

Abstracts

An Analysis of Gap in Microstrip Transmission Lines

M. Maeda. "An Analysis of Gap in Microstrip Transmission Lines." 1972 Transactions on Microwave Theory and Techniques 20.6 (Jun. 1972 [T-MTT]): 390-396.

Although microstrip transmission lines have been widely used in microwave integrated circuits, the discontinuity structures in the microstrip transmission lines such as a gap, an abruptly ended strip conductor, and so on, have hardly been analyzed. An analytical method and numerical results for a gap capacitance in the microstrip transmission line are described. The equivalent circuit parameters are formulated with three-dimensional Green's functions, based on a variational principle. The numerical results are in good agreement with the published experimental data. The fringing effect of an abruptly ended strip conductor is also investigated.

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