

generates a considerably smaller system of algebraic equations than an equivalent finite-difference or finite-element approximation. Thus the BIE formulation facilitates substantial reductions in the computational storage and time requirements in comparison with equivalent finite-difference and finite-element representations. In addition, the BIE formulation has the inherent feature that the microstrip capacitance can be calculated without determining the field distribution within the microstrip. This is due to the fact that in the discretization the unknowns are the boundary values of the potential and its normal derivative complementary to those prescribed by the boundary conditions. The solution of the BIE numerical representation determines the boundary distributions of both ϕ and ϕ' and, therefore, provides all the information necessary to enable the computation of the capacitance. With the BIE technique, the potential within the microstrip is computed directly from the boundary distribution of ϕ and ϕ' and need be determined only if desired.

It must be emphasised that the modified BIE method is equally applicable to other plane Laplacian problems involving boundary singularities, provided that the exact form of the singularity can be determined.

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Corrections to "Design of Cylindrical Dielectric Resonators in Inhomogeneous Media"

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In the above-referenced paper,¹ the following corrections should be made:

On page 324, column one, two lines below (12) the definition of θ_i is

$$\theta_i = \xi_i h_i, \quad i = 1, 2, 4$$

$$\theta_3 = \xi_3 h_3 / 2.$$

On page 325, (22) should read

$$\tan \frac{\delta\pi}{2} = \frac{\xi_2}{\xi_3}.$$

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