BIT ERROR RATE FOR DIFFERENT DIVERSITY COMBINING SCHEMES & CHANNEL ESTIMATION EVALUATION IN MULTI-USER DS-CDMA SYSTEM USING DIFFERENT MODULATION TECHNIQUES

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Abstract

Generally, three diversity combining schemes namely Selection diversity, Equal Gain Combing and Maximal Ratio Combing are used in DS-CDMA system with BPSK modulation to deal with slow fading multipath environment. In this paper, these schemes have been employed with OQPSK modulation to increase the system capacity. An efficient series, used to calculate the probability of error for both modulation schemes with chip timing and carrier phase errors is used. System at 1.25MHz bandwidth is considered for analysis. The performance is usually measured in terms of bit error rate as a function of no. of active user for a given signal to noise ratio, taking probability of error as 10^{-3}.