



980~1080nm High power PM fiber Fused Coupler

Key Features

- Low Insertion Loss
- High Extinction Ratio
- Compact In-Line Package
- Operating on both Fast and Slow Axis
- High Stability and Reliability

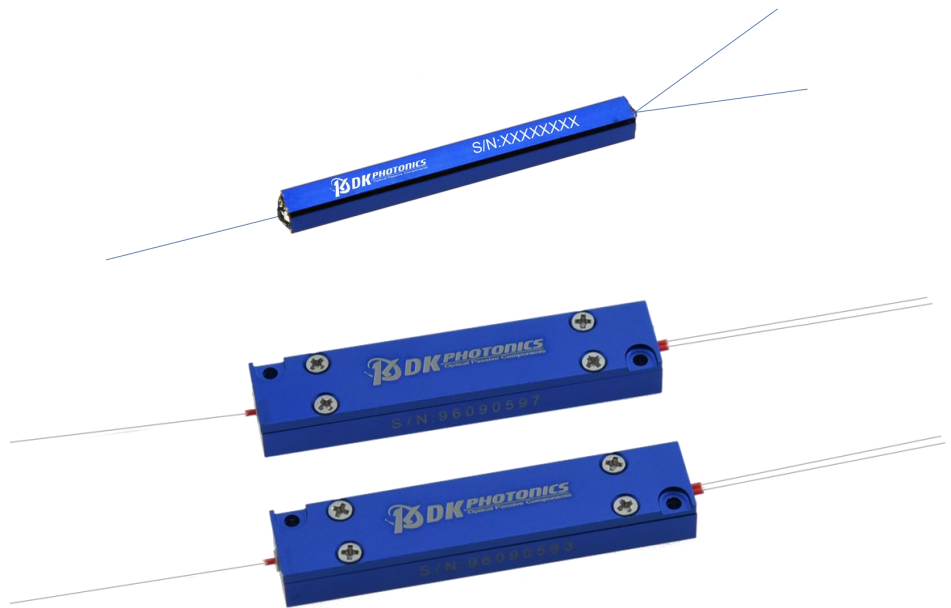
DK Photonics uses unique fusing technique and polarization maintaining fiber to build the High-power PM fiber Fused Coupler. The coupling ratio could be selected according to customer's request. It features low excess loss, small size and high polarization extinction ratio. High power PM fiber Fused Coupler is widely used for High Power Fiber Laser and High-Power Fiber amplifier.

The High-power PM fiber Fused Coupler can be used to split high power linearly polarized light into two paths without perturbing the line are state of polarization (SOP). It can be operating on both Fast and Slow Axis.

If you do not see a standard PM Fused Coupler that meets your needs, we welcome the opportunity to review your desired specification and quote a custom PM fused Coupler. Requests for custom fiber pigtailed, different wave-lengths, tap Ratio and handling power of operation or other specific needs will be readily addressed.

Applications

- High Power Fiber Laser
- High Power Fiber amplifier
- Testing Instrumentations
- Coherent Detecting
- Research



For more Info

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Package Dimension



*Due to ongoing design improvements, the package size is subject to change. Please contact DK Photonics for confirmation if you have special requirements.

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Performance Specifications

Parameter	Unit	Values
Grade	-	P
Configuration	-	1x2 or 2x2
Operating wavelength	nm	980, 1030, 1053, 1064, 1080, others on request
Operating bandwidth	nm	± 15
Coupling Ratio	%	1%~50%
Typical excess loss	dB	0.15
Max. excess loss	dB	0.25
Max. Insertion Loss	dB	IL related to CR
Min. Extinction Ratio	dB	18
Return Loss	dB	≥50
Directivity	dB	≥55
Max. Optical Power (CW)	W	10,20,30,50
Fiber Type	-	PM980, PM1060L, PLMA-GDF-10/125-M
Operating Temperature	°C	-20~+75
Storage Temperature	°C	-40~+85
Package Dimension	mm	60x5x5(10~20W), 60x12X8(30~50W)

1. Above specifications are for device without connector, and the PM fused coupler is both axis working, no axis can be blocked; default test extinction ratio is on the slow axis. All parameters are tested at room temperature at central wavelength only.

2. ER data listed in the table are for the ports with coupling ratio greater than 10%. It will be 2 dB lower for a tap port with coupling ratio between 5-10%. For <5% tap port, ER is not considered if there is no requirement.

3. For devices with connectors, IL will be 0.3dB higher, RL will be 5dB lower and ER will be 2dB lower. Power transmits through the connector less than 2W. The default connector key is aligned to slow axis.

4. If there is pulse application, please be sure to inform us of pulse energy and peak power.

Order information

P/N: HPPMFBTC①-②-③-④-⑤-⑥-⑦-⑧-⑨-⑩

When you inquire, please provide the correct P/N number according to our ordering information and attach the appropriate description would be better. If need any connector, we do not recommend choosing bare fiber pigtail. For high power applications, we recommend direct splicing without connectors.

①	②	③	④	⑤	⑥	⑦	⑧	⑩
Grade	Port	Wavelength	Power Handling	Coupling Ratio(%)	Fiber Type	Pigtails Diameter	Fiber Length	Connector
P: P	102:1x2	98:980nm	10:10W	50:50/50	P98:PM980 fiber	25:250µm	05:0.5m	00: None
Grade	202:2x2	30:1030nm	20:20W	40:40/60	XXX: fiber code	90:900µm	10:1.0m	FP: FC/PC
		53:1053nm	30:30W	30:30/70		XX: Others	15:1.5m	FA: FC/APC
		64:1064nm	50:50W	20:20/80			XX: Others	XX: Others
		80:1080nm		10:10/90				
		XX: Others		05:5/95				
				02:2/98				
				01:1/99				
				XX: Others				

Part Number Example: HPPMFBTC-P-102-64-30-50-P10/125/08D-25-10-00

Description: 1064nm high power PM fiber fused coupler, P grade, 1x2, 30w handling power, 50:50, PLMA-GDF-10/125-M fiber, with bare fiber, 1.0m length fiber pigtails, no connectors at all ports.

Ordering Information for Custom Parts

If you need to customize other specifications, please provide detailed description for your requirement.