10/100 Mbps Ethernet Repeater With 60 W Pass-Through PoE

CNFE1RPT[/PD][/M]

HARDENED -40° TO 75° C | 10/100 ETHERNET REPEATER | PoE 60W PoE++ PASS-THRU

The ComNet CNFE1RPT is an Ethernet repeater supporting up to 60 watts of Pass-through PoE, providing a simple and cost-effective way to extend Ethernet signals beyond the standard Ethernet 328 foot (100 meter) limit. The CNFE1RPT can be used to double the distance to 656 feet (200 meters) or multiple units can be combined in series with each unit providing an additional 328 feet (100 meters). The CNFE1RPT is powered by pass-through PoE from a PoE switch or midspan injector, requiring no local power. Low power consumption ensures that maximum power is made available to the remote PD device. Available in standard configuration, which passes through the PoE to the next device, or as a /PD model, which acts as the final PoE unit in the chain and does not pass through the PoE, providing maximum flexibility for all design scenarios. The compact tube design allows for direct installation within conduit or other small enclosures. A mini size unit is also available for surface mounting, or DIN rail mounting with use of the sold-separately DINBKT4 adaptor.

FEATURES

› Extends 10/100 Mbps Ethernet and PoE by 328 ft (100 m)

› Extended temperature operation from -40°C to +75°C

› Pass-through PoE meets the IEEE 802.3af/at standards for Power over Ethernet

› Powered by PoE (no local power required)

› Supports PoE++ 60 W pass-through Power over Ethernet

› Full unrestricted 10/100 Mbps Bandwidth

› "Plug & Play" design requires no configuration

› Designed to meet full compliance with the environmental requirements (ambient operating temperature, mechanical shock, vibration, humidity with condensation, high-line/low-line voltage conditions and transient voltage protection) of NEMA TS-1/TS-2 and the Caltrans Specification for Traffic Signal Control Equipment.

› LED status indicators confirm operating status

› Designed and manufactured in the USA

› Available in compact tube or small-size form factors

› Lifetime Warranty

APPLICATIONS

› Remote extension of IP devices

› CCTV systems for casinos, airports, school campuses

SPECIFICATIONS

Ethernet

Data Interface	10/100BaseT(X) Ethernet IEEE 802.3 Compliant Full Duplex or Half Duplex Electrical Ports
Standards	IEEE: 802.3af PoE, 802.3at PoE+ RFC: 768 UDP, 2068 HTTP, 793 TCP, 791 IP, 1783 TFTP, 894 IP over Ethernet, 2544 TCP/IP Packet Transmission
Transmission Distances[1]	See chart below

Connectors

Ethernet	2 × RJ-45

Power

Pass-Through Mode	Operates on PoE Power
Power Consumption	< 1 W
Protection	High Impedance PoE Pass-Through with Start-up Voltage Detection and Current Limiting

Mechanical

Indicating LEDs	Ethernet Link and Activity
Circuit Board	Meets IPC Standard
CNFE1RPT[/PD] Size	3.3 × 1.25 × 1.25 in (8.4 × 3.2 × 3.2 cm)
CNFE1RPT[/PD]/M Size	3.3× 2.5 × 1.1 in (8.4 × 6.4 × 2.8 cm)
Shipping Weight	<1 lbs./0.5 kg

Environmental

MTBF	>100,000 hours
Operating Temp	– 40˚ C to +75˚ C
Storage Temp	– 40˚ C to +80˚ C
Relative Humidity	0% to 95% (non-condensing)[2]

AGENCY COMPLIANCE
PART 15 COMPLIANT E322911 N24621

MADE IN THE USA

MAXIMUM TRANSMISSION DISTANCES[1]

	Maximum Range & Repeaters for PoE Power (Watts)					
PoE Source	No PoE[3]	5 W	10 W	15W	20 W	25 W
15 W PoE Switch	2,625 ft 800 m (Using 7 CNFE1RPT)	1,476 ft 450 m (Using 4 CNFE1RPT)	984 ft 300 m (Using 2 CNFE1RPT)	328 ft[4] 100 m[4] (No CNFE1RPT)	N/A[4]	N/A[4]
30 W PoE+ Switch	2,625 ft 800 m (Using 7 CNFE1RPT)	1,969 ft 600 m (Using 5 CNFE1RPT)	1,316 ft 400 m (Using 3 CNFE1RPT)	984 ft 300 m (Using 2 CNFE1RPT)	656 ft 200 m (Using 1 CNFE1RPT)	328 ft[4] 100 m[4] (No CNFE1RPT)
CNGE1IPS 35 W PoE+ Injector	3,773 ft 1,150 m (Using 11 CNFE1RPT)	2,625 ft 800 m (Using 7 CNFE1RPT)	1,804 ft 550 m (Using 5 CNFE1RPT)	1,316 ft 400 m (Using 3 CNFE1RPT)	984 ft 300 m (Using 2 CNFE1RPT)	656 ft 200 m (Using 1 CNFE1RPT)

[1] Distance figures are based on 48V PSE PoE power source for PoE switches, 50V PSE PoE power source for PoE+ switches and 56V PSE PoE power source for the CNGE1IPS injector as detailed in the table. Distance figures are obtained using in-house testing mirroring installations. Factors such as cable quality, the number of connectors and splices in the cable run, the use of PoE, and environmental conditions encountered within the installation might affect the actual transmission distance and should be taken into consideration.

[3] Non-PoE applications; using a CNFE1RPT/PD model at the end of the chain

[4] Extension is not possible at this PoE power level with this particular PoE power source

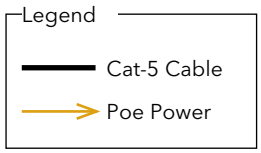
ORDERING INFORMATION

Part Number	Description	Form Factor
CNFE1RPT	1 Channel 10/100 Mbps Ethernet Repeater with 60 W PoE Pass-Through	Tube
CNFE1RPT/PD	1 Channel 10/100 Mbps Ethernet Repeater	Tube
CNFE1RPT/M	1 Channel 10/100 Mbps Ethernet Repeater with 60 W PoE Pass-Through	Mini
CNFE1RPT/PD/M	1 Channel 10/100Mb Ethernet Repeater	Mini
Options	[2] Add suffix '/C' for Conformally Coated Circuit Boards to extend to condensation conditions (Extra charge, consult factory) DIN-Rail Mounting Adaptor Kit for Mini-size units only - With Mounting Hardware (sold separately, order model DINBKT4) 35W PoE+ Injector (sold separately, order model CNGE1IPS)	

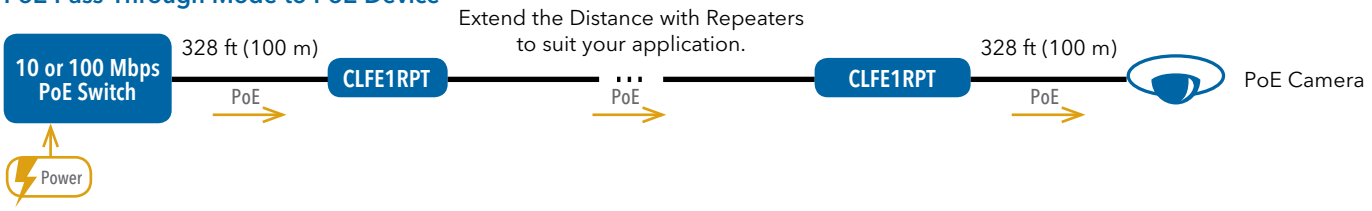
In a continuing effort to improve and advance technology, product specifications are subject to change without notice.

TYPICAL APPLICATIONS

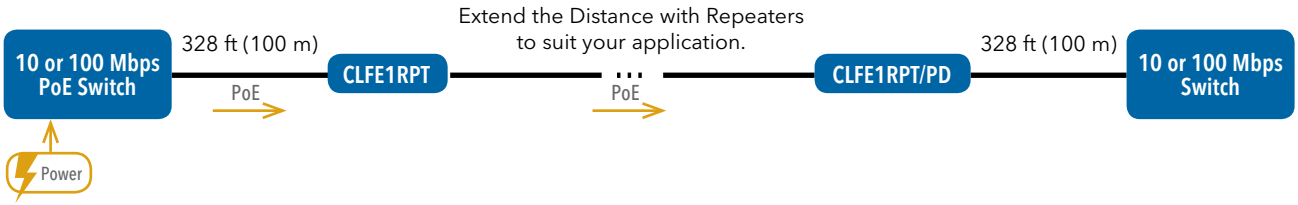
Please see the Maximum Transmission Distances Table.



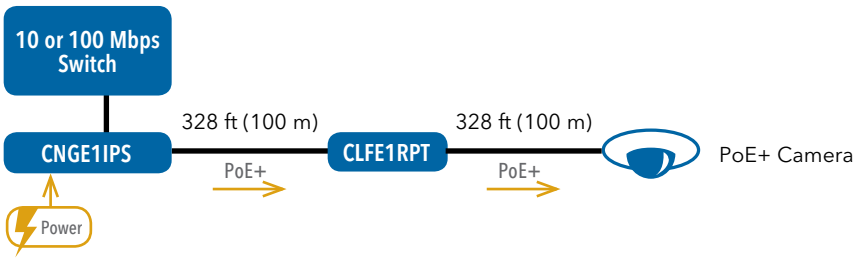
PoE Pass-Through Mode to PoE Device



PoE Pass-Through Mode to Non-PoE Device



High-Power PoE Pass-Through Mode to PoE+ Device



Low Power Consumption

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