

CM4Stack

SKU:K127/K127-US/K127-EU



When connecting the CM4Stack, you must use a high-quality USB cable, otherwise an exception will occur.

I Description

CM4STACK is an integrated microcontroller built around the **Raspberry Pi Compute Module 4**. It harnesses the capabilities of the **CM4104032 module**, boasting impressive features such as built-in WiFi, 4GB of memory, and a spacious 32GB eMMC storage. This compact and efficient controller is designed to streamline projects and deliver exceptional performance.

CM4STACK features a vivid 2.0-inch IPS-LCD screen with capacitive touch, offering a crisp resolution of 320x240. It also provides convenient connectivity options, including two USB3.2-A ports (pcie+ASM3042) and a versatile USB-C (2.0) interface that supports OTG and power delivery. HDMI, Gigabit Ethernet RJ45, and DC-JACK 12V @ 3A are also provided for seamless integration.

CM4STACK goes beyond the basics with its expandability and security features. It offers two HY2.0-4P expansion ports, providing I2C and UART interfaces respectively for easy integration of additional modules. It comes equipped with a built-in 2W speaker and AW88298 16-Bits I2S amplifier, ensuring high-quality audio output. It also includes a dedicated ATECC608B security encryption chip and RTC chip BM8563, bolstering data protection and real-time clock functionalities. To guarantee optimal cooling, CM4STACK features an active cooling fan and an aluminum alloy heat sink frame.

Designed with versatility in mind, CM4STACK supports various mounting options, including DIN rail, wall hanging, and screw fixina methods. This makes it an ideal choice for industrial

... , home automation, and IoT applications. Experience the power and flexibility of CM4STACK and unlock new possibilities for projects.

To learn more about the **CM4Stack boot configuration**, visit [CM4Stack Quick Guide](#) (by Adam), or https://docs.m5stack.com/en/quick_start/cm4stack

SKU	Difference
K127	Paired with Japanese power adapter
K127-US	Paired with American version power adapter
K127-EU	Paired with European version power adapter

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 (input:100-240VAC, output: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)

Specification

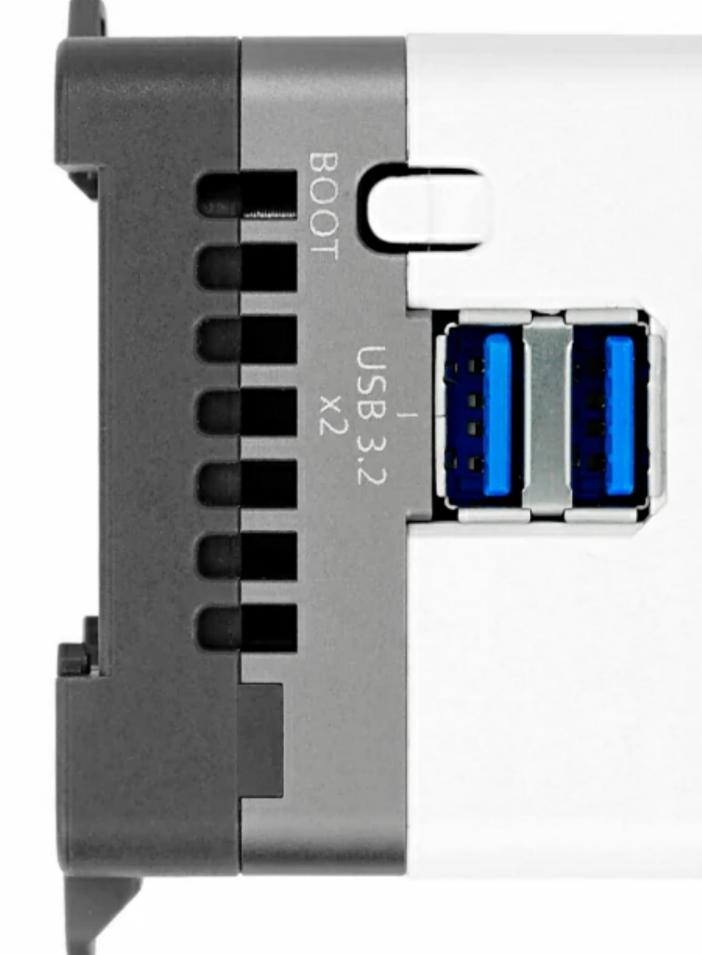
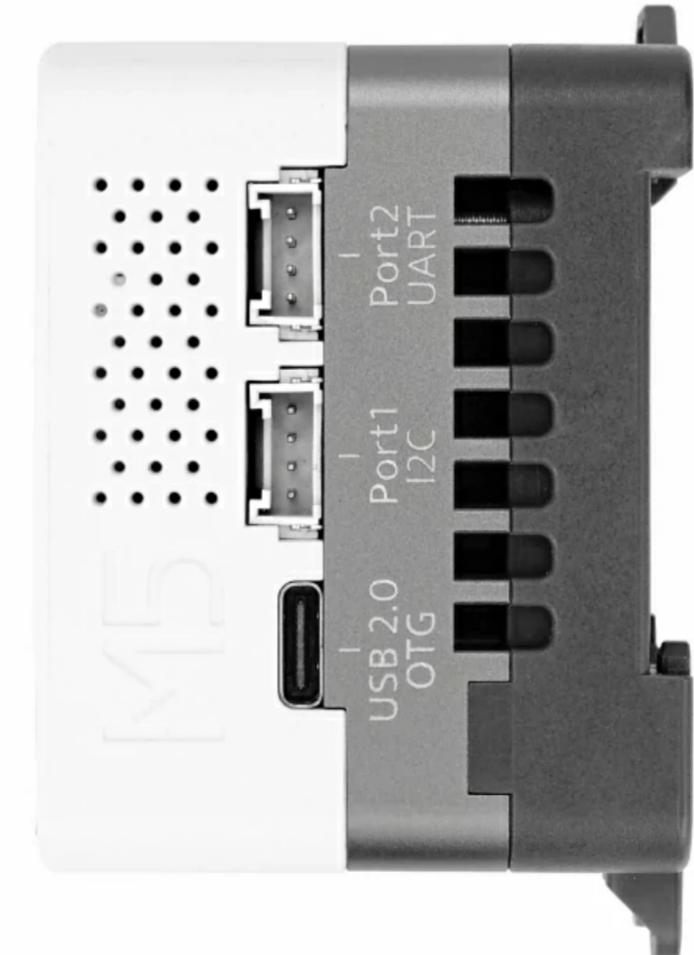
Resources	Parameters
CM4	CM4104032, processor: Broadcom BCM2711, quad-core Cortex-A72 64-bit
Mainboard	SoC, clock speed 1.5 GHz, running memory (RAM): 4G, storage (eMMC): 32G
2.0 inch LCD	screen with touch function and ST7789V2 controller
Antenna	connector for an external antenna
Interface	
Speaker	2W 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
AC Power Input	100-240VAC power input connector
DC Power Input	12V/3A DC power input connector
Gigabit Ethernet	RJ45 port for connecting to a gigabit Ethernet network

Port Resource	Parameters
es	
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
AW8829	Audio amplifier IC
MP8759 and AW3290	USB power delivery and type-C port control ICs
1	
ID-KEY (ATECC608B)	cryptographic authentication IC for secure communication
ASM3042	USB 3.2 host controller
2	

Parameters

es

WIFI	2.4 GHz, 5.0 GHz IEEE 802.11 b/g/n/ac
Product	59*46*44mm
Size	
Package	160mm*107mm*47mm
Size	
Product	118.8g
Weight	
Package	353.4g
Weight	



| Products related to this item

CORE2 (K010)

CORE2 FOR AWS (K010-AWS)

TOUGH (K034)

STATION 485 (K123)

BASIC-V27 (K001-V27)

M5StickC PLUS (K016-P)

ATOM Lite (C008)

AtomS3 (C123)

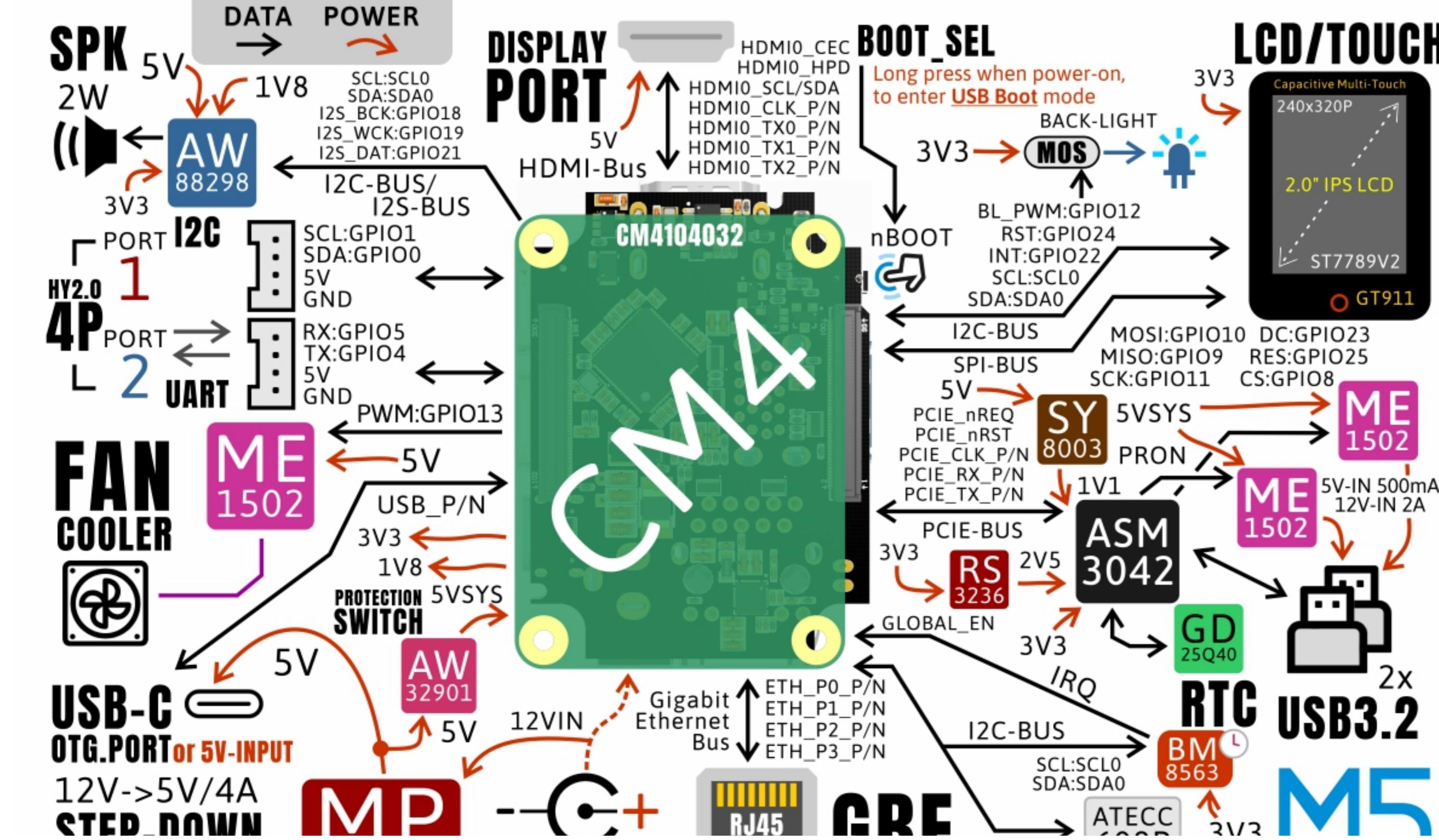
StampS3 (S007)

M5PAPER v1.1 (K049-B)

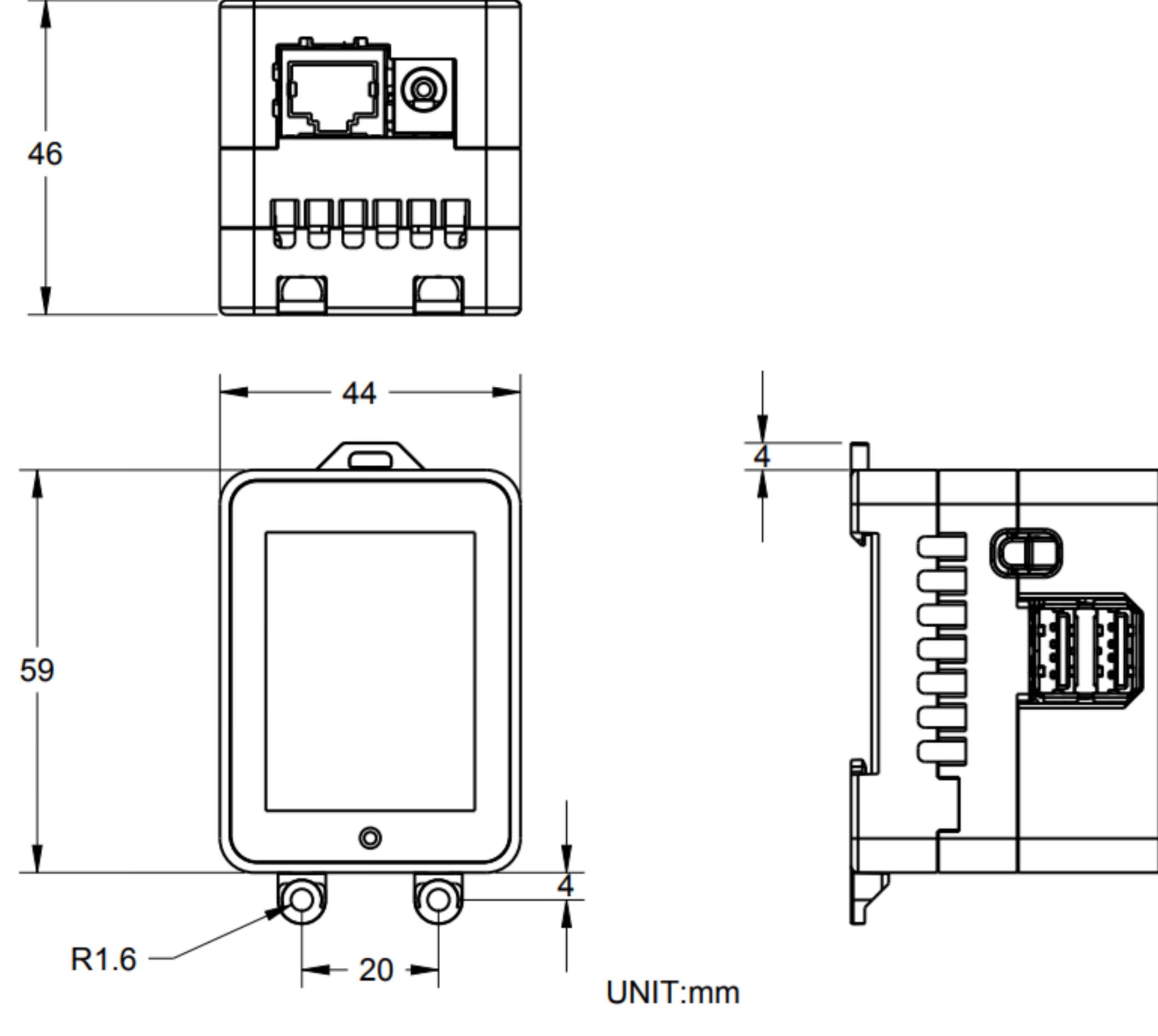
Related Link

- CM4Stack Quick Guide
- CM4-datasheet
- CM4IO-datasheet
- ST7789V2
- AW88298
- MP8759
- AW32901
- SY8003
- ME1502
- BM8563
- ATECC608B
- AC adapter

Schematic



| Module Size



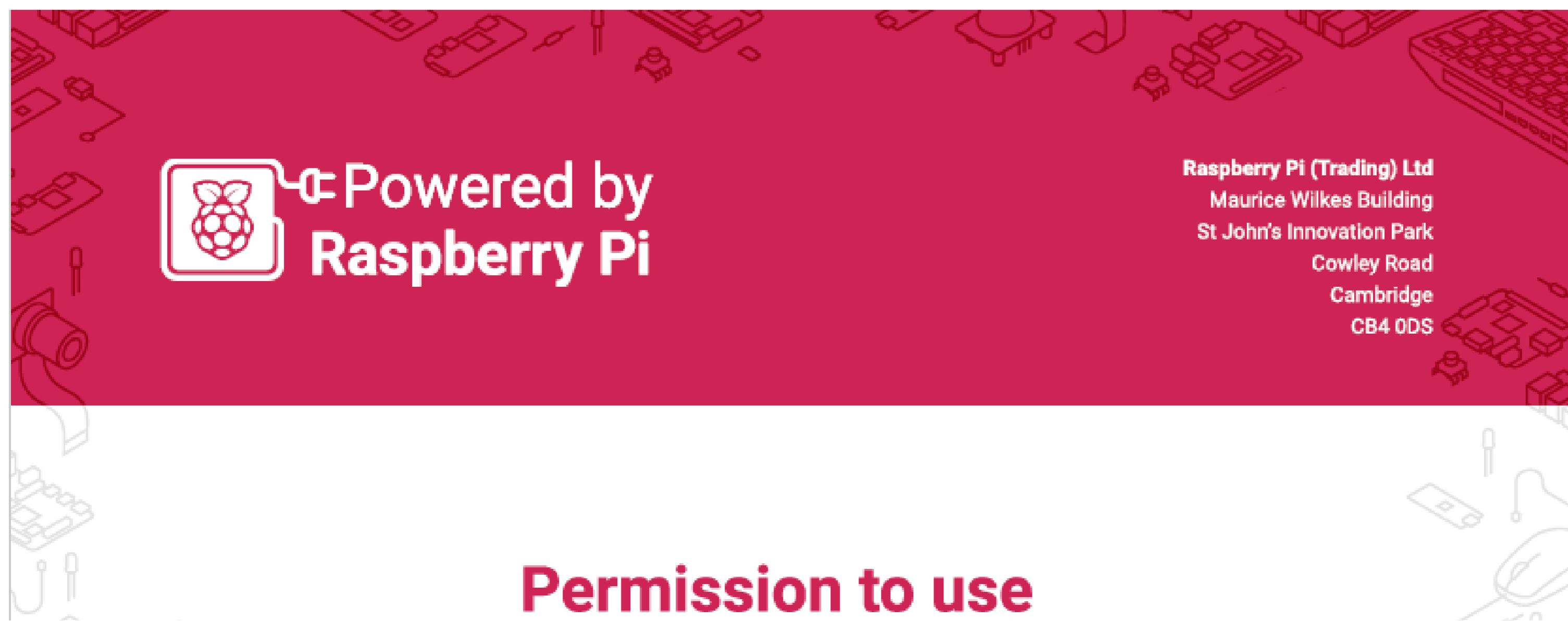
| Examples

M5stack-Linux-bsp

- [M5stack-Linux-bsp Clock Demo](#)
- [CM4Stack_lvgl Demo](#)

| Permission

Powered By Raspberry Pi



"Powered By Raspberry Pi"

Raspberry Pi Ltd grants

M5Stack Technology Co., Ltd

permission to use the phrase "Powered by Raspberry Pi" and associated logos supplied by Raspberry Pi Ltd in connection with the sale and marketing of the following product:

CM4Stack Development Kit

All use of Raspberry Pi's trademarks must abide by our branding guidelines, which can be found at <https://www.raspberrypi.org/trademark-rules/>.

Raspberry Pi Ltd reserves the right to withdraw this permission should any relevant circumstances change.

Signed:



Roger Thornton
Director of Applications