Abstracts

A General Treatment of Matched Terminations Using Integral Equations-Modeling and Applications

R. Gillard, J.-H. Corre, M. Drissi and J. Citerne. "A General Treatment of Matched Terminations Using Integral Equations-Modeling and Applications." 1994 Transactions on Microwave Theory and Techniques 42.12 (Dec. 1994, Part II [T-MTT] (1994 Symposium Issue)): 2545-2553.

This paper presents an original approach to simulate a broadband matched load in planar structures. Theoretically, the formulation appears as an additional boundary condition in the rigorous integral equations technique, and results in a partial rearrangement of the generalized impedance matrix in the moment method resolution. Practically, it enables the whole characterization of any planar multiport discontinuity in a procedure particularly realistic in regards to experimental measurement procedures. This new refinement is demonstrated to provide a versatile and powerful tool. Some typical applications are given which illustrate its numerous capabilities. The analysis of structures as different as a shielded microstrip step and an active receiving microstrip antenna is presented and successfully compared to experiments.

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