PoE World

World Class
Injectors Switches Splitters
Extenders Testers

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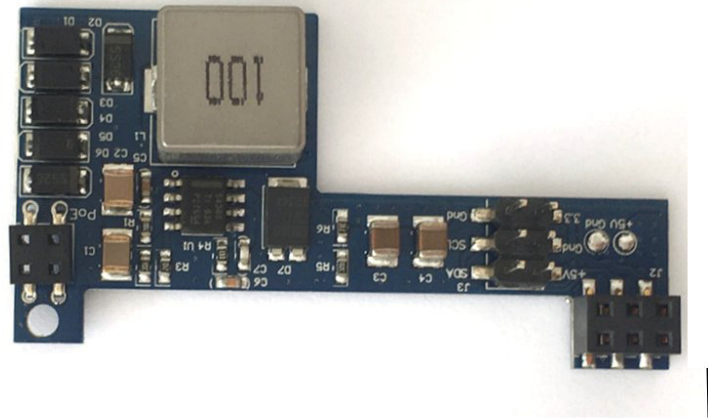
http://poe-world.com

PoE-Texas	Austin Texas	PoE-India	Pune India
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GPOE-PiHat
10 watt passive PoE
Raspberry Pi 3B+ or
Raspberry Pi 4

Product Description – GPOE-PiHat

This PoE-World device provides a very low profile and efficient solution for delivering power to a Raspberry Pi 3B+ or 4 over 328ft of network cable. This device allows power to be carried on 10/100/1000 networks with passive injectors and switches with a CAT5e, CAT6 or CAT7 Ethernet network cable.   This device adds no height to the Pi itself.
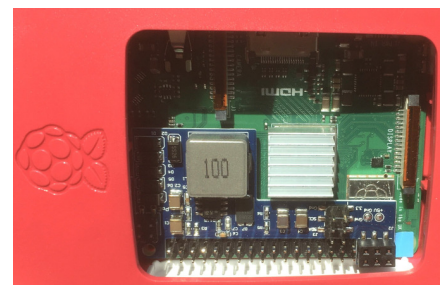
Intended for use with Mode A and B passive injectors and passive PoE switches (like Ubiquiti, Mikrotik, and PoE-World) – this simple PoE solution requires no negotiation with the switch.   It is a compact and cost effective power solution. The PoE source supplies 12 to 56 volts DC at the central location. The higher DC voltage means the current is reduced by a factor of up to 11, and then carried with less loss over the cable.   This PoE to 5 volt converter allows you to operate the Pi up to 328ft or 100 meters from a power source.

The form factor is ideal for any Pi case since it does not add any height or width to the PI.   It is much smaller than 802.3af type adapters because with Passive PoE there is no need for isolation.   The connector pins are available for GPIO and serial use.   There is room for a large heat sink, and the output power is completely regulated and stable, with much less noise than the Raspberry Pi hat.

The 12.5 to 15 watts output is plenty of power for your applications, higher than possible with 802.3af.   Note, the ground of the Pi will be about 600 mV higher than the PoE ground to allow for 568A to 568B crossover Ethernet cables in mode A.   You can connect any HDMI or USB or RJ45 shield to the power supply ground without any risk, note – 300 mA will flow thru that connection.
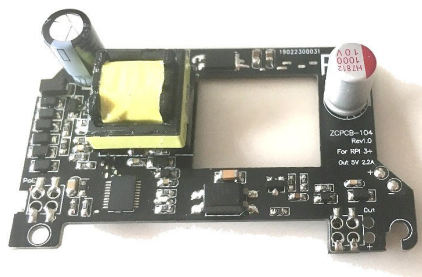
Specifications

Power and data source input	RJ 45 female connector on Pi 3 B+ or Pi 4
Data to powered device	All 4 pairs are active for data at 10/100/1000
PoE - mode B	4&5 **+** plus, 7&8 **—** minus
PoE - mode A	1&2 and 3&6 – auto polarity
Input Voltage Range	From 12 to 56 volts
Input Current at 48v	265 ma input delivers 2 amps out
Output Voltage Max load (5v10w)	5v +- 2%
Output Current @ 12 volts input	2.5 Amps, 12.5 Watts
Output Current @ 24 volts input or higher	3.0 Amps, 15 Watts
Operating Temperature	0°C ~ 50°C
Size	65 x 39 x 11 mm (height from top of Pi pins)
Isolation	Not isolated

Other PoE-World products

PoE Tester

802.3af Pi Hat

Gigabit PoE splitters for DC, USB and USB-C