

Abstracts

New Design Approach for Wide-Band FET Voltage-Controlled Oscillators

W. El-Kamali, J.-P. Grimm, R. Meierer and C. Tsironis. "New Design Approach for Wide-Band FET Voltage-Controlled Oscillators." 1986 Transactions on Microwave Theory and Techniques 34.10 (Oct. 1986 [T-MTT] (Special Issue on New and Future Applications of Microwave Systems)): 1059-1063.

A new, computer-assisted method, based on small-signal "S" parameters, is described for the systematic design of wide-band VCO's. The method has been applied to design 6-12-GHz and 12-18-GHz GaAs FET VCO's, and it has shown an excellent capability to predict the maximum obtainable tuning bandwidth. The tuning linearity of the VCO's has also been optimized Delta f/f <= ±0.4 percent over a 3-GHz bandwidth.

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