Lightmatter Joins NVIDIA NVLink Fusion and Powers Next-Generation AI Infrastructure with Photonic Interconnects

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TAIPEI, Taiwan — June 3, 2026 — Lightmatter, the leader in photonic (super)computing, today announced it has joined the NVIDIA NVLink Fusion ecosystem to accelerate the deployment of high-performance optical connectivity for AI infrastructure. Through this collaboration, Lightmatter will deliver Co-Packaged Optics (CPO) and Near-Packaged Optics (NPO) products that are compatible with NVIDIA's optical and SerDes technologies.

By adapting Lightmatter's bi-directional optical link architecture for NVIDIA's optical and electrical technology, Lightmatter is creating a unified platform for semi-custom AI factories while reducing fiber and connector requirements by 50%. This approach enables customers' semi-custom XPUs to connect with NVIDIA switch silicon through Lightmatter's CPO and NPO products, creating seamless high-bandwidth connectivity for chips from various suppliers within the NVLink Fusion ecosystem.

"This is what the next era of AI infrastructure looks like," said Nick Harris, Ph.D., founder and CEO of Lightmatter. "By integrating Passage CPO solutions with NVIDIA's NVLink Fusion architecture, we are combining the industry's most advanced AI platform and the world's leading interconnect to unleash generations of leading frontier AI models."

"AI is being fused into every computing platform, requiring fundamentally re-architected data centers," said Ashish Karandikar, Vice President of Engineering, NVIDIA. "Integrating Lightmatter's advanced photonic engines into the NVLink Fusion ecosystem provides our partners and hyperscale customers with more choice and flexibility to build specialized, energy-efficient AI infrastructure at unprecedented scale."

"The addition of Lightmatter to the NVLink Fusion ecosystem marks a critical milestone in the maturation of co-packaged optics," said Alan Weckel, Co-Founder and Analyst of 650 Group. "By making its Passage 3D photonic roadmap compatible with NVIDIA's high-speed interconnect, Lightmatter is significantly expanding the addressable market for its CPO products. This partnership provides a validated blueprint for hyperscalers to overcome traditional I/O bottlenecks and scale AI clusters to the levels required for next-generation intelligence."

By joining the NVLink Fusion ecosystem, Lightmatter will be delivering maximum bandwidth and efficiency to mutual customers through its industry-leading photonic interconnect roadmap, including Passage® CPO and NPO.

About Lightmatter

Lightmatter® is leading a revolution in AI data center infrastructure, enabling the next giant leaps in human progress. The company's groundbreaking Passage® platform—the world's first 3D-stacked silicon photonics engine—and Guide®—the industry's first VLSP™ light engine—connect thousands to millions of processors. Designed to eliminate critical data bottlenecks, Lightmatter's technology delivers unprecedented bandwidth density and energy efficiency for the most advanced AI and high-performance computing workloads, fundamentally redefining the architecture of next-generation AI infrastructure. Visit www.lightmatter.co to learn more.

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