EERF1-LS1-T-MN-B

Industrial Ethernet Over UTP Transmitter with PoW and Direct PoE+

Product Description

The KBC **eCopper™** line of products offer a cost-effective way to connect the latest IP cameras using existing coax or copper (UTP) wiring to a remote monitoring station. In addition to saving costs and time from cabling infrastructure upgrades to CAT5/5e/6, **eCopper™** powers both its transmitter and remote cameras, eliminating the need for any additional power source at the camera site. **eCopper™** also extends the IP camera cable run distance from 100 to 300 meters, making it ideal for upgrading analog to IP cameras and other systems in large corporate buildings, retail, casinos, banks, prisons, stadiums and other applications.

The KBC EERF1-LS1-T-MN-B is a fully ruggedized Ethernet over UTP transmitter. This transmitter provides connectivity for one 10/100Mbps IEEE standard electrical copper port over UTP cable. Power is supplied from one of the headend Receivers, EERF16-G3-R-RX-B, EERF8-G3-R-RX-B, EERF4-DN1-R-WN-B or EERF1-LS1-R-MN-B Ethernet over UTP units through the UTP cable by Power over Wire (PoW) technology. The transmitter provides direct PoE+ support. Varying data rates are supported depending on cable distance and quality. The plug-and-play design ensures ease of installation with no electrical adjustment needed. LED indicators are provided to show the operational status of the unit.   The size of the transmitter is suited for fitting inside camera housings and where space is minimal.

Product Features

- 802.3af/802.3at compliant
- PoE+ (30W) and Power over Wire
- UTP data rate >40Mbps (300m)
- Based on cable quality, cable pairs used (1, 2 or 4 pairs) and voltage applied to cable (48~57VDC) from headend, PoE and PoE+ are supported by PoW up to 400m.
- Powered by PoW from EERF16-G3-R-RX-B, EERF8-G3-R-RX-B, EERF4-DN1-R-WN-B or EERF1-LS1-R-MN-B headend
- Complete protection design including surge and lightning protection
- Unique PoW transmission protection design together with 1, 4, 8 or 16 channels receiver headend

Typical System Configuration
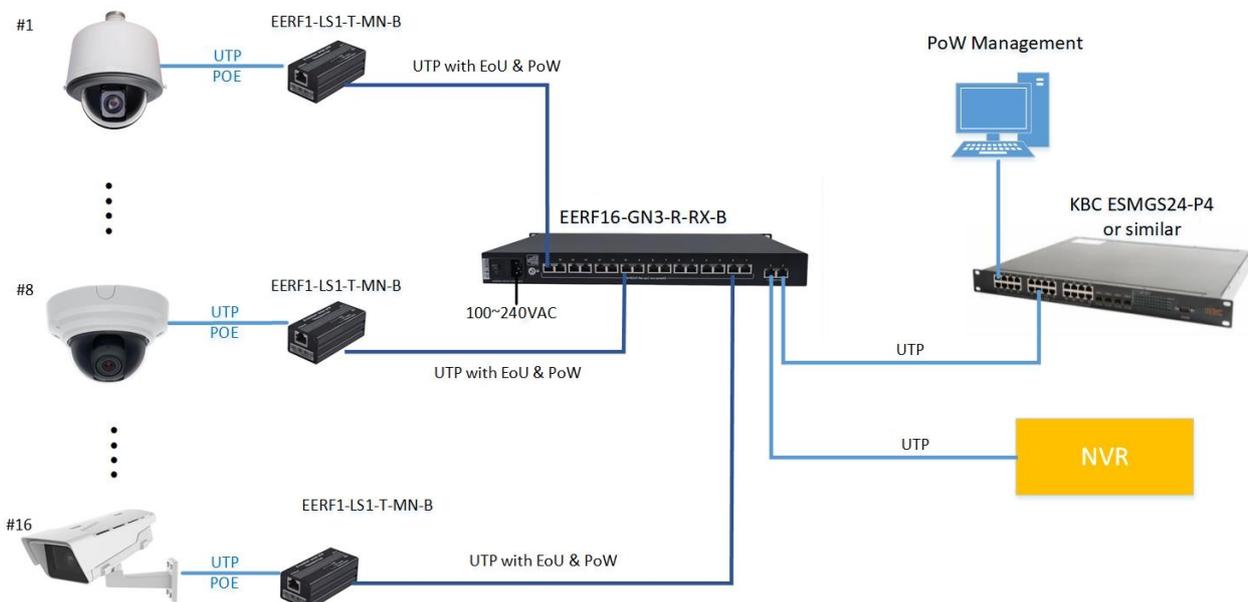
Specifications

Standards
IEEE Standard   IEEE 802.3 10BASE-T
     IEEE 802.3u 100BASE-TX
     IEEE 802.3x Full-duplex

LAN Port
Data Rate   10/100Base-T

PoE
Standard   802.3af/at
PSE Type   End-span
PoE Power Output   30 watts max.

UTP Port
Cable   CAT5, CAT5e, CAT6
Data Rate (2/4 Pairs)   >40Mbps (300m)
Load Power (2 Pairs) @54Vdc [1]   PoE+: 200m; PoE: 400m
Load Power (4 pairs) @54Vdc [1]   PoE+: 400m; PoE: 800m

Power
Power Input   >40Vdc PoW
Power Consumption   ≤1W (Without PoW)
Local Power Input   45~57Vdc

Environmental
Operating Temperature   -20° ~ +70°C
Storage Temperature   -40° ~ +85°C
Operating Humidity   0 to 95% non-condensing
Mean Time Between Failure (MTBF)   > 100,000 Hours

Mechanical
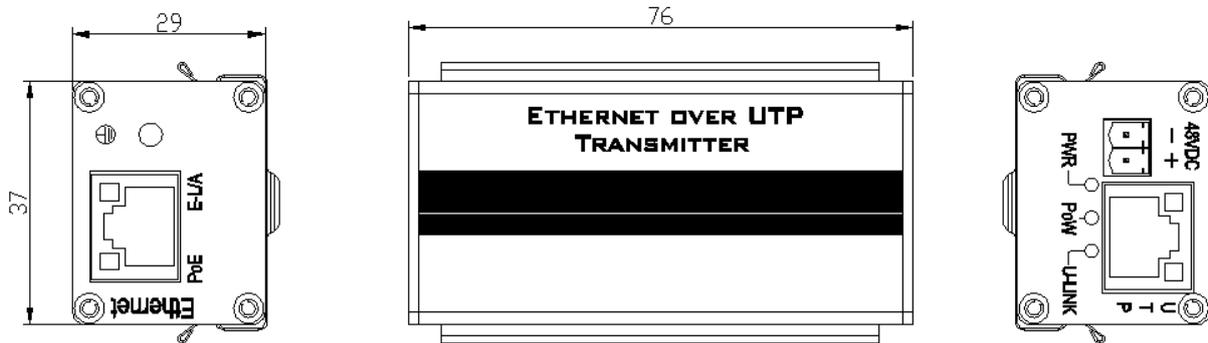Dimensions (L x W x H)   76mm x 37mm x 29mm
Mount   Metal clip

Connectors
Ethernet   RJ45
UTP   RJ45

Protection
Surge   UTP: 6kV; Ethernet: 2kV

Dimension

Part Number

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(1) It is assumed that the transmitter installed together with PD devices, which means the distance between the transmitter and PD device is very short (less than 5m). Per the IEEE802.3 af/at standard, the maximum power of PD for 802.3af and IEEE802.3at are 12.95w and 25.5w respectively.

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