

Abstracts

A DC-18GHz GaAs MESFET Monolithic Variable Slope Gain-Equalizer IC

H.J. Sun and B.C. Morley. "A DC-18GHz GaAs MESFET Monolithic Variable Slope Gain-Equalizer IC." 1989 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 89.1 (1989 [MCS]): 79-82.

A broadband GaAs MESFET gain-equalizer with variable linear slope control has been developed, to be reported of the first time for this type of circuit. The IC uses a modified bridged-T configuration. It provides an attenuation slope of -0.67dB/GHz at the maximum linear slope state with a minimum insertion loss of 2.7dB at 18 GHz , and a deviation of linearity less than 0.25dB from DC to 18GHz . The slope is electrically variable from -0.67dB/GHz to 0.0dB/GHz and, upward to $+0.22\text{dB/GHz}$. The input and output VSWRs are less than 2:1 over the entire frequency and control range.

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