

# Abstracts

## Characteristic Impedance of a Coaxial System Consisting of Circular and Noncircular Conductors (Short Papers)

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S.-G. Pan. "Characteristic Impedance of a Coaxial System Consisting of Circular and Noncircular Conductors (Short Papers)." 1988 *Transactions on Microwave Theory and Techniques* 36.5 (May 1988 [T-MTT] (Special Issue Commemorating the Centennial of Heinrich Hertz)): 917-921.

A family of transmission lines is based on a circular conductor and a noncircular conductor. Two new types of equivalent eccentric coaxial lines, which give smooth transition between extremes of a small wire and a wire near contact, are presented. The results obtained are very simple analytical expressions which will be useful for fast computation or for the CAD of coaxial components. The accuracy of the expressions is confirmed by comparison with accurate numerical data.

[Return to main document.](#)