Overview

GE's Fiber to Ethernet and PoE Injector is now IFS. The IFS Fiber to Ethernet Media Converter and PoE Injector provides an effective solution for deploying remote PoE powered edge devices with optical fiber.

100Mbps Ethernet data can be transmitted up to 2km over multi-mode optical fiber to a remote location. At the remote location, the module can be installed near a power source and inject 48VDC PoE power to transmit simultaneously with 10/100Mbps Ethernet data over Category network cable for the last 100 meters to the remote PoE edge device.

In addition, this module utilizes a high performance Store-and-Forward architecture with IEEE 802.3x Flow Control (Full-Duplex) preventing packet loss. With the LFP (Link Fault Pass-through) function (LLCF/LLR) enabled, the module also provides an efficient method of alerting network administers of any link problems.

This module is an inexpensive and efficient way to eliminate extra AC wiring and reduce the need for dedicated electrical outlets in walls, ceilings or any unreachable place, providing optimized power management for IP-based surveillance cameras, wireless access points or any remote network edge device application.

Standard Features

Ethernet

- 10/100Base-TX

- Complies with IEEE 802.3, IEEE 802.3u

- Auto-negotiation and MDI/MDI-X

- Store-and-Forward architecture

- Supports maximum frame size to 1600bytes

- IEEE 802.3x full-duplex flow control, back pressure in half-duplex to eliminate packet loss

Power over Ethernet (PoE)

- Complies with IEEE 802.3af

- Inserts 48 VDC (15.4w) power on Category network cable

- Protects non-PoE devices if accidentally connected

Fiber

- 100Base-FX

- 62.5µm or 50µm multi-mode fiber

- Distances up to 2km

Installation & Diagnostics

- Plug-n-play installation

- Compact size

- Auto Loop Back Test function

- LED indicators offer simple network diagnosis

- Link Fault Pass through function for remote alarm notification

Warranty

- 3-year Warranty

Fiber to Ethernet Media Converter and PoE Injector

MC100FX-TX-PoE

Agency Compliances
• FCC
• CE

CE

Dimensional Diagram
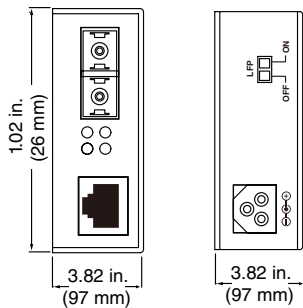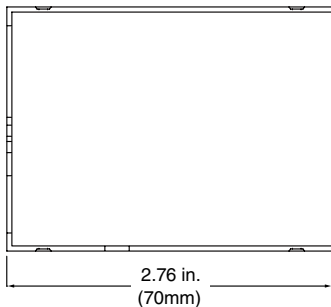
2.76 in.
(70mm)

1.02 in.
(26 mm)

3.82 in.
(97 mm)

3.82 in.
(97 mm)

Specifications

| Ethernet	
Data Rate	10/100Base-TX with Auto-negotiate (IEEE 802.3 / 802.3u)
Throughput (packet per second)	148810pps @ 64Bytes
Switch Architecture	Store-and-Forward
Flow Control	Back pressure for Half-Duplex mode Pause from for Full-Duplex mode (IEEE 802.3x)
Connector	RJ-45 with Auto-MDI/MDI-X and PoE injector function
Cable Type and Distance	10Base-T (Cat 3, 4, 5e) or 100Base-T (Cat 5e) – 328ft (100m)
Fiber	
Data Rate	100Base-FX
Connector	SC
Fiber Type and Distance	Multi-mode 50/125µm or 62.5/125µm – Up to 2Km
Optics	
Wave-length	1310 nm
Launch Power	Min. -19.0dBm; Max. -14dBm
Receive Sensitivity	-34.5dBm
Maximum Input Power	-14dB
Power over Ethernet (PoE) Injector	
PoE Standard	IEEE 802.3af
Power PIN Assignment	(+) Pins 1 & 2; (–) Pins 3 & 6
Power Output (Max. 1 PoE Device)	PoE 48 VDC, Max. 15.4 watts, 350mA
Standard Compliance	
Regulation	FCC Part 15 Class A, CE
LED Indicators	
Power/Status	On - Green
10/100Base-T Link	Data Activity - Green
100Base-FX Link	Data Activity - Green
PoE in Use	Detection of PSE Device - Green
LFP Mode Switch	
On	If either TX or FX port is faulty, disable other port
Off	Active link LED will still operate if other port is faulty
Electrical & Mechanical	
Power	48V DC @ 0.38A
Enclosure	Metal
Dimensions (H x W x D)	3.82 x 2.76 x 1.02 in. (9.7 x 7.0 x 2.6 cm)
Weight	0.44 lbs/200g
Environmental	
Operating Temperature	0ºC ~ 50ºC
Storage Temperature	-20ºC ~ 70ºC
Relative Humidity	0% ~ 90% (non-condensing)

Ordering Information

MC100FX-TX-PoE	Fiber to Ethernet Media Convertor and PoE Injector

Note: External power supply must be purchased separately.

Typical Application

48VDC Input

MC-100FX-TX-POE

Up to 2km
Multi-mode Fiber

MC-100FX-TX-POE

Network Switch

IP PoE
Camera

or fiber directly from a fiber switch

Cat 5e Cable
Ethernet with PoE

Cat 5e Cable

100m (328 ft) Max.

100m (328 ft) Max.

Network Fiber Switch

Security Products by GE are now part of the UTC Fire & Security family

UTC Fire & Security
A United Technologies Company