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Titolo	EM Design and Analysis of Dipole Arrays on Non-planar Dielectric Substrate / / by Hema Singh, R. Chandini, Rakesh Mohan Jha
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ISBN	981-287-781-9
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (88 p.)
Collana	SpringerBriefs in Computational Electromagnetics, , 2365-6239
Disciplina	621.3824
Soggetti	Microwaves
	Optical engineering
	Mathematical physics
	Electrical engineering
	Theoretical Mathematical and Computational Physics
	Communications Engineering, Networks
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 indexes.
Nota di contenuto	Introduction Single Dipole on Planar Ground Plane Dipole Array Design Planar Dipole Array Conclusion.
Sommario/riassunto	This book presents a simple and systematic description of EM design of antenna arrays. Printed dipole antennas are known to be simple yet more efficient than wire antennas. The dielectric substrate and the presence of ground plane affect the antenna performance and the resonant frequency is shifted. This book includes the EM design and performance analysis of printed dipole arrays on planar and cylindrical substrates. The antenna element is taken as half-wave centre-fed dipole. The substrate is taken as low-loss dielectric. The effect of substrate material, ground plane, and the curvature effect is discussed. Results are presented for both the linear and planar dipole arrays. The performance of dipole array is analyzed in terms of input impedance, return loss, and radiation pattern for different configurations. The effect of curved platform (substrate and ground plane) on the radiation behaviour of dipole array is analyzed. The book explains fundamentals of EM design and analysis of dipole antenna array through numerous

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illustrations. It is essentially a step-to-step guide for beginners in the field of antenna array design and engineering.