



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.

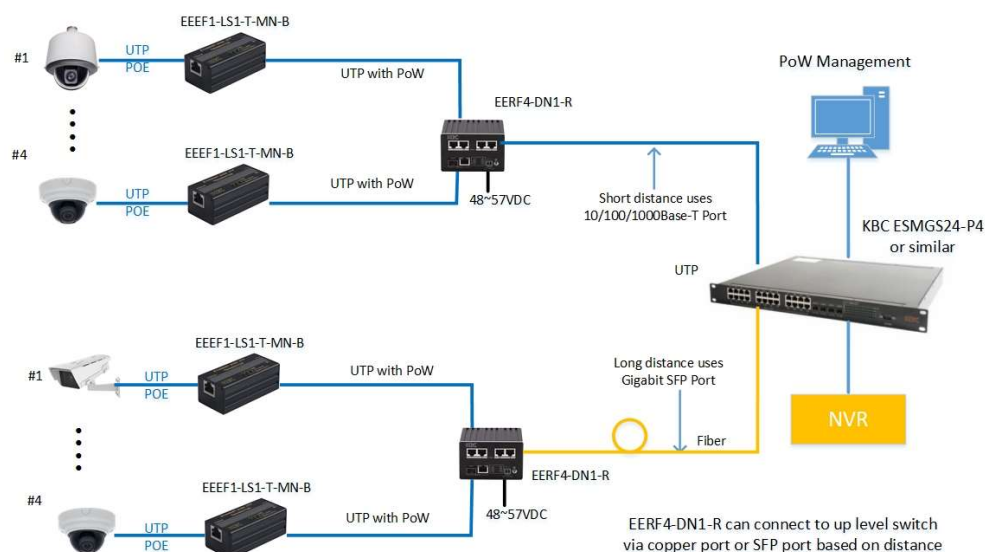


The KBC EERF4-DN1-R-WX-B series is an Ethernet over UTP (EoU) switch with 4 UTP ports supplying Power over Wire (PoW), 1*10/100/1000M Ethernet port and 1*1000Base-FX SFP port. This switch provides connectivity up to 4* PoW/PoE (EERF1-LS1-T-MN-B) transmitters. Power is supplied to the transmitter through the UTP cable. Varying data rates are supported depending on cable distance and quality. This product also provides PoW management which allows the operator to remotely switch power on or off to any of the UTP channels. 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. This switch is available in wall mount and DIN rail mount.

Product Features

- 4 UTP ports with PoW
- 1 *10/100/1000M Ethernet port, 1 *1000Base-FX SFP port
- PoW management
- Full switching capability
- Connect up to 4 transmitters EERF1-LS1-T-MN-B.
- 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.
- Over current and short circuit protection
- Unique PoW transmission protection design so that no power is output when transmitter end is not connected.

Typical System Configuration



Specifications

Standards

| | |
|---------------|---|
| IEEE Standard | IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX IEEE802.3ab 1000Base-T IEEE802.3z,1000base-FX |
|---------------|---|

LAN Port

| | |
|-------------|--|
| No of Ports | 2, 1*1000Base-T, 1*1000Base-FX SFP ⁽¹⁾ |
| Data Rate | 10/100/1000Mbps auto-sensing Half & full duplex |

UTP Port

| | |
|--|------------------------|
| No of Ports | 4 |
| Cable | UTP |
| Data Rate(2&4 Pairs) | >40Mbps (300m) |
| Load Power (2 Pairs) @54VDC ⁽²⁾ | PoE+: 200m ; PoE: 400m |
| Load Power (4 pairs) @54VDC ⁽²⁾ | PoE+: 400m ; PoE: 800m |

PoW Management

Individual channel status LEDs
Individual channel PoW on/off

Power⁽³⁾

| | |
|-------------------|----------|
| Power Input | 48~57VDC |
| Power Consumption | ≤5W |

Environmental

| | |
|----------------------------------|-------------------------|
| Operating Temperature | 0° ~ +55°C |
| Storage Temperature | -40° ~ +85°C |
| Operating Humidity | 0 to 95% non-condensing |
| Mean Time Between Failure (MTBF) | > 100,000 Hours |

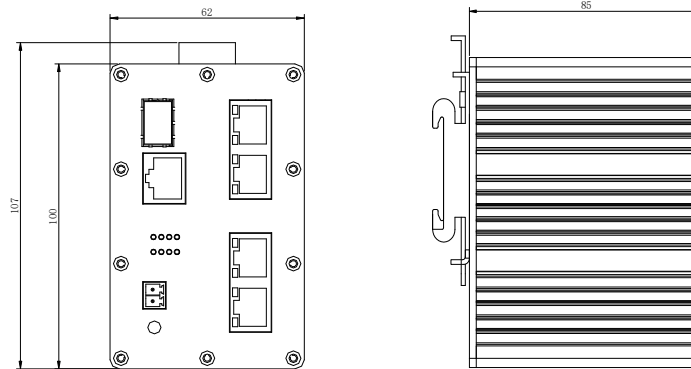
Mechanical

| | |
|------------------------|---------------------|
| Dimensions (L x W x H) | 100mm x 85mm x 62mm |
|------------------------|---------------------|

Connectors

| | |
|------------|------|
| Ethernet | RJ45 |
| Twist Pair | RJ45 |
| Power | IEC |

Dimension Drawing



Part Number Configurator

EERF4-DN1-R-WN-B

W: Wall Mount
D: DIN Rail

1. SFP sold separately
2. It is assumed that the transmitter installed together with PD devices, that 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.
3. Power supply sold separately.

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