# 1 Safety Precautions

Both the installer and the operator of the Android panel PC must read and understand this installation manual carefully before installing and operating the device.

- ➢ Only qualified personnel may install or operate the device.
- ➢ The device must be installed according to the installation instructions.
- ➢ The device is designed for the installation on a flat surface under the following conditions:
    - No extreme high and low working temperatures
    - no high explosive risks
    - no strong magnetic fields
    - no high polluting risks
- ➢ Never allow fluids, metal filings or wiring debris to enter any ventilation openings in device. This could cause fire or electrical shock.
- ➢ Don't cover the openings as they are for air convection hence protects the equipment from overheating.
- ➢ Don't store the device in an environment where the temperature is lower/higher than recommended in this manual as it may damage the device.
- ➢ Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
- ➢ The LCD display liquid contains a powerful irritant. In case of skin contact, wash immediately with plenty of water. In case of eye contact, hold the eye open, flush with plenty of water and get medical attention.
- ➢ The supplier is not responsible for modified, altered or reconstructed equipment.
- ➢ The figures in this manual serve an illustrative purpose. Because of the many variables associated with any particular installation, the supplier cannot assume responsibility for actual use based on the figures.
- ➢ The supplier neither guarantees that the device is suitable for your particular application, nor assumes responsibility for your product design, installation or operation.

# 2 Product Specification

## 2.1 Product Specification (Wide Screen Model)

| Model | PA10W-N1 | PA11W-N1 | PA15W-R1 | PA17W-R1 | PA22W-R1 |
|---|---|---|---|---|---|
| Type | 10.1" TFT | 11.6" TFT | 15.6" TFT | 17.3" TFT | 21.5" TFT |
| Resolution | 1280x800 | 1920x1080 | 1920x1080 | 1920x1080 | 1920x1080 |
| Brightness | 300 cd/m2 | 300 cd/m2 | 300 cd/m2 | 400 cd/m2 | 250 cd/m2 |
| Backlight Lifetime | 50,000 hr | 50,000 hr | 50,000 hr | 50,000 hr | 50,000 hr |
| CPU | Quad-core A53 | | Dual-core A72 + Quad-core A53 | | |
| RAM/Storage | 2G/8G | | 4G/32G (max. 64G) | | |
| Touch Screen | Projected Capacitive Touch | | | | |
| COMs | 2 x RS232 (422/485 option) | | | | |
| Ethernet | 1 x GbE RJ-45 | | | | |
| USB | 2 x USB 2.0, 1 x OTG | | | | |
| Wireless | WIFI 2.4/5G and Bluetooth BT 4.0, GPS (option) | | | | |
| Memory Card | MicroSD | | | | |
| Audio | 1 x Audio Out, 2 x Speaker | | | | |
| Video Output | 1 x HDMI 1080P@60fps | | 1 x HDMI 1080P@60fps or 4K@60fps | | |
| Power Input & Consumption | 12~24V, max. 35 watts | | | | |
| Weight | 1.7 Kgs | 2.8 Kgs | 3.7 Kgs | 4.2 Kgs | 5.7 Kgs |
| Operating Temp. | -10~60℃ | | | | |
| Storage Temp. | -20~80℃ | | | | |
| Moisture | 10% ~ 80% @40℃ | | | | |
| Construction | Silver Aluminum front bezel and chassis (Black as option) | | | | |
| IP Rating | IP65 (Front) | | | | |
| Mounting | Panel mount, VESA 75x75 / 100 x 100 | | | | |
| Dimension(mm) (WxHxD) | 283.7x 186.2x56 | 328.3x 216.3x56 | 405.3x 254.7x68 | 452.0x 285.0x67 | 537.4x 328.8x63 |
| Cut-out(mm) (WxH) | 269.7x172.2 | 314.3x202.3 | 391.3x240.6 | 435.0x268.0 | 523.4x314.8 |
| CE/FCC | EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3 | | | | |
| System Support | Android 6.0 | | Android 7.1 | | |

## 2.2 Product Specification (Standard 4:3 Screen Model)

| Model | PA10S-N1 | PA12S-R1 | PA15S-R1 | PA17S-R1 | PA19S-R1 |
|---|---|---|---|---|---|
| Type | 10.4" TFT | 12" TFT | 15" TFT | 17" TFT | 19" TFT |
| Resolution | 1024x768 | 1024x768 | 1024x768 | 1280x1024 | 1280x1024 |
| Brightness | 350 cd/m2 | 450 cd/m2 | 450 cd/m2 | 350 cd/m2 | 250 cd/m2 |
| Backlight Lifetime | 50,000 hr | 50,000 hr | 50,000 hr | 50,000 hr | 50,000 hr |
| CPU | Quad-core A53 | Dual-core A72 + Quad-core A53 | | | |
| RAM/Storage | 2G/8G | 4G/32G (max. 64G) | | | |
| Touch Screen | Projected Capacitive Touch | | | | |
| COMs | 2 x RS232 (422/485 option) | | | | |
| Ethernet | 1 x GbE RJ-45 | | | | |
| USB | 2 x USB 2.0, 1 x OTG | | | | |
| Wireless | WIFI 2.4/5G and Bluetooth BT 4.0, GPS (option) | | | | |
| Memory Card | MicroSD | | | | |
| Audio | 1 x Audio Out, 2 x Speaker | | | | |
| Video Output | 1 x HDMI 1080P | 1 x HDMI 1080P@60fps or 4K@60Hz | | | |
| Power Input & Consumption | 12~24V, Max. 35 watts | | | | |
| Weight | TBD | 2.8 Kgs | 3.7 Kgs | 4.2 Kgs | 5.6 Kgs |
| Operating Temp. | -10~60℃ | | | | |
| Storage Temp. | -20~80℃ | | | | |
| Moisture | 10% ~ 80% @40℃ | | | | |
| Construction | Silver Aluminum front bezel and chassis | | | | |
| IP Rating | IP65 (Front) | | | | |
| Mounting | Panel mount, VESA 75x75 / 100 x 100 | | | | |
| Dimension(mm) (WxHxD) | 283.9x 231.3x56 | 312.3x 250.8x60 | 366.1x 290.0x62 | 399.2x 331.6x63 | 438.6x 363.6x63 |
| Cut-out(mm) (WxH) | 267.9x215.3 | 298.3x236.8 | 352.1x276.0 | 385.2x317.6 | 424.6x349.6 |
| CE/FCC | EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3 | | | | |
| System Support | Android 6.0 | Android 7.1 | | | |

## 2.3 Mechanic & Interface Description
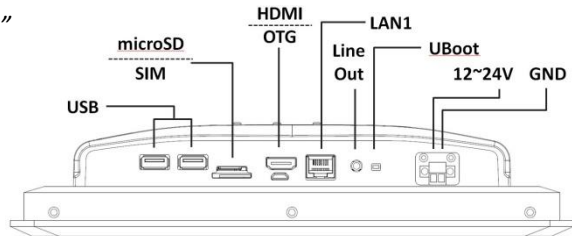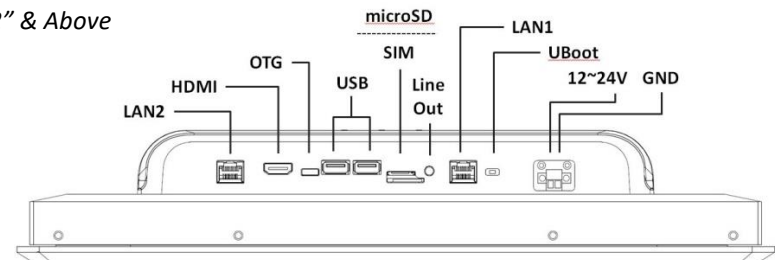
**Top**
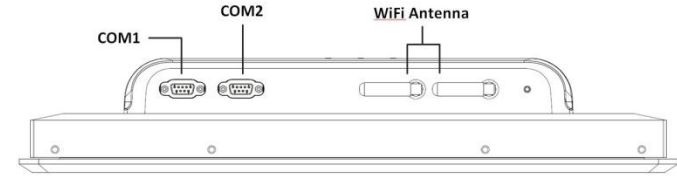


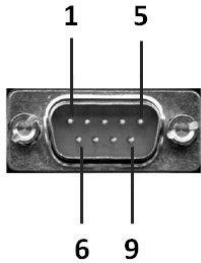**Back**
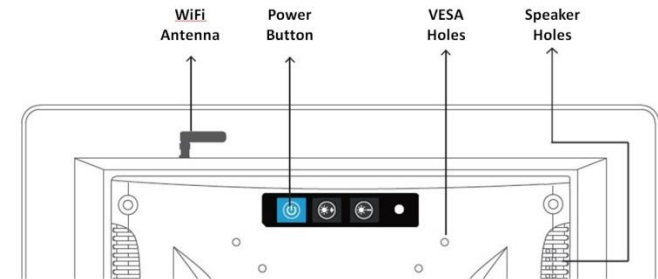


**Bottom**

*Less than 12"*



*12" & Above*

## 2.4 Communication Ports

COM1 and COM2, 9-pin male connectors, are used to connect the device to a controller via RS232 or RS485.
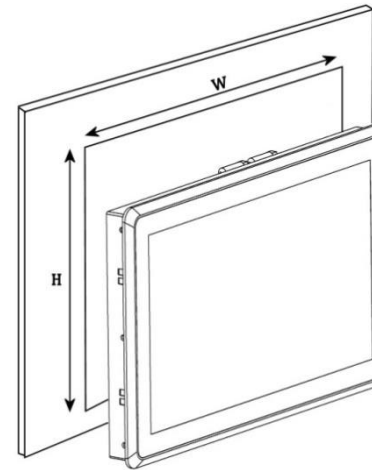
RS-232 DB-9 male connector



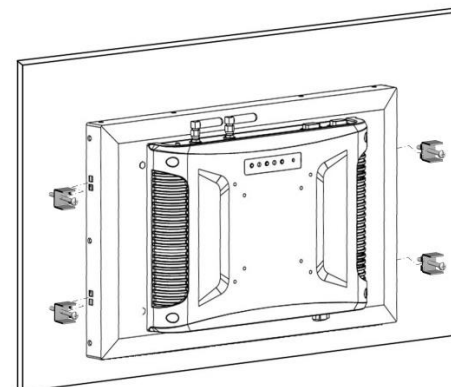| PIN | Assignment |
|-----|------------|
| 1 | |
| 2 | RxD |
| 3 | TxD |
| 4 | |
| 5 | GND |
| 6 | |
| 7 | |
| 8 | |
| 9 | 5V Out (≤ 0.25A) |

# 3 Installation

## 3.1 Mounting the Device

Cut out the mounted panel to match the dimensions (mm) according to the size of the device.



| Model | Cut-out | |
|-------|---------|---|
| | W | H |
| PA10W | 269.7 | 172.2 |
| PA11W | 314.3 | 202.3 |
| PA15W | 391.3 | 240.6 |
| PA17W | 435.0 | 268.0 |
| PA22W | 523.4 | 314.8 |
| PA10S | 267.9 | 215.3 |
| PA12S | 298.3 | 236.8 |
| PA15S | 352.1 | 276.0 |
| PA17S | 385.2 | 317.6 |
| PA19S | 424.6 | 349.6 |

# 4　Power Connection

## 4.1　Power Source

The device is equipped with a 12~24 V DC input. Supply power other than 12~24 VDC ± 15% will severely damage the unit. Thus, check the power supply supporting the DC power regularly.

## 4.2　Remove the terminal block

1. Loosen the two screws that secure the terminal block.
2. Gently pull the terminal block away from the connector

## 4.3　Connect the terminal block

1. Verify that the terminal block is not connected to a power source.
2. Secure the DC power wires to the terminal block. Follow the markings on terminal blocks and power connector for proper connections.

## 4.4　Install the terminal block

1. Reattach the terminal block to the connector until seated.
2. Tighten the two screws that secure the terminal block to the power connector

## 4.5　Power on the device

1. Long press the "Power Button" on the back for at least 3 seconds
2. The Android logo screen will be displayed  and the system will be started
3. Once Android system is ready, the Android desktop will be displayed

## 4.6　Power off the device

To power off the device, press the "Power Button" on the back of the device or press the "Power Off" icon on the navigation of the screen

# 5　General Navigation of Android Device

At the bottom of your device's screen, you'll find the navigation bar with these seven buttons:

**Hide Bar**
Press to hide the Navigation Bar. Swipe up from the bottom of the screen to show the Navigation Bar.

**Volume Down**
Turn the speaker volume down

**Back**
Open the previous screen you were working in, even if it was in a different app. Once you back up to the Home screen, you can't go back any further.

**Home**
Returns to the Home screen.

**Overview**
Opens a list of thumbnail images of screens you've worked with recently. To open one, touch it. To remove a screen from the list, swipe it left or right or touch the X.

**Volume Up**
Turn the speaker volume up

**Power Off**
Power off or reboot the device