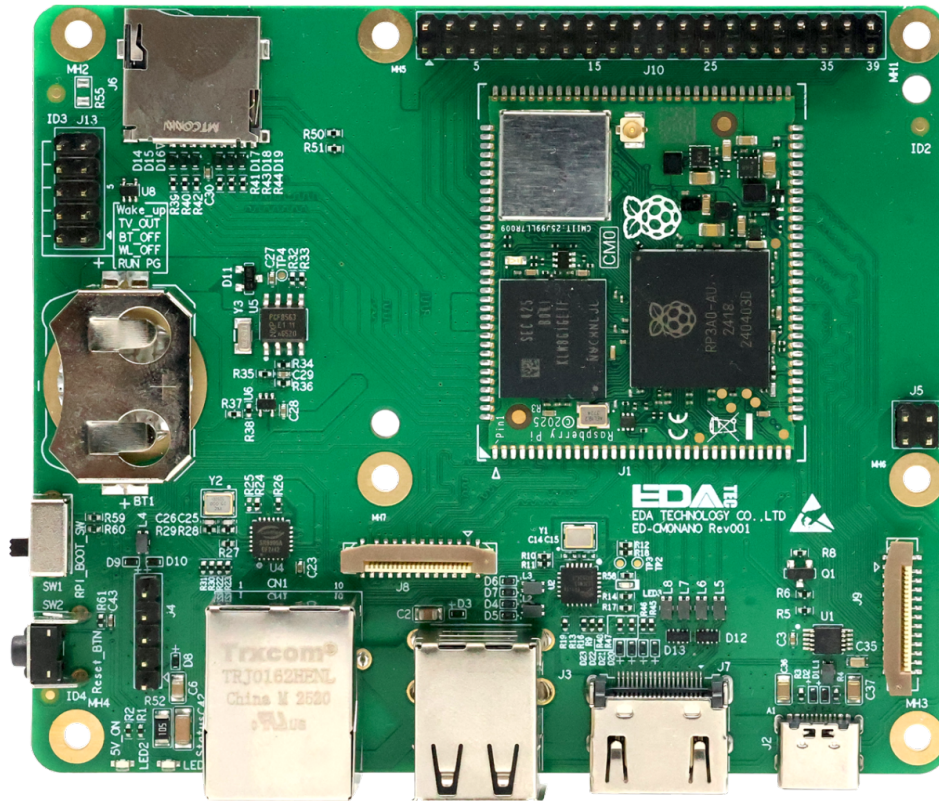




ED-CMONANO

Datasheet

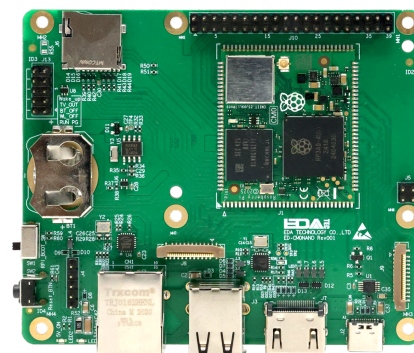
by EDA Technology Co., Ltd

built: 2025-11-21

ED-CM0NANO

Single-Board Computer Based on Raspberry Pi CM0

- 1GHz quad-core 64-bit Arm Cortex-A53 processor
- 512MB SDRAM, 8GB or 16GB eMMC storage available
- 1 x HDMI, 2 x USB 2.0, 1 x 100M Ethernet
- 1 x 4-lane MIPI DSI, 1 x 4-lane MIPI CSI
- Support Raspberry Pi 40-Pin GPIO header
- Optional 2.4GHz Wi-Fi and Bluetooth
- USB Type-C for 5V power input
- Integrated RTC and Watch Dog, CR2032 battery supported for RTC backup power



Specifications

System	
CPU	1GHz quad-core 64-bit Arm Cortex-A53 processor
VPU	H.264/MPEG-4 video decoding, 1080p@30fps H.264 encoding, 1080p@30fps
GPU	OpenGL ES 1.1/2.0 graphics processing
Memory	512MB SDRAM
Storage	8GB or 16GB eMMC storage available Micro SD card slot (When the CM0Lite is used, a Micro SD card can be inserted for system boot)

Software	
Operating System	Raspberry Pi OS (Desktop) 64-bit Raspberry Pi OS (Lite) 64-bit Raspberry Pi OS (Desktop) 32-bit Raspberry Pi OS (Lite) 32-bit

Panle I/O	
RTC Battery Base	1 x RTC Battery Base, allows for the installation of an RTC battery (CR2032) through this interface.
DIP Switch	1 x DIP switch, supports switching between normal operation mode and flashing mode. • LD (switch positioned toward the RTC battery base): Flashing mode • RUN (switch positioned toward the reset button): Normal operation mode (default state)
Power	1 x DC input, USB Type-C connector, supports 5V input.
HDMI	1 x HDMI port, Type-A connector, compliant with HDMI 1.3a standard, supports 1080p resolution at 30Hz.

Panel I/O	
USB 2.0	2 x USB 2.0 ports, stacked Type-A connector, each supporting a maximum data transfer rate of 480Mbps.
100M Ethernet	1 x adaptive 10M/100M ethernet port, RJ45 connector. It can be used to access the network.
Micro SD Card Slot	1 x Micro SD card slot, supports installation of a Micro SD card for system boot. Note: The Micro SD card slot is only compatible with the CM0Lite.

Buttons and Indicators	
PWR	1 x red power indicator, used to display the device's power on/off status.
ACT	1 x green system status indicator, used to monitor the device's operating status.
RESET	1 x reset button, recessed design, pressing the button restarts the device.

Expansion I/O	
PoE HAT Header	1 x PoE HAT Header, 2x2-pin 2.54mm pitch header, supports expansion connection for Raspberry Pi PoE HAT module.
IPEX-1 Interface	1 x IPEX-1 interface, supports connection to an external antenna.
Raspberry Pi 40-Pin GPIO Header	1 x Raspberry Pi 40-Pin GPIO Header, 2x20-pin 2.54mm pitch header. Pin definitions include GPIO2-GPIO27, 2x 3V3, 2x 5V, 1x ID_SD and 1x ID_SC, supports connection with Raspberry Pi standard accessories.
4-lane CSI Interface	1 x 4-lane CSI Interface, 22-pin FPC connector, compatible with Raspberry Pi Camera modules.
4-lane DSI Interface	1 x 4-lane DSI Interface, 22-pin FPC connector, compatible with Raspberry Pi Touch Display.
USB 2.0 Interface	1 x USB 2.0 interface, 1x5-pin 2.54mm pitch header. Pin definitions: VBUS/USB_DM/USB_DP/GND/NC, supports expansion of USB 2.0 interface.
10-Pin Header	1 x 10-Pin Header, 2x5-pin 2.54mm pitch header. Pin definitions: 4xGND/RUN_PG/WL_ON/BT_ON/TV_OUT/RUN_PG_BUF/GLOBAL_EN, reserved for future functions. • Short GND (Pin 1) and RUN_PG (Pin 2): Shuts down the ED-CM0NANO • Short GND (Pin 3) and WL_ON (Pin 4): Disables Wi-Fi functionality • Short GND (Pin 5) and BT_ON (Pin 6): Disables Bluetooth functionality • Connect a button between RUN_PG_BUF (Pin 9) and GLOBAL_EN (Pin 10): Can be used to wake the ED-CM0NANO from sleep mode

Expansion Functions	
RTC	Integrated RTC function with an RTC battery base, supporting the installation of a CR2032 battery as RTC backup power.
Watch Dog	Built-in Watch Dog function, enhancing system reliability.

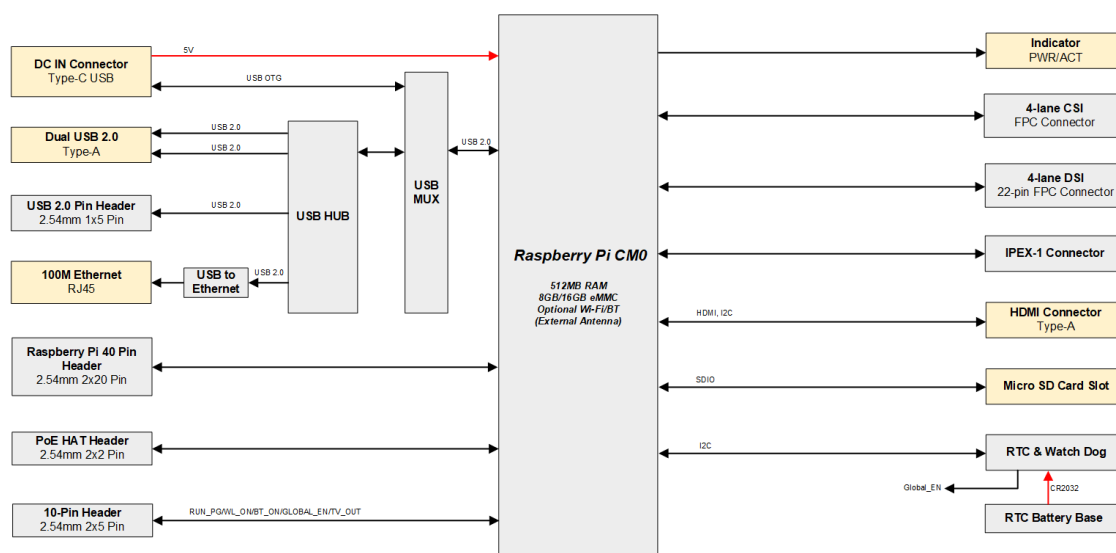
Electrical Characteristics	
Input Voltage	5V DC Note: A 5V 3A adapter is recommended.
Power Consumption	10W (Max)

Mechanical Characteristics	
Dimensions	100mm x 85mm (WxD)
Weight	About 52g

Wireless	
Wi-Fi/Bluetooth (optional)	Supports 2.4GHz Wi-Fi and Bluetooth, with an external FPC antenna. • 2.4GHz Wi-Fi: Compatible with IEEE 802.11 b/g/n • Bluetooth 5.0: Compatible frequency band 2402MHz ~ 2480MHz

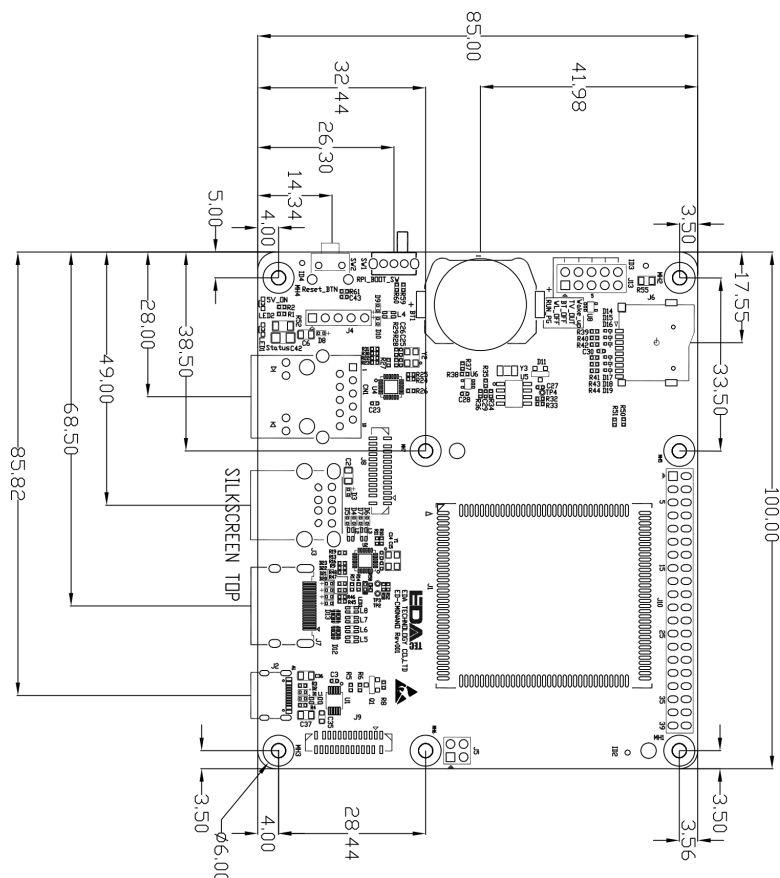
Environmental & Regulatory	
Operating Temperature	-20°C ~ 60°C
Storage Temperature	-20°C ~ 60°C
Ambient humidity	5% ~ 95% (non-condensing)

System Diagram



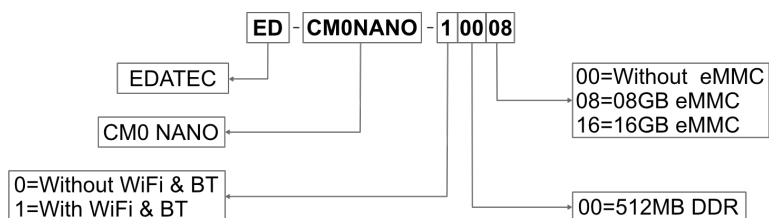
Dimensions

Unit: mm



Ordering Information

Coding Rules



Example

P/N: **ED-CM0NANO-10008**

Configuration: Industrial Single Board Computer Based on Raspberry Pi CM0, with Wi-Fi & Bluetooth, 512MB DDR and 8GB eMMC.

Ordering Code

Model	Description	Stocking Level
ED-CM0NANO-10008	Wi-Fi/BT, 8GB eMMC	Standard Stock
ED-CM0NANO-10000	Wi-Fi/BT, without eMMC (CM0Lite)	Standard Stock
ED-CM0NANO-10016	Wi-Fi/BT, 16GB eMMC	Build-to-Order
ED-CM0NANO-00000	Without Wi-Fi, without eMMC (CM0Lite)	Build-to-Order

TIP

If you require products with other configurations, please contact our sales team separately.

Packing List

- 1 x ED-CM0NANO Motherboard
- [Optional Wi-Fi/BT Version] 1 x FPC Wi-Fi/BT antenna