Infrared Communication

Christopher Houle

Christopher Wilson

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University of Maine

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i. Abstract

A infrared transmission and reception system was designed and built with the original specifications requiring a transmission speed of 9600 bits per second, a transmission distance of 10 feet, and a string length of 10 characters. An oscillator and NAND gate were used for mixing the signal in the transmitter. Various filters, an amplifier, and a Schmitt Trigger were used to reconstruct the signal at the receiver. A final transmission speed of 19200 bits per second at a distance of 14 feet of an unlimited string length were achieved. The transmission speed is in the middle of the standard baud rates and the transmission distance is on par with commercial devices using infrared technology.

ii. Table of Contents

iii. List of Figures, Tables, Graphs, and Equations