

## **RCGE1-SFP Series 10/100/1000Base-T to Gigabit SFP Media Converter**

The Rancent RCGE1-SFP series are one-channel Gigabit Ethernet electrical to optical media converters. These devices accept a 10/100/1000 Mbps electrical input and convert this to a 1000 Mbps optical output. These units use SFP modules for fiber and connector type, and distance. The RCGE1-SFP supports MDI/MDIX auto detection, eliminating the need for crossover cables. LED indicators confirm operational status. All these Gigabit models are environmentally hardened with no electrical or optical adjustments (Plug and Play).



### **Typical Applications**

- Any network utilizing a mix of copper and fiber
- Industrial IP connectivity and communication
- Gigabit backbone networks
- Networks using Ethernet devices such as network cameras, access control, intercoms, etc

### **Product Features**

- 1-Port 10/100/1000Base-T Fast Ethernet RJ-45 Port
- 1-Port 1000Base-SX/LX/EX/BX SFP Optical Port
- Complies with the IEEE 802.3 standard
- RJ45 Port Supports 10/100/1000Mbps-Full/Half-duplex, Auto-negotiation, Auto-MDI/MDIX
- Prevents Packet Loss w/Back Pressure (Half-Duplex) and IEEE 802.3x PAUSE Frame Flow Control (Full-Duplex)
- Uses interchangeable SFP for fiber type, distance and connector (Ordered separately).
- Distances up to 80 km with optional SFPs
- Available for operation over singlemode or multimode fiber over a variety of link budget
- Available for operation over 1 or 2 fibers.
- No in-field optical adjustment required

## Specifications

### Physical Ports

Copper Ports (RJ45)	1 x 10/100/1000Base-T
Optical Ports	1 x 1000Base-SX/LX/EX/BX SFP
Port Configuration	Auto MDI/MDI-X
Port Speed	Auto-negotiate

### Ethernet

Switch Architecture	Store-and-forward
Forward Filter Rate	148,8000pps (1000Mbps)
Flow Control	Back pressure(Half-Duplex); IEEE 802.3x Pause Frame (Full-Duplex)

### Optical

Wavelength	1310/1550nm 1550/1310nm
Multimode	2KM
Singlemode	20/40/60/80KM
Optical Emitter	Laser Diode
Number of Fibers	1/2
Connector	LC (SFP)

### LED Indicators & Switch

Power	On/Green
Ethernet	Link/Activity - Green
Optical	On/Blink - Green

### Electrical and Mechanical

Power Supply	5V 1A
Power Consumption	<2.5W
Dimensions	93 x 70 x 25mm

### Environmental

MTBF	>100,000 hours
Operating Temperature	0°C~+55°C
Storage Temperature -	-40°C~+70°C
Relative Humidity	0%~95% (non-condensing)

### Standards Compliance

Regulatory Standards	CE; FCC Part 15 Class A IEEE 802.3i 10Base-T IEEE 802.3u 100Base-TX IEEE 802.3ab 1000Base-TX
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## Ordering Information

Part Number	Description	Connector	Cable	Fiber	Maximum Distance
RCGE1-SFPM1A	10/100/1000 Mbps 1310/1550nm	LC (SFP)	MM	1	2KM
RCGE1-SFPM1B	10/100/1000 Mbps 1550/1310nm	LC (SFP)	MM	1	2KM
RCGE1-SFPS1A	10/100/1000 Mbps 1310/1550nm	LC (SFP)	SM	1	20KM
RCGE1-SFPS1B	10/100/1000 Mbps 1550/1310nm	LC (SFP)	SM	1	20KM
RCGE1-SFP	10/100/1000 Mbps 1310/1550nm	LC (SFP)	/	/	/

\*Optical transmission distance is limited to optical loss of the fiber and any additional loss introduced by connectors, splices and patch panels.