

Design of a Pulse Generator Based on a Programmable System-on-Chip (PSoC) for Ultrasonic Applications

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Abstract : This paper describes the design of a pulse generator based on the Programmable System-on-Chip (PSoC) module. In this module, using programmable logic is possible to implement different pulses which are required for ultrasonic applications, either in a single channel or multiple channels. This module can operate with programmable frequencies from 3-74 MHz; its programming may be versatile covering a wide range of ultrasonic applications. It is ideal for low-power ultrasonic applications where PZT or PVDF transducers are used.

Keywords : PSoC, pulse generator, PVDF, ultrasonic transducer

Conference Title : ICU 2016 : International Conference on Ultrasonics

Conference Location : Miami, USA

Conference Dates : March 24-25, 2016