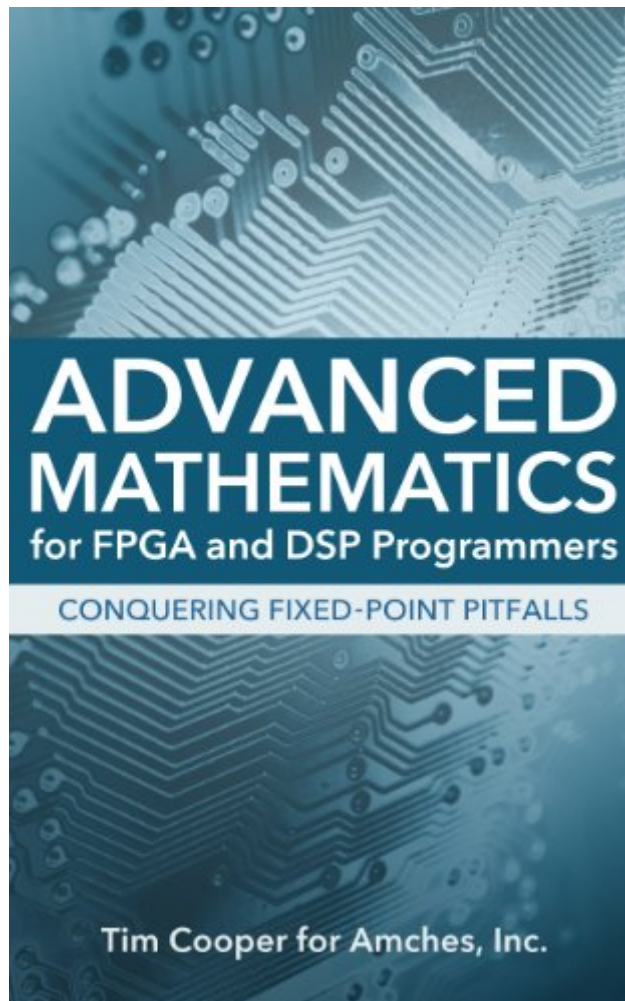# Advanced Mathematics For FPGA And DSP Programmers: Conquering Fixed-Point Pitfalls

Synopsis

Advanced Mathematics for FPGA and DSP Programmers covers the mathematical concepts involved in FPGA and DSP programing that can make or break a project. Coverage includes Numbers and Representation, Signals and Noise, Complex Arithmetic, Statistics, Correlation and Convolution, Frequencies, The FFT, Filters, Decimating and Interpolating, Practical Applications, Dot Product Applications, and a glossary of DSP arithmetical terms. Many of the graphs and images are in color. Advanced Mathematics is best viewed on a Kindle Fire.About the AuthorTim Cooper has been developing real-time embedded and signal processing software for commercial and military applications for over 30 years. Mr. Cooper has authored numerous device drivers, board support packages, and signal processing applications for real-time-operating systems. Mr. Cooper has also authored high-performance signal processing libraries based on SIMD architectures. Other signal processing experience includes MATLAB algorithm development and verification, and working with FPGA engineers to implement and validate signal processing algorithms in VHDL.Much of Mr. Cooper's experience involves software development for systems having hard real-time requirements and deeply embedded processors, where software reliability, performance, and latency are significant cost drivers. Such systems typically require innovative embedded instrumentation that collects performance data without competing for processing resources. Mr. Cooper holds a Bachelor of Science in Computer Sciences and a Master's degree in Computer and Electronics Engineering from George Mason University.

Book Information

File Size: 9199 KB

Print Length: 272 pages

Simultaneous Device Usage: Unlimited

Publisher: Amches Inc. (December 14, 2013)

Publication Date: December 14, 2013

Sold by:Â Digital Services LLC

Language: English

ASIN: B00HB7YWXQ

Text-to-Speech: Enabled

X-Ray: Not Enabled

Word Wise: Not Enabled

Lending: Not Enabled

Enhanced Typesetting: Not Enabled

Best Sellers Rank: #1,445,987 Paid in Kindle Store (See Top 100 Paid in Kindle Store)   #94 in Books > Computers & Technology > Hardware & DIY > Microprocessors & System Design > DSPs   #379 in Books > Engineering & Transportation > Engineering > Telecommunications & Sensors > Signal Processing   #1457 in Books > Computers & Technology > Software > Mathematical & Statistical

Customer Reviews

If you are looking for a book with page after page of esoteric DSP-related mathematical formulas then this book is not for you.However if you are looking for simple, clear and well organized explanations related to a very difficult subject then read on!Mr. Cooper does an excellent job of explaining both the mathematical and the engineering concepts with plenty of examples.IMHO the title of the book should have been something along the lines of "FPGA and DSP Mathematical Applications: A Practical Guide and Tutorial"

The book has some useful tips and general concepts, but it doesn't go very deep in either implementation or mathematics.

Download to continue reading...

Advanced Mathematics for FPGA and DSP Programmers: Conquering Fixed-Point Pitfalls Advanced Mathematics for FPGA and DSP Programmers Topological Fixed Point Principles for Boundary Value Problems (Topological Fixed Point Theory and Its Applications) Design of Softcore DSP Processors on FPGA Chips DSP without math: A brief introduction to DSP The Art of DSP: An innovative introduction to DSP Advanced Digital Logic Design Using VHDL, State Machines, and Synthesis for FPGA's Dating: Dating Advice for Women: Best 16 Dating Tips To Get The Guy, Understanding Men, Keep Him Interested and Avoid the Traps and Pitfalls Most women will never know about (Dating Advice)) Knife Laws of the U.S.: Loopholes, Pitfalls & Secrets Common Grammar Pitfalls & Mistakes (Quickstudy: Academic) Massage: The Foam Roller Bible: Foam Rolling - Self Massage, Trigger Point Therapy & Stretching (Trigger Point, Tennis Ball, Myofascial, Deep Tissue, Pressure Points, Hip Flexors, Calisthenics) Practical FPGA Programming in C FPGA Prototyping By Verilog Examples: Xilinx Spartan-3 Version 100 Power Tips for FPGA Designers FPGA-Based Prototyping Methodology Manual: Best Practices in Design-For-Prototyping Advanced Mathematics for Engineers with Applications in Stochastic Processes. Aliakbar Montazer Haghighi, Jian-Ao Lian, Dimitar P. Mishev (Mathematics Research Developments) One Gear: Converting and

Maintaining Single Speed and Fixed Gear Bicycles The Telecommunications Handbook: Engineering Guidelines for Fixed, Mobile and Satellite Systems Fixed Odds Sports Betting: Statistical Forecasting and Risk Management Fixed and removable dentures e chart: Full illustrated