

Abstracts

An Analytical Method for the Capacitance of the Rectangular Inhomogeneous Coaxial Line Having Anisotropic Dielectrics (Short Papers)

S.K. Koul. "An Analytical Method for the Capacitance of the Rectangular Inhomogeneous Coaxial Line Having Anisotropic Dielectrics (Short Papers)." 1984 *Transactions on Microwave Theory and Techniques* 32.8 (Aug. 1984 [T-MTT] (Special Issue on Electromagnetic-Wave Interactions with Biological Systems)): 937-941.

An analytical technique for the capacitance of a rectangular inhomogeneous coaxial line with zero thickness offset inner conductor and having anisotropic dielectrics is briefly outlined. The spectral domain technique in discrete Fourier variable, under quasi-static approximation, is used to determine the capacitance expression. Numerical data are presented on the capacitance of rectangular homogeneous/inhomogeneous coaxial lines having anisotropic dielectrics. The capacitance values obtained using the analytical technique presented are found to be in good agreement with the results reported using numerical techniques by other authors.

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