

Surface-to-Surface Transition via Electromagnetic Coupling of Coplanar Waveguides

R.W. Jackson and D.W. Matolak. "Surface-to-Surface Transition via Electromagnetic Coupling of Coplanar Waveguides." 1987 Transactions on Microwave Theory and Techniques 35.11 (Nov. 1987 [T-MTT]): 1027-1032.

A transition is investigated which couples coplanar waveguide on one substrate surface (a motherboard) to coplanar waveguide on another substrate surface (a semiconductor chip or subarray) placed above the first. No wire bonds are necessary. A full-wave analysis using coupled line theory is presented and verified experimentally. The use of this transition for coupling to millimeter-wave integrated circuits is discussed.

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