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Polarization Efficiency Evaluation Using the Poincare Sphere; 6.2.2 Polarization Efficiency Evaluation Using Stokes Parameters; 6.2.3 Polarization Efficiency Evaluation Using Polarization Ellipse Quantities 6.2.4 Polarization Efficiency Using Axial Ratios 6.2.5 Polarization Efficiency Expressed Using Polarization Ratios; 6.2.6 Polarization Efficiency Expressed Using Polarization Vectors; 6.2.7 Decomposition of Polarization Efficiency into Unpolarized and Completely Polarized Parts; 6.2.8 Decomposition of Polarization Efficiency into Copolarized and Cross-Polarized Parts; 6.3 Vector Effective Length of an Antenna; 6.4 Normalized Complex Antenna Output Voltage; 6.5 Problems; References; 7 Dual-Polarized Systems; 7.1 Introduction to Dual-Polarized Systems; 7.2 Cross-Polarization Ratio

Sommario/riassunto

"This completely revised and expanded edition of an Artech House classic Polarization in Electromagnetic Systems presents the principles of polarization as applied to electromagnetic systems. This edition emphasizes the concepts needed for functional aspects of systems calculations and device evaluation. Readers find up-to-date coverage of applications in wireless communications. The fundamentals of polarization are explained, including the principles of wave polarization along with their mathematical representations. This book explores polarized, partially polarized waves, and unpolarized waves. The second part of the book addresses applications of polarization to practical systems. Antenna polarization is covered in detail, including omnidirectional, directional, and broadband antennas with emphasis on antennas for generating linear and circular polarization for each antenna type. This book provides detailed coverage of wave interaction with an antenna and dual-polarized systems. Additional topics covered in this edition include propagation through depolarizing media, polarization in wireless communication systems, including polarization diversity and polarization measurements. This hands-on resource provides a clear exposition on the understanding of polarization principles and evaluation of the performance of electromagnetic systems."--
