Abstracts

Automatic Generation of Starting Values for the Simulation of Microwave Oscillators by Frequency Domain Techniques

M. Fillebock, M. Schwab and P. Russer. "Automatic Generation of Starting Values for the Simulation of Microwave Oscillators by Frequency Domain Techniques." 1993 Transactions on Microwave Theory and Techniques 41.5 (May 1993 [T-MTT]): 809-813.

In this paper a new approach to the start-up problem inherent to the large-signal analysis of autonomous circuits in the frequency domain is presented. By insertion of a simple network, depending on one parameter, the oscillator is damped to the stability limit where a linear analysis yields good results. The steady state of the undamped oscillator is then obtained by a continuation method corresponding to the successive removal of the damping network. With this procedure the degenerate solution may be excluded in a straightforward manner.

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