

Abstracts

GaAs FET Applications for Injection-Locked Oscillators and Self-Oscillating Mixers (Jul. 1979 [T-MTT])

Y. Tajima. "GaAs FET Applications for Injection-Locked Oscillators and Self-Oscillating Mixers (Jul. 1979 [T-MTT])." 1979 *Transactions on Microwave Theory and Techniques* 27.7 (Jul. 1979 [T-MTT]): 629-632.

Injection-locked oscillators (ILO's) using GaAs FET's are described experimentally and theoretically, showing that a wider locking range can be obtained with transmission-type ILO's than with refection-type, assuming $Q/\text{sub ext}/$, to the load to be the same in each case. Frequency-stabilized FET oscillators are discussed in terms of the advantages gained by terminating the gate port by a 50- Ω load. Functioning as a self-oscillating mixer, the circuit showed a 9.5-dB (DSB) noise figure.

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