Abstracts

Ferromagnetic composite-based and magnetically-tunable microwave devices

E. Salahun, G. Tanne, P. Queffelec, P. Gelin, A.-L. Adenot and O. Acher. "Ferromagnetic composite-based and magnetically-tunable microwave devices." 2002 MTT-S International Microwave Symposium Digest 02.2 (2002 Vol. II [MWSYM]): 1185-1188 vol.2.

This article deals with a new generation of tunable microwave devices using ferromagnetic materials. The sensitivity of the device cut-off frequency to the dc magnetic field was investigated for two filtering resonators (stub resonator and Stepped Impedance Resonator). The stub resonator exhibited a frequency tunability of nearly 40% for a dc magnetic field strength of 250 Oe, whereas the linewidth remained unchanged. A 12.2% tunability of the SIR device was reached under 250 Oe applied.

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