

# Abstracts

## The Ridged-Waveguide-Cavity Gunn Oscillator for Wide-Band Tuning (Short Papers)

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S. Mizushima and T. Ohsuka. "The Ridged-Waveguide-Cavity Gunn Oscillator for Wide-Band Tuning (Short Papers)." 1976 *Transactions on Microwave Theory and Techniques* 24.5 (May 1976 [T-MTT]): 257-259.

A method of construction of the Gunn oscillator for wideband frequency tuning has been developed using the ridged-waveguide cavity. The ridged waveguide can be designed to provide the dominant mode with a wide bandwidth, and also to provide the higher order cutoff modes whose resonance is a limiting factor of the tuning range for oscillators of conventional design with reduced stored energies to permit wide-band tuning. A prototype oscillator having a packaged X-band diode demonstrated an 8-18-GHz tuning range.

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