Fiber Lab - Application Note

Transceiver Design & Certification Testing

The Importance of Replicating Optical Performance and Link Latency

Optical transceivers installed into a fiber network must achieve their intended technical performance specifications since their role of transmitting and receiving data via light signals is essential to optimizing network pe. For entities designing and manufacturing transceivers to meet industry MSA standards, along with service providers evaluating and certifying these devices to meet their needs, exactly simulating the complete physical optical fiber link in the test lab is the most accurate way to validate the actual optical and latency performance results.

Transceiver Tx/Rx Link Simulation - Easy and Efficient Using Fiber Lab

Since bare optical fiber is always manufactured and spooled as a single (simplex) fiber, replicating a Tx/Rx link requires a fiber pair (duplex) or two individual fiber lengths. The total number of lengths can add up very quickly in the lab or data center when testing at various distances and requiring differing fiber types and counts for various applications. Using traditional large factory shipping reels occupies a lot of physical space and is challenging to manage. Also, handling unprotected reels increases the risk of accidental fiber damage and poor performance results.

Fiber Lab solutions, customized to user-specified Tx/Rx setup configurations, provide the industry's most efficient and trusted approach for transceiver link and latency simulation testing applications. Saving the most physical space while protecting the fiber investment, Fiber Lab solutions ensure consistent performance results, improve ease of use, and enhance the testing environment.

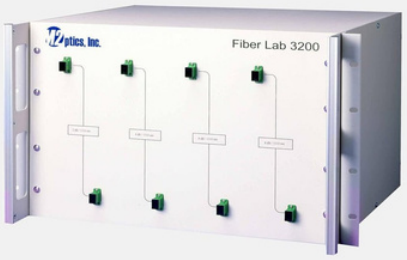
Specify a Fiber Lab

Customized Configurations - Nearly Unlimited Options

- **Wide range of rack-mount and portable enclosures**
- **All fiber types & brands: SMF, MMF, Ribbon, Specialty**
- **Precise lengths by distance or latency value**
- **All connector types, optional network elements, and more**

Visit or Contact M2 to Learn More

Solution Configuration Example



FIBER LAB 3200 (6RU X 19 IN)
Tx/Rx links of 10km, 40km, 80km, and 120km

M2 Optics, Inc.
(919) 342-5619 | sales@m2optics.com
www.m2optics.com

MADE IN USA