Abstracts

Indirect Boundary Element Method Applied to Generalized Microstripline Analysis with Applications to Side-Proximity Effect in MMIC's

K. Li and Y. Fujii. "Indirect Boundary Element Method Applied to Generalized Microstripline Analysis with Applications to Side-Proximity Effect in MMIC's." 1992 Transactions on Microwave Theory and Techniques 40.2 (Feb. 1992 [T-MTT]): 237-244.

A novel analysis of the electrical properties of the microstrip-like structures with generalized configuration by means of the indirect boundary element method (BEM) is proposed. In this method, the basic boundary-integral equation is derived by choosing an appropriate fundamental solution and the numerical calculation is done by considering the root-singularity of boundary distribution on the strip conductor. As an application, the proximity effects in MMIC's are calculated. By curve-fitting, the numerical results are expressed in a polynomial suitable for CAD of MMIC's.

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