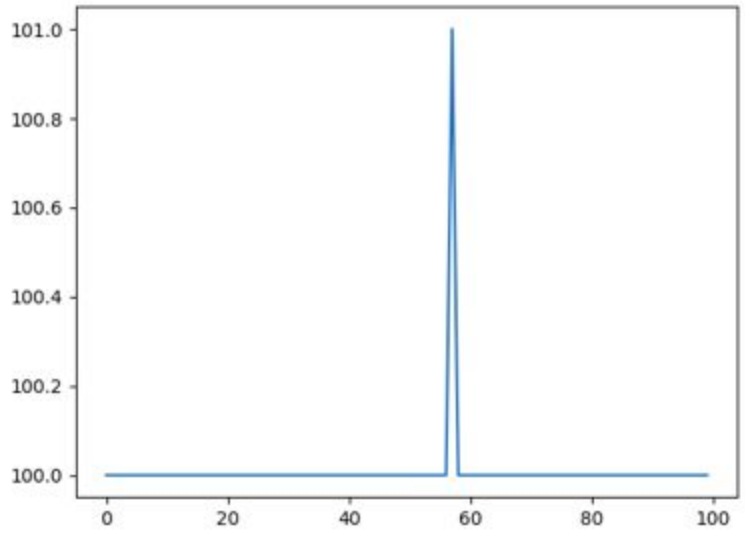
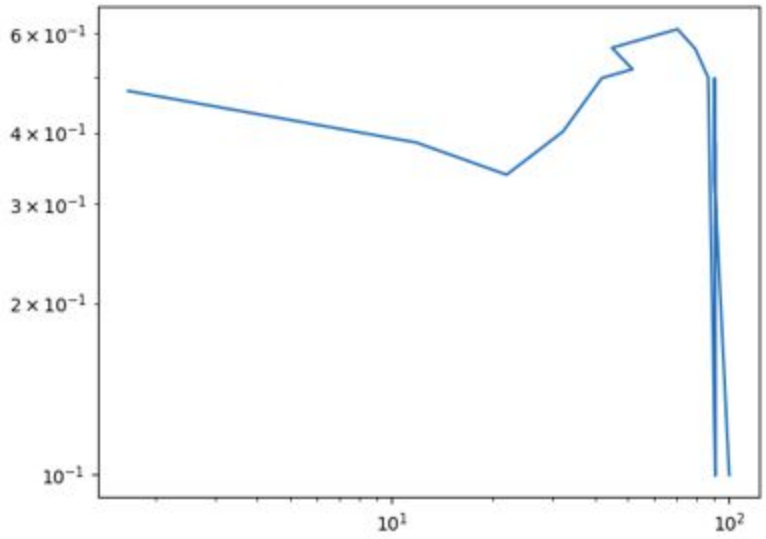
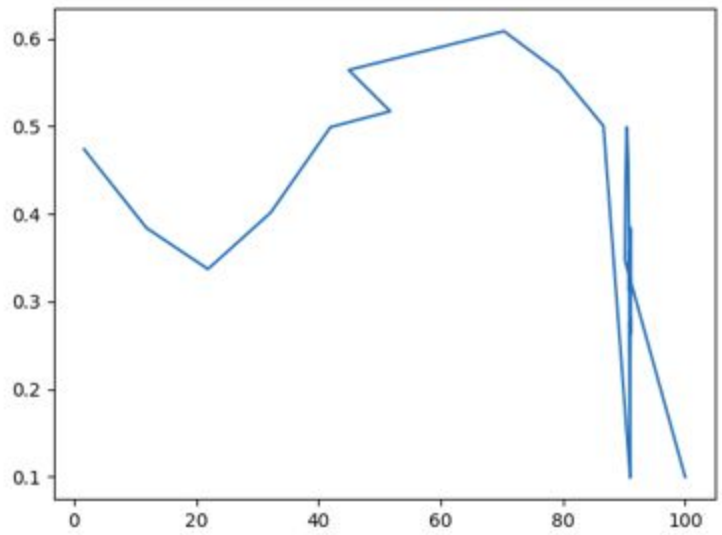
1) Plot of vales of pixel for longest integration time.



2)Plot of Mean vs Temporal noise

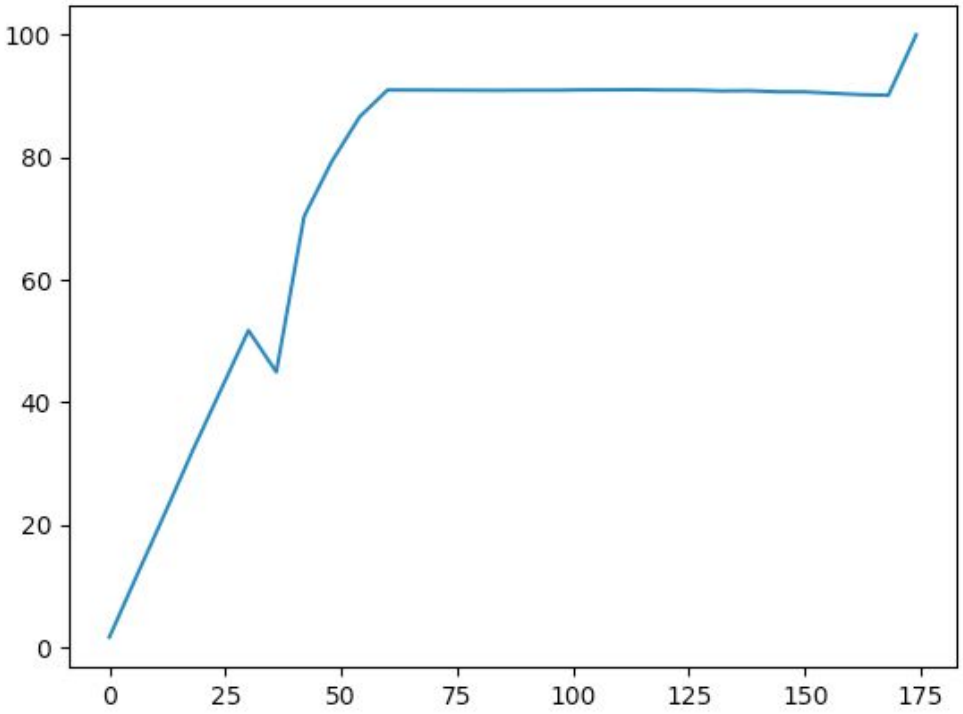


3)Plot of noise vs mean on log scale



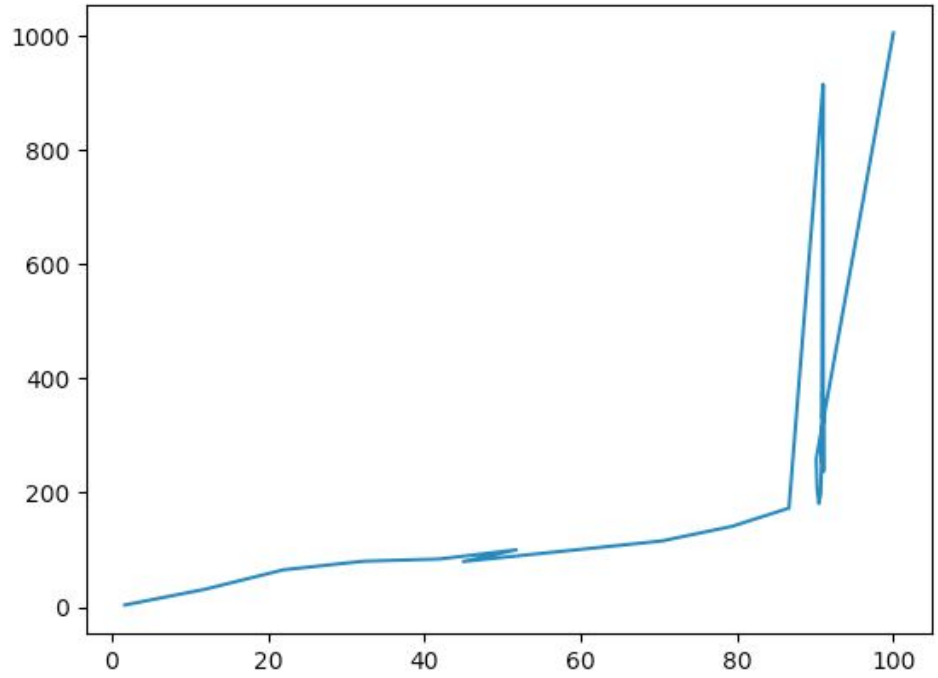
With this, the conversion gain comes out to be roughly .0025x.

4) Mean of pixel value against exposure time.



As seen it is pretty linear then evens out which is what we expected. The exposure times I chose went from 0-180 on register 43 with a step of 6. Giving 30 even readings.

5)SNR vs Mean Signal



In a general trend it increases because the noise is increasing when you let more light in by increasing exposure time. Also output signal increases because the camera is getting more light on each pixel in the array.

6) With the data I found the highest pixel reading to be roughly 100 giving a dynamic range of 40dB, which is close to what is given in the datasheet. The data sheet says max 60dB but that is in high dynamic range mode, which we were not using.