

High Power FBG

Fiber Bragg Grating (FBG) mirror is a critical component used to design laser cavity. It has a capability to reflect certain emission wavelengths and transmit the others. The refraction index periodic variation in the fiber core causes the reflection generating a wavelength-specific dielectric mirror. Hence, fibre Bragg grating performs as an inline fiber optic filter blocking or reflecting specific wavelengths.

Bonacom's FBG mirrors serve as High Reflector (HR) and Outpur Coupler (OC) mirrors in laser cavities. They feature high pump power,low thermal effect, precise wavelength matching with a wide reflectivity and bandwidth range. Bonacom's FBG mirrors can be lain in our high-power thermal dissipative package, providing mechanical and shock protection as well as reducing wavelength drift, or simply re-coated with a rugged low index polymer. We can also write the FBG mirrors on the output fiber of the pump combiner, hereby, eliminating a splice, increasing the fiber laser assembly reliability and reducing assembly time.

Features

- Low thermal effect
- Single mode, double clad,PM fiber available
- Specific recoating for pump guidance
- Full passive assembly available
- Packaing options: bare FBG and heat dissipative package
- Custom design & specifications available

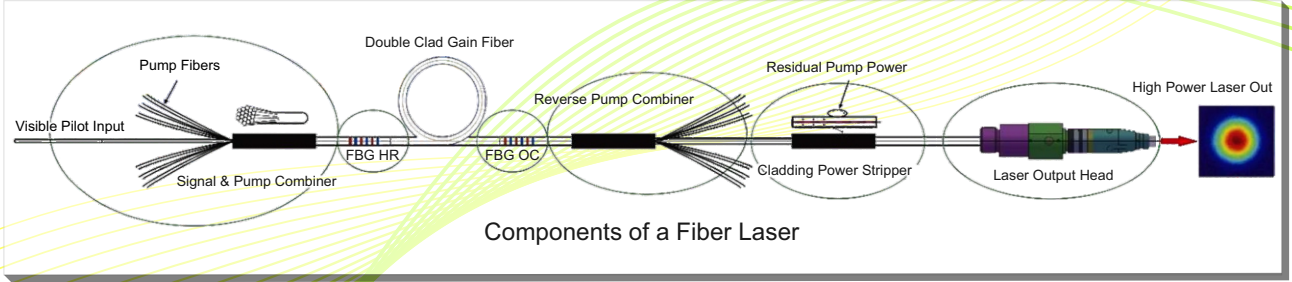
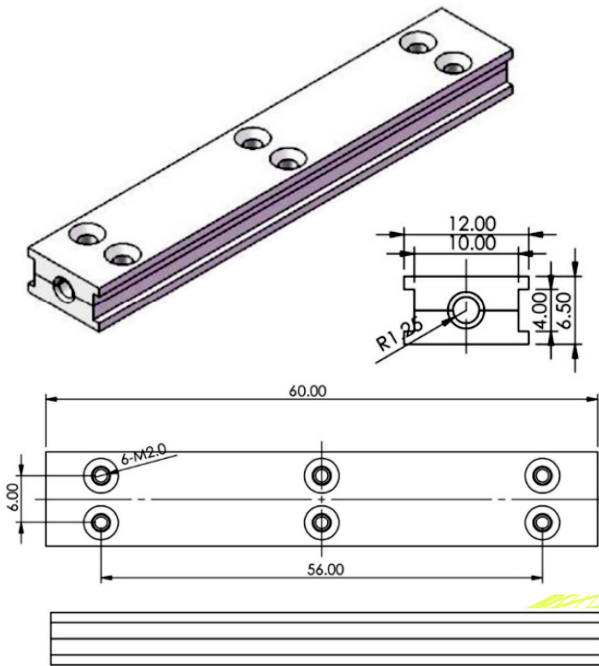
Advantages of dissipative package

- Thermal and mechanical shock protection for FBG mirrors and splices
- Highly reduced wavelength drift

Applications

- High Power Fiber Laser

Package Dimensions



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Bonacom reserves the right to change any specifications without prior notice.

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Specifications

Parameter		Unit	Value	
Port Configuration		-	1x1	
Center Wavelength		nm	1030,1064,1070,1080	
Tolerance of Center Wavelength		nm	± 1	
Reflector Type		-	HR	OC
Reflectivity		%	≥ 99.5	(5 - 30) ± 0.2
Bandwidth		nm	2 - 3	1 - 2
Max. Wavelength Mismatch (HR relative to OC)		nm	0.2	
Min. Pump Pass Efficiency		%	98	
Package Size		mm	Recoated or 60 x 12 x 6.5	
Pigtail		m	1	
Fiber Type		-	PM or Non-PM	
Operating Temperature		°C	20 - 23	
Fiber / Max. Power Handling	LMA-GDF-10/130-M	W	10	
	Passive-14/250DC	W	1000	
	LMA-GDF-20/400-M	W	2000	

Ordering Information

HFBG-1111-2.2/2.2-33-444-5555-66

1111	-Center Wavelength:	1030=1030nm,1064=1064nm,1070=1070nm,1080=1080nm
2.2/2.2	-Reflectivity Bandwidth HR/OC	X.X/Y.Y=X.X nm HR / Y.Y nm OC
33	-Peak Reflectivity of OC:	XX=XX%
444	-Fiber Type:	056=LMA-GDF-20/400-M(offer complete fiber PN of nufern,nLIGHT or other brand)
5555	-Pump Power Handling:	xxxx= xxxx W
66	-Pigtail length(each side):	10=1M,12=1.2M,S=Specify

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