

GPOE-24v10w

Gigabit Power over Ethernet 24 volt step up injector



This device provides a low cost solution for delivering battery or 12v power to a 24 volt device over 328ft of network cable. This scheme allows power to be carried on 10/100/1000 networks on CAT5E, CAT6 or CAT7 Ethernet network cable. Power into the device is either from the 2.1mm DC connector – OR – from the RJ45 male pins 4,5 + (plus) and 7,8 – (minus). The device passes 10/100/1000 Ethernet.

A battery of 12v can now power a 24 volt device like a Mikrotik or Ubiquiti. The higher DC voltage of 24 volts compared to 12 volts, means the wire loss is reduced by a factor of 4, thus carried with less loss over the spare pairs of the 10BASE-T or 100BASE-T network cable. The remote device extracts the DC voltage from the network cable and powers it's internal electronics.

If power is applied to the 2.1mm input – power will be isolated from the male RJ-45 – so the male Rj45 can be plugged into a switch or router. The output voltage of 24 volts comes on pins 4,5 + (plus) and 7,8 –(minus) of the female RJ-45 in order to power any mode B device. If the source power is from 10v to 24v, and the output voltage is 24 volts, if the source is greater than 24.7v, the output will be equal to the input minus 0.7 volts. For example, a 30.7 volt input will cause the output to be 30 volts

Note: the device will continue to operate as low as 10 volts – so if connected to a battery – use a charge controller to disconnect at 11.3 volts to protect the battery.

Typical Devices

- Mikrotik
- Ubiquiti

| Ubiquiti | | |
|-----------------------|--|----------------------|
| <u>Specifications</u> | | |
| | | Notes |
| Data + Power in | RJ 45 male connector | Mode B power |
| DC input connector | 2.1mm x 5.5mm adapter | Center + |
| Data + Power out | RJ 45 Female connector | Mode B power |
| Network Type | 10/100/1000 | |
| Data Pins | All 4 pairs | |
| Power Pins input | 4 & 5 + and 7 & 8 - | |
| Input Voltage | 8v to 24 volts DC 24 to 30 volts DC | Step up pass thru |

Output Voltage 24v +- 2% at .42 amps At 8 volts, 10 watts

At 8 volts, 10 watts
At 12 volts, 10 watts
At 24 volts, 10 watts
At 30 volts, 10 watts
At 30 volts, 10 watts
4 & 5 + and 7 & 8
1.3 amps
0.9 amps
0.42 amps
0.33 amps
Mode B

Operating Temperature 0°C ~ 50°C

URL: shopify.poeworld.com Technical Support: poe-world.com

Input Current

Power Pins Out



Multiport PoE passive injectors



10/100/1000 Data

