

Title (en)

OPTICAL MICROSWITCH HAVING ELECTROSTATIC MICROACTUATOR AND METHOD FOR USE THEREOF

Title (de)

OPTISCHE MIKROSCHALTER MIT ELEKTROSTATISCHEN MIKROANTRIEB UND IHN BENUTZENDES VERFAHREN

Title (fr)

MICRORUPTEUR OPTIQUE A MICRO-ORGANE DE COMMANDE ELECTROSTATIQUE ET SON PROCEDE D'UTILISATION

Publication

EP 1055281 A4 20030611 (EN)

Application

EP 99902194 A 19990112

Priority

- US 9900648 W 19990112
- US 7103898 P 19980113
- US 9680698 P 19980817

Abstract (en)

[origin: WO9937013A1] An optical microswitch (104) for use with a laser beam that extends along a path comprising a body (213) having an inlet port (150) adapted to receive the laser beam and a plurality of outlet ports (151). A plurality of mirrors (103) coupled to a plurality of micromotors (180a, 180b) are carried by the body. The micromotors selectively move the mirrors from a first position out of the path of the laser beam to a second position into the path of the laser beam to direct the laser beam to one of the outlet ports. Each of the micromotors has at least one electrostatically-driven comb assembly therein for moving the respective mirror to one of the first and second positions. A controller is electrically coupled to the micromotors for providing control signals to the micromotors.

IPC 1-7

H02N 1/00; **G11B 7/00**; **G02B 6/26**; **G02B 26/08**; **G02B 6/35**

IPC 8 full level

G02B 6/35 (2006.01); **G02B 6/42** (2006.01); **G02B 26/08** (2006.01); **G11B 7/00** (2006.01); **G11B 7/135** (2006.01); **G11B 11/105** (2006.01); **H02N 1/00** (2006.01); **G11B 7/12** (2006.01)

CPC (source: EP KR)

G02B 6/3518 (2013.01 - EP KR); **G02B 6/4216** (2013.01 - EP); **G02B 26/0833** (2013.01 - EP KR); **G02B 26/0841** (2013.01 - EP); **G11B 7/122** (2013.01 - EP); **G11B 7/1384** (2013.01 - EP); **G11B 11/10543** (2013.01 - EP); **H01S 3/0941** (2013.01 - KR); **H02N 1/008** (2013.01 - EP); **G02B 6/3546** (2013.01 - EP); **G02B 6/3548** (2013.01 - EP); **G02B 6/3566** (2013.01 - EP); **G02B 6/357** (2013.01 - EP); **G02B 6/358** (2013.01 - EP); **G02B 6/3584** (2013.01 - EP)

Citation (search report)

- [XD] US 5025346 A 19910618 - TANG WILLIAM C [US], et al
- [X] DE 19643182 A1 19970430 - SAMSUNG ELECTRONICS CO LTD [KR], et al
- [XP] WO 9812589 A1 19980326 - ASCOM TECH AG [CH], et al
- [X] LEE A P ET AL: "POLYSILICON ANGULAR MICROVIBROMOTORS", JOURNAL OF MICROELECTROMECHANICAL SYSTEMS, IEEE INC. NEW YORK, US, vol. 1, no. 2, 1 June 1992 (1992-06-01), pages 70 - 76, XP000304253, ISSN: 1057-7157
- See references of WO 9937013A1

Designated contracting state (EPC)

CH DE DK FI FR GB IE IT LI NL SE

DOCDB simple family (publication)

WO 9937013 A1 19990722; **WO 9937013 A9 19991007**; AU 2223299 A 19990802; CA 2318060 A1 19990722; CN 1292945 A 20010425; EP 1055281 A1 20001129; EP 1055281 A4 20030611; JP 2002510059 A 20020402; KR 20010034130 A 20010425; MY 133235 A 20071031; TW 419602 B 20010121

DOCDB simple family (application)

US 9900648 W 19990112; AU 2223299 A 19990112; CA 2318060 A 19990112; CN 99803875 A 19990112; EP 99902194 A 19990112; JP 2000540614 A 19990112; KR 20007007743 A 20000713; MY PI9900100 A 19990112; TW 88100403 A 19990112