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

TER-F01 Series

The TER-F01 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 TER-F01 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 TER-F01 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.

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

APPLICATIONS

› Remote extension of IP devices

› CCTV systems for casinos, airports, school campuses

FIRST EDITION 08-2019

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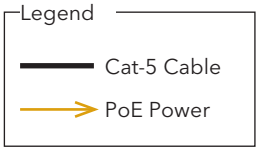
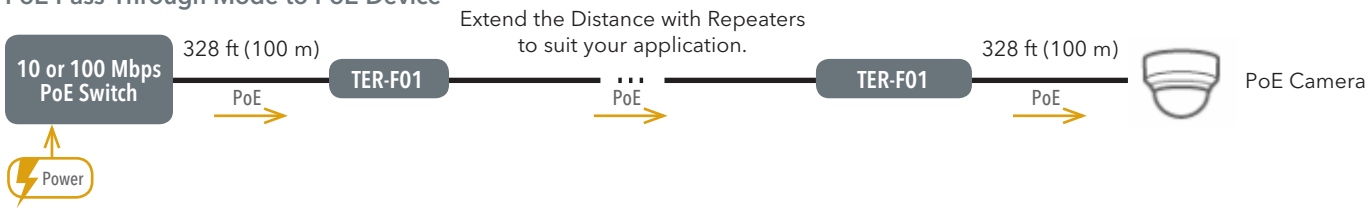
TYPICAL APPLICATIONS

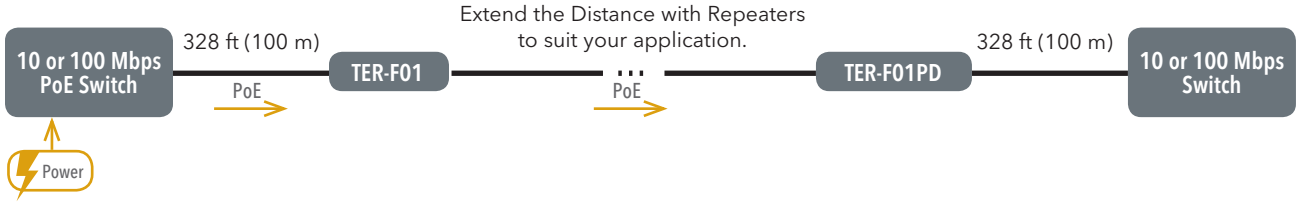
Please see the Maximum Transmission Distances Table.



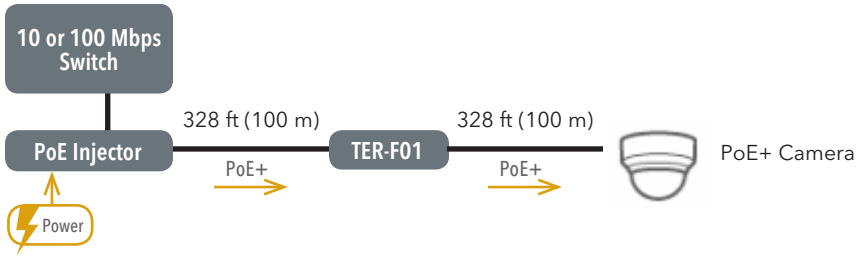
PoE Pass-Through Mode to PoE Device



PoE Pass-Through Mode to Non-PoE Device



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



Low Power Consumption

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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
TER-F01[/PD] Size	3.3 × 1.25 × 1.25 in (8.4 × 3.2 × 3.2 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

FC PART 15 COMPLIANT CE c UL us RoHS

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 TER-F01)	1,476 ft 450 m (Using 4 TER-F01)	984 ft 300 m (Using 2 TER-F01)	328 ft[4] 100 m[4] (No TER-F01)	N/A[4]	N/A[4]
30 W PoE+ Switch	2,625 ft 800 m (Using 7 TER-F01)	1,969 ft 600 m (Using 5 TER-F01)	1,316 ft 400 m (Using 3 TER-F01)	984 ft 300 m (Using 2 TER-F01)	656 ft 200 m (Using 1 TER-F01)	328 ft[4] 100 m[4] (No TER-F01)
35 W PoE+ Injector	3,773 ft 1,150 m (Using 11 TER-F01)	2,625 ft 800 m (Using 7 TER-F01)	1,804 ft 550 m (Using 5 TER-F01)	1,316 ft 400 m (Using 3 TER-F01)	984 ft 300 m (Using 2 TER-F01)	656 ft 200 m (Using 1 TER-F01)

[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 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 TER-F01PD 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
TER-F01	100 Meter Ethernet Repeater Pass-Through PoE Power
TER-F01PD	100 Meter Ethernet Repeater External Power
Options	DIN-Rail Mounting Adaptor Kit for Mini-size units only - With Mounting Hardware (sold separately, order model SBP-UDR)

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

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