Abstracts

Analysis of Microstrip Lines Coupled through an Arbitrarily Shaped Aperture in a Thick Common Ground Plane

A.M. Tran and T. Itoh. "Analysis of Microstrip Lines Coupled through an Arbitrarily Shaped Aperture in a Thick Common Ground Plane." 1993 MTT-S International Microwave Symposium Digest 93.2 (1993 Vol. II [MWSYM]): 819-822.

A flexible spectral domain analysis to characterize aperture-coupled microstrip lines with a common ground plane of finite conductor thickness is presented. In this approach, the coupling aperture is allowed to have any size, shape, and thickness. The effects of surface wave and radiation are also taken into accounts via the exact Green's function formulation in the spectral domain. Numerical results of the S-parameters generated using this method are presented for different aperture thicknesses and validated against known published data for the zero thickness case.

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