A Low Complexity Partial Transmit Sequence for Peak to Average Power Ratio Reduction in OFDM Systems.

Abstract

Partial transmit sequence (PTS) is one of the most important techniques for reducing the peak to average power ratio (PAPR) in OFDM systems. This paper presents a low complexity PTS scheme by applying a new phase sequence. Unlike the conventional PTS which needs several inverse fast Fourier transform (IFFT) operations, the proposed scheme requires half IFFT operations only at the expense of slight PAPR degradation. Simulation and results are examined with QPSK modulation and OFDM signal and power amplifier with memory effects.

Keyword: CCDF; Digital predistortion; Orthogonal frequency division multiplexing; Partial transmit sequence; Peak to average power ratio