comnet
Communication Networks

CNGE2MC[M] & CNGE22MC

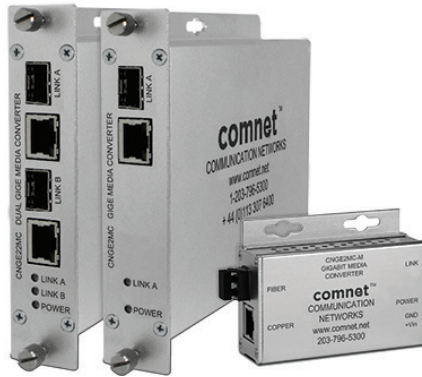| POWER SUPPLY	75° -40°	SFP	TX ↔ FX ELECTRICAL TO OPTICAL	GIGABIT ETHERNET
INCLUDED	HARDENED	FLEXIBILITY	CONVERTER	1 OR 2

The ComNet™ CNGE2MC and CNGE22MC are one-channel and two-channel, Gigabit Ethernet electrical to optical media converters. These auto-negotiating devices accept a 10/100/1000 Mbps electrical input and convert this to a 1000 Mbps (1Gbs) optical output. These units use ComNet SFPs* (small form-factor pluggable) modules for fiber and connector type, and distance. LED indicators confirm operational status. All models are environmentally hardened with no electrical or optical adjustments (Plug and Play). Packaged in the exclusive ComNet ComFit housing, the standard size units may be either wall or rack mounted. The CNGE2MCM is available in a small size package. The units are powered by an included 8-15VDC power supply.

FEATURES

› Lifetime Warranty

› Full-duplex transmission of 10/100/1000 Mbps Ethernet
  -10/100/1000 BASE-TX electrical port
  - 1000 BASE-FX optical port when used with suitable ComNet SFPs

› IEEE 802.3 compliant

› 10/100/1000 BASE-TX port supports auto-negotiation and automatic MDI/MDI-X crossover   for full and half-duplex operation

› Uses customer-installed ComNet SFPs for compatibility with a wide range of optical fibers, optical connector types, and optical transmission distances of up to 120 km (SFPs ordered separately)

› Designed for installation in harsh out-of-plant/ unconditioned industrial or roadside operating environments (-40° to +75°C ambient). Fully compliant with the environmental requirements of NEMA TS-2 for Traffic Signal Control Equipment

› Voltage transient protection on all power and signal input/ output line provide protection from voltage surges and other transient events

› CNGE2MC and CNGE22MC are packaged in the exclusive ComNet ComFit housing, and may be shelf, rack, or DIN-rail mounted, and are hot-swappable when rack-mounted

› The 4-port count of the CNGE22MC makes this unit ideal for those applications where rack density or shelf-space may be limited.

› Mini-package size of the CNGE2MC-M allows the unit to be installed in those locations where space is at a premium.

› LED status indicators for rapidly ascertaining the operating status of the media convertor and the link

› Made in the USA

APPLICATIONS

› Optical transmission of Ethernet-compatible industrial security access control systems, intercom systems, VOIP (Voice over IP) telephony networks, and IP-compatible CCTV camera surveillance networks

› Optical Ethernet transmission to wireless LAN access points

› Industrial Security, Transportation/ITS, and Industrial Control/Factory Automation IP Networks

› Optical transmission of any Ethernet-compatible equipment with a maximum data rate of 1000 Mbps

* Small Form-Factor Pluggable Module. Sold separately.

SPECIFICATIONS

Data

Data Interface	Ethernet
Data Rate	10/100/1000 Mbps
	IEEE 802.3 Compliant
	Full Duplex or Half Duplex Electrical Port/Full
	Duplex Optical Port

Fibers

SFP Dependent

Fiber Connectors[1]

Requires selection of sold-separately SFP modules. See ComNet data sheet for number and description of SFP modules

Connectors

Power	Terminal Block
Electrical	RJ45

Indicating LEDs

- Optical Link/Data Activity
- Power

Power

Operating Voltage Range	CNGE2MC[M]: 8–15 VDC
	CNGE22MC: 8–15 VDC
Power Consumption	CNGE2MC[M]: 6W CNGE22MC: 11W

Electrical & Mechanical

Current Protection	Automatic Resettable Solid-State Current Limiters
Circuit Board	Meets IPC Standard
Size	ComFit: 6.1 × 5.3 × 1.1 in (15.5 × 13.5 × 2.8 cm)
	Small Size: 3.3 x 2.5 x 1.1 in. (8.4 x 6.4 x 2.8 cm)
Shipping Weight	<2 lbs./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)[2]

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

AGENCY COMPLIANCE

FC PART 15 COMPLIANT | CE | c(UL)us E322911 | RoHS COMPLIANT | C N24621 | ⌫

MADE IN THE USA

ORDERING INFORMATION

Part Number	Description
CNGE2MC	2 Port (1 Channel) 10/100/1000 Mbps Ethernet Media Converter
CNGE2MCM	Small Size 2 Port (1 Channel) 10/100/1000 Mbps Ethernet Media Converter
CNGE22MC	4 Port (2 Channel) 10/100/1000 Mbps Ethernet Media Converter
Included	DC Plug-in Power Supply, 90-264 VAC, 50–60 Hz (Included)
Options	[2] Add suffix '/C' for Conformally Coated Circuit Boards to extend to condensation conditions (Extra charge, consult factory)
	DIN-Rail Mounting Adaptor Plate Kit - With Mounting Hardware (Optional, order model DINBKT1)

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 FDA Performance Standard for Laser Products, Title 21, Code of Federal Regulations, Subchapter J. In a continuing effort to improve and advance technology, product specifications are subject to change without notice.

TYPICAL APPLICATION

E ⟷ **CNGE2MC w/ SFP-6** ──o── **CNGE2MC w/ SFP-6** ⟷ E

LEGEND
—o— OPTICAL FIBER
——— CAT5

Low Power Consumption

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