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

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 devlopment 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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