

Abstracts

C-Band 10 W MMIC Class-A Amplifier Manufactured Using the Refractory SAG Process

I.J. Bahl, R. Wang, A.E. Geissberger, E.L. Griffin and C. Andricos. "C-Band 10 W MMIC Class-A Amplifier Manufactured Using the Refractory SAG Process." 1989 Transactions on Microwave Theory and Techniques 37.12 (Dec. 1989 [T-MTT] (1989 Symposium Issue)): 2154-2158.

This paper describes the design, fabrication, and test results of a C-Band single-chip GaAs MMIC class-A amplifier manufactured using the ITT multifunctional self-aligned gate (MSAG) process. The amplifier demonstrates a 10 W power output (0.625 W/mm power density) at 5.5 GHz with an associated gain of 5 dB and a power-added efficiency of 36 percent. The average functional yield of the IC was above 70 percent. To our knowledge, these results exceed the best published results for C-band power MMIC amplifiers.

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