

## **Small Form-Factor Pluggable Copper Range Extender Module**

## **CL-SFP**







The ComNet<sup>™</sup> CopperLine<sup>®</sup> CL-SFP is a small form-factor pluggable Ethernet extender module that improves bandwidth and distance of existing copper networks. It helps avoid installation costs of new fiber lines on site by allowing full 10 Mbps or 100 Mbps Ethernet bandwidth to be extended over 2-wire twisted pair or coaxial cable.

Housed in a small form-factor pluggable (SFP) module enclosure, it is designed for plug-and-play installation into any 100BASE-FX Ethernet unit with an MSA-compliant port. These must be used in pairs, with a CL-SFP module installed at both ends of the connection, or a CopperLine unit installed at one end.

#### **FEATURES**

- > Extends Ethernet up to 3,000 feet (914 m) at 10 Mbps or 1,000 feet (305 m) at 100 Mbps over 1 pair UTP cable.
- > Extends Ethernet up to 5,000 feet (1,524 m) at 10 Mbps or 2,000 feet (610 m) at 100 Mbps over Coaxial cable using the optional CLRJ2COAX adapter.
- › Automatic local/remote device selection ensures ultimate flexibility and ease of use.
- > Small Form-Factor Pluggable (SFP) module can be plugged into any Ethernet switch with SFP ports that support 100BASE-FX\*
- > 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**
- Lifetime Warranty

#### **APPLICATIONS**

- > Retrofit existing analog CCTV installations to Ethernet-based systems
- > CCTV systems for Casinos, airports, school campuses

Please contact ComNet technical support before purchasing this product if you intend to use it with any other 3rd party manufacturer in order to check compatibility.

<sup>\*</sup> The ComNet Copperline CL-SFP modules are fully compatible with all ComNet Ethernet products supporting 100BASE-FX SFP modules. The modules cannot be used in ports that only support 1000BASE-FX SFP modules.

# Small Form-Factor Pluggable Copper Range Extender Module

## **INSTALLATION & OPERATION**

CL-SFP is a book-end solution that can work only with an additional CL-SFP or ComNet™ CopperLine® unit.

Follow the instructions below to install and connect CL-SFP:

Plug one of the two CL-SFP into the 100BASE-FX SFP slot of a device/switch. Repeat this step for the second CL-SFP in the pair.

#### Connection

Connect CL-SFP devices using a twisted 2-wire cable (use pins 1 & 2) or Coax

Always connect CL-SFP to another CL-SFP device or a ComNet<sup>™</sup> CopperLine<sup>®</sup> unit. If an CL-SFP was connected to a regular port of any Ethernet device, such as a switch, reset the CL-SFP by unplugging and re-inserting the unit.

Link synchronization may take up to one minute.

#### LED Indicators Use 100BaseTX LED on the host



Distance figures are obtained using in-house testing mirroring installations. Factors such as coaxial and copper cable quality, the number of connectors and splices in the cable run, and environmental conditions encountered within the installation might affect the actual transmission distance and should be taken into consideration.

## **SPECIFICATIONS**

#### Interface

Туре	100BaseTX
Connector	SFP / MSA Compliant
Connectors	RJ-45
Data Rate	10 or 100 Mbps
Mechanical	
Operating Voltage	3.3 V
Power Consumption	1 W Max
Dimensions (H x W x L)	0.48 × 0.55 × 2.91 in (12.4 × 14.0 × 74.1 mm)
Weight	1.06 oz (30.0 g)
Environmental	

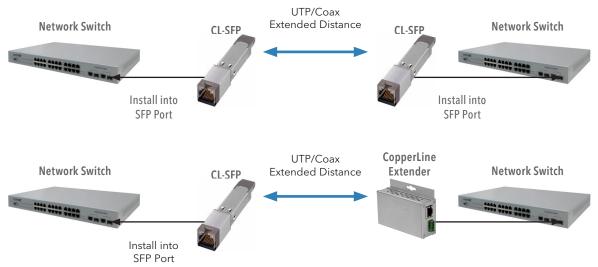
#### Environmental

Operating Temp	-40°C to +75°C
Storage Temp	-40°C to +85°C
Relative Humidity	0 to 90%, non-condensing

## ORDERING INFORMATION

# Part NumberDescriptionCL-SFP110 Mbps Copper Range Extending SFPCL-SFP3100 Mbps Copper Range Extending SFPCLRJ2COAXAdapter for RJ-45 to COAXCLESPSingle Port Ethernet Surge ProtectorOptional AccessoriesRJ-45 Breakout Wiring Kit (Includes cable and terminal block)

## TYPICAL APPLICATION



#### *E* Low Power Consumption

Communication Networks. All Rights Reserved. "ComNet" and the "ComNet Logo" are registered trademarks of Communication Networks.