

POE-ISP

Gigabit Ethernet PoE Pass-through Surge Protector



User's Guide

FCC Certifications

This Equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received; including interference that may cause undesired operation.

CE Mark Warning

This equipment complies with the requirements relating to electromagnetic compatibility, EN 55022 class A for ITE, the essential protection requirement of Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

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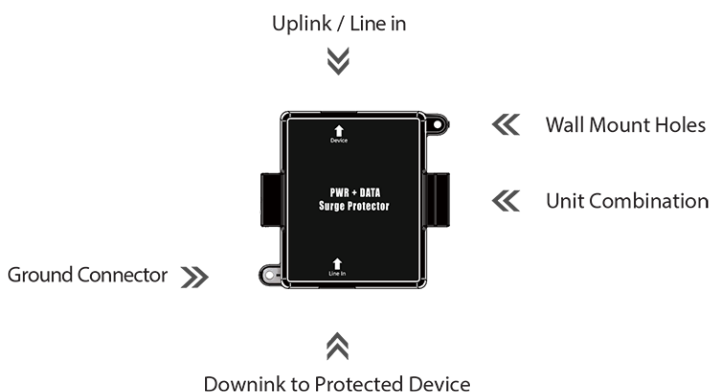
Unpacking Information

Thank you for purchasing our PoE series products. Before installation, please check that your package contains the following items.

Open the shipping cartons of the unit and carefully unpack its contents. The carton should contain the following items:

1. POE-ISP Main Unit x 1
2. Warranty Card x 1
3. 18AWG grounding cable x 1
4. Wall mounting screw set x 1
5. Quick Installation Guide x 1

Hardware Overview



Introduction

The CERIO POE-ISP is a PoE Pass-through Ethernet Surge Protector provides superior lightning and surge protection over gigabit networks speeds to provide Gigabit Power-over-Ethernet (PoE) over a single Ethernet cable. It provides durable design featuring a higher surge capability and lower clamping voltage. And the 10 kA Impulse Discharge Current guarantees reliable surge protection. The advantage of POE-ISP surge protector design is the added level of protection due to its large power rating and fast discharge time.

Highlight Features

- Complying with IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T standards.
- Supports 10/100/1000Mbps Gigabit Ethernet and provides Gigabit transfer speed and Power over Ethernet (PoE) pass through.
- Load current self-protection mechanism and grounding wire function pulse discharge current protection design
- Built in grounding pad which can connect to grounding cable to lower clamping voltage for better and more reliable protection and supports 10 kA Impulse Discharge Current.
- Supports 2 protection mode : Line-to-Ground and Line-to-Line.
- Protects all Eight (8) pins of the Ethernet cable.
- Plug and Play, no software required.
- Supports desktop, multiple units combination and wall mounting easy to use.

Product Specifications

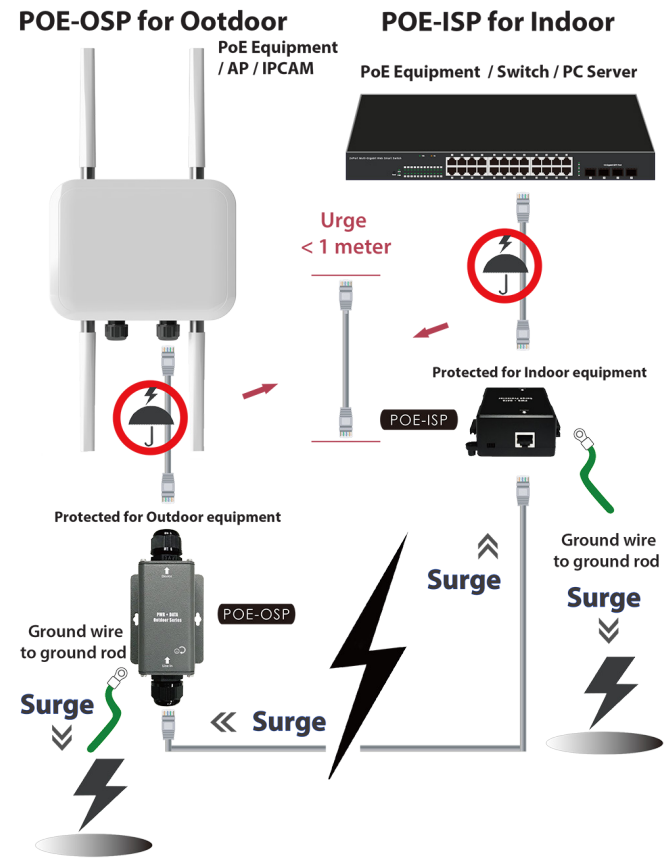
Standards & Hardware Specifications

Standard	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX IEEE802.3ab1000BASE-T
Network Media	10BASE -T: UTP Cat. 3 or up 100BASE-TX : UTP Cat. 5 or up 1000BASE-T: UTP Cat. 5 or up
Data Transfer Rate	10/100/1000Mbps (Half-duplex) 20/200/2000Mbps (Full-duplex)
Clamping Line-to-Ground	Common mode up to 10 kA
Clamping Line-to-Line	Differential mode up to 1 kA
Data In	Connects PC/HUB/Switch
Ethernet Connector	RJ-45 x1 for Line in RJ-45 x1 for Line out
Surge Protection Design	10KV (After grounding ability)

Environmental & Mechanical Characteristic

PoE Operation Voltage	57 VDC (Max)
PoE Operation Current	Two pair: 0.65A(Max) ,Four pair: 1.3A(Max)
PoE Power Load	74Watt (Four Pair Max)
PoE Input Voltage	44~57V
Operating Temperature	-10° to 60° C
Storage Temperature	-20° to 65° C
Operating Humidity	5% to 90% non-condensing
Storage Humidity	5% to 90% non-condensing
Dimension (W x D x H)	84.5 x 80 x 39.5mm
Weight (g)	96.2g
Case of material	ABS
Production Location	TW Only
Supports	IEC/EN 61643-21 (Safety) compatible IEC/EN 61000-4-5 (EMC) compatible RoHS compatible

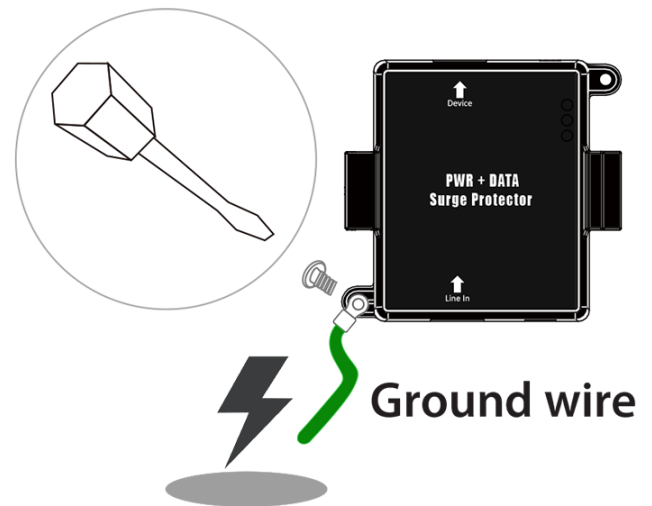
Product Application



Connect a ground wire

The unit must be grounded, before connecting the grounding wire size. We recommend using a 12~18 Gauge (AWG) (copper wire diameter) size for the grounding cable.

Ground wiring length 7.5 meters	Please use 18 Gauge (AWG) size
Ground wiring length 15 meters	Please use 16 Gauge (AWG) size
Ground wiring length 30 meters	Please use 14 Gauge (AWG) size
Ground wiring length 60 meters	Please use 12 Gauge (AWG) size



Installation

Distance between installations

The cabling distance between the surge protector (POE-OSP) and the protected device should be less than 1 meter. The closer the POE-ISP is installed to the protection device, the more effective it is for the protection device.

『DEVICE』 Port

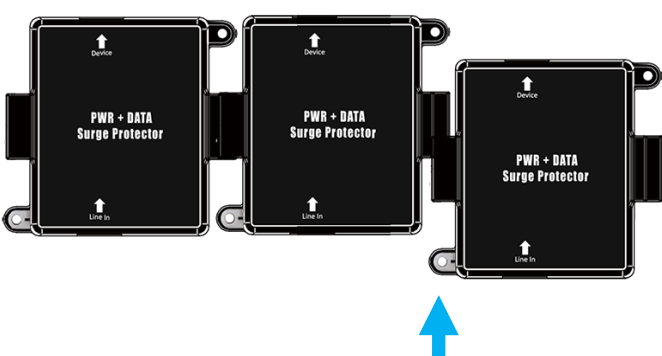
This port support transmit up to 74 Watt four pair of PoE power is used for connecting the unit to the outdoor Ethernet device it will be protecting (e.g. PoE access point or PoE IP camera).

『LINE IN』 Port

This port support receive up to 74 Watt four pair of PoE power from that device is used for connecting the unit to the outside network.

Units Combination

This device can be can be combined with multiple units for easy to bundles organize the Ethernet cables.



Please refer to the following how to ground the POE-ISP.

First remove the grounding screw on the side of the unit. Place the ground wire of the connected O-type terminal on the ground screw hole. Insert and tighten the grounding screw firmly to secure the grounding wire and the ring to the device. Connect the other end of the ground wire to a ground rod or your ground source.

Note: Proper installation is required for the grounding wire to achieve its highest surge capability.

