

Pulse Oximeter & Heart Rate Sensor

SEN-15219

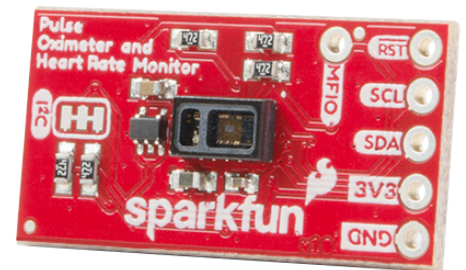
Product Overview

05-10-2022

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

Description

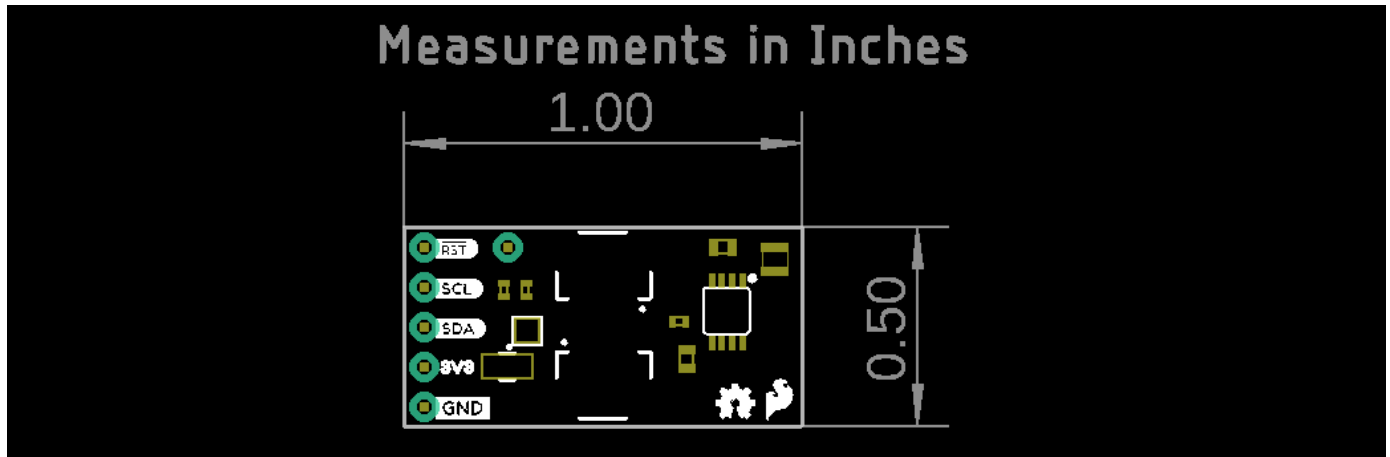
SparkFun SEN-15219 Pulse Oximeter and Heart Rate Sensor is a biometric sensor based on I²C that utilizes the modules such as the MAX30101 heart rate module and MAX32664 sensor hub. Through a process called photoplethysmography the MAX30101 senses the light absorbed with its photodetectors. This data is analyzed and passed onto the MAX32664 biometric sensor hub that determines heart rate and blood oxygen saturation by applying algorithms. The SEN-15219 sensor includes a Cortex M4 processor that handles all digital filtering, algorithmic calculations, pressure/position compensation, automatic gain control, and advanced R-wave detection.



Features

- MAX30101 and MAX32664 sensor and sensor hub
- Qwiic connectors for power and I2C interface
- I²C address
- **MAX30101** - Pulse Oximeter and Heart-Rate sensor:
 - Heart rate monitor and pulse oximeter sensor in LED reflective solution
 - Integrated cover glass for optimal and robust performance
 - Ultra-low-power operation for mobile devices
 - Fast data output capability
 - Robust motion artifact resilience
- **MAX32664** - Ultra-Low Power Biometric Sensor Hub:
 - Biometric sensor hub solution
 - Finger-Based algorithms measure pulse heart rate and Pulse Blood Oxygenation Saturation (SpO₂)
 - Both raw and processed data
 - A basic peripheral mix optimizes size and performance

Board Dimension



Mouser Part Number

[View Part](#)

To learn more, visit

<https://www.mouser.com/new/sparkfun/sparkfun-pulse-oximeter-and-heart-rate-sensor/>