

MAXIM Optical Communication Products



Overview

Maxim Featured products | Maxim Integrated Distributor Maxim Integrated Authorized Distributor | NHE is dedicated to providing first-quality, genuine Maxim.

Key Takeaways

Maxim Integrated offers advanced optical biosensing solutions for wearable and health-monitoring applications, while optical communication products for telecom and datacom networks are provided by specialized photonic companies like Coherent.

Maxim Integrated Optical Products

Maxim Integrated specializes in highly-integrated optical biosensing systems designed for wearable devices and health monitoring. Key products include:
MAXM86146: A compact optical data acquisition system combining a low-power microcontroller, dual high-sensitivity photodiodes, and optical analog front end (AFE). It supports pulse heart rate (HR) and blood oxygen saturation (SpO₂) measurements, with embedded algorithms that optimize signal-to-noise ratio (SNR) and minimize power consumption.

The device operates on a 1.8V supply, features ambient light cancellation, and is packaged in a 4.5mm x 4.

1mm x 0.88mm, 38-pin OLGA package suitable for wearable applications.

MAX32664: A low-power biometric sensor hub that integrates Maxim's physiological measurement algorithms.

It can measure HR, HR variability, SpO₂, sleep, and stress, providing processed data to reduce the load on the host microcontroller. The hub supports multiple body locations (wrist, fingertip, forehead) and ensures high-quality data with low power consumption. These products are primarily used in healthcare wearables, fitness trackers, and medical monitoring devices, leveraging photoplethysmography (PPG) technology for accurate physiological measurements.

Optical Communication Products

For telecom and datacom networks, optical communication products focus on high-speed data transmission and network reliability. Key features include: High-speed transceivers and modules capable of 100 Gbps and beyond, suitable for data centers, metro, access, and long-haul networks. Low power consumption, small form factors, and high port density, enabling efficient deployment in high-performance network architectures.

Advanced photonic components such as lasers, optical monitoring modules, and passive optics, often based on arsenide and indium phosphide technologies. WaveShaper® and WaveAnalyzer™ families for precise optical signal control and high-resolution analysis, supporting network optimization and R&D applications. These products are designed to minimize jitter, electromagnetic interference (EMI), and latency, ensuring reliable performance in mission-critical networks, including 5G optical access and cloud data centers.

Summary

Maxim Integrated: Focuses on wearable optical biosensing, integrating sensors, microcontrollers, and algorithms for health monitoring. Optical communication products (e.g., Coherent): Focus on high-speed data transmission, network modules, and photonic components for telecom and datacom applications. Maxim's optical products are health-focused, while optical communication products are network-focused, each optimized for their respective applications.

Article Content

Maxim Featured products | Maxim Integrated Distributor

Maxim Integrated Authorized Distributor | NHE is dedicated to providing first-quality, genuine Maxim (ADI) components.

MAXM86146 Datasheet and Product Info | Analog Devices

The MAXM86146 is the world's smallest highly-integrated, optical data acquisition system. It combines Maxim's best-in-class optical biosensing analog front end (AFE) with powerful Arm®

Maxim Instruments Corporation

Featured Products AE Techron 7224 Audio Bandwidth Power Amplifier DC – 300 kHz
1100W Solar 8282-1 Transient Pulse Generator EM TEST DITO ESD Simulator 16.5kV
as per EN/IEC 61000-4-2

Maxim Integrated is Now Part of Analog Devices

Our collective expertise in areas like automotive, connected factory, electrification, and digital healthcare will help make “what if” become “what is.”

Maxim Integrated

Maxim's product portfolio included power and battery management ICs, sensors, analog ICs, interface ICs, communications solutions, digital ICs, embedded security, and microcontrollers.

MAXIM all products | Xecor

Shop MAXIM components at Xecor. We offer a vast selection of original, manufacturer-new parts with direct sourcing from the manufacturer. A 365-day quality assurance guarantee backs every product.

OPTICAL COMMUNICATIONS PRODUCTS

Coherent enables Co Packaged Optics with lasers, detectors, silicon photonics engines, passive optics, drivers/TIAs, fiber arrays, polarization maintaining fibers, and thermal solutions supporting today's

Your electronics distributor

With approximately 35,000 articles and numerous product variants we offer one of Europe's most extensive ranges. Due to the close partnership with leading manufacturers, we have a broad and

Maxim Integrated Electronic Components

In 1983 Maxim Integrated was founded and began manufacturing high-performance analog and mixed-signal products and technologies that make systems smaller and smarter, with enhanced security

MAX30101 Pulse Oximeter & Heart-Rate Sensor

This Analog Devices device includes internal LEDs, photodetectors, optical elements, and low-noise electronics with ambient light rejection. The MAX30101 provides a complete system

Analog Devices / Maxim Integrated Distributor

Analog Devices / Maxim Integrated, provides ease of design, and speeds time to market, through analog integration. The company's analog ICs offer extra features and functionality carefully designed to

MAXIM | Electronic Components Distributor | LCSC

Count on Maxim Integrated to help you overcome design and architectural challenges, with integrated solutions for the industrial, medical, consumer, automotive, energy, computing, and communications

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

Data Sheets

Data SheetsA complete reference document for any product.Optical Communications Source Lasers and Photodiodes APDs DMLs

Maxim Acquires Phyworks, a Leading Supplier of Optical Transceiver ...

Maxim and Phyworks combined will have market share leadership for transceiver chips for optical modules. Phyworks' know-how opens up additional high-speed signal integrity product opportunities ...

Corning Optical Communications | Fiber Optic

Data Center Corning's fiber optic structured cabling solutions create the data center of tomorrow through reliability, manageability, scalability, and flexibility. Corning

MAXIM APPLICATION NOTE

1 Background In digital communications, binary encoded information (a sequence of 1's and 0's) is sent from a transmitter to one or more receivers. The transmission medium between the transmitter and

Wearable Optical Measurement Solution Based on the

The MAX32664 is a part of the Maxim Integrated human physiological index measurement solution, with embedded firmware and

Contact Us

Continue your research online:

Website: <https://metramarket.es>

Technical inquiry: <https://metramarket.es/contact.html>

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

