

Abstracts

New Interesting Leakage Behavior on Coplanar Waveguides of Finite and Infinite Widths (Dec. 1991 [T-MTT])

M. Tsuji, H. Shigesawa and A.A. Oliner. "New Interesting Leakage Behavior on Coplanar Waveguides of Finite and Infinite Widths (Dec. 1991 [T-MTT])." 1991 Transactions on Microwave Theory and Techniques 39.12 (Dec. 1991 [T-MTT] (1991 Symposium Issue)): 2130-2137.

On previous work we showed that above a critical frequency the dominant mode on coplanar waveguide leaks power in the form of a surface wave on the surrounding substrate, and that this leakage can cause undesirable cross talk and can produce unexpected package effects. Further studies now reveal several new interesting behavioral features, such as unexpected sharp and deep minima (cancellation effects), various dimensional dependence, and how the leakage behavior varies significantly when the guide width changes from finite to infinite.

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