

OFS Expands Ultra Long Haul Product Line with Introduction of TeraWave® SCUBA 125 Optical Fiber

Enables Higher Transmission Speeds with more Wavelengths over Trans-Oceanic Distances

OFC 2018, Booth 3339, San Diego, California, March 12, 2018 - OFS, a leading designer, manufacturer and supplier of innovative fiber optic network products announces an expansion of our ocean product portfolio with the introduction of TeraWave SCUBA 125 Optical Fiber, optimally designed to deliver excellent performance for coherent transport submarine systems. The effective area is matched to terrestrial G.654.E fibers for excellent performance from the ocean landing site to terrestrial networks. Further, this fiber offers excellent cabling performance in the C- and L-bands and world-class attenuation.

The effective area of 125 square-microns reduces nonlinearities, enabling the launch of higher signal power compared to G.652 and most G.654B fibers, while the ultra-low attenuation of ≤ 0.158 dB/km (average) reduces signal loss. Together these enable the launch of higher signal power into the span and reduce amplifier noise, enabling higher transmission speeds with more wavelengths over trans-Atlantic distances than ultra-low loss G.652 fibers.

The ultra-low attenuation enabled by a pure silica core and large effective area features of the TeraWave SCUBA 125 fiber deliver improved margin beyond that needed for transmitting 100 Gb/s over trans-Atlantic distances, across the C- and L-bands. The additional margin can be used to support denser signal constellations than can be achieved with G.652 fibers for increased spectral efficiency.

“The low noise and low non-linearity provided by TeraWave SCUBA 125 fiber could be used to engineer a trans-Atlantic link with 8-QAM modulation, or alternatively a lower cost QPSK modulation system with fewer repeaters,” said Dr. Robert Lingle Jr., Director of Systems & Technology Strategy at OFS. “Then you could extend the SCUBA 125 fiber in standard terrestrial cable all the way into the inland data center. To illustrate the capabilities of this new fiber, we will show in our booth at OFC 2018 that you could even use TeraWave SCUBA 125

fiber to help engineer a 1000 km terrestrial link at 200 Gb/s between data centers – with pluggable coherent optics!”

SCUBA 125 fiber is manufactured using OFS’ proprietary manufacturing process, which produces a fiber with ultra-low polarization mode dispersion (PMD), an exceptional resistance to mechanical stress. It is fully compliant with the ITU G.654.B, D and E standard for cutoff-shifted fiber.

TeraWave SCUBA 125 fiber complements the TeraWave SCUBA 150 fiber launched in 2016 by providing a fiber optimized for higher capacity, medium length, C+L band, submarine systems. It is also purposely designed to match the effective area and mode field of the TeraWave ULL terrestrial optical fiber for ultralong haul connections between cloud data centers. This provides flexibility of linking submarine and terrestrial systems in the global cloud network.

About OFS

OFS is a world-leading designer, manufacturer and provider of optical fiber, fiber optic cable, connectivity, fiber-to-the-subscriber (FTTx) and specialty fiber optic products. We put our development and manufacturing resources to work creating solutions for applications in such areas as telecommunications, medicine, industrial automation, sensing, aerospace, defense and energy. We provide reliable, cost-effective fiber optic solutions that help our customers meet the needs of consumers and businesses today and into the future.

Headquartered in Norcross (near Atlanta) Georgia, U.S.A., OFS is a global provider with facilities in China, Denmark, Germany, Russia and the United States. OFS is part of Furukawa Electric Company, a multi-billion dollar leader in optical communications.

Please visit www.ofsoptics.com.

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OFS PR Contact:

Sherry Salyer
Public Relations
shsalyer@ofsoptics.com

OFS Technical Contact:

David Mazzaresse
Fiber Product Line
Management
dmazzaresse@ofsoptics.com