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	Pubbl/distr/stampa	Cambridge : , : Cambridge University Press, , 2013
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	Descrizione fisica	1 online resource (xii, 198 pages) : digital, PDF file(s)
	Collana	EuMA high frequency technologies series
	Classificazione	TEC061000
	Disciplina	621.384
	Soggetti	Wireless communication systems
		Radio
		Adaptive signal processing
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	Note generali	Title from publisher's bibliographic system (viewed on 05 Oct 2015).
	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	Theory of wavelets -- Wavelet packet modulator -- Synchronization issues of wavelet radio -- Peak-to-average power ratio -- Wavelets for spectrum sensing in cognitive radio applications -- Optimal wavelet design for wireless communications -- Conclusion -- Appendix 1 : Semi-definitive programming -- Appendix 2 : Spectral factorization -- Appendix 3 : Sum of squares of cross-correlation.
	Sommario/riassunto	The first book to provide a detailed discussion of the application of wavelets in wireless communications, this is an invaluable source of information for graduate students, researchers, and telecommunications engineers, managers and strategists. It overviews applications, explains how to design new wavelets and compares wavelet technology with existing OFDM technology. • Addresses the

applications and challenges of wavelet technology for a range of wireless communication domains • Aids in the understanding of Wavelet Packet Modulation and compares it with OFDM • Includes tutorials on convex optimisation, spectral factorisation and the design of wavelets • Explains design methods for new wavelet technologies for wireless communications, addressing many challenges, such as peak-to-average power ratio reduction, interference mitigation, reduction of sensitivity to time, frequency and phase offsets, and efficient usage of wireless resources • Describes the application of wavelet radio in spectrum sensing of cognitive radio systems.