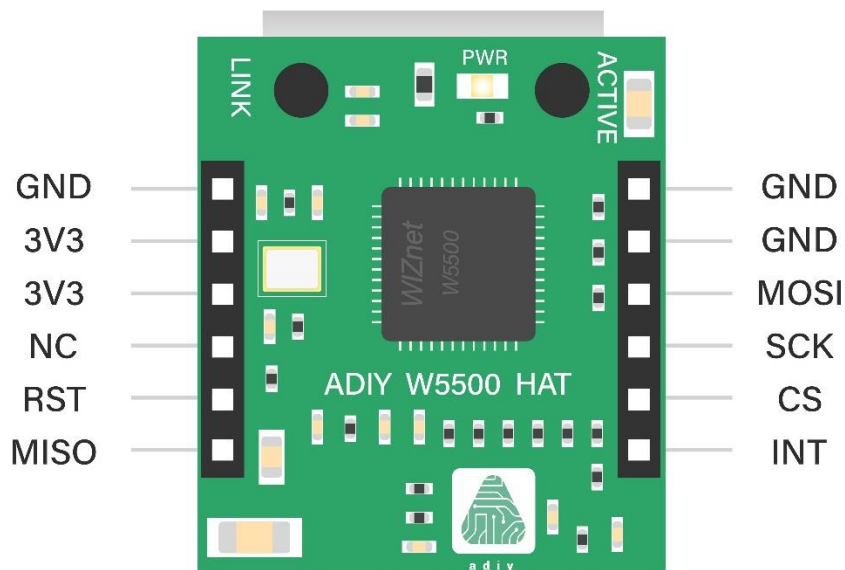## Description:

The W5500 is a full-featured TCP/IP embedded Ethernet controller that provides an easier Internet connection solution for embedded systems. The hardware logic gates are used to implement the transport layer and network layer of the TCP/IP protocol stack (eg TCP). , UDP, ICMP, IPv4, ARP, IGMP, PPPoE and other protocols), and integrated data link layer, physical layer, and 32K bytes of on-chip RAM as data transceiving buffer. The host computer main control chip only needs to undertake the processing task of the TCP/IP application layer control information. Thereby, the workload of the host computer for data copying, protocol processing and interrupt processing is greatly saved, and the system utilization and reliability are improved.

Features:

1. 80MHz high-speed SPI interface

2. Built-in hardware TCPIP protocol stack, users need almost no knowledge of complex network protocols.

3. Support up to 8 Socket connections.

4. Support TCP, UDP, ICMP, IPv4, ARP, IGMP, PPPoE protocol.

5. Integrated data link layer, physical layer

6.   Support power-down wake up

7.   Support high-speed serial peripheral interface (SPI mode 0~3)

8.   Internal 32K byte send and receive buffer.

9.   Embedded 10BaseT/100BaseTX Ethernet Physical Layer (PHY)

10. Support auto-negotiation (10/100-Based full/half-duplex)

11. IP fragmentation is not supported.

12. 3.3V working voltage, I/O signal port 5V withstand voltage

13. LED status display (full-duplex / half-duplex, network connection, network speed, active status)

14. Ultra-small pin package for easily embedded applications

15. Provide C application routines.

Pin Description:

ADIY Ethernet HAT

Specifications:

Power Supply	3.3V External Power Supply, @Current < 200 mA
Control Interface	The TTL Level, 3.3V SPI Interface
PCB Size	23 x 25 mm
Length (mm):	25
Width (mm):	22
Height (mm):	20
Weight (g):	17
Shipping Weight	0.02 kg
Shipping Dimensions	$3 \times 3 \times 3$ cm