NEWS RELEASE

Lumentum to Demonstrate and Preview Innovations at OFC 2022

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Lumentum's advanced solutions and technology showcased, including in live 400G coherent transmission and co-packaged optics demonstrations
SAN JOSE and SAN DIEGO, Calif., March 7, 2022 /PRNewswire/ -- Lumentum Holdings Inc. ("Lumentum"), a market-leading designer and manufacturer of innovative optical and photonic products, will participate in partner demonstrations and highlight its comprehensive portfolio of future-ready solutions at the Optical Fiber Communication Conference (OFC) 2022 in San Diego from March 8 - 10, 2022 at the Lumentum booth #3415 and partner booths.

400G Coherent Transmission Demonstrations

Lumentum will demonstrate its flex-coherent 400G CFP2-DCO modules that enable next-generation optical transport networks and data center interconnects with NTT Network Innovation Laboratories at booth #5041 and Telecom Infra Project (TIP) at booth #3629.

NTT will demonstrate live 400 Gbps coherent transmission using a C+L-band line system that will incorporate Lumentum's pluggable 400G CFP2-DCO modules, a cost-efficient solution to the ever-increasing demand for capacity.

Additionally, TIP will demonstrate reliable optical communication links in next-generation networks using Lumentum's 400G CFP2-DCO modules in a 400 Gbps OpenROADM interoperability demonstration.

Demonstration of High-Power Lasers for Co-Packaged Optics

In the Optical Internetworking Forum (OIF) booth #5101, Lumentum will showcase its ground-breaking 1310 nm distributed feedback laser technology with a high-power continuous-wave (CW) prototype, operating at 200 mW optical power, enabling OIF's multi-vendor, co-packaged optics demonstration.

Continued Leadership in Direct Detect Tunable Transceivers

- **New 25G T-SFP28 Tunable Transceivers**: Emerging applications, such as 5G wireless fronthaul,

require high-performance tunable transceiver technology at 25GB/s. Lumentum is well-positioned to address this market with its latest 25G T-SFP28 product, now available to sample. Lumentum's T-SFP28 incorporates SmartTunable technology to simplify field deployment tasks and leverages our substantial installed manufacturing capacity to meet the anticipated rapid growth from 5G applications.

- **Industry-First SmartTunable Multi-Source Agreement (MSA)**: Lumentum has formed the SmartTunable MSA with other industry suppliers to enable standardization and interoperability between multiple vendors. The Smart Tunable MSA will be released in the coming weeks and will accelerate the adoption of direct detect tunable transceivers. To learn more, visit https://smarttunable-msa.org/.

- **Secure High-Volume Manufacturing Capacity**: Lumentum has established and qualified high-volume T-SFP+ manufacturing capabilities in multiple geographically diverse locations, addressing customers' needs for supply security. To meet the needs of new, rapidly growing applications for direct detect tunable transceivers, including fiber deep and 5G wireless fronthaul architectures, Lumentum is continuing to add additional production capacity in its multiple manufacturing locations.

Innovative Transport Solutions Enable High Performance and Capacity

- **16x26 TrueFlex ® Contentionless Wavelength Selective Switch (WSS)**: Building on the success of Lumentum's 8x26 WSS solution enabling next-generation scalable network architectures, the 16x26 contentionless WSS leverages further innovations in switching technologies and manufacturing automation to deliver the same performance and form factor as its predecessor but is now optimized for even larger 16-degree nodes. Samples are committed to lead customers and the product will be in mass production in early 2023, supporting C, L, and extended-C band wavelength plans.

- **Enhanced High-Port-Count TrueFlex Twin WSS Platforms**: In its third generation, the Twin WSS platforms feature greater performance and improvements related to core technology, manufacturing processes, and supply chain robustness to cost-effectively scale manufacturing. The platforms support multiple port configurations ranging from Twin 1x9 up to Twin 1x35 and spectral bands of 5Thz (C, L), 6Thz (extended C, extended L) up to 10Thz (integrated C+L) while delivering a uniformly high standard of performance. By maintaining form-factor compatibility with current products, the latest platforms assure existing customers a seamless migration path to refresh and revitalize customer systems' over their lifecycle for the next decade.

- **ROADM Node-on-a-Blade**: To further pave the way for significant cost and space savings in next-generation networking equipment, Lumentum has developed an innovative ROADM node-on-a-blade by integrating optical switching, amplification, and monitoring functionality from across multiple degrees onto a single linecard. This disruptive step in the physical partitioning of ROADM nodes is supported by reliability data gathered from billions of hours of field operation of the discrete components. Commercial deployment of the first customer specific ROADM node-on-a-blade designs will occur in 2022 with additional custom designs of increasing complexity to follow.

Enhanced High-Performance Datacom Laser Chips at Higher Volumes

- **100G and 200G PAM4 Externally-Modulated Lasers (EMLs)**: To enable next-generation hyperscale data centers to scale to higher speeds and network capacity, Lumentum is significantly expanding its manufacturing capacity for its latest high-performance 100G and 200G EML chips. Lumentum's EML chips allow customers to deliver high-speed modules at high volume while maintaining high-quality link performance at a low cost and power per bit. Samples of

Lumentum's 200G EMLs are available today.

- **100G PAM4 Directly-Modulated Lasers (DMLs)**: For demanding and cost-sensitive applications, Lumentum has optimized its DMLs for 400G DR4/FR4 and 800G DR8/PSM8, improving bandwidth by approximately 10% from previous generations. These compact chips deliver increased device count per wafer and lower complexity compared to EMLs, enabling cost-effective solutions to compete with silicon photonic (SiPh)-based transceivers. Beta samples are now available.

- **CW Lasers**: To enable SiPh-based transceivers for next-generation datacenter applications, Lumentum is sampling its uncooled and high-output power 75 mW CW laser. This laser leverages Lumentum's leading indium phosphide technology platform to integrate a semiconductor optical amplifier on chips, achieving the needed high-output power at high-temperature to cover 4x100G lanes with a single CW laser.

- **Vertical-Cavity Surface-Emitting Lasers (VCSELs)**: Lumentum 850 nm VCSELs for 25G NRZ per lane and 50G PAM4 per lane applications are in volume production today with high-production capacity and cost for high-volume transceiver applications. In addition, Lumentum's 940 nm VCSELs and indium gallium arsenide photodiode pairs enable low-cost, high-performance active optical cable applications. Lumentum's 50G VCSELs are available to support 800G-SR4.2 transceivers. Samples for all four SWDM4 wavelengths of Lumentum's VCSELs are also available.

To request samples or learn more about Lumentum's solutions and technology, contact a representative at 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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