

## Equivalent Circuit of a Narrow-Wall Waveguide Slot Coupler

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*V.M. Pandharipande and B.N. Das. "Equivalent Circuit of a Narrow-Wall Waveguide Slot Coupler." 1979 Transactions on Microwave Theory and Techniques 27.9 (Sep. 1979 [T-MTT]): 800-804.*

An expression for the equivalent network of a long axial slot in the common narrow wall between two rectangular waveguides is determined from self-reaction and discontinuity in modal current. The analysis is extended to the case of H-plane Tee junction coupled through a longitudinal slot in the narrow wall of primary guide. Variation of coupling, input VSWR, and impedance loading on the primary guide are determined from the equivalent network parameter. A comparison between theoretical and experimental results is presented.

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