Abstracts

Deep trench guard technology to suppress coupling between inductors in silicon RF ICs

Cheon Soo Kim, Piljae Park, Joung-Woo Park, Nam Hwang and Hyu Kyu Yu. "Deep trench guard technology to suppress coupling between inductors in silicon RF ICs." 2001 MTT-S International Microwave Symposium Digest 01.3 (2001 Vol. III [MWSYM]): 1873-1876 vol.3.

Trench guard technology was proposed to suppress the coupling between inductors, and to reduce crosstalk in silicon RF ICs. The test structure adopting a deep trench guard ring showed a coupling less than -40 dB in the frequency range of 0.5-20 GHz, and negligible change in designed inductance value up to 10 GHz. Furthermore, it can be also used to isolate a noisy circuit block from other quiet blocks in mixed signal silicon RF ICs.

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