Abstracts

Two-Port Magnetostatic Wave Resonators Utilizing Periodic Reflective Arrays

J.M. Owens, C.V. Smith, Jr., E.P. Snapka and J.H. Collins. "Two-Port Magnetostatic Wave Resonators Utilizing Periodic Reflective Arrays." 1978 MTT-S International Microwave Symposium Digest 78.1 (1978 [MWSYM]): 440-442.

Two-port magnetostatic wave, surface wave resonators utilizing periodic etched groove array reflectors have been fabricated on LPE YIG and evaluated in S-band. Loaded Q's of greater than 800 have been observed with octave bandwidth tunability. Theory based on a cascaded transmission line model has shown good agreement with the experimental results. Loaded Q's approaching the material Q of >3000 appear feasible. Cascading of resonators to obtain better off-resonance isolation and complex filter function is feasible.

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