

Abstracts

One Watt Q-Band Class A Pseudomorphic HEMT MMIC Amplifier

T.H. Chen, P.D. Chow, K.L. Tan, J.A. Lester, G. Zell and M. Huang. "One Watt Q-Band Class A Pseudomorphic HEMT MMIC Amplifier." 1994 MTT-S International Microwave Symposium Digest 94.2 (1994 Vol. II [MWSYM]): 805-808.

A broadband monolithic power amplifier has been developed using 0.15 μm T-gate pseudomorphic InGaAs HEMT. When biased for class A operation, the amplifier has a measured small signal gain of 12.4 to 13.1 dB in the frequency range of 40 to 46 GHz. Saturated output power of 1.01 watts with 7.03 dB associated gain and 15.1% power-added efficiency at 44.5 GHz has also been measured.

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