Abstracts

Multiple Arbitrary Shape Via-Hole and Air-Bridge Transitions in Multilayered Structures (1996 Vol. II [MWSYM])

M.-J. Tsai, C. Chen, T.-S. Horng and N.G. Alexopoulos. "Multiple Arbitrary Shape Via-Hole and Air-Bridge Transitions in Multilayered Structures (1996 Vol. II [MWSYM])." 1996 MTT-S International Microwave Symposium Digest 96.2 (1996 Vol. II [MWSYM]): 707-710.

This paper presents a methodology for the design of multiple via-hole and air-bridge transitions of arbitrary shape in multilayered multi-port microstrip circuits. Application of multiple via holes to the design of microstrip filters and other devices will be presented. To describe properly the current along the vertical post, the simple pulse function with a triangular cross section is used. Circular, rectangular and triangular vertical transitions are analyzed and optimized for practical applications. The developed algorithms are much faster than existing softwares. The Green's function applies for any distance between and any location of field and source points.

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