Rev. 11202024

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 & 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.

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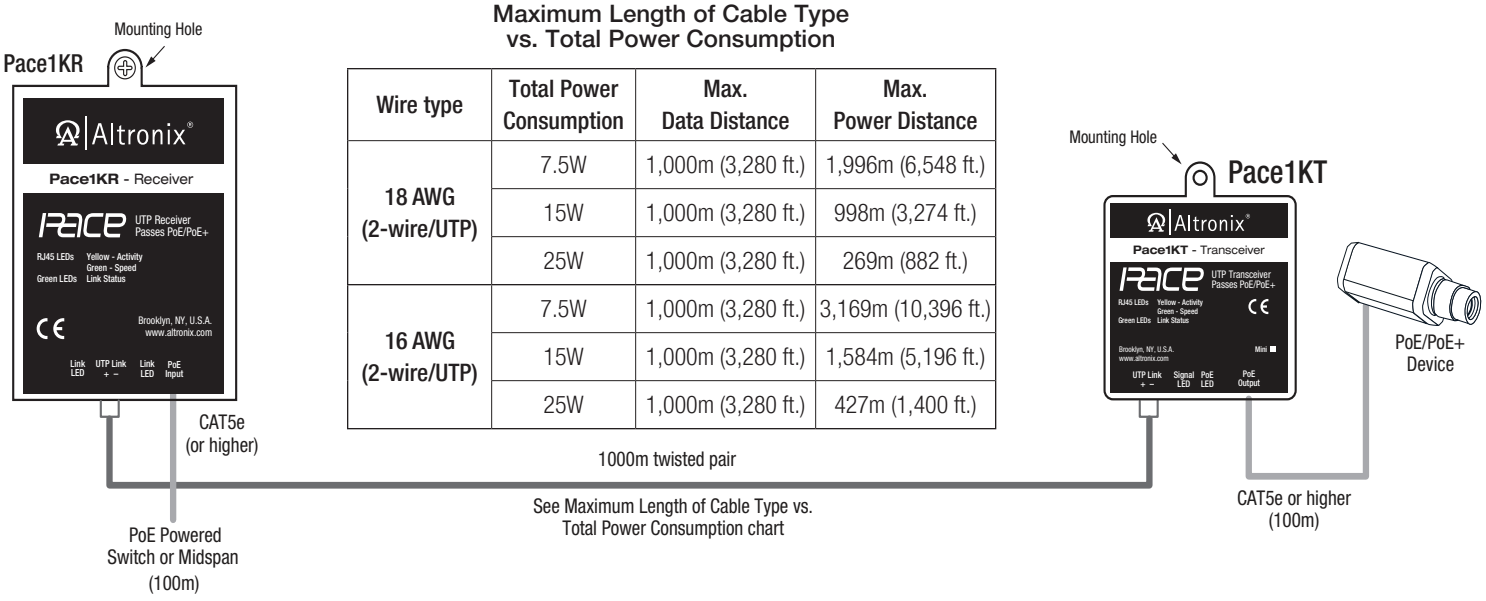
For dual port connectivity please see kit model: Pace2KRT

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, 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

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.)

Lifetime Warranty

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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

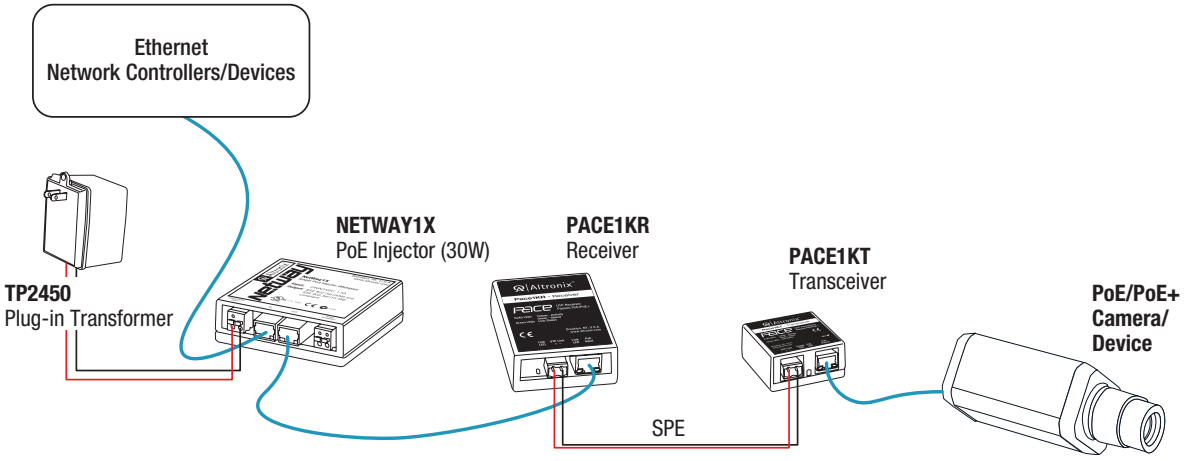
Operating: – 40ºC to 75ºC (– 40º to 167ºF)

Storage: – 40ºC to 75ºC (– 40º to 167ºF)

Relative Humidity 85% +/– 5%

Operating Altitude – 304.8 to 2,000m

Typical Operation Diagram



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