1. Record Nr. UNINA9910728930403321 Autore Wu Yongle **Titolo** Microwave and Millimeter-Wave Chips Based on Thin-Film Integrated Passive Device Technology [[electronic resource]]: Design and Simulation / / by Yongle Wu, Weimin Wang Singapore:,: Springer Nature Singapore:,: Imprint: Springer.. 2023 Pubbl/distr/stampa **ISBN** 981-9914-55-8 Edizione [1st ed. 2023.] 1 online resource (323 pages) Descrizione fisica Altri autori (Persone) WangWeimin Disciplina 621.38133

Soggetti Telecommunication

Electronics

Electronic circuits

Microwaves, RF Engineering and Optical Communications

Electronics and Microelectronics, Instrumentation

Electronic Circuits and Systems

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Nota di contenuto Introduction -- Design and Simulation of Balanced Bandpass Filter --

Design and Simulation of Millimeter-Wave Microstrip Bandpass Filter -- Design and Simulation of Input-Absorptive Bandstop Filter -- Design and Simulation of Impedance-Transforming Power Divider -- Design

and Simulation of Bandpass Filtering Marchand Balun.

Sommario/riassunto This book adopts the latest academic achievements of microwave and

millimeter-wave chips based on thin-film integrated passive device technology as specific cases. Coherent processes of basic theories and design implementations of microwave and millimeter-wave chips are presented in detail. It forms a complete system from design theory, circuit simulation, full-wave electromagnetic simulation, and fabrication to measurement. Five representative microwave and millimeter-wave passive chips based on TFIPD technology are taken as examples to demonstrate the complete process from theory, design, simulation, fabrication, and measurement, which is comprehensive, systematical, and easy to learn and understand, convenient to operate, and close to the practical application. This book is mainly aimed at the

design and simulation of microwave and millimeter-wave chips based on thin-film integrated passive device technology. On the basis of specific cases, it introduces the whole process from theory, design, simulation, optimization, fabrication to measurement of the balanced filter, microstrip filter, absorptive filter, power divider, and balun. This book is suitable for the professional technicians who are engaged in the design and engineering application of microwave and millimeter-wave device chips. It can also be used as the textbook of electronic science and technology, electromagnetic field and microwave technology, electronic engineering, radar engineering, integrated circuit, and other related majors in colleges and universities.