Record Nr. UNINA9910460380903321 Autore **Doumanis Efstratios** Titolo Filter Design for Satellite Communications: Helical Resonator Technology Pubbl/distr/stampa Norwood:,: Artech House,, 2015 [Piscatagay, New Jersey]:,: IEEE Xplore,, [2014] **ISBN** 1-5231-1719-2 1-60807-756-X Descrizione fisica 1 online resource (207 p.) Collana Artech House space applications library Altri autori (Persone) GoussetisGeorge KosmopoulosSavvas Disciplina 621.3813224 Soggetti Microwave filters - Design and construction Electric filters - Design and construction Electric resonators - Design and construction Artificial satellites in telecommunication - Equipment and supplies 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 Title; Contents; Acknowledgments; Chapter 1 Introduction; 1.1 Helical Resonator Filters; 1.2 Aim and Contents of This Book; Chapter 2 Microwave Filters for Satellite Systems: Requirements and Constraints; 2.1 Introduction; 2.2 System Perspective; 2.3 Satellite Filter Technology; Chapter 3 Filter Synthesis Techniques; 3.1 Introduction; 3.2 Synthesis of Prototype Response: 3.3 Bandpass Filters Synthesis Using a Ladder Network: 3.4 Coupling Matrix T echniques: Chapter 4 Analysis and Design of Helical Resonators; 4.1 Introduction; 4.2 Helical Resonator Considerations. 4.3 Full-Wave Modeling of Helical Resonators 4.4 Quality Factor; 4.5 Dielectric Loading and Tuning; Chapter 5 Synthesis of Helical Resonator Filters; 5.1 Design of Helical Resonator Filters; 5.2 Input/Output Coupling: 5.3 Inter-resonator Coupling: 5.4 Design Examples: 5.5 Summary; Chapter 6 Quasi-Elliptic Helical Resonator Filters; 6.1 Introduction; 6.2 Cro.

This new book primarily addresses the needs of practicing RF and

Sommario/riassunto

microwave engineers engaged with the design of distributed filters for telecommunication and sensing applications, with particular emphasis on the space sector. This is a contemporary and comprehensive approach to the design of microwave filters with helical resonators. The very detailed step-by-step approach used throughout the book allows you to quickly familiarize with the basic concepts of microwave filter design and confidently engage with the design of helical resonator filters. In particular, several examples that present the design of filters for a wide frequency and applications range would provide a very useful tool at hand for the filter designer. Presenting you with cutting-edge design guidance, this is a complete reference for helical filter design.