Abstracts

Numerical Modeling of Axisymmetric Coaxial Waveguide Discontinuities

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Techniques for determining field behavior in the presence of coaxial-to-coaxial discontinuities are presented for axisymmetric geometries. A bilinear functional is formulated from which field solutions are obtained by way of the finite element method. An absorbing boundary condition is applied at the input and output port boundaries to reduce the size and complexity of the problem. An additional approach, mode matching, is outlined and presented as verification of finite element results. Two geometries are investigated, for which numerical results are presented. A comparative evaluation of the two techniques is included.

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