

1. Record Nr.	UNINA9911019831803321
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Titolo	60GHz technology for Gbps WLAN and WPAN : from theory to practice / / Su-Khiong Yong, Pengfei Xia, Alberto Valdes Garcia
Pubbl/distr/stampa	Chichester, West Sussex, U.K. ; ; Hoboken, N.J., : Wiley, c2011
ISBN	9786612884566 9781119956747 1119956749 9781282884564 1282884565 9780470972946 0470972947 9780470972939 0470972939
Edizione	[1st edition]
Descrizione fisica	1 online resource (298 p.)
Altri autori (Persone)	XiaPengfei GarciaAlberto Valdes
Disciplina	621.384
Soggetti	Millimeter wave communication systems Wireless LANs Gigabit communications Wireless communication systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1. Introduction to 60 GHz / Su-Khiong (S.K.) Yong -- 2. 60 GHz channel characterizations and modelling / Su-Khiong (S.K.) Yong -- 3. Non-ideal radio frequency front-end models in 60 GHz systems / Chang-Soon Choi, Maxim Piz and Eckhard Grass -- 4. Antenna array beamforming in 60 GHz / Pengfei Xia -- 5. Baseband modulation / Pengfei Zia and Andre Bourdoux -- 6. 60 GHz radio implementation in silicon / Alberto Valdes-Garcia -- 7. Hardware implementation for single carrier systems / Yasunao Katayama -- 8. Gbps OFDM baseband design and implementation for 60 GHz wireless LAN applications / Chang-Soon Choi ... [et al.] -- 9. Medium access control design /

Sommario/riassunto

This book addresses 60 GHz technology for Gbps WLAN and WPAN from theory to practice, covering key aspects for successful deployment. In this book, the authors focus specifically on 60 GHz wireless technology which has emerged as the most promising candidate for multi-gigabit wireless indoor communication systems. 60 GHz technology offers various advantages over current or existing communications systems (e.g. huge unlicensed bandwidth worldwide, high transmit power, high frequency reuse and small form factor), which enables many disruptive applications that are otherwise difficult if not impossible to be realized at lower frequencies. The book addresses all aspects of the state-of-the-art in 60 GHz technology for high data rate wireless applications. Key Features: . Comprehensive coverage from theory to practice: provides readers with a thorough technical guide of 60 GHz technology development. Brings together the entire area of 60GHz technology for Gigabits per second (Gbps) WLAN and WPAN applications.. Discusses practical system designs covering wide aspects such as antenna propagation, beamforming, circuit design, digital communication, signal processing, system architectures, etc.. Provides up-to-date standardization activities, regulatory issues, technology development as well as future trends. Includes examples and case studies for practical scenarios. Contains theoretical, simulation and experimental results to demonstrate and compare the performance of various schemes (or systems) This book serves as an excellent reference for system engineers, system architects, IC designers, standard engineers, researchers, and vendor and manufacturer consumers. Technical consultants, software and application developers will also find this book of interest.