comnet
Communication Networks

CNFE100(*X*) SERIES

10/100 Mbps Ethernet 2 port media converter
1 Channel: Electrical ↔ Optical

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Description

The ComNet™ Ethernet 2 port media converters are designed to transmit and receive 10/100 Mbps data over multimode or single mode optical fiber. The electrical interface will Auto-Negotiate to a 10 Mbps, or 100 Mbps Ethernet rate without any adjustments. The optical interface operates at a 100 Mbps Ethernet rate. These media converters are environmentally hardened to operate in extreme temperatures. LED indicators are provided for rapidly ascertaining equipment operating status. Packaged in the exclusive ComNet ComFit housing, the standard size units may be either wall or rack-mounted, or may be DIN-rail mounted by the addition of ComNet model DINBKT1 adaptor plate.

Applications

- 10/100 Mbps Ethernet Media Converter
- High Speed Computer Links

Features

- 10/100 Mbps Ethernet
  - 10/100 BASE-T/TX electrical port
  - 100 BASE-FX optical port
- Electrical port supports Auto-Negotiation for 10 Mbps or 100 Mbps, full duplex or half duplex data.
- Optical port supports 100 Mbps full duplex data
- Automatic MDI/MDI-X crossover
- Distances up to: 3 km (2 miles) Multimode
  20 km (12 miles) Single Mode
- Transparent to data encoding/compatible with major data protocols
- Designed to meet full compliance with the environmental requirements (ambient operating temperature, mechanical shock, vibration, humidity with condensation, high-line/low-line voltage conditions and transient voltage protection) of NEMA TS-1/TS-2 and the Caltrans Specification for Traffic Signal Control Equipment.
- ST or SC optical connectors
- 1 or 2 fiber design
- AC or DC powered models
- Voltage transient protection on all power and signal input/output lines provides unconditional protection from power surges and other voltage transient events.
- No in-field optical adjustments required
- LED Indicators
- Standard size is hot-swappable rack module
- Standard size is interchangeable between stand-alone or rack mount use – ComFit
- IEEE 802.3 compliant
- Lifetime Warranty

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10/100 Mbps Ethernet 2 port media converter
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specifications

DATA

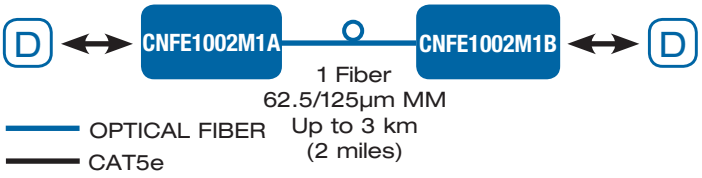
Data Interface:	Ethernet
Data Rate:	10/100 Mbps IEEE 802.3 Compliant Full Duplex or Half Duplex Electrical Port/ Full Duplex Optical Port

CONNECTORS

Optical:	ST or SC, 1 or 2 Fibers
Power:	Terminal Block
Electrical:	RJ45

LED INDICATORS

- Optical Link/Data Activity
- Electrical Link/Data Activity
- Power



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.

ELECTRICAL & MECHANICAL

Power:	
Standard Size:	8-24 VDC @ 220 mA From Rack
Mini:	8-15 VDC @ 220 mA
Mini AC/DC:	22-27 VAC @ 100mA or 8-24 VDC @ 220 mA
Number of Rack Slots (Standard Size):	1
Current Protection:	Automatic Resettable Solid-State Current Limiters
Circuit Board:	Meets IPC Standard
Size (in./cm) (L×W×H) :	
CNFE100(*X*)MC:	6.1 × 5.3 × 1.1 in., (15.5 × 13.5 × 2.8 cm)
CNFE100(*X*)MC-M:	3.3 × 2.5 × 1.1 in., (8.4 × 6.4 × 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 condensation conditions

AGENCY COMPLIANCE
PART 15 COMPLIANT · E322911 · N24621

MADE IN THE USA

ordering information

Standard Mount DC-only Media Converter

PART NUMBER	WAVELENGTH	CONNECTOR	FIBERS REQUIRED	FIBER	OPTICAL PWR BUDGET	MAX. DISTANCE	# RACK SLOTS
CNFE1002M1A	10/100 Mbps Ethernet (1310 nm)	ST	1	Multimode	10 dB	3 km (2 miles)	1
CNFE1002M1B	10/100 Mbps Ethernet (1550 nm)	ST	1	Multimode	10 dB	3 km (2 miles)	1
CNFE1002S1A	10/100 Mbps Ethernet (1310 nm)	ST	1	Singlemode	15 dB	20 km (12 miles)	1
CNFE1002S1B	10/100 Mbps Ethernet (1550 nm)	ST	1	Singlemode	15 dB	20 km (12 miles)	1
CNFE1003M2	10/100 Mbps Ethernet (1310 nm)	SC	2	Multimode	10 dB	3 km (2 miles)	1
CNFE1003S2	10/100 Mbps Ethernet (1310 nm)	SC	2	Singlemode	15 dB	20 km (12 miles)	1
CNFE1004M1A	10/100 Mbps Ethernet (1310 nm)	SC	1	Multimode	10 dB	3 km (2 miles)	1
CNFE1004M1B	10/100 Mbps Ethernet (1550 nm)	SC	1	Multimode	10 dB	3 km (2 miles)	1
CNFE1004S1A	10/100 Mbps Ethernet (1310 nm)	SC	1	Singlemode	15 dB	20 km (12 miles)	1
CNFE1004S1B	10/100 Mbps Ethernet (1550 nm)	SC	1	Singlemode	15 dB	20 km (12 miles)	1
CNFE1005M2	10/100 Mbps Ethernet (1310 nm)	ST	2	Multimode	10 dB	3 km (2 miles)	1
CNFE1005S2	10/100 Mbps Ethernet (1310 nm)	ST	2	Singlemode	15 dB	20 km (12 miles)	1

Accessories	9 Volt DC Plug-in Power Supply, 90-264 VAC, 50/60 Hz (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)

specifications

ordering information, cont'd

Mini DC-only Power Media Converter

PART NUMBER	WAVELENGTH	CONNECTOR	FIBERS REQUIRED	FIBER	OPTICAL PWR BUDGET	MAX. DISTANCE	# RACK SLOTS
CNFE1002M1A-M	10/100 Mbps Ethernet (1310 nm)	ST	1	Multimode	10 dB	3 km (2 miles)	N/A
CNFE1002M1B-M	10/100 Mbps Ethernet (1550 nm)	ST	1	Multimode	10 dB	3 km (2 miles)	N/A
CNFE1002S1A-M	10/100 Mbps Ethernet (1310 nm)	ST	1	Singlemode	15 dB	20 km (12 miles)	N/A
CNFE1002S1B-M	10/100 Mbps Ethernet (1550 nm)	ST	1	Singlemode	15 dB	20 km (12 miles)	N/A
CNFE1003M2-M	10/100 Mbps Ethernet (1310 nm)	SC	2	Multimode	10 dB	3 km (2 miles)	N/A
CNFE1003S2-M	10/100 Mbps Ethernet (1310 nm)	SC	2	Singlemode	15 dB	20 km (12 miles)	N/A
CNFE1004M1A-M	10/100 Mbps Ethernet (1310 nm)	SC	1	Multimode	10 dB	3 km (2 miles)	N/A
CNFE1004M1B-M	10/100 Mbps Ethernet (1550 nm)	SC	1	Multimode	10 dB	3 km (2 miles)	N/A
CNFE1004S1A-M	10/100 Mbps Ethernet (1310 nm)	SC	1	Singlemode	15 dB	20 km (12 miles)	N/A
CNFE1004S1B-M	10/100 Mbps Ethernet (1550 nm)	SC	1	Singlemode	15 dB	20 km (12 miles)	N/A
CNFE1005M2-M	10/100 Mbps Ethernet (1310 nm)	ST	2	Multimode	10 dB	3 km (2 miles)	N/A
CNFE1005S2-M	10/100 Mbps Ethernet (1310 nm)	ST	2	Singlemode	15 dB	20 km (12 miles)	N/A

Accessories	9 Volt DC Plug-in Power Supply, 90-264 VAC, 50/60 Hz (Included)
Options	Add suffix '/C' for Conformally Coated Circuit Boards (Extra charge, consult factory)

Mini AC/DC Power Media Converter

PART NUMBER	WAVELENGTH	CONNECTOR	FIBERS REQUIRED	FIBER	OPTICAL PWR BUDGET	MAX. DISTANCE	# RACK SLOTS
CNFE1002MAC1A-M	10/100 Mbps Ethernet (1310 nm)	ST	1	Multimode	10 dB	3 km (2 miles)	N/A
CNFE1002MAC1B-M	10/100 Mbps Ethernet (1550 nm)	ST	1	Multimode	10 dB	3 km (2 miles)	N/A
CNFE1002SAC1A-M	10/100 Mbps Ethernet (1310 nm)	ST	1	Singlemode	15 dB	20 km (12 miles)	N/A
CNFE1002SAC1B-M	10/100 Mbps Ethernet (1550 nm)	ST	1	Singlemode	15 dB	20 km (12 miles)	N/A
CNFE1003MAC2-M	10/100 Mbps Ethernet (1310 nm)	SC	2	Multimode	10 dB	3 km (2 miles)	N/A
CNFE1003SAC2-M	10/100 Mbps Ethernet (1310 nm)	SC	2	Singlemode	15 dB	20 km (12 miles)	N/A
CNFE1004MAC1A-M	10/100 Mbps Ethernet (1310 nm)	SC	1	Multimode	10 dB	3 km (2 miles)	N/A
CNFE1004MAC1B-M	10/100 Mbps Ethernet (1550 nm)	SC	1	Multimode	10 dB	3 km (2 miles)	N/A
CNFE1004SAC1A-M	10/100 Mbps Ethernet (1310 nm)	SC	1	Singlemode	15 dB	20 km (12 miles)	N/A
CNFE1004SAC1B-M	10/100 Mbps Ethernet (1550 nm)	SC	1	Singlemode	15 dB	20 km (12 miles)	N/A
CNFE1005MAC2-M	10/100 Mbps Ethernet (1310 nm)	ST	2	Multimode	10 dB	3 km (2 miles)	N/A
CNFE1005SAC2-M	10/100 Mbps Ethernet (1310 nm)	ST	2	Singlemode	15 dB	20 km (12 miles)	N/A

Accessories	9 Volt DC Plug-in Power Supply, 90-264 VAC, 50/60 Hz (Included)
Options	Add suffix '/C' for Conformally Coated Circuit Boards (Extra charge, consult factory)

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