

1. Record Nr.	UNINA9910830990503321
Autore	Patmaonaapaon oTi. aAr
Titolo	Design through Verilog HDL // T.R. Padmanabhan, B. Bala Tripura Sundari
Pubbl/distr/stampa	Piscataway, New Jersey : , : IEEE Press, , c2004 [Piscataqay, New Jersey] : , : IEEE Xplore, , [2005]
ISBN	1-280-55707-9 9786610557073 0-471-72299-5 0-471-72300-2
Descrizione fisica	1 PDF (xii, 455 pages) : illustrations
Altri autori (Persone)	Tripura SundariB. Bala
Disciplina	621.39/2
Soggetti	Verilog (Computer hardware description language) Electrical Engineering Electrical & Computer Engineering Engineering & Applied Sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references (p. 449-450) and index.
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## Sommario/riassunto

A comprehensive resource on Verilog HDL for beginners and experts. Large and complicated digital circuits can be incorporated into hardware by using Verilog, a hardware description language (HDL). A designer aspiring to master this versatile language must first become familiar with its constructs, practice their use in real applications, and apply them in combinations in order to be successful. Design Through Verilog HDL affords novices the opportunity to perform all of these tasks, while also offering seasoned professionals a comprehensive resource on this dynamic tool. Describing a design using Verilog is only half the story: writing test-benches, testing a design for all its desired functions, and how identifying and removing the faults remain significant challenges. Design Through Verilog HDL addresses each of these issues concisely and effectively. The authors discuss constructs through illustrative examples that are tested with popular simulation packages, ensuring the subject matter remains practically relevant. Other important topics covered include: . Primitives. Gate and Net delays. Buffers. CMOS switches. State machine design. Further, the authors focus on illuminating the differences between gate level, data

flow, and behavioral styles of Verilog, a critical distinction for designers. The book's final chapters deal with advanced topics such as timescales, parameters and related constructs, queues, and switch level design. Each chapter concludes with exercises that both ensure readers have mastered the present material and stimulate readers to explore avenues of their own choosing. Written and assembled in a paced, logical manner, *Design Through Verilog HDL* provides professionals, graduate students, and advanced undergraduates with a one-of-a-kind resource.

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