Abstracts

Frequency-dependent series resistance of monolithic spiral inductors

Min Park, Chung-Hwan Kim, Cheon Soo Kim, Mun-Yang Park, Sung-Do Kim, Young-Sik Youn and Hyun Kyu Yu. "Frequency-dependent series resistance of monolithic spiral inductors." 1999 Microwave and Guided Wave Letters 9.12 (Dec. 1999 [MGWL]): 514-516.

We present the analysis of the frequency dependent inductor series resistance (R/sub s/). The high-frequency effects on series resistance have been confirmed with measured and simulated data of inductors having different geometric and process parameters in order to predict and optimize the high-performance inductors used in radio frequency (RF) integrated circuits (ICs). The results show that the magnetic field effect seems to be a dominant factor in determining the R/sub s/ in the high-frequency region.

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