

1. Record Nr.	UNINA9910461757103321
Autore	Anderson Theodore R.
Titolo	Plasma antennas // Theodore Anderson
Pubbl/distr/stampa	Boston : , : Artech House, , ©2011 [Piscataqay, New Jersey] : , : IEEE Xplore, , [2011]
ISBN	1-60807-144-8
Descrizione fisica	1 online resource (226 p.)
Collana	Artech House antennas and propagation series
Disciplina	621.384135
Soggetti	Antennas (Electronics) Plasma sheaths 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; Foreword; Preface; Acknowledgments; 1 Introduction; 2 Plasma Physics for Plasma Antennas; 3 Fundamental Plasma Antenna Theory; 4 Building a Basic Plasma Antenna; 5 Plasma Antenna Nesting, Stacking PlasmaAntenna Arrays, and Reduction of CositeInterference; 6 Plasma Antenna Windowing: Foundationof the Smart Plasma Antenna Design; 7 Smart Plasma Antennas; 8 Plasma Frequency Selective Surfaces; 9 Experimental Work; 10 Directional and Electronically SteerablePlasma Antenna Systems by ReconfigurableMultipole Expansions of Plasma Antennas; 11 Satellite Plasma Antenna Concepts 12 Plasma Antenna Thermal NoiseAbout the Author; Index
Sommario/riassunto	The plasma antenna is an emerging technology that partially or fully utilizes ionized gas as the conducting medium instead of metal to create an antenna. The key advantages of plasma antennas are that they are highly reconfigurable and can be turned on and off. The disadvantage is that the plasma antennas require energy to be ionized. This unique resource provides you with a solid understanding of the efficient design and prototype development of plasma antennas, helping you to meet the challenge of reducing the power required to ionize the gas at various plasma densities. You also find thorough coverage of the technical underpinnings of plasma antennas, as well as important discussions on current markets and applications.

Additionally, the book presents experimental work in the this cutting-edge area and reveals the latest developments in the field. This in-depth reference is supported with over 70 illustrations and more than 110 equations.
