Abstract

Due to the insufficiency of available bandwidth and the continuously growing demand for cellular communication services, there are many cells using same frequency band. All the cells using the same channel are physically located apart by at least reused distance, even though the power level is controlled carefully so that such "co-channels" do not create a problem for each other, there is still some degree of interference due to non-zero signal strength of such cells. This paper concludes Reuse distance (D) with respect to the co-channel interference ratio (CCIR) for mobile station at the various distances from base station (BS).

References

- Joseph J. Carr ,Joe Carr&apos;s Radio Tech-Notes Directional or Omnidirectional Antenna? , Universal Radio Research 6830 Americana Parkway
Simulation of Co-channel Interference Ratio (CCIR) for Directional Antenna in Mobile Computing

- Luís M. Correia, Mobile Broadband Multimedia Networks: Techniques, Models and Tools for 4G
- Dharma Prakash Agrawal and Qing-An Zeng, “Introduction to Wireless and Mobile System”; University of Cincinnati.
- 3GPP, Digital Cellular Telecommunications System (Phase 2+). Technical specification TS 05. 01-05, http://www.3gpp.org
- Won-Gyu Lim et al., New Method for Back Lobe Suppression of Microstrip Patch Antenna for GPS, Proceedings of the 40th European Microwave Conference

Index Terms

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Keywords

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