Pump Coupler/Isolator

DiCon's Pump Coupler/Isolator integrates a Pump Coupler with a single stage or dual stage Isolator for use in erbium doped fiber amplifiers. Pump Coupler/Isolators reduce integration costs by combining two functions in one package.

Features

- 980 or 1480 nm pump options
- Single stage or dual stage isolator options
- Available for forward or backward pumping
- Tested to Telcordia GR-1221

Applications

Pump Coupler/Isolators minimize insertion loss in amplifier stages that use low power 980 or 1480 nm lasers. Based on broadband thin film technology, they eliminate the need to splice together separate components.

DiCon FIBEROPTICS, INC

Erbium Amplifier Components

Specifications[1,2]

Parameter	Single Stage	Dual Stage
Insertion loss C - P1	0.9 dB max.	1.1 dB max.
Power isolation; 23°C	27 dB min.	50 dB min.
Power isolation; T_{op}	22 dB min.	40 dB min.
Signal passband[2]	1530.0 - 1565.0 nm	
Insertion loss C - P2	0.5 dB max.	
Wavelength isolation C - P1	30 dB min.	
Wavelength isolation C - P2	10 dB min., 15 dB typ.	
Signal ripple C - P1	0.2 dB max.	
Pump ripple C - P2	0.1 dB max.	
Directivity	55 dB min.	
Back-reflection	-50 dB max.	
PDL	0.1 dB max.	
PMD	0.06 ps max.	
Optical power[3]	300 mW max.	
Fiber type	9/125 Corning SMF-28	
Fiber jacket	250 micron, 200 kpsi bare fiber	
Operating temperature	0°C to +65°C	
Storage temperature	-40°C to +85°C	

1. All specifications referenced without connectors.
2. Other passbands available by request.
3. Power levels above 300mW, see Raman 14xx Pump Coupler/Isolator, page 62.

Ordering Information

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Isolator Stages

S	Single
D	Dual

Pump Passband

9	960 - 990 nm
14	1460 - 1490 nm

Pump Direction

F	Forward-pumping
B	Backward-pumping

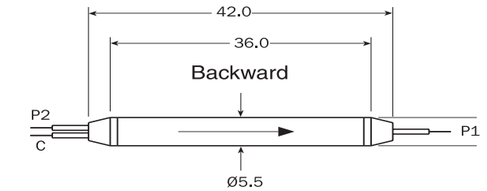
Connector Type

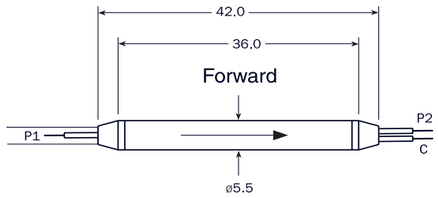
FC	FC/SPC
FC/APC	FC/APC
FC/UPC	FC/UPC
SC	SC/SPC
SC/APC	SC/APC
SC/UPC	SC/UPC
ST	ST/SPC
ST/UPC	ST/UPC
LC	LC/SPC
LC/UPC	LC/UPC
MU/UPC	MU/UPC
N	None

Pigtail Length

1	1 meter
X	Specify X meters

Housing Dimensions[1]





Units: mm
1. Optional 38 mm housing lengths by request.

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