

## The Discontinuity Problem of a Rectangular Dielectric Post in a Rectangular Waveguide

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A simple numerical technique the discontinuity problem of a symmetric for the solution of loaded rectangular dielectric post centered in a rectangular waveguide is presented. The waveguide is divided into three regions where the field is expressed in suitable waveguide modes. By applying the continuity conditions at the common surfaces of the regions, a system of linear equations determining the reflection and transmission coefficients is formed. Several examples are compared with experimental results and show the validity of the method.

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