



flawless fusion with infinite possibilities

SIFAM
F I B R E O P T I C S

DWDM Fibre Bragg Grating



SIFAM DWDM FBGs have class-leading performance derived from sophisticated design techniques and advanced manufacturing technologies.

Sharp roll-off and low in-band dispersion maximise channel bandwidth to support 10Gb/s data transmission on dense wavelength grids with minimal bandwidth-narrowing effects.

Proprietary laser-welded athermal package technology ensures high wavelength stability over temperature and life and is fully compliant with Telcordia GR-1209 and GR-1221.

SIFAM DWDM FBGs are designed to minimise dispersion and cross-talk, and SIFAM can incorporate FBGs into modules for mux/demux, OADM, channel blocking, and low-channel count interleavers.

Key Features:

- Wide channel passband
- Low dispersion
- Low ripple
- Low cross-talk
- Stable, compact packaging
- Excellent long-term stability
- Telcordia compliant design
- Fast & flexible manufacturing
- ISO 9001 registered facility

Applications:

- Mux/demux
- OADM modules
- Channel blocking modules
- Low-channel count interleavers

Compliance:

- Telcordia GR-1209
- Telcordia GR-1221

SIFAM Fibre Optics Ltd
Broomhill Way, Torquay
Devon TQ2 7QL
England



Certificate No. 0962231

Tel: +44(0) 1803 407784
Fax: +44(0) 1803 407786
sales@sifamfo.com
www.sifamfo.com

As part of our policy of continuous product improvement we reserve the right to change specifications at any time

Optical Specifications

Parameters ₁		< 50GHz DWDM	50 GHz DWDM	Unit
Channel Spacing		25 33 40	50	GHz
Channel Bandwidth		± 20% of channel spacing		GHz
Channel Wavelength Range		1525 – 1565 (1565 – 1610 available on request)		nm
Insertion Loss (inc. ripple)	(R) (T)	< 1 < 0.3	< 0.5 < 0.3	dB
Insertion Loss Ripple	(R) (T)	< 0.5 < 0.2	< 0.2 < 0.2	dB
Reflected Channel Isolation	(T)	> 7	> 10	dB
Adjacent Channel Isolation	(R)	> 20	> 25	dB
Non-adjacent Channel Isolation	(R)	> 35		dB
Group Delay Ripple (p-p)	(R) (T)	< 8 < 12	< 4 < 6	ps
Polarisation Dependent Loss		< 0.2		dB
Polarisation Mode Dispersion		< 0.2		ps
Maximum CW Input Power		27		dBm

1. All specifications met over defined channel bandwidth over specified operating temperature and all states of polarisation

Environmental Specifications

Parameter	Specification	Unit
Operating Temperature Range	-5 to +70	°C
Storage Temperature Range	-40 to +85	°C
Relative Humidity	5 to 85	%RH
Environmental Qualification	Telcordia GR-1209 & GR-1221	

Housing Options

Parameter		Specification	Unit
Fibre Type		SMF-compatible	
Pigtail Length		> 1	m
Device Format	Packaged Unpackaged	Athermal Recoated or Uncoated ₂	
Athermal Package Dimensions	OD Length Length	5.5 85 (50 GHz channel spacing) 55 (25, 33, 40 GHz channel spacing)	mm
Proof Test Level (Unpackaged)		100	kpsi

2. Centre wavelength accuracy for unpackaged devices: ± 0.2nm

SIFAM Fibre Optics Ltd
Broomhill Way, Torquay
Devon TQ2 7QL
England



Certificate No. 0962231

Tel: +44(0) 1803 407784
Fax: +44(0) 1803 407786
sales@sifamfo.com
www.sifamfo.com

As part of our policy of continuous product improvement we reserve the right to change specifications at any time

Indicative Performance Figures

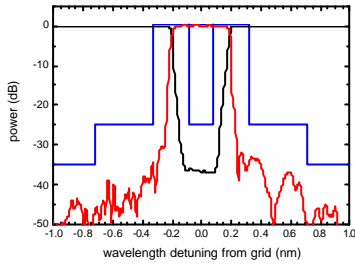


Fig. 1: Reflectivity & Transmssion

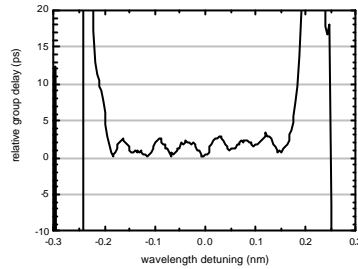


Fig. 2: Group delay ripple in reflection

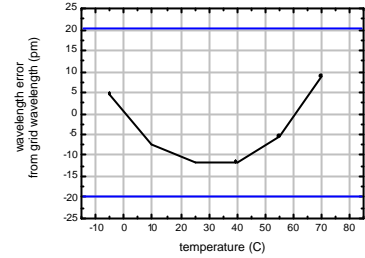
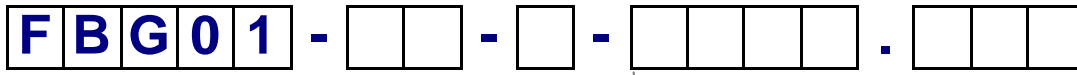


Fig. 3: Absolute centre wavelength accuracy over temperature

Ordering Code Information



Code	Channel spacing
25	25 GHz
33	33 GHz
40	40 GHz
50	50 GHz

Code	Device format
P	Athermal package
R	Recoated
U	Uncoated

Channel wavelength (nm)

SIFAM Fibre Optics Ltd
 Broomhill Way, Torquay
 Devon TQ2 7QL
 England



Certificate No. 0962231

Tel: +44(0) 1803 407784
 Fax: +44(0) 1803 407786
 sales@sifamfo.com
 www.sifamfo.com