Title (en)
WAVELENGTH CONTROLLED FBG FILTER

Title (de)
FBG-FILTER MIT WELLENLÄNGENSTEUERUNG

Title (fr)
FILTRE A RESEAU DE BRAGG (FBG) A COMMANDE DE LONGUEUR D'ONDE

Publication
EP 1257858 A1 20021120 (EN)

Application
EP 00975017 A 20001108

Priority
- NO 0000377 W 20001108
- NO 995485 A 19991109

Abstract (en)
[origin: WO0135138A1] Controlled fiberoptic filtering system comprising at least one tunable FBG filter engraved into a first optical fibre, the FBG filter comprising at least one grating with a chosen wavelength, inscribed in a chosen length of fibre, the grating providing reflections at least two wavelengths, a filter and a sensor wavelength. The system comprises: actuator means coupled to the filter for providing a change in the reflected wavelengths reflected by the grating, e.g. by providing a strain/compression and/or a temperature change to the grating, thus altering the filter wavelength, a light source coupled to the first optic fibre for providing an optic signal at a range of wavelengths comprising the sensor wavelength of the filter, wavelength readout unit coupled to first optic fibre for measuring the wavelength of optical signals reflected from the grating within the sensor wavelength, and control means coupled to the output of said wavelength readout unit and to said actuator means for positioning the reflected wavelengths or controlling the change in the wavelengths reflected from the grating, as provided by the actuator, and thus simultaneously the position or change in the filter wavelength.

IPC 1-7
G02B 6/293

IPC 8 full level
G02B 6/34 (2006.01); **H04J 14/02** (2006.01)

CPC (source: EP)
G02B 6/2932 (2013.01); **G02B 6/29383** (2013.01); **H04J 14/021** (2013.01); G02B 6/02195 (2013.01)

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)
WO 0135138 A1 20010517; AU 1312501 A 20010606; EP 1257858 A1 20021120; NO 313606 B1 20021028; NO 995485 D0 19991109; NO 995485 L 20010510

DOCDB simple family (application)
NO 0000377 W 20001108; AU 1312501 A 20001108; EP 00975017 A 20001108; NO 995485 A 19991109