# Abstracts

## Analog Reflection Topology Building Blocks for Adaptive Microwave Signal Processing Applications

*S. Lucyszyn and I.D. Robertson. "Analog Reflection Topology Building Blocks for Adaptive Microwave Signal Processing Applications." 1995 Transactions on Microwave Theory and Techniques 43.3 (Mar. 1995 [T-MTT]): 601-611.*

The synthesis and realization of an analog--phase shifter, delay line, attenuator, and group delay synthesizer-are presented. These variable control devices are all implemented using the same generic single stage reflection topology. The optimum conditions of operation have been determined and the corresponding group delay behaviors have been investigated to produce simple design equations. As proof-of-concepts, monolithic technology has been used to realize an X-band, phase shifter, delay line, and attenuator. Hybrid technology has been used to realize an L-band, group-delay synthesizer. Because of the high levels of performance measured, these control devices are ideally suited for use as general building blocks in adaptive signal processing applications, including large phased array applications.

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