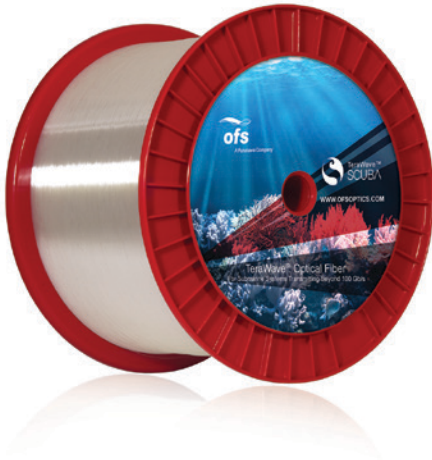


TeraWave® SCUBA Ocean Optical Fiber

For Submarine Systems Transmitting at 100 Gb/s and Beyond



Applications

- Ultra-long haul networks using advanced modulation formats and coherent detection such as transoceanic networks
- Applications without repeaters, such as coastal festoons and deep-water crossings

Engineered Fiber Sets

OFS has the capability to color and splice ocean fibers to meet stringent cable requirements. Fibers are selected to meet customer specifications for numbers of fibers, colors, lengths, and transmission properties. They are then assembled into sets. Final measurements guarantee customer specified performance for all fibers in the set.

Features and Benefits

- Effective area of 153 μm^2
- Nominal loss of 0.155 dB/km at 1550 nm
- Enables launch of higher signal power into the span
- Enable higher transmission speeds with more wavelengths over trans-oceanic distances
- Reduces amplifier noise in the C- and L-bands
- Supports polarization-multiplexed, coherent transport using high spectral efficiency modulation formats
- Proof tested to 200 kpsi to help ensure long-term reliability under extreme conditions

Overview

TeraWave® SCUBA Ocean Optical Fiber is optimally designed to deliver best-in-class performance for coherent transport in submarine systems for distances up to 12,000 km with high spectral efficiency. It is fully compliant with the ITU G.654.D standard for cutoff-shifted fiber.

Product Description

A breakthrough in ocean fiber technology, TeraWave SCUBA Fiber offers a combination of the industry's largest effective area, excellent cabling performance in the C- and L-bands, and world-class 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 μm^2) that reduces nonlinearities, enabling the launch of higher signal power into the span, and ultra low attenuation (0.155 dB/km at 1550 nm) that reduces signal loss.

The pure Silica Core and Ultra Big Area features of the TeraWave SCUBA fiber deliver significant margin beyond that needed for transmitting 100 Gb/s over trans-Pacific distances. The additional margin can be used to upgrade to denser signal constellations for increased spectral efficiency as new transponders become commercially available.

TeraWave SCUBA Fiber is manufactured using OFS' proprietary manufacturing process, which produces a fiber with low water peak (LWP) performance, ultra-low polarization mode dispersion (PMD) and exceptional resistance to mechanical stress.

For additional information please contact your sales representative.

You can also visit our website at www.ofsoptics.com or call **1-888-fiberhelp** (1-888-342-3743) USA or **1-770-798-5555** outside the USA.

North America

Telephone: 508-347-8590
Toll Free: 800-799-7732
Fax: 508-347-1211
E-mail: fibersalesnar@ofsoptics.com

Asia Pacific

Telephone: +852 2506 5054
Fax: +852 2506 0166
E-mail: fibersalesap@ofsoptics.com

Caribbean, Latin America

Telephone: +1-508-347-8590
Fax: +1-508-347-1211
E-mail: fibersalescala@ofsoptics.com

Japan

Telephone: +81-3-3286-3424
Fax: +81-3-3286-3708 or 3190
E-mail: fibersalesjapan@ofsoptics.com

Europe, Middle East, Africa

Telephone: +45-43 48 3736
Fax: +45 4348 3444
E-mail: ofssalesdk@ofsoptics.com

China

Telephone: +86 10 6505 3660
Fax: +86 10 65059515
E-mail: fibersaleschina@ofsoptics.com

TeraWave® SCUBA Ocean Optical Fiber

Product Specifications	TeraWave® SCUBA Optical Fiber
Transmission Characteristics	
Attenuation @ 1550 nm (nominal)	0.155 dB/km
Dispersion @ 1550 nm (nominal)	22 ps/nm-km
Mode Field Diameter @ 1550 nm (nominal)	13.8 μm
Effective Area (nominal)	153 μm ²
Cable Cutoff Wavelength	≤ 1530 nm
PMD @ 1550 nm (nominal)	0.02 ps/√km
Effective Group Index of Refraction (nominal)	1.465 @ 1550 nm
Point Discontinuities @ 1550 nm	≤ 0.10 dB
Geometrical Characteristics	
Clad Diameter	125 ± 0.7 μm
Coating Diameter, uncolored (nominal)	255 μm
Coating/Clad Concentricity Error	≤ 12 μm
Mechanical and Other	
Tensile Proof Test	200 kpsi (0.69 GPa)
Dynamic Fatigue Parameter (n _d)	≥ 20
Coating Strip Force (Mechanical)	1.0 - 8.9 N
Colors	18 colors available (including olive, lime, magenta, dark green, clear, and tan)
Matching Sets	Yes



Copyright © 2017 OFS Fitel, LLC.
All rights reserved, printed in USA.

OFS Marketing Communications
Doc ID: fiber-168
Date: 1117

TeraWave is a registered trademark of OFS Fitel, LLC.

OFS reserves the right to make changes to the prices and product(s) described in this document at any time without notice. This document is for informational purposes only and is not intended to modify or supplement any OFS warranties or specifications relating to any of its products or services.