Abstracts

Noise Measurements of M-Band (75-110 GHz) CW GaAs Gunn and Silicon IMPATT Oscillators

J. Ondria. "Noise Measurements of M-Band (75-110 GHz) CW GaAs Gunn and Silicon IMPATT Oscillators." 1980 MTT-S International Microwave Symposium Digest 80.1 (1980 [MWSYM]): 24-26.

This paper presents AM and FM noise data measured on commercially available CW Gunn and silicon IMPATT oscillators, and shows characteristic differences between these sources having similar external quality factors. Measured phase noise power spectral density of free running and injection locked IMPATT oscillators are shown to compare favorably with theoretical values predicted by a dynamic feedback servo model. The system used measure external quality factor, Q/sub ex/, and the noise measuring systems employed in these investigations are described briefly.

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