



# hybrid components

## Tap/Isolator/WDM Hybrid Combinations

### Description

Renka® SmartCONNECT™ Tap/Isolator/WDM Hybrid is a combination of a thin film tap, WDM and an isolator, integrated into one compact package. These components offer low insertion and polarization dependent loss, which make them an ideal integrated solution for EDFA applications.

Renka Hybrid components are designed and tested to Bellcore GR-1209/GR-1221 performance and reliability industry standards.



### Applications

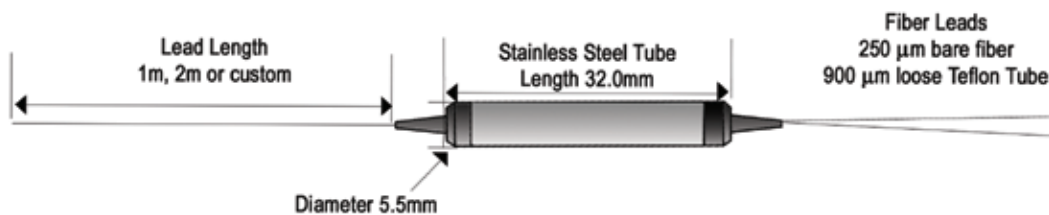
- EDFA
- WDM Systems
- CATV

### Benefits

- Wide Wavelength and Temperature Range
- Compact Packaging
- High Isolation
- Highly Stable and Reliable

## Package Dimensions

### Light/Medium Duty



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

	UNIT	SINGLE STAGE	DUAL STAGE
Wavelength Range	nm	1525 - 1565	
Pump Wavelength Range $\lambda_p$	nm	965 - 995	
Isolation (Min.) over wavelength range (0 - 70°C, all SOP)	dB	23	40
Wavelength Isolation (Min.) (1 -> 3 @ $\lambda$ signal)	dB	12	
Wavelength Isolation (Min.) (1 -> 2 to 2 -> 1 @ $\lambda$ pump)	dB	30	
Insertion Loss (Max.) Pump Channel	dB	0.6	
Nominal Tap Ratio		2% (16.2 - 18.0dB)	
		5% (12.2 - 14.0dB)	
Insertion Loss - over wavelength range (0 to +70°C, all SOP, depends on tap ratio)	dB	1.0 to 1.4	1.1 to 1.5
Return Loss (Min.)	dB	55	
PDL (Max.)	dB	0.1	
PMD (Max.)	ps	0.25 / 0.05 (compensated)	0.1
Directivity (Min.)	dB	55	
Maximum Power Handling	mW	500	
Operation Temperature	°C	0 to +70	
Storage Temperature	°C	-40 to +85	
Fiber pigtail		1m Corning Flexcor 1060 fiber at common/pump port 1m Corning SMF-28 fiber at output port	

## Ordering Information

TIWH□-□□-□-□□-□□

### Configuration

F: Forward  
B: Backward

### Type

SS: Single Stage  
DS: Dual Stage

### Wavelength

1: 980/1550  
4: 1480/1550

### Package Type

L: Light Duty  
(250  $\mu$ m bare fiber)  
M: Medium Duty  
(900  $\mu$ m loose Teflon tube)

### Lead Length

1: 1 meter  
2: 2 meters  
C: Custom

### Connector Type

00: None  
SU: SU/UPC  
SA: SC/APC  
FU: FC/UPC  
FA: FC/APC  
TU: ST/UPC