980/1550(1585)nm WDM/Tap Coupler/ Isolator Hybrid Combination

WTIH1598 Series

Product Description

Oplink's WTIH 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, and a very stable tap-coupling ratio. Fiber optic amplification is the ideal application for this product.

Oplink can provide customized designs to meet specialized feature applications. Also, Oplink offers modular assemblies that integrate other components to form a full function module or subsystem.



Performance Specification

WTIH1598 Series			Single Stage	Dual Stage	Unit
Operating Wavelength Range	Signal Channel		C band : 1528 ~ 1564 or L band : 1570 ~ 1605		nm
	Pump Channel		965 ~ 995		nm
Insertion Loss [1]	Signal Port		< 1.4	< 1.5	dB
	Pump Port		< 0.6		dB
	Tap Port	1% Tap Ratio	19.2 ~ 21.0		dB
		2% Tap Ratio	16.2 ~ 18.0		
		5% Tap Ratio	12.2 ~ 14.0		
		10% Tap Ratio	9.6 ~ 10.8		
Wavelength Dependent Loss	Signal to Common		< 0.5	< 0.5	dB
Wavelength Isolation	Signal to Common @ Pump Wavelength Range		> 30		dB
	Pump to Common @ Signal Wavelength Range		> 12		
Reverse Direction Isolation (over signal wavelength range, 0~70°C, all SOP)	Common to Signal		> 21	> 36	dB
Polarization Dependent Loss			< 0.1	< 0.2	dB
Polarization Mode Dispersion (standard)			< 0.25	< 0.05	ps
Directivity			≥ 55		dB
Return Loss			≥ 50		dB
Maximun Power Handling			≤ 500		mW
Operating Temperature			0 to +70		°C
Storage Temperature			-40 to +85		°C
Fiber Type	Signal & Tap Ports		Corning SMF-28		
	Common & Pump Ports		Corning HI1060		
Package Dimension [3]			P2 : (Ø) 5.5 x (L) 40.0		mm

Values are referenced without connector loss

[1] The maximum IL is under all states of polarization and within the full operating temperature and wavelength ranges specified. Add 0.3dB on signal port IL for 10% tapping case.

[2] All the parameters are excluding connectors.

[3] The mechanical tolerance should be +/-0.2mm on all package dimensions unless otherwise custom specified.

Features

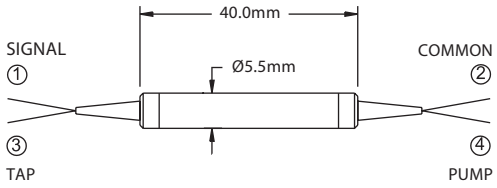
- Wide Operating Wavelength Range
- Compact Size
- High Isolation
- Ultra Low PDL & PMD
- High Stability & Reliability
- Epoxy-free Optical Path

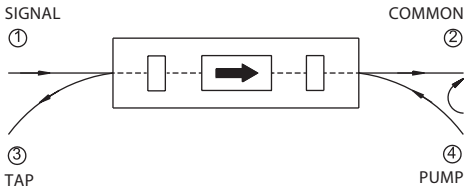
Applications

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

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Mechanical Drawing / Package Dimensions (dimension in mm)





Ordering Information

Oplink can provide a remarkable range of customized optical solutions. For detail, please contact Oplink's OEM design team or account manager for your requirements and ordering information (510) 933-7200.

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Wavelength
1550/980nm = 1598
1585/980nm = 1698

Stage
Single Stage = S
Dual Stage = D

Tap Ratio
1% = 01
2% = 02
5% = 05
10% = 10

Package & Fiber Jacket Type
P2 + 250µm bare fiber = 21
P2 + 900µm loose tube = 22

Fiber Length
0.5 meter = H
1.0 Meter = 1*
1.5 Meters = 5
2.0 Meters = 2

Connector Type
None = 1
FC/PC = 2
FC/SPC = 3
FC/APC = 4
SC/PC = 5
SC/SPC = 6
SC/APC = 7
ST = 8
LC = 9
MU = A

** The tolerance of fiber length is +/-0.1m. 1 meter is standard. The lead-time for special fiber length will be longer.*

46335 Landing Pkwy Fremont, CA 94538 Tel: (510) 933-7200 Fax: (510) 933-7300 Email: Sales@Oplink.com • www.oplink.com