Abstracts

Numerical study of axisymmetric dielectric resonators

Shouyuan Shi, Liuqing Yang and D.W. Prather. "Numerical study of axisymmetric dielectric resonators." 2001 Transactions on Microwave Theory and Techniques 49.9 (Sep. 2001 [T-MTT] (Mini-Special Issue on the 2001 IEEE Radio Frequency Integrated Circuit (RFIC) Symposium)): 1614-1619.

In this paper, we present an effective approach to study the behavior of axisymmetric dielectric resonators. This approach is based on the finite-difference time-domain method and two accompanying techniques in order to increase the accuracy and decrease the computational cost. These two techniques are the fast-Fourier-transform approach and the Pade method. This method is used to obtain the resonant frequencies and quality factors for several resonators. Comparisons are made to show the utility of the method.

❑ Return to main document.