GlobalFoundries accelerates adoption of co-packaged optics for advanced AI data centers with SCALE optical module solution

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SCALE CPO solution is the industry's first OCI MSA capable platform and built with GF's proven silicon photonics technology

MALTA, N.Y., May 04, 2026 (GLOBE NEWSWIRE) -- GlobalFoundries (Nasdaq: GFS) (GF) today announced the introduction of its SCALE™ optical module solution for co-packaged optics (CPO). GF's SCALE solution, or Silicon photonics Co-packaged Advanced Light Engine solution, is the industry's first Optical Compute Interconnect Multi-Source Agreement (OCI MSA) capable platform, exceeding the requirements for the OCI MSA's optical interconnect specification for modern AI scale-up architectures.

Built with GF's advanced silicon photonics technology, the SCALE CPO solution utilizes both coarse and dense wavelength-division multiplexing (CWDM, DWDM) for bi-directional data transmission over each optical fiber for significant improvements in bandwidth density and system scalability versus traditional copper interconnects. GF has already demonstrated 8λ and 16λ bi-directional DWDM natively on its platform, a fundamental technology milestone that uniquely positions GF to support the industry's shift to CPO and accelerate the adoption of optical scale-up interconnects.

GF's SCALE CPO solution and silicon photonics technology offer an advanced portfolio of fully-qualified photonic devices, such as 50Gbps and 100Gbps micro-ring modulators, coupled ring resonators and integrated photodiodes. Additional features include through silicon vias (TSVs) for high-speed signaling and power delivery and copper pad pitches ranging from 110µm down to sub-45µm for 2.5D/3D stacking from organic substrates to silicon interposers, enabling customers to move quickly from design to volume production. The platform integrates electrical ICs on single-digit advanced nodes, enabling optimization between best-in-class compute and state-of-the-art optics without compromising performance. While GF offers multiple fiber-attach approaches, the SCALE solution leverages broadband detachable fibers with flat insertion loss over the CWDM spectrum to future-proof scaling from 4λ in each direction to 8λ and beyond, while still enabling serviceability and known-good-die testability for next-generation AI interconnects.

"With over a decade of innovation and manufacturing expertise in silicon photonics technology at our disposal, GF stands ready to unlock the future of high-bandwidth, energy-efficient connectivity with our SCALE solution for co-packaged optics," said Mike Hogan, chief business officer at GF. "Today, our technology already exceeds the requirements set by the OCI MSA, demonstrating our close collaboration with industry leaders and our technology's readiness to scale next-generation, AI infrastructure."

About GF
GlobalFoundries (GF) is a leading manufacturer of essential semiconductors, enabling AI at scale from the cloud to the physical world. Through deep partnerships with customers, GF delivers differentiated, power-efficient and high-performance solutions for automotive, aerospace and defense, data center, smart mobile devices, internet of things and other high-growth markets. With global manufacturing operations across the U.S., Europe and Asia, GF is a trusted and holistic technology partner for customers around the world. GF's talented, global team remains focused every day on security, longevity and sustainability. For more information, visit www.gf.com.

Forward-looking information
This news release may contain forward-looking statements, which involve risks and uncertainties. Readers are cautioned not to place undue reliance on any of these forward-looking statements. These forward-looking statements speak only as of the date hereof. GF undertakes no obligation to update any of these forward-looking statements to reflect events or circumstances after the date of this news release or to reflect actual outcomes, unless required by law.

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