

## Documents

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**Performance of BER with different diversity techniques for millimeter-wave communication system**

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**Abstract**

In a communications system, a diversity technique is used to enhance the reliability of a message signal by using at least two channels with different characteristics. In this paper, all four possible scenarios are considered: Single-input and single-output (SISO), single input and multi-output (SIMO), multiple-input and single-output (MISO), Multiple-input and multiple output (MIMO) systems. Antenna arrays will be used to reduce BER and improve the performance of the system using array gain in the line of sight channel for 60 GHz frequency in an indoor scenario. Single input and single output are investigated before analysis of multiple inputs and multiple output channel in the line of sight (LOS) and multipath propagation. MATLAB simulation has been performed using BPSK modulation. The comparative studies show that the performance of the MIMO diversity technique is more reliable in terms of BER to improve the performance and efficiency of the communication system. © 2019, Blue Eyes Intelligence Engineering and Sciences Publication. All rights reserved.

**Author Keywords**

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