Abstract

The low peak-to-average power ratio (PAPR) in single-carrier systems has motivated the Long Term Evolution (LTE) Third Generation Partnership Project (3GPP) to adopt single carrier frequency division multiple access (SC-FDMA) as the uplink multiple access scheme. In this paper, an enhancement of a SC-FDMA system by decreasing the PAPR is focused. A combination of clipping and Pulse shaping (RRC filter) is applied on a SC-FDMA signal with IFDMA subcarrier mapping, which results in a PAPR reduction. This PAPR reduction by hybrid (clipping & pulse shaping) technique can be used to enhance the power efficiency of the handset, or alternatively to improve uplink throughput and/or operating range.

References


Index Terms
Computer Science  Communication Systems

Keywords
SC-FDMA  3GPP LTE  PAPR  RRC