

Abstracts

A numerically efficient technique for the analysis of slots in multilayer media

N. Kmayman, G. Dural and M.I. Aksun. "A numerically efficient technique for the analysis of slots in multilayer media." 1998 Transactions on Microwave Theory and Techniques 46.4 (Apr. 1998 [T-MTT]): 430-432.

A numerically efficient technique for the analysis of slot geometries in multilayer media is presented using closed-form Green's functions in spatial domain in conjunction with the method of moments (MoM). The slot is represented by an equivalent magnetic-current distribution, which is then used to determine the total power crossing through the slot and the input impedance. In order to calculate power and current distribution, spatial-domain closed-form Green's functions are expanded as power series of the radial distance $|\rho|$, which makes the analytical evaluation of the spatial-domain integrals possible, saving a considerable amount of computation time.

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