

# MCT-5002FSMSFP+ Media Converter



10G Base-R SFP+ to SFP+ Compact Media Converter

## Features

- **Comply with IEEE 802.3ae 10GBase-R, IEEE 802.3z 1000Base-X**  
Equipped with 2 SFP+ ports that support multi-mode, single-mode, including CWDM/DWDM, or Direct Attached Cable (DAC) for 1Gbps/10Gbps fiber transceivers.
- **Support 3Rs (Re-amplifying, Re-shaping, Re-timing) optical signal regeneration**  
The data transfer is transparent and regenerated by 3Rs between the different fiber optics devices.
- **Jumbo frame & Transparent mode**  
Support 9K bytes jumbo frame size and low latency benefiting from the transparent mode in the network traffic.
- **Support Loopback mode**  
Ensure the circuit quality for installation verification and troubleshooting by running the loopback test.
- **Support Signal Loss Alarm**  
Offer a quick link indication by detecting the signal loss between two network devices interconnected by the media converter.
- **Fully Compatible with MCT-RACK Chassis Series**  
A space-saving solution for MCT-RACK chassis series to mix the installation of MCT series converters.
- **In Rack Management**  
Support CTS MCT-RACK management, it allows administrator to configure and monitor the slide-in media converters such as port speed, shutdown and SFP DDMI information.

## Description

Connection Technology Systems (CTS) MCT-5002FSMSFP+ media converter is a 10G Base-R SFP+ to SFP+ media converter. MCT-5002FSMSFP+ media converter, featuring two pluggable transceiver SFP+ ports, extends transmission distance with 3Rs (Re-amplifying, Re-shaping, Re-timing) optical signal regeneration for Data Center application or ISP Mobile DU and Enterprise broadband service applications.

With the forwarding capacity at the full wire speed, MCT-5002FSMSFP+ media converter is the most optimized and simplest solution for dispersed network that media conversion is required between multi-mode fiber segments separated due to geographical limit.

MCT-5002FSMSFP+ media converter is fully compliant with IEEE 802.3z and 802.3ae standards. The installation and operation are simple and straightforward.

The operation status can be monitored through a set of diagnostic LED indicators on the front panel. In addition, MCT-5002FSMSFP+ can be monitored and slightly managed when it is inserted into a slot of the MCT-RACK-MGM chassis series. It is especially designed for network operators and metro Ethernet providers who have the need of implementing fiber optical Ethernet networks over long distance, for FTTX solutions, and are looking for an effortless and reliable 10G fiber Ethernet media converter.

## Target Applications

- **FTTX implementations. Point-to-point fiber connection for long distance with 3Rs (Re-amplifying, Re-shaping, Re-timing) optical signal regeneration.**

## Specification

### Interface

-F/O Port (Type):  
2 x 1G/10Gbps (SFP+)

### Standards

-IEEE 802.3ae 10GBase-R  
-IEEE 802.3z 1000Base-X

### H/W Specification

-3Rs (Re-amplifying, Re-shaping, Re-timing)  
optical signal regeneration  
-Traffic transparent mode  
-Jumbo frame : 9K Bytes  
-DIP Switch :  
Signal Loss Alarm  
Loopback  
Speed  
Software Control

### LED

-Power, FO1, FO2, Status, LB1, LB2

### Forward/Filter Rate

-1G: 1,488,000/1,488,000pps  
-10G: 14,880,000/14,880,000pps

### In-Rack Management

-Module Monitor:  
Model Name/Serial Number/Port Link Status  
/DMI Information/Version  
-Module Configuration:  
Description/Signal Loss Alarm/Loopback Mode/  
Port Shutdown/Port Speed (1G/10G)/Power Reset

### Power Requirement

-AC to DC Power Adaptor  
Input: 100 ~ 240VAC, 50/60Hz  
Output: 12VDC  
Power Consumption: 6.5W

### Environmental Condition

-Operation: 0°C ~ 50°C  
-Storage Temperature: -20°C ~ 60°C  
-Humidity: 5% ~ 90%, Non-condensing

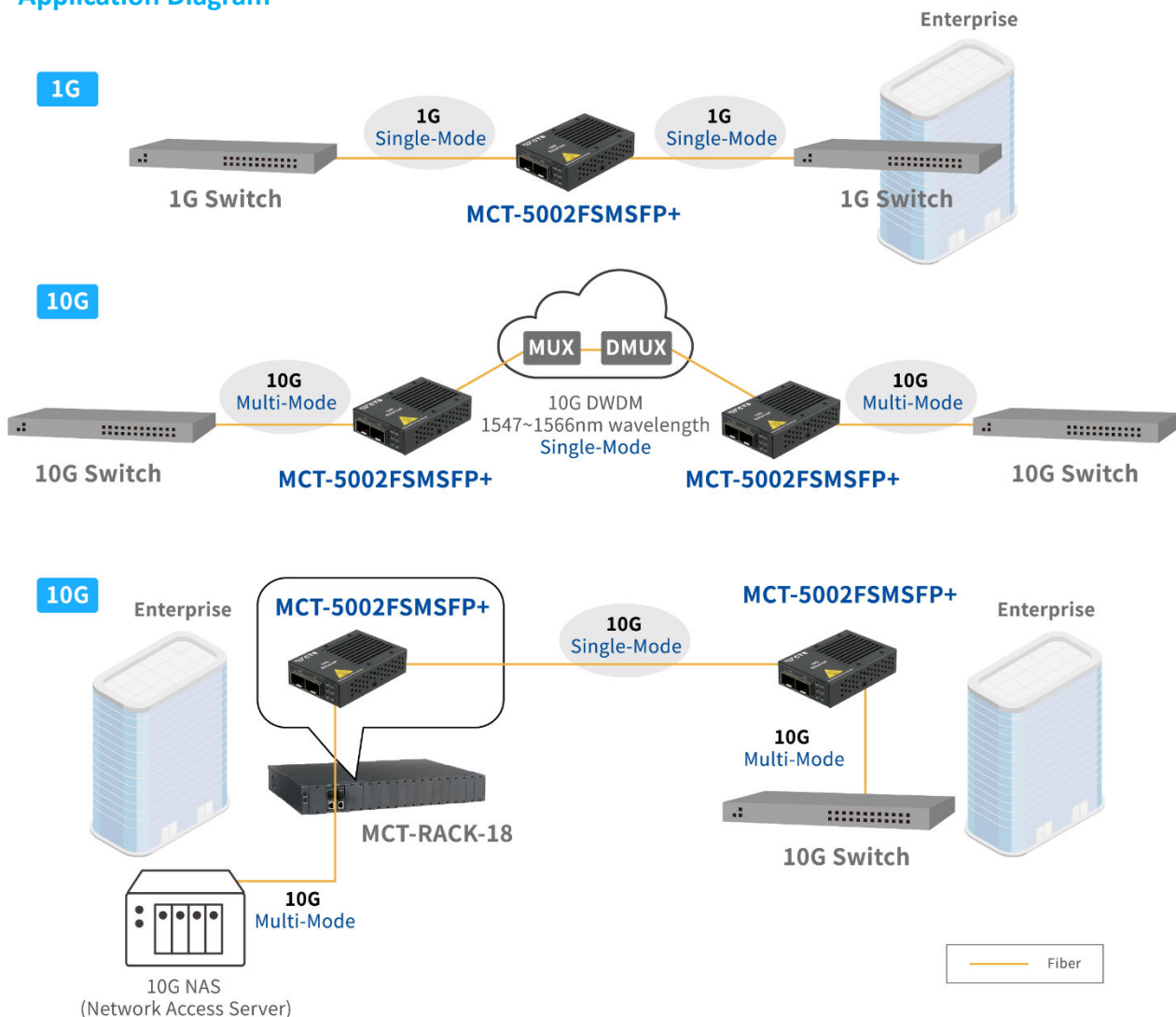
### Dimension & Weight

-Size: 51 x 74 x 20 mm (W x D x H)  
-Weight: 76 g

### EMC/Safety

-FCC Class A, CE

## Application Diagram



### Order Information

#### MCT-5002FSMSFP+

Model	Fiber Ports					Support Power Source
	Speed	Type	Connector	Distance	Ports	
MCT-5002FSMSFP+	10Gbps	SFP+	-	-	2	External AC to DC Power Adapter

#### SFP-51 Series

Model	Fiber Ports					
	Speed	Type	Connector	Distance	Wavelength	Temperature
SFP-51FC	10G	MM	LC	300M	850nm	0 ~ 70°C
SFP-51FC(SM-10)	10G	SM	LC	10KM	1310nm/1550nm	0 ~ 70°C
SFP-51W2A(SM-10)	10G	WDM	LC	10KM	TX: 1270nm	0 ~ 70°C
					RX: 1330nm	
SFP-51W2B(SM-10)	10G	WDM	LC	10KM	TX: 1330nm	0 ~ 70°C
					RX: 1270nm	

#### SFP-31 Series

Model	Fiber Port					
	Speed	Type	Connector	Distance	Wavelength	Temperature
SFP-31FC	1000Mbps	MM	LC	550M	850nm	0 ~ 70°C
SFP-31FC(SM-10)	1000Mbps	SM	LC	10KM	1310nm/1550nm	0 ~ 70°C
SFP-31W2A(SM-10)	1000Mbps	WDM	LC	10KM	TX: 1310nm	0 ~ 70°C
					RX: 1550nm	
SFP-31W2B(SM-10)	1000Mbps	WDM	LC	10KM	TX: 1550nm	0 ~ 70°C
					RX: 1310nm	