

Frequency Limits of the Ultra-Miniature Circulator

C.N. Kouam, J.P. Coupez, S. Toutain, G. Forterre and P. Desmarest. "Frequency Limits of the Ultra-Miniature Circulator." 1994 MTT-S International Microwave Symposium Digest 94.2 (1994 Vol. II [MWSYM]): 929-932.

A lumped miniature circulator operating at 7 GHz is presented. The integration of both the capacitors and the inductances on the same ferrite substrate allows minimum size. The effects which limit the circulator operating at higher frequencies are analysed. The thick film layer technology used to produce the device and the design process of the circulator is described. We have used the numerous advantages of this technology to build a device higher than 5 GHz, the highest operating frequency found in the literature.

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