Lightelligence Wins Best of Show at Flash Memory Summit for Newly Launched Optical Interconnect Hardware

- *Award Recognizes First Optical Communications Hardware for PCIe and CXL Connectivity*
- *Photowave Recognized on Flash Memory Timeline for 2023*

SANTA CLARA, Calif., Aug. 10, 2023 (GLOBE NEWSWIRE) -- Lightelligence, the global leader in optical computing, today was awarded Flash Memory Summit's Best of Show in the Optical Interconnect category for its newly launched Photowave™, the first optical communications hardware designed for PCIe and Compute Express Link (CXL) connectivity.

"The award is a wonderful tribute to everyone at Lightelligence," comments Yichen Shen, founder and CEO of Lightelligence. "It underscores the importance of being able to scale-out memory and pool resources using CXL over optics is a critical need in the data center infrastructure space. We are proud that we made it possible to bring this innovation to the market and we look forward to helping improve the performance and efficiency of the infrastructure."

"Electronics are approaching physical limits in power, communication, and memory. As AI and Large Language Models continue to consume more compute, new approaches and technology are needed to continue to scale," says Jay Kramer, Chairman of the Awards Program and President of Network Storage Advisors Inc. "We are proud to recognize Lightelligence's Photowave product as the first optical communications hardware designed for Compute Express Link (CXL) connectivity for the compute infrastructure. This solution provides the ability to scale memory within or across racks, and to deliver the significant latency and energy efficiency advantages of silicon photonics."

Flash Memory Summit awards recognize innovative technology leaders in the industry in various market segments that are delivering products to solve critical problems faced by companies that are pushing the limits of data center and enterprise infrastructure.

Photowave, introduced earlier this week, provides a solution by interconnecting remote devices together using CXL over lower-latency optical connection, extending reach to enable memory and resource pooling at pod scales and beyond. This allows for scalable CXL fabrics in the composable data center.

Ron Swartzentruber, Director of Engineering for Lightelligence, delivered the presentation "Advantages of Optical CXL for Disaggregated Compute Architectures" where he introduced Photowave to the audience and unveiled the product specifications that enable disaggregation. "Photowave interconnects compute and memory resources at latencies under one nanosecond plus time of flight, permits sideband signals over optics, jitter reduction, SI cleanup, and x8, x4, and x2 bifurcation modes," remarks Swartzentruber.

The Photowave product line comes in various form factors, including a standard PCIe card, OCP 3.0 SFF card, and an active optical cable to achieve successful deployment of CXL-based infrastructure enhancements. They can be used in server platforms, CXL switches, memory and xPU appliances.

Lightelligence's Flash Memory Summit demonstrations highlighted the benefits of scalable memory expansion using Photowave CXL over optics technology to improve workload efficiency and throughput for Large Language Model OPT-66B, an AI model used for text summarization. Using two Photowave PCIe cards to connect an AMD Genoa server and Samsung Memory Expansion Module, CXL memory expansion over optics demonstrated a 2.4x throughput advantage compared to SSD/NVMe disk offloading with performance remaining constant.

Availability and Pricing
Photowave is now available for customer trials and deployments. Contact Lightelligence at info@lightelligence.ai for inquiries on pricing and availability.

About Lightelligence
Lightelligence is transforming cutting-edge photonic technology into groundbreaking solutions that offer exponential improvements in computing power and dramatically reduce energy consumption. As the global leader in the photonic computing industry, Lightelligence is to date the only company that has publicly demonstrated integrated silicon photonic computing systems working at speed. Founded in 2017, Lightelligence has approximately 200 employees worldwide and has raised more than $220 million in funding.

Engage with Lightelligence:
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Attachments:

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  Accepting the Flash Memory Best of Show Award for Lightelligence are (from left to right) Yuan Wang, Ron Swartzentruber, Scott Meyers and Spencer Powers.