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	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 Infi nitely 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

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