CN-IMCG0101P-ER & CNGE2MCPOE.BT

Hardened 10/100/1000 PoE BT (90W) Media Converter with optional Remote Power Reset

The Comnet CN-IMCG0101P-ER & CNGE2MCPOE.BT Ethernet media converters transmit and receive 10/100/1000 Mbps data over optical fiber through user-selectable SFP options. They have power sourcing equipment (PSE) support for IEEE 802.3bt with up to 90 Watts of operating power to the remote powered device (PD). The copper interface Auto-Negotiates to 10, 100, or 1000 Mbps; the optical interface Auto-Negotiates at 1000 Mbps or can be set for Forced 1000 Mbps.

The CN-IMCG0101P-ER builds on the proven CNGE2MCPOE.BT hardened platform, adding **EdgeReset**™ — a software-enabled capability that lets authorized operators remotely power-cycle the connected PoE device. This can be completed while connected to the network via EdgeReset Gateway, or fully remotely via EdgeReset Console. No truck roll. No ladder climb. No site visit.

EdgeReset REMOTE POE RESET · -ER	**90W** POE.BT · PSE	**GIGABIT** 1 CH ETHERNET
SFP FLEXIBILITY	**TX ↔ FX** ELECTRICAL TO OPTICAL	**HARDENED** −40° TO +75°C

APPLICATIONS

- **Traffic & Transportation**
  Signal control, traffic cameras, highway monitoring — a direct NEMA TS-1/TS-2 & Caltrans match.
- **Utilities & Energy**
  Substation monitoring, pipeline sensors, remote sites where truck rolls are extremely costly.
- **Campus & Government**
  Federal & government sites where NDAA, TAA, and BABA compliance is mandated.
- **Public Safety**
  Municipal surveillance networks, license-plate readers, emergency communications infrastructure.
- **Smart City Infrastructure**
  Distributed IoT sensor networks, parking systems, environmental monitoring.
- **Industrial / Critical Infrastructure**
  Factory floors, port facilities, remote hardened-environment sites.

Key Features

- **EdgeReset**™ — remote, software-enabled power reset of the connected PoE device via the EdgeReset Gateway or Console app
  - Accessible from anywhere on the local network
  - Securely from anywhere in the world using EdgeReset Console
  - Resolves device lockups — the most common field malfunction — in seconds
  - Available on CN-IMCG0101P-ER only
- Redundant power supply input with 47V UVLO under-voltage lockout protection
- 10/100/1000BASE-T Ethernet to the network on an RJ45 connector
- Local summary alarm (Form C relay) & fail-safe pass-through interface
- Power, SFP-link, and Ethernet-link fault monitoring, DIP-switch selectable
- Voltage transient protection on all power and signal I/O lines
- No in-field optical adjustments required
- TAA, NDAA & BABA Compliant
- Made in the USA
- Limited Lifetime Warranty

Specifications

DATA	
DATA INTERFACE	Ethernet
DATA RATE	10/100/1000 Mbps IEEE 802.3bt Compliant Full or Half Duplex Operation
ELECTRICAL	90 W (Max)

EDGERESET™ / MANAGEMENT (CN-IMCG0101P-ER only)	
MANAGEMENT INTERFACE	Network-accessible via the Comnet EdgeReset software application; supports in-band and out-of-band management
RESET FUNCTION	Remote power-cycle of the connected Ethernet-port device (and any attached PoE PD), initiated by an authorized operator
AUTHENTICATION	Pairing-token based authentication
ACCESS CONTROL TIERS	Local network only — no Cloudflare tunnel (most secure) Cloudflare tunnel, same-network required (default) — HTTPS via named tunnel Cloudflare tunnel, remote access — HTTPS via named tunnel, no same-network requirement (most convenient)
PLATFORM	First-generation EdgeReset product; extends to future Comnet smart switches and converters, beginning with CN-IMCG0201P-ER

FIBERS	
FIBERS[1]	SFP Dependent
FIBER CONNECTORS	Requires Sold-Separately SFP Modules

CONNECTORS	
POWER	Terminal Block
RELAY	Terminal Block
OPTICAL	SFP Cage
ELECTRICAL	RJ45

POE	
POE PIN ASSIGNMENT	RJ45 supports IEEE 802.3bt Class 1–8 Positive pairs (VCC+): 3 & 6, 4 & 5 Negative pairs (VCC−): 1 & 2, 7 & 8

INDICATING LEDS	
INDICATING LEDS	SFP LEDs RJ45 LEDs LED Tower (Power & Status)

POWER	
NOMINAL OPERATING POWER	< 3 W
MAX OPERATING POWER (POE.BT)	90 W
OPERATING VOLTAGE	52–57 VDC

ELECTRICAL & MECHANICAL	
CURRENT PROTECTION	Automatic Resettable Solid-State Current Limiters
CIRCUIT BOARD	Meets IPC Standard
SIZE	4.2 × 3.8 × 1.1 in (10.5 × 9.7 × 2.8 cm)
SHIPPING WEIGHT	< 2 lb / 0.9 kg

ENVIRONMENTAL	
MTBF	> 100,000 Hours
OPERATING TEMP	−40 °C to +75 °C
STORAGE TEMP	−40 °C to +85 °C
RELATIVE HUMIDITY	0% to 95% (Non-Condensing)

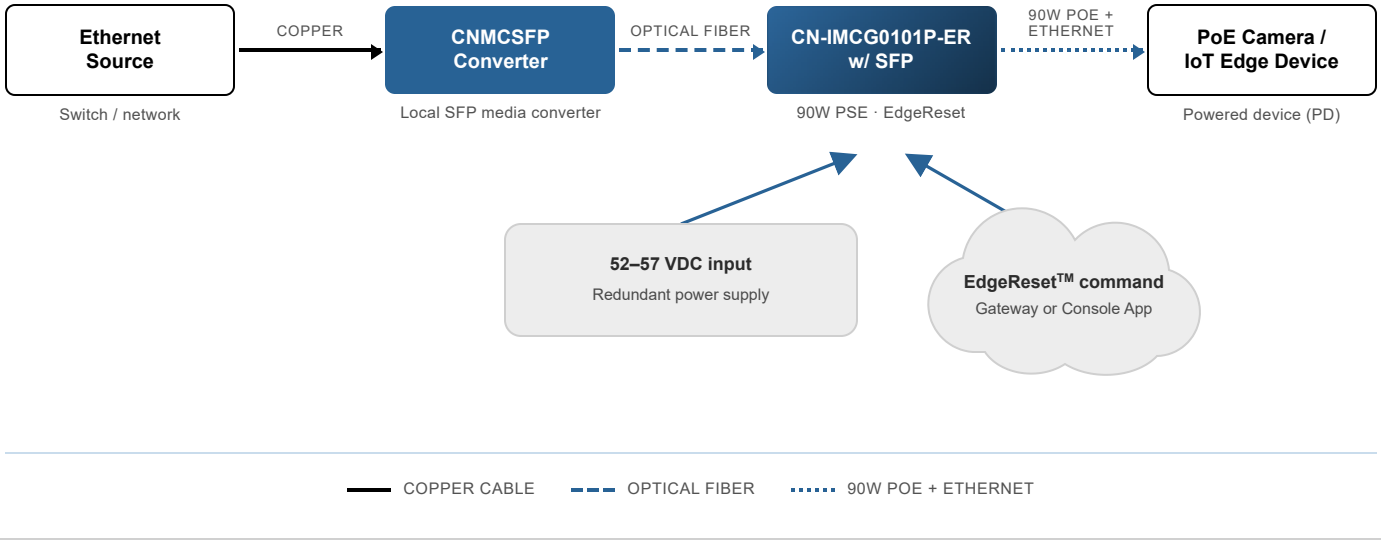
[1] Multimode fiber must meet or exceed ITU-T G.651. Single-mode fiber must meet or exceed ITU-T G.652.

Ordering Information

PART NUMBER	DESCRIPTION	OPTIONS
CN-IMCG0101P-ER	Smart hardened 2-port 10/100/1000 Mbps Ethernet-fiber media converter with 90W PoE.BT sourcing and **EdgeReset**™ remote power reset	1) Add suffix '/C' for conformally coated circuit boards to extend to condensation conditions (extra charge, consult factory) 2) DIN-rail mounting adapters: DINBKT1 or DINBKT4 3) Requires sold-separately SFP module (fiber type, distance, and connector dependent)
CNGE2MCPOE.BT	2-port 10/100/1000 Mbps Ethernet-fiber media converter with 90W PoE sourcing capabilities	1) Add suffix '/C' for conformally coated circuit boards 2) DIN-rail mounting adapters: DINBKT1 or DINBKT4 3) Requires sold-separately SFP module

NOTE: This product requires a fiber installation with a minimum 30 dB connector return loss. The use of Super Polish Connectors is recommended. Complies with the FDA Performance Standard for Laser Products, Title 21, CFR, Subchapter J. In a continuing effort to improve and advance technology, product specifications are subject to change without notice.

TYPICAL APPLICATION



COMPLIANCE

Agency

FCC PART 15 | CE | ROHS | UK CA

Procurement

TAA COMPLIANT | NDAA COMPLIANT | BABA COMPLIANT | MADE IN THE USA

EdgeReset and CN-IMCG0101P-ER are Patent Pending.