Abstracts

A Low Noise 80 GHz Silicon IMPATT Oscillator Highly Stabilized with a Transmission Cavity

S. Nagano, S. Ohnaka, K. Sekido and K. Ayaki. "A Low Noise 80 GHz Silicon IMPATT Oscillator Highly Stabilized with a Transmission Cavity." 1974 S-MTT International Microwave Symposium Digest of Technical Papers 74.1 (1974 [MWSYM]): 323-326.

Design consideration and experimental performance of a new transmission-cavity-controlled silicon IMPATT diode oscillator for millimeter wavelength are described. The oscillator has the frequency stability of 1 x 10/sup -4/ over temperature variation 0° - 50°C and remarkably improved noise characteristics, and is free from troublesome moding problems. Discussion is made on the circuit design that satisfies frequency stabilization, noise reduction, mode stabilization and increase of circuit efficiency.

❑ Return to main document.