1. Record Nr. UNINA9911006597303321

Autore	Hossain Razak <1965->
Titolo	High performance ASIC design : using synthesizable domino logic in an ASIC flow / / Razak Hossain
Pubbl/distr/stampa	Cambridge, UK ; ; New York, : Cambridge University Press, 2008
ISBN	1-107-18115-1 1-281-94474-2 9786611944742 0-511-45268-3 0-511-45611-5 0-511-45742-1 0-511-45436-8 0-511-45340-X 0-511-54116-3 0-511-45540-2
Descrizione fisica	1 online resource (x, 145 pages) : digital, PDF file(s)
Disciplina	621.39/5
Soggetti	Application-specific integrated circuits - Design and construction - Computer-aided design Logic circuits - Computer-aided design Very high speed integrated circuits - Computer-aided design
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from publisher's bibliographic system (viewed on 05 Oct 2015).
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	An introduction to domino logic -- High-speed digital design -- Domino logic library design -- Domino logic synthesis -- Circuits designed with domino logic in an ASIC flow -- Evolution of domino logic synthesis.
Sommario/riassunto	Presenting a methodology for using domino logic in an ASIC design flow developed over several years in an industrial context, this text covers practical issues related to the use of domino logic in an automated framework, and brings together all the knowledge needed to apply these design techniques in practice. Beginning with a discussion of how to achieve high speed in ASIC designs, subsequent

chapters detail the design and characterization of standard cell compatible domino logic libraries and an advanced domino logic synthesis flow. The results achieved by using automated domino logic design techniques, including silicon measurements, are used to validate the presented solution. With design examples including the implementation of the execution unit of a microprocessor and a Viterbi decoder, this text is ideal for graduate students and researchers in electrical and computer engineering and also for circuit designers in industry.