

Abstracts

Boundary Element Analysis of a Trapezoidal Transmission Line (Jun./Jul. 1993 [T-MTT])

B. Toland and T. Itoh. "Boundary Element Analysis of a Trapezoidal Transmission Line (Jun./Jul. 1993 [T-MTT])." 1993 Transactions on Microwave Theory and Techniques 41.6 (Jun./Jul. 1993 [T-MTT]): 1052-1056.

A full wave analysis of a transmission line with a trapezoidal cross section is described. The boundary element method (BEM) is used; and by making a convenient choice for the dyadic Green's function, the method is shown to be very efficient in comparison to appropriate alternative methods of analysis. Further, in this application, it is shown that for electrically small dimensions, spurious solutions are suppressed by the selection of integral equations. Finally, the analysis is verified by comparisons to calculated results from a vector finite element computer program, and some dispersion data are presented.

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