Rev. 09102024

Pace1KT

Long Range Single Pair (UTP) Ethernet Adapter/Transceiver

Altronix Pace1KT is a long-range Ethernet adapter/transceiver that transmits data and power from Pace1KR or Pace4KR(Q) receivers 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, Pace1KR or Pace4KR(Q) 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 10/100 PoE device, such as a camera. For non-PoE remote devices, data only is transmitted.

Pace1KRT

Key Features

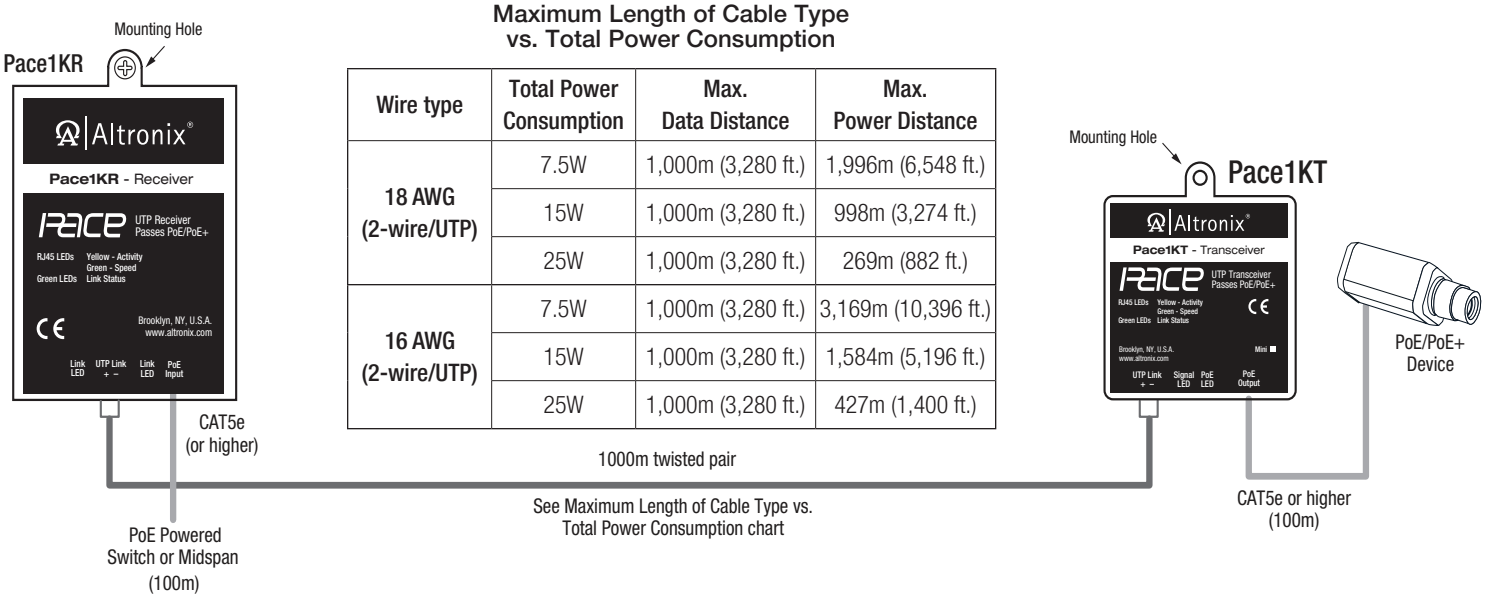
- Provides SPE (single pair Ethernet) over twisted pair (2-wire, UTP or shielded) or 16/2 AWG or higher wire up to 1km (1,000m, 3,280 ft.)
- Utilize twisted pair for new installations or retrofit of IP devices over existing twisted pair cabling
- Cost-effective solution to facilitate IP devices that 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
- Compatible with Pace KR Receivers
- CE European Conformity
- Lifetime Warranty

Typical Application Diagram

Pace1KR Receiver is shown
Similar with Pace4KR(Q) with up to four (4) Pace1KT transceivers

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

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

Pace1KT

Long Range Single Pair (UTP) Ethernet Adapter Kit

Specifications

Input

Powered by Pace KR receiver

PoE compliant to IEEE 802.3af (15W) and

PoE+ compliant to IEEE 802.3at (30W).

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 Pace KR receiver (headend), 100m from Pace1KT transceiver to device

Speed: 10/100BaseT, half/full duplex, auto negotiation.

PoE: IEEE 802.3af (15W) and PoE+ compliant to IEEE 802.3at (25W) delivered to device by Pace KR receiver

Power provided by Pace KR 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, 10/100Base-T/active

Agency Listings

CE	European Conformity

Physical and Environmental

Dimensions (W x L x H)

Enclosure:
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