Abstracts

A dynamic model for printed apertures in anisotropic stripline structures

J.C.D.S. Lacava, A.V.P. De la Torre and L. Cividanes. "A dynamic model for printed apertures in anisotropic stripline structures." 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))): 22-26.

This paper presents a full-wave analysis method for printed apertures in anisotropic stripline structures. Both electric and magnetic anisotropy of the most general form are assumed. Working in the Fourier domain, closed-form expressions for the transformed electromagnetic fields are derived. Special attention is dedicated to the particular case of dielectrics with uniaxial anisotropy. In this case, spectral Green's functions in compact and closed form are obtained. Effects of the anisotropic ratio on the input impedance of a printed slot are presented.

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