

Improvement of Nonlinear Distortion in an IMPATT Stable Amplifier

H. Komizo, Y. Daido, H. Ashida, Y. Ito and M. Honma. "Improvement of Nonlinear Distortion in an IMPATT Stable Amplifier." 1973 Transactions on Microwave Theory and Techniques 21.11 (Nov. 1973 [T-MTT] (Special Issue on Solid-State Microwave Power Amplifiers)): 721-728.

More than a 40-dB third-order intermodulation product (IMP) has been achieved in a 13-GHz-band 2-stage IMPATT stable amplifier with 21-dBm output level and 11-dB gain, using a diode bias-current compensation technique. Theoretical calculations also verified the experimental data. This technique will enable the IMPATT stable amplifier to be used in a multicarrier AM transmission system.

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