

1. Record Nr.	UNINA9910818044103321
Titolo	Handbook of reflector antennas and feed systems . Volume 1 Theory and design of reflectors / / Sudhakar Rao, Lotfollah Shafai, Satish Sharma, editors ; Vicki Kane, cover design ; contributors Michael Aliamus [and ten others]
Pubbl/distr/stampa	Boston, Massachusetts : , : Artech House, , 2013 [Piscataway, New Jersey] : , : IEEE Xplore, , [2013]
ISBN	1-5231-1725-7 1-60807-516-8
Descrizione fisica	1 online resource (323 p.)
Disciplina	621.3824
Soggetti	Antennas, Reflector - Design and construction Antennas, Reflector
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 at the end of each chapters and index.
Nota di contenuto	Handbook of Reflector Antennas and Feed Systems Volume I Theory and Design of Reflectors; Contents; Preface; Acknowledgments; Chapter 1 Introduction; 1.1 Introduction; 1.2 Reflector Antenna Basics; 1.3 Feed Sources for Reflector Antennas; 1.4 Analysis of Reflector Antennas; 1.5 Advanced Reflector Antenna Configurations; 1.6 Important Fundamental Parameters; 1.7 Organization of the Book; References; Chapter 2 Numerical Techniques for Reflectors; 2.1 Introduction; 2.2 Reflector Geometry Using a Surface of Revolution; 2.2.1 Rays in a Parabola; 2.3 Geometric Optics; 2.4 Feed Modeling. 2.4.1 Analytical Feed Models 2.4.2 Spherical Wave Expansion Feed; 2.4.3 Currents Expansion Feed; 2.5 Reflector Analysis Methods; 2.5.1 Aperture Method; 2.5.2 PO Analysis; 2.5.3 GO/GTD Analysis; 2.5.4 Shooting and Bouncing Analysis; 2.5.5 Moment Method Reflector Analysis; 2.6 Reflector Size Limitation ; 2.7 Struts; 2.7.1 Polygon Struts; 2.7.2 Meta.
Sommario/riassunto	This is the first truly comprehensive and most up-to-date handbook available on modern reflector antennas and feed sources for diversified space and ground applications. There has never been such an all-

encompassing reflector handbook in print, and no currently available title offers coverage of such recent research developments. The Handbook consists of three volumes. Volume I provides a unique combination of theoretical underpinnings with design considerations and techniques. The need for knowledge in reflector antennas has grown steadily over the last two decades due to increased use in spa.
