

Abstracts

A New Technique for Measuring the Permittivity and Loss Tangent of Cylindrical Dielectric Rods

W.R. Humbert and W.R. Scott, Jr.. "A New Technique for Measuring the Permittivity and Loss Tangent of Cylindrical Dielectric Rods." 1996 Microwave and Guided Wave Letters 6.7 (Jul. 1996 [MGWL]): 262-264.

A new technique is presented for measuring the permittivity and loss tangent of cylindrical dielectric rods. It is a resonant technique and exhibits highly accurate results for low-loss dielectrics. The finite-element method is used to model the measurement fixture. Also, a procedure is presented to characterize the surface resistance of the conducting walls. Experimental results are compared to previously reported values and are in excellent agreement.

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