Abstracts

Characteristic Impedance of the Shielded-Strip Transmission Line

Simple formulas are given for the characteristic impedance of a transmission line consisting of a conducting strip of rectangular cross section centered between parallel conducting plates at ground potential. The formulas agree to within 1.2 per cent with an exact formula for a zero thickness strip. In the case of finite thickness up to a quarter of the plate spacing, the formulas are expected to be at least that accurate. A family of characteristic impedance curves given in this paper should prove useful to the design engineer.

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