Abstracts

A Magnetically Tunable Microstrip IMPATT Oscillator (Short Papers)

B. Glance. "A Magnetically Tunable Microstrip IMPATT Oscillator (Short Papers)." 1973 Transactions on Microwave Theory and Techniques 21.6 (Jun. 1973 [T-MTT]): 425-426.

Magnetically tunable resonators have been constructed in microstrip on a ferrite substrate. A large tuning range is obtained with an external magnetic field applied in the direction of the RF propagation, 17 MHz/Oe for magnetic fields from 0 to 30 Oe. A variable frequency microstrip oscillator which uses this effect is described; measurements made on an X-band IMPATT oscillator illustrate a tuning range from 9.4 to 10.5 GHz with an output power of 330 mW±0.5 dB.

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