

Abstracts

Slot-Coupled T-junction of TE₁₁ Coaxial to TE₁₀ Rectangular Waveguide

S.M. Saad. "Slot-Coupled T-junction of TE₁₁ Coaxial to TE₁₀ Rectangular Waveguide." 1986 *Transactions on Microwave Theory and Techniques* 34.1 (Jan. 1986 [T-MTT]): 51-57.

A solution is presented to the problem of a slot-coupled T-junction of a TE₁₁ -mode coaxial to a TE₁₀ -mode rectangular waveguide. A variational technique is employed which combines the reaction concept with the field representation of a waveguide slot and leads to a closed-form solution for the junction scattering matrix. Numerical examples illustrate the characteristics of such a junction in practical applications. Good agreement between theory and experiment is obtained. Design criteria and examples are presented and discussed.

[Return to main document.](#)