

Title (en)  
OPTICAL MODULE AND OPTICAL SYSTEM

Title (de)  
OPTISCHES MODUL UND OPTISCHES SYSTEM

Title (fr)  
MODULE OPTIQUE ET SYSTEME OPTIQUE

Publication  
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Application  
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Abstract (en)  
[origin: WO2005032123A1] The invention relates to an optical module comprising: a circuit support (10); a cased semiconductor element (12) placed on the circuit support (10), and; a lens unit (14; 16, 18, 20; 21) for projecting electromagnetic radiation onto the semiconductor element (12). The lens unit (14; 16, 18, 20; 21), which is constructed separate from the cased semiconductor element (12), preferably comprises a lens arrangement consisting of, for example, three lenses (16, 18, 20) and of a diaphragm (21). The three lenses (16, 18, 20), optionally together with the diaphragm (21), are aligned in a well-defined manner due to their geometric design so that no additional optical adjustment is necessary. According to the invention, a support (13a) is formed, at least in sections, on the case (13) of the semiconductor element (12), and the lens unit (14; 16, 18, 20; 21) is placed thereon thus being supported. The invention is based on the finding that by forming a support (13a) directly on the case (13) of a cased semiconductor element (12) even with classically cased semiconductor chips, it is possible to construct a camera module with which every mechanical focus setting can be eliminated. The invention is particularly suited for uses in the interior or exterior of a motor vehicle.

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