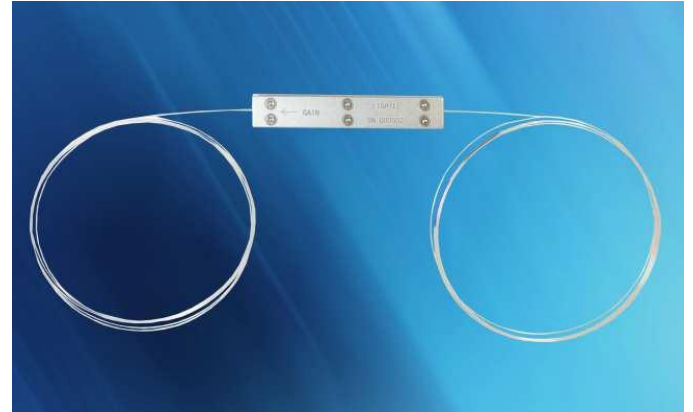


## Fiber Bragg Grating Mirrors for Fiber Lasers

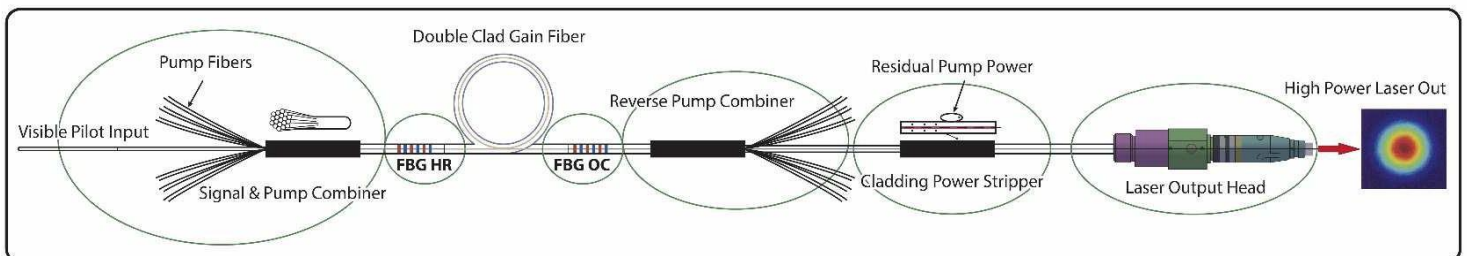
### Features

- Wide Reflectivity and Bandwidth Range
- Large Variety of Fiber Types
- Precise Wavelength Matching of HR & OC Mirrors
- Packaging Options: Recoated FBG or Heat Dissipative Package
- Custom Design upon Request



Fiber Bragg Grating (FBG) mirrors in a fiber laser system are distributed reflectors fabricated in an optical fiber that permit the reflection of particular wavelengths and the transmission of the remainder. FBG mirrors can be utilized as a high reflector (HR) and low reflectivity output coupler (OC) to produce a laser cavity in a fiber laser. No alignment is needed for this all-fiber system when compared to a free space mirror approach.

Lightel's FBG mirrors have been optimized to address the requirements of low noise and high efficiency fiber laser applications. Lightel's FBG mirrors feature low thermal slope, precise wavelength matching with a wide reflectivity and bandwidth range. Our process also allows us to fabricate FBG mirrors on a large variety of standard, custom or harsh environment fibers. Lightel's FBG mirrors can be delivered in our high-power thermal dissipative package (also provides mechanical and shock protection and reduced 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, thereby eliminating a splice, increasing the fiber laser assembly reliability and reducing assembly time.

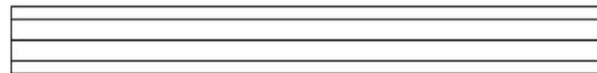
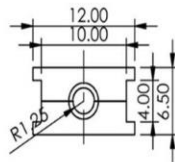
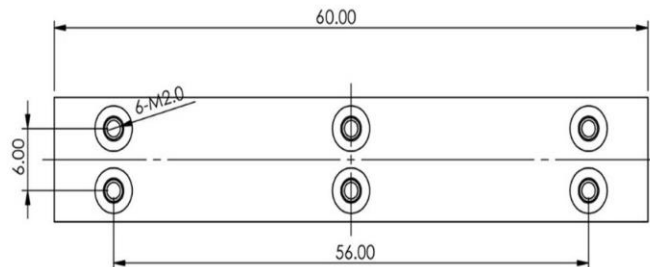
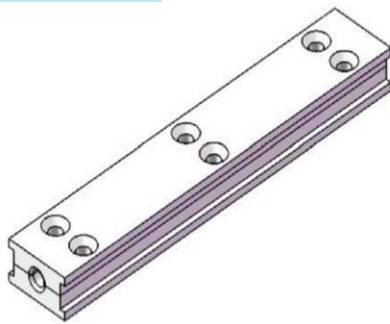


***Components of a Fiber Laser***

## Specifications

Parameter	Specification	
Port Configuration	1x1	
Wavelength	1030, 1064, 1070, 1080, 1550, 1940nm	
Reflector Type	HR	OC
Reflectivity	$\geq 99\%$	5 – 30 %
Bandwidth	1 - 3 nm	0.5 - 2 nm
Wavelength Mismatch (HR relative to OC)	$\leq 0.2$ nm	
Pump Pass Efficiency	$\geq 98\%$	
Package Size	Recoated or 60 x 12 x 6.5 mm	
Pigtail	1 m	
Operating Temperature	15 - 50°C	
Fiber	Please specify your fiber type in order information	
Power Handling	10W to 5KW	

## Mechanical



## Order Information

FBGL	-	-	-	-	-	-	-	-	-	00
Center Wavelength 1070: 1070 nm	Reflector Type P: HR+OC Pair H: HR O: OC	HR Bandwidth 0: no HR 2: 2nm	OC Bandwidth 0: no OC 1: 1nm	OC Reflectivity 0: no OC 10: 10%	Fiber Type 10_130: 10/130 20_400: 14/250 25_350: 25/350	Power 500: 500W 1k: 1kW	Fiber Length 0: 0.5m 1: 1m	Package 1 = Metal 2 = Re-coated		