Abstracts

Resonance in Cylindrical-Rectangular and Wraparound Microstrip Structures

S.M. Ali, T.M. Habashy, J.-F. Kiang and J.A. Kong. "Resonance in Cylindrical-Rectangular and Wraparound Microstrip Structures." 1989 Transactions on Microwave Theory and Techniques 37.11 (Nov. 1989 [T-MTT]): 1773-1783.

A rigorous analysis of the resonance frequency problem of both the cylindrical-rectangular and the wraparound microstrip structure is presented. The problem is formulated in terms of a set of vector integral equations. Using Galerkin's method to solve the integral equations, the complex resonance frequencies are studied with sinusoidal basis functions which incorporate the edge singularity. Furthermore, the complex resonance frequencies are computed using a perturbation approach. Modes suitable for resonator or antenna applications are investigated.

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