

1. Record Nr.	UNINA9910299919803321
Autore	Chaturvedi Prakash Kumar
Titolo	Microwave, Radar & RF Engineering : With Laboratory Manual / / by Prakash Kumar Chaturvedi
Pubbl/distr/stampa	Singapore : , : Springer Singapore : , : Imprint : Springer, , 2018
ISBN	981-10-7965-X
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (XVII, 466 p. 344 illus., 25 illus. in color.)
Disciplina	621.3813
Soggetti	Microwaves Optical engineering Electronic circuits Lasers Photonics Microwaves, RF and Optical Engineering Circuits and Systems Optics, Lasers, Photonics, Optical Devices
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction to Microwaves -- Transmission Lines, Waveguides, Strip Lines and Stub Matching by Smith Chart -- Microwaves Cavity Resonators -- Microwaves Components and their Scattering Matrices -- Microwave Tubes as Microwave Source (Oscillators) and Amplifiers -- Microwave Semiconductors Devices: Oscillators, Amplifiers and Circuit -- Microwave Measurement: Instruments and Techniques -- Microwaves Propagation in Space and Microwave Antennas -- Radar -- RF Filter Design -- RF Amplifiers, Oscillator and Mixers -- Simple Lab Experiments and Lab Manual.
Sommario/riassunto	This is a textbook for upper undergraduate and graduate courses on microwave engineering, written in a student-friendly manner with many diagrams and illustrations. It works towards developing a foundation for further study and research in the field. The book begins with a brief history of microwaves and introduction to core concepts of EM waves and wave guides. It covers equipment and concepts involved in the study and measurement of microwaves. The book also discusses

microwave propagation in space, microwave antennae, and all aspects of RADAR. The book provides core pedagogy with chapter objectives, summaries, solved examples, and end-of-chapter exercises. The book also includes a bonus chapter which serves as a lab manual with 15 simple experiments detailed with proper circuits, precautions, sample readings, and quiz/viva questions for each experiment. This book will be useful to instructors and students alike. .
