



RDR6000 – APPLICATION-SPECIFIC FBGs

Rapid delivery of customised high-performance optical filters.

DESCRIPTION

Redfern's unique FBG manufacturing capabilities offer great flexibility due to software implementation of the grating design, a highly stable UV interferometer, high spatial resolution and increased speed. This allows Redfern to address the full spectrum of FBG applications through their FBG Foundry Service.

KEY FEATURES

- Ultra-high performance tailor-made gratings
- In-house design service for FBG filters
 - Linear or higher order dispersion designs
 - High channel counts possible
 - Arbitrary apodisation and phase profiles (see figure one below right for a design example)
 - FWHM bandwidths 20 pm to 40 nm
 - Single and multiple arbitrary phase-shift designs for PSG and Fiber Laser applications
- Wavelength range: 970nm to 1620nm
- Athermal packaging option
- Module option
- Polyimide and Acrylate Fiber Recoat options

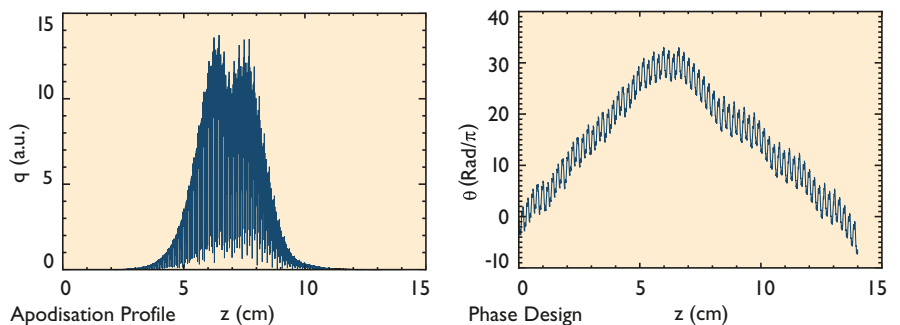


SPECIFICATION EXAMPLES

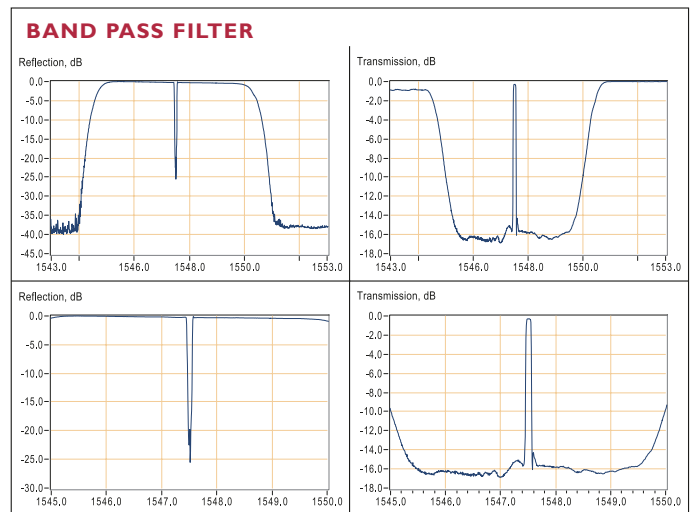
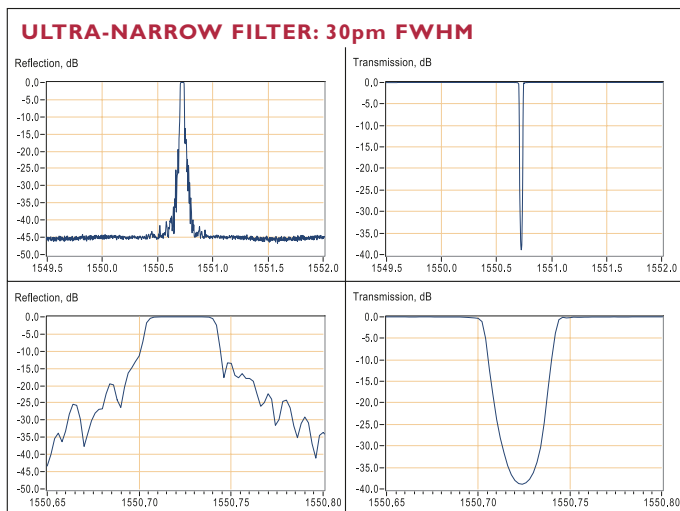
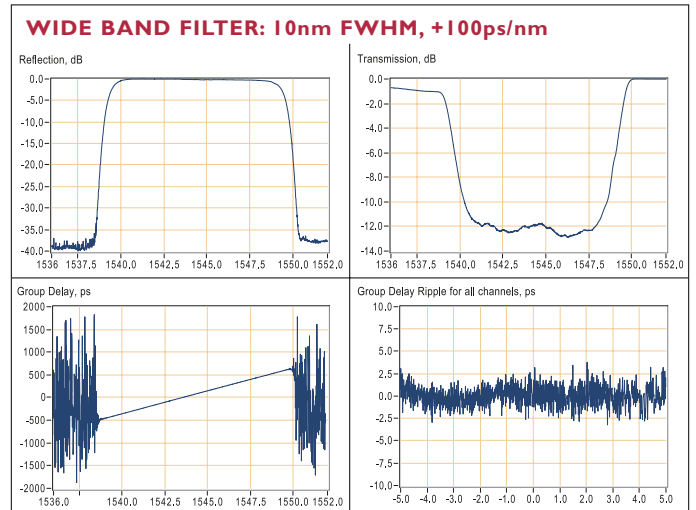
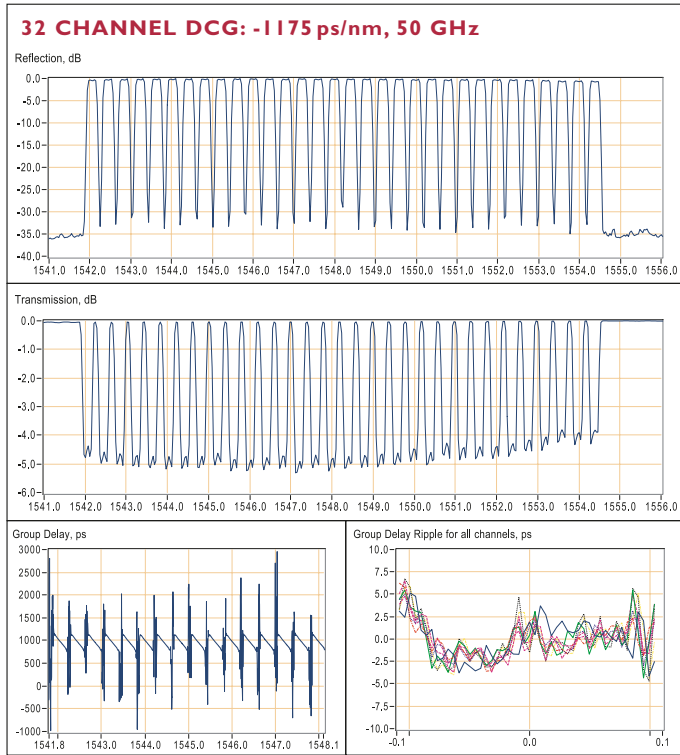
FWHM bandwidth range	20 pm to 40 nm
Dispersion range ¹	- 3000 ps/nm to + 3000 ps/nm
Slope matching	> 98%
Channel count	Up to 80 possible
Reflectivity ²	1% - 99.9%
Channel spacing	50, 100, 200 GHz or custom
Group delay ripple ³	< ±10 ps
Polarisation mode dispersion	< 2 ps
Polarisation dependent loss	< 0.3 dB

1. Very low and precise dispersion designs possible, eg. 0.1 ps/nm.
2. Upper limit of reflectivity is dependent on the FWHM bandwidth.
3. GDR figure based on D2 = 1,000 ps/nm, BW = 0.22 nm and 75% reflectivity grating. GDR may be greater or less depending on D2, BW and reflectivity levels. Group delay measurements are made at a 250 MHz modulation frequency.

FIGURE 1 – 32 CHANNEL FBG DESIGN EXAMPLE



REDFERN FBG FOUNDRY SERVICE PRODUCT EXAMPLES



**FOR MORE FBG PRODUCT EXAMPLES
PLEASE VISIT OUR WEBSITE:
WWW.REDFERNCOMPONENTS.COM**

PACKAGING OPTIONS:

ATHERMAL PACKAGE

- 90 x 6 (mm)
- 240 x 8 (mm)

FIBER RECOATING

- Regular Acrylate
- Polyimide - High temperature resistance coating

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/RDR6000FBG_0309

PERFORMANCE, INTEGRITY & EXCELLENCE

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