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Collana	PoliTO Springer Series, , 2509-7024
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Soggetti	Wireless communication systems Mobile communication systems Telecommunication Computer networks Electronic circuits Wireless and Mobile Communication Microwaves, RF Engineering and Optical Communications Computer Communication Networks Electronic Circuits and Systems
Lingua di pubblicazione	Inglese
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Nota di contenuto	5G Extender Antenna Systems to enhance indoor millimeter-wave reception -- Planar Printed MIMO Antennas For 5G Access Points -- Multi-functional Antennas for 5G Communication -- Printed Periodic Structures in Support to 5G Network Antennas -- Magneto-Electric Dipole Antenna for 5G -- Compact High Isolation Meandered-line PIFA Antenna for LTE 5G Handset Applications -- Design of Dual-polarized Arrays for Wide Angle Scanning -- MIMO Antennas for WLAN Applications -- UWB Phased Array Smartphone Antenna with Compact Radiators for MM-Wave 5G Applications -- Overview of Advanced Antennas Concepts for 5G -- 5G Antenna Materials and Ensuing Challenges -- Multi-objective Optimization Methods for Passive and Active Devices in mm-Wave 5G Networks.

Sommario/riassunto

The book provides a comprehensive overview of antennas for 5G technology, such as MIMO, multiband antennas, Magneto-Electric Dipole Antenna and PIFA Antenna for 5G networks, phased array antennas for 5G access, beam-forming and beam-steering issues, 5G antennas for specific applications (smartphone, cognitive radio) and advance antenna concept and materials for 5G. The book also covers optimizations methods for passive and active devices in mm-Wave 5G networks. It explores topics which influence the design and characterization of antennas such as data rates, high isolation, pattern and spatial diversity, making 5G antennas more suitable for a multipath environment. The book represents a learning tool for researchers in the field, and enables engineers, designers and manufacturers to identify key design challenges of antennas for 5G networks, and characterize novel antennas for 5G networks.
