

## Investigations and Improvements in Microwave Opto-Electronic Variable Delay Lines

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A particular class of optically generated microwave delay lines is dealt with namely those that apply path length dispersions. Detailed analysis of the design, using an accousto-optic device for spatial imaging is given. Furthermore two new designs. decomposing the signal into sub-bands; a.) via a pixelled mirror and b.) using an electrical filter bank, are discussed. Detailed analysis of these structures as well as limitations of applicability are given. Numerical experiments validate the theoretical results.

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