Abstracts

Multilayer Coplanar Waveguide for High Speed Digital Applications

E.-B. El-Sharawy. "Multilayer Coplanar Waveguide for High Speed Digital Applications." 1992 MTT-S International Microwave Symposium Digest 92.2 (1992 Vol. II [MWSYM]): 979-982.

This paper presents measurements of pulse distortion, coupling, and loss due to discontinuities of the coplanar waveguide (CPW) on single and multilayer structures. The CPW compares favorably to the microstrip line in terms of low coupling and distortion. A novel metal-backed coplanar waveguide (CPW) on multilayer structure is introduced to minimize or eliminate pulse distortion due to overmoding. The new CPW structure also has the advantage of relatively low loss at discontinuities. For a T circuit, the loss per bend in the new structure is about 0.2 dB less than a similar microstrip line.

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