

PoE Ethernet Extender

CopperLink Model 1101E/IP67

**INDUSTRIAL
GRADE**



Energize your cable—Extend Ethernet & Power over Ethernet (PoE) using existing twisted pair(s) or coax. Benefit instantly from the power and flexibility of IP without downtime or infrastructure and installation expenses!

Ethernet Extension

Extends 10/100Base-TX Ethernet over 3,000 feet using 2-wire, 24-AWG twisted-pair, Cat 3, Cat 5e/6/7, or coaxial cable.

Delivers PoE

PowerPlus technology powers up both the remote CopperLink extender and the PoE enabled device connected to it. No power is required at the remote location.

Transparent LAN Bridging

Will pass higher layer industrial Ethernet protocols such as BACnetIP, EtherCAT and Modbus TCP.

Plug and Play

Modems need no configuration to operate, Ethernet ports are auto-sensing 10/100, full or half-duplex.

Overvoltage Protection

Overvoltage protection on Line and Ethernet ports prevents damage from ESD (electrostatic discharge), CDE (cable discharge events), and lightning.

Outdoor Operation

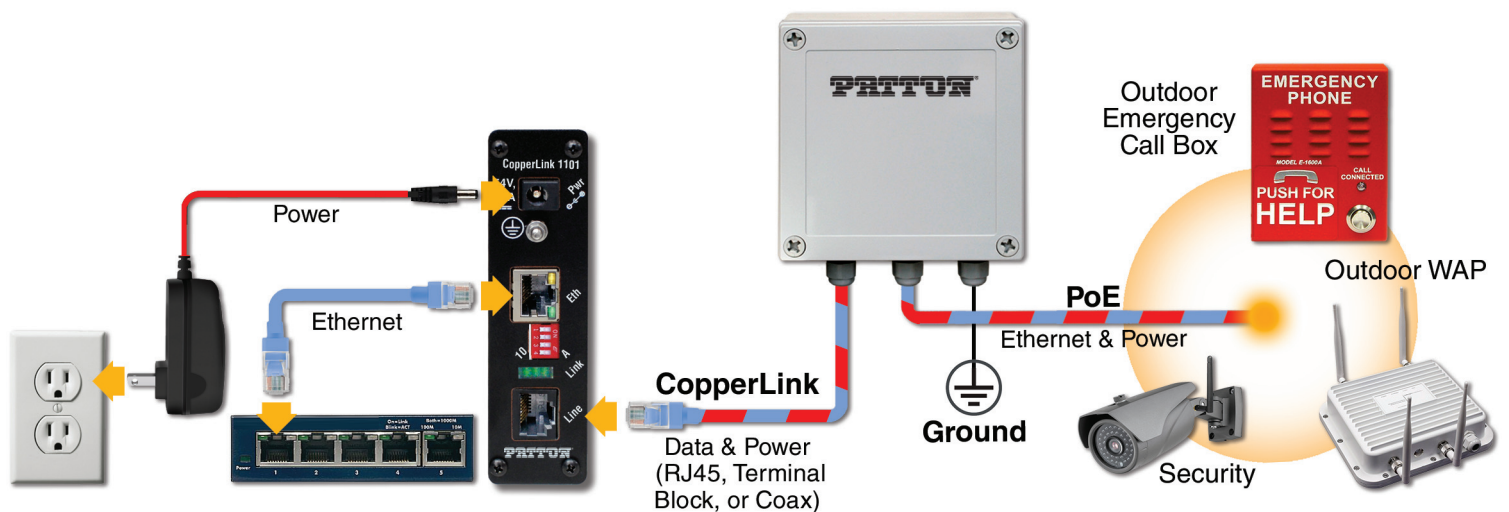
IP67 rating means complete protection from all solid particles and water-based conditions like ice, snow, and rain.

With global expansion of the Internet of Things (IoT), demand for IP/Ethernet-connected devices is soaring. Billions of devices are already capable of connecting to the Internet. Ethernet—and power-over-Ethernet (PoE) in particular—has grown in popularity because it strikes the perfect blend of speed, cost, and ease of use.

Ethernet, however, presents a few drawbacks that may overshadow the benefits by creating escalating infrastructure costs and system downtime. The Ethernet standard specifies a distance limitation of 328 ft (100 m), which restricts location options for device installation. Standard Ethernet also requires Cat 5 cabling or better, which often leads to installing new cabling infrastructure—involving tearing into walls, ceilings, pavement, and worse.

The CopperLink 1101E/IP67 kit from Patton enables Ethernet connectivity over previously installed copper infrastructure. The solution breathes new life into circuits previously deployed for such traditional non-IP applications as RS232/485 HVAC and building automation controls, alarms, CCTV, analog phones, intercom speakers, and others.

Instantaneously install PoE-capable devices such as wireless access points (WAPs), IP cameras, IP telephones, IP door stations, HVAC controls, LED lighting and more—with no additional overhead cost. With the extended reach the CL1101E/IP67 kit provides, you can install your IP terminal equipment exactly where you want it! Flexibility of device location is paramount in such applications as building security, where increased perimeter dimension and expanded spot coverage area are critical.



Extend **Power** and **Ethernet** to compliant or legacy PoE devices using already installed twisted-pair cable or coax

CopperLink™ Model 1101E/IP67 PoE Ethernet Extender

Industrial Grade Power over Ethernet Extenders



NS-1001R-19ADJDIN
Adjustable DIN Rack



CL1101E-SKD
PCA/OEM Board

CALL FOR DETAILS

RG-59 Twisted-Pair Data Reach Estimates

Description	10 Mbps	100 Mbps
Min. distance	6 ft 1.83 m	6 ft 1.83 m
Max. distance	4925 ft 1501 m	1225 ft 373 m
Min. distance link time	5 sec	5 sec
Max. distance link time	5–10 sec	5 sec
Max. distance PoE class	Class 2/3	Class 4

RG-59 Twisted-Pair Power Delivery Estimates

PoE Class	RG-59
1 (3.84 W)	4975 ft 1516 m
2 (6.49 W)	4975 ft 1516 m
3 (12.95 W)	3925 ft 1196 m
4 (25.50 W)	1675 ft 511 m

Twisted-Pair Data Reach Estimates

Description	10 Mbps		100 Mbps		
	2 wire	4 wire	2 wire	4 wire	8 wire
Min. distance	6 ft 1.83 m	131 ft 39.9 m	6 ft 1.83 m	6 ft 1.83 m	6 ft 1.83 m
Max. distance	2500 ft 762 m	3300 ft 1005 m	915 ft 278.9 m	1065 ft 324.6 m	1849 ft 563.6 m
Min. distance link time	5 sec	157 sec	5 sec	5 sec	5 sec
Max. distance link time	5–10 sec	8–265 sec	5 sec	6 sec	6 sec
Max. distance PoE Class	Class 1	Class 2	Class 2/3	Class 4	Class 3/4

Twisted-Pair Power Delivery Estimates

PoE Class	2 wire	4 wire	6 wire	8 wire
1 (3.84 W)	2648 ft 807 m	5453 ft 1662 m	8363 ft 2549 m	11555 ft 3521 m
2 (6.49 W)	1587 ft 484 m	3322 ft 1012 m	5041 ft 1536 m	6905 ft 2104 m
3 (12.95 W)	784 ft 239 m	1587 ft 484 m	2519 ft 768 m	3453 ft 1052 m
4 (25.50 W)	262 ft 80 m	653 ft 199 m	1196 ft 365 m	1587 ft 484 m

Specifications*

Line Interfaces (Data)

- 1 x RJ45 (Optional: Terminal Block, Coax)
- Supports 1-4 pairs

Ethernet Interfaces

- 1 x RJ45 Auto-Sensing 10/100Base-TX with full or half-duplex operation

LEDs

- Power, Line, (10 or 100 operation), Eth, and PoE

Protocol

- Transparent to high layer Industrial Ethernet protocols

- such as EtherCAT, Modbus-TCP, PROFINET and more.
- Supports 802.1Q VLAN tagged frames
- Transparent to IP video schemes
- Fully transparent to compression schemes such as WMV, MPEG-4, and MJPEG

Overvoltage Protection (Line and Ethernet)

- IEC 61000-4-2 (ESD) 25kV (air), 15kV (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)

- IEC 61000-4-5 (lightning) 25A (8/20µs)

Power Injection (PSE only)

- DC voltage on Ethernet port
- 54 VDC

Power Consumption

- 1.5 W

Power Supply

- External AC Adapter 100–240 VAC to 54 VDC
- Input: 30–57 VDC (Recommended 54 VDC)

MTBF

- 83,043 hours

Environment

- Temperature: -10 to 70°C
- Humidity: 10 to 95% (non-condensing)
- IP67 rated; designed to NEMA 4X

Physical

- 0.71 H x 1.1 W x 2.56 D in. (18 H x 28 W x 65 D mm)
- 0.78 oz (22 g)

Compliance

- FCC Part 15A, Class B
- CE Mark
- EMC Directive 89/336/EEC
- LVD Directive 73/23/EEC

Made in **USA**



Patton Electronics Co.
7622 Rickenbacker Drive
Gaithersburg, Maryland 20879, USA
Phone +1 301 975 1000
Fax +1 301 869 9293
E-mail sales@patton.com
Web www.patton.com

Patton-Inalp Networks AG
Meriedweg 7
CH-3172 Niederwangen, Switzerland
Phone +41 (31) 985 25 25
Fax +41 (31) 985 25 26
E-mail sales@inalp.com
Web www.inalp.com

Patton Hungary Zrt
Gábor Dénes utca 4., Infopark Building C
Budapest H-1117, Hungary
Phone +36 1 439 4840
Fax +36 1 439 4844
E-mail ce@patton.com
Web www.patton.com

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