Abstract

This paper is concerned with the performance improvement of peak-to-average power ratio (PAPR) reduction in interleaved mode of discrete cosine transform based single carrier frequency division multiple access (DCT-SCFDMA) using a combined technique of pulse shaping with a nonlinear companding process. This proposed scheme is based on the modified hyperbolic tangent transform which can compress the large signals and enlarge the small signals while keeping the average power invariant. Simulation results show that the proposed methodology markedly reduces the PAPR value and enhances the bit error rate (BER) performance.

References


Index Terms

Computer Science  Signal Processing

Keywords

Peak-to-average power ratio, pulse shaping, hyperbolic tangent, companding, DCT-SCFDMA.