Not required to be submitted. Definitely look at this before Midterm-II.

AV314 - Programming Assignment 8

Superheterodyne receiver demonstration.

For this assignment, please download and extract progassgn8.tar.gz:

Open the file superheterodyne_demonstration.m.

a) There are some questions for you included in the m file. The questions pertain to what functions various sections of the code have. Answer those questions.

b) Try to find out the difference between using BPF_slow and BPF_fast.

c) Try to tune to different channels: Visually examine the output $\hat{m}(t)$ and compare it with the input $m(t)$. Are there any differences? Why is there a difference? How can you make $\hat{m}(t) \approx m(t)$?

d) Do you see the distortion caused due to image frequencies at any channel? How do you solve the image frequency problem?