TER-F01 Series

10/100 MBPS ETHERNET REPEATER WITH 60 W PASS-THROUGH POE

This manual serves the following Model Names:

TER-F01

TER-F01PD

The TER-F01 series 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.

The standard configuration 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.

FIGURE 1 – TER-F01[PD] EXTENDER

Note: Ports are universal, and either can be used as in or out.

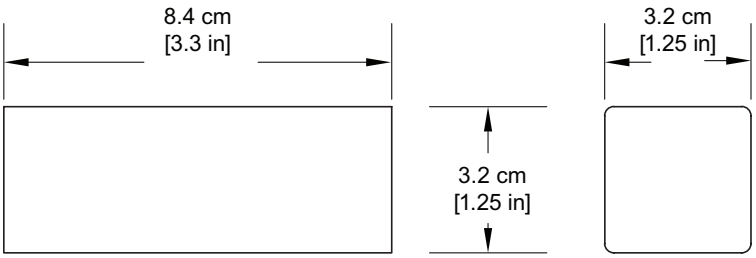
Power: Supplied by PSE
Power Consumption: <1 W

FIGURE 3 – INDICATING LEDS

	COPPER
GREEN	Solid – No Activity Blinking – Activity
YELLOW	Highest Data Rate (100Mb)

FIGURE 4 - DIMENSIONS

Dimensions are for a tube module



INSTALLATION CONSIDERATIONS

The TER-F01[PD] is supplied as a 3.3 × 1.25 × 1.25 in (8.4 × 3.2 × 3.2 cm) tube module.

Units should be installed in dry locations protected from extremes of temperature and humidity.

WARNING: Unit is to be used with a Listed Class 2 power supply.

IMPORTANT SAFEGUARDS:

A) Elevated Operating Ambient - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (T_{ma}) specified by the manufacturer.

B) Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.

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

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)

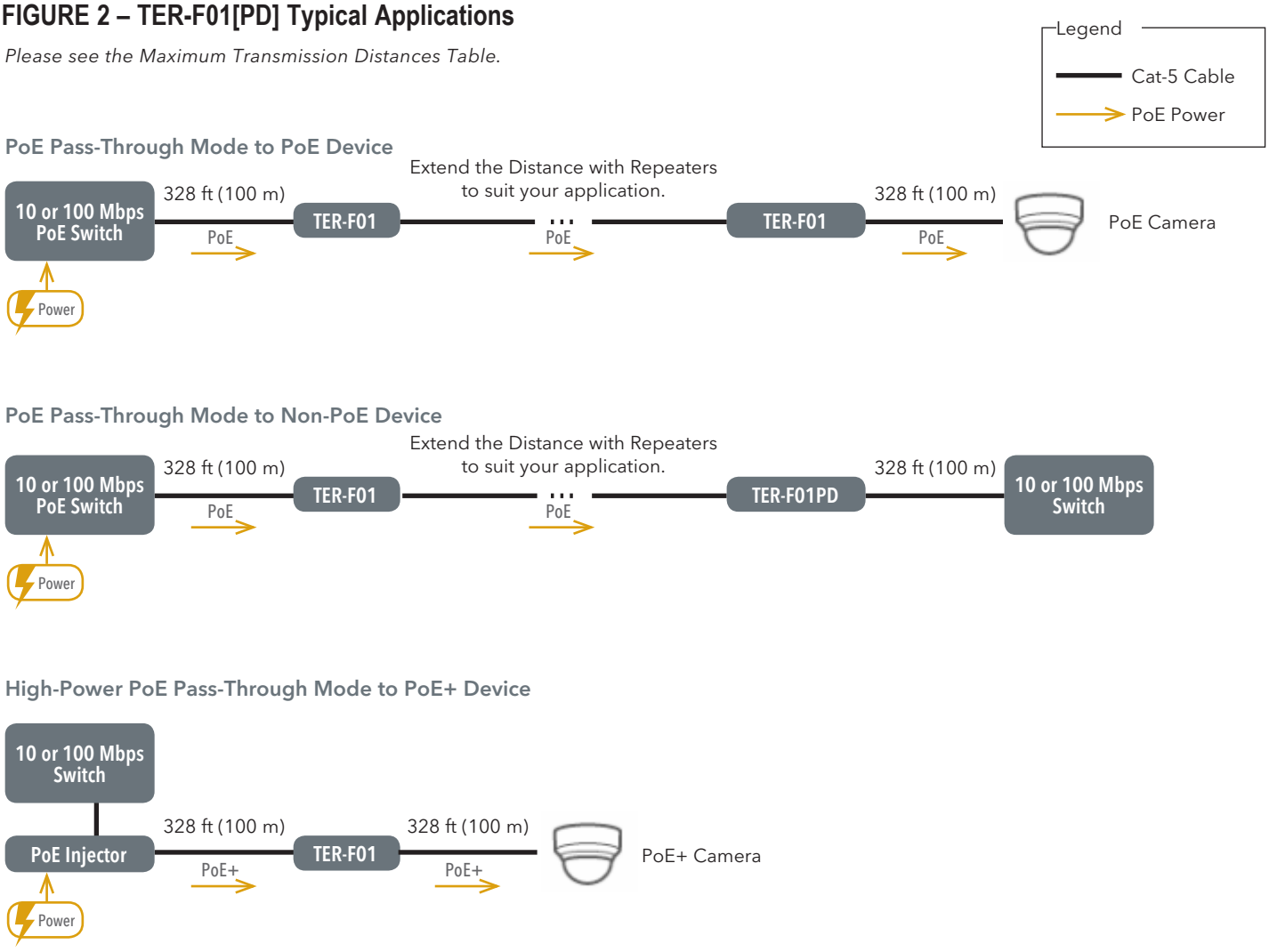
[1] Distance figures are based on 48V PSE PoE power source for PoE switches, 50V PSE PoE power source for PoE+ switches and 56V PSE PoE power source for the injector as detailed in the table. Distance figures are obtained using in-house testing mirroring installations. Factors such as cable quality, 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 needed/possible at this PoE power level with this particular PoE power source at the distance listed

FIGURE 2 – TER-F01[PD] Typical Applications

Please see the Maximum Transmission Distances Table.



Low Power Consumption