

1. Record Nr.	UNINA9910819122103321
Autore	Chu Pong P. <1959->
Titolo	FPGA prototyping by Verilog examples : Xilinx Spartan -3 version / / Pong P. Chu
Pubbl/distr/stampa	Hoboken, N.J., : J. Wiley & Sons, c2008
ISBN	9786611732578 9781118210611 1118210611 9781281732576 1281732575 9780470374283 0470374284 9780470374276 0470374276
Edizione	[1st ed.]
Descrizione fisica	1 online resource (520 p.)
Disciplina	621.39/5
Soggetti	Field programmable gate arrays - Design and construction Prototypes, Engineering Verilog (Computer hardware description language)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (p. 485-486) and index.
Nota di contenuto	FPGA Prototyping by Verilog Examples; CONTENTS; Preface; Acknowledgments; PART I BASIC DIGITAL CIRCUITS; 1 Gate-level combinational circuit; 1.4 Data types; 1.5 Program skeleton; 1.6 Structural description; 1.7 Testbench; 1.8 Bibliographic notes; 1.9 Suggested experiments; 2 Overview of FPGA and EDA software; 3 RT- level combinational circuit; 4 Regular Sequential Circuit; 5 FSM; 6 FSMD; 7 Selected Topics of Verilog; PART II I/O MODULES; 8 UART; 9 PS2 Keyboard; 10 PS2 Mouse; 11 External SRAM; 12 Xilinx Spartan 3 Specific Memory; 13 VGA controller I: graphic; 14 VGA controller II: text PART III PICOBLAZE MICROCONTROLLER XILINX SPECIFIC15 PicoBlaze Overview; 16 PicoBlaze Assembly Code Development; 17 PicoBlaze I/O Interface; 18 PicoBlaze Interrupt Interface; Appendix A: Sample Verilog

templates; A.1 Numbers and operators; A.2 General Verilog constructs; A.3 Routing with conditional operator and if and case statements; A.4 Combinational circuit using an always block; A.5 Memory Components; A.6 Regular sequential circuits; A.7 FSM; A.8 FSMD; A.9 S3 board constraint file (s3. ucf); References; Topic Index

Sommario/riassunto

FPGA Prototyping Using Verilog Examples will provide you with a hands-on introduction to Verilog synthesis and FPGA programming through a "learn by doing" approach. By following the clear, easy-to-understand templates for code development and the numerous practical examples, you can quickly develop and simulate a sophisticated digital circuit, realize it on a prototyping device, and verify the operation of its physical implementation. This introductory text that will provide you with a solid foundation, instill confidence with rigorous examples for complex systems and prepare you for fu
