

Community

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Best-sellers









Description



What is MAXREFDES117#: HEART-RATE AND PULSE-OXIMETRY MONITOR

The MAXREFDES117# reference design is a low power, optical heart-rate module complete with integrated red and IR LEDs, and a power supply. It is designed by Maxim Integrated and manufactured by Seeed Studio.

This tiny board, perfect for wearable projects, may be placed on a finger or earlobe to accurately detect heart rate. This versatile module works with both Arduino and mbed platforms for quick testing, development and system integration. A basic, open-source heartrate and SpO2 algorithm is included in the example firmware.

The board features 8 sewing tap pads for attachment and quick electrical connection to a development platform.

As with all Maxim reference designs, the BOM, schematics, layout files, and Gerber files are all available from the **Design Resources** tab.

About Maxim Integrated. At Maxim, we invent highly integrated solutions that make technology seamless. We channel our collective expertise to stretch the limits of technology, understand your needs, and help you get to market faster.





Key Features

• Optical Heart-Rate Monitor and Pulse Oximetry Solution Downloaded from Arrow.com.

MAXREFDES117#: HEART-RATE AND PULSE-OXIMETRY MONITOR

SKU 102990649











IN STOCK 6 Available



ADD TO CART

Best-sellers

Description

Technical Details

Reviews

Questions and Answers

View History

- Low Power
- Device Drivers
- Free Algorithm
- Example C Source Code For Arduino And mbed Platforms
- Test Data



Competitive Advantages

- Highly-integrated, small-size sensor
- Non-chest based heart-rate/SpO2 detection
- Ultra-low power consumption

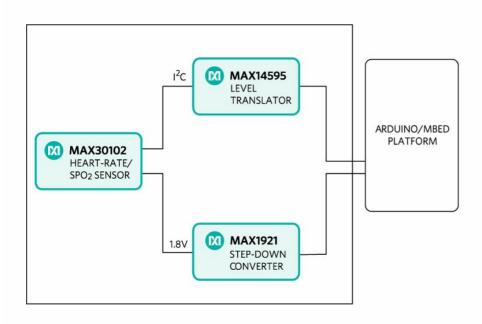


Applications

- Wearables
- Heart-rate monitor
- Pulse oximeter



Reference Design Block Diagram





System Diagram

The MAXREFDES117# design utilizes the heart-rate/SpO2 sensor (MAX30102), an efficient, low-power step-down converter (MAX1921), and an accurate level translator (MAX14595). The entire design typically operates at less than 5.5mW when using with the example firmware.



Quick Start

Required Equipment

- Windows PC with a USB port
- MAXREFDES117# board
- 5 cables that can be used to connect the MAXREFDES117# with the controller board
- One of the supported mbed or Arduino controller boards listed above
- One USB cable that is compatible with the selected controller board

Download, read, and carefully follow each step in the appropriate MAXREFDES117#quick Start



Resource

 $https://www.maximintegrated.com/en/design/reference-design-center/system-board/6300.html/tb_tab2$



MAXREFDES117# HEART-RATE AND PULSE-OXIMETRY MONITOR *1

Technical Details

Dimensions
Downloaded from Arrow.com.

60mm x 100mm x 7.7mm

Weight	G.W 3.5g
Battery	Exclude
Reviews	

	nent I haven't tested the SPO2 capabilities (the sample algorithm is he heart beat in both signals, red and infrared, even in other places is excellent.
April 18,2017 by *****.salvi.work@gmail.com	Was this review helpful? 🖒 0

	e sense that the sensor was not Grove Shield ready. Needed to buy a rts to get going. Also, had to brush up my soldering skills that were
anuary 05,2017 by *****s@gmail.com	Was this review helpful ? 🆒 0
Seeed Customer Service:	
Thanks for your comment	

October 06,2017 by piro	Was this review helpful ?

September 04,2017 by Anonymous User	Was this review helpful ? 🧴 0

August 23,2017 by *****1.1@gmail.com	Was this review helpful ? 🖒 0
Questions and Answers	
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EVA carrying case for 3G C	e sumplers Desordering wick 300K Pixel USB 2.0 Mini W

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