

Title (en)

WAVEFRONT MANIPULATOR FOR A HEAD-UP DISPLAY, SAID WAVEFRONT MANIPULATOR COMPRISING A HOLOGRAPHIC ELEMENT, OPTICAL ASSEMBLY, AND HEAD-UP DISPLAY

Title (de)

WELLENFRONTMANIPULATOR FÜR HEAD-UP-DISPLAY MIT HOLOGRAPHISCHEM ELEMENT, OPTISCHE ANORDNUNG UND HEAD-UP-DISPLAY

Title (fr)

MANIPULATEUR DE FRONT D'ONDE POUR UN AFFICHAGE TÊTE HAUTE, LEDIT MANIPULATEUR DE FRONT D'ONDE COMPRENANT UN ÉLÉMENT HOLOGRAPHIQUE, ENSEMBLE OPTIQUE ET AFFICHAGE TÊTE HAUTE

Publication

**EP 4305474 A1 20240117 (DE)**

Application

**EP 22710565 A 20220304**

Priority

- DE 102021105830 A 20210310
- EP 2022055513 W 20220304

Abstract (en)

[origin: WO2022189275A1] The invention relates to a wavefront manipulator (7) for arrangement in the optical path (8, 19, 20) of a head-up display (10) between an imaging unit (1) and a projection surface (4). The wavefront manipulator (7) comprises a holographic assembly (3) which has at least two holographic elements (11, 12), the at least two holographic elements (11, 12) being arranged directly behind one another in the optical path (8, 19, 20) and being designed to be reflective for at least one fixed wavelength and a fixed irradiation angle range.

IPC 8 full level

**G02B 5/20** (2006.01); **G02B 5/10** (2006.01); **G02B 27/00** (2006.01); **G02B 27/01** (2006.01)

CPC (source: EP KR US)

**G02B 5/10** (2013.01 - KR); **G02B 5/203** (2013.01 - EP KR); **G02B 27/0068** (2013.01 - EP KR); **G02B 27/0101** (2013.01 - EP); **G02B 27/0103** (2013.01 - KR US); **G02B 5/10** (2013.01 - EP); **G02B 2027/0105** (2013.01 - EP KR US); **G02B 2027/011** (2013.01 - EP KR US); **G02B 2027/0112** (2013.01 - US); **G02B 2027/0118** (2013.01 - EP KR); **G02B 2027/012** (2013.01 - EP KR)

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)

**DE 102021105830 A1 20220915**; CN 117529677 A 20240206; EP 4305474 A1 20240117; KR 20230152040 A 20231102; US 2023418059 A1 20231228; WO 2022189275 A1 20220915

DOCDB simple family (application)

**DE 102021105830 A 20210310**; CN 202280020301 A 20220304; EP 2022055513 W 20220304; EP 22710565 A 20220304; KR 20237030367 A 20220304; US 202318244283 A 20230910