

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

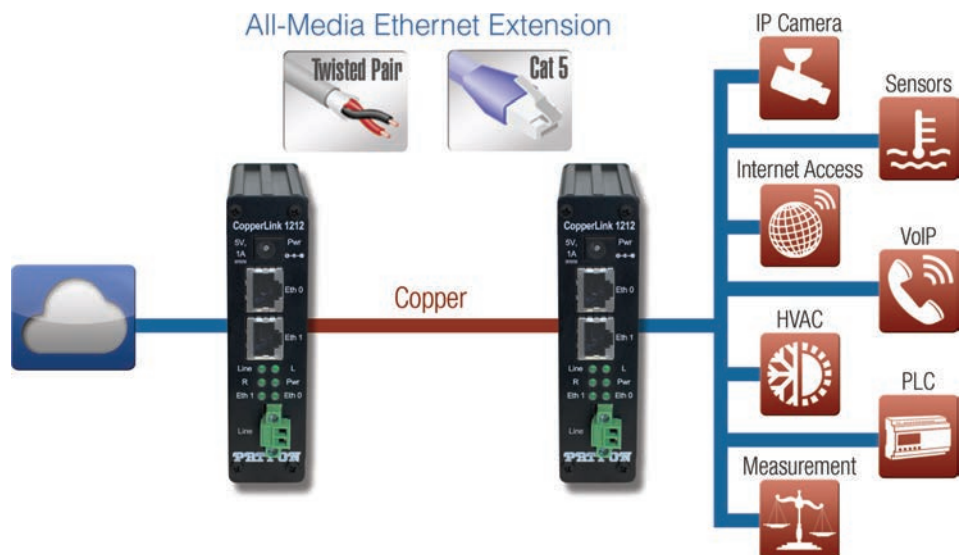
Bypass network configuration requirements by transparently passing all higher layer protocols—including 802.1Q VLAN frames (tagged and untagged).

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!



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Specifications*

CopperLink Line Interface

- RJ-45 (pin 4 = ring; pin 5 = tip)
- BNC 75 Ω 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

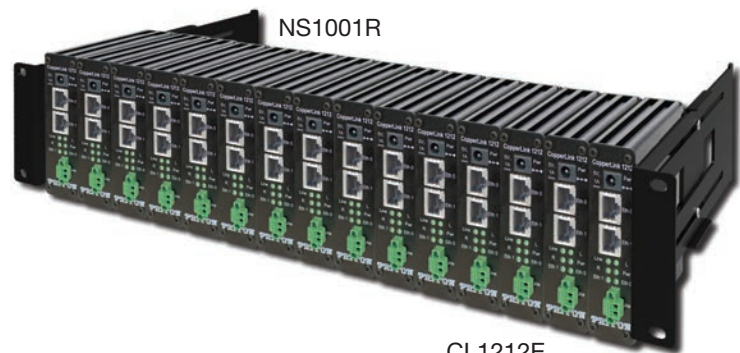
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* Specifications subject to change without notice.