

DSP Lab 8

Equipment Required: Texas Instruments eZdsp USB Stick

Male-to-Male Audio Cable

Audio Source (e.g. computer, mp3 player, microphone)

Headphones (or speakers)

Lab 8

- (1.) Follow the slides for Chapter 8, “Alien Voices”. **Again make sure the 551 chipset is still selected.**
- (2.) This lab can be quite entertaining. However, in order to maintain a realistic alien voice, be sure to speak into the microphone clearly. Ideally, read from a book or something similar, so that the alien voice effect can be heard clearly.
- (3.) Also, be sure to put some distance between the person using the microphone and the person wearing the headphones. Failing to do so will make the alien voice more difficult to hear.
- (4.) Questions:
 - a. What is the ring modulation output for the sum of two frequencies?
 - b. What is the ring modulation output for the difference of two frequencies?
 - c. What type of radio is ring modulation similar?
 - d. What happens when the frequency of the modulation increases?