Abstracts

Broad-Band Active Phase Shifter Using Dual-Gate MESFET (Short Papers)

M. Kumar, R.J. Menna and H.-C. Huang. "Broad-Band Active Phase Shifter Using Dual-Gate MESFET (Short Papers)." 1981 Transactions on Microwave Theory and Techniques 29.10 (Oct. 1981 [T-MTT]): 1098-1102.

This paper describes a broad-band, dual-gate MESFET phase shifter (vector generator), operating over the 4- 8-GHz frequency band and capable of a continuous phase shift and multiplicity of modulations including digital phase shift and amplitude modulation directly, and indirectly (with additional information processing circuits), single sideband modulation, frequency modulation, and phase modulation, etc. A dual-gate FET is used as a variable gain amplifier and phase shift is obtained by complex addition of two orthogonal variable vectors. The principle of the phase shifter and the experimental results are presented.

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