

Abstracts

Full-Wave Characterization of Microstrip Open End Discontinuities Patterned on Anisotropic Substrates Using Potential Theory

S.S. Toncich, R.E. Collin and K.B. Bhasin. "Full-Wave Characterization of Microstrip Open End Discontinuities Patterned on Anisotropic Substrates Using Potential Theory." 1993 Transactions on Microwave Theory and Techniques 41.11 (Dec. 1993 [T-MTT] (1993 Symposium Issue)): 2067-2073.

A technique for the full-wave characterization of microstrip discontinuities fabricated on uniaxial anisotropic substrates using a dynamic source reversal method based on potential theory is presented. The dynamic source reversal technique was introduced in 1989 by R. E. Collin and S. S. Toncich. The open end discontinuity is enclosed in a cut-off waveguide of infinite extent, with the anisotropic axis aligned perpendicular to the air-dielectric interface. A full description of the sources on the microstrip line is included with proper edge conditions built in. The resulting computer program is written in compiled BASIC and is intended for execution on personal computers possessing minimal memory and or processing resources. Extension to other discontinuities is discussed.

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