Title: Achieving High Sampling Rates with Time-Interleaved ADCs

Abstract

Many signal processing applications require Analog-to-Digital Converters (ADCs) with sampling rates significantly higher than today's high-speed ADCs are capable of delivering. The classic solution to the sample rate problem is to time interleave multiple ADCs. While conceptually straight forward, interleaving introduces the need for very tight matching between the interleaved ADCs. After reviewing the nature of the matching problem, some potential solutions will be considered. Finally, the performance of some high resolution interleaved ADC systems will be illustrated.

Biography

Dr. David Nairn received his Bachelor's, Master's and Doctorate degrees in Electrical Engineering from the University of Toronto, Canada. He is currently a senior staff engineer with Analog Devices' High-Speed Converter group in Greensboro, NC, where he designs high-speed analog-to-digital converters. Previously, he was an associate professor at Queen's University in Canada where he taught courses, conducted research and consulted in analog electronics