

Abstracts

A Monolithic Direct-Coupled GaAs Amplifier with 12-GHz Bandwidth

S.B. Moghe, H.-J. Sun, T. Andrade, C.C. Huang and R. Goyal. "A Monolithic Direct-Coupled GaAs Amplifier with 12-GHz Bandwidth." 1984 Transactions on Microwave Theory and Techniques 32.12 (Dec. 1984 [T-MTT] (1984 Symposium Issue)): 1698-1704.

A two-stage feedback amplifier with direct connection between two stages has been developed for the 0.1-12-GHz frequency band. The measured gain is 10 ± 1 dB with 2.5:1 input and 1.7:1 output VSWR. The measured minimum power output at 1-dB gain compression and maximum noise figure are 14 dBm and 9 dB, respectively, from 2 to 12 GHz. The chip size is less than 0.5×1.0 mm² and this area contains complete RF and bias circuitry. The amplifier also provides more than 25 dB of AGC capability.

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