Abstracts

A New Concept for Broadbanding the Ferrite Substrate Circulator Based on Experimental Modal Analysis

T. Miura and T. Hashimoto. "A New Concept for Broadbanding the Ferrite Substrate Circulator Based on Experimental Modal Analysis." 1971 G-MTT International Microwave Symposium Digest of Technical Papers 71.1 (1971 [MWSYM]): 80-81.

The electrical characteristics of the ferrite substrate microstrip circulator having wider magnetized region than conventional one have been studied. This work enables us to compose a compact and simplified wideband circulator without the impedance matching networks. The electric field measurement shows that the wideband characteristics are realized by the combination of the conventional n=1 mode and a nonresonant mode different but compatible to the former. A C-band version measuring 15 mm in diameter offers more than 20 dB isolation and an insertion loss less than 0.5 dB over a bandwidth of 50 percent or more with the center frequency of 6.3 GHz.

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