O3 Detection
Noise plot

A. GPS time: 1,264,947,200
   1,265,762,304
   (815,104 sec dur, 9.5 days)

B. 0.5-sec stride, 2-sec window

C. Average value [2*10^-21, 5*10^-21]
Data quality

GPS time: 1,264,947,200

1,264,951,296 (4,096 dur)
**Bandpass**

- 28K of training data for each spins
- batch size = 512
- No dropout
- 15 epochs

**Highpass**

- Training set with: TPR: 0.983, FAR: 0.031
- Validation set with: TPR: 0.0, FAR: 0.0
Performance at SNR = 30

- 12K Training data
- 50 Epochs
- Applied Dropout
- Applied L2 Regularization
Super large SNR

A. 28K of training data for each spins

B. batch size = 512

C. No dropout

D. 15 epochs
Summary

- Bad data quality keep us from generating ideal data
- The high low pass is not the dominate reason that cause the bad performance
- Overlaps may be the other reason that let us suffer bad performance
- We should focus more on the offline noise