



M5STACK

# CM4Stack

SKU: K127



X



## Description

**CM4STACK** is an integrated micro host based on the **Raspberry Pi CM4 core board**, using the **CM4104032** module with built-in **WiFi**, **4GB of memory**, and **32GB eMMC**. The host includes rich peripheral devices: a **2.0-inch IPS-LCD screen** with capacitive touch, with a resolution of **320x240**; **2 USB3.2-A ports (pcie+ASM3042)**; a **USB-C (2.0)** interface that supports **OTG** and host power supply; **1 HDMI** interface; **1 Gigabit Ethernet interface (RJ45)**; **1 DC-JACK DC power input interface (12V@3A)**; **2 HY2.0-4P** expansion ports, which are **I2C** and **UART** interfaces respectively; built-in **2W speakers**, equipped with **AW88298 16-Bits I2S amplifier**; **1 ATECC608B security**

**encryption chip**; 1 **RTC chip BM8563**; built-in active cooling fan and aluminum alloy heat sink frame. This product supports **DIN rail**, wall hanging, and screw fixing methods in structure, and is suitable for industrial **automation**, **smart homes**, and **IoT fields**.

To learn more about the **CM4Stack boot configuration**, visit [https://docs.m5stack.com/en/quick\\_start/cm4stack](https://docs.m5stack.com/en/quick_start/cm4stack)

## Features

- High-performance embedded system: built-in multiple powerful chips and interfaces, equipped with a 2.0-inch LCD screen and touch function, capable of displaying high-quality videos and images.
- Multiple interfaces and functions: including antenna interface, 2W speaker, HDMI interface, USB-C (2.0) interface, USB3.2 interface, Gigabit Ethernet interface (RJ45), I2C interface, serial port, and DC power input port, supporting various peripheral devices and data transmission methods.
- Security performance: equipped with a security authentication chip AW32901ID-KEY (ATECC608B), capable of secure data transmission and storage.
- Clock function: equipped with RTC chip BM8563, capable of clock function.
- Heat dissipation design: equipped with a heat dissipation base and heat dissipation fan to ensure stable system operation for a long time.

## Includes

- 1 x CM4Stack
- 1 x CM4Stack Power Adapter (DC\_12V 3A)
- 1 x Hex key 2mm
- 1 x CM4Stack instruction manual
- 1 x CM4Stack base snap
- 1 x CM4Stack screw holder

# Applications

- Industrial Automation
- Smart Home
- Internet of Things (IoT)
- Education and Development

# Specification

Resources	Parameters
CM4 Mainboard	CM4104032, processor: Broadcom BCM2711, quad-core Cortex-A72 64-bit SoC, clock speed 1.5 GHz, running memory (RAM): 4G, storage (eMMC): 32G
2.0inch LCD	screen with touch function and ST7789V2 controller
Antenna Interface	connector for an external antenna
Speaker	2W audio output with AW88298 driver
USB-C Port	USB 2.0 port with OTG function, powered by MP8759 and AW32901 controllers
I2C Interface	inter-integrated circuit interface for communication with other devices
Serial Port	communication interface for transmitting and receiving serial data
DC Power Input	12V/3A DC power input connector
Gigabit Ethernet Port	RJ45 port for connecting to a gigabit Ethernet network
USB 3.2 Ports	Two USB 3.2 ports with ASM3042 controllers

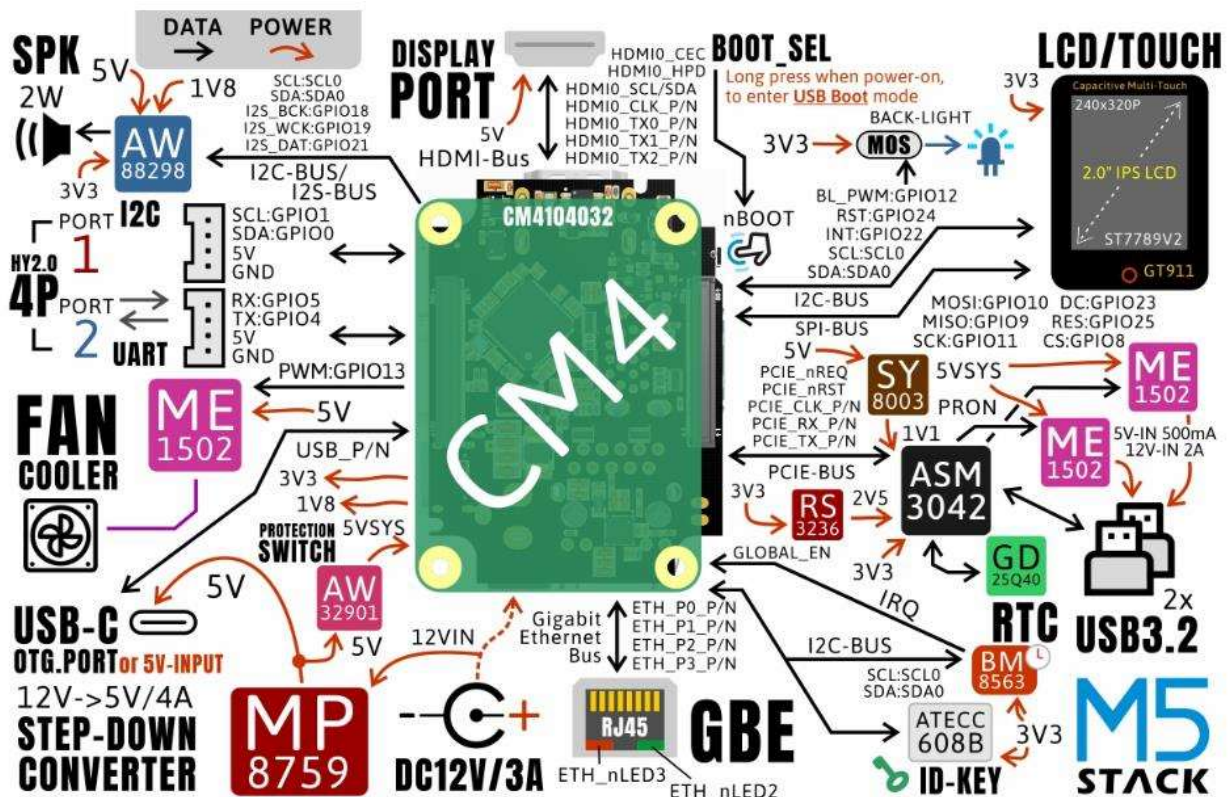
Aluminum Heat Sink	DIN-rail mounted heat sink with a built-in cooling fan (ME1502)
Download Button	button for entering download mode
HDMI Port	connector for transmitting high-definition video and audio
RTC	real-time clock module with BM8563
SY8003 and ME1502	Power management and control ICs
AW88298	Audio amplifier IC
MP8759 and AW32901	USB power delivery and type-C port control ICs
ID-KEY (ATECC608B)	cryptographic authentication IC for secure communication
ASM3042	USB 3.2 host controller
BM8563	Real-time clock IC
WIFI	2.4 GHz, 5.0 GHz IEEE 802.11 b/g/n/ac
Product Size	59*46*44mm
Package Size	160mm*107mm*47mm
Package Weight	353.4g



## Related Link

- [CM4-datasheet](#)
- [CM4IO-datasheet](#)
- [ST7789V2](#)
- [AW88298](#)
- [MP8759](#)
- [AW32901](#)
- [SY8003](#)
- [ME1502](#)
- [BM8563](#)
- [ATECC608B](#)

## Schematic



# Module Size

