

# Ethernet over twisted pair or coaxial cable using VDSL2 (EoVDSL) technology

**CNFE1EOC-M** 









The ComNet™ CNFE1EOC-M modems support Ethernet over twisted pair or coaxial cable, 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 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. LED status indicators are provided for rapidly ascertaining the operating status of the modem and the link.

# **FEATURES**

- A ComNet ValueLine Product Lower price: designed for installation in benign (0 to +60° C) operating environments.
- Utilizes latest VDSL2 technology for fastest data rate transmission and greatest transmission distance
- › Ideal for multiple-channel Ethernet over VDSL 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/shortreach 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 connector for coaxial cable
- A smaller-sized package for stand-alone mounting only, for use in those applications where space may be limited
- > Five year warranty

#### **APPLICATIONS**

 $\Rightarrow$  Ethernet transmission over existing copper telephone-grade, serial or  $75\Omega$  coaxial cable

# Ethernet over twisted pair or coaxial cable using VDSL2 (EoVDSL) technology

# **SPECIFICATIONS**

#### Interface

Ethernet Port Ethernet connector RJ45

 Cable
 Cat 5, Cat 5e, Cat 6

 Data Rate
 10/100Mbps

 Distance
 100m (328ft)

#### Line Side Port 1 (Twisted Pair)

UTP connector 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 BNC 75 ohm coax Impedance (Downstream / Throughput Upstream) 88 Mbps 95 Mbps 200 ft (61 m) 500 ft (152 m) 85 Mbps 93 Mbps 1000 ft (305 m) 83 Mbps 89 Mbps 1500 ft (457 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

#### **Power**

Operating Voltage Range 12-27 VAC @ or 12-27 VDC

Power Consumption < 320 mA

#### **Electrical & Mechanical**

Overload Protection Automatic Resettable Solid-State Current Limiters

Circuit Board Meets IPC Standard

Size (L×W×H)

Mini  $4.1 \times 3.7 \times 1.1 \text{ in } (10.4 \times 9.4 \times 2.8 \text{ cm})$ Comfit  $6.1 \times 5.3 \times 1.1 \text{ in } (15.5 \times 13.5 \times 2.8 \text{ cm})$ 

Shipping Weight <2 lbs./0.9 kg

### Environmental

MTBF >100,000 hours Operating Temp  $0^{\circ}$  C to  $+60^{\circ}$  C Storage Temp  $-40^{\circ}$  C to  $+85^{\circ}$  C

Relative Humidity 0% to 95% (non-condensing)<sup>1</sup>









### ORDERING INFORMATION

	Part Number	Description
	CNFE1EOC-M	Ethernet over Twisted Pair or Coax, Small Size
	CNFE1EOC	Ethernet over Twisted Pair or Coax, ComFit Size
	Accesories	24 VAC Power Supply (included)
	Ontions	[1] Add suffix "C" for Conformally Coated Circuit Roards to extend to condensation conditions (Extra charge, consult factory)

# TYPICAL APPLICATION





