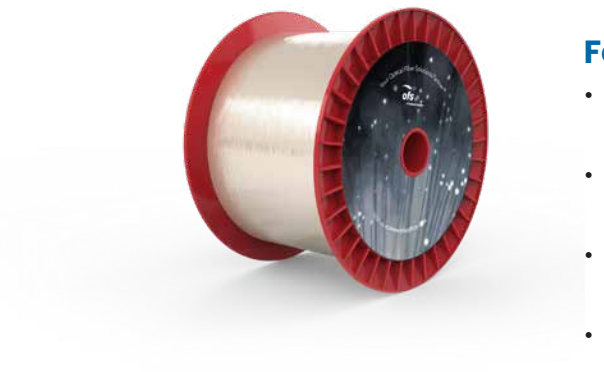
LaserWave® *FLEX* G+ (OM2+) Multimode Optical Fiber

A 50 µm multimode fiber optimized for low bend loss in 1 Gigabit Ethernet applications



Features

- Extended reach for 1 Gb/s enterprise applications
- Superior geometry and optical specifications with low attenuation
- DMD-tested for higher reliability at longer link lengths
- Backward compatible with all standard 50 µm OM2 multimode fibers

Benefits

- Supports Gigabit Ethernet operation up to 750 meters at 850 nm and 10 Gb/s operation up to 150 meters at 850 nm
- Enables minimal connection loss and low cabled attenuation
- Outstanding bend performance

Applications

- 1 Gb/s transmission in campus backbone, riser and horizontal applications
- Internet data centers
- Equipment rooms and short building backbones
- Low-loss cabling systems

Overview

LaserWave *FLEX* G+ (OM2+) Multimode Optical Fiber provides high bandwidth and reduced bending loss for extended reach 1 Gigabit Ethernet transmission in local area networks at distances up to 750 meters. Superior fiber geometry and optical specifications make this fiber ideal for low loss, cost effective, short reach 1 Gb/s and 10 Gb/s networks. The fiber offers outstanding bend performance at a radius as low as 7.5 mm, enabling smaller, higher density fiber management systems in space-constrained environments and routing.

LaserWave *FLEX* G+ (OM2+) Multimode Optical Fiber maximizes the potential of the Gigabit Ethernet standard while also delivering 10 Gb/s application support up to 150 meters at 850 nm. This capability allows it to be used for longer distance 1 Gb/s applications and shorter reach 10 Gb/s 850 nm applications.

A cost-effective solution for 1 Gb/s transmission, LaserWave *FLEX* G+ (OM2+) Multimode Optical Fiber offers low bending loss at both the 850 and 1300 nm operating windows, with excellent long term fiber strength and reliability. The fiber can be installed in loops as small as 7.5 mm radius with less than 0.2 dB bending loss at 850 nm and 0.5 dB at 1300 nm.

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.

Product Specifications		
Physical Characteristics		
Core Diameter	50 ± 2.5 µm	
Core Non-Circularity	≤ 2.5 %	
Clad Diameter	125 ± 0.7 µm	
Clad Non-Circularity	≤ 0.7 %	
Core/Clad Concentricity Error (Offset)	≤ 0.7 µm	
Coating Diameter	242 ± 5 µm	
Coating Non-Circularity	≤ 5 %	
Coating-Clad Concentricity Error (Offset)	≤ 10 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	up to 17.6 km	
Optical Characteristics		
Attenuation		
at 850 nm	≤ 2.2 dB/km	
at 1300 nm	≤ 0.6 dB/km	
Overfilled Bandwidth		
at 850 nm	≥ 700 MHz-km	
at 1300 nm	≥ 500 MHz-km	
Laser Bandwidth/EMB		
at 850 nm	≥ 950 MHz-km	
at 1300 nm	≥ 500 MHz-km	
Transmission Distance (Link Length) Support		
Gigabit Ethernet at 850 nm	750 meters	
Gigabit Ethernet at 1300 nm	600 meters	
10 Gigabit Ethernet at 850 nm	150 meters	
Attenuation 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	0.200 ± 0.010	
Chromatic Dispersion		
Zero Dispersion Wavelength(λ_0)	$1297 \le \lambda_0 \le 1328$ nm	
Zero Dispersion Slope (S_0)	$S_0 \le 4(-103)/(840(1-(\lambda_0/840)^4))$ ps/nm^2.km	
Group Refractive Index		
at 850 nm	1.483	
at 1300 nm	1.479	
Backscatter Coefficient		
at 850 nm	-68.4 dB	
at 1300 nm	-75.8 dB	
Macrobend Attenuation	850 nm	1300 nm
100 turns @ 37.5 mm radius	≤ 0.5 dB	≤ 0.5 dB
2 turns @ 15 mm radius	≤ 0.1 dB	≤ 0.3 dB
2 turns @ 7.5 mm radius	≤ 0.2 dB	≤ 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	
Damp Heat, 85° C, 85% Relative Humidity for 30 days	≤ 0.1 dB/km	
Dynamic Fatigue Stress Corrosion Parameter typical (n_d)	≥ 20	

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

RoHS Compliant

OFS Marketing Communications
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