Maximum Distance Reach for Power Sources

Multiple PoE Extenders can be connected every 100 meters to obtain greater distances. The actual figures depend on operating conditions. The range mentioned is for cables 24 AWG or heavier Cat-5e or Cat-6 cable except where specified.

Examples for medium power PoE Devices (that are PoE Class 2, or require under 6 watts)

PoE Source			
PoE switch (802.3af, output voltage 50V)	15W mid-span (802.3af, output voltage 50V)	PoE+ switch (802.3at, output voltage 50V)	30W mid-span (802.3at, output voltage 50V)
Maximum Distances			
300m	300m	400m	400m

Examples for full power PoE Devices (that are PoE Class 0 or 3, or require under 12 watts)

PoE Source			
PoE switch (802.3af, output voltage 50V)	15W mid-span (802.3af, output voltage 50V)	PoE+ switch (802.3at, output voltage 50V)	30W mid-span (802.3at, output voltage 50V)
Maximum Distances			
200m	200m	300m	300m

Examples for PoE+ Devices (that are PoE Class 4, under 22 watts or 802.3at compliant)

PoE Source			
PoE switch (802.3af, output voltage 50V)	15W mid-span (802.3af, output voltage 50V)	PoE+ switch (802.3at, output voltage 50V)	30W mid-span (802.3at, output voltage 50V)
Maximum Distances			
Not applicable	Not applicable	200m	200m

Gigabit PoE Extender

RB-EXTGE-101H

User Manual

www.robofiber.com

Gigabit Power-over-Ethernet Extender

Order Information

RB-EXTGE-101H Outdoor waterproof Gigabit PoE Extender 1(PoE IN) into 1(PoE OUT) 25W

Description

Both Ethernet and PoE UTP connections have cable distance restrictions to 100 meters only between network ports. To overcome this limitation, the RB-EXTGE-101H was developed: an in-line PoE Extender working on both Cat-5e or Cat-6 cables (Outdoor type).

With the RB-EXTGE-101H PoE Extender, PDs (such as IP Security Cameras, wireless access points) can be installed at greater distances. By connecting the PoE Extender for each 100 meters of cable, both Ethernet and PoE signals double the reach, all depending on PDs power requirements and capacity of the power source equipment (PSE).

The PoE Extender does not require any additional power supply and the connected PD is fed by a single PoE switch port or injector. RB-EXTGE-101H offers two Gigabit Ethernet ports, which are both configured automatically for link speed, duplex and auto direct/crossover negotiation and connectivity. When connecting to a PoE Switch, the extender supports PoE class 0,2,3 and 4 output. The total PoE power delivered can reach 25w (PoE Switch needs to provide IEEE802.3at power)

Features

- Compatible with IEEE802.3af and IEEE802.3at PoE standards
- Extends range of PoE and Gigabit Ethernet to an additional 100 meters No additional power supply is required
- Automatically detects and protects PoE equipment (PD and PSE) from being damaged by incorrect installation
- Gigabit full-rate network throughput
- Wall-Mountable design
- Easy plug-and-play installation
- Complies with IP66(for water protection/rain, outdoor waterproof UTP cable is required)

Technical Specifications

No. of Channels	1 PoE IN port and 1 PoE OUT port
Pass Through Data Rates	10/100/1000 Mbps half/full duplex
PoE Input	Pin Assignment and Polarity: Both 1/2 (-), 3/6 (+) and 7/8 (-), 4/5 (+)
PoE Output	Pin Assignment and Polarity: 1/2 (+), 3/6 (-), Output Power: up to 22W
Connectors	Shielded RJ-45, EIA 568A and 568B
Network Cable Type	Outdoor type Shielded category 5 (or higher)
Dimensions	185mm x 45mm x 45mm
Mounting	Wall or shelf
Environmental Conditions	Operating Ambient Temperature: -25 to 55℃ Operating Humidity: Maximum 90%, Non-condensing Storage Temperature: -30 to 70℃ Storage Humidity: Maximum 95%, Non-condensing Indoor and Outdoor operating device
PoE compliance	IEEE 802.3af (PoE), IEEE 802.3at (PoE+)

Application Diagram