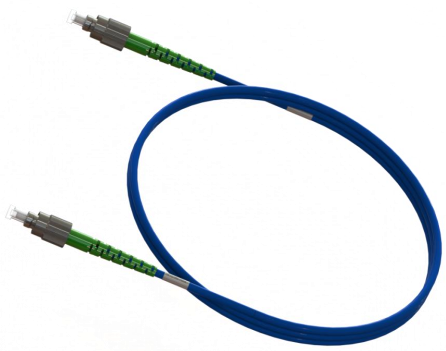
Highly Nonlinear Fiber Optic Patch Cord

Product Description

Nonlinear effects in optical fibers, such as stimulated Raman scattering (SRS), stimulated Brillouin scattering (SBS), and the optical Kerr effect, have many applications in communications and optical signal processing. Highly nonlinear optical fiber not only has a high nonlinear coefficient, but also has a small group velocity dispersion. Optical fiber jumpers made of high nonlinear optical fiber can realize rapid access to high nonlinear optical fiber in the optical system, and both ends of the jumper are converted into mode fields with single-mode optical fiber. Compared with directly connecting high nonlinear optical fiber, The loss is reduced by 3-4dB.



FC/APC high nonlinear fiber patch cord

Features

- Higher non-linear coefficients.
- The zero-dispersion wavelength is adjustable in S, C, and L windows.
- Lower loss and dispersion slope.
- Both ends are ordinary single-mode optical fibers, which can achieve low-loss access to the existing optical system.
- Both ends can be customized with FC, SC, LC, ST and other communication connectors

Applications

- Parameter amplification
- Wavelength conversion
- Pulse compression
- Super continuous light source
- Light regenerator
- Discrete pull-up amplifier

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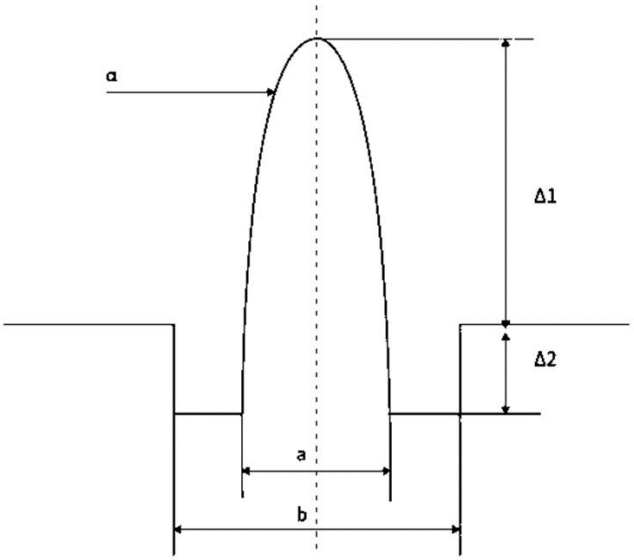
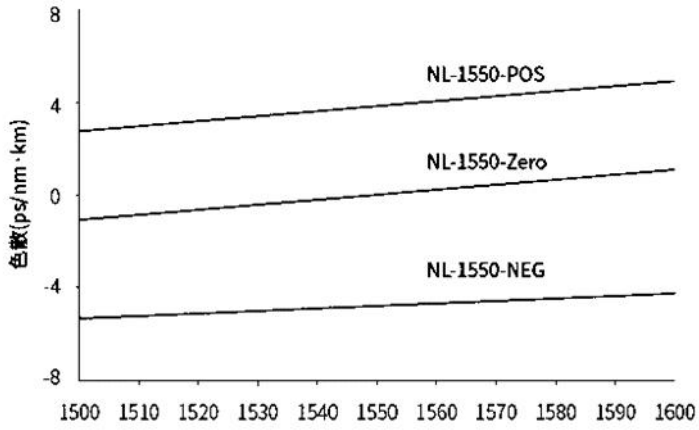


Schematic diagram of the refractive index profile used

Typical dispersion test curves of three types of HNLF



Fiber refractive index profile diagram and color line curve diagram

Optical Fiber Parameter

Fiber type	NL1550-POS	NL1550-Zero	NL1550-NEG
working window	C band	C band	C band
Dispersion slope@1550nm (ps/nm 2 *Km)	<0.035	<0.030	<0.030
Dispersion@1550nm (ps/nm*Km)	>1	0±0.1	<-1
Nonlinear coefficient @1550nm (W -1 /Km -1)	≥10	≥10	≥10
Attenuation coefficient@1550nm (dB/Km)	≤1.5	≤1.5	≤1.5
Cutoff wavelength(nm)	<1480	<1480	<1480
Numerical Aperture (Typical)	0.35	0.35	0.35
Cladding diameter (um)	125±7	125±7	125±7
Cladding out-of-roundness (%)	≤1	≤1	≤1
Core package concentricity (um)	≤0.5	≤0.5	≤0.5
Coating layer diameter (um)	245±10	245±10	245±10

Jumper parameters

category	Indicator requirements
End face requirements	400X meets IEC 61300-3-35
Insertion loss	≤1.5dB
Repeatability	≤0.1dB
Ferrule type	PC, UPC, APC optional
jacket	0.9Hytrel, 2.0/3.0mm PVC, armored empty pipe, etc. optional
Operating temperature	-40℃ ~ +85℃
Implementation standards	YD_T, IEC, Telcordia

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Ordering Information

Series model	FC	/	APC	-	FC	/	APC	-	POS	-	2.0	-	L
One end connector	FC--FC connector SC--SC connector LC--LC connector XX--Other designations												
End type	PC--grinding PC surface UPC - grinding UPC surface APC - grinding APC surface												
other end connector	FC--FC connector SC--SC connector LC--LC connector XX--Other designations												
Another end face type	PC--grinding PC surface UPC - grinding UPC surface APC - grinding APC surface												
Fiber type	POS--NL1550 POS Zero--NL1550 Zero NEG--NL1550 NEG												
Sheath type	NA--0.25 bare fiber 0.9--φ0.9 HYTREL 2.0--φ2.0 PVC 3.0--φ3.0 PVC												
length	L0.2--0.2m nonlinear optical fiber LXX--XXm specifies the fiber length												