Abstracts

Full-wave investigation on the curved bonding wire interconnection by using a suitable FDTD code

F. Alimenti, P. Mezzanotte and L. Roselli. "Full-wave investigation on the curved bonding wire interconnection by using a suitable FDTD code." 1997 MTT-S International Microwave Symposium Digest 3. (1997 Vol. III [MWSYM]): 1737-1740.

The scattering parameters of the curved bonding wire interconnection, accounting for its curvature, have been computed by using a proper discretization technique along with the Finite Difference Time Domain (FDTD) method. The curvature has been modeled assuming a polygonal approximation. The obtained results have been compared against vector network analyzer measurements showing a satisfactory agreement. In order to investigate the curvature effect, the proposed approach has been compared with a rectangular approximation of the bonding wire demonstrating that this approximation provides a useful modeling of the interconnection.

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