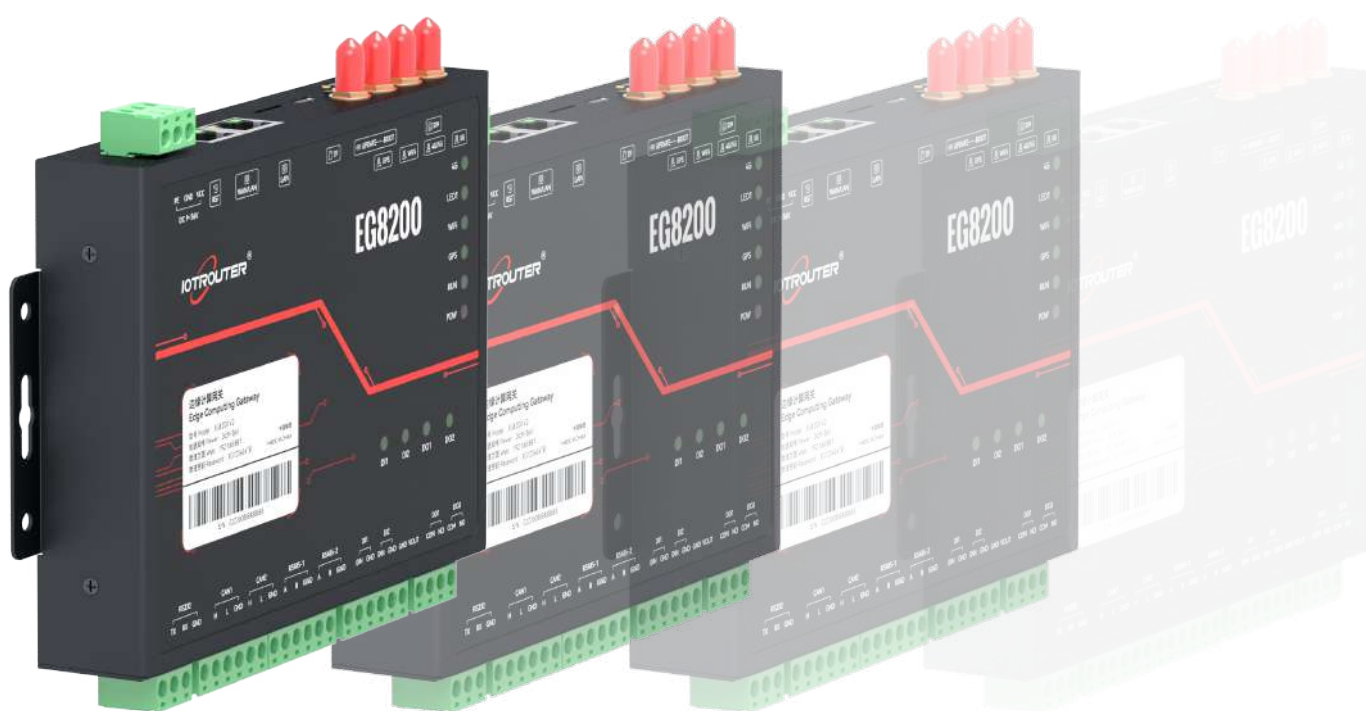




PRODUCT SPECIFICATION

EG8200



Chengdu Zongheng Intelligence
Control Technology Co., Ltd.

前言 PREFACE

Intended Use

This product (EG Series Edge Computing Gateway) is only for use as specified in relevant technical documents. Proper transport, storage, assembly, installation, commissioning, operation, and maintenance are required for safe, reliable operation. Ensure permissible environmental conditions (e.g., temperature, humidity, supply voltage). Observe all notices in this specification and related documents.

Qualified Personnel

Only qualified personnel may operate the products/systems described. Operators must strictly follow the accompanying documents, especially safety and warning notices. With relevant training and experience, qualified personnel can identify potential risks and avoid hazards.

Reliable Grounding and Connection

During operation, the protective earth terminal (PE/M) must be reliably grounded. Improper grounding or connection may cause malfunction, data loss, or injury. Always follow the wiring requirements in this specification and periodically check connection reliability.

Disclaimer

We assume no liability for loss or error arising from use of this document. Consistency with actual hardware and software has been checked, but deviations may exist; complete consistency is not guaranteed. All data tested per regulations. We reserve the right to improve and correct function and performance descriptions in later versions. Watch for document updates.

Revision History

Revision	Date	Description
V1.0	September 2023	First release
V2.0	September 2026	Processor: 2-core A7 → 3-core A7 Wireless: Wi-Fi 5 → Wi-Fi 6 Memory Card: Internal → External Debug Interface: USB Type A → USB Type C

Scope of Document

This document applies to Zongheng Intelligent Control EG Series products, mainly including:

- Communication Coupler: EG8200

Specific configuration subject to product model and order number.

Recycling and Disposal

To ensure environmentally compliant recycling, do not dispose of waste equipment with household waste. Contact a certified e-waste disposal service or follow local regulations. Recycle modules containing batteries (e.g., RTC batteries) separately.

产品介绍 PRODUCT INTRODUCTION



- [Multi-interface](#)
- [Extensive Protocol Support](#)
- [Remote O&M](#)
- [Store-and-Forward](#)
- [Visual Programming](#)
- [JavaScript Custom Development](#)

The EG Series is an edge computing gateway from Zongheng Intelligent Control. With **rich hardware interfaces**, **drag-and-drop programming**, a **"zero-code" design philosophy**, and **convenient remote management**, it responds to diverse IoT needs **rapidly, flexibly, accurately**, and **efficiently**.

The EG Series abstracts complex hardware interfaces and industrial network protocols into "nodes." Users can **flexibly use these nodes** by dragging and connecting them, **replacing traditional complex and inefficient coding processes**. This enables customers to focus on business logic and quickly build their own gateway devices. The mission of the EG Series is to continuously develop new nodes to serve industry customers and **adapt to the fragmented demands of the IoT industry**.

产品规格 PRODUCT SPECIFICATION

Model		EG8200
Core Configuration	Processor	3-core A7 @ 1.2 GHz
	RAM	512 MB
	Storage	4 Gb
	Storage Card	Micro SD slot, up to 32 GB
	RTC	√
4G	Module	4G Cat.4
	Frequency Bands	LTE-FDD: B1/B3/B5/B8 LTE-TDD: B34/B38/B39/B40/B41 WCDMA: B1/B5/B8 GSM: 900 MHz / 1800 MHz
	Transmit Power	LTE-TDD: Class 3 (23 dBm ±2 dB) LTE-FDD: Class 3 (23 dBm ±2 dB) WCDMA: Class 3 (24 dBm +1/-3 dB) PCS1900 8-PSK: Class E2 (26 dBm ±3 dB) DCS1800 8-PSK: Class E2 (26 dBm ±3 dB) EGSM900 8-PSK: Class E2 (27 dBm ±3 dB) GSM850 8-PSK: Class E2 (27 dBm ±3 dB) PCS1900: Class 1 (30 dBm ±2 dB) DCS1800: Class 1 (30 dBm ±2 dB) EGSM900: Class 4 (33 dBm ±2 dB) GSM850: Class 4 (33 dBm ±2 dB)
	Bandwidth (theoretical max.)	LTE-FDD: DL ≤150 Mbps, UL ≤50 Mbps LTE-TDD: DL ≤130 Mbps, UL ≤30 Mbps
Wi-Fi	Standard	802.11a/b/g/n/ac/ax (Wi-Fi 6)
	Band	Dual-band (2.4 GHz + 5 GHz)
	Mode	STA + AP
	Theoretical Speed	433 Mbps
	Optimal Range	10 m
	Max. AP Clients	20
Positioning	Satellite	BeiDou + GPS
	Coordinate System	WGS84
Ethernet	WAN	1 × 10/100 Mbps auto-negotiation
	LAN	1 × 10/100 Mbps auto-negotiation

产品规格

PRODUCT SPECIFICATION

USB	Type-C	1 port (debug interface)
RS485	Ports	2
	Terminal	A, B
	Baud Rate	2400 – 921600 bps
	Data Bits	7, 8
	Stop Bits	1, 2
	Parity	NONE, EVEN, ODD
	Protection	Optocoupler isolation, ESD, surge protection
RS232	Ports	1
	Terminal	RX, TX, GND
	Baud Rate	2400 – 921600 bps
	Data Bits	7, 8
	Stop Bits	1, 2
	Parity	NONE, EVEN, ODD
	Protection	Optocoupler isolation, ESD, surge protection
CAN	Ports	2
	Terminal	H, L
	Arbitration Bit Rate	40 kbps – 1 Mbps
	Protection	Optocoupler isolation, ESD, surge protection
DI	Ports	2
	Terminal	DIN × 2, GND × 2
	Input Type	Dry contact
	Detection Range	12 V / 24 V
	Protection	Optocoupler isolation, ESD, surge protection
DO	Ports	2
	Terminal	NO × 2, COM × 2
	Output Type	Relay output
	Load Capacity	5 A @ 30 VDC; 5 A @ 250 VAC
	Mechanical Endurance	10 ⁶
	Electrical Endurance	10 ⁵
	Protection	ESD, surge protection
LED Indicators	LED	10 (1 user-programmable)

产品规格 PRODUCT SPECIFICATION

Electrical	Certification	CE
	Adapter	12 V / 1 A
	Operating Voltage	DC 9 – 36 V
	Operating Current	280 mA @ 12 V
Environmental	Operating Temperature	–40 – 85 °C
	Storage Temperature	–40 – 85 °C
	Operating Humidity	0 – 95% RH (non-condensing)
	Storage Humidity	0 – 95% RH (non-condensing)
Mechanical	Dimensions	179×114.8×27.5mm
	Enclosure Material	Galvanized steel
	Mounting	Wall-mount / Desktop
	Cooling	Passive
	Reset Button	Press 10 s to reset
EMC	ESD	Air: Level 3 ±8 kV Contact: Level 2 ±4 kV
	Surge	Level 2 ±1 kV
	EFT	Level 2 ±1 kV
Software Features	Remote O&M	√
	Remote Management	√
	Remote Upgrade	√
	Virtual Network Port	√
	Virtual Serial Port	√
	Local Database	√
	Visual Programming	√
	PLC Protocols	√
	CNC Protocols	√
	IEC104 Protocols	√
	Industry Protocols	CJ188 / DLT645 / HJ212 / Modbus / OPC UA* / BACnet* / ...
	Network Protocols	MQTT / HTTP / TCP / UDP / WebSocket / Alibaba Cloud IoT Platform / OneNET / ...

附录 APPENDIX

EG Series Supported PLC Protocol Table

This gateway is categorized by Brand → Protocol → Model hierarchy. Representative PLC models have been selected for testing in each category. Additional supported models are based on official documentation.

Note: The gateway supports standard Modbus RTU/TCP protocols, which are supported by mainstream PLCs and are not listed individually (e.g., Hollysys, Haiwell, Yokogawa, Lan Pufeng, etc.).

Brand	Protocol	Interface	PLC Model
SIEMENS	<i>Tips:</i>		<i>All current Siemens series support S7 protocol communication. Using S7 protocol is recommended.</i>
	S7	Ethernet	S7-200 SMART, S7-200 series, S7-300 series, S7-400 series, S7-1200 series, S7-1500 series
	PPI	Serial	S7-200 series
Mitsubishi (MELSEC)	<i>Tips:</i>		<i>Mitsubishi primarily uses MC protocol for communication. FX5, FX3, Q series etc. have been tested.</i>
	EtherNet/IP	Ethernet	FX5-ENET/IP series, RJ71EIP91 series, QJ71EIP71 series
	MC-1E / MC-3E	Ethernet	FX5 series, RJ71EN71 series, RnENCPU series, LJ71E71 series, QJ71E71 series, QnUCPU series, FX3 series
	Modbus TCP	Ethernet	FX5 series, RJ71EN71 series, RnENCPU series, LJ71E71 series, QJ71E71 series
	MC-3C	Serial	FX5 series, RJ71C24 series, LJ71C24 series, QJ71C24 series
	Modbus RTU	Serial	FX5 series, RJ71C24 series, LJ71C24 series, QJ71C24 series, FX3 series
	FxLinks (Computer Link)	Serial	FX3 series, FX2 series, FX1 series, FX0 series
	FxSerial (Programming Communication)	Serial	FX3 series, FX2 series, FX1 series, FX0 series
OMRON	<i>Tips:</i>		<i>OMRON primarily uses Fins protocol for communication.</i>
	EtherNet/IP	Ethernet	NX7 series, NX1 series, NX1P series, NJ series, CJ1W-EIP21
	Fins	Ethernet	CP series, CS series, CJ series, CV series
	HostLink	Serial	CP series, CS series, CJ series, CV series, C series
LSis (LS Electric)	<i>Tips:</i>		<i>LS mainly uses FEnet/Cnet protocols for communication.</i>
	XGB FEnet	Ethernet	XGB series (XBC/XEC U, XBL-EMTA)
	XGK FEnet	Ethernet	XGT series (XGL-EFMT, XGL-EFMF, XGL-EH5T)
	XGB Cnet	Serial	XGB series (XBC/XEC U, XBL-C21A, XBL-C41A)
	XGK Cnet	Serial	XGT series (XGL-CH2A, XGL-C21A, XGL-C41A)
Allen-Bradley (Rockwell Automation)	<i>Tips:</i>		<i>Rockwell Automation primarily uses CIP and DF1 protocols for communication.</i>
	EtherNet/IP	Ethernet	EtherNet/IP (Ethernet): ControlLogix series, CompactLogix series, Micro800 series (820, 850, 870)
	DF1	Serial	ControlLogix series, CompactLogix series (5069-SERIAL module), Micro800 series (820, 830, 850, 870), SLC series (500, 5/03, 5/04, 5/05), MicroLogix series (1000, 1100, 1200, 1500)

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Brand	Protocol	Interface	PLC Model
Beckhoff	<i>Tips:</i>		<i>Beckhoff primarily uses ADS protocol for communication.</i>
	ADS	Ethernet	CX series, TwinCAT2, TwinCAT3
Inovance	<i>Tips:</i>		<i>Inovance mainly uses Modbus protocol.</i>
	Modbus TCP	Ethernet	AC series, AM series, H5U series, H3U series
	Modbus RTU	Serial	AC series, AM series, H5U series, H3U series, H1U series
Keyence	<i>Tips:</i>		<i>Keyence primarily uses KV protocol.</i>
	MC-3E	Ethernet	KV-8000 series, KV-7000 series, KV-5500 series, KV-5000 series, KV-EP21V, KV-LE21V, KV-LE20V, KV-LE20A Ethernet units
	KV (Upper Link Protocol)	Ethernet	
	KV (Upper Link Protocol)	Serial	KV-7300, KV-3000, KV-1000, KV-700, KV Nano, KV-L21V, KV-L20V
Panasonic	<i>Tips:</i>		<i>Panasonic primarily uses Mewtocol protocol.</i>
	MC-3E	Ethernet	FP7 series, FP0H series, FP-XH series
	Mewtocol	Ethernet	FP7 series, FP0H series, FP-XH series
	Mewtocol	Serial	FP7 series, FP0H series, FP-XH series, FP-X0 series, FP0R series
Delta	<i>Tips:</i>		<i>Delta mainly uses Modbus protocol.</i>
	Modbus TCP	Ethernet	AH series, AS series, AX-3 series, DVP series (built-in Ethernet)
	Modbus RTU	Serial	AH series, AS series, AX-3 series, DVP series
XinJE	<i>Tips:</i>		<i>XinJE mainly uses Modbus protocol.</i>
	Modbus TCP	Ethernet	CCSD series, XA series, XS series, XG series, XL series
	Modbus RTU	Serial	CCSD series, XA series, XS series, XG series, XL series, XC series, XD series
MegMeet	<i>Tips:</i>		<i>MegMeet mainly uses Modbus protocol.</i>
	Modbus TCP	Ethernet	MC5100 series, MC280 series, MC200 series, MC100 series, MC80 series
	Modbus RTU	Serial	MC5100 series, MC280 series, MC200 series, MC100 series, MC80 series
Yaskawa	<i>Tips:</i>		<i>Yaskawa primarily uses Memobus protocol (supports S7).</i>
	Memobus	Ethernet	GL120/130 series, GL60 series, MP3000 series, MP2300 series, Z1000 series
Fatek	<i>Tips:</i>		<i>Fatek primarily uses Fatek protocol.</i>
	Fatek	Serial	FBs series
Vigor	<i>Tips:</i>		<i>Vigor primarily uses VS private protocol.</i>
	VS	Serial	VS series
Fuji	<i>Tips:</i>		<i>Fuji primarily uses SPH/SPB protocols.</i>
	SPH	Ethernet	SPH series
	SPB	Serial	SPB series

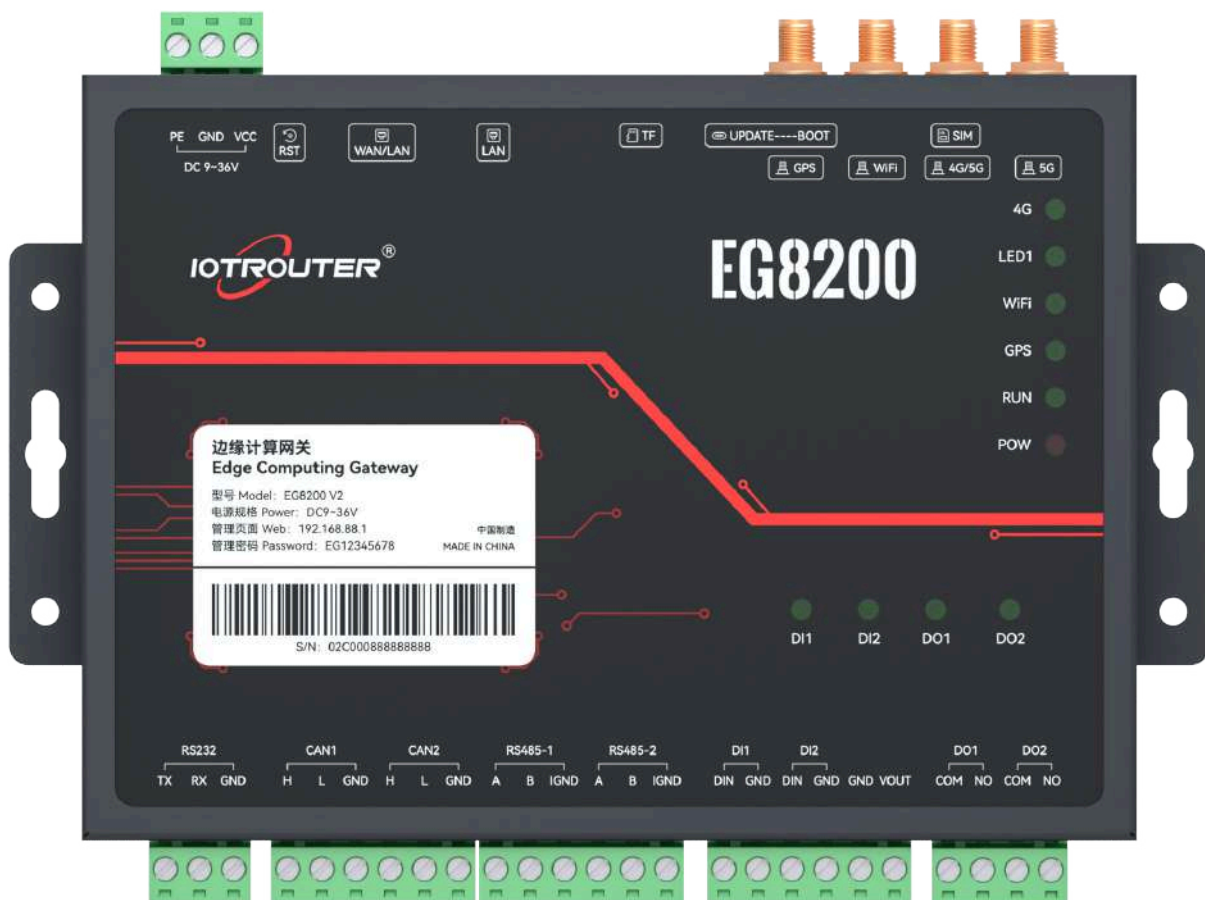
附录 APPENDIX

EM Series Supported CNC Protocol Table

Note: Representative models from each CNC brand have been tested. Additional supported models are based on official documentation.

Brand	Interface	CNC Model
SIEMENS	Ethernet	All series supported
Mitsubishi (MELSEC)	Ethernet	All series supported
Fanuc	Ethernet	All series supported (excluding 18i and 21i series)
Haas	Ethernet	All series supported
	Serial	All series supported
Brother	Ethernet	All series supported
GSK (Guangzhou CNC)	Ethernet	GSK988 / 980TDI series
	Serial	980T / MDC series
Heidenhain	Ethernet	530 / 520 series
Citizen	Ethernet	All series supported (contact support for custom versions)
KND	Ethernet	Version V4.3 and above
Mazak	Ethernet	All series supported
SYNTEC	Ethernet	Version V10.118
LNC	Ethernet	All series supported

产品总览 PRODUCT OVERVIEW

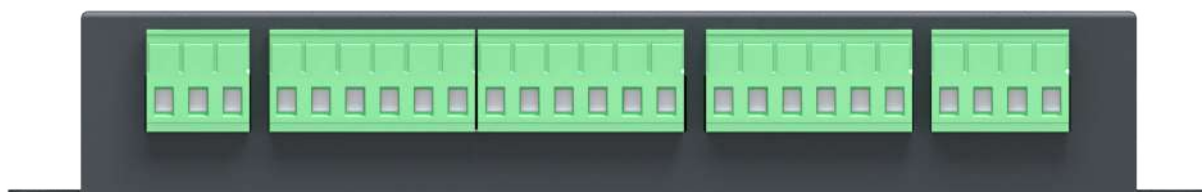


EG8200 Front View

产品总览 PRODUCT OVERVIEW

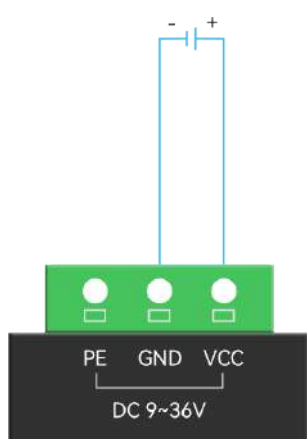


EG8200 Top View

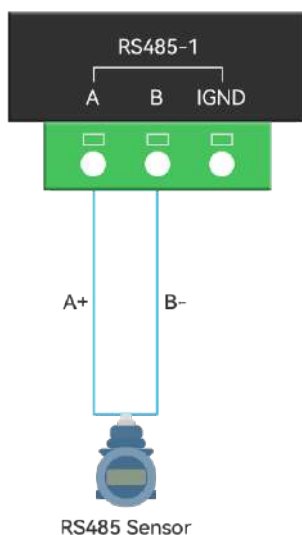


EG8200 Bottom View

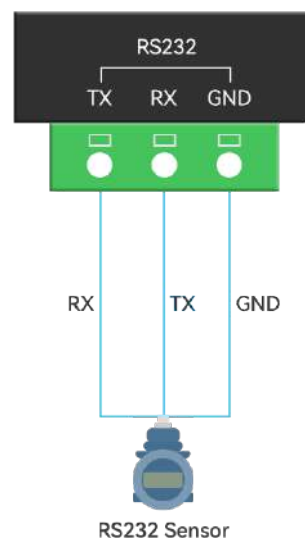
接线说明 WIRING INSTRUCTION



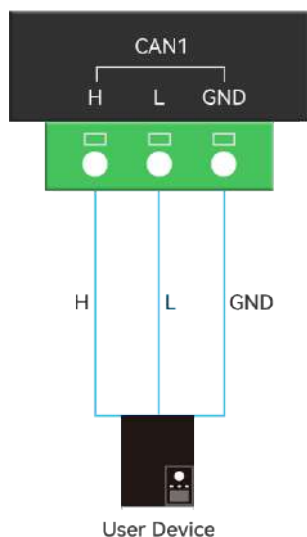
Power Wiring Diagram



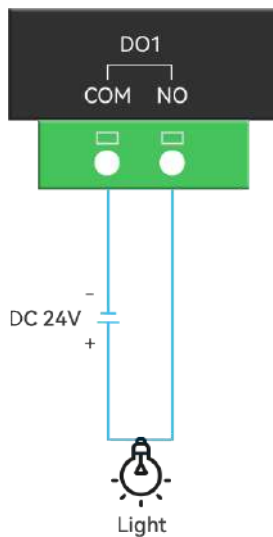
RS485 Wiring Diagram



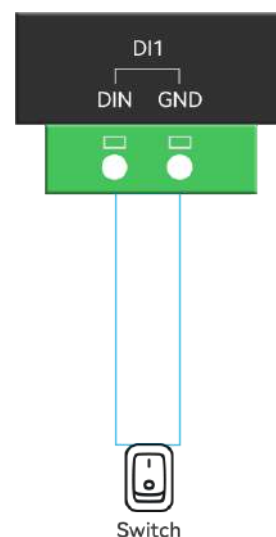
RS232 Wiring Diagram



CAN Wiring Diagram

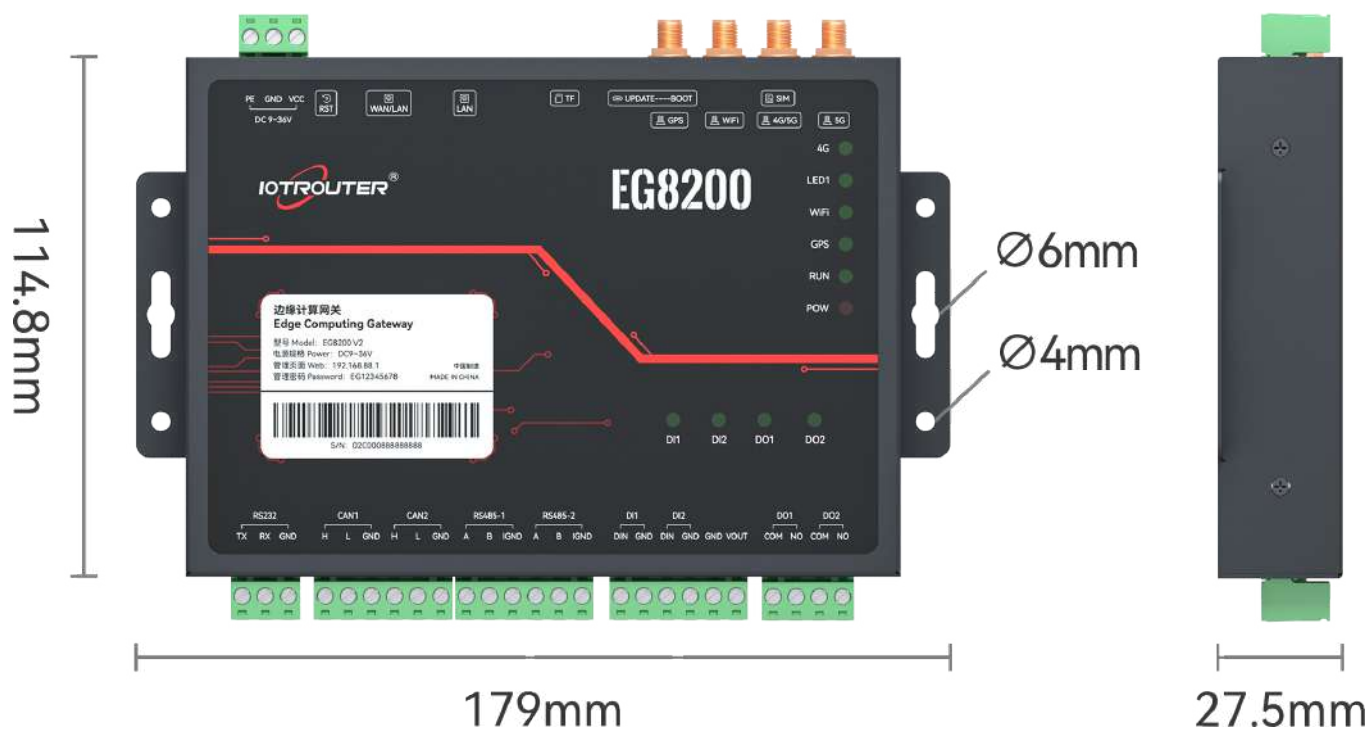


DO Wiring Diagram



DI Wiring Diagram

安装说明 INSTALLATION INSTRUCTION



Product Dimensions

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