Abstracts

Quasi-Static Analysis of Shielded Microstripline by a Modified Boundary Element Method (Short Papers)

T.N. Chang and Y.T. Lin. "Quasi-Static Analysis of Shielded Microstripline by a Modified Boundary Element Method (Short Papers)." 1993 Transactions on Microwave Theory and Techniques 41.4 (Apr. 1993 [T-MTT]): 729-731.

This paper presents a modified boundary element method for analyzing the shielded microstrip-like structure. The boundary integral equations are derived via the Green's second identity with the adjoint fields chosen to satisfy the boundary conditions along the outside shielding conductor. Numerically, these result in a considerably reduced matrix size compared to that rising free space Green's functions as the adjoint fields. The computation time for off-diagonal element of the matrix can be decreased by taking the Maclaurin series expansion forms of the infinite sums. Results for microstrip fine are found in good agreement witlh those in the literature.

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