XBee Wi-Fi Cloud Kit

Radio Frequency (RF) Modules

Getting Started Guide

Revision history—90002195

Revision	Date	Description
A	November 2013	Initial release
B	February 2014	Improved the quality of the images and corrected part number discrepancies.
C	May 2014	Updated the graphics of the loose components to match the loose components and other accessories that are currently available with the kit.
D	July 2014	Completed a major overhaul of the document including reformatting, updating links and graphics, adding information for clarity.
E	August 2016	Converted to the new MadCap Flare format with minor updates.

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Product serial number (s)

Firmware version

Operating system/browser (if applicable)

Logs (from time of reported issue)

Trace (if possible)

Description of issue

Steps to reproduce

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Include the document title and part number (XBee Wi-Fi Cloud Kit Getting Started Guide, 90002195 E) in the subject line of your email.

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Troubleshooting

Introduction to the XBee Wi-Fi Cloud Kit

The XBee Wi-Fi Cloud Kit shows you how to set up your XBee Wi-Fi hardware and configure its sample web application. You can see sensor data from your development board on the web, as well as send data and commands from the web to your device. The components in this kit allow you to create customized solutions for connected devices.

The XBee Wi-Fi sample web application integrates with Digi Remote Manager to enable two-way communication over the Internet, giving you remote control of your device wherever you are. This application also allows you to customize your dashboard widgets so that you can create your own connected device systems.

The following sections guide you through your kit setup for cloud-based access:

- XBee Wi-Fi development board components and descriptions
- Set up the XBee Wi-Fi Cloud Kit
- XBee Wi-Fi application exercise
- Do more with the XBee Wi-Fi Cloud Kit
- Learn more about XBee Wi-Fi
- Troubleshooting for XBee Wi-Fi Cloud Kit kit

XBee Wi-Fi development board components and descriptions
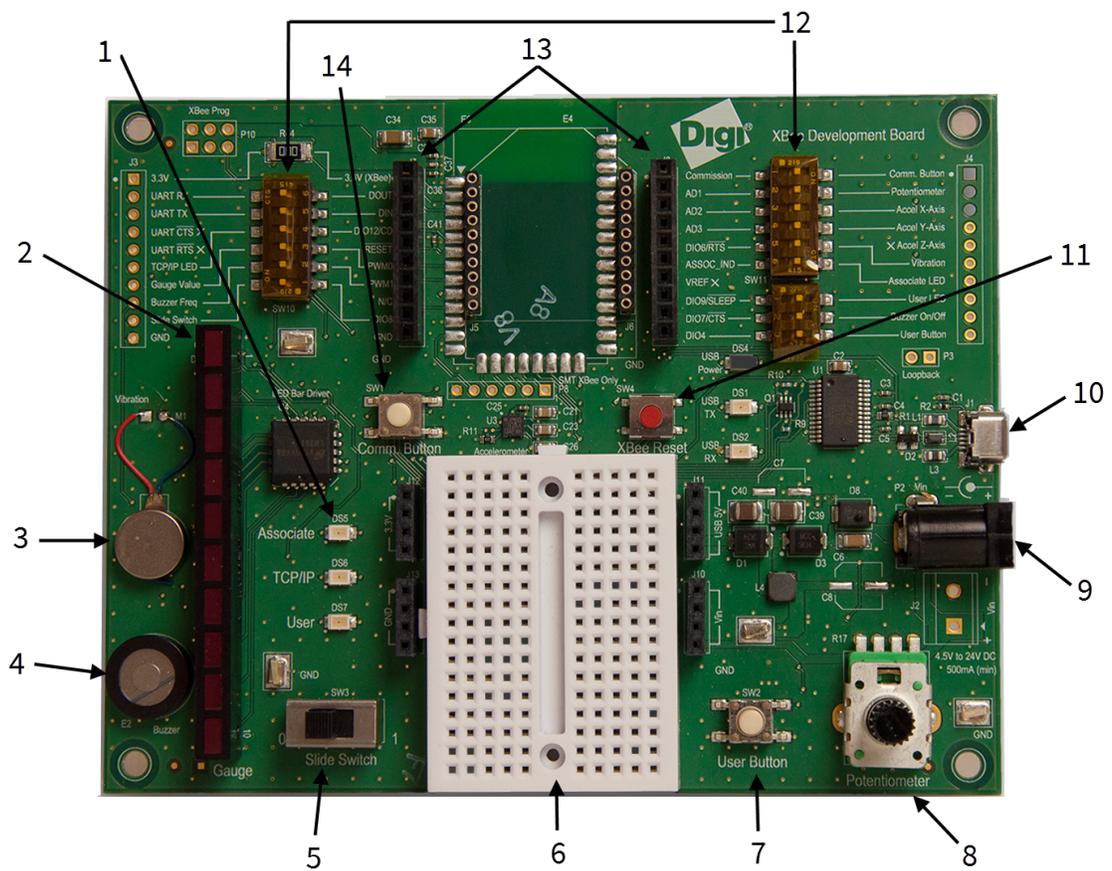
The following table provides descriptions of the XBee Wi-Fi development board components.

	Development board components	Description
1	**Associate LED**	Indicates wireless connection status to local access point. ■ **Solid green**: The XBee module is not connected to a local access point. ■ **Flashing green**: The XBee is connected to a local access point and Digi Remote Manager. ■ **Two short double blinks**: The XBee is connected to a local access point, but not Digi Remote Manager.
	TCP/IP LED	An output light connected to one of the GPIO pins that allows you to turn it on or off using commands sent from Digi Remote Manager.
	User LED	An output light that acts as a second User LED that allows you to turn it on or off using commands sent from Digi Remote Manager.
2	**LED gauge**	The LED gauge indicates analog value ranging from 0-10 LEDs and is controlled through the XBee Wi-Fi dashboard.
3	**Vibration motor**	The vibration motor indicates change in status.
4	**Buzzer**	The buzzer acts as an alarm to indicate trouble. It is loudest at 2 kHz, but works at a range of frequencies. You can also control the frequency of the buzzer through the dashboard using the buzzer frequency slider. Use the buzzer toggle widget to turn the buzzer on or off.
5	**Slide switch**	The XBee Wi-Fi dashboard indicates the state of the slide switch. The switch stays either on or off.
6	**Breadboard**	The rectangular plastic board that lets you easily insert electronic components for testing purposes. This is useful for prototyping electronic circuits.
7	**Push button**	The state of the push button is displayed on the XBee Wi-Fi dashboard. The button appears ON only when actively being pushed.
8	**Potentiometer**	The potentiometer displays on the XBee Wi-Fi dashboard as a speedometer gauge, progress bar, or graph. You can control the potentiometer by turning the adjustable knob left or right.
9	**Barrel jack**	Accepts 4.5 V to 24 V through the development board. You can also use the barrel jack with the battery pack provided with the kit.
10	**USB jack**	The USB jack has two purposes: 1. To power the development board up to 5V. 2. To provide serial port access to the XBee Wi-Fi for configuration or sending and receiving data to and from Remote Manager.
11	**XBee reset**	The XBee reset is connected to the XBee Wi-Fi reset pin. You can reconfigure it via the USB port.

	Development board components	Description
12	**DIP switches**	These switches allow components on the XBee Wi-Fi development board to disconnect from the XBee. If the switch is away from the XBee, the XBee pin is connected to that built-in widget on the XBee Wi-Fi dashboard. If the switch is towards the XBee, the XBee pin disconnects from that component.
		Note When you are using loose components or doing advanced prototyping, you may need to disconnect the built-in component from the XBee pin.
13	**Prototyping headers**	The prototyping headers allow connection to all pins of the XBee Wi-Fi. Use the prototyping headers to connect to your own circuits including those using the loose components that came with your kit.
14	**Commissioning button**	Press the commissioning button four times to reset the network parameters and reactivate Soft AP mode.

Set up the XBee Wi-Fi Cloud Kit

The XBee Wi-Fi Cloud Kit includes access to a sample web application that makes it quick and easy to work with your XBee device. The XBee Wi-Fi sample web application integrates with Digi Remote Manager to enable two-way communication over the Internet, giving you remote control of your device wherever you are. This application also allows you to customize your dashboard widgets so that you can create your own connected device systems.

Configure the XBee Wi-Fi module using the Wi-Fi interface

By now you should have already verified the contents of your XBee Wi-Fi Cloud Kit, connected the hardware, and configured your XBee to connect to a local Wi-Fi access point.

1. If you have not yet configured your XBee to connect to a local Wi-Fi access point, follow the instructions in the Quick Start Guide that came in your kit, or find the XBee Wi-Fi Cloud Kit Quick Start Guide online.

2. If your module is not able to connect to your Wi-Fi access point, it returns to Soft AP configuration mode, and you are required to repeat the configuration steps. Keep in mind that your SSID and password are case sensitive.

3. If you are still having trouble connecting your XBee Wi-Fi to a local access point, see Troubleshooting.

Add a XBee Wi-Fi module to a Digi Remote Manager account

The XBee Wi-Fi Cloud Kit includes access to a sample web application that makes it quick and easy to work with your XBee device. The XBee Wi-Fi sample web application integrates with Digi Remote Manager to enable two-way communication over the Internet, giving you remote control of your device wherever you are. This application also allows you to customize your dashboard widgets so that you can create your own connected device systems.

You must have a Digi Remote Manager account to use the features of the XBee Wi-Fi sample web application.

- If you do not yet have a Digi Remote Manager account, go to Create a Digi Remote Manager account.
- If you already have an account, go to Add your XBee Wi-Fi module to Digi Remote Manager.

Create a Digi Remote Manager account

Digi Remote Manager enables you to set up and manage dynamic device networks. Your free developer account lets you explore Digi Remote Manager's application development and device management tools, with a limited number of devices and transactions. With this developer account you discover how Digi Remote Manager's suite of device management and application development tools can help you realize your machine-to-machine (M2M) solution. When you are ready to expand your Digi Remote Manager access, complete the following steps.

To create a free Digi Remote Manager account:

1. Navigate to https://remotemanager.digi.com.
2. Click the **Free Developer Account/Login** button.
3. Follow the steps for creating your account.

If you need help creating an account, see the *Remote Manager User Guide*.

Add your XBee Wi-Fi module to Digi Remote Manager

Once you have created your Digi Remote Manager account, follow the steps below to add your XBee Wi-Fi module to Digi Remote Manager.

1. Navigate to the *XBee Wi-Fi Cloud Kit login*> page.
2. Enter your Digi Remote Manager username and password. Once you have entered this information, click **Log in.**
3. On the Dashboard Creation page, click the **Add New Device** button.

Dashboard Creation

Welcome to the XBee Wi-Fi Cloud Kit App! To get started, we need to set up your dashboard.

1: Choose a layout preset

Cloud Kit (recommended)   ▼

2: Select your XBee Wi-Fi

[▼]

+ Add New Device   **⟳ Refresh List**

4. In the pop-up window, enter the MAC address and a name or description for your XBee Wi-Fi module.

    Note Refer to section two of the Quick Start Guide where you wrote down the MAC address.

Add a New Device to your Account

Device MAC Address What's This?

[__:__:__:__:__:__]

Description (optional)

[   ]

Cancel   **Add Device**

5. Once you have entered the MAC address and description, click **Add Device** to add the device to your account.
6. Your XBee Wi-Fi module hardware must be configured to properly work with your kit.
7. Click the **Configure For Cloud Kit** button to configure your device. A green check mark displays once your device has been successfully configured.
8. Choose the layout of your dashboard. **Cloud Kit** is the recommended preset.
9. Click **Create Dashboard!**.

The XBee Wi-Fi sample web application appears.

Configure widgets on your XBee Wi-Fi sample web application

This section describes how to add and customize widgets on the dashboard of your XBee Wi-Fi sample web application. If you are an advanced user, you can create your own widgets and write your own applications in source code.

How widgets work on the XBee Wi-Fi dashboard

After you have configured the first XBee device, you can access the XBee Wi-Fi dashboard. By default, the dashboard displays the widgets for the built-in components of the development board received within your kit.

Notice how the development board interacts with the XBee Wi-Fi sample web application. Find the Potentiometer located on the bottom-right corner of your development board. If you turn the knob left or right, the Potentiometer gauge on the dashboard displays the change after a short delay. You can also try setting the Buzzer Frequency to around 500, then switching the Buzzer Toggle on your dashboard. After about 10 seconds, the Buzzer sounds and turns itself off automatically.
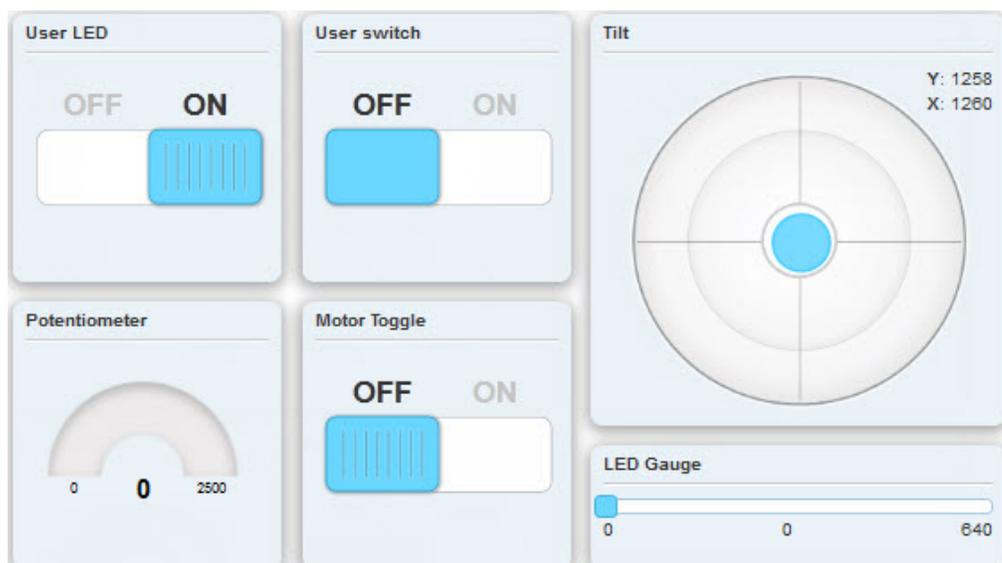
Note If you do not see your changes to the development board, refresh the web page and try again.

Add widgets to your dashboard

You can add widgets to your XBee Wi-Fi dashboard and customize them for your needs. These instructions show you how to add a progress bar widget:

1. Click the **Add Widget** button located on the bottom right-hand corner of your XBee Wi-Fi dashboard.

Create a new Widget

- **Type:** Invalid widget type selection.
- **Label:** This field is required.
- **Device:** You need to select a device.

Widget Type*

Label*

Device*

* Required field

Save   Cancel

2. Click the **Widget Type** drop-down menu and select **Bar Graph Widget (Vertical)**.

Create a new Widget

Widget Type*	Bar Graph Widget (Vertical)
Label*	Temperature
Device*	00:40:9D:5E:B5:B7
Input Stream*	ADC2 Check Device Configuration
Input Transform	
Units	
Low value	0
High value	2500

* Required field

Save   Cancel

2. Type the description of your widget in the Label text box. For example: **Temperature**.
3. Select the XBee device ID you would like to attach to this widget.
4. Click the **Input Stream** drop-down menu and select either **ADC2** or **ADC3**.
5. Click **Save** to save your widget settings.

The widget displays the Bar Graph Widget (Vertical) on the XBee Wi-Fi dashboard.

Note Wait about 20 seconds for the changes to apply.

For more information about customizing widget settings, see Edit (and customize) widget settings.

Edit (and customize) widget settings

1. Click the **widget settings** icon in the upper right corner of a widget.
2. On the Widget Settings page, customize the display of your widget by changing the settings available to your widget.

The following table provides descriptions of all of the widget settings.

Widget Setting	Description
Input Stream	Specifies the data stream on the XBee module that the widget subscribes to for data updates. Can be Digital (DIO/#), Analog (ADC/#) or Serial.
Output Stream	Specifies the output stream or pin on the XBee module that the widget will send its output values to. Can be Digital (DIO/#) or Serial.
Device Configuration Button	Checks that the module's firmware configuration is appropriate for the selected input or output stream. For example, if the Input Stream is set to DIO/0, the Check Device Configuration dialog verifies that D0 on the XBee acts as an input stream. Click this button to configure your XBee module to work with your XBee Wi-Fi Cloud Kit.
Units	Indicates the string label used within the widget that displays the unit values. Defines the units for the widget values, such as milivolts or decibels.
Timespan	Defines the total timespan, in seconds, that appears in the graph. For example, if you set the timespan to 90, the graph shows 90 seconds of data at a time.
X-axis Tick Size	Defines the spacing, in seconds, between tick marks/lines drawn along the X-axis of the graph.
Y-axis Auto Scale	Defines the automatic scaling of the Y-axis. If selected, the Y-axis of the graph automatically scales to fit the data being displayed. If not selected, the Y-axis min/max values are hard minimum and maximum values for the Y-axis.
Y-axis Min/Max	Sets the minimum and maximum values for the range of the graph's Y-axis. You can only use this setting if the "Y-axis Auto Scale" box is not selected.
Low/High Values (For progress bar and slider widgets)	Sets the low and high values for a progress bar or gauge widget. For example, you can set this value to display a data stream's values ranging from 100 to 1000. Slider widget: Sets the minimum and maximum allowed values in a slider's range.
Input Transform	Allows processing of incoming data with an expression for display. The AngularJS's $eval function implements the transform field and only evaluates Angular expressions.
PMW Output	Specifies the PWM output where the widget send its output values. This is similar to the "Output Stream" setting but is limited to PWM outputs.
Invert Values	Sends the value 0 when the switch is On, and 1 when the switch is Off, if selected.

Widget Setting	Description
Read Only Switch	Represents the data stream value last received from the server, if selected.
Setting	Specifies the timeout configuration setting on the XBee module where a widget writes new values.
Step Size	Sets the "step" size between slider values. The spacing snaps to those increments when you drag the slider handle. Default value is 1.

Remove widgets from your dashboard

These instructions show you how to remove widgets from your XBee Wi-Fi dashboard:

1. Hover over the upper right corner of your widget and select the **Widget Settings** icon (⚙). The
   Widget Settings window appears.

2. Click the **Remove Widget** button located on the upper right corner of your XBee Wi-Fi dashboard.

Viewing widget source code

If you are an advanced user, you can create your own widgets and write your own applications in source code. For more information, see GitHub, a host site for various software development products. GitHub has many features including discussion tools, access to millions of repositories, and the ability to collaborate with other users.

Within the XBee Wi-Fi sample web application, you can view your widget's Javascript, CSS and HTML source code. Click the **View Widget Code** icon </> located in the upper right corner of your widget.

View Widget Code

JavaScript (src/app/widgets/barGraphVerticalWidget/barGraphVerticalWidget.js)

```
/*
 * This Source Code Form is subject to the terms of the Mozilla Public License,
 * v. 2.0. If a copy of the MPL was not distributed with this file, You can
 * obtain one at http://mozilla.org/MPL/2.0/.
 *
 * Copyright (c) 2014 Digi International Inc., All Rights Reserved.
 */

'use strict';

angular.module('XBeeWiFiApp')
    .directive('barGraphVerticalWidget', function (widgetRegistry, utils) {
        // called after DOM element is compiled
        var linker = function postLink(scope, element) {
```

LESS (src/app/widgets/barGraphVerticalWidget/barGraphVerticalWidget.less)

```
@import '../../../less/variables.less';
@import '../../../../vendor/bootstrap/less/mixins.less';

.ui-progressbar-vertical {
    width: 3em;
    height: 250px;
    text-align: left;
    position: relative;
    /* Align the vertical bar to the center of the widget */
    margin: 0 auto;
}

.ui-progressbar-vertical .ui-progressbar-value {
    margin: -1px;
```

HTML Template (src/app/widgets/barGraphVerticalWidget/barGraphVerticalWidget.tpl.html)

```
<div class="widget-bar-graph-vertical" timestamp-tooltip="_lastTimestamp">
    <div progress-bar low="{{widget.low}}" high="{{widget.high}}"
        ng-model="value" vertical="true"></div>
    <p class="bar-graph-units">
        {{widget.units}}
    </p>
</div>
```

Close

XBee Wi-Fi application exercise

The exercise in this section shows you how to use your XBee Wi-Fi Cloud Kit to create custom connected device applications. The exercise uses some of the loose components that came with your kit to create a simple application that interacts with your online dashboard. This example is also available on XBee Wi-Fi Examples and Guides.

Note To complete the exercises described in this section, you must have completed the previous steps for setting up your kit.

Create a temperature sensor

Measuring temperature is a popular method for getting started with analog sensing. This example uses the TMP36 low-voltage linear sensor that is included in the XBee Wi-Fi Cloud Kit. The TMP36 is simple to set up and does not require any complicated circuits or calculations.

The sensor generates a voltage output that is directly proportional to the Celsius temperature. The warmer the temperature, the higher the voltage that passes to the XBee devices analog-to-digital converter (ADC). The device sends this reading through Digi Remote Manager to the XBee Wi-Fi Cloud Kit's online dashboard application where you can monitor the temperature from a web browser.

Assemble the parts

For this exercise, you need the following components:

- XBee Wi-Fi Cloud Kit or a powered XBee Wi-Fi with a breadboard and jumper wires.
- TMP36-for sensing temperature
- 4-1K ohm resistors
- Jumper wires
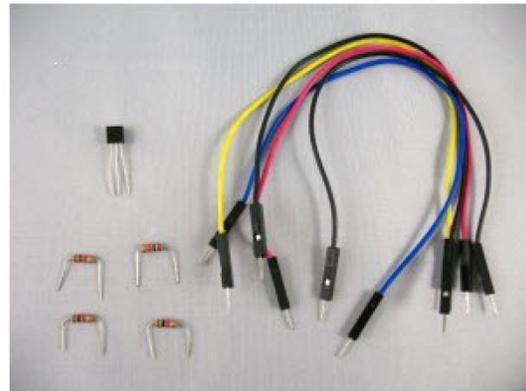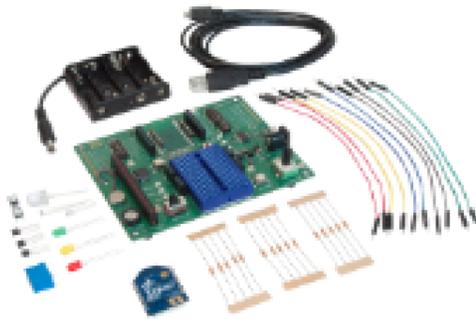
Configure the radio

Configure the radio using your Digi Remote Manager account. You can also configure radios using XCTU.

Note If your radio was recently configured by the XBee Wi-Fi Cloud Kit, the sampling rate and pin settings are already set, and you can skip this procedure and continue to Wire the circuit.

1. Log in to Digi Remote Manager.
2. Select **Devices** on the left.
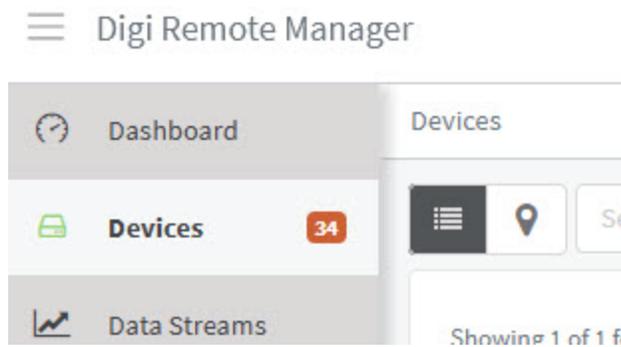
3. Select the XBee device you want to configure. You can search for the device by the name you assigned to it, the Device ID, or the Mac address.

4. Select **Settings > Config > Input and Output settings** and confirm that **(D2) DIO2/AD2/SPI_SCLK** is set to **Analog Input**.
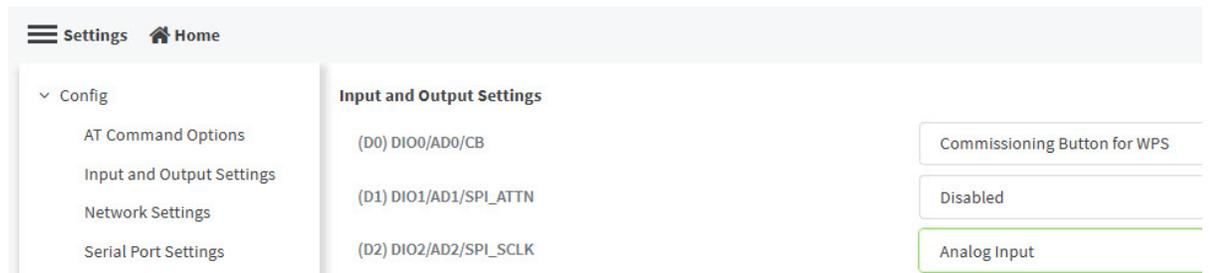

5. Confirm that **(IR) Sample Rate** is set to **5000ms** which will take a sample every five seconds.

6. Click **Apply**

# Wire the circuit

Build the sensor circuit using the XBee Development Board.

1. Plug the temp sensor into three separate rows on the breadboard as shown. With the flat side facing you, the pins are numbered 1 to 3 from right to left.

2. Connect a red jumper wire from a socket in the same row as pin 1 of the TMP36 to 3.3 volts power.

3. Connect a black jumper wire so that pin 3 of the TMP36 is connected to **GND** (ground).
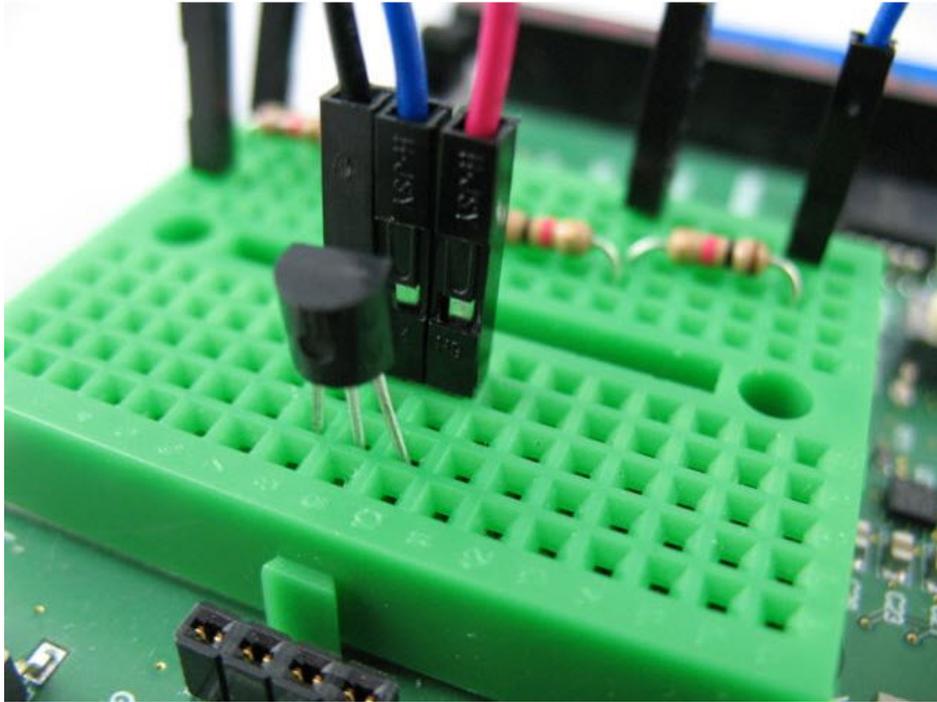
4. Plug the four resistors into separate rows of the breadboard as shown in the following graphic. This forms a chain, with each resistor connecting the end of each other resistor on either side and scales the input down from 3.3 volt input to the 2.5 volt maximum of the XBee Wi-Fi's ADC.

5. Connect a blue (or any other color) jumper wire so that the middle pin (2) of the TMP36 connects to the open end of the first resistor.

6. Connect one end of a yellow (or any other color) jumper wire to the row where the first and second resistors meet. Connect the other end of this wire to the XBee's **AD2** pin.

7. Use a black wire to connect the open end of the fourth resistor to **GND**.
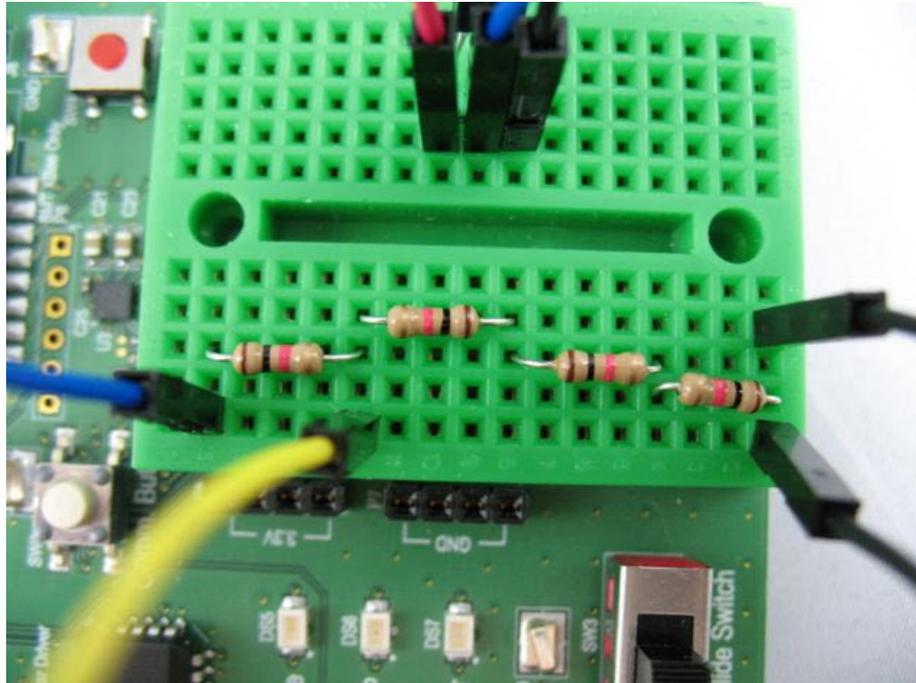
8. Set the DIP switch for AD2 on the PCB to **OFF** to disconnect the soldered-on component.
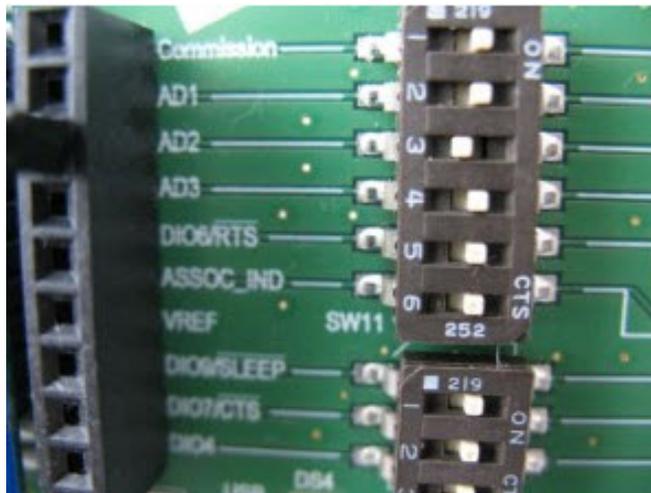
The following image provides an example of how the board appears when you have finished connecting all the circuits:
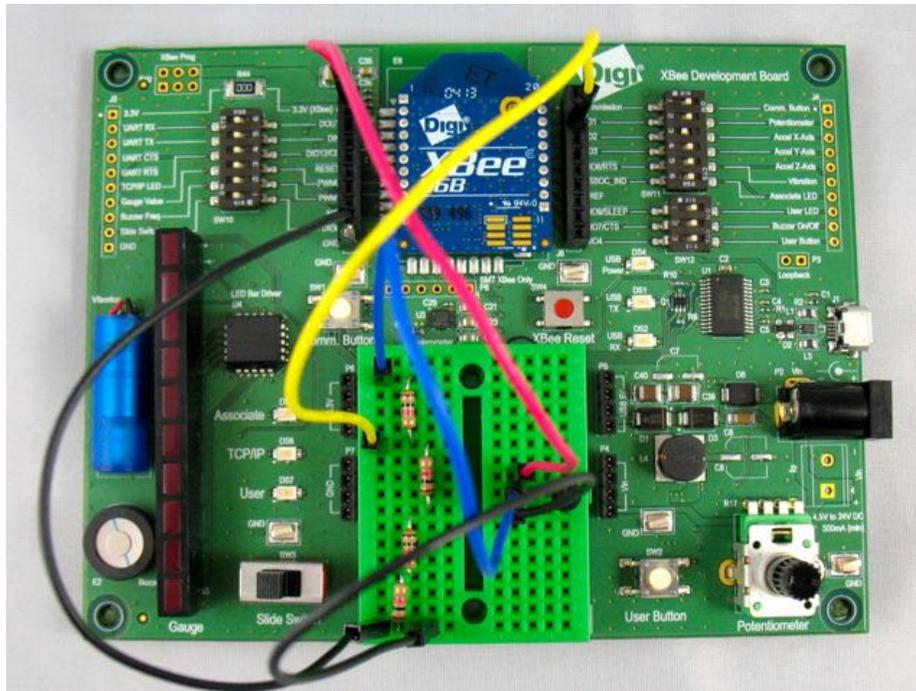
View it

Use the XBee Wi-Fi Cloud Kit's web application to configure a widget for viewing the temperature readings from your sensor.

1. Log in to the *XBee Wi-Fi sample web application*.
2. Click **Add Widget** located on the bottom corner of your screen to create a new display widget.
3. Choose **Gauge Widget** for the widget type, and give the widget a name (for example, **°C**).
4. Select the XBee device you are using for this widget.
5. Select **ADC2** as the input stream and check the device configuration to make sure it is configured properly.
6. Enter "**value/0.75/10-50**" to transform the input from millivolts to degrees Celsius.

   Note If you want to use Fahrenheit, the calculation is **"(value/ 0.75/ 10-50)* 1.8+32"**. Make sure you change the label and value range to reflect the new unit of measure.

   The calculation takes the input value, scales back by 1/4 from 3.3 volts to the 2.5 volt maximum that the ADC input on the XBee Wi-Fi can manage. It then divides that value by ten and subtracts half a volt to get the Celsius value. For more information see the TMP36 *data sheet*.

7. Set a low value of **0** and a high of **50** to see a reasonable Celsius temperature range.
8. Click **Save**.

Use it

Now you can see the temperature using the analog input of the XBee Wi-Fi module. You can test getting data from various locations, such as outside or inside your freezer. You can also add a graph widget to examine data over time, and log the changes in your office to see temperature change from day to night.

Note This temperature sensor is designed to produce stable readings, so it may take a few minutes for the sensor to fully reflect changes from its environment. If you want to experiment with rapidly changing sensor data, try building a light sensor. You can follow the instructions located on the *XBee Wi-Fi Examples and Guides page*.

Do more with the XBee Wi-Fi Cloud Kit

This section provides some additional guidance about how to work with your XBee Wi-Fi Cloud Kit.

Configure your XBee Wi-Fi module

The instructions in this section show you how to configure the XBee Wi-Fi module using Digi Remote Manager online or XCTU software locally. In each case, they show you how to:

- Configure the **KP** parameter to establish a Digi Remote Manager description for the module.
- Configure the **P2** parameter (DIO12) as a Digital Input pin on the module.
- Update the firmware on the XBee Wi-Fi module.

Configure the XBee Wi-Fi module with Digi Remote Manager

This tutorial assumes you have already set up a Digi Remote Manager account and added your XBee Wi-Fi module to the account. The XBee Wi-Fi module must be connected to Digi Remote Manager. For help with these steps, see Create a Digi Remote Manager account.

To configure the XBee Wi-Fi module with Digi Remote Manager:

1. Log into Digi Remote Manager and select **Devices**.
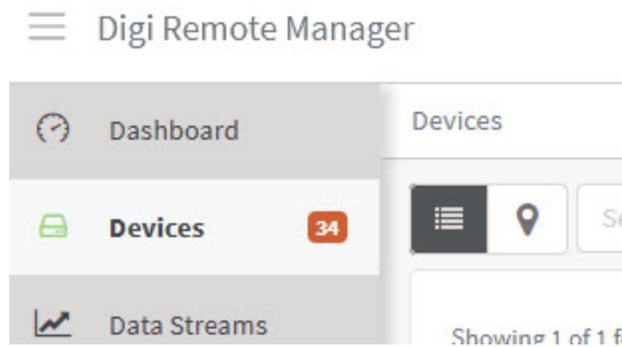

2. Select the XBee Wi-Fi module.

   On the **Settings** tab, select **Config** to see the available configuration options.
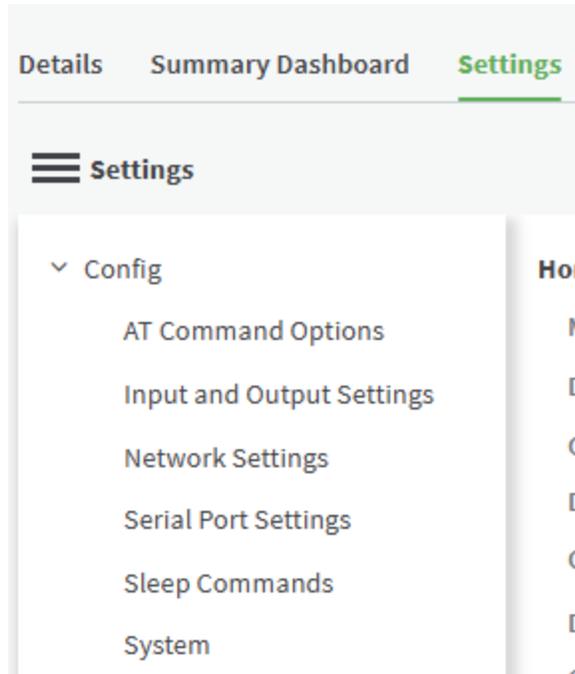
3. Select **System** and add a description to the **(KP) Description** setting. Click **Apply**.
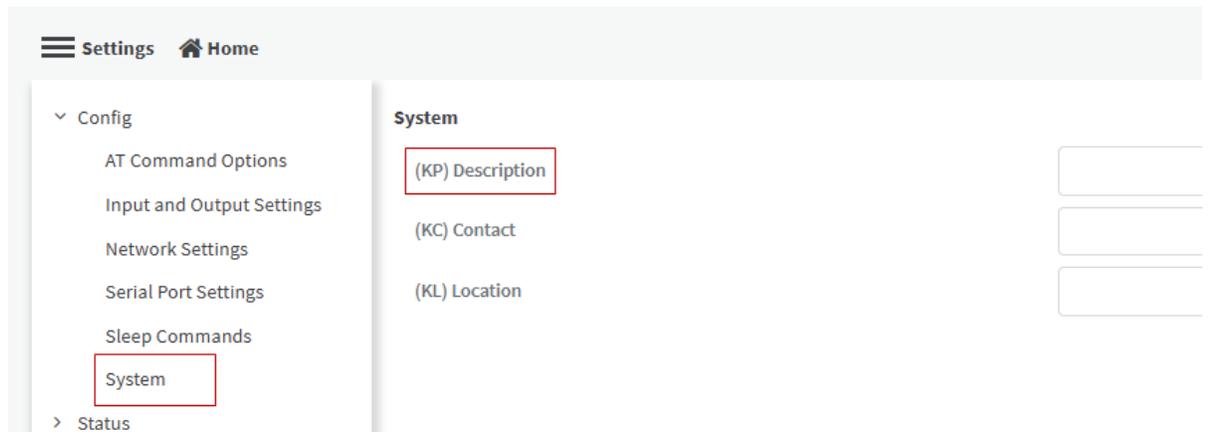

4. Select **Input and Output Settings**. From the **(P2) DIO12/SPI_MISO/CD** drop-down menu, select **Digital Input**, and click **Apply**.
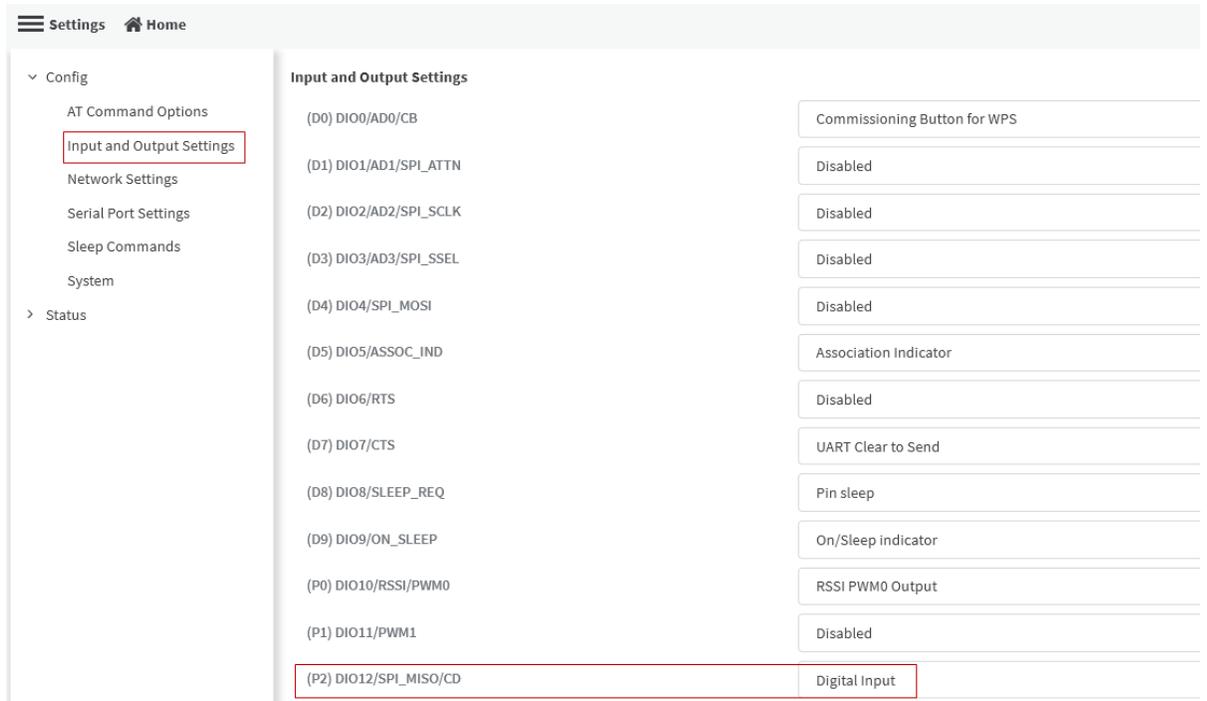
5. Select **Details**.
6. Select **Actions > Update Firmware**.
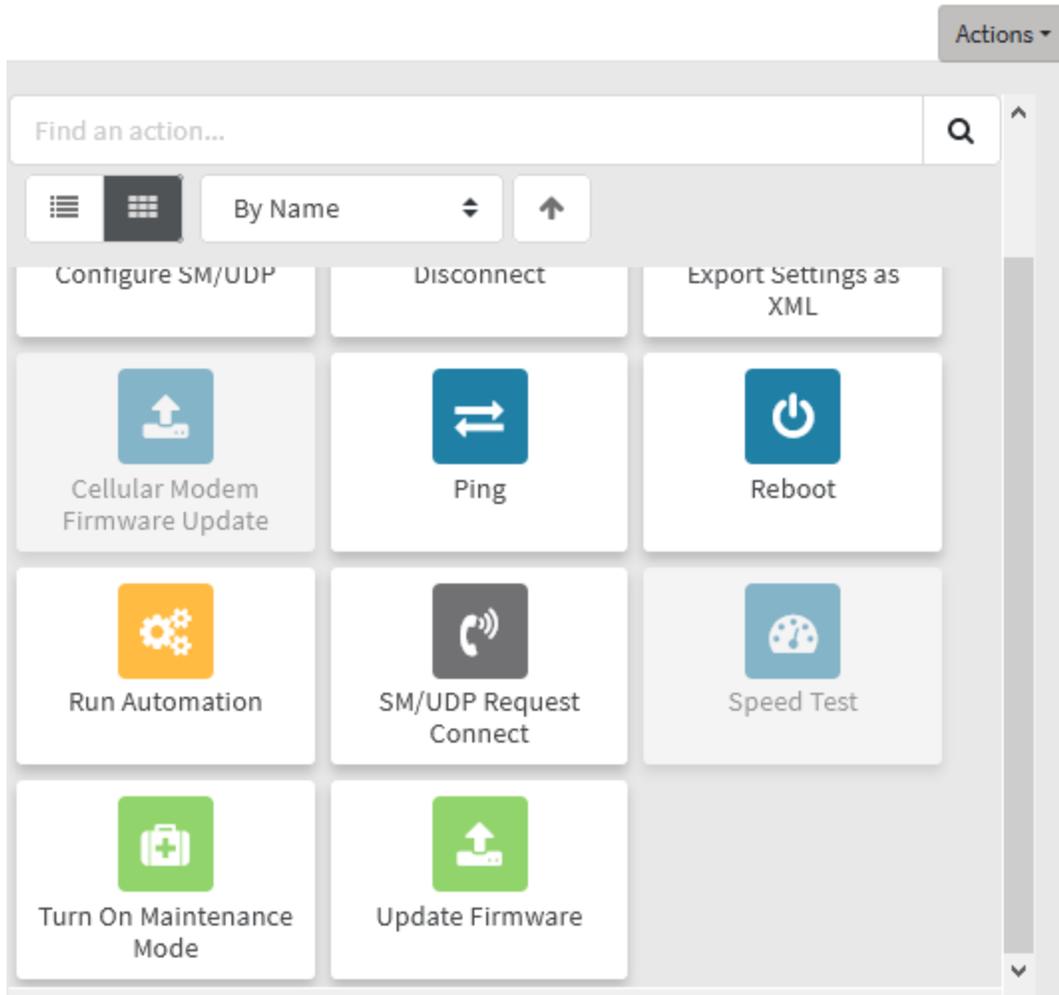
7. Be sure you have downloaded and installed the current version of the firmware.
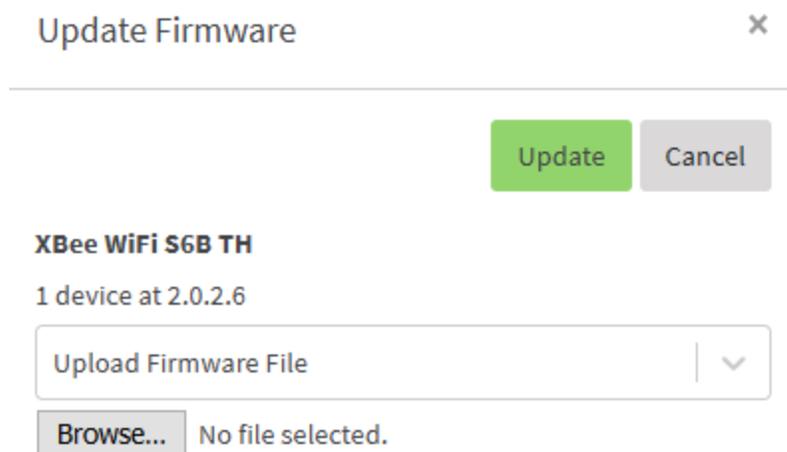
Note Firmware updates are available for download on our Support site: Digi XBee Wi-Fi S6B firmware

Configure the XBee Wi-Fi module with XCTU

This tutorial assumes you have installed the XBee Wi-Fi module on the development board and connected to the user's computer via USB, and that you have installed XCTU installed on your system.

1. Verify that the two DIP switches labeled as "UART RX" and "UART TX" are switched to the "On" position on the development board.
2. Open XCTU and click **Add a radio module** .
3. Select the Serial/USB port where the development board is currently connected. In this example, the development board is connected to COM3.
4. Verify that the baud rate and other communication settings match those on the module.

   Note If the default serial configuration has not been changed on the module, the defaults listed in the discovery tool will work.

5. Click **Finish** to begin automatic device discovery.
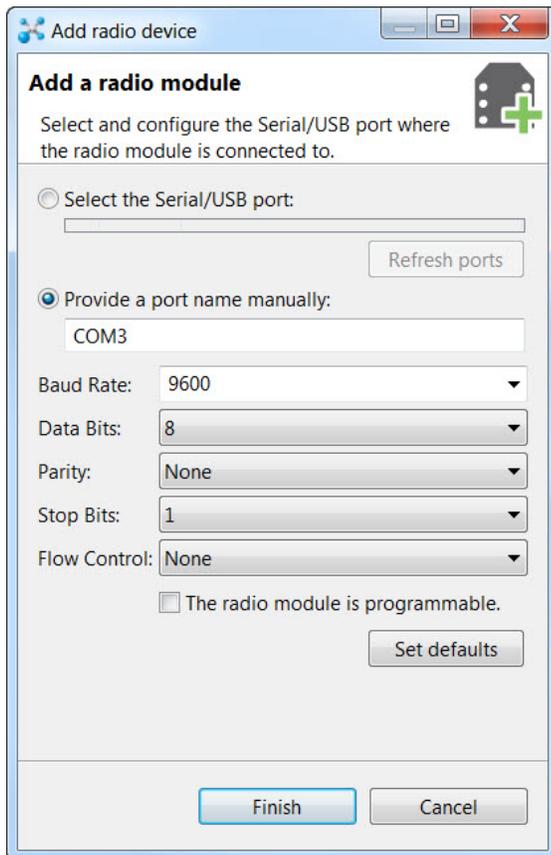
After you have finished adding the device, it appears under **Radio Modules**.
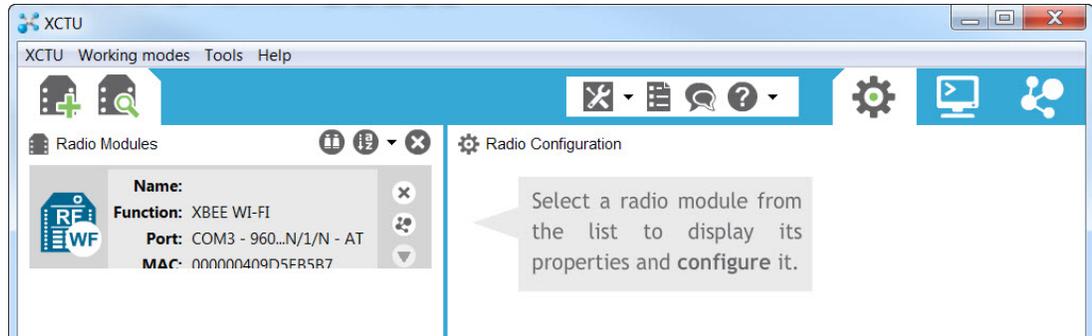
3. Click the Radio Module to read the current configuration. The radio configuration appears on the right side of the screen. All available parameters for configuration of the module are listed in this section. Each individual parameter for configuration of the module is listed in this section and can be refreshed and written to the module using this tool.
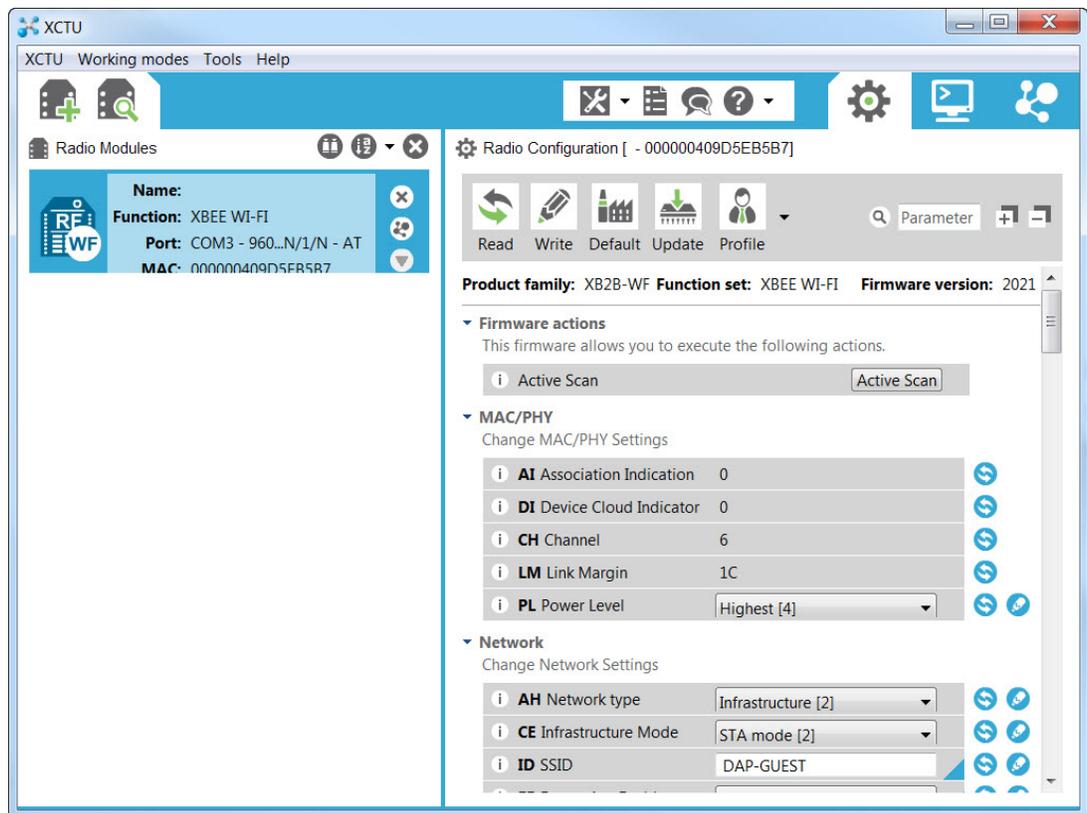
4. Locate the "Addressing" section in the **Radio Configuration** tool, and find the '**KP Remote Manager Description**' parameter.
5. Add a description (0-20 ASCII characters) in the field, and click the pencil icon to write the change.
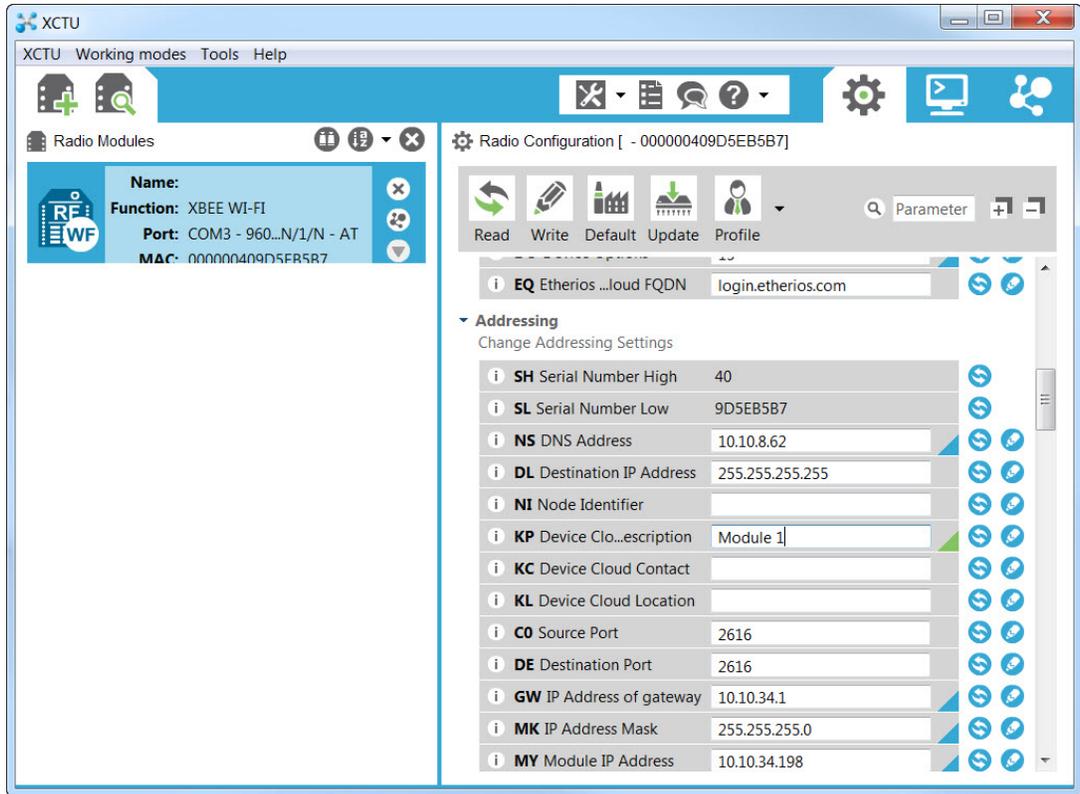
6. Locate the "I/O Settings" section and find the 'P2 DIO12/SPI_MISO' parameter. Click the drop-down menu and select **Digital Input [3]**.
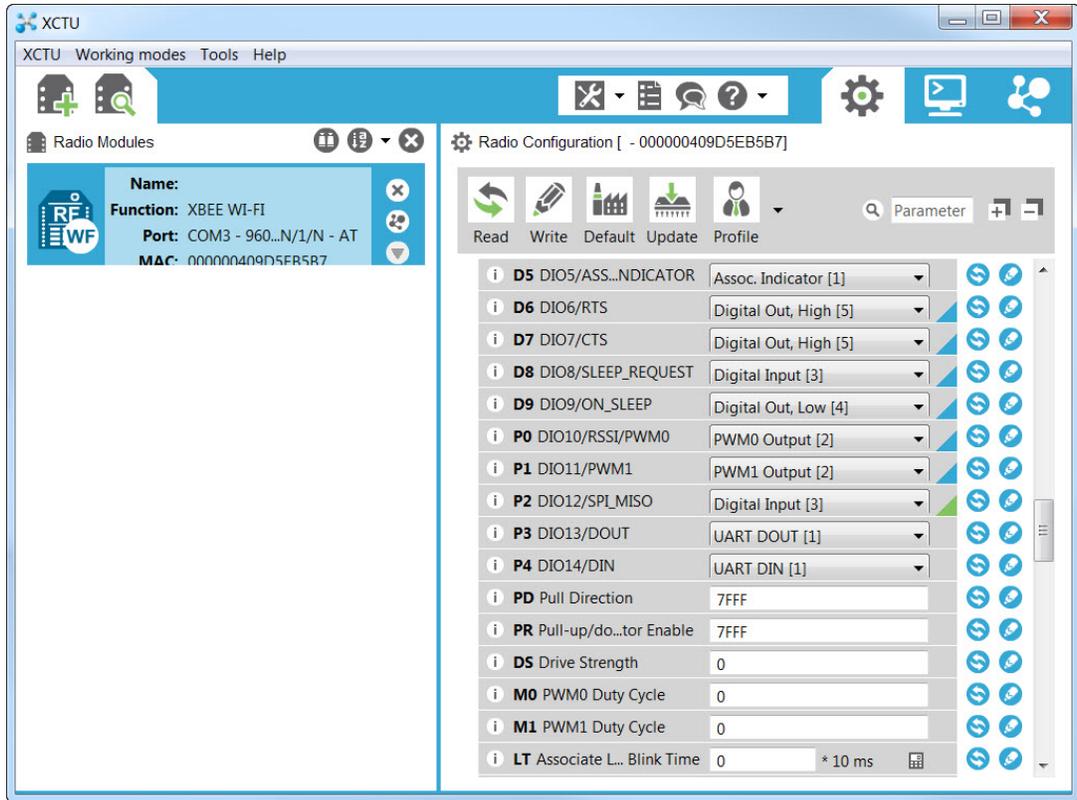
6. Click **Write**.

7. Click the **Update Firmware** icon at the top of the **Radio Configuration** section. The Update Firmware window appears and lists the firmware options available for your module.
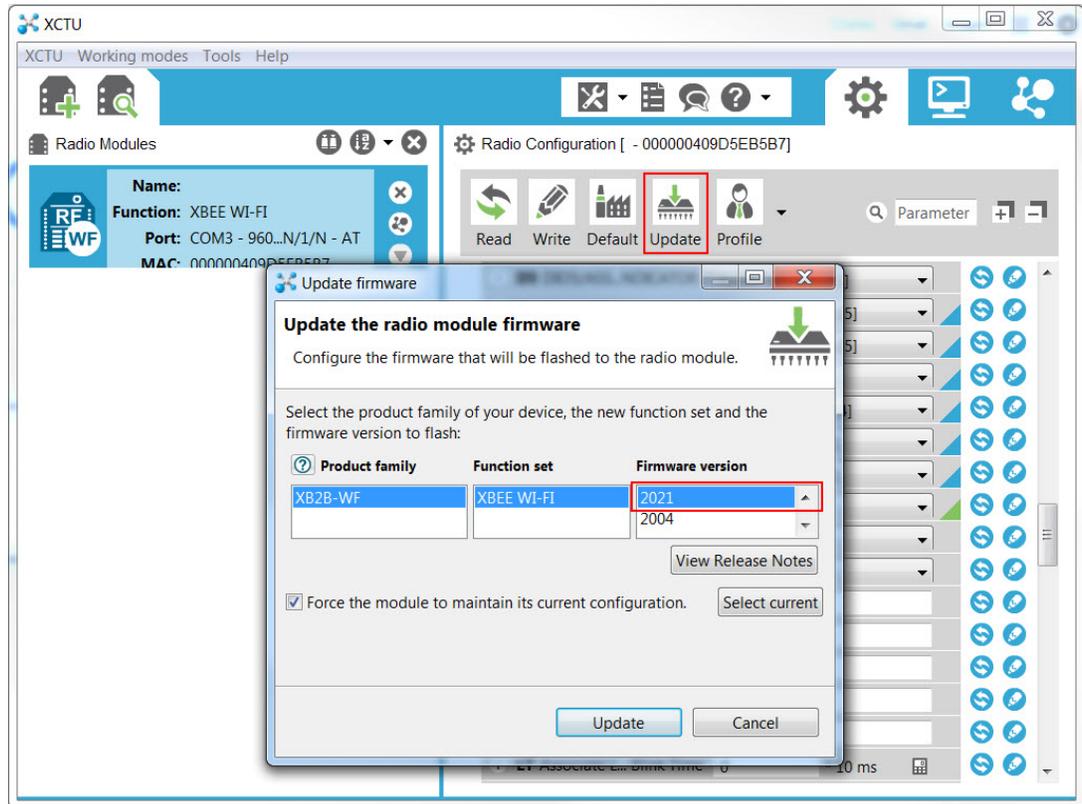
8. Select the appropriate firmware version, and click **Update.**

Note To verify that the most current firmware versions are listed, click the help button and select

Update the Radio Firmware Library. This automatically checks the Digi XBee firmware library and downloads any newly released firmware.

For advanced questions, see the *XBee Wi-Fi RF Module User Guide*.

Create XBee Wi-Fi applications

To learn more about the full capabilities and features of your XBee Wi-Fi Cloud Kit, see the tutorials listed below. These tutorials show you how to create simple applications that interact with your online dashboard by using the loose components that came with your kit.

- Overview of XBee Wi-Fi Cloud Kit tutorials
- Potentiometer
- Push Button
- LED
- Light Sensor
- Temperature

Note To complete these tutorials, you must have a thorough understanding of your XBee Wi-Fi Cloud Kit and have completed the kit setup.

Learn more about XBee Wi-Fi

This section provides some additional information for working with your XBee Wi-Fi Cloud Kit. You can also find more information about the Digi devices and applications in the kit at *XBee Wi-FI product page*.

Create your own applications

Visit github.com/digidotcom/xbeewificloudkit for the complete source code used to create the XBee Wi-Fi sample web application. GitHub is a host site for various software development products, and has many features including discussion tools, access to millions of repositories, and the ability to collaborate with other users.

Additional services

See the links below for information on where to obtain more XBee products, professional services, and access to Digi's online support forums:

- Want more XBee Wi-Fi? View purchasing options.
- Need help building your own application? Contact Digi's *Professional Services*.
- Ready to upgrade your Digi Remote Manager account? Contact the *Remote Manager Team*.
- Looking for answers? Visit Digi's online support forum: digi.com/support/forum/.
- Need support? Digi offers multiple technical support plans and service packages to help our customers get the most out of their Digi product. For information on Technical Support plans and pricing, contact us at 877.912.3444 or visit us at digi.com/support.

Troubleshooting

If you need help while performing any of the tasks in your XBee Wi-Fi Cloud Kit, try one of these troubleshooting tips.

XBee device fails to join wireless network

If your Xbee device fails to join a wireless network, try one of the following resolutions.

Check if the Associate LED is solid green

If the Associate LED is solid green on the development board, it indicates that the XBee device is not connected to a local access point. You need to re-enable Soft AP mode by pressing the Commissioning button four times to reset the network configuration. You can also troubleshoot this issue by checking the following areas:

1. Double check your wireless settings. Your wireless SSID and passphrase are case sensitive.
2. Try a different encryption setting. The current encryption setting may not be appropriate for your wireless network.
3. Reset your local access point by power cycling your device (unplug and replug).
4. Make sure your local AP is not configured for enterprise security. The XBee Wi-Fi does not currently support WPA Enterprise security.

Check if the Associate LED is double-blinking green

If the Associate LED is double-blinking green on the development board, it indicates that the XBee is connected to a local access point, but is not yet connected to Digi Remote Manager.

1. Verify that your local AP has internet connectivity and that you can access the appropriate Digi Remote Manager login page, https://devicecloud.digi.com.

2. Verify that your firewall settings are not blocking any outgoing connections from your device.

3. Try connecting to a different access point.

Check if the Associate LED is lit

If the Associate LED is lit, verify the following:

1. Make sure there is power to board.

2. Make sure the XBee Wi-Fi is properly inserted onto the board.

3. Make sure the DIP switch for this LED on the development board is set to ON.

If you have verified that the previous scenarios are not an issue, contact Digi Technical Support at 866.912.3444 or +1 952.912.3456, or online at www.digi.com/support/eservice.

XBee device does not show up under listed devices

The XBee device does not does not appear in the devices listed in the XBee Wi-Fi sample web application.

Potential cause

Your device may be listed under another Digi Remote Manager account. By default, an XBee Wi-Fi module can only be associated with one Digi Remote Manager account at a time.

Resolution

Remove the device from the Digi Remote Manager account it is listed under.

1. Navigate to the Device login page, depending on the type of account you have.

2. Enter your username and password and click **Log in**.

3. Under the **Device Management** tab, right-click the device you want to delete and select **Remove Devices**.

Once you have removed the device from the **Device Managemen**t list, retry adding your device through the XBee Wi-Fi sample web application.

XBee device is listed in the wireless networks but cannot connect

The XBee device is listed in my wireless networks but my computer says it cannot connect.

Potential cause

More than one XBee device is connected to your wireless network.

Resolution

1. Make sure only one XBee device is connected to your wireless network. You can only access Soft AP mode from one device at a time.

2. Push the XBee reset button.

3. Retry connecting to your wireless network.

If you are still having trouble connecting to your device, please contact Digi Technical Support at 866.912.3444 or +1 952.912.3456, or online at www.digi.com/support/eservice.

XBee Wi-Fi dashboard does not work with the XBee device

If the XBee Wi-Fi dashboard does not work with your XBee device, try one of the following resolutions.

Check if the XBee device is properly connected to your wireless network

1. Make sure the Associate LED is flashing.

2. Refresh the browser. The connection between Digi Remote Manager and the XBee Wi-Fi sample web application may have been disconnected.

Check if the changes made to the XBee Wi-Fi development board are reflected on the XBee Wi-Fi dashboard

1. Make sure your XBee Wi-Fi is properly connected, and wait at least 10 seconds for the application to update.

2. Refresh your browser and try again.

Check if certain functions within the XBee Wi-Fi sample web application are working as expected

Try using a different browser. Browsers such as Firefox and Google Chrome are recommended and work well with the XBee Wi-Fi sample web application.