Abstracts

Subharmonically Injection Phase-Locked Gunn Oscillator Experiments (Correspondence)

H.G. Oltman and C.H. Nonnemaker. "Subharmonically Injection Phase-Locked Gunn Oscillator Experiments (Correspondence)." 1969 Transactions on Microwave Theory and Techniques 17.9 (Sep. 1969 [T-MTT]): 728-729.

A GaAs microwave diode oscil-lator has been subharmonically injection phase locked at frequency ratios as low as 1:6. Maximum locking ranges are less than those observed when there is direct frequency locking, and decrease with decreasing ratio. The locking range-locking gain slopes are all greater than one decade per 20 dB of locking gain. The maximum locking range at a subharmonic ratio of 1:2 is 0.6 percent and is only slightly less than that observed by others at 1:1 ratio. Under certain conditions, simultaneous Gunn oscillating at a frequency near the subharmonic injection frequency was ohserved.

❑ Return to main document.