



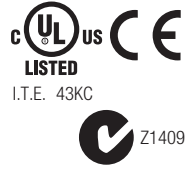
# Pace1PTM

## IP and PoE+ Transceiver

### Over Extended Distance

### UTP or CAT5e

## Installation Guide



### Overview:

Pace1PTM is a long range Ethernet transceiver designed for use with Pace1PRM, Pace4PRM, Pace8PRM, and Pace16PRM receivers. They transmit data at 100Mbps full duplex and power via CAT5e or higher cable in a PoE(+) compliant format or a single twisted pair (UTP) (when paired with Pace1PRM). Pace1PTM will not deliver power to non-compliant devices, thus avoiding damage to improperly connected non-PoE cameras/devices. The receiver passes the PoE(+) compliant power over the cable to the Pace1PTM transceiver which in turn passes this power to an enabled IP camera/device. These plug and play units facilitate cost effective solutions for IP devices that need to be installed at distances greater than 100m. They also provide a simple way to replace legacy analog products with new IP devices over single twisted pair (UTP) (when paired with Pace1PRM) or structured cable.

### Features:

#### Agency Listings:

- UL/cUL Listed for Information Technology Equipment (UL 60950-1).
- CE European Conformity.
- C-Tick compliant.

#### Input:

- PoE (15W) IEEE 802.3af compliant or PoE+ (30W) IEEE 802.3at compliant from Pace1PRM, Pace4PRM, Pace8PRM, or Pace16PRM.

#### Ethernet:

- Connectivity: RJ45, auto-crossover.
- Wire type: 4-pair CAT5e or a single twisted pair UTP.
- Speed: 10/100BaseT, half/full duplex, auto negotiation.  
PoE compliant to IEEE 802.3af (15W) and PoE+ compliant to IEEE 802.3at (30W) delivered to camera by Pace1PTM.
- Throughput is rated to pass 100Mbps of data.

#### CAT5e or Higher from Pace Receiver:

- Distance: up to 500m @ 100Mbps  
*(see Max. Length of Cable Type vs. Camera Power/PoE Class, pg. 4)*

#### UTP (Single Twisted Pair) from Pace1PRM:

- Distance: up to 152m @ 100Mbps  
*(see Max. Length of Cable Type vs. Camera Power/PoE Class, pg. 4).*

#### LED Indicators:

- Green - PoE ON (by respective RJ45 jack).
- Yellow and Green LED IP Link status, 10/100Base-T/active.

#### Environmental:

- **Operating Temperature:**  
For 15W: - 40°C to 75°C (- 40°F to 167°F).  
For 25W: - 40°C to 70°C (- 40°F to 158°F).  
For 30W: - 40°C to 60°C (- 40°F to 140°F).
- **Storage Temperature:**  
- 40°C to 75°C (- 40°F to 167°F).
- Relative humidity:  
20 to 85%, non-condensing.

#### Functions:

- Auto detection and protection of legacy non-PoE cameras/devices.

#### Applications:

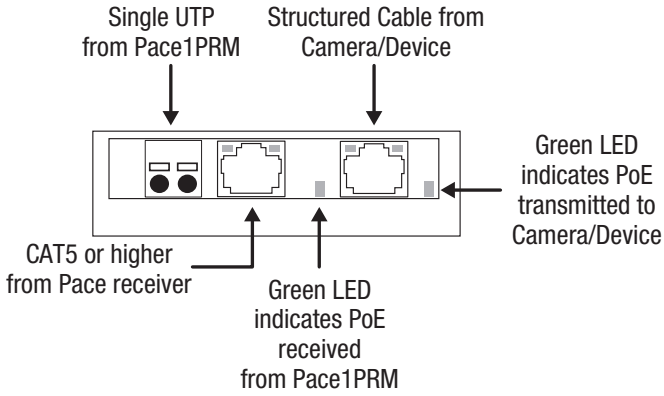
- Retrofit digital IP cameras in an analog CCTV CAT5e or UTP installations.
- Extend Network link distance in an industrial environment over 610m.
- Works with Megapixel, HD720, HD1080 and VGA (SD) cameras with proper headend equipment.

#### Mechanical:

- Dimensions (W x L x H approx.):  
3.5" x 3.5" x 1"  
(88.9mm x 88.9mm x 25.4mm).



Fig. 1



### Single PoE Camera Connection:

Fig. 2

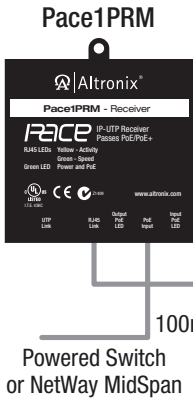
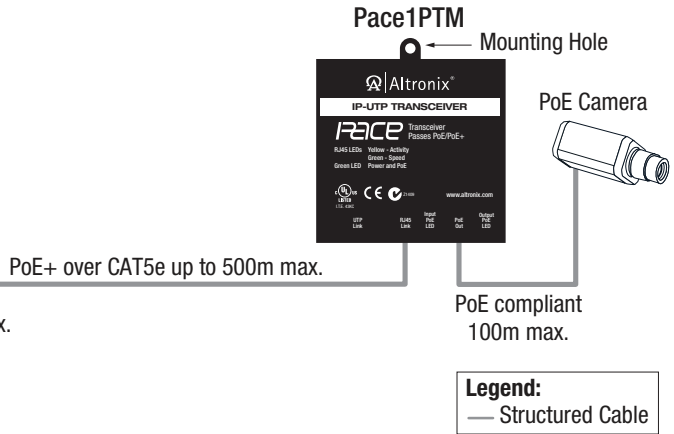


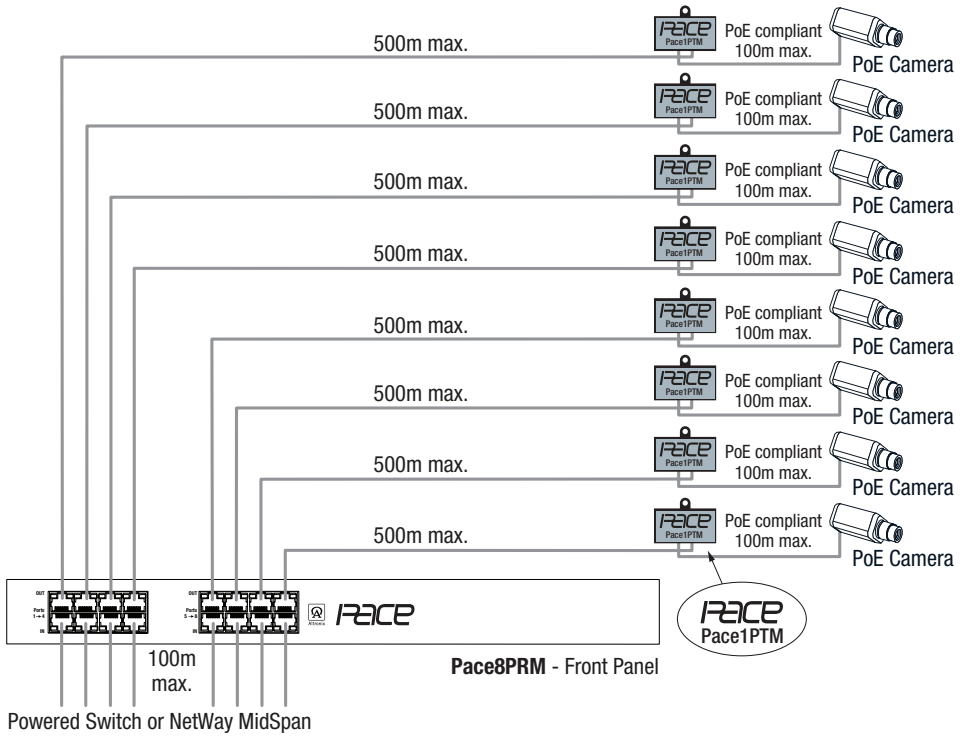
Fig. 2a



## Multiple PoE Cameras Connection:

Pace8PRM shown. Pace4PRM and Pace16PRM are similar, with four (4) and sixteen (16) channels respectively.

Fig. 3



### Maximum Length of Cable Type vs. Camera Power/PoE Class:

| Cable Type | Total Power Consumption | Max. Data Distance | Max. Power Distance |
|------------|-------------------------|--------------------|---------------------|
| CAT5e      | 15W                     | 500m               | 500m                |
| CAT5e      | 30W                     | 500m               | 423m                |
| 1 Pair UTP | 15W                     | 150m               | 210m                |
| 1 Pair UTP | 30W                     | 150m               | 105m                |

**Note:** Calculations based on 56VDC starting voltage from power source and accounts for a 10VDC voltage drop. IEEE standards voltage range requirement for powered devices are:

PoE (15W) - 37VDC to 57VDC

PoE+ (30W) - 44VDC to 57VDC.

Altronix is not responsible for any typographical errors.

140 58th Street, Brooklyn, New York 11220 USA | phone: 718-567-8181 | fax: 718-567-9056  
 website: www.altronix.com | e-mail: info@altronix.com | Lifetime Warranty  
 IIPace1PTM Rev. 111413 108U

