A Study of Various PAPR Reduction Techniques for Optical OFDM Systems

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Abstract

In present times, OFDM has emerged as a key area of research in optical communication. OFdm is a modulation technique by which high data rates can be achieved by sending data simultaneously over multiple subcarrier frequencies. However the main problem of OFDM is high PAPR value. High PAPR enhances non linear effects in optical fibers as the effective refractive index of optical fiber depends upon the value of input power. Various techniques have been deployed to reduce PAPR. All techniques have their inherent advantages and limitations. This paper presents a review on some of the important PAPR reduction techniques for optical OFDM systems.

References

- Kahn, Joseph, "Modulation and detection techniques for optical communication"


Index Terms

Computer Science Communications

Keywords
Orthogonal Frequency Division Multiplexing (OFDM) Partial Transmit Sequence
(PTS)
Peak to Average Power
Ratio (PAPR)
Selected
Mapping (SLM)

Sliding Norm Transform (SNT).