

Title (en)

TUNABLE LASER WITH MULTIPLE IN-LINE SECTIONS INCLUDING SAMPLED GRATINGS

Title (de)

ABSTIMMBARER LASER MIT MEHREREN INLINE-ABSCHNITTEN MIT ABGETASTETEN GITTERN

Title (fr)

LASER ACCORDABLE À MULTIPLES SECTIONS EN LIGNE COMPRENANT DES RÉSEAUX ÉCHANTILLONNÉS

Publication

**EP 3224919 A4 20180808 (EN)**

Application

**EP 15863314 A 20151124**

Priority

- US 201414551353 A 20141124
- US 2015062377 W 20151124

Abstract (en)

[origin: WO2016085956A1] A tunable laser with multiple in-line sections including sampled gratings generally includes a semiconductor laser body with a plurality of in-line laser sections configured to be driven independently to generate laser light at a wavelength within a different respective wavelength range. Sampled gratings in the respective in-line sections have the same grating period and a different sampling period to produce the different wavelengths. The wavelength of the light generated in the respective laser sections may be tuned, in response to a temperature change, to a channel wavelength within the respective wavelength range. By selectively generating light in one or more of the laser sections, one or more channel wavelengths may be selected for lasing and transmission. By using sampled gratings with the same grating period in the multiple in-line sections, the multiple section tunable laser may be fabricated more easily.

IPC 8 full level

**H01S 5/028** (2006.01); **H01S 5/06** (2006.01); **H01S 5/0625** (2006.01); **H01S 5/12** (2006.01); **H01S 5/40** (2006.01); **H01S 5/50** (2006.01)

CPC (source: EP)

**H01S 5/06258** (2013.01); **H01S 5/1215** (2013.01); **H01S 5/4031** (2013.01); **H01S 5/4087** (2013.01); **H01S 5/5027** (2013.01); **H01S 5/0287** (2013.01); **H01S 5/0612** (2013.01); **H01S 5/1209** (2013.01); **H01S 5/124** (2013.01)

Citation (search report)

- [XYI] CN 103956652 A 20140730 - NANJING WEINING RUIKE INFORMATION TECHNOLOGY CO LTD
- [Y] EP 2113973 A1 20091104 - ALCATEL LUCENT [FR]
- [A] US 2005031009 A1 20050210 - LEE SAN-LIANG [TW], et al
- [XYI] LIANYAN LI ET AL: "Experimental demonstration of a low-cost tunable semiconductor DFB laser for access networks", SEMICONDUCTOR SCIENCE AND TECHNOLOGY, IOP PUBLISHING LTD, GB, vol. 29, no. 9, 23 July 2014 (2014-07-23), pages 95002, XP020269078, ISSN: 0268-1242, [retrieved on 20140723], DOI: 10.1088/0268-1242/29/9/095002
- See references of WO 2016085956A1

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

DOCDB simple family (publication)

**WO 2016085956 A1 20160602**; CN 107210584 A 20170926; EP 3224919 A1 20171004; EP 3224919 A4 20180808

DOCDB simple family (application)

**US 2015062377 W 20151124**; CN 201580072166 A 20151124; EP 15863314 A 20151124