

Title (en)

3D-POSITION DETERMINATION METHOD AND DEVICE

Title (de)

VERFAHREN UND VORRICHTUNG ZUR 3D-POSITIONSBESTIMMUNG

Title (fr)

PROCÉDÉ ET DISPOSITIF DE DÉTERMINATION 3D DE LA POSITION

Publication

**EP 3271745 A1 20180124 (DE)**

Application

**EP 16704804 A 20160129**

Priority

- DE 102015003584 A 20150319
- EP 2016051905 W 20160129

Abstract (en)

[origin: WO2016146292A1] The invention relates to a device and a method for determining the three-dimensional position of an object. The device comprises at least one transmitter which is suitable for emitting a signal; at least three receivers, wherein the at least three receivers and the at least one transmitter are arranged preferably within a first plane, a first receiver and a second receiver are preferably arranged along a first straight line, and a third receiver is arranged preferably at a distance from the first straight line; and a processor, which is configured to calculate at least three propagation times, each propagation time being the time required by the signal to travel from the transmitter to the respective receiver via the object. The processor is additionally configured to determine the three-dimensional position of the object from the calculated propagation times and from the arrangement of the transmitter and the receivers.

IPC 8 full level

**G01S 7/40** (2006.01); **G01S 7/41** (2006.01); **G01S 7/48** (2006.01); **G01S 7/497** (2006.01); **G01S 7/52** (2006.01); **G01S 13/00** (2006.01); **G01S 13/87** (2006.01); **G01S 15/87** (2006.01); **G01S 17/87** (2020.01); **G01S 17/89** (2020.01)

CPC (source: CN EP KR US)

**G01S 7/41** (2013.01 - CN EP KR US); **G01S 7/4802** (2013.01 - CN EP KR US); **G01S 7/539** (2013.01 - US); **G01S 13/003** (2013.01 - CN EP KR US); **G01S 13/46** (2013.01 - EP US); **G01S 13/878** (2013.01 - CN EP KR US); **G01S 13/89** (2013.01 - KR); **G01S 15/003** (2013.01 - CN EP KR US); **G01S 15/46** (2013.01 - EP US); **G01S 15/50** (2013.01 - KR); **G01S 15/876** (2013.01 - CN EP KR US); **G01S 15/89** (2013.01 - EP KR US); **G01S 15/96** (2013.01 - KR); **G01S 17/003** (2013.01 - CN EP KR US); **G01S 17/46** (2013.01 - EP KR US); **G01S 17/50** (2013.01 - KR); **G01S 17/87** (2013.01 - CN EP KR US); **G01S 17/89** (2013.01 - EP KR US); **G01S 13/89** (2013.01 - EP US); **G01S 15/50** (2013.01 - EP US); **G01S 15/96** (2013.01 - EP US); **G01S 17/50** (2013.01 - EP US); **G01S 2013/466** (2013.01 - EP KR US); **G01S 2015/465** (2013.01 - EP KR US)

Citation (examination)

- US 2012243374 A1 20120927 - DAHL TOBIAS [NO], et al
- US 2015023138 A1 20150122 - LIU GUANGSONG [CN], et al
- See also references of WO 2016146292A1

Designated contracting state (EPC)

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Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**WO 2016146292 A1 20160922**; CN 107407723 A 20171128; CN 107407723 B 20210507; DE 102015003584 A1 20160922; EP 3271745 A1 20180124; JP 2018513981 A 20180531; JP 6789999 B2 20201125; KR 102559855 B1 20230727; KR 20180011056 A 20180131; US 10698094 B2 20200630; US 2018074177 A1 20180315

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**EP 2016051905 W 20160129**; CN 201680016638 A 20160129; DE 102015003584 A 20150319; EP 16704804 A 20160129; JP 2017567529 A 20160129; KR 20177026197 A 20160129; US 201615558931 A 20160129