



RDR4000 – DFB FIBER LASERS

KEY FEATURES

- Ultra-stable longitudinal mode operation
- Single or dual polarization laser design
- Narrow Linewidth
- Mode hop and burst-noise free

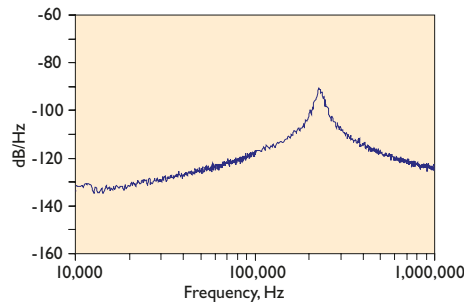
APPLICATIONS

- Sources for interferometric sensing
- Acoustic Sensors
- Spectroscopy
- LIDAR (Light Detection and Ranging)
- Coherent Communications

DESCRIPTION

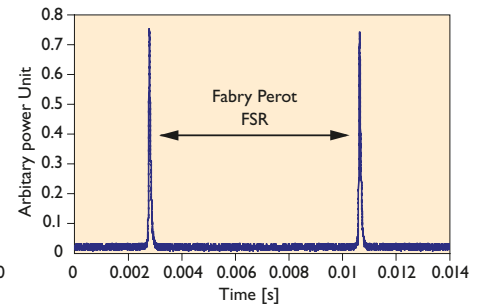
Redfern's **RDR4000 – DFB Fiber Lasers** represents a new era in ultra-stable fiber-based lasers. They operate robustly in a single longitudinal mode even in the presence of significant thermal and mechanical perturbations. This feature in combination with a very narrow line width and excellent power stability makes them ideal for demanding sensing applications, either as a sensing element or light source.

RELATIVE INTENSITY NOISE



MODE STRUCTURE FROM SCANNING FABRY PEROT

- showing single polarisation operation



SPECIFICATIONS: RDR4000-DFB FIBER LASER

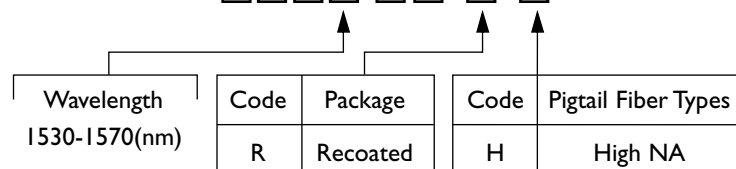
Lasing wavelengths ¹	1530 – 1570	(nm)
Output power ¹	> 50	(µW)
Relative intensity noise (@ 10kHz RBW) ¹	< -80	(dB/Hz)
Relaxation oscillation frequency peak ¹	> 200	(kHz)
Standard gain – medium length	57 ± 2	(mm)
Standard FBG length	55	(mm)
Longitudinal lasing modes ¹	Single	
Degree of polarization (single indeterminate state) ¹	> 95	(%)
Pigtails (at each end of the erbium-doped fiber)	> 1	(m)
Pigtail fiber type	High NA	
Operating temperature range	0 to +70	(°C)
Storage temperature range	-40 to +80	(°C)
Package options	Recoated	

¹. When optically pumped with 100mW of 980nm light.

SALES REP CONTACT INFORMATION:

ORDERING INFORMATION:

Part No: **RDR4000**-□□□□.□□-□-□



EXAMPLE: RDR4000-1547.72-R-H*

* For other enquiries please contact Redfern Optical Components.

Specifications are subject to change without notice. March 2009. No warranty or guarantee is given by ROC that a product will perform to specification unless set out in the conditions of sale of the product or required by law. ROC068/RDR4000_0309

PERFORMANCE, INTEGRITY & EXCELLENCE

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