ABSTRACT

Electrocardiograph (ECG) is routinely performed by skilled operators who are familiar with the placement of each electrode in the patient. The wrong electrode position can cause critical errors in the diagnosis and treatment of heart disease. The purpose of this research is to design a Portable Electrocardiograph with leads on the palms and feet. The contribution of this research is to facilitate ordinary people in the field of health in terms of the use of electrocardiograph. This research also aims to design an electrocardiograph which is quite affordable for puskesmas / medical service centers in the regions. So that this design can facilitate the method of using tools, an ECG tool is made with an electrode pad that will be placed on the palms and soles of the feet that have been marked on the electrodes. ECG uses a 20dB Passive HPF filter design plus a Non Inverting Amplifier, 40dB LPF, and a notch filter that will be displayed on a PC monitor screen. From the results of the leads of several respondents, visible results that resemble / approach the actual ECG signal. Weaknesses of this module if there is no good grounding of power supply, there will be noise on the results of the signal to be displayed. The results of this study can be implemented in conventional ECGs to improve the ease of use of the tool.

Keyword: ECG, Heart Monitoring, Portable