New 3M™ Expanded Beam Ferrule and Connector System revolutionizes optical interconnect for next generation data centers

3M’s new optical interconnect system expands the possibilities of fiber optic connector design

ST. PAUL, Minn. – Mar. 5 - 7, 2019; OFC Conference, Booth 1814 – The new 3M™ Expanded Beam Optical Connector System is engineered as a high-performance, cost-effective and scalable single mode and multimode interconnect system for data center applications. A first-of-its-kind, the revolutionary expanded beam ferrule and connector system challenges the status quo of optical interconnect and is designed to enable the industry to meet next generation data center demands.

Fiber optic expanded beam interconnect designed to deliver leading edge performance, reduce sensitivity to dust and lower total cost of ownership.

“We’ve reimagined fiber optic connectors,” said Nick Stacey, Ph.D., global laboratory manager at 3M. “Our ferrule and connector technology are designed to reduce cleaning requirements, to provide design flexibility and to enable the performance necessary for next generation optical deployment.”

The 3M™ Expanded Beam Optical Ferrule uses a non-contact optical coupling in contrast to the more traditional physical contact methods. Together with the connector design, this helps to provide reduced sensitivity to dust, helping maintain signal integrity, and reducing the need for, and cost of, maintenance and cleaning.
It is available in single mode (1310 nm) and multimode (850 nm) versions. In single mode, insertion loss specification is <0.70 dB, and return loss is >55 dB. In multimode, insertion loss specification is <0.30 dB, and return loss is >25 dB. The configurable and scalable connector design can accommodate anywhere from 12 fibers to 192 fibers. The simple, but robust hermaphroditic component geometry design, with low part count, can be mated and re-mated reliably with a simple LC-style latch. The performance enables architects and engineers to deploy the technology in multilink data center applications.

Collaborating with inspection tool providers – creating an ecosystem that will enable scalable deployment

3M is developing an ecosystem for its Expanded Beam Optical Connector System. 3M is announcing its collaboration with inspection tool providers EXFO and Sumix, who are developing adapters for their tools, inspection images and pass or fail criteria for 3M connectors.

You can learn more about the 3M™ Expanded Beam Optical Connector at Booth #1814 at the OFC Conference. A live application demonstration will be available, as well as collaborative demos with EXFO (Booth #2801) and Sumix (Booth #2746). You can also visit www.3M.com/opticalinterconnect for more information.

About 3M

At 3M, we apply science in collaborative ways to improve lives daily. With $32 billion in sales, our 91,000 employees connect with customers all around the world. Learn more about 3M’s creative solutions to the world’s problems at www.3M.com or on Twitter @3M or @3MNews.

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