Abstracts

Solutions for Some Waveguide Discontinuities by the Method of Moments (Short Papers)

V.K. Thong. "Solutions for Some Waveguide Discontinuities by the Method of Moments (Short Papers)." 1972 Transactions on Microwave Theory and Techniques 20.6 (Jun. 1972 [T-MTT]): 416-418.

The electromagnetic boundary value problem of two waveguides coupled by an aperture or an aperture in a waveguide radiating into free space may be described by an integral equation. An analytical solution to this integral equation cannot be readily found due to the complexity of the kernel. However, extremely useful results may be obtained if the method of moments is employed to reduce the integral equation to a matrix equation which can be solved by known methods. In this short paper, series and shunt slots in a rectangular waveguide are analyzed using this technique.

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