Abstracts

A New Frequency Domain Approach to the Analysis of Nonlinear Microwave Circuits

G.W. Rhyne and M.B. Steer. "A New Frequency Domain Approach to the Analysis of Nonlinear Microwave Circuits." 1985 MTT-S International Microwave Symposium Digest 85.1 (1985 [MWSYM]): 401-404.

Design of Microwave Monolithic Integrated Circuits (MMIC's) is currently limited by the lack of suitable analysis and computer aided design tools capable of efficiently handling large-scale analog nonlinear circuits. In this paper we address this problem and present a new multi-frequency technique for the analysis of nonlinear circuits. A novel feature of the method is that nonlinear analysis is performed entirely in the frequency domain using a generalized power series. We show how this technique can be applied to the analysis of MESFET circuits and, as an example, we consider gain saturation in a GaAs MESFET amplifier.

❑ Return to main document.