

Abstracts

Design Theory for Broad-Band YIG-Tuned FET Oscillators

R.J. Trew. "Design Theory for Broad-Band YIG-Tuned FET Oscillators." 1979 Transactions on Microwave Theory and Techniques 27.1 (Jan. 1979 [T-MTT]): 8-14.

Design techniques that have been successfully used on the development of X-band GaAs FET YIG-tuned oscillators are presented. The design procedure results in the maximization of the oscillator bandwidth. Small-signal device characterization is utilized and accurately predicts the oscillator bandwidths. Spurious oscillation conditions are discussed, and design techniques are prescribed for eliminating spurious oscillations in both the active circuit and resonator. The operation of an experimental oscillator verifies the design procedure.

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