

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® (DRM), 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
- 6 months of free cellular service with development kits
- Low power consumption optimized for long battery life
- Enhanced with Digi TrustFence® security framework
- Manage and configure with XCTU and DRM
- 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

### **RELATED PRODUCTS**











#### **APPLICATION EXAMPLE**







LTE-M/NB-IoT



Monitoring Sensors







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	
OPERATING TEMPERATURE	-40° C to 85° C	
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 32 KB Flash / 32 KB RAM	
1/0	4 ADC lines (10-bit), 13 Digital I/O, USB, I <sup>2</sup> C	
BLUETOOTH	Bluetooth Low Energy Ready	
CELLULAR CHARACTERISTICS	Didetouti Low Lifeigy Ready	
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, 62.5kb/s Uplink	
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 (LTE-M)	235mA	
AVG TRANSMIT CURRENT (NB-IOT)	190mA	
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	
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

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