

Abstracts

Toroidal Resonators for Electromagnetic Waves--I

F. Cap and R. Deutsch. "Toroidal Resonators for Electromagnetic Waves--I." 1978 Transactions on Microwave Theory and Techniques 26.7 (Jul. 1978 [T-MTT]): 478-486.

The solution of Maxwell's equations for toroidal systems has been reduced to the solution of the scalar Helmholtz equation. The eigenfunctions and the corresponding electromagnetic fields have been calculated analytically. The dispersion relation was formulated. Three different types of eigenmodes were obtained for each frequency. The structure of the electromagnetic field of the $m=0, 1, 2$, and 3 modes is analyzed.

 [Return to main document.](#)