

Abstracts

Characteristic Impedance of Transmission Lines with Arbitrary Dielectrics Under the TEM Approximation (Short Papers)

Y. Naiheng and R.F. Harrington. "Characteristic Impedance of Transmission Lines with Arbitrary Dielectrics Under the TEM Approximation (Short Papers)." 1986 Transactions on Microwave Theory and Techniques 34.4 (Apr. 1986 [T-MTT]): 472-475.

This paper gives a procedure for computing the characteristic impedances of TEM or quasi-TEM transmission lines with arbitrary cross sections and arbitrary dielectrics. Special consideration is given to conductors of finite cross-sectional extent. The solution is obtained by the method of moments using pulse functions for the expansion of charge density and point matching for testing. Numerical examples are given and compared with solutions obtained by other methods.

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