

V-Band Monolithic Power MESFET Amplifiers

G. Hegazi, H.-L. Hung, F. PHELLEPS, L. Holdeman, A. Cornfeld, T. Smith, J. Allison and H. Huang. "V-Band Monolithic Power MESFET Amplifiers." 1988 MTT-S International Microwave Symposium Digest 88.1 (1988 Vol. I [MWSYM]): 409-412.

Monolithic GaAs power amplifiers have been developed at V-band. A single-stage amplifier provided over 4-dB gain from 50 to 56 GHz, with output power of 95 mW and a power-added efficiency of 11 percent at 55 GHz. A cascaded amplifier achieved 16.2-dB gain and output power of 85 mW. These results may represent the highest power/gain yet reported from V-band power monolithic microwave integrated circuits (MMICs).

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