Abstract

OFDM transmission in optical wireless channel is established via asymmetrically clipped optical OFDM (ACO-OFDM). Clipping is one of the simplest methods to reduce the high peak to average power ratio (PAPR). Clipping leads to additional in-band distortion and out-of-band distortion. In this paper it is proposed to mitigate the clipping noise by iterative reconstruction based method and Channel coding method. The out of band distortion is reduced by filtering and in-band distortion by inserting pilot samples. The clipped samples are reconstructed at the receiver and reduce the clipping noise in the presence of AWGN in channel.
Performance Analysis in ACO-OFDM based OWC Systems by Mitigating Clipping Noise

References


Index Terms

Computer Science Wireless Communication

Keywords

Ofdm Clipping Noise Suppression Iterative Reconstruction Method