

Abstracts

A Method for Accurate Design of a Broad-Band Multibranch Waveguide Coupler

K.G. Patterson. "A Method for Accurate Design of a Broad-Band Multibranch Waveguide Coupler." 1959 Transactions on Microwave Theory and Techniques 7.4 (Oct. 1959 [T-MTT]): 466-473.

A new approach is made to the problem of tapering the branch impedances for broad-band performance. A taper is proposed, which, for a 3-db branch coupler, is shown to give much better results in theory and practice than the currently used binomial taper. Also, simple expressions are developed which enable the effects of waveguide junction discontinuities to be adequately corrected, thus allowing a greater accuracy in design to be achieved than was hitherto possible.

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