Abstracts

A Monolithic GaAs DC to 2-GHz Feedback Amplifier (Short Papers)

W.C. Petersen, A. Gupta and D.R. Decker. "A Monolithic GaAs DC to 2-GHz Feedback Amplifier (Short Papers)." 1983 Transactions on Microwave Theory and Techniques 31.1 (Jan. 1983 [T-MTT] (Joint Special Issue on Monolithic Microwave IC's)): 27-29.

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 circnitry, 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-mm chip desenbed in this paper provides 10-dB ±1-dB gain, excellent input and output VSWR, and saturated output power in excess of +20 dBm, from 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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