EPC/PPC-A8-80-R

User Manual

Release 1.0

Chipsee Products Naming Rules

CS80600T080E-R133 CS80600T080P-R133	
CS	**Chipsee Product Abbreviate**
80	**Horizontal Resolution** **80** Means 800 Pixel **10** Means 1024 Pixel **12** Means 1280 Pixel

600	**Vertical Resolution** **480** Means 480 Pixel **600** Means 600 Pixel **768** Means 768 Pixel **800** Means 800 Pixel
T(F)	**Product based on TI(FreeScale) CPU**
080	**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
E	**Means Embedded PC or Panel PC** **E** Means Embedded PC without Case **P** Means Panel PC with Case
R	**Means Touch type** **R** Means Resistive Touch **C** Means Capacitive Touch
1	**Means LCD Brightness** **1** Common brightness 2 High Brightness
3	**Means PCB Version** Version Number, Will change with PCB version
3	**Means SOM Version** Version Number, Will change with SOM module version

Hardware Features

Key features:

Sitara Core	AM3354ZCZ100
CPU	ARM Cortex A8, 1GHz
RAM	512MB DDR3 (Industrial)
eMMC	4GB (Industrial)
Storage	uSD card, supports up to 32GB SDHC
5.0 Inch Display	8.0Inch LCD,800 x 600 Pixel Resolution
Touch	Resistive Touch
USB	4 x USB 2.0 Host (can be customized to HOST or OTG)
LAN	1 Channel 100M LAN
Audio	3.5mm Audio In/Out Connector
Buzzer	1
RTC	Yes
RS232	2 Channels
RS485	2 Channels *
CAN	1 Channel * (drivers available for Linux only)
GPIO	4 Input, 4 Output, 1000V DC Isolated
WiFi/WCDMA+GPS	Optional
Power Input	6~42V DC
Current @ 12V	400 mA max
Power Consumption	6W
Working Temperature	-20°C to +70°C
OS	Android,LinuxDebian,Angstrom
Dimension	CS80600T080E: 199*149*29mm CS80600T080P: 226*175*31mm
Weight	CS80600T080E: 580g CS80600T080P: 1070g

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

- 2 x RS485, 1 x CAN(Default)
- 1 x RS485, 2 x CAN

CS80600T080E-R133

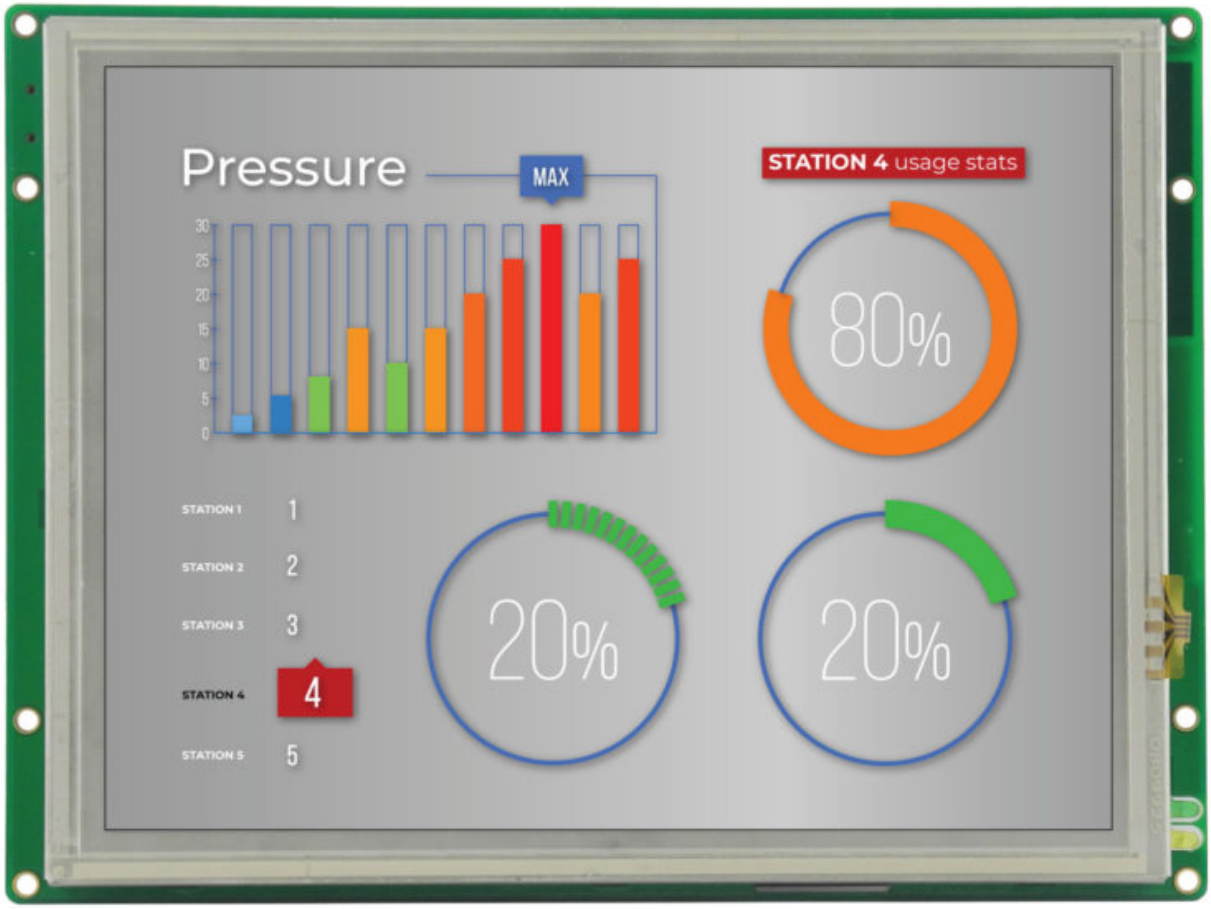

Figure 1 Top View

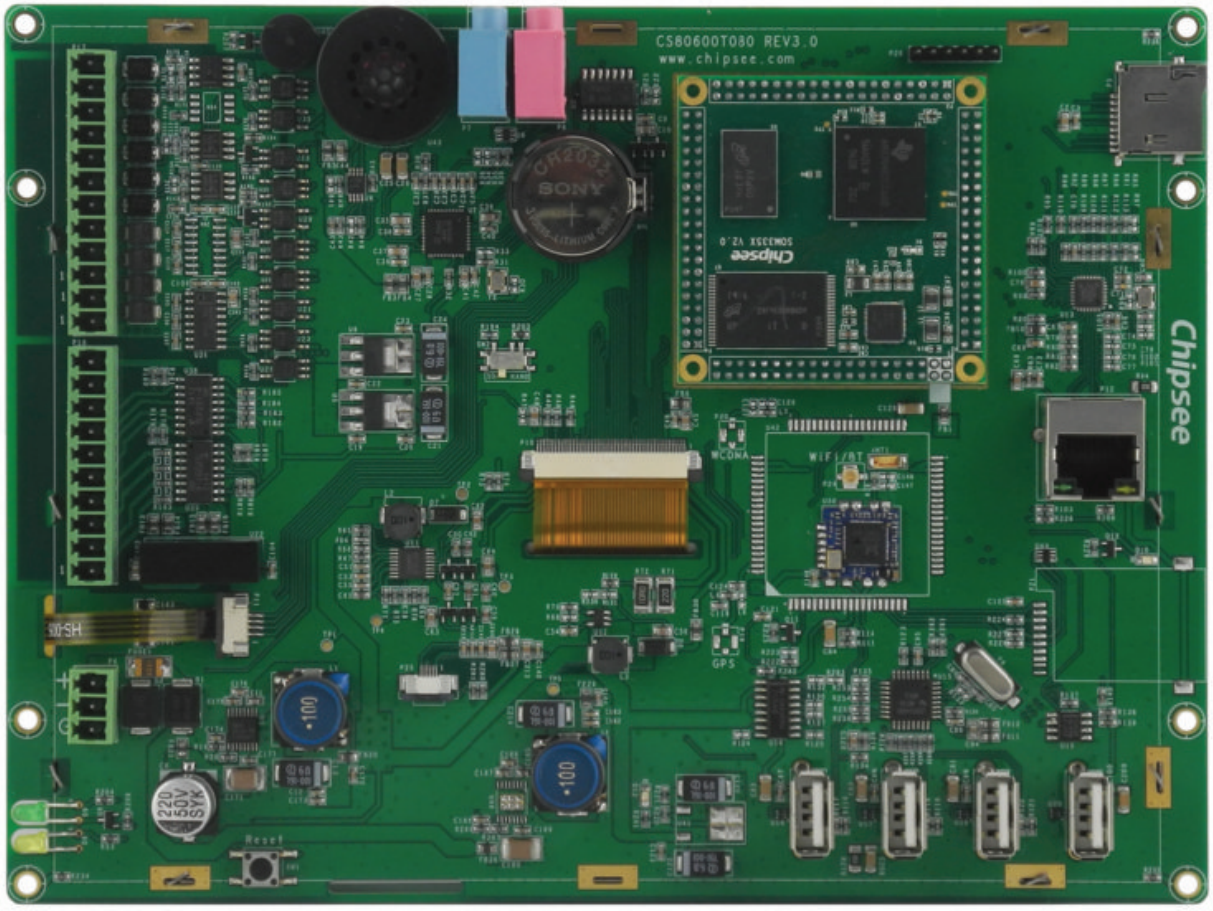

Figure 2 Back View

CS80600T080P-R133

Figure 3 Top View

Figure 4 Back View

Power Input Connector

The product CS80600T080E/CS80600T080P use a wide range of power Input: **DC 6~42V**. And the total power Consumption is normally about **6W**. The Power Input Connector is 3 Pin 3.81mm Screw Terminal connector as Figure 5 Power Input Connector and Figure 4 Back View. It is labelled as P6 on the PCB. The Character "**+**" means power **Positive** input, The Character "**–**" means power **Negative** input. The Character "**G**" means system Ground. Table 2 have detailed description about the connector definition.

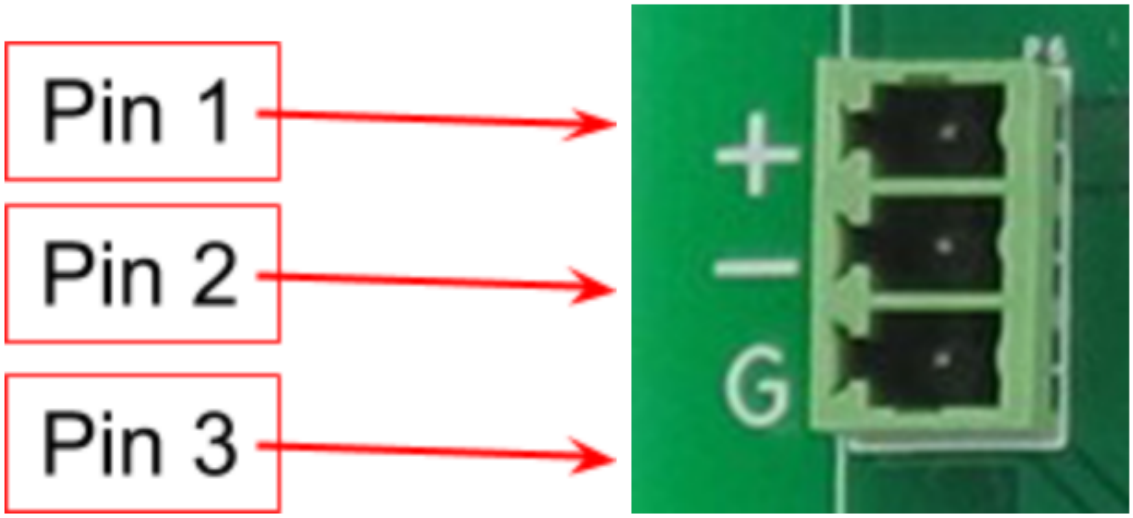

Figure 5 Power Input Connector

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**

Please note:

The system ground "**G**" has been connected to power Negative "**–**" on board.

Resistive Touch

Product CS80600T080E/CS80600T080P use resistive touch, As Figure 6 shows.

Figure 6 Resistive Touch Connector

CAN+RS485+RS232 Connector

The RS232 / RS485 / CAN connector is a 12 Pin 3.81mm Screw Terminal connector.

It is defined as P17 on the PCB as shown in Figure 4 Back View and Figure 7 RS232 / RS485 / CAN Connector.

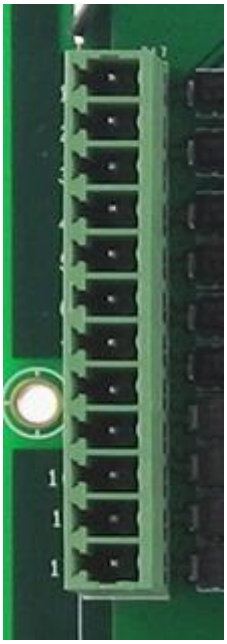

Figure 7 RS232 / RS485 / CAN Connector

As for the definition of every Pin, please refer to Table 3. This product can customized to inherit two CAN channels. If two CAN channels are needed, please contact us.

RS232 / RS485 / CAN Pin Definition

Table 3

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	System +5V Power Output, No more than 1A Current output

TheRS485 and CAN channels may be customized by Chipsee to the following arrangements:

- 2 x RS485, 1 x CAN(Default)
- 1 x RS485, 2 x CAN

GPIO Connector Definition

GPIO Connector use 10 PIN 3.81mm Connector，It defined as P18 on the PCB board, As figure 8，

Figure 8 GPIO Connector

At the upside of the Connector，There are numbers from” 1” to “10”,it means the Pin number of the connector. As for the definition of every Pin, please refer to Table 4。

Attention: all the isolated GPIO use 5V Logic by default. If the customer provides external isolated power, the GPIO logic can be changed according to customer power (the “FB15” and “FB16” need to be removed on the PCB).

Table 4

PIN number	Definition	Description
1	VCC	Isolated Power +5V Output
2	GND	Isolated Ground
3	OutPut_1	Isolated Output 1
4	OutPut_2	Isolated Output 2
5	OutPut_3	Isolated Output 3
6	OutPut_4	Isolated Output 4
7	InPut_1	Isolated Input 1
8	InPut_2	Isolated Input 2
9	InPut_3	Isolated Input 3
10	InPut_4	Isolated Input 4

USB Connector

The product CS80600T080E/CS80600T080P have 4 USB connector, as Figure 9 shows. These USB connectors can customize to Host or Slave. All these connectors have been defined as HOST by default.

Figure 9 USB connector

Please note:

The OTG Connector P16 (USB0) is defined as **HOST** by default. If needed defined as **Slave (OTG)**, please **Remove** two 0603 Package 0 Ohm Resistors **R1339** and **R121** as Figure 9 shows.

LAN Connector

The product CS80600T080E/CS80600T080P feature one channel 100Mbit Ethernet. The connector can be found on the PCB labelled as P12 as Figure 10 LAN Connector shows.

Figure 10 LAN Connector

uSD Card

As in Figure 11 uSD card connector labelled as P5 on the PCB.The device supports uSD cards up to 32GB.

Figure 11 TF Card (uSD) Connector

Please note: The uSD card Slot is **NOT Mounted** with any uSD card by default.

Boot Switch

The Device features a boot switch which can be used to change boot sequence. It is defined as SW1 on the PCB as shown in Figure 4 Back View and Figure 12 Boot Switch. The position can

either be NAND or uSD. The device will boot from the location selected.

Figure 12 Boot Switch

Audio Connector

As Figure 13 Audio Connector shows, the unit has got one Audio Input (“Line-in”) and one Audio (“Line-out”) output.

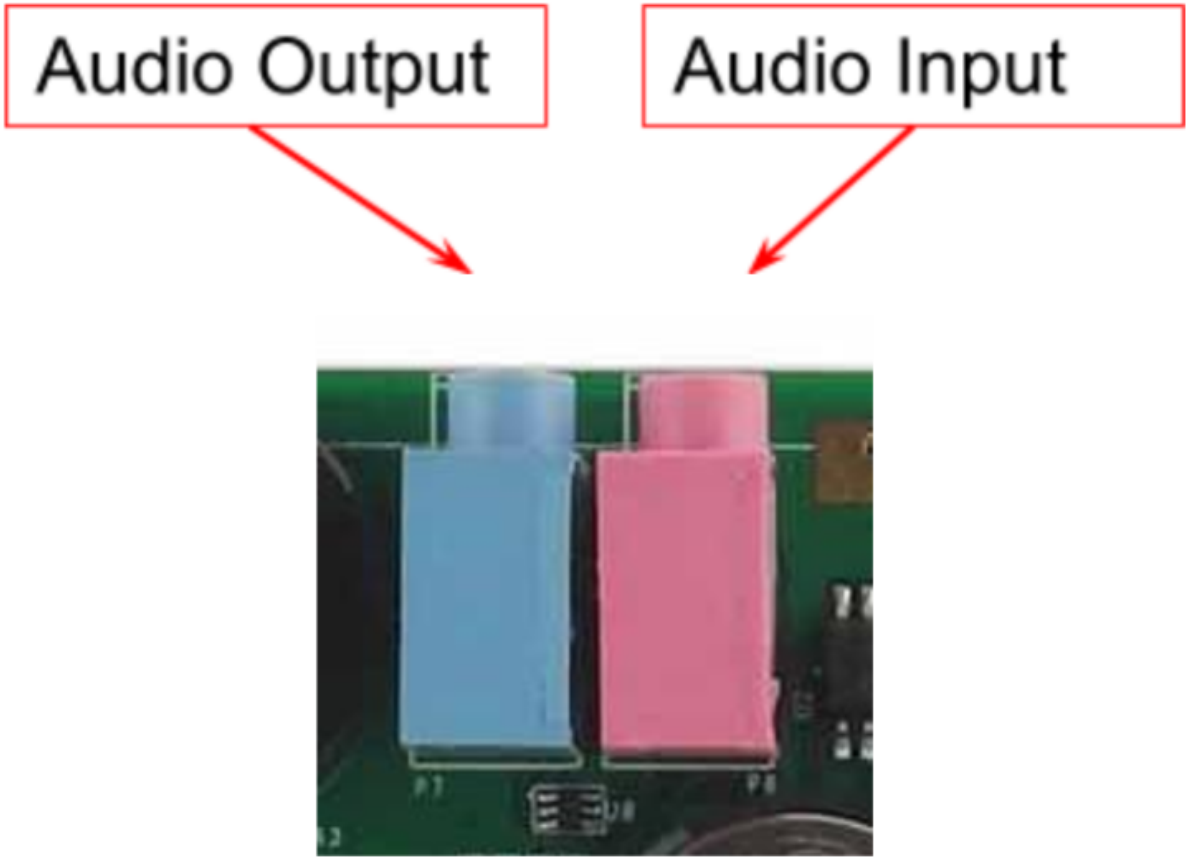

Figure 13 Audio Connector

Measurements and Mounting

How to Mount the Embedded PC

The product CS80600T080E/CS80600T080P can be mounted using the 8 screw holes on the PCB as shown in Figure 14. Please make sure the display is not exposed to high pressure when mounting into an enclosure.

How to Mount the Panel PC

Figure 14 Mounting Method

How to Get Support

Chipsee assumes no responsibility for any errors, which may appear in this manual. Furthermore, Chipsee reserves the right to alter the hardware, software, and/or specifications detailed herein at any time without notice, and does not make any commitment to update the information contained herein.

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