# Abstracts

## A Method of Improving the Response of Waveguide Directional Couplers (Correspondence)

*L. Sweet. "A Method of Improving the Response of Waveguide Directional Couplers (Correspondence)." 1963 Transactions on Microwave Theory and Techniques 11.6 (Nov. 1963 [T-MTT]): 554-554.*

This communication describes a technique for decreasing the frequency variation of coupling of multihole broadwall waveguide directional couplers. The usual curve of coupling vs frequency is shown in Fig. 1 and has a peak-to-peak variation of 1.0 db. The proposed method, which is similar to the use of multiple sections in coaxial couplers, perturbs the coupled voltage by adding a smail voltage that is in phase at midband where the coupling is looser and out of phase near the band edges. The required perturbation is produced by means of the coupling structure shown in Fig. 2, where the phase of one coupled voltage is delayed with respect to the other coupled voltage because of an added path length Delta L.

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