Abstracts

A New Type of Optoelectronic Millimeter-Wave Finline Switches (Dec. 1992 [T-MTT])

D. Xu, L.-p. Song and K.-q. Wu. "A New Type of Optoelectronic Millimeter-Wave Finline Switches (Dec. 1992 [T-MTT])." 1992 Transactions on Microwave Theory and Techniques 40.12 (Dec. 1992 [T-MTT] (1992 Symposium Issue)): 2392-2396.

A new type of millimeter-wave finline switches constructed on teflon substrates is proposed, which can be easily fabricated and mounted. The experimental results are reported, which show less than 2 dB insertion loss in the region of 26-40 GHz and 23.4 dB on/off ratio have been reached. Because of its good compatibility with the conventional finline structures, it will have a wide application field. A very simple method has been given to analyze its behaviors which has successfully predicted the experimental results. A nonlinear relation between the photoconductivity and the light power is given which has been confirmed by experiment.

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