Abstracts

A Multicomposite, Multilayered Cylindrical Dielectric Resonator for Application in MMIC's (Mar. 1994 [T-MTT])

W.K. Hui and I. Wolff. "A Multicomposite, Multilayered Cylindrical Dielectric Resonator for Application in MMIC's (Mar. 1994 [T-MTT])." 1994 Transactions on Microwave Theory and Techniques 42.3 (Mar. 1994 [T-MTT]): 415-423.

A method, based on the mode matching technique, to study various resonant modes of a multicomposite, multilayered cylindrical dielectric resonator is presented. Dielectric sphere and cone resonators placed in practical environments are investigated. The calculated resonant frequencies show very good agreements compared with the numerical results of the finite difference method for the spherical resonator and with the measured values for the conical resonator, respectively. Experimental investigations show that the conical resonator can be coupled to a circular microstrip line, which has small size at high frequencies and may be integrated together with an oscillator.

❑ Return to main document.