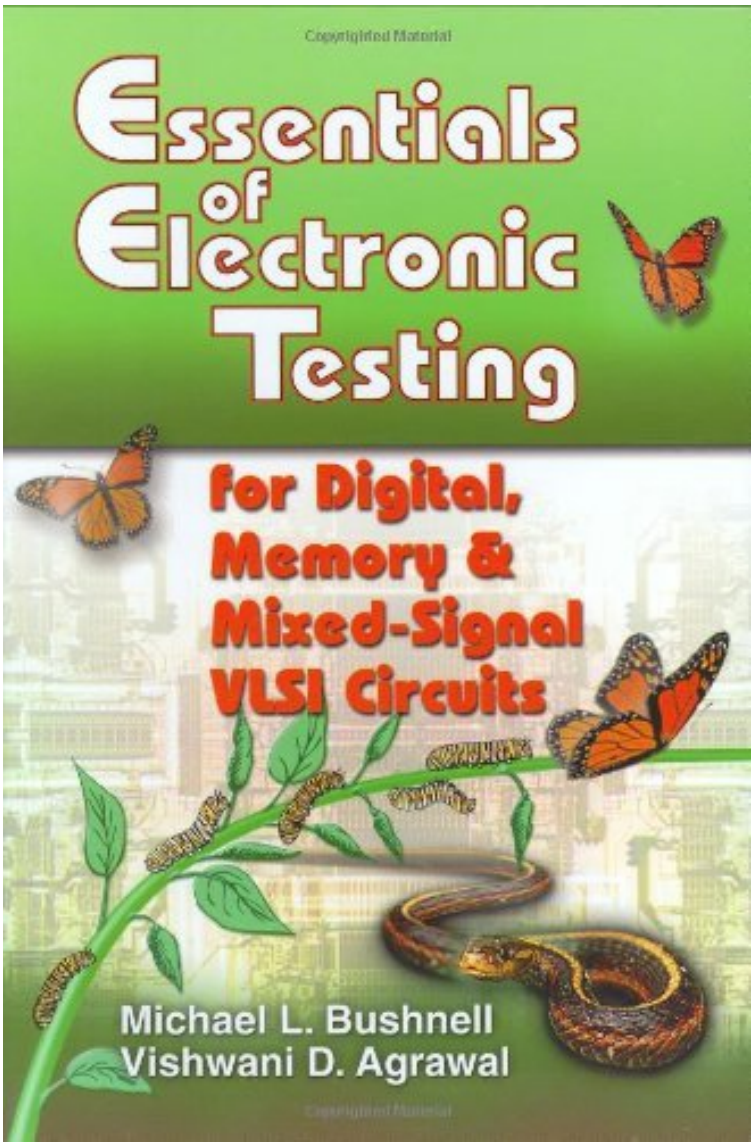
Essentials of Electronic Testing for Digital, Memory and Mixed-Signal VLSI Circuits (Frontiers in Electronic Testing)

Von M. Bushnell, Vishwani Agrawal
**Download PDF | ePub | DOC | audiobook | ebooks*



Produktinformation -Verkaufsrang: #1666122 in eBooksVerffentlicht am: 2006-04-11Erscheinungsdatum: 2006-04-11File Name: B00194CY14 | File size: 52.Mb

Von M. Bushnell, Vishwani Agrawal : Essentials of Electronic Testing for Digital, Memory and Mixed-Signal VLSI Circuits (Frontiers in Electronic Testing) before purchasing it in order to gage whether or not it would be worth my time, and all praised Essentials of Electronic Testing for Digital, Memory and Mixed-Signal VLSI Circuits (Frontiers in Electronic Testing):

KundenrezensionenHilfreichste Kundenrezensionen2 von 2 Kunden fanden die folgende Rezension hilfreich. Fr Testingenieure und Designer (DFT)Von Ein KundeDas Buch beschftigt sich ausschliesslich mit dem Testen von Halbleiterschaltungen. Es ist klar in die Teile Testmethoden und Design-for-Testability gegliedert. Ob Designer, die sich ernsthaft mit Design-for-Test beschftigen, oder Testingenieure, die sich mit den eingebauten Test-Features auskennen wollen, bietet das Buch gleichermaen eine Flle an Informationen. Das Buch gibt auf fast 700 Seiten mehr als nur einen berblick. Die Liste an weiterfhrender Literatur lt keine Wnsche offen. Lediglich die Verweise auf Webseiten sind ziemlich mager ausgefallen.Technisch gesehen, sind die Informationen auf dem neuesten Stand. Messtechniker sollten es sich zweimal berlegen dieses Buch zu kaufen, denn es deckt den Bereich des Messens ausserhalb eines Chips nicht ab. Wie man was misst, ist jedem einzelnen berlassen.Fazit: Fr die oben angesprochenen Zielgruppen, ist das Buch empfehelnswert.

KurzbeschreibungThe modern electronic testing has a forty year history. Test professionals hold some fairly large conferences and numerous workshops, have a journal, and there are over one hundred books on testing. Still, a full course on testing is offered only at a few universities, mostly by professors who have a research interest in this area. Apparently, most professors would not have taken a course on electronic testing when they were students. Other than the computer engineering curriculum being too crowded, the major reason cited for the absence of a course on electronic testing is the lack of a suitable textbook. For VLSI the foundation was provided by semiconductor device techn- ogy, circuit design, and electronic testing. In a computer engineering curriculum, therefore, it is necessary that foundations should be taught before applications. The field of VLSI has expanded to systems-on-a-chip, which include digital, memory, and mixed-signalsubsystems. To our knowledge this is the first textbook to cover all three types of electronic circuits. We have written this textbook for an undergraduate foundations course on electronic testing. Obviously, it is too voluminous for a one-semester course and a teacher will have to select from the topics. We did not restrict such freedom because the selection may depend upon the individual expertise and interests. Besides, there is merit in having a larger book that will retain its usefulness for the owner even after the completion of the course. With equal tenacity, we address the needs of three other groups of readers.KurzbeschreibungThe modern electronic testing has a forty year history. Test professionals hold some fairly large conferences and numerous workshops, have a journal, and there are over one hundred books on testing. Still, a full course on testing is offered only at a few universities, mostly by professors who have a research interest in this area. Apparently, most professors would not have taken a course on electronic testing when they were students. Other than the computer engineering curriculum being too crowded, the major reason cited for the absence of a course on electronic testing is the lack of a suitable textbook. For VLSI the foundation was provided by semiconductor device techn- ogy, circuit design, and electronic testing. In a computer engineering curriculum, therefore, it is necessary that foundations should be taught before applications. The field of VLSI has expanded to systems-on-a-chip, which include digital, memory, and mixed-signalsubsystems. To our knowledge this is the first textbook to cover all three types of electronic circuits. We have written this textbook for an undergraduate foundations course on electronic testing. Obviously, it is too voluminous for a one-semester course and a teacher will have to select from the topics. We did not restrict such freedom because the selection may depend upon the individual expertise and interests. Besides, there is merit in having a larger book that will retain its usefulness for the owner even after the completion of the course. With equal tenacity, we address the needs of three other groups of readers.Synopsis Today's electronic design and test engineers deal with several types of subsystems, namely, digital, memory, and mixed-signal, each requiring different test and design for testability methods. This book provides a careful selection of essential topics on all three types of circuits. The outcome of testing is product quality, which means "meeting the user's needs at a minimum cost". The book includes test economics and techniques for determining the defect level of VLSI chips. Besides being a textbook for a course on testing, it is a complete testability guide for an engineer working on any kind of electronic device or system or a system-on-a-chip.