

Options

Title: Beamscan... estimation

Author: markus

Output Language: Python

Generate Options: QT GUI

Variable

ID: samp_rate

Value: 5M

Variable

ID: phi_scan_min

Value: -50

Variable

ID: phi_scan_max

Value: 50

Variable

ID: phi_step

Value: 2

Variable

ID: spectrum_len

Value: 51

Variable

ID: center_freq

Value: 2.44G

Variable

ID: gain

Value: 50

Variable

ID: snapshot_count

Value: 64

Variable

ID: targets

Value: 1

Variable

ID: in_snr

Value: 20

File Source

File: ..._{in_snr}dB_snr.raw"

Repeat: Yes

Add begin tag: ()

Offset: 0

Length: 0

Throttle

Sample Rate: 5M

Limit: None

Deinterleave

QT GUI Time Sink

Number of Points: 1.024k

Sample Rate: 5M

Autoscale: No

Beamscan spatial spectrum estimator

Num_Samples: 64

Signal_Freq: 2.44G

Array_D: 500m

Phi_Scan_Min: -50

Phi_Scan_Max: 50

Phi_Step: 2

Rx1_Phase_Cal: 0

Rx2_Phase_Cal: 0

Rx3_Phase_Cal: 0

Rx4_Phase_Cal: 0

MVDR spatial spectrum estimator

Num_Samples: 64

Signal_Freq: 2.44G

Array_D: 500m

Phi_Scan_Min: -50

Phi_Scan_Max: 50

Phi_Step: 2

Rx1_Phase_Cal: 0

Rx2_Phase_Cal: 0

Rx3_Phase_Cal: 0

Rx4_Phase_Cal: 0

QT GUI Vector Sink

Vector Size: 51

X-Axis Start Value: -50

X-Axis Step Value: 2

X-Axis Label: Steering angle

Y-Axis Label: Power

Ref Level: 0

File Sink

File: ..._{in_snr}dB_snr.raw"

Vector Length: 51

Unbuffered: Off

Append file: Overwrite

QT GUI Time Sink

Number of Points: 1.024k

Sample Rate: 5M

Autoscale: Yes

QT GUI Vector Sink

Vector Size: 51

X-Axis Start Value: -50

X-Axis Step Value: 2

X-Axis Label: Steering angle

Y-Axis Label: Power

Ref Level: 0

File Sink

File: ..._{in_snr}dB_snr.raw"

Vector Length: 51

Unbuffered: Off

Append file: Overwrite

QT GUI Time Sink

Number of Points: 1.024k

Sample Rate: 5M

Autoscale: Yes

UHD: USRP Source

Device Address: add...68.10.2

Sync: PC Clock

Clock Rate (Hz): 200 MHz

Mb0: Clock Source: Internal

Samp rate (Sps): 5M

Ch0: Center Freq (Hz): 2.44G

Ch0: AGC: Default

Ch0: Gain Value: 50

Ch0: Antenna: TX/RX

Ch1: Center Freq (Hz): 2.44G

Ch1: AGC: Default

Ch1: Gain Value: 50

Ch1: Antenna: TX/RX

UHD: USRP Source

Device Address: add...68.10.4

Sync: PC Clock

Clock Rate (Hz): 200 MHz

Mb0: Clock Source: External

Mb0: Time Source: External

Mb1: Clock Source: External

Mb1: Time Source: External

Samp rate (Sps): 5M

Ch0: Center Freq (Hz): 2.44G

Ch0: AGC: Default

Ch0: Gain Value: 50

Ch0: Antenna: TX/RX

Ch1: Center Freq (Hz): 2.44G

Ch1: AGC: Default

Ch1: Gain Value: 50

Ch1: Antenna: TX/RX

command

out0

out1

async_msgs

command

out0

out1

async_msgs

out0

out1

out2

out3

in0

in1

in2

in3

in

in

in

in

in

in

in

in

in

out

out

out

in

in

in0

in1

in

in

in0

in1