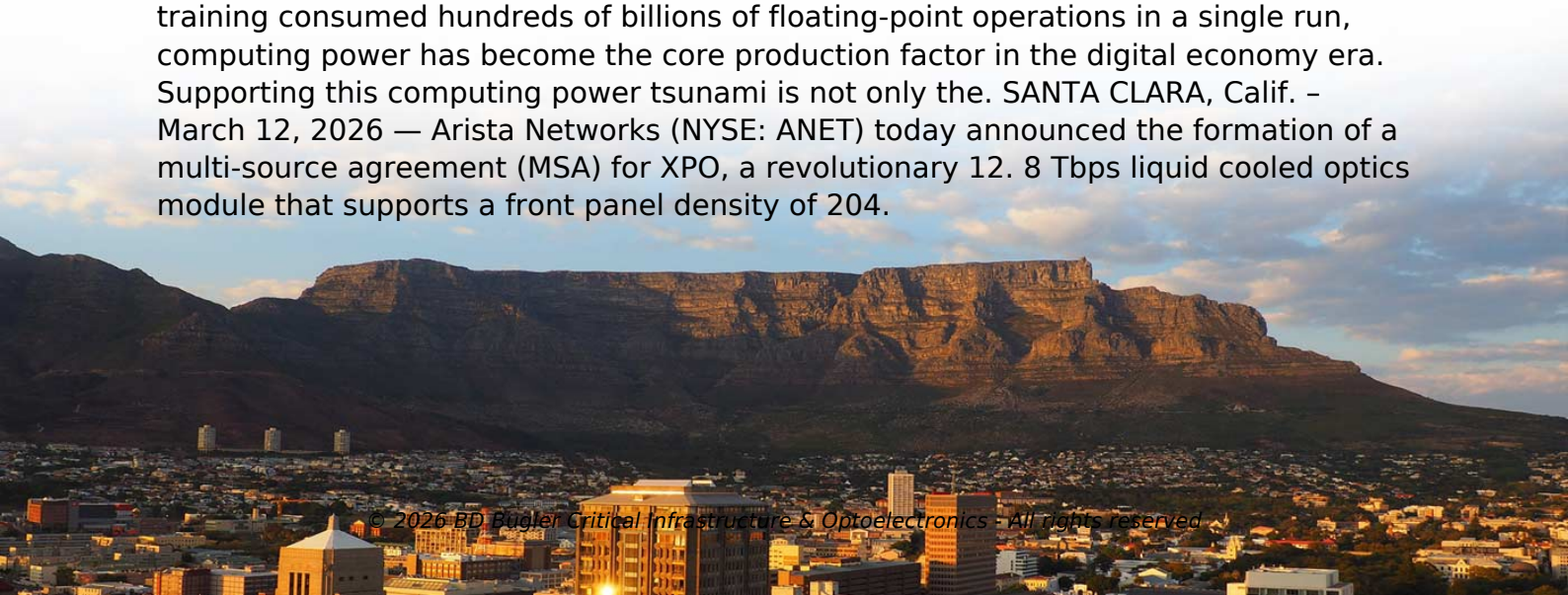
Optical Module Achieves New Breakthrough

Overview

Powered by Lightmatter's industry-leading Passage™ interconnect and Guide™ laser technologies, this breakthrough shatters previous limitations in fiber bandwidth density and spectral utilization, setting a new benchmark for high-performance, resilient data center interconnects. New co-packaged optics innovation could replace electrical interconnects in data centers to offer significant improvements in speed and energy efficiency for AI and other computing applications YORKTOWN HEIGHTS, N. 9, 2024: IBM (NYSE: IBM) has unveiled breakthrough research in optics. Breakthrough 3D photonic interposer enables highest bandwidth and largest die complexes for next-gen AI infrastructure silicon designs Mountain View, CA – March 31, 2025 – Lightmatter, the leader in photonic (super)computing, today announced Passage™ M1000, a groundbreaking 3D Photonic Superchip. Lightmatter, the leader in photonic supercomputing, announced a groundbreaking achievement in optical communications: a 16-wavelength bidirectional Dense Wavelength Division Multiplexing (DWDM) optical link operating on one strand of standard single-mode (SM) fiber. The. When ChatGPT's daily API calls exceeded 1 billion and AI large model training consumed hundreds of billions of floating-point operations in a single run, computing power has become the core production factor in the digital economy era. Supporting this computing power tsunami is not only the. SANTA CLARA, Calif. – March 12, 2026 — Arista Networks (NYSE: ANET) today announced the formation of a multi-source agreement (MSA) for XPO, a revolutionary 12. 8 Tbps liquid cooled optics module that supports a front panel density of 204.



Article Content

IBM Brings the Speed of Light to the Generative AI Era

IBM''s Optics Breakthrough Sets New Standard for Generative AI IBM''s groundbreaking optics research introduces co-packaged optics (CPO)

Marvell Announces Breakthrough Co-Packaged Optics

Marvell Announces Breakthrough Co-Packaged Optics Architecture for Custom AI Accelerators New Marvell AI accelerator (XPU) architecture enables

Lightmatter Unveils Passage M1000 Photonic

“Passage M1000 is a breakthrough achievement in photonics and semiconductor packaging for AI infrastructure,” said Nick Harris, founder and

Arista Announces XPO High Density Liquid Cooled

“The XPO module is a breakthrough for AI data centers delivering 4X the front panel density compared to OSFP, while preserving the configurability and serviceability

Kyocera''s New “On-Board Optics Module” Achieves

The largest bandwidth among on-board optics on the market today is 100 Gbps; Kyocera''s module achieves a world-record 512 Gbps bandwidth, over

IBM Announces Optic Technology Breakthrough for Gen

New co-packaged optics innovation could replace electrical interconnects in data centers to offer significant improvements in speed and

QSFP-DD-400G-SR4 Optical Transceiver 1. Summary

Discover the details of QSFP-DD-400G-SR4 Optical Transceiver 1. Summary at LonRise Equipment Co. Ltd., a leading supplier in China for Optical Transceiver Module and SFP Optical

Broadcom Announces Third-Generation Co-Packaged Optics (CPO)

Broadcom Inc. connects everything through innovative technology solutions, offering products for data center, wireless, broadband, enterprise, and industrial applications.

Lightmatter Achieves Major Breakthrough in Optical

Lightmatter, the leader in photonic supercomputing, announced a groundbreaking achievement in optical communications: a 16-wavelength

Breaking Barriers: New Data Speed Record Set on

New indium phosphide-based modulator achieves unprecedented bit rates, promising swifter data transmission. As data traffic grows, there is an

IBM claims co-packaged optics ''breakthrough'' for data centers

IBM researchers have demonstrated a way to bring optics'' speed and capacity inside data centers. In a technical pre-print paper on arXiv, IBM presents its new CPO prototype module

IBM Brings the Speed of Light to the Generative AI Era

CPO technology enables a new pathway to meet AI''s increasing performance demands, with the potential to replace off-module communications

On-board optics module achieves record bandwidth

Ceramics and electronics manufacturer Kyocera has announced that it has developed an on-board optics module that achieves world-record bandwidth

The advent of co-packaged optics (CPO) in 2025

A new optical computing era TSMC''s approach involves integrating CPO modules with advanced packaging technologies such as chip-on-wafer-on

Arista Announces XPO High Density Liquid Cooled Pluggable Optics

“The XPO module is a breakthrough for AI data centers delivering 4X the front panel density compared to OSFP, while preserving the configurability and serviceability of a pluggable

IBM Brings the Speed of Light to the Generative AI Era

IBM has unveiled breakthrough research in optics technology that could dramatically improve how data centers train and run generative AI models.

CPO Emerges as the New Sought-After as JCET

On January 21, JCET announced a major breakthrough in its co-packaged optics (Co-Packaged Optics, CPO) technology development. Silicon

Breakthrough Development of CPO in the AI Era

In 2025, optical communication technology centered on CPO (Co-packaged Optics) has reached a triple inflection point of “technological

OptiX Technology achieves breakthrough in optical module chips

Accelink''s technological advancements in optical module chips have not only improved the performance of domestic optical modules but also promoted localization and the development of

Sunny Optical Technology (Group) Company Limited (SOTGY) Q4

Welcome to Sunny Optical Technology Group Company Limited''s 2025 Annual Results announcement. I''m Crystal from IR Department. Thank you for your long-standing support and

IBM Brings the Speed of Light to the Generative AI Era

In a technical paper, IBM introduces a new CPO prototype module that can enable high-speed optical connectivity. This technology could significantly

Marvell announces breakthrough co-packaged optics architecture for ...

New Marvell AI accelerator (XPU) architecture enables higher bandwidth and longer reach scale-up fabric connections for custom AI servers. XPUs with integrated Co-Packaged Optics (CPO)

IBM Unveils Breakthrough in Optics Technology

IBM''s breakthrough aims to bring the speed and efficiency of optics into these internal connections, dramatically improving performance and energy

IBM claims co-packaged optics ''breakthrough'' for data centers

In a technical pre-print paper on arXiv, IBM presents its new CPO prototype module that can enable high-speed optical connectivity. This technology could significantly increase the

IBM Brings the Speed of Light to the Generative AI Era with Optics ...

IBM''s continued leadership in semiconductor R& D CPO technology enables a new pathway to meet AI''s increasing performance demands, with the potential to replace off-module

Kyocera''s New "On-Board Optics Module" Achieves

Kyocera Corporation (President: Hideo Tanimoto) today announced it has developed an On-Board Optics Module that achieves world-record bandwidth of 512 Gbps.

Contact Us

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