

Hold-In Characteristics of an Extended Range Gunn Oscillator System

B.N. Biswas, S.K. Ray, K. Pramanik, M. Sadhu and D. Bandyopadhyay. "Hold-In Characteristics of an Extended Range Gunn Oscillator System." 1983 Transactions on Microwave Theory and Techniques 31.3 (Mar. 1983 [T-MTT]): 271-276.

This paper describes a new Gunn oscillator system having an additional arrangement for controlling the instantaneous frequency of the oscillator through an automatic frequency control circuit. By utilizing this new technique, based upon the principle of self tracking, the locking bandwidth of an injection-locked Gunn oscillator can be increased to a huge extent without affecting its stability. Experimental observations are found to be in good agreement with the conclusions of the analytical approach.

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