Abstracts

Frequency-Dependent Characteristics of Open Microstrip Lines with Finite Strip Thickness (Short Papers)

C. Shih, R.-B. Wu, S.-K. Jeng and C.H. Chen. "Frequency-Dependent Characteristics of Open Microstrip Lines with Finite Strip Thickness (Short Papers)." 1989 Transactions on Microwave Theory and Techniques 37.4 (Apr. 1989 [T-MTT]): 793-795.

A rigorous approach based on the variational conformal mapping technique is proposed for analyzing the characteristics of open microstrip lines with finite strip thickness. By Chang's mapping, the solution domain becomes a finite and nearly rectangular region in which the finite element method is applied. The wedge conditions at the strip corners, which are very difficult to discuss by the conventional methods, are now correctly handled. Numerical results included here are the current distributions around the strip and variations of the effective dielectric constant caused by the finite-thickness effect.

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