

Abstracts

An MMIC Linearized Amplifier Using Active Feedback (1993 Vol. I [MWSYM])

J.C. Pedro and J. Perez. "An MMIC Linearized Amplifier Using Active Feedback (1993 Vol. I [MWSYM])." 1993 MTT-S International Microwave Symposium Digest 93.1 (1993 Vol. I [MWSYM]): 95-98.

A single 2.4x2.4 mm² MMIC chip includes a L-band tuned MESFET Main Amplifier, and a nonlinear feedback path intended to improve its carrier-to-intermodulation margin, C/I. The circuit uses a novel concept of amplifier IMD cancellation, in which a small area MESFET based linearizer is directly applied to the terminals of the main active device. The linearizer provides a 15dB improvement on C/I, over a relative bandwidth of more than 12%. This is, to our knowledge, the first linearized amplifier integrated in MMIC form.

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