

Abstracts

Resonant Frequency of a $TE_{01\delta}$ Dielectric Resonator

Y. Konishi, N. Hoshino and Y. Utsumi. "Resonant Frequency of a $TE_{01\delta}$ Dielectric Resonator." 1976 Transactions on Microwave Theory and Techniques 24.2 (Feb. 1976 [T-MTT]): 112-114.

The resonant frequency of a $TE_{01\delta}$ dielectric resonator was obtained by assuming a cylindrical surface containing the circumference of a dielectric resonator as a magnetic wall. In such a method, the error was less than 10 percent. In this short paper, the resonant frequency is obtained by a variational method, where the surface impedance is variated from a infinite value. The theoretical value of a resonant frequency has a good agreement with our experimental result with an error less than 1 percent.

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