An Introduction to Radio Frequency Engineering, Christopher Coleman, Cambridge University Press, The Pitt Building, Trumpington Street, Cambridge, United Kingdom. 2004, pp310, $??

This book provides the fundamentals of the enabling technology for which the modern wireless communication based on, that is, radio frequency (RF) engineering.

With a brief discussion of radio waves in the introductory chapter, the book goes straight into the issues and the application of the radio frequency engineering; most noticeable is applications in the cellular radio and radar systems.

Subsequent chapters provides details discussions of the key components of RF engineering, which includes frequency selective circuits and matching, amplifiers, modulators and demodulators, oscillators, transmission lines, power amplifiers, filters and antennas. The physics theory of which all these are based on is oddly discussed in chapter 9, which provides a very concise discussion of electromagnetic waves. Some more refined topics such as the propagations and digital techniques in radio are discussed also.

Although the book title includes the word “Introduction”, by no means this book is the first book for the non Physics or non Electrical Engineering professionals to understand RF engineering. It actually requires a substantial understanding of the basic electrical engineering and physics to benefit the straight forward approach of this book.

Practical application examples, design examples are provided and exercises are also provided at end of each chapter.

The indented audiences of this book are upper level undergraduates of Electrical Engineers and graduate level students, also for the researcher and professional who needs to know the bolt and nut of the RF engineering.

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