Orthogonal frequency division multiplexing (OFDM) is a multicarrier communication technique and it has capability to rise above the frequency-selective fading problem, which is common in wireless broadband communications. This has made it popular since last few years. The OFDM system suffers from a number of drawbacks such as the high peak-to-average power ratio (PAPR). Many PAPR reduction techniques used either destroy the system performance, which is the clipping technique or increases the overall complexity of the system, such as the selective mapping (SLM). In this paper a unique approach has been proposed to obtain a new code from the existing codes in order to reduce the bit error rate (BER), to mitigate the gap between the performance and Shannon limit while the bounded peak average power ratio (PAPR) of OFDM symbol is guaranteed. A new code based on the BCH with a Barthannwin Wave Filter has been proposed to achieve the desired results.
A New Approach to Enhance Performance of OFDM using BCH and Newly Designed Filter

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- Yongjun Kwak, "Near Shannon Limit Reduced Peak to Average Power Ratio Channel Coded OFDM", Harvard University, April 2012.

Index Terms

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