Title (en)

SINGLE-MODE DBR LASER WITH IMPROVED PHASE-SHIFT SECTION AND METHOD FOR FABRICATING SAME

Title (de)

EINMODEN-DBR-LASER MIT VERBESSERTEM PHASENSCHIEBETEIL UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)

LASER DBR MONOMODE AVEC SECTION DE DEPHASAGE AMELIOREE, ET SON PROCEDE DE FABRICATION

Publication

EP 1509975 A1 20050302 (EN)

Application

EP 03731472 A 20030529

Priority

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- US 15936102 A 20020531

Abstract (en)

[origin: WO03103107A1] An edge-emitting laser (100) for generating single-longitudinal mode laser light. A semiconductor active region (120) amplifies, by stimulated emission, light in the laser cavity at a lasing wavelength. There are first and second grating sections (141,143) adjacent to the active region (120) and having first and second reflectivities respectively and a first effective index of refraction. The first and second grating sections (141,143) have a Bragg wavelength substantially equal to the lasing wavelength. A gratingless phase-shift section (142) is disposed adjacent to the active region (120) and between the first and second grating sections (141,143) and has a second index of refraction different than the first index of refraction and a length sufficient to impart a phase shift for light at the lasing wavelength sufficient to achieve longitudinal mode operation.

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