

2050/1570nm Polarization Maintaining WDM/Tap Coupler Hybrid Combination

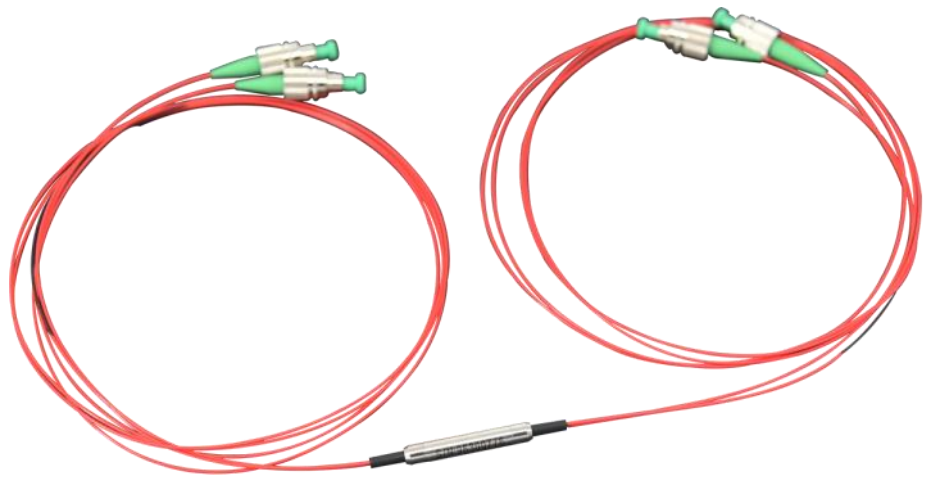
DK Photonics' WDM/Tap Coupler Hybrid Combination is a combination of a wavelength division multiplexer and tap coupler in a compact package. All input and output fibers are polarization maintaining. This product has an extremely low insertion loss, a very stable tap-coupling ratio, high isolation, and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

Key Features

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

Applications

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



For more Info

Please contact us at:

Tel: +86-755-23736280

Fax: +86-755-26746512

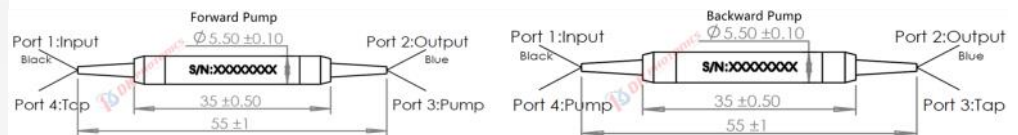
E-mail: sales@dkphotonics.com

<https://www.dkphotonics.com>

Add.:

4F, Bldg. 18, Qinghu Industrial Park,
Dahe Road, Longhua Dis.,
Shenzhen, China 518109

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.

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Performance Specifications

Parameter	Unit	Values
Signal Central Wavelength (λ_c)	nm	2050
Signal Wavelength Range	nm	± 40
Max. Signal Excess Loss, λ_c , @ 23°C	dB	1.8
Tap Ratio	%	1~50
Tap Channel Typ. Loss	dB	1% (19.5~22), 5% (13.5 ~ 16.0)
Min. Isolation (WDM)	Signal Channel	dB
	Pump Channel	dB
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 ns Pulse if any	kW	1, 5, 10
Max. Tensile Load	N	5
Fiber Type	Pump port	-
	Common Signal and tap port	-
Operating Temperature	°C	-5 to +70
Storage Temperature	°C	-40 to +85
Package Dimensions	mm	Ø5.5 x L38(<5W), 60x12x8(>5W)

1. Above specifications are for device without connector.

2. 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.

3. Type B: Both axis working, Type F: Fast axis blocked, the default is Type B if without request.

4. If there is pulse application, please be sure to inform us of pulse energy and peak power.

5. 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: PMWTH-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 For signal	Pigtail Diameter	Fiber Length	Connector
5057:2050	L:<0.5W	01:1% Tap	F:Forward	F:Fast axis	25:250µm bare fiber	05:0.5m	00:None
signal/1570	1:1W	02:2% Tap	Pump	blocked, Slow axis	90:900µm Loose	10:1.0m	FP: FC/PC
pump	3:3W	05:5% Tap	B:Backward	working	Fiber	15:1.5m	FA: FC/APC
XX: Others	5:5W		Pump	B:Both of axis	XX: Others	XX: Others	SA: SC/APC
	10:10W			working			XX: Others

Part Number Example: PMWTH-5057-L-01-B-F-90-10-FA

Description: Polarization Maintaining WDM/Tap Coupler Hybrid Combination, 2050nm signal/1570nm pump, 1% tap, backward pump, 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.