




IFS POE201-EX POE Extender User Manual

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Manufacturer	UTC Fire & Security Americas Corporation, Inc. 2955 Red Hill Avenue, Costa Mesa, CA 92626-5923, USA
Version	This document applies to IFS POE201-EX POE Extender version 1.0.
Certification	   N4131
FCC compliance	<p>Class A: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.</p>
ACMA compliance	<p>Notice! This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.</p>
European Union directives	<p>2004/108/EC (EMC directive): Hereby, UTC Fire & Security declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 2004/108/EC</p>



2002/96/EC (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: www.recyclethis.info.

**Contact
information**

www.utcfireandsecurity.com or
www.interlogix.com

Customer support

www.interlogix.com/customer-support

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Package Contents

Thank you for purchasing the IFS POE201-EX IEEE 802.3af High Power over Fast Ethernet Extender.

Open the package containing the IFS POE201-EX and carefully unpack it. The box should contain the following items:

- POE201-EX x1
- User Manual x1

If any of these items are missing or damaged, please contact your dealer immediately. If possible, retain the product box including the original packing material to return it to for repair/replacement.

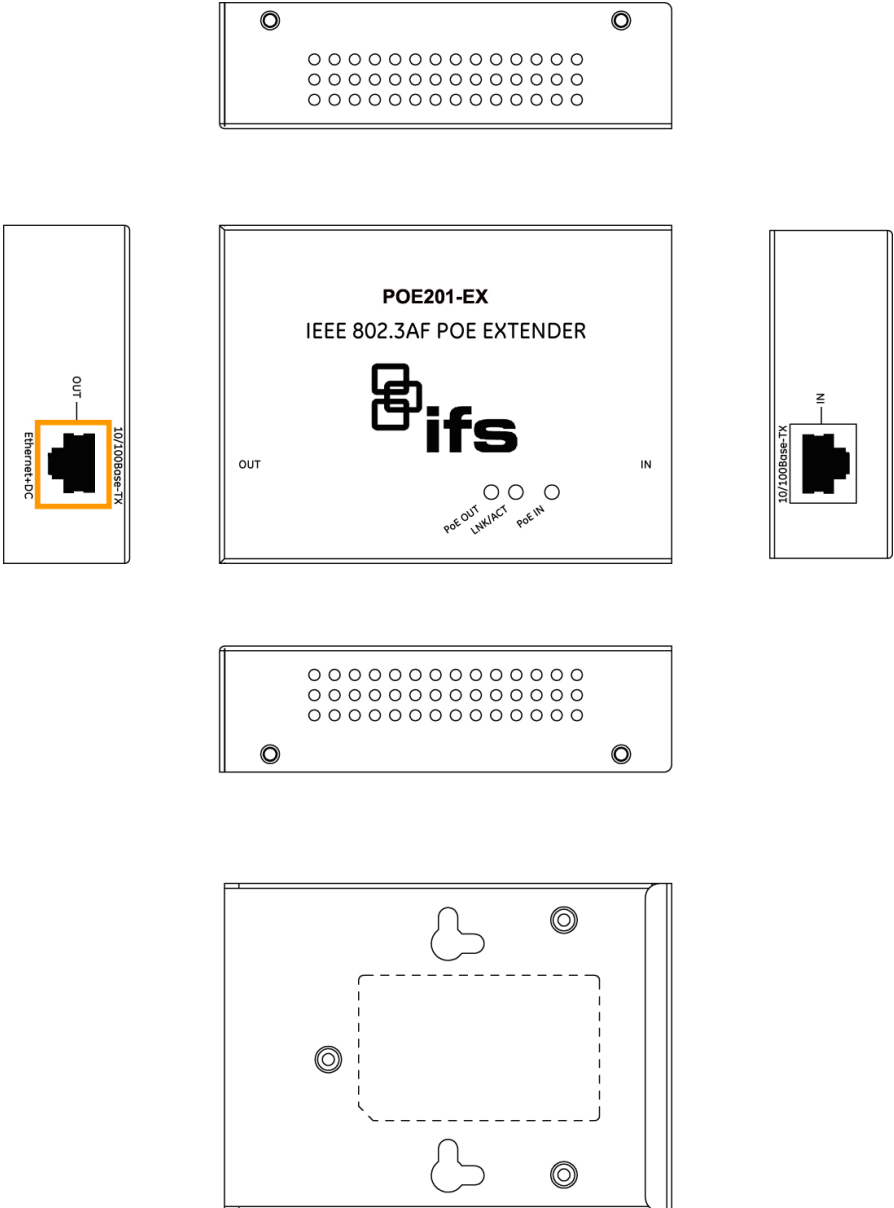
Product Features

- Complies with IEEE 802.3af Power over Ethernet
- Extends the range of PoE an additional 100 meters (328ft.)
- Forwards both Ethernet data and PoE power to a remote device
- Auto-detection of POE IEEE 802.3at equipment and devices to prevent damage caused by incorrect installation.
- Multiple units can be daisy-chained for extended distance (max. 3 units)
- No external power required
- Compact size, Wall-mountable design
- Plug-and-Play installation

Product Overview

Figure 1 shows the front and side panels of the POE201-EX.

Figure 1: POE201-EX Front and Side Panels



Port Connections

In Port

Connect the PoE IN port from following 802.3af PSE type devices through a CAT-5e/6 UTP cable:

- PoE injector
- PoE Injector Hub
- PoE Ethernet Switch
- Another POE201-EX

Out Port

Connect the PoE OUT port to following 802.3af PD type devices through a CAT-5e/6 UTP cable:

- PoE IP Camera
- PoE VoIP Phone
- PoE Wireless AP
- PoE Splitter
- Another POE201-EX

LED Indicators

POE201-EX LED indicators

LED	Color	Function
PoE IN	Green	Lights to indicate that the port is receiving power.
LNK/ACT	Green Blink	Lights to indicate the port is link up. Blink: Indicates the data activity through device.
PoE OUT	Green	Lights to indicate that the device is providing power.

Hardware Installation

The POE201-EX operates at two different data rates – 10Mbps and 100Mbps in the same device and automatically adjusts based on the speed of incoming connection.

The following section describes the hardware features of the POE201-EX. Carefully read this section before connecting any network device to this unit.

Before Installation

It is recommended to check the network environment before the installation. The POE201-EX conveniently extends the distances in an installation base by transferring power to the remote PDs. (Powered Devices).

The POE201-EX is installed between the PSE (Power Source Equipment) and the PD (Powered Device); it is powered by PSE and forwards the Ethernet data and remaining POE power to the PD. The POE201-EX doesn't require an external power supply and it can be installed easily just plug and play; that means the operator does not need to configure the POE201-EX. The POE201-EX injects power to the PDs without affecting the data transmission performance. It offers a cost effective and quick solution to extend power and data for an additional 328 ft. (100m).

Note: The POE201-EX can be installed with third-party devices as long as the connected device complies with the IEEE 802.3af standard.

Power Source Equipment (PSE) Installation

1. Connect a standard Cat5e/6 UTP cable from Power Source Equipment (PSE), such as PoE Switch, PoE Injector hub or a single port PoE injector, to the "IN" port of POE201-EX.

- The PSE delivers both Ethernet Data and PoE power over the UTP cable to the POE201-EX and the “PoE IN” LED will be illuminated.

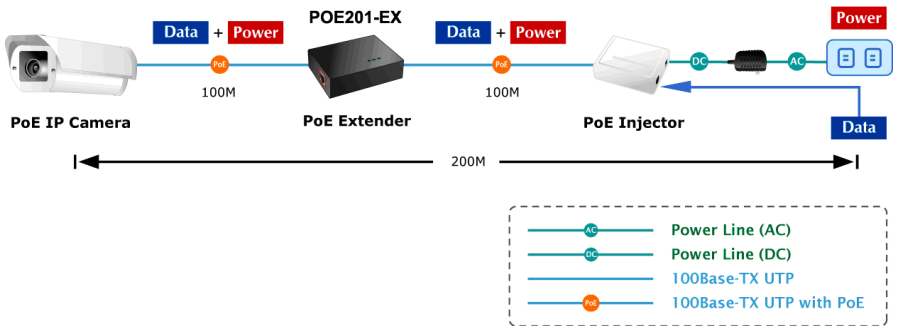
Note: The POE IN LED illuminates in a steady state to indicate that it is receiving power.

If the POE IN LED does not turn on, please check the remote PSE and/or the cable with a PC or a network device to see if the cable is correct

Powered Device (PD) Installation

- Connect one side of the CAT5e/6 cable to the "OUT" port of the POE201-EX, and the other side to the PD.
- The "OUT" port injects power and transfers data to the PD.
- Once the PD is detected, the “PoE OUT” LED indicator will illuminate in a steady state showing that it is providing power.

Figure 2: Extender connection diagram



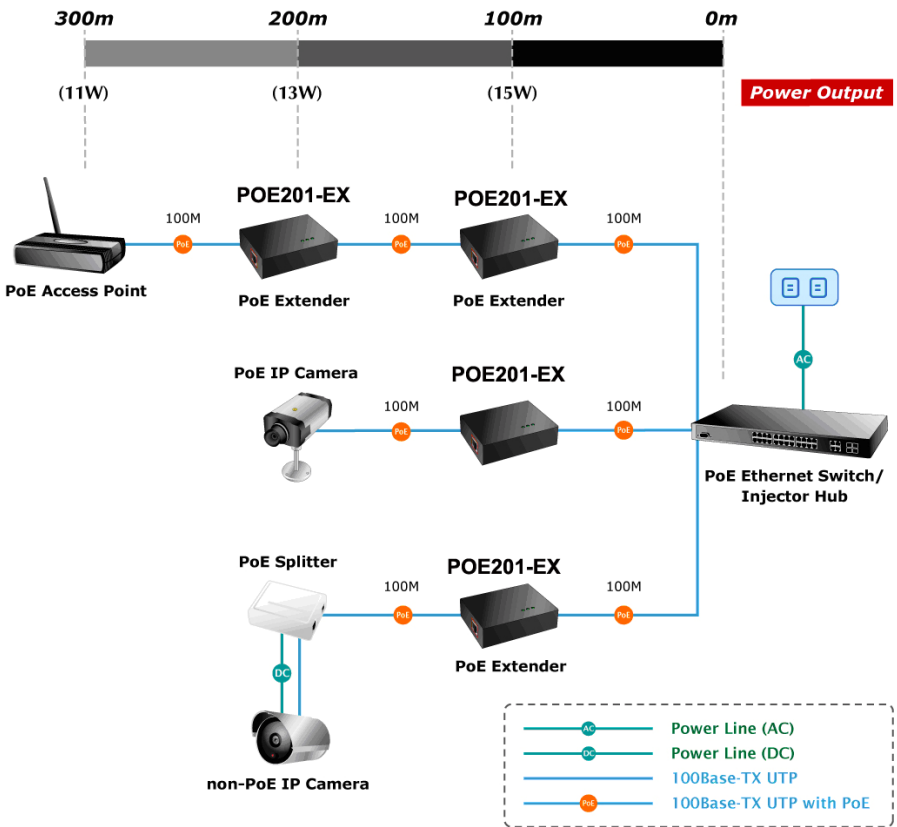
Note: The POE201-EX will not inject power to a PD that doesn't comply to the IEEE 802.3af standard. Therefore, in this type of connection, the PoE Out LED will not illuminate.

Multiple PoE Extender Installation

The POE201-EX PoE Extender supports daisy-chain installation of multiple units. Based on the power requirements of the PD, multiple POE201-EX devices can be used to increase the installation distance.

1. Connect one end of the CAT5e/6 cable to the "OUT" port of the first POE201-EX and the other end to the "IN" port of the next POE201-EX.
2. The "PoE OUT" LED indicator of the first POE201-EX will illuminate in a steady state indicating that it is providing power to next PoE Extender.
3. The "PoE IN" LED on the next POE201-EX will illuminate steadily to indicate that it receives the power from the previous PoE Extender.
4. Connect one side of the CAT5e/6 cable to the "OUT" port of the POE201-EX, and the other side to the PD.

Figure 3: Multiple Extenders connection diagram



Note: Each POE201-EX device will consume a maximum of 2 watts of the total overall PoE budget for itself. It is recommended to check the power requirements of the 802.3af PD and the POE201-EX in your system daisy-chain design before installation. If the overall power consumption is overloaded, the local PSE could shutdown the whole PoE power supplied by that port on the PSE.

Each connection between POE201-EX devices is limited of up to 328 ft. (100m) with CAT5e/6 cable. Use of any other cable may result in an unstable connection.

Specifications

Ethernet

Data Rate	10/100Mbps
Throughput (packet per second)	148810pps@64Bytes
IEEE Standards	IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.3x Flow Control
Latency	7.840µs
Maximum Frame Size	1552 Bytes
EIA/TIA 568 Standards	Category 5/5e cable

Power Over Ethernet (PoE)

PoE Standard	IEEE 802.3af Power over Ethernet PSE / Mid-Span IEEE 802.2af Power over Ethernet PD / Mid-Span
PoE Power Supply Type	Mid-Span / Type B (no external adapter required)
PoE Output Pin Assignment	4/5(+), 7/8(-)
PoE Output Power with multiple extenders	Class 1 (3.8 watts) 300m (984 ft.) Class 2 (6.5 watts) 300m (984 ft.) Class 3 (12.9 watts) 200m (656 ft.) Non-PoE (Data Only) 300m (984 ft.)

Connectors & Indicators

Ethernet + PoE In	1 x RJ-45 connector (10/100Base-TX & 802.3af PD Mid-Span)
Ethernet + PoE Out	1 x RJ-45 connector (10/100Base TX & 802.3af PSE Mid-Span)
LED Indicator	1-PoE In, 1 PoE Out, 1 Data LNK/ACT

Electrical and Mechanical

Input Power	Powered by 48VDC from PoE switch or Mid-Span Injector @ IEEE 802.3af
PoE Output Power	48VDC @ 270mA, 13 watts
Maximum Powered Devices	1
Enclosure	Metal
Dimensions (H x W x D)	3.7 x 2.75 x 1.0 in.; (95 x 70 x 25mm)
Weight	0.47 lbs. / 215g

Environmental

MTBF	>50,000 hrs. @ 25°C
Operating Temperature	0°C~50°C
Storage Temperature	-10°C~70°C
Relative Humidity	5%~90% (non-condensing)

Contacting Technical Support

Contact technical support if you encounter any difficulties during this installation. Please make sure you have the requested diagnostic or log files ready before you contact us by phone or go to www.interlogix.com/customer-support.

Technical Support

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