

1. Record Nr.	UNINA9910972510203321
Autore	Fenn A. J (Alan Jeffrey), <1953->
Titolo	Adaptive antennas and phased arrays for radar and communications / / Alan J. Fenn
Pubbl/distr/stampa	Boston ; ; London, : Artech House, c2008
ISBN	9781596932746 1596932740
Edizione	[1st ed.]
Descrizione fisica	1 online resource (410 p.)
Collana	Artech House radar library
Disciplina	621.38483
Soggetti	Antenna arrays Antennas (Electronics) Radar Telecommunication
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	Adaptive Antennas and Phased Arrays for Radar and Communications; Contents; Preface; 1 Adaptive Antennas and Degrees of Freedom; 2 Array Mutual Coupling Effects on Adaptive Radar Clutter Suppression; 3 Focused Near-Field Technique for Evaluating Adaptive Phased Arrays; 4 Moment Method Analysis of Focused Near-Field Adaptive Nulling; 5 Focused Near-Field Testing of Multiphase-Center Adaptive Array Radar Systems; 6 Experimental Testing of Focused Near-Field Adaptive Nulling; 7 Experimental Testing of High-Resolution Nulling with a Multiple Beam Antenna; 8 Phased Array Antennas: An Introduction 9 Monopole Phased Array Antenna Design, Analysis, and Measurements10 Monopole Phased Array Field Characteristics in the Focused Near-Field Region; 11 Displaced Phase Center AntennaMeasurements Using Near-Field Scanning; 12 Low-Sidelobe Phased Array Antenna Measurements Using Near-Field Scanning; 13 Arrays of Horizontally Polarized Omnidirectional Elements; 14 Finite Arrays of Crossed V-Dipole Elements; 15 Experimental Ultrawideband Dipole Antenna Array; 16 Finite Rectangular Waveguide Phased Arrays; About the Author; Index
Sommario/riassunto	Based on the author's extensive research at MIT Lincoln Laboratory, this

authoritative resource offers an in-depth description of adaptive array design, emphasizing the RF characteristics, mutual coupling among elements, and field testing methods. It provides you with proven techniques for challenging projects involving radar, communication systems and antenna design. For the first time in any book, you find design guidance on specialized types of arrays, using monopole radiating elements, slotted cylinders and ultrawideband dipoles. Moreover, this unique book presents a focused near-field technique that quantifies the far-field performance of large aperture radar systems and communication systems. The book presents example prototype phased array antennas, including discussions on monopole phased arrays, finite and infinite array analyses, measurements for planar arrays of monopole elements. Further, you get a detailed explanation of focused near-field polarization characteristics of monopole arrays as related to adaptive array testing in the near field. From the fundamentals of adaptive antennas and degrees of freedom for multiple beam antennas and phased arrays ... to a test bed monopole phased array and the planar near field testing technique ... to arrays of horizontally polarized loop-fed slotted cylinder antennas and ultrawideband dipole arrays, this comprehensive book offers you invaluable, hands-on knowledge for your work in the field.

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