C4G Series
4G Cellular Router

Product Highlights

Designed for Harsh Environments
- Designed to withstand extreme temperatures and conditions (ie: shock, vibrations, etc) for reliable and uninterrupted operation
- Support for vehicle operation with built-in battery charge protection

High Capacity Router Ultra Low Power
- Support for broadband mission critical applications, allowing over 100 clients to work simultaneously
- Standby Mode protects power sources by dropping power consumption to a target of 53 mW when triggered

Water and Dust Resistant with Field-Proven Cellular/4G Connectivity
- Die cast aluminum housing sealed to meet IP54
- Reliable 4G connectivity in hazardous environmental conditions (ATEX Class 1 Zone 2 / Class 1 Division 2)
- Dual-SIM 4G Failover

Leading Edge Security with 2 Factor Authentication
- Multiple concurrent VPN sessions and 2 Factor Authentication
- Remote authentication (RADIUS, TACACS+) management
- Secure software image CRC control protects against unwanted software corruption (i.e. malware)

Overview

EtherWAN's C4G Series is a high performance ruggedized Dual-SIM 4G router, developed for the world's most demanding mission critical applications, connecting network assets and infrastructures in fixed and mobile (vehicle/train/subway/health) deployments for public, transit (i.e. stop lights), industrial equipment (i.e. video surveillance), field (i.e. oil pipes) and health (i.e. hospitals) deployments.

The C4G Series offers extensible multi-network connectivity from 1 to 4 Ethernet ports: Dual-SIM Cellular (up to CAT12 / 600Mbps), Wi-Fi AC (up to 866Mbps) & Ethernet (1Gbps ports), USB, RS232, RS485 & I/O ports supporting vehicle power connectivity and GNSS (GPS, Galileo, Glonass, Beidou). The C4G Series comes in two enclosure types: a) die cast aluminium enclosure with optional DIN Rail bracket and b) native DIN Rail industrial-grade enclosure. The router supports best-in-class link protection to ensure secure connectivity for all field applications and mobile assets through Dual-SIM and multiple diversity protocols.

Ordering Information

C4G-M-4P3M	4G Router with integrated: LTE-A (CAT6 300M / 50M), GPS/GNSS, 4 x 10/100/1000 RJ45 Ethernet, USB-C Port, RS232, GPIO, IGN (ignition sense pin), 2 x Digital Inputs, Alarm Relay, RS485 half-duplex, IP54 enclosure. North American power adapter included.
C4G-M-4P6M	4G Router with integrated: LTE-A PRO (CAT12 600M / 150M), GNSS, 4 x 10/100/1000 RJ45 Ethernet, USB-C Port, RS232, GPIO, IGN (ignition sense pin), 2 x Digital Inputs, Alarm Relay, RS485 half-duplex, IP54 enclosure. North American power adapter included.
C4G-M-4P3MW	4G Router with integrated: LTE-A (CAT6 300M / 50M), GPS/GNSS, Wireless LAN (2.4/5 GHz), 4 x 10/100/1000 RJ45 Ethernet, USB-C Port, RS232, GPIO, IGN (ignition sense pin), 2 x Digital Inputs, Alarm Relay, RS485 half-duplex, IP54 enclosure. North American power adapter included.
C4G-M-4P6MW	4G Router with integrated: LTE-A PRO (CAT12 600M / 150M), GPS/GNSS, Wireless LAN (2.4/5 GHz), 4 x 10/100/1000 RJ45 Ethernet, USB-C Port, RS232, GPIO, IGN (ignition sense pin), 2 x Digital Inputs, Alarm Relay, RS485 half-duplex, IP54 enclosure. North American power adapter included.
C4G-M-4P6FW	FirstNet Ready 4G Router with integrated: LTE-A PRO (CAT12 600M with B14 NA support), GPS/GNSS, Wireless LAN (2.4/5 GHz), 4 x 10/100/1000 RJ45 Ethernet, USB-C Port, RS232, GPIO, IGN (ignition sense pin), 2 x Digital Inputs, Alarm Relay, 485 half-duplex, IP54 enclosure. North American power adapter included.
C4G-S-1P3M	4G Router with integrated: LTE-A (CAT6 300M / 50M), GPS/GNSS, 1 x 10/100/1000 RJ45 Ethernet, USB-C Port, RS232, GPIO, IGN (ignition sense pin), IP54 enclosure. North American power adapter included.
C4G-S-1P6M	4G Router with integrated: LTE-A PRO (CAT12 600M / 150M), GPS/GNSS, 1 x 10/100/1000 RJ45 Ethernet, USB-C Port, RS232, GPIO, IGN (ignition sense pin), IP54 enclosure. North American power adapter included.

What's in the Box

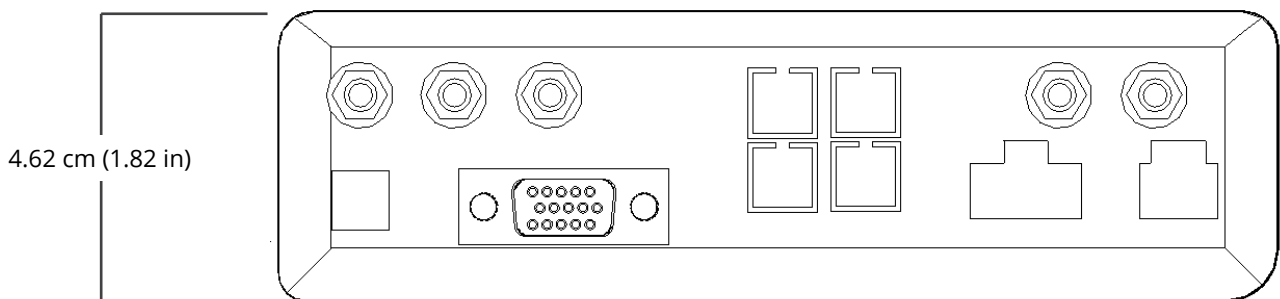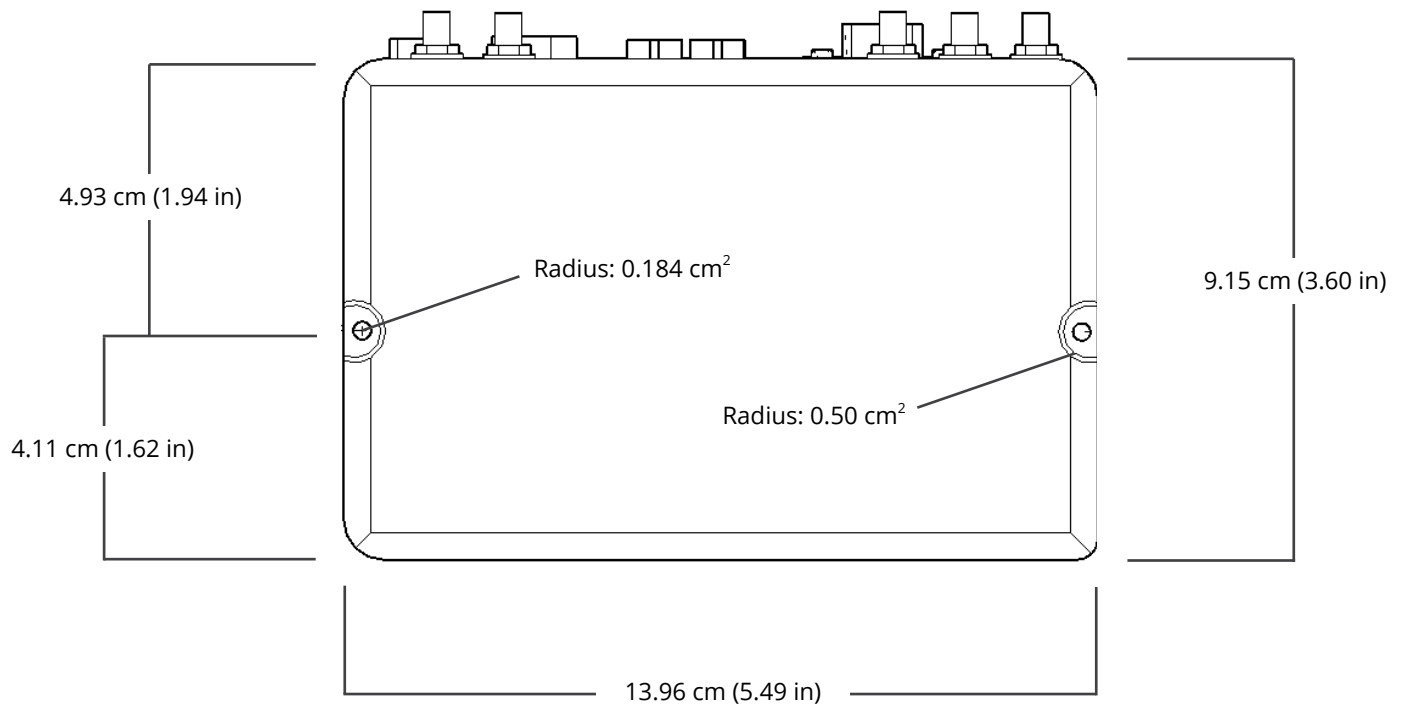**C4G Unit, Power Supply, All appropriate antennas, Quick Install Guide**

Accessories

C4G-PSU-US-H	Hardened PSU -40 to 75°C (-40 to 167°F) 12 VDC / 2 A with 4 pin Molex connector, 1.8m / 6ft cable and NA wall plug
C4G-GPS1ANT	GPS/GNSS (GPS, Galileo, Glonass, Beidou) Passive Antenna with 5m / 16ft cable SMA connector
C4G-WIFI2ANT	2 x Wi-Fi Antenna with RP-SMA direct attach connector
C4G-LTE2ANT	2 x LTE Antenna with SMA direct attach connector
C4G-4PIN-PT	Pigtail cable with 4 pin Molex connector, 3m / 10ft for GPIO and power.
C4G-8PIN-PT	Pigtail cable with 8 pin Molex connector, 3m / 10ft
C4G DIN	Universal DIN Rail Router Mount

Specifications

Main Features   +

Functionality	Bridging, Switching, Routing
Routing	IPv4/IPv6, Static Routing, RIP/RIPNg, NAT, OSPFv3, BGP-4, IPv6 Encapsulations (GRE, 6in4), Port Routing, RAW Connections
IP Applications	DDNS, DNS Proxy / Spoofing, DHCP / DHCPv6 server, relay, client, Opt. 82, NTP, SNTP
VPN & VLAN	IPSec, OpenVPN, VPN Failover, VLAN Access
Serial & I/O	RS232, RS485, PPP/SLIP, PPPoE
Diversity	Dual-SIM, Static Routing with Primary/ Backup route, VPN Failover
Firewall & Security	ACL (list & ranges & time); Filter based MAC, IP, Port, Protocol, User; Secure HTTP/HTTPS/FTP/Telnet Authentication Proxy; AAA, Radius, TACACS+, LDAP, 802.1x, Certificate Support (X.509), Port Forwarding, BGP Communities, Zone Firewall, 2 Factor Authentication
Logging, Reporting & Alerts	Sys Log, Event Type, Report Type, Alerts & Monitoring, Triggers Status Screen Report, Data Usage, Diagnostic
Management	PerleVIEW Management, SNMPv1/v2/v3, SMS Control, Load Balancing, CLI, LDAP, Login Banner, E-mail, Ping, Telnet, FTP
Ports	1, 2 or 4 Ethernet Giga, USB-C (5Gbps), RS232, RS485, I/O and I/O Vehicle Power Monitoring
Wireless LAN	802.11 a/b/g/n/ac Dual Band 2.4 / 5 GHz with speeds up to 867 Mbps
Cellular Options	America & EMEA LTE (up to CAT6 / 300 Mbps) and Worldwide LTE-A (up to CAT12 / 600Mbps) cellular card options
GNSS	GPS, Galileo, Glonass, Beidou

Environmental   +

Operating Temp.	-40°C to 70°C / -40°F to 158°F (MIL-STD-810G)
Operating Humidity	0% to 95% non-condensing
Operating Altitude	< 3000m / 10,000 ft
MTBF (Hours)	> 20 years (Calculation model based on MIL-HDBK-217-FN2 @ 30 °C)
Ingress Protection Rating	IP54 for the die cast aluminium enclosure

Power   +

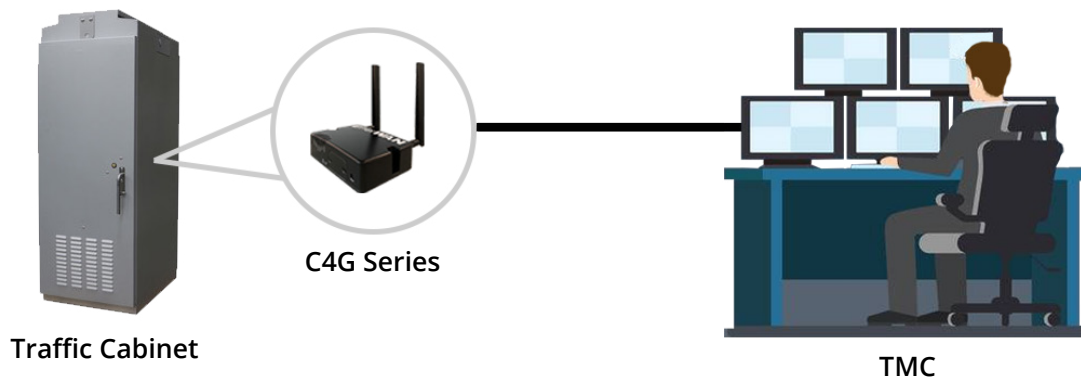|	
Power Input	12/24/48 VDC Nominal (9.6 to 60 VDC
Power Line Protection	Surge: 8KV (EN61000-4-5 common mode), 2KV (EN61000-4-5 differential and common modes)
Vehicle Power	Built-in protection against voltage transient includes: 5 VDC engine cranking and +200 VDC load dump

Regulatory Approvals   +

Hazloc	ATEX Class 1 Zone 2 ANSI/ISA 12.12.01, Class 1 Division 2 Groups A-D
Emissions	FCC 47 Part 15 Class B ICES-003 Issue 6 Class B (Canada) EN61000-6-4 (Emissions for industrial environments) CISPR 32:2015/EN 55032:2015 (Class B) EN61000-3-2 Limits for Harmonic Current Emissions EN61000-3-3 Limits of Voltage Fluctuations and Flicker
Immunity	EN55025, EN55035, EN 61000-4-2 (ESD), EN 61000-4-3 (RS), EN 61000-4-4 (EFT), EN 61000-4-5 (Surge), EN 61000-4-6 (CS), EN 61000-4-8 (PFMF), EN 61000-4-11, EN 61000-4-16, EN 61000-6-4, IEC/EN 61000-6-2 (General Immunity for Industrial Environments)
Electrical Safety	UL 61010-1 & UL 61010-2-201 & UL/ULC/ EN 62368-1 (including CB/CE) CAN/CSA C22.2 No. 62368-1-14
Environmental	Reach, RoHS and WEEE Compliant

Cellular   +

Cellular/Telecom Regulatory Approvals	FCC/ICES, RED, PTCRB/CTIA, CE
Carrier Certifications	Verizon, AT&T
Cellular / WWAN Radio Standards	EN 300 328, EN 301 893, EN 301 489-1, EN 301 489-17, EN 301 489-19, EN 301 489-52, EN 301 908-1, EN 301 908-2, EN 301 908-13, EN 301 511, EN 62311, EN61000-3-2, EN61000-3-3
Cellular / WWAN Radio Approvals	FCC 47 Part 15 Subpart B, Class B / ICES-003 Issue 6 Class B / FCC Part 15.247 Subpart C (2.4 Ghz) / FCC Part 15.407 Subpart E (5 Ghz) / ANSI C63.4

Miscellaneous   +

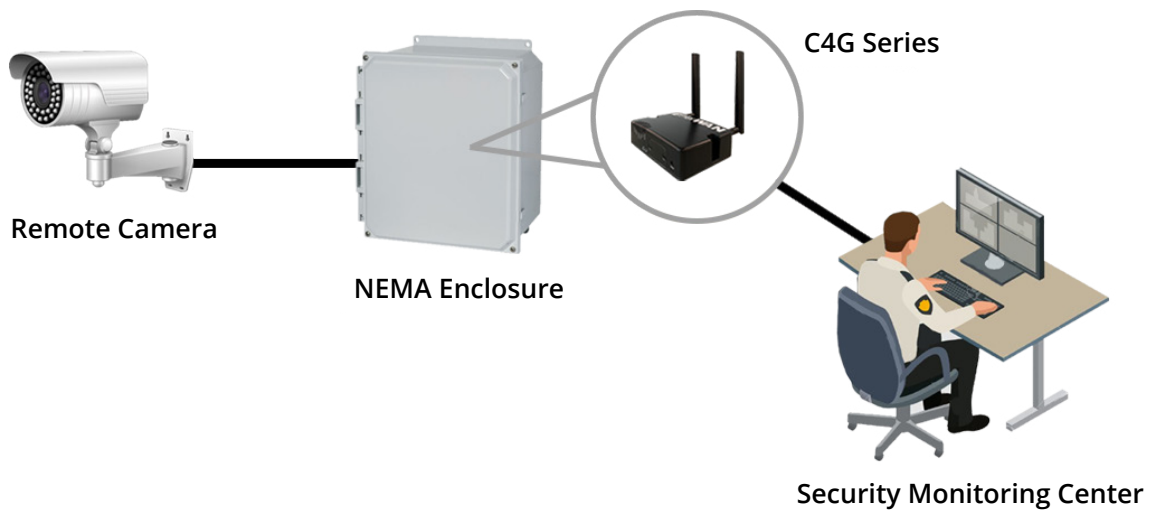|	
Vehicle Usage	E-Mark (UN ECE Regulation 10.04, ISO 7637-2)
Vehicle Velocity	Max 360km/h / 224 mph for sustainable cellular connectivity
Vibration, Mechanical & Thermal Shock	SAE J1455 & MIL-STD-810G
Railway	Euro: EN 50155/ EN 50121-1/ EN 50121-3-2/ EN 50121-4 & International IEC 60571/ IEC 62236-3-2/ IEC 62236-4

Dimensions

4.93 cm (1.94 in)

Radius: 0.184 cm^2

9.15 cm (3.60 in)

Radius: 0.50 cm^2

4.11 cm (1.62 in)

13.96 cm (5.49 in)

4.62 cm (1.82 in)

Applications

ITS (Intelligent Transportation Systems) Application

Traffic Cabinet

C4G Series

TMC

Security Application

Remote Camera

NEMA Enclosure

C4G Series

Security Monitoring Center

"Branch-in-a-Box" Application

Headquarters

Cell Tower

Pop-up store or branch location

3G/4G LTE up to 600Mbps or with VPN

C4G Series

Internet

LAN

POS

VoIP Phones

Printers

Wifi Laptops