

PERFORMANCE ANALYSIS OF MC-CDMA SYSTEM USING BPSK MODULATION

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ABSTRACT

Multi Carrier Code Division Multiple Access (MC-CDMA) is an attractive choice for high speed wireless communication as it avoids the problem of Inter Symbol Interference (ISI) and also exploits frequency diversity. In order to support multiple users with high speed data communications, the MC-CDMA technique is used to address these challenges. MC-CDMA experiences severe multipath fading which badly affects its performance. When transmission over fading channel multi-cell interference occurs and this degrades the performance of the system. This paper specially analyzes the BER performance under Rayleigh fading channel conditions of MC-CDMA in presence of AWGN (Additive White Gaussian Noise) using BPSK modulation for different number of subcarrier, different number of users using MATLAB program, and finally the paper also presents a comparison between simulated results, which shows the reduction in BER performance.

KEYWORDS: CDMA, MC-CDMA, ISI, AWGN, BER, Rayleigh Fading Channel