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| 1. Record Nr. | UNISALENTO991003781699707536 |
| Autore | Kreyszig, Erwin |
| Titolo | Introductory Functional Analysis with applications / E. Kreiszig |
| Pubbl/distr/stampa | New York [etc] : Wiley, 1978 |
| ISBN | 0471504599 |
| Descrizione fisica | xiv, 688 p. ; 23 cm |
| Collana | Wiley Classics Library |
| Disciplina | 515.7 |
| Soggetti | Analisi funzionale |
| Lingua di pubblicazione | Inglese |
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| Livello bibliografico | Monografia |
| 2. Record Nr. | UNINA9910817270803321 |
| Autore | Varrall Geoffrey |
| Titolo | 5G and satellite spectrum, standards, and scale // Geoff Varrall |
| Pubbl/distr/stampa | Boston : , : Artech House, , [2018]
[Piscataqay, New Jersey] : , : IEEE Xplore, , [2018] |
| ISBN | 1-63081-504-7 |
| Descrizione fisica | 1 online resource (xxv, 306 pages) : illustrations |
| Collana | Artech House space technology and applications series |
| Disciplina | 621.38456 |
| Soggetti | Mobile communication systems
Wireless communication systems
Cell phone systems - Standards |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | 5G and Satellite Spectrum, Standards, and Scale; Contents; Foreword; Acknowledgments; 1 Sixty Years of Satellites; 1.1 Beginning with the |

Beach Ball; 1.2 Russia, China, and the United States: Red Rockets and Yellow Rockets; 1.3 Space Regulation and Deregulation; 1.4 The Beach in Bournemouth; 1.5 Satellites for Autonomous Transport Systems and the Internet of Moving Objects; 1.6 Satellites and 5G: A Natural Convergence?; 1.7 The NEWLEOs; 1.8 Regulatory and Competition Policy; 1.9 A Summary of Orbit Options and Performance Comparisons. 1.10 Satellite Technology Innovation: Fractional Beamwidth Antennas. 1.11 FDD Dual-Use, Dual-Band Spectrum with Fractional Beamwidth Antennas; 1.12 Present Launch Plans: Intelsat and Eutelsat; 1.13 People and Politics in the Satellite Industry; 1.14 Third Time Lucky for Hybrid Satellite Terrestrial Networks?; 1.15 Scale and Standards Bandwidth; 1.16 Channel Bandwidths and Passbands: Satellite and 5G Band Plan Implications; 1.17 Impact of NEWLEOs Deployments: The Progressive Pitch Sales Pitch.

1.18 Flat VSATS: An Alternative to Progressive Pitch as a Mechanism for Cosharing 5G and Satellite Spectrum. 1.19 Coexistence and Competition, Subsidies, and Universal Service Obligations; 1.20 U.S -- Competition and Spectral Policy; 1.21 Satellites and Local Area Connectivity; 1.22 Summary; References; 2 The Race for Space Spectrum; 2.1 Why 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.

2.6 Benefits of Higher Frequencies/Shorter Wavelengths. 2.7 Spectrum: Why Ka-Band Is Useful; 2.8 The Impact of Standards on 5G Spectrum Requirements; 2.9 Multiplexing, Modulation and Coexistence; 2.10 Regional Spectrum Policy; 2.11 5G and Satellite at UHF; 2.12 5G in Refarmed Spectrum; 2.13 The FCC, the ITU, and Sovereign Nation Regulation: Similarities and Differences Between Terrestrial and Nonterrestrial Networks; 2.14 Air to Ground for Public Protection and Disaster Relief: AT & T FirstNet, BT EE, and the Australian NBN as Examples of LTE and Longer-Term 5G Emergency Service Radio Networks.

2.15 GSO and Non-GSO Terminology. 2.16 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. The 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.
