Abstracts

A conformal finite-difference time-domain technique for modeling cylindrical dielectric resonators

Supriyo Dey and R. Mittra. "A conformal finite-difference time-domain technique for modeling cylindrical dielectric resonators." 1999 Transactions on Microwave Theory and Techniques 47.9 (Sep. 1999, Part I [T-MTT]): 1737-1739.

In this paper, we present a generalization of the conformal finite-difference time-domain technique, which we introduced earlier for analyzing curved metallic objects. The new scheme enables us to model arbitrarily shaped metallic as well as dielectric objects, and is based on the concept of weighted-volume effective dielectric constant. Its accuracy and usefulness are shown by modeling both open- and closed-type dielectric resonators.

❑ Return to main document.