The Investigation of System Performance for OFDM Systems Operating in Frequency Non-Selective Fading Channels

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ABSTRACT

The OFDM (orthogonal frequency division multiplexing) signaling is one kind of "Multi-Carrier" technology, which can slow down delayed transmission especially for operating at frequency non-selective fading channels. Therefore, it gains quite large profit making a study of executing efficiency at different frequency non-selective fading channels. The OFDM system has become the most popular choice of transmission modulation in the new wireless communication field. Hence, in this article utilize a method of OFDM modulation to explore the statistical characteristic of distributions of Rayleigh、Ricean、Weibull while working in fading channel. And then use SC(selective combining) at the output of receiver to research efficiency analysis of OFDM system under different fading factor.

Keywords : OFDM(orthogonal frequency division multiplexing),Multipath , non-selective fading, fading channel, BER(bit error ratio)

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