

Abstracts

SAW Quadraphase Code Generator

C.R. Vale. "SAW Quadraphase Code Generator." 1981 Transactions on Microwave Theory and Techniques 29.5 (May 1981 [T-MTT] (Joint Special Issue on Surface-Acoustic-Wave Device Applications)): 410-414.

Radar emissions are now subject to regulation that limits their spectral splatter. Quadraphase codes are used to make an MSK-like pulse that has a narrower spectrum than a biphase pulse, and furthermore, it is tolerant of filtering. The design of a SAW pattern is described which yields a device that is both an encoder and filter. When it is energized by an impulse a valuable, spectral limited radar pulse is generated. The performance of this pulse is shown to meet certain desirable criteria. The correlator for the pulse is simply derived from the code generator and its performance is shown. Comparison with non-SAW methods of performing the same functions is given.

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