

Digi XBee 3 Global and Low-Power LTE-M/NB-IoT

Compact, flexible cellular connectivity for IoT devices and gateways

Digi XBee® 3 Global LTE modules accelerate time-to-market for designers, OEMs and solution providers by quickly enabling wireless connectivity and easy-to-add functionality.

Building on industry-leading technology, pre-certified Digi XBee 3 Global and Low-Power LTE-M/NB-IoT modules offer the flexibility to switch between multiple frequencies and wireless protocols as needed.

Digi XBee 3 Global and Low-Power LTE-M/NB-IoT modules are a key offering in the **Digi XBee Ecosystem** of wireless modules, adapters, tools and software — all engineered to accelerate product and application development, deployment and management.

Ideal for low-data (typically under 5 MB per month and where latency is not critical), low-power, low-cost applications, Digi XBee 3 Global and Low-Power LTE-M/NB-IoT modules feature a power-saving mode which extends sleep time and battery life.

With **Digi Remote Manager®**, Digi XBee 3 Global and Low-Power LTE-M/NB-IoT modules can be easily configured and controlled from a simple, central platform. Built-in **Digi TrustFence®** security, identity and data privacy features use multiple layers of control to protect against new and evolving cyber threats.

Standard Digi XBee API frames and AT commands, as well as MicroPython and **Digi XBee Studio**, make it simple to set up, configure and test modules or update their functionality.

Related Digi kits, modules and software



Digi XBee 3 Global LTE Cat 1 Dev Kit



Digi XBee 3 Global LTE-M/NB-IoT Dev Kit



Digi ConnectCore MP1 Modules



Digi XBee Studio

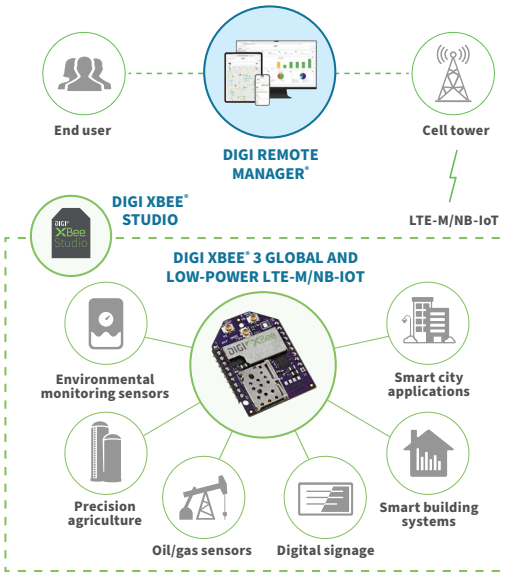


Digi Remote Manager

Key features, benefits and applications

- One hardware platform for use on LTE-M/NB-IoT networks with multi-band support to integrate with many carriers
- FCC certified and carrier end-device certified with major carriers
- Integrated MicroPython programmability for edge compute
- MQTT support for Microsoft Azure and Amazon AWS
- Low power consumption optimized for long battery life
- Integrated with **Digi TrustFence** security framework
- Manage with **Digi XBee Studio** and **Digi Remote Manager**
- CE/RED certified and network tested, with 2G fallback and GNSS
- Bluetooth® Low Energy for beaconing, connecting to sensors and local configuration using the **Digi XBee Mobile App**
- Includes SIM, ready to activate and begin using

Application example



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Management and Configuration

Digi XBee Studio

Free multi-platform application that enables developers to manage Digi XBee cellular devices through a simple-to-use graphical interface

Digi XBee Studio is the definitive tool to manage and configure Digi XBee cellular devices. The application includes embedded tools that make it easy to set up, configure, communicate with and test Digi XBee 3 Cellular modems.

The first thing you need to do in order to work with XBee devices in XBee Studio is to add them to the tool. In XBee Studio, this is easier than ever.

Simple set up and connectivity

Just after startup, XBee Studio will automatically look for XBee devices connected to your computer. As modules are found, they will appear in the device browser view.

The devices browser view displays all the devices connected to your computer, but you can also manage remote XBee devices registered in a Digi Remote Manager account by switching to the Cloud mode.

View and manage your Digi XBee cellular devices

View all of your Digi XBee devices in one table, or if they are geo-located, you can switch to the map view and see the location of each one.

Digi XBee Studio also offers a more simple and step-by-step way to access and manage devices, including additional options for configuration, diagnostics, development, remote management and other utilities.

Proven experience and expert support

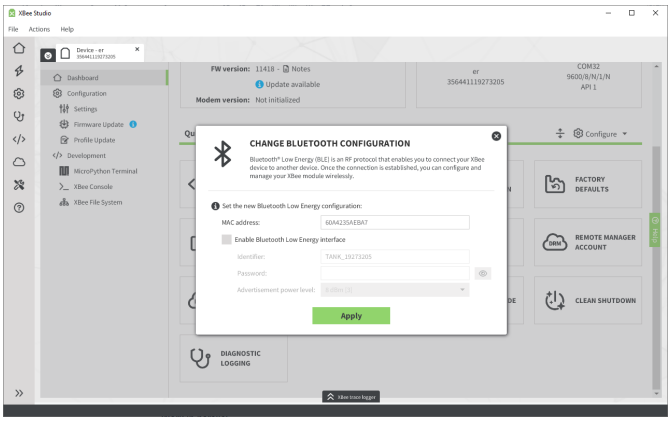
With over twenty years of experience enabling millions of globally connected products, Digi is a trusted embedded and IoT solutions provider, simplifying the way customers design, build and deploy connected applications.

Digi also offers cellular integration support, certification assistance, and custom design and build services to get your products to market smarter and faster.

Digi Wireless Design Services (WDS) offers additional services to support you wherever you are along your development path.

Key features

- **Deploy on multiple platforms:** Digi XBee Studio is compatible with the most popular operating systems, including Microsoft Windows, macOS and Linux.
- **Discover your devices:** Automatically discover XBee devices connected to your computer, regardless of their port connections or configured settings.
- **Configure any device:** Manage and configure multiple XBee devices at once, including devices enrolled in your Digi Remote Manager account located anywhere in the world.
- **Communicate with your devices:** Use the new smart XBee console to communicate with your devices regardless of what operating mode they are configured for (API or transparent).
- **Access a range of tools:** Use embedded tools to perform operations like creating XBee profiles or recovering your devices.
- **Get automatic updates:** Automatically update the application itself, as well as the radio firmware library, without downloading any extra files.



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Management and Security

Digi Remote Manager



Digi Remote Manager (Digi RM) is a proven technology platform that brings networks to the next level, empowering networks — and the people who manage them — to work smarter. Digi RM transforms a multitude of dispersed IoT devices into a dynamic, intelligent network. It's easy to deploy, monitor and diagnose thousands of mission-critical devices from a single point of command on a desktop, tablet or phone. All the while, software-defined security diligently safeguards your entire Digi ecosystem.

Learn more at digi.com/digi-remote-manager.

Infrastructure

- Hosted in a commercial-grade cloud server environment that meets SOC 1®, SOC 2® and SOC 3® standards
- Superior availability, operating at 99.9% or greater uptime
- Open APIs are available to support application development

Security

- Comprehensive security controls to protect your data
- Member of the Center for Internet Security® (CIS®)
- Enables compliance with security frameworks like ISO27002, HIPAA, NIST and more
- Earned Skyhigh's CloudTrust™ Program highest rating of Enterprise-Ready

Capabilities

- Activate, monitor and diagnose your mission-critical devices through a single portal
- Schedule key operations — including firmware updates and file management — on a single device or on a group of devices, keeping your network functionality up-to-date and maintaining compliance standards
- Manage edge devices out-of-band via console terminal access
- Monitor equipment health and connectivity across deployments of any size
- Create detailed reports and enable real-time alerts for specified conditions
- Integrate device data through open APIs to gain deeper insights and control with third-party applications
- Report and alert on performance statistics, including connection history, signal quality, latency, data usage and packet loss

Digi TrustFence



Built-in Security. Delivered.

Designed for mission-critical applications, **Digi TrustFence** enables users to easily integrate device security, device identity, and data privacy capabilities into product design. Digi TrustFence security for IoT devices is designed to grow and adapt with new and evolving threats.

Learn more at digi.com/trustfence.

Digi TrustFence is a device security framework that simplifies the process of securing connected devices.

- **Secure boot:** Programs and code running on the device are validated to be from an approved source or manufacturer.
- **Protected hardware ports:** Internal and external I/O ports are hardened and access-controlled to prevent unwanted intrusion.
- **Authentication:** TrustFence provides data authentication and device identity management options and ensures that products are not shipped with default user and password settings.
- **Secure connections:** These connections utilize the latest encryption protocols for data in motion and over-the-air (OTA) transmissions to ensure the integrity of network data.
- **Ongoing monitoring and support:** Digi provides ongoing threat measurement and monitoring services and performs external security audits.

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Tools and Services

Digi XBee Tools

The **Digi XBee Ecosystem** is fully supported with the award-winning **Digi XBee Tools** suite. Designed to support the full product lifecycle, from prototyping and development to deployment and ongoing monitoring, Digi XBee Tools includes code libraries, testing and prototyping tools, product development and manufacturing support, and tools for deploying and managing end devices in the field.

DEVELOP BUILD DEPLOY MANAGE

Digi XBee Data Plans



Ready to activate

Modem includes SIM, ready to activate.

Work with Digi for your SIM and data management plan.

Activate data plans by phone at (877) 890-4014 or (952) 912-3456 or email at **data.plan.quotedesk@digi.com**.

- Ease of deployment and support with a single supplier
- Avoid extra costs and the complexity of having to purchase and insert SIM/program APN during manufacturing process
- No internal staff needed to manage carrier contracts and billing
- Leverage Digi's buying power; we work with carriers to secure volume pricing that we pass on to you, so you can roll out at your own pace, regardless of your deployment size

Digi Wireless Design Services

DEFINITION DEVELOPMENT CERTIFICATION MANUFACTURING

Get to market faster with Digi WDS

Digi Wireless Design Services (WDS) has a proven history of helping clients speed down the path to success by guiding them around the technological and regulatory certification pitfalls that botch budgets and disrupt product introductions.

We begin by actively listening to your business and technical requirements, and then leverage our proven methodology, world-class engineering expertise and library of IP to design a cost-effective solution that is tailored to your specific needs. Accelerate toward the solution that is right for you and your customers.

Contact Digi WDS to find out how we can guide you to success.

Your world-class IoT design and engineering team

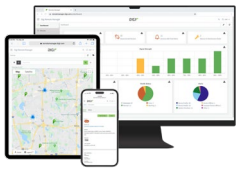
We offer services to support you wherever you are along your development path, with a record that speaks for itself.

- Proof of concept
- Architecture consultation
- Requirements definition
- System, software and electrical design
- Design reviews
- Certifications
- Prototype build
- Manufacturing test fixtures
- 250+ product development projects
- 100+ certification failure rescues
- 100 million connected devices around the globe

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DIGI XBEE 3 GLOBAL AND LOW POWER LTE-M/NB-IOT

Specifications



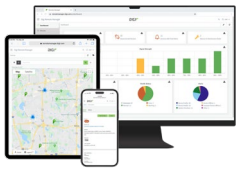
Manage and configure Digi XBee 3 Global and Low-Power LTE-M/NB-IoT with Digi XBee Studio and Digi Remote Manager

SPECIFICATIONS	DIGI XBEE 3 GLOBAL LTE-M/NB-IOT	DIGI XBEE 3 LOW-POWER LTE-M/NB-IOT
HARDWARE		
CELLULAR CHIPSET	Telit ME310G1-WW	Telit ME310G1-W1
FORM FACTOR (CONNECTOR FOOTPRINT)	**Digi XBee** 20-pin through-hole	
ANTENNA OPTIONS	1 U.FL: cellular, 1 U.FL: Bluetooth, 1 U.FL: GNSS	
DIMENSIONS	24.38 mm x 32.94 mm (0.96 in x 1.3 in)	
OPERATING TEMPERATURE	−40 °C to 85 °C (−40 °F to 185 °F)	
SIM SIZE	4FF Nano	
INTERFACE AND I/O		
DATA INTERFACE	UART, SPI, USB	
OPERATING MODES (LTE-M)	Transparent and API over serial, PPP over USB	
OPERATING MODES (NB-IOT)	Transparent, API, UDP	
SECURITY	**Digi TrustFence** security with secure boot and protected JTAG	
CONFIGURATION TOOLS	**Digi XBee Studio** (local), **Digi Remote Manager** (OTA)	
EMBEDDED PROGRAMMABILITY	MicroPython with 8 MB Flash / 64 kB RAMB RAM	
I/O	4 ADC lines (10-bit), 13 digital I/O, USB, I2C	
BLUETOOTH	Bluetooth Low Energy (BLE)	
CELLULAR CHARACTERISTICS		
TRANSMIT POWER	Up to 23 dBm (LTE-M/NB-IoT), up to 33 dBm (2G)	
RECEIVE SENSITIVITY (LTE-M)	−105 dBm	
RECEIVE SENSITIVITY (NB-IOT)	−113 dBm	
SUPPORTED BANDS	LTE: B1, B2, B3, B4, B5, B8, B12, B13, B18, B19, B20, B25, B26, B28, B66, B71, B85; 2G: B2, B3, B5, B8	LTE: B1, B2, B3, B4, B5, B8, B12, B13, B18, B19, B20, B25, B26, B27, B28, B66, B71, B85
DOWNLINK / UPLINK SPEEDS (LTE-M)	Up to 588 kbps downlink, up to 1 Mbps uplink	
DOWNLINK / UPLINK SPEEDS (NB-IOT)	Up to 120 kbps downlink, up to 160 kbps uplink	
DOWNLINK / UPLINK SPEEDS (2G)	Up to 264 kbps downlink, up to 210 kbps uplink	
DUPLEX MODE	Half-duplex	

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DIGI XBEE 3 GLOBAL AND LOW-POWER LTE-M/NB-IOT

Specifications and Warranty



Manage and configure Digi XBee 3 Global and Low-Power LTE-M/NB-IoT with Digi XBee Studio and Digi Remote Manager

SPECIFICATIONS	DIGI XBEE 3 GLOBAL LTE-M/NB-IOT | DIGI XBEE 3 LOW-POWER LTE-M/NB-IOT
POWER REQUIREMENTS (AT 3.3 VDC INPUT POWER)	
SUPPLY VOLTAGE	3.3 – 4.3 VDC
AVG TRANSMIT CURRENT (LTE-M)	1.25 A peak, 410 mA average (GM2 modules), 450 mA peak, 200 mA average (GM1 modules)
AVG TRANSMIT CURRENT (NB-IOT)	1.3 A peak, 410 mA average (GM2 modules), 400 mA peak, 270 mA average (GM1 modules)
AVG TRANSMIT CURRENT (2G)	2.1 A peak, 320 mA average (GM2 modules)
IDLE	200 mA peak, 100 mA average
POWER SAVE MODE	20 µA
DEEP SLEEP	2.65 µA
REGULATORY AND CARRIER APPROVALS*	
FCC (USA)	MCQ-XB3M2
ISED (CANADA)	1846A-XB3M2
CE / RED (EUROPE)	Yes
UKCA (UNITED KINGDOM)	Yes
ANATEL (BRAZIL)	XB3M2, XB3M3
NOM (MEXICO)	XB3M2, XB3M3
JAPAN	Yes
PTCRB, AT&T AND VERIZON	Yes
WARRANTY	
PRODUCT WARRANTY	1-year

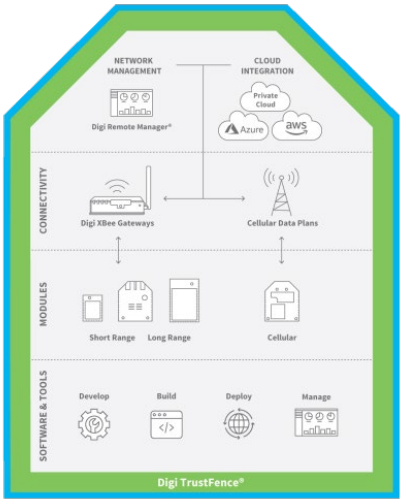
*Visit digi.com/resources/certifications for latest updates.

**Standard 3-year warranty upgradeable to 5 years with purchase of a Digi Remote Manager Premier 5-year subscription applicable to the product purchased only at the time of product purchase and with product registration at that time in Digi Remote Manager.

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DIGI XBEE 3 GLOBAL AND LOW-POWER LTE-M/NB-IOT

Part Numbers



Digi XBee Ecosystem

The world-renowned XBee module is part of a family of cellular modems and RF modules that provide ultimate flexibility for IoT application developers, with three programmable form factors, and a range of popular wireless protocols. The XBee family also includes IoT gateways and management tools to connect, monitor and manage your XBee network. **Learn more at digi.com/xbee.**

PART NUMBERS	DIGI XBEE 3 GLOBAL AND LOW-POWER LTE-M/NB-IOT
XB3-C-GM2-UT-001	Digi XBee 3 Global LTE-M/NB-IoT, GNSS, 2G, no SIM
XB3-C-GM2-UT-101	Digi XBee 3 Global LTE-M/NB-IoT, GNSS, 2G, AT&T SIM
XB3-C-GM2-UT-102	Digi XBee 3 Global LTE-M/NB-IoT, GNSS, 2G, Verizon SIM
XB3-C-GM1-UT-001	Digi XBee 3 Low-Power LTE-M/NB-IoT, GNSS, no SIM
XB3-C-GM1-UT-101	Digi XBee 3 Low-Power LTE-M/NB-IoT, GNSS, AT&T SIM
XB3-C-GM1-UT-102	Digi XBee 3 Low-Power LTE-M/NB-IoT, GNSS, Verizon SIM

PART NUMBERS	DIGI XBEE 3 GLOBAL AND LOW-POWER LTE-M/NB-IOT DEVELOPMENT KIT
XK3-C-GM2-UT-W	Digi XBee 3 Global LTE-M/NB-IoT Development Kit

PART NUMBERS	DIGI XBEE 3 GLOBAL AND LOW-POWER LTE-M/NB-IOT ACCESSORIES
DIGI XBEE MULTI PROGRAMMER	
XBEE-MP-TH	Digi XBee Multi Programmer — through-hole (TH)
XBEE-MP-TH-PCB	Digi XBee Multi Programmer — through-hole (TH) printed circuit board
DIGI XBEE DEVELOPMENT BOARD	
XBIB-CU-TH	Digi XBee Development Board — Digi XBee 3, USB-C, through-hole sockets

For more information, visit digi.com.

For more information about Digi XBee 3 Global and Low-Power LTE-M/NB-IoT, visit **digi.com/xbee**.

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