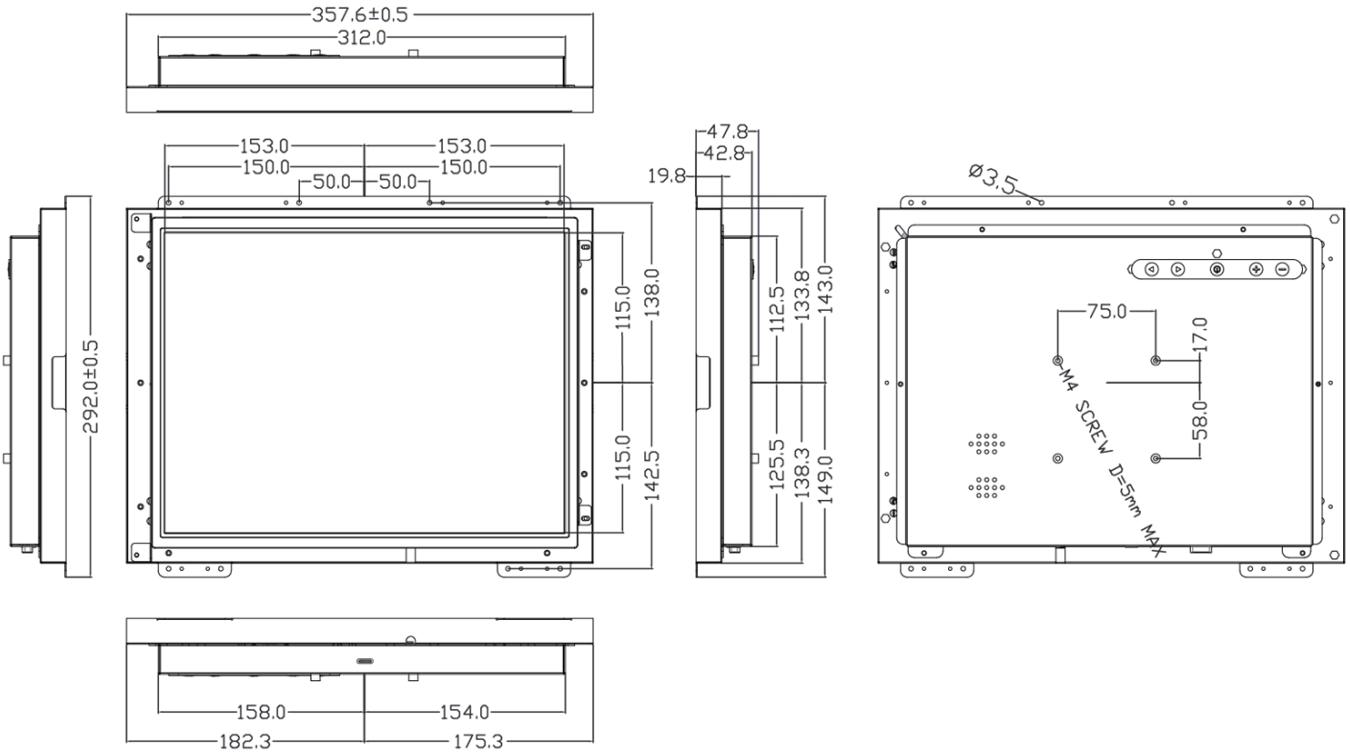
*R10L100-OFT2-C*




*R12L100-OFM2-C*

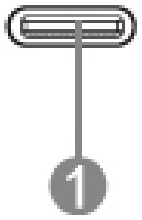


*R15L100-OFC3-C*




## 1.5 External Connectors

Terminal interfaces are located on the bottom side of the display.



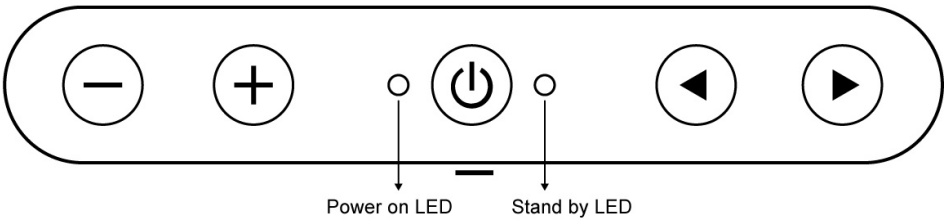

| Item | Description |
|---|---|
| 1 | **USB 3.1 Type C (Alt mode)** - Connects external devices and provides power to the monitor. Power source need support 5V/3A. |

# 1.6 Physical Buttons and LED Indicators

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

OSD control panel varies by product specifications.

***Type A***




***Physical Buttons***

**DOWN** Press to decrease the value / select up.

**UP-** Press to increase the volume/ select down.

**POWER ON/OFF** - Press to power on or power off the device.

**LEFT-** Press to confirm the action or to come back to the main menu.

**RIGHT** - Press to select right / call main OSD menu.

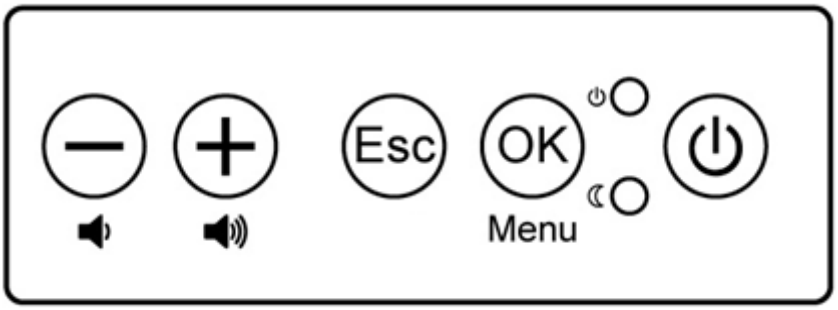
***LED Indicators***

LED indicators are located on the OSD control panel the rear side of the display.

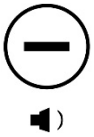
**Power On Indicator** - Lights up "Green" when the monitor turn on.

**Stand by Indicator** - Lights up "Orange" when the device cannot detect any input source.

***Type B***




***Physical Buttons***



**DOWN-** Press to lower down the volume.

**UP-** Press to increase the volume.


**ESC-** Press to exit the 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 indicators are located on the OSD control panel the rear side of the display.

**Power Indicator** - Lights up "Green" when the monitor turn on

**Stand by Indicator** - Lights up "Orange" when the device cannot detect any input source

# Chapter 2: Installation

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

## 2.1 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.
- 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.

## 2.2 Mounting Guide

The Open Frame Type-C Display supports several different installation methods, including panel mounting, bracket mounting, VESA mounting. Refer to sub-sections below for more details.

**Caution/ Attention**
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.

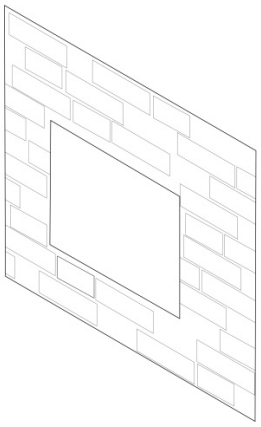
## 2.2.1 Panel Mount

The Open Frame Display comes with clamp mounts that enable you to install the unit onto a wall (where space has been cut out to accommodate the rest of the hardware). Winmate provides VESA and Wall Mount Kits by request.

**Installation Instruction**

1. Make a cutout on the fixture (ex. wall) according to the cutout dimensions of the display.
2. Based on the drawing, mark screw holes on a front side of the fixture. Place display on the fixture from the rear side.
3. Use electric screwdriver to fasten screws from the front side.
4. You complete the installation. Please connect all the peripherals if needed.

❶



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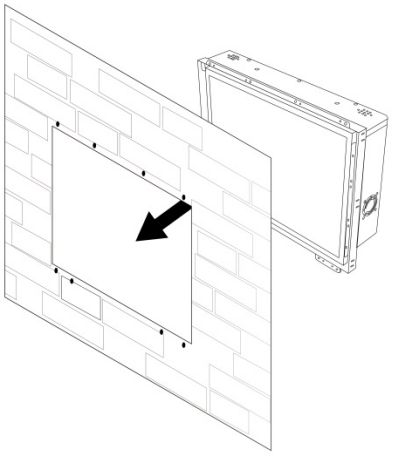

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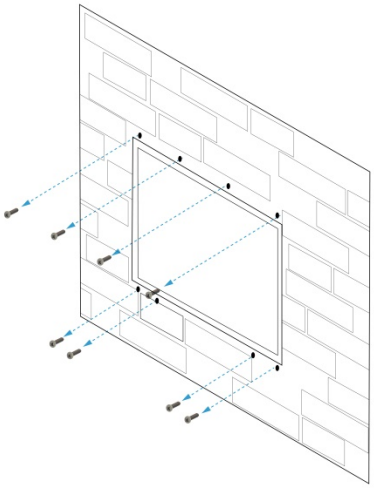

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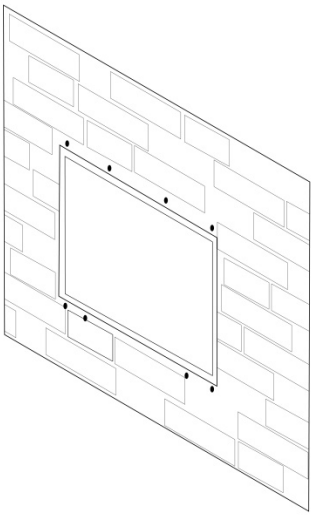


| Size | Wall Cutout, mm | Screw Hole Diameter, mm |
|---|---|---|
| **7”** | 191 x 93.8 | M4x4 |
| **10.1”** | 238 x 129 | M4x5 |
| **10.4”** | 261 x 216.1 | M4x5 |
| **12.1”** | 295 x 234.5 | M4x5 |
| **15”** | 338.4 x 295 | M6x4 |

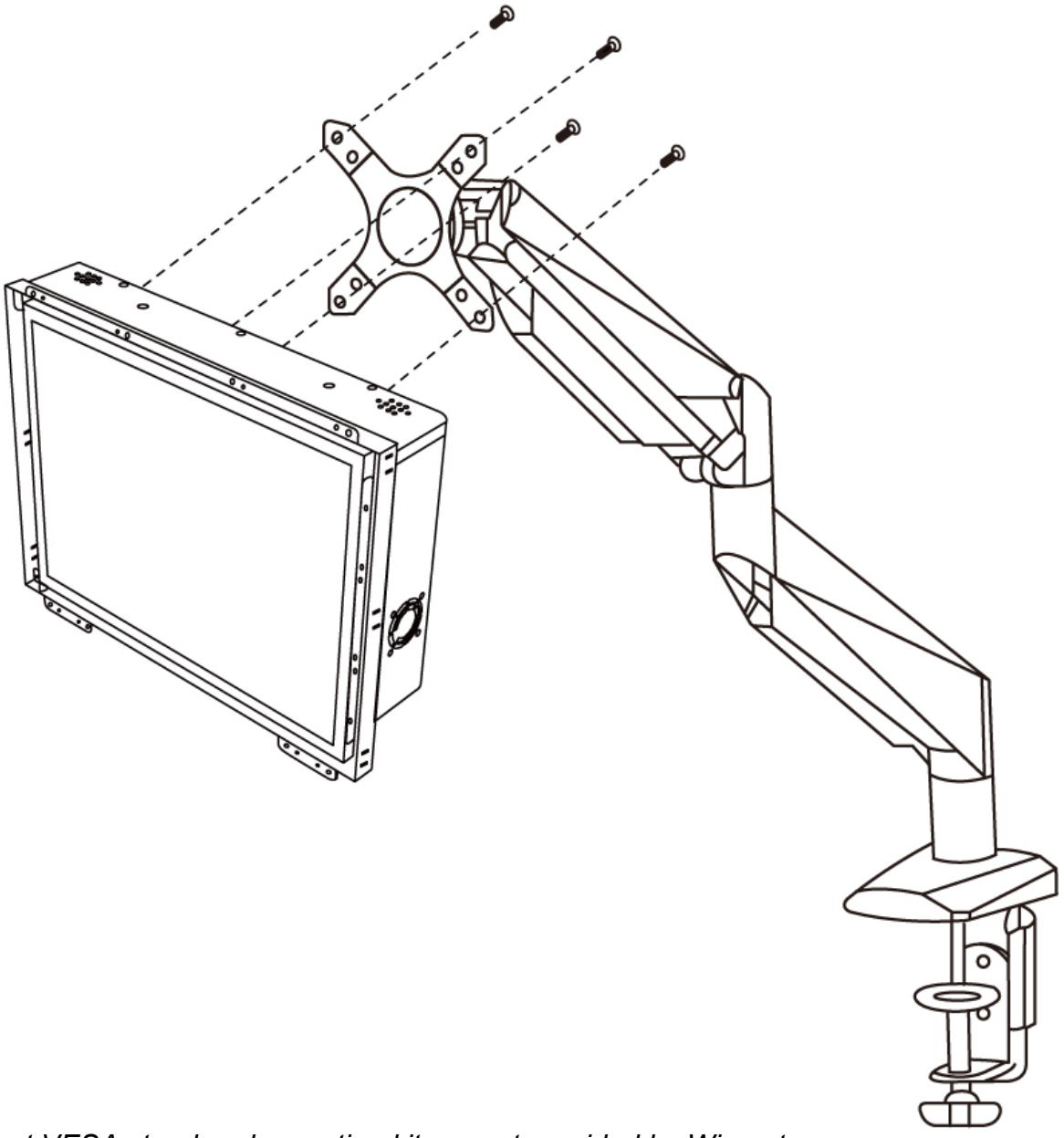
## 2.2.2 VESA Mount

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

Open Frame Display comes with VESA Mount holes for mounting.

**Installation Instruction:**

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



*Notice that VESA stand and mounting kit are not provided by Winmate.*

| Size | VESA Plate |
|---|---|
| **7”, 10.1”, 10.4”, 12.1”** | 75x75 mm |
| **10.4”, 15”** | 100x100 mm |

## 2.3 Connecting Peripherals

This Display comes with USB Type-C interface located on the bottom panel. The connector comes with protective cap. 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 IP65 enclosure rating.

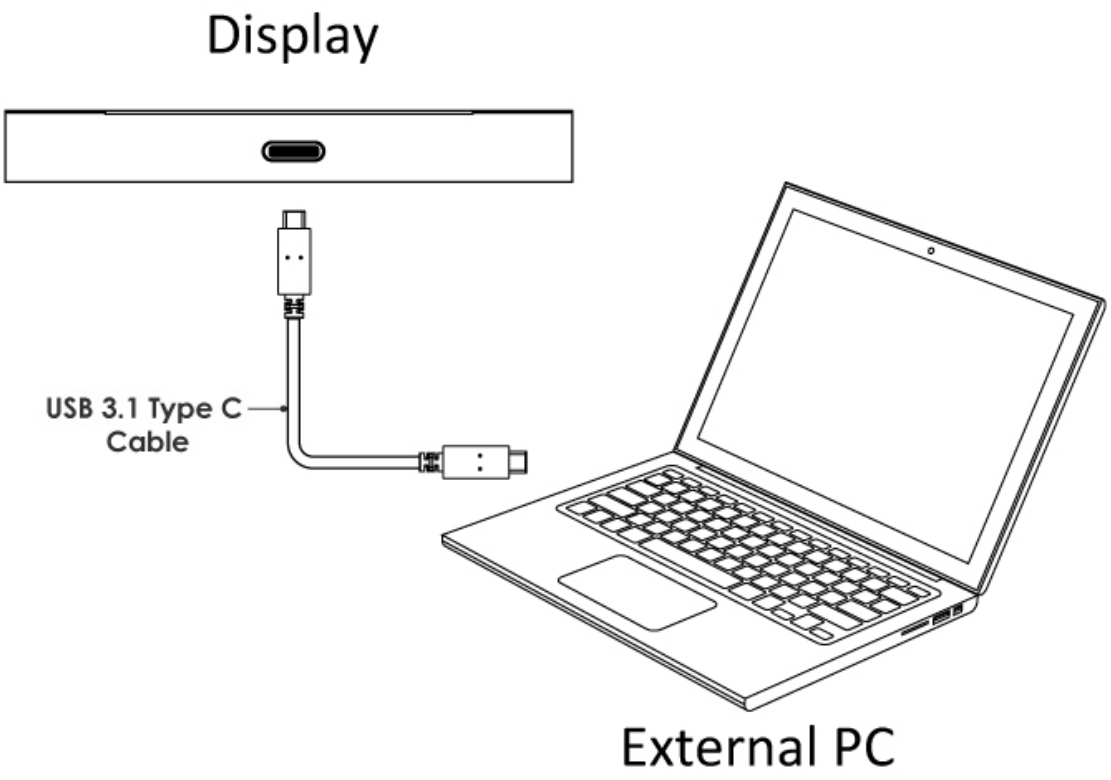
For a nice look and safe installation, make sure cables are neatly hidden behind the device.

**Caution/ Attention**
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.

**Caution/ Attention**
Turn off the device and disconnect other peripherals before installation.
Éteindre l'appareil et débrancher tous les périphériques avant l'installation.

To display video and sound from an external PC follow the instructions below.

1. Turn off your computer and unplug external computer's power cable.
2. Connect a USB 3.1 Type C cable from your external PC to the USB 3.1 Type C port on the display.
3. Connect the power cable to the display and the other side to power adapter.
4. Plug the power adapter into an electrical outlet.
5. Turn on external computer and display.

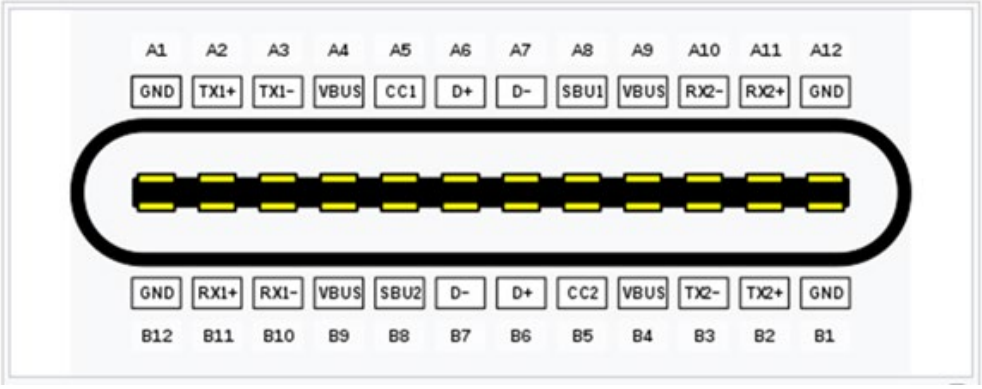


**Note:**
For the optimal results, select display native resolution as the external computer's input resolution.

## 2.3.1 USB Type-C Connector Description

The Display features USB 3.1 Type-C connector for power, video and sound transmission. USB Type-C connector supports Alt mode.

*Pin Assignment and signal names for USB 3.1 Type-C connector*




| Pin | Signal Name | Pin | Signal Name |
|---|---|---|---|
| A1 | GND | B1 | GND |
| A2 | TX1+ | B2 | TX2+ |
| A3 | TX1- | B3 | TX2- |
| A4 | VBUS | B4 | VBUS |
| A5 | CC1 | B5 | CC2 |
| A6 | D+ | B6 | D+ |
| A7 | D- | B7 | D- |
| A8 | SUB1 | B8 | SUB2 |
| A9 | VBUS | B9 | VBUS |
| A10 | RX2- | B10 | RX1- |
| A11 | RX2+ | B11 | RX1+ |
| A12 | GND | B12 | GND |

**Important:**
Power Source needs to support 5V/3A.

# Chapter 3: Operating the Device

In this chapter you will find instructions on how to operate the display.

## 3.1 Turning on/ off the System

To turn on the system:

1. Connect USB Type-C 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.
2. Connect the other side of USB Type-C cable to external computer.
3. Turn on the external computer.
4. The device will boot automatically when powered on.

To turn on the system:

1. Disconnect the Display from external computer to completely turn off the device.

## 3.2 On-Screen Display Menu Navigation

| OSD Icon | Sub-menu | Settings | Note |
|---|---|---|---|
|  BRICONTRAST | **BRIGHTNESS** | **slider bar** | Default 50 |
| | Use to adjust the screen's brightness. Range 0 to 100 | | |
| | **CONTRAST** | **slider bar** | Default 50 |
| | Use to adjust the screen's contrast. Range 0 to 100 | | |
|  COLOR | **USER** | **R.G.B slider bar** | |
| | Choose RED/GREEN/BLUE to set value of color temperature brightness. | | |
| | **9300K** | **Select and execute** | |
| | Use to set value of monitor for the CIE coordinate 9300 color temperature | | |
| | **6500K** | **Select and execute** | |
| | Use to set value of monitor for the CIE coordinate 6500 color temp. | | |
| XII GAMMA | **GAMMA 0** | **Select and execute** | Default GAMMA0 |
| | Choose the parameter of GAMMA 0 as default setting. | | |
| | **GAMMA 1** | **Select and execute** | |
| | Choose the parameter of GAMMA 1 as default setting. | | |
| | **GAMMA 2** | **Select and execute** | |
| | Choose the parameter of GAMMA 2 as default setting. | | |
|  RECALL | **YES** | **Select and execute** | |
| | Recall the factory default setting | | |
| | **NO** | **Select and execute** | |
| | Return to main menu | | |
|  EXIT | **YES** | **Select and execute** | |
| | Exit the OSD menu | | |
| | **NO** | **Select and execute** | |
| | Return to main menu | | |

# Appendix

This chapter contains additional product information, including troubleshooting  guide and frequency table

# Appendix A: Hardware Specifications

| | Model Name | | | | |
|---|---|---|---|---|---|
| | W07L100-POT1-C | W10L100-POH2-C | R10L100-POT2-C | R12L100-POM2-C | R15L100-POC3-C |
| **Display** | | | | | |
| Size/Type | 7" TFT (Wide) | 10.1"TFT(Wide) | 10.4" | 12.1" TFT | 15" TFT |
| Resolution | 1024 x 600 | 1024 x 600 | 1024 x 768 | 1024 x 768 | 1024 x 768 |
| Brightness | 320 nits | 420 nits (Optional 800 nits) | 350 nits (Optional 1000 nits) | 500 nits (Optional 1000 nits) | 300 nits (Optional 1000 nits) |
| Contrast Ratio | 500:1 (typ.) | 500:1 (typ.) | 1200:1 (typ.) | 700:1 (typ.) | 2000:1 (typ.) |
| Viewing Angle | -75~75(H); -70~75(V) | -70~70(H); -60~50(V) | -88~88(H); -88~88(V) | -80~80(H); -70~70(V) | -88~88(H); -88~88(V) |
| Active Display Area, mm | 153.6(H) x 90(V) | 220.416(H)x 129.15(V) | 210.4(H) x 157.8 (V) | 245.76(H)x 184.32(V) | 304.1(H) x228.1(V) |
| Pixel Pitch, mm | 0.15 (H) x 0.15 (V) | 0.2152(H)x 0. 2152 (V) | 0.205 (H) x 0.205 (V) | 0.240 9H) x 0.20(V) | 0.297 (H) x 0.297 (V) |
| Max Colors | 262K (6bit) | 262K (6bit) | 16.2M | 16.2M | 16.2M (8bits) |
| Touch | Projected Capacitive, Optional Protection Glass | Projected Capacitive, Optional Protection Glass, Optional AG Coating | Projected Capacitive, Optional Protection Glass | Projected Capacitive, Optional Protection Glass | Projected Capacitive, Optional Protection Glass, Optional AG Coating |
| **Input/ Output** | | | | | |
| Power | USB Type-C Alt mode, power source need support 5V/3A | USB Type-C Alt mode, power source need support 5V/3A | USB Type-C Alt mode, power source need support 5V/3A | USB Type-C Alt mode, power source need support 5V/3A | USB Type-C Alt mode, power source need support 5V/3A |
| Input Ports | USB Type-C | USB Type-C | USB Type-C | USB Type-C | USB Type-C |
| **Audio** | | | | | |
| **Speaker** | 1 x Speaker* | 1 x Speaker* | 1 x Speaker* | 1 x Speaker* | 1 x Speaker* |
| **Power Specifications** | | | | | |
| Power Input | USB Type-C Alt mode，power source need support 5V/3A | USB Type-C Alt mode，power source need support 5V/3A | USB Type-C Alt mode，power source need support 5V/3A | USB Type-C Alt mode，power source need support 5V/3A | USB Type-C Alt mode，power source need support 5V/3A |
| Power Consumption | 6W | 8W | 10W | 12W | 12W |
| **Mechanical Specifications** | | | | | |
| Mounting | Open Frame, VESA Mount | Open Frame, VESA Mount | Open Frame, VESA Mount | Open Frame, VESA Mount | Open Frame, VESA Mount |
| **Environment Considerations** | | | | | |
| Operating Temperature | 0°C to +50°C | 0°C to +50°C | 0°C to +50°C | 0°C to +50°C | 0°C to +50°C |
| Storage Temperature | -10°C to +60°C | -10°C to +60°C | -10°C to +60°C | -10°C to +60°C | -10°C to +60°C |
| **Standards and Certification** | | | | | |
| Safety | CE, FCC | CE, FCC | CE, FCC | CE, FCC | CE, FCC |

*Note: If your order does not include the Audio/Speakers option, the digital input will not have voice.

# Appendix B: Troubleshooting

If your monitor fails to operate correctly, check the following chart for possible solution before calling for repairs:

| Condition | Check Point |
|---|---|
| **The picture does not appear** | • Check if the signal cable is firmly seated in the socket.<br>• Check if the Power is ON at the computer<br>• Check if the brightness control is at the appropriate position, not at the minimum. |
| **The screen is not synchronized** | • Check if the signal cable is firmly seated in the socket.<br>• Check if the output level matches the input level of your computer.<br>• Make sure the signal timings of the computer system are within the specification of the monitor. |
| **The screen is too bright (too dark)** | • Check if the brightness or contrast control is at the appropriate position, not at the Maximum (Minimum). |
| **The screen is shaking or waving** | • Perform the Auto adjustment.<br>• Moving all objects which emit a magnetic field such as motor or transformer, away from the monitor.<br>• Check if the specific voltage is applied.<br>• Check if the signal timing of the computer system is within the specification of monitor. |
| **The screen shuts down when running BIOS if my display is connected to external PC via USB Type-C cable** | • When running BIOS your device's screen shuts down until the OS system turns on.<br>• Use adapter, ex. USB type-C to HDMI adapter, to connect your device to external PC to see BIOS progress and do settings. |

**If you are unable to correct the fault by using this chart, stop using your monitor and contact your distributor or dealer for further assistance.*

# Appendix C: Frequency Table

The choice of supported modes depends on the monitor native resolution. Refer to the table below for more information about available input signals.

| Signal name | Frequency (Hz) | USB Type-C |
|---|---|---|
| 800x600 | 60 | ✔ |
| 1024x768 | 60 | ✔ |
| 1280x1024 | 60 | ✔ |
| 1366x768 | 60 | ✔ |
| 1600x1200 | 60 | ✔ |
| 1680x1050 | 60 | ✔ |
| 1920x1080 | 60 | ✔ |
| 1920x1200 | 60 | ✔ |

For more information about available input signals and OSD navigation, please refer to R6C AD Board Manual included in the package.

You can also download R6C AD Board Manual from Winmate Download Center.

# Appendix D: 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.

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