Millimeter Wave Wireless Communications

Theodore S. Rappaport, Robert W. Heath Jr., Robert C. Daniels, James N. Murdock
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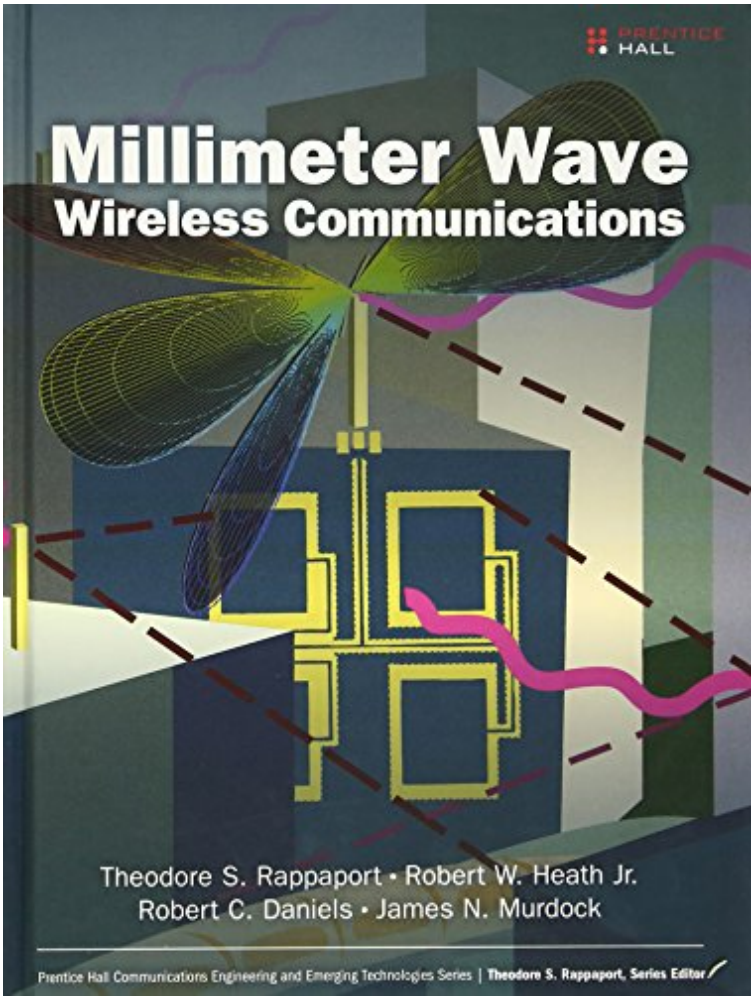

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Theodore S. Rappaport, Robert W. Heath Jr., Robert C. Daniels, James N. Murdock : Millimeter Wave Wireless Communications before purchasing it in order to gage whether or not it would be worth my time, and all praised Millimeter Wave Wireless Communications:

0 of 0 people found the following review helpful. The second time was with this great book when I had my PhD qualifying exam in ...By FatehProf. Rappaport saved my life twice. The first time was with his book "Wireless Communications: Principles and Practice" which I discovered while I was doing my Master's thesis in 2006. It helped me a lot in implementing a cellular network simulation in MATLAB. The second time was with this great book when I had my PhD qualifying exam in 2015. The topic of my exam was 5G cellular networks and this was a great reference that helped me prepare. In my opinion, Prof Rappaport always strikes the right balance between practicality and theoretical background.0 of 0 people found the following review helpful. AwesomeBy A. PriceGreat book for

reference or for reading cover to cover. Dr. Rappaport explains difficult subject matter in a clear and consise manner.2 of 3 people found the following review helpful. Like the previous "Wireless CommunicationsBy tranminhhaiLike the previous "Wireless Communications: Principles and Practice" by the same author, these two books are very very great (the most recommended) for graduate students, engineers, researchers ... in Wireless Communication. I love the most is that the author explains everything in a clear, systematic manner, and visions/suggestion how this field will be in the future... so many people can understand (not only professors).However, like me, many people after graduated (Bachelor, Master, Ph.D.) in this field, then working in industry. So I am looking for books which more practical, implementation (Signal Processing, Hardware, Circuit, RF....). Since the author has a super broad experiences, working in both academy and industry, I hope the author write books: interdisciplinary from principles of wireless to hardware implementation, System on Chip, antenna on chip... That would help many people.

The Definitive, Comprehensive Guide to Cutting-Edge Millimeter Wave Wireless Design This is a great book on mmWave systems that covers many aspects of the technology targeted for beginners all the way to the advanced users. The authors are some of the most credible scholars I know of who are well respected by the industry. I highly recommend studying this book in detail. Ali Sadri, Ph.D., Sr. Director, Intel Corporation, MCG mmWave Standards and Advanced Technologies Millimeter wave (mmWave) is todays breakthrough frontier for emerging wireless mobile cellular networks, wireless local area networks, personal area networks, and vehicular communications. In the near future, mmWave applications, devices, and networks will change our world. In Millimeter Wave Wireless Communications, four of the fields pioneers, including Theodore S. Rappaport, Robert W. Heath, Robert C. Daniels, and James N. Murdock, draw on their vast experience to empower engineers at all levels to succeed with mmWave. They deliver fundamental, end-to-end coverage of all aspects of future mmWave wireless communications systems. The authors explain new multi-Gigabit per second products and applications, mmWave signal propagation, analog and digital circuit design, mmWave antenna designs, and current and emerging wireless standards. They cover comprehensive mmWave wireless design issues for 60 GHz and other mmWave bands, from channel to antenna to receiver, introducing emerging design techniques that will be invaluable for research engineers in both industry and academia. Topics include Digital communication: baseband signal/channel models, modulation, equalization, error control coding, multiple input multiple output (MIMO) principles, and hardware architectures

"The most comprehensive book covering all aspects of 60 GHz/mm-Wave communication, from digital bits and signal processing all the way to devices, circuits, and electromagnetic waves. A great reference for engineers and students of mm-Wave communication." Ali Niknejad, Berkeley Wireless Research Center (BWRC) "Due to the huge availability of spectrum in 30-100 GHz bands, millimeter wave communication will be the next frontier in wireless technology. This book is the first in-depth coverage addressing essential aspects of millimeter wave communication including channel characteristics and measurements at millimeter wave bands, antenna technology, circuits, and physical layer and medium access control design. It also has an interesting chapter on 60 GHz unlicensed band wireless standards. I found the book extremely useful and recommend it to researchers and practicing engineers who are keen on shaping the future of wireless communication. Thank you Rappaport, Heath, Daniels, and Murdock for giving us Millimeter Wave Wireless Communications." Amitabha (Amitava) Ghosh, Head, North America Radio Systems, Nokia "I highly recommend Millimeter Wave Wireless Communications to anyone looking to broaden their knowledge in mmWave communication technology. The authors have introduced the key technologies relevant to the rapidly evolving world of wireless access communications while providing an excellent bibliography for anyone seeking to learn about specific topics in greater depth." Bob Cutler, Principal Solutions Architect, Agilent Technologies Inc. "This timely, ambitious, and well-written book is the first to cover all aspects of millimeter wave wireless communications. The authors' interdisciplinary approach illustrates how the unique characteristics of millimeter wave hardware and signal propagation affect and can be mitigated or exploited in the physical, multiple access, and network layers of the overall system design. The authors are renowned wireless communication experts uniquely qualified to write a comprehensive book on this emerging field, which strikes the perfect balance of breadth and depth. This book is likely to become an immediate classic, as well as required reading for students, researchers, and practitioners." Andrea Goldsmith, Stephen Harris Chair Professor, Department of Electrical Engineering, Stanford University "Mm-wave communications systems promise to alleviate the spectrum crunch and be a major part of future WLAN as well as cellular systems. The authors, leading experts in the field, have admirably succeeded in illuminating all the diverse aspectsranging from semiconductor technology to wave propagation to MAC layer and standardsthat impact the design and deployment. The book is a must-read for anybody working on this important emerging class of systems." Professor Andy Molisch, University of Southern California, FIEEE, FAAAS, FIET, MAuAcSc "This is the first book that addresses the technologies of millimeter wave design needed to implement multi-gigabit communication links. It provides in one place the communication theory background as well as the unique characteristics of millimeter wave communication systems." Bob Brodersen, Berkeley Wireless Research Center, Department of Electrical Engineering and Computer Science, University of California, Berkeley "With the advent of broadly addressing the millimeter wave spectrum from

30 GHz-300 GHz, new groundbreaking advances in communications are to be expected. This book provides a fantastic overview as well as in-depth background material for millimeter wave communications. It is a must-buy to be in the hands of any wireless communications engineer active in advancing technology beyond its current boundaries." Gerhard P. Fettweis, cfAED Coordinator, HAEC Coordinator, Vodafone Chair Professor, Technische Universitt, Dresden "This timely monograph is expected to play an influential role in the definition of future generations of wireless systems by formulating a future-proof road-map. . . ." Professor Lajos Hanzo, FREng, FIEEE, DSc, Head of Communications, Signal Processing and Control, University of Southampton About the Author Theodore (Ted) S. Rappaport is the David Lee/Ernst Weber Professor of Electrical and Computer Engineering at New York University's Polytechnic School of Engineering. Robert W. Heath Jr. is a Cullen Trust Endowed Professor in the Department of Electrical and Computer Engineering at The University of Texas at Austin. Robert(Bob)C. Daniels is the co-founder and CTO at Kuma Signals, LLC in Austin, TX.James N. Murdock is an RF and analog engineer at Texas Instruments (TI). Rappaport, Heath, Daniels, and Murdock experienced researchers in wireless system design, also supply future design rules and techniques not currently in standard development, making this an exceptional text for practicing research engineers in industry and academia.