Abstracts

3 to 5 GHz Compact Microwave Delay Line

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Recent advances in low cost, automated, planar microcoax interconnection technology have made possible dramatic reductions in the size and weight of microwave frequency delay lines. This new technology has been used in the design and implementation of a 3 to 5 GHz, 250-nsec microwave delay line having linear and spurious free third order dynamic ranges of 70 and 50 dB, respectively. This design was developed under a BAA contract with the US Navy. A detailed discussion of the delay line design is presented, along with measured performance data. These results are the first reported for a delay line of this type and represent a factor of 30 reduction in size and weight compared to conventional technologies.

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