Spica™ Gen2 PAM4 DSP for 800G Optical Module Applications

Part No.

MV-CD822

Product Type

100G PAM4 DSP

Market Segments

Inside Data Centers

Applications

800G QSFP-DD/OSFP

Single-Mode Fiber Transceivers

Multi-Mode Fiber Transceivers

Features

- 8 x 100Gbps Optical PAM4 DSP Retimer
- Support for 1x800G, 2x400G, 8x100G Ethernet traffic with breakout
- 5nm Low power
- 25% power savings enabling <12-Watt 800G
- CMIS compliant with advanced diagnostic features
- Integration of enhanced optical modulator driver

Description

The Marvell Spica Gen2 PAM4 DSP is a next generation solution for cloud data center, high-performance computing, and AI optical transceivers. It is an octal 100G/channel PAM4 DSP retimer that supports EML, silicon photonics and VCSEL applications.

Spica Gen2 is manufactured with advanced 5nm process technology that delivers industry-leading power efficiency resulting in greater than 25% power savings compared to the previous generation of Spica PAM4 DSPs.

The direct drive capabilities of the DSP combined with high performance receivers make Spica Gen2 ideal for 800G DR8/2xFR4/LR8 QSFP-DD/OSFP optical module applications.

Highly integrated Spica Gen2 family of products minimize the components in the optical transceiver module and reduce overall system cost.

Spica Gen2 also integrates advanced diagnostic features that make testing and building modules easy.

Fully interoperable and compliant with the latest IEEE and CMIS standards, Spica Gen2 is optimized for high volume deployment within the data center.