

Abstracts

Extraction of equivalent circuits for microstrip components and discontinuities using the genetic algorithm

P.L. Werner, R. Mittra and D.H. Werner. "Extraction of equivalent circuits for microstrip components and discontinuities using the genetic algorithm." 1998 Microwave and Guided Wave Letters 8.10 (Oct. 1998 [MGWL]): 333-335.

This letter introduces a new technique based on the application of the genetic algorithm (GA) for extracting the equivalent circuits-from measured or computed S-parameters-that can be inserted into SPICE simulations. The GA is a robust optimization tool that is shown to yield excellent results for discontinuities in microstrip lines, for instance a right-angled bend, and for microwave circuits, e.g., planar inductors and parallel plate capacitors.

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