

Title (en)

PROJECTION ARRANGEMENT FOR A HEAD-UP DISPLAY (HUD) WITH P-POLARIZED RADIATION

Title (de)

PROJEKTIONSANORDNUNG FÜR EIN HEAD-UP-DISPLAY (HUD) MIT P-POLARISIERTER STRAHLUNG

Title (fr)

AGENCEMENT DE PROJECTION POUR UN AFFICHAGE TÊTE HAUTE (HUD) AVEC RAYONNEMENT À POLARISATION P

Publication

**EP 4182165 A1 20230524 (DE)**

Application

**EP 21735651 A 20210622**

Priority

- EP 20186668 A 20200720
- EP 2021066909 W 20210622

Abstract (en)

[origin: WO2022017707A1] The present invention relates to a projection arrangement for a head-up display (HUD), at least comprising – a composite pane (10) which comprises an outer pane (1) and an inner pane (2) that are interconnected by way of a thermoplastic intermediate layer (3) and which has an HUD region (B); - an electrically conductive coating (20) on the surface (II, III) of the outer pane (1) or of the inner pane (2) facing the intermediate layer (3) or within the intermediate layer (3); and - an HUD projector (4) which is directed at the HUD region (B); wherein the radiation of the projector (4) is p-polarized, wherein the electrically conductive coating (20) comprises at least - a first dielectric layer or layer sequence (M1), - a first electrically conductive layer (21.1) with a thickness ranging from 11 nm to 14 nm, - a second dielectric layer or layer sequence (M2), - a second electrically conductive layer (21.2) with a thickness ranging from 10 nm to 13 nm, - a third dielectric layer or layer sequence (M3), - a third electrically conductive layer (21.3) with a thickness ranging from 10 nm to 13 nm, - a fourth dielectric layer or layer sequence (M4), - a fourth electrically conductive layer (21.4) with a thickness ranging from 7 nm to 11 nm, and - a fifth dielectric layer or layer sequence (M5), which are arranged in the specified sequence proceeding from the substrate.

IPC 8 full level

**B32B 17/10** (2006.01); **G02B 27/01** (2006.01)

CPC (source: CN EP US)

**B32B 17/10036** (2013.01 - EP US); **B32B 17/10229** (2013.01 - EP); **B32B 17/10458** (2013.01 - EP); **G02B 27/0101** (2013.01 - CN EP US); **B32B 17/1055** (2013.01 - US); **B32B 2255/205** (2013.01 - US); **B32B 2255/28** (2013.01 - US); **B32B 2605/00** (2013.01 - US); **G02B 2027/0118** (2013.01 - US); **G02B 2027/0194** (2013.01 - EP)

Citation (search report)

See references of WO 2022017707A1

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)

**WO 2022017707 A1 20220127**; CN 114258508 A 20220329; EP 4182165 A1 20230524; US 2023228991 A1 20230720

DOCDB simple family (application)

**EP 2021066909 W 20210622**; CN 202180002527 A 20210622; EP 21735651 A 20210622; US 202118007663 A 20210622