SRC-5002SFP-MG

1 x 10/1GBase-X SFP+ to

1 x 10G/5G/2.5G/1G/100MBase-T RJ-45

Rugged Media Converter

Description

Connection Technology Systems (CTS) SRC-5002SFP-MG is a high-performance media converter designed to provide seamless connectivity between 10G fiber networks and multi-gigabit Ethernet devices. It supports operation in a wide temperature range from -20 to 60°C, ensuring reliable performance in demanding environments.

Interface

The SRC-5002SFP-MG features one 10/1GBase-X SFP+ slot and one 10G/5G/2.5G/1G/100MBase-T RJ-45 port, offering compatibility with a wide range of network infrastructures. This allows efficient data transmission, making it an ideal solution for high-speed networking applications, such as surveillance and outdoor network deployments.

Monitoring and Reliability

The SRC-5002SFP-MG includes intuitive LED indicators and a DIP switch for easy configuration and real-time status monitoring. The TP/FO alarm function enhances network reliability by providing alerts for link failures, enabling prompt troubleshooting.

Ideal Applications

With a 40Gbps internal fabric, support for 16K jumbo frames, and auto-negotiation capabilities, the SRC-5002SFP-MG efficiently handles high-bandwidth data transmission in challenging environments. Its extended temperature tolerance makes it suitable for outdoor deployments, transportation, and other applications requiring stable operation under varying conditions.

As for the installation, this model offers flexible options— including **wall mounting**, **DIN-rail mounting**, and **magnetic mounting**— making it adaptable to various deployment scenarios.

Key Features

■ **Ideal for environments characterized by substantial temperature fluctuations**

The SRC-5002SFP-MG boasts an extended temperature range, enabling operation from -20 to 60˚C. This broad operational range allows it to thrive in environments characterized by fluctuating temperatures.

■ **Flexible Applications: 10G/1G Fiber to Multi-Gigabit (10G/5G/2.5G/1G/100M) Ethernet**

Featuring a 10G/1G SFP+ port and a 5-speed RJ-45 port (10G/5G/2.5G/1G/100M), it is perfect for instantly bridge the high-speed fiber network and various multi-gigabit devices with no additional setup, which is ideal for modern digital infrastructures, corporate networks, and any environment needing high-speed, reliable and flexible connectivity.

■ **Automatic Speed Detection**

Both the port and slot can automatically identify and adjust to the optimal speed for connected devices. This ensures seamless and efficient data transmission by matching the speed requirements, whether it's 100M, 1G, 2.5G, 5G, or 10G, without requiring manual configuration.

■ **Customizable 3-pin alarm for real-time alerts**

The SRC-5002SFP-MG features a 3-pin alarm terminal block that provides instant notifications of link failures. Supporting both normal open (NO) and normal close (NC) configurations, it allows flexible integration with external monitoring systems.

■ **Versatile Installation Modes**

To adapt perfectly to diverse environments, it supports five types of installation modes: flat-type wall mounting, flat-type DIN-rail mounting, slim-type wall mounting, slim-type DIN-rail mounting, and magnetic mounting.

■ **Target Applications**

• Network infrastructures demanding 10 gigabit fiber to multi-gigabit Ethernet conversion with wide-temperature operation, such as surveillance systems, transportation networks, and remote wireless deployments.

Specification

■ Interface

RJ-45 Port

- 1 x 10G/5G/2.5G/1G/100MBase-T RJ-45

Fiber Port

- 1 x 10/1GBase-X SFP+

Terminal Block

- 1 x Digital Output (Relay Alarm),
  Relay output with current
  carrying capacity of 1A @24VDC

Standards

- IEEE 802.3an 10GBase-T
- IEEE 802.3ae 10GBase-R
- IEEE 802.3bz 2.5G/5GBase-T (NBase-T)
- IEEE 802.3ab 1000Base-T
- IEEE 802.3z 1000Base-X
- IEEE 802.3u 100Base-TX
- IEEE 802.3x flow control

■ H/W Specification

- MAC Address Table: 4K
- Non-blocking Switching Fabric: 40Gbps
- Throughput @ 64Bytes: 29.76Mpps
- Jumbo Frame: 16K Bytes
- Packet Buffer: 8Mbit
- 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

- 10G: 14,880,000/14,880,000pps
- 5G: 7,440,000/7,440,000pps
- 2.5G: 3,720,000/3,720,000pps
- 1000M: 1,488,000/1,488,000pps
- 100M: 148,800/148,800pps

■ LED

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

■ DIP Switch

- Max. TP speed up to 2.5/10Gbps
- Force/Auto Mode for F/O
- F/O speed 1Gbps/10Gbps
- Link Alarm Enable/Disable
- Fault Alarm for TP or F/O port

■ Installation Method

- Flat type DIN-rail kit
- Flat type wall-mount kit
- Magnetic-mount kit (optional)
- Slim type DIN-rail kit (optional)
- Slim type wall-mount kit (optional)

■ Power Requirement

- Power Input: 12~57 VDC
  (2-pin removable terminal block or DC Jack)
- Max. Power Consumption: 8W (27.3 BTU/h)

■ Environmental Condition

- Operation: -20˚C~60˚C
- Storage: -30˚C~70˚C
- Humidity: 5%~90% RH, Non-Condensing

■ Dimension & Weight

- Size: 71 x 94 x 26mm (W x D x H)
- Weight: 230g
- Housing: Aluminum(Upper), Iron(Bottom)
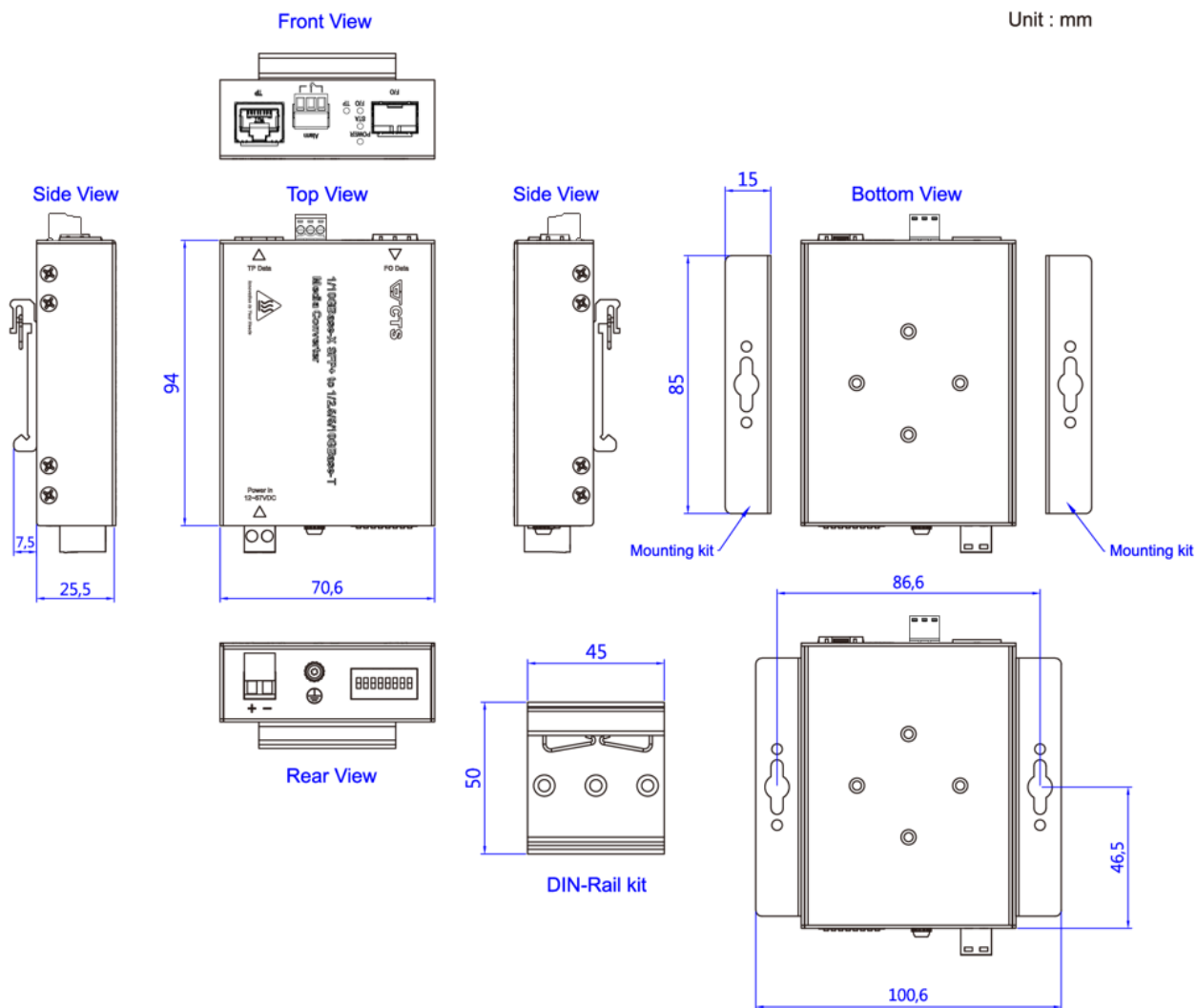
■ Standards and Certifications

CE/FCC Class A
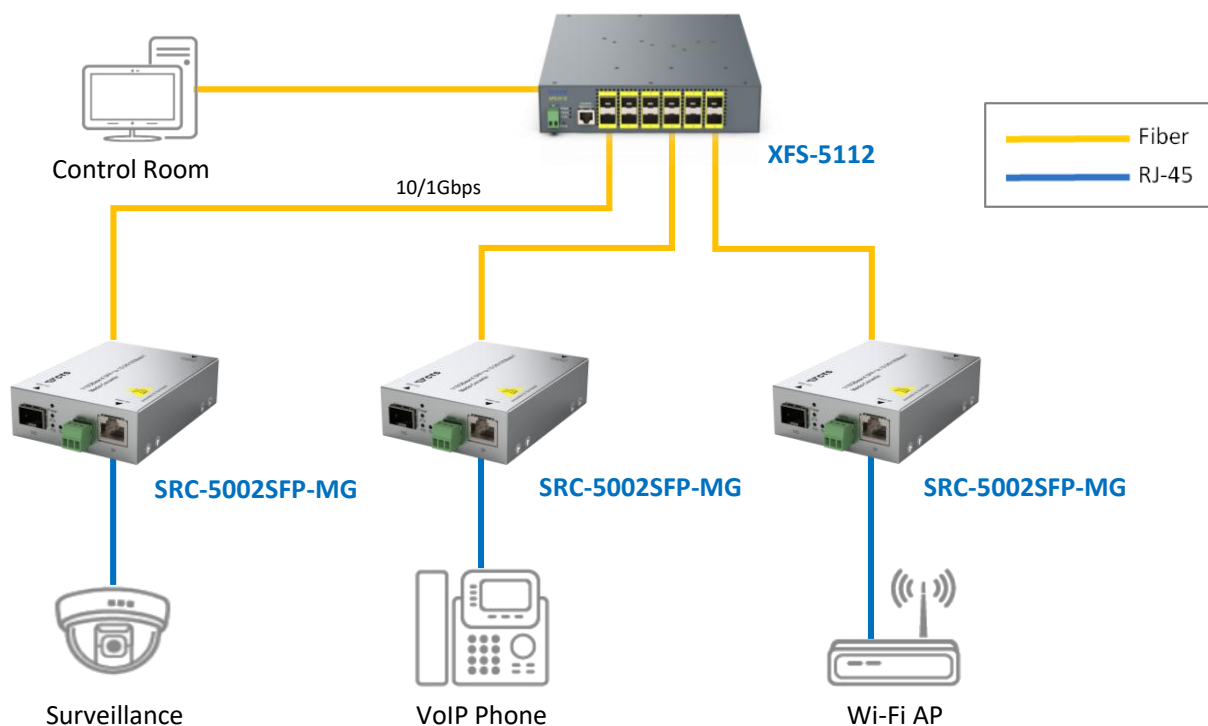- Safety: EN/IEC 62368-1
- EMC: EN 55032 / EN 55035

VCCI/UKCA/RCM

RoHS 2.0

Dimension

Unit : mm

Front View

Side View   **Top View**   **Side View**   **Bottom View**

1/10GBase-X SFP+ to 1/2.5/5/10GBase-T Media Converter

94

7,5   25,5   70,6

15   85   Mounting kit   86,6   46,5   100,6

Mounting kit   Mounting kit

Rear View   **DIN-Rail kit**

45   50

Power in 12-57VDC

Application Diagram

Control Room

10/1Gbps

XFS-5112

| Fiber |
| RJ-45 |

SRC-5002SFP-MG   SRC-5002SFP-MG   SRC-5002SFP-MG

Surveillance   VoIP Phone   Wi-Fi AP

Order Information

Model	Fiber Slot			TP Port		Support Power Source
	Speed	Type	Slot	Speed	Port	
SRC-5002SFP-MG	10/1G	SFP+	1	10G/5G/2.5G/1G/100M	1	1 x 12~57V DC 2-pin removable terminal block
SRC-5002SFP-MG(DC Jack)	10/1G	SFP+	1	10G/5G/2.5G/1G/100M	1	1 x 12~57V DC

Accessory

Installation Kit (optional)

Model	Mounting Method	Support Model
CVT magnet kit	Flat type wall mounting	SRC/CVT Series Media Converter
SRC/CVT Slim Wall Mount Kit	Slim type wall mounting	SRC/CVT Series Media Converter
SRC/CVT Slim Wall+DIN Rail Kit	Slim type wall mounting & DIN-rail	SRC/CVT Series Media Converter

Power Supply

Model	Output Voltage Range	Maximum Output Watt	Operating Temperature
SDR-480-48	48~55V	480W	-25˚C ~ 70˚C
SDR-240-48	48~55V	240W	-25˚C ~ 70˚C
SDR-120-48	48~55V	120W	-25˚C ~ 70˚C
SDR-75-48	48~55V	75W	-25˚C ~ 70˚C
NDR-480-48	48~55V	480W	-20˚C ~ 70˚C
NDR-240-48	48~55V	240W	-20˚C ~ 70˚C
NDR-120-48	48~55V	120W	-20˚C ~ 70˚C
NDR-75-48	48~55V	75W	-20˚C ~ 70˚C
MDR-60-48	48~56V	60W	-20˚C ~ 70˚C
MDR-20-12	10.8~13.2V	20W	-20˚C ~ 70˚C

NOTE: Please refer to the power supply datasheet for details regarding the operating temperature and derating curve. Subsequently, choose the suitable power supply based on your specific requirements and operating environment.