NEWS RELEASE

# Lumentum Announces Breakthrough High-Performance Multi-Junction Addressable VCSEL Arrays for Long-Range LiDAR Applications

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SAN JOSE, Calif., Nov. 16, 2021 /PRNewswire/ -- Lumentum Holdings Inc. ("Lumentum"), a leading provider of vertical-cavity surface-emitting laser (VCSEL) arrays for 3D sensing and light detection and ranging (LiDAR) applications, today announced it has expanded its multi-junction VCSEL-based offerings to include new, breakthrough high-performance 1D and 2D addressable arrays for advanced automotive, consumer, and industrial LiDAR and 3D sensing applications.

VCSEL arrays have become the preferred laser illumination source for short-range 3D sensing applications such as biometric security and world-facing LiDAR in consumer mobile devices due to their proven reliability and ability to be manufactured at scale. Lumentum's multi-junction VCSEL arrays are an innovative solution to delivering the significantly higher peak optical power densities and efficiencies required for longer-range applications by decreasing the electrical current needed and simplifying electrical driver and package design. The addition of array addressability to Lumentum's leading-edge VCSEL arrays enables a more compact, reliable, robust, and fully solid-state LiDAR solution with no moving parts.

"We're excited to build on our industry-leading multi-junction VCSEL technology with this breakthrough and bring addressable array illumination sources to longer-range depth-sensing applications like LiDAR," said Matt Everett, Product Line Director of 3D Sensing at Lumentum. "On-chip array addressability can eliminate the need for mechanical beam scanning, which opens a new world of possibilities for autonomous vehicles and emerging 3D sensing systems and will help accelerate LiDAR adoption across a wide range of customer applications."

**About the Product**

Lumentum's high-power multi-junction addressable VCSEL arrays emit at 905 nm and 940 nm and are built upon the manufacturing foundation developed over the past several years of high-volume VCSEL array shipments serving the consumer electronics market. The higher peak power, addressability, thermal stability, and narrow wavelength range of these sources open new potential for all-solid-state short-, medium- and long-range LiDAR systems.

Lumentum high-performance multi-junction addressable VCSEL array products are expected to be available starting in calendar Q4 of 2022. For more information, contact customer.service@lumentum.com.

**About Lumentum**

Lumentum (NASDAQ: LITE) is a market-leading designer and manufacturer of innovative optical and photonic products enabling optical networking and laser applications worldwide. Lumentum optical components and subsystems are part of virtually every type of telecom, enterprise, and data center network. Lumentum lasers enable advanced manufacturing techniques and diverse applications including next-generation 3D sensing capabilities. Lumentum is headquartered in San Jose, California with R&D, manufacturing, and sales offices worldwide. For more information, visit www.lumentum.com.

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