Abstracts

Method for the calculation of mutual coupling between discontinuities in planar circuits

B.L.A. Van Thielen and G.A.E. Vandenbosch. "Method for the calculation of mutual coupling between discontinuities in planar circuits." 2002 Transactions on Microwave Theory and Techniques 50.1 (Jan. 2002, Part I [T-MTT] (Mini-Special Issue on 1999 International Microwave and Optoelectronics Conference (IMOC'99))): 155-164.

In this paper, a fast method for the calculation of mutual coupling between discontinuities is described. The discontinuities must be small compared to the wavelength and compared to the distance between them. For most circuits, these assumptions are valid. Under these circumstances, the component's (discontinuity) radiation behavior can be accurately modeled by using adequately placed dipoles. This method uses far less unknowns than the method of moments. If the distances between the components become smaller or the components become bigger, then the accuracy can be improved by using more dipoles.

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