

## The Reflection Definition of the Characteristic Impedance of Microstrips

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*F. Arndt and G.U. Paul. "The Reflection Definition of the Characteristic Impedance of Microstrips." 1979 Transactions on Microwave Theory and Techniques 27.8 (Aug. 1979 [T-MTT]): 724-731.*

The frequency-dependent characteristic impedance shielded microstrips is computed by the scattering matrix of the step of rectangular transmission line to the shielded microstrip including higher order hybrid modes. This method avoids the ambiguities of the hitherto known definitions based on TEM quantities. For the dispersion characteristics a resonant model is used which reduces the number of the characteristic equations required. Numerical results are given including strips of finite thickness placed unsymmetrically in the shielded microstrip.

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