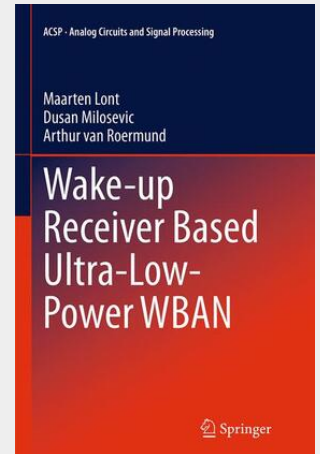


Wake-up Receiver Based Ultra-Low-Power WBAN

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.

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