

Abstracts

A new method of accurately determining resonant frequencies of cylindrical and ring dielectric resonators

Juseop Lee and Young-Sik Kim. "A new method of accurately determining resonant frequencies of cylindrical and ring dielectric resonators." 1999 Transactions on Microwave Theory and Techniques 47.6 (Jun. 1999, Part I [T-MTT]): 706-708.

A new method of determining resonant frequencies of cylindrical and ring dielectric resonators (DRs) is presented. The effective dielectric constants in the dielectric waveguide model have been newly defined in the axial and radial attenuation constants to calculate more accurate resonant frequencies of the $TE_{01/\Delta\Delta}$ mode of cylindrical and ring DRs in a microwave integrated-circuit environment. The accuracy of this approach has been shown to be better than 0.5% in error.

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