10/100 Mbps Ethernet Electrical To Optical Media Converter

CNFE100(X) Series

The ComNet Ethernet CNFE100X media converter series are one-channel Ethernet electrical to optical media converters. These auto-negotiating devices accept a 10/100 Mbps electrical input and convert this to a 100 Mbps optical output. This series of media converters use multimode and single-mode optical fiber and one and two fiber SC and ST optical connectors. 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. Models within the series are also available in a small size. The units are powered by an included DC power supply.

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 mi) Multimode
20 km (12 mi) Single Mode

› Transparent to data encoding/compatible with major data protocols

› Tested and certified by an independent laboratory for 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 CALTRANS Traffic Signal Control Equipment Specifications

› ST or SC optical connectors

› 1 or 2 fiber design

› AC/DC powered

› Voltage transient protection on all power and signal input/output lines provides 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

APPLICATIONS

› 10/100 Mbps Ethernet Media Converter

› High Speed Computer Links

SPECIFICATIONS

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

Power

Operating Voltage Range	Mini AC: 22 to 27 VAC
	Mini DC: 8 to 24 VDC
	Standard: 8 to 24 VDC
Power Consumption	3W
Current Protection	Automatic Resettable Solid-State Current Limiters

Electrical & Mechanical

LED Indicators	Optical Link/Data Activity
	Electrical Link/Data Activity
	Power
Circuit Board	Meets IPC Standard
Size (L×W×H)	ComFit: 6.1 × 5.3 × 1.1 in (15.5 × 13.5 × 2.8 cm)
	Mini: 3.3 × 2.5 × 1.1 in (8.4 × 6.4 × 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]

[1] May be extended to humidity with condensation conditions by adding suffix '/C'

AGENCY COMPLIANCE

FC PART 15 COMPLIANT CE cULus RoHS

MADE IN THE USA

TYPICAL APPLICATION

ORDERING INFORMATION – Standard Mount DC-Only Media Converter

Part Number	Description	Connector	Fibers	Cable	Optical Pwr Budget	Max Distance[2]	# Rack Slots
CNFE1002M1A	10/100 Mbps Ethernet 1310/1550nm	ST	1	Multimode	10 dB	3 km (2 mi)	1
CNFE1002M1B	10/100 Mbps Ethernet 1550/1310nm	ST	1	Multimode	10 dB	3 km (2 mi)	1
CNFE1002S1A	10/100 Mbps Ethernet 1310/1550nm	ST	1	Singlemode	15 dB	20 km (12 mi)	1
CNFE1002S1B	10/100 Mbps Ethernet 1550/1310nm	ST	1	Singlemode	15 dB	20 km (12 mi)	1
CNFE1003M2	10/100 Mbps Ethernet 1310nm	SC	2	Multimode	10 dB	3 km (2 mi)	1
CNFE1003S2	10/100 Mbps Ethernet 1310nm	SC	2	Singlemode	15 dB	20 km (12 mi)	1
CNFE1004M1A	10/100 Mbps Ethernet 1310/1550nm	SC	1	Multimode	10 dB	3 km (2 mi)	1
CNFE1004M1B	10/100 Mbps Ethernet 1550/1310nm	SC	1	Multimode	10 dB	3 km (2 mi)	1
CNFE1004S1A	10/100 Mbps Ethernet 1310/1550nm	SC	1	Singlemode	15 dB	20 km (12 mi)	1
CNFE1004S1B	10/100 Mbps Ethernet 1550/1310nm	SC	1	Singlemode	15 dB	20 km (12 mi)	1
CNFE1005M2	10/100 Mbps Ethernet 1310nm	ST	2	Multimode	10 dB	3 km (2 mi)	1
CNFE1005S2	10/100 Mbps Ethernet 1310nm	ST	2	Singlemode	15 dB	20 km (12 mi)	1

Options [1] 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 or DINBKT4)

ORDERING INFORMATION – Mini AC/DC Power Media Converter

Part Number	Description	Connector	Fibers	Cable	Optical Pwr Budget	Max Distance[2]	# Rack Slots
CNFE1002MAC1A-M	10/100 Mbps Ethernet 1310/1550nm	ST	1	Multimode	10 dB	3 km (2 miles)	N/A
CNFE1002MAC1B-M	10/100 Mbps Ethernet 1550/1310nm	ST	1	Multimode	10 dB	3 km (2 miles)	N/A
CNFE1002SAC1A-M	10/100 Mbps Ethernet 1310/1550nm	ST	1	Singlemode	15 dB	20 km (12 miles)	N/A
CNFE1002SAC1B-M	10/100 Mbps Ethernet 1550/1310nm	ST	1	Singlemode	15 dB	20 km (12 miles)	N/A
CNFE1003MAC2-M	10/100 Mbps Ethernet 1310nm	SC	2	Multimode	10 dB	3 km (2 miles)	N/A
CNFE1003SAC2-M	10/100 Mbps Ethernet 1310nm	SC	2	Singlemode	15 dB	20 km (12 miles)	N/A
CNFE1004MAC1A-M	10/100 Mbps Ethernet 1310/1550nm	SC	1	Multimode	10 dB	3 km (2 miles)	N/A
CNFE1004MAC1B-M	10/100 Mbps Ethernet 1550/1310nm	SC	1	Multimode	10 dB	3 km (2 miles)	N/A
CNFE1004SAC1A-M	10/100 Mbps Ethernet 1310/1550nm	SC	1	Singlemode	15 dB	20 km (12 miles)	N/A
CNFE1004SAC1B-M	10/100 Mbps Ethernet 1550/1310nm	SC	1	Singlemode	15 dB	20 km (12 miles)	N/A
CNFE1005MAC2-M	10/100 Mbps Ethernet 1310nm	ST	2	Multimode	10 dB	3 km (2 miles)	N/A
CNFE1005SAC2-M	10/100 Mbps Ethernet 1310nm	ST	2	Singlemode	15 dB	20 km (12 miles)	N/A

Options [1] 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 or DINBKT4)

[2] Optical transmission distance is limited to optical loss of the fiber and any additional loss introduced by connectors, splices and patch panels. Distance can also be limited by fiber bandwidth.

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.

Low Power Consumption

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