Abstracts

Microstrip Junction Circulator for Microwave Integrated Circuits (Correspondence)

B. Hershenov. "Microstrip Junction Circulator for Microwave Integrated Circuits (Correspondence)." 1967 Transactions on Microwave Theory and Techniques 15.12 (Dec. 1967 [T-MTT]): 748-750.

This author has reported recently on two forms of microstrip junction circulators. In the first type, a garnet disk was cemented into a ceramic substrate to form a composite ceramic substrate. Copper ground plane, quarterwave microstrip transmission lines, and disk were evaporated onto this substrate following a chrome flash. In the second form, the microstrip junction circulator was fabricated from a single garnet subtrate. The lines, ground plane, and disk were evaporated exactly as in the fist case. The results were published as preliminary feasibility test data. This all-garnet substrate circulator was identical in size with the composite ceramic substrate. The results were sufficiently promising to warrant a new smaller design size for the all-garnet microstrip junction circulator because the dielectric constant of the garnet substrate was larger than that of the ceramic.

❑ Return to main document.