

## ABSTRACT

*Currently the development of technology is very fast, one of them is telecommunications, for example is transmission antenna. This wearable antenna is more focused on the watch material for the wearable antenna because the watch material has various types of materials such as rubber, leather, nylon, metal and others. The materials used for wearable antennas are rubber and leather.*

*So that we need an antenna which made by rubber and leather places on watch. This antenna made to proving that it compatible as specification of antenna. Shape and the size of antenna are different between substrate rubber and leather. Which one have good characteristics.*

*At last project wearable antenna with substrate rubber and leather are designed. Through this research antenna can work well at a frequency of 2.4 Ghz and obtain the results of antenna characteristics with rubber substrate, namely VSWR is of about 1,007 and return loss is of about -48,049 dB whereas for leather substrate, namely VSWR is of about 1,617 and return loss is of about -12,547 dB. This wearable antenna focuses only the material from the watch to the RFID. In the measurement of antenna comparison between rubber and leather substrates that get better results, namely rubber substrates due to differences in materials and thickness of each substrate.*

*Keyword: Wearable antenna, Copper Tape, Rubber, Leather*