Broadcom Announces Third-Generation Co-Packaged Optics (CPO) Technology with 200G/lane Capability

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Key partner milestones with CPO switches demonstrate ecosystem readiness for next-generation AI scale-up and scale-out networks

PALO ALTO, Calif., May 15, 2025 (GLOBE NEWSWIRE) -- Broadcom Inc. (NASDAQ: AVGO) today announced significant advancements in its co-packaged optics (CPO) technology with the launch of its third-generation 200G per lane (200G/lane) CPO product line. In addition to the 200G/lane breakthrough, Broadcom demonstrated the maturity of its second-generation 100G/lane CPO products and ecosystem, highlighting key improvements in OSAT processes, thermal designs, handling procedures, fiber routing, and overall yield. A growing list of publicly-announced industry partners further underscores Broadcom's CPO platform readiness, enabling AI scale-out and scale-up applications for large AI deployments.

Broadcom’s Legacy in CPO

Broadcom’s leadership in CPO began in 2021 with its first-generation Tomahawk 4- Humboldt chipset, enabling an early learning cycle across the entire CPO supply chain, well ahead of the industry. This pioneering chipset introduced key innovations, including high-density integrated optical engines, edge coupling, and detachable fiber connectors.

Building on that success, the second-generation Tomahawk 5-Bailly (TH5-Bailly) chipset became the industry’s first volume-production CPO solution. As part of the TH5-Bailly production, Broadcom focused on automated testing and scalable manufacturing processes, setting the stage for high-volume production of future generations. The deployment of Broadcom’s 100G/lane CPO product line has enabled the company to gain unmatched expertise in CPO system design, seamlessly integrating optical and electrical components to maximize the performance while delivering the lowest power optical interconnects in the industry.

Today, with the announcement of the third-generation 200G/lane CPO product line, alongside commitment to developing a fourth-generation 400G/lane solution, Broadcom continues to lead the industry in delivering the lowest power and highest bandwidth density optical interconnects.

A Rapidly Developing CPO Ecosystem

Broadcom’s leadership in CPO is driven not only by its cutting-edge switch ASICs and optical engine technology but also by a comprehensive ecosystem of passive optical components, interconnects, and system solutions partners. Through its 100G/lane CPO product line, Broadcom has proven its ability to scale its technology, meeting the growing demands of inference-based AI and supporting the next wave of AI-driven applications.

“Broadcom has spent years perfecting our CPO platform solutions, as evidenced by the maturity of our second generation 100G/lane products and the ecosystem readiness,” said Near Margalit, Ph. D., vice president and general manager of the Optical Systems Division, Broadcom. “With our third-generation 200G/lane CPO solutions, we are once again setting the bar for the next-generation of AI interconnects. Our commitment to delivering the industry-leading performance, power efficiency, and scalability will help our customers meet the demands of today’s rapidly evolving AI infrastructure.”

Key Partner Milestones Towards Mass Deployment

Broadcom’s advancements in CPO technology are supported by the growing number of key publicly announced partnerships across the ecosystem, as several major collaborators announced significant milestones this week:

- **Corning Incorporated** announced collaboration with Broadcom on advanced fiber and connector technology including shipments of components on the TH5-Bailly platform.
- **Delta Electronics** announced production for the TH5-Bailly 51.2T CPO Ethernet switch in a compact 3RU form factor, available in both air-cooled and liquid-cooled configurations.
- **Foxconn Interconnect Technology** revealed the production release of CPO LGA sockets and Pluggable Laser Source (PLS) cages and connectors, critical components for ensuring reliable, high-performance system integration.
- **Micas Networks** announced production of the TH5-Bailly network switch system that delivers more than 30% system level power savings compared to systems with traditional pluggable modules.
- **Twinstar Technologies** celebrated milestone volume shipments of high-density CPO fiber cables, further enabling the scaling of optical interconnects in next-gen data center infrastructures.

These partner milestones demonstrate the continued progress in building a complete, fully integrated CPO ecosystem that enables the next generation of AI networking solutions.

Gen 3 CPO: Unlocking 200G/lane CPO Systems

Broadcom’s 200G/lane CPO technology is designed for next-generation, high-radix scale-up and scale-out networks, which will demand parity with copper interconnect reliability and power efficiency. This capability is crucial for enabling scale-up domains exceeding 512 nodes, while also

addressing the bandwidth, power, and latency challenges associated with the increasing size of next-generation foundation model parameters.

Broadcom's Gen 3 solutions are engineered to address scale-up interconnects, where issues such as link flaps and operational disruptions can significantly affect the industry's ability to achieve the lowest cost per token. Broadcom's Gen 3 and 4 roadmap includes close collaboration with ecosystem partners to optimize the integration of CPO solutions, ensuring they meet the demanding requirements of hyperscale data centers and AI workloads. Additionally, Broadcom remains committed to open standards and system-level optimization, which are essential to the continued success and evolution of our CPO technology.

For more information on Broadcom's CPO technology and latest advancements, please click here: www.broadcom.com/cpo

Supporting Quotes

"Corning has been collaborating with Broadcom for several years to ensure that their CPO connectivity needs can be met with a high degree of performance and reliability as AI-enabled datacenters continue to scale," said Mike O'Day, Senior Vice President and General Manager, Corning Optical Communications. "We're delivering an optical connectivity solution that enables unprecedented levels of optical speeds and bandwidth concentrations with lower power consumptions and costs. Corning looks forward to continued collaboration with Broadcom on their Bailly deployments as well as innovating towards next generation 200G per lane CPO systems."

"We are excited to bring this state-of-the-art CPO switch to market, empowering data centers to achieve even greater efficiency and performance," said Wangson Wang, General Manager of Data Networks Infrastructure BU at Delta. "Our goal is to support the next generation of networking infrastructure with innovative solutions that deliver unparalleled speed, reduced energy consumption, and scalable growth for AI networks.

"We're deepening our partnership with Broadcom to drive innovation in 200G co-packaged optics," said Joseph Wang, Chief Technology Officer at Foxconn Interconnect Technology. "Our joint efforts are aimed at delivering AI infrastructure that's ready for scale—built on high-performance, energy-efficient interconnects designed for tomorrow's data demands."

"At Micas Networks, we're excited to see Broadcom pushing the boundaries of networking technology with their next-generation 200G per lane CPO solutions. Our collaboration with Broadcom has been instrumental in launching the industry's first volume production, 100G per lane, CPO system delivering ultra low-power optical interconnects into AI fabrics," said Joey Gou, CEO of Micas Networks. "Now, with a 200G per lane version, we're pushing even further into ultra-fast, power-efficient networking that will enable a range of next-gen applications. We look forward to continuing our partnership with Broadcom to support the evolving demands of the data-driven world."

About Broadcom
Broadcom Inc. (NASDAQ: AVGO) is a global technology leader that designs, develops, and supplies a broad range of semiconductor, enterprise software and security solutions. Broadcom's category-leading product portfolio serves critical markets including cloud, data center, networking, broadband, wireless, storage, industrial, and enterprise software. Our solutions include service provider and enterprise networking and storage, mobile device and broadband connectivity, mainframe, cybersecurity, and private and hybrid cloud infrastructure. Broadcom is a Delaware corporation headquartered in Palo Alto, CA. For more information, go to www.broadcom.com.

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Press Contact:
Khanh Lam
Global Communications
press.relations@broadcom.com
Telephone: +1 408 433 8649

Source: Broadcom Inc.