

## Modeling and Characterization of Microstrip-to-Coaxial Transitions

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*M.L. Majewski, R.W. Rose and J.R. Scott. "Modeling and Characterization of Microstrip-to-Coaxial Transitions." 1981 Transactions on Microwave Theory and Techniques 29.8 (Aug. 1981 [T-MTT]): 799-805.*

A simple circuit model for the transition from a lossy microstrip to coaxial line has been developed on an experimental basis. The proposed model can be used to predict accurately the insertion loss and insertion phase over a wide frequency range. Since explicit formulas for the model element values are given, these elements, representing the parasitic of the transitions, can be taken into account very easily when the microstrip is used as a test fixture for measuring the parameters of solid-state devices. The practical use of the model has been examined for several  $Z_0=50\text{-}\Omega$  lines on both  $\epsilon_r=10$  and 99-percent alumina substrates with standard SMA coaxial connectors.

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