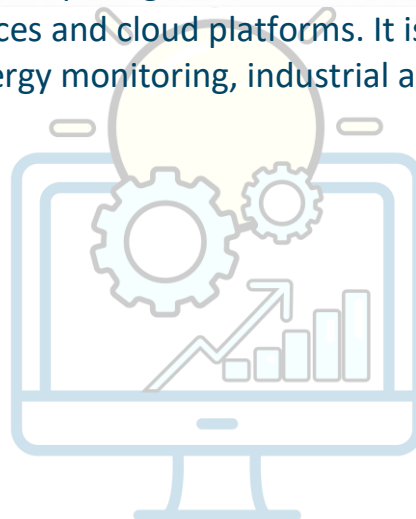




STL-3000 is a compact edge computing device that enables secure and efficient connectivity between field devices and cloud platforms. It is designed for IoT and IIoT applications, including solar energy monitoring, industrial automation, data acquisition, and protocol gateway solutions.



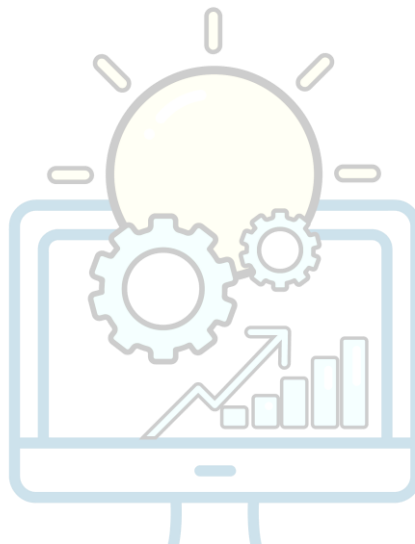
1. Application Areas

- ☀ Solar Plants
- 🏭 Factory Automation
- ⚡ EV Charging
- 🌐 Remote Monitoring
- ⚙ Industrial IoT
- 📄 SCADA



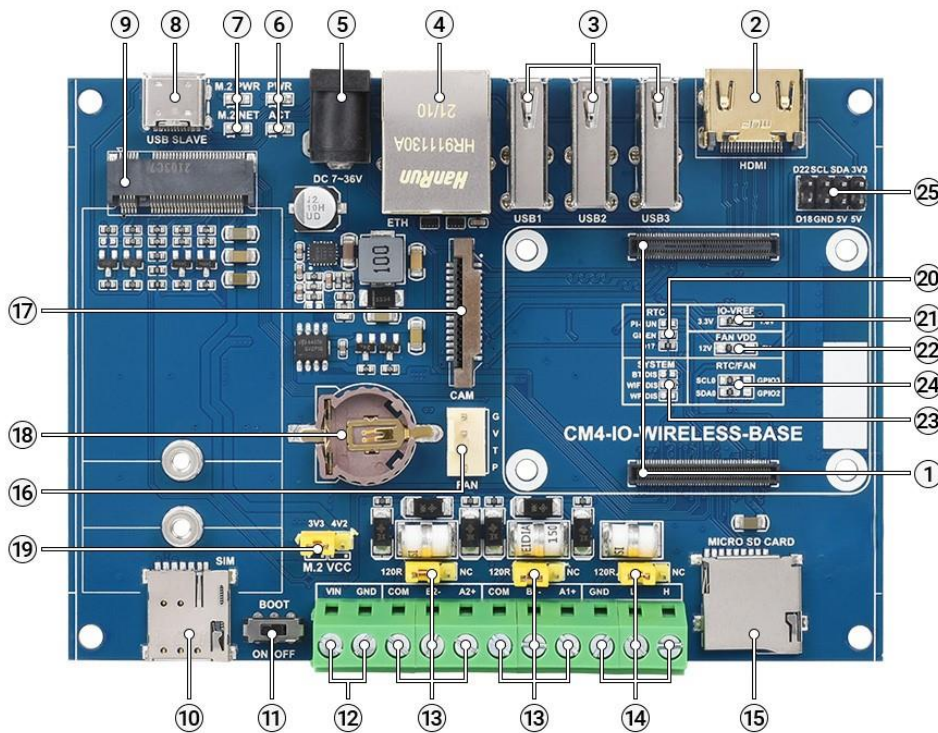
2. Key Features

- Industrial Edge Computing Platform
- Quad-Core ARM Processor
- 2 × RS485
- 1 × CAN Bus
- 3 × USB 2.0
- Gigabit Ethernet
- LTE / 5G / LoRa Expansion
- Cloud Connectivity
- Wide Input Voltage (7–36VDC)
- Real Time Clock
- MicroSD Storage



3. Software Features

- Docker Support
- Node-RED
- MQTT
- Modbus TCP
- Modbus RTU
- CAN Communication
- REST API
- VPN Support
- OTA Update
- Secure Boot
- SSH
- Web Configuration



1. CM4 socket

suitable for all variants of Compute Module 4

2. HDMI connector

supports 4K 30fps output

3. USB 2.0 ports

3x USB 2.0, for connecting sorts of USB devices

4. RJ45 Gigabit Ethernet

10/100/1000M compatible

5. DC power supply

7 ~ 36V DC input

6. CM4 status indicator

PWR: Raspberry Pi power indicator

ACT: Raspberry Pi operating status indicator

7. 4G/5G module status indicator

M.2 PWR: module enable indicator

M.2 NET: module operating status indicator

8. PWR & USB

5V DC power supply or USB programming port

9. M.2 B KEY

supports 4G/5G modules, or other communication modules using USB channel

10. Nano-SIM card slot

supports standard Nano-SIM card for 5G/4G/3G/2G communication

11. BOOT selection

ON: CM4 will be booted from USB-C interface

OFF: CM4 will be booted from eMMC or Micro SD card

12. DC power supply

7 ~ 36V DC input

13. Dual non-isolated RS485

2x RS485, with 600W lightningproof, anti-surge, and 15KV ESD protection (reserved 120R optional balancing resistor jumper)

14. Non-isolated CAN

ESD protection and transient spike voltage protection (reserved 120R optional balancing resistor jumper)

15. Micro SD card slot

for connecting a Micro SD card with pre-burnt image (Lite variant ONLY)

16. FAN header

for connecting cooling fan, allows speed adjustment and measurement

17. CAM

MIPI CSI camera port, 15Pin 1mm pitch

18. RTC battery holder

supports CR1220 button cell

19. M.2 VCC selection

select 3.3V or 4.2V power supply

20. RTC interruption configuration

PI-RUN: CM4 will reboot on RTC interruption

GL-EN: CM4 powerdown on RTC interruption

D17: D17 pin is triggered on RTC interruption (default)

21. IO-VREF selection

set the CM4 IO logic level as 3.3V (default) or 1.8V

22. FAN power supply selection

select 12V (default) or 5V power to drive the fan

23. System function configuration

BT_DIS: Bluetooth disabled, for CM4 with antenna variant ONLY

WiFi_DIS: WiFi disabled, for CM4 with antenna variant ONLY

WP_DIS: boot mode switch, ONLY be used when NOT booted from eMMC or SD card

24. RTC/FAN I2C bus selection

SDA0/SCL0: I2C-10 is shared with CSI/DSI (default)

GPIO3/2: I2C-1 is shared with GPIO header

25. Partial GPIO header

including 1x I2C, 2x GPIO pins, and power supply



4. Specifications

Networking	Gigabit Ethernet RJ45
	M.2 B KEY / Mini-PCIe (via adapter), for connecting 5G / 4G / LoRa wireless module
	Nano-SIM card slot, supports standard Nano-SIM card for 5G/4G/3G/2G communication
USB	USB 2.0 × 3
Pin header	Non-isolated RS485 × 2, Non-isolated CAN × 1, Partial GPIO pins
RTC	Real-time clock with battery socket
Storage	MicroSD card socket
Fan header	5V/12V, allows speed adjustment and measurement
Power input	5V or 7~36V
Dimensions	145 × 90 × 40mm

