

Marvell Ships Industry's First Production-Ready 800G PAM4 DSPs For Cloud Data Center Optical Interconnects

Enables First Commercial Deployments of 800G Optical Modules for Cloud-Optimized Networks

SANTA CLARA, Calif., March 3, 2022 /PRNewswire/ -- Marvell (NASDAQ: MRVL) today announced that it has begun volume shipments of its Spica™ 800G PAM4 DSP platform for optical interconnects. As the first PAM4 DSP supplier to achieve this production milestone, Marvell is enabling customers to start commercial deployment of 800G optical modules in cloud data center and AI network applications. Spica is the industry's first 800Gbps PAM4 DSP to support 800G optical modules in QSFP-DD800 and OSFP form factors. The complete Spica 800G platform includes Marvell's proven, low-power PAM4 DSP technology as well as a selection of integrated laser drivers and TIAs.

The insatiable demand for cloud-based services is driving the relentless need for data center hardware to have higher bandwidth capacity, with lower power consumption and smaller footprints. These requirements can only be met through higher density networking gear enabled by a new generation of switches and optics. Today's state-of-the-art data center networking equipment requires optical modules to support up to 800Gbps of bandwidth with a 100Gbps per lane electrical interface. Marvell's Spica PAM4 DSP is the first 800G solution engineered to meet this market imperative.

Leveraging seven generations of Marvell's best-in-class PAM4 DSP technology, the Spica 800G PAM4 DSP platform provides a complete, highly integrated solution for high-speed optical transceiver module design. The low-power PAM4 DSP, with integrated laser drivers, can enable either 2x400Gbps or 8x100Gbps optical modules with 100Gbps per lane electrical interfaces on the host side. With today's production release of Spica, data center and network operators are now able to deploy 800Gbps / 8x100Gbps optical interconnects with single-mode or multimode fiber in a compact form factor at high volume.

"Achieving full production readiness of 800G optical transceiver modules is an important milestone to enable next generation data center deployment," said Osa Mok, chief marketing officer of InnoLight Technology. "InnoLight is currently shipping 800G optics based on Spica PAM4 DSP to early market adopters. We applaud Marvell's commitment to technology innovation, market leadership and scalable capacity to support InnoLight's 800G ramp."

"At Marvell, we continue to break technology barriers by being first to market, as well as best in market," said Achyut Shah, senior vice president and general manager, PHY Business Unit, Marvell. "Today's production release of Spica, the industry's first 800G PAM4 DSP to ship in volume quantities, underscores Marvell's ongoing commitment to investing in and developing advanced DSP technology to meet the needs of our module partners and customers. A cornerstone of our PAM4 DSP portfolio, the Spica platform will help drive a broad, robust PAM4 ecosystem for high-speed interconnects."

Marvell's high-speed PAM4 DSP platforms are the industry's leading force in building a comprehensive PAM4 ecosystem and developing high-performance, low-power solutions for hyperscale data centers, cloud-based AI, carrier and enterprise networks, and 5G infrastructure.

Availability

Marvell's Spica 800G PAM4 DSPs and associated linear drivers and TIAs are available now in volume quantities. To learn more about Marvell's PAM4 DSP portfolio, visit www.marvell.com/products/pam-dsp.html.

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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For further information, contact:

Kim Markle

pr@marvell.com

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