Abstracts

Dual Bounds Variational Formulation of Skin Effect Problems

P. Waldow and I. Wolff. "Dual Bounds Variational Formulation of Skin Effect Problems." 1987 MTT-S International Microwave Symposium Digest 87.1 (1987 Vol. I [MWSYM]): 333-336.

Accurate loss calculation of transmission lines is an important topic in monolithic microwave integrated circuits (MMICs). This paper describes a general variational approach for calculating dual bounds of the interesting circuit parameters. Using the dual bounds approach, the computational expense can be reduced drastically; the accuracy of the solution for the interesting circuit parameters R,L is guaranteed by the corresponding upper and lower bounds. Combined with an improved classical full-wave analysis, the method presented here is a good tool for the loss calculation due to the skin effect in microstrip like structures.

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