

ABSTRACT

Frequency hopping is one of the spread spectrum techniques which are usually used. It is called frequency hopping because the frequency is changed by programmable divider, and the hopping rate is controlled by microcontroller.

This Final Project consists of design and realization transmitter for frequency hopping application. The main tool of this system is FSK modulator with bitrate 41.67 kbps and center frequency 218 kHz. Frequency hopping have been realized with PLL system for frequency synthesizer. The realized frequency range output of synthesizer are 320 kHz until 600kHz.

Depend on the result of test and measurement, for getting the range of synthesizer output between 320 kHz until 600 kHz; the programmable divider must be regulated for the range output value between 80 until 150. In condition which is the divider value upper 150, the output of synthesizer is not suitable with their value divider.