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High Speed Ethernet Extenders

CopperLink CL1212E Industrial Grade Ultra-High-Speed Copper Ethernet Extender | 168 Mbps Downstream



CopperLink

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.

Overview

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

Features

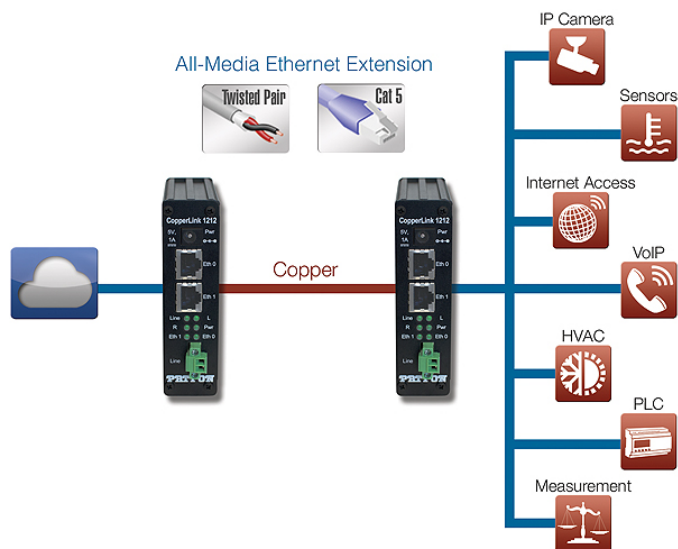
- **Ethernet Extension**—Extend 10/100Base-TX Ethernet well beyond its 328-foot (100-meter) limitation over a single unshielded twisted pair (UTP), Cat 5e/6/7 cable.
- **Operates Over Twisted Pair**—Realize fiber-optic speeds without the expense—and hassle—of installing new cables or line-of-sight wireless 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

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!

A single-port version, the CopperLink Model CL1211E (available by special order) is ideal for applications requiring the enhanced security of a single Ethernet port.

Applications

Typical Application: Extending Ethernet over Cat 5+ or UTP



passing all higher layer protocols—including 802.1Q VLAN frames (tagged and untagged).

- **Made in the USA** — This Patton equipment is designed by Patton engineers and built in our Gaithersburg, Maryland facility. Patton's American-made manufacturing process delivers high-quality networking solutions with reliability you can trust.

Specifications

CopperLink Line Interface	<ul style="list-style-type: none">• RJ-45 (pin 4 = ring; pin 5 = tip)• BNC 75-ohm 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 status for the following: <ul style="list-style-type: none">• <i>Pwr</i> (Power)• <i>Line</i>• <i>Eth</i> (Ethernet) 0 & <i>Eth</i> 1• <i>R</i> (Remote)• <i>L</i> (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	<ul style="list-style-type: none">• 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

Specifications: Rate and Reach

Long Range Asymmetrical

High Speed Asymmetrical

High Speed Symmetrical

Long Range Asymmetrical

Length
feet (m/km)

Downstream

Mbps

Upstream

250 (76m)	67	16
1000 (305m)	59	16
2000 (610m)	45	11
3000 (914m)	31	5
5000 (1.5km)	17	682 kbps
10,000 (3km)	4	263 kbps

High Speed Asymmetrical


Length feet (m/km)	Mbps	
	Downstream	Upstream
250 (76m)	168	95
1000 (305m)	126	54
2000 (610m)	60	21
3000 (914m)	42	6
3500 (1km)	35	1

High Speed Symmetrical

Length feet (m/km)	Mbps	
	Downstream	Upstream
250 (76m)	121	144
1000 (305m)	73	103
2000 (610m)	45	37
3000 (914m)	30	10
3500 (1km)	16	4

Ordering

#	Model #	Description	Availability
1	CL1211E/EUI-2PK	Extended Temperature CopperLink High Speed Auto Rate Extender Kit (Local and Remote); 1 x 10/100BaseTX; RJ45 Line Connector; 100-240VAC	General Availability

 Accessories

2	CL1211E/TB/EUI-2PK	Extended Temperature CopperLink High Speed Auto Rate Extender Kit (Local and Remote); 1 x 10/100BaseTX; Terminal Block Line Connector; 100-240VAC	General Availability
	+ Accessories		
3	CL1211E/TB-SKD	Ethernet Extender, PCB Sub Assembly, Terminal Block Line; 1 x 10/100; No Power Supply	General Availability
4	CL1211E-SKD	Ethernet Extender, PCB Sub Assembly, RJ45 Line; 1 x 10/100; No Power Supply	General Availability
5	CL1212E/CC/EUI	Extended Temperature CopperLink High Speed Auto Rate Extender; 2 x 10/100BaseTX; RJ45 Line Connector; Conformal Coated; 100-240VAC	General Availability
	+ Accessories		
6	CL1212E/CC/EUI-2PK	Extended Temperature CopperLink High Speed Auto Rate Extender Kit; 2 x 10/100BaseTX; RJ45 Line Connector; Conformal Coated; 100-240VAC	General Availability
	+ Accessories		
7	CL1212E/EUI	Extended Temperature CopperLink High Speed Auto Rate Extender; 2 x 10/100BaseTX; RJ45 Line Connector; 100-240VAC	General Availability
	+ Accessories		
8	CL1212E/EUI-2PK	Extended Temperature CopperLink High Speed Auto Rate Extender Kit (Local and Remote); 2 x 10/100BaseTX; RJ45 Line Connector; 100-240VAC	General Availability
	+ Accessories		
9	CL1212E/TB/CC/EUI	Extended Temperature CopperLink High Speed Auto Rate Extender; 2 x 10/100BaseTX; Terminal Block Line Connector; Conformal Coated; 100-240VAC	General Availability
	+ Accessories		
10	CL1212E/TB/EUI	Extended Temperature CopperLink High Speed Auto Rate Extender; 2 x 10/100BaseTX; Terminal Block Line Connector; 100-240VAC	General Availability
	+ Accessories		
11	CL1212E/TB/EUI-2PK	Extended Temperature CopperLink High Speed Auto Rate Extender Kit (Local and Remote); 2 x 10/100BaseTX; Terminal Block Line Connector; 100-240VAC	General Availability
	+ Accessories		
12	CL1212E/TB-SKD	Ethernet Extender, PCB Sub Assembly, Terminal Block Line; 2 x 10/100; No Power Supply	General Availability
13	CL1212E-SKD	Ethernet Extender, PCB Sub Assembly, RJ45 Line; 2 x 10/100; No Power Supply	General Availability

Item Number

Item Description

Price

SVC-SmartCare-BH (/support/support.asp)	Premium Support for Business Hours	Contact us (/howtobuy/) for availability and pricing.
SVC-SmartCare-24/7 (/support/support.asp)	Premium Support, 24 x 7 Coverage	Contact us (/howtobuy/) for availability and pricing.
SVC-SmartAssist-BH (/support/support-professional.asp)	Business Hour Support Services	Contact us (/howtobuy/) for availability and pricing.
SVC-SmartAssist-AH (/support/support-professional.asp)	After Hours Support Services	Contact us (/howtobuy/) for availability and pricing.
SVC-ENHWAR1 (/support/support-warranty.asp)	1 Year Enhanced Warranty	Contact us (/howtobuy/) for availability and pricing.
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SVC-ENHWAR5 (/support/support-warranty.asp)	5 Year Enhanced Warranty	Contact us (/howtobuy/) for availability and pricing.
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SVC-EXTWAR5 (/support/support-warranty.asp)	5 Year Extended Warranty	Contact us (/howtobuy/) for availability and pricing.
SVC-NETENG-HOUR (/support/support-professional.asp)	Network technician hour rate for pre-config services, after hours support, etc.	Contact us (/howtobuy/) for availability and pricing.

Related Products

CopperLink 1212
(/products/product_detail.asp?id=516)

Ultra-High-Speed Copper Dual-Port Ethernet Extender | 168 Mbps Downstream

Backgrounders

FiberPlex Capabilities Guide
(/backgrounders/FiberPlex_Capabilities_Statement.pdf)

October 6, 2017

Certifications

Patton Devices Not Vulnerable to Meltdown and Spectre Side-Channels Attacks
(/certifications/Patton-Meltdown-Spectre-Statement.pdf)

January 4, 2018

Data Sheets

CopperLink™ 1212E Datasheet (/datasheet/CL1212E_datasheet.pdf) September 13, 2017

Patton Product Life Cycle Color Codes (/datasheet/Life-Cycle-Availability-Codes.pdf) April 24, 2015

Product & Solution Guides

Ethernet Extenders Product Guide (/guides/07METHEXT-PG.pdf) September 28, 2016

CopperLink EMV-Compliant Dispensers Solutions Guide (/guides/07MCL1200-GS-SOL.pdf) February 24, 2016

User Manuals & Configuration Guides

CopperLink™ Model 1212E Ethernet Extender User Manual (/manuals/CL1211E-CL1212E-UM.pdf) March 13, 2020

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- > Ethernet Over Fiber (/products/network-connectivity/#23)
- > Multiplexers & Sharing Devices (/products/network-connectivity/#12)
- > Fiber Telecom (T1/E1/PRI, Analog and ISDN) (/products/network-connectivity/#28)
- > Pro AV Live and Media Broadcast Fiber Systems (/products/network-connectivity/#29)
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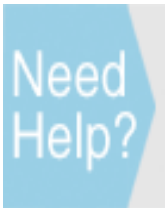
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