

## Generalized multilayer anisotropic dielectric resonators

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*Chi Wang and K.A. Zaki. "Generalized multilayer anisotropic dielectric resonators." 2000 Transactions on Microwave Theory and Techniques 48.1 (Jan. 2000 [T-MTT]): 60-66.*

Modeling of the generalized multilayer cylindrical anisotropic dielectric loaded resonator by a rigorous mode-matching method is presented in this paper. Eigenmodes of the multilayer two parallel-plate waveguides are obtained. By cascading the radial discontinuities of the structure, resonant frequency, field distribution, unloaded Q, and the frequency sensitivity of the resonator are obtained. The method can be used to analyze and design resonators and filters of multilayer structure. The computed results are compared with measured results and with experimental data, and shown to be in good agreement.

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