

Abstracts

Rigorous and simplified models for the capacitance of a circularly symmetric via

*A.W. Mathis, A.F. Peterson and C.M. Butler. "Rigorous and simplified models for the capacitance of a circularly symmetric via." 1997 *Transactions on Microwave Theory and Techniques* 45.10 (Oct. 1997, Part II [T-MTT] (Special Issue on Interconnects and Packaging)): 1875-1878.*

An integral-equation method is presented for analyzing the capacitance of circularly symmetric vias with thick conductors and conical posts. From the numerical data, simple expressions are derived which account for the effect of conductor thickness and cone angle. Use of the approximate expressions allows one to accurately determine via capacitance while using a simpler thin-conductor straight-post via model.

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