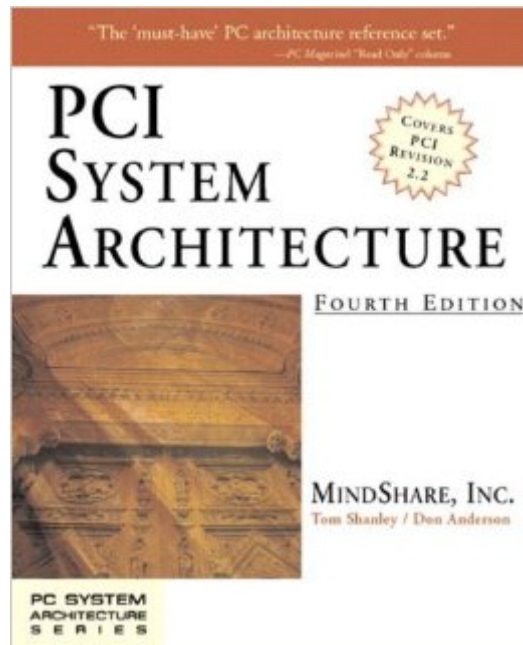The book was found

PCI System Architecture (4th Edition)

Synopsis

PCI System Architecture is a detailed and comprehensive guide to the Peripheral Component Interconnect (PCI) Bus Specification, Intels technology for fast communication between peripheral devices and the computer processor. This new edition has been thoroughly updated, reorganized, and expanded to cover the PCI Local Bus Specification version 2.2 and other recent developments, including the new PCI Hot-Plug Specification, changes to the PCI-to-PCI Bridge Architecture Specification, revisions to the PCI Bus Power Management Interface Specification, and the new features of the PCI BIOS Specification. This book provides clear and concise explanations of the relationship of PCI to the rest of the system and PCI fundamentals, including commands, read and write transfers, memory and I/O addressing, error handling, interrupts, and configuration transactions and registers. In addition, you will find specific information on such key topics as: *Hot-Plug Specification *Power management *CompactPCI *The 64-bit PCI Extension *66 MHz PCI Implementation *Expansion ROMs *PCI-to-PCI Bridge and the PCI BIOS *Add-in cards and connectors *Bus arbitration *Reflected-wave switching *Early transaction e

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Customer Reviews

If you're looking for an extensive guide to the hardware workings of PCI, this is THE book. I read it, then bought the PCI spec (because I needed mechanical info). After looking through the spec, I realize that PCI System Architecture covers every aspect of conceptual, and almost all detail, information that is in the spec. As far as specs go, the PCI spec is very readable, but this book turns

the PCI spec into a "for dummies" book in the sense that it's so easy to follow. Numerous and overlapping examples make it clear what's going on, and by the time you're done reading, you can do this stuff in your sleep. Only thing absent was mechanical info (though for $50, you really should buy the spec).

Being an Electrical Engineer, and one that has already designed a PCI product (PC Card), I purchased this book as a re-fresher based on another EE comments. The book is VERY good at: Describing the many PCI based registers. Providing useful timing diagram information. Providing useful driver information tips, and explaining the "fair" nature of the PCI bus. The book is poor at: Providing useful electronic interface information. Way too wordy, but worse yet overly repetitive. Did not cover PCB layout issues. Overly focused on PC interface - what about embedded system?The PCI bus architecture has grown to huge acceptance within the embedded world, yet this book focuses almost entirely on a PC interface. The book also fails to address the electrical characteristics of the bus. About four pages (total of 700+) are spent on the reflective wave nature of PCI. This is a lost because most EE are only familiar with an incident wave bus signal. If designing a complex embedded system with multiple loads, and PCI to PCI Bridges, you can forget about any help here when it comes to multiple transmission line reflections and PCB layout assistance. How could anyone write a "how to" book about a bus (any bus for that matter) and fail to cover the topic of bus transmission is beyond me (especially a bus that can clock up to 66MHz). WOW unbelievable! Lastly, this must have been a pay by the page deal. There are over 700+ pages (and I read most of them). Believe me, it could have been much shorter. Much of the information is repeated over, and over again (more than 2 or 3 times).

Step by step, this book guides you over all the aspects of the PCI bus: Architecture, transactions, arbitration, PCI commands, interrupts, configuration, etc.The book refers to both 33 and 66 MHz PCI.The book language is clear, the diagrams are good and the division by subjects is well done.At the beginning of every chapter, you can see a summary of the contents of the chapter, as well as a short sentence about the previous and next chapters.NOTE: I am a hardware designer, and I think that hardware issues were well covered in the book. As I have seen from previous reviews, software designers think that there is not enough information in the book for them. Also, as already noted by other reviewers, mechanical aspects are not covered by the book.

It is an Excellent Book on PCI, This was the first time I have ever read a BUS Spec. and coming out

of college with little experience of the advance system level architecture, this book served a great deal in understanding the PCI from "Concepts to Implementation". Author has been very open on his understanding of the Specification, even on topics/details which are not so clear in the Actual PCI Specification. Its good to have a copy of the PCI Specification as well while reading the book.

Hi, Bought this book under the assumption that the coverage would be better than the PCI Specification from PCI-SIG, but the book is pretty much an exact copy of the specification document. If you can get your hands on the original PCI spec., you will be better off. The only saving grace for this book was that it covered all the stuff from the spec., so if you don't have access to the spec., the book does an ok job covering the whole PCI area.

When I opened this book, I had maintained a few PCI drivers, and done off and on hacking at PCI support code, but I didn't fully understand the semantics of PCI. Within a few dozen pages, I had attained infinitely more clue on PCI, and having not even _finished_ the book yet, I can confidently say it's a great great text on PCI, and makes sense of what usually looks like a house of cards with spaghetti strewn over it in code form.

Much padding with information-less figures. The first 4 chapters are a review of EISA and of such low detail they are just filler (but I must admit it caused me to buy thier prior books on this subject). With the new bridge chips, it will be out of date soon, but a good "bed time read" on PCI concepts. Clearly better then attending the committee meetings. If you are about to decide on a chipset or build a real design, it does not have sufficient information for your needs, see the various solution vendors PDF files. If you are looking for easy to digest background, get it.

This book describes the PCI architecture plain and simply. It completely explains the PCI bus in such a way that I understood it all immediately and I still remember most of the important information and details a year after reading it.

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