Product Introduction

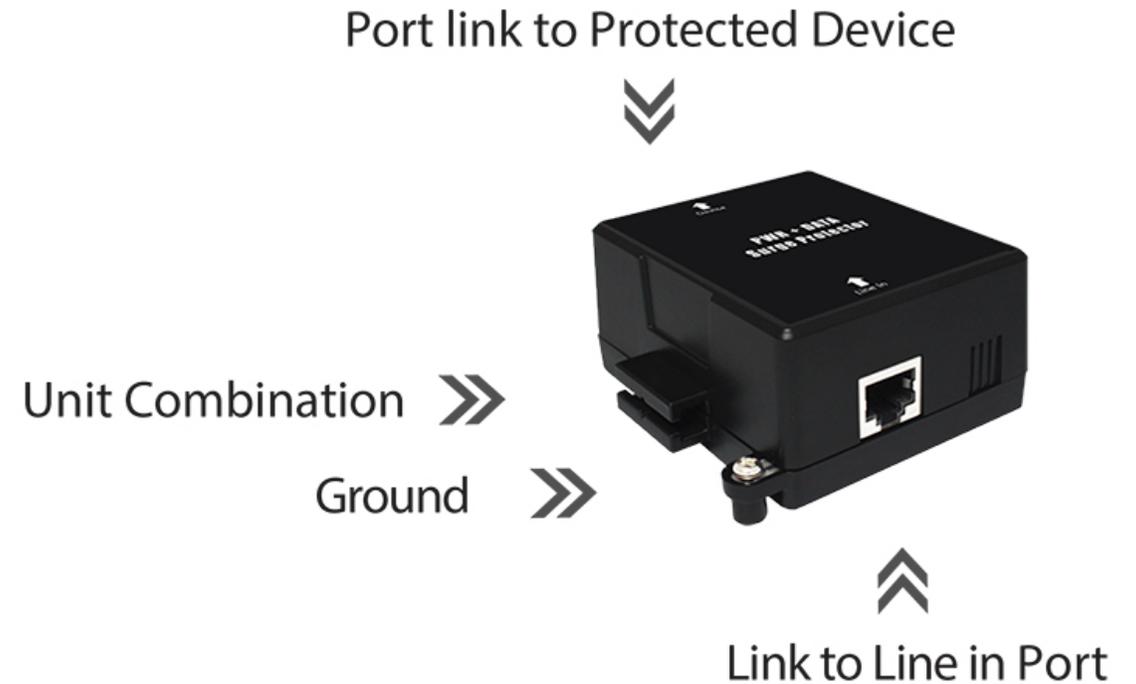# **Surge Protector**

CERIO

Contents

CERIO

Highlight Features

CERIO

- ✓ Compliant with IEEE 802.3af (PoE) and IEEE802.3at (PoE+) Device

- ✓ Supports **Gigabit Ethernet** and provides Gigabit transfer speed

- ✓ Protect any Power-over-Ethernet (PoE) or non-PoE device

- ✓ Supports 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

- ✓ Bundle with **18AWG** grounding cable

- ✓ Plug and Play, no software required

- ✓ **IP68 rating weather-proof** durable design are made to withstand harsh environment deployment **(POE-OSP)**

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Port link to
Protected Device

Port link to Protected Device

Wall Mount
Holes

Grounding

Unit Combination

Ground

Link to Line in

Link to Line in Port

OUTDOOR TYPE
POE-OSP

INDOOR TYPE
POE-ISP

The Indoor Surge Protector provides Plug-and-Play, requires no configuration, small pocket size and convenience in network planning, and higher reliability.

INDOOR GIGABIT PoE PASS-THROUGH

10KA SURGE PROTECTOR

The Outdoor Surge Protector provides aluminum enclosure with IP68 rating waterproof durable design are made to withstand harsh environment deployment. It's ideal for installation in outdoor environments.

IP68 Rating Waterproof Test Report

IP6X Test

Accordance with IEC60529 13.1, 13.4 and 13.6 test. There is no trace of dust inside.

IP6X Test

Accordance with IEC60529 13.1, 13.4 and 13.6 test. No ingress of water was found inside.

ELECTRONICS TESTING CENTER, TAIWAN
ADDRESS: NO.5 HSIN HO 2 RD.,AN PIN INDUSTRIAL PARK, TAINAN , TAIWAN
TEL:06-2925787   FAX:06-2650302
http://www.etc.org.tw

Testing Laboratory 1161

Ind. Ser. No. : 20-03-NEF-001

Issue Date : 2020 / 3 / 5

TEST REPORT

Ind. Ser. No.	:	20-03-NEF-001
Applicant	:	Cerio Corporation.
Address	:	4F.-3., No.192, Sec. 2, Zhongxing Rd., Xindian Dist., New Taipei City 231, Taiwan (R.O.C.)
Products	:	Gigabit Ethernet POE Outdoor Surge Protector Main: POE-OSP Series: NOSP、SP-OD10、PSP-10、POE-01SP、GPOE-S01、
Model	:	OPOE-SP-1、OD-PSP10 (The appearance and structure of the main test and series models are the same, only the models are different)
Quantity	:	2sets
Date of Receipt	:	2020 / 3 / 2
Date of Testing	:	2020 / 3 / 2 ~ 2020 / 3 / 3
Test specification	:	IEC60529 Edition 2.2 2013-08
Inspection Site	:	Electronics Testing Center, Taiwan – Southern Taiwan Industry Service Department (TAF Certification No:1161)
Ambient Environment	:	IP6X Temp. 26 ± 2 ℃ , R.H. 43 ± 6 % , Air pressure101.3 kPa ± 5 % IPX8 Temp. 25 ± 2 ℃ , R.H. 50 ± 6 % , Air pressure101.4 kPa ± 5 %
Testing Item	:	IP68
Test condition	:	See the following sheets
Test result	:	PASS

The test results relate only to the items tested.
The report shall not be reproduced except in full without the written approval of Electronics Testing Center, Taiwan.
This inspection has carried out to the best of our knowledge and ability, and our responsibility is limited to the exercise of reasonable care, this certification is not intended to believe the sellers from their contractual obligations.

Tested by : Yu Bin Qiu 2020.3.5   Approved by : Kevin Lee 2020.03.05

Southern Taiwan Industry Service Department   Southern Taiwan Industry Service Department

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Product Installation

GROUND WIRE INSTALLATION
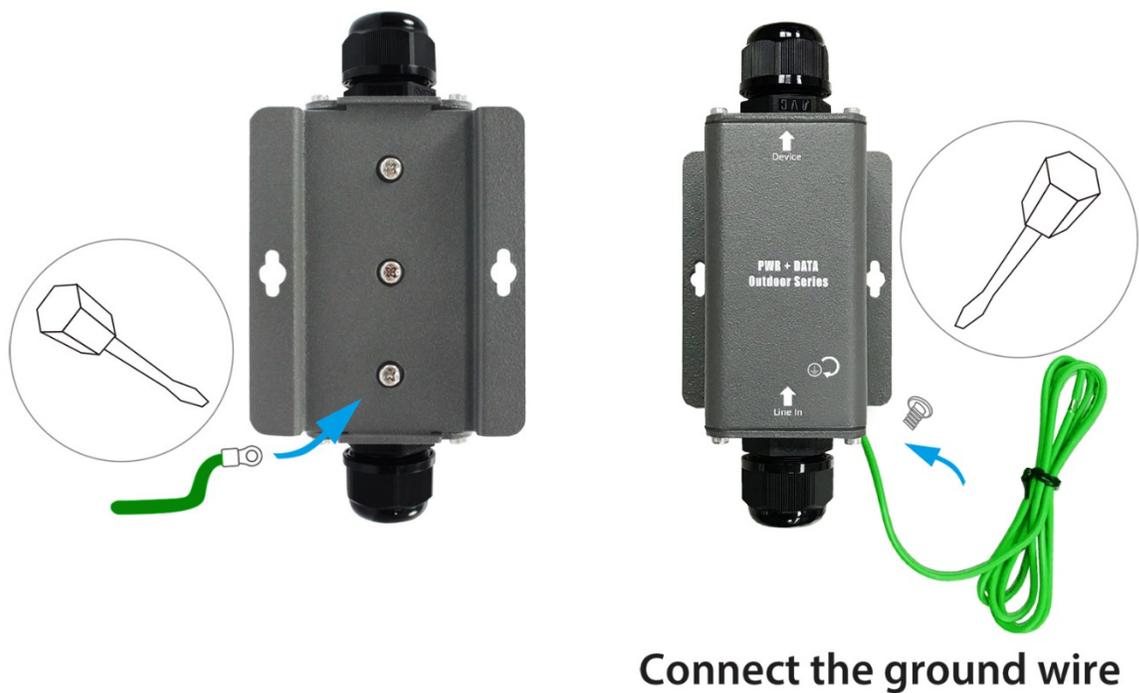
Connect the ground wire

WALL MOUNTING INSTALLATION

Wall Mounting

Wall Mounting

WALL MOUNTING INSTALLATION

Wall Mount Holes

PWR + DATA
Surge Protector

Wall Mount Holes
Ground Connector

UNIT COMBINATION
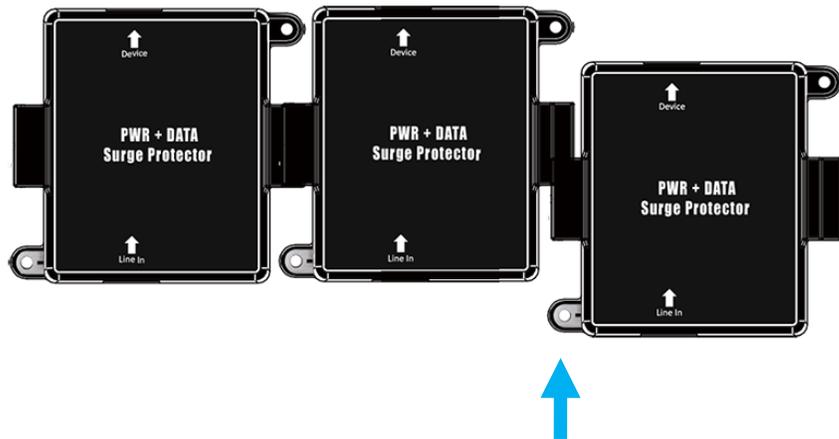
INDOOR TYPE

GROUND WIRE INSTALLATION

Ground wire

CERIO
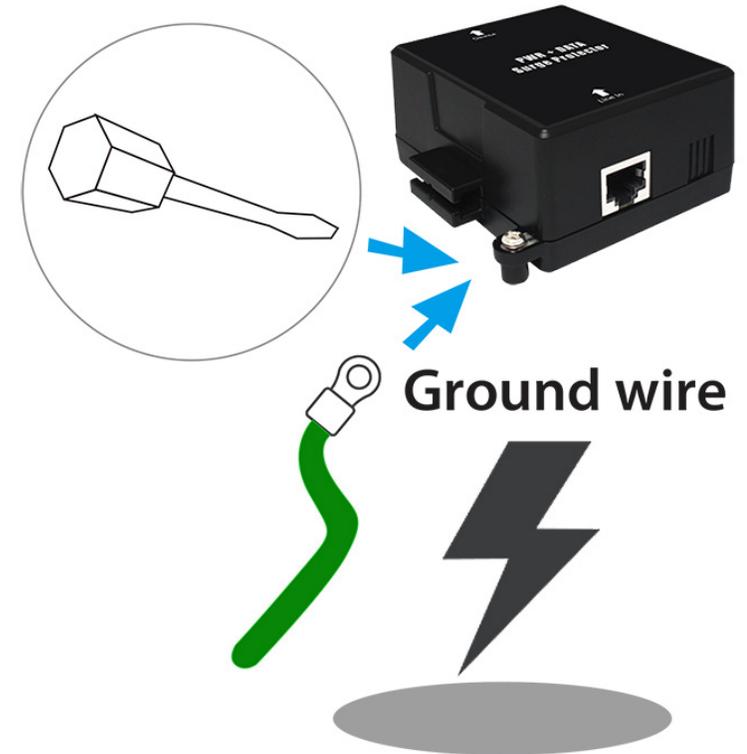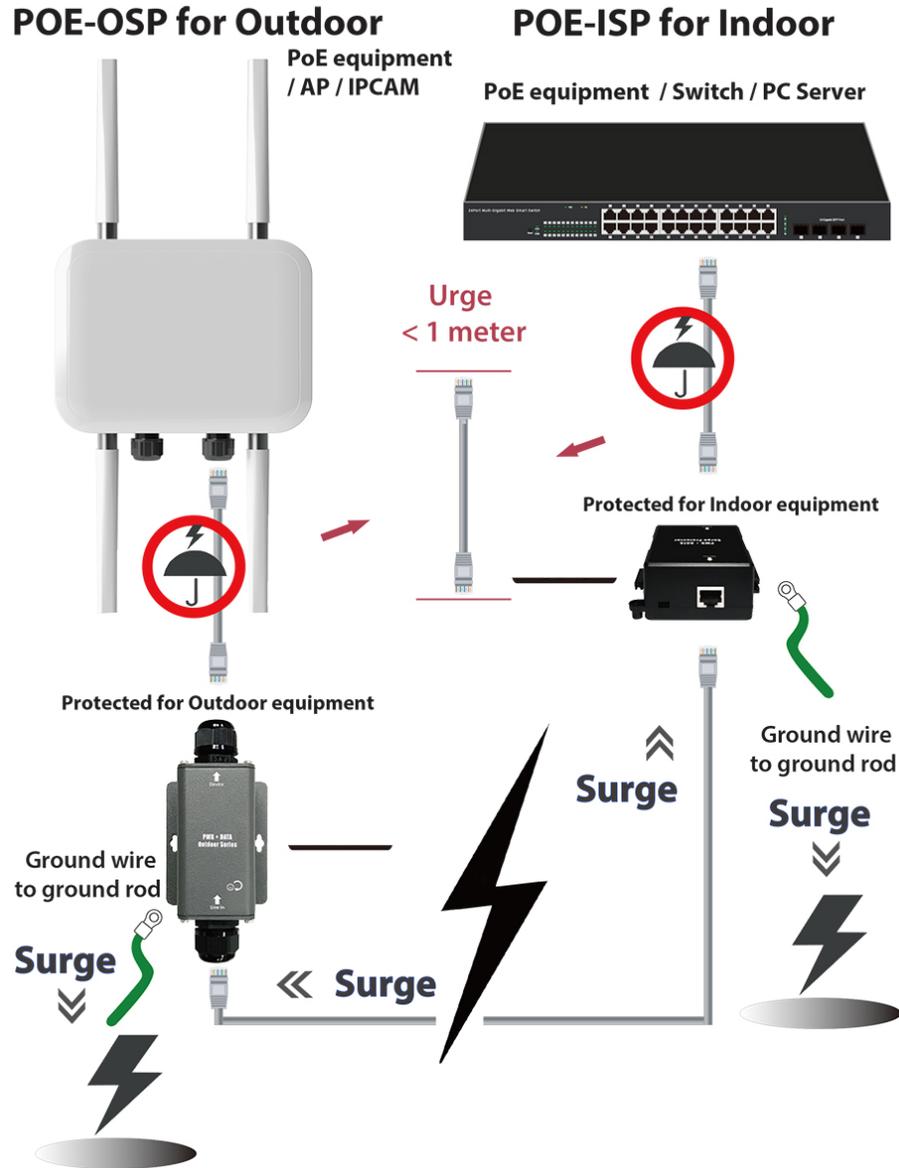
The Surge Protector is designed to protect any Power-over-Ethernet (PoE) or non-PoE device with connection speeds of up to 1 Gbps

Installing Surge Protector devices, one is nearly terminal equipment (such as PoE/non-PoE outdoor cameras, Outdoor AP), and the other at source equipment (such as PoE/non-PoE Switch, Router). Damaging ESD attacks and surges will be absorbed by the Surge Protector devices and safely discharged into the ground. It is a cost-effective solution for protecting expensive outdoor Ethernet devices.
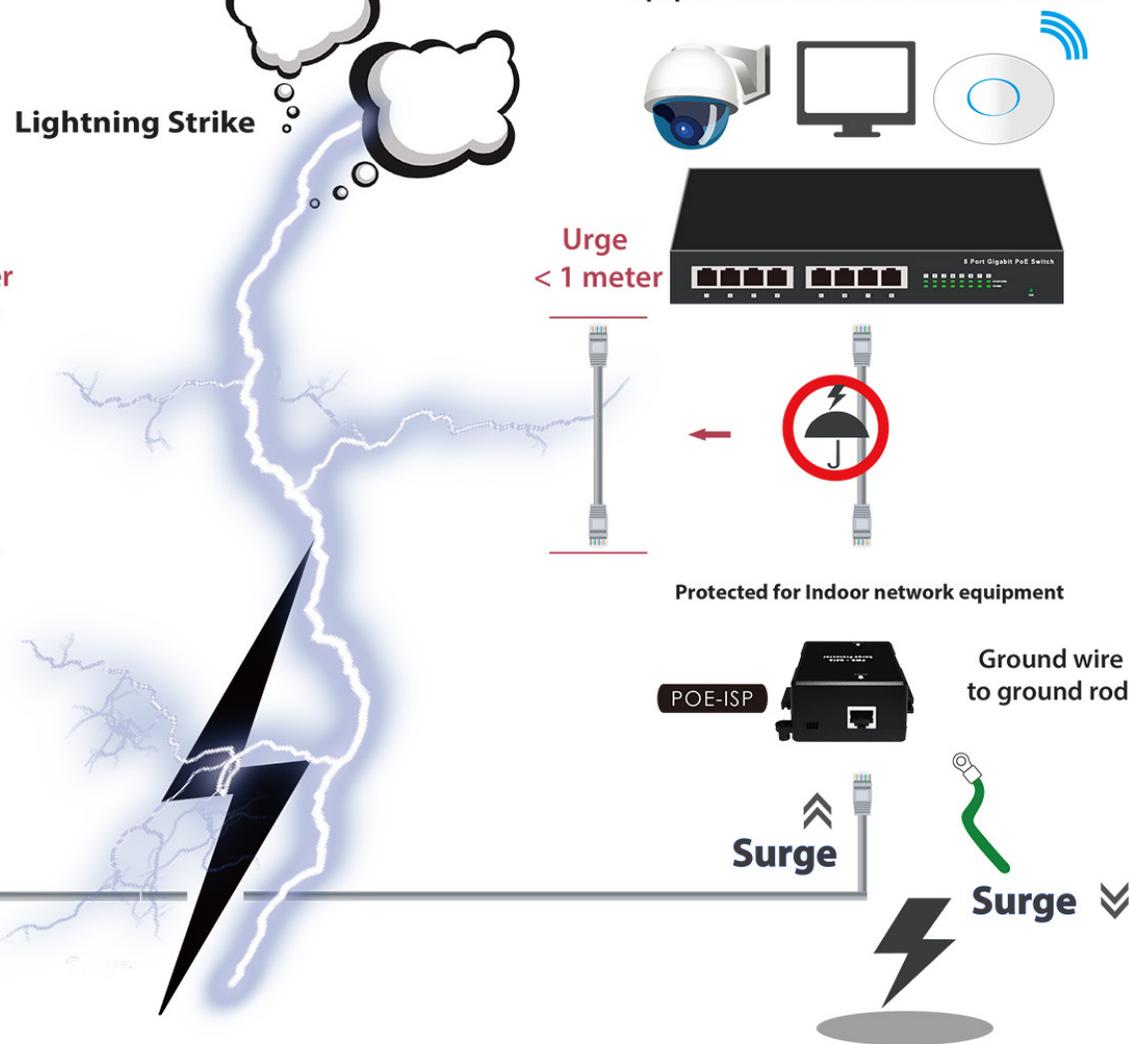
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POE-OSP for Outdoor

PoE equipment / WiFi AP / IPCAM

Lightning Strike

POE-ISP for Indoor

Equipment for PoE Switch /WiFi AP / IPCAM

8 Port Gigabit PoE Switch

Urge
< 1 meter

Urge
< 1 meter

Protected for Outdoor equipment

Protected for Indoor network equipment

Ground wire
to ground rod

POE-OSP

POE-ISP

Ground wire
to ground rod

Surge

Surge

Surge

Surge

Compatible with IEC/EN 61000-4-5 (EMC)

PORT TYPE	STANDARD	WAVEFORM	CONDITION
POE Port	IEC-61000-4-5	10/700us	L-G +/-6KV , L to L +/-6KV.

ITEM (1) TEST RESULT

PORT TYPE	TEST CONDITION	RESULT	NOTE
POE Port	10/700us L to GND +/- 6KV 18Ω 331A	Pass	All pin to GND
POE Port	10/700us L to L +/- 4KV 40Ω 100A	Pass	pin1 to pin2/pin3 to pin6 pin4 to pin5/pin7 to pin8
POE Port	10/700us L to L +/- 6KV 40Ω 150A	Pass	

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Compatible with IEC/EN 61000-4-5 (EMC)

PORT TYPE	STANDARD	WAVEFORM	CONDITION
POE Port	IEC-61000-4-5	1.2/50us	L to GND 3KV /4KV L to L 2KV

ITEM (2) TEST RESULT

| PORT TYPE	TEST CONDITION	RESULT	NOTE
POE Port	1.2/50us L to GND 3KV 2Ω 1.5KA	Pass	Pin1/ pin2 to GND Pin3/pin6 to GND Pin4/pin5 to GND Pin7/pin8 to GND
POE Port	1.2/50us L to GND 4KV 2Ω 2KA	Pass	
POE Port	1.2/50us L to L 2KV 2Ω 1KA	Pass	pin1 to pin2/pin3 to pin6 pin4 to pin5/pin7 to pin8

2018年8月31日

CERIO

Compatible with IEC/EN 61643-21 (Safety)

PORT TYPE	STANDARD	WAVEFORM	CONDITION
POE Port	EN61643-21	8/20us	L-G 10KA

ITEM (3) TEST RESULT

PORT TYPE	TEST CONDITION	RESULT	NOTE
POE Port	8/20us L to GND 10KA	Pass	All pin to GND
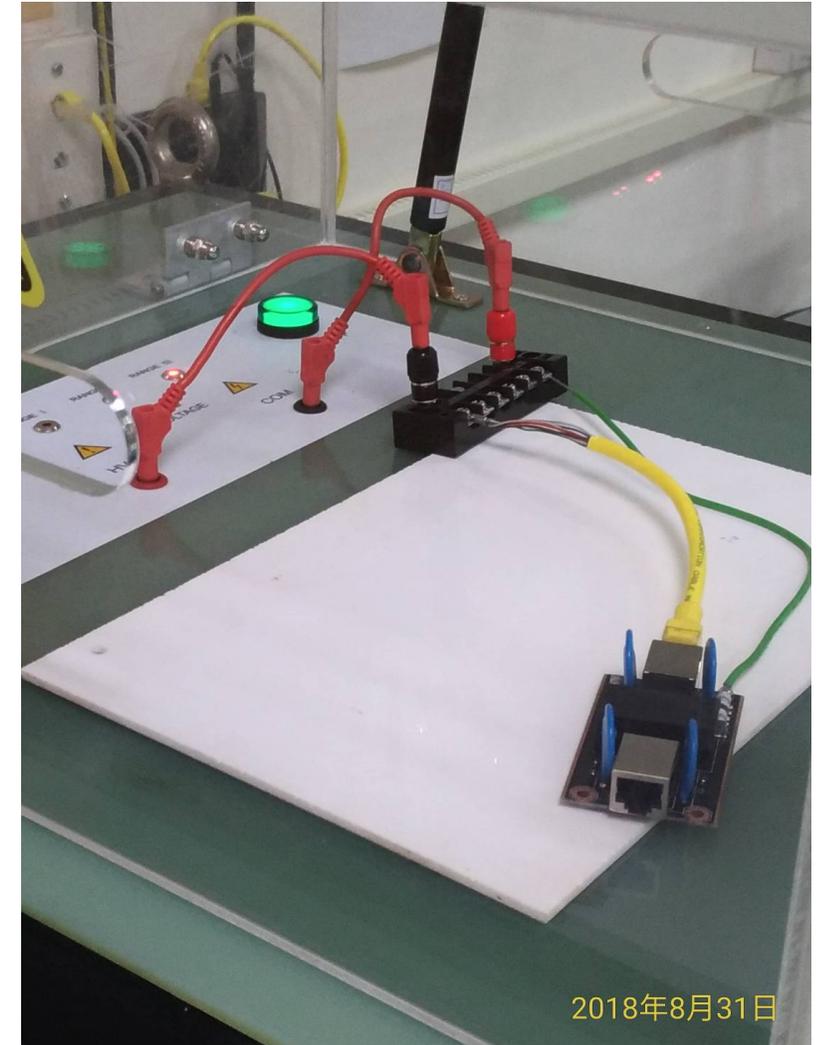
2018年8月31日

What we do
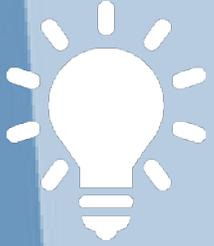
Innovation & Design
Our R&D team continues to incorporate the newest wireless protocols and features to make our products perfect for enterprise deployment.

Wireless Solutions
Our Field Application Engineers and Specialists have unparalleled experience providing the perfect solution for any wireless projects (e.g. Hotels, Long Distance PTP Backhaul, Universities)

Software Development & Design
Our software provides a high featured and easily operated User Interface and also supports centralized AP Management for convenient device deployment.

Outstanding Customer Service
CERIO's customer service staff are experts on our products and possess clear and patient communication skills.

www.cerio.com.tw

Contact Information

CERIO

CERIO Corporation

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www.linkedin.com/company/cerio-corpartion

www.youtube.com/channel/UCejUL-o3rQavyItXEEMyK1A