

Pace1KRT

Long Range Single Pair (UTP) Ethernet Adapter Kit



Altronix Pace1KRT is a long-range Ethernet adapter kit solution that transmits data and power via twisted pair (2-wire, UTP or shielded) in a PoE(+) compliant format. In addition to new SPE (UTP) Ethernet network installations for Surveillance-cameras/Security/Industrial/BMS/HVAC/Intercoms & Elevator Controllers, applications include upgrading of legacy networks, i.e. LONworks, RS485, 4-20mA Control Loops, etc. by using the existing two wire cabling, thus saving rip-out & reinstallation costs.

Operationally, the Pace1KR is connected to a POE midspan/endspan switch at the headend and passes network data and power to the Pace1KT from the switch via UTP up to 1km (1,000m, 3,280 ft.) to a remote 10 PoE device, such as a camera. For non-PoE remote devices, data only is transmitted.

For dual port connectivity please see kit model: Pace2KRT

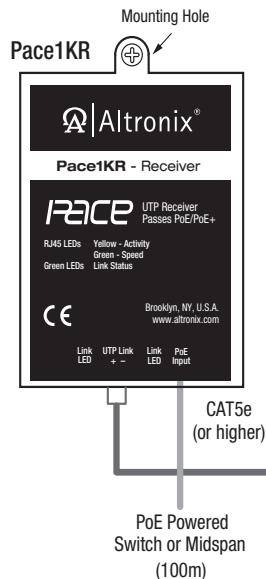
Key Features

- Provides SPE (single pair Ethernet) over twisted pair (2-wire, UTP or shielded) or 16/2 AWG or higher wire up to 1km (1,000m, 3,280 ft.)
- Utilize twisted pair for new installations or retrofit of IP devices over existing twisted pair cabling
- Cost-effective solution to facilitate IP devices that need to be installed at longer distances such as in elevator shafts, tunnels, bridges, HVAC, and more...
- PoE, IEEE 802.3af (15W) and IEEE 802.3at (25W) compliant
- Auto detection allows it to safely work with non-PoE cameras/devices
- Works with Megapixel, HD720, HD1080 & VGA (SD) cameras
- Extends Network link distance in an industrial environment
- Building Automation, Elevator Systems, Intercoms, HVAC, Lighting, Surveillance & Security
- Utilize twisted pair for new installations or retrofit of IP devices over existing twisted pair cabling
- Kit includes: Pace1KR Receiver and Pace1KT Transceiver
- For dual port connectivity please see kit model: Pace2KRT*
- CE European Conformity
- Lifetime Warranty



Pace1KRT

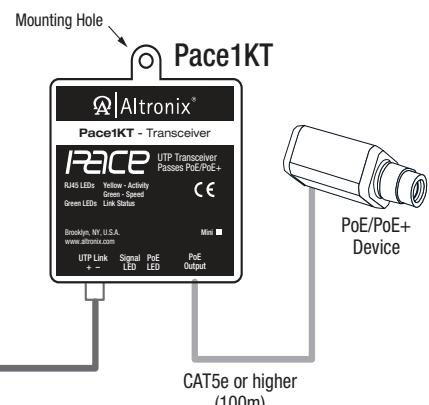
Typical Application Diagram



Maximum Length of Cable Type vs. Total Power Consumption

Wire type	Total Power Consumption	Max. Data Distance	Max. Power Distance
18 AWG (2-wire/UTP)	7.5W	1,000m (3,280 ft.)	1,996m (6,548 ft.)
	15W	1,000m (3,280 ft.)	998m (3,274 ft.)
	25W	1,000m (3,280 ft.)	269m (882 ft.)
16 AWG (2-wire/UTP)	7.5W	1,000m (3,280 ft.)	3,169m (10,396 ft.)
	15W	1,000m (3,280 ft.)	1,584m (5,196 ft.)
	25W	1,000m (3,280 ft.)	427m (1,400 ft.)

1000m twisted pair
See Maximum Length of Cable Type vs. Total Power Consumption chart



Lifetime Warranty

Pace1KRT

Long Range Single Pair (UTP) Ethernet Adapter Kit

Specifications

Input

Pace1KR: Powered by midspan or endspan
 PoE compliant to IEEE 802.3af (15W) and
 PoE+ compliant to IEEE 802.3at (25W)

Pace1KT: Powered by Pace1KR

UTP Connection

Wire type: Twisted pair (2-wire, UTP or shielded)
 Distance: 1km (1,000m, 3,280 ft.),
 16/2 AWG or higher @ 10Mbps
 (see Maximum Length of Cable Type vs. Total Power
 Consumption chart on pg. 1)

Ethernet Connection

Connectivity: RJ45, auto-crossover
 Wire type: 4-pair, CAT5e or higher
 Distance: up to 100m from midspan to Pace1KR receiver
 (headend), 100m from PaceKT transceiver to device
 Speed: 10BaseT, half/full duplex, auto negotiation.
 PoE: IEEE 802.3af (15W) and PoE+ compliant to IEEE 802.3at
 (25W) delivered to device by Pace1KR Power provided by
 Pace1KR to Pace1KT by PoE protocol

Indicators (LED)

Green LED (left): PoE (link)
 Green LED (right): Data transmission (link)
 Yellow and Green LED (by RJ45 jack):
 IP Link status, 10Base-T/active

Agency Listings

CE European Conformity

Physical and Environmental

Dimensions (W x L x H)

Enclosure:

Pace1KR:

2.5" x 3.8" x 1" (63.5mm x 96.5mm x 25.4mm)

Pace1KT:

2.27" x 2.65" x 1.12" (57.7mm x 67.2mm x 28.4mm)

Shipping: 8" x 6" x 5" (203.2mm x 152.4mm x 127mm)

Weight (approx.)

Product: 0.4 lb. (0.18 kg)
 Shipping: 1 lb. (0.45 kg)

Temperature

Operating: -40°C to 75°C (-40° to 167°F)
 Storage: -40°C to 75°C (-40° to 167°F)

Relative Humidity

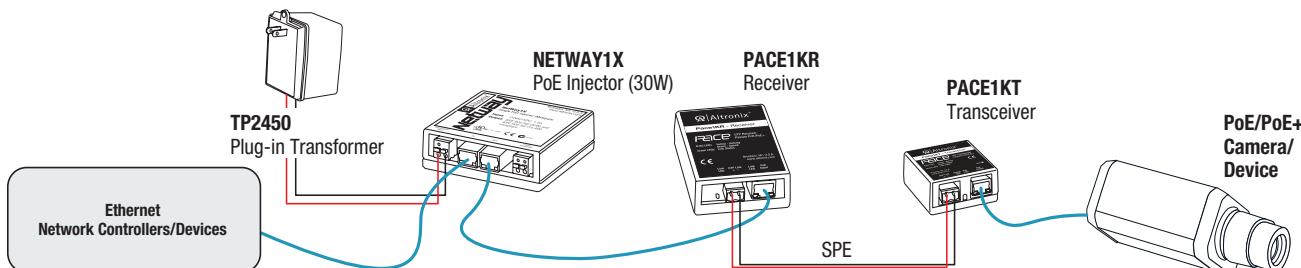
85% +/- 5%

Operating Altitude

-304.8 to 2,000m

Typical Operation Diagram

Multi-point SPE Application utilizing Altronix PoE Injector and PoE Splitter(s)



For dual port connectivity please see kit model: Pace2KRT

Accessories



DCL2 - DIN Rail Mounting Clip

Allows for easy installation of Altronix adapters utilizing screw mounting holes to mount on a standard DIN rail (Altronix Din Rail models D10, D12, D19, or D24).

Lifetime Warranty

Altronix Corporation | 140 58th St | Brooklyn, NY 11220 USA

phone: +1 718.567.8181 | fax: +1 718.567.9056 | email: info@altronix.com | www.altronix.com