

CHAPTER 1

Introduction to the Wideband TMS320C3x/4x Optimized Math Library

1.1 Introduction to the Wideband Optimized Math Library

The Wideband Optimized Math Library for Scientific and Engineering Applications features over 250 frequently used scalar math, vector, signal and image processing functions for the Texas Instruments TMS320C3x and TMS320C4x digital signal processors. All functions are hand-optimized in TMS320 assembly language utilizing either the C3x or advanced C4x instruction sets to provide maximum efficiency. Innovative implementations provide unparalleled performance for many compute-intensive functions.

1.2 Document Contents

The important sections of this document are organized as follows:

Chapter 1: Introduction

Chapter 2: Provides Overview information.

Chapter 3: Software Installation

Chapter 4: Describes how to use the library

Chapter 5: Describes in detail all Optimized Math Library routines

Chapter 6: Provides a detailed spreadsheet of timing benchmarks.

1.3 Revision History

This is release 3.0 of this product.

1.4 Software Reports

Any discrepancies found in the use of this product should be reported to Wideband Computers, Inc. Alternately, the Software Problem Report at the back of this manual can be used to report problems.

1.5 University Discounts

Wideband also offers discounted packages to Universities, Colleges, and other educational institutions. Contact us for further information.