

The Impact of Varying the Detector and Modulation Types on Inter Satellite Link (ISL) Realizing the Allowable High Data Rate

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Abstract : ISLs are the most popular choice for deep space communications because these links are attractive alternatives to present day microwave links. This paper explored the allowable high data rate in this link over different orbits, which is affected by variation in modulation scheme and detector type. Moreover, the objective of this paper is to optimize and analyze the performance of ISL in terms of Q-factor and Minimum Bit Error Rate (Min-BER) based on different detectors comprising some parameters.

Keywords : free space optics (FSO), field of view (FOV), inter satellite link (ISL), optical wireless communication (OWC)

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