Develop

Move through the IoT product development cycle fast, with coding, configuration and testing tools that simplify and expedite development.

XCTU

Next Generation Configuration Platform for XBee/RF Solutions

- XCTU is a free, multi-platform application compatible with Windows, MacOS and Linux
- Graphical Network View for simple wireless network configuration and architecture
- API Frame Builder is a simple development tool for quickly building XBee API frames
- Firmware Release Notes Viewer allows users to explore and read firmware release notes
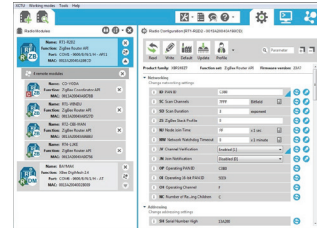
Digi XBIB-C Development Boards

Development circuit boards for rapid proof-of-concept application development

- USB Direct Mode (XBee® 3 Cellular)
- Current monitoring header
- Temperature/humidity sensor
- Grove connector for third-party sensors
- Programmable user buttons
- Expansion header for accessories (e.g. GPS Daughter Board)
- USB-C or battery power
- Variants available for all Digi XBee form-factors (surface-mount, through-hole, micro-mount)
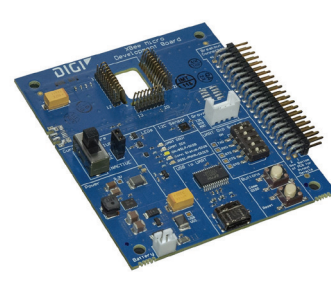
Digi XBee GPS Daughter Board

XBIB-C-GPS
Digi XBee GPS Daughter Board for use with XBIB-C Development Boards (XBee module and XBIB-C Development Boards not included)

This tool is an expansion module for the Digi XBIB-C board. Based on the leading U-blox CAM-M8 GPS receiver, the Digi XBee GPS Daughter Board allows developers to quickly and easily add GPS location tracking to applications incorporating Digi XBee modules. Digi provides developers with complete reference design resources, including schematics, gerber files and code, as well as a MicroPython library with code examples for incorporating GPS.

Digi XBee MicroPython PyCharm IDE Plugin

Environment for rapid MicroPython development on a Digi XBee 3

- **Streamlined development**
  Simplified MicroPython coding and compiling
- **Digi XBee APIs/libraries**
  Extensive set of development resources
- **Digi XBee code examples**
  Examples to jump-start code development
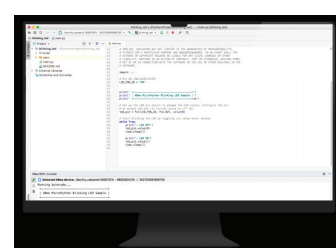
MicroPython Resources for XBee Devices

This project contains modules and sample code for use on XBee devices with MicroPython. Digi has written some of the modules and samples, in addition to modifying existing code to address differences between the XBee and other MicroPython platforms. This project includes code from micropython-lib.

The repository is used by the Digi XBee MicroPython PyCharm Plugin to get the available samples, libraries platforms and stubs and facilitate the process of creating and launching MicroPython applications in XBee devices. This means that you don't need to clone it unless you want to contribute with new content as the PyCharm plugin will handle all necessary resources automatically.

We don't recommend you to do so, but you can still use the content of this repository to create XBee MicroPython applications by your own (without using the Digi XBee MicroPython PyCharm Plugin). In any case, you will find information on how to get started with XBee and MicroPython in the Digi MicroPython Programming Guide.

Digi International manages the project on GitHub as xbee-micropython.

Requirements
Modules and samples within the repository can be executed only in XBee devices with MicroPython support. This is the list of current compatible devices:

Digi XBee3 Zigbee 3 (firmware 1006 and later)
Digi XBee3 802.15.4 (firmware 2003 and later)
Digi XBee3 DigiMesh 2.4 (firmware 3002 and later)
Digi XBee3 Cellular LTE-M/NB-IoT (firmware 11410 and later)
Digi XBee3 Cellular LTE Cat 1 (firmware x10 and later)
Digi XBee Cellular 3G (firmware 1130B and later)
Digi XBee Cellular LTE Cat 1 (firmware 100B and later)
Organization
The repository is structured in the following folders:

categories - This folder contains the definition and images for the Digi categories in which the different products supporting MicroPython are organized. This information is used by the Digi MicroPython PyCharm Plugin to filter the supported platforms.
lib - Files in the lib/ directory mirror the structure you'd use when uploading to the XBee device. or example, lib/umqtt/simple.py is the correct location for import umqtt.simple to work in your program.
platforms - This folder contains the definition and images for the Digi XBee products supporting MicroPython. This information is used by the Digi XBee MicroPython PyCharm Plugin to list the supported platforms.
samples - Files in the samples/ directory are organized by feature or XBee device. For example, cellular contains samples for XBee3 Cellular devices and i2c contains samples for any XBee device with I2C support in MicroPython.
typehints - This folder contains the API definitions of the MicroPython modules available in the XBee devices. These definitions are used by the Digi XBee MicroPython PyCharm Plugin for syntax checking, code completion and refactoring.
Other folders that appear in the repository include:

tools - Scripts and other resources which serve useful purposes for contributors to the repository, such as a tool to check that all README.md files are formatted as expected.
Usage
For information on how to get started with XBee and MicroPython, see the Digi MicroPython Programming Guide.

How to Contribute
The contributing guidelines are in the CONTRIBUTING.md document.

License
This software is open-source software. Copyright Digi International, 2018, 2019.

Samples within samples/ folder, stub files in typehints/ folder and most of the source code in the lib/ directory is covered by the MIT License. Individual library files may contain alternate licensing, depending on their origin.

Digi XBee Mobile SDK

Create mobile applications that connect with Digi XBee modules via Bluetooth

DIGI XBEE MOBILE SDK INCLUDES:
- Well-documented APIs to handle the complexity of the Bluetooth authentication, encryption and communication processes
- Two libraries to simplify mobile app development:
  A Digi XBee library for Xamarin, to develop native cross-platform (iOS and Android) mobile applications using C#
  A Digi XBee library for Android, to develop native Android applications using Java
- Comprehensive documentation
- Example applications for both libraries