Abstracts

Faster Impedance Estimation for Coupled Microstrips with an Overrelaxation Method (Short Papers)

Using the Frankel-Young method, fast estimation of the potential distribution for a microstrip structure is obtained when an accelerating factor omega is introduced in the finite-differences (relaxation) method. It is possible to calculate such a factor by an iterative technique, but the time of computation needed to find omega annihilates the theoretical gain. In this short paper, the authors present a method which gives an analytical expression for omega. The realistic case examined here, as an illustration, is that of the suspended microstrip couplers for which odd and even impedances are the interesting parameters. Given an analytical expression for omega, the overrelaxation method appears as a very powerful and attractive method for finding the solution of any type of microstrip structure.

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