

Abstracts

Modeling of passive elements with ASITIC (2002 [RFIC])

A.M. Niknejad. "Modeling of passive elements with ASITIC (2002 [RFIC])." 2002 Radio Frequency Integrated Circuits (RFIC) Symposium 02. (2002 [RFIC]): 303-306.

Passive elements are key building blocks in realizing fully integrated low cost RF transceivers. The analysis and modeling of passive elements is critical in the design and optimization of building blocks, especially when the quality of passive elements determines the overall achievable performance. Analysis of passive elements near the silicon substrate, though, necessitates solving Maxwell's equations. Furthermore, simulation of passive elements in tools such as SPICE requires lumped-element equivalent circuit models derived through optimization. ASITIC is a software tool that aids the RF designer in the process of design and simulation of such structures.

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