

Abstracts

Identification of Spurious Responses in Waveguide Circulators (Abstract)

J.B. Castillo and L.E. Davis. "Identification of Spurious Responses in Waveguide Circulators (Abstract)." 1970 G-MTT International Microwave Symposium Digest of Technical Papers 70.1 (1970 [MWSYM]): 397-397.

Two classes of spurious response in waveguide circulators are described. Examples of these responses from previous work are shown. One class of spurious response is a well known "spiking" phenomenon which has not previously been discussed explicitly. This type of response is identified as one or more resonant modes of the open post resonator formed by the cylindrical ferrite/dielectric configuration between the conducting top and bottom walls of the circulator cavity. The second class of spurious response is related to the h-port circulator problem which gives good agreement between theory and experiment for unmagnetized ferrite, and good agreement near the maximum-isolation frequency for magnetized ferrite, but gives generally poor results outside this frequency range. Directions of continuing work are indicated.

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