

2 Ethernet channels over either 2 twisted pair or 2 coaxial cables using VDSL2 (EoVDSL) technology



Description

The ComNet™ CNFE2CL2MC is an environmentally hardened modem that supports two Ethernet channels over either two twisted pair or two coaxial cables using VDSL2 technology, at data rates of up to 90 Mbps. Ethernet data may be transmitted over a telephone-grade twisted copper pair, legacy serial cabling, or standard 75 ohm coaxial cable circuits, making this rugged unit ideal for those applications where it is desired to utilize an existing installed base of copper wiring for Ethernet transmission. These modems are the perfect solution for upgrading a legacy twisted copper or coaxial cable plant for use with Ethernet, when compared to the significant costs of installing new network cabling. The fastest usable data rate is automatically selected, depending upon the transmission distance and cable quality. Designed for long-term reliable operation in harsh industrial environments, the CNFE2CL2MC may be deployed in most out-of-plant installations, such as those found in intelligent transportation systems and factory automation/control applications. Packaged in the exclusive ComNet ComFit housing, these units may be either wall or rack-mounted, or may be DIN-rail mounted by the addition of ComNet model DINBKT1 adaptor plate. LED status indicators are provided for rapidly ascertaining the operating status of the modem and the link.

Applications

- Ethernet transmission over existing telephone-grade copper, serial or 75Ω coaxial cable circuits

Features

- **Utilizes latest VDSL2 technology for fastest data rate transmission and greatest transmission distance**
- **Ideal for multiple-channel Ethernet over VDSL2 applications where modem space may be limited**
- Supports transmission distances of up to 10,000 ft (3 km) over twisted copper, or up to 1500 ft (457 m) over coaxial cable
- Symmetric line rates of over 91 Mbps
- Automatically sets fastest possible data rate vs. cable quality and transmission distance
- User-configurable master/remote, forward error correction, asymmetrical/symmetrical data, and long-reach/short-reach selection
- IEEE 802.3 Compliant. 10/100 BASE-T/TX Ethernet port with automatic MDI/MDI-X crossover
- Screw Terminals for twisted copper circuits, or BNC connectors for coaxial cable
- Fully compliant with the environmental requirements (ambient operating temperature, mechanical shock, vibration, humidity with condensation, high-line/low-line voltage conditions, and voltage transient protection) of NEMA TS-1/TS-2 for Traffic Signal Control Equipment
- Voltage transient protection on all power and signal input/output lines provides protection from power surges and other voltage transient events.
- May be utilized as a stand-alone package, or may be mounted within the ComNet C1 Card Cage, and is fully hot-swappable
- Lifetime warranty



specifications

INTERFACE

Ethernet Port:

- Ethernet connector: (2) RJ45
- Cable: Cat 5, Cat 5e, Cat 6
- Data Rate: 10/100Mbps
- Distance: 100m (328ft)

Line Side Port 1 (Twisted Pair):

- UTP connector: (2) Screw Terminal Block
- Cable: Telephone-grade 19 to 26 AWG (one twisted pair)

Throughput:

	(Downstream	/	Upstream)
1000 ft (305 m)	70 Mbps	/	68 Mbps
2500 ft (762 m)	26 Mbps	/	17 Mbps
5000 ft (1524 m)	16 Mbps	/	1 Mbps
7500 ft (2286 m)	5 Mbps	/	0.5 Mbps
10,000 ft (3048 m)	1 Mbps	/	0.25 Mbps

Line Side Port 2 (75Ω Coax):

- Coaxial connector: (2) BNC
- Impedance: 75 ohm coax

Throughput:

	(Downstream	/	Upstream)
200 ft (61 m)	88 Mbps	/	95 Mbps
500 ft (152 m)	85 Mbps	/	93 Mbps
1000 ft (305 m)	83 Mbps	/	89 Mbps
1500 ft (500 m)	76 Mbps	/	83 Mbps

Faster data rates and greater transmission distances thru coaxial cable are possible, depending upon the type and quality of the coaxial cable utilized

USER-CONFIGURABLE SELECTION OF:

- Master/Remote Operation
- Symmetrical/Asymmetrical Data
- Forward Error Correction
- Long or Short Range operation for optimal BER (Bit Error Rate) performance

ELECTRICAL & MECHANICAL

Power:

- Stand Alone: 12–27 VAC @ < 320 mA or 12–27 VDC @ < 320 mA

Rack Mount:

- Number of Rack Slots: 1

Overload Protection:

- Automatic Resettable Solid-State Current Limiters Meets IPC Standard

Circuit Board:

SIZE (L×W×H)

- 6.1 × 5.3 × 1.1 in., (15.5 × 13.5 × 2.8 cm)

Shipping Weight:

- <2 lbs./0.9 kg

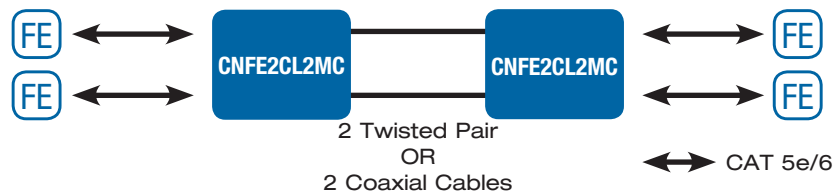
ENVIRONMENTAL

- 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)*

* May be extended to humidity with condensation conditions by adding suffix 'C'



PART NUMBER	DESCRIPTION	MEDIA REQUIRED	MAX. DISTANCE	# RACK SLOTS
CNFE2CL2MC	2 Ethernet Channels over 2 Twisted Pair or 2 Coax	See "Interface" Above	See "Interface" Above	1
Accessories	Plug-in Power Supply (Included)			
Options	Add 'C' for Conformally Coated Circuit Boards (Extra charge, consult factory) DIN-Rail Mounting Adaptor Plate Kit – With mounting hardware (Optional, order model DINBKT1)			



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