PPC-A72-156-C

User Manual

Release 1.0
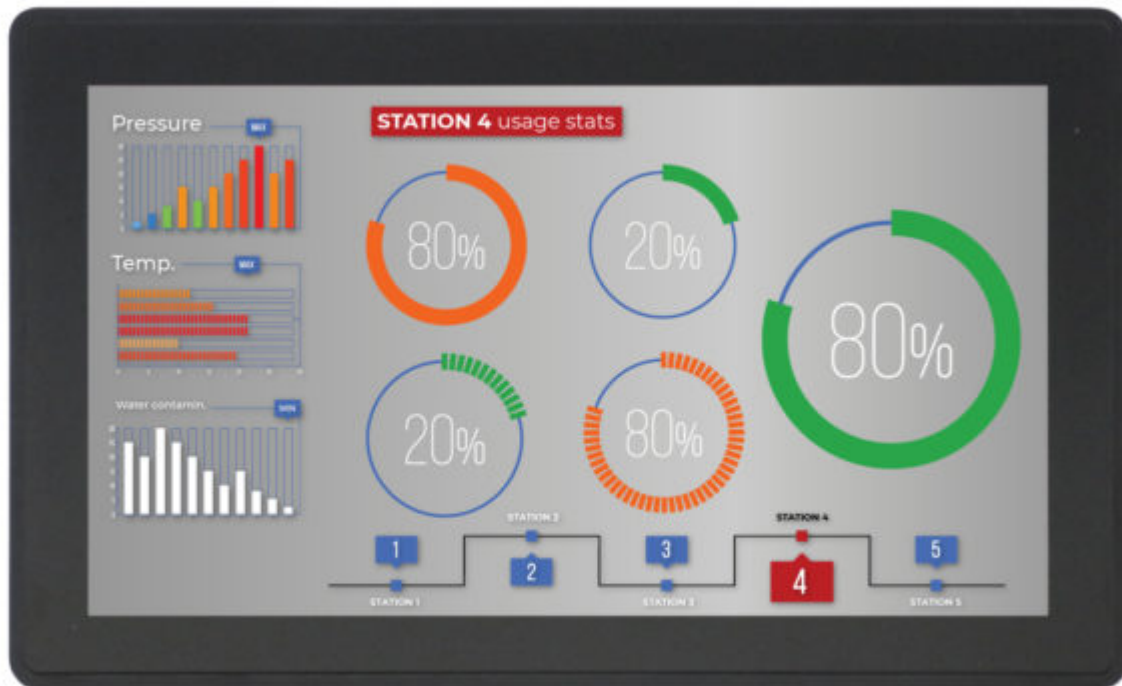
Chipsee Products Naming Rules

CS19108R156P-C111	
CS	**Chipsee Product Abbreviations**
19	**Horizontal Resolution** **80** Means 800 Pixel **10** Means 1024 Pixel **12** Means 1280 Pixel **14** Means 1440 Pixel **19** Means 1920 Pixel
108	**Vertical Resolution** **480** Means 480 Pixel **600** Means 600 Pixel **768** Means 768 Pixel **800** Means 800 Pixel **900** Means 900 Pixel **102** Means 1024 Pixel **108** Means 1080 Pixel
R(T/F)	**Product based on Rockchip (TI/Freescale) CPU**
156	**LCD Dimension** **050** Means 5.0 Inch **070** Means 7.0 Inch **080** Means 8.0 Inch **097** Means 9.7 Inch **101** Means 10.1 Inch **104** Means 10.4 Inch **120** Means 12.0 Inch **150** Means 15.0 Inch **156** Means 15.6 Inch **170** Means 17.0 Inch **190** Means 19.0 Inch **215** Means 21.5 Inch
P	**Means Embedded PC or Panel PC** **E** Means Embedded PC without Case **P** Means Panel PC with Case

C	**Means Touch Type** **R** Means Resistive Touch **C** Means Capacitive Touch
1	**Means LCD Brightness** • Means Common Brightness • Means High Brightness
1	**PCB Version** Baseboard PCB Version Number
1	**PCB Version** SOM Module PCB Version Number

Hardware Features

Key Features:	
CPU	Rokchip RK3399, Dual-core Cortex-A72(1.8GHz), Quad-core Cortex-A53 (1.4GHz)
RAM	4GB DDR3
eMMC	16GB
Storage	TF card supports up to 32GB SDHC
Display	15.6 Inch LCD, 1920*1080 Pixel Resolution
Touch	Ten-Point Capacitive Touch
USB	4 x USB 2.0 Host, 1 x USB 3.0 Host, 1 x Type-C
LAN	1 Channel 1000M LAN
Audio	3.5mm Audio In/Out Connector, 2W Speaker Internal
Buzzer	1
RTC	Yes

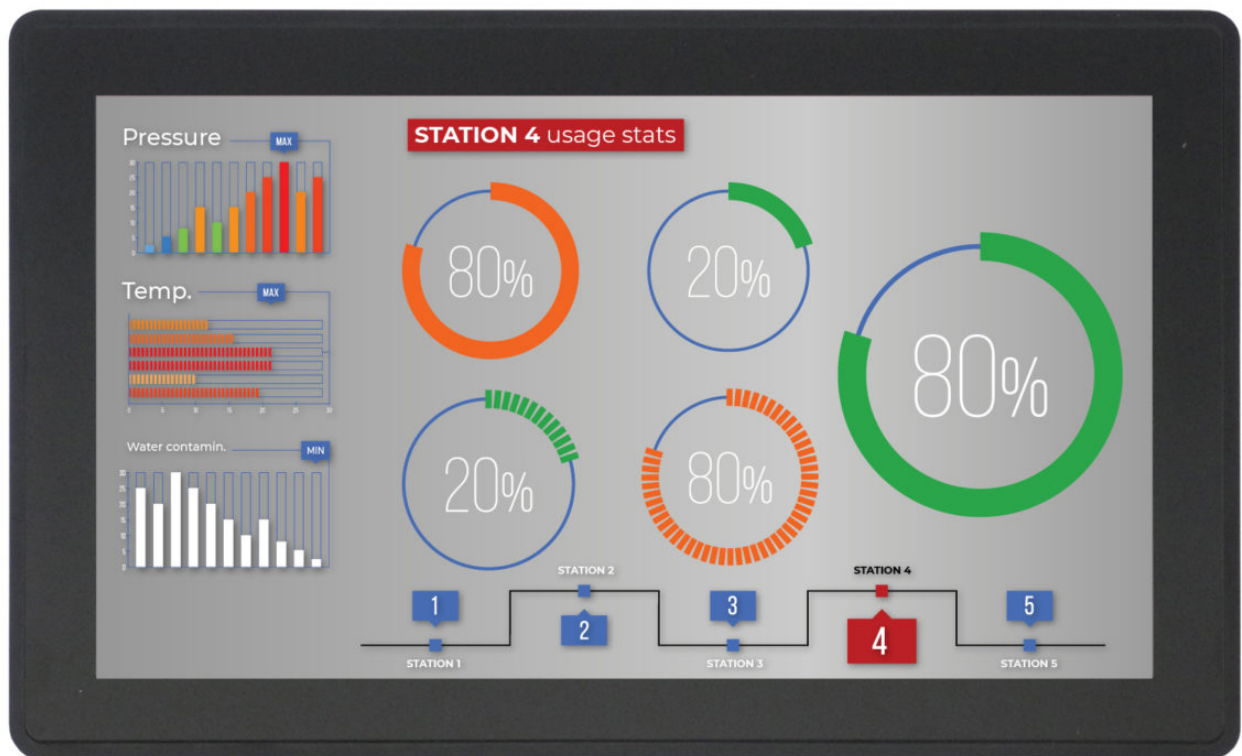|	
RS232+RS485	7 Channels (4 x RS485 at most, 1 debug port)
GPIO	8 Channels
WiFi/BT	On-Board WIFI/BT
HDMI	1 Channel
4G/LTE	Optional
Power Input	15~36V DC
Current @ 15V	800 mA max
Power Consumption	12W Typical
Working Temperature	0°C to +70°C
OS	Android 7.1
Dimension	402*251*45mm
Weight	3200g

CS19108R156P-C111
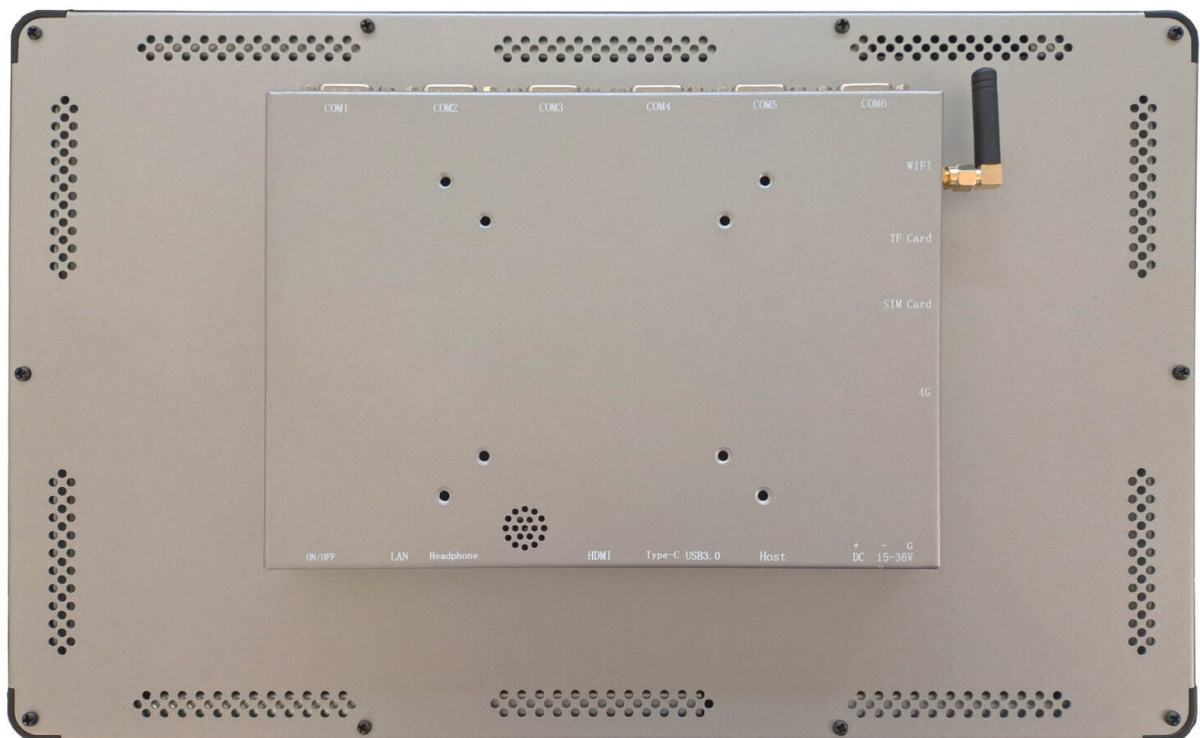
Figure 1: Front View (Android)

Figure 2: Back View

Power Input Connector

The product CS19108R156P-C111 uses a wide-range power input DC 15~36V. The total power consumption is normally about 12W. The Power Input Connector is 3 Pin 3.81mm Screw Terminal Connector as Figure 3 shows. A detailed description of the power input connector pins is provided in Table 1.

Figure 3: Power Input Connector

Table 1

Power Input Pin Definition:		
Pin Number	**Definition**	**Description**
Pin 1	Positive Input	Connect to DC Power **Positive Terminal**
Pin 2	Negative Input	Connect to DC Power **Negative Terminal**
Pin 3	Ground	Connect to **Power System Ground**

ATTENTION:

The system ground "G" has been connected to power negative "-" on board.

Capacitive Touch

The product CS19108R156P-C111 uses a ten-point capacitive touch.

ATTENTION:

Capacitive touch screens are very sensitive to power noise. Ripple voltage/current from the power adapter can cause the LCD ripples, as well as the capacitive touch malfunction. If you use the APK Multi-Touch under Android to test it, you can find the touchpoint float. There are several ways to solve this problem:

1) Use a high-quality power adapter. Or a battery to provide power like a cell phone or tablet PC.

2) If the power adapter isn't good enough, make sure the power input connector Pin 3 is connected to the Ground. This method can eliminate the problem totally. You can test it by touching the GND with one hand, while the other hand operates on the capacitive touch screen. In this case, the user's body acts as the Power System Ground.

DB9 Connector

The product CS19108R156P-C111 has 6*DB9 connectors configured as RS232 by default. COM3/COM4/COM5/COM6 can be customized to RS485. If you need any other setting different from the default one, please contact us.

USB 2.0 Connector

There are four USB 2.0 connectors as Figure 5 shows. Each can provide 500mA current.

Figure 5: USB 2.0 Connector

USB 3.0 Connector

And one USB 3.0 connector as Figure 6 shows.

Figure 6: USB 3.0 Connector

USB Type-C

The product CS19108R156P-C111 has one USB Type-C connector as Figure 7 shows.

Figure 7: USB Type-C Connector

LAN Connector

The product has one channel 1000Mbit Ethernet Connector, as Figure 8 shows.

Figure 8: LAN Connector

TF Card

The product CS19108R156P-C111 has one TF (uSD) card connector, as Figure 9 shows, that supports a TF (uSD) card up to 32GB.

Figure 9: TF Card Connector

ATTENTION:

A TF card does not come with the product.

SIM Card Holder

There is one SIM card holder, as shown in Figure 10. To read the SIM card data, you need a 4G/LTE module. There is a mini-PCIe connector inside that enables a 4G/LTE module to be mounted.

Figure 10: SIM Card Holder

ATTENTION:

The 4G/LTE module is not mounted by default but you can order it along with the product.

Audio Connector

The product CS19108R156P-C111 has one headphone, as Figure 11 shows, as well as an internal 2W speaker.

Figure 11: Audio Connector

WiFi+BT

The product CS19108R156P-C111 has one WiFi+BT module based on Realtech RTL8723BU which integrates WiFi and BT. There is a connector on the backside of the case that is used to connect an external WiFi and BT antenna, as shown in Figure 12.

Figure 12: WiFi+BT Antenna Connector

HDMI Connector

There is one HDMI connector as Figure 13 shows. The HDMI output resolution can be configured by software.

Figure 13: HDMI Connector

Power Button

Figure 14 shows the product's power button.

Figure 14: Power Button

Expansion Connector

There is one Expansion Connector (closed by default), as Figure 15 shows. As for the definition of every Pin, please refer to Table 3.

Figure 15: Expansion Connector

Table 3

GPIO Connector Definition	
Pin Number	Definition
Pin 1	VCC_ISO
Pin 2	GND_ISO

Pin 3	OUT1
Pin 4	OUT2
Pin 5	OUT3
Pin 6	OUT4
Pin 7	IN1
Pin 8	IN2
Pin 9	IN3
Pin 10	IN4

Dimensions and Mounting

The dimensions of CS19108R156P-C111 are 402*251*45mm.

Mounting Method

This product CS19108R156P-C111 can be mounted by screw holes on the back or side (VESA mount) and panel mounting. Please make sure the display is not exposed to high pressure when mounting into an enclosure.
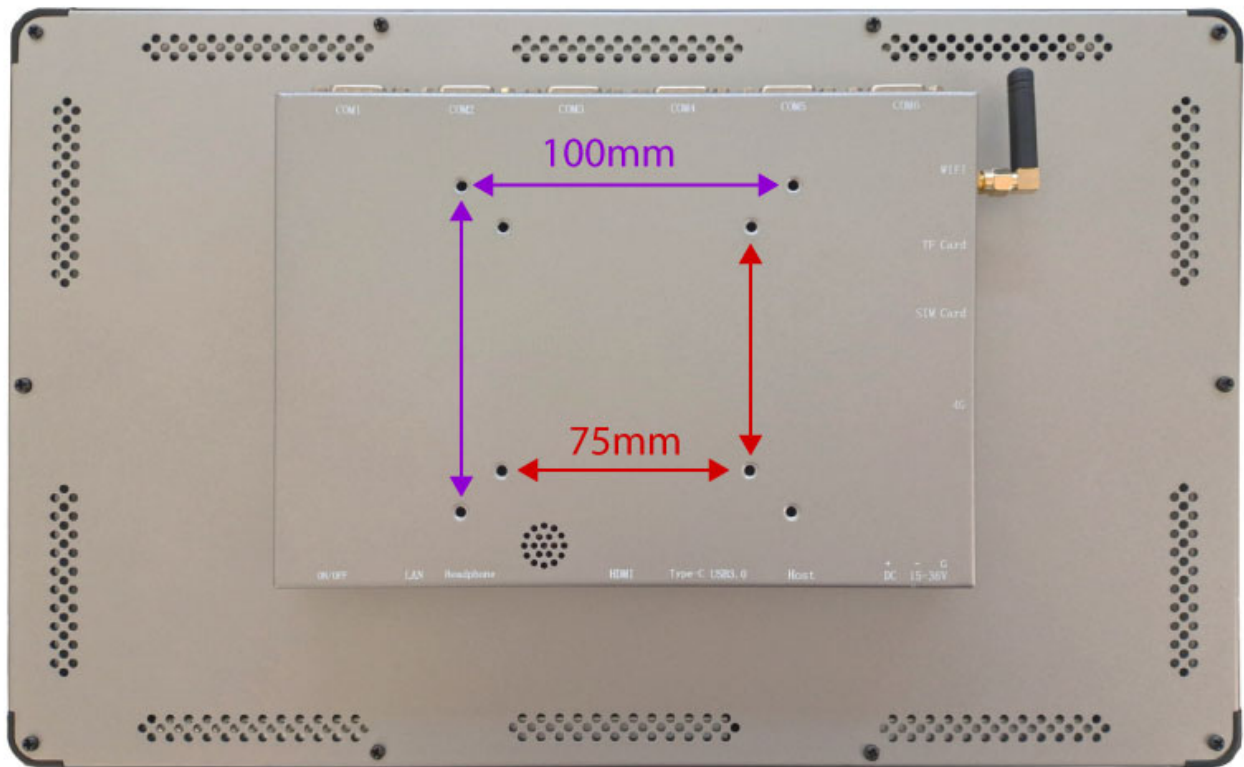
Figure 16: Mounting Method

How to Get Support

Please feel free to contact us with any questions, queries or suggestions.

If your question is about technical support or troubleshooting for one of our products, we kindly ask you to first check our documentation for a possible solution.

If you cannot find the solution you are looking for then please write to service@chipsee.com providing all possible details.

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