

CHAPTER VII

Discussion

The result shows that by the use of the frequency shifting technique, the stable gain can be increased about 6 dB. The beating effect occurs at the higher gain before the positive feedback causes the system to be unstable, this makes the system unable to increase its gain up to 10 dB as discussed in theory. The beating effect makes the sound wave up and down in amplitude with the period about a quarter of second, we understand that it is the effect of the shifting frequency generator in our system. However the systems function satisfactorily, the frequency in the range from 50 Hz to 20 kHz is shifted without any observable error in our measurement.