

# **Key Features**

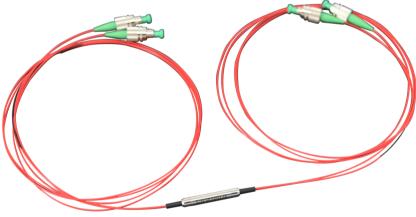
- Wide Operating Wavelength Range
- Compact Size
- Low insertion loss
- High channel Isolation
- High stability and reliability
- Epoxy free on optical path



# **Hybrid Combination**

DK Photonics's 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 hight return loss. This product offers integrated solution to EDFA application by combining more functions into a very compact package.





# For more Info

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### Add.:

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# **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.

# **Applications**

- Fiberoptic Amplifiers
- WDM Systems
- Fiber optic Instruments
- Transmitters and Fiber Lasers
- Laboratory R&D





### 980/1550nm WDM/Tap Coupler/Isolator Hybrid Combination

# **Performance Specifications**

Parameter		Unit	Values			
Stage of Isolator		-	Single Stage	Dual Stage		
Signal Central Wavelength ( $\lambda$ c)		nm	1550, 1590			
Signal Wavelength Range		nm	1528~1565(C Band), 1570~1605(L Band)			
Max. Signal Excess Loss, $\lambda$ c, @ 23°C		nm	1.3	1.5		
Min. Signal Isolation, $\lambda$ c, @ 23°C(Isolator)		nm	31	45		
Tap Ratio		%	1~50			
Tap Channel Typ. Loss		dB	1%(19.0~21), 2%(16.2 ~ 19.2), 5%(12.2 ~ 15.2)			
	Signal Channel	dB	30 12			
Min. Isolation (WDM)	Pump Channel	dB				
Pump Wavelength Range		nm	960~990			
Max. Insertion Loss (Pump to Common)		dB	0.6			
Max. PDL		dB	0.15			
Min. Return Loss		dB	50			
Max. Power Handling (CW)		W	0.5, 2, 3, 10,20			
Max. Peak Power for Pulse		kW	1, 5,10			
Max. Tensile Load		Ν	≤5			
Fiber Type		-	1060-XP or Specified for Common & Pump port			
			SMF-28e or Specified for Signal and tap port			
Operating Temperature		°C	-5 to +70			
Storage Temperature		°C	-40 to +85			
Package Dimensions		mm	Ø5.5 x L38(<10W), 6	60x12x8(>10W)		

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 -①-②-③-④-⑤-⑥-⑦-⑧

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	Stage of Isolator	Optical	Tap Ratio	Pump Config-	Pigtail Diameter	Fiber Length	Connector
59:1550 sig- nal/980 pump	S: Single Stage D: Dual Stage	Power L:<0.5W 1:1W 3:3W 5:5W 10:10W	01:1% Tap 02:2% Tap 05:5% Tap	uration 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-69-S-L-01-F-90-10-FA

**Description:** SM WDM/Tap Coupler/Isolator Hybrid Combination, 1064nm signal/980nm pump, power<200mW, single stage isolator,

# **Ordering Information for Custom Parts**

1% tap, forward pump, 1060-XP fiber, with 0.9mm OD loose tube, 1.0m fiber length, and FC/APC connectors at all ports.

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