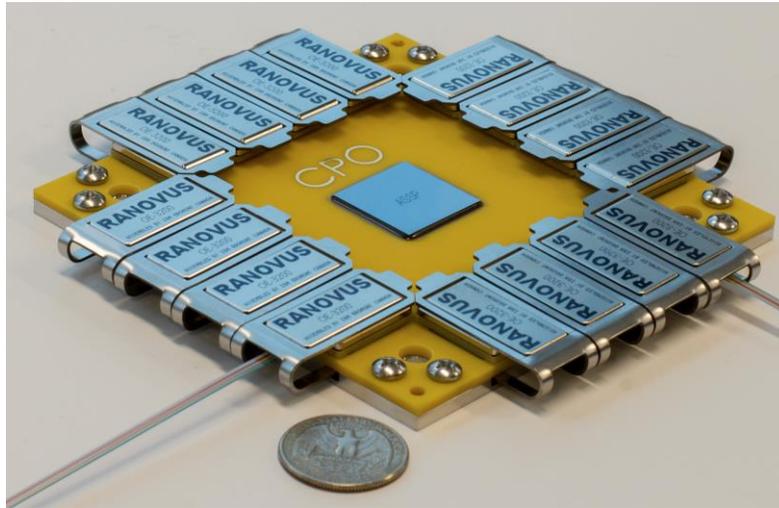# Ranovus launches its single chip Odin™ silicon photonic engine to support ML/AI workloads for Data Center and 5G mobility.

The Ranovus Odin 32 Co-Packaged Optics configuration for 51.2T Ethernet Switch application

Ranovus has demonstrated Odin 8, supporting 800Gb/s per fiber pair, for Machine Learning and Artificial Intelligence workloads.

Ottawa, Canada – March 05, 2020

Ranovus Inc., a leading provider of multi-terabit interconnect solutions for data center and communications networks, today announced the launch of its Odin™ platform. Odin™ scales Ranovus' 100Gbps per lambda silicon photonics engine from 800Gbps to 3.2Tbps in a single chip supporting both module and Co-Packaged Optics solutions.

Ranovus' Odin™ platform incorporates the company's disruptive innovation in multi-wavelength Quantum Dot Laser (QDL), 100Gbps silicon photonics based Micro Ring Resonator modulators and photodetectors, 100Gbps Driver, 100Gbps TIA and control Integrated Circuits supported by a Tier 1 packaging ecosystem.

"ML/AI are the driving forces behind innovation in our society. They have created new compute, storage and networking paradigms inside and outside the data center. The massive growth in data traffic fueling the algorithms requires scalable and power efficient networking technologies. Odin™ platform delivers 50% power consumption/Gbps reduction and 75% cost/Gbps reduction over today's solutions," said Hamid Arabzadeh, Chairman and CEO at Ranovus. "Odin 8 marks the beginning of the road to multi-terabit Co-Packaged Optics for Compute, Storage and Networking solutions."

Highlights of Ranovus' Odin 8 silicon photonics Engine:
- Lowest power consumption/Gbps and cost/Gbps solution in the industry
- Supports ML/AI applications with 0.4nsec low latency and protocol agnostic engine
- Supports transmission distance of 10m to 2km in CWDM and DWDM applications
- Offers 8 optical channels of 100Gbps/64Gbps/50Gbps PAM4 or 50Gbps/32Gbps/25Gbps NRZ
- Supports DR & FR configurations
- Supports QSFP-DD and OSFP module form factors
- Supports 25.6Tbps and 51.2Tbps Ethernet Switch configurations

"Intra-Data-Center traffic is growing at a rate that outpaces anything seen outside of the data centers and is expected to triple in the next five years. This growth in traffic is driving global energy consumption, for power and cooling, that is simply not sustainable at the current trajectory. At Ranovus, we're dedicated to developing energy and space efficient technologies to address this critically important challenge - starting with our Odin™ optical engine platform." said John Martinho, SVP R&D at Ranovus. "We're proud to have brought together a Tier 1 ecosystem of partners and industry veterans to make these innovations possible."

About Ranovus
Ranovus, with operations in Ottawa, Canada, Nuremberg, Germany and Sunnyvale, USA, develops and manufactures advanced solutions for the next generation of interconnects for the telecommunications and information technology industries. Our team has extensive experience in product development and commercialization of optoelectronics components and transceiver subsystems for the information technology industry. Ranovus' current disruptive portfolio includes Quantum Dot Multi-Wavelength Laser technology and advanced digital and silicon photonics integrated circuit technologies that sets a new industry benchmark for the lowest power dissipation, size and cost for the next generation of optical interconnect solutions.

The company was founded in February 2012 and has received financing from leading venture capital firms including Azure Capital Partners, BDC Capital, OMERS Ventures, Export Development Canada, MaRS Investment Accelerator Fund, as well as Sustainable Development Technology Canada, and Strategic Innovation Fund of Canada.

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