

Title (en)
DISPLAY DEVICE

Title (de)
ANZEIGEVORRICHTUNG

Title (fr)
DISPOSITIF D’AFFICHAGE

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Application
EP 22726015 A 20220427

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Abstract (en)
[origin: WO2022233656A1] The invention relates to a display device comprising: a holding device (2) which can be placed onto the head of a user; an imager (6) secured to the holding device (2) for generating an image; a control unit (15) for controlling the imager (6); and a spectacle lens (3, 4) that is secured to the holding device (2) and has a coupling-in portion (9) and a coupling-out portion (12) spaced therefrom in a first direction. The coupling-out portion (12) has a deflecting structure (13) having a predetermined extension in the first direction, and the generated image is coupled into the spectacle lens (3, 4) via the coupling-in portion (9), is guided in the spectacle lens (3, 4) by at least one reflection as far as the coupling-out portion (12), and coupled out into an exit pupil (16) via the coupling-out portion (12) by deflecting on the deflecting structure (13) in a coupling-out direction. As a result, when the holding device (2) is placed on the user’s head, the user can perceive the coupled-out image as a virtual image. The coupling-in portion (9) has an entry surface (10) which is wider in the first direction than the image of the imager (6), and it is possible to adjust the entry surface (10) coupling-in position at which the image is coupled in via the entry surface (10) in the first direction. The coupling-in position determines the coupling-out direction of the coupling-out portion (12) and therefore the position of the exit pupil (16) in the first direction such that the distance between the exit pupil (16) and the coupling-in portion in the first direction can be adjusted. Irrespective of the coupling-in position, when the deflecting structure (13) causes a deflection, the deflecting structure (13) is always utilised across the entire predetermined extension in the first direction.

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