

ABSTRACT

In the middle 1950, *spread spectrum* communication system are introduced to prevent and reduce jamming and interferences. Spread spectrum can be define as technique to transmit information signal using pseudorandom code to spread information signal energy spectrum which using wider bandwidth than bandwidth for signal information. There are many ways to use spread spectrum such as: *Direct Sequence Spread Spectrum*(DSSS), *Frequency Hopping Spread Spectrum*(FHSS), *Time Hopping Spread Spectrum*(THSS).

Voice consist of combination many frequency, this is will be transmitted with transmitter of voice use technique of *Frequency Hopping Spread Spectrum*. *Frequency Hopping Spread Spectrum* (FHSS), frequency carrier of fickle information signal as according to code given and will be constant during specified period, is so-called T (period of chip). Especial peripheral at transmitter system consist of modulator of FSK, hopping frequency realized with VCO system as frequency of synthesizer. This Transmitter system will use frequency 160 MHZ up to 162 MHZ.

This final project are using Technique of *Frequency Hopping Spread Spectrum* design that can modulate voice data in hopping RF frequency and will use frequency 160MHz up to 162MHz with delay 1s. Whole this final project transmitter system has not been well yet because filter block system have enough damping.

Key Word: *Frequency Hopping Spread Spectrum, modulator, Jamming, Voice, Frequency Carrier, FSK, Transmitter.*