

creating
unique advantages
together



WavePump™ PBC Polarization Beam Combiner

Product Capabilities and Value

Raman amplifiers and higher power EDFAs are needed to address longer haul, increasing channel counts, and higher bit rates in next-generation optical networks. Polarization beam combiners (PBCs) enable the efficient combination of two polarized pump lasers doubling the input power and reducing the polarization dependent gain effect. WaveSplitter's PBCs offer very wide passband and low insertion loss in a compact package, and can be used in both EDFAs and Raman amplifiers. This new product complements the WavePump product family, offering a complete pump combiner solution with high pump power handling capability required by the Raman amplifier system.

WaveSplitter understands that excellent performance is just one of the many selection criteria for choosing a pump laser combiner, and the WavePump PBC has been designed to meet high reliability standards. In addition, WaveSplitter has the capability to offer integrated assembly to fit our customers' needs.

Features

- Very wide passband
- Low insertion loss
- Compact size
- High optical power handling

Benefits

- Increased amplifier power
- Enhanced amplifier reliability
- Integrated assembly capability

Performance Specifications for WavePump PBC Polarization Beam Combiner

Parameters	Min.	Typ.	Max.
Center Wavelength (nm)	1420	—	1520
Operating Wavelength Range (nm)	±50		
Insertion Loss (Input 1) ¹ (dB)	—	0.3	0.5
Insertion Loss (Input 2) ¹ (dB)	—	0.3	0.5
Temperature Dependent Loss ² (dB)			0.1
Return Loss (dB)	55	—	—
Directivity (dB)	50	—	—
Extinction Ratio (dB)	20	25	—
Optical Power (mW)	2000		
Operating Temperature (°C)	-5 to 70		
Storage Temperature (°C)	-40 to 85		
Dimensions (LxD) (mm)	32 x 4.2		
Input Fiber Type	PANDA® 1550 fiber (250µm buffer)		
Input PM Fiber Alignment	Slow axis		
Output Fiber Type	Corning - SMF 28 (250µm buffer)		

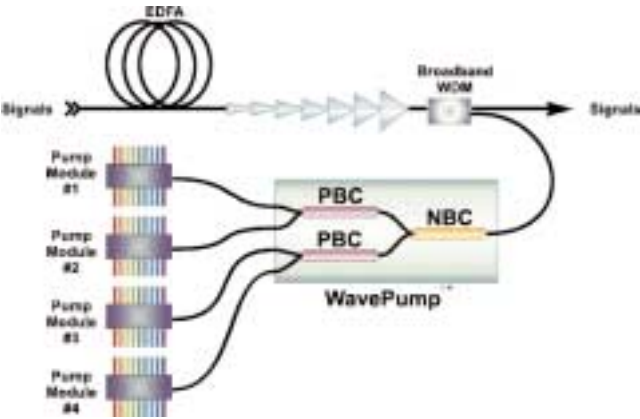
¹ Insertion loss value is reported over the operating wavelength and temperature range.

² Temperature dependent loss is included in insertion loss value.

WavePump PBC Ordering Information: Standard WavePump PBC devices are specified with appropriate model number options. If you require devices with different specifications, please contact your sales representative for product availability.

	Starting Wavelength	Ending Wavelength	Output Fiber Type
WPBC-	-----	-----	--
	E x . 1420.00nm=142000	E x . 1500.00nm=150000	01=SMF-28 Fiber 02=PANDA 1550 PM Fiber

For more information on any WaveSplitter product contact your sales representative listed on our website www.wavesplitter.com. Or contact WaveSplitter Technologies, Inc. directly at 510.580.8888.



The WavePump™ is used to combine pump lasers in a Raman amplifier. PBC stands for polarization beam combiner, and NBC stands for narrow band combiner.

PBC Mechanical Dimension Drawing

