

Abstracts

A 2-20 GHz, High-Gain, Monolithic HEMT Distributed Amplifier (1987 Vol. I [MWSYM])

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 Vol. I [MWSYM])." 1987 MTT-S International Microwave Symposium Digest 87.1 (1987 Vol. I [MWSYM]): 155-158.

A low-noise 2-20 GHz monolithic distributed amplifier utilizing 0.3-micron gate-length HEMT devices has achieved $11\text{-dB} \pm 0.5\text{ dB}$ 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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