Abstracts

Monolithic tunable active inductor with independent Q control

C. Leifso, J.W. Haslett and J.G. McRory. "Monolithic tunable active inductor with independent Q control." 2000 Transactions on Microwave Theory and Techniques 48.6 (Jun. 2000 [T-MTT] (Mini-Special Issue on the 1999 IEEE Radio and Wireless Conference (RAWCON))): 1024-1029.

A 1.1-GHz fully integrated GaAs MESFET active inductor is presented in this paper. Both the inductance and loss resistance are tunable with the inductance independent of series loss tuning. The measured loss resistance is tunable over a -10- to +15-/spl Omega/ range with a corresponding change in inductance of less than 10% at 100 MHz and less than 4% for frequencies above 500 MHz. The inductance is tunable from 65 to 90 nH. Considerably larger bandwidths can be achieved depending on the fabrication technology employed and the intended application of the circuit.

❑ Return to main document.