Abstracts

Broad-Band Medium-Power Amplification in the 2-12.4-GHz Range with GaAs MESFET's

D.P. Hornbuckle and L.J. Kuhlman, Jr.. "Broad-Band Medium-Power Amplification in the 2-12.4-GHz Range with GaAs MESFET's." 1976 Transactions on Microwave Theory and Techniques 24.6 (Jun. 1976 [T-MTT] (Special Issue on Microwave Field-Effect Transistors)): 338-342.

The design of 100-mW GaAs MESFET amplifiers for the 2-6.2-GHz and 5.9-12.4-GHz bands is described. Both small-signal and large-signal matching considerations are presented to obtain a minimum 10-dB gain using a 1-µm GaAs MESFET. Three combination techniques, direct paralleling, resistive combiners, and hybrid quadrature couplers are discussed. Finally, considerations for absolute stability are presented.

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