Title (en)

A LIGHT SOURCE CABLE OF LASING THAT IS WAVELENGTH LOCKED BY AN INJECTED LIGHT SIGNAL

Title (de)

LICHTQUELLE MIT LASER-FÄHIGKEIT MIT WELLENLÄNGENVERRIEGELUNG DURCH EIN EINGESPEISTES LICHTSIGNAL

Title (fr)

SOURCE LUMINEUSE A CAPACITE LASER, VERROUILLABLE EN LONGUEUR D'ONDE PAR UN SIGNAL LUMINEUX INJECTE

Publication

EP 1634398 A4 20080820 (EN)

Application

EP 03734316 A 20030529

Priority

US 0317201 W 20030529

Abstract (en)

[origin: WO2004107628A1] Various methods, systems, and apparatuses are described in which a light source (101) capable of lasing is wavelength locked by an injected light signal. The light source (101) capable of lasing, such as a Fabry-Perot laser diode, may have antireflective coating on one or more facets of the light source (101) capable of lasing. The light source (101) capable of lasing receives a spectral slice of a light signal from a broadband light source (113) to wavelength lock the output wavelength of the light source (101) capable of lasing within the bandwidth of the injected light signal. A current pump (141) may bias the light source (101) capable of lasing to operate as a reflective regenerate semiconductor optical amplifier so that the injected light is reflected back out a front facet after being amplified and wavelength locked. The current pump (141) may also bias the light source (101) capable of lasing such that the externally injected narrow-band light signal into the light source (101) capable of lasing suppresses the lasing modes outside of the bandwidth of injected incoherent light.

IPC 8 full level

H04B 10/00 (2006.01); **H04J 14/02** (2006.01)

CPC (source: EP)

H04B 10/2587 (2013.01); **H04B 10/506** (2013.01); **H04J 14/02** (2013.01); **H04J 14/0246** (2013.01); **H04J 14/025** (2013.01); **H04J 14/0282** (2013.01); H04J 14/0226 (2013.01)

Citation (search report)

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- See references of WO 2004107628A1

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DOCDB simple family (application)

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