

MC355-1T/1S

Gigabit Ethernet to SFP Industrial Managed Media Converter



OVERVIEW

The IFS Gigabit Ethernet to SFP Industrial Managed Media Converter is designed for the most demanding IP network applications offering the flexibility of SFP technology and remote network management for optimizing network performance with wide operating temperature range.

SFP Technology

The IFS MC355-1T/1S converts a 10/100/1000Mbps (TX) Ethernet on copper to 1000Mbps (FX) fiber via Small Form-format Pluggable (SFP) technology. This media converter can be custom configured to your exact system design specifications by utilizing a variety of IFS SFP Mini-GBIC modules. IFS SFP Mini-GBIC modules are available in a variety of versions from multi-mode or single mode fiber, 1 or 2 fibers and wide-temperature versions.

Enhanced Remote Management Features

For efficient management, the IFS Gigabit Ethernet to SFP Industrial Managed Media converter supports Simple Network Management Protocol (SNMP) and can be remotely managed via any standards-based management software.

Management functions include IP address configuration, DHCP Client function, port configuration, converter configuration, 802.1Q VLAN tagging, Q-in-Q VLAN, Ingress/Egress bandwidth control, QoS and Layer protocol filter, and broadcast storm control, to enhance bandwidth utilization.

In addition, the TS-1000/802.3ah OAM (operations, administration, and maintenance) protocol is supported which allows management and monitoring of a remote device via the MC355-1T/1S media converter.

STANDARD FEATURES

Ethernet

- 10/100/1000 Base-TX
- Complies with IEEE 802.3, IEEE 802.3u IEEE 802.3ab
- Auto-negotiation and MDI/MDI-X
- 10/100Base-TX: 2-pair Cat. 5e/6 UTP cable, up to 100 meters

SFP (Mini-GBIC) Port

- IEEE 802.3z 1000Base-SX/LX/BX standard
- 1 SFP slot provides custom configuration
- Optical fiber and distance varies by SFP (ordered separately)

Installation & Diagnostics

- Plug-n-play installation
- LED indicators for easy local network diagnostics
- Firmware upgradable via remote Web interface
- Reset button at the front panel for resetting to factory default

Robust Hardened Design

- Slim IP30 metal enclosure
- DIN-rail or wall-mounting
- 12 to 48 VDC, redundant power with reverse-polarity protection
- Alarm relay output for port breakdown and power-failure alert
- Complies with IEC60068-2-xx standards for free-fall, shock and vibration
- Wide operating temperature range of -30° C ~ +75° C

Warranty

- 3-year warranty

Built-in Remote Network Management

- Layer 2 management
- Store-and-forward mechanism
- Built-in IP-based Web interface for remote management
- Manual IP address setting / DHCP client for IP address assignment
- Speed duplex mode configuration / flow control setting / bandwidth control on TP and SFP fiber interface
- SNMP v1 / v2c monitor / private Enterprise MIB
- Event trap and SNMP trap support
- Supports port status / Ethernet statistics on both TP and SFP fiber interface
- Supports maximum frame size to 16K bytes
- Loop detection / broadcast / multicast / unicast storm control
- Management VLAN / 16 IEEE 802.1Q VLAN groups / Q-in-Q VLAN
- 802.1p Tag Priority / IP address priority / IP DSCP option in Quality of Service Mode and Strict Priority / Weighted Round Robin (WRR) QoS policies
- TS-1000 OAM / IEEE 802.3ah OAM / Loop Back Test
- 16 TCP / UDP Filter groups

Specifications

Ethernet	Description
Data Rate	10/100/1000 Base-TX port
Throughput (packet per second)	1,488,000pps
Switch Architecture	Store-and-forward
Jumbo Packet Size	9K
Flow Control	Back Pressure for Half Duplex, Mode Pause for Full-Duplex Mode IEEE802.3x
Connector	RJ-45 (Auto-MDI/MDI-X)
Cable Type and Distance	10Base-T: 2-pair UTP Cat. 3,4,5, up to 100 m (328 ft.) 100Base-TX: 2-pair UTP Cat. 5e, up to 100 m (328 ft.) 1000 Base-T: 4-pair UTP Cat. 5e, 6 up to 100m (328 ft.)

Fiber

Data Rate	1000Base-SX/LX/BX 802.3z
Connector	SFP (Mini-GBIC) port
Fiber Type and Distance	Varies by SFP module

LED Indicators & Controls

Power/Status	Green/On – power
10/100/1000Base-TX port	Green/On – active port (TX/RX)
SFP (Mini-GBIC) port link	Green/On – link established
Reset button	Reset to factory default settings

Electrical & Mechanical

Power	12 to 48 VDC, .65A (7.9 watts)
Enclosure	Metal
Dimensions (H x W x D)	5.31 x 3.34 x 1.25 in. (135 x 85 x 32mm)
Weight	0.93 lbs. / 423 grams

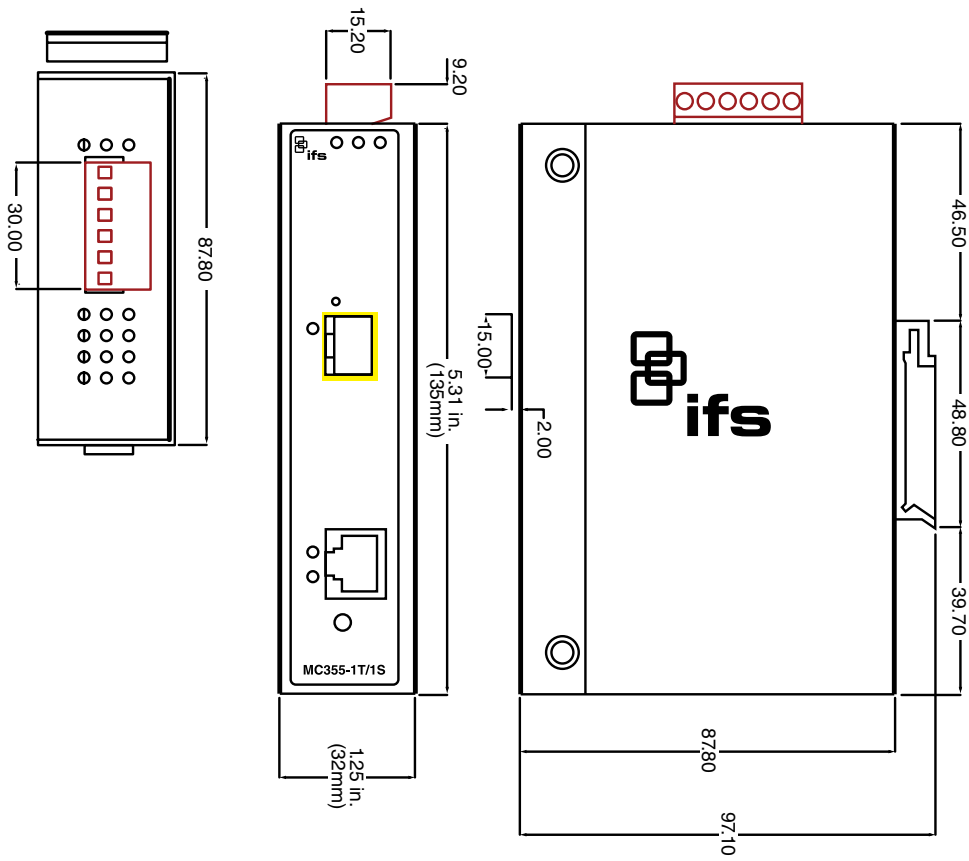
Environmental

Operating Temperature	-30°C ~ +75°C
Storage Temperature	-40°C ~ +85°C
Relative Humidity	5% ~ 90% (non-condensing)
MTBF	> 50,000 hrs @ 25°C

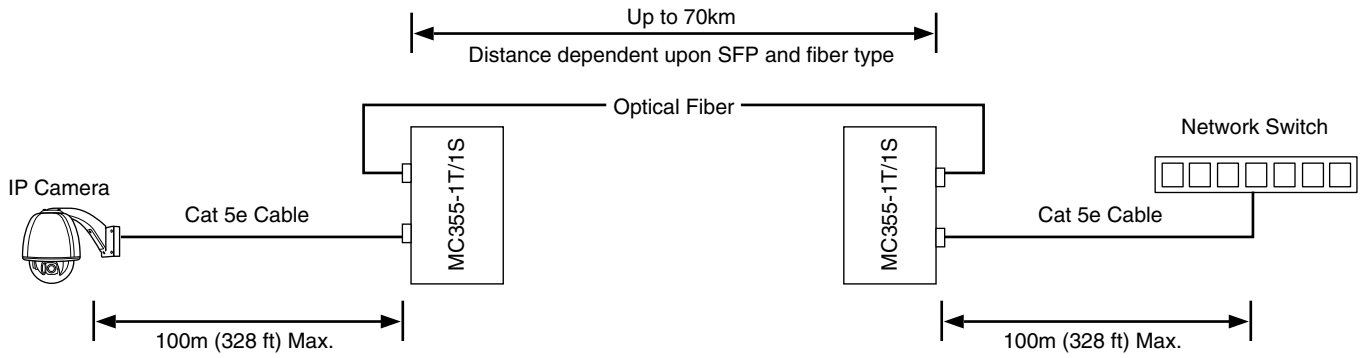
Standards Compliance

IEEE	IEEE 802.3 10Base-T IEEE 802.3u 100Base-TX /100Base-FX IEEE 802.3ab 1000Base-TX IEEE 802.3z 1000Base-SX/LX/BX IEEE 802.3Q VLAN Tagging IEEE 802.3x Flow Control and Back Pressure IEEE 802.3p Class of Service IEEE 802.3ah OAM
EMI	EN 55022 CLASS A EN61000-3-2:2006 EN61000-3-3: 1995+1A:2001+A2:2005
EMS	EN 55024:1998+A1:2001+A2:2003 IEC 61000-4-2:2001 IEC 61000-4-3:2008 IEC 61000-4-4:2004 IEC 61000-4-5:2005 IEC 61000-4-6:2008 IEC 61000-4-8:2001

Dimensional Diagrams



Typical Application



MC355-1T/1S

Gigabit Ethernet to SFP Industrial
Managed Media Converter

North America
T 855-286-8889

Asia
T 852-2907-8108

Australia
T 61-3-9239-1200

Europe
T 32-2-725-11-20

Latin America
T 561-998-6114

Ordering Information

MC355-1T/1S	Gigabit Ethernet to SFP Industrial Managed Media Converter
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Note: This unit requires a Small Form-factor Pluggable (SFP) for operation. IFS SFPs are available for multi-mode, single mode, 1 or 2 fibers for various transmission distances over optical fiber. Please refer to the IFS SFP data sheet to select the appropriate SFP for your particular application needs. This unit uses Gigabit SFPs only.

Power Supply must be ordered separately.

Accessories

PS12VDC1.5A-U	12VDC@1.5A External Power Supply
HLG-240-48	48VDC High Temperature Industrial Power Supply

Specifications subject to change without notice.

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