

Abstracts

Measuring Dielectric Constant of Substrates for Microstrip Applications (Letters)

A.R. Gerhard. "Measuring Dielectric Constant of Substrates for Microstrip Applications (Letters)." 1976 *Transactions on Microwave Theory and Techniques* 24.7 (Jul. 1976 [T-MTT]): 485-487.

A new technique for measuring the dielectric constant of unmetallized ceramic substrates for microstrip applications is fast, accurate, and nondestructive. Measurement is made at the actual microwave frequency at which the ceramic will be used. Results are repeatable to within ± 0.1 percent of the dielectric constant relative to a known standard substrate. A measurement rate of 100/h can easily be achieved. A circuit is described which is used at 1.4 GHz and measures an area of approximately 1/2-in diameter on 25-mil-thick alumina substrates.

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