

Abstracts

The Input Impedance of a Hollow-Probe-Fed, Semi-Infinite Rectangular Waveguide (Short Papers)

J.M. Rollins and J.M. Jarem. "The Input Impedance of a Hollow-Probe-Fed, Semi-Infinite Rectangular Waveguide (Short Papers)." 1989 Transactions on Microwave Theory and Techniques 37.7 (Jul. 1989 [T-MTT]): 1144-1146.

Image theory is used to determine the input impedance of a coaxial feed in a short-circuited, semi-infinite rectangular waveguide. The analysis presented here is applicable to hollow antenna probes of variable height and lends itself well to accurate numerical evaluation. The numerical results are compared to results obtained from other methods and show the efficacy of rising image theory to determine the waveguide input impedance.

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