

# Abacus Semiconductor announces strategic partnership with Enlighthra

PACIFICA, CA, UNITED STATES, April 29, 2025 /EINPresswire.com/ -- Abacus Semiconductor, a leader in High Performance Computing, announced today its intent to work with Enlighthra, a leading company in Chipscale photonic engines. Abacus Semiconductor will integrate their patented Universal High-performance Interconnect ports into Enlighthra's optical communication engines to facilitate co-packaged optics for processors, accelerators and smart multi-homed memories. The partnership will lead to unrivaled chip-to-chip performance and scalability while minimizing power consumption.



Abacus Semiconductor and Enlighthra's partnership to build UHI ports with a photonic engine addresses the HPC industry's need to lower Total Cost of Ownership, particularly power consumption. With the number of datacenters growing, and servers per datacenter increasing equally, the industry must find affordable solutions that meet rising performance requirements and minimize power consumption.

"By combining Enlighthra's multi-wavelength laser technology with Abacus Semi's UHI ports, we're enabling ultra-efficient optical I/O that scales with the demands of modern compute systems—all while dramatically cutting energy usage per bit.", says Dr. John Jost, Co-CEO of Enlighthra.

Dr. Axel Kloth, Founder and CEO of Abacus Semiconductor adds, "Abacus Semi's UHI connectivity, enhanced with Enlighthra's innovative photonic engine, will bring an unparalleled level of performance and vastly reduced power consumption over the incumbents, enabling powerful yet low footprint compute servers ideal for smart carrier edge applications and on-premise data centers for re-homing business-critical applications."

About Abacus Semiconductor Corporation

Abacus Semiconductor is a fabless semiconductor company and a leading developer of RISC-V based processors, accelerators and smart multi-homed memories for the computational backbone for Artificial Intelligence. This patented, revolutionary computing architecture is poised to solve the scalability challenges facing the booming AI infrastructure market. For more information about how Abacus Semiconductor Corporation is re-imagining high performance computing and Artificial Intelligence, visit the [Abacus Semi website \(https://abacus-semi.com\)](https://abacus-semi.com).

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#### About [Enlightra Corporation](#)

Enlightra is a pioneering scalable, multi-wavelength laser technology to power the next generation of high-speed, energy-efficient optical links. Its integrated photonic platform addresses critical bottlenecks in data center connectivity, AI hardware, and advanced sensing systems. Founded in 2022, the company is backed by Y Combinator and Intel Ignite, with a team of over 20 experts—including 11 PhDs—driving innovation from its Swiss R&D center. Enlightra's platform has been validated through industry-first demonstrations and engagements with leading global technology companies.

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