

Title (en)

SINGLE MODE VERTICAL CAVITY SURFACE EMITTING LASER

Title (de)

MONOMODENBETRIEB EINES OBERFLÄCHENEMITTIERENDEN LASERS MIT VERTIKALEM RESONATOR

Title (fr)

LASER MONOMODE A CAVITE VERTICALE ET A EMISSION PAR LA SURFACE

Publication

EP 1218987 A1 20020703 (EN)

Application

EP 00944616 A 20000602

Priority

- US 0015373 W 20000602
- US 13709399 P 19990602

Abstract (en)

[origin: WO0195443A1] A surface emitting laser with spatially varying optical loss to provide single mode operation. The optical loss may be introduced with an anti-phased ohmic contacts (4, 5). Current injection may be constricted to a diameter that is different than the diameter of the ohmic aperture (32), allowing for optimization of carrier profiles for high-speed performance. Methods for index guiding are introduced to further the reproducibility of the invention.

IPC 1-7

H01S 5/00; H01L 21/00; H01L 33/00

IPC 8 full level

H01S 5/183 (2006.01); **H01L 33/00** (2006.01); **H01S 5/042** (2006.01); **H01S 5/20** (2006.01)

CPC (source: EP US)

H01S 5/18341 (2013.01 - EP US); **H01S 5/04256** (2019.07 - EP US); **H01S 5/18308** (2013.01 - EP); **H01S 5/18311** (2013.01 - EP);
H01S 5/18327 (2013.01 - EP); **H01S 5/18333** (2013.01 - EP); **H01S 5/18358** (2013.01 - EP); **H01S 5/18369** (2013.01 - EP);
H01S 5/18377 (2013.01 - EP); **H01S 5/2063** (2013.01 - EP); **H01S 2301/166** (2013.01 - EP); **H01S 2301/173** (2013.01 - EP)

Citation (search report)

See references of WO 0195443A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

WO 0195443 A1 20011213; WO 0195443 A8 20020530; AU 5868600 A 20011217; CA 2380659 A1 20011213; CA 2380659 C 20080805;
EP 1218987 A1 20020703

DOCDB simple family (application)

US 0015373 W 20000602; AU 5868600 A 20000602; CA 2380659 A 20000602; EP 00944616 A 20000602