DK PHOTONICS Optical Passive Components

1310~1550nm 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

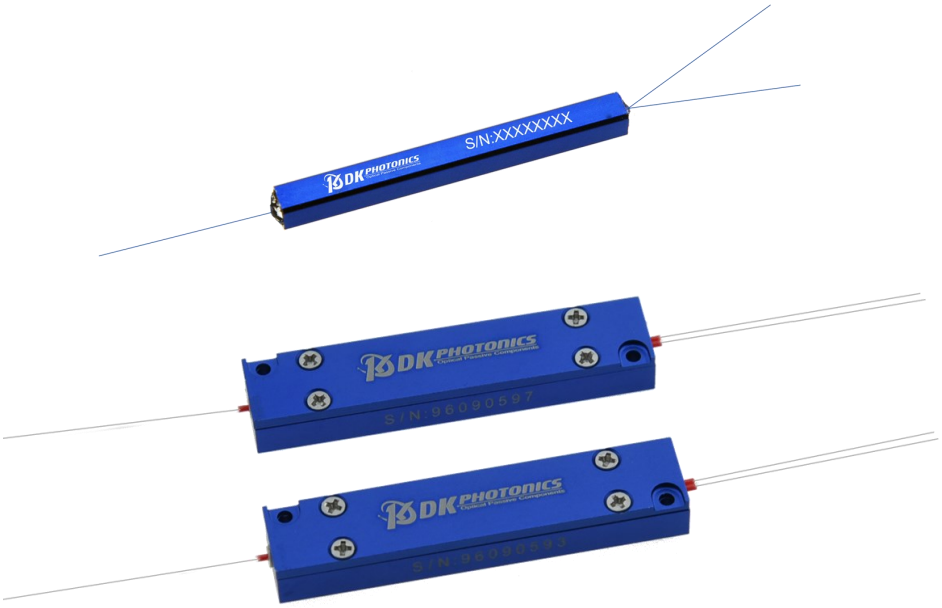
Applications

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

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 pigtails, different wavelengths, tap Ratio and handling power of operation or other specific needs will be readily addressed.



For more Info

Please contact us at:

Tel: +86-755-23736280

Fax: +86-755-26746512

E-mail: sales@dkphotonics.com

https://www.dkphotonics.com

Add.:

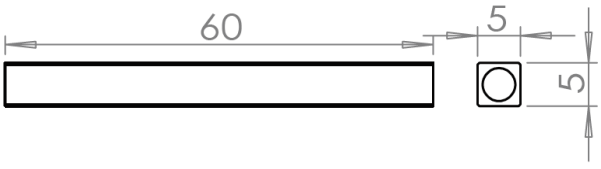
4F, Bldg. 18, Qinghu Industrial Park,

Dahe Road, Longhua Dis.,

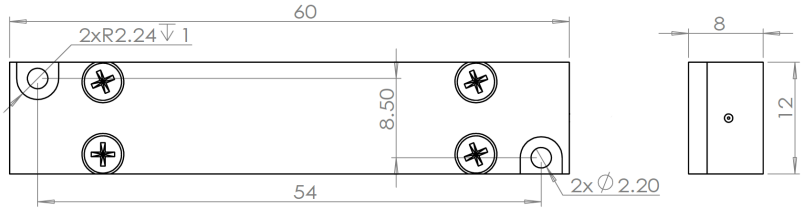
Shenzhen, China 518109

Package Dimension

10~20W:



>20W:



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

1310~1550nm High power PM fiber Fused Coupler

Performance Specifications

Parameter	Unit	Values
Grade	-	P
Configuration	-	1x2 or 2x2
Operating wavelength	nm	1310,1550,1570, others on request
Operating bandwidth	nm	± 15
Coupling Ratio	%	1%~50%
Typical excess loss	dB	0.10
Max. excess loss	dB	0.20
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
Fiber Type	-	PM1550, PM-GDF-1550
Operating Temperature	℃	-20~+75
Storage Temperature	℃	-40~+85
Package Dimension	mm	60x5x5(10~20W), 60x12X8(30)

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 Grade	102:1x2 202:2x2	13:1310nm 55:1550m 57:1570nm XX: Others	10:10W 20:20W 30:30W 50:50W	50:50/50 40:40/60 30:30/70 20:20/80 10:10/90 05:5/95 02:2/98 01:1/99 XX: Others	P15:PM1550 XXX: fiber code	25:250μm 90:900μm XX: Others	05:0.5m 10:1.0m 15:1.5m XX: Others	00: None FP: FC/PC FA: FC/APC XX: Others

Part Number Example: HPPMFBTC-P-102-55-30-01-P15-25-10-00

Description: 1550nm High power PM fiber Fused Coupler, P grade,1x2, 30w handling power,1:99, PM1550 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.