Abstracts

Broadband Faraday Rotation Sections Using Three Ridges

B.M. Dillon and A.A.P. Gibson. "Broadband Faraday Rotation Sections Using Three Ridges." 1994 Microwave and Guided Wave Letters 4.3 (Mar. 1994 [MGWL]): 83-85.

Triply-ridged circular waveguide cross-sections are proposed for wideband Faraday rotation applications. Finite element calculations for both the cut-off planes and the phase constants are presented to describe modal behavior. A comparison with the more conventional quadruply-ridged section indicates that there is a significantly increased single-moded bandwidth in the case of the triply-ridged section. In both cases the ridges reduce phase constant dispersion in the dominant pair of degenerate modes to provide broadband Faraday rotation.

❑ Return to main document.