

Abstracts

Frequency Stabilization of a Microwave Oscillator with an External Cavity

I. Goldstein. "Frequency Stabilization of a Microwave Oscillator with an External Cavity." 1957 Transactions on Microwave Theory and Techniques 5.1 (Jan. 1957 [T-MTT]): 57-62.

This paper describes a procedure by which a cavity stabilizer may be designed for a microwave oscillator. Formulas are derived for the following essential design parameters: 1) stabilization factor; 2) stabilization range; 3) vswr of the stabilizer circuit with cavity tuned; 4) vswr of the stabilizer circuit with the cavity detuned; and 5) insertion loss of the cavity assembly. The validity of designing with the derived relations has been experimentally confirmed.

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