

Investigation on PAPR Reduction in OFDM System

ABSTRACT

Orthogonal Frequency Division Multiplexing (OFDM) has become a common and important technology in 4G wireless system due to its high data rate. However, the major drawback of this system is the high Peak-to-Average Power Ratio (PAPR). A high PAPR OFDM will require High Power Amplifier (HPA) which will cause the design process become difficult and costly. In order to reduce the PAPR, several solution have been proposed. They are partial Transmit Sequence (PTS) and Selected Mapping (SLM) which are less complex and able to reduce the PAPR effectively. The performance reduction of PTS and SLM in OFDM associate with several precoding techniques such as Walsh Hadamard Transform (WHT), Discrete Hartley Transform (DHT), and Discrete Fourier Transform have been evaluate in this work.