Abstracts

Application of a Dielectric Resonator on Microstrip Line for a Measurement of Complex Permittivity

S. Maj and J.W. Modelski. "Application of a Dielectric Resonator on Microstrip Line for a Measurement of Complex Permittivity." 1984 MTT-S International Microwave Symposium Digest 84.1 (1984 [MWSYM]): 525-527.

A cylindrical dielectric resonator placed on microstrip line is used for measuring the complex permittivity of microwave low-loss high epsilon/sub r/ dielectric materials. The method is based on the accurate solution of this resonator with TE/sub 01delta/ mode and is compared to the method of dielectric rod resonator with TE/sub 11/ mode. The accuracy of the both method is similar - the measurement accuraoy of relative dielectric constant is better than 0.2 percent and measurement accuracy of loss tangent is about 1·10/sup -4/.

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