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Oximeter 2 Click

PID: MIKROE-4292

Oximeter 2 Click is a compact add-on board suitable for measuring blood oxygen saturation. This board features the ADPD144RI, a PPG optical sensor for photoplethysmography detection of blood oxygenation from Analog Devices. It combines LED emitters and sensitive 4-channel photodiodes with a custom ASIC that provides optical isolation between the integrated LED emitters and the detection photodiodes to improve the signal-to-noise ratio (SNR). PPG detection of blood oxygenation is achieved by synchronous detection in red and infrared wavelengths. Synchronous measurement allows rejection of both DC and AC ambient light interference with low power consumption. This Click board™ makes it an excellent choice for applications such as optical pulse oximetry and health monitoring.

Oximeter 2 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 applications such as optical pulse oximetry and health monitoring.
On-board modules	ADPD144RI - highly integrated photometric front end optimized for photoplethysmography (PPG) detection of blood oxygenation from Analog Devices ADP160 - ultralow quiescent current linear regulator from Analog Devices
Key Features	Integrated optical components, fully integrated AFE, ADC, LED drivers, and timing core, low power consumption, designed for ultralow direct optical reflections, and more.
Interface	I2C
ClickID	No
Compatibility	mikroBUS
Click board size	S (28.6 x 25.4 mm)
Input Voltage	3.3V

Resources

mikroBUS™

mikroSDK

Click board™ Catalog

Click boards™

Downloads

Oximeter 2 click 2D and 3D files

Oximeter 2 click schematic

ADPD144RI datasheet

ADP160 datasheet

Oximeter 2 click example on Libstock