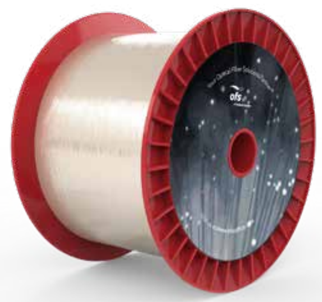
62.5 µm Laser Optimized Optical Fiber

Combines 1 Gigabit Ethernet capabilities and full compatibility with legacy multimode networks



Features and Benefits

- Superior geometric tolerances and very low attenuation
- Enables minimal connection loss and low cabled attenuation
- Allows for Gigabit Ethernet operation up to 300 m at 850 nm and up to 550 m at 1300 nm
- Designed for laser based Gigagit Ethernet applications while supporting legacy LED applications

Applications

- Applications operating at 1 Gb/s transmission speeds
- Fiber Distributed Data Interface (FDDI), Fast Ethernet and 155 Mb/s Asynchronous Transfer Mode (ATM)

D-LUX® Shield Coating

OFS multimode optical fibers are made with a world-class draw process and our enhanced D-LUX Shield coating, designed to minimize induced attenuation that can occur in tight-buffer cable. Easy to strip and install, the coating offers outstanding performance in attenuation-sensitive 1 Gb/s and 10 Gb/s systems.

Product Description

OFS' 62.5 µm Laser Optimized Graded-Index Multimode Optical Fiber provides high performance over longer link lengths for Gigabit Ethernet and other high-speed transmission protocols. 62.5 µm Laser Optimized Fiber provides transmission distances up to 300 m at 850 nm and up to 550 m at 1300 nm.

Fully compatible with your installed base of 62.5/125 µm multimode fiber, our 62.5 µm Laser Optimized Fiber allows for seamless upgrades of existing installations to 1 Gigabit per second (Gb/s) capability. The fiber meets or exceeds all performance requirements for Institute of Electrical and Electronics Engineers (IEEE) 802.3 Gigabit Ethernet standards.

Manufacturing and Quality Control

Robust and easy to connectorize, OFS 62.5 µm Laser Optimized Fiber promotes ease of installation even under the most stringent conditions. OFS protects the fiber with D-LUX Shield coating, a dual-layered acrylate coating system that provides the industry's best protection against water, temperature and humidity extremes, yet still strips cleanly and easily.

Our fiber is manufactured at the OFS Multimode Center of Excellence in Sturbridge, Massachusetts using the company's advanced Modified Chemical Vapor Deposition (MCVD) technology. Using the MCVD process, OFS produces a range of multimode fiber products that offer excellent performance for all transmission protocols. The MCVD method enables OFS to precisely control each fiber's index of refraction. Under the restricted launch conditions used in Gigabit Ethernet, this maximizes fiber bandwidth performance at 1 Gb/s speeds.

Like all OFS graded-index multimode fibers, our Laser-Optimized 62.5 Fiber is tested and proven to exceed the Telecommunications Industry Association (TIA) Fiber Optic Test Procedures (FOTP) and other industry standards.

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.

For a full list of our certifications, visit our website.

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62.5 µm Laser Optimized Optical Fiber

Product Specifications	62.5 µm Laser Optimized Optical Fiber
Physical Characteristics	
Core Diameter	62.5 ± 2.5 µm
Core Non-Circularity	≤ 5 %
Clad Diameter	125 ± 1 µm
Clad Non-Circularity	≤ 1 %
Core/Clad Concentricity Error (Offset)	≤ 1.0 µm
Coating Diameter	245 ± 10 µm
Coating Non-Circularity	≤ 5 %
Coating-Clad Concentricity Error (Offset)	≤ 12 µm
Tensile Proof Test	100 kpsi (0.69 GPa)
Coating Strip Force	Range: 0.22 - 2.0 lbf (1.0 - 8.9 N) Typical: 0.6 lbf (2.7 N)
Standard Reel Lengths	2.2 - 8.8 km
Optical Characteristics	
Attenuation @ 850 nm @ 1300 nm	≤ 2.9 dB/km ≤ 0.6 dB/km
Overfilled Bandwidth @ 850 nm @ 1300 nm	 ≥ 220 MHz-km ≥ 500 MHz-km
Transmission Distance (Link Length) Support Gigabit Ethernet at 850 nm Gigabit Ethernet at 1300 nm	 300 meters 550 meters
Attenuation at 1380 nm minus attenuation at 1300 nm	≤ 1.0 dB/km
Attenuation Uniformity / Point Discontinuities at 850 nm and 1300 nm	≤ 0.08 dB
Numerical Aperture	0.275 ± 0.015
Chromatic Dispersion Zero Dispersion Wavelength (λ0) Zero Dispersion Slope (S0)	 1320 – 1365 nm ≤ 0.11 ps/nm²-km (1320 ≤ λ0 ≤ 1348 nm) ≤ 0.001 x (1458 – λ0) (1348 ≤ λ0 ≤ 1365 nm)
Group Refractive Index at 850 nm at 1300 nm	 1.496 1.491
Backscatter Coefficient at 850 nm at 1300 nm	 -68.4 dB -72.1 dB
Macrobend Attenuation 100 turns on a 75 mm mandrel at 850 nm and 1300 nm	≤ 0.5 dB
Environmental Characteristics	
Operating Temperature Range	-60 °C to +85 °C
Temperature Induced Attenuation at 850 nm and 1300 nm from -60 °C to +85 °C (5 24-hour cycles)	≤ 0.1 dB/km
Temperature and Humidity Induced Attenuation at 850 nm and 1300 nm from -10 °C to +85 °C 94% RH, (30 24-hour cycles)	≤ 0.1 dB/km
Accelerated Aging (Temperature) Induced Attenuation at 85 °C for 30 days	≤ 0.1 dB/km
Water Immersion Induced Attenuation, 23 °C for 30 days	≤ 0.1 dB/km
Dynamic Fatigue Stress Corrosion Parameter (n_d)	≥ 18