



## 2050/1570 nm Polarization Maintaining WDM/ Isolator Hybrid Combination

### Key Features

- Compact Size
- Low insertion loss
- High channel Isolation
- High Extinction Ratio
- High stability and reliability

DK Photonics' WDM//Isolator Hybrid Combination is a combination of a wavelength division multiplexer and an isolator in a compact package. All input and output fibers are polarization maintaining. This product has an extremely low insertion loss, a very stable tap-coupling ratio, high isolation, and high return loss. This product offers integrated solution to amplifier application by combining more functions into a very compact package.

### Applications

- Fiber laser
- Fiber amplifier
- Fiber Sensor
- Communications
- Laboratory R&D



## For more Info

### Please contact us at:

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E-mail: [sales@dkphotonics.com](mailto:sales@dkphotonics.com)

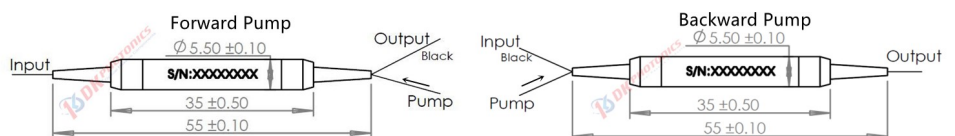
<https://www.dkphotonics.com>

Add.:

4F, Bldg. 18, Qinghu Industrial Park,  
Dahe Road, Longhua Dis.,

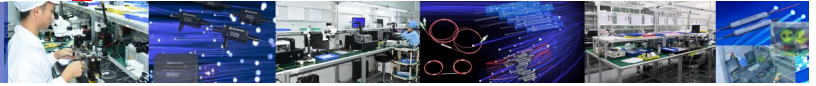
Shenzhen, China 518109

### Package Dimension



\* Pump port is both axis working.

\*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	
Stage of Isolator	-	Single Stage	Dual Stage
Signal Central Wavelength ( $\lambda_c$ )	nm	2050	
Max. Insertion Loss at 23°C, $\lambda_c \pm 20$ nm	nm	1.5	1.8
Min. Isolation at 23°C, $\lambda_c \pm 50$ nm (Isolator)	nm	16	35
Min. Isolation (WDM)	dB	25	
Signal Channel	dB	25	
Pump Channel	dB	12	
Pump Wavelength Range	nm	1520~1590	
Max. Insertion Loss (Pump to Common)	dB	1.0	
Min. Extinction Ratio @ 23°C	dB	Type B: 20, Type F: 22	
Min. Return Loss	dB	50	
Max. Power Handling (CW)	W	0.5, 2, 3, 10	
Max. Peak Power for Pulse	kW	1, 5, 10	
Max. Tensile Load	N	5	
Fiber Type	-	PM1550 fiber or specified	
Pump port	-	PM1550 fiber or specified	
Common Signal port	-	PM1950 fiber or specified	
Operating Temperature	°C	-5 to +70	
Storage Temperature	°C	-40 to +85	
Package Dimensions	mm	$\Phi 5.5 \times L35(<5W)$ , $60 \times 12 \times 8(>5W)$	

- 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.
- Type B: Both axis working, Type F: Fast axis blocked, the default is Type B if without request.
- If there is pulse application, please be sure to inform us of pulse energy and peak power.
- If you have questions about the axial direction, please contact us.

### Order information P/N:PMWIH-①-②-③-④-⑤-⑥-⑦-⑧

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 250 $\mu$ m bare fiber pigtail.

①	②	③	④	⑤	⑥	⑦	⑧
Wavelength	Stage	Optical Power	Pump Configuration	Axis alignment (Only for signal)	Pigtail Diameter	Fiber Length	Connector
5057:2050 signal/1570 pump XX: Others	S: Single Stage D: Dual Stage	L:<0.5W 1:1W 3:3W 5:5W 10:10W	F: Forward Pump B: Backward Pump	F: Fast axis blocked, Slow axis working B: Both of axis working	25:250 $\mu$ m bare fiber 90:900 $\mu$ m Loose Fiber XX: Others	05:0.5m 10:1.0m 15:1.5m XX: Others	00: None FP: FC/PC FA: FC/APC SA: SC/APC XX: Others

**Part Number Example:** PMWIH-5057-S-F-F-90-10-FA

**Description:** Polarization Maintaining WDM/ Isolator Hybrid Combination ,2050nm signal/1570nm pump, single stage isolator, fast axis blocked, slow axis working, with 0.9mm OD loose tube, 1.0m fiber length, and FC/APC connectors at all ports.

### Ordering Information for Custom Parts

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