

Quick Start Guide EERF4-DN1-R-XN-B

EoU Receiver 4*UTP Ports, 1*1000M RJ45 and 1*1G SFP

Introduction

The KBC EERF4-DN1-R-XN-B series is an Ethernet over UTP (EoU) receiver with 4 UTP ports supplying Power over Wire (PoW), 1*10/100/1000M Ethernet port and 1*1000Base-FX port. This receiver 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 unit is available in wall-mount and DIN rail mount.

Features

- 4 UTP ports with PoW
- 1 *10/100/1000M Ethernet port, 1 *1000Base-FX SFP port
- PoW management
- Full switching capability
- Connects up to 4 (EERF1-LS1-T-MN-B) transmitters
- 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 the transmitter end is not connected.

Downloads

Full specifications, features and additional information can be found on the KBC website: www.kbcnetworks.com.

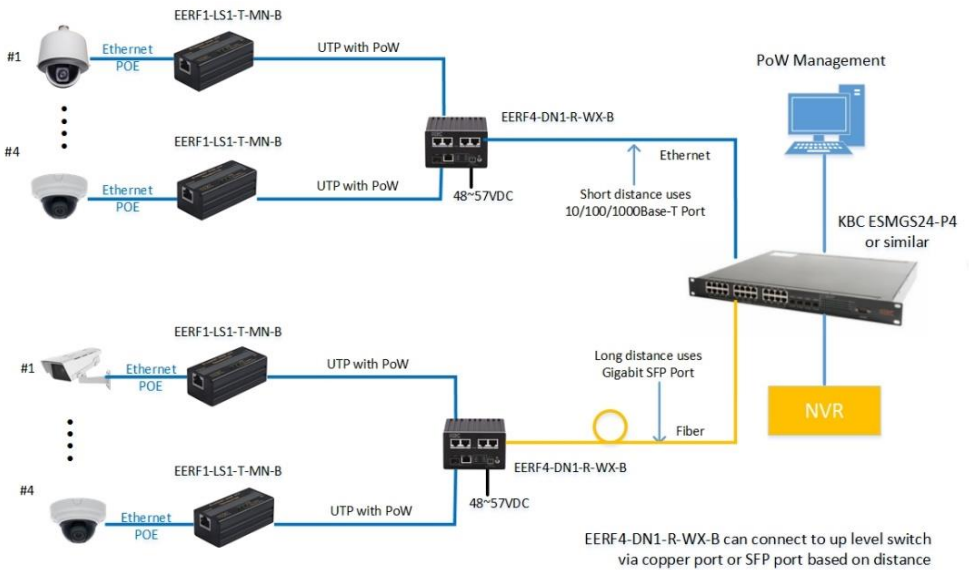
General

Check the product upon receipt for any visible damage which may have been caused during shipping.

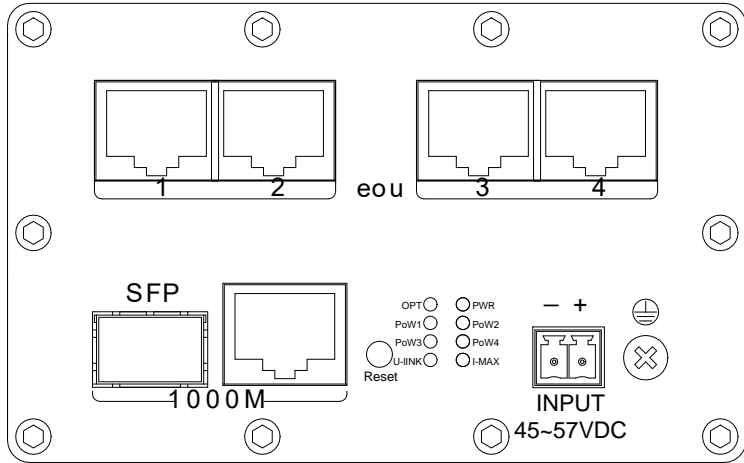
Physical Deployment

This equipment must be installed and operated in accordance with instructions found in this document. Failure to comply with these instructions will invalidate the warranty.

Application



Panel views



LED	Color	Status	Description
PWR	Orange	On	Power supply is normal.
OPT	Green	On	SFP transceiver link normal.
PoW1	Green	On	Channel 1 PoW power on.
PoW2	Green	On	Channel 2 PoW power on.
PoW3	Green	On	Channel 3 PoW power on.
PoW4	Green	On	Channel 4 PoW power on.
U-LINK	Green	On	EoU connection is normal.
I-MAX	Red	On	When the total power of 4 channels more than 175W.

Ethernet RJ45 Definition

Pin	Signal
1	TD1+
2	TD1-
3	RD2+
4	BD3+
5	BD3-
6	RD2-
7	BD4+
8	BD4-

UTP Port Definition

Pin	Signal
1	PoW+
2	PoW+
3	PoW-
4	PoW+
5	PoW+
6	PoW-
7	PoW-
8	PoW-

Notes:

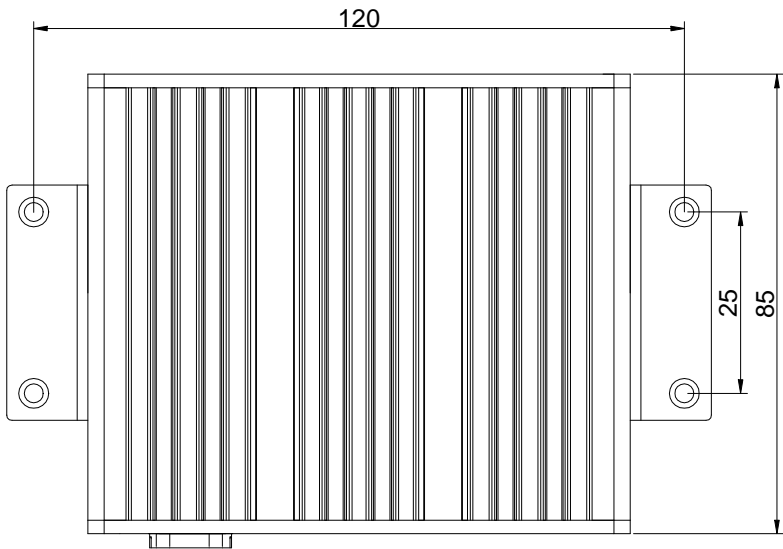
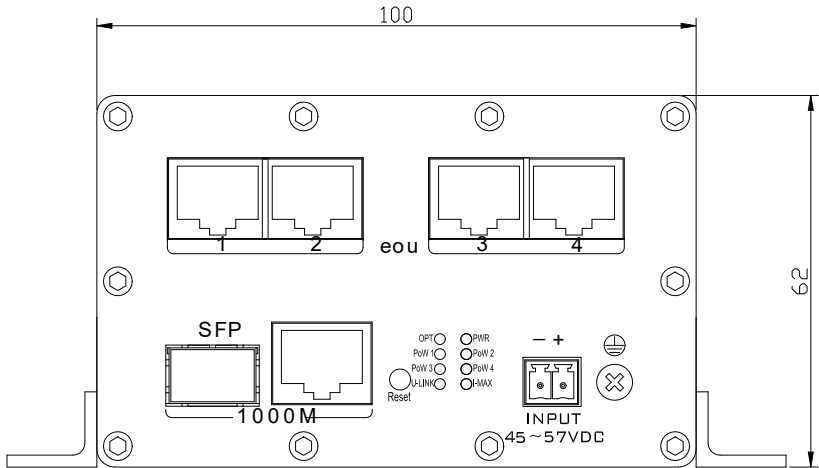
★ Please use straight-through cable rather than cross-over cable.

8 wires transmission: all 8 wires need to be connected.

4 wires transmission: any 2 wires of PIN 1,2,4 and 5 as "+", any 2 wires of PIN 3,6,7 and 8 as "-".

2 wires transmission: any 1 wire of PIN 1,2,4 and 5 as "+", any 1 wire of PIN 3,6,7 and 8 as "-".

Dimensions (Unit = mm)



Specifications

Item		Description
Power	Power supply	48VDC/2.5A
	Consumption	<5W without PoW
Cable	Transmission Medium	Cat5e/6 cable
	Operating frequency	2M-28M
	Modulation	Wavelet-OFDM
	Transmission rate	210Mbps (Max.)
	Power negotiation cycle	1S
	Overcurrent	720mA
	Overcurrent protection time	<2mS
	Transmission distance	*400m
Ethernet Port	RJ45	10/100/1000M
	SFP (optional)	1G
	Transmission medium	Cat5e/6
	Standard	IEEE802.3, IEEE802.3U
	Ethernet delay	<1mS
Protection	ESD	IEC61000-4-2
	Anti-thunder protection	IEC61000-4-5 level 3
Operation Environment	Operating temperature	-20°C~+70°C
	Storage temperature	-40°C~+85°C
	Humidity (non-condensing)	0~90%
Mechanical	Dimension (L×W×H)	85mm*100mm*62mm
	Material	Aluminum
	Color	Black
	Weight	0.6Kg

*Transmission distance depends on signal source and cable quality.

Installation Instructions

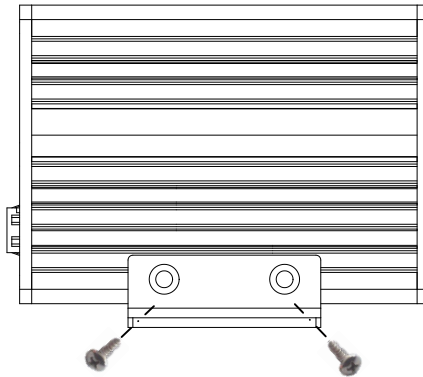
Please check the following items before installation. If any are missing, please contact the dealer.

- EoU 4 channel receiver ----- x1
- Wall mounting accessories ----- x2
- QSG/User manual----- x1
- Screws----- x4

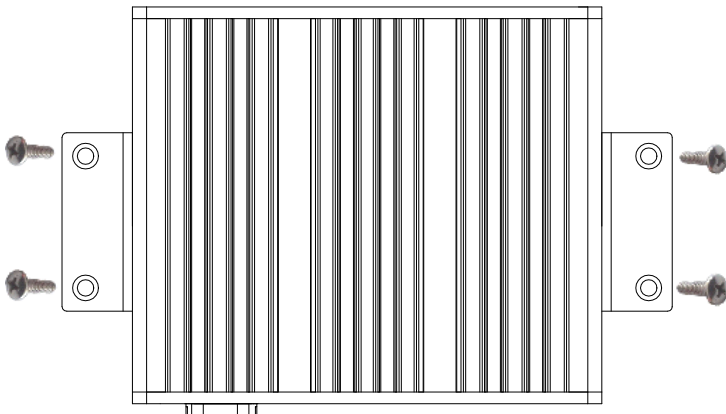
* Power supply sold separately.

Please follow the installation steps below:

- 1) Attach the fitting to the receiver using screws provided.



- 2) Attach the receiver to the wall or box.



- 3) Use a network cable to connect the RJ45 port of the receiver and the Ethernet switch, or use a fiber cable to connect the optical port of the receiver. Connect the Cat5e/6 cable to the UTP port of the receiver and use a grounding wire to connect to the grounding terminal.
- 4) Check that the installation is correct and power on the device to be sure it is operating normally.

Troubleshooting

Please refer to the following information if the device does not work:

- Confirm the installation is done according to factory installation requirements.
- Confirm if the RJ45 cable order is following the EIA/TIA568A or 568B industry standards.
- The maximum transmission distance depends on the signal source and cable quality. Please do not exceed the maximum transmission distance.
- Try replacing the failed device with a known working unit to determine if you have a damaged or faulty unit.
- If the problem persists, please contact your nearest KBC office or dealer.

Need Help?

Please visit our website www.kbcnetworks.com or contact your nearest KBC office or dealer.