Abstracts

Characterizing Microwave Planar Circuits by Coupled Finite-Boundary Element Method

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A general approach to the analysis of microwave planar structures, specifically intended to treat complicated geometries and dielectric load, is presented. The proposed approach is based upon the coupling of the finite element and boundary element methods. The respective merits of these methods are extracted to yield much faster solution and to enhance computation effciency. This general approach can handle a problem with mixed electric and magnetic walls, as well as complicated dielectric had such as ferrite materials. Computed and measured data for various complicated devices are compared, showing an excellent agreement.

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