Carrier

MC-4TX1FXMM-2KM

4-Port 10/100Base-TX Copper + 1-Port 100Base-FX (2Km) MM Industrial Media Converter - Din rail or Wall Mount

Overview

IFS Ethernet to Fiber Industrial Media Converters offer four 10/100Mbps Ethernet ports and 100Base-FX transmission on either multi-mode or single mode optical fiber for optimum bandwidth usage. Specifically designed for stable and reliable operation in electrically harsh and climatically demanding environments, the module's slim, IP-30 standard metal case accommodates DIN-rail or wall mounting for efficient installation in multiple applications.

These converters are engineered with a high-performance switch architecture capable of providing a non-blocking switch fabric and wire-speed throughput as high as 1Gbps or 1.2Gbps. With its 2K MAC address table, these media converters offer wire-speed packet transfer performance without the risk of packet loss. The Flow Control function allows these modules to deliver fast and reliable data transfer. Available in multi-mode or single-mode configurations, the converters deliver distances of up to 2km or 15km respectively. Providing extended distance Ethernet transmission, these units are well suited for remotely deployed edge devices such as IP cameras, access control, VoIP and wireless access points. IFS also provides a multi-mode dual-fiber version for drop and repeat network topologies.

Details

- 4 RJ-45 Ports 10/100Base-TX
- Auto MDI/MDI-X
- Auto-negotiation
- 1 Fiber Port 100Base-FX MM or SM Fiber
- Complies with the IEEE 802.3, IEEE 802.3u, Fast Ethernet standard
- Store-and-Forward switching architecture with wire-speed filtering and forwarding rates
- Prevents packet loss with back pressure (half-duplex) and IEEE 802.3x PAUSE frame-flow control (full-duplex)
- Robust Hardened Design
- Provides either DIN-rail or wall-mounting
- 12 ~ 48VDC, redundant power with reverse-polarity protection
- Voltage/surge-suppression
- Complies with IEC60068-2-xx standards for free-fall,
- shock and vibration
- Wide operating temperature range of up to -40ºC ~ +75ºC
- 1-Port 100Base-FX interface for up to 2km (multi-mode fiber 50/125µm)

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Technical specifications

General

Type	Ethernet to Fixed Optics
Switch throughput (Mpps)	0.744
Mac table	2 K

Connections

No. of ports	4
Port speed	Fast
Port type	10/100
Fiber port	1
Fiber port speed	100Base FX
Fiber distance	2 km
Fiber connector	SC
Wavelength	1300 nm

Physical

Physical dimensions	135 x 87 x 32 mm
Net weight	437 g
Switch fabric	1 Gbps
Mounting type	DIN-rail, Wall mount

Environmental

Operating temperature	-10 to +60°C
IP rating	IP30

Electrical

Power supply type	12 to 48 VDC
Power consumption	9 W
PoE	No
Redundant power	Yes

Hardware Specifications

	4x 10/100Base-TX RJ-45 with Auto-MDI/MDI-X function for each port
	1x 100Base-FX SC Port
Fiber Port Type :	SC / Multi-mode
Cable Distance :	2Km
Optical Frequence :	1300nm
Launch Power (dBm) :	Max:-14 / Min: -19.0
Receive Sensitivity (dBm) :	-34.5
Maximum Input Power (dBm) :	-14
Installation :	DIN-rail kit and wall-mount ear
Dimension (W x D x H) :	135 x 87 x 32mm
Weight :	436gr
EFT (Ethernet) :	6KV DC
ESD (Power) :	6KV DC
Enclosure :	IP-30 slim-type metal case
Power Connector :	6-pin removable screw terminal
Reliability :	MTBF > 100,000Hrs @ 25°C
Power requirement :	12~48 VDC, Redundant power with polarity-reverse protection function
Power Consumption :	9.1Watts / 31BTU max.

Switch Specification

Switch Architecture :	Store-and-Forward
Switch Fabric :	1Gbps / non-blocking
Switch Throughput :	0.744Mpps@64bytes
Address Table :	2K entries
Share Data Buffer :	1Mbit on-chip frame buffer
Maximum Frame Size :	1522 Bytes packet
Flow Control :	Back pressure for Half-Duplex, IEEE 802.3x PAUSE Frame for Full-Duplex

Environment Specification

Operating Temperature :	-10°C~+60°C
Operating Humidity :	5%~95% (non-condensing)
Storage Temperature:	-40°C~+85°C
Storage Humidity :	5%~95% (non-condensing)

Standards Conformance

Standards Compliance :	IEEE 802.3 10Base-T
Standards Compliance :	IEEE 802.3u 100Base-TX / 100Base-FX
Standards Compliance :	IEEE 802.3x Flow Control and Back pressure