Abstracts

3D Characterization of Air Bridges and via Holes in Conductor-Backed Coplanar Waveguides for MMIC Applications

S. Visan, O. Picon and V.F. Hanna. "3D Characterization of Air Bridges and via Holes in Conductor-Backed Coplanar Waveguides for MMIC Applications." 1993 MTT-S International Microwave Symposium Digest 93.2 (1993 Vol. II [MWSYM]): 709-712.

A 3D Finite Difference Time Domain (FDTD) Method is used to characterize either an air bridge or two via holes which can be used in a conductor backed coplanar waveguide (CPW) to supress the coupled slotline like mode. The accuracy of the analysis is demonstrated through the comparison of theoretical results obtained using our FDTD method to experimental ones for a via hole ground in a microstrip. It is shown that the via holes discontinuity in a conductor-backed CPW is associated with reflection losses lower than that in the case of an air bridge discontinuity.

❑ Return to main document.