Abstracts

Characteristic Impedance of a Rectangular Coaxial Line with Offset Inner Conductor

J.C. Tippet and D.C. Chang. "Characteristic Impedance of a Rectangular Coaxial Line with Offset Inner Conductor." 1978 Transactions on Microwave Theory and Techniques 26.11 (Nov. 1978 [T-MTT]): 876-883.

The singular-integral-equation technique is used to derive the capacitance and, hence, characteristic impedance of a rectangular coaxial line with a zero-thickness inner conductor. The position of the inner conductor is arbitrary, but its orientation is assumed to be parallel to the top and bottom walls of the outer conductor. Simple yet very accurate formulas for the capacitance and characteristic impedance are found in terms of complete elliptic integrals.

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