Record Nr. UNISALENTO991003244849707536 **Titolo** Ultra wideband systems [electronic resource]: technologies and applications / edited by Roberto Aiello and Anuj Batra Pubbl/distr/stampa Boston, Mass.; London: Newnes, 2006 **ISBN** 9780750678933 0750678933 Descrizione fisica xvi, 323 p. Collana Communications engineering series Altri autori (Persone) Aiello, Roberto Batra, Anuj Disciplina 621.384 Soggetti Broadband communication systems Ultra-wideband devices Wireless communication systems Electronic books. Lingua di pubblicazione Inglese **Formato** Risorsa elettronica Livello bibliografico Monografia Includes bibliographical references and index. Nota di bibliografia Introduction; History of UWB Communication Systems; UWB Spectrum Nota di contenuto and Regulations; Interference and co-existence; UWB wireless channel; UWB antennas for commercial communication applications; Impulse Radio; Direct Sequence; Multi-band; Spectral Keying; OFDM; Transceivers Architecture; Industry Standards; Commercial Applications; Role of UWB in the Wireless Industry. Ultra wideband technology turns the radio spectrum available to Sommario/riassunto wireless applications from a country road into a high-speed ten lane super freeway, and the destination is the future of wireless technology. UWB is a huge leap forward because it offers wide bandwidth with little interference, allowing multiple UWB signals to share a single channel. This multi-author volume, compiled under the guidance of Dr. Roberto Aiello, introduces the theory and concepts behind ultra wideband (UWB) systems as well as their applications. Authors include those involved in creating the UWB standards, researchers, and applications specialists. This book has been broken down into three parts: introduction to UWB,

different techniques available, and applications. Within these sections topics covered are UWB spectrum and regulations, UWB channels,

modulation techniques, antennas, signal propagation, and UWB transceiver architectures. This book has all the information RF/wireless engineers will need to understand this burgeoning technology. *An all-star list of contributors covers the subject more authoritatively than any single author could *Discusses U.S. and international ultra wideband regulations *Includes material on antenna systems and signal propagation at ultra wideband frequencies.