Abstracts

Modeling of Cylindrical Dielectric Resonators in Rectangular Waveguides and Cavities (1993 Vol. II [MWSYM])

X.-P. Liang, H.-C. Chang and K.A. Zaki. "Modeling of Cylindrical Dielectric Resonators in Rectangular Waveguides and Cavities (1993 Vol. II [MWSYM])." 1993 MTT-S International Microwave Symposium Digest 93.2 (1993 Vol. II [MWSYM]): 597-600.

Two methods for modeling composite cylindrical dielectric resonators in rectangular waveguides and cavities are presented. The first method adopts mode matching between rectangular and cylindrical regions. The second method approximates the cylindrical regions by slices of rectangular dielectric loaded waveguides, and computes the generalized scattering matrix of the total structure by cascading the generalized scattering matrices of the individual slices and junctions. Both methods were implemented and their results compare favorably with measurements.

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