Abstracts

Spectral Domain Analysis of an Elliptic Microstrip Ring Resonator (Short Papers)

A.K. Sharma. "Spectral Domain Analysis of an Elliptic Microstrip Ring Resonator (Short Papers)." 1984 Transactions on Microwave Theory and Techniques 32.2 (Feb. 1984 [T-MTT]): 212-218.

The quasi-static capacitance of an elliptic microstrip ring resonator is evaluated with the spectral domain technique. The effect of fringing of fields associated with the structure is determined using this capacitance value in terms of the effective eccentricities of the inner and outer ellipses, the effective values of the ratio of the semimajor and semiminor axes, and the effective dielectric constant. The resonant frequency of the even TM /sub c110/ mode, calculated utilizing them, is in good agreement with the experiment. Mode charts for the dominant and higher order even and odd TM/sub cm10/ resonance modes are also presented.

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