



1030/980nm High Power WDM & Tap & TGG Isolator Hybrid Combination (1 μ m fiber laser, 20W)

Key Features

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

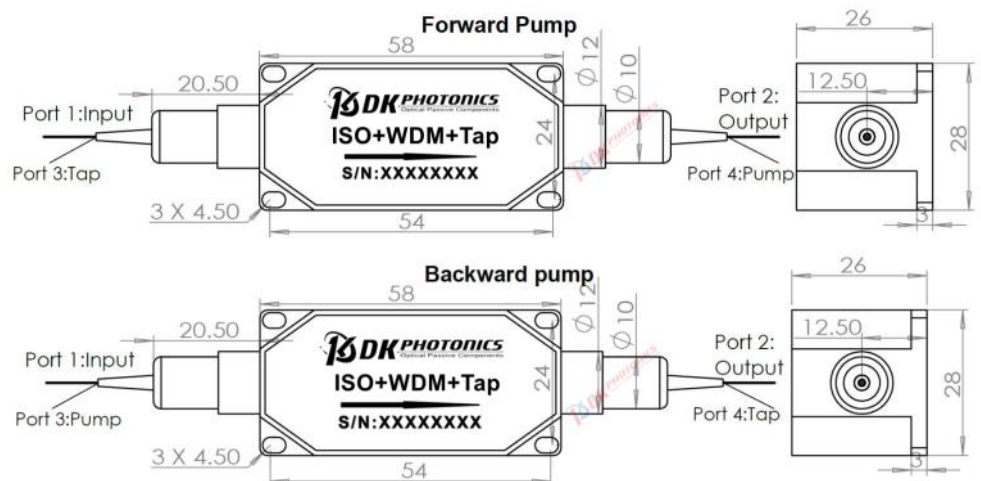
DK Photonics' WDM/Tap Coupler/Isolator Hybrid Combination is a combination of a wavelength division multiplexer, tap coupler and an isolator in a compact package. All input and output fibers are polarization maintaining. This product has an extremely low insertion loss, a very stable tap-coupling ratio, 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
- Communications
- Laboratory R&D



Package Dimension



* For forward pump, Tap is both axis working. For backward pump, Tap is fast axis blocked, slow axis working. Both types pump 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.

For more Info

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Performance Specifications

Parameter	Unit	Values
Signal Central Wavelength (λ_c)	nm	1030, 1040
Signal Wavelength Range	nm	$\lambda \pm 10$
Max. Signal Excess Loss, λ_c , @ 23°C	dB	1.5
Min. Signal Isolation, λ_c , @ 23°C (Isolator)	dB	26
Min. Isolation Signal Channel	dB	25
(WDM) Pump Channel	dB	12
Signal Tap Ratio	%	1~50
Pump Wavelength Range	nm	960~990
Max. Insertion Loss (Pump to Common)	dB	0.7
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 Pump port:	-	PM980 fiber or specified
Common, Signal and tap port	-	PM980, PM1060L, PM10/125DC fiber or specified
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.
- For forward pumping, Tap is both axis working, for backward pumping, signal output and Tap are both fast axis blocked, slow axis working. If you have questions about the axial direction, please contact us.

Order information P/N:HPPMWTIH-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
Wavelength	Optical Power	Tap Ratio	Pump Configuration	Axis alignment (Only for signal)	Pigtail Diameter	Fiber Length	Connector
39:1030 signal /980 pump	L:<0.5W 1:1W	01:1% Tap 02:2% Tap	F: Forward Pump	F:Fast axis blocked, Slow axis working	25:250μm bare fiber	05:0.5m 10:1.0m	00:None FP: FC/PC
49:1040 signal /980 pump	3:3W 5:5W 10:10W 20:20W	05:5% Tap			90:900μm Loose Fiber XX: Others	15:1.5m XX: Others	FA: FC/APC XX: Others

Part Number Example: HPPMWTIH-39-5-01-F-F-25-10-00

Description: High Power Polarization Maintaining WDM/Tap Coupler/Isolator Hybrid Combination .5W handling power, <10kW peak power, forward pump, 1030nm signal/980nm pump, 1% tap, fast axis blocked, slow axis working, PM980 fiber for all port, bare fiber, 1.0m fiber length, and no connector.

Ordering Information for Custom Parts

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