Abstracts

Wire and Strip Conductors Over a Dielectric-Coated Conducting or Dielectric Half-Space

R.W.P. King. "Wire and Strip Conductors Over a Dielectric-Coated Conducting or Dielectric Half-Space." 1989 Transactions on Microwave Theory and Techniques 37.4 (Apr. 1989 [T-MTT]): 754-760.

The complex wavenumber and characteristic impedance are determined for a wire or flat strip over a dielectric-coated half-space that may be a conductor or a dielectric with large permittivity. Elevated microstrip is an example of the configuration. The properties of the wire as an antenna or transmission line are determined from those of the insulated antenna with a two-layer eccentric insulation. The theory is extended to the strip conductor with the help of a comparison of the tubular and strip conductors over a perfectly conducting half-space.

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