Wireless LAN Radios: System Definition to Transistor Design

Arya Behzad
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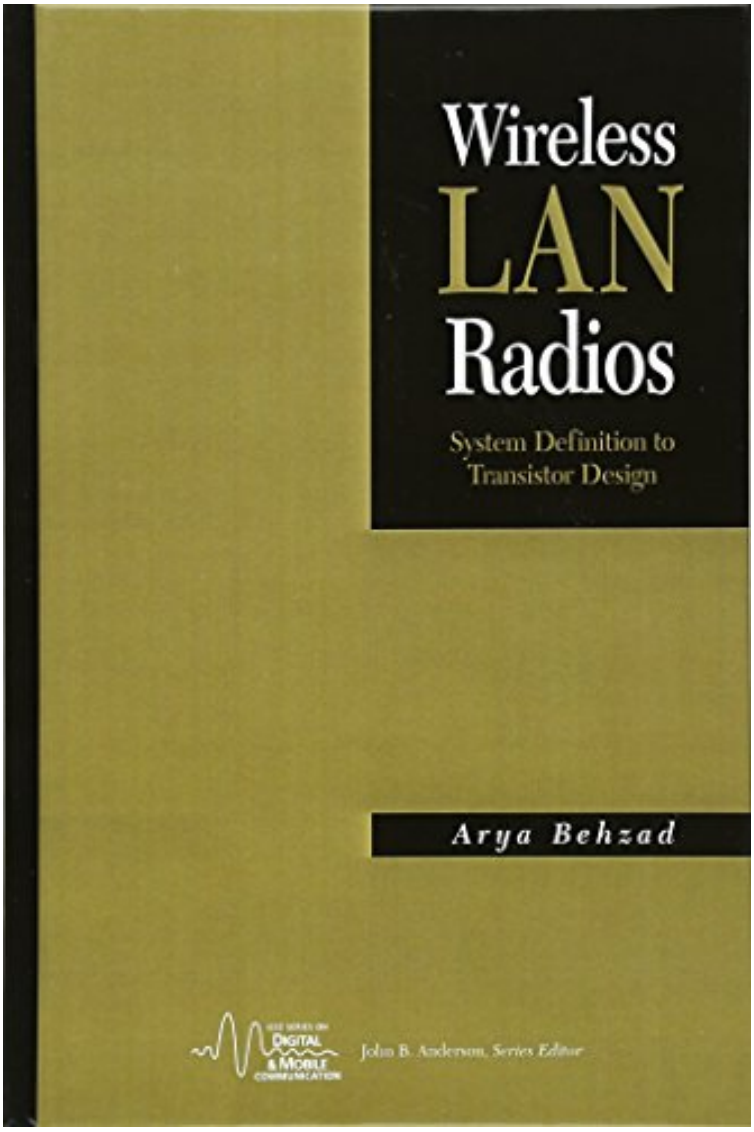

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Arya Behzad : Wireless LAN Radios: System Definition to Transistor Design before purchasing it in order to gage whether or not it would be worth my time, and all praised Wireless LAN Radios: System Definition to Transistor Design:

1 of 1 people found the following review helpful. A Great IntroductionBy CustomerAs a systems engineer without a deep understanding of radio architectures or the associated impairments, I found this book to be a great introduction to not just wireless LAN radios, but radios in general. The major classifications of radio architectures along with their strong points and shortcomings were introduced. Potential impairments along with the impact of architecture choice on

each were delineated. A brief introduction to the design of the major blocks along with the calibration techniques required to provide adequate performance was provided. Finally, some case studies were described. After reading this book, I could delve more deeply into the literature with confidence, had a good understanding of what effects I would need to model, and was a put in a good position to ask the right questions of our RF design team. Overall, it was very easy to read and got me started very quickly. My only gripe would be with the fairly large number of typos in the book.

Wireless LAN Radios presents a sophisticated overview of the subject, covering theory while also emphasizing the practical aspects of this promising technology. Coverage includes 802.11 flavors and system requirements; receiver and transmitter radio architectures; analog impairments and issues; key radio building blocks; calibration techniques; case studies; and a brief discussion of 802.11n. It offers a meaningful presentation of real-world issues facing designers, engineers, theorists, and researchers working in this industry.

From the Back CoverA high-level overview of radio design for wireless LAN systems The Wireless Local Area Network (WLAN), in both the technical and business worlds, is one of the few rising stars in the semiconductor industry. It is attracting a growing number of engineers and companies with its fairly high reliability, low cost, and high throughputs. As this trend continues, it is becoming increasingly important for both LAN system designers and circuit designers to have a solid grasp of WLAN applications to design the next generation of radios. Wireless LAN Radios presents a sophisticated overview of the subject, covering the necessary theory while emphasizing the practical aspects of this promising technology. Coverage includes: 802.11 flavors and system requirements Receiver and transmitter radio architectures Analog impairments and issues Key radio building blocks Calibration techniques Case studies A brief discussion of 802.11n Wireless LAN Radios also presents a detailed explanation of analog, digital, and mixed-mode calibration techniques for improving system performance and chip yield, while the impact of radio architecture on die size, system cost, and power consumption is also thoroughly evaluated. Complete with several case studies that explore the morass of trade-offs faced in industry, this books offers a meaningful presentation of real-world issues facing designers, engineers, theorists, and researchers working in this industry. The book is also an excellent text for graduate students in the general area of wireless LAN design.About the AuthorArya Behzad is currently a Broadcom Distinguished Engineer, where he is the Director of Engineering working on radios for current and future generation wireless products and Product Line Manager for all wireless LAN radio products. This book and his IEEE Expert Now course on wireless LAN radio design are both derived from his popular course on this topic at the IEEE ISSCC.