

Title (en)

VEHICLE ASSEMBLY COMPRISING A RADAR SENSOR AND A SET OF LAYERS

Title (de)

FAHRZEUGANORDNUNG MIT EINEM RADARSENSOR UND EINEM SCHICHTENSATZ

Title (fr)

ENSEMBLE DE VÉHICULE COMPRENANT UN CAPTEUR RADAR ET UN ENSEMBLE DE COUCHES

Publication

EP 4162295 A1 20230412 (FR)

Application

EP 21728933 A 20210601

Priority

- FR 2006005 A 20200609
- EP 2021064617 W 20210601

Abstract (en)

[origin: WO2021249817A1] The invention relates to a vehicle assembly (1) for a vehicle (2), said vehicle assembly (1) comprising: - a radar sensor (10) configured to emit/receive radar waves (R1), said radar sensor (10) being placed facing a set of layers (C), and - said set of layers (C) comprising at least two dielectric layers (11, 12), namely a primary layer (11) and a secondary layer (12), separated by a layer of air (13), - characterised in that said layer of air (13) has a thickness (e3) equal to $(m_3 \times (\lambda/2))/\cos(\theta_3)$, where θ_3 is an angle of incidence of emergent reflected waves (R20) striking said secondary layer (12) and $m_3=1, \dots$ to N, N being an integer, said emergent reflected waves (R20) being derived from radar waves (R1) emitted by said radar sensor (10).

IPC 8 full level

G01S 13/93 (2006.01); **G01S 7/02** (2006.01); **G01S 13/931** (2020.01); **H01Q 1/32** (2006.01); **H01Q 1/42** (2006.01); **H01Q 21/28** (2006.01)

CPC (source: EP US)

G01S 7/027 (2021.05 - US); **G01S 13/931** (2013.01 - EP US); **H01Q 1/3233** (2013.01 - EP US); **H01Q 1/422** (2013.01 - EP US); **H01Q 21/28** (2013.01 - EP); **G01S 7/027** (2021.05 - EP); **G01S 2013/93277** (2020.01 - EP US)

Citation (search report)

See references of WO 2021249817A1

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 3111197 A1 20211210; **FR 3111197 B1 20220826**; CN 115698763 A 20230203; EP 4162295 A1 20230412; JP 2023528670 A 20230705; JP 7494326 B2 20240603; US 2023243961 A1 20230803; WO 2021249817 A1 20211216

DOCDB simple family (application)

FR 2006005 A 20200609; CN 202180041071 A 20210601; EP 2021064617 W 20210601; EP 21728933 A 20210601; JP 2022575835 A 20210601; US 202118000764 A 20210601