Abstracts

Modal analysis of parallel and crossed rectangular waveguide broadwall couplers with apertures of arbitrary shape

T. Sieverding, A.H. Motamedi, J. Reiter and F. Arndt. "Modal analysis of parallel and crossed rectangular waveguide broadwall couplers with apertures of arbitrary shape." 1997 MTT-S International Microwave Symposium Digest 3. (1997 Vol. III [MWSYM]): 1559-1562.

Parallel and crossed rectangular waveguide broadwall couplers with apertures of arbitrary shape and number are analyzed rigorously by the efficient and flexible boundary-contour/mode-matching (BCMM) method. The modal S-matrix combination technique takes adequately into account both the finite wall thickness and the higher order mode interaction between the discontinuities. Examples with circular, elliptical, and cross apertures demonstrate the flexibility of the design method. The theory is verified with measurements.

❑ Return to main document.