Abstracts

A 1.8-W, 6-18-GHz HBT MMIC Power Amplifier with 10-dB Gain and 37% Peak Power-Added Efficiency

M. Salib, A. Gupta, F. Ali and D. Dawson. "A 1.8-W, 6-18-GHz HBT MMIC Power Amplifier with 10-dB Gain and 37% Peak Power-Added Efficiency." 1993 Microwave and Guided Wave Letters 3.9 (Sep. 1993 [MGWL]): 325-326.

A two-stage 6-18-GHz high-efficiency AlGaAs-GaAs HBT MMIC power amplifier has been designed and tested. At 7-V collector bias, this fully matched monolithic amplifier delivered an output power of 1.8 ± 0.6 W over the band. The peak output power was 2.45 W at 13 GHz with an associated gain of 11.1 dB and 36.7% power-added efficiency (PAE). Amplifiers from five different wafers showed similar performance.

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