

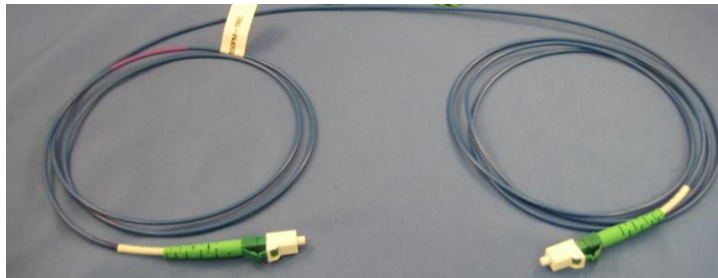
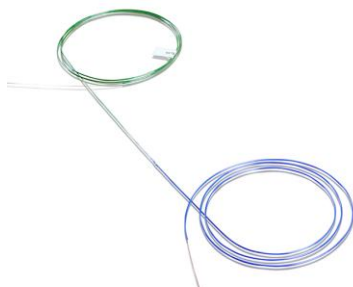


In-Fiber Linear Polarizer

The Helica™ In-Fiber Polarizer (IFP) is an all-glass, flexible polarizer for users requiring the best polarization extinction ratio (PER) available over a broad spectral range. The polarized light is scattered rather than absorbed, making this polarizer uniquely suitable for high power applications.

IFPs are also available as patch cables that polarize, rather than simply maintain, the polarization of the input light. These patch cables are connectorized on both ends with high quality and robust FC/UPC, FC/APC, LC/UPC or LC/APC connectors manufactured to the strictest standards and tested to insure high extinction ratio and low insertion losses.

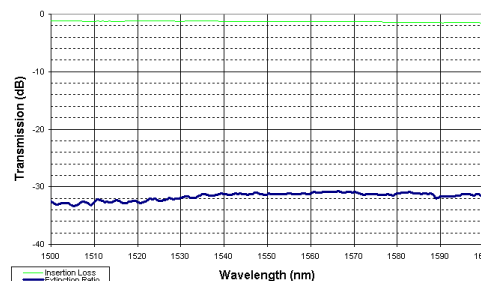
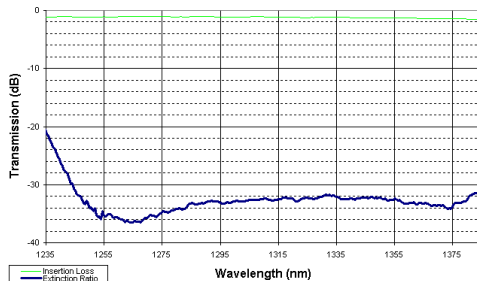
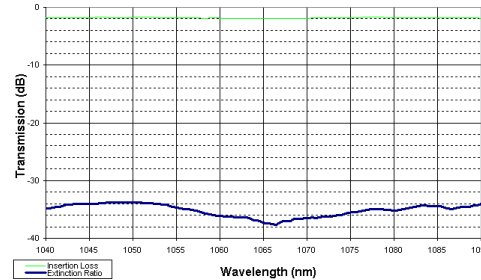
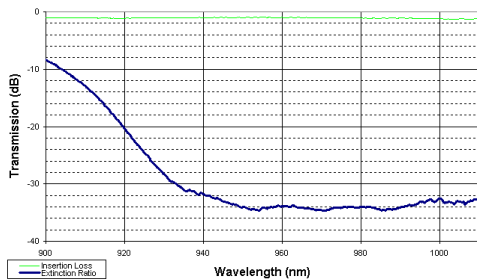
Polarizers have been delivered to address specific spectral needs ranging from 800-2000 nm. Specifications and typical spectra for polarizers with central wavelengths at 1550, 1310, 1064 and 980 nm are shown below. Custom pigtailed, jacketing, cabling and connectorization can be accommodated. Please speak to us about your specific needs.



In-Fiber Linear Polarizer – unconnectorized (left) and connectorized patch cable versions (right)

Applications:

- Polarization measurement and control
- Coherent transmission
- Optical sensors
- Fiber lasers
- Test and measurement instrumentation
- Navigation instrumentation
- R & D





SPECIFICATIONS				
Central Wavelength ¹	980 nm	1064 nm	1310 nm	1550 nm
Bandwidth	>50 nm			
Polarizations Extinction Ratio ²	>30 dB			
Typical Insertion Loss ⁴	<2 dB, <1 dB available (1000-1700 nm = LIL)			
Optical Return Loss ⁴	-22 to -24 dB, -40 dB available (LRL)			
Polarizer Length	42 ± 2 mm			
Package Style	Flexible, 2mm furcation tube (connectorized) or 900 micron furcation tube (unconnectorized)			
Pigtails ³	PM = PANDA PM fiber SM = singlemode fiber			
Operating Temperature	-40 to +85°C			
Storage Temperature	-70 to +85°C			

¹ Other wavelengths available upon request

² Typically the passing polarization travels along the slow axis. Fast axis alignment can be provided upon request.

Polarizer is unidirectional.

Degree of polarization > 40 dB.

Polarization extinction ratio is >25 dB for connectorized parts.

³ Connectorization available upon request

⁴ Low Insertion Loss (LIL) OR Low Return Loss (LRL) are not both available together, at present.

Ordering information:

IFP — λ — PT — CON — LIL / LRL — C

Options			
λ	Central Wavelength	Standard	980, 1064, 1310, 1550 nm
		Custom	www = Customer Specified - 800 to 2000 nm
PT	Pigtails	Standard	PMXX = Polarization Maintaining (PANDA) both sides, 1 meter long typical (PM01) SMXX = Singlemode both sides, 1 meter long typical (SM01)
		Custom	ttll = Customer specified: tt = fiber type, ll = pigtail length
CON	Connectors	Standard	FC/UPC, FC/APC, LC/UPC or LC/APC – both sides (specify)
		Custom	CC/CC = Customer specified
LIL OR LRL	Low Insertion Loss		LIL = <1 dB insertion loss - available for 1000-1700 nm
	Low Return Loss		LRL = <-40 dB Back-reflection
C	Custom		C = Custom – enter for every custom option above (including LIL and LRL) or other custom requirements to be specified

For example:

IFP-1550-PM01 In-Fiber Linear Polarizer, 1550 nm central wavelength, PM fibers, 1 meter long pigtails, No connectors

IFP-1310-PM02-FC/PC-LRL-C In-Fiber Linear Polarizer, 1310 nm central wavelength, PM fibers, 2 meter long pigtails, FC/APC connectors both sides, Low return loss, Custom

IFP-1480-SM01-LIL-C In-Fiber Linear Polarizer, 1480 nm central wavelength, SM fibers, 1 meter long pigtails, No connectors, Low insertion loss, Custom