Abstracts

Side Lobe Suppression in Surface Wave Acoustic Dispersive Delay Lines

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Frequency coding of acoustic waves through the use of multi-element arrays has provided a unique solution to radar systerns requiring pulse compression. The recent advance in efficient coupling to surface acoustic waves on single crystal piezoelectric materials has resulted in the simplification in design of these devices. This simplification occurs because the transducer is made up of a two dimensional conducting metal film array which is produced by the standard photo-etch technique used in microcircuits. This paper discusses the control of phase and amplitude variations in a dispersive delay line using such an array and the resultant side lobe suppression achieved.

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