

ERBIUM AMPLIFIER COMPONENTS

1480/1550 PUMP COUPLER

DiCon's 1480/1550 Pump Coupler is constructed using DiCon's Cylindrical Filter WDM packaging technology. The Pump Coupler uses a thin film filter mounted between a pair of GRIN lens collimators. DiCon's 1480/1550 Pump Coupler is housed in a compact, environmentally stable package that offers superior resistance to humidity and temperature and is suitable for mounting on a printed circuit board or within a fiber amplifier module.



FEATURES

- Low insertion loss
- Suitable for forward or backward pumping
- Rugged environmentally stable package
- Tested to Telcordia GR-1209 and GR-1221

APPLICATIONS

1480/1550 Pump Couplers are used to couple low power 1480 nm pump sources with C and L band transmission signals in erbium doped fiber amplifiers. 1480/1550 Pump Couplers can also be used to multiplex or demultiplex 1480 nm monitoring signals in 1550 nm WDM transmission systems.



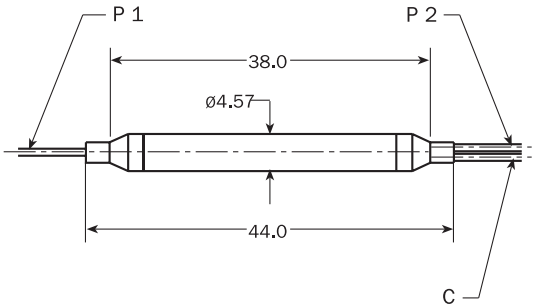
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SPECIFICATIONS¹

Insertion loss C - P1	0.4 dB typ., 0.55 dB max.
Insertion loss C - P2	0.4 dB typ., 0.45 dB max.
Isolation C - P1	30 dB min.
Isolation C - P2	15 dB typ., 12 dB min.
Ripple C - P1	0.3 dB max.
Ripple C - P2	0.1 dB max.
Directivity	55 dB min.
Back-reflection	-50 dB max.
PDL	0.05 dB typ., 0.1 dB max.
Thermal stability	0.005 dB/°C max.
Optical power ²	300 mW max.
Fiber type	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.
2. For higher power levels, see Raman 14xx Pump Coupler pages 60 to 61.

HOUSING DIMENSIONS¹



- Units: mm
1. Optional 38 or 40 mm housing lengths by request.

ORDERING INFORMATION¹

PCC - <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/> - <input type="checkbox"/>	
Transmission Band C - P1 ^{1,2}	
14	1460.0 - 1490.0 nm
15	1530.0 - 1563.0 nm
15/16	1530.0 - 1610.0 nm
Reflection Band C - P2 ^{1,2}	
14	1460.0 - 1490.0 nm
15	1530.0 - 1563.0 nm
15/16	1530.0 - 1610.0 nm
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
Fiber Jacket	
2	250 micron, 200 kpsi bare fiber
9	900 micron, tight buffer
Pigtail Length	
1	1 meter
X	Specify X meters

1. All wavelengths referenced to vacuum.
2. Other transmission and reflection bands available upon request.