NEWS RELEASE

Lumentum, Qualcomm, and Corning to Demonstrate High-Density 1060 nm VCSEL Optical D2D Connectivity for AI Scale-Up at ECOC 2026

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Joint demonstration showcases a massively parallel optical die-to-die architecture designed to extend high-bandwidth, low-power, low-latency connectivity over multimode fiber

MALAGA, Spain--(BUSINESS WIRE)-- Lumentum Holdings Inc. (“Lumentum”) today announced plans for a joint demonstration together with Qualcomm Technologies, Inc. and Corning Incorporated (NYSE: GLW) of a high-density die-to-die (D2D) optical interconnect showcase for AI scale-up architectures at ECOC 2026. The board-level demonstration will combine a D2D interface IP subsystem from Qualcomm Technologies with Lumentum’s VCSEL-based optical interconnect platform and Corning multimode fiber connectivity. Attendees can see the demonstration at Lumentum stand #2050 and at Qualcomm Technologies’ stand #1050 / MB28 during ECOC 2026 in Málaga, Spain.

The demonstration will showcase a massively parallel optical D2D architecture designed for future co-packaged optics (CPO) and near-packaged optics (NPO) implementations supporting emerging D2D interfaces such as UCIe. By extending high-density D2D connectivity over optical links spanning tens of meters—while maintaining low latency and power consumption—the architecture enables highly scalable bandwidth density as AI systems drive interconnect requirements beyond the practical limits of today’s electrical connectivity.

Qualcomm Technologies’ D2D interface technology is designed to optimize power and area while enabling efficient direct-drive optical connectivity and preserving the benefits of high bandwidth density and low power. The proof-of-concept configuration being demonstrated uses optical channels operating at 32 Gb/s NRZ, to show how the massively parallel architecture can scale through higher channel counts and increasing per-lane data rates. The architecture is designed to support approximately 1 Tb/s/mm of shoreline bandwidth density today, with line of sight to approximately 4 Tb/s/mm through higher lane rates and increased channel density.

The optical interconnect leverages Lumentum’s optical engine based on advanced-packaged 1060 nm VCSEL technology, with approximately 10 Tb/s of aggregate transmit and receive capacity and high-density two-dimensional VCSEL and photodetector arrays with backside lens technology. Built on Lumentum’s ultra-high-volume 3D sensing manufacturing base, the platform is designed to support

high shoreline bandwidth density, strong signal integrity, and energy-efficient optical connectivity for board-level and system-level AI scale-up architectures.

Corning's multimode fiber glass ferrules will provide the high-density fiber connectivity used in the demonstration, highlighting the importance of fiber density as optical links increasingly move closer to compute devices and advanced packaging environments.

"This demonstration shows how Lumentum's 1060 nm VCSEL platform can bring high-density optical connectivity closer to AI compute," said Matt Sysak, Chief Technology Officer, Lumentum. By combining advanced VCSEL packaging with Qualcomm Technologies' D2D interface technology and Corning's fiber connectivity, we are showing a practical path toward compact, energy-efficient optical D2D links for next-generation AI scale-up architectures."

"AI scale-up requires die-to-die connectivity that delivers high bandwidth density while minimizing latency, power, and area," said Tony Chan Carusone, SVP, Technology, Qualcomm Technologies, Inc. This collaboration shows how Qualcomm Technologies' D2D interface technology can extend those capabilities into optical links for future AI system architectures."

"As optical links move closer to compute devices, fiber connectivity must support increasing density, precision, and scalability," said Claude Echahamian, Vice President and General Manager, Emerging Businesses and EMEA, Corning Optical Communications. "Corning's multimode fiber solutions and industry-leading MMC connectivity help enable this demonstration and support the evolution of high-density optical interconnects for AI infrastructure."

About Lumentum

Lumentum (NASDAQ: LITE) is a global leader in optical and photonic technologies that power the networks and infrastructure behind AI, cloud computing, and next-generation communications. Built on decades of photonics innovation, Lumentum delivers high-performance lasers, modules, and optical subsystems that enable scalable, energy-efficient data center connectivity, advanced telecom networks, industrial manufacturing, and sensing applications. Headquartered in San Jose, California, the company operates R&D, manufacturing, and sales facilities worldwide. Learn more at www.lumentum.com.

About Qualcomm

Qualcomm is a global computing leader at the center of the AI era, enabling intelligence to scale from the most personal devices to large-scale infrastructure. Building on more than four decades of innovation, we develop platforms and solutions that bring together advanced AI, high-performance, low-power computing and industry-leading connectivity—powering products and services used around the world. At Qualcomm, we are engineering human progress.

Qualcomm Incorporated includes our licensing business, QTL, and the vast majority of our patent portfolio. Qualcomm Technologies, Inc., a subsidiary of Qualcomm Incorporated, operates, along with its subsidiaries, substantially all of our engineering and research and development functions and substantially all of our products and services businesses, including our QCT semiconductor business. Snapdragon and Qualcomm branded products are products of Qualcomm Technologies, Inc. and/or its subsidiaries. Qualcomm patents are licensed by Qualcomm Incorporated. Qualcomm, Snapdragon, Qualcomm Dragonwing and Qualcomm Dragonfly are trademarks or registered trademarks of Qualcomm Incorporated.

About Corning Incorporated

Corning (www.corning.com) is one of the world's leading innovators in materials science, with a 175-year track record of life-changing inventions. Corning applies its unparalleled expertise in glass science, ceramic science, and optical physics, along with its deep manufacturing and engineering capabilities to develop category-defining products that transform industries and enhance people's lives. Corning succeeds through sustained investment in RD&E, a unique combination of material and process innovation, and deep, trust-based relationships with customers who are global leaders in their industries. Corning's capabilities are versatile and synergistic, which allows the company to evolve to meet changing market needs, while also helping its customers capture new opportunities in dynamic industries. Today, Corning's markets include optical communications, mobile consumer electronics, display, automotive, solar, semiconductors, and life sciences.

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