1. Record Nr. UNINA9910455770903321 Autore Carden Frank Titolo Telemetry systems engineering / / Frank Carden, Russell Jedlicka, Robert Henry Boston:,: Artech House,, ©2002 Pubbl/distr/stampa [Piscatagay, New Jersey]:,: IEEE Xplore,, [2002] **ISBN** 1-58053-550-X Edizione [2nd ed.] Descrizione fisica 1 online resource (628 p.) Collana Artech House telecommunications library Altri autori (Persone) JedlickaRussell P HenryRobert, Dr. Disciplina 621.382 Soggetti Telecommunication systems Data transmission systems Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Contents vii; Preface xxv; Acknowledgments xxix; 1 Telemetry System Definition 1; 1.1 Learning Objectives 1; 1.2 Telemetry System Overview 2; 1.3 Data Collection System 5; 1.4 Multiplex System 5; 1.5 Modulator, Transmitter, and Antenna 11; 1.6 Transmission or Waveform Channel 12; 1.7 Antennas, Receivers with RF and IF Amplifiers, and Carrier Demodulators 13; 1.8 Demultiplex System 15; 1.9 Data Processing, Handling, and Display 16; 1.10 Supporting Equipment and Operations 16; 1.11 IRIG Channel Standards 18; Problems 21; References 23 2 Analog Frequency Modulation 252.1 Learning Objectives 25; 2.2 Single-Channel FM 26; 2.3 FM/FM 33; 2.4 Systems Contaminated with Noise 35; 2.5 FM/FM Multiplex Systems 40; 2.6 Operational Filter Bandwidths 41: 2.7 Development of the FM Noise Model and Signal-to-Noise Ratio 41; 2.8 Threshold 45; 2.9 Effect of Increasing the IF Bandwidth 47; 2.10 Transmission Bandwidth Estimation 48; Problems 48; References 50; 3 Design of FM/FM Systems 51; 3.1

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## Sommario/riassunto

This new resource clearly presents introductory and advanced concepts in telemetry systems (the technology of automatic data transmission and measurement) with an emphasis on digital communications. Geared to both beginning and seasoned engineers, specific details of telemetry systems are explained within the context of an overall system. The book helps engineers design telemetry systems to meet a specific bit error rates, and perform link analysis for the design of a communications link.