Fiber Bragg Grating

INO is an international leader in optics and photonics with experience in a wide variety of fiber Bragg gratings (FBG). Strong from over 16 years of existence, the R&D center has developed into one of the most important centers in its field in North America.

In addition to being a supplier of high quality FBG products, INO is open on transferring its technology. In this manner, companies can benefit from our vast experience in this field, minimizing roadblocks and hardships that are usually encountered in the preliminary stages of developing new products.

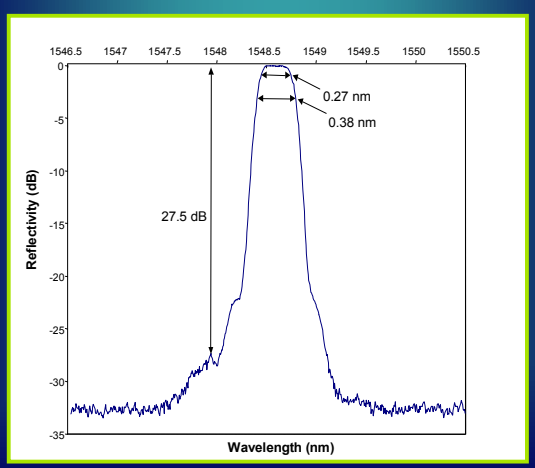
Six PATENTS on FBG Technology

We currently hold 5 invention patents with one more on file related to the fiber Bragg gratings technology permitting us to manufacture FBG of any arbitrary profile over any bandwidth. INO manufactures its own photosensitive fibers and phase masks giving us control over key parameters associated with this technology.

DWDM FILTERS

- **25, 50, and 100 GHz spacing**
- **Low cladding-mode loss, insertion loss, and dispersion**
- **Athermal package**

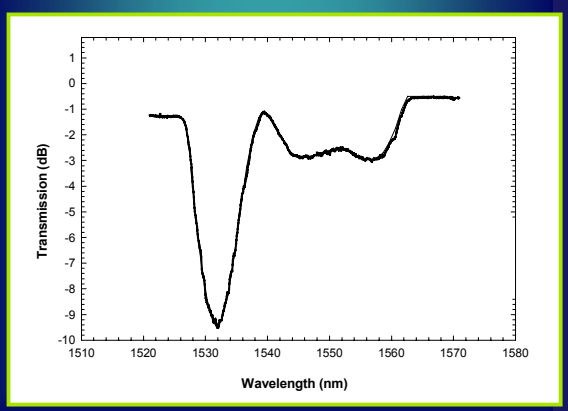
Parameters	*Specifications*	
Channel spacing	50 GHz	100 GHz
Reflection bandwidth	>0.15 nm @ -0.5 dB	>0.3 nm @ –0.5 dB
	<0.4 nm @ -3 dB	<0.8 nm @ –3 dB
	<1.0 nm @ -25 dB	<1.0 nm @ –25 dB
Channel isolation	>25 dB	
Cladding mode loss	± 0.5 dB	



GAIN FLATTENING FILTERS

- **Customized gain flattening for C, L, and C+L bands**
- **Error function between ± 0.1 dB and ± 0.25dB**
- **Athermal package**

Parameters	*Specifications*
Wavelength range	1520 to 1620 nm
Target spectral profile	Customer specified
Error function	± 0.1 dB to ± 0.25 dB
Maximum attenuation	12 dB
Insertion loss	<0.8 dB

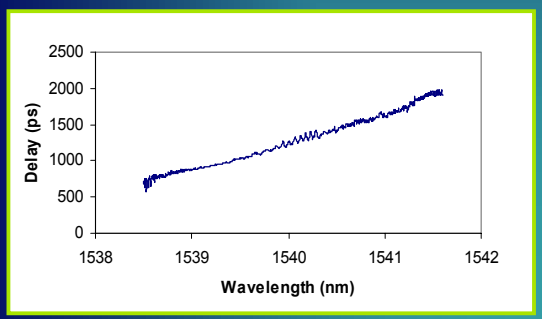


INO Québec, CANADA • Tel: (418) 657-7006 • Fax: (418) 657-7009 • Internet: http//www.ino.ca • e-mail: sales.fbg@ino.ca

DISPERSION COMPENSATORS

- Low insertion loss
- Low group delay ripple
- Athermal package

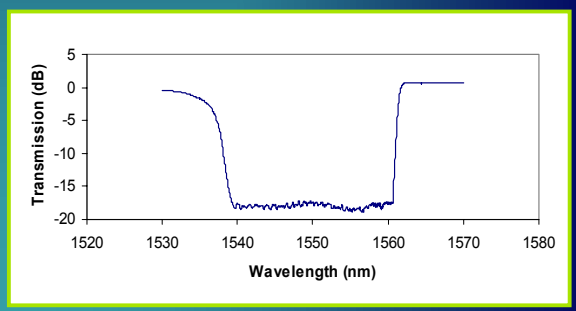
Parameters	Specifications
Center Wavelength	ITU grid
Channel spacing	100 and 50 GHz
Group delay ripple	± 10 ps
Dispersion	Up to 1500 ps/nm
Insertion loss	<0.15 dB
Channel isolation	>20 dB



WIDEBAND FILTERS

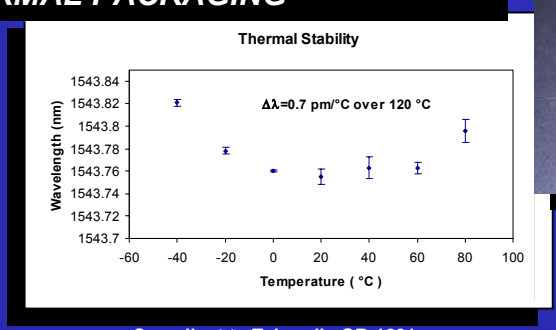
- Low cladding-mode loss, insertion loss and dispersion
- Athermal package

Parameters	Specifications
Reflection bandwidth	Customer specified (0.2 nm to 40 nm)
Wavelength range	800 nm to 1800 nm



ATHERMAL PACKAGING

INO has produced an athermal package and is willing to transfer its design thus ensuring stability of components during temperature fluctuations



- Compliant to Telcordia GR-1221
- Thermal stability: < 0.7 pm/°C

Technology Transfer

At INO, we have been mastering the field of FBG for several years and we are offering our services and products by transferring our technology to companies wishing to implement an FBG production line.

Second Source

Once you are up-to-speed and able to manufacture FBG yourselves, INO can play a key role when you are facing strong demands. We can act as a second source enabling you to promote superior customer service by offering better lead times.

Custom Demands

You have custom demands from your clients that you are unable to meet? As a producer of phase masks, we have the capacity to meet low-volume customer demands that would otherwise be impossible.

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