



## RDR5000 – MULTI-CHANNEL DISPERSION COMPENSATING FBG

### KEY FEATURES

- Low insertion loss
- Ultra-low group delay ripple (GDR)
- Highly accurate slope compensation

### APPLICATIONS

- Regional and long-haul DWDM networks

### DESCRIPTION

The **RDR5000 – 45 Channel Dispersion Compensating Fiber Bragg Grating** provides ultra-high performance, delivering breakthrough solutions in dispersion compensation. This standard 45 Channel DCG has been specifically designed to harness the fidelity of Redfern's proprietary direct UV-Writing technology, **ROC DirectRite™**.

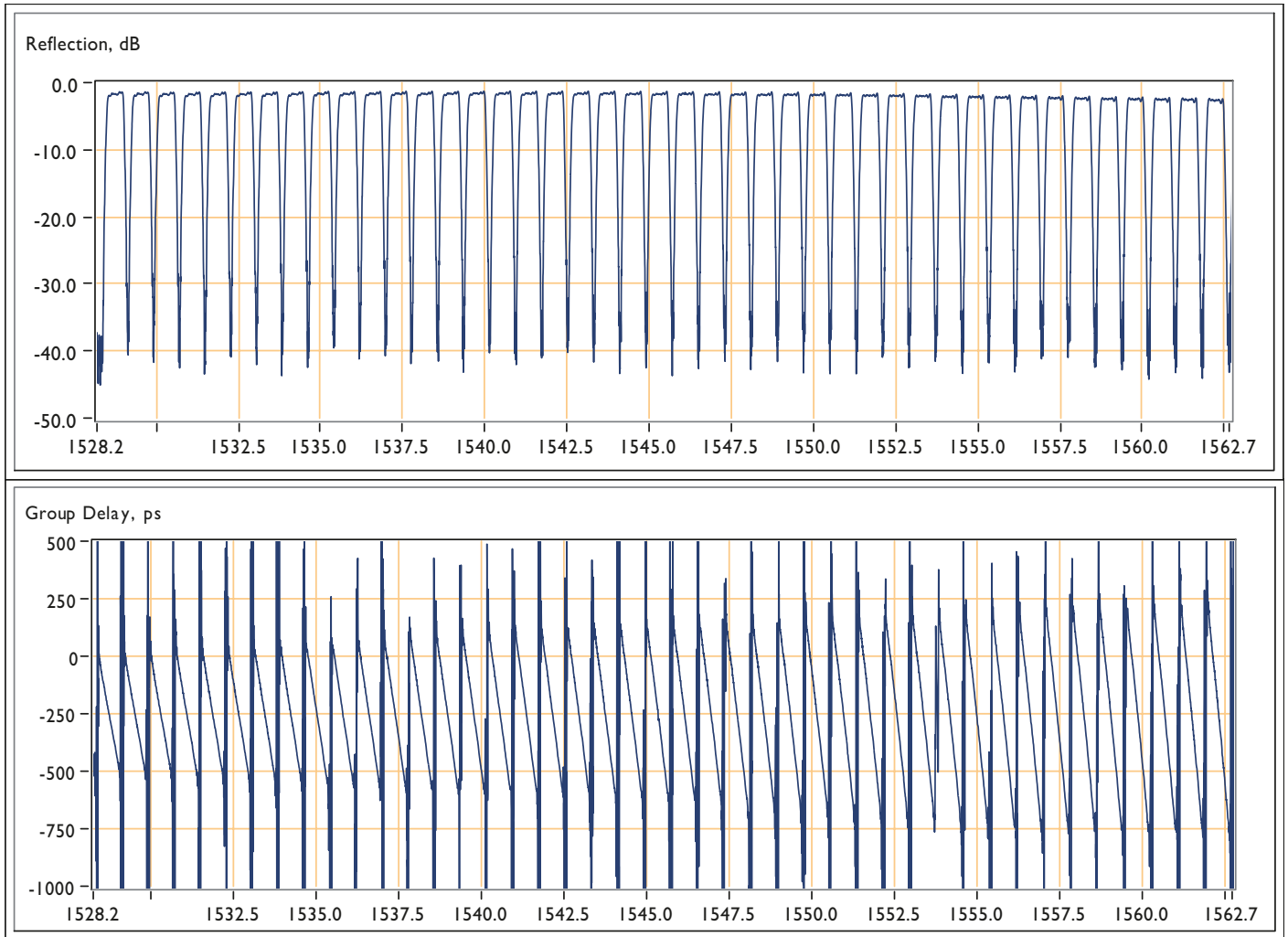


### PRODUCT SPECIFICATIONS: RDR5000-DCG

Centre wavelength ( $\lambda_c$ )	C-band, ITU-T grid	
Number of channels	up to 45	
Channel spacing	100	(GHz)
Clear channel bandwidth @ -1.0 dB	> 0.3	(nm)
Dispersion range:	for SMF28 fibre	40, 60, 80, 100 (km)
	for LEAF fibre	100, 200, 300 (km)
Dispersion tolerance (across full band)	$\pm 5$	(%)
Group delay ripple (unfiltered)	$< \pm 15$	(ps)
Reflectivity	> 60	(%)
Polarization-dependent Loss	< 0.1	(dB)
Fiber pigtail length	> 0.5	(m)
Operating temperature range	-5 to +70	(°C)
Storage temperature range	-40 to +85	(°C)
Athermal package dimensions	240 x 8	(mm)

1. Clear channel bandwidth is the actual FBG bandwidth minus the guard band of 0.1nm.
2. Group Delay is measured with the modulation phase shift method (Mod. Freq. 250 MHz) using a wavelength step size of 1pm. GDR is calculated by subtracting the measured group delay from a linear curve fit to the group delay data within the channel bandwidth.

**RDR5000 – EXAMPLE REFLECTION AND GROUP DELAY SPECTRA:**



**ORDERING INFORMATION:**

Part No: **RDR5000-C-**  -    -

Code	Fiber Type	Code	Compensation Length	Code	Connector Type
S	SMF-28	40	40km	1	FC/APC
L	Leaf Fiber	60	60km	2	FC/PC
		80	80km	3	SC/APC
		100	100km	4	SC/PC
		200	200km*	5	Other
		300	300km*	6	None

**EXAMPLE: RDR5000-C-S-80-1**

\* Only available with Leaf Fiber

**SALES REP CONTACT INFORMATION:**

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/RDR5000\_0309

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