

RCGE1-POE Series

10/100/1000Base-T to 1000Base-Sx/Lx 802.3at PoE+ Media converter

The Rancent RCGE1-POE media converter is designed to transmit and receive 10/100/1000 Mbps data over singlemode or multimode optical fibers. It supports IEEE 802.3at as power sourcing equipment (PSE) with up to 30 Watts of operating power to the remote powered device. Its electrical interface will Auto-Negotiate to a 10Mbps, 100Mbps or 1000 Mbps Ethernet rate without any adjustments. The optical interface operates at 1000 Mbps. LED indicators are provided for confirming equipment operating status. All these models are environmentally hardened with no electrical or optical adjustments (Plug and Play).



Typical Applications

- PoE+ operation of IP Cameras, with pan-tilt-zoom capability
- PoE+ operation of IP cameras with heated/cooled housings
- PoE+ operation of transportation-specific/ITS field equipment
- Any networks using Power over Ethernet devices such as IP cameras, intercoms, access control, telephones, variable message signs, etc

Product Features

- 1-Port 10/100/1000Base-T Fast Ethernet RJ-45 Port
- 1-Port 1000Base-Sx/Lx Optical Port
- PoE Compatible: IEEE 802.3af and 802.3at compliant for PoE and PoE Plus
- 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)
- Available for ST or SC fiber connector
- 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
Port Configuration	Auto MDI/MDI-X
Port Speed	Auto-negotiate

Ethernet

Switch Architecture	Store-and-forward
Forward Filter Rate	148,800pps (1000Mbps)
MAC Address	4K entries
Packet Buffer Size	1.75M
Flow Control	Back pressure(Half-Duplex); IEEE 802.3x Pause Frame (Full-Duplex)

Optical

Wavelength	1310/1550nm 1550/1310nm
Multimode	2KM
Singlemode	20KM
Optical Emitter	Laser Diode
Number of Fibers	1/2
Connector	ST or SC

LED Indicators

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

POE

Standard	IEEE802.3af IEEE 802.3at
Port	RJ45
Power PIN Assignment	1/2(+), 3/6(-) default
Power Output	48VDC, 15.4Watts 52VDC, 30Watts

Electrical and Mechanical

Power Supply	48~52VDC 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 802.3u 100Base-TX IEEE802.3ab 1000Base-T IEEE802.3z 1000Base-X IEEE802.3af POE IEEE802.3at POE
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Ordering Information

Part Number	Description	Connector	Cable	Fiber	Maximum Distance
RCGE1-PTM1A	10/100/1000 Mbps 1310/1550nm	ST	MM	1	2KM
RCGE1-PTM1B	10/100/1000 Mbps 1550/1310nm	ST	MM	1	2KM
RCGE1-PTS1A	10/100/1000 Mbps 1310/1550nm	ST	SM	1	20KM
RCGE1-PTS1B	10/100/1000 Mbps 1550/1310nm	ST	SM	1	20KM
RCGE1-PCM1A	10/100/1000 Mbps 1310/1550nm	SC	MM	1	2KM
RCGE1-PCM1B	10/100/1000 Mbps 1550/1310nm	SC	MM	1	2KM
RCGE1-PCS1A	10/100/1000 Mbps 1310/1550nm	SC	SM	1	20KM
RCGE1-PCS1B	10/100/1000 Mbps 1550/1310nm	SC	SM	1	20KM
RCGE1-PTM2	10/100/1000 Mbps 1310nm	ST	MM	2	2KM
RCGE1-PTS2	10/100/1000 Mbps 1310nm	ST	SM	2	20KM
RCGE1-PCM2	10/100/1000 Mbps 1310nm	SC	MM	2	2KM
RCGE1-PCS2	10/100/1000 Mbps 1310nm	SC	SM	2	20KM

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