

EE 567

Homework 9

Due Monday, November 20, 2017

Problem 1. Suppose we detect a signal as shown in class and now we wish to noncoherently integrate the detected samples. Using Albersheim's equation plot the probability of detection vs. SNR (dB) for a probability of false alarm of 10^{-6} and number of independent samples noncoherently integrated is $N = 32$. Repeat this for probability of false alarm of 10^{-4} and show both curves on the same graph. In each case your probability of detection should range from at least 0.1 to 0.99.