# Abstracts

## Magnetostatic Wave Reflective Array Filter

*J.M. Owens, C.V. Smith, Jr. and T.J. Mears, II. "Magnetostatic Wave Reflective Array Filter." 1979 MTT-S International Microwave Symposium Digest 79.1 (1979 [MWSYM]): 154-156.*

Results from experimental and theoretical studies, carried out in the 3 GHz region in epitaxial YIG, on tunable magnetostatic forward volume wave (MSFVW) oblique Incidence reflective array filters are reported. Uniform reflecting gratings consisting of either metal bars or metal dot arrays have been studied as MSFVW reflectors and yield an octave tunable bandpass filter. Width weighting of the bar widths has yielded significant reduction in side lobe levels of these bandpsss filters. Initial experiments on double reflection from a pair of 10 element metal bar reflecting arrays has been carried out. A graded 14 element metal bar reflecting array has yielded a constant 100 nsec delay 400 MHz bandwidth linear phase filter with a phase ripple of ±15° from linear. This is the first reported controlled dispersion MSFVW filter. Initial studies of quadratic phase MSFVW filters are reported.

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