

Title (en)

SYSTEM AND METHOD FOR MEASURING PERTURBATIONS USING A SLOW-LIGHT FIBER BRAGG GRATING SENSOR

Title (de)

SYSTEM UND VERFAHREN ZUR MESSUNG VON STÖRUNGEN UNTER VERWENDUNG EINES SLOW-LIGHT-BRAGG-GITTER-SENSORS

Title (fr)

SYSTÈME ET PROCÉDÉ PERMETTANT DE MESURER DES PERTURBATIONS À L'AIDE D'UN CAPTEUR À RÉSEAU DE BRAGG SUR FIBRE À LUMIÈRE LENTE

Publication

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Application

EP 13705040 A 20130118

Priority

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Abstract (en)

[origin: WO2013109987A2] An optical device, a method of configuring an optical device, and a method of using a fiber Bragg grating is provided. The optical device includes a fiber Bragg grating, a narrowband optical source, and at least one optical detector. The fiber Bragg grating has a power transmission spectrum as a function of wavelength with one or more resonance peaks, each comprising a local maximum and two non-zero-slope regions with the local maximum therebetween. The light generated by the narrowband optical source has a wavelength at a non-zero-slope region of a resonance peak that is selected such that one or more of the following quantities, evaluated at the resonance peak, is at a maximum value: (a) the product of the group delay spectrum and the power transmission spectrum and (b) the product of the group delay spectrum and one minus the power reflection spectrum.

IPC 8 full level

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CPC (source: EP)

G01K 11/3206 (2013.01); **G01L 1/246** (2013.01)

Citation (search report)

See references of WO 2013109987A2

Citation (examination)

US 2011283795 A1 20111124 - LITTLER IAN C M [AU], et al

Cited by

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