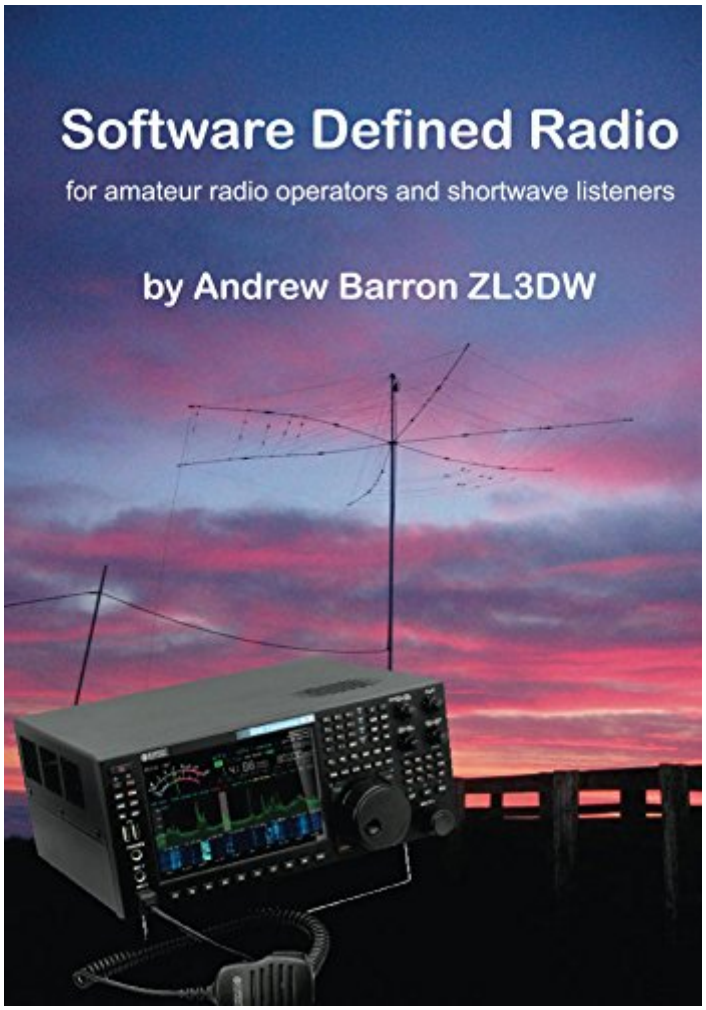
Software Defined Radio: For Amateur Radio Operators And Shortwave Listeners



Synopsis

This book is intended for Amateur Radio Operators, Short Wave Listeners, and anyone interested in radio as a hobby. It includes sections on how different types of software defined radios work, the advantages of using them, and how they are tested. It also covers future trends including the development of Direct Fourier Conversion. There is a big section with tips for PowerSDR users and sections about other commonly used SDR software, plus a comparison of the basic specifications of 65 different SDR receivers and transceivers. The book is not a textbook or a reference book. It is written in an easy to read conversational style. I explain the basics without getting too technical. There are no pages of software code or complex mathematics. I find that simple diagrams can often make things easier to understand so I have included some helpful drawings and photographs. The book contains sections on: â ¢What to look for when buying an SDRâ ¢What is different about SDR?â ¢What computer skills do you need?â ¢What is digital? â " a brief recap on digital theoryâ ¢Definitions of software defined radioâ ¢Generations and types of SDRâ ¢Are SDRs better?â ¢Future trendsâ ¢Common questions about SDR â ¢SDR software on the PCâ ¢Audio connections for digital modesâ ¢SDR for shortwave listening, CW, digital modes, contesting, interference monitoring, EME, microwave, and satellite operationâ ¢SoftRock, Genesis radios, RTL dongle, FUNcube dongle, USB connected receivers, USRP, Noctar, HackRF and Blade RFâ ¢SDRs with knobsâ ¢On-board or external DSP?â ¢FlexRadio Systems transceivers and SmartSDRâ ¢Apache Labs ANAN transceivers and PowerSDRâ ¢cuSDR, KISS Konsole, SDR#, and GNU radio softwareâ ¢I and Q signals, Quadrature sampling, Direct Digital Synthesis, Direct Fourier Conversionâ ¢The ADC, The FPGA or microcomputer, Server / Client architecture, FFT magic, DSP, Panadapter and waterfall displaysâ ¢Radio performance testingâ ¢Catalog of Software Defined radios â " a comparison of 65 SDR receivers and transceiversâ ¢Glossary of abbreviations and acronymsâ ¢List of drawings and images

Book Information

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Customer Reviews

This is an amazing book! With this book, Andrew Barron has written the best publication available covering Software Defined Radios for the radio amateur and technically inclined radio hobbyist. Whether you are a neophyte just wanting to get into SDRs or someone with years of in-depth practical hands-on experience with using, building, and writing software for SDRs, you will find this volume extremely helpful, and very interesting.I have lived in the SDR world since the late 1990s and was hesitant to buy this or any other general SDR book, thinking that such books would have little to offer me/hold my interest. Boy was I wrong! ZL3DW's book starts with the very basic, but he progresses seamlessly to more advanced concepts and does so in a concise, easy-to-understand and compelling way.Whether you are on the outside looking in wondering if SDRs are for you, or have and use an SDR but wonder what's behind it all, or are well versed in the world of FFTs, decimation, processing gain, etc. and just want to read a concise and intriguing summary of the field, this book is for you!Thank you Andrew Barron for giving us this gift!--Roger W3SZ

I find it quite informative as the book discusses the types of SDR devices there that are available and some of there limitations. I expected more visual examples in some areas of discussions to cement the thoughts conveyed on architecture of each type presented. It is a very good book nonetheless.

Very detailed book. Not for someone who knows nothing about radio communications. A good technical reference book.

Helped clear up some questions

I wanted this/these books for my reference library. So, if you read this, there is no secret as to why I purchased this/these items.

This is pretty much the book I've been looking for on SDR basic technology and operation. There is a lot of useful information packed between the covers. It doesn't get bogged down with theory or math, but is written more towards practical use. I'd recommend this book to anyone starting out exploring the world of SDR and new technology radio.

Well written in layman terms. Finally, a book that covers many manufactures SDR radios. If you are looking to buy a software defined radio, this book will help you to determine the best radio for you. If you already have a SDR radio, this book will help you to get the most out of your radio. The book has a large section on the Apache Labs SDR's, covering all modes of opeation, the setup and settings of the author's radio. I highly recommend the book.

The book is a well written and complete survey of software defined radio. The author was thorough without being pedantic, with just enough theory to elicit understanding and hold interest. It worked for me because I purchased an SDR after reading the book.

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