

ABSTRACT

Orthogonal Frequency Division Multiplexing (OFDM) is a modulation technique of multicarrier that capable to give solution to the communications system of wireless this time. OFDM have big efficiency of bandwidth, can overcome the problem of fading selective frequency and hold up to spread delay. The One of main problems in OFDM system is large PAPR (Peak to Average Power Ratio) where the peak power of OFDM signal will much bigger than the average.

Partial Transmit Sequence (PTS) and Selected Mapping (SLM) are two approach of probabilistic technique to reduce PAPR. In PTS, each block of sub carriers divide into some sub block, than every sub block are multiplied by phase combination, the transmitted signal is made to have low PAPR by optimally combining signal sub blocks. In SLM, some sequences which represent the same information are multiplied by some phase factor, the sequence with lowest peak power is selected for transmission.

Addition the amount of partition (V) in PTS and phase factor (U) in SLM will improve reduction of PAPR but also will add system complexity. Result of simulations show that PTS will give better performance than SLM where for the same usage of the IFFT (amount of IFFT= $U=V=4$) in 10^4 symbol of OFDM, maximum PAPR for SLM approach is 8.5dB, and for PTS only 6.557 dB. But usage of PTS approach will add system complexity more than SLM.

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