

Title (en)
METHOD AND APPARATUS FOR IMPLEMENTING A RECTANGULAR-CORE LASER BEAM-DELIVERY FIBER THAT PROVIDES TWO ORTHOGONAL TRANSVERSE BENDING DEGREES OF FREEDOM

Title (de)
VERFAHREN UND VORRICHTUNG ZUR IMPLEMENTIERUNG EINER LASERSTRAHL-ABGEBENDEN FASER MIT RECHTECKIGEM KERN MIT ZWEI ORTHOGONAL-TRANSVERSALEN BIEGEFREIHEITSGRADEN

Title (fr)
PROCÉDÉ ET APPAREIL DE MISE EN UVRE D'UNE FIBRE D'ÉMISSION DE FAISCEAU LASER À C UR RECTANGULAIRE OFFRANT DEUX DEGRÉS DE LIBERTÉ DANS LA COURBURE TRANSVERSALE ORTHOGONALE

Publication
EP 2954354 A4 20160127 (EN)

Application
EP 13874501 A 20130208

Priority
US 2013025395 W 20130208

Abstract (en)
[origin: WO2014123536A1] In various embodiments, an optical fiber module (100) includes an optical fiber (101) having a first end (102), a second end (104), and a twisted portion (106) between the first (102) and second ends (104) to enable the optical fiber (101) to provide two orthogonal transverse bending degrees of freedom. The twisted portion induces an optical distortion. The module (100) further includes a distortion compensation arrangement (108) that is configured to at least partially compensate for the optical distortion and a housing (110) that is configured to house at least a portion of the optical fiber (101) including the twisted portion.

IPC 8 full level
G02B 6/10 (2006.01)

CPC (source: EP)
G02B 6/02009 (2013.01); **G02B 6/32** (2013.01); **G02B 6/305** (2013.01); **G02B 6/4296** (2013.01); **G02B 2006/12121** (2013.01)

Citation (search report)

- [IY] US 5457756 A 19951010 - HARTL ENGELBERT [DE], et al
- [YA] US 7120323 B2 20061010 - DYOTT RICHARD [US], et al
- [YA] US 5561726 A 19961001 - YAO X STEVE [US]
- [A] US 5701376 A 19971223 - SHIRASAKI MASATAKA [JP]
- [A] ULRICH R ET AL: "POLARIZATION OPTICS OF TWISTED SINGLE-MODE FIBERS", APPLIED OPTICS, OPTICAL SOCIETY OF AMERICA, WASHINGTON, DC; US, vol. 18, no. 13, 1 July 1979 (1979-07-01), pages 2241 - 2251, XP000669902, ISSN: 0003-6935, DOI: 10.1364/AO.18.002241
- [A] DAKIN J P ET AL: "Compensated polarimetric sensor using polarisation-maintaining fibre in a differential configuration", ELECTRONICS LETTERS, IEE STEVENAGE, GB, vol. 20, no. 1, 5 January 1984 (1984-01-05), pages 51 - 53, XP002133049, ISSN: 0013-5194
- See references of WO 2014123536A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
WO 2014123536 A1 20140814; EP 2954354 A1 20151216; EP 2954354 A4 20160127; IL 239667 A0 20150831; JP 2016507084 A 20160307; JP 6271591 B2 20180207

DOCDB simple family (application)
US 2013025395 W 20130208; EP 13874501 A 20130208; IL 23966715 A 20150628; JP 2015556915 A 20130208