Abstracts

Simulation of the Accurate Near-Carrier Phase Noise in Microwave MESFET Oscillators

C.-L. Chen, X.-N. Hong and B.-X. Gao. "Simulation of the Accurate Near-Carrier Phase Noise in Microwave MESFET Oscillators." 1995 MTT-S International Microwave Symposium Digest 95.3 (1995 Vol. III [MWSYM]): 1519-1522.

The paper presents a new and efficient approach to the simulation of accurate near-carrier phase noise in free-running microwave MESFET oscillators. A kind of noise analysis model of the oscillators is introduced, in which a complete nonlinear noise model of the MESFET is included. An efficient algorithm is proposed to predict the accurate near-carrier phase noise in the microwave MESFET oscillators by nonlinear current method. Comparison between simulations and measurements proves that this approach is suitable for microwave CAD and is excellent in both efficiency and precision in predicting SSB phase noise of the microwave MESFET oscillators.

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