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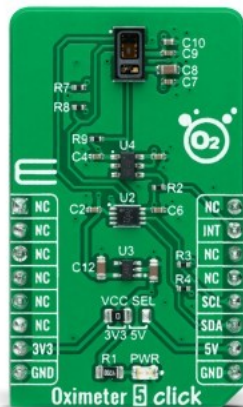www.mikroe.com

Oximeter 5 Click

PID: MIKROE-4986

Oximeter 5 Click is a compact add-on board suitable for measuring blood oxygen saturation. This board features the MAX30102, integrated pulse oximetry, and heart-rate monitor module from Analog Devices. The MAX30102 includes internal LEDs, photodetectors, optical elements, and low-noise electronics with ambient light rejection. It operates on a single 1.8V power supply acquired from both mikroBUS™ power rails for the internal LEDs, communicating through a standard I2C compatible interface. The MAX30102 can be shut down through software with zero standby current, allowing the power rails to remain powered at all times. This Click board™ makes it an excellent choice for optical pulse oximetry and health monitoring applications.

Oximeter 5 Click 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.

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Specifications

Type	Biometrics
Applications	Can be used for optical pulse oximetry and health monitoring applications
On-board modules	MAX30102 - high-sensitivity pulse oximeter and heart-rate sensor from Maxim Integrated, now part of Analog Devices
Key Features	Integrated optical components, fully integrated ADC, LED drivers, and timing core, low power consumption, fast data output capability, designed for ultralow direct optical reflections, and more
Interface	I2C
ClickID	No
Compatibility	mikroBUS
Click board size	M (42.9 x 25.4 mm)
Input Voltage	3.3V or 5V

Resources

mikroBUS™

mikroSDK

Click board™ Catalog

Click Boards™

Downloads

MAX30102 datasheet

SN74LVC1T45 datasheet

PCA9306 datasheet

MAX8511 datasheet

Oximeter 5 click schematic

Oximeter 5 click 2D and 3D files

Oximeter 5 click example on Libstock