

Title (en)

PHOTONIC CHIP AND PHOTONIC COMPONENT INTEGRATING SUCH A CHIP

Title (de)

PHOTONISCHER CHIP UND PHOTONISCHES BAUELEMENT MIT SOLCH EINEM CHIP

Title (fr)

PUCE PHOTONIQUE ET COMPOSANT PHOTONIQUE INTEGRANT UNE TELLE PUCE

Publication

EP 4252036 A1 20231004 (FR)

Application

EP 21819921 A 20211110

Priority

- FR 2012049 A 20201124
- FR 2021051991 W 20211110

Abstract (en)

[origin: WO2022112679A1] The invention relates to a photonic chip (10) comprising at least one photonic circuit (1) including at least one laser source (L) for supplying a first radiation, referred to as local oscillator (LO), to an optical mixer (M) and for supplying an emission radiation (Re) to a coupling device (C), the local oscillator (LO) and the emission radiation (Re) having a predetermined polarisation. The coupling device (C) is configured to propagate in free space, from a measuring surface (Sm), the emission radiation (Re) in the form of an emission light beam, to receive, in return, on the measuring surface (Sm) a reflected light beam and to guide it towards the optical mixer (M) as reflected radiation (Rr) having the predetermined polarisation. The optical mixer (M) generates a measurement signal (V) by interferometric pulse of the local oscillator (LO) and the reflected radiation (Rr). The invention also relates to an optical component including such a photonic chip.

IPC 8 full level

G01S 17/34 (2020.01); **G01S 7/481** (2006.01); **G01S 7/499** (2006.01); **G01S 17/42** (2006.01); **G02B 27/28** (2006.01)

CPC (source: EP US)

G01S 7/4811 (2013.01 - EP US); **G01S 7/4815** (2013.01 - EP US); **G01S 7/4816** (2013.01 - US); **G01S 7/4818** (2013.01 - EP); **G01S 7/499** (2013.01 - EP US); **G01S 17/34** (2020.01 - EP US); **G01S 17/42** (2013.01 - EP); **G02B 19/0057** (2013.01 - EP); **G02B 27/283** (2013.01 - EP); **G01S 7/4818** (2013.01 - US)

Citation (search report)

See references of WO 2022112679A1

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

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

FR 3116615 A1 20220527; **FR 3116615 B1 20221111**; CN 116507942 A 20230728; EP 4252036 A1 20231004; US 2024004046 A1 20240104; WO 2022112679 A1 20220602

DOCDB simple family (application)

FR 2012049 A 20201124; CN 202180078090 A 20211110; EP 21819921 A 20211110; FR 2021051991 W 20211110; US 202118252781 A 20211110