

**Options**  
**Title:** DCF77 Re... Modulation  
**Author:** henningM1R  
**Output Language:** Python  
**Generate Options:** QT GUI

Complexity: 3.533mbal

**Variable**  
**ID:** samp\_rate  
**Value:** 192k

**Import**  
**Import:** zmq

Windows needs the import of zmq

**Variable**  
**ID:** freq\_DCF77  
**Value:** 77.5k

**Variable**  
**ID:** decimation  
**Value:** 12

**Import**  
**Import:** math

**QT GUI Range**  
**ID:** hi\_thres  
**Label:** upper Threshold  
**Default Value:** 100  
**Start:** 0  
**Stop:** 500  
**Step:** 1

Adapt the upper threshold so that the one value is provided each time the signal is high

**QT GUI Range**  
**ID:** lo\_thres  
**Label:** lower Threshold  
**Default Value:** 15  
**Start:** 500m  
**Stop:** 50  
**Step:** 100m

Adapt the lower threshold so that the one value is provided each time the signal is low

**QT GUI Range**  
**ID:** gain1  
**Label:** Gain1  
**Default Value:** 10.5  
**Start:** 1  
**Stop:** 30  
**Step:** 1

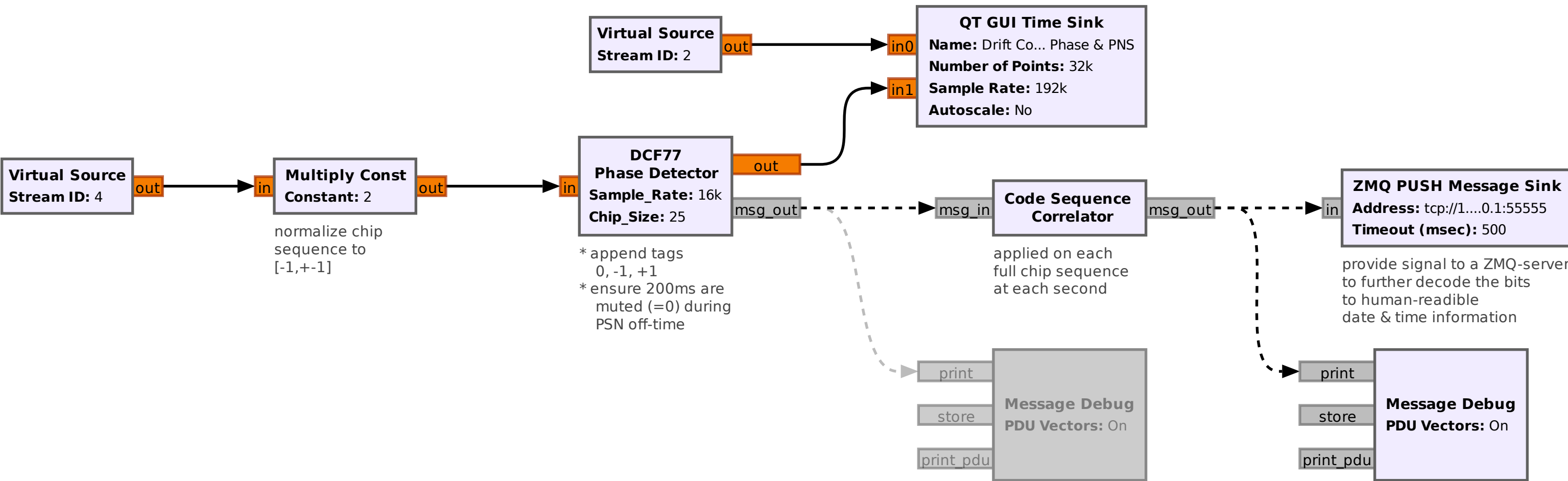
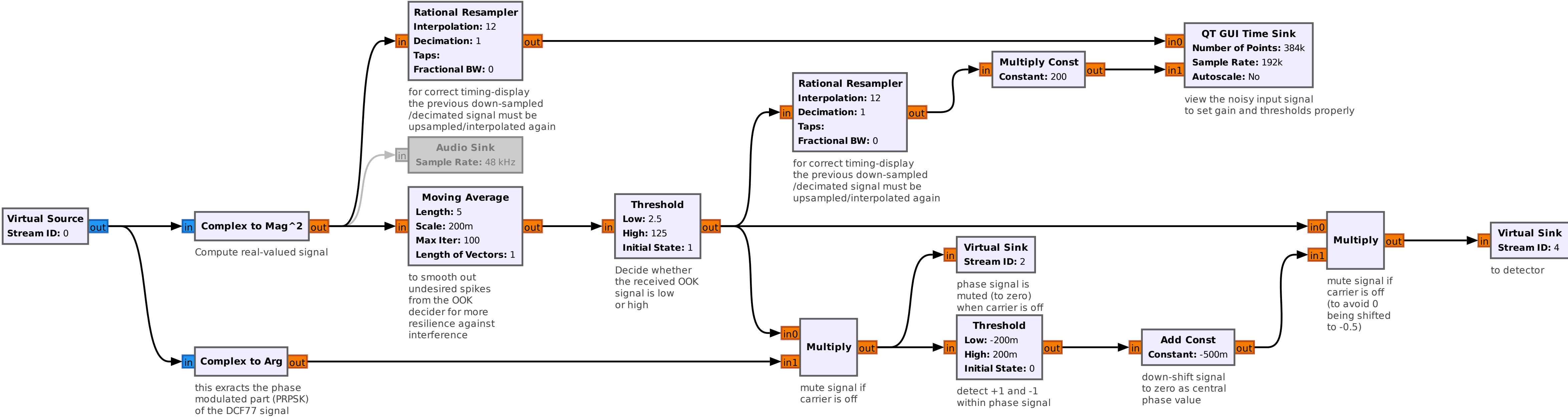
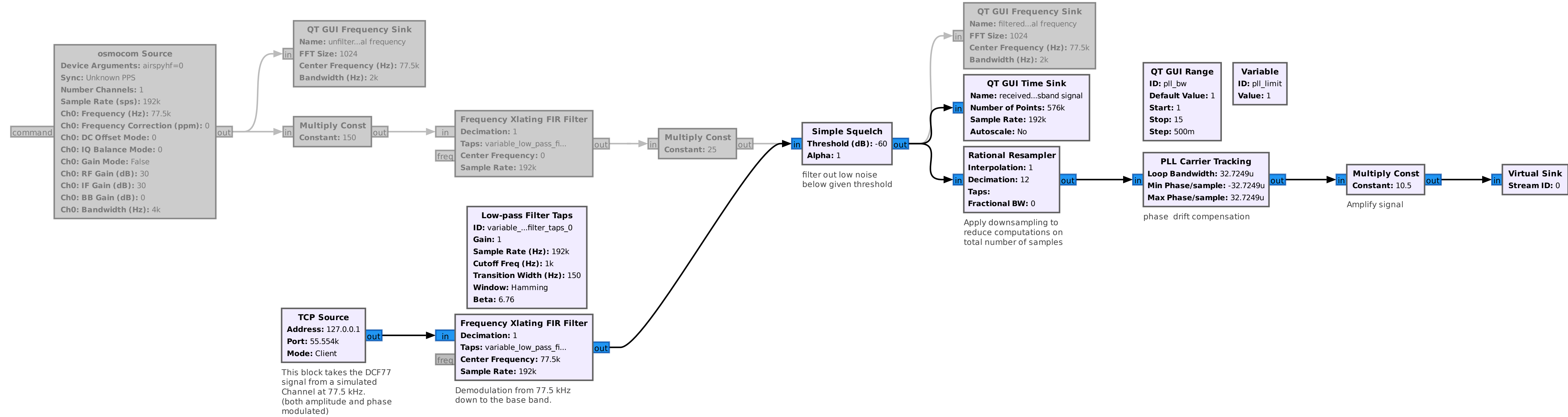
default real: 150  
default simulation: 1

**QT GUI Range**  
**ID:** gain2  
**Label:** Gain2  
**Default Value:** 25  
**Start:** 1  
**Stop:** 35  
**Step:** 500m

default real: 290  
default simulation: 1

**QT GUI Range**  
**ID:** chip\_size  
**Label:** Chip size  
**Default Value:** 25  
**Start:** 20  
**Stop:** 30  
**Step:** 1

NOTE:  
depends on decimation!



**Note**  
**Note:**

The official codeword for symbol 0 from the code-polynomial  $x^8+x^5+1$  is:  
000001000110000100111001010101100001101111010011011100100010100001010110100  
11111101100100100101101111100100110101001100110000000110001100101000110100  
10111111010001011000111010110010110011110001111101110100000110101101110  
1100000101101011101010101000000101001010111001011011100000011001110100  
1001110101101010001001000#01100111000010111010110011010000111011100001  
11111110000011110111100010111001100100000100101001101101000111100111100  
110110001010100100011100011011010101110001001100010001000000001

The opposite codeword for symbol 1 is its bit-wise inverted version

It has a number of:  
\* 256 ones  
\* 256 zeros

Except for the first two bits and the last 2 bits, it can be reproduced with the following python script.  
(maybe because the initial state=[0,0,0,0,0,0,0,0] is not permitted)