






IFS POE302-MS Ethernet Injector 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 POE302-MS Ethernet Injector 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 POE302-MS, an IEEE 802.3at High Power over Ethernet Injector.

Open the package containing the Ethernet Splitter and carefully unpack it. The box should contain the following items:

- POE302-MS x1
- User Manual x1
- Power Cord x 1

If any of these items are missing or damaged, please contact your Interlogix reseller. If possible, retain the original carton and packaging material and use them again to repack the product in case there is a need to return it to us for repair.

Product Features

Interface

- 2-Port RJ-45 interfaces
 - 1-Port PoE Power + Data output
 - 1-Port Data input
- 1 56V DC input power socket

PoE

- High Power over Gigabit Ethernet Mid-Span PSE
- IEEE 802.3at PoE compliant
- IEEE 802.3af devices compatible
- One IEEE 802.3at device can be powered
- Provides 56VDC power to the RJ-45 Ethernet port

- Auto-detection of POE IEEE 802.3at equipment and devices to prevent damage caused by incorrect installation
- Remote power feeding of up to 328 ft. (100m)

Hardware

- Metal Enclosure
- LED indicators for Power and PoE in-use

Standard Compliance

- IEEE 802.3 10Base-T
- IEEE 802.3u 100Base-TX
- IEEE 802.3ab 1000Base-T
- IEEE 802.3at Power over Ethernet
- FCC Part 15 Class A, CE

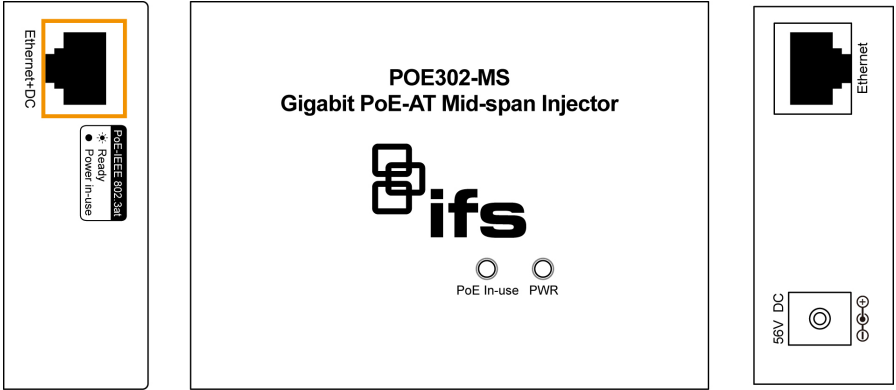
Note: PSE (Power Sourcing Equipment) is a device (switch or hub for instance) that will provide power in a PoE setup. The maximum allowed continuous output power per such device per the IEEE802.3 at standard is 30 Watts.

PD (Powered Device) is a PoE-enabled device powered by PSE and thus consumes energy, such as an IP camera, IP access control, IP intercom, VoIP and wireless access points (WAP), etc.

Product Overview

Figure 1 shows the front and side panels of the POE302-MS.

Figure 1: POE302-MS Front and Side Panels



LED Indicators

POE302-MS LED indicators

LED	Color	Function
PWR	Green	Lit indicates that the POE302-MS has power.
PoE In-use	Green	Lit indicates that the PoE port is providing 56VDC in-line power.

Hardware Installation

The POE302-MS operates at three different data rates – 10Mbps, 100Mbps and 1000Mbps in the same device and automatically adjusts to the data rate of the incoming transmission.

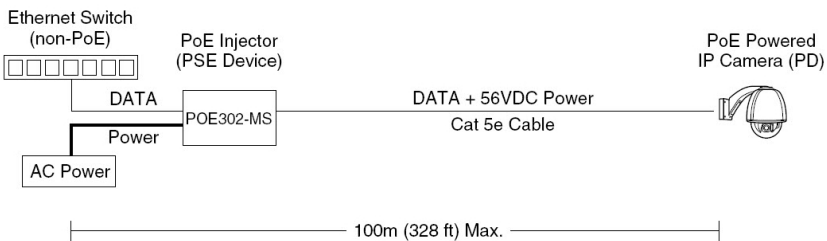
Before Installation

The POE302-MS requires an external 56VDC power supply to inject DC power onto the pins of the twisted pair cable (pair 4, 5 and pair 7, 8).

Injector Installation

1. Connect the external power adaptor to the 56 VDC power connector of the POE302-MS. The power LED will be on in a steady state. (External power adaptor is sold separately.)
2. Connect a standard network cable from the non-PoE switch or other network device to the “Ethernet” port of the POE302-MS.
3. Connect the long cable that will be used to connect to the remote POE PD device to the port “Ethernet + DC”.
4. Complying with the IEEE 802.3at Power over Ethernet standard, the POE302-MS can directly connect with any IEEE 802.3at end-nodes such as PTZ (Pan, Tilt & Zoom) network cameras, PTZ Speed Domes, color touch- screen Voice over IP (VoIP) telephones, and multi- channel wireless LAN access points that support IEEE 802.3af In-line Power over Ethernet on their ports. Figure 2 shows a typical application.

Figure 2: Connection Schematic



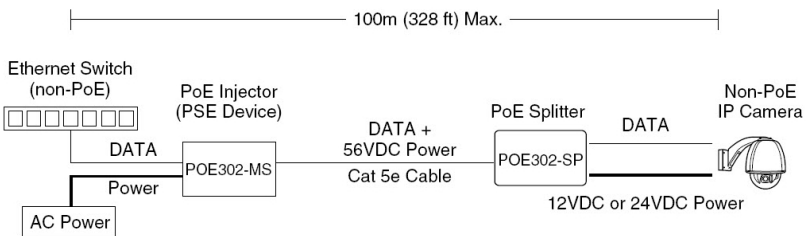
Once the POE302-MS detects the existence of an IEEE 802.3at device, the PoE in-use LED indicator will be on in a steady state to show it is providing power.

Note: If the connected device is not fully compliant with the IEEE 802.3at Power over Ethernet standard or in-line power device, the LED indicator of the POE302-MS will not remain lit.

Injector and Splitter Installation

1. Connect the external power adaptor to the 56 VDC power connector of the POE302-MS. The power LED will be lit.
2. Connect a standard network cable from the “Ethernet+DC” port of the POE302-MS to the “PoE In” port of the POE302-SP. The POE In-use LED of POE302-MS / POE302-SP will remain lit showing operation.
3. Connect a standard network cable from the non-PoE switch or other network device to the “Ethernet” port of POE302-MS.
4. Select either 12VDC or 24VDC on the DC power output switch and then connect the DC plug from "DC Out" of the POE302-SP to the remote device.
5. Adjust proper DC power output and connect DC plug from "DC OUT" of POE302-SP to remote device.
6. Power on the remote device and its power LED indicator will remain on. Remote device will be powered upon completion of the previous steps.

Figure 3: Injector and Splitter connection



Note: According to the IEEE 802.3at Power over Ethernet standard the POE302-MS will not inject power to the cable **if it is not connected** to IEEE 802.3at devices.

WARNING: Please ensure the output voltage is set correctly before applying power to remote device.

Note: POE302-MS and POE302-SP can be installed in pairs. However, use of a third-party device is allowed if the device complies with IEEE 802.3at Power over Ethernet standard.

Specifications

Ethernet

Data Rate	10/100/1000Mbps
Throughput (packet per second)	148810pps@64Bytes
IEEE Standards	IEEE 802.3 10Base T IEEE 802.3u 1000Base-TX IEEE 802.3ab 1000Base-T IEEE 802.3at PoE+
EIA/TIA 568 Standards	Category cable 10 Base-T 2 pair UTP Cat 3,4,5 to 328ft (100m) 100 Base-TX 2 Pair UTP Cat 3,4,5e to 328Ft (100m) 1000 Base-T 2 Pair UTP Cat 5,5e,6 to 328ft (100m) EIA/TIA-568 100ohm STP (100m)

Power Over Ethernet (PoE)

PoE Standard	IEEE 802.3af Power over Ethernet / PSE
PoE Power Supply Type	Mid-Span / Type B
PoE Output Pin Assignment	4/5(+), 7/8(-)
PoE Output Power	56VDC

Connectors & Indicators

Ethernet + DC Out	1 x RJ-45 connector (10/100/1000Base-TX with IEEE 802.3at PoE PSE for data + DC out)
Ethernet Data In	1 x RJ-45 connector (10/100/1000Base TX for data in)
DC Input	5.5 x 2.5 mm DC receptacle
LED Indicator	1-power; 1-PoE Ready/In-use

Electrical and Mechanical

Input Power	56VDC @ 0.53A
PoE Output Power	56VDC @ 30 watts max., 700mA
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	0.3 lbs. / 83g

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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