# Abstracts

## An analytical approach in calculation of noise spectrum in microwave oscillators based on harmonic balance

*E. Mehrshabi and F. Farzaneh. "An analytical approach in calculation of noise spectrum in microwave oscillators based on harmonic balance." 2000 Transactions on Microwave Theory and Techniques 48.5 (May 2000 [T-MTT]): 822-831.*

In this paper, a novel method for nonlinear analysis of noise in microwave oscillators is presented. Based on harmonic balance, the method is general from the point-of-view of circuit topology, noise sources spectral distribution, and their cross correlation. In this method, the effects such as frequency conversion and frequency modulation are considered simultaneously in a unified treatment. Relatively precise estimations for the output signal spectral density of an oscillator are practically obtained.

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