Bowtie polarization-maintaining fiber

Overview

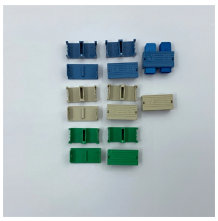
These pure silica core polarization-maintaining fibers are designed for wavelengths from 350 to 680 nm. Stress rods run parallel to the fiber's core and apply stress that creates birefringence in the fiber's core, allowing polarization-maintaining. In this article, the latest in FOC's series covering specialty fibers and their fabrication, we discuss polarization-maintaining (PM) fibers and the various approaches used to make them. The exact shape of the bows, their composition and separation to the core can be modified.

Bowtie polarization-maintaining fiber

	The exact shape of the bows, their composition and separation to the core can be modified during the manufacturing process, so different levels of birefringence are delivered. Fibercore''s HiBi polarization ...
	The goal in such applications is to minimize the amount of power coupled from one polarization state to another, or to keep the two polarization modes propagating in two separate ...
	Different types of polarization-maintaning fibers are designed depending on the geometry of the stress elements: “PANDA“ fibers, “Bow-Tie“ fibers or “Oval-Inner Clad“ fibers.
	This polarization-maintaining fiber is optimized for fiber optic gyroscope (FOG) applications. It is designed for optimal performance over a wide temperature range and with a small coil radius.
	We propose a weakly coupled polarization-maintaining few-mode fiber (PM-FMF) design with elliptical-core and bow-tie stress-applying areas. Using a high refractive index core, the proposed fiber can ...

With other techniques (see the article on fiber preforms), one can make bow-tie fibers, where the stress elements have a different shape and reach closer to the fiber core, so that a stronger birefringence ...

The F-SPV Polarization Maintaining Fiber uses Fibercore''s Bow-Tie polarization maintaining (PM) fiber technology. This highly birefringent (HiBi) fiber, is optimized for operation between 633 - 780 nm and ...



Bow-Tie PM Fiber – The Bow-Tie design is aptly named for the bow-tie-shaped stress elements that are positioned on either side of the core, resulting in birefringence due to an ...

This article proposes a new type of fiber, a novel bow-tie polarization-maintaining fiber for fused-taper coupler. Based on a stress analysis of bow-tie optical fiber, a special requirements of ...

A Bow-tie PMF introducing three circular inner-holes of cladding material inside an elliptical-core realizes a high-birefringence performance based on stress and geometric birefringence.

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: https://samastersbaseball.co.za
Email: sales@samastersbaseball.co.za
Phone: +27 63 874 2095
Address: 15 Innovation Drive, Technopark, Stellenbosch, 7600, South Africa

This document is for informational purposes only. Specifications subject to change without notice.