

Abstracts

Characteristic Impedance Determination Using Propagation Constant Measurement

R.B. Marks and D.F. Williams. "Characteristic Impedance Determination Using Propagation Constant Measurement." 1991 Microwave and Guided Wave Letters 1.6 (Jun. 1991 [MGWL]): 141-143.

A method is demonstrated where by the characteristic impedance of transmission lines may be easily determined from a measurement of the propagation constant. The method is based on a rigorous analysis using realistic approximations to account for the effects of imperfect conductors. Numerical studies indicate that high accuracy is possible, and experiments using coplanar waveguide demonstrate the advantage of the method in the interpretation of S-parameters.

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