Abstracts

Characterization of the Resonant and Coupling Parameters of Dielectric Resonators for NRD-Guide Filtering Devices

F. Frezza, A. Galli, G. Gerosa and P. Lampariello. "Characterization of the Resonant and Coupling Parameters of Dielectric Resonators for NRD-Guide Filtering Devices." 1993 MTT-S International Microwave Symposium Digest 93.2 (1993 Vol. II [MWSYM]): 893-896.

Basic material to accurately design millimeter-wave filtering devices using variously-shaped dielectric resonators in Non-Radiative Dielectric waveguide is presented. By developing different approximate and rigorous theoretical methods, the resonant and coupling properties (frequencies, field configurations, unloaded and loaded quality factors, scattering parameters, etc.) are modeled and implemented in an adaptive code. Experimental comparisons through suitable measurements are performed to validate the theoretical and numerical results.

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