

Philips ARM Design Contest 2005
ARM Scope (The Analog Oscilloscope Companion)
Project # AR1777

Abstract

My project is aimed at providing functionality which my analog oscilloscope can't. The downfall of an old analog oscilloscope is that it can't provide useful information at low speed. The display is not retained and you are left guessing what the signal looked like. Another problem is that I am never too sure of the calibration throughout its range and the onboard cal pin is for voltage while frequency is not specified. The ARM Scope does not duplicate what the oscilloscope does well, it just supplements functionality where it is needed most. Functions include timed PWM Output (for oscilloscope calibration), Analog Input (roll), and Analog Output (anything sent to its buffer). The serial interface is handled by a Keyspan USB to RS232 adapter. The user interface was created in National Instruments LabVIEW 7.1.

Hardware

- Keil MCB2130 evaluation board for the Philips LPC2138 ARM Microcontroller





