

## Heart Rate 2 Click



PID: MIKROE-4037

**Heart Rate 2 Click** is an add-on board based on [MAXM86161](#) from [Analog Devices](#) a complete, integrated, optical data acquisition system, ideal for optical pulse oximetry and heart-rate detection applications. The optical readout has a low-noise signal conditioning analog front-end (AFE), including 19-bit ADC, an industry-lead ambient light cancellation (ALC) circuit, and a picket fence detect and replace algorithm. It also includes high-resolution optical readout signal processing channels with robust ambient light cancellation and high-current LED driver DACs to form a complete optical readout signal chain.

Heart Rate 2 Click board™ is supported by a mikroSDK compliant library, which includes functions that simplify software development. This Click board™ comes as a fully tested product, ready to be used on a system equipped with the mikroBUS™ socket.

Mikroe produces entire development toolchains for all major microcontroller architectures.

Committed to excellency, we are dedicated to helping engineers bring the project development up to speed and achieve outstanding results.



ISO 27001: 2013 certification of informational security management system.  
 ISO 14001: 2015 certification of environmental management system.  
 OHSAS 18001: 2008 certification of occupational health and safety management system.



ISO 9001: 2015 certification of quality management system (QMS).

## Specifications

Type	Biometrics,Heart Rate
Applications	Ideal solution for the development of various wearable health-related devices, Optimized for In-Ear Applications, Miniature Package for Mobile Applications
On-board modules	MAXM8616 - Single-Supply Integrated Optical Module for HR and SpO2 Measurement
Key Features	Complete Single-Channel Optical Data Acquisition System, Built-In Algorithm Further Enhances Rejection of Fast Ambient Transients, Optimized Architecture for Reflective Heart Rate and SpO2 Monitoring...
Interface	I2C
ClickID	No
Compatibility	mikroBUS
Click board size	S (28.6 x 25.4 mm)
Input Voltage	3.3V,5V

## Resources

[mikroBUS™](#)

[mikroSDK](#)

[Click board™ Catalog](#)

[Click Boards™](#)

## Downloads

[Heart Rate 2 click example on Libstock](#)

[Heart Rate 2 click 2D and 3D files](#)

[MAXM86161 datasheet](#)

[Heart Rate 2 click schematic](#)

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