

**3 MONTHS OF FREE DATA**



Manage this device with Digi Remote Manager

# DIGI XBEE 3 CELLULAR LTE-M DEVELOPMENT KIT

Digi XBee 3 Cellular LTE-M development kit provides OEMs with a simple, quick way to integrate cellular connectivity into their devices

The Digi XBee® 3 Cellular embedded smart modem brings together the power and flexibility of the Digi XBee Ecosystem with the latest in LTE cellular technology. OEMs can quickly integrate cutting edge LTE cellular into their devices and applications, eliminating the painful, time-consuming and expensive FCC and carrier end-device certification process.

Digi's XBee 3 Cellular development kit offers a great way to learn how to integrate cellular connectivity using Digi XBee 3 embedded modems. Starting with simple examples, we provide step-by-step guidance as you assemble the kit components to create reliable, low-power cellular communications for OEM devices like sensors and control/monitoring systems. The kit includes three months of free cellular data service, pre-activated and ready to go right out of the box, allowing developers to immediately focus on their primary goal: developing great products without the hassle of ordering and provisioning a SIM and setting up a data plan.

This kit is designed for anyone interested in getting started in the world of embedded cellular. Hardware and software engineers, corporate technologists, or educators and students can quickly learn more about cellular integration using the hands-on examples included in the kit.

With the full suite of standard Digi XBee API frames and AT commands, existing XBee customers can seamlessly transition to this embedded modem with only minor software adjustments. By adding Digi XBee 3 Cellular to your design,

## Your kit includes:

- ✓ Digi XBee 3 Cellular LTE-M/NB-IoT embedded modem
- ✓ Digi XBee 3 development board
- ✓ LTE-M SIM for AT&T\*
- ✓ 3 months of free cellular service\*
- ✓ Free schematic review by Digi WDS\*\*
- ✓ Antennas and power cable

PART NUMBER	DESCRIPTION	RECOMMENDED FOR NEW DESIGNS
XK3-C-A2-T-UB	Digi XBee 3 Cellular Smart Modem, LTE-M/NB-IoT Development Kit with XBIB-C Dev Board, AT&T	Yes
XK3-C-N1-T-EB	Digi XBee 3 Cellular Smart Modem, LTE-M/NB-IoT Development Kit with XBIB-C Dev Board	Yes
XK3-C-A2-UT-U	Digi XBee 3 Cellular Smart Modem, LTE-M/NB-IoT Development Kit, AT&T	No
XK3-C-N1-UT-E	Digi XBee 3 Cellular Smart Modem, LTE-M/NB-IoT Development Kit	No

\*Service will be limited to ~5 MB/month and limited SMS. For testing purposes only, not for production. XK3-C-A2-UT-U and XK3-C-A2-T-UB only.

\*\*Level 1 review.

you can create a future-proof product with flexibility to switch between wireless protocols or pivot to Cat 1 or NB-IoT as those networks become widely deployed — making Digi XBee 3 ideal for any OEM business with an agile roadmap.



## SPECIFICATIONS

## Digi XBee 3 Cellular Smart Modem, LTE-M

## HARDWARE

CELLULAR CHIPSET	u-blox SARA-R410M-02B
FORM FACTOR	Digi XBee 20-pin through-hole
ANTENNA OPTIONS	1 U.FL (Cellular), 1 U.FL (Bluetooth®)
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	Transparent and API over serial, PPP over USB or serial
SECURITY	Digi TrustFence® security with secure boot and protected JTAG
CONFIGURATION TOOLS	Digi XCTU® (local), Digi Remote Manager® (OTA)
EMBEDDED PROGRAMMABILITY	MicroPython with 32 kB flash / 32 kB RAM
I/O	4 ADC lines (10-bit), 13 Digital I/O, USB, I <sup>2</sup> C
BLUETOOTH	Bluetooth Low Energy Ready

## CELLULAR CHARACTERISTICS

TRANSMIT POWER	Up to 23 dBm
RECEIVE SENSITIVITY	-105 dBm
CARRIER APPROVALS	AT&T End Device Certified (LTE-M) Verizon End Device Certified (LTE-M) T-Mobile End Device Certified (NB-IoT)* Vodafone End Device Certified (NB-IoT) Bell End Device Certified (LTE-M) Telus End Device Certified (LTE-M) Compatible with other carriers offering LTE-M and NB-IoT services (see supported bands below)
SUPPORTED BANDS	Bands 1, 2, 3, 4, 5, 8, 12, 13, 17, 18, 19, 20, 25, 26, 28 and 39
DOWNLINK/UPLINK SPEEDS	Up to 375 kbps
DUPLEX MODE	Half-duplex

## POWER REQUIREMENTS (AT 3.3 VDC INPUT POWER)

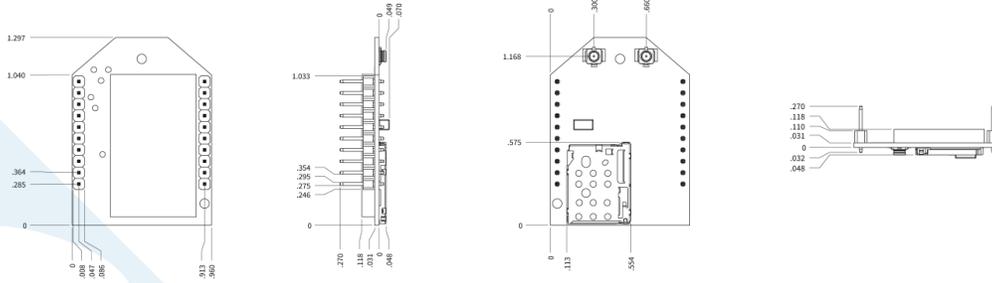
SUPPLY VOLTAGE	3.3 - 4.3 VDC
PEAK TRANSMIT CURRENT	550 mA w/ Bluetooth disabled; 610 mA w/ Bluetooth enabled
AVG TRANSMIT CURRENT	235 mA
POWER SAVE MODE	20 uA
DEEP SLEEP	10 uA

## REGULATORY APPROVALS

FCC (USA)	MCQ-XB3M1
IC (CANADA)	1846A-XB3M1
CE / RED (EUROPE)	Complete
RCM (AUSTRALIA/NEW ZEALAND)	Complete

\*For use on T-Mobile NB-IoT network for evaluation and development purposes. Full certification will be completed with an upcoming software revision (03B). Contact Digi sales for more information.

## PRODUCT IMAGES



## DIGI REMOTE MANAGER®



Digi Remote Manager is the technology platform that brings networks to the next level, allowing networks — and the people who manage them — to work smarter. With Digi Remote Manager you can transform a multitude of dispersed IoT devices into a dynamic, intelligent network. Now you can easily deploy, monitor and diagnose thousands of mission-critical devices from a single point of command — on your desktop, tablet or phone. All the while, its software-defined security diligently safeguards your entire Digi ecosystem.

Learn more at [www.digi.com/digi-remote-manager](http://www.digi.com/digi-remote-manager)

### CAPABILITIES

- Activate, monitor and diagnose your mission-critical devices from a single point of command and control — on your desktop or mobile app
- 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
- Keep tabs on device health and connectivity across device 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

### INFRASTRUCTURE

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

### SECURITY

- More than 175 security controls in place 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

## 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 WIRELESS DESIGN SERVICES



DEFINITION



DEVELOPMENT



CERTIFICATION



MANUFACTURING

### GET TO MARKET FASTER

Digi Wireless Design Services (WDS) has a 15-year history of helping clients speed down the path to success by guiding them around the technological and regulatory certification pitfalls that that both 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.

Acceslerate toward the solution that is right for you and your customers. Contact Digi WDS to find out how we can guide you to success.

### WDS SERVICES

We offer services to support you wherever you are along your development path:

- Proof of concept
- Architecture consultation
- Requirements definition
- System, software and electrical design
- Design reviews
- Certifications
- Prototype build
- Manufacturing test fixtures

### WDS RECORD

Our record speaks for itself.

- 250+ product development projects
- 100+ certification failure rescues
- 100 million connected devices around the globe