Abstract

Microcontroller timer units and programmable logic devices both can create complex system timing functions. Using the Motorola time processor unit available on the MC68332 and MC68HC1GY1 microcontrollers and PLDs from Altera, we compared the performance and flexibility of these devices in applications that require various timing functions. These investigations show that in certain systems the combination of a microcontroller timer and a PLD provides the most efficient design.

Citation

"Creating Complex Timing Functions: Microcontroller Timer Unit or PLD," with Alan Clapp. IEEE MICRO, Vol. 14, No. 2, April 1994, pp. 70-78.