



Vishay Intertechnology Short Distance Proximity Sensor Offers Idle Current Down to 5 μ A and 14-Bit Resolution in Compact Package

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Featuring a VCSEL and Smart Dual I²C Slave Address, Space-Saving Device Is Ideal for Battery-Powered Consumer Applications, Including TWS Earphones and VR / AR Headsets

MALVERN, Pa., Aug. 18, 2026 (GLOBE NEWSWIRE) -- The Optoelectronics group of Vishay Intertechnology, Inc. (NYSE: VSH) today introduced a new fully integrated short distance proximity sensor designed to increase efficiency, design flexibility, and performance in consumer applications. Featuring a vertical-cavity surface-emitting laser (VCSEL), the Vishay Semiconductors [VCNL36829UM](#) combines a photodiode, application-specific integrated circuit (ASIC), 16-bit ADC, and smart dual I²C slave address in a compact 1.6 mm x 1.0 mm x 0.35 mm transparent mold package with an isolation wall design.

Compared to previous-generation solutions, the proximity sensor released today offers a 44 % smaller volume, higher proximity resolution of 14 bits, and stronger sunlight immunity up to 200 klx. Combined with a range of 50 mm, low idle current of 5 μ A, and a typical rated supply voltage of 1.8 V, the VCNL36829UM delivers superior proximity detection while reducing power consumption to increase efficiency in space-constrained, battery-powered applications.

The sensor is designed to detect if users are wearing or not wearing smart wearable devices, including true wireless stereo (TWS) earphones, virtual reality / augmented reality (VR / AR) headsets, and smart glasses. It is also suitable for touchless dispensing and lid-off detection in consumer appliances. To lower costs in these applications, the device's smart dual I²C slave address allows for the connection of two proximity sensors without the need for a multiplexer.

The VCNL36829UM offers a programmable interrupt function that allows designers to specify high and low thresholds, reducing continuous communication with the microcontroller and lowering system power consumption. The sensor's isolation wall design delivers excellent crosstalk immunity. The device uses intelligent cancellation to further reduce crosstalk, while a smart persistence scheme ensures accurate sensing and faster response time. The VCSEL wavelength peaks at 940 nm and has no visible "red-tail." The sensor is RoHS-compliant, halogen-free, and Vishay Green.

Device Specification Table:

Part number	VCNL36829UM
Function	PS + VCSEL
Package size (mm)	1.6 x 1.0 x 0.35
Supply voltage (V)	1.65 to 2.0
I ² C bus voltage (V)	1.08 to 3.6
Max. VCSEL driving current (mA)	18
Operating range (mm)	50
Supply current, idle state (μ A)	5

Samples and production quantities of the VCNL36829UM are available now, with lead times of 15 weeks.

Vishay manufactures one of the world's largest portfolios of discrete semiconductors and passive electronic components that are essential to innovative designs in the automotive, industrial, computing, consumer, telecommunications, military, aerospace, and medical markets. Serving customers worldwide, Vishay is **The DNA of tech.**[®] Vishay Intertechnology, Inc. is a Fortune 1000 Company listed on the NYSE (VSH). More on Vishay at www.Vishay.com.

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Links to product datasheets:

<http://www.vishay.com/ppg280580> (VCNL36829UM)

Link to product photo:

<https://www.flickr.com/photos/vishay/albums/72177720335099758>

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