Abstracts

Microwave Characteristics of an Optically Controlled GaAs MESFET (Short Papers)

H. Mizuno. "Microwave Characteristics of an Optically Controlled GaAs MESFET (Short Papers)." 1983 Transactions on Microwave Theory and Techniques 31.7 (Jul. 1983 [T-MTT]): 596-600.

This paper presents the results of an experimental investigation of microwave characteristics of a GaAs MESFET under optically direct-controlled conditions. The gain, drain current, and S-parameters were measured under various optical conditions in the frequency region from 3.0 GHz to 8.0 GHz, and it was found that they can be controlled by varying the incident light intensity in the same manner as when varying the gate bias voltage. As applications of this phenomenon, optical/microwave transformers and an optically switched amplifier were investigated.

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