

Products (/products/) > Network Access (/products/network-access/) > Copper Ethernet Extenders (/products/network-access/#6) > High Speed Ethernet Extenders (/products/network-access/#6) > CopperLink CL1212E

[View Printable \(/products/product\\_detail.asp?id=517&v=print\)](/products/product_detail.asp?id=517&v=print)

# High Speed Ethernet Extenders

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



*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

## 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.

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.

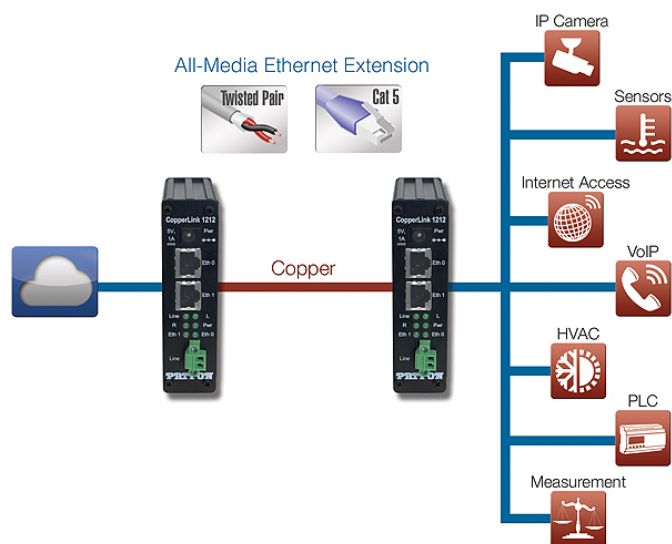
A built-in 2-port Ethernet switch makes the CopperLink Model 1212E ideal for delivering simultaneous connectivity to more than one IP enabled device such as a laptop, a motion sensor, or even a few high resolution IP video cameras—all over a single twisted-pair!

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.

- **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).
- **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.

## Applications

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



# Specifications

<b>CopperLink Line Interface</b>	<ul style="list-style-type: none"><li>• RJ-45 (pin 4 = ring; pin 5 = tip)</li><li>• BNC 75-ohm coax</li><li>• Terminal block, 2 position</li></ul>
<b>CopperLink Line Modulation</b>	DMT (Discrete Multi-Tone)
<b>Ethernet Interface (x2)</b>	8-position, shielded RJ-45. Auto-sensing 10/100Base-TX with half or full duplex operation. Model 1211E has one 10/100Base-TX port.
<b>Protocol</b>	<b>Transparent to high layer protocols:</b> supports 802.1Q VLAN tagged or untagged frames. <b>Transparent to IP Video schemes:</b> fully transparent to such compression schemes as MPEG-4, H.264, and MJPEG.
<b>Target SNR Modes</b>	6 dB and 9 dB
<b>Management</b>	8-position DIP switch
<b>Monitoring</b>	6 LEDs display status for the following: <ul style="list-style-type: none"><li>• <i>Pwr</i> (Power)</li><li>• <i>Line</i></li><li>• <i>Eth</i> (Ethernet) 0 &amp; <i>Eth</i> 1</li><li>• <i>R</i> (Remote)</li><li>• <i>L</i> (Local)</li></ul>
<b>Power Supply</b>	<b>External AC:</b> 100–240 VAC
<b>Compliance</b>	FCC Part 15A, CE Mark, EMC Directive 89/336/EEC, Low-Voltage Directive 73/23/EEC
<b>Environment</b>	<ul style="list-style-type: none"><li>• <b>Temperature:</b> -4 to 158°F (-20 to 70°C)</li><li>• <b>Humidity:</b> 5 to 85%, condensing</li></ul>
<b>Dimensions</b>	1.18 W x 4.28 H x 3.36 D inch (30.2 W x 108.7 H x 85.3 D mm)
<b>Weight</b>	1 lb 6 oz (623.7 g)
<b>MTBF</b>	77,000 hours

## Specifications: Rate and Reach

Long Range Asymmetrical

High Speed Asymmetrical

## High Speed Symmetrical

Length feet (m/km)	Mbps	
	Downstream	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

## 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. Contact us (/howtobuy/) for availability and pricing. Contact us (/howtobuy/) for availability and pricing.
SVC-ENHWAR2 (/support/support-warranty.asp)	2 Year Enhanced Warranty	Contact us (/howtobuy/) for availability and pricing. Contact us (/howtobuy/) for availability and pricing. Contact us (/howtobuy/) for availability and pricing.
SVC-ENHWAR3 (/support/support-warranty.asp)	3 Year Enhanced Warranty	Contact us (/howtobuy/) for availability and pricing. Contact us (/howtobuy/) for availability and pricing. Contact us (/howtobuy/) for availability and pricing.
SVC-ENHWAR4 (/support/support-warranty.asp)	4 Year Enhanced Warranty	Contact us (/howtobuy/) for availability and pricing. Contact us (/howtobuy/) for availability and pricing. Contact us (/howtobuy/) for availability and pricing.
SVC-ENHWAR5 (/support/support-warranty.asp)	5 Year Enhanced Warranty	Contact us (/howtobuy/) for availability and pricing. Contact us (/howtobuy/) for availability and pricing. Contact us (/howtobuy/) for availability and pricing.
SVC-EXTWAR2 (/support/support-warranty.asp)	2 Year Extended Warranty	Contact us (/howtobuy/) for availability and pricing. Contact us (/howtobuy/) for availability and pricing. Contact us (/howtobuy/) for availability and pricing.
SVC-EXTWAR3 (/support/support-warranty.asp)	3 Year Extended Warranty	Contact us (/howtobuy/) for availability and pricing. Contact us (/howtobuy/) for availability and pricing. Contact us (/howtobuy/) for availability and pricing.
SVC-EXTWAR4 (/support/support-warranty.asp)	4 Year Extended Warranty	Contact us (/howtobuy/) for availability and pricing. Contact us (/howtobuy/) for availability and pricing. Contact us (/howtobuy/) for availability and pricing.
SVC-EXTWAR5 (/support/support-warranty.asp)	5 Year Extended Warranty	Contact us (/howtobuy/) for availability and pricing. Contact us (/howtobuy/) for availability and pricing. 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
--	----------------

## Products

(/products/)  
Unified Communications > Line Drivers /  
 > VoIP Gateways (/voip- Connectivity Short Range



## Company (/company/)

- > Contact Us (/company/contact-us.asp)
- > About Patton (/company/about.asp)
- > Jobs (/company/careers/)
- > Capabilities (/products/special/services.asp)
- > Quality & Responsibility (/company/environment/)
- > Legal (/legal/)

### News & Events

- > Press Room/Releases (/press/)
- > Training & Events (/training/)
- > Library/Downloads (/resources/)

## Partners & Resources

### (/partners/)

- > Partner Programs (/partners/)
- > Resources (/resources/)
- > Blog (<https://blog.patton.com>)

### gateway/#products)

- > VoIP Routers (/voip-router/#products)
- > VoIP IADs (/voip-iad/#products)
- > SIP eSBCs (/session-border-controller/#products)
- > VoIP Appliances (/ip-pbx/#products)
- > SS7 Media Gateways (/ss7-gateway/#products)

### Software and Cloud

- > Virtual SBC (/virtual-sbc/#products)
- > Virtual Access Router (/virtual-access-router/#products)
- > VPN Server (/vpn-server/#products)
- > IPv6 to IPv4 Network Gateway (/network-gateway/#products)
- > Intelligent Edge Orchestration (/intelligent-edge-orchestration/#products)
- > NFV & SDN (/nfv/#products)

### Network Access

- > Ethernet Extenders (/ethernet-extender/#products)
- > PoE Products (/poe/#products)
- > xDSL Products (/xdsl/#products)

### Modems

- (/products/net-connectivity/#products)
- > Fiber Serial DataCom (RS-232/422/530/100) (/products/net-connectivity/#products)
- > Ethernet Over Fiber (/products/net-connectivity/#products)
- > Multiplexers & Sharing Device (/products/net-connectivity/#products)
- > Fiber Telecon (T1/E1/PRI, Analog and ISDN) (/products/net-connectivity/#products)
- > Pro AV Live and Media Broadcast Fiber Systems (/products/net-connectivity/#products)
- > SFP (Small Form-factor Pluggable) Modules and Kits (/products/net-connectivity/#products)
- > Fiber Alarm Notification, Recording and Control (/products/net-connectivity/#products)
- > Other Network Extenders

> Routers  
(/router/#products)  
> Dial-Up Access (/dial-up/#products)

Sunset Products  
(/products/sunset-products.asp).

(/products/net-connectivity/#:  
> Defense/Security  
Fiber  
Communications  
(/products/net-connectivity/#:  
> Baluns  
(/products/net-connectivity/#:  
> Surge Protection  
Opto-Isolators  
(/products/net-connectivity/#:  
> DataTaps, Test  
Adapters, Rack  
(/products/net-connectivity/#:  
> Interface  
Converters  
(/products/net-connectivity/#:  
> Fiber Rack and  
Enclosure Systems  
(/products/net-connectivity/#:  
> Fiber Repeaters  
and Wavelength  
Division  
Multiplexers (Wavelength)  
(/products/net-connectivity/#:  
> Waveguide Routers  
Filters  
(/products/net-connectivity/#:

## Support & Services (/support/)

- > Support Home (/support/)
- > Support Portal (/support/#portal)
- > Premium Support (/support/support.asp)
- > Software Upgrades (/support/upgrades/)
- > Warranty Services (/support/support-warranty.asp)
- > Returns & RMAs (/returns/)
- > Manuals (/manuals/)

## Special Projects Group (SPG) (/products/special)

- > SPG Home (/products/special/)
- > Services & Capabilities (/products/special/services.asp)
- > Projects (/products/special/projects.asp)
- > Facilities (/products/special/facilities.asp)



Select your country ▼

Sales: sales@patton.com  
(mailto:sales@patton.com) / +1 301 975 1000

Support: support@patton.com  
(mailto:support@patton.com) / +1 301 975 1007

## Join Our Email List

sue.chu@icomtechinc.com

Subscribe

## Have Us Contact You

sue.chu@icomtechinc.com or Phone Number

Submit

## Connect With Us



(https://twitter.com/pattonconnect)





(https://www.linkedin.com/companies/patton-electronics)





(https://www.facebook.com/pattonconnect)

Copyright © 2001–2020 Patton Electronics Co.,  
All Rights Reserved.

| Sitemap (/company/sitemap.asp) | Legal  
(/legal/) | Privacy Policy (/legal/privacy.asp) |  
Disclaimer (/legal/terms-conditions.asp) | 

(https://twitter.com/pattonconnect)   
(https://www.facebook.com/PattonElectronics)

  
(https://www.youtube.com/user/pattonelectronic:

  
(https://www.linkedin.com/companies/patton-  
electronics)  (/news.rss)