SEEED-102991534

Squama Ethernet - Arduino W5500 Ethernet Board with PoE

PRODUCT DETAILS

Features

- Powerful CPU: ARM Cortex-M0+ MCU running at up to 48MHz (ATSAMD21G18)
- Flexible power manual: PoE or Type-C
- Various Hardwired TCP/IP Protocols support: TCP, UDP, ICMP, IPv4, ARP, IGMP, PPPoE
- Flexible compatibility: Compatible with Arduino IDE

Description

Squama is a series of products. This series of products have a standard appearance, with a general size of 62x30mm. The series integrates an MCU and peripherals with a communication function, which is suitable for IoT-related applications.

Squama Ethernet is the first product in the Squama series. Squama Ethernet integrates a high-performance microcontroller based on **Cortex M0+** and an Ethernet control chip **W5500**, which can be used by users to develop Ethernet applications.

WS2812 LED and user buttons are also integrated on the board, which can facilitate some interaction. More importantly, Squama Ethernet supports **PoE** (Power Over Ethernet), which makes the wiring more concise. Only one network cable is needed to complete signal transmission and power supply.

Squama Ethernet uses the **Arduino Zero like bootloader**, you can use Arduino IDE to develop your application easily.

Specifications

- MCU: ARM Cortex-M0+ CPU running at up to 48MHz
- Clock speed: 48MHz
- Flash memory: 256KB
- RAM: 32KB
- Input voltage: 5V via USB and 48~57V via PoE
- Output Current @ 5V: 2A
- Size: 62x30 mm
- Weight: 15g (without PoE), 20g (with PoE)
- 8 independent sockets simultaneously
- High-Speed Serial Peripheral Interface(SPI MODE 0, 3)
- Internal 32Kbytes Memory for TX/RX Buffers
- 10BaseT/100BaseTX Ethernet PHY embedded
- Supports Auto-Negotiation (Full and half-duplex, 10 and 100* based)
- Not supports IP Fragmentation
- WS2812B Led
- Reset Button and User Button
- Grove connector for I2C and UART
- Arduino Zero bootloader
- Supports Power-down mode
- Supports Wake on LAN over UDP

Old Version

1. LED indicators:

- S:
- P: Power
- L: D13

2. RJ45 Connector, 10/100M
3. WS2812B LED, connected to D12
4. User button, connected to D11
5. PoE Cape
6. Pinout1
7. I2C
8. UART (Use Serial2 in the code)
9. Micro-USB connector for programming
A. Pinout2**
B. Reset Button
C. ATSAMD21G18 chip

Pin output

Part List

 Squama Ethernet Dev Board x 1
PoE Cape x 1 (only for the PoE Version)

ECCN/HTS

HSCODE	8517629900
USHSCODE	8471490000
UPC	