

C4G Series

4G Cellular Router



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.
EtherWAN — **"When Connectivity is Crucial."**

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 2.4/5GHz with speeds up to 867Mbps

Cellular Options

America & EMEA LTE (up to CAT6/300Mbps) and Worldwide LTE-A (up to CAT12/600Mbps) cellular card options

GNSS

GPS, Galileo, Glonass, Beidou

+ Environmental

Operating Temp
-40 to 70°C/-40 to 158°F (MIL-STD-810G)

Operating Humidity
0% to 95% non-condensing

Operating Altitude
<3000m/10,000ft

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
12/24/48VDC Nominal (7 to 36 VDC Range)

Power Line Protection
Surge: 8kV (EN 61000-4-5 common mode), 2kV (EN 61000-4-5 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
EN 55025, EN 55035, 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 610006-2 (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, EN 61000-3-2, EN 610003-3

Cellular/WWAN Radio Approvals
FCC 47 Part 15 Subpart B, Class B/ICES-003 Issue 6 Class B/FCC Part 15.247 Subpart C (2.4Ghz)/FCC Part 15.407 Subpart E (5Ghz)/ANSI C63.4

+ Miscellaneous

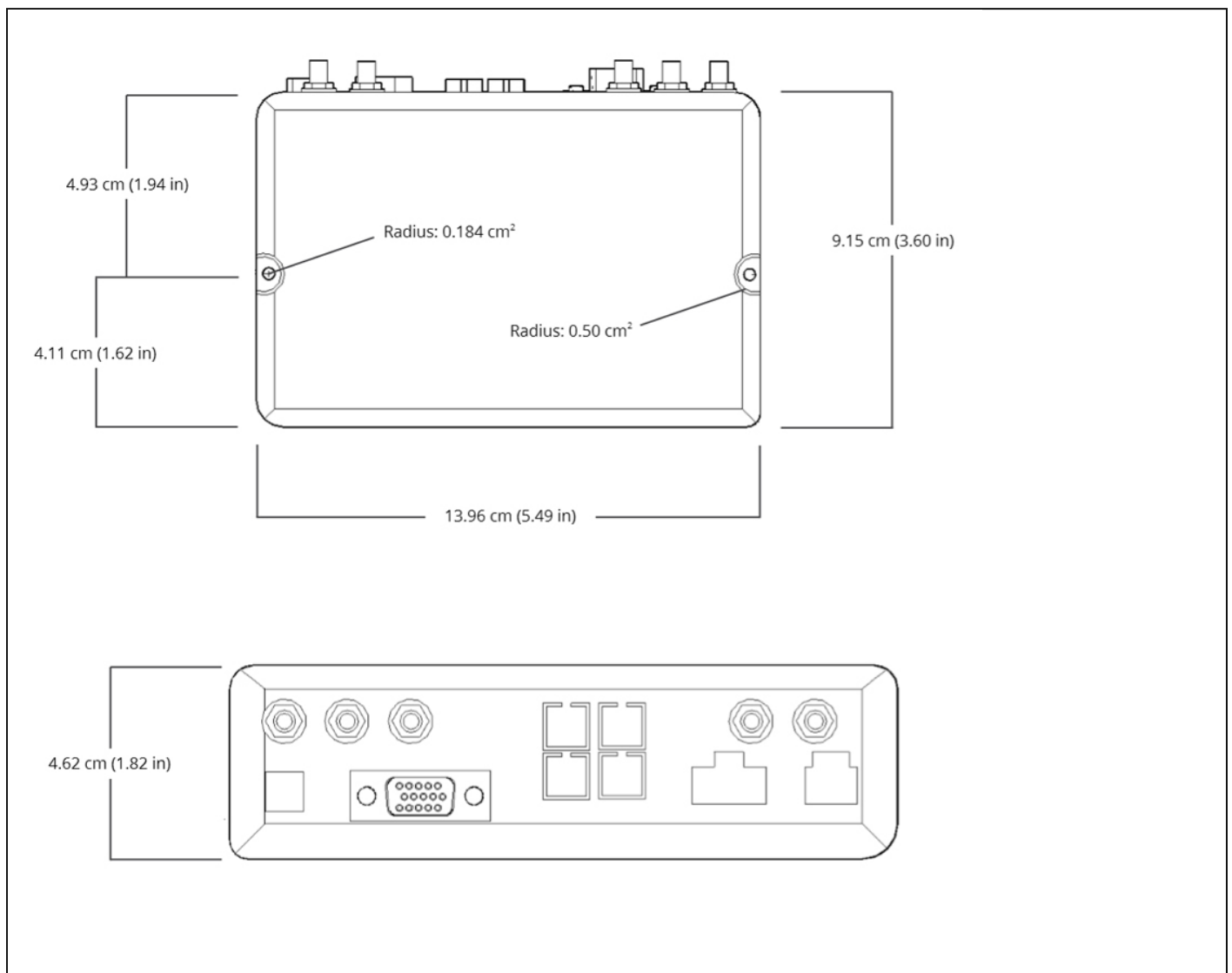
Vehicle Usage
E-Mark (UN ECE Regulation 10.04, ISO 7637-2)

Vehicle Velocity
Max 360km/h/224mph for sustainable cellular connectivity

Vibration, Mechanical & Thermal Shock
SAE J1455 & MIL-STD-810G

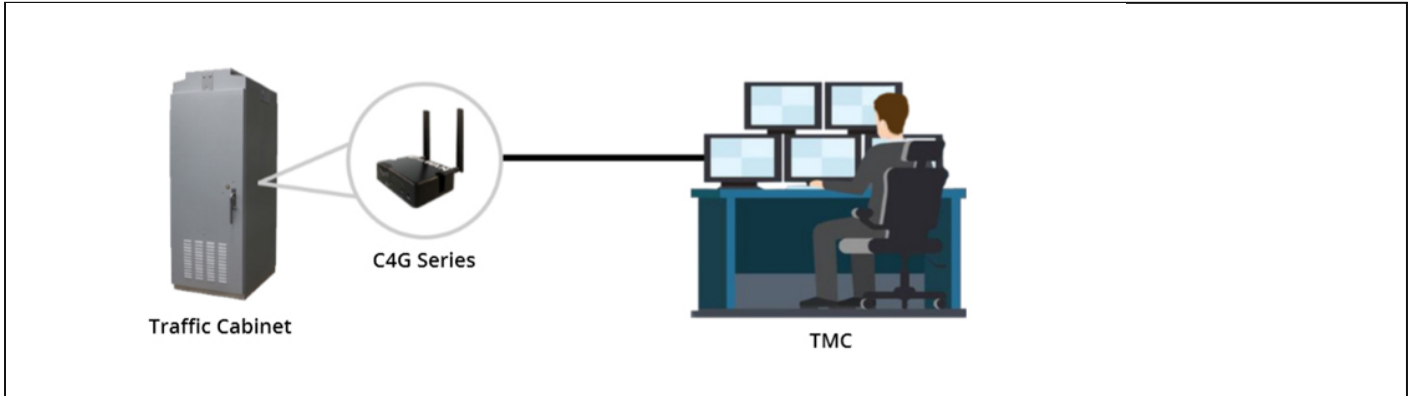
Railway
Euro: EN 50155/EN 50121-1/EN 50121-3-2/EN
50121-4 & International IEC 60571/IEC 62236-3-
2/IEC 62236-4

Dimensions

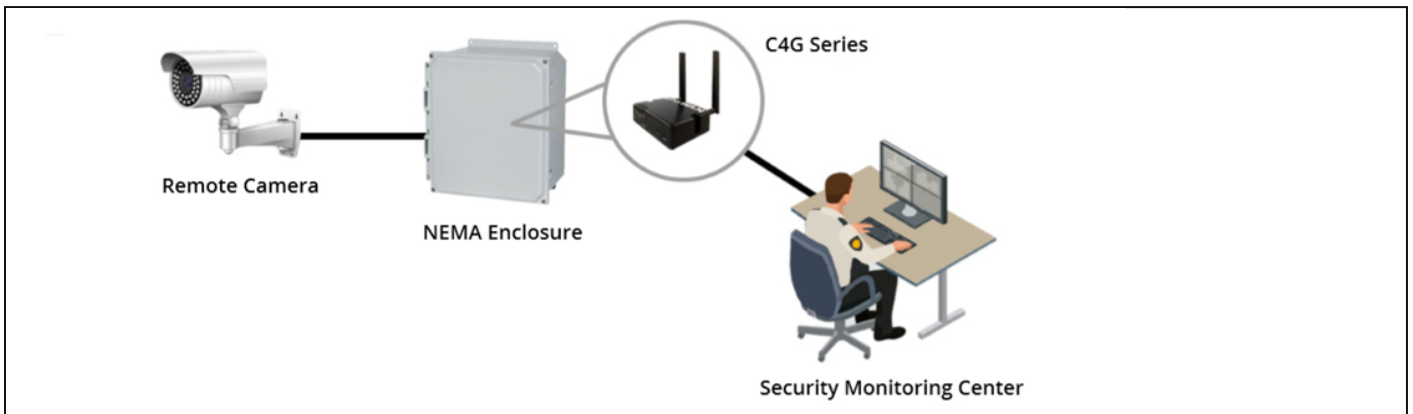


Application

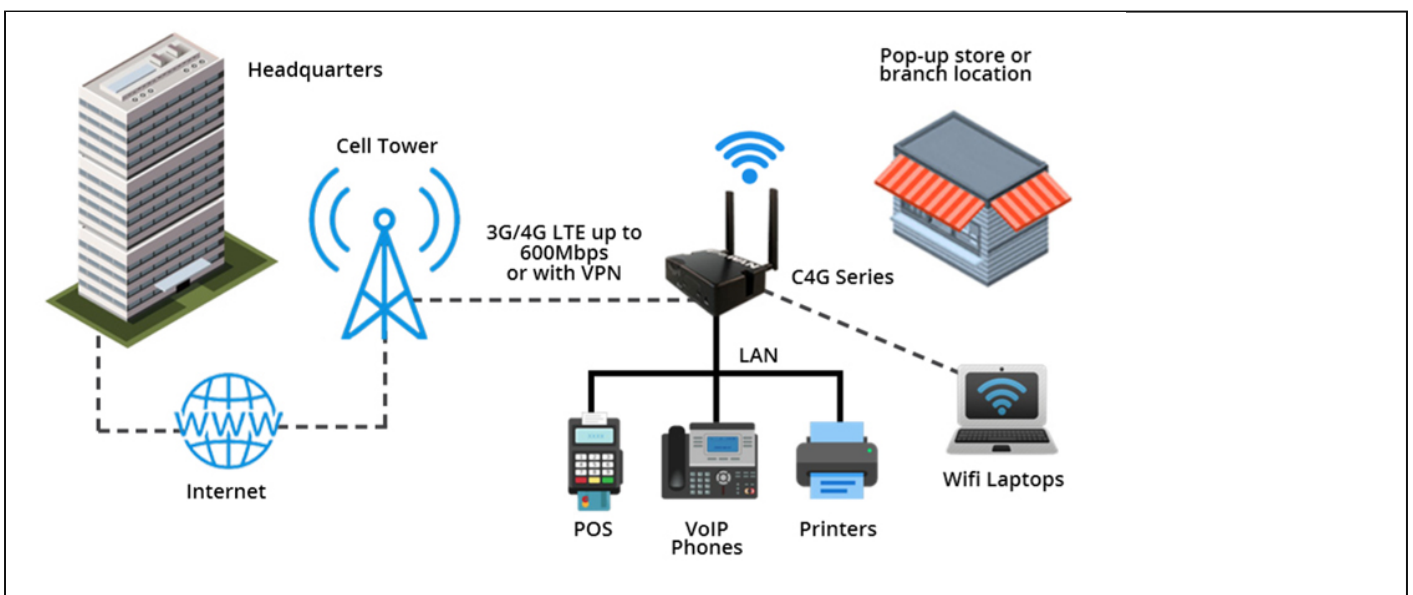
+ ITS (Intelligent Transportation Systems) Application



+ Security Application



+ "Branch-in-a-Box" Application



Ordering Info

+ Model

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 (2.4/5GHz), 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 (2.4/5GHz), 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 (2.4/5GHz), 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-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) 12VDC/2A 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
LTE2GPS1	Puck GPS/Cellular combination antenna - IP67 rated - Bolt-thru, magnetic, or adhesive mounts. 2 x LTE + 1 x GPS
LTE2W2GPS1	Puck GPS/Cellular combination antenna - IP67 rated - Bolt-thru, magnetic, or adhesive mounts. 2 x LTE + 2 x Dual Band Wi-Fi + 1 x GPS

360 Product Viewer

