Altronix® PACE Installation Guide

Pace1PRD
IP and Hi-PoE Receiver over extended distance CAT5e

c (UL) us CE
LISTED
I.T.E. 43KC

Overview:

Pace1PRD is a long range Ethernet receiver which transmits data at 100mbps full duplex and power via a Cat5e or higher cable. The Pace1PRD receiver is powered via Altronix NetWay1D midspan injector. The receiver passes the Hi-PoE (60W) power over the cable to the eBridge200WPM 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.

Features:

Agency Listings:
- UL/CUL Listed for Information Technology Equipment (UL 60950-1).
- CE approved.

Input:
- Powered by NetWay1D (60W).

Ethernet:
- Connectivity: RJ45, auto-crossover.
- Wire type: 4-pair CAT5 or 1 pair UTP structured cable.
- Distance: up to 500m (1,500 ft.).
- Speed: 10/100BaseT, half/full duplex, auto negotiation.
- Throughput is rated to pass 100mbps of data at distances up to 1,500 ft. With proper headend equipment this supports Megapixel, HD720, HD1080.

CAT5e or Higher:
- Distance: up to 1,500 ft. @ 100mbps *(see Cable Type, Total Device Power, Data and Power Distance, pg. 3)*.

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

Environmental:
- **Operating Temperature Pace1PRM:** −4ºF to 120.2ºF (−20ºC to +49ºC).
- **Storage Temperature:** −22º to 158ºF (−30º to +70ºC) Storage.
- Humidity: 20 to 85%, non-condensing.

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

Applications:
- Extend Network link distance in an industrial environment *(see note, pg. 2)*.
- Works with Megapixel, HD720, HD1080 and VGA (SD) cameras *(see note, pg. 2)*.

Mechanical:
- Dimensions (W x L x H approx.): 3.5" x 3.5" x 1" (88.89mm x 88.89mm x 25.4mm)

Installation Instructions:

Wiring methods shall be in accordance with the National Electrical Code/NFPA 70/ANSI, and with all local codes and authorities having jurisdiction. Wiring should be UL Listed and/or Recognized wire suitable for the application.. Pace1PRD is intended for indoor use only.

1. **Pace1PRD installation:**
   a. Secure unit to desired mounting surface with a proper fastening device utilizing the unit's mounting hole *(Fig. 2a, pg. 3)*. Unit should be mounted in proximity to ethernet switch/network, NVR or video server.
   b. Connect structured cable from NetWay1D to RJ45 jack marked [PoE Input] *(Fig. 2, pg. 3)*.
   c. **CAT5e or higher:** Connect CAT5e or higher cable to connector marked [RJ45 OUT] *(Fig. 2, pg. 3)*.
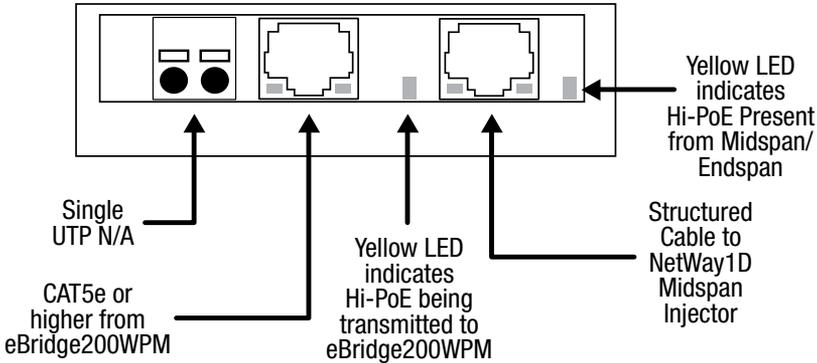
2. **eBridge200WPM connections:**
   a. Connect Cat5e from Pace1PRD (60W) to connector marked [CAT INPUT] *(Fig. 2, pg. 3)*
   b. Select input power SW3 on switch marked [60W CAT, 30W CAT or 60W COAX] *(Fig. 2, pg. 3)*.
   c. Connect structured cable from one (1) 60W camera/device to RJ45 jack marked [Port 1] or connect two (2) individual structured cables from two (2) 30W cameras/devices to RJ45 jacks marked [Port 1 & Port 2] *(Fig. 2, pg. 3)*.

Technical Specifications:

Parameter	Description
Connections	RJ45 for ethernet link or single pair UTP.
Input power requirements	Midspan or endspan port connected. PoE compliant to IEEE 802.3af (15W) and PoE+ compliant to IEEE 802.3at (30W)
Indicators	Yellow (RJ45 connector): On - Link, Off - No Link, Blinking - Activity. Green (RJ45 connector): On - 100Base-TX, Off - 10Base-T. Yellow: PoE Active.
Environmental Conditions	Operating Ambient Temperature: UL60950-1 −4ºF to 120.2ºF (−20ºC to +49ºC). Relative humidity: 20 to 85%, non-condensing. Storage Temperature: −22º to 158ºF (−30º to +70ºC). Operating Altitude: −1000 to 6,561.679 ft. (−304.8 to 2000m).
Regulatory Compliance	UL/CUL Listed for Information Technology Equipment (UL 60950-1). CE approved.
Weights (approx.)	Product: 3.88 oz. (0.11 kg.); Shipping: 6.70 oz. (0.19 kg.)

Fig. 1   Pace1PRD

Yellow LED indicates Hi-PoE Present from Midspan/Endspan

Single UTP N/A

CAT5e or higher from eBridge200WPM

Yellow LED indicates Hi-PoE being transmitted to eBridge200WPM

Structured Cable to NetWay1D Midspan Injector

*Note: Caution: once Hi-PoE connection is established between Pace1PRD and eBridge200WPM, disconnection from eBridge200WPM will not disable the Hi-PoE output voltage on the Pace1PRD, although the eBridge200WPM can be reconnected, caution should be taken not to connect the CAT5e wiring from Pace1PRD to any non-PoE device.
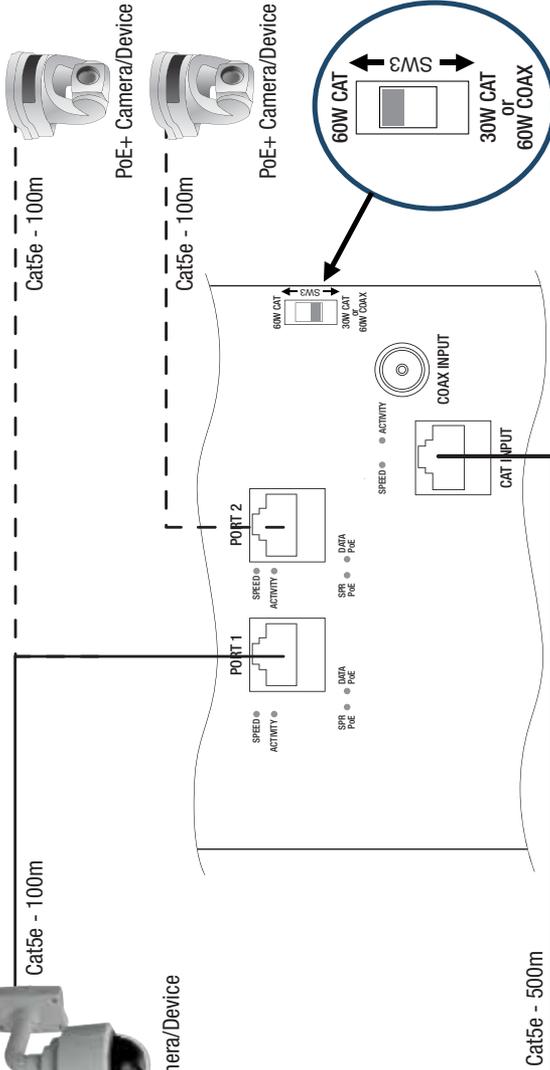
Single PoE Camera Connection:

Option 1

Option 2

Cat5e - 100m

PoE+ Camera/Device

Cat5e - 100m

PoE+ Camera/Device

SW3

60W CAT

30W CAT
or
60W COAX

Cat5e - 100m

60W Camera/Device

SW3

60W CAT

30W CAT
or
60W COAX

COAX INPUT

SPEED ● ● ACTIVITY

CAT INPUT

PORT 2

SPEED ●
ACTIVITY ●

SPR
PoE ● ● DATA
PoE

PORT 1

SPEED ●
ACTIVITY ●

SPR
PoE ● ● DATA
PoE

Cat5e - 500m

NetWay1D

Netway

PoE
IN ON
OFF ■ ■ Altronix

Aux.
In

Out

Pace1PRD

Altronix®

PacePRD - IP Receiver
Passive/Hi PoE

www.altronix.com

Fig. 2
Pace1PRD

Cable Type, Total Device Power, Data and Power Distance:

Cable Type	Total Power Consumption	Max. Data Distance	Max. Power Distance
Cat-5e	15W	500m	846m
Cat-5e	30W	500m	423m
Cat-5e	60W	500m	211m

Note: Higher gauge wiring will allow for longer distances.

Notes:

MEMBER
Pace1PRD