



Purpose-built Connectivity for AI and Cloud Infrastructure

Asteralabs 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.

Aries PCIe/CXL Smart DSP Retimers

Field-tested and widely deployed at all major hyperscalers & AI platform providers

- Solves high-speed PCIe/CXL signal integrity challenges in AI and general purpose servers with reliable 3x reach extension
- Purpose-built for AI and cloud infrastructure delivering high performance, low power, and seamless interoperability
- Provides a smart connectivity backbone that is reliable, scalable and customizable for diverse cloud-scale deployments
- Comprehensive solution complete COSMOS software suite for advanced Link, Fleet & RAS telemetry & diagnostics



Aries PCIe/CXL Smart Cable Modules

Unleash GPU-to-GPU Clustering Across Racks

- Extends PCIe 5.0, PCIe 4.0, and CXL signal reach across dense AI racks using Active Electrical Cables
- Built on the proven track record of widely deployed and field-tested Aries PCIe/CXL Smart DSP Retimers
- Supports multiple form factors and configurations to accommodate diverse AI system topologies
- COSMOS suite for performance optimization and seamless fleet management across dense AI platforms





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PCIe Retimed Optical Module

Increase GPU cluster scale and utilization in disaggregated AI and cloud infrastructure

- PCIe over optics solution, including AOCs, extends PCIe connectivity to clusters of racks with improved cable management compared to copper
- End-to-end PCIe link connectivity aligns with current PCIe specifications and is flexible to address future standards requirements through software-enabled configurability.
- Leverages COSMOS software suite for comprehensive diagnostics, telemetry, and fleet management features

Cloud-Scale Interop Lab – Enabling Plug-and-Play Interoperability

Reduce design challenges and accelerate time-to-market for AI servers

- Rigorous testing of Aries Retimers with all major root complexes and 50+ endpoints
- PCIe robustness validated with varying channel insertion loss budgets in chip-to-chip, box-to-box, and rack-to-rack topologies
- Extensive testing with COSMOS software suite for advanced Link, Fleet, and RAS telemetry and diagnostics
- Cloud-Scale Interop Lab facilities in Santa Clara and Taipei facilitate closer collaboration with ODMs and accelerate AI platform deployments

Learn more: www.asteralabs.com

