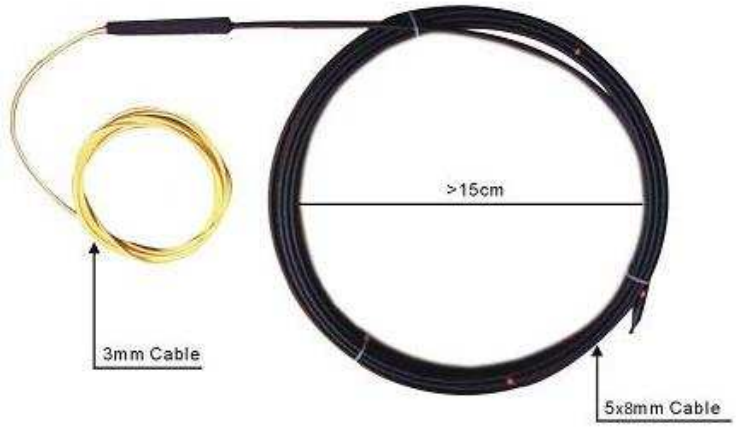
SPUN-R Fiber Description and Polarization State Evolution



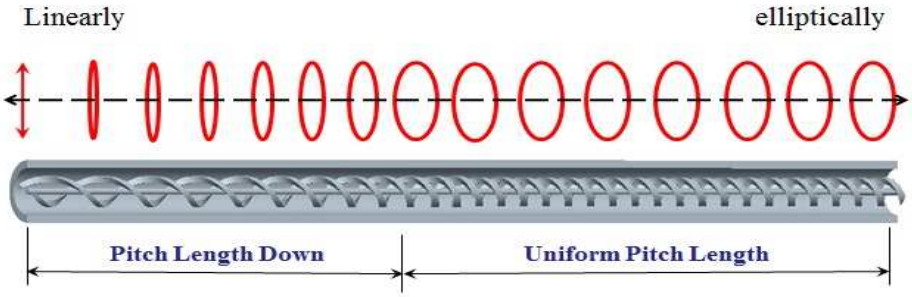
Product Features

- Low Insertion Loss
- Temperature Insensitive
- Precise Spinning Pitch
- High Current Sensitivity
- No Required for Quarter Wave Plate

Product Applications

- Current Sensors
- Lightening Sensor
- Polarization Controller
- Polarization transformers

The controllably-spun birefringent-fiber or all fiber polarization transformer consists essentially of a long spun high-birefringence fiber, fabricated by slowly varying the spin rate of a birefringent fiber preform from very slow to very fast while the fiber is being drawn. The evolution of the eigenstate from a linear polarization state to an elliptical polarization state, induced by slow variation of the intrinsic structure from linear anisotropy at the unspun to elliptical anisotropy at the fast-spun of the other end, enables power coupling between local eigenstates, and relative power in these local eigenstates as a function of distance along the length of the fiber, the extinction ratio of the output state of polarization (SOP) as a function of distance and the normalized spin rate.



Specifications

Parameter		Unit	Performance
Operating Wavelength		nm	1310, 1480,1550
Bandwidth		nm	±30nm
Pitch Length for Both of ends		mm	∞
Minimum Pitch Length		mm	3.2
Insertion Loss	Max.	dB/meter	0.1
Insertion Loss	Typ.	dB/meter	0.06
Modal Field Diameter	Typ.	um	9.0±0.5
Bending Radii	Min.	mm	75
Operating Temperature		℃	-40 to +85

Note: 1. Central Wavelength can be customized for different applications.
2. All specifications are before connectors and are subject to change without notice.

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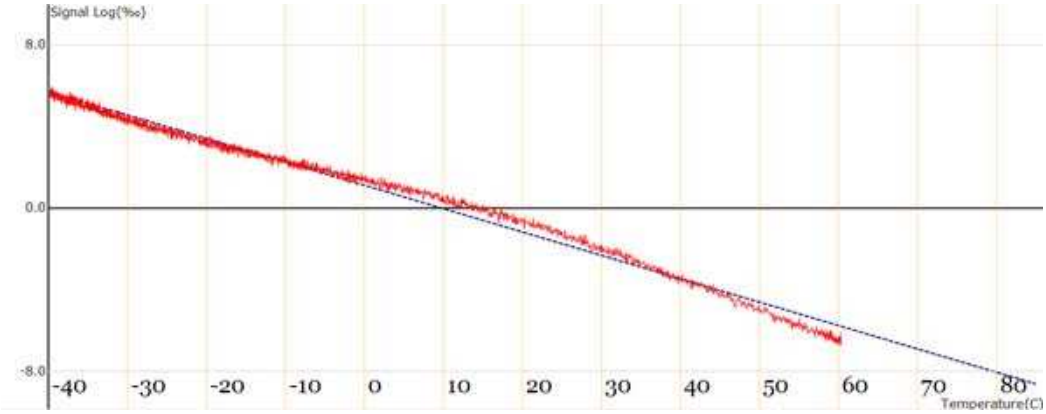
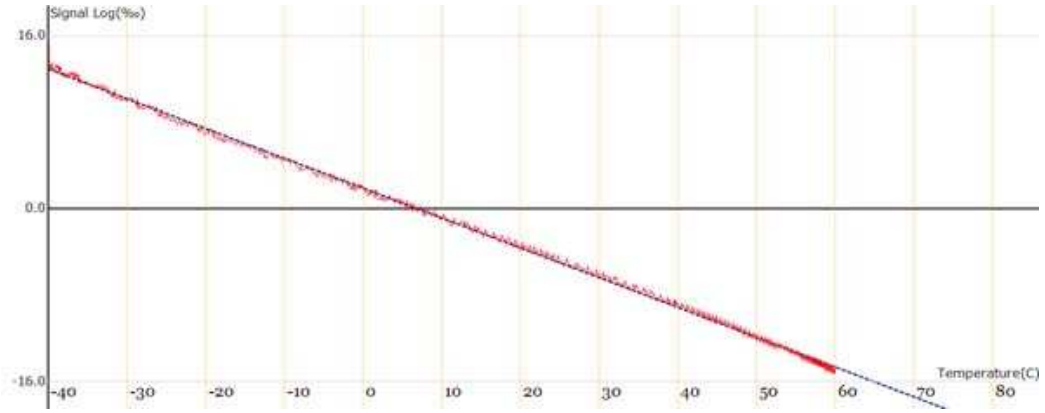
Temperature Characteristics

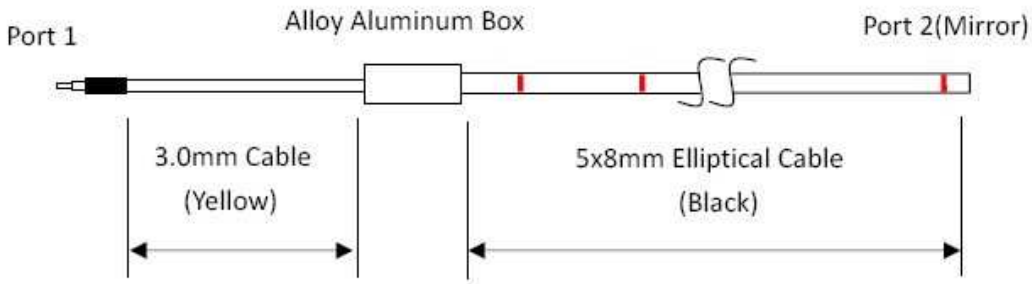
E-core Fiber



Panda Fiber



Diagram



Ordering Information

S	P	U	N	R		1	0					4
					Wavelength 4=1550nm 5=1480nm 7=1310nm S=Specify			Fiber Type P= Panda Fiber E= E-core Fiber	Jacket Type M=0.9mm loose tube L=3mm cable	Fiber Length 0= 0.5 m 1= 1.0 m 2= 2.0 m 3= 3.0 m … 9= 9.0 m 10= 10.0 m	Connector at Port1 0=None 1=FC/PC 2=FC/UPC 3=FC/APC	Connector at Port2 4=Mirror

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