Abstracts

A V-Band Wafer Probe Using Ridge-Trough Waveguide (Dec. 1991 [T-MTT])

E.M. Godshalk. "A V-Band Wafer Probe Using Ridge-Trough Waveguide (Dec. 1991 [T-MTT])." 1991 Transactions on Microwave Theory and Techniques 39.12 (Dec. 1991 [T-MTT] (1991 Symposium Issue)): 2218-2228.

In this paper a V-band (50-75 GHz) wafer probe is presented. The probe features a new type of waveguide developed to allow transition from rectangular waveguide to coplanar waveguide. This new waveguide consists of a ridge extending from the upper waveguide wall into a trough in the lower waveguide wall, and is known as ridge-trough waveguide. A mathematical model is presented that allows the important properties of the ridge-trough waveguide to be calculated such as the cutoff frequency and characteristic impedance.

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