

Abstracts

Millimeter-Wave Monolithic GaAs IMPATT VCO (Dec. 1988 [T-MTT])

N.-L. Wang, W. Stacey, R.C. Brooks, K. Donegan and W.E. Hoke. "Millimeter-Wave Monolithic GaAs IMPATT VCO (Dec. 1988 [T-MTT])." 1988 Transactions on Microwave Theory and Techniques 36.12 (Dec. 1988 [T-MTT] (1988 Symposium Issue)): 1942-1947.

A monolithic voltage-controlled oscillator (VCO) has been constructed using a GaAs double-drift Read IMPATT as the active element and a similar diode biased below breakdown as the varactor. The chip produced 120 mW peak power over an electronically controlled tuning range between 47 and 48 GHz. A computer analysis based on characterized circuit parameters has been used to predict the performance of the chip.

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