Abstracts

Characterization of Air-Bridges in MM-Wave Coplanar Waveguide Using the Complete Mode Spectrum of CPW

P. Sewell and T. Rozzi. "Characterization of Air-Bridges in MM-Wave Coplanar Waveguide Using the Complete Mode Spectrum of CPW." 1994 Transactions on Microwave Theory and Techniques 42.11 (Nov. 1994 [T-MTT]): 2078-2086.

This paper presents a novel analysis of air-bridges in open CPW, including the effects of finite thickness metallisation, using the complete modal spectrum of the CPW. This is a technique which, in comparison with other methods, allows the common features of CPW circuitry to be extracted and preprocessed without consideration of the particular problem in hand, that is, a suitable basis upon which to build a CAD package for smaller computers. Using this approach, scattering parameters, radiation and substrate leakage patterns of isolated bridges have been derived for both types of fundamental mode incidence and compared, where possible, to those obtained from other methods. Furthermore, pairs of bridges, coupled by both the near and far fields, have been analysed.

❑ Return to main document.