Abstracts

Highly Efficient Compact Q-Band MMIC Power Amplifier Using 2-mil Substrate and Partially-Matched Output (1996 [MCS])

J.A. Lester, Y. Hwang, J. Chi, R. Lai, M. Biedenbender and P.D. Chow. "Highly Efficient Compact Q-Band MMIC Power Amplifier Using 2-mil Substrate and Partially-Matched Output (1996 [MCS])." 1996 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 98. (1996 [MCS]): 171-173.

Presented is an 850 mW Q-Band PHEMT MMIC power amplifier with a peak efficiency of 34% at 45.5 GHz, believed to be the highest reported at this power level and frequency. The compact amplifier (3.6 mm by 1.6 mm) features the use of a thinned 2-mil GaAs substrate and off-chip output matching and combining on a 5-mil alumina substrate.

❑ Return to main document.