

Title (en)  
DEVICE COMPRISING AN OPTICAL MODULE AND SUPPORT PLATE

Title (de)  
VORRICHTUNG MIT OPTISCHEM MODUL UND TRÄGERPLATTE

Title (fr)  
DISPOSITIF COMPORTANT UN MODULE OPTIQUE ET UNE PLAQUE DE SUPPORT

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Application  
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Abstract (en)  
[origin: WO2011120480A1] The invention relates to an optical device (1) comprising an optical module (2), for example a lens, a printed circuit board (4), an image receiving element (6) and a support plate (5). The optical module (2) and the image receiving element (6) are arranged on one side of the support plate (5) and the printed circuit board (4) is arranged on the opposite side of the support plate (5) and contact is established between the image receiving element (6) and the printed circuit board (4) through one or more openings (9) in the support plate (5). In a specific embodiment, said image receiving element (6) is arranged in an opening (9) in the support plate (5) and is joined directly to the printed circuit board (4).

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Citation (search report)  
See references of WO 2011120480A1

Citation (examination)  
• JP 2007300489 A 20071115 - ALPS ELECTRIC CO LTD  
• US 2007200053 A1 20070830 - NOMURA TAKUMI [JP], et al  
• US 2003007084 A1 20030109 - NAKJOH YASUO [JP]  
• JP 2001128072 A 20010511 - SONY CORP  
• US 2008106624 A1 20080508 - WEBSTER STEVEN [US]

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