Abstracts

Probe Mutual Impedance in a Rectangular Waveguide (Short Papers)

A. Ittipiboon and L. Shafai. "Probe Mutual Impedance in a Rectangular Waveguide (Short Papers)." 1985 Transactions on Microwave Theory and Techniques 33.4 (Apr. 1985 [T-MTT]): 327-335.

The mutual impedance between two probes, arbitrarily located on the broad walls of a rectangular waveguide, is derived by using the reaction concept. This mutual impedance is found to depend on the location and height of the probes and their separation distance. For probes of equal height, it reduces to the probe self impedance, as the probe separation distance approaches zero. The convergence of the solution and the effects of a terminating short circuit on the mutual impedance are also studied and discussed.

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