

Finite-Element Analysis of Axisymmetric Cavity Resonator Using a Hybrid Edge Element Technique

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A modified finite-element technique for the analysis of axisymmetric cavities is presented. In this analysis an edge element approach is used in conjunction with a nodal approach to represent all electric field components in the cavity. A bilinear functional is formulated from which resonant frequencies and/or field distributions are obtained. Several geometries are investigated and corresponding results are presented as verification of the method.

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