ENHANCED MULTIMODE FIBERS REDUCE ATTENUATION, IMPROVE CONNECTIVITY PERFORMANCE IN DATA CENTERS

BICSI Fall Conference, Booth 306, Las Vegas, September 16, 2013 – OFS, a leading designer, manufacturer and supplier of innovative fiber optic network products, today announced it has improved several important optical and geometry specifications for its line of 50 µm multimode fibers including LaserWave® FLEX Bend-Optimized Fiber.

The new, tighter specifications can reduce connector loss and improve link system performance in cabled fiber for demanding data center and enterprise applications. The enhancements can provide extra margin, or “headroom,” in 10, 40 and 100 Gb/s applications, enabling greater network design flexibility and reliability.

For its line of 50 µm multimode fibers meeting the OM4, OM3 and OM2 standards, OFS has lowered its 850 nm attenuation specification from ≤ 2.3 dB/km to ≤ 2.2 dB/km, the lowest in the industry. This improvement will help fiber-optic cablers minimize attenuation in their cable and provide end users with low-loss links in their networks.

In addition, OFS has improved several key geometry specifications in its 50 micron multimode fibers to industry-leading levels. Clad diameter tolerance has been tightened from 125.0 ± 1.0 µm to 125.0 ± 0.8 µm, while clad non-circularity has been improved from 1% to 0.7%. Combined with a numerical aperture tolerance that has been tightened from 0.200 ± 0.015 to 0.200 ± 0.010, these improved specifications allow for better core-to-core alignment and light-coupling efficiency in connectors and splices, thereby helping to reduce the loss at these connections.

Modeling of simulated connections conducted by OFS indicates that the tighter specifications can result in connection loss improvement approaching 0.1 dB per connection. In a common worst-case, 4-connection link, this would result in an improvement of nearly 0.5 dB, a significant improvement in light of the fact that total multimode loss budgets are shrinking below 2.0 dB for 40 and 100 Gb/s speeds.
OFS is able to realize these improvements through the use of its patented Modified Chemical Vapor Deposition (MCVD) fiber manufacturing process. This process is optimally suited for creating the precision refractive index profiles required for today's high performance laser-optimized multimode fiber, like LaserWave FLEX OM4/OM3 Fibers, capable of transmitting to distances of 550 meters at 10 Gb/s, and 150 meters at 40 and 100 Gb/s.

About OFS

OFS is a world-leading designer, manufacturer and provider of optical fiber, optical fiber cable, connectivity, FTTx and specialty photonics solutions. Our marketing, sales, manufacturing and research teams provide forward-looking, innovative products and solutions in areas including Telecommunications, Medicine, Industrial Automation, Sensing, Government, Aerospace and Defense applications. We provide reliable, cost effective optical solutions to enable our customers to meet the needs of today's and tomorrow’s digital and energy consumers and businesses.

OFS' corporate lineage dates back to 1876 and includes technology powerhouses such as AT&T and Lucent Technologies. Today, OFS is owned by Furukawa Electric, a multi-billion dollar global leader in optical communications.

For more information, please visit www.ofsoptics.com.

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