Abstracts

Perturbation Analysis and Design Equations for Open- and Closed-Ring Microstrip Resonators

V.K. Tripathi and I. Wolff. "Perturbation Analysis and Design Equations for Open- and Closed-Ring Microstrip Resonators." 1984 Transactions on Microwave Theory and Techniques 32.4 (Apr. 1984 [T-MTT]): 405-410.

Simple closed-form expressions for the resonant frequency and electromagnetic field distribution for various modes of the open- and closed-ring microstrip resonators are derived by utilizing the perturbation analysis of the equivalent curved waveguide model. These results are shown to be in good agreement with the exactly computed values obtained by the solution of the eigenvalue equation for the equivalent waveguide model and the experimental data. The effect of gap capacitance on the eigenvalues of the open-ring resonator is also examined.

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