

Compact High Gain W-Band and V-Band Pseudomorphic HEMT MMIC Power Amplifiers

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A monolithic, three-stage W-band power amplifier, developed using pseudomorphic HEMTs, has exhibited record gain, power per unit gate width, and power per unit area. The amplifier has a small signal gain of 22-dB and an output power of 37-mW with an associated gain of 10-dB. A three-stage V-band power amplifier with record gain and power per unit area has also been fabricated on the same wafer with a small signal gain of 16-dB and an output power of 112-mW with an associated gain of 8-dB.

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