Abstracts

Characteristic Impedance of Rectangular Coaxial Transmission Lines

The characteristic impedance of rectangular coaxial transmission lines can be readily and accurately computed by a simple equation when the capacitance per unit length is known. While the capacitance per unit length of the parallel sides is easily calculated, the calculation of the corner capacitance is a more difficult problem. This problem has been solved by Skiles and Higgins, using orthonormal block analysis. By using their formulas, the corner capacitances for a wide range of all variables were evaluated by means of a digital computer. The results are cataloged in graphical form.

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