

Abstracts

Scattering at an Offset Circular Hole in a Rectangular Waveguide (Short Papers)

C. Sabatier. "Scattering at an Offset Circular Hole in a Rectangular Waveguide (Short Papers)." 1992 Transactions on Microwave Theory and Techniques 40.3 (Mar. 1992 [T-MTT]): 587-592.

A solution is given for the problem of scattering at an off-set circular to rectangular junction and at a thick diaphragm, with an offset circular aperture, in a rectangular waveguide. The method used, is mode matching for computing one discontinuity. The difficulty arising from the fact that the eigenmodes of the two waveguides are known in different coordinate systems is overcome by simple transformation for the evaluation of overlap integral between the eigenmodes of each waveguide. Experimental results validate this method.

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