1.

Record Nr.	UNINA990008814010403321
Autore	Aimard, Paule
Titolo	Les troubles du langage chez l'enfant / Paule Aimard
Pubbl/distr/stampa	Paris : Press universitaires de France, 1984
ISBN	2-13-038334-3
Descrizione fisica	127 p. ; 18 cm
Collana	Que sais-je? ; 2158
Disciplina	618.9
Locazione	FGBC
Collocazione	Collezioni 82 (2158)
Lingua di pubblicazione	Francese
Formato	Materiale a stampa
Livello bibliografico	Monografia

2.

Record Nr.	UNINA9910139886103321
Autore	Huray Paul G. <1941->
Titolo	The foundations of signal integrity / / Paul G. Huray
Pubbl/distr/stampa	Hoboken, New Jersey : , : IEEE Press, , c2010 [Piscataqay, New Jersey] : , : IEEE Xplore, , [2009]
ISBN	1-282-34836-1 9786612348365 0-470-54348-5 0-470-54346-9
Descrizione fisica	1 online resource (363 p.)
Disciplina	530.141 621.3822
Soggetti	Signal integrity (Electronics) Electromagnetic interference - Prevention Electric lines
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	Preface -- Intent of the Book -- 1. Plane Electromagnetic Waves -- Introduction -- 1.1 Propagating Plane Waves -- 1.2 Polarized Plane Waves -- 1.3 Doppler Shift -- 1.4 Plane Waves in a Lossy Medium -- 1.5 Dispersion and Group Velocity -- 1.6 Power and Energy Propagation -- 1.7 Momentum Propagation -- Endnotes -- 2. Plane Waves in Compound Media -- Introduction -- 2.1 Plane Wave Propagating in a Material as It Orthogonally Interacts with a Second Material -- 2.2 Electromagnetic Boundary Conditions -- 2.3 Plane Wave Propagating in a Material as It Orthogonally Interacts with Two Boundaries -- 2.4 Plane Wave Propagating in a Material as It Orthogonally Interacts with Multiple Boundaries -- 2.5 Polarized Plane Waves Propagating in a Material as They Interact Obliquely with a Boundary -- 2.6 Brewster's Law -- 2.7 Applications of Snell's Law and Brewster's Law -- Endnote -- 3. Transmission Lines and Waveguides -- 3.1 Infinitely Long Transmission Lines -- 3.2 Governing Equations -- 3.3 Special Cases -- 3.4 Power Transmission -- 3.5 Finite Transmission Lines -- 3.6 Harmonic Waves in Finite Transmission Lines -- 3.7 Using AC Spice Models -- 3.8 Transient Waves in Finite Transmission Lines -- 4. Ideal Models vs Real-World Systems -- Introduction -- 4.1 Ideal Transmission Lines -- 4.2 Ideal Model Transmission Line Input and Output -- 4.3 Real-World Transmission Lines -- 4.4 Effects of Surface Roughness -- 4.5 Effects of the Propagating Material -- 4.6 Effects of Grain Boundaries -- 4.7 Effects of Permeability -- 4.8 Effects of Board Complexity -- 4.9 Final Conclusions for an Ideal versus a Real-World Transmission Line -- Endnotes -- 5. Complex Permittivity of Propagating Media -- Introduction -- 5.1 Basic Mechanisms of the Propagating Material -- 5.2 Permittivity of Permanent Polar Molecules -- 5.3 Induced Dipole Moments -- 5.4 Induced Dipole Response Function, G() -- 5.5 Frequency Character of the Permittivity -- 5.6 Kramers-Kronig Relations for Induced Moments -- 5.7 Arbitrary Time Stimulus. 5.8 Conduction Electron Permittivity -- 5.9 Conductivity Response Function -- 5.10 Permittivity of Plasma Oscillations -- 5.11 Permittivity Summary -- 5.12 Empirical Permittivity -- 5.13 Theory Applied to Empirical Permittivity -- 5.14 Dispersion of a Signal Propagating through a Medium with Complex Permittivity -- Endnotes -- 6. Surface Roughness -- Introduction -- 6.1 Snowball Model for Surface Roughness -- 6.2 Perfect Electric Conductors in Static Fields -- 6.3 Spherical Conductors in Time-Varying Fields -- 6.4 The Far-Field Region -- 6.5 Electrodynamics in Good Conducting Spheres -- 6.6 Spherical Coordinate Analysis -- 6.7 Vector Helmholtz Equation Solutions -- 6.8 Multipole Moment Analysis -- 6.9 Scattering of Electromagnetic Waves -- 6.10 Power Scattered and Absorbed by Good Conducting Spheres -- 6.11 Applications of Fundamental Scattering -- Endnotes -- 7. Advanced Signal Integrity -- Introduction -- 7.1 Induced Surface Charges and Currents -- 7.2 Reduced Magnetic Dipole Moment Due to Field Penetration -- 7.3 Influence of a Surface Alloy Distribution -- 7.4 Screening of Neighboring Snowballs and Form Factors -- 7.5 Pulse Phase Delay and Signal Dispersion -- Chapter Conclusions -- Endnotes -- 8. Signal Integrity Simulations -- Introduction -- 8.1 Definition of Terms and Techniques -- 8.2 Circuit Simulation -- 8.3 Transient SPICE Simulation -- 8.4 Emerging SPICE Simulation Methods -- 8.5 Fast Convolution Analysis -- 8.6 Quasi-Static Field Solvers -- 8.7 Full-Wave 3-D FEM Field Solvers -- 8.8

Conclusions -- Endnotes -- Bibliography -- Index.

Sommario/riassunto

The first book to focus on the electromagnetic basis of signal integrity The Foundations of Signal Integrity is the first of its kind-a reference that examines the physical foundation of system integrity based on electromagnetic theory derived from Maxwell's Equations. Drawing upon the cutting-edge research of Professor Paul Huray's team of industrial engineers and graduate students, it develops the physical theory of wave propagation using methods of solid state and high-energy physics, mathematics, chemistry, and electrical engineering before addressing its application