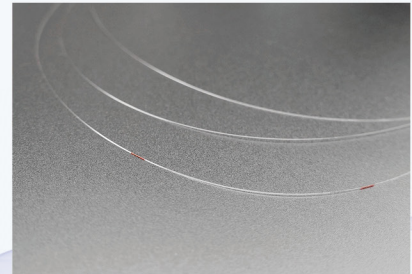


PRODUCT INTRODUCTION

FBG for Pump Laser



The Fibre Bragg Grating (FBG) for 980nm pump laser is a fibre Bragg grating made by ultraviolet laser pulse on a single mode fibre. The product is connected to the 980nm pumped laser as the tail fibre, and an external cavity feedback is formed outside the pumped laser to lock the output spectral wavelength near the central wavelength of the fibre grating. At the same time, the fibre Bragg grating has a very low temperature sensitivity coefficient, so it greatly improves the stability of the output wavelength of the 980nm pumped laser, and reduces the requirement of the pumped laser for temperature control. Because the output spectrum of the pumped laser is narrowed, the proportion of the output optical power in the EDFA erbium ion absorption band is increased and stable, which improves the pumping efficiency and stability of the EDFA.

+ Features

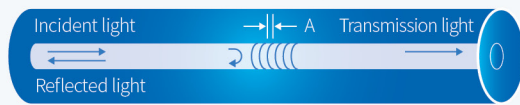
- The reflection wavelength is controlled within $\pm 0.25\text{nm}$ with high accuracy
- The reflectivity is controlled within $\pm 0.5\%$ with high accuracy
- The Bandwidth (FWHM) is controlled within $\pm 0.1\text{nm}$ with high accuracy
- Side lobe suppression ratio (SLSR) can be as high as $-25\text{dB} \sim -30\text{dB}$ after apodization
- Reliability is certified to the Telcordia GR-1209-CORE standard
- Reliability is certified to Telcordia GR-1221-CORE standard
- Different packaging styles and marking methods can be provided
- Specific reflective wavelength and reflectivity can be made in accordance with customer requirements

+ Applications

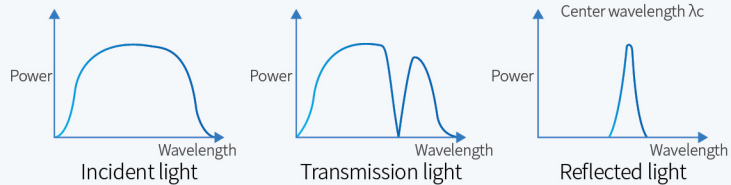
- Pump laser
- All-fibre WDM
- EDFA
- Fibre Bragg grating filter
- Fibre Bragg grating sensor

Product characteristics / Enhanced graph

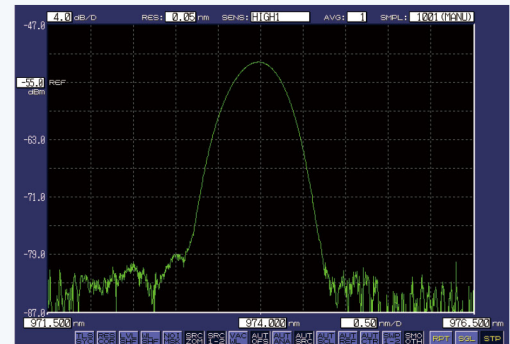
FBG



Spectrogram



Grating reflectance spectrum



Parameters

Specifications

Type	FBG-9740-020-05-C1212		
Parameters	Minimum	Median	Maximum
Center wavelength (nm)(25°C, in Vacuum)*①	973.75	974.00	974.25
Reflectivity @λc(%)*②	1.50	2.00	2.50
Bandwidth (FWHM, -3dB)(nm)*③	0.40	0.50	0.60
SLSR(dB)	-	-	-25
Proof test(>3s)(kpsi)	150	-	-
Bending radius (mm)	15	-	-
Operating temperature(°C)	-20	-	85
Temperature sensitivity (nm/°C)	-10~0°C	0~75°C	
	0.015	0.01	
Length of recoat (mm)	-	-	55
Fibre type	PMF/SMF		
Maximum pump power	1W		
Length of fibre(m)	0.5~4m or customization		

*①The center wavelength λ_c varies from 970nm to 981nm

*②The reflectivity varies from 0.5% to 10%

*③ The bandwidth varies from 0.1 nm to 1.0 nm