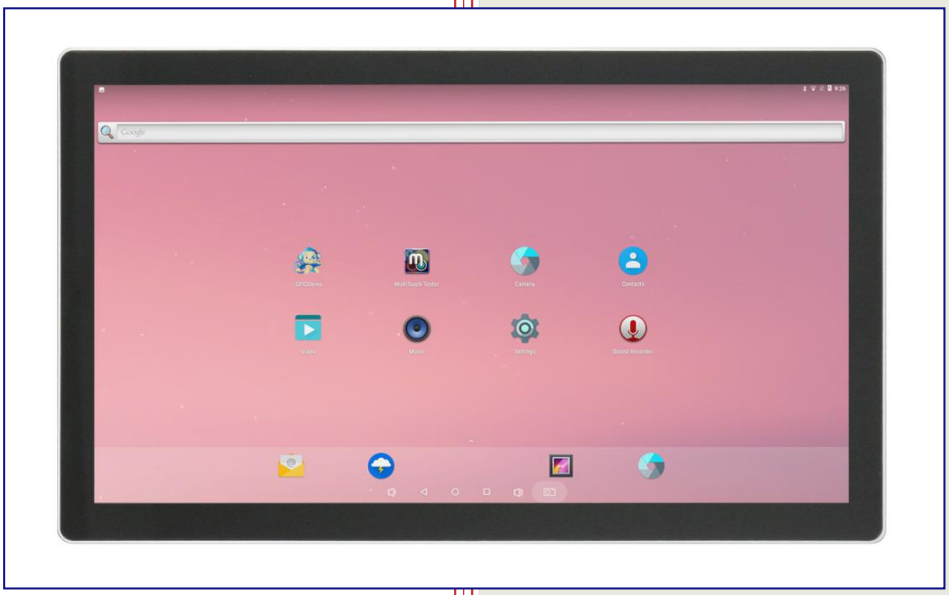
Chipsee®

CS19108R125P-C111

User Manual

Release **1.0**



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Chipsee Products Naming Rules

CS19108R125P-C111	
CS	**Chipsee Product Abbreviate**
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**
125	**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 125 Means 12.5 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** 1 Means Common Brightness 2 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	12.5 Inch LCD,1920*1080 Pixel Resolution
Touch	Ten-Point Capacitive Touch
USB	4 x USB 2.0 Host, 1x USB 3.0 Host,1x 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
3G/4G	Optional
Power Input	15~36V DC
Current @ 15V	200 mA max
Power Consumption	10W Typical
Working Temperature	0°C to +50°C
OS	Android 7.1
Dimension	305*186*37mm
Weight	1650g

CS19108R125P-C111

Figure 1 Top View (Android)

Figure 2 Back View

Power Input Connector

The product CS19108R125P-C111 uses a wide range power input: **DC 15~36V**. The total power consumption is about **15W** normally. The Power Input Connector is 3 Pin 3.81mm Screw Terminal Connector as Figure 3 shows. The Character "**+**" means power **Positive** input, The Character "**-**" means power **Negative** input. The Character "**G**" means system Ground. Table 1 has detailed descriptions about the connector definition.

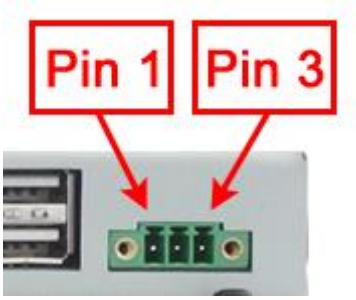

Figure 3 Power Input Connector

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**

BE ATTENTION:
*The system ground **"G"** has been connected to power negative **"-"** on board.*

Capacitive Touch

The product CS19108R125P-C111 uses ten-point capacitive touch.

BE ATTENTION:
Capacitive touch is very sensitive to power noise. Ripple voltage/current from the power adapter will cause the LCD ripples, and will also cause the capacitive touch malfunction: If you use the APK Multi-Touch under Android to test, you can find the touch point float. There are several ways to solve this problem:
1) Use a high quality power adapter. Or use battery to provide the power like cell phone or tablet PC.
*2) If user power adapter can't be good enough, there's another effective method to solve this problem: Make sure the CS19108R125P-C111 power input connector **Pin 3 really connect to user "Power System Ground"**. This method can eliminate the problem totally. User can also use another method to test this problem: touch the GND of CS19108R125P-C111 by one hand, the other hand operates on the capacitive touch screen. In this case, user's body acts as the Power System Ground.*

DB9 Connector

The product CS19108R125P-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 to the default setting, please contact us.

Figure 4 DB9 Connector

USB 2.0 Connector

The product CS19108R125P-C111 has four USB 2.0 connectors as Figure 5 shows. These four USB can provide 500mA current each.

Figure 5 USB 2.0 Connector

USB 3.0 Connector

The product CS19108R125P-C111 has one USB 3.0 connector as Figure 6 shows.

Figure 6 USB 3.0 Connector

USB Type-C

The product CS19108R125P-C111 has one USB Type-C connector as Figure 7 shows.

Figure 7 USB Type-C Connector

LAN Connector

The product CS19108R125P-C111 has one channel 1000Mbit Ethernet Connector, as Figure 8 shows.

Figure 8 LAN Connector

TF Card

The product CS19108R125P-C111 has one TF(uSD) card connector as Figure 9 shows. This device supports TF(uSD) card up to 32GB.

Figure 9 TF Card Connector

> ***BE ATTENTION:***
> *The TF card slot is **NOT mounted** with any TF card by default.*

SIM Card Holder

The product CS19108R125P-C111 has a mini-PCIe connector inside, customer can mount on 3G/4G module to it. Then it will need the SIM Card Holder, as Figure 10 shows.

Figure 10 SIM Card Holder

> ***BE ATTENTION:***
> *This product is not mounted on any 3G/4G module by default.*

Audio Connector

The product CS19108R125P-C111 has one headphone, as Figure 11 shows. And the product has an internal 2W speaker.

Figure 11 Audio Connector

WiFi+BT

The product CS19108R125P-C111 has one WiFi+BT. It uses Realtech RTL8723BU which integrates WiFi and BT. There is a connector on the backside case which can connect external WiFi/BT Antenna, as Figure 12 shows.

Figure 12 WiFi+BT Antenna Connector

HDMI Connector

The product CS19108R125P-C111 has one HDMI connector as Figure 13 shows. The HDMI output resolution can be configured by software.

Figure 13 HDMI Connector

Power Button

The product CS19108R125P-C111 has a powe button, as Figure 14 shows.

Figure 14 Power Button

Expansion Connector

The product CS19108R125P-C111 has 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

BE ATTENTION:
This GPIO Connector is optional. If the customer needs it, please contact us.

Measurements and Mounting

Measurements

The measurement of CS19108R125P-C111 is 305*186*37mm.

Mounting Method

This product CS19108R125P-C111 can be mounted by screw holes on the back, as Figure 16 shows. Please make sure the display is not exposed to high pressure when mounting into an enclosure.

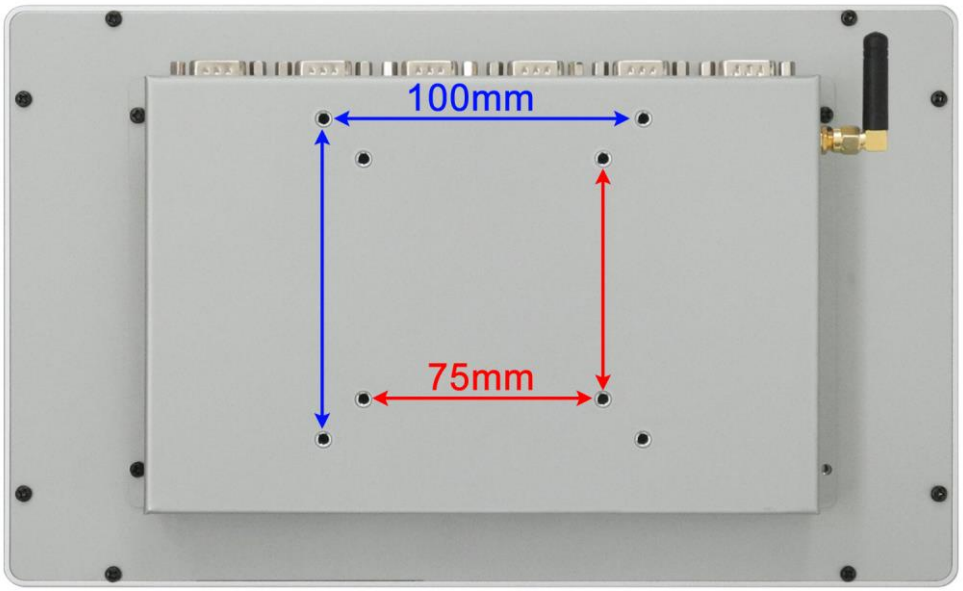

Figure 16 Mounting Method

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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