Abstracts

Analysis of Packaged Microwave Integrated Circuits by FDTD

P. Mezzanotte, M. Mongiardo, L. Roselli, R. Sorrentino and W. Heinrich. "Analysis of Packaged Microwave Integrated Circuits by FDTD." 1994 Transactions on Microwave Theory and Techniques 42.9 (Sep. 1994, Part II [T-MTT]): 1796-1801.

The behavior of packaged single and coupled MMIC via-hole grounds has been investigated by using a graded mesh FDTD code running on the massive parallel computer DEC 12000 with 4 K processors. Theoretical simulations have been compared with experimental measurements showing excellent agreement. Moreover, since the package introduces resonances, we have also investigated several different possibilities to choke off these resonances. It is shown that the common practice of inserting a damping layer just below the lid is often not effective. In particular, the importance of placing damping layers also on the side walls is demonstrated.

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