

Abstracts

An Electromagnetic Time-Harmonic Analysis of Shielded Microstrip Circuits

J.C. Rautio and R.F. Harrington. "An Electromagnetic Time-Harmonic Analysis of Shielded Microstrip Circuits." 1987 Transactions on Microwave Theory and Techniques 35.8 (Aug. 1987 [T-MTT]): 726-730.

A Galerkin analysis of microstrip circuits of arbitrary planar geometry enclosed in a rectangular conducting box is described. The technique entails a time-harmonic electromagnetic analysis evaluating all fields and surface currents. This analysis is suitable for the accurate verification of microstrip designs prior to fabrication. A computer program implementing the analysis has been written in Pascal on a personal computer. Agreement with measurements of several microstrip structures suggests a high degree of accuracy.

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