

1040nm High Power In-line Optical Isolator

Key Features

- Low Insertion Loss
- High Power Handling
- High Isolation
- PM and Non-PM are available
- Fiber can be customized
- High Reliability
- Excellent Temperature Stability

The high-power isolator series includes in-line type, beam expanded isolator, fiber in and free space out isolator and free space isolator etc. They're characterized with low insertion loss, high isolation, high power handling, high return loss, excellent environmental stability and reliability. Optical Isolators are optical devices that allow light to be transmitted in one direction only. They are most often used to prevent any reflected light from entering the source, thus preventing any feedback problems; it has been widely used in fiber laser system.

PM and non-PM types are available, fiber can be customized, with power conditions of CW or Pulse and Power Handling of 5W, 10W, 20W, 30W, 50W can be customized.

If you do not see a standard isolator that meets your needs, we welcome the opportunity to review your desired specification and quote a custom isolator. Requests for custom fiber pigtailed, different wavelengths and handling power of operation or other specific needs will be readily addressed.

Applications

- High Power Fiber Lasers
- High Power Fiber Amplifier
- Instrumentation
- Test and Measurement
- Fiber Amplifier Lab Research



For more Info

Please contact us at:

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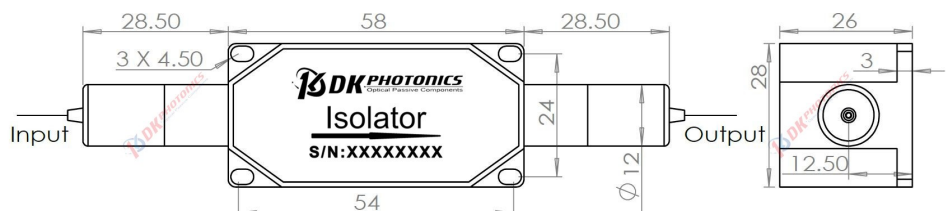
Add.:

4F, Bldg. 18, Qinghu Industrial Park,

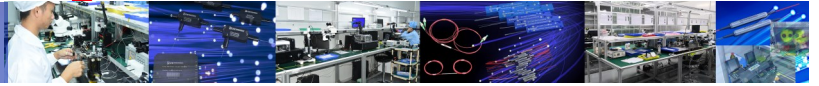
Dahe Road, Longhua Dis.,

Shenzhen, China 518109

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

Parameters	Unit	Values
Central Wavelength	nm	1040
Operating Wavelength Range	nm	±10
Typ. Peak Isolation	dB	35
Min. Isolation in Band (at 25°C)	dB	28
Typ. Insertion Loss	dB	0.6
Max. Insertion Loss (at 25°C)	dB	1.0
Max. PDL (for SM fiber)	dB	0.15
Min. Extinction Ratio (for PM fiber)	dB	18(Type B), 20(Type F)
Min. Return Loss	dB	45
Max. Power Handling (CW)	W	10, 20, 30
Max. Peak Power for ns Pulse	kW	5, 10, 20 (for typical pulse application)
Max. Tensile Load	N	5
Fiber Type	-	Power≤30W: 1060-XP, PM980-XP, PM1060L, 10/125DC Power>30W: 25/250 DC Fiber, 30/250 DC Fiber, 20/400 DC fiber, PM or Not-PM, or other
Operating Temperature	°C	0 ~ + 70
Storage Temperature	°C	-40 ~ +85

- Above specification are for device without connector, and may change without notice.
- IL is 0.3 dB higher and RL is 5 dB lower, ER is 2dB lower (PM type) for each connector added.
- 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.
- Type B: Both axis working, Type F: Fast axis blocked, the default is Type B if without request (Only for PM type)
- If there is pulse application, please be sure to inform us of pulse energy and peak power.

Order information

P/N: HPPII (HPPMI-B/F)-①-②-③-④-⑤-⑥ (HPPMI-B/F: High Power Polarization Maintaining Isolator)

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
Wavelength	Optical Power	Power Type	Fiber Type	Pigtails Diameter	Fiber Length
30:1030nm	10:10W	P: Pulsed	XXX: fiber code	25: bare fiber	08:0.8m
40:1040nm	20:20W	C: Continuous		90:900µm Loose Fiber	10:1.0m
53:1053nm	30:30W	Wave		XX: Others	XX: Other
64:1064nm	XX: Other				
80:1080nm					
XX: Other					

Part Number Example: HPPII-40-20-P-20/130/08D-25-08

Description: 1040nm High Power Polarization Independent Isolator - 20W, pulsed power type, 20/130um, NA0.08/0.46 fiber, with bare fiber & 0.8m length.

Ordering Information for Custom Parts

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