

Abstracts

Wide-Band Operation of Microstrip Circulators

*Y.S. Wu and F.J. Rosenbaum. "Wide-Band Operation of Microstrip Circulators." 1974
Transactions on Microwave Theory and Techniques 22.10 (Oct. 1974 [T-MTT]): 849-856.*

Octave bandwidth operation of Y-junction stripline and microstrip circulators is predicted using Bosma's Green's function analysis. The width of the coupling transmission lines is found to be a significant design parameter. Theoretical and experimental results are presented which show that wide lines and a smaller than usual disk radius can be used to obtain wide-band operation. A microstrip circulator is reported which operates from 7-15 GHz. Also presented are an analysis of the input impedance and an approximate equivalent circuit for the Y-junction circulator which shows the relationship between Bosma's equivalent circuit and that of Fay and Comstock.

[Return to main document.](#)