

# Getting Started Guide

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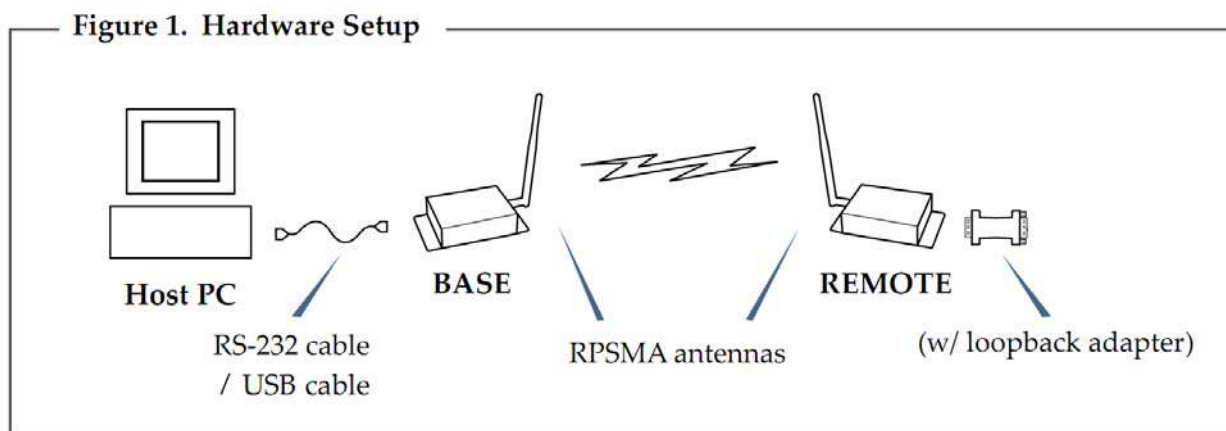
## *XBee-PRO<sup>®</sup> 802.15.4 PKG-R & PKG-U RF Modems*



### *Connect the Hardware*

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Connect the hardware as shown in the following images:



Note: To run a successful range test, the remote end must be an RS-232 device.

### *Set Up Range Test*

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#### **Install X-CTU Software**

X-CTU is a stand-alone tool for configuring XBee devices. It is also used to run a range test and is included on the Hardware and Software Setup CD. X-CTU can also be found on the website at: <http://www.digi.com/xctu>

To install X-CTU:

1. Insert the Hardware and Software Setup CD in the PC's CD/DVD drive.
2. On the Home page, click **Gateway, Host, Enterprise Documentation/Software**.
3. Click **X-CTU**.
4. Click **Install X-CTU**.
5. When installation completes, start X-CTU by double-clicking on the X-CTU icon placed on your desktop or by selecting: **Start > Programs > Digi > X-CTU**

The X-CTU software is ready to be used.

## Install USB Drivers (For the XBee-PRO USB PKG version only)

The XBee-PRO USB PKG is a “plug-and-play” device that should be detected by the PC automatically. To interface between the modem and a PC, two drivers must be installed: a USB driver and a virtual COM port driver that makes the USB port look and perform like a physical COM port. After the modem is detected, a wizard for installing the USB driver is launched. The USB driver is included on the Hardware and Software Setup CD.

To install the two USB drivers:

1. Connect the XBee-PRO USB PKG to a PC using a USB cable. The New Hardware Wizard dialog box will load.
2. Verify that the Hardware and Software Setup CD is inserted into the CD/DVD drive.
3. Select **Install from a specific list or location (Advanced)**; then click **Next**.
4. Select **Search for the best driver in these locations and search removable media (CD-ROM)**. Click **Next**. A Hardware Installation Windows Logo Testing alert box is displayed.
5. Click **Continue Anyway**.
6. Click **Finish**.

You will be prompted to install another driver, the virtual COM port driver. Repeat steps 3 through 6 to install this driver.

## *Perform Range Test*

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1. Launch the X-CTU Software: **Start > Programs > Digi > X-CTU**
2. Under the **PC Settings** tab, select the PC serial COM port that will be used. The standard COM port for the 9-pin serial port is COM 1. The USB ports will be labeled as Digi PKG-U Serial Port Adapters and are assigned a number based on your PC's settings.
3. Verify that the baud rate and data settings match the internal settings of the radios. The default settings for the radios are Baud Rate: 9600, Flow Control: HARDWARE, Data Bits: 8, Parity: NONE, and Stop Bits: 1.
4. Select the **Range Test** tab.
5. (Optional) Check the **RSSI** checkbox to enable the Received Signal Strength Indicator. The RSSI value indicates the signal strength of the last packet that the radio received.
6. Click **Start** to begin the range test.
7. Monitor the link quality by reading the **Percent** section on the **Range Test** tab. This section displays the running percentage of good packets sent to the receiving radio and looped back to the base.
8. Click **Stop** to end the range test.