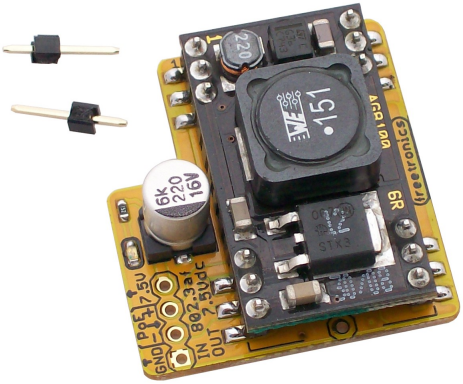
PoE Regulator 802.3af

www.freetronics.com/poe-regulator-8023af

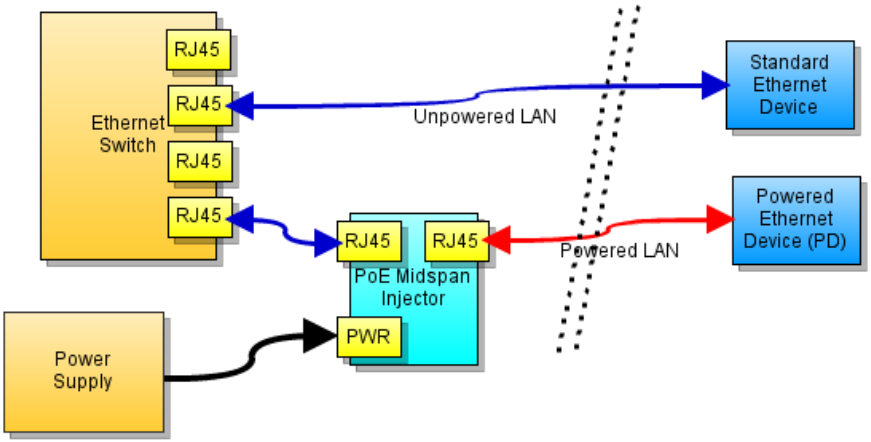
Getting Started: Power-over-Ethernet Regulator 802.3af

The Power-over-Ethernet Regulator 802.3af is an add-on board for the Freetronics Ethernet Shield (**www.freetronics.com/ethernet-shield**) and Freetronics EtherTen (**www.freetronics.com/etherten**) that allows them to accept the 48V input supplied via the Ethernet cable as a "Powered Device" (PD) on a Power-over-Ethernet network.

The module implements the signalling protocol necessary to communicate with commercial PoE switches and injectors to tell them that there is a device on the network that is ready to accept power, and then uses an efficient switch-mode regulator to reduce the voltage to 7.5V for supply to the host's onboard voltage regulator.



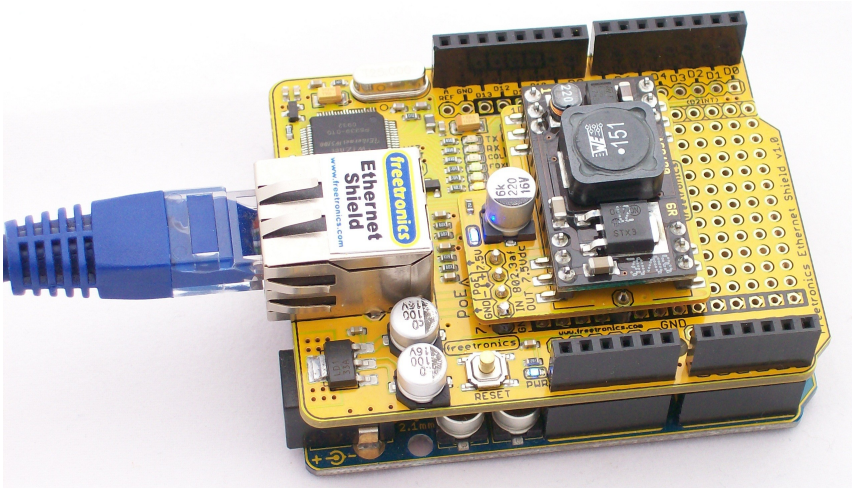
Further background information on Power-over-Ethernet schemes can be found at **www.freetronics.com/poe**



Specifications

Input Voltage:	Nominal 48Vdc
Output Voltage:	7.5Vdc
Maximum Power:	12W

Installation



1. Remove the jumpers from the PoE header pins on your Ethernet Shield or EtherTen if they are fitted.
2. For an Ethernet Shield, place the provided single-pin headers into the GND and 5V rails adjacent to the prototyping area so that they align with the centre holes in the PoE Regulator. For an EtherTen, place them in the holes provided.
3. Place the PoE Regulator onto the header pins. For an EtherTen, use a thick piece of cardboard or similar as a spacer to hold it clear of the parts underneath. The cardboard can be removed later after the pins are soldered.
4. Solder the 6 header pins to the top of the regulator PCB. Clip off any excess length.
5. Turn over the Ethernet Shield and solder the bottom of the single-pin headers in place. Clip off any excess length.
6. For an Ethernet Shield, fit it to your Arduino. Plug the Ethernet Shield or EtherTen into your Ethernet network.
7. Connect the network segment to Power Sourcing Equipment such as a PoE switch or midspan injector.

Support

For assistance see **www.freetronics.com/support** or email **support@freetronics.com**.

About Freetronics

Freetronics is an Australian company created by Jonathan Oxer and Marc Alexander to provide easy access to hardware, parts, and products related to Arduino projects and the book Practical Arduino. Learn more at **www.freetronics.com**. Follow us on Twitter at **twitter.com/freetronics**.