WaveSource Photonics, Inc.

PM Fiber Tap Coupler

For Fiber Laser Oscillators, Fiber amplifiers, and Fiber Sensing

Our 1x2 and 2x2 high power micro optic tap couplers are used as fiber laser oscillator output couplers. They are also used in fiber laser and amplifier systems to monitor both forward laser intensity and backward ASE power. One of the two orthogonal polarization states is blocked with high extinction ratio to facility PM laser oscillation at a single polarization state. Its build-in high extinction ratio polarizers significantly improve laser performance. In fiber sensors, they are used for signal splitting and loop back detections.

The high power micro optic tap couplers offer very low excess loss and excellent environmental stability. Accurate and continuous coupling ratios from 50/50 to 1/99 are available with very good uniformity in a wide wavelength range. These components find extensive applications.



Features:

- Low excess loss
- Complete blocking of the other polarization eigenstate
- High polarization extinction ratio
- High power handling
- continuous tap ratio selection
- Wavelength Insensitive
- High stability and reliability

Applications:

- High power fiber lasers output coupler
- Seed and power fiber amplifiers power monitoring
- Power splitting and sharing

Technical Data

Parameter	Unit	Nominal	Min	Max
Center Wavelength	nm	1030, 1045,1064, 1550		
Bandwidth	nm	+/- 20		
Split Ratio	%	1:99 50:55		
Port Configuration		1x2, 2x2		
Bandwidth	nm	±20		
Excess Loss	dB			0.3
Fiber Type		PM980, HI1060, SMF28, LMA, PLMA or specify		
Return Loss	dB		50	
Directivity	dB		55	
Pump Power Handling			3	
PER (for PM fiber)	dB	23	22	
Fiber length (input & output)	mm		800	
Dimension	mm	54x3 (LxD)		
Operating Temperature			-5	70

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