



# 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 new Digi XBee 3 Cellular embedded smart modem brings together the power and flexibility of the Digi XBee ecosystem with the latest in 4G cellular technology. OEMs can quickly integrate cutting edge 4G 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 will include 6 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

## The Kit Includes:

- ✓ 1 Digi XBee 3 Cellular LTE-M/NB-IoT embedded modem
- ✓ 1 Digi XBee 3 development board
- ✓ 1 LTE-M SIM for AT&T
- ✓ 6 months of free cellular service\*
- ✓ Antennas and power supply

NUMBER	DESCRIPTION
XK3-C-A2-UT-U	Digi XBee 3 Cellular Smart Modem, LTE-M/ NB-IoT, Development Kit, AT&T
XK3-C-N1-UT-E	Digi XBee 3 Cellular Smart Modem, LTE-M/ NB-IoT, Development Kit

\*Service will be limited to ~5MB/month and limited SMS. For testing purposes only, not for production.

to this new embedded modem with only minor software adjustments. When OEMs add Digi XBee 3 Cellular to their design, they create a future-proof design 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
OPERATING TEMPERATURE	-40° C to 85° C
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 kb/s
DUPLEX MODE	Half-Duplex

### POWER REQUIREMENTS (AT 3.3VDC INPUT POWER)

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

### 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.

