

Abstracts

A Monolithic GaAs DC to 2 GHz Feedback Amplifier

W.C. Petersen, A.K. Gupta and D.R. Decker. "A Monolithic GaAs DC to 2 GHz Feedback Amplifier." 1982 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 82.1 (1982 [MCS]): 20-22.

Resistive feedback in low frequency FET amplifiers is an attractive method of simultaneously attaining gain flatness and excellent input/output VSWR over wide bandwidths. Combined with simple matching circuitry, the feedback approach allows the design of general purpose utility amplifiers requiring much less chip area than when conventional matching techniques are used. The 1.5 by 1.5 millimeter chip described in this paper provides $10 \text{ dB} \pm 1 \text{ dB}$ gain, excellent input and output VSWR, and saturated output power in excess of +20 dBm frcm below 5 MHz to 2 GHz. The noise figure is approximately 2 dB when biased for minimum noise, with an associated gain of 9 dB.

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