Abstracts

Broadbard and Broad Dynamic Range GaAs Dual-Gate MESFET Linearize for TWTA and SSPA Used in Satellite Transponder

M. Kumar, J.C. Whartenby and H.J. Wolkstein. "Broadbard and Broad Dynamic Range GaAs Dual-Gate MESFET Linearize for TWTA and SSPA Used in Satellite Transponder." 1985 MTT-S International Microwave Symposium Digest 85.1 (1985 [MWSYM]): 609-612.

This paper presents a broadband predistortion technique using dual-gate FETs to linearize the Traveling Wave Tube Amplifiers (TWTA) and Solid State Power Amplifiers (SSPA) used in satellite transponders. The results for a linearized TWTA operating over 11.7-12.2 GHz and a linearized SSPA operating over 3.8-4.2 GHz are presented. The improvement in linearity has been achieved over a broad dynamic range of output power.

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