xCORE-200 DSP Library

This API reference manual describes the XMOS fixed-point digital signal processing software library. The library implements of a suite of common signal processing functions for use on XMOS xCORE-200 multi-core microcontrollers.

Required tools and libraries

- xTIMEcomposer Tools Version 14.1.2 or later

Required hardware

Only XMOS xCORE-200 based multicore microcontrollers are supported with this library. The previous generation XS1 based multicore microntrollers are not supported.

The xCORE-200 has a single cycle 32x32->64 bit multiply/accumulate unit, single cycle double-word load and store, dual issue instruction execution, and other instruction set enhancements. These features make xCORE-200 an efficient platform for executing digital signal processing algorithms.

Prerequisites

This document assumes familiarity with the XMOS xCORE architecture, the XMOS tool chain, the 'C' programming language, and digital signal processing concepts.

Software version and dependencies

This document pertains to version 2.0.0 of this library. It is known to work on version 14.2.0 of the xTIMEcomposer tools suite, it may work on other versions.

The library does not have any dependencies (i.e. it does not rely on any other libraries).

Related application notes

The following application notes use this library:

- AN00209 - xCORE-200 DSP Library