

ABSTRACT

In the manufacture of telecommunication devices measuring equipment is always required for the device that is made to operate in accordance with predetermined specifications, the measuring instrument is one of them is the oscilloscope. With this measuring instrument the magnitude generated by the signal source contained in the device can be known and we can determine whether the output signal is in accordance with the provisions.

But the price of the oscilloscope which is less economical make procurement of these tools is limited. In order to save the cost of purchasing the oscilloscope then at the end of this project build a digital oscilloscope using Arduino Due.

The system is designed to get the value of a comparison with a RIGOL DS1054 oscilloscope with the lowest frequency of 10 Hz with 1 Vpp amplitude and a maximum frequency of 100 kHz with 20 Vpp amplitude. This system is compared with RIGOL DS1054 oscilloscope which is in Communication System Laboratory of Faculty of Applied Sciences Telkom University.

Keywords: *Arduino Due™, oscilloscope, microcontroller*