



Astera Labs Optimizes Connectivity for NVIDIA Blackwell-Based MGX Platforms at Scale

March 18, 2025

Seamless Scorpio Smart Fabric Switch integration with NVIDIA MGX™ platform delivers PCIe® 6-ready modular designs for rapid deployment across a range of AI servers

SANTA CLARA, Calif., March 18, 2025 (GLOBE NEWSWIRE) -- [Astera Labs, Inc.](#) (Nasdaq: ALAB), a global leader in semiconductor-based connectivity solutions for AI and cloud infrastructure, today announced its Scorpio Smart Fabric Switches for PCIe® 6-ready NVIDIA Blackwell-based MGX™ platforms will deliver leading performance through a modular design that scales across different NVIDIA MGX configurations. Additionally, Astera Labs empowers customers to perform in-house testing through its accelerated test and interop development kit, featuring whitepapers, reference designs, comprehensive SDKs, simulation models, and extensive interoperability and performance testing in the Cloud-Scale Interop Lab.

Mike Hendricks, Associate VP, Solutions and Ecosystem, Astera Labs, said, “As AI infrastructure rapidly evolves, the need for flexible server platforms that can be deployed at unprecedented pace and scale has never been greater. Our Scorpio P-Series Fabric Switch is purpose-built for AI servers and seamlessly integrates with the NVIDIA Blackwell-based MGX platform, enabling modular PCIe 6.x-ready designs that accelerate time-to-market and deliver unparalleled performance for next-generation AI systems.”

Patrick Moorhead, Founder, Chief Executive Officer, and Chief Analyst, Moor Insights & Strategy, said, “The NVIDIA Blackwell architecture and MGX platform will power most next-generation data centers being deployed in the near-future, designed to deliver ground-breaking performance, flexibility, and scalability. To fully harness these capabilities, seamless and modular connectivity solutions are essential. I believe Astera Labs is leading the charge in modular connectivity to harness these capabilities with its Scorpio Smart Fabric Switches, which should enable the rapid deployment of custom systems that hyperscalers require to meet the escalating demands of AI workloads.”

Comprehensive design-in collateral is available today for customers to integrate Scorpio P-Series – the industry’s first PCIe 6 fabric switch – and Aries PCIe/CXL® Smart DSP Retimers into their MGX platform design. The NVIDIA MGX platform enables manufacturers to quickly build customizable, efficient AI, HPC, and cloud servers by integrating key NVIDIA components, reducing development time and cost, while supporting diverse use cases. This unlocks the following benefits:

- Optimized data ingest for each NVIDIA Blackwell unit in the MGX platform
- Increased GPU utilization with predictable, secure, and high-performance data flows
- Robust interoperability and line-rate with a diverse ecosystem of PCIe 6 and PCIe 5 host and endpoint partners validated in the Cloud-Scale Interop Lab
- [Proven line-rate PCIe 6 performance with Micron PCIe 6 SSDs](#) and other interop partners
- Faster time-to-market and lower development cost with a modular switch configuration
- Improved energy efficiency with maximum performance per watt
- Future-proofed switch boards for seamless transition to PCIe 6 data rates

Enhanced Rack-Level Management with Visibility Down to the PCIe Lane-Level with COSMOS

When scaling the NVIDIA MGX platform into rack-level solutions, Astera Labs’ COSMOS rack-scale management software provides extensive data center observability, telemetry, and diagnostics, which are critical to maximizing GPU utilization and uptime. Built on a foundation of millions of deployed devices in AI and cloud infrastructure, the [COSMOS software suite](#) unlocks unprecedented data link visibility, enhanced security, and extensive fleet management capabilities when combining Scorpio Smart Fabric Switches with Aries Smart DSP Retimers.

Andrew Bell, vice president of hardware engineering at NVIDIA said, “NVIDIA Blackwell architecture is revolutionizing AI infrastructure with its unparalleled performance and scalability. Astera Labs’ PCIe 6-ready Scorpio P-Series integrates with the NVIDIA Blackwell-based MGX platform to enable modular designs that accelerate deployment and enhance efficiency for next-generation AI systems.”

Robert Lin, President, Enterprise & Networking Business Group, Wistron, said, “Wistron and Astera Labs have long collaborated to enable our advanced AI and HPC servers with their purpose-built PCIe, CXL®, and Ethernet connectivity solutions. We are proud to have teamed up on an NVIDIA MGX platform design that has been optimized to meet the specific demands of AI infrastructure with Scorpio P-Series, unlocking robust performance and reliability for deployments at cloud-scale.”

Astera Labs’ accelerated test and interop development kit for the NVIDIA MGX platform is available upon request for key customers and partners.

Visit Astera Labs at NVIDIA GTC 2025, March 18-21, San Jose Convention Center

Astera Labs will demonstrate the PCIe 6-ready NVIDIA MGX platform featuring Scorpio P-Series as well as robust NVIDIA Blackwell interoperability in Booth 1137. [Schedule to meet](#) with Astera Labs experts and learn how its solutions enable critical connectivity for AI and cloud infrastructure.

Resources

- Webpage: [Scorpio Smart Fabric Switches](#)
- Webpage: [Cloud-Scale Interop Lab](#)
- Whitepaper: [Migrating AI Server Designs to a Modular Scorpio Architecture](#)
- Whitepaper: [How Your Hyperscale Data Center Can Overcome the Challenges of Next-Gen AI Infrastructure with Smart Fabric Switches](#)
- Video: [Scorpio P-Series with NVIDIA MGX Platform Demo](#)

About Astera Labs

Astera Labs is a global leader in purpose-built connectivity solutions that unlock the full potential of AI and cloud infrastructure. Our Intelligent Connectivity Platform integrates PCIe[®], CXL[®], and Ethernet semiconductor-based solutions and the COSMOS software suite of system management and optimization tools to deliver a software-defined architecture that is both scalable and customizable. Inspired by trusted relationships with hyperscalers and the data center ecosystem, we are an innovation leader delivering products that are flexible and interoperable. Discover how we are transforming modern data-driven applications at www.asteralabs.com.

© Astera Labs, Inc. Astera Labs, and its stylized logo, are trademarks of Astera Labs, Inc. or its affiliates. Other names and brands may be claimed as the property of others.

CONTACT: Lori Zielinski
lori.zielinski@asteralabs.com



Source: ASTERA LABS, INC.