Abstracts

Efficient Full-Wave Analysis of Coplanar Waveguide to Slotline Interconnections with Finite Metallization Thickness Accounting for Air Bridge Effects

F. Alessandri, W. Menzel, M. Mongiardo and R. Sorrentino. "Efficient Full-Wave Analysis of Coplanar Waveguide to Slotline Interconnections with Finite Metallization Thickness Accounting for Air Bridge Effects." 1994 MTT-S International Microwave Symposium Digest 94.2 (1994 Vol. II [MWSYM]): 875-878.

The Coplanar Waveguide (CPW) to slot line transition is a key component of uniplanar circuit configuration for monolithic microwave integrated circuits (MMIC's). In this paper we introduce a new, efficient, full-wave model, based on the 3-D mode-matching technique. The model describes the transition taking into account the finite metallization thickness of the CPW as well as the effects of the air bridge. Theoretical simulations are compared with experimental results showing a good agreement.

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