Abstracts

Characterization of Resistive Transmission Lines by Short-Pulse Propagation

A. Deutsch, G. Arjavalingam and G.V. Kopcsay. "Characterization of Resistive Transmission Lines by Short-Pulse Propagation." 1992 Microwave and Guided Wave Letters 2.1 (Jan. 1992 [MGWL]): 25-27.

A method for completely characterizing resistive transmission lines by short-pulse propagation is described. Using the loss and dispersion of pulses propagated on two different lengths of line, together with the measured low-frequency capacitance, the frequency-dependent propagation constant, attenuation, and the complex impedance are determined. The basic method is demonstrated with results from low-loss cables and a well-controlled coplanar waveguide sample.

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