

Title (en)  
SEMICONDUCTOR ON INSULANT HIGH-RATE COMPACT OPTICAL MODULATOR

Title (de)  
HALBLEITER AUF ISOLATOR MIT KOMPAKTEM OPTISCHEM HOCHLEISTUNGSMODULATOR

Title (fr)  
MODULATEUR OPTIQUE COMPACT À HAUT DÉBIT EN SEMI-CONDUCTEUR SUR ISOLANT

Publication  
**EP 2483739 A1 20120808 (FR)**

Application  
**EP 10777046 A 20100929**

Priority  
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Abstract (en)  
[origin: WO2011039478A1] The invention relates to a component, device and improved electro-optical modulation system for increasing compactness, favouring the adaptation of optical and electrical waves, and a method of fabrication. According to the invention, such a component exhibits a waveguide architecture (690) devised so that the length (L611) of the path followed by the luminous flux exhibits, with the length (L609) of the path traversed by the electrical control signal, a determined difference for decreasing or compensating for the difference in the speeds (V609, V611) of propagation of the luminous flux and of the electrical signal. In particular, the modulation zone comprises a path of the luminous flux winding around itself and successively crossing at least two indentations emanating from at least two of these control elements. It thus exhibits a length greater than that traversed by the electrical signal, for example between a first (R1a) and a second (R2a) region of interaction between this control signal and this luminous flux.

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See references of WO 2011039478A1

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