# SM Hybrid Components



### **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

# 2050/1570nm SM 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.



# For more Info

#### Please contact us at:

Tel: +86-755-23736280 Fax: +86-755-26746512

E-mail: sales@dkphotonics.com

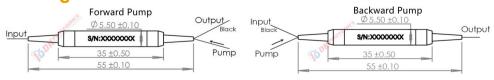
https://www.dkphotonics.com

Add.:

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

Shenzhen, China 518109

#### **Package Dimension:**



PS: For forward pump, signal wavelength is polarization independent. For backward pump, signal wavelength is Polarization dependent.

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

Email: sales@dkphotonics.com





#### 2050/1570nm SM WDM/Tap Coupler Hybrid Combination

### **Performance Specifications**

Parameter	Parameter		Values		
Signal Central Wavelength (λ c)		nm	1940, 2000,2050		
Signal Wavelength Range		nm	±40		
Max. Signal Excess Loss, λ c, @ 23°C		nm	1.8		
Tap Ratio		%	1~50		
Tap Channel Typ. Loss		dB	1%(19.5~22), 5%(13.5 ~ 16.0)		
	Signal Channel	dB	25		
Min. Isolation (WDM)	Pump Channel	dB	12		
Pump Wavelength Range		nm	1520~1590		
Max. Insertion Loss (Pump to Common)		dB	1.0		
Max. PDL		dB	0.15		
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	-	SMF-28e fiber or specified		
	Common Signal and tap port	-	SM1950 fiber or specified		
Operating Temperature		$^{\circ}\mathrm{C}$	-5 to +70		
Storage Temperature		$^{\circ}\mathrm{C}$	-40 to +85		
Package Dimensions		mm	Ø5.5 x L35(<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. Power transmits through the connector less than 2W.
- 3. If there is pulse application, please be sure to inform us of pulse energy and peak power.

#### **Order information** P/N: WTH -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	Pump Configuration	Pigtail Diameter	Fiber Length	Connector
5057:2050 sig- nal/1570 pump XX: other	L:<0.5W 1:1W 3:3W 5:5W 10:10W	01:1% Tap 02:2% Tap 05:5% Tap	F: Forward Pump B: Backward Pump	25:250μm bare fiber 90:900μm 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: WTH-5057 -L-01-B-90-10-FA

**Description:** SM WDM/Tap Coupler Hybrid Combination, 2050nm signal/1570nm pump, 1% tap, forward pump, SMF-28e fiber at 1570nm port, other with SM1950 fiber, 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.