



Digital Computer Arithmetic Datapath Design Using Verilog HDL

By James E. Stine

Download now

Read Online ➔

Digital Computer Arithmetic Datapath Design Using Verilog HDL By James E. Stine

This text presents basic implementation strategies for arithmetic datapath designs and methodologies utilized in the digital system. The author implements various datapath designs for addition, subtraction, multiplication, and division. Theory is presented to illustrate and explain why certain designs are chosen. Each implementation is discussed in terms of design choices and how particular theory is invoked in the hardware. Along with the theory that emphasizes the design in question, Verilog modules are presented for understanding the basic ideas that accompany each design. Structural models are implemented to guarantee correct synthesis and for incorporation into VLSI schematic-capture programs. From the modules, the reader can easily add or modify existing code to study current areas of research in the area of computer arithmetic. The emphasis is on the arithmetic algorithm and not the circuit. For any design, both algorithmic and circuit trade-offs should be adhered to when a design is under consideration. Therefore, the idea is to implement each design at the RTL level so that it may be possibly implemented in many different ways (i.e. standard-cell or custom-cell). Thus, professionals, researchers, students, and those generally interested in computer arithmetic can understand how arithmetic datapath elements are designed and implemented. Also included is a CD-ROM which contains the files discussed in the book. The CD-ROM includes additional files utilized in preparing the designs in Verilog including scripts to automatically generate Verilog code for parallel carry-save and tree multipliers. Each Verilog design also contains each module including testbenches to facilitate testing and verification.

Note: The Kindle edition of this book does not include any CDs or DVDs.

↓ [Download Digital Computer Arithmetic Datapath Design Using ...pdf](#)

📖 [Read Online Digital Computer Arithmetic Datapath Design Usin ...pdf](#)

Digital Computer Arithmetic Datapath Design Using Verilog HDL

By James E. Stine

Digital Computer Arithmetic Datapath Design Using Verilog HDL By James E. Stine

This text presents basic implementation strategies for arithmetic datapath designs and methodologies utilized in the digital system. The author implements various datapath designs for addition, subtraction, multiplication, and division. Theory is presented to illustrate and explain why certain designs are chosen. Each implementation is discussed in terms of design choices and how particular theory is invoked in the hardware. Along with the theory that emphasizes the design in question, Verilog modules are presented for understanding the basic ideas that accompany each design. Structural models are implemented to guarantee correct synthesis and for incorporation into VLSI schematic-capture programs. From the modules, the reader can easily add or modify existing code to study current areas of research in the area of computer arithmetic. The emphasis is on the arithmetic algorithm and not the circuit. For any design, both algorithmic and circuit trade-offs should be adhered to when a design is under consideration. Therefore, the idea is to implement each design at the RTL level so that it may be possibly implemented in many different ways (i.e. standard-cell or custom-cell). Thus, professionals, researchers, students, and those generally interested in computer arithmetic can understand how arithmetic datapath elements are designed and implemented. Also included is a CD-ROM which contains the files discussed in the book. The CD-ROM includes additional files utilized in preparing the designs in Verilog including scripts to automatically generate Verilog code for parallel carry-save and tree multipliers. Each Verilog design also contains each module including testbenches to facilitate testing and verification.

Note: The Kindle edition of this book does not include any CDs or DVDs.

Digital Computer Arithmetic Datapath Design Using Verilog HDL By James E. Stine Bibliography

- Sales Rank: #4379094 in eBooks
- Published on: 2012-10-04
- Released on: 2003-11-30
- Format: Kindle eBook



[Download Digital Computer Arithmetic Datapath Design Using ...pdf](#)



[Read Online Digital Computer Arithmetic Datapath Design Usin ...pdf](#)

Editorial Review

Users Review

From reader reviews:

Bertha Morrison:

What do you regarding book? It is not important along? Or just adding material if you want something to explain what yours problem? How about your extra time? Or are you busy person? If you don't have spare time to do others business, it is give you a sense of feeling bored faster. And you have extra time? What did you do? Everybody has many questions above. They have to answer that question because just their can do this. It said that about e-book. Book is familiar in each person. Yes, it is appropriate. Because start from on kindergarten until university need this Digital Computer Arithmetic Datapath Design Using Verilog HDL to read.

Lewis Wade:

Here thing why this particular Digital Computer Arithmetic Datapath Design Using Verilog HDL are different and dependable to be yours. First of all studying a book is good nonetheless it depends in the content of it which is the content is as delightful as food or not. Digital Computer Arithmetic Datapath Design Using Verilog HDL giving you information deeper and different ways, you can find any e-book out there but there is no book that similar with Digital Computer Arithmetic Datapath Design Using Verilog HDL. It gives you thrill looking at journey, its open up your eyes about the thing that happened in the world which is might be can be happened around you. You can easily bring everywhere like in area, café, or even in your technique home by train. In case you are having difficulties in bringing the paper book maybe the form of Digital Computer Arithmetic Datapath Design Using Verilog HDL in e-book can be your alternative.

Susan Douglas:

Information is provisions for those to get better life, information these days can get by anyone at everywhere. The information can be a understanding or any news even a problem. What people must be consider when those information which is inside former life are difficult to be find than now is taking seriously which one is suitable to believe or which one often the resource are convinced. If you have the unstable resource then you understand it as your main information you will have huge disadvantage for you. All those possibilities will not happen inside you if you take Digital Computer Arithmetic Datapath Design Using Verilog HDL as the daily resource information.

Patricia Ramirez:

Can you one of the book lovers? If yes, do you ever feeling doubt if you are in the book store? Try and pick

one book that you just don't know the inside because don't judge book by its deal with may doesn't work here is difficult job because you are afraid that the inside maybe not seeing that fantastic as in the outside appearance likes. Maybe your answer may be Digital Computer Arithmetic Datapath Design Using Verilog HDL why because the wonderful cover that make you consider in regards to the content will not disappoint you actually. The inside or content is actually fantastic as the outside or even cover. Your reading 6th sense will directly guide you to pick up this book.

Download and Read Online Digital Computer Arithmetic Datapath Design Using Verilog HDL By James E. Stine #V0JZBNW9L4D

Read Digital Computer Arithmetic Datapath Design Using Verilog HDL By James E. Stine for online ebook

Digital Computer Arithmetic Datapath Design Using Verilog HDL By James E. Stine Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Digital Computer Arithmetic Datapath Design Using Verilog HDL By James E. Stine books to read online.

Online Digital Computer Arithmetic Datapath Design Using Verilog HDL By James E. Stine ebook PDF download

Digital Computer Arithmetic Datapath Design Using Verilog HDL By James E. Stine Doc

Digital Computer Arithmetic Datapath Design Using Verilog HDL By James E. Stine Mobipocket

Digital Computer Arithmetic Datapath Design Using Verilog HDL By James E. Stine EPub

V0JZBNW9L4D: Digital Computer Arithmetic Datapath Design Using Verilog HDL By James E. Stine