

Abstracts

A General Program for Steady State, Stability, and FM Noise Analysis of Microwave Oscillators

J.M. Paillot, J.C. Nallatamby, M. Hessane, R. Quere, M. Prigent and J. Rousset. "A General Program for Steady State, Stability, and FM Noise Analysis of Microwave Oscillators." 1990 MTT-S International Microwave Symposium Digest 90.3 (1990 Vol. III [MWSYM]): 1287-1290.

This paper presents two new algorithms for nonlinear autonomous circuits CAD. In the first, a symbolic simulator is used to calculate the possible oscillations frequencies of the circuit, then the high level behaviour of the oscillator is determined by the harmonic balance method extended to autonomous circuits. The second algorithm is based on the conversion matrix method, which allows simulation of nonlinear microwave oscillators phase and amplitude noise spectra with linear and nonlinear correlated noise sources.

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