1. Record Nr. UNINA9911026170803321

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Titolo	Designing RF Combining Systems for Shared Radio Sites / / Ian Graham
Pubbl/distr/stampa	Norwood : , : Artech House, , [2024] ©2024
ISBN	9781685690267 1685690262
Edizione	[1st ed.]
Descrizione fisica	1 online resource (xv, 286 pages) : illustrations, charts
Collana	Artech House mobile communications library
Soggetti	Radio relay systems Emergency communication systems Mobile communication systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
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Sommario/riassunto

"This book explores Radio Access Networks (RANs) within LMR systems, comprising base stations, mobile radios, and hand portable radios. These components facilitate communication among end users via a network of fixed base stations, antennas, and combining systems strategically placed across radio repeater sites throughout the coverage area. This resource also delves into the consequences of interference, highlighting the painstaking efforts required to diagnose and rectify

interference issues through field testing and redesign. The central focus being on the design intricacies of base station antennas and combining systems at densely populated shared radio repeater sites. The book underscores how to identify potential sources of interference from co-located transmitters and receivers, effectively surveying sites to anticipate high-level interfering signals. This critical information forms the foundation for crafting base station antenna and combining systems that curtail interference, subsequently optimizing coverage and minimizing costs. Throughout its pages, the book lays out a detailed roadmap for designing LMR systems resilient to interference. By outlining essential principles and methodologies, the book guides practitioners in creating LMR networks that flawlessly align with end users' communication requirements. The resulting systems not only meet expectations but surpass them, offering the coverage area and communication quality demanded by public safety and utility organizations during critical operations. Ultimately, the book serves as an indispensable resource for engineers, designers, and professionals engaged in crafting LMR systems capable of delivering impeccable performance and reliability."--Publisher website.