

Title (en)

OPTICAL ROTARY JOINT WITH HIGH RETURN LOSS

Title (de)

OPTISCHER DREHÜBERTRAGER MIT HOHER RÜCKFLUSSDÄMPFUNG

Title (fr)

TRANSFORMATEUR DE ROTATION OPTIQUE AVEC UN AFFAIBLISSEMENT DE RETOUR ÉLEVÉ

Publication

**EP 2104875 A1 20090930 (DE)**

Application

**EP 07857080 A 20071221**

Priority

- EP 2007011373 W 20071221
- DE 102006062335 A 20061222

Abstract (en)

[origin: WO2008077624A1] The invention relates to an optical rotary joint comprising a first collimator arrangement for coupling first optical fibers and a second collimator arrangement for coupling second optical fibers, wherein the second collimator arrangement is mounted in such a way that it can rotate about a rotational axis relative to the first collimator arrangement. Between the collimator arrangements, a Dove prism is provided as a derotating element. On at least one boundary surface between an optical element and the surroundings, an intermediate layer is provided which comprises a nanostructure having an average refractive index lying between the refractive index of the material of the microoptical system and the refractive index of the surrounding medium.

IPC 8 full level

**G02B 6/36** (2006.01)

CPC (source: EP US)

**G02B 5/04** (2013.01 - EP US); **G02B 6/3604** (2013.01 - EP US)

Citation (search report)

See references of WO 2008077624A1

Citation (examination)

US 2006024018 A1 20060202 - PIEHL ARTHUR R [US], et al

Cited by

US9804335B2; EP3182180A1

Designated contracting state (EPC)

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DOCDB simple family (publication)

**WO 2008077624 A1 20080703**; EP 2104875 A1 20090930; JP 2010513961 A 20100430; US 2009304330 A1 20091210; US 7936954 B2 20110503

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