



eBridge1PCT

IP and PoE over Coax
Hardened Transceiver

Installation Guide



LISTED

I.T.E. 43KC

Rev. 111814



More than just power.™

Installing Company: _____ Service Rep. Name: _____

Address: _____ Phone #: _____

Overview:

Altronix eBridge1PCT EoC hardened transceiver transmits data at 25Mbps, Full Duplex over Coax cable to a paired eBridge receiver and provides power in a PoE-compliant format to an enabled device/camera. The eBridge receiver is available in various options and is powered by an external midspan or endspan. The receiver passes PoE power over the same coax cable to the eBridge1PCT transceiver, which, in turn, passes this power to an enabled IP camera/device. These plug and play units facilitate a cost-effective, simple way to replace legacy analog products with new IP devices over existing coax up to 500m. Maximum range from headend to the PoE camera/device is 700m, taking into consideration that up to 100m of structured cable may be deployed at each end.

Features:

Agency Listings:

- UL/cUL Listed for Information Technology Equipment (UL 60950-1).
- CE European Conformity.
- C-Tick compliant.

Input:

- PoE compliant to IEEE 802.3af (15W) from eBridge receivers.
- Power consumption (under maximum load): 1.5W.

Compatible Receivers:

- eBridge1PCR
- eBridge1PCRX, eBridge4PCRX, eBridge8PCRX, eBridge16PCRX.
- eBridge1PCRM, eBridge4PCRM, eBridge8PCRM, eBridge16PCRM,
- eBridge8E

Ethernet:

- Connectivity: RJ45, auto-crossover.
- Wire type: 4-pair CAT5 or better structured cable.
- Distance: up to 100m.
- Speed: 10/100BaseT, half/full duplex, auto negotiation.
PoE compliant to IEEE 802.3af (15W)
Delivered to camera by eBridge1PCT.
Power provided by eBridge Plus receiver to eBridge1PCT by PoE protocol.

Coax:

- Distance: up to 500m (*see Maximum Length of Coax Type vs. Camera Power/PoE Class, pg. 4*) for power delivery of coax.
- Throughput is rated to pass 25Mbps of data at distances up to 500m. With proper headend equipment this supports Megapixel, HD720, HD1080.
- Connectivity: BNC, RG-59/U or similar.

LED Indicators:

- Blue LED - Coax link connection.
- Green LED - PoE from eBridge1PCR.
- Yellow and Green LED (RJ45) IP Link status, 10/100Base-T/active.

Environmental:

- **Operating Temperature:**
– 40°C to 75°C (– 40°F to 167°F).
- **Storage Temperature:**
– 40°C to 75°C (– 40°F to 167°F).
- Humidity: 20 to 85%, non-condensing.

Functions:

- Auto detection and protection of legacy non-PoE cameras/devices.

Applications:

- Retrofit digital IP cameras in an analog CCTV installation.
- Works with Megapixel, HD720, HD1080 and VGA (SD) cameras (*see note, pg. 3*).
- Extend Network link distance in an industrial environment over 7000m (*see note, pg. 3*).
- Upgrade deployed CCTV Coax to a digital network in Retail, Hospitality, Arenas, Casinos, Airports, Schools, Hospitals, Transportation, etc.

Mechanical:

- Dimensions (W x L x H approx.):
2.5" x 4.375" x 1" (63.5mm x 111.1mm x 25.4mm)

Installation Instructions:

Wiring methods shall be in accordance with the National Electrical Code/NFPA 70/ANSI, and with all local codes and authorities having jurisdiction. Wiring should be UL Listed and/or Recognized wire suitable for the application. eBridge1PCT is not intended to be connected to outside plant leads and should be installed indoors within the protected premises. eBridge1PCT is intended for indoor use only.

1. Secure unit to desired mounting surface with a proper fastening device utilizing the case's mounting hole (Fig. 2a, pg. 4). Unit should be mounted in proximity of camera/device.
2. Connect structured cable from IP camera/device to RJ45 jack marked [10/100BaseT] (Fig. 2, pg. 4).
3. Connect Coax from eBridge receiver to BNC connector marked [Coax] (Fig. 2 and 3, pg. 4).

Note: The eBridge1PCT is designed to accommodate Megapixel, HD720, HD1080 and VGA (SD) cameras. It is important to note that some high resolution and high frame rate cameras may demand faster headend processing ability, such as a PC graphics card to present a quality image. If the headend processing equipment is insufficient in speed, the image may show pixelation and latency. It is advisable to pre-test system if unsure. Alternatively, frame rate and resolution may be reduced to accommodate system equipment.

Technical Specifications:

Parameter	Description
Connections	BNC for Coax link. RJ45 for ethernet link.
Input power requirements	24VDC/1,000mA, 24VAC/900mA
Indicators	Blue: Coax Link. Yellow (RJ45 connector): On - Link, Off - No Link, Blinking - Activity. Green (RJ45 connector): On - 100Base-TX, Off - 10Base-T. Green: Power.
Environmental Conditions	Operating Ambient Temperature (UL60950-1): - 40°C to 75°C (- 40°F to 167°F). Relative humidity: 85%, +/- 5%. Storage Temperature: - 40°C to 75°C (- 40°F to 167°F). Operating Altitude: - 304.8 to 2,000m.
Regulatory Compliance	UL/cUL Listed for Information Technology Equipment (UL 60950-1). CE European Conformity. C-Tick compliant.
Weights (approx.)	Product: 0.25 lb. (0.11 kg) Shipping: 0.6 lb. (0.27 kg).

Fig. 1

eBridge1PCT



