POE-ISP+

1/2.5Gbps Multi Giga Ethernet PoE Pass-through Surge Protector

User's Guide

FCC Certifications

CE Mark Warning

Introduction

The CERIO POE-ISP+ is a PoE Pass-through Ethernet Surge Protector provides superior lightening and surge protection over multi gigabit networks speeds to provide Multi 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 and IEEE 802.3bz 2500Base-T standards.

➢ Supports 1/2.5Gbps Multi Gigabit Ethernet and provides Multi 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.
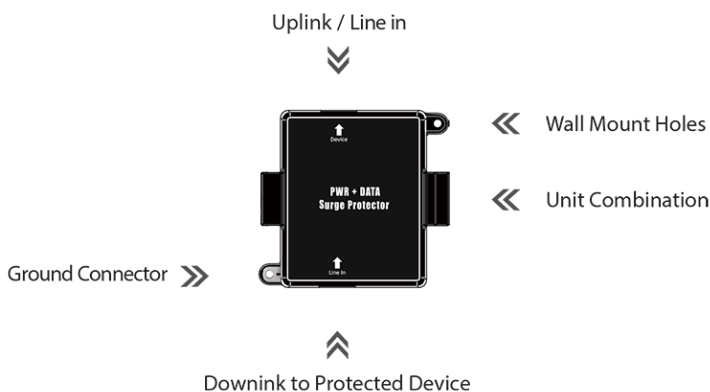
Unpacking Information
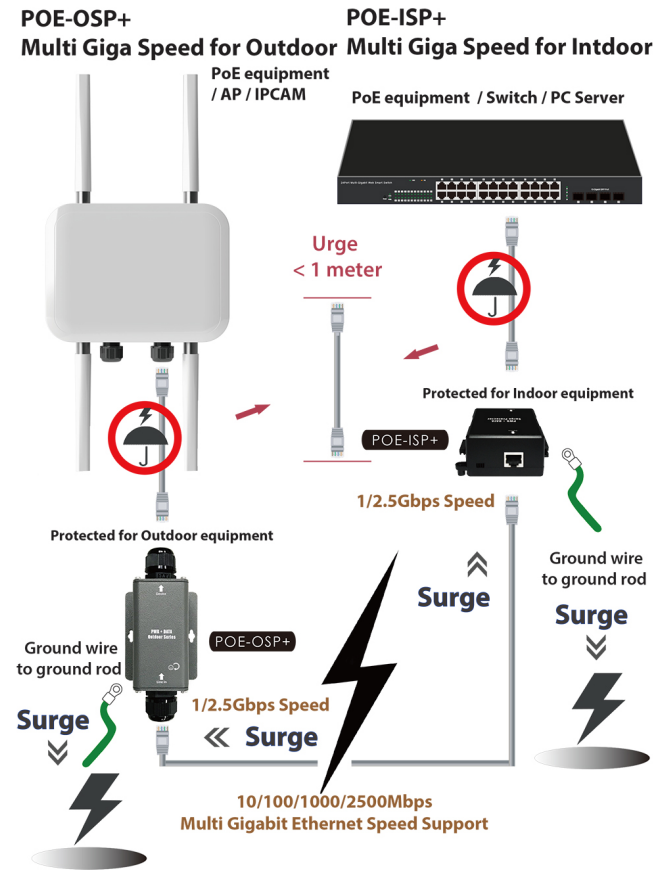
Thank you for purchasing our PoE series products. Before installation, please check that your package contains the following items.

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

Product Specifications

Standards & Hardware Specifications

Standard	IEEE802.3 10BASE-T
	IEEE802.3u 100BASE-TX
	IEEE802.3ab1000BASE-T
	IEEE 802.3bz 2500Base-T
Network Media	10BASE –T: UTP Cat. 3 or up
	100BASE-TX : UTP Cat. 5 or up
	1000BASE-T: UTP Cat. 5 or up
	2500BASE-T: UTP Cat. 5e or up
Data Transfer Rate	10/100/1000/2500Mbps (Half-duplex), 20/200/2000/5000Mbps (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
Supports	IEC/EN 61643-21 (Safety) compatible
	IEC/EN 61000-4-5 (EMC) compatible
	RoHS compatible

V1.0

Product Application

POE-OSP+
Multi Giga Speed for Outdoor

PoE equipment / AP / IPCAM

POE-ISP+
Multi Giga Speed for Intdoor

PoE equipment / Switch / PC Server

Urge < 1 meter

POE-ISP+

Protected for Indoor equipment

1/2.5Gbps Speed

Ground wire to ground rod

Surge

Surge

Protected for Outdoor equipment

POE-OSP+

Ground wire to ground rod

Surge

1/2.5Gbps Speed
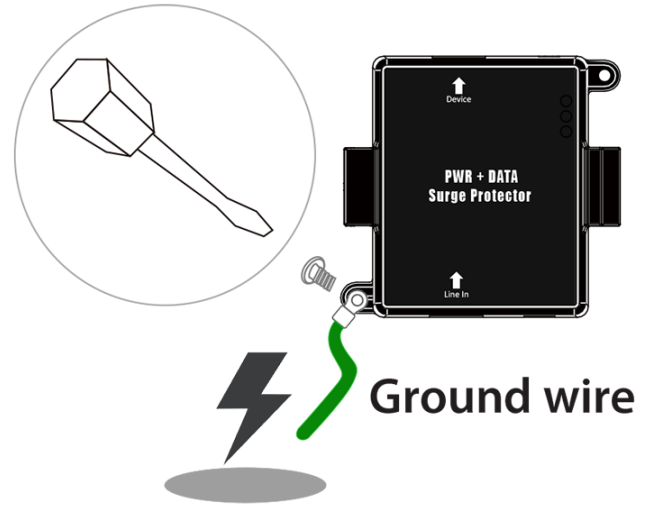
Surge

Surge

10/100/1000/2500Mbps Multi Gigabit Ethernet Speed Support

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

Device

PWR + DATA Surge Protector

Line In

Ground wire

Installation

Distance between installations

The cabling distance between the surge protector (POE-ISP+) 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.
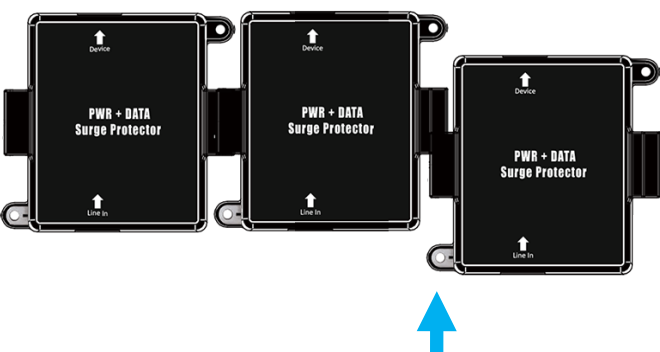
『DEVICE』 Port

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.
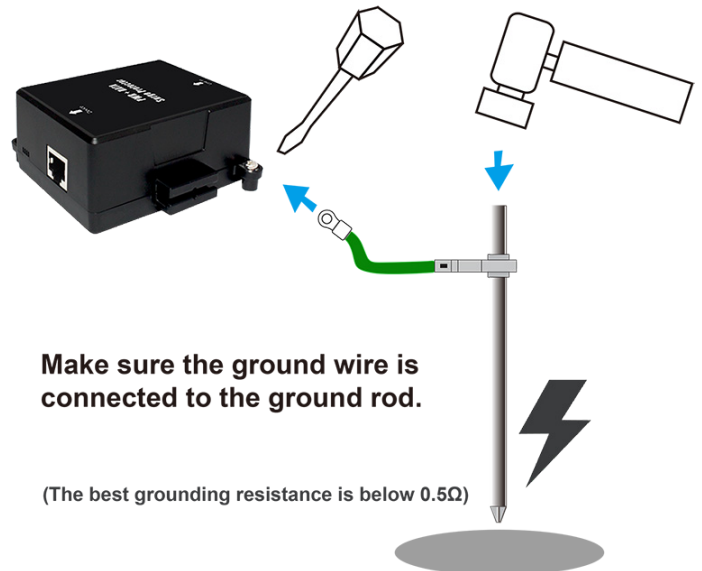
Units Combination

This device can be can be combined with multiple units for easy to

bundles organize the Ethernet cables.

Device

PWR + DATA Surge Protector

Line In

Device

PWR + DATA Surge Protector

Line In

Device

PWR + DATA Surge Protector

Line In

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.

Make sure the ground wire is connected to the ground rod.

(The best grounding resistance is below 0.5Ω)