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{/tag}International Journal of Computer Applications

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Volume 45 - Number 23

Year of Publication: 2012

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10.5120/7090-9795

{bibtex}pxc3879795.bib{/bibtex}

Abstract

Long Term Evolution (LTE) is consents pliable spectrum distribution which renders enriched wireless data services to users at lower latency and multi-megabit throughput. LTE uses Orthogonal Frequency Division Multiple Access (OFDMA) and Single Carrier Frequency Division Multiple Access (Sc-FDMA) for downlink and Uplink transmission where OFDMA has been acquired in LTE for downlink transmission which diminishes the terminal cost and power consumption and Sc-FDMA has been allocates multiple users to a shared communication resources. Frequency Division Duplex (FDD) and Time Division Duplex (TDD) are the prevailing duplexing scheme in LTE that provides deployable tractability according to spectrum assignation. In this paper, we analyze the performance of SC-FDMA and OFDMA in LTE Frame Structure based on Peak to Average Power Ratio (PAPR) analysis. ITU Pedestrian A channel and ITU Vehicular A channel and also Additive White Gaussian Noise (AWGN) channel are used for analyzing the error performance between SC-FDMA and OFDMA

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Index Terms

Computer Science

Wireless Communications

Keywords

Long Term Evolution (lte) Frequency Division Duplex (fdd) Time Division Duplex (tdd)
Single Carrier Frequency Division Multiple Access (sc-fdma)
Orthogonal Frequency Division Multiple Access (ofdma)
Additive White Gaussian Noise (awgn)