CGT571

1×RS485+1×RS232+2×Ethernet Ports 4G CAT-4 Serial-to-Cellular Modem



- 1 × RS485 + 1 × RS232 serial port + 2 × Ethernet ports
- Different models support 4G LTE frequency bands for different regions, fallback to 3G/2G, support APN/VPDN SIM card
- Support automatic failover between cellular and WAN
- Support bi-directional transparent transmission
- Support 4 socket connections simultaneously
- Mutual conversion between Modbus TCP and RTU
- Support IPsec VPN, PPTP, L2TP, OpenVPN, GRE, firewall, NAT, DDoS defense, DMZ, IP-MAC binding
- Built with a hardware watchdog to ensure system stability and prevent crashes
- DC 9~36V wide input voltage, panel mount design
- IP30-rated housing protection, ESD/Surge/EFT protection
- -35 ℃~+75 ℃ working temperature range

Product Description

CGT571 is an industrial IoT cellular modem/router from COME-STAR designed to provide flexible and reliable network connectivity for industrial applications. It features 1 × RS485 and 1 × RS232 serial interface, along with 2 × 100 Mbps Ethernet ports, and supports 2G/3G/4G cellular networks. The SIM card can be configured with APN and VPDN settings, and failover between 4G and WAN ensures uninterrupted connectivity.

This serial cellular gateway supports bidirectional transparent transmission, Modbus RTU to Modbus TCP conversion, and multiple network modes, including HTTPD, enabling seamless integration of devices with IoT platforms and cloud systems. It also offers comprehensive VPN functionality, including IPsec VPN, PPTP, L2TP, OpenVPN, and GRE, ensuring secure data transmission. Firewall features, user-defined identity and heartbeat packets, multi-port communication, and extensive remote management capabilities are provided. Users can manage the router via SSH, WEB, TELNET, or a dedicated network management platform, offering multiple convenient management options for industrial deployments.

Built for demanding industrial environments, CGT571 features a metal enclosure with IP30 protection, wide input voltage range, wide operating temperature range, hardware watchdog, and protection against surge, ESD, and EFT. These design features ensure long-term, reliable operation in distributed and unattended field applications, making it ideal for smart terminals, power monitoring, water management, municipal systems, environmental monitoring, agriculture, logistics, and other large-scale industrial scenarios.

Product Features

- ARM 9 core and Linux system-based
- 1 × RS232 and 1 × RS485 serial interfaces, and 2 × 100 Mbps Ethernet ports. One LAN port, and another one can be set as WAN port or LAN port.
- Support 2G/3G/4G global networks and APN/VPDN SIM cards
- Failover between 4G and WAN, automatically switching to backup links for uninterrupted transmission
- Multi-layer link detection with automatic redial and recovery
- APN automatic inspection, mode switch, SIM information display, support for private SIM cards
- Allow multiple management methods, including SSH, WEB, TELNET, and a network management platform
- Support serial AT command set for querying and configuring router parameters
- Bidirectional transparent transmission between field serial devices and central systems
- VPN tunnel detection to maintain stable VPN connections
- Support IPsec VPN, PPTP, L2TP, OpenVPN, GRE, and other VPN protocols for secure transmission
- Firewall functions including NAT, access control, DDoS defense, DMZ, and IP-MAC binding
- Support DDNS, PPPoE, DHCP, and Static IP
- Support user-defined register packets, heartbeat packets, transparent TCP/UDP protocol, and multi-center transmission
- Support multiple working modes: transparent mode, Modbus RTU to Modbus TCP, HTTPD mode
- Metal shell with IP30 protection
- Ethernet ports with 1.5KV isolation transformer protection
- Wide operating temperature range
- Wide voltage input with reverse polarity protection
- ESD, surge, and EFT protection
- Embedded hardware watchdog with automatic self-recovery to maintain device availability

Technical Specifications

Software	
Network Protocol	TCP, UDP, DNS, HTTP, FTP
WAN Protocol	PPP, PPPoE, DHCP client
LAN protocol	ARP, DHCP server, NAT
4G Network Access	Auto APN/VPDN, private network Access authentication: CHAP/PAP Support detection keep-alive mechanism to ensure the stability of data communication Support SIM card information display Support lock network mode configuration
IP Routing	Static routing table
Network Diagnosis	Ping, route trace, DNS
IP-MAC Banding	Support the binding of the IP address and MAC address of the subnet device to each other, and assign a fixed IP to the specified device
Max TCP Connections	4
User Configuration	Setting Software, AT command and Web Server configuration Support configuration backup Support configuration import and export
Remote Management	Telnet, SSH, AT command
Remote Management Platform	Remote monitoring, remote upgrade
Operation Mode	Transparent Mode, HTTPD Client Mode, NET
Transparent Transmission	TCP Server, TCP Client, UDP Server, UDP Client
VPN	PPTP, L2TP, GRE, IPSEC VPN (IKEv1), OPENVPN

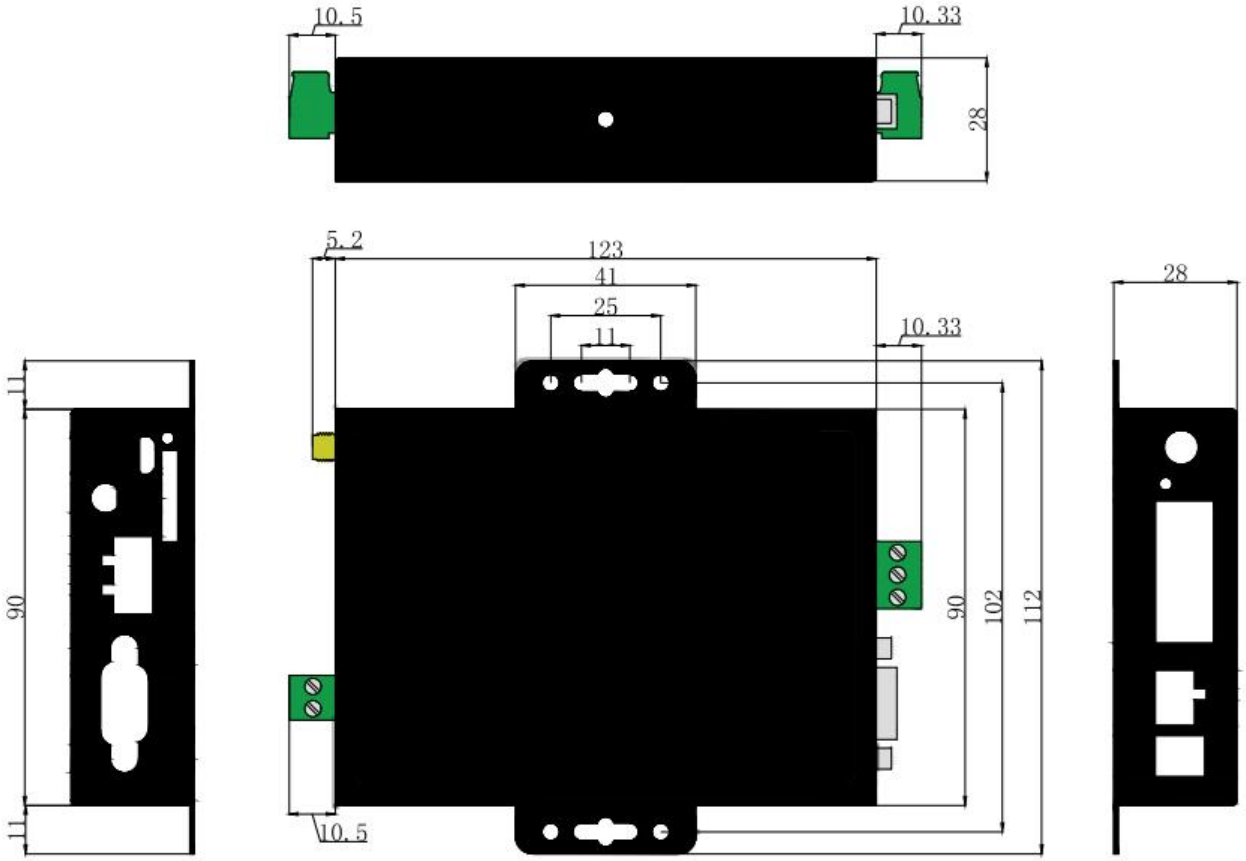
Firewall	DMZ, anti-DoS, Filtering (IP/Domain name/MAC address), Port Mapping, Access Control
Modbus	Support Modbus RTU/TCP protocol conversion
Failover Backup	Failover between 4G and WAN, ensure automatic switch to the alternative backup connection
Heartbeat Packet	Support
Identity Packet	Support IMEI/ICCID/self-defined identity packet
Packaging mechanism	Support setting of packing time and packing length Support heartbeat packet and registration packet
Serial to Network	4 sockets, 4 centers, TCPS(SOCKA)/TCPC/UDPS/UDPC
Baud Rate Synchronization	Support
RFC2217	Support RFC2217-like remote serial control
Firmware Upgrade	Support local upgrade Support remote upgrade
Others	Support login password modification to enhance security Support one-key factory reset Support scheduled reboot to improve long-term stability
4G Cellular	
Working Frequency	Depending on the model
Interface	
Antenna	1 × SMA-F connector (outer-thread, inner-socket)
Ethernet	1 × WAN port (can be configured to LAN) 10/100 Mbps, compliance with IEEE 802.3, auto MDI/MDIX,1.5KV network isolation transformer protection 1 × LAN port, 10/100 Mbps, compliance with IEEE 802.3, IEEE 802.3u standards, auto MDI/MDIX,1.5KV network isolation transformer protection

Serial Port	Serial Signal: 1 × RS232, 1 × RS485 Connection Method: RS232: Standard DB9 connector Rs485: 3 PIN 3.81mm industrial terminal Baud Rate: 300~460800bps Data Bits: 8 bits Stop Bits: 1 bit, 2 bits Parity: None, Odd, Even
SIM Card Slot	1 × (3 V & 1.8 V) Standard 2FF SIM, drawer-type SIM card slot
Button	Reload
Status LED	POWER indicator: always on when the device is powered on WORK indicator: flashes when the system is running normally after start up NET network status indicator: Red represents 2G Blue represents 3G Purple represents 4G SIM indicator: When a valid SIM card is detected, it lights up, and is off when a SIM card is not detected. LINKA indicator: always on after SOCKET A connection is established LINKB indicator: always on after SOCKET B connection is established TXD indicator: flashes when the serial port has data to send, and goes off when there is no data RXD indicator: flashes when there is data reception on the serial port, and goes off when there is no data
TBD	Debug interface (TTL Level)
Ground protection	Screw
Power Supply	
Input Voltage	DC 9~36V, Reverse Polarity Protection

Operating Current	Average 180mA/12V
Power Consumption	< 3 W
Connection	DC Power Jack Barrel Type Female 5.5*2.1mm Round socket or 2 PIN 5.08 mm industrial terminal block
Physical Characteristics	
Dimensions	123 × 112 × 28 mm
Installations	Panel
Housing Material	Metal
IP	IP30
Working Environment	
Operating Temp	−35℃~+75℃
Storage Temp	-40℃～+125℃
Relative Humidity	5%~95% (non-condensing)
Industry Standard	
EMC	Static IEC61000-4-2, level 2 Pulsed Electric Field IEC61000-4-4, level 2 Surge IEC61000-4-5, level 2
Certifications	CE, RoHS

Dimensions

Unit: mm



Ordering Information

Standard Model	RS485	RS232	100M Copper	4G Antenna	Input Voltage
CGT571 Series	1	1	2	1	DC 9~36V

Model	CIR571-E	
Region	EMEA & APAC	
Frequency	TDD-LTE	B38/B40/B41
	FDD-LTE	B1/B3/B5/B7/B8/B20
	WCDMA	B1/B5/B8
	GSM/GPRS/EDGE	B3/B8
Model	**CIR571-A**	
Region	North America	
Frequency	FDD-LTE	B2/B4/B12
	WCDMA	B2/B4/B5
Model	**CIR571-EAU**	
Region	Australia & Latin America & New Zealand & Taiwan	
Frequency	TDD-LTE	B40
	FDD-LTE	B1/B2/B3/B4/B5/B7/B8/B28
	WCDMA	B1/B2/B5/B8
	GSM/EDGE	B2/B3/B5/B8

Model	CIR571-43	
Region	Part of APAC, please confirm the frequencies	
Frequency	TDD-LTE	B38/39/40/41
	FDD-LTE	B1/B3/B5/B8
	WCDMA	B1/B8
	TD-SCDMA	B34/B39
	EVDO/CDMA1X	BC0
	GSM/CPRS/EDGE	900/1800MHz

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