Title (en)

COMPOSITE PANE FOR A HOLOGRAPHIC HEAD-UP DISPLAY

Title (de)

VERBUNDSCHEIBE FÜR EIN HOLOGRAPHISCHES HEAD-UP-DISPLAY

Title (fr)

VITRE COMPOSITE POUR UN AFFICHAGE TÊTE HAUTE HOLOGRAPHIQUE

Publication

EP 4153422 A1 20230329 (DE)

Application

EP 21724678 A 20210510

Priority

- EP 20175125 A 20200518
- EP 2021062289 W 20210510

Abstract (en)

[origin: WO2021233713A1] The present invention relates to a composite pane (100) comprising at least: an outer pane (1) having an outer surface (I) and an inner surface (II); a first thermoplastic intermediate layer (3); a hologram element (4) comprising a first set of holograms produced in one or more layers of a holographic material, the first set of holograms comprising a blue hologram which can be activated by blue light having a wavelength in a first range and is not responsive to light of other wavelengths, a green hologram which can be activated by green light having a wavelength in a second range and is not responsive to light of other wavelengths, and a red hologram which can be activated by red light having a wavelength in a third range and is not responsive to light of other wavelengths; an inner pane (2) having an outer surface (III) and an inner surface (IV); and a colour-selective optical filter (6) for selectively absorbing light having a wavelength in the first range, light having a wavelength in the second range, and light having a wavelength in the third range. The hologram element (4) is located between the outer pane (1) and the inner pane (2), the first thermoplastic layer (3) is located between the outer pane (1) and the hologram element (4) or between the hologram element (4) and the inner pane (2), and the colour-selective optical filter (6) is located in front of the hologram element (4) as seen from the outside.

IPC 8 full level

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

CPC (source: CN EP US)

B32B 7/023 (2019.01 - CN); **B32B 7/12** (2013.01 - CN EP); **B32B 17/00** (2013.01 - CN); **B32B 17/06** (2013.01 - CN); **B32B 17/10** (2013.01 - CN); **B32B 17/10036** (2013.01 - EP); **B32B 17/10449** (2013.01 - EP); **B32B 17/10761** (2013.01 - EP); **B32B 17/1077** (2013.01 - EP); **B32B 17/10788** (2013.01 - EP); **B32B 27/00** (2013.01 - CN); **B32B 27/06** (2013.01 - CN); **B32B 27/30** (2013.01 - CN); **B32B 27/36** (2013.01 - CN); **B32B 33/00** (2013.01 - CN); **G02B 5/203** (2013.01 - US); **G02B 5/32** (2013.01 - US); **G02B 27/0103** (2013.01 - CN US); B32B 2307/4023 (2013.01 - EP); B32B 2307/4026 (2013.01 - EP); B32B 2307/404 (2013.01 - EP); B32B 2307/42 (2013.01 - EP); B32B 2419/00 (2013.01 - EP); B32B 2605/00 (2013.01 - EP); G02B 27/0101 (2013.01 - EP); G02B 2027/0105 (2013.01 - US); G02B 2027/0109 (2013.01 - US); G02B 2027/0112 (2013.01 - US); G02B 2027/0194 (2013.01 - US); G02B 2207/101 (2013.01 - US); G02B 2207/109 (2013.01 - US)

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 2021233713 A1 20211125; CN 113966275 A 20220121; CN 113966275 B 20241015; EP 4153422 A1 20230329; US 2023185088 A1 20230615

DOCDB simple family (application)

EP 2021062289 W 20210510; CN 202180002361 A 20210510; EP 21724678 A 20210510; US 202117926072 A 20210510