Abstracts

Wideband Variable Gain Amplifiers in GaAs MMIC (1988 Vol. I [MWSYM])

K.H. Snow, J.J. Komiak and D.A. Bates. "Wideband Variable Gain Amplifiers in GaAs MMIC (1988 Vol. I [MWSYM])." 1988 MTT-S International Microwave Symposium Digest 88.1 (1988 Vol. I [MWSYM]): 183-187.

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 is reported. The demonstrated 35 dB control range, flat octave band gain response, and less than 10 degrees incidental phase variation as a function of gain/attenuation state over a 20 dB control range, is 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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