Abstract

OFDM is an attractive signaling scheme for communication systems and adopted in many wireless standards. One of the challenging issues for OFDM system is its high Peak-to-Average Power Ratio (PAPR) which limits its applications in communication systems. In fact, the PAPR problem is one of the most detrimental aspects in the OFDM systems as it can cause power degradation and spectral spreading. In this paper, we review and analyze the performances of different PAPR reduction techniques in OFDM systems, based on Complementary Cumulative Distribution Function (CCDF), computational complexity, bandwidth expansion, in-band signal distortion and out-of-band radiation. Extensive computer simulations show that up to 8.4 dB reduction in PAPR can be achieved through six different techniques of PAPR reduction.

References

An Overview of PAPR Reduction Techniques in OFDM Systems


Index Terms

Computer Science
Communication Systems
An Overview of PAPR Reduction Techniques in OFDM Systems

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Orthogonal Frequency Division Multiplexing (OFDM)  Complementary Cumulative Distribution Function (CCDF)
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