Performance analysis for W-band antenna alignment using accurate mechanical beam steering - DTU Orbit (30/01/2019)

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This article presents a study of antenna alignment impact on bit error rate for a wireless link between two directive W-band horn antennas where one of them is mechanically steered by a Stewart platform. Such a technique is applied to find the optimal alignment between transmitter and receiver with an accuracy of 18 both in azimuth and elevation angles. The maximum degree of misalignment which can be tolerated is also reported for different values of optical power in the generation of W-band signals by photonic up-conversion. (C) 2017 Wiley Periodicals, Inc.

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