NEWS RELEASE

Lumotive and Lumentum Introduce Innovative Reference Design to Enable Faster Adoption of Next-Generation 3D LiDAR Solutions

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Lumotive's LCM™ Beam Steering Chip Seamlessly Integrated with Lumentum's M52-100 Multi-junction VCSEL Array to be Demonstrated at SPIE Photonics West, 2023
SEATTLE and SAN JOSE, Calif., Jan. 30, 2023 (GLOBE NEWSWIRE) -- Lumotive, the developer of Light Control Metasurface (LCM™) beam steering chips enabling the next generation of 3D sensors, and Lumentum Holdings Inc. ("Lumentum"), a market-leading designer and manufacturer of innovative optical and photonic products, today jointly announced the availability of the M30 Reference Design, a complete software-defined sensor implementation to enable rapid adoption of LCM-based solid-state beam steering technology.

The M30 Reference Design integrates Lumotive's LCM™ beam steering chip with Lumentum's M52-100 multi-junction VCSEL array.

The M30 Reference Design, which includes Lumotive's LCM beam steering chip and Lumentum's M52-100 multi-junction vertical cavity surface emitting laser (VCSEL) array, is available now for evaluation by select customers. Lumotive will showcase the advanced features of LCM beam steering technology at SPIE Photonics West, the premier event for optical systems designers, taking place in San Francisco from January 28th to February 2nd.

"Lumentum's high-performance, multi-junction VCSEL arrays have unique and powerful advantages such as increased energy efficiency and scanning accuracy, critical for all-electronic, 3D LiDAR sensor solutions," said Rakinder Grover, Vice President of Strategy and Partnerships at Lumotive. "The M30 reference design seamlessly integrates Lumentum's M52-100 VCSEL array technology with Lumotive's transformative beam steering chips. The result is a software-definable, immediately deployable LiDAR sensor solution that addresses both the low power and small footprint requirements of short to long-range mobility and industrial applications."

Unlike traditional flash illumination solutions, LiDAR sensors based on LCM electronic beam steering

have numerous advantages, including:

- Superior outdoor range performance
- Software-defined scan modes for increased and application-specific performance (range, field of view, frame rate, resolution) only where it matters
- Reduced multipath effects, resulting in better point cloud quality
- Optimization of illumination across the field of view in high ambient light levels and for varying levels of reflectivity
- Significantly improved interference mitigation from other sensors
- High power density in a small form factor

“Combined with Lumentum’s high performance, multi-junction VCSEL technology, the LCM beam steering technology from Lumotive allows customers to implement true solid-state, VCSEL-based LiDAR with software-definable characteristics in a compact package,” said Matt Everett, Senior Director of Product Line Managment at Lumentum's Imaging and Sensing Business Unit. “The M30 Reference Design provides outstanding performance and the ability to dynamically adjust the field-of-view (FoV) and region of interest, giving customers the turnkey solution they need to realize their LiDAR vision of the future.”

Early versions of the M30 Reference Design are currently being evaluated by several leading LiDAR systems developers, Tier 1 automotive suppliers, and industrial OEMs. The M30 Reference Design with enhanced performance and optimized for volume manufacturing is expected to be available by mid-2023. The solution will be demonstrated during the exhibition portion of SPIE Photonics West 2023, the world’s premier lasers, biomedical optics, and optoelectronics event, held in San Francisco.

For additional information or to request a demonstration, contact either Lumotive or Lumentum.

About Lumotive

Lumotive’s award-winning optical semiconductor solutions enable advanced sensing and perception capabilities in next-generation consumer, mobility, and industrial automation products such as mobile devices, autonomous vehicles, and robots. The company’s patented Light Control Metasurface (LCM™) beam steering chips deliver an unparalleled combination of high performance, exceptional reliability, and low cost — all in a tiny, easily integrated solution. Lumotive has received measurable industry acclaim including Fierce Electronics’ 2021 Startup of the Year award, two CES 2022 Innovation Awards, a 2022 SPIE PRISM Award, and a prestigious Edison Award. Investors include Gates Frontier, MetaVC Partners, Quan Funds, Samsung Ventures, Uniquest, and USAA.

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 and follow Lumentum on LinkedIn, Twitter, Facebook, Instagram, and YouTube.

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A photo accompanying this announcement is available at https://www.globenewswire.com/NewsRoom/AttachmentNg/b981ec7f-cfbe-40ac-b060-74b55dc74921.

Lumotive M30 Reference Design

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Source: Lumotive