PoE Series CS-1005G-PD

5Port 10/100/1000M AT Extender/Power failover Gigabit Switch

User's Guide

### FCC Certifications

CE Mark Warning

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

Application
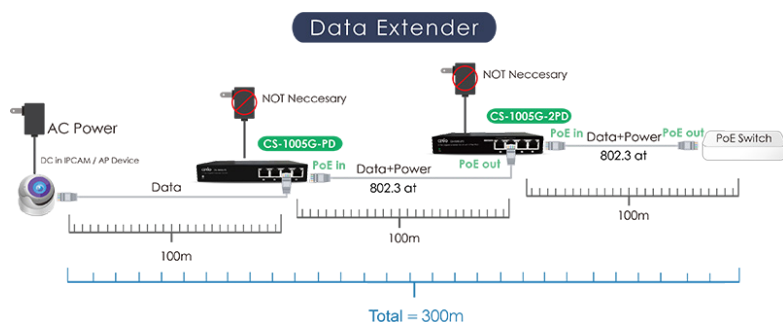
Introduction

Power Over Ethernet

The CERIO CS-1005G-PD is a powerful and supports IEEE 802.3af/at standard high-performance Gigabit Extender switch. It is ideal to extend the Ethernet network range beyond 100m, delivering data to network devices more than 100m to meet long-distance network data transmission applications. It's a suitable product to achieve a more flexible network requirement.

Moreover, The CERIO CS-1005G-PD supports dual power receiving mode for PoE (PD) In and DC In. User can select either one to supply power or it can choice dual power supply as power backup function for the device. (Power failover)

The CS-1005G-PD supports 5 ports 10/100/1000Mbps auto-negotiation function. It provides an easy way to migrate Gigabit network without pain. By integrating both data transmitting cable and power supply, the hassle of constructing your network can be eliminated, allowing you to easily connect your wired LAN network. It is ideal for micro-segmenting large networks into smaller networks, connecting subnets for improved performance, and enabling the bandwidth demanded for multimedia and imaging applications. Over current protection and circuit shorting protection are also supported to ensure the safety.

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 1 Port PoE(PD) function, complying with IEEE 802.3af/at standard
- Supports dual power receiving mode PoE (PD) In and DC In. It supports power backup　(Power Failover)　function when use dual power supply
- Full/Half-Duplex capability on each TX port
- Supports Store & Forward architecture and performs forwarding and filtering
- Auto-learning networking configurations
- Supporting 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:

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

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 Ethernet Port (Port 1~4)
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
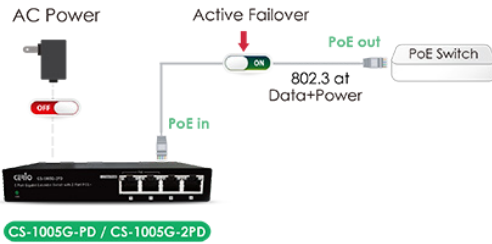
Gigabit PoE/PD Port (Port 5)
The port is 802.3af/802.3at (PoE) power input port. Connecting the uplink to 802.3at PoE / PSE source switch will be activated automatically.
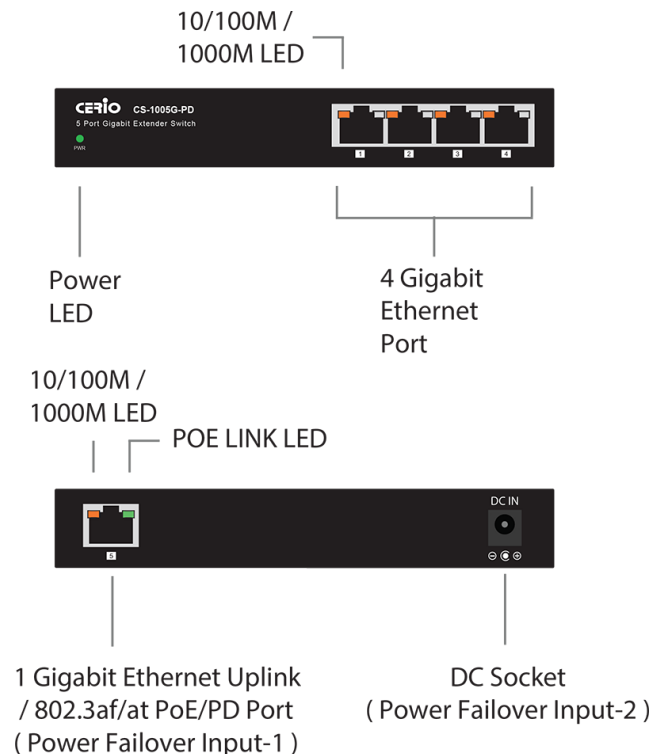
Dual power usage mode
PoE (PD) power input and DC power input. The user can select one of the power supply modes, or select dual power supply as the backup power supply mode of the device. (power failover).

Power Failover

Seamless failover if a switch power supply fails

CS-1005G-PD / CS-1005G-2PD

Hardware Overview

10/100M / 1000M LED

Power LED

4 Gigabit Ethernet Port

10/100M / 1000M LED

POE LINK LED

1 Gigabit Ethernet Uplink / 802.3af/at PoE/PD Port (Power Failover Input-1)

DC Socket (Power Failover Input-2)

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 5)   *(PoE / PD Status)*

Green :	When the uplink power source equipment (PSE) is connected and the port successfully
Off :	No PoE power source 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 Power over Ethernet (PoE) IEEE 802.3at Power over Ethernet Plus (PoE+)
Port Configuration	5ports RJ-45 connectors for 10/100/1000Mbps (With 1 Port Gigabit PD 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/PD : Status x 1 Per Unit: Power x 1
Internal Bus Speed	10Gbps

Environmental & Mechanical Characteristics

Power Supply	Type1: PoE PD Receiving(802.3af/at)Power input Type2: 12Volt /1A DC Power input
Power Consumption	1.5Watt
Power Requirement	DC Input : Voltage: 12 ~ 57Volt POE Input : Power over Ethernet IEEE 802.3af/at standard PoE
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 (W x H x D)	160 x 85 x 25mm
Unit Weight	0.342kg
Case of Materials	Metal
Certification	FCC, CE, RoHS-compliant