



COMMANDO LightningPOWER PoE Injector Data Sheet

Contents

Product Overview

Product Highlights

Features and Benefits

Hardware

Specifications

Support and Warranty

Ordering Information

Document History

Product Overview

COMMANDO Active PoE Injector fully complies with IEEE 802.3af/at/bt (15.4W, 30W, 90W) standard with backward compatibility. You can use the existing Non-PoE device to connect PoE/PoE+/Ultra PoE++ devices. The PoE Injector can work with all IEEE 802.3af/at/bt (PoE/PoE+/Ultra PoE++) compliant PDs (Powered Devices) or PoE/PoE+/Ultra PoE++ receiver Adapters or other equivalent products, to expand your network to where there are no power lines or outlets. It is designed for today's mobile and IoT needs. These PoE Injectors are powerful and flexible enough for users to deploy PoE/PoE+/Ultra PoE++ standard supplies up to 90W of power per port ideal for applications using high power wireless access points, PTZ (Pan Tilt Zoom) IP cameras, Surveillance cameras, VoIP telephony systems, kiosks, POS terminals, thin client, 802.11ac and 802.11ax access points, small cells, and connected LED lighting devices .

COMMANDO Passive PoE injector is compact indoor, dual-port which provides DC power for PD devices. It is mostly compatible with AP's and other equipment supporting Passive PoE pinout (Pins 4/5 Power+ and Pins 7/8 Power-). An over current protection circuit is designed into the Passive PoE injector for added protection of PoE devices used with this injector.

It can be deployed in harsh environments, robust to deliver hassle free power to mission-critical devices. It Combines Electrical Power with a Gigabit Network Connection to Produce a Gigabit Power over Ethernet Signal. It expands network to areas with no Power Lines or Outlets are available with Plug and Play with no configuration required.

Product Highlights

- Solution for Power for PoE/PoE+/Ultra PoE++ devices, as all are backward compatible with flexibility of power adaption
- Delivers power and data over the single cable
- 2*100Mbps RJ45 Ports with 1 PoE with IEEE 802.3af/at/bt compliant
- Auto-determine the PD power requirements with advanced Auto-Sensing Algorithm
- Supports cable up to 100 meters with Giga Ethernet speed
- Cost Saving, no power cabling for Ethernet network device
- IEEE 802.3bt/at/af Compliant, Up to 90W Power backward compatible with 30W and 15.4W.
- Auto-determine the necessary power requirements, Power classification as per need.
- Compact Design, High Safety with Short Circuit Protection
- Quick and Easy Installation. Plug-and-play installation, requires no con-figuration
- Comes with One Year warranty

Features and Benefits

Easy to Use

Auto-negotiation on each port senses the PD intelligently adjusts as per power requirement with optimal performance. Dynamic LED lights provide real-time work status display and basic fault diagnosis. Easy installation, Plug-and-play installation with no configuration required.

Auto PD detection with MDI / MDIX Capabilities

Auto sensing PD /Auto 10/100 or 10/100/1000M ports with auto MDI / MDIX capabilities which also removes speed and duplex mismatches and automatically detects PD.

Cost Efficient

Backward PD compatibility saves equipment costs, and make this device future proof. It also allowing a single RJ-45 Ethernet cable to carry both power and data to each device with Giga Ethernet speed . This PoE solution frees network devices from the restrictions of

power availability by removing the need for a local power source. This reduces cable clutter, eliminates the need for dedicated electrical outlets in inconvenient places, and cuts down the time required for deployment.

High Speed Connectivity

It provides Gigabit Ethernet speed with PoE/PoE+/Ultra PoE++ Injector. It is designed to be deployed in situations where high bandwidth is demanded.

Dust proof Enclosure

It has dust proof enclosure protects the against harsh outdoor conditions with no Ingress of dust. It can withstand harsh environments, robust to deliver hassle free power.

Green Technology

It features the energy-efficient Ethernet that can save power. It automatically adjusts power consumption according to the link status to limit the carbon footprint of your network. It also complies with RoHS, prohibiting the use of certain hazardous materials. Besides, most of the packaging material can be recycled and reused.

Hardware

Physical Ports and Networking Interfaces

- 1 * Power Connector with power Input AC 100~ 240V, 50~ 60Hz
- 1 * 10/100/1000 Mbps Ethernet LAN Port
- 1 * 10/100/1000 Mbps Ethernet for PoE/PoE+/Ultra PoE++ Port

Standards Compliance

- IEEE802.3, IEEE802.3u, IEEE 802.3ab, IEEE802.3az , 10/100/1000Base-T Ethernet
- IEEE802.3af/ IEEE802.3at/ IEEE802.3bt Power over Ethernet (PoE)

Ethernet Pin Usage

- Data: Pin No. 1,2,3,6
- Power: Pin No. 4 & 5 (V+), 7 & 8 (V-)

LED Indicator

- Power, Active

Environmental Specifications

- Operating Temperature: -10°C to 50°C
- Storage Temperature: -20°C to 60°C
- Operating Humidity: 10% to 95%
- Storage Humidity: 10% to 95%

Extra Long Operational life

- High Quality enclosure to withstand
- Harsh Outdoor Climates with dust proof ensuring it can withstand harsh outdoor and indoor environments.
- Support temperature range -10°C to 50°C

Specifications

The power supply module can support IEEE802.3at/af/bt power supply and a maximum port rate of 1,000 Mbit/s. The PoE power adapter module has two RJ45 network interface connectors. One RJ45 interface connects network device and the other is used to transmit network data and supply power to the Power Sourcing Equipment (PSE). It has protection against Short-circuit/over-load/over-current/over-voltage with Universal Input power 100 to 240VAC.

Table 1. Specifications

Specification	Description
Interface	10/100/1000Mbps
AC Input Power	100-240V AC, 50-60Hz
Output Voltage	48V-57V
Output Power	12W-90W
AC input Power Adjusting range	90-264VAC, 47-63Hz
	IEEE802.3af
	IEEE 802.3at
	IEEE 802.3bt+ Type 4
Efficiency	≥90%
	Short-circuit Protection
	Over-load Protection

	Over-current Protection
	Over-voltage protection
PoE Pin assignments	Pin (4, 5+/7, 8-)
Output ripple	1% max
Response time	<1ns
Combined load regulation	±3%
Combined line regulation	±5%
Operating temperature	-10 to 50°C
Operating humidity	10 to 95% non-condensing

Table 2. Model Comparison

Product Code	Interface Speed	Standard Supported	PoE support	Injector Type
CMD-POE-15.4W-AF	10/100/1000M bps	IEEE 802.3af	Max 15.4W	Active
CMD-POE-30W-AT	10/100/1000M bps	IEEE 802.3at	Max 30W	Active
CMD-POE-90W-BT	10/100/1000M bps	IEEE 802.3bt Type 4	Max 90W	Active
CMD-FPOE-24V-0.5A	10/100Mbps	-	Max Power 24VDC @ 0.5A	Passive

CMD-FPOE-24V-1A	10/100Mbps	-	Max Power 24VDC @ 1A	Passive
CMD-FPOE-48V-0.5A	10/100Mbps	-	Max Power 48VDC @ 0.5A	Passive
CMD-POE-12V-1A	10/100/1000M bps	-	Max Power 12VDC @ 1A	Passive
CMD-POE-24V-0.5A	10/100/1000M bps	-	Max Power 24VDC @ 0.5A	Passive
CMD-POE-24V-1A	10/100/1000M bps	-	Max Power 24VDC @ 1A	Passive
CMD-POE-48V-0.25A	10/100/1000M bps	-	Max Power 48VDC @ 0.25A	Passive
CMD-POE-48V-0.5A	10/100/1000M bps	-	Max Power 48VDC @ 0.5A	Passive

Table 3. COMMANDO PoE injector LED Indications

LED Indication	LED Status
	AC Power not given to PoE Injector.
	Green or Blue ON: AC Power provided.
Active	OFF: Not connected to PD. Blue ON: PoE Power is given to PD.

Included in the bundle/box

All COMMANDO PoE injector are made available for use globally along with accessories in

the bundle to facilitate for enhance operations.

The switch box comes included with the following accessories:

- 1x COMMANDO PoE injector
- 1x Adapter with cable

Support and Warranty

COMMANDO PoE injector come with One-year replacement warranty and lifetime support.

- Same-day assistance.
- Comprehensive 24-hour support using common communication/chat platforms, Email and Telephone.
- Provide FAQs and troubleshooting help online (self-service) through cloud-based solutions.
- Highly technical and trained representatives to resolve issues.
- The Injectors come with one-year warranty

Table 4. Support and Warranty

Warranty and Support	
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Warranty duration	One Year RTB (Return To Base)) replacement warranty.
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End-of-life policy	In case of discontinuation of the product, support is limited to 3 years from announcement date.
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Online Portal Access	Warrant y allo ws gues t acce ss to com man don etwo rks.c om for all avail able tech nical quer ies.
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Ordering Information

Table 5 lists ordering information for the COMMANDO PoE injector. To place an order, please contact your local reseller/distributor or COMMANDO Sales Representative at www.commandonetworks.com/ordering

Table 6. Ordering Information

Product Code	Description
CMD-POE-15.4W-AF	COMMANDO LightningPOWER 10/100/1000Mbps IEEE 802.3af, Max 15.4W, Active PoE Injector
CMD-POE-30W-AT	COMMANDO LightningPOWER 10/100/1000Mbps IEEE 802.3at, Max 30W, Active PoE Injector
CMD-FPOE-24V-0.5A	COMMANDO LightningPOWER 10/100Mbps, Max Power 24VDC @ 0.5A, PoE Injector
CMD-FPOE-24V-1A	COMMANDO LightningPOWER 10/100Mbps, Max Power 24VDC @ 1A, PoE Injector
CMD-FPOE-48V-0.5A	COMMANDO LightningPOWER 10/100Mbps, Max Power 48VDC @ 0.5A, PoE Injector

CMD-POE-12V-1A	COMMANDO LightningPOWER 10/100/1000Mbps, Max Power 12VDC @ 1A, PoE Injector
CMD-POE-24V-0.5A	COMMANDO LightningPOWER 10/100/1000Mbps, Max Power 24VDC @ 0.5A, PoE Injector
CMD-POE-24V-1A	COMMANDO LightningPOWER 10/100/1000Mbps, Max Power 24VDC @ 1A, PoE Injector
CMD-POE-48V-0.25A	COMMANDO LightningPOWER 10/100/1000Mbps, Max Power 48VDC @ 0.25A, PoE Injector
CMD-POE-48V-0.5A	COMMANDO LightningPOWER 10/100/1000Mbps, Max Power 48VDC @ 0.5A, PoE Injector

Document History

Release	New or Revision	Described in	Date
Release 1	First Release	First Release	January 4, 2021