

AtlasQuad KGD PAM-4 Optical Module Applications

Part No.

AtlasQuad

Product Type

50G PAM DSP

Market Segments

Inside Data Centers

Applications

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

Features

- High performance, versatile and adaptive digital core
- Low Power
- Integrated TIAs & Drivers
- Independent Channels supporting full break out

Description

The Marvell Atlas™ 50Gbps PAM4 optical DSP is a next generation solution for cloud data center, high-performance computing, and AI optical transceivers. The Atlas optical DSP supports multiple industry standard protocols for both single mode and multi-mode applications. Atlas is equipped with an industry leading PAM4 digital core for optimal performance across a range of applications. In addition to the digital core, the platform integrates the PMD layer including TIAs and a selection of laser drivers. Additionally, the platform leverages the host side SERDES and API library from the Polaris PAM4 DSP, which is the industry's most widely deployed solution.

The high performance, mixed signal electronics in Atlas are complemented by a full suite of performance monitoring tools that deliver an extensive range of real-time data telemetry.

The Atlas optical DSP utilizes high volume, mass production CMOS and is mechanically implemented via a Known Good Die (KGD) form factor optimized for Chip on Board (CoB) module assembly technology.