

Abstracts

Analysis of a General Coaxial-Line/Radial-Line Region Junction (Short Papers)

R.B. Keam and A.G. Williamson. "Analysis of a General Coaxial-Line/Radial-Line Region Junction (Short Papers)." 1993 Transactions on Microwave Theory and Techniques 41.3 (Mar. 1993 [T-MTT]): 516-520.

A general analysis of a coaxial line/radial-line region junction is presented for the case where the centre conductor is sheathed in a dielectric and extends the full width between two parallel metal plates. Expressions for the current distribution and the admittance of the junction are presented. Two example environments are considered, a rectangular waveguide and a base entrant cylindrical cavity, although the technique may be used for other environments. Comparison of theoretical and experimental results for these two cases show the theory to be very accurate.

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