1. Record Nr. UNINA9910779499503321

Autore	Boysen Earl
Titolo	Complete electronics [[electronic resource]] : self-teaching guide with projects / / Earl Boysen, Harry Kybett
Pubbl/distr/stampa	Indianapolis, : Wiley, 2012
ISBN	1-118-28232-9 1-280-99838-5 9786613769992 1-118-28469-0
Edizione	[1st ed.]
Descrizione fisica	1 online resource (556 p.)
Altri autori (Persone)	KybettHarry
Disciplina	621.381
Soggetti	Electronics - Study and teaching Electronics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Cover; Chapter 1: DC Review and Pre-Test; Current Flow; Ohm's Law; Resistors in Series; Resistors in Parallel; Power; Small Currents; The Graph of Resistance; The Voltage Divider; The Current Divider; Switches; Capacitors in a DC Circuit; Summary; DC Pre-Test; Chapter 2: The Diode; Understanding Diodes; Diode Breakdown; The Zener Diode; Summary; Self-Test; Chapter 3: Introduction to the Transistor; Understanding Transistors; The Junction Field Effect Transistor (JFET); Summary; Self-Test; Chapter 4: The Transistor Switch; Turning the Transistor On; Turning Off the Transistor Why Transistors Are Used as SwitchesThe Three-Transistor Switch; Alternative Base Switching; Switching the JFET; Summary; Self-Test; Chapter 5: AC Pre-Test and Review; The Generator; Resistors in AC Circuits; Capacitors in AC Circuits; The Inductor in an AC Circuit; Resonance; Summary; Self-Test; Chapter 6: Filters; Capacitors in AC Circuits; Capacitors and Resistors in Series; Phase Shift of an RC Circuit; Resistor and Capacitor in Parallel; Inductors in AC Circuits; Phase Shift for an RL Circuit; Summary; Self-Test; Chapter 7: Resonant Circuits; The Capacitor and Inductor in Series The Output CurveIntroduction to Oscillators; Summary; Self-Test;

Chapter 8: Transistor Amplifiers; Working with Transistor Amplifiers; A Stable Amplifier; Biasing; The Emitter Follower; Analyzing an Amplifier; The JFET as an Amplifier; The Operational Amplifier; Summary; Self-Test; Chapter 9: Oscillators; Understanding Oscillators; Feedback; The Colpitts Oscillator; The Hartley Oscillator; The Armstrong Oscillator; Practical Oscillator Design; Simple Oscillator Design Procedure; Oscillator Troubleshooting Checklist; Summary and Applications; Self-Test; Chapter 10: The Transformer
Transformer BasicsTransformers in Communications Circuits; Summary and Applications; Self-Test; Answers to Self-Test; Chapter 11: Power Supply Circuits; Diodes in AC Circuits Produce Pulsating DC; Level DC (Smoothing Pulsating DC); Summary; Self-Test; Chapter 12: Conclusion and Final Self-Test; Conclusion; Final Self-Test; Appendix A: Glossary; Appendix B: List of Symbols and Abbreviations; Appendix C: Powers of Ten and Engineering Prefixes; Appendix D: Standard Composition Resistor Values; Appendix E: Supplemental Resources; Web Sites; Books; Magazines; Suppliers
Appendix F: Equation ReferenceAppendix G: Schematic Symbols Used in This Book; Introduction; What This Book Teaches; How This Book Is Organized; Conventions Used in This Book; How to Use This Book

Sommario/riassunto

An all-in-one resource on everything electronics-related! For almost 30 years, this book has been a classic text for electronics enthusiasts. Now completely updated for today's technology, this latest version combines concepts, self-tests, and hands-on projects to offer you a completely repackaged and revised resource. This unique self-teaching guide features easy-to-understand explanations that are presented in a user-friendly format to help you learn the essentials you need to work with electronic circuits. All you need is a general understanding of electronics concepts such as Oh