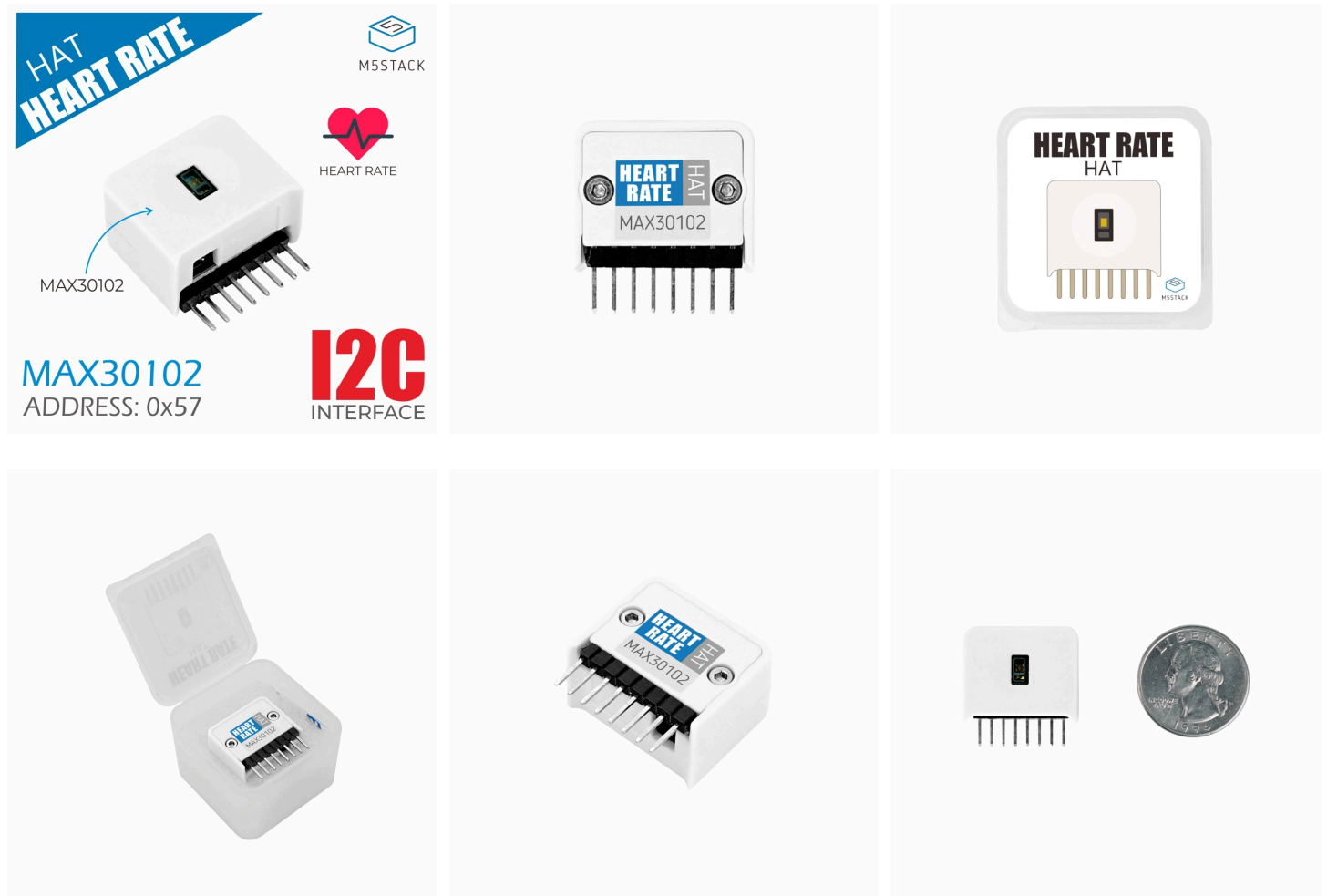


Hat Heart

SKU:U118



Description

Hat Heart is a blood oxygen and heart rate sensor. It integrates **MAX30102**, providing a complete pulse oximeter and heart rate sensor system solution. This is a non-invasive blood oxygen and heart rate sensor. Its detection principle is based on infrared LED light illumination, which detects the ratio of oxygenated to deoxygenated red blood cells to determine blood oxygen levels. The sensor uses an I2C communication interface and integrates infrared LEDs, photodetectors, optical components, and low-noise electronics, with some ambient light suppression for more accurate measurements.

Usage: After the program runs, keep your finger stable with constant pressure on the detection area.

Features

- Heart rate monitor and pulse oximeter sensor
- LED reflection solution
- Integrated protective glass, durable performance
- Programmable sampling rate and LED current
- Fast data output capability
- High sampling rate
- Strong motion artifact resilience
- High signal-to-noise ratio

Includes

- 1 x Hat Heart
- 1 x Double-sided adhesive tape

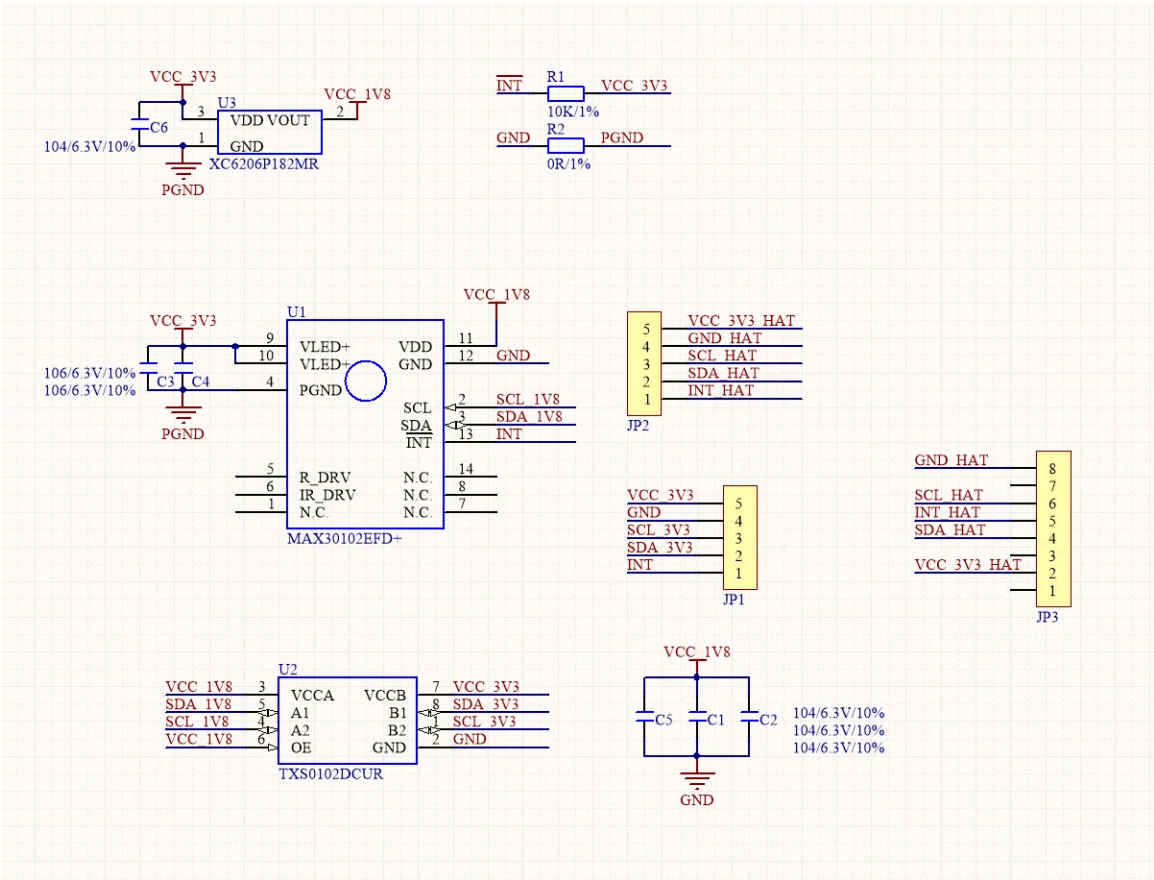
Applications

- Wearable devices
- Heart rate and blood oxygen collectors
- Smart healthcare

Specifications

Specification	Parameter
Sensor Model	MAX30102
Communication Interface	I2C @ 0x57
Product Size	24.9 x 24.0 x 13.7mm
Product Weight	5.1g
Package Size	136.0 x 92.0 x 14.0mm
Gross Weight	8.0g

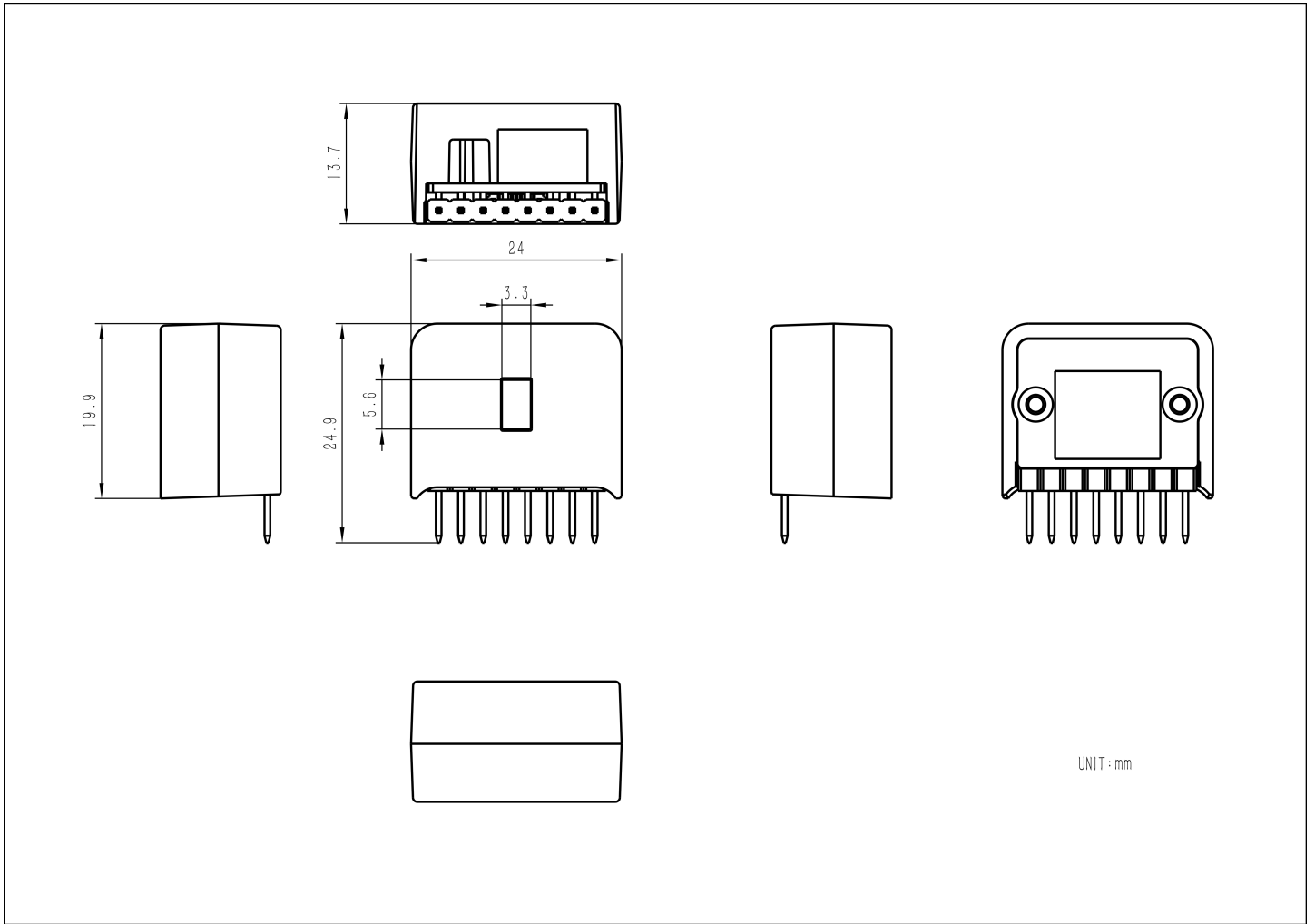
Schematics



PinMap

M5StickC	G26	G0	3.3V	GND
HEART RATE HAT	SCL	SDA	3.3V	GND

Model Size



Structure

- [Hat Heart Structure Files](#)

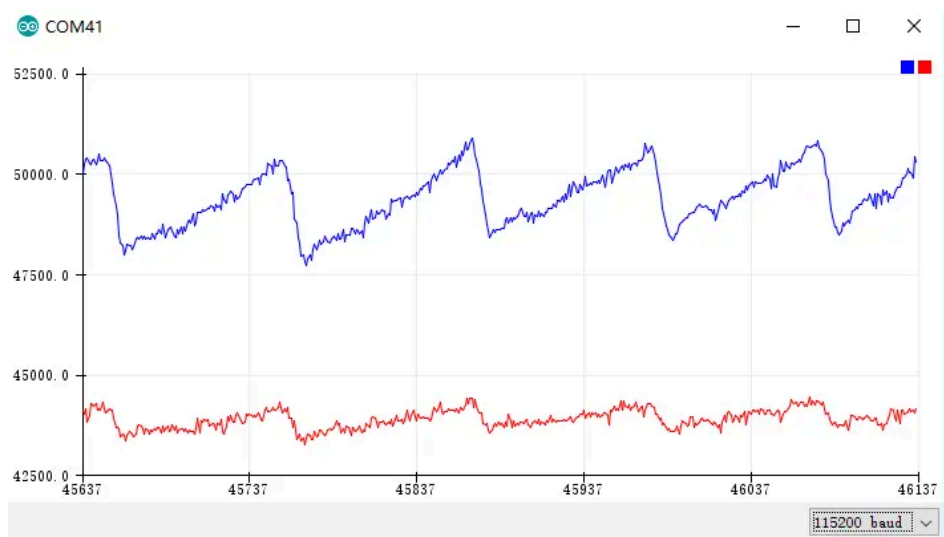
Datasheets

- [MAX30102](#)

Softwares

Arduino

- [Hat Heart Example - with M5StickC-Plus](#)



- [Hat Heart Arduino Quick Start](#)

UiFlow1

- [Hat Heart UiFlow1 Docs](#)

UiFlow2

- [Hat Heart UiFlow2 Docs](#)

| Video

[HEART_RATE_HAT.mp4](#)