

Abstracts

K/sub a/-Band Monolithic GaAs Power FET Amplifiers (1987 Vol. I [MWSYM])

H.-L.A. Hung, A. Ezzeddine, L.B. Holdeman, F.R. Phelleps, J.F. Allison, A.B. Cornfeld, T. Smith and H.C. Huang. "K/sub a/-Band Monolithic GaAs Power FET Amplifiers (1987 Vol. I [MWSYM])." 1987 MTT-S International Microwave Symposium Digest 87.1 (1987 Vol. I [MWSYM]): 89-92.

GaAs power MMIC amplifiers with an optimized FET structure operating at K/sub a/-band have achieved a small-signal gain of 4.3 dB and an output power of 481 mW. These 1.7 x 0.9-mm MMICs include DC-blocking capacitors and bias networks. A cascaded four-stage amplifier has achieved a power gain of 18.9 dB and output power of 437 mW at 28 GHz. These results may represent the highest power/gain yet demonstrated from cascaded stages of MMICs with on-chip bias and DC blocking at K/sub a/-band.

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