

1053nm High Power TGG Isolator & Band Pass Filter Hybrid Combination

Key Features

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

Applications

- Fiber laser
- Fiber amplifier
- Fiber Sensor
- Communications

The High-power Isolator & BPF is a combination of a BPF and a TGG based isolator in a single package. The BPF & isolator features low insertion loss, high isolation, high extinction ratio (PM) 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 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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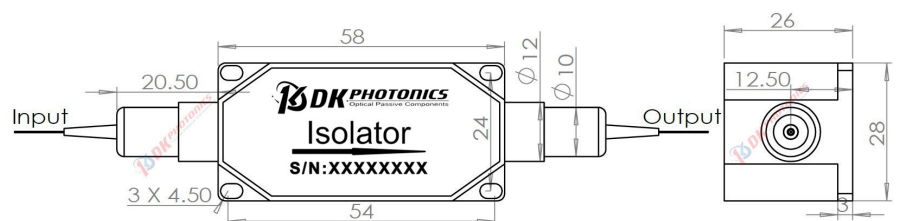
<https://www.dkphotonics.com>

Add.:

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Dahe Road, Longhua Dis.,

Shenzhen, China 518109



*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

Parameters	Unit	Values
Central Wavelength	nm	1053
Min. Pass bandwidth@0.5dB	nm	2
Min. Stop bandwidth@25dB down	nm	6
Typ. Peak Isolation	dB	35
Min. Isolation in Band (at 25°C)	dB	26
Typ. Insertion Loss	dB	1.0
Max. Insertion Loss (at 25°C)	dB	1.5
Min. Extinction Ratio	dB	18(Type B), 20(Type F)
Min. Return Loss	dB	45
Maximum Power Handling (continuous wave)	W	0.5, 1, 2, 5, 10
Max. Peak Power for Pulse	kW	1, 5, 10
Max. Tensile Load	N	5
Fiber Type	-	PM980-XP, PM1060L, or other
Operating Temperature	°C	0 ~ + 70
Storage Temperature	°C	-40 ~ +85

1. Above specification are for device without connector, and may change without notice. Other center wavelengths and bandwidths can also be customized, but MOQ is required, please contact us.
2. IL is 0.3 dB higher and RL is 5 dB lower, ER is 2dB lower (PM type) for each connector added.
3. The pass optical power is 2 W only for connector added, the connector is only used for performance testing at low power, higher power requires splicing fibers.
4. Type B: Both axis working, Type F: Fast axis blocked, the default is Type B if without request (Only for PM type).
5. If there is pulse application, please be sure to inform us of pulse energy and peak power.
6. For high continuous power, we will add a port to export the blocked forward signal light to reduce the heat dissipation of the device. The user only needs to export it to the heat dissipation shell when using it.

Order information P/N: HPPMISO&BPF-B/F-①-②-③-④-⑤-⑥-⑦-⑧(B: Both axis working , F:Fast axis blocked)

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. For high power applications, we recommend direct splicing without connectors.

①	②	③	④	⑤	⑥	⑦	⑧
Wavelength	Pass bandwidth	Optical Power	Power Type	Fiber Type	Pigtails Diameter	Fiber Length	Connector Type
53:1053nm	2:2nm	1:1W 3:3W 5:5W 10:10W	P:Pulsed C:Continuous Wave	P06L: PM1060L XX: fiber code	25:250µm bare fiber 90:900µm Loose Fiber XX: Others	10:1.0m XX: Other	00: None FP: FC/PC FA: FC/APC XX: Others

Part Number Example: HPPMISO&BPF-F-53-2-5-P-P06L-25-10-00

Description: TGG Based 1053nm Optical TGG Isolator&BPF, 2nm pass bandwidth, fast axis blocked, 5W power handling, pulsed power<5kW, PM1060L fiber, bare fiber, 1.0m length fiber pigtails, no connector at all ports.

Ordering Information for Custom Parts

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