Abstracts

X-Band Monolithic Variable Gain Series Feedback LNA

D.D. Heston and R.E. Lehmann. "X-Band Monolithic Variable Gain Series Feedback LNA." 1988 Microwave and Millimeter-Wave Monolithic Circuits Symposium Digest 88.1 (1988 [MCS]): 79-82.

An X-band monolithic four-stage low-noise amplifier (LNA) employing series feedback has demonstrated a 1.8-dB noise figure with 33.8-dB gain and greater than 40-dB gain control capability. This design features single- and dual-gate FETs (DGFETs) on the same chip. Gain control is achieved without degradation of input or output VSWR. The two input stages use single-gate FETs to achieve minimum noise figure, while the output stages employ DGFETs for gain control capability.

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