



## High Power Package-free ClearCut™ Fiber Bragg Grating (PFCG Series)

Rev11

The High Power Package-free ClearCut™ Fiber Bragg Grating products are ultra low insertion loss fiber bragg gratin for high power fiber lasers. With AFR's ClearCut designing and special process, the devices can handle kilowatt level pump power and signal power with recoated only.

### Key Features

- High Power Handling
- Package Free Designing/Ultra Low Temperature Slope
- Flexible and Good Mechanical Performance
- Outstanding Reliability

### Applications

- Continuous Wave Fiber Laser
- High Power Fiber Laser

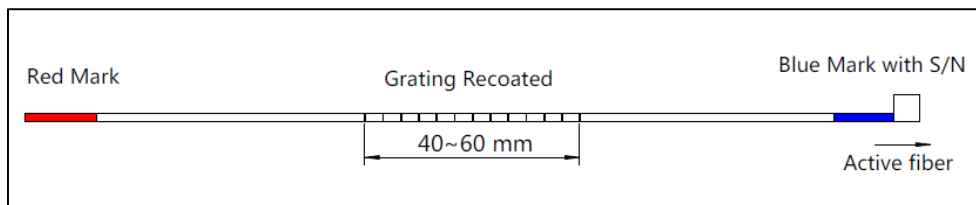
### Specifications

Parameter	Unit	Value			
Center Wavelength	nm	1030,1064,1070,1080			
Tolerance on Center Wavelength	nm	1.0			
Max. Wavelength Mismatch (OC Relative HR)	nm	0.2			
Temperature Slope Suspended in Air <sup>1</sup>	°C/W	≤0.02			
High Reflector (HR) / Output Coupler (OC)	/	HR	OC		
Peak Reflectivity	%	≥99.0	(5.0 - 30.0) ± 2.0		
Reflection Bandwidth at 95%	nm	1.5~4.0	/		
Reflection Bandwidth at 50%	nm	/	0.2~2.0		
Tolerance on Reflection Bandwidth	nm	0.1~0.4	0.1~0.2		
Min. Side Mode Suppression Ratio	dB	20	10		
Fiber Core/Cladding Dimension	μm	10/125	14/250	20/400	25/400
Min. Core Signal Power Handling <sup>2</sup>	W	300	800	1500	2000
Min. Clad Pump Power Handling	W	450	1200	2000	
Fiber Type	/	PM or Non-PM			
Recoating Length	mm	40~60			
Storage Temperature	°C	-40 to +85			

1. For total power: the signal power in the core and the pump power in the cladding. (The slope efficiency is about 70 %)

2. The grating area should be kept on active cooling plates. (The cooling temperature ≤25 °C)

### Package Dimensions



### Ordering Information

**PFCG-①①①①.①-②.②/②.②-③③-④④/④④④-⑤-P⑥⑥⑥⑥-⑦**

①①①①.①: Center Wavelength

②.②/②.②: Reflectivity Bandwidth HR/OC

③③: Peak Reflectivity of OC

XXXX.X - XXXX.X nm

X.X/X.X - X.X nm HR/X.X nm OC

XX - XX%

SSSS.S - Specify

S.S/S.S - Specify

SS - Specify

④④/④④④④: Fiber Core/Cladding Dimension

⑤: Fiber Type

⑥⑥⑥⑥: Pump Power Handling

⑦: Pigtailed Length (Each Side)

XX/XXX - XX μm/XXX μm

N - Non-PM

XXXX - XXXX W

A - 1 m

B - 1.2 m

SS/SSS - Specify

P - PM

SSSS - Specify

C - 1.4 m

S - Specify

\*ClearCut is a product trade mark of AFR representing an unique technology used in its FBG products.