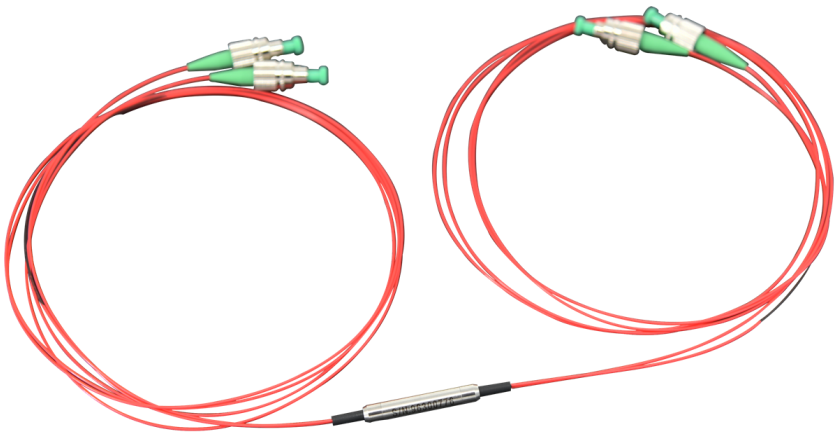
DK PHOTONICS
Optical Passive Components

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

Key Features

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

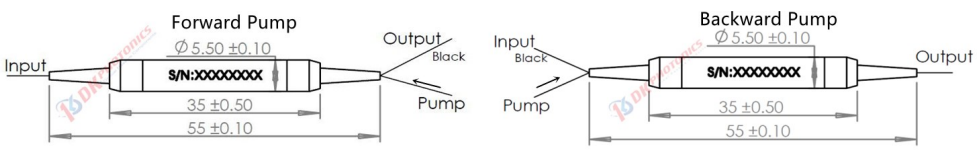
DK Photonics' WDM/Tap Coupler/Isolator Hybrid Combination is a combination of a wavelength division multiplexer, tap coupler and an isolator in a compact package. This product has an extremely low insertion loss, a very stable tap-coupling ratio, high isolation, and high return loss. This product offers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



Applications

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

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.

For more Info

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SM Hybrid Components

2000/1570nm SM WDM/Tap Coupler/Isolator Hybrid Combination

Performance Specifications

Parameter		Unit	Values	
Stage of Isolator		-	Single Stage	Dual Stage
Signal Central Wavelength (λ c)		nm	1940, 2000,2050	
Max. Signal Excess Loss, λc ± 20 nm, @ 23℃		nm	2.0	2.3
Min. Signal Isolation, λ c± 50 nm, @ 23℃(Isolator)		nm	16	35
Tap Ratio		%	1~50	
Tap Channel Typ. Loss		dB	1%(20~22.5), 5%(14 ~ 16.5)	
Min. Isolation (WDM)	Signal Channel	dB	25	
	Pump Channel	dB	12	
Pump Wavelength Range		nm	1520~1590	
Max. Insertion Loss (Pump to Common)		dB	1.0	
Max. PDL		dB	0.2	
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		℃	-5 to +70	
Storage Temperature		℃	-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. 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: WTIH -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 Wavelength	② Stage of Isolator	③ Optical Power	④ Tap Ratio	⑤ Pump Configuration	⑥ Pigtail Diameter	⑦ Fiber Length	⑧ Connector
9457:1940 signal/1570 pump 2057:2000 signal/1570 pump XX: other	S: Single Stage U: Dual Stage	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 LA: LC/APC XX: Others

Part Number Example: WTIH-2050/1570-S-L-01-F-90-10-FA

Description: SM WDM/Tap Coupler/Isolator Hybrid Combination, 2050nm signal/1570nm pump, single stage isolator, 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.