

Abstracts

Stability Criteria for Phase-Locked Oscillators

G.H.B. Hansson and K.I. Lundstrom. "Stability Criteria for Phase-Locked Oscillators." 1972 Transactions on Microwave Theory and Techniques 20.10 (Oct. 1972 [T-MTT]): 641-645.

Stability criteria for negative conductance oscillators or amplifiers are derived in terms of the total circuit admittance. A figure of merit for phase locking at small injected powers is derived. The influence of large injected signals is studied. The conclusions drawn from the calculations are in good qualitative agreement with experimental observations on phase-locked IMPATT-diode oscillators.

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