

Abstracts

Coupled Strip Transmission Line with Three Center Conductors

S. Yamamoto, T. Azakami and K. Itakura. "Coupled Strip Transmission Line with Three Center Conductors." 1966 *Transactions on Microwave Theory and Techniques* 14.10 (Oct. 1966 [T-MTT]): 446-461.

An exact analysis is made for the shielded coupled strip transmission line with three center conductors. By means of the immittance matrices presented, the electrical behavior of the coupled strip transmission line of this type may be completely described. Design formulas which enable one to evaluate the cross-section dimensions from the desired values of characteristic immittances are derived for the two kinds of the line configurations. Equivalent circuits of the two-port networks for various port conditions are also presented. In addition, an application is discussed involving the asymmetrical coupled strip transmission line with two center conductors. The appendix gives the derivation of the design formulas by means of conformal mapping techniques.

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