

Abstracts

A Microwave Phase and Gain Controller with Segmented-Dual-Gate MESFETs in GaAs MMICs

Y.C. Hwang, Y.K. Chen, R.J. Naster and D. Temme. "A Microwave Phase and Gain Controller with Segmented-Dual-Gate MESFETs in GaAs MMICs." 1984 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 84.1 (1984 [MCS]): 1-5.

A novel segmented-dual-gate MESFET device which provides precise gain control over broad microwave bandwidth by using prescribed gate-width-ratio is presented. The digitally-controlled precision microwave gain scaler has potential application as an ultra-wide band microwave attenuator or active microwave phase shifter. The design and test results of GaAs MMIC active attenuator and hybrid phase shifter are described.

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