

Digi XBee Mobile

Application

User Guide

Revision history-90002323

Revision	Date	Description	
A	November 2018	Initial release.	

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Customer support

Gather support information: Before contacting Digi technical support for help, gather the following information:

Product name and model

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

Contact Digi technical support: Digi offers multiple technical support plans and service packages. Contact us at +1 952.912.3444 or visit us at www.digi.com/support.

Feedback

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Digi XBee Mobile User Guide

Digi XBee Mobile is an iOS and Android compatible app that allows you to connect and configure Digi XBee3 devices with Bluetooth Low Energy (BLE) support.

Use Digi XBee Mobile to:

- Look for and connect to nearby XBee3 BLE devices.
- Get basic information from the device and the firmware version it is running.
- List all the configuration categories and settings of the firmware running in the XBee3 device.
- Read and change the value of any firmware setting.
- Perform a remote reset of the device.

Download and install Digi XBee Mobile

This section provides instructions for downloading and installing the Digi XBee Mobile app.

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Requirements

The requirements to run the Digi XBee Mobile application are:

Operating systems

Digi XBee Mobile is compatible with the following operating systems and versions:

- Android: 5.0 or higher
- iOS: 11 or higher

System requirements

Digi XBee Mobile is compatible with any smartphone that supports Bluetooth Low Energy.

Supported devices

- XBee3 Zigbee 3.0
- XBee3 LTE Cat 1 AT&T
- XBee3 LTE-M/NB-IoT

Note Digi XBee Mobile supports all of the above devices in all their available hardware variants, including surface-mount technology (SMT), through-hole technology (THT) and micro-mount technology (MMT).

Install Digi XBee Mobile

Download the Digi XBee Mobile app from the iOS App Store or Google Play.

Connect to an XBee device

Before connecting to an XBee device, you must configure its Bluetooth authentication with XCTU. If you have not done it yet, see Enable and configure Bluetooth in the *XCTU User Guide* to do so.

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Discover nearby devices

When you open the Digi XBee Mobile app, it automatically displays the **Devices** list page and starts looking for nearby XBee BLE devices.

Note If the Bluetooth interface is turned off on your device, the app asks you to turn it on.



The device list shows the following information per device (taking the third device of the image above as a reference):

- Name: XBee3 Cellular Cat 1 AT
- MAC address: Cached data read from the device after the first connection. This data is only
 displayed after the first connection (see devices 1 and 3 in the image above). Newly discovered
 devices to which a connection has never been made do not display this value (see devices 2 and
 4 in the image above).
- Signal quality

Establish the first connection

When your XBee device appears on the list, tap on it to open the connection. The application asks you to enter its Bluetooth password.



Type the password you configured with XCTU and tap **OK** to establish a connection with the device.

Note You can toggle the **Remember password** switch on so you are not prompted with the Bluetooth password dialog for future connections.

Actions menu

This menu, located on the top right corner of the application, allows you to perform several actions over the application and **Devices List** page.

- Scan options. Allows you to configure some options related to the Bluetooth device discovery process:
 - Filter found devices by name. All the XBee devices contain the word **XBee** in their advertisement name. By default, Digi XBee Mobile uses this scan option to display just the Bluetooth devices that contain the word **XBee** in their name. You can toggle this switch off to list all the Bluetooth devices in range or change the word to filter by other device names.

Scan o	options	
	Filter foun	d devices by name:
	XBee	
OK		Cancel

- Clear stored passwords. Removes the passwords saved for the connection process of each device.
- Documentation. Opens the documentation URL of the application in the device's default web browser.
- **Provide feedback**. Opens the feedback form to provide feedback about the application.
- **About**. Opens the application's **About** page.

Configure the XBee device

Once a connection is established with your XBee device through BLE, the app displays general information about the device and allows you to access the different firmware categories.

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Device Information panel

No SIM 奈		17:57	-7 ¥ □ • /	
🗸 Back	Devi	ce Information	Options	
Device Info	ormation			
ZB	Name: MAC: FW:	MY_XBEE 0013A2FF00000 XB3-24 - Digi X Zigbee 3.0 - 100	005D Bee3 05	
Device Cor	nfiguratio	on		
🗘 Networ	rking			
🛟 Securit	y			
🛟 Addres	sing			
🗱 RF Interfacing				
CART Interface				
🌣 MicroPython Options				
🔅 Bluetoo	oth Optic	ons		
🗱 Sleep Modes				
🔅 SPI Inte	erface			
🛟 I/O Set	tings			

The Device Information panel displays general information about the XBee device:

- Protocol image
- Node identifier (name)
- MAC address
- Firmware version

Device Configuration panel

The **Device Configuration** panel displays a list with the different firmware configuration categories. Tap on one of them to access the settings page of that category. See <u>Settings page</u>.

Actions menu

This menu, located on the top right corner of the application, allows you to perform several actions over the XBee device.

- **Reset device**. Resets the XBee device and restores the Bluetooth connection with it.
- **Disconnect**. Closes the connection with the XBee device.
- Documentation. Opens the documentation URL of the application in the device's default web browser.

- **Provide feedback**. Opens the feedback form to provide feedback about the application.
- **About**. Opens the application's **About** page.

Settings page

Once you have tapped on a configuration category, the application displays the **Settings** page which contains the list of settings associated to the selected category. After it displays, you can view and edit the value of each setting.

No SI	м 🗢 17:57	7 🖇 🧰 🗲					
<	Back Networking	g Options	No S	lm ' o ' Pook	17:57 Networking	•	1 × • • •
Settings			_ Set	tings	Networking	3	Options
CE	Device Role	Form Network	CE	Device Role)	Form Ne	etwork
ID	Extended PAN ID	716BEE	ID	Extended P	AN ID	716BEE	
zs	Zigbee Stack Profile	0					0
CR	PAN Conflict Threshold	3	Extended PAN ID - Range: [0x0 - • • • • • • • • • • • • • • • • • •				
NJ	Node Join Time	FE	'0') The presentioured Extended DAN ID		D		
NW Network Wg Timeout		0	used when forming or joining a network.				
JV	Coordinator Verification	Disabled [0]	a matching OP value. If ID is set to 0, the device will attempt to join any open network.		0, the		
JN	Join Notification	Disabled [0])		
DO	Device Options	40	preconfigures the Extended PAN ID use) used		
DC	Joining Device Controls	0	random Extended PAN ID is generated.		ited.		
Ope	erating Network Paramete	rs		🛄 Refresh		📝 Wr	rite
AI	Association Indication	0	70	Zinhan Cha	li Drofilo	0	
OP	Operating PAN ID	716BEE	25			2	
OI	Operatingbit PAN ID	F651	N.I	Node Join 1	Time	FF	

The following table describes the different controls of each setting:

Field	Image	Description
AT parameter	ID Extended PAN ID 716BEE	Displays the associated AT parameter of the setting.
Setting name	ID Extended PAN ID 716BEE	Displays the name of the setting.
Value	ID Extended PAN ID 716BEE	Contains the text box or combo box where the setting value must be typed or configured.

Field	Image	Description
Details pane	ID Extended PAN ID 716BEE	Appears when you tap on the Setting List item.
	Extended PAN ID - Range: [0x0 - 0xFFFFFFFFFFFFFFF] (Default: '0')	description, range, default value, and buttons to refresh and write the value of the setting.
	The preconfigured Extended PAN ID used when forming or joining a network. ID restricts joining to only networks with a matching OP value. If ID is set to 0, the device will attempt to join any open network. When forming a network (CE=1), ID preconfigures the Extended PAN ID used to form the network. When set to 0, a random Extended PAN ID is generated.	Note Some settings, such as the read-only settings, do not have a write button.
	🛄 Refresh 📝 Write	

If the category contains any subcategories they are displayed in the **Setting List** with an item indicating their name, followed by all their settings.

Operating Network Parameters				
AI	Association Indication	0		
OP	Operating PAN ID	716BEE		

Digi XBee Mobile delineates the status of each setting with the background color of the AT parameter rectangle. These are the possible statuses of a setting:

The value of the setting has changed but it has not been written in the radio module yet.
The value of the setting is written in the radio module but is different from the default value.
The value of the setting is written in the radio module and matches the default value.
The value of the setting is not valid.

Refresh a setting

To refresh the value of a setting:

- 1. Tap the setting you want to refresh. The **Details** pane displays.
- 2. Tap the **Refresh** button of the **Details** pane.

You can also read all the settings from the category by using the **Read all category settings** menu item from the top right actions menu, or by pulling to refresh from the top of the list.

Note Digi XBee Mobile validates the value of the setting before you write it. If the value to be written is not valid, the setting background color changes to red and the summary of the details pane displays the cause of the problem.

ID	Extended PAN ID	0		
Value cannot be empty. The preconfigured Extended PAN ID used when forming or joining a network. ID restricts joining to only networks with a matching OP value. If ID is set to 0, the device will attempt to join any open network. When forming a network (CE=1), ID preconfigures the Extended PAN ID used to form the network. When set to 0, a random Extended PAN ID is generated.				
	🛄 Refresh	📝 Write		

Actions menu

This menu, located on the top right corner of the application, allows you to perform several actions over the application and settings of the page.

- **Read all category settings**. Reads all the settings located in the category and subcategories.
- Write all category settings. Writes all the settings located in the category and subcategories that have been modified.
- Load default category settings. Loads the default values of all the settings located in the category and subcategories.
- **Reset device**. Resets the XBee device and restores the Bluetooth connection with it.
- **Disconnect**. Closes the connection with the XBee device.
- **Documentation**. Opens the documentation URL of the application in the device's default web browser.
- Provide feedback. Opens the feedback form to provide feedback about the application.
- **About**. Opens the application's **About** page.