Abstracts

Application of Modified Indirect Boundary Element Method to Electromagnetic Field Problems

B. Song and J. Fu. "Application of Modified Indirect Boundary Element Method to Electromagnetic Field Problems." 1994 Transactions on Microwave Theory and Techniques 42.4 (Apr. 1994, Part I [T-MTT]): 654-660.

This paper proposes a modified indirect boundary element technique and its application to electromagnetic field problems. In the modified indirect boundary element formulation, which is developed following a weighted residual approach, the fictitious source density, which appears in the integral equations of the method, is distributed on a surface which is exteriorly separated from the physical field boundary of the problem. This method does not require the evaluation of singular integrals and produces undeteriorated solutions at geometric discontinuities. By this approach, calculations can be performed using far fewer nodes by the direct boundary element method, and the results obtained have fairly good accuracy.

❑ Return to main document.