



## 1030nm High Power Tap & TGG Isolator Hybrid Combination(1 $\mu$ m fiber laser, HPPMTIH, 20W)

### Key Features

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

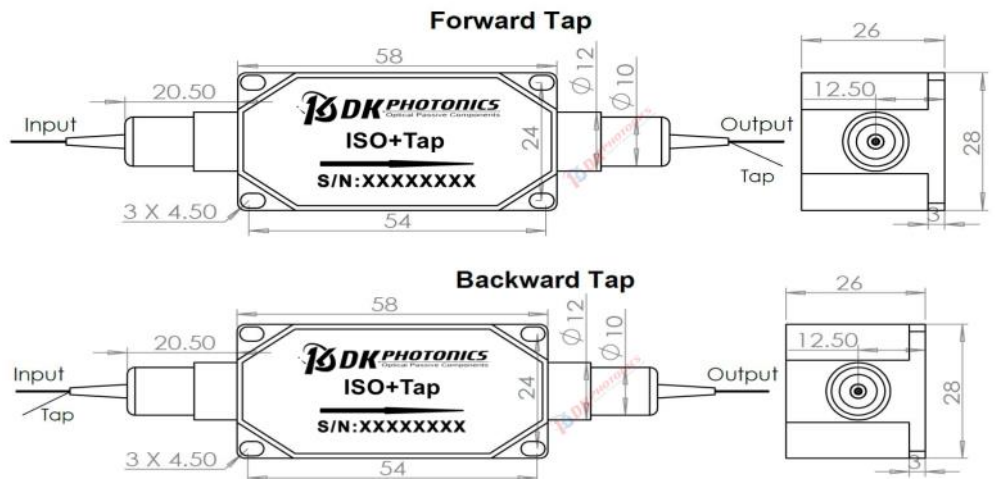
DK Photonics' Tap Coupler/Isolator Hybrid Combination is a combination of a tap coupler and an isolator in a compact package. All input and output fibers are polarization maintaining. This product has an extremely low insertion loss, a very stable tap-coupling ratio, high isolation, and high return loss.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

### Applications

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



### Package Dimension



\* If Tap port is on the input side (Backward Tap), Tap is both axis working. If Tap port is on the Output side (Forward Tap), it is fast axis blocked, slow axis working. The default tap is on the input side.

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

## For more Info

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### Performance Specifications

Parameter	Unit	Values
Signal Central Wavelength ( $\lambda_c$ )	nm	1030, 1040
Signal Wavelength Range	nm	$\lambda \pm 10$
Max. Signal Excess Loss, $\lambda_c$ , @ 23°C	dB	1.0
Min. Signal Isolation, $\lambda_c$ , @ 23°C	dB	26
Signal Tap Ratio	%	1~50
Tap Channel Typ. Loss	dB	1% (19.0~21.8), 2% (16.2 ~ 19.0), 5% (12.2 ~ 15.0)
Min. Extinction Ratio @ 23°C	dB	Type B: 20, Type F: 22
Min. Return Loss	dB	50
Max. Power Handling (CW)	W	2, 5, 10, 20
Max. Peak Power for Pulse	kW	1, 5, 10
Max. Tensile Load	N	5
Fiber Type	-	PM980-XP, PM1060L, or other
Operating Temperature	°C	-5 to +70
Storage Temperature	°C	-40 to +85

- 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.

### Order information P/N:HPPMTIH-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
Wavelength	Optical Power	Tap Ratio	Axis alignment (Main port)	Pigtail Diameter	Fiber Length	Connector
30:1030nm	L:<0.5W	01:1% Tap	F:Fast axis blocked, Slow axis working	25:250μm bare fiber	08:0.8m	00:None
40:1040nm	1:1W	02:2% Tap	B:Both of axis working	90:900μm Loose Fiber	10:1.0m	FP: FC/PC
	3:3W	05:5% Tap		XX: Others	15:1.5m	FA: FC/APC
	5:5W				XX: Others	XX: Others
	10:10W					

**Part Number Example:** HPPMTIH-30-20-01-F-25-10-00

**Description:** High power Polarization Maintaining Tap Coupler/Isolator Hybrid Combination, 20W, 1030nm signal, 1% tap, Fast axis blocked, slow axis working, PM980-XP fiber, bare fiber, 1.0m fiber length, and no connectors at all ports.

### Ordering Information for Custom Parts

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