MCT-3512 Series

1 x 10/100/1000Base-T RJ-45 to

1 x 1000Base-X BTFC/W2X or

    100/1000Base-X BTFC/W2X/SFP

Compact Managed Media Converter

Description

Connection Technology Systems (CTS) MCT-3512-DR series media converter are the Gigabit Ethernet 10/100/1000Base-T to 100/1000Base-X media converter. MCT-3512-DR series media converter allows user to connect Ethernet twisted-pair RJ-45 cable into various fiber media including Multi-mode, Single-mode, Bi-directional WDM, or a SFP slot for pluggable fiber transceiver, extending transmission distance for the deployment to the household, apartment or campus.

MCT-3512-DR series media converter is fully compliant with IEEE 802.3, 802.3u, 802.3ab & 802.3z standards. Besides, it is equipped with some switching features including flow control and store and forward mechanism.

The installation and operation are quite simple and straight-forward. The operation status can be monitored through a set of diagnostic LED indicators on the front panel. It is especially designed for network operators, metro Ethernet providers, enterprises, SMB, who have the need of implementing fiber optical Ethernet networks over long distance, for FTTX solutions, and are looking for an effortless and reliable 1000Mbps media converter.

Key Features

■ **9K Bytes Jumbo Frame Size**

Support Jumbo Frame Size 9K Bytes to ease the Network Traffic Loading and Facilitate IPTV Services.

■ **Local Management for Port Status and Configuration**

Both Local Module Control (Auto, Speed and Duplex) and Local Module Monitor (Link, Speed and Duplex) are available.

■ **Fully Compatible with MCT-RACK-12-MGM and MCT-RACK-18-MGM**

Budget limited Solution for MCT-RACK-12-MGM and MCT-RACK-18-MGM to mix Installation with CTS's non-Management Media Converter.

■ **Link Alarm**

When UTP or Fiber Port is Down during Operation, the other Port will be automatically turned off to alert the User.

■ **Dual Rate with Auto-Sensing Function ***

Dual Rate Fiber Transceiver with Auto-Sensing Function can automatically adjust the Transmission Speed to save the Cost when upgrading the Device from 100Mbps to 1000Mbps.

■ **The OAM Media Converter**

With IEEE 802.3ah standard, the connected media converter also supporting OAM feature can be monitored and configured via our MCT-RACK-12-MGM or MCT-RACK-18-MGM.

■ **Targeted Applications**

• Managed media converter which required monitoring point-to-point connection for the deployment of FTTX applications.

*Only supported on -DR model.

Specification

■ Interface

RJ-45 Port

- 1 x 10/100/1000Base-T RJ-45

Fiber Port

- 1 x 1000Base-X BTFX/W2X (MCT-3512 only)
- 1 x 100/1000Base-X BTFX/W2X/SFP (MCT-3512-DR only)

Standards

- IEEE 802.3 10Base-T
- IEEE 802.3u 100Base-TX
- IEEE 802.3u 100Base-FX *
- IEEE 802.3ab 1000Base-T
- IEEE 802.3ah OAM
- IEEE 802.3z 1000Base-X

■ H/W Specification

- MAC Address Table: 2K
- Non-blocking Switching Fabric: 4Gbps
- Throughput @ 64Bytes: 2.97Mpps
- Jumbo Frame: 9K Bytes
- Packet Buffer: 128K Bytes
- Store and Forward Switching Mechanism
- Auto-Cross over for MDI/MDI-X in TP port
- Auto-Negotiation in TP Port
- Full/Half Duplex Mode Operation

■ Forward/Filter Rate

- 10M: 14,880/14880pps
- 100M: 148,800/148,800pps
- 1000M: 1,488,000/1,488,000pps

■ LED

Power, Status, FDX,
TP Link/Act/Speed, F/O Link/Act/Speed

■ DIP Switch

- TP Auto-Negotiation Enable/Disable
- TP Speed 10/100Mbps
- TP Speed 1000Mbps
- Fiber Speed Manual/Auto-Sensing *
- Fiber Speed 100/1000Mbps *
- F/O mode Force/Auto
- Link Alarm Enable/Disable
- Configured via DIP switch/Software

■ Installation Method

- Wall-mount (optional)
- DIN-rail (optional)
- Magnetic-mount kit (optional)

■ In-Rack/Remote Management **

Module Firmware Upgrade

Module Reset, Power OFF/ON

Module Monitor

- Port Status/Traffic Counter
- SFP SFF-8472 DDMI Monitor
  Temp/Voltage/TX Bias/TX Power/RX Power

Module Configuration

- Description
- Link Alarm
- Port State/Type/Speed
- Port-Based Rate Limit (Ingress/Egress)
- Broadcast Storm Control
- IEEE 802.1q VLAN
  Q-in-Q Double tag with Configurable Ether Type
- OAM (Loopback) ***

■ Power Requirement

- Power Input (Main body): 5 VDC
- Power Adaptor (Including in package):
  Input : 100~240 VAC, 50~60 Hz
  Output : 5 VDC
- Max. Power Consumption: 3W (10.23 BTU/h)

■ Environmental Condition

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

■ Dimension & Weight

- Size: 51 x 74 x 20mm (W x D x H)
- Weight: 0.1kg
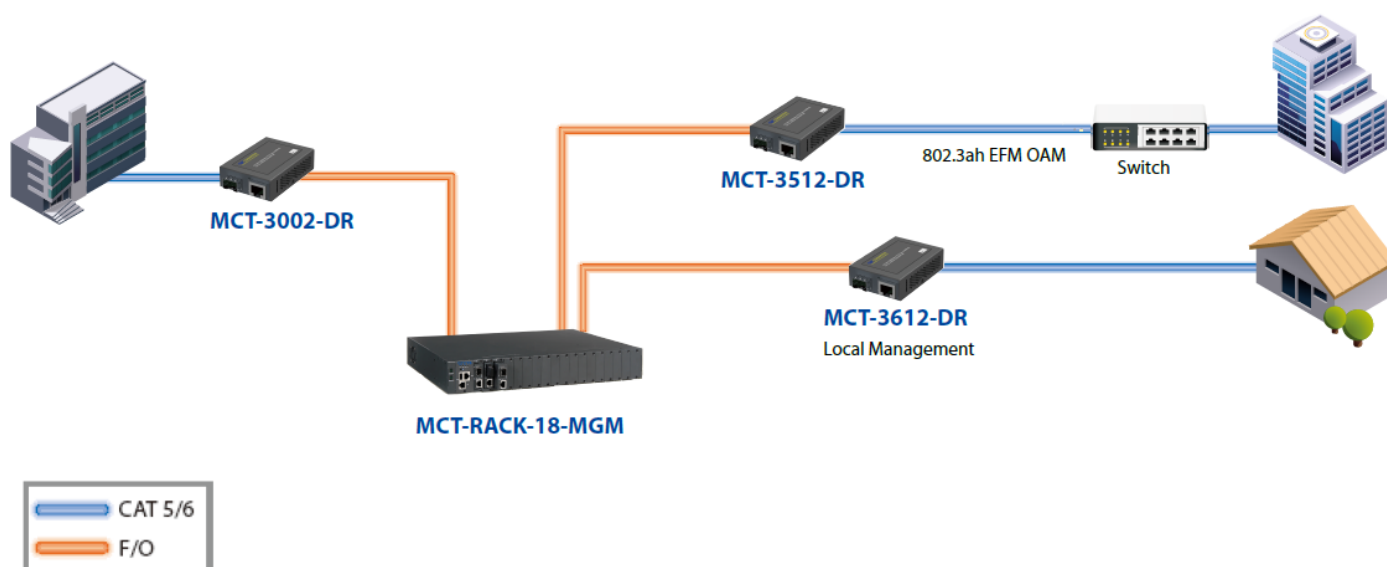- Housing: Iron

■ Standards and Certifications

CE/FCC Class A

- Safety: EN/IEC 62368-1
- EMC: EN 55032 / EN 55035
- ESD
  Air Discharge: +/-8kV
  Contact Discharge: +/-4kV
- EFT
  AC input: +/-1kV
  Signal (RJ-45): +/-0.5kV
- Surge Protection
  AC input: +/-1kV
  Signal (RJ-45): +/-1kV

RCM

RoHS 2.0

* Only supported on -DR model.
** Remote management is only available when installed in the MCT-RACK-MGM series.
*** Only operates with another MCT-3512(-DR).

Application Diagram

CAT 5/6
F/O

Order Information

MCT-3512

Model	Fiber Port						TP Port	
	Speed (Mbps)	Type	Connector	Distance	Wavelength	Port	Speed (Mbps)	Port
MCT-3512BTFC	1000	MM	SC	550M	850nm	1	10/100/1000	1
MCT-3512BTFC(SM-10/20/30)	1000	SM	SC	10/20/30KM	1310nm	1	10/100/1000	1
MCT-3512W2A(SM-10/20/40)	1000	WDM	SC	10/20/40KM	TX: 1310nm RX: 1550nm	1	10/100/1000	1
MCT-3512W2B(SM-10/20/40)	1000	WDM	SC	10/20/40KM	TX: 1550nm RX: 1310nm	1	10/100/1000	1

MCT-3512-DR

Model	Fiber Port						TP Port	
	Speed (Mbps)	Type	Connector	Distance	Wavelength	Port	Speed (Mbps)	Port
MCT-3512BTFC(SM-10)-DR	100/1000	SM	SC	10KM	1310nm	1	10/100/1000	1
MCT-3512W2A(SM-10)-DR	100/1000	WDM	SC	10KM	TX: 1310nm RX: 1550nm	1	10/100/1000	1
MCT-3512W2B(SM-10)-DR	100/1000	WDM	SC	10KM	TX: 1550nm RX: 1310nm	1	10/100/1000	1
MCT-3512SFP-DR	100/1000	SFP	-	-	-	1	10/100/1000	1

Accessory

SFP-31

Model	Specification					
	Speed	Type	Connector	Distance	Wavelength	Operating Temperature
SFP-31FC-DR	100/1000Mbps	MM	LC	550M/2KM	1310nm	0˚C~70˚C
SFP-31FC(SM-10)-DR	100/1000Mbps	SM	LC	10KM	1310nm	0˚C~70˚C
SFP-31W2A(SM-10/20)-DR	100/1000Mbps	WDM	LC	10/20KM	TX: 1310/1310nm RX: 1550/1550nm	0˚C~70˚C
SFP-31W2B(SM-10/20)-DR	100/1000Mbps	WDM	LC	10/20KM	TX: 1550/1550nm RX: 1310/1310nm	0˚C~70˚C
SFP-31FC	1000Mbps	MM	LC	550M	850nm	0˚C~70˚C
SFP-31FC(SM-10/20/40)	1000Mbps	SM	LC	10/20/40KM	1310/1310/1310nm	0˚C~70˚C
SFP-31W2A(SM-10/20/40)	1000Mbps	WDM	LC	10/20/40KM	TX: 1310/1310/1310nm RX: 1550/1550/1550nm	0˚C~70˚C
SFP-31W2B(SM-10/20/40)	1000Mbps	WDM	LC	10/20/40KM	TX: 1550/1550/1550nm RX: 1310/1310/1310nm	0˚C~70˚C

Copper SFP

Model	Specification			
	Speed	Connector	Distance	Operating Temperature
SFP-30TP	1000Mbps	RJ-45	100M	0˚C~70˚C

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