



MULTIMODE COMPONENTS

Fiber Laser Mirror Gratings

FBG Mirrors are based on the reflective properties of the Fiber Bragg Grating (FBG) written in the core of an optical fiber waveguide. FBG mirrors' principal application is to use a high and low reflector to form a stable laser cavity having the lasing wavelength selected by the low reflector.

In addition to its many years experience in manufacturing reliable high performance FBGs in volume, ITF Labs has worldwide leading technologies in multi-mode fiber coupling, optical test & measurement as well as mode field adaptation. ITF Labs has developed a family of FBG mirrors for fiber laser and high power amplifiers.



For more information on this or other products and their availability, please contact our customer service at **514.748.4848** (Int'l) / **1.888.922.1044** (Canada and USA only) or via e-mail at info@itflabs.com

KEY FEATURES

- Ultra-precise Wavelength Matching
- Wide Bandwidth & Reflectivity Range
- Wide Variety of Fiber Types
- High Power Handling
- RoHS Compliant



光技術をサポートする
株式会社オプトサイエンス
<http://www.optoscience.com>

東京本社 〒160-0014 東京都新宿区内藤町1番地 内藤町ビルディング
TEL: 03 (3356) 1064 FAX: 03 (3356) 3466 E-mail: info@optoscience.com
大阪支店 〒532-0011 大阪市淀川区西中島7-7-2 新大阪ビル西館
TEL: 06 (6305) 2064 FAX: 06 (6305) 1030 E-mail: osk@optoscience.com
名古屋営業所 〒450-0002 名古屋市中村区名駅2-37-21 東海ソフトビル
TEL: 052 (569) 6064 FAX: 052 (569) 8064 E-mail: ngo@optoscience.com

MULTIMODE COMPONENTS

Fiber Laser Mirror Gratings

SPECIFICATIONS

PARAMETERS	STANDARD CONFIGURATIONS					
Wavelength range	Ytterbium, erbium					
Fiber Type (1), (2)	5/125 μm - 6/130 μm - 10/125 μm - 10/200 μm		20/400 μm NA=0.06/0.46		25/250 μm NA=0.06/0.46	
Coupling from LP01 to other modes (3)	NA		< 20 dB		< 20 dB	
PM version available	Yes		Under development		Under development	
High Reflector / Output Coupler	HR	OC	HR	OC	HR	OC
LP01 Reflectivity	> 99.9%	3% - 20%	> 99.5%	3% - 20%	> 99.5%	3% - 20%
Bandwidth (FWHM)	1-3 nm	0.2-1 nm	1-3 nm	0.2-1 nm	1-3 nm	0.2-1 nm
Wavelength matching HR-OC	0.2 nm					
Package / Recoat	Low index polymer recoat		High power package (60 x 12 x 6.5 mm)		High power package (60 x 12 x 6.5 mm)	
Temperature increase per watt (3), (4) (915 nm pump, NA < 0.46) (3)	< 0.1°C/W (fiber on heat sink) < 0.2°C/W (fiber in air)		<< 0.05°C/W		<< 0.05°C/W	
Wavelength dependance with temperature (4), (5)	< 10 pm/°C		< 15 pm/°C			
Power Handling						
Core Light	30W		1KW		300 W	
Cladding Light (3), (6)	30W		1KW		300 W	

- (1) Other fibers on request.
 (2) Fluorine free.
 (3) Preliminary specification, subject to change.
 (4) Depends on heat sinking efficiency.
 (5) At ~1080 nm.
 (6) Tested at 915 nm.

PRINTED IN CANADA Jan 2011

ORDERING INFORMATION

ITF Labs can custom produce your gratings according to your specifications in low and high volume. We also offer gratings integrated inside our combiners.



ITF Labs

400 Montpellier Blvd
 Montreal, Quebec H4N 2G7 CANADA

Tel: 514.748.4848

Fax: 514.744.2080

1.888.922.1044

www.itflabs.com info@itflabs.com