

# Abstracts

## A Generalized Analysis for a Class of Rectangular Waveguide Coupler Employing Narrow Wall Slots

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*A.J. Sangster and H. Wang. "A Generalized Analysis for a Class of Rectangular Waveguide Coupler Employing Narrow Wall Slots." 1996 Transactions on Microwave Theory and Techniques 44.2 (Feb. 1996 [T-MTT]): 283-290.*

A comprehensive analysis is presented which is applicable to the general class of waveguide couplers comprising a dissimilar pair of rectangular waveguide coupled by means of an inclined slot on the narrow wall of the primary waveguide. An entire domain moment method is used to solve a pair of coupled-integral equations for the tangential electric fields on the surfaces of the slot. Three typical examples have been examined to demonstrate the validity of the method. The numerical results are shown to be in good agreement with those obtained from independently procured theoretical evidence and measurements.

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