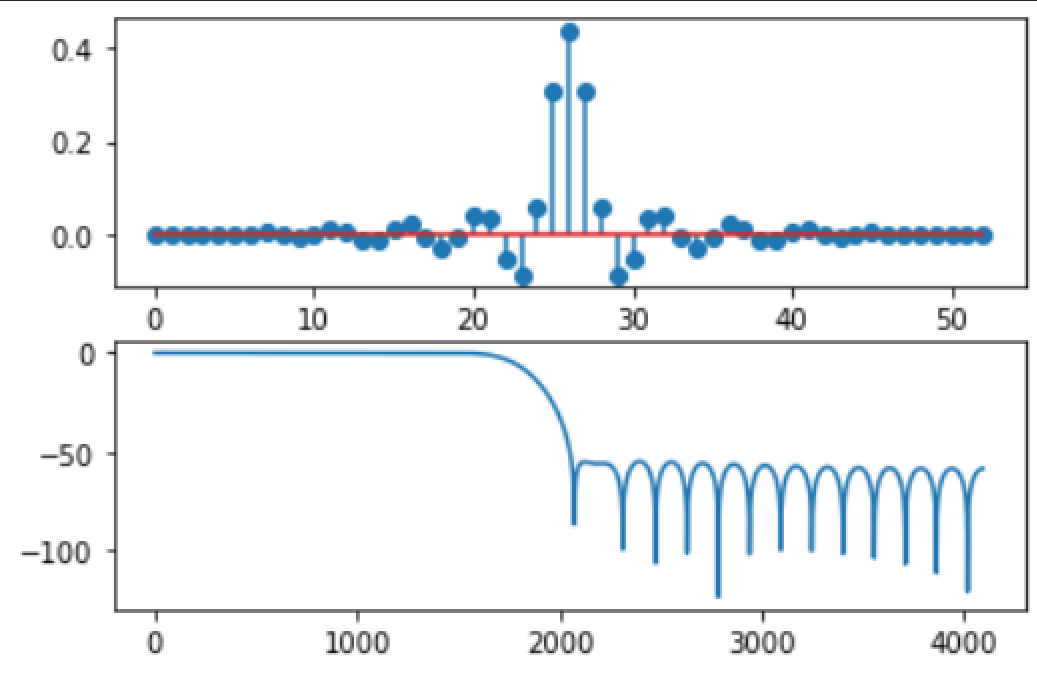
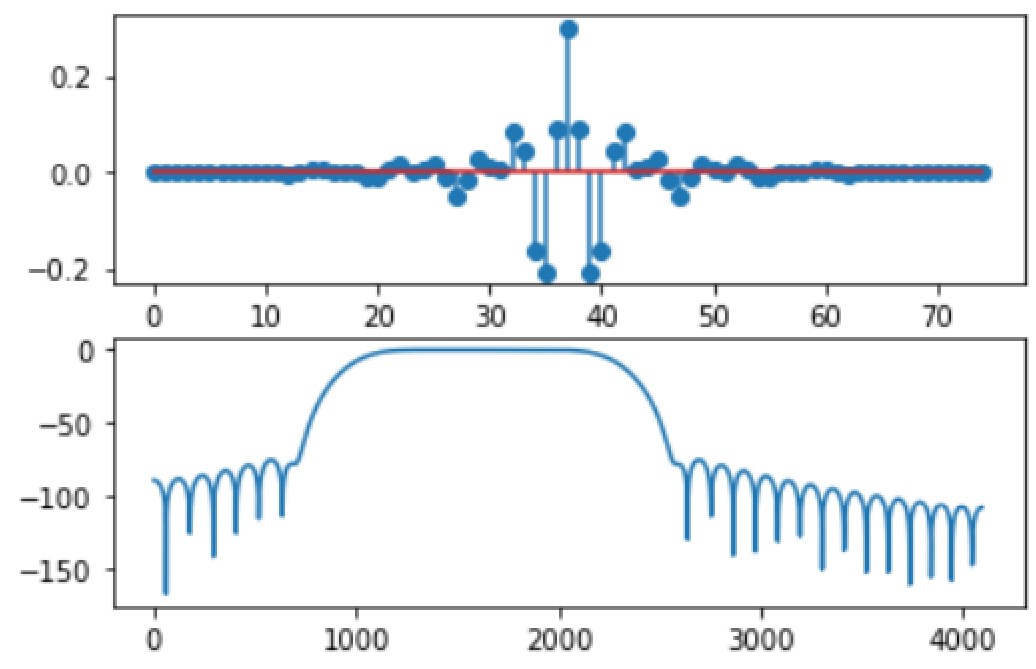
**DSP LAB 15**

1. 以加窗法設計並驗證課本內之例題(P.102、P.104)，算出h[n]並繪出頻譜以確認是否合乎規格要求。
2. P.102，，低通濾波器



1. P.104，

，帶通濾波器

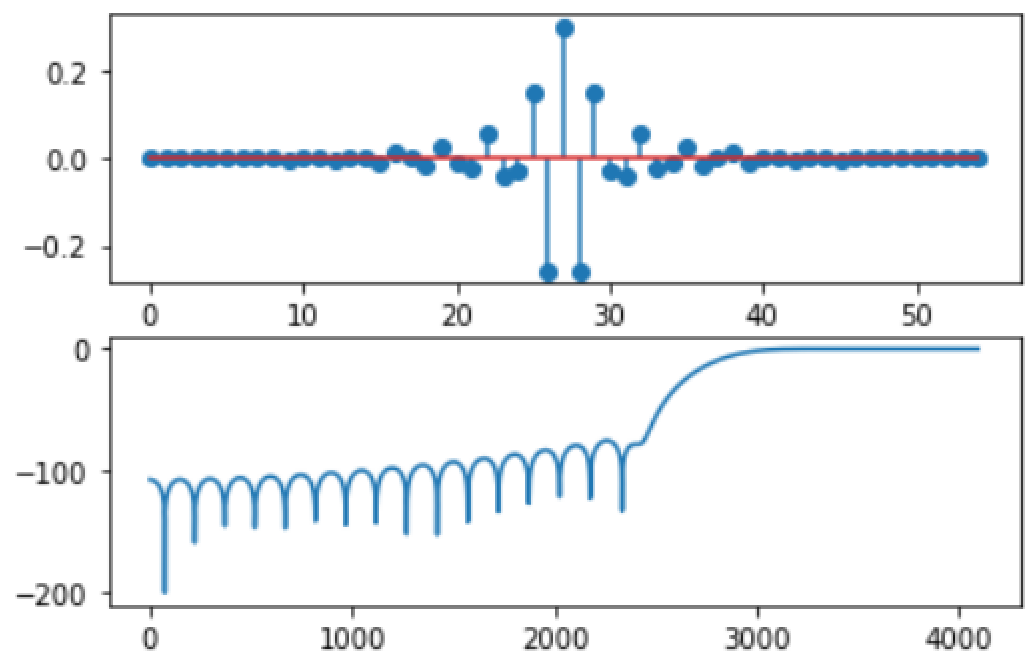


1. 試以加窗法設計下面規格之高通濾波器：

阻帶邊緣頻率：, 

通帶邊緣頻率：, 

並繪出所設計得的濾波器之脈衝響應及振幅頻率響應。

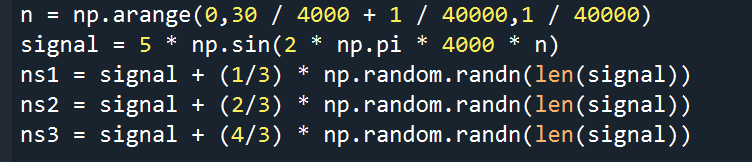


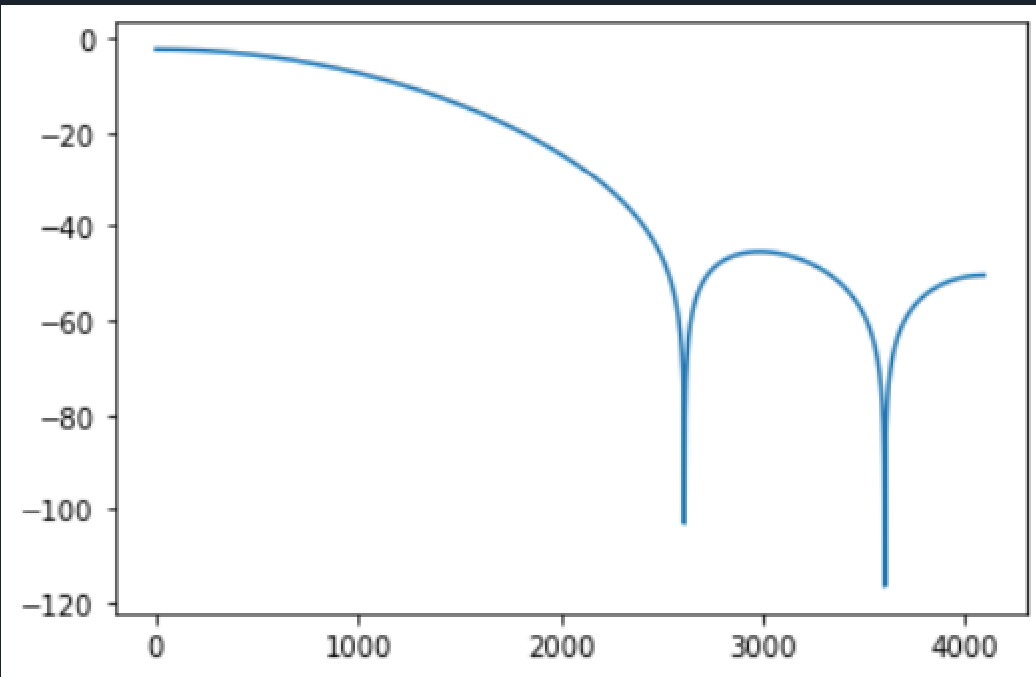
1. (Signal generation) Use python to generate a contaminated signal:
   * noise: Gaussian with zero mean and variances = 1, 2, 4
   * signal : (1) , where

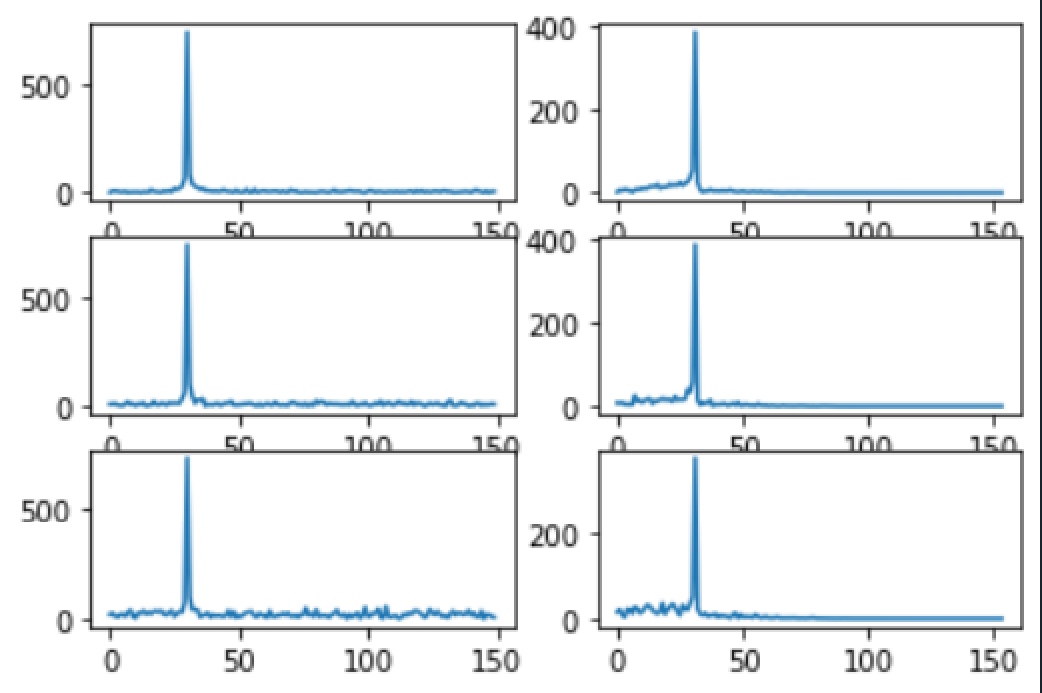
(2) ,

1. Choose a proper sampling frequency and **show the spectra** of signal and signal+noise (6 cases). Assume noise is added after the signal was sampled.
2. **Design an FIR** low pass or band pass filter (define your own specification and pick your own method) to process the contaminated signals. Show your results in time and frequency domain.

1.







2.

