

# Abstracts

## A Simple Formula for the Capacitance of a Disc on Dielectric on a Plane (Short Papers)

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*H.A. Wheeler. "A Simple Formula for the Capacitance of a Disc on Dielectric on a Plane (Short Papers)." 1982 Transactions on Microwave Theory and Techniques 30.11 (Nov. 1982 [T-MTT]): 2050-2054.*

There is presented a simple explicit formula for the capacitance of a thin circular disc on a dielectric substrate on a plane (so-called "microstrip"). It gives continuous coverage of all shape ratios ( $r/h$ ) and all dielectrics ( $k$ ). The formula is developed by transition between asymptotic formulas for small and large discs, and by interpolation between bounding formulas for lo-  $k$  and hi-  $k$ . The presentation and development are facilitated by a reference formula which is the sum of the  $C$  is less than 0.004 for all conditions

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