Options
Title: Channel_Impairments
Author: David Venegas
Output Language: Python
Generate Options: QT GUI

Variable
Id: samp_rate
Value: 32k

QT GUI Range
Id: AWGN
Label: Channel: Noise Voltage
Default Value: 200m
Start: 0
Stop: 1
Step: 10m

QT GUI Range
Id: Time_Offset
Label: Channel: Timing Offset
Default Value: 1.0005
Start: 999m
Stop: 1.001
Step: 100u

QT GUI Range
Id: Freq_Offset
Label: Channel:...ency Offset
Default Value: 25m
Start: -100m
Stop: 100m
Step: 1m

Random Source
Minimum: 0
Maximum: 255
Num Samples: 10k
Repeat: Yes

out

Constellation Modulator
Constellation: <con... (m=4)>
Differential Encoding: Yes
Samples/Symbol: 4
Excess BW: 350m

in   out

Constellation Rect. Object
Id: QPSK
Symbol Map: 0, 1, 2, 3
Constellation Points: ...07mj
Rotational Symmetry: 4
Real Sectors: 2
Imaginary Sectors: 2
Width Real Sectors: 1
Width Imaginary Sectors: 1

Throttle
Sample Rate: 32k

in   out

Channel Model
Noise Voltage: 200m
Frequency Offset: 25m
Epsilon: 1.0005
Taps: 1
Seed: 0
Block Tag Propagation: No

in   out

QT GUI Time Sink
Number of Points: 200
Sample Rate: 32k
Autoscale: No

in

QT GUI Constellation Sink
Number of Points: 1.024k
Autoscale: No

in

QT GUI Frequency Sink
FFT Size: 1.024k
Center Frequency (Hz): 0
Bandwidth (Hz): 32k

in

freq   freq

bw