UTC Fire & Security
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MCR300-1T-2S

Gigabit Ethernet to 2-Port SFP Media Converter

Overview

The IFS® Gigabit Ethernet to SFP Media Converter is designed for the most demanding extended IP network applications offering the fiexibility 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 ?bers and wide-temperature versions.

Flexible Drop-and-Repeat or Redundant Path Operation

The MCR300-1T-2S model, with its 2 SFP ports, can easily be configured for either drop-and-repeat or redundant path operation. In drop-and-repeat mode, the MCR300-1T-2S operates like a 3-port switch and can be used as a repeater with an electrical drop or simply as an optical repeater/extender. In redundant path mode, the MCR300-1T-2S will quickly switch to the second SFP port as a redundant path if the primary optical path experiences an optical cable failure. Also, if the primary destination port link is down, the module will forward the data packet to the redundant path providing a highly fault-tolerant solution for mission critical IP applications.

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.

Standard Features

- 10/100/1000Base-T
- Auto-negotiation and Auto-MDI/MDI-X
- Complies with IEEE 802.3 10Base-T; IEEE 802.3u 100Base-TX;
  and IEEE 802.3ab 1000Base-T
- 9K jumbo frame supported
- IEEE 802.3z 1000Base-LX/SX standards
- 2 SFP slots 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)

MCR300-1T-2S

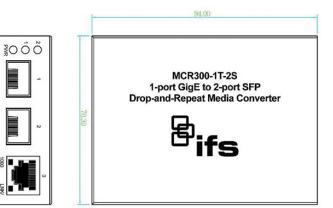Gigabit Ethernet to 2-Port SFP Media Converter

Specifications

Ethernet

Data Rate	10/100/1000Mbps
Packet Forwarding Rate	1,488,000pps @ 1000Mbps
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

Environmental

Operating Temperature	0°C ~ 50°C
Storage Temperature	-10°C ~ 70°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 / 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

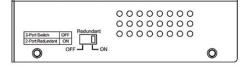|	
PS5VDC2A-US	5VDC@2A Wall-mount Power Supply
PS5VDC2A-UK	5VDC@2A Wall-mount Power Supply
PS5VDC2A-EU	5VDC@2A Wall-mount Power Supply
MCR-R15	MCR Series Media Converter Chassis

Ordering Information

Part No.	Description
MCR300-1T-2S	Gigabit Ethernet to 2-Port SFP Media Converter

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