



Finisar Demonstrates VCSEL and Diffractive Optics Technology for 3D Sensing Applications at Sensors Expo 2018

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Coherent Optical Engine for LiDAR Applications also on Display

SUNNYVALE, Calif., June 25, 2018 (GLOBE NEWSWIRE) -- Finisar (NASDAQ:FNSR), a world leader in optical communication modules and 3D Sensing VCSEL (Vertical Cavity Surface Emitting Laser) technology, today announced its participation at Sensors Expo with several demonstrations and product displays. Finisar will demonstrate VCSEL arrays and Diffractive Optics Technology used in a wide range of 3D depth-sensing and Infrared (IR) Imaging applications, such as 3D facial recognition in consumer mobile devices. Finisar will also have samples of a highly integrated 1550nm coherent transmitter and receiver module for next-generation LiDAR applications. See these market-leading products and demonstrations in Finisar's booth #1330 at the San Jose McEnery Convention Center on June 27th and 28th.

VCSEL Technology Demonstration

Finisar will have a live demonstration of IR Illumination for 3D sensing using VCSELs and Diffractive Optics technology. The demonstration will show IR light-field measurements made in real-time for 3D Time-of-Flight (ToF) and 2D IR Imaging applications. VCSEL technology brings several exciting advantages including high output power, high uniformity across an extended source area, stable wavelength across temperature, and high reliability, which are important for both IR Illumination and stringent automotive applications. Finisar's VCSEL expertise stems from over two decades of research, design, and manufacturing innovation.

"VCSEL technology is now being deployed in a wide range of exciting applications from biometric authentication, to 3D mapping for augmented reality, to automotive LiDAR. We're excited to be at the forefront of this technology in both R&D and manufacturing," said Craig Thompson, Vice President of Marketing and Business Development for 3D Sensing at Finisar.

Diffractive Lenses and Beam Converters Demonstration

Finisar will also demonstrate all-dielectric diffractive lenses and beam converters which use a proven Deep UltraViolet (DUV) photolithography patterning process. These products have several applications including aberration corrected microlenses, top hat generators, phase converters, and computer-generated holograms. The diffractive elements are etched directly into a substrate and contain no organic materials, which allows them to withstand high optical power and extreme temperatures up to 550 °C.

LiDAR Coherent Optical Engine Display

Finisar will showcase a LiDAR coherent optical engine that is designed to enable long-distance resolution up to 300 meters for applications such as autonomous driving vision systems. The small package integrates a wavelength-tunable laser, a transmitter phase modulator, and a coherent receiver. The laser can be tuned across 4 THz, allowing solid state beam steering to replace less reliable rotating mirrors and microelectromechanical systems (MEMS). The phase modulator and coherent detection enable the distance and velocity of an object to be determined from a single scan using the Doppler effect.

During Sensors Expo, Finisar will also display several partner reference designs leveraging VCSEL technology.

About Finisar

Finisar Corporation (NASDAQ:FNSR) is a global technology leader in optical communications, providing components and subsystems to networking equipment manufacturers, data center operators, telecom service providers, consumer electronics and automotive companies. Founded in 1988, Finisar designs products that meet the increasing demands for network bandwidth, data storage and 3D sensing subsystems. The company is headquartered in Sunnyvale, California, USA with R&D, manufacturing sites, and sales offices worldwide. Visit our website at www.finisar.com.

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Press contact:
Victoria McDonald
Director, Corporate Communications
press@finisar.com



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