Abstracts

Stability Analysis of Analog Frequency Dividers in the Quasi-Periodic Regime

A. Suarez, J.C. Sarkissian, R. Sommet, E. Ngoya and R. Quere. "Stability Analysis of Analog Frequency Dividers in the Quasi-Periodic Regime." 1994 Microwave and Guided Wave Letters 4.5 (May 1994 [MGWL]): 138-140.

A simulation technique allowing the determination of all the steady state regimes of synchronized devices, including the quasi-periodic operation, is presented here. Combined with a continuation method, it provides the circuit quasi-periodic solution paths as a function of any parameter of interest. The different bifurcation loci on a two-parameters space, obtained here both from periodic and quasi-periodic simulations, allow an easy prediction and deep understanding of the circuit behavior. By means of the proposed method, the possible working regimes of a M.M.I.C analog frequency divider have been determined and experimentally confirmed.

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