

Specification Sheet



Non-Standard Fiber Highly Non-Linear Fiber Module



OFS Highly-Non-Linear Fiber combines a high non-linear coefficient with numerical small group velocity dispersion. The fiber design includes a high delta core, doped with GeO₂, surrounded by a deeply depressed ring doped with Fluorine. The HNLF is

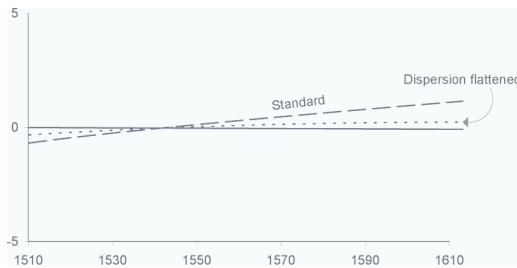
available in three versions: a zero dispersion slope version, a version with a slope of 0.019 ps/(nm²•km), and a PM version. All are available with wide range dispersion values.

	HNLF Standard	HNLF Zero-Slope	HNLF PM
Physical Properties			
Fiber length	50 to 2000 m ± 3%	50 to 2000 m ± 3%	50 to 500m ± 3%
Optical Properties			
Cutoff wavelength	<1300 nm	<1300 nm	<1500 nm
Effective area (<i>typical</i>)	11.7 μm ²	11.7 μm ²	13 μm ²
Dispersion slope (ps/(nm ² •km))	0.019 ± 0.004	0 ± 0.01	0.025 (<i>typical</i>)
Dispersion (ps/(nm•km))	-2.5 to +2.0	-1.0 to +1.5	-1.5 to +1.5
Tolerance on specified dispersion	± 0.5	± 0.5	± 0.5
Wavelength range	1540 to 1560 nm	1540 to 1560 nm	1540 to 1560 nm
Attenuation @ 1550 nm	≤0.90 dB/km	≤0.90 dB/km	≤0.90 dB/km
Non-linear coefficient (w ⁻¹ •km ⁻¹) (<i>typical</i>)	11.5	11.5	10.4
Splice loss to SSMF Pigtail	≤0.20 dB	≤0.20 dB	≤0.50 dB
Splice loss to SSMF Pigtail (<i>typical</i>)	0.05 dB	0.05 dB	0.30 dB
PMD (ps/√km)	≤0.20	≤0.20	na
Polarization extinction ratio	na	na	>18 dB

To order, please specify: length, standard, dispersion flattened or PM, dispersion coefficient, wavelength (between 1540 and 1560 nm) where dispersion is specified, and either connector type or bare single-mode fiber. Please discuss your requirements with us prior to placing the order.

To Order:	Location	Location	Location
Typical Applications	Optical Regeneration • Non-linear Loop Mirror • Optical Sampling • Pulse Compression • Parametric Amplification • Wavelength Conversion • Supercontinuum Generation • As a Photosensitive Fiber for Writing of UV-Induced Gratings		

Options: Module with pigtails is delivered on a 36 x 205 mm spool, covered with a protective silicone glue. Fiber without pigtails is delivered on a 105 x 265 mm spool.



Example of dispersion versus wavelength for Standard and Dispersion Flattened HNLF

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