Abstracts

Coaxial Probe Modeling in Waveguides and Cavities (1992 Vol. I [MWSYM])

J.-F. Liang and K.A. Zaki. "Coaxial Probe Modeling in Waveguides and Cavities (1992 Vol. I [MWSYM])." 1992 MTT-S International Microwave Symposium Digest 92.1 (1992 Vol. I [MWSYM]): 115-118.

Extraction of 2-port scattering matrix of a probe-excited semi-infinite waveguide based on moment method solutions of three short circuited guides is presented. Results show that this solution: (i) provides an easy way to determine the 2-port scattering matrix of probe-excited waveguide problems; and (ii) enable the accurate determination of the loading effects of the probe on the resonant frequencies of unperturbed cavities. Both of these are keys in the design of input/output cavities of waveguide filters. Agreement with experimental data is excellent for loose-coupled probe-excited semi-infinite waveguide problems.

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