

ABSTRACT

In this globalization era, mobile phone users is increasing. The mobile phone users come from all walks of life. This is because mobile phones can support communication among users. Various technologies offered by communications companies even more diverse, ranging from features that are more attractive to technology such as UMTS and EVDO. But keep in mind, the use of mobile phones is strictly prohibited in certain places. As in the mosque, classrooms, study rooms, and meeting rooms. Because voice calls on mobile phones can interfere with the activity being lasts at such places.

In that study, appeared an idea to design a tool that can interfere with the signal from the mobile phone. This tool is called the jammer or scrambler. This tool serves to disrupt or block signals or electromagnetic waves that exist on the cell phone. In this final project will only be made block IF (Intermediate Frequency) which consists of a Noise generator, Triangular wave generator, mixer and Diode clamper. The IF section's function is to transmitted mixed signals between the noise signal and regulate voltage triangular signal to be received at VCO on RF section (Radio Frequency).

The final project is done all the measurements of each block and the results are obtained as expected. VCO voltage range requires 1-4 Volt and outputs for VCO is 1-5 Volts. Then the resulting signal is triangular in shape with the aim of sweeping the VCO. Signals issued by the Block IF has also been mixed noise. Overall this tool is able to emit a jamming signal so that the phone can not receive signals from nearby base stations and communications were cut off. But the range of the emitted a maximum of 4 meters. This does not fit the expectations of more than 10 meters.

Keywords: Noise Generator, Tringular wave oscillator, Mixer, Diode Clamper, IF, RF, PCB