Abstracts

Signal Processing Using Guided-Wave Acoustooptic Bragg-Diffraction in LiNbO/sub 3/ Waveguides

I.W. Yao and C.S. Tsai. "Signal Processing Using Guided-Wave Acoustooptic Bragg-Diffraction in LiNbO/sub 3/ Waveguides." 1976 MTT-S International Microwave Symposium Digest of Technical Papers 76.1 (1976 [MWSYM]): 21-23.

Real-time processing of rf signals using guided-wave acoustooptic Bragg-diffraction in LiNbO/sub 3/ waveguides has been studied both theoretically and experimentally. Good performance figures for convolution have been achieved by employing multiple tilted surface acoustic waves: time-bandwidth product of 305, dynamic range of approximately 50 db, total rf power of 310 mW for maximum convolution output and the frequency resolution of 1 MHz (defined at zero convolution output).

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