

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

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

QT GUI Time Sink

Number of Points: 1.024k
Sample Rate: 5M
Autoscale: No