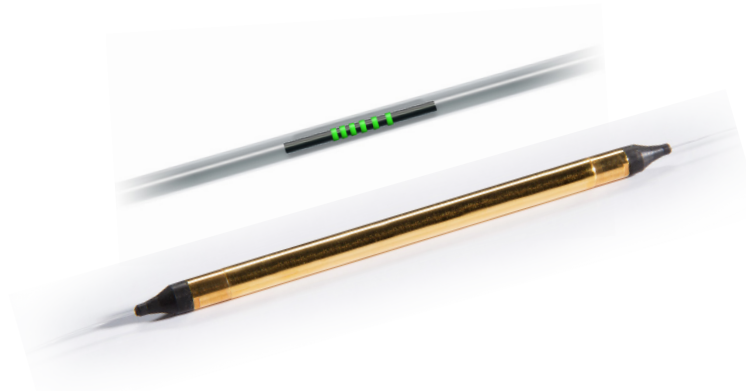


FBG-based Gain Flattening Filters

GFFs for EDFA modules

ITF Technologies' GFFs are built upon many years of experience in Fiber Bragg Gratings manufacturing. Based on a method that allows a total control of the shape of the reflectivity spectrum, the grating is custom-designed to flatten the gain curve of an EDFA system.

Each filter is manufactured individually with random variations introduced, so there is no linear accumulation of error in a long cascade of amplifiers. Our high-reliability components and process meet the highest standards of the industry and the rigorous demands for undersea applications.



KEY FEATURES

All-fiber solution based on FBG technology

C- and L-band capability

Custom-designed, complex shape

Low signal insertion loss

Low PDL and PMD values

Very low random and systematic errors (group error function: typical <0.1dB)

Athermal packaging qualified for submarine applications, Telcordia GR-1221

Proven reliability field data

Unpackaged variant available for thermally stabilized amplifiers

APPLICATIONS

EDFA gain flattening on Long haul and Ultra Long Haul DWDM system repeaters

FOR MORE INFO

Please contact us at:

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888.922.1044

Europe: **+33 (0) 1 69 80 57 50**

Asia: **+86 755 2671 0449**

or via e-mail at: **info@itftechnologies**

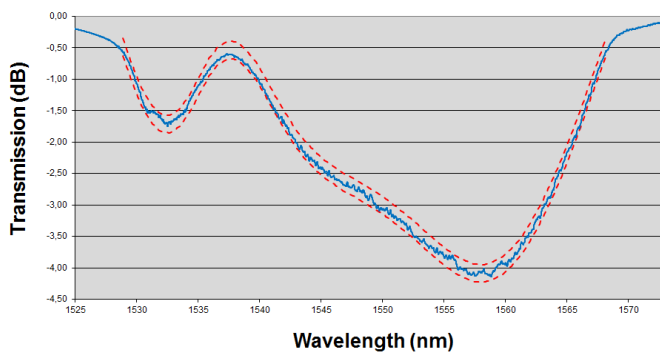
FBG-based Gain Flattening Filters

GFF'S FOR EDFA MODULES

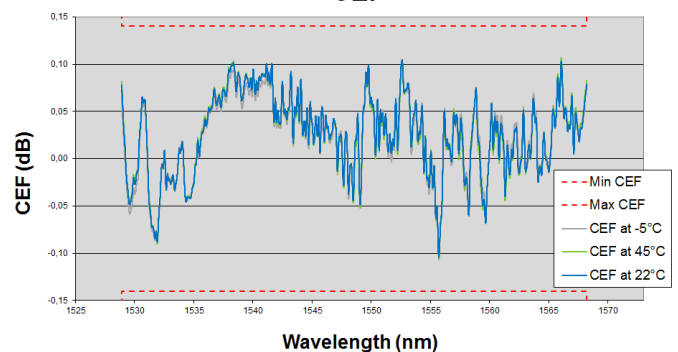
Operating Wavelength Range	1525 to 1565 nm (C-band) / 1565 to 1615 nm (L-band)
Maximum Insertion Loss	7 dB
Nominal Insertion Loss (1)	≤ 0.65 dB
Variation of Component Error Function (1)	$< \pm 0.14$ dB or $< \pm 3\%$ of IL max
Polarization Dependant Loss (PDL)	≤ 0.05 dB
Polarization Mode Dispersion (PMD)	≤ 0.05 ps
Fiber Type	Standard single-mode fiber to ITU G.652
Thermal Wavelength Shift (2)	< 40 pm
Operating Temperature (2)	-5 to 45°C
Storage Temperature	-40 to 85°C
Package Dimensions (cylindrical: Length x Dia.)	89.7 x 4.6 mm

Typical spectrum

Transmission



CEF



ORDERING INFO

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NOTES:

(1) Exact values depend on gain shape bandwidth and amplitude

(2) < 70 pm for operating temperature range from -5 to 70°C