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Sommario/riassunto

"This book focuses on planar microwave sensors, and discusses the main relevant sensing strategies, working principles, and applications, on the basis of the authors' own experience and background, while highlighting the most relevant contributions to the topic reported by international research groups. The authors provide an overview of planar microwave sensors grouped by chapters according to their working principle. Thus, after a brief introductory chapter devoted to comparing different technologies for sensing, and highlighting the advantages and limitations of microwave sensors, particularly planar sensors. In each chapter, the working principle is explained in detail, and the specific sensor design strategies are discussed, including validation examples at both simulation and experimental level. The most suited applications in each case are also reported. The necessary theory and analysis for sensor design are also provided, with special emphasis on performance improvement (i.e., sensitivity and resolution optimization, dynamic range, etc.)."--