

Impedance Characteristics of Microstrip Antennas Excited by Coplanar Waveguides with Inductive or Capacitive Coupling Slots

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A rectangular microstrip antenna fed by a coplanar waveguide with an inductive or a capacitive coupling end slot is analyzed by using the moment method. Numerical calculations for the input impedances are shown to agree well with those of the measurements. For the purpose of design, a parameter study for the variations of input impedance with length and width of the coupling slot is presented. Differences in the input impedance characteristics between the inductive and capacitive coupling cases are also discussed.

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