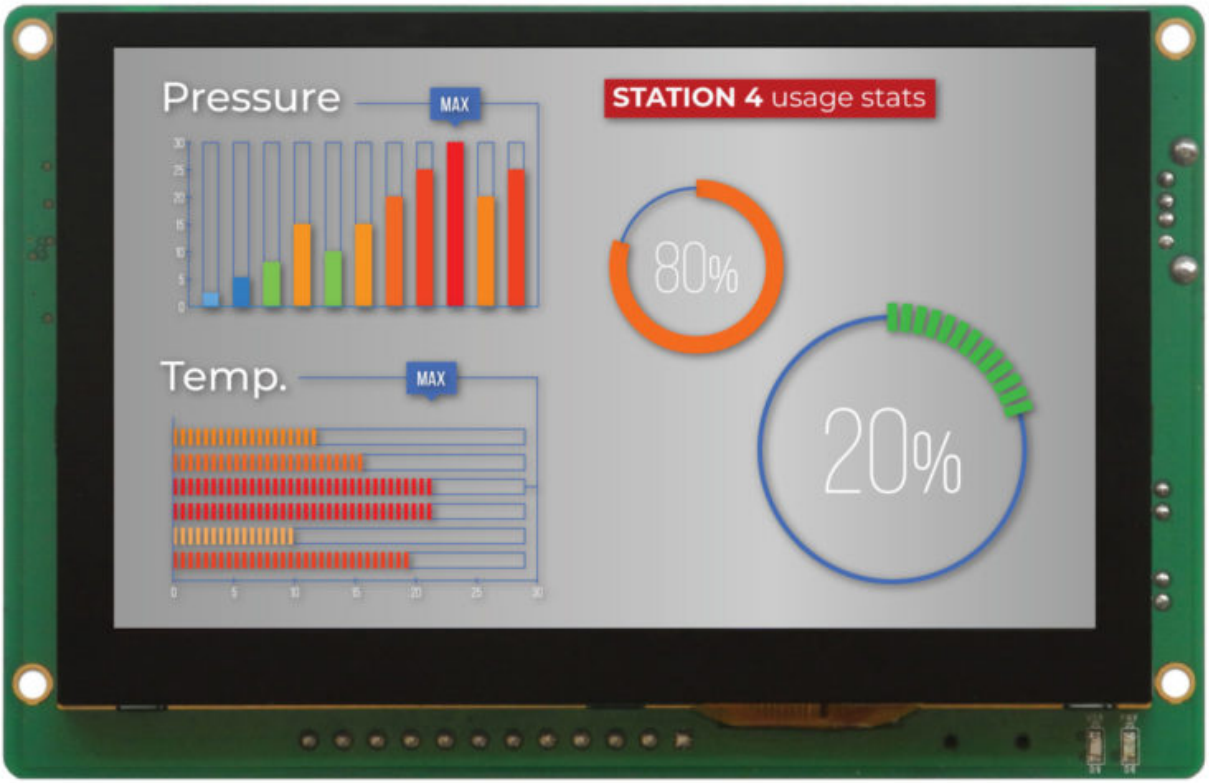
EPC/PPC-A8-50-C

User Manual

Release 3.0



Chipsee Products Naming Rules

CS80480T050E-C151 CS80480T050P-C151	
CS	**Chipsee Product Abbreviate**
80	**Horizontal Resolution** **80** Means 800 Pixel **10** Means 1024 Pixel **12** Means 1280 Pixel **14** Means 1440 Pixel **19** Means 1920 Pixel

480	**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
T(F)	**Product based on TI (Freescale) CPU**
050	**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 **170** Means 17.0 Inch **190** Means 19.0 Inch **215** Means 21.5 Inch
E	**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
5	**PCB Version** Baseboard PCB Version Number
1	**PCB Version** SOM Module PCB Version Number

Hardware Features

Key Features:	
CPU	AM3354ZCZ100,ARM Cortex A8, 1GHz
RAM	512MB DDR3 (Industrial)
eMMC	4GB
Storage	TF card, supports up to 32GB SDHC
Display	Dimension: 5Inch; Resolution:800 x 480Pixel;
Touch	Capacitive or Resistive Touch
USB	1 x USB 2.0 Host,1 USB OTG (can be customized to 2 x Host)
LAN	1 Channel 100M LAN
Audio	3.5mm Audio In/Out Connector
Buzzer	1
RTC	Yes
RS232	2 Channels
RS485	2 Channels *
CAN	1 Channels *
GPIO	8 Channels
WiFi/BT	USB WiFi, Optional
4G/LTE	None
Power Input	6~36V DC
Current @ 12V	400 mA max
Power Consumption	3.5W Typical
Working Temperature	-20°C to +70°C
OS	Android, Linux, Debian, Angstrom

Dimension	CS80480T050E: 134.2*86.82*28mm mm CS80480T050P: 150*110*26.5 mm
Weight	CS80480T050E: 210g CS80480T050P: 440g

* The RS485 and CAN channels may be customized to the following arrangement:

2 x RS485, 1 x CAN (Default)

1 x RS485, 2 x CAN

CS80480T050E-C151

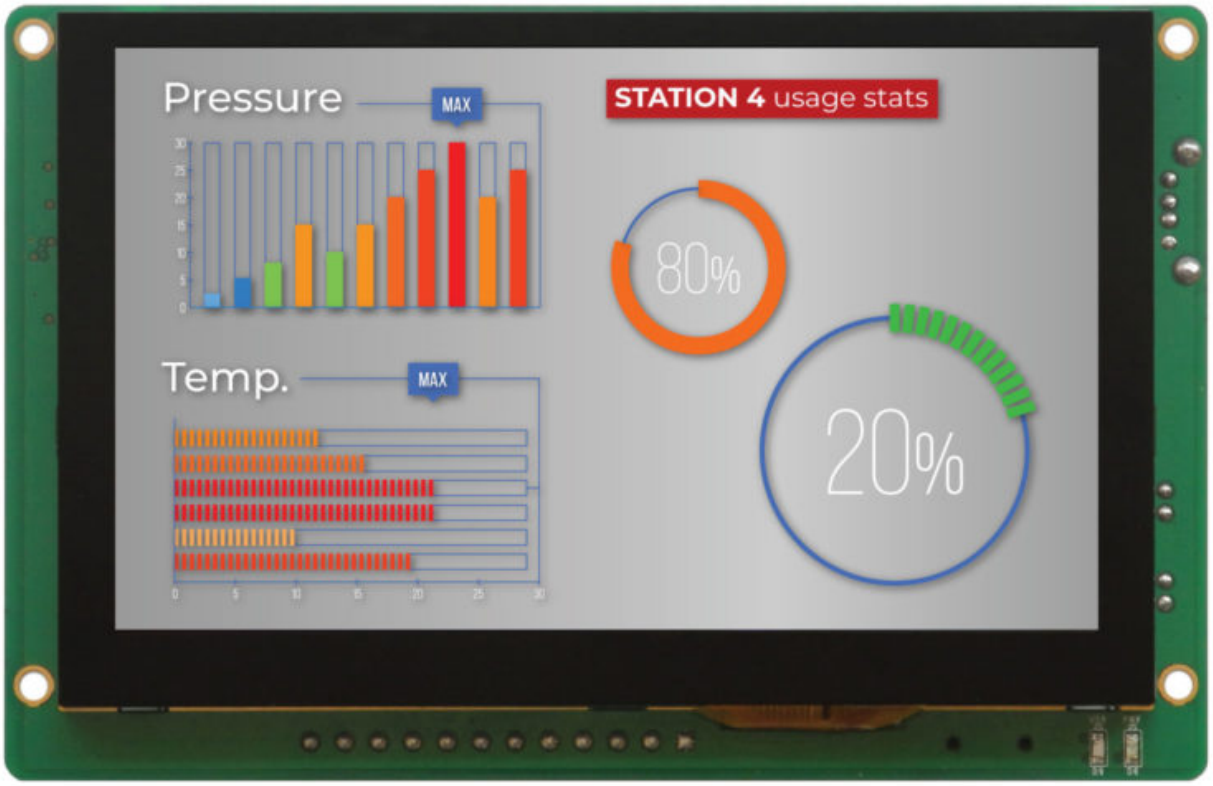


Figure 1 Top View (Android)

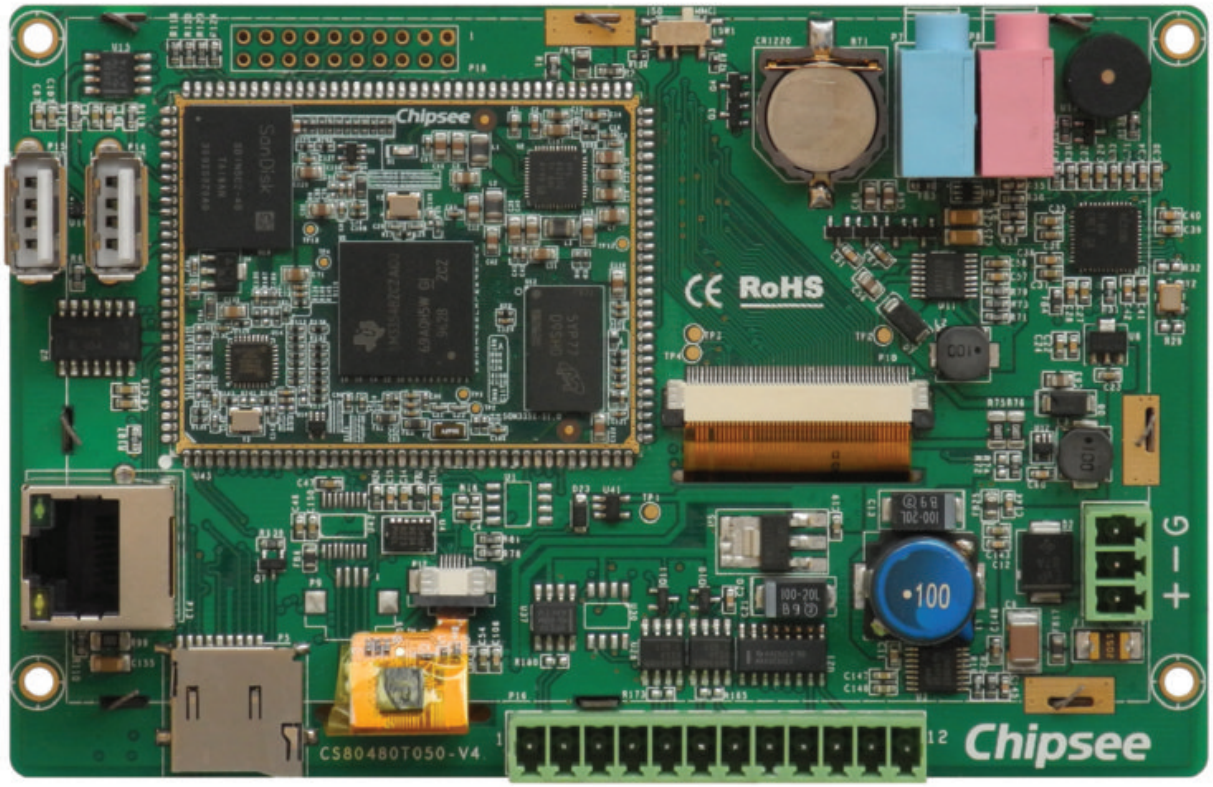


Figure 2 Back View

CS80480T050P-C151

Figure 3 Top View (Android)

Figure 4 Back View

Power Input Connector

The product CS80480T050E/CS80480T050P uses a wide range power input: **DC6~36V**. The total power consumption is normally about **3.5W**. The Power Input Connector is 3 Pin 3.81mm Screw Terminal Connector as Figure 5 shows. It is labelled as P6 on PCB, and labelled as P3 on the metal case. 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.

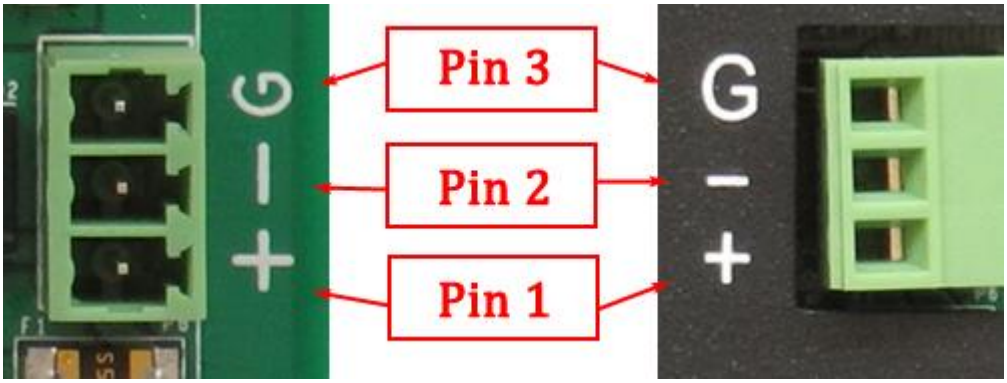


Figure 5 Power Input Connector

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 CS80480T050E/CS80480T050P uses ten-point capacitive touch, as Figure 6 shows.

Figure 6 Capacitive Touch Connector

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 isn't be good enough, there's another effective method to solve this problem: Make sure the CS80480T050E/CS80480T050P 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 CS80480T050E, CS80480T050P by one hand, the other hand operates on the capacitive touch screen. In this case, user's body acts as the Power System Ground.*

Resistive Touch

The product CS80480T050E/CS80480T050P can also use resistive touch, as Figure 7 shows.

Figure 7 Resistive Touch Connector

CAN+RS485+RS232 Connector

The CAN+RS485+RS232 connector is a 12 Pin 3.81mm Screw Terminal Connector, as Figure 8 shows. It is labelled as P16 on PCB. As for the definition of every pin, please refer to Table 2. The RS485 and CAN channels may be customized to the following arrangements. If you need any other setting different to the default setting, please contact us.

CAN+RS485+RS232 Settings:

2 x RS485, 1 x CAN (Default)

1 x RS485, 2 x CAN

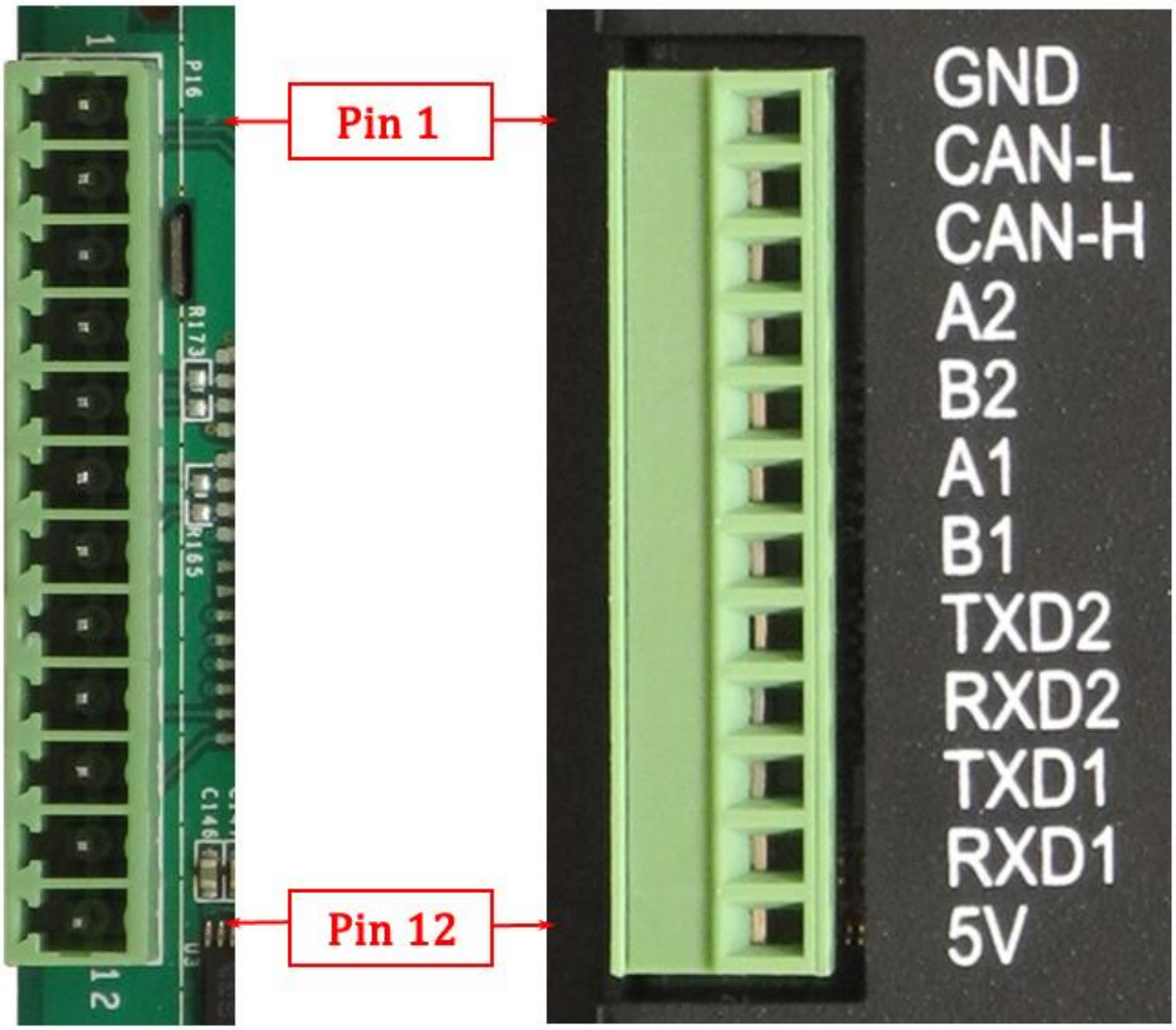


Figure 6 CAN+RS485+RS232 Connector

Table 2

RS232 / RS485 / CAN Pin Definition:		
Pin Number	**Definition**	**Description**
Pin 1	GND	Isolated Ground Output
Pin 2	CAN_L	DCAN0 of CPU,CAN L Signal
Pin 3	CAN_H	DCAN0 of CPU,CAN H Signal
Pin 4	A2	UART4 of CPU, RS485 A Signal
Pin 5	B2	UART4 of CPU, RS485 B Signal
Pin 6	A1	UART2 of CPU, RS485 A Signal
Pin 7	B1	UART2 of CPU, RS485 B Signal

Pin 8	TXD2	UART1 of CPU,RS232 TXD Signal
Pin 9	RXD2	UART1 of CPU,RS232 RXD Signal
Pin 10	TXD1	UART0 of CPU, RS232 TXD Signal
Pin 11	RXD1	UART0 of CPU,RS232 RXD Signal
Pin 12	+5V	Isolated +5V Power Output, No more than 200mA Current output.

USB HOST Connector

The product CS80480T050E/CS80480T050P has two USB connectors as Figure 9 shows. USB Host comes from the CPU USB1, labelled as P15 on the PCB. USB OTG comes from the CPU USB0, labelled as P14 on the PCB.

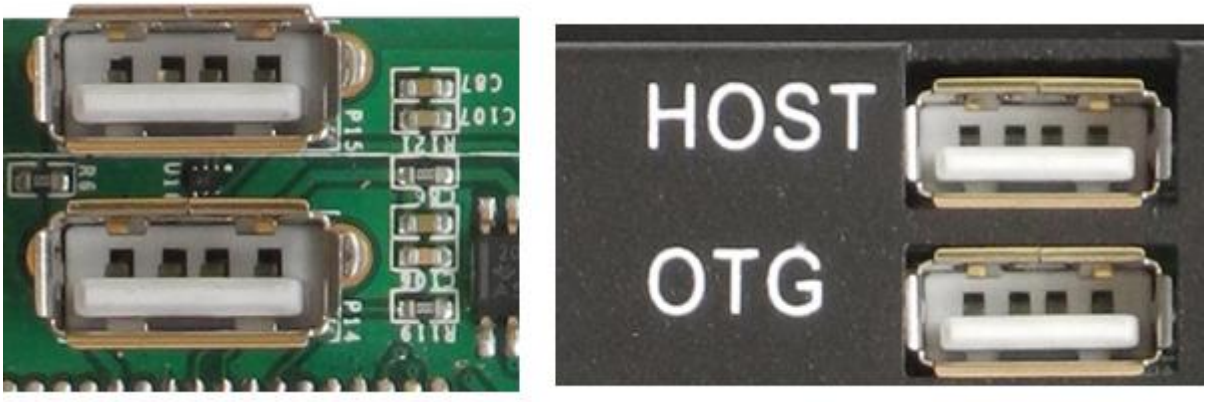


Figure 9 USB HOST Connector

PLEASE NOTE:

The OTG Connector is defined as HOST by default (If the customer uses Android OS, it is defined as OTG by default). If customer needs it work as OTG, please remove 0 Ohm Resistor R119 and R121 as Figure 9 shows.

LAN Connector

The product CS80480T050E/CS80480T050P has one channel 100Mbit Ethernet Connector, as Figure 10 shows. It is labelled as P13 on PCB.

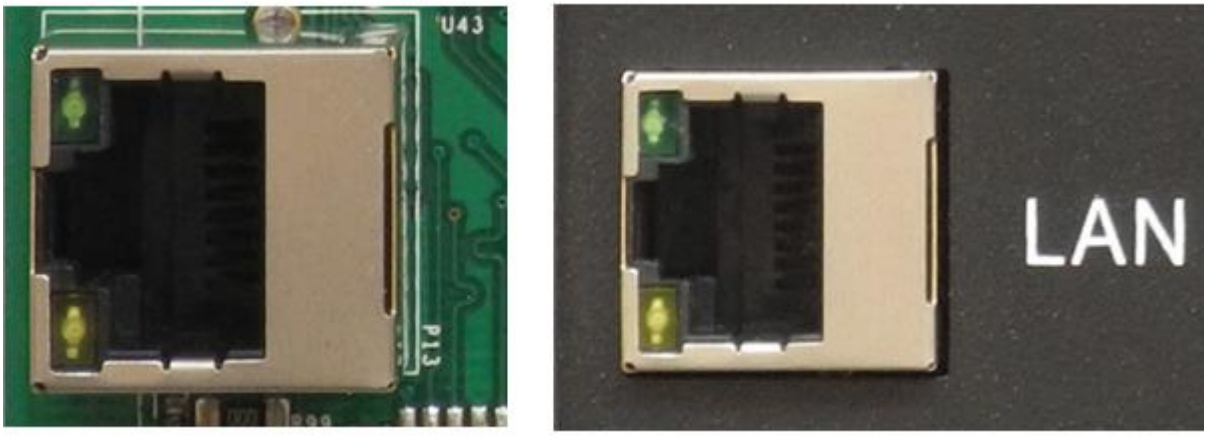


Figure 10 LAN Connector

TF Card

The product CS80480T050E/CS80480T050P has one TF (uSD) card connector as Figure 11 shows. It is labelled as P5 on PCB. This device supports TF (uSD) card up to 32GB.

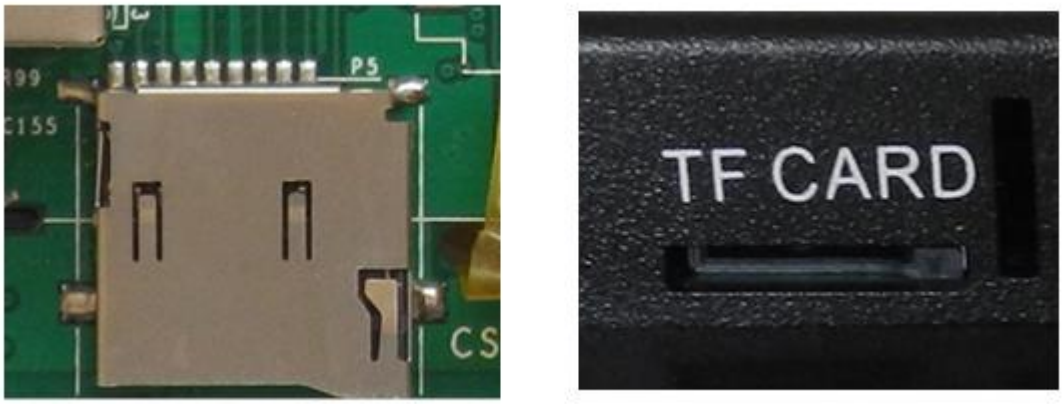


Figure 11 TF Card Connector

ATTENTION:

*The TF card slot is **NOT mounted** with any TF card by default.*

Audio Connector

The product CS80480T050E/CS80480T050P has one Audio Input (“Line-in”) and one Audio (“Line-out”) output, as Figure 12 shows.

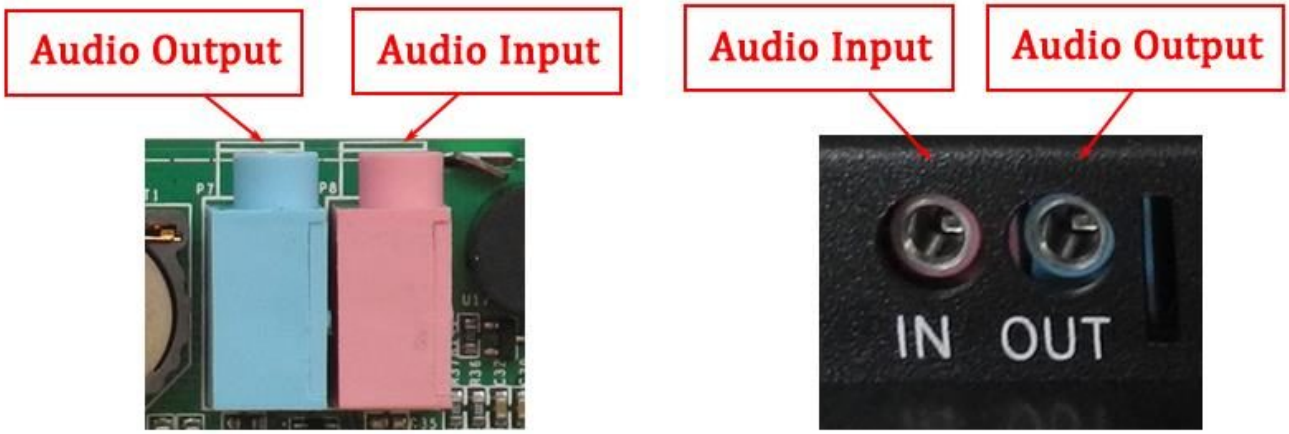


Figure 12 Audio Connector

Boot Switch

The product CS80480T050E/CS80480T050P has a boot switch which can be used to change the boot sequence, as Figure 13 shows. It is defined as SW1 on the PCB. The position can either be SD or eMMC. The device will boot from the location selected.

Figure 13 Boot Switch

Expansion Connector

The product CS80480T050E/CS80480T050P has one Expansion Connector, as Figure 14 shows. This connector is labelled as P1 on the PCB, and it has connected to CPU GPIO/ADC/SPI/I2C signals. As for the definition of every Pin, please refer to Table 3.

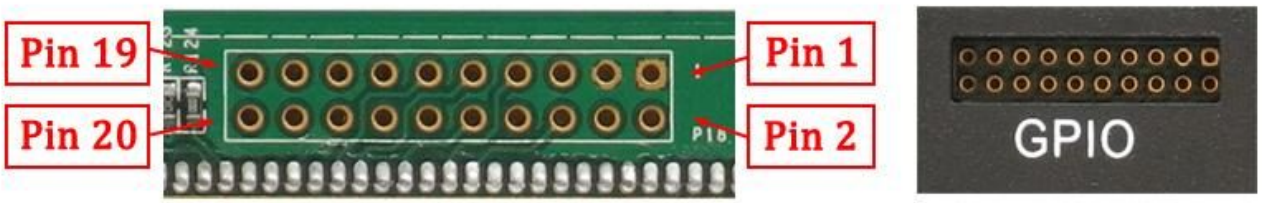


Figure 14 Expansion Connector

Table 3

Expansion Connector Definition:					
PIN	**Function**	**CPU PIN**	**PIN**	**Function**	**CPU PIN**
1	GND	**Power Ground**	2	VDD_5V0	**+5V Power**
3	GND	**Power Ground**	4	VDD_3V3	**+3.3V Power**
5	GPMC_A1	V14	6	GPMC_A3	T14
7	GPMC_A2	U14	8	GPMC_A5	V15
9	GPMC_A4	R14	10	GPMC_A7	T15
11	GPMC_A6	U15	12	GPMC_A8	V16
13	SPI0_D1	B16	14	SPI0_D0	B17
15	SPI0_CS0	A16	16	SPI0_CLK	A17
17	AIN4	C8	18	AIN5	B8
19	AIN6	A8	20	AIN7	C9

ATTENTION:

All these signals connect to CPU directly. Please use it carefully, or the CPU will be damaged easily.

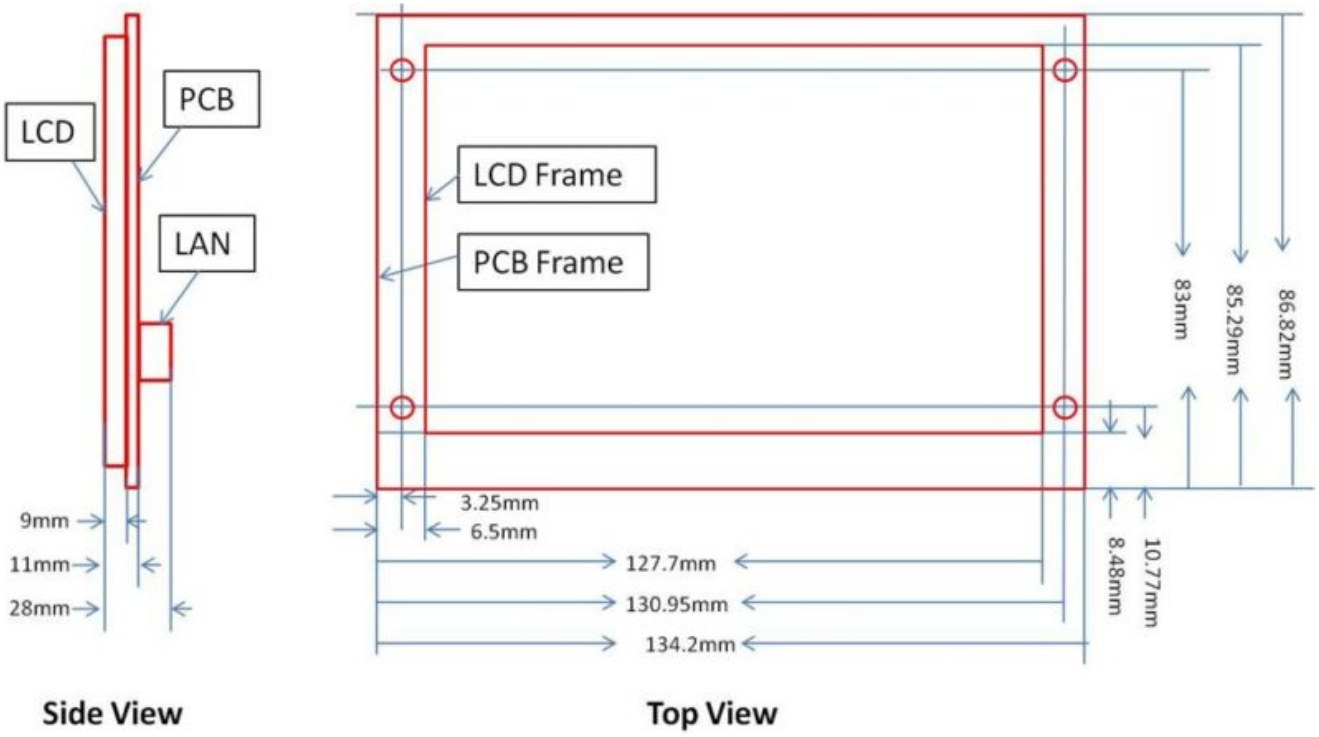
Measurements and Mounting

Measurements and Mounting Method of CS80480T050E

The measurement of CS80480T050E is 134.2*86.82*28mm, as Figure 15 shows.

The product CS80480T050E can be mounted using the 4 screw holes on the PCB. Please make sure the display is not exposed to high pressure when mounting into an enclosure.

Figure 15 Dimension



Measurements and Mounting Method of CS80480T050P

The measurement of CS80480T050P is 150*110*26.5 mm. Please make sure the display is not exposed to high pressure when mounting into an enclosure.


TF Card
SIM Card
Sensor Tool
Angry Birds
Sensor List
Settings
Fruit Ninja
NFS Shift
Gallery
Talking Tom
09:33


Sensor Tool
Angry Birds
Sensor List
Settings
Serial Port A
Fruit Ninja
NFS Shift
Gallery
Talking Tom
09:33

Figure 16 Mounting Method

How to Get Support

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