Abstracts

Ridge Waveguide T-Junctions

A. Abdelmonem and K.A. Zaki. "Ridge Waveguide T-Junctions." 1995 MTT-S International Microwave Symposium Digest 95.2 (1995 Vol. II [MWSYM]): 757-760.

The ridge waveguideT-junction is introduced and modeled using the single port mode matching technique.The ridge configuration allows the reduction of the size of T-junction as well as increasing its bandwidth. The three-port scattering matrix of the T-junction is obtained from seven reflection coefficient computations at the perpendicular arm. An example of the design of a wide band T-junction covering both C and X bands is presented. This T-junction has low reflection at the input and equal power division between the straight arm and perpendicular arm and is thus appealing to diplexer applications. The measured response of the T-junction is in perfect agreement with the computed one.

❑ Return to main document.