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Autore	Bhushan Manjul
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Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction -- CMOS Circuit Basics -- CMOS Storage Elements and Synchronous Logic -- IDDQ and Power -- Embedded PVT Monitors -- Variability -- Product Chip Test and Characterization -- Reliability, Burn-In and Guardbands -- Data Analysis and Characterization -- CMOS Metrics and Model Evaluation.
Sommario/riassunto	This book extends test structure applications described in Microelectronic Test Structures for CMOS Technology (Springer 2011) to digital CMOS product chips. Intended for engineering students and professionals, this book provides a single comprehensive source for evaluating CMOS technology and product test data from a basic

knowledge of the physical behavior of the constituent components. Elementary circuits that exhibit key properties of complex CMOS chips are simulated and analyzed, and an integrated view of design, test and characterization is developed. Appropriately designed circuit monitors embedded in the CMOS chip serve to correlate CMOS technology models and circuit design tools to the hardware and also aid in test debug. Impact of silicon process variability, reliability, and power and performance sensitivities to a range of product application conditions are described. Circuit simulations exemplify the methodologies presented, and problems are included at the end of the chapters.

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