

## Measurement of Dielectric Constant Using a Microstrip Ring Resonator (Short Papers)

---

*P.A. Bernard and J.M. Gautray. "Measurement of Dielectric Constant Using a Microstrip Ring Resonator (Short Papers)." 1991 Transactions on Microwave Theory and Techniques 39.3 (Mar. 1991 [T-MTT]): 592-595.*

A new approach for measuring the permittivity of dielectric materials by means of a microstrip ring resonator is presented. The method is used in conjunction with the variational calculation of the line capacitance of a multilayer microstriplike transmission line to compute the effective permittivity and hence the resonant frequency of the ring. The results are compared with measurements made in X-band waveguide cavity by cavity perturbation techniques.

 [Return to main document.](#)