Abstracts

A 2-20 GHz, High-Gain, Monolithic HEMT Distributed Amplifier (1987 [MCS])

C. Nishimoto, R. LaRue, S. Bandy, M. Day, J. Eckstein, C. Webb, C. Yuen and G. Zdasiuk. "A 2-20 GHz, High-Gain, Monolithic HEMT Distributed Amplifier (1987 [MCS])." 1987 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 87.1 (1987 [MCS]): 109-113.

A low-noise 2-20 GHz monolithic distributed amplifier utilizing 0.3-micron gate-length HEMT devices has achieved 11-dB ± 0.5 dB of gain. This represents the highest gain reported for a distributed amplifier using single FET gain cells. A record low noise figure of 3 dB was achieved mid-band (7-12 GHz). The circuit design utilizes five HEMT transistors of varying width with gates fabricated by E-beam lithography.

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