Abstracts

Correction Due to a Finite Permittivity for a Ring Resonator in Free Space

R. De Smedt. "Correction Due to a Finite Permittivity for a Ring Resonator in Free Space." 1984 Transactions on Microwave Theory and Techniques 32.10 (Oct. 1984 [T-MTT]): 1288-1293.

To better determine the resonant fields of a dielectric resonator with high permittivity epsilon/sub r/, the asymptotic theory with1//spl radic/epsilon/sub 3/ as a small parameter is extended by adding higher order terms in 1//spl radic/epsilon /sub r/ in the fields, the resonant wavenumber, and radiation Q. Extensive data are shown for the Phi independent "nonconfined" mode of a ring resonator, which radiates as a magnetic dipole. Some results are added for the "magnetic quadruple" mode.

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