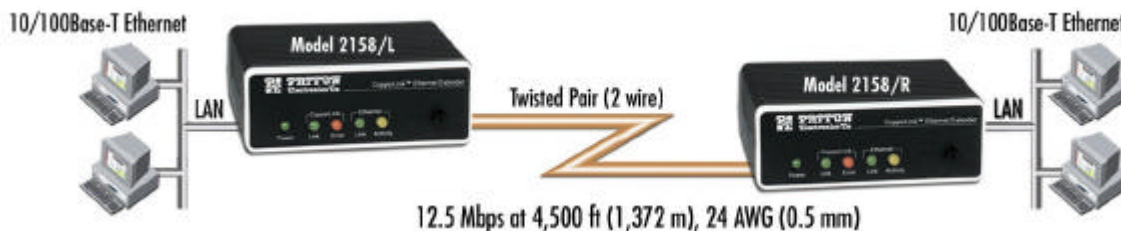


## Applications

### What is the primary application for the Model 2158 CopperLink™ Ethernet Extender?

Used in pairs, the Patton Model 2158 establishes a high-speed 12.5Mbps communications link interconnecting two geographically separated LANs or network enabled devices. Operation is simple: packets destined for the remote LAN are sent transparently, at full line rate, to the peered LAN. CopperLink Ethernet Extenders utilize ordinary voice-grade wire thus eliminating the cost and common barriers associated with installing new cable or expensive fiber.



The Model 2158 can also be used for delivering last mile ISP services!

## Product Related Questions

### What is CopperLink™ technology?

CopperLink technology is a symmetrical transmission protocol that allows the Model 2158 to receive Ethernet packets and forward them beyond the current 328ft. limitation over an ordinary pair of voice-grade wire with minimal cross talk.

### How is the CopperLink™ connection established?

Four steps are required to establish a communications link between the two CopperLink Ethernet Extenders (local and remote) and the respective network devices.

- 1) Connect the 10/100Base-T devices to the Ethernet port of each 2158 unit.
- 2) Connect each end of the twisted-pair wire to the CopperLink port of each 2158 unit.
- 3) Plug the 2158 power supplies into a suitable power source.
- 4) Plug the output jack of each power supply to the rear power jack of each 2158 unit.

Once powered up, a communications link is established between the two 2158 units and the CopperLink Link LED on each 2158 unit will glow solid green.

**Does the Model 2158 include any management capabilities or test modes?**

No, the Model 2158 does not have any management capabilities or test modes. However, it does feature 5 status LED indicators to provide operational status at a glance and assist with troubleshooting.

**What are the distance limitations of the Model 2158 using different gauge wires?**

Using 24 AWG (0.5 mm) wire, the Model 2158 is capable of providing Ethernet extensions up to 4,656 ft (1.42 km) including the potential 328 ft (100 m) Ethernet connections on both ends of the communications link. Using 26 AWG (0.4 mm) wire, the Model 2158 is capable of providing Ethernet extensions up to 3,856 ft (1.18 km). Actual distance and link performance will vary based on the environment and type/gauge of wire used.

**Can further distances be achieved using multiple 2158 units back to back?**

Yes, when placed in a back-to-back configuration transmission distances can be doubled.



**Can the line rate be altered on the Model 2158 to achieve lower bandwidths and/or longer distances?**

No, the line rate is factory configured at 12.5Mbps.

**Does the Model 2158 operate in pairs?**

Yes, the Model 2158 must operate in pairs. For each link, a remote (2158/R) and local (2158/L) unit is required.

**Which end of the link should the "L" local unit and "R" remote unit be located?**

It does not matter which end of the link the 2158/L and 2158/R are located.

**Does the Patton Model 2158 support VLAN or WLAN?**

The Model 2158 does support VLAN (802.1Q), but does not currently support WLAN (802.11).

**Does the Patton Model 2158 pass higher layer protocol such as TCP/IP packets?**

Yes, the Model 2158 does pass higher layer protocols such as TCP/IP. The Model 2158 does not read the TCP/IP packets, but will pass the packets on transparently.

**Ethernet (10 or 100Base-T) Interface****What devices typically connect to the Ethernet 10/100Base-T port?**

Devices that typically connect to the Ethernet port are Ethernet Hubs/Switches, Remote PC's, and any other network enabled device.

**How do I configure the Ethernet port to accept 10 or 100Base-T?**

There is absolutely no configuration necessary. The Ethernet port automatically senses 10 or 100Base-T Ethernet connections.

**How do I configure the Ethernet port for full or half-duplex?**

The CopperLink Ethernet Extenders will automatically sense full or half-duplex Ethernet connections.

**Power Supply****What are the power supply options for the Model 2158's?**

The CopperLink Ethernet Extenders come standard with an external 120VAC or UI (100-240VAC) power supply. -48, -24, or -12VDC power supplies are optional.