

MAX30100

Pulse Oximeter and Heart-Rate Sensor IC for Wearable Health

Fully Integrated Solution Provides Smallest and Lowest Power Solution

 NDA Required. Request Full Data Sheet

OVERVIEW

Description

The MAX30100 is an integrated pulse oximetry and heartrate monitor sensor solution. It combines two LEDs, a photodetector, optimized optics, and low-noise analog signal processing to detect pulse oximetry and heart-rate signals.

The MAX30100 operates from 1.8V and 3.3V power supplies and can be powered down through software with negligible standby current, permitting the power supply to remain connected at all times.

Key Features

- Complete Pulse Oximeter and Heart-Rate Sensor Solution Simplifies Design
 - Integrated LEDs, Photo Sensor, and High-Performance Analog Front-End
 - Tiny 5.6mm x 2.8mm x 1.2mm 14-Pin Optically Enhanced System-in-Package

- Ultra-Low-Power Operation Increases Battery Life for Wearable Devices
 - Programmable Sample Rate and LED Current for Power Savings
 - Ultra-Low Shutdown Current (0.7 μ A, typ)
- Advanced Functionality Improves Measurement Performance
 - High SNR Provides Robust Motion Artifact Resilience
 - Integrated Ambient Light Cancellation
 - High Sample Rate Capability
 - Fast Data Output Capability