



ANTENNAS AND PROPAGATION



A PUBLICATION OF THE IEEE ANTENNAS AND PROPAGATION SOCIETY

FEBRUARY 2000

VOLUME 48

NUMBER 2

IETPAK

(ISSN 0018-926X)

PAPERS

Directional Macro-Cell Channel Characterization from Urban Measurements	<i>A. Kuchar, J.-P. Rossi, and E. Bonek</i>	137
Some Convergence Considerations in Space-Domain Moment-Method Analysis of a Class of Wide-Band Microstrip Antennas	<i>D. Chatterjee and R. G. Plumb</i>	147
An Enhanced Bandwidth Design Technique for Electromagnetically Coupled Microstrip Antennas	<i>S. M. Duffy</i>	161
Pulse Radiation from an Insulated Antenna: An Analog of Cherenkov Radiation from a Moving Charged Particle	<i>T. W. Hertel and G. S. Smith</i>	165
A Planar Van Atta Array Reflector with Retrodirectivity in Both <i>E</i> -Plane and <i>H</i> -Plane.....	<i>W.-J. Tseng, S.-J. Chung, and K. Chang</i>	173
Wide-Band Airborne Radar Operating Considerations for Low-Altitude Surveillance in the Presence of Specular Multipath	<i>J. G. Teti, Jr.</i>	176
Two Time-Derivative Lorentz Material (2TDLM) Formulation of a Maxwellian Absorbing Layer Matched to a Lossy Medium	<i>D. C. Wittwer and R. W. Ziolkowski</i>	192
Maxwellian Material-Based Absorbing Boundary Conditions for Lossy Media in 3-D	<i>D. C. Wittwer and R. W. Ziolkowski</i>	200
Transformation of Surface Waves in Homogeneous Absorbing Layers	<i>P. Y. Ufimtsev, R. T. Ling, and J. D. Scholler</i>	214
Exact Surface Impedance/Admittance Boundary Conditions for Complex Geometries: Theory and Applications	<i>R. Cicchetti and A. Faraone</i>	223
Numerical Stability of Nonorthogonal FDTD Methods	<i>S. D. Gedney and J. A. Roden</i>	231
Radiation Patterns of Sources Placed Near the Truncation of a Semi-Infinite Dielectric Structure: The Demonstration Case of a Magnetic Line Current	<i>V. Volski and G. A. E. Vandenbosch</i>	240
Numerical Simulation of Scattering from Rough Surfaces: A Wavelet-Based Approach	<i>D. Zahn, K. Sarabandi, K. F. Sabet, and J. F. Harvey</i>	246
Radar Reflection from Clouds: Gigahertz Backscatter Cross Sections and Doppler Spectra	<i>D. A. de Wolf, H. W. J. Russchenberg, and L. P. Ligthart</i>	254
Propagation Modeling over Terrain Using the Parabolic Wave Equation	<i>D. J. Donohue and J. R. Kuttler</i>	260
A Parallel Finite-Element Tearing and Interconnecting Algorithm for Solution of the Vector Wave Equation with PML Absorbing Medium	<i>C. T. Wolfe, U. Navsariwala, and S. D. Gedney</i>	278
Effect of the Imperfect Flat Earth on the Vertically Polarized Radiation of a Cylindrical Reflector Antenna	<i>S. V. Boriskina, A. I. Nosich, and A. Altintas</i>	285
Two-Step Inverse Scattering Method for One-Dimensional Permittivity Profiles	<i>V. A. Mikhnev and P. Vainikainen</i>	293
The Coaxial Beam-Rotating Antenna (COBRA): Theory of Operation and Measured Performance	<i>C. C. Courtney and C. E. Baum</i>	299
A Dual-Beam Micro-CPW Leaky-Mode Antenna	<i>C.-C. Lin and C.-K. C. Tzuang</i>	310
T-Matrix Determination of Effective Permittivity for Three-Dimensional Dense Random Media....	<i>P. R. Siqueira and K. Sarabandi</i>	317

LETTERS

Coplanar Waveguide-Fed Circularly Polarized Microstrip Antenna	<i>C.-Y. Huang and K.-L. Wong</i>	328
Adaptive ISAR Image Construction from Nonuniformly Undersampled Data	<i>Y. Wang and H. Ling</i>	329
Electromagnetic Penetration into 2-D Multiple Slotted Rectangular Cavity: TM-Wave	<i>H. H. Park and H. J. Eom</i>	331
High-Gain Low-Sidelobe Double-Vee Dipoles	<i>N. Patwari and A. Safaai-Jazi</i>	333
Exact Geometrical Optics Solution for an Isorefractive Wedge Structure	<i>P. L. E. Uslenghi</i>	335
Near-Field Signature Prediction Using Far-Field Scattering Centers Extracted from the Shooting and Bouncing Ray Technique	<i>R. Bhalla and H. Ling</i>	337
Matrix-Exponent Formulations for Wave Radiation and Propagation in Anisotropic Stratified Ionosphere ..	<i>M. Y. Xia and Z. Y. Chen</i>	339