CONNECTION TECHNOLOGY SYSTEMS

MCT-RACK-12-MGM

12 SLOTS COMPACT MANAGEMENT MEDIA CONVERTER CHASSIS

User's Guide

Version 2.0

Trademarks

Copyright Statement

FCC Warning

The MCT-RACK-12-MGM media converter chassis have been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These standards are designed to provide reasonable protection against harmful interference when these devices are operated in a commercial environment. These devices generate, use, and can radiate radio frequency energy and may cause harmful interference to radio communications unless installed in accordance with this User's Guide. Operation of these devices in a residential area is likely to cause harmful interference which will make the user responsible for the appropriate remedial action at his / her own expense.

CE Mark Warning

These are Class A products. In a domestic environment these products may cause radio interference in which case the user will need to consider adequate preventative methods.

1. Checklist

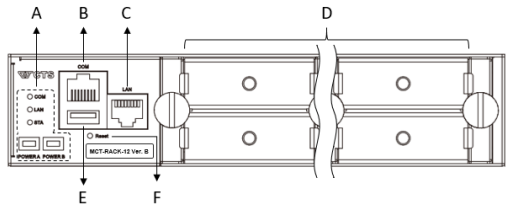
The item listed below should be included in the package:

- 1 x MCT-RACK-12-MGM
- 1 x AC Power Cord (only for -1A model)
  2 x AC Power Cord (only for -2A model)
- 4 x Screws
- 4 x Rubber Foot
- 1 x RJ-45 Cable for pulling media converter (150mm)
- 1 x Console Cable
- 2 x Cover Plate for Power Slot

Please contact your sales representative immediately if any items are missing or damaged.

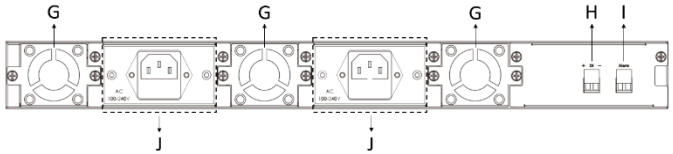
2. Appearance

2.1 Front Panel



A. LED indicators
B. Console RS232 port (RJ-45)
C. 10/100Mbps RJ-45 LAN port
D. 12 x Media converter slots
E. USB host
F. Reset button

2.2 Rear Panel



G. Smart Fan
H. Digital Input Terminal Block (Dry contact)
I. Digital Output Terminal Block
J. Slot for AC/DC power module

2.3 LED Definitions

Chassis LED

LED	Definition	Color	Operation
Power A Power B	Power Status	Off	The power is currently unavailable
		Green	The power is currently available.
STA	System Status	Orange	**Light on** when the device is currently booting up, or the device is currently upgrading. *To restart the system, press the Reset button for more than 5 seconds until the LED light has turned into orange, then release.
			Blinks when the device is resetting to default settings. *To restore the device to its factory default settings, press and hold the Reset button for over 10 seconds until the LED starts blinking. Then, release the button, and the device will restart with the default settings.
LAN	LAN Port Status	Off	No link is established.
		Green	**Light on** when a 10Mbps or 100Mbps link is established.
			Blinks when the port is transmitting data packet.
COM	Console Port Status	Off	No link is established.
		Green	**Light on** when the console port link is established.

MCT Series Media Converter LED

Please refer to the User's Manual that comes with the MCT Series Media Converters for LED indications.

3. Installation

Basic Requirements

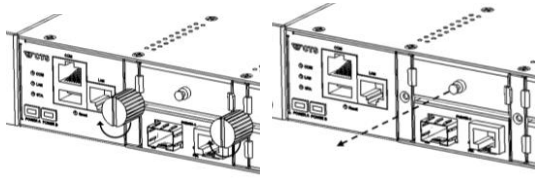
- Environmental conditions
  - One power outlet for MCT-RACK-12-MGM internal power supply
  - One power outlet for Redundant Power Supply
  - Proper ventilation
  - Proper isolation to electrical noise, radio, etc.
  - RJ-45 cables should not run in the same duct with power and phone line cables.
- Required MCT series media converters
- Required Fiber and RJ-45 cables
- Redundant Power Supply
- Rack mounting tools

CAUTION!
To prevent any damage or failure of the MCT-RACK-12-MGM, please DO NOT block the ventilation holes.

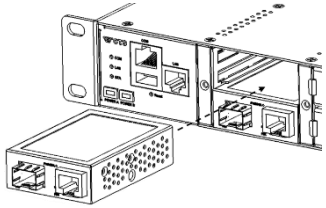
3.1 Install MCT Series Media Converters

Step 1. Plan the MCT Series Media Converters slot positions.
- All slots are identical
- MCT Series Media Converters can be installed into any slots

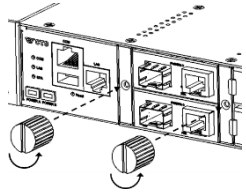
Step 2. Rotate the fastening knobs counterclockwise to loosen them, and then remove the cover plate from the chosen installation slot.



Step 3. Insert MCT Series Media Converters fully into the selected slot.
- Ensure the MCT Series Media Converter is completely inserted into the slot.



Step 4. Secure the fastening knob on MCT-RACK-12-MGM.



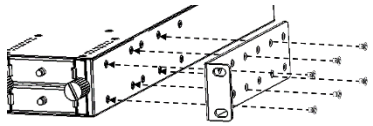
Step 5. Repeat step 2 to 4 for all the MCT Series Media Converters.
Step 6. Install the pulling cable provided in the package with a media converter to pull it out easily.

3.2 Desktop Installation

Assure the MCT-RACK-12-MGM is placed on a well ventilated, flat position.

3.3 Standard 19-Inch Rack Installation

CAUTION!
Please ensure the secure mounting of the MCT-RACK-12-MGM in the rack to prevent any potential damage to the system or risk of injury to personnel due to the unit falling.



Step 1. Align the mounting brackets to the screw holes on MCT-RACK-12-MGM as the diagram
Step 2. Secure the screws into screw holes to MCT-RACK-12-MGM as the diagram.
Step 3. Replicate the procedures in step 1 and step 2 on the symmetrical opposite side.
Step 4. Align the MCT-RACK-12-MGM with mounting brackets on into the selected mounting rail position, then secure the screws carefully and firmly.

3.4 Connect MCT Series Media Converters to network

Please refer to the User's Manual that comes with the MCT Series Media Converters for cabling specifications and direction.

3.5 Connect Power Supply

CAUTION!
Do NOT turn on power source switch before connecting with MCT-RACK-12-MGM. Incorrect operation may result in system damage, potential human injury or casualties.

Step 1. Insert new power supply carefully into the slot. Make sure that the power supply is firmly connected.
Step 2. Secure the fastening screw.

■ NOTE
- Power supply is hot-swappable in each slot.
- Power supply is active and operates concurrently with internal power supply.

3.6 Power On the MCT-RACK-12-MGM

Step 1. Check the power outlet.
Step 2. Connect the power cord to the power outlet.
Step 3. Turn the MCT-RACK-12-MGM power on.
Step 4. Verify the LED status of the MCT-RACK-12-MGM, ensure the STA LED has turned orange.
Step 5. Check whether the Power LED turns green.

3.7 DI/DO Configuration

Digital Output (DO/Alarm)
- Digital Output is a port connection on the terminal blocks designed for linking alarm devices like buzzers, LEDs, or flash lamps. This connection is utilized to alert operators when an abnormality is detected.
- **Digital Output Wiring Configuration**
  Digital output (Alarm) relay output with a voltage rating of 24VDC

Digital Input (DI)
- Digital Input is a digital input connection on the terminal blocks used to detects if a voltage is above/below a specific threshold.
- **Digital Input Configuration**
  Insert the positive wire into the "+" contact and the negative (signal ground) wire into the "-" contact on the terminal blocks.

4. Operation

The following is a list of management options available on this Media Converter Chassis, the media converter chassis will be refer to as "the network device" below:

Local Console Management
Users can establish a connection between a Terminal or PC running a Terminal Emulator program (such as Putty or Tera Term) and the network device by utilizing the RS-232 cable directly on the serial console port. This connection allows for system configuration, control, and monitoring. Commonly known as Out-Of-Band management, console management proves valuable in situations where there is no network connection to the network device, especially during the initial configuration of the network device.

Telnet Management
Upon establishing a network connection to the network device, users have the capability to employ Telnet for system configuration, control, and monitoring. This method of management via the network is commonly known as In-Band Management.

SNMP Management
SNMP, being another form of In-Band Management, necessitates a network connection to the network device. The private Management Information Bases (MIB) specific to the network device are made available for SNMP-based network management programs, enabling the configuration, control, and monitoring of the system.

Web Management
Upon the network device being accessible on the network, users can log in and remotely or locally monitor its status through a web browser. For local web management, particularly during the initial setup of the network device to configure the necessary IP, users can also utilize the RJ-45 ports situated on the front panel. To facilitate this management, a converter and a direct RJ-45 LAN cable connection between a PC and the network device are necessary.

5. Technical Specification

Standards	IEEE 802.3 10Base-T, IEEE802.3u 100Base-TX
Interface	-RJ-45 Port: 1 x 10/100Base-T RJ-45 -Console Port: 1 x RS-232 to RJ-45 serial port -Terminal Block 1 x Digital Input (Dry contact) 1 x Digital Output
LED	Power A, Power B, Status, LAN, COM
Power	Input AC: 100V - 240V, 50/60Hz, 1.4~0.7A Input DC: 48V
Power Consumption	Full load: 72W (245.67BTU/h)
Weight	5.7kg
Dimensions	440 x 342 x 44mm (W x D x H)
Temperature	Operation: 0˚C ~ 50˚C Storage: -20˚C ~ 60˚C
Humidity	Humidity: 5% ~ 90%, Non-Condensing
Certification	CE/FCC Class A

Note: Specifications may change without prior notice. Please contact us for further reports and updates.

6. Default Logon Parameter

Username	admin
Password	No password (empty)
IP Address	192.168.0.1/24
Console	Speed: 9600, data: 8bit, parity: none, stop: 1 bit and flow control: none

7. Support and Resource

For technical support and access to the full documentation or product files, please visit our website's support page through the provided link below or by scanning the QR code located on the right side.

■ https://www.ctsystem.com/en/product/MCT-RACK-12-MGM/

Please scroll down the page to access the download section, where you can download the hardware manual, software manual, or MIB file of your choices.

Any queries and feedbacks are welcome, please feel free to contact us through email info@ctsystem.com.

CONNECTION TECHNOLOGY SYSTEMS
18F-6, No.79, Sec.1, Xintai 5th Rd.,
XiZhi Dist., New Taipei City 221, Taiwan(R.O.C)
Tel: +886-2-2698-9661, Fax: +886-2-2698-9662
Dir.Line:+886-2-2698-9201
www.ctsystem.com