

# Abstracts

## A Nonlinear Analysis of Schottky-Barrier Diode Upconverters

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*M. Akaike and K. Ohnishi. "A Nonlinear Analysis of Schottky-Barrier Diode Upconverters." 1977 Transactions on Microwave Theory and Techniques 25.12 (Dec. 1977 [T-MTT] (1977 Symposium Issue)): 1059-1062.*

A nonlinear computer analysis of Schottky-barrier diode upconverters by means of obtaining the steady-state solutions of differential equations characterized by the diode and connected circuits is shown. Both the nonlinearities of barrier resistance and capacitance are taken into consideration. The waveforms of the voltage and current at the diode, impedance, and input-output power relationships are computed for 120-GHz upconverters.

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