

CM4 Sensing

Sensing IoT World by Raspberry Pi Powered Industrial Computer

EDA TECHNOLOGY CO.,LTD



Highlight

- ◆ Powered by Raspberry Pi CM4 with mature software ecosystem
- ◆ Dual Storage with eMMC and SD Card for data storage
- ◆ Full Coverage Network with Gig-Ethernet, Dual-band WiFi and 4G LTE
- ◆ Rich Industrial Interface with RS232, CAN and up to 4 RS485
- ◆ Small, Beautiful with excellent cooling system, Support DIN-rail mounting



Introduction

CM4 Sensing is an industrial computer designed for IoT & Data Acquisition applications based on Raspberry Pi Compute Module 4 (CM4 for short). It makes full use of the structural flexibility of CM4 to solve the heat dissipation problem of CPU, wireless module and PMU. The external antenna improves the reliability of wireless communication.

The system can be configured into 1GB/2GB/4GB/8GB RAM and 8GB/16GB/32GB eMMC, 2.4/5.8G dual-band WiFi and Bluetooth (optional) according to different applications, and it supports external antenna.

For application scenarios that require large data storage capacity, user can use eMMC to install the operating system and store the application data, at the same time, user can use SD card to store large user data, compare to the built-in eMMC memory, SD card can offer larger capacity and its cost is more effective.

CM4 Sensing provides 4G/LTE module, 4 channels RS485, 1 channel RS232, 1 channel CAN, 1 channel Gigabit Ethernet port, alarm buzzer, battery-powered real-time clock.

The DSI interface of CM4 Sensing are fully compatible with Raspberry Pi4 Model B, supports Raspberry Pi official 7" touch display. A 5V/1.5A power output provides the power for Pi Display, the Standard HDMI interface can output 4K HD video.

CM4 Sensing provides 2 channels USB2.0 and 1 channel Micro USB2.0 interfaces, and Micro USB interface is used to update the system image. The system supports 8~28V DC power input, the dimension of CM4 Sensing is 103*73*32mm, which is slightly larger than Pi4 Model B. The connectors come out from front and back end, a 103*73mm*5mm heat sink provides excellent cooling performance for CPU, wireless module and PMU, the whole system can work reliably in a high temperature environment.

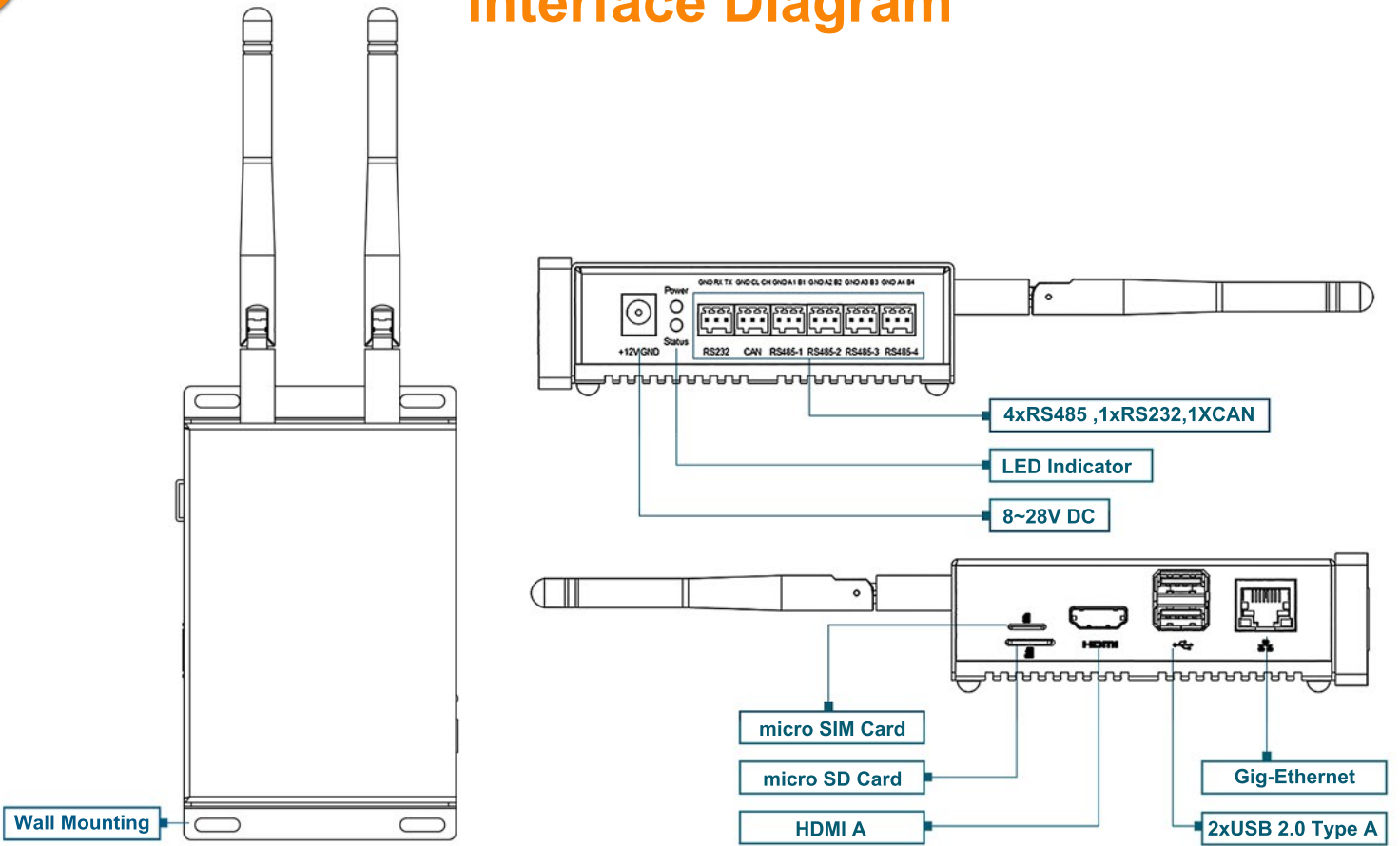
Based on our real testing in the lab, CM4 Sensing can work reliably at ambient temperature of -25~60°C.

Four M2.5 screw holes are reserved at the case bottom of the CM4 Sensing, which is convenient for users to install the CM4 Sensing on other equipment, it also supports DIN rail mounting.

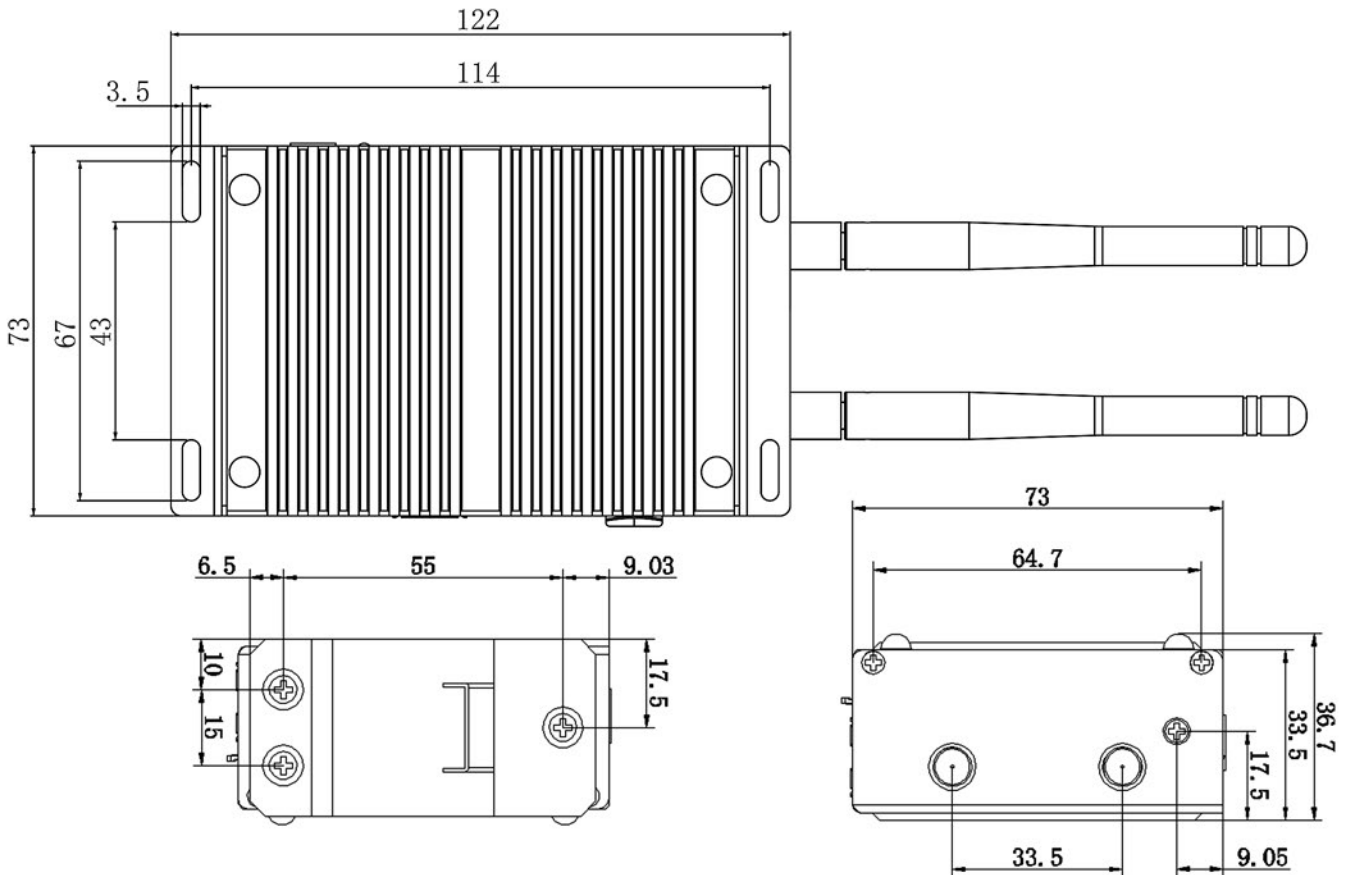
Specifications

Category	Feature
Processor	Broadcom BCM2711 quad-core Cortex-A72 (ARM v8) 64-bit SoC @ 1.5GHz H.265 (HEVC) (up to 4Kp60 decode), H.264 (up to 1080p60 decode, 1080p30 encode) OpenGL ES 3.1, Vulkan 1.0
RAM	1GB / 2GB / 4GB / 8GB LPDDR4-3200 SDRAM
Storage	Onboard 8GB / 16GB / 32GB eMMC for system boot 1x microSD Card for Data Storage, can work with eMMC together at the same time
Display	1x standard HDMI Out (Type A) 1x FPC HDMI Touch Display 1x FPC DSI Touch Display
Wired Interface	1x Gig-Ethernet (10/100/1000M) 2x USB 2.0 Type-A 1x USB micro-B for eMMC Flashing (Inside the case)
Wireless	Optional 2.4 GHz, 5.0 GHz IEEE 802.11 b/g/n/ac wireless and Bluetooth 5.0, BLE with external antenna Optional 4G LTE with optional GPS support, 1x Nano-SIM card slot, external antenna
Industrial Interface	4x RS485, 3-pin Terminal Block 1x RS232, 3-pin Terminal Block 1x CAN, 3-pin Terminal Block 1x RTC with CR1220 backup 1x Buzzer
Expansion Interface	1x mini-PCIe slot with 1-lane PCIe and 1x USB 2.0, Support 4G Module 1x 5V@1A DC Power output, 2-pin WTB connector, Could supply Raspberry Pi official 7" Touch Display
Power In	8 ~ 28V DC DC Jack or optional 2-pin Terminal Block
Indicator	1x Power Indicator with Red LED 1x Status Indicator with Green LED 1x 4G network indicator with Blue LED (Inside the case)
Operating Temperature Range	-25 ~ 60°C
Operating Humidity	10% - 60%
Case	Metal Case with a whole side Aluminum Alloy Heat Sink, 2 Antenna Holes
Dimension	103(L) x 73(W) x 32(H) mm
Mounting Options	DIN-mount with DIN kit installed Wall-mount
OS	Pre-installed with 32-bit Raspberry Pi OS with Desktop in eMMC Compatible with Origin Raspberry Pi OS, support 32-bit and 64-bit OS, support Lite and Desktop versions Support BSP online install / upgrade with APT tool

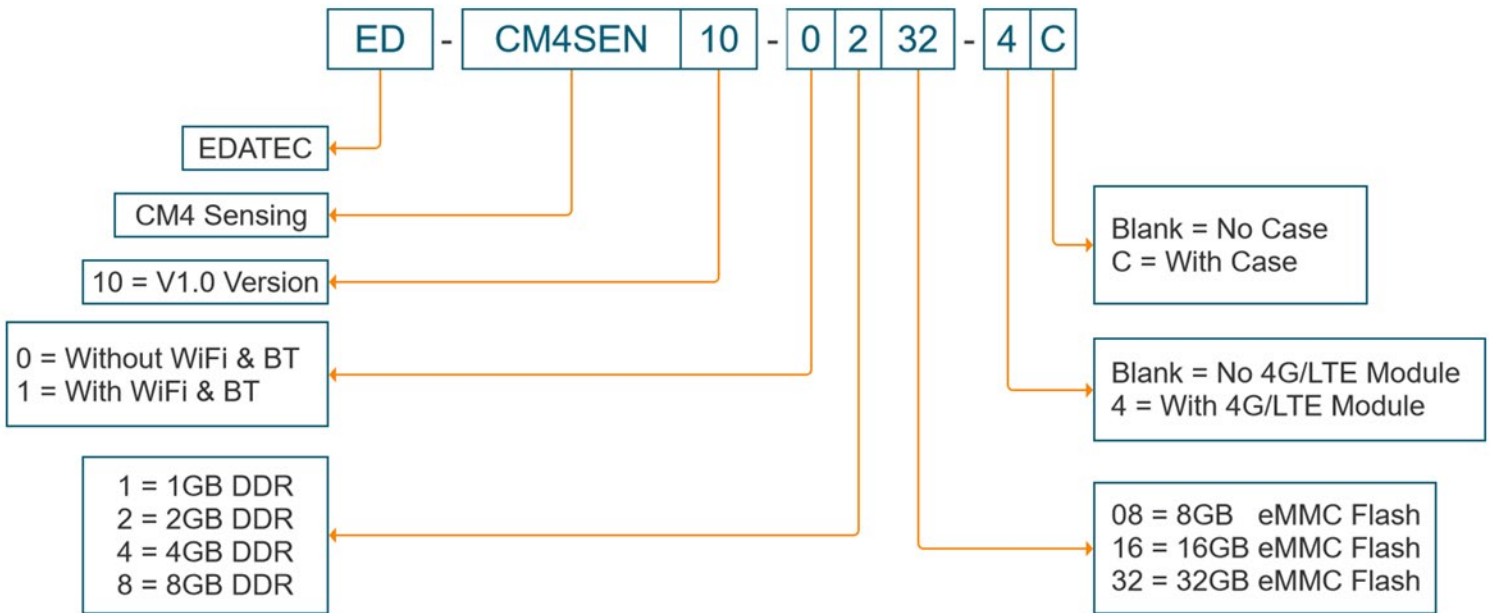
Interface Diagram



Dimension Unit:mm



Order Information



Example

Part#: ED-CM4SEN10-1408-4C

Configuration: CM4 Sensing Computer V1.0 version

1PCS Raspberry Pi certified WiFi/Bluetooth Antenna

4GB DDR, 8GB eMMC Flash, with 4G/LTE Module

With case

Contact Information

If you have any technical problems, please contact:

Support:support@edatec.cn

Business related, such as Quotation, Product Customization, please contact:

Sales:sales@edatec.cn

Web:www.edatec.cn

Tel / Mobile / Fax:+86-18621560183

