Abstracts

Advanced Piecewise-Harmonic-Balance Noise Analysis of Nonlinear Microwave Circuits with Application to Schottky-Barrier Diodes

V. Rizzoli, F. Mastri and D. Masotti. "Advanced Piecewise-Harmonic-Balance Noise Analysis of Nonlinear Microwave Circuits with Application to Schottky-Barrier Diodes." 1992 MTT-S International Microwave Symposium Digest 92.1 (1992 Vol. I [MWSYM]): 247-250.

The paper introduces a number of significant advances in harmonic-balance noise analysis algorithms, and discusses their incorporation in a general-purpose nonlinear circuit simulator. The new capabilities allow for the first time the implementation of a full noise model of the Schottky diode, including the excess noise produced by hot electron generation, intervalley scattering, and trapping effects, and accounting for the series resistance nonlinearity.

❑ Return to main document.