# 1480/1550 nm WDM/Tap Coupler/ Isolator Hybrid Combination

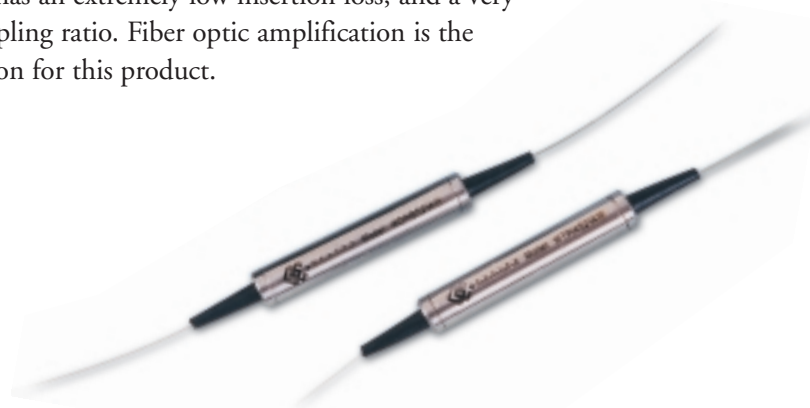## WTIH1514 Series

### Features

- Wide Operating Wavelength Range
- Compact Size
- High Isolation
- Ultra Low PDL & PMD
- Highly Stable & Reliable
- Epoxy-Free Optical Path

### Applications

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

### 1480/1550 nm WDM/Tap Coupler/Isolator Hybrid Combination

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.
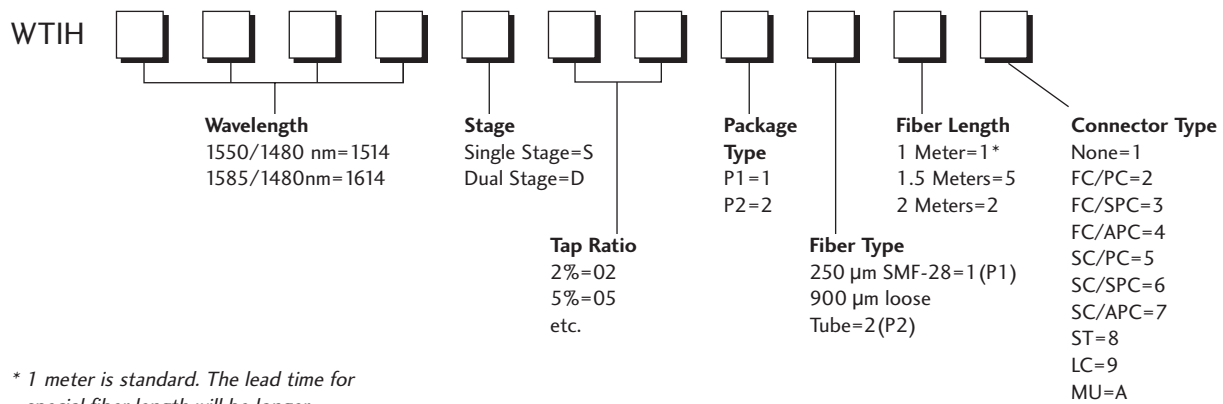
### Performance Specifications

| WDIH1514 Series | | Single Stage | | Dual Stage | Unit |
|---|---|---|---|---|---|
| Signal Operating Wavelength Range | | C band: 1528 ~ 1564 | | | nm |
| | | L band: 1570 ~ 1605 | | | nm |
| Pump Channel Wavelength Range | | 1450 ~ 1495 | | | nm |
| Isolation(Min.) (over wavelength range 0 ~ 70°C, all SOP) | | 21 | | 36 | dB |
| Isolation (Min.) (Pump Channel @ λ signal) | | | 15 | | dB |
| Isolation (Min.) (Signal Channel @ λ pump) | | | 25 | | dB |
| Insertion Loss (Max.) | Pump Channel | | 0.6 | | dB |
| (over wavelength range and | Signal Channel | 1.1 | | 1.2 | dB |
| 0 to +70°C, all SOP) | Nominal Tap Ratio | 2% | 16.2 ~ 18.0 | | dB |
| | | 5% | 12.2 ~ 14.0 | | dB |
| WDL(Max.) | | 0.4 | | 0.5 | dB |
| Return Loss(Min.) | | | 50 | | dB |
| PDL(Max.) | | | 0.1 | | dB |
| PMD(Max.) | | 0.25 | | 0.05 | ps |
| Directivity(Min.) | | | 55 | | dB |
| Maximum Power Handling | | | 500 | | mW |
| Operation Temperature | | | 0 to +70 | | °C |
| Storage Temperature | | | -40 to 85 | | °C |
| Package Dimension* | | | P2:(ø)5.5 x (L)40 | | mm |

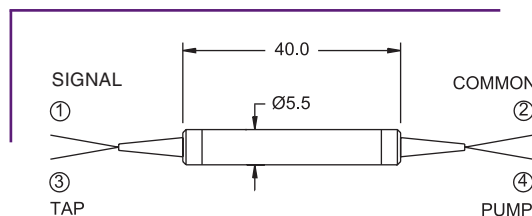*Values are referenced without connector loss*

*\* The mechanical tolerance should be +/- 0.2 mm on all package dimensions unless otherwise custom specified.*

## Ordering Information

Oplink custom designs and manufactures high performance fiber optic networking components and integrated optical modules. Oplink can provide a remarkable range of customized optical solutions to meet your specific design needs. By combining our technical expertise with our extensive micro-optic manufacturing and packaging capability, your volume requirements for components and customized integrated products can be met. We are happy to discuss your requirements. Please contact Oplink's OEM Design Team or Sales Representative for ordering and price information (408) 965-7270.

**WTIH** ☐ ☐ ☐ ☐  ☐ ☐ ☐  ☐ ☐ ☐ ☐

**Wavelength**
1550/1480 nm=1514
1585/1480nm=1614

**Stage**
Single Stage=S
Dual Stage=D

**Tap Ratio**
2%=02
5%=05
etc.

**Package Type**
P1=1
P2=2

**Fiber Type**
250 µm SMF-28=1(P1)
900 µm loose
Tube=2(P2)

**Fiber Length**
1 Meter=1*
1.5 Meters=5
2 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

*\* 1 meter is standard. The lead time for special fiber length will be longer.*

## Package Dimensions:



SIGNAL ①    40.0    Ø5.5    COMMON ②
③ TAP    ④ PUMP

## Configuration:



SIGNAL ①    COMMON ②
③ TAP    ④ PUMP