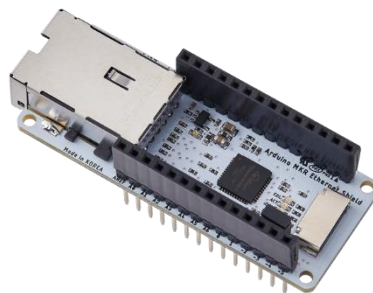
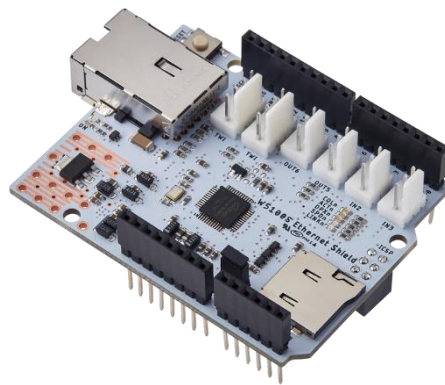


W5100S Ethernet Shield Datasheet Version 1.0

Included W5100S MKR-Ethernet Shield



<http://www.wiznet.io>

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1. Overview

W5100S Ethernet Shield is based on W5100S. For more information about W5100S, please visit W5100S Datasheet. This Ethernet Shield can be used on boards with an Arduino Pin Header Form factor.

- Arduino Platform
- Others Arduino Pin-Compatible Boards
 - ARM mbed Platform

2. Features

- Operation Voltage DC5V or DC3.3V
 - Signals (SPI) Voltage 3.3V
- Included W5100S of WIZnet
- W5100S is software compatible with the W5100.
 - Compatible with the official Arduino Ethernet shield (Default)
 - Compatible with the official Arduino Ethernet Shield 2 at user choice (Optional)
- SPI Interface
- 10/100 Ethernet PHY embedded
- Support Auto Negotiation
 - Full / Half Duplex
 - 10/ 100 Based
- Hardware TCP/IP Protocols
 - TCP, UDP, ICMP, IPv4, ARP, IGMP, PPPoE
- Support Micro SD Card slot for storage
- Low height RJ45

3. Hardware Specification

3.1. Call-out & Pin-out

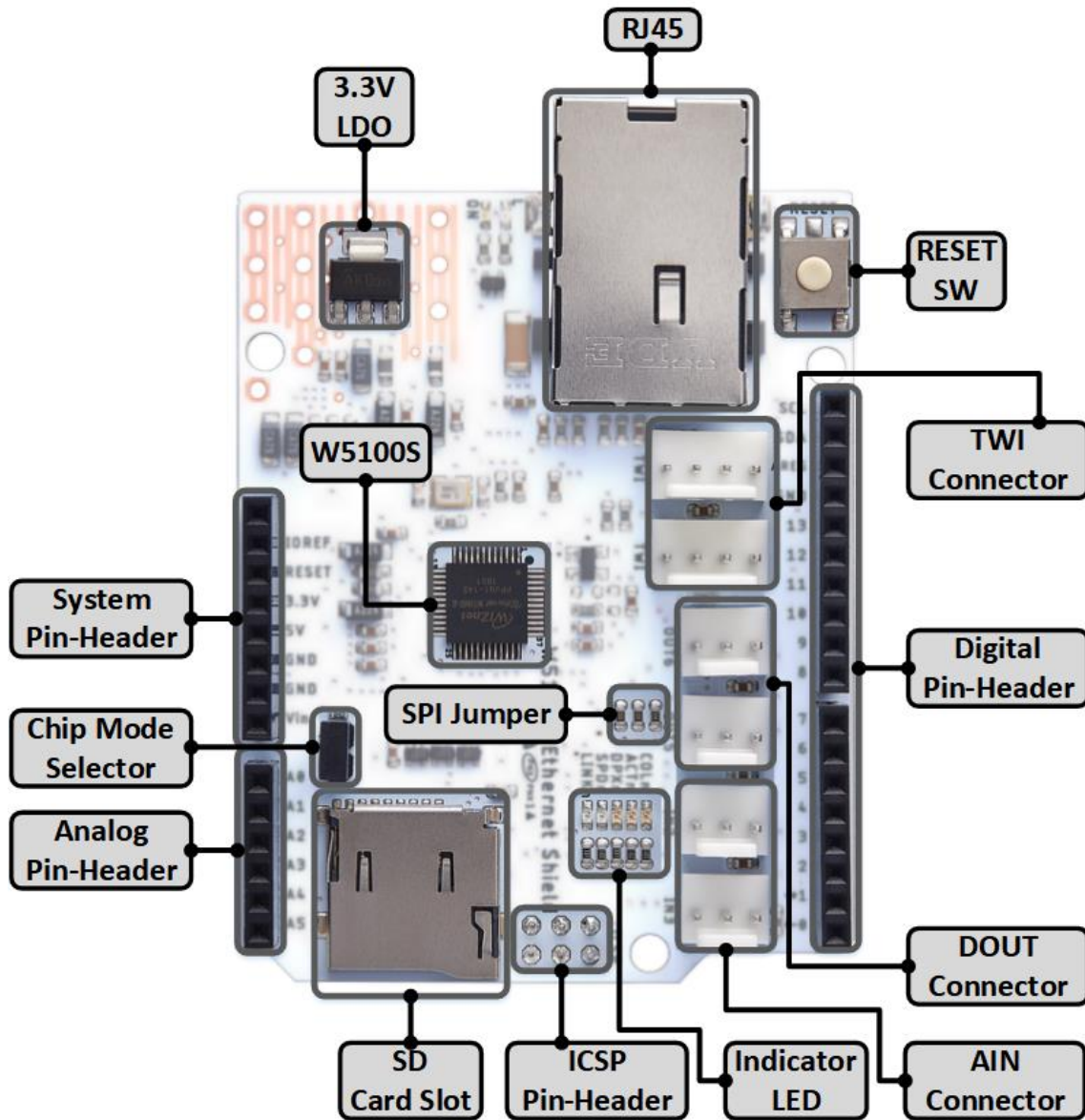


Figure 1. W5100S Ethernet Shield Call-out

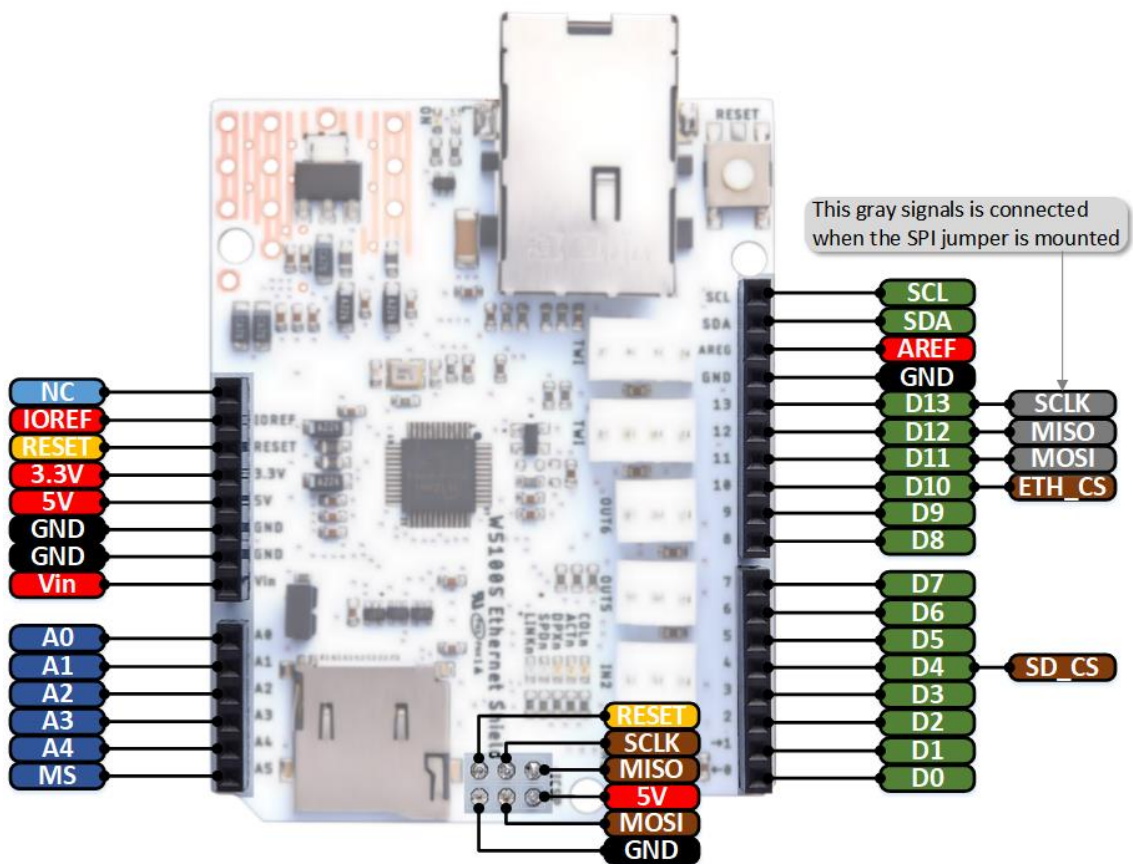


Figure 2. W5100S Ethernet Shield Pin-out

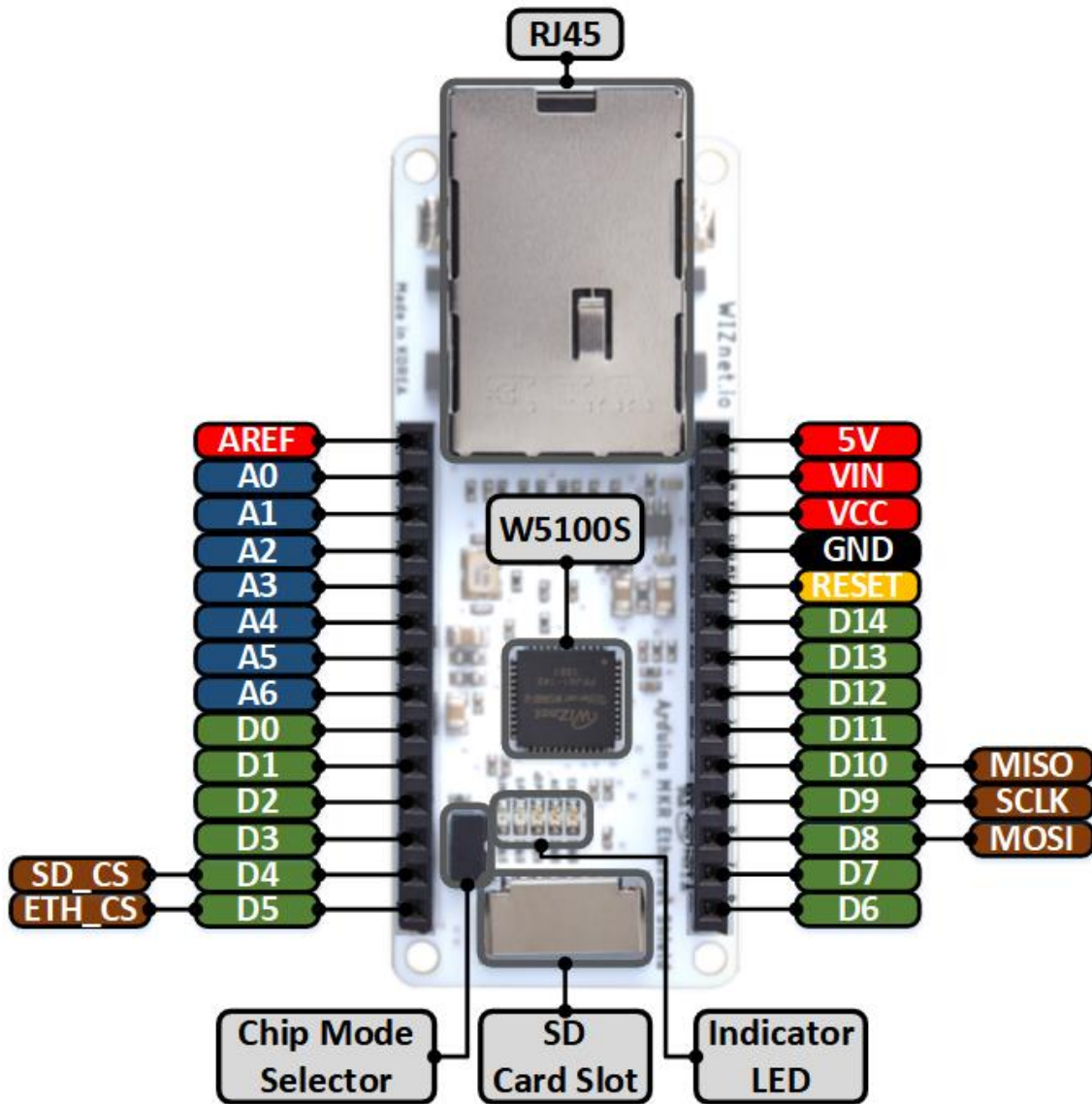


Figure 3. W5100S MKR-Ethernet Shield Call-out & Pin-out

4. Board Configuration

4.1. Chip Mode Selector

- Short: SPI frame is W5100S mode (**default**)
- Open: SPI frame is W5500 mode

4.2. SPI Jumper (Only W5100S Ethernet Shield)

- Mount: SPI signals is connected to D11(MOSI), D12(MISO), D13(SCLK) and ICSP connector. (**default**)
- Not mount: SPI signals is connected to only ICSP connector.

5. Technical Reference

5.1. W5100S Datasheet

- <http://wizwiki.net/wiki/doku.php?id=products:w5100s:start>

5.2. Hardware data (Schematic, Part list, Gerber)

- W5100S Ethernet Shield
 - https://github.com/Wiznet/Hardware-Files-of-WIZnet/tree/master/08_OSHW/W5100S%20Ethernet%20Shield
- W5100S MKR-Ethernet Shield
 - https://github.com/Wiznet/Hardware-Files-of-WIZnet/tree/master/08_OSHW/W5100S%20MKR-Ethernet%20Shield

5.3. Dimension

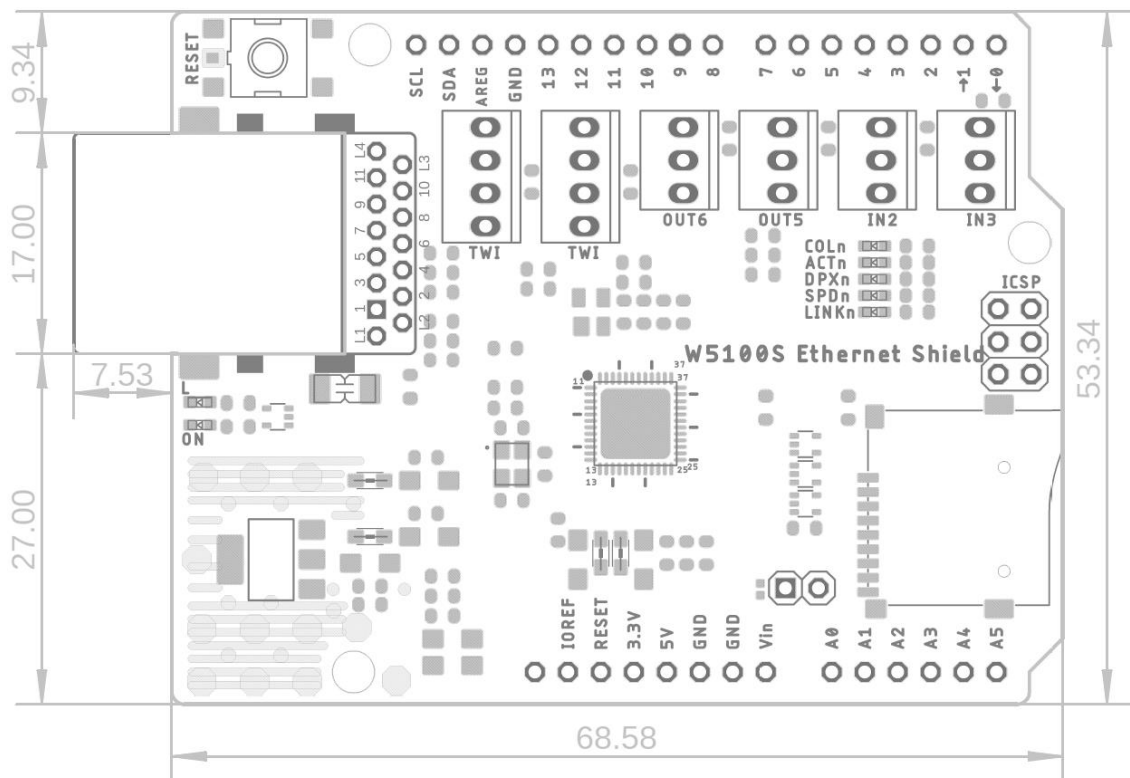


Figure 4. W5100S Ethernet Shield Dimension

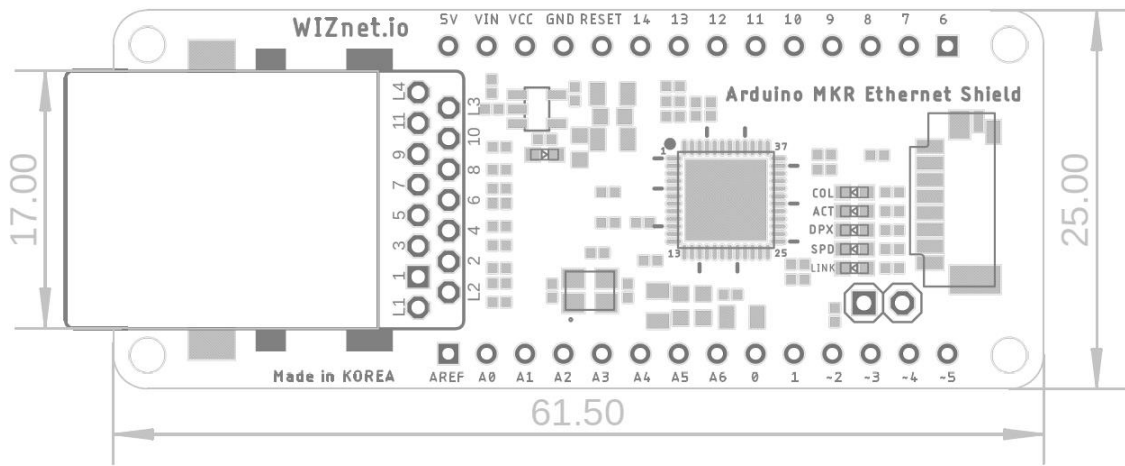


Figure 5. W5100S MKR-Ethernet Shield Dimension