



800ZR Coherent Transceiver Interoperability

AresONE 800GE Dual Interface Model-M with QSFP-DD800 and OSFP800 ports enables L1–L3 testing of optical transceivers, active and passive fiber, and copper interconnects **from 10GE to 800GE on a single platform.**

Key features & specifications:

- RS-544 (KP4) Forward Error Correction (FEC) support for all PAM4 speeds
 - 800/400/200 and 100GE over 106.25 Gb/s electrical lanes
 - 400/200/100 and 50GE over 53.125 Gb/s electrical lanes
- FEC error injection and analysis for 800GE, 400GE and 200GE PAM4 speeds
- BER per lane and per port, and pre-FEC BER frame loss ratio (FLR) analysis
- Line-rate at all speeds with per-port and per-flow statistics
- Per-lane controls & status, FEC and error monitoring, lane mapping and skew insertion
- Optical and copper interconnect media support with CMIS 5.0
- ± 105 ppm line frequency adjustment (adjusted per port for 800GE PAM4 speeds)
- Digital Optical Monitoring (DOM)
 - Provides device status, electrical power, temperature, power class, laser power, LOL and LOS thresholds and alarm monitoring information.
- Advanced Rx Eye Histogram Analysis
 - Per-lane PAM4 signal shape analysis and symbol error rate (SER) statistics
 - Compare signal quality between lanes and several vertical eye measurements





AresONE 800GE Dual Interface Model 4-Port Test System

Keysight Addresses a Broad Array of Test Challenges with AresONE 800GE-M Dual Interface Model

Performance

New rounds of benchmark testing of networking equipment

Inter-operability

New network devices with every combination of the Ethernet speed and interconnect

New copper cables

New 106G electrical lane passive and active copper cables



BER & FEC performance pre-FEC BER $\leq 2.4 \times 10E-4$

Frame Loss Ratios: 0-0E for zero packet loss
100GBASE-CR1 $\leq 6.2 \times 10E-10$
200GBASE-CR2 and 400GBASE-CR4 $\leq 9.2 \times 10E-13$

Multi-rate Ethernet ports

800GE with 106Gb/s lanes
400GE with 53Gb/s lanes
100GE with 25Gb/s lanes

New optics

New 106G electrical lane OSFP800 and QSFP-DD800 optics, and 800ZR coherent