

Abstracts

The Exact Dimensions of a Family of Rectangular Coaxial Lines with Given Impedance

H.J. Riblet. "The Exact Dimensions of a Family of Rectangular Coaxial Lines with Given Impedance." 1972 Transactions on Microwave Theory and Techniques 20.8 (Aug. 1972 [T-MTT]): 538-541.

The potential problem associated with a capacitor bounded by concentric rectangles may be solved by conformably mapping a certain L-shaped region onto the upper half plane. In certain cases, the integral, by which the Schwarz-Christoffel transformation may be expressed, can be evaluated in terms of two elliptic integrals of the first kind. Then the odd- and even-mode impedance of the related transmission line is readily found.

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