

1550nm PM Isolator & Band Pass Filter Hybrid Combination

Key Features

- Low Insertion Loss
- High isolation
- Excellent stability and reliability

Applications

- Fiber laser
- Fiber amplifier
- Fiber Sensor

The Polarization Maintaining Isolator & BPF, a two port micro-optic device built with PM panda fiber is a combination of a BPF and an isolator in a compact package. The PM BPF & I solator features low insertion loss, high isolation, high extinction ratio and high reliability and stability. The device guides optical light in one direction and block out unwanted noise signals, eliminates back reflection and back scattering in the reverse direction. The device can be built with bare fiber, or 900um jacket cable. The PM Panda Fiber BPF Isolator is widely used in amplifier systems, fiber optic systems and fiber lasers.

If you do not see a standard BPF & isolator that meet your needs, we welcome the opportunity to review your desired specification and quote a custom isolator. Requests for custom fiber pigtails, different wavelengths and handling power of operation or other specific needs will be readily addressed. DK Photonics can respond to custom requirements with short lead times.



For more Info

Please contact us at:

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Add.:

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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		Specification				
Stage		-	Single Stage		Dual Stage			
Operating wavelength		nm			1550			
Min. Pass bandwidth@0.5dB		nm	2	5	10	2	5	10
Min. Stop bandwidth@25dB down		nm	6	12	20	6	12	20
Typ. Insertion Loss at 23°C		dB	0.6		0.7			
Max. Insertion loss at 23°C		dB	0.9		1.0			
Typ. Peak Isolation at 23°C		dB	40		55			
Min. Isolation at 23°C		dB	30		45			
Min. Extinction ratio ()	Type B	dB			22			
	Type F	dB			20			
Return loss (input/output)		dB			≥60/55			
Fiber Type		-			PM1550 or other			
Max. Power Handling (CW)		W			0.3, 1, 3, 5, 10			
Max. Peak Power for Pulse		kW			1, 5,10			
Max. Tensile Load		N			5			
Operating temperature		°C			-5°C ~ + 70°C			
Storage temperature		°C			-40°C ~ + 85 °C			
Dimensions		mm			Φ5.5× L35			
“B” for Both axis working, “F” for Fast axis blocking								

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- Above specifications are for device without connector.
- For devices with connectors, IL will be 0.3dB higher, RL will be 5dB lower and ER will be 2dB lower. The default connector key is aligned to slow axis. Power transmits through the connector less than 2W.
- If there is pulse application, please be sure to inform us of pulse energy and peak power.

Order information P/N: PMISO&BPF-①-②-③-④-⑤-⑥-⑦-

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 a 250μm bare fiber pigtail.

①	②	③	④	⑤	⑥	⑦	⑧
Type	Wavelength	Pass band-width	Power Handling	Axis Align-ment	Pigtail Diameter	Fiber Length	Connector
S: Single stage D: Dual stage	15:1550nm XX: Others	2:2nm 5:5nm 10:10nm	L: <0.5W 2: 2W 5:5W 10:10W	B: Both axis working F: Fast axis blocking	25:250μm bare fiber 90:900μm Loose Fiber XX: Others	08:0.8m 10:1.0m XX: Others	00: None FP: FC/PC FA: FC/APC XX: Others

Part Number Example: PMISO&BPF-S-15-2-L-F-25-10-00

Description: 1550nm PM single stage Isolator & BPF Hybrid Combination- 300mW, 2nm pass bandwidth, Fast axis blocking 1.0m fiber length with bare fiber and no connector at all ports.

Ordering Information for Custom Parts

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