

1. Record Nr.	UNINA9910143559303321
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Titolo	Array and phased array antenna basics [[electronic resource] /] / Hubregt J. Visser
Pubbl/distr/stampa	Chichester, West Sussex, England ; ; Hoboken, NJ, : John Wiley & Sons, c2005
ISBN	1-280-33991-8 9786610339914 0-470-34595-0 0-470-87119-9 1-60119-552-4 0-470-87118-0
Descrizione fisica	1 online resource (377 p.)
Disciplina	621.3824
Soggetti	Antenna arrays Antennas (Electronics) 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	Array and Phased Array Antenna Basics; Contents; Preface; References; Acknowledgments; Acronyms; 1 Radiation; 1.1 The Early History of Electricity and Magnetism; 1.2 James Clerk Maxwell, The Union of Electricity and Magnetism; 1.3 Radiation by Accelerated Charge; 1.4 Reactive and Radiating Electromagnetic Fields; References; 2 Antennas; 2.1 The Early History of Antennas; 2.1.1 Resonant Electric Circuit; 2.1.2 Heinrich Hertz: The First Antenna and Radio System; 2.1.3 Guglielmo Marconi, the Dawn of Wireless Communication; 2.1.4 After the First Transatlantic Transmission; 2.1.5 Directivity 2.2 Antenna Developments During the First World War 2.3 Antenna Developments in Between the Wars; 2.3.1 Broadcasting; 2.3.2 Microwaves; 2.4 Antenna Developments During the Second World War; 2.4.1 Radar; 2.4.2 Other Antenna Developments; 2.5 Post-War Antenna Developments; 2.5.1 Frequency Independent Antennas; 2.5.2 Helical Antenna; 2.5.3 Microstrip Patch Antenna; 2.5.4 Phased Array Antenna;

References; 3 Antenna Parameters; 3.1 Radiation Pattern; 3.1.1 Field Regions; 3.1.2 Three-Dimensional Radiation Pattern; 3.1.3 Planar Cuts; 3.1.4 Power Patterns and Logarithmic Scale 3.1.5 Directivity and Gain 3.1.6 Reciprocity; 3.1.7 Antenna Beamwidth; 3.2 Antenna Impedance and Bandwidth; 3.3 Polarisation; 3.3.1 Elliptical Polarisation; 3.3.2 Circular Polarisation; 3.3.3 Linear Polarisation; 3.3.4 Axial Ratio; 3.4 Antenna Effective Area and Vector Effective Length; 3.4.1 Effective Area; 3.4.2 Vector Effective Length; 3.5 Radio Equation; 3.6 Radar Equation; 3.6.1 Radar Cross-Section; References; 4 The Linear Broadside Array Antenna; 4.1 A Linear Array of Non-Isotropic Point-Source Radiators; 4.2 Plane Waves; 4.3 Received Signal; 4.4 Array Factor 4.5 Side Lobes and Grating Lobes 4.5.1 First Side-Lobe Level; 4.5.2 Grating Lobes; 4.6 Amplitude Taper; References; 5 Design of a 4-Element, Linear, Broadside, Microstrip Patch Array Antenna; 5.1 Introduction; 5.2 Rectangular Microstrip Patch Antenna; 5.2.1 Cavity Model; 5.2.2 Input Impedance and Radiated Fields; 5.2.3 Rectangular Microstrip Patch Antenna Design; 5.3 Split-T Power Divider; 5.3.1 Analysis Basic Power Divider; 5.3.2 Analysis Impedance Transformer; 5.3.3 Power Divider Scattering Matrix; 5.3.4 Split-T Power Divider Simulation 5.4 Transmission and Reflection Coefficients for a Corporate Fed Array Antenna 5.4.1 Two-Element Subarray; 5.4.2 Four-Element Array; 5.5 Simulation, Realisation and Measurement; 5.5.1 Realisation; 5.5.2 Simulation and Measurement; References; 6 The Linear Endfire Array Antenna; 6.1 Introduction; 6.2 Phase Differences; 6.3 Hansen-Woodyard Endfire Array Antenna; 6.4 Mutual Coupling; 6.5 Yagi-Uda Array Antenna; 6.5.1 Mutual Impedance; 6.5.2 Radiation; 6.5.3 Antenna Design; References; 7 The Linear Phased Array Antenna; 7.1 Linear Phase Taper; 7.2 Beam Broadening 7.3 Grating Lobes and Visible Space

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## Sommario/riassunto

Reflecting a growing interest in phased array antenna systems, stemming from radar, radio astronomy, mobile communications and satellite broadcasting, *Array and Phased Array Antenna Basics* introduces the principles of array and phased array antennas. Packed with first-hand practical experience and worked-out examples, this is a valuable learning tool and reference source for those wishing to improve their understanding of basic array antenna systems without relying heavily on a thorough knowledge of electromagnetics or antenna theory. Features a general introduction to antennas a

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2. Record Nr.	UNISA996387360703316
Autore	Gutteridge William <fl. 1680.>
Titolo	The case of William Gutteridge, and other glass-makers, against passing a pattent for incorporating Sir Joseph Herne, and others, by the name of the glass-makers in the cities of London and Westminster, and ten miles compass of the same [[electronic resource]]
Pubbl/distr/stampa	[London, : s.n., 1680?]
Descrizione fisica	1 sheet ([1] p.)
Soggetti	Glass manufacture - England Glassworkers - England BroadsidesEngland
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Imprint from Wing. Reproduction of original in the Henry E. Huntington Library.
Sommario/riassunto	eebo-0113