

<<通信系统>>

图书基本信息

书名：<<通信系统>>

13位ISBN编号：9787302272403

10位ISBN编号：7302272409

出版时间：2012-1

出版时间：清华大学

作者：(美)卡尔森//克瑞利

页数：706

版权说明：本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问：<http://www.tushu007.com>

<<通信系统>>

内容概要

本书系统论述了模拟通信系统和数字通信系统的分析方法、设计原则以及硬件实现。本书尤其适合作为电子信息与通信工程专业、计算机工程专业的高年级本科生或低年级硕士研究生的教学用书。

本书最新版(第5版)的突出特色是不仅配有matlab的应用实例,还在各章章末增加了思考问题来加深读者对该章知识的理解。同时,新版也增加了大量通信系统设计的实例,非常有助于读者理解通信系统的概念及其意义。本书增加了大量当前最新应用的通信技术方面的知识内容,力求更为全面地涵盖和阐释模拟和数字通信系统的基本理论。

<<通信系统>>

书籍目录

- chapter 1
 - introduction 1
 - 1.1 elements and limitations
 - 1.2 modulation and coding
 - 1.3 electromagnetic wave propagation over wireless channels
 - 1.4 emerging developments
 - 1.5 societal impact and historical perspective
 - 1.6 prospectus
- chapter 2
 - signals and spectra
 - 2.1 line spectra and fourier series
 - 2.2 fourier transforms and continuous spectra (2.1)
 - 2.3 time and frequency relations (2.2)
 - 2.4 convolution (2.3)
 - 2.5 impulses and transforms in the limit (2.4)
- chapter 3
 - signal transmission and filtering
 - 3.1 response of lti systems (2.4)
 - 3.2 signal distortion in transmission (3.1)
 - 3.3 transmission loss and decibels (3.2)
 - 3.4 filters and filtering (3.3)
 - 3.5 quadrature filters and hilbert transforms (3.4)
 - 3.6 correlation and spectral density (3.4)
- chapter 4
 - linear cw modulation
 - 4.1 bandpass signals and systems (3.4)
 - 4.2 double-sideband amplitude modulation (4.1)
 - 4.3 modulators and transmitters (4.2)
 - 4.4 suppressed-sideband amplitude modulation (3.5, 4.3)
 - 4.5 frequency conversion and demodulation (4.4)
- chapter 5
 - angle cw modulation
 - 5.1 phase and frequency modulation (4.3) 194
 - 5.2 transmission bandwidth and distortion (5.1)
- chapter 6
 - sampling and pulse modulation
 - 6.1 sampling theory and practice (2.6, 4.2)
 - 6.2 pulse-amplitude modulation (6.1)
- chapter 7
 - analog communication systems
 - 7.1 receivers for cw modulation (2.6, 4.5, 5.3)
 - 7.2 multiplexing systems (4.5, 6.1)
 - 7.3 phase-locked loops (7.1)
- chapter 8

<<通信系统>>

probability and random variables

chapter 9

random signals and noise 285

9.1 random processes (3.6, 8.4)

9.2 random signals (9.1)

9.3 noise (9.2)

9.4 baseband signal transmission with noise (9.3)

9.5 baseband pulse transmission with noise (9.4)

chapter 10

noise in analog modulation systems

10.1 bandpass noise (4.4, 9.2)

10.2 linear cw modulation with noise (10.2)

10.3 angle cw modulation with noise (5.3, 10.2)

10.4 comparison of cw modulation systems (9.4, 10.3)

10.5 phase-locked loop noise performance (7.3, 10.1)

10.6 analog pulse modulation with noise (6.3, 9.5)

chapter 11

baseband digital transmission

11.1 digital signals and systems (9.1)

11.2 noise and errors (9.4, 11.1)

11.3 bandlimited digital pam systems (11.2)

11.4 synchronization techniques (11.2)

chapter 12

digitization techniques for analog messages and computer

networks

12.1 pulse-code modulation (6.2, 11.1)

12.2 pcm with noise (11.2, 12.1)

12.3 delta modulation and predictive coding (12.2)

chapter 13

channel coding

13.1 error detection and correction (11.2)

13.2 linear block codes (13.1)

13.3 convolutional codes (13.2)

chapter 14

bandpass digital transmission

14.1 digital cw modulation (4.5, 5.1, 11.1)

14.2 coherent binary systems (11.2, 14.1)

14.3 noncoherent binary systems (14.2) 551

14.4 quadrature-carrier and m-ary systems (14.2)

14.5 orthogonal frequency division multiplexing (ofdm) (14.4, 7.2,

2.6)

chapter 15

spread-spectrum systems

chapter 16

information and detection theory

16.1 information measure and source encoding (12.1)

16.2 information transmission on discrete channels (16.1)

<<通信系统>>

16.3 continuous channels and system comparisons (16.2)

appendix: circuit and system noise (9.4)

tables

solutions to exercises

answers to selected problems

版权说明

本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问:<http://www.tushu007.com>