Contents of Each Kit

Each kit includes:

1. USRP N210 with XCVR2450 Daughterboard
2. A loopback cable (2 parts)
3. 2x30dB attenuators
4. Single omnidirectional 2.4/5GHz antenna
5. Power Supply
6. 1xEthernet Cable

Using MATLAB on Your Own Computer

If you have access to MATLAB on a personal computer, you will need the following items to operate the USRP:

1. Signal Processing Toolbox
2. DSP Toolbox
3. Communications Toolbox
4. USRP Support Package - http://www.mathworks.com/discovery/sdr/usrp.html

Using MATLAB in EEB 361

To begin using the USRP blocks in MATLAB/Simulink, please do the following at the start of each session:

```
01 addpath('/home/lab.apps/usrp_v3_0_1_R2012a');
02 setupsdru;
```

Precautions

Please check the following each time you use the USRP:

1. If you connect the USRPs using the loopback cable, use a 30dB attenuator to avoid any damage to the XCVR cards in the USRP. The power to a USRP should never exceed the maximum receive power rating of +10 dBm. Also the maximum transmit power of a USRP is 20 dBm. If you use one attenuator you will get 30 dB attenuation, so 20-30 = -10dBm is less than the max receive power rating. So One attenuator is enough.
2. The USRP only works with 1,000 Mbps network adapters.
3. The USRP's static IP is 192.168.10.2 so that your PC/laptop IP can be 192.168.10.X where X is any number other than 2. You can set the gateway IP address to 192.168.10.2.