

## **Alcor 100G PAM4 for Optical Module Applications**

Part No.

Alcor

**Product Type** 

100G PAM DSP

**Market Segments** 

Inside Data Centers

## **Applications**

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

## **Features**

- NRZ Variant: 4x25G NRZ PCS to 1x100G KP/KR-FEC encoded PAM4
- PAM4 Variant: 2x50G PAM4 to 1x100G KP/KR-FEC encoded PAM4
- Host interfaces with full 4-tap Tx FIR with eye1/2 control
- Line interfaces support 3-tap Tx FIR with eye1/2 control
- · Line Tx variants
  - · 3Vp-p differential MZM driver output
  - · 1.5Vp-p single-ended, EML drive
- Full DSP Line Receiver for maximum performance over complex optical links
- Hardware supported KP FEC statistics monitor that can be used on Egress or Ingress

## **Description**

The Marvell Alcor PAM4 DSP is a next generation solution for cloud data center, high-performance computing, and Al optical transceivers. Alcor supports multiple industry standard protocols up to 100Gbs for both single mode and multi-mode applications. It is equipped with an industry leading PAM4 digital core for optimal performance across a range of applications. Alcor includes several performance monitoring features including SNR, histogram, FFE-tap view for line side interface. Both host and side interface support shallow loopback and PRBS generation/checking for diagnostic operations. Additionally, Alcor has a hardware assisted KP FEC statistics monitor that can report counts for correctable code-words uncorrectable code-words and the full FEC 'histogram' for errors from 1/code-word, up to 15/code-word.



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.