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Marvell and OE Solutions Announce Industry's First Commercially Available 100G QSFP-DD Optical Modules for Industrial Temperature

Coherent Pluggable Modules with High Optical Output Power Enhances 10G to 100G Network Transition and Economics for 5G Backhaul and Aggregation

SANTA CLARA, Calif., Sept. 20, 2022 /PRNewswire/ -- Marvell (NASDAQ: MRVL) and OE Solutions today announced the industry's first commercially available 100G QSFP-DD optical modules supporting industrial temperature (I-Temp) for 5G backhaul and aggregation applications. The production ramp of the OE Solutions Coherent Transceiver with [the Marvell® Deneb™ Coherent DSP \(CDSP\)](#) is enabling carriers to transition their existing fiber infrastructure to next-generation networks with 100G speeds and support for use cases requiring reliable operation at industrial temperature. The OE Solutions modules with Marvell Deneb CDSPs include an innovative offering with high optical output power designed to bring leading-edge density and performance optimization advantages to existing networks and facilitate the transition from 10G to 100G.

With wireless traffic and data center bandwidth both growing at approximately 40% per year¹, carriers are driving a transition from 10G NRZ to 100G coherent solutions in backhaul and access infrastructure to support high bandwidth requirements. Coherent technology maximizes capacity per fiber by 10x compared to 10G NRZ solutions. 100G coherent solutions also offer the flexibility to extend the reach of 10G Tunable SFP+ solutions by more than 5x. By leveraging widely available existing ROADM infrastructure, carriers can deploy coherent optics to enable faster speed, larger capacity and enhanced user experiences across aggregation networks.

OE Solutions and Marvell are providing solutions that offer the form factor, density and cost optimization needed for the 100G transition. In addition, to provide better broadband service, some next-generation access/aggregation boxes will need to reside outdoors, often in extreme temperature environments where ruggedness, endurance and reliability are critical. As the industry's first I-Temp 100G coherent transceiver, the OE Solutions modules with Marvell CDSPs enable this type of network deployment.

"Through our strategic collaboration with OE Solutions, we have brought to market an optimized coherent pluggable DSP solution for carriers transitioning to 100G networks that scales with their emerging 5G infrastructure needs while also providing industrial temperature support," said Samuel Liu, Sr. Director, Product Line Management at Marvell. "Marvell's Deneb coherent DSP offers technology innovation to global carriers supported by a large ecosystem for flexibility and ease of implementation."

"Global 5G momentum has accentuated the need for expanded fiber optic connectivity in the wireless infrastructure and the critical need for optical pluggable modules to operate reliably in outdoor conditions at fast data speeds," said Kyu Kim, CTO Coherent Technology at OE Solutions. "Through our collaboration with Marvell, we have provided the market with a new 100G coherent transceiver that addresses the fast growing access/aggregation network requirements."

"Using OE Solutions 100 Coherent QSFP-DD transceivers, the Edgecore AGR420 router can reach up to 500km for IPoDWDM service aggregation applications. It removes the range limitation of other 100G QSFP28 optics (max 40-80km)," said Heimdall Siao, President at Edgecore Networks.

The OE Solutions 100G QSFP-DD Coherent Transceiver with the Marvell Deneb Coherent DSP (CDSP) is being showcased at Marvell's booth (#219) and OE Solutions' booth (#56) at ECOC in Basel, Switzerland, September 19-21, 2022.

1. Ericsson Mobility Report, June 2022, industry sources

About OE Solutions

OE Solutions is a global technology leader in optical transceivers for both wireless and wireline markets. For more than 15 years, OE Solutions has provided innovative, intelligent and green solutions to empower faster and richer communication, delivering the greatest satisfaction to its customers. OE Solutions is headquartered in Gwangju, South Korea, and has R&D centers in USA, the Netherlands as well as business centers worldwide. For more information, please visit www.oesolutions.com.

About Marvell

To deliver the data infrastructure technology that connects the world, we're building solutions on the most powerful foundation: our partnerships with our customers. Trusted by the world's leading technology companies for over 25 years, we move, store, process and secure the world's data with semiconductor solutions designed for our customers' current needs and future ambitions. Through a process of deep collaboration and transparency, we're ultimately changing the way tomorrow's enterprise, cloud, automotive, and carrier architectures transform—for the better.

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