



## MCT-3002

1 x 10/100/1000Base-T RJ-45 +  
1 x 1000Base-X BTFX/W2X or  
100/1000Base-X BTFX/W2X/SFP  
Gigabit Ethernet Media Converter

### Description

Connection Technology System (CTS) MCT-3002 model is a Gigabit Ethernet 10/100/1000Base-T to 1000Base-X or 100/1000Base-X media converter. MCT-3002 converts traditional twisted-pair RJ-45 cable into various fiber media including multi-mode, single-mode, SC connector, bi-directional WDM, or an SFP slot for pluggable fiber transceiver, extending transmission distance for the deployment to the household, apartment, or campus.

The MCT-3002 converter is fully compliant with IEEE 802.3, 802.3u, 802.3ab, and 802.3z standards. Besides, it is equipped with the switching feature of the store and forward mechanism.

On the front panel is a set of diagnostic LED indicators, which allows the real-time monitoring of the media converter and therefore enables straightforward operation and installation. It is specially designed for whoever needs to implement fiber optical Ethernet networks over long distances. Network operators, metro Ethernet providers, enterprises, or SMB, can all find the MCT-3002 media converter fairly handy in deploying FTTX point-to-point solutions because of its effortless usage and reliable network connection.

- **The World-Wide Effortless and Reliable Media Converter**

The almost “set-it-and-forget-it” media converter is for minimizing network implementation and maintenance efforts.

- **9K Bytes Jumbo Frame Size**

Support Jumbo Frame size 9K bytes to ease the network traffic loading and facilitate IPTV service.

- **Link Alarm**

When UTP or fiber port is down during operation, the other port will be automatically turned off to alert the user.

- **Fully Compatible with MCT-RACK-18**

Budget limited solution for MCT-RACK-18 to mix installation with MCT series converter.

## Target Applications

- **FTTX Implementations. Point-to-Point fiber connection for long distance.**

## ■ Interface

- TP Port:  
1 x 10/100/1000Base-T RJ-45
- F/O Port:  
1 x 1000Base-X BTFX/W2X  
(on MCT-3002 model)  
1 x 100/1000Base-X BTFX/W2X/SFP  
(on MCT-3002-DR model)

## ■ Standards

- IEEE 802.3 10Base-T
- IEEE 802.3u 100Base-TX
- IEEE 802.3u 100Base-FX  
(on MCT-3002-DR model)
- IEEE 802.3ab 1000Base-T
- IEEE 802.3z 1000Base-X

## ■ H/W Specification

- Store and Forward Switching Mechanism
- Auto-Crossover for MDI/MDI-X in TP port
- Auto-Negotiation in TP Port
- Full/Half Duplex Mode Operation
- MAC Address Table: 2K
- Memory Buffer (Bytes): 128K
- 9K Bytes Jumbo Frame
- Slide-in Converter Center

## ■ LED

- Power, FDX, Status, Speed,  
F/O Link/Act, TX Link/Act

## ■ Ethernet Features

- 9K Bytes Jumbo Frame
- Store and Forward Switching Mechanism

## ■ Other Features

- Rear Panel DIP Switch
- Support Slide-in Converter Center
- Support Link Alarm

## ■ Power Requirement

- Power Adaptor  
AC Input: 100VAC~240VAC  
Frequency Range: 50~60Hz  
DC Output: 3.3V
- Power Consumption: 2.3W Max.

## ■ 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 20mm (W x D x H)
- Weight: 0.1kg

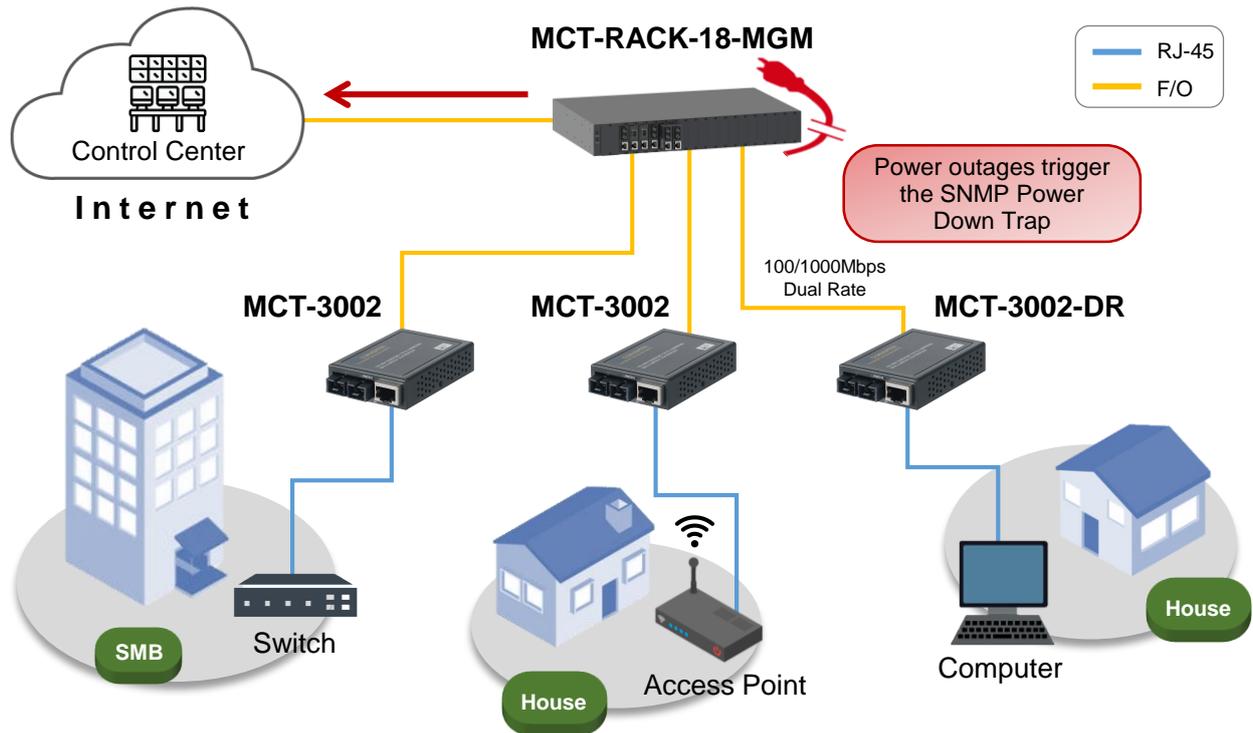
## ■ EMC/Safety

- FCC Class A, CE

\* Under development function

\*\* Future feature

# Application Diagram



## Order Information

### MCT-3002

Model	Fiber Port					TP Port	
	Speed (Mbps)	Type	Connector	Distance	Port	Speed (Mbps)	Port
MCT-3002BTFC	1000	MM	SC	550M	1	10/100/1000	1
MCT-3002BTFC(SM-10/20/30)	1000	SM	SC	10/20/30KM	1	10/100/1000	1
MCT-3002W2A(SM-10/20/40)	1000	WDM	SC	10/20/40KM	1	10/100/1000	1
MCT-3002W2B(SM-10/20/40)	1000	WDM	SC	10/20/40KM	1	10/100/1000	1

### MCT-3002-DR

Model	Fiber Port					TP Port	
	Speed (Mbps)	Type	Connector	Distance	Port	Speed (Mbps)	Port
MCT-3002BTFC(SM-10)-DR	100/1000	SM	SC	10KM	1	10/100/1000	1
MCT-3002W2A(SM-10)-DR	100/1000	WDM	SC	10KM	1	10/100/1000	1
MCT-3002W2B(SM-10)-DR	100/1000	WDM	SC	10KM	1	10/100/1000	1
MCT-3002SFP-DR	100/1000	SFP	-	-	1	10/100/1000	1

Connection Technology Systems (CTS) reserves the right to change specification without prior notice.

# Accessory

## SFP-31

Model	Fiber Port					
	Speed (Mbps)	Type	Connector	Distance	Wavelength	Temperature
SFP-31FC	1000	MM	LC	550M	850nm	0°C~70°C
SFP-31FC(SM-10/20)	1000	SM	LC	10/20KM	1310/1310nm	0°C~70°C
SFP-31W2A(SM-10/20)	1000	WDM	LC	10/20KM	TX: 1310/1310nm RX: 1550/1550nm	0°C~70°C
SFP-31W2B(SM-10/20)	1000	WDM	LC	10/20KM	TX: 1550/1550nm RX: 1310/1310nm	0°C~70°C

## SFP-31-DR

Model	Fiber Port					
	Speed (Mbps)	Type	Connector	Distance	Wavelength	Temperature
SFP-31FC-DR	100/1000	MM	LC	550M/2KM	1310nm	0°C~70°C
SFP-31FC(SM-10)-DR	100/1000	SM	LC	10KM	1310nm	0°C~70°C
SFP-31W2A(SM-10/20)-DR	100/1000	WDM	LC	10/20KM	TX: 1310/1310nm RX: 1550/1550nm	0°C~70°C
SFP-31W2B(SM-10/20)-DR	100/1000	WDM	LC	10/20KM	TX: 1550/1550nm RX: 1310/1310nm	0°C~70°C

## SFP-30

Model	Copper Port					
	Speed (Mbps)	Type	Connector	Distance	Wavelength	Temperature
SFP-30TP	1000	-	RJ-45	100M	-	0°C~70°C

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