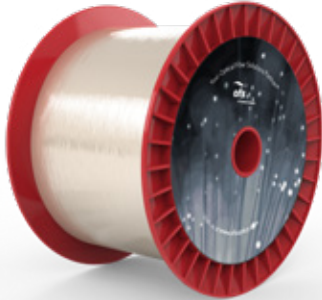




A Furukawa Company

Standard Highly Non-Linear Optical Fiber

P/N: HNLF Standard



Overview

OFS Highly-Non-Linear Optical Fiber (HNLF) combines a high non-linear coefficient with a small dispersion slope. The fiber design includes a high delta core, doped with GeO₂, surrounded by a deeply depressed ring doped with fluorine.

HNLF is available in five versions: HNLF Standard with a dispersion slope of 0.019 ps/(nm²·km), HNLF Zero-slope with a dispersion slope of 0.006 ps/(nm²·km), HNLF-PM which is polarization maintaining, HNLF Al-Doped with an aluminum doped core for increased SBS threshold, and HNLF-SPINE (Stable Phase-matching for Improved Nonlinear Efficiency) with a zero dispersion wavelength that is very stable along the fiber length. All are available with wide range dispersion values.

Typical Applications

- Non-Linear Loop Mirror
- Optical Regeneration
- Optical Sampling
- Parametric Amplification
- Photosensitive Fiber for Writing of UV-Gratings
- Pulse Compression
- Supercontinuum Generation
- Wavelength Conversion



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Product Specifications	
Product Description	Standard Highly-Non-Linear Optical Fiber
Optical Characteristics	
Type	Non-Standard
Fiber Length	50 to 2000 m
Fiber Length Tolerance	± 3
Cutoff Wavelength	< 1300 nm
Effective Area (Typical)	11.6 μm ²
Dispersion	-2.5 to +2.0 ps/(nm·km)
Dispersion Slope	0.019 ± 0.004 ps/(nm ² ·km)
PMD	≤ 0.20 ps/√km
Attenuation	≤ 0.90 dB/km
Typical Attenuation	0.8 dB/km
Splice Loss to SSMF Pigtail	≤ 0.20 dB
Splice Loss to SSMF Pigtail (Typical)	0.10 dB
PM or non-PM	non-PM
SBS Threshold x Effective Length (Typical)	18 W·m
Non-Linear Coefficient (Typical)	11.5 W ⁻¹ ·km ⁻¹

Ordering Information for HNLF Standard Module	
Short (1-2 meter) Standard Single-Mode (SSMF) pigtails with connectors are spliced to the HNLF. The fiber with pigtails is delivered on a 29 x 175 mm spool covered with a protective layer of silicone glue.	
Ordering Code: HNLF-ST-LLLL-P-M-DD	
Length Code (LLLL)	Length in step of 50 meters (0050, 0100, 0150, .. 2000)
Pigtail Option (P)	Pigtail Type 1 = SSMF with FC/APC Connectors 2 = SSMF with FC/PC Connectors
Mechanical Option (M)	Mechanical Package 1 = 29x175 mm spool with silicone glue 2 = 29x175 mm spool without silicone glue
Dispersion Code (DD)	Dispersion at 1550 nm (ps/nm·km) m2 = -2.0 ± 1.0 m1 = -1.0 ± 1.0 z0 = 0.0 ± 1.0 p1 = 1.0 ± 1.0 p2 = 2.0 ± 1.0

Ordering Information for HNLF Standard Module	
The HNLF can also be delivered on a spool without pigtails and silicone. Please note that a splice loss of about 1 dB from HNLF to SSMF must be expected when using standard fusion splicers.	
Item Number	Dispersion at 1550 nm (ps/nm·km)
80412m2	-2.0 ± 1.0
80412m1	-1.0 ± 1.0
80412z0	0.0 ± 1.0
80412p1	1.0 ± 1.0
80412p2	2.0 ± 1.0

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.



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