

Abstracts

Double Circulation Frequency Operation of Stripline Y-Junction Circulators

T. Nagao. "Double Circulation Frequency Operation of Stripline Y-Junction Circulators." 1977 Transactions on Microwave Theory and Techniques 25.3 (Mar. 1977 [T-MTT]): 181-189.

The double circulation frequency operation (DCFO) of stripline Y-junction circulators loaded with dielectric-ferrite composites is presented. The dielectric-ferrite composite is made by combining a dielectric puck with a ferrite ring. The DCFO is identified in the mode chart, and it is found that mode 1 and mode 1A, according to Davies and Cohen, play their respective roles in the circulation. Theoretical results of perfect circulation are derived, applying Bosma's Green's function to the junction mode impedances, and then, design and operation of the DCFO are studied. Finally, experimental examples are presented.

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