

RCFE1-POE Series

10/100Base-Tx to 100Base-Fx 802.3at PoE+ Media Converter

The Rancent RCFE1-POE series media converters provide full duplex fiber optic transmission of a single channel of 10/100 Mbps Ethernet data (10/100 BASE-T) through multimode or singlemode optical fiber. They provide full compliance with IEEE 802.3at as Power Sourcing Equipment (PSE), with a maximum power up to 30 Watts @ 48 VDC making them ideal for those applications where the remote equipment draws significant power. 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 10/100Base-T Fast Ethernet RJ-45 Port
- 1-Port 100Base-FX Optical Port
- PoE Compatible: IEEE 802.3af and 802.3at compliant for PoE and PoE Plus
- RJ45 Port Supports 10/100Mbps-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 10/100Base-T
Optical Ports	1 x 100Base-FX
Port Configuration	Auto MDI/MDI-X
Port Speed	Auto-negotiate

Ethernet

Switch Architecture	Store-and-forward
Forward Filter Rate	148,800pps (100Mbps)
MAC Address	2K entries
Packet Buffer Size	1M
Flow Control	Back pressure(Half-Duplex); IEEE 802.3x Pause Frame (Full-Duplex)

Optical

Wavelength	1310/1550nm or 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 802.3i 10Base-T IEEE 802.3u 100Base-TX IEEE802.3af POE IEEE802.3at POE
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Ordering Information

Part Number	Description	Connector	Cable	Fiber	Maximum Distance
RCFE1-PTM1A	10/100 Mbps 1310/1550nm	ST	MM	1	2KM
RCFE1-PTM1B	10/100 Mbps 1550/1310nm	ST	MM	1	2KM
RCFE1-PTS1A	10/100 Mbps 1310/1550nm	ST	SM	1	20KM
RCFE1-PTS1B	10/100 Mbps 1550/1310nm	ST	SM	1	20KM
RCFE1-PCM1A	10/100 Mbps 1310/1550nm	SC	MM	1	2KM
RCFE1-PCM1B	10/100 Mbps 1550/1310nm	SC	MM	1	2KM
RCFE1-PCS1A	10/100 Mbps 1310/1550nm	SC	SM	1	20KM
RCFE1-PCS1B	10/100 Mbps 1550/1310nm	SC	SM	1	20KM
RCFE1-PTM2	10/100 Mbps 1310nm	ST	MM	2	2KM
RCFE1-PTS2	10/100 Mbps 1310nm	ST	SM	2	20KM
RCFE1-PCM2	10/100 Mbps 1310nm	SC	MM	2	2KM
RCFE1-PCS2	10/100 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.