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FCC Warning

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at their own expense.

CE Mark Warning

This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

1. Checklist

The package should contain the following items:

- 1 x MCT-6002FSMSFP28 Media Converter
- 1 x AC/DC Power Adapter
- 1 x Quick Guide
- 1 x Contact information / Safety Instruction

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

2. Overview

The MCT-6002FSMSFP28 is a compact media converter designed for pluggable fiber transceivers. It extends transmission distances for data center media-conversion applications, ISP mobile DUs (Distributed Units), and enterprise broadband services.

The MCT-6002FSMSFP28 media converter is fully compliant with IEEE 802.3by, 802.3cc and 802.3ae standards. The operating status can be monitored through a set of diagnostic LEDs located on the front panel.

Key Features:

- Support Signal Loss Alarm (For more details on the behavior of Signal Loss Alarm, please refer to our ”Introduction of MCT-6002FSMSFP28 Signal Loss Alarm Behavior” file).
- Dual SFP28 slots
- 3R Signal Regeneration (Re-amplifying, Re-shaping, Re-timing)
- Supports 25Gbps and 10Gbps
- Transparent packet forwarding with ultra-low latency

3. Installation

1. Power on the Media Converter:
   Connect the power adapter to the 12 VDC power jack on the rear panel of the media converter, and then plug the adapter into an AC outlet. Verify that the PWR LED is solid green, indicating that the device is powered on.

2. Install the Fiber Transceivers:
   Insert SFP28 or SFP+ transceiver modules into the FO1 and FO2 slots until they click firmly into place.

   Note:
   This media converter features a 3R (re-amplifying, reshaping, and retiming) PHY-to-PHY architecture. Both the FO1 and FO2 ports must operate at the same link speed (for example, both at 25 Gbps or both at 10 Gbps) to ensure proper operation.

3. Connect the Fiber Cables:
   Connect the fiber-optic cables to the installed transceivers in FO1 and FO2.
   Verify that the corresponding **FO1** and **FO2** link LEDs illuminate to indicate active connections.

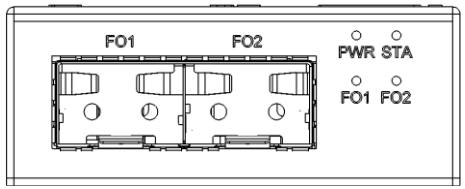


Fig 1. Front Panel of MCT-6002FSMSFP28 Converter

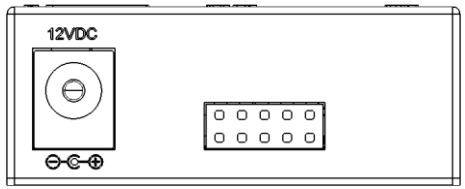


Fig 2. Rear Panel of MCT-6002FSMSFP28 Converter

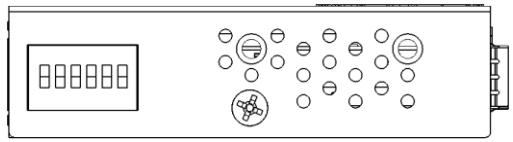


Fig 3. Side Panel of MCT-6002FSMSFP28 Converter

CAUTION

Risk of High Temperature / Hot Surface. Please exercise caution when installing or removing the converter during operation.

4. LED Description

LED	Color	Function
Power	Green	Lit when power is supplied.
FO 1/2	OFF	Fiber port link is down.
	Green	Lit when the 25Gbps fiber port link is up.
	Orange	Lit when the 10Gbps fiber port link is up.
Status	Green	Lit when the converter module is operating normally.
	Orange	**Lit** when the system is booting up. **Slowly blinking** when the firmware version of the converter module does not match the version stored in the CTS MCT-RACK-12-MGM (firmware mismatch). The converter module needs to be updated to match the rack manager's firmware. **Rapidly blinking** when the converter module is operating abnormally.
	Orange ⇅ Green	**Slowly blinking** when the system is upgrading the firmware.

NOTE: When the fiber port is transmitting data, the FO1/FO2 LEDs will not blink.

5. DIP SWITCH Setting

The default setting for PIN 6 is ON, and all other PINs are OFF.

Pin NO.	Function	OFF	ON
1	Speed	25Gbps	10Gbps
2	FO1 Signal Loss Alarm	Disable	Enable
3	FO2 Signal Loss Alarm	Disable	Enable
4	Reserve	-	-
5	Reserve	-	-
6	Software Control	Configure via software of CTS MCT-RACK-MGM	Configure via DIP Switch

NOTE:
1. Disconnect the power before adjusting the DIP switch settings.
2. PIN 1, PIN 2 and PIN 3 takes effect only when PIN 6 is set to ON.
3. PIN 1 sets both ports to the same speed. Before changing it, ensure the installed transceivers support the selected speed and the connected devices are configured to match it (10G or 25G).

6. Technical Specifications

Standards	IEEE 802.3by, 802.3cc and 802.3ae
Interface	2 x 25G/10G SFP28 slot
LED	Power, Status, Link/Speed of FO1/FO2
Power Input (Main Body)	I/P DC 12V
Power Adapter (Including in package)	I/P AC 100-240V O/P DC 12V, 1.5A
Power Consumption	Device: 5.1W (17.4BTU/h) ** With adapter: 6.4W (21.8BTU/h) **
Weight	77g
Dimensions	51 x 74 x 20 mm (W x D x H)
Temperature	Operating: 0~50°C Storage: -20~60°C
Humidity	5%~90% RH, non-condensing
Certification	CE/FCC Class A
* Please contact us for further reports and updates. **Power consumption varies depending on the installed fiber transceivers.	

NOTE: Specifications may change without prior notice.

Contact Information

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CONNECTION TECHNOLOGY SYSTEMS

MCT-6002FSMSFP28

25G/10GBASE-R SFP28 to SFP28 Standalone Media Converter

User's Guide

Version 1.0