Abstracts

A unified modal analysis of off-centered waveguide junctions with thick iris

Sheng-Li Lin, Le-Wei Li, Tai-Soon Yeo and Mook-Seng Leong. "A unified modal analysis of off-centered waveguide junctions with thick iris." 2001 Microwave and Wireless Components Letters 11.9 (Sep. 2001 [MWCL]): 388-390.

In this paper, the unified mode-matching technique fur concentric waveguide junction analysis is extended to calculate the scattering parameters at off-centered step discontinuities in waveguides. Because the modal fields in both waveguides are expressed accurately by polynomials in mono coordinate system, the analytical expressions of the coupling coefficients are easily obtained. Furthermore, all waveguides are tacked with in a unified manner. Comparison with the data available in literature demonstrates the accuracy and flexibility of the present method.

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