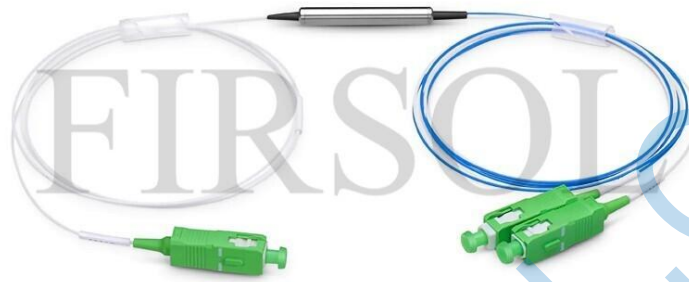


Polarization Beam Splitter/Combiner



Description

Polarization Beam Splitter/Combiner (PBS/PBC) is a passive optical device designed to split or combine orthogonal polarization states. It can separate randomly polarized light into two orthogonally polarized outputs, or combine two orthogonally polarized input signals into a single output fiber. PBS/PBC devices are widely used in fiber lasers, coherent communication systems, optical sensing, EDFA systems, and polarization-maintaining fiber applications.

Features

- Low Insertion Loss
- High Extinction Ratio
- High Power Handling
- High Stability and Reliability

Applications

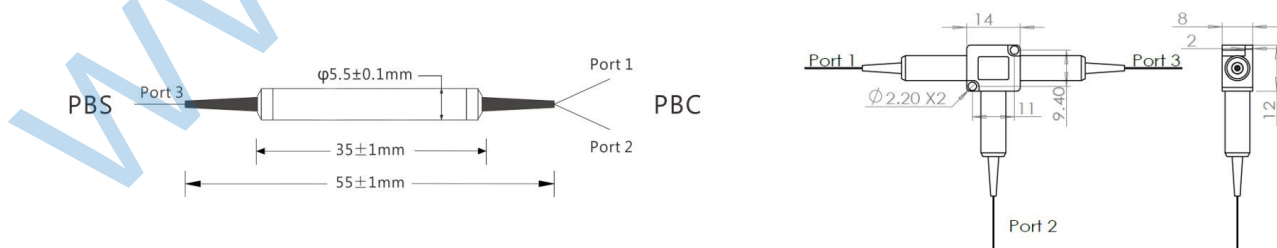
- Fiber Laser
- Fiber Optic Amplifier
- Fiber Optic Sensing
- Coherent Communication System

Specifications

Parameter	Unit	Value					
Center Wavelength	nm	532	633/670	780/830/850	980/1030/1064	1310/1480/1550	1950/2000/2050
Operating Wavelength Range	nm	±10	±10	±20	±20	±40	±40
Insertion Loss	dB	≤1.5	≤1.2	≤1.0	≤0.8	≤0.6	≤1.3
Return Loss	dB	≥50					
Extinction Ratio	dB	≥18	≥18	≥18	≥22	≥22	≥20
Directivity	dB	≥50					
Max Optical Power (CW)	W	0.1		0.5/1/2/5/10			
Fiber Type	-	Port 1 and Port 2 PMF; Port 3 SMF or All PMF					
Tensile Load	N	5					
Package Dimensions	mm	14 x 12 x 8		Φ5.5 x L35 (<5W)/14 x 12 x 8 (>5W)			
Operating Temperature	°C	-5 to +70					
Storage Temperature	°C	-40 to +85					

Notes: Tested at 25 °C. Specifications exclude connectors. Adding connectors may cause wavelength-dependent variation in insertion loss; please contact us for detailed data. Return loss decreases by approximately 5 dB, and extinction ratio by 2 dB. The fiber slow axis is aligned to the key by default.

Product Dimensions



Ordering Information

	 nm	 W			 m	 μ m	
Device Type	Center Wavelength	Max Optical Power (CW)	Fiber Type (Port 1 & 2)	Fiber Type (Port 3)	Pigtail Length	Pigtail Diameter	Connector
PBS	532nm	0.1W	PM460	460-HP	0.5m	250 μ m Bare Fiber	None
PBC	633nm	0.5W	PM630	PM460, Slow Axis Aligned to Port 1 Slow Axis	1.0m	900 μ m Loose Tube	LC/UPC
	670nm	1W	PM780	PM460, Slow Axis Aligned 45° to Port 1 Slow Axis	1.5m		LC/APC
	780nm	2W	PM980	630-HP	2.0m		SC/UPC
	830nm	5W	PM1300	PM630, Slow Axis Aligned to Port 1 Slow Axis			SC/APC
	850nm	10W	PM1550	PM630, Slow Axis Aligned 45° to Port 1 Slow Axis			FC/UPC
	980nm		PM1950	780-HP			FC/APC
	1030nm			PM780, Slow Axis Aligned to Port 1 Slow Axis			ST/UPC
	1064nm			PM780, Slow Axis Aligned 45° to Port 1 Slow Axis			ST/APC
	1310nm			Hi1060			
	1480nm			PM980, Slow Axis Aligned to Port 1 Slow Axis			
	1550nm			PM980, Slow Axis Aligned 45° to Port 1 Slow Axis			
	1950nm			SMF-28e			
	2000nm			PM1300, Slow Axis Aligned to Port 1 Slow Axis			
	2050nm			PM1300, Slow Axis Aligned 45° to Port 1 Slow Axis			
				SMF-28e			
				PM1550, Slow Axis Aligned to Port 1 Slow Axis			
				PM1550, Slow Axis Aligned 45° to Port 1 Slow Axis			
				SM1950			
				PM1950, Slow Axis Aligned to Port 1 Slow Axis			
				PM1950, Slow Axis Aligned 45° to Port 1 Slow Axis			