PoE Series CS-1005G-2PD

5 Port 10/100/1000M Gigabit Switch with 2 Port PoE+

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.

Company has an on-going policy of upgrading its products and it may be possible that information in this document is not up-to-date. Please check with your local distributors for the latest information. No part of this document can be copied or reproduced in any form without written consent from the company.

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 switch and carefully unpack its contents. The carton should contain the following items:

1. CS-1005G-2PD Main Unit x1
2. Quick Installation Guide Booklet x1
3. Power Adapter x1
4. Warranty Card x1

Application

1. Normally PoE application
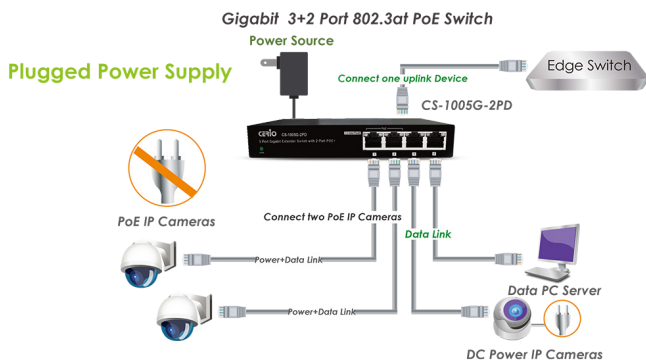
Introduction

Power Over Ethernet

The CERIO CS-1005G-2PD is a powerful and complying with IEEE 802.3af/at Power over Ethernet standard which provides DC 48~57V Gigabit over Ethernet cables high-performance Gigabit Ethernet switch, with all 5 ports capable of 10/100Mbps or 1000Mbps auto-negotiation operation which means the switch could automatically negotiate with the connected partners on the network speed and duplex mode.

The CS-1005G-2PD supports 2 Port 10/100/1000M Gigabit port Power over Ethernet (PoE+) allows you to expand your network via Ethernet cable to where there is no power line or outlet but where you want to fix devices such as APs, IP Cameras or IP Phones, etc.. No longer need to worry about the complicated cables and long distance which may cost you a lot of time and money.

Additional supported to pass-through PoE power further downstream to one or two Powered Devices (1~2 PSE Port) and the PoE budget is dependent on the PoE source (802.3af or 802.3at) and the Uplink port PD's PoE Classification. It is ideal to extension the Ethernet network range beyond 100m, delivering both data and power to network devices such as IP CAM、VOIP Phone with IEEE PoE and Data standards.

Key Features

➢ Complying with IEEE 802.3 10Base-T, IEEE 802.3u100Base-TX, IEEE 802.3ab 1000Base-T, IEEE 802.3afPoE ,IEEE 802.3at PoE+

➢ 5 Ports 10/100/1000Mbps Auto-Negotiation Gigabit Switch, including 2 Ports PSE/PoE+ function, complying with IEEE 802.3af/at standard

➢ Support receive electrical power by Gigabit ethernet uplink port for PoE extension application

➢ Supporting the power up to 30Watt/15.4Watt/ 7.5Watt/4Watt for each PSE/PoE+ port with Power Source have 30Watt share for 2 PoE ports (Only POE Port 1-2)

➢ Full/Half-Duplex capability on each TX port

➢ Supports Store & Forward architecture and performs forwarding and filtering

➢ Auto-learning networking configurations

➢ Support the flow control: back pressure for half duplex and IEEE 802.3x for Full-duplex mode

➢ Support Jumbo Frame 9K

➢ Non-blocking & Non-head-of-line blocking full-wire speed forwarding

➢ Supports TP interface Auto MDIX function for auto TX/RX swap

➢ Automatic Source MAC Address Learning and Aging

➢ Supports up to 2K MAC addresses

➢ Up to 1Mb bits buffer

Installation

The setup of the switch can be performed using the following steps:

- Connect to the second power source for DC jack to ensure it is fully attached to the power adapter
- Or Use the power source that the PD Port (Port NO 5) of the Extender Switch is fully connected to the 802.3at source-powered switch.

Cables Installation

The Switch supports 10Mbs Ethernet or 1000Mbps Gigabit Ethernet and it runs both in half and full duplex mode using two pair of Category 5 cable. These RJ45 ports are Auto-MDI type port. The Switch can auto negotiate the MDI-II or MDI-X type, so you can connect any RJ-45 cable regardless if it is a standard or crossover cable.

Gigabit PoE/PSE Ports (Port 1~2)

These ports are 802.3af (PoE) and 802.3at(PoE+), the PoE port will automatically activate when a compatible terminal is identified. The PoE switch will distribute power through the Gigabit ethernet ports to the connected PoE device. For devices that are not compatible, the PoE port will not supply the power to this device. This feature allows user's to freely and safely utilize the 802.3af (PoE) and 802.3at(PoE+) for Power over Lan devices on their network.

Gigabit Ethernet Port (Port 3~4)

These ports support network speeds of either 10Mbps or 100Mbps or 1000Mbps, and can operate in half and full-duplex transfer modes. These ports also support automatic MDI/MDIX crossover detection

Gigabit Uplink Port (Port 5)

The Gigabit Uplink port support to 802.3af/802.3at (PoE/PD) PD receive electrical power function. Can Connecting the uplink to 802.3at PoE / PSE source switch will be activated by automatically. You can use this PoE/PD function to make PoE extension to over the Ethernet network range beyond 100meter application .***Please refer to below application drawing..***

2. Extension the PoE application

Double the Power over Ethernet distance = 200Meter

Hardware Overview

LED Indicator:

Complete LED indicators displays the status of the PoE Switch and network status

All Port LEDs provides instant status feedback, and assists to monitor and troubleshoot when required.

Power LED *Power : (Power Indicator)*

On :	Power On
Off :	Power Off

PoE LEDs (Port 1 ~ Port 2) *(PoE / PSE Status)*

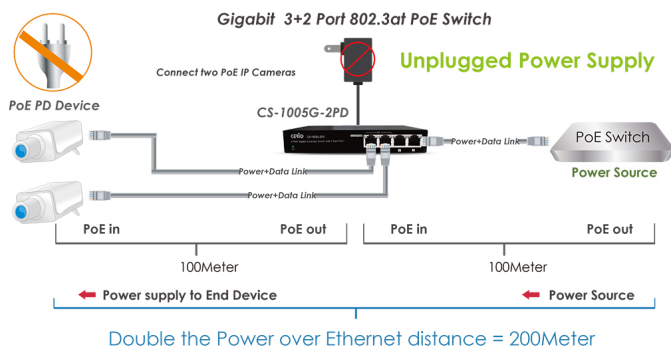| Green :	When the PoE powered device (PD) is connected and the port distributes power successfully
Off :	No PoE power device (PD) connected

Uplink Port LED (Port 5) *(PoE / PD Status)*

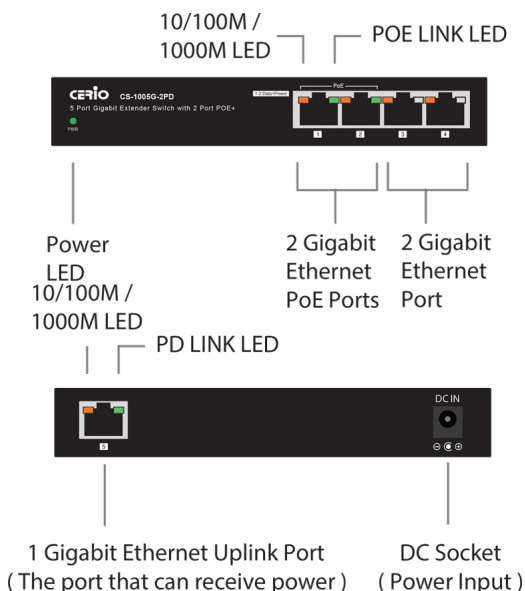| Green :	When the uplink power source equipment (PSE) is connected and the port successfully
Off :	No PoE power device (PSE) connected

LINK/ACT Status LEDs (Ports 1~5)

Green	The port is 1000M Link / Act connected.
Blinking Green	A valid link is established, and there is data transmitting/receiving.
Amber	10/100M Link / Act connected.

Product Specifications

Standards & Hardware Specifications	
Network Standards Conformance	IEEE 802.3 10Base-T IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T, IEEE 802.3x Flow Control IEEE 802.3af/at Power over Ethernet (PoE/PoE+)
Port Configuration	5ports RJ-45 connectors for 10/100/1000Mbps (W/ 2Ports PSE/PoE+ & Uplink PD Port function)
Media Access Protocol	CSMA / CA
Network Media	10BASE –T: UTP Cat. 3 or up, 100BASE-TX: UTP Cat. 5 or up, 1000BASE-T: UTP Cat. 5 or up
Transmission Method	Store and Forward
MAC Address Table	2K
Built-in Buffer	1M bits
Jumbo Frame	9K
Data Transfer Rate	10/100/1000Mbps (Half-duplex), 20/200/2000Mbps (Full-duplex)
Auto MDI/MDIX	Yes
LED Indicators	Per Gigabit Port:(Link/Act): Status x 5 PoE/PSE: Status x 2 Uplink Port (PD) : Status x 1 Per Unit: Power x 1
Internal Bus Speed	10Gbps
Environmental & Mechanical Characteristics	
Power Supply	30Watt External Power Adapter or Gigabit Ethernet Uplink Port for PD receive electrical power
PoE Power Budget	25.5Watt shared for all PoE Ports
Power Consumption	1.5Watt
PoE Power Output	Up to 30W per port (for Ports 1-2 Only)
Power Requirement	DC 48~57 Voltage Input or Uplink PD Port Input
Operating Temperature	0° to 55° C
Storage Temperature	-40° to 70° C
Operating Humidity	10% to 90% non-condensing
Storage Humidity	5% to 90% non-condensing
Dimension (WxHxD) Weight	160 x 85 x 25mm / 0.342kg
Case of Materials	Metal
Certification	FCC, CE, RoHS-compliant