

Title (en)

SYSTEM FOR CAPTURING POINT VALUES FOR CONSTITUTING AN IMAGE WITH TERAHERTZ RADIATION

Title (de)

SYSTEM ZUR ERFASSUNG VON PUNKTWERTEN ZUR BILDUNG EINES BILDES MIT TERAHERTZSTRAHLUNG

Title (fr)

SYSTÈME DE CAPTURE DE VALEURS PONCTUELLES POUR CONSTITUER UNE IMAGE AVEC DES RAYONNEMENTS TERAHERTZ

Publication

**EP 4094069 A1 20221130 (FR)**

Application

**EP 18773528 A 20180724**

Priority

- FR 1756999 A 20170724
- FR 2018051894 W 20180724

Abstract (en)

[origin: WO2019020928A1] The device (40) for capturing point values for constituting an image, comprises: - an incoherent source (100) of rays, the frequency of which is between 0.075 THz and 10 THz for illuminating an object, - a sensor (415) of radiation coming from the object, which comprises an area sensitive to the radiation coming from the source and which emits an electrical signal representative of the intensity of the rays coming from the source and reaching the sensitive area of the sensor, and - at least one optical focusing system (400, 410) with aperture number (F-Number) less than one, situated on the optical path of rays emitted by the source and propagating from the source to the sensor of rays, passing via the object. Preferably, the source (100) illuminates the object with a sufficiently broad emission spectrum to scan the standing wave in a period shorter than the acquisition time of the sensor. Preferably, the incoherent source has a bandwidth of several GHz, preferably at least equal to 12 GHz at -100 dB.

IPC 8 full level

**G01N 21/3581** (2014.01)

CPC (source: EP US)

**G01N 21/3581** (2013.01 - EP US); **G02B 3/04** (2013.01 - US); **G02B 3/04** (2013.01 - EP)

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 2019020928 A1 20190131**; CN 111373241 A 20200703; CN 111373241 B 20240326; EP 4094069 A1 20221130; FR 3069333 A1 20190125; FR 3069333 B1 20210514; FR 3069372 A1 20190125; FR 3069372 B1 20201225; JP 2020529617 A 20201008; JP 2020531860 A 20201105; JP 7385565 B2 20231122; JP 7453909 B2 20240321; US 11243163 B2 20220208; US 2020271576 A1 20200827; WO 2019042943 A1 20190307

DOCDB simple family (application)

**FR 2018051894 W 20180724**; CN 201880062090 A 20180724; EP 18773528 A 20180724; EP 2018073037 W 20180827; FR 1756999 A 20170724; FR 1757901 A 20170828; JP 2020512560 A 20180827; JP 2020526695 A 20180724; US 201816633590 A 20180724