

# Ethernet and PoE Shield for Arduino

DFR0850

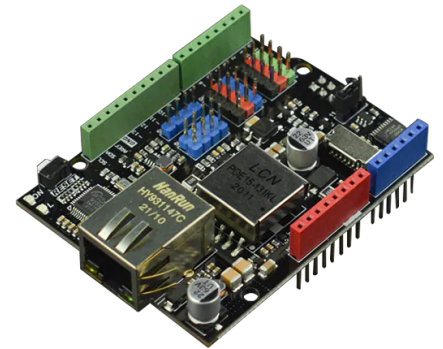
## Product Overview

11-04-2022

For the most up-to-date information, visit [www.mouser.com](http://www.mouser.com) or the supplier's website.

## Description

DFRobot Ethernet and PoE Shield for Arduino integrates a PoE power supply and W5500 Ethernet chip that meets the requirements of general IoT projects. The W5500 chip is a hardwired TCP/IP embedded Ethernet controller that provides an easier Internet connection to embedded systems. This chip enables users to have Internet connectivity in the applications just by using the single chip in which TCP/IP stack, 10/100 Ethernet MAC, and PHY are embedded.



The W5500 Ethernet expansion board has extra pins 11, and 12 for easy connection to the W5500 reset pin and comes with a jumper cap. This board features an on-board level conversion circuit, an internal 32KB transceiver buffer, and a gravity sensor extension interface. Typical applications include embedded servers, monitoring equipment, security system, and home network equipment.

## Features

- W5500 chip
- Support hardware TCP/IP protocol:
  - TCP, UDP, ICMP, IPv4, ARP, IGMP, and PPPoE
- Support 8-channel independent sockets
- Support WOL wake-on-LAN
- Internal 32KB for TX/RX buffer
- On-board level converter circuit
- Gravity 3Pin ports for connecting sensors

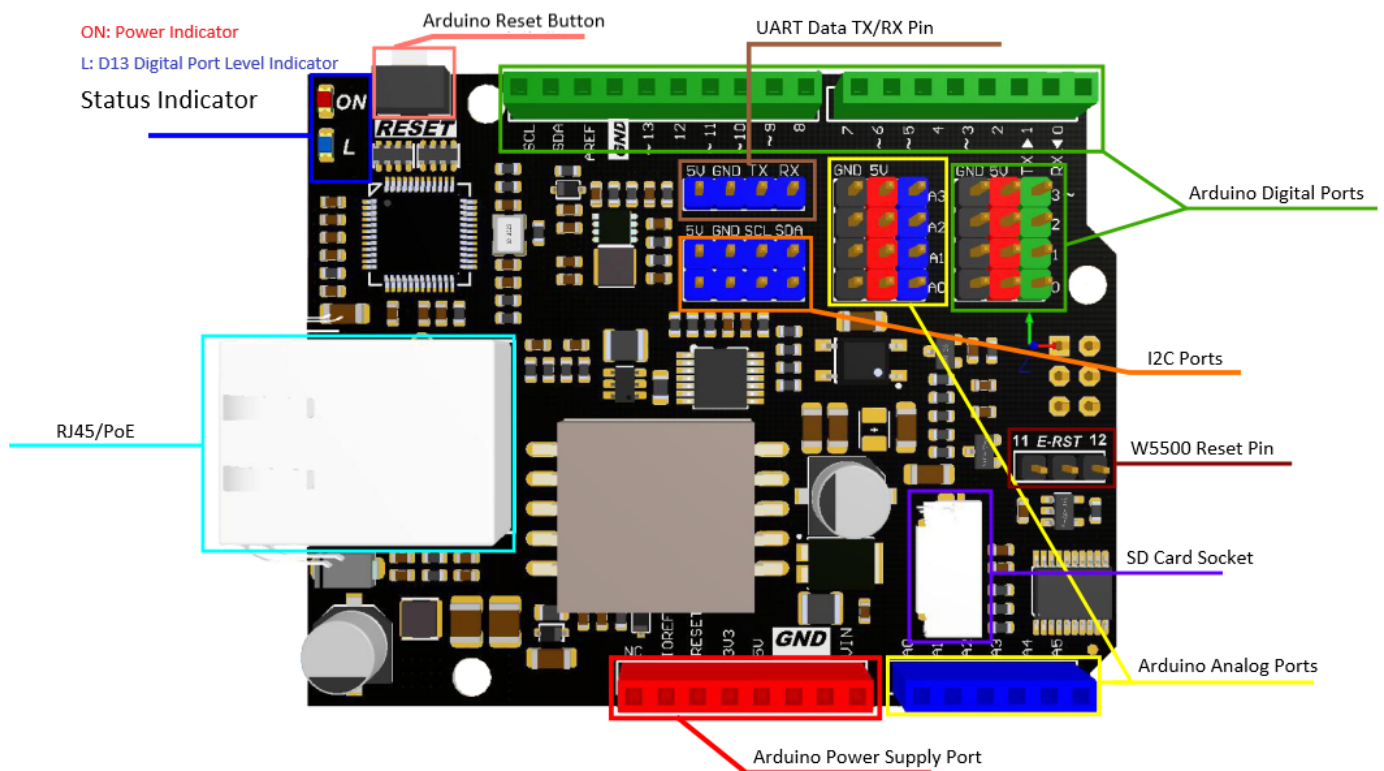
## Specifications

- PoE input:
  - 48V AC/DC (the product is a Class 0 PD device that meets the 802.3at standard)
- PoE power:
  - Up to 12W (the VIN port can output 12V/1A)
- SPI clock:
  - 80MHz (Max)
- PHY:
  - WIZnet W5500
- 68.6mm x 53.3mm PCB size

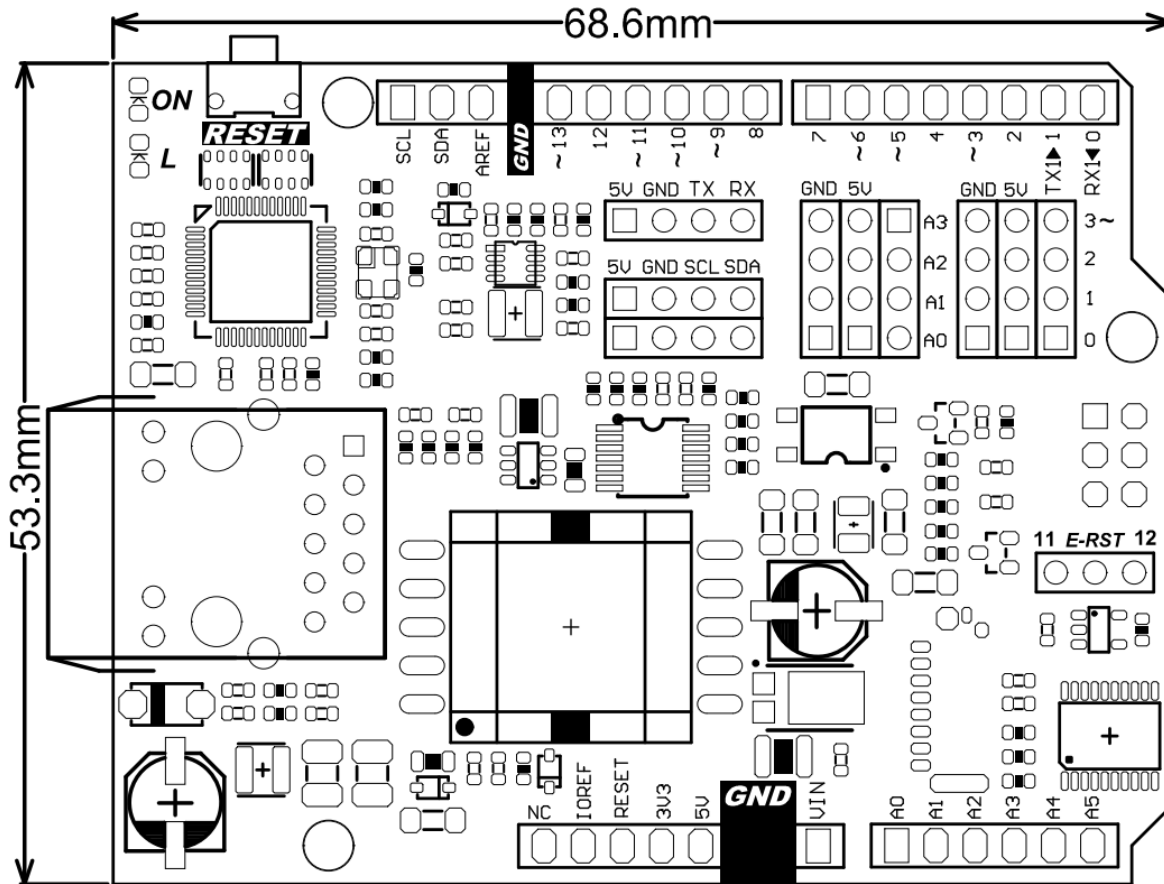
## Applications

- Home network equipment:
  - Set-top box, PVR, and digital media center
- Serial Ethernet:
- Access control system, LED display, and wireless AP relay
- Parallel Ethernet:
- POS machine or handheld printer, duplicator
- USB Ethernet:
- Storage devices and network printers
- Security system:
  - Network camera
- Monitoring equipment
- Embedded server

## Interface Function Overview



## Dimensional Diagram



## Mouser Part Number

[View Part](#)

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