

Abstracts

The Operation of S-Band TRAPATT Oscillators with Tuning at Multiple Harmonic Frequencies (Short Papers)

R.J. Trew, G.I. Haddad and N.A. Masnari. "The Operation of S-Band TRAPATT Oscillators with Tuning at Multiple Harmonic Frequencies (Short Papers)." 1975 Transactions on Microwave Theory and Techniques 23.12 (Dec. 1975 [T-MTT] (1975 Symposium Issue)): 1043-1047.

A simplified TRAPATT oscillator model that allows the investigation of arbitrary terminal waveforms was utilized to investigate realistic TRAPATT waveforms and the tuning conditions necessary for high-efficiency operation. The effects of the higher harmonics on oscillator frequency and efficiency were studied. Circuit impedance measurements of S-band TRAPATT oscillators support the theoretical predictions.

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