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Nota di contenuto	Introduction -- Terahertz Imaging Modality: State-of-the Art and Open challenges -- Terahertz Antenna Technology for Imaging and Sensing Application Devices -- Small-Gap Photoconductive Dipole Antenna for Imaging -- Analytical Framework of Small-Gap Photoconductive Dipole Antenna: Equivalent Circuit Model -- Directivity Enhancement of Terahertz photoconductive Antenna: Approach of frequency Selective Surface -- Highly-Directive Lens-Less Photoconductive Dipole Antenna Array for Imaging Applications -- Beam-Steering Characteristics of Highly-Directive Photoconductive Dipole Phase Array Antenna -- Terahertz Near-field Imaging and Sensing -- Aspects of Surface Plasmon Polaritons at Terahertz Frequencies -- Terahertz Integrated Devices and Systems for Imaging and Sensing.
Sommario/riassunto	This book covers terahertz antenna technology for imaging and sensing, along with its various applications. The authors discuss the use of terahertz frequency and photoconductive antenna technology for imaging applications, such as biological and bio-medical applications, non-destructive inspection of fabrics and plastics, analysis of hydration levels or detecting the presence of metallic components in samples, and detecting a variety of materials with unique spectral fingerprints in the terahertz frequency range, such as different types of explosives or several compounds used in the fabrication of medicines. Provides a comprehensive review of terahertz source and detector for imaging and

sensing; Discusses photoconductive antenna technology for imaging and sensing; Presents modalities for improving the photoconductive dipole antenna performance for imaging and sensing; Explores applications in tomographic imaging, art conservation and the pharmaceutical and aerospace industries.