

Abstracts

Mode Conversion Losses in Highly Overmoded Waveguide Cavities

J.M. Burke and W.M. Manheimer. "Mode Conversion Losses in Highly Overmoded Waveguide Cavities." 1990 Transactions on Microwave Theory and Techniques 38.10 (Oct. 1990 [T-MTT]): 1503-1509.

A technique to quantify the effects of mode conversion losses in highly overmoded waveguide cavity resonators using the WKB method is presented. The theory is accurate for weakly irregular waveguide cavities with small amounts of mode conversion. The results of the theory are presented in the context of the trade-offs associated with the design of an 85 GHz T/sub 1.3/ phase-locked gyrokystron oscillator experiment.

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