Abstracts

Electromagnetic coupling effects in RFCMOS circuits (2002 Vol. I [MWSYM])

A.O. Adan, M. Fukumi, K. Higashi, T. Suyama, M. Miyamoto and M. Hayashi. "Electromagnetic coupling effects in RFCMOS circuits (2002 Vol. I [MWSYM])." 2002 MTT-S International Microwave Symposium Digest 02.1 (2002 Vol. I [MWSYM]): 39-42 vol.1.

The electromagnetic isolation and coupling characteristics of basic structures, namely metal pads, spiral inductors, and spiral-transistors, implemented in a core-logic CMOS process are evaluated and modeled. The models provide design guidelines on the isolation characteristics of guard-rings and shield layers for RF cross-talk suppression between circuit blocks. The importance of electromagnetic coupling to layout interconnects is demonstrated.

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