Partial Transmit Sequence (PTS) technique is an attractive technique for peak-to-average power ratio (PAPR) reduction of orthogonal frequency division multiplexing (OFDM) signals. However, optimum PTS (OPTS) requires an exhaustive search over all combinations of allowed phase weighting factors, resulting in high computational complexity. In this paper, we propose an Alternate Optimised Grouping Phase Weighting (AO-GPW) method to reduce the computational complexity for PTS. Theoretical analysis and simulation results show that, compared with O-PTS and PTS employing GPW, PTS with AO-GPW method reduces the computational complexity but at the cost of loss of performance for PAPR reduction.
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