# Abstracts

## A Broadband Groove Guide Coupler for Millimeter-Wave Applications

*R. Vahldieck and J. Ruxton. "A Broadband Groove Guide Coupler for Millimeter-Wave Applications." 1987 MTT-S International Microwave Symposium Digest 87.1 (1987 Vol. I [MWSYM]): 349-352.*

In this paper we describe the theoretical design and performance of a broadband groove guide coupler. In contrast to conventional design techniques one of the grooves impartially filled with a dielectric. Both grooves are coupled via a slot in a thin metallic septum separating the grooves. It will be shown how a flat coupling over a wide frequency range can be obtained by taking advantage of the dispersion of even and odd modes and the frequency dependence of the modes in the individual grooves.

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