IOTROUTER® 纵横智控

PRODUCT SPECIFICATION

EG8200Mini-CNC

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	November 2024	First release
V2.0	June 2026	Processor: 2-core A7 → 3-core A7 Wireless: Wi-Fi 5 → Wi-Fi 6

Scope of Document

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

- Communication Coupler: EG8200Mini-CNC

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

- CNC Data Acquisition
- 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		EG8200Mini-CNC
Core Configuration	Processor	3-core A7 @ 1.2 GHz
	RAM	512 MB
	Storage	4 G
	Storage Card	Micro SD slot, up to 32 GB
	RTC	√
4G (Optional)	Module	Quectel Cat.1 (4G)
	Frequency Bands	LTE-FDD: B1/B3/B5/B8 LTE-TDD: B34/B38/B39/B40/B41
	Transmit Power	LTE-FDD: Class 3 (23 dBm ±2 dB) LTE-TDD: Class 3 (23 dBm ±2 dB)
	Bandwidth (theoretical max.)	LTE-FDD: DL ≤10 Mbps, UL ≤5 Mbps LTE-TDD: DL ≤8.96 Mbps, UL ≤3.1 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
Ethernet	WAN	1 × 10/100 Mbps auto-negotiation
	LAN	1 × 10/100 Mbps auto-negotiation
RS485	Ports	2
	Terminal	A, B
	Baud Rate	2400 – 921600 bps
	Data Bits	7, 8
	Stop Bits	1, 2
	Parity	NONE, EVEN, ODD
	Protection	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	ESD, surge protection

产品规格 PRODUCT SPECIFICATION

Electrical	Certification	CE
	Adapter	12 V / 1 A
	Operating Voltage	9 – 36 V
	Operating Current	170 mA @ 12 V
Environmental	Operating Temperature	-40 to 85 ℃
	Storage Temperature	-40 to 85 ℃
	Operating Humidity	0 – 95% RH (non-condensing)
	Storage Humidity	0 – 95% RH (non-condensing)
Mechanical	Dimensions	125 × 95 × 32mm
	Enclosure Material	ABS (AC2300)
	Mounting	DIN rail
	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	√
	CNC 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

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

EG8200Mini-CNC
Front View

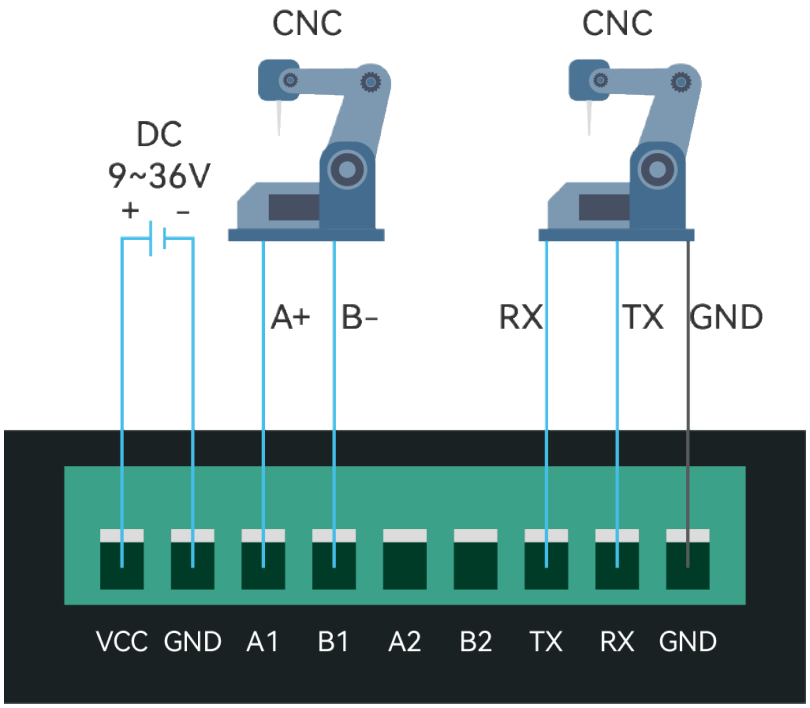
EG8200Mini-CNC
Right View

产品总览 PRODUCT OVERVIEW

EG8200Mini-CNC
Top View

EG8200Mini-CNC
Bottom View

接线说明 WIRING INSTRUCTION



Power & Serial Port Wiring Diagram

安装说明 INSTALLATION INSTRUCTION

Product Dimensions

A LEADING PROVIDER OF INTEGRATED IT AND OT PRODUCTS

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