

Preface

Low profile antennae are of great interest for antenna designers and engineers toward conformity and low observability. This book presents the EM design and analysis of printed dipole array on planar and cylindrical substrate. The substrate is taken as low-loss dielectric. The effect of infinite and finite ground plane on antenna array performance is discussed. The performance of linear and planar dipole array is analyzed in terms of input impedance, return loss, and radiation pattern. This book is divided into sub-sections. First, the design and performance analysis of a single half-wave center-fed dipole over a planar and nonplanar substrate is presented. The performance analysis of antenna is carried out in terms of input impedance, return loss, and radiation pattern. Then the design and performance analysis of linear dipole arrays of different configurations is presented. Illustrations for both planar and cylindrical substrate are included. Next, the EM design and analysis of planar dipole arrays on a cylindrical substrate are discussed. The study presented is geared toward the EM design and analysis of conformal arrays. This book serves as a systematic step-by-step guide for beginners in low-profile antenna design.

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EM Design and Analysis of Dipole Arrays on Non-planar
Dielectric Substrate

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