

ABSTRACT

A USB keylogger is a device capable of recording every typing activity on a keyboard, with secure real-time data transmission being a primary focus in the development of this tool. In this study, the author designed practical and efficient hardware and implemented encryption technology to protect data from potential interception or manipulation by unauthorized parties.

This research includes testing transmission range, optimizing hardware design, and evaluating performance under various environmental conditions. The results from testing indicate that this tool can transmit data in real-time stably and securely at a frequency of 2.4GHz. With the implementation of strict security protocols, this tool is expected to be a reliable solution in the development of cybersecurity penetration tools.

The conclusion of this research is that the development of the USB Real-time Keylogger with data transmission via the 2.4GHz frequency successfully meets the set objectives, creating a tool that is practical, efficient, and secure. The author hopes that this report can make a valuable contribution to the field of cybersecurity and serve as a reference for the development of similar technologies in the future.

Keywords— USB Keylogger, Real-time Transmission, 2.4GHz, Cybersecurity