Abstracts

Nonreciprocal Attenuation of Ferrite in Single-Ridge Waveguide (Correspondence)

T.-S. Chen. "Nonreciprocal Attenuation of Ferrite in Single-Ridge Waveguide (Correspondence)." 1960 Transactions on Microwave Theory and Techniques 8.2 (Mar. 1960 [T-MTT]): 247-248.

The nonreciprocal transmission characteristics of rectangular and cylindrical waveguides containing ferrites have been extensively studied and utilized in the construction of microwave phase shifters, gyrators, circulators, and isolators. This note concerns the measurement of the nonreciprocal attenuation produced by ferrite in single-ridge waveguide transmitting dominant mode. In particular, three types of isolators in ridge waveguide are investigated including resonance-absorption isolators, field-displacement isolators, and isolators operating at low-biasing magnetic fields. Fig. 1 shows the dimensions of the single-ridge waveguide used in the measurement.

❑ Return to main document.