Abstracts

Acoustic Surface Wave Burst Correlator

H.M. Gerard, T.W. Bristol, E.H. Ross, W.R. Smith and P.B. Snow. "Acoustic Surface Wave Burst Correlator." 1974 S-MTT International Microwave Symposium Digest of Technical Papers 74.1 (1974 [MWSYM]): 240-242.

A doppler resolution filter is described which utilizes two acoustic-surface-wave tapped delay lines to perform an important radar signal processing function. The (-1 dB) bandwidth is 50 MHz and the delay increment for each tap is 5.0 µ sec, for a total of 16 taps. A novel LiNbO/sub 3/ temperature stabilization technique is reported for controlling the 80 µ sec delay line stability to ±2 x 10/sup -7/ over an ambient 10°F range.

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