Abstracts

Lossless Broad-Band Monolithic Microwave Active Inductors (Dec. 1989 [T-MTT])

S. Hara, T. Tokumitsu and M. Aikawa. "Lossless Broad-Band Monolithic Microwave Active Inductors (Dec. 1989 [T-MTT])." 1989 Transactions on Microwave Theory and Techniques 37.12 (Dec. 1989 [T-MTT] (1989 Symposium Issue)): 1979-1984.

Lossless broad-band microwave active inductors for general-purpose use in microwave circuits are proposed and their characteristics are discussed. These active inductors are composed of a common-source cascode FET and a feedback FET, and operate in a wide frequency range with very low series resistance. A maximum Q factor of 65 is obtained. Theoretically, it can reach infinity. Furthermore, the inductance value can be controlled by an external voltage control.

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