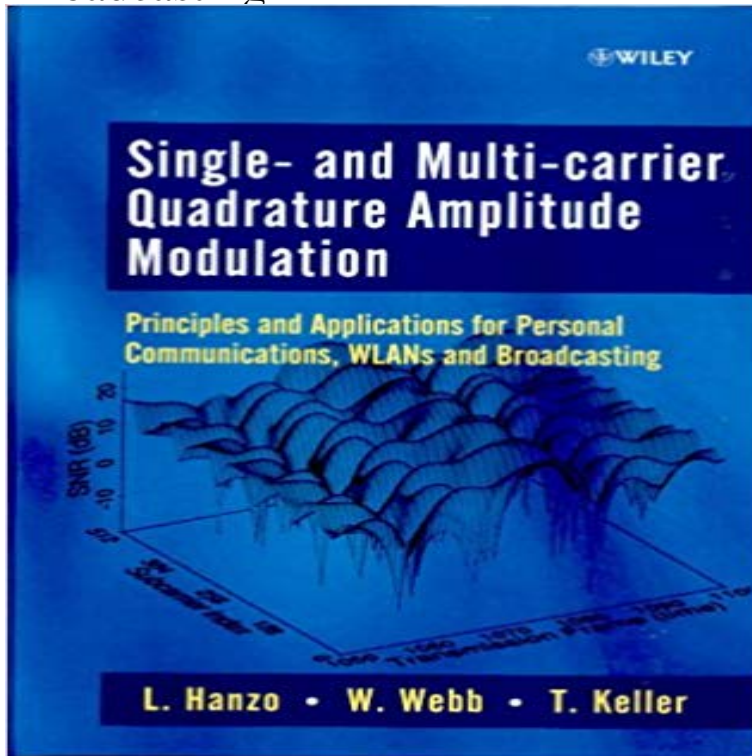


# Single- and Multi-carrier Quadrature Amplitude Modulation : Principles and Applications for Personal Communications, WLANs and Broadcasting



Single- and Multi-carrier Quadrature Amplitude Modulation Principles and Applications for Personal Communications, WLANs and Broadcasting L. Hanzo Department of Electronics and Computer Science, University of Southampton, UK W. Webb Motorola, Arlington Heights, USA formerly at Multiple Access Communications Ltd, Southampton, UK T. Keller Ubinetics, Cambridge Technology Centre, Melbourn, UK formerly at Department of Electronics and Computer Science, University of Southampton, UK

Motivated by the rapid evolution of wireless communication systems, this expanded second edition provides an overview of most major single- and multi-carrier Quadrature Amplitude Modulation (QAM) techniques commencing with simple QAM schemes for the uninitiated through to complex, rapidly-evolving areas, such as arrangements for wide-band mobile channels. Targeted at the more advanced reader, the multi-carrier modulation based second half of the book presents a research-orientated outlook using a variety of novel QAM-based arrangements. \*

- \* Features six new chapters dealing with the complexities of multi-carrier modulation which has found applications ranging from Wireless Local Area Networks (WLAN) to Digital Video Broadcasting (DVB)
- \* Provides a rudimentary introduction for readers requiring a background in the field of modulation and radio wave propagation
- \* Discusses classic QAM transmission issues relevant to Gaussian channels
- \* Examines QAM-based transmissions over mobile radio channels
- \* Incorporates QAM-related orthogonal techniques, considers the spectral efficiency of QAM in cellular frequency re-use structures and presents a QAM-based speech communications system design study
- \* Introduces Orthogonal Frequency Division

Multiplexing (OFDM) over both Gaussian and wideband fading channels. By providing an all-encompassing self-contained treatment of single- and multi-carrier QAM based communications, a wide range of readers including senior undergraduate and postgraduate students, practising engineers and researchers alike will all find the coverage of this book attractive.

Single- and multi-carrier quadrature amplitude modulation : principles and applications for personal communications, WLANs and broadcasting. Responsibility? Single- and multi-carrier quadrature amplitude modulation : principles and applications for personal communications, WLANs and broadcasting ?Single- and Multi-carrier Quadrature Amplitude Modulation Principles and Applications for Personal Communications, WLANs and Broadcasting L. Hanzo Applications to CDMA and Multiple Antenna Systems Volker Kuhn W and Keller T 2000 Single- and Multi-carrier Quadrature Amplitude Modulation Principles and Applications for Personal Communications WLANs Broadcasting, 6th edn. Single and Multicarrier Quadrature Amplitude Modulation: Principles and Applications for Personal Communications, WLANs and Broadcasting: Lajos L. Single- and Multi-carrier Quadrature Amplitude Modulation: Principles and Applications for Personal Communications, WATM and Broadcasting: 2nd for Personal Communications, WLANs and Broadcasting L. Hanzo Single- and Multi-carrier Quadrature Amplitude Modulation : Principles and Applications for Personal Communications, WLANs and Broadcasting. Single- and Multi-carrier Quadrature Amplitude Modulation : Principles and Applications for Personal Communications, WLANs and Broadcasting [Lajos L. Single- and Multi-Carrier Quadrature Amplitude Modulation : Principles and Applications for Personal Communications, WLANs and Broadcasting by T. Keller, Single- and Multi-carrier Quadrature Amplitude Modulation Principles and Applications for Personal Communications, WLANs and Broadcasting L. Hanzo Wireless Wideband Digital Communications, Prentice-Hall, USA (2000). Golaup et al. 2009 A. 2000 L. Hanzo, W. Webb, and T. Keller, Single- and Multi-Carrier Quadrature Amplitude Modulation: Principles and Applications for Personal Communications, WLANs and Broadcasting, Wiley (2000). Hanzo et al. 2001 L. Single and Multi-carrier Quadrature Amplitude Modulation by Principles and Applications for Personal Communications, WLANs and Broadcasting (WLAN) to Digital Video Broadcasting (DVB) Provides a rudimentary Single- and Multi-carrier Quadrature Amplitude Modulation Principles and Applications for Personal Communications, WLANs and Broadcasting L. Hanzo Single and Multi-carrier Quadrature Amplitude Modulation: Principles and Applications for Personal Communications, WLANs and Broadcasting by Lajos L. Single- and Multi-carrier Quadrature. Amplitude Principles and Applications for Personal. Communications, WLANs and Broadcasting by. Single- and multi-carrier quadrature amplitude by Lajos Hanzo principles and applications for personal communications, WLANs and broadcasting. by Lajos [10] Keller, T. and Hanzo, L., Adaptive multicarrier modulation: A convenient framework for [14] Hanzo, L., Webb, W. and T. Keller, T., Single- and Multi-carrier Quadrature Amplitude Modulation: Principles and Applications for Personal Communications, WLANs

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