DataLogger IoT - 9DoF

DEV-20594

Product Overview

07-03-2024

For the most up-to-date information, visit www.mouser.com or the supplier's website.
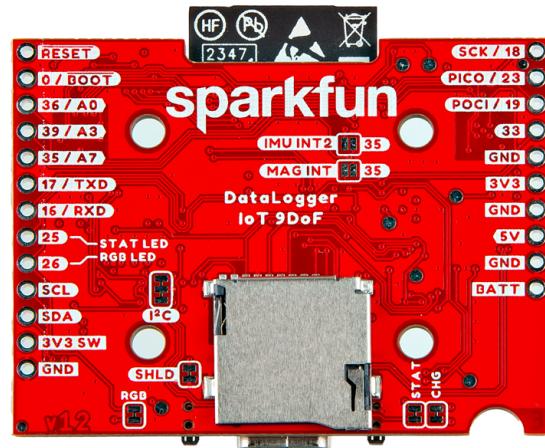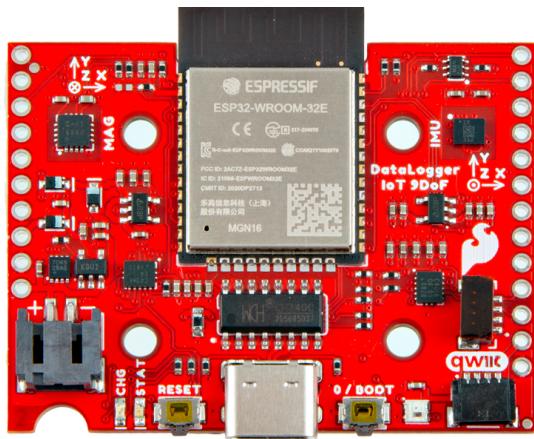
Description

SparkFun DataLogger IoT - 9DoF allows for seamless data logging without the hassle of coding. This DataLogger IoT - 9DoF incorporates preprogrammed functionalities like log IMU, GPS, and various pressure, humidity, and distance sensors. The DataLogger automatically detects, configures and logs Qwiic sensors, and captures a lot of data to a CSV or JavaScript Object Notation (JSON) file. The DataLogger IoT is highly configurable over an easy-to-use serial interface. With its user-friendly serial interface, the DataLogger IoT offers extensive configurability. This DataLogger IoT - 9DoF uses common microSD cards to record clear text, comma-separated, or JavaScript Object Notation (JSON) files. The DataLogger supports 4-bit SDIO with microSD cards formatted as FAT32 and is compatible with the older FAT16 formats up to 32GB.
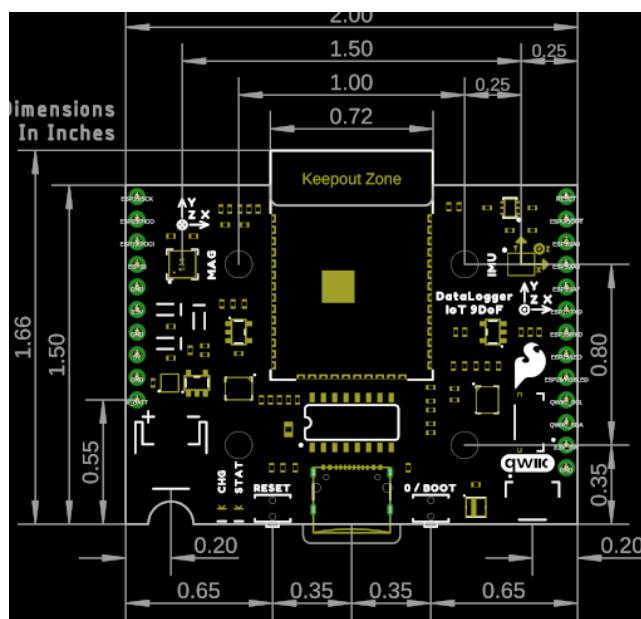
Features

- **ESP32-WROOM-32E Module:**
  - Integrated 802.11b/g/n WiFi 2.4GHz transceiver
  - Configurable via CH340C
- **Operating voltage range:**
  - 3.3V to 6.0V (via VIN)
  - 5V with USB (via 5V or USB type C™)
  - 3.6V to 4.2V with LiPo battery (via BATT or 2-pin JST)
  - Built-in MCP73831 single-cell LiPo charger
  - Minimum 500mA charge rate
  - 3.3V (via 3V3)
- MAX17048 LiPo fuel gauge
- **Ports**:
  - 1x USB Type C
  - 1x JST style connector for LiPo battery
  - 2x Qwiic enabled I²C
  - Support for 4-bit SDIO and microSD cards
- 10.7g weight

- **9-axis IMU:**
  - Accelerometer and Gyro (ISM330DHCX)
  - Magnetometer (MMC5983MA)
- **LEDs:**
  - Charge (CHG)
  - Status (STAT)
  - WS2812-2020 Addressable RGB
- **Jumpers:**
  - IMU interrupt
  - Magnetometer interrupt
  - RGB LED
  - Status LED
  - Charge LED
  - I²C pull-up resistors
  - USB Shield
- **Buttons**
  - Reset
  - Boot
- 1.66" x 2.00" Dimensions

Board Overview

Board Dimension

Additional Resource

- [Schematic Representation](#)

Mouser Part Number

[View Part](#)

To learn more, visit https://www.mouser.com/new/sparkfun/sparkfun-datalogger-iot-9dof/