Abstracts

FDFD Full-Wave Analysis and Modeling of Dielectric and Metallic Losses of CPW Short Circuits (Short Papers)

H. Klingbeil, K. Beilenhoff and H.L. Hartnagel. "FDFD Full-Wave Analysis and Modeling of Dielectric and Metallic Losses of CPW Short Circuits (Short Papers)." 1996 Transactions on Microwave Theory and Techniques 44.3 (Mar. 1996 [T-MTT]): 485-487.

A finite-difference method in the frequency domain (FDFD) is used to analyze the influence of lossy materials on the scattering behavior of CPW short ends. Not only dielectric losses but also realistic metallic losses are taken into account for the first time in an FDFD method. Both, the numerical results for the three-dimensional structure and the complex propagation constants of the homogeneous waveguide are presented. These are compared with those yielded by an analytical method and shown to be of good agreement. Finally, a simple model is presented, which describes the CPW short end with good accuracy.

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