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PAPR Reduction of Localized Single Carrier FDMA using Partial Transmit Sequence in LTE Systems

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Abstract: In this paper, the partial transmit sequence (PTS) technique is used to decrease the peak-to-average power ratio (PAPR) of the localized single-carrier frequency division multiple access (LFDMA) in the uplink of LTE systems. For a clipping rate of 0.1% with 64 user subcarriers and 256 system subcarriers with four different phase sequences; the gain of PAPR for the suggested PTS based LFDMA system is 6.56 dB and 3.06 dB, respectively when compared with the orthogonal frequency division multiple access (OFDMA) and the LFDMA uplink systems with QPSK modulation.