Ethernet and PoE over a Single Pair of Wire with 1,200 ft (365 m) Reach

AWARD WINNING PoLRE

The award winning 24 and 48 Port PoLRE (Power over Long Reach Ethernet) switches deliver Ethernet and PoE over a single pair of wire with over 1,200 ft (365 m) reach. This means you can transform your single pair UTP infrastructure into a robust IP backbone with power.

PoLRE was designed to make the migration to IP quick, easy and cost effective by leveraging an existing single pair UTP infrastructure. Benefits include:

- Accelerating your return on investment by reducing infrastructure costs;
- Collapsing planning and deployment time;
- Eliminating infrastructure barriers, risks, disruption and costs; and
- Creating a robust IP platform that is easy to configure, deploy and manage.

Unlike other Ethernet switch technologies, the PoLRE switch offers:

Speed, Reach and Power
PoLRE delivers 10 Mbps (symmetrical, full duplex) and PoE over a single pair of UTP with over 1,200 ft (365 m) reach. It is designed to support IP phones and other IEEE compliant devices. No speed degradation with longer reach.

Industry Leading PowerWISE® Technology
Power sharing for redundancy, load balancing, AC/DC options, hot swappable power supply and auto-sensing 100-240 VAC delivering 500 to 1,000 Watts of power. PoLRE is one of the most energy efficient switches on the market, consuming less than 17 Watts of power to operate.

Managed Switch with Plug-and-Play Option
PoLRE can operate in a transparent mode functioning as a bridge, allowing for plug-and-play deployment to a fully managed switch with high value features specifically designed for the security industry, including:

- Power management by port for easy reset of ports;
- Port MAC locking for higher security and peace of mind; and
- Simple Network Manager, an intuitive Web GUI that makes managing the switch a breeze.
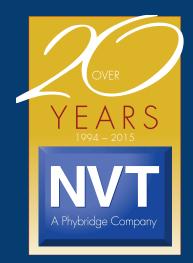
PoLRE Switch
At-a-Glance

The PoLRE managed switches are high-performing enterprise grade managed switch that helps maximize your return on investment and reduce your total cost of ownership.

PoLRE transforms the existing two wire infrastructure into a robust IP platform with power ideal for IP phones and other IEEE compliant IP devices.

Advantages

- Quick, easy and cost effective IP migration
- Robust enterprise grade switch features ensuring uptime
- Simple GUI interface making configuring, managing and troubleshooting the network a breeze

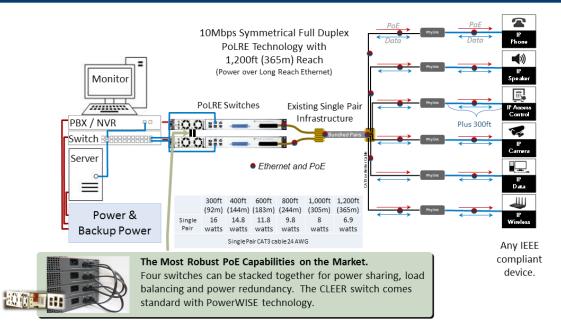## PoLRE 24 & 48 Port Managed Switch Technical Specifications

Model	PoLRE 24 & PoLRE 48
Dimensions	19 inches (48.26cm) x 1U without rack ears: • 1.75" x 17.13" x 9.92" (HxWxD) • 4.45cm x 43.5cm x 25.2cm (HxWxD) • Weight 7.94 lb (3.6 kg)
Mounting	Standalone or rack or shelf-mountable 2 brackets included for installation
Processor	Broadcom BCM56018 switch processor, 266MHz
Memory	32MB FLASH, 64MB DDR SDRAM
Interface: Ethernet Uplink (Trunk IP)	Maximum 2 uplinks, each 1Gb/s (full duplex), either: • 2 mini-GBIC ports: 1000 Base-TX/SX/LX/EX/ZX/LHX (determined by SFP, transceiver module installed), Ethernet IEEE 802.3z, fiber optic cable, or • 2 RJ45 ports: 10/100/1000 Base-T autosensing, independent speed selection, Ethernet IEEE 802.3, CAT5e copper cable

Specifications subject to change without notice.

Interface: Downlink (PoE and IP to Adapter)	PL-024: 1 RJ21 male telco connector (standard), 24 pairs used PL-048: 2 RJ21 male telco connectors (standard), 48 pairs used Maximum Distance: 1500ft (457m) over CAT3 UTP cable, 24 AWG Speed: 10 Mbps (full duplex) Power: 10 Watts
Management	1 LAN port (MGMT): RJ45, 10/100 Base-T autosensing, IEEE 802.3 1 UART console port: RJ45 to DB9 cable
Power Supply	Unit Autosensing 100-240VAC, 50/60 Hz Power output: 500W max at 100VAC, 1000W max at 240VAC
Power Consumption	PL-024: 16.5W PL-048: 22W
Power Injection (PoE)	DC voltage: -54VDC; Endpoint devices must be compliant with IEEE 802.3af
PowerWISE® Power Sharing	2 male connectors (rear), DC IN and DC OUT: 48VDC to 56VDC
Operating Temperature	14°F to 122°F (-10°C to 50°C)
Humidity	10% to 95% (non-condensing) at 95°F (35°C)

Phylink Adapter Technical Specifications

Model	PL-PA011
Dimensions	• 0.71" x 1.1" x 2.56" (HxWxD) • 1.8cm x 2.8cm x 6.5cm (HxWxD) • Weight: 0.78 oz. (22 g)
Interface PoLRE Switch Side	1 RJ11 port: CAT3 unshielded single twisted pair cable. Between the wall plate and adapter, you can reuse the existing silver satin when doing a DNIC/POTS displacement.
Interface Ethernet side: for IP end point device	1 RJ45 port: 10 Base-T

Power Supply	48VDC
Power Consumption	0.9W
Power Injection (PoE)	DC voltage on RJ45 port: • 54V max • 37V when 1200ft (365m) away from its PoLRE Switch powers Class 1, Class 2 and some Class 3 IEEE 802.3af compliant IP devices
Operating Temperature	32°F to 104°F (0°C to 40°C)
Humidity	10% to 95% (non-condensing) at 95°F (35°C)

Specifications subject to change without notice.

10Mbps Symmetrical Full Duplex PoLRE Technology with 1,200ft (365m) Reach
(Power over Long Reach Ethernet)

	300ft (92m)	400ft (144m)	600ft (183m)	800ft (244m)	1,000ft (305m)	1,200ft (365m)
Single Pair	16 watts	14.8 watts	11.8 watts	9.8 watts	8 watts	6.9 watts

Single Pair CAT3 cable 24 AWG

The Most Robust PoE Capabilities on the Market.
Four switches can be stacked together for power sharing, load balancing and power redundancy. The CLEER switch comes standard with PowerWISE technology.

Any IEEE compliant device.