# RAMAN AMPLIFIER COMPONENTS

## RAMAN 14xx Pump Coupler/Isolator

DiCon's Raman 14xx Pump Coupler/Isolator integrates a 14xx Pump Coupler with a single stage or dual stage isolator for use in Raman or erbium high power fiber amplifiers. Raman 14xx Pump Coupler/Isolator hybrids are able to withstand continuous power levels in excess of 2.0 Watts while offering the lower losses and reduced integration costs of a hybrid component.



#### FEATURES

- High power capabilities to 2.0 Watts
- Demostrated long term, high power reliability
- Tested to Telcordia GR-1221

#### **APPLICATIONS**

Raman 14xx Pump Coupler/Isolators are designed to couple the power from high power 14xx pump laser modules onto a transmission fiber while at same time isolating unwanted reflected signals originating from within the amplifier. Raman 14xx Pump Coupler/Isolators are hybrid components which eliminate the need to splice together separate pump couplers and isolators within a gain module.



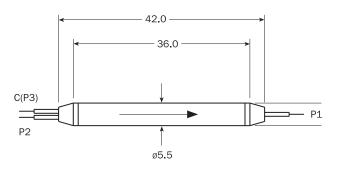
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### SPECIFICATIONS<sup>1</sup>

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Parameter	Single Stage	Dual Stage	
Power isolation; 23 <sup>0</sup> C	27 dB min.	50 dB min.	
Power isolation; Top	22 dB min.	40 dB min.	
Insertion loss C - P1	1.1 dB max.	1.3 dB max.	
PDL C - P1	0.15 dB max.	0.2 dB max.	
Insertion loss C - P2	0.6 dB max.	0.6 dB max.	
PDL C - P2	0.1 dB max.		
Pump passband	1410.0 - 1490.0 nm		
Pump isolation C - P2	12 dB min.		
Ripple C - P1	0.25 dB max.		
Ripple C - P2	0.15 dB max.		
Directivity	55 dB min	55 dB min	
Back-reflection	-50 dB max.		
PMD	0.1 ps max.		
Optical power	1.5 W max.		
Fiber type	9/125 Corning	9/125 Corning SMF-28	
Operating temperature	0° C to +65° C		
Storage temperature	-40° C to +85° C		

1. All specifications referenced without connectors.

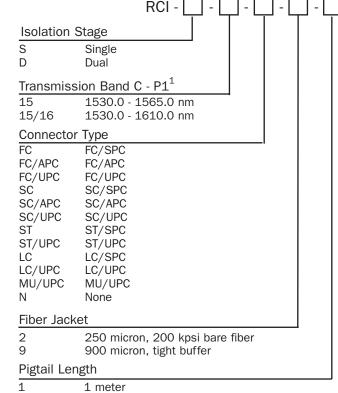
### HOUSING DIMENSIONS



Units: mm

1. Optional 38 mm housing lengths by request.

### ORDERING INFORMATION



X Specify X meters

1. All wavelengths referenced to vacuum