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Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (XIII, 298 p. 357 illus.)
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Soggetti	Electronic circuits Electronics Microelectronics Circuits and Systems Electronics and Microelectronics, Instrumentation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
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Note generali	Includes index.
Nota di contenuto	Fundamentals of Passive Circuit Analysis -- Diode and Bipolar Transistor Circuits -- MOS Transistors and CMOS Circuits -- TTL Logic and CMOS-TTL Interface -- Physics of Sensors -- Operational Amplifiers and Circuits -- Data Converters -- Front-End Electronics for Embedded Systems -- Review of Combinational and Sequential Logic Circuits and Design.
Sommario/riassunto	This book provides semester-length coverage of electronics for embedded systems, covering most common analog and digital circuit-related issues encountered while designing embedded system hardware. It is written for students and young professionals who have basic circuit theory background and want to learn more about passive circuits, diode and bipolar transistor circuits, the state-of-the-art CMOS logic family and its interface with older logic families such as TTL, sensors and sensor physics, operational amplifier circuits to condition sensor signals, data converters and various circuits used in electro-mechanical device control in embedded systems. The book also provides numerous hardware design examples by integrating the topics learned in earlier chapters. The last chapter extensively reviews the combinational and sequential logic design principles to be able to

design the digital part of embedded system hardware.