High Speed Ethernet Extenders

CopperLink CL1214 Ultra-High-Speed Multi-Port Copper Ethernet Extender | 168 Mbps Downstream

Achieving downstream line rates up to 168 Mbps over single twisted-pair, Cat 5e/6/7 or coaxial cable, Patton's CopperLink™ Model 1214 Ultra-High-Speed Ethernet Extender is the fastest CopperLink™ ever.

Overview

Perfect for bandwidth-intensive applications the CL1214 delivers off-the-chart symmetrical line rates greater than 100 Mbps. Best of all—like all CopperLink™ products—the CL1214 leverages existing copper infrastructure to deliver high speed Ethernet connectivity over voice-grade twisted pair, Cat 5e/6/7, and—new to the CopperLink™ line—coaxial cabling.

Four user-selectable configuration profiles—combined with Patton's auto-rate adaptation feature—ensure maximum achievable symmetrical or asymmetrical rates for the installed noise environment, wire gauge/type and length.

Symmetrical line-rate settings are ideal for such applications as remote LAN extension, video teleconferencing, and data backhaul. Asymmetrical configurations are well-suited for applications requiring higher downstream speeds and/or longer distances between Ethernet devices. Typical symmetrical scenarios include medical imaging, livestock monitoring, underwater video, internet gaming, and transporting high-resolution IP video from security cameras.

Realize fiber-like speed and distance without the expense of fiber with Patton's Ultra-High-Speed CopperLink™ Ethernet Extenders.

Applications

Workgroup Ethernet Extension Application

A built-in 4-port Ethernet switch makes the CopperLink Model 1214 ideal for delivering multiple IP information streams over a single cable. For example, at a guardhouse or security kiosk, you could aggregate IP data from a laptop, a motion sensor, and two high resolution IP video cameras for simultaneous transmission over a single Ethernet connection.

Combining data flows from up to four network-enabled devices onto a single twisted pair or coax cable, the CL1214 can deliver IP traffic up to 4,250 ft (1295 m) away—well beyond the standard 328-foot (100-meter) Ethernet distance limitation.

With achievable line rates up to 100 Mbps, the CopperLink 1214 eliminates the bandwidth constraints commonly experienced with other copper-based transmission technologies. The Model 1214 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.
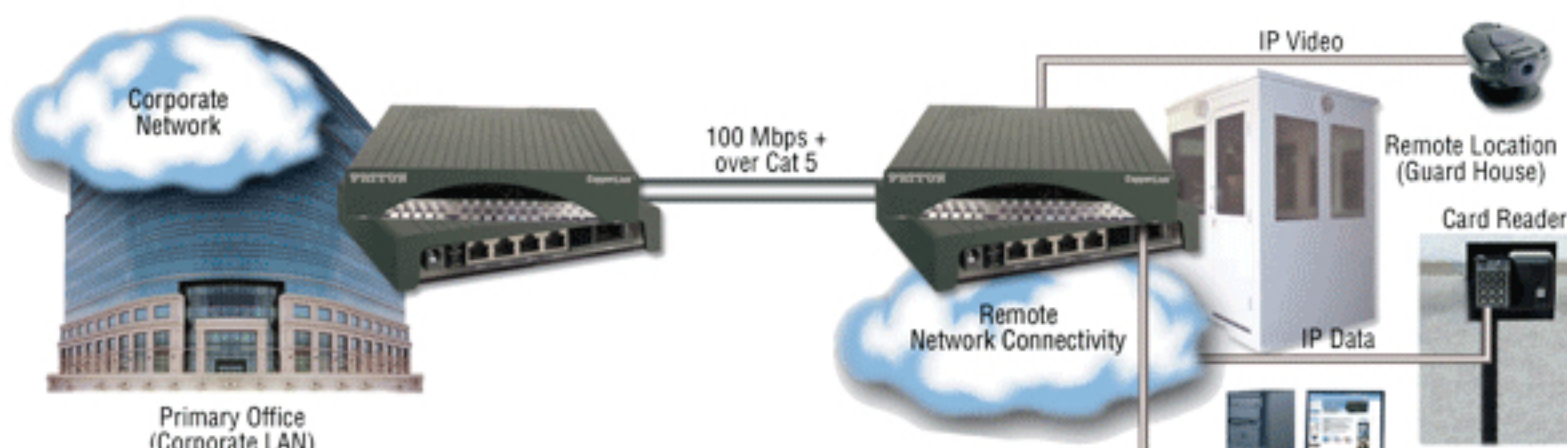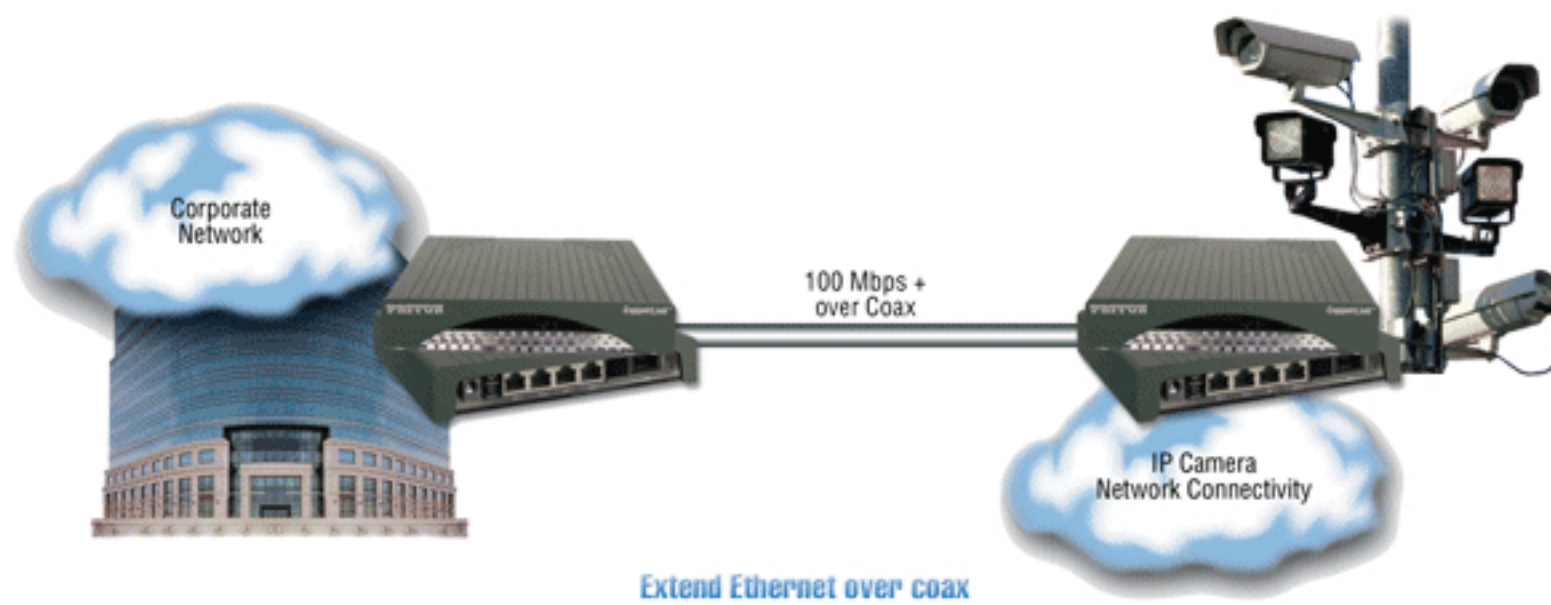
Features

- **Ethernet Extension**—Extend 10/100Base-TX Ethernet up to 10,000 feet (3 kilometers)—well beyond the 328-foot (100-meter) limitation—over a single twisted-pair, Cat 5e/6/7, or even coaxial cable.

- **Operates Over Twisted Pair**—Realize fiber-optic speeds without the expense—and hassle—of installing new cables or line-of-site 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**—Boasting downstream line rates up to 168 Mbps, the 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). Data-transmission mechanism is fully transparent to such IP video compression schemes as MPEG-4, H.264 and MJPEG.

- **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.
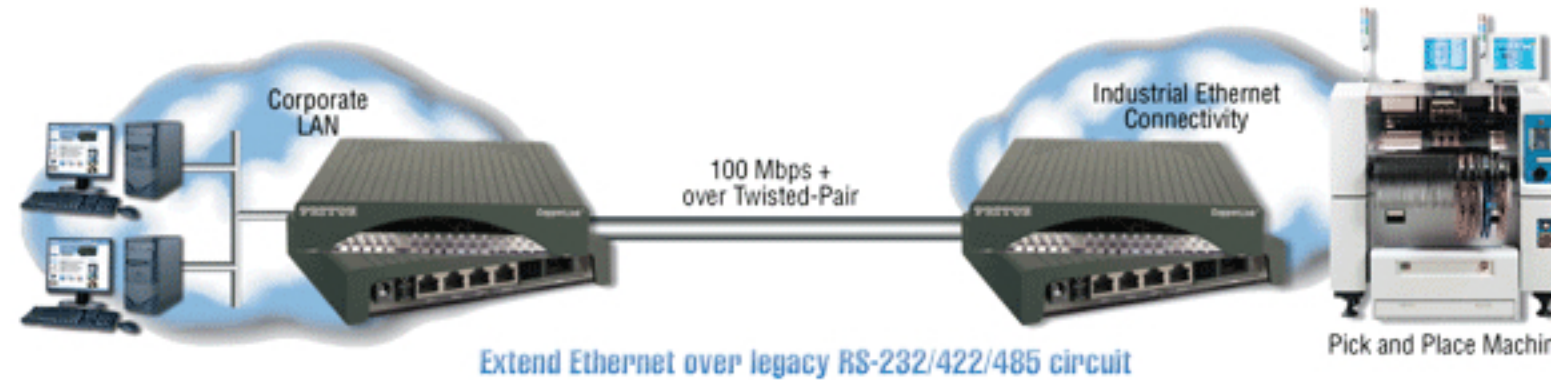
Extend Ethernet over coax

Extend Ethernet over legacy RS-232/422/485 circuit

Pick and Place Machine

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 (x4)	8-position, shielded RJ-45. Auto-sensing 10/100Base-TX with half or full duplex operation.
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.
Impulse Noise Protection Modes	Selectable fast and interleave modes
Target SNR Modes	6 dB and 9 dB
Management	8-position DIP switch
Monitoring	8 LEDs display Power, Link, Ethernet 1–4, Remote, and Local status.
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:** 0 to 50°C • **Humidity:** 5 to 95%, non-condensing • **Extended Temperature:** -40 to 85°C (CL1214E/CC) • **Extended Humidity:** 5 to 85%, condensing (CL1214E/CC)
Dimensions	6.22 W x 1.25 H x 4.75 L in. (15.74 W x 3.18 H x 12.07 L cm)
Weight	0.4 lbs (181 g)