Abstracts

Techniques for oscillator nonlinear optimization and phase-noise analysis using commercial harmonic-balance software

S. Ver Hoeye, A. Suarez and J. Portilla. "Techniques for oscillator nonlinear optimization and phase-noise analysis using commercial harmonic-balance software." 2000 MTT-S International Microwave Symposium Digest 00.1 (2000 Vol. I [MWSYM]): 95-98.

Two new techniques for microwave oscillator design are presented for user implementation on commercial harmonic-balance simulators: an easy-to-use nonlinear optimization technique and a phase-noise analysis technique that makes use of the impulse-sensitivity function. This method is implemented for the first time on a harmonic-balance simulator. Simulation results of a MMIC VCO in the Ku-band have been compared with measurements.

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