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Spectrum Is Important; 2.2 5G Coexistence with Satellite TV and Other Satellite Systems; 2.3 Radar Frequency Band Designations; 2.4 5G Standards and Spectrum; 2.5 Existing LEO L-Band, Ku-Band, K-Band, and Ka-Band Allocations.
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2.15 GSO and Non-GSO Terminology2.16 Why Country and Regional Differences Are Important for Global Connectivity; 2.17 RF Power and Interference; 2.18 The Importance of Intersatellite Switching; 2.19 Landing Rights; 2.20 Interference Management; 2.21 Spectrum Access Rights; 2.22 NGSO to GSO Interference Mitigation; 2.23 FirstNet and the 2012 Spectrum Act; 2.24 Fiber Access and Wireless Access Rights; 2.25 Fixed Point-to-Point and Point-to-Multipoint Microwave Backhaul; 2.26 Legacy LEO and GSO Operator Spectrum; 2.27 V-Band and W-Band; 2.28 Summary; References; 3 Link Budgets and Latency.

Sommario/riassunto

This new resource presents the emerging role of Low Earth Orbit (LEO), Medium Earth Orbit (MEO), and Geostationary satellites (GSO) as a delivery option for backhaul and wide area rural and urban mobile broadband and fixed access. The book offers insight into recently established Non Terrestrial Network standards. Readers learn which bands will need to be supported in next generation 5G and satellite devices and networks and how the bands will be characterized. Channel spacing, guard bands, FDD or TDD, out of band emission limits, and in band performance requirements are discussed. The book discusses what interference issues will arise from new band allocations including co-shared allocations and how interference will be mitigated in and between next generation terrestrial and satellite 5G networks. Readers learn how modulation choices will affect co-existence issues.nnThe book discusses the design, performance, cost, and test implications of integrating next generation satellite physical and MAC layers with Release 16 and 17 5G standards and explores how these emerging spectrum and standards map on to IOT and MTC use cases in specific vertical markets. Readers learn how new active and passive antennas in the K bands and V and W band (E band) impact the satellite link budget and satellite delivery cost economics.