# Abstracts

## Finite Element Analysis of Open-Ended Coaxial Lines

*D. Blackham and R. Pollard. "Finite Element Analysis of Open-Ended Coaxial Lines." 1993 MTT-S International Microwave Symposium Digest 93.3 (1993 Vol. III [MWSYM]): 1247-1250.*

The open-ended coaxial line is used as a probe for sensing complex permittivity since the reflection coefficient varies as a function of both frequency and permittivity. Results from a finite element analysis of the open-ended coaxial line compare well with, published results. One aspect of measurement accuracy is derived from how well a model relating the reflection coefficient to complex permittivity matches the actual structure. Finite element analysis can be used as a tool to examine the effects on model accuracy of finite ground planes as well as profiles within the ground plane.

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