Abstracts

A New Approach to the Computer-Aided Design of Nonlinear Networks and its Application to Microwave Parametric Frequency Dividers

A. Lipparini, E. Marazzi and V. Rizzoli. "A New Approach to the Computer-Aided Design of Nonlinear Networks and its Application to Microwave Parametric Frequency Dividers." 1982 Transactions on Microwave Theory and Techniques 30.7 (Jul. 1982 [T-MTT] (Joint Special Issue on GaAs IC's)): 1050-1058.

A new cost-effective method allowing nonlinear microwave circuits to be designed by computer is demonstrated by application to parametric frequency dividers. The method is based on frequency-domain representations of both nonlinear circuit components and network voltages and currents. A special optimization strategy determines the unknown parameters of the linear part of the circuit while estimating the need for a complete analysis of the nonlinear network at each step of the iterative process.

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