Abstracts

Spectral Domain Analysis of Elliptic Microstrip Disk Resonators

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The elliptic microstrip disk resonator in an open microstrip configuration is analyzed using the spectral domain technique under quasi-static approximation. The normalized value of capacitance is presented as a function of the ratio of substrate thickness and semimajor axis of the elliptic disk resonator for different values of eccentricity. The fringing field effects associated with the structure are quantitatively assessed in terms of effective normalized semimajor axis. The resonator frequencies computed incorporating this effect are in good agreement with the experimental values reported in the literature. Results for various dielectric constants are also included.

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