

Spica 400G/800G PAM4 DSP for Optical Module Applications

Part No.

Spica

Product Type

100G PAM DSP

Market Segments

Inside Data Centers

Applications

- Single-Mode Fibre Transceivers
- Multi-Mode Fibre Transceivers
- Active Optical Cables

Features

- 4x100Gbs PAM4 Retimer
- All lanes independent to support breakout applications
- Full data & clock cross-bars on Egress and Ingress for ease of system layout
- Lanes can be configured in 4x100, 2x200 or 1x400 bundles
- Host interfaces with full 4-tap Tx FIR with eye1/2 control
- Line interfaces support 4-tap/7-tap Tx FIR with eye1/2 control
- Line Tx variants
 - 1Vp-p differential output
 - 1.6Vp-p single-ended, single bias-T EML drive
 - 2.6Vp-p differential output for SiPho applications
- 8x100Gbs PAM4 Retimer variant supported by dual-die package

Description

The Marvell Spica PAM4 DSP is a next generation solution for cloud data center, high-performance computing, and AI optical transceivers. Spica supports multiple industry standard protocols up to 100Gbs for both single mode and multi-mode applications. Spica is equipped with an industry leading PAM4 digital core for optimal performance across a range of applications. Spica includes several performance monitoring features including SNR, histogram, FFE-tap view for both line and host side interfaces. Additionally, both host and side interface support shallow loopback and PRBS generator/checker for diagnostic operations.



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 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.

Copyright © 2021 Marvell. All rights reserved. Marvell and the Marvell logo are trademarks of Marvell or its affiliates. Please visit www.marvell.com for a complete list of Marvell trademarks. Other names and brands may be claimed as the property of others.