

1. Record Nr.	UNINA9910456208103321
Titolo	Wireless OFDM systems [[electronic resource] ] : how to make them work? // edited by Marc Engels
Pubbl/distr/stampa	Boston, : Kluwer Academic Publishers, c2002
ISBN	9786610201686 1-60119-382-3 1-280-20168-1
Edizione	[1st ed. 2002.]
Descrizione fisica	1 online resource (230 p.)
Collana	The Kluwer international series in engineering and computer science ; ; SECS 692
Altri autori (Persone)	EngelsMarc
Disciplina	004.6/8
Soggetti	Wireless LANs Wireless communication systems Wavelength division multiplexing Orthogonalization methods Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Understanding the indoor environment -- The OFDM Principle -- When people agree on OFDM -- Beating the wireless channel -- Avoiding a tower of Babel -- Living with a real radio -- Putting it all together.
Sommario/riassunto	Wireless Local Area Networks (WLANs) experience a growing popularity recently. Where WLANs were primarily used for niche applications in the past, they are now deployed as wireless extensions to computer networks. The increase of the datarates from 2 Mbps up to 11 Mbps for roughly a constant price has played a major role in this breakthrough. As a consequence, an even greater success can be envisioned for the more recent OFDM-based WLAN standards in the 5 GHz band, which offer up to 54 Mbps. At IMEC we have realised this potential already several years ago and have established a successful research programme on OF- based WLAN. In 1995, we started our research on wireless OFDM in the frame of a - operation project with SAIT, a Belgian telecom company. The goal of the project was to establish a robust network for industrial environments. This resulted in a first OFDM chip,

supporting QPSK, for wireless networking at the end of the project (1999). 1999 was also the start of an intense co-operation with National Semiconductor Inc., which resulted in a second generation ASIC in 2000. This OFDM processor supports up to QAM-64 and has a more optimal channel estimation algorithm.

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