Abstracts

Optically Controlled GaAs MMIC Switch Using a MESFET as an Optical Detector

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Optical control of microwave devices, particularly MMIC, is a rapidly growing research area. The GaAs MESFET is the prime candidate as the optical detector for MMIC applications. In this paper a theoretical analysis is presented, which accurately predicts the photocurrents in MESFETs operated in the pinched off mode. The analysis includes both photovoltaic and photoconductive effects. The paper also describes the operation of an optically triggered MMIC switch using the MMIC switch as the detector.

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