

## Overview

The MC10G Fiber Optic Media Converter is designed to operate in high temperature NEMA environment with 1 x 10 Gbs TX copper port and 1 x 10G SFP Fiber Optic Port . The converter mediates between a 10G Base-TX segment and a 10G Base-FX segment. It is primarily designed for large, higher speed/bandwidth demanding workgroups that require expansion of the Ethernet network. It can extend the 10G TX Ethernet up to 20Km distances via the SFP 10 Gigabit Ethernet Fiber-optic module. It is high-performance, cost effective and flexible solutions for a wide range of applications in the field of 5G networks or LAN campus networks.

The MC10G offers an easy-to-use and configuration facility, via the WEB interface, it can be programmed for basic management functions such as per port speed duplex settings, Port Trunking, VLAN, Port Mirroring, network security authentication and misc configurations. Additionally, the firmware includes advanced features such as IGMP snooping, QoS (Quality of Service), broadcast storm and bandwidth control, to enhance bandwidth utilization. The extended temperature capability for meeting NEMA specifications satisfies very critical applications requiring high quality data transmission performance with high reliability. Applications include Telecom 5G Networks, ITS Intelligent Traffic System, Metro Operation, HDTV Broadcasting System, IP cameras Surveillance, Homeland Security, Utility Management, Premise Networks, Military Hardened applications or anything requiring high speed Ethernet Network performance.



## Features

- 1 x 10 GB LX Fiber Port
- 1 x 100/1000/10000M TX Ethernet Ports
- Support 802.1Q 4K VLAN, port based, protocol based VLAN, Generic Attribute Registration Protocol (GARP), GARP VLAN Registration Protocol (GVRP)
- Static and Dynamic port aggregation
- Port rate limit, broadcast storm control, port mirroring, rich Quality of Service (QoS) features
- +5 VDC Power Adapter

## Applications

- 5G Communications Network
- ITS Traffic Applications
- SCADA Networks
- Metro Networks
- Gas & Oil Fields Monitoring Applications
- Railroad Networks
- Military Applications
- Data Acquisition Applications

## Order Information

Model	Descriptions
MC10G	10 Gigabit Ethernet Media Converter, 1 x 10000M-LX SFP, SM 1310nm, 50 Km, 1 x 100/1000/10000M-TX RJ45 , +5 VDC

## Specifications

System:	
Error Rate	1 in 10 <sup>12</sup> or Better
Network Standard	IEEE 802.3n 1000BASE-T IEEE 802.3u 1000BASE-TX IEEE 802.3z FX IEEE 802.3x Flow Control IEEE 802.3ad Port trunk with LACP IEEE 802.3w RSTP IEEE 802.1Q VLAN Tagging
Indicators	PWR, TP, FO, 100M
Ports	1 x 10/100/1000Base-T 1x 1000Base- LX
Frame Flow Control	Full Duplex Mode
Frame size	16K Bytes
Jumbo Frame	9000 Bytes
Layer 2 Management	Store-and Forward Remote Monitoring (RMON) Far-end Fault Indication (FEFI) Link Fault Pass Through (LFP) Auto Recovery Remote Management and Set Up Manual IP Address Setting / DHCP Loopback, Broadcast, Multicast, Unicast storm control Speed Duplex Mode Configuration Bandwidth Control on TP/FX
Physical:	
Dimension	4.2" x 2.7" x 1.0"
Power	+5 VDC @1 Amp

Fiber Interface:	
Port	1 x 10 GB Base-LX
Data Rate	10000 Mbps
Connector	SFP-LC
Distances	10KM@1310MM, 40KM@1310SM
TX Interface:	
TX Port	1 x 100/1000/10000Base-TX Auto-Negotiation MDI/MDIX
Data Rate	1100/1000/10000 Mbps
Connector	RJ45
Transmission Mode	Half/Full Duplex
Network Management :	
Interface	Web Browser, SNMPv1, v2c Monitor
Port Configuration	Port enable, Auto-Negotiation, Full and Half Duplex mode, Flow Control Enable, Bandwidth Control
VLAN	16 IEEE 802.1Q VLAN / Q-in-Q VLAN
Link Aggregation	Supports IEEE 802.3ad LACP
QoS	802.1p Priority, DSCP field in IP
IGMP Snooping	IGMP (v1/v2) Snooping, up to 64 Multicast groups
SNMP MIBs	RFC-1213 MIB-2, RFC-1573 MIB RFC-2819 RMON MIB (Group 1)
Environment:	
Operating	-34 <sup>0</sup> C to +74 <sup>0</sup> C
Storage	-40 <sup>0</sup> C to + 95 <sup>0</sup> C
Humidity	98% Non-Condensing

## Application

### 100/1000/10000M TX Ethernet RJ45 At Remote Location



MC10G

Up to 50 Km SM Fibers



MC10G

### Operation Center



### 100/1000/10000M TX Ethernet RJ45

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