

## **ABSTRACT**

*The use of systems such as RFID, Barcode, NFC, etc. which are already widely used requires special tools which required additional costs and if only needed in low-level conditions it will be redundant. In addition, the need for internet on the system has problems in the form of data security. There is also the problem of the limitation of a very small distance to measure and even for use of RFID and NFC the device must be attached to work. So, the use of audio-based data transfer (DTOA) will be more efficient because it is enough to use a smartphone without having to add more devices and is suitable for low-cost usage. Also, use that can be done offline can provide solutions for better data security. In addition, the use of DTOA is based on wave audio which allows the system to be able to perform the system at a longer distance (indoors). For manufacturing. The sending smartphone tester will send a binary set which will be converted to audio and received by the receiving smartphone and the audio will be converted back into a binary set.*

**Keywords:** *DTOA, Sistem Identifikasi, Audio, smartphone*