ABSTRACT

Frequency is important in our lives. Entertainment devices such as computers, televisions, electronic musical instruments, radios can not be separated from the frequency, telecommunication devices such as mobile phones are also not free from frequency benefits. In this paper the author designed a measuring instrument that can detect the frequency of the reference block diagram using a swept spectrum analyzer. The author tested the audio frequency with devices that have been made

Devices that used are mixers, VCO, and sawtooth generator. A mixer for mixing the signal between the input signal with the VCO signal, so the signal changes can seen. VCO as a signal that has a frequency range in accordance with the value of the voltage into the VCO and the calculation of its components. Sawtooth generator as the reference voltage for the VCO and the reference abscissa at audio frequencies detector.

Tested frequency not exceeding 20 kHz, the frequency of the VCO can be generated between 5kHz - 12kHz. VCO output is a positive dc pulse. The ability of the detection frequency swept voltage based on the value of the frequency of the sawtooth signal generator. Mixer output is difference when the input signal and the VCO frequency to meet or equal.

Key word : mixer, VCO, sawtooth generator