

Abstracts

Potential Solution of a Homogeneous Strip-Line of Finite Width

*W.H. Hayt, Jr.. "Potential Solution of a Homogeneous Strip-Line of Finite Width." 1955
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The exact potential solution for a zero-thickness strip centered between two ground planes of finite width is outlined. For unit separation of the ground planes, the solution is applied to obtain curves of capacitance per unit length for several representative ground plane widths as a function of strip width. The results are valid for all strip widths, including the case in which the strip is wider than the ground planes. The validity of assuming infinite ground plane width is investigated and it is found that such an assumption leads to little error providing the ratio of ground plane width to separation is at least 2.5, and also providing the difference between ground plane and strip width is at least one-half of the ground plane separation.

[Return to main document.](#)