



Part of GE Security

## Network Transmission Products Ethernet to Fiber Media Converter and PoE Inserter

### Overview

The MC100FX-TX-PoE Series integrates two remote network technologies in a single product—100Base-FX to 10/100Base-TX Media Conversion with Power Sourcing Equipment and a PoE Injector—for wireless access points, IP-based surveillance cameras or IP phones.

With an IEEE 802.3af PoE Injector, the MC100FX-TX-PoE provides DC 48V voltage over Ethernet cables to optimize power management of network devices. A twisted pair of cables between the MC100FX-TX-PoE and IEEE 802.3af compliant PD or PoE Splitter transfers data and power simultaneously.

The maximum distance from the PoE PSE to PD is 100 meters, but a fiber interface can extend the deployment range. The MC100FX-TX-PoE PoE Media Converter can change an optical Ethernet signal to an electrical Ethernet signal, or a 10/100Base-TX signal to a 100Base-FX signal, to meet different network applications. The maximum networking distance can then extend as far as two kilometers and still sustain the transmission performance as high as 100Mbps. The high performance Store-and-Forward mechanism prevents packet loss with IEEE 802.3x Flow Control (Full-Duplex). In addition, the LFP (Link Fault Pass-through) function, (LLCF / LLR) and DIP switch design will immediately alert administrators about link media problems and provide an efficient solution to monitor the net. The DIP switch can disable or enable this LFP function.

With data, long-reach fiber capability and PoE from one unit, the MC100FX-TX-PoE requires fewer cables and eliminates the need for dedicated electrical outlets. Plus, power and data switching are delivered over a single cable to prevent additional AC wiring costs and reduce installation time.

With the data, long-reach fiber capability and PoE from one unit, the MC100FX-TX-PoE will reduce cables and eliminate the need for dedicated electrical outlets on the wall, ceiling or any unreachable place. It frees the Security IP Camera and wireless AP deployment from restrictions due to power outlet locations. Power and data switching are integrated into one unit and delivered over a single cable, eliminating costs for additional AC wiring and reducing installation time.

### Standard Features

- Complies with IEEE 802.3, IEEE 802.3u 10/100Base-TX, 100Base-FX, IEEE 802.3af Power Over Ethernet standard
- Auto-negotiation for 10/100Base-TX half-duplex or 10/100Base-full-duplex
- Compact size allows for easy installation
- 100Base-FX interface for up to 2km (multi-mode fiber 50µm/125µm) on MC100FX-TX-POE
- LED indicators offer simple network diagnosis
- 48V/0.4A DC power supply
- IEEE 802.3x full-duplex flow control, back pressure in half-duplex eliminate packet loss
- Supports maximum frame size to 1600bytes
- Supports auto MDI/MDI-X function
- Store-and-Forward mechanism
- Auto Loop Back Test function
- Side DIP switch: LFP (Link Fault Pass-through) mode selection

# Ethernet to Fiber Media Converter and PoE Inserter



MC100FX-TX-PoE





## Part of GE Security

North America  
 T 888-GE-SECURITY  
 888-437-3287  
 F 503-691-7566  
 E sales@ifs.com

Asia  
 T 852-2907-8108  
 F 852-2142-5063

Australia and New Zealand  
 T 613-9239-1200  
 F 613-9239-1299

Europe  
 T 44-113-238-1668  
 F 44-113-253-8121

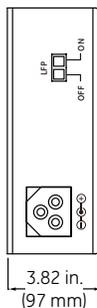
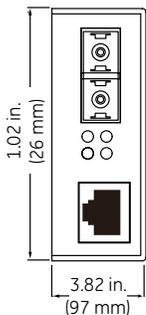
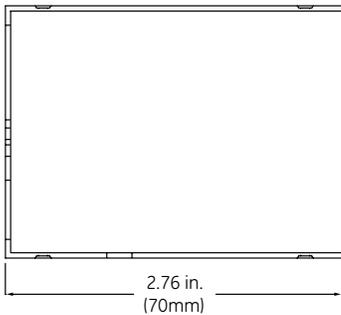
Latin America  
 T 305-593-4301  
 F 305-593-4300

gesecurity.com/ifs

Specifications subject to  
 change without notice.

© 2010 General Electric Company  
 All Rights Reserved

## Dimensional Diagram



## Specifications

Interface	
Copper	1-Port 10/100Base-TX RJ-45 TP interface with PoE injector function Auto-negotiation, Auto MDI/MDI-X
Fiber	1-Port 100Base-FX Multi-mode: 50/125 $\mu$ m or 62.5/125 $\mu$ m optic fiber
Fiber Port Type (connector)	SC
Cable Distance	2km
Optical Frequency	1310nm
Launch Power(dBm)	Max. -14 Min. -19.0
Receive Sensitivity	-34.5
Maximum Input Power	-14

Power over Ethernet	
PoE Standard	IEEE 802.3af Power over Ethernet
PoE Power Supply Type	End-Span/Type A
Power PIN Assignment	1/2(+), 3/6(-)
Power Output	PoE 48V DC, Max. 15.4watts, 350mA
Number of devices can be powered	1

Hardware Specification	
Ether Data Rate	10/100Mbps
Throughput (packet per second)	148810pps@64Bytes
Switch Architecture	Store-and-Forward
Flow Chart	Back pressure for Half-Duplex mode IEEE 802.3x Pause from for Full-Duplex mode
LED	System: Power, Status FX/LNK: Data Active, Fiber Link TX/LNK: 10/100 Link/Active PoE in Use: Detect PSE Device
Dimensions (H x W x D)	3.82 x 2.76 x 1.02 in. 97 x 70 x 26mm
Weight	0.44 lbs./200g
Power Supply	48V DC, 0.38A External AC-to-DC adapter
LFP Mode	Enable: Either TP port or FX port is broken, shut down the other port Disable: Link LED indicators still on if connection of the other end is broken
Installation	Stand-alone or wall-mount
Material	Metal

Standards Conformance	
Regulation Compliance	FCC Part 15 Class A, CE
Protocols and Standards Compliance	IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.3x Flow Control IEEE 802.3af Power over Ethernet
Cables	TP: TIA-EIA-568, CAT 5/5e UTP cable Fiber: Multi-mode: 50/125 $\mu$ m or 62.5/125 $\mu$ m optic fiber

Environmental	
Operating	Temperature: 0°C~50°C Relative Humidity: 5%~90% (non-condensing)
Storage	Temperature: -20°C~70°C Relative Humidity: 5%~90% (non-condensing)

Electrical	
Power Requirement	Power Requirement: 48V DC, 0.38A

## Ordering Information

MC100FX-TX-PoE	100Base-FX to 10/100Base-TX PoE Media Converter
----------------	---



imagination at work