Abstracts

A 12-dB High-Gain Monolithic Distributed Amplifier

R.A. LaRue, S.G. Bandy and G.A. Zdasiuk. "A 12-dB High-Gain Monolithic Distributed Amplifier." 1986 Transactions on Microwave Theory and Techniques 34.12 (Dec. 1986 [T-MTT] (1986 Symposium Issue)): 1542-1547.

By reducing gate and drain line loss associated with the active elements of a distributed amplifier, significant gain improvements are possible. Loss reduction is achieved in a novel monolithic distributed amplifier by replacing the common-source FET's of the conventional design with cascode elements having a gate length of one-quarter micron. A record gain of over 10 dB from 2 to 18 GHz and a noise figure of 4 dB at 7 GHz have been achieved on a working amplifier. Details of the design and fabrication process are described.

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