Small Antennas: Miniaturization Techniques & Applications
Synopsis
Next-generation small antenna design techniques This authoritative text provides the most up-to-date methods on the theory and design of small antennas, including an extensive survey of small antenna literature published over the past several years. Written by experts at the forefront of antenna research, Small Antennas: Miniaturization Techniques & Applications begins with a detailed presentation of small antenna theory--narrowband and wideband--and progresses to small antenna design methods, such as materials and shaping approaches for multiband and wideband antennas. Generic miniaturization techniques are presented for narrowband, multiband, and wideband antennas. Two chapters devoted to metamaterials antennas and methods to achieve optimal small antennas, as well as a chapter on RFID technologies and related antennas, are included in this comprehensive volume. Coverage includes: Small antenna theory and optimal parameters Theory and limits of wideband electrically small antennas Extensive literature survey of small antenna designs Practical antenna miniaturization approaches Conformal wideband antennas based on spirals Negative refractive index (NRI) metamaterial and electromagnetic band gap (EBG) based antennas Small antennas based on magnetic photonic and degenerate band edge crystals Impedance matching for small antennas using passive and active circuits RFID antennas and technology

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Customer Reviews
This is a very well written book on Small antennas. It covers theoretical limitations of antenna size
reduction as well discusses the modern structures that recently appeared in the literature. However, this is an introductory text on Small antennas and not the antenna theory. For the latter, Balanis' Antenna theory is the standard text.

This book was very helpful for the research I am doing right now with Electronically Small Antennas (ESA). The break down of the work of Chu and Thai helped also. Using the combination of Balanis's Antenna Theory and Small Antennas: Miniaturization Techniques & Applications I could easily designed and understand my antennas. I recommend this to researchers/engineers who didn't know there was a difference once the size is reduce much smaller than the wavelength of its operating frequency.

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