

Abstracts

Complex permittivity determination from propagation constant measurements

M.D. Janezic and J.A. Jargon. "Complex permittivity determination from propagation constant measurements." 1999 Microwave and Guided Wave Letters 9.2 (Feb. 1999 [MGWL]): 76-78.

The authors present a new transmission line method for measuring the complex permittivity of dielectric materials using propagation constant measurements. In contrast to previous methods, a network analyzer calibration is unnecessary since calibrated scattering parameters are not required. They use measurements in X-band waveguide to show that this technique compares well with the transmission/reflection and cylindrical cavity methods.

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