

Nonlinear design of microwave oscillators based on electromagnetic analysis

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The paper introduces a new approach to the computer-aided design of microwave oscillators relying upon electromagnetic analysis for the characterization of the passive part of the circuit. The design is formulated as a nonlinear system-solving problem, instead of an optimization as in conventional CAD, and the solution is found by a norm-reducing Newton iteration, with a drastic reduction in the total number of EM analyses.

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