

ABSTRACT

Entertainment has become one of the industries integrated by technological advancements, particularly in the field of music. Music in the digital world has undergone significant transformation in the past few decades. This change includes how listeners consume music. Listeners who used to listen to music through FM/AM radio, MP3 players, have now switched to listening to music through digital music services connected to the internet. These music services do not deny the occurrence of disruptions caused by poor internet connections.

The solution offered is a prototype that can facilitate listeners in enjoying music. The solution offered is a prototype that can facilitate listeners in enjoying music. Converter on Light Fidelity (Li-Fi) has a way of working system that converts light signals into electricity or vice versa, thus allowing data transfer through visible light media. This process occurs in the transmitter and receiver parts of the Li-Fi system, where the transmitter converts electricity into light through LEDs and the receiver converts light back into electricity through solar panels.

The test results show that after analyzing the test results, the results show that the received signal remains quite stable up to a maximum distance of 300 cm. This stability is demonstrated by the resulting frequency measurement of 100 Hz in bright room conditions, indicating consistent and reliable performance of the device in an optimal environment. Because it uses light signals, Li-Fi is not interfered by other signals, making it safe to use in signal-dense environments and providing greater assurance of privacy.

Keywords: LED, Li-Fi, Digital Music