Abstracts

Direct-Coupled GaAs Monolithic IC Amplifiers

S. Hori, K. Kamei, M. Tatematsu, T. Chigira, H. Ishimura and S. Okano. "Direct-Coupled GaAs Monolithic IC Amplifiers." 1982 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 82.1 (1982 [MCS]): 16-19.

A two-stage GaAs FET monolithic amplifier has been developed that exhibits a noise figure of 2dB and a gain of 20dB at frequencies from 0.3 to 1.5 GHz. The FET gate width is optimized to 1mm to lower the noise figure for a 50 Omega signal source impedance. A direct-coupled scheme is used for chip size reduction. All the circuit elements such as FETs, Schottky diodes and resistors are fabricated by using selective ion-implantation for realizing a planar structure.

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