Abstracts

Interference issues in silicon RFIC design

Zhaofeng Zhang, A. Pun and J. Lau. "Interference issues in silicon RFIC design." 1998 Radio Frequency Integrated Circuits (RFIC) Symposium 98. (1998 [RFIC]): 119-122.

Traditional noise immunity methodologies used in PCB designs are less effective when applied to RFICs. We present here analyses of both electromagnetic interferences and spiral inductor induced substrate noise in silicon RFICs that can be an impediment in achieving higher integration. In the analysis, we (1) compare the effectiveness of 4 shielding solutions in a triple layer metal technology, (2) contrast the interference on both heavily doped and lightly doped substrates, (3) study the impact of physical separation and geometrical variations, (4) and measure the inductor induced substrate noise on a 0.8 /spl mu/m triple-layer CMOS process.

❑ Return to main document.