Abstracts

Segmented and Dual-Gate MESFET's for Variable Gain Power Amplifiers in GaAs MMIC

K.H. Snow, J.J. Komiak and D.A. Bates. "Segmented and Dual-Gate MESFET's for Variable Gain Power Amplifiers in GaAs MMIC." 1988 Transactions on Microwave Theory and Techniques 36.12 (Dec. 1988 [T-MTT] (1988 Symposium Issue)): 1976-1985.

The design and performance of C-, X-, and K/sub u/-band GaAs MMIC variable gain and variable power amplifier circuits using an improved segmented dual-gate MESFET device with binary scaled gate width ratios are reported. The demonstrated 35 dB control range, flat octave band gain response, and small incidental phase variation are significantly superior to conventional analog controlled devices. First pass performance of these digitally controlled circuits demonstrates the maturation of MMIC technology.

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