

G2 Application Note for Range Testing With 2 XBee S1 Modules Using X-CTU on Mac OSX Part 2/3

Introduction:

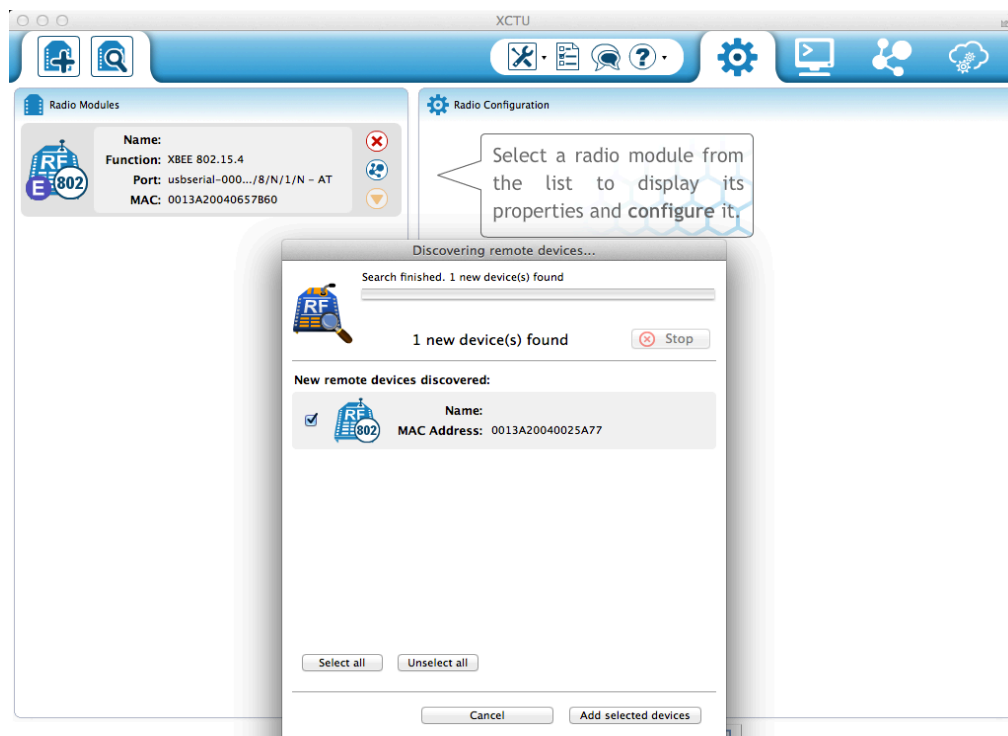
This tutorial demonstrates how to use the new XCTU interface with the XBee S1 modules. The tutorial covers using the Range Test functionality of X-CTU.

Materials Needed:

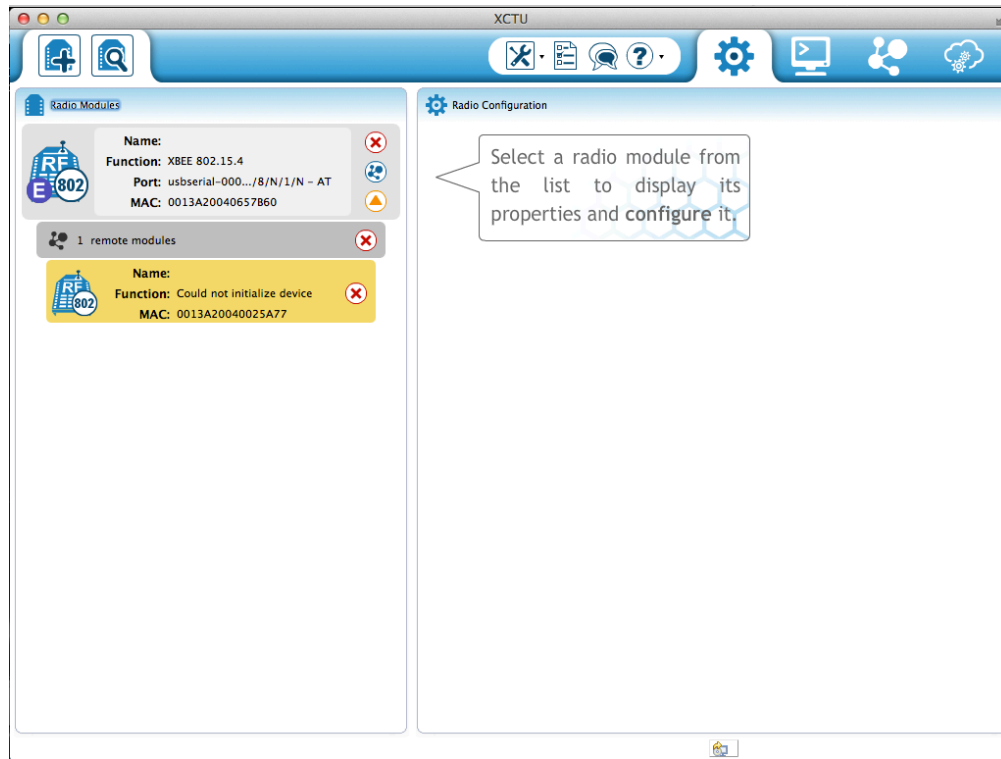
- 2x XBee S1 Modules
- 1x Mac Computer
- 1x XBIB-U-DEV REV. 3 Board
- 1x XBIB-R-DEV REV. 4 Board
- 1x Power adapter for the XBIB-R-DEV Board
- 1x Loopback Adapter
- 1x Type A USB

Procedure:

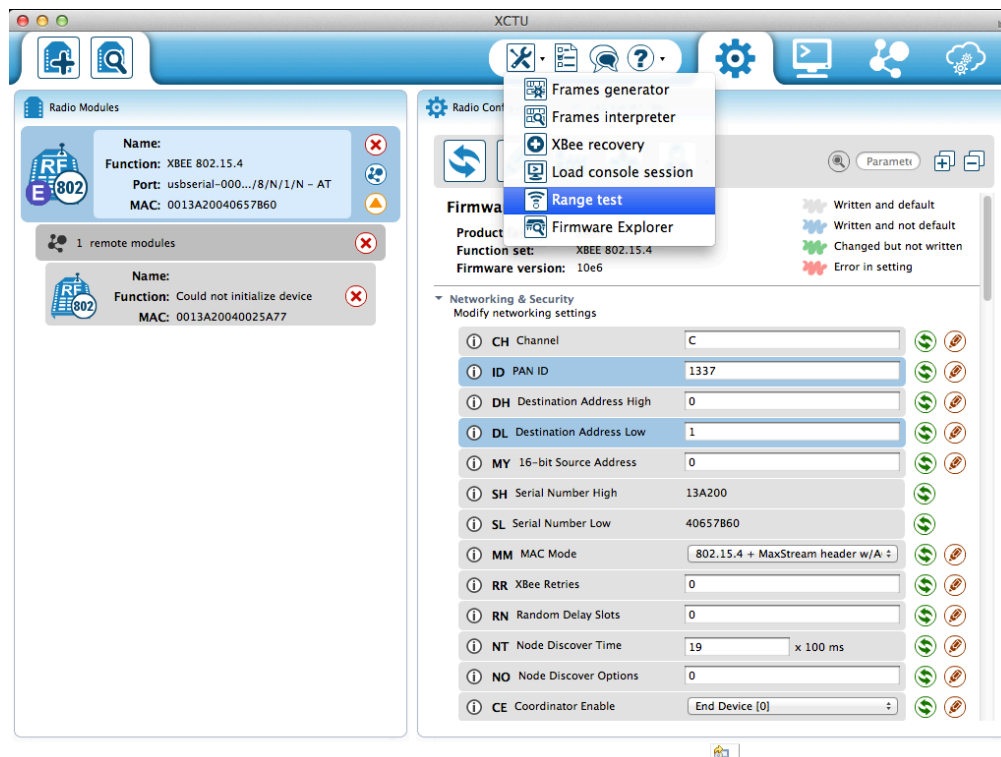
- 1) Launch X-CTU.
- 2) Once both XBees are configured and ready, click on the blue circle under the red circle with the “x” on your device. This now searches for other remote devices (Xbee connected to the XBIB-R-DEV board with the Loopback adapter) within the network that you have configured. Click on Add selected devices once it is shown.



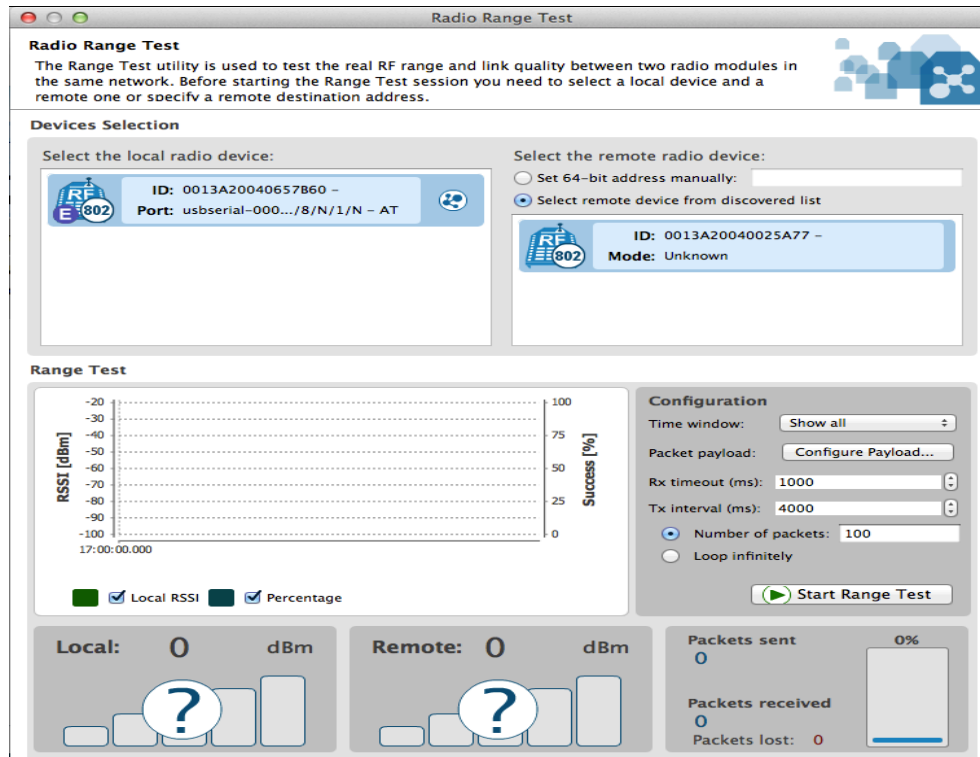
3) You should now see your remote device listed under the remote modules section under your local XBee (the one connected to your computer). The function shows as “Could not initialize device” because it is not connected to the computer for configuration.



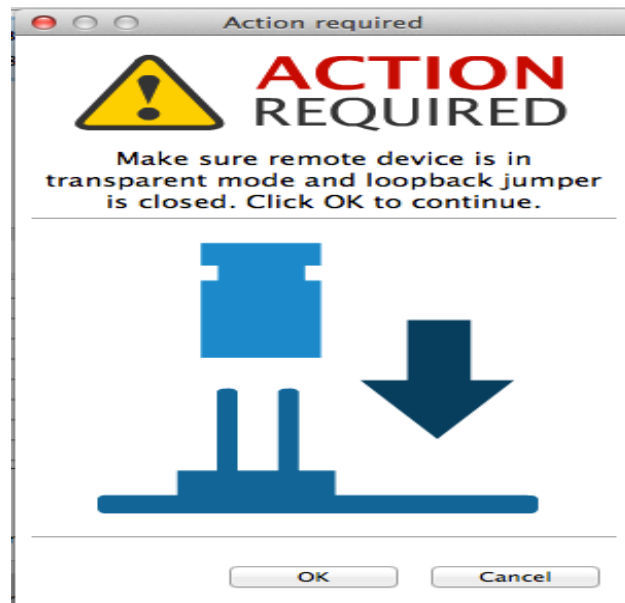
4) Click on the tools icon dropdown menu and select Range test.



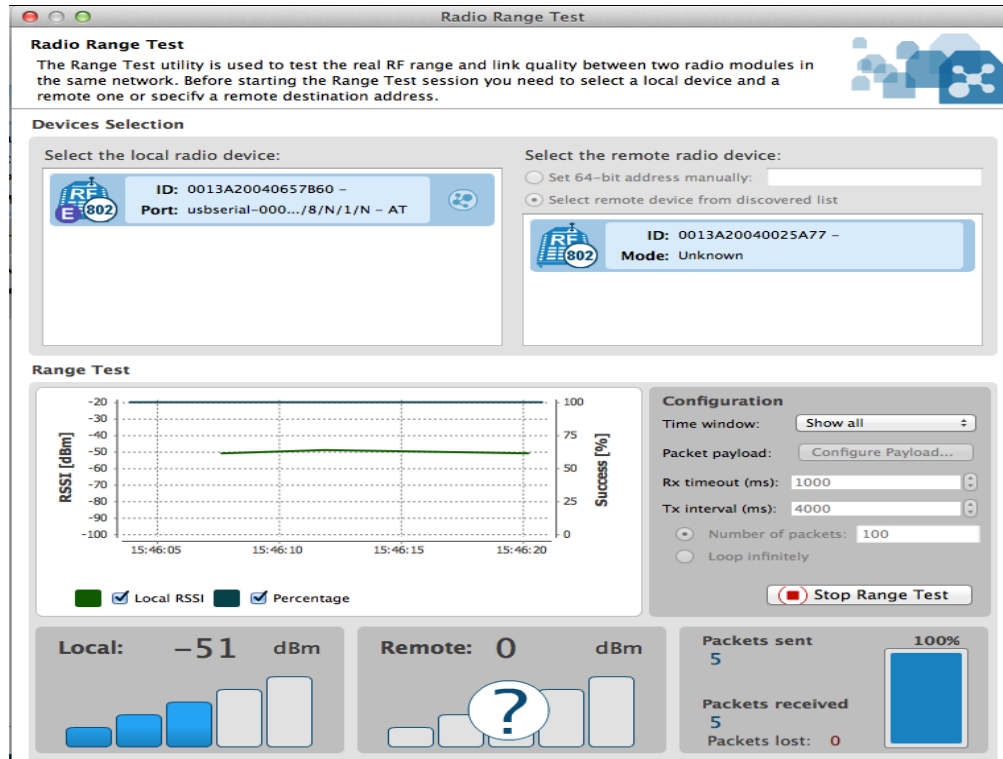
5) A new window will pop up for the range test. Click on your local device on the left section and then select the remote device on the right section. Click on Start Range Test begin.



6) You will see this image which tells you that you should have the Loopback adapter connected. The loopback jumper is for the older boards.



7) You will see the real RF range being tested. The packet information will be incrementing at the bottom right and the local connectivity will be shown in the bottom left. The LED lights on both the board should be on. 3 green lights on means a strong signal, 2 for medium strength, and 1 for low.



Sources:

-Appnote Using Old X-CTU interface

http://www.ece.ualberta.ca/~elliott/ece492/appnotes/2010w/XBee_Wireless_Communication/

-X-CTU Download

<http://www.digi.com/support/productdetail?pid=3352&osvid=57&type=utilities>

-XBIB-U-Dev board REV.3 driver

<http://www.digi.com/support/productdetail?pid=3130&type=drivers>

-FTDI driver - VCP (Virtual COM port driver for MAC)

<http://www.ftdichip.com/Drivers/VCP.htm>

-XBIB-U-DEV Board Layout

http://ftp1.digi.com/support/documentation/xbibudev_referenceguide.pdf

-XBIB-R-DEV Board Layout

http://ftp1.digi.com/support/documentation/xbibrdev_referenceguide.pdf

-XBee Ref:

<http://www.ladyada.net/make/xbec/ref.html>