POE-DGT-ZW

DC12-56V Multi Gigabit Wide Temperature/Voltage to 30Watt PoE+ Adapter

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.

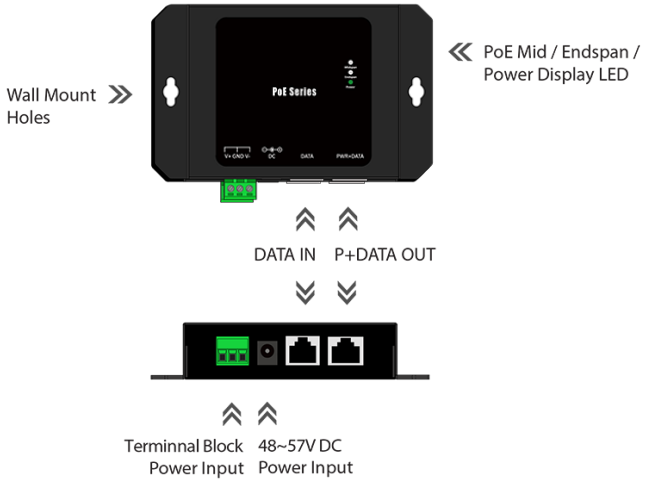
Unpacking Information

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 unit and carefully unpack its contents. The package should contain the following items:

1. **POE-DGT-ZW Main Unit x 1**
2. **Quick Installation Guide x 1**
3. **Warranty Card x 1**

Hardware Overview



Introduction

CERIO POE-DGT-ZW DC12-56V Multi Gigabit Wide Temperature/Voltage to 30Watt PoE+ Adapter supports IEEE 802.3af/at Power Over Ethernet Standard. It's an Active PoE voltage booster PoE+ Injector. It supports **wide range DC 12-56V** input voltage and provides 2 Ethernet ports, it can automatically boost and conversion to the best transmission performance 802.3af/at standard PoE 56V output. The max. PoE output power up to 30Watt. For the environment only available with 12 / 24 / 37.5 / 48V power voltage configuration, it automatically boosted to 802.3af/at standard PoE 56V output to PD device through the screw terminal block power input, it provides the best and economical solution. It is a high-level Wide Temperature/Voltage POE+ Adapter solution.

Functionality

CERIO POE-DGT-ZW is a great ideal for the application of vehicle power system. Ex. fixed or mobile batteries, solar or power engine combined independent power systems etc. When the environmental input voltage range is limited to below 55V and over 12V, the **POE-DGT-ZW** can be used to boost voltage to the best transmission performance 802.3af/at standard PoE 56V output to PD device through the network cable. It's a very convenient and economical solution.

Highlight Features

- Complying with IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T, IEEE 802.3bz 2.5G/5G BASE-T, IEEE 802.3af PoE and IEEE 802.3at PoE+ standards.
- Supports Multi Gigabit (1 / 2.5 / 5Gbps) Ethernet connection ability.
- Supports a wide range input voltages of 12~56V. It can be automatically boosted and converted to 802.3af/at standard PoE 56V power output.
- Supports two power interface: Supports screw terminal power input for power boost system used and extra DC power input for PoE constant voltage used.
- Auto detect PD power supply is powered by End-span (Type-A) or Mid-span (Type-B) power pin, and LED indicators shows power pin type.
- Supports IEEE 802.3af/at POE standards and supports standard Active PSE/PoE Power Over Ethernet function and Max PoE Output up to 30Watt.
- Supports -40° ~ 75° C wide temperature design which can withstand various high and low temperature environmental applications.
- Provides a durable and reliable metal housing design.
- Over Current Protection & Short-circuit Protection.
- Plug-and-Play, requires no configuration.
- Supports desktop, wall mounting installation.

Installation

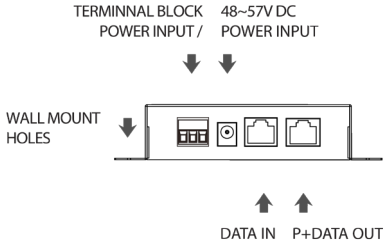
Before Installation

CERIO POE-DGT-ZW is a great ideal for the application of vehicle power system. You can have two choices for power input methods to power your POE-DGT-ZW.
As shown in the figure:

Multi Power Input:

■ **Screw Terminal Block In**
(For boost voltage system)

■ **DC In**
(For PoE constant voltage input)



Note: The DC input does not have a boost function.

LED Indicator

Quickly detection shows that RJ45 power PIN connection has Power over Ethernet, and two LEDs indicate the status of PoE type for Midspan(B-Type) / RJ45 4,5,7,8 PIN and Endspan(A-Type) / RJ45 1,2,3,6 PIN .
System: Power (Green), PoE: End-span (Green) , Mid-span (Yellow)

Product Main Application (As Injector)

CERIO POE-DGT-ZW DC12-56V Multi Gigabit Wide Temperature/Voltage to 30Watt PoE+ Adapter can provide both data and power for distances of up to 100 meters (328 feet) from the power source when using CAT 5e or up cabling.

Automatic Boost:
(Boost adapter to POE Injector)
•Connect power source (12-56V) to the '**screw terminal block**' (V+ connection +, V- connection -) in for boosted voltage to POE 56V Output.

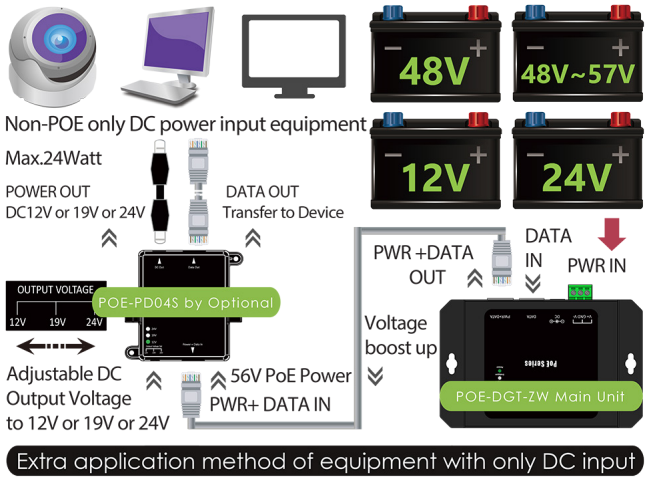
'Screw Terminal Block'

•Connect your Ethernet cable from your data source to the "Data In port".
•Connect "Power+Data" output through Ethernet cable to your PD device.

Extra Application (As Splitter)

CERIO POE-DGT-ZW can use as a boost adapter for power over Ethernet application, also can be used with CERIO POE splitter which can receive network power + data, then separate to only DC/Power output and only Ethernet/Data output.

DC In Equipment:
(Non-POE only DC power input equipment)
•Connect power source (12-56V) to the '**screw terminal block**' (V+ connection +, V- connection -)in for boosted voltage to POE 56V Output.
•Connect "PWR+DATA IN" port on "Splitter" and "PWR+ Data Out" port form "DGT" with Ethernet cable.(Make sure "Power" LED of "Splitter" is on.)
•Connect "Power OUT"DC cable on "Splitter" to power DC Jack of the network device .
•Connect "Data OUT" Ethernet cable on "Splitter" to RJ45 port of network device. (Ex. Industrial PC and any DC In Device)



Product Specifications

Standards & Hardware Specifications

Standard	IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3ab 1000BASE-T IEEE 802.3bz 2.5G/5G BASE-T IEEE 802.3at Power over Ethernet (PoE+) IEEE 802.3af Power over Ethernet (PoE)
Network Media	10BASE –T: UTP Cat. 3 or up 100BASE-TX: UTP Cat. 5 or up 1000BASE-T: UTP Cat. 5 or up 2.5G/5G BASE-T: UTP Cat. 5e or up
Data Transfer Rate	10M/100M/1G/2.5G/5G (Half-duplex), 20M/200M/2G/5G/10G (Full-duplex)
Data PIN **Power PIN**	PIN 1/2, 3/6 & 4/5, 7/8 End-span (Type-A): PIN 1/2,3/6 Mid-span (Type-B): PIN 4/5,7/8
PoE Type	Active POE
Power Interface	Output: RJ45 Active 802.3af/at PoE Out Input: Screw Terminal Block In (Main PWR input using for boost voltage system) & DC In (Extra PWR input using for PoE constant voltage input)
Ethernet Connector	RJ-45 x1 : Data RJ-45 x1 : Power+ Data
ESD Protection	Supports ESD (Electro Static Discharge) Over Voltage protection and Short Circuit Protection

Environmental & Mechanical Characteristics

Power Output	30Watts (Max)
Power Requirwment	12~57V Power source
Input Voltage	Overall wide voltage range : DC 12 ~ 57V Auto booster voltage range : DC 12 ~ 55V (When using STB input for auto boosted voltage and conversion to 802.3af/at PoE 56V output) PoE constant voltage range : DC 48~57V (When using DC Input)
LED Indicators	System: Power (Green) x1 PoE: End-span (Green) , Mid-span (Green) x2
Operating/Storage Temperature	-40° to 75° C /-40° to 85° C
Operating/Storage Humidity	5% to 90% non-condensing
Dimension	130 x 82 x 27mm **(W x D x H)**
Weight (g)	235g
Form Factor	Desktop/Wall mounting installation
Case of Materials	Metal
Production Location	TW
Certification	FCC, CE, RoHS-compliant