

OFS Expands Ultra Long Haul Product Line with Introduction of TeraWave™ SCUBA Optical Fiber

Enables Launch of Higher Signal Power for Submarine Systems Transmitting 100Gb/s and Beyond

OFC 2016, Booth 2633, Anaheim, California, March 22, 2016 - OFS, a leading designer, manufacturer and supplier of innovative fiber optic network products announces a breakthrough in ocean fiber technology with the introduction of TeraWave SCUBA Optical Fiber, offering a combination of the industry's largest effective area, excellent cabling performance in the C- and L-bands, and low attenuation. These features enable reliable coherent transmission at 100 Gb/s and beyond over trans-oceanic distances at the highest channel counts. The fiber has ultra large effective area ($153 \mu\text{m}^2$) that reduces nonlinearities, and ultra-low attenuation (0.155 dB/km at 1550 nm) that reduces signal loss. Together these enable the launch of higher signal power into the span and reduce amplifier noise.

TeraWave SCUBA Optical Fiber is optimized for ultra-long haul networks (up to 12,000 km) using advanced modulation formats and coherent detection, such as transoceanic networks where extreme distances between shore end terminals limit the optical signal-to-noise ratio for DWDM transmission. Compared to earlier generations of submarine fibers, TeraWave SCUBA Optical Fiber reduces the performance limitations introduced by fiber nonlinearities and amplifier noise, thereby supporting higher spectral efficiency and longer repeater spacing.

Applications without repeaters, such as coastal festoons and deep-water crossings, can also take advantage of the large effective area of TeraWave SCUBA Ocean Fiber, which permits higher power handling capacity without additional distortion, meaning more channels at higher speeds over longer distances before amplification is required.

"The Silica Core and Ultra Big Area features of the TeraWave SCUBA Optical Fiber deliver significant performance margin beyond that needed for transmitting 100 Gb/s over trans-Pacific distances," said Dr. Andrew Oliviero, Senior Director of Global Product Line Management | Research and Development Optical Fiber, Cable and Connectivity Products for OFS. "The

additional performance margin can be used to upgrade to denser signal constellations for increased spectral efficiency as new transponders become commercially available thereby providing an upgrade path and ability to expand system capacity.”

TeraWave SCUBA Optical Fiber is manufactured using OFS’ proprietary manufacturing process, which produces a fiber with low water peak (LWP) performance and ultra-low polarization mode dispersion (PMD). It is fully compliant with the ITU G.654 standard for cutoff-shifted fiber.

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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