

Abstracts

Three-Dimensional Analysis of Electromagnetic Fields in Rectangular Waveguides by the Boundary Integral Equation Method

K. Ishibashi and E. Sawado. "Three-Dimensional Analysis of Electromagnetic Fields in Rectangular Waveguides by the Boundary Integral Equation Method." 1990 Transactions on Microwave Theory and Techniques 38.9 (Sep. 1990 [T-MTT] (Special Issue on Multifunction MMIC's and their System Applications)): 1300-1308.

A rapidly convergent expression of electromagnetic fields in rectangular waveguides is proposed for three dimensional electromagnetic field analysis by using the integral equation method. The new method is an improved image expansion method utilizing the rapid convergence of the orthogonal expansion method, and gives an accurate numerical value with a short computing time. Using the new method, when the electromagnetic fields in a waveguide with a circular post of arbitrary length were analyzed, goods results were obtained.

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