



eBridge100RM

IP and PoE+

Over Coax or

Extended Ethernet Cable

Installation Guide



Z1409

Overview:

eBridge100RM is a versatile dual solution Ethernet receiver/media converter which transmits data at 100Mbps full duplex and power over Coax cable or extended CAT5e cable in a PoE+ compliant format. The eBridge100RM is powered via a PoE midspan such as the Altronix NetWay series or by an endspan. The receiver passes the PoE(+) compliant power over cable to the eBridge100TM/eBridge100ST transceiver which in turn passes this power to an enabled IP Camera/device. These plug and play units facilitate cost effective solutions for IP devices that need to be installed at distances greater than 100m. They also provide a simple way to replace legacy analog products with new IP devices over existing coax or structured cable.

Features:

Agency Listings:

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

Input eBridge100RM:

- Powered by midspan or endspan.
PoE compliant to IEEE 802.3af (15W) and PoE+ compliant to IEEE 802.3at (30W).

Ethernet:

- Connectivity: RJ45, auto-crossover.
- Wire type: 4-pair CAT5.
- Distance: up to 500m.
- Speed: 10/100BaseT, half/full duplex, auto negotiation.
PoE compliant to IEEE 802.3af (15W) and PoE+ compliant to IEEE 802.3at (30W)
Delivered to camera by eBridge100TM.
Power provided by eBridge100RM to eBridge100TM by PoE protocol.*
- Throughput is rated to pass 100Mbps of data at distances up to 500m.

Coax Link:

- Distance: Coax 300m (*Maximum Length of Coax Type vs. Camera Power/PoE Class, pg. 4*) for power delivery.
- Connectivity: BNC, RG-59/U or similar.

Coax or CAT5e Link:

- Distance: CAT5e up to 500m, Coax 300m (*Maximum Length of Coax or CAT5 Type vs. Camera Power/PoE Class, pg. 4*) for power delivery.

LED Indicators:

- Green - PoE ON (by respective RJ45 jack).
- Yellow and Green LED (RJ45) - IP Link status, 10/100Base-T/active.

Environmental:

- **Operating Temperature:**
eBridge100RM:
– 20°C to 49°C (– 4°F to 120.2°F).
eBridge100TM:
– 20°C to 49°C (– 4°F to 120.2°F).
eBridge100ST:
For 15W: – 40°C to 75°C (– 40°F to 167°F).
For 30W: – 40°C to 60°C (– 40°F to 140°F).
- **Storage Temperature:**
– 30° to 70°C (– 22° to 158°F).
- Humidity: 20 to 85%, non-condensing.

Functions:

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

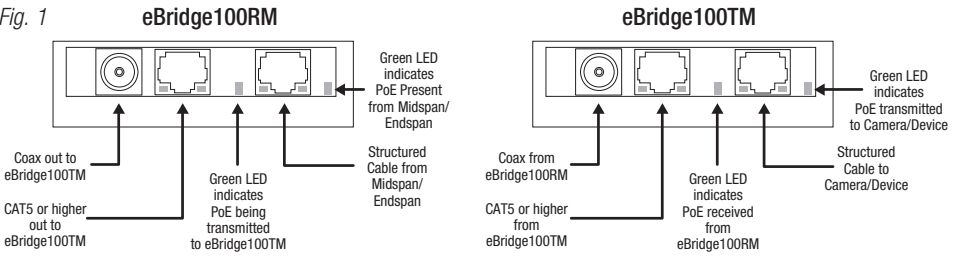
Applications:

- Retrofit digital IP cameras in an analog CCTV installation.
- Works with Megapixel, HD720, HD1080 and VGA (SD) cameras (*see note, pg. 2*).
- Extend Network link distance in an industrial environment over 700m (*see note, pg. 2*).
- Upgrade deployed CCTV Coax to a digital network in Retail, Casinos, Airports, Schools, Hospitals, etc.

Mechanical:

- Dimensions (W x L x H approx.):
eBridge100RM/eBridge100TM:
3.5" x 4.375" x 1"
(88.9mm x 111.1mm x 25.4mm)
eBridge100ST:
2.27" x 2.645" x 1.12"
(57.66mm x 67.18mm x 28.44mm)

Fig. 1

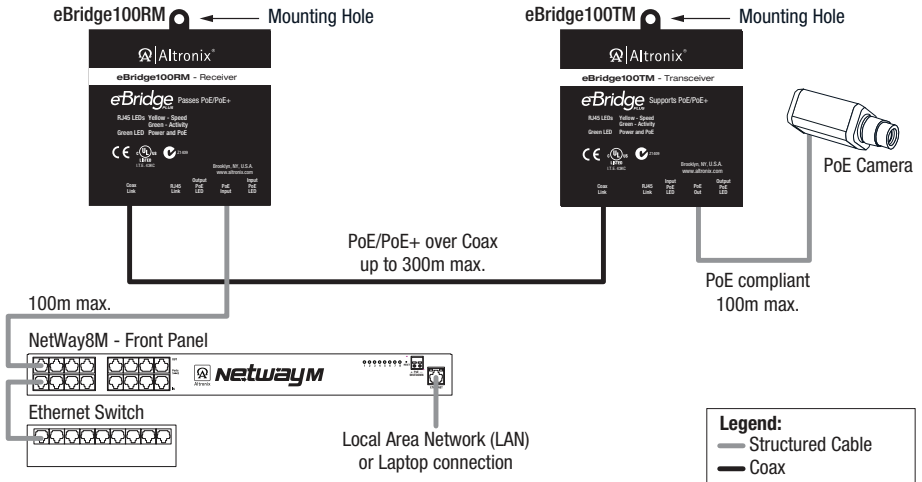


***Note:** Caution: once PoE connection is established between eBridge100RM and eBridge100TM, disconnection from eBridge100TM will not disable the PoE output voltage on the eBridge100RM, although the eBridge100TM can be reconnected, caution should be taken not to connect the CAT5 or single UTP wiring from eBridge100RM to any non-PoE device.

Single PoE Camera Connection Utilizing eBridge100RM and eBridge100TM:

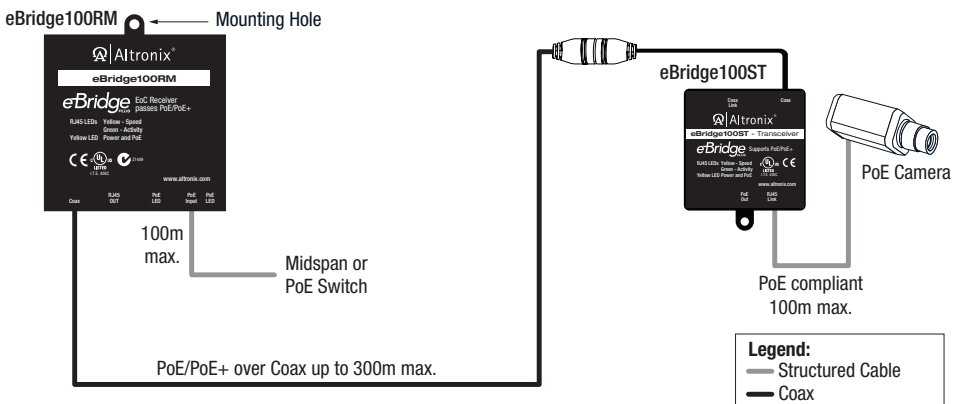
Fig. 2

Fig. 2a



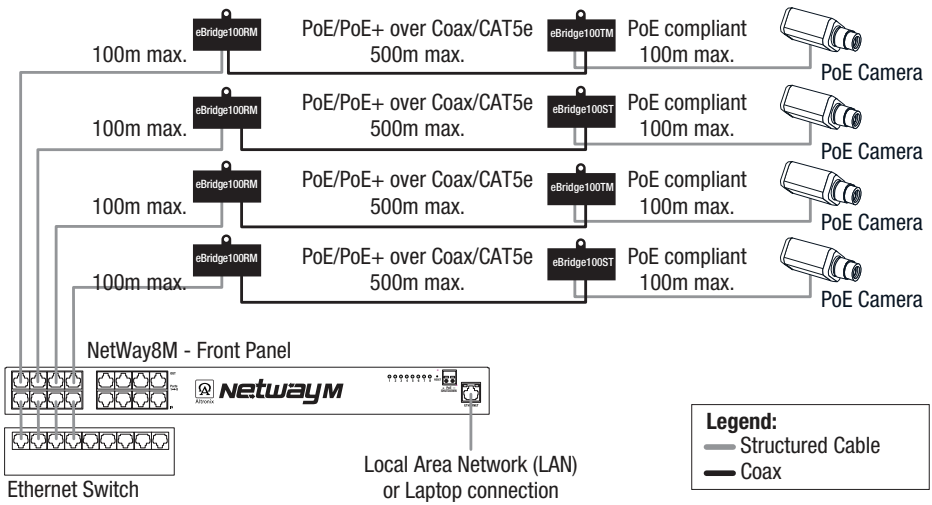
Single PoE Camera Connection Utilizing eBridge100RM and eBridge100ST:

Fig. 3



Multiple PoE Camera Connection:

Fig. 4



Maximum Length of Coax/CAT5 Type vs. Camera Power/PoE Class:

Cable Type	Total Power Consumption	Max Data Distance	Max Power Distance
RG59u/23awg	13W	300m	264m
RG59u/23awg	25W	300m	132m
RG59U/22awg	13W	300m	334m
RG59U/22awg	25W	300m	167m
RG59U/20awg	13W	300m	532m
RG59U/20awg	25W	300m	266m
RG59U/18awg	13W	300m	846m
RG59U/18awg	25W	300m	423m
CAT5e	13W	500m	846m
CAT5e	25W	500m	423m

Altronix is not responsible for any typographical errors.

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