Abstracts

Dual-Gate MESFET Variable-Gain Constant-Output Power Amplifier

M. Kumar and H.-C. Huang. "Dual-Gate MESFET Variable-Gain Constant-Output Power Amplifier." 1981 Transactions on Microwave Theory and Techniques 29.3 (Mar. 1981 [T-MTT]): 185-189.

The use of a dual-gate GaAs FET as a broad-band variable gain and constant output power amplifier is described. A five-stage variable gain-constant output power amplifier has been realized which provides a constant output power of 3 dBm (±2 dB) for a large dynamic range of input power of -45 dBm to 0 dBm over the 4-8-GHz band. The amplifier uses a feed-forward AGC circuit for preadjusting the gain of the amplifier stages depending upon the strength of the signal at the output of preceding stages. The amplifier has the capability of detecting two or more simultaneous RF pulses having different amplitudes and separated by more than 15-ns time intervals. Also it preserves any amplitude modulation of the individual pulse.

❑ Return to main document.