

# CopperLink™ Ethernet Extender

Model CL1212E



*Achieving symmetrical line rates greater than 168 Mbps over a single twisted-pair or Cat 5e/6/7 cable, Patton's CopperLink™ 1212E Ethernet Extender is the fastest CopperLink™ ever.*

## Ethernet Extension

Extend 10/100Base-TX Ethernet well beyond its 328-foot (100-meter) limitation over a single unshielded twisted pair (UTP), Cat 5e/6/7 cable.

## Operates Over Twisted Pair

Realize fiber-optic speeds without the expense—and hassle—of installing new cables or line-of-sight wireless circuits.

## Plug and Play

Set these units up straight out of the box. No configuration is required. Auto-sensing 10/100 Ethernet ports support full or half duplex operation.

## Multiple Line Rates Supported

Switch-selectable rate mode options optimize rate and reach for the noise environment, wire gauge/type and length.

## Transparent LAN Bridging

Bypass network configuration requirements by transparently passing all higher layer protocols—including 802.1Q VLAN frames (tagged and untagged).

## Typical Application: Extending Ethernet over Cat 5+ or UTP

Combining data flows from up to four network-enabled devices onto a single twisted pair or coax cable, the Model 1212E can deliver IP traffic up to 1.8 miles (3 km) away—well beyond the standard 328-foot (100-meter) Ethernet distance limitation.

With achievable line rates up to 168 Mbps, the CopperLink 1212E eliminates the bandwidth constraints commonly experienced with other copper-based transmission technologies. The Model 1212E is engineered to re-use existing infrastructure previously employed in legacy applications including alarm circuits, E1/T1 circuits, RS-232, RS-422, RS-485, CCTV and CATV. Many newer cabling standards are also supported, including Cat 5e, Cat 6 and Cat 7.

A built-in 2-port Ethernet switch makes the CopperLink Model 1212E ideal for delivering simultaneous connectivity to more than one IP enabled device such as a laptop, a motion sensor, or even a few high resolution IP video cameras—all over a single twisted-pair!

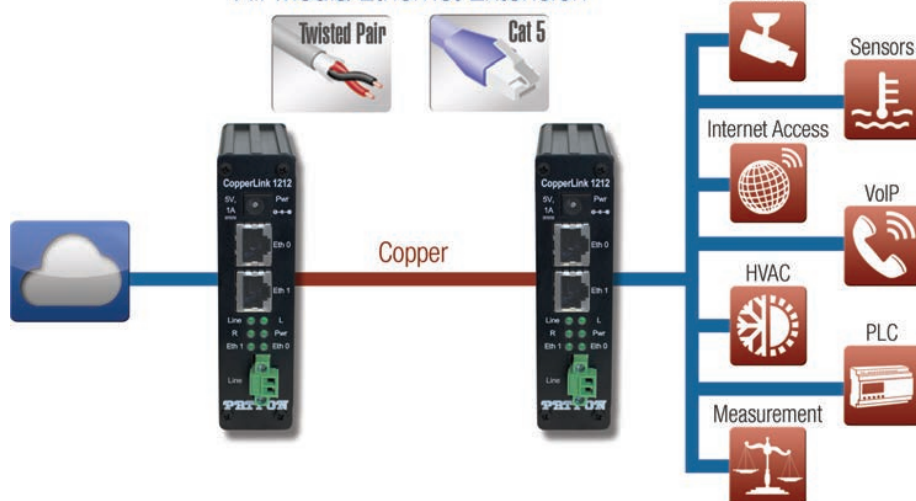


Product shown using optional DIN Rail Installation Kit

## Compatible Patton CopperLink™ Models



## All-Media Ethernet Extension



**PATTON**  
Let's Connect!™

# CopperLink™ Model CL1212E Ethernet Extender

## Specifications\*

### CopperLink Line Interface

- RJ-45 (pin 4 = ring; pin 5 = tip)
- BNC 75  $\Omega$  coax
- Terminal block, 2 position

### CopperLink Line Modulation

DMT (Discrete Multi-Tone)

### Ethernet Interface (x2)

8-position, shielded RJ-45. Auto-sensing 10/100Base-TX with half or full duplex operation.

Model 1211E has one 10/100Base-TX port.

### Protocol

**Transparent to high layer protocols:** supports 802.1Q VLAN tagged or untagged frames.

### Transparent to IP Video

**schemes:** fully transparent to such compression schemes as MPEG-4, H.264, and MJPEG.

### Target SNR Modes

6 dB and 9 dB

### Management

8-position DIP switch

### Monitoring

6 LEDs display the following status:

- *Pwr* (Power)
- *Line*
- *Eth* (Ethernet) 0 and *Eth* 1
- *R* (Remote)
- *L* (Local)

### Power Supply

**External AC:** 100–240 VAC

### Compliance

FCC Part 15A, CE Mark, EMC Directive 89/336/EEC, Low-Voltage Directive 73/23/EEC

### Environment

**Temperature:** -4 to 158°F (-20 to 70°C)

**Humidity:** 5 to 85%, condensing

### Dimensions

1.18 W x 4.28 H x 3.36 D inch (30.2 W x 108.7 H x 85.3 D mm)

### Weight

1 lb 6 oz (623.7 g)

### MTBF

77,000 hours

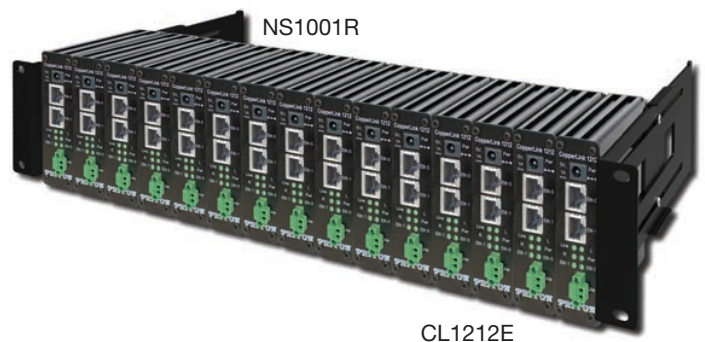
## Rate and Reach

Long Range Asymmetrical		
Length feet (m/km)	Mbps	
	Downstream	Upstream
250 (76 m)	67	16
1,000 (305 m)	59	16
2,000 (610 m)	45	11
3,000 (914 m)	31	5
5,000 (1.5 km)	17	682 kbps
10,000 (3 km)	4	263 kbps

High Speed Asymmetrical		
Length feet (m/km)	Mbps	
	Downstream	Upstream
250 (76 m)	168	95
1,000 (305 m)	126	54
2,000 (610 m)	60	21
3,000 (914 m)	42	6
3,500 (1 km)	35	1

High Speed Symmetrical		
Length feet (m/km)	Mbps	
	Downstream	Upstream
250 (76 m)	121	144
1,000 (305 m)	73	103
2,000 (610 m)	45	37
3,000 (914 m)	30	10
3,500 (1 km)	16	4

## Rack Mount Available



07MCL1212E-DS3

Patton is a registered trademark, and is a trademark of Patton Electronics Company in the United States and other countries.

\* Specifications subject to change without notice.