



Description

The CPE100 is small form factor device that provides the ability to power multiple Chainable Powered Ethernet (CPE) devices from a single Power over Ethernet (PoE) switch or router port. The CPE100 is fully 802.3af/at compliant, and can be configured to classify as a PoE class 1, 2, 3 or 4 device. *Note, class 4 devices require 802.3at/PoE+.* The CPE100 enables the utilization of existing PoE infrastructure to power multiple devices improving infrastructure efficiency and reducing installation costs.

1 Features

- Power over Ethernet PoE(802.3af)/PoE+(802.3at) Compliant
- Configurable PoE Classification (1,2,3 or 4)
- Enables standard PoE infrastructure to power chained CPE devices
- Flexible Mounting Options
- FCC Approved

2 Ordering

Model	Part Number	Description
CPE100	E00660-00739	Power over Ethernet (PoE) to Chainable Powered Ethernet (CPE) adaptor

Available from the Ciholas Webshop





3 Electrical

Parameter	Description	Min.	Тур.	Max	Units
V _{in}	Input Voltage	30	48	57	V
To	Operational Temperature	0		65	°C

4 Mechanical

Parameter	Description	Min.	Тур.	Мах	Units
Mass	Device Mass		70		g



Dimension unit: millimeter

57



5 Operation

5.1 Installation

The CPE100 was designed with mounting flexibility in mind. The enclosure includes a mounting ear on each side of the device.

Installation of the CPE100 in excessively hot or damp environments should be avoided.

5.2 Configuration

Configure the desired PoE classification using the switch located on the front of the CPE100. The classification options and their maximum power are as follows from left to right:

CLASS	Maximum Power
1	3.84 Watts
2	6.49 Watts
3	12.95 Watts
4 ¹	25.5 Watts

1. Requires PoE+/802.3at

Classification only occurs on connection to Power Sourcing Equipment (PSE). To change classification disconnect power from the CPE100, move the configuration switch to the desired position, and reclassify by connecting to the PSE.

To ensure proper operation, it is recommended that the expected power draw from a port is no more than 80% of the total power provisioned for a classification level. As an example, the CPE100 should be configured for Class 3 when chaining 3 CPE devices each with an expected power draw of 3.0W, 9.0W total.

It is beneficial to configure the CPE100 to classify at the lowest class necessary for the expected power. The lowest class setting ensures that the PSE will not allocate more power than necessary for the port allowing it to reserve power for devices attached to other ports.

5.3 Chaining Devices

The CPE100 is designed to enable a chain of CPE devices to be powered from a single PoE port. To setup a chain of devices, connect the left Ethernet jack labeled 'PoE In' of the CPE100 to a PoE compliant PSE. The right port labeled 'OUTPUT' of the CPE100 connects to the first device in a chain of CPE devices. This output should only be plugged into CPE compliant devices such as the Ciholas DWETH101.



The following diagram demonstrates a typical configuration chaining multiple DWETH101 units.





5.4 Regulatory Compliance

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

6 More Information

Please visit the following links for more information and documentation regardingCiholas UWB systems and products:

- Documentation, installation, and usage instructions visit CUWB.io
- To purchase Ciholas UWB products please visit the Ciholas Shop
- Ask other users questions and find community information in theCommunity Forum
- Learn more about Ciholas services atwww.ciholas.com

7 CPE100 Datasheet Change Log

Version	Date	Change Description
1.0	2018-05-10	Initial Public Release

