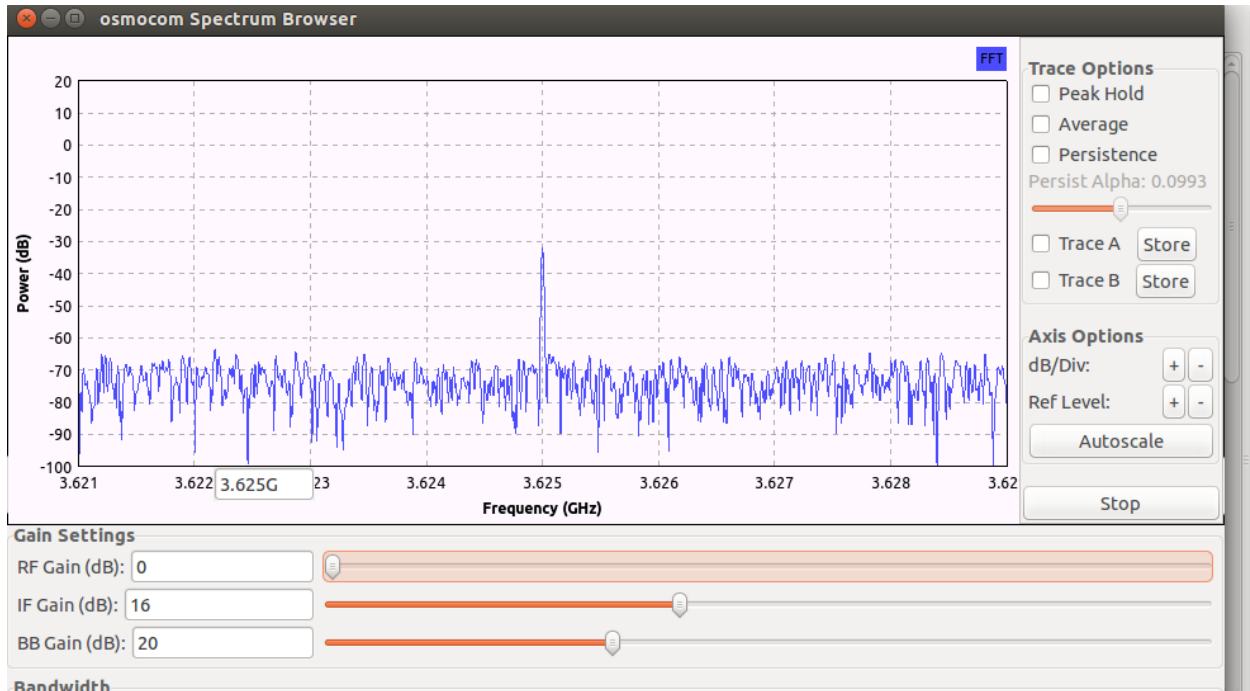


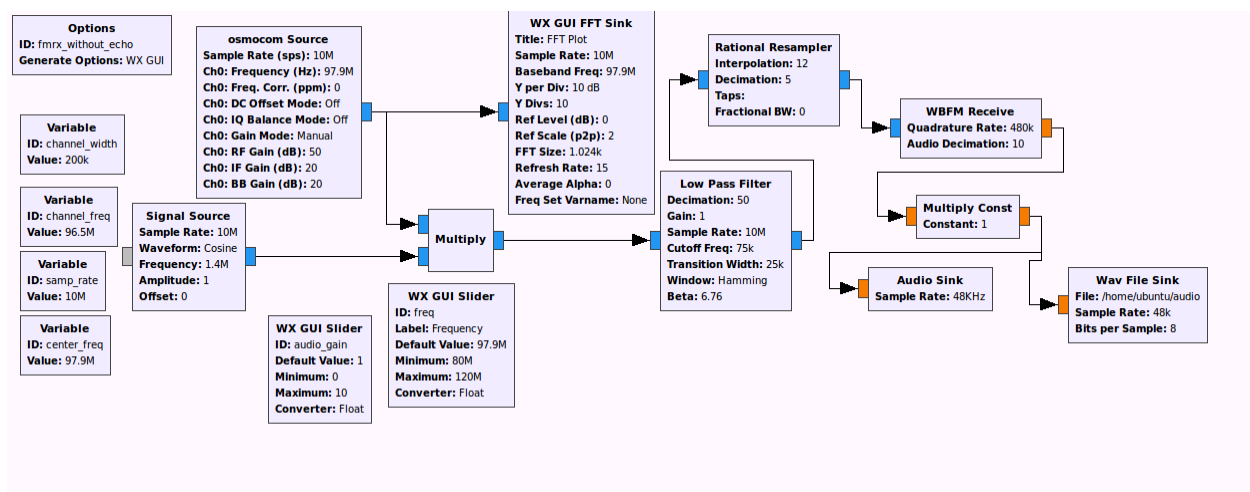
# Problem Set 3

## Part 1: SDR platform setup

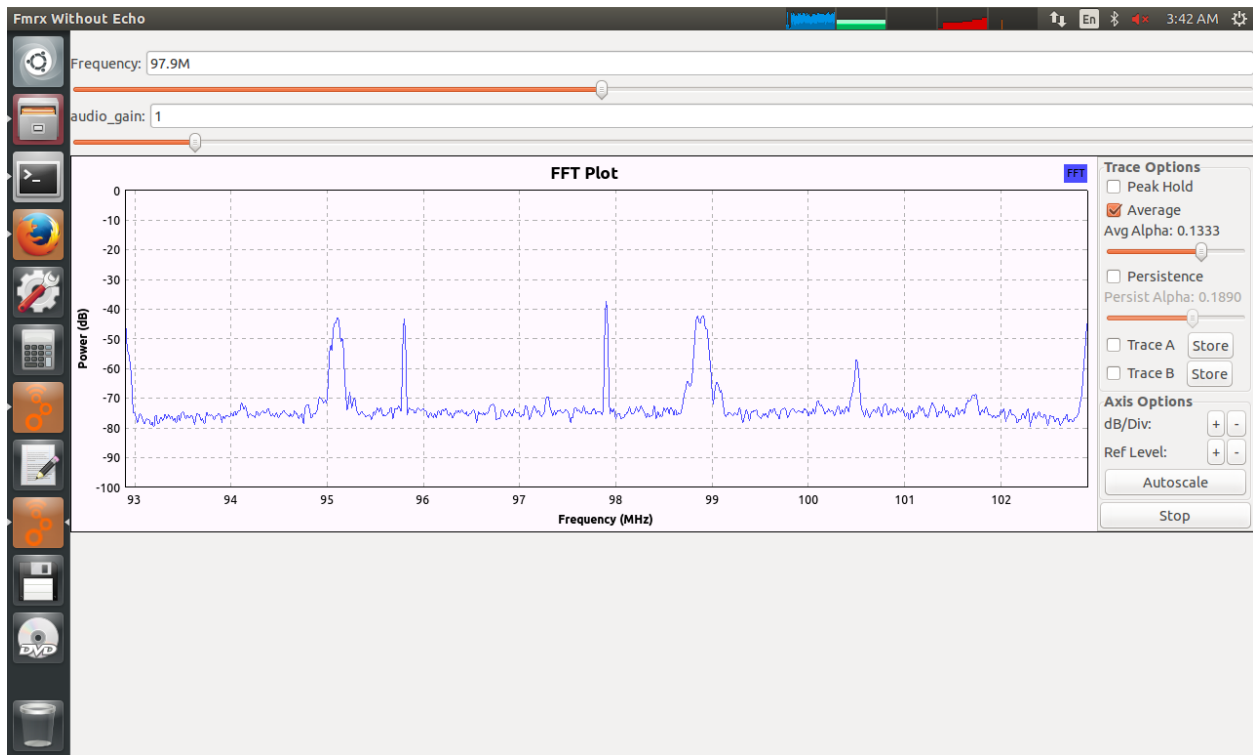


## Part 2: Building FM radio receiver

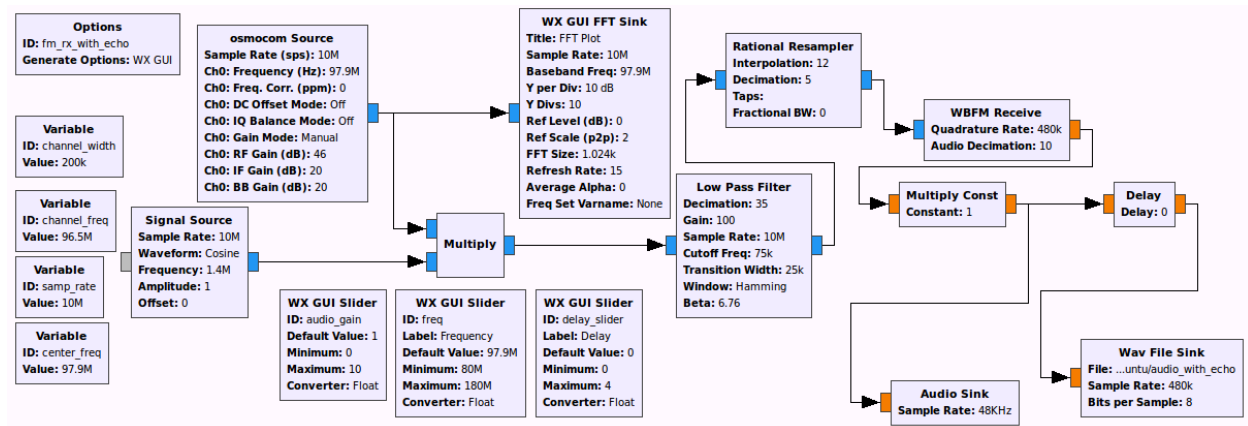
Simple Receiver: (block Diagram):



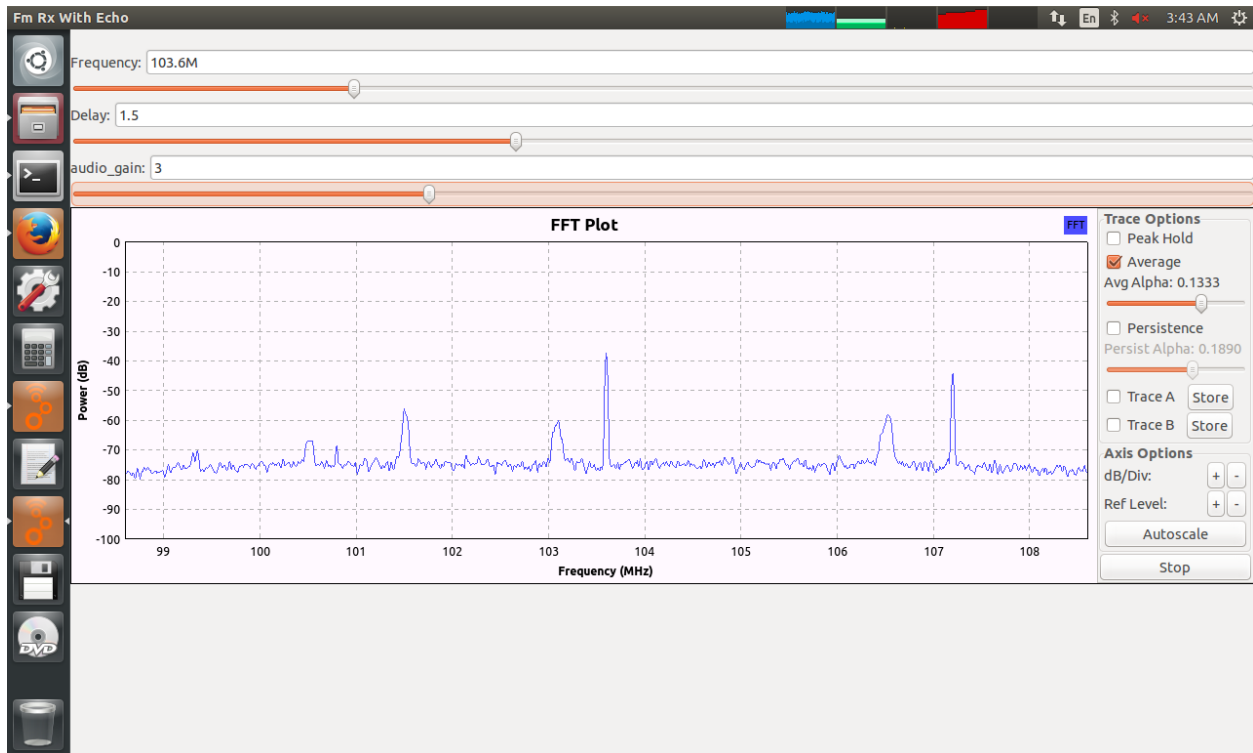
Output:



With Echo Effect

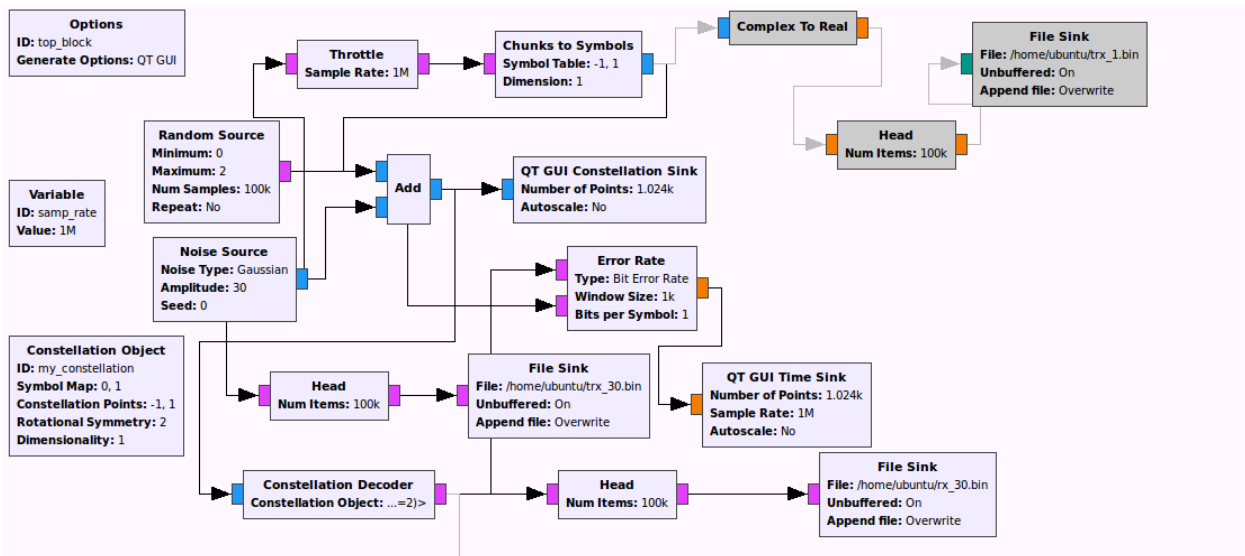


Output:

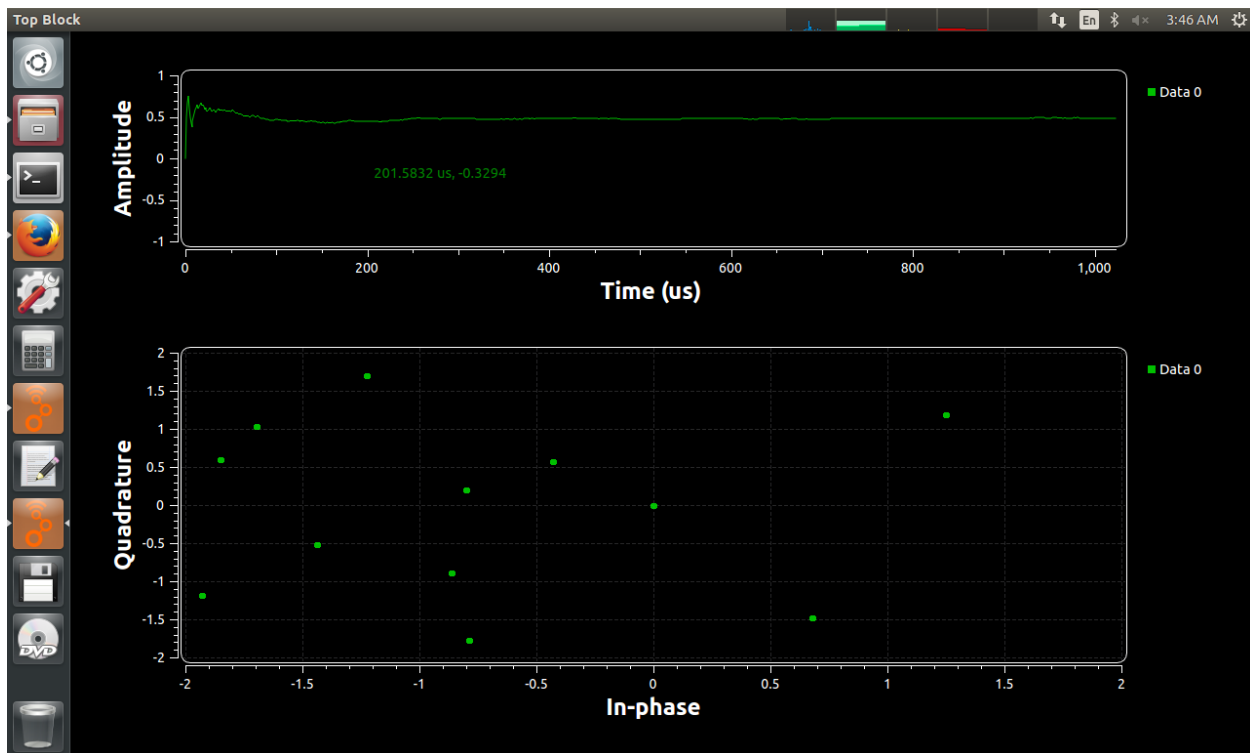


### Part 3: BPSK/QPSK transmission simulation

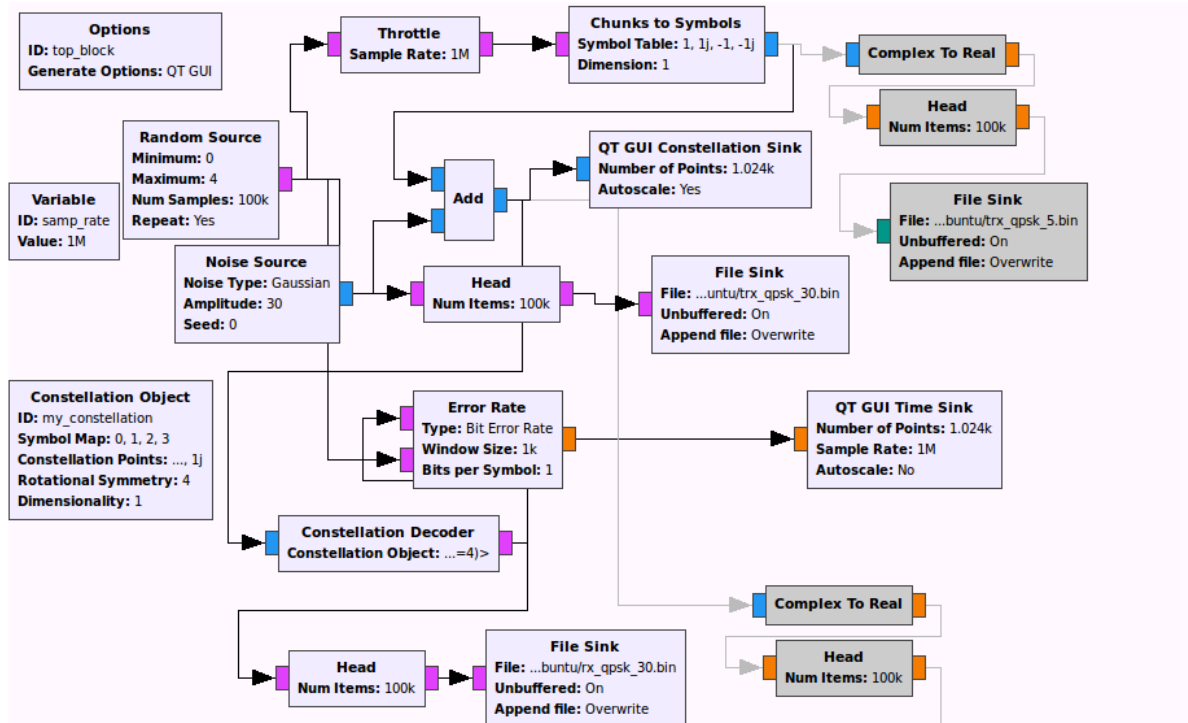
#### BPSK



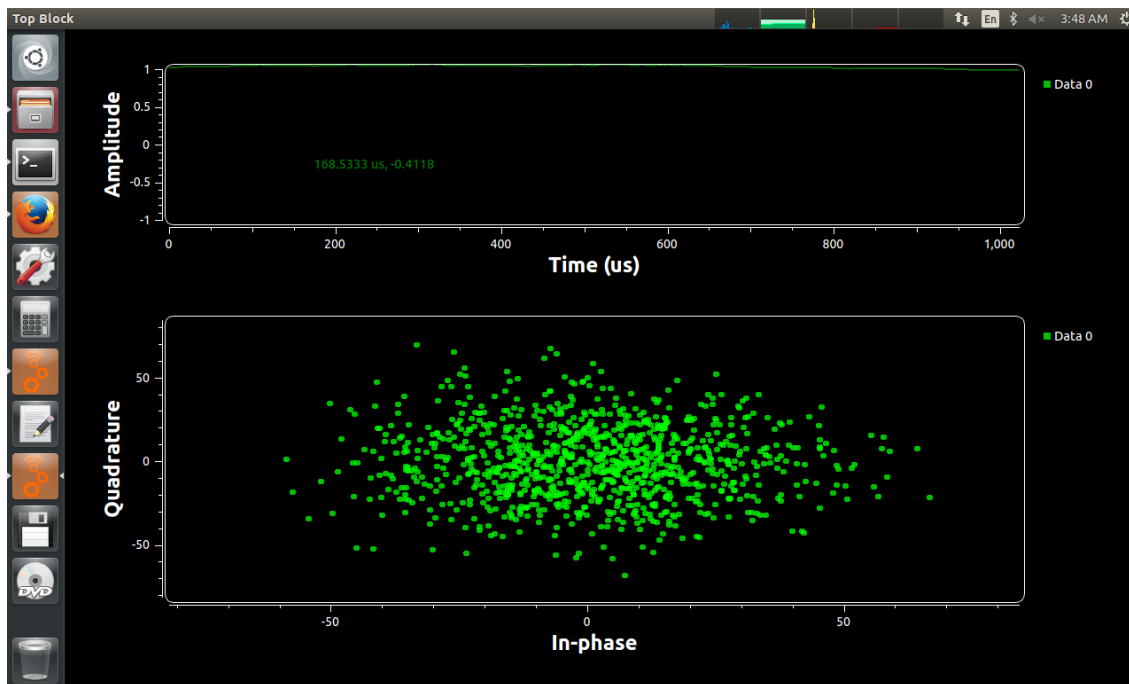
Output:



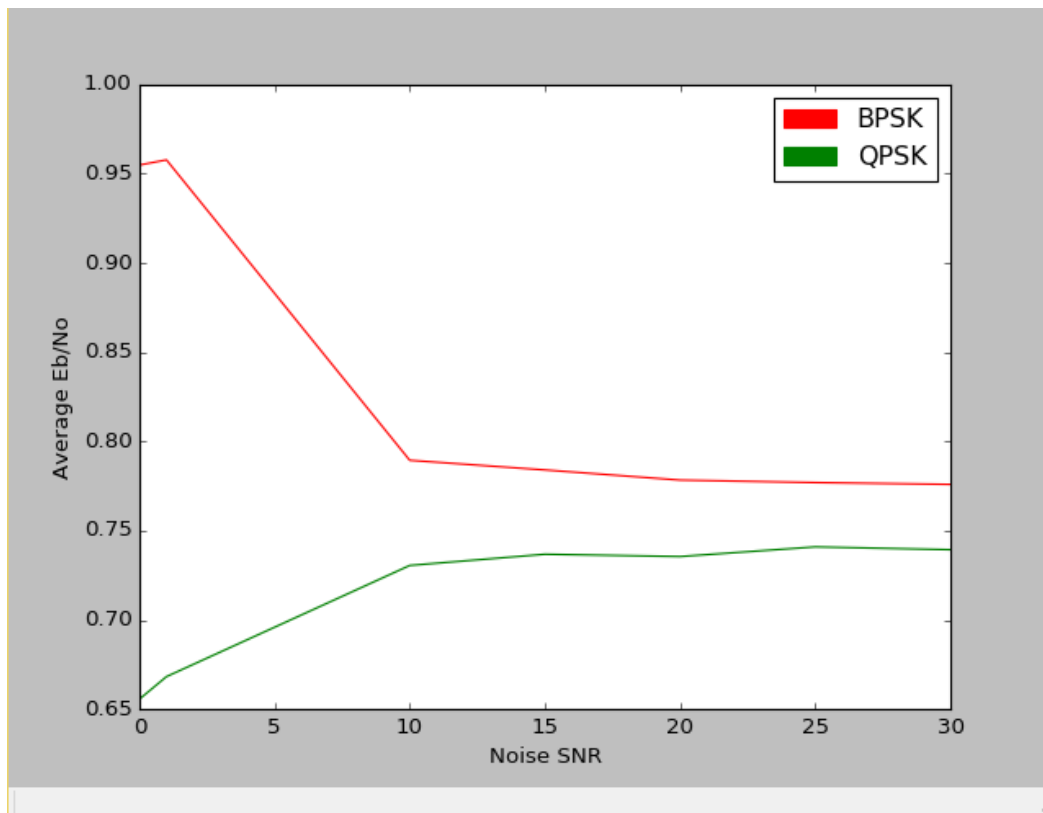
QPSK:



Output:

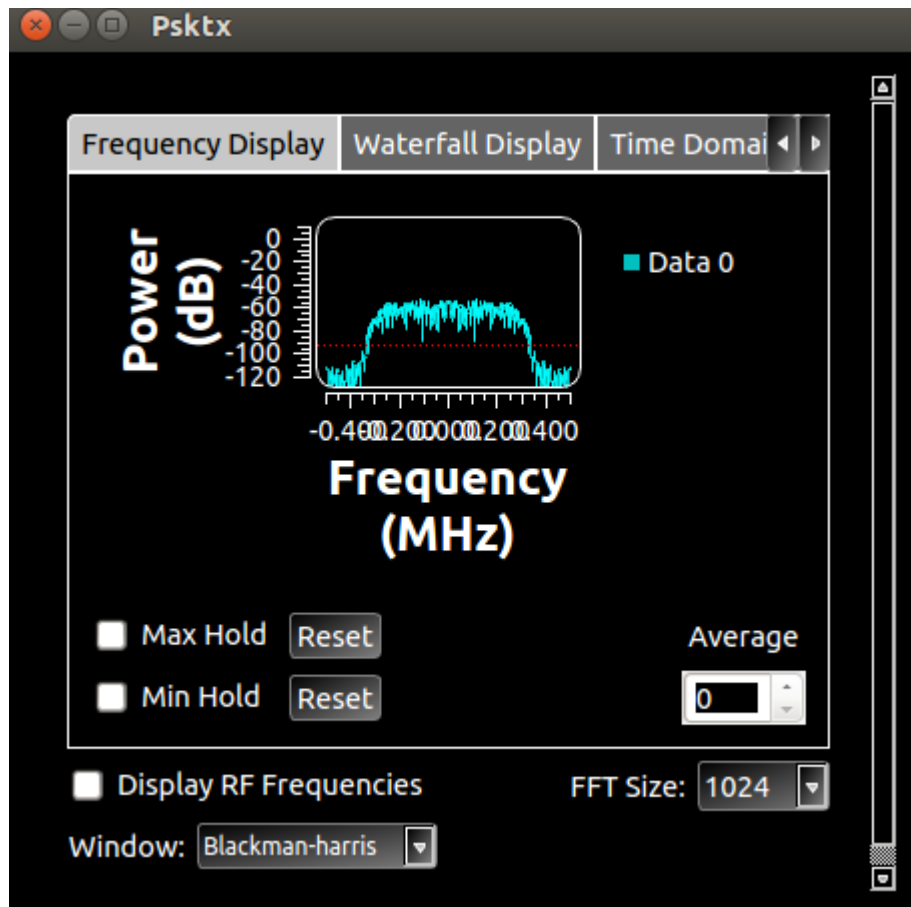
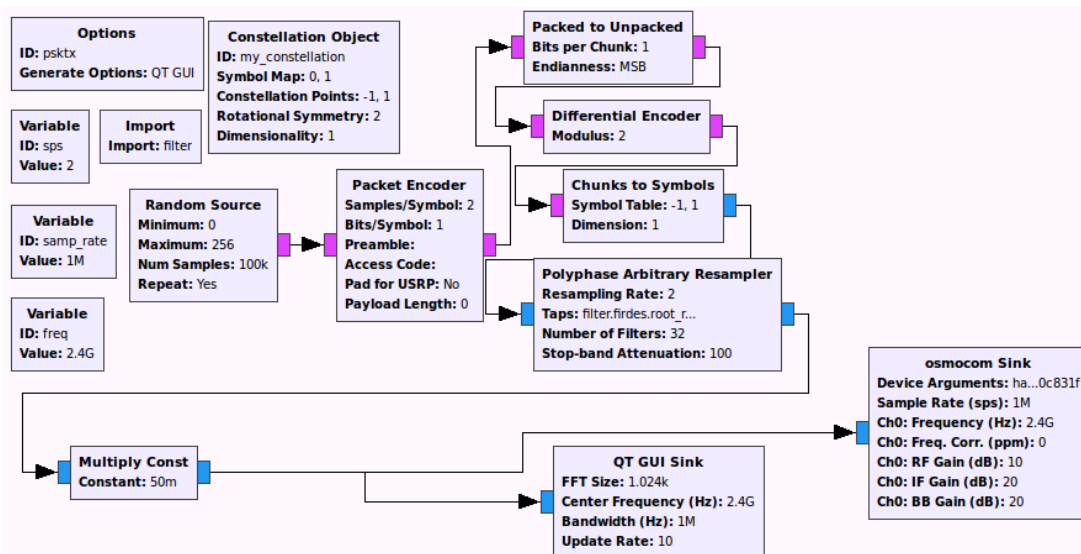


Plot: QPSK V/S BPSK

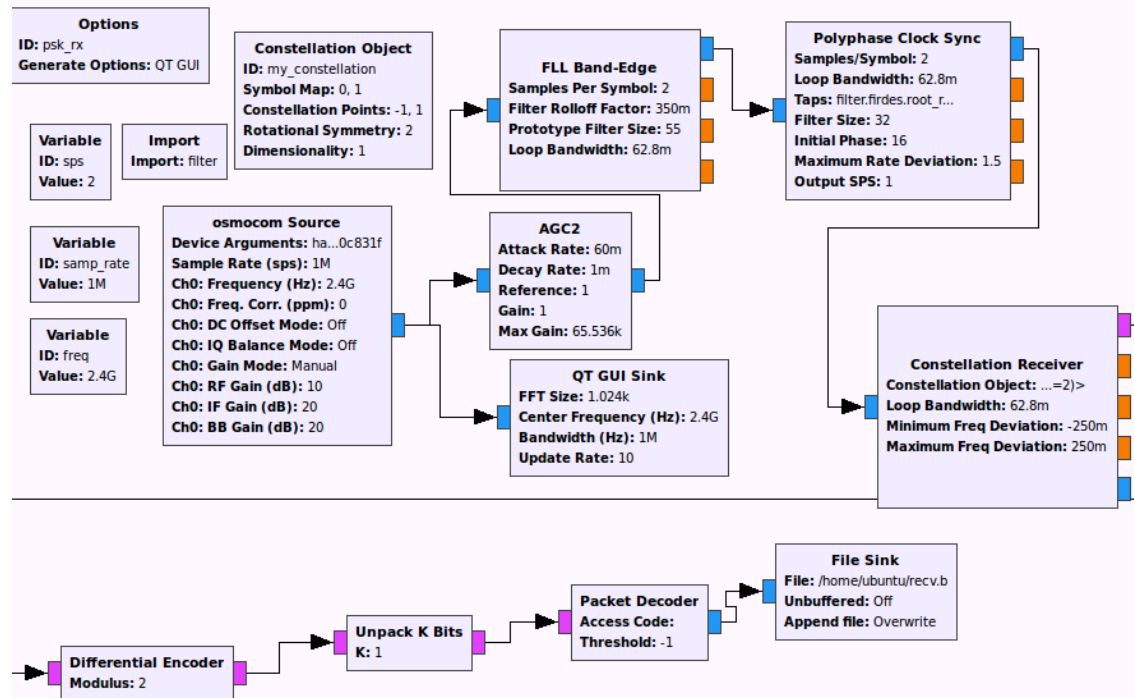


## Part 4: Real transmission using HackRF

### Transmitter



## Receiver



Output (Since I didn't have another HackRF, I am just showing all the frequencies receiver is sensing)

