# Abstracts

## Full-Wave Modeling of via Hole Grounds in Microstrip by Three-Dimensional Mode Matching Technique (Dec. 1992 [T-MTT])

*R. Sorrentino, F. Alessandri, M. Mongiardo, G. Avitabile and L. Roselli. "Full-Wave Modeling of via Hole Grounds in Microstrip by Three-Dimensional Mode Matching Technique (Dec. 1992 [T-MTT])." 1992 Transactions on Microwave Theory and Techniques 40.12 (Dec. 1992 [T-MTT] (1992 Symposium Issue)): 2228-2234.*

A rigorous full-wave analysis of microstrip via hole grounds is presented using a three-dimensional mode-matching technique in connection with a suitable segmentation of the structure into homogeneous parallelepipedal cells. The adoption of the novel impressed source technique reduces substantially the numerical effort compared to the transverse resonance technique and, in addition to the finite metallization thickness, accounts for possible package interaction. Theoretical results are compared with several experimental data from various sources, including our experiments, showing excellent agreement. Package effects have been observed experimentally and shown to be fully predicted by the theory.

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