



Real World Signal Testing Made Easy



Low cost IEEE 802.3aq Compliance Test System for Manufacturing

The LRM standard was conceived to ensure a 10G optical plug-and-play architecture over a minimum of 220m of low grade multimode fiber. The standard defines both the transmitter and receiver performance requirements. Given the difficult dispersion characteristics of multimode fiber the standard's body created three stressors to mimic the worst case dispersion effects. The stressed signals must conform to a specific shape and TWDP value. The standard recommends a test configuration consisting of multiple instruments required for tuning the stressed signals and measuring a receiver's BER performance. Although the test is very thorough in guaranteeing LRM connectivity, the complexity of the test and the instrument to instrument variations will make testing and industry correlation difficult. Hydra aims to solve these issues.

Hydra features fully compliant stress testing, adjustable output power, variable pattern generation, and BER measurement. This all-in-one solution provides industry leading repeatability and solves the issues of calibration, instrument drift, and system-to-system correlation that can normally slow product release. Hydra can make your manufacturing testing fast, easy and accurate.

- ◆ Comprehensive LRM 802.3aq compliance test system for production applications
- ◆ Integrated 10.3G Stress Generation and BERT functions.
 - Automated stressed receiver testing
 - Integrated 10.3G pattern generation
 - PRBS 9, 15, 23, 31, balanced 9
 - Alt 0 and 1, square 8, square 16
 - Isolated 1
- ◆ Fully compliant IEEE 802.3aq LRM stressor
 - Order with either pre-cursor, symmetric, or post-cursor
- ◆ Adjustable optical output
 - Variable power -30 to +4 dBm
 - Set ER to 3.5 or 6.5dB
- ◆ Full remote control via a set of SCPI commands
 - Set signal pattern
 - Select stressed or unstressed output signal
 - Set output power
 - Measure BER
- ◆ Future proof modular design

Product Description:

Hydra LRM Test System, consisting of:

- ◆ Hydra 3 blade Chassis with the following modules:
 - PGM107M - IEEE 802.3aq Pattern Generator
 - LRM110M - Noise + ISI stress signal Generator

Measurement Capabilities:

- ◆ BER measurement
- ◆ Receiver Jitter Tolerance (per the 802.3aq standard)
- ◆ One calibrated stressed signal

Options

- ◆ Additional Stressors
- ◆ Dynamic Stressor