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| 1. Record Nr. | UNINA9910136286003321 |
| Titolo | ANSI/IEEE Std 28-1974 (Revision of IEEE 28-1972) : ANSI/IEEE Standard for Surge Arresters for Alternating Current Power Circuits / / Institute of Electrical and Electronics Engineers |
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| Soggetti | Power electronics |
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| 2. Record Nr. | UNINA9910830881903321 |
| Autore | Visser Hubregt J |
| Titolo | Array and phased array antenna basics [[electronic resource]] / Hubregt J. Visser |
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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
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

