Introduction to SDR: GNURadio and USRPs

python file

click build

generate python file

gui

split into two

second one more about SDR

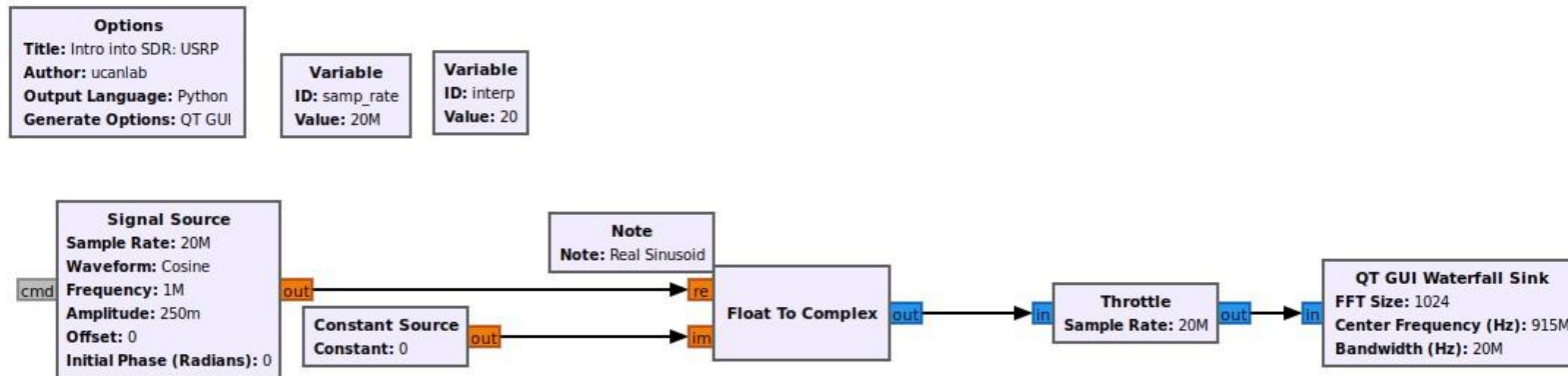Ubiquitous Communications and Networking Lab

UMass Boston

Objectives

- Use GNURadio for a simple TX/RX setup with Ettus B200 mini USRPs.

- Flowgraph creation and throttle blocks for simulations.

- Learn how to use Linux terminal to get USRP Serial Address via UHD find devices.

- Learn how use USRP's in a GNU Radio Flowgraph.

Key Points

- UHD:USRP Sink allows us to send intended signal into USRPs.

- UHD:USRP Source allows to retrieve intended signal from USRPs.

- Signal Source defines the configuration and start of the intended signal.

- QT Waterfall Sink allows to visualize the received signal for both USRP signal retrieval and simulation signal retrieval.

- Command: uhd_find_devices [For usrp serial id] in the Linux terminal allows us to receive our USRPs serial address for usage in both

Flowgraph 1A

Flowgraph 1B