# Abstracts

## Modeling of interconnections and isolation within a multilayered ball grid array package

*R. Ito, R.W. Jackson and T. Hongsmatip. "Modeling of interconnections and isolation within a multilayered ball grid array package." 1999 Transactions on Microwave Theory and Techniques 47.9 (Sep. 1999, Part II [T-MTT] (Special Issue on Multilayer Microwave Circuits)): 1819-1825.*

A procedure is described for the electrical modeling of multilayered ball grid array (BGA) packages for use in microwave applications. The modeled package is divided into layers and a lumped-clement circuit model is developed for each layer/interconnection. A simple numerical method for computing the parasitic coupling between transitions at different locations within a layer is presented and integrated with the lumped-element model. The model is verified by comparison to measurements of a test package. This modeling procedure is useful for determining the cause of low isolation in BGA packages at microwave frequencies.

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