

Abstracts

Broad-Band Operation of Stripline Y Circulators

T. Nagao. "Broad-Band Operation of Stripline Y Circulators." 1977 Transactions on Microwave Theory and Techniques 25.12 (Dec. 1977 [T-MTT] (1977 Symposium Issue)): 1042-1047.

The broad-band operation of stripline Y circulators is treated from the viewpoint of the double circulation frequency operation (DCFO) which is performed with conductor-dielectric-ferrite composites (CDF composites), without any broad-banding circuit externally connected. It is recognized that the conductive post inserted inside the dielectric-ferrite composite (DF composites--a CDF composite is made thereby) is effective to improve the isolation characteristics of a CDF composite circulator to achieve the broad-band operation. The experiments showed that the frequency band was continuously broad-banded by sequentially changing the biasing magnetic field intensity; whereupon the frequency band reached about 45 percent. The largest broad-band operation was obtained when four circulation frequencies were put into use. In this paper, all ferrites are biased magnetically above resonance.

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