

## Unidirectional Integrated TAP Detector



ACP's Unidirectional integrated Tap Detector is a hybrid optical component that combines the functionality of a thin film tap and a PIN optical detector in a compact package for power monitoring applications. The unidirectional design ensures only input port power is detected with a high isolation (directivity) for the reflected light.

All AC Photonics' products are Telcordia qualification tested.

### Key Features

- Low IL and PDL
- Low Dark Current
- Excellent Directivity
- Hermetically Sealed PD

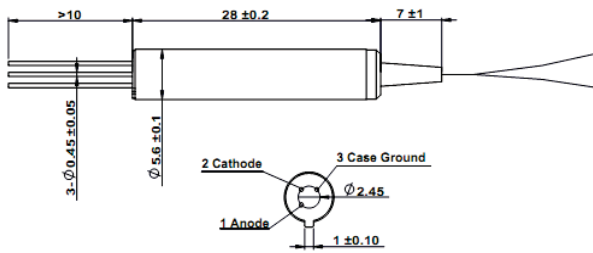
### Applications

- EDFA Power Control
- DWDM System Monitor
- Network Switch

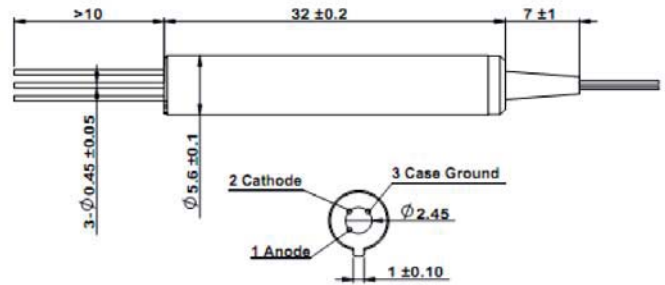
### Performance Specifications

Parameter		Specifications				
Tap Ratio		1%	2%	3%	5%	10%
Wavelength Range		1310: 1270nm to 1350nm; 1550: 1510nm to 1590nm L-Band: 1570nm to 1610nm; C+L Band: 1500nm to 1620nm O+C+L Band: 1270nm to 1350nm & 1510nm to 1610nm				
Insertion Loss	Single Window	≤ 0.5dB	≤ 0.5dB	≤ 0.5dB	≤ 0.7dB	≤ 0.9dB
	Dual Window	≤ 0.7dB	≤ 0.7dB	≤ 0.7dB	≤ 0.9dB	≤ 1.0dB
Wavelength Flatness		≤ 0.15dB				
Polarization Dependent Loss		≤ 0.1dB				
Return Loss		≥ 45dB				
Optical Power		23dBm	21dBm	18dBm	16dBm	13dBm
Responsivity (C,L Band)	Max	15mA/W	25mA/W	40mA/W	64mA/W	145mA/W
	Min	7mA/W	13mA/W	25mA/W	42mA/W	70mA/W
Responsivity (1310)	Max	11mA/W	23mA/W	38mA/W	60mA/W	136mA/W
	Min	5mA/W	11mA/W	23mA/W	40mA/W	65mA/W
Directivity		≥ 25dB				
Polarization Dependent Responsivity		≤ 0.1dB				
Operating Temperature		-5 to +70°C				
Storage Temperature		-40 to +85°C				
PD Bias Voltage		5V				
PD Bias Voltage		≤ 20V				
Dark Current@-5V bias		≤ 0.5nA@25°C, ≤ 2nA@70°C				
PD Cut-off Frequency (RL=50, -3dB, -5V)		≥ 1 GHz				
Fiber Type		SMF-28e or SMF-28XB				
Soloering Temperature		250(<10sec)				

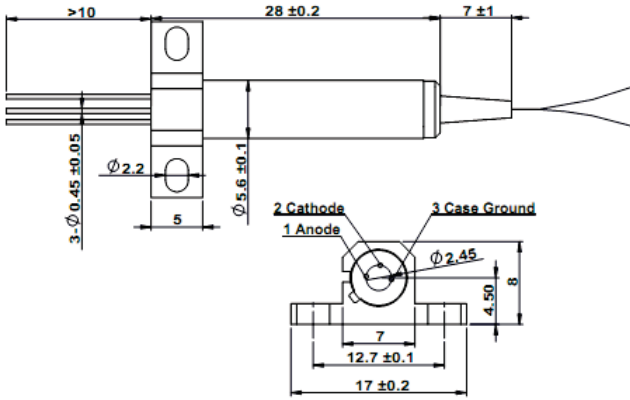
**Mechanical Dimensions**



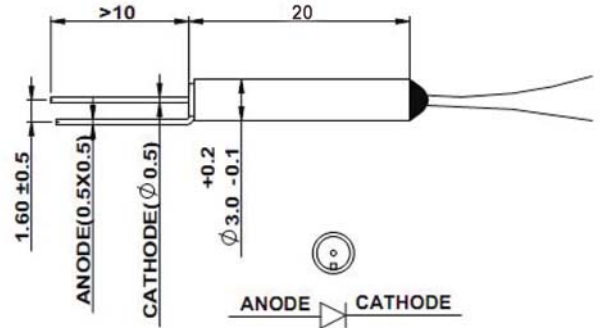
**Standard Package (250um fiber)**



**Standard Package (900um jacket)**



**Standard Package with Flange**



**Miniature Package (bare fiber)**

**Ordering Information**

TPTDU	Channel	Tap Ratio	Package Size	Flange	Pigtail Style	Fiber Length	Fiber Type	In/Out Connector
	13 = 1310nm 15 = 1550nm 16 = L-Band 35 = 1310nm/1550nm CL = C+L Bands 36 = O+C+L Bands	01 = 1% 02 = 2% 03 = 3% 05 = 5% 10 = 10% . . .	S = Standard M = Mini	1 = With Mount Flange 2 = Without Mount Flange	1 = Bare Fiber 2 = 900um Jacket	1 = 1.0m 2 = 2.0m	1 = SMF-28 2 = SMF-28XB	0 = None 1 = FC/APC 2 = FC/PC 3 = SC/APC 4 = SC/PC 5 = ST 6 = LC/UPC 7 = LC/APC 8 = MU