

# CLEER24

## Upgrade to IP with Confidence



CLEER (Coax Leveraged Ethernet Extended Reach) switches are based on Phybridge's proven PoLRE® (Power over Long Reach Ethernet) technology. CLEER24 is a 24 port managed Ethernet over Coax switch that transforms existing proven reliable COAX infrastructure into an IP path with power; ideal for IP Cameras. CLEER switches are designed specifically to enable easy migration from Analog to IP cameras without disrupting the Data LAN.

Powered by PoLRE, the CLEER switch backbone complements the data switch fabric and you are guaranteed a dedicated secure path and bandwidth for the video streams with no data LAN dependencies due to the physical separation of the video stream. Your bandwidth and power requirements are supported today and into the future.

The migration from analog to IP is repeatable, predictable and scalable; regardless of size or location. The dedicated video path will reduce the cost, risk and complexity associated with layering video on your data switch fabric. **A no-compromise solution.**

CLEER switches deliver Long Reach Ethernet and Power over COAX cable with over **five times the reach** of traditional Ethernet switches.

CLEER switches have been designed from the ground up to meet the "five nines" high availability of service required by the surveillance industry. Solid and dependable, these switches are built to withstand tough operating environments.

The highly resilient and robust CLEER switches are equipped with industry leading power capabilities and come standard with PowerWISE® technology. Power sharing, load balancing, AC/DC options, and hot swappable power supply makes CLEER one of the most robust PoE switches available today.

Phybridge offers an industry leading QoS guarantee. We can do this with confidence because we leverage the existing, proven reliable point-to-point infrastructure to create a dedicated physical path for every IP Camera, ensuring data traffic has no impact on the video stream.


Operate the switch in secure transparent mode (bridge mode) with management still available over the console port. When operating in transparent mode, the PoLRE switch functions as a bridge and is not visible on the network.

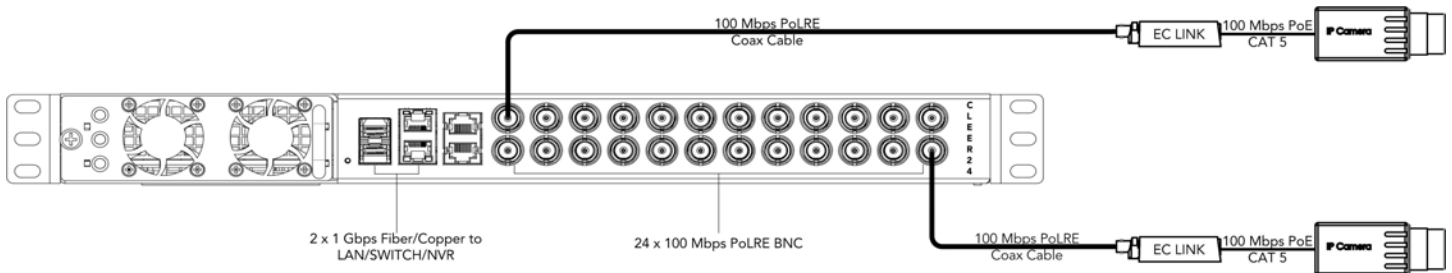
Monitor, update and troubleshoot switches in real-time with the Simple Network Manager; an **intuitive Web GUI** that makes managing the switch a breeze.

## CLEER24 Switch Technical Specifications

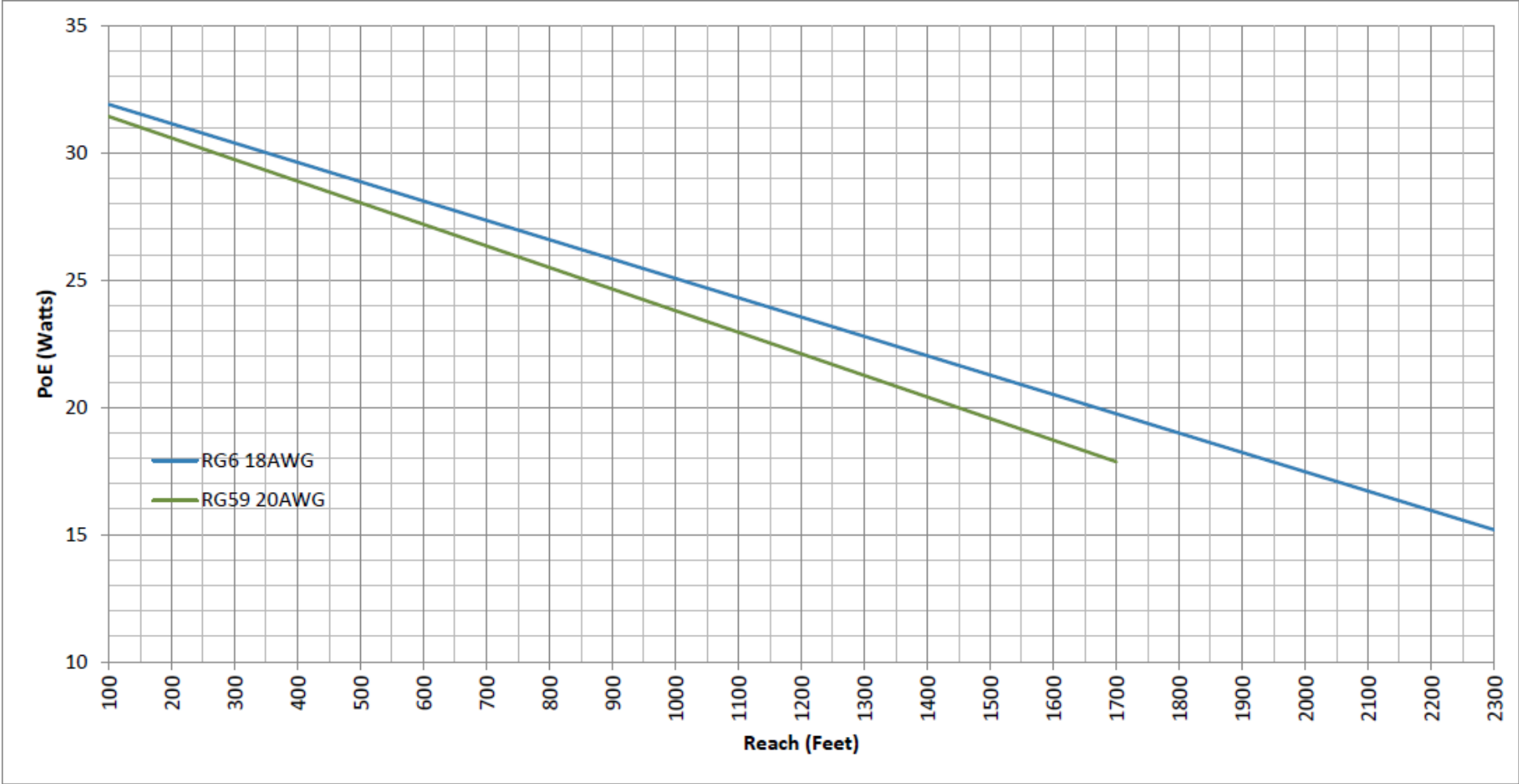
Model	CLEER24
Dimensions	19 inches x 1U Without rack ears: 4.45cm x 43.5cm x 25.2cm (HxWxD), 1.75" x 17.13" x 9.92" (HxWxD)
Weight	3.6 kg (7.94 lb.)
Mounting	Standalone or rack or shelf-mountable 2 brackets included for installation
Processor	Broadcom BCM56018 switch processor, 266MHz
Memory	32MB FLASH, 64MB DDR SDRAM
Interface: Ethernet uplink (Trunk IP)	Maximum 2 uplinks, each 1Gb/s (full duplex), either: <ul style="list-style-type: none"> <li>• 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</li> <li>• 2 RJ45 ports: 10/100/1000 Base-T autosensing, independent speed selection, Ethernet IEEE 802.3, CAT5e copper cable</li> </ul>
Interface: Downlink (PoE and IP to adapter)	24 x BNC Jacks Speed: 100Mb/s (full duplex) PoE power: 30 Watts Maximum (See Appendix) Maximum distance: <ul style="list-style-type: none"> <li>1500' (457M) over RG59 COAX Cable</li> <li>1600' (487M) over RG6 COAX Cable</li> <li>2000' (609M) over RG11 COAX Cable</li> </ul>
Management	1 LAN port (MGMT): RJ45, 10/100 Base-T autosensing, IEEE 802.3 1 UART console port: RJ45 to DB9 cable
Power supply	Hot-Swappable Power Supply Unit Autosensing 100-240VAC, 50/60 Hz Power output: 500W max at 100VAC, 1000W max at 240VAC
Power consumption	16.5W
Power injection (PoE)	DC voltage: 48VDC to 56VDC Endpoint devices must be compliant with IEEE 802.3af/at
PowerWISE® power sharing	2 male connectors (rear), DC IN and DC OUT: 48VDC to 56VDC
Operating temperature	-10° C to 50° C
Humidity	10% to 95% (non-condensing) at 35° C

## EC-Link Media Converter Technical Specifications

Model	EC-Link 
Dimensions	2.1cm x 3.2cm x 8.8cm (HxWxD); 0.83" x 1.23" x 3.46" (HxWxD)
Weight	42 g (1.48 oz.)
Mounting	<ul style="list-style-type: none"> <li>• Inline between the CAT5 cable (to IP endpoint) and the COAX cable (to CLEER/EC Switch)</li> <li>• Inline between the CAT5 cable (to IP endpoint) and the COAX cable (to a second EC-Link when used as an Extender)</li> </ul>
COAX Interface	1 BNC port: COAX cable – RG59, RG11, RG6.
Ethernet Interface	1 RJ45 port: 10/100 Base-T autosensing, IEEE 802.3af/at, 100 Mb connection to IP end device
Power injection (PoE)	DC voltage on RJ45 port: <ul style="list-style-type: none"> <li>• 37V – 56V</li> </ul> Endpoint devices must be compliant with IEEE 802.3af/at
DC IN (Screw Terminal)	Optional <ul style="list-style-type: none"> <li>• 48VDC – 56VDC via an external AC/DC Power Adapter (IEC Class II isolated only)</li> </ul>
Power consumption	0.9W
Operating temperature	0° C to 40° C
Humidity	10% to 95% (non-condensing) at 35° C



APPENDIX A – Power vs Reach



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