

MCR300-1T/1S

Gigabit Ethernet to SFP Media Converter

OVERVIEW

The IFS Gigabit Ethernet to SFP Media Converter is designed for the most demanding extended IP network applications offering the flexibility of SFP technology for Gigabit Ethernet transmission over optical fiber.

SFP Technology

The IFS MCR300-1T/1S converts 10/100/1000Base-T Ethernet on copper to 1000Base-LX/SX optical 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 Smart Link Management

The MCR300-1T/1S provides Auto MDI/MDI-X on its TP port and a DIP-switch to configure the Link Fault Pass-through function (LFP). The LFP function includes both Link Loss Carry Forward (LLCF) and Link Loss Return (LLR). The LLCF/LLR function combination provides efficient TP and optical transmission media monitoring and enables immediate alarm notification to network administrators in the event of a link problem.

Unified Enclosure Design

The MCR300-1T/1S is designed with a unified enclosure that can be used in a stand-alone installation or can easily be inserted into the IFS MCR-R15 media converter rack. The IFS Media Converter Rack can provide DC power for up to 15 MCR Series Media Converters.



Details

- 10/100/1000Base-TX
- Auto-negotiation and Auto-MDI/MDI-X
- Supports OAM (TS-1000 and IEEE 802.3ah)
- 9K jumbo frame supported
- IEEE 802.3z 1000Base-LX/SX standards
- 1 SFP slot provides custom configuration
- Optical fiber and distance varies by SFP (ordered separately)
- Plug-n-play installation
- LED indicators for easy local network diagnostics
- DIP-switch for LFP function (Enable / Disable) setting
- Unified design for stand-alone or rack mount installation (MCR-R15 chassis)

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Technical Specifications

General

Type	Ethernet to SFP
Switch throughput (Mpps)	14.8
Compatible with MCR rack	Yes

Connections

No. of ports	1
Port speed	Gigabit
Port type	10/100/1000
Fiber port	1
Fiber port type	SFP
Fiber port speed	1000Base SX/BX/LX/LHX/ZX
Supported SFP's	S30/S35 series
Fiber distance	SFP dependant
Fiber connector	LC
Wavelength	SFP dependant

Physical

Physical dimensions	97 x 70 x 26 mm
Net weight	190 g
Mounting type	Wall mount

Environmental

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

Electrical

Power supply type	5 VDC
Power consumption	5.6 W
PoE	No

Ethernet

Data Rate	10/100/1000Mbps
OAM	TS-1000, IEEE 802.3ah terminal
Jumbo Packet Size	9K
Flow Control	Half/Full-duplex
Connector	RJ-45 (Auto-MDI/MDI-X)
Cable Type and Distance	10Base-T: 2-pair UTP Cat. 3,4,5, up to 100 m / 100Base-TX: 2-pair UTP Cat. 5, up to 100 m / 1000Base-T : 2-pair UTP Cat. 5/5e/6, up to 100m

Fiber

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

LED Indicators & Controls

Power/Status	Green/On – power detected (+5VDC)
10/100/1000Base-T port link/activity	Green/On – link established / Green/blinking – active port (TX/RX)
10/100/1000Base-T port speed	Green/On – 1000Mbps full duplex mode operation / Green/Off – 10/100Mbps full duplex mode operation
SFP (Mini-GBIC) port link	Green/On – link established / Green/blinking – active port (TX/RX)
DIP switch	LFP function (Enable/Disable) setting

Electrical & Mechanical

Power	5VDC, 2A (5.6 watts)
Enclosure	Metal
Dimensions (W x D x H) in, mm	3.82 x 2.76 x 1.02 in.; (97 x 70 x 26 mm)
Weight	0.41 lbs. / 190 grams

Standards Compliance

IEEE	IEEE 802.3, 10Base-T / IEEE 802.3u, 100Base-TX / IEEE 802.3ab 1000Base-T / IEEE 802.3z 1000Base-SX/LX/BX
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

Accessories

PS5VDC2A-US	5VDC@2A Wall-mount Power Supply
PS5VDC2A-UK	5VDC@2A Wall-mount Power Supply
PS5VDC2A-EU	5VDC@2A Wall-mount Power Supply
MCR-R15	MCR Series Media Converter Chassis

