CGate300-G

High Performance Modular Edge IoT Gateway



- 1×WAN/LAN and 1×LAN 100M Ethernet ports, 1×RS232/485, 1×RS485 serial ports
- 2×DI, 2×DO, 2×AI, support flexible I/O expansion
- Support LTE 4G CAT-4 cellular network, can automatically failover with WAN
- Dual-core processor, the main frequency is up to 1.2GHz, Linux system
- Supports Node-RED graphical programming to facilitate user development
- Actively collect data from serial ports, network ports, and I/O devices at the same time, with up to 2000 data collection points
- Support GPS function
- Rich VPN protocols: PPTP, L2TP, OpenVPN
- Support routing and firewall
- Support Modbus TCP/RTU, PLC protocols, OPC UA, BACNET, DLT645
- Support MQTT via AWS IOT and Alibaba Cloud
- DC 9~36V wide input voltage. Level 3 EMC protection
- -25℃ ~ +70℃ operating temperature

Product Description

CGate300-G is a high-performance and scalable edge IOT gateway. This device integrates edge collection, data calculation, data reading and writing, active reporting, linkage control, IO collection and control, and other functions. The collection protocol includes standard Modbus protocol and a variety of common PLC protocols, as well as industry-specific protocols. At the same time, the product also has routing and VPN as well as graphical programming functions to ensure data transmission security. Using graphical programming, users can develop independently to achieve the required functions.

CGate300-G is embedded in Linux kernel, with a main frequency of up to 1.2GHz. It can access the Internet via Ethernet port, ADSL, and LTE Cat-4 cellular network to achieve easy network deployment.

It is widely used in various industrial intelligent solutions such as industrial robots, smart factories, smart agriculture, smart water management systems, etc.

Product Features

- Dual-core professor with ultra-high performance, the main frequency is up to 1.2GHz, providing high-performance processing resources for edge computing
- Support Node-RED graphical programming to facilitate user development
- LTE 4G and Ethernet network serve as backups for each other to ensure stable network transmission without downtime
- Integrated with 1×WAN/LAN and 1×LAN Ethernet port, VPN, and firewall protection to ensure safe data transmission
- Integrated with 2 serial ports: 1×RS232/485, 1×RS485, which can transform traditional serial devices into IOT devices
- Come with IO interface: 2×DI, 2×DO, 2×AI, flexible expandable IO module is supported
- GPS function is supported
- Rich VPN protocols: PPTP, L2TP, OpenVPN are supported
- Routing and firewall are supported
- Remote management: cloud and DM platform management
- Data cache is up to 2 GB to ensure the data can be saved when the network is now stable
- Powerful edge gateway function: support edge collection, edge computing, group reporting, and support real-time collection of up to 2000 edge computing points and 500 virtual points
- Support major industrial protocols including Modbus TCP/RTU, PLC protocols, OPC UA, BACNET, DLT645
- Support 2 socket channels, each channel supports TCP(SS)/UDP, MQTT(S) protocols
- Cloud support: MQTT via AWS IoT and Alibaba Cloud

Technical Specifications

Power Supply	
Power Input	DC 9~36V
Working Current	Average: 194.6mA @12V MAX: 240mA @12V
Serial Port	
No.	2 × serial ports Serial port 1: RS232/485 Serial port 2: RS485
Band Rate	600~230400 bps, user-defined baud rate is supported
Data Bits	7, 8
Stop Bits	1, 2
Parity Bits	None, Even, Odd
IO Interface	
DI	2 × DI, 0~2V detected as logic low, 9~36V detected as logic high
DO	2 × Relays DC contacts rating @R (at resistive load) 10A / 28V DC AC contacts rating @R (at resistive load) 10A / 277V AC, NO AC contacts rating @R (at resistive load) 5A / 250V AC, NC
AI	2 × Analog input 4~20 mA
Physical Characteristics	
Dimension	79.6×58×110 mm
Housing	ABS housing, IP30 protection

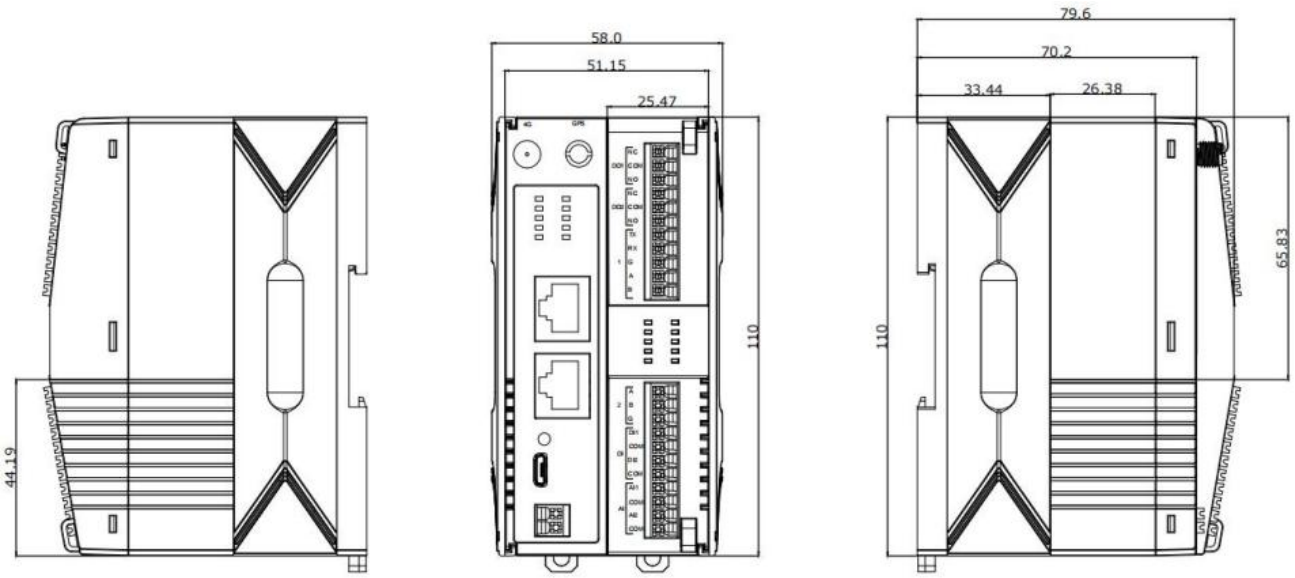
Installation	DIN rail mounting, wall mounting
Weight	<300g
Environment	
Operating Temperature	-25℃~+70℃
Storage Temperature	-40℃~+85℃
Operating Humidity	5%~95% (non-condensing)
EMC	
ESD	IEC61000-4-2, Level 3, class B, contact 6KV, air 8KV
Surge	IEC61000-4-5, Level 3, class B
EFT	IEC61000-4-4, Level 3, class B
Indicator	
POW	ON: Gateway is powered up OFF: Gateway is not powered up
WORK	When the device is working properly, it blinks for 1s frequency
NET	Blinking when the WAN connects to the internet OFF when there is no network
DATA	Blinking when the serial port is transmitting data
DO Status	Light on, the channel output is activated
DI Status	Light on, the channel is activated by the input signal
Network	
Cellular	LTE Cat-4, Global Frequency

Ethernet	1×WAN/LAN + 1×LAN 10/100 Mbps, compliance with IEEE 802.3, IEEE 802.3u standards, auto MDI/MDIX
Cellular (GL)	
Frequency	TDD-LTE: B34/38/39/40/41 FDD-LTE: B1/2/3/4/5/7/8/12/13/18/19/20/25/26/28/66 WCDMA: B1/2/4/5/6/8/19 GSM/EDGE: B2/3/5/8
SIM	1×Micro SIM
Antenna	1×SMA-Female
GPS (GL)	
Antenna Interface	1×SMA-K
Accuracy	The theoretical value for positioning accuracy is 2.5 meters; this accuracy is influenced by factors such as the number of available satellites.
Software	
Network Protocols	ICMP, IPv4, IP, ARP, TCP, UDP, DHCP, DNS, HTTP, MQTT, SNMP
Acquisition Protocols	Mainstream PLC protocols, DLT645-2007, Modbus TCP, Modbus RTU, BACnet TCP/IP
Reporting Protocols	Modbus RTU, Modbus TCP, OPC UA, JSON, BACNET TCP/IP, BACnet MSTP, IEC104, IEC61850, SL651, DNP3.0
Configuration Method	Built-in webpage
Modbus Gateway	Modbus RTU/TCP protocol conversion
Data Cache	2G
Linkage Control	Data collection points, DI, and AI can be used as a trigger and executed by DO
IP Routing	Static routing

Firewall	Support
NTP	Support
VPN	PPTP, L2TP, OpenVPN
SNMP	Support
Extended Modular	Support

Dimensions

Unit: mm (first angle projection)



Ordering Information

Standard Model	100M Copper Port	RS232/485	RS485	DI	DO	AI
CGate300-G	2	1	1	2	2	2
Cellular	**Area**	**Band**				**Antenna**
LTE Cat4	Global	TDD-LTE: B34/38/39/40/41 FDD-LTE: B1/2/3/4/5/7/8/12/13/18/19/20/25/26/28/66 WCDMA: B1/2/4/5/6/8/19 GSM/EDGE: B2/3/5/8				2

Contact Us

COME-STAR COMMUNICATION(WUHAN) CO., LTD.

Address: Puneng Industrial Park, Fenghuang Garden 1st Road, East Lake High-Tech Development Zone, Wuhan, China.

Tel: +86-027-59257958

Mail: info@come-star.com

Official site: www.come-star.com

Copyright © Come-Star All rights reserved