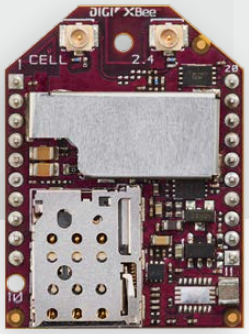
LTE-M/NB-IOT CELLULAR
SMART MODEM



DIGI XBEE 3 CELLULAR LTE-M/NB-IOT

Compact, flexible cellular connectivity for IoT devices and gateways.

Digi XBee® 3 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 modules offer the flexibility to switch between multiple frequencies and wireless protocols as needed.

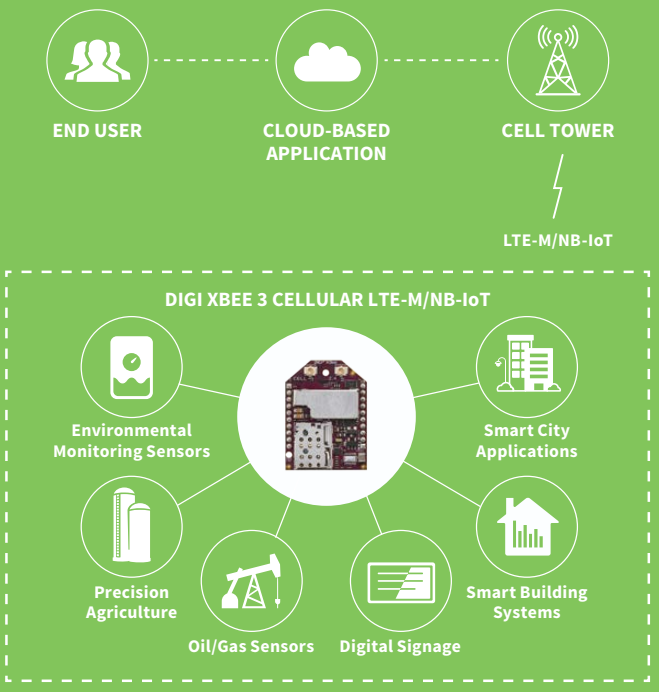
Digi XBee 3 modules are the latest addition to the expanding Digi XBee Ecosystem of wireless modules, gateways, software and development tools – all engineered to accelerate development and deployment. Ideal for low-data (typically <5 MB per month and where latency is not critical), low-power, low-cost applications, Digi XBee 3 Cellular LTE-M/NB-IoT modules feature a power saving mode which extends sleep time and battery life.

With Digi Remote Manager®, Digi XBee 3 modules can be easily configured and controlled from a simple, central platform. Built-in Digi TrustFence® security, identity and data privacy features use more than 175 controls to protect against new and evolving cyber threats. Standard Digi XBee API frames and AT commands, MicroPython and XCTU software tools simplify adding functionality, set-up, configuration and testing.

BENEFITS

- 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
- Integrated MicroPython programmability for edge compute
- MQTT support for Microsoft Azure and Amazon AWS
- Low power consumption optimized for long battery life
- Enhanced with Digi TrustFence® security framework
- Manage and configure with XCTU and Digi Remote Manager
- Digi XBee Transparent and API modes simplify design
- CE/RED certified and network tested
- Dual-mode radio for local configuration over Bluetooth® low energy using the Digi XBee Mobile app

APPLICATION EXAMPLE



RELATED PRODUCTS

SPECIFICATIONS

Digi XBee® 3 Cellular Smart Modem, LTE-M/NB-IoT

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 (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 XCTU (Local), Digi Remote Manager® (OTA)
EMBEDDED PROGRAMMABILITY	MicroPython with 512 KB Flash / 64 KB RAM
I/O	4 ADC lines (10-bit), 13 Digital I/O, USB, I^2C
BLUETOOTH	Bluetooth Low Energy Ready
CELLULAR CHARACTERISTICS	
TRANSMIT POWER	Up to 23 dBm
RECEIVE SENSITIVITY (LTE-M)	-105 dBm
RECEIVE SENSITIVITY (NB-IOT)	-113 dBm
CARRIER APPROVALS	AT&T End Device Certified (LTE-M) Verizon End Device Certified (LTE-M) 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, 18, 19, 20, 25, 26, 28 and 39
DOWNLINK/UPLINK SPEEDS (LTE-M)	Up to 375 kb/s
DOWNLINK/UPLINK SPEEDS (NB-IOT)	Up to 27.2 kb/s Downlink, 62.5 kb/s Uplink
DUPLEX MODE	Half-Duplex
POWER REQUIREMENTS (AT 3.3VDC 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 (LTE-M)	235 mA
AVG TRANSMIT CURRENT (NB-IOT)	190 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
WARRANTY	
PRODUCT WARRANTY	1-year

PART NUMBERS	DESCRIPTION
XB3-C-A2-UT-001	Digi XBee 3 Cellular Smart Modem, LTE-M/NB-IoT
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