SRC-5102SFP-MG

1 x 10G/1GBase-X SFP+ to

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

Managed Rugged Media Converter

Description

The SRC-5102SFP-MG Managed Rugged Media Converter bridges 10G fiber and 100M/1G/2.5G/5G/10G copper connections, with reliable performance in environments ranging from -20 to 60°C.

Interface

It features one 10G SFP+ slot and one multi-Gigabit RJ-45 port with auto-negotiation, ideal for bandwidth upgrades across mixed media networks.

Product Highlights: Remote Manageable & Highly Secure

As a managed networking device, the SRC-5102SFP-MG is user-friendly to configure **advanced layer 2 IP management**, such as port management, VLAN, QoS via web-based interface, CLI, or SNMP, which enables comprehensive remote control and maintenance.

On a cyber-secure note, it is equipped with advanced security features like **DHCP snooping**, **DHCP server trust port**, and **storm control** for unknown unicast, unknown multicast, and broadcast traffic to safeguard your network integrity.

Ideal Applications

The SRC-5102SFP-MG is well-suited for enterprise networks, data centers, campus backbones, and telecom closets where high-speed fiber uplinks need to be extended to multi-Gigabit copper devices. Its wide operating temperature range (-20 to 60°C) also makes it a reliable choice for deployment in challenging environments such as equipment rooms, remote cabinets, or smart building infrastructure. With robust manageability and enhanced security features, it is ideal for secure network zones, surveillance systems, and bandwidth-heavy applications requiring stable fiber-to-copper bridging with centralized control.

Key Features

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

The SRC-5102SFP-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.

■ **Diverse Speed Transitions: 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.

■ **IPv4/IPv6 Dual Stack**

It is capable of running IPv4 and IPv6 protocols in parallel and interoperating with other IPv4, IPv6, and dual-stack devices, which enables IPv6 management and IPv6 packet forwarding.

■ **Full IP Management**

This model features full IP management capabilities, including **SNMP (v1, v2c, and v3)**, **Web-based interfaces (HTTP/HTTPS),** and **Command Line Interface (CLI)** access via **Telnet** and **SSHv2**, enabling remote monitoring, configuring and control over the device.

■ **Enhanced Security Features for Network Integrity**

Equipped with advanced functions to safeguard network integrity, it features DHCP snooping and DHCP server trust port to prevent unauthorized DHCP servers from compromising your network. Additionally, storm control for unknown unicast, unknown multicast, and broadcast traffic effectively mitigates potential network disruptions, ensuring a stable and secure networking environment.

■ **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.

■ **Targeted Applications**

• Network infrastructures demanding 10-gigabit fiber converting to multi-gigabit Ethernet and remote management functions.

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 Input (Dry Contact)

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 802.1p Priority
- IEEE 802.1q Tag VLAN
- IEEE 802.3x Flow Control
- IEEE 802.1ab LLDP

■ H/W Specification

- MAC Address Table: 4K
- Non-Blocking Switching Fabric: 40Gbps
- Throughput @ 64Bytes: 29.76Mpps
- Packet Buffer: 8Mbit
- Jumbo Frame: 16K Bytes
- Store and Forward Switching Mechanism
- Auto-Cross Over for MDI/MDIX in TP Ports
- Auto-Negotiation in TP Ports
- Full/Half Duplex Mode Operation

■ LED

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

■ 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

■ Layer 2 Switch Features

Port Management

- State, Description, Media Type, Port Type, Speed, Duplex and Flow Control
- LAN Follow WAN

VLAN

- Port-Based VLAN
- IEEE 802.1q VLAN
  VLAN ID: 4094 IDs
  VLAN Concurrent Groups: 128 VLAN Groups
- Q-in-Q Double tag with Configurable Ether Type (ISP mode)

QoS

- QoS based on Port, 802.1p CoS and DSCP
- Scheduling Algorithm
  Weighted Round Robin (WRR)
  Strict Priority Queuing (SPQ)
- QoS Priority Queues: 8 Queues
- 802.1p P-bit & DSCP Remarking
- Port-Based Rate Limit (Ingress/Egress)

IPv6 Feature

- IPv6 over Ethernet (RFC 2464)
- IPv6 Addressing Architecture (RFC 4291)
- IPv6 Dual Stack (RFC 4213)
- ICMPv6 (RFC 4884)
- Path MTU Discovery for IPv6 (RFC 1981)
- Neighbor Discovery (RFC 4861)
- DHCPv6 Client

■ Security

- 802.1x RADIUS/TACACS+ Authentication for Login Username/Password
- IP Source Binding
- DHCP Snooping and DHCP Server Trust Port
- DHCP Option 82/37 Relay Agent
- DHCP Option 82/37 with configurable circuit and Remote ID
- Storm Control (Unknown Unicast/Unknown Multicast/Broadcast)

■ Management

- SNMP v1, v2c & v3 (Support Traps)
- Web (HTTP/HTTPS)
- CLI (Telnet/SSHv2)
- SNTP with Daylight Saving Time
- LLDP

Upgrade/Restore

- Firmware Upgrade/Downgrade
  HTTP/HTTPS/FTP/TFTP
  DHCP Auto-provision via DHCPv4 Option 60/43
  & DHCPv6 Option 16/17
- Configuration Upload/Backup
  HTTP/HTTPS/FTP/TFTP
  DHCP Auto-provision via DHCPv4 Option 60/43
  & DHCPv6 Option 16/17
- Auto configure backup
  FTP/TFTP

■ Maintenance

Diagnostic

- ICMP Ping
- Event log
- Syslog
- SFP SFF-8472 DDMI Monitor
  Temp/Voltage/TX Bias/TX Power/RX Power
- CPU Utilization
- Memory Statistics
- Digital Input
  Normally Close/Open

iProbe Advanced Diagnostic

- Cable Test
- HTTP Reachability Diagnostic *
- DHCP Client Emulation
- DNS Connection Measurement
- Throughput Test (iPerf3 / Nuttcp)
- Ping Test
- Diagnostics Schedule

■ Power Requirement

- Power Input: 12~57 VDC
  (2-pin removable terminal block or DC Jack)
- Power Consumption
  Device: full-load < 11W (37.5 BTU/h)

■ Environmental Condition

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

■ Dimension & Weight

- Size: 71 x 94 x 26mm (W x D x H)
- Weight: 250g
- Housing: Aluminum(Upper), Iron(Bottom)

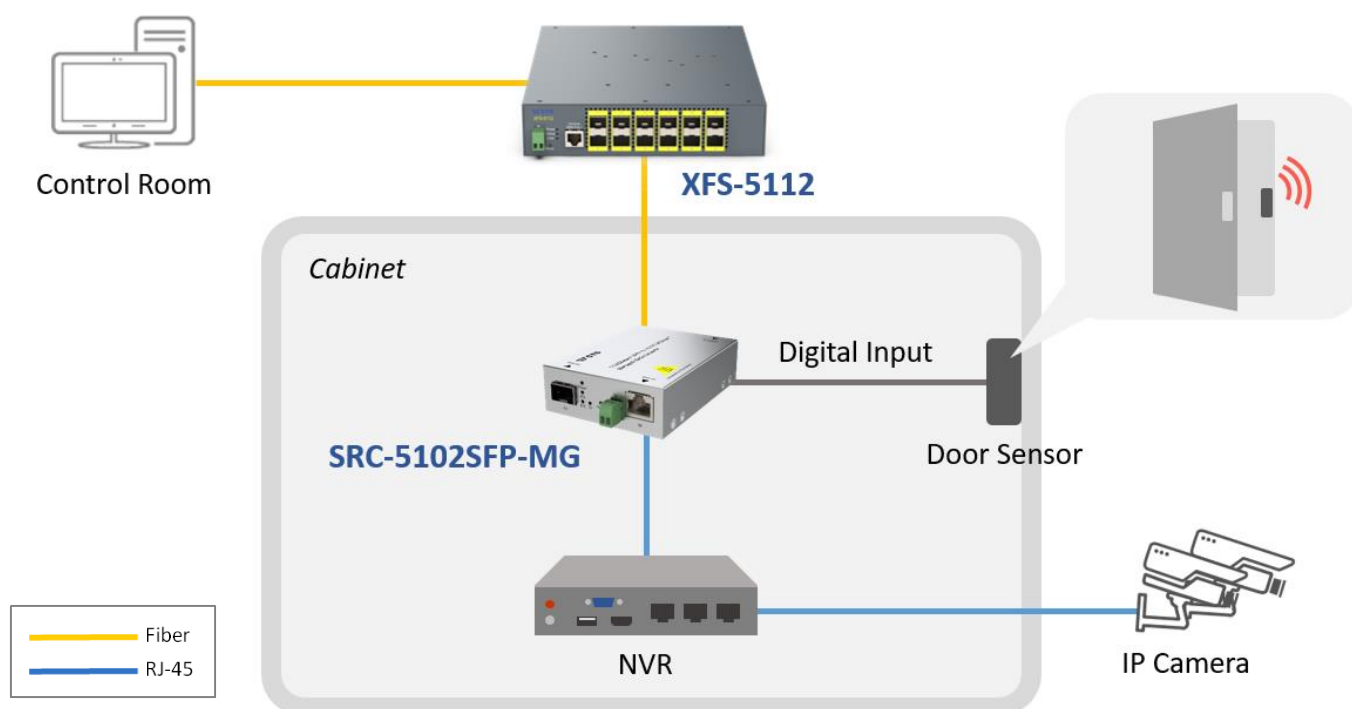## ■ Standards and Certifications

CE/FCC Class A

- Safety: EN/IEC 62368-1
- EMC: EN 55032 / EN 55035

VCCI/UKCA/RCM

RoHS 2.0

*Coming soon

Application Diagram

Control Room

XFS-5112

Cabinet

SRC-5102SFP-MG

Digital Input

Door Sensor

NVR

IP Camera

Fiber	
RJ-45	

Order Information

Model	Fiber Slot			TP Port		Support Power Source
	Speed	Type	Slot	Speed	Port	
SRC-5102SFP-MG	10/1G	SFP+	1	10G/5G/2.5G/1G/100M	1	1 x 12~57V DC 2-pin removable terminal block
SRC-5102SFP-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.