

Abstracts

Acoustic Surface-Wave Recirculating Memory

H. van de Vaart and L.R. Schissler. "Acoustic Surface-Wave Recirculating Memory." 1973 Transactions on Microwave Theory and Techniques 21.4 (Apr. 1973 [T-MTT] (Special Issue on Microwave Acoustic Signal Processing)): 236-243.

An acoustic surface-wave memory is described, operating at a bit rate of 220 MHz and storage capacity of 1280 bit-per recirculation loop. The transducers are coded using orthogonal pairs of Golay complementary sequences to obtain pulse-in pulse-out behavior. The shape of the delayed pulse is analyzed and compared with the pulse shape that is obtained using a simple single finger pair transducer. The recirculation electronics uses standard MECL-III logic for both the amplifier and the write, read, inhibit, and reclocking functions. The cost of the recirculating memory and the feasibility of constructing larger capacity stores are also discussed.

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