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	Soggetti	Electronic circuits
		Signal processing
		Image processing
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		Electronics
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		Signal, Image and Speech Processing
		Electronics and Microelectronics, Instrumentation
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
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	Note generali	Description based upon print version of record.
	Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
	Nota di contenuto	Introduction -- Wireless Body Area Networks -- Wake-Up Receiver System Level Design -- Low-Power Zero-IF Receiver Design -- Receiver Front-End Version 1 -- Receiver Front-End Version 2 -- Conclusions.
	Sommario/riassunto	This book presents the cross-layer design and optimization of wake-up receivers for wireless body area networks (WBAN), with an emphasis on low-power circuit design. This includes the analysis of medium access control (MAC) protocols, mixer-first receiver design, and implications of receiver impairments on wideband frequency-shift-keying (FSK) receivers. Readers will learn how the overall power consumption is reduced by exploiting the characteristics of body area networks. Theoretical models presented are validated with two different receiver implementations, in 90nm and 40nm CMOS technology. • Provides an overview of wireless body area network design from the network layer

to the circuit implementation, and an overview of the cross-layer design trade-offs; • Discusses design at both the network or MAC-layer and circuit-level, with an emphasis on circuit design; • Covers the design of low-power frequency shift keying (FSK) wake-up-receivers; • Validates theory presented with two different receiver implementations, in 90nm and 40nm CMOS technology.