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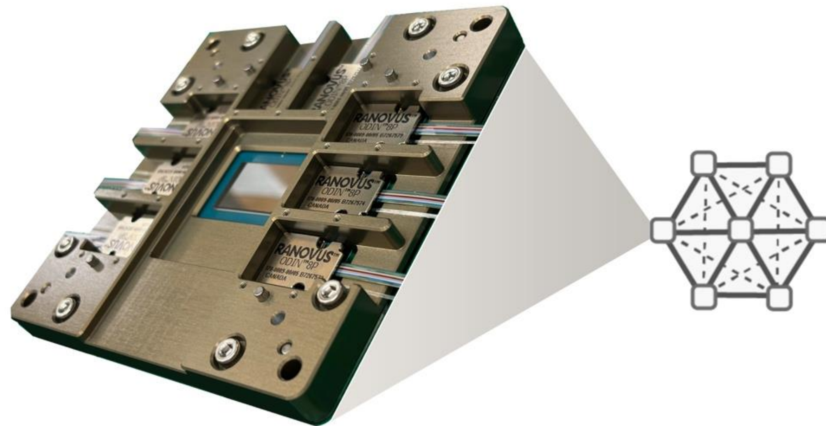
RANOVUS delivers industry's first 6.4Tbps Co-Packaged Optics with integrated laser for AI/ML application at OFC 2024

Ranovus' standards compliant Odin® direct-drive CPO 3.0 optical interconnect, with 4pJ/bit energy efficiency, including the laser, delivers the highest 100Gbps optical I/O radix in smallest form factor to enable computation intensive Training and memory intensive inference workloads.



MediaTek® ASIC co-packaged with 6.4Tbps RANOVUS' Odin® direct-drive CPO 3.0

San Diego, CA – March 20, 2024 – At the 2024 Optical Fiber Communication Conference (OFC), Ranovus, a leading developer of advanced photonics interconnect solutions for AI/ML infrastructure, today announced it has been collaborating with MediaTek to deliver a 6.4Tbps co-packaged optics solution for MediaTek's next generation ASIC design platform. This solution is designed to support 6.4Tbps High-Radix optical interconnect for AI/ML SoC and Ethernet applications.

Ranovus' Odin® CPO 3.0 reduces power consumption, footprint, and cost of the system by 50% compared to existing solutions. Ranovus' monolithic Electro-Photonic Integrated Circuit (EPIC) is a single chip that includes 100Gbps TIAs, Drivers, Silicon Photonics Modulaters and Photo detectors. Odin® CPO 3.0 includes optical features that enables passive fiber and laser die attach on the EPIC die at scale. Ranovus Odin® IP cores are available for development of a new category of Application Specific Optical Engines (ASOE) for high capacity AI/ML workloads.

"The emergence of Generative AI has not only resulted in significant demand for higher memory bandwidth and capacity, but also demand for higher I/O density and speeds." said Jerry Yu, Senior Vice President at MediaTek. "Integration of electrical and optical I/O is the latest technology that allows MediaTek to deliver the most flexible leading edge data center ASIC solutions."

"Working together with MediaTek to realize this next-generation CPO platform has helped usher in a new era for high-density optical interconnect in the AI/ML and Ethernet ecosystem," said Hojjat Salemi,

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Chief Business Development Officer at Ranovus. "This platform will play a critical role in accelerating data movement in scale up/scale out AI/ML SoCs and Ethernet."

MediaTek will be demonstrating its new co-packaged optics solution for the AI/ML and HPC markets together with Ranovus at OFC 2024 in San Diego, booth 5744, March 26-28.

Please Join Ranovus at the following OFC sessions March 26-28 and booth 5711.

Title: Next Generation Optical Interconnects for AI Clusters: Beyond Linear Drive Optics **(OCP Panel)**

> **Time**: Tuesday March 26, 10:45 – 11:45
>
> **Location**: Theater 2, (LINK)
>
> Moderator: Vladimir Kozlov. Speakers: Drew Aldino, Meta, Hamid Arabzadeh, Ranovus, Andy Bechtolsheim, Arista, Ram Huggahali, Microsoft, Chongjin Xie, Alibaba

Title: Energy Efficient Interfaces - Reining in Power Consumption Trends for Next-Generation Optical Networking

> **Time:** Thursday March 28, 13:35 – 14:45
>
> **Location:** Theater 1, OIF, Jeff Hutchins, Ranovus CTO office, Moderator (LINK)

Title: Panel: Power Play: Reducing Energy Consumption in Data Center Networks for AI Clusters

> **Time**: Tuesday March 26, 12:30-13:30
>
> **Location**: TBD, OIF, Jeff Hutchins, Ranovus CTO office, Panelist

Title: Panel: Cutting-Edge Technologies for Interconnecting AI/ML Clusters

> **Time**: Tuesday March 26, 16:30-18:30
>
> **Location**: Room 6E, Jeff Hutchins, Ranovus CTO office, Panelist (LINK)

About Ranovus Inc.

Ranovus, with operations in Ottawa, Canada, Nuremberg, Germany and Sunnyvale, USA, develops and manufactures advanced photonics interconnect solutions to support the next generation of AI/ML workloads in data centers and communication networks. Our team has extensive experience in product development and commercialization of optoelectronics subsystems for the information technology industry. Ranovus' current disruptive portfolio of IP Cores includes Multi-Wavelength Quantum Dot Laser technology and advanced digital and silicon photonics integrated circuit technologies that set a new industry benchmark for the lowest power dissipation, size, and cost for the next generation of optical interconnect solutions. Ranovus' Odin® platform is the enabling technology for a new data center architecture optimized for AI/ML and communications workloads. The company has received funding from leading venture capital firms, strategic investors, Sustainable Development Technology Canada, and Strategic Innovation Fund of Canada. Visit www.ranovus.com for more information.