

Erich Industrial Development, Corp.

- Products -

Electronics Solutions

Components

ASICs

PCB

Kits

Power over Ethernet (PoE)

The **INJECTER-PS48**, a Power over Ethernet (PoE) kit, is an adaptor that eliminates the need to run high voltage power 110VAC to remote wireless access in order to power RF transmitters/receivers. By using Power over Ethernet power injector, all the installers need is to run a single CAT5 or CAT5E Ethernet cable that carries both power and data to each remote device, therefore decreasing installation costs.



PoE power injector



TAP PS for remote location with power regulator



TAP PS for remote location

PoE begins with a CAT5 or CAT5E or CAT6 (fast Ethernet cable) power voltage Injector, that inserts a DC Voltage onto the cable. The Injector is typically installed in the wiring closet near the Ethernet hub or switch.

The INJECTER-PS48 is comply with IEEE standard 802.3af, also known as Power over Ethernet (PoE), it will enable applications that require up to about 12 watts of power at 48VDC over the same category 5/5E/6 cable that already delivers your standard 10/100/1000Mb Ethernet service.

Some wireless Access Points (AP) and other network accept the injected DC power directly from the CAT5 cable through their RJ45 jack (8 pins connector). These devices are considered to be PoE or active Ethernet compatible.

Any devices that are not PoE Compatible can be converted to Power-over-Ethernet by way of a DC-tap. The DC-tap is a device that converts the DC Voltage that has been injected into the CAT5 or CAT5E cable by the Injector and makes it available to the equipment through the regular DC power jack.

This Do It Yourselfer (DIY) kit is very simple to build and save you great deal of money in compare with similar devices sold on the market.

The INJECTER-PS48 is the only PoE injector you will ever need. this single port CAT5 or CAT5E Injector is a commercial grade passive power over Ethernet unit that provides DC power for remote PoE equipped. It is compatible with many AP's and other equipment supporting the IEEE standard PoE pin-out. Pin 4 together with pin 5 as a +VDC positive power, and pin 7 together with pin 8 -VDC negative power.

Simply connect your Ethernet source (connector) to the RJ45 jack marked Input, connect the power source to the terminal block. Place Cat5/E cable from the RJ45 marked Output to your remote equipment. At the remote location tap (strip) the power from the cable, regulate the power via any one of our power supply regulators kit that match your equipment requirements.

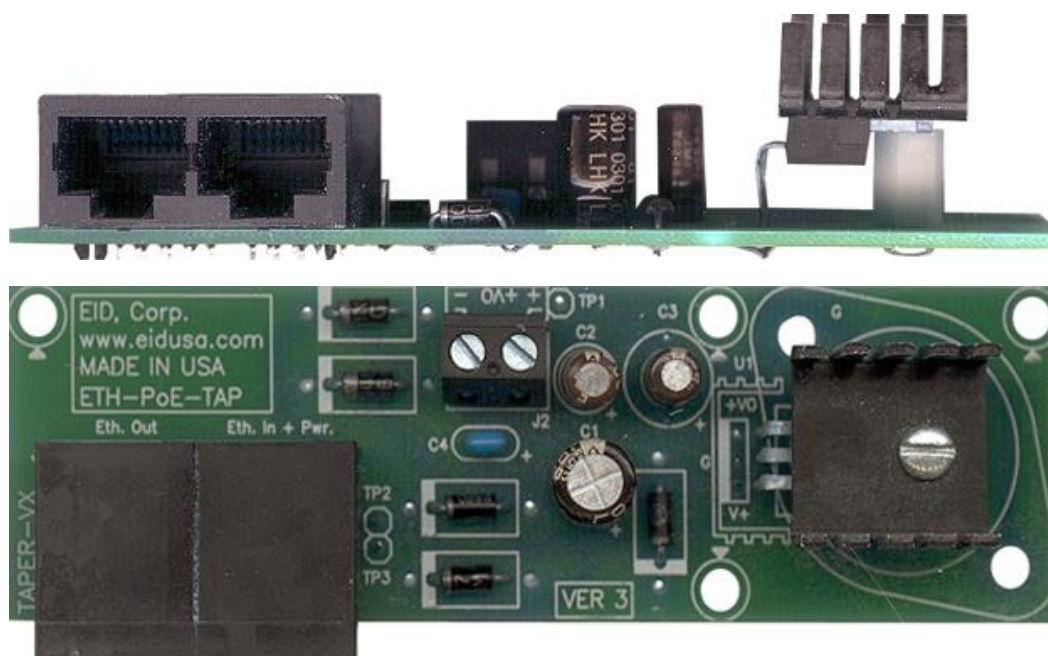
The INJECTER-PS48 kit design as a high speed Ethernet power injector.

The inject power can be any DC voltage up to 48VDC. Remember due to power lost over distance (resistance of the wires), the shorter the distance the lower injector power is require to power your remote APs.

Finally it is a good practice to connect the negative power supply to the building ground to prevent damages during lightning.

OEM

The OEM TAPER-VX (X=your specified voltage AC or DC) custom board is provided heat-think to remove access heat on the remote applications. (see below sample configuration).



Above picture is our OEM board with build-in power regulator. The board, can be mounted in on of our [plastic enclosure](#) of your choosing.

The above board configuration is design to filter and regulate 12V to 24V DC input, to stable output of 5V DC.

For our 110V or 220V to 12VAC or 16VAC or 24VAC Power down transformer (Class 2 Type Transformers EID-BP series) [click Here](#)

INJECTOR Kit Includes

- Red LED [LED](#) 1pc.
- 4.7K Ohms [Resistor](#) 1pc.
- 0.1MF [Capacitor](#) 1pc.
- 47MF/50V [Capacitor](#) 1pc.
- 2P RJ45 [Connector](#) 1pc.
- 2P Terminal Block [Connector](#) 1pc.
- PCB 1pc.

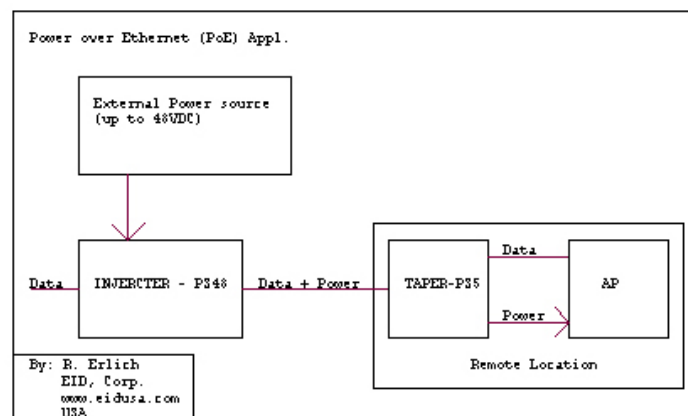
REMOTE TAP PS Kit Includes

- 1N4007 [Diode](#) 4pc.
- 78XX [Voltage Regulator](#) 1pc.
- 0.1MF [Capacitor](#) 1pc.
- 47MF/50V [Capacitor](#) 2pc.
- 100MF/50V [Capacitor](#) 1pc.
- 2P RJ45 [Connector](#) 1pc.
- 2P Terminal Block [Connector](#) 1pc.
- PCB 1pc.

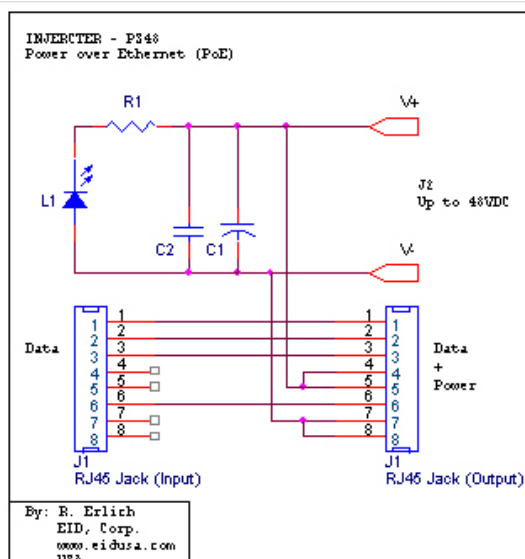
Specifications

- Power Indicator: Red LED
- Operating Temperature: -50° C to +90° C
- Max output current: Up to 2A at 12VDC
- Power Connector via: Molex 2P terminal block
- Ethernet connectors: Dual RJ45 2*8-pins Jack
- Data lines first pair: Pin 1 and 2
- Data lines second pair: Pin 3 and 6
- CAT5/E Power +VDC: Pins 4 & 5
- CAT5/E Power -VDC: Pins 7 & 8

Application-note



Schematic

**INJECTER-PS48, PoE injector****Description and SKU#**

EID-K-INJ-ECTER-XXV-ASM Fully assembled

Price
26.00**Picture**

EID-K-INJ-ECTER-XXV-KIT kit

18.99

EID-K-INJ-ECTER-XXV-PCB PCB Only

9.99

**Remote side Tap**

EID-K-TAP-XXXER-TPSXXX-ASM Fully assembled

29.99



EID-K-TAP-XXXER-TPSXXX-KIT Kit	27.99
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EID-K-TAP-XXXER-TPSXX-PCB PCB Only	9.99
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Remote side Tap Power supply 5V

Description and SKU#	Price
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EID-K-TAP-XXXER-TPS05V-ASM Fully assembled	35.00
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EID-K-TAP-XXXER-TPS05V-KIT Kit	30.99
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Remote side Tap Power supply 9V

Description and SKU#	Price
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EID-K-TAP-XXXER-TPS09V-ASM Fully assembled	35.00
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EID-K-TAP-XXXER-TPS09V-KIT Kit	30.99
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Remote side Tap Power supply 12V

Description and SKU#	Price
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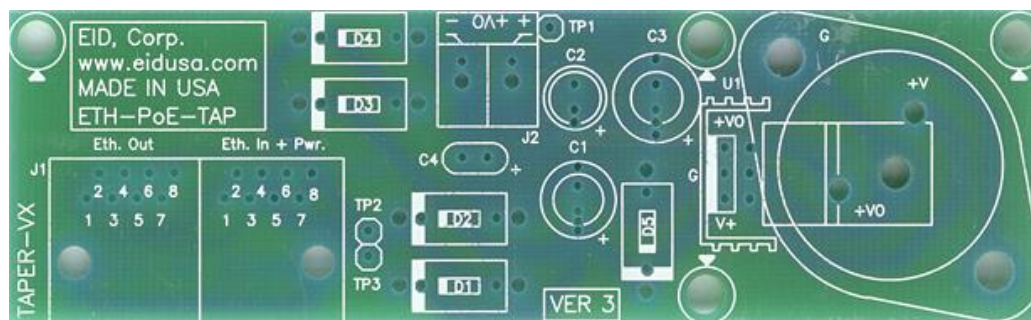
EID-K-TAP-XXXER-TPS12V-ASM Fully assembled	35.00
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EID-K-TAP-XXXER-TPS12V-KIT Kit	30.99
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Description and SKU#	Price
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EID-K-TAP-XXXER-TPSXXVHC-PCB PCB Only	15.99
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TAP PS PCB picture:



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